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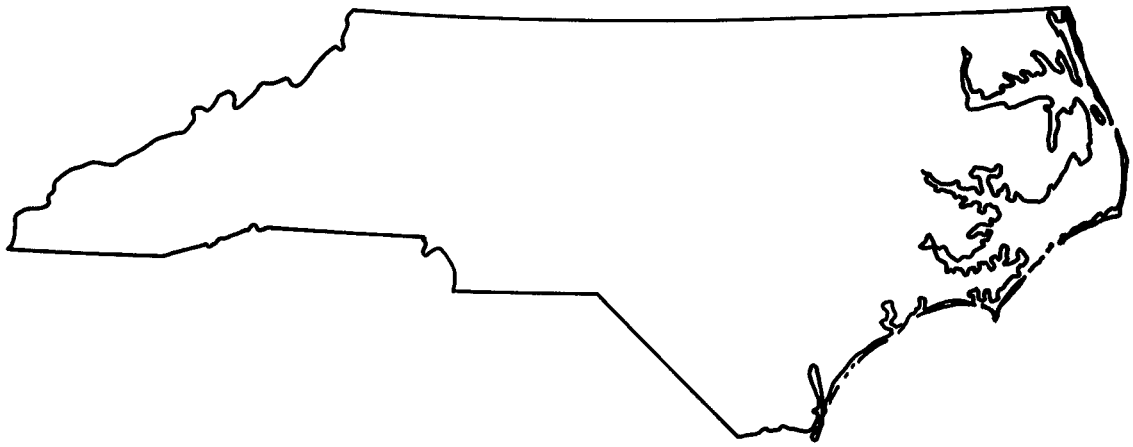
Water Resources Data North Carolina Water Year 2001

Volume 2. Ground-Water Records

By S.S. Howe, P.L. Breton and M.J. Chapman

Water-Data Report NC-01-2



Prepared in cooperation with the North Carolina Department of Environment and Natural Resources, and with other State, municipal, and Federal agencies

U. S. DEPARTMENT OF THE INTERIOR

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2002

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

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of North Carolina, other agencies, and under the general supervision of Gerald L. Ryan, District Chief; and Timothy W. Hale, Acting Regional Hydrologist, Southeastern Region.

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Water-resources data for the 2001 water year for North Carolina consist of records of ground-water levels and water quality of ground water; records of stage, discharge, and water quality of streams; and stage and contents of lakes and reservoirs.

This report contains ground-water level data from 136 observation wells and ground-water-quality data from 68 wells. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and Federal agencies.

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INTRODUCTION

Water-resources data for the 2001 water year for North Carolina consist of records of ground-water levels and water quality of ground water; records of stage, discharge and water quality of streams; and stage and contents of lakes and reservoirs. This report contains ground-water-level data from 136 observation wells and ground-water-quality data from 68 wells. The collection of water-resources data in North Carolina is a part of the National Water-Data System operated by the U.S. Geological Survey in cooperation with State, municipal, and other Federal agencies.

Records of ground-water levels were published from 1935 to 1974 in a series of Water-Supply Papers entitled "Ground-Water Levels in the United States." Water-supply papers can be found in the libraries of principal cities and universities throughout the United States or can be purchased from the U.S. Geological Survey, Earth Science Information Center, Open-File Reports Section, Denver Federal Center, Box 25286, Mail Stop 517, Denver, Colorado 80225.

Ground-water-level data beginning with the 1975 water year are published only in reports on a State-by-State basis. Beginning with the 1975 water year these Survey reports carry 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 report is identified as "U.S. Geological Survey Water-Data Report NC-01-2. Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

COOPERATION

Cooperative agreements between the U.S. Geological Survey and organizations of the State of North Carolina for the systematic collection of water-resources data began in 1895 and continued through 1909. Following a lapse of 8 years, the State of North Carolina resumed cooperation in October 1918. Organizations that have cooperative agreements with the U.S. Geological Survey and assisted in collecting the water-resources data contained in this report are:

North Carolina Department of Environment and Natural Resources
Division of Water Resources
Divison of Water Quality, Groundwater Section

These organizations that have cooperative agreements with the U.S. Geological Survey and assisted in the data-collection program by furnishing funds or services:

Brunswick County
Lumber River Council of Governments

The following Federal agencies assisted in the data-collection program by furnishing funds or services:

U.S. Marine Corps, Camp Lejeune
U.S. Marine Corps, Cherry Point, MCAS
U.S. Environmental Protection Agency

OBJECTIVE CONCEPT FOR GROUND-WATER-LEVEL DATA

The ground-water-level data collected during the 2001 water year from observation wells in the statewide program and special project wells are published in this report. The statewide program is a cooperative program between the U.S. Geological Survey (USGS) and the North Carolina Department of Environment and Natural Resources (DENR). Observation wells for this program are located so that the most significant data are obtained from the fewest number of wells in the major aquifers of the State. Monitoring wells for this program are categorized in one of two networks based on specific objectives (table 1). The first network, the natural-effects network, has the objective of measuring the effects of natural stresses on ground-water storage. This network contains climatic-effects wells, which monitor the effects of climate, such as rainfall and the duration of the growing season, on ground-water storage in unconfined aquifers. This network also contains terrane-effects wells which are used to define the effects of different depths to the water table and topography and geology on ground-water storage in response to climatic stresses. The second network, the induced-effects network, defines the effect of human-induced stress on the ground-water system; the major induced stress being ground-water withdrawal by pumping. Within the induced-effects network are local-effects wells located near large-capacity pumping wells or well fields. These local-effects wells are used to measure daily or weekly water-level fluctuations. Areal-effects wells, also in the induced-effects network, are used to determine the status of ground-water storage in an aquifer over a large area and to aid in determining the areal extent of major aquifers.

The particular effect each well in the statewide program monitors is explained in the information header for each well. The headers for the special project wells contain a reference to those projects.

MAJOR AQUIFERS

The major aquifers in North Carolina can be divided into two zones related to the physiographic provinces of the State. The Piedmont and Blue Ridge Provinces (fig. 1) extend across the western 60 percent of the State and are, for the most part, underlain by fractured, igneous and metamorphic rocks (fig. 2). The fractured igneous and metamorphic rocks have low permeability but are, nevertheless, the major aquifers in the Piedmont and Blue Ridge Provinces. These rocks are covered almost everywhere by regolith, which is either a clayey or sandy saprolite consisting of weathered parent material, or sand and clayey-sand alluvium. The regolith, although not a major aquifer, contains most of the ground water in storage and is a source of water to the underlying igneous and metamorphic rock aquifers. All observation wells in the Piedmont and Blue Ridge Provinces that were measured in the 1998 water year tapped the regolith.

The Coastal Plain Province covers the eastern 40 percent of North Carolina, where aquifers are within a wedge of sedimentary rock layers that dip and thicken to the southeast (fig. 2). The Coastal Plain sediments have been divided by Winner and Coble (1996) into 10 aquifers separated by confining units.

Ground water in the regolith of the Piedmont and Blue Ridge Provinces and in the surficial aquifer of the Coastal Plain Province generally is unconfined. Ground water in the other Coastal Plain aquifers generally is under confined conditions.

Table 1.--*Type, objective, and use of data from the North Carolina observation-well program*

[Adapted from Winner, 1981]

Type	Objective	Use of data
	Natural effects	
Climatic effects	To define effects of climate on ground-water storage.	Hydrographs showing natural changes in storage.
Terrane effects	To define effects of climate on ground-water storage as modified by topography and geology.	Hydrographs showing natural changes in storage as modified by topography and geology.
	Induced effects	
Local effects	To define effects of ground-water withdrawals on storage near points of withdrawal. To define the hydraulic characteristics of aquifers. To define effectiveness of confining beds in separating aquifers.	Maps showing potentiometric-surface depressions. Hydrographs showing changes in water levels with time. Graphs showing water levels during pumping conditions as a function of pumping rates.
Areal effects	To determine status of storage over the entire areal extent of the aquifer. To define regional continuity of aquifers.	Regional water-level maps. Maps showing net change in storage over a specific time period. Define recharge and discharge areas for areal extensive aquifers.

SUMMARY OF WATER-RESOURCES CONDITIONS

Precipitation

Precipitation amounts for the first quarter, October through December, of the 2001 water year were well below average across the State. Departures in precipitation amounts varied from 3.76 (Asheville) and 6.38 (Charlotte) inches below average in the western part of the State, to 6.20 (Greensboro) and 5.11 (Raleigh) inches below average in the central part of the State, to 4.98 (Elizabeth City) and 3.52 (Wilmington) inches below average in the eastern part of the State. All but one index site (Wilmington) recorded 0.00 inches to a trace of precipitation during the month of October. Asheville and Wilmington were the only locations to report above average precipitation amounts for the quarter; these amounts both occurred in November. Average precipitation amounts are based on data from 1971 through 2000, the 30-year base period used by the National Weather Service. Rainfall data collected at six key National Weather Service stations (figs. 1 and 3) indicate that below average rainfall amounts were recorded in all the Provinces of North Carolina.

The second quarter of the 2001 water year, January through March, brought continued drier conditions to the State. March was the only month during the quarter in which all of the index sites, with the exception of Elizabeth City, reported above-average precipitation amounts. All of the index sites reported below average precipitation amounts for the quarter. The least rainfall was reported in Elizabeth City at 4.49 inches below average. Asheville, Charlotte, Greensboro, and Wilmington all reported rainfall from 0.40 to 2.20 inches below average.

The third quarter, April through June, again brought below-average rainfall amounts across the State. Raleigh and Elizabeth City were the only locations to report above average monthly rainfall, which both occurred in June. Asheville was affected the most by lack of rain, reporting 5.59 inches below average for the quarter.Charlotte, Greensboro, and Wilmington reported rainfall more than 3 inches below average.

During the fourth quarter, July through September, Asheville reported rainfall above average (1.18 inches). The remaining index sites; Charlotte (4.15 inches), Greensboro (1.44 inches), Raleigh (4.25 inches), Wilmington (3.22 inches), and Elizabeth City (5.72 inches) reported below-average conditions.

In summary, drought conditions in North Carolina, which began in 1998, continued throughout the State. The National Weather Service reported below-average annual rainfall amounts at each of the six index sites. Asheville, in the southeastern part of the State recovered somewhat from below-average rainfall amounts during the fourth quarter of the water year. The National Weather Service reported the following annual rainfall amounts for the 2001 water year at these selected stations: Asheville, 36.75 inches (10.29 inches below average); Charlotte, 26.48 inches (17.03 inches below average); Greensboro, 31.77 inches (11.36 inches below average); Raleigh, 32.70 inches (10.35 below average); Elizabeth City, 31.54 inches (15.44 inches below average); and Wilmington, 44.59 inches (12.48 inches below average).

Ground Water

Cross sections illustrating the simplified geology and Coastal Plain aquifers of North Carolina are shown in figure 2. Ground-water levels in the surficial aquifer of the Coastal Plain Province and in the weathered surficial layer (regolith) of the Piedmont and Blue Ridge Provinces of North Carolina respond to climatic influences. The continual discharge of ground water to streams is a function of periodic ground-water recharge by precipitation. Water levels in the unconfined aquifers generally decline throughout the growing season and are typically highest during the winter months when evapotranspiration losses are lowest. In addition to seasonal changes, water levels in deeper, confined aquifers in the Coastal Plain also can respond to induced effects, such as pumping. Locations of wells discussed in this report are shown in figures 4-10, p. 37-43.

Index Wells

Water levels in index observation wells in the Blue Ridge, Piedmont, and Coastal Plain Provinces (fig. 1) provide a general indication of ground-water fluctuations in the shallow aquifers of these provinces. Hydrographs of monthend water levels in these index observation wells (fig. 11) include mean monthend water levels for the period of record and record high and low monthend water levels during the 2001 water year.

Water levels in the Blue Ridge index well NC-144 (fig. 11) were below the mean for the period of record (1981-2001) throughout the entire 2001 water year. New period-of-record minimums were observed for the month of August (fig. 11). This indicates below-average ground-water storage. New period-of-record minimums were observed throughout most of the 2001

water year in the Piedmont index well NC-142 (fig. 11). This record also indicates below-average in ground-water storage. In the Coastal Plain index well NC-160 (fig. 11), water levels were near the mean for most of the 2001 water year.

Natural-Effects Wells

Ground-water levels in North Carolina were influenced by a wide range of rainfall across the State during the 2001 water year. Overall, the State endured drought conditions for the fourth consecutive year. The effects of the drought conditions on recharge to the ground-water system was most evident in extreme period of record lows observed in the two Piedmont wells, and a Coastal Plain well. The Blue Ridge wells indicated an overall pattern of declining water levels during the last 4 to 5 years. A pattern of declining annual maximum and minimum yearly water levels continued for the fourth year in Blue Ridge well NC-144 (p. 234). The water level in Blue Ridge well NC-191 (p. 88) recovered somewhat from three previous years of decline. The lowest water level in 20 years (period of record) was recorded in Piedmont well NC-142 (p. 106), preceded by a 5-year decline. Since 1997, the yearly mean water level in well NC-142 has declined more than 6 feet, indicating a substantial loss of ground-water storage. The lowest water level in 12 years was recorded in Piedmont well NC-193 (p. 220). Water levels in Coastal Plain climatic-effects well NC-148 (p. 256) were near mean for the 21-year period of record. Water levels in Coastal Plain terrane-effects well NC-194 (p. 226) ended the year about 1.75 ft below the initial water level, indicating an evident change in aquifer storage.

Induced-Effects Wells

Ground-water withdrawals in the Coastal Plain have resulted in declining water levels in confined aquifers in some areas of the Coastal Plain for a number of years. This declining trend is shown by the long-term record from several induced-effects observation wells that tap four of the major aquifers in eastern North Carolina — the Castle Hayne, Black Creek, Upper Cape Fear, and Lower Cape Fear aquifers (fig. 2).

The record of observation well NC-212 (p. 46) shows the fluctuations of water levels in the Castle Hayne aquifer resulting from changes in pumping at a large mining and manufacturing operation in the eastern part of Beaufort County. Water-level fluctuations shown in the records from well NC-212 reflect major pumping activities at this facility. The yearly pumping water-level fluctuation is more than 70 ft (p. 47). The areal cone of depression resulting from this pumping historically has covered more than 3,000 mi^2 (Coble and others, 1989).

The record of observation well NC-139 (p. 86) in Carteret County shows the effects of seasonal pumping from the Castle Hayne aquifer in order to meet increased demand for water in the coastal area during the summer months. The decline in water levels in the long-term record (p. 87) indicates that annual recharge to the aquifer is less than the amount of water withdrawn. Observation well ON- 227 (p. 166), completed in the Castle Hayne aquifer in Onslow County, shows a similar long-term, water-level decline with more recent drawdown resulting from expanding well fields in the area.

Water levels in the Castle Hayne aquifer are not declining everywhere throughout the eastern Coastal Plain. This is especially true in the subcrop areas of the aquifer that are not covered by extensive confining units (Strickland and others, 1992). The water levels in Castle Hayne well NC-52 (p. 160) in Onslow County exhibits climatic-effect fluctuations. Although well NC-52 is near water-supply wells at U.S. Marine Corps Camp Geiger, no effects of withdrawals from these wells can be observed in the long-term record.

Ground-water withdrawals, estimated at 134 million gallons per day over 15 counties, have resulted in water-level declines in the State's central Coastal Plain (Walters, 1997). The aquifers most affected in this 9,250-mi^2 area, which extends from Bertie County in the north to Pender County in the south, are the Peedee, Black Creek, Upper Cape Fear, and Lower Cape Fear aquifers. Examples of the long-term effects of these withdrawals can be observed in data from several wells. Well NC-128 (p. 152) shows the effects of pumping from the Black Creek aquifer in Lenoir County. Water-level declines up to 4 ft per year have been recorded in well NC-128 until 1998 when water levels started to recover. The period of record hydrograph for well NC-128 (p. 153) shows a long-term decline of almost 80 ft from 1972-1997. Major withdrawals for public supply in Onslow County in the southern part of the central Coastal Plain are from the Peedee and Black Creek aquifers. The period of record hydrograph for well NC-189 (p. 162) in Onslow County (Black Creek) shows a long-term water-level decline of about 74 ft resulting from these withdrawals.

Declines in the Black Creek aquifer at well NC-189 were more than 6 ft per year in the early 1990's, but water-level declines leveled off in 1997. Well ON-256 (p. 172) in Onslow County is also in the Black Creek aquifer. Declines of about 2 ft per year have been observed in this well over the last 5 years.

Withdrawals for public and industrial use from the Upper Cape Fear aquifer in Bladen County have caused water levels to decline in well NC-177 (p. 206). Prior to 1992, the rate of water-level decline in well NC-177 was about 1.7 ft per year. In mid-October 1992, major withdrawals for industrial use (from the same aquifer) began in northwestern Bladen County; as a result, the rate of decline in well NC-177 was about 7 ft per year between late 1992 and 1996. Between late 1996 and 1999, the rate of decline in well NC-177 was about 3 ft per year (Strickland, 1995, 1999). The current rate of decline for the 2001 water year was 3.9 ft per year

Water-level declines in well NC-155 (p. 122), which is completed in the lower Cape Fear aquifer in Hertford County, result primarily from major withdrawals in Virginia that began in the 1940's. These withdrawals have caused a regional cone of depression in the Lower Cape Fear aquifer, which extends about 30 miles into North Carolina (Coble and others, 1989). Water-level records from well NC-155 indicate that the maximum (drawdown) rate of decline of 3.5 ft per year occurred in the late 1980's and early 1990's. From 1993 to 1998, the rate of decline decreased to less than 2 ft per year. A slight recovery in water levels was observed from late 1998 through mid-2000; however, recent data for the 2001 water year indicate a return to declining water levels at a rate of more than 1 ft per year.

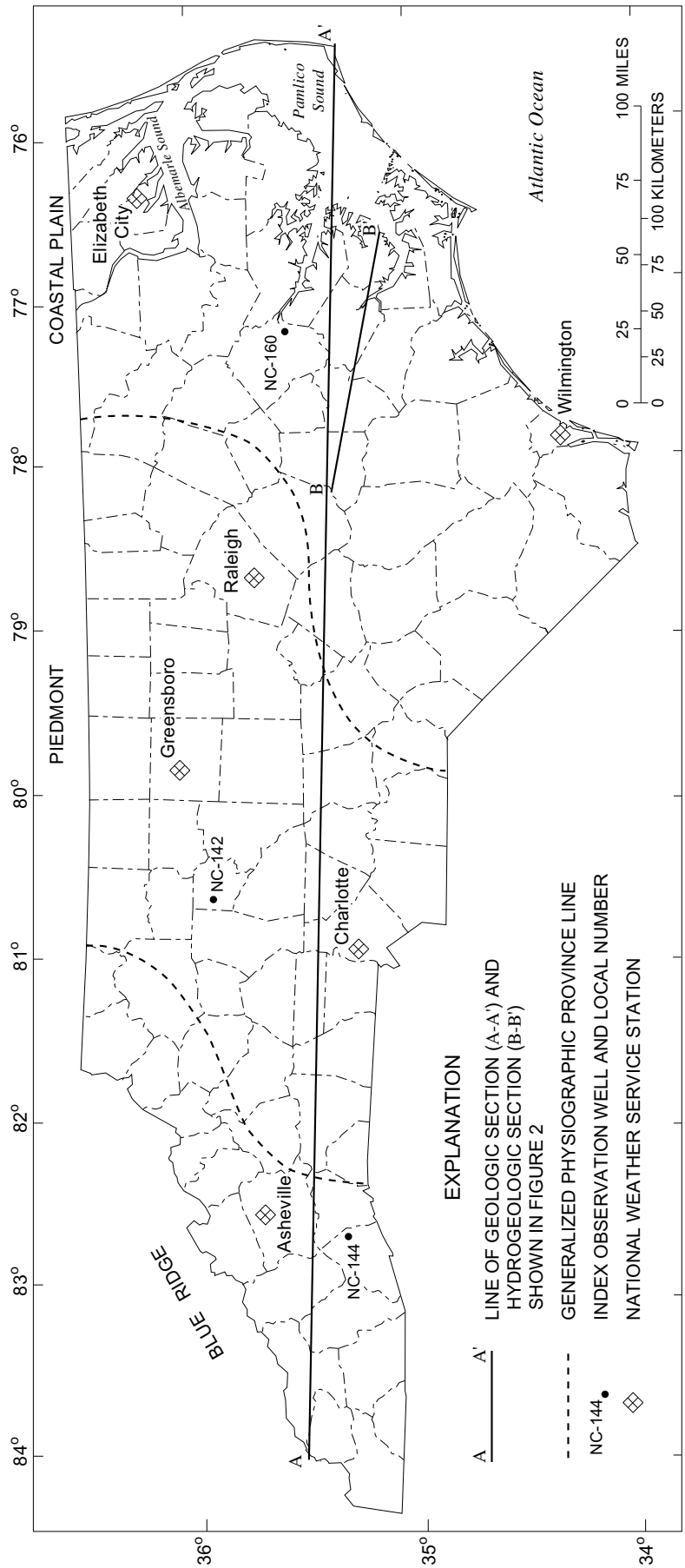

Figure 1.--Locations of weather stations and index wells in North Carolina.

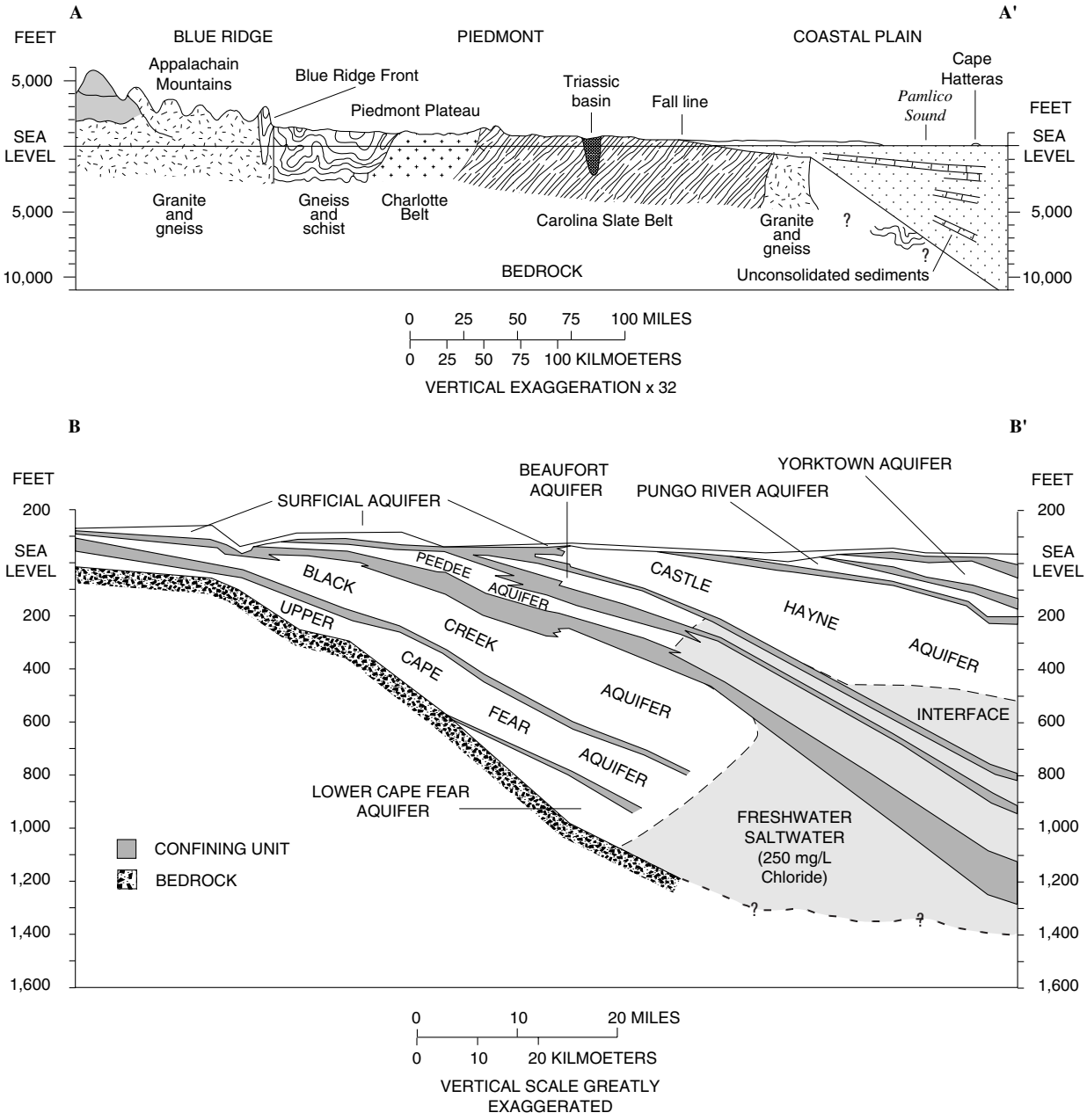

Figure 2.--Geologic section **A** -**A**' across North Carolina and hydrogeologic section **B** - **B**' in the Coastal Plain of North Carolina (as shown in figure1).

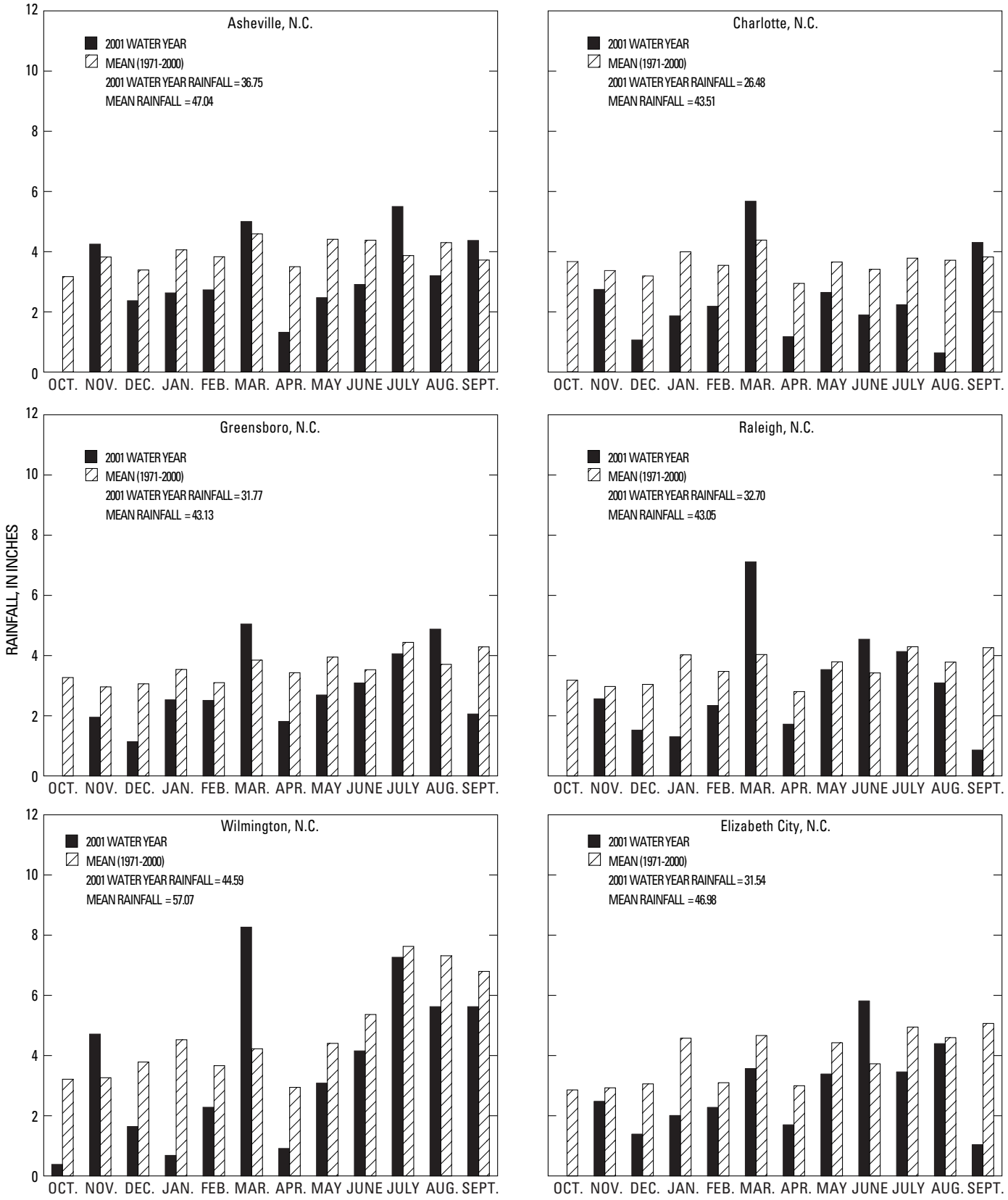

Figure 3.--Monthly rainfall at index stations for 2001 water year and mean monthly rainfall for the period 1971-2000 (data from the National Oceanic and Atmospheric Administration).

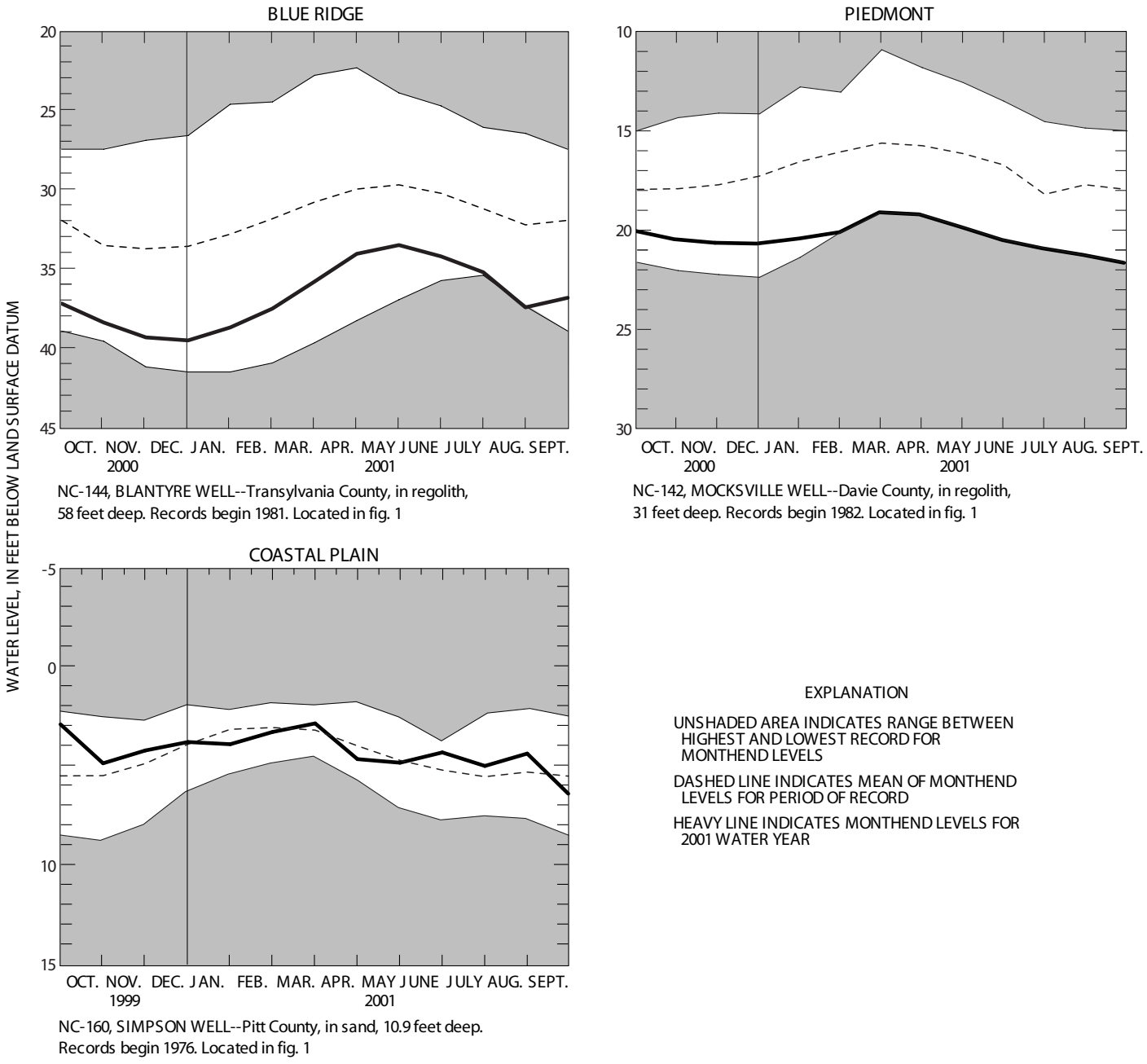

Figure 11.--Water levels in index observation wells in the Blue Ridge, Piedmont, and Coastal Plain Provinces.

EXPLANATION OF RECORDS

Ground-Water-Level Data

The ground-water data published in this report are for the 2001 water year that began October 1, 2000, and ended September 30, 2001. A calendar of the water year is provided on the inside of the front cover. These data include water-level and water-quality data for ground water. The locations of the wells where the data were collected are shown in figures 4-10, p. 37-43. The following sections provide a detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Site Identification Numbers

Each well in this report is assigned a unique identification number. This number usually is assigned when a well is first established and is retained for that well indefinitely; all data for that well in USGS data bases are under that site identification number.

The site identification numbers for wells are assigned according to the latitude and longitude location of the well. 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 within a 1-second grid. This site identification number, once assigned, has no locational significance. In the rare instance where the initial determination of latitude and longitude is found to be in error, the well will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the well description.

Local well numbers in this report generally fall within two numbering systems. All wells are indicated by a two-letter county prefix followed by a sequential number, such as ME-301 or RB-185 for wells in Mecklenburg and Robeson Counties, respectively. In addition, wells that belong in the statewide North Carolina observation-well program are indicated by the prefix NC- followed by a sequential number, for example NC-160.

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 consistently accurate and reliable.

Water-level data are obtained from direct measurements with a steel tape, an electric tape, or a water-level recorder. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum. Sea level is the plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude (referenced to sea level) 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. Reported water levels in wells equipped with water-level recorders represent the mean water level for every day.

Water levels are reported to as many significant figures as can be justified by the local conditions. Accordingly, all measurements are reported to a hundredth of a foot.

Data Presentation

Water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown in figures 4-10; each well is identified on these maps by its local or county well number.

Each well record consists of three parts--the well description, data table of water levels observed during the water year, and for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data. The following comments clarify information presented in these various headings.

Description

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds), the hydrologic-unit number, a geographic point of reference, and the owner's name. Latitudes and longitudes used in this report are reported as National American Datum of 1927 unless otherwise specified.

AQUIFER.--This entry designates by name and geologic age the aquifer that the well taps. Names of aquifers in the Coastal Plain Province are those mentioned in the “Major Aquifers” section of this report. Aquifers in the Piedmont and Blue Ridge Provinces are identified by the type of the crystalline igneous or metamorphic rock that the well taps, or by the regolith derived from the underlying rock

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, casing diameter and depth and (or) screened interval, method of construction, use, 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 continuous, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above sea level; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, 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 National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It may describe when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year at 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 instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

The hydrographs are a graphic display of water-level fluctuations over a period of time. In this report current water year and where appropriate period of record hydrographs are shown. Those hydrographs which display periodic water-level measurements are indicated by points which may be connected with a dashed line from one measurement to the next. Hydrographs which display recorder data are indicated by a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder’s float mechanism to water-level fluctuations in a well.

Ground-Water-Quality Data

Records of ground-water quality data 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.

Data Collection and Computation

The ground-water quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide.

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in Techniques of Water-Resources Investigations (TWRI), Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chaps. A1, A3, and A4. These references are listed on pages 21-24 of this report. Also, detailed information on collecting, treating, and shipping samples can be obtained from the U.S. Geological Survey North Carolina District office in Raleigh.

Chemical-quality data published in this report are considered to be the most representative values available for the wells listed. The values reported represent as much as possible water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance and dissolved oxygen are performed on site. All other sample analyses are performed at the U.S. Geological Survey laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the U.S. Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; and Book 5, Chap. A1, A3, and A4.

The U.S. Geological Survey National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDL's) and laboratory reporting levels (LRL's). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. The chance of falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as <LRL for samples in which the analyte was either not detected or did not pass identification. Analytes that are detected at concentrations between the LT-MDL and LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E". These data should be used with the understanding that their uncertainty is greater than that of data reported without the "E" remark code.

In March 1990 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1990.

MBAS determinations made from January 1, 1970 through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrate, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data, are applied:

Remarks Codes

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (nonideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
V	Analyte was detected in both the environmental sample and the associated blanks.
&	Biological organism estimated as dominant

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/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 to 100's of nanograms per liter (ng/L). Data above the microgram per liter 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 began using new trace-element protocols in water year 1994.

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this District are:

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Sequential samples - a type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

ACCESS TO USGS WATER DATA

The USGS provides near real-time continuous record water-level data for wells equipped with the necessary telemetry through the world wide web (WWW). Historic ground-water-level measurements and water-quality data are also available through the WWW. These data may be accessed at

http://water.usgs.gov

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 District Offices (See address on the back of the title page.)

SPECIAL NETWORKS AND PROGRAMS

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

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

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

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DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units on the inside of the back cover.

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

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff")

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

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

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

Annual runoff is the total quantity of water that is discharged ("runs off") from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 to September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

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

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

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

Bacteria are microscopic unicellular organisims, 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.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peaks per year will be published.

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 ft) that

are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler may also contain a component of the suspended load.

Bedload discharge (tons per day) is rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload" and "Sediment")

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

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

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

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

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

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

Bottom material (See "Bed material")

Cells/volume refers to the number of cells of any organism that 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 volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

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

$$\text{sphere } 4/3\ \pi r^3 \quad \text{cone } 1/3\ \pi r^3 h \quad \text{cylinder } \pi r^3 h.$$

pi is the ratio of the circumference to the diameter of a circle; pi = 3.14159…
From cell volume, total algal biomass expressed as biovolume ($\mu m^3/mL$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

Cfs-day (See "Cubic foot per second-day")

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

Clostridium perfringens *(C. perfringens)* is a spore-forming bacterium that is common in the feces of human and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of waters and of the survival and transport of viruses in the environment.

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

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than

the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well. (See also "Aquifer")

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

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

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

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

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term "second-feet" sometimes is used synonymously with "cubic feet per second" but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [$(ft^3/s)/d$]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily-mean discharges reported in the daily-value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

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

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also "Daily mean suspended-sediment concentration," "Sediment," and "Suspended-sediment concentration")

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data Collection Platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also "Gage datum," "Land-surface datum," "National Geodetic Vertical Datum of 1929," and "North American Vertical Datum of 1988")

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

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

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediments or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents such as suspended sediment, bedload, and dissolved or suspended chemical constituents, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of "dissolved" constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon Index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

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

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

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

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

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, 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. (See also "Ash mass," "Biomass," and "Wet mass")

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

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

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive, the index usually decreases with pollution.

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

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

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

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried streambed sediments. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediments.

Fecal coliform bacteria 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. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestine of warm-blooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

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

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly larger than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any National geodetic datum. However, if the elevation of the gage datum relative to the National datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the National datum by adding the elevation of the gage datum to the gage reading.

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

Gage values are values that are recorded, transmitted and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

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

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

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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 (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

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

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution which uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum\frac{(n)(a)}{N}$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See "Datum")

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

Hydrologic index stations referred to in this report are four continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

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

Instantaneous discharge is the discharge at a particular instant of time. (See also "Discharge")

Laboratory Reporting Level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a non-detection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually based on the most current quality-control data and may, therefore, change. [Note: In several previous NWQL documents (Connor and others, 1998; NWQL Technical Memorandum 98.07, 1998), the LRL was called the non-detection value or NDV—a term that is no longer used.)

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

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

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

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

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

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

Long-Term Method Detection Level (LT–MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT–MDL data are collected on a continuous basis to assess year-to-year variations in the LT–MDL. The LT–MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT–MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

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

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

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also "Daily mean suspended-sediment concentration" and "Suspended-sediment concentration")

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

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also "Datum")

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

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

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

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

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

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

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

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

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

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

Minimum Reporting Level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method (Timme, 1995).

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

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

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

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

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations**,** it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See "North American Vertical Datum of 1988")

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

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

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

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the U.S. This datum was established in 1991 by minimum-constraint adjustment of the Canadian**,** Mexican, and U.S. first-order terrestrial leveling networks.

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

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

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

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.

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

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

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

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

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

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

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

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation to the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

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

Percent shading is determined by using a clinometer to estimate left and right bank shading. The values are added together and divided by 180 to determine percent shading relative to a horizontal surface.

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

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

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

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

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

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

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

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

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

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

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

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

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

Recoverable from bed (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. (See also "Bed material")

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

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

Return period (See "Recurrence interval")

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council, and typically used to denote location along a river.

Runoff is the quantity of water that is discharged ("runs off") from a drainage basin in a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "Annual runoff")

Sea level, as used in this report, refers to one of the two commonly used national vertical datums, (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums. See conversion of units page (inside back cover) for identification of the datum used in this report.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment 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 and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Seven-day 10-year low flow (7Q10) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-run average. The recurrence interval of the 7Q10 is 10 years; the chance that the annual 7-day minimum flow will be less than the 7Q10 is 10 percent in any given year. (See also "Recurrence interval" and "Annual 7-day minimum")

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. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

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

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

Stage (See "Gage height")

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

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

Substrate is the physical surface upon which an organism lives.

Substrate Embeddedness Class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as percent covered by fine sediment:

0	< no gravel or larger substrate		
1	> 75%		
2	51-75%	4	5-25%
3	26-50%	5	< 5%

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 ft) of the bed material such as that material which 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 operationally defined as the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended water-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 directly analyzing the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also "Sediment")

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/day) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

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

Taxa richness is the total number of distinct species or groups and usually decreases with pollution. (See also "Percent Shading")

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:	*Hexagenia*
Species:	*Hexagenia limbata*

Temperature preferences:

Cold – preferred water temperature for the species is less than 20 °C or spawning temperature preference less than 16 °C and native distribution is considered to be predominantly north of 45° N. latitude.

Warm – preferred water temperatures for the species is greater than 20 °C or spawning temperature preference greater than 16 °C and native distribution is considered to be predominantly south of 45° N. latitude.

Cool – intermediate between cold and warm water temperature preferences.

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder' is used in the table descriptions 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 resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 at least 95 percent of the constituent in the sample.)

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

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

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

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

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

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume.")

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Sediment," "Suspended sediment," "Suspended-Sediment Concentration," "Bedload," and "Bedload discharge")

Total sediment load or total load is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-Sediment Load," and "Total load")

Trophic group:

Filter feeder – diet composed of suspended plant and/or animal material.

Herbivore – diet composed predominantly of plant material.

Invertivore – diet composed predominantly of invertebrates.

Omnivore – diet composed of at least 25-percent plant and 25-percent animal material.

Piscivore – diet composed predominantly of fish.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values. Consequently, the method of measurement and type of instrument used to derive turbidity records should be included in the "REMARKS" column of the Annual Data Report.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

Vertical datum (See "Datum")

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

Water table is the level in the saturated zone at which the pressure is equal to the atmospheric pressure.

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

Water year in USGS 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, 2001, is called the "2001 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.

Wet mass is the mass of living matter plus contained water. (See also "Biomass" and "Dry mass")

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also "Dry weight")

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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

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

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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

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

Section E. Subsurface Geophysical Methods

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

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

Section F. Drilling and Sampling Methods

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

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Section B. Ground-water techniques

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

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

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

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

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

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

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

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

3-B8. *System and boundary conceptualization in ground-water flow simulation,* by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 pages.

Section C. Sedimentation and Erosion Techniques

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

3-C2. *Field methods for measurement of fluvial sediment*, by Thomas K. Edwards and G. Douglass Glysson: USGS-TWRI Book 3, Chapter C2, 1988, 80 pages.

