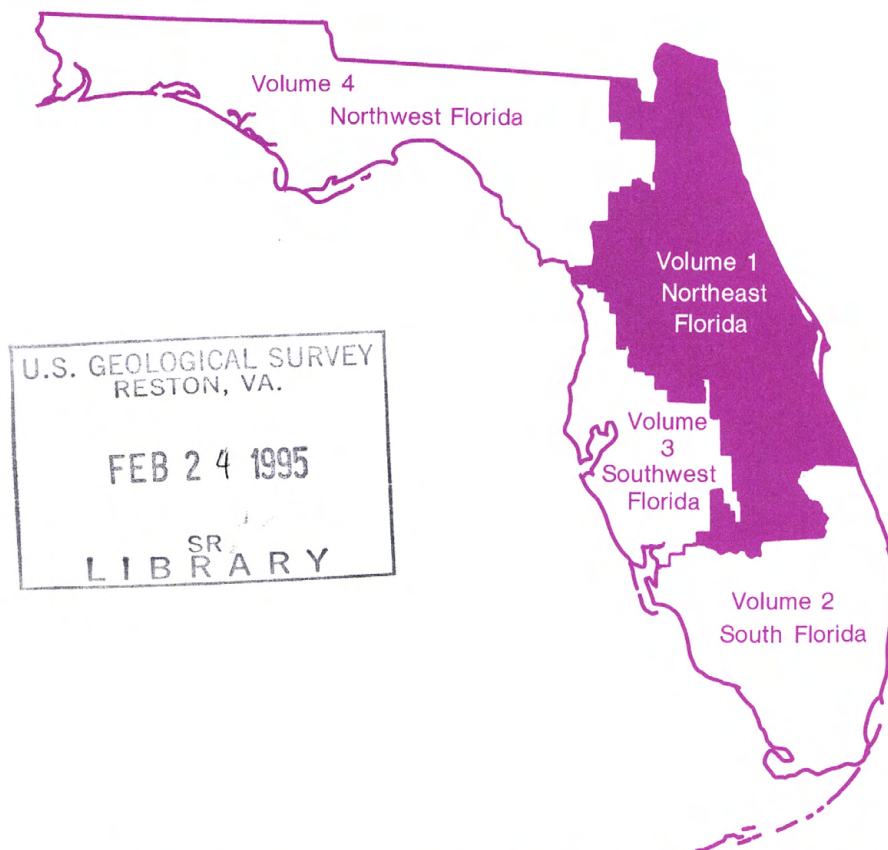


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Water Resources Data Florida Water Year 1994

Volume 1B. Northeast Florida Ground Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-94-1B
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1994

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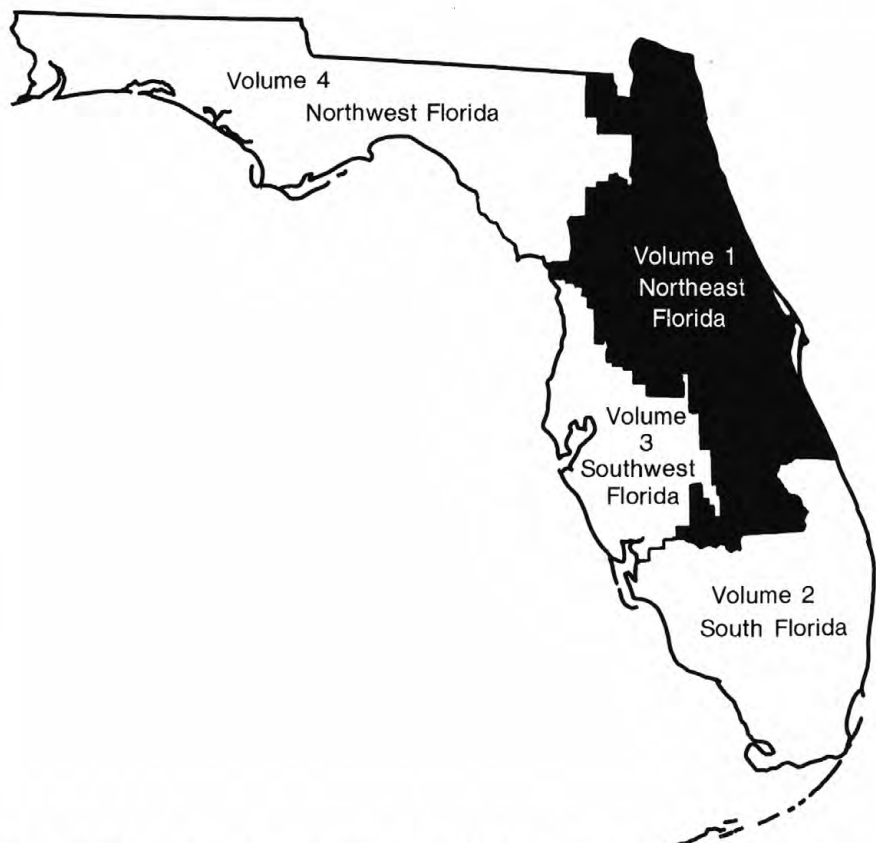
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Water Resources Data Florida Water Year 1994

Volume 1B. Northeast Florida Ground Water



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-94-1B
Prepared in cooperation with the State of Florida
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

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

For additional information write to
Subdistrict Chief, Water Resources Division
U.S. Geological Survey
224 West Central Parkway, Suite 1006
Altamonte Springs, Florida 32714

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

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

ACKNOWLEDGMENT

The water-resources data for northeast Florida were processed and prepared for publication under the supervision of W. Scott Gain, Chief, Hydrologic Surveillance and Data Analysis Section.

Altamonte Springs Subdistrict Office

L.L. Braley	H.G. George	W.J. McDevitt	G. Fred Taylor
R.A. Craig	R.S. Greenwood	A.P. Nazarian	A.M. Tharpe
T.P. Curran	W.R. Hopkins	M.J. Orr	M.E. Torres
D.B. Dale	R.E. Jones	E.P. Simonds	D.J. Walsh
E.J. Duffy	J.L. Kelly	J.V. Sloat	

Jacksonville Field Headquarters

R.A. Broxton	C.V. Phillips, Jr.	M.J. Savarino
S.M. Dickerson		

This report was prepared in cooperation with the State of Florida and with other agencies under the general supervision of I.H. Kantrowitz, Area Assistant Regional Hydrologist, and J. Vecchioli, District Chief, Florida.

REPORT DOCUMENTATION		1. REPORT NO. USGS/WRD/HD-95/235	2.	3. Recipient's Accession No.
PAGE				
4. Title and Subtitle Water Resources Data - Florida, Water Year 1994 Volume 1B: Northeast Florida - Ground Water			5. Report Date December 1994	
			6.	
7. Author(s)			8. Performing Organization Rept. No. USGS-WDR-FL-94-1B	
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division 224 West Central Parkway, Suite 1006 Altamonte Springs, FL 32714			10. Project/Task/Work Unit No.	
			11. Contract(C) or Grant(G) No.	
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division 227 North Bronough Street, Suite 3015 Tallahassee, FL 32301			13. Type of Report & Period Covered Annual - Oct. 1, 1993 to Sept. 30, 1994	
			14.	
15. Supplementary Notes Prepared in cooperation with the State of Florida and other agencies.				
16. Abstract (Limit: 200 words) <p>Water resources data for the 1994 water year in Florida consist of continuous or daily discharge for 320 streams, periodic discharge for 11 streams, miscellaneous discharge for 32 streams, continuous or daily stage for 120 streams, continuous daily tide stage for 11 sites, periodic stage for 0 streams, peak discharge for 19 streams, and peak stage for 19 streams; continuous or daily elevations for 74 lakes, periodic elevations for 74 lakes; continuous ground-water levels for 442 wells, periodic ground-water levels for 716 wells, and miscellaneous water-level measurements for 1,208 wells; quality-of-water data for 121 surface-water sites and 319 wells.</p> <p>The data for northeast Florida include continuous or daily discharge for 125 streams, periodic discharge for 7 streams, miscellaneous discharge for 19 streams, continuous or daily stage for 26 streams, continuous or daily tide stage for 6 sites, periodic stage for 0 streams, peak discharge for 4 streams, and peak stage for 0 streams; continuous or daily elevations for 30 lakes, periodic elevations for 46 lakes; continuous ground-water levels for 45 wells, periodic ground-water levels for 151 wells, and miscellaneous water-level measurements for 807 wells; quality-of-water data for 27 surface-water sites and 66 wells.</p> <p>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.</p>				
17. Document Analysis a. Descriptors b. Identifiers/Open-Ended 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. c. COSATI Field/Group				
18. Availability Statement No restrictions on distribution. This report may be purchased from: National Technical Information Center, Springfield, VA 22161		19. Security Class (This Report) UNCLASSIFIED		21. No. of Pages 291
		20. Security Class (This Page) UNCLASSIFIED		22. Price

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Volume 1B: Northeast Florida

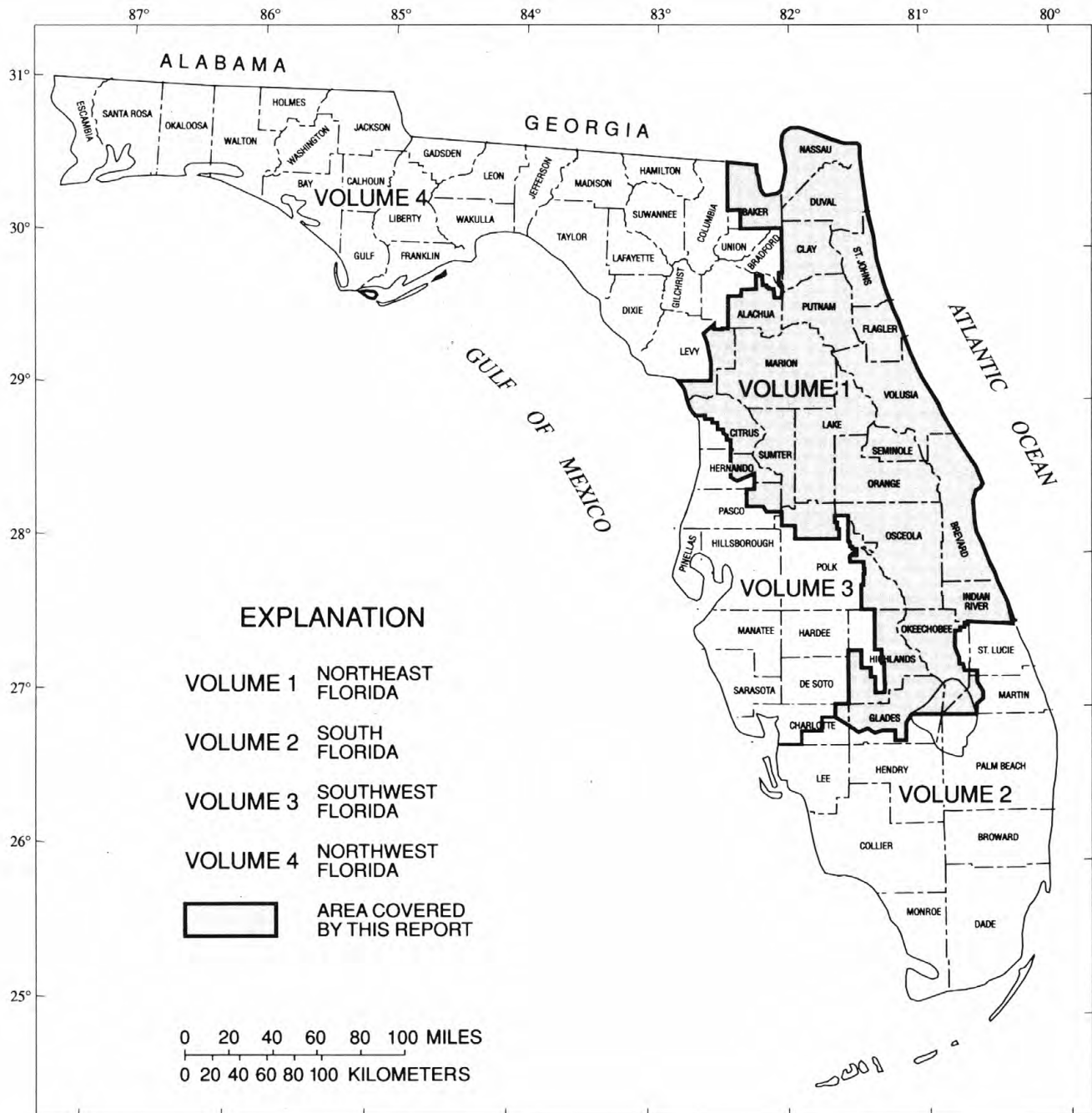


Figure 1.--Geographic area covered by this report.

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INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, local, and Federal 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.

The data for northeast Florida include continuous or daily discharge for 117 streams, periodic discharge for 7 streams, miscellaneous discharge for 16 streams, continuous or daily stage for 37 streams, continuous or daily tide stage for 4 sites, peak discharge for 15 streams, and peak stage for 15 streams; continuous or daily elevations for 35 lakes, periodic elevations for 45 lakes; continuous ground-water levels for 61 wells, periodic ground-water levels for 150 wells, and miscellaneous water-level measurements for 888 wells; quality-of-water data for 27 surface-water sites and 61 wells.

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 U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 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-94-1B." 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. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (407) 865-7575. A limited number of CD-ROM discs will be available for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225.

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 Department of Environmental Protection
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.

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

SUMMARY OF HYDROLOGIC CONDITIONS

Rainfall during the 1994 water year was above normal. Based on rainfall data at six NOAA stations the rainfall for the 12-month period ranged from 7.63 in. above normal at Daytona Beach to 12.92 in. above normal at Lake Alfred. 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)

Station	October-December Departure	January-March Departure	April-June Departure	July-September Departure	Water Year Departure
Jacksonville AP	6.51	-1.28	6.61	0.76	12.60
Ocala	-0.15	2.76	4.24	1.90	8.75
Daytona Beach	-0.34	2.94	3.01	2.02	7.63
Orlando	-1.33	0.34	3.51	8.67	11.19
Lake Alfred	-1.75	2.90	2.91	8.86	12.92
Vero Beach	-0.64	1.62	3.41	7.10	11.49

Figures 3-14 present ground-water levels for 12 wells, considered representative of the report area. Water levels for the 1994 water year are shown in the upper hydrographs. Average annual water levels for the period of record are shown in the lower hydrographs.

Ground-water levels generally decreased during the first three months of the water year due to deficit rainfall. The only exception was the most northern part of the report area which showed an increase in water levels due to well-above-normal precipitation.

Generally, water levels reached minimums in the report area in May with the exception of two counties in the west central part of the report area which reached minimums in December.

Maximum water levels were generally reached in September with the exception of the most northern part of the report area which reached maximum levels in January through March due to above-normal rainfall at the beginning of the water year.

Even though rainfall was above normal throughout the report area for the water year, ground-water levels were below the long term averages at the representative wells except for two wells in the southeastern part of the report area.

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

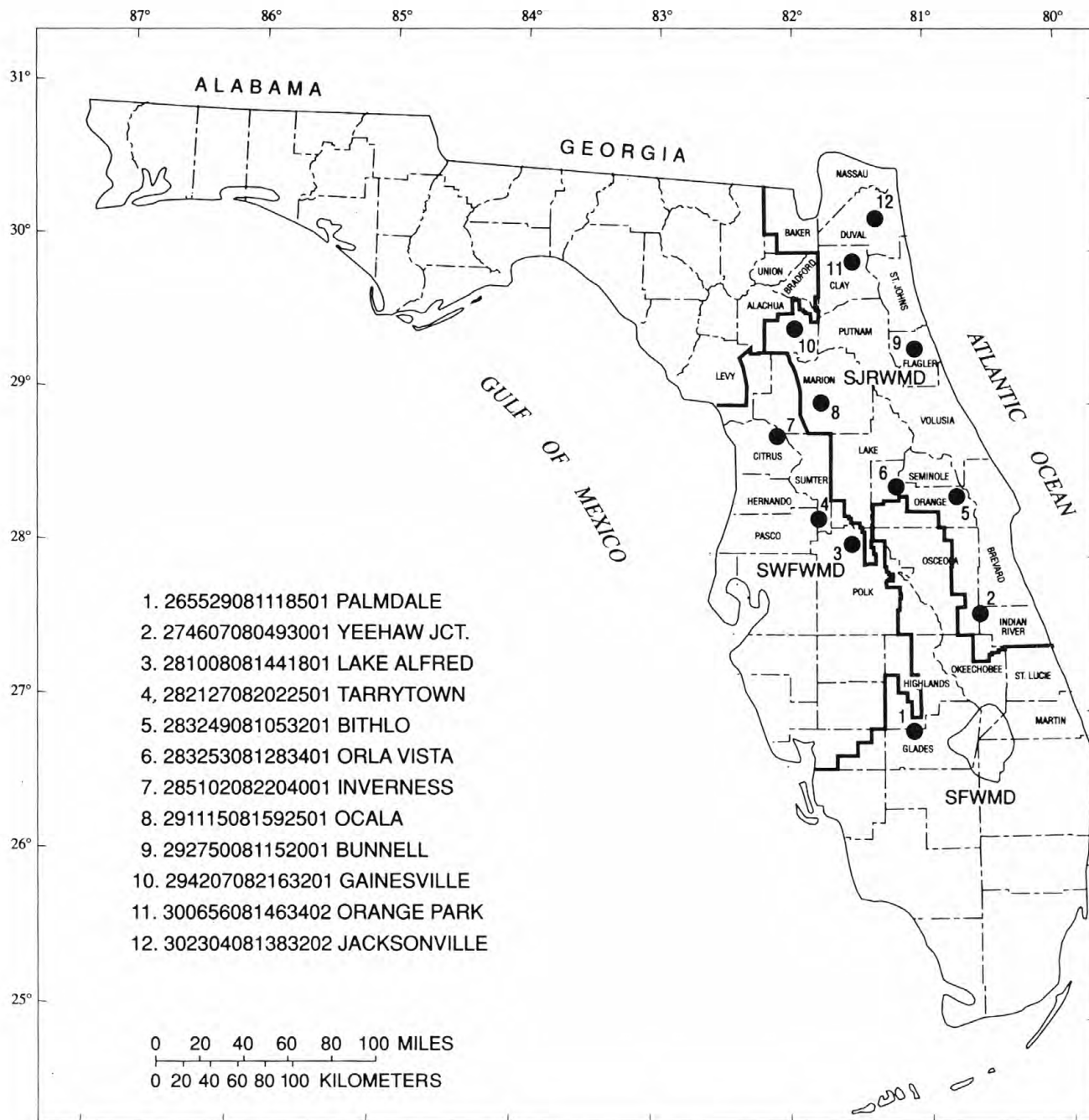


Figure 2.--Location of wells for long-term hydrographs (figs. 3-14).

WATER RESOURCES DATA FOR FLORIDA, 1994
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SUMMARY OF HYDROLOGIC CONDITIONS--Continued

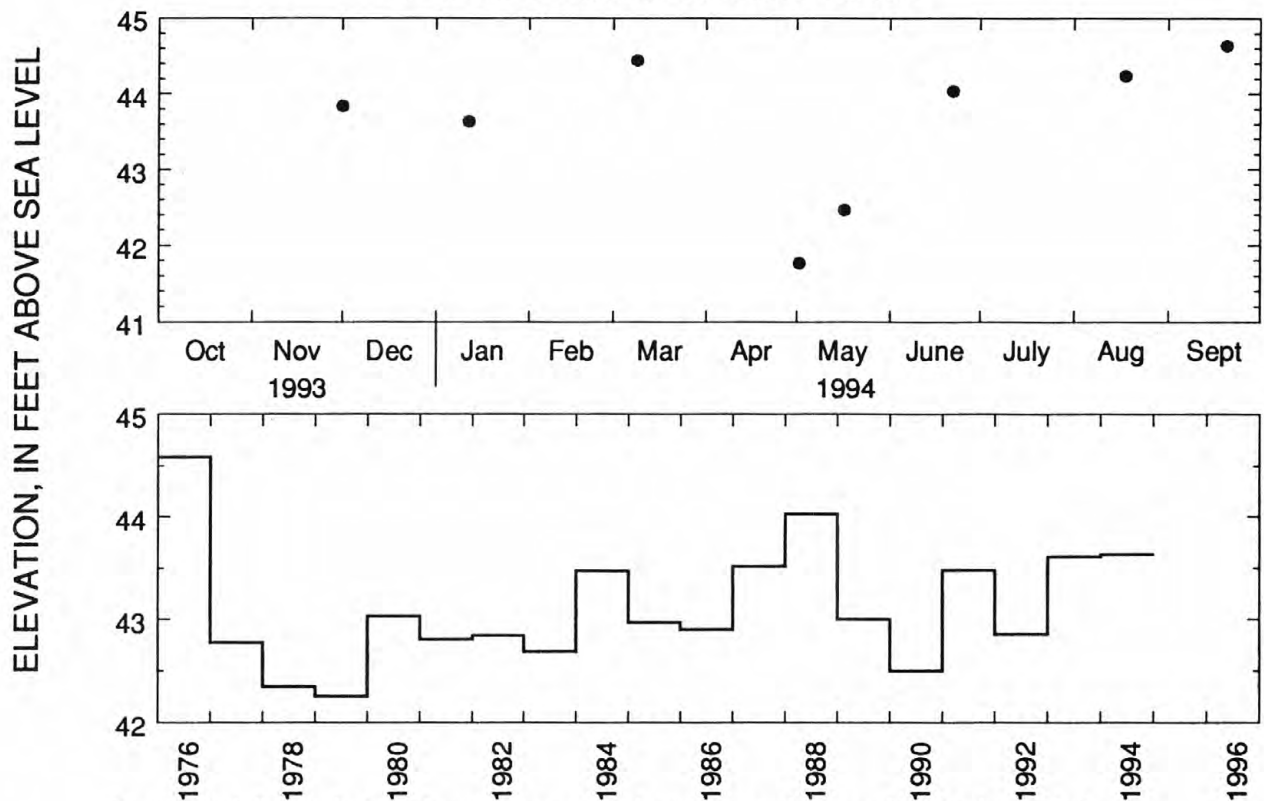


Figure 3.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record at well 265529081185201 (GL-267) near Palmdale in Glades County (fig. 2, no. 1).

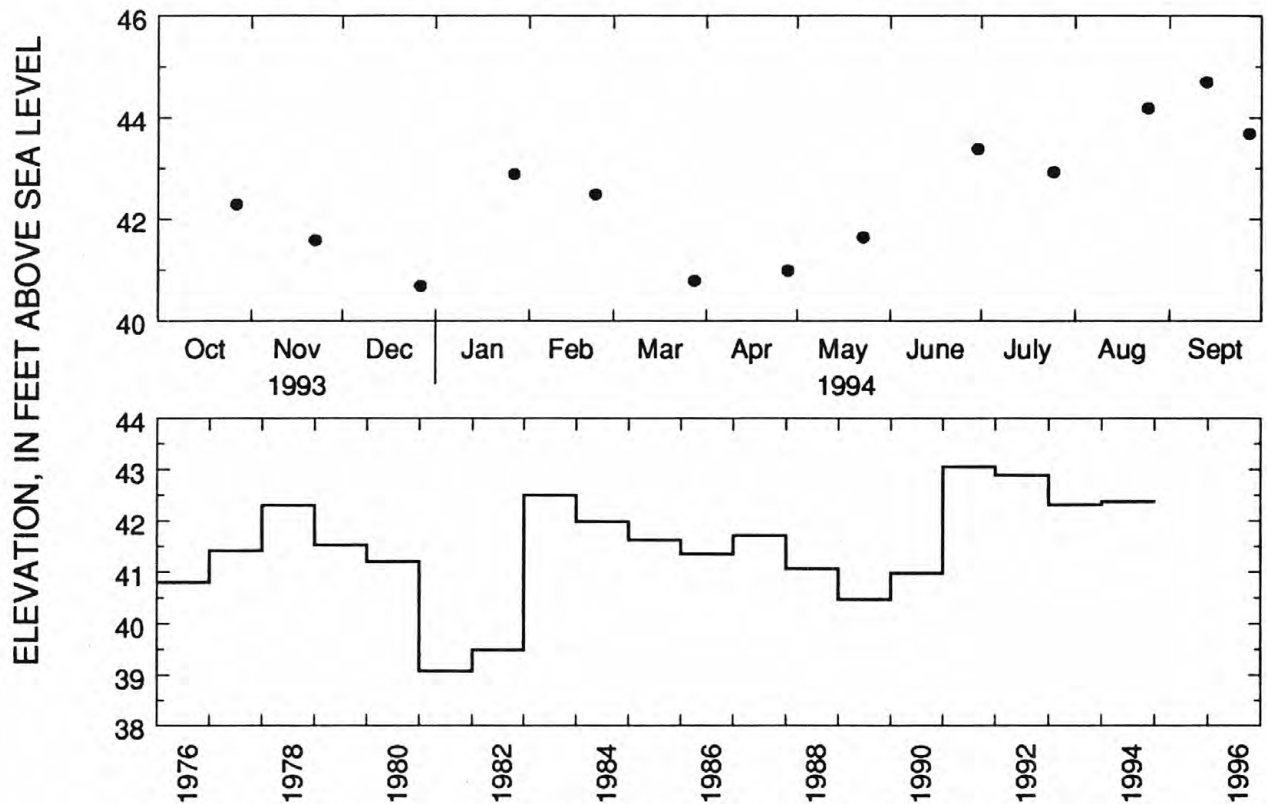


Figure 4.--Periodic water levels for the current water year and annual mean periodic water levels for the period of record at well 274607080493001 (IR-189) near Yeehaw Junction in Indian River County (fig. 2, no. 2).

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

ELEVATION, IN FEET ABOVE SEA LEVEL

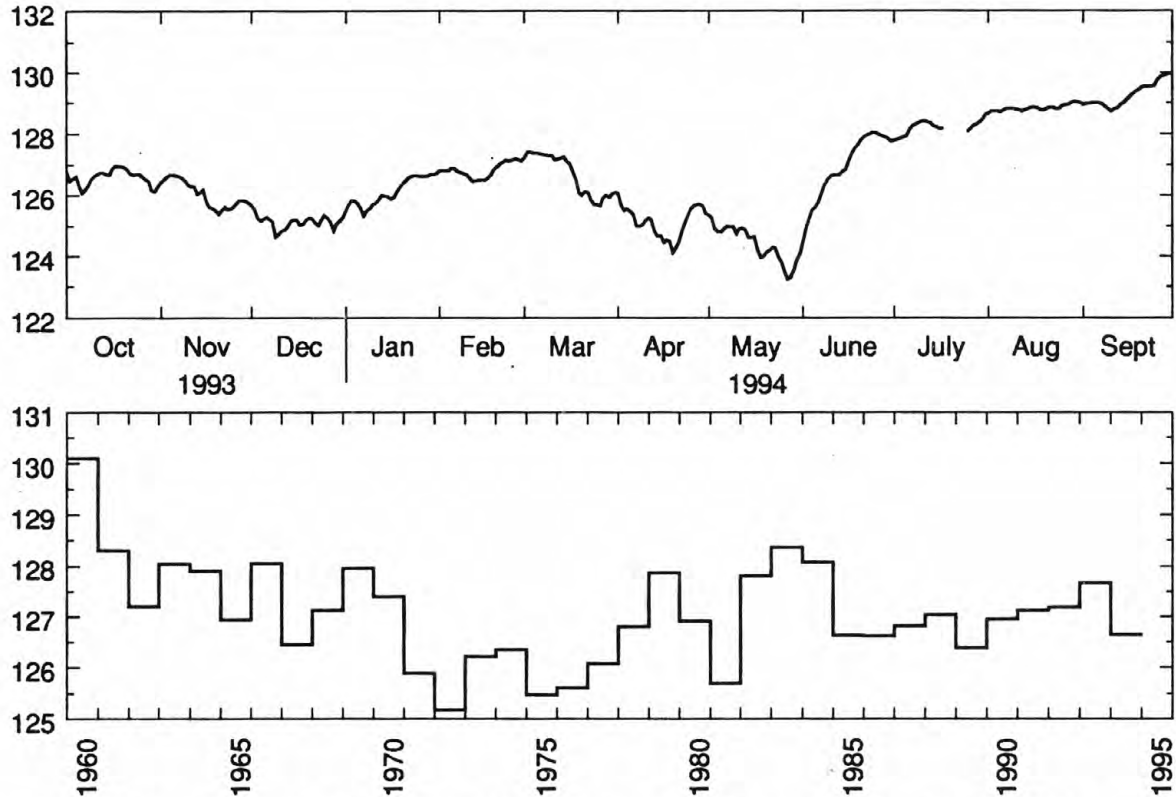


Figure 5.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record at well 281008081441801 (Lake Alfred Deep) near Lake Alfred in Polk County (fig. 2, no. 3).

ELEVATION, IN FEET ABOVE SEA LEVEL

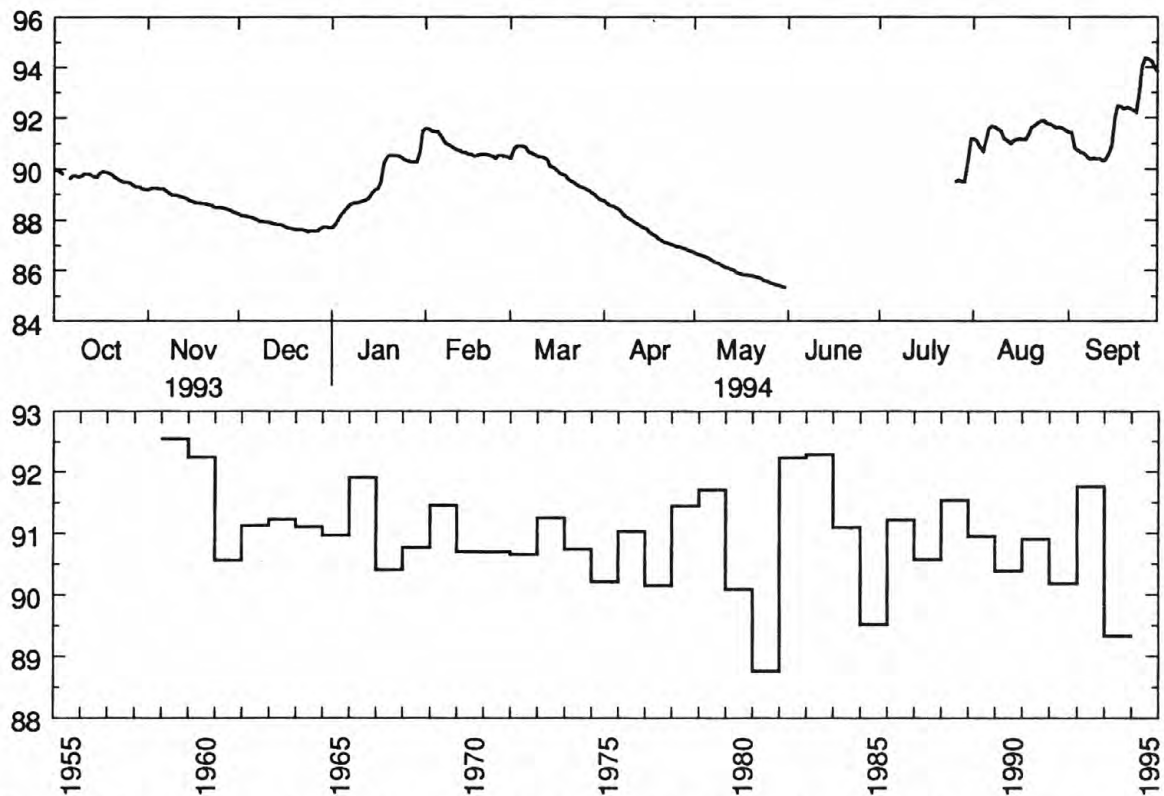


Figure 6.--Daily maximum water levels for the current water year and annual mean daily-maximum water levels for the period of record at well 282127082022501 (Cumpresso Ranch) near Tarrytown in Sumter County (fig. 2, no. 4).

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

ELEVATION, IN FEET ABOVE SEA LEVEL

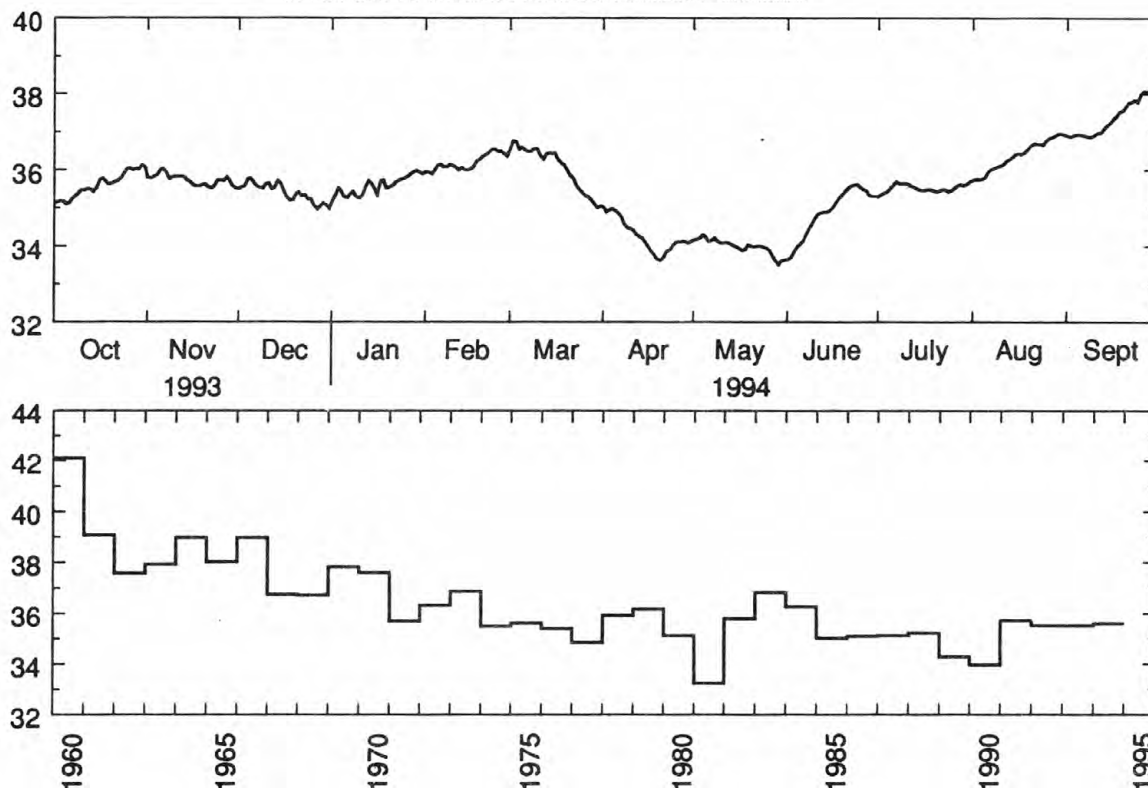


Figure 7.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record at well 283249081053201 (Bithlo-1) at Bithlo in Orange County (fig. 2, no. 5).

ELEVATION, IN FEET ABOVE SEA LEVEL

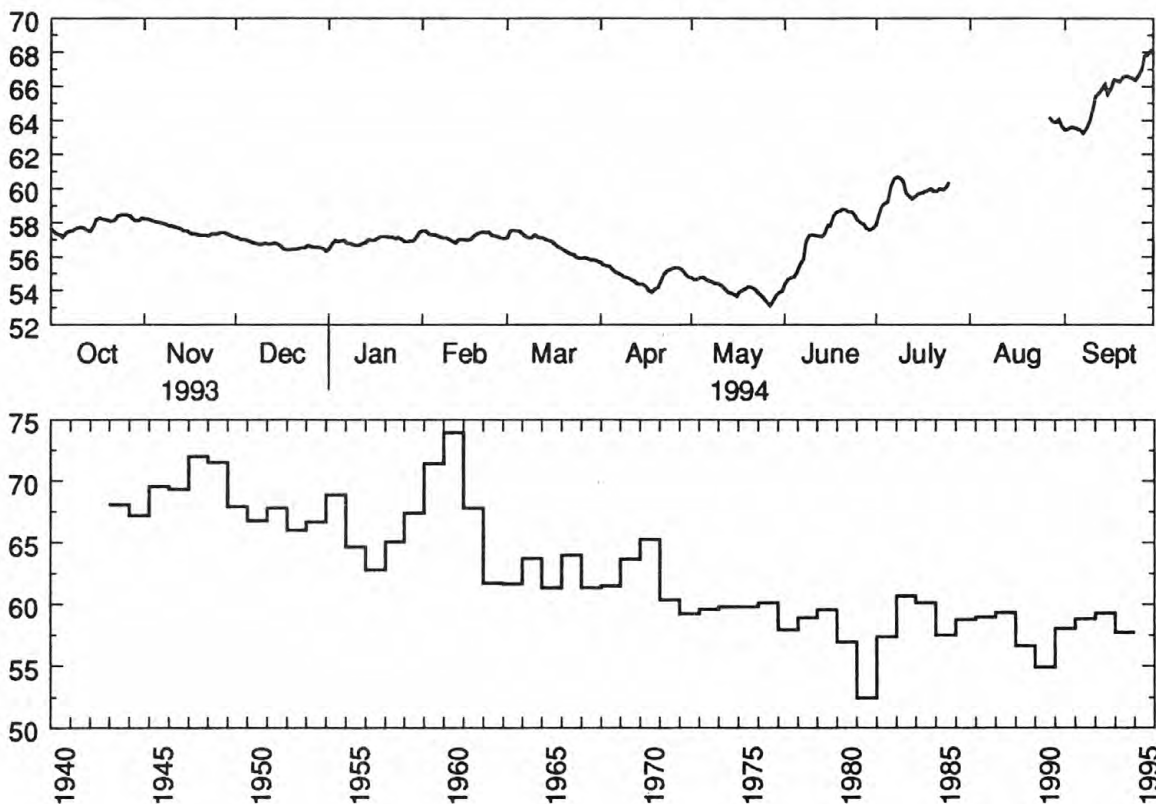


Figure 8.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record at well 283253081283401 (OR-47) at Orlo Vista in Orange County (fig. 2, no. 6).

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

ELEVATION, IN FEET ABOVE SEA LEVEL

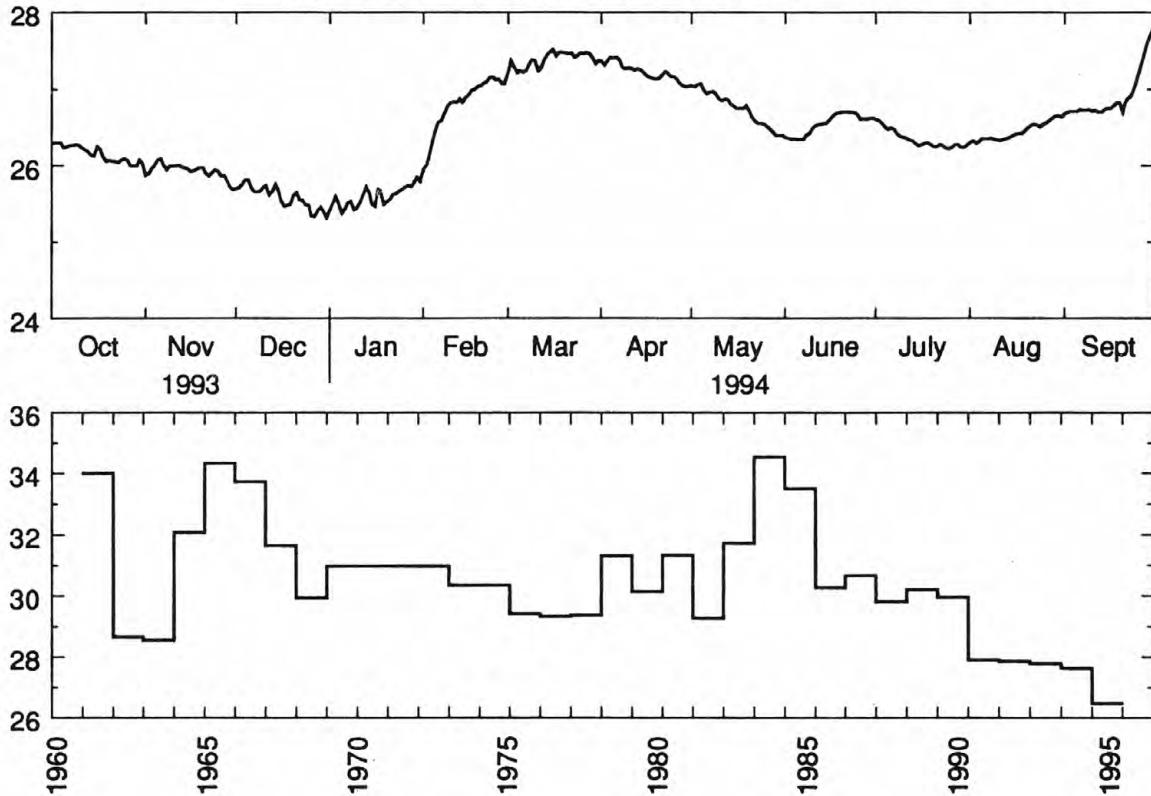


Figure 9.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record at well 285102082204001 (DOT-41 observation) at Inverness in Citrus County (fig. 2, no. 7).

ELEVATION, IN FEET ABOVE SEA LEVEL

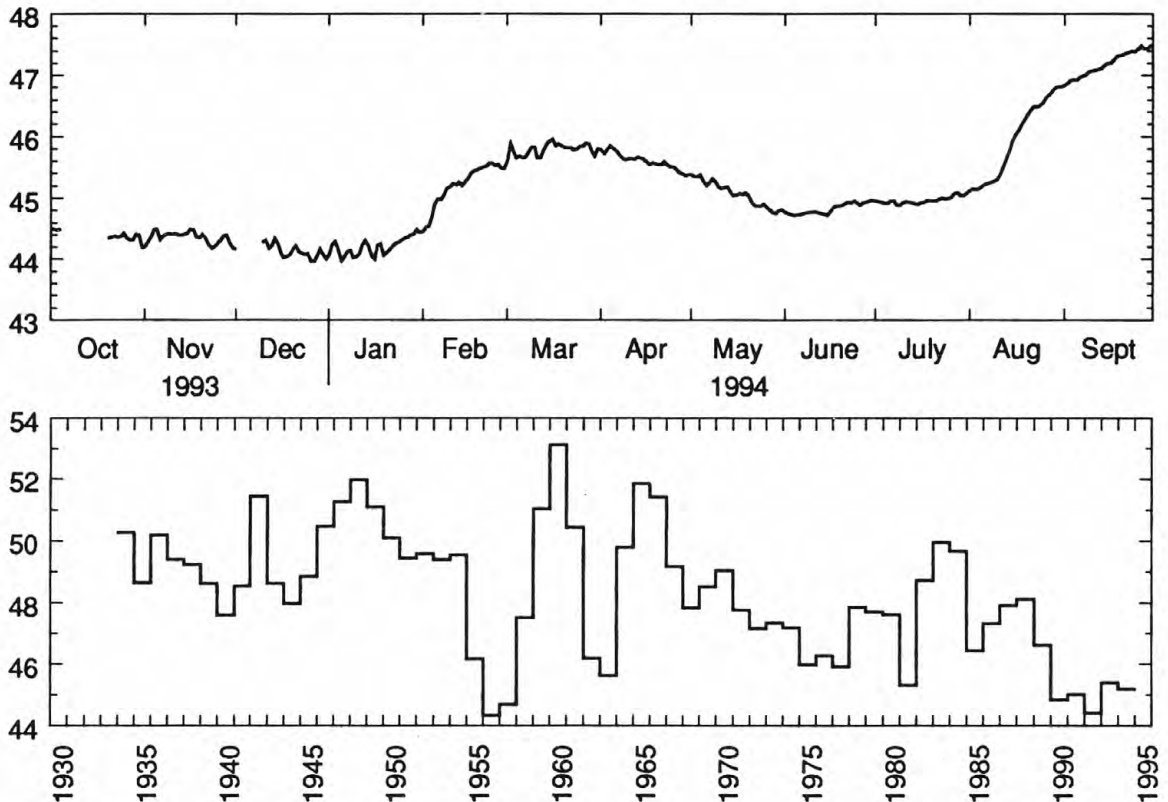


Figure 10.--Daily-maximum water levels for the current water year and annual-mean daily-maximum water levels for the period of record at well 291115081592501 (Sharpes Ferry) near Ocala in Marion County (fig. 2, no. 8).

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

ELEVATION, IN FEET ABOVE SEA LEVEL

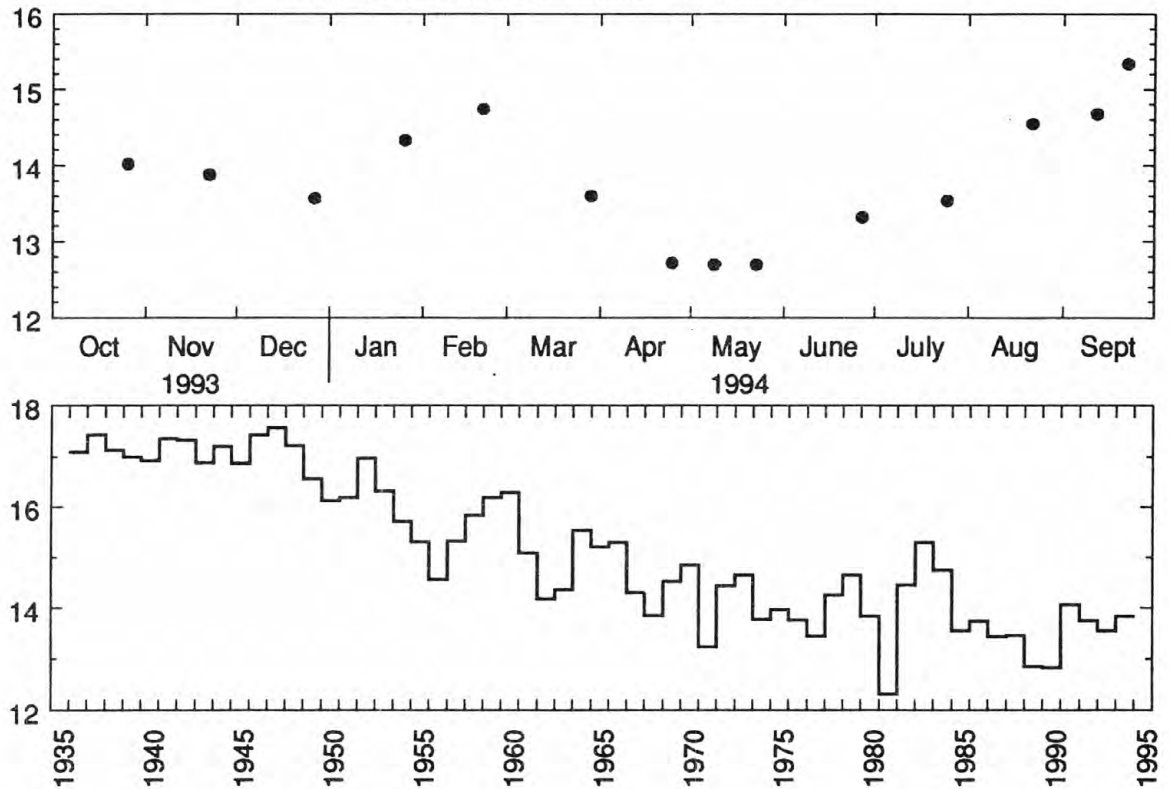


Figure 11.--Periodic water levels for the current water year and annual-mean periodic water levels for the period of record at well 292750081152001 (Flagler 14) at Bunnell in Flagler County (fig. 2, no. 11).

ELEVATION, IN FEET ABOVE SEA LEVEL

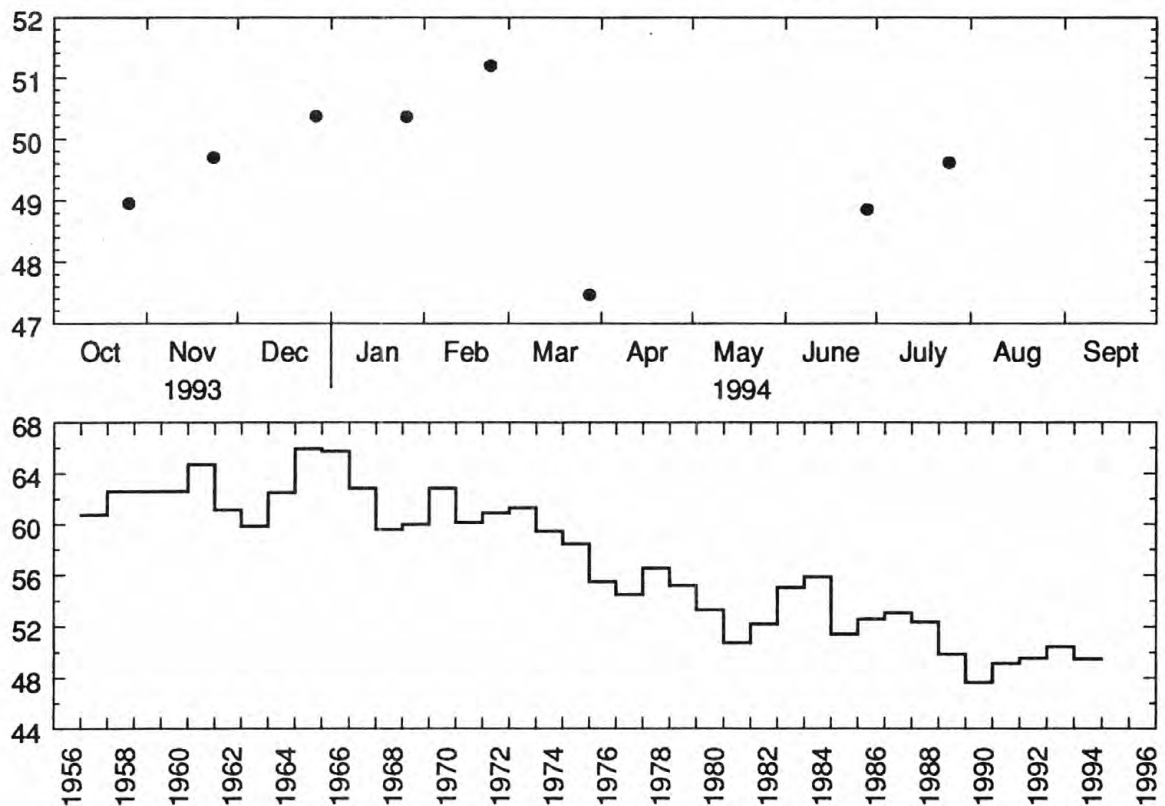


Figure 12.--Periodic water levels for the current water year and annual-mean periodic water levels for the period of record at well 294207082163201 (Sperry Rand) at Gainesville in Alachua County (fig. 2, no. 12).

SUMMARY OF HYDROLOGIC CONDITIONS--Continued

ELEVATION, IN FEET ABOVE SEA LEVEL

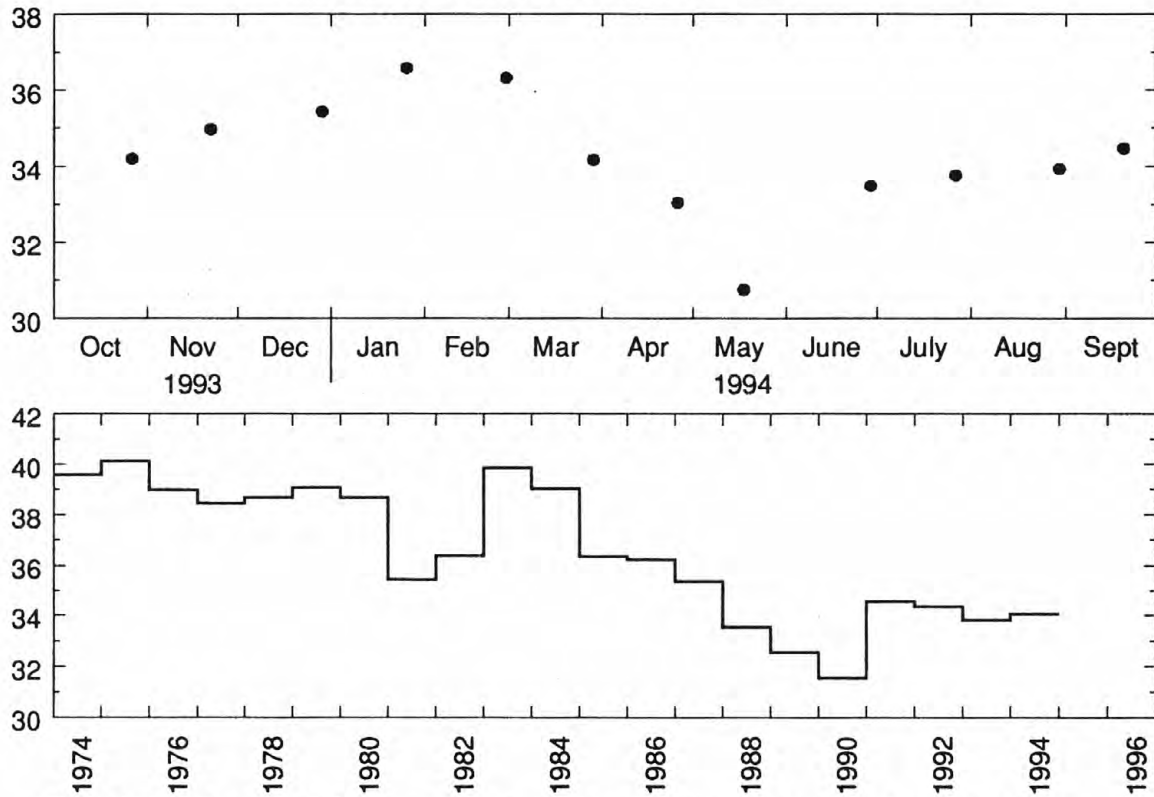


Figure 13.--Periodic water levels for the current water year and annual-mean periodic water levels for the period of record at well 300656081463401 (C-94) near Orange Park in Clay County (fig. 2, no. 13).

