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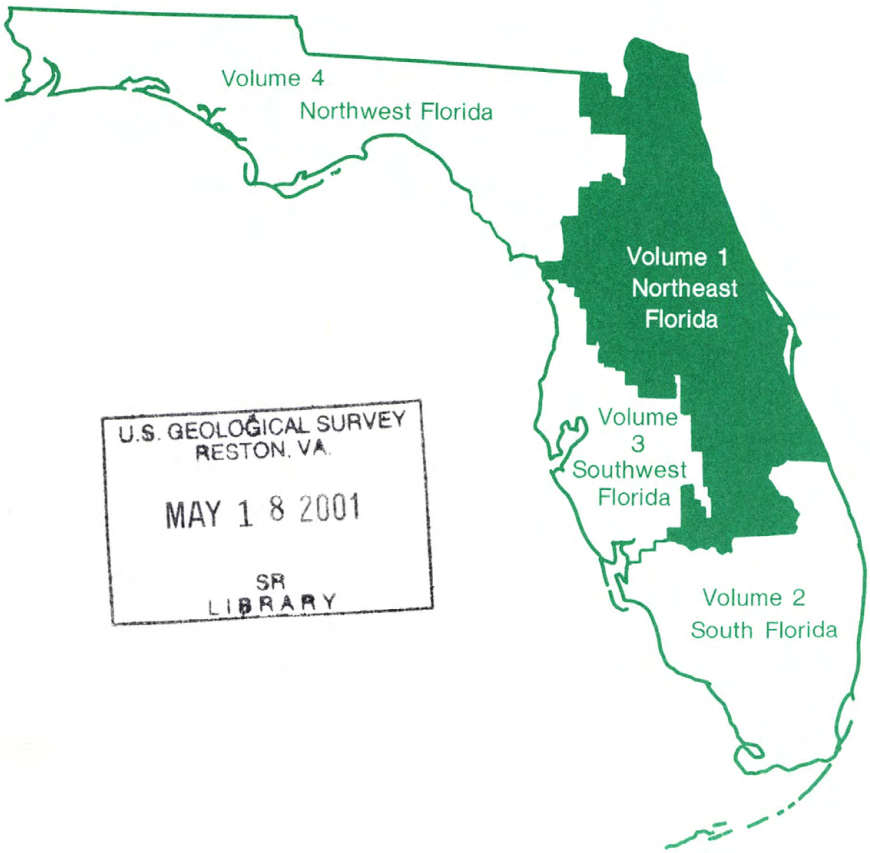
Water Resources Data Florida Water Year 2000

Volume 1B. Northeast Florida Ground Water

Water-Data Report FL-00-1B



U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 2000

1999

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U.S. Department of the Interior
U.S. Geological Survey

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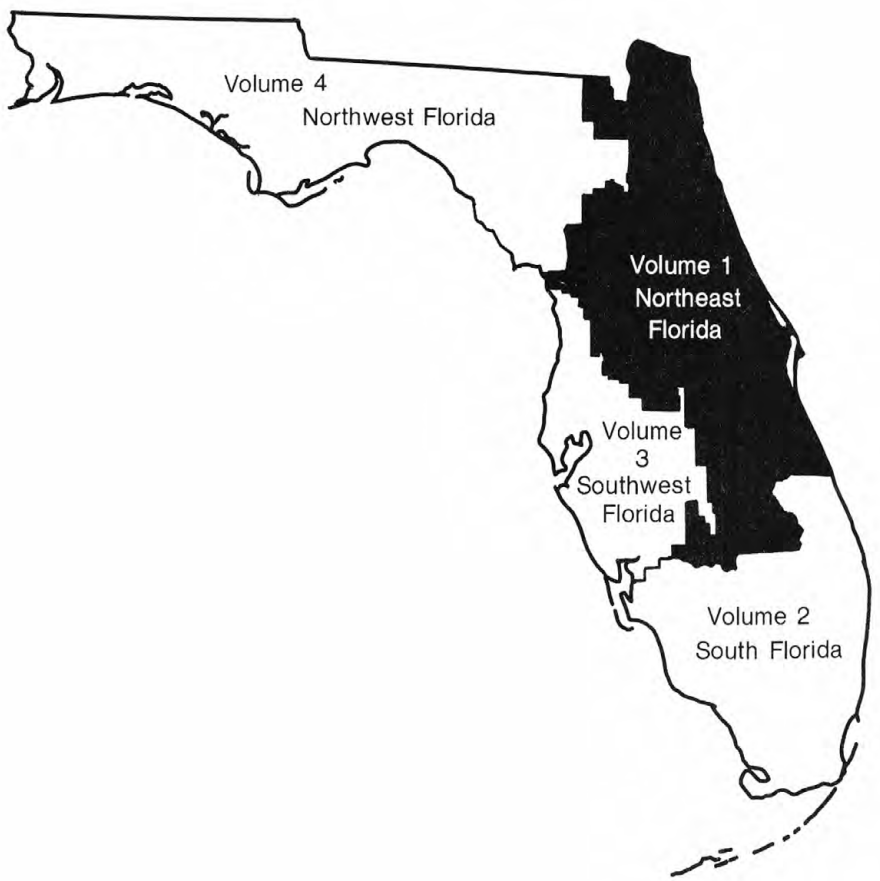

Prepared in cooperation with the State of Florida
and with other agencies or cooperators

UNITED STATES DEPARTMENT OF THE INTERIOR

GALE A. NORTON, Secretary

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Charles G. Groat, Director

Prepared in cooperation with the
State of Florida
and with other agencies as listed
under cooperation

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2001

PREFACE

This volume of the annual hydrologic data report of Florida is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Florida are contained in four volumes:

Volume 1. Northeast Florida

Volume 2. South Florida

Volume 3. Southwest Florida

Volume 4. Northwest Florida

This report was prepared for publication by S.M. Dickerson under the supervision of Donna M. Schiffer and Howard G. George. The following individuals contributed significantly to the collection, processing and tabulation of the data:

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13. ABSTRACT *(Maximum 200 words)*

Water resources data for the 2000 water year in Florida consist of continuous or daily discharge for 355 streams, periodic discharge for 17 streams, continuous or daily stage for 211 streams, periodic stage for 1 stream, peak stage and discharge for 37 streams; continuous or daily elevations for 16 lakes, periodic elevations for 45 lakes; continuous ground-water levels for 393 wells, periodic ground-water levels for 1,003 wells; quality-of-water data for 124 surface-water sites and 244 wells.

The data for northeast Florida include continuous or daily discharge for 145 streams, periodic discharge for 3 streams, continuous or daily stage for 21 streams, periodic stage for 0 streams; peak stage and discharge for 0 streams; continuous or daily elevations for 12 lakes, periodic elevations for 18 lakes; continuous ground water levels for 42 wells, periodic ground-water levels for 404 wells; quality-of-water data for 31 surface-water sites and 62 wells.

These data represent the National Water Data System records collected by the U.S. Geological Survey and cooperating local, State and Federal agencies in Florida.

14. SUBJECT TERMS
*Florida, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses, Elevations, Water wells.

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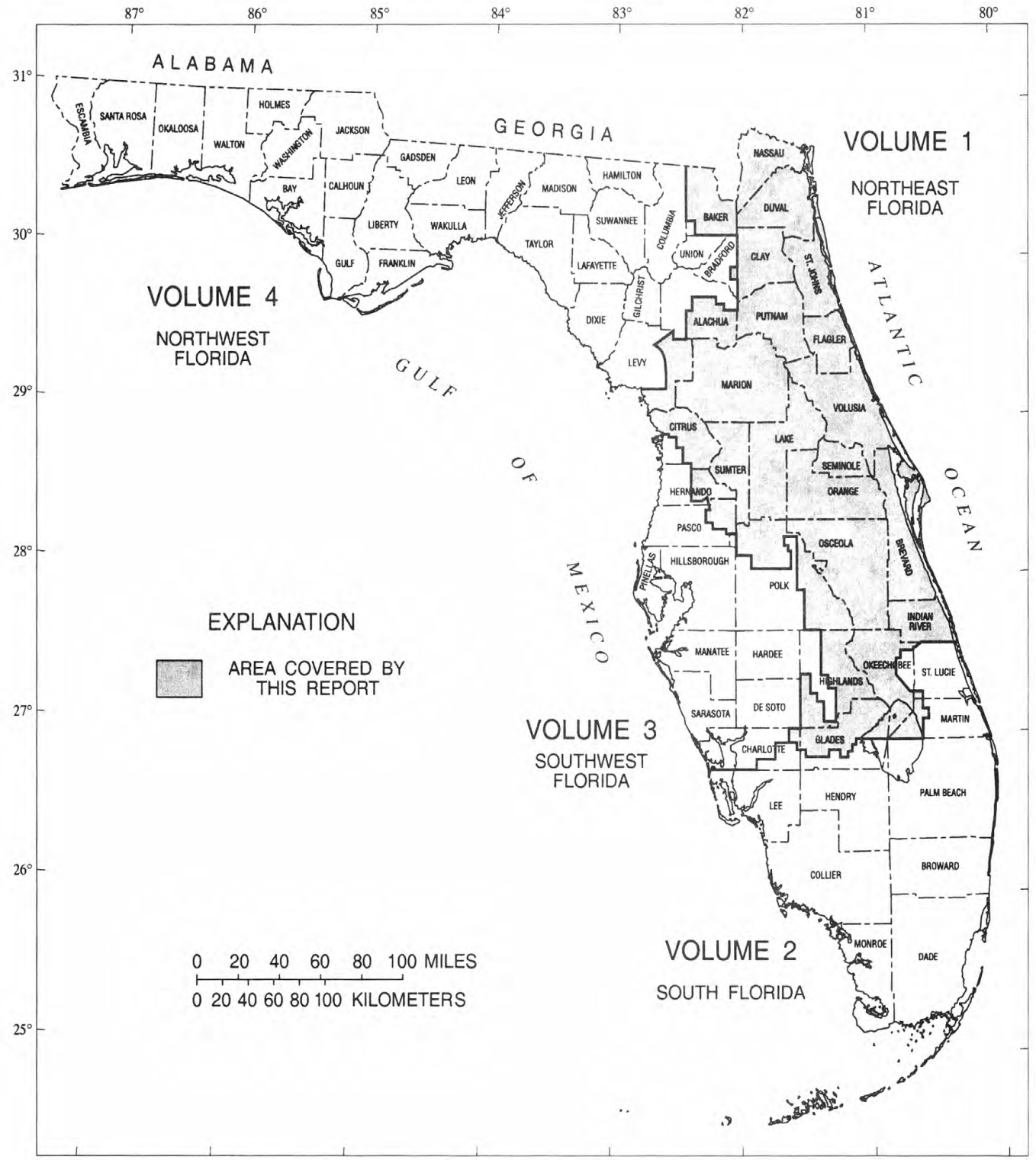

Figure 1.--Geographic area covered by this report.

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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Florida."

This report series includes records of stage, discharge, and water quality of streams, stage, contents, water quality of lakes and reservoirs, and water levels and water quality of ground-water wells. Volume 1B contains records for continuous ground-water elevations at 42 wells; periodic ground-water elevations at 59 wells; miscellaneous ground-water elevations at 345 wells; and water-quality at 62 ground-water sites. The area encompassed in this report is shown in figure 1. The data presented here represent part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Florida.

This series of annual reports for Florida began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Florida were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report FL-00-1B." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone (407)865-7575.

COOPERATION

The U.S. Geological Survey and agencies of the State of Florida have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

U.S. Army Corps of Engineers, Jacksonville District
Florida Game and Fresh Water Fish Commission
St. Johns River Water Management District
South Florida Water Management District
Southern Division Naval Facilities Engineering Command, Charleston, SC
Southwest Florida Water Management District
City of Cocoa
City of Daytona Beach
City of Jacksonville
Jacksonville Electric Authority
Lake County Water Authority
Reedy Creek Improvement District

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

RAINFALL: Rainfall during the 2000 water year was below normal. Based on rainfall data at six NOAA stations, the rainfall for the 12-month period, from October 1999 through September 2000, ranged from 5.13 in. above normal at Winter Haven to 18.38 in. below normal at Ocala. The following summary lists departure from the 30-year (1961-1990) normal for each of the stations.

Departure from the 30-year normal rainfall (1961-1990)

	October-December		January-March		April-June		July-September		Water Year	
Station	Total Rainfall	Departure	Total Rainfall	Departure	Total Rainfall	Departure	Total Rainfall	Departure	Total Rainfall	Departure
Jacksonville AP	4.95	-2.86	5.73	-5.19	6.18	-5.83	24.71	4.13	41.57	-9.75
Ocala	6.92	-0.19	* 3.48	-6.94	7.65	-6.47	15.16	-4.78	33.21	-18.38
Daytona Beach	12.52	2.96	10.93	2.17	4.55	-7.12	21.81	3.91	49.81	1.92
Orlando	13.18	6.31	2.04	-6.49	9.41	-3.26	14.92	-5.12	39.55	-8.56
Winter Haven	e10.24	3.91	e2.76	-5.62	12.50	-0.03	27.46	6.87	52.96	5.13
Vero Beach	16.35	5.13	5.62	-2.62	7.94	-5.30	22.16	1.78	52.07	-1.01

e-Estimated - based on rainfall record at Lake Alfred.
*-Partial data - appended to average and/or total values computed with 1-9 daily values missing (February, Ocala).

GROUND-WATER LEVELS: Figure 2 shows the locations of 22 selected ground-water wells which provide a general summary of hydrologic conditions in the the Upper Floridan aquifer in north-central Florida. Mean water levels and the range of water levels for the current water year and for the period of record are listed in table 1. Observed water levels in these wells for the current water year are shown in figures 3-24. Monthly means, maximums, and minimums show the average seasonal variation in water levels throughout the year. Annual means, maximums, and minimums show trends in water levels over the period of record.

The average length of record for all 22 selected wells in this summary is 40 years (table 1). The longest period of record among the 22 wells is 68 years, which was collected on the Sharpes Ferry well in Marion County (fig. 2, no. 14) starting in 1933. The record on four other wells begins as early as the late 1930's and early 1940's. The shortest period of record in this summary is for the Humphreys Mining well in Nassau County (fig. 2, no. 22), which includes 16 years of record starting in 1985.

Seasonal Patterns: Water levels in the 22 wells presented in this report historically had a range of about 4 ft each year. The largest range of water levels (7.9 ft) during the period of record was in well OR-47 in Orange County (table 1 and fig. 2, map no. 9); the smallest range (1.4 ft) was in well RD-77-G in Putnam County (table 1 and fig. 2, map no. 17). The ranges in water levels in the 22 wells during the current water year averaged 6.6 ft and were within 2.4 ft of the long-term average.

Seasonal variations in water levels in these 22 wells during the current water year generally were consistent with historical patterns. Historically, throughout most of the area covered by this report, seasonal water-level maximums are observed in the months of September and October each year and seasonal minimums are observed in the months of May and June. Water levels in wells in the northeast counties covered here (fig. 2, nos. 17-22) tend toward seasonal maximums in the months of December through April and seasonal minimums in the later months of summer and early fall (July through October).

Annual Patterns: Over the period of record, the typical altitude of water levels for all 22 selected wells averages about 46.3 ft above mean sea level (msl) and ranges from a high of about 127 ft msl for the Lake Alfred Deep well in Polk County (fig. 2, map no. 4, and table 1) to a low of about 15 ft msl for the USGS Flagler-14 well in Flagler County (fig. 2, map no. 16 and table 1) and the Astor Park well in Lake County (fig. 2, map no. 13, and table 1). Generally, water levels in wells in the Upper Floridan aquifer are highest in an area encompassing the northern part of Polk County, the southern part of Lake and Sumter Counties, and the western part of Orange County; levels are lowest in Flagler and Putnam Counties, and northern Lake County.

Average water levels for the current year were lower than averages for the period of record at all of the 22 wells shown . Annual water levels for all 22 wells averaged 42.6 ft msl for the current year, which is lower than the average for the period of record.

Water levels in the 22 selected ground-water wells showed a decrease from 1999 levels. The decrease in water levels from water-year 1999 was consistent with a decrease in rainfall. The departure from the 30-year average rainfall in 2000 for the six rainfall stations presented in the table above averaged 5.1 inches below normal, and ranged from 5.13 inches above the long term (30-year) average at Winter Haven to 18.38 inches below the long-term (30-year) average at Ocala. The change in average departure for these six rainfall stations from 1999 to 2000 was 2.5 inches (from an average deficit of 7.6 inches in 1999 to an average deficit of 5.1 inches in 2000 from the 30-year average).

Table 1: Summary of water levels at selected wells for the period of record and water-year 2000. [ft, feet; msl, mean sea level]

Map No.	Well Number and Name	Period of Record			Water-Year 2000			
		Beginning Year	Mean Water Level (ft msl)	Mean Annual Range (ft)	Mean Water Level (ft msl)	Range (ft)	Change From Previous Year (ft)	Departure from Period of Record Mean (ft)
1.	271150081054401 GL-155 Well near Brighton (Glades)	1971	47.1	4.2	45.0	4.9	-1.1	-2.1
2.	273127080481401 OK-1 Well at Fort Drum (Okeechobee)	1977	43.9	4.1	42.3	6.7	- .5	-1.6
3.	274607080493001 IR-189 Well near Yeehaw Junction (Indian River)	1976	41.9	4.2	40.5	6.6	- .7	-1.4
4.	281008081441801 Lake Alfred Deep Well near Lake Alfred (Polk)	1959	126.6	5.4	125.7	8	-1.5	-.9
5.	281714081093001 Lake Joel Well near Ashton (Osceola)	1973	43.6	5.1	41.2	8.9	- .8	-2.4
6.	282051081183401 Boggy Creek Road Well at County Line near Taft (Orange)	1961	47.7	4.1	43.6	13.8	-1.6	-4.1
7.	282127082022501 Cumpressco Ranch Well near Tarrytown (Sumter)	1959	90.7	6.3	85.6	8.7	-2.4	-5.1
8.	283249081053201 Bithlo-1 Well at Bithlo (Orange)	1960	36.0	4.8	33.4	8.1	-.6	-2.6
9.	283253081283401 OR-47 Well at Orlo Vista (Orange)	1943	62.1	7.9	55.0	11.8	-.9	-7.1
10.	284842081533001 College Street Well at Leesburg (Lake)	1973	64.2	5.6	63.2	8.6	-1.1	-1
11.	285102082204001 DOT-41 Observation Well at Inverness (Citrus)	1961	30.1	4.0	25.1	4.4	-5.4	-5
12.	285745081054001 USGS Well at Alamana (Volusia)	1936	29.4	3.4	28.2	5.0	.4	-2.1
13.	290950081315501 Astor Park Well at Astor Park (Lake)	1936	15.0	1.8	11.4	3.3	-1.1	-3.6
14.	291115081592501 Sharpes Ferry Well, Marion 5 near Ocala (Marion)	1933	47.9	3.3	44.5	3.8	-3.4	-3.4
15.	292615082272601 Romp 134 near Williston (Levy)	1983	48.1	4.5	43.6	4.7	-7.4	-4.5
16.	292750081152001 USGS Flagler 14 at Bunnell (Flagler)	1936	15.0	2.4	12.1	5.2	-.7	-2.9
17.	292948081503001 Well RD-77-G near Orange Springs (Putnam)	1982	19.5	1.4	19.0	1.3	-.6	-.5
18.	300656081463401 Local Number C-94 USGS Test Well near Orange Park (Clay)	1974	35.2	5.4	28.9	9.0	-2	-6.3
19.	300758081230501 Local Number SJ-5. G. Oesterreicher Well near Palm Valley (St. Johns)	1944	37.7	4.8	28.6	9.4	-5	-9.1
20.	301535082162001 Local Number B-11 USGS Well at Sanderson (Baker)	1963	54.6	3.9	49.4	3.4	-3.2	-5.2
21.	302304081383202 Local Number D-122A City of Jacksonville Panama Park Well at Jax (Duval)	1940	41.3	3.7	33.0	5.8	-1.5	-8.3
22.	304410081592101 Local Number N-120 Humphreys Mining No. 2 well near Boulogne (Nassau)	1985	40.7	3.9	37.5	4.2	-2.2	-3.2

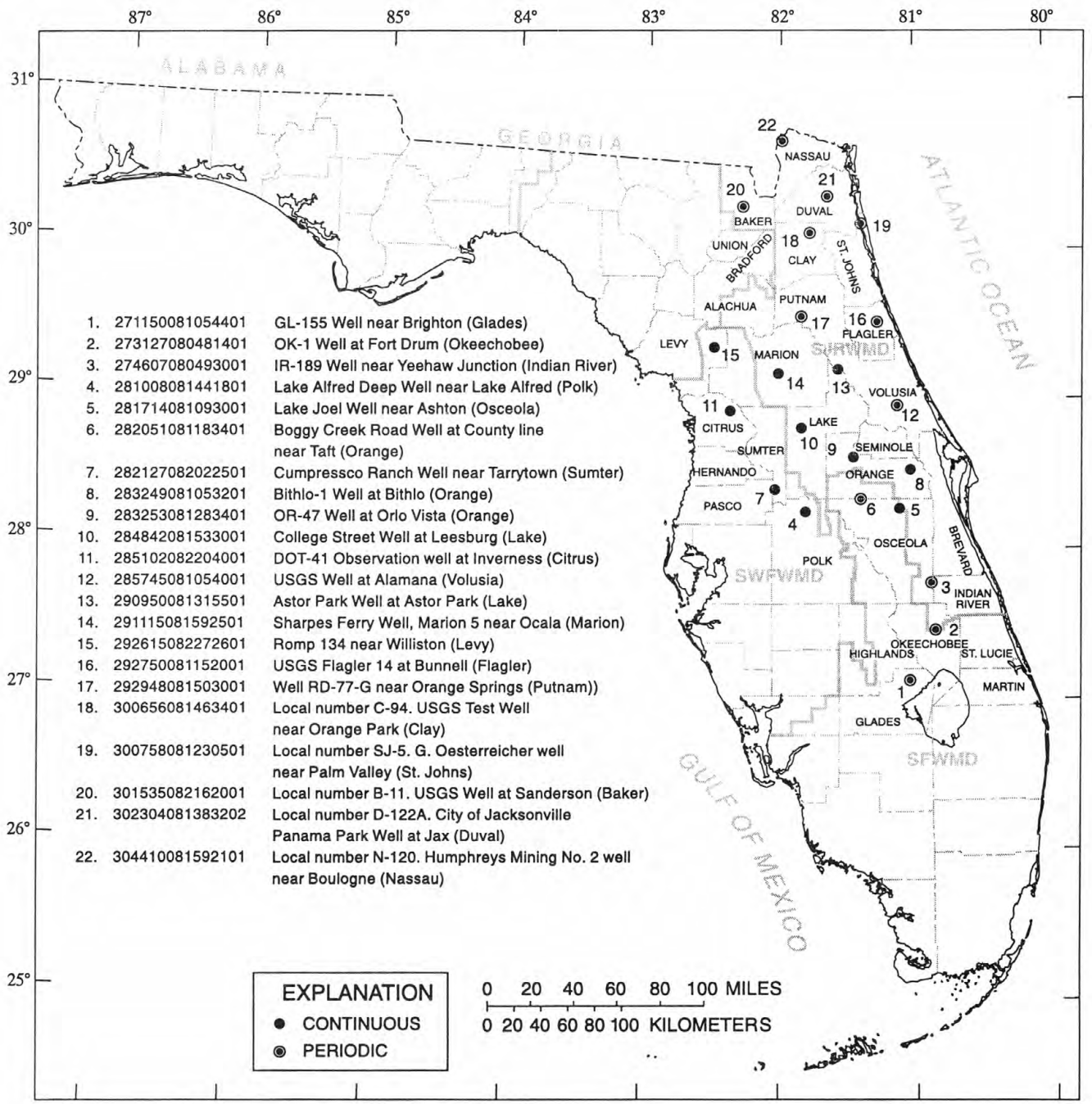

Figure 2.--Location of wells for long-term hydrographs (figs. 3-24).

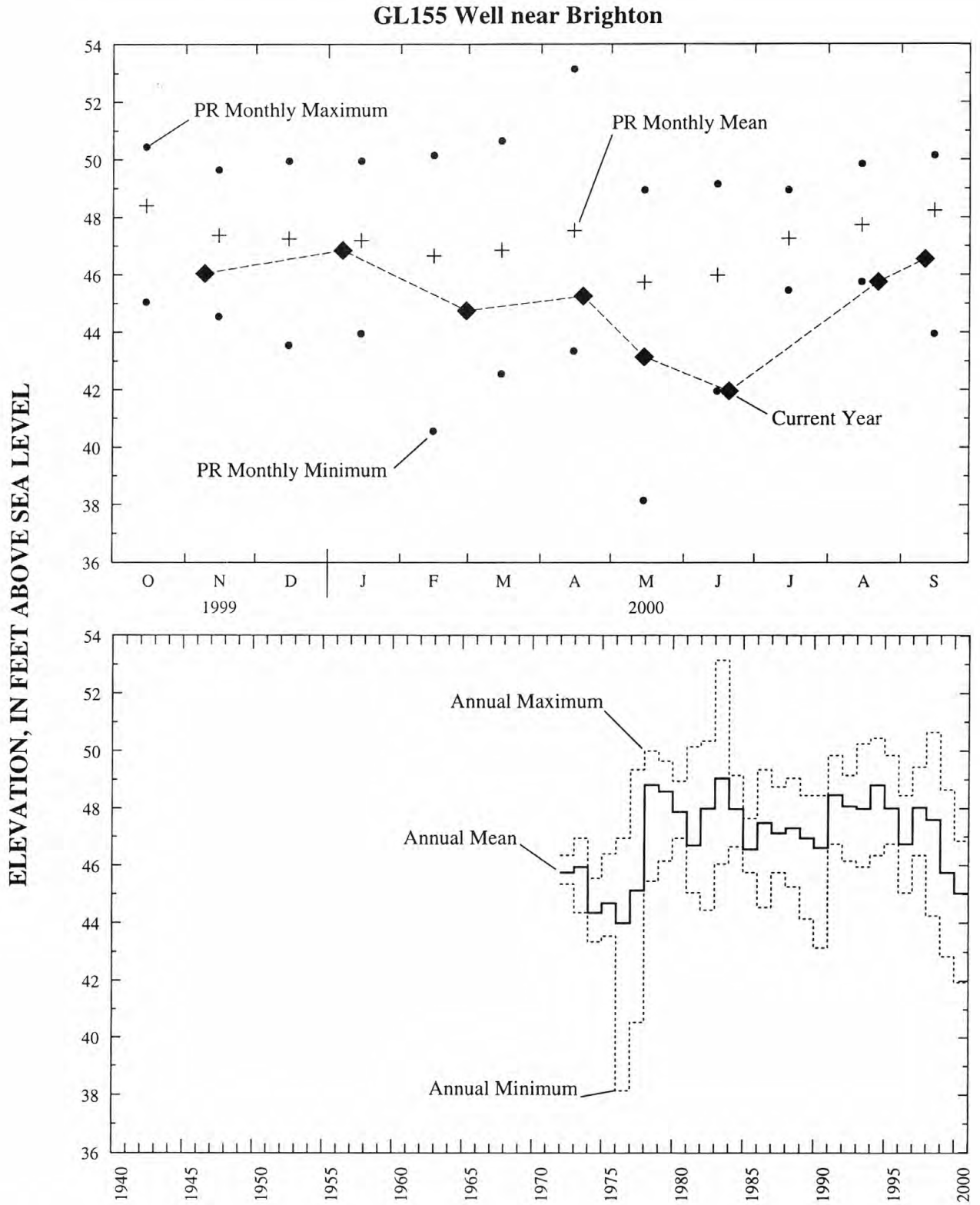

Figure 3.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at well 271150081054401 (GL-155) Well near Brighton in Glades County.

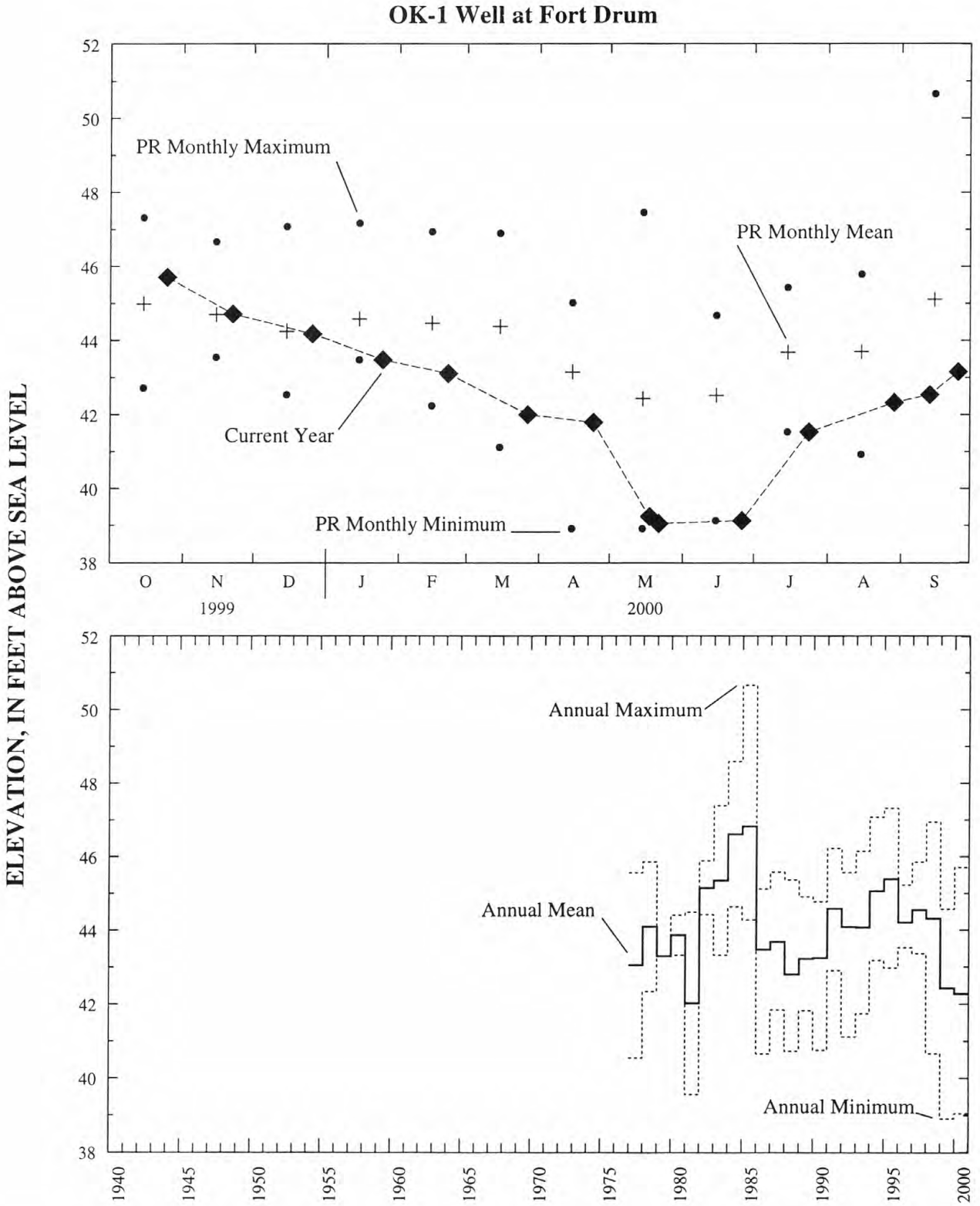

Figure 4.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at well 273127080481401 (OK-1) well at Fort Drum in Okeechobee County.

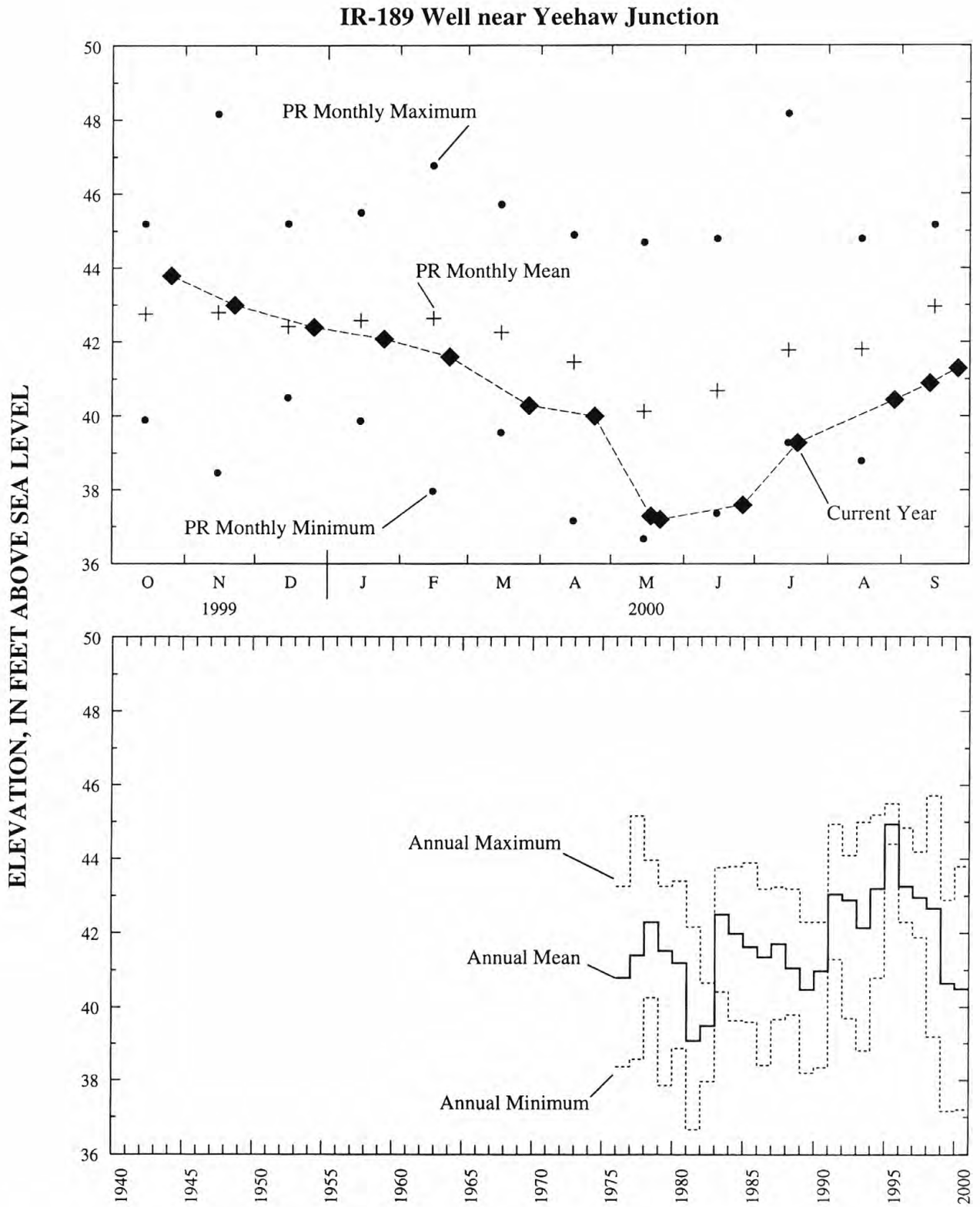

Figure 5.---Periodic water levels for the current water year and annual-mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at well 274607080493001 (IR-189) near Yeehaw Junction in Indian River County.

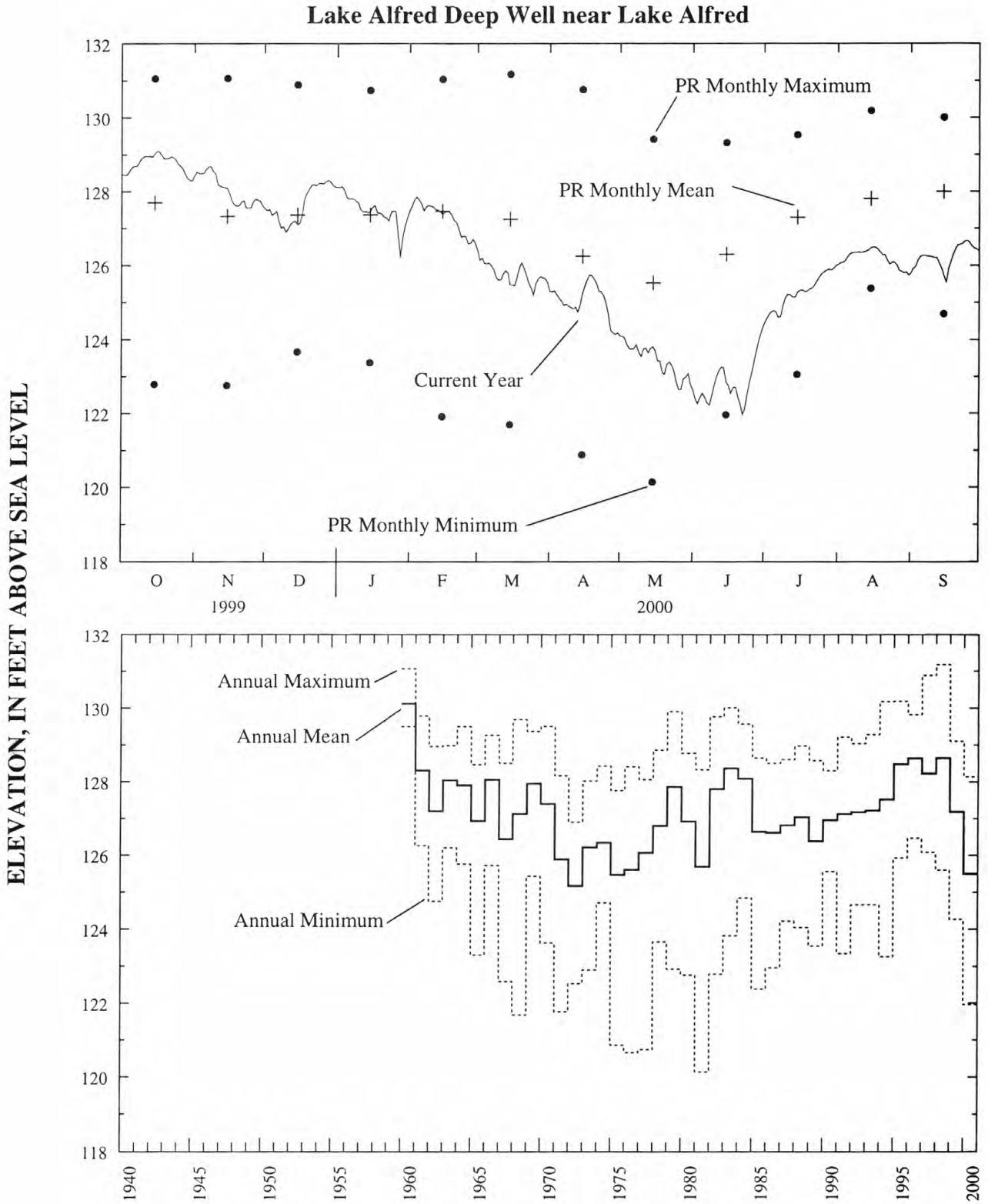

Figure 6.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 281008081441801 (Lake Alfred Deep) well near Lake Alfred in Polk County.

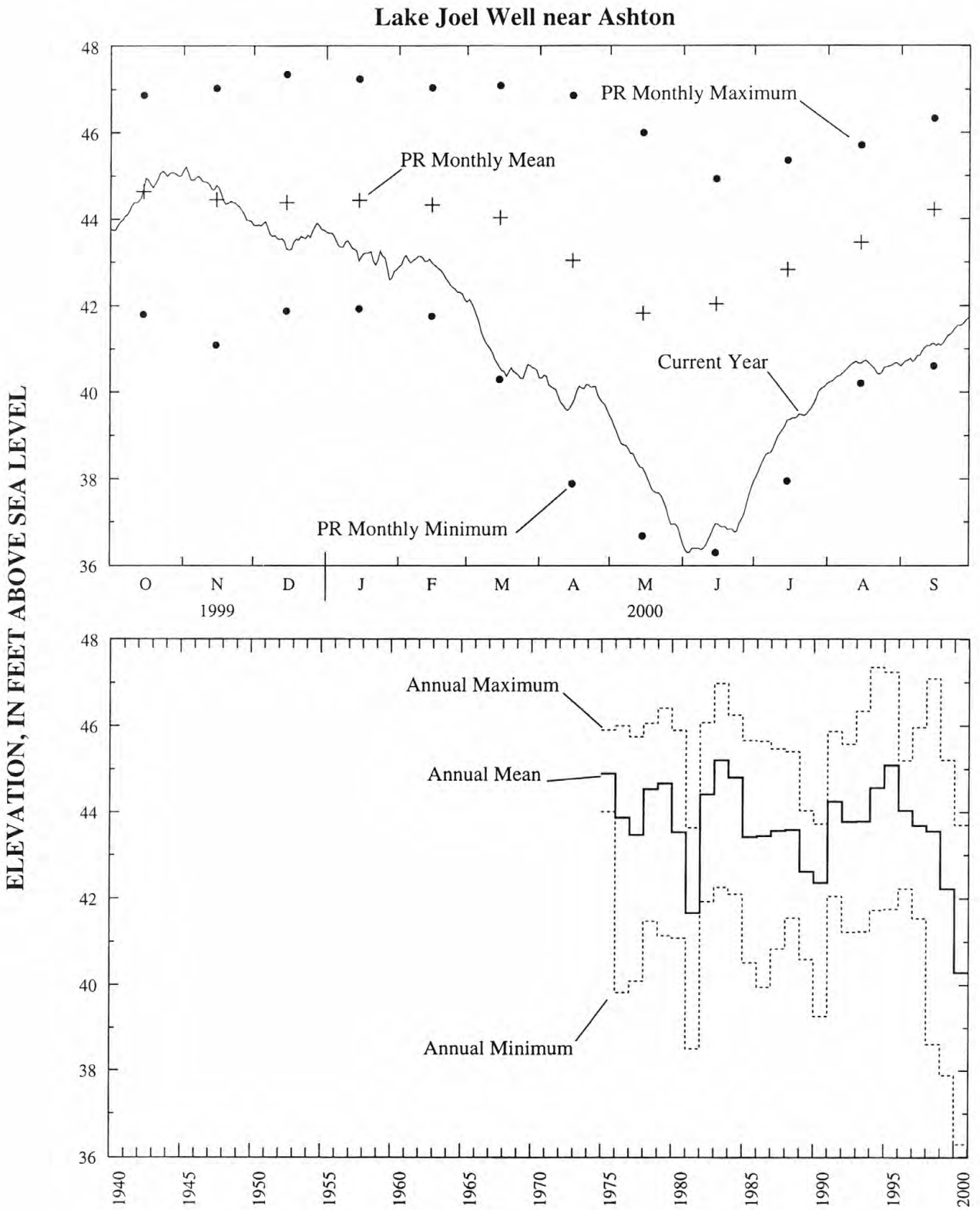

Figure 7.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 281714081093001 (Lake Joel) well near Ashton in Osceola County.

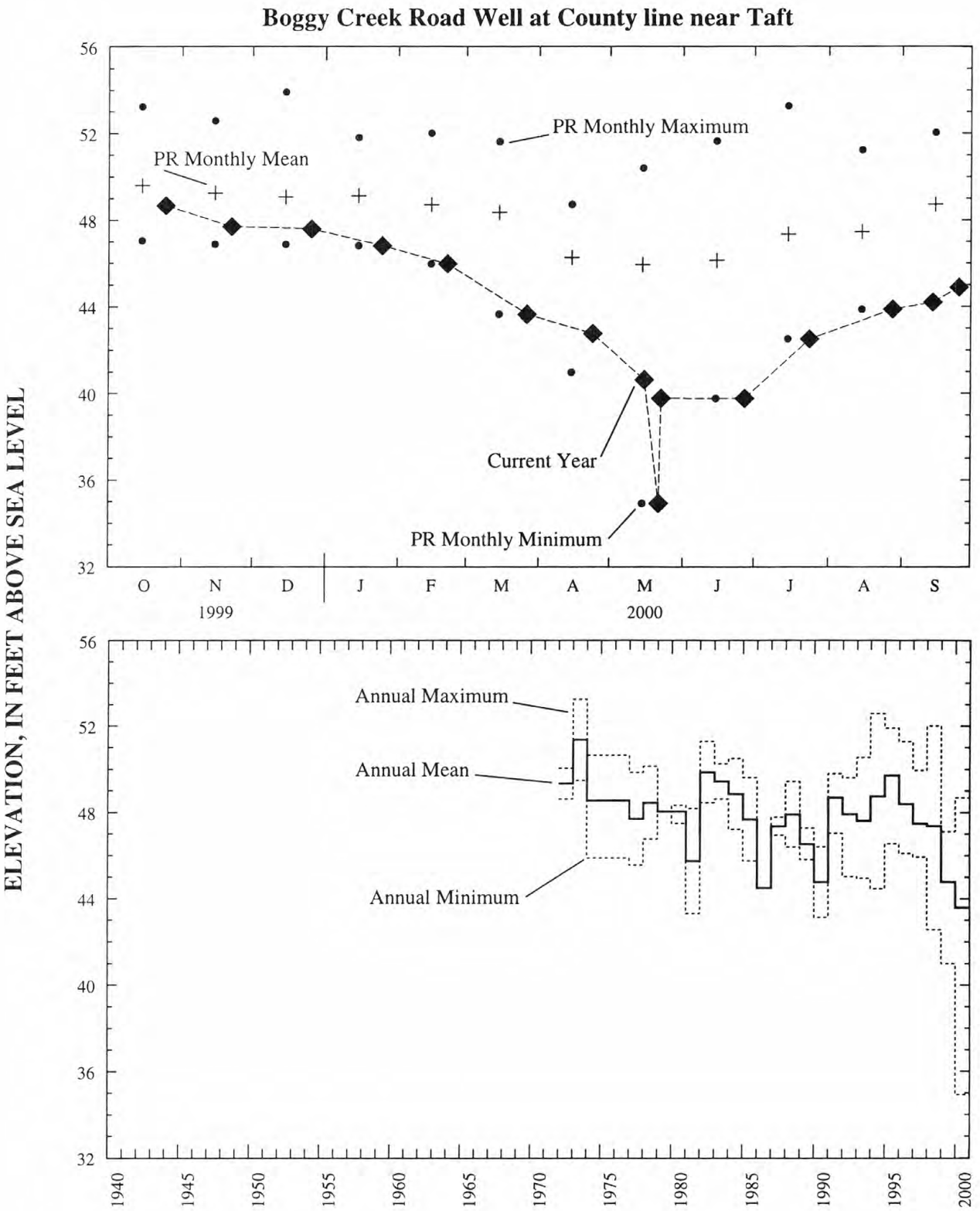

Figure 8.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 282051081183401 (Boggy Creek Road) well at County line near Taft in Orange County.

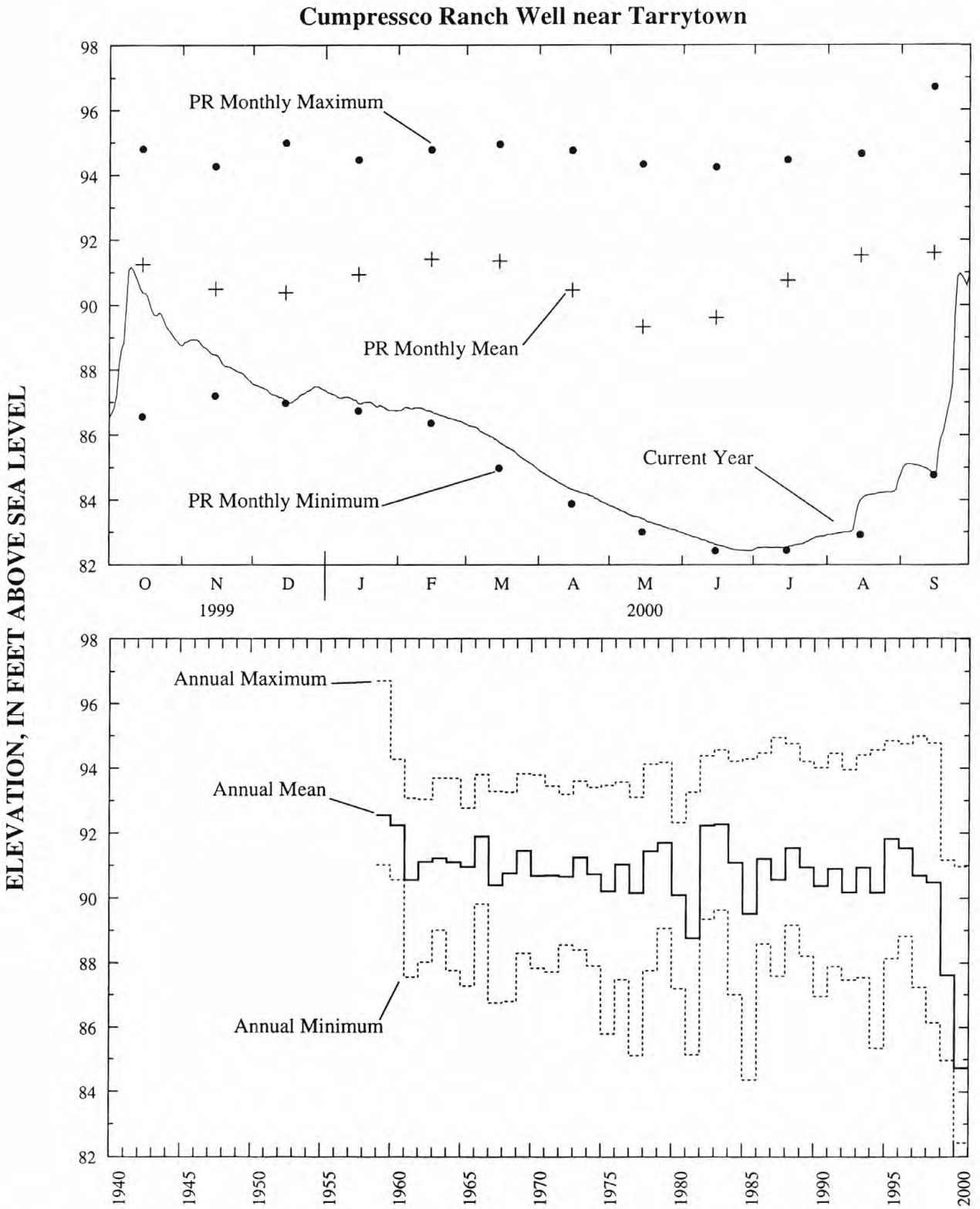

Figure 9.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 282127082022501 (Cumpressco Ranch) well near Tarrytown in Sumter County.

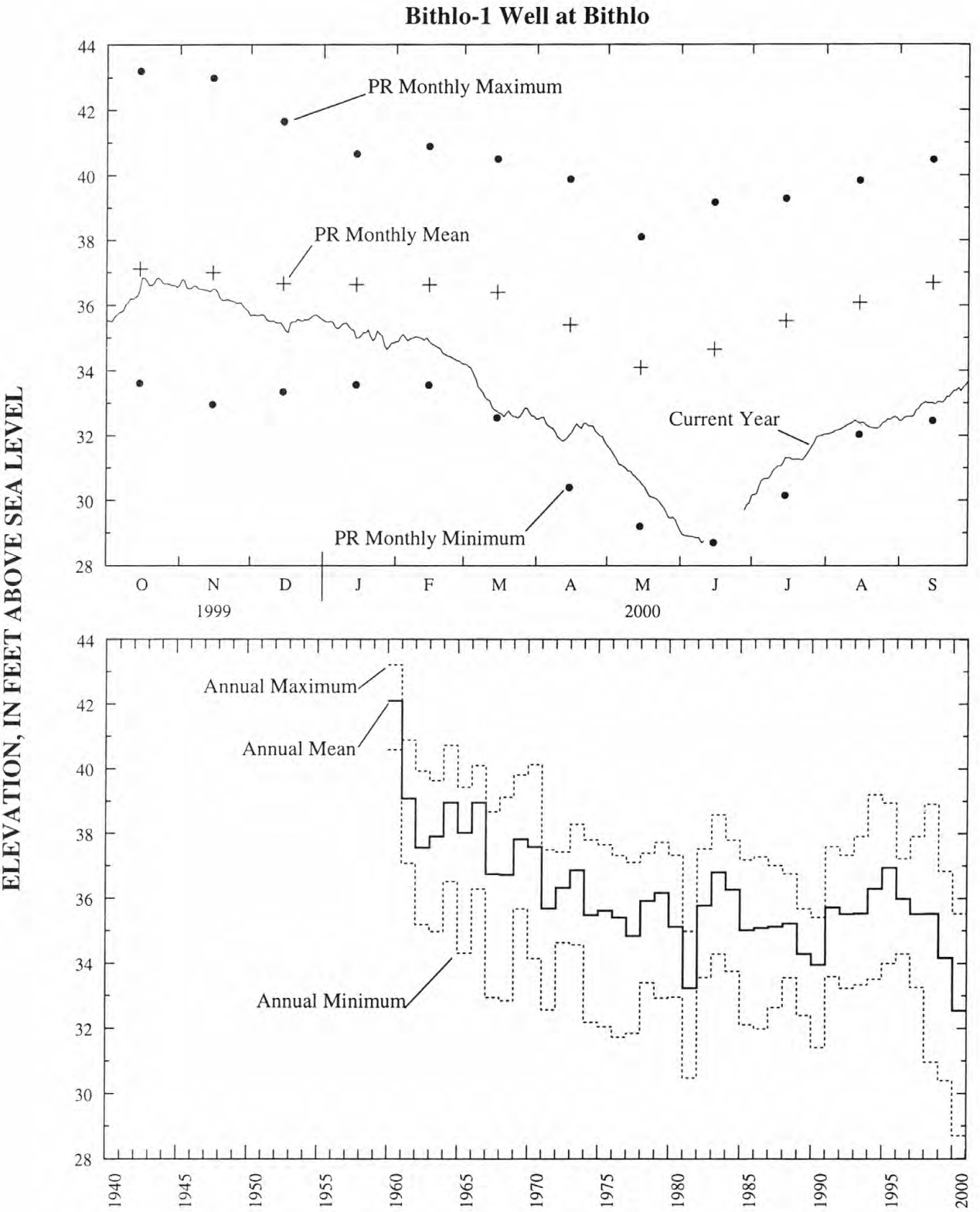

Figure 10.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 283249081053201 (Bithlo-1) well at Bithlo in Orange County.

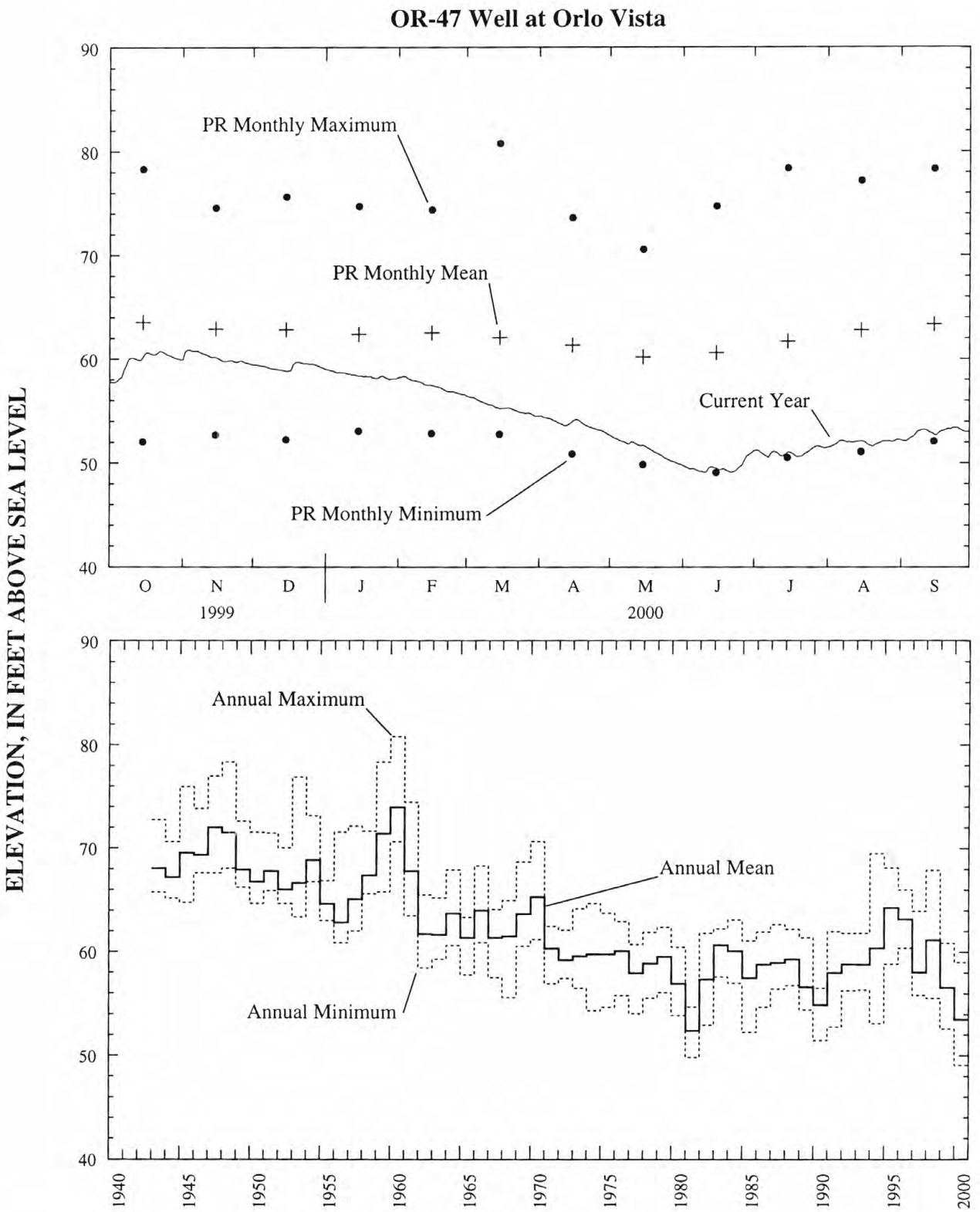

Figure 11.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 283253081283401 (OR-47) well at Orlo Vista in Orange County.

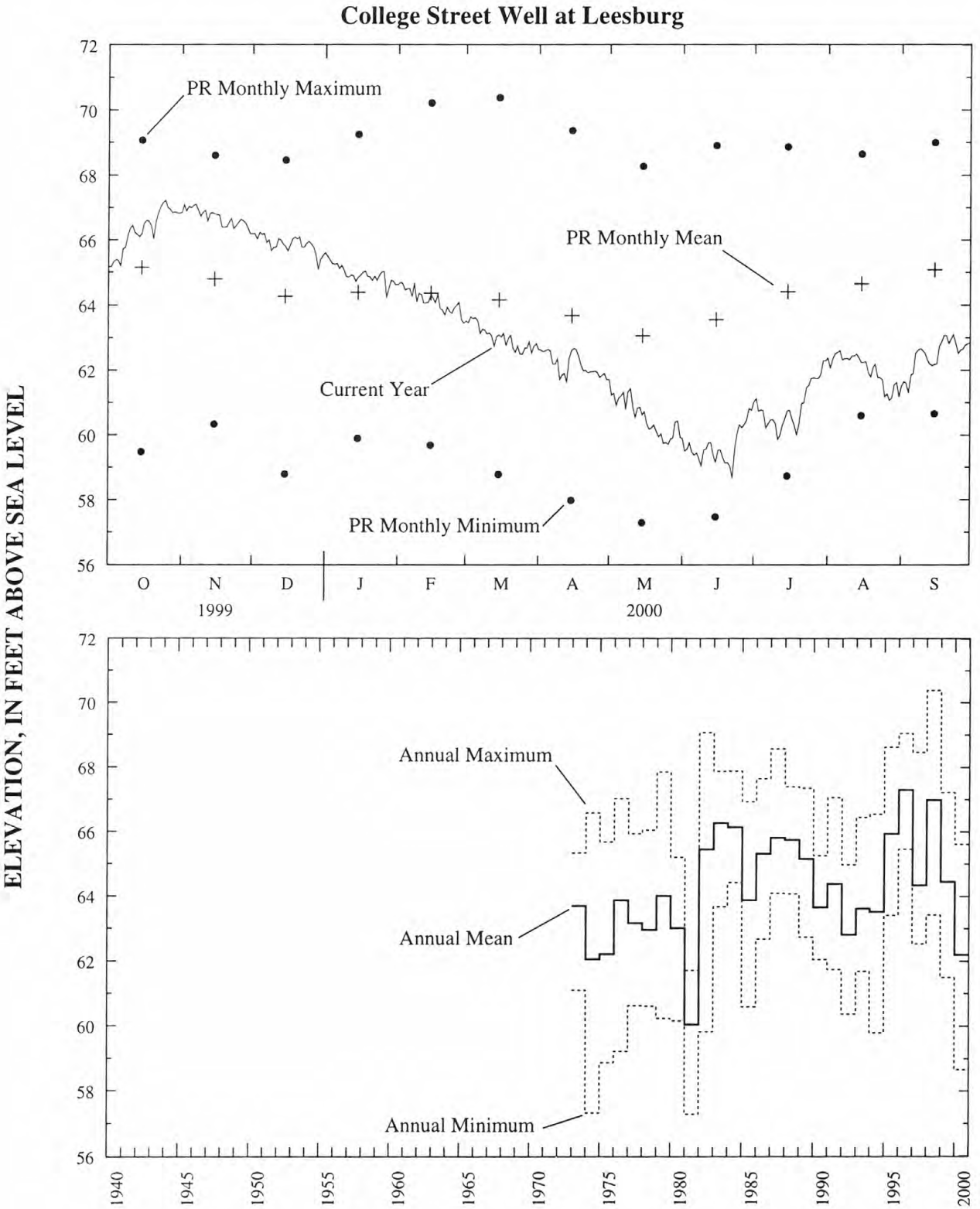

Figure 12.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 284842081533001 (College Street) well at Leesburg in Lake County.

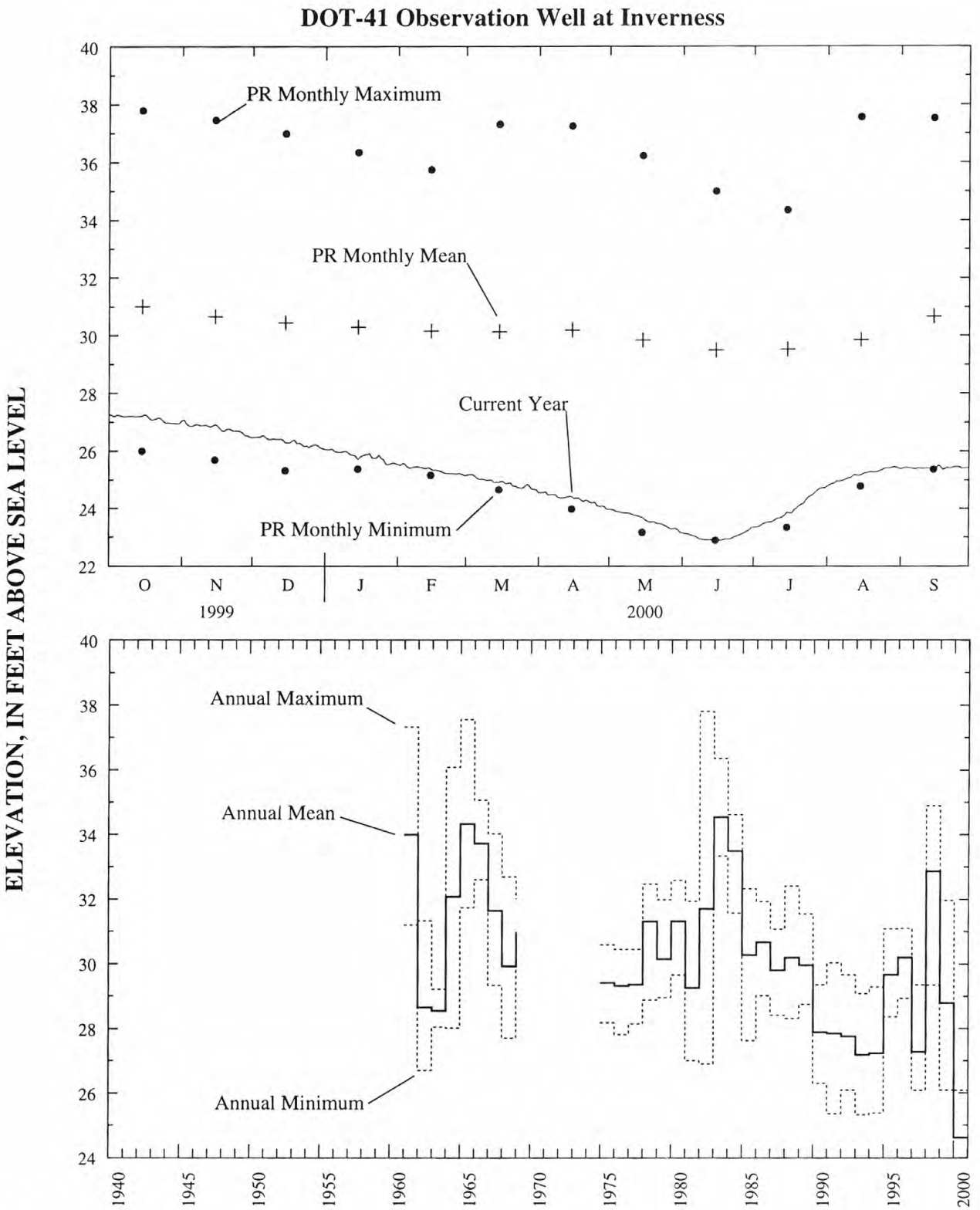

Figure 13.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 285102082204001 (DOT-41) well at Inverness in Citrus County.