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

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

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

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

Section B. Surface Water

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

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

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

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

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

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

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

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

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

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

Section C. Sediment Analysis

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

Book 6. Modeling Techniques

Section A. Ground Water

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

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

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

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

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

6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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

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

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

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

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

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

Section B. Instruments for Measurement of Discharge

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

Book 9. Handbooks for Water-Resources Investigations

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

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling,* by F. D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, chap. A1. 1998. 47 p.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling,* edited by F. D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, chap. A2. 1998. 94 p.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling,* edited by F. D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, chap. A3. 1998. 75 p.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples,* edited by F. D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A4. 1999. 156 p.

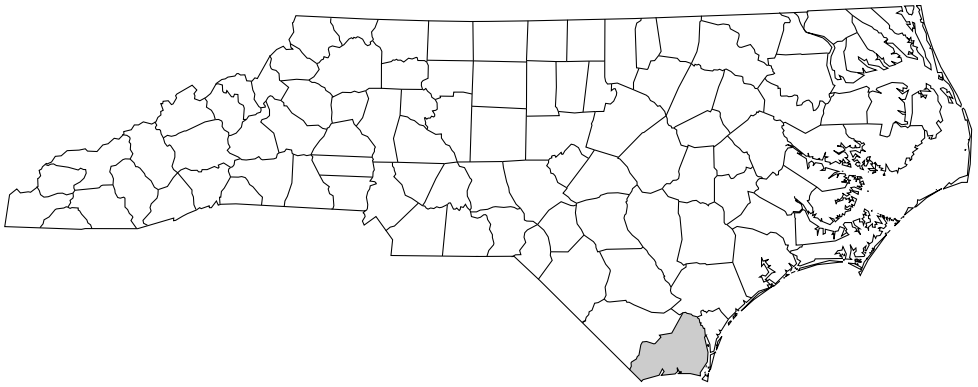
9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples,* edited by F. D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS--TWRI Book 9, Chapter A5. 1999. 149 p.

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

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D. N. Myers and F. D. Wilde: USGS--TWRI Book 9, Chapter A7. 1997 and 1999. Variously paginated.

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

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



LOCATION OF BRUNSWICK COUNTY IN NORTH CAROLINA

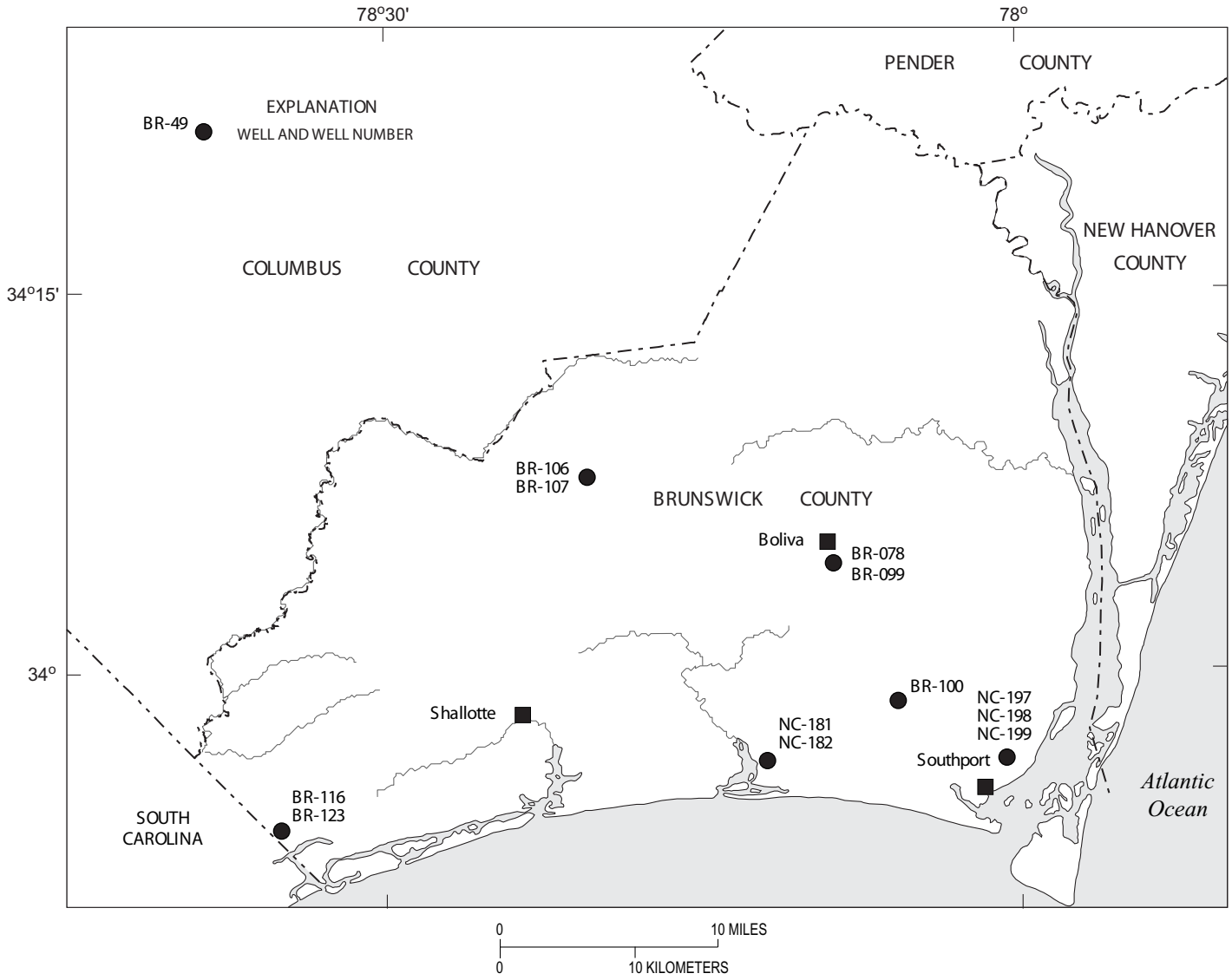
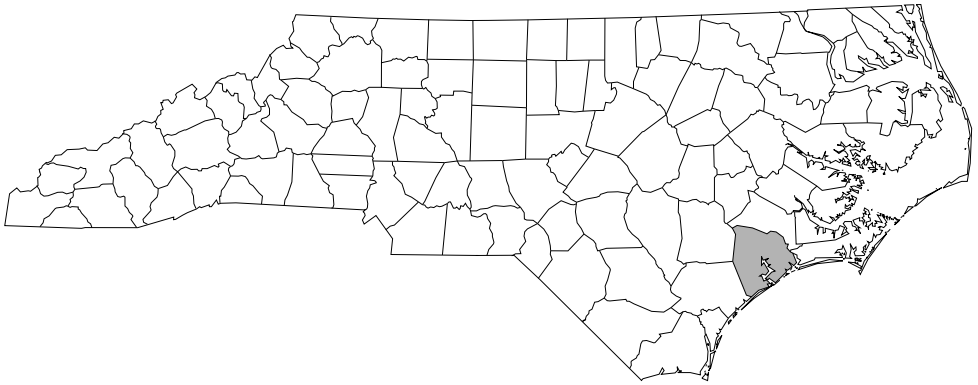


Figure 4.--Location of observation wells in Brunswick County.



LOCATION OF ONSLOW COUNTY IN NORTH CAROLINA

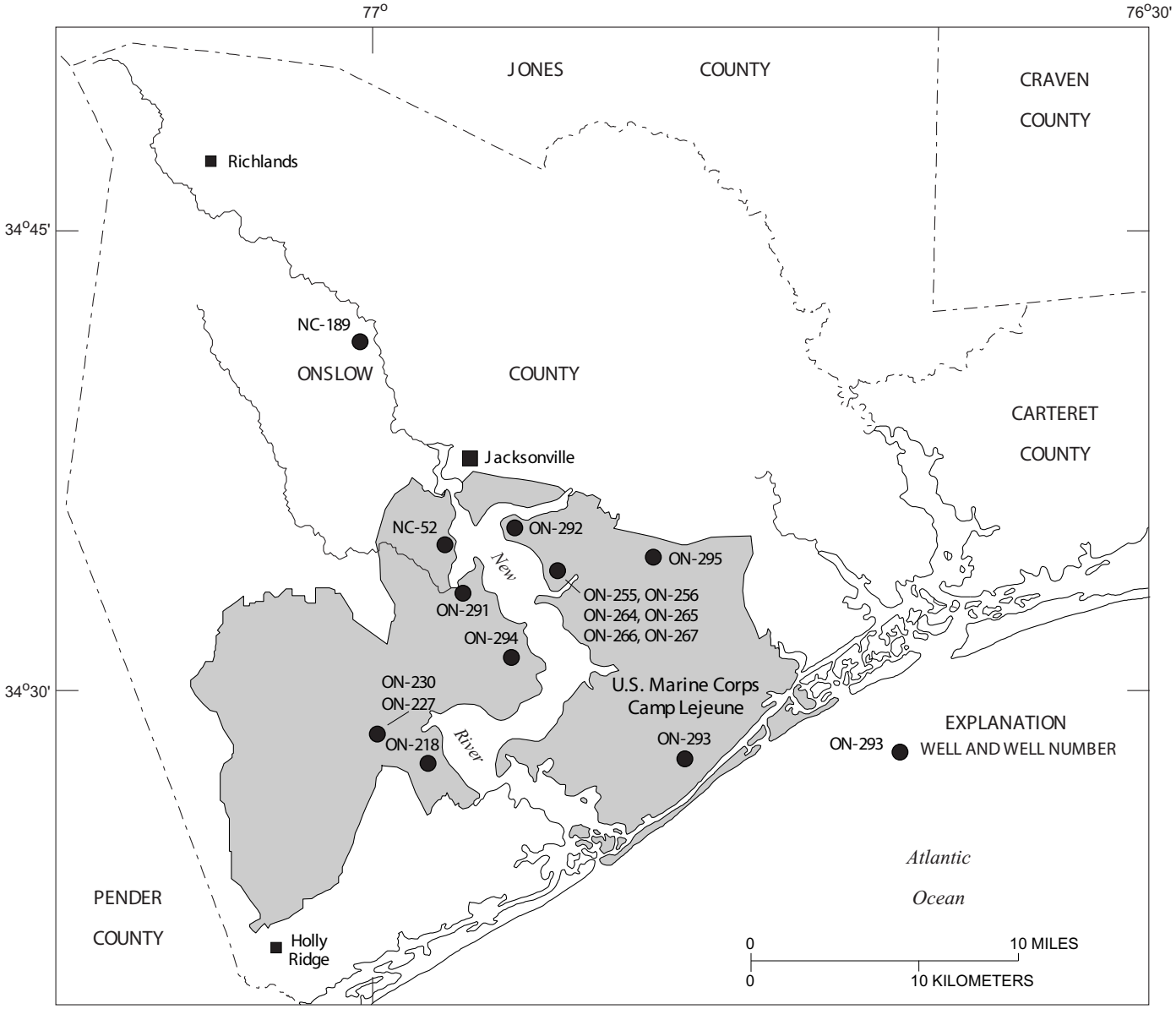
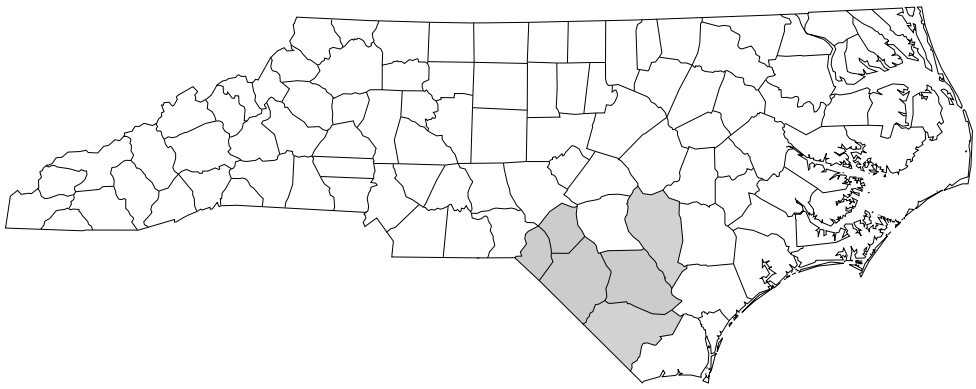


Figure 5.--Location of observation wells in Onslow County.



LOCATION OF SCOTLAND, HOKE, ROBESON, BLADEN, COLUMBUS, AND SAMPSON COUNTIES IN NORTH CAROLINA

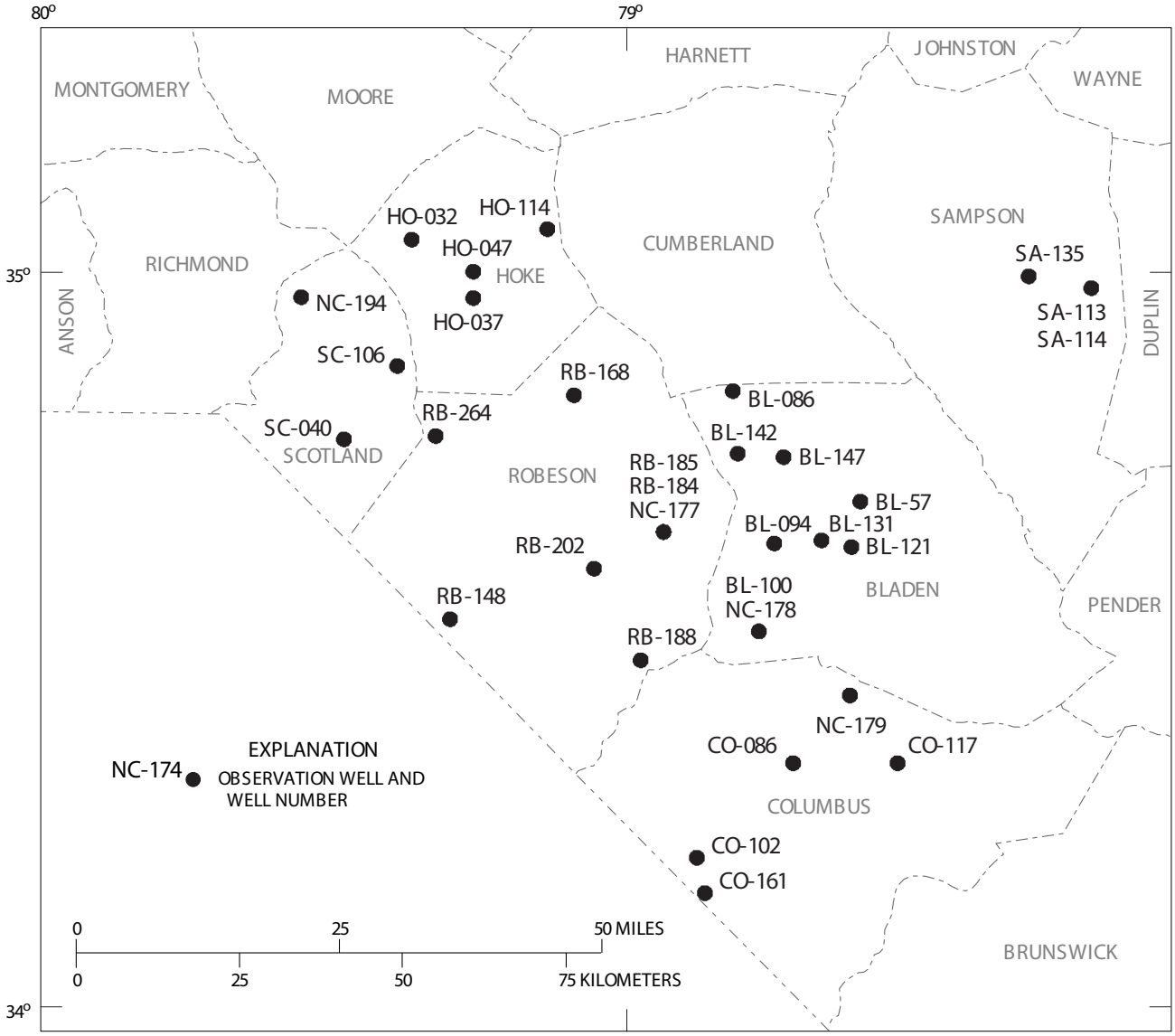
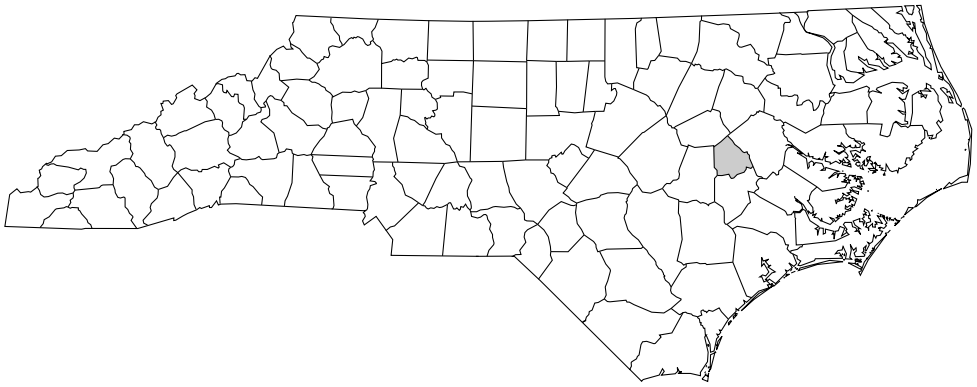


Figure 6.--Location of observation wells in Scotland, Hoke, Robeson, Bladen, Columbus, and Sampson Counties.



LOCATION OF GREENE COUNTY IN NORTH CAROLINA

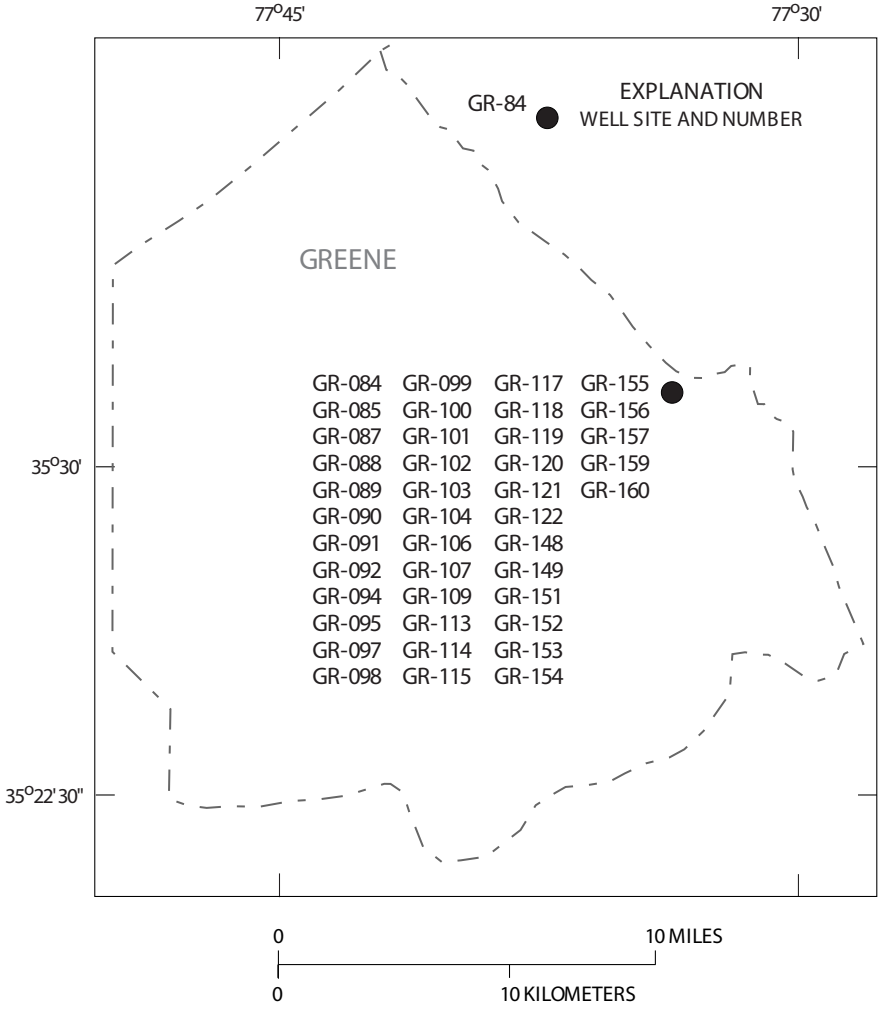
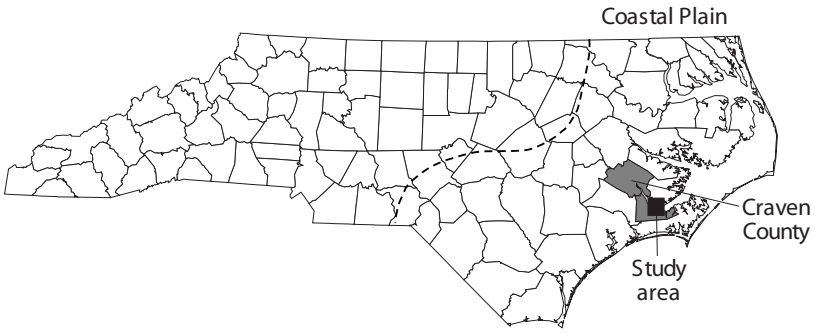


Figure 7.--Location of observation wells in Greene County.



LOCATION OF STUDY AREA, CRAVEN COUNTY, AND COASTAL PLAIN PROVINCE IN NORTH CAROLINA

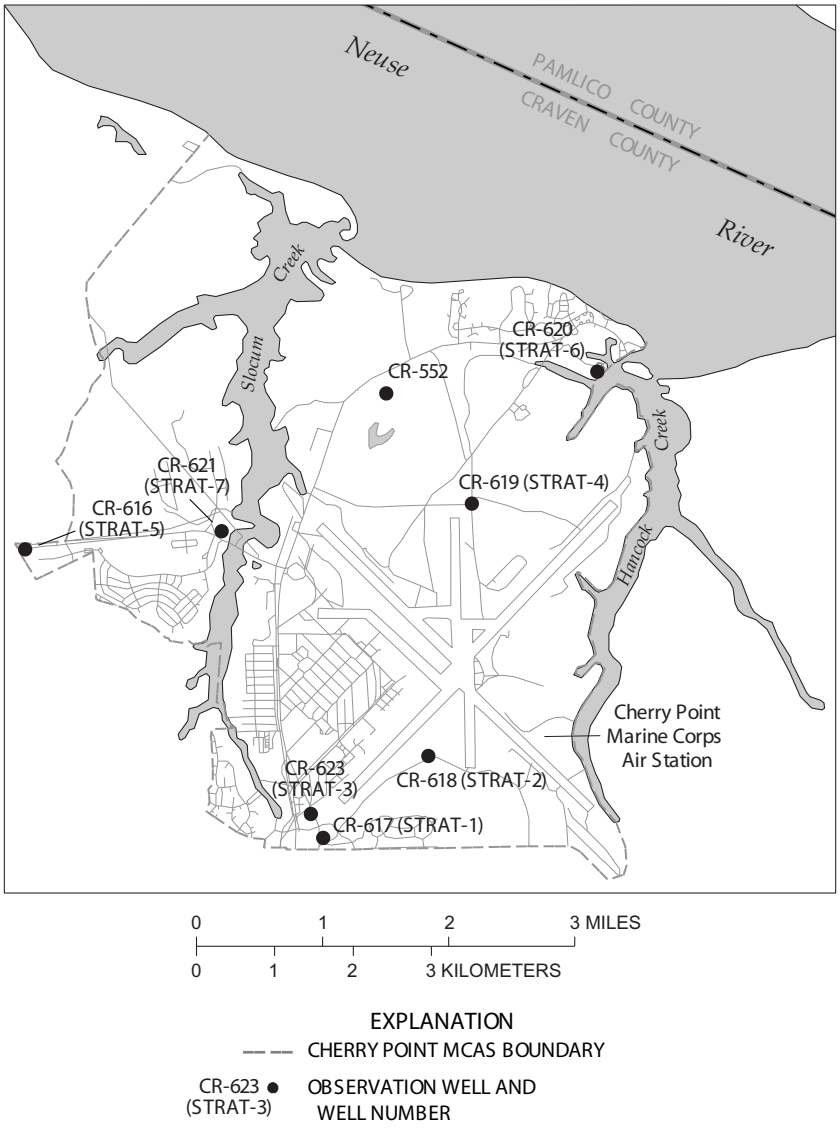


Figure 8.--Location of observation wells at Cherry Point Marine Corps Air Station, North Carolina.

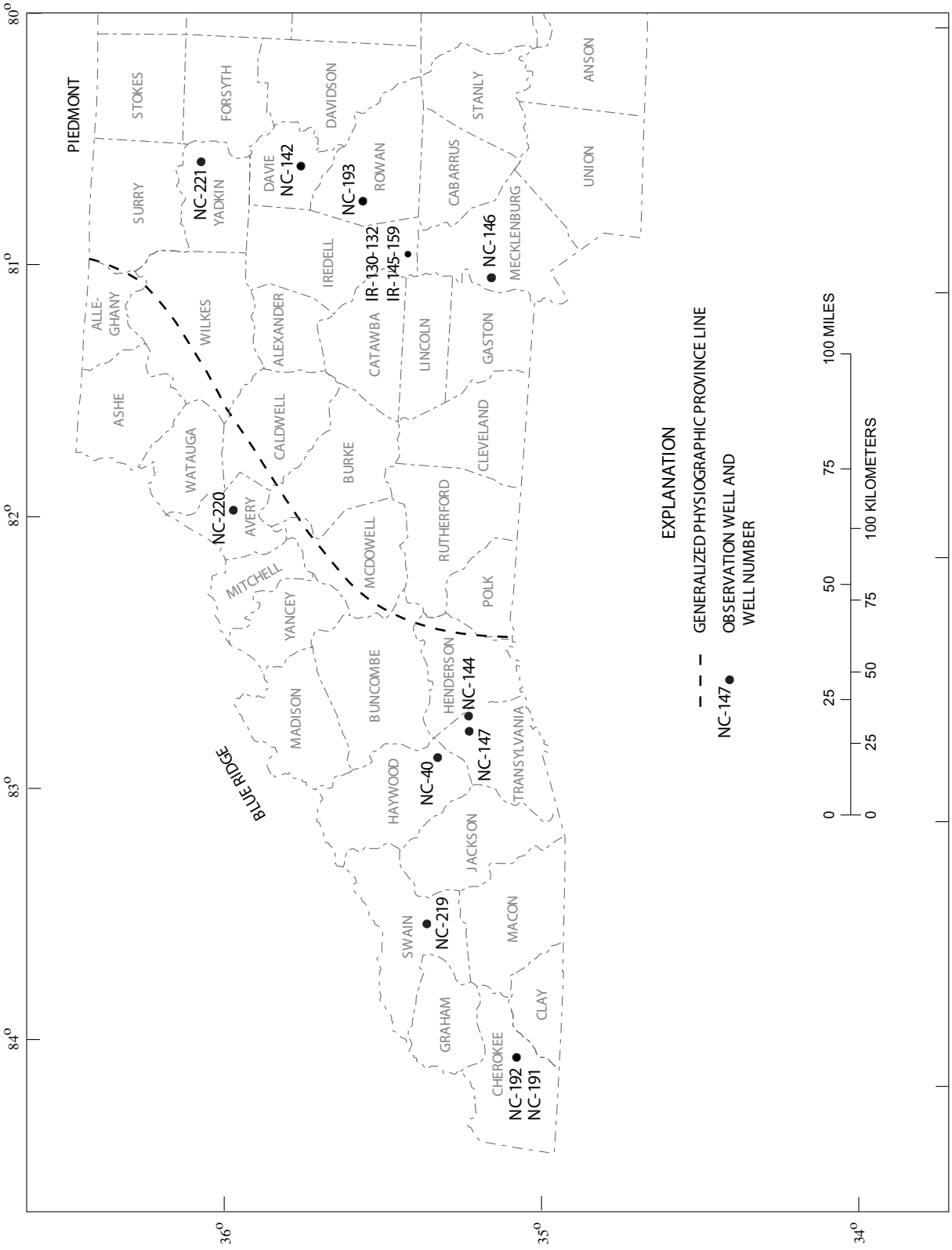


Figure 9.--Locations of observation wells in western North Carolina.

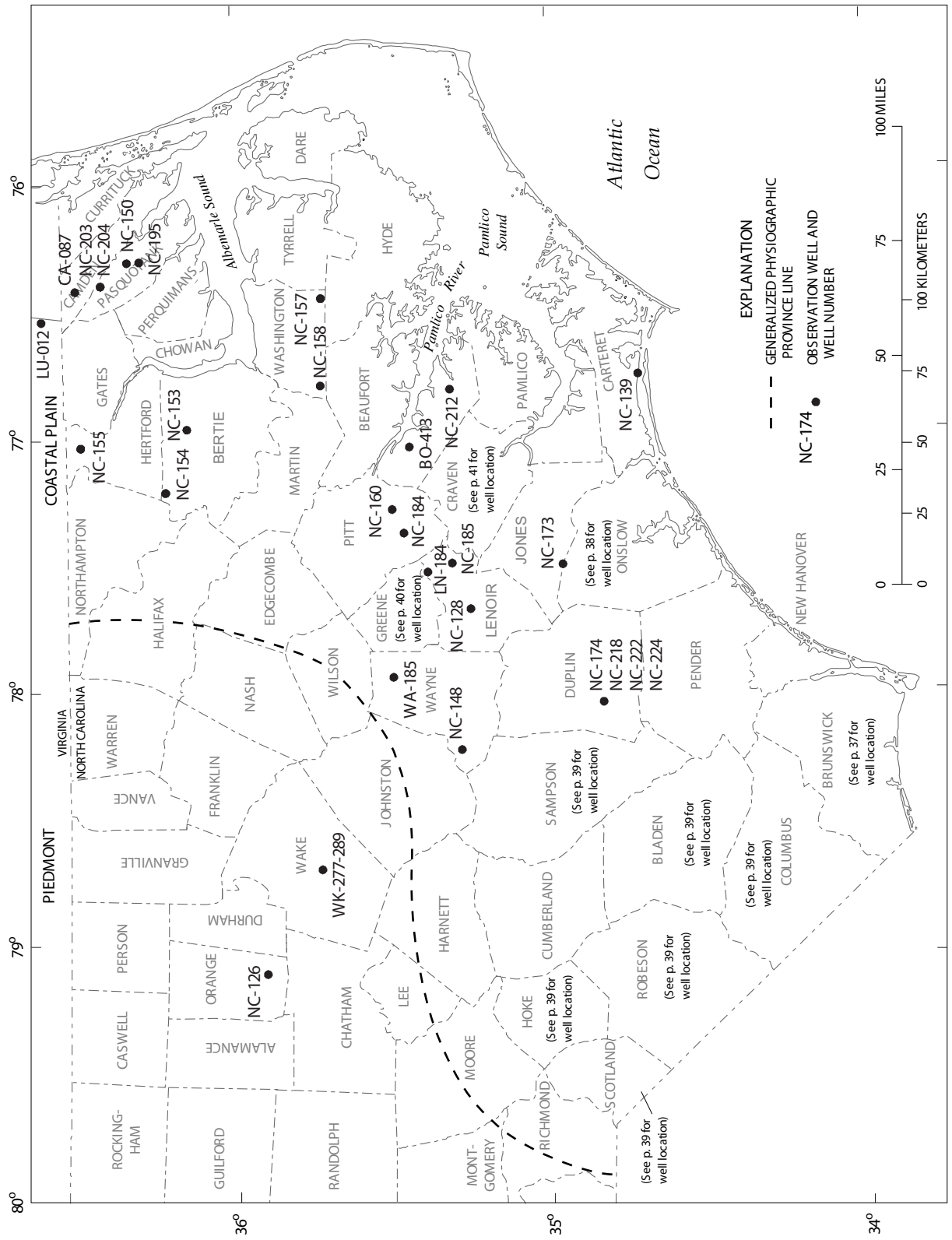


Figure 10.--Locations of observation wells in eastern North Carolina.

AVERY COUNTY

360455081530101. Local number NC-220; DENR Linville Research Station well H78d8; County number, AV-074.
LOCATION.--Lat 36°04'55.08", long 81°53'01.73", North American Datum of 1983, Hydrologic Unit 03050101, nr Linville. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Phyillite
WELL CHARACTERISTICS.--Drilled observation well, drilled to 300 ft, diameter 6 in., cased to 10 ft
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 3,919.00 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 1.00 ft above land-surface datum.
REMARKS.--Well is part of terrane-effects network.
PERIOD OF RECORD.--June 2000 to current year. Records from March 1972 to March 2000 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.64 ft below land-surface datum, Mar. 29, 2001; lowest water level recorded, 2.34 ft below land-surface datum, Aug. 27, 2000.

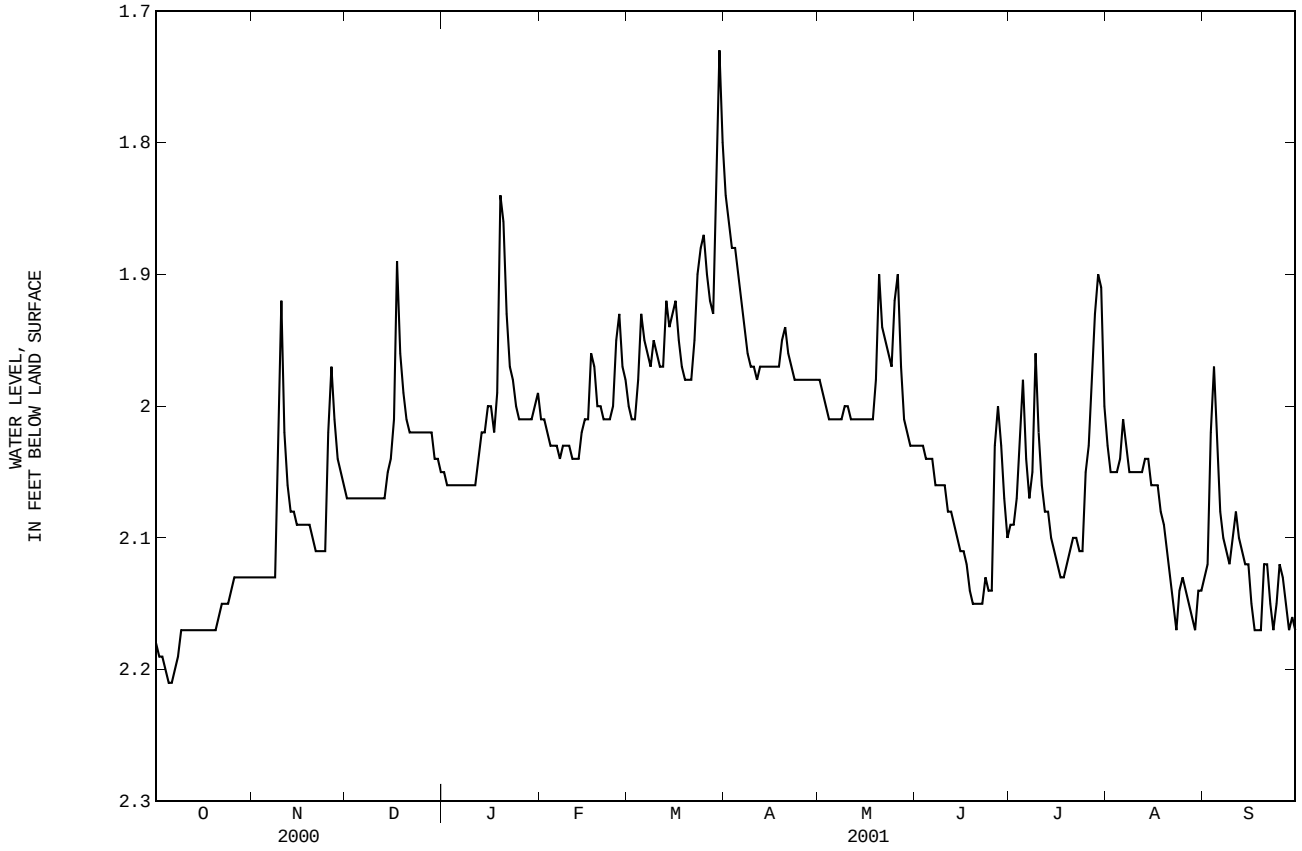
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

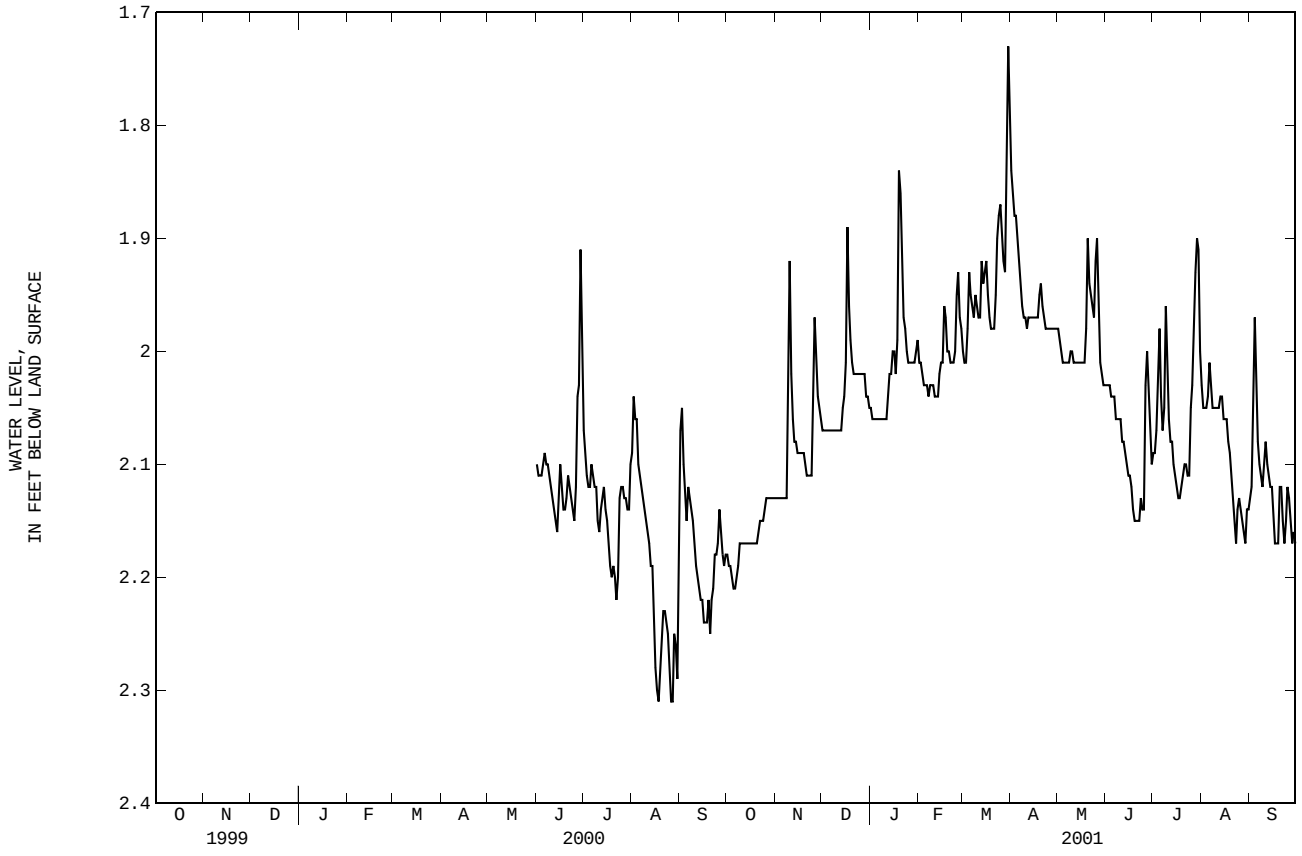
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.18	2.13	2.07	2.05	2.01	2.00	1.84	1.98	2.03	2.09	2.03	2.13
2	2.19	2.13	2.07	2.06	2.01	2.01	1.86	1.99	2.03	2.09	2.05	2.12
3	2.19	2.13	2.07	2.06	2.02	2.01	1.88	2.00	2.03	2.07	2.05	2.02
4	2.20	2.13	2.07	2.06	2.03	1.98	1.88	2.01	2.04	2.02	2.05	1.97
5	2.21	2.13	2.07	2.06	2.03	1.93	1.90	2.01	2.04	1.98	2.04	2.03
6	2.21	2.13	2.07	2.06	2.03	1.95	1.92	2.01	2.04	2.04	2.01	2.08
7	2.20	2.13	2.07	2.06	2.04	1.96	1.94	2.01	2.06	2.07	2.03	2.10
8	2.19	2.13	2.07	2.06	2.03	1.97	1.96	2.01	2.06	2.05	2.05	2.11
9	2.17	2.03	2.07	2.06	2.03	1.95	1.97	2.00	2.06	1.96	2.05	2.12
10	2.17	1.92	2.07	2.06	2.03	1.96	1.97	2.00	2.06	2.02	2.05	2.10
11	2.17	2.02	2.07	2.06	2.04	1.97	1.98	2.01	2.08	2.06	2.05	2.08
12	2.17	2.06	2.07	2.04	2.04	1.97	1.97	2.01	2.08	2.08	2.05	2.10
13	2.17	2.08	2.07	2.02	2.04	1.92	1.97	2.01	2.09	2.08	2.04	2.11
14	2.17	2.08	2.05	2.02	2.02	1.94	1.97	2.01	2.10	2.10	2.04	2.12
15	2.17	2.09	2.04	2.00	2.01	1.93	1.97	2.01	2.11	2.11	2.06	2.12
16	2.17	2.09	2.01	2.00	2.01	1.92	1.97	2.01	2.11	2.12	2.06	2.15
17	2.17	2.09	1.89	2.02	1.96	1.95	1.97	2.01	2.12	2.13	2.06	2.17
18	2.17	2.09	1.96	1.99	1.97	1.97	1.97	2.01	2.14	2.13	2.08	2.17
19	2.17	2.09	1.99	1.84	2.00	1.98	1.95	1.98	2.15	2.12	2.09	2.17
20	2.17	2.10	2.01	1.86	2.00	1.98	1.94	1.90	2.15	2.11	2.11	2.12
21	2.16	2.11	2.02	1.93	2.01	1.98	1.96	1.94	2.15	2.10	2.13	2.12
22	2.15	2.11	2.02	1.97	2.01	1.95	1.97	1.95	2.15	2.10	2.15	2.15
23	2.15	2.11	2.02	1.98	2.01	1.90	1.98	1.96	2.13	2.11	2.17	2.17
24	2.15	2.11	2.02	2.00	2.00	1.88	1.98	1.97	2.14	2.11	2.14	2.15
25	2.14	2.02	2.02	2.01	1.95	1.87	1.98	1.92	2.14	2.05	2.13	2.12
26	2.13	1.97	2.02	2.01	1.93	1.90	1.98	1.90	2.03	2.03	2.14	2.13
27	2.13	2.01	2.02	2.01	1.97	1.92	1.98	1.97	2.00	1.98	2.15	2.15
28	2.13	2.04	2.02	2.01	1.98	1.93	1.98	2.01	2.03	1.93	2.16	2.17
29	2.13	2.05	2.04	2.01	---	1.85	1.98	2.02	2.07	1.90	2.17	2.16
30	2.13	2.06	2.04	2.00	---	1.73	1.98	2.03	2.10	1.91	2.14	2.17
31	2.13	---	2.05	1.99	---	1.80	---	2.03	---	2.00	2.14	---

WTR YR 2001 MEAN 2.04 HIGH 1.73 LOW 2.21

AVERY COUNTY--Continued

360455081530101 Local number NC-220; DENR Linville Research Station well H78d8; County number, AV-074





BEAUFORT COUNTY

351934076481001. Local number, NC-212; County number, BO-200.
LOCATION.--Lat 35°19'34", long 76°48'10", North American Datum of 1983, Hydrologic Unit 03020104, 1.5 mi north of Aurora, west of State Highway 306 on service road to south gate of PCS Phosphate. Owner: PCS Phosphate, Aurora Division.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 168 ft, diameter 4 in., cased to 160 ft, open hole to 168 ft; measured depth 168 ft, December 1999.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 7 ft above sea level (from topographic map). Measuring point: Recorder shelf, 3.00 ft above land-surface datum.
REMARKS.--Well drilled to replace NC-13. Well is part of local-effects network.
PERIOD OF RECORD.--January 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 38.37 ft below land-surface datum, Jan. 26, 2000; lowest water level recorded, 121.21 ft below land-surface datum, Dec. 25, 26, 2001.