ELEVATION, IN FEET ABOVE SEA LEVEL

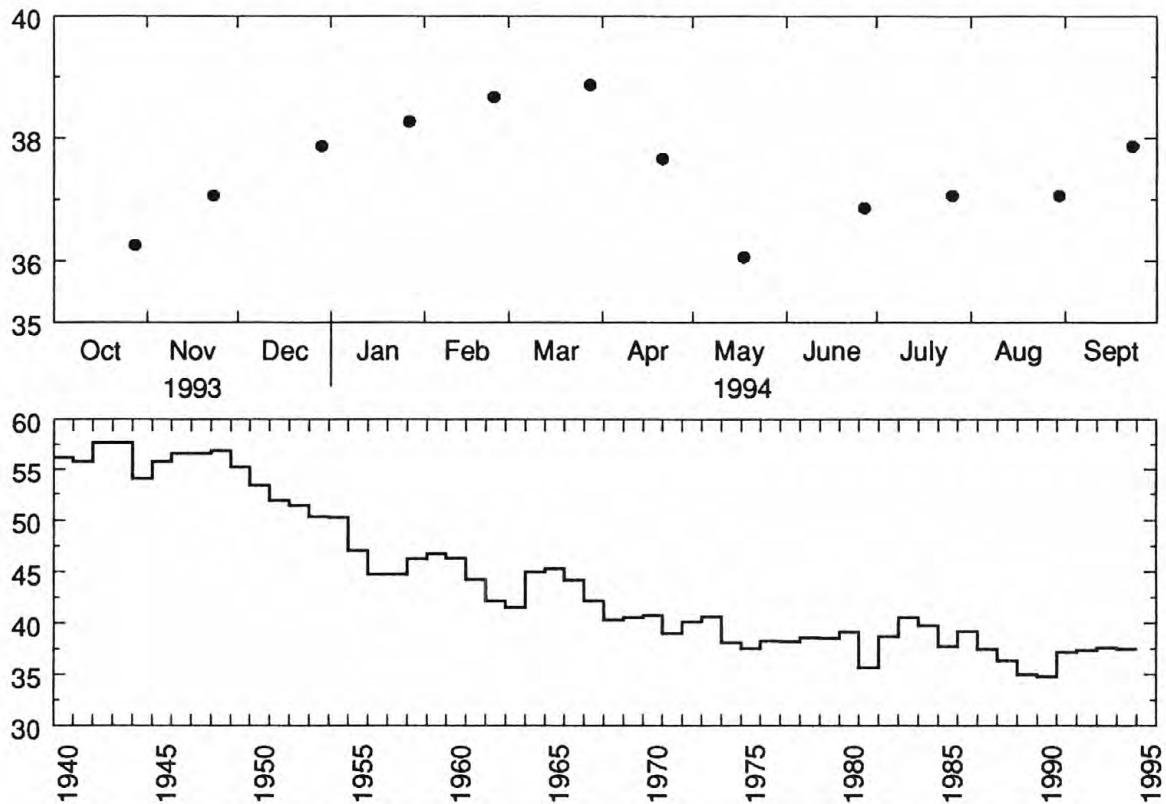


Figure 14.--Periodic water levels for the current water year and annual-mean periodic water levels for the period of record at well 302304081383202 (City of Jacksonville Panama Park) at Jacksonville in Duval County (fig. 2, no. 14).

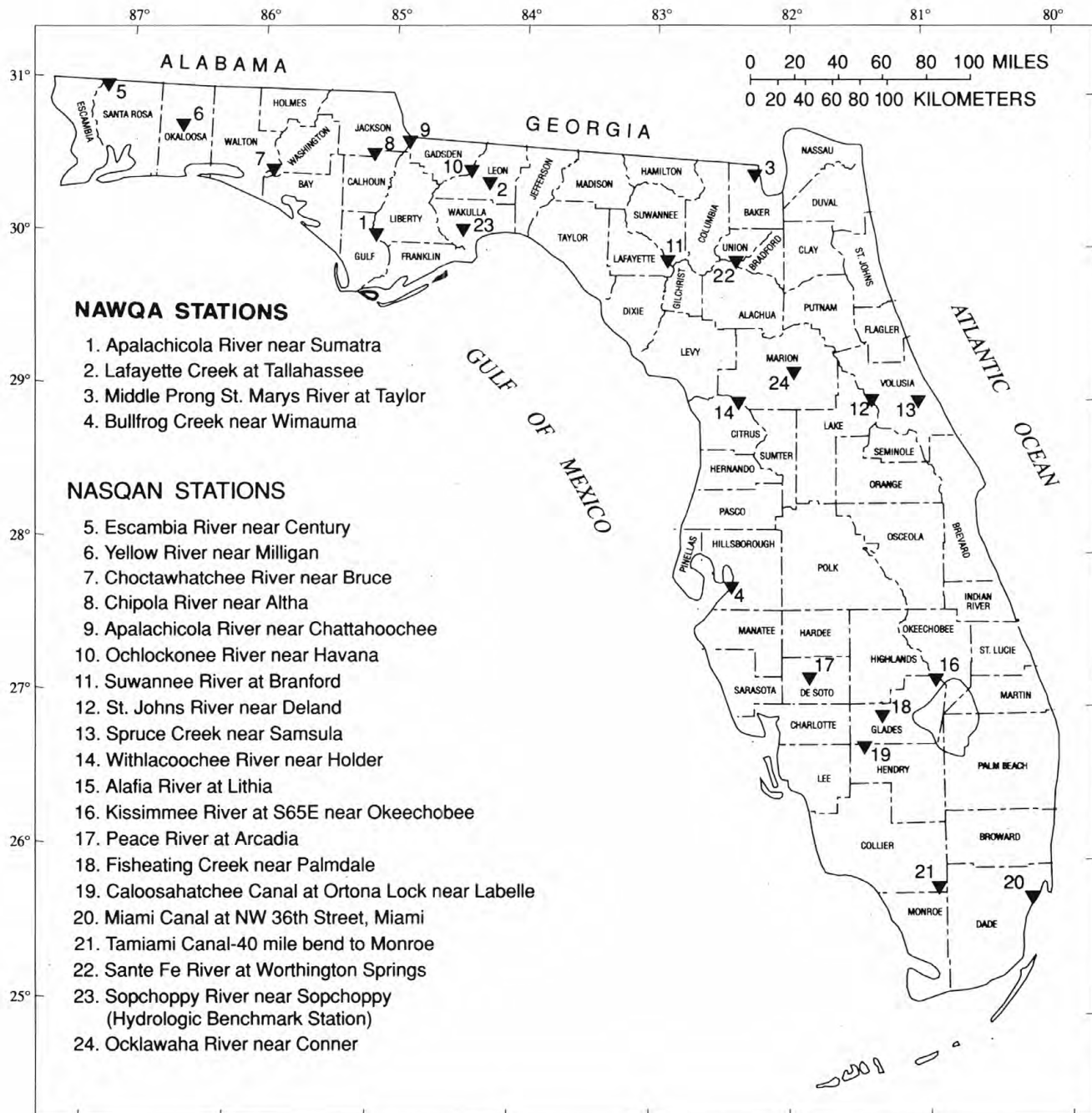


Figure 15.--NASQAN and NAWQA stations in the State of Florida.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 45 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 384 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council.

The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research. The NASQAN stations in Florida are shown in figure 15

National Water Quality Assessment Program (NAWQA) is a long-term U.S. Geological Survey effort to determine the status and trends of water quality in a large, representative part of the Nation's surface- and ground-water resources, and to provide scientific understanding of primary natural and human influences on the quality of these resources. To accomplish this objective, 60 study units ranging in size from 1,200 to 60,000 square miles were chosen for intensive data collection and interpretive study. About 60 percent of the Nation's publicly supplied water use occurs within these study units. Three of these study units, the Apalachicola-Chattahoochee-Flint Study Unit, the Georgia-Florida Coastal Plain Study Unit, and the Southern Florida Study Unit (not yet in data-collection phase), are partly or wholly within Florida. Extensive, multi-purpose surface- and ground-water sampling will be performed within each study unit and the majority of these data will be presented in a separate series of reports. However, data for a limited number of NAWQA surface-water stations where streamflow and water-quality data are collected on a routine basis (usually monthly) have been included in the appropriate volume of the annual data report. The locations of NAWQA stations for which data appear in this report are shown in Figure 15.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1994 water year that began October 1, 1993, and ended September 30, 1994. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous observations are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 02228500, which appears just to the left of the station name, includes the 2-digit part number "02" plus the 6- to 12-digit downstream-order number "228500." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites 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 below.)

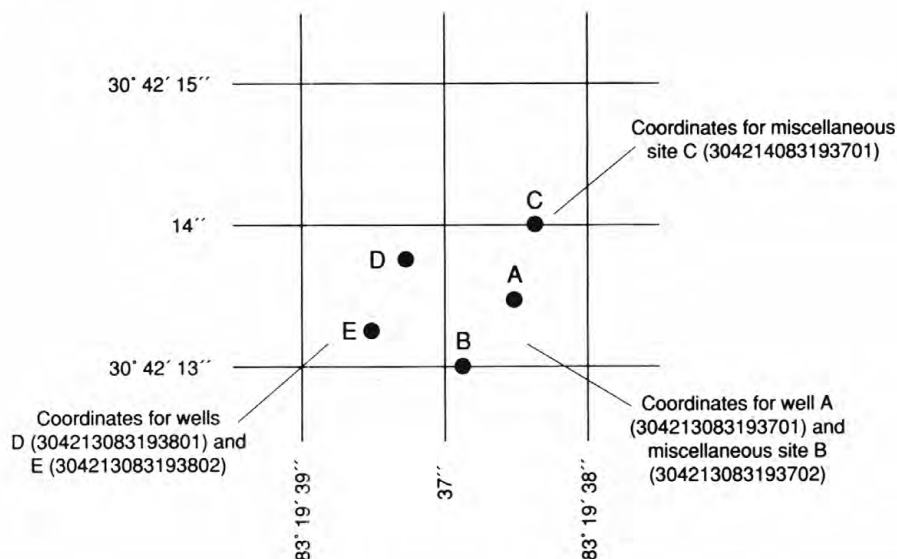


Figure 16.--System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake elevation, similarly, are those for which stage may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a stage-recording device or daily or weekly observations, but need not be. Because daily mean discharges and lake elevations commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Location of all complete-record and partial-record stations for which data are given in this report are shown in figures preceding each sub-basin.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily mean discharges.

Records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location, period of record, historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate base maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given.

DRAINAGE AREA.--Drainage areas are delineated and measured using the most accurate topographic maps available, and are updated as necessary.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see DEFINITION OF TERMS), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic foot per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic foot per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic foot per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS ____ - ____," BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____ - ____," will consist of all of the station record within the specified water years, inclusive, including complete months of record of partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the "REMARKS" paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water 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 PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in subdistrict computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the subdistrict office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates 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) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1.0 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic foot per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Altamonte Springs subdistrict office of the Florida District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where water-quality data are collected systematically over a period of years, usually less frequently than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station or a periodic observation station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the quality of the water in its natural state. To assure this, certain measurements, such as water temperature, pH, alkalinity, specific conductance, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the natural water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For stations equipped with water-quality monitors, the records consist of daily mean values for each constituent measured and are based upon unit values (hourly or 15-minute recordings). These unit values may be obtained from the Altamonte Springs subdistrict, 224 West Central Parkway, Suite 1006, Altamonte Springs, FL 32714.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Historical and current dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a recording or sampling device, which may be time- or event-activated, is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Remark Codes

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

<u>Printed output</u>	<u>Remark</u>
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
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)
&	Biological organism estimated as dominant

NOTE: In March 1989 the National Water-Quality Laboratory uncovered a bias in the turbidimetric method for sulfate analyses made from 1982 through 1989. Sulfate values below 75 mg/L as determined by the turbidimetric method have a median positive bias of 2 mg/L above the true value. In this report, sulfate values for NASQAN stations were determined using the turbidimetric method, and the data have not been corrected for this bias. Sulfate values for non-NASQAN stations in this report were determined in the Florida District QW Services unit using the chromatograph method and these data are not biased.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter (ng/L). Present data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in water year 1994.

Records of Ground-Water Levels

Ground-water level data from a statewide network of observation wells are published herein. 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.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, manometer, or from the graph or punched tape of a water-level recorder. The measurements in this report are given in feet above sea level or in some tables as feet below land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. 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 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 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 three parts, the station description, the data table of water levels observed during the water year, and a graph of the water levels for the current water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the headings of the well description.

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 hourly, daily, weekly, monthly, or some other frequency of measurement.

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) sea level; 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 record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. For wells equipped with recorders, only abbreviated tables are published; generally, daily maximums are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are 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. A hydrograph for a selected period of record follows each water-level table.

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 in the report area. 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 Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. 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. 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 immediately following the ground-water-level records of each county. Data for quality of ground water are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. The Remark Codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data STorage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- Water-Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requester will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, VA 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5 1/2-inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. 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's District offices. A limited number of CD-ROM discs will be available for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225.

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.

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 or about 326,000 gallons or 1,233 cubic meters.

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

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

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. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which 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 also 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 which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which 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.

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

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 micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the 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. The ash mass values of zooplankton and phytoplankton are 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 values are 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. The 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.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day (cubic foot per second per day) 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

CFSM (cubic foot per second per square mile) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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 natural water color 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.

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

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.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, 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 (ft^3/s or cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

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

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

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water 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.)

Dissolved refers to that material in a representative water sample which passes through a $0.45\text{ }\mu\text{m}$ 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-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 the 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 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. 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 surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary 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 particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; 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.

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

Micrograms per gram ($\mu\text{g/g}$) 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 liter ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute 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.

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 both 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.

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.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) 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	.004 - .062	Sedimentation
Sand	.062 - 2.0	Sedimentation or 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 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, mass, or volume.

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

Picocurie (PC, pCi) is one millionth of the amount of radioactivity represented by a micro-curie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegrations per minute.

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.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

Sea level in this report 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 both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it 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 the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time 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).

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either 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, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

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 about 65 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.

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

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.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimeted. All areas shown are those for the stage when the planimeted map was made.

Surficial bed material is the part (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 water-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 water-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. A 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.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical 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	<u>Hexagenia</u>
Species	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 indicates 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) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-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 water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-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.

Water year in 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, 1994, is called the "1994 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.

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 publications, 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."

- 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*, W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 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.
- 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. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *APPLICATION OF DRILLING, CORING, AND SAMPLING TECHNIQUES TO TEST HOLES AND WELLS*, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 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 MEASUREMENTS 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-A10. *DISCHARGE RATINGS AT GAGING STATIONS*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *MEASUREMENT OF DISCHARGE BY 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*, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 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. Rathburn, N. Yotsukura, G.W. Parker, and L.L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *LEVELS OF STREAMFLOW GAGING STATIONS*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.
- 3-A20. *SIMULATION OF SOLUBLE WASTE TRANSPORT AND BUILDUP IN SURFACE WATERS USING TRACERS*, by F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 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 PROGRAMMED 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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 3-B4. *REGRESSION MODELING OF GROUND-WATER FLOW*, by Richard L. Cooley and Richard 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 Eliezer J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 90 pages.
- 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.
- 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.
- 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.
- 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.
- 5-A1. *METHODS FOR DETERMINATION OF INORGANIC SUBSTANCES IN WATER AND FLUVIAL SEDIMENTS*, by M.J. Fishman and L.C. Friedman: 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 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.
- 5-C1. *LABORATORY THEORY AND METHODS FOR SEDIMENT ANALYSIS*, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 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.
- 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.
- 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.
- 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.

GROUND-WATER WELLS BY COUNTY
AND WATER DATA

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 17
ALACHUA COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	294207082163201	30

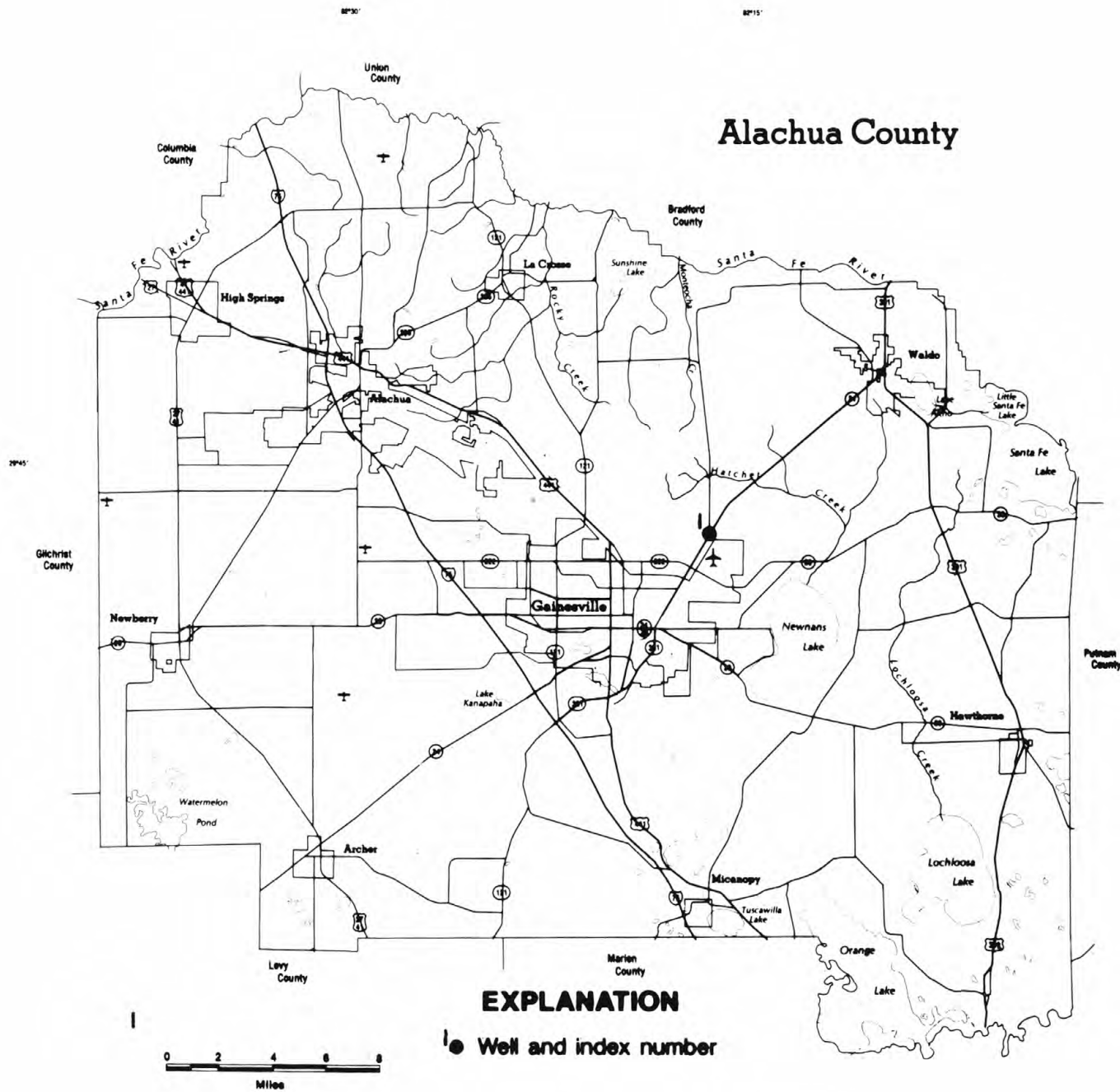


Figure 17.--Location of wells in Alachua County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ALACHUA COUNTY

WELL NUMBER.--294207082163201. Sperry Rand Well at Gainesville, FL.

LOCATION.--Lat 29°42'07", long 82°16'32", in NW¹/₄NE¹/₄NE¹/₄ sec. 23, T.9 S., R.20 E., Hydrologic Unit 03080102, on north side of Gainesville Airport property, east of State Highway 24, and about 2 mi north of State Highway 232 in Gainesville. Owner: City of Gainesville.

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

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 10 in., depth 447 ft, cased to 175 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape by SJRWMD personnel.

DATUM.--Land-surface datum is 153.20 ft above sea level. Measuring point: Top of 1.25 in. pipe, 0.16 ft above land-surface datum.

PERIOD OF RECORD.--June 1957 to December 1958, January 1961 to September 1981 (bimonthly); October 1981 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.71 ft above sea level, Sept. 2, 1965; lowest measured, 45.31 ft above sea level, Sept. 10, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			FEB		
26...	0742	48.96	23...	1034	51.20
NOV			MAR		
23...	0754	49.70	28...	1448	47.47
DEC			JUN		
27...	1050	50.38	28...	1050	48.86
JAN			JUL		
26...	1142	50.37	25...	1335	49.62

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

31

ALACHUA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
292909082095101	05-10-94 05-25-94	0725 1001	92920901 11S21E36 YEARLING RESTAURANT	54.42 53.22
292951082174001	05-10-94 09-12-94	0819 1525	THOMAS 66STA WELL NEAR MICANOPY	53.22 52.81
293148082251201	05-10-94 09-13-94	0903 1333	BRICE WELL NEAR KANAPAHA	48.13 46.20
293203082200601	05-10-94 09-12-94	0843 1505	CHITTY WELL AT KIRKWOOD	54.49 54.06
293252082292301	05-09-94 09-13-94	1245 1305	ALTO STRAUGHN-ARCHER WELL	43.43 43.81
293253082055701	05-10-94 09-13-94	0657 0615	DRISCOLL WELL NEAR LOCHLOOSA	69.06 70.32
293301082153501	05-10-94 09-12-94	0748 1555	JENSEN WELL NEAR MICANOPY	57.45 56.91
293329082243801	05-10-94 09-14-94	0930 0830	PARISH WELL NEAR WACAHOOA	43.95 43.61
293542082253801	05-09-94 09-14-94	1342 0754	USGS/HOWELL WELL AT KANAPAHA	43.03 43.04
293548082044101	05-09-94 09-14-94	0800 0940	93520403 10S22E26 C E TITUS	74.85 76.77
293556082043401	05-09-94 09-12-94	0736 0920	A-0071 HAWTHORNE TOWER DEEP	74.97 76.77
293620082362001	05-09-94 09-13-94	1219 1235	93623601 10S17E22 CE-1A	41.22 42.16
293634082144901	05-09-94 09-12-94	0846 1620	HOLBACK WELL NEAR GAINESVILLE	60.21 59.17
293644082244201	05-16-94 09-14-94	0952 0848	RUB MONITOR NO 1 AT KANAPAHA	45.71 45.88
293645082202701	05-09-94 09-12-94	0935 1415	93622003	52.11 51.62
293723082120102	05-09-94 09-12-94	0826 1220	93721202 10S21E15 DICK SURRENCY	75.93 75.89
293728082282401	05-09-94 09-14-94	1308 0835	93722801 10S18E14 PARKER RD BAPTIST CHURCH	41.72 41.80
293737082212501	05-09-94 09-13-94	0949 0730	937221 UNIV OF FLORIDA E 6 ENTOMOLOGY	60.41 59.26
293857082203901	05-09-94 09-13-94	1013 0845	GEOLOGY DEPT WELL GAINESVILLE	47.31 44.83
294108082293101	05-09-94 09-14-94	1142 0855	94122901 09S18E27 U OF FLA FARNSWORTH	43.32 40.81
294121082231801	05-09-94 09-13-94	1050 1102	PINE GROVE CHURCH AT GAINESVILLE	46.47 44.53
294209082180301	05-10-94 09-13-94	1045 1235	94221801 CITY OF GAINESVILLE N-3 AT GAINESVILLE	20.13 19.15
294209082181801	05-10-94 09-13-94	1055 1210	RUB WELL N-4 AT GAINESVILLE	20.99 20.53
294228082181801	05-10-94 09-13-94	1106 1145	94221804 CITY OF GAINESVILLE N-6 AT GAINESVILLE	20.25 19.77
294259082083401	05-11-94 09-12-94	1248 1140	ORANGE HTS. BAPTIST CHURCH WELL AT ORANGE HTS	75.69 77.55
294415082170701	05-10-94 09-13-94	1347 1430	NEWMANS WELL NEAR FAIRBANKS	54.73 54.80
294501082131001	05-11-94 09-14-94	1315 0625	CARY MEMORIAL FOREST WELL NEAR WALDO	69.07 69.75
294530082232001	05-10-94 09-14-94	1301 0720	DEERHAVEN POWER PLT WELL NEAR GAINESVILLE	41.87 42.44

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

ALACHUA COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
294839082230701	05-10-94	1230	CELLON WELL NEAR LA CROSSE	43.49
	09-13-94	1440		43.07
294923082174501	05-11-94	1340	MONTEOCHA	60.52
	09-13-94	1540		60.43
294928082355301	05-10-94	1151	94923502 08S17E03 CITY HIGH SPRINGS	33.76
	09-13-94	1203		33.80

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WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 18
BAKER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	301535082162001	36
2	302620082173501	36

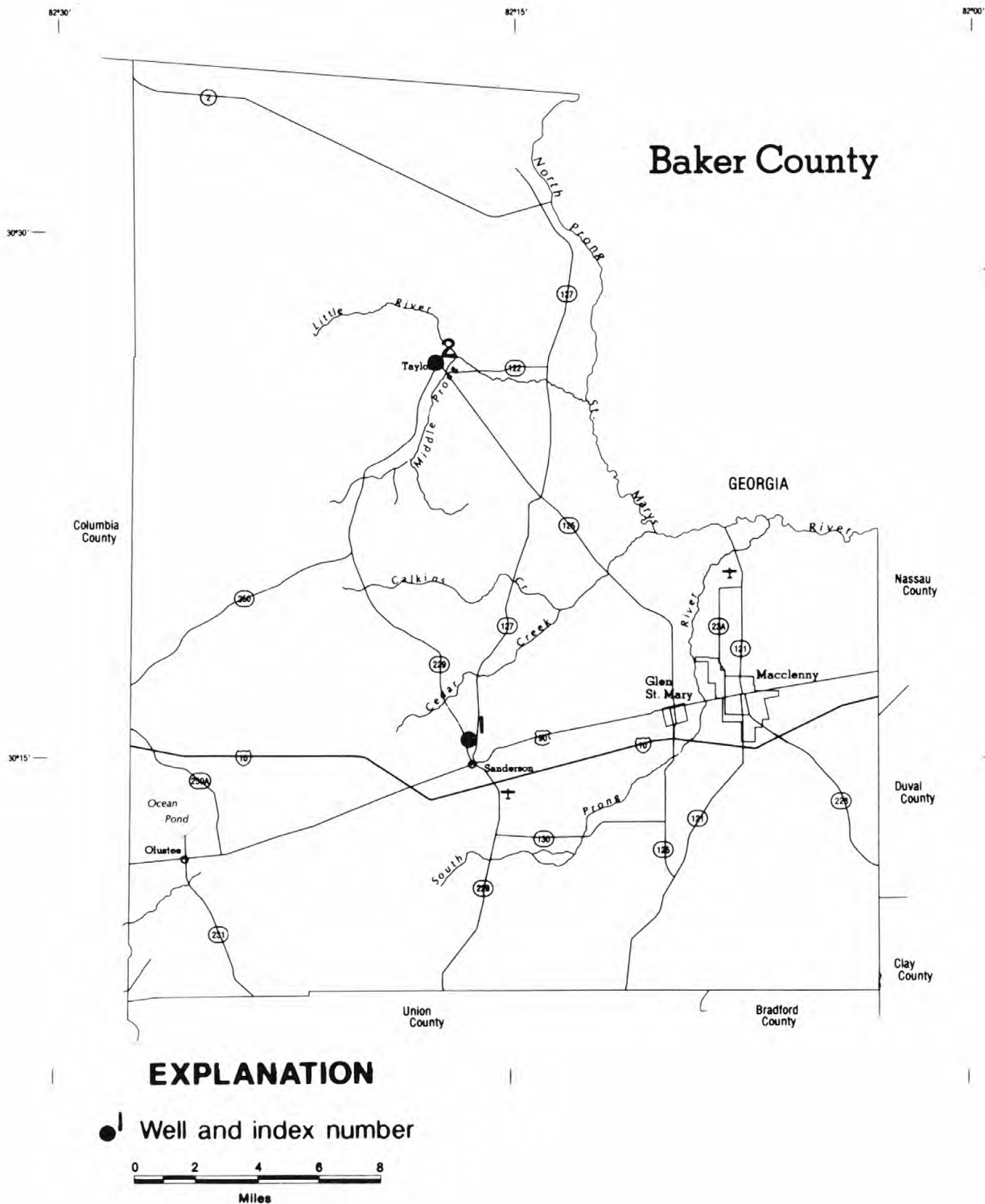


Figure 18.--Location of wells in Baker County.

BAKER COUNTY

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

LOCATION.--Lat 30°15'35", long 82°16'20", in SW¹/₄NW¹/₄SW¹/₄ 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 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). Records prior to 1975 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.05 ft above sea level, Mar. 1, 1965; lowest measured, 48.03 ft above sea level, Oct. 31, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	1400	50.85	APR 26...	0855	54.21
NOV 22...	1205	51.36	MAY 17...	0835	53.36
DEC 28...	1410	51.65	JUN 29...	0910	52.56
JAN 26...	0955	52.69	JUL 27...	0900	52.90
FEB 25...	1410	54.58	AUG 30...	0910	53.06
MAR 29...	0935	55.04	SEP 19...	1450	53.09

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

LOCATION.--Lat 30°26'20", long 82°17'35", in NW¹/₄SE¹/₄NE¹/₄ sec.3, T.1 S., R.20 E., Hydrologic Unit 03070204, 50 ft northeast of intersection of State Highways 125 and 250, and 90 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 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). Records prior to 1973 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.50 ft above sea level, Jan. 1, 1973; lowest measured, 45.42 ft above sea level, Oct. 31, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	1425	48.32	APR 26...	0920	52.02
NOV 22...	1235	48.86	MAY 17...	1020	51.16
DEC 28...	1445	49.15	JUN 29...	0845	50.17
JAN 26...	1025	50.34	JUL 27...	0930	50.41
FEB 25...	1425	52.52	AUG 30...	0940	50.57
MAR 29...	0910	53.05	SEP 19...	1430	50.50

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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BAKER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
301022082103301	05-16-94	1445	B-17 MANNING WELL NEAR MANNING	55.24
	09-19-94	1115		55.38
301423082261101	05-17-94	0910	B-15	57.25
	09-19-94	1340		56.67
302251082194901	05-17-94	0955	B-25 ONF NO 6 FLORIDAN WELL NEAR TAYLOR	51.67
	09-19-94	1415		50.96

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 19
BREVARD COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	275508080510701	40
2	275955080434601	40

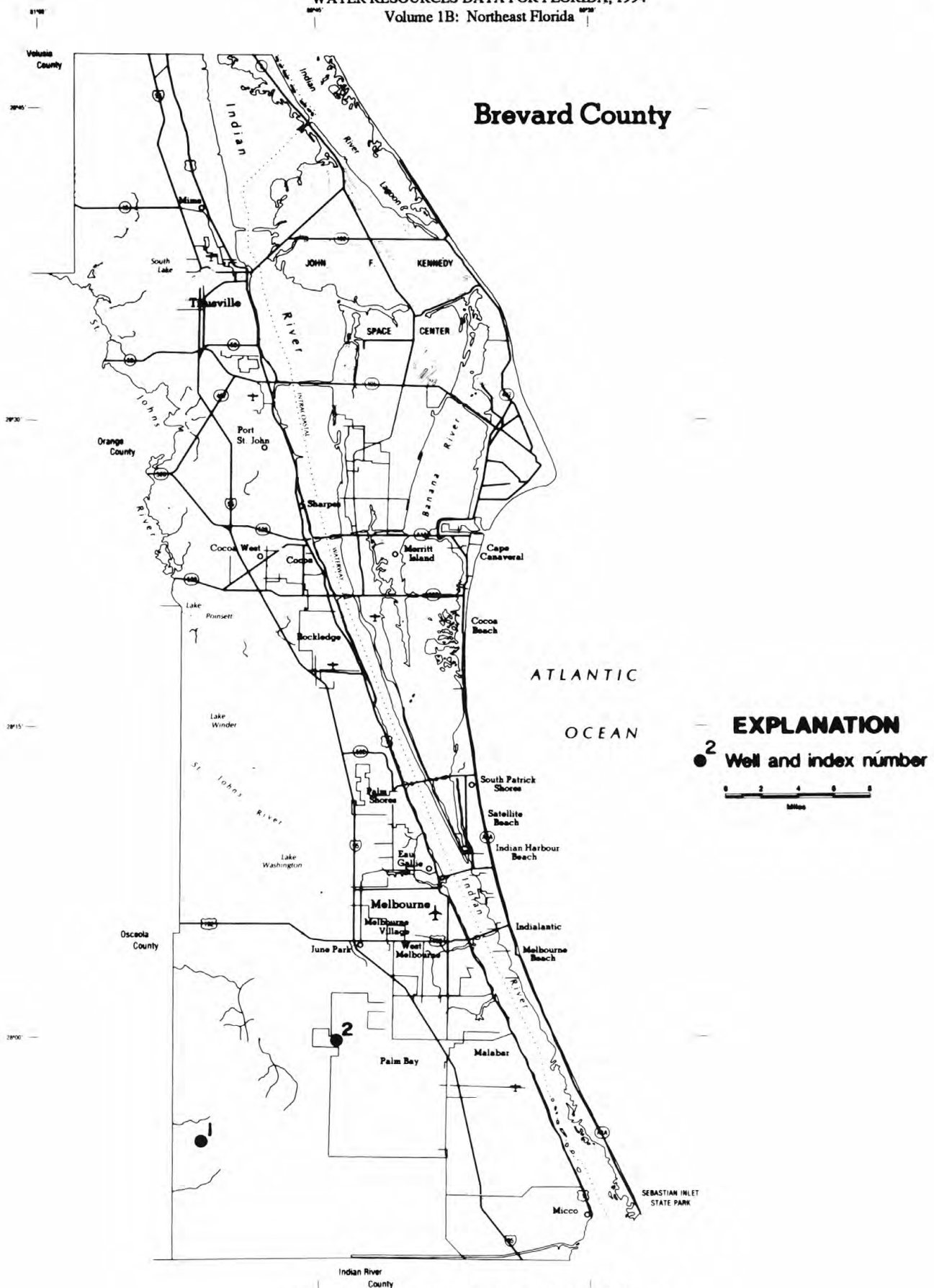


Figure 19.--Location of wells in Brevard County.

BREVARD COUNTY

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

LOCATION.--Lat 27°55'08", long 80°51'07", in SW¹/₄SW¹/₄NW¹/₄ 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.07 ft above sea level, July 11, 1957; lowest measured, 37.12 ft above sea level, May 13, 1974.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 29...	1100	42.78	APR 25...	0835	41.58
JAN 10...	1024	42.38	JUN 20...	1020	42.18
MAR 07...	0948	43.58	AUG 15...	0935	42.58

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

LOCATION.--Lat 27°59'55", long 80°43'46", in NE¹/₄NE¹/₄NW¹/₄ 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.53 ft above sea level, Aug. 14, 1934; lowest measured, 34.23 ft above sea level, May 19, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 25...	1425	40.34	MAY 04...	1400	38.78
26...	0750	40.34	09...	1411	39.63
NOV 22...	0731	40.49	24...	1310	38.24
DEC 20...	1553	40.55	JUN 27...	1110	40.79
JAN 26...	1221	40.78	JUL 18...	1200	38.64
FEB 21...	0752	41.54	AUG 25...	1305	39.44
MAR 28...	1344	40.47	SEP 14...	1310	42.23
APR 26...	0805	39.04	26...	1109	40.44

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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BREVARD COUNTY

STATION NUMBER	DATE	TIME	STATION NAME						ELEV- ATION ABOVE SEA LEVEL (FEET)
274925080361701	05-09-94 09-19-94	1545 1406	749036002	30S37E35	433	37527	FELLSMERE	TP	38.56 41.86
275125080485501	05-09-94 09-14-94	1130 1113	751048003	30S35E22	123	31139	KENANSVILLE SE	TP	39.60 42.40
275422080374001	05-09-94 09-14-94	1345 1348	754037007	29S37E04	232	09840	FELLSMERE NW	TP	38.10 40.50
275425080283101	05-10-94 09-15-94	0850 0900	754028002						32.47 35.77
275435080311001	05-09-94 09-14-94	1347 1438	754031001	29S38E34	343	04383	GRANT	82	35.60 39.10
275629080504901	05-09-94	1016	756050001	29S35E20	243	22042	KENANSVILLE NE	TP	41.37
275720080300601	05-10-94 09-15-94	0905 0919	757030004	29S38E14	334	01412	GRANT	25	35.90 38.10
275948080393501	05-09-94 09-14-94	1424 1325	759039005	29S37E06	322	37578	FELLSMERE NW	TP	36.55 38.75
280008080342601	05-09-94 09-14-94	1406 1446	800034072	28S37E36	424	08182	MELBOURNE EAST	TP	30.89 34.27
280256080325601	05-10-94 09-15-94	0922 0939	802032002	28S38E17	432	1645	MELBOURNE EAST	49	26.90 30.60
280348080431201	05-09-94 09-14-94	1245 1242	803043006	28S36E10	313	37563	MELBOURNE WEST	TP	39.10 42.20
280532080514501	05-09-94 09-14-94	1226 0734	805051003	27S35E31	331	30139	DEER PARK SE	TP	39.60 42.20
280534080465101	05-09-94 09-14-94	0906 0750	805046002	27S35E36	331	37472	DEER PARK SE	TP	38.13 42.03
280648080422801	05-09-94 09-14-94	0835 0830	DAN PLATT SARNO RD REPLACEMENT WELL						37.25 39.25
281109080373701	05-10-94 09-14-94	0812 0810	811037014	26S37E33	122	18134	EAU GALLIE	09	26.09 29.69
281210080473001	05-11-94 09-16-94	0942 0908	DUDA RANCH L-2 (812047001)						37.60 40.20
281306080401201	05-11-94 09-16-94	1139 0940	813040016	26S37E18	233	24103	EAU GALLIE	88	29.92 32.52
281447080392601	05-10-94 09-14-94	0800 0751	814039076	26S36E06	444	37577	EAU GALLIE	79	26.94 29.94
281508080443501	05-11-94 09-16-94	0915 0843	815044001	26S36E05	213	00082	COCOA	00	31.40 34.90
281509080363001	05-10-94 09-15-94	1036 1030	815036012	26S37E03	224	01562	COCOA BEACH	TP	26.80 29.20
281744080444001	05-11-94 09-16-94	0840 0820	817044004	25S36E20	I-95 AND FISKE BLVD				30.29 32.69
281905080375001	05-10-94 09-15-94	1045 1118	819037196	25S37E16	212	27337	COCOA	04	22.75 23.55
282143080403401	05-10-94 09-15-94	0727 0652	KIWANIS PARK						18.40 23.20
282204080514301	05-11-94 09-15-94	0830 0800	822051001	24S35E30	342	00767	LAKE POINSETT		29.08 32.68
282423080353601	05-10-94 09-15-94	1118 1222	824035001	24S37E11	444	15764	CAPE CANAVERAL	TP	19.40 20.78
282524080422301	05-10-94 09-14-94	1314 1407	MERRITT ISLAND INJECTION WELL						16.65 17.25
282647080331301	05-10-94 09-15-94	1148 1247	826033001	23S38E32	321	28485	CAPE CANAVERAL	TP	19.10 22.30
282929080343601	05-10-94 09-15-94	1458 1300	829034001	23S37E13	222	28488	CAPE CANAVERAL	TP	16.68 18.08
283236080535101	05-11-94 09-16-94	1134 1027	832053001	22S34ESG	---	00773	TITUSVILLE SW	TP	16.92 19.60

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

BREVARD COUNTY--Continued

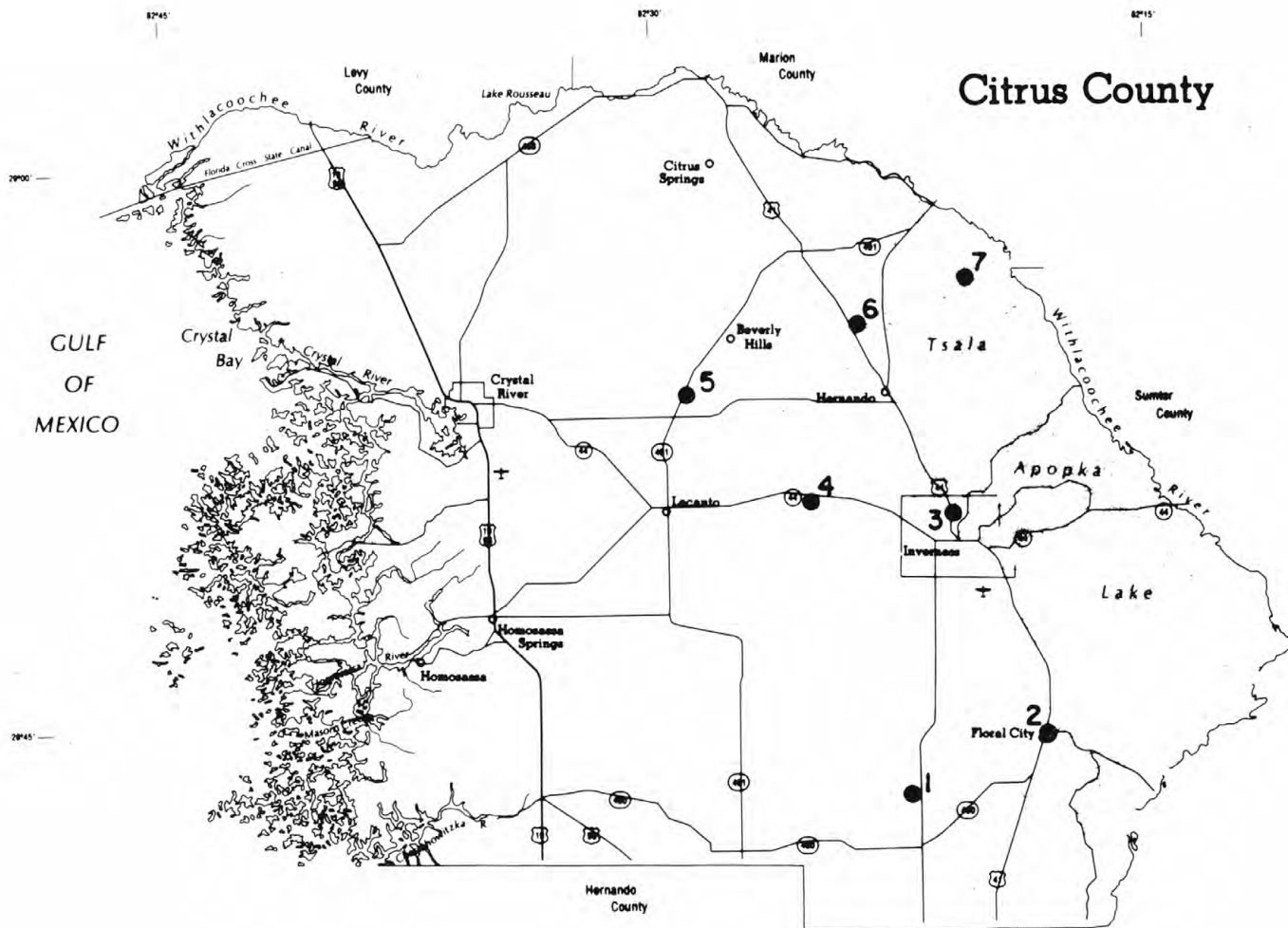
STATION NUMBER	DATE	TIME	STATION NAME		ELEV- ATION ABOVE SEA LEVEL (FEET)
283627080512001	05-11-94 09-16-94	1157 1131	836051001 22S35E06 332 00862 TITUSVILLE	25	14.70 17.21
283644080574901	05-11-94 09-16-94	1311 1233	8360573		14.10 17.70
283835080424501	05-10-94 09-15-94	1233 1327	838042002 21S36E27 MERRITT ISLE WILDLIFE		9.59 11.94
283906080514501	05-11-94 09-16-94	1227 1143	839051005 21S35E19 431 00864 MIMS	15	12.54 13.93
283955080565701	05-11-94 09-16-94	1325 1218	839056002		12.10 14.57
284116080514001	05-11-94 09-16-94	1244 1200	841051226 21S35E06 343 05242 MIMS	20	15.38 15.22

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WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 20
CITRUS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	284330082215401	46
2	284508082174601	46
3	285102082204001	47
4	285124082245601	47
5	285414082284201	48
6	285608082233401	49
7	285720082201301	50



EXPLANATION

●⁴ Well and index number



Figure 20.--Location of wells in Citrus County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CITRUS COUNTY

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

LOCATION.--Lat 28°43'30", long 82°21'54", in SW¹/₄SE¹/₄SW¹/₄ 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, 22.15 ft above sea level, Aug. 23, 1984; lowest, 14.01 ft above sea level, July 24,25,26, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.15	15.41	15.22	14.92	14.99	15.67	15.79	15.41	14.95	14.82	15.03	16.11
10	15.20	15.43	15.18	14.93	15.14	15.76	15.72	15.32	14.92	14.83	15.20	16.22
15	15.26	15.41	15.09	14.88	15.28	15.83	15.66	15.25	14.91	14.84	15.32	16.31
20	15.31	15.41	15.06	14.86	15.38	15.84	15.58	15.16	14.88	14.85	15.53	16.48
25	15.36	15.35	14.99	14.85	15.50	15.85	15.53	15.06	14.88	14.88	15.71	16.65
EOM	15.34	15.28	14.94	14.89	15.55	15.84	15.47	14.98	14.85	14.97	15.94	16.86
MAX	15.37	15.44	15.27	14.96	15.55	15.86	15.83	15.47	14.97	14.97	15.94	16.86
CAL YR 1993	MAX 16.61											
WTR YR 1994	MAX 16.86											

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

LOCATION.--Lat 28°45'08", long 82°17'46", in NE¹/₄NE¹/₄NW¹/₄ 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.

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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.32 ft above sea level, Aug. 23, 1965; lowest measured, 28.29 ft above sea level, Aug. 13, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 09...	1458	32.16	MAY 17...	1410	30.81
JAN 12...	1700	31.43	JUN 16...	1450	30.60
MAR 08...	1130	32.64	SEP 21...	1501	34.01
APR 27...	1133	31.38	29...	1450	34.38

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

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 37.80 ft above sea level, Oct. 14, 1982; lowest, 25.32 ft above sea level, Dec. 31, 1993.

[illegible]

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 12.72 ft above sea level, Oct. 23, 1982; lowest, 5.57 ft above sea level, May 30, 1992.

[illegible]

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

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

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

PERIOD OF RECORD.--November 1965 to current year. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.10 ft above sea level, Oct. 15, 1982; lowest 3.28 ft above sea level, May 23, 1992.

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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CITRUS COUNTY

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

LOCATION.--Lat 28°56'08", long 82°23'34", in SW¹/₄NW¹/₄SE¹/₄ 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). Records prior to January 1974 are unpublished and are available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV			MAY		
09...	1341	18.16	17...	1600	19.73
JAN			JUN		
14...	1440	17.50	16...	1757	19.23
MAR			AUG		
03...	1820	19.00	12...	1125	18.56
APR			SEP		
26...	1705	19.93	19...	1949	18.68

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CITRUS COUNTY

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

LOCATION.--Lat 28°57'20", long 82°20'13", in NE¹/₄SE¹/₄NE¹/₄ 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 Hemando. 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 current year. Records prior to September 1976 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 37.91 ft above sea level, Oct. 6, 1982; lowest, 30.54 ft above sea level, June 5, 1985.

**ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.48	32.12	31.48	---	33.44	33.54	32.25	31.95	31.19	31.41	32.34	33.82
10	31.57	32.05	31.29	---	33.22	33.13	32.14	31.71	31.87	31.41	32.95	33.75
15	31.49	31.86	32.36	---	33.05	32.84	31.96	31.57	32.02	31.63	33.01	---
20	31.69	31.74	---	---	32.91	32.68	32.07	31.54	32.04	31.93	33.54	---
25	31.50	31.62	---	32.23	32.92	32.56	32.40	31.29	31.68	31.99	33.84	35.13
EOM	32.35	31.53	---	33.92	32.76	32.40	32.08	31.20	31.44	32.12	33.78	35.10
MAX	32.35	32.32	---	---	33.78	33.88	32.66	32.06	32.07	32.12	33.86	---

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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CITRUS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
284101082184301	05-18-94 09-21-94	1258 1401	84121801 21S20E04 OAK FOREST SUBMERSIBLE	27.64 29.97
284439082131401	05-17-94 09-21-94	1510 1616	84421301 TRAILS END FISH CAMP WELL NEAR FLORAL CITY	37.93 41.74
284519082150701	05-17-94 09-21-94	1452 1545	84521501 20S21E07 HOMER N FISHER	38.01 41.38
284528082211801	05-18-94 09-20-94	1137 1936	84522101 20S19E12 WSF-MUTUAL MINE REC AREA	15.62 16.56
284752082202501	05-18-94 09-20-94	1030 1818	84722001 19S20E31 HIGHLANDS VFD NEAR INVERNESS	17.23 17.74
284805082225701	05-18-94 09-20-94	0902 1842	84822201 19S19E26 WSF-HOLDER MINE REC AREA	11.46 13.07
284844082282801	05-17-94 09-19-94	0930 1826	84822801 19S18E22 WSF-PERRYMAN TRACT	5.99 7.35
284958082190401	05-17-94 09-21-94	1243 1124	84921901 19S20E16 CITRUS 8 USGS	32.86 33.89
285026082174101	05-17-94 09-21-94	1310 1100	85021701 19S20E15 CITRUS 9 USGS	35.57 36.45
285037082213801	05-17-94 09-21-94	1121 1200	85022101 19S19E12 INVERNESS VILLAGE EASTW	18.58 18.98
285056082163001	05-17-94 09-21-94	1324 1047	85021601 19S20E11 CITRUS 10 USGS	35.30 36.69
285105082135802	05-17-94 09-21-94	1347 1028	USGS WELL 0.7 MI W OF WITH. R. ON SR-44.47 FT N RD	35.78 38.37
285248082183201	05-17-94 09-21-94	1212 1249	85221801 18S20E33 ELMER HEATH	35.79 36.54
285514082275402	05-16-94 09-20-94	1258 1510	85522704 18S18E14 BEVERLY HILLS WELL 6-T	4.41 5.30
285612082294201	05-16-94 09-19-94	1239 1711	85622901 18S18E04 PINE RIDGE NO 3	4.51 5.22
285812082360901	05-16-94 09-20-94	1638 1340	85823601 17S17E29 CE 7 USGS	11.60 11.49
285833082233301	09-20-94	1552	85822301 17S19E34 CE 16	13.46
285930082283702	05-16-94 09-19-94	1209 1640	85922803 17S18E22 CITRUS SPRINGS RECORDER	7.64 7.63
285935082324501	05-16-94 09-20-94	1542 1239	85923201 17S17E24 MELODY JOHNSON	7.12 7.27
285951082350901	05-16-94 09-20-94	1615 1213	85923501 17S17E15 CE-6 USGS	16.97 17.03
290023082393601	05-17-94 09-20-94	0710 1414	90023901 17S16E11 CE-89 USGS	11.81 12.65
290107082400501	05-17-94 09-20-94	0735 1402	90124001 17S16E11 CE-88 USGS	2.82 3.35
290132082324201	09-20-94	1150	90123202 17S17E01 EMORY COWART HOUSE WELL	15.10
290216082292001	05-16-94 09-20-94	1512 1111	90222901 16S18E33 CE-77 USGS	13.58 13.36

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 21
CLAY COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	295615081394701	54
2	300656081463401	54
3	300834081421301	55
4	301018081415101	56

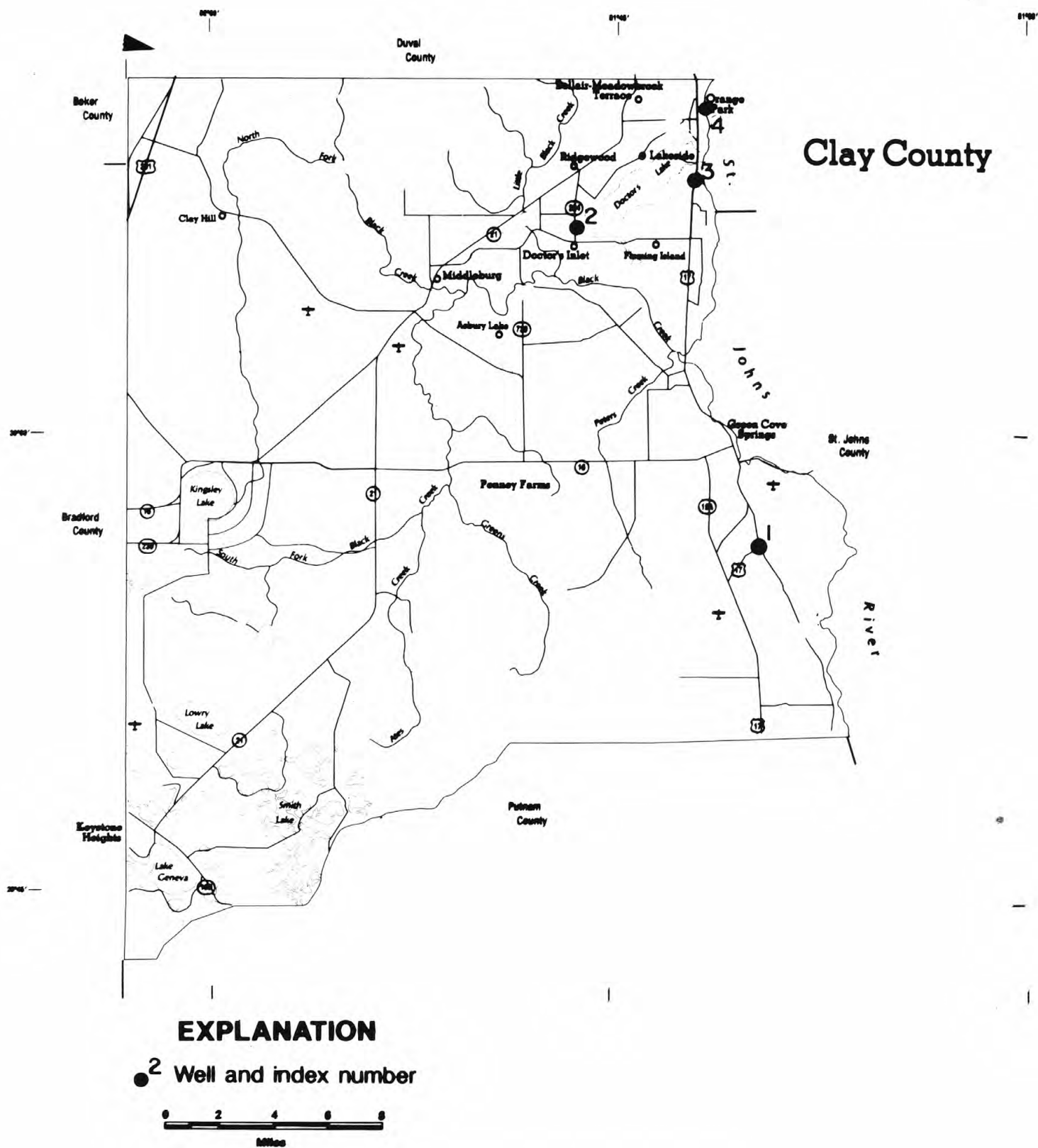


Figure 21.--Location of wells in Clay County.