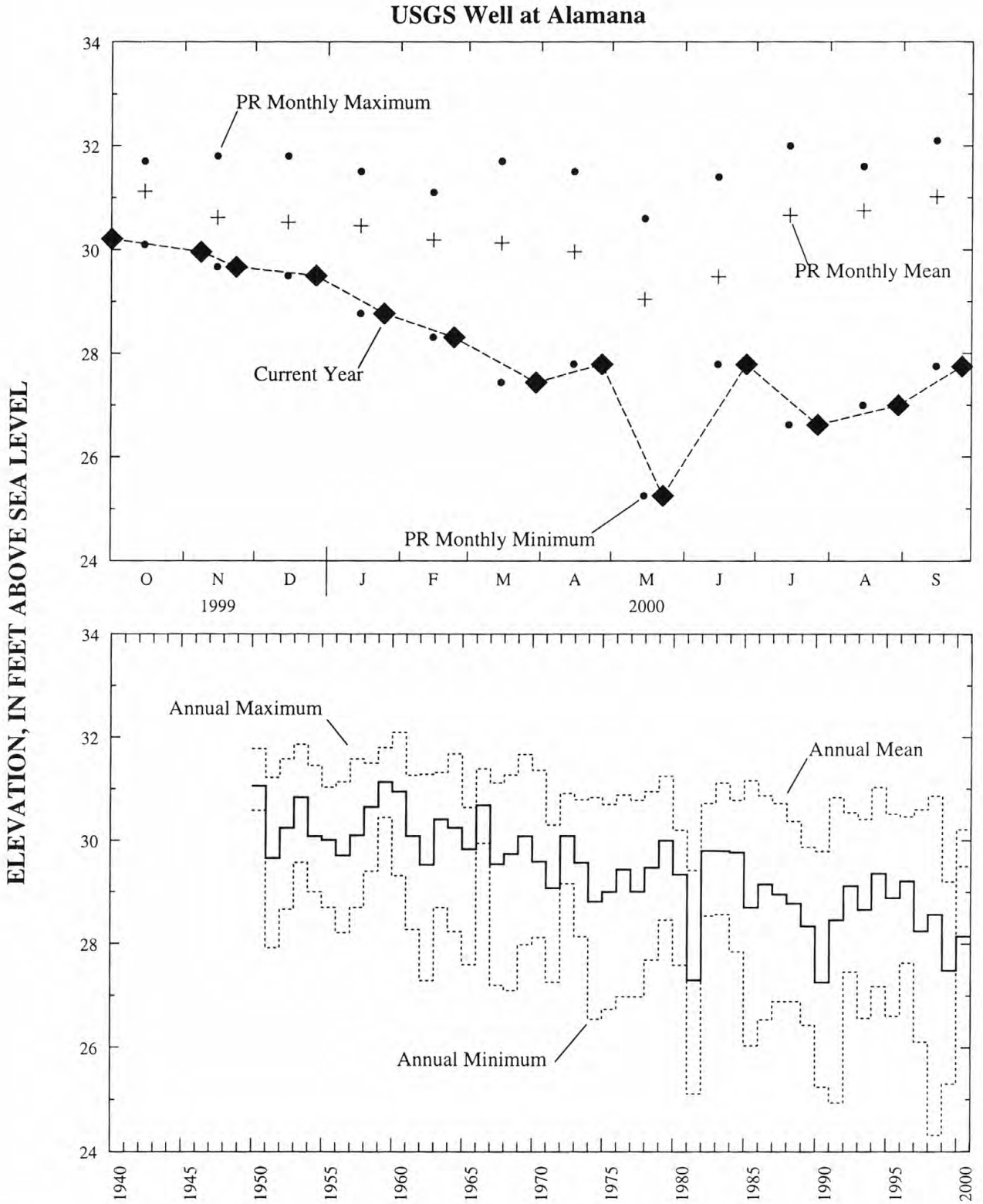

Figure 14.--Periodic water levels for the current water year and annual-mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 285745081054001 (USGS Well) at Alamana in Volusia County.

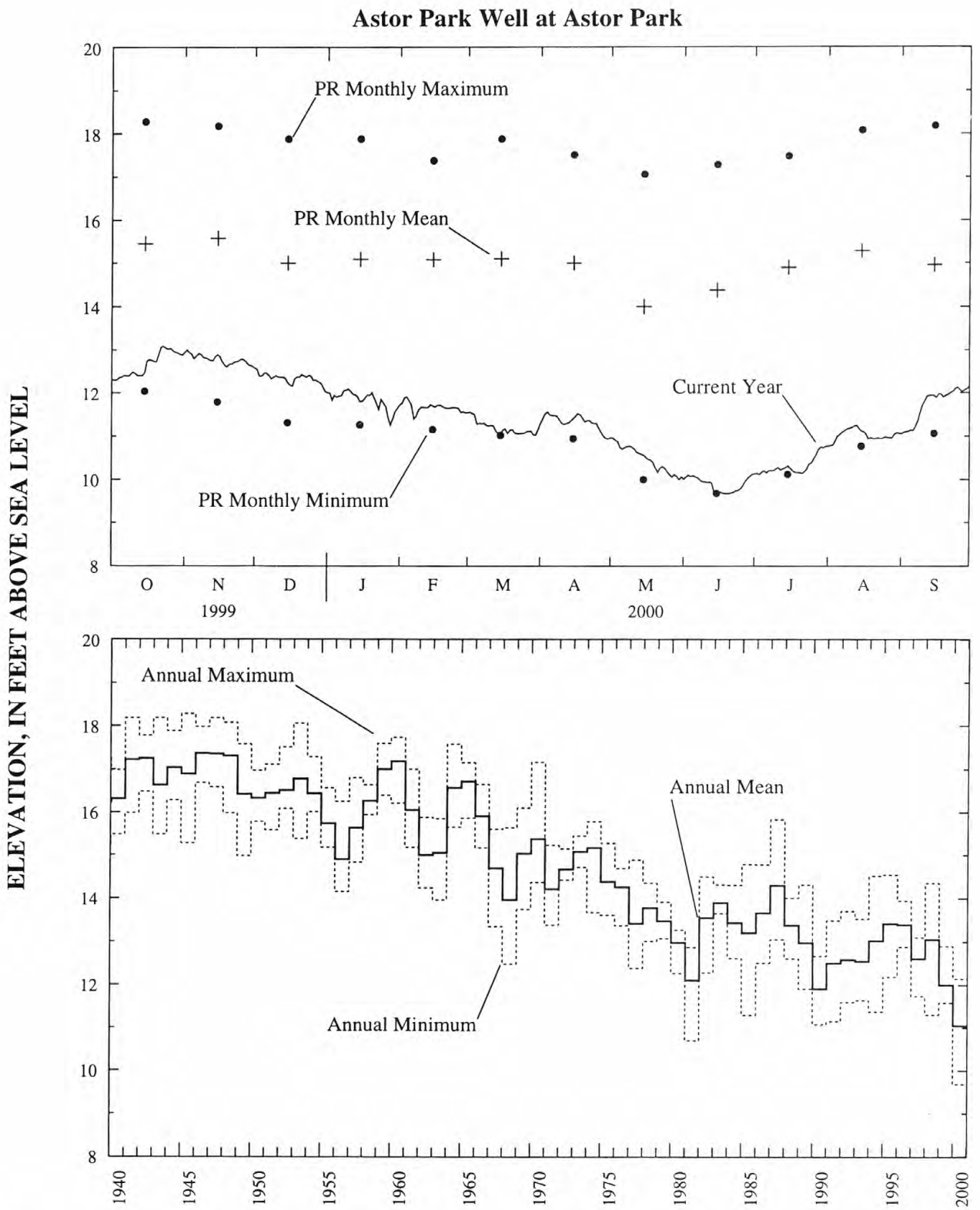

Figure 15.--Daily-maximum levels for the current water year and annual-mean daily-maximum water levels for the period of record (PR) showing showing monthly and annual maximums and minimums at 290950081315501 (Astor Park) well at Astor Park in Lake County.

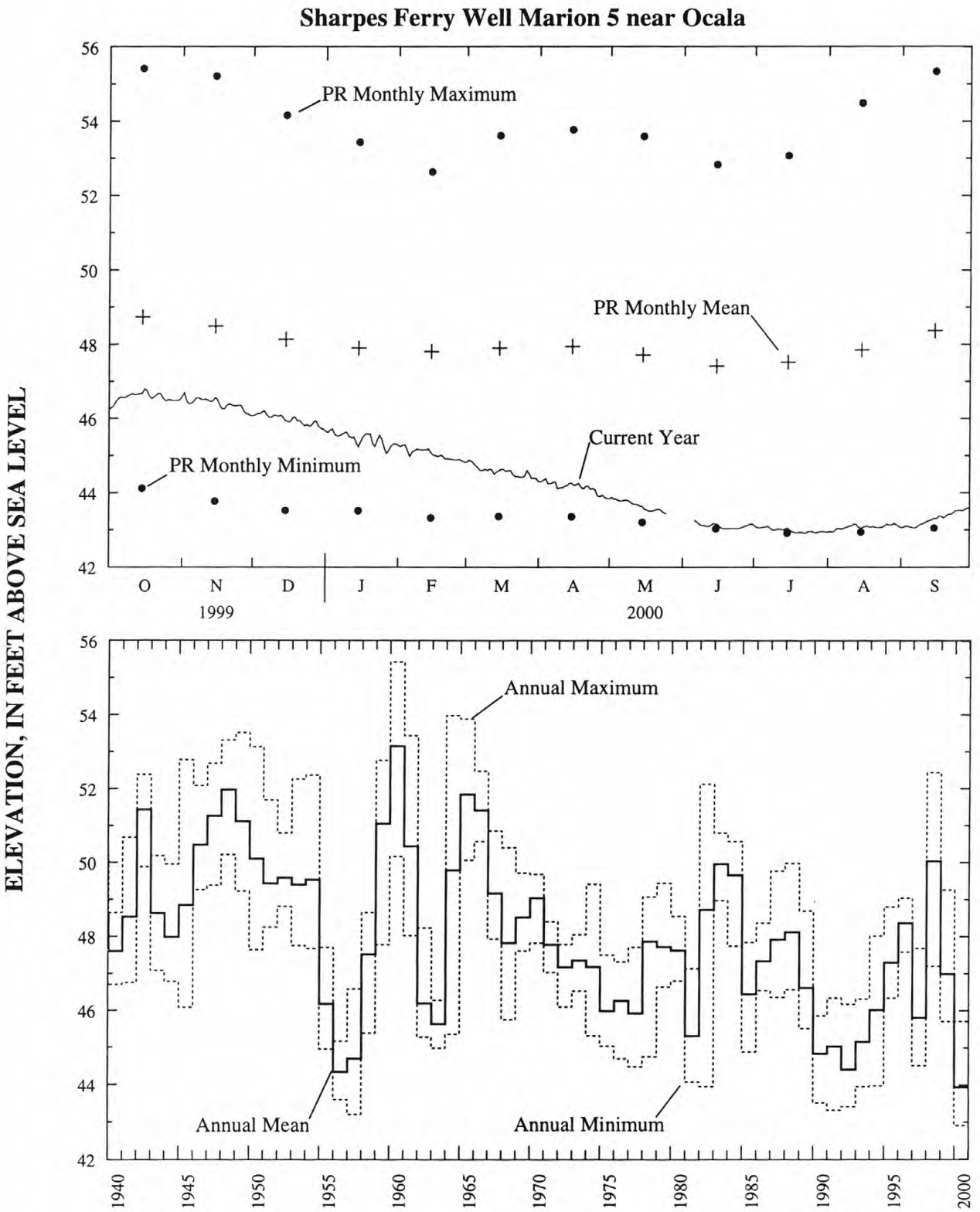

Figure 16.--Daily maximum water levels for the current water year and annual mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 291115081592501 (Sharpes Ferry) well Marion 5 near Ocala in Marion County.

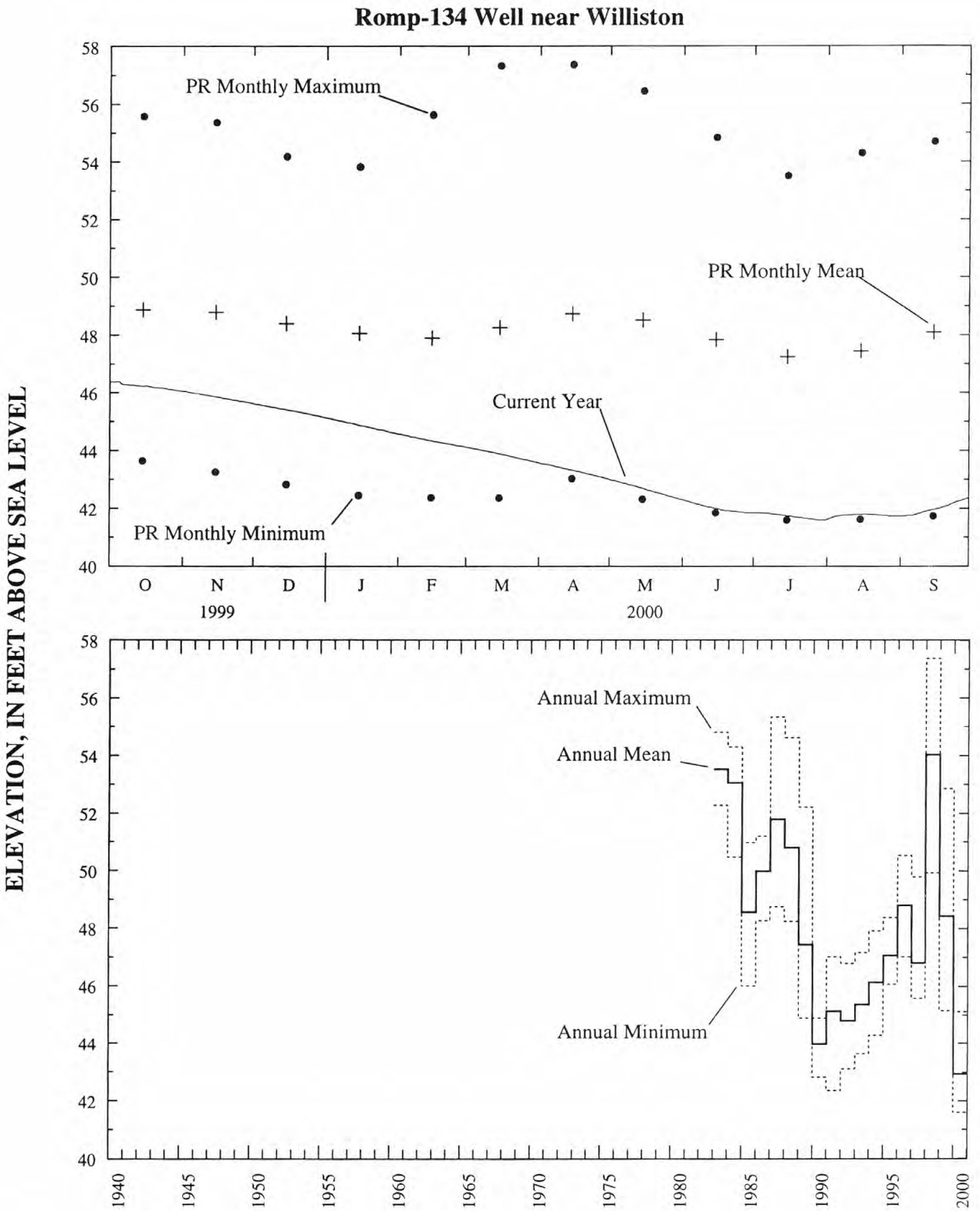

Figure 17.--Daily maximum water levels for the current water year and annual mean daily-maximum water levels for the period of record (PR) showing monthly and annual maximums and minimums at 292615082272601 (Romp 134) well near Williston in Levy County.

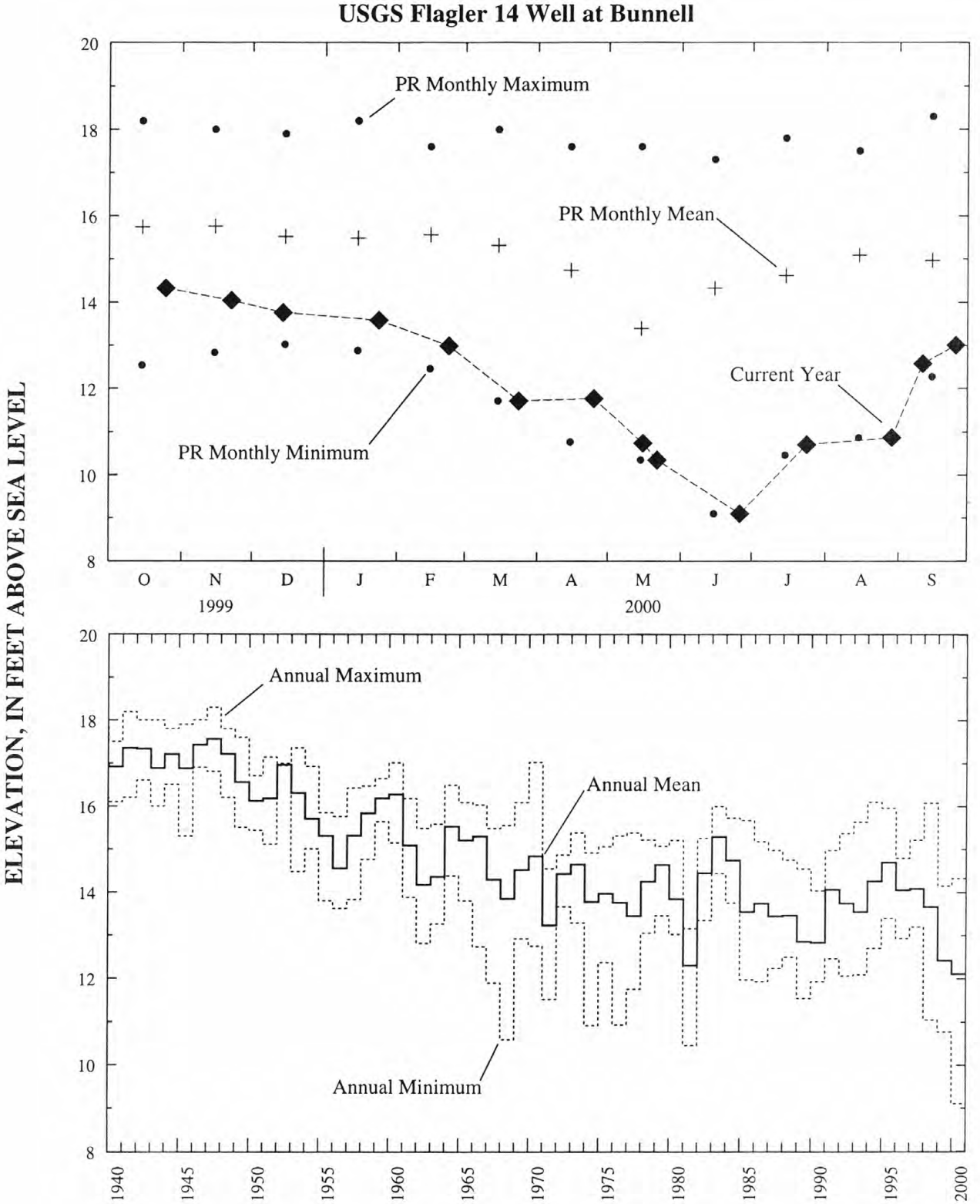

Figure 18.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 292750081152001 (Flagler 14) well at Bunnell in Flagler County.

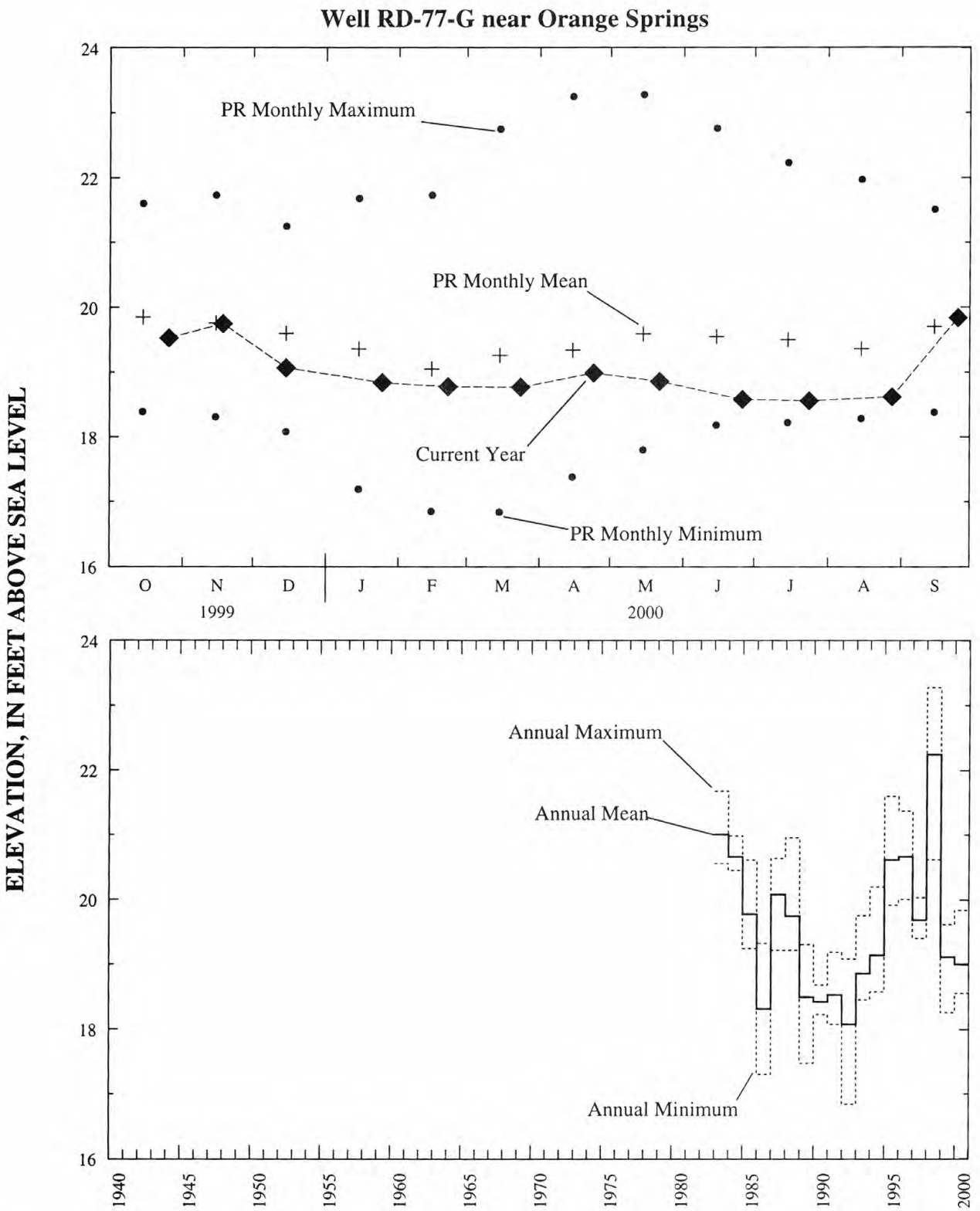

Figure 19.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 292948081503001 (RD-77-G) well near Orange Springs in Putnam County.

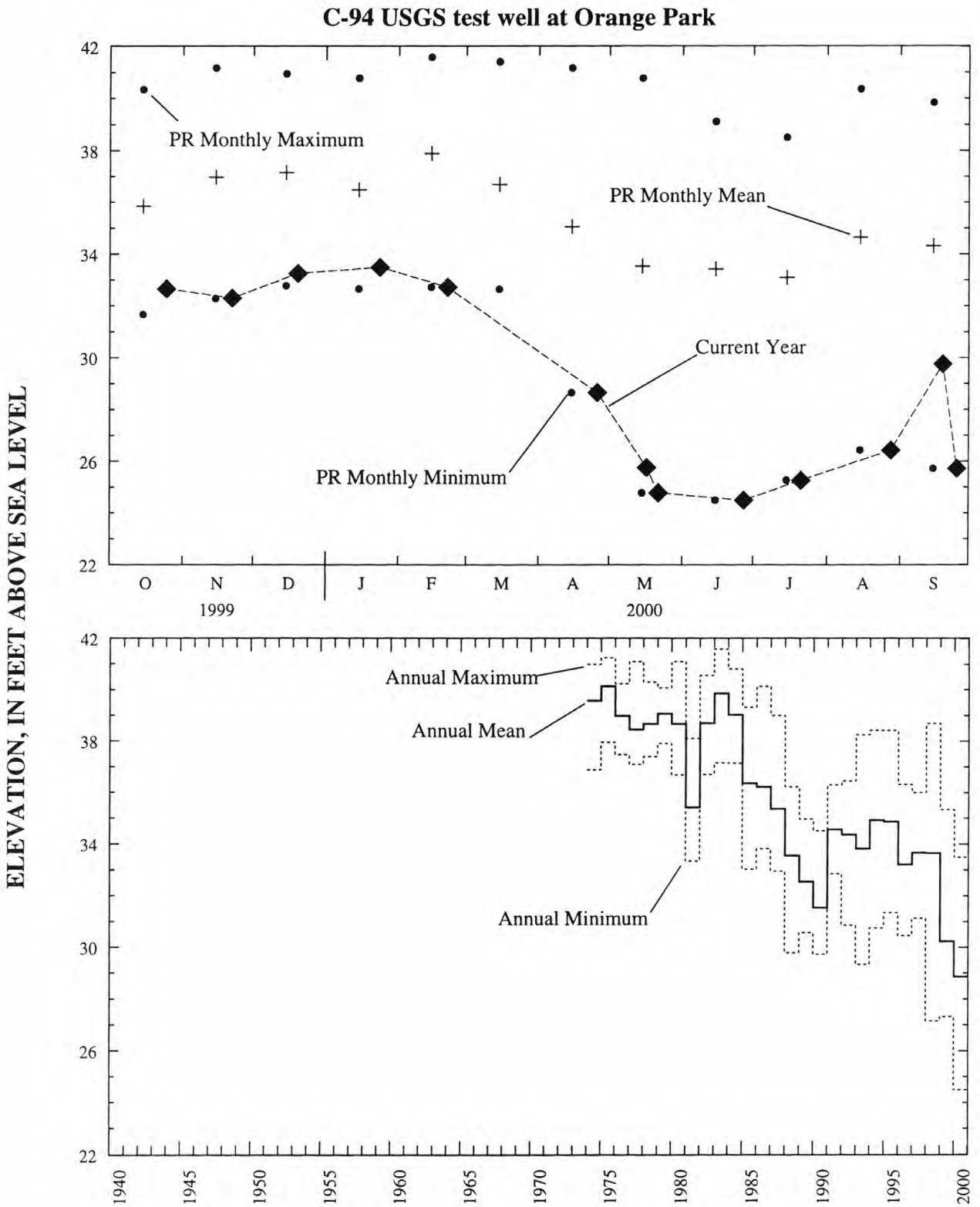

Figure 20.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 300656081463401 (C-94) USGS test well near Orange City in Clay County.

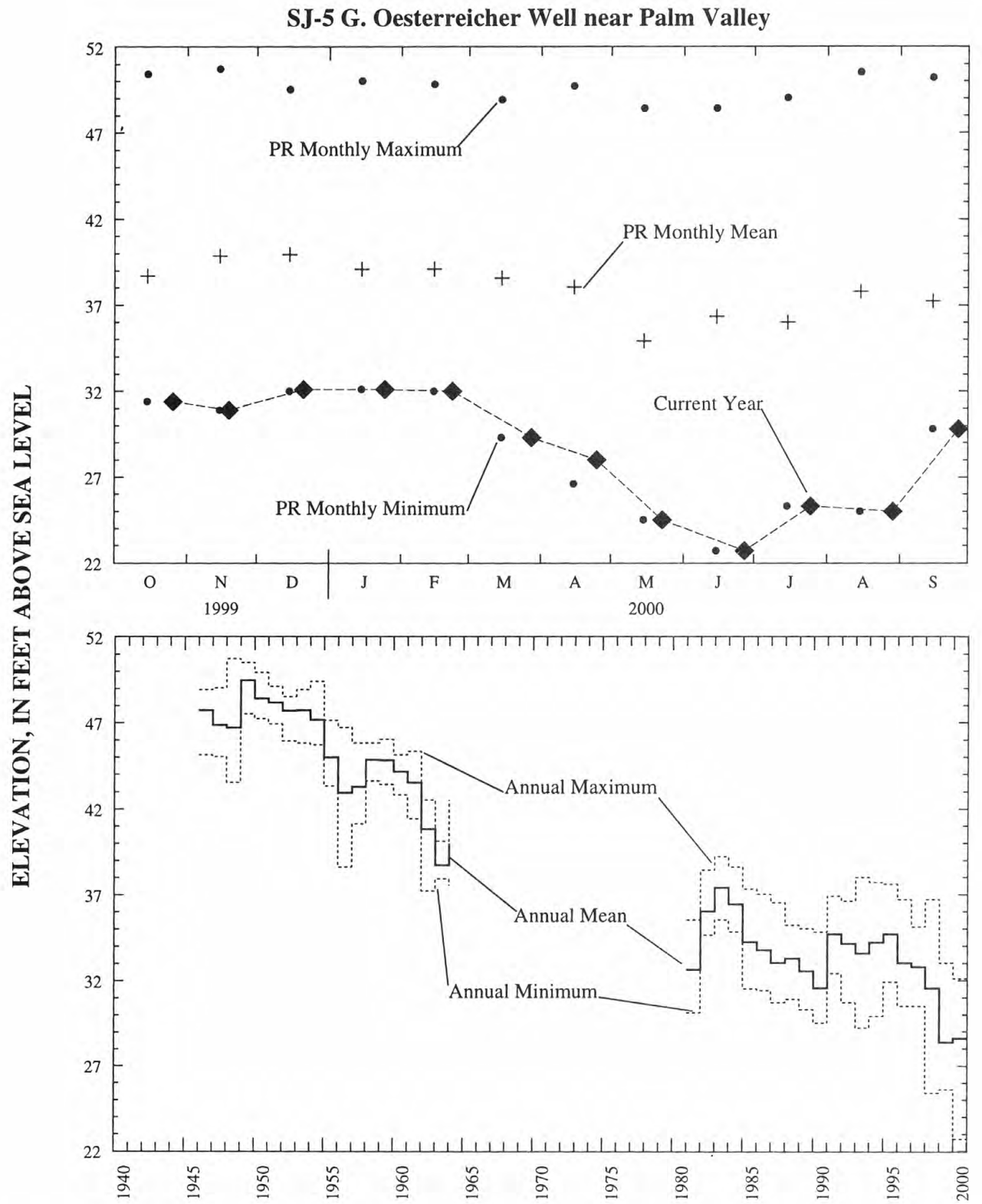

Figure 21.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 300758081230501 (SJ-5) G. Oesterreicher Well near Palm Valley in St. Johns County.

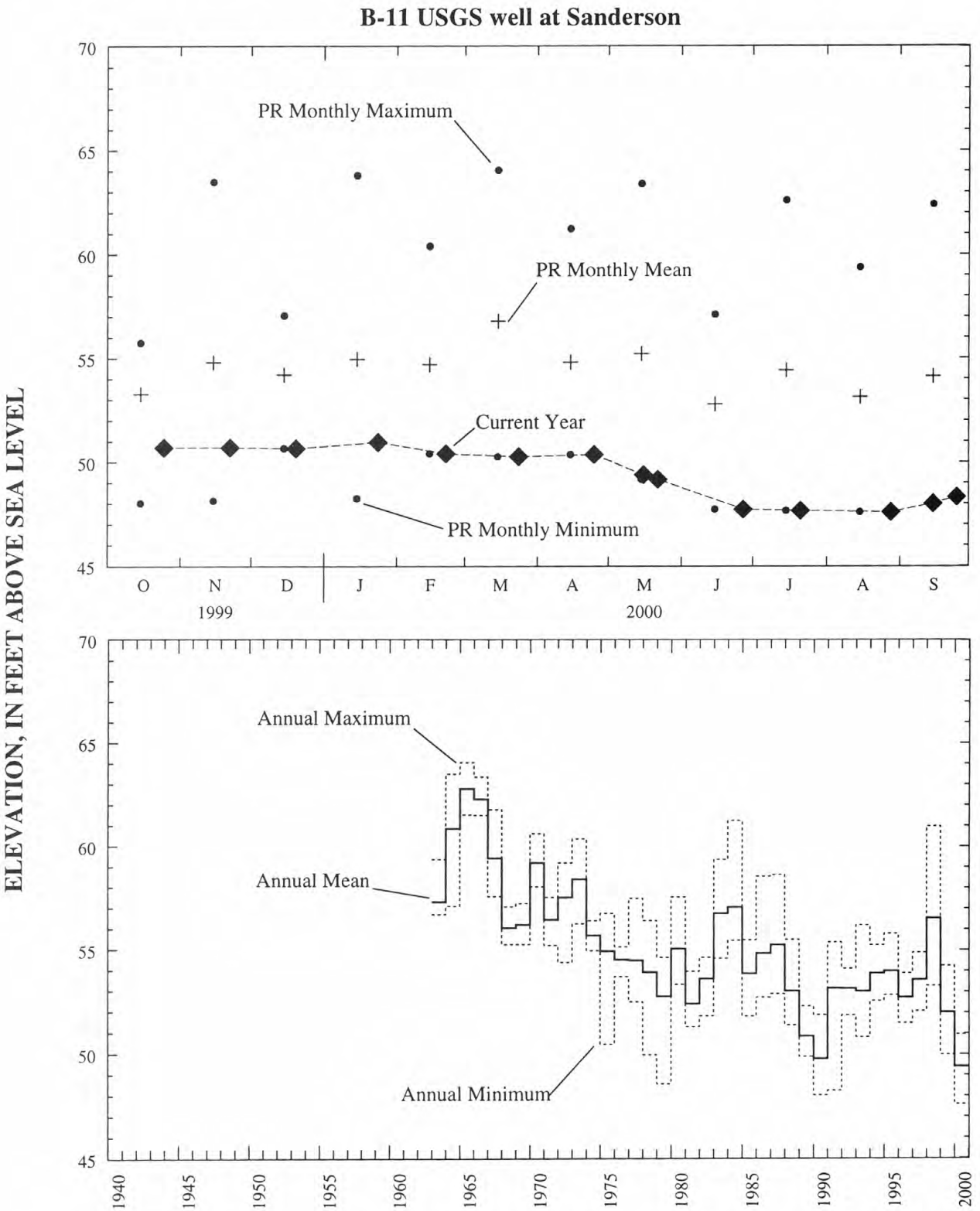

Figure 22.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 301535082162001 (B-11) well at Sanderson in Baker County.

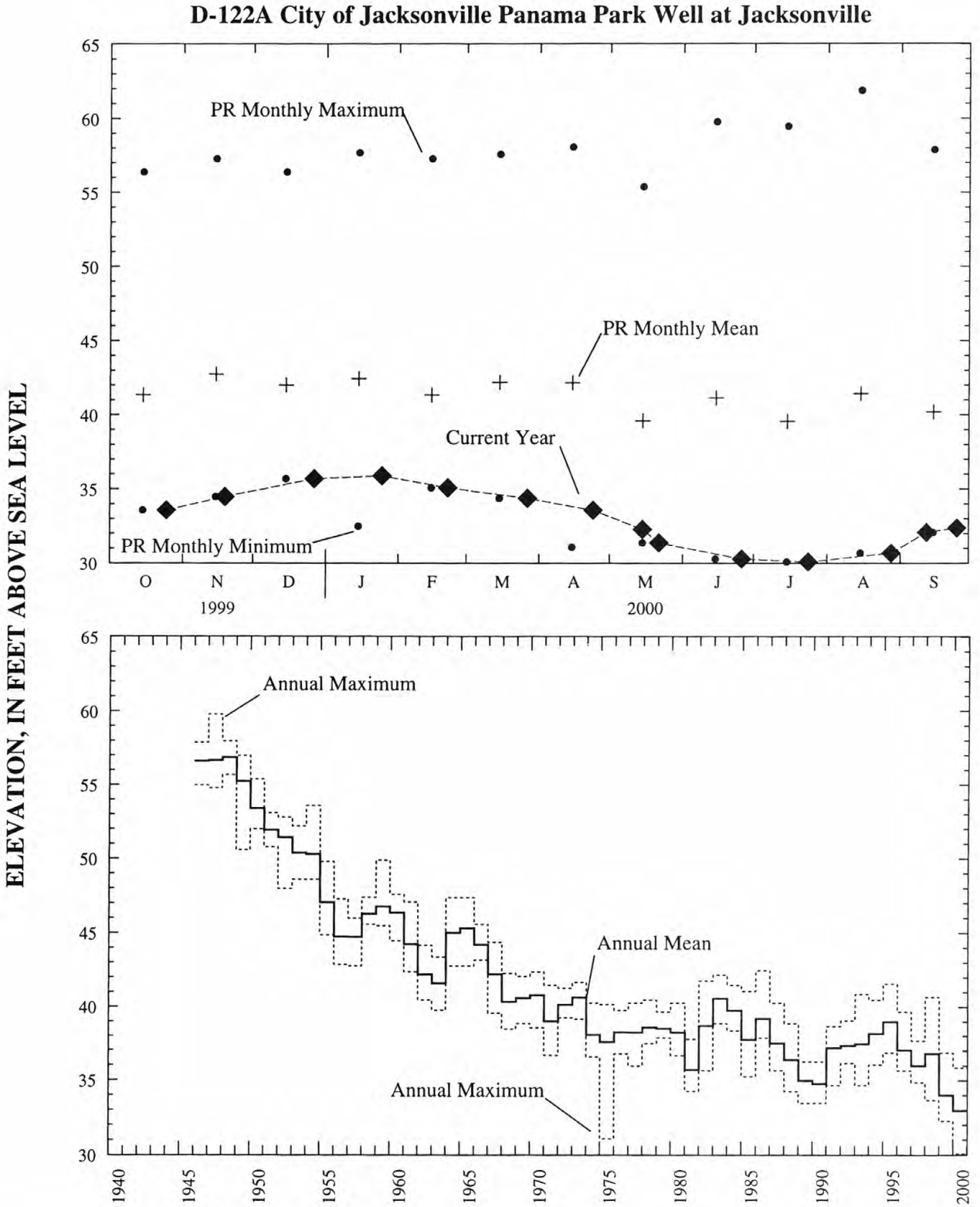

Figure 23.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 302304081383202 (D-122A) Panama Park well at Jacksonville in Duval County.

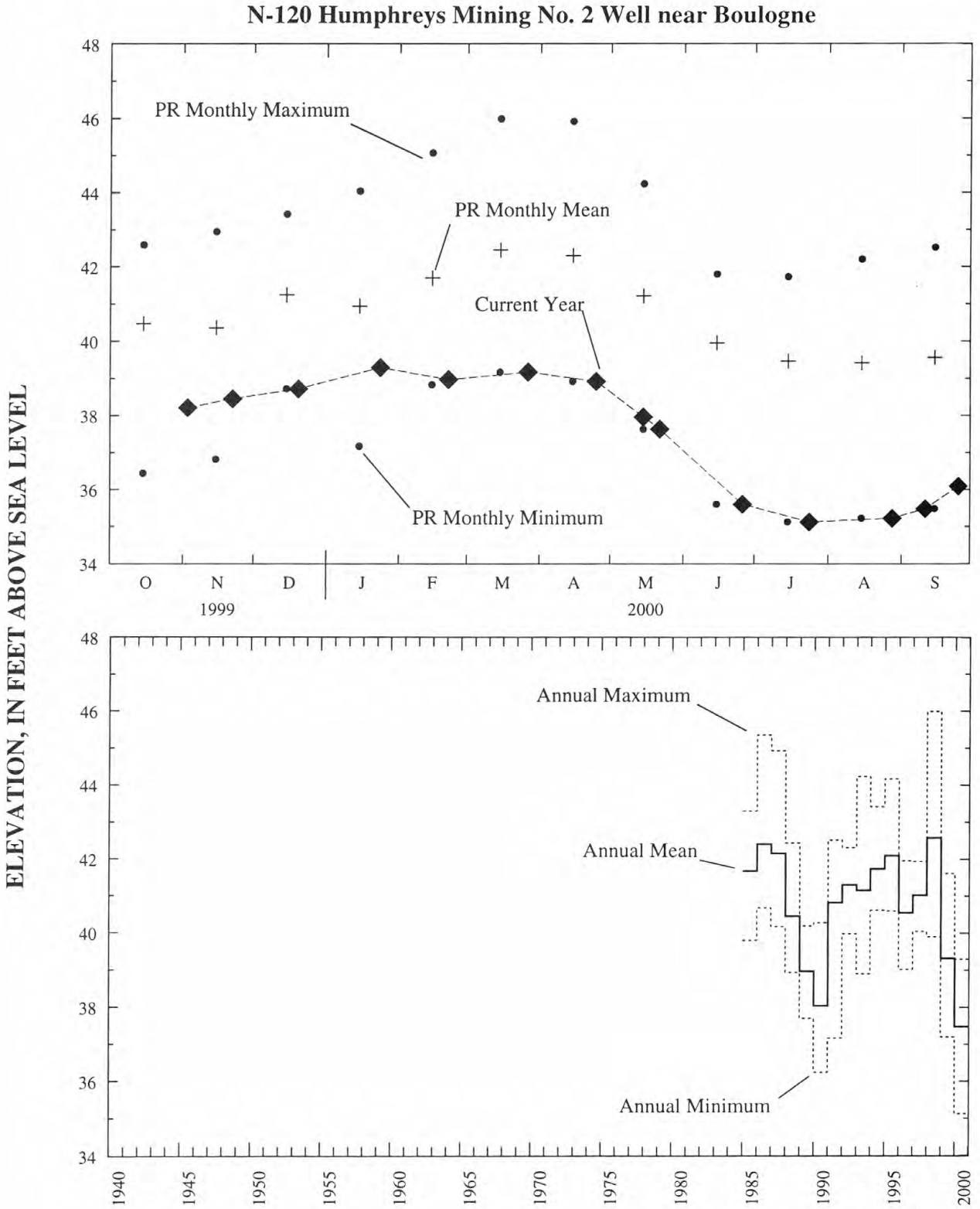

Figure 24.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record (PR) showing monthly and annual maximums and minimums at 304410081592101 (N-120) Humphreys Mining No. 2 well near Boulogne in Nassau County.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the affects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at http://water.usgs.gov/hbn/.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande. From 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at at http://water.usgs.gov/nasqan/.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at http://bqs.usgs.gov/acidrain/.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program can be found at http://water.usgs.gov/nawqa/nawqa_home.html.

Figure 25.--NAWQA stations in the State of Florida.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 9.)

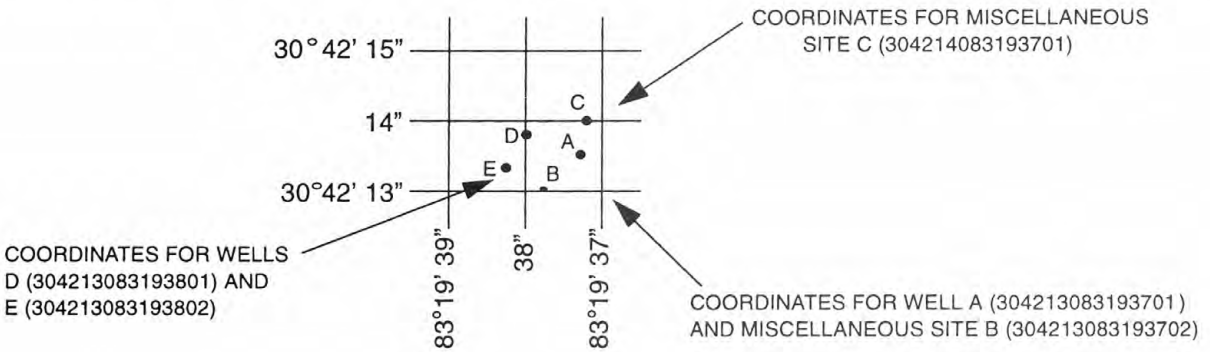

Figure 26.--System for numbering wells and miscellaneous sites. (latitude and longitude)

A second well-numbering system used in Florida utilizes 7 1/2-minute quadrangles within the State. The quadrangles are numbered from west to east, and lettered from south to north, omitting the letters "I" and "O." The designation for each quadrangle is determined by the method "Read Right, Up." Wells are numbered serially within each quadrangle. This local well number is shown immediately after the primary well number.

Well records furnished by the State of Florida also include the well number that is based on an indexing system used by the State Water Control Board.

Records of Ground-Water Levels

Ground-water level data from a national network of observation wells are given in this report. The records include data from wells equipped with water-level recorders and data from wells where water levels are measured periodically.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, or an electronic water-stage recorder. The water-level measurements in this report are given in feet above National Geodetic Vertical Datum of 1929 or in some tables as feet below land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The following comments clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on periodic or continuous record.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with reference to National Geodetic Vertical Datum of 1929 and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet above National Geodetic Datum of 1929 and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, maximums are listed for every fifth day and at the end of the month (EOM). The highest water level of the calendar and water year for complete record is shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years. Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records for each county. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

PRINT OUTPUT	REMARK
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
ND	Material specifically analyzed for but not detected.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
V	Analyte was detected in both the environmental sample and the associated blanks
&	Biological organism estimated as dominant.

Rounding Clarification

Values for some constituents analyzed by routine methods are tabulated with extraneous trailing zeros that are not significant digits. Extraneous zeros result because data obtained from low-level methods that have better (lower) detection limits are stored under the same parameter code as data obtained by routine analytical methods. Precision varies for different analytical methods used to determine the same constituent. The presence of trailing zeroes after the decimal in values printed in this report does not necessarily indicate that the method used for the determination is as precise as the level implied by the rightmost zero.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at:

http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division Offices (See address on the back of the title page).

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Algae are mostly aquatic single-celled, colonial, or multicelled plants containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a "filtered" sample.

Annual runoff is the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inch (IN., in.) as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it.

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants.

Escherichia coli (E. coli) are bacteria present in the intestine and feces of warm-blooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium. Their concentrations are expressed as number of colonies per 100 mL of sample.

Base flow is flow in a channel sustained by ground-water discharge in the absence of direct runoff.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Benthic organisms (invertebrates) are the group of animals inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass is expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Biomass pigment ratio is an indicator of the total proportion of periphyton which are autotrophic (plants). This is also called the Autotrophic Index.

Bottom material: See "Bed material."

Cells/volume refers to the number of plankton cells or natural units counted using a microscope and grid or counting cell. Results are generally reported as cells or units per milliliter.

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements on cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

sphere $4/3\ \pi r^3$ cone $1/3\ \pi r^3 h$ cylinder $\pi r^3 h$.

From cell volume, total algal biomass expressed as biovolume ($\mu m^3/mL$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Colloid is any substance with particles in such a fine state of subdivision dispersed in a medium (for example, water) that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site that meets either of the following conditions:

1. Stage or streamflow are recorded at some interval on a continuous basis. The recording interval is usually 15 minutes, but may be less or more frequent.

2. Water-quality, sediment, or other hydrologic measure-ments are recorded at least daily.

Control designates a feature in the channel downstream from a gaging station that physically influences the water-surface elevation and thereby determines the stage-discharge relation at the station. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Cubic foot per second-day (CFS-DAY, Cfs-day, [$(ft^3/s)/d$]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, 646,317 gallons, or 2,447 cubic meters.

Daily record is a summary of streamflow, sediment, or water-quality values computed from data collected with sufficient frequency to obtain reliable estimates of daily mean values.

Daily record station is a site for which daily records of streamflow, sediment, or water-quality values are computed.

Datum, as used in this report, is an elevation above mean sea level to which all gage height readings are referenced.

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the volume of water (or more broadly, volume of fluid including solid- and dissolved-phase material), that passes a given point in a given period of time.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days in a year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) content of water in equilibrium with air is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During that analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a site on a stream is that area, measured in a horizontal plane, that has a common outlet at the site for its surface runoff. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that is occupied by a drainage system with a common outlet for its surface runoff (see "Drainage area").

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue.

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to sea level (see "Datum"). This elevation is established by a system of levels from known benchmarks, by approximation from topographic maps, or by geographical positioning system.

Gage height (G.H.) is the water-surface elevation referenced to the gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Ground-water level is the elevation of the water table or another potentiometric surface at a particular location.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hydrologic benchmark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a benchmark station may be used to separate effects of natural from human-induced changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped benchmark basin.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the U.S. Geological Survey. Each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_o e^{-\lambda L}$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e \frac{I}{I_o}$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, µg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Microsiemens per centimeter (US/CM, µS/cm) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

Miscellaneous site, or miscellaneous station, is a site where streamflow, sediment, and/or water-quality data are collected once, or more often on a random or discontinuous basis.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88*

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), suspended organic carbon (SOC), or total organic carbon (TOC).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, Sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation
Silt	0.004 - 0.062	Sedimentation
Sand	0.062 - 2.0	Sedimentation/sieve
Gravel	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, or volume.

Periodic station is a site where stage, discharge, sediment, chemical, or other hydrologic measurements are made one or more times during a year, but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (ci). A curie is the quantity of any radioactive nuclide that yields 3.7×10^{-10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL of sample).

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark.

Fire algae (*Pyrrhophyta*) are a group of algae that are free-swimming unicells characterized by a red pigment spot.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCN's) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCB's) and have been identified in commercial PCB preparations.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. Carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. Oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or non-exceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the non-exceedances of the $7Q_{10}$ occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

River mile is the distance of a point on a river measured in miles from the river's mouth along the low-water channel.

River mileage is the linear distance along the meandering path of a stream channel determined in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council.

Runoff in inches (IN., in.) is the depth, in inches, to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929. *See*: *http://www.co-ops.nos.noaa.gov/ glossary/gloss_n.html#NGVD*

Sediment is solid material that is transported by, suspended in, or deposited from water. It originates mostly from disintegrated rocks; it also includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along or very close to the bed. In this report, bed load is considered to consist of particles in transit from the bed to an elevation equal to the top of the bed-load sampler nozzle (usually within 0.25 ft of the streambed).

Bed-load discharge (tons per day) is the quantity of sediment moving as bed load, reported as dry weight, that passes a cross section in a given time.

Suspended sediment is the sediment that is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The entire sample is used for the analysis.

Mean concentration of suspended sediment is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the quantity of sediment moving in suspension, reported as dry weight, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a term that refers to material in suspension. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, reported as dry weight, that passes a cross section in a given time.

Total sediment load or total load is a term that refers to the total sediment (bed load plus suspended-sediment load) that is in transport. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with total sediment discharge.

Seven-day 10-year low flow (7Q10, $7Q_{10}$) is the minimum flow averaged over 7 consecutive days that is expected to occur on average, once in any 10-year period. The 7Q10 has a 10-percent chance of occurring in any given year.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MILL/MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific waters, to evaluate mixing of different waters, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage: See "Gage height."

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Surface area of a lake or impoundment is that area encompassed by the boundary of the lake or impoundment as shown on USGS topographic maps, or on other available maps or photographs. The computed surface areas reflect the water levels of the lakes or impoundments at the times when the information for the maps or photographs was obtained.

Surficial bed material is the top 0.1 to 0.2 ft of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Synoptic Studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata,* is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexagenia*
Species	*Hexagenia limbata*

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot is the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is the rate representing a mass of 1 ton of a constituent in streamflow passing a cross section in 1 day. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the total amount of a given constituent in a representative suspended-sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a suspended-sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total length (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total recoverable is the amount of a given constituent that is in solution after a representative suspended-sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Turbidity is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.

Volatile organic compounds (VOC's) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOC's are man-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

Water level is the water-surface elevation or stage of the free surface of a body of water above or below any datum (see "Gage height"), or the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

Water table is the surface of a ground-water body at which the water is at atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which is found the water table.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1999, is called the "1999 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

Wet weight refers to the weight of animal tissue or other substance including its contained water.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J.F. Ficke, and G. F. Smoot: USGS–TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI Book 1, Chapter D2. 1976. 24 pages.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

2-D1. *Application of surface geophysics to ground-water investigations,* by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI Book 2, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F.P. Haeni: USGS–TWRI Book 2, Chapter D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations,* by W.S. Keys and L.M. MacCary: USGS–TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations,* by W.S. Keys: USGS–TWRI Book 2, Chapter E2. 1990. 150 pages.

Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI Book 2, Chapter F1. 1989. 97 pages.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3-A1. *General field and office procedures for indirect discharge measurements,* by M.A. Benson and Tate Dalrymple: USGS–TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M.A. Benson: USGS–TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G.L. Bodhaine: USGS–TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H.F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS–TWRI Book 3. Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R.W. Carter and Jacob Davidian: USGS–TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurement at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing,* by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI Book 3, Chapter A9. 1989. 27 pages.

3-Al0. *Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the moving-boat method,* by G.F. Smoot and C.E. Novak: USGS–TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI Book 3, Chapter A12. 1986. 34 pages.

3-A13. *Computation of continuous records of streamflow,* by E.J. Kennedy: USGS–TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS–TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS–TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI Book 3, Chapter A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI Book 3, Chapter A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS–TWRI Book 3, Chapter A21. 1995. 56 pages.

Section B. Ground-Water Techniques

3-B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow,* by R.L. Cooley and R.L. Naff: USGS–TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R.L. Cooley: USGS–TWRI Book 3, Chapter B4. 1993. 8 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics,* by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI Book 3, Chapter B6. 1987. 28 pages.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E.J. Wexler: USGS–TWRI Book 3, Chapter B7. 1992. 190 pages.

Section C. Sedimentation and Erosion Techniques

3-C1. *Fluvial sediment concepts,* by H.P. Guy: USGS–TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment,* by H.P. Guy and V.W. Norman: USGS–TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS–TWRI Book 3, Chapter C3. 1972. 66 pages.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4-A1. *Some statistical tools in hydrology,* by H.C. Riggs: USGS–TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H.C. Riggs: USGS–TWRI Book 4, Chapter A2. 1968. 15 pages.

Section B. Surface Water

4-B1. *Low-flow investigations,* by H.C. Riggs: USGS–TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H.C. Riggs and C.H. Hardison: USGS–TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H.C. Riggs: USGS–TWRI Book 4, Chapter B3. 1973. 15 pages.

Section D. Interrelated Phases of the Hydrologic Cycle

4-D1. *Computation of rate and volume of stream depletion by wells,* by C.T. Jenkins: USGS–TWRI Book 4, Chapter D1. 1970. 17 pages.

Book 5. Laboratory Analysis

Section A. Water Analysis

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI Book 5, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L.J. Britton and P.E. Greeson, editors: USGS–TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L.C. Friedman and D.E. Erdmann: USGS–TWRI Book 5, Chapter A6. 1982. 181 pages.

Section C. Sediment Analysis

5-C1. *Laboratory theory and methods for sediment analysis,* by H.P. Guy: USGS–TWRI Book 5, Chapter C1. 1969. 58 pages.

Book 6. Modeling Techniques

Section A. Ground Water

6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI Book 6, Chapter A1. 1988. 586 pages.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI Book 6, Chapter A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI Book 6, Chapter A3. 1993. 136 pages.

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI Book 6, Chapter A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI Book 6, Chapter A5, 1993. 243 pages.

6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1996. 125 pages.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI Book 7, Chapter C3. 1981. 110 pages.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8-A1. *Methods of measuring water levels in deep wells,* by M.S. Garber and F.C. Koopman: USGS–TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI Book 8, Chapter A2. 1983. 57 pages.

Section B. Instruments for Measurement of Discharge

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G.F. Smoot and C.E. Novak: USGS–TWRI Book 8, Chapter B2. 1968. 15 pages.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI Book 9, Chapter A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D.N. Myers and F.D. Wilde: USGS–TWRI Book 9, Chapter A7. 1997. 49 pages.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI Book 9, Chapter A8. 1998. 48 pages.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS–TWRI Book 9, Chapter A9. 1998. 60 pages.

WELL DESCRIPTIONS AND GROUND-WATER DATA

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

ALACHUA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
292951082174001	05-16-00	1310	THOMAS 66STA WELL NR MICANOPY	53.79
	09-13-00	0915		52.14
293252082292301	05-15-00	1640	ALTO STRAUGHN-ARCHER WELL	41.37
	09-12-00	1620		40.07
293253082055701	05-15-00	1050	DRISCOLL WELL NR LOCHLOOSA	67.44
	09-11-00	1030		68.25
293539082112601	05-15-00	1210	A-005 OWENS-ILLINOIS NO.1	67.33
	09-13-00	0940		67.05
293556082043401	05-15-00	1140	A-0071 HAWTHORNE TOWER DEEP	73.40
	09-11-00	1145		74.17
293620082362001	05-15-00	1750	USGS WELL NR NEWBERRY,FL	39.65
	09-12-00	1506		38.18
293644082244201	05-16-00	1208	A-0016 RUN MONITOR WELL NO1 AT KANAPAHA	44.37
	09-12-00	1700		43.20
293728082282401	05-15-00	1600	93722801 10S18E14 PARKER RD BAPTIST CHURCH	40.19
	09-13-00	0830		38.76
293857082203901	05-15-00	1420	GEOLOGY DEPT WELL GAINESVILLE	41.28
	09-12-00	0745		40.59
294530082232001	05-16-00	0850	DEERHAVEN POWER PLT WELL NR GAINESVILLE	42.12
	09-13-00	0720		40.52
294928082355301	05-16-00	0715	94923502 08S17E03 CITY HIGH SPRINGS	32.86
	09-12-00	1255		32.38

KEY TO SITE LOCATIONS ON FIGURE 27
BAKER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	301535082162001	54
2	302620082173501	54

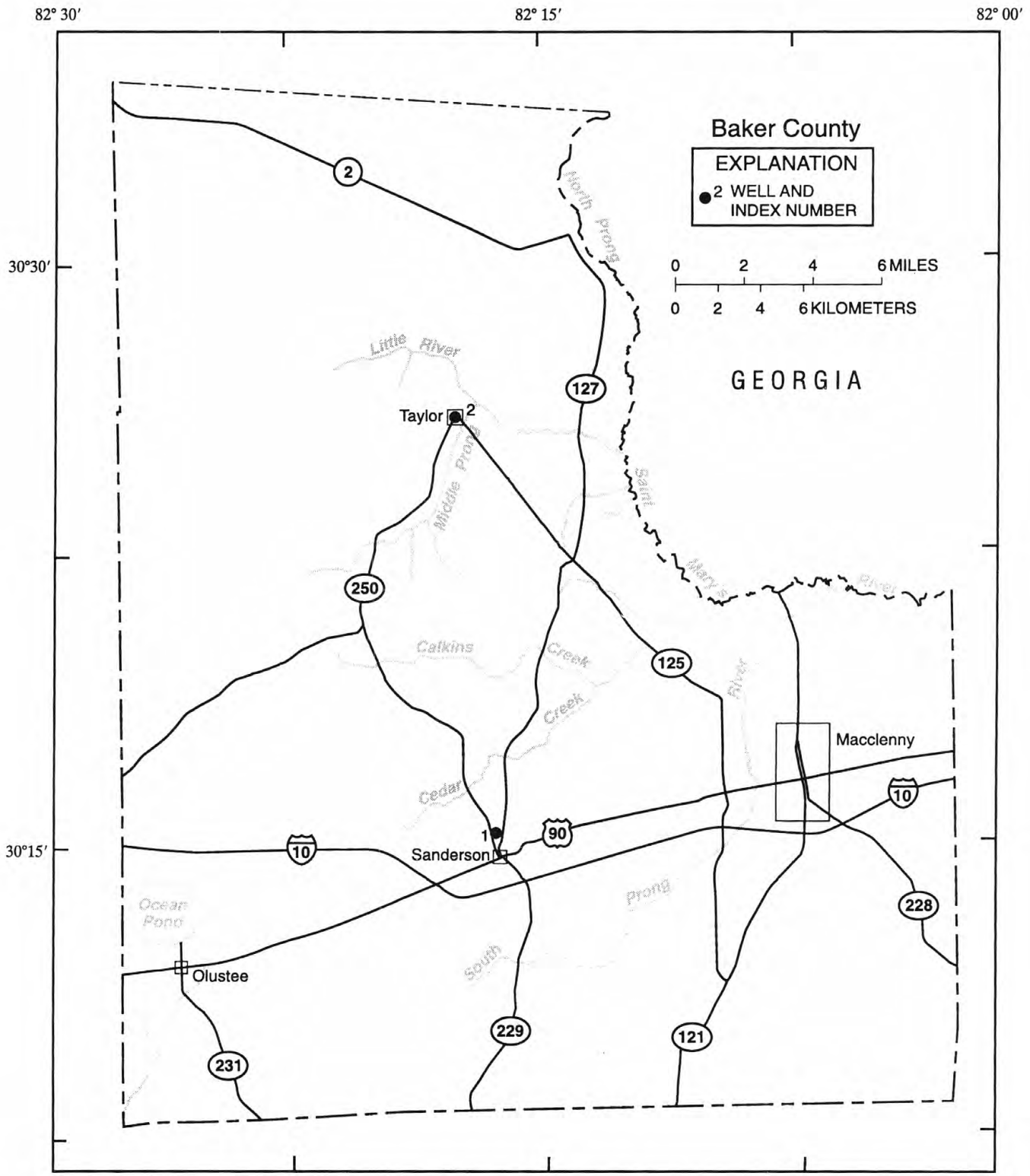

Figure 27.--Location of wells in Baker County.

BAKER COUNTY

WELL NUMBER.--301535082162001. Local Number B-11. USGS Well at Sanderson, FL.

LOCATION.--Lat 30°15'35", long 82°16'20", in SW¼NW¼SW¼ sec.1, T.3 S., R.20 E., Hydrologic Unit 03070204, 0.4 mi northwest of Sanderson Public School, and 0.7 mi north of U.S. Highway 90 in Sanderson. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 825 ft, cased to 282 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 157.68 ft above sea level. Measuring point: Top of 6 in. coupling, 2.30 ft above land-surface datum.

PERIOD OF RECORD.--August 1963 to September 1983 (bimonthly); October 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.05 ft above sea level, Mar. 1, 1965; lowest measured, 47.59 ft above sea level, Aug. 28, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	50.72	JAN 24	50.97	APR 25	50.37	JUN 27	47.72	SEP 15	48.01
NOV 22	50.72	FEB 22	50.42	MAY 16	49.39	JUL 21	47.66	25	48.32
DEC 20	50.67	MAR 24	50.27	22	49.17	AUG 28	47.59		

WATER YEAR 2000 LOWEST 47.59 AUG 28, 2000 HIGHEST 50.97 JAN 24, 2000

WELL NUMBER.--302620082173501. Local Number B-9. USGS Well at Taylor, FL.