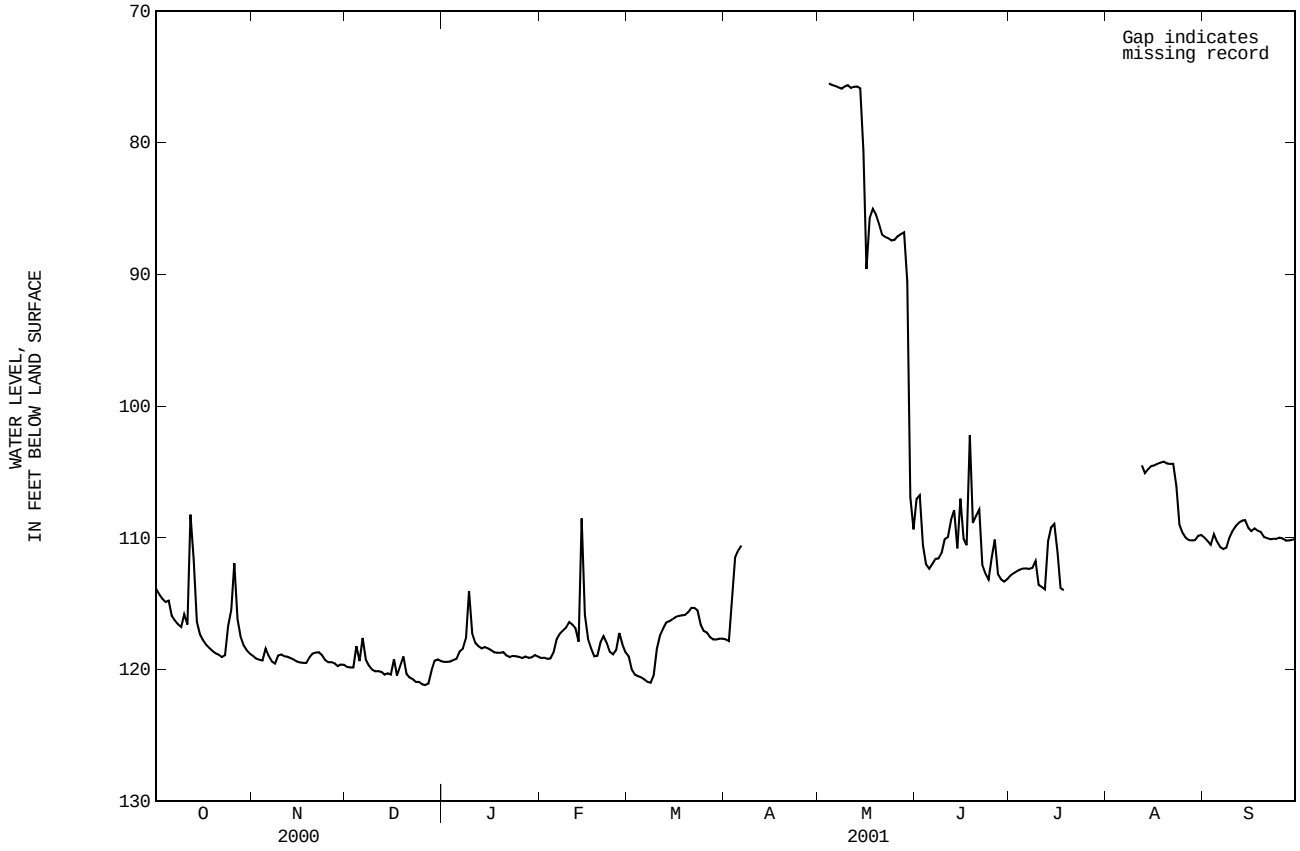
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

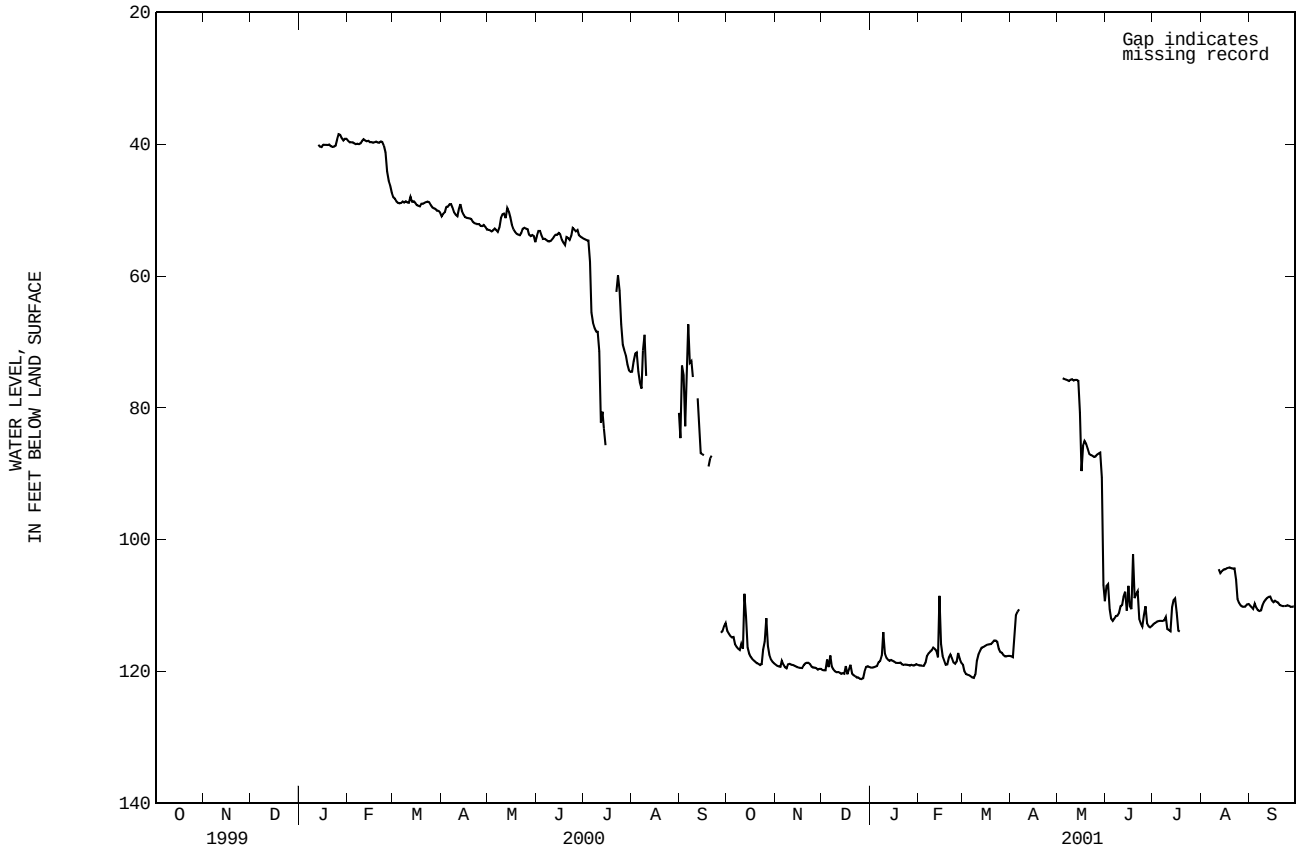
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113.86	118.97	119.78	119.41	119.11	118.98	117.69	---	107.05	112.86	---	109.98
2	114.28	119.16	119.83	119.41	119.09	119.99	117.83	---	106.76	112.68	---	110.23
3	114.61	119.25	119.83	119.38	119.17	120.38	114.79	---	110.57	112.53	---	110.53
4	114.86	119.29	118.21	119.27	119.15	120.50	111.49	75.51	111.99	112.41	---	109.71
5	114.77	118.38	119.35	119.17	118.70	120.58	110.95	75.64	112.34	112.33	---	110.28
6	115.91	118.95	117.59	118.62	117.67	120.74	110.58	75.71	111.99	112.32	---	110.69
7	116.27	119.38	119.23	118.42	117.26	120.92	---	75.81	111.59	112.35	---	110.84
8	116.55	119.54	119.68	117.59	117.02	120.99	---	75.92	111.56	112.28	---	110.74
9	116.76	118.93	119.99	114.03	116.79	120.44	---	75.74	111.13	111.76	---	109.97
10	115.79	118.85	120.12	117.25	116.38	118.41	---	75.65	110.09	113.56	---	109.45
11	116.57	118.98	120.11	117.95	116.57	117.43	---	75.85	109.93	113.72	---	109.09
12	108.23	119.02	120.17	118.22	116.84	116.89	---	75.77	108.64	113.90	104.49	108.84
13	111.62	119.13	120.37	118.39	117.87	116.42	---	75.75	107.90	110.25	105.09	108.68
14	116.37	119.24	120.28	118.29	108.53	116.32	---	75.88	110.80	109.21	104.78	108.65
15	117.31	119.38	120.37	118.39	115.84	116.16	---	80.67	107.02	108.94	104.54	109.23
16	117.77	119.45	119.21	118.51	117.67	116.01	---	89.60	110.06	111.08	104.50	109.49
17	118.11	119.48	120.45	118.68	118.37	115.92	---	85.75	110.55	113.81	104.37	109.28
18	118.35	119.49	119.71	118.71	118.98	115.87	---	85.03	102.23	113.96	104.29	109.45
19	118.57	119.06	119.01	118.71	118.94	115.85	---	85.44	108.87	---	104.21	109.56
20	118.76	118.78	120.31	118.66	117.91	115.64	---	86.19	108.33	---	104.35	109.93
21	118.86	118.70	120.59	118.93	117.46	115.31	---	86.99	107.86	---	104.38	110.02
22	119.04	118.68	120.72	119.04	117.97	115.31	---	87.17	112.04	---	104.37	110.10
23	118.90	118.89	120.93	118.96	118.64	115.49	---	87.27	112.73	---	106.09	110.07
24	116.71	119.27	120.92	118.98	118.84	116.59	---	87.43	113.17	---	108.99	110.07
25	115.46	119.43	121.11	119.03	118.49	117.06	---	87.38	111.48	---	109.62	109.98
26	111.91	119.43	121.17	119.12	117.22	117.18	---	87.10	110.13	---	109.99	110.04
27	116.16	119.52	121.05	119.00	118.08	117.52	---	86.94	112.75	---	110.17	110.20
28	117.48	119.73	120.06	119.10	118.68	117.71	---	86.80	113.15	---	110.19	110.19
29	118.17	119.61	119.32	119.07	---	117.71	---	90.55	113.32	---	110.17	110.14
30	118.54	119.62	119.22	118.90	---	117.64	---	106.89	113.13	---	109.84	110.09
31	118.79	---	119.35	119.00	---	117.65	---	109.35	---	---	109.78	---

WTR YR 2001 MEAN 112.45 HIGH 75.51 LOW 121.17

BEAUFORT COUNTY--Continued

351934076481001 Local number, NC-212; County number, BO-200





BERTIE COUNTY

361002076562106. Local number, NC-153; DENR Cremo Research Station well G19b6; County number, BE-087.
LOCATION.--Lat 36°10'02", long 76°56'21", Hydrologic Unit 03010203, 0.75 mi south of Cremo, south of Secondary Road 1313 on logging road. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 431 ft, diameter 6 in. to 340 ft, diameter 4 in. from 315 to 431 ft, screened interval from 400 to 410 ft; measured depth 412 ft, October 1986.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 64.49 ft above sea level (levels by DENR). Measuring point: Shelter floor 0.88 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--August 1974 to current year. Continuous record November 1986 to November 1990, June 2000 to current year. Records from August 1974 to February 1981 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.51 ft below land-surface datum, July 30, 1975; lowest water level measured, 44.03 ft below land-surface datum, Nov. 13, 1996.

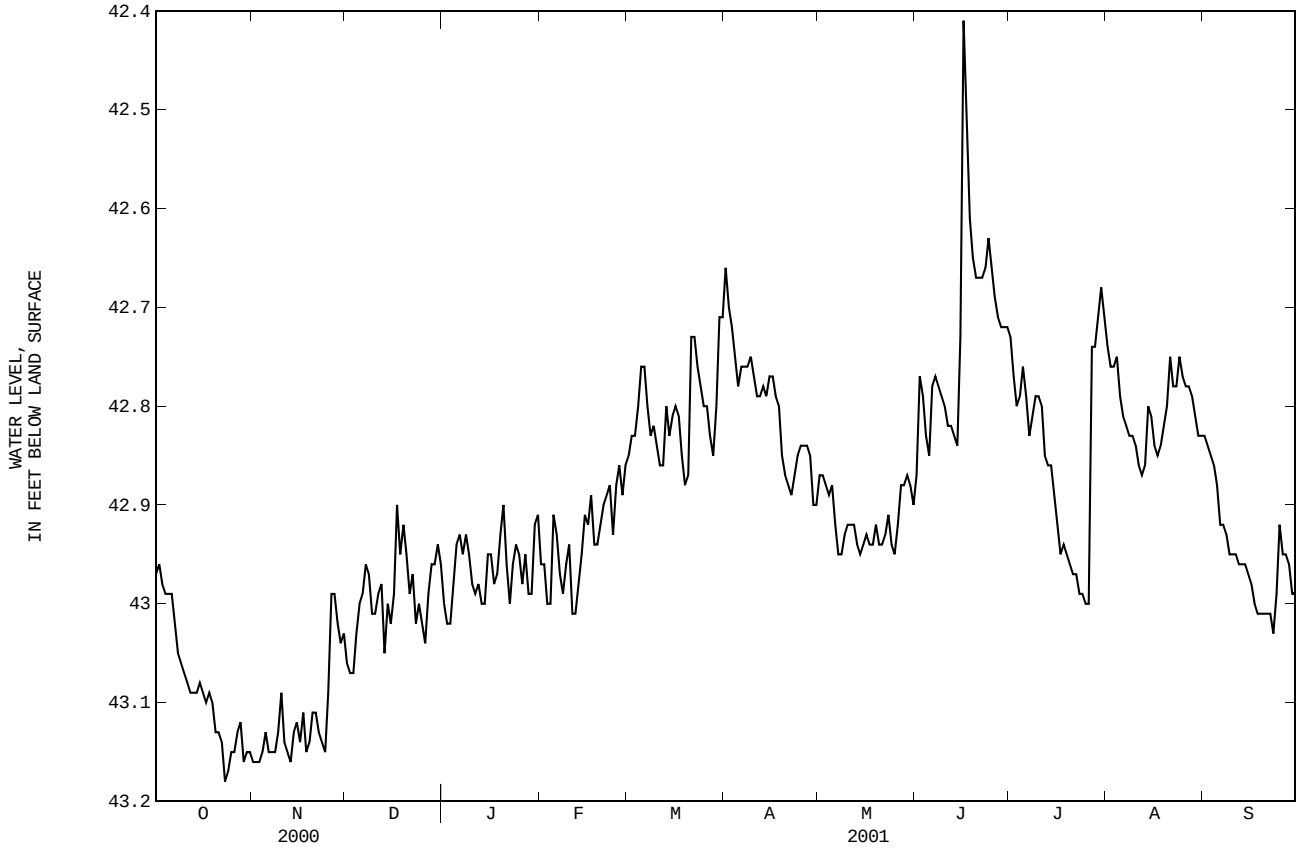
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

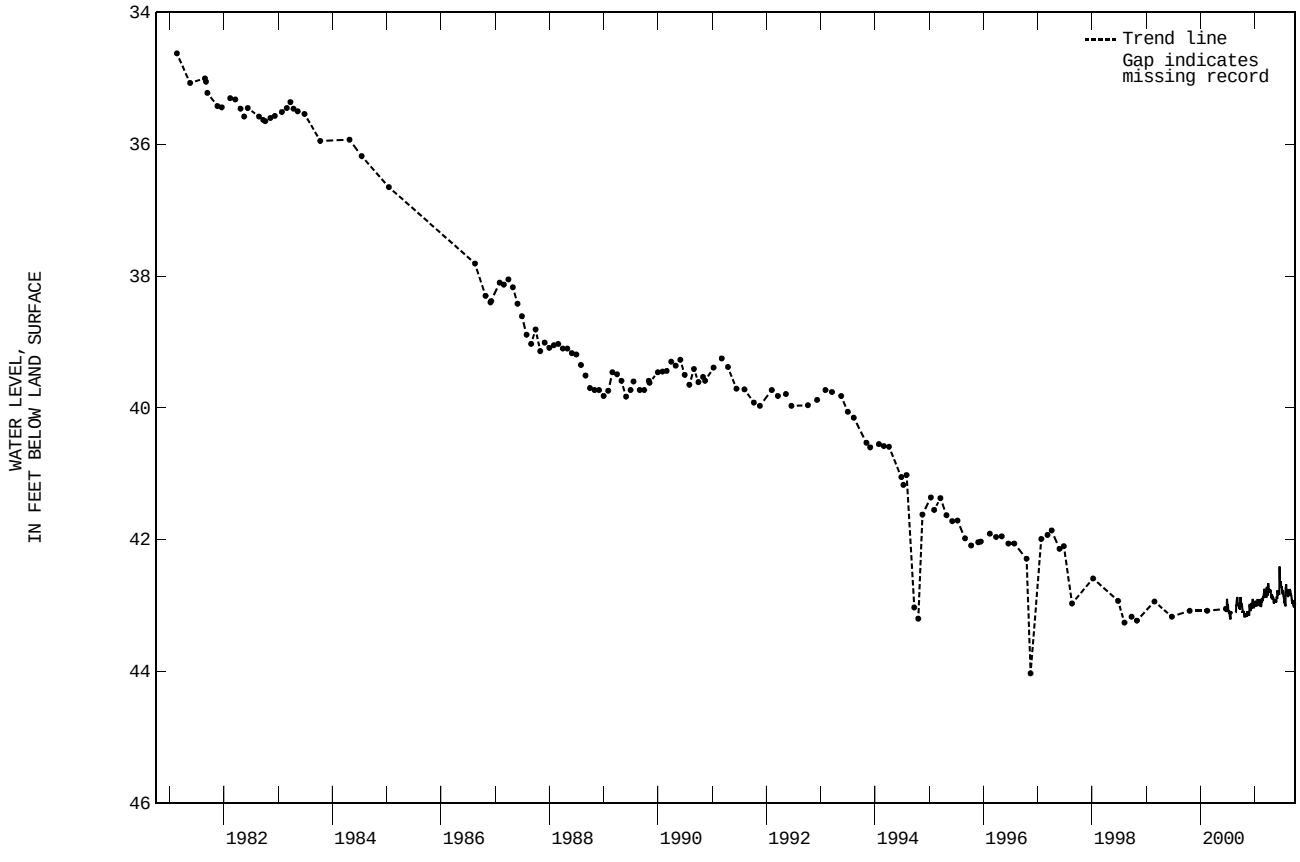
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42.97	43.16	43.06	43.00	42.96	42.85	42.66	42.87	42.87	42.73	42.74	42.83
2	42.96	43.16	43.07	43.02	42.96	42.83	42.70	42.87	42.77	42.77	42.76	42.84
3	42.98	43.16	43.07	43.02	43.00	42.83	42.72	42.88	42.79	42.80	42.76	42.85
4	42.99	43.15	43.03	42.98	43.00	42.80	42.75	42.89	42.83	42.79	42.75	42.86
5	42.99	43.13	43.00	42.94	42.91	42.76	42.78	42.88	42.85	42.76	42.79	42.88
6	42.99	43.15	42.99	42.93	42.93	42.76	42.76	42.92	42.78	42.79	42.81	42.92
7	43.02	43.15	42.96	42.95	42.97	42.80	42.76	42.95	42.77	42.83	42.82	42.92
8	43.05	43.15	42.97	42.93	42.99	42.83	42.76	42.95	42.78	42.81	42.83	42.93
9	43.06	43.13	43.01	42.95	42.96	42.82	42.75	42.93	42.79	42.79	42.83	42.95
10	43.07	43.09	43.01	42.98	42.94	42.84	42.77	42.92	42.80	42.79	42.84	42.95
11	43.08	43.14	42.99	42.99	43.01	42.86	42.79	42.92	42.82	42.80	42.86	42.95
12	43.09	43.15	42.98	42.98	43.01	42.86	42.79	42.92	42.82	42.85	42.87	42.96
13	43.09	43.16	43.05	43.00	42.98	42.80	42.78	42.94	42.83	42.86	42.86	42.96
14	43.09	43.13	43.00	43.00	42.95	42.83	42.79	42.95	42.84	42.86	42.80	42.96
15	43.08	43.12	43.02	42.95	42.91	42.81	42.77	42.94	42.73	42.89	42.81	42.97
16	43.09	43.14	42.99	42.95	42.92	42.80	42.77	42.93	42.41	42.92	42.84	42.98
17	43.10	43.11	42.90	42.98	42.89	42.81	42.79	42.94	42.53	42.95	42.85	43.00
18	43.09	43.15	42.95	42.97	42.94	42.85	42.80	42.94	42.61	42.94	42.84	43.01
19	43.10	43.14	42.92	42.93	42.94	42.88	42.85	42.92	42.65	42.95	42.82	43.01
20	43.13	43.11	42.95	42.90	42.92	42.87	42.87	42.94	42.67	42.96	42.80	43.01
21	43.13	43.11	42.99	42.96	42.90	42.73	42.88	42.94	42.67	42.97	42.75	43.01
22	43.14	43.13	42.97	43.00	42.89	42.73	42.89	42.93	42.67	42.97	42.78	43.01
23	43.18	43.14	43.02	42.96	42.88	42.76	42.87	42.91	42.66	42.99	42.78	43.03
24	43.17	43.15	43.00	42.94	42.93	42.78	42.85	42.94	42.63	42.99	42.75	42.99
25	43.15	43.09	43.02	42.95	42.88	42.80	42.84	42.95	42.66	43.00	42.77	42.92
26	43.15	42.99	43.04	42.98	42.86	42.80	42.84	42.92	42.69	43.00	42.78	42.95
27	43.13	42.99	42.99	42.95	42.89	42.83	42.84	42.88	42.71	42.74	42.78	42.95
28	43.12	43.02	42.96	42.99	42.86	42.85	42.85	42.88	42.72	42.74	42.79	42.96
29	43.16	43.04	42.96	42.99	---	42.80	42.90	42.87	42.72	42.71	42.81	42.99
30	43.15	43.03	42.94	42.92	---	42.71	42.90	42.88	42.72	42.68	42.83	42.99
31	43.15	---	42.96	42.91	---	42.71	---	42.90	---	42.71	42.83	---

WTR YR 2001 MEAN 42.91 HIGH 42.41 LOW 43.18

BERTIE COUNTY--Continued

361002076562106 Local number, NC-153; DENR Cremo Research Station well G19b6; County number, BE-087





BERTIE COUNTY--Continued

361420077111407. Local number, NC-154; DENR Roxobel Research Station well F22b7; County number, BE-080.
LOCATION.--Lat 36°14'20", long 77°11'14", Hydrologic Unit 03010203, 3.8 mi northeast of Roxobel on Secondary Road 1249. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 12 ft, diameter 4 in., cased to 7 ft, screened interval from 7 to 12 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 74 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.05 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.27 ft below land-surface datum, Jan. 30, 31, 2000; lowest water level recorded, 9.31 ft below land-surface datum, Sept. 5, 1987.

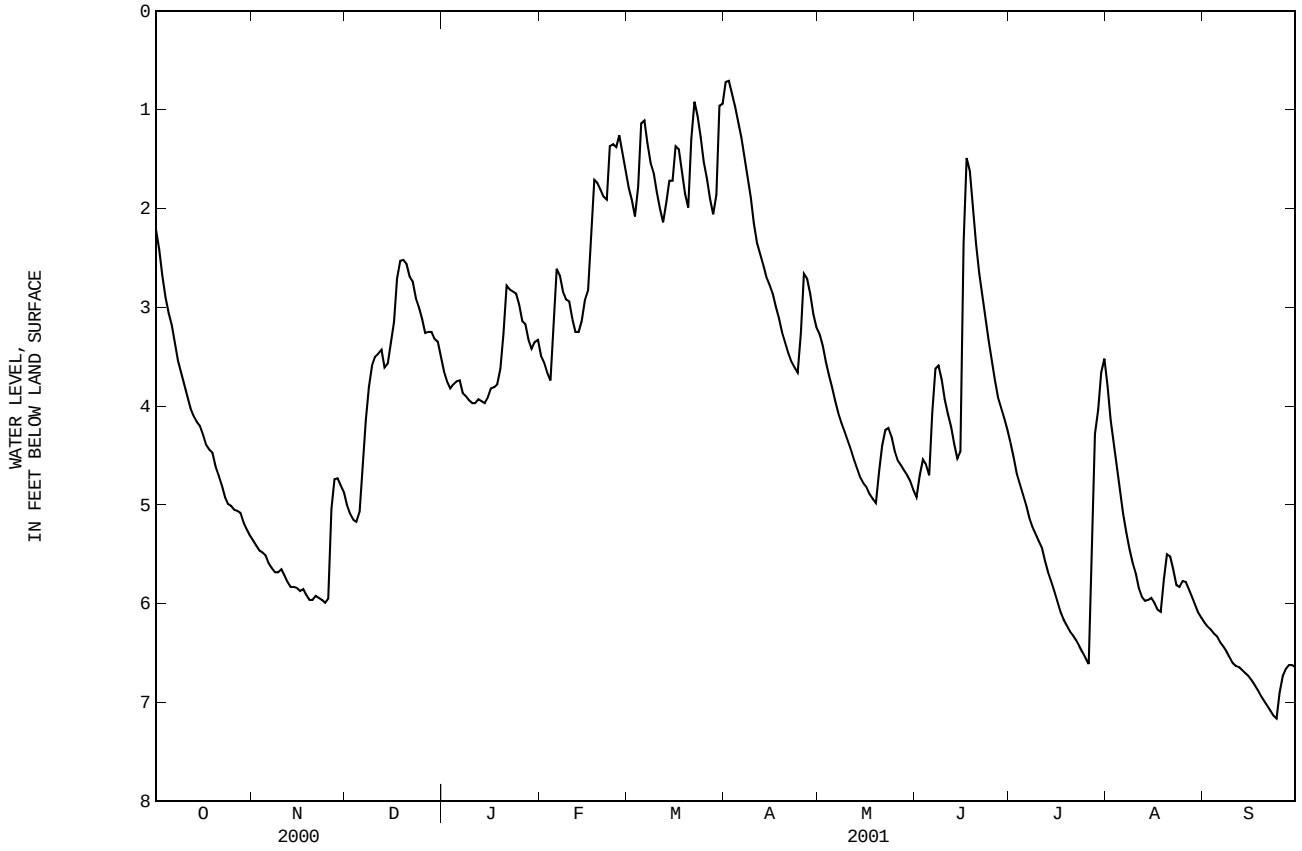
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

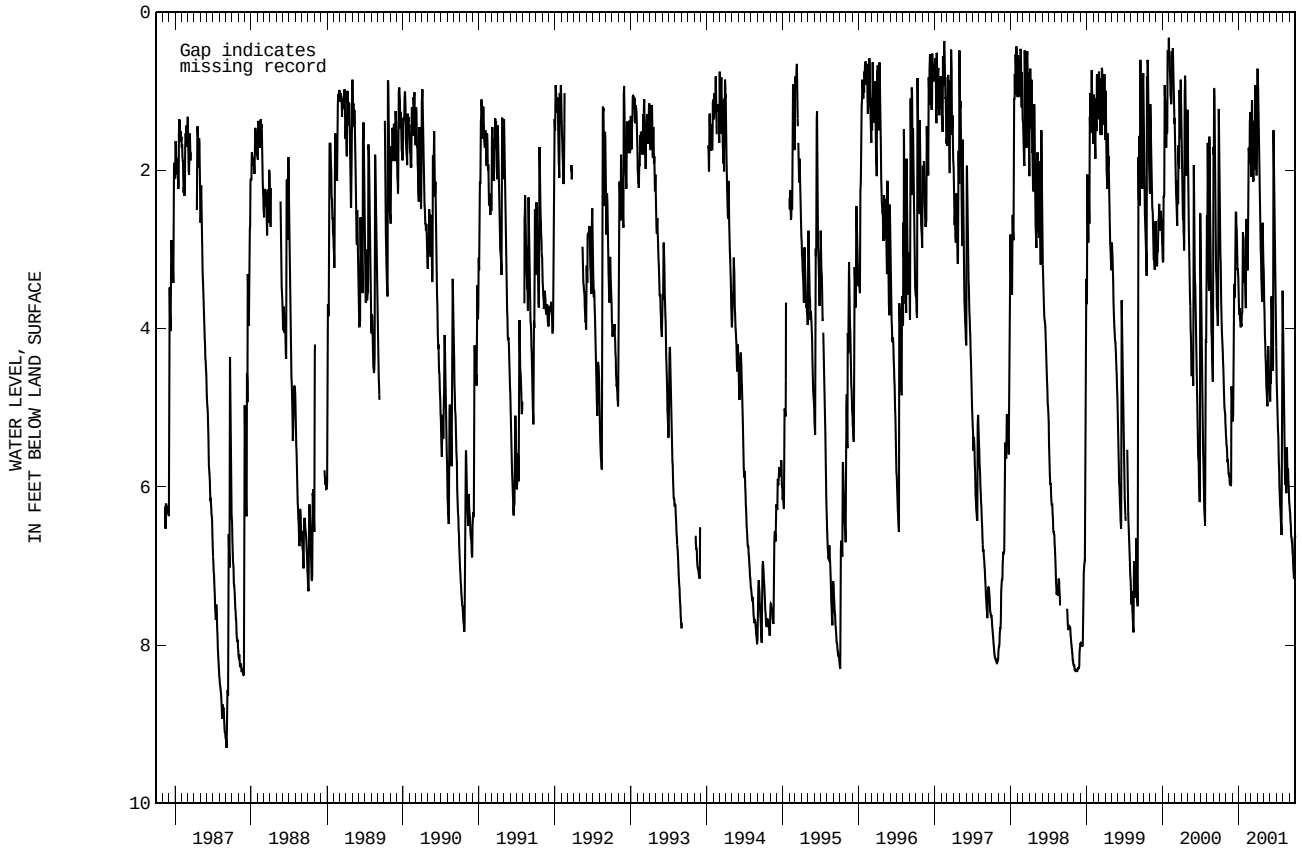
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.22	5.36	5.00	3.65	3.49	1.79	.72	3.27	4.92	4.37	3.80	6.19
2	2.42	5.41	5.09	3.75	3.56	1.91	.71	3.39	4.70	4.52	4.14	6.23
3	2.68	5.46	5.15	3.82	3.66	2.08	.84	3.55	4.54	4.68	4.38	6.26
4	2.90	5.48	5.17	3.78	3.74	1.78	.97	3.69	4.59	4.79	4.62	6.30
5	3.06	5.51	5.07	3.75	3.20	1.14	1.12	3.81	4.70	4.89	4.87	6.33
6	3.18	5.59	4.60	3.74	2.61	1.11	1.28	3.95	4.07	5.00	5.09	6.39
7	3.37	5.64	4.14	3.87	2.68	1.34	1.48	4.07	3.62	5.13	5.28	6.43
8	3.54	5.68	3.81	3.90	2.84	1.54	1.69	4.17	3.59	5.22	5.44	6.48
9	3.67	5.68	3.59	3.94	2.92	1.64	1.89	4.26	3.73	5.29	5.58	6.54
10	3.79	5.65	3.50	3.97	2.94	1.84	2.15	4.35	3.93	5.36	5.69	6.60
11	3.91	5.71	3.47	3.97	3.12	2.00	2.35	4.44	4.08	5.43	5.84	6.63
12	4.02	5.78	3.43	3.93	3.25	2.14	2.46	4.54	4.21	5.56	5.93	6.64
13	4.10	5.83	3.61	3.95	3.25	1.94	2.57	4.63	4.38	5.68	5.97	6.67
14	4.16	5.83	3.57	3.97	3.14	1.72	2.69	4.72	4.53	5.77	5.96	6.70
15	4.20	5.84	3.36	3.91	2.93	1.72	2.77	4.78	4.46	5.87	5.94	6.73
16	4.29	5.87	3.15	3.82	2.83	1.37	2.86	4.82	2.35	5.98	5.99	6.77
17	4.39	5.85	2.71	3.81	2.21	1.40	2.99	4.89	1.49	6.08	6.06	6.82
18	4.44	5.91	2.53	3.78	1.71	1.61	3.11	4.94	1.62	6.16	6.08	6.87
19	4.47	5.96	2.52	3.62	1.74	1.85	3.25	4.98	1.98	6.22	5.75	6.93
20	4.61	5.96	2.56	3.27	1.81	1.99	3.36	4.66	2.36	6.28	5.50	6.98
21	4.70	5.92	2.69	2.78	1.88	1.30	3.46	4.40	2.66	6.32	5.52	7.03
22	4.80	5.94	2.74	2.82	1.91	.92	3.55	4.24	2.89	6.37	5.65	7.08
23	4.92	5.96	2.91	2.84	1.37	1.06	3.61	4.22	3.11	6.43	5.81	7.13
24	4.99	5.99	3.00	2.86	1.35	1.28	3.66	4.31	3.33	6.49	5.83	7.16
25	5.01	5.95	3.12	2.97	1.38	1.53	3.26	4.45	3.53	6.55	5.77	6.90
26	5.05	5.04	3.26	3.14	1.26	1.70	2.66	4.55	3.73	6.61	5.78	6.73
27	5.06	4.74	3.25	3.17	1.44	1.90	2.71	4.60	3.91	5.60	5.85	6.66
28	5.08	4.73	3.25	3.33	1.61	2.06	2.86	4.65	4.02	4.28	5.93	6.62
29	5.18	4.80	3.32	3.42	---	1.86	3.07	4.70	4.12	4.04	6.01	6.62
30	5.25	4.87	3.35	3.35	---	.96	3.20	4.76	4.24	3.66	6.09	6.64
31	5.31	---	3.49	3.33	---	.94	---	4.85	---	3.52	6.14	---

WTR YR 2001 MEAN 4.10 HIGH .71 LOW 7.16

BERTIE COUNTY--Continued

361420077111407 Local number, NC-154; DENR Roxobel Research Station well F22b7; County number, BE-080



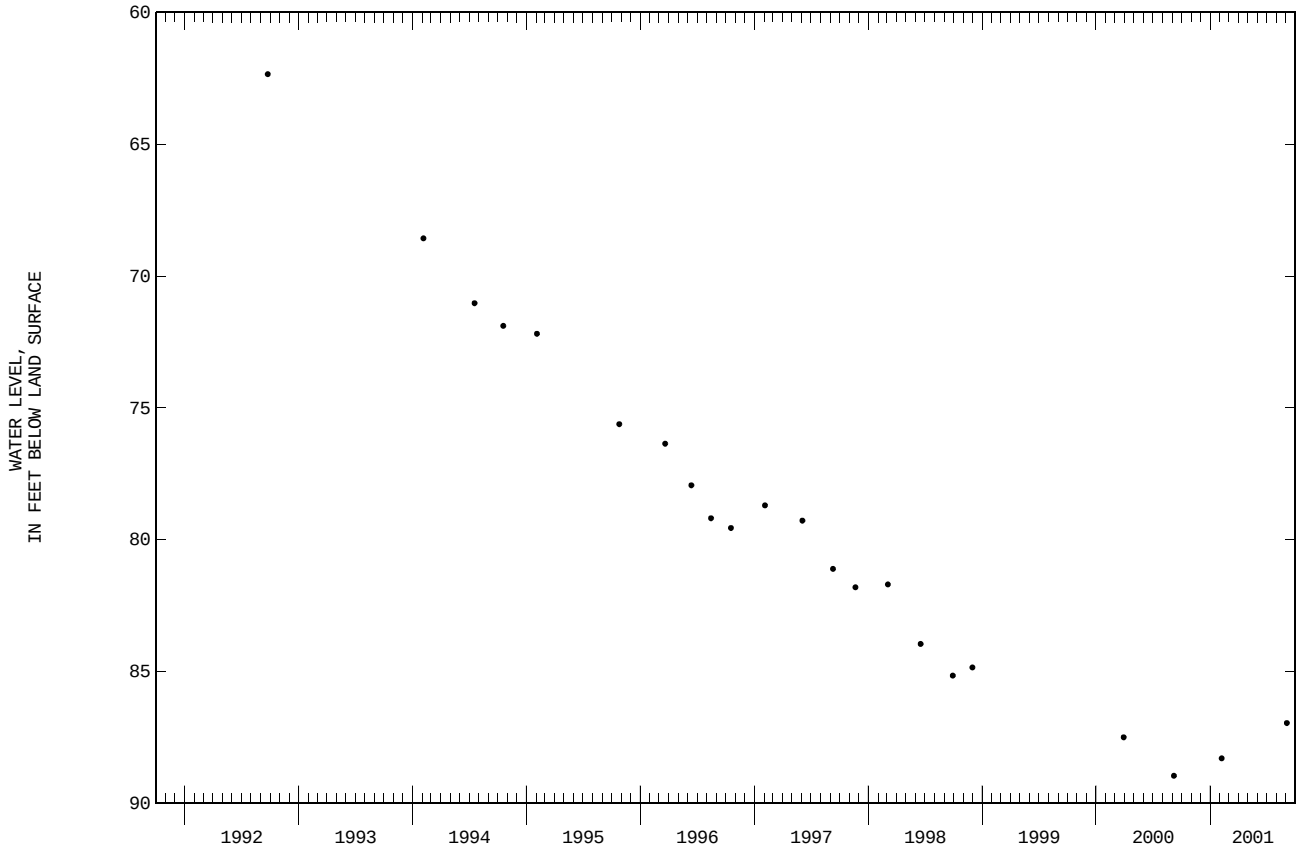


BLADEN COUNTY

344119078354201. County number, BL-057.
LOCATION.--Lat 34°41'20", long 78°35'42", Hydrologic Unit 03030005, 4.2 mi north of Elizabethtown on State Road 242 at Bladen Lakes State Forest Headquarters. Owner: North Carolina Division of Forest Resources.
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled domestic well, depth 334 ft, diameter 6 in., screened interval from 327 to 334 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 73 ft above sea level (from topographic map). Measuring point: Vent hole in top of sanitary seal, 0.7 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--September 1992 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.34 ft below land-surface datum, Sept. 23, 1992; lowest water level measured, 88.96 ft below land-surface datum, Sept. 6, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 06	88.30	SEP 03	86.96

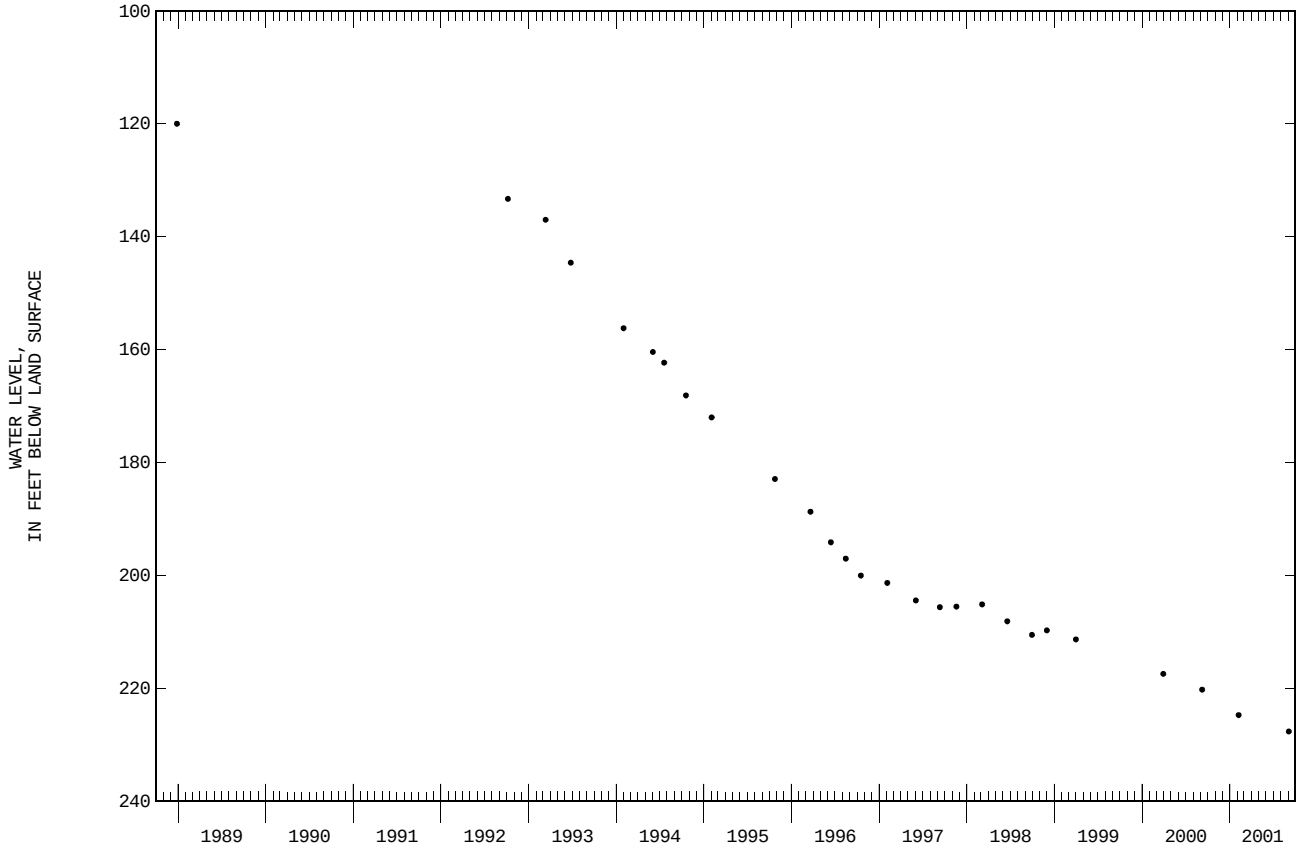


BLADEN COUNTY--Continued

345037078501807. County number, BL-086; E.I. du Pont de Nemours observation well P-5.
LOCATION.--Lat 34°50'39", long 78°50'13", Hydrologic Unit 03030005, at E.I. du Pont de Nemours and Company, Inc., Fayetteville Works plant, 1.1 mi east of State Highway 87. Owner: E.I. du Pont de Nemours and Company, Inc.
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 330 ft, diameter 4 in., screened interval from 325 to 330 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 147.3 ft above sea level. Measuring point: Top of 4-inch casing, 2.35 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--December 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.0 ft below land-surface datum, Dec. 27, 1988; lowest water level measured, 227.6 ft below land-surface datum, Sept. 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 06	224.7	SEP 03	227.6