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 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 September 1994 (bimonthly). Records prior to May 1977 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.54 ft above sea level, July 6, 1970; lowest measured, 31.15 ft above sea level, May 10, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 06...	1030	36.74	MAY 10...	1240	31.15
NOV 29...	1155	39.04	JUN 07...	1220	34.64
JAN 31...	1235	38.24	SEP 13...	1148	39.75
APR 12...	1300	31.74			

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

LOCATION.--Lat 30°06'56", long 81°46'34", in SW¹/₄SE¹/₄SW¹/₄ 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 taped.

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, 29.33 ft above sea level, Aug. 27, 1993.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	1030	34.21	APR 26...	1145	33.05
NOV 22...	1415	34.98	MAY 18...	1200	30.75
DEC 29...	1450	35.44	JUN 29...	1055	33.49
JAN 26...	1410	36.59	JUL 27...	1215	33.77
FEB 28...	0915	36.33	AUG 30...	1250	33.94
MAR 29...	1215	34.18	SEP 20...	1205	34.48

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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• CLAY COUNTY

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). Records prior to October 1981 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.08 ft above sea level, Mar. 24, 1983; lowest measured, 21.08 ft above sea level, Sept. 26, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	1005	28.48	APR 26...	1210	25.08
NOV 22...	1400	28.28	MAY 18...	1005	23.18
DEC 29...	1430	29.38	JUN 29...	1115	22.18
JAN 26...	1435	29.38	JUL 27...	1235	27.08
FEB 28...	0900	29.28	SEP 21...	0845	23.78
MAR 29...	1235	27.58			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

CLAY COUNTY

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). Records prior to May 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.68 ft above sea level, Nov. 7, 1958; lowest measured, 21.38 ft above sea level, May 2, 1977.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
08...	0825	28.58	18...	1335	25.38
NOV			JUL		
22...	1445	30.78	27...	1245	29.28
JAN			SEP		
26...	1450	31.08	21...	1040	30.38
MAR					
29...	1250	29.68			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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CLAY COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
294307082020903	05-09-94 09-13-94	0748 0726	9432023 COUNTYLINE NEAR MELROSE	81.12 83.39
295615081394701	05-10-94 06-07-94 09-13-94	1240 1220 1148	C-36	31.15 34.64 39.75
295835081515001	05-09-94 09-12-94	0943 1407	C-17	67.50 70.33
295847081380601	05-10-94 09-13-94	1008 1125	C-78	21.81 22.51
295900081403201	05-10-94 09-13-94	1022 1125	C-82	19.98 22.18
300242081532002	05-18-94 09-19-94	1125 0845	C-15	54.42 56.82
300300081422501	05-23-94 09-23-94	1025 0900	C-16	28.03 33.13
300604081441501	05-18-94 09-21-94	1310 0940	C-22	27.44 32.24

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 22
DUVAL COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number	Index number	Site number	Page number
1	300622081284701	60	21	302013081353801	82
2	300820081354001	61	21	302015081384501	83
*3	301157081374301		22	302022081393501	84
4	301422081541201	62	23	302052081323201	85
4	301422081541202	62	24	302130081411802	86
4	301422081541203	63	25	302159081235601	87
5	301522081331301	63	26	302236081401501	88
6	301537081441901	64	27	302227081435001	89
7	301551081415701	65	28	302243081300401	90
8	301604081361501	66	29	302301081295001	91
9	301639081330802	67	29	302301081295002	91
10	301648081431801	68	30	302304081383202	92
11	301710081323601	69	31	302307081293801	92
11	301710081323602	69	32	302339081254702	93
11	301710081323603	70	33	302416081522601	94
12	301725081584501	70	33	302416081522602	94
13	301740081361001	71	34	302502081330701	95
13	301743081304701	72	34	302503081332001	96
13	301743081362301	73	*34	302505081331001	
13	301744081363301	74	34	302511081331201	97
13	301752081360501	75	35	302519081331501	98
14	301801081384302	75	36	302538081253101	99
15	301817081374901	76	36	302538081392501	100
15	301817081374902	77	37	302550081331501	101
16	301844081403801	78	38	302557081253101	102
17	301846081240201	78	39	302608081354901	103
17	301852081234201	79	39	302608081354902	104
18	301900081342801	79	39	302608081354903	105
19	301957081342301	80	40	302724081244801	106
20	302007081353201	81	41	302801081375101	107

* Not published water year 1994

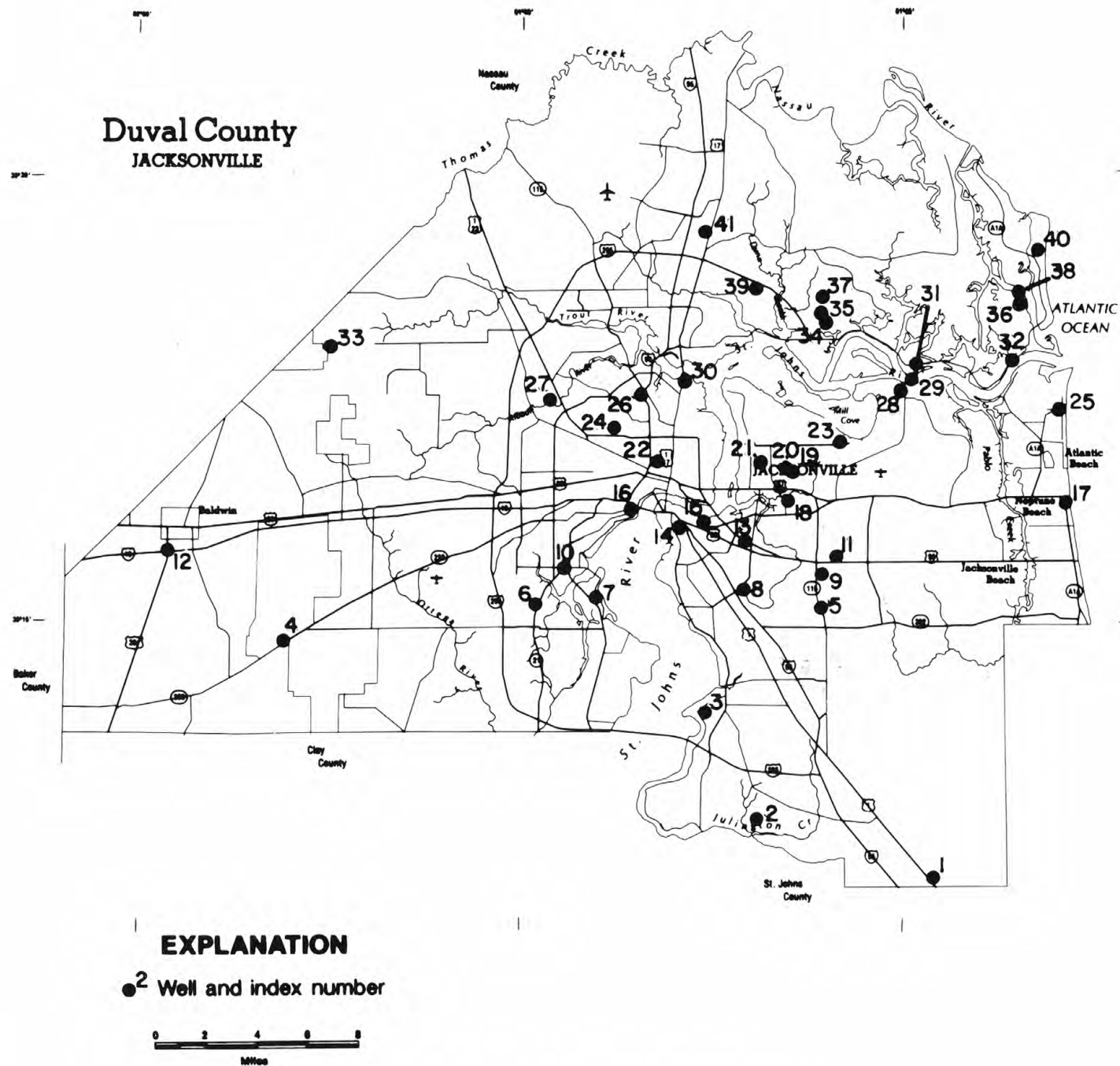


Figure 22.--Location of wells in Duval County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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.

WATER LEVEL RECORDS

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

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). Records prior to 1977 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.90 ft above land-surface datum, Sept. 19, 1983; lowest measured, 12.60 ft above land-surface datum, May 13, 1981.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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)
NOV 09...	0800	-15.70	594	--	21.0	--	--	--	--
JAN 28...	0830	-16.50	760	--	22.0	--	--	--	--
APR 22...	0815	-14.90	765	7.4	23.0	<5	370	87	35
JUL 29...	0815	-15.30	730	--	23.0	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
NOV 09...	--	--	--	--	19	--	--	--	--
JAN 28...	--	--	--	--	20	--	--	--	--
APR 22...	15	2.6	133	240	20	0.90	23	560	4800
JUL 29...	--	--	--	--	20	--	--	--	--

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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: W.C. Clark.**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) incomplete, May 1977 to September 1985 (semiannually); May 1986 to September 1990 (bimonthly), October 1990 to September 1993 (quarterly), October 1993 to current year (semiannually). Records prior to 1977 are unpublished and available in files of the Jacksonville field headquarters.**EXTREMES FOR PERIOD OF RECORD.--**Highest water level measured, 25.20 ft above land-surface datum, May 13, 1966; lowest measured, 12.00 ft above land-surface datum, May 30, 1990.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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)
NOV 05...	1100	--	680	--	23.0	--	--	--	--
JAN 25...	1015	--	708	--	22.5	--	--	--	--
APR 18...	1315	--	658	8.2	22.0	<5	320	60	40
MAY 19...	1155	-12.30	650	--	21.0	--	--	--	--
JUL 27...	1330	--	618	--	24.0	--	--	--	--
SEP 23...	0945	-17.40	--	--	23.0	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
NOV 05...	--	--	--	--	18	--	--	--	--
JAN 25...	--	--	--	--	18	--	--	--	--
APR 18...	16	3.1	118	220	18	0.70	19	487	5100
MAY 19...	--	--	--	200	18	--	--	--	--
JUL 27...	--	--	--	--	18	--	--	--	--
SEP 23...	--	--	--	--	--	--	--	--	--

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

DUVAL COUNTY

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

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¹/₄SE¹/₄NE¹/₄ 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 of NAS Cecil Field in Jacksonville. Owner: U.S. Geological Survey.

AQUIFER.--Hawthorn Formation of 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 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). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.48 ft below land-surface datum, July 27, 1994; lowest measured, 12.15 ft below land-surface datum, Nov. 29, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 27...	1145	8.44	MAY 20...	0930	8.11
NOV 22...	1030	7.71	JUL 27...	1035	5.48
JAN 26...	1230	7.19	AUG 30...	1035	6.87
MAR 29...	1035	7.29			

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

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¹/₄SE¹/₄NE¹/₄ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 200 ft south of Normandy Boulevard (State Highway 228), 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 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). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.70 ft below land-surface datum, May 21, 1984; lowest measured, 37.32 ft below land-surface datum, Sept. 26, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 27...	1140	33.37	MAY 20...	0935	32.25
NOV 22...	1045	32.76	JUL 27...	1040	32.02
JAN 26...	1235	31.86	AUG 30...	1040	31.79
MAR 29...	1030	30.92			

DUVAL COUNTY

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

LOCATION.--Lat 30°14'22", long 81°54'12", in SW¹/₄SE¹/₄NE¹/₄ sec.16, T.3 S., R.24 E., Hydrologic Unit 03080103, 220 ft south of Normandy Boulevard (State Highway 228), 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 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). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.04 ft below land-surface datum, Sept. 25, 1979; lowest measured, 9.72 ft below land-surface datum, Nov. 29, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 27...	1150	5.18	MAY 20...	0940	5.75
NOV 22...	1035	4.25	JUL 27...	1045	3.12
JAN 26...	1225	3.66	AUG 30...	1045	3.61
MAR 29...	1025	4.41			

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 NW¹/₄NE¹/₄SW¹/₄ sec.12, T.3 S., R.27 E., Hydrologic Unit 03080103, 2.2 mi south of U.S. Highway 90 (Beach Boulevard), and 200 ft east of Alternate U.S. Highway 1 (Southside Blvd.) in Jacksonville. Owner: Gate Petroleum Corporation.

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

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 18 in., depth 1,246 ft, cased to 520 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 60 ft above sea level, from topographic map. Measuring point: Top of 4 in. opening of 18 in. casing, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--March 1961, February 1973 to December 1975, February 1976 to current year (monthly). Records prior to 1976 are unpublished and available in the files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.35 ft below land-surface datum, Mar. 1, 1961; lowest measured, 19.98 ft below land-surface datum, July 20, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 28...	1230	16.32	APR 20...	1320	17.68
NOV 23...	1015	15.82	MAY 20...	1315	18.67
DEC 29...	0900	15.66	JUN 27...	1000	17.12
JAN 25...	1120	15.66	JUL 27...	1235	17.00
FEB 25...	0900	14.85	AUG 31...	0930	17.62
MAR 29...	1045	16.52	SEP 20...	1115	16.10

DUVAL COUNTY

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 488 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, 26.10 ft above land-surface datum, Mar. 26, 1987; lowest measured, 17.50 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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)	
OCT 27...	0940	-21.30	--	--	--	--	--	--	--	
NOV 05...	1000	--	378	--	24.5	--	--	--	--	
22...	0930	-22.00	--	--	--	--	--	--	--	
JAN 25...	0930	-22.70	372	--	24.0	--	--	--	--	
FEB 23...	1200	-24.00	--	--	--	--	--	--	--	
MAR 29...	1140	-23.30	--	--	--	--	--	--	--	
APR 22...	0915	-22.70	372	8.0	25.0	<5	170	40	16	
MAY 17...	1340	-21.20	--	--	--	--	--	--	--	
JUN 29...	1020	-21.90	--	--	--	--	--	--	--	
JUL 26...	1400	-21.90	370	--	25.0	--	--	--	--	
AUG 30...	1125	-22.00	--	--	--	--	--	--	--	
SEP 21...	1255	-22.60	--	--	--	--	--	--	--	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
OCT 27...	--	--	--	--	--	--	--	--	--	--
NOV 05...	--	--	--	--	7.2	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	7.3	--	--	--	--	--
FEB 23...	--	--	--	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--	--	--	--
APR 22...	7.1	1.8	109	65	7.5	0.40	17	235	3300	
MAY 17...	--	--	--	--	--	--	--	--	--	--
JUN 29...	--	--	--	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	7.7	--	--	--	--	--

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

65

DUVAL COUNTY

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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.93 ft above sea level, July 9, 1940; lowest measured, 20.53 ft above sea level, June 29, 1988.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
27...	0920	28.83	26...	1230	27.13
NOV			MAY		
22...	0910	29.03	17...	1400	23.53
DEC			JUN		
29...	1405	29.43	29...	1150	26.63
JAN			JUL		
26...	1505	29.43	27...	1315	27.23
FEB			AUG		
23...	1105	30.83	30...	1340	26.23
MAR			SEP		
29...	1310	28.53	21...	1330	28.33

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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 502 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, 18.90 ft above land-surface datum, Mar. 26, 1987, Mar. 29, 1993; lowest measured, 11.50 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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 CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
OCT 29...	0900	-14.50	935	--	26.0	--	--	--	--	
NOV 23...	1430	-15.30	--	--	--	--	--	--	--	
JAN 25...	1100	-15.90	930	--	24.5	--	--	--	--	
FEB 24...	1430	-17.10	--	--	--	--	--	--	--	
MAR 28...	1415	-16.90	--	--	--	--	--	--	--	
APR 21...	1315	-14.90	930	8.0	25.5	<5	380	90	37	
MAY 20...	1410	-13.70	--	--	--	--	--	--	--	
JUN 27...	0930	-14.50	--	--	--	--	--	--	--	
JUL 26...	1430	-14.70	925	--	25.0	--	--	--	--	
AUG 30...	1230	-14.90	--	--	--	--	--	--	--	
SEP 20...	1200	-15.50	--	--	--	--	--	--	--	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CA CO3)	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)
OCT 29...	--	--	--	--	--	110	--	--	--	--
NOV 23...	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	100	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--	--
APR 21...	32	2.5	141	170	110	0.70	23	581	4300	--
MAY 20...	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	100	--	--	--	--	--

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

DUVAL COUNTY

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 SW¹/₄NE¹/₄NW¹/₄, sec. 1, T.3 S., R.27 E., Hydrologic Unit 03080103, 0.35 mi east of Southside Boulevard, and 0.60 mi south of U.S. Highway 90 (Beach Boulevard) in pumphouse south of Anders 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 500 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, 18.60 ft below land-surface datum, July 20, 1990.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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)	
OCT 28...	1245	15.01	--	--	--	--	--	--	--	
NOV 09...	1000	--	1410	--	25.0	--	--	--	--	
23...	1025	14.70	--	--	--	--	--	--	--	
JAN 25...	1230	14.33	1420	--	25.5	--	--	--	--	
FEB 25...	0920	13.63	--	--	--	--	--	--	--	
MAR 28...	1400	14.96	--	--	--	--	--	--	--	
APR 20...	1300	16.29	1280	7.8	26.5	<5	470	98	53	
MAY 20...	1330	15.44	--	--	--	--	--	--	--	
JUN 27...	1015	15.85	--	--	--	--	--	--	--	
JUL 27...	1245	15.72	--	--	--	--	--	--	--	
AUG 31...	0950	15.64	--	--	--	--	--	--	--	
SEP 20...	1100	14.69	--	--	--	--	--	--	--	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
OCT 28...	--	--	--	--	--	--	--	--	--	--
NOV 09...	--	--	--	--	250	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	240	--	--	--	--	--
FEB 25...	--	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--	--
APR 20...	60	3.4	114	190	220	0.60	18	786	6200	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well located in Lakeshore pumping station at intersection of Hamilton and Appleton Streets, 0.1 mi south of intersection of San Juan Avenue and 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 1993 TO SEPTEMBER 1994

DATE	TIME	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 DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
NOV 05...	1030	480	--	26.5	--	--	--	--	--
JAN 24...	1115	482	--	26.0	--	--	--	--	--
APR 21...	1000	478	8.0	26.5	<5	220	49	23	9.1
JUL 25...	1000	478	--	26.5	--	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
NOV 05...	--	--	--	9.2	--	--	--	--
JAN 24...	--	--	--	9.6	--	--	--	--
APR 21...	2.1	119	110	9.9	0.60	19	311	3900
JUL 25...	--	--	--	9.6	--	--	--	--

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

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 44.53 ft above sea level, Sept. 23-25, 1994; lowest water level measured, 38.31 ft above sea level, Aug. 3, 1989.

[illegible]

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 44.40 ft above sea level, Aug. 6-13, 1991; lowest, 35.99 ft above sea level, July 20, 1993.

[illegible]

DUVAL COUNTY

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 NE¹/₄NE¹/₄SE¹/₄ sec.36, T.2 S., R.27 E., Hydrologic Unit 03080103, 200 ft south of Beach Boulevard, 0.9 mi east of intersection of Beach Boulevard and Southside Boulevard, next to U.S. Forestry 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, 35.05 ft above sea level, Feb. 12, 1993; lowest, 25.00 ft above sea level, June 22, 1993.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.09	31.85	32.55	32.59	33.04	33.33	30.28	28.42	27.84	29.87	29.78	29.49
10	29.61	31.93	32.22	32.21	32.98	32.77	28.94	27.81	29.14	30.17	30.49	29.49
15	29.64	31.91	32.61	32.63	32.78	32.37	29.41	27.19	29.75	29.12	30.63	30.40
20	30.43	31.57	32.09	32.42	33.06	30.89	29.09	27.02	30.32	27.95	30.77	31.25
25	31.20	31.90	32.68	32.34	33.23	30.31	29.17	26.57	30.04	29.29	30.52	31.83
EOM	31.78	32.27	32.01	32.93	32.94	30.90	27.98	26.93	29.36	30.26	29.41	31.57
MAX	31.83	32.54	32.68	32.99	33.23	33.53	30.73	28.51	30.32	30.33	30.84	31.95
CAL YR 1993	MAX 35.05											
WTR YR 1994	MAX 33.53											

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

LOCATION.--Lat 30°17'25", long 81°58'45", in NE¹/₄SW¹/₄SW¹/₄ sec.26, T.2 S., R.23 E., Hydrologic Unit 03080103, 0.5 mi east of U.S. Highway 301, and 0.4 mi north of Interstate Highway 10 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 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 (periodic); May 1983 to current year (monthly). Records prior to May 1974 are unpublished and available in files of the Jacksonville field headquarters.

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 LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT			APR		
27...	1235	33.87	26...	0825	31.57
NOV			MAY		
22...	1115	33.40	17...	0800	32.29
DEC			JUN		
28...	1320	33.00	29...	0740	32.66
JAN			JUL		
25...	1115	32.45	27...	0830	32.22
FEB			AUG		
25...	1325	31.34	30...	0840	32.11
MAR			SEP		
29...	0825	31.01	19...	1520	31.88

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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 03080103, well located 0.15 mi north and 300 ft west 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 1993 TO SEPTEMBER 1994

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)
OCT									
29...	1300	1280	--	27.5	--	--	--	--	--
NOV									
29...	1020	1260	--	26.5	--	--	--	--	--
JAN									
03...	1035	1250	--	26.5	--	--	--	--	--
25...	1340	1240	--	28.5	--	--	--	--	--
FEB									
24...	1315	1240	--	27.0	--	--	--	--	--
MAR									
29...	0915	1230	--	26.5	--	--	--	--	--
APR									
18...	1145	1210	7.5	27.0	<5	400	96	38	78
MAY									
23...	0930	1210	--	27.0	--	--	--	--	--
JUN									
28...	1230	1210	--	28.0	--	--	--	--	--
JUL									
28...	1010	1200	--	28.5	--	--	--	--	--
AUG									
30...	1215	1220	--	28.0	--	--	--	--	--
SEP									
27...	0930	1220	--	27.0	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
OCT								
29...	--	--	--	220	--	--	--	--
NOV								
29...	--	--	--	220	--	--	--	--
JAN								
03...	--	--	--	220	--	--	--	--
25...	--	--	--	210	--	--	--	--
FEB								
24...	--	--	--	220	--	--	--	--
MAR								
29...	--	--	--	210	--	--	--	--
APR								
18...	2.7	140	150	200	0.60	24	757	3700
MAY								
23...	--	--	--	200	--	--	--	--
JUN								
28...	--	--	--	100	--	--	--	--
JUL								
28...	--	--	--	200	--	--	--	--
AUG								
30...	--	--	--	210	--	--	--	--
SEP								
27...	--	--	--	210	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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

LOCATION.--Lat 30°17'43", long 81°30'47", in SW¹/₄SW¹/₄SE¹/₄ sec. 29, T.2 S., R.28 E., Hydrologic Unit 03080103, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM-COBALT UNITS)	HARDNESS TOTAL (MG/L AS CaCO ₃)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
NOV 04...	1245	785	--	25.0	--	--	--	--	--
JAN 24...	1310	785	--	25.5	--	--	--	--	--
APR 18...	0945	790	7.4	24.0	<5	320	74	31	31
JUL 27...	1215	790	--	27.0	--	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO ₃)	SULFATE DIS-SOLVED (MG/L AS SO ₄)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO ₂)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS Sr)
NOV 04...	--	--	--	72	--	--	--	--
JAN 24...	--	--	--	70	--	--	--	--
APR 18...	2.2	141	150	73	0.70	23	508	3200
JUL 27...	--	--	--	76	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
OCT 28...	1315	1070	27.0	--	--	--	--
NOV 29...	1015	1060	25.5	--	--	--	--
JAN 03...	1045	1210	26.0	--	--	--	--
25...	1410	1020	26.5	--	--	--	--
FEB 24...	1340	1030	26.0	--	--	--	--
MAR 14...	1000	--	--	420	100	40	78
JUL 28...	1000	1050	28.0	--	--	--	--
AUG 30...	1330	1220	29.0	--	--	--	--
SEP 27...	0915	1060	27.0	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
OCT 28...	--	--	--	160	--	--	--
NOV 29...	--	--	--	160	--	--	--
JAN 03...	--	--	--	200	--	--	--
25...	--	--	--	140	--	--	--
FEB 24...	--	--	--	150	--	--	--
MAR 14...	2.6	141	150	210	25	--	3900
JUL 28...	--	--	--	150	--	--	--
AUG 30...	--	--	--	210	--	--	--
SEP 27...	--	--	--	160	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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

LOCATION.--Lat 30°17'44", long 81°36'33", in NE¹/₄SE¹/₄NW¹/₄ sec. 52, T.2 S., R.27 E., Hydrologic Unit 03080103, well 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 1993 TO SEPTEMBER 1994

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)
OCT									
28...	1310	996	--	27.0	--	--	--	--	--
NOV									
29...	1000	995	--	26.5	--	--	--	--	--
JAN									
03...	1040	985	--	26.5	--	--	--	--	--
25...	1400	980	--	27.0	--	--	--	--	--
FEB									
24...	1330	970	--	27.0	--	--	--	--	--
MAR									
29...	0900	991	--	26.5	--	--	--	--	--
APR									
18...	1200	992	7.8	27.5	<5	360	87	34	53
MAY									
23...	0915	997	--	28.5	--	--	--	--	--
JUN									
28...	1240	980	--	28.0	--	--	--	--	--
JUL									
28...	0945	970	--	29.0	--	--	--	--	--
AUG									
30...	1315	965	--	28.5	--	--	--	--	--
SEP									
27...	0910	975	--	28.0	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (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)
OCT								
28...	--	--	--	140	--	--	--	--
NOV								
29...	--	--	--	140	--	--	--	--
JAN								
03...	--	--	--	130	--	--	--	--
25...	--	--	--	130	--	--	--	--
FEB								
24...	--	--	--	140	--	--	--	--
MAR								
29...	--	--	--	140	--	--	--	--
APR								
18...	2.4	139	150	140	0.70	24	602	3500
MAY								
23...	--	--	--	130	--	--	--	--
JUN								
28...	--	--	--	130	--	--	--	--
JUL								
28...	--	--	--	130	--	--	--	--
AUG								
30...	--	--	--	130	--	--	--	--
SEP								
27...	--	--	--	130	--	--	--	--

DUVAL COUNTY

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, well located 50 ft east and 150 ft north of Hart Toll Bridge on-ramp on University Boulevard, 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.

REMARKS.--Well under repair; pump off majority of the year, therefore only one sample was obtained.

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAR 29...	0920	550	21.5	33

WELL NUMBER.--301801081384302. Local Number D-54A. City of Jacksonville Well at Jacksonville, FL.

LOCATION.--Lat 30°18'01", long 81°38'43", in land grant 47, T.2 S., R.26 E., Hydrologic Unit 03080103, well located at River Oaks Water Treatment Plant, at intersection of Trinity and Mitchell Place, 0.15 mi west of U.S. Highway 1, in River Oaks 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 1,348 ft, cased to 505 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, 1969-78, 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)
NOV 04...	1300	660	--	25.5	--	--	--	--	--
JAN 26...	1415	655	--	26.0	--	--	--	--	--
APR 18...	1400	658	7.8	26.5	<5	310	71	31	12
JUL 27...	1400	650	--	27.0	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (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)
NOV 04...	--	--	--	13	--	--	--	--
JAN 26...	--	--	--	13	--	--	--	--
APR 18...	2.2	132	180	13	0.70	21	442	4300
JUL 27...	--	--	--	14	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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 2,486 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 750 and 2,050 ft. This well monitors the zone between 750 and 2,050 ft.

PERIOD OF RECORD.--September 1966 to current year (monthly). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.23 ft above sea level, Oct. 19, 1966; lowest measured, 29.23 ft above sea level, Sept. 26, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1330	31.83	APR 20...	1400	33.23
NOV 23...	0915	32.83	MAY 17...	1435	31.23
DEC 29...	0815	34.43	JUN 28...	1305	32.03
JAN 25...	1420	34.23	JUL 25...	1305	32.83
FEB 24...	0835	35.03	AUG 30...	0815	33.03
MAR 28...	0840	34.63	SEP 19...	0805	33.83

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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 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 750 and 2,050 ft. This well monitors the zone between 2,050 and 2,486 ft.

PERIOD OF RECORD.--September 1966 to current year (monthly). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.63 ft above sea level, Dec. 19, 1966; lowest measured, 32.03 ft above sea level, July 20, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1335	36.23	APR 20...	1405	37.03
NOV 23...	0920	36.83	MAY 17...	1440	35.63
DEC 29...	0825	37.53	JUN 28...	1300	36.23
JAN 25...	1415	37.83	JUL 25...	1300	36.43
FEB 24...	0840	38.63	AUG 30...	0820	36.43
MAR 28...	0845	38.03	SEP 19...	0810	37.03

DUVAL COUNTY

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, 350 ft east of Riverside Avenue and 70 ft north of Lomax Street 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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.68 ft above sea level, Nov. 26, 1968; lowest measured, 22.48 ft above sea level, June 29, 1988.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	0900	29.78	APR 26...	1245	28.48
NOV 22...	0850	29.68	MAY 17...	1430	25.58
DEC 29...	1340	29.88	JUN 29...	1210	28.08
JAN 26...	1525	30.08	JUL 27...	1330	27.68
FEB 23...	0925	30.98	AUG 30...	1355	26.88
MAR 29...	1335	29.38	SEP 21...	1400	29.38

WELL NUMBER.--301846081240201. Local Number D-246. Neptune Beach Park Well at Neptune Beach, FL.

LOCATION.--Lat 30°18'52", long 81°24'02", in NW¹/₄SE¹/₄SW¹/₄ sec.21, T.2 S., R.29 E., Hydrologic Unit 03080201, 25 ft north of Florida Boulevard and 0.2 mi west of State Highway A1A. Owner: City of Neptune Beach.

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

WELL CHARACTERISTICS.--Drilled, public supply, artesian well, diameter 12 in., depth 1,212 ft, cased to 388 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land-surface datum is 14 ft above sea level, from topographic map. Measuring point: Top of 9 in. flange cover, 5.20 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to May 1986 (semiannually); July 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.50 ft above land-surface datum, May 17, 1983; lowest measured, 18.30 ft above land-surface datum, May 2, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 26...	1010	-28.90	MAY 16...	0905	-19.00
DEC 22...	1040	-20.10	JUL 26...	1025	-19.90
FEB 22...	1135	-20.60	SEP 19...	0920	-20.10
APR 25...	0920	-19.50			

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

DUVAL COUNTY

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 NW¹/₄SW¹/₄SE¹/₄ 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). Records prior to 1936 are unpublished and available in the files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.75 ft above sea level, June 15, 1934; lowest measured, 23.27 ft above sea level, June 25, 1993.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1025	30.56	APR 25...	0930	27.76
NOV 23...	0950	31.56	MAY 16...	0950	25.96
DEC 22...	0945	31.56	JUN 23...	1055	29.16
JAN 27...	1345	31.76	JUL 26...	1035	28.96
FEB 22...	1125	32.56	AUG 29...	1145	27.66
MAR 30...	1045	30.76	SEP 19...	0905	31.46

WELL NUMBER.--301900081342801. Local Number D-94. Jerry Jarvis Well at Arlington, FL.

LOCATION.--Lat 30°19'17", long 81°34'54", in land grant 52, T.2 S., R.27 E., Hydrologic Unit 03080103, at residence of Gale Fillingier, 453 Arlington Road, 500 ft south of Strawberry Creek in Arlington. Owner: Gale Fillingier.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 2 in., depth 635 ft, cased to 520 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape or pressure gage.

DATUM.--Land-surface datum is 24.09 ft above sea level. Measuring point: Top of 0.75 in. gate valve, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.99 ft above sea level, Apr. 27, 1983, Jan. 27, Feb. 29, 1984; lowest measured, 26.38 ft above sea level, Sept. 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1200	29.07	APR 21...	1300	31.59
NOV 23...	1040	30.79	MAY 18...	1310	29.59
DEC 29...	0945	32.99	JUN 28...	1220	30.39
JAN 25...	1300	32.59	JUL 25...	1100	30.79
FEB 24...	1300	32.99	AUG 30...	1150	30.59
MAR 28...	1340	32.19	SEP 19...	1220	30.99

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well 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: Jacksonville Suburban Utilities.

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 1993 TO SEPTEMBER 1994

DATE	TIME	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 DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
NOV 09...	1045	845	--	25.0	--	--	--	--	--
JAN 27...	1230	830	--	27.0	--	--	--	--	--
APR 21...	1230	843	7.6	28.0	<5	320	76	30	37
JUL 28...	1030	862	--	28.0	--	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
NOV 09...	--	--	--	100	--	--	--	--
JAN 27...	--	--	--	98	--	--	--	--
APR 21...	1.9	146	120	100	0.60	25	537	2300
JUL 28...	--	--	--	100	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

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)
NOV 04...	1100	840	--	26.0	--	--	--	--	--
JAN 24...	1215	838	--	26.0	--	--	--	--	--
APR 18...	1030	876	7.4	26.0	<5	350	85	33	31
JUL 25...	1215	843	--	29.5	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
NOV 04...	--	--	--	100	--	--	--	--
JAN 24...	--	--	--	100	--	--	--	--
APR 18...	2.0	145	120	110	0.60	25	526	2500
JUL 25...	--	--	--	100	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	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 28...	1120	1250	--	27.5	--	--	--	--	--
NOV 29...	1030	1050	--	25.5	--	--	--	--	--
JAN 03...	1015	1040	--	26.5	--	--	--	--	--
24...	1230	1040	--	27.0	--	--	--	--	--
FEB 24...	1240	1030	--	28.0	--	--	--	--	--
MAR 28...	1315	1020	--	29.0	--	--	--	--	--
APR 18...	1045	1040	7.7	27.0	<5	400	97	38	38
MAY 23...	0945	1060	--	27.0	--	--	--	--	--
JUN 28...	1200	1080	--	29.0	--	--	--	--	--
JUL 25...	1230	1060	--	30.0	--	--	--	--	--
AUG 30...	1200	1060	--	28.5	--	--	--	--	--
SEP 27...	0945	1080	--	27.0	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (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)
OCT 28...	--	--	--	170	--	--	--	--
NOV 29...	--	--	--	160	--	--	--	--
JAN 03...	--	--	--	160	--	--	--	--
24...	--	--	--	150	--	--	--	--
FEB 24...	--	--	--	160	--	--	--	--
MAR 28...	--	--	--	160	--	--	--	--
APR 18...	2.2	141	140	160	0.60	25	665	3000
MAY 23...	--	--	--	160	--	--	--	--
JUN 28...	--	--	--	170	--	--	--	--
JUL 25...	--	--	--	170	--	--	--	--
AUG 30...	--	--	--	170	--	--	--	--
SEP 27...	--	--	--	170	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

83

DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	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 DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
NOV 04...	1045	515	--	27.5	--	--	--	--	--
JAN 24...	1030	518	--	27.5	--	--	--	--	--
APR 21...	1030	524	7.9	27.5	<5	240	57	22	13
JUL 25...	0930	515	--	27.5	--	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
NOV 04...	--	--	--	16	--	--	--	--
JAN 24...	--	--	--	16	--	--	--	--
APR 21...	1.6	151	87	16	0.70	25	332	2000
JUL 25...	--	--	--	17	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302022081393501. Local Number D-176. City of Jacksonville Main Street 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 1,283 ft, cased to 484 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, 32.50 ft above land-surface datum, Jan. 26, 1993; lowest measured, 20.10 ft above land-surface datum, Aug. 27, Sept. 26, 1990.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH	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)	
		BELOW LAND SURFACE (WATER LEVEL) (FEET)		WATER WHOLE FIELD (STAND- ARD UNITS)						
OCT 29...	1030	-25.90	325	--	25.0	--	--	--	--	
NOV 23...	1340	-26.30	--	--	--	--	--	--	--	
JAN 24...	0900	-26.90	630	--	24.0	--	--	--	--	
FEB 24...	1145	-27.50	--	--	--	--	--	--	--	
MAR 28...	0930	-28.30	--	--	--	--	--	--	--	
APR 22...	0945	-27.70	627	8.0	25.0	<5	300	72	28	
MAY 18...	1155	-24.10	--	--	--	--	--	--	--	
JUN 27...	1350	-25.30	--	--	--	--	--	--	--	
JUL 26...	1315	-26.50	635	--	25.5	--	--	--	--	
AUG 30...	1130	-24.30	--	--	--	--	--	--	--	
SEP 19...	1130	-27.90	--	--	--	--	--	--	--	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
OCT 29...	--	--	--	--	--	12	--	--	--	--
NOV 23...	--	--	--	--	--	--	--	--	--	--
JAN 24...	--	--	--	--	--	12	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--	--
APR 22...	11	2.0	134	170	13	0.70	21	416	3900	--
MAY 18...	--	--	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	--	13	--	--	--	--

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

85

DUVAL COUNTY

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 SE¹/₄SW¹/₄NW¹/₄ sec. 7, T.2 S., R.28 E., Hydrologic Unit 03080103, 900 ft east of Millcove Road, 80 ft north of North Plant 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 1,950 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). Records of water levels prior to April 1986 are available in report and files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.39 ft above sea level, Apr. 30, 1986; lowest measured, 21.08 ft above sea level, May 30, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
28...	1140	26.57	25...	1310	28.32
NOV			MAY		
23...	1100	28.32	20...	1310	27.78
JAN			JUN		
26...	1350	28.54	28...	1105	27.64
FEB			JUL		
24...	1205	28.19	27...	1200	27.81
MAR			SEP		
29...	1130	28.40	23...	1135	27.97

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	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)
NOV 04...	0945	556	--	22.5	--	--	--	--	--
JAN 24...	0900	560	--	25.0	--	--	--	--	--
APR 20...	0815	561	7.9	26.0	<5	260	65	23	12
JUL 25...	0800	560	--	27.0	--	--	--	--	--

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (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)
NOV 04...	--	--	--	13	--	--	--	--
JAN 24...	--	--	--	13	--	--	--	--
APR 20...	1.7	140	130	14	0.70	23	342	2600
JUL 25...	--	--	--	14	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

87

DUVAL COUNTY

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). Records prior to 1991 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 44.00 ft above sea level, Feb. 27, 1987; lowest measured, 26.60 ft above sea level, May 30, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
26...	0950	41.60	25...	0900	41.00
NOV			MAY		
23...	0930	41.90	16...	1105	40.60
DEC			JUN		
22...	0925	41.90	23...	1030	41.00
JAN			JUL		
25...	1410	42.20	26...	1000	41.80
FEB			AUG		
22...	1100	42.50	29...	1205	42.20
MAR			SEP		
30...	1115	41.80	19...	1045	42.40

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	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 DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
NOV 04...	1000	490	--	26.0	--	--	--	--	--
JAN 24...	1000	495	--	26.0	--	--	--	--	--
APR 21...	0830	490	7.9	26.5	<5	230	55	21	12
JUL 25...	0910	496	--	26.5	--	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
NOV 04...	--	--	--	14	--	--	--	--
JAN 24...	--	--	--	13	--	--	--	--
APR 21...	1.5	147	82	14	0.60	24	309	1500
JUL 25...	--	--	--	14	--	--	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

89

DUVAL COUNTY

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 528 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, 32.10 ft above land-surface datum, Mar. 29, 1993; lowest measured, 24.70 ft above land-surface datum, Sept. 26, 1990.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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)	
OCT 29...	0815	-27.70	615	--	24.0	--	--	--	--	
NOV 23...	1320	-28.30	--	--	--	--	--	--	--	
JAN 25...	0830	-27.90	612	--	24.0	--	--	--	--	
FEB 24...	0900	-29.70	--	--	--	--	--	--	--	
MAR 28...	0950	-30.30	--	--	--	--	--	--	--	
APR 21...	0800	-29.50	615	7.9	24.5	<5	290	73	26	
MAY 17...	1230	-29.10	--	--	--	--	--	--	--	
JUN 27...	1045	-28.50	--	--	--	--	--	--	--	
JUL 26...	0815	-28.50	610	--	25.0	--	--	--	--	
AUG 30...	0845	-28.90	--	--	--	--	--	--	--	
SEP 19...	1045	-28.70	--	--	--	--	--	--	--	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
OCT 29...	--	--	--	--	--	11	--	--	--	--
NOV 23...	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	11	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--	--	--	--
APR 21...	10	1.7	132	170	12	0.60	21	412	2800	

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302243081300401. Local Number D-360. Hidden Hills Country Club Well at Jacksonville, FL.

LOCATION.--Lat 30°22'43", long 81°30'04", in land grant 33, T.1 S., R.28 E., Hydrologic Unit 03080103, near fourth hole of Hidden Hills Golf Course, 0.25 mi east of intersection of Monument and Fort Caroline Roads. Owner: Hidden Hills Country Club.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 5 in., depth 665 ft, cased to 462 ft.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-79, 1984 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV 09...	1030	1410	--	25.0	--	--	--	--	--
JAN 26...	1330	1420	--	26.0	--	--	--	--	--
APR 21...	1130	1410	7.8	26.5	<5	420	98	42	100

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
NOV 09...	--	--	--	270	--	--	--	--
JAN 26...	--	--	--	270	--	--	--	--
APR 21...	2.5	145	140	270	0.60	27	829	2700

WELL NUMBER.--302301081295001. Local Number DS-522. Fort Caroline National Memorial Park Well at Jacksonville, FL.

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.

[illegible]

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 10.21 ft above sea level, Aug. 1, 1991; lowest, 5.89 ft above sea level, June 29, 1989.

[illegible]

DUVAL COUNTY

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, well 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 14.87 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). Records prior to 1936 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.87 ft above sea level, Aug. 21, 1930; lowest measured, 31.07 ft above sea level, Apr. 24, 1975.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1015	36.27	APR 21...	1100	37.67
NOV 23...	1400	37.07	MAY 18...	1000	36.07
DEC 29...	1020	37.87	JUN 27...	1330	36.87
JAN 27...	1120	38.27	JUL 26...	1310	37.07
FEB 24...	1130	38.67	AUG 30...	1110	37.07
MAR 28...	0900	38.87	SEP 23...	1100	37.87

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 NW¹/₄SE¹/₄SE¹/₄ 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 15 ft above sea level, from topographic map. 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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.30 ft above land-surface datum, Dec. 19, 1966; lowest measured, 14.80 ft above land-surface datum, Sept. 11, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 26...	1025	-17.00	MAY 19...	0930	-17.20
DEC 15...	1330	-19.00	JUN 08...	0910	-18.40
FEB 16...	1530	-21.80	AUG 08...	1415	-19.80
APR 14...	1500	-20.40	SEP 20...	0940	-21.80

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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, well in Julia Street pumping station, 1 block east of Ocean Street (State Highway A1A), 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 7 ft above sea level, from topographic map. Measuring Point: Top of 15 in. flange 3.9 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to current year (semiannually). Records prior to 1984 are unpublished and available in the files of Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.30 ft above land-surface datum, Sept. 15, 1982; lowest measured, 17.50 ft above land-surface datum, May 19, 1989.

WATER-QUALITY RECORDS

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

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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 CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 04...	1200	--	575	--	25.0	--	--	--	--
JAN 27...	0945	--	572	--	24.0	--	--	--	--
APR 18...	0900	--	568	7.5	23.0	<5	270	61	28
MAY 16...	1130	-27.40	566	--	26.5	--	--	--	--
JUL 27...	1100	--	555	--	26.0	--	--	--	--
SEP 19...	1115	-29.60	578	--	24.5	--	--	--	--

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CA CO3)	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)
NOV 04...	--	--	--	--	15	--	--	--	--
JAN 27...	--	--	--	--	15	--	--	--	--
APR 18...	11	1.7	134	140	15	0.70	24	380	1600
MAY 16...	--	--	--	140	15	--	--	--	--
JUL 27...	--	--	--	--	17	--	--	--	--
SEP 19...	--	--	--	--	--	--	--	--	--

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302416081522601. Local Number D-348. Monticello Drug Company Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW¹/₄NW¹/₄NE¹/₄ 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. Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 45.84 ft above sea level, Apr. 23, 24, 1984; lowest, 35.55 ft above sea level, Sept. 28, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.44	39.71	40.51	40.46	41.15	42.15	41.75	40.72	39.56	39.99	40.20	40.16
10	38.80	39.65	40.52	40.28	41.32	42.17	41.35	40.53	39.73	40.08	40.26	40.18
15	38.79	39.77	40.72	40.58	41.32	42.26	41.27	40.25	39.72	39.99	40.41	40.36
20	38.93	39.95	40.67	40.39	41.61	42.11	41.17	40.04	40.00	39.92	40.43	40.61
25	39.24	40.13	40.50	40.68	41.82	41.94	41.13	39.85	40.01	40.07	40.28	40.83
EOM	39.55	40.07	40.13	40.99	41.78	41.77	40.73	39.53	39.98	40.20	40.27	40.81
MAX	39.60	40.32	40.79	41.01	41.92	42.33	41.78	40.83	40.04	40.20	40.46	40.90

WELL NUMBER.--302416081522602. Local Number D-349. Monticello Drug Co. Well at Jacksonville, FL.

LOCATION.--Lat 30°24'16", long 81°52'26", in NW¹/₄NW¹/₄NE¹/₄ 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 2,230 ft, cased to 444 ft.

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

DATUM.--Land-surface datum is 85.68 ft above sea level. Measuring point: Top of 10 in. casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--March 1971 to current year. Records prior to 1976 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 56.30 ft above sea level, Mar. 10, 1971; lowest, 38.60 ft above sea level, Sept. 28, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.35	42.79	43.54	43.45	44.21	45.01	44.45	43.49	---	42.88	43.19	43.14
10	41.72	42.82	43.51	43.30	44.32	45.00	44.08	43.30	---	43.00	43.30	---
15	41.69	42.93	43.66	43.59	44.29	45.04	43.99	43.03	---	42.94	43.45	---
20	41.87	43.07	43.60	43.45	44.54	44.85	43.89	---	---	42.86	43.44	---
25	42.15	43.19	43.50	43.70	44.70	44.68	43.83	---	---	42.94	43.28	---
EOM	42.49	43.14	43.14	44.03	44.65	44.51	43.44	---	---	43.12	43.24	---
MAX	42.49	43.38	43.75	44.05	44.80	45.17	44.50	---	---	43.12	43.47	---

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

WELL NUMBER.--302502081330701. Local Number D-228. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'02", long 81°33'30", in NW¹/₄NW¹/₄SE¹/₄, sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well 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 in use.

PERIOD OF RECORD.--October 1979 to current year (quarterly). Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.40 ft above land-surface datum, Mar. 9, 1983; lowest measured, 19.20 ft above land-surface datum, July 19, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1976, 1979 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 10...	1120	-24.00	500	20.0	27
JAN 26...	1115	-24.40	530	21.0	26
APR 20...	1020	-24.60	488	24.0	27
JUL 26...	1050	-23.40	434	28.0	27

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302503081332001. Local Number D-1149. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'03", long 81°33'20", in NE¹/₄NE¹/₄SW¹/₄ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well 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 in use.

PERIOD OF RECORD.--January 1980 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.00 ft above land-surface datum, Feb. 3, 1983; 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 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 10...	1105	-20.35	522	20.0	20
JAN 26...	1100	-23.55	516	22.5	20
APR 20...	0945	-22.15	274	23.5	18
JUL 26...	1045	-21.95	232	29.0	24

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

97

DUVAL COUNTY

WELL NUMBER.--302511081331201. Local Number D-1151. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'11", long 81°33'12", in SW¹/₄SW¹/₄NE¹/₄ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well 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 in use.

PERIOD OF RECORD.--September 1976, July 1979, October 1980 to current year (quarterly) incomplete. Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.70 ft above land-surface datum, Jan. 31, 1986; 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 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 10...	1100	-21.40	518	19.0	20
JAN 26...	1050	--	523	23.5	20
APR 20...	1010	-22.00	525	25.5	20
JUL 26...	1030	--	525	27.5	21

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

WELL NUMBER.--302519081331501. Local Number D-1152. Jacksonville Electric Authority Well at Jacksonville, FL.

LOCATION.--Lat 30°25'19", long 81°33'15", in NE¹/₄SE¹/₄NW¹/₄ sec. 13, T.1 S., R.27 E., Hydrologic Unit 03080103, well 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 spigot handle, at land-surface datum.

PERIOD OF RECORD.--October 1980 to current year (quarterly). Records prior to 1984 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.50 ft above land-surface datum, Feb. 3, 1983; 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 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 10...	1045	-21.00	522	21.0	24
JAN 26...	1040	-20.20	548	23.0	26
APR 20...	1000	-20.80	534	25.5	23
JUL 26...	1020	--	533	26.5	24

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

99

DUVAL COUNTY

WELL NUMBER.--302538081253101. Local Number D-164. Golf Course Well at Fort George Island, FL.

LOCATION.--Lat 30°25'38", long 81°25'31", in land grant 37, T.1 S., R.29 E., Hydrologic Unit 03080103, 75 ft south of clubhouse, 500 ft east of Fort George Road, 2.3 mi north of State Highway 105 in Jacksonville. Owner: Fairfield Industries.

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

WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, diameter 8 in., depth 840 ft, cased to 450 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land-surface datum is 15.71 ft above sea level. Measuring point: Top of faucet, 1.30 ft above land-surface datum.