LOCATION.--Lat 30°26'20", long 82°17'35", in NW¼SE¼NE¼ sec.3, T.1 S., R.20 E., Hydrologic Unit 03070204, 50 ft northeast of intersection of State Highways 125 and 250, and 200 ft northeast of General Store in Taylor. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 905 ft, cased to 417 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 116.30 ft above sea level. Measuring point: Top of 6 in. coupling, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1963 to September 1983 (bimonthly); October 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.50 ft above sea level, Jan. 1, 1973; lowest measured, 44.70 ft above sea level, Aug. 28, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	47.58	JAN 24	48.27	APR 25	48.06	JUN 27	45.01	SEP 15	45.11
NOV 22	48.07	FEB 22	47.86	MAY 16	46.94	JUL 21	44.86	25	45.64
DEC 20	47.71	MAR 24	47.79	22	46.73	AUG 28	44.70		

WATER YEAR 2000 LOWEST 44.70 AUG 28, 2000 HIGHEST 48.27 JAN 24, 2000

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

BAKER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
301022082103301	05-16-00	0840	B-17 MANNING WELL NEAR MANNING, FL	51.54
	09-14-00	1255		50.49
301245082233001	05-23-00	1030	SRWMD B-6 US FOREST SERV-OLUSTEE TWR	50.40
301423082261101	05-16-00	1340	B-15	53.57
	09-15-00	1055		52.29
301618082110901	05-16-00	1250	BA0054	49.40
	09-15-00	0830		48.12
302115082232201	05-23-00	0920	B-23	47.31
302251082194901	05-16-00	1110	B-25 ONF NO.6 FLORIDAN WELL NEAR TAYLOR,FL	47.45
	09-15-00	1025		45.61
303235082203501	05-16-00	1155	BA-0057 EDDY FIRETOWER FLORIDAN	45.63
	09-15-00	0935		43.67

KEY TO SITE LOCATIONS ON FIGURE 28
BREVARD COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	275508080510701	58
2	275955080434601	58

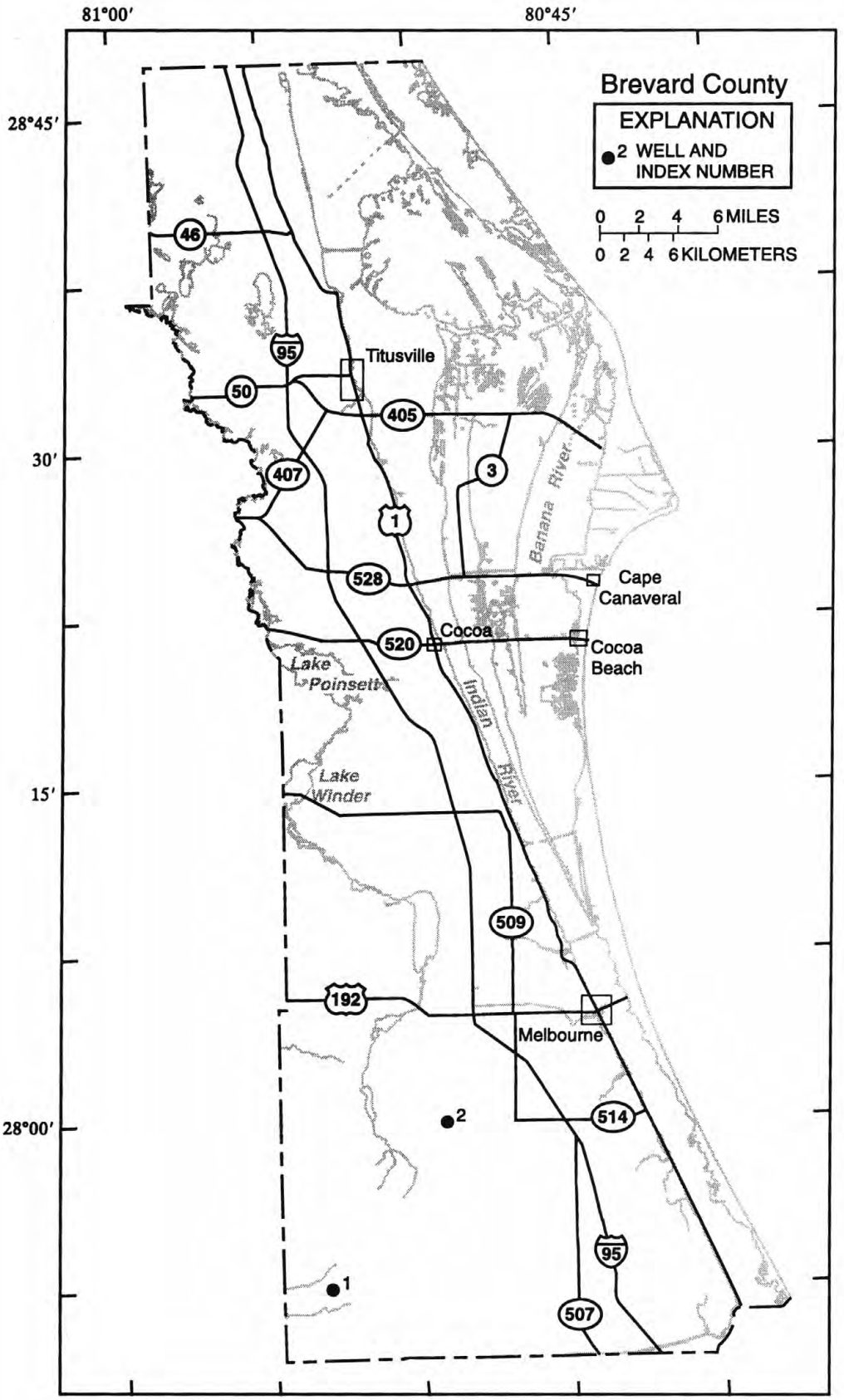

Figure 28.--Location of wells in Brevard County.

BREVARD COUNTY

WELL NUMBER.--275508080510701. Ten-Mile Ranch Well near Kenansville, FL.

LOCATION.--Lat 27°55'08", long 80°51'07", in SW¼SW¼NW¼ sec.32, T.29 S., R.35 E., Hydrologic Unit 03080101, 2,500 ft west of private road, 10 mi east of U.S. Highway 441, and 8 mi east of Kenansville. Owner: Deseret Ranches of Florida, Inc.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 3 in., depth 272 ft, casing unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 28.07 ft above sea level. Measuring point: Top of concrete slab, 0.51 ft above land-surface datum.

PERIOD OF RECORD.--June 1956 (annually); 1957 (semiannually); May 1973 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.07 ft above sea level, July 11, 1957; lowest measured, 36.30 ft above sea level, May 30, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	44.08	FEB 11	40.78	MAY 30	36.30	SEP 19	40.56
DEC 10	42.38	APR 05	39.90	JUL 19	38.83		

WATER YEAR 2000 LOWEST 36.30 MAY 30, 2000 HIGHEST 44.08 NOV 04, 1999

WELL NUMBER.--275955080434601. Platt Well near Melbourne, FL.

LOCATION.--Lat 27°59'55", long 80°43'46", in NE¼NE¼NW¼ sec.4, T.29 S., R.36 E., Hydrologic Unit 03080203, on south side of extension of State Highway 514, 3.5 mi west of State Highway 509, and 9.5 mi southwest of Melbourne. Owner: Marion Platt.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 4 in., depth 447 ft, cased to 125 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 21.78 ft above sea level. Measuring point: Top of 4 in. tee, 1.25 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--August 1934, July 1942, November 1946 (annually); May 1947 to December 1949 (semiannually); January 1950 to November 1975 (bimonthly); December 1977 to September 1983 (bimonthly); October 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.53 ft above sea level, Aug. 14, 1934; lowest measured, 33.53 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	40.13	JAN 26	36.63	APR 25	38.03	JUN 26	33.53	SEP 11	37.73
NOV 18	38.13	FEB 22	40.03	MAY 15	35.23	JUL 24	36.43	26	38.03
DEC 14	38.93	MAR 22	38.93	23	35.23	AUG 30	37.03		

WATER YEAR 2000 LOWEST 33.53 JUN 26, 2000 HIGHEST 40.13 OCT 26, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

BREVARD COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
275210080272202	05-16-00	0936	DR0625 SEB. INLET TW SHALLOW	29.73
	09-12-00	1500		32.63
275422080374001	05-16-00	0649	754037007 29S37E04 232 09840 FELLSMERE NW TP	35.34
	09-12-00	1226		38.14
275425080283101	05-16-00	0923	754028002	29.97
	09-12-00	1447		32.67
275435080311001	05-16-00	0748	754031001 29S38E34 343 04383 GRANT 82	29.27
	09-12-00	1337		32.67
275629080504901	05-15-00	1244	756050001 29S35E20 243 22042 KENANSVILLE NE TP	36.87
	09-13-00	1119		39.57
275948080393501	05-16-00	0603	759039005 29S37E06 322 37578 FELLSMERE NW TP	33.05
	09-12-00	1200		35.95
280008080342601	05-16-00	0808	800034072 28S37E36 424 08182 MELBOURNE EAST TP	26.55
	09-12-00	1349		28.70
280256080325601	05-16-00	0850	802032002 28S38E17 432 1645 MELBOURNE EAST 49	24.80
	09-12-00	1424		28.20
280532080514501	05-15-00	1516	805051003 27S35E31 331 30139 DEER PARK SE TP	35.92
	09-12-00	0744		39.12
280534080465101	05-15-00	1550	805046002 27S35E36 331 37472 DEER PARK SE TP	33.83
	09-12-00	0720		38.03
280648080422801	05-15-00	1425	DAN PLATT SARNO RD REPLACEMENT WELL	32.55
	09-12-00	1500		35.35
281109080373701	05-17-00	0752	811037014 26S37E33 122 18134 EAU GALLIE 09	23.39
	09-12-00	1630		26.79
281210080473001	05-15-00	1313	DUDA RANCH L-2 (812047001)	33.30
	09-11-00	1400		36.10
281447080392601	05-17-00	0728	814039076 26S36E06 444 37577 EAU GALLIE 79	23.74
	09-12-00	1644		26.44
281905080375001	05-17-00	0847	819037196 25S37E16 212 27337 COCOA 04	19.15
	09-13-00	0715		21.25
282204080514301	05-15-00	1204	822051001 24S35E30 342 00767 LAKE POINSETT	26.68
	09-11-00	1101		29.18
282423080353601	05-17-00	0911	824035001 24S37E11 444 15764 CAPE CANAVERAL TP	17.19
	09-13-00	0742		19.30
282524080422301	05-17-00	1125	MERRITT ISLAND INJECTION WELL	14.29
	09-13-00	1046		16.30

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

BREVARD COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
282929080343601	05-17-00	0942	829034001 23S37E13 222 28488 CAPE CANAVERAL TP	13.19
282945080473901	05-15-00	1050	BR-586 TICO AIRPORT	13.22
	09-11-00	1006		14.68
283027080403601	05-17-00	1051	830040002 23S37E01 444 00155 ORSINO TP	8.23
	09-13-00	1013		11.08
283644080574903	05-23-00	1200	BR-1526 SEMINOLE RANCH	14.08
	09-11-00	1633		16.26
283732080510001	05-15-00	1013	BR0585 ASTRONAUT H.S.CF	9.36
	09-11-00	1919		10.50
283835080424501	05-17-00	1020	838042002 21S36E27 MERRITT ISLE WILDLIFE	5.78
	09-13-00	0943		7.57

KEY TO SITE LOCATIONS ON FIGURE 29
CITRUS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	284330082215401	64
2	284508082174601	64
3	285102082204001	65
4	285121082245401	65
5	285414082284201	66
6	285608082233401	66
7	285720082201301	67

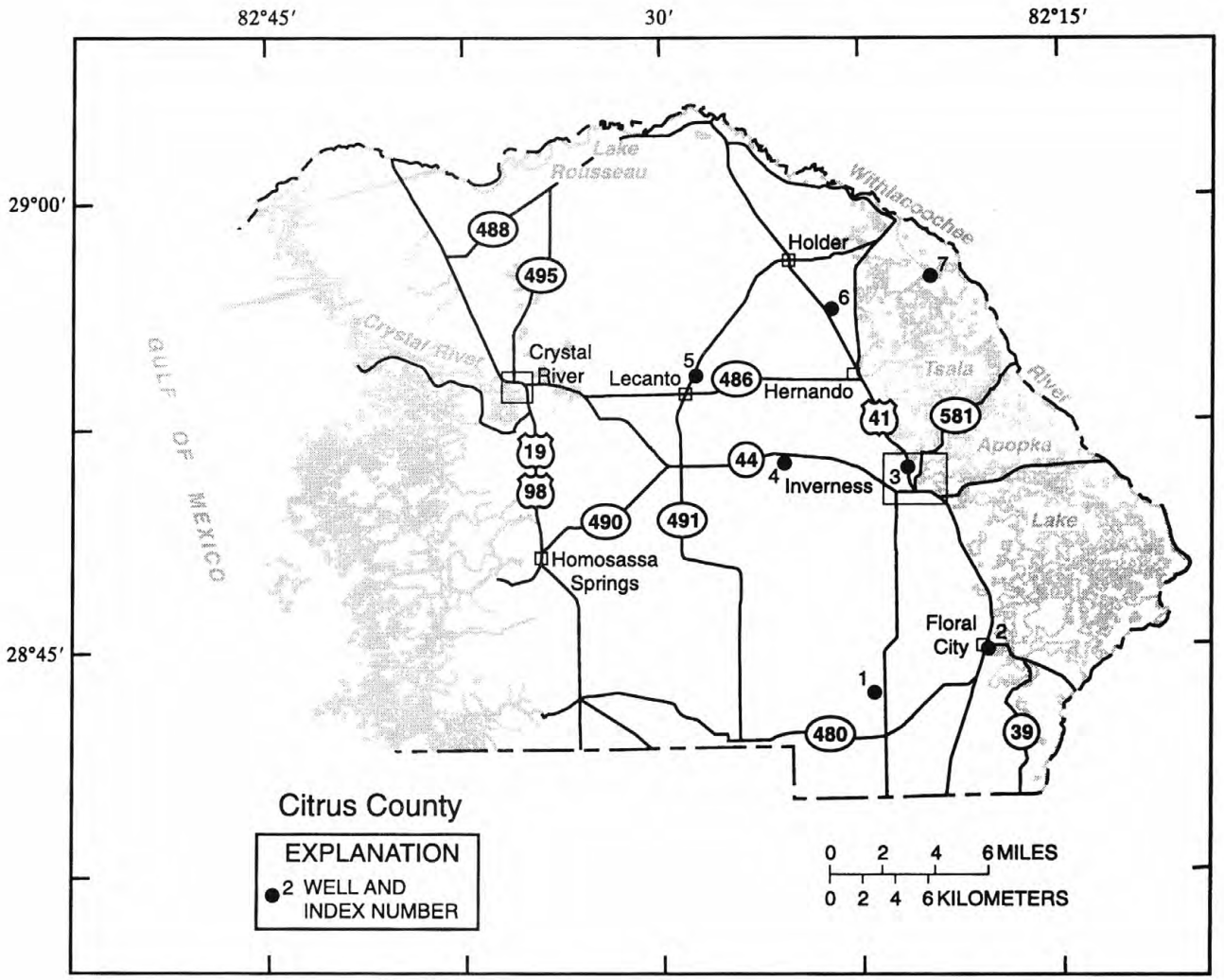

Figure 29.--Location of wells in Citrus County.

CITRUS COUNTY

WELL NUMBER.--284330082215401. Romp 109 Well near Floral City, FL.

LOCATION.--Lat 28°43'30", long 82°21'54", in SW¼SE¼SW¼ sec.24, T.20 S., R.19 E., Hydrologic Unit 03100208, 0.5 mi west of State Highway 581, 4.5 mi southwest of Floral City. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 260 ft, cased to 189 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 157.13 ft above sea level.Measuring point: Top of 6 in. flange, 2.67 ft above land-surface datum.

PERIOD OF RECORD.--May 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 23.20 ft above sea level, April 19, 1998; lowest, 13.14 ft above sea level, June 12, 2000, may have been lower during period of missing record.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.76	15.56	15.35	15.08	14.76	---	13.96	13.65	13.18	---	---	---
10	15.75	15.53	15.29	15.04	14.72	---	13.94	13.51	13.15	---	---	---
15	15.73	15.50	15.27	14.99	14.63	---	13.89	13.51	---	---	---	---
20	15.69	15.44	15.23	14.94	---	---	13.84	13.48	---	---	---	---
25	15.64	15.41	15.18	14.87	---	---	13.75	13.42	---	---	---	---
EOM	15.59	15.36	15.12	14.83	---	13.95	13.73	13.20	---	---	---	---
MAX	15.77	15.60	15.38	15.11	14.83	13.96	13.96	13.72	13.20	---	---	---

CAL YR 1999 MAX 18.77
WTR YR 2000 MAX 15.77

WELL NUMBER.--284508082174601. Ferris Packing Company Well at Floral City, FL.

LOCATION.--Lat 28°45'08", long 82°17'46", in NE¼NE¼NW¼ sec.15, T.20 S., R.20 E., Hydrologic Unit 03100208, on east side of U.S. Highway 41, in rear of packing house, 0.2 mi north of State Highway 48 in Floral City. Owner: Ferris Packing Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 8 in., depth 400 ft, cased to 200 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape or electric tape.

DATUM.--Elevation of land-surface datum is 70.43 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--March and May 1961, January 1964 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.32 ft above sea level, Aug. 23, 1965; lowest measured, 28.03 ft above sea level, June 13, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	32.29	FEB 16	31.11	MAY 17	29.05	AUG 01	28.98				
JAN 04	31.68	APR 12	30.03	JUN 13	28.03	SEP 12	30.00				

WATER YEAR 2000 LOWEST 28.03 JUN 13, 2000 HIGHEST 32.29 NOV 15, 1999

CITRUS COUNTY--Continued

WELL NUMBER.--285102082204001. DOT-41 Observation Well at Inverness, FL.

LOCATION.--Lat 28°51'02", long 82°20'40", in SW¼SW¼NE¼ sec.7, T.19 S., R.20 E., Hydrologic Unit 03100208, on east side of U.S. Highway 41, 0.4 mi north of intersection of U.S. Highway 41 and State Highway 581 in Inverness. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 18 in., depth 450 ft, cased to 290 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 41.56 ft above sea level. Measuring point: Top of recorder shelf, 2.07 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.80 ft above sea level, Oct. 14, 1982; lowest, 22.89 ft above sea level, June 17, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.23	26.86	26.53	25.99	25.46	25.12	24.48	23.88	23.06	23.46	24.96	25.42
10	27.21	26.89	26.43	26.00	25.45	25.00	24.37	23.82	22.91	23.61	25.07	25.40
15	27.21	26.92	26.30	25.73	25.38	24.92	24.42	23.69	22.95	23.86	25.17	25.41
20	27.09	26.76	26.27	25.92	25.28	24.90	24.24	23.53	22.93	24.10	25.28	25.41
25	26.97	26.70	26.13	25.75	25.22	24.71	24.22	23.39	23.08	24.46	25.40	25.46
EOM	26.96	26.49	26.09	25.57	25.17	24.66	23.98	23.16	23.32	24.73	25.41	25.42
MAX	27.26	27.08	26.53	26.08	25.58	25.19	24.58	23.97	23.32	24.73	25.46	25.51

CAL YR 1999 MAX 31.97
WTR YR 2000 MAX 27.26

WELL NUMBER.--285121082245401. ROMP 113 Replacement Well near Inverness, FL.

LOCATION.--Lat 28°51'21", long 82°24'54", in NE¼NW¼NW¼ sec.9, T.19 S., R.19 E., Hydrologic Unit 03100208, on south side of State Highway 44, 5.5 mi west of Inverness. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 150 ft, cased to 51 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 132.57 ft above sea level. Measuring point: Top of flange, 3.69 ft above land-surface datum.

PERIOD OF RECORD.--October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.80 ft above sea level, Apr. 19, 1998; lowest, 4.84 ft above sea level, June 11,12,14, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	5.28	5.13	4.90	5.38	6.06	6.33
10	---	---	---	---	---	---	5.20	5.06	4.86	5.43	6.06	6.39
15	---	---	---	---	---	---	5.13	5.03	4.85	5.43	6.19	6.39
20	---	---	---	---	---	---	5.18	4.98	4.98	5.67	6.27	6.49
25	---	---	---	---	---	5.21	5.18	4.96	5.00	5.82	6.27	6.54
EOM	---	---	---	---	---	5.28	5.19	4.93	5.14	5.95	6.24	6.51
MAX	---	---	---	---	---	5.28	5.30	5.18	5.14	5.95	6.27	6.55

CAL YR 1999 MAX 8.13
WTR YR 2000 MAX 6.55

CITRUS COUNTY--Continued

WELL NUMBER.--285414082284201. North Lecanto Well near Lecanto, FL.

LOCATION.--Lat 28°54'14", long 82°28'42", in SW¼NE¼NW¼ sec.22, T.18 S., R.18 E., Hydrologic Unit 03100207, 40 ft east of State Highway 491, and 3.8 mi north of Lecanto. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 335 ft, cased to 288 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 68.87 ft above sea level. Measuring point: Top of recorder shelf, 3.07 ft above land-surface datum.

PERIOD OF RECORD.--November 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.10 ft above sea level, Oct. 15, 1982; lowest, 3.01 ft above sea level, June 11, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.60	4.22	3.92	3.68	3.41	3.47	3.49	3.31	3.24	3.87	4.38	4.54
10	4.50	4.16	3.92	3.68	3.36	3.43	3.24	3.28	3.02	3.85	4.32	4.51
15	4.44	4.14	3.96	3.48	3.53	3.25	3.26	3.21	3.22	3.98	4.55	4.49
20	4.33	4.04	3.82	3.63	3.52	3.29	3.38	3.20	3.36	4.28	4.48	4.64
25	4.31	4.13	3.71	3.70	3.30	3.23	3.53	3.28	3.34	4.33	4.37	4.60
EOM	4.24	4.04	3.67	3.44	3.32	3.53	3.40	3.14	3.74	4.39	4.38	4.39
MAX	4.69	4.39	4.01	3.71	3.53	3.53	3.53	3.33	3.74	4.39	4.55	4.68

CAL YR 1999 MAX 5.04
WTR YR 2000 MAX 4.69

WELL NUMBER.--285608082233401. Camp Mining Well (CE-64) near Holder, FL.

LOCATION.--Lat 28°56'08", long 82°23'34", in SW¼NW¼SE¼ sec.10, T.18 S., R.19 E., Hydrologic Unit 03100208, in a field about 0.5 mi east of U.S. Highway 41, at a point 2.5 mi south of county road 491 in Holder. Owner: G.L. Robinson.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 14 in., depth 91 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 65.92 ft above sea level. Measuring point: Top of casing, 1.14 ft above land-surface datum.

PERIOD OF RECORD.--March 1961, December 1961 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.01 ft above sea level, Nov. 20, 1964; lowest measured, 12.04 ft above sea level, Apr. 13, 1982.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	17.84	FEB 17	17.18	MAY 17	14.95	AUG 01	15.90				
DEC 22	17.20	APR 06	14.42	JUN 13	14.47	SEP 11	16.29				

WATER YEAR 2000 LOWEST 14.42 APR 06, 2000 HIGHEST 17.84 OCT 27, 1999

CITRUS COUNTY--Continued

WELL NUMBER.--285720082201301. ROMP 116 Well near Tsala Apopka, FL.

LOCATION.--Lat 28°57'20", long 82°20'13", in NE¼SE¼NE¼ sec.32, T.18 S., R.20 E., Hydrologic Unit 03100208, 100 ft west of Tsala Apopka Outfall Canal at control structure S-353, and 2.3 mi northeast of Hernando. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 55 ft, cased to 39 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 41.96 ft above sea level. Measuring point: Top edge of flange on casing, 3.20 ft above land-surface datum.

PERIOD OF RECORD.--June 1974, September 1976 to March 1977 (bimonthly); April 1977 to September 2000 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 39.02 ft above sea level, Mar. 20, 21, 1998; lowest, 30.20 ft above sea level, June 10,11, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.00	32.51	31.72	31.49	31.48	---	30.89	30.58	30.28	31.34	31.78	31.87
10	32.45	32.22	31.65	31.50	---	---	30.81	30.51	30.20	31.48	31.64	31.79
15	32.21	32.05	31.73	31.39	---	---	30.93	30.44	30.54	31.88	32.10	31.54
20	32.14	31.90	31.73	31.35	---	---	30.74	30.37	30.69	31.93	31.96	31.87
25	32.11	31.95	31.64	31.56	---	---	30.68	30.36	30.77	32.21	32.04	31.80
EOM	31.97	31.81	31.55	31.58	---	---	30.65	30.35	31.41	31.95	31.72	31.61
MAX	32.45	32.61	31.80	31.58	31.58	---	30.93	30.65	31.41	32.21	32.13	31.88

CAL YR 1999 MAX 34.00
WTR YR 2000 MAX 32.61

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

CITRUS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
284101082184301	05-18-00	0840	84121801 21S20E04 OAK FOREST SUBMERSIBLE	27.56
	09-12-00	1046		29.05
284439082131401	05-17-00	1211	84421301 TRAILS END FISH CAMP WELL NR FLORAL CITY	36.29
	09-12-00	1212		38.36
284519082150701	05-17-00	1144	84521501 20S21E07 HOMER N FISHER	36.48
	09-12-00	1159		38.16
284609082163001	05-17-00	1120	DUVAL ISLAND WELL NR FLORAL CITY, FL	35.64
	09-12-00	1143		36.77
284752082202501	05-17-00	0901	84722001 19S20E31 HIGHLANDS VFD NR INVERNESS	14.41
	09-12-00	0815		16.42
284805082225701	05-18-00	0930	84822201 19S19E26 WSF-HOLDER MINE REC AREA	9.45
	09-12-00	0755		10.84
284844082282801	05-16-00	1244	84822801 19S18E22 WSF-PERRYMAN TRACT	5.10
	09-11-00	1126		6.42
284958082190401	05-17-00	1327	84921901 19S20E16 CITRUS 8 U S GEOL SURVEY	30.28
	09-12-00	1308		31.82
285026082174101	05-17-00	1335	85021701 19S20E15 CITRUS 9 U S GEOL SURVEY	33.69
	09-12-00	1316		34.97
285037082213801	05-17-00	1312	85022101 19S19E12 INVERNESS VILLAGE EASTW	15.51
	09-12-00	1359		17.54
285056082163001	05-17-00	1351	85021601 19S20E11 CITRUS 10 U S GEOL SURVEY	33.89
	09-12-00	1325		35.22
285105082135802	05-17-00	1405	USGS WELL 0.7MI.W OF WITH.R. ON SR 44.47FT N RD	33.46
	09-12-00	1333		34.26
285248082183201	05-17-00	1429	85221801 18S20E33 ELMER HEATH	34.07
	09-12-00	1424		35.93
285514082275402	05-16-00	1150	85522704 18S18E14 BEVERLY HILLS WELL 6-T	3.21
	09-11-00	1026		4.67
285612082294201	05-16-00	1140	85622901 18S18E04 PINE RIDGE NO 3	3.12
	09-11-00	1011		4.82
285812082360901	05-16-00	1520	85823601 17S17E29 CE 7 U S GEOL SURVEY	6.68
	09-11-00	1555		10.21
285833082233301	05-17-00	1544	85822301 17S19E34 CE 16	9.32
	09-11-00	1336		11.61
285930082283702	05-16-00	1050	85922803 17S18E22 CITRUS SPRINGS RECORDER	5.13
	09-11-00	0951		6.77

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

CITRUS COUNTY--Continued

STATION NUMBER	DATE	TIME		STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
285951082350901	05-16-00	1500	85923501	17S17E15 CE 6 U S GEOL SURVEY	14.57
	09-11-00	1540			18.69
290023082393601	05-16-00	1557	90023901	17S16E11 CE 89 U S GEOL SURVEY	5.51
	09-11-00	1620			12.60
290107082400501	05-16-00	1540	90124001	17S16E11 CE 88 U S GEOL SURVEY	-.10
	09-11-00	1611			4.46
290132082324201	05-16-00	1446	90123202	17S17E01 EMORY COWART HOUSE WELL	11.03
	09-11-00	1518			14.37
290216082292001	05-17-00	0703	90222901	16S18E33 CE 77 U S GEOL SURVEY	9.37
	09-11-00	1453			11.46

Note.--Negative figures indicate water level below sea level.

KEY TO SITE LOCATIONS ON FIGURE 30
CLAY COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	295615081394701	72
2	300656081463401	72
3	300834081421301	73
4	301018081415101	73

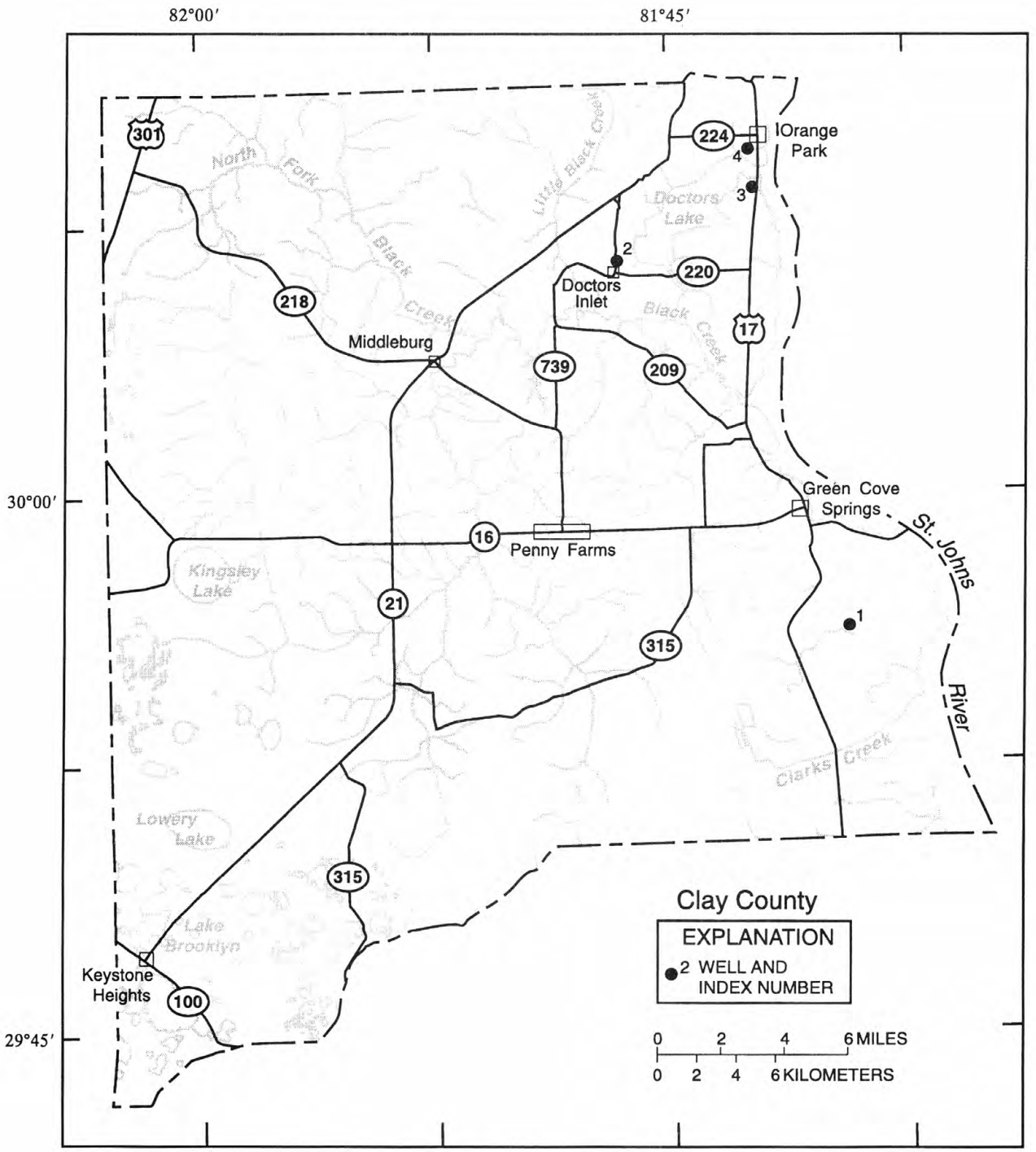

Figure 30.--Location of wells in Clay County.

CLAY COUNTY

WELL NUMBER.--295615081394701. Local Number C-36. J.P. Hall Well near Green Cove Springs, FL.

LOCATION.--Lat 29°56'15", long 81°39'47", in land grant 39, T.6 S., R.26 E., Hydrologic Unit 03080103, 25 ft north of County Road 226, 75 ft west of intersection of County Road 266 and County Road 209, and 2.5 mi south of Green Cove Springs. Owner: J.P. Hall & Son, Inc.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth and casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land surface datum is 17.94 ft above sea level. Measuring point: Top of 3 in. tee, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1970, October 1973 to September 1993 (semiannually); October 1993 to April 2000 (bimonthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.64 ft above sea level, Dec. 21, 1994; lowest measured, 28.44 ft above sea level, July 29, 1998.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	31.44	DEC 01	30.44	APR 07	31.44

WATER YEAR 2000 LOWEST 30.44 DEC 01, 1999 HIGHEST 31.44 OCT 06, 1999 APR 07, 2000

WELL NUMBER.--300656081463401. Local Number C-94. USGS Test Well near Orange Park, FL.

LOCATION.--Lat 30°06'56", long 81°46'34", in SW¼SE¼SW¼ sec.26, T.4 S., R.25 E., Hydrologic Unit 03080103, at St. Johns River Community College, 150 ft east of State Highway 224, 1.5 mi south of intersection of State Highways 224 and 21, and 5.0 mi southwest of Orange Park. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 8 in., depth 1,197 ft, cased to 391 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 46.22 ft above sea level. Measuring point: Top of 2.5 in. coupling, 1.29 ft above land-surface datum.

PERIOD OF RECORD.--February 1974 to April 1979 (quarterly); July 1979 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.59 ft above sea level, Feb. 28, 1983; lowest measured, 24.49 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	32.66	JAN 24	33.49	MAY 17	25.76	JUL 21	25.26	SEP 25	25.72		
NOV 22	32.30	FEB 22	32.72	22	24.78	AUG 28	26.43				
DEC 20	33.25	APR 26	28.65	JUN 27	24.49	SEP 19	29.76				

WATER YEAR 2000 LOWEST 24.49 JUN 27, 2000 HIGHEST 33.49 JAN 24, 2000

CLAY COUNTY--Continued

WELL NUMBER.--300834081421301. Local Number C-7. Hanson Well near Orange Park, FL.

LOCATION.--Lat 30°08'34", long 81°42'13", in land grant 44, T.4 S., R.26 E., Hydrologic Unit 03080103, 350 ft north of Creighton Road, 500 ft west of U.S. Highway 17, and 1.5 mi south of Orange Park. Owner: Mr. Peacock.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 550 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 3.88 ft above sea level. Measuring point: Top of 3 in. cross, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.08 ft above sea level, Mar. 24, 1983; lowest measured, 15.88 ft above sea level, July 25, 1996.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03	26.38	DEC 20	25.88	FEB 22	25.38	APR 25	20.88	JUN 27	16.88	AUG 28	17.88
22	24.88	JAN 24	25.88	MAR 24	24.38	MAY 22	16.88	JUL 21	17.38	SEP 25	23.88

WATER YEAR 2000 LOWEST 16.88 MAY 22, 2000 JUN 27, 2000 HIGHEST 26.38 NOV 03, 1999

WELL NUMBER.--301018081415101. Local Number C-4. Hellmuth Well at Orange Park, FL.

LOCATION.--Lat 30°10'18", long 81°41'51", in land grant 41, T.4 S., R.26 E., Hydrologic Unit 03080103, 250 ft west of 1454 River Road, 0.25 mi east of U.S. Highway 17, and 0.7 mi northeast of Orange Park. Owner: Mr. Hellmuth.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 530 ft, cased to 350 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land-surface datum is 11.78 ft above sea level. Measuring point: Top of 4 in. elbow, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1958, June 1971, May 1973 to September 1991 (semiannually) incomplete; April 1992 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.68 ft above sea level, Nov. 7, 1958; lowest measured, 20.28 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	28.78	DEC 20	29.28	FEB 22	28.78	APR 25	24.28	JUN 27	20.28	AUG 28	21.78

WATER YEAR 2000 LOWEST 20.28 JUN 27, 2000 HIGHEST 29.28 DEC 20, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

CLAY COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
294728082010901	05-15-00	1005	C-0442	76.35
	09-14-00	0610		76.66
294807082020903	05-15-00	1025	9482028 WELL AT KEYSTONE HEIGHTS,FL	77.55
	09-14-00	0640		77.70
294911081572601	05-15-00	1050	C-0453 GOLD HEAD	74.45
	09-14-00	0715		75.03
295016081433501	05-15-00	0855	C-0123 SUNGARDEN TWR OCALA	62.34
	09-12-00	1335		63.80
295835081515001	05-15-00	1145	C-17	65.07
	09-14-00	0835		65.83
295851081555301	05-15-00	1130	C-0128 PENNY FARMS TWR	64.75
	09-14-00	0810		65.39
300450081482801	05-17-00	0820	C-18 MUIR WELL NEAR DOCTORS INLET,FL	38.50
	09-18-00	0950		41.00
300649081485901	05-17-00	0840	C-5 JOHN HUNTLEY WELL NEAR MIDDLEBURG,FL	31.82
	09-14-00	0810		34.72
300850081552001	05-16-00	1400	C-29	53.50
	09-19-00	1200		53.00

KEY TO SITE LOCATIONS ON FIGURE 31
DUVAL COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number	Index number	Site number	Page number
1	300622081284701	78	21	302013081353801	99
2	300820081354001	79	22	302015081384501	100
3	301157081374301	80	23	302022081393501	101
4	301422081541201	81	24	302052081323201	102
4	301422081541202	81	25	302130081411802	102
4	301422081541203	82	26	302159081235601	103
5	301522081331301	82	27	302227081435001	104
6	301537081441901	83	28	302236081401501	105
7	301551081415701	84	29	302301081295001	106
8	301604081361501	85	29	302301081295002	106
9	301639081330802	86	30	302304081383202	107
10	301648081431801	87	29	302307081293801	107
11	301710081323601	88	31	302339081254702	108
11	301710081323602	88	32	302416081522601	109
11	301710081323603	89	32	302416081522602	109
12	301725081584501	89	33	302502081330701	110
13	301740081361001	90	33	302503081332001	111
14	301743081304701	91	33	302505081331001	112
13	301743081362301	92	33	302511081331201	113
13	301744081363301	93	33	302519081331501	114
13	301752081360501	94	34	302538081392501	115
15	301817081374901	95	35	302550081331501	115
15	301817081374902	95	36	302557081253101	116
16	301844081403801	96	37	302608081354901	117
17	301846081350901	96	37	302608081354902	117
18	301852081234201	97	37	302608081354903	118
19	301957081342301	97	38	302724081244801	119
20	302007081353201	98	39	302801081375101	120

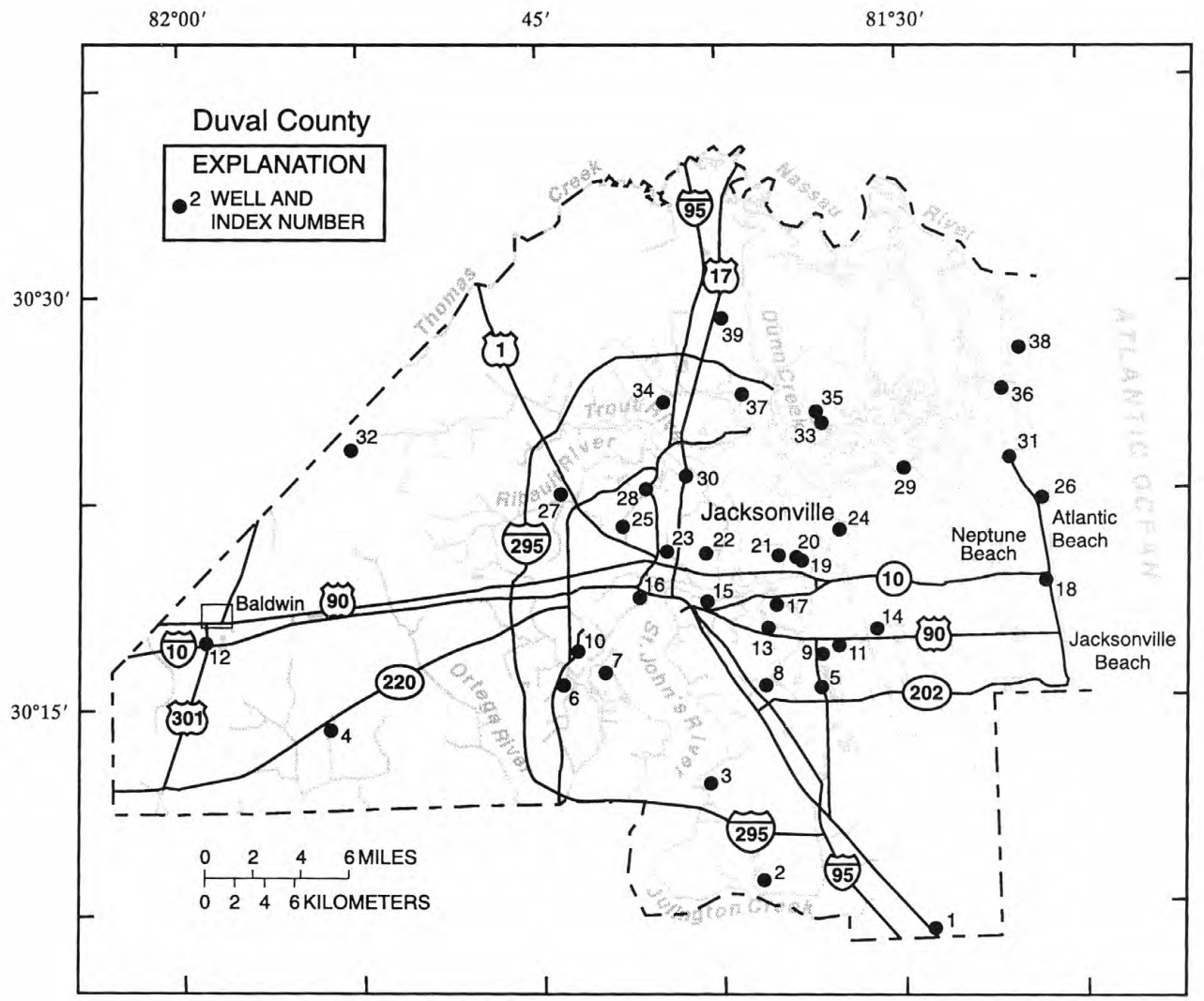

Figure 31.--Location of wells in Duval County.

DUVAL COUNTY

WELL NUMBER.--300622081284701. Local Number D-909. Dee Dot Ranch Well at Jacksonville, FL.

LOCATION.--Lat 30°06'22", long 81°28'47", in land grant 48, T.4 S., R.28 E., Hydrologic Unit 03080103, 300 ft northeast of U.S. Highway 1, 0.10 mi north of Duval-St. Johns County line in Jacksonville. Owner: Dee Dot Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 4 in., depth 500 ft, casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 20 ft above sea level, from topographic map. Measuring point: Top of 4 in. cross pipe, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to September 1983 (semiannually); October 1990 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.10 ft above land-surface datum, Jan. 27, 1995; lowest measured, 9.90 ft above land-surface datum, July 25, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-78, 1990 to current year (quarterly).

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 26...	1100	-14.90	773	--	23.0	--	--	--	--
JAN 13...	1315	-15.00	775	--	22.0	--	--	--	--
APR 20...	1300	-13.30	772	7.3	24.0	<5	380	92.0	34.0
JUL 25...	1300	-9.90	774	--	23.5	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT 26...	--	--	--	--	19.0	--	--	--	--
JAN 13...	--	--	--	--	19.0	--	--	--	--
APR 20...	15.0	2.6	134	240	20.0	.8	23.0	547	4800
JUL 25...	--	--	--	--	20.0	--	--	--	--

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--300820081354001. Local Number D-296. Hood Landing Well at Mandarin, FL.

LOCATION.--Lat 30°08'20", long 81°35'40", in land grant 43, T.4 S., R.27 E., Hydrologic Unit 03080103, 50 ft east of Hood Landing Road, 150 ft south of Julington Creek Road. Owner: Mrs. Peoples.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, private, domestic, artesian well, diameter 3 in., depth 487 ft, casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage.

DATUM.--Land-surface datum is 20 ft above sea level, from topographic map. Measuring point: Top of 3 in. reducer, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--November 1961 to May 1976 (annually), May 1977 to September 1985 (semiannually); May 1986 to September 1990 (bimonthly), October 1990 to September 1993 (quarterly), October 1993 to September 2000 (semiannually), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.20 ft above land-surface datum, May 13, 1966; lowest measured, 8.20 ft above land-surface datum, May 13, 1999.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1970, 1972-79, 1983 to current year (quarterly), incomplete.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 26...	1040	662	--	22.0	--	--	--	--	--
JAN 10...	1145	675	--	22.0	--	--	--	--	--
APR 20...	1230	640	7.5	22.0	<5	290	55.0	35.0	15.0
JUL 25...	1100	623	--	22.0	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT 26...	--	--	--	18.0	--	--	--	--
JAN 10...	--	--	--	18.0	--	--	--	--
APR 20...	3.0	117	180	18.0	.7	18.0	430	4500
JUL 25...	--	--	--	17.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301157081374301. Local Number D-538. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°11'57", long 81°37'43", in land grant 40, T.3 S., R.27 E., Hydrologic Unit 03080103, located in Beauclerc Gardens pumping station, 3054 Shady Drive, 50 ft south of station entrance, in the Beauclerc Gardens area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,000 ft, cased to 484 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1983 to current year (quarterly).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT 26...	1000	903	--	28.0	--	--	--	--	--
JAN 10...	1100	894	--	26.0	--	--	--	--	--
APR 20...	1115	1070	7.2	28.0	<5	480	110	47.0	25.0
JUL 25...	1130	915	--	28.0	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT 26...	--	--	--	65.0	--	--	--	--
JAN 10...	--	--	--	65.0	--	--	--	--
APR 20...	3.2	121	300	81.0	.6	20.0	723	7100
JUL 25...	--	--	--	68.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301422081541201. Local Number DS-226. USGS Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¼SE¼NE¼ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 250 ft south of State Highway 228 (Normandy Boulevard), 0.8 mi west of main gate NAS Cecil Field in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn Formation of the Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 2 in., depth 210 ft, cased to 210 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 80 ft above sea level, from topographic map. Measuring point: Top of 2 in. PVC casing, at land-surface datum.

PERIOD OF RECORD.--January 1976, May 1977, February 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.72 ft below land-surface datum, Aug. 29, 1995; lowest measured, 12.15 ft below land-surface datum, Nov. 29, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	5.12	DEC 20	6.44	FEB 22	6.42	APR 25	7.85	JUN 27	10.00	AUG 28	5.32

WATER YEAR 2000 HIGHEST 5.12 OCT 25, 1999 LOWEST 10.00 JUN 27, 2000

WELL NUMBER.--301422081541202. Local Number DS-227. USGS Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¼SE¼NE¼ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 200 ft south of State Highway 228 (Normandy Boulevard), 0.8 mi west of main gate NAS Cecil Field in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Hawthorn Formation of the Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 2 in., depth 401 ft, cased to 396 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 80 ft above sea level, from topographic map. Measuring point: Top of 2 in. PVC casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--January 1976, March to May 1977, February 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.70 ft below land-surface datum, May 21, 1984; lowest measured, 37.93 ft below land-surface datum, June 27, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	34.02	DEC 20	33.47	FEB 22	33.42	APR 25	34.73	JUN 27	37.93	AUG 28	37.11

WATER YEAR 2000 HIGHEST 33.42 FEB 22, 2000 LOWEST 37.93 JUN 27, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--301422081541203. Local Number DS-238. USGS Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¼SE¼NE¼ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 220 ft south of State Highway 228 (Normandy Boulevard), 0.8 mi west of main gate NAS Cecil Field in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Limestone aquifer of the Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 2 in., depth 101 ft, cased to 82 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 80 ft above sea level, from topographic map. Measuring point: Top of 2 in. casing, at land-surface datum.

PERIOD OF RECORD.--March 1976 to May 1977, February 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.57 ft below land-surface datum, Feb. 23, 1998; lowest measured, 9.72 ft below land-surface datum, Nov. 29, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.29	DEC 20	5.63	FEB 22	5.59	APR 25	7.00	JUN 27	9.29	AUG 28	5.49

WATER YEAR 2000 HIGHEST 4.29 OCT 25, 1999 LOWEST 9.29 JUN 27, 2000

WELL NUMBER.--301522081331301. Local Number D-291. Humphrey's Mining Company Well at Jacksonville, FL.

LOCATION.--Lat 30°15'22", long 81°33'13", in NW¼NE¼SW¼ sec.12, T.3 S., R.27 E., Hydrologic Unit 03080103, 200 ft east of State Highway 115 (Southside Boulevard), and 2.2 mi south of U.S. Highway 90 (Beach Boulevard) in Jacksonville. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 1,218 ft, cased to 1,009 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 53.06 ft above sea level. Measuring point: Top of 6 in. casing, 3.22 ft above land-surface datum.

REMARKS.--Well originally drilled to 1,246 ft in 1957, backplugged to 1,218 ft in 1999.

PERIOD OF RECORD.--March 1961, February 1973 to December 1975, February 1976 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.71 ft above sea level, Mar. 1, 1961; lowest measured, 27.74 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	34.34	DEC 27	35.29	FEB 22	34.30	APR 25	31.68	JUN 27	27.74	AUG 28	29.30
NOV 22	34.38	JAN 25	35.32	MAR 27	32.73	MAY 22	28.58	JUL 24	28.74	SEP 26	31.93

WATER YEAR 2000 LOWEST 27.74 JUN 27, 2000 HIGHEST 35.32 JAN 25, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--301537081441901. Local Number D-75. City of Jacksonville Confederate Point Well at Jacksonville, FL.

LOCATION.--Lat 30°15'37", long 81°44'19", in land grant 42, T.3 S., R.26 E., Hydrologic Unit 03080103, at water plant lot, 200 ft north of west end of Swamp Fox Road, in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 12 in., depth 1,302 ft, cased to 970 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 15.3 ft above sea level, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.50 ft above land-surface datum, Mar. 23, 1998; lowest measured, 15.50 ft above land-surface datum, July 21, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
26...	0915	-20.20	367	--	25.0	--	--	--	--
NOV									
22...	1140	-20.50	--	--	--	--	--	--	--
DEC									
20...	1150	-21.00	--	--	--	--	--	--	--
JAN									
11...	1130	-21.30	360	--	24.0	--	--	--	--
FEB									
22...	1025	-21.50	--	--	--	--	--	--	--
MAR									
24...	1225	-21.00	--	--	--	--	--	--	--
APR									
20...	1015	-19.30	365	7.5	25.0	<5	170	40.0	15.0
MAY									
22...	1045	-17.00	--	--	--	--	--	--	--
JUN									
27...	1035	-16.50	--	--	--	--	--	--	--
JUL									
21...	0745	-15.50	--	--	--	--	--	--	--
25...	1020	--	366	--	24.0	--	--	--	--
AUG									
28...	1100	-17.50	--	--	--	--	--	--	--
SEP									
25...	1035	-19.00	--	--	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT									
26...	--	--	--	--	7.3	--	--	--	--
JAN									
11...	--	--	--	--	7.2	--	--	--	--
APR									
20...	6.6	1.9	110	64.0	7.6	.4	17.0	228	3200
JUL									
25...	--	--	--	--	6.6	--	--	--	--

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--301551081415701. Local Number D-129. K.A. Merrill Well at Jacksonville, FL.

LOCATION.--Lat 30°15'51", long 81°41'57", in land grant 42, T.3 S., R.26 E., Hydrologic Unit 03080103, 44 ft north of Merrill driveway, and 45 ft east of Ortega Boulevard in Jacksonville. Owner: K.A. Merrill.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 600 ft, cased to 470 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 8.63 ft above sea level. Measuring point: 0.5 in. corporation cock, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--July 1940 to April 1942, January to April 1944, August 1945 to September 1978 (semiannually); February 1979 to July 1980 (bimonthly); August 1980 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.93 ft above sea level, July 9, 1940; lowest measured, 17.33 ft above sea level, May 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	26.83	DEC 20	26.83	FEB 22	26.33	APR 25	21.83	JUN 27	18.83	AUG 28	20.83
NOV 22	26.33	JAN 24	26.33	MAR 24	25.83	MAY 22	17.33	JUL 21	18.33	SEP 25	24.83

WATER YEAR 2000 LOWEST 17.33 MAY 22, 2000 HIGHEST 26.83 OCT 25, 1999 DEC 20, 1999

DUVAL COUNTY--Continued

WELL NUMBER.--301604081361501. Local Number D-450. City of Jacksonville Santa Monica Well at Jacksonville, FL.

LOCATION.--Lat 30°16'08", long 81°36'28", in land grant 56, T.3 S., R.27 E., Hydrologic Unit 03080103, at water treatment plant, 75 ft east of the end of J-Ray Circle, 1 block east of Interstate Highway 95. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 12 to 8 in., depth 1,304 ft, cased to 1,100 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 22 ft above sea level, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.10 ft above land-surface datum, Mar. 24, 1998; lowest measured, 8.10 ft above land-surface datum, July 26, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
21...	1330	-13.50	718	--	24.0	--	--	--	--
NOV									
22...	1020	-13.70	--	--	--	--	--	--	--
DEC									
27...	1300	-14.50	--	--	--	--	--	--	--
JAN									
11...	1015	-14.50	712	--	23.0	--	--	--	--
FEB									
23...	1240	-13.90	--	--	--	--	--	--	--
MAR									
27...	1300	-12.40	--	--	--	--	--	--	--
APR									
20...	1600	-11.70	694	7.3	25.0	<5	310	74.0	30.0
MAY									
22...	1300	-8.30	--	--	--	--	--	--	--
JUN									
26...	1420	-8.60	--	--	--	--	--	--	--
JUL									
26...	0915	-8.10	703	--	24.0	--	--	--	--
AUG									
29...	1300	-8.70	--	--	--	--	--	--	--
SEP									
25...	1035	-11.40	--	--	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT									
21...	--	--	--	--	48.0	--	--	--	--
JAN									
11...	--	--	--	--	44.0	--	--	--	--
APR									
20...	18.0	2.2	146	150	43.0	.7	23.0	485	3400
JUL									
26...	--	--	--	--	43.0	--	--	--	--

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--301639081330802. Local Number D-1155. City of Jacksonville Southside Estates Well at Jacksonville, FL.

LOCATION.--Lat 30°16'39", long 81°33'08", in SW¼NE¼NW¼, sec. 1, T.3 S., R.27 E., Hydrologic Unit 03080103, 40 ft south of Anders Boulevard, 0.35 mi east of State Highway 115 (Southside Boulevard), and 0.60 mi south of U.S. Highway 90 (Beach Boulevard). Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 10 in., depth 1,170 ft, cased to 1,080 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 50 ft above sea level, from topographic map. Measuring point: Top of 2 in. casing, 1.76 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.24 ft below land-surface datum, Apr. 21, 1993; lowest measured, 23.47 ft below land-surface datum, June 27, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
26...	1230	17.23	1040	--	26.0	--	--	--	--
NOV									
22...	1000	17.20	--	--	--	--	--	--	--
DEC									
27...	1340	16.24	--	--	--	--	--	--	--
JAN									
13...	1230	16.57	1060	--	27.0	--	--	--	--
FEB									
22...	1320	17.23	--	--	--	--	--	--	--
MAR									
27...	1345	18.47	--	--	--	--	--	--	--
APR									
25...	1345	20.59	1120	7.2	27.0	<5	430	100	42.0
MAY									
22...	1345	22.62	--	--	--	--	--	--	--
JUN									
27...	1015	23.47	--	--	--	--	--	--	--
JUL									
27...	1250	22.12	--	--	--	--	--	--	--
AUG									
28...	1410	22.04	--	--	--	--	--	--	--
SEP									
26...	1100	19.43	--	--	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT									
26...	--	--	--	--	140	--	--	--	--
JAN									
13...	--	--	--	--	140	--	--	--	--
APR									
25...	42.0	2.7	138	180	160	.6	23.0	741	4900

DUVAL COUNTY--Continued

WELL NUMBER.--301648081431801. Local Number D-103. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°16'48", long 81°43'18", in land grant 59, T.2 S., R.26 E., Hydrologic Unit 03080103, located in Lakeshore pumping station at intersection of Hamilton and Appleton Streets, 0.1 mi south of intersection of State Highway 128 (San Juan Avenue) and U.S. Highway 17 (Roosevelt Boulevard) in Lakeshore area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,332 ft, casing length unknown.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-76, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT									
20...	1030	470	--	27.5	--	--	--	--	--
JAN									
10...	1015	472	--	27.0	--	--	--	--	--
APR									
19...	1130	470	7.7	26.5	<5	220	49.0	22.0	9.6
AUG									
29...	1100	474	--	27.0	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT								
20...	--	--	--	9.1	--	--	--	--
JAN								
10...	--	--	--	9.3	--	--	--	--
APR								
19...	2.3	120	100	10.0	.6	19.0	294	3500
AUG								
29...	--	--	--	9.4	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301710081323601. Local Number DS-520. St. Johns River Water Management District Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°17'10", long 81°32'36", in NE¼NE¼SE¼ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of U.S. Highway 90 (Beach Boulevard), and 0.9 mi east of State Highway 115 (Southside Boulevard), next to U.S. Forest Service Southside Lookout Tower. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand aquifer of the Tertiary System, Geologic Unit 122 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 2 in., depth 60 ft, cased to 40 ft.

INSTRUMENTATION.--Water-stage recorder--60 minute interval.

DATUM.--Land-surface datum is 54.65 ft above sea level. Measuring point: Top of 2 in. casing at shelter floor, 2.67 ft above land-surface datum.

PERIOD OF RECORD.--February 1989 to June 1991 (bimonthly); June 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 46.05 ft above sea level, Oct. 8, 9, 1996; lowest water level measured, 38.31 ft above sea level, Aug. 3, 1989.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.58	43.51	42.70	42.29	42.39	42.05	41.71	---	---	41.23	41.64	42.02
10	43.63	43.37	42.62	42.24	42.33	41.98	41.63	---	---	41.31	41.77	45.49
15	43.61	43.23	42.53	42.18	42.25	41.92	41.63	---	---	41.38	41.85	44.95
20	43.98	43.11	42.49	42.12	42.24	41.89	41.58	---	---	41.40	41.87	44.69
25	43.93	42.99	42.44	42.27	42.12	41.85	---	---	40.54	41.49	41.94	44.38
EOM	43.64	42.91	42.36	42.38	42.07	41.79	---	---	41.04	41.56	41.97	44.27
MAX	44.01	43.63	42.87	42.38	42.40	42.07	41.77	---	41.04	41.56	41.97	45.50

CAL YR 1999 MAX 44.01
WTR YR 2000 MAX 45.50

WELL NUMBER.--301710081323602. Local Number DS-521. St. Johns River Water Management District Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°17'10", long 81°32'36", in NE¼NE¼SE¼ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of U.S. Highway 90 (Beach Boulevard), and 0.9 mi east of State Highway 115 (Southside Boulevard), next to U.S. Forest Service Southside Lookout Tower. Owner: St. Johns River Water Management District.

AQUIFER.--Limestone aquifer of the Miocene Age, Geologic Unit 122 LMSN.

WELL CHARACTERISTICS.--Drilled, unused, nonartesian well, diameter 4 in., depth 120 ft, cased to 100 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 55.10 ft above sea level. Measuring point: Top of 4 in. casing at shelter floor, 2.22 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 44.40 ft above sea level, Aug. 6-13, 1991; lowest, 35.19 ft above sea level, Sept. 7, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.95	39.02	38.46	38.27	38.48	38.12	37.72	36.91	35.66	---	---	37.15
10	39.02	38.90	38.49	38.31	38.40	37.81	37.37	36.58	---	---	---	39.21
15	38.78	38.80	38.50	38.18	38.47	37.88	37.45	36.28	---	---	37.06	39.32
20	39.30	38.61	38.52	38.18	38.41	38.01	37.26	36.07	---	---	36.91	39.59
25	39.30	38.68	38.51	38.28	38.28	37.88	37.01	36.00	---	---	37.02	39.43
EOM	39.10	38.58	38.22	38.48	38.24	37.85	37.11	35.76	---	---	37.11	39.43
MAX	39.39	39.14	38.57	38.48	38.52	38.27	37.84	37.07	35.81	---	37.11	39.59

CAL YR 1999 MAX 39.39
WTR YR 2000 MAX 39.59

DUVAL COUNTY--Continued

WELL NUMBER.--301710081323603. Local Number D-3824. St. Johns River Water Management District Observation Well at Jacksonville, FL.

LOCATION.--Lat 30°17'10", long 81°32'36", in NE¼NE¼SE¼ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of U.S. Highway 90 (Beach Boulevard), and 0.9 mi east of State Highway 115 (Southside Boulevard), next to U.S. Forest Service Southside Lookout Tower. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 740 ft, cased to 490 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 54.97 ft above sea level. Measuring point: Top of 6 in. casing at shelter floor, 2.37 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 35.68 ft above sea level, Jan. 19, 1995; lowest, 14.41 ft above sea level, June 21, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.28	25.66	25.09	25.82	27.15	24.92	23.01	---	---	18.37	19.41	20.76
10	25.04	24.89	25.86	26.18	26.38	23.55	21.70	---	---	17.59	18.16	22.89
15	24.22	24.91	25.47	25.67	26.29	22.62	---	---	---	16.91	18.20	22.58
20	25.41	24.97	26.65	26.31	25.65	23.58	---	---	---	16.03	17.42	23.53
25	25.61	25.66	26.46	27.14	25.09	23.29	---	---	16.31	18.62	17.57	23.59
EOM	24.95	25.47	26.01	27.62	25.40	23.78	---	---	18.37	18.57	19.58	23.40
MAX	25.78	26.23	26.82	27.65	27.76	25.50	23.81	---	18.37	19.49	19.58	23.90

CAL YR 1999 MAX 30.18
WTR YR 2000 MAX 27.76

WELL NUMBER.--301725081584501. Local Number D-254. Seaboard Coastline Well at Baldwin, FL.

LOCATION.--Lat 30°17'25", long 81°58'45", in NE¼SW¼SW¼ sec.26, T.2 S., R.23 E., Hydrologic Unit 03080103, 0.4 mi north of Interstate Highway 10, and 0.5 mi east of U.S. Highway 301, on property of Seaboard Railroad in Baldwin. Owner: Seaboard Coastline Railroad.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 8 in., depth 750 ft, cased to 433 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 85 ft above sea level, from topographic map. Measuring point: 1.25 in. tap in pump base, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1961 to May 1962, May 1964 to September 1978 (annually); February 1979 to March 1983 (bimonthly); May 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.25 ft below land-surface datum, Jan. 11, 1961; lowest measured, 37.38 ft below land-surface datum, Sept. 26, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	32.81	JAN 24	34.02	APR 25	33.05	JUN 27	35.76	SEP 15	34.73		
NOV 22	32.79	FEB 22	32.51	MAY 16	34.07	JUL 21	35.69	25	34.41		
DEC 20	34.14	MAR 24	32.89	22	34.47	AUG 28	35.50				

WATER YEAR 2000 HIGHEST 32.51 FEB 22, 2000 LOWEST 35.76 JUN 27, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--301740081361001. Local Number D-275. City of Jacksonville Well at Jacksonville, Fl..