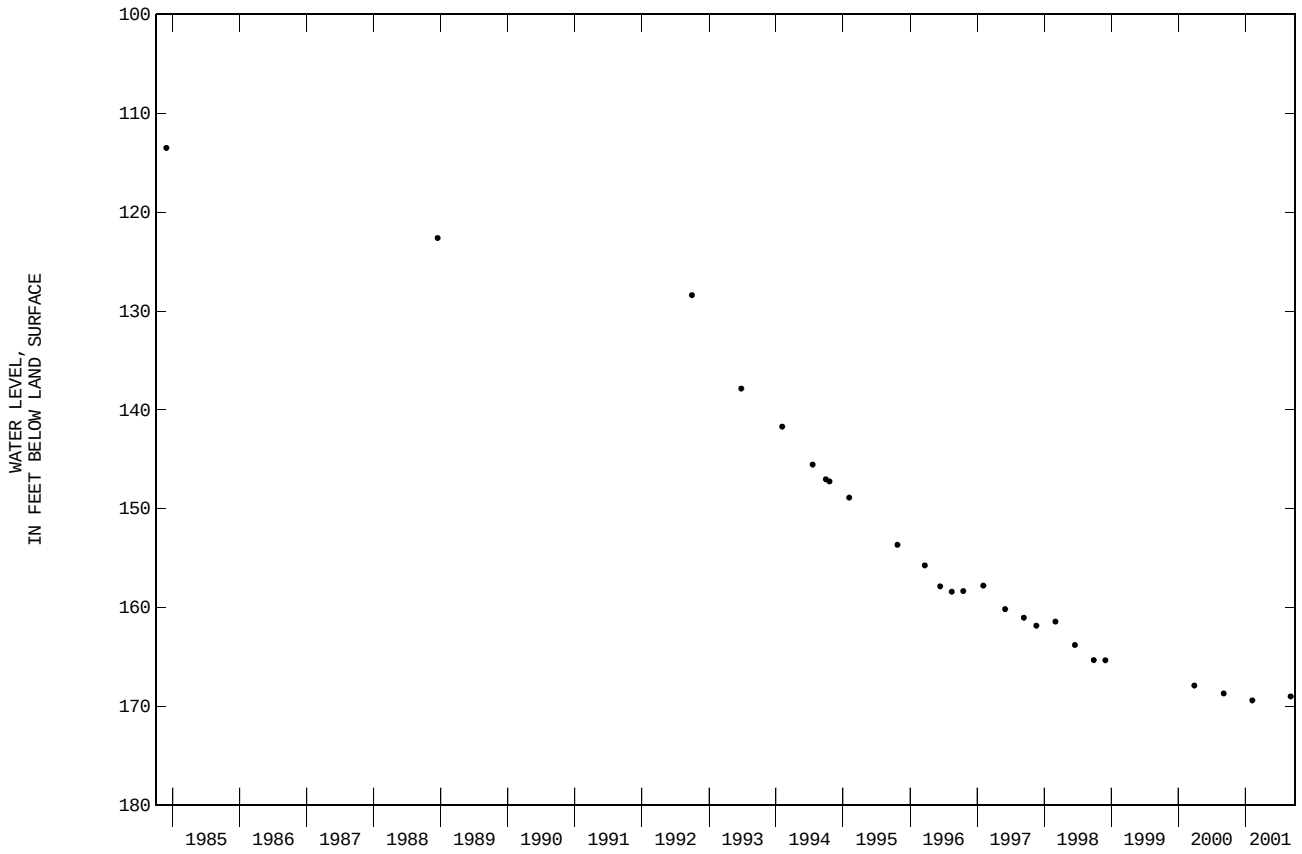


BLADEN COUNTY--Continued

343908078432003. County number, BL-094; Dublin well 3.
LOCATION.--Lat 34°39'05", long 78°43'28", Hydrologic Unit 03030005, 0.4 mi southeast of Dublin on Secondary Road 1003.
Owner: Town of Dublin.
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 460 ft (reported by owner), screened intervals unknown.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 144 ft above sea level (from topographic map). Measuring point: Top of 1.5-inch vent pipe in pump pedestal, 1.55 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--November 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 113.5 ft below land-surface datum, Nov. 26, 1984 (reported by driller); lowest water level measured, 169.4 ft below land-surface datum, Feb. 8, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 08	169.4	SEP 05	169.0

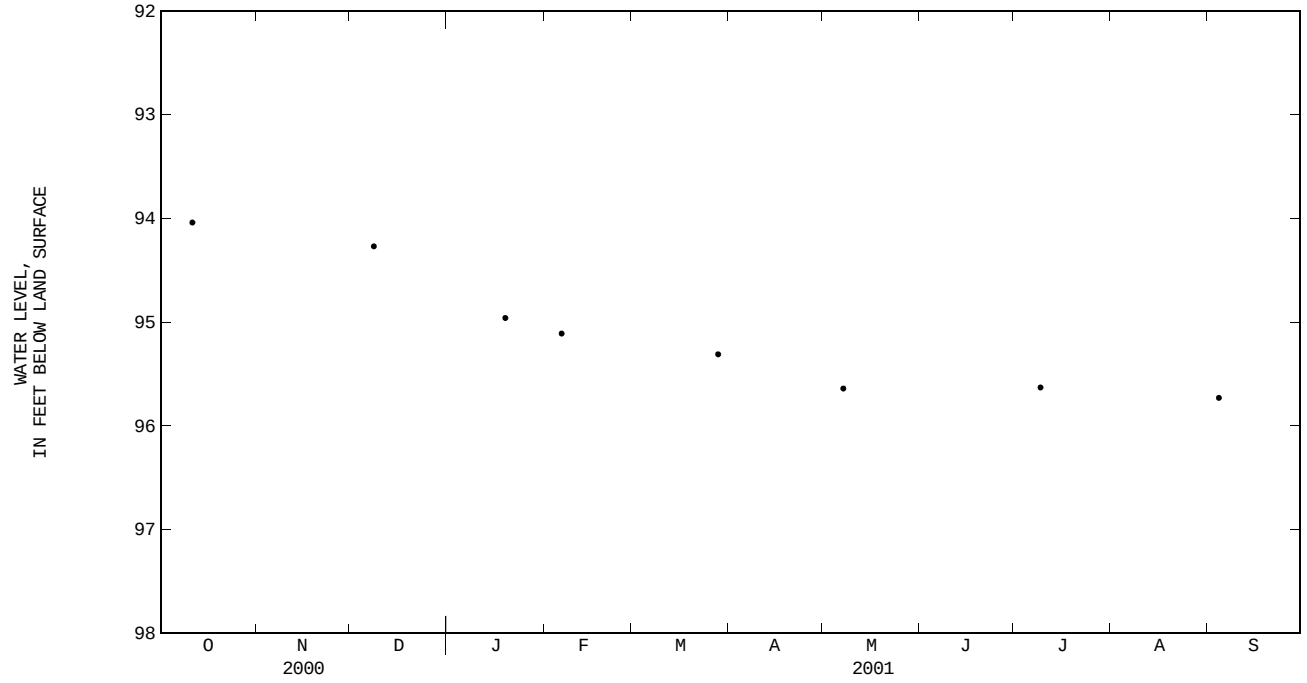


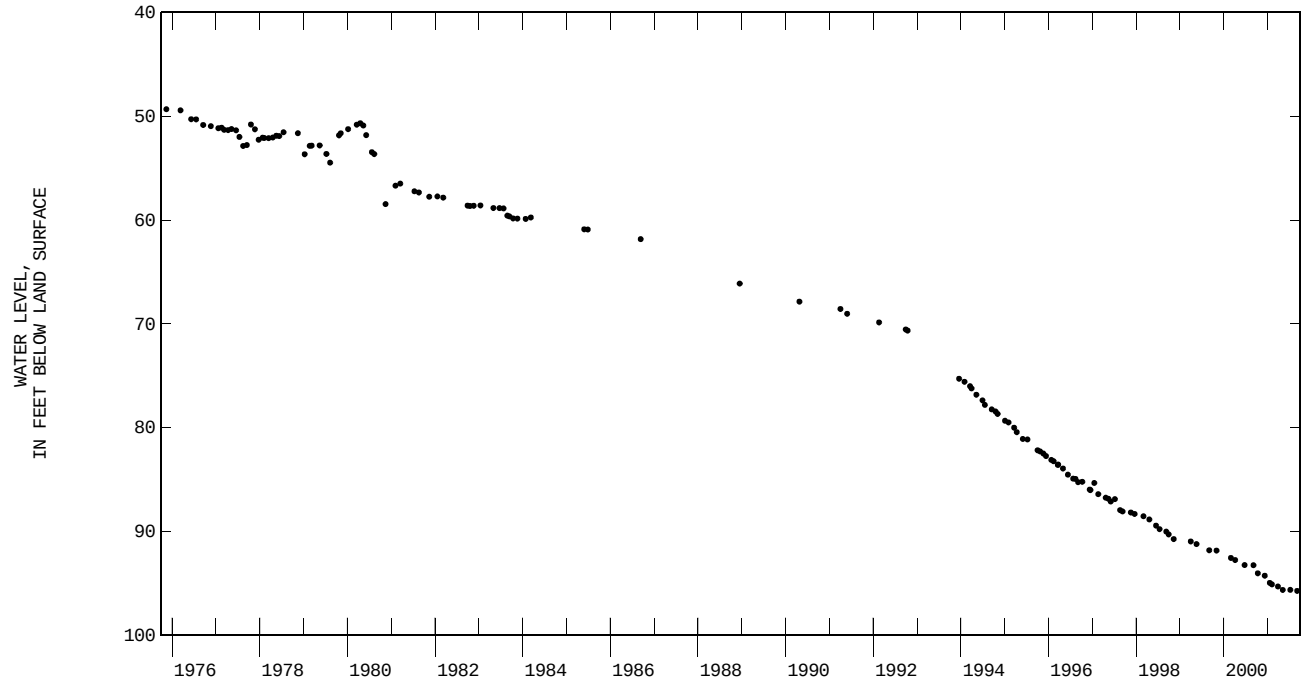
BLADEN COUNTY--Continued

343027078451902. County number, BL-100; DENR Bladenboro Research Station well Z41u2.
LOCATION.--Lat 34°30'24", long 78°45'17", Hydrologic Unit 03040206, 3 mi southeast of Bladenboro, south of State Highway 211 on Secondary Road 1172. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 480 ft, diameter 4 in. to 147 ft, diameter 2.5 in. from 147 to 480 ft, screened interval from 470 to 480 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 106 ft above sea level (from topographic map). Measuring point: Top of 4-inch casing, 1.73 ft above land-surface datum (since December 2000).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--November 1975 to current year. Records from November 1975 to September 1986 are from the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.32 ft below land-surface datum, Nov. 14, 1975; lowest water level measured, 95.73 ft below land-surface datum, Sept. 4, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	94.04	JAN 19	94.96	MAR 28	95.31	JUL 09	95.63
DEC 08	94.27	FEB 06	95.11	MAY 07	95.64	SEP 04	95.73



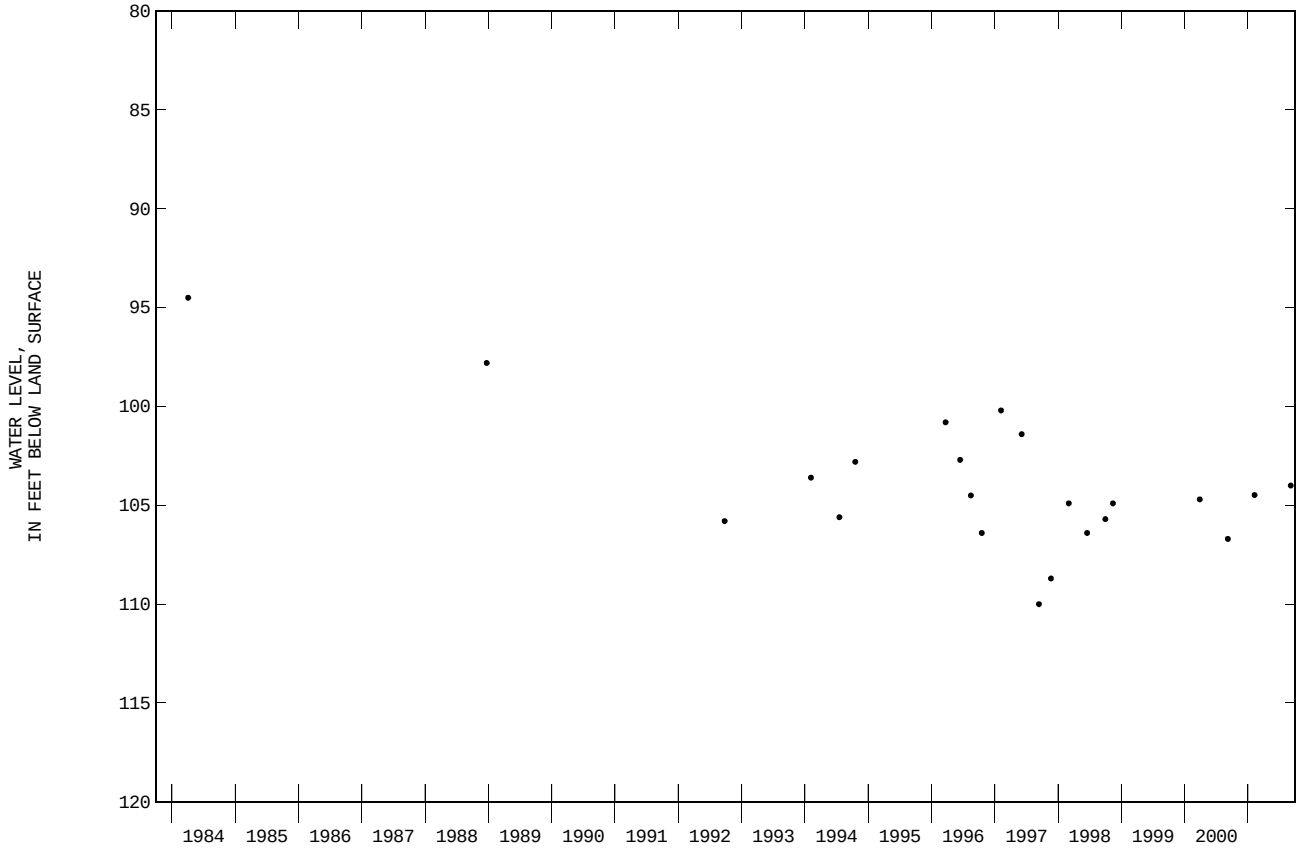


BLADEN COUNTY--Continued

343726078360201. County number, BL-121; Elizabethtown well 1.
LOCATION.--Lat 34°37'26", long 78°36'02", Hydrologic Unit 03030005, 0.4 mi east of U.S. Highway 701 on East Swanzy Street. Owner: Town of Elizabethtown.
AQUIFER.--Black Creek, upper Cape Fear, and lower Cape Fear aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 495 ft (reported by driller), diameter 10 in., screened at various intervals between 149 and 485 ft (reported by driller).
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 120 ft above sea level (from topographic map). Measuring point: One-inch hole in base of pump mount, 1.2 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--April 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 94.5 ft below land-surface datum, Apr. 3, 1984 (reported by driller); lowest water level measured, 110.0 ft below land-surface datum, Sept. 12, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 07	104.48	SEP 04	104.0

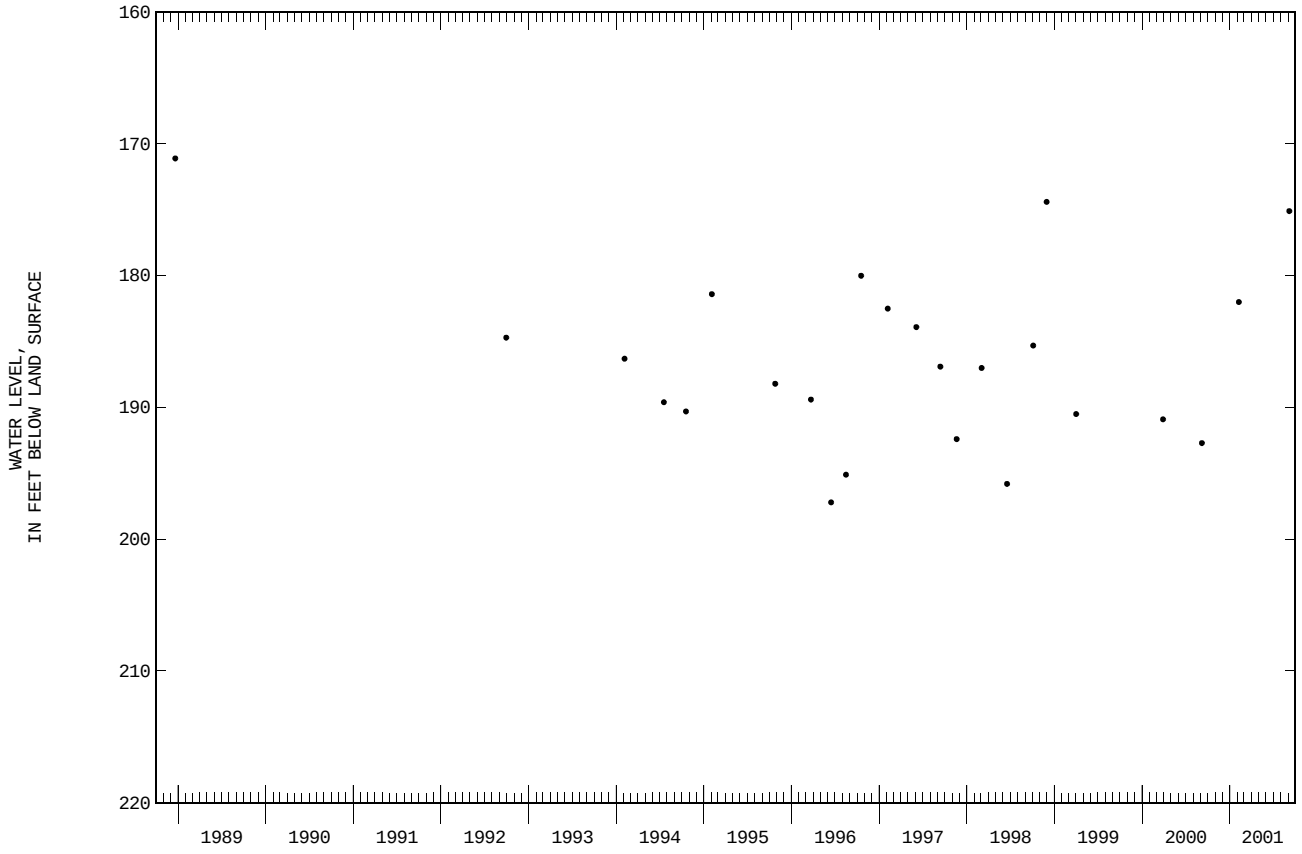


BLADEN COUNTY--Continued

343900078383205. County number, BL-131.
LOCATION.--Lat 34°39'00", long 78°38'36", Hydrologic Unit 03030005, north of Elizabethtown on State Highways 41 and 87 at Alamac Knit Fabrics, Inc. Owner: Alamac Knit Fabrics, Inc.
AQUIFER.--Black Creek, upper Cape Fear, and lower Cape Fear aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled unused supply well, depth 482 ft (reported), screened at various intervals between 200 and 482 ft (reported).
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 115 ft above sea level (from topographic map). Measuring point: Top of well access pipe in pump pedestal, 2.8 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--December 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 171.1 ft below land-surface datum, Dec. 20, 1988; lowest water level measured, 197.2 ft below land-surface datum, June 14, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 07	182.0	SEP 05	175.1

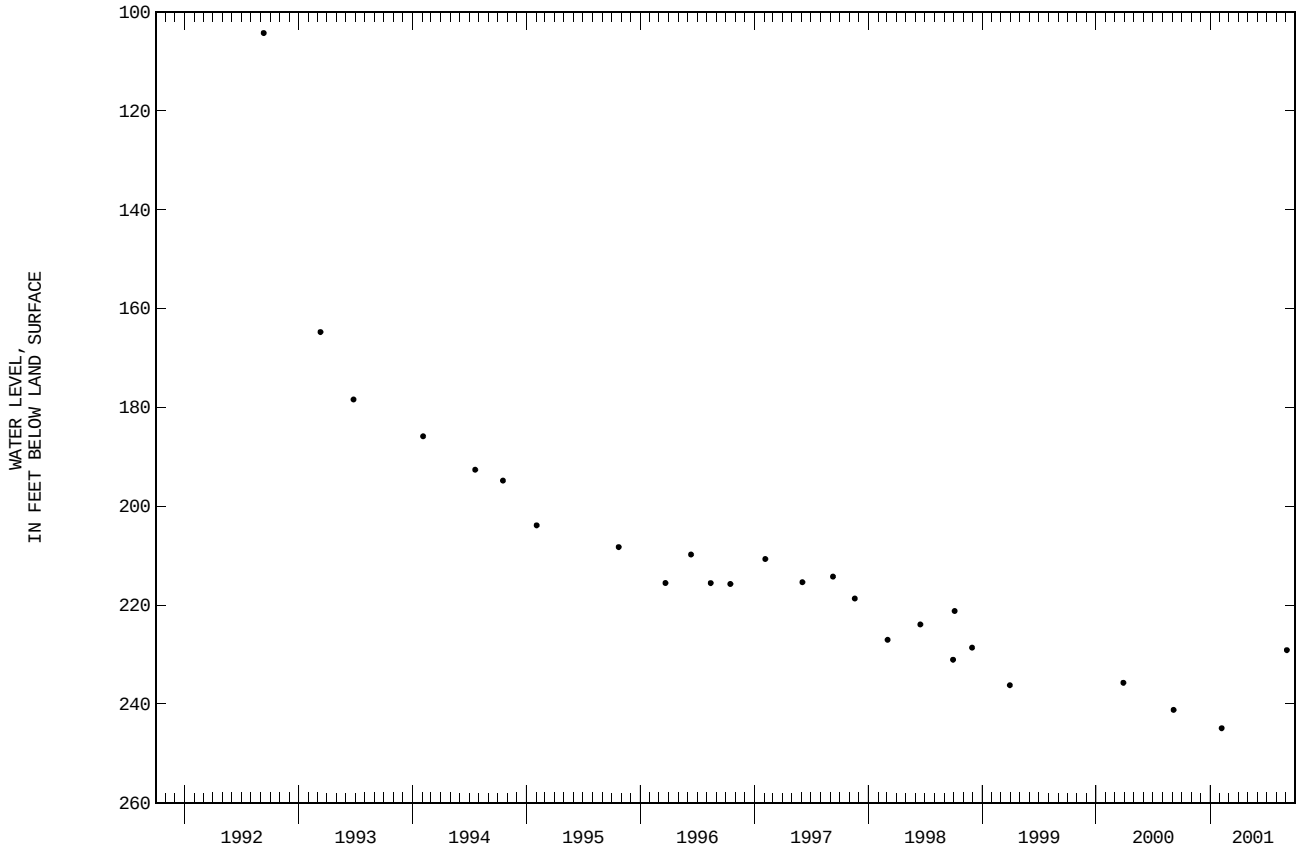


BLADEN COUNTY--Continued

344441078482402. County number, BL-142.
LOCATION.--Lat 34°44'42", long 78°48'24", Hydrologic Unit 03040203, 1 mi northwest of Tar Heel on State Highway 87 at Smithfield Packing Co., Inc., Tar Heel Division. Owner: Smithfield Packing Co., Inc.
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 375 ft, diameter 2 in., screened intervals from 210 to 220 ft, 245 to 250 ft, 315 to 320 ft, 345 to 350 ft, and 370 to 375 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 130 ft above sea level (from topographic map). Measuring point: Top of 6-inch steel protective casing, 2.3 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--September 1992 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 104.23 ft below land-surface datum, Sept. 10, 1992; lowest water level measured, 244.9 ft below land-surface datum, Feb. 6, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 06	244.9	SEP 03	229.1

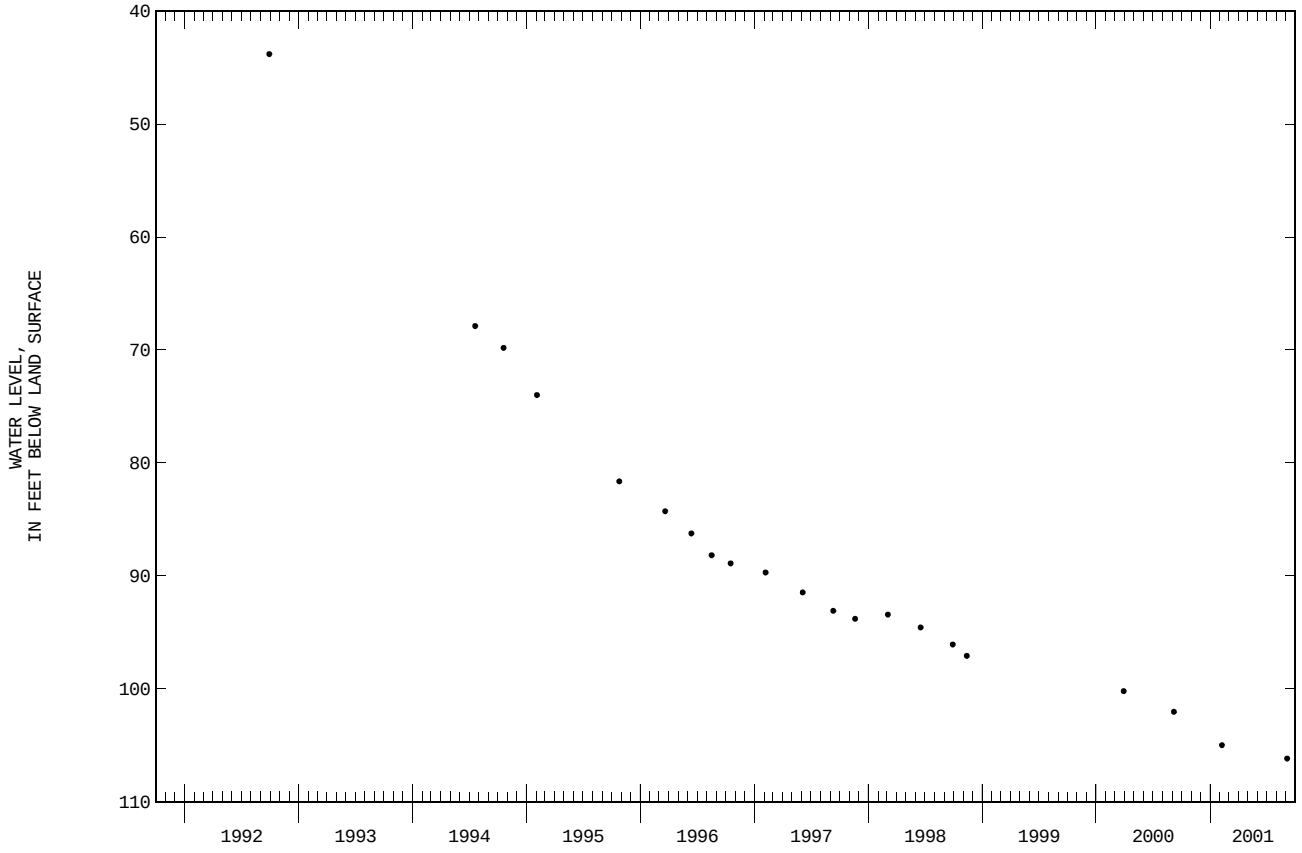


BLADEN COUNTY--Continued

344434078423201. County number, BL-147; Bladen County Water District White Oak well 1.
LOCATION.--Lat 34°44'35", long 78°42'31", Hydrologic Unit 03030005, in White Oak, 0.3 mi south of Secondary Road 1318 on State Highway 53. Owner: Bladen County Water District.
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled unused supply well, depth 311 ft, diameter 6 in., screened intervals from 290 to 295 ft and 306 to 311 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 60 ft above sea level (from topographic map). Measuring point: Hole in top of sanitary seal, 0.8 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--September 1992 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.80 ft below land-surface datum, Sept. 28, 1992; lowest water level measured, 106.17 ft below land-surface datum, Sept. 4, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 07	104.98	SEP 04	106.17



BLADEN COUNTY--Continued

343027078451903. Local number, NC-178; DENR Bladenboro Research Station well Z41u3; County number, BL-101.
LOCATION.--Lat 34°30'24", long 78°45'17", Hydrologic Unit 03040206, 3 mi southeast of Bladenboro, south of State Highway 211 on Secondary Road 1172. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 110 ft, diameter 6 in. to 82 ft, diameter 4 in. from 58 to 110 ft, screened interval from 100 to 110 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 116.45 ft above sea level (levels by DENR). Measuring point: Top of collar on 6-inch casing, 2.69 ft above land-surface datum; revised from 2.78, May 19, 1999.
REMARKS.--Well is part of areal-effects network. Records prior to January 1987 are from Bladenboro Research Station well Z41u4 which was adjacent to and of similar construction to well Z41u3.
PERIOD OF RECORD.--Miscellaneous water-level measurements November 1975 to current year. Continuous record began January 1987. Records for well Z41u4 from March 1976 to December 1986 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.73 ft below land-surface datum, Apr. 19, 1978; lowest water level recorded, 9.25 ft below land-surface datum, Aug. 18, 1997.

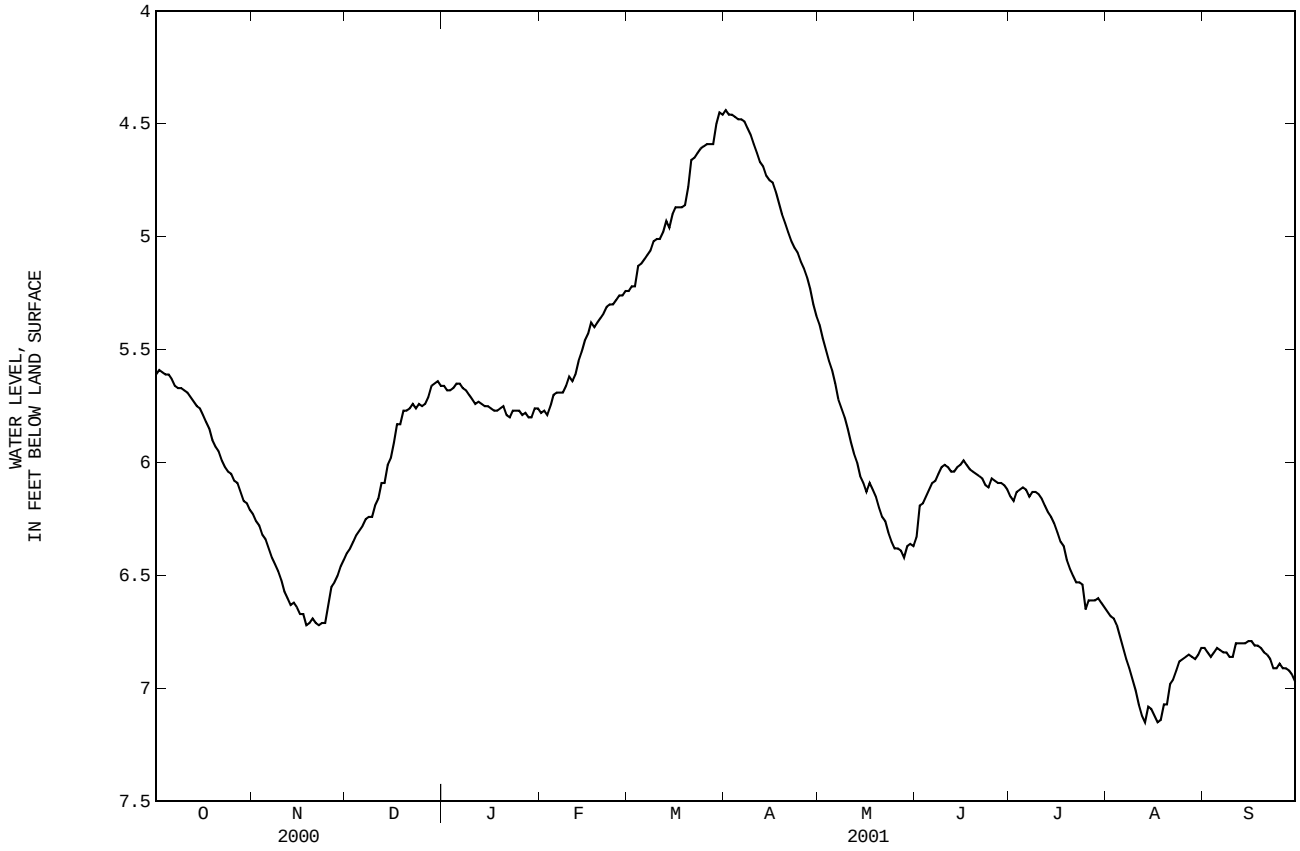
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

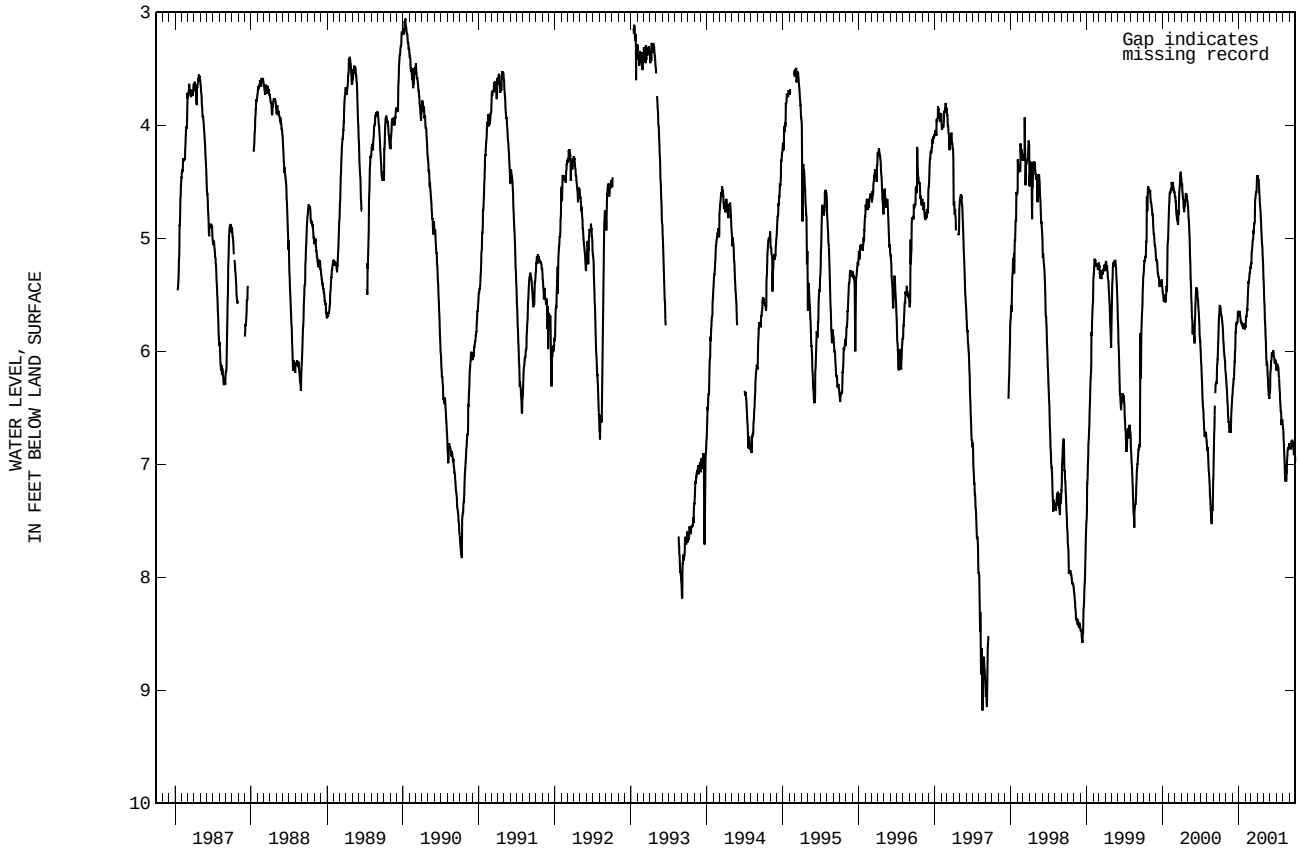
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.61	6.23	6.40	5.66	5.78	5.24	4.44	5.39	6.33	6.15	6.66	6.82
2	5.59	6.26	6.38	5.68	5.77	5.22	4.46	5.45	6.19	6.17	6.68	6.84
3	5.60	6.28	6.35	5.68	5.79	5.22	4.46	5.50	6.18	6.13	6.69	6.86
4	5.61	6.32	6.32	5.67	5.75	5.13	4.47	5.55	6.15	6.12	6.72	6.84
5	5.61	6.34	6.30	5.65	5.70	5.12	4.48	5.59	6.12	6.11	6.77	6.82
6	5.63	6.38	6.28	5.65	5.69	5.10	4.48	5.65	6.09	6.12	6.82	6.83
7	5.66	6.42	6.25	5.67	5.69	5.08	4.49	5.72	6.08	6.15	6.87	6.84
8	5.67	6.45	6.24	5.68	5.69	5.06	4.52	5.76	6.05	6.13	6.91	6.84
9	5.67	6.48	6.24	5.70	5.66	5.02	4.55	5.80	6.02	6.13	6.96	6.86
10	5.68	6.52	6.19	5.72	5.62	5.01	4.59	5.85	6.01	6.14	7.01	6.86
11	5.69	6.57	6.16	5.74	5.64	5.01	4.63	5.91	6.02	6.16	7.07	6.80
12	5.71	6.60	6.09	5.73	5.61	4.98	4.67	5.96	6.04	6.19	7.12	6.80
13	5.73	6.63	6.09	5.74	5.55	4.93	4.69	6.00	6.04	6.22	7.15	6.80
14	5.75	6.62	6.01	5.75	5.51	4.96	4.73	6.06	6.02	6.24	7.08	6.80
15	5.76	6.64	5.98	5.75	5.46	4.90	4.75	6.09	6.01	6.27	7.09	6.79
16	5.79	6.67	5.91	5.76	5.43	4.87	4.76	6.13	5.99	6.31	7.12	6.79
17	5.82	6.67	5.83	5.77	5.38	4.87	4.80	6.09	6.01	6.35	7.15	6.81
18	5.85	6.72	5.83	5.77	5.40	4.87	4.85	6.12	6.03	6.37	7.14	6.81
19	5.90	6.71	5.77	5.76	5.38	4.86	4.90	6.15	6.04	6.43	7.07	6.82
20	5.93	6.69	5.77	5.75	5.36	4.78	4.94	6.20	6.05	6.47	7.07	6.84
21	5.95	6.71	5.76	5.79	5.34	4.66	4.98	6.24	6.06	6.50	6.98	6.85
22	5.99	6.72	5.74	5.80	5.31	4.65	5.02	6.26	6.07	6.53	6.96	6.87
23	6.02	6.71	5.76	5.77	5.30	4.63	5.05	6.31	6.10	6.53	6.92	6.91
24	6.04	6.71	5.74	5.77	5.30	4.61	5.07	6.35	6.11	6.54	6.88	6.91
25	6.05	6.63	5.75	5.77	5.28	4.60	5.11	6.38	6.07	6.65	6.87	6.89
26	6.08	6.55	5.74	5.79	5.26	4.59	5.14	6.38	6.08	6.61	6.86	6.91
27	6.09	6.53	5.71	5.78	5.26	4.59	5.18	6.39	6.09	6.61	6.85	6.91
28	6.13	6.50	5.66	5.80	5.24	4.59	5.23	6.42	6.09	6.61	6.86	6.92
29	6.17	6.46	5.65	5.80	---	4.50	5.30	6.37	6.10	6.60	6.87	6.94
30	6.18	6.43	5.64	5.76	---	4.45	5.35	6.36	6.12	6.62	6.85	6.97
31	6.21	---	5.66	5.76	---	4.46	---	6.37	---	6.64	6.82	---

WTR YR 2001 MEAN 5.96 HIGH 4.44 LOW 7.15

BLADEN COUNTY--Continued

343027078451903 Local number, NC-178; DENR Bladenboro Research Station well Z41u3; County number, BL-101





BRUNSWICK COUNTY

340416078084201. County number, BR-099; DENR Bolivia Research Station well FF33d1.
LOCATION.--Lat 34°04'16.83", long 78°08'40.92", North American Datum of 1983, Hydrologic Unit 03040207, in Bolivia at town hall on U.S. Highway 17. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--PeeDee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 60 ft, diameter 4 in.; cased to 50 ft, screened from 50 to 60 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 41.26 ft above sea level. Measuring point: Top of casing, 0.38 ft above land-surface datum.
REMARKS.--Well is part of local-effects network.
PERIOD OF RECORD.--April 1971 to current year. Continuous record began January 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft below land-surface datum, June 15, 1978; lowest water level recorded, 8.75 ft below land-surface datum, July 20, 21, 2000.