PERIOD OF RECORD.--October 1930, May 1931, September 1940 to September 1941 (semiannually); January 1944, August 1944, August 1945, June 1946 to December 1962 (monthly) incomplete, February 1963 to July 1964 (bimonthly); January 1965 to September 1978 (semiannually); February 1979 to November 1981 (monthly); May 1982 to September 1983 (semiannually); January 1984 to current year (bimonthly), incomplete. Records prior to May 1978 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.01 ft above sea level, Oct. 9, 1930; lowest measured, 34.51 ft above sea level, July 24, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 10...	1230	37.21	MAY 16...	1305	36.81
JAN 26...	1215	38.41	JUL 26...	1140	38.01
FEB 28...	1030	40.81	SEP 19...	1225	38.61
APR 20...	1115	37.61			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well 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 1993 TO SEPTEMBER 1994

DATE	TIME	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 DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
NOV 04...	1015	525	--	24.0	--	--	--	--	--
JAN 24...	0945	526	--	25.0	--	--	--	--	--
APR 20...	0900	526	7.9	25.0	<5	230	54	23	15
JUL 25...	0850	530	--	25.0	--	--	--	--	--

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
NOV 04...	--	--	--	20	--	--	--	--
JAN 24...	--	--	--	20	--	--	--	--
APR 20...	1.6	162	78	20	0.60	29	294	610
JUL 25...	--	--	--	21	--	--	--	--

101

WELL NUMBER.--302550081331501. Local Number D-3840. St. Johns River Power Park replacement Well at Jacksonville, FL.

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 35.39 ft above sea level, Apr. 4, 5, 1992; lowest, 22.39 ft above sea level, July 15, 1990.

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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, well located at former site of Betz home 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.

WATER LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 4 in., depth and casing length unknown.

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, 20.60 ft above land-surface datum, Jan. 28, 1993; lowest measured, 15.80 ft above land-surface datum, Oct. 31, 1990.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1987, 1990 to current year.

WATER LEVEL AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (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)
NOV 10...	1215	-17.60	1720	--	22.0	--	--	--	--
JAN 26...	1200	-18.80	1750	--	20.0	--	--	--	--
APR 20...	1130	-17.40	1760	7.9	21.0	5	510	110	56
JUL 26...	1200	-18.40	1760	--	24.0	--	--	--	--
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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)
NOV 10...	--	--	--	--	350	--	--	--	--
JAN 26...	--	--	--	--	360	--	--	--	--
APR 20...	150	3.9	144	180	370	0.50	29	1060	1800
JUL 26...	--	--	--	--	360	--	--	--	--

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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: Kraft Paper Company.

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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.32 ft above sea level, June 12, 1951; lowest measured, 31.12 ft above sea level, Sept. 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
28...	1050	34.92	22...	1025	36.12
NOV			MAY		
24...	1000	35.32	18...	1050	34.72
DEC			JUN		
29...	1140	36.12	27...	1210	35.52
JAN			JUL		
27...	1050	36.52	26...	1240	35.32
FEB			AUG		
24...	1110	36.92	30...	1040	35.32
MAR			SEP		
28...	1250	36.92	19...	0930	36.12

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

DUVAL COUNTY

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: Kraft Paper Company.

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 tee flange, 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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.16 ft above sea level, Feb. 4, 1954; lowest measured, 32.56 ft above sea level, June 29, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
28...	1045	36.16	18...	1115	35.56
NOV			JUN		
24...	1005	37.16	27...	1205	36.16
DEC			JUL		
29...	1145	37.76	26...	1245	36.16
JAN			AUG		
27...	1045	37.76	30...	1045	36.56
FEB			SEP		
24...	1105	38.56	19...	0920	37.36
MAR					
28...	1245	38.36			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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: Kraft Paper Company.

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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.87 ft above sea level, Jan. 9, 1952; lowest measured, 31.07 ft above sea level, Sept. . 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1040	34.47	APR 22...	1015	35.87
NOV 24...	1010	35.07	MAY 18...	1045	34.07
DEC 29...	1155	35.97	JUN 27...	1200	34.87
JAN 27...	1040	36.07	JUL 26...	1250	34.87
FEB 24...	1100	36.87	AUG 30...	1050	35.07
MAR 28...	1240	37.07	SEP 19...	0925	35.87

WELL NUMBER.--302724081244801. Local Number D-395. Florida Park Service Well at Jacksonville, FL.

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.

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, 40.57 ft above sea level, May 10, 1966; lowest measured, 30.60 ft above sea level, May 19, 1983.

PERIOD OF RECORD.—Water years 1974-79, 1985 to current year (quarterly).

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)
NOV 10...	1200	31.87	505	--	19.5	--	--	--	--
JAN 26...	1145	34.27	495	--	21.0	--	--	--	--
APR 20...	1045	33.67	498	7.9	23.0	<5	220	48	23
MAY 16...	1330	33.27	477	--	26.5	--	--	--	--
JUL 26...	1115	34.27	500	--	26.0	--	--	--	--
SEP 19...	1245	34.47	466	--	23.0	--	--	--	--

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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DUVAL COUNTY

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 and casing length unknown.

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, 1.70 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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.99 ft above sea level, June 3, 1947; lowest measured, 31.89 ft above sea level, Sept. 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
28...	1030	35.59	22...	1045	37.69
NOV			MAY		
24...	0945	36.73	18...	1030	35.00
DEC			JUN		
29...	1050	37.01	27...	1130	35.83
JAN			JUL		
27...	1105	37.09	26...	0930	35.71
FEB			AUG		
24...	1045	37.79	30...	0945	35.95
MAR			SEP		
28...	1230	38.29	19...	1000	36.91

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

DUVAL COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
300824081305401	05-17-94 09-22-94	1200 0840	D-0169 POWEL AT BAYARD	36.17 39.17
301032081380401	05-19-94 09-23-94	1125 1045	D-2846 CLARE RD AT MANDARIN RD	23.11 29.81
301144081413801	05-18-94 09-21-94	1400 1140	D-0126 J-0190	24.30 29.60
301216081451201	05-17-94 09-21-94	1245 1215	D-0321 J-0386	27.86 33.18
301255081371001	05-20-94 09-23-94	1300 1455	D-0282 J-0347 3715 RUBINS RD	20.32 29.42
301333081324101	05-19-94 09-22-94	1310 1215	D-2847 GOLF COURSE AT DEERWOOD	30.70 35.42
301335081355001	05-20-94 09-22-94	0830 1315	D-0536 J-0603	32.90 35.80
301339081433401	05-17-94 09-21-94	1315 1235	D-1055 J-1109 VISTA VERDE AVE, ORANGE PARK	28.39 31.99
301339081531203	05-20-94 09-22-94	1015 0915	D-0326 J-0391	46.77 47.84
301415081284801	05-20-94 09-22-94	1150 0820	D-0658 J-0721 BEACH BLVD AND ST. JOHNS,	27.50 33.66
301434082021401	05-20-94 09-20-94	1120 0950	D-0085 J-0149 OIL TEST SITE, E. FIVETONE RD, JAX	51.85 52.15
301607081301001	05-18-94 09-22-94	1400 0800	D-0991 J-1001	26.15 30.60
301617081421601	05-17-94 09-21-94	1410 1335	D-0115 J-0179	25.25 29.65
301714081233301	05-16-94 09-19-94	0830 0845	D-0072 J-0136 JAX BCH WATER WORKS AT JAX BEACH	27.32 27.32
301715081300001	05-18-94 09-20-94	1330 1300	D-0298 J-0363 BEACH BLVD AND MEADOWBROOK, JAX	24.40 30.22
301725081392101	09-19-94	1330	D-0048 J-0112 3450 SUNNYSIDE, JAX	22.91
301902081394601	05-18-94 09-22-94	1440 1345	D-0297 J-0362	24.83 29.03
301919081375401	05-18-94 09-19-94	1230 1300	D-0376 J-0442 BRYANT AND ADAMS ST, JAX	29.36 32.16
301925081262501	05-16-94 09-19-94	1130 1025	D-0934 J-1032 ATLANTIC BLVD, JAX BEACH	21.60 28.80
302112081384701	05-18-94 09-20-94	1210 1000	D-0210 J-0276 16TH ST. EAST OF MAIN ST, JAX	33.80 0.0
302122081274001	05-19-94 09-20-94	1030 1000	D-0400 J-0467 1669 GIRVIN RD, JAX	25.60 29.40
302137081240001	05-16-94 09-19-94	0940 0950	D-0084 J-0148 SEMINOLE DR ATLANTIC BEACH	25.85 30.35
302142081330701	05-19-94 09-20-94	1045 1030	D-0277 J-0342 9005 FORT CAROLINE RD, JAX	27.70 30.50
302145081394201	05-18-94 09-19-94	1140 1115	D-0043 J-0107 3926 LAURIE ST, JAX	33.44 35.24
302300081295101	05-19-94 09-20-94	1000 0920	D-0396 J-0463 AT FORT CAROLINE PARK, JAX	31.40 36.20
302317081330401	05-19-94 09-20-94	0830 0830	D-0488 J-0555 JPA AT BLOUNT ISLAND	33.20 37.60
302330081463001	05-19-94 09-22-94	0920 1005	D-0420 J-0487 WING-LEE FARM, JAX	37.60 38.10
302345081261301	05-16-94 09-19-94	1245 1200	D-0470 J-0537 MAYPORT FERRY N., MAYPORT	32.40 33.20
302351081390201	05-18-94 05-18-94	1010 1010	D-0151 J-0215 OLD BROWARD RD NEAR TROUT RI, JAX	33.24 35.04

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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DUVAL COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
302502081321001	05-19-94 09-20-94	0900 0900	D-0270 J-0335 5186 HECKSHER DR, JAX	32.50 33.90
302514081393701	05-17-94 09-19-94	1400 0900	D-0227 J-0294 10402 MONACO DR NORTH, JAX	35.40 35.60
302616081413901	05-19-94 09-22-94	0745 1055	D-0305 J-0370 DUNNS RD NEAR LEM TURNER, JAX	38.40 45.30
302647081460201	05-19-94 09-22-94	0900 1030	D-1068 J-1127	44.60 43.20
302738081290001	05-17-94 09-20-94	0820 0920	D-1078 J-1106 7124 CEDAR POINT RD, JAX	29.20 30.80
303015081343301	05-17-94 09-20-94	0910 1020	D-0077 J-0141 CAPE DR E OFF STARRETT HEDGES	32.40 34.20
303216081433301	05-17-94 09-20-94	0730 0820	D-0401 J-0468 DUVAL COUNTY PRISON FARM, JAX	35.80 36.30
303458081364001	09-21-94	1245	D-0411 J-0478	31.10

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 23
FLAGLER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	292750081152001	112

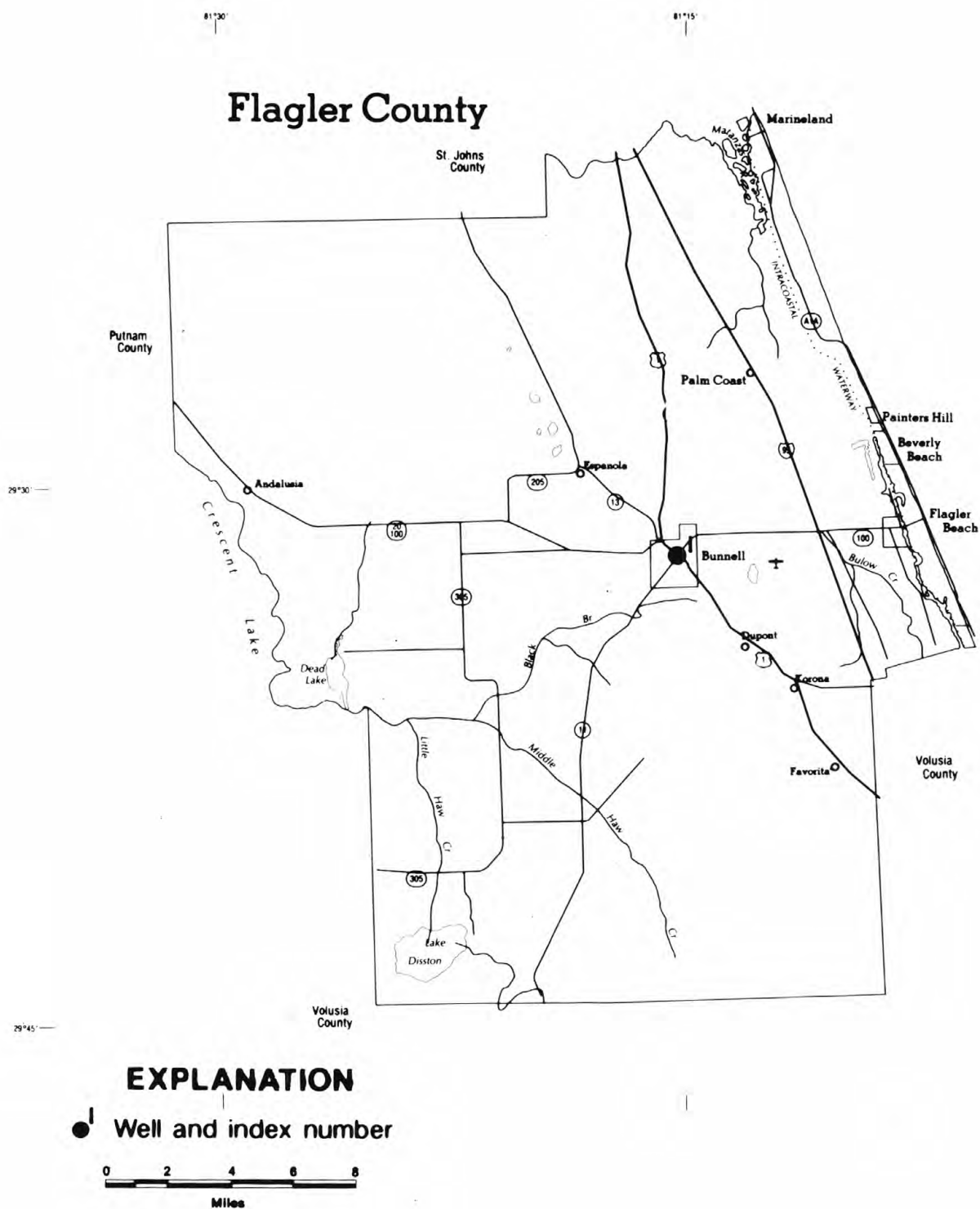


Figure 23.--Location of wells in Flagler County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

FLAGLER COUNTY

WELL NUMBER.--292750081152001. USGS Well Flagler 14 at Bunnell, FL.

LOCATION.--Lat 29°27'50", long 81°15'20", in NE¹/₄ 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 by St. Johns River Water Management District personnel.

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).
Records of water levels prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office..

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.30 ft above sea level, Sept. 9, 1947; lowest measured, 10.46 ft above sea level, July 10, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
26...	0847	14.02	09...	1027	12.70
NOV			23...	0932	12.70
22...	0957	13.88	JUN		
DEC			27...	0821	13.32
27...	0955	13.57	JUL		
JAN			25...	0924	13.54
26...	0907	14.33	AUG		
FEB			22...	0840	14.55
21...	1051	14.74	SEP		
MAR			12...	0936	14.68
29...	0952	13.60	22...	0913	15.34
APR					
25...	1150	12.72			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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FLAGLER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
291818081190401	05-09-94 09-12-94	0936 0833	RELAY TOWER DEEP WELL (F0251)	16.12 18.20
291913081224201	05-09-94 09-12-94	0845 0805	13S29E33	15.28 17.41
291955081200901	05-09-94 09-12-94	0930 0818	91912003 13S29E36	10.82 12.93
292156081215001	05-09-94 09-12-94	0830 0748	92112103 13S29E37	9.39 11.51
292302081155901	05-09-94 09-12-94	0956 0858	SR 304 WELL AT SWEETWATER BRANCH	12.75 15.53
292448081121301	05-10-94 09-14-94	1000 0920	ITT-PALM COAST WELL LW-15	13.40 23.07
292603081082502	05-10-94 09-12-94	1125 0912	F-176 BULLOW RUINS	7.44 9.41
292604081062401	05-11-94 09-13-94	0932 0840	SJRWMD SHALLOW WELL F-174	4.70 5.45
292645081110301	05-10-94 09-14-94	0930 1200	ITT PALM COAST WELL SW-82	17.40 15.08
292647081182001	05-09-94 09-12-94	1041 0948	92611803 12S30E19	7.99 10.22
292728081125601	05-11-94 09-13-94	0634 0643	BUNNELL AIRPORT WELL AT GORE LK	13.27 15.30
292947081164401	05-11-94 09-14-94	1030 1330	ITT PALM COAST WELL LW-6	13.88 16.28
293034081293001	05-09-94 09-12-94	0720 0635	93012901 11S28E32	12.67 15.53
293128081090501	05-11-94 09-13-94	0958 0815	LENSSEN WELL AT BEVERLY BCH	5.99 7.41
293257081171601	05-10-94 09-12-94	0936 1250	93211702 11S30E16	14.15 16.54
293337081230301	05-10-94	0745	CONTAINER CORP WELL AT DINNER ISLAND	13.92
293337081230302	05-10-94	0749	CONTAINER CORP SHALLOW WELL AT DINNER ISLAND	19.70
293529081191701	05-10-94 09-12-94	0838 1120	*SJ* F165 10S30E31 PALMCOASTITT-LW-20 WESTBOUND	13.73 16.09
293724081160101	05-11-94 09-14-94	1100 1010	ITT PALM COAST WELL LW-53	13.72 15.97
293754081121901	05-11-94 09-13-94	0910 0735	*SJ* F200 10S31E WASHINGTON OAKS PARK WEATHER STN	13.48 15.32
293754081121902	05-11-94 09-13-94	0905 0730	F-191 WASH OAKS STATE PK	1.50 2.61
293905081142701	05-10-94 09-12-94	0910 1225	939114 10S30E39 WADSWORTH WELL AT STYLES CK	12.67 13.91
293943081124301	05-11-94 09-13-94	0710 0717	93911201	13.71 14.47

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 24
GLADES COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	265529081185201	116
2	271150081054401	116

Glades County

EXPLANATION

●² Well and index number

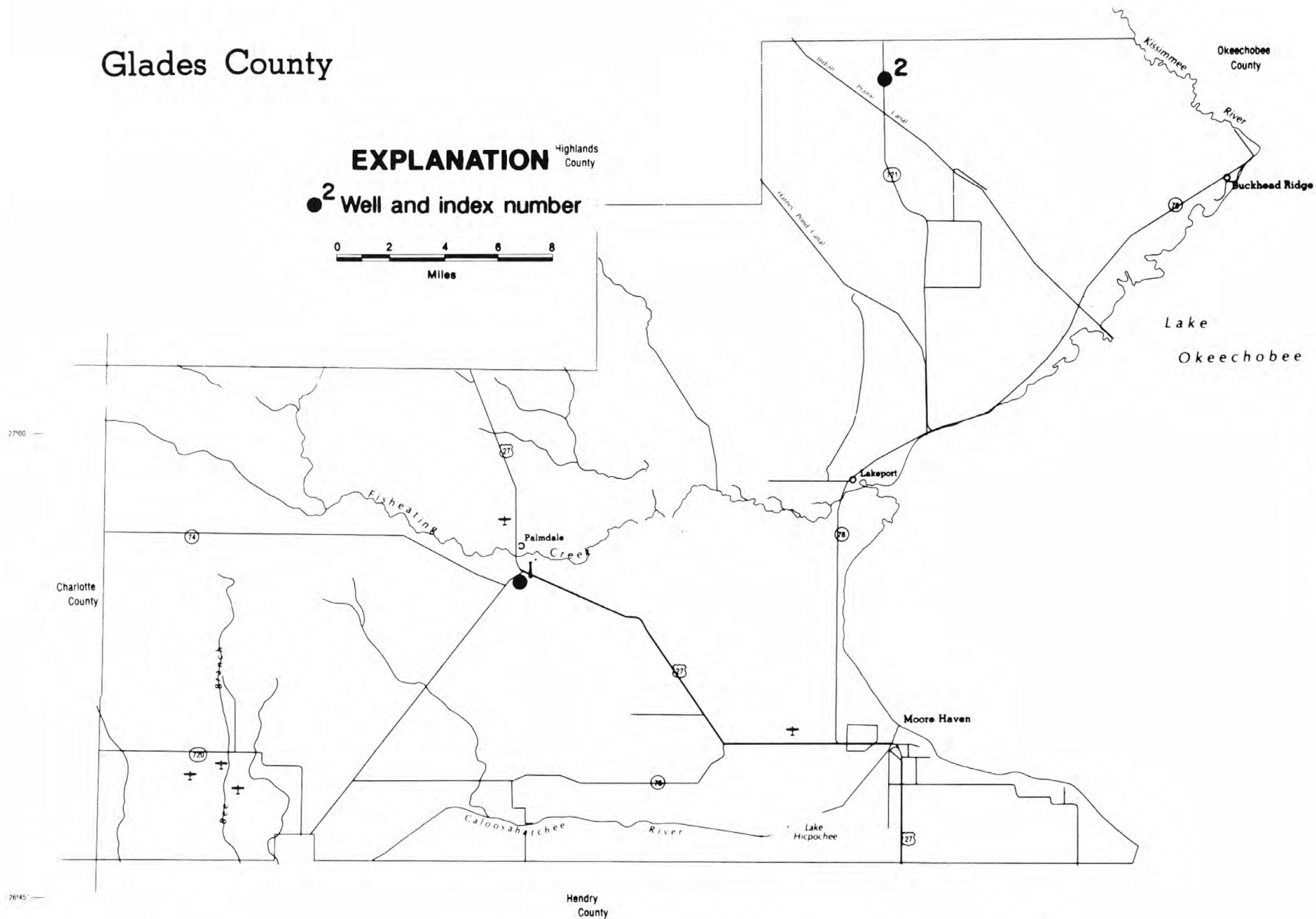


Figure 24.--Location of wells in Glades County.

GLADES COUNTY

WELL NUMBER.--265529081185201. GL-267 Well near Palmdale, FL.

LOCATION.--Lat 26°55'29", long 81°18'52", in NE¹/₄SW¹/₄NW¹/₄ 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 or chalked 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). Records prior to January 1974 are unpublished and are available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.25 ft above sea level, Sept. 7, 1976; lowest measured, 40.62 ft above sea level, June 22, 1989.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
DEC 01...	1205	43.84	JUN 22...	1517	44.04
JAN 12...	1351	43.64	AUG 18...	1140	44.24
MAR 09...	1305	44.44	SEP 20...	1229	44.64
MAY 02...	1435	41.77			
17...	1207	42.47			

WELL NUMBER.--271150081054401. GL-155 Well near Brighton, FL.

LOCATION.--Lat 27°11'50", long 81°05'44", in NE¹/₄SE¹/₄SW¹/₄ 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 22...	1211	46.75	JUN 30...	1120	48.75
JAN 27...	1147	48.55	AUG 25...	1150	49.75
MAR 28...	1238	46.95	SEP 20...	1407	49.75
MAY 17...	1438	46.35			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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GLADES COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
265452081165401	05-17-94	1237	65411601 41S30E12 CLEMONS	49.00
	09-20-94	1305	PALMDALE	50.60

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 25
HERNANDO COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	283537082151501	120
2	283840082154801	120

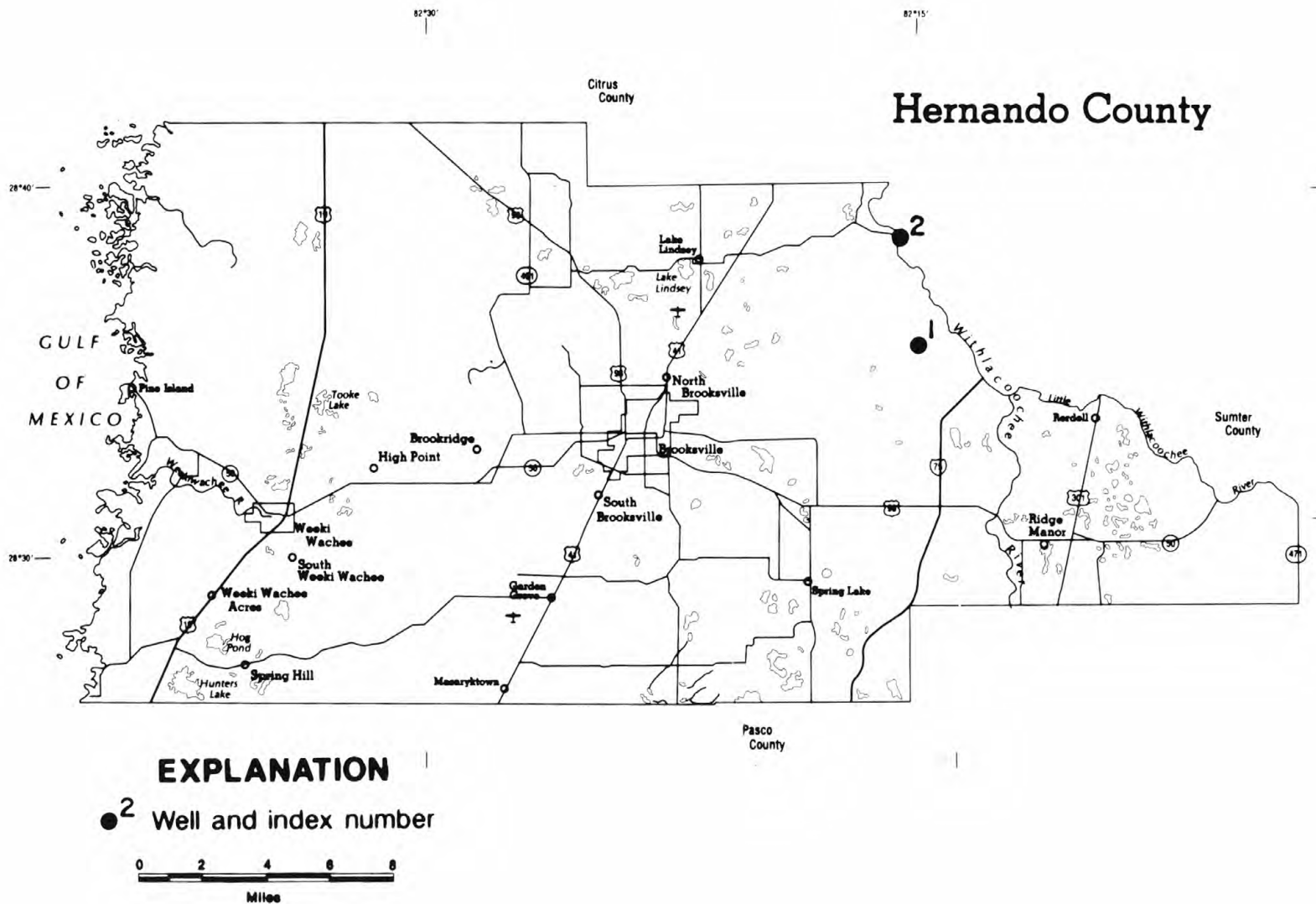


Figure 25.--Location of wells in Hernando County.

HERNANDO COUNTY

WELL NUMBER.--283537082151501. ROMP 103 Well near Brooksville, FL.

LOCATION.--Lat 28°35'37", long 82°15'15", in NE¹/₄NE¹/₄NE¹/₄ 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 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 September 1993 (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 48.95 ft above sea level, Oct. 14, 1982; lowest, 35.38 ft above sea level, Aug. 17, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1210	39.19	MAY 18...	1540	36.93
NOV 23...	0950	38.70	24...	0928	36.78
DEC 28...	1008	37.95	JUN 28...	0820	36.31
JAN 26...	1010	37.63	JUL 26...	0828	36.32
FEB 24...	1008	37.83	AUG 26...	1045	39.23
MAR 29...	1032	37.74	SEP 22...	1230	40.61
APR 26...	1002	37.31	27...	1040	40.91

WELL NUMBER.--283840082154801. Barnhart Well (CE-25) at Nobleton, FL.

LOCATION.--Lat 28°38'40", long 82°15'48", in NW¹/₄NW¹/₄SW¹/₄ 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 tape.

DATUM.--Elevation of land-surface datum is 59.37 ft above sea level. Measuring point: Hole in sanitary seal, 0.26 ft above land-surface datum.

PERIOD OF RECORD.--March 1961 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 05...	0909	38.89	JUN 03...	1515	36.68
DEC 28...	1750	37.71	AUG 09...	1404	38.45
FEB 22...	1816	38.73	SEP 22...	1050	41.08
APR 08...	1800	37.50	27...	1339	41.62
MAY 18...	1517	36.63			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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HERNANDO COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
282620082193801	05-18-94 09-22-94	1726 1459	82621901	69.96 71.37
282839082190801	05-18-94 09-22-94	1633 1414	82821901 RUSSELL BLACKETT LAKE NEFF	68.69 63.28
282851082035301	05-19-94 09-22-94	1128 1707	82820301 23S22E13 E H BOYETTE	80.35 84.91
283001082064702	05-19-94 09-22-94	1055 1639	83020602 23S22E09 WSF-RICHLOAM FIRE TOWER	70.17 74.91
283036082105502	05-19-94 09-22-94	0922 1609	83021002 23S21E02 RIDGE MANOR NO 2	48.57 53.43
283108082123401	05-19-94 09-22-94	0858 1540	83121201 22S21E04 LE:COMPTE WELL	44.29 49.17
283508082215101	05-18-94 09-22-94	1555 1330	83522101 22S19E12 CLARENCE SMITH	33.09 34.59
283510082133701	05-18-94 09-22-94	1833 1200	CROOM RR SIDING WELL NEAR CROOM	38.48 43.06
283613082184301	05-18-94 09-22-94	1452 0933	83621801 22S20E04 DELMAS C NIX	32.50 35.41
283806082214801	05-18-94 09-22-94	1314 0800	83822101 21S19E25 EDEN CHRISTIAN SCHOOL	28.94 30.60
283957082181001	05-18-94 09-22-94	1405 1110	83921801 21S20E16 W A BLIZZARD	30.72 33.33

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KEY TO SITE LOCATIONS ON FIGURE 26
HIGHLANDS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	270157081203101	124
2	272504081120101	124

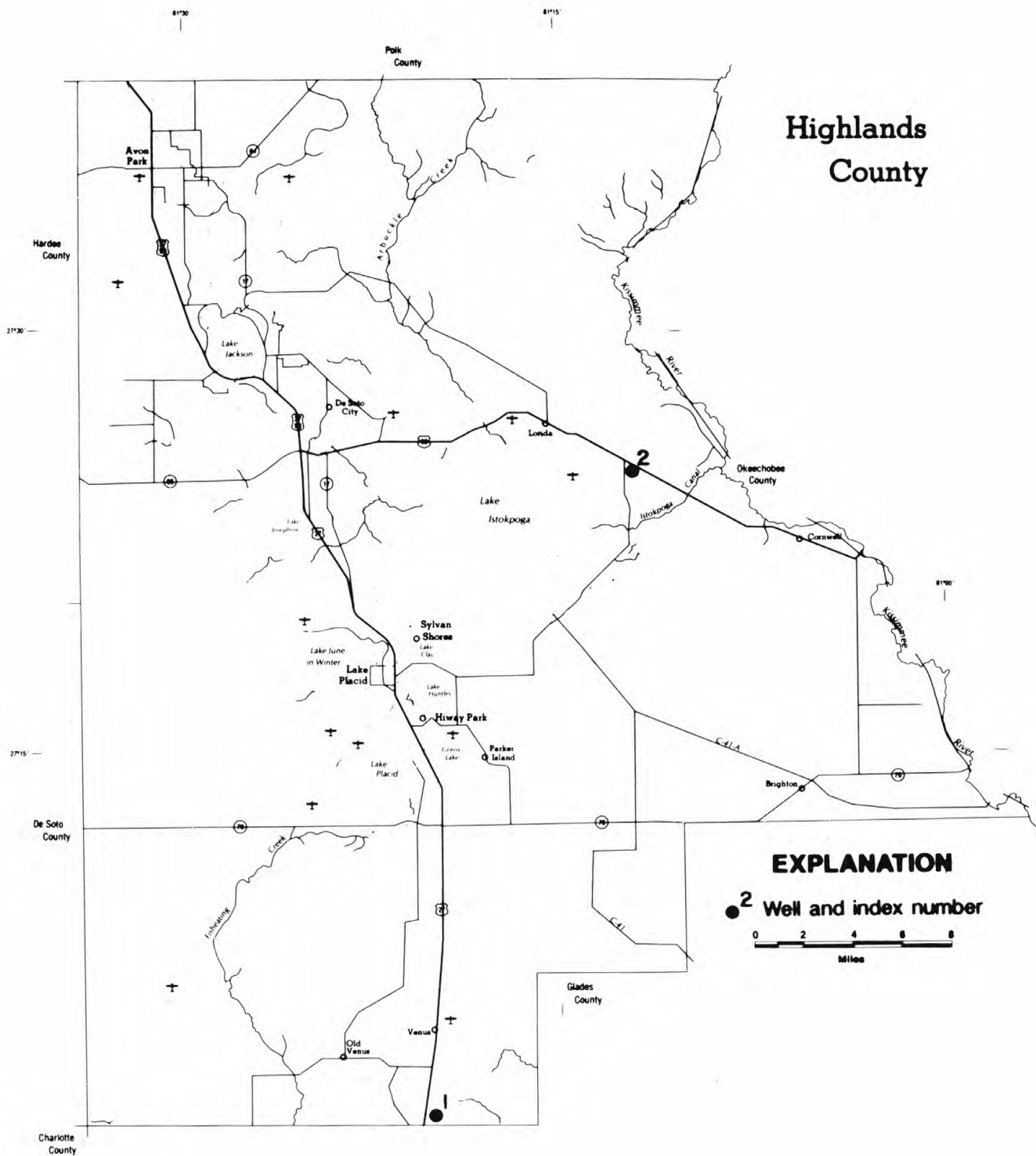


Figure 26.--Location of wells in Highlands County.

WELL NUMBER.--270157081203101. H-15A Well near Palmdale, FL.

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 casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--December 1948 to current year. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.26 ft above sea level, Oct. 1, 1982; lowest, 53.49 ft above sea level, June 27, 1956.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.67	---	57.44	57.41	58.24	58.10	56.97	56.46	58.18	58.09	57.72	58.82
10	---	---	57.33	57.57	57.89	57.76	56.83	56.32	57.90	57.83	58.63	58.14
15	---	---	57.26	57.80	57.68	57.49	56.68	56.28	58.26	57.46	58.17	59.53
20	---	---	57.16	58.03	57.81	57.27	56.84	56.11	58.49	57.41	57.96	59.03
25	---	---	57.77	57.71	57.58	57.47	56.89	55.97	58.10	57.76	58.51	59.50
EOM	---	---	57.51	58.29	57.47	57.14	56.67	58.08	57.72	58.34	58.27	58.90
MAX	---	---	57.77	58.54	58.81	58.57	57.11	58.08	58.81	58.34	58.80	59.54

LOCATION.—Lat 27°25'04", long 81°12'01", in NE¹/₄NE¹/₄SW¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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.

[illegible]

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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HIGHLANDS COUNTY

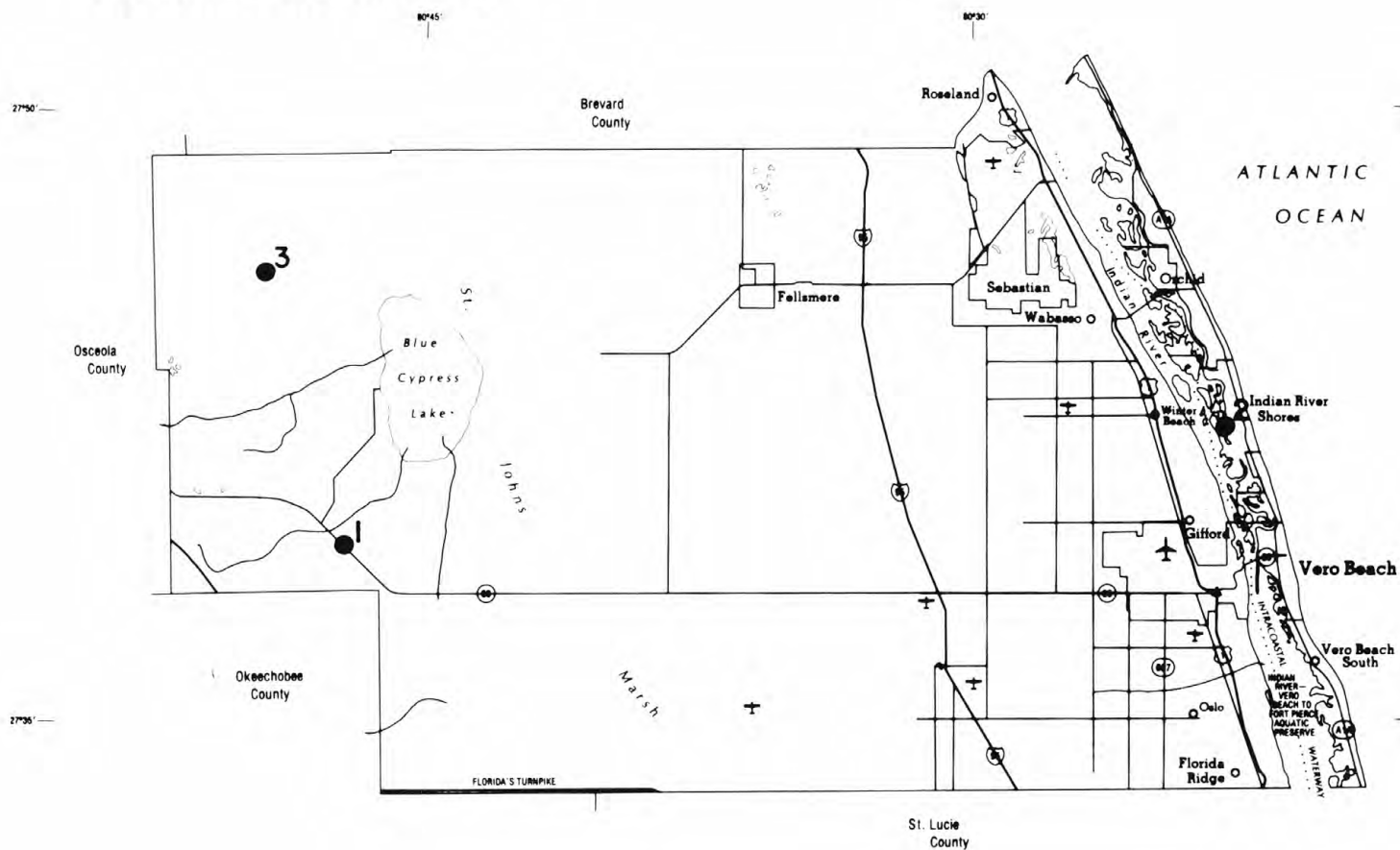
STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
270556081204701	05-10-94	1320	HIF-26 J H HENDRIE DAIRY	47.23
270627081313101	05-10-94	1305	HIF-23 GRAHAM CO DAIRY	46.92
271134081234301	05-10-94	1250	HIF-5 CHARLES STIDHAM	46.53
271306081284801	05-11-94	1055	HIF-8 BOX RANCH	44.40
271456081074701	05-11-94	1000	HIF-6 LYKES BROW 4IN FLOW	47.64
271503081080901	05-17-94 09-21-94	1401 1448	71510801 37S32E20 LYKES BROS	46.20 48.58
271726081163901	05-11-94	1140	HIF-14 P G PHYPPERS	47.48
272048081322101	05-10-94	1235	HIF-16 C M PAYNE	52.33
272512081122901	05-11-94	1205	HIF-13 PHILLIP METZGER	45.83
272906081142001	05-11-94	1222	729114-- 34S31E28 YUCAN RANCH NR LORIDA	45.45
272915081190201	05-11-94	1246	HIF-32 GUILFORD TOMLINSON	50.76
273603081270501	05-17-94 09-20-94	1042 1015	73612701 33S29E19 DRESSLERS DIARY	73.22 83.56

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 27
INDIAN RIVER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	273923080471801	128
2	274206080225501	128
3	274607080493001	129

Indian River County



EXPLANATION

●² Well and index number



Figure 27.--Location of wells in Indian River County

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

INDIAN RIVER COUNTY

WELL NUMBER.--273923080471801. IR-25 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27°39'23", long 80°47'18", in NW¹/₄NE¹/₄NW¹/₄ 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.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 30.01 ft above sea level. Measuring point: Top of casing, 2.20 ft above land-surface datum.

PERIOD OF RECORD.--October 1950 to current year. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.93	28.57	28.06	28.22	28.63	28.19	27.22	27.28	27.82	28.96	28.82	29.52
10	29.70	28.46	27.86	27.99	28.20	28.00	27.12	27.02	28.90	28.69	28.99	29.24
15	30.03	28.26	27.68	28.05	27.94	27.71	26.91	26.73	28.85	28.38	29.42	30.20
20	29.29	28.23	27.54	28.25	28.78	27.52	27.09	27.10	29.83	27.96	29.73	30.34
25	28.93	28.58	27.94	27.97	28.37	27.40	28.03	26.74	29.31	27.96	29.56	30.08
EOM	29.09	28.43	27.73	28.01	28.11	27.52	27.55	26.46	28.89	28.57	29.52	29.57
MAX	30.03	28.97	28.30	28.36	28.78	28.48	28.14	27.47	29.83	29.33	30.02	30.34
CAL YR 1993	MAX 30.26											
WTR YR 1994	MAX 30.34											

WELL NUMBER.--274206080225501. Johns Island Well near Vero Beach, FL.

LOCATION.--Lat 27°42'06", long 80°22'55", in NE¹/₄NE¹/₄NE¹/₄ sec.13, T.32 S., R.39 E., Hydrologic Unit 03080203, in wooded area between fourth and fifth holes of Johns Island Golf Course, 0.5 mi west of State Highway A-1-A, and 1.9 mi north of Vero Beach. Owner: Johns Island Company Inc.

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

WELL CHARACTERISTICS.--Drilled, unused, artesian well, diameter 12 in., depth 2,020 ft, cased to 424 ft.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Elevation of land-surface datum is 2.93 ft above sea level. Measuring point: Mark on casing, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--June 1977 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.83 ft above sea level, Dec. 22, 1982; lowest measured, 27.63 ft above sea level, May 2, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 29...	1728	30.43	APR 25...	1529	29.43
JAN 10...	1703	29.83	JUN 21...	1325	29.83
MAR 07...	1615	31.23	AUG 16...	1525	30.43

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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INDIAN RIVER COUNTY

WELL NUMBER.--274607080493001. IR-189 Well near Yeehaw Junction, FL.

LOCATION.--Lat 27°46'07", long 80°49'30", in SE¹/₄NE¹/₄SW¹/₄ 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	0930	42.29	23...	1320	41.65
NOV			JUN		
22...	1020	41.59	30...	0908	43.39
DEC			JUL		
27...	1030	40.69	25...	0950	42.93
JAN			AUG		
27...	1004	42.89	25...	0910	44.19
FEB			SEP		
23...	1030	42.49	13...	1335	44.70
MAR			27...	1010	43.69
28...	1102	40.79			
APR					
28...	--	40.99			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

INDIAN RIVER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
273357080220201	05-17-94 09-12-94	1248 1000	73302201 MIDWAY MHP S OF OSLO	33.78 35.78
273423080332201	05-18-94 09-14-94	0902 1030	73403301 MORRISON GROVE 1 JIMROD 1, W OF OSLO	34.46 38.21
273435080255101	05-17-94 09-12-94	1400 1115	73402501 USDA SOUTH WELL 43RD AVE, SW OF OSLO	33.04 39.14
273522080235801	05-17-94	1320	73502302 OSLO NURSERY OSLO RD, W OF OSLO	40.21
273536080240201	05-17-94 09-12-94	1337 1030	73502403 REVERSE OSMOSIS MONITOR, W OF OSLO	35.41 37.21
273633080364301	09-13-94	1448	73603601 RIO GROVES MCCLELLAND RD, W OF VERO BCH	45.20
273758080301501	05-18-94 09-12-94	0826 1345	73703001 VILLAGE GREEN SOUTH WEST OF VERO BEACH	34.41 36.21
273814080245201	05-17-94 09-12-94	1424 1100	73802402 IR 24 1ST CHRIST CHURCH SR 60, VERO BCH	35.35 36.31
273821080273901	05-18-94 09-12-94	0814 1145	73802701 CHAUNCEY HATCH JR SR 60, W OF VERO BEACH	34.13 37.13
273822080374402	05-17-94 09-12-94	0934 1530	73803703 CARDINAL GROVES UNUSED, 122ND AVE	41.64 39.44
273827080322001	05-18-94	0758	73803201 SR 60 WEST OF I-95, WEST OF VERO BEACH	39.88
273835080345801	05-18-94 09-12-94	0713 1520	73803401 KROMHOUT GROVE SR 60, WEST OF VERO BEACH	41.96 44.36
274047080513701	05-18-94	1000	74005101 USGS TH SITE OF VILLAGE OF YEEHAW	50.78
274055080281301	05-17-94 09-12-94	1006 1330	74002801 IR-210 WALTER POOL LINDSEY RD, GIFFORD	35.00 36.80
274350080364501	05-17-94 09-13-94	0815 0930	74303601 JACK BERRY GROVE BLK 11, S OF FELLSMERE	35.11 39.71
274452080275501	05-17-94 09-13-94	0940 0830	74402701 IR-147 A S PFARR SR 510, W OF WABASSO	32.66 37.66
274524080240801	05-17-94	1205	74502406 NORTH BEACH WAT CO NO 2, S OF ORCHID	33.04
274534080251101	05-17-94 09-12-94	1155 0850	74502502 MARSH ISLAND SR 510, EAST OF WABASSO	33.54 23.34
274606080335401	05-17-94 09-12-94	0858 0855	74603301 SCHINER MEMORIAL WELL, E OF FELLSMERE	37.91 39.01
274635080363001	05-17-94 09-13-94	0741 1005	74603601 IR-183 JOE SCREWS SR 507, FELLSMERE	34.66 30.41
274705080460301	09-14-94	0740	74704603 ROLLINS RANCH, SILAGE ROAD	42.81
274801080482001	05-18-94	1230	74804801 BLUE CYPRESS RANCH AT OLD SHOP, UNUSED	43.92
274915080362501	05-17-94 09-13-94	0723 1020	74903601 IR-180 A BECKMAN SR 507, N OF FELLSMERE	38.79 44.09
274916080520701	05-13-94 09-13-94	1115 1240	74905201 USGS TH MACE RANCH, FELLSMERE GRADE	48.04 50.36
274921080254201	05-18-94 09-12-94	1445 0735	74902501 IND RIV CO, A1A, NORTH OF WABASSO BEACH	33.45 35.25

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

Index number	Site number	Page number
1	282245081492601	134
1	282245081492602	134
2	282717081553101	135
3	283204081544901	135
3	283204081544902	136
4	283314081455501	136
5	284445081462101	137
6	284725081361901	137
7	284842081533001	138
8	284855081520401	138
9	290950081315501	139

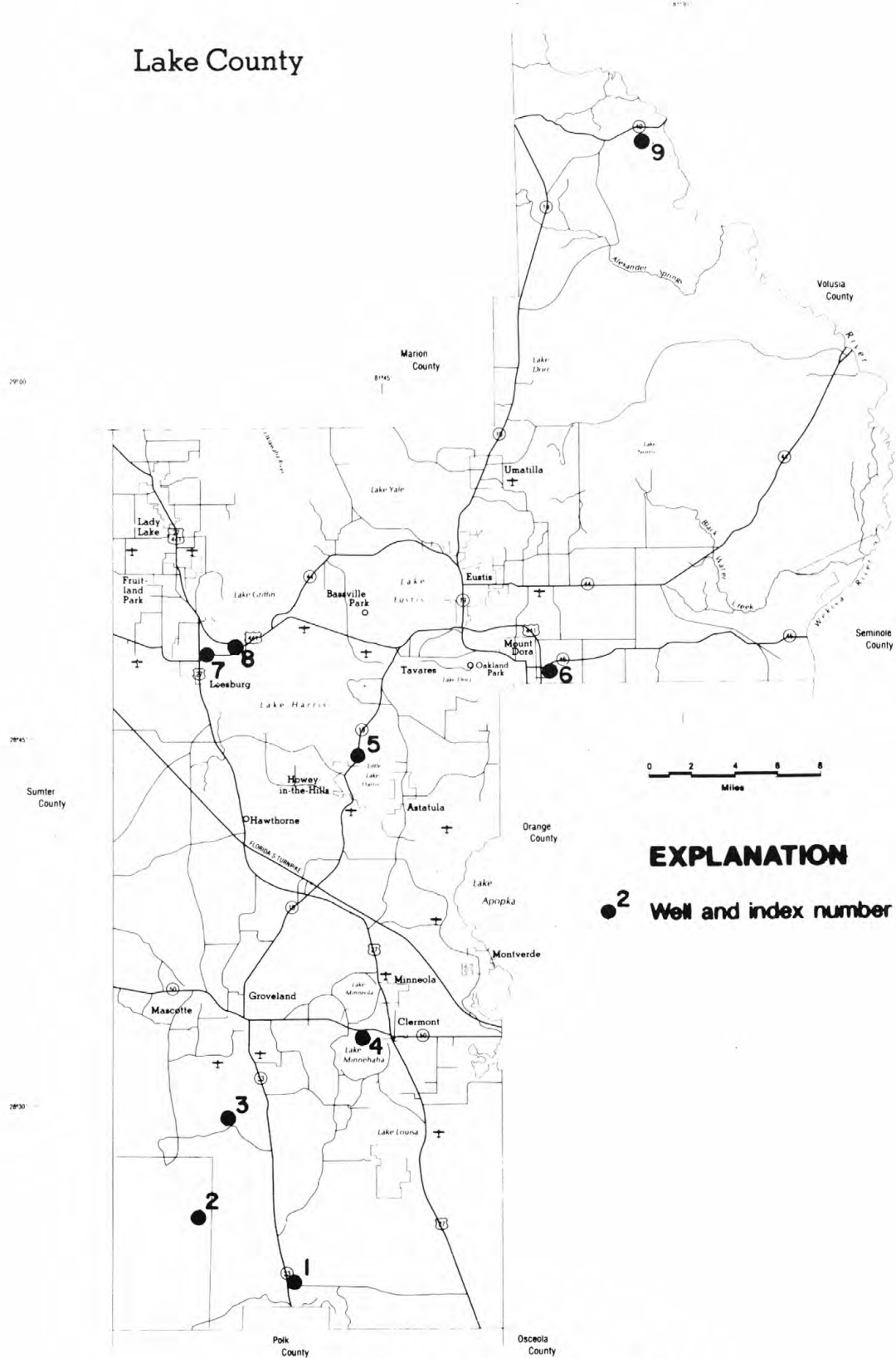


Figure 28.--Location of wells in Lake County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LAKE COUNTY

WELL NUMBER.--282245081492601. Eva Deep Well at Eva, FL.

LOCATION.--Lat 28°22'45", long 81°49'26", in NE¹/₄SE¹/₄SE¹/₄ 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.

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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 112.72 ft above sea level, Sept. 10, 1960; lowest measured, 105.52 ft above sea level, May 13, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 18...	1511	108.01	JUN 29...	1357	109.88
JAN 11...	1215	108.19	JUL 28...	0947	110.38
MAR 07...	1250	109.48	SEP 14...	1350	111.29
MAY 10...	1355	106.55			

WELL NUMBER.--282245081492602. Eva Shallow Well at Eva, FL.

LOCATION.--Lat 28°22'45", long 81°49'26", in NE¹/₄SE¹/₄SE¹/₄ 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.

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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 114.44 ft above sea level, Sept. 10, 1960; lowest measured, 107.21 ft above sea level, May 13, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 18...	1515	109.59	JUN 29...	1355	111.35
JAN 11...	1217	109.43	JUL 28...	0955	111.49
MAR 07...	1253	110.72	AUG 25...	0850	112.87
MAY 10...	1400	107.83	SEP 14...	1355	113.33

[illegible]

LAKE COUNTY

WELL NUMBER.--283204081544902. Mascotte Shallow Well near Mascotte, FL.

LOCATION.--Lat 28°32'04", long 81°54'49", in SW¹/₄NW¹/₄NE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 103.51 ft above sea level, estimated, Sept. 11, 1960; lowest, 97.34 ft above sea level, May 27, 1975.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	99.78	99.72	99.11	99.98	100.72	100.85	99.83	99.22	98.58	101.72	101.80	101.97
10	100.10	99.61	99.01	99.75	100.51	100.58	99.66	98.81	100.58	101.42	101.80	102.78
15	100.30	99.49	98.95	100.09	101.01	100.40	99.44	98.63	101.18	102.07	102.75	102.76
20	100.11	99.37	98.87	100.37	100.74	100.24	99.21	98.43	101.62	102.43	102.75	102.67
25	99.86	99.31	99.37	100.08	100.80	100.09	99.06	98.23	100.95	101.97	102.83	102.98
EOM	99.99	99.22	99.21	101.41	100.59	100.01	98.90	98.00	102.46	102.59	102.02	102.50
MAX	100.39	99.97	99.37	101.41	101.40	101.24	99.97	99.25	102.46	102.83	102.83	103.02
CAL YR 1993	MAX 102.53											
WTR YR 1994	MAX 103.02											

WELL NUMBER.--283314081455501. City Well Replacement at Clermont, FL.