LOCATION.--Lat 30°17'40", long 81°36'10", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03030103, located 300 ft west and 0.15 mi north of intersection of U.S. Highway 90 (Beach Boulevard) and University Boulevard in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,234 ft, cased to 515 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-80, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT									
20...	1105	1080	--	27.0	--	--	--	--	--
NOV									
29...	1100	880	--	26.0	--	--	--	--	--
DEC									
28...	1315	967	--	24.0	--	--	--	--	--
JAN									
11...	1200	955	--	25.0	--	--	--	--	--
FEB									
23...	1000	1120	--	26.0	--	--	--	--	--
MAR									
28...	0950	1150	--	25.0	--	--	--	--	--
APR									
24...	0820	1180	7.2	26.5	<5	410	99.0	39.0	65.0
MAY									
31...	0930	1200	--	27.0	--	--	--	--	--
JUN									
27...	1230	1180	--	29.5	--	--	--	--	--
JUL									
20...	1330	1160	--	29.0	--	--	--	--	--
AUG									
29...	1240	1010	--	29.0	--	--	--	--	--
SEP									
25...	1025	805	--	28.5	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT								
20...	--	--	--	170	--	--	--	--
NOV								
29...	--	--	--	120	--	--	--	--
DEC								
28...	--	--	--	160	--	--	--	--
JAN								
11...	--	--	--	160	--	--	--	--
FEB								
23...	--	--	--	180	--	--	--	--
MAR								
28...	--	--	--	190	--	--	--	--
APR								
24...	2.5	140	150	200	.6	25.0	696	3800
MAY								
31...	--	--	--	210	--	--	--	--
JUN								
27...	--	--	--	200	--	--	--	--
JUL								
20...	--	--	--	190	--	--	--	--
AUG								
29...	--	--	--	170	--	--	--	--
SEP								
25...	--	--	--	160	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301743081304701. Local Number D-224. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'43", long 81°30'47", in SW¼SW¼SE¼ sec. 29, T.2 S., R.28 E., Hydrologic Unit 03080103, located at Sandalwood High School at intersection of Saints and John Prom Roads, 0.15 mi west of Oakridge Pumping Station in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,179 ft, cased to 423 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT									
22...	1000	618	--	25.5	--	--	--	--	--
JAN									
13...	1030	905	--	25.0	--	--	--	--	--
APR									
25...	1030	905	7.1	24.5	<5	360	84.0	35.0	39.0
JUL									
20...	1200	883	--	26.0	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT								
22...	--	--	--	98.0	--	--	--	--
JAN								
13...	--	--	--	110	--	--	--	--
APR								
25...	2.3	141	150	110	.7	24.0	591	3400
JUL								
20...	--	--	--	100	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301743081362301. Local Number D-225. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'43", long 81°36'23", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, located in pumphouse at Love Grove Water Plant at the end of Wilman Way, 600 ft north of Beach Boulevard, 0.4 mi east of intersection of Wilman Way and Spring Glen Road in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,277 ft, cased to 547 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-75, 1978-80, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
OCT				
22...	1415	1040	26.5	150
NOV				
29...	1115	1010	25.5	140
DEC				
28...	1345	1110	23.0	170
JAN				
13...	1010	1020	24.0	150
MAR				
28...	1300	1090	26.0	170
MAY				
31...	0920	1150	28.0	190
JUN				
27...	1210	852	29.0	84.0
AUG				
29...	1130	1050	28.0	160
SEP				
26...	1230	1110	27.5	180

DUVAL COUNTY--Continued

WELL NUMBER.--301744081363301. Local Number D-2193. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'44", long 81°36'33", in NE¼SE¼NW¼ sec. 52, T.2 S., R.27 E., Hydrologic Unit 03080103, located in pumphouse 85 ft south of Wilman Way, 165 ft northeast of intersection of Beach Boulevard and Spring Glen Road in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,304 ft, cased to 550 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
NOV									
29...	1110	1140	--	26.5	--	--	--	--	--
DEC									
28...	1340	1140	--	26.0	--	--	--	--	--
JAN									
13...	1000	1080	--	26.0	--	--	--	--	--
FEB									
24...	1355	1020	--	25.0	--	--	--	--	--
MAR									
28...	1015	1010	--	24.0	--	--	--	--	--
APR									
24...	0845	997	7.1	27.0	<5	380	91.0	36.0	47.0
MAY									
31...	0915	951	--	28.0	--	--	--	--	--
JUN									
27...	1200	955	--	29.0	--	--	--	--	--
JUL									
26...	0900	952	--	27.0	--	--	--	--	--
AUG									
29...	1120	978	--	28.0	--	--	--	--	--
SEP									
26...	1215	1060	--	27.0	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
NOV								
29...	--	--	--	190	--	--	--	--
DEC								
28...	--	--	--	180	--	--	--	--
JAN								
13...	--	--	--	170	--	--	--	--
FEB								
24...	--	--	--	140	--	--	--	--
MAR								
28...	--	--	--	150	--	--	--	--
APR								
24...	2.3	139	140	140	.6	24.0	601	3600
MAY								
31...	--	--	--	130	--	--	--	--
JUN								
27...	--	--	--	130	--	--	--	--
JUL								
26...	--	--	--	130	--	--	--	--
AUG								
29...	--	--	--	140	--	--	--	--
SEP								
26...	--	--	--	160	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301752081360501. Local Number D-649. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°17'52", long 81°36'05", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, located 50 ft east and 150 ft north of Hart Bridge on-ramp on University Boulevard, and 0.40 mi north of intersection of Beach and University Boulevards in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,005 ft, cased to 534 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1975, 1979, 1982 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT									
20...	1120	664	--	27.0	--	--	--	--	--
NOV									
29...	1130	642	--	25.5	--	--	--	--	--
DEC									
28...	1320	625	--	23.0	--	--	--	--	--
JAN									
11...	1300	677	--	25.5	--	--	--	--	--
FEB									
23...	1010	665	--	25.0	--	--	--	--	--
MAR									
28...	1000	654	--	24.0	--	--	--	--	--
APR									
19...	1445	667	7.4	28.5	<5	300	73.0	28.0	17.0
MAY									
31...	0940	665	--	26.5	--	--	--	--	--
JUN									
27...	1130	658	--	27.0	--	--	--	--	--
JUL									
26...	1410	668	--	27.0	--	--	--	--	--
SEP									
25...	1015	677	--	30.0	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT								
20...	--	--	--	32.0	--	--	--	--
NOV								
29...	--	--	--	32.0	--	--	--	--
DEC								
28...	--	--	--	35.0	--	--	--	--
JAN								
11...	--	--	--	35.0	--	--	--	--
FEB								
23...	--	--	--	31.0	--	--	--	--
MAR								
28...	--	--	--	31.0	--	--	--	--
APR								
19...	2.1	139	160	32.0	.7	23.0	494	3500
MAY								
31...	--	--	--	29.0	--	--	--	--
JUN								
27...	--	--	--	29.0	--	--	--	--
JUL								
26...	--	--	--	31.0	--	--	--	--
SEP								
25...	--	--	--	36.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--301817081374901. Local Number D-425 Top Zone. USGS Well at Jacksonville, FL.

LOCATION.--Lat 30°18'17", long 81°37'49", in land grant 55, T.2 S., R.27 E., Hydrologic Unit 03080103, 300 ft south of State Highway 10 (Atlantic Boulevard), and 450 ft north of U.S. Highway 90 (Beach Boulevard) in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 1,895 ft, cased to 752 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 19.83 ft above sea level. Measuring point: Top of 8 in. casing, 2.00 ft above land-surface datum.

REMARKS.--Multiple completion packers set at 1,895 and 2,055 ft. This well monitors the zone between 752 and 1,895 ft.

PERIOD OF RECORD.--September 1966 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.23 ft above sea level, Oct. 19, 1966; lowest measured, 28.73 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	34.13	DEC 27	34.93	FEB 22	34.33	APR 24	32.33	JUN 26	28.73		
NOV 19	33.83	JAN 25	34.83	MAR 27	33.23	MAY 22	29.63				

WATER YEAR 2000 LOWEST 28.73 JUN 26, 2000 HIGHEST 34.93 DEC 27, 1999

WELL NUMBER.--301817081374902. Local Number D-425 Bottom Zone. USGS Well at Jacksonville, FL.

LOCATION.--Lat 30°18'17", long 81°37'49", in land grant 55, T.2 S., R.27 E., Hydrologic Unit 03080103, 300 ft south of State Highway 10 (Atlantic Boulevard), and 450 ft north of U.S. Highway 90 (Beach Boulevard) in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 2,486 ft, cased to 2,055 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 19.83 ft above sea level. Measuring point: Top of 8 in. casing, 2.00 ft above land-surface datum.

REMARKS.--Multiple completion packers set at 1,895 and 2,055 ft. This well monitors the zone between 2,055 and 2,486 ft.

PERIOD OF RECORD.--September 1966 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.63 ft above sea level, Dec. 19, 1966; lowest measured, 30.23 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	35.03	DEC 27	35.63	FEB 22	35.03	APR 24	33.23	JUN 26	30.23		
NOV 19	34.83	JAN 25	35.83	MAR 27	34.03	MAY 22	30.93				

WATER YEAR 2000 LOWEST 30.23 JUN 26, 2000 HIGHEST 35.83 JAN 25, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--301844081403801. Local Number D-18. Riverside Avenue and Lomax Street at Jacksonville, FL.

LOCATION.--Lat 30°18'44", long 81°40'38", in land grant 56, T.2 S., R.26 E., Hydrologic Unit 03080103, 70 ft north of Lomax Street and 350 ft east of Riverside Avenue in Jacksonville. Owner: Unknown.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth and casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 4.48 ft above sea level. Measuring point: Top of 8 in. tee, 1.90 ft above land-surface datum.

PERIOD OF RECORD.--November 1938, July 1940 to May 1941, May 1946 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft above sea level, Nov. 26, 1968; lowest measured, 21.38 ft above sea level, June 22, 1998.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	27.38	DEC 20	28.88	FEB 22	29.38	APR 25	25.38	JUN 27	22.88	AUG 28	23.88
NOV 22	27.88	JAN 24	30.38	MAR 24	28.38	MAY 22	22.88	JUL 21	21.88	SEP 25	27.38

WATER YEAR 2000 LOWEST 21.88 JUL 21, 2000 HIGHEST 30.38 JAN 24, 2000

WELL NUMBER.--301846081350901. Local Number D-3544. Healthpoint Medical Center Well at Jacksonville, FL.

LOCATION.--Lat 30°18'46", long 81°35'09", in land grant 50, T.2 S., R.27 E., Hydrologic Unit 03080103, 15 ft south of Atlantic Boulevard, and 0.8 mi east of intersection of Atlantic Boulevard and University Boulevard. Owner: Healthpoint Medical Center.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 2 in., depth 651 ft, cased to 535 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 12.93 ft above sea level. Measuring point: Top of reducer bushing, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--July 1985, July 1997 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.53 ft above sea level, Feb. 23, 1998; lowest measured, 21.53 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	28.93	DEC 27	29.23	FEB 23	28.53	APR 25	25.93	JUN 26	21.53	AUG 29	21.93
NOV 19	28.43	JAN 25	28.73	MAR 27	27.63	MAY 22	22.33	JUL 25	22.13	SEP 25	26.53

WATER YEAR 2000 LOWEST 21.53 JUN 26, 2000 HIGHEST 29.23 DEC 27, 1999

DUVAL COUNTY--Continued

WELL NUMBER.--301852081234201. Local Number D-160. City of Neptune Beach Well at Neptune Beach, FL.

LOCATION.--Lat 30°18'52", long 81°23'42", in NW¼SW¼SE¼ sec.21, T.2 S., R.29 E., Hydrologic Unit 03080201, 20 ft south of Florida Avenue, 400 ft east of Third Street in Neptune Beach. Owner: City of Neptune Beach.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 585 ft, cased to 340 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 12.05 ft above sea level. Measuring point: Top of 8 in. gate valve flange cover, 2.49 ft below land-surface datum.

PERIOD OF RECORD.--June 1934, October 1939, September 1940 to February 1942, January 1944 to April 1980 (bimonthly); May 1980 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.75 ft above sea level, June 15, 1934; lowest measured, 17.76 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	27.76	DEC 20	28.06	FEB 22	29.16	APR 25	24.86	JUN 27	17.76	AUG 29	20.86
NOV 22	27.26	JAN 25	29.46	MAR 27	26.46	MAY 22	19.66	JUL 25	20.36	SEP 25	26.16

WATER YEAR 2000 LOWEST 17.76 JUN 27, 2000 HIGHEST 29.46 JAN 25, 2000

WELL NUMBER.--301957081342301. Local Number D-313. Jacksonville Suburban Utilities Well at Jacksonville, FL.

LOCATION.--Lat 30°19'57", long 81°34'23", in land grant 52, T.2 S., R.26 E., Hydrologic Unit 03080103, located at Alderman Park pumping station on Carlotta Road North, 1 block east of intersection of Townsend Boulevard and Carlotta Road North, in Alderman Park area of Jacksonville. Owner: United Water of Florida.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 8 in., depth 1,150 ft, cased to 576 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
JAN 14...	0945	990	--	25.5	--	--	--	--	--
APR 25...	0930	960	7.1	26.0	<5	360	88.0	34.0	44.0
JUL 28...	1000	992	--	27.0	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
JAN 14...	--	--	--	140	--	--	--	--
APR 25...	2.0	145	120	140	.6	26.0	571	2500
JUL 28...	--	--	--	150	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302007081353201. Local Number D-479. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'07", long 81°35'32", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, located at Arlington Lions Club, at intersection of Commerce Avenue and Sprinkle Drive in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 1,350 ft, cased to 606 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-79, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT 21...	1245	940	--	27.5	--	--	--	--	--
JAN 13...	0940	932	--	27.0	--	--	--	--	--
APR 19...	1320	935	7.4	28.0	<5	370	91.0	34.0	37.0
JUL 20...	1230	988	--	28.5	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT 21...	--	--	--	130	--	--	--	--
JAN 13...	--	--	--	130	--	--	--	--
APR 19...	2.0	146	120	130	.6	26.0	553	2700
JUL 20...	--	--	--	150	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302013081353801. Local Number D-673. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'13", long 81°35'38", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, located inside pumphouse at 1595 Maitland Street, 0.25 mi north of intersection of Arlington Road and Maitland Street, in Arlington area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 18 in., depth 814 ft, cased to 578 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975, 1977-80, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT									
21...	1230	1080	--	27.0	--	--	--	--	--
NOV									
29...	1040	1060	--	28.0	--	--	--	--	--
DEC									
28...	1300	1060	--	27.5	--	--	--	--	--
JAN									
13...	0930	1060	--	27.0	--	--	--	--	--
FEB									
23...	0830	1040	--	26.5	--	--	--	--	--
MAR									
28...	0940	1040	--	27.0	--	--	--	--	--
APR									
19...	1230	1040	7.3	28.0	<5	400	97.0	38.0	43.0
MAY									
31...	1000	1060	--	28.0	--	--	--	--	--
JUN									
27...	0900	1070	--	28.0	--	--	--	--	--
JUL									
20...	1245	1080	--	29.0	--	--	--	--	--
AUG									
29...	1220	1090	--	28.0	--	--	--	--	--
SEP									
26...	1115	1090	--	27.0	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT								
21...	--	--	--	170	--	--	--	--
NOV								
29...	--	--	--	160	--	--	--	--
DEC								
28...	--	--	--	170	--	--	--	--
JAN								
13...	--	--	--	160	--	--	--	--
FEB								
23...	--	--	--	160	--	--	--	--
MAR								
28...	--	--	--	160	--	--	--	--
APR								
19...	2.4	144	130	160	.6	26.0	634	2900
MAY								
31...	--	--	--	170	--	--	--	--
JUN								
27...	--	--	--	170	--	--	--	--
JUL								
20...	--	--	--	170	--	--	--	--
AUG								
29...	--	--	--	180	--	--	--	--
SEP								
26...	--	--	--	170	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302015081384501. Local Number D-335. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'15", long 81°38'45", in land grant 37, T.2 S., R.26 E., Hydrologic Unit 03080103, located at rear of Robert Kennedy Community Center, 1133 Ionia Street, near intersection of 2nd and Clark Streets, in Springfield area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 12 in., depth 1,286 ft, cased to 531 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966, 1969-79, 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT									
20...	1000	546	--	28.0	--	--	--	--	--
JAN									
13...	0900	508	--	28.0	--	--	--	--	--
APR									
19...	1015	503	7.6	28.0	<5	240	58.0	22.0	12.0
JUL									
20...	1020	543	--	28.5	--	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT								
20...	--	--	--	16.0	--	--	--	--
JAN								
13...	--	--	--	16.0	--	--	--	--
APR								
19...	1.7	152	82.0	16.0	.6	25.0	319	1900
JUL								
20...	--	--	--	15.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302022081393501. Local Number D-176. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°20'22", long 81°39'35", in land grant 37, T.2 S., R.26 E., Hydrologic Unit 03080103, at pumphouse next to Hogan Creek Bridge, 50 ft west of intersection of Pearl and 3rd Streets. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 10 in., depth 1,280 ft, cased to 800 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 3 ft above sea level, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.70 ft above land-surface datum, Mar. 23, 1998; lowest measured, 17.00 ft above land-surface datum, July 25, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
22...	1330	-23.50	618	--	25.5	--	--	--	--
DEC									
27...	1010	-27.30	--	--	--	--	--	--	--
JAN									
11...	1040	-24.90	625	--	25.0	--	--	--	--
FEB									
23...	1210	-25.50	--	--	--	--	--	--	--
MAR									
27...	1140	-23.30	--	--	--	--	--	--	--
APR									
20...	0930	-24.90	618	7.3	25.5	<5	290	73.0	26.0
MAY									
23...	1245	-17.10	--	--	--	--	--	--	--
JUN									
26...	1300	-18.30	--	--	--	--	--	--	--
JUL									
25...	1000	-17.00	625	--	25.0	--	--	--	--
AUG									
28...	1030	-21.50	--	--	--	--	--	--	--
SEP									
25...	0945	-19.90	--	--	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT									
22...	--	--	--	--	12.0	--	--	--	--
JAN									
11...	--	--	--	--	12.0	--	--	--	--
APR									
20...	11.0	2.1	136	170	13.0	.7	21.0	424	3800
JUL									
25...	--	--	--	--	11.0	--	--	--	--

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302052081323201. Local Number D-3060. Arlington East Sewage Treatment Plant Well at Jacksonville, FL.

LOCATION.--Lat 30°20'52", long 81°32'32", in SE¼SW¼NW¼ sec. 7, T.2 S., R.28 E., Hydrologic Unit 03080103, 80 ft north of North Plant Road and 900 ft east of Millcove Road. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 2,112 ft, cased to 2,050 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape or pressure gage.

DATUM.--Land-surface datum is 28.44 ft above sea level. Measuring point: Top of 6 in. well flange, 3.55 ft, above land-surface datum.

PERIOD OF RECORD.--February 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.39 ft above sea level, Apr. 30, 1986; lowest measured, 15.35 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	20.31	DEC 28	21.47	FEB 22	20.83	APR 25	18.71	JUN 27	15.35	AUG 28	16.94
NOV 22	20.91	JAN 25	21.41	MAR 27	19.48	MAY 22	16.83	JUL 26	16.31	SEP 27	19.01

WATER YEAR 2000 LOWEST 15.35 JUN 27, 2000 HIGHEST 21.47 DEC 28, 1999

WELL NUMBER.--302130081411802. Local Number D-46A. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°21'30", long 81°41'18", in land grant 35, T.2 S., R.26 E., Hydrologic Unit 03080103, located at intersection of Fairfax and 25th Streets, in Moncrief Park area of Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 10 in., depth 1,234 ft, cased to 530 ft.

REMARKS.--Well originally drilled to 1,064 ft in 1939, later drilled to 1,234 ft in 1963.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1941, 1964, 1969-81, 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT 20...	0850	552	--	27.0	--	--	--	--	--
JAN 10...	0850	556	--	27.0	--	--	--	--	--
APR 19...	0830	551	7.1	26.0	<5	270	67.0	24.0	11.0
JUL 20...	0900	550	--	27.5	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT 20...	--	--	--	13.0	--	--	--	--
JAN 10...	--	--	--	13.0	--	--	--	--
APR 19...	1.8	140	120	14.0	.6	23.0	365	2400
JUL 20...	--	--	--	13.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302159081235601. Local Number D-2386. Hanna Park Test Well at Jacksonville, FL.

LOCATION.--Lat 30°21'59", long 81°23'56", in land grant 37, T.2 S., R.29 E., Hydrologic Unit 03080201, 25 ft north of beach front parking lot #8, 0.8 mi east from intersection of Mayport and Wonderwood Road, and 2.6 mi southeast of City of Mayport. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 2,026 ft, cased to 1,892 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 18.94 ft above sea level. Measuring point: Top of flange, 1.16 ft above land-surface datum.

PERIOD OF RECORD.--April 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 45.50 ft above sea level, Feb. 21, 1995; lowest measured, 26.60 ft above sea level, May 30, 1990.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	39.40	DEC 20	39.70	FEB 22	39.90	APR 25	38.40	JUN 26	35.20	AUG 29	37.40
NOV 22	39.50	JAN 24	40.90	MAR 27	38.90	MAY 22	36.40	JUL 25	36.00	SEP 25	37.80

WATER YEAR 2000 LOWEST 35.20 JUN 26, 2000 HIGHEST 40.90 JAN 24, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--302227081435001. Local Number D-592. City of Jacksonville Lincoln Estates Well at Jacksonville, FL.

LOCATION.--Lat 30°22'27", long 81°43'50", in land grant 39, T.1 S., R.26 E., Hydrologic Unit 03080103, at water treatment plant, on south side of Kinlock Drive South, 0.3 mile west of U.S. Highway 1. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, artesian well, diameter 16 to 10 in., depth 1,326 ft, cased to 1,150 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of concrete slab, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.90 ft above land-surface datum, Mar. 23, 1998; lowest measured, 22.70 ft above land-surface datum, July 25, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
21...	0940	-27.10	614	--	25.0	--	--	--	--
NOV									
19...	0915	-27.30	--	--	--	--	--	--	--
DEC									
27...	0840	-28.00	--	--	--	--	--	--	--
JAN									
11...	1110	-27.90	610	--	24.5	--	--	--	--
25...	1220	-28.40	--	--	--	--	--	--	--
FEB									
22...	0900	-27.70	--	--	--	--	--	--	--
MAR									
27...	0900	-27.30	--	--	--	--	--	--	--
APR									
20...	0845	-26.30	616	7.1	24.5	<5	290	75.0	25.0
MAY									
22...	1000	-24.20	--	--	--	--	--	--	--
JUN									
26...	0830	-22.90	--	--	--	--	--	--	--
JUL									
25...	0915	-22.70	612	--	25.0	--	--	--	--
AUG									
28...	0830	-23.40	--	--	--	--	--	--	--
SEP									
26...	0800	-24.80	--	--	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT									
21...	--	--	--	--	11.0	--	--	--	--
JAN									
11...	--	--	--	--	12.0	--	--	--	--
APR									
20...	10.0	1.7	133	160	12.0	.6	22.0	418	2800
JUL									
25...	--	--	--	--	12.0	--	--	--	--

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302236081401501. Local Number D-336. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°22'36", long 81°40'15", in land grant 50, T.1 S., R.26 E., Hydrologic Unit 03080103, located at 1025 Kenmore Street, 0.4 mi west of Norwood Avenue, and 0.4 mi southeast of intersection of Norwood Avenue and Interstate Highway 95 in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter unknown, depth 1,303 ft, cased to 520 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975, 1978 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT									
20...	0940	484	--	27.0	--	--	--	--	--
JAN									
12...	0930	483	--	27.0	--	--	--	--	--
APR									
20...	0940	484	7.7	27.0	<5	220	56.0	20.0	11.0
JUL									
20...	0930	481	--	27.5	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT								
20...	--	--	--	14.0	--	--	--	--
JAN								
12...	--	--	--	14.0	--	--	--	--
APR								
20...	1.5	148	80.0	14.0	.6	24.0	310	1400
JUL								
20...	--	--	--	13.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302301081295001. Local Number DS-522. Fort Caroline National Memorial Park Well at Jacksonville, FL.

LOCATION.--Lat 30°23'01", long 81°29'38", in land grant 43, T.1 S., R.28 E., Hydrologic Unit 03080103, 75 ft west of Fort Caroline Road, and 200 ft southwest of Fort Caroline Park entrance. Owner: St. Johns River Water Management District.

AQUIFER.--Non-artesian sand aquifer of the Tertiary System, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, unused, nonartesian well, diameter 4 in., depth 34 ft, cased to 24 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 16.58 ft above sea level. Measuring point: Shelter floor, 1.22 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year. Prior to October 1989, published as D-3537 U.S. Park Service Well at Jacksonville.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 13.99 ft above sea level, July 25, 1991; lowest, 6.07 ft above sea level, Aug. 22, 1988.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.45	10.06	9.38	9.03	9.24	8.76	8.55	8.37	7.94	8.13	7.83	---
10	10.23	9.90	9.31	8.99	9.10	8.71	8.49	8.30	7.85	8.03	7.67	---
15	10.01	9.77	9.25	8.92	8.99	8.65	8.62	8.29	7.78	7.86	---	---
20	10.74	9.64	9.25	8.87	8.94	8.61	8.63	8.25	7.70	7.69	---	---
25	10.43	9.56	9.19	9.16	8.85	8.58	8.47	8.13	7.70	7.80	---	---
EOM	10.17	9.45	9.10	9.27	8.81	8.58	8.43	8.02	7.91	7.96	---	---
MAX	10.75	10.17	9.43	9.27	9.28	8.81	8.67	8.42	8.01	8.13	7.94	---

CAL YR 1999 MAX 10.75
WTR YR 2000 MAX 10.75

WELL NUMBER.--302301081295002. Local Number DS-523. Fort Caroline National Memorial Park Well at Jacksonville, FL.

LOCATION.--Lat 30°23'01", long 81°29'50", in land grant 43, T.1S., R.28 E., Hydrologic Unit 03080103, 75 ft west of Fort Caroline Road, and 200 ft southwest of Fort Caroline Park entrance. Owner: St. Johns River Water Management District.

AQUIFER.--Hawthorne sand and gravel aquifer of Miocene Series, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, observation, unused, nonartesian well, diameter 4 in., depth 204 ft, cased to 190 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 16.84 ft above sea level. Measuring point: Shelter floor, 1.33 ft above land-surface datum.

PERIOD OF RECORD.--December 1985 to current year. Prior to October 1989, published as D-3538 U.S. Park Service Well at Jacksonville, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.58 ft above sea level, Oct. 15, 1995; lowest, 5.89 ft above sea level, June 29, 1989.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.15	7.91	7.47	7.11	7.06	6.80	6.68	6.53	6.25	6.33	6.19	---
10	8.08	7.76	7.40	7.09	6.99	6.73	6.55	6.43	6.18	6.28	6.04	---
15	7.91	7.70	7.35	6.99	6.94	6.68	6.74	6.54	6.08	6.20	---	---
20	8.30	7.64	7.36	6.98	6.94	6.74	6.64	6.41	6.01	6.04	---	---
25	8.20	7.62	7.31	7.18	6.90	6.75	6.65	6.27	6.16	6.19	---	---
EOM	8.04	7.53	7.16	7.18	6.85	6.72	6.57	6.28	6.29	6.21	---	---
MAX	8.34	8.04	7.48	7.18	7.16	6.84	6.74	6.58	6.29	6.36	6.19	---

CAL YR 1999 MAX 8.34
WTR YR 2000 MAX 8.34

DUVAL COUNTY--Continued

WELL NUMBER.--302304081383202. Local Number D-122A. City of Jacksonville Panama Park Well at Jacksonville, FL.

LOCATION.--Lat 30°23'04", long 81°38'32", in land grant 50, T.1 S., R.27 E., Hydrologic Unit 03080103, between Eastland and Russell Streets, 20 ft north of 63rd Street, and 0.4 mi east of U.S. Highway 17 in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 905 ft, cased to 571 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 13.07 ft above sea level. Measuring point: Top of flange at land-surface datum.

REMARKS.--Well originally drilled to 700 ft in 1914, later drilled to 905 ft in 1925.

PERIOD OF RECORD.--August 1930, June 1938, November 1940 to April 1942, January 1944 to June 1944, August 1945 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.87 ft above sea level, Aug. 21, 1930; lowest measured, 29.27 ft above sea level, Apr. 24, 1975.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	33.57	JAN 25	35.87	APR 24	33.57	JUN 26	30.27	SEP 12	32.07		
NOV 19	34.47	FEB 22	35.07	MAY 15	32.27	JUL 24	30.07	25	32.37		
DEC 27	35.67	MAR 27	34.37	22	31.37	AUG 28	30.67				

WATER YEAR 2000 LOWEST 30.07 JUL 24, 2000 HIGHEST 35.87 JAN 25, 2000

WELL NUMBER.--302307081293801. Local Number D-424. U.S. Park Service Well at Jacksonville, FL.

LOCATION.--Lat 30°23'07", long 81°29'38", in NW¼SE¼SE¼ sec.28, T.1 S., R.28 E., Hydrologic Unit 03080103, 106 ft southeast of Fort Caroline Road, and 0.2 mi northeast of Fort Caroline National Park entrance in Jacksonville. Owner: U.S. Park Service.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 6 in., depth 700 ft, cased to 426 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land-surface datum is 11.25 ft above sea level. Measuring point: Top of flange on 6 in. tee, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--December 1966, May 1968 to September 1978 (semiannually); January 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.55 ft above sea level, Dec. 19, 1966; lowest measured, 22.05 ft above sea level, June 8, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	29.45	DEC 03	29.05	FEB 23	29.85	APR 13	26.85	JUN 08	22.05	AUG 11	23.05

WATER YEAR 2000 LOWEST 22.05 JUN 08, 2000 HIGHEST 29.85 FEB 23, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--302339081254702. Local Number D-464A. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°23'39", long 81°25'47", in land grant 38, T.1 S., R.29 E., Hydrologic Unit 03080103, in Julia Street pumping station, 1 block east of State Highway A1A and Ocean Street, 0.2 mi south of Mayport Ferry landing in Mayport. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 10 in., depth 1,000 ft, cased to 427 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage.

DATUM.--Land-surface datum is 6.78 ft above sea level. Measuring point: Top of 15 in. flange 3.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to current year (semiannually).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.08 ft above sea level, Sept. 15, 1982; lowest measured, 24.28 ft above sea level, May 19, 1989.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	ELEVATION ABOVE NGVD (FEET) (72020)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 22...	0930	--	576	--	25.0	--	--	--	--
JAN 13...	1100	--	573	--	25.0	--	--	--	--
APR 20...	1545	--	573	7.3	26.0	<5	280	62.0	29.0
JUL 20...	1100	--	570	--	25.0	--	--	--	--
SEP 12...	0900	30.68	--	--	--	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT 22...	--	--	--	--	14.0	--	--	--	--
JAN 13...	--	--	--	--	14.0	--	--	--	--
APR 20...	11.0	1.7	132	140	15.0	.7	24.0	391	1600
JUL 20...	--	--	--	--	15.0	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302416081522601. Local Number D-348. Monticello Drug Company Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW¼NW¼NE¼ sec.23, T.1 S., R.24 E., Hydrologic Unit 03080103, 1.5 mi west of west end of Garden Street, off a private dirt road in Jacksonville. Owner: Monticello Drug Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, temporary water supply, artesian well, diameter 6 in., depth 708 ft, cased to 416 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 86.78 ft above sea level. Measuring point: Shelter floor at top of 11 in. flange, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--March 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 46.32 ft above sea level, Mar. 20, 21, 1998; lowest, 35.07 ft above sea level, July 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.58	39.13	39.50	39.76	39.84	39.75	38.88	38.01	36.00	35.69	35.56	36.05
10	38.74	39.31	39.56	39.96	39.92	39.43	38.62	37.80	35.45	35.46	35.66	36.52
15	38.83	39.51	39.56	39.45	39.93	39.16	38.88	37.43	35.42	35.46	35.62	37.43
20	39.06	39.32	39.73	40.07	39.80	39.34	38.79	37.05	35.26	35.18	35.51	37.55
25	39.08	39.50	39.61	40.10	39.74	39.07	38.82	36.78	35.35	35.26	35.57	37.76
EOM	39.18	39.40	39.78	39.86	39.76	39.08	38.38	36.24	35.61	35.50	35.79	37.22
MAX	39.27	39.59	39.98	40.15	40.04	39.92	39.07	38.32	36.14	35.70	35.79	37.76

CAL YR 1999 MAX 42.20
WTR YR 2000 MAX 40.15

WELL NUMBER.--302416081522602. Local Number D-349. Monticello Drug Co. Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW¼NW¼NE¼ sec.23, T.1 S., R.24 E., Hydrologic Unit 03080103, 1.5 mi west of west end of Garden Street, off a private dirt road in Jacksonville. Owner: Monticello Drug Company.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian oil test well, diameter 10 in., depth 1,986 ft, cased to 444 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 85.66 ft above sea level. Measuring point: Top of 10 in. casing, 3.50 ft above land-surface datum.

REMARKS.--Well originally drilled to 2,230 ft in 1969.

PERIOD OF RECORD.--March 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 56.30 ft above sea level, Mar. 10, 1971; lowest, 37.69 ft above sea level, July 24,25, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.32	41.81	42.06	42.19	42.33	42.19	41.35	---	38.43	---	---	38.76
10	41.45	41.93	42.09	42.39	42.40	41.86	41.09	---	---	---	---	39.40
15	41.52	42.10	42.07	41.91	42.40	41.62	---	---	---	---	---	39.73
20	41.78	41.91	42.23	42.48	42.30	41.81	---	---	---	---	---	39.88
25	41.79	42.08	42.11	42.53	42.22	41.55	---	---	---	37.69	---	40.09
EOM	41.86	41.97	42.23	42.36	42.22	41.55	---	---	---	---	38.50	40.09
MAX	41.97	42.17	42.43	42.56	42.51	42.35	41.53	---	38.62	37.69	38.51	40.09

CAL YR 1999 MAX 44.72
WTR YR 2000 MAX 42.56

DUVAL COUNTY--Continued

WELL NUMBER.--302502081330701. Local Number D-228. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'02", long 81°33'30", in NW¼NW¼SE¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 850 ft, casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of 16 in. flange, 1.0 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--October 1979 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.40 ft above land-surface datum, Mar. 9, 1983; lowest measured, 18.40 ft above land-surface datum, July 27, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976, 1979 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT					
21...	1130	-23.50	530	24.5	29.0
JAN					
12...	1145	-23.50	541	22.4	30.0
APR					
27...	1430	-21.20	524	24.0	31.0
JUL					
27...	1120	-18.40	472	26.0	30.0

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302503081332001. Local Number D-1149. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'03", long 81°33'20", in NE¼NE¼SW¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of concrete slab, 1.15 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--January 1980 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.35 ft above land-surface datum, Jan. 28, 1999; lowest measured, 17.00 ft above land-surface datum, July 24, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT					
21...	1115	-22.95	519	22.0	20.0
JAN					
12...	1130	-38.15	518	28.0	20.0
APR					
27...	1410	-30.15	522	28.0	22.0
JUL					
27...	1110	-33.75	520	27.0	20.0

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302505081331001. Local Number D-1150. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'05", long 81°33'10", in NW¼NW¼SE¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of 16 in. flange, 0.70 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--January 1981 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.95 ft above land-surface datum, July 20, 1995; lowest measured, 18.60 ft above land-surface datum, July 24, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT					
21...	1105	-25.10	536	24.0	25.0
JAN					
12...	1120	--	516	24.0	21.0
APR					
27...	1400	-32.90	588	27.0	39.0
JUL					
27...	1055	-35.10	581	28.0	36.0

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302511081331201. Local Number D-1151. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'11", long 81°33'12", in SW¼SW¼NE¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive, in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of 16 in. flange, 1.2 ft, above land-surface datum.

REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--September 1976, July 1979, October 1980 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.20 ft above land-surface datum, July 21, 1999; lowest measured, 19.40 ft above land-surface datum, Oct. 31, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT					
21...	1050	-23.20	522	25.0	21.0
JAN					
12...	1110	-32.60	522	28.0	21.0
APR					
27...	1345	-32.80	522	27.0	22.0

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302519081331501. Local Number D-1152. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'19", long 81°33'15", in NE¼SE¼NW¼ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, located at Jacksonville Electric Authority Northside Generating Station at 4377 Heckscher Drive, 6.8 mi east of intersection of U.S. Highway 17 and Heckscher Drive in Jacksonville. Owner: Jacksonville Electric Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 16 in., depth 1,104 ft, cased to 520 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of concrete slab, at land-surface datum.

REMARKS.--No water level data collected at times when well is in use.

PERIOD OF RECORD.--October 1980 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.00 ft above land-surface datum, July 22, 1997; lowest measured, 16.30 ft above land-surface datum, July 24, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT					
21...	1040	-22.20	528	24.0	23.0
JAN					
12...	1045	-31.20	525	25.0	22.0
APR					
27...	1330	-26.60	524	25.5	23.0
JUL					
27...	1040	--	526	25.5	22.0

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302538081392501. Local Number D-329. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°25'38", long 81°39'25", in land grant 49, T.1 S., R.26 E., Hydrologic Unit 03080103, located in Highlands pumping station at end of Beckner Drive, 2 blocks south of intersection of Monaco Drive and Dunn Avenue in Jacksonville. Owner: City of Jacksonville.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 20 in., depth 1,209 ft, cased to 545 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967, 1972-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
OCT 20...	0920	522	26.5	20.0
JAN 14...	1100	525	25.5	19.0
AUG 29...	1015	525	26.0	19.0

WELL NUMBER.--302550081331501. Local Number D-3840. St. Johns River Power Park replacement Well at Jacksonville, FL.

LOCATION.--Lat 30°25'50", long 81°33'15", in $SE\frac{1}{4}NE\frac{1}{4}SW\frac{1}{4}$ sec.12, T.1 S., R.27 E., Hydrologic Unit 03080103, 1,800 ft southeast of the intersection of New Berlin and Faye Roads in Jacksonville. Owner: St. Johns River Power Park.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, industrial, artesian well, diameter 6 in., depth 750 ft, cased to 470 ft.

INSTRUMENTATION.--Water-stage recorder with pressure transducer.

DATUM.--Land-surface datum is 13.67 ft above sea level. Measuring point: Top of 6 in. pipe flange, 1.12 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for D-2399 (302559081331501), available October 1984 to April 1990.

PERIOD OF RECORD.--April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.29 ft above sea level, Feb. 4, 1995; lowest, 17.34 ft above sea level, Aug. 27, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.39	---	28.29	28.39	28.29	29.19	26.19	25.29	24.09	23.04	24.09	23.49
10	27.19	---	27.99	28.19	28.19	28.59	26.79	24.69	23.04	23.79	25.29	---
15	27.69	---	27.69	28.19	28.99	28.89	26.79	23.94	23.79	23.19	23.94	---
20	27.09	---	28.19	28.79	28.39	28.29	26.49	23.94	23.04	22.74	23.79	---
25	27.69	---	29.19	28.29	28.59	27.69	26.79	23.19	23.94	23.64	24.19	---
EOM	29.19	28.79	28.89	28.59	27.39	27.19	26.19	24.79	22.29	24.39	25.39	27.19
MAX	30.09	28.79	29.49	29.59	29.79	29.49	29.19	26.99	26.49	25.54	27.79	29.19

CAL YR 1999 MAX 31.29
WTR YR 2000 MAX 30.09

DUVAL COUNTY--Continued

WELL NUMBER.--302557081253101. Local Number D-913. Jerri Betz Well at Fort George Island, Jacksonville, FL.

LOCATION.--Lat 30°25'57", long 81°25'31", in land grant 37, T.1 S., R.29 E., Hydrologic Unit 03080103, located at former site of Betz residence, at State Park on Fort George Island, off dirt road, 0.30 mi north of Ft. George Road. Owner: Florida Park Service.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 556 ft, cased to 435 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 20 ft above sea level, from topographic map. Measuring point: Top of water spigot handle, 1.4 ft above land-surface datum.

PERIOD OF RECORD.--January 1982, October 1990 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.00 ft above land-surface datum, Jan. 25,1995; lowest measured, 11.90 ft above land-surface datum, July 26, 2000.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1987, 1990 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT									
22...	1045	-16.80	1480	--	23.0	--	--	--	--
JAN									
12...	1230	-17.40	1470	--	20.0	--	--	--	--
APR									
24...	1400	-15.20	1510	7.7	22.0	<5	290	37.0	48.0
JUL									
26...	1030	-11.90	1700	--	24.0	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT									
22...	--	--	--	--	380	--	--	--	--
JAN									
12...	--	--	--	--	390	--	--	--	--
APR									
24...	160	3.7	31	83.0	390	.4	1.0	866	1600
JUL									
26...	--	--	--	--	390	--	--	--	--

Note.--Negative figures indicate water level above land surface.

DUVAL COUNTY--Continued

WELL NUMBER.--302608081354901. Local Number D-262. St. Regis Paper Company Well at Jacksonville, FL.

LOCATION.--Lat 30°26'10", long 81°35'48", in land grant 46, T.1 S., R.27 E., Hydrologic Unit 03080103, 75 ft south of dirt road, 0.4 mi east of Eastport Road in Jacksonville. Owner: Smurfit-Stone Container Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, industrial, artesian well, diameter 4 in., depth 1,237 ft, cased to 1,163 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 16.32 ft above sea level. Measuring point: Top of well flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1951 to April 1981 (bimonthly); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.32 ft above sea level, June 12, 1951; lowest measured, 30.42 ft above sea level, July 24, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	35.12	JAN 25	36.02	APR 24	34.02	JUN 26	31.22	SEP 25	32.72		
NOV 19	34.82	FEB 22	35.52	MAY 15	32.52	JUL 24	30.42				
DEC 27	35.92	MAR 27	34.52	22	31.92	AUG 28	30.72				

WATER YEAR 2000 LOWEST 30.42 JUL 24, 2000 HIGHEST 36.02 JAN 25, 2000

WELL NUMBER.--302608081354902. Local Number D-263. St. Regis Paper Company Well at Jacksonville, FL.

LOCATION.--Lat 30°26'08", long 81°35'49", in land grant 46, T.1 S., R.27 E., Hydrologic Unit 03080103, 75 ft south of dirt road, 0.4 mi east of Eastport Road in Jacksonville. Owner: Smurfit-Stone Container Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 1,025 ft, cased to 850 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 15.96 ft above sea level. Measuring point: Top of spigot handle, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to April 1979 (semiannually); January 1980 to September 1985 (bimonthly), October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.16 ft above sea level, Feb. 4, 1954; lowest measured, 31.16 ft above sea level, July 24, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	35.96	JAN 25	36.96	APR 24	34.86	JUN 26	31.56	SEP 25	33.66		
NOV 19	35.96	FEB 22	36.36	MAY 15	33.46	JUL 24	31.16				
DEC 27	36.76	MAR 27	35.46	22	32.76	AUG 28	31.96				

WATER YEAR 2000 LOWEST 31.16 JUL 24, 2000 HIGHEST 36.96 JAN 25, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--302608081354903. Local Number D-264. St. Regis Paper Company Well at Jacksonville, FL.

LOCATION.--Lat 30°26'10", long 81°35'49", in land grant 46, T.1 S., R.27 E., Hydrologic Unit 03080103, 75 ft south of dirt road, 0.4 mi east of Eastport Road in Jacksonville. Owner: Smurfit-Stone Container Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, industrial, artesian well, diameter 4 in., depth 654 ft, cased to 574 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 15.87 ft above sea level. Measuring point: Top of well flange, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to September 1978 (semiannually); February 1979 to September 1985 (bimonthly), October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.87 ft above sea level, Jan. 9, 1952; lowest measured, 29.37 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	34.67	JAN 25	35.87	APR 24	33.67	JUN 26	29.37	SEP 12	32.47		
NOV 19	34.47	FEB 22	35.17	MAY 15	32.27	JUL 24	29.67	25	32.47		
DEC 27	35.57	MAR 27	34.27	22	31.37	AUG 28	30.27				

WATER YEAR 2000 LOWEST 29.37 JUN 26, 2000 HIGHEST 35.87 JAN 25, 2000

DUVAL COUNTY--Continued

WELL NUMBER.--302724081244801. Local Number D-395. Florida Park Service Well at Jacksonville, FL.

LOCATION.--Lat 30°27'24", long 81°24'48", in land grant 42, T.1 S., R.29 E., Hydrologic Unit 03070205, well located at Little Talbot Island State Park, 2.2 mi north of Ft. George Inlet on State Highway A1A. Owner: Florida Park Service.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter unknown, depth and casing length unknown.

WATER LEVEL RECORDS

INSTRUMENTATION.--Quarterly measurement with pressure gage.

DATUM.--Land-surface datum is 7.57 ft above sea level. Measuring point: Top of 4 in. tee, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--Water years 1966, 1969, 1972-76 (annually); 1977-89 (semiannually); 1991 to current year (quarterly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.17 ft above sea level, May 10, 1966; lowest measured, 28.47 ft above sea level, July 26, 2000.

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-79, 1985 to current year (quarterly).

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	ELEVATION ABOVE NGVD (FEET) (72020)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 22...	1115	--	488	--	24.0	--	--	--	--
JAN 12...	1250	34.07	493	--	22.0	--	--	--	--
APR 24...	1320	31.57	494	7.3	23.5	<5	220	49.0	24.0
MAY 15...	1400	30.07	--	--	--	--	--	--	--
JUL 26...	1115	28.47	495	--	26.0	--	--	--	--
SEP 11...	1320	30.57	--	--	--	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
OCT 22...	--	--	--	--	20.0	--	--	--	--
JAN 12...	--	--	--	--	20.0	--	--	--	--
APR 24...	15.0	2.0	156	67.0	20.0	.6	29.0	306	420
MAY 15...	--	--	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	19.0	--	--	--	--
SEP 11...	--	--	--	--	--	--	--	--	--

DUVAL COUNTY--Continued

WELL NUMBER.--302801081375101. Local Number D-145. Duval County School Board Observation Well at Oceanway, FL.

LOCATION.--Lat 30°28'01", long 81°37'51", in land grant 37, T.1 N., R.27 E., Hydrologic Unit 03080103, at Oceanway School on Oceanway Avenue, and 600 ft east of U.S. Highway 17 in Oceanway. Owner: Duval County School Board.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 2 in., depth unknown, cased to 538 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape or pressure gage.

DATUM.--Land-surface datum is 34.79 ft above sea level. Measuring point: Top of 1 in. plug, 1.65 ft above land-surface datum.

PERIOD OF RECORD.--July 1940 to September 1978 (semiannually); February 1979 to March 1981 (bimonthly); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.99 ft above sea level, June 3, 1947; lowest measured, 30.74 ft above sea level, July 24, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03	35.45	DEC 27	36.26	FEB 22	35.82	APR 24	34.41	JUN 26	30.78	AUG 28	31.39
19	35.19	JAN 25	36.37	MAR 27	35.08	MAY 22	32.06	JUL 24	30.74	SEP 25	33.25

WATER YEAR 2000 LOWEST 30.74 JUL 24, 2000 HIGHEST 36.37 JAN 25, 2000

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

DUVAL COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
300824081305401	05-16-00	1215	D-0169 POWEL AT BAYARD, FL	31.87
	09-13-00	1130		34.07
301333081324101	05-16-00	0935	D-2847 GOLF COURSE AT DEERWOOD, FL	18.39
	09-14-00	1330		23.61
301337081354801	05-30-00	1505	D-3823	13.60
301339081531203	09-12-00	1235	D-0326 J-0391	41.25
301434082021401	10-20-99	0820	D-0085 J-0149 OIL TEST SITE,E.FIVETONE RD,JAX FL	50.07
	05-18-00	1130		49.75
	09-19-00	1055		49.17
301617081421601	05-17-00	0935	D-0115 J-0179	22.01
	09-15-00	1240		25.85
302330081463001	05-17-00	1605	D-0420 J-0487 WING-LEE FARM JAX, FL	35.92
	09-12-00	1030		35.92
302502081321001	05-15-00	1300	D-0270 J-0335 5186 HECKSHER DR, JAX, FL.	29.35
	09-12-00	1100		30.55
303209081371801	05-15-00	1130	TISONIA FIRETOWER NR JACKSONVILLE,FL	30.12
	09-12-00	0945		29.67
303216081433301	05-18-00	1303	D-0401 J-0468 DUVAL COUNTY PRISON FARM; JAX, FL.	32.97
	09-12-00	0945		33.47

KEY TO SITE LOCATIONS ON FIGURE 32
FLAGLER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	292750081152001	124

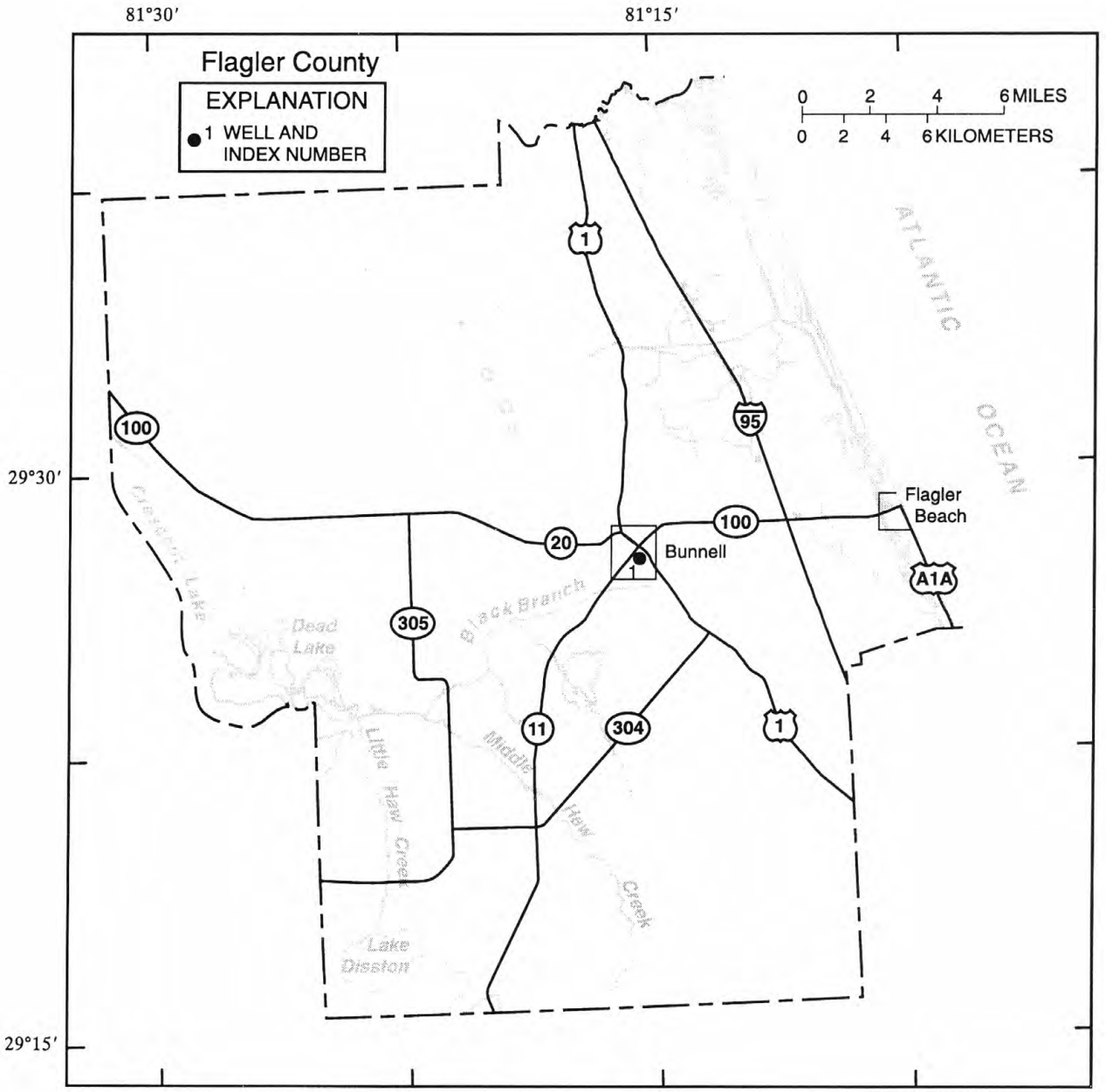

Figure 32.--Location of wells in Flagler County.

FLAGLER COUNTY

WELL NUMBER.--292750081152001. USGS Well Flagler 14 at Bunnell, FL.

LOCATION.--Lat 29°27'50", long 81°15'20", in NE¼ sec.15, T.12 S., R.30 E., Hydrologic Unit 03080201, 200 ft south of intersection of West Court and South Railroad Streets, and 600 ft southwest of intersection of State Highway 11 and U.S. Highway 1 at Bunnell. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 to 4 in., depth 417 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 21.00 ft above sea level. Measuring point: Top of 6 in. coupling at land-surface datum.

COOPERATION.--Since Oct. 1, 1985 data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--March 1936 to December 1962 (monthly); February 1963 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.30 ft above sea level, Sept. 9, 1947; lowest measured, 9.10 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	14.33	JAN 24	13.58	APR 25	11.77	JUN 26	9.10	SEP 11	12.58		
NOV 22	14.04	FEB 23	12.99	MAY 16	10.74	JUL 24	10.71	25	13.01		
DEC 14	13.76	MAR 24	11.72	22	10.35	AUG 29	10.87				

WATER YEAR 2000 LOWEST 9.10 JUN 26, 2000 HIGHEST 14.33 OCT 25, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

FLAGLER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
291625081092001	05-16-00	0720	ORMOND BCH FLAGLER 2	6.98
	09-11-00	0910		12.49
291818081190401	05-16-00	0950	RELAY TOWER DEEP WELL (F0251)	13.84
	09-11-00	1105		15.46
291913081224201	05-30-00	1100	F-0257 STRAWN WELL NR DEANVILLE,FL	11.62
	09-11-00	1140		14.80
292302081155901	05-17-00	1045	SR304 WELL AT SWEETWATER BRANCH	11.41
292603081082502	05-15-00	1340	F-176 BULLOW RUINS	5.00
	09-11-00	1405		6.41
292604081062401	05-15-00	1410	SJRWMD SHALLOW WELL F174	2.95
	09-12-00	0850		4.60
293313081132402	05-17-00	1208	SJ F158 11S31E18 ITTPALMCOASTSTJOEGRADE LW-11	10.48
	09-12-00	1015		11.97
293344081232401	05-16-00	1220	F-0294(REP.F-204)DINNER ISLAND DEEP	11.87
	09-12-00	--		13.62
293529081191701	05-16-00	1330	SJ F165 10S30E31 PALMCOASTITT-LW-20 WESTBOUNDR	11.78
	09-12-00	1245		13.19
293754081121901	05-17-00	1250	SJ F200 10S31E WASHINGTONOAKSPARKWEATHERSTA	11.46
	09-12-00	0930		13.19

KEY TO SITE LOCATIONS ON FIGURE 33
GLADES COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	265529081185201	128
2	271150081054401	128

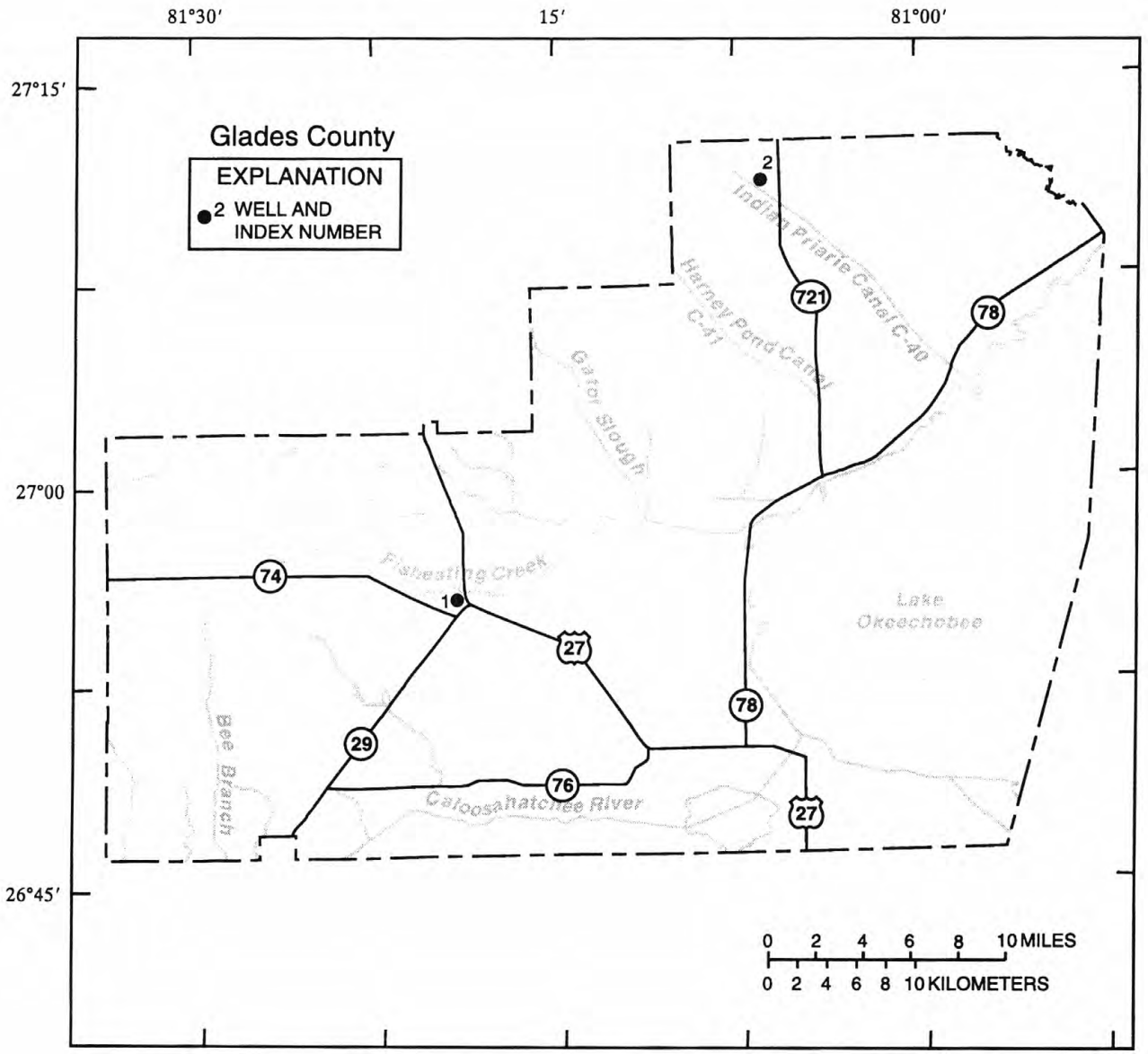

Figure 33.--Location of wells in Glades County.

GLADES COUNTY

WELL NUMBER.--265529081185201. GL-267 Well near Palmdale, FL.

LOCATION.--Lat 26°55'29", long 81°18'52", in NE¼SW¼NW¼ sec.10, T.41 S., R.30 E., Hydrologic Unit 03090103, 100 ft north of Palmdale Fire Tower, 500 ft northwest of intersection of U.S. Highway 27 and State Highway 29, and 2.0 mi south of Palmdale. Owner: Florida Division of Forestry.

AQUIFER.--Hawthorn Limestone aquifer of the Miocene Series, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 600 ft, cased to 450 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage, chalked tape or electric tape.

DATUM.--Elevation of land-surface datum is 42.15 ft above sea level. Prior to Oct. 1, 1978, land-surface datum was considered to be 41 ft, from topographic map. Oct. 1, 1978 to Mar. 25, 1980 at datum 0.60 ft lower. Measuring point: Top of 3/4 in. tee, 0.89 ft above land-surface datum.

PERIOD OF RECORD.--December 1971 to May 1976 (annually); July 1976 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.25 ft above sea level, Sept. 7, 1976; lowest measured, 36.11 ft above sea level, May 15, 1995.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09	42.54	FEB 29	40.23	MAY 15	39.14	AUG 22	39.54				
JAN 07	41.46	APR 18	39.73	JUN 20	38.04	SEP 11	38.81				

WATER YEAR 2000 LOWEST 38.04 JUN 20, 2000 HIGHEST 42.54 NOV 09, 1999

WELL NUMBER.--271150081054401. GL-155 Well near Brighton, FL.

LOCATION.--Lat 27°11'50", long 81°05'44", in NE¼SE¼SW¼ sec.2, T.38 S., R.32 E., Hydrologic Unit 03090103, in front of Lykes Ranch headquarters, 300 ft west of State Highway 721, and 1.9 mi south of State Highway 70 in Brighton. Owner: Lykes Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 600 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 29.35 ft above sea level. Measuring point: Top of 4 in. casing, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--December 1971 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.15 ft above sea level, Apr. 1, 1983; lowest measured, 38.15 ft above sea level, May 11, 1976.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09	46.05	FEB 29	44.75	MAY 15	43.15	AUG 22	45.75				
JAN 07	46.85	APR 19	45.25	JUN 20	41.95	SEP 11	46.55				

WATER YEAR 2000 LOWEST 41.95 JUN 20, 2000 HIGHEST 46.85 JAN 07, 2000

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

GLADES COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
265452081165401	05-15-00	1425	65411601 41S30E12 CLEMONS PALMDALE	46.60
	09-11-00	1245		48.20

KEY TO SITE LOCATIONS ON FIGURE 34
HERNANDO COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	283537082151501	132
2	283840082154801	132

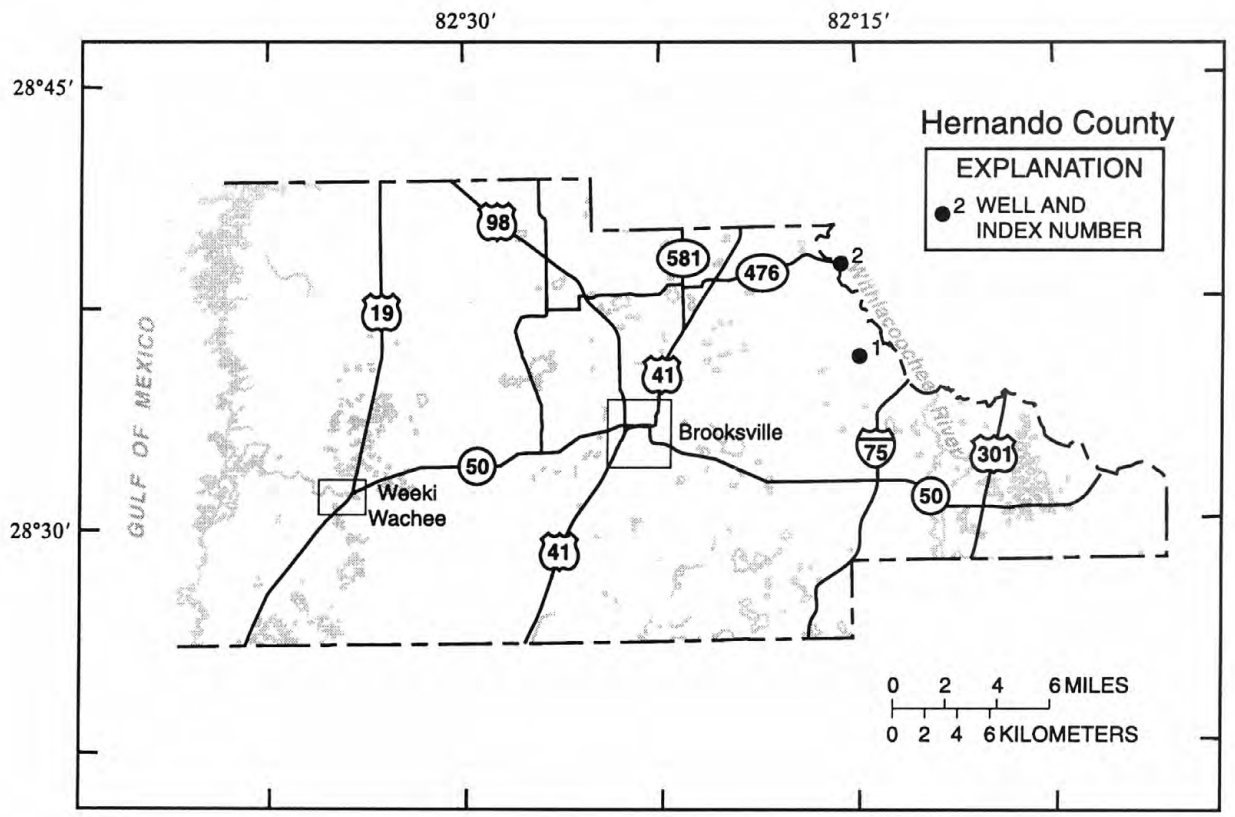

Figure 34.--Location of wells in Hernando County.

HERNANDO COUNTY

WELL NUMBER.--283537082151501. ROMP 103 Well near Brooksville, FL.

LOCATION.--Lat 28°35'37", long 82°15'15", in NE¼NE¼NE¼ sec.12, T.22 S., R.20 E., Hydrologic Unit 03100208, on south side of Croom Road, 2.6 mi east of Tucker Hill Fire Tower, and 6.3 mi northeast of Brooksville. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 198 ft, cased to 111 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 92.80 ft above sea level. Measuring point: Top of recorder shelf, 3.42 ft above land-surface datum.

PERIOD OF RECORD.--April 1977 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 48.95 ft above sea level, Oct. 14, 1982; lowest, 35.36 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	39.46	JAN 25	38.43	APR 27	36.69	JUN 27	35.36	SEP 13	37.42		
NOV 23	39.40	FEB 23	37.97	MAY 18	36.16	JUL 27	35.80	26	37.50		
DEC 28	38.91	MAR 28	37.32	24	36.01	AUG 29	37.19				

WATER YEAR 2000 LOWEST 35.36 JUN 27, 2000 HIGHEST 39.46 OCT 27, 1999

WELL NUMBER.--283840082154801. Barnhart Well (CE-25) at Nobleton, FL.