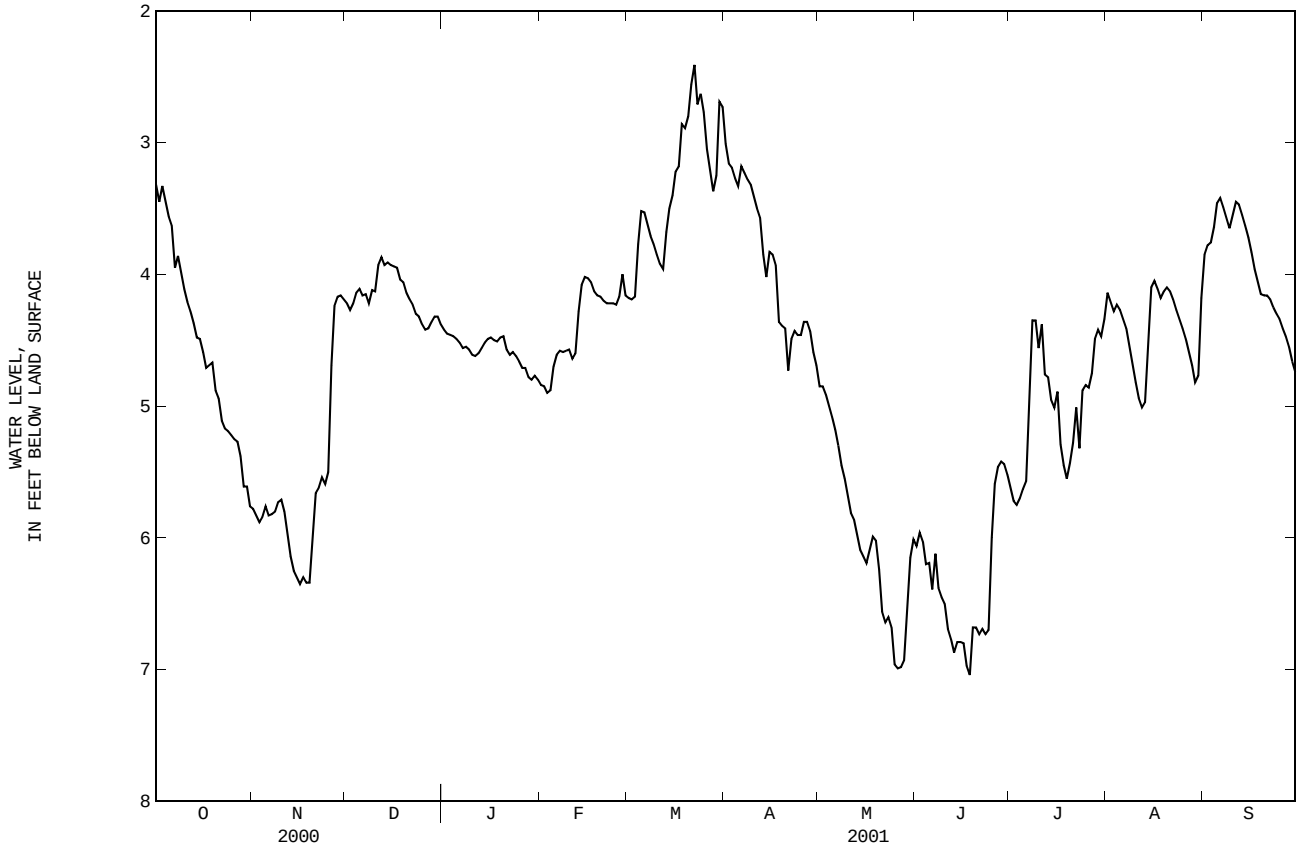
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

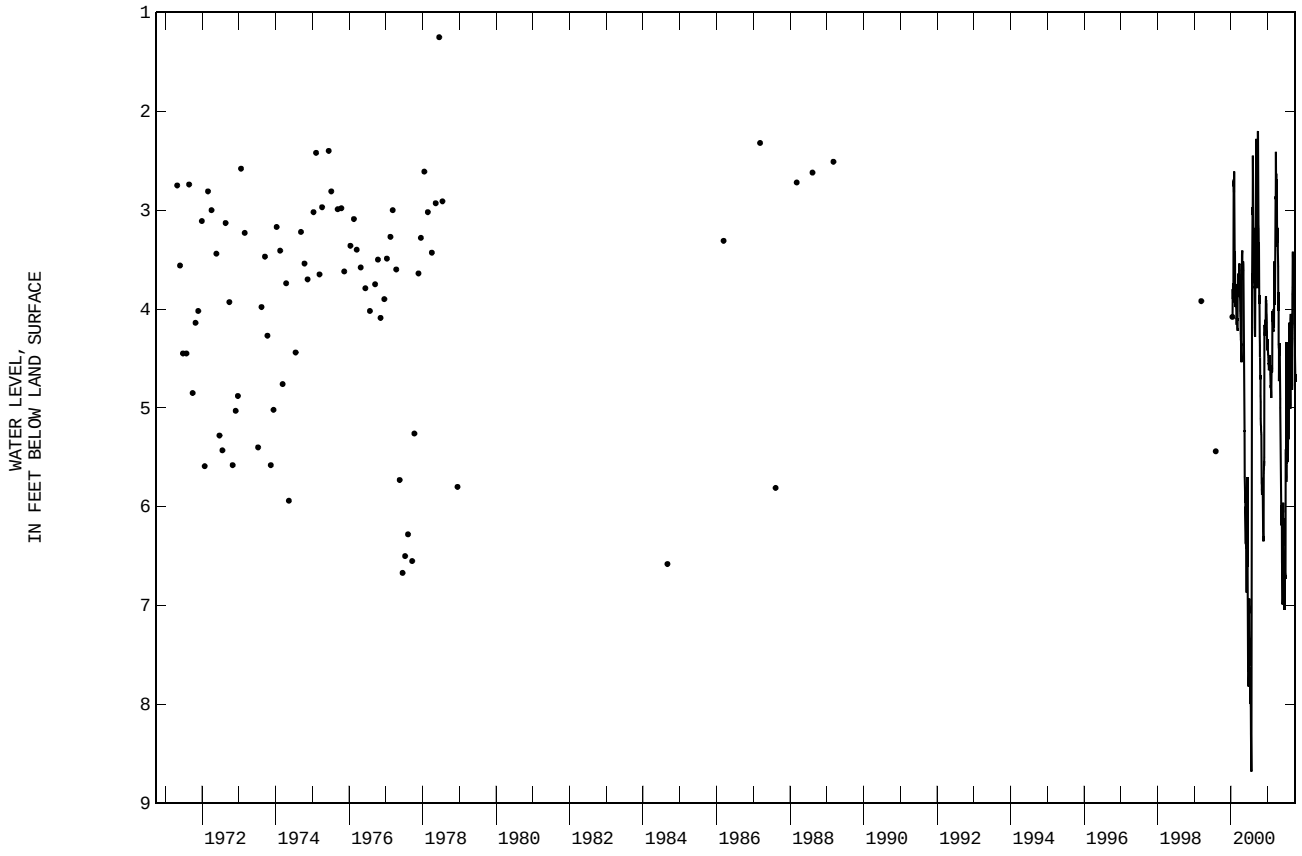
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.32	5.78	4.22	4.42	4.84	4.18	3.01	4.85	6.06	5.62	4.14	3.85
2	3.45	5.83	4.27	4.45	4.85	4.19	3.16	4.85	5.96	5.72	4.21	3.78
3	3.33	5.88	4.22	4.46	4.90	4.17	3.19	4.91	6.03	5.75	4.28	3.76
4	3.45	5.84	4.14	4.47	4.88	3.77	3.27	5.00	6.20	5.70	4.23	3.64
5	3.56	5.76	4.11	4.49	4.70	3.52	3.33	5.08	6.19	5.63	4.27	3.46
6	3.63	5.83	4.16	4.52	4.61	3.53	3.18	5.18	6.39	5.57	4.34	3.42
7	3.95	5.82	4.15	4.56	4.58	3.62	3.23	5.30	6.12	4.87	4.41	3.49
8	3.86	5.80	4.22	4.55	4.59	3.71	3.28	5.45	6.38	4.35	4.54	3.57
9	3.99	5.73	4.12	4.57	4.58	3.77	3.32	5.55	6.45	4.35	4.68	3.65
10	4.11	5.71	4.13	4.61	4.57	3.85	3.41	5.68	6.50	4.56	4.82	3.55
11	4.21	5.80	3.93	4.62	4.64	3.92	3.50	5.81	6.69	4.38	4.94	3.45
12	4.28	5.97	3.87	4.60	4.60	3.96	3.57	5.86	6.77	4.76	5.01	3.47
13	4.37	6.14	3.93	4.56	4.28	3.68	3.85	5.98	6.87	4.78	4.97	3.55
14	4.48	6.25	3.91	4.52	4.08	3.50	4.02	6.09	6.79	4.95	4.54	3.63
15	4.49	6.30	3.93	4.49	4.02	3.40	3.83	6.14	6.79	5.01	4.10	3.72
16	4.59	6.35	3.94	4.48	4.03	3.22	3.85	6.19	6.80	4.89	4.05	3.83
17	4.71	6.30	3.95	4.50	4.06	3.18	3.93	6.09	6.97	5.29	4.11	3.96
18	4.69	6.34	4.04	4.51	4.13	2.86	4.36	5.99	7.04	5.45	4.18	4.05
19	4.67	6.34	4.06	4.48	4.16	2.89	4.39	6.02	6.68	5.55	4.13	4.15
20	4.88	5.99	4.14	4.47	4.17	2.80	4.41	6.24	6.68	5.43	4.10	4.16
21	4.94	5.66	4.19	4.57	4.20	2.56	4.73	6.56	6.73	5.28	4.13	4.16
22	5.11	5.62	4.23	4.61	4.22	2.41	4.49	6.64	6.69	5.01	4.19	4.19
23	5.17	5.54	4.30	4.59	4.22	2.71	4.43	6.60	6.73	5.32	4.27	4.25
24	5.19	5.59	4.32	4.62	4.22	2.63	4.46	6.68	6.70	4.88	4.34	4.30
25	5.22	5.50	4.38	4.66	4.23	2.77	4.46	6.96	6.00	4.84	4.41	4.34
26	5.25	4.69	4.42	4.71	4.17	3.05	4.36	6.99	5.59	4.86	4.49	4.41
27	5.27	4.24	4.41	4.71	4.00	3.21	4.36	6.98	5.46	4.75	4.59	4.47
28	5.38	4.17	4.36	4.78	4.16	3.37	4.43	6.93	5.42	4.49	4.69	4.55
29	5.61	4.16	4.32	4.80	---	3.25	4.59	6.55	5.44	4.42	4.82	4.66
30	5.61	4.19	4.32	4.77	---	2.69	4.69	6.15	5.52	4.47	4.77	4.74
31	5.76	---	4.38	4.80	---	2.73	---	6.01	---	4.34	4.18	---

WTR YR 2001 MEAN 4.68 HIGH 2.41 LOW 7.04

BRUNSWICK COUNTY--Continued

340416078084201 County number, BR-099; DENR Bolivia Research Station well FF33d1





BRUNSWICK COUNTY--Continued

335849078054301. County number, BR-100; Well 15A.
LOCATION.--Lat 33°58'48.82", long 78°05'42.81", North American Datum of 1983Hydrologic Unit 03030005, west of Southport on State Highway 211, 1.82 mi northwest of intersection with State Highway 133. Owner: Brunswick County.
AQUIFER.--Castle Hayne and Peedee aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 158.3 ft, diameter 6 in.; cased to 60 ft, open hole from 60 ft to 158.3 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 15-minute intervals.
DATUM.--Land-surface datum is 56 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 2.42 ft above land-surface datum.
REMARKS.-- Water levels are affected by nearby pumping of Brunswick County Water Supply Well 15. Well is part of the Brunswick County ground-water project.
PERIOD OF RECORD.--February 1999 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 8.30 ft below land-surface datum, Apr. 1, 2000; lowest water level recorded, 47.76 ft below land-surface datum, Aug. 20, 2001.

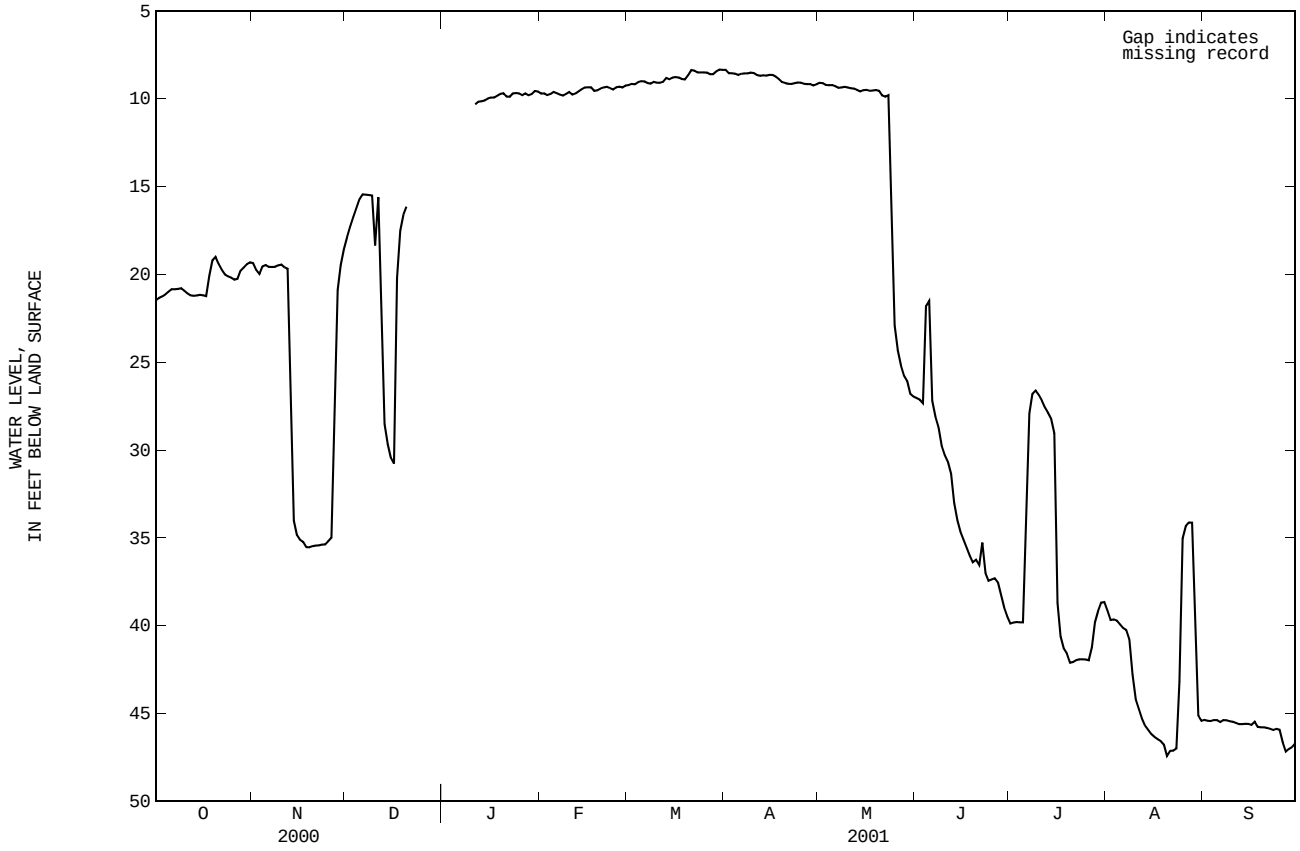
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

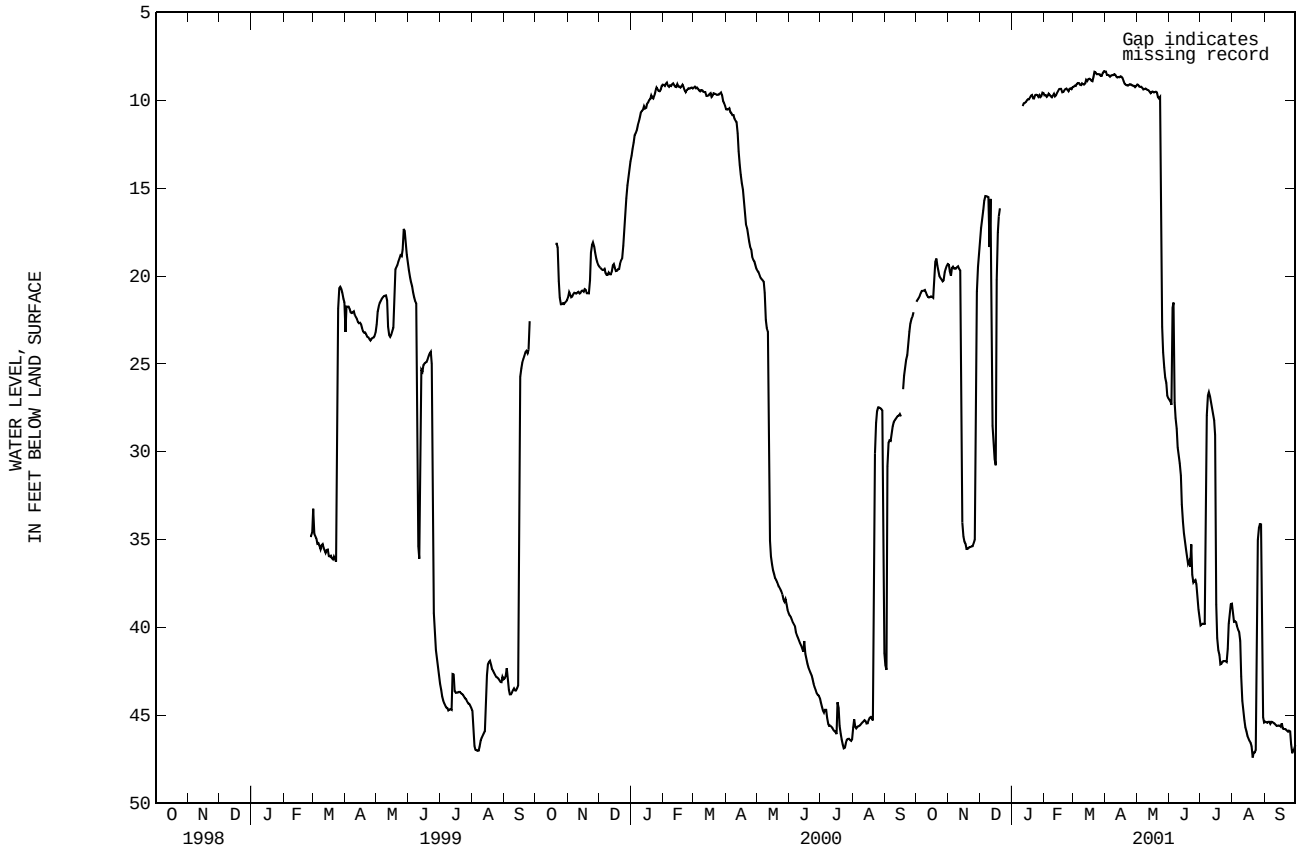
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.47	19.36	17.91	---	9.71	9.23	8.36	9.10	27.04	39.88	39.15	45.36
2	21.34	19.74	17.29	---	9.70	9.16	8.55	9.12	27.13	39.81	39.67	45.40
3	21.26	19.98	16.74	---	9.80	9.18	8.55	9.22	27.33	39.79	39.64	45.42
4	21.14	19.55	16.25	---	9.74	9.06	8.58	9.24	21.81	39.80	39.70	45.37
5	20.98	19.47	15.71	---	9.62	9.01	8.65	9.23	21.51	39.80	39.92	45.37
6	20.85	19.57	15.45	---	9.69	9.02	8.59	9.29	27.19	35.26	40.12	45.48
7	20.85	19.58	15.46	---	9.77	9.11	8.56	9.38	28.09	27.92	40.24	45.37
8	20.83	19.57	15.48	---	9.83	9.14	8.56	9.36	28.69	26.80	40.77	45.38
9	20.79	19.49	15.51	---	9.73	9.04	8.52	9.33	29.75	26.61	42.78	45.43
10	20.93	19.44	18.35	---	9.62	9.09	8.54	9.36	30.27	26.85	44.18	45.46
11	21.08	19.60	15.61	10.33	9.77	9.10	8.65	9.41	30.66	27.17	44.70	45.53
12	21.19	19.68	21.51	10.17	9.71	9.04	8.70	9.43	31.35	27.57	45.28	45.60
13	21.22	26.94	28.52	10.15	9.58	8.83	8.67	9.51	33.00	27.88	45.68	45.60
14	21.20	34.02	29.67	10.10	9.46	8.90	8.69	9.59	33.99	28.21	45.92	45.58
15	21.16	34.82	30.43	9.99	9.36	8.80	8.64	9.52	34.63	29.04	46.16	45.59
16	21.19	35.11	30.77	9.94	9.35	8.77	8.65	9.50	35.10	38.70	46.32	45.64
17	21.24	35.23	20.21	9.94	9.35	8.80	8.74	9.55	35.55	40.60	46.45	45.46
18	20.06	35.52	17.52	9.84	9.55	8.88	8.89	9.54	36.01	41.29	46.56	45.75
19	19.21	35.53	16.60	9.73	9.53	8.91	9.05	9.51	36.39	41.56	46.76	45.78
20	19.01	35.47	16.15	9.69	9.43	8.66	9.11	9.55	36.24	42.10	47.41	45.78
21	19.41	35.43	---	9.88	9.36	8.37	9.15	9.82	36.54	42.06	47.12	45.81
22	19.74	35.42	---	9.89	9.33	8.41	9.16	9.89	35.27	41.95	47.11	45.87
23	20.01	35.38	---	9.70	9.40	8.51	9.12	9.81	37.00	41.91	46.98	45.93
24	20.12	35.37	---	9.68	9.48	8.51	9.08	16.41	37.44	41.91	43.18	45.87
25	20.19	35.19	---	9.70	9.35	8.51	9.09	22.90	37.36	41.92	35.02	45.91
26	20.30	34.99	---	9.80	9.32	8.52	9.15	24.33	37.30	41.96	34.32	46.64
27	20.25	27.61	---	9.70	9.36	8.61	9.17	25.20	37.54	41.22	34.12	47.16
28	19.79	20.89	---	9.81	9.25	8.61	9.17	25.77	38.28	39.80	34.13	47.01
29	19.61	19.47	---	9.75	---	8.44	9.25	26.08	38.97	39.16	38.54	46.90
30	19.42	18.56	---	9.56	---	8.34	9.19	26.80	39.49	38.68	45.11	46.70
31	19.32	---	---	9.59	---	8.36	---	26.96	---	38.65	45.41	---

WTR YR 2001 MEAN 23.46 HIGH 8.34 LOW 47.41

BRUNSWICK COUNTY--Continued

335849078054301 County number, BR-100; Well 15A





BRUNSWICK COUNTY--Continued

340743078202002. County number, BR-106; DENR Bear Pen Research Station well EE36k5.
LOCATION.--Lat 34°07'42.98", long 78°20'19.82", North American Datum of 1983, Hydrologic Unit 03040206, 9 mi north of Supply on Federal Road, near North Carolina Forest Service airstrip. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 654 ft, diameter 2.5 in.; cased to 644 ft, screened interval from 644 to 654 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 61.50 ft above sea level. Measuring point: Top of casing, 3.56 ft above land-surface datum.
REMARKS.--Well is part of Brunswick County Ground-water study.
PERIOD OF RECORD.--January 1974 to current year. Continuous record began October 1999.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.03 ft below land-surface datum, July 9, 1975; lowest water level recorded, 28.35 ft below land-surface datum, Aug. 13, 2001.

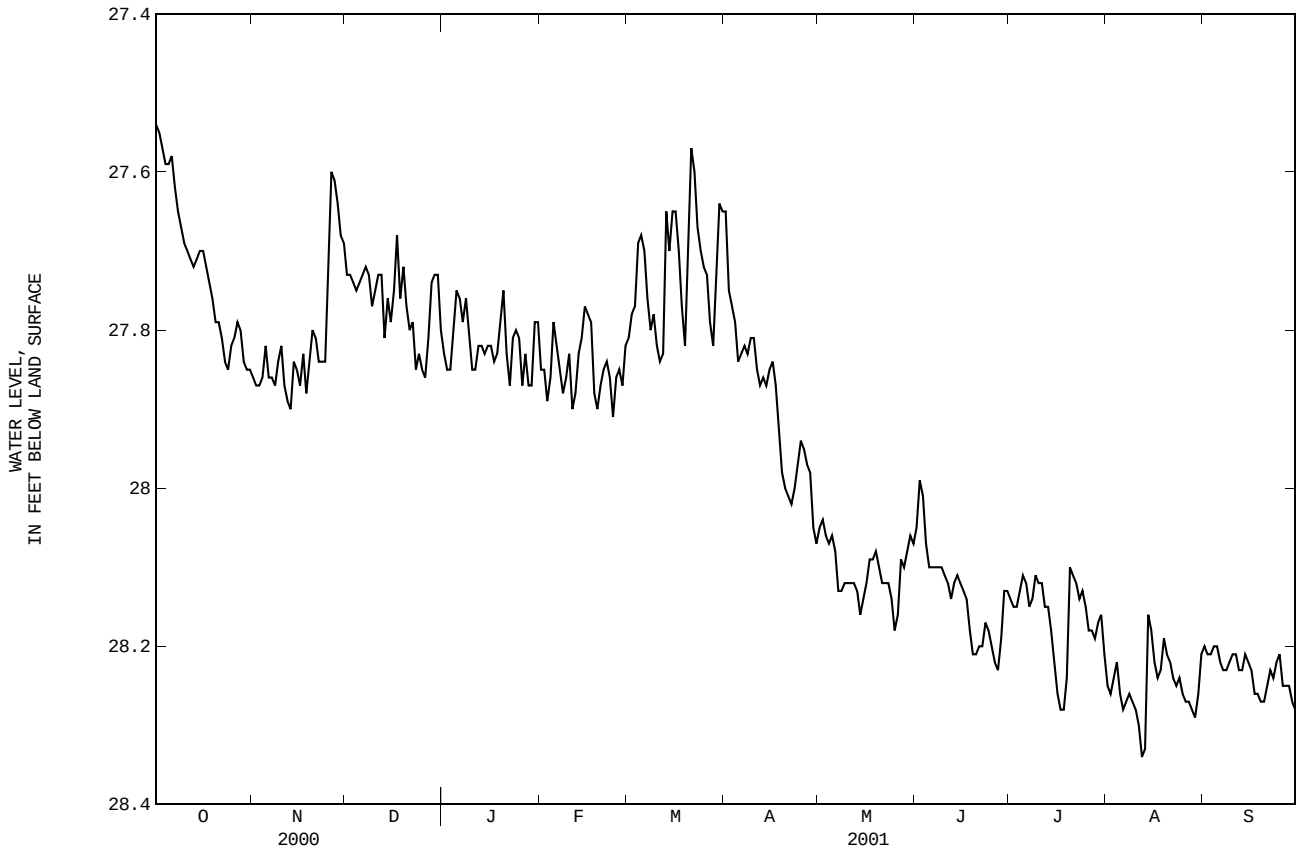
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

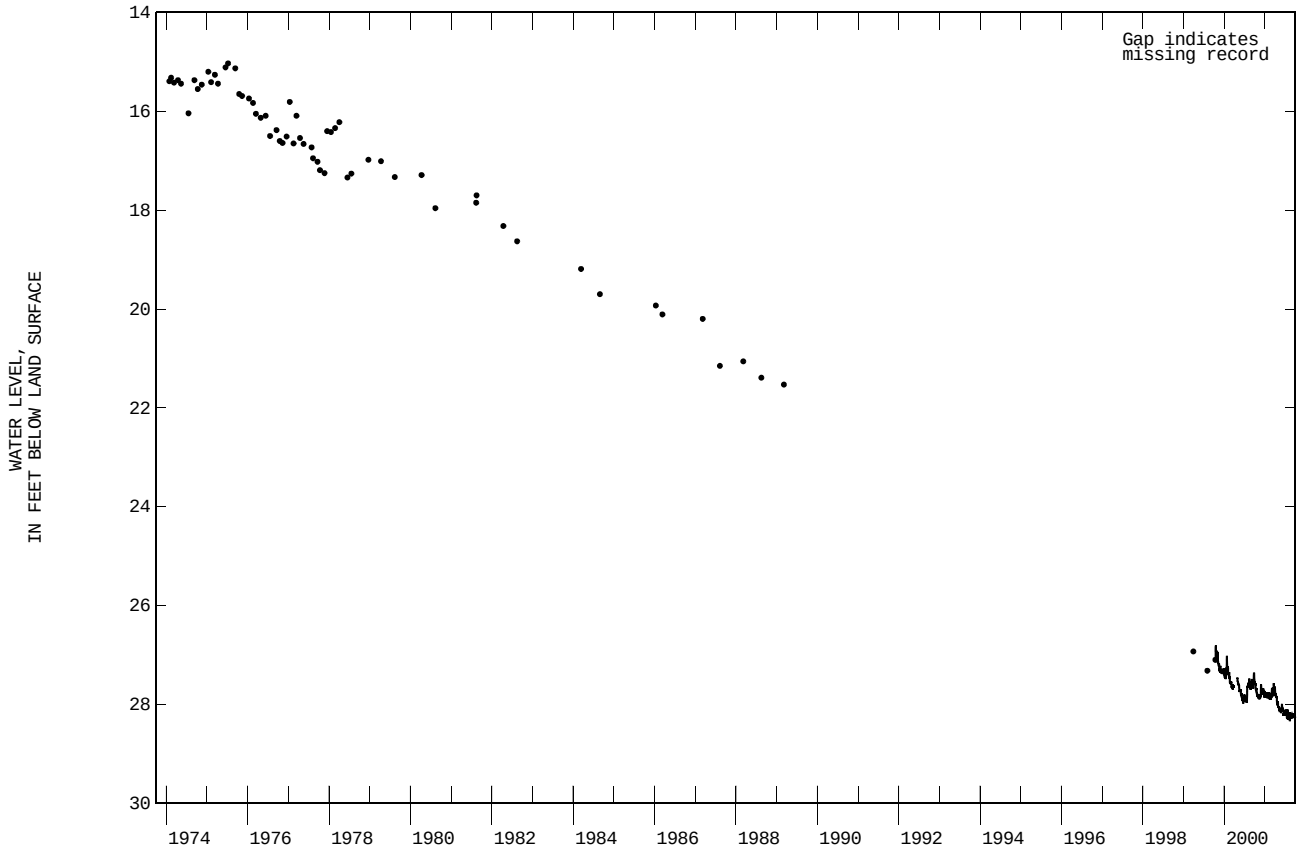
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.54	27.86	27.73	27.83	27.85	27.81	27.65	28.05	28.05	28.14	28.25	28.20
2	27.55	27.87	27.73	27.85	27.85	27.78	27.75	28.04	27.99	28.15	28.26	28.21
3	27.57	27.87	27.74	27.85	27.89	27.77	27.77	28.06	28.01	28.15	28.24	28.21
4	27.59	27.86	27.75	27.80	27.86	27.69	27.79	28.07	28.07	28.13	28.22	28.20
5	27.59	27.82	27.74	27.75	27.79	27.68	27.84	28.06	28.10	28.11	28.26	28.20
6	27.58	27.86	27.73	27.76	27.82	27.70	27.83	28.08	28.10	28.12	28.28	28.22
7	27.62	27.86	27.72	27.79	27.85	27.76	27.82	28.13	28.10	28.15	28.27	28.23
8	27.65	27.87	27.73	27.76	27.88	27.80	27.83	28.13	28.10	28.14	28.26	28.23
9	27.67	27.84	27.77	27.80	27.86	27.78	27.81	28.12	28.10	28.11	28.27	28.22
10	27.69	27.82	27.75	27.85	27.83	27.82	27.81	28.12	28.11	28.12	28.28	28.21
11	27.70	27.87	27.73	27.85	27.90	27.84	27.85	28.12	28.12	28.12	28.30	28.21
12	27.71	27.89	27.73	27.82	27.88	27.83	27.87	28.12	28.14	28.15	28.34	28.23
13	27.72	27.90	27.81	27.82	27.83	27.65	27.86	28.13	28.12	28.15	28.33	28.23
14	27.71	27.84	27.76	27.83	27.81	27.70	27.87	28.16	28.11	28.18	28.16	28.21
15	27.70	27.85	27.79	27.82	27.77	27.65	27.85	28.14	28.12	28.22	28.18	28.22
16	27.70	27.87	27.75	27.82	27.78	27.65	27.84	28.12	28.13	28.26	28.22	28.23
17	27.72	27.83	27.68	27.84	27.79	27.70	27.87	28.09	28.14	28.28	28.24	28.26
18	27.74	27.88	27.76	27.83	27.88	27.77	27.92	28.09	28.18	28.28	28.23	28.26
19	27.76	27.84	27.72	27.79	27.90	27.82	27.98	28.08	28.21	28.24	28.19	28.27
20	27.79	27.80	27.77	27.75	27.87	27.72	28.00	28.10	28.21	28.10	28.21	28.27
21	27.79	27.81	27.80	27.83	27.85	27.57	28.01	28.12	28.20	28.11	28.22	28.25
22	27.81	27.84	27.79	27.87	27.84	27.60	28.02	28.12	28.20	28.12	28.24	28.23
23	27.84	27.84	27.85	27.81	27.86	27.67	28.00	28.12	28.17	28.14	28.25	28.24
24	27.85	27.84	27.83	27.80	27.91	27.70	27.97	28.14	28.18	28.13	28.24	28.22
25	27.82	27.73	27.85	27.81	27.86	27.72	27.94	28.18	28.20	28.15	28.26	28.21
26	27.81	27.60	27.86	27.87	27.85	27.73	27.95	28.16	28.22	28.18	28.27	28.25
27	27.79	27.61	27.81	27.83	27.87	27.79	27.97	28.09	28.23	28.18	28.27	28.25
28	27.80	27.64	27.74	27.87	27.82	27.82	27.98	28.10	28.19	28.19	28.28	28.25
29	27.84	27.68	27.73	27.87	---	27.72	28.05	28.08	28.13	28.17	28.29	28.27
30	27.85	27.69	27.73	27.79	---	27.64	28.07	28.06	28.13	28.16	28.26	28.28
31	27.85	---	27.80	27.79	---	27.65	---	28.07	---	28.21	28.21	---

WTR YR 2001 MEAN 27.96 HIGH 27.54 LOW 28.34

BRUNSWICK COUNTY--Continued

340743078202002 County number, BR-106; DENR Bear Pen Research Station well EE36k5





BRUNSWICK COUNTY--Continued

340743078202006. County number, BR-107; DENR Bear Pen Research Station well EE36k6.
LOCATION.--Lat 34°07'42.98", long 78°20'19.82", North American Datum of 1983, Hydrologic Unit 03040206, 9 mi north of Supply on Federal Road, near North Carolina Forest Service airstrip. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 110 ft, diameter 4 in.; cased to 48 ft, open interval from 48 to 110 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 61.00 ft above sea level. Measuring point: Top of instrument shelf, 0.69 ft above land-surface datum.
REMARKS.--Well is part of Brunswick County ground-water study.
PERIOD OF RECORD.--August 1999 to current year. Continuous record began April 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.37 ft below land-surface datum, Sept. 26, 2000; lowest water level recorded, 10.50 ft below land-surface datum, June 22, 2000.

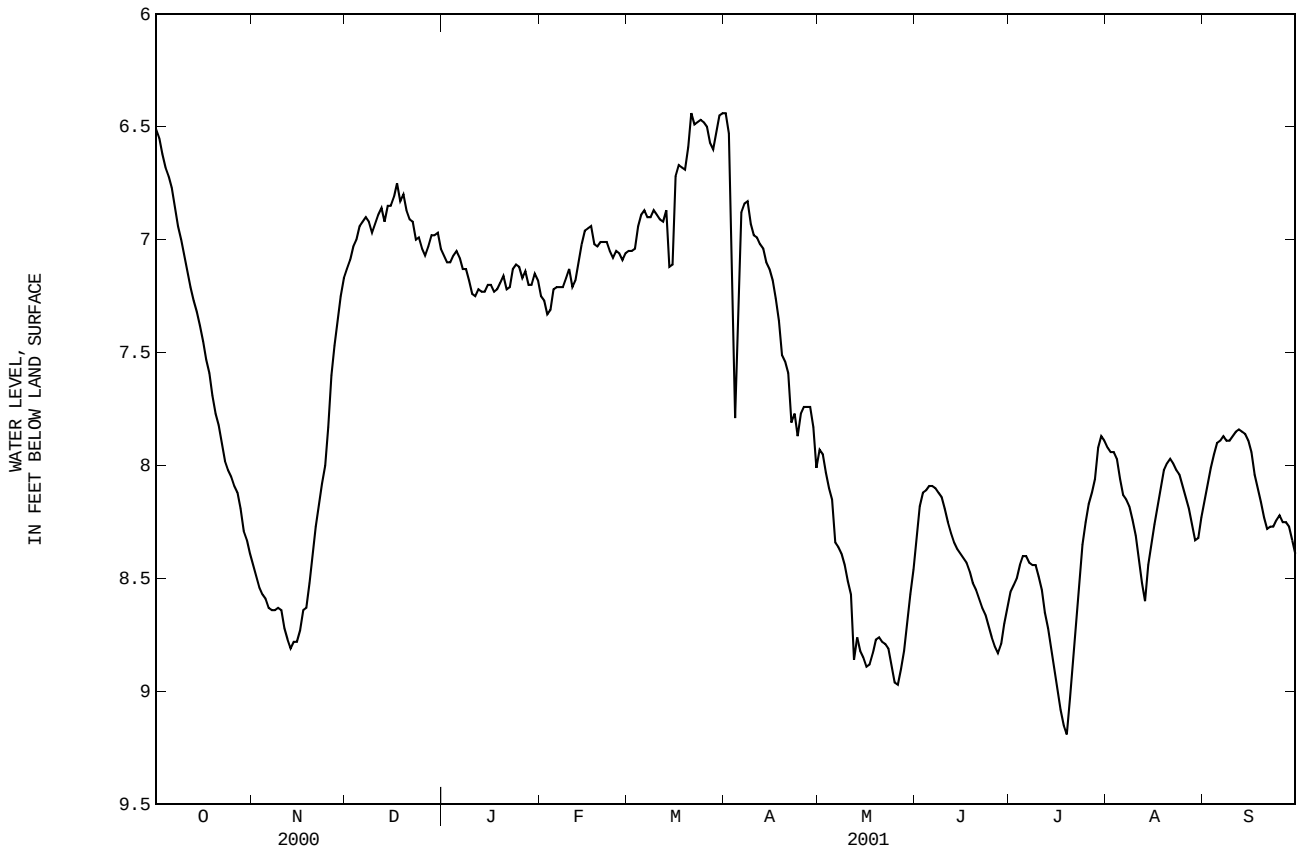
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

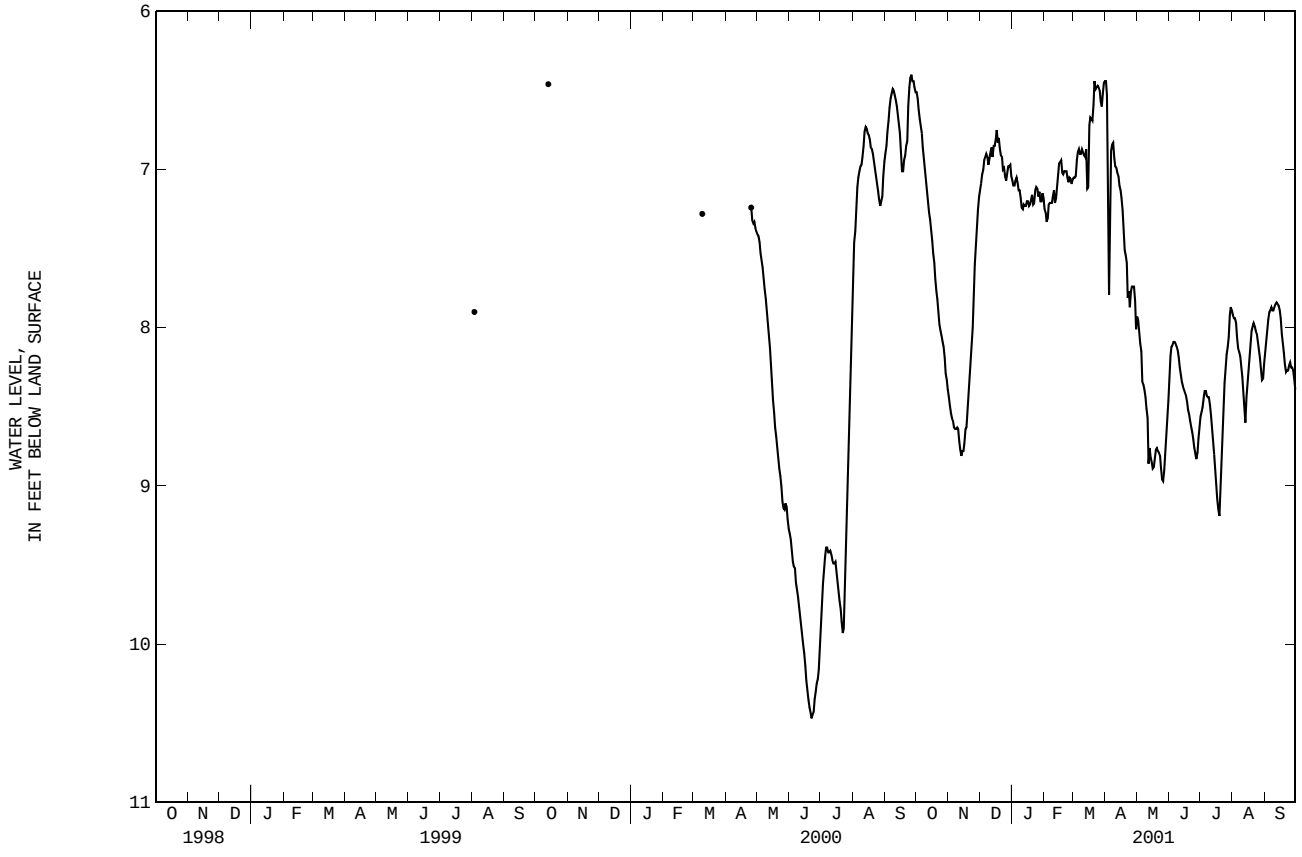
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.51	8.44	7.13	7.07	7.25	7.05	6.44	7.93	8.32	8.56	7.92	8.15
2	6.55	8.49	7.09	7.10	7.27	7.05	6.53	7.95	8.18	8.53	7.94	8.08
3	6.62	8.54	7.03	7.10	7.33	7.04	7.00	8.03	8.12	8.50	7.94	8.01
4	6.68	8.57	7.00	7.07	7.31	6.94	7.79	8.10	8.11	8.44	7.97	7.95
5	6.72	8.59	6.94	7.05	7.22	6.89	7.33	8.15	8.09	8.40	8.06	7.90
6	6.77	8.63	6.92	7.08	7.21	6.87	6.88	8.34	8.09	8.40	8.13	7.89
7	6.86	8.64	6.90	7.13	7.21	6.90	6.84	8.36	8.10	8.43	8.15	7.87
8	6.94	8.64	6.92	7.13	7.21	6.90	6.83	8.39	8.12	8.44	8.18	7.89
9	7.00	8.63	6.97	7.18	7.17	6.87	6.93	8.44	8.14	8.44	8.24	7.89
10	7.07	8.64	6.93	7.24	7.13	6.89	6.98	8.51	8.19	8.49	8.31	7.87
11	7.14	8.72	6.89	7.25	7.21	6.91	6.99	8.57	8.25	8.55	8.41	7.85
12	7.21	8.77	6.86	7.22	7.18	6.92	7.02	8.86	8.30	8.65	8.52	7.84
13	7.27	8.81	6.92	7.23	7.10	6.87	7.04	8.76	8.34	8.72	8.60	7.85
14	7.32	8.78	6.85	7.23	7.02	7.12	7.10	8.82	8.37	8.80	8.44	7.86
15	7.38	8.78	6.85	7.20	6.96	7.11	7.13	8.85	8.39	8.89	8.35	7.89
16	7.45	8.73	6.81	7.20	6.95	6.72	7.18	8.89	8.41	8.99	8.26	7.94
17	7.53	8.64	6.75	7.23	6.94	6.67	7.26	8.88	8.43	9.08	8.18	8.04
18	7.59	8.63	6.83	7.22	7.02	6.68	7.36	8.83	8.47	9.15	8.10	8.10
19	7.69	8.52	6.80	7.19	7.03	6.69	7.51	8.77	8.52	9.19	8.02	8.16
20	7.77	8.39	6.87	7.16	7.01	6.59	7.54	8.76	8.55	9.03	7.99	8.23
21	7.82	8.27	6.91	7.22	7.01	6.44	7.59	8.78	8.59	8.84	7.97	8.28
22	7.90	8.18	6.92	7.21	7.01	6.49	7.81	8.79	8.63	8.65	7.99	8.27
23	7.98	8.08	7.00	7.13	7.05	6.48	7.77	8.81	8.66	8.49	8.02	8.27
24	8.02	8.00	6.99	7.11	7.08	6.47	7.87	8.89	8.71	8.35	8.04	8.24
25	8.05	7.83	7.04	7.12	7.05	6.48	7.77	8.96	8.76	8.25	8.09	8.22
26	8.09	7.60	7.07	7.17	7.06	6.50	7.74	8.97	8.80	8.17	8.14	8.25
27	8.12	7.47	7.03	7.14	7.09	6.57	7.74	8.90	8.83	8.12	8.19	8.25
28	8.19	7.36	6.98	7.20	7.06	6.60	7.74	8.82	8.79	8.06	8.26	8.27
29	8.29	7.25	6.98	7.20	---	6.52	7.83	8.70	8.70	7.92	8.33	8.33
30	8.33	7.17	6.97	7.15	---	6.45	8.01	8.57	8.63	7.87	8.32	8.39
31	8.39	---	7.04	7.18	---	6.44	---	8.46	---	7.89	8.23	---

WTR YR 2001 MEAN 7.74 HIGH 6.44 LOW 9.19

BRUNSWICK COUNTY--Continued

340743078202006 County number, BR-107; DENR Bear Pen Research Station well EE36k6





BRUNSWICK COUNTY

335334078352102. County number, BR-116; DENR Calabash Research Station well HH39j3.
LOCATION.--Lat 33°53'34.32", long 78°35'21.34", North American Datum of 1983, Hydrologic Unit 03040207, .75 mi west of County Club Drive on Carolina Shores Drive Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 600 ft, diameter 2.5 in.; cased to 644 ft and from 654 to 660 ft, screened interval from 644 to 654 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 47.59 ft above sea level. Measuring point: Top of casing, 2.79 ft above land-surface datum.
REMARKS.--Well is part of Brunswick County ground-water study.
PERIOD OF RECORD.--May 1973 to current year. Continuous record began October 1999.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.79 ft below land-surface datum, May 7, 1973; lowest water level recorded, 44.51 ft below land-surface datum, Aug. 14, 2001.