LOCATION.--Lat 28°33'14", long 81°45'55", in NE¹/₄SE¹/₄SW¹/₄ 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, 85.89 ft above sea level, Sept. 9, 10, 1984; lowest, 78.86 ft, May 28, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	82.41	82.39	81.93	---	---	80.44	79.93	79.49	79.16	80.31	80.87	81.54
10	82.54	82.29	81.79	---	---	80.43	79.72	---	79.37	80.43	81.00	81.38
15	82.50	82.23	---	---	---	80.34	79.62	79.20	79.52	80.48	81.19	81.80
20	82.47	82.19	---	---	---	80.19	79.47	79.15	79.99	80.51	81.31	82.00
25	82.51	82.19	---	---	80.39	80.04	79.57	79.02	80.13	80.61	81.40	82.14
EOM	82.43	81.71	---	---	80.32	80.01	79.45	78.96	80.16	80.73	81.45	82.29
MAX	82.60	82.40	---	---	---	80.54	80.01	---	80.16	80.73	81.49	82.29

LAKE COUNTY

WELL NUMBER.--284445081462101. Lake Yale Groves Well near Tavares, FL.

LOCATION.--Lat 28°44'45", long 81°46'21", in SE¹/₄SW¹/₄ 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, 1.90 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1020	65.01	APR 26...	0834	64.31
NOV 22...	1037	64.74	MAY 23...	1150	63.70
DEC 27...	1300	64.14	JUN 29...	0525	65.06
JAN 24...	1020	64.96	JUL 25...	1110	65.74
FEB 23...	1210	65.46	AUG 29...	1027	66.86
MAR 28...	1132	64.84	SEP 27...	0720	67.22

WELL NUMBER.--284725081361901. Wolf Sink Observation Well near Sorrento, FL.

LOCATION.--Lat 28°47'25", long 81°36'19", in SW¹/₄NE¹/₄SW¹/₄ sec.34, T.19 S., R.27 E., Hydrologic Unit 03080102, near top of ridge east of Wolf Sink, about 400 ft north of dirt road extension of Robie Avenue and E-W fence line of Lake County Water Authority, 1.2 mi east of U.S. Highway 441, 0.7 mi south of State Road 46, and 2.4 mi southwest of Sorrento.

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

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 6.0 in., depth 205 ft, cased to 160 ft.

INSTRUMENTATION.--Water-stage recorder--15-minute interval.

DATUM.--Elevation of land-surface datum is 139.07 ft above sea level. Measuring point: Top of casing between two notches in casing, 2.54 ft above land-surface datum.

PERIOD OF RECORD.--September 1992 to Sept. 30, 1994 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 53.32 ft above sea level, Sept. 29, 1994; lowest daily maximum water level, 45.76 ft above sea level, May 27, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.30	48.72	48.18	48.02	49.56	49.81	47.40	---	46.36	48.26	49.62	50.31
10	48.97	48.63	47.84	48.06	49.17	49.19	47.28	---	46.98	48.33	49.73	52.31
15	48.81	48.49	47.91	48.30	49.04	48.73	46.94	46.26	47.42	48.46	50.68	52.76
20	48.90	48.39	47.73	48.58	49.22	48.17	---	46.40	48.60	48.98	50.59	52.25
25	48.96	48.46	47.89	48.46	49.08	47.73	---	46.01	48.28	48.82	50.67	52.45
EOM	48.90	48.24	47.65	49.90	48.91	47.71	---	46.11	47.54	49.72	50.45	53.25
MAX	49.05	48.80	48.21	49.90	49.98	49.81	---	---	48.63	49.72	50.72	53.32

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LAKE COUNTY

WELL NUMBER.--284842081533001. College Street Well at Leesburg, FL.

LOCATION.--Lat 28°48'42", long 81°53'30", in SW¹/₄NE¹/₄NE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 69.07 ft above sea level, Oct. 8, 1982; lowest, 57.29 ft above sea level, May 16, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.88	62.77	62.24	62.35	63.13	63.61	61.84	60.69	60.83	62.56	63.43	64.86
10	62.98	62.58	61.99	62.42	63.12	63.09	61.81	60.25	61.84	62.49	64.07	65.01
15	62.91	62.70	62.16	62.43	63.10	63.13	61.46	60.43	61.76	63.01	---	65.09
20	62.76	62.60	61.89	62.46	63.27	62.48	60.95	60.93	62.56	62.97	---	65.51
25	62.52	62.52	62.30	62.43	63.05	62.25	61.72	60.24	62.32	63.21	---	65.79
ECM	62.77	62.43	62.04	62.87	63.28	62.20	61.02	60.66	62.06	63.44	---	65.91
MAX	63.12	62.80	62.35	62.87	63.28	63.61	62.32	61.17	62.68	63.44	---	66.00
CAL YR 1993	MAX 66.45											

WELL NUMBER.--284855081520401. Herlong Park Well at Leesburg, FL.

LOCATION.--Lat 28°48'55", long 81°52'04", in SE¹/₄SW¹/₄SW¹/₄ sec.24, T.19 S., R.24 E., Hydrologic Unit 03080102, on north side of Herlong Park, 450 ft north of U.S. Highway 441 in Leesburg. 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 105 ft, cased to 100 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 60.61 ft above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--April 1974 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.46 ft above sea level, Sept. 13, 1982; lowest measured, 49.67 ft above sea level, May 1, 1974.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 19...	1056	60.51	JUL 08...	1158	60.89
JAN 11...	1100	59.88	AUG 31...	0943	62.76
MAR 16...	0852	60.86	SEP 19...	0955	63.20
MAY 04...	0845	58.87			
17...	1335	58.17			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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LAKE COUNTY

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: Earl Little.

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.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 17.78 ft above sea level. Measuring point: Top of 6 in. coupling, 2.30 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.--February 1936 to December 1949 (monthly); January 1950 to September 1985 (bimonthly); October 1985 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.15 ft above sea level, in October 1945; lowest measured, 10.69 ft above sea level, June 17, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
26...	1325	12.55	26...	1205	11.66
NOV			MAY		
22...	1342	12.24	23...	1020	11.38
DEC			JUN		
27...	1200	11.64	28...	1140	12.21
JAN			JUL		
26...	1208	12.50	26...	1020	12.94
FEB			AUG		
21...	1237	12.83	29...	0930	13.50
MAR			SEP		
29...	1110	12.16	26...	1027	14.11

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

LAKE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
282126081403901	05-10-94 09-12-94	1338 0820	821140 24S26E35	115.95 116.46
282318081544002	05-13-94	0852	GREEN SWAMP CORE HOLE LK7501	99.37
282443081425201	09-14-94	1258	82414201 24S26E09 LYKES GROVE	114.58
282532081511801	05-13-94 09-15-94	1035 1050	82515101 24S25E06 JACK M BARRY	102.28 108.00
282729081443301	05-10-94 09-14-94	1435 1433	LK LOUISA STATE PARK (SJRWMD L-0053) NEAR CLERMONT	93.48 98.47
282823081500401	05-13-94 09-12-94	1130 0930	82815001 23S25E20 D D GAFFNEY	99.62 104.82
283116081442301	05-10-94 09-14-94	1240 1150	83114401 23S26E05 RINGS POND	78.87 81.46
283128081404701	05-09-94 09-12-94	1220 1345	JOHNS LAKE WELL NR CLERMONT (SJ L-0052)	80.37 83.49
283232081394101	05-09-94 09-12-94	1150 1440	83213902 22S26E25	79.58 80.22
283307081435301	05-10-94 09-12-94	1052 1305	83314301 22S26E20 JACKS LAKE WELL	77.24 79.73
283359081411501	05-09-94 09-12-94	1130 1428	22S26E14 332	73.28 74.65
283422081480401	05-09-94 09-12-94	1300 1225	834148 22S25E15 SAND MINE 565A	88.52 92.30
283530081514501	05-13-94 09-12-94	1150 1148	83515101 22S24E12 NEAR LAKE LUCY	84.84 88.46
283540081402401	05-09-94 09-14-94	1100 1020	22S26E01 333	71.80 74.39
283830081534901	09-12-94	1115	83815301 21S24E27 M J VITTI	88.85
284135081565501	05-10-94 09-15-94	0930 1245	84115601 21S24E06 841156113 BUSH CITRUS	74.19 77.24
284232081533001	05-13-94 09-15-94	1220 1210	842153142 20S24E34	76.59 81.25
284241081402601	05-09-94 09-14-94	0930 0900	84214001 20S26E25 USGS	56.45 61.76
284245081463301	05-10-94 09-15-94	0800 1400	843145331 20S25E26 HOWEY IN HILLS	73.60 76.99
284328081515901	05-10-94 09-15-94	1005 1330	843151 20S24E25	75.91 79.39
284728081322201	05-19-94 09-16-94	1445 0920	LAKE 847-132-1 SORRENTO	45.22 49.57
284757081543002	05-19-94 09-19-94	1220 1155	C R WILLIAMS WELL	63.38 66.98
284808081432801	05-19-94 09-19-94	0912 0910	84814301 19S26E28 TAVERAS WELL 3	57.04 60.72
284827081403501	05-19-94 09-19-94	0900 0855	848140-- 19S26E26 D BARTHOLOW	55.64 60.15
284856081383001	05-19-94 09-19-94	0800 0835	CITY OF MOUNT DORA WELL NO.3	46.02 52.67
284857081570901	05-19-94 09-19-94	1200 1220	84815701 19S24E19 848157444 J ALIBRANDI	66.45 70.66
284917081353701	05-20-94 09-16-94	0828 0940	84913501 19S27E22 RICKEY AND REED	46.07 50.18
284934081474801	05-19-94 09-19-94	0945 0940	849147-- 19S25E22 LAKE SUMTER JC	59.67 63.80
285057081321301	05-20-94 09-19-94	1030 0805	NEW HEINDRICK WELL NEAR MOUNT PLYMOUTH	38.79 42.67

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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LAKE COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
285129081541002	05-17-94 09-19-94	1430 1115	CITY OF FRUITLAND PK NO 2 S COMM BLDG	60.05 63.96
285244081471401	05-17-94 09-16-94	1235 1455	852147 18S25E35	56.52 60.28
285257081434201	05-17-94 09-16-94	1305 1515	852143121 18S26E32 J EICHEL BADGER	54.52 58.24
285318081340601	05-20-94 09-16-94	0855 1540	853134 18S27E25 EUSTIS SAND CO	44.13 48.25
285426081380901	05-17-94 09-16-94	1035 1240	854138 18S27E20 N B MARSHALL	49.04 52.90
285452081563201	05-17-94 09-19-94	1410 1050	85415601 18S24E19	50.20 54.75
285504081405901	05-17-94 09-16-94	1100 1315	855140-- 18S26E14 AUSTIN GROVES	46.84 51.30
285539081262901	05-17-94 09-16-94	0908 1050	PINE LAKES WELL ON SR 44	32.82 37.98
285645081492401	05-17-94 09-16-94	1210 1430	856149-- 18S25E09 D K HARTMAN	52.00 55.52
285707081441101	05-17-94 09-16-94	1127 1358	857144-- 18S26E05 J F ERVIN EST	46.11 48.83
285722081360501	05-20-94	0956	85713601 18S27E03	42.00
285726081465601	05-19-94 09-16-94	1250 1418	857146-- 18S25E02	52.48 55.11
285827081331401	05-17-94 09-16-94	1000 1150	85813301 17S28E31	40.48 43.42
290000081380001	05-19-94 09-20-94	1325 0935	90013801 17S27E17 PITMAW WORKS	42.53 45.00
290047081232501	05-17-94 09-20-94	0923 0750	900123-- 17S29E-- US FOREST SERVICE	15.36 17.06
290244081302601	05-18-94 09-20-94	1100 1320	90213001 17S28E03	13.96 17.29
290420081311701	05-18-94 09-20-94	1140 1350	AMOCO WATER WELL NO 1A	37.87 40.76
290445081344001	05-18-94 09-20-94	1300 1215	90413401 --S27E-- US FOREST SERVECE	14.93 16.25
290633081375201	09-20-94	1015	90613701 16S27E18 CAMP OCALA	30.94
290650081314001	05-18-94 09-20-94	1030 1435	906131 15S28E-- JOHNSON	16.01 19.50
290820081305001	05-18-94 09-20-94	1007 1500	908130 16S28E-- FRANK SAUL	14.99 16.64
290900081342002	05-18-94 09-20-94	1435 1152	909134 15S27E-- ASTOR PARK	25.89 32.05
290910081360001	05-18-94 09-20-94	1500 1121	909136 15S27E33 4-H CLUB FOUND	40.07 43.65
291449081381701	05-18-94 09-20-94	1600 1031	91413801 14S27E30 ENGLISH	2.77 4.45

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

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

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1	290112082371101	144
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4	290230082412501	145
5	290743082341501	146
6	291910082341101	147
7	292430082283001	148
8	292615082272601	148

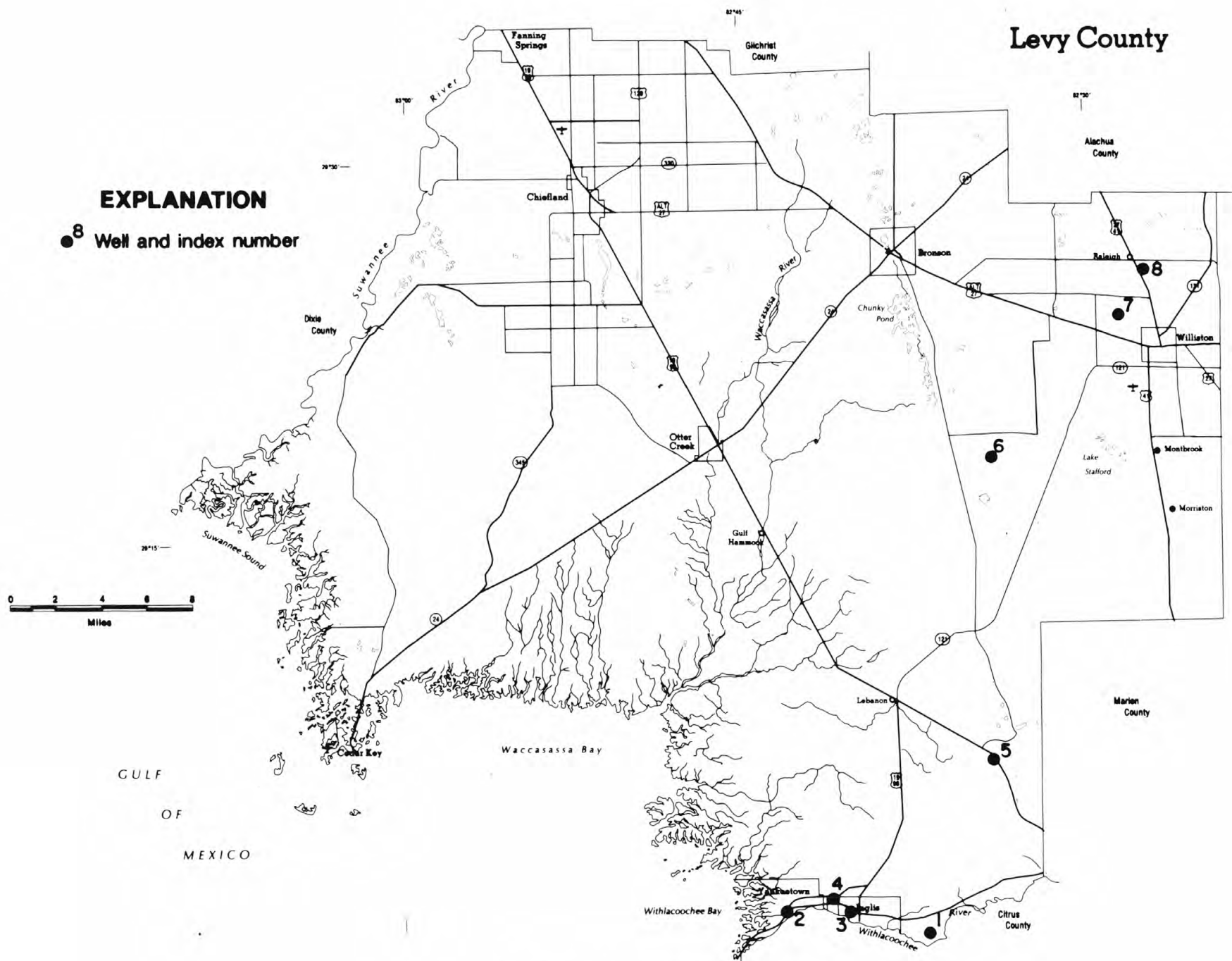


Figure 29.--Location of wells in Levy County.

LEVY COUNTY

WELL NUMBER.--290112082371101. CE-5 Well near Inglis, FL.

LOCATION.--Lat 29°01'12", long 82°37'11", in NE¹/₄NE¹/₄NE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.59	5.49	5.71	4.33	5.96	6.01	5.99	5.27	5.51	5.55	5.71	6.05
10	5.68	5.13	5.79	4.34	6.43	6.78	6.25	5.77	5.81	5.85	5.45	6.12
15	5.93	5.87	5.92	4.56	5.81	6.72	6.27	5.99	5.13	5.23	6.13	5.87
20	5.61	5.16	5.28	4.40	6.09	6.28	5.79	4.80	5.63	5.52	6.13	6.04
25	5.21	4.47	4.79	5.05	6.12	6.49	6.32	6.11	6.05	5.52	5.72	6.12
EOM	6.33	5.11	4.50	5.31	6.11	6.09	6.06	5.36	5.43	5.13	5.78	6.03
MAX	6.69	5.87	5.92	5.70	6.85	---	6.39	6.16	6.05	5.99	6.53	6.31

WELL NUMBER.--290200082432301. ROMP 124 Well near Yankeetown, FL.

LOCATION.--Lat 29°02'00", long 82°43'23", in NW¹/₄NE¹/₄NE¹/₄ 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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
26...	0955	1.95	16...	1050	2.36
NOV			24...	0744	2.09
23...	0800	2.11	JUN		
DEC			28...	0631	2.47
28...	0817	2.40	JUL		
JAN			26...	0643	2.21
25...	1115	2.70	AUG		
FEB			26...	0720	3.25
24...	0815	3.53	SEP		
MAR			21...	0847	3.25
29...	0830	3.19	27...	1220	3.33
APR					
26...	0705	2.85			

LEVY COUNTY

WELL NUMBER.--290202082403901. Florida Power Corporation (CE-62) Well at Inglis, FL.

LOCATION.--Lat 29°02'02", long 82°40'39", in SW¹/₄NW¹/₄NE¹/₄ 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.

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). Records of prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 17...	0740	4.00	APR 25...	1555	4.72
JAN 12...	1105	4.09	JUN 22...	1518	4.49
MAR 07...	1608	6.58			

WELL NUMBER.--290230082412501. ROMP 125 Well at Crackertown, FL.

LOCATION.--Lat 29°02'30", long 82°41'25", in SE¹/₄SW¹/₄SE¹/₄ 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, 1.03 ft above sea level, June 20, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.24	3.27	3.95	5.85	5.95	4.37	4.11	2.73	3.18	4.53	5.05
10	2.98	3.98	3.05	3.94	5.78	5.72	4.11	3.78	3.34	3.25	4.93	4.90
15	2.87	3.92	3.13	4.39	5.31	5.38	3.95	3.55	3.33	3.24	5.57	4.73
20	2.82	3.65	2.95	4.68	5.07	5.03	3.63	3.28	3.44	2.95	5.87	5.48
25	2.58	3.32	3.21	4.70	5.19	4.90	4.10	3.20	3.74	3.14	5.50	5.51
EOM	3.78	3.26	3.22	5.98	5.00	4.53	4.40	2.95	3.44	4.44	5.42	5.33
MAX	---	4.28	3.37	5.98	6.03	6.04	4.51	4.38	3.77	4.45	6.00	5.57

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

LEVY COUNTY

WELL NUMBER.--290743082341501. Tidewater No. 1 Well near Dunnellon, FL.

LOCATION.--Lat 29°07'43", long 82°34'15", in NE¹/₄SE¹/₄NE¹/₄ 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, 52.27 ft above sea level, June 21, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.69	53.37	53.13	53.13	54.21	54.70	---	53.89	53.06	53.17	53.78	55.11
10	52.70	53.30	52.98	53.17	54.34	54.78	---	53.69	53.28	53.10	54.06	55.19
15	52.52	53.27	52.92	53.25	54.32	---	---	53.54	53.24	53.02	54.50	55.24
20	52.58	53.28	52.89	53.37	54.44	---	---	53.45	53.46	53.16	54.78	55.35
25	52.59	53.22	52.95	53.54	54.51	---	---	53.21	53.37	53.51	54.86	55.40
EOM	52.79	52.92	52.83	53.81	54.42	---	53.97	53.06	53.26	53.77	55.11	55.40
MAX	52.84	53.39	53.13	53.81	54.54	---	---	54.00	53.48	53.77	55.13	55.42

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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LEVY COUNTY

WELL NUMBER.--291910082341101. Bullock-Huber Well near Williston, FL.

LOCATION.--Lat 29°19'10", long 82°34'11", in NW¹/₄NW¹/₄NW¹/₄ 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 92.00 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). Records prior to October 1986 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.24 ft above sea level, Oct. 7, 1982; lowest measured, 41.74 ft above sea level, Feb. 5, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			JUN		
07...	0905	43.12	17...	0755	44.04
DEC			AUG		
08...	0910	44.40	12...	1605	44.00
APR			SEP		
19...	0950	44.96	21...	1248	46.13
MAY					
17...	1418	44.38			

WELL NUMBER.--292430082283001. Devils Den Sink CE-8 near Williston, FL.

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).
Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.4 ft above sea level, October 1948; lowest measured, 42.40 ft above sea level, Feb. 5, 1991.

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 07...	0820	43.80	JUN 14...	0739	45.20
DEC 08...	0820	44.48	AUG 15...	1215	45.81
APR 19...	0845	45.97	SEP 21...	1343	46.91
MAY 17...	1300	45.47			

LOCATION.—Lat 29°26'15", long 82°27'26", in SW₄NW₄NW₄ 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 current year.

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 55.34 ft above sea level, Apr. 24, 1987; lowest, 42.36 ft above sea level, Mar. 1, 1991.

[illegible]

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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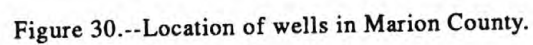
LEVY COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
290301082335601	05-16-94 09-21-94	1020 0813	90323301 16S17E35 DEL WRIGHT CORRAL	51.77 54.16
290503082323101	05-16-94 09-21-94	1016 0803	90523201 16S17E13 SCE 108 T & J RANCH	71.29 73.42
290605082372601	05-16-94 09-21-94	1100 0900	90623701 16S17E07 GEOTHE ROAD	27.10 24.60
291004082382901	05-16-94 09-21-94	1113 0913	91023801 15S16E24 910238433 DIXIE LIME PR	22.63 26.40
291048083011801	05-16-94 09-21-94	1213 1015	15S13E17 910301212	2.02 3.12
291414082560901	05-16-94 09-21-94	1200 0954	ROSEWOOD TOWER WELL NEAR CEDAR KEYS	9.97 11.09
291508082432901	05-16-94 09-21-94	1125 0925	GULF HAMMOCK	8.65 10.71
291712082351801	05-17-94 09-21-94	1440 1430	SOUTH OF BONSON-RO	45.62 43.41
291806082545601	05-16-94 09-21-94	1230 1033	918254331 13S14E33 TEST 2 USGS	21.10 20.67
291855082472601	05-16-94 09-21-94	1140 0941	HUDSON NR OTTER CREEK	20.75 23.46
292143082282201	05-17-94 09-21-94	1220 1322	92122801 13S18E11 WILLISTON AIRPORT	45.33 47.28
292310082373701	05-16-94 09-21-94	1440 1217	ERCELL SMITH	52.41 57.24
292507082560201	05-16-94 09-21-94	1315 1052	A J MIMMS (121420) SR-347 SW OF CHIEFLAND	2.23 5.73
292640082381201	05-16-94 09-21-94	1425 1201	92623801 12S17E17 926238241 HARDEE HOTEL	50.25 48.21
292713082493601	05-16-94 09-21-94	1405 1124	H E MILLS NEAR CHIEFLAND	22.91 24.26

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

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MARION COUNTY, GROUND-WATER LEVELS

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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 SE¹/₄SW¹/₄ 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. Owner: E. Nelson.

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 casing, 1.77 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). Records of water levels prior to January 1974 are unpublished and available in the files of the Altamonte Springs subdistrict office..

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 19...	0920	50.43	JUL 08...	1307	50.73
JAN 11...	1240	50.05	AUG 31...	1055	52.48
MAR 16...	1015	51.56	SEP 12...	1123	53.05
MAY 04...	1035	50.79			
17...	1351	50.01			

WELL NUMBER.--290106082191001. CE-23 Well near Dunnellon, FL.

LOCATION.--Lat 29°01'06", long 82°19'10", in NE¹/₄NE¹/₄NE¹/₄ 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.54 ft above sea level, Sept 7, 1968; lowest measured, 37.10 ft above sea level, Feb. 10, 1982.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 09...	1240	39.11	JUN 21...	1144	40.86
JAN 14...	1730	38.81	AUG 10...	1305	41.19
MAR 04...	0936	42.49	SEP 19...	0950	44.81
MAY 02...	1601	42.07			
16...	0930	41.72			

MARION COUNTY

WELL NUMBER.--290133082140901. ROMP 119 Well near Ocala, FL.

LOCATION.--Lat 29°01'33", long 82°14'09", in NW¹/₄NW¹/₄SW¹/₄ 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, 49.41 ft above sea level., Aug. 18,19, 1983; lowest, 40.88 ft above sea level, Mar. 15,16, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	42.46	42.34	42.17	41.99	43.46	44.44	44.49	43.85	43.11	43.04	43.27	45.95
10	42.43	42.33	42.12	42.03	43.93	44.52	44.39	43.72	43.12	43.02	43.92	45.97
15	42.39	42.29	42.07	42.05	44.13	44.58	44.28	43.60	43.05	42.98	44.53	45.94
20	42.36	42.28	42.04	42.13	44.23	44.59	44.15	43.50	43.17	42.97	44.92	46.07
25	42.31	42.24	42.01	42.21	44.28	44.59	44.09	43.36	43.15	43.06	45.32	46.13
EOM	42.28	42.19	41.96	42.53	44.27	44.55	43.96	43.22	43.09	43.14	45.79	46.28
MAX	42.51	42.34	42.19	42.53	44.28	44.59	44.54	43.94	43.19	43.14	45.79	46.28
CAL YR 1993	MAX 44.35											
WTR YR 1994	MAX 46.28											

WELL NUMBER.--290215082152401. CE-74 Well near Ocala, FL.

LOCATION.--Lat 29°02'15", long 82°15'24", in NE¹/₄SW¹/₄SE¹/₄ 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 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.47 ft above sea level, Dec. 1, 1964; lowest measured, 39.95 ft above sea level, Feb. 6, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV			MAY		
09...	1220	41.24	15...	0916	42.66
JAN			JUN		
11...	1036	40.90	21...	1130	42.15
MAR			AUG		
03...	1022	43.44	10...	1200	42.60
APR			SEP		
25...	1344	43.23	19....	0935	45.09

WELL NUMBER.--290306082232802. Fire Tower (CE-73) Well at Dunnellon, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.52 ft above sea level, Sept. 21, 1970; lowest measured, 47.91 ft above sea level, July 15, 1975.

ELEVATION ABOVE SEA LEVEL (FEET)			ELEVATION ABOVE SEA LEVEL (FEET)		
DATE	TIME		DATE	TIME	
NOV 10...	0956	53.45	MAY 16...	1036	53.78
JAN 11...	1056	53.45	JUN 21...	1214	54.21
MAR 03...	1045	56.47	AUG 10...	1346	52.91
APR 25...	1405	54.98	SEP 20...	0845	54.17

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 50.18 ft above sea level, Aug. 27, 1970; lowest, 34.31 ft above sea level, Feb. 28, 1982.

[illegible]

MARION COUNTY

WELL NUMBER.--290455081530401. USGS Well at Moss Bluff Park, FL.

LOCATION.--Lat 29°04'55", long 81°53'04", in NE¹/₄NW¹/₄SW¹/₄ sec.23, T.16 S., R.24 E., Hydrologic Unit 03080102, in park and picnic area on south side of State Highway 464 at Moss Bluff Lock and Dam, 4.2 mi northeast of Ocklawaha. 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 225 ft, cased to 80 ft.

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

DATUM.--Land-surface datum is 50.12 ft above sea level. Measuring Point: Top of flange, 6.09 ft, above land-surface datum.

PERIOD OF RECORD.--October 1975 to June 1982; July 1982 to January 1985 (bimonthly); January 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.90 ft above sea level, Oct. 11, 1982; lowest daily maximum water level, 47.80 ft above sea level, July 9, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.08	49.08	48.86	48.52	49.26	49.94	49.89	49.34	48.80	49.12	49.70	51.58
10	49.21	48.99	48.72	48.48	49.45	49.99	49.74	49.11	48.90	49.14	49.95	51.86
15	49.08	48.91	48.71	48.55	49.55	50.04	49.66	48.99	48.90	49.19	50.52	52.16
20	49.03	48.90	48.66	48.57	49.72	49.93	49.60	49.01	49.08	49.23	50.93	52.44
25	49.09	48.92	48.58	48.76	49.77	49.96	49.61	48.79	49.11	49.41	51.23	52.57
EOM	49.08	48.68	48.41	48.89	49.73	49.91	49.41	48.76	49.09	49.54	51.47	52.89
MAX	49.22	49.09	48.86	48.96	49.81	50.14	49.92	49.40	49.15	49.54	51.47	52.89
WTR YR 1994	MAX 52.89											

WELL NUMBER.--290514082270701. Rainbow Springs Well near Dunnellon, FL.

LOCATION.--Lat 29°05'14", long 82°27'07", in SW¹/₄NW¹/₄SW¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily mean water level, 36.12 ft above sea level, Oct. 22, 1964; lowest, 29.88 ft above sea level, July 3, 1975.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.49	30.62	30.70	30.79	30.88	31.54	31.37	31.12	30.85	30.71	30.71	31.13
10	30.55	30.66	30.73	30.70	31.03	31.51	31.35	31.04	30.84	30.72	30.78	31.15
15	30.54	30.66	30.72	30.63	31.19	31.49	31.30	31.03	30.75	30.71	30.87	31.17
20	30.54	30.68	30.69	30.68	31.31	31.47	31.20	31.02	30.85	30.69	30.92	31.35
25	30.52	30.69	30.71	30.62	---	31.46	31.26	30.88	30.77	30.71	31.00	31.41
EOM	30.61	30.69	30.69	30.78	---	31.43	31.13	30.88	30.73	30.72	31.05	31.53
MEAN	30.54	30.66	30.70	30.68	---	---	31.29	31.00	30.81	30.72	30.88	31.25

MARION COUNTY

WELL NUMBER.--290815082025701. USGS Well CE-40 replacement near Ocala, FL.

LOCATION.--Lat 29°08'15", long 82°02'57", in SE¹/₄SE¹/₄SW¹/₄ 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 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, 46.39 ft above sea level, Oct. 17, 1988; lowest measured, 40.30 ft above sea level, Feb. 4, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 04...	1335	41.78	JUN 13...	1244	40.95
DEC 06...	1235	41.45	AUG 08...	1014	42.48
APR 19...	1425	42.95	SEP 12...	1240	44.93
MAY 11...	1145	42.55	26...	0921	45.05

WELL NUMBER.--291059082190801. Romp 120 near Cotton Plant, FL.

LOCATION.--Lat 29°10'59", long 82°19'08", in NE¹/₄SE¹/₄SE¹/₄ 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; August 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.69 ft above sea level, Aug. 2,3, 1982; lowest, 40.00 ft above sea level, Mar. 5, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	0910	41.63	MAY 16...	1715	43.00
NOV 23...	0708	41.76	23...	1135	42.79
DEC 27...	1315	41.62	JUN 27...	1146	42.39
JAN 25...	1010	41.56	JUL 25...	1240	42.21
FEB 23...	1410	43.44	AUG 25...	1240	43.77
MAR 29...	0730	43.92	SEP 20...	1330	44.42
APR 25...	1312	43.43	27...	1301	44.79

MARION COUNTY

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 NE¹/₄NW¹/₄SW¹/₄ 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 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). Records of water levels prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			JUN		
04...	1355	41.24	13...	1306	41.23
DEC			AUG		
06...	1255	41.04	09...	0652	41.97
APR			SEP		
19...	1400	41.89	26...	1001	43.40

WELL NUMBER.--291110082060001. USGS Well CE-44 at Ocala, FL.

LOCATION.--Lat 29°11'10", long 82°06'00", in SW¹/₄SW¹/₄NW¹/₄ 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 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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.50 ft above sea level, Sept. 13, 1982; lowest measured, 39.15 ft above sea level, Sept. 10, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			JUN		
04...	1415	40.66	15...	0603	40.94
DEC			AUG		
06...	1320	40.42	09...	--	41.28
APR			SEP		
19...	1200	41.56	12...	1335	42.77
MAY			26...	1215	43.13
11...	1040	41.29			

MARION COUNTY

WELL NUMBER.--291115081592501. Sharpes Ferry Well, Marion 5 near Ocala, FL.

LOCATION.--Lat 29°11'15", long 81°59'25", in NE¹/₄SE¹/₄ 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--60-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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily mean water level, 55.42 ft above sea level, Oct. 14, 1960; lowest, 43.20 ft above sea level, May 7, 1957.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	44.49	---	43.98	44.90	45.69	45.81	45.28	44.73	44.92	45.20	46.93
10	---	44.41	44.29	44.03	45.19	45.83	45.64	45.19	44.77	44.93	45.31	47.07
15	---	44.43	44.26	44.06	45.27	45.92	45.64	45.04	44.72	44.91	45.92	47.20
20	44.35	44.41	44.17	44.11	45.49	45.82	45.55	45.04	44.89	44.96	46.36	47.33
25	44.43	44.26	44.10	44.31	45.53	45.84	45.51	44.90	44.92	45.00	46.57	47.43
EOM	44.19	44.18	44.00	44.44	45.48	45.80	45.38	44.81	44.97	45.08	46.82	47.50
MAX	---	44.49	---	44.49	45.57	45.95	45.85	45.38	44.97	45.09	46.82	47.50

WELL NUMBER.--291115082102901. USGS Well CE-31 replacement at Ocala, FL.

LOCATION.--Lat 29°11'15", long 82°10'29", in SE¹/₄SW¹/₄NE¹/₄ 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 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, 46.77 ft above sea level, Oct. 17, 1988; lowest measured, 40.07 ft above sea level, Feb. 4, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			JUN		
04...	1430	41.49	14...	1435	41.29
DEC			AUG		
06...	1345	41.22	09...	0856	42.19
APR			SEP		
19...	1115	42.79	12...	1255	44.15
MAY			26...	1155	44.58
11...	0920	42.48			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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MARION COUNTY

WELL NUMBER.--291849081411401. Lake George Well near Salt Springs, FL.

LOCATION.--Lat 29°18'49", long 81°41'14", in SE¹/₄ 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 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, 17.28 ft above sea level, Mar. 16, 1983; lowest measured, 13.06 ft above sea level, July 30, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAR		
26...	0705	14.09	03...	1038	14.09
NOV			29...	0756	13.47
22...	0750	13.91	APR		
DEC			26...	0743	13.81
01...	0908	13.99	MAY		
13...	0802	13.84	17...	1022	13.69
27...	0812	13.64	24...	0737	13.78
JAN			JUN		
06...	0812	13.66	28...	0650	13.90
14...	0900	13.72	JUL		
16...	0757	13.62	26...	0720	14.43
19...	0640	13.62	AUG		
25...	0823	13.71	29...	0720	15.19
FEB			SEP		
02...	0836	13.84	12...	0905	15.47
03...	0820	13.83			
22...	0807	14.08			

MARION COUNTY

WELL NUMBER.--292200081510001. USGS Well CE-84 near Salt Springs, FL.

LOCATION.--Lat 29°22'00", long 81°51'00", in NW¹/₄NW¹/₄NE¹/₄ 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 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). Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
26...	0820	22.55	26...	0945	23.04
NOV			MAY		
22...	1503	22.54	17...	0858	23.06
DEC			23...	0830	23.00
28...	1322	22.55	JUN		
JAN			28...	0950	22.99
26...	0944	22.51	JUL		
FEB			26...	0840	23.01
21...	0940	22.75	SEP		
MAR			12...	0950	23.35
07...	1140	22.84	26...	1419	23.43
29...	0918	22.96			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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MARION COUNTY

WELL NUMBER.--292546081513301. USGS Well CE-67 near Salt Springs, FL.

LOCATION.--Lat 29°25'46", long 81°51'33", in NE¹/₄SE¹/₄SE¹/₄ 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 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).
Records prior to January 1974 are unpublished and available in files of the Jacksonville field headquarters.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
25...	0800	19.06	17...	0841	19.21
NOV			23...	0810	19.26
22...	1520	19.07	JUN		
DEC			28...	0936	19.33
27...	0945	19.01	JUL		
JAN			26...	0827	19.49
26...	0924	19.04	AUG		
FEB			25...	0805	19.73
21...	0921	19.32	SEP		
MAR			12...	0930	19.87
29...	0905	19.29	26...	0824	20.03
APR					
26...	0930	19.38			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

MARION COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
285900082072001	05-11-94 09-12-94	0955 1203	USGS OBS WELL CE-36 AT PEDRO	45.44 48.82
285930081430901	05-17-94 09-12-94	1330 1100	85914301 KOA WELL ON SR-42 W OF ALTOONA	50.05 52.13
285933082192501	05-16-94 09-19-94	0949 1005	85921901 17S20E20 CE-24 USGS	37.57 40.48
290103082104501	05-16-94 09-19-94	0810 0855	90121001 17S21314 MARION OAKS NO 2	43.41 31.30
290130082082001	05-11-94 09-12-94	0940 1220	90120801 USGS OBS WELL CE-35 NEAR PEDRO	45.28 48.69
290227082250801	05-16-94 09-20-94	1107 0915	90222501 16S19E31 CE-75 USGS	54.42 54.17
290238082120901	05-15-94 09-19-94	0842 0910	90221201 17S21E03 SCE-168 CORPS OF ENGINEERS	43.63 46.43
290312082190601	05-16-94 09-20-94	1008 0800	90321901 16S20E33 CE-22 USGS	47.05 49.14
290325082283701	05-16-94 09-20-94	1222 0950	90322802 16S18E27 AK:54 WELL NEAR VOGT SPRINGS	37.80 38.13
290400082091001	05-11-94 09-12-94	1010 1232	90420901 USGS OB WELL CE-33 NEAR OCALA	44.00 46.67
290421082190801	05-16-94 09-20-94	1150 0830	90421901 16S20E28 CE-21 USGS	42.95 44.49
290447082250901	05-16-94 09-20-94	1046 0930	90422501 16S19E20 CE-13 USGS	32.58 33.00
290552082044701	05-17-94 09-12-94	1439 1135	90520401 USGS WELL CE-81 WOLF SINK NEAR SANTOS	43.14 45.75
290614082274801	05-16-94 09-20-94	1327 1040	90622701 16S18E11 SCE-170 RAINBOWS END GOLF COURSE	32.96 33.19
290628081425301	05-17-94 09-12-94	1240 1012	90614201 LOOKOUT TOWER WELL BOMB RANGE ASTOR PARK	43.30 46.00
290739082245701	05-16-94 09-20-94	1447 1110	90722401 15S19E32 CE-12 USGS	34.68 34.94
290752082121401	05-17-94 09-21-94	0708 0715	COLLEGE RD CHURCH WELL	51.17 53.37
290752082271101	05-16-94 09-20-94	1422 1226	90722701 15S18E35 SCE-116 RAINBOW ACRES	34.59 34.85
290822082310101	05-16-94 09-20-94	1451 1150	90823101 15S18E32 LAKE BONABLE	44.02 44.73
290910082315001	05-16-94 09-20-94	1500 1205	90923101 15S18E30 SCE-138 LITTLE LAKE BONABLE	43.05 43.35
290913082245601	05-16-94 09-20-94	1532 1230	90922401 15S19E29 SCE-118 LAKE TROPICANA	36.64 36.72
290951082211201	05-16-94 09-20-94	1731 1245	90922101 15S19E25 SCE-173 RAINBOW PARK ESTATES	43.53 42.53
290953082031301	05-11-94 09-12-94	0947 1300	90920301 USGS OB WELL CE-79 NEAR SILVER SPRINGS	42.24 44.13
291015081385001	05-17-94 09-12-94	1045 0925	91013801 15S26E DOT 49	34.76 37.06
291022082131101	05-17-94 09-21-94	0739 0730	OCALA AIRPORT WELL	44.93 46.91
291056082263201	05-16-94 09-20-94	1551 1245	91022601 15S18E13 HERSHEL KYPER ROMEO	38.18 38.55
291130082015001	05-11-94 09-12-94	0925 1100	USGS OBSER WELL CE-47 NEAR OCALA	40.79 42.41
291241082300101	05-16-94 09-20-94	1613 1305	91223001 15S18E04 PETTYJOHN-BOOM IRR	41.24 41.76

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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MARION COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
291310082045001	05-11-94 09-12-94	1055 1350	91320401 USGS OB WELL CE-45 AT SILVER SPRINGS	41.66 44.86
291600081550001	05-11-94 09-12-94	1229 1020	91615501 USGS OB WELL CE-55 NR SALT SPRINGS	42.78 44.36
291728081390501	05-17-94 09-13-94	1030 0725	91713901 14S26E12 UNKNOWN	11.65 13.15
291740081562001	05-11-94 09-14-94	0827 0930	USGS OBSER WELL CE-54 NEAR Ocala	43.66 45.26
291750081494001	05-17-94 09-12-94	0940 0810	917149 14S25E06 CE-56	28.91 29.03
292101082233601	05-17-94 09-21-94	0830 1040	92122301 13S19E15 HOMESTEADER NURSERY	45.98 47.45
292146082182501	05-17-94 09-21-94	0858 1101	92121801 13S20E09 SR-316 WELL SRWMD	47.06 46.03
292200081510001	05-17-94 09-26-94	0858 1419	USGS OBSER WELL CE-84 NR SALT SPRINGS	23.06 23.43
292204082022801	05-11-94 09-14-94	0745 1120	FORT MCCOY DEEP	48.25 49.88
292349082191501	05-17-94 09-21-94	0920 1132	92321901 12S20E33 E H UPDIKE	46.52 46.66
292718082202601	05-17-94 09-21-94	0940 1149	92722001 12S20E18 MAHAFFEY WELL	50.45 51.66
292816082234501	05-17-94 09-21-94	0952 1205	92822301 12S19E03 SMITH BROTHERS WACAHOOTA	52.50 53.00

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

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

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6	303808081261401	170
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10	304213081270801	173
11	304410081592101	173
12	304640081583801	174

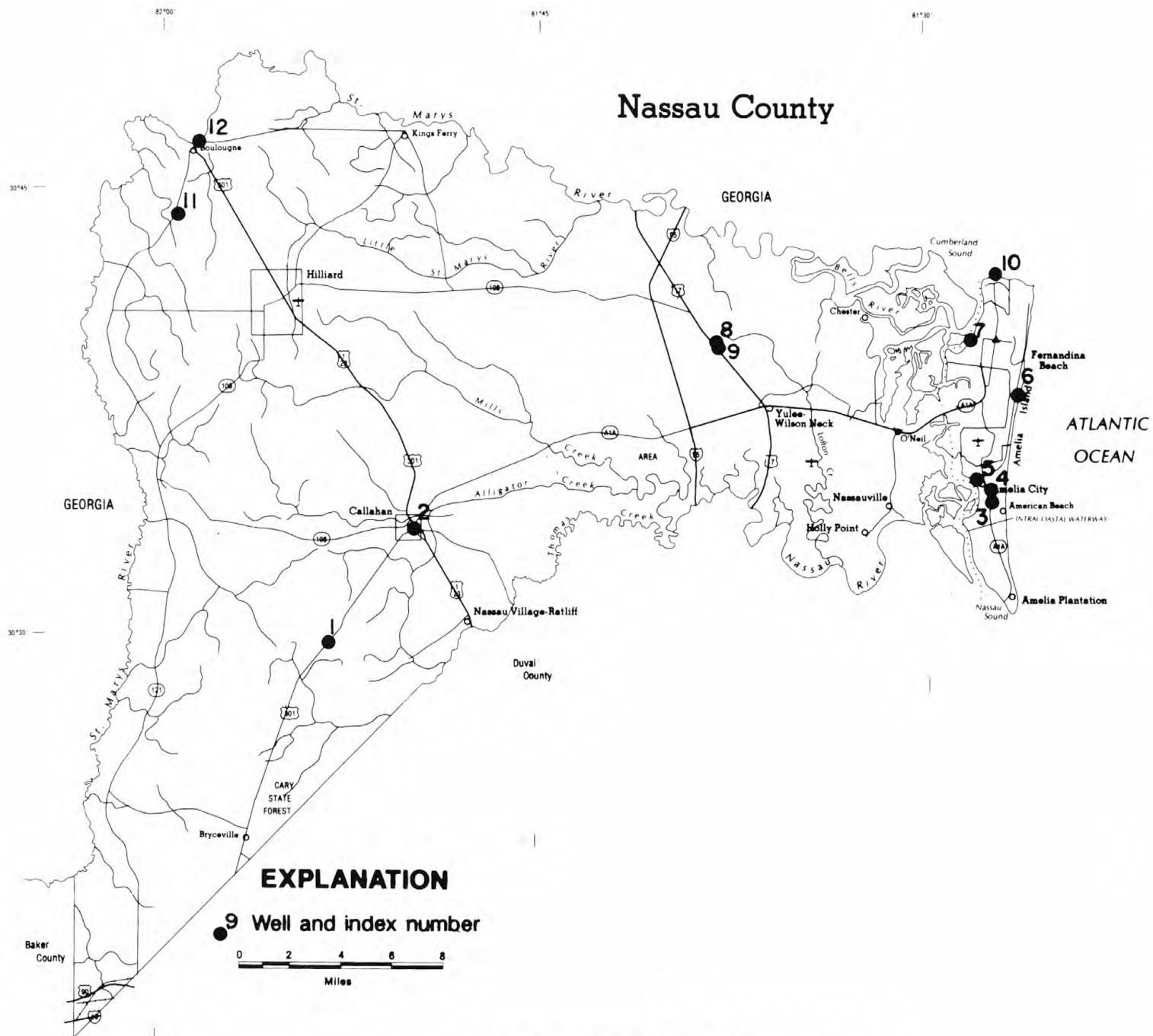


Figure 31.--Location of wells in Nassau County.

NASSAU COUNTY

WELL NUMBER.--302952081531702. Local Number N-114A. Well near Crawford, FL.

LOCATION.--Lat 30°29'52", long 81°53'17", in NW¹/₄SE¹/₄SE¹/₄, sec. 15, T.1 N., R.24 E., Hydrologic Unit 03070205, at Mulch Manufacturing plant on U.S. Highway 301, 0.9 mi southwest of Crawford, and 5.8 mi southwest of U.S. Highway 1. Owner: Mulch Manufacturing Inc.

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

WELL CHARACTERISTICS.--Drilled, unused, temporary water supply, artesian well, diameter 6 to 3 in., depth 530 ft, cased to 430 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Land-surface datum is 82 ft above sea level, from topographic map. Measuring point: Hole in pulley cover, 1.68 ft above land-surface datum.

REMARKS.--Record is equivalent to that for N-114 (302952081531701), available May 1978 to December 1991.

PERIOD OF RECORD.--March 1992 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.90 ft below land-surface datum, Sept. 21, 1994; lowest measured, 39.22 ft below land-surface datum, July 29, 1992.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 28...	0845	36.60	APR 26...	0800	19.42
NOV 24...	1005	35.32	MAY 18...	0910	19.88
DEC 27...	1035	29.72	JUN 27...	0830	15.38
JAN 25...	0925	27.50	JUL 27...	0835	14.72
FEB 25...	1245	19.22	AUG 30...	0815	11.08
MAR 29...	1155	14.46	SEP 21...	0810	9.90

WELL NUMBER.--303340081500001. Local Number N-51. Ellis Howard Well at Callahan, FL.

LOCATION.--Lat 30°33'40", long 81°50'00", in SW¹/₄NW¹/₄ sec.29, T.2 N., R.25 E., Hydrologic Unit 03070205, 200 ft from northeast corner of intersection of Green Avenue and Mickler Street in Callahan. Owner: Ellis Howard.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 2 in., depth 580 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with pressure gage.

DATUM.--Land-surface datum is 18.78 ft above sea level. Measuring point: Top of 2 in. cross, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1940 to April 1942, January 1944 to September 1978 (semiannually); February 1979 to current year (bimonthly). Records of water levels prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.28 ft above sea level, July 15, 1947; lowest measured, 34.18 ft above sea level, Sept. 13, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 18...	1330	36.98	MAY 18...	0940	38.48
DEC 14...	1045	38.18	JUN 07...	0810	38.18
FEB 16...	0930	39.18	AUG 08...	0945	38.58
APR 14...	0900	39.58	SEP 21...	0825	38.58

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

167

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 land grant 14, T.2 N., R.28 E., Hydrologic Unit 03070205 at Amelia Island waterworks, 1.1 mi south of intersection of State Highways A1A and 105A, 200 ft east of water storage tanks 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.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 15 ft above sea level, from topographic map. 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, May 1977, May 1978, April 1979 to September 1983 (bimonthly); October 1983 to current year (monthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.10 ft above land-surface datum, Dec. 31, 1985; lowest measured, 6.92 ft above land-surface datum, July 27, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT			APR		
28...	1405	-13.30	26...	1155	-9.80
NOV			MAY		
24...	1340	-13.00	19...	0930	-8.00
DEC			JUN		
27...	1545	-14.60	27...	1240	-10.20
JAN			JUL		
25...	1340	-14.50	27...	1210	-12.00
FEB			AUG		
25...	0730	-15.30	30...	1350	-10.00
MAR			SEP		
29...	0820	-11.50	22...	1245	-13.70

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303457081271501. Local Number N-9. George Morse Well at Amelia City, FL.

LOCATION.--Lat 30°34'57", long 81°27'15", in land grant 15, T.2 N., R.28 E., Hydrologic Unit 03070205, 100 ft east of State Highway A1A, and 0.8 mi south of Amelia City. Owner: Don Murphy.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 3 in., depth 586 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 18.37 ft above sea level. Measuring point: Top of 3 in. tee, 1.50 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--March 1939, September 1955, May 1977, April 1979 to May 1981 (bimonthly); June 1981 to current year (monthly). Records prior to 1977 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.57 ft above sea level, Mar. 24, 1939; lowest measured, 20.54 ft above sea level, July 27, 1989.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1350	26.07	APR 26...	1145	24.11
NOV 24...	1325	27.17	MAY 19...	0940	22.36
DEC 27...	1515	28.17	JUN 27...	1216	24.06
JAN 25...	1330	27.27	JUL 27...	1200	24.90
FEB 25...	0710	27.87	AUG 30...	1340	23.61
MAR 29...	0830	26.17	SEP 22...	1240	26.57

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

169

NASSAU COUNTY

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 Forest Boulevard, 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 11 ft above sea level, from topographic map. 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 current year (monthly). Records prior to October 1985 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.00 ft above land-surface datum, Mar. 22, 1939; lowest measured, 4.05 ft above land-surface datum, June 27, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 28...	1340	-9.60	APR 26...	1135	-7.90
NOV 24...	1315	-10.90	MAY 19...	0950	-6.28
DEC 27...	1510	-12.30	JUN 27...	1200	-8.10
JAN 25...	1325	-10.70	JUL 27...	1150	-8.40
FEB 25...	0720	-11.60	AUG 30...	1330	-7.70
MAR 29...	0840	-10.30	SEP 22...	1225	-9.40

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

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--303808081261401. Local Number N-112. Domestic Well at Fernandina Beach, FL.

LOCATION.--Lat 30°39'57", long 81°25'55", in land grant 12, T.3 N., R.29 E., Hydrologic Unit 03070205, at Hammond Apartments, 0.2 mi south of intersection of Atlantic Boulevard and State Highway A1A in Fernandina Beach. Owner: Unknown.

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

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

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Land-surface datum is 15 ft above sea level, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1969, December 1974 to December 1975 (monthly); May 1976 to September 1978 (annually); April 1979 to current year (bimonthly). Records prior to 1979 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.16 ft below land-surface datum, Dec. 28, 1975; lowest measured, 33.79 ft below land-surface datum, Dec. 23, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 28...	1320	24.72	APR 26...	1115	24.71
DEC 27...	1450	14.90	JUN 27...	1130	24.69
FEB 25...	0810	20.12	AUG 30...	1315	24.86

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

171

NASSAU COUNTY

WELL NUMBER.--304001081280301. Local Number N-117. Rayonier Test Well at Fernandina Beach, FL.