LOCATION.--Lat 28°38'40", long 82°15'48", in NW¼NW¼SW¼ sec.24, T.21 S., R.20 E., Hydrologic Unit 03100208, on Sentinel Street, 200 ft east of Edgewater Avenue in Nobleton. Owner: C.C. Chandler.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 6 in., depth 140 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 59.30 ft above sea level. Measuring point: Hole in sanitary seal, 0.33 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.33 ft above sea level, Aug. 23, 1965; lowest measured, 35.08 ft above sea level, July 30, 1992.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	38.90	JAN 26	37.91	MAY 09	35.77	JUL 11	35.31	SEP 13	37.13		
NOV 29	38.87	MAR 13	37.16	18	35.47	SEP 08	37.13				

WATER YEAR 2000 LOWEST 35.31 JUL 11, 2000 HIGHEST 38.90 OCT 06, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

HERNANDO COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
282620082193801	05-15-00	1421	82621901	72.78
	09-13-00	0913		72.96
282839082190801	05-15-00	1236	82821901 RUSSELL BLACKETT LAKE NEFF	77.66
	09-13-00	0834		74.99
282851082035301	05-15-00	1029	82820301 23S22E13 E H BOYETTE	77.69
	09-13-00	1253		79.16
283001082064702	05-15-00	1059	83020602 23S22E09 WSF-RICHLOAM FIRE TOWER	66.73
	09-13-00	1219		71.50
283508082215101	05-18-00	1122	83522101 22S19E12 CLARENCE SMITH	33.36
	09-13-00	0950		33.94
283510082133701	05-15-00	1501	CROOM RR SIDING WELL NR CROOM,FL	37.70
	09-13-00	1129		39.21
283613082184301	05-18-00	1157	83621801 22S20E04 DELMAS C NIX	32.01
	09-13-00	1014		32.96
283806082214801	05-17-00	1036	83822101 21S19E25 EDEN CHRISTIAN SCHOOL	28.50
	09-12-00	0933		30.20
283957082181001	05-18-00	1015	83921801 21S20E16 W A BLIZZARD	29.47
	09-13-00	1045		30.78

KEY TO SITE LOCATIONS ON FIGURE 35
HIGHLANDS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	270157081203101	136
2	272504081120101	136

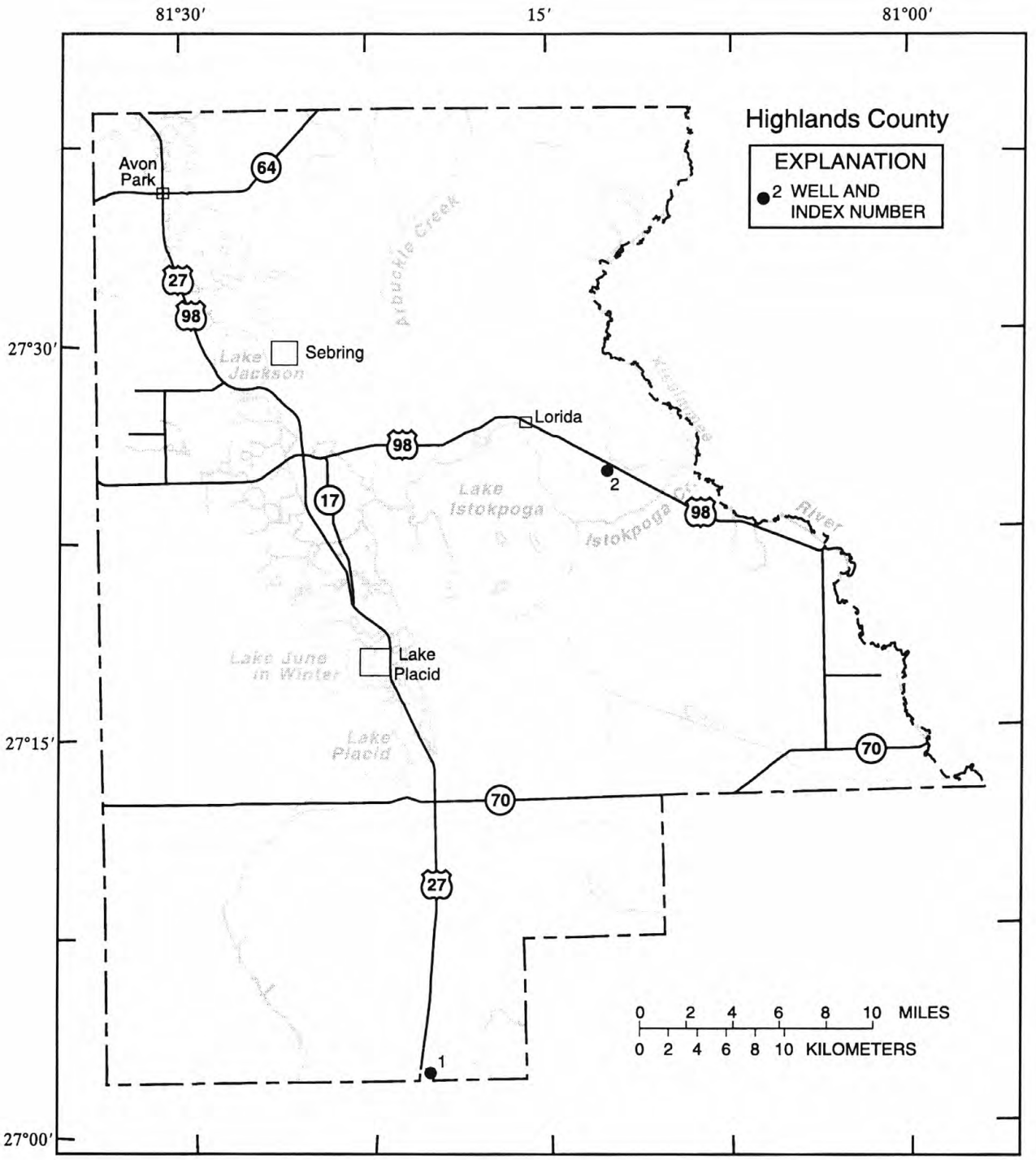

Figure 35.--Location of wells in Highlands County.

HIGHLANDS COUNTY

WELL NUMBER.--270157081203101. H-15A Well near Palmdale, FL.

LOCATION.--Lat 27°02'02", long 81°20'33", in SE¼SE¼SW¼ sec.32, T.39 S., R.30 E., Hydrologic Unit 03090103, on east side of U.S. Highway 27, 200 ft north of Glades-Highlands County line, 2.4 mi southeast of Venus, and 6.7 mi northwest of Palmdale. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 23 ft, cased to 19 ft, gravel-packed screen from 19 to 23 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 58.52 ft above sea level. Measuring point: Top of recorder shelf, 3.68 ft above land-surface datum.

PERIOD OF RECORD.--December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.37 ft above sea level, Sept. 27, 1997; lowest, 53.49 ft above sea level, June 27, 1956.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.60	57.92	57.24	57.66	57.50	56.72	56.10	55.61	55.31	57.57	58.44	58.83
10	58.13	57.70	57.17	57.51	57.35	56.59	55.96	55.51	55.13	57.97	58.07	58.67
15	58.23	57.61	57.59	57.37	57.16	56.48	56.07	55.40	55.06	57.55	58.11	57.91
20	59.06	57.48	58.01	57.20	57.01	56.40	56.00	55.30	54.96	58.10	57.73	58.95
25	58.23	57.44	57.67	57.84	56.92	56.29	55.87	55.17	56.10	58.20	57.51	58.29
EOM	57.79	57.38	57.53	57.53	56.83	56.21	55.75	55.53	57.66	57.77	57.29	57.92
MAX	59.21	58.47	58.16	57.87	57.54	56.80	56.18	55.73	57.67	58.38	58.84	59.66

CAL YR 1999 MAX 59.74
WTR YR 2000 MAX 59.66

WELL NUMBER.--272504081120101. H-11A Well near Lake Placid, FL.

LOCATION.--Lat 27°25'04", long 81°12'01", in NE¼NE¼SW¼ sec.23, T.35 S., R.31 E., Hydrologic Unit 03090101, on north side of U.S. Highway 98, 0.4 mi east of State Highway 621, 2.6 mi northwest of the Istokpoga Canal, and 9.0 mi east of Lake Placid. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 16 ft, cased to 13 ft, gravel-packed screen from 13 to 16 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 49.02 ft above sea level. Measuring point: Top of recorder shelf, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--February 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.04 ft above sea level, Sept. 10, 1960; lowest, 43.26 ft above sea level, June 18, 1975.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.54	47.55	46.68	46.47	46.61	45.64	45.00	44.46	43.66	44.33	46.73	45.49
10	48.57	47.36	46.56	46.37	46.34	45.47	44.79	44.35	43.79	44.22	46.25	45.93
15	48.46	47.21	46.63	46.14	46.21	45.30	44.83	44.24	43.68	44.00	46.33	45.63
20	48.45	47.02	47.32	46.08	46.02	45.34	45.20	44.09	43.53	43.81	45.99	46.48
25	48.26	46.95	46.91	46.96	45.87	45.11	44.90	43.94	43.52	45.16	45.71	46.89
EOM	47.82	46.77	46.61	46.66	45.75	45.33	44.63	43.77	44.23	46.31	45.67	46.69
MAX	48.65	47.90	47.34	46.96	46.69	45.72	45.25	44.58	44.23	46.31	46.79	46.91

CAL YR 1999 MAX 48.65
WTR YR 2000 MAX 48.65

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

HIGHLANDS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
270556081204701	10-04-99	1452	HIF-26 J H HENDRIE DAIRY	50.38
	05-24-00	1019		42.04
	09-25-00	1040		48.35
270627081313101	10-04-99	1441	HIF-23 GRAHAM CO DAIRY	50.43
	05-24-00	1008		41.01
	09-25-00	1030		48.97
271134081234301	05-16-00	0945	HIF-5 CHARLES STIDHAM	41.94
	09-11-00	0918		48.78
271306081284801	05-16-00	0923	HIF-8 BOX RANCH	38.69
	09-11-00	0900		48.85
271330081113401	05-16-00	1346	HIF-37 SUN-RAY FARMS	42.00
	09-11-00	1251		45.69
271456081074701	05-16-00	1455	HIF-6 LYKES BROW 4IN FLOW	41.89
	09-11-00	1347		45.23
271726081163901	05-16-00	1303	HIF-14 P G PHYPERS	43.25
	09-11-00	1223		47.93
272048081322101	10-04-99	1457	HIF-16 C M PAYNE	64.45
	09-25-00	1003		59.31
272512081122901	05-16-00	1131	HIF-13 PHILLIP METZGER	41.98
	09-11-00	1026		45.90
272906081142001	05-16-00	1206	729114-- 34S31E28 YUCAN RANCH NR LORIDA	41.33
	09-11-00	1152		45.06
272915081190201	05-16-00	1047	HIF-32 GUILFORD TOMLINSON	45.46
	09-11-00	1048		50.73
273138081154201	09-11-00	1117	73111501	49.26
273603081270501	05-15-00	1230	73612701 33S29E19 DRESSLERS DIARY	74.76
	09-11-00	1115		78.59

KEY TO SITE LOCATIONS ON FIGURE 36
INDIAN RIVER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	273923080471801	140
2	274607080493001	140

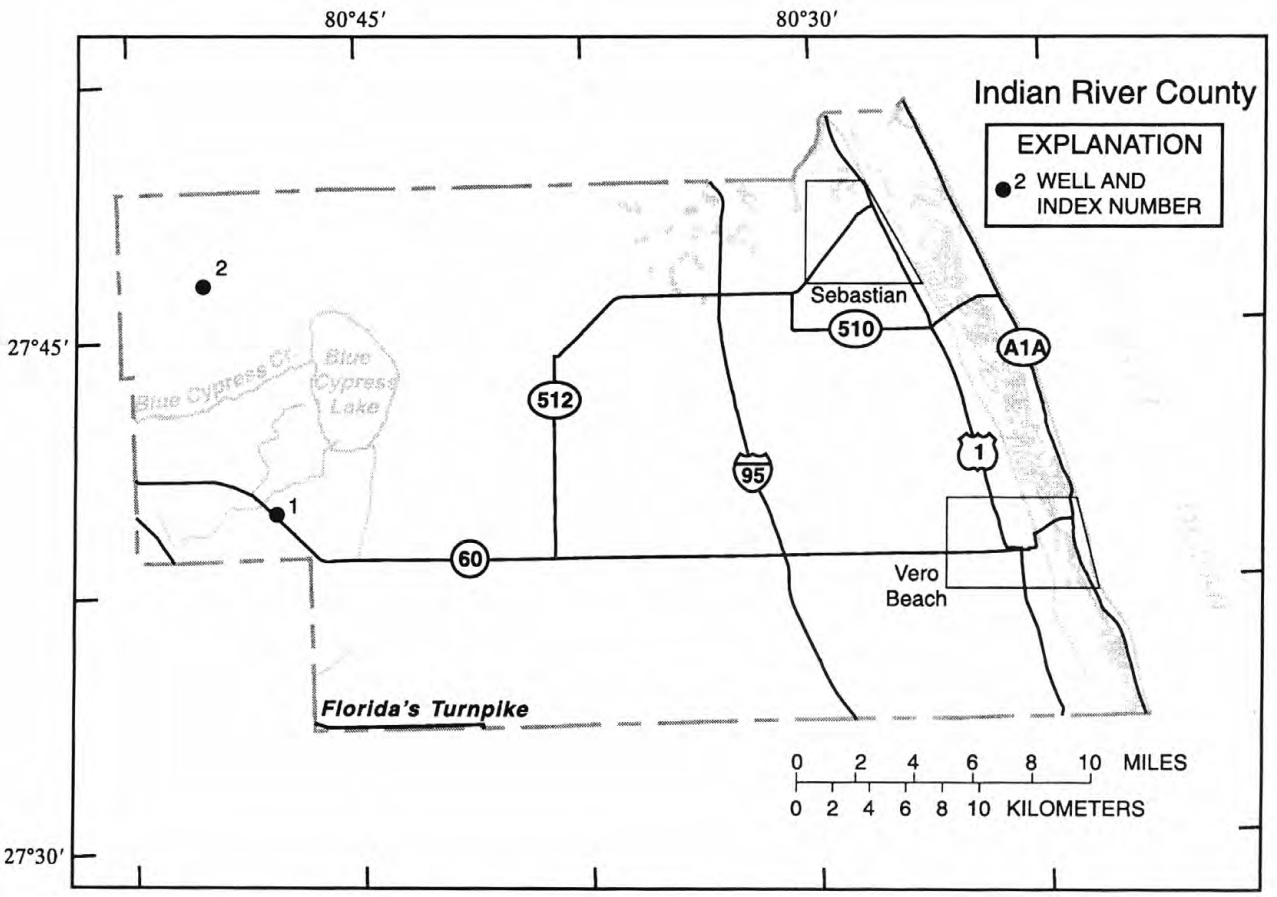

Figure 36.--Location of wells in Indian River County.

INDIAN RIVER COUNTY

WELL NUMBER.--273923080471801. IR-25 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27°39'23", long 80°47'18", in NW¼NE¼NW ¼ sec.36, T.32 S., R.35 E., Hydrologic Unit 03080101, on north side of State Highway 60, 1.3 mi east of Blue Cypress Road, and 7.9 mi east of U.S. Highway 441 in Yeehaw Junction. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 19 ft, cased to 13 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 30.01 ft above sea level. Measuring point: Top of recorder shelf, 2.30 ft above land-surface datum.

PERIOD OF RECORD.--October 1950 to September 1996; October 1996 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 31.99 ft above sea level, Sept. 4, 1979; lowest, 25.17 ft above sea level, May 31, 1967.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	29.35	DEC 26	28.34	FEB 22	27.47	APR 24	27.94	JUN 27	26.87	AUG 29	28.66
NOV 22	28.59	JAN 25	28.35	MAR 27	27.08	MAY 22	26.38	JUL 21	27.73	SEP 25	29.01

WATER YEAR 2000 LOWEST 26.38 MAY 22, 2000 HIGHEST 29.35 OCT 25, 1999

WELL NUMBER.--274607080493001. IR-189 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27°46'07", long 80°49'30", in SE¼NE¼SW¼ sec.22, T.31 S., R.35 E., Hydrologic Unit 03080101, on north side of private road at Rollins Ranch, 10 mi north of Yeehaw Junction. Owner: Rollins Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, stock, artesian well, diameter 4 in., depth 630 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 33.66 ft above sea level. Prior to April 1983, land-surface datum was 33.16 ft. Measuring point: Top of 4 in. tee, 1.63 ft above land-surface datum.

PERIOD OF RECORD.--1951, 1957, 1970 (annually); January 1976 to October 1983 (bimonthly); November 1983 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.16 ft above sea level, Nov. 13, 1951, July 10, 1957; lowest measured, 36.67 ft above sea level, May 6, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	43.79	JAN 25	42.07	APR 24	39.99	JUN 26	37.59	SEP 13	40.89		
NOV 22	42.99	FEB 22	41.59	MAY 18	37.29	JUL 19	39.28	25	41.29		
DEC 26	42.39	MAR 27	40.28	22	37.20	AUG 29	40.44				

WATER YEAR 2000 LOWEST 37.20 MAY 22, 2000 HIGHEST 43.79 OCT 26, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

INDIAN RIVER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
273435080255101	05-16-00	0810	73402501 USDA SOUTH WELL 43RD AVE SW OF OSLO	26.25
	09-12-00	0810		31.15
273536080240201	05-16-00	0801	73502403 REVERSE OSMOSIS MONITOR W OF OSLO	30.20
	09-12-00	0801		33.80
274055080281301	05-16-00	1241	74002801 IR 210 WALTER POOL LINDSEY RD GIFFORD	28.99
	09-12-00	1130		32.59
274350080364501	05-16-00	1115	74303601 JACK BERRY GROVE BLK 11 S OF FELLSMERE	34.41
	09-12-00	1030		38.31
274916080520701	05-16-00	1243	74905201 USGS TH MACE RANCH FELLSMERE GRADE	47.07
	09-12-00	0845		48.58

KEY TO SITE LOCATIONS ON FIGURE 37
LAKE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282245081492601	144
1	282245081492602	144
2	282717081553101	145
3	283204081544901	145
3	283204081544902	146
4	283314081455501	146
5	284445081462101	147
6	284842081533001	147
7	290950081315501	148

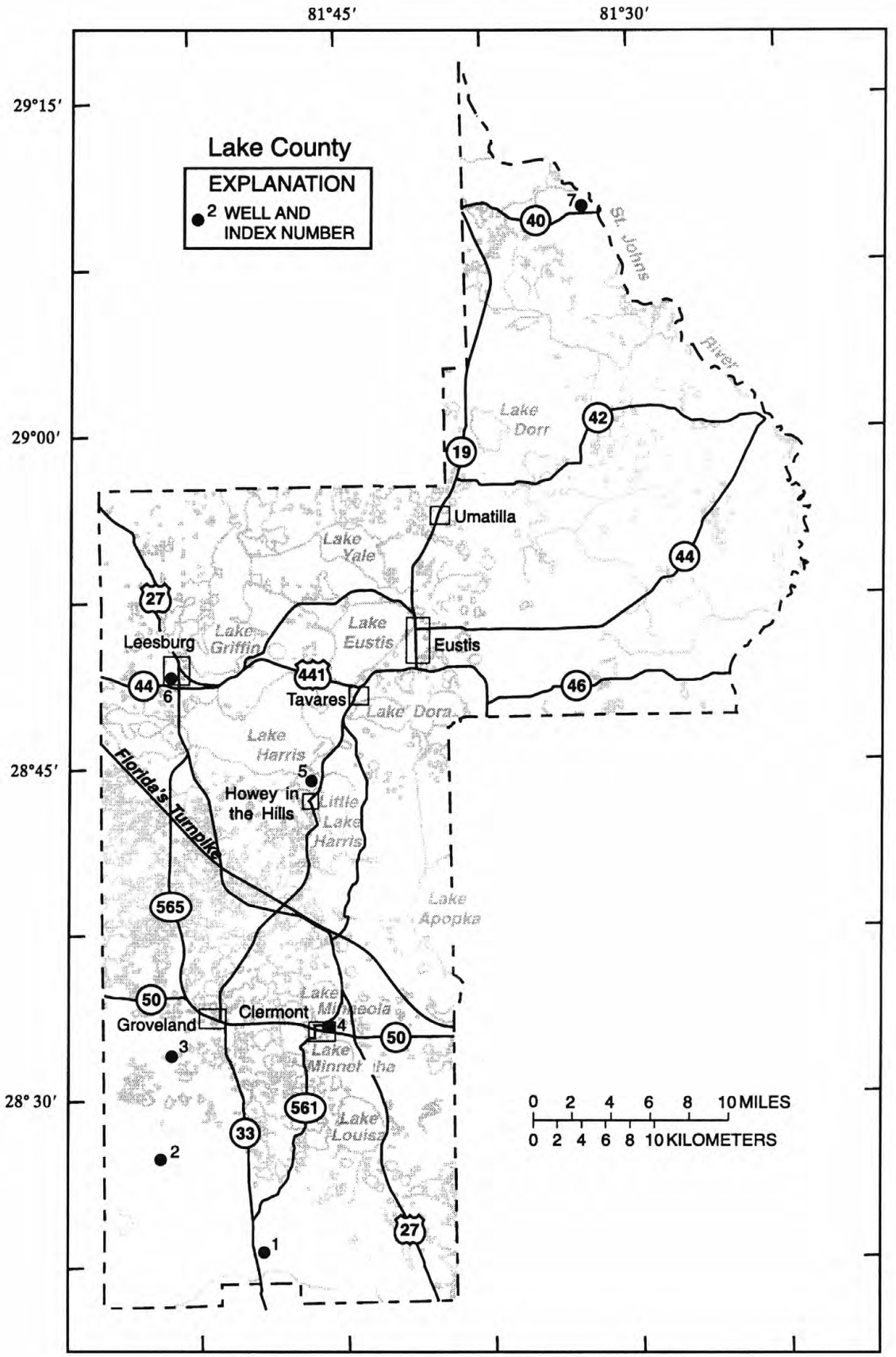

Figure 37.--Location of wells in Lake County.

LAKE COUNTY

WELL NUMBER.--282245081492601. Eva Deep Well at Eva, FL.

LOCATION.--Lat 28°22'45", long 81°49'26", in NE¼SE¼SE¼ sec.20, T.24 S., R.25 E., Hydrologic Unit 03100208, on east side of State Highway 33, 1,000 ft north of State Highway 474 at Eva. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 192 ft, cased to 100 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape or electric tape.

DATUM.--Elevation of land-surface datum is 113.47 ft above sea level. Measuring point: Top of 6 in. nipple, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to December 1962; January 1963 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.72 ft above sea level, Sept. 10, 1960; lowest measured, 105.18 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	109.69	MAR 15	108.53	MAY 16	105.85	AUG 22	107.22				
JAN 11	109.20	MAY 04	105.95	JUN 27	105.18	SEP 13	106.68				

WATER YEAR 2000 LOWEST 105.18 JUN 27, 2000 HIGHEST 109.69 NOV 15, 1999

WELL NUMBER.--282245081492602. Eva Shallow Well at Eva, FL.

LOCATION.--Lat 28°22'45", long 81°49'26", in NE¼SE¼SE¼ sec.20, T.24 S., R.25 E., Hydrologic Unit 03100208, on east side of State Highway 33, 1,000 ft north of State Highway 474 at Eva. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Tertiary Quaternary Age, Geologic Unit 111 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 23 ft, cased to 18 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape or electric tape.

DATUM.--Elevation of land-surface datum is 113.44 ft above sea level. Measuring point: Hole in 6 in. cap, 3.62 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to June 1962; July 1962 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 114.44 ft above sea level, Sept. 10, 1960; lowest measured, 105.68 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	110.83	MAR 15	109.20	MAY 16	106.48	AUG 22	107.65				
JAN 01	110.06	MAY 04	106.81	JUN 27	105.68	SEP 13	106.90				

WATER YEAR 2000 LOWEST 105.68 JUN 27, 2000 HIGHEST 110.83 NOV 15, 1999

LAKE COUNTY--Continued

WELL NUMBER.--282717081553101. ROMP 101 Well near Bay Lake, FL.

LOCATION.--Lat 28°27'17", long 81°55'31", in NE¼NE¼SE¼ sec.29, T.23 S., R.24 E., Hydrologic Unit 03100208, 75 ft south of State Highway 565, 800 ft west of former Seaboard Coastline Railroad crossing, and 2.3 mi southwest of intersection of Bay Lake Road and State Highway 565 at Bay Lake. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 404 ft, cased to 118 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 101.35 ft above sea level. Measuring point: Top of casing shelf, 2.58 ft above land-surface datum.

PERIOD OF RECORD.--July 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 100.30 ft above sea level, Sept. 11, 1988; lowest, 92.26 ft above sea level, June 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.29	---	96.03	95.89	95.76	94.99	94.08	93.24	92.65	94.07	95.03	94.42
10	97.68	---	95.87	95.90	95.59	94.83	93.91	93.61	92.49	93.96	---	94.33
15	97.46	---	95.79	95.69	95.49	94.68	93.91	93.57	92.49	94.11	---	94.13
20	97.24	96.45	96.42	95.73	95.37	94.67	93.71	93.24	92.31	94.25	---	94.53
25	---	96.32	96.17	95.83	95.25	94.43	93.65	92.96	92.51	94.64	94.93	95.24
EOM	---	96.11	96.07	95.73	95.16	94.28	93.43	92.78	93.73	94.81	94.59	95.18
MAX	97.69	96.51	96.44	96.03	95.89	95.14	94.19	93.68	93.73	94.83	95.03	95.29

CAL YR 1999 MAX 97.96
WTR YR 2000 MAX 97.69

WELL NUMBER.--283204081544901. Mascotte Deep Well near Mascotte, FL.

LOCATION.--Lat 28°32'04", long 81°54'49", in SW¼NW¼NE¼ sec.33, T.22 S., R.24 E., Hydrologic Unit 03100208, on east side of State Highway 565, 75 ft east of Midway Baptist Church, and 3.6 mi south of State Highway 50 in Mascotte. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 160 ft, cased to 63 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 103.51 ft above sea level. Measuring point: Top of recorder shelf, 2.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 102.66 ft above sea level, Sept. 10, 1988; lowest, 93.94 ft above sea level, June 20,21, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.48	97.83	97.15	96.98	96.74	96.27	95.58	95.00	94.29	---	97.08	96.47
10	98.08	97.66	97.04	96.90	96.62	96.15	95.48	94.96	94.15	---	97.20	96.33
15	98.01	97.52	96.95	96.80	96.59	96.04	95.46	94.85	94.12	---	97.39	96.11
20	97.86	97.41	97.26	96.78	96.54	95.99	95.37	94.70	93.94	---	97.16	96.40
25	97.69	97.34	97.14	96.83	96.46	95.80	95.28	94.54	94.43	---	96.90	97.11
EOM	97.47	97.23	97.11	96.75	96.37	95.67	95.12	94.40	---	97.11	96.73	97.15
MAX	98.10	97.84	97.28	97.09	96.81	96.37	95.67	95.12	94.43	97.11	97.39	97.21

CAL YR 1999 MAX 99.70
WTR YR 2000 MAX 98.10

LAKE COUNTY--Continued

WELL NUMBER.--283204081544902. Mascotte Shallow Well near Mascotte, FL.

LOCATION.--Lat 28°32'04", long 81°54'49", in SW¼NW¼NE¼ sec.33, T.22 S., R.24 E., Hydrologic Unit 03100208, on east side of State Highway 565, 75 ft east of Midway Baptist Church, and 3.6 mi south of State Highway 50 in Mascotte. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 30 ft, cased to 16 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 103.51 ft above sea level. Measuring point: Top of recorder shelf, 2.49 ft above land-surface datum.

PERIOD OF RECORD.--January 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 103.51 ft above sea level, estimated, Sept. 11, 1960; lowest, 94.89 ft above sea level, June 23, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	97.89	---	97.72	97.58	97.37	96.99	96.42	95.92	95.28	96.46	98.04	97.42
10	98.57	98.28	97.65	97.49	97.27	96.89	96.32	95.82	95.16	96.42	98.22	97.23
15	98.52	98.10	97.54	97.43	97.23	96.82	96.24	95.73	95.05	96.19	98.45	97.13
20	98.37	97.97	97.82	97.37	97.20	96.72	96.19	95.65	94.95	96.02	98.14	97.33
25	98.21	97.90	97.81	97.44	97.14	96.63	96.10	95.54	95.26	96.91	97.83	98.02
EOM	97.99	97.81	97.70	97.33	97.07	96.51	96.02	95.40	96.08	98.10	97.68	98.02
MAX	98.60	98.32	97.83	97.67	97.39	97.06	96.50	96.01	96.08	98.10	98.45	98.08

CAL YR 1999 MAX 100.66
WTR YR 2000 MAX 98.60

WELL NUMBER.--283314081455501. City Well Replacement at Clermont, FL.

LOCATION.--Lat 28°33'14", long 81°45'55", in NE¼SE¼SW¼ sec.24, T.22 S., R.25 E., Hydrologic Unit 03080102, on Lake Avenue, 0.2 mi north of State Highway 50 in Clermont. Owner: City of Clermont.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic well, diameter 8 in., depth 525 ft, casing length unknown.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 150 ft above sea level. Measuring point: Top of casing, 1.08 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 86.04 ft above sea level, Mar. 27, 1998; lowest, 76.90 ft, June 20, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	81.48	81.22	80.84	80.32	---	---	---	77.66	77.91	77.55
10	---	---	81.34	81.31	80.83	80.08	---	---	---	77.65	77.83	77.72
15	---	---	81.31	81.00	80.74	---	---	---	77.55	77.71	77.87	77.50
20	---	81.14	81.48	81.13	80.58	---	---	---	76.90	77.56	77.67	77.65
25	---	81.14	81.40	81.08	80.46	---	---	---	77.29	77.75	77.62	77.69
EOM	---	81.43	81.22	80.78	80.40	---	---	---	77.69	77.72	77.50	77.53
MAX	---	81.52	81.52	81.33	81.00	80.41	---	---	77.76	77.79	77.91	77.73

CAL YR 1999 MAX 82.69
WTR YR 2000 MAX 81.52

LAKE COUNTY--Continued

WELL NUMBER.--284445081462101. Lake Yale Groves Well near Tavares, FL.

LOCATION.--Lat 28°44'45", long 81°46'21", in SE¼SW¼ sec.13, T.20 S., R.25 E., Hydrologic Unit 03080102, on north side of Little Lake Harris, 0.2 mi west of State Highway 19, and 3.8 mi south of Tavares. Owner: Lake County Water Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 8 in., depth 200 ft, cased to 112 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape or manometer.

DATUM.--Elevation of land-surface datum is 64.75 ft above sea level. Measuring point: Top of tee, 2.10 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--May 1963 (annually); October 1963 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.45 ft above sea level, Mar. 13, 1970; lowest measured, 62.36 ft above sea level, May 15, 1985.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	66.52	JAN 25	66.03	APR 25	63.76	JUN 27	62.84	SEP 12	63.50		
NOV 11	66.14	FEB 18	65.51	MAY 16	62.88	JUL 24	63.01	26	63.52		
DEC 14	66.11	MAR 21	64.38	22	62.51	AUG 28	62.80				

WATER YEAR 2000 LOWEST 62.51 MAY 22, 2000 HIGHEST 66.52 OCT 26, 1999

WELL NUMBER.--284842081533001. College Street Well at Leesburg, FL.

LOCATION.--Lat 28°48'42", long 81°53'30", in SW¼NE¼NE¼ sec.27, T.19 S., R.24 E., Hydrologic Unit 03080102, on west side of College Street, near water tank, 350 ft north of West Main Street in Leesburg. Owner: City of Leesburg.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 245 ft, cased to 90 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 93.10 ft above sea level. Measuring point: Edge of flange, 1.2 ft above land-surface datum.

PERIOD OF RECORD.--September 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 70.38 ft above sea level, Mar. 2, 1998; lowest, 57.29 ft above sea level, May 16, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.36	66.99	66.17	65.25	64.50	63.62	62.64	61.14	59.48	60.75	62.55	61.86
10	66.35	66.86	65.77	64.87	64.35	63.12	61.71	61.44	59.54	60.36	62.32	62.62
15	66.20	66.79	65.81	64.85	64.33	63.09	62.62	60.62	59.14	60.74	62.24	62.18
20	66.02	66.40	66.03	64.86	63.85	63.08	61.99	60.31	59.14	60.35	62.10	63.07
25	67.22	66.54	65.95	65.02	63.92	62.49	61.98	59.77	60.32	61.75	61.19	62.52
EOM	66.83	66.19	65.52	64.62	63.45	62.82	61.71	59.92	60.76	62.29	61.17	62.87
MAX	67.22	67.10	66.24	65.61	64.70	63.65	62.67	61.71	60.82	62.29	62.61	63.11

CAL YR 1999 MAX 67.22
WTR YR 2000 MAX 67.22

LAKE COUNTY--Continued

WELL NUMBER.--290950081315501. Astor Park Well at Astor Park, FL.

LOCATION.--Lat 29°09'50", long 81°31'55", in land grant 37, T.15 S., R.28 E., Hydrologic Unit 03080101, at residence, 200 ft north of State Highway 40, and 1.0 mi west of St. Johns River at Astor Park. Owner: A.G. Edwards.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 254 ft, casing length unknown.

INSTRUMENTATION.--Water-stage recorder-60-minute interval.

DATUM.--Elevation of land-surface datum is 17.78 ft above sea level. Measuring point: Top of recorder shelf, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--February 1936 to December 1949 (monthly); January 1950 to September 1985 (bimonthly); October 1985 to September 1997 (monthly); October 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.15 ft above sea level, October 1945; lowest daily maximum, 9.68 ft above sea level, June 15, 18-20, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.37	12.80	12.46	11.90	11.81	11.28	11.49	10.74	10.09	10.20	11.00	11.14
10	12.48	12.81	12.40	12.09	11.67	11.24	11.31	10.75	9.95	10.25	11.18	11.72
15	12.47	12.89	12.24	11.80	11.70	11.08	11.41	10.56	9.68	10.31	11.12	11.94
20	12.72	12.67	12.37	12.01	11.67	11.15	11.33	10.27	9.68	10.16	10.95	11.94
25	13.01	12.78	12.39	11.76	11.66	11.07	11.29	10.18	9.78	10.38	10.98	12.13
EOM	12.88	12.62	12.04	11.64	11.54	11.15	10.94	10.06	10.12	10.77	11.07	12.15
MAX	13.08	13.00	12.58	12.09	11.91	11.56	11.56	10.96	10.12	10.77	11.25	12.15

CAL YR 1999 MAX 13.08
WTR YR 2000 MAX 13.08

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

LAKE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEVATION ABOVE SEA LEVEL (FEET)
282241081443901	05-17-00	1145	L-0051 SAND MINE RD DP WELL NR CLERMONT	113.00
	09-13-00	0752		113.80
282318081544003	05-19-00	0915	GREEN SWAMP AQUIFER TEST LK751W	98.26
	09-13-00	0908		102.30
282729081443301	05-16-00	1417	LK LOUISA STATE PARK (SJRWMD L-0053) NR CLERMONT	91.80
	09-12-00	1245		92.07
283019081455701	05-16-00	1436	LCFD DIST.9 STATION 1	85.41
	09-12-00	1306		85.14
283128081404701	05-17-00	1024	JOHNS LAKE WELL NR CLERMONT (SJ L-0052)	77.65
	09-12-00	1325		76.49
283232081394101	05-17-00	1008	83213902 EDGEWATER BEACH DEEP	75.40
	09-12-00	1406		74.97
283355081411701	05-17-00	0959	L-0199 TURNPIKE	70.59
	09-12-00	1357		69.93
283530081514501	05-16-00	1222	DR PHILLIPS & SONS DP	83.77
	09-12-00	1120		83.87
284122081534401	05-16-00	1156	L-0095 GROVELAND TOWER DEEP	79.60
	09-12-00	1102		80.09
284232081533001	05-16-00	1140	842153142 20S24E34	76.16
	09-12-00	1050		76.97
284233081442801	05-16-00	1018	WEST ASTATULA WELL NR ASTATULA,FL	64.93
	09-12-00	0930		65.21
284528081530201	05-16-00	1122	CHURCH OF GOD OF PROPHECY	63.21
	09-12-00	1030		64.31
284725081361901	05-15-00	1002	WOLF SINK OBSERVATION WELL NR SORRENTO	44.26
	09-12-00	0903		44.53
284728081322201	05-15-00	0924	FLORIDA CENTRAL ADADEMY AT MT PLYMOUTH	43.22
	09-11-00	0753		43.74
285057081321301	05-15-00	1047	NEW HEINDRICK WELL NR MOUNT PLYMOUTH	41.14
	09-11-00	0812		41.27
285257081434201	05-16-00	0827	852143121 18S26E32 J EICHEL BERGER	53.74
	09-11-00	1408		53.95
285426081380901	05-15-00	1157	854138 18S27E20 N B MARSHALL	45.54
	09-11-00	1341		46.48
285539081262901	09-11-00	0928	PINE LAKES WELL ON SR 44	33.13

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

LAKE COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
285827081331401	05-15-00	1100	PAUL SHOKLEY AT PAISLEY	38.24
	09-11-00	1024		38.20
290000081380001	05-15-00	1250	PITTMAN WORK CENTER ABANDONED NR ALTOONA,FL	42.66
	09-11-00	1057		42.23
290451081344401	05-15-00	1454	L-0066 OBS WELL ALEXANDER SP NR ASTOR	15.18
	09-11-00	1305		14.80
291002081330601	05-15-00	1445	L-0455 ASTOR 150 CF	10.30
	09-11-00	1157		12.60
291448081381601	05-15-00	1322	JUNIPER HUNT CLUB SUPPLY	-.05
	09-11-00	1125		1.87

Note.--Negative figures indicate water level below sea level.

KEY TO SITE LOCATIONS ON FIGURE 38
LEVY COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	290112082371101	154
2	290200082432301	154
3	290202082403901	155
4	290230082412501	155
5	290743082341501	156
6	291910082341101	156
7	292430082283001	157
8	292615082272601	157

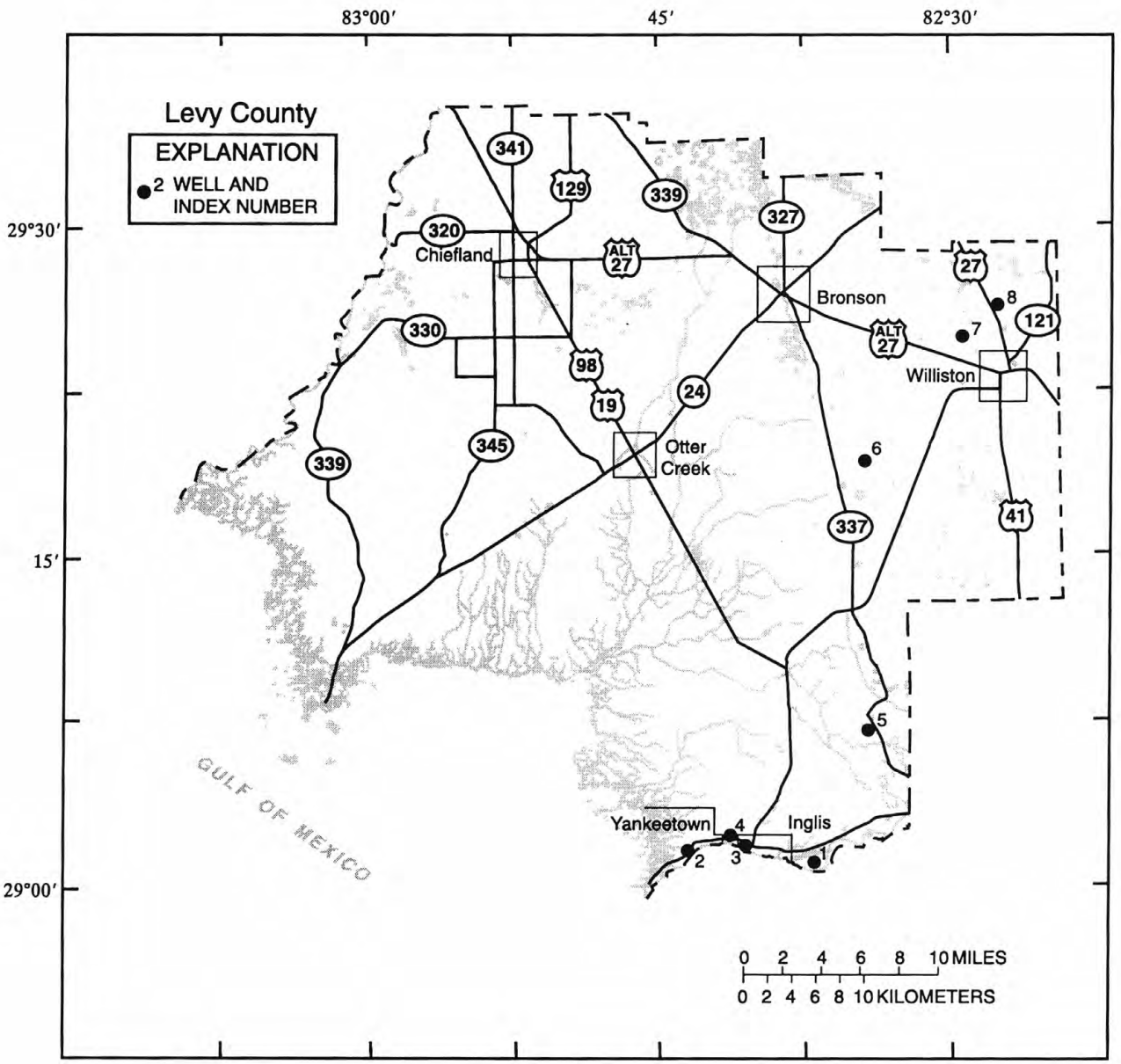

Figure 38.--Location of wells in Levy County.

LEVY COUNTY

WELL NUMBER.--290112082371101. CE-5 Well near Inglis, FL.

LOCATION.--Lat 29°01'12", long 82°37'11", in NE¼NE¼NE¼ sec.7, T.17 S., R.17 E., Hydrologic Unit 03100208, on island 700 ft southwest of Inglis lock, and 3.2 mi southeast of Inglis. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 125 ft, cased to 84 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 25.39 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.41 ft above sea level, Sept. 6, 1968; lowest, 6.96 ft below sea level, Sept. 16, 1966.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	5.19	6.09	5.43	4.92	5.06	4.49	5.17	5.07	4.95	5.30	5.48
10	6.37	6.01	5.72	5.59	4.77	5.12	4.80	4.79	4.40	4.71	5.47	5.46
15	5.79	5.51	5.12	4.34	4.84	4.90	4.84	4.62	5.00	5.38	5.65	5.90
20	6.12	5.95	5.43	5.70	5.21	5.11	5.16	5.02	4.86	5.28	5.44	5.39
25	5.70	6.04	4.96	4.64	4.79	5.06	5.07	4.63	4.41	4.99	5.53	5.70
EOM	5.73	4.60	5.15	4.50	4.72	4.95	4.66	4.71	5.27	5.85	5.73	5.02
MAX	6.39	6.51	6.10	5.70	5.30	5.52	5.54	5.22	5.27	5.85	5.88	6.23

CAL YR 1999 MAX 7.04
WTR YR 2000 MAX 6.51

WELL NUMBER.--290200082432301. ROMP 124 Well near Yankeetown, FL.

LOCATION.--Lat 29°02'00", long 82°43'23", in NW¼NE¼NE¼ sec.6, T.17 S., R.16 E., Hydrologic Unit 03110101, 120 ft south of Bonita Club Road, and 1.2 mi west of Yankeetown. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 250 ft, cased to 200 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 4.21 ft above sea level. Measuring point: Top of recorder shelf, 3.74 ft above land-surface datum.

PERIOD OF RECORD.--March 1978 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 6.11 ft above sea level, Aug. 31, 1985; lowest, 1.58 ft above sea level, June 18, 1990.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	2.31	JAN 24	2.14	APR 26	1.89	JUN 26	1.73	SEP 12	3.26		
NOV 23	2.11	FEB 22	1.91	MAY 15	1.75	JUL 26	3.76	25	3.67		
DEC 28	1.97	MAR 27	2.19	23	1.64	AUG 28	3.66				

WATER YEAR 2000 LOWEST 1.64 MAY 23, 2000 HIGHEST 3.76 JUL 26, 2000

LEVY COUNTY--Continued

WELL NUMBER.--290202082403901. Florida Power Corporation (CE-62) Well at Inglis, FL.

LOCATION.--Lat 29°02'02", long 82°40'39", in SW¼NW¼NE¼ sec.3, T.17 S., R.16 E., Hydrologic Unit 03100208, 100 ft south of State Highway 40 at abandoned power plant, 0.6 mi west of U.S. Highway 19 in Inglis. Owner: Florida Power Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 155 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape or electric tape.

DATUM.--Elevation of land-surface datum is 12.67 ft above sea level. Measuring point: Top of 4 in. coupling, 1.8 ft above land-surface datum.

PERIOD OF RECORD.--March 1961, October 1963 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.55 ft above sea level, Sept. 15, 1964; lowest measured, 1.34 ft above sea level, Mar. 14, 1968.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	3.47	FEB 17	3.38	JUN 13	1.65	SEP 20	6.04				
JAN 04	2.92	APR 06	2.49	JUL 24	5.81						

WATER YEAR 2000 LOWEST 1.65 JUN 13, 2000 HIGHEST 6.04 SEP 20, 2000

WELL NUMBER.--290230082412501. ROMP 125 Well at Crackertown, FL.

LOCATION.--Lat 29°02'30", long 82°41'25", in SE¼SW¼SE¼ sec.33, T.16 S., R.16 E., Hydrologic Unit 03110101, 40 ft southwest of intersection of State Highway 40A and Schoolcraft Road at Crackertown. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, unused, artesian well, diameter 6 in., depth 280 ft, cased to 270 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 8.64 ft above sea level. Measuring point: Top of flange, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.29 ft above sea level, Sept. 9, 1988; lowest, 0.57 ft above sea level, June 9,10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.11	3.06	2.52	2.34	2.03	2.68	2.02	1.51	.85	1.95	4.61	4.43
10	4.05	3.10	2.44	2.36	2.01	2.54	1.83	1.37	.57	1.89	4.60	4.78
15	3.77	2.93	2.43	1.93	2.63	2.26	1.86	1.22	.71	2.26	4.98	4.63
20	3.62	2.82	2.51	2.29	2.99	2.27	1.85	1.15	1.01	4.08	4.69	5.37
25	3.44	2.81	2.43	2.12	2.72	2.06	1.87	1.03	1.02	5.13	4.52	5.29
EOM	3.24	2.53	2.34	2.02	2.63	2.21	1.64	.79	1.50	4.97	4.23	4.78
MAX	4.26	3.42	2.61	2.36	2.99	2.73	2.22	1.59	1.50	5.15	5.00	5.46

CAL YR 1999 MAX 5.94
WTR YR 2000 MAX 5.46

LEVY COUNTY--Continued

WELL NUMBER.--290743082341501. Tidewater No. 1 Well near Dunnellon, FL.

LOCATION.--Lat 29°07'43", long 82°34'15", in NE¼SE¼NE¼ sec.34, T.15 S., R.17 E., Hydrologic Unit 03110101, on south side of State Highway 336 in Tidewater, 9.8 mi northwest of Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 12 in., depth 784 ft, cased to 298 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 70.07 ft above sea level. Measuring point: Top of recorder shelf, 3.82 ft above land-surface datum.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 61.81 ft above sea level, Sept. 26, 1982; lowest, 50.44 ft above sea level, June 17, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	54.99	54.57	54.29	53.92	53.50	53.14	52.39	51.59	50.71	51.53	52.58	52.60
10	55.02	54.60	54.17	53.96	53.49	53.00	52.20	51.51	50.54	51.50	52.66	52.67
15	55.00	54.64	54.20	53.59	53.44	52.88	52.30	51.36	50.56	51.58	52.69	52.65
20	54.89	54.42	54.31	53.90	53.44	52.85	52.06	51.19	50.57	51.64	52.69	52.95
25	54.75	54.38	54.13	53.70	53.34	52.54	52.02	51.04	50.66	51.99	52.78	53.17
EOM	54.75	54.22	54.07	53.61	53.25	52.58	51.70	50.79	51.08	52.40	52.57	53.08
MAX	55.09	54.87	54.43	54.06	53.69	53.28	52.57	51.71	51.08	52.40	52.78	53.18

CAL YR 1999 MAX 56.76
WTR YR 2000 MAX 55.09

WELL NUMBER.--291910082341101. Bullock-Huber Well near Williston, FL.

LOCATION.--Lat 29°19'10", long 82°34'11", in NW¼NW¼NW¼ sec.36, T.13 S., R.17 E., Hydrologic Unit 03110101, in a field, 1.0 mi south of a county road, 2.9 mi west of State Highway 121, and 10 mi southwest of Williston. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 91 ft, cased to 68 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Land-surface datum is 91.40 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1974 to September 1977 (bimonthly); October 1977 to September 1979 (semiannually); October 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.53 ft above sea level, Mar. 13, 1998; lowest measured, 39.45 ft above sea level, June 13, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 12	42.37	FEB 17	42.00	APR 06	40.88	JUN 13	39.45	JUL 27	39.66	SEP 12	40.40

WATER YEAR 2000 LOWEST 39.45 JUN 13, 2000 HIGHEST 42.37 JAN 12, 2000

LEVY COUNTY--Continued

WELL NUMBER.--292430082283001. Devils Den Sink CE-8 near Williston, FL.

LOCATION.--Lat 29°24'26", long 82°28'36", in NW¼SE¼SE¼ sec.26, T.12 S., R.18 E., Hydrologic Unit 03080102, 1,000 ft west of county road, 1.3 mi north of Alternate U.S. Highway 27, at a point 1.0 mi west of U.S. Highway 41 in Williston. Owner: Hugh Barton.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Natural sinkhole, depth 32 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Land-surface datum is 71.55 ft above sea level. Measuring point: Painted mark on east side of sink at land-surface datum.

PERIOD OF RECORD.--November 1935 to December 1949, and March 1966 to September 1967 (monthly); November 1967 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.40 ft above sea level, October 1948; lowest measured, 41.87 ft above sea level, July 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	45.98	JAN 12	44.88	FEB 17	44.40	APR 06	43.60	JUN 13	42.16	JUL 27	41.87

WATER YEAR 2000 LOWEST 41.87 JUL 27, 2000 HIGHEST 45.98 NOV 16, 1999

WELL NUMBER.--292615082272601. ROMP 134 near Williston, FL.

LOCATION.--Lat 29°26'15", long 82°27'26", in SW¼NW¼NW¼ sec.19, T.12 S., R.19 E., Hydrologic Unit 03080102, on east side of dirt road 0.2 mi south of intersection with State Highway 335, and 3.5 mi north of Williston. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 1,185 ft, cased to 70 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 70.00 ft above sea level. Measuring point: Top of shelter floor, 4.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1983, April 1983 to September 2000 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 55.58 ft above sea level, Oct. 20,21,22, 1998; lowest, 41.60 ft above sea level, July 29,31, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.38	45.99	45.56	45.06	44.51	44.06	43.51	42.92	42.21	41.84	41.74	41.76
10	46.26	45.93	45.49	44.97	44.42	43.98	43.42	42.81	42.09	41.80	41.78	41.86
15	46.22	45.86	45.41	44.87	44.34	43.89	43.32	42.70	42.00	41.75	41.79	41.97
20	46.17	45.78	45.34	44.80	44.27	43.80	43.23	42.57	41.92	41.69	41.79	42.08
25	46.13	45.71	45.26	44.71	44.19	43.70	43.13	42.46	41.88	41.64	41.76	42.24
EOM	46.06	45.64	45.15	44.59	44.14	43.60	43.03	42.32	41.85	41.60	41.74	42.37
MAX	46.38	46.05	45.62	45.13	44.57	44.12	43.57	43.00	42.30	41.85	41.80	42.37

CAL YR 1999 MAX 52.85
WTR YR 2000 MAX 46.38

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

LEVY COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
290301082335601	05-15-00	1405	90323301 16S17E35 DEL WRIGHT CORRAL	48.73
	09-12-00	0815		51.76
290503082323101	05-15-00	1420	90523201 16S17E13 SCE 108 T & J RANCH	68.25
	09-12-00	0838		70.97
290605082372601	05-15-00	1450	90623701 16S17E07 GEOTHE ROAD	25.35
	09-12-00	0930		27.64
291004082382901	05-15-00	1440	91023801 15S16E24 910238433 DIXIE LIME PR	21.00
	09-12-00	0941		25.42
291712082351801	05-16-00	0720	SOUTH OF BONSON-RO	49.56
	09-12-00	1010		48.49
292143082282201	05-16-00	0915	92122801 13S18E11 WILLISTON AIRPORT	41.96
	09-12-00	1200		41.46
292310082373701	05-16-00	0805	ERCELL SMITH	51.60
	09-12-00	1053		52.32

KEY TO SITE LOCATIONS ON FIGURE 39
MARION COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	285920081490501	162
2	290106082191001	162
3	290133082140901	163
4	290215082152401	163
5	290306082232802	164
6	290312082250801	164
7	290514082270701	165
8	290815082025701	165
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11	291110082060001	167
12	291115081592501	167
13	291115082102901	168
14	291849081411401	168
15	292200081510001	169
16	292546081513301	169

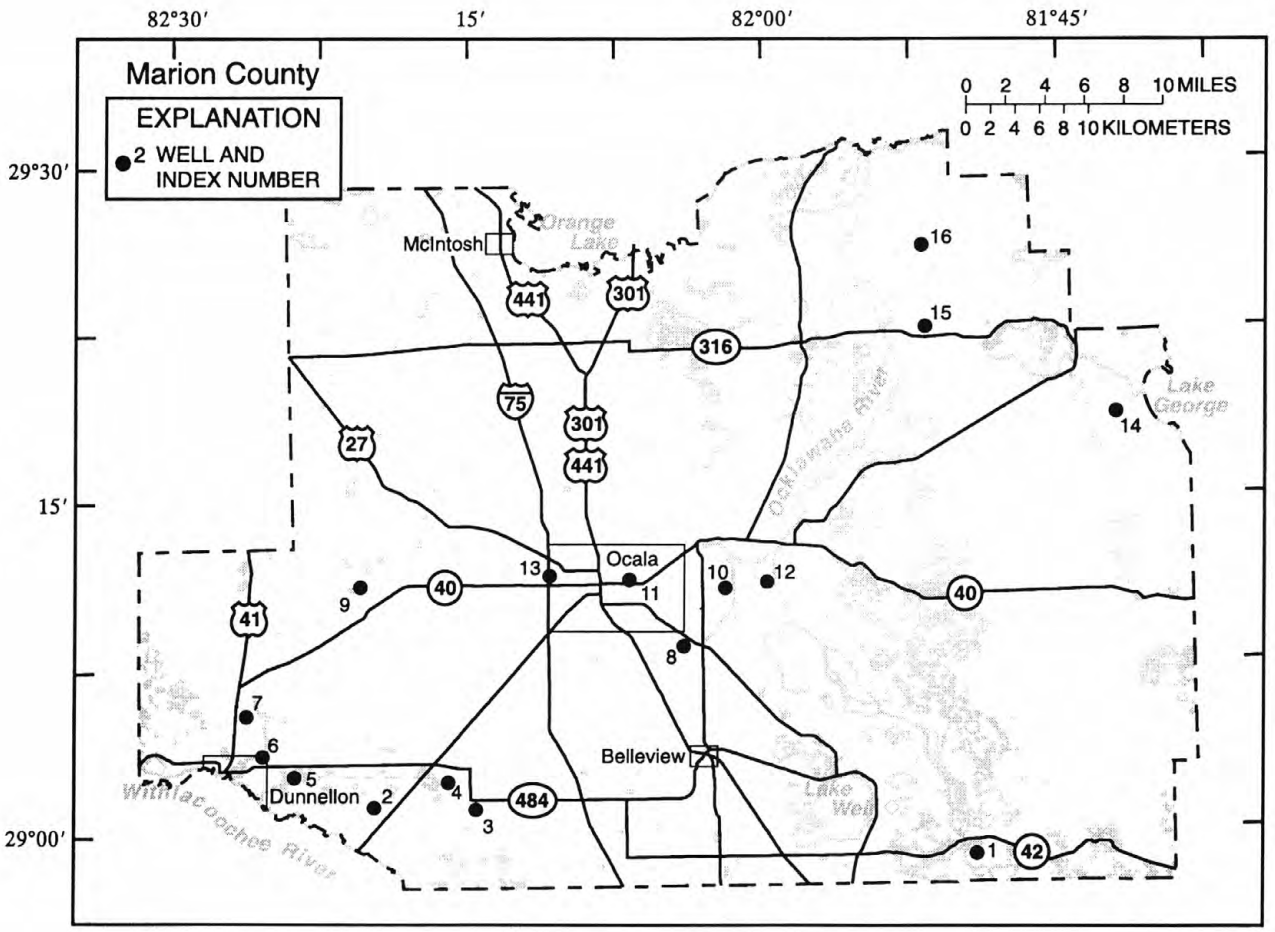

Figure 39.--Location of wells in Marion County.

MARION COUNTY

WELL NUMBER.--285920081490501. USGS Well Mar-48 near Ocklawaha, FL. (Formerly Mar-48 Replacement Well near Ocklawaha, FL.)

LOCATION.--Lat 28°59'20", long 81°49'05", in SE¼SW¼ sec.20, T.17 S., R.25 E., Hydrologic Unit 03080102, at fish camp south of State Highway 42, on east side of Ocklawaha River at Starkes Ferry, and 7 mi southeast of Ocklawaha.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 152 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 61.08 ft above sea level. Measuring point: Top of PVC elbow at vent, 2.22 ft above land-surface datum.

REMARKS.--Record is equivalent to that for Mar 48 Replacement (285930081500501), available October 1980 to September 1983.

PERIOD OF RECORD.--March 1936 to December 1949 (monthly); January 1950 to September 1980, October 1983 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.28 ft above sea level, October 1945; lowest measured, 49.04 ft above sea level, Sept. 15, 1992.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17	52.71	JAN 14	51.92	MAR 07	51.35	MAY 02	50.12	JUN 28	49.27	AUG 15	49.39

WATER YEAR 2000 LOWEST 49.27 JUN 28, 2000 HIGHEST 52.71 NOV 17, 1999

WELL NUMBER.--290106082191001. CE-23 Well near Dunnellon, FL.

LOCATION.--Lat 29°01'06", long 82°19'10", in NE¼NE¼NE¼ sec.17, T.17 S., R.20 E., Hydrologic Unit 03100208, north of State Highway 200, 2.8 mi northeast of Withlacoochee River, and 16.3 mi southwest of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 45 ft, cased to 19 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 62.64 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1966 to September 1977; October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.94 ft above sea level, Mar. 11, 1998; lowest measured, 37.03 ft above sea level, June 13, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	40.73	FEB 17	38.85	MAY 17	37.53	JUL 25	38.29	SEP 20	38.75		
JAN 04	39.70	APR 06	38.05	JUN 13	37.03	SEP 14	38.73				

WATER YEAR 2000 LOWEST 37.03 JUN 13, 2000 HIGHEST 40.73 NOV 15, 1999

MARION COUNTY--Continued

WELL NUMBER.--290133082140901. ROMP 119 Well near Ocala, FL.

LOCATION.--Lat 29°01'33", long 82°14'09", in NW¼NW¼SW¼ sec.8, T.17 S., R.21 E., Hydrologic Unit 03080102, on south side of State Highway 484, 4.5 mi west from intersection with Interstate Highway 75, and 12 mi southwest of Ocala. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 502 ft, cased to 106 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 71.85 ft above sea level. Measuring point: Top of flange, 3.90 ft above land-surface datum.

PERIOD OF RECORD.--December 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 52.20 ft above sea level, Mar. 28, 30, 31, 1998; lowest, 40.62 ft above sea level, June 26-28, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.32	43.60	43.32	42.86	42.47	42.11	41.70	41.29	40.79	40.81	40.89	40.96
10	43.47	43.62	43.24	42.79	42.41	42.04	41.64	41.22	40.72	40.81	40.87	40.99
15	43.54	43.60	43.17	42.69	42.35	41.97	41.59	41.13	40.69	40.81	40.90	41.01
20	43.57	43.53	43.10	42.65	42.29	41.91	41.51	41.05	40.66	40.81	40.93	41.07
25	43.56	43.46	43.03	42.59	42.23	41.83	41.45	40.96	40.63	40.83	40.98	41.18
EOM	43.54	43.38	42.95	42.53	42.18	41.76	41.37	40.86	40.67	40.88	40.96	41.25
MAX	43.59	43.62	43.36	42.93	42.52	42.16	41.75	41.35	40.84	40.88	40.98	41.25

CAL YR 1999 MAX 46.65
WTR YR 2000 MAX 43.62

WELL NUMBER.--290215082152401. CE-74 Well near Ocala, FL.

LOCATION.--Lat 29°02'15", long 82°15'24", in NE¼SW¼SE¼ sec.1, T.17 S., R.20 E., Hydrologic Unit 03100208, 0.25 mi west of State Highway 484, 2.9 mi southeast of State Highway 200, and 13 mi southwest of Ocala. Owner: U.S. Army Corps of Engineers.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 2 in., depth 51 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 76.97 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1964 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.63 ft above sea level, Mar. 11, 1998; lowest measured, 39.59 ft above sea level, June 13, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	42.56	FEB 17	41.28	MAY 17	40.06	JUL 27	39.74				
JAN 04	41.86	APR 06	40.59	JUN 13	39.59	SEP 14	40.05				

WATER YEAR 2000 LOWEST 39.59 JUN 13, 2000 HIGHEST 42.56 NOV 15, 1999

MARION COUNTY--Continued

WELL NUMBER.--290306082232802. Fire Tower (CE-73) Well at Dunnellon, FL.

LOCATION.--Lat 29°03'06", long 82°23'28", in SE¼NW¼SE¼ sec.34, T.16 S., R.19 E., Hydrologic Unit 03100208, on south side of State Highway 484, across from Dunnellon Fire Tower, and 4.4 mi east of U.S. Highway 41 in Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 36 ft, cased to 26 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 65.18 ft above sea level. Measuring point: Hole in cap, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1964 to May 1966 (monthly), July 1966 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.99 ft above sea level, Mar. 11, 1998; lowest measured, 47.91 ft above sea level, July 15, 1975.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	53.82	FEB 17	51.54	MAY 15	50.37	JUL 25	51.94	SEP 20	51.28		
JAN 04	52.43	APR 06	51.02	JUN 14	49.74	SEP 14	51.33				

WATER YEAR 2000 LOWEST 49.74 JUN 14, 2000 HIGHEST 53.82 NOV 15, 1999

WELL NUMBER.--290312082250801. CE-14 Well near Dunnellon, FL.

LOCATION.--Lat 29°03'12", long 82°25'08", in NW¼NW¼NW¼ sec.32, T.16 S., R.19 E., Hydrologic Unit 03100208, on north side of State Highway 484, 8.3 mi west of State Highway 200, and 2.7 mi east of Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 190 ft, cased to 112 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 60.24 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 50.90 ft above sea level, Mar. 1, 1998; lowest, 34.31 ft above sea level, Feb. 28, 1982.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.43	40.59	39.88	39.02	38.18	37.51	36.77	36.13	35.57	35.64	36.82	37.19
10	41.29	40.48	39.76	38.90	38.06	37.40	36.67	36.05	35.51	35.86	36.91	37.19
15	41.17	40.39	39.61	38.73	37.93	37.24	36.59	35.90	35.49	36.11	37.06	37.15
20	41.02	40.26	39.47	38.63	37.84	37.12	36.54	35.86	35.51	36.34	37.12	37.16
25	40.87	40.13	39.32	38.48	37.72	36.97	36.44	35.75	35.43	36.53	37.17	37.23
EOM	40.72	40.00	39.16	38.33	37.63	36.90	36.29	35.68	35.47	36.70	37.17	37.31
MAX	41.53	40.72	39.97	39.13	38.30	37.60	36.85	36.24	35.58	36.70	37.19	37.31

CAL YR 1999 MAX 43.90
WTR YR 2000 MAX 41.53

MARION COUNTY--Continued

WELL NUMBER.--290514082270701. Rainbow Springs Well near Dunnellon, FL.

LOCATION.--Lat 29°05'14", long 82°27'07", in SW¼NW¼SW¼ sec.13, T.16 S., R.18 E., Hydrologic Unit 03100208, on east side of U.S. Highway 41, 2.8 mi north of Dunnellon. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 442 ft, cased to 125 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 113.13 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Well records used to determine flow of Rainbow Springs.

PERIOD OF RECORD.--October 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily mean water level, 36.12 ft above sea level, Oct. 22, 1964; lowest, 29.68 ft above sea level, June 11, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.66	30.57	30.45	30.33	30.21	30.07	29.94	29.81	29.70	29.87	30.06	30.14
10	30.67	30.52	30.44	30.32	30.19	30.03	29.91	29.78	29.70	29.93	30.06	30.18
15	30.64	30.53	30.44	30.27	30.21	29.97	29.97	29.77	29.81	30.00	30.08	30.14
20	30.62	30.50	30.44	30.29	30.14	29.98	29.87	29.77	29.79	29.99	30.04	30.19
25	30.59	30.51	30.40	30.29	30.11	29.95	29.85	29.75	29.80	30.04	30.09	30.27
EOM	30.57	30.46	30.37	30.26	30.08	30.01	29.81	29.71	29.91	30.05	30.09	30.29
MAX	30.68	30.62	30.47	30.36	30.26	30.09	30.01	29.82	29.91	30.05	30.13	30.29

CAL YR 1999 MAX 31.80
WTR YR 2000 MAX 30.68

WELL NUMBER.--290815082025701. USGS Well CE-40 replacement near Ocala, FL.

LOCATION.--Lat 29°08'15", long 82°02'57", in SE¼SE¼SW¼ sec.31, T.15 S., R.23 E., Hydrologic Unit 03100208, on south side of State Highway 464, 6.5 mi northwest of Candler, and 4.3 mi southeast of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 3 in., depth 105 ft, cased to 47 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 91.45 ft above sea level. Measuring point: Top edge of casing, 2.80 ft above land-surface datum.

REMARKS.--Record is equivalent to that for CE-40 (290810082025001), available March 1966 to September 1982.

PERIOD OF RECORD.--March 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.39 ft above sea level, Mar. 13, 1998; lowest measured, 40.13 ft above sea level, July 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	43.54	JAN 12	42.35	FEB 17	42.00	APR 07	41.22	JUN 12	40.28	JUL 27	40.13

WATER YEAR 2000 LOWEST 40.13 JUL 27, 2000 HIGHEST 43.54 NOV 16, 1999

MARION COUNTY--Continued

WELL NUMBER.--291059082190801. Romp 120 near Cotton Plant, FL.

LOCATION.--Lat 29°10'59", long 82°19'08", in NE¼SE¼SE¼ sec.17, T.15 S., R.20 E., Hydrologic Unit 03080102, on south side of State Highway 328, 0.4 mi from intersection with State Highway 40 in Cotton Plant. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in, depth 403 ft, cased to 110 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 76.04 ft above sea level. Measuring point: Top of flange, 3.22 ft above land-surface datum.