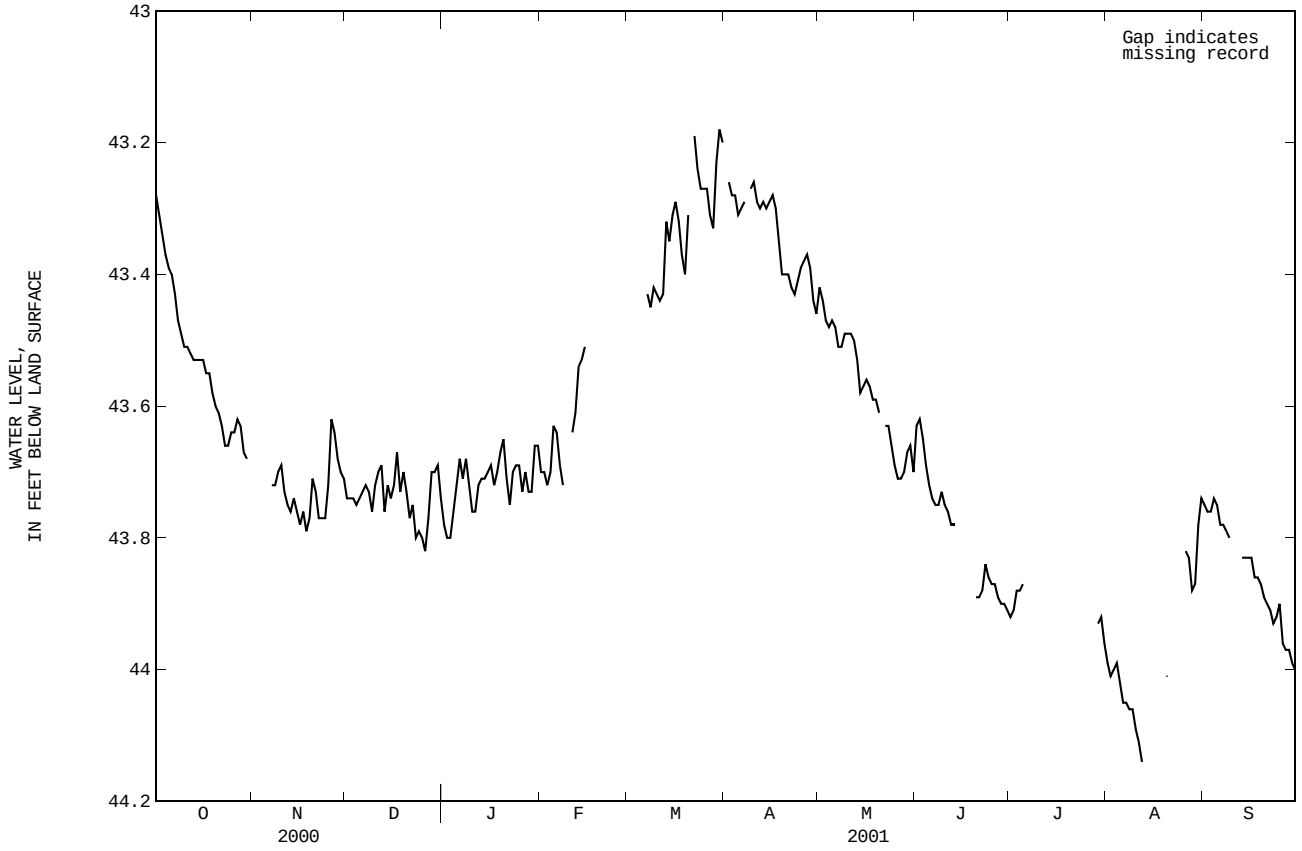
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

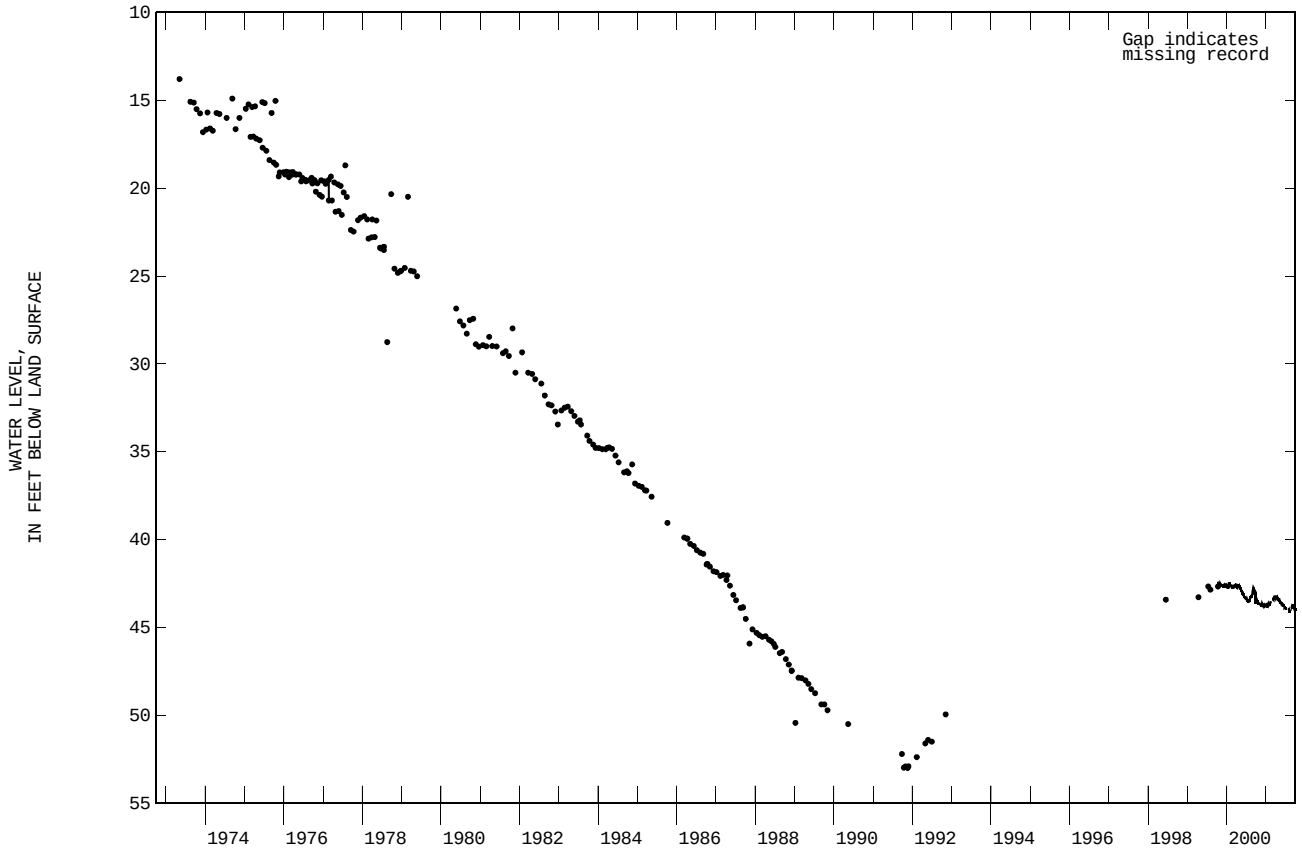
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43.28	---	43.74	43.78	43.70	---	---	43.42	43.63	43.92	43.99	43.75
2	43.31	---	43.74	43.80	43.70	---	43.26	43.44	43.62	43.91	44.01	43.76
3	43.34	---	43.74	43.80	43.72	---	43.28	43.47	43.65	43.88	44.00	43.76
4	43.37	---	43.75	43.76	43.70	---	43.28	43.48	43.69	43.88	43.99	43.74
5	43.39	---	43.74	43.72	43.63	---	43.31	43.47	43.72	43.87	44.02	43.75
6	43.40	---	43.73	43.68	43.64	---	43.30	43.48	43.74	---	44.05	43.78
7	43.43	43.72	43.72	43.71	43.69	43.43	43.29	43.51	43.75	---	44.05	43.78
8	43.47	43.72	43.73	43.68	43.72	43.45	---	43.51	43.75	---	44.06	43.79
9	43.49	43.70	43.76	43.72	---	43.42	43.27	43.49	43.73	---	44.06	43.80
10	43.51	43.69	43.72	43.76	---	43.43	43.26	43.49	43.75	---	44.09	---
11	43.51	43.73	43.70	43.76	43.64	43.44	43.29	43.49	43.76	---	44.11	---
12	43.52	43.75	43.69	43.72	43.61	43.43	43.30	43.50	43.78	---	44.14	---
13	43.53	43.76	43.76	43.71	43.54	43.32	43.29	43.53	43.78	---	---	43.83
14	43.53	43.74	43.72	43.71	43.53	43.35	43.30	43.58	---	---	---	43.83
15	43.53	43.76	43.74	43.70	43.51	43.31	43.29	43.57	---	---	---	43.83
16	43.53	43.78	43.72	43.69	---	43.29	43.28	43.56	---	---	---	43.83
17	43.55	43.76	43.67	43.72	---	43.32	43.30	43.57	---	---	---	43.86
18	43.55	43.79	43.73	43.70	---	43.37	43.35	43.59	---	---	---	43.86
19	43.58	43.77	43.70	43.67	---	43.40	43.40	43.59	---	---	---	43.87
20	43.60	43.71	43.73	43.65	---	43.31	43.40	43.61	43.89	---	44.01	43.89
21	43.61	43.73	43.77	43.71	---	---	43.40	---	43.89	---	---	43.90
22	43.63	43.77	43.75	43.75	---	43.19	43.42	43.63	43.88	---	---	43.91
23	43.66	43.77	43.80	43.70	---	43.24	43.43	43.63	43.84	---	---	43.93
24	43.66	43.77	43.79	43.69	---	43.27	43.41	43.66	43.86	---	---	43.92
25	43.64	43.72	43.80	43.69	---	43.27	43.39	43.69	43.87	---	---	43.90
26	43.64	43.62	43.82	43.73	---	43.27	43.38	43.71	43.87	---	43.82	43.96
27	43.62	43.64	43.77	43.70	---	43.31	43.37	43.71	43.89	---	43.83	43.97
28	43.63	43.68	43.70	43.73	---	43.33	43.39	43.70	43.90	---	43.88	43.97
29	43.67	43.70	43.70	43.73	---	43.23	43.44	43.67	43.90	43.93	43.87	43.99
30	43.68	43.71	43.69	43.66	---	43.18	43.46	43.66	43.91	43.92	43.78	44.00
31	---	---	43.74	43.66	---	43.20	---	43.70	---	43.96	43.74	---

WTR YR 2001 MEAN 43.65 HIGH 43.18 LOW 44.14

BRUNSWICK COUNTY--Continued

335334078352102 County number, BR-116; DENR Calabash Research Station well HH39j3





BRUNSWICK COUNTY--Continued

335334078352106. Local number, BR-123; DENR Calabash Research Station well HH39j7.
LOCATION.--Lat 33°53'34.32", long 78°35'21.34", North American Datum of 1983, Hydrologic Unit 030040207, .75 miles west of Country Club Drive on Carolina Shores Drive. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial Aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 56 ft, diameter 4 in., cased to 46 ft, screened interval from 46 to 56 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 47.28 ft above sea level. Measuring point: Top of casing, 1.97 ft above land-surface datum.
REMARKS.-- Well is part of Brunswick County Groundwater project.
PERIOD OF RECORD.--April 1999 to September 2001. Continuous record began October 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.37 ft below land-surface datum, Mar. 31, 2001; lowest water level measured, 23.12 ft below land-surface datum, May 11, 2001.

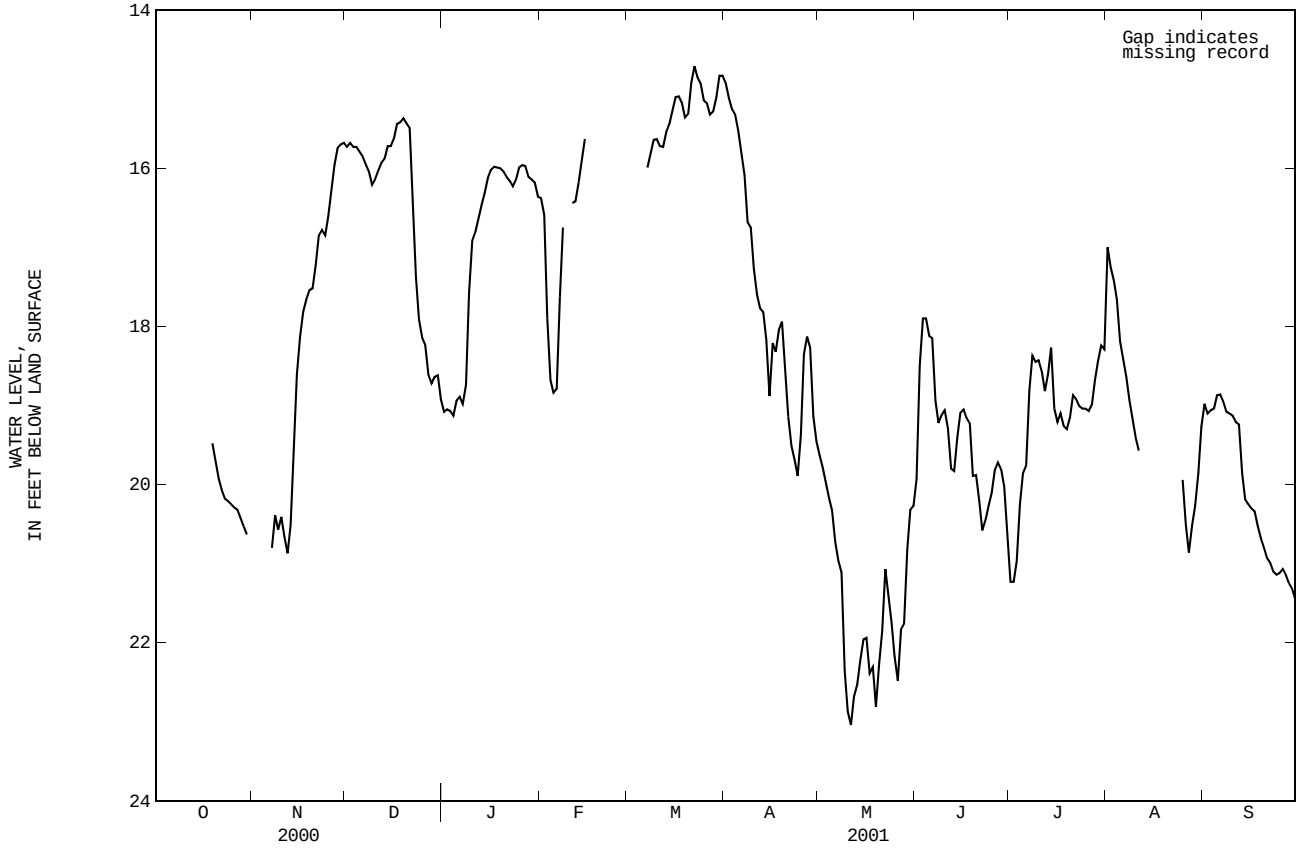
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

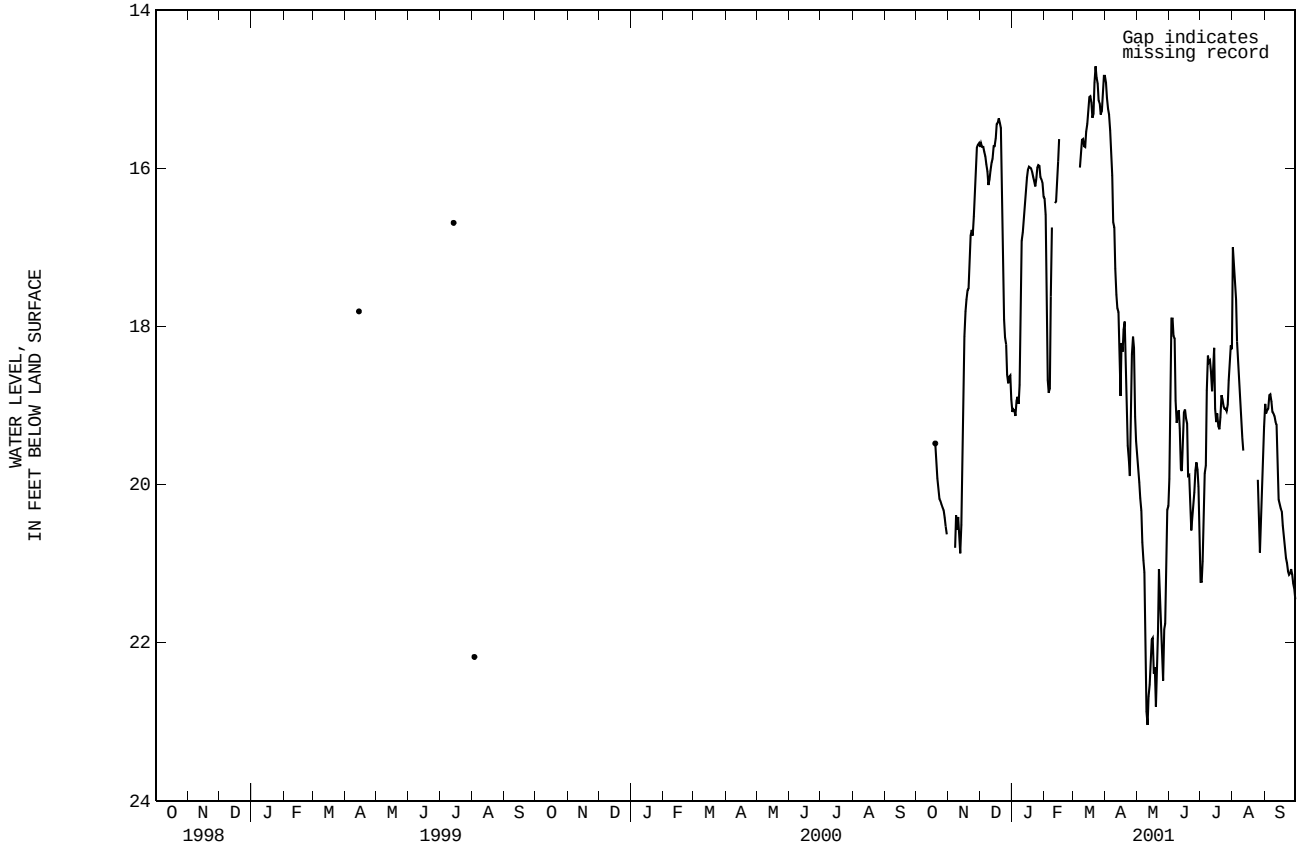
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	15.73	19.08	16.38	---	14.92	19.63	19.93	21.23	17.00	18.98
2	---	---	15.68	19.05	16.59	---	15.11	19.79	18.49	21.23	17.25	19.10
3	---	---	15.73	19.07	17.90	---	15.25	19.97	17.90	20.97	17.42	19.06
4	---	---	15.73	19.13	18.68	---	15.32	20.17	17.90	20.25	17.66	19.04
5	---	---	15.79	18.94	18.84	---	15.52	20.33	18.12	19.86	18.19	18.87
6	---	---	15.85	18.89	18.79	---	15.80	20.73	18.15	19.76	18.42	18.86
7	---	20.80	15.95	18.98	17.62	15.99	16.09	20.96	18.94	18.81	18.64	18.95
8	---	20.39	16.04	18.74	16.75	15.81	16.68	21.11	19.22	18.37	18.93	19.08
9	---	20.57	16.21	17.58	---	15.64	16.75	22.36	19.12	18.45	19.17	19.10
10	---	20.41	16.14	16.92	---	15.63	17.27	22.87	19.06	18.43	19.41	19.13
11	---	20.66	16.03	16.81	16.44	15.72	17.60	23.04	19.29	18.57	19.57	19.21
12	---	20.87	15.93	16.63	16.42	15.73	17.77	22.68	19.80	18.82	---	19.24
13	---	20.51	15.88	16.46	16.18	15.54	17.82	22.53	19.83	18.60	---	19.86
14	---	19.48	15.72	16.31	15.91	15.44	18.17	22.23	19.40	18.27	---	20.19
15	---	18.61	15.72	16.12	15.63	15.27	18.88	21.96	19.09	19.04	---	20.25
16	---	18.13	15.62	16.02	---	15.10	18.21	21.94	19.05	19.21	---	20.30
17	---	17.81	15.44	15.98	---	15.09	18.32	22.39	19.16	19.10	---	20.34
18	---	17.66	15.42	15.99	---	15.17	18.04	22.31	19.23	19.26	---	20.52
19	19.48	17.54	15.37	16.00	---	15.36	17.94	22.81	19.89	19.30	---	20.68
20	19.71	17.52	15.43	16.04	---	15.31	18.55	22.27	19.88	19.15	---	20.80
21	19.92	17.22	15.49	16.11	---	14.92	19.14	21.86	20.21	18.87	---	20.93
22	20.07	16.85	16.44	16.16	---	14.71	19.51	21.07	20.58	18.92	---	20.99
23	20.18	16.78	17.37	16.23	---	14.85	19.69	21.39	20.45	19.01	---	21.10
24	20.21	16.85	17.91	16.14	---	14.93	19.89	21.75	20.27	19.04	---	21.14
25	20.25	16.61	18.14	15.99	---	15.14	19.37	22.18	20.10	19.04	19.94	21.12
26	20.29	16.28	18.23	15.96	---	15.18	18.35	22.48	19.82	19.07	20.51	21.07
27	20.32	15.96	18.61	15.97	---	15.32	18.13	21.83	19.72	18.99	20.86	21.14
28	20.42	15.74	18.72	16.11	---	15.28	18.27	21.76	19.81	18.68	20.52	21.25
29	20.53	15.70	18.64	16.14	---	15.10	19.14	20.82	20.03	18.43	20.27	21.32
30	20.63	15.68	18.62	16.18	---	14.83	19.45	20.32	20.58	18.24	19.86	21.45
31	---	---	18.92	16.36	---	14.83	---	20.27	---	18.29	19.27	---

WTR YR 2001 MEAN 18.43 HIGH 14.71 LOW 23.04

BRUNSWICK COUNTY--Continued

335334078352106. Local number, BR-123; DENR Calabash Research Station well HH39j7.





BRUNSWICK COUNTY

340416078084202. Local number, NC-180; DENR Bolivia Research Station well FF33d2; County number, BR-078.
LOCATION.--Lat 34°04'16.83", long 78°08'40.92", North American Datum of 1983, Hydrologic Unit 03040207, in Bolivia at town hall on U.S. Highway 17. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 140 ft, diameter 4 in., cased to 92 ft, open hole to 140 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 40.97 ft above sea level. Measuring point: Top of casing 0.89 ft above land-surface datum.
REMARKS.-- Well is part of Brunswick County Groundwater project.
PERIOD OF RECORD.--April 1971 to current year. Continuous record May 1987 to September 1997, January 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.05 ft below land-surface datum, May 22, 1972; lowest water level recorded, 15.07 ft below land-surface datum, Sept. 4, 1995.

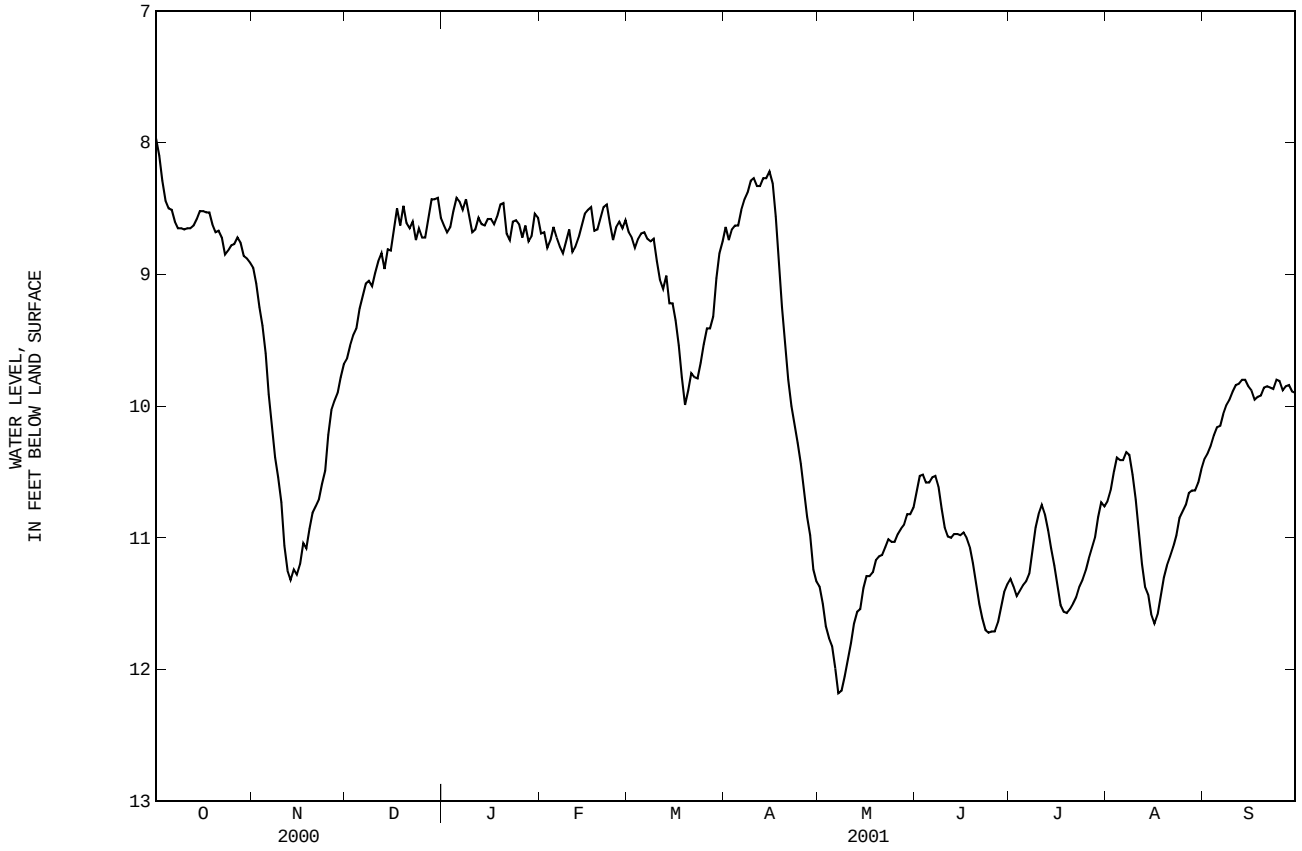
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

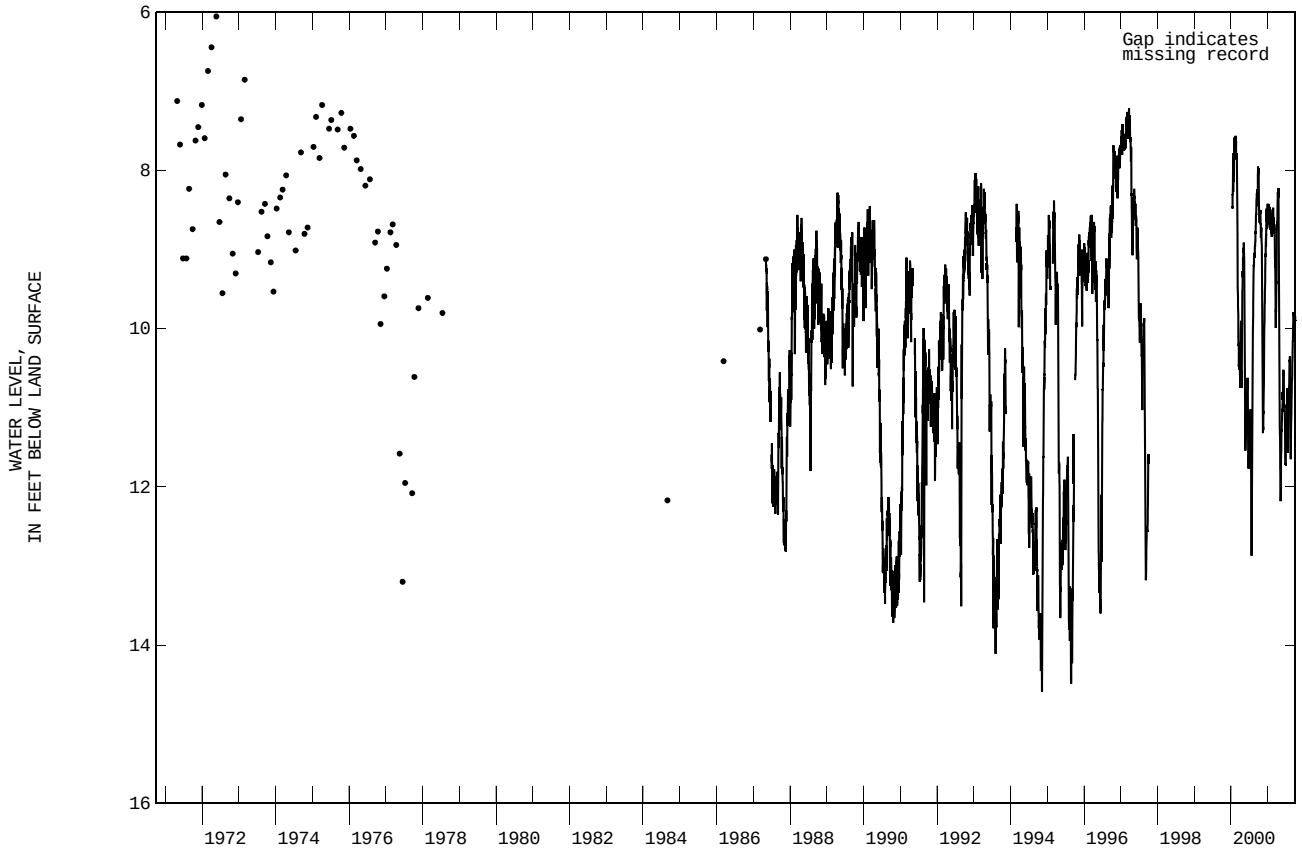
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.97	8.95	9.64	8.63	8.69	8.68	8.64	11.37	10.65	11.31	10.72	10.40
2	8.10	9.07	9.54	8.68	8.68	8.72	8.74	11.50	10.53	11.37	10.64	10.36
3	8.29	9.25	9.46	8.64	8.80	8.80	8.66	11.67	10.52	11.44	10.50	10.30
4	8.44	9.39	9.41	8.52	8.74	8.73	8.63	11.76	10.58	11.40	10.39	10.22
5	8.50	9.60	9.26	8.42	8.64	8.69	8.63	11.82	10.58	11.36	10.41	10.16
6	8.51	9.91	9.17	8.45	8.72	8.68	8.51	11.99	10.54	11.33	10.41	10.15
7	8.60	10.17	9.07	8.51	8.79	8.73	8.43	12.18	10.53	11.27	10.35	10.06
8	8.65	10.39	9.05	8.43	8.84	8.75	8.38	12.16	10.61	11.10	10.37	9.99
9	8.65	10.54	9.09	8.55	8.75	8.73	8.29	12.05	10.78	10.92	10.52	9.95
10	8.66	10.73	8.99	8.68	8.66	8.90	8.27	11.93	10.92	10.82	10.71	9.89
11	8.65	11.06	8.90	8.66	8.83	9.04	8.33	11.80	10.99	10.75	10.94	9.84
12	8.65	11.25	8.84	8.57	8.79	9.11	8.33	11.65	11.00	10.82	11.20	9.83
13	8.63	11.32	8.96	8.62	8.72	9.01	8.27	11.56	10.97	10.94	11.37	9.80
14	8.58	11.24	8.81	8.63	8.63	9.22	8.27	11.54	10.97	11.08	11.43	9.80
15	8.52	11.28	8.82	8.58	8.54	9.22	8.22	11.38	10.98	11.21	11.58	9.85
16	8.52	11.20	8.66	8.58	8.51	9.35	8.31	11.29	10.96	11.37	11.65	9.88
17	8.53	11.04	8.50	8.62	8.49	9.54	8.56	11.29	11.00	11.51	11.58	9.95
18	8.53	11.08	8.63	8.56	8.67	9.78	8.91	11.26	11.07	11.56	11.45	9.93
19	8.62	10.93	8.48	8.47	8.66	9.99	9.25	11.17	11.19	11.57	11.30	9.92
20	8.68	10.81	8.61	8.46	8.57	9.88	9.53	11.14	11.34	11.54	11.21	9.86
21	8.67	10.76	8.65	8.69	8.49	9.75	9.80	11.13	11.50	11.50	11.14	9.85
22	8.72	10.71	8.60	8.74	8.47	9.78	10.00	11.07	11.61	11.45	11.07	9.86
23	8.85	10.59	8.74	8.60	8.61	9.79	10.15	11.01	11.70	11.37	10.98	9.87
24	8.82	10.49	8.65	8.59	8.74	9.67	10.28	11.03	11.72	11.32	10.85	9.80
25	8.78	10.22	8.72	8.62	8.64	9.53	10.44	11.03	11.71	11.25	10.80	9.81
26	8.77	10.03	8.72	8.72	8.60	9.41	10.65	10.97	11.71	11.16	10.75	9.88
27	8.72	9.96	8.57	8.63	8.65	9.41	10.84	10.93	11.64	11.08	10.66	9.85
28	8.76	9.90	8.43	8.75	8.59	9.32	10.98	10.90	11.52	11.00	10.64	9.84
29	8.86	9.78	8.43	8.71	---	9.03	11.24	10.82	11.41	10.84	10.64	9.89
30	8.88	9.68	8.42	8.54	---	8.84	11.33	10.82	11.35	10.73	10.58	9.90
31	8.91	---	8.57	8.57	---	8.75	---	10.77	---	10.76	10.48	---

WTR YR 2001 MEAN 9.84 HIGH 7.97 LOW 12.18

BRUNSWICK COUNTY--Continued

340416078084202 Local number, NC-180; DENR Bolivia Research Station well FF33d2; County number, BR-078





BRUNSWICK COUNTY--Continued

335629078115406. Local number, NC-181; DENR Sunset Harbor Research Station well GG34s6; County number, BR-079.
LOCATION.--Lat 33°56'29.05", long 78°11'56.22", North American Datum of 1983, Hydrologic Unit 03040207, 1 mi north of Sunset Harbor, and 4.3 mi south of State Highway 211 on Secondary Road 1112. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--PeeDee aquifer of Late Cretaceous Age.
WELL CHARACTERISTICS.--Drilled observation well, depth 102 ft, diameter 6 in., cased to 84 ft, open hole from 84 to 102 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 28.06 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 2.02 ft above land-surface datum.
REMARKS.--Well is part of Brunswick County ground-water study.
PERIOD OF RECORD.--March 1987 to current year. Records from July 1974 to March 1978 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.24 ft below land-surface datum, Oct. 22, 1999; lowest water level recorded, 13.53 ft below land-surface datum, Aug. 1, 1990.

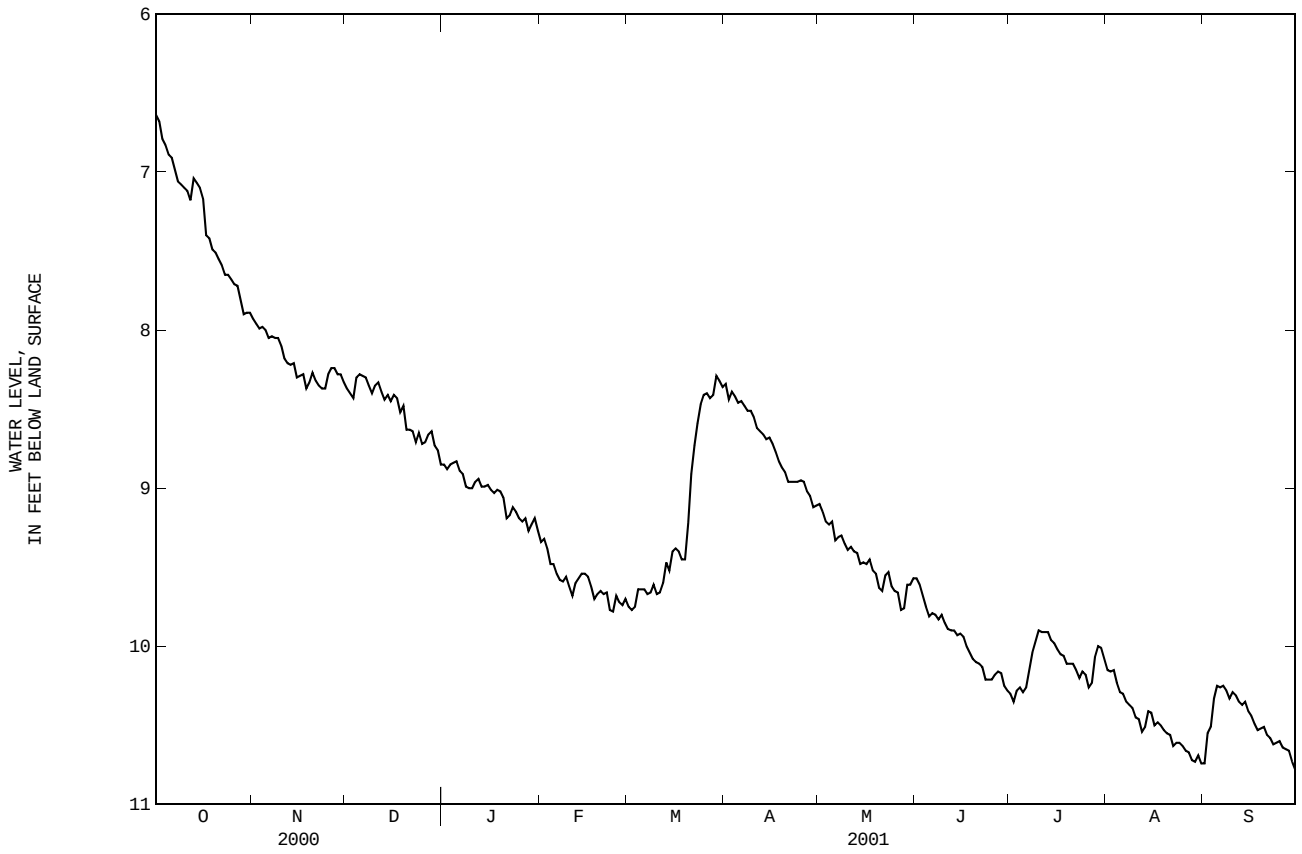
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

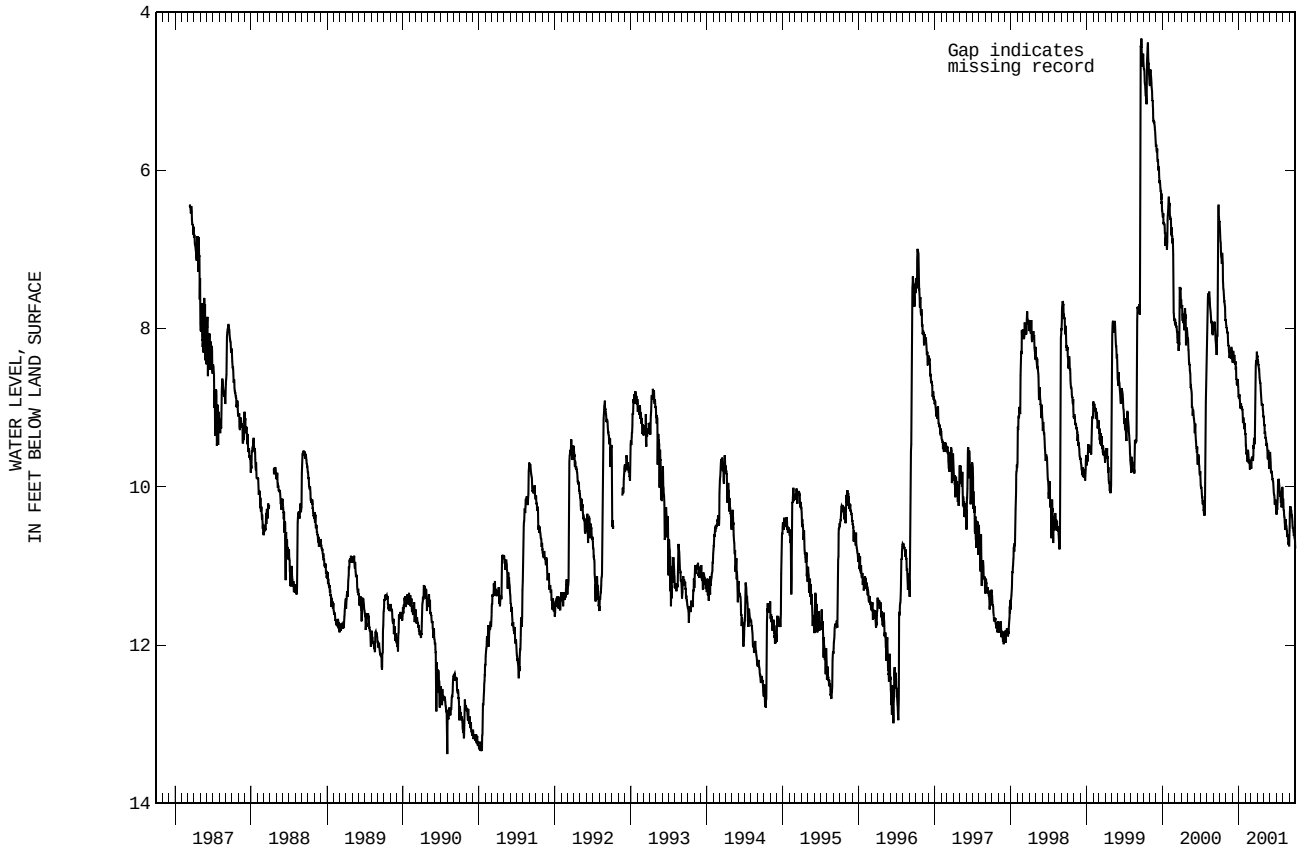
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.64	7.93	8.37	8.85	9.34	9.75	8.34	9.10	9.57	10.30	10.15	10.74
2	6.68	7.96	8.40	8.88	9.32	9.77	8.44	9.15	9.61	10.35	10.16	10.55
3	6.79	7.99	8.43	8.85	9.38	9.75	8.39	9.21	9.68	10.28	10.15	10.51
4	6.83	7.98	8.30	8.84	9.48	9.64	8.42	9.23	9.75	10.26	10.23	10.33
5	6.89	8.00	8.28	8.83	9.48	9.64	8.46	9.21	9.81	10.29	10.29	10.25
6	6.91	8.05	8.29	8.89	9.54	9.64	8.45	9.33	9.79	10.26	10.30	10.26
7	6.99	8.04	8.30	8.91	9.58	9.67	8.48	9.31	9.80	10.15	10.35	10.25
8	7.06	8.05	8.35	8.99	9.59	9.66	8.51	9.30	9.83	10.04	10.37	10.28
9	7.08	8.05	8.40	9.00	9.56	9.61	8.51	9.35	9.80	9.97	10.39	10.33
10	7.10	8.10	8.35	9.00	9.62	9.67	8.55	9.39	9.85	9.90	10.45	10.29
11	7.12	8.18	8.33	8.96	9.68	9.66	8.62	9.37	9.89	9.91	10.46	10.31
12	7.18	8.21	8.39	8.94	9.60	9.60	8.64	9.40	9.90	9.91	10.54	10.35
13	7.04	8.22	8.44	8.99	9.57	9.47	8.66	9.41	9.90	9.91	10.51	10.37
14	7.07	8.21	8.41	8.99	9.54	9.52	8.69	9.48	9.93	9.96	10.41	10.35
15	7.10	8.30	8.45	8.98	9.54	9.40	8.68	9.47	9.92	9.98	10.42	10.41
16	7.17	8.29	8.41	9.01	9.56	9.38	8.72	9.48	9.94	10.02	10.50	10.44
17	7.40	8.28	8.43	9.03	9.62	9.40	8.77	9.45	10.00	10.05	10.48	10.49
18	7.42	8.37	8.52	9.01	9.70	9.45	8.83	9.52	10.04	10.06	10.50	10.53
19	7.49	8.33	8.48	9.02	9.67	9.45	8.87	9.54	10.08	10.11	10.53	10.52
20	7.51	8.27	8.63	9.06	9.65	9.22	8.90	9.63	10.10	10.11	10.55	10.51
21	7.55	8.32	8.63	9.19	9.67	8.91	8.96	9.65	10.11	10.11	10.56	10.56
22	7.59	8.35	8.64	9.17	9.66	8.73	8.96	9.55	10.13	10.15	10.63	10.58
23	7.65	8.37	8.71	9.12	9.77	8.59	8.96	9.53	10.21	10.20	10.61	10.62
24	7.65	8.37	8.65	9.15	9.78	8.47	8.96	9.62	10.21	10.16	10.61	10.61
25	7.68	8.28	8.72	9.19	9.68	8.41	8.95	9.65	10.21	10.18	10.63	10.60
26	7.71	8.24	8.71	9.21	9.72	8.40	8.96	9.66	10.18	10.26	10.66	10.64
27	7.72	8.24	8.66	9.19	9.74	8.43	9.02	9.77	10.16	10.23	10.67	10.65
28	7.81	8.28	8.64	9.27	9.70	8.41	9.05	9.76	10.17	10.07	10.72	10.66
29	7.90	8.28	8.73	9.23	---	8.29	9.12	9.61	10.25	10.00	10.73	10.73
30	7.89	8.33	8.76	9.19	---	8.32	9.11	9.61	10.28	10.01	10.69	10.78
31	7.89	---	8.85	9.27	---	8.36	---	9.57	---	10.08	10.74	---

WTR YR 2001 MEAN 9.25 HIGH 6.64 LOW 10.78

BRUNSWICK COUNTY--Continued

335629078115406 Local number, NC-181; DENR Sunset Harbor Research Station well GG34s6; County number, BR-079





BRUNSWICK COUNTY--Continued

335629078115407. Local number, NC-182; DENR Sunset Harbor Research Station well GG34s7; County number, BR-080.
LOCATION.--Lat 33°56'29.05", long 78°11'56.22", North American Datum of 1983, Hydrologic Unit 03040207, 1 mi north of Sunset Harbor, and 4.3 mi south of State Highway 211 on Secondary Road 1112. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial Aquifer.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 15 ft, diameter 4 in., cased to 10 ft, screened interval from 10 to 15 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 28.06 ft above sea level (levels by DENR). Measuring point: Top of collar on casing, 2.65 ft above land-surface datum.
REMARKS.--Well is part of Brunswick County Groundwater project.
PERIOD OF RECORD.--January 1987 to September 1997, October 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.19 ft above land-surface datum, Sept. 12, 13, 1996; lowest water level recorded, 9.80 ft below land-surface datum, Jan. 15, 16, 1991.