LOCATION.--Lat 30°40'01", long 81°28'03", in land grant 23, T.3 N., R.28 E., Hydrologic Unit 03070205, 400 ft east of Amelia River, and 0.3 mi southwest of City Hall in Fernandina Beach. Owner: ITT Rayonier Incorporated.

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

WELL CHARACTERISTICS.--Drilled, artesian, observation well, diameter 12 to 6 in., depth 2,100 ft, cased to 2,000 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage or chalked tape.

DATUM.--Land-surface datum is 5 ft above sea level, from topographic map. Measuring points: Top of lowest flange, 0.55 ft above land-surface datum (pressure gage); top of threaded sleeve, 4.49 ft above land-surface datum (chalked tape).

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--July 1979 to March 1984, August 1984, August 1985 to March 1986, April 1986 to February 1994 (monthly) discontinued. Records prior to 1991 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.55 ft above land-surface datum, Jan. 30, 1989; lowest measured, 2.57 ft below land-surface datum, May 31, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 28...	1130	-11.75	JAN 25...	1205	-13.35
NOV 24...	1210	-12.85	FEB 25...	0920	-13.85
DEC 27...	1355	-14.95			

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

NASSAU COUNTY

WELL NUMBER.--304002081381201. Local Number N-53. Rayonier Inc. Well near Yulee, FL.

LOCATION.--Lat 30°40'18", long 81°38'28", in land grant 50, T.3 N., R.27 E., Hydrologic Unit 03070205, 50 ft north of intersection of U.S. Highway 17 and Crandall Road, 0.3 mi northwest of Yulee Fire Tower, 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, domestic, artesian well, diameter unknown, depth 500 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 20.22 ft above sea level. Measuring point: Top of 2 in. valve, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--February to November 1940, April to July 1944, September 1955, January 1960, May 1962, May 1964 to September 1978 (annually); April 1979 to June 1994 (monthly) discontinued. Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.72 ft above sea level, May 30, 1940; lowest measured, 24.30 ft above sea level, Sept. 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1050	27.72	MAR 29...	1010	29.42
NOV 24...	1140	28.02	APR 26...	0950	29.32
DEC 27...	1300	28.32	MAY 17...	1300	28.92
JAN 25...	1105	28.52	JUN 27...	1000	29.52
FEB 25...	1015	29.02			

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 22 ft above sea level, from topographic map. 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 to September 1994 (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.05 ft above land-surface datum, May 25, 1984; lowest measured, 7.14 ft above land-surface datum, Aug. 30, 1994

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
AUG 30...	0945	-7.14	SEP 20...	1215	-7.23

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

NASSAU COUNTY

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 NE¹/₄SE¹/₄NW¹/₄, 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, May 1978, April 1979 to September 1981 (bimonthly), May 1982 to September 1985 (semiannually), October 1985 to November 1985 (bimonthly), December 1985 to current year. Records prior to 1977 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 8.97 ft above sea level, Mar. 18-21, 1992; lowest water level measured, 30.30 ft below sea level, Sept. 25, 1978.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-11.36	-12.28	-10.96	-6.49	-10.19	-12.68	-12.90	-13.41	-10.75	-14.59	-14.72	-14.26
10	-11.82	-10.59	-10.43	-8.91	-10.43	-11.58	-14.18	-15.20	-12.99	-15.54	-15.04	-15.96
15	-11.79	-10.62	-8.67	-9.21	-9.03	-12.70	-7.98	-14.84	-15.63	-13.45	-16.27	-14.04
20	-12.75	-10.85	-7.40	-8.97	-8.65	-15.96	-9.88	-12.79	-14.73	-14.12	-16.93	-14.31
25	-11.45	-8.04	-7.22	-9.61	-10.51	-15.29	-11.54	-13.93	-14.65	-13.09	-14.38	-14.23
EOM	-13.57	-8.54	-4.80	-12.23	-11.19	-14.32	-13.54	-11.14	-15.97	-15.64	-13.47	-12.93
MAX	-5.12	-7.96	-4.80	-4.85	-8.02	-10.99	-7.98	-11.14	-9.29	-12.19	-12.93	-12.93
WTR YR 1994	MAX -4.80											

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 NE¹/₄NW¹/₄NW¹/₄ 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, 36.25 ft above sea level, Sept. 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1005	39.44	APR 26...	0905	42.28
NOV 24...	1105	40.01	MAY 18...	1115	41.65
DEC 27...	1140	40.14	JUN 27...	0925	40.61
JAN 25...	1025	40.72	JUL 27...	0930	40.77
FEB 25...	1120	41.94	AUG 30...	1100	40.80
MAR 29...	1105	42.58	SEP 21...	0920	41.00

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

NASSAU COUNTY

WELL NUMBER.--304640081583801. Local Number WN-18. Domestic Well at Boulogne, FL.

LOCATION.--Lat 30°46'42", long 81°58'20", in land grant 41, T.4 N., R.23 N., Hydrologic Unit 03070204, 500 ft north of State Highway 121, and 0.5 mi northeast of intersection of U.S. Highway 1 and State Highway 121 in Boulogne. Owner: Mr. Siprelle.

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

WELL CHARACTERISTICS.--Drilled, private, artesian well, diameter 4 in., depth 700 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 20.80 ft above sea level. Measuring point: Top of 4 in. tee, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1966, May 1977 to June 1983 (semiannually); July 1983 to current year (monthly). Records prior to 1985 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.50 ft above sea level, May 9, 1966; lowest measured, 35.70 ft above sea level, Sept. 27, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
28...	0920	38.80	26...	0850	41.80
NOV			MAY		
24...	1055	39.50	18...	1050	41.10
DEC			JUN		
27...	1130	39.70	27...	0900	40.10
JAN			JUL		
25...	1010	40.20	27...	0915	40.20
FEB			AUG		
25...	1100	41.20	30...	1045	40.10
MAR			SEP		
29...	1045	41.40	21...	0940	40.40

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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NASSAU COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
303357081295601	05-17-94	1110	N-119 CHARLES ALLEN WELL N-100 SUB	26.45
	09-20-94	1130		28.15
303417081342201	05-17-94	1015	N-118 COX WELL HART'S RD NR HEDGES	28.10
	09-20-94	1100		29.30
303658081422601	05-18-94	1310	N-50	34.89
	09-21-94	1130		34.79
303754081362701	05-18-94	1420	N-44	26.91
	09-21-94	1230		27.03
303805081273901	05-19-94	1250	N-106	-24.36
	09-22-94	0940		27.18
303819081455701	05-18-94	1230	N-98	36.90
	09-21-94	1100		36.30
303836081274201	05-19-94	1230	N-32	-18.80
	09-22-94	1030		-29.00
303939081312601	05-17-94	1140	N-20	1.20
	09-22-94	0910		1.68
304150081470301	05-18-94	1200	N-99	39.90
	09-21-94	1015		39.30
304317081372301	05-17-94	1230	N-67	25.10
	09-20-94	1230		24.70
304324081555901	05-18-94	1030	N-129	36.21
	09-21-94	0900		35.60

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 32
OKEECHOBEE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	273127080481401	178

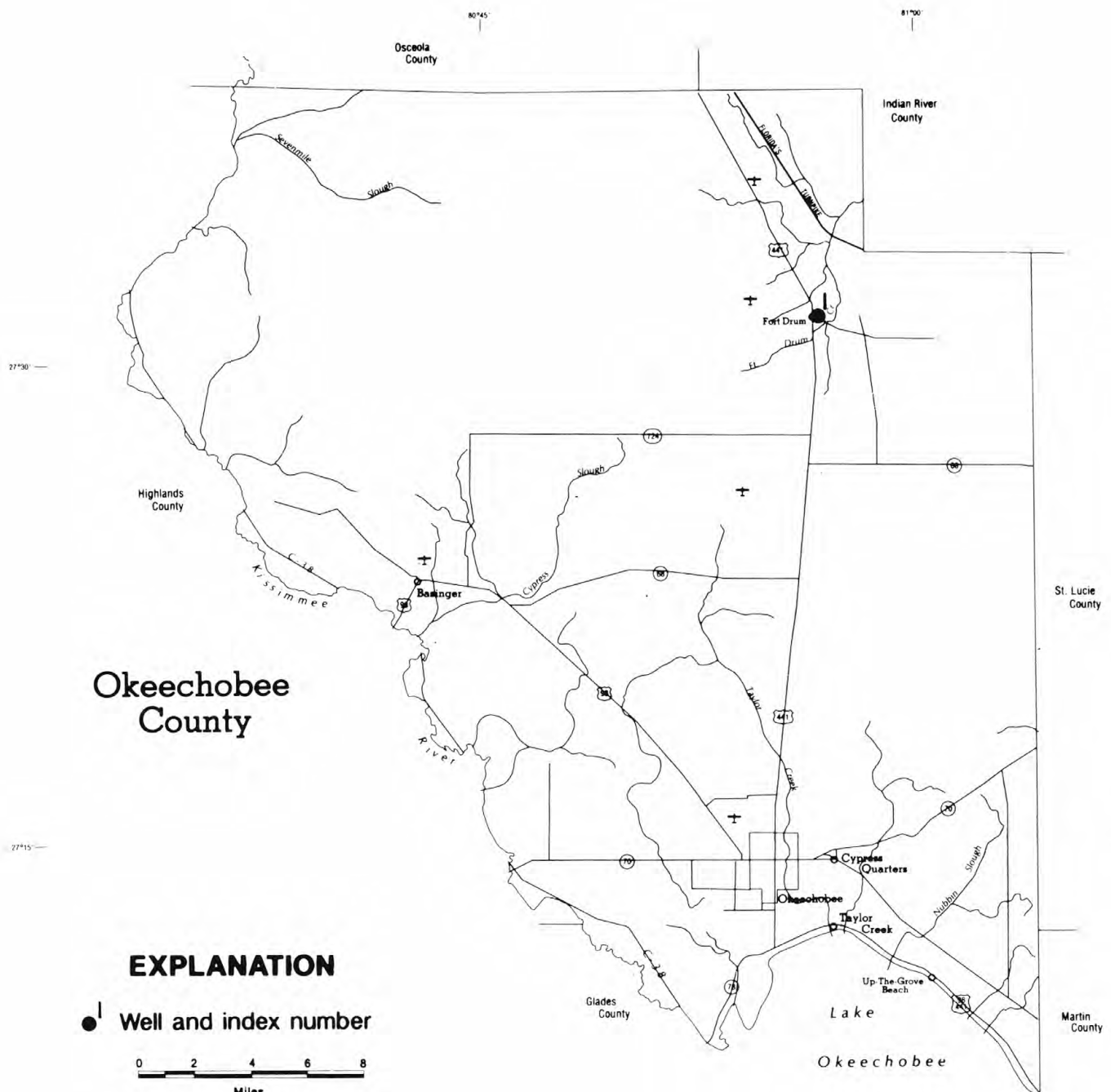


Figure 32.--Location of wells in Okeechobee County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OKEECHOBEE COUNTY

WELL NUMBER.--273127080481401. OK-1 Well at Fort Drum, FL.

LOCATION.--Lat 27°31'27", long 80°48'14", in SE¹/₄SW¹/₄SW¹/₄ 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). Records prior to October 1986 are unpublished and available in files of the Altamonte Springs subdistrict office.

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.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	1010	45.00	18...	1128	43.18
NOV			23...	1130	43.26
22...	1100	44.19	JUN		
DEC			30...	0939	44.56
27...	1110	43.61	JUL		
JAN			25...	1020	44.20
27...	1036	44.77	AUG		
FEB			25...	1015	45.15
23...	1106	45.27	SEP		
MAR			20...	1612	46.16
28...	1130	44.30	27...	1115	46.34
APR					
28...	1020	43.41			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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OKEECHOBEE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
271340080504001	05-12-94 09-19-94	0855 1544	OKF-31	47.80 50.82
271438080571901	05-12-94	0827	714057--	47.54
272010080550801	05-12-94 09-21-94	1003 1244	DIXIE RANCH (OKF-17)	46.23 47.39
272158080470901	05-25-94 09-21-94	1420 1048	JONES WELL S DARK HAMMOCK RD (OKF-7)	44.81 47.52
272704081053501	05-10-94	1130	727105--	46.60
272726081003901	05-10-94	1125	727100-- 35S33E02 BASS WELL N OF BASSINGER	45.17
273007081114601	05-11-94	1330	OKF-40 EXP WELL S65C	45.87
273217081012601	05-10-94 09-19-94	1105 1136	PEAVINE TRAIL W (OKF-34)	45.36 47.94
273502080535501	05-10-94 09-16-94	1040 0920	735053-- 33S34E23 FITE WELL 3 MI S OF OSCEOLA	38.45 40.12
273509080504201	05-18-94 09-23-94	1107 1215	73505001 33S35E20 COOK	41.43 44.56
273726080471701	05-18-94 09-23-94	0955 1116	73704701 LATT MAXCY J-1 NE OF FORT DRUM, FL	37.50 41.50
273740080551201	05-10-94	1050	737055 33S34E03 FORT DRUM NW	37.79

KEY TO SITE LOCATIONS ON FIGURE 33
ORANGE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	282051081183401	182
2	282202081384601	183
2	282202081384602	183
3	282210081352601	184
4	282341081040101	185
5	282348080564701	186
6	282406081093602	186
7	282434081283102	187
8	282510081054501	188
8	282510081054502	189
8	282510081054503	189
9	282528081340901	190
10	282531081054301	190
11	282531081095701	191
12	282532081075601	192
12	282533081082202	193
12	282533081082204	194
12	282533081082205	195
12	282533081082206	196
13	282623081153801	197
14	282738081341401	197
15	282739081054501	198
16	282835081305201	198
17	282847081013701	199
17	282847081013702	200
18	283249081053201	200
18	283249081053202	201
18	283249081053203	201
19	283253081283401	202
20	283333081233501	202
20	283333081233502	203
21	283340081222801	203
21	283340081222802	204
21	283340081222803	204

Orange County

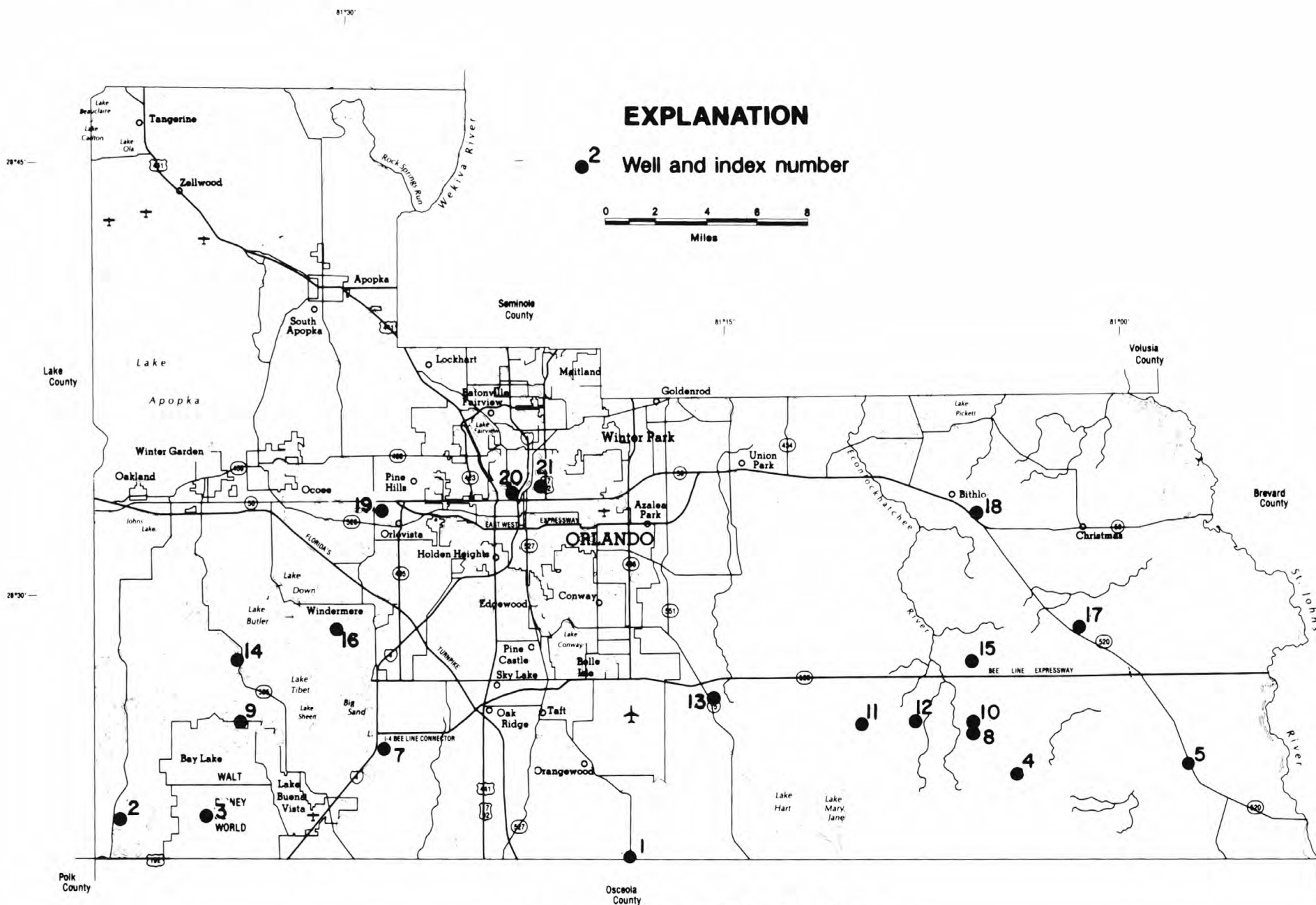


Figure 33.--Location of wells in Orange County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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 SW¹/₄SW¹/₄SW¹/₄ sec.34, T24 S., R30 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). Records prior to May 1986 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.92 ft above sea level, Dec. 12, 1963, lowest measured, 43.30 ft above sea level, May 11, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	0648	48.27	17...	0845	45.46
NOV			23...	0930	44.45
22...	0743	47.62	JUN		
DEC			30...	0624	47.60
27...	0802	46.98	JUL		
JAN			25...	0800	47.91
27...	0750	48.21	AUG		
FEB			25...	0630	49.81
23...	0739	48.70	SEP		
MAR			12...	1353	50.27
30...	1050	46.81	27...	0650	51.70
APR					
28...	0718	46.00			

ORANGE COUNTY

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 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

[illegible]

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 115.54 ft above sea level, Sept. 10, 1960; lowest unknown, more than 108.00 ft below sea level, during period May to July 1981 (casing collapsed).

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

[illegible]

WELL NUMBER.--282210081352601. Disney Shallow Well at Tree Farm near Vineland, FL.

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 99.91 ft above sea level, Nov. 3, 1987; lowest, 93.35 ft above sea level, present datum, May 14, 1971.

[illegible]

ORANGE COUNTY

WELL NUMBER.--282341081040101. Cocoa-A Well near Bithlo, FL.

LOCATION.--Lat 28°23'41", long 81°04'01", in SE¹/₄SW¹/₄SE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 43.59 ft above sea level, Sept. 30, Oct. 17, 1960; lowest, 30.55 ft above sea level, May 19,24, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.67	36.47	36.29	35.81	36.66	37.18	35.53	34.77	34.62	36.24	36.27	37.50
10	35.97	36.29	36.22	35.79	36.67	37.17	35.11	34.77	35.24	36.29	36.69	37.52
15	36.04	36.17	36.24	35.99	36.51	37.04	34.70	34.65	35.51	35.94	36.99	37.81
20	36.14	36.13	35.89	36.07	36.88	36.55	---	34.68	35.88	36.09	37.13	38.19
25	36.51	36.23	35.72	36.26	37.04	35.94	34.67	34.65	36.11	36.11	37.31	38.39
EOM	36.58	36.02	35.37	36.43	36.93	35.65	34.80	34.32	36.06	36.29	37.51	38.31
MAX	36.63	36.51	36.30	36.53	37.08	37.36	---	34.95	36.16	36.34	37.53	38.53
CAL YR 1993	MAX 38.35											

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-72, 1992.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
APR 19...	1532	33.97	581	7.2	23.0	5	110	2.8	12	
SEP 01...	0926	37.22	566	7.1	24.5	20	110	2.4	10	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	0.75	302	0.50	14	0.10	22	356	3400	520	
SEP 01...	0.73	296	1.0	15	0.10	21	352	5100	540	

ORANGE COUNTY

WELL NUMBER.--282348080564701. Palmetto Well near Bithlo, FL.

LOCATION.--Lat 28°23'48", long 80°56'47", in NE¹/₄SE¹/₄SE¹/₄ 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, 29.89 ft above sea level, May 13, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	0838	35.95	16...	1445	33.94
NOV			24...	0910	34.05
23...	1040	35.61	JUN		
DEC			29...	0945	35.30
29...	0912	34.93	JUL		
JAN			26...	1008	35.38
26...	0831	35.47	AUG		
FEB			26...	0920	36.55
24...	0935	37.32	SEP		
MAR			12...	1104	36.70
29...	1044	34.87	28...	0831	37.89
APR					
27...	0932	33.94			

WELL NUMBER.--282406081093602. Cocoa R near Bithlo, FL.

LOCATION.--Lat 28°24'06" long 81°09'36", in SW¹/₄SW¹/₄NW¹/₄ 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.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 68.20 ft above sea level. Measuring point: Top of threaded coupling, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--September 1993 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.90 ft above sea level, Mar. 15, 1994; lowest measured, 34.08 ft above sea level, Apr. 20, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

OCT			APR		
05...	1135	35.53	20...	1112	34.08
NOV			27...	1406	35.67
04...	1308	36.43	JUN		
DEC			01...	1035	34.09
01...	0845	35.94	JUL		
MAR			07...	1250	36.29
15...	144	36.90	AUG		
			04...	1300	36.29

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WELL NUMBER.—282434081283102. Sea World Drive Replacement Well near Vineland, FL.

[illegible]

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282510081054501. Cocoa-1 Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¹/₄NE¹/₄NE¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.90 ft above sea level, Sept. 21, 1994; lowest measured, 30.36 ft above sea level, May 27, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 05...	1330	34.98	JUN 01...	0944	35.40
NOV 04...	1420	36.57	JUL 07...	1125	37.41
DEC 01...	1054	36.41	AUG 04...	0846	36.93
JAN 11...	1311	35.59	SEP 01...	1225	39.14
MAR 15...	1417	38.26	21...	1323	39.90
APR 20...	1340	33.86			

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1967, 1968, 1989 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 20...	1340	33.86	772	7.3	24.5	10	110	11	42
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	1.8	264	74	68	0.20	23	536	70	1100

ORANGE COUNTY

WELL NUMBER.--282510081054502. Cocoa-M Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¹/₄NE¹/₄NE¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 05...	1332	65.74	APR 19...	1341	65.46
NOV 04...	1430	66.40	JUN 01...	0947	64.64
DEC 01...	1100	65.62	JUL 07...	1135	66.43
JAN 11...	1316	65.66	AUG 04...	0858	66.72
MAR 15...	1420	66.79	SEP 01...	1232	67.12

WELL NUMBER.--282510081054503. Cocoa 1-T Well near Bithlo, FL.

LOCATION.--Lat 28°25'10", long 81°05'45", in SE¹/₄NE¹/₄NE¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 05...	1335	60.61	APR 19...	1345	60.93
NOV 04...	1424	61.50	JUN 01...	0955	59.57
DEC 01...	1058	60.63	JUL 07...	1130	61.95
JAN 11...	1318	59.63	AUG 04...	0852	61.25
MAR 15...	1423	61.36	SEP 01...	1228	61.37

ORANGE COUNTY

WELL NUMBER.--282528081340901. Bay Lake Deep Well near Windermere, FL.

LOCATION.--Lat 28°25'28", long 81°34'09", in SW¹/₄NE¹/₄SW¹/₄ sec.1, T.24 S., R.27 E., Hydrologic Unit 03090101, on north shore of Bay Lake, 0.8 mi northeast of Walt Disney World 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 96.91 ft above sea level, Oct. 31, 1966; lowest, 81.63 ft above sea level, Apr. 16, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.88	85.40	85.95	87.05	87.44	87.06	83.22	---	---	---	---	---
10	86.38	85.49	85.72	87.04	85.58	86.61	83.89	---	---	---	---	---
15	86.65	85.88	86.16	87.15	86.55	85.87	81.95	---	---	---	---	---
20	85.98	85.79	85.59	87.73	86.89	---	---	83.34	---	---	---	---
25	85.52	86.70	86.19	87.66	86.69	---	---	81.88	---	---	---	---
EOM	85.37	86.74	85.86	87.45	86.71	---	---	---	---	85.61	---	---
MAX	87.07	86.74	86.62	87.79	87.79	---	---	---	---	---	---	---

WELL NUMBER.--282531081054301. Cocoa-O Well near Bithlo, FL.

LOCATION.--Lat 28°25'31", long 81°05'43", in NW¹/₄SW¹/₄SW¹/₄ 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 Beeline Expressway (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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
05...	1008	60.64	19...	1352	61.42
NOV			JUN		
04...	1409	58.59	01...	0921	59.93
DEC			JUL		
01...	1110	60.74	07...	1100	62.56
JAN			AUG		
11...	1107	56.04	04...	0835	61.29
MAR					
15...	1054	56.34			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ORANGE COUNTY

WELL NUMBER.--282531081095701. Cocoa-D Well near Narcoossee, FL.

LOCATION.--Lat 28°25'31", long 81°09'57", in NE¹/₄SW¹/₄SE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.04 ft above sea level, Dec. 12, 1963; lowest daily maximum water level, 28.80 ft above sea level, May 26, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.76	33.23	33.09	33.91	36.18	34.31	30.97	31.22	32.32	33.52	32.74	---
10	33.22	32.37	31.67	33.03	35.31	34.47	30.84	30.24	32.29	33.06	33.61	---
15	32.11	32.36	33.03	33.52	35.09	34.37	30.57	30.31	32.53	32.40	35.25	36.25
20	34.33	33.03	32.59	33.81	35.17	32.70	31.95	32.12	33.05	34.79	34.60	35.98
25	33.92	33.89	33.56	35.05	35.01	32.07	31.48	31.36	32.66	35.11	34.96	37.26
EOM	34.21	33.33	33.68	35.03	34.33	32.48	30.62	30.32	31.98	34.01	---	36.84
MAX	34.52	33.89	33.90	35.62	37.21	35.35	32.32	33.40	35.17	35.89	---	---

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1968, 1980, 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 21...	1158	29.91	604	7.3	26.5	15	110	3.5	21
AUG 30...	1315	--	603	7.4	24.5	15	110	4.1	25

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 21...	0.83	332	2.9	15	0.20	31	404	3400	520
AUG 30...	1.0	242	1.2	13	0.20	31	397	410	540

ORANGE COUNTY

WELL NUMBER.--282532081075601. Cocoa-B Well near Bithlo, FL.

LOCATION.--Lat 28°25'32", long 81°07'56", in SW¹/₄NE¹/₄SE¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.37 ft above sea level, June 23, 1966; lowest measured, 21.42 ft above sea level, Aug. 5, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			APR		
05...	1215	31.31	19...	1155	29.95
NOV			JUN		
04...	1100	32.18	01...	1008	30.19
DEC			JUL		
01...	1335	32.52	07...	1205	33.62
JAN			AUG		
11...	1241	32.00	04...	1240	32.72
MAR			SEP		
15...	1110	34.95	01...	1255	34.08

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ORANGE COUNTY

WELL NUMBER.--282533081082202. Cocoa-C (Zone 1) Well near Bithlo, FL.**LOCATION.--**Lat 28°25'33", long 81°08'22", in SW¹/₄NE¹/₄SW¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.**EXTREMES FOR PERIOD OF RECORD.--**Highest water level measured, 43.81 ft above sea level, Dec. 6, 1965; lowest measured, 28.73 ft above sea level, May 27, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)
OCT					JUN				
05...	1410	31.14	2900	10300	01...	1205	32.90	--	--
NOV					JUL				
04...	1230	--	2900	10400	08...	1022	34.96	--	--
05...	1005	31.88	--	--	14...	0920	34.89	--	--
DEC					15...	1015	31.89	3000	10600
01...	1246	31.43	2600	10400	AUG				
JAN					04...	1305	--	3000	10600
11...	1138	31.27	--	--	05...	1055	31.56	--	--
FEB					30...	1001	32.90	--	--
08...	1018	32.05	--	--					
APR									
20...	1241	32.80	--	--					

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282533081082204. Cocoa-C (Zone 3) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¹/₄NE¹/₄SW¹/₄ 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 1,224 ft, cased to 1,218 ft.

WATER LEVEL RECORDS

INSTRUMENTAION.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft above sea level, Feb. 2, 1970; lowest measured, 33.11 ft above sea level, July 4, 1986.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)	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)
AUG 03...	1438	741	7.7	24.0	5	110	17	46	2.5
DATE	TIME	ALKA- LINIT WAT DIS TOT 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 AS (MG/L)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
AUG 03...		218	140	83	0.20	20	582	20	10000
DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
OCT 05...	1412	37.07	--	858	APR 20...	1245	36.70	--	--
NOV 04...	1000	--	80	863	JUN 01...	1207	36.78	--	--
DEC 05...	1000	37.94	--	--	JUL 08...	1032	37.68	--	--
JAN 01...	1235	37.47	83	856	14...	0922	37.65	82	809
FEB 11...	1135	37.20	88	900	AUG 03...	1438	--	83	741
FEB 08...	1020	37.94	--	--	05...	1100	37.61	82	848
					30...	1010	38.84	--	--

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ORANGE COUNTY

WELL NUMBER.--282533081082205. Cocoa-C (Zone 4) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¹/₄NE¹/₄SW¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.27 ft above sea level, Oct. 31, 1969; lowest measured, 33.09 ft above sea level, May 27, 1981.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

ELEVATION AND WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)		
AUG 31...	0841	38.66	583	8.1	24.0	5	76	7.0	20		
DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	
AUG 31...	1.4	238	35	40	0.30	20	409	7	44000		
DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SPE- CIFIC CON- DUCT- ANCE (US/CM)					ELEV- ATION ABOVE NGVD (FEET)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
OCT 05...	1414	38.23	36	592							
NOV 05...	0945	37.76	37	585							
DEC 01...	1243	37.33	38	571							
JAN 11...	1142	38.05	--	--							
FEB 08...	1022	37.87	--	--							
	1038	37.88	--	--							

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

ORANGE COUNTY

WELL NUMBER.--282533081082206. Cocoa-C (Zone 5) Well near Bithlo, FL.

LOCATION.--Lat 28°25'33", long 81°08'22", in SW¹/₄NE¹/₄SW¹/₄ 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 8 in., depth 1,004 ft, cased to 248 ft.

WATER LEVEL RECORDS

INSTRUMENTATION.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.18 ft above sea level, Dec. 4, 1969; lowest measured, 26.83 ft above sea level, May 27, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 05...	1418	32.12	APR 20...	1249	31.89
NOV 05...	0941	32.23	JUN 01...	1211	29.45
DEC 01...	1232	32.75	JUL 08...	1041	31.79
JAN 11...	1140	31.59	14...	0925	31.79
FEB 08...	1023	34.95	AUG 04...	1005	31.98
16...	1040	33.37	31...	0844	35.96

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)
AUG 31...	0844	35.96	875	8.2	23.5	10	320	100	15

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (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)
AUG 31...	67	2.8	218	97	120	0.10	17	573	3300

ORANGE COUNTY

WELL NUMBER.--282623081153801. Cocoa-P Well near Taft, FL.

LOCATION.--Lat 28°26'23", long 81°15'38", in NW¹/₄NW¹/₄SW¹/₄ 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 91.48 ft above sea level. Prior to Oct. 1, 1977, land-surface datum was considered to be 91 ft, from topographic map. Measuring point: Top of shelf, 4.03 ft above land-surface datum.

PERIOD OF RECORD.--April 1961 to January 1971 (bimonthly); March 1971 to current year. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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, 39.09 ft above sea level, May 19, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.65	45.19	44.33	44.39	45.47	45.93	42.83	42.34	42.32	45.41	46.25	47.94
10	44.30	44.68	44.03	44.20	45.23	45.41	42.05	41.71	45.05	45.49	46.60	48.65
15	44.15	44.51	44.19	44.70	45.17	45.17	41.57	41.32	44.88	44.55	47.43	49.49
20	44.80	44.36	43.73	45.09	45.54	44.43	41.10	41.66	46.20	44.90	48.18	50.40
25	45.51	44.55	44.03	44.96	45.48	43.55	42.85	41.21	45.27	45.30	48.35	50.54
EOM	45.32	44.40	43.73	45.34	45.29	43.24	42.31	41.25	43.77	46.34	48.39	51.02
MAX	45.56	45.27	44.33	45.34	45.57	45.97	43.24	---	46.23	46.34	48.58	51.28

WELL NUMBER.--282738081341401. Lake Sawyer Well near Windermere, FL.

LOCATION.--Lat 28°27'38", long 81°34'14", in SW¹/₄NE¹/₄NW¹/₄ 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, 86.27 ft above sea level, Mar. 17, 1983; lowest, 72.39 ft above sea level, Oct. 22, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	79.39	81.24	80.22	81.08	81.70	81.68	78.37	79.26	79.07	81.32	83.01	83.79
10	81.14	81.13	79.41	81.15	81.10	81.11	78.30	78.24	80.14	81.90	82.57	83.67
15	81.12	80.69	80.15	81.15	80.90	80.52	75.29	77.36	80.60	81.47	83.16	84.82
20	81.49	80.41	80.31	81.41	81.57	79.70	76.55	78.40	81.49	81.32	83.30	85.36
25	81.24	81.05	80.71	81.45	81.47	78.71	79.22	78.40	81.51	81.66	83.27	85.40
EOM	81.23	80.93	80.49	81.47	81.39	79.20	79.15	77.85	80.43	82.52	83.76	85.80
MAX	81.70	81.25	80.71	81.52	81.70	81.69	79.46	79.28	81.69	82.52	83.87	85.80

ORANGE COUNTY

WELL NUMBER.--282739081054501. Cocoa-F Well near Bithlo, FL.

LOCATION.--Lat 28°27'39", long 81°05'45", in SE¹/₄SE¹/₄NE¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.92 ft above sea level, June 24, 1960; lowest measured, 30.15 ft above sea level, May 27, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
05...	1305	34.80	16...	1550	33.76
NOV			JUN		
05...	1036	35.69	01...	0905	33.36
DEC			JUL		
01...	1000	35.19	07...	1038	35.36
JAN			AUG		
10...	1010	34.94	05...	1035	35.40
MAR			SEP		
15...	1034	36.16	01...	0915	36.51
APR			21...	1410	37.39
20...	1532	33.44			

WELL NUMBER.--282835081305201. Palm Lake Drive Well near Windermere, FL.

LOCATION.--Lat 28°28'39", long 81°30'26", in SE¹/₄NW¹/₄NW¹/₄ 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--60-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, 73.58 ft above sea level, Apr. 1, 1987; lowest, 57.48 ft above sea level, May 18, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.91	65.77	64.53	65.49	66.30	66.69	61.95	63.16	64.16	65.87	---	---
10	65.71	65.41	63.98	65.33	65.63	65.71	---	---	66.90	66.20	---	69.46
15	65.03	64.90	64.32	66.22	66.02	65.19	59.84	---	66.97	65.40	---	71.57
20	65.42	64.93	64.07	66.19	67.58	63.53	59.84	---	67.81	65.53	---	73.04
25	65.91	65.61	64.90	65.50	66.69	---	63.86	---	66.26	66.86	---	72.16
EOM	66.26	65.59	64.82	66.36	65.73	---	---	62.39	58.02	---	---	73.45
MAX	66.80	66.42	65.52	66.41	67.58	---	---	---	---	---	---	---

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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ORANGE COUNTY

WELL NUMBER.--282847081013701. Cocoa-H Well near Bithlo, FL.

LOCATION.--Lat 28°28'47", long 81°01'37", in SW¹/₄NW¹/₄NW¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 05...	1045	34.25	MAY 16...	1515	33.19
NOV 05...	1100	35.06	JUN 01...	0840	32.82
DEC 01...	0930	34.61	JUL 08...	0936	34.74
JAN 10...	0920	34.36	AUG 05...	0930	34.83
MAR 15...	1011	35.50	31...	1235	35.98
APR 20...	1305	32.83	31...	1440	--
			SEP 12...	1130	36.07

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1970-72, 1991 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 20...	1305	32.83	718	7.0	24.0	<5	64	30	44
AUG 31...	1440	--	769	7.4	24.5	5	61	30	53
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CA CO3	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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	2.1	--	65	87	0.70	30	477	180	2100
AUG 31...	2.2	184	77	100	0.50	23	534	180	2100

WELL NUMBER.--282847081013702. Cocoa-K Well near Bithlo, FL.

AQUIFER.—Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

INSTRUMENTATION.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 59.81 ft above sea level, Oct. 3, 1969; lowest, 54.82 ft above sea level, May 14, 1975.

DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)	DATE	TIME	ELEV- ATION ABOVE NGVD (FEET)
OCT 05...	1051	56.09	MAY 16...	1510	55.84
NOV 05...	1103	56.80	JUN 01...	0842	55.36
DEC 01...	0932	56.18	JUL 08...	0940	58.61
JAN 10...	0923	56.29	AUG 05...	0932	58.86
MAR 15...	1016	57.64	31...	1232	58.69
APR 20...	1300	56.09	SEP 12...	1135	58.80

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

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

DATUM.—Elevation of land-surface datum is 63.58 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1960 to current year. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 42.98 ft above sea level, Oct. 31, 1960; lowest, 30.48 ft above sea level, May 23, 1981.

[illegible]

ORANGE COUNTY

WELL NUMBER.--283249081053202. Bithlo-2 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¹/₄NW¹/₄SW¹/₄ 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 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.60 ft above sea level, Jan. 26, 1971; lowest measured, 43.65 ft above sea level, June 7, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
05...	1011	46.21	16...	1620	44.78
NOV			JUN		
05...	1118	47.61	01...	0813	44.06
DEC			JUL		
01...	1528	47.25	08...	0904	47.09
JAN			AUG		
10...	0904	46.92	05...	0958	47.92
MAR			31...	0945	48.90
15...	0942	47.65	SEP		
APR			12...	1150	48.91
20...	0854	46.09			

WELL NUMBER.--283249081053203. Bithlo-3 Well at Bithlo, FL.

LOCATION.--Lat 28°32'49", long 81°05'32", in NE¹/₄NW¹/₄SW¹/₄ 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 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.21 ft above sea level, Aug. 28, 1964; lowest measured, 56.71 ft above sea level, Mar. 5, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
05...	1014	58.96	16...	1625	57.68
NOV			JUN		
05...	1121	60.16	01...	0816	57.17
DEC			AUG		
01...	1530	58.99	05...	1001	60.58
JAN			31...	0947	62.40
10...	0906	58.21	SEP		
MAR			12...	1153	62.60
15...	0943	59.96			
APR					
20...	0858	58.34			

ORANGE COUNTY

WELL NUMBER.--283253081283401. OR-47 Well at Orlo Vista, FL.

LOCATION.--Lat 28°32'53", long 81°28'34", in SE¹/₄NE¹/₄NE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 80.78 ft above sea level, Mar. 20, 1960; lowest, 49.80 ft above sea level, June 19, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.16	58.04	56.95	56.94	57.28	57.51	55.23	54.78	55.09	59.21	---	63.52
10	57.72	57.82	56.72	56.66	56.99	57.28	54.75	54.43	57.31	60.45	---	64.63
15	57.77	57.51	56.75	56.95	56.98	56.95	54.36	53.78	57.85	59.71	---	65.54
20	58.10	57.26	56.45	57.18	57.41	56.35	54.18	54.23	58.78	59.84	---	66.53
25	58.46	57.33	56.66	57.03	57.22	55.92	55.30	53.57	58.15	60.35	---	66.66
EOM	58.26	57.18	56.34	57.42	57.06	55.74	54.79	53.95	57.66	---	63.67	67.95
MAX	58.46	58.25	57.15	57.42	57.50	57.57	55.65	54.78	58.78	---	---	68.13
CAL YR 1993	MAX 61.81											

WELL NUMBER.--283333081233501. Lake Adair 9 Deep Well at Orlando, FL.

LOCATION.--Lat 28°33'33", long 81°23'35", in NW¹/₄NW¹/₄SW¹/₄ 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 chalked tape.

DATUM.--Elevation of land-surface datum is 80.40 ft above sea level. Measuring point: Top of casing, 4.05 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 60.23 ft above sea level, Aug. 9, 1966; lowest measured, 41.88 ft above sea level, May 30, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
28...	1045	47.99	18...	1043	43.32
NOV			24...	1213	43.19
23...	1240	46.64	JUN		
DEC			29...	1225	46.05
29...	1109	46.35	JUL		
JAN			26...	1135	49.30
26...	0958	47.23	AUG		
FEB			25...	1100	52.56
24...	1127	47.79	SEP		
MAR			16...	1345	53.40
29...	1245	45.33	27...	0905	56.41
APR					
27...	1140	45.06			

ORANGE COUNTY

WELL NUMBER.--283333081233502. Lake Adair 10 Shallow Well at Orlando, FL.

LOCATION.--Lat 28°33'33", long 81°23'35", in NW¹/₄NW¹/₄SW¹/₄ 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 chalked tape.

DATUM.--Elevation of land-surface datum is 80.40 ft above sea level. Measuring point: Top of casing, 3.63 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.92 ft above sea level, June 28, 1974; lowest measured, 42.10 ft above sea level, May 30, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
28...	1045	48.95	18...	1048	43.69
NOV			24...	1202	43.49
23...	1245	46.99	JUN		
DEC			29...	1235	46.95
29...	1117	46.77	JUL		
JAN			26...	1115	51.98
26...	0955	47.86	AUG		
FEB			25...	1115	55.42
24...	1135	48.49	SEP		
MAR			16...	1345	55.81
29...	1255	45.76	27...	0920	59.65
APR					
27...	1130	45.73			

WELL NUMBER.--283340081222801. Lake Ivanhoe Interface Well at Orlando, FL.

LOCATION.--Lat 28°33'40", long 81°22'28", in NW¹/₄SE¹/₄NW¹/₄ sec.24, T.22 S., R.29 E., Hydrologic Unit 03080101, on south side of Lake Ivanhoe, and 125 ft west of parking lot in Gaston Edwards Park. 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 4 in., depth 2,089 ft, cased to 2,060 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 80.20 ft above sea level. Measuring point: Top of 4 in. casing, 2.91 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.01 ft above sea level, Sept. 27, 1994; lowest measured, 41.25 ft above sea level, May 10, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
28...	1035	47.48	18...	1110	42.82
NOV			24...	1130	42.62
23...	1215	46.06	JUN		
DEC			29...	1153	45.43
29...	1130	45.82	JUL		
JAN			26...	1015	48.76
26...	0938	46.74	AUG		
FEB			25...	1025	52.07
24...	1109	47.30	SEP		
MAR			16...	1320	52.93
29...	1220	44.72	27...	0820	56.01
APR					
27...	1108	44.42			

ORANGE COUNTY

WELL NUMBER.--283340081222802. Lake Ivanhoe Lower Floridan Well at Orlando, FL.

LOCATION.--Lat 28°33'40", long 81°22'28", in NW¹/₄SE¹/₄NW¹/₄ sec.24, T.22 S., R.29 E., Hydrologic Unit 03080101, on south side of Lake Ivanhoe, and 125 ft west of parking lot in Gaston Edwards Park. 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 2 in., depth 1,350 ft, cased to 1,300 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 80.20 ft above sea level. Measuring point: Top of 2 in. casing, 2.75 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.40 ft above sea level, Sept. 27, 1994; lowest measured, 41.59 ft above sea level, May 10, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1025	47.75	MAY 18...	1115	43.05
NOV 23...	1220	46.31	24...	1238	42.84
DEC 29...	1138	46.05	JUN 29...	1208	45.62
JAN 26...	0943	46.96	JUL 26...	1030	48.90
FEB 24...	1117	47.48	AUG 25...	1035	53.32
MAR 29...	1230	44.93	SEP 16...	1327	53.03
APR 27...	1115	44.61	27...	0840	57.40

WELL NUMBER.--283340081222803. Lake Ivanhoe Upper Floridan Well at Orlando, FL.

LOCATION.--Lat 28°33'40", long 81°22'28", in NW¹/₄SE¹/₄NW¹/₄ sec.24, T.22 S., R.29 E., Hydrologic Unit 03080101, on south side of Lake Ivanhoe, and 125 ft west of parking lot in Gaston Edwards Park. 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 2.5 in., depth 450 ft, cased to 189 ft.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 80.20 ft above sea level. Measuring point: Top of 2.5 in. casing, 2.34 ft above land-surface datum.

PERIOD OF RECORD.--March 1989 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.82 ft above sea level, Sept. 27, 1994; lowest measured, 41.66 ft above sea level, May 30, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 28...	1028	47.92	MAY 18...	1120	43.12
NOV 23...	1220	46.37	24...	1233	42.91
DEC 29...	1135	46.16	JUN 29...	1202	45.86
JAN 26...	0941	47.13	JUL 26...	1030	49.54
FEB 24...	1115	47.70	AUG 25...	1030	51.85
MAR 29...	1221	45.08	SEP 16...	1330	53.55
APR 27...	1110	44.81	27...	0830	55.82

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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ORANGE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
282141081241701	05-17-94 09-15-94	0930 1510	82112401 24S29E34 TELY	44.86 53.67
282145081365601	05-17-94 09-13-94	1423 1125	82113601 24S27E28 HARTZOG RD 4-IN BRITT GRO	97.90 99.93
282241081112801	05-17-94 09-12-94	0730 1324	82211103 24S31E23 MOSS PARK	40.15 43.67
282241081112802	05-17-94 09-12-94	0735 1327	82211104 24S31E23 MOSS PARK SHALLOW	59.48 61.65
282331081370801	05-17-94 09-13-94	1415 1115	82313702 27416 E USGS WELL HARTZOG RD	100.91 102.62
282354081313001	05-17-94 09-13-94	1155 1343	82313104 24S28E17 RCID OBS WELL NO 1	76.91 80.99
282405081053002	09-01-94	1036	82410506 COCOA 4A1 NEAR BITHLO	35.95
282529081073201	09-01-94	1241	82510702 COCOA 7A NEAR BITHLO	36.47
282530081085401	09-01-94	1305	82510802 COCOA 15 NEAR BITHLO	33.27
282534081220601	09-12-94	1415	82512203 24S29E01	52.73
282543081385801	05-14-94 09-13-94	1355 1035	82513801	97.38 96.73
282704081214301	05-18-94	1335	82712101 23S29E25	51.41
282749081315801	05-17-94	1300	82713101 23S28E29	73.18
282838080572401	05-16-94 09-12-94	1300 0920	82805701 23S34E18	34.20 38.45
282848080544501	05-16-94 09-12-94	1335 1000	82805402 23S34E15	29.45 33.65
282911081243601	05-17-94 09-15-94	1032 1430	100 FT S OF AMERICAN BLVD 100 FT W OF TEXAS AVE	41.92 55.44
282923081282801	05-20-94 09-15-94	1120 1317	82912802	57.05 68.21
282936081340201	05-17-94 09-13-94	1318 1245	82913405 23S27E12 ROSS WELL ON LK BUTLER	76.25 83.72
282945081255001	05-20-94	1250	82912501 23S29E08 ORANGE 39	45.22
283011081360002	05-17-94 09-13-94	1337 1233	W ORANGE COUNTRY CLUB WELL NEAR ORLANDO	76.73 83.26
283017081391301	05-17-94 09-13-94	1355 1015	DAVENPORT RD 4-IN WELL, S OF OAKLAND	75.93 77.14
283105081222201	05-18-94 09-16-94	1352 1132	83112203 23S29E36	43.65 56.01
283121081311601	05-20-94	1028	O-197 LK OLIVIA DRAIN WELL	62.38
283144081254201	05-20-94 09-15-94	1145 1358	83112504 LK MANN DRAIN WELL O-174 ORLANDO	47.66 34.73
283157081180401	05-18-94	1245	83111802 22S30E34 ENGLEWOOD S/D DRAIN WEL	51.60
283214080583501	05-16-94 09-12-94	1237 0850	83205801 22S33E36	24.06 28.16
283307081300801	05-18-94 09-13-94	1505 0810	83313001 22S28E22 W-5110 LK SHERWOOD D WL	58.02 68.81

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

ORANGE COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
283325081374001	09-13-94	0850	83313703 22S27E20	77.63
283326081262101	05-18-94 09-16-94	1424 1055	83312601 22S29E20 LK LAWNE SOUTH SIDE DRAINAGE WELL	45.26 56.40
283417081331401	05-20-94 09-13-94	0900 0850	83413302 22S28E18	65.19 110.50
283436081194501	05-18-94 09-16-94	1155 0900	83411901 22S30E17 LAKE SPEIR SO DRAINAGE WELL	42.77 51.33
283441081203301	05-18-94 09-16-94	1145 0915	83412002 22S30E17	42.29 51.85
283528081235201	05-18-94	1007	83512302 22S29E10	44.61
283548081181401	05-18-94	0851	83511802 22S30E10	39.97
283623081230501	09-16-94	0950	83612301 22S29E02	52.70
283654081260801	05-18-94 09-16-94	1020 1030	83612604 21S29E32	50.47 60.53
283813081325701	05-20-94 09-15-94	0920 1220	83813204 21S28E30 APOPKA AGRI R.C.	52.80 59.88
284059081365401	05-20-94 09-15-94	0848 1015	84013601 21S27E09	56.59 61.22
284234081273901	05-19-94 09-15-94	1117 0935	84212702 20S28E36	19.69 22.13
284330081360501	05-19-94 09-15-94	1305 1037	84313603 20S27E27 JEWEL FOULAGE	51.40 56.52
284429081272001	05-19-94 09-14-94	0845 1305	84412701 20S29E19	26.00 30.70
284453081284401	05-19-94 09-15-94	1047 0900	84412801 20S28E14	32.28 35.48
284453081365101	05-19-94 09-15-94	1240 1120	84413601 20S27E16 SADLER RD NR LK OLA	47.32 52.08
284528081301101	05-19-94 09-15-94	0955 1145	84513005 20S28E10	28.33 28.85
284529081301001	05-19-94 09-15-94	1000 1140	84513001 20S28E10	33.19 34.73
284541081265201	05-19-94 09-14-94	0815 0850	84512601 20S29E07	28.80 31.90
284635081280601	05-19-94 09-14-94	1020 1343	84612801	31.20 35.70

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994

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ORANGE COUNTY

282344081054201 - 82310501 COCOA 11 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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 20...	1010	33.47	1160	7.4	25.5	10	110	20	110
SEP 01...	1157	--	1160	7.3	25.5	10	110	20	110

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	4.1	216	120	200	0.20	20	775	10	3100
SEP 01...	4.0	210	120	200	0.20	20	765	20	2900

282356081091901 - COCOA 22

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)	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 20...	1024	615	7.3	25.5	20	88	9.5	24	1.8
AUG 30...	1345	574	7.2	25.5	10	86	10	23	1.8

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	254	32	32	0.20	22	374	30	670
AUG 30...	252	31	34	0.20	22	368	20	680

282404081050501 - 82410504 COCOA 12B 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)	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 19...	1115	1310	7.2	25.0	10	120	22	130	4.3
SEP 01...	1040	1340	7.3	25.5	10	130	22	130	4.3

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	234	150	250	0.20	21	897	20	5100
SEP 01...	218	150	250	0.20	21	894	30	5000

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994

ORANGE COUNTY--Continued

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)	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 19...	1140	584	7.2	23.5	10	120	2.7	14	0.80

DATE	ALKA- LITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	310	<0.20	14	0.10	23	387	100	630

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 20...	1348	25.50	1560	7.4	25.5	10	130	23	140

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	4.7	206	160	270	0.20	20	925	40	6500

282406081093601 - COCOA 21

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)	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 20...	1050	862	7.3	25.5	20	110	15	39	2.3
AUG 30...	1400	784	7.3	25.0	20	110	15	40	2.2

DATE	ALKA- LITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	246	110	60	0.20	21	559	30	1200
AUG 30...	236	130	63	0.20	21	552	90	1200

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994

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ORANGE COUNTY--Continued

282412081044701 - 82410402 COCOA 12A NR BITHLO

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
APR 20...	1331	1670	7.4	25.5	10	130	25	160	5.3

DATE	ALKALINITY WAT DIS TOT IT MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
APR 20...	222	180	300	0.20	20	1020	20	4500

282412081044702 - COCOA 2T

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
APR 19...	1058	616	7.1	23.5	10	120	3.0	16	0.70

DATE	ALKALINITY WAT DIS TOT IT MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
APR 19...	170	<0.20	18	0.10	27	423	150	610

282416081054101 - 82410502 COCOA 4 NR BITHLO

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
APR 20...	1355	1270	7.4	25.5	10	120	20	100	3.5
SEP 01...	1055	1160	7.4	25.5	10	120	20	100	3.3

DATE	ALKALINITY WAT DIS TOT IT MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
APR 20...	214	140	200	0.20	20	779	10	5600
SEP 01...	204	130	200	0.20	20	753	30	5200

**MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994**

ORANGE COUNTY--Continued

282424081093601 - COCOA 20

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)	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 20...	1148	895	7.3	25.0	20	120	16	40	2.2
AUG 31...	1345	830	7.4	25.5	10	110	16	41	2.2

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	214	150	66	0.20	21	597	40	1300
AUG 31...	254	150	67	0.20	21	593	20	1300

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)	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 19...	1155	874	7.3	25.0	5	110	12	67	2.1

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	278	62	100	0.30	24	611	10	2200

282529081073201 - 82510702 COCOA 7A 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)	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 20...	0950	1480	7.3	24.5	10	160	18	120	3.0

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	250	170	240	0.20	21	939	20	2700

**MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994**

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ORANGE COUNTY--Continued

282530081054201 - 82510503 COCOA 7

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)	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)
AUG 31...	0915	737	7.2	25.0	10	110	6.4	45	1.3

DATE	ALKA- LITY WAT DIS TOT 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 SOLVED (MG/L)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
AUG 31...	301	26	70	0.30	26	476	140	700

282530081054204 - 82510521 COCOA 7T1 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)	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 20...	1445	605	7.5	23.5	5	110	3.7	16	1.0

DATE	ALKA- LITY WAT DIS TOT 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 SOLVED (MG/L)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	336	0.40	17	0.20	20	380	550	560

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 19...	1233	--	1220	7.5	25.0	10	130	19	93
SEP 01...	1305	33.27	1280	7.3	25.0	10	130	21	120

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT DIS TOT 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 SOLVED (MG/L)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	3.0	214	150	180	0.20	20	756	80	2100
SEP 01...	3.4	180	190	230	0.20	20	866	7	2500

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994

ORANGE COUNTY--Continued

282530081091701 - 82510902 COCOA 16 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)	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 19...	1215	827	7.4	24.5	10	94	16	51	2.1

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	198	100	90	0.20	19	511	20	1300

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)	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 19...	1517	626	7.3	24.5	5	80	13	29	1.7

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	178	69	46	0.20	19	411	10	990

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)	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 19...	1141	978	7.3	24.5	10	120	10	70	2.1

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	274	72	110	0.10	24	569	120	770

MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994

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ORANGE COUNTY--Continued

282531081082201 - 82510801 COCOA 14 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)	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 19...	1051	1180	7.3	25.0	10	130	17	86	3.0
AUG 30...	1030	1030	7.4	25.0	10	120	17	90	3.0

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	234	140	160	0.20	21	740	30	2100
AUG 30...	243	150	160	0.20	21	710	20	2100

282548081054201 - 82510504 COCOA 3 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)	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 20...	1045	1420	7.3	24.5	10	150	20	140	4.0
AUG 31...	0933	794	7.4	24.5	15	120	7.6	52	1.6

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	250	160	270	0.20	21	1000	70	4700
AUG 31...	312	35	81	0.20	24	525	180	1900

282556081094001 - COCOA 18

DATE	TIME	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	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 19...	1530	7.3	24.5	5	110	17	41	2.1

DATE	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 19...	210	130	72	0.20	20	457	20	1400

**MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994**

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 20...	1035	32.40	1570	7.3	24.5	10	160	23	170
AUG 31...	0945	--	1970	7.4	25.5	10	170	32	230

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	4.5	236	200	320	0.20	21	1120	210	12000
AUG 31...	6.6	196	280	440	0.20	20	1400	380	23000

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)	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 20...	1212	862	7.3	25.0	10	110	16	39	2.1

DATE	ALKA- LINIT WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	230	150	64	0.20	20	582	40	1400

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 21...	1205	32.99	--	6.9	24.5	10	190	42	290
AUG 31...	1002	--	2970	7.3	25.5	10	200	44	290

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 21...	8.8	--	340	530	0.20	20	1710	70	11000
AUG 31...	8.6	212	340	570	0.20	20	1690	80	10000

**MISCELLANEOUS WATER-QUALITY RECORDS
OCTOBER 1993 TO SEPTEMBER 1994**

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ORANGE COUNTY--Continued

282650081054201 - 82610504 COCOA 9 NR BITHLO

		ELEVATION ABOVE NGVD (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLOR (PLATINUM- COBALT UNITS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 21...	1150	32.85	1180	7.0	24.0	10	140	15	110
AUG 31...	1016	--	1220	7.3	24.0	10	140	15	120
DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)
APR 21...	2.7	232	110	200	0.30	24	785	20	1600
AUG 31...	3.0	252	120	210	0.30	23	790	90	1600

282716081054501 - 82710501 COCOA 10 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)	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 20...	1115	654	7.3	23.5	10	120	5.0	31	0.82
SEP 01...	0925	803	7.3	24.0	15	110	7.6	57	1.4
DATE	TIME	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...		332	0.60	26	0.30	29	436	90	600
SEP 01...		264	37	87	0.40	29	519	30	720

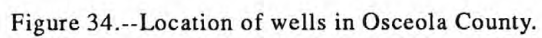
282847081013701 - 82810101 USGS OBSER W. COCOA H NR BITHLO

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 20...	1305	32.83	718	7.0	24.0	<5	64	30	44
AUG 31...	1440	--	769	7.4	24.5	5	61	30	53
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT DIS TOT 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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 20...	2.1	--	65	87	0.70	30	477	180	2100
AUG 31...	2.2	184	77	100	0.50	23	534	180	2100

WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 34
OSCEOLA COUNTY, GROUND-WATER LEVELS

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WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

OSCEOLA COUNTY

WELL NUMBER.-274856080594401. Hayman Deep Well near Kenansville, FL.