PERIOD OF RECORD.--October 1981 to August 1992; September 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.16 ft above sea level, Mar. 24, 1998; lowest, 39.86 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	42.66	JAN 25	41.81	APR 26	40.52	JUN 26	39.86	SEP 13	40.10		
NOV 23	42.54	FEB 22	41.37	MAY 16	40.17	JUL 26	39.94	25	40.37		
DEC 28	42.16	MAR 27	40.98	23	40.22	AUG 28	40.06				

WATER YEAR 2000 LOWEST 39.86 JUN 26, 2000 HIGHEST 42.66 OCT 26, 1999

WELL NUMBER.--291100082010003. Local Number CE-76. USGS Observation Well CE-76 near Ocala, FL.

LOCATION.--Lat 29°11'00", long 82°01'00", in NE¼NW¼SW¼ sec.16, T.15 S., R.23 E., Hydrologic Unit 03080102, on south side of Sharpes Ferry Road, 6.5 mi east of Ocala. Owner: U.S. Geological Survey.

AQUIFER..--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 153 ft, cased to 124 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 64.51 ft above sea level. Measuring point: Top edge of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1968 to September 1977; October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.78 ft above sea level, Apr. 19, 1970; lowest measured, 39.96 ft above sea level, Feb. 4, 1991.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	42.51	JAN 12	41.73	FEB 17	41.31	APR 07	40.75	JUN 12	40.07	JUL 27	39.99

WATER YEAR 2000 LOWEST 39.99 JUL 27, 2000 HIGHEST 42.51 NOV 16, 1999

MARION COUNTY--Continued

WELL NUMBER.--291110082060001. USGS Well CE-44 at Ocala, FL.

LOCATION.--Lat 29°11'10", long 82°06'00", in SW¼SW¼NW¼ sec.15, T.15 S., R.22 E., Hydrologic Unit 03080102, on south side of State Highway 40, 120 ft east of Florida Highway Patrol Station at Ocala, and 3.0 mi west of Silver Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 91 ft, cased to 34.2 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 102.73 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1966 to September 1977; October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.94 ft above sea level, Mar. 13, 1998; lowest measured, 39.15 ft above sea level, Sept. 10, 1990.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	41.74	FEB 17	40.29	MAY 17	39.49	JUL 27	39.17	SEP 20	39.55		
JAN 12	40.84	APR 07	39.96	JUN 13	39.19	SEP 13	39.41				

WATER YEAR 2000 LOWEST 39.17 JUL 27, 2000 HIGHEST 41.74 NOV 16, 1999

WELL NUMBER.--291115081592501. Sharpes Ferry Well, Marion 5 near Ocala, FL.

LOCATION.--Lat 29°11'15", long 81°59'25", in NE¼SE¼ sec.15, T.15 S., R.23 E., Hydrologic Unit 03080102, on north side of Sharpes Ferry Road, 0.1 mi east of Ocklawaha River, and 7.6 mi east of Ocala. Owner: Florida Department of Transportation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 135 ft, cased to 135 ft.

INSTRUMENTATION.--Water-stage recorder and data-collection platform--30 minute interval.

DATUM.--Land-surface datum is 39.83 ft above sea level. Measuring point: Top of reducer, 2.55 ft above land-surface datum.

REMARKS.--Well records used to determine flow of Silver Springs.

PERIOD OF RECORD.--January 1933 to July 1947 (weekly); August 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily mean water level, 55.42 ft above sea level, Oct. 14, 1960; lowest, 42.91 ft above sea level, July 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.55	46.41	46.18	45.56	45.13	44.73	44.24	43.79	---	43.07	43.04	43.07
10	46.65	46.51	46.09	45.63	45.16	44.60	44.13	43.74	43.12	43.00	43.10	43.16
15	46.68	46.56	45.94	45.24	45.07	44.59	44.25	43.63	43.16	43.06	43.05	43.31
20	46.57	46.35	45.93	45.58	44.99	44.60	44.10	43.52	43.03	42.93	43.09	43.38
25	46.47	46.35	45.79	45.45	44.88	44.41	44.07	43.44	43.05	42.96	43.11	43.52
EOM	46.50	46.08	45.71	45.31	44.83	44.37	43.84	---	43.16	42.94	43.09	43.60
MAX	46.79	46.70	46.21	45.71	45.29	44.87	44.38	43.87	43.25	43.13	43.17	43.60

CAL YR 1999 MAX 49.26
WTR YR 2000 MAX 46.79

MARION COUNTY--Continued

WELL NUMBER.--291115082102901. USGS Well CE-31 replacement at Ocala, FL.

LOCATION.--Lat 29°11'15", long 82°10'29", in SE¼SW¼NE¼ sec.14, T.15 S., R.21 E., Hydrologic Unit 03080102, 0.25 mi west of Alternate U.S. Highway 27, and 0.1 mi north of State Highway 40, about 2 mi west of Ocala. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 55 ft, cased to 27 feet.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 72.66 ft above sea level. Measuring point: Top of casing, 2.4 ft above land-surface datum.

REMARKS.--Record is equivalent to that for CE-31 (291120082102501), available November 1935 to May 1983.

PERIOD OF RECORD.--April 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.88 ft above sea level, Mar. 13, 1998; lowest measured, 39.95 ft above sea level, July 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	42.82	JAN 12	42.09	FEB 17	41.53	APR 06	40.89	JUN 13	40.03	JUL 26	39.95

WATER YEAR 2000 LOWEST 39.95 JUL 26, 2000 HIGHEST 42.82 NOV 16, 1999

WELL NUMBER.--291849081411401. Lake George Well near Salt Springs, FL.

LOCATION.--Lat 29°18'49", long 81°41'14", in SE¼ sec.42, Joseph M. Hernandez Grant, T.13 S., R.26 E., Hydrologic Unit 03080101, on a sand trail, on the east side of State Highway 19, 3.8 mi southeast of Salt Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in, depth 298 ft, cased to 267.50 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 18.92 ft above sea level. Measuring point: Top of 4 in. coupling, 2.00 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--January 1983 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.70 ft above sea level, Nov. 28, 1995; lowest measured, 12.99 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	14.86	JAN 26	14.20	APR 25	13.67	JUN 27	12.99	SEP 11	14.08		
NOV 18	14.69	FEB 23	14.04	MAY 17	13.24	JUL 24	13.11	26	14.62		
DEC 16	14.47	MAR 28	13.82	23	13.30	AUG 29	13.60				

WATER YEAR 2000 LOWEST 12.99 JUN 27, 2000 HIGHEST 14.86 OCT 27, 1999

MARION COUNTY--Continued

WELL NUMBER.--292200081510001. USGS Well CE-84 near Salt Springs, FL.

LOCATION.--Lat 29°22'00", long 81°51'00", in NW¼NW¼NE¼ sec.13, T.13 S., R.24 E., Hydrologic Unit 03080101, on north side of State Highway 316, 2.5 mi east of Ocklawaha River at Eureka, 7.5 mi west of Salt Springs, and 8.0 mi east of Fort McCoy. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 90 ft, cased to 53 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 91.72 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--July 1970 to September 1977; October 1977 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.92 ft above sea level, Nov. 28, 1979; lowest measured, 21.31 ft above sea level, Sept. 16, 1992.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	23.83	JAN 25	23.48	APR 24	23.13	JUN 26	22.71	SEP 11	22.83		
NOV 18	23.76	FEB 22	23.40	MAY 17	22.60	JUL 24	22.55	25	22.66		
DEC 15	23.68	MAR 24	23.24	22	22.96	AUG 28	22.40				

WATER YEAR 2000 LOWEST 22.40 AUG 28, 2000 HIGHEST 23.83 OCT 26, 1999

WELL NUMBER.--292546081513301. USGS Well CE-67 near Salt Springs, FL.

LOCATION.--Lat 29°25'46", long 81°51'33", in NE¼SE¼SE¼ sec.23, T.12 S., R.24 E., Hydrologic Unit 03080102, on northwest corner of Forest Roads 75 and 97 in the Ocala National Forest, 7.8 mi northeast of Fort McCoy, and 9.2 mi northwest of Salt Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 340 ft, cased to 307 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Land-surface datum is 137.84 ft above sea level. Measuring point: Hole in cap, 2.20 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1964 to November 1967 (monthly); January 1968 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.60 ft above sea level, Oct. 29, 1965; lowest measured, 17.34 ft above sea level, July 1, 1968.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	20.10	JAN 25	19.48	APR 24	19.40	JUN 26	19.05	SEP 11	19.29		
NOV 18	20.14	FEB 22	19.34	MAY 17	19.09	JUL 24	19.11	25	19.95		
DEC 15	19.80	MAR 24	19.27	22	19.29	AUG 28	19.16				

WATER YEAR 2000 LOWEST 19.05 JUN 26, 2000 HIGHEST 20.14 NOV 18, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

MARION COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
285900082072001	05-22-00	1200	USGS OBSER WELL CE36 AT PEDRO, FL.	42.84
	09-14-00	1215		42.41
285930081430901	05-15-00	0953	SR 42 W OF ALTOONA	48.04
	09-11-00	1245		47.53
285933082192501	05-16-00	1200	85921901 17S20E20 CE 24 U S GEOL SURVEY	35.10
	09-14-00	1030		35.94
290130082082001	05-17-00	0611	90120801 USGS OB WELL CE35 NR PEDRO FL	42.95
	09-14-00	1140		42.26
290227082250801	05-15-00	1345	90222501 16S19E31 CE 75 U S GEOL SURVEY	50.89
290312082190601	05-15-00	1300	90321901 16S20E33 CE 22 U S GEOL SURVEY	43.36
	09-14-00	0920		44.71
290447082250901	05-15-00	1325	90422501 16S19E20 CE 13 U S GEOL SURVEY	31.07
	09-14-00	0745		31.61
290614082274801	05-16-00	1320	90622701 16S18E11 SCE 170 RAINBOWS END GOLF CRS	31.32
	09-13-00	0729		31.74
290628081425301	05-17-00	1425	LOOKOUT TOWER BOMBING RANGE DEEP, ASTOR PARK	44.15
	09-11-00	1213		42.94
290739082245701	05-16-00	1312	90722401 15S19E32 CE 12 U S GEOL SURVEY	32.59
	09-13-00	1140		33.00
290752082271101	05-16-00	1340	90722701 15S18E35 SCE 116 RAINBOW ACRES	32.57
	09-13-00	0800		32.83
290822082310101	05-16-00	1355	90823101 15S18E32 LAKE BONABLE	40.20
	09-13-00	0855		40.50
290910082315001	05-16-00	1505	90923101 15S18E30 SCE 138 LITTLE LAKE BONABLE	38.73
	09-13-00	0840		39.02
290913082245601	05-16-00	1425	90922401 15S19E29 SCE 118 LAKE TROPICANA	33.87
	09-13-00	0940		34.24
290953082031301	05-17-00	1600	90920301 USGS OB WELL CE79 NR SILVER SPRINGS, FL	42.38
	09-13-00	1540		42.26
291056082263201	05-16-00	1435	91022601 15S18E13 HERSHEL KYPER ROMEO	35.07
	09-13-00	1000		35.32
291117081540501	05-17-00	1518	REDWATER LAKE DEEP WELL NR LYNNE (SJ M-0044)	45.27
	09-11-00	1020		45.18
291600081550001	05-17-00	1315	91615501 USGS OB WELL CE55 NR SALT SPRINGS, FL	41.53
	09-11-00	1358		41.81

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

MARION COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
291751081414301	05-17-00	1400	OCALA NF 4IN SHALLOW WELL(M-0413)	14.77
	09-11-00	1325		15.31
292019082064201	05-17-00	1210	CE 66 REPLACEMENT WELL	43.25
292101082233601	09-13-00	1302	92122301 13S19E15 HOMESTEADER NURSERY	42.94
292146082182501	05-17-00	1000	92121801 13S20E09 SR 316 WELL SRWMD	46.99
	09-13-00	1345		45.57
292204082022801	05-17-00	1226	FT MCCOY DEEP	46.92
	09-11-00	1510		47.31
292349082191501	05-17-00	1022	92321901 12S20E33 E H UPDIKE	47.09
	09-12-00	1240		46.49
292656082125001	05-17-00	1113	M-0351 SPORTSMAN COVE	50.65
	09-12-00	1445		49.60
292718082202601	05-17-00	1059	92722001 12S20E18 MAHAFFEY WELL	51.60
	09-12-00	1340		51.05
292816082234501	05-17-00	1044	92822301 12S19E03 SMITH BROTHERS WACAHOOTA	52.29
	09-12-00	1320		50.94

KEY TO SITE LOCATIONS ON FIGURE 40
NASSAU COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	303435081271401	174
2	303518081275001	175
2	303518081275002	175
3	303823081273304	176
4	304005081380201	176
5	304213081270801	177
6	304410081592101	177

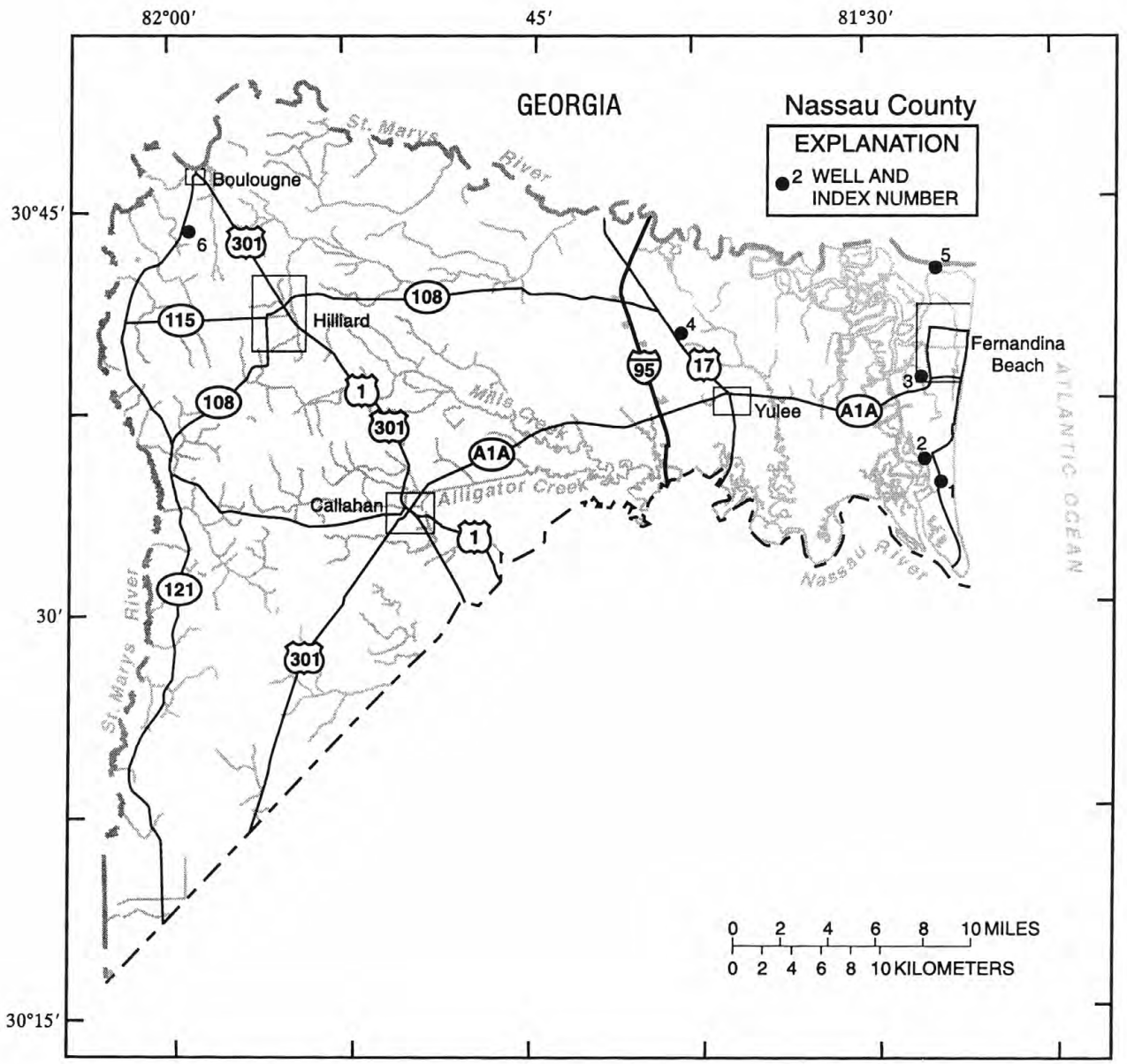

Figure 40.--Location of wells in Nassau County.

NASSAU COUNTY

WELL NUMBER.--303435081271401. Local Number N-46. Amelia Island Corporation Well at Amelia City, FL.

LOCATION.--Lat 30°34'35", long 81°27'14", in SE¼SW¼SW¼ sec.14, T.2 N., R.28 E., Hydrologic Unit 03070205 at Amelia Island waterworks, 200 ft east of water storage tanks, and 1.1 mi south of intersection of State Highways A1A and 105A at Amelia City. Owner: Amelia Island Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, commercial, artesian well, diameter 12 in., depth 1,016 ft, cased to 492 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Semiannual measurement with pressure gage.

DATUM.--Land-surface datum is 14.15 ft above sea level. Measuring point: Top of lowest 14 in. flange, 1.10 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--April to December 1975 (monthly); May 1977 to September 1978 (semiannually); April 1979 to September 1983 (bimonthly); October 1983 to September 1997 (monthly); October 1997 to September 2000 (semiannually), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.25 ft above sea level, Dec. 31, 1985; lowest measured, 19.09 ft above sea level, Aug. 28, 1996.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-78, 1983-89 (varied frequencies); 1996 to current year (quarterly).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 22...	1145	598	7.1	23.0	<5	260	55.0	30.0	17.0
JAN 12...	1330	598	7.3	24.0	<5	270	56.0	31.0	17.0
APR 24...	1240	598	7.3	24.0	<5	280	58.0	32.0	17.0
JUL 26...	1145	595	7.1	26.0	<5	270	55.0	31.0	17.0

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
OCT 22...	2.0	150	120	23.0	.6	30.0	399	530
JAN 12...	2.0	149	120	22.0	.6	30.0	390	530
APR 24...	2.0	150	120	23.0	.6	31.0	391	570
JUL 26...	1.9	150	120	23.0	.6	31.0	393	540

NASSAU COUNTY--Continued

WELL NUMBER.--303518081275001. Local Number N-3. Pierce Johnson Well at Amelia City, FL.

LOCATION.--Lat 30°35'18", long 81°27'50", in land grant 12, T.2 N., R.28 E., Hydrologic Unit 03070205, at Sandbar Cafe on Forrest Drive, 0.4 mi west of State Highway A1A. Owner: Pierce Johnson.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 540 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 14.14 ft above sea level. Measuring point: Top of 4 in. cross, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for N-2 (303519081275301), available March 1939 to October 1985.

PERIOD OF RECORD.--March 1939, September 1955, October, November 1959, June 1985 to January 2000 (monthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.14 ft above sea level, Mar. 22, 1939; lowest measured, 15.99 ft above sea level, Aug 23, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	20.84	NOV 22	17.50	DEC 20	23.84	JAN 24	20.84

WATER YEAR 2000 LOWEST 17.50 NOV 22, 1999 HIGHEST 23.84 DEC 20, 1999

WELL NUMBER.--303518081275002. Local Number N-130 Well at Amelia City, FL.

LOCATION.--Lat 30°35'18", long 81°27'50", in land grant 12, T.2 N., R.28 E., Hydrologic Unit 03070205, at McCranie residence on Forrest Drive, 0.4 mi west of State Highway A1A at Amelia City. Owner: Michael McCranie.

AQUIFER.--Floridan aquifer system of Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 600 ft, cased to 515 ft.

INSTRUMENTATION.--Monthly measurment with pressure gage.

DATUM.--Land-surface datum is 14.76 ft above sea level. Measuring point: Top of reducer bushing, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells. Record is equivalent to that for N-3 (303518081275001), available March 1939 to January 2000.

PERIOD OF RECORD.--March 2000 to September 2000 (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.06 ft above sea level, Mar. 28, 2000; lowest measured, 16.15 ft above sea level, May 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 28	20.06	APR 25	19.90	MAY 15	17.26	MAY 22	16.15	SEP 11	19.26	SEP 25	18.92

WATER YEAR 2000 LOWEST 16.15 MAY 22, 2000 HIGHEST 20.06 MAR 28, 2000

NASSAU COUNTY--Continued

WELL NUMBER.--303823081273304. Local Number N-62. ITT Rayonier No. 8 Well at Fernandina Beach, FL.

LOCATION.--Lat 30°38'23", long 81°27'33", in land grant 30, T.3 N., R.28 E., Hydrologic Unit 03070205, 30 ft west of State Highway A1A, and 200 ft north of intersection of State Highways A1A and 108, in Fernandina Beach. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 1,020 ft, cased to 565 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 17.60 ft above sea level. Measuring point: Top of recorder shelf, 3.36 ft above land-surface datum.

REMARKS.--Well originally drilled to 2,130 ft in 1945, later reconstructed to 1,020 ft in 1991.

PERIOD OF RECORD.--November 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.18 ft above sea level, Feb. 27, 1996; lowest, 30.01 ft below sea level, June 25, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-19.95	-18.74	-17.70	-16.22	-15.68	-16.95	-15.69	-17.93	-22.55	-16.89	-25.40	-20.20
10	-19.50	-19.73	3.16	-16.43	-15.31	-17.42	-15.13	-21.37	-21.77	-18.60	-25.59	-20.10
15	-20.09	-19.71	5.87	-17.29	-10.81	-17.65	-14.92	-20.53	-22.12	-18.49	-24.16	-21.58
20	-19.79	-21.24	6.19	-17.03	-6.80	-17.55	-13.81	-20.32	-26.35	-20.50	-23.47	-19.31
25	-19.37	-19.57	2.46	-15.56	-11.24	-18.27	-13.02	-20.26	-18.14	-18.48	-22.90	-13.02
EOM	-19.54	-19.12	-2.30	-15.33	-13.20	-16.48	-16.04	-21.11	-15.87	-18.79	-20.40	-10.35
MAX	-18.27	-13.59	8.50	-3.57	-6.42	-10.13	-12.93	-17.24	-15.87	-15.90	-18.96	-10.35

CAL YR 1999 MAX 8.50
WTR YR 2000 MAX 8.50

Note.--Negative figures indicate water level below sea level.

WELL NUMBER.--304005081380201. Local Number N-121. Becker Oil Test Supply Well near Yulee, FL.

LOCATION.--Lat 30°40'05", long 81°38'02", in land grant 50, T.3 N., R.27 E., Hydrologic Unit 03070205, 0.2 mi east of Yulee Fire Tower, 0.42 mi southeast of intersection of U.S. Highway 17 and Parker Road, and 3.0 mi northwest of Yulee. Owner: ITT Rayonier Incorporated.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 645 ft, cased to 460 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 21.87 ft above sea level. Measuring point: Top of reducing fitting, 1.45 ft above land-surface datum.

REMARKS.--Record is equivalent to that for N-53 (304002081381201), available February 1940 to June 1994.

PERIOD OF RECORD.--May 1984, August 1985, August 1994 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.82 ft above sea level, Apr. 27, 1998; lowest measured, 23.23 ft above sea level, July 24, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	27.06	JAN 24	28.42	APR 25	27.35	JUN 26	23.51	SEP 11	28.27		
NOV 22	27.04	FEB 22	28.25	MAY 15	26.82	JUL 24	23.23	25	24.88		
DEC 20	28.18	MAR 27	27.52	22	25.94	AUG 28	23.70				

WATER YEAR 2000 LOWEST 23.23 JUL 24, 2000 HIGHEST 28.42 JAN 24, 2000

NASSAU COUNTY--Continued

WELL NUMBER.--304213081270801. Local Number N-19. Fort Clinch State Park Well at Fernandina Beach, FL.

LOCATION.--Lat 30°42'13", long 81°27'08", in NE¼SE¼NW¼ sec.12, T.3 N., R.28 E., Hydrologic Unit 03070204, at picnic area in Fort Clinch State Park at Fernandina Beach. Owner: Florida Department of Environmental Protection.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 5 in., depth 710 ft, casing length unknown.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Land-surface datum is 8.41 ft above sea level. Measuring point: Top of 5 in. casing, 1.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1974, December 1974 to December 1975 (monthly); May 1977 to September 1978 (semiannually); April 1979 to September 1981 (bimonthly); May 1982 to September 1985 (semiannually); October 1985 to November 1985 (bimonthly); December 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 9.33 ft above sea level, Apr. 27, 1998; lowest water level measured, 30.30 ft below sea level, Sept. 25, 1978.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-13.51	-13.59	-11.78	-12.84	-14.12	-15.49	-16.66	-17.92	-19.34	-19.50	-19.57	-15.69
10	-16.17	-14.71	-8.05	-13.29	-12.74	-15.93	-15.76	-16.93	-16.48	-20.57	-19.35	-19.35
15	-17.49	-15.55	-5.79	-14.00	1.58	-16.92	-13.26	-17.58	-19.45	-18.52	-18.55	-20.10
20	-18.55	-14.49	-5.00	-14.02	7.14	-17.40	-14.60	-17.39	-23.21	-18.86	-17.13	-18.75
25	-16.80	-13.90	-5.56	-13.15	-8.29	-19.81	-16.87	-20.33	-17.43	-18.54	-16.57	-2.78
EOM	-16.13	-12.68	-8.60	-14.97	-13.62	-17.50	-17.82	-20.57	-19.31	-20.46	-15.96	-.23
MAX	-13.50	-12.68	-4.67	-9.09	8.85	-14.32	-12.90	-16.53	-15.01	-18.29	-15.56	1.75

CAL YR 1999 MAX 8.30
WTR YR 2000 MAX 8.85

Note.--Negative figures indicate water level below sea level.

WELL NUMBER.--304410081592101. Local Number N-120. Humphreys Mining No. 2 Well near Boulogne, FL.

LOCATION.--Lat 30°44'22", long 81°59'18", in NE¼NW¼NW¼ sec.26, T.4 N., R. 23 E., Hydrologic Unit 03070204, 200 ft west of State Highway 121, and 2.2 mi southwest of intersection of U.S. Highway 1 and State Highway 121 in Boulogne. Owner: Mrs. Greenwood.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 18 to 12 in., depth 923 ft, cased to 525 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 96.12 ft above sea level. Measuring point: Top of metal base at land-surface datum.

PERIOD OF RECORD.--March 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.00 ft above sea level, Mar. 26, 1986; lowest measured, 35.12 ft above sea level, July 24, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03	38.21	JAN 24	39.29	APR 25	38.92	JUN 26	35.60	SEP 11	35.48		
22	38.45	FEB 22	38.97	MAY 15	37.96	JUL 24	35.12	25	36.09		
DEC 20	38.72	MAR 27	39.17	22	37.63	AUG 28	35.22				

WATER YEAR 2000 LOWEST 35.12 JUL 24, 2000 HIGHEST 39.29 JAN 24, 2000

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

NASSAU COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
303357081295601	05-15-00	1230	N-119 CHARLES ALLEN WELL N-100 SUB	26.17
	09-11-00	1205		27.67
303541081495001	05-23-00	1200	N-0220 NASSAU COUNTY FAIRGROUNDS	36.69
303658081422601	05-15-00	1110	N-50	28.99
	09-11-00	1100		30.99
303939081312601	05-15-00	1200	N-20	1.58
	09-11-00	1145		.58
304658081571201	09-11-00	1020	N-0221	35.07

KEY TO SITE LOCATIONS ON FIGURE 41
OKEECHOBEE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	273127080481401	182

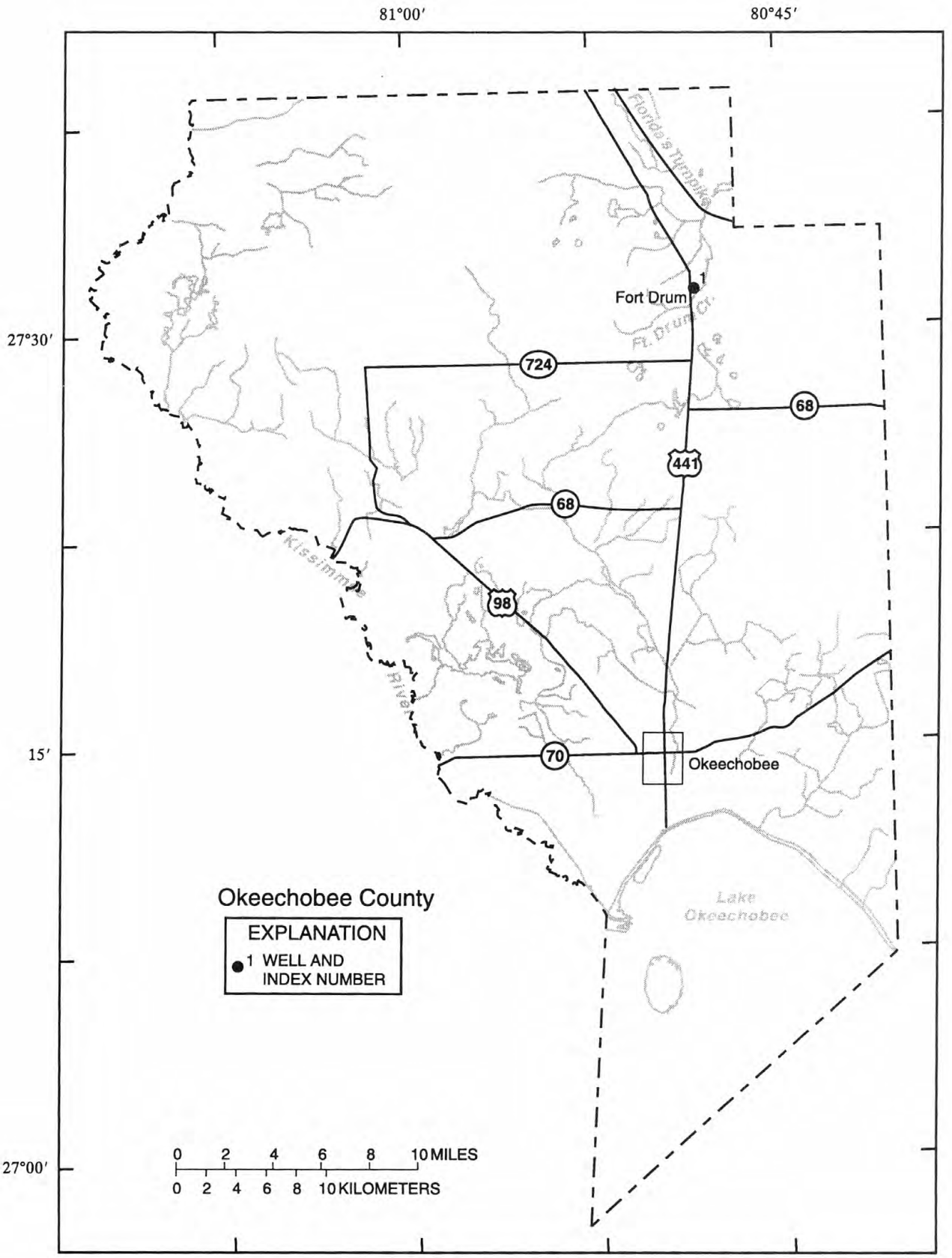

Figure 41.--Location of wells in Okeechobee County.

OKEECHOBEE COUNTY

WELL NUMBER.--273127080481401. OK-1 Well at Fort Drum, FL.

LOCATION.--Lat 27°31'27", long 80°48'14", in SE¼SW¼SW¼ sec.11, T.34 S., R.35 E., Hydrologic Unit 03080101, 200 ft south of dirt road, 0.2 mi east of U.S. Highway 441 at Fort Drum, and 13.4 mi south of State Road 60. Owner: Charles Pierce.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 960 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 55.67 ft above sea level. Measuring point: Top of casing, 0.3 ft above land-surface datum. Prior to Oct. 1, 1990 miscellaneous readings published at datum 0.53 higher.

PERIOD OF RECORD.--May 1976, May 1977 to September 1985 (semiannually); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.66 ft above sea level, Sept. 18, 1985; lowest measured, 38.91 ft above sea level, May 8, 1976, Apr. 27, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	45.71	JAN 25	43.48	APR 24	41.79	JUN 26	39.13	SEP 13	42.54		
NOV 22	44.72	FEB 22	43.11	MAY 18	39.24	JUL 24	41.53	25	43.16		
DEC 26	44.18	MAR 27	42.00	22	39.05	AUG 29	42.33				

WATER YEAR 2000 LOWEST 39.05 MAY 22, 2000 HIGHEST 45.71 OCT 25, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

OKEECHOBEE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
271340080504001	05-22-00	1000	OKF-31	44.20
	09-12-00	0847		47.62
271438080571901	05-15-00	0921	714057--	43.14
	09-12-00	0825		47.45
271514080511601	09-12-00	0935	OKF-23 NR LIVESTOCK MARKET	43.01
272010080550801	05-15-00	1135	DIXIE RANCH (OKF-17)	43.08
	09-12-00	1027		45.06
272158080470901	10-04-99	1338	JONES WELL S DARK HAMMOCK RD (OKF-7)	46.42
	05-24-00	0836		40.84
	09-15-00	0913		44.65
272704081053501	10-04-99	1406	727105--	48.76
	05-24-00	0908		44.06
	09-25-00	0943		46.57
272726081003901	10-04-99	1357	727100-- 35S33E02 BASS WELL N OF BASSINGER	47.01
	05-24-00	0902		40.86
	09-25-00	0936		45.07
273007081114601	10-04-99	1152	OKF-42 EXP WELL S65C	46.77
	05-16-00	1243		41.95
	09-11-00	1010		45.82
273043080440001	05-22-00	1120	730044-- 34S36E21 WILLIAMSON S. OF 15C	38.71
273217081012601	10-04-99	1351	PEAVINE TRAIL W (OKF-34)	46.87
	05-24-00	0856		40.80
	09-25-00	0938		44.97

KEY TO SITE LOCATIONS ON FIGURE 42
ORANGE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282051081183401	186
2	282202081384601	186
2	282202081384602	187
3	282210081352601	187
4	282341081040101	188
5	282348080564701	189
6	282406081093602	189
7	282434081283102	190
8	282510081054501	191
8	282510081054502	192
8	282510081054503	192
9	282528081340901	193
10	282530081065601	194
10	282530081065602	195
10	282530081065603	196
11	282531081054301	197
12	282531081095701	198
13	282532081075601	199
14	282533081082202	200
14	282533081082204	201
14	282533081082205	202
14	282533081082206	203
15	282623081153801	204
16	282738081341401	204
17	282739081054501	205
18	282835081305201	205
19	282847081013701	206
19	282847081013702	207
20	283249081053201	207
20	283249081053202	208
20	283249081053203	208
21	283253081283401	209
22	283333081233501	209
22	283333081233502	210
23	284634081262001	210
23	284634081262002	211
23	284634081262003	211
23	284634081262004	212

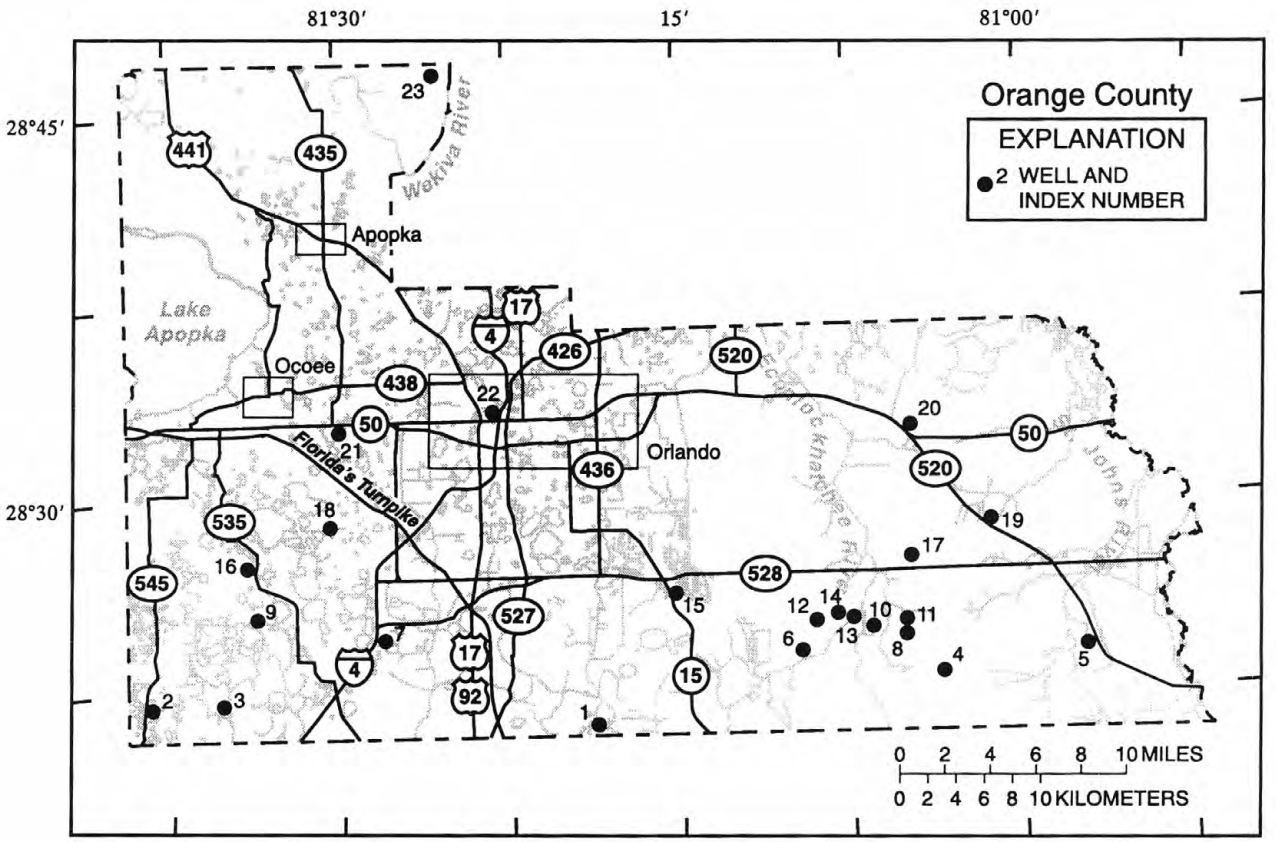

Figure 42.--Location of wells in Orange County.

ORANGE COUNTY

WELL NUMBER.--282051081183401. Boggy Creek Road Well at county line near Taft, FL.

LOCATION.--Lat 28°20'51", long 81°18'34", in SW¼SW¼SW¼ sec.34, T.24 S., R.30 E., Hydrologic Unit 03090101, 40 ft east of Boggy Creek Road (county road 527A) and 30 ft north of intersection of county roads 527A and 530. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 400 ft, cased to 199 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 74.70 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1961 to May 1974 (miscellaneous measurements); May 1977 to September 1991(semiannually); October 1991 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.92 ft above sea level, Dec. 12, 1963, lowest measured, 34.92 ft above sea level, May 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	48.68	JAN 25	46.82	APR 24	42.77	MAY 23	39.79	AUG 28	43.88		
NOV 22	47.71	FEB 22	45.98	MAY 16	40.65	JUN 27	39.78	SEP 14	44.20		
DEC 26	47.60	MAR 27	43.66	22	34.92	JUL 24	42.51	25	44.89		

WATER YEAR 2000 LOWEST 34.92 MAY 22, 2000 HIGHEST 48.68 OCT 25, 1999

WELL NUMBER.--282202081384601. Lake Oliver Deep Well near Vineland, FL.

LOCATION.--Lat 28°22'02", long 81°38'46", in NE¼NW¼SE¼ sec.30, T.24 S., R.27 E., Hydrologic Unit 03090101, on west side of State Highway 545, 1.4 mi north of U.S. Highway 192, and 15.0 mi west of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 318 ft, cased to 103 ft.

INSTRUMENTATION.--Water-stage recorder--30-minute interval.

DATUM.--Elevation of land-surface datum is 117.12 ft above sea level. Measuring point: Top of 6 in. nipple, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.73 ft above sea level, Sept. 13, 1960; lowest, 104.00 ft above sea level, May 26,28, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	108.10	108.89	108.36	108.14	107.97	107.42	106.68	106.08	---	105.73	105.30	105.85
10	108.53	108.76	108.27	108.22	107.93	107.24	106.64	105.91	---	105.67	105.21	105.92
15	108.56	108.68	108.18	108.11	107.86	107.21	106.67	105.90	---	105.68	105.31	105.56
20	108.54	108.55	108.57	108.13	107.71	107.22	106.41	105.62	---	105.52	105.27	105.89
25	108.42	108.50	108.50	108.11	107.55	106.99	106.35	---	---	105.52	105.57	106.01
EOM	108.24	108.40	108.33	108.04	107.55	106.88	106.24	---	105.77	105.48	105.76	106.16
MAX	108.62	108.89	108.57	108.33	108.10	107.43	106.86	106.17	105.77	105.80	105.76	106.16

CAL YR 1999 MAX 108.90
WTR YR 2000 MAX 108.89

ORANGE COUNTY--Continued

WELL NUMBER.--282202081384602. Lake Oliver Shallow Well near Vineland, FL.

LOCATION.--Lat 28°22'02", long 81°38'46", in NE¼NW¼SE¼ sec.30, T.24 S., R.27 E., Hydrologic Unit 03090101, on west side of State Highway 545, 1.4 mi north of U.S. Highway 192, and 15.0 mi west of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Tertiary Quaternary Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 4 in., depth 38 ft, revised, well deepened June 1982.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 117.06 ft above sea level. Measuring point: Top of 4 in. coupling, 2.48 ft above land-surface datum.

PERIOD OF RECORD.--April 1959 to December 1969; January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 115.54 ft above sea level, Sept. 10, 1960; lowest recorded, 107.72 ft above sea level, Aug. 19, 2000, but may have been lower during period May to July 1981 (casing collapsed).

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	110.22	111.21	110.66	110.59	110.35	110.00	109.49	108.92	108.26	108.21	107.84	108.26
10	110.67	111.04	110.59	110.53	110.31	109.91	109.38	108.83	108.15	108.12	107.79	108.26
15	110.70	110.94	110.54	110.48	110.26	109.83	109.27	108.73	108.07	108.02	107.76	108.19
20	110.64	110.82	110.80	110.45	110.21	109.77	109.22	108.62	107.97	107.97	107.83	108.16
25	110.57	110.77	110.78	110.41	110.12	109.69	109.13	108.50	108.18	107.92	108.07	108.32
EOM	110.46	110.71	110.68	110.36	110.07	109.58	109.04	108.36	108.21	107.91	108.21	108.47
MAX	110.71	111.21	110.80	110.66	110.36	110.05	109.56	109.02	108.34	108.21	108.21	108.47

CAL YR 1999 MAX 111.21
WTR YR 2000 MAX 111.21

WELL NUMBER.--282210081352601. Disney Shallow Well at Tree Farm near Vineland, FL.

LOCATION.--Lat 28°22'10" long 81°35'26", in SW¼SW¼NW¼ sec.26, T.24 S., R.27 E., Hydrologic Unit 03090101, at Walt Disney World tree farm, 2.5 mi south of State Highway 405, and 5.6 mi southwest of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 18 ft, cased to 18 ft.

INSTRUMENTATION.--Water-stage recorder--30-minute interval.

DATUM.--Elevation of land-surface datum is 99.44 ft above sea level. Prior to Oct. 1, 1977, land-surface datum was considered to be 99 ft, from topographic map. Measuring point: Top of casing, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--March 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 99.91 ft above sea level, Nov. 3, 1987; well observed dry many days in December 1995.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	98.37	97.95	97.14	97.16	95.75	95.09	94.68	94.45	94.30	95.79	96.01	97.80
10	98.39	97.74	96.22	96.60	95.55	95.00	94.59	94.41	94.53	95.99	95.79	97.93
15	98.22	97.61	96.00	95.91	95.44	94.94	94.79	94.36	94.68	96.14	95.98	97.56
20	97.89	97.38	97.75	95.81	95.33	94.90	94.82	94.31	94.64	96.11	96.13	97.90
25	97.68	97.46	97.39	95.89	95.24	94.82	94.67	94.31	95.04	97.07	97.18	98.21
EOM	97.46	97.29	97.23	95.72	95.15	94.75	94.53	94.31	95.64	96.41	97.56	98.04
MAX	98.66	98.65	97.81	97.29	95.79	95.13	94.84	94.51	95.64	97.11	97.56	98.26

CAL YR 1999 MAX 98.66
WTR YR 2000 MAX 98.66

ORANGE COUNTY--Continued

WELL NUMBER.--282341081040101. Cocoa-A Well near Bithlo, FL.

LOCATION.--Lat 28°23'41", long 81°04'01", in SE¼SW¼SE¼ sec.13, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 100 ft west of Cocoa Water Plant Road, 7 mi west of State Highway 520, and 11.3 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 10 in., depth 516 ft, cased to 301 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 75.06 ft above sea level. Measuring point: Top of recorder shelf, 2.71 ft above land-surface datum.

PERIOD OF RECORD.--March 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 43.59 ft above sea level, Sept. 30, Oct. 17, 1960; lowest, 29.01 ft above sea level, June 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.28	37.08	36.28	36.03	35.51	34.35	32.87	31.74	29.24	31.19	32.84	33.38
10	36.65	37.06	36.01	36.09	35.58	33.65	32.45	31.27	29.01	31.53	33.09	33.65
15	37.09	37.08	35.81	35.57	35.48	33.13	32.49	31.00	29.57	32.05	33.13	33.71
20	37.18	36.71	36.00	35.83	35.20	33.15	32.74	30.55	29.56	32.03	33.00	33.83
25	37.22	36.62	36.04	35.59	34.93	33.06	32.85	30.26	29.60	32.32	33.08	34.13
EOM	37.18	36.33	36.18	35.25	34.77	33.08	32.25	29.55	30.42	32.76	33.20	34.39
MAX	37.42	37.40	36.33	36.15	35.63	34.72	33.06	32.16	30.42	32.76	33.28	34.39

CAL YR 1999 MAX 44.10
WTR YR 2000 MAX 37.42

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
APR										
28...	0930	1210	7.4	24.1	10	350	110	17.0	110	3.3
AUG										
21...	1410	1110	7.3	24.1	20	340	110	15.0	94.0	2.9

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	IRON, DISSOLVED (UG/L AS FE) (01046)
APR									
28...	277	280	66.0	180	.3	26.0	704	1900	100
AUG									
21...	283	286	58.0	150	.3	26.0	668	1600	--

ORANGE COUNTY--Continued

WELL NUMBER.--282348080564701. Palmetto Well near Bithlo, FL.

LOCATION.--Lat 28°23'48", long 80°56'47", in NE¼SE¼SE¼ sec.18, T.24 S., R.34 E., Hydrologic Unit 03080101, 50 ft west of State Road 520, 5 mi southeast of BeeLine Expressway. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 3 in., depth 381 ft, cased to 245 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 40.62 ft above sea level. Measuring point: Top of casing, 4.27 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to September 1991 (semiannually); October 1991 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.32 ft above sea level, Oct. 25, 1960; lowest measured, 29.44 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.61	JAN 25	35.03	APR 25	32.41	JUN 27	29.44	SEP 14	33.20		
NOV 22	36.07	FEB 23	34.46	MAY 15	30.61	JUL 26	31.73	25	33.56		
DEC 23	35.41	MAR 29	32.61	22	30.06	AUG 29	32.74				

WATER YEAR 2000 LOWEST 29.44 JUN 27, 2000 HIGHEST 36.61 OCT 25, 1999

WELL NUMBER.--282406081093602. Cocoa R near Bithlo, FL.

LOCATION.--Lat 28°24'06" long 81°09'36", in SW¼SW¼NW¼ sec.18, T.24 S., R.32 E., Hydrologic Unit 03090101, in Cocoa Well field, 50 ft west of private road, 2.5 mi southwest of Magnolia Ranch headquarters and 1.8 mi south of Wewahootee Road. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 1205 ft, cased to 1098 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 68.20 ft above sea level. Measuring point: Top of threaded coupling, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--September 1993 to February 1999 (monthly); March 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.40 ft above sea level, Feb. 25, 1998; lowest measured, 29.90 ft above sea level, May 23, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	37.33	MAR 01	34.97	MAY 23	29.90	AUG 21	32.26				
JAN 03	35.32	APR 25	32.88	JUL 07	30.96						

WATER YEAR 2000 LOWEST 29.90 MAY 23, 2000 HIGHEST 37.33 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--282434081283102. Sea World Drive Replacement Well near Vineland, FL.

LOCATION.--Lat 28°24'34", long 81°28'31", in NE¼SE¼SE¼ sec.11, T.24 S., R.28 E., Hydrologic Unit 03090101, on west side of Interstate Highway 4, 2.0 mi northeast of Vineland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 239 ft, cased to 158 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 103.16 ft above sea level. Measuring point: Top of coupling, 4.00 ft above land-surface datum.

REMARKS.--Record is equivalent to that for Sea World Drive Well (282434081283101), available October 1980 to September 1989.

PERIOD OF RECORD.--October 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 67.83 ft above sea level, Mar. 2, 3, 1998; lowest water level measured, 49.57 ft above sea level, May 27, 2000, may have been lower during period of missing record, May-June 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	60.17	60.98	59.81	60.29	61.10	57.72	55.02	52.49	---	---	56.12	55.22
10	61.76	60.54	59.65	60.21	60.52	56.78	54.42	51.98	---	---	55.88	56.76
15	61.74	60.40	59.18	59.50	59.56	56.20	54.63	51.93	---	54.60	56.09	55.82
20	62.28	59.81	60.60	59.81	58.93	55.56	54.58	50.90	---	53.57	54.97	56.82
25	61.85	60.28	61.02	60.15	57.47	55.86	53.67	49.97	---	---	54.60	57.21
EOM	60.49	59.75	60.25	60.39	58.05	54.92	53.02	---	---	55.62	55.36	56.77
MAX	62.45	61.02	61.47	60.45	61.16	58.06	55.29	52.69	---	55.62	56.45	57.21

CAL YR 1999 MAX 62.45
WTR YR 2000 MAX 62.45

ORANGE COUNTY--Continued

WELL NUMBER.--282510081054501. Cocoa-1 Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¼NE¼NE¼ sec.10, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road (abandoned FEC Railroad grade owned by Magnolia Ranch) and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 20 in., depth 710 ft, cased to 316 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 70.33 ft above sea level. Measuring point: Top of casing, 2.30 ft above land-surface datum. Prior to Aug. 31, 1988 at elevation 0.30 ft lower.

PERIOD OF RECORD.--1966, 1967, 1969 (annually); January 1971 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.90 ft above sea level, Sept. 21, 1994; lowest measured, 29.49 ft above sea level, May 15, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.89	MAR 01	34.38	MAY 15	29.49	AUG 23	32.53				
JAN 03	35.83	APR 24	32.62	JUL 07	31.04	SEP 14	33.45				

WATER YEAR 2000 LOWEST 29.49 MAY 15, 2000 HIGHEST 36.89 OCT 25, 1999

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1967, 1968, 1989 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
APR 27...	1110	683	7.4	23.7	10	320	120	4.40	24.0	1.0

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	IRON, DISSOLVED (UG/L AS FE) (01046)
APR 27...	337	328	1.9	25.0	.2	27.0	398	640	220

ORANGE COUNTY--Continued

WELL NUMBER.--282510081054502. Cocoa-M Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¼NE¼NE¼ sec.10, T.24 S., R. 32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 10 ft, cased to 10 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 70.81 ft, above sea level. Measuring point: Bolt hole in cap, 3.15 ft above land-surface datum.

PERIOD OF RECORD.--February 1969 to January 1977; February 1977 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 69.94 ft above sea level, Nov. 4, 1969; well observed dry August 1981, July 1982, August and October 1984.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	67.52	JAN 03	67.12	MAR 01	66.06	MAY 23	63.50	JUL 07	59.96	AUG 23	61.78

WATER YEAR 2000 LOWEST 59.96 JUL 07, 2000 HIGHEST 67.52 OCT 25, 1999

WELL NUMBER.--282510081054503. Cocoa 1-T Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¼NE¼NE¼ sec.10, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 300 ft southwest of intersection of private road and Wewahootee Road, and 9.1 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Hawthorn sand and gravel of the intermediate aquifer system, Geologic Unit 122 HTRNS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 12 in., depth 200 ft, cased to 85 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 71.19 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--September 1969 to March 1970; January 1971 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.54 ft above sea level, Oct. 1, 1982; lowest measured, 44.55 ft above sea level, June 7, 1971.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	61.68	MAR 01	55.98	MAY 23	58.90	AUG 23	58.60				
JAN 03	55.74	APR 27	58.90	JUL 07	58.77						

WATER YEAR 2000 LOWEST 55.74 JAN 03, 2000 HIGHEST 61.68 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--282528081340901. Bay Lake Deep Well near Windermere, FL.

LOCATION.--Lat 28°25'28", long 81°34'09", in SW¼NE¼SW¼ sec.1, T.24 S., R.27 E., Hydrologic Unit 03090101, on north shore of Bay Lake, 0.8 mi northeast of Magic Kingdom Theme Park, and 5.3 mi southwest of Windermere. Owner: Reedy Creek Improvement District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 223 ft, cased to 104 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 97.10 ft above sea level. Measuring point: Top of casing, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 96.91 ft above sea level, Oct. 31, 1966; lowest, 77.37 ft above sea level, June 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.79	85.88	85.04	84.83	84.55	83.32	81.29	79.86	77.72	80.71	81.26	82.07
10	86.01	85.31	84.70	85.57	84.62	82.65	81.01	80.25	77.37	---	81.40	82.87
15	85.84	85.21	84.76	85.22	83.58	81.98	81.60	80.06	78.41	81.05	81.49	82.31
20	85.75	85.03	85.94	85.47	82.87	82.62	81.24	79.01	78.13	80.33	80.59	82.64
25	85.69	84.77	85.83	85.48	82.57	81.84	80.89	78.05	79.30	80.85	81.49	82.85
EOM	85.01	85.33	85.52	85.40	83.85	81.79	80.50	78.01	80.65	81.06	81.61	82.68
MAX	86.45	85.92	86.03	85.57	85.74	83.65	82.03	80.67	80.65	81.15	81.61	82.96

CAL YR 1999 MAX 86.78
WTR YR 2000 MAX 86.45

ORANGE COUNTY--Continued

WELL NUMBER.--282530081065601. OR614 Well near Bithlo, FL.

LOCATION.--Lat 28°25'30", long 81°06'56", in NW¼SW¼SE¼ sec.4, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 200 ft north of Wewahootee Road, and 8.1 mi east of State Highway 15, and 7.0 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 1,250 ft, cased to 1,170 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 66.40 ft above sea level. Measuring point: Top of casing, 1.95 ft above land-surface datum. Prior to Dec. 23, 1997, measuring point 0.40 ft above land-surface datum.

PERIOD OF RECORD.--March 1995 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.96 ft above sea level, Feb. 25, 1998; lowest measured, 29.74 ft above sea level, May 23, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.63	MAR 01	34.09	MAY 23	29.74	AUG 21	32.34				
JAN 03	35.50	APR 25	32.19	JUL 07	30.68						

WATER YEAR 2000 LOWEST 29.74 MAY 23, 2000 HIGHEST 36.63 OCT 25, 1999

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
APR 25...	0920	2290	7.4	27.5	5	700	190	52.0	220	8.0
AUG 21...	1348	2280	7.4	28.0	<5	700	190	52.0	210	7.8

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	IRON, DISSOLVED (UG/L AS FE) (01046)
APR 25...	158	130	440	390	.2	18.0	1460	12600	<1
AUG 21...	157	162	450	390	.2	18.0	1430	12600	--

ORANGE COUNTY--Continued

WELL NUMBER.--282530081065602. OR615 Well near Bithlo, FL.

LOCATION.--Lat 28°25'30", long 81°06'56", in NW¼SW¼SE¼ sec.4, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 200 ft north of Wewahootee Road, and 8.1 mi east of State Highway 15, and 7.0 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 1,050 ft, cased to 900 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 66.44 ft above sea level. Measuring point: Top of casing, 1.75 ft above land-surface datum. Prior to Dec. 17, 1997, measuring point 0.20 ft above land-surface datum.

PERIOD OF RECORD.--March 1996 to March 1999 (monthly); April 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.57 ft above sea level, Feb. 25, 1998; lowest measured, 29.95 ft above sea level, July 7, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.27	JAN 03	35.03	MAR 01	33.49	APR 25	32.61	JUL 07	29.95	AUG 21	31.52

WATER YEAR 2000 LOWEST 29.95 JUL 07, 2000 HIGHEST 36.27 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--282530081065603. Cocoa-S Well near Bithlo, FL.

LOCATION.--Lat 28°25'30", long 81°06'56", in NW¼SW¼SE¼ sec.4, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 200 ft north of Wewahootee Road, and 8.1 mi east of State Highway 15, and 7.0 mi south of Bithlo. Owner: City of Cocoa.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 1,500 ft, cased to 1,428 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 66.58 ft above sea level. Measuring point: Top of casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--March 1996 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.23 ft above sea level, Feb. 25, 1998; lowest measured, 20.56 ft above sea level, July 7, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	26.43	JAN 03	25.43	MAR 01	24.09	APR 24	22.30	JUL 07	20.56	AUG 21	23.21

WATER YEAR 2000 LOWEST 20.56 JUL 07, 2000 HIGHEST 26.43 OCT 25, 1999

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
APR 24...	0940	21800	7.4	28.5	5	3200	520	450	3500	110
AUG 21...	0840	21800	7.1	28.8	5	3100	500	444	3800	130

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	IRON, DISSOLVED (UG/L AS FE) (01046)
APR 24...	109	208	1700	6800	.2	13.0	13900	14600	790
AUG 21...	108	96	1600	7000	.3	12.0	13700	14200	--

ORANGE COUNTY--Continued

WELL NUMBER.--282531081054301. Cocoa-O Well near Bithlo, FL.

LOCATION.--Lat 28°25'31", long 81°05'43", in NW¼SW¼SW¼ sec.2, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 225 ft east of private road (abandoned FEC Railroad grade owned by Magnolia Ranch), 0.3 mi north of Wewahootee Road, 1.6 mi south of State Highway 528, and 8.6 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn sand and gravel of the intermediate aquifer system, Geologic Unit 122 HTRNS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 90 ft, cased to 70 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 68.60 ft above sea level. Measuring point: Top of 4 in. casing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--February 1970 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.77 ft above sea level, Oct. 1, 1982; lowest measured, 12.23 ft above sea level, Nov. 1, 1989.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	62.34	JAN 03	38.99	MAR 01	39.78	MAY 23	59.64	JUL 07	59.08	AUG 23	58.89

WATER YEAR 2000 LOWEST 38.99 JAN 03, 2000 HIGHEST 62.34 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--282531081095701. Cocoa-D Well near Narcoossee, FL.

LOCATION.--Lat 28°25'31", long 81°09'57", in NE¼SW¼SE¼ sec.1, T.24 S., R.31 E., Hydrologic Unit 03080101, in Cocoa well field, on south side of Wewahootee Road, 5.1 mi west of State Highway 15, 2.5 mi west of Magnolia Ranch headquarters, and 9.7 mi northeast of Narcoossee. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 300 ft, cased to 226 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 75.91 ft above sea level. Measuring point: Top of shelf, 3.63 ft above land-surface datum.

PERIOD OF RECORD.--July 1961 to October 1965 (bimonthly); November 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.04 ft above sea level, Dec. 12, 1963; lowest daily maximum water level, 25.97 ft above sea level, June 6, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.55	37.50	35.27	35.54	35.05	31.33	29.59	28.60	---	29.27	---	30.15
10	35.84	36.73	35.48	34.57	34.00	30.18	29.60	30.26	26.08	30.15	29.51	32.23
15	36.70	36.03	34.88	36.36	34.22	30.28	31.42	29.13	27.05	30.37	31.34	30.75
20	37.21	37.26	35.56	33.22	32.81	30.47	29.75	28.16	26.86	30.41	29.32	32.64
25	37.59	35.96	35.50	34.68	32.35	32.08	30.06	27.16	28.25	31.64	29.90	32.47
EOM	37.53	34.66	34.85	33.68	31.71	31.04	29.95	27.67	27.84	30.39	29.77	32.36
MAX	37.98	37.90	36.14	36.36	35.78	32.27	31.42	30.26	28.73	32.54	31.60	33.41

CAL YR 1999 MAX 37.98
WTR YR 2000 MAX 37.98

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1968, 1980, 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
APR										
26...	0800	620	7.4	23.7	10	290	110	3.50	21.0	.8
AUG										
22...	0855	625	7.5	23.5	20	290	110	3.50	20.0	.8

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
APR									
26...	343	342	<.2	11.0	.2	31.0	364	490	20
AUG									
22...	341	370	.2	12.0	.2	31.0	381	480	--

ORANGE COUNTY--Continued

WELL NUMBER.--282532081075601. Cocoa-B Well near Bithlo, FL.

LOCATION.--Lat 28°25'32", long 81°07'56", in SW¼NE¼SE¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 6 ft south of Wewahootee Road, 7.1 mi east of State Highway 15, and 10.1 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 515 ft, cased to 235 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 62.15 ft above sea level. Measuring point: Top of casing, 3.70 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--January 1965 (annually); October 1965 to July 1968; August 1968 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.37 ft above sea level, June 23, 1966; lowest water level measured, 21.42 ft above sea level, Aug. 5, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.51	MAR 01	33.17	MAY 23	28.56	AUG 23	31.06				
JAN 03	34.58	APR 28	28.56	JUL 07	28.68						

WATER YEAR 2000 LOWEST 28.56 APR 28, 2000 MAY 23, 2000 HIGHEST 36.51 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--282533081082202. Cocoa-C (Zone 1) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,357 ft, cased to 1,351 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.71 ft above sea level. Measuring point: Top of male quick connect coupling, 2.85 ft above land-surface datum.

PERIOD OF RECORD.--December 1965 (annually); February 1966 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.81 ft above sea level, Dec. 6, 1965; lowest measured, 26.08 ft above sea level, April 28, 1999.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	ELEVATION ABOVE NGVD (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 25...	1045	32.35	10600	--	--	--	--	--	--	--
JAN 03...	1150	31.25	11200	--	23.8	--	--	--	--	--
MAR 01...	1000	29.83	11200	--	23.8	--	--	--	--	--
APR 25...	1055	27.96	11100	7.6	23.8	<5	2000	380	240	1600
JUL 07...	1050	26.46	11000	--	26.0	--	--	--	--	--
AUG 21...	0845	27.85	10600	7.7	23.9	<5	1900	370	229	1700

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	STRONTIUM, DISSOLVED (UG/L AS SR)	IRON, DISSOLVED (UG/L AS FE)
OCT 25...	--	--	--	--	3200	--	--	--	--	--
JAN 03...	--	--	--	--	3300	--	--	--	--	--
MAR 01...	--	--	--	--	3300	--	--	--	--	--
APR 25...	62.0	34	30	1200	3200	.2	1.3	7070	11300	<1
JUL 07...	--	--	--	--	3200	--	--	--	--	--
AUG 21...	56.0	35	30	1200	3200	.2	.9	6640	10900	--

ORANGE COUNTY--Continued

WELL NUMBER.--282533081082204. Cocoa-C (Zone 3) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,224 ft, cased to 1,218 ft.

WATER LEVEL RECORDS

INSTRUMENTAION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.77 ft above sea level. Measuring point: Top of male quick connect coupling 2.81 ft above land-surface datum.

PERIOD OF RECORD.--February 1966 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft above sea level, Feb. 2, 1970; lowest measured, 32.23 ft above sea level, April 28, 1999.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	ELEVATION ABOVE NGVD (FEET) (72020)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
OCT											
25...	1050	38.40	902	--	--	--	--	--	--	--	--
JAN											
03...	1150	37.23	878	--	23.6	--	--	--	--	--	--
MAR											
01...	1000	35.81	893	--	22.9	--	--	--	--	--	--
APR											
25...	1055	33.98	893	8.2	23.4	5	360	110	17.0	44.0	2.3
JUL											
07...	1055	32.52	818	--	24.3	--	--	--	--	--	--
AUG											
21...	0850	34.12	865	8.1	23.5	5	360	110	17.0	48.0	2.4

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT										
25...	--	--	--	77.0	--	--	--	--	--	--
JAN										
03...	--	--	--	81.0	--	--	--	--	--	--
MAR										
01...	--	--	--	76.0	--	--	--	--	--	--
APR										
25...	209	218	140	81.0	.2	20.0	533	10400	M	M
JUL										
07...	--	--	--	80.0	--	--	--	--	--	--
AUG										
21...	205	--	140	81.0	.2	20.0	547	10000	--	--

ORANGE COUNTY--Continued

WELL NUMBER.--282533081082205. Cocoa-C (Zone 4) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10.0 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 1.25 in., depth 1,050 ft, cased to 1,044 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.74 ft above sea level. Measuring point: Top of male quick connect coupling, 2.82 ft above land-surface datum.