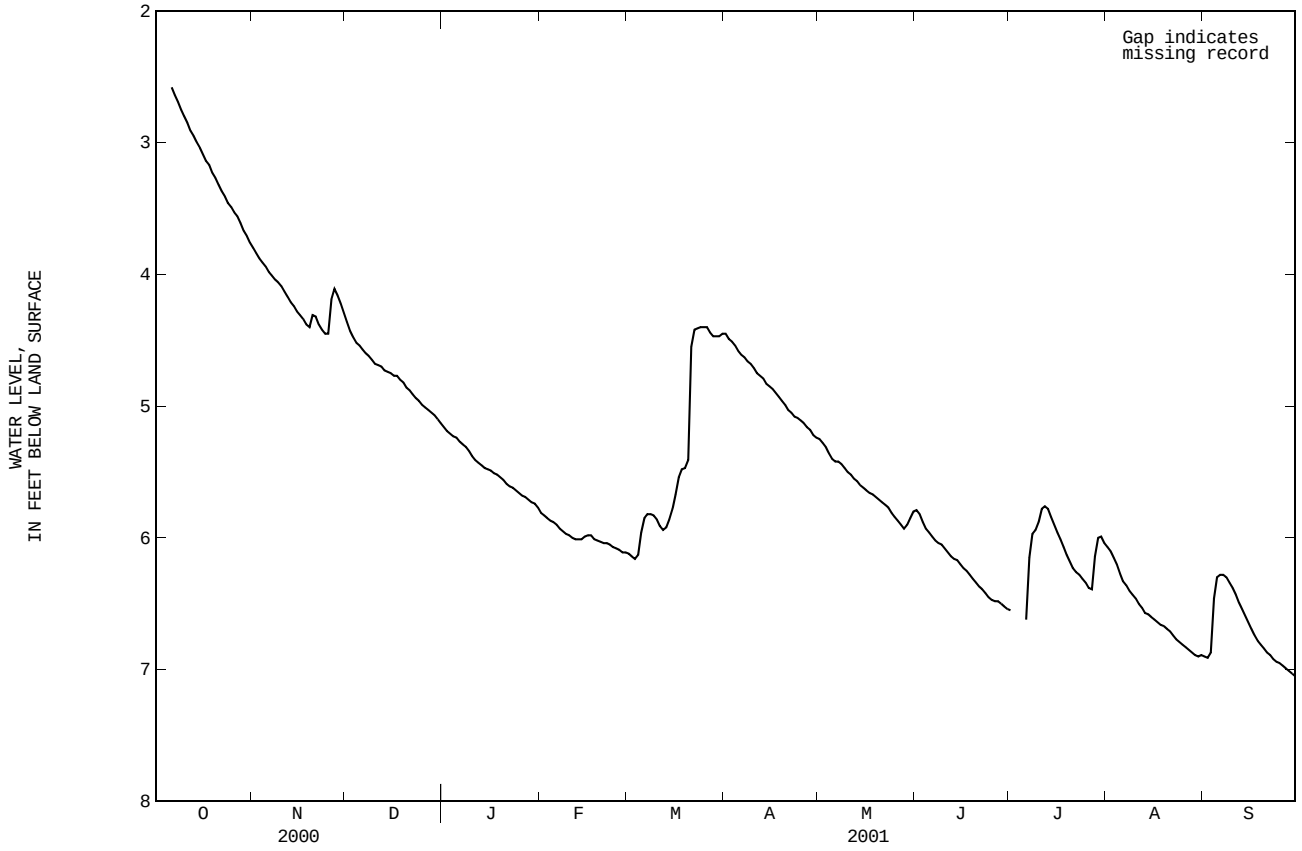
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

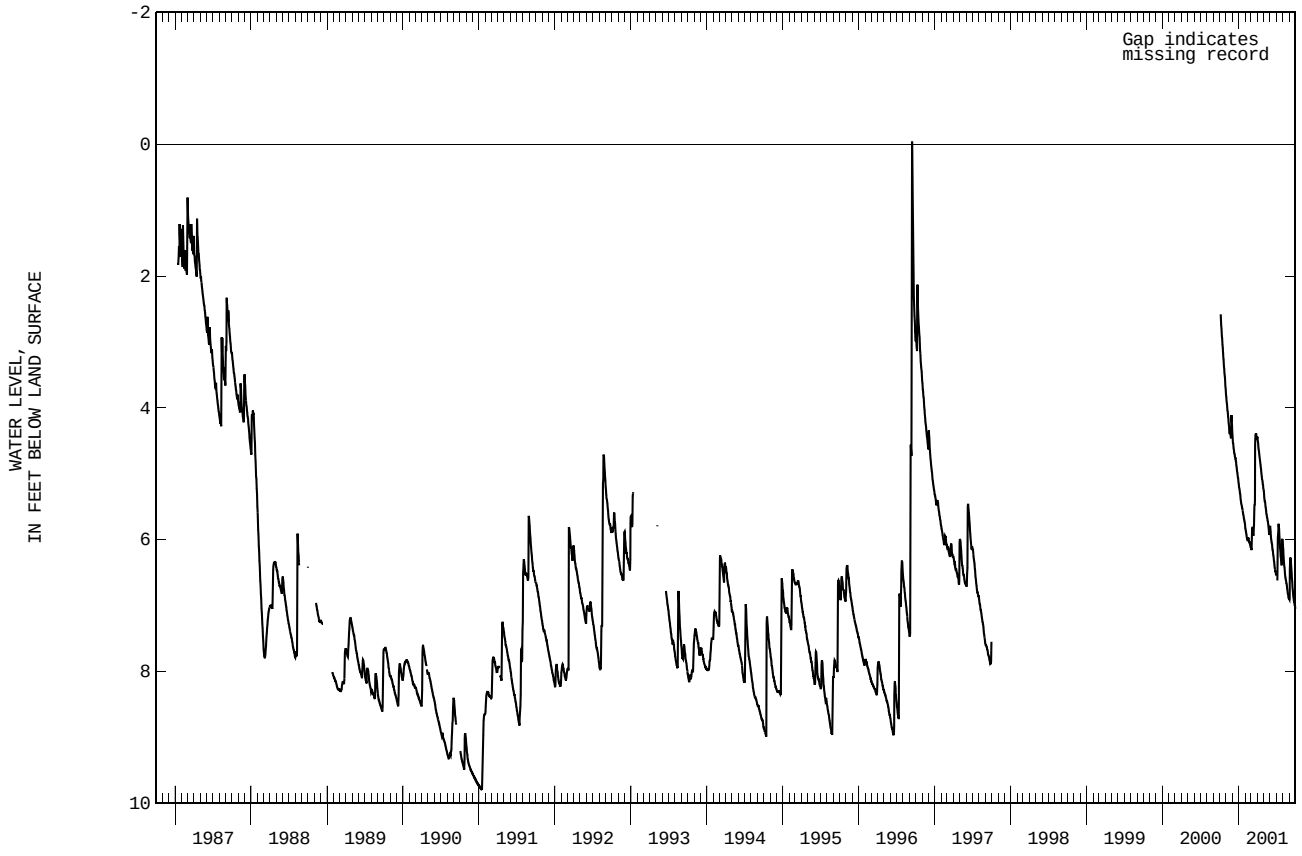
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	3.80	4.36	5.16	5.81	6.12	4.45	5.25	5.79	6.55	6.07	6.90
2	---	3.84	4.43	5.19	5.83	6.14	4.49	5.28	5.82	---	6.10	6.91
3	---	3.88	4.48	5.21	5.85	6.16	4.51	5.31	5.88	---	6.15	6.87
4	---	3.91	4.52	5.23	5.87	6.13	4.54	5.36	5.93	---	6.20	6.46
5	---	3.94	4.54	5.24	5.88	5.96	4.58	5.40	5.96	---	6.27	6.30
6	2.58	3.98	4.57	5.27	5.90	5.85	4.61	5.42	5.99	6.62	6.33	6.28
7	2.64	4.01	4.60	5.29	5.93	5.82	4.63	5.42	6.02	6.15	6.36	6.28
8	2.69	4.04	4.62	5.31	5.95	5.82	4.66	5.44	6.04	5.97	6.40	6.30
9	2.75	4.06	4.65	5.34	5.97	5.83	4.68	5.47	6.05	5.94	6.43	6.34
10	2.80	4.09	4.68	5.38	5.98	5.86	4.71	5.50	6.08	5.88	6.46	6.38
11	2.85	4.13	4.69	5.41	6.00	5.91	4.75	5.52	6.11	5.78	6.50	6.43
12	2.91	4.17	4.70	5.43	6.01	5.94	4.77	5.55	6.14	5.76	6.53	6.49
13	2.95	4.21	4.73	5.45	6.01	5.92	4.79	5.57	6.16	5.78	6.57	6.54
14	3.00	4.24	4.74	5.47	6.01	5.86	4.83	5.60	6.17	5.84	6.58	6.59
15	3.04	4.28	4.75	5.48	5.99	5.78	4.85	5.62	6.20	5.90	6.60	6.64
16	3.09	4.31	4.77	5.49	5.98	5.67	4.87	5.64	6.23	5.96	6.62	6.69
17	3.14	4.34	4.77	5.51	5.98	5.54	4.90	5.66	6.25	6.01	6.64	6.74
18	3.17	4.38	4.80	5.52	6.01	5.48	4.93	5.67	6.28	6.07	6.66	6.78
19	3.23	4.40	4.82	5.54	6.02	5.47	4.96	5.69	6.31	6.13	6.67	6.81
20	3.27	4.31	4.86	5.56	6.03	5.41	4.99	5.71	6.34	6.18	6.69	6.84
21	3.32	4.32	4.88	5.59	6.04	4.55	5.03	5.73	6.37	6.23	6.71	6.87
22	3.37	4.38	4.91	5.61	6.04	4.42	5.05	5.75	6.39	6.26	6.74	6.89
23	3.41	4.42	4.94	5.62	6.05	4.41	5.08	5.77	6.42	6.28	6.77	6.92
24	3.46	4.45	4.96	5.64	6.07	4.40	5.09	5.81	6.45	6.31	6.79	6.94
25	3.49	4.45	4.99	5.66	6.08	4.40	5.11	5.84	6.47	6.34	6.81	6.95
26	3.53	4.19	5.01	5.68	6.09	4.40	5.13	5.87	6.48	6.38	6.83	6.97
27	3.56	4.11	5.03	5.69	6.11	4.44	5.16	5.90	6.48	6.39	6.85	6.99
28	3.61	4.16	5.05	5.71	6.11	4.47	5.18	5.93	6.50	6.14	6.87	7.01
29	3.67	4.22	5.07	5.73	---	4.47	5.22	5.90	6.52	6.00	6.89	7.03
30	3.71	4.29	5.10	5.74	---	4.47	5.24	5.85	6.54	5.99	6.90	7.05
31	3.76	---	5.13	5.77	---	4.45	---	5.80	---	6.04	6.89	---

WTR YR 2001 MEAN 5.44 HIGH 2.58 LOW 7.05

BRUNSWICK COUNTY--Continued

335629078115407 Local number, NC-182; DENR Sunset Harbor Research Station well GG34s7; County number, BR-080





BRUNSWICK COUNTY--Continued

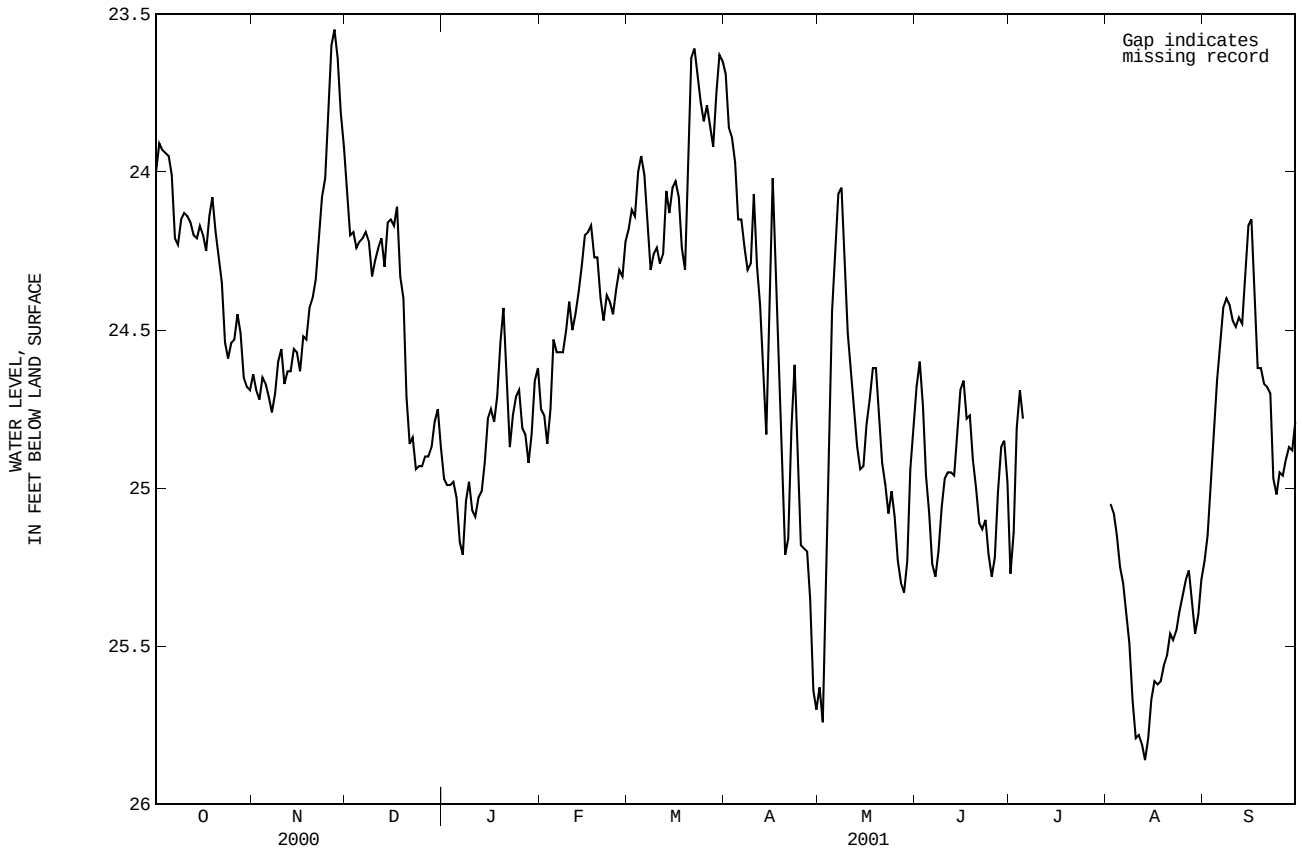
335631078003604. Local number, NC-197; DENR Southport Research Station well GG32t4; County number, BR-081.
LOCATION.--Lat 33°56'31.42", long 78°00'35.08", North American Datum of 1983, Hydrologic Unit 03030005, north of Southport 0.45 mi northeast of Secondary Road 1526 on Secondary Road 1527. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--PeeDee aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 200 ft, diameter 6 in., cased to 93.5 ft, open hole from 93.5 to 200 ft; measured depth 199 ft, September 1997.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 28.08 ft above sea level. Measuring point: Top of casing, 1.17 ft above land-surface datum.
REMARKS.-- Well is part of areal-effects network.
PERIOD OF RECORD.--January 1970 to current year. Continuous record began October 1999.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.28 ft below land-surface datum, Mar. 8, 1988; lowest water level measured, 31.03 ft below land-surface datum, Jan. 20, 1970.

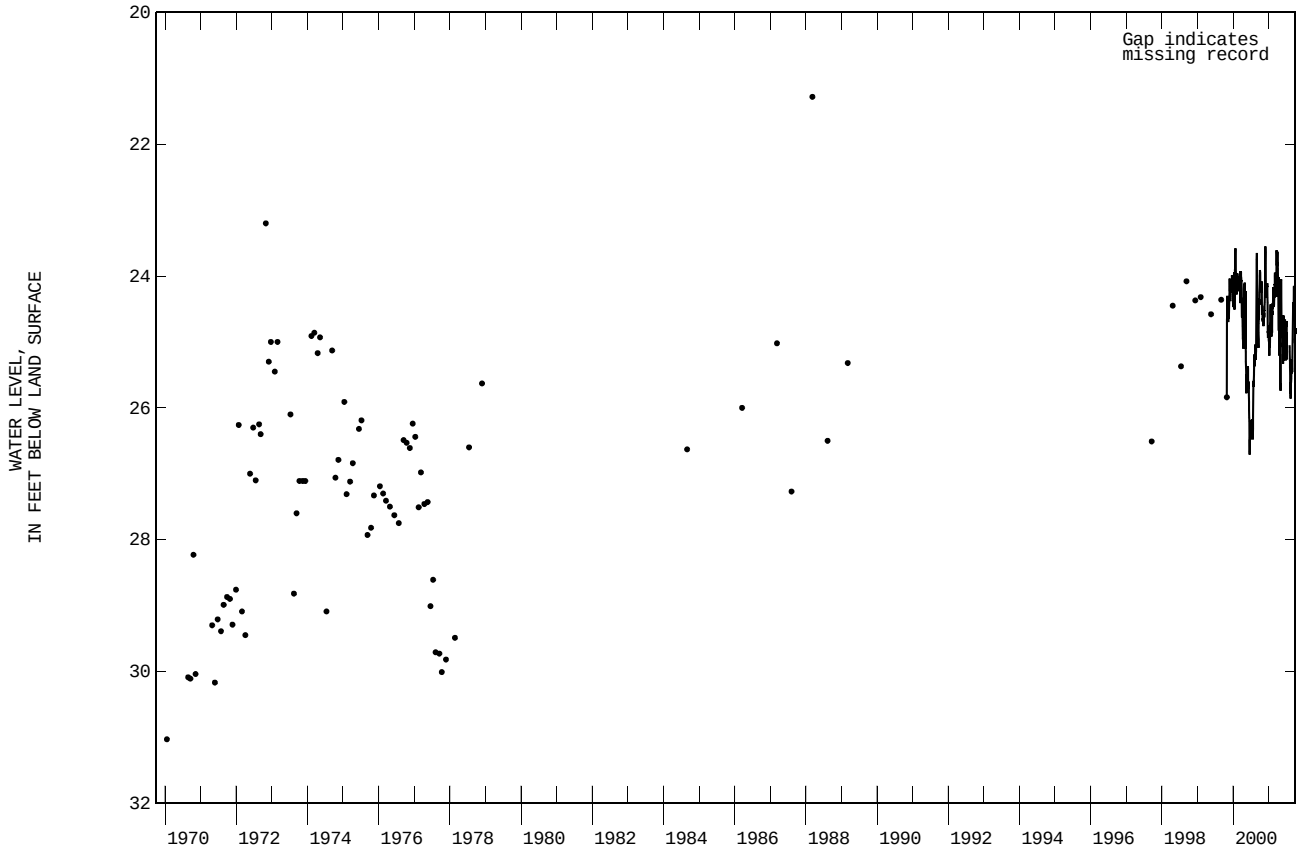
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.00	24.64	24.06	24.97	24.75	24.18	23.69	25.63	24.68	25.27	---	25.23
2	23.91	24.69	24.20	24.99	24.77	24.12	23.86	25.74	24.60	25.14	25.05	25.15
3	23.93	24.72	24.19	24.99	24.86	24.14	23.89	25.47	24.74	24.81	25.08	25.00
4	23.94	24.65	24.24	24.98	24.75	24.00	23.97	24.92	24.96	24.69	25.15	24.83
5	23.95	24.67	24.22	25.03	24.53	23.95	24.15	24.44	25.08	24.78	25.25	24.66
6	24.01	24.71	24.21	25.17	24.57	24.01	24.15	24.23	25.24	---	25.30	24.54
7	24.21	24.76	24.19	25.21	24.57	24.16	24.24	24.07	25.28	---	25.39	24.43
8	24.23	24.70	24.22	25.04	24.57	24.31	24.31	24.05	25.20	---	25.49	24.40
9	24.15	24.60	24.33	24.98	24.50	24.26	24.29	24.32	25.06	---	25.67	24.42
10	24.13	24.56	24.28	25.07	24.41	24.24	24.07	24.51	24.97	---	25.79	24.47
11	24.14	24.67	24.24	25.09	24.50	24.29	24.30	24.65	24.95	---	25.78	24.49
12	24.16	24.63	24.21	25.03	24.45	24.26	24.42	24.76	24.95	---	25.81	24.46
13	24.20	24.63	24.30	25.01	24.38	24.06	24.65	24.87	24.96	---	25.86	24.48
14	24.21	24.56	24.16	24.92	24.30	24.13	24.83	24.94	24.83	---	25.79	24.32
15	24.17	24.57	24.15	24.78	24.20	24.05	24.39	24.93	24.69	---	25.67	24.17
16	24.20	24.63	24.17	24.75	24.19	24.03	24.02	24.80	24.66	---	25.61	24.15
17	24.25	24.52	24.11	24.79	24.17	24.08	24.39	24.72	24.78	---	25.62	24.40
18	24.14	24.53	24.33	24.71	24.27	24.24	24.69	24.62	24.77	---	25.61	24.62
19	24.08	24.43	24.40	24.54	24.27	24.31	24.95	24.62	24.91	---	25.56	24.62
20	24.19	24.40	24.71	24.43	24.40	24.05	25.21	24.76	25.00	---	25.53	24.67
21	24.27	24.34	24.86	24.64	24.47	23.64	25.16	24.92	25.11	---	25.46	24.68
22	24.35	24.20	24.84	24.87	24.39	23.61	24.81	24.99	25.13	---	25.48	24.70
23	24.54	24.08	24.94	24.77	24.41	23.69	24.61	25.08	25.10	---	25.45	24.97
24	24.59	24.02	24.93	24.71	24.45	23.78	24.92	25.01	25.21	---	25.39	25.02
25	24.54	23.80	24.93	24.69	24.37	23.84	25.18	25.09	25.28	---	25.34	24.95
26	24.53	23.60	24.90	24.81	24.31	23.79	25.19	25.23	25.22	---	25.29	24.96
27	24.45	23.55	24.90	24.83	24.33	23.85	25.20	25.30	25.01	---	25.26	24.91
28	24.51	23.64	24.87	24.92	24.22	23.92	25.35	25.33	24.87	---	25.37	24.87
29	24.65	23.81	24.79	24.83	---	23.75	25.64	25.23	24.85	---	25.46	24.88
30	24.68	23.92	24.75	24.66	---	23.63	25.70	24.94	24.98	---	25.40	24.79
31	24.69	---	24.87	24.62	---	23.65	---	24.80	---	---	25.29	---
MEAN	24.26	24.37	24.47	24.87	24.44	24.00	24.61	24.87	24.97	24.94	25.47	24.67
MAX	24.69	24.76	24.94	25.21	24.86	24.31	25.70	25.74	25.28	25.27	25.86	25.23
MIN	23.91	23.55	24.06	24.43	24.17	23.61	23.69	24.05	24.60	24.69	25.05	24.15

BRUNSWICK COUNTY--Continued

335631078003604 Local number, NC-197; DENR Southport Research Station well GG32t4; County number, BR-081





BRUNSWICK COUNTY--Continued

335631078003605. Local number, NC-198; DENR Southport Research Station well GG32t5; County number, BR-082.
LOCATION.--Lat 33°56'31.42", long 78°00'35.08", North American Datum of 1983, Hydrologic Unit 03030005, north of Southport 0.45 miles northeast of Secondary Road 1526 on Secondary Road 1527. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer of late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 74 ft, diameter 4 in., cased to 64 ft, screened from 64 to 74 ft; measured depth 72.0 ft, September 1997.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 28.26 ft above sea level. Measuring point: Top of casing, 2.20 ft above land-surface datum, revised from 0.00, Oct. 29, 1999.
REMARKS.-- Well is part of induced-effects network.
PERIOD OF RECORD.--January 1970 to current year. Continuous record began November 1999.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 20.68 ft below land-surface datum, Nov. 11 1999; lowest water level measured, 30.30 ft below land-surface datum, Aug. 26, 1970.

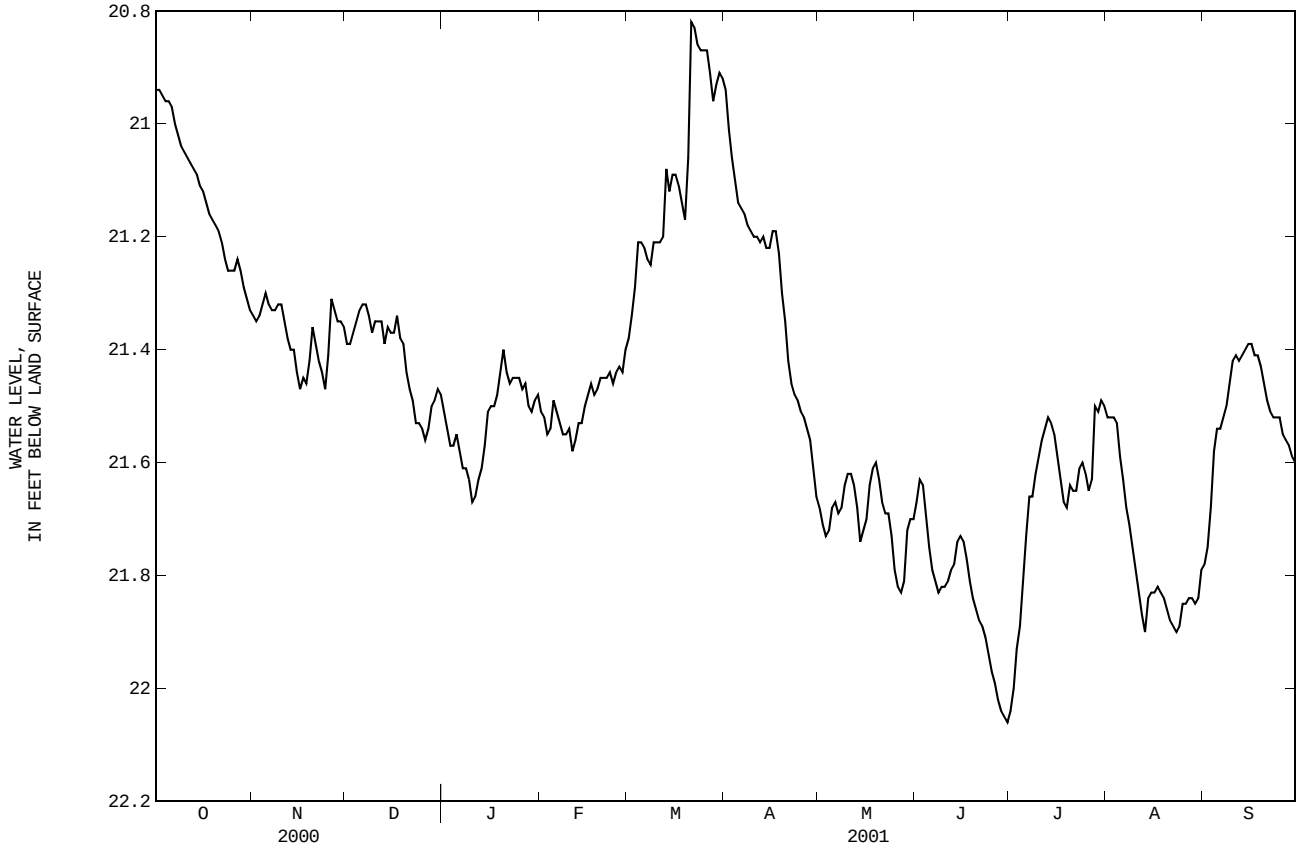
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

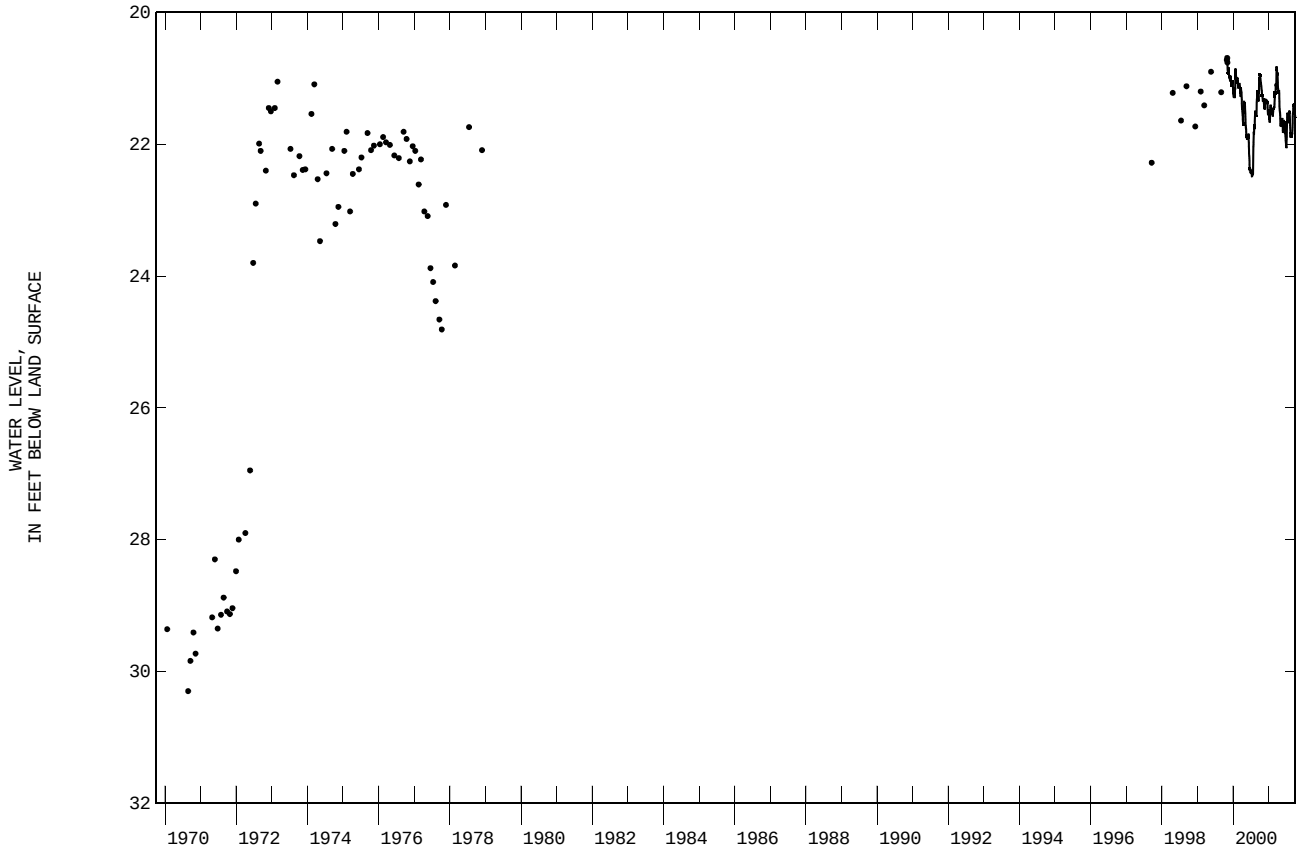
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.94	21.34	21.39	21.51	21.51	21.38	20.94	21.68	21.67	22.04	21.52	21.78
2	20.94	21.35	21.39	21.54	21.52	21.34	21.01	21.71	21.63	22.00	21.52	21.75
3	20.95	21.34	21.37	21.57	21.55	21.29	21.06	21.73	21.64	21.93	21.52	21.68
4	20.96	21.32	21.35	21.57	21.54	21.21	21.10	21.72	21.69	21.89	21.53	21.58
5	20.96	21.30	21.33	21.55	21.49	21.21	21.14	21.68	21.75	21.82	21.59	21.54
6	20.97	21.32	21.32	21.58	21.51	21.22	21.15	21.67	21.79	21.73	21.63	21.54
7	21.00	21.33	21.32	21.61	21.53	21.24	21.16	21.69	21.81	21.66	21.68	21.52
8	21.02	21.33	21.34	21.61	21.55	21.25	21.18	21.68	21.83	21.66	21.71	21.50
9	21.04	21.32	21.37	21.63	21.55	21.21	21.19	21.64	21.82	21.62	21.75	21.46
10	21.05	21.32	21.35	21.67	21.54	21.21	21.20	21.62	21.82	21.59	21.79	21.42
11	21.06	21.35	21.35	21.66	21.58	21.21	21.20	21.62	21.81	21.56	21.83	21.41
12	21.07	21.38	21.35	21.63	21.56	21.20	21.21	21.64	21.79	21.54	21.87	21.42
13	21.08	21.40	21.39	21.61	21.53	21.08	21.20	21.68	21.78	21.52	21.90	21.41
14	21.09	21.40	21.36	21.57	21.53	21.12	21.22	21.74	21.74	21.53	21.84	21.40
15	21.11	21.44	21.37	21.51	21.50	21.09	21.22	21.72	21.73	21.55	21.83	21.39
16	21.12	21.47	21.37	21.50	21.48	21.09	21.19	21.70	21.74	21.59	21.83	21.39
17	21.14	21.45	21.34	21.50	21.46	21.11	21.19	21.64	21.77	21.63	21.82	21.41
18	21.16	21.46	21.38	21.48	21.48	21.14	21.23	21.61	21.81	21.67	21.83	21.41
19	21.17	21.42	21.39	21.44	21.47	21.17	21.30	21.60	21.84	21.68	21.84	21.43
20	21.18	21.36	21.44	21.40	21.45	21.06	21.35	21.63	21.86	21.64	21.86	21.46
21	21.19	21.39	21.47	21.44	21.45	20.82	21.42	21.67	21.88	21.65	21.88	21.49
22	21.21	21.42	21.49	21.46	21.45	20.83	21.46	21.69	21.89	21.65	21.89	21.51
23	21.24	21.44	21.53	21.45	21.44	20.86	21.48	21.69	21.91	21.61	21.90	21.52
24	21.26	21.47	21.53	21.45	21.46	20.87	21.49	21.73	21.94	21.60	21.89	21.52
25	21.26	21.41	21.54	21.45	21.44	20.87	21.51	21.79	21.97	21.62	21.85	21.52
26	21.26	21.31	21.56	21.47	21.43	20.87	21.52	21.82	21.99	21.65	21.85	21.55
27	21.24	21.33	21.54	21.46	21.44	20.91	21.54	21.83	22.02	21.63	21.84	21.56
28	21.26	21.35	21.50	21.50	21.40	20.96	21.56	21.81	22.04	21.50	21.84	21.57
29	21.29	21.35	21.49	21.51	---	20.93	21.61	21.72	22.05	21.51	21.85	21.59
30	21.31	21.36	21.47	21.49	---	20.91	21.66	21.70	22.06	21.49	21.84	21.60
31	21.33	---	21.48	21.48	---	20.92	---	21.70	---	21.50	21.79	---

WTR YR 2001 MEAN 21.48 HIGH 20.82 LOW 22.06

BRUNSWICK COUNTY--Continued

335631078003605 Local number, NC-198; DENR Southport Research Station well GG32t5; County number, BR-082





BRUNSWICK COUNTY--Continued

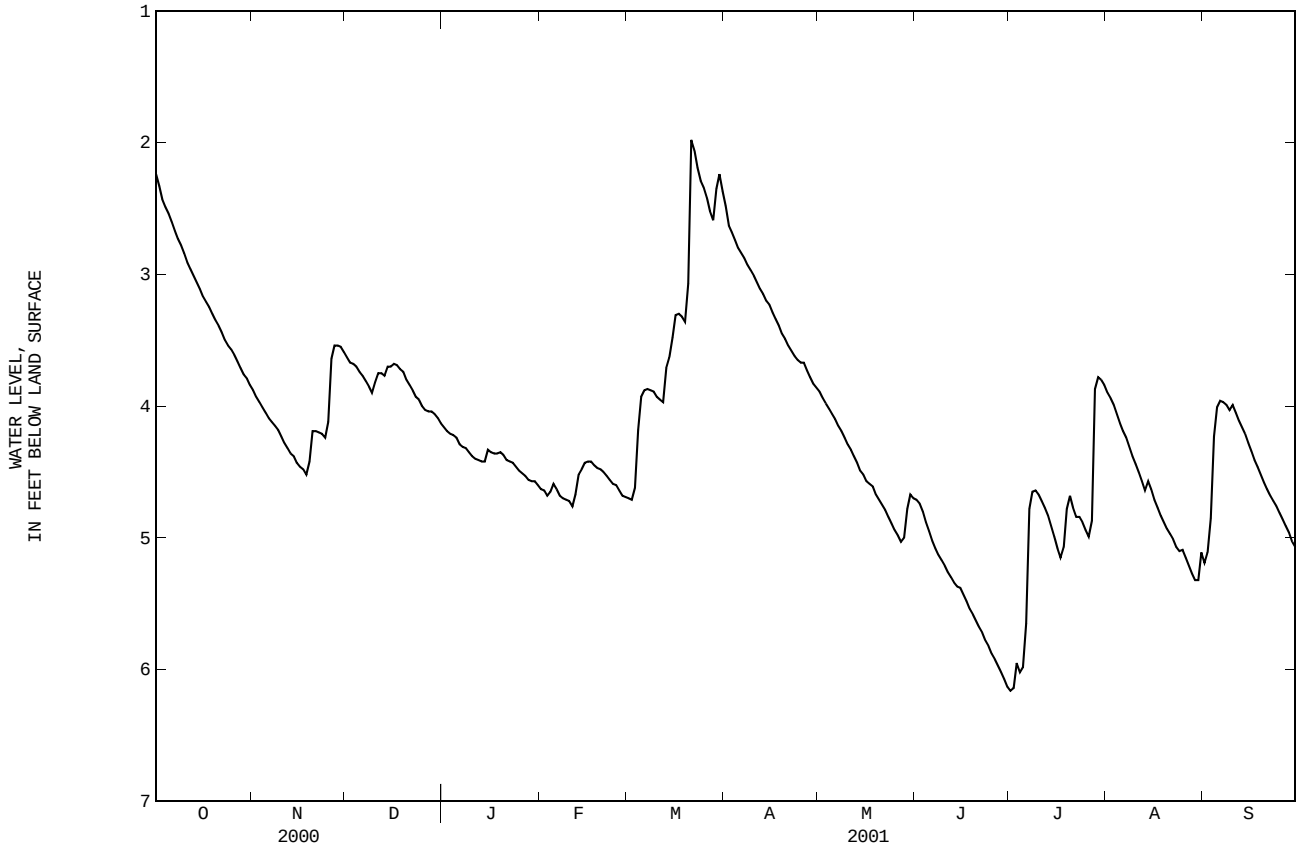
335631078003606. Local number, NC-199; DENR Southport Research Station well GG32t6; County number, BR-083.
LOCATION.--Lat 33°56'31.42", long 78°00'35.08", North American Datum of 1983, Hydrologic Unit 03030005, north of Southport, 0.45 mi northeast of Secondary Road 1526 on Secondary Road 1527. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 21 ft, diameter 4 in., cased to 11 ft, screened from 11 to 21 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 28.00 ft above sea level. Measuring point: Top of instrument shelf, 1.27 ft above land-surface datum; revised from 0.00 ft above land-surface datum, Oct. 16, 1997.
REMARKS.-- Well is part of local-effects network.
PERIOD OF RECORD.--January 1970 to current year. Continuous record began October 1997.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.13 ft below land-surface datum, Sept. 16, 1999; lowest water level measured, 11.36 ft below land-surface datum, Oct. 10, 1977.