LOCATION.--Lat 27°48'56", long 80°59'44", in NW¹/₄SW¹/₄NE¹/₄ 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, 46.22 ft above sea level, Sept. 27, 1994; lowest measured, 37.91 ft above sea level, May 14, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL. WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	0840	44.73	09...	1118	43.20
NOV			23...	1140	42.87
22...	0948	43.67	JUN		
DEC			30...	0828	44.38
27...	1110	43.38	JUL		
JAN			25...	0925	44.10
27...	0925	44.64	AUG		
FEB			25...	0810	45.20
23...	0946	43.16	SEP		
MAR			15...	0945	45.67
28...	1021	44.08	27...	0920	46.22
APR					
28...	0910	43.10			

OSCEOLA COUNTY

WELL NUMBER.--274947080584001. Hayman Well near Kenansville, FL.

LOCATION.--Lat 27°49'47", long 80°58'40", in SE¹/₄SE¹/₄NW¹/₄ sec.36, T.30 S., R.33 E., Hydrologic Unit 03080101, in pasture of Seven Eleven 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: Drilled hole in sanitary seal, 0.48 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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 29...	1017	69.05	JUN 20...	0915	71.16
MAR 07...	0849	69.94	AUG 15...	1054	68.95
APR 25...	0935	68.16			

WELL NUMBER.--275222081030701. OS-243 Well at Lake Marian near Kenansville, FL.

LOCATION.--Lat 27°52'22", long 81°03'07", in SE¹/₄NE¹/₄NE¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.85 ft above sea level, Sept. 16, 1991; lowest measured, 48.43 ft above sea level, present datum, May 8, 1976.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 20...	1145	55.46	APR 26...	0949	55.25
NOV 17...	1155	55.74	MAY 09...	1138	54.90
DEC 13...	1205	55.60	JUN 20...	1228	55.29
JAN 13...	1200	55.34	JUL 22...	1220	56.25
FEB 16...	1155	55.43	AUG 16...	1500	56.64
MAR 23...	1150	55.84	SEP 15...	1010	56.78

OSCEOLA COUNTY

WELL NUMBER.--280619080542601. OS-179 Well at Deer Park, FL.

LOCATION.--Lat 28°06'19", long 80°54'26", in NW¹/₄NE¹/₄SW¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 49.11 ft above sea level, July 15, 1978; lowest, 42.67 ft above sea level, June 6, 1967.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.42	45.08	44.47	43.98	44.01	45.63	44.29	44.74	43.79	47.05	47.40	46.68
10	45.37	44.92	44.36	43.90	44.03	45.32	44.15	44.44	45.82	46.97	47.61	46.68
15	45.19	44.80	44.27	43.87	43.96	45.01	44.03	44.22	45.44	46.19	47.49	47.65
20	45.17	44.70	44.18	43.91	45.40	44.76	43.91	44.05	46.37	47.09	47.82	48.13
25	45.33	44.63	44.11	43.89	45.49	44.59	45.11	43.89	46.36	47.43	47.69	47.78
EOM	45.23	44.55	44.03	43.84	45.38	44.43	45.02	43.70	45.71	47.17	47.23	47.75
MAX	45.76	45.24	44.53	44.02	45.49	45.69	45.21	44.97	46.94	47.43	47.98	48.13
CAL YR 1993	MAX 47.98											
WTR YR 1994	MAX 48.13											

WELL NUMBER.--281714081093001. Lake Joel Well near Ashton, FL.

LOCATION.--Lat 28°17'14", long 81°09'30", in SW¹/₄NW¹/₄NW¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office. 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, 38.50 ft above sea level, May 22, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.44	44.31	43.84	43.52	44.47	44.94	43.22	42.47	42.25	43.82	---	45.24
10	43.64	44.10	43.70	43.56	44.49	44.91	42.69	42.44	42.82	44.03	---	45.16
15	43.70	44.06	43.72	43.67	44.33	44.81	42.21	42.28	43.11	43.90	---	45.47
20	43.94	43.91	43.43	43.82	44.63	44.46	41.77	42.29	43.60	43.86	---	45.83
25	---	43.83	43.36	44.09	44.76	43.80	42.17	42.34	43.81	43.90	---	46.11
EOM	44.35	43.65	43.24	44.27	44.67	43.36	42.37	41.91	43.77	44.00	45.24	46.33
MAX	---	44.35	43.84	44.33	44.80	45.06	43.33	42.55	43.85	44.03	---	46.33

WELL NUMBER.--281722080543001. OS-171 Well near Deer Park, FL.

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.

[illegible]

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

OSCEOLA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
275826080554701	09-12-94	1145	75805501 PITCHFORD WELL	44.00
280829080574001	05-11-94 09-14-94	0840 1100	808057 27S34E18 TH-6 DEER PARK NW	41.21 43.96
280928080532001	05-11-94 09-14-94	1208 1015	80905301 27S34E02 DSR18	39.30 39.90
281105080541401	05-11-94 09-14-94	0719 0704	811054-- 26S34E34 RODEO FIELD DEER PARK NW	37.68 40.18
281116081024101	05-11-94 09-14-94	0915 1130	81110201 26S33E29 DSRW5	40.18 42.97
281354080563301	05-11-94 09-14-94	0740 0853	813056 26S34E08 TH-4 DEER PARK NW	38.95 41.99
281632080515001	05-11-94 09-13-94	1300 0930	816051 25S34E36 DSR38	35.60 36.80
281820080540501	09-14-94	0845	818054-- 25S34E15 K6-TILT LAKE POINSETT SW	37.78

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WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 35
PASCO COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	281654082065901	226
2	282259082104101	226

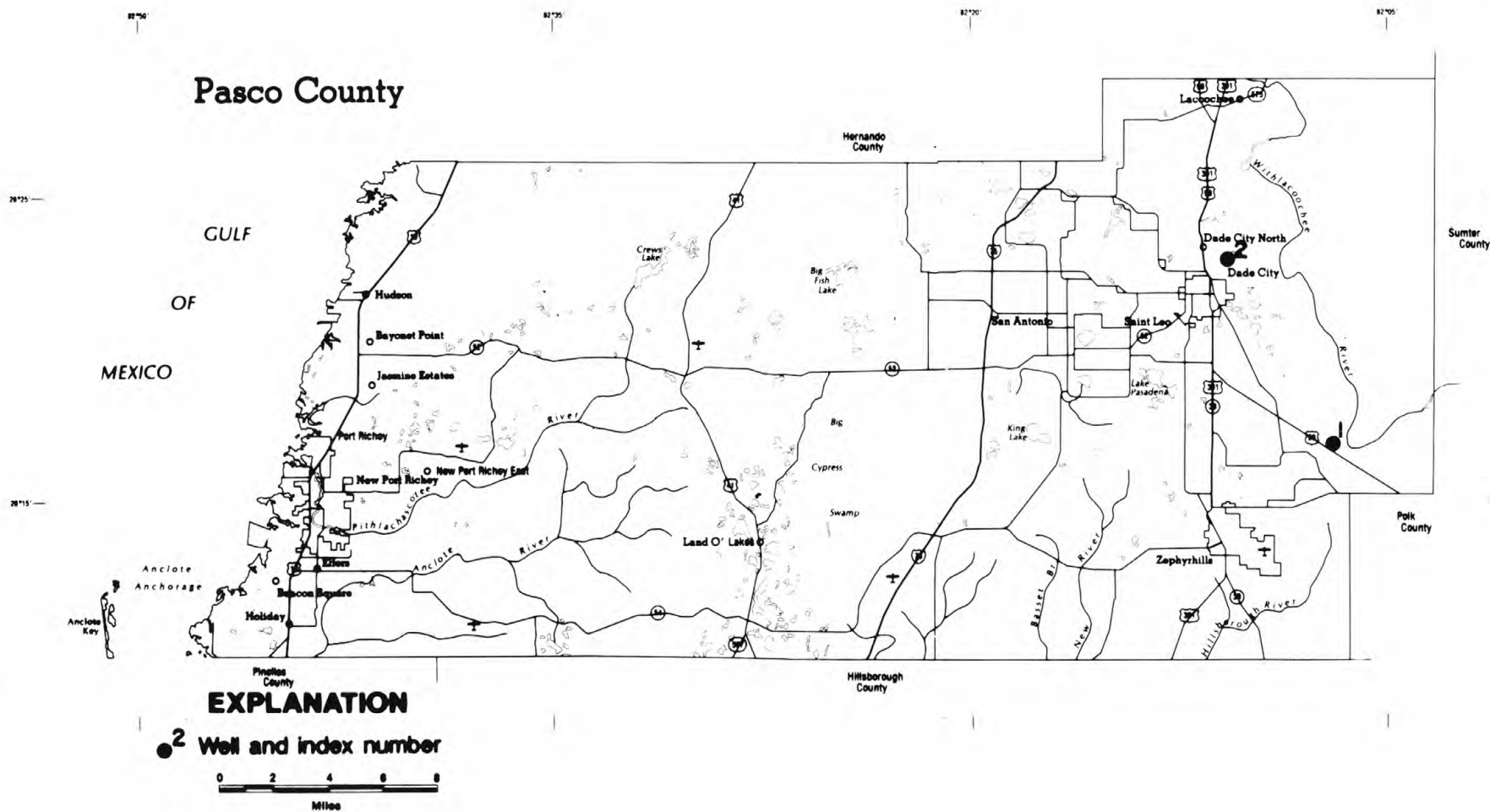


Figure 35.--Location of wells in Pasco County

PASCO COUNTY

WELL NUMBER.--281654082065901. U.S. Highway 98 Well near Dade City, FL.

LOCATION.--Lat 28°16'54", long 82°06'59", in SW¹/₄SE¹/₄NW¹/₄ 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 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). Records prior to January 1977 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.37 ft above sea level, Sept. 20, 1979; lowest measured, 71.97 ft above sea level, June 1, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1500	74.74	JUN 01...	1519	71.97
DEC 21...	1425	73.59	AUG 05...	0807	75.77
FEB 10...	1229	74.77	SEP 19...	1130	78.36
APR 04...	1808	73.61	28...	1521	79.05
MAY 17...	1147	72.29			

WELL NUMBER.--282259082104101. Lykes Pasco Well near Dade City, FL.

LOCATION.--Lat 28°22'59", long 82°10'41", in NW¹/₄NW¹/₄SE¹/₄ 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 tape.

DATUM.--Elevation of land-surface datum is 73.81 ft above sea level. Measuring point: Top edge of flange on casing, 4.33 ft above land-surface datum.

PERIOD OF RECORD.--April 1973 to September 1992; October 1992 to September 1993 (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 73.74 ft above sea level, Oct. 11, 1979; lowest, 59.79 ft above sea level, June 24,25, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1308	64.23	APR 26...	1050	61.16
NOV 23...	1041	63.51	MAY 24...	1032	60.29
DEC 28...	1100	62.55	JUN 28...	0910	60.47
JAN 26...	1120	62.03	JUL 26...	0944	61.06
FEB 24...	1130	62.04	AUG 26...	1140	63.09
MAR 29...	1120	61.91	SEP 27...	1008	65.46

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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PASCO COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
281704082085201	05-17-94 09-19-94	1137 1122	81720801 25S22E30 RICHLAND BAPTIST CHURCH	62.01 66.29
282005082112801	05-17-94 09-19-94	1017 1015	82021104 25S21E03 STEARNS WELL	61.44 65.40
282121082071101	05-17-94 09-19-94	1054 1049	82120702 24S22E32 CUMMER OFFICE WELL	69.18 73.04
282154082142401	05-17-94 09-19-94	0926 1001	82121401 24S21E30 HAYCRAFT WELL	60.31 64.82
282221082103001	05-17-94 09-19-94	1035 1032	82221001 24S21E26 COLLURA WELL NO 1	60.71 64.99
282428082134501	05-17-94 09-19-94	0902 0945	82421301 24S21E08 LEE WELL	59.28 63.75
282430082112101	05-17-94 09-19-94	0845 0928	82421102 24S21E10 SELF WELL	58.68 63.36
282717082142001	05-17-94 09-19-94	0826 0904	82721401 23S21E30 ROSSINI WELL WEST OF TRILBY	51.07 55.25
282816082123701	05-17-94 09-19-94	0810 0846	82821201 23S21E21 TOMKOW HAY BARN WELL	47.44 52.19

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 36
POLK COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	274812081190301	230
2	274815081130301	230
3	274846081262001	231
4	280503081552801	231
5	280531081431601	232
6	280556081532601	232
7	280715081543501	233
7	280719081543301	233
8	281008081441801	234
8	281008081441802	234
9	281057081495002	235
10	281202081391701	235
10	281202081391702	236
11	281312082011601	236

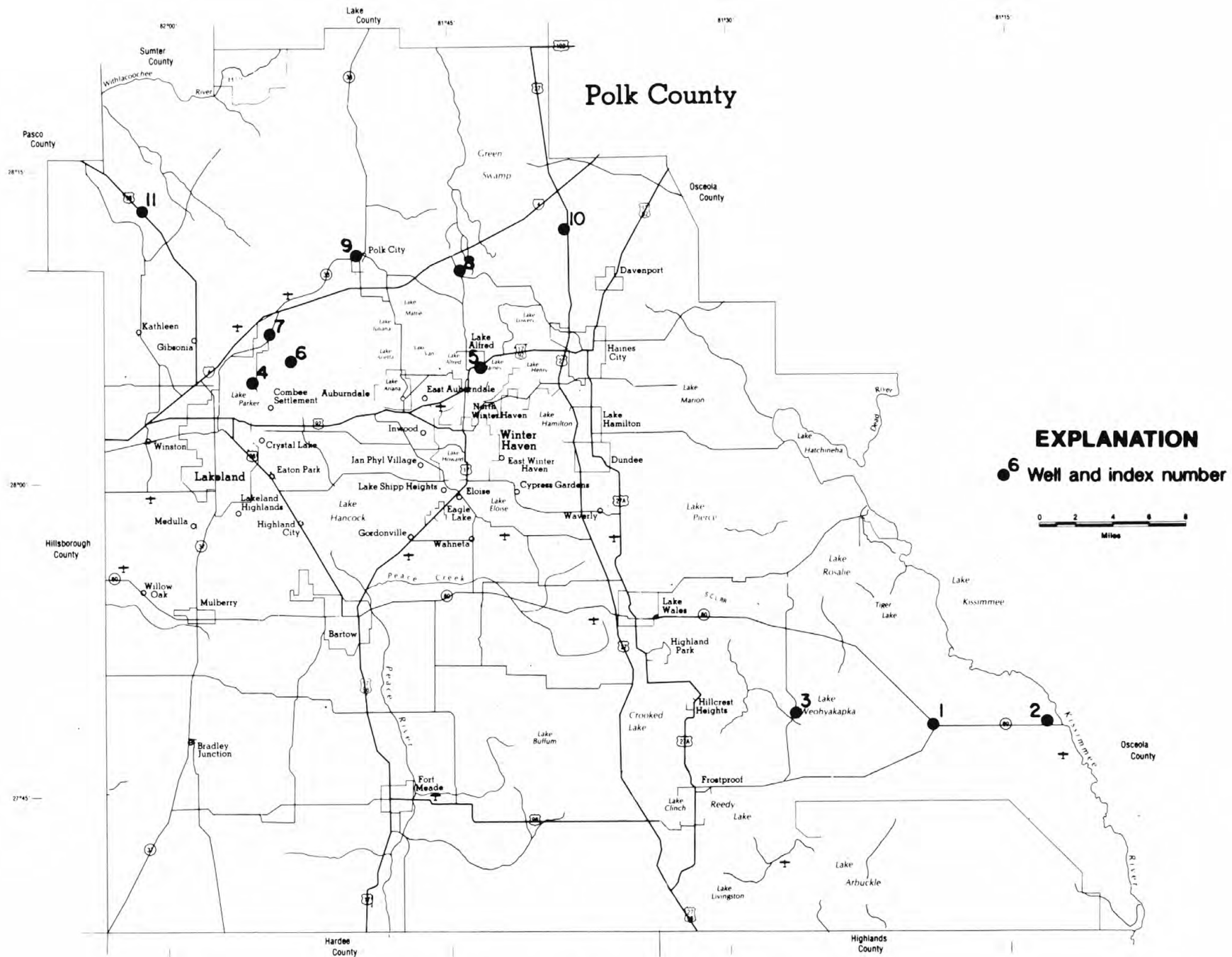


Figure 36.--Location of wells in Polk County.

POLK COUNTY

WELL NUMBER.--274812081190301. P-49 Well near Frostproof, FL.

LOCATION.--Lat 27°48'12", long 81°19'03", in SE¹/₄NE¹/₄ 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. Records prior to January 1974 are unpublished and are available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	101.94	101.93	101.00	100.51	100.22	101.68	100.31	100.80	101.16	104.24	104.32	104.12
10	102.32	101.64	100.87	100.46	100.17	101.38	100.16	100.56	102.32	104.72	104.73	104.37
15	102.06	101.50	100.76	100.39	100.10	101.07	100.02	100.39	101.85	104.20	104.71	104.85
20	102.29	101.35	100.67	100.41	100.88	100.82	99.95	100.20	104.63	103.96	104.65	104.78
25	101.85	101.23	100.60	100.34	101.09	100.65	101.34	100.03	104.10	104.37	104.60	104.72
EOM	102.20	101.12	100.55	100.26	101.13	100.46	101.14	99.86	103.62	104.93	104.37	104.67
MAX	102.56	102.24	101.10	100.53	101.13	101.69	101.36	101.07	104.83	104.94	104.87	104.86
WTR YR 1994 MAX 104.94												

WELL NUMBER.--274815081130301. River Ranch Well near Indian Lake Estates, FL.

LOCATION.--Lat 27°48'15", long 81°13'03", in NW¹/₄NW¹/₄ 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 current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.40 ft above sea level, Apr. 9, 1993; lowest measured, 41.33 ft above sea level, June 1, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
DEC 02...	1249	46.43	MAY 18...	0952	45.29
JAN 13...	1438	46.48	JUN 23...	1325	46.32
MAR 10...	1323	47.45	AUG 19...	0843	47.41
APR 27...	1450	45.17	SEP 20...	1040	48.20

POLK COUNTY

WELL NUMBER.--274846081262001. Lake Weohyakapka Well near Frostproof, FL.

LOCATION.--Lat 27°48'46", long 81°26'20", in NE¹/₄NW¹/₄SE¹/₄ 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, at 65.30 ft above sea level. Measuring point: Spigot on discharge line, 2.41 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
DEC 02...	1140	80.56	MAY 18...	0852	77.56
JAN 13...	1337	81.36	JUN 23...	1218	81.56
MAR 10...	1221	81.56	AUG 19...	0725	82.56
APR 27...	1346	79.96	SEP 20...	0932	83.96

WELL NUMBER.--280503081552801. Fish Lake Deep Well near Lakeland, FL.

LOCATION.--Lat 28°05'03", long 81°55'28", in SE¹/₄SE¹/₄SE¹/₄ sec.32, T.27 S., R.24 E., Hydrologic Unit 03100101, 50ft 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 tape.

DATUM.--Elevation of land-surface datum is 134.84 ft above sea level. Measuring point: Top of casing, 3.65 ft above land-surface datum.

PERIOD OF RECORD.--December 1955 to current year (bimonthly), incomplete. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 01...	1603	113.45	JUN 07...	1120	109.89
DEC 29...	1633	112.54	AUG 04...	1219	114.90
FEB 24...	1556	113.11	SEP 21...	0845	116.92
APR 04...	1428	110.24	30...	1131	117.33
MAY 19...	0839	109.12			

POLK COUNTY

WELL NUMBER.--280531081431601. Lake Alfred Deep Well at Lake Alfred, FL.

LOCATION.--Lat 28°05'31", long 81°43'16", in SE¹/₄SW¹/₄NW¹/₄ 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 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 September 1993 (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 126.51 ft above sea level, July 10, 1974; lowest, 109.13 ft above sea level, May 15, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	0843	121.74	19...	0740	117.23
NOV			24...	1300	117.65
23...	1320	120.16	JUN		
DEC			28...	1035	121.91
28...	1240	120.07	JUL		
JAN			25...	1010	122.41
26...	1545	121.88	AUG		
FEB			23...	1005	123.88
24...	1347	121.98	SEP		
MAR			21...	0742	124.10
29...	1334	119.46	22...	0910	124.55
APR					
26...	1230	119.61			

WELL NUMBER.--280556081532601. Tennorock Road Well near Lakeland, FL.

LOCATION.--Lat 28°05'56", long 81°53'26", in SE¹/₄SE¹/₄SE¹/₄ 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 tape.

DATUM.--Elevation of land-surface datum is 131.46 ft above sea level. Measuring point: Top of casing, 2.85 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 124.41 ft above sea level, Sept. 18, 1979; lowest measured, 96.15 ft above sea level, May 7, 1968.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
	NOV			JUN	
01...	1622	119.90	07...	1215	116.83
DEC			AUG		
29...	1615	118.67	04...	1256	121.63
FEB			SEP		
24...	1620	119.76	21...	0833	123.48
APR			30...	1117	123.80
04...	1420	118.05			
MAY					
19...	0828	116.62			

POLK COUNTY

WELL NUMBER.--280715081543501. Combee Road Deep Well near Lakeland, FL.

LOCATION.--Lat 28°07'07", long 81°54'30", in SW¹/₄NE¹/₄SE¹/₄ 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 7.3mi 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 31ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 136.20 ft above sea level. Prior to June 30, 1991, measuring point 2.80 ft above land-surface datum. Measuring point: Top of casing, 3.41 ft above land-surface datum.

PERIOD OF RECORD.--January 1956 to September 1977 (thrice yearly); October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV			JUN		
01...	1635	133.24	07...	1221	132.42
DEC			AUG		
29...	1600	132.46	04...	1035	134.38
FEB			SEP		
24...	1633	133.36	21...	0813	135.61
APR			30...	1056	135.18
04...	1405	132.76			
MAY					
19...	0813	132.04			

WELL NUMBER.--280719081543301. Combee Road Shallow Well near Lakeland, FL.

LOCATION.--Lat 28°07'06", long 81°54'31", in SW¹/₄NE¹/₄SE¹/₄ 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 north-east 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 tape.

DATUM.--Elevation of land-surface datum is 136.45 ft above sea level. Prior to June 30, 1991, measuring point 3.00 ft above land-surface datum. Measuring point: Top of female adapter, 1.06 ft above land-surface datum.

PERIOD OF RECORD.--August 1955 to September 1977 (thrice yearly); October 1977 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.81 ft above sea level, Sept. 21, 1994; well observed dry, Nov. 16, 1964.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV			JUN		
01...	1640	134.14	07...	1226	133.36
DEC			AUG		
29...	1605	132.73	04...	1044	135.77
FEB			SEP		
24...	1639	134.04	21...	0819	136.81
APR			30...	1104	136.43
04...	1414	133.26			
MAY					
19...	0813	132.18			

POLK COUNTY

WELL NUMBER.--281008081441801. Lake Alfred Deep Well near Lake Alfred, FL.

LOCATION.--Lat 28°10'08", long 81°44'18", in SW¹/₄NW¹/₄NW¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.07 ft above sea level, Nov. 3, 1960; lowest daily maximum water level, 119.85 ft above sea level, May 3, 1974.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.34	126.66	125.23	125.73	126.89	127.39	125.47	124.81	125.63	127.94	128.71	129.01
10	126.63	126.35	124.74	125.70	126.65	127.29	125.19	124.76	126.61	128.40	128.79	128.74
15	126.66	126.18	125.21	125.96	126.50	127.12	124.68	124.63	126.84	128.24	128.85	129.10
20	126.91	125.39	125.28	126.38	126.93	125.99	124.26	124.13	127.77	---	128.82	129.51
25	126.69	125.64	125.36	126.62	127.15	125.70	125.55	123.81	128.04	128.10	128.89	129.72
EOM	126.28	125.74	125.27	126.70	127.12	126.10	125.42	124.11	127.75	128.62	128.99	129.98
MAX	126.97	126.66	125.69	126.70	127.19	127.42	126.06	125.36	128.05	---	129.04	129.98
CAL YR 1993	MAX 129.29											

WELL NUMBER.--281008081441802. Lake Alfred Shallow Well near Lake Alfred, FL.

LOCATION.--Lat 28°10'08", long 81°44'18", in SW¹/₄NW¹/₄NW¹/₄ 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.--Monthly measurement with chalked 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 current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 135.14 ft above sea level, Sept. 6, 1985; well observed dry on numerous visits.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
27...	0758	128.91	19...	0721	126.78
NOV			24...	1230	126.63
23...	1236	128.25	JUN		
DEC			28...	1052	131.20
28...	1257	127.57	JUL		
JAN			25...	1055	130.99
26...	1515	128.19	AUG		
FEB			23...	1125	131.90
24...	1330	128.62	SEP		
MAR			21...	0727	132.79
29...	1300	130.24	22...	1015	132.62
APR					
26...	1245	127.54			

WELL NUMBER.--281057081495002. ROMP 76A Well near Polk City, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 132.29 ft above sea level, Oct. 3, 1979; lowest, 119.37 ft above sea level, May 16, 1981.

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	0836	127.81	MAY 19...	0942	125.37
NOV 23...	1218	126.89	24...	1220	125.11
DEC 28...	1211	126.17	JUN 28...	1015	128.49
JAN 26...	1355	127.96	JUL 25...	0910	129.34
FEB 24...	1255	128.42	AUG 23...	0915	130.33
MAR 29...	1245	126.94	SEP 21...	0957	131.26
APR 26...	1205	126.68	22...	0815	131.35

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.06 ft above sea level, Sept. 12, 1983; lowest, 121.43 ft above sea level, Dec. 25, 1989.

[illegible]

POLK COUNTY

WELL NUMBER.--281202081391702. PO-2 Thornhill shallow well near Davenport, FL.

LOCATION.--Lat 28°12'02", long 81°39'17", in SE¹/₄SW¹/₄ sec.19, T.26 S., R.19 E., Hydrologic Unit 03080102, on undeveloped road 0.8 mi east of U.S. Highway 27, and 2.0 mi south of the intersection of U.S. Highway 27 and Interstate Highway 4 near Davenport. Owner: St. Johns River Water Management District.

AQUIFER.--Nonartesian sand of the surficial aquifer system, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, unused, diameter 2 in., depth 15 ft, cased to 5 ft, screened interval to 10 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 132.19 ft above sea level. Measuring point: Top of casing, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--May 1986, November 1986 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 130.50 ft, Aug. 27, 1991; lowest measured, 125.71 ft, Mar. 8, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
DEC 17...	0758	127.49	JUN 02...	1328	126.67
FEB 08...	1410	127.73	JUL 22...	1400	129.28
MAR 23...	1340	127.49	SEP 09...	0830	128.87
MAY 19...	1142	127.04	21...	1200	130.23

WELL NUMBER.--281312082011601. ROMP 87 Well near Lakeland, FL.

LOCATION.--Lat 28°13'12", long 82°01'25", in SE¹/₄NE¹/₄SE¹/₄ 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 tape.

DATUM.--Elevation of land-surface datum is 107.52 ft above sea level. Measuring point: Top of casing, 3.86 ft above land-surface datum.

PERIOD OF RECORD.--January 1981 to September 1992; October 1992 to September 1993 (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 105.40 ft above sea level, Mar. 31, 1983; lowest, 96.20 ft above sea level, June 5, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 27...	0704	103.09	MAY 17...	1200	99.33
NOV 23...	1135	102.13	24...	1143	98.76
DEC 28...	1138	101.20	JUN 28...	0940	103.91
JAN 26...	1315	103.15	JUL 26...	1020	103.05
FEB 24...	1217	103.23	AUG 25...	1005	104.46
MAR 29...	1208	101.73	SEP 19...	1148	104.83
APR 26...	1130	100.34	27...	0712	105.03

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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POLK COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
273903081185201	05-18-94 09-20-94	0813 0810	73911801 33S30E06 USAF AVON PARK NO 1	78.19 76.09
273929081080601	05-12-94 09-15-94	0830 0835	POF-20 S-65A WELL NR S CO LINE	44.72 47.18
274553081115601	05-18-94 09-20-94	1010 1052	745111-- 31S31E23 RIVER RANCH PUBLIC SUPPLY	44.28 46.80
274746081202201	05-18-94 09-20-94	0935 1012	747120-- 31S30E08 INDIAN LAKE ESTATES GOLF COURSE	60.74 65.16
275137081252501	05-18-94 09-20-94	0907 0946	751125-- 30S29E21 E LAKE WALES UTILITY	76.28 83.28
275622081252301	05-18-94 09-20-94	1118 1215	756125 29S29E28 LAKE ROSALIE NW	57.13 60.99
275634081211801	05-18-94 09-20-94	1101 1155	756121-- 29S30E19 KISS STATE PARK NEAR LAKE KISSIMMEE	55.45 59.38
280153081274101	05-18-94 09-20-94	1213 1300	801127-- 28S29E19 LAKE HATCHI NEAR HAINES CITY	67.19 70.89
280420081570101	05-19-94 09-21-94	0914 0910	LAKELAND STADIUM WELL AT LAKELAND	88.90 101.74
280558081314801	05-18-94 09-20-94	1238 1325	805131-- 27S28E29 KIMBELL WELL NEAR LAKE MARION	70.35 73.58
281058081495002	05-19-94 09-21-94	0949 0943	USGS 1.75-IN DRILL PIPE INNER MONITOR AT POLK CITY	125.20 131.25
281058081495003	05-19-94 09-21-94	0953 0949	USGS 4-IN ANNULAR MONITOR AT POLK CITY	124.39 130.44
281058081495004	05-19-94 09-21-94	0946 0953	USGS CORE HOLE 2 AT POLK CITY	124.54 129.29
281317081491301	05-19-94 09-21-94	1007 1008	813149423 26S25E16	123.58 128.79
281440081431701	05-19-94 09-21-94	1045 1045	814143232 26S26E04	123.91 129.00
281511081393101	05-19-94 09-21-94	1100 1114	815139342 26S26E01	118.45 121.92
281532081345001	05-19-94 09-21-94	1115 1128	815134134 26S27E02 LOUGHMAN DP WELL NEAR LOUGHMAN	89.18 91.42
281532081493001	05-19-94 09-21-94	1015 1019	815149233 25S25E32	121.89 126.61
281631081564501	05-17-94 09-19-94	1224 1207	SPEARS WELL NEAR ROCK RIDGE	102.07 107.28

WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 37
PUTNAM COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	292948081503001	240

Putnam County

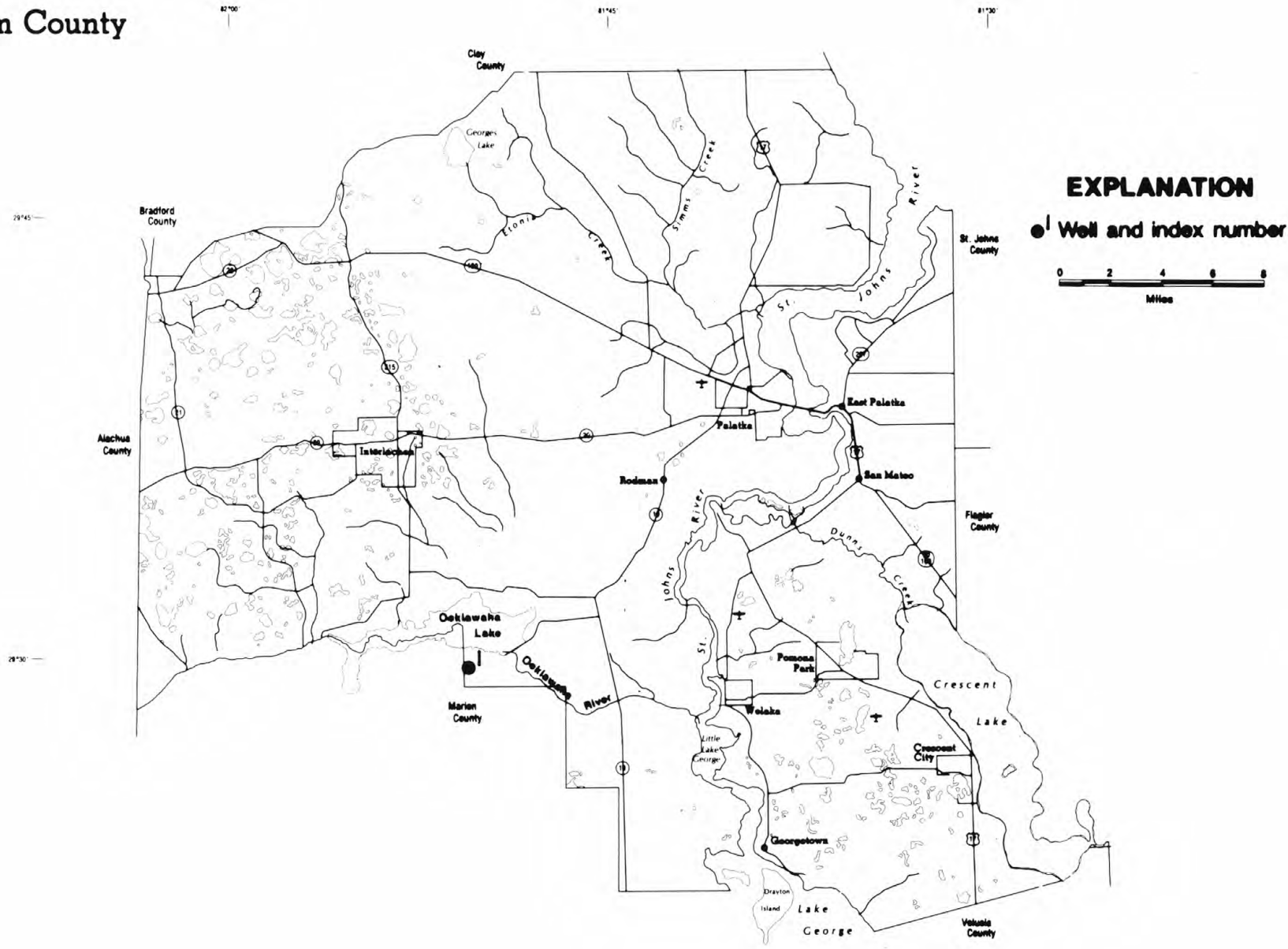


Figure 37.--Location of wells in Putnam County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

PUTNAM COUNTY

WELL NUMBER.--292948081503001. Well RD-77-G near Orange Springs, FL.

LOCATION.--Lat 29°29'48", long 81°50'30", in NW¹/₄SW¹/₄NW¹/₄ 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, 21.68 ft above sea level, Jan. 13, 1983; lowest measured, 16.84 ft above sea level, Mar. 25, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
25...	0722	18.48	09...	0951	18.67
NOV			23...	0750	18.82
27...	1538	18.46	JUN		
DEC			28...	0912	18.64
27...	0940	18.60	JUL		
JAN			26...	0806	18.82
26...	0900	18.58	AUG		
FEB			23...	0821	19.15
21...	0847	18.89	SEP		
MAR			12...	0905	19.29
29...	0847	18.73	26...	0759	19.50
APR					
26...	0843	18.65			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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PUTNAM COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
292143081374601	05-12-94 09-13-94	1240 0824	*SJ* P423 13S27E39 DRAYTON ISLAND E SHORE GRAMD	9.84 9.64
292218081333101	05-10-94 09-12-94	0813 0953	*SJ* P410 13S27E11 UNION CAMP SJRWMD OBS WELL GEORGETOWN	23.33 25.41
292238081380301	05-12-94 09-13-94	1253 0853	*SJ* P422 13S27E39 DRAYTON ISLAND E SHORE FC JONES	14.00 14.06
292254081382101	05-12-94 09-13-94	1315 0909	*SJ* P421 13S27E39 DRAYTON ISLAND E SHORE LANDING	10.10 11.64
292307081305201	05-12-94 09-13-94	1057 1006	*SJ* P341 13S28E06 OLD HWY17 OLD FERNERY .5MI W OF 17	24.44 27.37
292435081441301	05-11-94 09-12-94	0742 0947	NEAR FRONTIER D H NEAR SALT SPRINGS	8.89 10.25
292528081383501	05-10-94 09-12-94	0717 0859	92513801 26S12E26 PUTNAM 28	16.20 18.69
292606081311101	05-12-94 09-12-94	1019 0832	*SJ* P242 12S28E25 D GAUTIER LAKE STELLA CRESCENT CITY	26.96 30.19
292621081375101	05-12-94 09-13-94	0917 1402	*SJ* P373 MANSFIELD FERNERY BEULAH CH RD	18.33 21.83
292628081385501	05-10-94 09-13-94	0708 1332	*SJ* P396 12S26E23 WELAKA FISH HATCHERY FRUITLAND	11.03 11.35
292824081341501	05-12-94 09-13-94	0857 1134	P-0246 COL. SAULS	28.64 30.76
292824081443301	05-11-94 09-12-94	0805 0928	JOHNSONS FIELD NEAR WELAKA	6.41 7.78
292859081375701	05-10-94 09-13-94	0643 1300	P-408 HWAY 308B	15.78 17.72
292859081375702	05-10-94 09-13-94	0650 1310	P-409 SH OBS WELL HWY 308B	65.56 68.48
293113081370301	05-09-94 09-13-94	1322 1245	*SJ* P382 11S27E19 MAIN ROAD OFF SISCORD POMONA PARK	26.18 28.06
293234081424101	05-11-94 09-12-94	0940 0825	93214201 --S--E-- RODEHEAVER BOYS RANCH	19.42 21.04
293300081523901	05-09-94 09-14-94	0914 1349	933152 11S24E11 CE-60 CORPS OF ENGINEERS	58.66 60.83
293304081342301	05-09-94	1230	*SJ* P411 11S27E09 PINEY BLUFF LANDING DUNNS CREEK	19.76
293420081415601	05-11-94 09-14-94	0926 1453	93414101 11S26E04 AM THOMAS	22.01 25.51
293439081524301	05-09-94 09-14-94	0857 1410	*SJ* P17 10S24E35 DEEP CRK OFF HWY 315 KEUKA	65.45 74.45
293543081315301	05-09-94 09-12-94	1717 1152	93513101 11S26E-- B.T. TILTON	14.01 17.54
293554081342601	05-09-94 09-12-94	0956 1205	SAN MATEO TOWER SITE DEEP	14.70 17.91
293633081594601	05-11-94 09-14-94	1249 1240	DRAINAGE WELL COWPEN LAKE PUTNAM CO	76.07 79.00
293720081595301	05-11-94 09-14-94	1310 1259	*SJ* P8 10S23E10 CHESSEER WELL PTMHLL	75.52 78.61
293733081474801	05-09-94 09-14-94	0831 1419	HOLLISTER WORKCTR CF (P-510)	47.58 50.18
293806081544901	05-11-94 09-14-94	1336 1320	*SJ* P16 10S24E08 KELLER WELL#11 PTNMHLL *SJ* P16 10S24E08 KELLER WELL#11 PTNMHLL	71.03 74.13
293913081384001	05-12-94	1533	93913801 10S26E01	22.54

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

PUTNAM COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
294055081354501	05-12-94 09-14-94	0718 0834	*SJ* P77 09S27E EAST PALATKA ME CHECK FARMS	20.92 22.46
294144081341801	09-14-94	0843	94113401 09S27E-- 41-34-4 HAZEL MURPHEY	22.36
294308082002201	05-10-94 09-14-94	1303 1213	DRAINAGE WELL SWAN LAKE NEAR MELROSE	80.88 83.41
294441081442903	05-10-94 09-12-94	1148 1400	94414403 09S26E06	54.50 64.07
294449081573301	05-10-94 09-12-94	1244 1159	94415701 09S23E01 PROGRESS LEAGUE WELL	78.13 80.45
294515081314001	05-12-94 09-14-94	0808 0907	*SJ* P10 08S27E36 FEDERAL POINT RIVERDALE	16.77 22.27
294553081344301	05-11-94 09-14-94	1016 1015	94513401 08S27E-- RIVERDALE NO 61	22.47 27.97
294814081345201	05-11-94 09-14-94	1052 1042	94813401 08S27E15 ART RIEGEL	24.19 30.19

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WATER RESOURCES DATA FOR FLORIDA, 1994
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KEY TO SITE LOCATIONS ON FIGURE 38
ST. JOHNS COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	295357081294301	246
2	295502081175401	246
3	295713081203401	247
4	300717081381001	247
5	300758081230501	248
6	301132081225801	248

St. Johns County

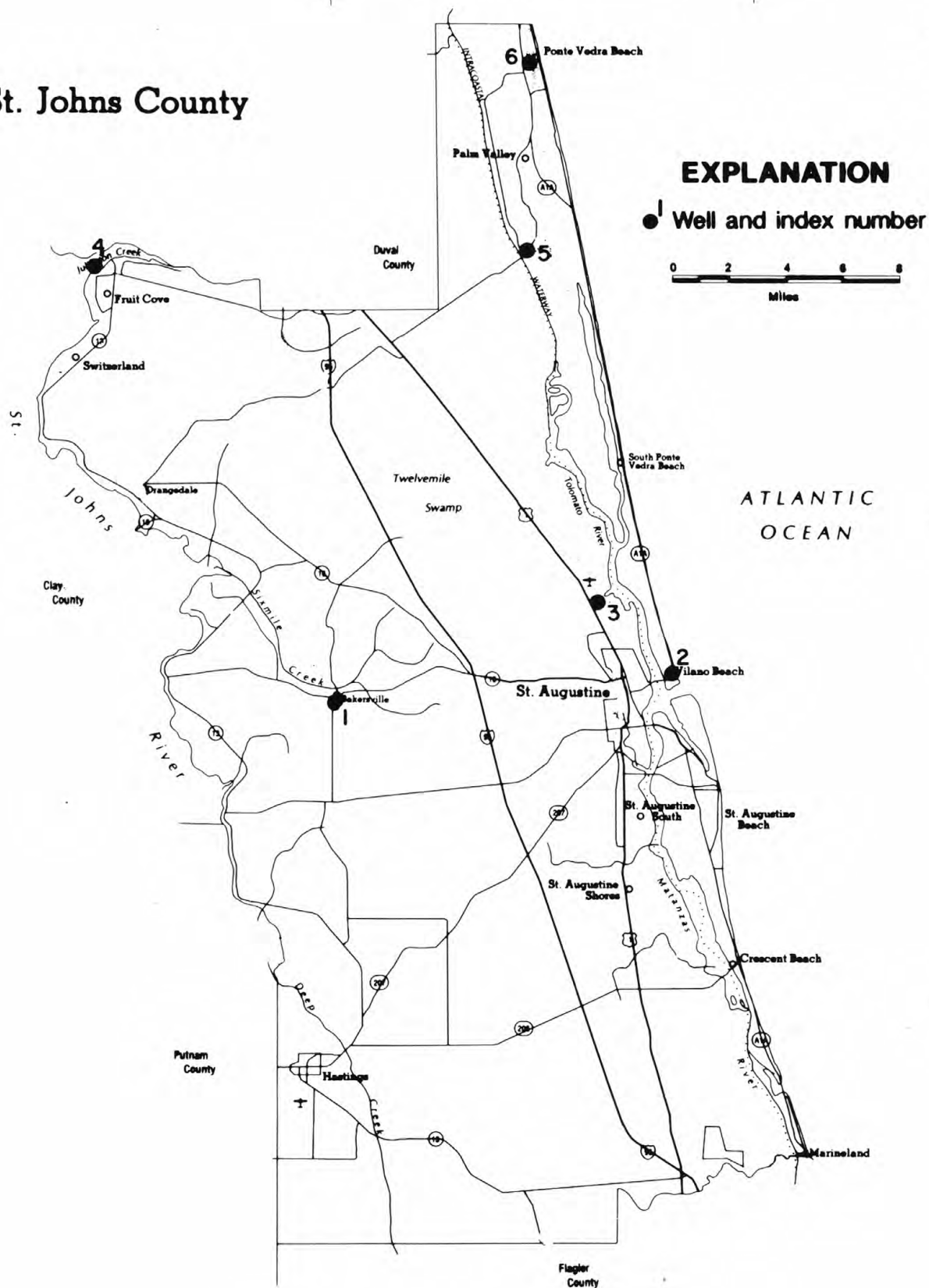


Figure 38.--Location of wells in St. Johns County.

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 NE¹/₄NE¹/₄NE¹/₄ 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 18 ft above sea level, from topographic map. 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, 16.50 ft above land-surface datum, May 12, 1980; lowest measured, 1.35 ft above land-surface datum, Apr. 8, 1991. Water level observed below land-surface datum, Apr. 6, 1992, Apr. 12, 1994, but could not be measured.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 05...	1325	-10.30	JUN 08...	1055	-8.40
DEC 01...	1350	-12.10	JUL 26...	1400	-11.00
JAN 31...	1145	-12.40			

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

WELL NUMBER.--295502081175401. Local Number SJ-91. P.J. Manucy Well near St. Augustine, FL.

LOCATION.--Lat 29°55'02", long 81°17'54", in NE¹/₄NE¹/₄NE¹/₄ sec. 8, T.7 S., R.30 E., Hydrologic Unit 03080201, 150 ft north of State Highway A1A, and 150 ft east of Vilano Beach Bridge, and 2.5 mi northeast of St. Augustine. Owner: Florida Department of Transportation.

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

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, diameter 6 in., depth 198 ft, cased to 195 ft.

INSTRUMENTATION.--Monthly measurement with pressure gage.

DATUM.--Land-surface datum is 5.09 ft above sea level. Measuring point: Top of 6 in. tee, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--May 1977 to September 1980 (semiannually); May 1981 to current year (monthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.20 ft above sea level, May 13, 1980; lowest measured, 17.50 ft above sea level, May 6, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 29...	1005	24.39	APR 25...	1145	21.09
NOV 23...	1200	24.29	JUN 26...	1350	21.09
DEC 22...	1215	23.79	JUL 26...	1330	22.09
JAN 27...	1205	24.49	AUG 29...	0835	22.69
FEB 22...	1405	25.39	SEP 23...	0730	23.89
MAR 30...	0905	22.49			

ST. JOHNS COUNTY

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, 24.00 ft above land-surface datum, Nov. 28, 1983, Jan. 30, 1984; lowest measured, 15.80 ft above land-surface datum, Apr. 26, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 26...	1300	-21.40	APR 25...	1120	-18.10
NOV 23...	1230	-21.50	MAY 16...	0910	-16.20
DEC 22...	1245	-21.90	JUN 23...	1315	-20.00
JAN 27...	1055	-22.20	JUL 26...	1310	-20.40
FEB 22...	1430	-22.60	AUG 29...	0930	-21.70
MAR 30...	0930	-19.10	SEP 21...	1040	-22.00

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

WELL NUMBER.--300717081381001. Local Number SJ-15. S.L. Chavez Well near Mandarin, FL.

LOCATION.--Lat 30°07'17", long 81°38'10", in NE¹/₄SW¹/₄ sec. 30, T.4 S., R.27 E., Hydrologic Unit 03080103, on the north side of Fruit Cove Road, 0.6 mi west of the intersection of State Road 13 and Fruit Cove Road, 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, casing length unknown.

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, 24.92 ft above sea level, June 25, 1993.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1345	30.82	APR 25...	1040	28.12
NOV 23...	1315	32.32	MAY 17...	0930	26.12
DEC 22...	1325	32.82	JUN 23...	1230	30.32
JAN 27...	1005	32.82	JUL 26...	1230	30.62
FEB 22...	1510	33.82	AUG 29...	1020	30.02
MAR 29...	1310	30.12	SEP 22...	0920	32.52

ST. JOHNS COUNTY

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: D. Cowgill.