PERIOD OF RECORD.--February 1966 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft above sea level, Oct. 31, 1969; lowest measured, 30.95 ft above sea level, July 30, 1998.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	ELEVATION ABOVE NGVD (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT 25...	1100	38.53	625	--	--	--	--	--	--	--
JAN 03...	1155	37.41	607	--	23.0	--	--	--	--	--
MAR 01...	1000	35.90	610	--	23.2	--	--	--	--	--
APR 25...	1055	34.06	610	8.2	22.6	5	270	78.0	6.90	19.0
JUL 07...	1100	32.38	596	--	23.8	--	--	--	--	--
AUG 21...	0855	34.03	569	8.2	23.3	10	260	75.0	6.90	20.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	STRONTIUM, DISSOLVED (UG/L AS SR)	IRON, DISSOLVED (UG/L AS FE)
OCT 25...	--	--	--	--	37.0	--	--	--	--	--
JAN 03...	--	--	--	--	36.0	--	--	--	--	--
MAR 01...	--	--	--	--	35.0	--	--	--	--	--
APR 25...	1.5	235	234	32.0	37.0	.3	22.0	387	41200	
JUL 07...	--	--	--	--	45.0	--	--	--	--	--
AUG 21...	1.7	232	226	27.0	37.0	.3	21.0	366	38200	--

ORANGE COUNTY--Continued

WELL NUMBER.--282533081082206. Cocoa-C (Zone 5) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¼NE¼SW¼ sec.5, T.24 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 10 ft north of Wewahootee Road, 6.6 mi east of State Highway 15, and 10 mi south of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 8 in., depth 1,004 ft, cased to 248 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.72 ft above sea level. Measuring point: Top of male quick coupling, 2.82 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--February 1966 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.18 ft above sea level, Dec. 4, 1969; lowest measured, 26.52 ft above sea level, April 28, 1999.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	ELEVATION ABOVE NGVD (FEET) (72020)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	COLOR (PLATINUM-COBALT UNITS) (00080)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT 25...	1058	36.21	--	--	--	--	--	--	--	--
JAN 03...	1200	34.65	--	--	--	--	--	--	--	--
MAR 01...	1000	32.50	--	--	--	--	--	--	--	--
APR 25...	1055	29.93	983	8.2	22.5	10	350	110	16.0	73.0
JUL 07...	1105	28.30	--	--	--	--	--	--	--	--
AUG 21...	0900	29.96	891	8.2	22.5	10	310	97.0	15.0	69.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT 25...	--	--	--	--	--	--	--	--	--	--
JAN 03...	--	--	--	--	--	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	--	--	--	--
APR 25...	2.8	222	230	100	120	.1	19.0	610	4100	40
JUL 07...	--	--	--	--	--	--	--	--	--	--
AUG 21...	2.8	207	210	92.0	120	.1	18.0	564	3900	--

ORANGE COUNTY--Continued

WELL NUMBER.--282623081153801. Cocoa-P Well near Taft, FL.

LOCATION.--Lat 28°26'23", long 81°15'38", in NW¼NW¼SW¼ sec.31, T.23 S., R.31 E., Hydrologic Unit 03080101, on east side of State Highway 15, 0.7 mi south of State Highway 528, and 7.2 mi east of Taft. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 439 ft, cased to 245 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 94.12 ft above sea level. Measuring point: Top of casing, 0.80 ft below land-surface datum. Prior to April 5, 1999, elevation of land-surface was 91.48 ft above sea level. Measuring point: Top of recorder shelf, 4.03 ft above land-surface datum.

PERIOD OF RECORD.--April 1961 to January 1971 (bimonthly); March 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.02 ft above sea level, present datum, Apr. 14, 1961; lowest daily maximum water level, 34.45 ft above sea level, June 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	40.19	37.58	34.86	38.45	39.95	39.22
10	---	---	---	---	---	---	39.30	37.58	34.45	38.75	39.75	40.74
15	---	---	---	---	---	40.33	39.35	37.02	35.64	38.64	39.84	40.20
20	---	---	---	---	---	40.46	39.56	36.21	35.58	38.39	38.83	41.00
25	---	---	---	---	---	39.97	38.77	35.56	36.11	39.09	39.50	41.24
EOM	---	---	---	---	---	39.66	38.69	34.80	38.47	39.54	39.72	40.85
MAX	---	---	---	---	---	40.46	40.19	38.50	38.47	39.96	40.21	41.34

CAL YR 1999 MAX 44.18
WTR YR 2000 MAX 41.34

WELL NUMBER.--282738081341401. Lake Sawyer Well near Windermere, FL.

LOCATION.--Lat 28°27'38", long 81°34'14", in SW¼NE¼NW¼ sec.25, T.23 S., R.27 E., Hydrologic Unit 03090101, on Overstreet Road, 0.6 mi west of State Highway 535, and 3.2 mi southwest of Windermere. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 178 ft, cased to 103 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 116.04 ft above sea level. Measuring point: Top of shelter floor, 2.88 ft above land-surface datum.

PERIOD OF RECORD.--October 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 87.98 ft above sea level, Mar. 20, 21, 1998; lowest, 70.36 ft above sea level, June 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	80.73	81.91	80.91	80.85	---	---	---	---	---	76.59	77.20	77.11
10	81.95	81.77	80.57	81.17	---	---	---	---	71.19	76.96	77.29	78.32
15	82.02	81.39	80.69	80.90	---	---	---	75.26	73.91	76.90	77.00	77.89
20	82.11	81.01	81.82	80.65	---	---	---	73.95	73.15	75.56	76.21	78.15
25	82.10	80.67	81.83	---	---	77.52	---	73.22	74.82	76.88	76.76	78.13
EOM	81.10	81.36	81.40	---	---	76.49	---	73.42	76.51	76.94	77.15	77.67
MAX	82.28	82.04	82.00	81.47	---	77.78	---	75.98	76.51	77.16	77.40	78.32

CAL YR 1999 MAX 82.28
WTR YR 2000 MAX 82.28

ORANGE COUNTY--Continued

WELL NUMBER.--282739081054501. Cocoa-F Well near Bithlo, FL.

LOCATION.--Lat 28°27'39", long 81°05'45", in SE¼SE¼NE¼ sec.27, T.23 S., R.32 E., Hydrologic Unit 03080101, in Cocoa well field, 150 ft west of Dallas Boulevard, 0.7 mi north of Beeline Expressway (State Highway 528), and 6.3 mi south of Bithlo. Owner: Cape Orlando Corporation.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 375 ft, cased to 200 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 67.29 ft above sea level. Measuring point: Top of 6 in. coupling, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--1960-70 (annually); October 1970 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.92 ft above sea level, June 24, 1960; lowest measured, 29.99 ft above sea level, Apr. 28, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.62	JAN 03	35.33	MAR 01	33.87	APR 27	31.79	JUL 07	30.59	AUG 23	32.07

WATER YEAR 2000 LOWEST 30.59 JUL 07, 2000 HIGHEST 36.62 OCT 25, 1999

WELL NUMBER.--282835081305201. Palm Lake Drive Well near Windermere, FL.

LOCATION.--Lat 28°28'39", long 81°30'26", in SE¼NW¼NW¼ sec.22, T.23 S., R.28 E., Hydrologic Unit 03090101, 2.0 mi southwest of Windermere, and 2.3 mi north of Doctor Phillips. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 4 in., depth 235 ft, cased to 161 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 157.10 ft above sea level. Measuring point: Top of coupling, 2.56 ft above land-surface datum.

PERIOD OF RECORD.--October 1980 to June 1981 (bimonthly); July 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 76.43 ft above sea level, Mar. 1, 1998; lowest, 57.07 ft above sea level, June 15, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	68.27	70.09	68.78	68.55	68.10	65.49	63.50	61.42	58.18	62.41	64.30	63.73
10	70.49	69.44	68.29	68.69	67.99	64.69	62.65	61.80	57.93	63.61	64.10	65.20
15	70.34	68.71	68.02	68.05	67.50	64.39	64.10	61.22	57.07	62.51	63.12	63.46
20	70.60	68.48	69.84	67.84	66.68	64.98	63.31	60.19	58.85	60.88	62.07	64.87
25	70.39	68.62	69.85	68.29	65.85	64.29	62.65	59.34	60.82	63.29	62.28	64.97
EOM	68.28	69.43	69.30	68.29	66.08	63.67	61.71	58.43	63.56	63.30	63.71	64.35
MAX	70.80	70.52	69.97	69.27	69.26	65.69	64.50	61.80	63.56	64.21	64.32	65.82

CAL YR 1999 MAX 70.80
WTR YR 2000 MAX 70.80

ORANGE COUNTY--Continued

WELL NUMBER.--282847081013701. Cocoa-H Well near Bithlo, FL.

LOCATION.--Lat 28°28'47", long 81°01'37", in SW¼NW¼NW¼ sec.21, T.23 S., R.33 E., Hydrologic Unit 03080101, on west side of State Highway 520, 5.4 mi south of intersection with State Highway 50, and 7.3 mi southeast of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 495 ft, cased to 252 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 60.00 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1968 to June 1977; July 1977 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 39.01 ft above sea level, Feb. 25, 1970; lowest measured, 29.48 ft above sea level, May 13, 1981, Apr. 28, 1999.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	35.88	MAR 01	33.29	MAY 15	29.83	AUG 22	30.60				
JAN 03	34.74	APR 28	30.87	JUL 07	30.01	SEP 14	32.27				

WATER YEAR 2000 LOWEST 29.83 MAY 15, 2000 HIGHEST 35.88 OCT 26, 1999

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1970-72, 1991 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	COLOR (PLAT-INUM-COBALT UNITS) (00080)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
APR 28...	1415	854	7.4	24.1	5	300	71.0	28.0	52.0	2.4
AUG 22...	1230	864	7.2	24.1	<5	290	69.0	29.0	56.0	2.5

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
APR 28...	202	208	71.0	100	.7	29.0	498	2500	80
AUG 22...	196	198	78.0	100	.6	25.0	509	2500	--

ORANGE COUNTY--Continued

WELL NUMBER.--282847081013702. Cocoa-K Well near Bithlo, FL.

LOCATION.--Lat 28°28'47", long 81°01'37", in SW¼NW¼NW¼ sec.21, T.23 S., R.33 E., Hydrologic Unit 03080101, on west side of State Highway 520, 5.4 mi south of intersection with State Highway 50, and 7.3 mi southeast of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 8 ft, cased to 8 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 60.00 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1968 to February 1977; March 1977 to April 1999 (monthly); May 1999 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 59.81 ft above sea level, Oct. 3,4, 1969; lowest, 54.16 ft above sea level, May 20, 1996.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	58.39	JAN 03	57.70	MAR 01	56.84	APR 27	55.46	JUL 07	55.28	AUG 22	54.43

WATER YEAR 2000 LOWEST 54.43 AUG 22, 2000 HIGHEST 58.39 OCT 26, 1999

WELL NUMBER.--283249081053201. Bithlo-1 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¼NW¼SW¼ sec.26, T.22 S., R.32 E., Hydrologic Unit 03080101, on north side of State Highway 50, 0.8 mi west of intersection of State Highway 520, and 1.0 mi east of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 492 ft, cased to 151 ft.

INSTRUMENTATION.-Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 63.58 ft above sea level. Measuring point: Top of recorder shelf, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.98 ft above sea level, Oct. 31, 1960; lowest, 28.70 ft above sea level, June 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.70	36.50	35.69	35.48	35.01	33.91	32.39	31.26	28.89	30.60	32.16	32.58
10	36.08	36.49	35.50	35.44	35.02	33.18	31.95	30.89	28.70	30.93	32.34	32.95
15	36.48	36.50	35.35	34.99	34.90	32.75	32.03	30.58	---	31.31	32.38	33.01
20	36.61	36.14	35.48	35.24	34.66	32.77	32.22	30.10	---	31.27	32.24	33.09
25	36.66	36.05	35.54	35.12	34.39	32.60	32.29	29.78	---	31.54	32.40	33.40
EOM	36.55	35.81	35.58	34.85	34.22	32.59	31.81	29.20	29.92	32.03	32.56	33.67
MAX	36.83	36.79	35.71	35.53	35.11	34.20	32.56	31.69	29.92	32.03	32.58	33.67

CAL YR 1999 MAX 36.83
WTR YR 2000 MAX 36.83

ORANGE COUNTY--Continued

WELL NUMBER.--283249081053202. Bithlo-2 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¼NW¼SW¼ sec.26, T.22 S., R.32 E., Hydrologic Unit 03080101, on north side of State Highway 50, 0.8 mi west of intersection with State Highway 520, and 1.0 mi east of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn limestone of the intermediate aquifer system, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 75 ft, cased to 65 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.49 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.60 ft above sea level, Jan. 26, 1971; lowest measured, 43.31 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	48.91	DEC 23	48.38	FEB 23	47.57	APR 25	45.70	MAY 22	44.29	JUL 26	43.82
NOV 22	48.82	JAN 25	48.19	MAR 29	46.44	27	45.64	JUN 27	43.31	AUG 29	44.20

WATER YEAR 2000 LOWEST 43.31 JUN 27, 2000 HIGHEST 48.91 OCT 25, 1999

WELL NUMBER.--283249081053203. Bithlo-3 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¼NW¼SW¼ sec.26, T.22 S., R.32 E., Hydrologic Unit 03080101, on north side of State Highway 50, 0.8 mi west of intersection with State Highway 520, and 1.0 mi east of Bithlo. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 15 ft, cased to 12 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.14 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1960 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.21 ft above sea level, Aug. 28, 1964; lowest measured, 56.49 ft above sea level, August 29, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	62.09	DEC 23	60.29	FEB 23	58.87	APR 25	57.71	MAY 22	57.15	JUL 26	57.14
NOV 22	59.76	JAN 25	59.32	MAR 29	58.21	27	57.66	JUN 27	56.81	AUG 29	56.49

WATER YEAR 2000 LOWEST 56.49 AUG 29, 2000 HIGHEST 62.09 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--283253081283401. OR-47 Well at Orlo Vista, FL.

LOCATION.--Lat 28°32'53", long 81°28'34", in SE¼NE¼NE¼ sec.26, T.22 S., R.28 E., Hydrologic Unit 03080101, on west side of Hiawassee Road, 0.6 mi north of Old Winter Garden Road, and 0.15 mi south of State Highway 50 in Orlo Vista. Owner: Orange County.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 350 ft, cased to 328 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 81.71 ft above sea level. Measuring point: Top of casing, 0.71 ft below land-surface datum.

PERIOD OF RECORD.--July 1930 to May 1933; August 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 80.78 ft above sea level, Mar. 20, 1960; lowest, 49.07 ft above sea level, June 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.10	60.74	59.33	58.71	58.11	56.15	54.27	52.18	49.47	50.83	51.92	52.46
10	60.08	60.47	59.04	58.57	57.77	55.60	53.78	52.03	49.07	51.07	52.05	53.21
15	60.13	60.16	58.80	58.32	57.45	55.20	54.00	51.71	49.52	51.05	52.13	52.76
20	60.37	59.79	59.65	58.30	57.06	55.22	53.71	51.03	49.22	50.64	51.61	53.21
25	60.42	59.76	59.46	58.34	56.79	54.81	53.27	50.39	49.63	51.32	52.10	53.38
EOM	59.93	59.49	59.08	58.05	56.55	54.48	52.79	49.85	51.02	51.45	52.24	53.03
MAX	60.73	60.86	59.65	58.99	58.32	56.43	54.49	52.67	51.02	51.63	52.26	53.40

CAL YR 1999 MAX 60.86
WTR YR 2000 MAX 60.86

WELL NUMBER.--283333081233501. Lake Adair 9 Deep Well at Orlando, FL.

LOCATION.--Lat 28°33'33", long 81°23'35", in NW¼NW¼SW¼ sec.23, T.22 S., R.29 E., Hydrologic Unit 03080101, 25 ft northeast of intersection of Westmoreland Drive and Lake Adair Boulevard in Orlando. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 20 in., depth 1,281 ft, cased to 601 ft.

INSTRUMENTATION.--Monthly measurement with electric tape.

DATUM.--Elevation of land-surface datum is 80.40 ft above sea level. Measuring point: Top of casing, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1961 (annually); November 1962 to August 1973; September 1973 to September 1983 (bimonthly); October 1983 to January 1984 (monthly); January 1984 to June 1988; July 1988 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.23 ft above sea level, Aug. 9, 1966; lowest water level measured, 38.03 ft above sea level, May 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	48.84	DEC 23	47.81	FEB 23	45.20	APR 25	41.28	JUN 27	39.31	AUG 29	41.72
NOV 22	47.33	JAN 25	46.35	MAR 29	42.32	MAY 22	38.03	JUL 26	41.93	SEP 25	43.26

WATER YEAR 2000 LOWEST 38.03 MAY 22, 2000 HIGHEST 48.84 OCT 25, 1999

ORANGE COUNTY--Continued

WELL NUMBER.--283333081233502. Lake Adair 10 Shallow Well at Orlando, FL.

LOCATION.--Lat 28°33'33", long 81°23'35", in NW¼NW¼SW¼ sec.23, T.22 S., R.29 E., Hydrologic Unit 03080101, 25 ft northeast of intersection of Westmoreland Drive and Lake Adair Boulevard in Orlando. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian, observation well, diameter 4 in., depth 400 ft, cased to 105 ft.

INSTRUMENTATION.--Monthly measurement with electric tape.

DATUM.--Elevation of land-surface datum is 80.40 ft above sea level. Measuring point: Top of casing, 3.62 ft above land-surface datum.

PERIOD OF RECORD.--November 1962 to November 1972; May 1973 to September 1983 (bimonthly); October 1983 to January 1984 (monthly); January 1984 to June 1988; July 1988 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.92 ft above sea level, June 28, 1974; lowest measured, 38.44 ft above sea level, May 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	49.55	DEC 23	48.42	FEB 23	45.04	APR 25	41.59	JUN 27	39.79	AUG 29	42.15
NOV 22	47.80	JAN 25	46.80	MAR 29	42.66	MAY 22	38.44	JUL 26	42.79	SEP 25	43.87

WATER YEAR 2000 LOWEST 38.44 MAY 22, 2000 HIGHEST 49.55 OCT 25, 1999

WELL NUMBER.--284634081262001. OR650 Well near Mt. Plymouth, FL.

LOCATION.--Lat 28°46'34", long 81°26'20", in SE¼NW¼SW¼ sec.5, T.20 S., R.29 E., Hydrologic Unit 03080101, at Rock Springs Run State Reserve ranger station, south of Spear Rd., 2.8 mi from park entrance south of SR46 and 5 mi east of Mt. Plymouth. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the Surficial Aquifer System, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, unused, observation, diameter 4 in., depth 15 ft, cased to 5 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 34.03 ft above sea level. Measuring point: floor of shelter, 2.11 ft above land-surface datum.

PERIOD OF RECORD.--November 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.86 ft above sea level, Dec. 27, 1997; lowest, 28.03 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.37	32.68	31.28	31.48	31.55	30.85	30.34	29.46	28.56	28.77	33.11	32.08
10	33.41	32.11	31.16	31.45	31.25	30.71	30.16	29.29	28.43	28.75	---	33.27
15	33.83	31.87	31.11	31.22	31.34	30.57	30.12	29.14	28.30	28.86	31.79	32.08
20	32.77	31.64	32.32	31.21	31.06	30.56	29.97	29.31	28.17	29.31	31.57	33.43
25	32.18	31.60	31.89	31.63	31.02	30.39	29.82	28.88	28.06	33.10	31.22	32.99
EOM	31.81	31.41	31.61	31.70	31.00	30.52	29.64	28.69	28.50	32.37	31.05	33.41
MAX	33.91	33.78	32.48	31.70	31.71	30.95	30.56	29.60	28.66	33.73	33.60	33.82

CAL YR 1999 MAX 33.91
WTR YR 2000 MAX 33.91

ORANGE COUNTY--Continued

WELL NUMBER.--284634081262002. OR651 Well near Mt. Plymouth, FL.

LOCATION.--Lat 28°46'34", long 81°26'20", in SE¼NW¼SW¼ sec.5, T.20 S., R.29 E., Hydrologic Unit 03080101, at Rock Springs Run State Reserve ranger station, south of Spear Rd., 2.8 mi from park entrance south of SR46 and 5 mi east of Mt. Plymouth. Owner: St. Johns River Water Management District.

AQUIFER.--Hawthorn Formation of Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, unused, observation, diameter 4 in., depth 73 ft, cased to 63 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 33.84 ft above sea level. Measuring point: floor of shelter, 2.26 ft above land-surface datum.

PERIOD OF RECORD.--November 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.55 ft above sea level, Mar. 20, 1998; lowest, 27.30 ft above sea level, June 21,22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	32.63	32.77	31.83	31.87	31.78	30.98	30.08	28.95	27.72	28.19	31.80	31.25
10	33.01	32.49	31.73	31.86	31.59	30.76	29.84	28.77	27.55	28.11	---	32.15
15	33.03	32.35	31.67	31.61	31.56	30.53	29.81	28.55	27.46	28.24	31.20	31.69
20	32.86	32.13	32.36	31.66	31.38	30.49	29.65	28.33	27.33	28.52	30.87	32.11
25	32.57	32.10	32.25	31.81	31.22	30.28	29.43	28.13	27.36	31.11	30.75	32.25
EOM	32.25	31.94	32.00	31.79	31.16	30.22	29.19	27.87	28.09	31.46	30.62	32.11
MAX	33.17	32.91	32.36	31.96	31.85	31.12	30.25	29.13	28.09	31.55	31.80	32.35

CAL YR 1999 MAX 33.17
WTR YR 2000 MAX 33.17

WELL NUMBER.--284634081262003. OR652 Well near Mt. Plymouth, FL.

LOCATION.--Lat 28°46'34", long 81°26'20", in SE¼NW¼SW¼ sec.5, T.20 S., R.29 E., Hydrologic Unit 03080101, at Rock Springs Run State Reserve ranger station, south of Spear Rd., 2.8 mi from park entrance south of SR46 and 5 mi east of Mt. Plymouth. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, diameter 10 in., depth 506 ft, cased to 450 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 33.69 ft above sea level. Measuring point: floor of shelter, 2.59 ft above land-surface datum.

PERIOD OF RECORD.--November 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.45 ft above sea level, Mar. 21, 1998; lowest, 24.48 ft above sea level, June 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.67	30.60	30.08	29.77	29.54	28.52	27.45	26.30	24.70	25.89	27.16	27.34
10	30.40	30.54	29.92	29.82	29.36	28.11	27.11	26.16	24.48	25.90	---	27.77
15	30.47	30.52	29.72	29.39	29.14	27.86	27.37	25.89	24.80	25.96	27.21	27.51
20	30.67	30.26	30.19	29.68	28.90	28.01	27.29	25.59	24.63	25.82	27.15	27.78
25	30.57	30.30	30.12	29.58	28.77	27.61	27.07	25.08	25.18	26.42	27.40	27.98
EOM	30.34	30.13	29.95	29.53	28.72	27.50	26.75	24.79	25.94	26.77	27.32	27.76
MAX	30.80	30.71	30.27	29.87	29.71	28.73	27.61	26.66	25.94	26.83	27.48	28.02

CAL YR 1999 MAX 30.80
WTR YR 2000 MAX 30.80

ORANGE COUNTY--Continued

WELL NUMBER.--284634081262004. OR662 Well near Mt. Plymouth, FL.

LOCATION.--Lat 28°46'34", long 81°26'20", in SE¼NW¼SW¼ sec.5, T.20 S., R.29 E., Hydrologic Unit 03080101, at Rock Springs Run State Reserve ranger station, south of Spear Rd., 2.8 mi from park entrance south of SR46 and 5 mi east of Mt. Plymouth. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation, diameter 6 in., depth 180 ft, cased to 150 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 34.07 ft above sea level. Measuring point: floor of shelter, 2.36 ft above land-surface datum.

PERIOD OF RECORD.--November 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.33 ft above sea level, Mar. 21, 1998; lowest 24.54 ft above sea level, June 11, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	30.60	30.11	29.78	29.54	28.51	27.44	26.21	24.80	25.78	26.97	26.87
10	30.42	30.54	29.94	29.81	29.36	28.11	27.12	26.07	24.57	25.78	---	27.35
15	30.47	30.53	29.75	29.40	29.13	27.86	27.35	25.75	24.84	25.84	26.95	27.16
20	30.70	30.25	30.21	29.69	28.93	28.01	27.29	25.59	24.64	25.73	26.59	27.46
25	30.58	30.33	30.14	29.60	28.79	27.60	27.08	25.30	25.15	---	26.90	27.70
EOM	30.34	30.15	29.96	29.53	28.74	27.49	26.72	24.94	25.82	26.62	26.80	27.54
MAX	30.81	30.72	30.31	29.88	29.70	28.74	27.58	26.62	25.82	26.71	26.97	27.74

CAL YR 1999 MAX 30.81
WTR YR 2000 MAX 30.81

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

ORANGE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEVATION ABOVE SEA LEVEL (FEET)
282141081241701	09-18-00	1110	82112401 24S29E34 TELY	46.19
282241081112801	05-16-00	1140	82211103 24S31E23 MOSS PARK	36.11
	09-14-00	1335		38.58
282241081112802	09-14-00	1340	82211104 24S31E23 MOSS PARK SHALLOW	57.84
282331081370801	05-16-00	1206	82313702 27416 E USGS WELL HARTZOG RD	96.48
	09-13-00	1223		99.95
282354081313001	05-16-00	1125	82313104 24S28E17 RCID OBSER. WELL NO. 1	72.12
	09-13-00	1125		77.20
282543081385801	05-16-00	1255	82513801	94.09
	09-13-00	1240		93.63
282718081215101	05-16-00	1040	PINECASTLE POST OFFICE AT PINECASTLE	39.63
	09-15-00	0830		43.10
282848080544501	05-15-00	1445	82805402 23S34E15	27.60
	09-14-00	0850		29.80
282923081282801	05-17-00	0935	82912802	54.83
	09-13-00	1430		58.70
282936081340201	05-16-00	1325	82913405 23S27E12 ROSS WELL ON LK BUTLER	74.20
	09-13-00	1305		76.44
282945081255001	05-17-00	1045	82912501 23S29E08 ORANGE 39	41.20
	09-15-00	0900		44.97
283144081254201	05-17-00	1025	83112504 LK MANN DRAIN WELL O-174,ORLANDO	43.38
	09-13-00	1457		46.90
283157081180401	05-17-00	1430	OR-0563 ENGLEWOOD S/D DRAIN WELL NR MAITLAND,FL	42.85
	09-15-00	0750		42.82
283307081300801	05-17-00	0910	83313001 22S28E22 W-5110 LK SHERWOOD D WL	54.52
	09-15-00	0920		39.26
284230081345301	05-17-00	0735	OR0106 UPPER FL NR APOPKA,FL	48.53
	09-15-00	1220		49.11
284238081275803	05-17-00	0803	OR-0548	19.31
	09-15-00	1250		19.62
284529081301001	11-16-99	1037	ROCK SPRINGS DEEP	34.85
	01-28-00	1115		34.27
	02-29-00	1616		33.88
	03-31-00	1244		33.41
	04-26-00	1449		33.04
	06-20-00	1308		31.82
	08-14-00	1503		32.37
	08-25-00	0910		32.31

ORANGE COUNTY

282344081054201 - 82310501 COCOA 11 NR BITHLO

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
24...	1235	1620	7.5	25.5	10	460	140	26.0	150	4.5
AUG										
21...	0905	1720	7.4	25.4	10	470	140	27.0	170	4.9

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
24...	201	216	170	290	.2	22.0	997	3900	10
AUG									
21...	204	207	180	310	.2	20.0	1040	4000	--

282356081091901 - COCOA 22 16IN WELL

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
25...	1317	--	775	7.5	25.0	10	290	97.0	11.0	30.0

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
25...	1.9	226	242	69.0	50.0	.2	21.0	446	830	10

282405081051701 - COCOA 3T

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
25...	1100	618	7.3	23.4	5	310	120	2.70	13.0	.8

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
25...	315	314	<.2	16.0	.1	23.0	375	600	240

ORANGE COUNTY--Continued

282405081053002 - 82410506 COCOA 4A1 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
27...	0906	26.84	1630	7.5	25.2	10	460	140	26.0	160
AUG										
22...	1130	--	1810	7.4	25.5	10	470	140	26.0	170

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
27...	4.8	207	218	170	290	.2	20.0	963	6300	70
AUG										
22...	5.1	199	210	190	320	.2	20.0	1090	9900	--

282412081044701 - 82410402 COCOA 12A NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
27...	1150	29.91	1740	7.5	25.1	10	480	140	29.0	180

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
27...	5.4	200	214	180	330	.2	20.0	1040	5800	360

282412081044702 - COCOA 2T

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
26...	1429	664	7.2	24.0	10	340	130	3.00	16.0	.7

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
26...	338	326	<.2	19.0	.1	28.0	404	600	240

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1999 TO SEPTEMBER 2000

ORANGE COUNTY--Continued

282416081054101 - 82410502 COCOA 4 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 26...	0908	34.55	1300	7.5	25.4	10	390	120	20.0	110
AUG 21...	0840	--	1470	7.5	25.6	10	420	130	22.0	130

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR 26...	3.4	212	230	130	210	.2	20.0	785	5800	30
AUG 21...	3.8	204	207	170	240	.2	20.0	884	6400	--

282424081093601 - COCOA 20

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 25...	1105	--	1040	7.5	24.8	10	400	130	18.0	42.0

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR 25...	2.2	202	214	180	75.0	.2	21.0	623	1500	10

282451081054501 - 82410503 COCOA 5

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 26...	0925	953	7.5	24.7	10	330	110	13.0	70.0	2.1

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR 26...	274	266	57.0	110	.3	25.0	583	2300	10

ORANGE COUNTY--Continued

282529081073201 - 82510702 COCOA 7A NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
25...	1225	34.97	870	7.3	23.9	10	330	120	7.70	47.0

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
25...	1.9	292	292	47.0	76.0	.2	24.0	529	1400	180

282530081054201 - 82510503 COCOA 7

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
24...	1030	32.99	1060	7.4	24.2	10	360	130	8.10	75.0
AUG										
21...	1330	--	1290	7.4	25.2	10	400	140	11.0	110

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
24...	1.8	305	300	44.0	130	.2	25.0	629	1000	80
AUG										
21...	2.4	288	298	81.0	190	.2	24.0	774	1200	--

282530081054204 - 82510521 COCOA 7T1 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
27...	1120	61.83	654	7.3	23.1	5	290	110	3.70	22.0

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
27...	1.0	304	310	<.2	29.0	.2	18.0	383	560	3600

ORANGE COUNTY--Continued

282530081085401 - 82510802 COCOA 15 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
24...	1300	--	1540	7.4	25.0	10	460	140	25.0	130
AUG										
21...	1305	--	1410	7.5	24.9	10	440	140	22.0	120

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
24...	3.7	195	200	200	240	.2	20.0	967	3800	M
AUG										
21...	3.6	200	220	170	220	.2	20.0	860	2900	--

282530081091701 - 82510902 COCOA 16 NR BITHLO

DATE	TIME	PH SPE-CIFIC CON-DUCT-ANCE (US/CM)	WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
24...	1330	1020	7.5	24.6	10	320	100	17.0	73.0	2.6

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
24...	184	198	100	130	.2	20.0	637	1400	10

282530081094001 - 82510903 COCOA 17 NR BITHLO

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
24...	1440	589	7.5	24.6	10	230	73.0	11.0	23.0	1.5
AUG										
21...	1045	669	7.5	24.6	10	250	77.0	13.0	34.0	1.7

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
24...	177	160	49.0	34.0	.2	19.0	349	900	10
AUG									
21...	177	186	67.0	55.0	.2	19.0	414	1100	--

ORANGE COUNTY--Continued

282531081075602 - COCOA 13R

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
27...	1055	962	7.4	24.2	10	340	120	10.0	72.0	2.0

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
27...	266	272	71.0	110	.1	24.0	577	870	40

282531081082201 - 82510801 COCOA 14 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR										
26...	1500	--	1470	7.5	25.4	10	480	150	25.0	120
27...	1250	30.14	--	--	--	--	--	--	--	--
AUG										
22...	1155	--	1420	7.5	25.2	10	450	140	23.0	110

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR										
26...	4.1	192	218	230	220	.1	20.0	904	6400	100
AUG										
22...	4.0	194	218	210	210	.1	20.0	887	6000	--

282556081094001 - COCOA 18

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR										
25...	0850	1020	7.4	24.5	10	350	110	18.0	60.0	2.5

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR									
25...	189	190	130	100	.2	20.0	614	1700	10

ORANGE COUNTY--Continued

282612081054201 - 82610502 COCOA 2 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG 23...	0915	--	2170	7.5	24.0	5	590	170	33.0	220

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
AUG 23...	6.4	185	202	280	430	.2	19.0	1380	24200	--

282624081090401 - COCOA 19 NR BITHLO

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 25...	1008	846	7.1	24.7	10	350	110	17.0	40.0	2.1

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR 25...	201	188	140	71.0	.2	21.0	548	1500	10

282632081054501 - 82610503 COCOA 8 NR BITHLO

DATE	TIME	ELEV-ATION ABOVE NGVD (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 27...	1345	32.26	2360	7.4	25.0	5	620	180	38.0	250
AUG 23...	1035	--	2330	7.2	25.1	5	620	180	39.0	260

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	IRON, DIS-SOLVED (UG/L AS FE)
APR 27...	7.4	234	234	270	450	.2	21.0	1450	10300	10
AUG 23...	7.5	225	222	290	490	.2	21.0	1470	10200	--

ORANGE COUNTY--Continued

282650081054201 - 82610504 COCOA 9 NR BITHLO

DATE	TIME	ELEVATION ABOVE NGVD (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
APR										
27...	0849	31.47	1240	7.5	24.0	10	410	140	14.0	110
AUG										
21...	1225	--	1260	7.4	24.3	10	380	130	14.0	100

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	STRONTIUM, DISSOLVED (UG/L AS SR)	IRON, DISSOLVED (UG/L AS FE)
APR										
27...	2.6	264	262	98.0	180	.3	24.0	736	1500	50
AUG										
21...	2.7	261	266	100	180	.3	23.0	749	1500	--

KEY TO SITE LOCATIONS ON FIGURE 43
OSCEOLA COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	274856080594401	224
2	274947080584001	224
3	275222081030701	225
4	280619080542601	225
5	281714081093001	226
6	281722080543001	226

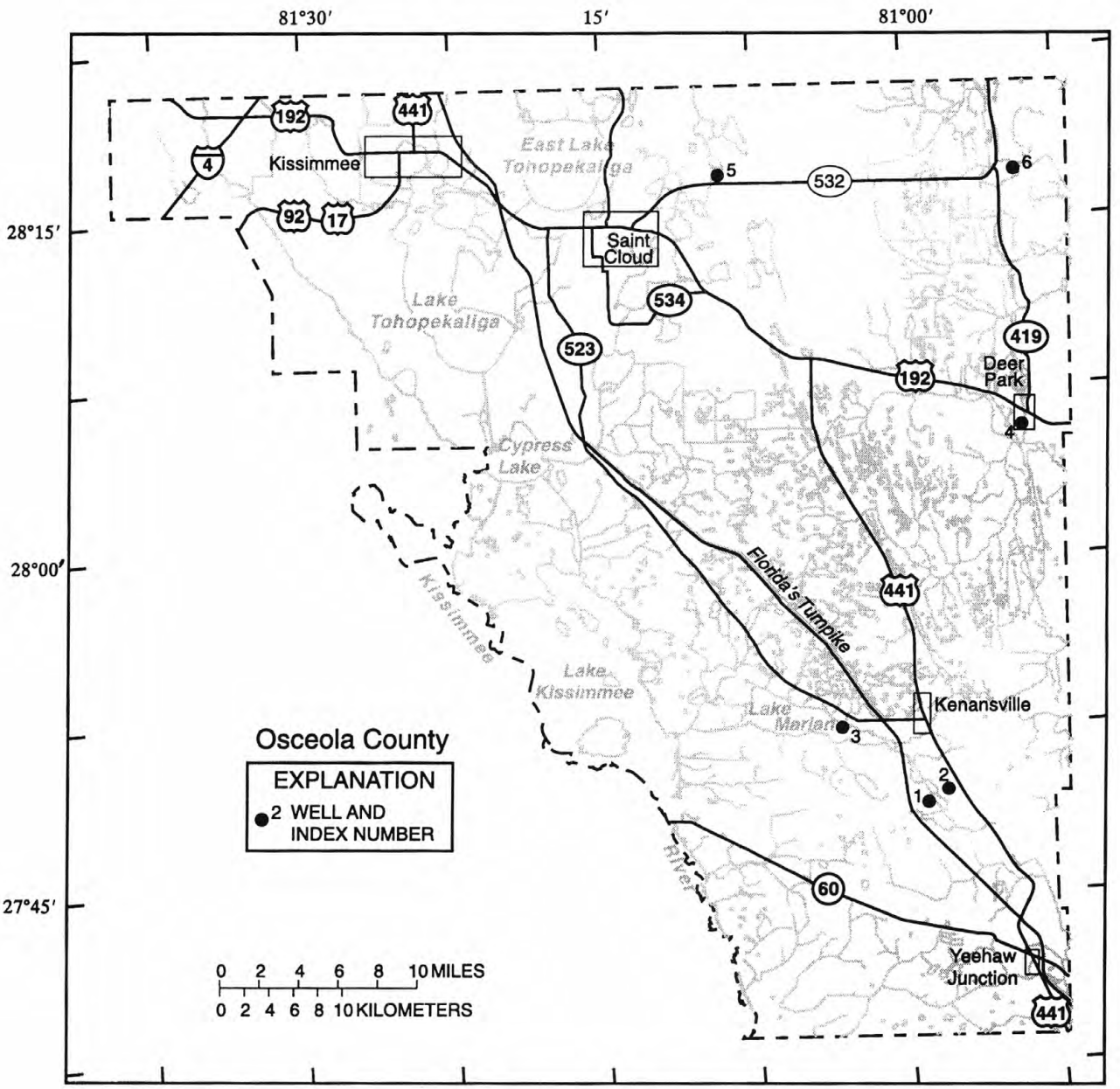

Figure 43.--Location of wells in Osceola County.

OSCEOLA COUNTY

WELL NUMBER.-274856080594401. Hayman Deep Well near Kenansville, FL.

LOCATION.--Lat 27°48'56", long 80°59'44", in NW¼SW¼NE¼ sec.2, T. 31S., R.33 E., Hydrologic Unit 03090101, on Hayman 7-11 Ranch, 3.1 mi south of Kenansville on U.S. Highway 441 off ranch road, approximately 2 mi from intersection of U.S. Highway 441 and one-fourth mile west of ranch road. Kenansville. Owner: W. Paul Hayman.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, artesian well, diameter 10 in., depth 800 ft, cased to 251 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 71.74 ft above sea level. Measuring point: Hole in pump base, 0.66 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to September 1980 (miscellaneous); October 1980 to September 1991 (semiannually); October 1991 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.27 ft above sea level, Jan. 23, 1995; lowest measured, 37.91 ft above sea level, May 14, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	45.40	DEC 26	44.04	MAR 27	41.57	JUN 26	41.72	SEP 25	42.55		
NOV 22	44.55	JAN 25	43.40	APR 24	41.31	AUG 29	41.76				

WATER YEAR 2000 LOWEST 41.31 APR 24, 2000 HIGHEST 45.40 OCT 26, 1999

WELL NUMBER.--274947080584001. Hayman Well near Kenansville, FL.

LOCATION.--Lat 27°49'47", long 80°58'40", in SE¼SE¼NW¼ sec.36, T.30 S., R.33 E., Hydrologic Unit 03080101, in pasture of 7-11 Ranch, 0.4 mi west of U.S. Highway 441, and 3.1 mi south of Kenansville. Owner: W. Paul Hayman.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, nonartesian well, diameter 3 in., depth 90 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 74.25 ft above sea level. Measuring point: Hole in threaded cap, 2.48 ft above land-surface datum.

PERIOD OF RECORD.--January 1974 to current year (bimonthly), incomplete.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.78 ft above sea level, Sept. 22, 1981; lowest measured, 64.74 ft above sea level, June 13, 1985.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 02	71.05	FEB 11	69.12	JUN 02	66.78	SEP 19	68.25				
DEC 10	69.50	APR 05	67.53	JUL 19	65.87						

WATER YEAR 2000 LOWEST 65.87 JUL 19, 2000 HIGHEST 71.05 NOV 02, 1999

OSCEOLA COUNTY--Continued

WELL NUMBER.--275222081030701. OS-243 Well at Lake Marian near Kenansville, FL.

LOCATION.--Lat 27°52'22", long 81°03'07", in SE¼NE¼NE¼ sec.18, T.30 S., R.33 E., Hydrologic Unit 03090101, at boat ramp in Osceola County Park, on east side of Lake Marian, and 3.0 mi west of Kenansville. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn limestone aquifer of the Miocene Series, Geologic Unit 122 HTRNN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 320 ft, cased to 243 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 63.21 ft above sea level. Prior to Oct. 1, 1977, datum was considered to be 63.95 ft, Oct. 1, 1977, to Sept. 30, 1978, to be 65.05 ft, and Oct. 1, 1979 to Sept. 30, 1990, to be 62.61 ft above sea level. Measuring point: Top of casing, 0.69 ft above land-surface datum.

PERIOD OF RECORD.--April 1974 to September 1992 (bimonthly); October 1992 to September 1994 (monthly); October 1994 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.83 ft above sea level, Sept. 13, 1995; lowest measured, 48.43 ft above sea level, present datum, May 8, 1976.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	54.74	FEB 13	53.50	JUN 02	50.35	SEP 19	51.90				
DEC 10	54.04	APR 06	52.10	JUL 19	50.64						

WATER YEAR 2000 LOWEST 50.35 JUN 02, 2000 HIGHEST 54.74 NOV 04, 1999

WELL NUMBER.--280619080542601. OS-179 Well at Deer Park, FL.

LOCATION.--Lat 28°06'19", long 80°54'26", in NW¼NE¼SW¼ sec.27, T.27 S., R.34 E., Hydrologic Unit 03080101, on south side of U.S. Highway 192, 0.8 mi northwest of Deer Park, and 11 mi east of Holopaw. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 SDGV.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 17.6 ft, cased to 17.6 ft, gravel packed 12.6 to 17.6 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 48.84 ft above sea level. Measuring point: Top of casing, 3.20 ft above land-surface datum.

PERIOD OF RECORD.--April 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.11 ft above sea level, July 15, 1978; lowest, 42.24 ft above sea level, June 30, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.51	46.75	46.03	46.12	45.91	45.06	44.33	43.60	42.68	42.41	---	---
10	47.41	46.43	45.90	46.26	45.63	44.91	44.17	43.45	42.58	42.51	---	---
15	47.88	46.26	45.79	45.94	45.52	44.78	44.23	43.29	42.48	---	---	---
20	47.40	46.34	47.29	45.80	45.40	44.81	44.02	43.16	42.38	43.50	---	---
25	47.31	46.91	46.68	46.07	45.29	44.62	43.89	43.03	42.31	44.59	---	46.12
EOM	46.73	46.38	46.27	45.97	45.19	44.47	43.75	42.84	42.24	44.49	---	47.03
MAX	48.23	47.56	47.47	46.39	46.01	45.16	44.45	43.72	42.80	44.64	44.44	47.18

CAL YR 1999 MAX 48.23
WTR YR 2000 MAX 48.23

OSCEOLA COUNTY--Continued

WELL NUMBER.--281714081093001. Lake Joel Well near Ashton, FL.

LOCATION.--Lat 28°17'14", long 81°09'30", in SW¼NW¼NW¼ sec.30, T.25 S., R.32 E., Hydrologic Unit 03090101, on southwest shore of Lake Joel, 0.8 mi north of State Highway 532, and 5.0 mi northeast of Ashton. Owner: Deseret Ranch.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 750 ft, cased to 394 ft.

INSTRUMENTATION.--Water-stage recorder---60-minute interval.

DATUM.--Elevation of land-surface datum is 64.78 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1969, May 1973 to November 1975 (bimonthly); December 1975 to current year. Prior to October 1977, published as (OS 213), Gulf American Co.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft above sea level, Nov. 20, 1969; lowest daily maximum water level, 36.30 ft above sea level, June 3, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.94	44.90	43.90	43.52	43.06	41.80	40.17	38.93	36.39	38.44	40.37	40.78
10	44.31	44.86	43.63	43.51	43.14	41.09	39.78	38.59	36.41	38.85	40.60	40.95
15	44.72	44.78	43.32	43.04	42.99	40.58	39.74	38.26	36.97	39.36	40.67	41.13
20	44.82	44.37	43.52	43.25	42.74	40.57	40.08	37.70	36.83	39.50	40.59	41.23
25	44.99	44.27	43.58	43.15	42.38	40.31	40.13	37.33	36.98	39.63	40.58	41.54
EOM	45.01	43.94	43.74	42.83	42.15	40.50	39.59	36.68	37.80	40.15	40.65	41.74
MAX	45.11	45.21	43.94	43.70	43.17	42.15	40.40	39.46	37.80	40.15	40.74	41.74

CAL YR 1999 MAX 45.21
WTR YR 2000 MAX 45.21

WELL NUMBER.--281722080543001. OS-171 Well near Deer Park, FL.

LOCATION.--Lat 28°17'22", long 80°54'30", in SE¼SW¼SW¼ sec.22, T.25 S., R.34 E., Hydrologic Unit 03080101, on ranch road, 0.9 mi east of State Highway 532, 3.6 mi south of K-6 Ranch Headquarters, and 13.5 mi north of Deer Park. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 19 ft, cased to 12.7 ft, gravel packed, 11 to 19 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 31.60 ft above sea level. Measuring point: Top of casing, 3.32 ft above land-surface datum.

PERIOD OF RECORD.--October 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 33.56 ft above sea level, Sept. 23, 1960; lowest, 26.32 ft above sea level, July 28, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.80	30.53	30.03	30.94	30.84	29.47	28.51	27.71	26.84	27.02	---	---
10	32.82	30.05	29.79	30.99	30.67	29.23	28.29	27.56	26.75	27.42	---	---
15	---	30.06	29.66	30.78	30.56	29.00	28.94	27.38	26.67	27.39	---	---
20	---	30.45	31.43	30.71	30.32	29.67	28.51	27.23	26.55	27.99	---	---
25	---	30.66	31.15	30.86	30.10	29.04	28.12	27.10	26.51	---	---	---
EOM	31.15	30.32	31.02	31.02	29.81	28.92	27.90	26.95	26.73	---	27.29	31.54
MAX	32.82	31.13	31.45	31.10	31.02	29.82	29.01	27.84	26.93	29.53	27.35	32.14

CAL YR 1999 MAX 32.82
WTR YR 2000 MAX 32.82

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

OSCEOLA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
274149080534801	05-16-00	0745	OSF-60A TEST WELL	36.28
	09-12-00	0713		39.56
274307080582401	05-16-00	0754	OSF-42	40.87
	09-12-00	0725		43.10
274807081115501	05-16-00	0950	OSF-52 S-65 WELL NR KENANSVILLE	40.33
	09-12-00	0817		43.45
275347081022601	05-16-00	0727	OSF-62 TEST WELL	38.93
	09-12-00	0652		42.01
275609081132001	05-16-00	1114	JOE OVERSTREET WELL (OS-319)	43.00
	09-12-00	1001		46.19
275852081030501	05-15-00	1207	TH-10 WILLIAMS RD	39.39
	09-11-00	1037		41.31
280036080563801	05-17-00	1020	OS-0019 BULL CR LOOP RD	37.15
	09-13-00	0951		40.36
280141081112701	05-16-00	0713	OSF-66 TEST WELL	41.07
	09-12-00	0637		46.47
280418081160401	05-16-00	1137	OSF-64 TEST	46.20
	09-12-00	1025		49.19
280823081210301	05-15-00	0940	OSF-53 S-61 WELL NR ALCOMA	45.94
	09-11-00	0747		49.43
280829080574001	05-17-00	0858	808057 27S34E18 TH-6 DEER PARK NW	37.53
	09-13-00	0844		40.21
280905081270101	05-15-00	0925	REEDY CREEK OVERLOOK WELL	56.48
	09-11-00	0732		61.39
281006081162601	09-12-00	1046	CANOE CREEK CAMPGROUND WELL	46.61
281023081075401	05-15-00	1135	OSF-68 TEST WELL	37.98
	09-11-00	1002		40.68
281105080541401	05-17-00	0830	811054-- 26S34E34 RODEO FIELD DEER PARK NW	35.26
	09-13-00	0818		37.28
281146081211701	09-11-00	0854	CECIL WHALEY WELL	48.98
281354080563301	05-17-00	0804	813056 26S34E08 TH-4 DEER PARK NW	35.42
	09-13-00	0753		38.47
281429081290501	05-15-00	0912	OS-254 MERCANTILE LANE WELL	58.14
	09-11-00	0716		61.90
281443081140501	05-15-00	1119	ASHTON FORESTRY TOWER WELL (OS-250) AT ASHTON,FL	39.54
	09-11-00	0927		43.92

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

OSCEOLA COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
281456081171701	05-15-00	1057	ST.CLOUD POWER PLANT WELL	39.05
	09-11-00	0913		40.60
281506081194601	05-15-00	1024	OSF-70 TEST WELL	40.57
	09-11-00	0837		45.79
281536081324801	05-15-00	0853	FLORIDA POWER WELL(SRK01)	72.26
	09-11-00	0657		74.23
281559081260701	05-15-00	1003	SHINGLE CREEK WELL	51.90
	09-11-00	0810		56.01
281630080591001	05-17-00	0729	TH-3 LAKE POINSETT SW	33.87
	09-12-00	1158		36.70
281630081024401	05-17-00	0736	TH-9 NOVA RD 532 WEST	35.79
	09-12-00	1146		38.49
281632080515001	05-17-00	0703	DSR-38 LAKE POINSETT NR ROCKLEDGE,FL	31.00
	09-13-00	0711		35.50
281937081245901	05-16-00	0638	81912401 25S29E09 OS U.L	38.47
	09-11-00	0625		42.25

KEY TO SITE LOCATIONS ON FIGURE 44
PASCO COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	281654082065901	232
2	282259082104101	232

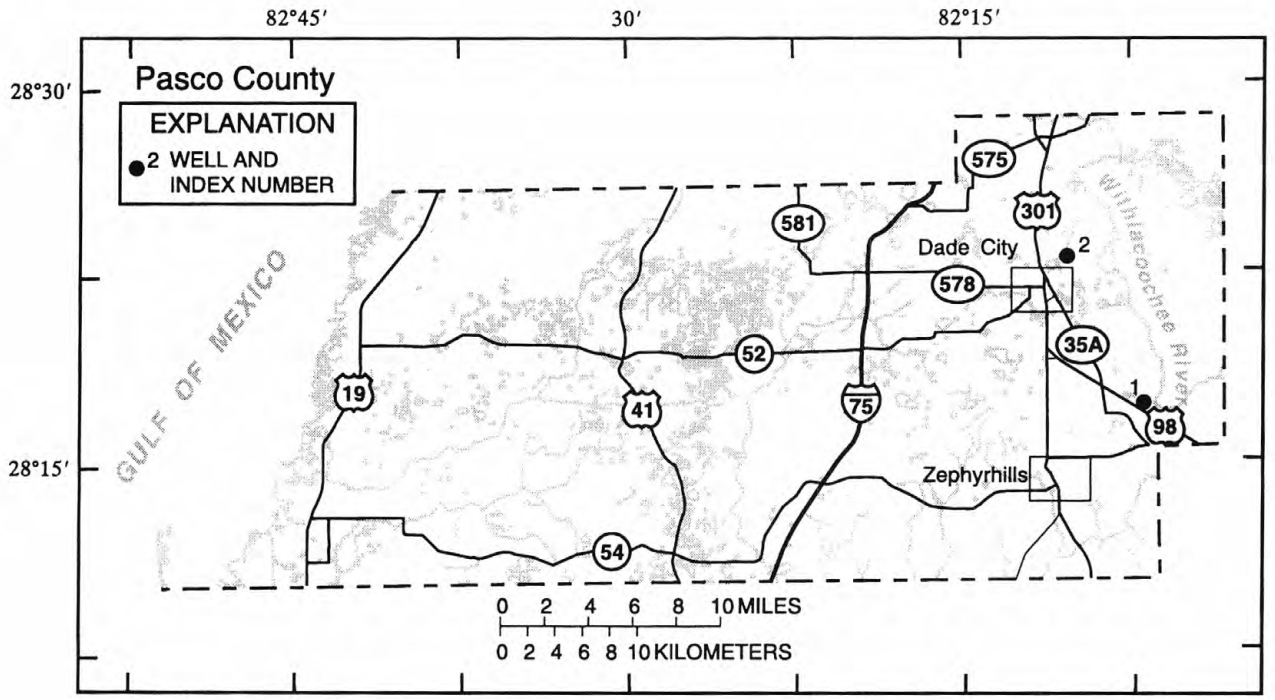

Figure 44.--Location of wells in Pasco County.

PASCO COUNTY

WELL NUMBER.--281654082065901. U.S. Highway 98 Well near Dade City, FL.

LOCATION.--Lat 28°16'54", long 82°06'59", in SW¼SE¼NW¼ sec.28, T.25 S., R.22 E., Hydrologic Unit 03100208, on north side of U.S. Highway 98, 2.9 mi north of intersection of State Highway 54, and 7.8 mi southeast of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 3 in., depth 200 ft, cased to 41 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 83.77 ft above sea level. Measuring point: Top of casing, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1976, January 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.68 ft above sea level, Oct. 11, 1995; lowest measured, 69.97 ft above sea level, July 10, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	73.71	JAN 26	72.45	MAY 10	70.62	JUL 10	69.97	SEP 18	71.04		
NOV 29	73.00	MAR 06	72.04	16	70.41	SEP 05	71.06				

WATER YEAR 2000 LOWEST 69.97 JUL 10, 2000 HIGHEST 73.71 OCT 06, 1999

WELL NUMBER.--282259082104101. Lykes Pasco Well near Dade City, FL.

LOCATION.--Lat 28°22'59", long 82°10'41", in NW¼NW¼SE¼ sec.23, T.24 S., R.21 E., Hydrologic Unit 03100208, 0.5 mi east of confluence of Pasco Packing Company and Evans Packing Company canals, and 2 mi northeast of Dade City. Owner: Lykes Pasco Packing Co.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 36 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 73.81 ft above sea level. Measuring point: Top edge of flange on casing, 4.13 ft above land-surface datum.

PERIOD OF RECORD.--April 1973 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 75.19 ft above sea level, Mar. 23, 1998; lowest measured, 57.71 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	62.60	DEC 30	61.52	FEB 24	60.71	APR 27	58.76	JUN 27	57.71	AUG 29	61.58
NOV 23	62.45	JAN 25	61.17	MAR 28	59.59	MAY 24	58.02	JUL 27	59.93	SEP 26	61.62

WATER YEAR 2000 LOWEST 57.71 JUN 27, 2000 HIGHEST 62.60 OCT 28, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

PASCO COUNTY

STATION NUMBER	DATE	TIME		STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
282005082112801	05-16-00	0951	82021104	25S21E03 STEARNS WELL	58.88
	09-18-00	1011			59.98
282121082071101	05-16-00	1029	82120702	24S22E32 CUMMER OFFICE WELL	65.54
	09-18-00	1058			65.69
282154082142401	05-16-00	0935	82121401	24S21E30 HAYCRAFT WELL	58.17
	09-18-00	0958			59.92
282221082103001	05-16-00	1013	82221001	24S21E26 COLLURA WELL NO. 1	58.24
	09-18-00	1027			59.71
282428082134501	05-16-00	0914	82421301	24S21E08 LEE WELL	56.85
	09-18-00	0938			58.61
282430082112101	05-16-00	0851	82421102	24S21E10 SELF WELL	59.32
	09-18-00	0916			58.07
282717082142001	05-16-00	0827	82721401	23S21E30 ROSSINI WELL WEST OF TRILBY	49.46
	09-18-00	0856			50.79
282816082123701	05-16-00	0813	82821201	23S21E21 TOMKOW HAY BARN WELL	46.03
	09-18-00	0824			47.57

KEY TO SITE LOCATIONS ON FIGURE 45
POLK COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	274812081190301	236
2	274815081130301	236
3	284846081262001	237
4	280503081552801	237
5	280531081431601	238
6	280556081532601	238
7	280715081543501	239
7	280719081543301	239
8	281008081441801	240
8	281008081441802	240
9	281057081495002	241
10	281312082011601	241

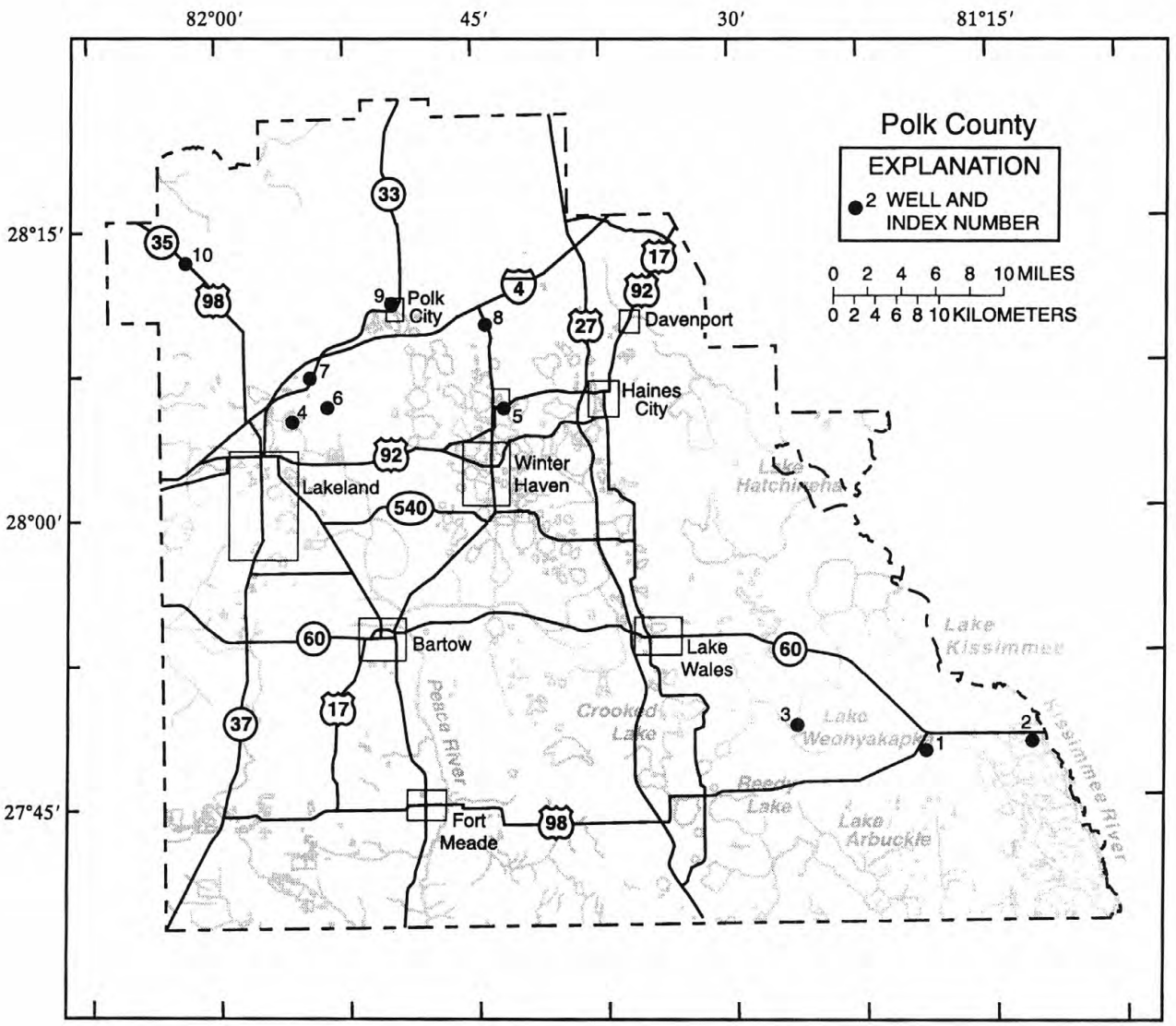

Figure 45.--Location of wells in Polk County.

POLK COUNTY

WELL NUMBER.--274812081190301. P-49 Well near Frostproof, FL.

LOCATION.--Lat 27°48'12", long 81°19'03", in SE¼NE¼NE¼ sec.9, T.31 S., R.30 E., Hydrologic Unit 03090101, on south side of State Highway 630, 0.2 mi west of State Highway 60, and 12.0 mi east of Frostproof. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 6 in., depth 17 ft, cased to 14 ft, gravel-packed from 14 to 17 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 104.93 ft above sea level. Measuring point: Top of recorder shelf, 3.38 ft above land-surface datum.

PERIOD OF RECORD.--April 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 105.38 ft above sea level, June 18, 1982; lowest, 98.76 ft above sea level, June 8, 1962.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	104.97	104.26	102.97	102.98	102.36	101.43	100.92	100.56	99.71	100.55	---	103.46
10	104.78	103.78	102.85	102.81	102.15	101.29	100.75	100.41	99.61	100.33	---	103.84
15	104.75	103.52	102.74	102.59	101.99	101.13	100.93	100.28	99.54	100.22	---	103.04
20	104.67	103.39	104.05	102.44	101.83	101.07	101.39	100.15	99.46	100.15	---	103.82
25	104.21	103.53	103.48	102.87	101.69	100.96	101.06	100.02	99.39	101.82	103.22	103.24
EOM	103.63	103.19	103.18	102.49	101.58	101.23	100.76	99.85	100.48	---	102.95	102.79
MAX	105.02	104.68	104.14	103.13	102.50	101.55	101.40	100.69	100.48	102.25	103.64	104.33

CAL YR 1999 MAX 105.29
WTR YR 2000 MAX 105.02

WELL NUMBER.--274815081130301. River Ranch Well near Indian Lake Estates, FL.

LOCATION.--Lat 27°48'15", long 81°13'03", in NW¼NW¼NW¼ sec.10, T.31 S., R.31 E., Hydrologic Unit 03090101, 92 ft south of State Highway 60, 1.0 mi west of Kissimmee River Bridge, and 6.5 mi east of Indian Lake Estates. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 300 ft, cased to 185 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 55.17 ft above sea level. Prior to Oct. 1, 1977, datum was considered to be 55.64 ft, and Oct. 1, 1977, to Sept. 30, 1978, at 55.34 ft above sea level. Measuring point: Top of casing, 0.30 ft above land-surface datum.

PERIOD OF RECORD.--May 1974 to September 1984 (bimonthly); October 1984 to September 1986 (monthly); October 1986 to September 1995 (bimonthly); October 1996 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.23 ft above sea level, Mar. 10, 1998; lowest measured, 41.02 ft above sea level, June 22, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 12	47.94	MAR 02	45.55	MAY 17	42.12	AUG 23	44.32				
JAN 10	46.61	APR 17	43.69	JUN 22	41.02	SEP 15	44.72				

WATER YEAR 2000 LOWEST 41.02 JUN 22, 2000 HIGHEST 47.94 NOV 12, 1999

POLK COUNTY--Continued

WELL NUMBER.--274846081262001. Lake Weohyakapka Well near Frostproof, FL.

LOCATION.--Lat 27°48'46", long 81°26'20", in NE¼NW¼SE¼ sec.5, T.31 S., R.29 E., Hydrologic Unit 03090101, on southwest shore of Lake Weohyakapka, at county boat ramp, and 8.0 mi east of Frostproof. Owner: Polk County.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, public-supply, artesian well, diameter 3 in., depth 199 ft, cased to 153 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 65.15 ft above sea level. Prior to Oct. 1, 1977, datum was considered to be 65 ft, from topographic map, and Oct. 1, 1977, to Sept. 30, 1978, a t 65.30 ft above sea level. Measuring point: Spigot on discharge line, 1.85 ft above land-surface datum.

PERIOD OF RECORD.--February 1958, December 1959, June 1969 to September 1984 (bimonthly); October 1984 to September 1986 (monthly); October 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.35 ft above sea level, present datum, Dec. 15, 1959; lowest measured, 72.27 ft above sea level, May 20, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 12	78.20	MAR 02	79.30	MAY 17	76.60	AUG 23	80.20				
JAN 10	81.90	APR 17	79.10	JUN 22	77.50	SEP 15	81.40				

WATER YEAR 2000 LOWEST 76.60 MAY 17, 2000 HIGHEST 81.90 JAN 10, 2000

WELL NUMBER.--280503081552801. Fish Lake Deep Well near Lakeland, FL.

LOCATION.--Lat 28°05'03", long 81°55'28", in SE¼SE¼SE¼ sec.32, T.27 S., R.24 E., Hydrologic Unit 03100101, 50 ft east of Lake Park Drive, 1.4 mi south of Old Combee Road, and 3.5 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 311 ft, cased to 265 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 135.93 ft above sea level. Measuring point: Top of casing, .90 ft above land-surface datum.

PERIOD OF RECORD.--December 1955 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.97 ft above sea level, Aug. 8, 1960; lowest measured, 103.60 ft above sea level, May 10, 1976.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	112.96	JAN 24	111.00	MAY 11	104.98	AUG 02	108.53	SEP 14	108.92		
NOV 29	111.73	MAR 06	109.48	15	104.96	SEP 05	108.83				

WATER YEAR 2000 LOWEST 104.96 MAY 15, 2000 HIGHEST 112.96 OCT 07, 1999

POLK COUNTY--Continued

WELL NUMBER.--280531081431601. Lake Alfred Deep Well at Lake Alfred, FL.

LOCATION.--Lat 28°05'31", long 81°43'16", in SE¼SW¼NW¼ sec.33, T.27 S., R.26 E., Hydrologic Unit 03100101, on northeast corner at intersection of Glencruiten Avenue and Haines Boulevard at Lake Alfred. Owner: City of Lake Alfred.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, public supply, artesian well, diameter 12 in., depth 555 ft, cased to 282 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 171.04 ft, above sea level. Measuring point: Top of recorder shelter floor, 3.46 ft above land-surface datum. Prior to May 1988, at elevation 3.12 ft lower.

PERIOD OF RECORD.--May 1973 to February 1976 (quarterly), incomplete; March 1976 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 126.51 ft above sea level, July 10, 1974; lowest daily maximum water level, 109.13 ft above sea level, May 15, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	123.23	JAN 25	120.89	APR 25	116.92	JUN 27	115.97	SEP 14	120.27		
NOV 22	120.92	FEB 23	119.55	MAY 16	114.20	JUL 26	119.85	25	121.27		
DEC 23	122.08	MAR 29	117.33	23	113.93	AUG 29	119.54				

WATER YEAR 2000 LOWEST 113.93 MAY 23, 2000 HIGHEST 123.23 OCT 25, 1999

WELL NUMBER.--280556081532601. Tennorock Road Well near Lakeland, FL.

LOCATION.--Lat 28°05'56", long 81°53'26", in SE¼SE¼SE¼ sec.27, T.27 S., R.24 E., Hydrologic Unit 03100101, on south side of Tennorock Road, 0.9 mi east of Alternate State Highway 33, and 5.4 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 72 ft, cased to 45 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 132.01 ft above sea level. Measuring point: Top of casing, 2.30 ft above land-surface datum.

PERIOD OF RECORD.--February 1956 to February 1960 (monthly), incomplete; June 1960 to May 1961 and January 1963 to September 1977 (about thrice yearly); October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 124.71 ft above sea level, Feb 3,1998; lowest measured, 96.15 ft above sea level, May 7, 1968.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	120.31	JAN 24	118.60	MAY 08	114.23	JUL 10	114.40	SEP 14	115.84		
NOV 29	119.06	MAR 06	117.07	15	113.77	SEP 05	115.77				

WATER YEAR 2000 LOWEST 113.77 MAY 15, 2000 HIGHEST 120.31 OCT 06, 1999

POLK COUNTY--Continued

WELL NUMBER.--280715081543501. Combee Road Deep Well near Lakeland, FL.

LOCATION.--Lat 28°07'07", long 81°54'30", in SW¼NE¼SE¼ sec.21, T.27 S., R.24 E., Hydrologic Unit 03100101, at the intersection of State Highway 33 and Combee Road, 1.5 mi southwest of Interstate Highway 4, and 7.3 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn Formation of Miocene Age, Geologic Unit 122 HTRN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 55 ft, cased to 31 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 136.20 ft above sea level. Measuring point: Top of casing, 0.86 ft above land-surface datum. Aug. 10, 1999 to May 7, 2000, measuring point 0.18 ft above land-surface datum. June 30, 1991 to Aug. 9, 1999, measuring point 3.41 ft above land-surface datum. Prior to June 30, 1991, measuring point 2.80 ft above land-surface datum.

PERIOD OF RECORD.--January 1956 to September 1977 (thrice yearly); October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.92 ft above sea level, July 7, 1959; lowest measured, 118.56 ft above sea level, Nov. 6, 1964.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	133.63	JAN 24	132.16	MAY 08	130.62	JUL 10	130.63	SEP 14	130.78		
NOV 29	132.27	MAR 06	131.56	15	130.45	SEP 05	130.96				

WATER YEAR 2000 LOWEST 130.45 MAY 15, 2000 HIGHEST 133.63 OCT 06, 1999

WELL NUMBER.--280719081543301. Combee Road Shallow Well near Lakeland, FL.

LOCATION.--Lat 28°07'06", long 81°54'31", in SW¼NE¼SE¼ sec.21, T.27 S., R.24 E., Hydrologic Unit 03100101, at the intersection of State Highway 33 and Combee Road, 1.5 mi southwest of Interstate Highway 4, and 7.3 mi northeast of Lakeland. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 1.25 in., depth 9 ft, cased to 8 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 136.45 ft above sea level. Measuring point: Top of casing, 3.63 ft above land-surface datum. June 30, 1991 to Oct. 5, 1999, measuring point 1.06 ft above land-surface datum. Prior to June 30, 1991, measuring point 3.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1955 to September 1977 (thrice yearly); October 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.97 ft above sea level, Oct. 10, 1995; well observed dry, Nov. 16, 1964.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 29	132.93	MAR 06	131.84	MAY 15	130.54	SEP 05	131.23				
JAN 24	132.31	MAY 08	130.59	JUL 10	131.18	14	131.04				

WATER YEAR 2000 LOWEST 130.54 MAY 15, 2000 HIGHEST 132.93 NOV 29, 1999

POLK COUNTY--Continued

WELL NUMBER.--281008081441801. Lake Alfred Deep Well near Lake Alfred, FL.

LOCATION.--Lat 28°10'08", long 81°44'18", in SW¼NW¼NW¼ sec.5, T.27 S., R.26 E., Hydrologic Unit 03100208, on west side of Pit Road, 100 ft north of intersection with State Highway 557, 1.2 mi south of Interstate Highway 4, and 5.0 mi north of Lake Alfred. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 425 ft, cased to 102 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 137.38 ft above sea level. Measuring point: Top of casing, 2.25 ft above land-surface datum.

PERIOD OF RECORD.--July 1959 to November 1960 (monthly); December 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 131.18 ft above sea level, Mar. 21, 1998; lowest, 119.85 ft above sea level, May 3, 1974.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	128.64	128.50	127.41	127.84	127.79	126.05	125.13	123.76	122.55	124.78	126.23	126.25
10	128.94	128.48	126.91	127.69	127.61	125.61	124.87	123.54	122.74	125.14	126.36	126.23
15	129.04	128.09	127.11	127.47	127.38	125.49	125.26	123.81	122.85	125.28	126.48	125.74
20	128.89	127.63	128.07	127.39	127.22	126.08	125.63	123.06	122.45	125.36	126.29	126.47
25	128.75	127.56	128.23	127.48	126.78	125.21	125.00	122.86	122.85	125.77	126.08	126.67
EOM	128.30	127.63	128.13	127.29	126.62	125.54	124.19	122.78	124.23	125.99	125.74	126.39
MAX	129.11	128.68	128.30	128.14	127.86	126.42	125.75	124.10	124.23	125.99	126.50	126.67

CAL YR 1999 MAX 129.11
WTR YR 2000 MAX 129.11

WELL NUMBER.--281008081441802. Lake Alfred Shallow Well near Lake Alfred, FL.

LOCATION.--Lat 28°10'08", long 81°44'18", in SW¼NW¼NW¼ sec.5, T.27 S., R.26 E., Hydrologic Unit 03100208, on west side of Pit Road, 100 ft north of intersection with State Highway 557, 1.2 mi south of Interstate Highway 4, and 5.0 mi north of Lake Alfred. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Tertiary Quaternary Age, Geologic Unit 111 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, nonartesian well, diameter 2 in., depth and casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 137.25 ft above sea level. Measuring point: Top of casing, 0.20 ft below land-surface datum.

PERIOD OF RECORD.--October 1960 to September 1977 (monthly); October 1977 to September 1983 (bimonthly); October 1983 to September 1997, April 1998 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 137.02 ft above sea level, Aug. 23, 1999; well observed dry on numerous visits.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	136.70	JAN 25	136.85	APR 25	135.71	JUN 27	133.57	SEP 14	132.97		
NOV 22	136.55	FEB 23	136.46	MAY 16	134.19	JUL 26	133.32				
DEC 23	136.75	MAR 29	136.04	23	134.14	AUG 29	133.08				

WATER YEAR 2000 LOWEST 132.97 SEP 14, 2000 HIGHEST 136.85 JAN 25, 2000

POLK COUNTY--Continued

WELL NUMBER.--281057081495002. ROMP 76A Well near Polk City, FL.

LOCATION.--Lat 28°10'57", long 81°49'50", in NW¼SW¼NE¼ sec.32, T.26 S., R.25 E., Hydrologic Unit 03100208, in pasture at end of Pine Avenue, 0.3 mi north of State Highway 33 in Polk City. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 315 ft, cased to 264 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 136.79 ft above sea level. Measuring point: Top of casing, 3.40 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 132.84 ft above sea level, Mar. 23, 1998; lowest measured, 119.37 ft above sea level, May 16,1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	130.09	JAN 25	128.11	APR 25	125.18	JUN 27	123.81	SEP 14	126.33		
NOV 22	128.68	FEB 23	127.34	MAY 15	123.48	JUL 26	126.23	25	127.21		
DEC 23	128.99	MAR 29	125.99	23	123.22	AUG 29	126.54				

WATER YEAR 2000 LOWEST 123.22 MAY 23, 2000 HIGHEST 130.09 OCT 25, 1999

WELL NUMBER.--281312082011601. ROMP 87 Well near Lakeland, FL.

LOCATION.--Lat 28°13'12", long 82°01'25", in SE¼NE¼SE¼ sec.17, T.26 S., R.23 E., Hydrologic Unit 03100208, 2.35 mi northwest of intersection of U.S. Highway 98 and Rock Ridge Road, and 14.5 mi northwest of Lakeland. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 6 in., depth 380 ft, cased to 300 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 107.52 ft above sea level. Measuring point: Top of casing, 3.73 ft above land-surface datum.

PERIOD OF RECORD.--January 1981 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.78 ft above sea level, Dec. 29, 1997; lowest measured, 94.88 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	100.95	JAN 25	99.25	APR 27	96.40	JUN 27	94.88	SEP 18	98.50		
NOV 23	100.21	FEB 23	98.86	MAY 16	95.68	JUL 27	96.11	26	99.86		
DEC 29	99.95	MAR 28	97.51	24	95.50	AUG 29	98.11				

WATER YEAR 2000 LOWEST 94.88 JUN 27, 2000 HIGHEST 100.95 OCT 27, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

POLK COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
273903081185201	05-17-00	0906	73911801 33S30E06 USAF AVON PARK #1	66.44
	09-15-00	0838		71.19
273929081080601	05-16-00	0815	POF-20 S-65A WELL NR S CO LINE	40.68
	09-12-00	0749		43.90
274746081202201	05-17-00	1107	747120-- 31S30E08 INDIAN LK ESTATES GOLF COURS	56.74
	09-15-00	1112		61.53
275137081252501	05-17-00	1007	751125-- 30S29E21 E. LK. WALES UTILITY	74.88
	09-15-00	0938		80.08
275622081252301	05-17-00	1308	756125 29S29E28 L. ROSALIE NW	52.48
	09-15-00	1148		57.21
275634081211801	05-17-00	1233	756121-- 29S30E19 KISS STPK NR LK KISSIMMEE	51.94
	09-15-00	1227		55.05
280153081274101	05-17-00	1404	801127-- 28S29E19 LK HATCHI NR HAINES CITY	63.89
	09-15-00	1320		67.69
280420081570101	05-15-00	0958	LAKELAND STADIUM WELL AT LAKELAND	81.56
	09-14-00	1034		90.07
280558081314801	05-17-00	1428	805131-- 27S28E29 KIMBELL WELL NR LK MARION	67.52
	09-15-00	1346		70.85
281058081495002	09-14-00	1107	USGS 1.75" DRILL PIPE INNER MONITOR AT POLK CITY	126.20
281058081495003	09-14-00	1111	USGS 4" ANNULAR MONITOR AT POLK CITY	125.30
281058081495004	09-14-00	1103	USGS CORE HOLE 2 AT POLK CITY	122.50
281202081391701	05-15-00	1238	PO-1 THORNHILL DEEP NR DAVENPORT	122.00
	09-14-00	1308		121.70
281317081491301	05-15-00	1056	813149423 26S25E16	121.90
	09-14-00	1125		124.60
281440081431701	05-15-00	1141	814143232 26S26E04	123.40
	09-14-00	1202		124.70
281532081345001	05-15-00	1212	815134134 26S27E02 LOUGHMAN DP WELL NR LOUGHMAN	87.59
	09-14-00	1247		88.21
281532081493001	05-15-00	1111	815149233 25S25E32	120.00
	09-14-00	1137		122.60

KEY TO SITE LOCATIONS ON FIGURE 46
PUTNAM COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	292948081503001	246

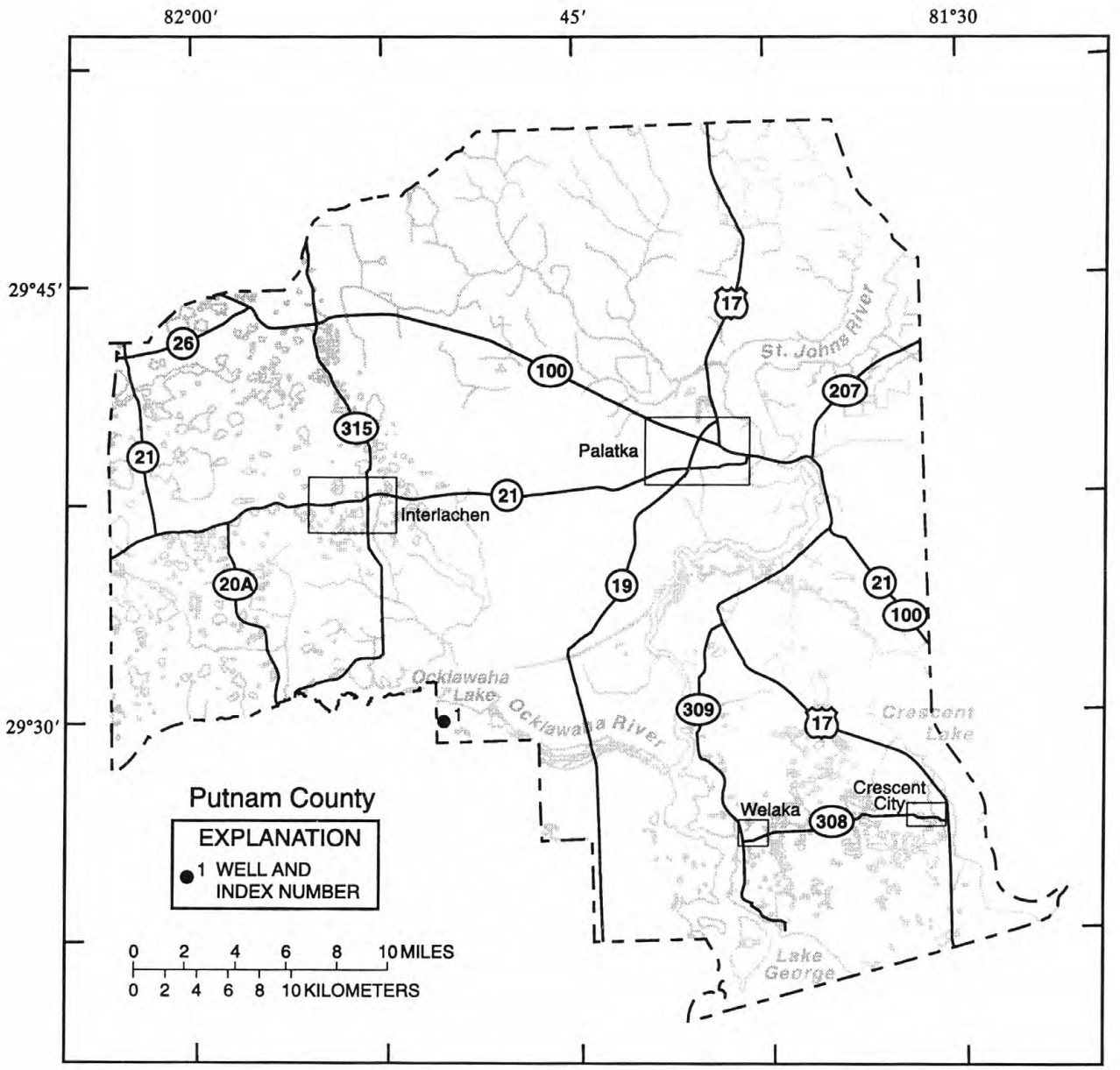

Figure 46.--Location of wells in Putnam County.

PUTNAM COUNTY

WELL NUMBER.--292948081503001. Well RD-77-G near Orange Springs, FL.

LOCATION.--Lat 29°29'48", long 81°50'30", in NW¼SW¼NW¼ sec. 31, T.11 S., R.25 E., Hydrologic Unit 03080102, in northeast corner of intersection of roads 77 and 77-G in Ocala National Forest, 7.3 mi west of State Highway 19, and about 6.0 mi east of Orange Springs. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary system, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth 241 ft, cased to 215 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 100.81 ft above sea level. Measuring point: Top of 4 in. casing, 2.50 ft above land-surface datum.

COOPERATION.--Since October 1, 1985 records provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1982 to September 1985 (bimonthly), October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.28 ft above sea level, May 8, 1998; lowest measured, 16.84 ft above sea level, Mar. 25, 1992.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	19.53	DEC 15	19.07	FEB 22	18.78	APR 24	18.99	JUN 26	18.58	AUG 28	18.62
NOV 18	19.75	JAN 25	18.84	MAR 24	18.77	MAY 22	18.86	JUL 24	18.56	SEP 25	19.84

WATER YEAR 2000 LOWEST 18.56 JUL 24, 2000 HIGHEST 19.84 SEP 25, 2000

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

PUTNAM COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
292124081345202	05-17-00	1135	P-0736 MIDDLE RD UPPER DEEP	6.00
	09-13-00	1235		7.78
292239081313702	05-17-00	1215	P-0696	20.01
	09-13-00	1315		26.22
292435081441301	05-15-00	1440	NR FRONTIER D H NR SALT SPGS	8.68
	09-12-00	1020		9.70
292824081341501	05-17-00	1040	P-0246 COL. SAULS	27.94
	09-13-00	1040		29.77
292824081443301	05-15-00	1415	JOHNSONS FIELD NR WELAKA	6.36
	09-12-00	1040		7.52
292859081375701	05-17-00	1320	P-408 HWAY 308B	14.95
	09-13-00	1415		17.05
293206081351701	05-17-00	0955	P-0817	22.42
	09-13-00	0955		24.12
293300081523901	05-15-00	1530	933152 11S24E11 CE 60 U S A CORPS ENG.	58.74
	09-12-00	0950		59.60
293554081342601	05-17-00	0920	SAN MATEO TOWERSITE DEEP	12.61
	09-13-00	0915		14.90
293633081594601	05-15-00	1530	DRAINAGE WELL COWPEN LAKE PUTNAM CO FL	75.86
	09-12-00	0900		76.77
293733081474801	05-15-00	1555	HOLLISTER WORKCTR CF (P-510)	46.70
	09-12-00	0820		47.83
293933081342801	05-17-00	0810	93913411 10S27E04 P-172 CRACKER SWAMP	12.63
	09-13-00	0750		16.53
293951081413901	05-17-00	0730	P-0123 DHQ DEEP WELL	24.57
	09-12-00	1150		26.75
294243081555901	05-17-00	0640	P-0822 FLORIDA ROCK IN PUTNAM CO	79.34
	09-12-00	0730		79.07
294255081323501	05-17-00	0845	P-0076 A.J.ROBERTS	14.77
	09-13-00	0830		18.55
294553081344301	05-15-00	1235	94513401 08S27E-- RIVERDALE NO 61	20.38
	09-12-00	1240		23.78

KEY TO SITE LOCATIONS ON FIGURE 47
ST. JOHNS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	295357081294301	250
2	295713081203401	250
3	300717081381001	251
4	300758081230501	251
5	301132081225801	252

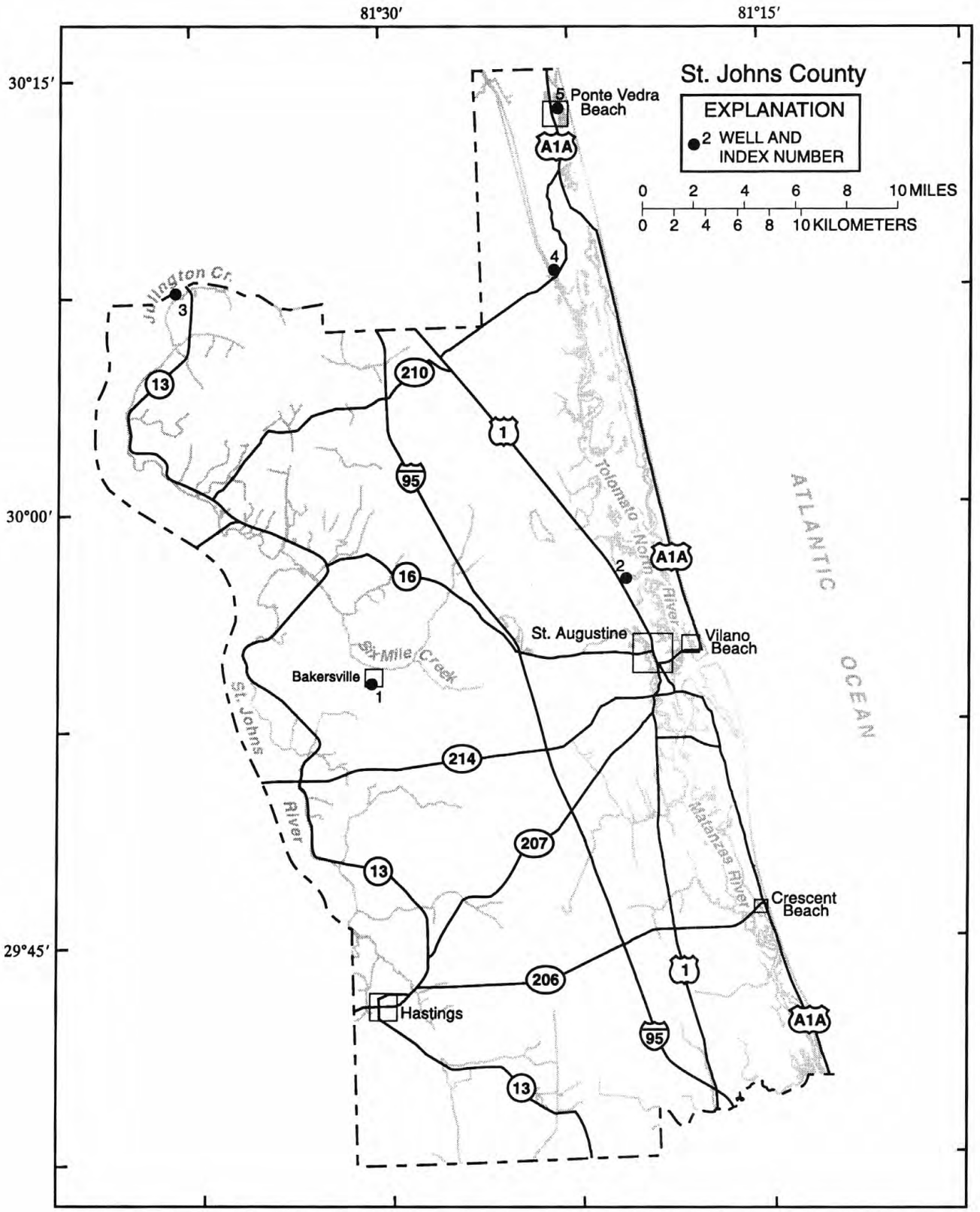

Figure 47.--Location of wells in St. Johns County.

ST. JOHNS COUNTY

WELL NUMBER.--295357081294301. Local Number SJ-77. Engel Well near Molasses Junction, FL.

LOCATION.--Lat 29°53'57", long 81°29'43", in NE¼NE¼NE¼ sec. 17, T.7 S., R.28 E., Hydrologic Unit 03080103, in ditch on the west side of Alternate State Road 13, and 0.4 mi south of State Road 208. Owner: Mr. Engel.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 4 in., depth and casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land-surface datum is 20.62 ft above sea level. Measuring point: Top of 4 in. tee at land-surface datum.

REMARKS.--Water level seasonally affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1977 to May 1986 (semiannually); July 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.82 ft above sea level, Feb. 6, 1997; lowest measured, 21.97 ft above sea level, Apr. 8, 1991.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	31.12	DEC 01	29.62	APR 07	23.62	AUG 01	27.62

WATER YEAR 2000 LOWEST 23.62 APR 07, 2000 HIGHEST 31.12 OCT 06, 1999

WELL NUMBER.--295713081203401. Local Number SJ-89. Airport Well near St. Augustine, FL.

LOCATION.--Lat 29°57'13", long 81°20'34", in land grant 50, T.6 S., R.29 E., Hydrologic Unit 03080201, at St. Augustine Airport on U.S. Highway 1, 2.5 mi north of St. Augustine. Owner: St. Augustine Airport Authority.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth 350 ft, cased to 190 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 10 ft above sea level, from topographic map. Measuring point: Top of 4 in. tee at land-surface datum.

PERIOD OF RECORD.--May 1978 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.50 ft above land-surface datum, Dec. 21, 1994; lowest measured, 13.90 ft above land-surface datum, May 23, June 27, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19	-19.30	JAN 25	-19.30	MAR 27	-16.80	MAY 23	-13.90	JUL 25	-15.50	SEP 26	-18.10
DEC 21	-20.20	FEB 23	-18.50	APR 25	-16.20	JUN 27	-13.90	AUG 29	-15.90		

WATER YEAR 2000 HIGHEST -20.20 DEC 21, 1999 LOWEST -13.90 MAY 23, 2000 JUN 27, 2000

Note.--Negative figures indicate water level above land surface.

ST. JOHNS COUNTY--Continued

WELL NUMBER.--300717081381001. Local Number SJ-15. S.L. Chavez Well near Mandarin, FL.

LOCATION.--Lat 30°07'17", long 81°38'10", in NE¼SW¼SW¼ sec. 30, T.4 S., R.27 E., Hydrologic Unit 03080103, 300 ft north of Fruit Cove Road, 0.6 mi west of the intersection of State Road 13 and Fruit Cove Road, and 3.7 mi south of old Mandarin Post Office. Owner: S.L. Chavez.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 to 2 in., depth 580 ft, cased to 300 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 8.12 ft above sea level. Measuring point: Top of 3 in. tee, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--1974, 1977 to 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.02 ft above sea level May 12, 1980; lowest measured, 17.42 ft above sea level, May 25, June 7, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	26.82	FEB 23	26.02	MAY 23	19.12	JUN 14	18.52	JUL 12	19.92	AUG 08	23.12
NOV 19	25.72	MAR 27	24.32	25	17.42	21	17.92	19	20.82	15	20.82
DEC 21	28.22	APR 25	23.32	31	17.72	27	19.52	25	23.12	29	21.32
JAN 25	27.92	MAY 18	19.42	JUN 07	17.42	JUL 05	21.32	AUG 02	21.32	SEP 26	25.72

WATER YEAR 2000 LOWEST 17.42 MAY 25, 2000 JUN 07, 2000 HIGHEST 28.22 DEC 21, 1999

WELL NUMBER.--300758081230501. Local Number SJ-5. G. Oesterreicher Well near Palm Valley, FL.

LOCATION.--Lat 30°07'58", long 81°23'05", in land grant 54, T.4 S., R.29 E., Hydrologic Unit 03080201, 100 ft east of the Intracoastal Waterway, 250 ft northwest of State Highways 210 and 210A, and 2.8 mi south of Palm Valley. Owner: Eddie Ervin.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 350 ft, cased to 180 ft .

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 4.53 ft above sea level. Measuring point: Top of 4 in. gate valve, 2.18 ft above land-surface datum.

PERIOD OF RECORD.--1934, 1940, 1944 to 1946 (annually); 1947 to 1963 (bimonthly); 1964 to 1980 (annually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.73 ft above sea level, Nov. 9, 1948; lowest measured, 22.71 ft above sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	31.41	DEC 21	32.11	FEB 23	32.01	APR 25	28.01	JUN 27	22.71	AUG 29	25.01
NOV 19	30.91	JAN 25	32.11	MAR 28	29.31	MAY 23	24.51	JUL 25	25.31	SEP 26	29.81

WATER YEAR 2000 LOWEST 22.71 JUN 27, 2000 HIGHEST 32.11 DEC 21, 1999 JAN 25, 2000

ST. JOHNS COUNTY--Continued

WELL NUMBER.--301132081225801. Local Number SJ-150. Ponte Vedra Test Well near Ponte Vedra, FL.

LOCATION.--Lat 30°11'28", long 81°23'01", in land grant 70, T.4 S., R.29 E., Hydrologic Unit 03080201, 290 ft west of State Highway 210 behind St. Johns County Courthouse Annex and Library, 1500 ft southwest of junction of State Highways 201 and A1A, and 1.6 mi southwest of Ponte Vedra Post Office. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 2,035 ft, cased to 1,980 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 6.34 ft above sea level. Measuring point: Tap-base in flange cover, 6.51 ft above land-surface datum.

PERIOD OF RECORD.--April 1986 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.63 ft above sea level, Mar. 29, 1993; lowest measured, 7.76 ft below sea level, June 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	-1.71	DEC 20	-2.36	FEB 22	-2.65	APR 25	-4.37	JUN 27	-7.76	AUG 29	-5.03
NOV 19	-2.20	JAN 25	-1.64	MAR 27	-4.13	MAY 23	-5.99	JUL 25	-6.55	SEP 26	-3.95

WATER YEAR 2000 LOWEST -7.76 JUN 27, 2000 HIGHEST -1.64 JAN 25, 2000

Note.--Negative figures indicate water level below sea level.

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

ST JOHNS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
293729081221201	05-17-00	1110	SJ-104 MEADOWBRICK WELL	11.84
	09-13-00	1000		13.95
294213081194401	05-18-00	0905	SJ-0602 DOT I95 SOUTH	12.84
	09-13-00	0905		14.63
294701081263301	05-17-00	0915	SJ-317 SIKES WELL NR ELKTON,FL	10.97
	09-12-00	1605		20.49
295039081325401	05-17-00	0900	SJ-133 WILSON	22.50
	09-12-00	1540		24.50
295132081164801	05-17-00	1210	SJ-92 ST.JOHNS CO.PARKS-REC OFFICE	17.73
	09-13-00	0935		17.81
295427081293101	05-17-00	0840	SJ-0027 BAKERSVILLE TOWER	27.33
	09-12-00	1525		31.33
295903081334301	05-16-00	1045	SJ-119 (SUB FOR SJ-11)	22.43
	09-13-00	0920		28.53
300341081395401	05-16-00	1110	SJ-12	25.67
	09-13-00	1000		29.87
300507081272701	05-16-00	1000	SJ-163 SJRWMD DURBIN OBSERVATION WELL	33.14
	09-13-00	1030		35.65
301212081252401	09-15-00	0915	SJ-63 DEE DOT RANCH AT BULL PEN	36.88
301408081253101	05-18-00	0900	SJ-60 DEE DOT RANCH AT CRACKER LODGE	16.04
	09-15-00	0845		20.44

KEY TO SITE LOCATIONS ON FIGURE 48
SEMINOLE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	284147081220201	256

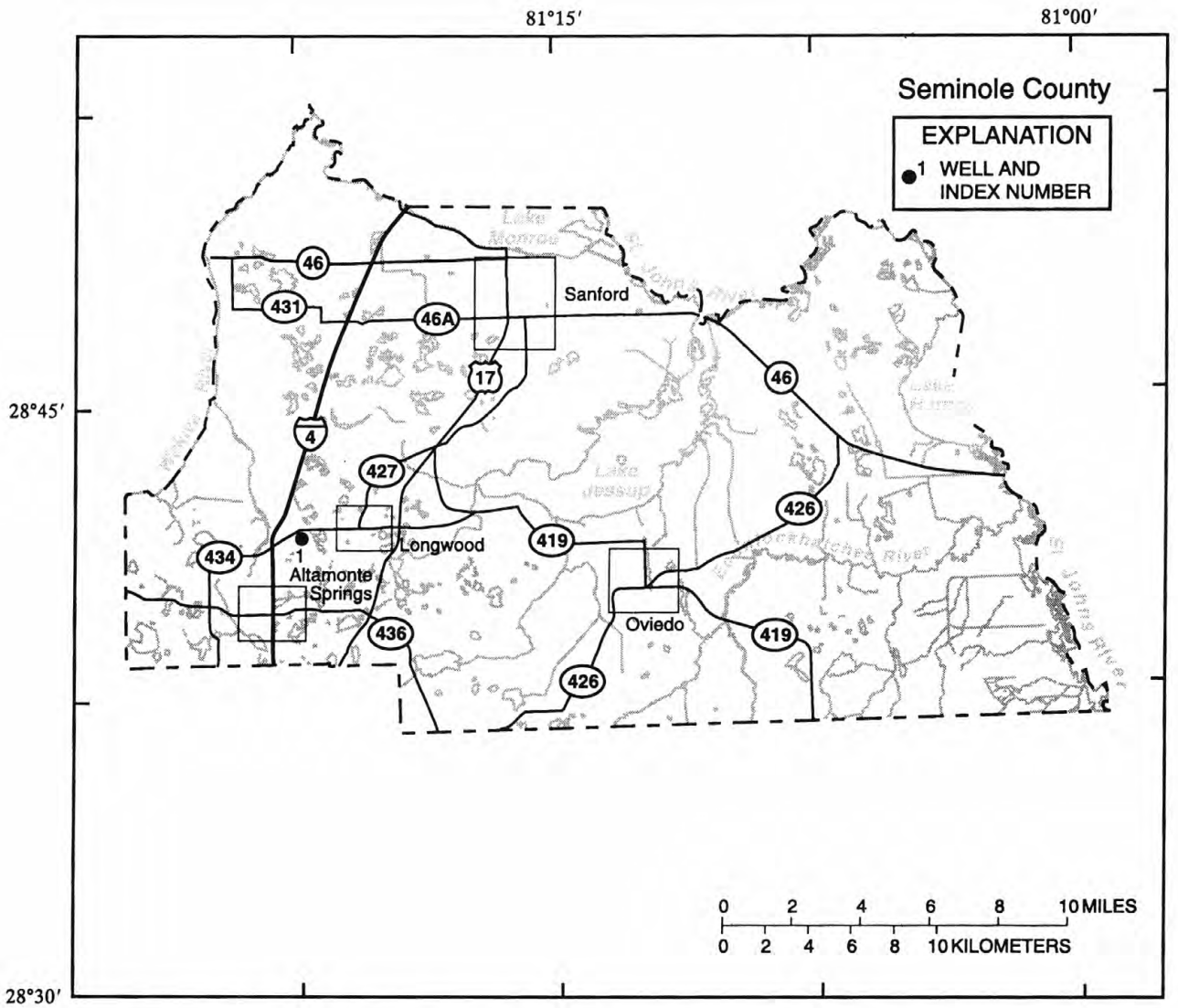

Figure 48.--Location of wells in Seminole County.

SEMINOLE COUNTY

WELL NUMBER.--284147081220201. Seminole 125 Well at Longwood, FL.

LOCATION.--Lat 28°41'47", long 81°22'02", in NW¼NE¼ sec.1, T.21 S., R.29 E., Hydrologic Unit 03080101, 500 ft south of State Highway 434, at a point 1.3 mi west of State Highway 427 in Longwood. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 146 ft, cased to 63 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 85.69 ft above sea level. Measuring point: Top of recorder shelf, 1.26 ft above land-surface datum.

PERIOD OF RECORD.--October 1951 to September 1952 (monthly); November 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 55.80 ft above sea level, Sept. 30, 1960; lowest, 30.11 ft above sea level, May 27, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.37	41.37	39.99	39.89	39.89	37.88	37.58	32.64	33.31	35.50	37.99	38.06
10	42.48	40.86	39.83	39.88	39.40	37.47	36.80	36.00	32.70	35.83	37.04	35.98
15	42.35	40.58	39.88	39.46	39.25	37.30	38.05	34.80	33.48	36.46	37.60	34.79
20	42.46	40.20	40.81	39.62	38.64	37.66	37.18	33.67	30.78	36.28	33.83	36.04
25	42.39	40.62	40.58	39.86	38.49	37.06	37.12	33.31	35.43	37.23	37.66	36.20
EOM	41.58	40.24	40.21	39.77	38.61	37.51	32.90	33.02	36.62	37.14	37.43	38.67
MAX	42.80	41.58	40.85	40.03	40.21	38.49	38.20	36.05	36.62	37.68	37.99	38.67

CAL YR 1999 MAX 42.80
WTR YR 2000 MAX 42.80

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

SEMINOLE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
283933081123103	05-15-00	1312	S-1193 AT OVIEDO WTP	26.66
	09-11-00	0934		31.98
284052081212601	05-16-00	1018	S-1014 CHARLOTTE STREET	36.92
	09-11-00	0720		40.57
284133081105701	05-15-00	1213	FLORIDA AVE WELL NR OVIEDO	16.02
	09-11-00	0906		20.89
284217081023001	05-15-00	0939	KILBEE #3 TEST NR GENEVA,FL S-0025	5.85
	09-11-00	1038		7.46
284247081070801	05-15-00	0955	GENEVA WELL S-0001 NR GENEVA,FL	16.67
	09-11-00	1020		17.46
284412081071102	05-22-00	1420	OLD GENEVA FIRE STATION S-1253	14.37
	09-11-00	1010		15.51
284533081204801	05-16-00	1144	84512005 20S30E08	26.30
	09-11-00	0815		30.32
284923081234802	05-16-00	1241	S-1230 YANKEE LAKE	16.89
	09-11-00	1141		18.41

KEY TO SITE LOCATIONS ON FIGURE 49
SUMTER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282127082022501	260
2	282741081585701	260
3	283638082025702	261
4	284619082035101	261
5	285121082112201	262
6	285207082014501	262

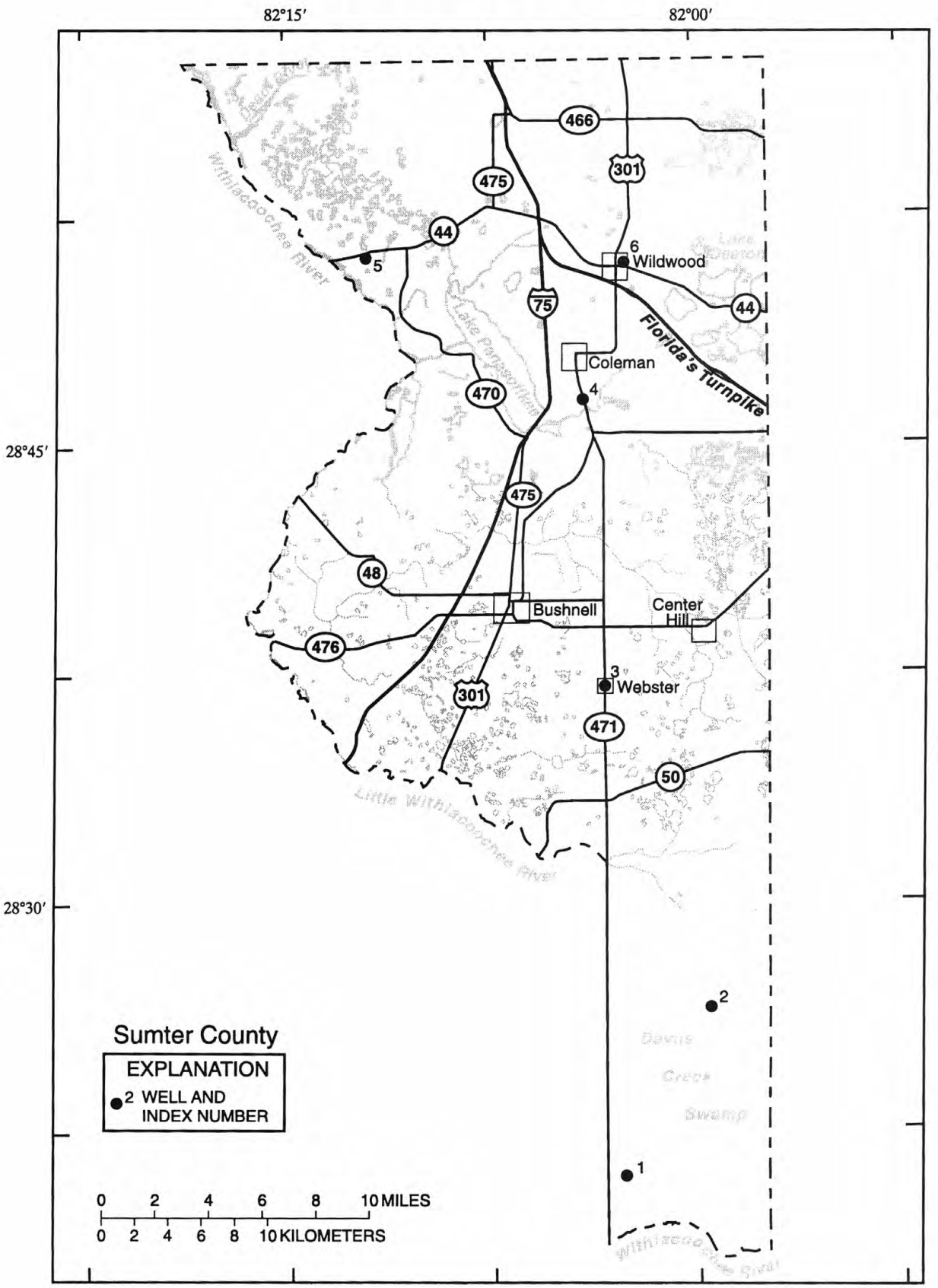

Figure 49.--Location of wells in Sumter County.

SUMTER COUNTY

WELL NUMBER.--282127082022501. Cumpressco Ranch Well near Tarrytown, FL.

LOCATION.--Lat 28°21'27", long 82°02'25", in SE¼NE¼NE¼ sec.31, T.24 S., R.23 E., Hydrologic Unit 03100208, in pasture, 600 ft south of Main Line Road, 1.6 mi east of State Highway 471, and 13.6 mi south of Tarrytown. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 143 ft, cased to 20 ft.

INSTRUMENTATION.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 97.40 ft above sea level. Measuring point: Top of recorder shelf, 3.01 ft above land-surface datum.

PERIOD OF RECORD.--March 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 94.99 ft above sea level, Dec. 13, 1997; lowest, 82.42 ft above sea level, June 28-30, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	88.21	88.93	87.46	87.23	86.84	86.24	84.74	83.71	82.87	82.52	82.96	85.11
10	91.17	88.70	87.23	87.17	86.83	86.01	84.51	83.53	82.76	82.52	83.00	85.03
15	90.38	88.47	87.06	86.97	86.73	85.78	84.33	83.42	82.61	82.54	84.01	84.83
20	89.70	88.10	87.12	87.01	86.59	85.56	84.20	83.26	82.51	82.62	84.17	86.41
25	89.35	87.93	87.36	86.88	86.48	85.29	84.04	83.15	82.44	82.77	84.24	90.87
EOM	88.77	87.65	87.39	86.74	86.36	84.98	83.88	83.00	82.42	82.89	84.62	90.92
MAX	91.17	88.93	87.57	87.36	86.85	86.33	84.92	83.83	82.98	82.89	84.62	90.97

CAL YR 1999 MAX 91.17
WTR YR 2000 MAX 91.17

WELL NUMBER.--282741081585701. Withlacoochee State Forest Green Swamp Well near Bay Lake, FL.

LOCATION.--Lat 28°27'41", long 81°58'57", in NE¼NE¼NW¼ sec.26, T.23 S., R.23 E., Hydrologic Unit 03100208, in Withlacoochee State Forest, at southwest corner of Center and South Loop Roads, 4.8 mi east of State Highway 471, and 4.8 mi west of Bay Lake. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 3 in., depth 175 ft, cased to 99 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 96.94 ft above sea level. Measuring point: Top of casing, 2.17 ft above land-surface datum. Prior to June 1991, 3.00 ft above land-surface datum.

COOPERATION.--Data provided by Southwest Florida Water Management District from October 1983 to September 1985.

PERIOD OF RECORD.--July 1959, September 1964 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 96.50 ft above sea level, July 8, 1974; lowest measured, 89.29 ft above sea level, May 4, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	92.97	MAR 15	90.92	MAY 16	89.71	AUG 22	93.52				
JAN 11	92.03	MAY 04	89.29	JUN 27	90.69	SEP 13	93.02				

WATER YEAR 2000 LOWEST 89.29 MAY 04, 2000 HIGHEST 93.52 AUG 22, 2000

SUMTER COUNTY--Continued

WELL NUMBER.--283638082025702. Webster City Well 2 at Webster, FL.

LOCATION.--Lat 28°36'38", long 82°02'57", in SW¼SE¼SW¼ sec.31, T.21 S., R.23 E., Hydrologic Unit 03100208, 100 ft west of town water tank at east end of Main Street in Webster. Owner: City of Webster.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 8 in., depth 341 ft, cased to 174 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 91.85 ft above sea level. Measuring point: Mark on top of 14 in casing protector, 2.94 ft above land-surface datum.

PERIOD OF RECORD.--April to September 1978; October 1979 to September 1992; October 1992 to current year (monthly). Prior to October 1992 published as Webster City Recorder Well at Webster, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.50 ft above sea level, Mar. 23, 1998; lowest daily maximum water level, 74.45 ft above sea level, July 20, 1981.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	78.29	JAN 24	77.25	APR 26	75.82	JUN 26	75.11	SEP 13	78.68		
NOV 22	78.44	FEB 22	76.82	MAY 16	75.35	JUL 26	77.15	25	79.51		
DEC 27	77.76	MAR 27	76.31	23	75.21	AUG 28	79.28				

WATER YEAR 2000 LOWEST 75.11 JUN 26, 2000 HIGHEST 79.51 SEP 25, 2000

WELL NUMBER.--284619082035101. ROMP 111 Well at Tompkins Park near Coleman, FL.

LOCATION.--Lat 28°46'19", long 82°03'51", in NW¼SE¼SW¼ sec.1, T.20 S., R.22 E., Hydrologic Unit 03100208, in G.B. Tompkins Park on U.S. Highway 301, 500 ft north of Shady Brook, and 2.0 mi south of Coleman. Owner: Southwest Florida Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, observation well, diameter 8 in., depth 192 ft, cased to 62 ft.

INSTRUMENTATION.--Monthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 59.34 ft above sea level. Measuring point: Top of 8 in. coupling, 1.62 ft above land-surface datum.

PERIOD OF RECORD.--October 1975 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 53.09 ft above sea level, Mar. 31, 1987; lowest, 44.23 ft above sea level, July 30, 1992.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	49.55	JAN 26	48.45	APR 26	47.62	JUN 26	47.01	SEP 14	48.41		
NOV 22	49.28	FEB 22	48.56	MAY 15	47.27	JUL 26	47.33	25	48.77		
DEC 27	48.87	MAR 27	48.01	23	47.11	AUG 28	48.02				

WATER YEAR 2000 LOWEST 47.01 JUN 26, 2000 HIGHEST 49.55 OCT 25, 1999

SUMTER COUNTY--Continued

WELL NUMBER.--285121082112201. Sumter 13 Well near Wildwood, FL.

LOCATION.--Lat 28°51'21", long 82°11'22", in NW¼NE¼NE¼ sec.10, T.19 S., R.21 E., Hydrologic Unit 03100208, on south side of State Highway 44, 2.0 mi east of Withlacoochee River, and 9.1 mi west of Wildwood. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 31 ft, cased to 26 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 50.80 ft above sea level. Measuring point: Top of 6 in. coupling, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--December 1964 to July 1973 (bimonthly); August 1973 to September 1992; October 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 47.16 ft above sea level, Oct. 6, 1982; lowest, 37.30 ft above sea level, June 26, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	41.11	JAN 24	39.71	APR 26	38.33	JUN 26	37.30	SEP 14	37.83		
NOV 23	40.66	FEB 22	39.67	MAY 15	37.85	JUL 26	38.17	25	38.52		
DEC 28	40.27	MAR 27	39.02	23	37.68	AUG 28	38.10				

WATER YEAR 2000 LOWEST 37.30 JUN 26, 2000 HIGHEST 41.11 OCT 26, 1999

WELL NUMBER.--285207082014501. Masters Avenue City Well at Wildwood, FL.

LOCATION.--Lat 28°52'07", long 82°01'45", in SE¼SE¼NW¼ sec.5, T.19 S., R.23 E., Hydrologic Unit 03100208, 100 ft east of Masters Avenue, and 600 ft north of Cleveland Avenue in Wildwood. Owner: City of Wildwood.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 82 ft, cased to 62 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 82.58 ft above sea level. Measuring point: Bottom edge of 2 in. vent pipe, 1.48 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to January 1978 (bimonthly); February 1978 to October 1979; November 1979 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.86 ft above sea level, Sept. 15, 1964; lowest measured, 44.37 ft above sea level, June 29, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	49.00	MAR 20	46.17	MAY 15	44.98	AUG 22	45.09				
JAN 12	47.63	MAY 04	45.30	JUN 29	44.37	SEP 14	45.04				

WATER YEAR 2000 LOWEST 44.37 JUN 29, 2000 HIGHEST 49.00 NOV 16, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

SUMTER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
281951082012001	05-16-00	1005	81920101 GREEN SWAMP L11MD NR DADE CITY, FL	82.41
	09-13-00	0722		82.78
281951082012002	09-13-00	0725	81920102GREEN SWAMP L11MM NR DADE CITY, FL	82.86
282740082012101	05-16-00	1040	82720101GREEN SWAMP L12BD NR BAY LAKE, FL	83.13
	09-13-00	0828		87.04
282740082012102	09-13-00	0830	82720102GREEN SWAMP L12BS NR BAY LAKE, FL	87.01
283432081592401	05-16-00	0710	83415901 22S23E15 JC 51 HUGH ILEY	83.91
	09-13-00	0630		85.05
283539082000301	05-16-00	1140	83520001 25S23E10 JC 67 FLA ROCK IND NO 2	82.50
	09-13-00	0915		84.77
283637082081501	05-16-00	1200	83620801 21S22E32 SCL RR USED 155	59.08
	09-13-00	0940		63.41
283718081580201	05-18-00	0925	THELMA ILEY WELL NR CENTER HILL,FL	82.69
	09-13-00	1440		83.23
283829082123701	05-16-00	1240	83821202 21S21E21 JC 47 N R DOKE	38.71
	09-13-00	1000		40.26
283904082001601	05-17-00	1225	83920001 21S23E22 JC 65 U S GEOL SURVEY	75.81
	09-13-00	1350		75.33
283952082022001	05-17-00	1215	83920201 21S23E18 JC 42 PARROT RANCH	69.40
	09-13-00	1320		68.67
283953082051401	05-17-00	1150	83920501 21S22E14 JC 36	67.30
	09-13-00	1243		68.50
284002082064201	05-16-00	1345	84020602 21S22E16 JC 53 BUSHNELL	62.09
284115082062601	05-17-00	1040	84120601 21S22E04 JC 27A	54.36
	09-13-00	1140		56.35
284126082034501	05-17-00	1155	84120305 21S22E01 JC 45 PARROT RANCH	71.94
	09-13-00	1300		70.95
284146082061401	05-17-00	1030	84120604 21S22E03 JC 32	54.67
	09-13-00	1133		56.14
284147082052801	09-13-00	1152	84120506 21S22E03 JC 34	62.59
284212082071701	05-17-00	1055	84220702 20S22E32 JC 63 U S GEOL SURVEY	52.02
	09-13-00	1120		52.89
284317082142601	05-16-00	1307	84321401 20S21E30 TRAILER PARK NW OF WAHOO	36.20
	09-13-00	1025		37.97

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

SUMTER COUNTY-Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
284435082011701	05-17-00	0955	BRENTWOOD WELL NR SUMTERVILLE,FL	55.75
	09-14-00	0920		55.98
284449082055201	05-17-00	0920	84420502 20S22E15 WOODWARD RESIDENCE	38.88
	09-14-00	0902		39.64
284703082001701	09-14-00	0955	LOWES BURNED HOUSE WELL NR ADAMSVILLE, FL	53.98
284809082080701	05-17-00	0905	84820801 19S22E30 HOWARD KENT	37.32
	09-14-00	0850		38.00
284955081595801	05-15-00	1257	BYRD TRAILER WELL NR ORANGE HOME,FL	66.16
	09-14-00	1009		71.13
285112082124001	05-15-00	1110	85121201 19S21E09 JC 60 U S GEOL SURVEY	33.82
	09-14-00	0821		33.11
285150082044001	05-15-00	1014	85120401 19S22E02 JC 58 U S GEOL SURVEY	44.18
	09-14-00	0805		44.35
285420081571901	05-15-00	0904	SMITH WELL NO.2 NR CHERRY LAKE,FL	44.98
	09-14-00	0644		48.04
285422082001901	05-15-00	0928	HATCHER WELL AT LAKE MIONA NR OXFORD,FL	42.75
	09-14-00	0715		42.65
285536082044001	05-15-00	0950	85520401 18S22E14 G N SMITH	43.34
	09-14-00	0730		42.18

KEY TO SITE LOCATIONS ON FIGURE 50
VOLUSIA COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	285512081202801	268
2	285745081054001	268
3	291748081290301	269
4	291905081251001	269

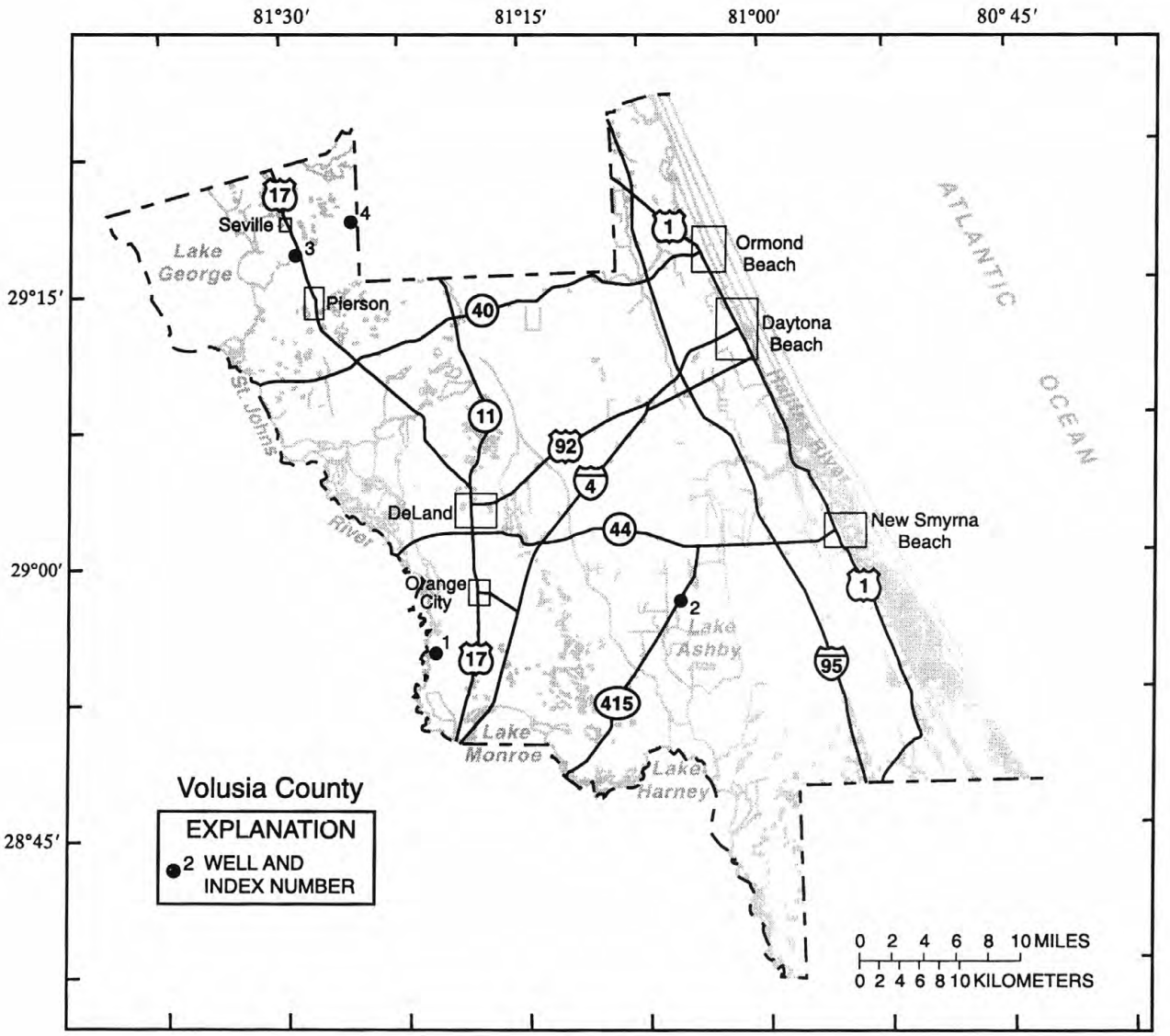

Figure 50.--Location of wells in Volusia County.

VOLUSIA COUNTY

WELL NUMBER.--285512081202801. South Blue Spring Well near Orange City, FL.

LOCATION.--Lat 28°55'12", long 81°20'28", in SE¼SE¼SW¼ sec.17, T.18 S., R.30 E., Hydrologic Unit 03080101, on dirt trail 210 ft north of Detroit Terrace Road, 0.45 mi west of railroad tracks, 1.75 mi south of Blue Springs Road, and 2.0 mi west of Orange City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 4 in., depth 200 ft, cased to 106 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 9.52 ft above sea level. Measuring point: Top of 4 in cap, 4.73 ft above land-surface datum.

PERIOD OF RECORD.--September 1981 to September 1983 (semiannually); February 1984 to June 2000 (bimonthly), discontinued.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.82 ft above sea level, Jan. 18, 1995; lowest measured, 13.18 ft above sea level, June 9, 2000.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	18.95	JAN 05	18.65	FEB 18	17.85	APR 14	15.38	MAY 16	13.92	JUN 09	13.18

WATER YEAR 2000 LOWEST 13.18 JUN 09, 2000 HIGHEST 18.95 NOV 18, 1999

WELL NUMBER.--285745081054001. USGS Well at Alamana, FL.

LOCATION.--Lat 28°57'05", long 81°05'40", in SW¼SW¼SE¼ sec.2, T.18 S., R.32 E., Hydrologic Unit 03080101, on west side of Lake Ashby Road, 0.2 mi southeast of the intersection with State Highway 415, and 0.8 mi north of Alamana. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6 in., depth 121 ft, cased to 113 ft.

INSTRUMENTATION.--Monthly measurements with chalked or electric tape.

DATUM.--Elevation of land-surface datum is 35.90 ft above sea level. Measuring point: Top of shelter floor, 2.99 ft above land-surface datum.

PERIOD OF RECORD.--May 1936 to September 1950 (monthly); October 1950 to September 1999. October 1999 to September 2000 (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 32.10 ft above sea level, September 1945; lowest, 24.31 ft above sea level, July 3, 1998.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	30.21	DEC 27	29.50	MAR 30	27.44	JUN 27	27.79	SEP 26	27.75		
NOV 08	29.96	JAN 25	28.77	APR 27	27.79	JUL 27	26.62				
23	29.67	FEB 24	28.31	MAY 23	25.25	AUG 30	27.00				

WATER YEAR 2000 LOWEST 25.25 MAY 23, 2000 HIGHEST 30.21 OCT 07, 1999

VOLUSIA COUNTY--Continued

WELL NUMBER.--291748081290301. Local Number V-0510. J.C. Mew Well replacement at Seville, FL.

LOCATION.--Lat 29°17'48", long 81°29'03", in NE¼SW¼SW¼ sec.9, T.14 S., R.28 E., Hydrologic Unit 03080101, on west side of U.S. Highway 17, 1,175 ft south of Nolano Road, and 1.35 mi south of Seville. Owner: St. Johns River Water Management District.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geological Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, observation well, diameter 4 in., depth 130 ft, cased to 85 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 27.58 ft above sea level. Measuring point: Top of casing, 2.50 ft above land-surface datum.

COOPERATION.--Data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--June 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.14 ft above sea level, Feb. 23, 1998; lowest measured, 15.11 ft above sea level, Jan. 6, 1994, Feb. 9, 1995.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	23.52	DEC 14	22.57	FEB 21	21.05	APR 25	20.71	JUN 27	19.14	AUG 28	20.50
NOV 19	22.76	JAN 25	21.10	MAR 27	20.87	MAY 22	19.85	JUL 25	19.55	SEP 25	22.62

WATER YEAR 2000 LOWEST 19.14 JUN 27, 2000 HIGHEST 23.52 OCT 25, 1999

WELL NUMBER.--291905081251001. R. Nolan Well near Seville, FL.

LOCATION.--Lat 29°19'05", long 81°25'10", in SE¼SE¼ sec.36, T.13 S., R.28 E., Hydrologic Unit 03080103, 25 ft south of State Highway 305, 100 ft west of Volusia-Flagler County line, and 4.8 mi east of U.S. Highway 17 in Seville. Owner: Robert Nolan.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit 120 FLRD.

WELL CHARACTERISTICS.--Drilled, stock, artesian well, diameter 6 in., depth 138 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 23.30 ft above sea level. Measuring point: Top of casing, 1.21 ft above land-surface datum.

COOPERATION.--Since Oct. 1, 1985 data provided by St. Johns River Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--December 1935 to April 1950 (monthly); July 1950 to September 1985 (bimonthly); October 1985 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.90 ft above sea level, Sept. 1, Oct. 1, 1947; lowest measured, 15.62 ft above sea level, Feb. 27, 1989.

ELEVATION (IN FEET ABOVE SEA LEVEL), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	20.36	DEC 14	19.61	MAR 27	17.43	MAY 22	16.56	JUL 25	16.72	SEP 25	19.33
NOV 19	19.89	JAN 25	18.38	APR 25	17.52	JUN 27	15.77	AUG 28	17.61		

WATER YEAR 2000 LOWEST 15.77 JUN 27, 2000 HIGHEST 20.36 OCT 25, 1999

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1999 TO SEPTEMBER 2000

VOLUSIA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV-ATION ABOVE SEA LEVEL (FEET)
285143080521401	05-18-00	1040	85105202 LOOMIS NURSERY WELL W OF OAK HILL	5.56
	09-12-00	1040		7.08
285419081041001	05-18-00	0940	V-0198 LAKE ASHBY TWR DEEP	10.12
	09-12-00	0850		15.97
285442081181401	05-16-00	1602	V-0196 ORANGE CITY TWR DEEP	14.45
	09-12-00	1540		14.54
285524081132403	05-18-00	1350	V-0772 GALAXY MIDDLE SCHOOL	7.80
	09-14-00	1605		8.37
285921080541001	05-18-00	1145	85905402 MOORE WELL RIVERSIDE DR EDGEWATER	3.21
	09-12-00	1030		5.14
285934081041801	05-17-00	1600	85910401 USGS TEST WELL 10, S. OF SAMSULA	23.94
	09-12-00	1135		26.72
290103080551902	05-18-00	1200	V-0508 NEW SMYRNA BEACH	-.83
	09-12-00	1040		1.90
290138081203202	05-16-00	1455	90112002 USGS J-2 TEST WELL,W.OF DELAND	7.45
	09-12-00	1410		7.73
290230081123401	05-16-00	1525	90211203 USGS TEST HOLE 5, E. OF DELAND	31.93
	09-12-00	1255		31.95
290456081044401	05-17-00	1540	90410404 USGS TEST WELL 7, W. OF ALLANDALE	15.19
	09-12-00	1230		16.25
290541081132902	05-16-00	1400	90511304 USGS 04 DP TEST W. NR. DELAND,FL.6"CSG	34.74
	09-11-00	1600		34.46
290614081183301	05-16-00	1430	V-0742	29.71
	09-11-00	1622		30.01
290806081013901	05-16-00	1205	90810115 CITY OBS.WELL #2,WELLFIELD,P.ORANGE	.00
	09-12-00	1215		4.52
290828081215103	05-15-00	1340	1030 WELL AT DELEON SPRINGS,FL	16.21
	09-12-00	1325		16.94
290834081073802	05-16-00	1320	V-0188	13.41
	09-11-00	1305		12.45
291448081274905	05-15-00	1140	V-0531 PIERSON UPPER	14.76
	09-11-00	1002		22.10
291508081302801	05-15-00	1230	91513001 SJRWMD WELL 2 MI W OF PIERSON	10.47
	09-11-00	1125		12.81
291523081095001	05-17-00	1255	91510902 USGS WELL #1,SR40,W.OF ORMOND	12.11
	09-11-00	1240		14.45

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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