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). Records prior to 1974 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.73 ft above sea level, Nov. 9, 1948; lowest measured, 29.21 ft above sea level, June 25, 1993.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	1140	34.31	APR 25...	1015	31.81
NOV 23...	1100	35.71	MAY 17...	1015	29.91
DEC 22...	1125	35.61	JUN 23...	1200	32.51
JAN 27...	1245	36.21	JUL 26...	1145	32.21
FEB 22...	1315	36.71	AUG 29...	1045	33.21
MAR 30...	0955	33.71	SEP 22...	1015	34.11

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 5 ft above sea level, from topographic map. Measuring point: Tap-base in flange cover, 6.51 ft above land-surface datum.

PERIOD OF RECORD.--April 1986 to current year (monthly). Records prior to 1991 are unpublished and available in files of the Jacksonville field headquarters.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.71 ft below land-surface datum, Mar. 29, 1993; lowest measured, 11.64 ft below land-surface datum, May 30, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
OCT 26...	1130	7.35	APR 25...	0955	8.45
NOV 23...	1045	6.92	MAY 17...	1115	8.81
DEC 22...	1010	6.94	JUN 23...	1140	8.05
JAN 27...	1310	6.89	JUL 26...	1130	7.00
FEB 22...	1210	6.43	AUG 29...	1115	6.51
MAR 30...	1015	7.27	SEP 23...	0820	5.75

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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ST JOHNS COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
294334081270801	05-19-94 09-12-94	1319 0941	SJ-84 FORTNER NR SPUDS FL	7.27 20.87
294518081181401	05-11-94 09-12-94	0857 1236	SJ-164	14.44 16.88
294602081151901	05-10-94 09-13-94	0730 1300	SJ-94 HOWARD AT CRESCENT BEACH	14.21 16.61
295105081300401	09-13-94	0831	SJ-118 AT MOLASSES JUNCTION	26.72
295132081164801	05-10-94 09-12-94	0755 1346	SJ-92 ANASTASIA WATER PLANT	15.37 18.41
295556081342101	05-10-94 09-13-94	0844 0938	SJ-19	22.97 31.97
295903081334301	05-17-94 09-21-94	0845 0930	SJ-119 (SUB FOR SJ-11)	22.20 32.40
300036081213501	05-16-94 09-21-94	0920 1100	SJ-88 CHARD NR STOKEE CREEK	29.80 34.40
300307081234201	05-16-94 09-21-94	1000 1130	SJ-99 BOREHOLE MINE ON PINE ISLAND RD	36.40 39.80
300322081342801	05-17-94 09-21-94	0820 1000	SJ-24	31.95 36.55
300341081395401	05-17-94 09-22-94	0920 0940	SJ-12	29.67 33.67
300507081272701	05-11-94 09-13-94	0730 1035	SJ-163 SJRWMD DURBIN OBSERVATION WELL	42.96 43.78
300632081334301	05-17-94 09-22-94	1000 0900	SJ-27	33.30 37.30
301005081225901	05-17-94 09-22-94	1040 1045	SJ-55 SAWGRASS NEAR PALM VALLEY	10.20 20.40
301037081243901	05-20-94 09-23-94	0950 1000	SJ-10	25.00 30.40
301212081252401	05-20-94 09-23-94	0930 0920	SJ-63 DEE DOT RANCH AT BULL PEN	37.10 40.90
301249081225801	05-17-94 09-22-94	1100 1030	SJ-0122	19.45 28.25
301304081222701	05-20-94 09-22-94	1100 1245	SJ-0103 PONTE VEDRA UTILITIES AT S PLANT	19.25 25.45
301408081253101	05-20-94 09-23-94	0900 0900	SJ-60 DEE DOT RANCH AT CRACKER LODGE	23.10 28.70

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KEY TO SITE LOCATIONS ON FIGURE 39
SEMINOLE COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	284147081220201	252
2	284750081132301	253

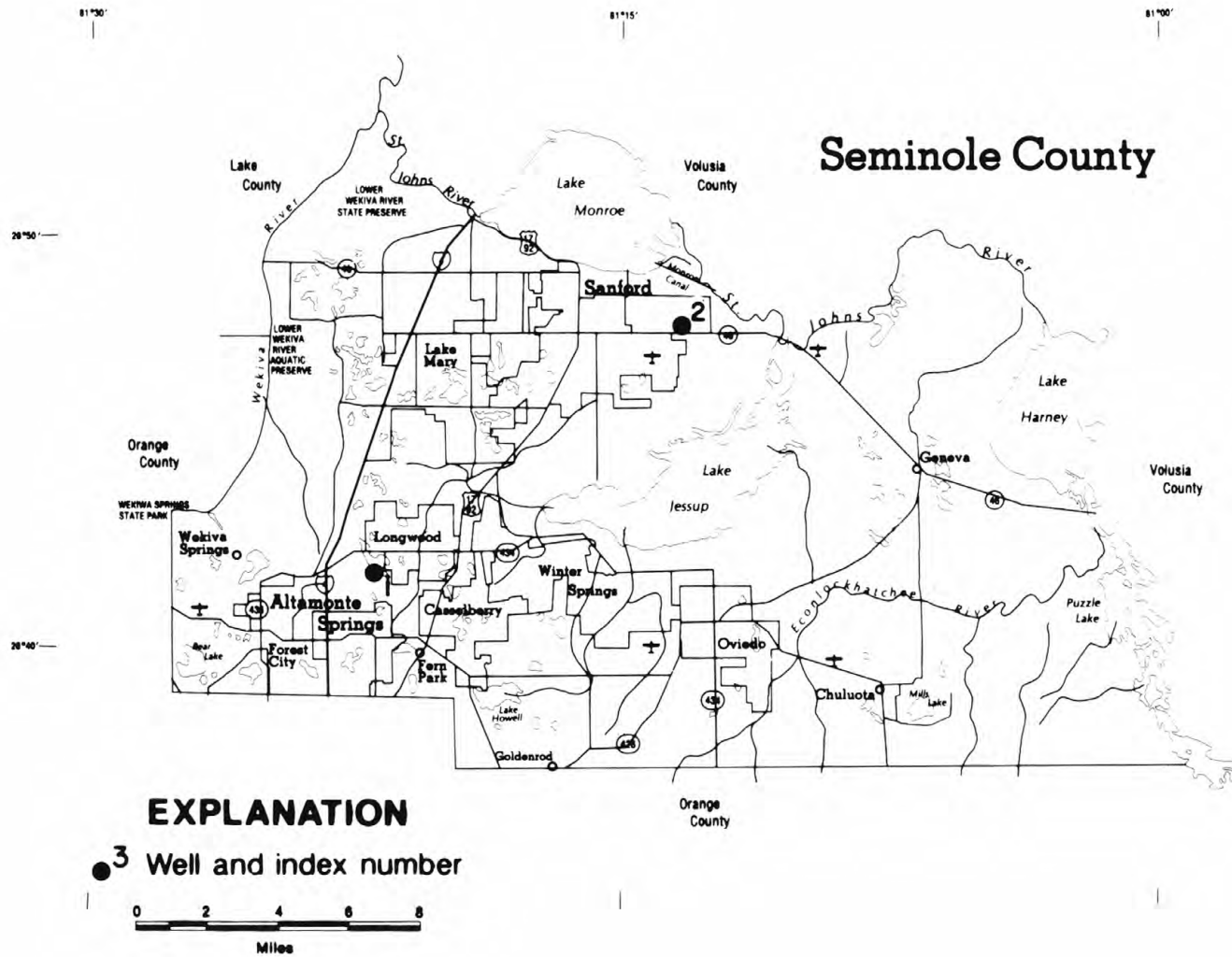


Figure 39.--Location of wells in Seminole County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SEMINOLE COUNTY

WELL NUMBER.--284147081220201. Seminole 125 Well at Longwood, FL.

LOCATION.--Lat 28°41'47", long 81°22'02", in NW¹/₄NE¹/₄ 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 55.80 ft above sea level, Sept. 30, 1960; lowest, 32.57 ft above sea level, May 18, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.03	41.35	38.19	38.64	41.79	42.04	39.38	38.88	39.43	42.36	42.72	44.40
10	41.12	41.10	40.52	41.03	41.26	41.68	39.31	38.75	41.28	41.89	43.57	44.81
15	41.01	40.51	---	41.40	41.08	41.23	38.79	37.59	41.17	41.94	44.37	45.38
20	41.22	38.31	---	41.55	41.91	37.81	35.94	38.99	42.19	41.45	44.80	46.04
25	41.58	41.19	---	38.78	41.75	40.31	39.82	37.53	41.46	42.33	45.00	45.83
EOM	41.53	38.36	37.81	41.56	41.48	40.19	39.08	37.97	40.93	43.12	44.18	46.37
MAX	41.64	41.54	---	41.60	41.91	42.04	40.08	39.24	42.37	43.12	45.03	46.58

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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SEMINOLE COUNTY

WELL NUMBER.--284750081132301. Seminole 257 Well near Sanford, FL.

LOCATION.--Lat 28°47'50", long 81°13'23", in NE¹/₄SE¹/₄NW¹/₄ sec.33, T.19 S., R.31 E., Hydrologic Unit 03080101, on west side of Beardall Avenue, 0.3 mi north of State Highway 46, and 3 mi east of Sanford. 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 206 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 18.61 ft above sea level. Measuring point: Top of casing, 4.35 ft above land-surface datum.

PERIOD OF RECORD.--December 1951 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.45 ft above sea level, Oct. 10, 1953; lowest measured, 16.66 ft above sea level, May 18, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 16...	1425	21.55	MAY 11...	0912	20.29
JAN 21...	1034	21.90	JUN 24...	1615	21.96
MAR 03...	1520	22.76	AUG 15...	1005	22.96
APR 08...	1310	20.94	SEP 15...	1130	23.66

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

SEMINOLE COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
283740081031401	05-10-94 09-15-94	1100 0915	83710302 21S33E30	25.30 28.30
283754081154301	05-12-94 09-14-94	0942 0830	83711502 21S31E30	40.20 47.52
283843081075501	05-10-94 09-15-94	1020 0840	83810706 21S32E20	29.21 32.46
283849081273401	05-12-94 09-14-94	0720 1110	83812702	45.70 53.35
283920081232501	05-12-94 09-14-94	0805 1042	83912302 21S29E14 SPANISH TRACE APTS	43.07 50.16
283945081071901	05-09-94 09-15-94	1203 1018	83910702 21S32E16	23.62 26.48
283956081040201	05-10-94 09-15-94	1137 0935	83910402 21S32E13	14.76 16.20
283958081203401	05-12-94 09-14-94	0850 1010	84012002 21S30E17	45.31 53.73
284012081264601	05-12-94 09-14-94	0650 1130	84012603 21S29E07	43.11 52.15
284025081123001	05-10-94 09-13-94	0942 1402	84011201 21S31E10	32.68 36.77
284120081152201	05-10-94 09-13-94	0833 1435	84111501 21S31E06	35.08 40.88
284125081131701	05-09-94 09-13-94	0905 1425	84111301 21S31E04	27.40 31.70
284133081105701	05-10-94 09-13-94	0926 1415	FLORIDA AVE WELL NEAR OVIEDO	19.50 24.50
284207081174401	05-10-94 09-15-94	0802 0750	84211703 20S30E35	32.63 37.48
284217081023001	05-10-94 09-13-94	1348 1143	KILBEE NO 3 TEST NR ST JOHNS RIVER NEAR GENEVA	7.45 10.39
284244081234901	05-09-94 09-12-94	0933 0720	84212302 20S29E34	31.30 38.80
2843170812134	05-09-94 09-12-94	1020 0750	MARTIN MARIETTA	29.27 40.77
284331081031001	05-11-94 09-13-94	1318 1220	84310302 20S33E30	9.66 13.14
284428081072602	05-11-94 09-13-94	1340 1305	USGS AVENUE C 1.25-IN INNER MONITOR AT GENEVA	13.70 13.62
284428081072603	05-11-94 09-13-94	1348 1310	USGS AVENUE C 6-IN ANNULAR MONITOR AT GENEVA	12.19 15.38
284428081155201	05-09-94 09-12-94	1505 1308	LARGENT WELL SANFORD AVE	25.85 30.15
284434081050101	05-11-94 09-13-94	1415 1109	84410503 POT MAP WELL NEAR LAKE HARNEY GENEVA	12.18 15.42
284440081175901	05-09-94 09-13-94	1538 0730	84411722 20S30E15	33.05 37.38
284533081204801	05-09-94 09-12-94	1114 0838	84512005 20S30E08	29.75 34.04
284550081071501	05-11-94 09-13-94	1104 0929	84510703 CAMERON WELL NEAR GENEVA	10.22 13.20
284618081095401	05-11-94 09-13-94	1008 0902	84610902 20S31E12	12.46 15.15
284626081051801	05-11-94 09-13-94	1208 1017	K RD TEST WELL OSCEOLA RD NEAR GENEVA	10.73 13.59
284645081152401	05-09-94 09-12-94	1445 1245	84611515 20S31E06	22.19 25.83

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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SEMINOLE COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
284706081070801	05-11-94 09-13-94	1140 0956	84710703 THRASHER PASTURE WELL NEAR GENEVA	7.47 10.65
284712081044301	05-11-94 09-13-94	1228 1040	84710401 CO. LANDFILL OSCEOLA RD NEAR GENEVA	8.69 8.10
284802081192701	05-09-94 09-12-94	1147 0909	WELL JORDAN BAPTIST UPSALA RD	25.42 29.45
284802081211101	05-09-94 09-12-94	1237 1002	84812106 19S30E31	29.90 34.02
284802081242101	05-09-94 09-12-94	1403 1030	VIA HERMOSA WELL	21.22 24.83
284945081244201	05-09-94 09-12-94	1328 1022	84912407 19S29E39	12.38 14.79
284954081201101	05-09-94 09-12-94	1202 0926	ANDERSON WELL MISSOURI ST	24.70 28.50
285002081215101	05-09-94 09-12-94	1217 0950	85012101 19S29E38 STEVE CAIN	23.86 28.36

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SUMTER COUNTY, GROUND-WATER LEVELS

Index number	Site number	Page number
1	281951082012001	258
1	281951082012002	259
1	281951082012003	260
2	282127082022501	261
3	282152082011201	261
3	282152082011202	262
4	282740082012101	263
4	282740082012102	264
5	282741081585701	265
6	283638082025701	266
6	283638082025702	266
7	284619082035101	267
8	285121082112201	268
9	285207082014501	268

EXPLANATION



Figure 40.--Location of wells in Sumter County.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--281951082012001. Green Swamp Well L11MD near Dade City, FL.

LOCATION.--Lat 28°19'51", long 82°01'20", in SE¹/₄NE¹/₄NE¹/₄ sec.9, T.25 S., R.23 E., Hydrologic Unit 03100208, on south side of Main Line Road, 300 ft west of Cross Creek Bridge, 2.2 mi southeast of Cumpressco, and 12 mi east of Dade 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 1.25 in., depth 49 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 92.80 ft above sea level. Prior to February 1981 at same site at datum 0.04 ft higher. Measuring point: Hole in casing at land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to September 1986 (bimonthly); October 1986 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 91.84 ft above sea level, Sept. 13, 1985; lowest measured, 84.43 ft above sea level, May 17, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
20...	--	88.17	11...	--	84.69
NOV			17...	0754	84.43
30...	--	86.56	JUN		
JAN			23...	--	85.58
06...	--	86.99	AUG		
FEB			02...	--	90.65
01...	--	89.47	SEP		
MAR			14...	--	91.09
24...	--	87.38	19...	1030	91.52

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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SUMTER COUNTY

WELL NUMBER.--281951082012002. Green Swamp Well L11MM near Dade City, FL.

LOCATION.--Lat 28°19'51", long 82°01'20", in SE¹/₄NE¹/₄NE¹/₄ sec.9, T.25 S., R.23 E., Hydrologic Unit 03100208, on south side of Main Line Road, 300 ft west of Cross Creek Bridge, 2.2 mi southeast of Cumpresso, and 12 mi east of Dade 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 1.25 in., depth 18 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 92.76 ft above sea level. Prior to February 1981 at same site at datum 0.21 ft higher. Measuring point: Hole in casing at land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to September 1986 (bimonthly); October 1986 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.12 ft above sea level, Sept. 19, 1994; lowest measured, 84.43 ft above sea level, June 9, 1977.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
20...	--	88.44	11...	--	84.97
NOV			17...	0800	84.58
30...	--	86.83	JUN		
JAN			23...	--	85.81
06...	--	87.22	AUG		
FEB			02...	--	90.92
01...	--	89.70	SEP		
MAR			14...	--	91.32
24...	--	87.64	19...	1032	92.12

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--281951082012003. Green Swamp Well L11MS near Dade City, FL.

LOCATION.--Lat 28°19'51", long 82°01'20", in SE¹/₄NE¹/₄NE¹/₄ sec.9, T.25 S., R.23 E., Hydrologic Unit 03100208, on south side of Main Line Road, 300 ft west of Cross Creek Bridge, 2.2 mi southeast of Cumpresso, and 12 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 1.50 in., depth 9 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 92.67 ft above sea level. Measuring point: Top of casing, 1.50 ft above land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to September 1985 (monthly); October 1985 to September 1986 (bimonthly); October 1986 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.67 ft above sea level, Aug. 23, 1977; lowest measured, 85.07 ft above sea level, June 9, 1977.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
20...	--	87.82	11...	--	85.17
NOV			JUN		
30...	--	86.58	23...	--	85.92
JAN			AUG		
06...	--	86.47	02...	--	91.77
FEB			SEP		
01...	--	90.70	14...	--	92.17
MAR			19...	1025	92.57
24...	--	87.07			

SUMTER COUNTY

WELL NUMBER.--282127082022501. Cumpresso Ranch Well near Tarrytown, FL.

LOCATION.--Lat 28°21'27", long 82°02'25", in SE¹/₄NE¹/₄NE¹/₄ 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 I20 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. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 94.95 ft above sea level, Mar. 30, 1987; lowest, 84.37 ft above sea level, June 12, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	89.23	88.11	88.35	91.44	90.88	88.46	86.54	---	---	91.17	90.63
10	89.72	88.97	87.91	88.68	90.83	90.46	88.00	86.22	---	---	91.46	90.40
15	89.66	88.74	87.80	89.16	90.57	90.06	87.65	85.92	---	---	91.14	90.92
20	89.77	88.64	87.62	90.51	90.58	89.60	87.19	85.82	---	---	91.61	92.42
25	89.46	88.49	87.56	90.35	90.52	89.26	86.95	85.59	---	---	91.77	94.02
EOM	89.19	88.25	87.69	91.47	90.46	88.79	86.77	85.34	---	91.16	91.49	93.83
MAX	---	89.25	88.23	91.47	91.56	90.90	88.73	86.71	---	---	91.88	94.36

WELL NUMBER.--282152082011201. Green Swamp Well L11KD near Dade City, FL.

LOCATION.--Lat 28°21'52", long 82°01'12", in SW¹/₄ NW¹/₄NE¹/₄ sec.33, T.24 S., R.23 E., Hydrologic Unit 03100208, 1,800ft north of East Grade Road, 1.3 mi northeast of Cumpresso, and 11 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Floridan aquifer system of the Tertiary System, Geologic Unit I20 FLRD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, diameter 2 in., depth 36 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 93.13 ft above sea level. Measuring point: Top of casing, 2.00 ft above land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to current year (monthly)). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.72 ft above sea level, Sept. 20, 1979; lowest measured, 85.30 ft above sea level, June 3, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
20...	--	89.96	11...	--	86.39
NOV			JUN		
30...	--	88.63	23...	--	88.95
JAN			AUG		
06...	--	89.39	02...	--	91.18
FEB			SEP		
01...	--	91.05	14...	--	91.47
MAR					
24...	--	89.46			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282152082011202. Green Swamp Well L11KS near Dade City, FL.

LOCATION.--Lat 28°21'52", long 82°01'12", in SW¹/₄NW¹/₄NE¹/₄ sec.33, T.24 S., R.23 E., Hydrologic Unit 03100208, 1,800 ft north of East Grade Road, 1.3 mi northeast of Cumpresso, and 11 mi east of Dade City. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 17 ft, casing length unknown.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 93.08 ft above sea level. Measuring point: Top of casing, 3.15 ft above land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.23 ft above sea level, May 20, 1987; lowest measured, 85.29 ft above sea level, June 3, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
20...	--	89.93	11...	--	86.39
NOV			JUN		
30...	--	88.63	23...	--	88.92
JAN			AUG		
06...	--	89.38	02...	--	91.18
FEB			SEP		
01...	--	91.05	14...	--	91.43
MAR					
24...	--	89.46			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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SUMTER COUNTY

WELL NUMBER.--282740082012101. Green Swamp Well L12BD near Bay Lake, FL.

LOCATION.--Lat 28°27'40", long 82°01'21", in SE¹/₄NW¹/₄NE¹/₄ sec.28, T.23 S., R.23 E., Hydrologic Unit 03100208, on south side of Center Grade Road, 2.1 mi east of State Highway 471, 2.8 mi east of Clay Sink, and 7 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 2 in., depth 30 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 93.12 ft above sea level. Measuring point: Top of casing, 2.48 ft above land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.83 ft above sea level, Feb. 16, 1983; lowest measured, 84.90 ft above sea level, June 3, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
25...	--	90.05	16...	0855	86.80
NOV			23...	--	86.22
22...	--	89.58	JUN		
DEC			27...	--	90.08
27...	--	89.29	JUL		
JAN			25...	--	91.20
24...	--	90.90	AUG		
FEB			29...	--	92.04
21...	--	91.12	SEP		
MAR			26...	--	92.57
28...	--	90.20			
APR					
25...	--	88.30			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

SUMTER COUNTY

WELL NUMBER.--282740082012102. Green Swamp Well L12BS near Bay Lake, FL.

LOCATION.--Lat 28°27'40", long 82°01'21", in SE¹/₄NW¹/₄NE¹/₄ sec.28, T.23 S., R.23 E., Hydrologic Unit 03100208, on south side of Center Grade Road, 2.1 mi east of State Highway 471, 2.8 mi east of Clay Sink, and 7 mi west of Bay Lake. Owner: U.S. Geological Survey.

AQUIFER.--Nonartesian sand aquifer of the Pleistocene Age, Geologic Unit 112 NRSD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, diameter 2 in., depth 10 ft, casing length unknown.

INSTRUMENTATION.--Monthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 93.10 ft above sea level. Measuring point: Top of casing, 2.45 ft above land-surface datum.

COOPERATION.--Since October 1983 data provided by Southwest Florida Water Management District and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--September 1973 to September 1977 (monthly); October 1977 to September 1984 (bimonthly); October 1984 to current year (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.07 ft above sea level, Sept. 13, 1985; lowest measured, 84.86 ft above sea level, June 3, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
25...	--	90.15	16...	0800	86.76
NOV			23...	--	86.20
22...	--	89.57	JUN		
DEC			27...	--	89.95
27...	--	89.28	JUL		
JAN			25...	--	91.18
24...	--	90.88	AUG		
FEB			29...	--	92.05
21...	--	91.12	SEP		
MAR			26...	--	92.55
28...	--	90.15			
APR					
25...	--	88.29			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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SUMTER COUNTY

WELL NUMBER.--282741081585701. Withlacoochee State Forest Green Swamp Well near Bay Lake, FL.

LOCATION.--Lat 28°27'41", long 81°58'57", in NE¹/₄NE¹/₄NW¹/₄ 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 tape.

DATUM.--Elevation of land-surface datum is 96.94 ft above sea level. Measuring point: Top of casing, 1.60 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). Records prior to January 1974 are unpublished and are available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 96.50 ft above sea level, July 8, 1974; lowest measured, 90.17 ft above sea level, June 3, 1985.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV			MAY		
17...	1423	92.50	16...	0815	91.15
JAN			AUG		
11...	1145	93.09	25...	1335	96.29
MAR			SEP		
07...	1405	94.94	19...	0835	96.30

SUMTER COUNTY

WELL NUMBER.--283638082025701. Webster City Well 1 at Webster, FL.

LOCATION.--Lat 28°36'38", long 82°02'57", in SW¹/₄SE¹/₄SW¹/₄ sec.31, T.21 S., R.23 E., Hydrologic Unit 03100208, near 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, observation, artesian well, diameter 12 in., depth 423 ft, cased to 200 ft.

INSTRUMENTATION.--Bimonthly measurement with chalked tape.

DATUM.--Elevation of land-surface datum is 92.38 ft above sea level. Measuring point: Top of 2 in. riser pipe, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1963 to current year (bimonthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office. Prior to October 1992 published as Webster City Well at Webster, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.94 ft above sea level, Jan. 8, 1970; lowest measured, 74.48 ft above sea level, July 20, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 17...	1245	81.40	MAR 08...	1630	82.95
JAN 10...	1415	80.49	MAY 03...	1611	80.40

WELL NUMBER.--283638082025702. Webster City Well 2 at Webster, FL.

LOCATION.--Lat 28°36'38", long 82°02'57", in SW¹/₄SE¹/₄SW¹/₄ 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 tape.

DATUM.--Elevation of land-surface datum is 91.85 ft above sea level. Measuring point: Top of recorder shelf, 0.95 ft above land-surface datum.

PERIOD OF RECORD.--April to September 1978; October 1979 to September 1992; October 1992 to September 1993 (monthly). Prior to October 1992 published as Webster City Recorder Well at Webster, FL.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 88.30 ft above sea level, Apr. 25, 1983; lowest, 74.45 ft above sea level, July 20, 1981.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT 26...	0727	82.01	MAY 16...	0952	80.12
NOV 22...	1222	81.39	23...	1017	79.73
DEC 27...	1155	80.36	JUN 27...	1010	80.52
JAN 24...	1435	81.13	JUL 08...	1314	80.14
FEB 23...	1245	82.38	25...	1110	79.67
MAR 28...	1220	82.15	AUG 25...	1431	82.63
APR 25...	0940	80.82	26...	1230	82.80
			SEP 19...	1215	85.28
			27...	1440	86.75

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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SUMTER COUNTY

WELL NUMBER.—284619082035101. ROMP 111 Well at Tompkins Park near Coleman, FL.

LOCATION.—Lat 28°46'19", long 82°03'51", in NW¹/₄SE¹/₄SW¹/₄ 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 tape.

DATUM.—Elevation of land-surface datum is 63.61 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 September 1993 (monthly).

EXTREMES FOR PERIOD OF RECORD.—Highest daily maximum water level, 57.36 ft above sea level, Mar. 31, 1987; lowest, 48.50 ft above sea level, July 30, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
26...	0854	50.63	17...	1007	50.29
NOV			23...	1040	50.17
22...	1248	50.56	JUN		
DEC			27...	1030	51.34
27...	1220	50.14	JUL		
JAN			25...	1135	52.06
24...	1457	51.36	AUG		
FEB			25...	1136	53.07
23...	1310	52.34	SEP		
MAR			23...	0907	53.05
28...	1250	51.85	27...	1420	53.31
APR					
25...	1010	51.00			

SUMTER COUNTY

WELL NUMBER.--285121082112201. Sumter 13 Well near Wildwood, FL.

LOCATION.--Lat 28°51'21", long 82°11'22", in NW¹/₄NE¹/₄NE¹/₄ 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 26ft.

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 September 1993 (monthly). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest daily maximum water level, 47.16 ft above sea level, Oct. 6, 1982; lowest, 38.38 ft above sea level, June 16,17, 1992.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAY		
26...	1103	39.90	20...	0830	39.81
NOV			24...	0843	39.75
23...	0900	39.94	JUN		
DEC			28...	0735	39.86
28...	0915	39.45	JUL		
JAN			26...	0740	39.62
25...	1410	41.26	AUG		
FEB			26...	0952	42.64
24...	0920	42.72	SEP		
MAR			26...	1031	42.87
29...	0930	41.98	27...	1128	43.02
APR					
26...	0910	40.98			

WELL NUMBER.--285207082014501. Masters Avenue City Well at Wildwood, FL.

LOCATION.--Lat 28°52'07", long 82°01'45", in SE¹/₄SE¹/₄NW¹/₄ sec.5, T.19 S., R.23 E., Hydrologic Unit 03100208, 100ft 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 125 ft, cased to 45ft.

INSTRUMENTATION.--Bimonthly measurement with chalked 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.86 ft above sea level, Sept. 15, 1964; lowest measured, 44.71 ft above sea level, Feb. 27, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV			JUL		
19...	0935	45.78	12...	1150	47.35
JAN			AUG		
18...	1125	45.72	29...	1317	50.99
MAR			SEP		
10...	1155	48.34	26...	1110	52.15
MAY					
05...	1311	47.19			
20...	0915	46.16			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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SUMTER COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
283324082050601	05-16-94 09-19-94	0920 1140	83320501 22S22E23 WILSON IRR WELL AT WILSON CR	72.56 77.75
283432081592401	05-16-94 09-19-94	0720 0745	83415901 22S23E15 JC 51 HUGH ILEY	88.52 93.82
283539082000301	05-16-94 09-19-94	1015 1235	83520001 25S23E10 JC 67 FLA ROCK IND NO 2	85.77 89.78
283637082081501	05-17-94 09-23-94	1203 1212	83620801 21S22E32 SCL RR USED 155	61.29 66.79
283718081580201	05-16-94 09-23-94	1305 1125	THELMA ILEY WELL NR CENTER HILL	85.27 90.20
283829082123701	05-18-94 09-23-94	0845 1240	83821202 21S21E21 JC 47 N R DOKE	41.01 46.78
283904082001601	05-16-94 09-19-94	1110 1315	83920001 21S23E22 JC 65 USGS	78.23 83.15
283952082022001	05-16-94 09-23-94	1154 0810	83920201 21S23E18 JC 42 PARROT RANCH	73.57 76.65
283953082051401	05-16-94 09-23-94	1220 0820	83920501 21S22E14 JC 36	71.33 75.59
284002082064201	05-17-94 09-23-94	0915 0830	84020602 21S22E16 JC 53 BUSHNELL	66.46 70.16
284017082033701	05-17-94 09-23-94	1128 1059	84020303 21S22E12 JC 38	72.18 75.22
284104082055801	05-18-94 09-26-94	1330 0831	84120505 21S22E03 JC 30	63.08 65.80
284115082062601	05-19-94 09-26-94	1310 0842	84120601 21S22E04 JC 27A	57.12 59.86
284119082034501	05-18-94 09-23-94	0745 1025	84120304 21S22E01 JC 44 PARROT RANCH	74.84 77.58
284126082034501	05-18-94 09-23-94	0758 1022	84120305 21S22E01 JC 45 PARROT RANCH	74.91 77.31
284143082032901	05-17-94	1100	84120301 21S22E01 JC 39 PARROT RANCH	73.55
284146082061401	05-19-94 09-26-94	1317 0854	84120604 21S22E03 JC 32	57.27 59.39
284147082052801	05-18-94 09-26-94	1312 0756	84120506 21S22E03 JC 34	63.55 64.50
284159082081601	05-19-94	1102	84120803 20S22E31 JC 62 USGS	52.14
284212082044301	05-19-94	1230	84220403 20S22E35 JC 16 C H BEVILLE	72.79
284212082071701	05-19-94 09-26-94	1135 0912	84220702 20S22E32 JC 63 USGS	53.98 56.45
284215082092301	05-19-94	1005	84220901 20S21E36 JC 61 USGS	44.14
284311082081801	05-18-94	0908	84320801 20S22E30 JC 01 C H BEVILLE	48.87
284317082142601	05-18-94 09-23-94	0927 1307	84321401 20S21E30 TRAILER PARK NW OF WAHOO	38.18 41.78
284323082083601	05-19-94	0845	84320802 20S22E30 JC 02 C H BEVILLE	49.72
284435082011701	05-17-94 09-23-94	1040 0941	BRENTWOOD WELL NEAR SUMTERVILLE	57.44 59.20
284449082055201	05-18-94 09-23-94	1015 1338	84420502 20S22E15 WOODWARD RESIDENCE	40.20 41.63
284528082030001	05-17-94 09-23-94	0958 0858	DIXIE LIME NO 1	50.31 51.36
284809082080701	05-20-94 09-26-94	0850 0950	84820801 19S22E30 HOWARD KENT	38.11 39.97
284810082004001	05-18-94 09-23-94	1045 1405	HOGYE SINK WELL NEAR WILDWOOD	52.68 54.88

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

SUMTER COUNTY--Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
284921082105701	05-20-94	0810	WYSONG DAM WELL NEAR CARLTON	35.95
285112082124001	05-20-94 09-26-94	0822 1020	85121201 19S21E09 JC 60 USGS	35.31 38.32
285150082044001	05-20-94 09-26-94	0850 1045	85120401 19S22E02 JC 58 USGS	45.64 48.97
285420081571901	05-20-94 09-26-94	1037 1157	SMITH WELL NO 2 NEAR CHERRY LAKE	49.35 54.44
285422082001901	05-20-94 09-26-94	1012 1145	HATCHER WELL AT LAKE MIONA NEAR OXFORD	44.51 49.45
285536082044001	05-20-94 09-26-94	0948 1135	85520401 18S22E14 G N SMITH	45.72 49.41

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WATER RESOURCES DATA FOR FLORIDA, 1994
Volume 1B: Northeast Florida

KEY TO SITE LOCATIONS ON FIGURE 41
VOLUSIA COUNTY, GROUND-WATER LEVELS

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1	285512081202801	274
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4	291905081251001	276

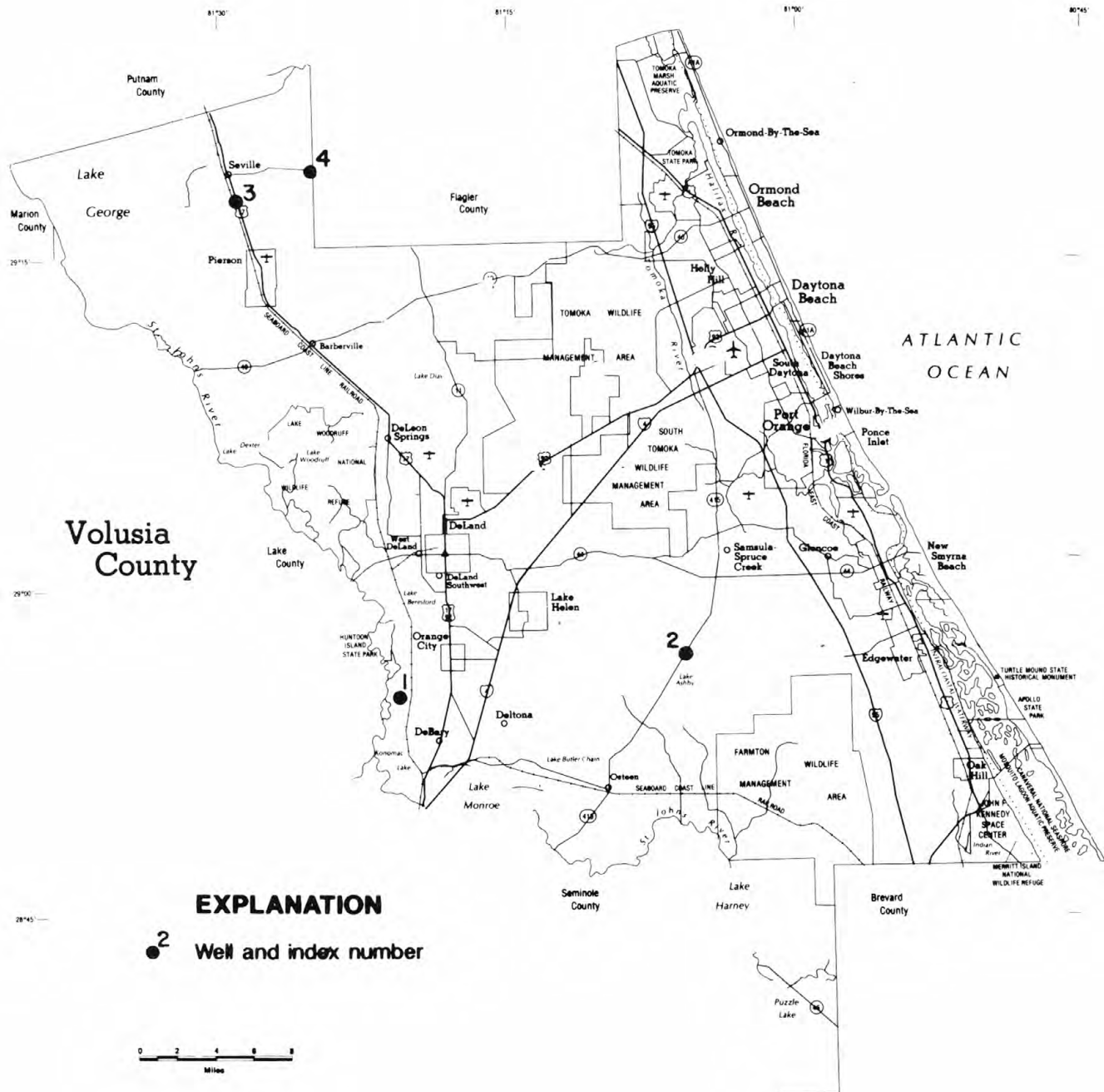


Figure 41.--Location of wells in Volusia County.

VOLUSIA COUNTY

WELL NUMBER.--285512081202801. South Blue Spring Well near Orange City, FL.

LOCATION.--Lat 28°55'12", long 81°20'28", in SE¹/₄SE¹/₄SW¹/₄ 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 ³/₄ in. Y coupling, 4.2 ft above land-surface datum.

PERIOD OF RECORD.--September 1981 to September 1983 (semiannually); February 1984 to current year (bimonthly).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.90 ft above sea level, Mar. 22, 1988; lowest measured, 14.17 ft above sea level, May 18, 1990.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
NOV 23...	1455	16.72	JUN 24...	0645	16.69
JAN 19...	1605	16.52	AUG 18...	0615	17.82
MAR 04...	1515	17.32	SEP 16...	1120	17.22
MAY 09...	1019	15.92			

WELL NUMBER.--285745081054001. USGS Well at Alamana, FL.

LOCATION.--Lat 28°57'05", long 81°05'40", in SW¹/₄SW¹/₄SE¹/₄ sec.2, T.18 S., R.32 E., Hydrologic Unit 03080101, on west side of Lake Ashby Road, 0.2 mi southeast of its 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.--Water-stage recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 35.90 ft above sea level. Measuring point: Top of recorder shelf, 2.99 ft above land-surface datum.

PERIOD OF RECORD.--May 1936 to September 1950 (monthly); October 1950 to current year. Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.10 ft above sea level, September 1945; lowest daily maximum water level, 24.93 ft above sea level, Feb. 28, 1991.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.96	29.01	28.63	28.95	29.70	29.75	28.43	27.94	27.48	29.16	29.75	29.81
10	28.72	28.82	28.33	29.06	29.57	29.67	28.14	27.65	28.30	29.27	29.84	29.93
15	28.93	28.64	28.24	29.20	29.41	29.39	27.95	27.32	29.20	29.13	29.94	29.97
20	29.07	28.57	28.03	29.31	29.61	29.08	27.68	27.43	29.35	28.98	29.64	30.22
25	29.00	28.62	28.17	29.33	29.58	28.87	28.05	27.39	29.30	29.40	30.05	30.41
EOM	29.08	28.66	28.23	29.54	29.44	28.70	27.98	27.27	28.93	29.70	29.85	30.50
MAX	---	29.01	28.65	29.54	29.71	29.75	28.68	27.99	29.40	29.70	30.10	30.56

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

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VOLUSIA COUNTY

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 NE¹/₄SW¹/₄SW¹/₄ 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, 25.12 ft above sea level, Aug. 28, 1994; lowest measured, 15.11 ft above sea level, Jan. 6, 1994.

ELEVATION, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAR		
26...	0948	23.92	29...	1350	23.14
NOV			APR		
22...	0940	23.52	26...	1240	22.27
DEC			MAY		
01...	1005	23.06	23...	1030	21.70
13...	0855	16.63	JUN		
28...	1105	19.71	28...	1335	23.49
JAN			JUL		
06...	0849	15.11	25...	1141	24.24
14...	0817	23.67	AUG		
16...	0749	23.76	28...	1410	25.12
19...	0655	23.81	SEP		
25...	1440	23.47	19...	1310	25.05
FEB					
02...	0925	24.29			
03...	0838	16.47			
22...	1150	24.22			

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

VOLUSIA COUNTY

WELL NUMBER.--291905081251001. R. Nolan Well near Seville, FL.

LOCATION.--Lat 29°19'05", long 81°25'10", in SE¹/₄SE¹/₄ 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). Records prior to January 1974 are unpublished and available in files of the Altamonte Springs subdistrict office.

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 1993 TO SEPTEMBER 1994

DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)	DATE	TIME	ELEV- ATION ABOVE SEA LEVEL (FEET)
OCT			MAR		
26...	0918	20.32	29...	1409	19.85
NOV			APR		
22...	0921	20.10	26...	1305	19.16
DEC			MAY		
01...	0926	19.95	18...	1113	18.74
13...	0833	18.91	23...	1002	19.07
28...	1055	18.04	JUN		
JAN			28...	1355	19.88
06...	0829	19.30	JUL		
14...	0756	20.20	25...	1120	20.77
16...	0732	20.22	AUG		
19...	0634	20.33	22...	1002	21.34
25...	1421	20.16	SEP		
FEB			13...	1045	21.21
02...	0905	20.79	19...	0915	21.49
03...	0819	20.36			
22...	1115	20.87			

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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VOLUSIA COUNTY

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
284743080520101	05-19-94 09-14-94	1630 0950	84705101 WL CANTRELL N OF COUNTY LINE,S/OAK HILL	8.62 10.19
284902081112001	05-23-94 09-14-94	0840 0815	84911101 FLOW WELL, N OF RIVER,S OF OSTEEN	13.54 15.04
285016081014101	05-23-94 09-14-94	0915 0845	85010102 USGS WELL NEAR COW CREEK,W OF MAYTOWN	15.01 17.43
285044081094901	05-23-94 09-14-94	0955 0825	85010903 OSTEEN CONVENIENCE STORE WELL	18.21 22.21
285143080521401	05-23-94 09-14-94	0950 0930	85105202 LOOMIS NURSERY WELL W OF OAK HILL	8.02 10.11
285221081095002	05-23-94 09-14-94	0820 0845	85210902 USGS TEST WELL G-2, N OF OSTEEN, FL	20.27 23.41
285359081161701	05-24-94 09-19-94	0915 0910	85311601 DELTONA PUB SUP WELL NO 3 DIAMOND ST, DELTONA	13.45 19.09
285437081181401	05-09-94 09-16-94	0945 1055	85411801 SJRWMD TEST ORANGE CITY FIRE TOWER	17.44 21.20
285452080551801	05-23-94 09-14-94	1010 1030	85405501 BUEGERER WELL NORTH OF VOLCO ROAD,ARIEL	8.42 9.82
285655081165601	05-09-94 09-16-94	1150 1035	85611601 USGS TEST WELL A-1,ORANGE CITY EAST	0.0 10.81
285700081021001	05-10-94 09-14-94	1240 1520	85710201 USGS TEST WELL 11,E OF LK ASHBY	16.63 18.51
285811081130901	05-10-94 09-13-94	0620 0800	85811303 J B EVANS LAKE HELEN	32.02 35.36
285833080571701	05-19-94 09-14-94	1320 1145	85805701 GLENCOE RD SAND MINE RD W OF EDGEWATER	4.51 6.98
285859081191001	05-09-94 09-16-94	1339 1005	85811901 MCGREGGOR RD 4-IN WELL SW OF DELAND	2.89 6.03
285904080554601	05-19-94 09-14-94	1434 1140	85905504 EDGEWATER PUB SUP WELL NO 1 W, OF EDGEWATER	4.64 7.64
285921080541001	05-19-94 09-14-94	1450 1120	85905402 MOORE WELL RIVERSIDE DR EDGEWATER	6.35 7.60
285923081211601	05-11-94 09-16-94	0827 0950	85912012 ST.JOHNS RD+HONTOON RD WELL,SW OF DELAND	12.42 14.80
285934081041801	05-10-94 09-14-94	1310 1545	85910401 USGS TEST WELL 10, S OF SAMSULA	23.70 26.86
290038081043801	05-10-94 09-14-94	0910 1535	90010403 4-IN OBS WELL 100FT W OF NSB NOS1,SAMSULA	11.31 18.83
290102080564201	05-10-94 09-14-94	1210 1210	90105611 CITY TEST WELL,JUNGLE RD,NEW SMYRNA	3.71 6.07
290138081203202	05-09-94 09-16-94	1615 0935	90112002 USGS J-2 TEST WELL,W OF DELAND	7.42 10.12
290225081040301	05-10-94 09-14-94	0955 1445	90210402 17S32E11 USGS TEST WELL 9,N SAMSULA	19.93 22.35
290230081123401	05-23-94 09-15-94	1300 1350	90211203 USGS TEST HOLE 5, E QF DELAND	32.55 34.57
290251081001401	05-10-94 09-14-94	1023 1502	90210001 USGS TEST WELL I,NE OF SAMSULA	11.26 13.63
290308081182301	05-11-94 09-16-94	0953 0920	90311801 DELAND PUB SUP WELL NO 7A, DELAND	12.25 14.78
290325080563401	05-10-94 09-14-94	1115 1230	90305601 NSB AIRPORT WELL, NEW SMYRNA	0.57 3.32
290447081102301	05-23-94 09-15-94	1240 1345	90411004 I-4 DEEP WELL, E OF DELAND	33.01 34.57
290456081044401	05-19-94 09-14-94	1220 1420	90410404 USGS TEST WELL 7, W OF ALLANDALE	17.53 19.33

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

VOLUSIA COUNTY-Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
290512081213602	05-20-94	1230	GLENWOOD 2-INCH WELL	13.08
	09-13-94	1510		14.40
290527081215001	05-20-94	1127	90512109 ADAMS LEMMON ST WELL, GLENWOOD	13.50
	09-13-94	1500		14.89
2905340811175001	05-11-94	1230	90511701 USGS TEST WELL F1, N OF DELAND, SR11	31.34
	09-15-94	1040		33.84
2905340811175002	05-11-94	1237	90511702 USGS TEST WELL F 2, N OF DELAND, SR11	30.27
	09-15-94	1042		32.81
2905500811162601	05-18-94	1545	90511601 LAWRENCE WELL, LAKE DAUGHARTY	36.48
	09-15-94	1050		38.01
290626081013701	05-16-94	0750	90610102 SERVICE STA. WELL AT TAYLOR RD AND I-95	0.06
	09-14-94	1402		5.37
290651080582802	05-16-94	0945	90605814 HARBOUR OAKS SUP WELL, ALLANDALE	-0.32
	09-14-94	1335		3.72
290708081233101	05-20-94	0910	90712301 SJRWMD 4-IN WELL 2MI SW OF PONCE DEL SPGS	10.61
	09-15-94	1000		11.39
290723081210601	05-20-94	0735	90712103 16S29E39 4-IN WELL, ELEM SCH, DE LEON SPGS	10.12
	09-13-94	1435		11.25
290737081220301	05-20-94	0545	90712201 HAGSTROM IRRIG WELL, W OF DE LEON SPGS	7.54
	09-13-94	1445		8.97
290748081184201	05-11-94	1328	90711801 16S30E05 THOMAS WELL 2 MI E OF DE LEON SPGS	34.01
	09-15-94	0920		35.74
290806081013901	05-19-94	1045	90810115 CITY OBS WELL NO 2, WELLFIELD, PORT ORANGE	1.44
	09-14-94	1355		6.52
290842081084601	05-23-94	1130	90810803 USGS TEST WELL K, INDIAN LK RD, SW DAYTONA	28.89
	09-15-94	1130		32.03
2909230811174301	05-11-94	1445	90911701 15S30E33 WELL OFF SR 11 0.7 MI S OF LK DIA	31.51
	09-15-94	0915		33.50
290928080594401	05-16-94	1100	90905904 WELL AT REED CANAL AND US1, S DAYTONA	-2.41
	09-14-94	1310		2.62
290930081230201	05-18-94	1410	90912303 15S29E34 WELL NEAR SHACK 3 MI SE BARBERVILLE	15.35
	09-12-94	1505		17.55
291006081101004	05-23-94	1145	91011004 TIGER BAY TEST WELL 4A, W OF DAYTONA	23.03
	09-15-94	1145		24.49
291032081065201	05-17-94	0705	91010601 DAYTONA PUB SUP WELL NO 49, SW OF DAYTONA	6.59
	09-15-94	1325		8.29
291052081200901	05-18-94	1321	91012007 15S30E19 CAMP WINONA WELL N OF DE LEON SPGS	24.41
	09-15-94	0830		28.03
291056081252401	05-12-94	1158	91012502 BARBERVILLE WELL NR NASSERS WELL	21.12
	09-12-94	1450		23.88
291107081034201	05-16-94	1425	AIRPORT WELL AT DAYTONA BEACH (SJ V-0187)	0.42
	09-15-94	1225		4.06
291139081032401	05-16-94	1238	91110305 DAYTONA PUB SUP WELL NO 34, DAYTONA	-2.54
	09-15-94	1231		1.68
291149081190801	05-18-94	1254	91111901 15S30E17 L BLACKWELDERS WELL CLIFTON RD	23.90
	09-15-94	0905		25.03
291150081282501	05-18-94	1220	91112806 15S28E14 HARPERS WELL E OF MURPHY RD	27.27
	09-13-94	1402		31.00
291155081022901	05-16-94	1210	91210237 DAYTONA PUB SUP WELL NO 49, TUSC., DAYTONA	-3.00
	09-15-94	1140		1.62
291216081215601	05-12-94	1010	91212101 STRWMD TEST WELL, SR 40, E OF BARBERVILL	23.67
	09-12-94	1425		25.76
291221081235101	05-12-94	1125	91212306 15S29E09 RICHARDSONS WELL NE BARBERVILLE	24.13
	09-12-94	1435		26.66
291258081313701	05-13-94	1015	91213103 4-IN SUPPLY WELL, SE LK GEORGE, NR EMPORIA	4.38
	09-13-94	1325		6.80

MISCELLANEOUS WATER LEVEL MEASUREMENTS
OCTOBER 1993 TO SEPTEMBER 1994

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VOLUSIA COUNTY-Continued

STATION NUMBER	DATE	TIME	STATION NAME	ELEV- ATION ABOVE SEA LEVEL (FEET)
291302081063801	05-17-94 09-15-94	0820 1330	91310601 USGS WELL, SITE 2, W OF DAYTONA	5.68 8.19
291315081270301	05-12-94 09-13-94	1330 1308	91312701 MCLAUGHLINS 2-IN WELL, S PIERSON	24.37 28.57
291332081191001	09-12-94	1410	91311903 USED 425	30.47
291431081263101	05-12-94 09-13-94	1525 1250	91412611 14S28E35 SJRWMD TURNER RD WELL PIERSON	27.05 32.20
291433081284102	05-13-94 09-13-94	0840 1240	91412818 SJRWMD DEEP TEST WELL NEXT TO 91412801	19.53 24.72
291508081302801	05-23-94 09-13-94	1502 1150	91513001 SJRWMD WELL 2 MI W OF PIERSON	12.09 15.14
291523081095001	05-17-94 09-12-94	1207 1305	91510902 USGS WELL NO 1, SR 40, W OF ORMOND	22.11 16.92
291607081042301	05-17-94 09-12-94	1605 1225	91610408 ORMOND PUB SUP WELL NO 12, ORMOND BEACH	-8.20 -4.24
291712081032102	05-17-94 09-12-94	1449 1150	91710301 ORMOND, W END OF INTERCOASTAL BRIDGE	-7.56 -2.97
291737081265501	05-18-94 09-13-94	0845 1116	91712602 14S28E11 BOCKS 4-IN WELL SE SEVILLE	19.70 20.76
291823081290901	05-18-94 09-13-94	0910 1105	91812903 14S28E04 M.MCBRIDES 6-IN WELL S SEVILLE	21.26 23.63
291835081324201	05-18-94 09-13-94	1030 1000	91813201 USED 426 PINE ISLAND, W OF SEVILLE	5.15 5.75
291903081294601	05-13-94 09-13-94	1440 1015	91912901 13S28E32 OLD SEVILLE WELL	21.57 24.93
291904081055501	05-17-94 09-12-94	1417 1125	91910504 TOMOKA ESTATES 2-IN WELL NW OF ORMOND	0.14 3.53
292053081084701	05-19-94 09-12-94	0645 1110	92010803 13S31E26 US1 6-IN WELL 45 MI FRM FLAGLER CO	13.26 16.00
292105081281201	05-13-94 09-13-94	1340 0935	92112801 13S28E22 WELL NE SEVIL NEXT TO OLDBLDG	13.49 15.51
292128081295401	05-13-94 09-13-94	1325 0920	92112902 HERRENS 4-IN WELL, N OF SEVILLE	29.78 33.14
292245081074801	05-17-94 09-12-94	1312 1050	92210701 WELL, S OF ORM TOMB, NATL GARDENS	4.69 6.85

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
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
<i>Area</i>		
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
<i>Volume</i>		
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
<i>Flow</i>		
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
<i>Mass</i>		
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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U.S. Geological Survey
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