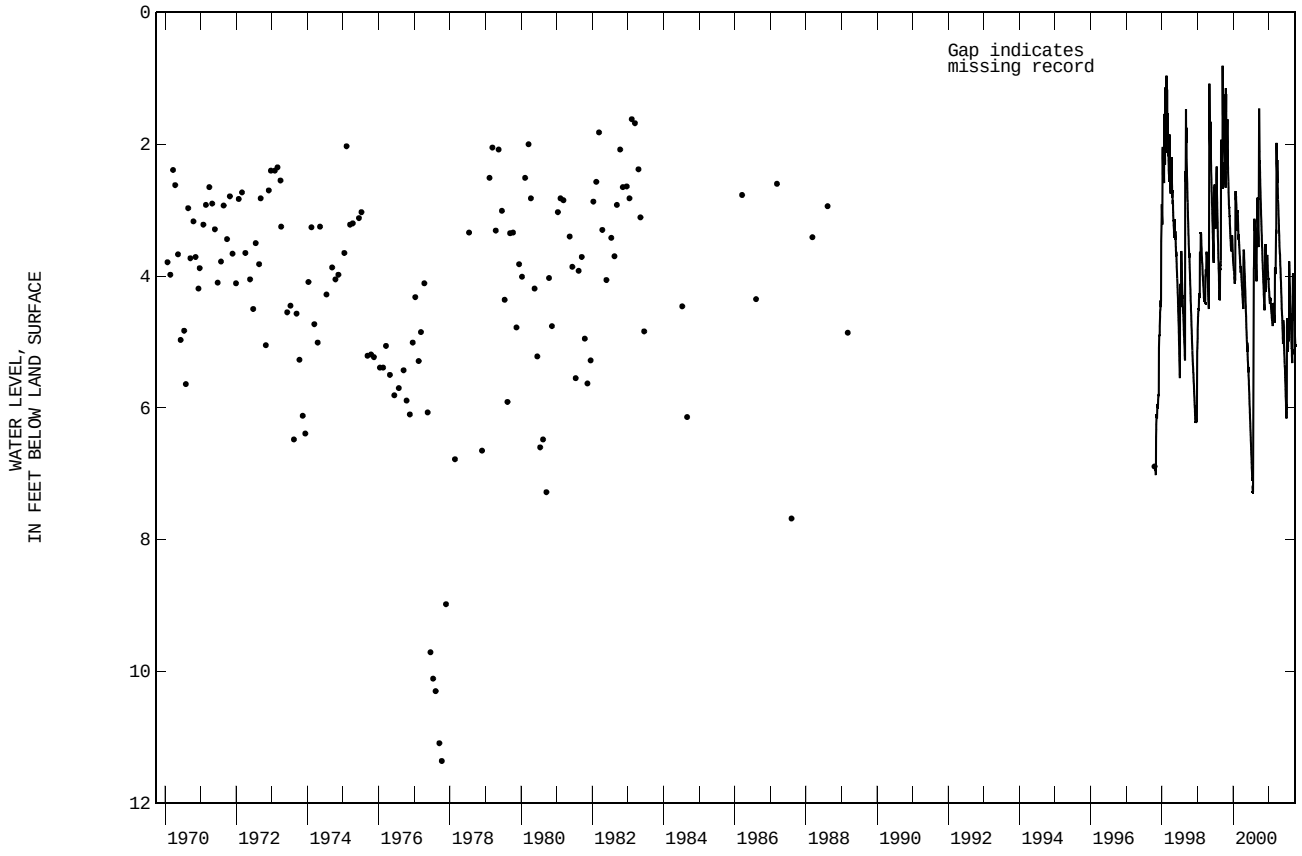
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.24	3.88	3.63	4.16	4.63	4.70	2.48	3.89	4.71	6.16	3.90	5.19
2	2.33	3.93	3.67	4.19	4.64	4.71	2.63	3.94	4.74	6.14	3.94	5.11
3	2.43	3.97	3.68	4.21	4.68	4.62	2.68	3.98	4.80	5.95	3.99	4.85
4	2.49	4.01	3.70	4.22	4.65	4.18	2.74	4.02	4.88	6.02	4.06	4.23
5	2.54	4.05	3.74	4.24	4.59	3.93	2.80	4.06	4.95	5.98	4.13	4.01
6	2.60	4.09	3.77	4.29	4.63	3.88	2.84	4.10	5.02	5.65	4.19	3.96
7	2.67	4.12	3.81	4.31	4.68	3.87	2.88	4.15	5.08	4.78	4.24	3.97
8	2.73	4.15	3.85	4.32	4.70	3.88	2.93	4.19	5.13	4.65	4.31	3.99
9	2.78	4.18	3.90	4.35	4.71	3.89	2.97	4.24	5.17	4.64	4.38	4.03
10	2.84	4.23	3.82	4.38	4.72	3.93	3.01	4.29	5.21	4.67	4.44	3.99
11	2.91	4.28	3.75	4.40	4.76	3.95	3.06	4.33	5.26	4.72	4.50	4.05
12	2.96	4.32	3.75	4.41	4.67	3.97	3.11	4.38	5.30	4.77	4.57	4.11
13	3.01	4.36	3.77	4.42	4.52	3.71	3.15	4.43	5.34	4.83	4.64	4.16
14	3.06	4.38	3.70	4.42	4.48	3.63	3.20	4.49	5.37	4.91	4.57	4.21
15	3.11	4.43	3.70	4.33	4.43	3.48	3.23	4.52	5.38	4.99	4.63	4.28
16	3.17	4.46	3.68	4.35	4.42	3.31	3.29	4.57	5.43	5.08	4.71	4.34
17	3.21	4.48	3.69	4.36	4.42	3.30	3.34	4.59	5.48	5.15	4.77	4.41
18	3.25	4.52	3.72	4.36	4.45	3.32	3.39	4.61	5.54	5.07	4.83	4.46
19	3.30	4.42	3.74	4.35	4.47	3.36	3.45	4.67	5.58	4.78	4.88	4.52
20	3.35	4.19	3.80	4.37	4.48	3.07	3.49	4.71	5.63	4.68	4.93	4.58
21	3.39	4.19	3.84	4.41	4.50	1.98	3.54	4.75	5.68	4.77	4.97	4.63
22	3.44	4.20	3.88	4.42	4.53	2.06	3.58	4.79	5.72	4.84	5.01	4.68
23	3.50	4.21	3.93	4.43	4.56	2.19	3.62	4.84	5.78	4.84	5.07	4.72
24	3.54	4.24	3.95	4.46	4.59	2.29	3.65	4.89	5.82	4.88	5.10	4.76
25	3.57	4.12	4.00	4.49	4.60	2.34	3.67	4.94	5.88	4.94	5.09	4.81
26	3.61	3.64	4.03	4.51	4.64	2.42	3.67	4.98	5.92	4.99	5.15	4.86
27	3.66	3.54	4.04	4.53	4.68	2.52	3.73	5.03	5.97	4.87	5.21	4.91
28	3.71	3.54	4.04	4.56	4.69	2.59	3.78	5.00	6.02	3.87	5.27	4.96
29	3.76	3.55	4.06	4.57	---	2.35	3.83	4.78	6.07	3.78	5.32	5.03
30	3.79	3.59	4.09	4.57	---	2.24	3.86	4.67	6.13	3.80	5.32	5.07
31	3.84	---	4.13	4.60	---	2.37	---	4.70	---	3.84	5.11	---

WTR YR 2001 MEAN 4.22 HIGH 1.98 LOW 6.16

335631078003606 Local number, NC-199; DENR Southport Research Station well GG32t6; County number, BR-083





CARTERET COUNTY

344323076451301. Local number, NC-139; DENR Camp Glenn Research Station well X17j5; County name, CT-153.
LOCATION.--Lat 34°43'23", long 76°45'13", Hydrologic Unit 03020106, on west edge of Morehead City, and south of U.S. Highway 70 at DENR Marine Fisheries Facility on north shore of Bogue Sound. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 238 ft, diameter 4 in., cased to 180 ft, open hole to 191 ft, hole collapsed from 191 to 238 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 30-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 8.72 ft above sea level (levels by DENR). Measuring point: Top of collar on casing, 1.73 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.23 ft below land-surface datum, Dec. 7, 1976; lowest water level recorded, 14.90 ft below land-surface datum, Aug. 2, 1999.

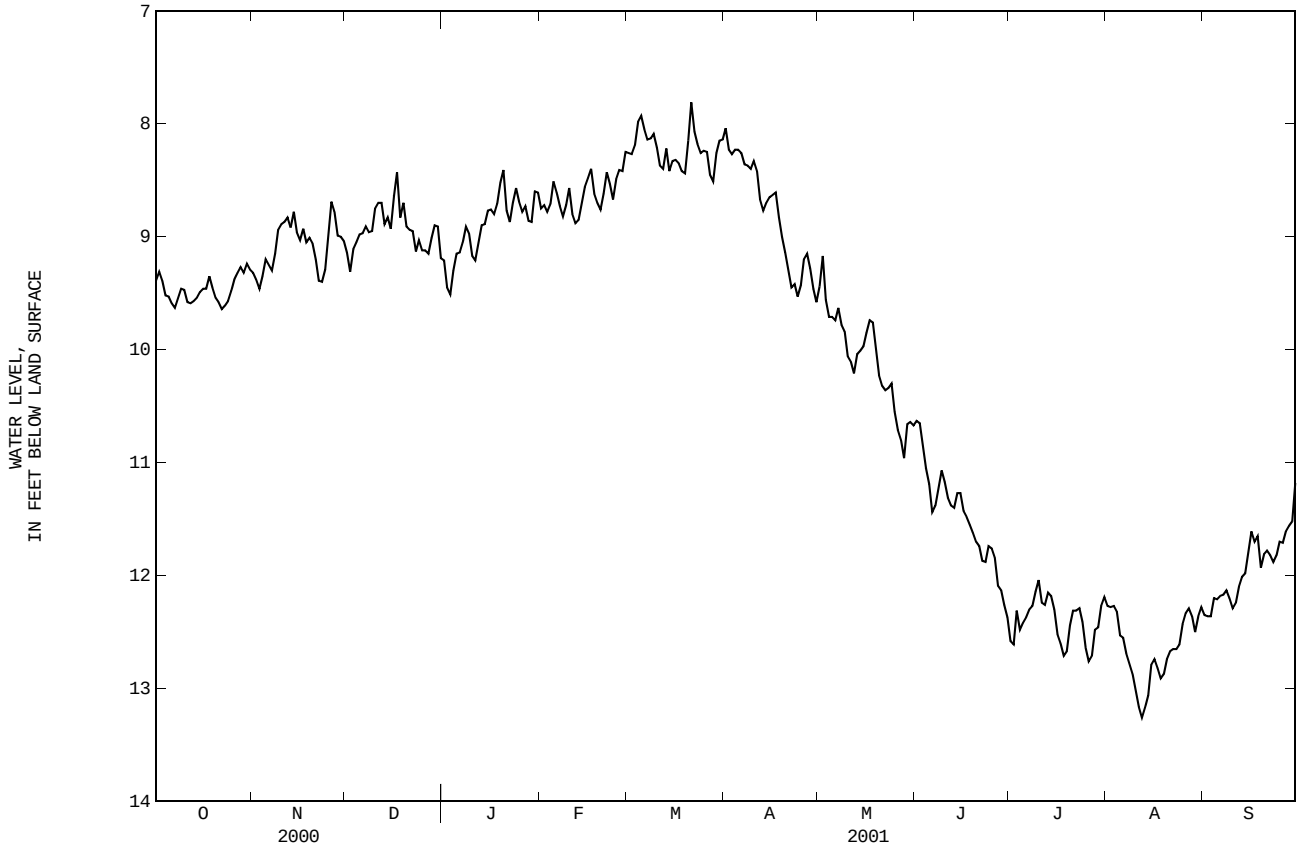
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

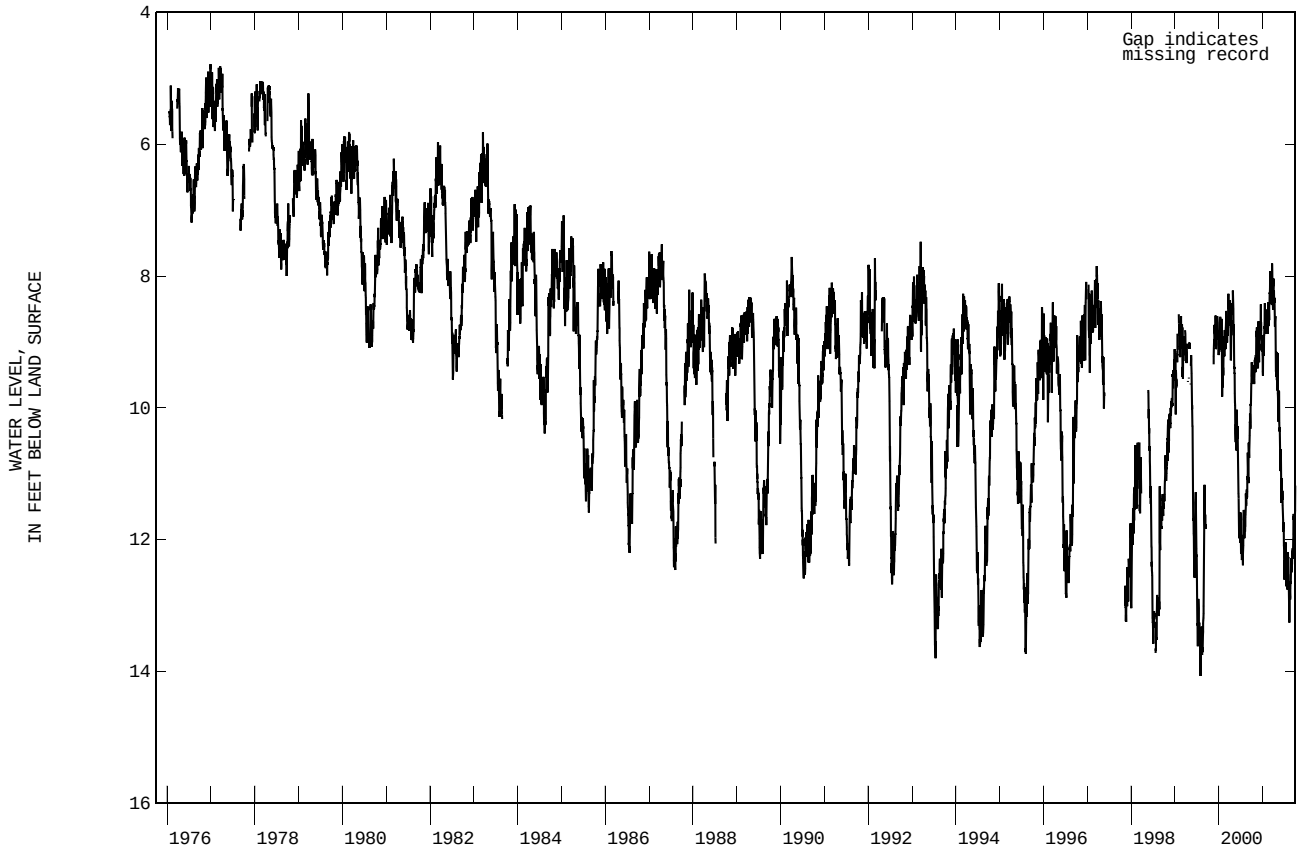
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.39	9.32	9.14	9.21	8.75	8.26	8.04	9.44	10.63	12.58	12.27	12.35
2	9.31	9.38	9.31	9.45	8.72	8.27	8.23	9.17	10.65	12.61	12.28	12.36
3	9.39	9.46	9.11	9.51	8.78	8.19	8.27	9.56	10.85	12.31	12.27	12.36
4	9.52	9.35	9.05	9.30	8.71	7.98	8.23	9.71	11.05	12.48	12.32	12.20
5	9.53	9.20	8.98	9.15	8.51	7.93	8.23	9.71	11.19	12.42	12.53	12.21
6	9.59	9.25	8.97	9.14	8.61	8.05	8.26	9.74	11.44	12.37	12.55	12.18
7	9.63	9.30	8.91	9.05	8.73	8.14	8.36	9.63	11.38	12.30	12.69	12.17
8	9.55	9.15	8.96	8.91	8.82	8.13	8.37	9.78	11.23	12.27	12.78	12.13
9	9.46	8.94	8.95	8.97	8.72	8.09	8.40	9.84	11.07	12.14	12.87	12.20
10	9.47	8.89	8.75	9.17	8.57	8.21	8.33	10.06	11.17	12.04	13.02	12.29
11	9.58	8.87	8.70	9.21	8.80	8.37	8.42	10.11	11.31	12.24	13.16	12.24
12	9.59	8.83	8.70	9.06	8.88	8.40	8.67	10.21	11.38	12.26	13.26	12.10
13	9.57	8.92	8.89	8.90	8.85	8.22	8.77	10.04	11.40	12.15	13.17	12.01
14	9.54	8.78	8.83	8.89	8.71	8.42	8.70	10.01	11.27	12.18	13.06	11.98
15	9.49	8.96	8.93	8.77	8.56	8.33	8.65	9.97	11.27	12.30	12.79	11.80
16	9.46	9.03	8.64	8.76	8.48	8.32	8.63	9.85	11.43	12.52	12.74	11.61
17	9.46	8.93	8.43	8.80	8.40	8.35	8.61	9.74	11.48	12.60	12.82	11.70
18	9.35	9.05	8.83	8.71	8.62	8.42	8.83	9.76	11.55	12.71	12.91	11.65
19	9.45	9.01	8.70	8.52	8.70	8.44	9.00	10.00	11.62	12.67	12.87	11.93
20	9.54	9.06	8.91	8.41	8.76	8.15	9.14	10.23	11.70	12.44	12.74	11.81
21	9.58	9.20	8.94	8.77	8.62	7.81	9.29	10.32	11.74	12.31	12.67	11.78
22	9.64	9.39	8.95	8.87	8.43	8.07	9.45	10.36	11.87	12.31	12.65	11.82
23	9.61	9.40	9.13	8.70	8.53	8.18	9.42	10.34	11.88	12.29	12.65	11.88
24	9.57	9.29	9.03	8.57	8.67	8.26	9.53	10.30	11.74	12.41	12.61	11.82
25	9.48	8.98	9.12	8.69	8.49	8.24	9.43	10.55	11.76	12.64	12.43	11.70
26	9.38	8.69	9.12	8.78	8.41	8.25	9.20	10.71	11.84	12.76	12.33	11.71
27	9.32	8.78	9.15	8.73	8.42	8.45	9.15	10.80	12.09	12.71	12.29	11.61
28	9.27	8.99	9.01	8.86	8.25	8.51	9.28	10.96	12.13	12.48	12.36	11.56
29	9.32	9.00	8.90	8.87	---	8.26	9.46	10.66	12.26	12.46	12.50	11.52
30	9.24	9.04	8.91	8.60	---	8.15	9.58	10.64	12.37	12.27	12.36	11.18
31	9.29	---	9.19	8.61	---	8.14	---	10.67	---	12.19	12.28	---

WTR YR 2001 MEAN 10.06 HIGH 7.81 LOW 13.26

CARTERET COUNTY--Continued

344323076451301 Local number, NC-139; DENR Camp Glenn Research Station well X17j5; County name, CT-153





CHEROKEE COUNTY

351117083545001. Local number, NC-191; County number, CE-028.
LOCATION.--Lat 35°11'17", long 83°54'50", Hydrologic Unit 06020002, 0.6 mi north of Marble, 100 ft west of Secondary Road 1377. Owner: Coats American Company.
AQUIFER.--Saprolite derived from schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 108.5 ft, diameter 4 in., cased to 53 ft, screened interval from 53 to 83 ft, sand filter pack from 40 to 83 ft, backfilled with saprolite from 83 to 108.5 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 1,720 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 0.45 ft above land-surface datum; revised from 1.15 ft above land surface August 1995.
REMARKS.--Well is part of terrane-effects network.
PERIOD OF RECORD.--September 1985 to current year. Continuous record began October 1989.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.26 ft below land-surface datum, Mar. 29, 1994; lowest water level recorded, 40.49 ft below land-surface datum, Jan. 2, 2001.

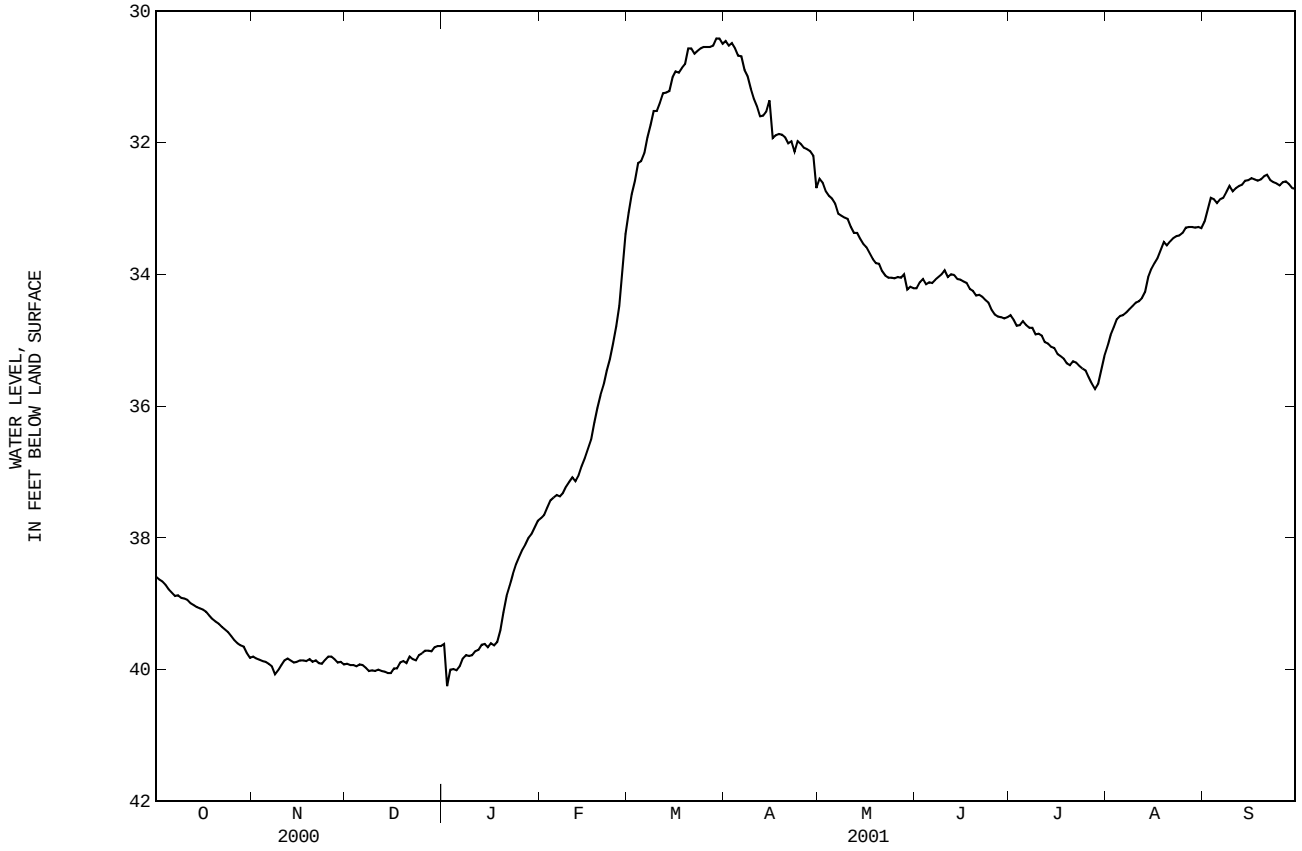
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

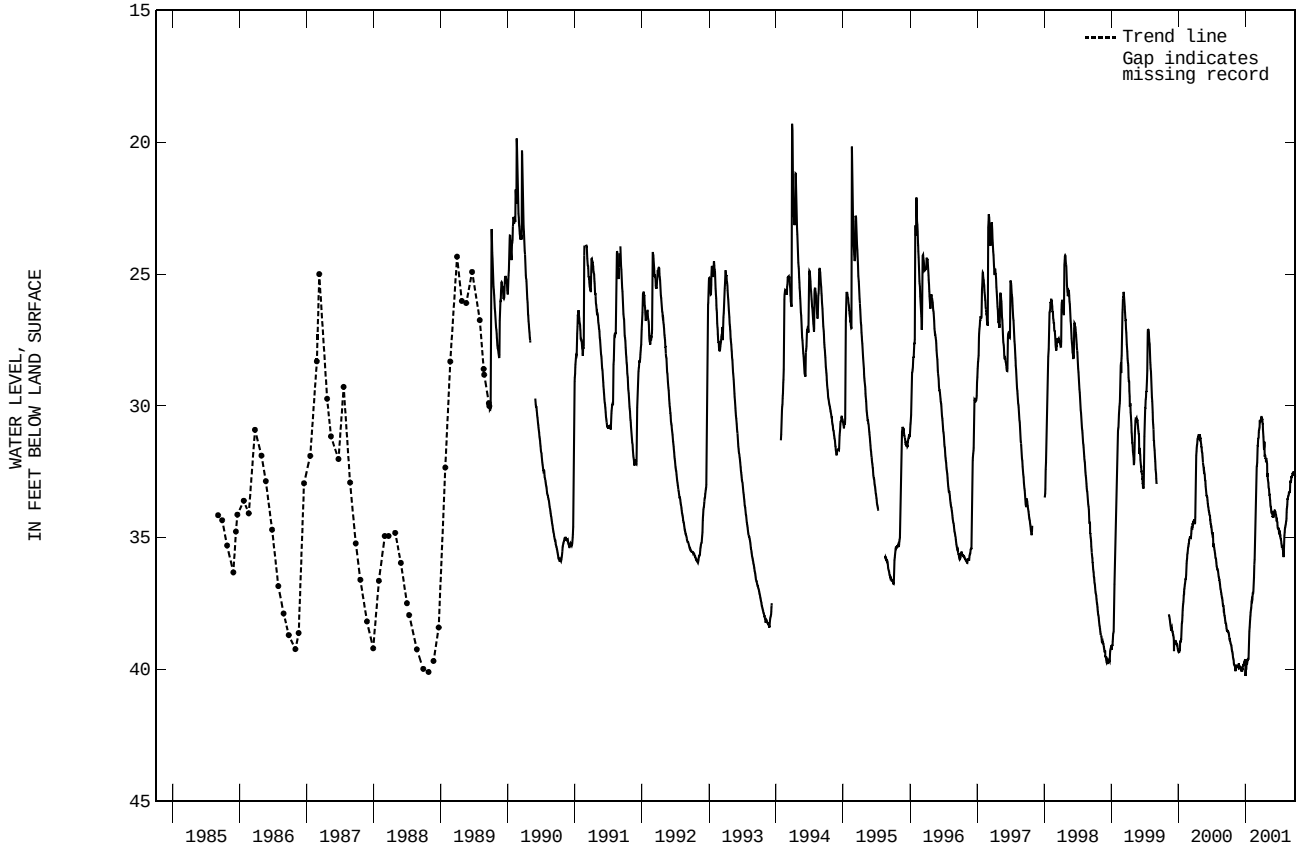
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.59	39.80	39.91	39.61	37.70	33.06	30.46	32.55	34.21	34.62	35.09	33.20
2	38.63	39.83	39.93	40.25	37.65	32.78	30.53	32.61	34.12	34.69	34.92	33.03
3	38.66	39.85	39.93	40.00	37.54	32.58	30.49	32.74	34.07	34.78	34.80	32.84
4	38.71	39.87	39.95	39.99	37.43	32.31	30.57	32.81	34.15	34.77	34.68	32.86
5	38.78	39.88	39.92	40.01	37.39	32.28	30.68	32.85	34.12	34.71	34.63	32.92
6	38.83	39.91	39.93	39.95	37.35	32.16	30.69	32.93	34.13	34.77	34.62	32.86
7	38.88	39.95	39.97	39.83	37.37	31.92	30.90	33.08	34.08	34.81	34.58	32.84
8	38.87	40.07	40.02	39.78	37.32	31.73	30.99	33.11	34.04	34.81	34.53	32.75
9	38.91	40.01	40.01	39.79	37.22	31.52	31.18	33.14	34.00	34.91	34.48	32.66
10	38.92	39.93	40.02	39.78	37.15	31.52	31.33	33.16	33.94	34.90	34.43	32.74
11	38.94	39.86	40.00	39.72	37.08	31.40	31.45	33.28	34.04	34.93	34.41	32.69
12	38.99	39.83	40.02	39.70	37.14	31.25	31.60	33.37	34.00	35.03	34.36	32.66
13	39.02	39.86	40.03	39.62	37.05	31.24	31.59	33.37	34.01	35.05	34.27	32.64
14	39.05	39.89	40.05	39.61	36.91	31.22	31.53	33.46	34.07	35.10	34.04	32.58
15	39.07	39.88	40.05	39.66	36.79	31.01	31.36	33.54	34.08	35.12	33.92	32.57
16	39.09	39.86	39.98	39.60	36.65	30.92	31.93	33.59	34.11	35.21	33.83	32.54
17	39.12	39.86	39.98	39.63	36.51	30.94	31.89	33.68	34.13	35.24	33.75	32.56
18	39.18	39.87	39.89	39.58	36.25	30.87	31.87	33.77	34.22	35.28	33.63	32.58
19	39.23	39.84	39.87	39.40	36.03	30.81	31.88	33.83	34.25	35.35	33.51	32.56
20	39.27	39.88	39.90	39.13	35.83	30.57	31.92	33.84	34.32	35.38	33.56	32.51
21	39.30	39.86	39.80	38.88	35.68	30.57	32.01	33.95	34.31	35.32	33.50	32.49
22	39.35	39.90	39.84	38.72	35.46	30.65	31.98	34.02	34.34	35.34	33.45	32.57
23	39.39	39.91	39.86	38.55	35.29	30.61	32.14	34.05	34.39	35.39	33.42	32.60
24	39.43	39.85	39.78	38.40	35.05	30.57	31.98	34.05	34.43	35.43	33.41	32.62
25	39.49	39.80	39.75	38.29	34.79	30.55	32.02	34.06	34.54	35.46	33.37	32.65
26	39.55	39.80	39.71	38.18	34.48	30.55	32.08	34.04	34.61	35.56	33.29	32.60
27	39.60	39.84	39.71	38.10	33.88	30.55	32.10	34.05	34.64	35.66	33.28	32.59
28	39.63	39.89	39.72	38.00	33.39	30.53	32.13	34.00	34.65	35.74	33.28	32.63
29	39.65	39.88	39.66	37.94	---	30.42	32.20	34.23	34.67	35.66	33.29	32.69
30	39.75	39.92	39.64	37.84	---	30.42	32.69	34.19	34.65	35.45	33.28	32.70
31	39.82	---	39.64	37.74	---	30.50	---	34.21	---	35.24	33.30	---

WTR YR 2001 MEAN 35.57 HIGH 30.42 LOW 40.25

CHEROKEE COUNTY--Continued

351117083545001 Local number, NC-191; County number, CE-028





CHEROKEE COUNTY--Continued

351121083545002. Local number, NC-192; County name, CE-029.
LOCATION.--Lat 35°11'21", long 83°54'50", Hydrologic Unit 06020002, 0.7 mi north of Marble, 75 ft west of Secondary Road 1377. Owner: Coats American Company.
AQUIFER.--Saprolite derived from schist of Precambrian age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 24 ft, diameter 4 in., cased to 14 ft, screened interval from 14 to 24 ft, sand filter pack from 6 to 24 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 1,710 ft above sea level (from topographic map). Measuring point: Three saw cuts in top of casing, 3.35 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--October 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.26 ft above land-surface datum, Feb. 26, 2001; lowest water level recorded, 14.44 ft below land-surface datum, Nov. 4, 5, 6, 1993.

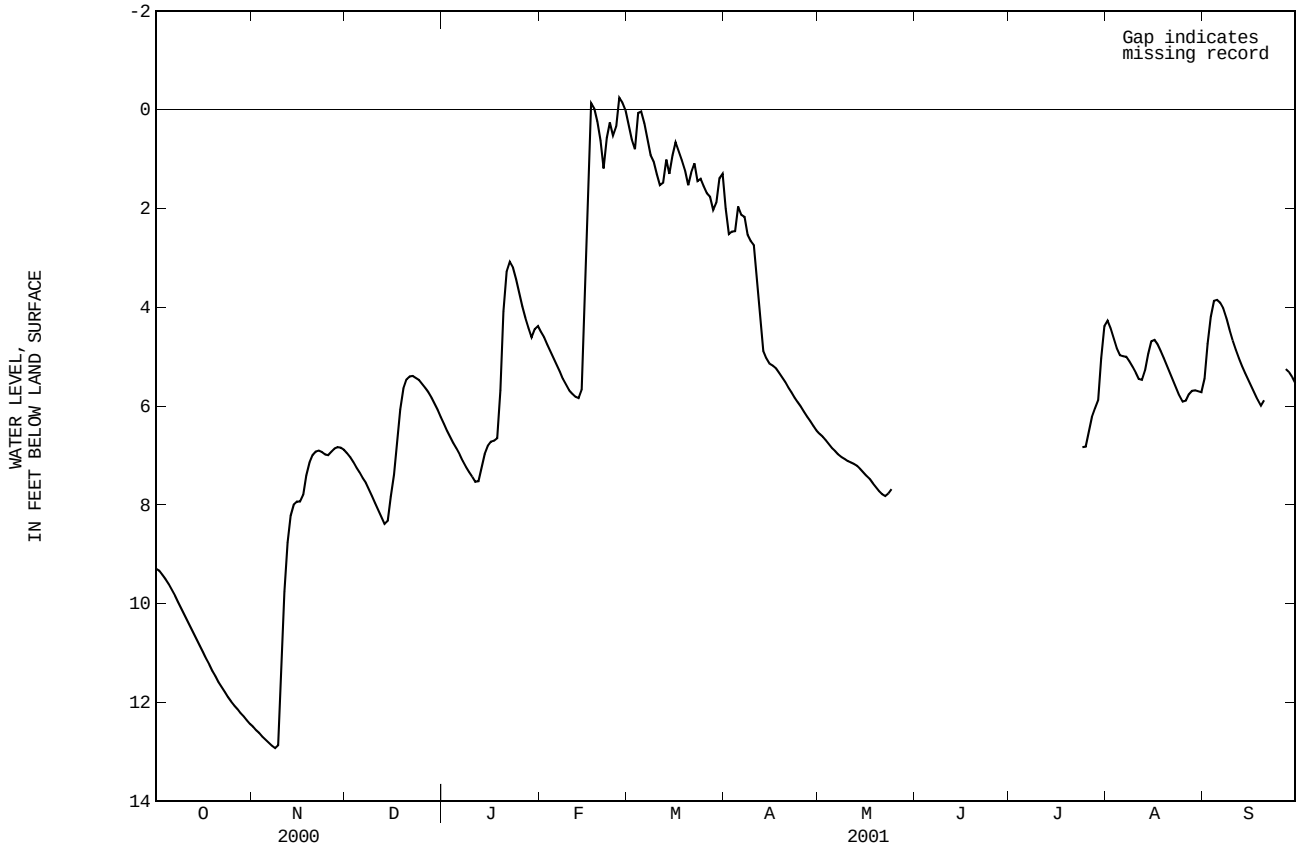
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

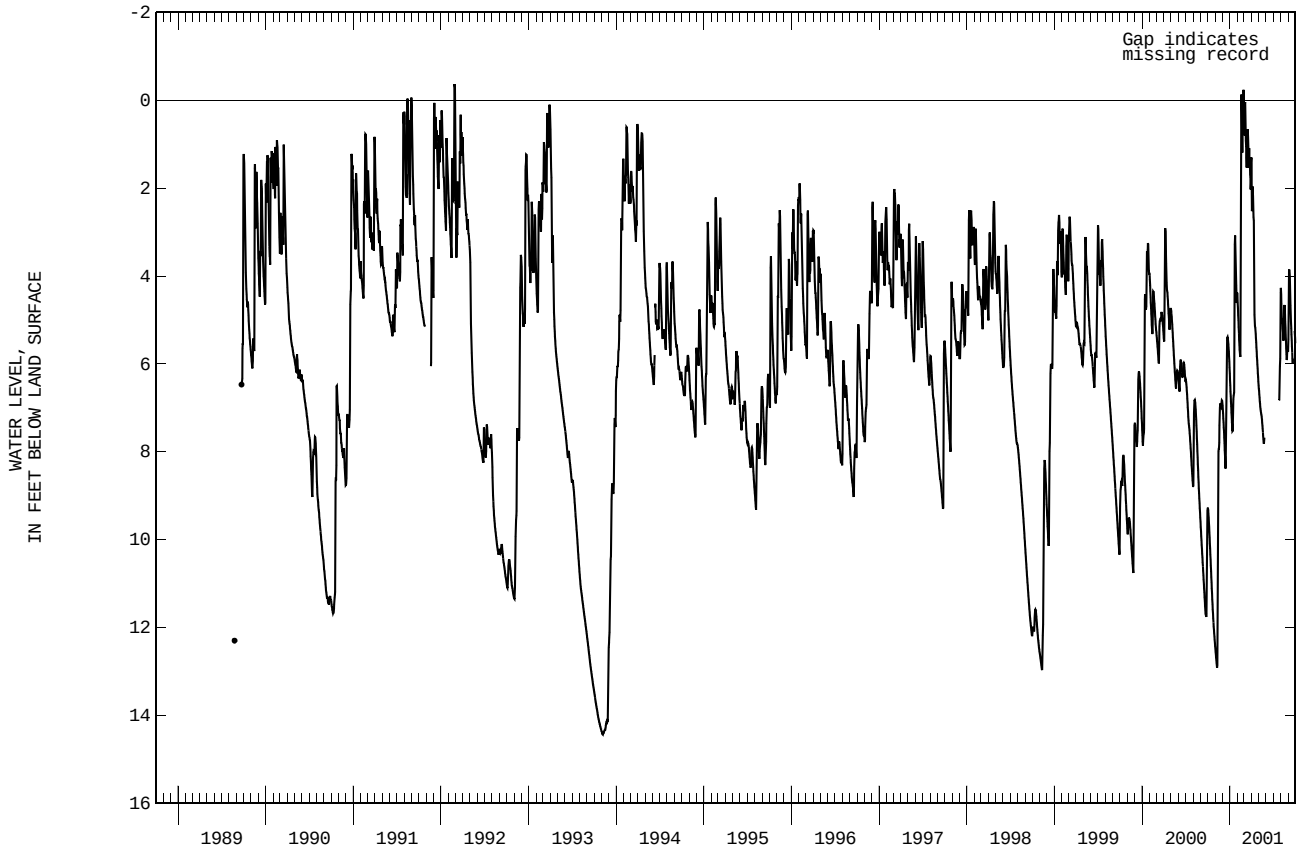
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.29	12.49	6.95	6.36	4.50	.31	2.00	6.56	---	---	4.27	5.44
2	9.33	12.56	7.03	6.50	4.61	.60	2.52	6.62	---	---	4.42	4.74
3	9.41	12.62	7.13	6.63	4.75	.80	2.47	6.69	---	---	4.63	4.19
4	9.50	12.69	7.24	6.75	4.89	.07	2.46	6.77	---	---	4.83	3.87
5	9.60	12.75	7.34	6.86	5.02	.04	1.96	6.85	---	---	4.97	3.85
6	9.71	12.81	7.45	6.98	5.16	.28	2.13	6.91	---	---	4.99	3.91
7	9.83	12.87	7.55	7.11	5.30	.60	2.17	6.98	---	---	5.00	4.02
8	9.96	12.92	7.68	7.23	5.45	.92	2.53	7.03	---	---	5.09	4.22
9	10.09	12.86	7.82	7.33	5.57	1.05	2.66	7.07	---	---	5.20	4.45
10	10.21	11.41	7.96	7.43	5.68	1.31	2.74	7.11	---	---	5.32	4.67
11	10.34	9.76	8.10	7.53	5.75	1.53	3.52	7.14	---	---	5.45	4.86
12	10.46	8.76	8.24	7.52	5.81	1.48	4.20	7.17	---	---	5.47	5.03
13	10.59	8.22	8.38	7.24	5.84	1.01	4.88	7.21	---	---	5.28	5.19
14	10.72	7.99	8.32	6.97	5.67	1.30	5.03	7.27	---	---	4.94	5.33
15	10.85	7.93	7.83	6.80	4.03	.92	5.14	7.34	---	---	4.69	5.47
16	10.98	7.93	7.39	6.72	1.53	.66	5.18	7.41	---	---	4.66	5.60
17	11.11	7.79	6.77	6.70	-.13	.84	5.23	7.47	---	---	4.75	5.74
18	11.23	7.40	6.07	6.65	-.02	1.02	5.32	7.56	---	---	4.88	5.87
19	11.36	7.14	5.64	5.68	.24	1.23	5.41	7.64	---	---	5.03	5.99
20	11.47	6.99	5.46	4.08	.63	1.53	5.51	7.72	---	---	5.18	5.88
21	11.59	6.92	5.40	3.28	1.19	1.27	5.62	7.78	---	---	5.34	---
22	11.69	6.90	5.39	3.08	.57	1.09	5.72	7.82	---	---	5.49	---
23	11.79	6.93	5.43	3.19	.26	1.45	5.83	7.77	---	---	5.64	---
24	11.89	6.98	5.47	3.43	.53	1.40	5.92	7.68	---	6.83	5.79	---
25	11.98	6.99	5.55	3.71	.34	1.55	6.01	---	---	6.82	5.91	---
26	12.06	6.92	5.63	3.98	-.24	1.69	6.11	---	---	6.53	5.89	---
27	12.13	6.86	5.72	4.21	-.14	1.76	6.21	---	---	6.22	5.76	5.25
28	12.21	6.83	5.83	4.42	.01	2.03	6.30	---	---	6.05	5.69	5.31
29	12.28	6.84	5.95	4.61	---	1.88	6.40	---	---	5.88	5.68	5.41
30	12.36	6.88	6.08	4.44	---	1.39	6.49	---	---	5.03	5.70	5.53
31	12.43	---	6.22	4.38	---	1.30	---	---	---	4.38	5.72	---

WTR YR 2001 MEAN 5.87 HIGH -.24 LOW 12.92

CHEROKEE COUNTY--Continued

351121083545002 Local number, NC-192; County name, CE-029



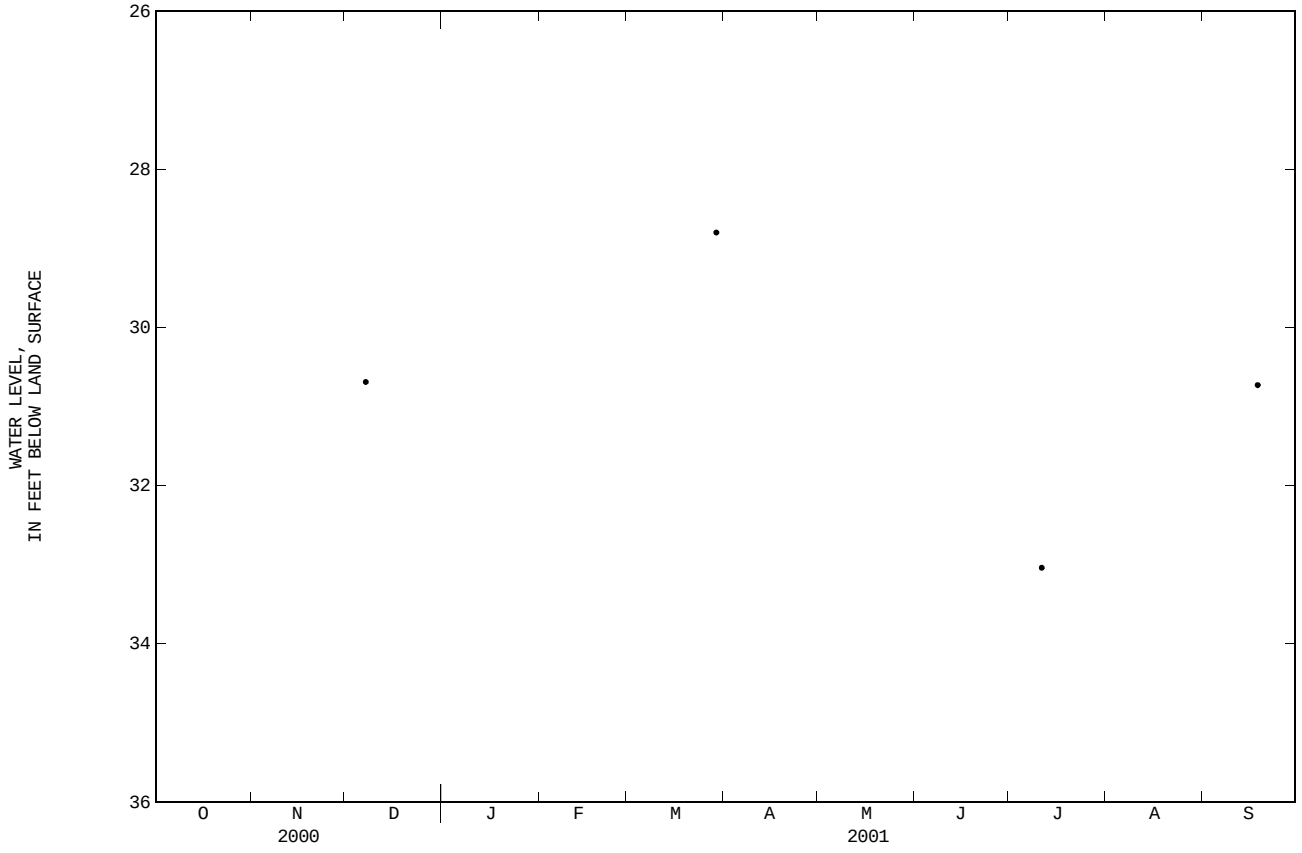


COLUMBUS COUNTY

342011078422903. County number, CO-086; Whiteville well 3.
LOCATION.--Lat 34°20'11.9", long 78°42'29.1", North American Datum of 1983, Hydrologic Unit 03040206, south of Park Avenue on Powell Boulevard in Whiteville. Owner: City of Whiteville.
AQUIFER.--Peedee and Black Creek aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 331 ft, diameter 10 in. to 255 ft, diameter 8 in. from 255 to 331 ft, screened intervals from 138 to 143 ft, 150 to 155 ft, 174 to 179 ft, 214 to 224 ft, and 249 to 255 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 78 ft above sea level (from topographic map). Measuring point: Top of 1-inch nipple in pump base, 2.75 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--December 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.8 ft below land-surface datum, March 29, 2001; lowest measured, 33.04 ft below land-surface datum, July 11, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 07	30.69	MAR 29	28.8	JUL 11	33.04	SEP 18	30.73



Observation well NC-179 Carver Moore Research station, Columbus County, North Carolina (p. 100).

Observation well NC-126 Chapel Hill, Chatham County, North Carolina (p. 192).

COLUMBUS COUNTY--Continued

341237078534213. County number, CO-102; DENR Clarendon Research Station well DD42n4.
LOCATION.--Lat 34°12'39.3", long 78°53'46.0", North American Datum of 1983, Hydrologic Unit 03040203, 3.1 mi west of Clarendon on Secondary Road 1314. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 248 ft, diameter 4 in. to 228 ft, diameter 2.5 in. from 196 to 248 ft, screened interval from 238 to 248 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 106.8 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 2.23 ft above land-surface datum (since July 2001).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study. Well redeveloped by injecting air into well on September 6, 2001.
PERIOD OF RECORD.--July 1976 to current year. Water levels measured periodically since July 1976. Continuous record began July 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.76 ft below land-surface datum, July 15, 1976; lowest water level measured, 63.14 ft below land-surface datum, Sept. 22, 23, 24, 29, and 30, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 08	62.71	FEB 08	62.72	MAR 29	62.54

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR JULY 2001 TO SEPTEMBER 2001

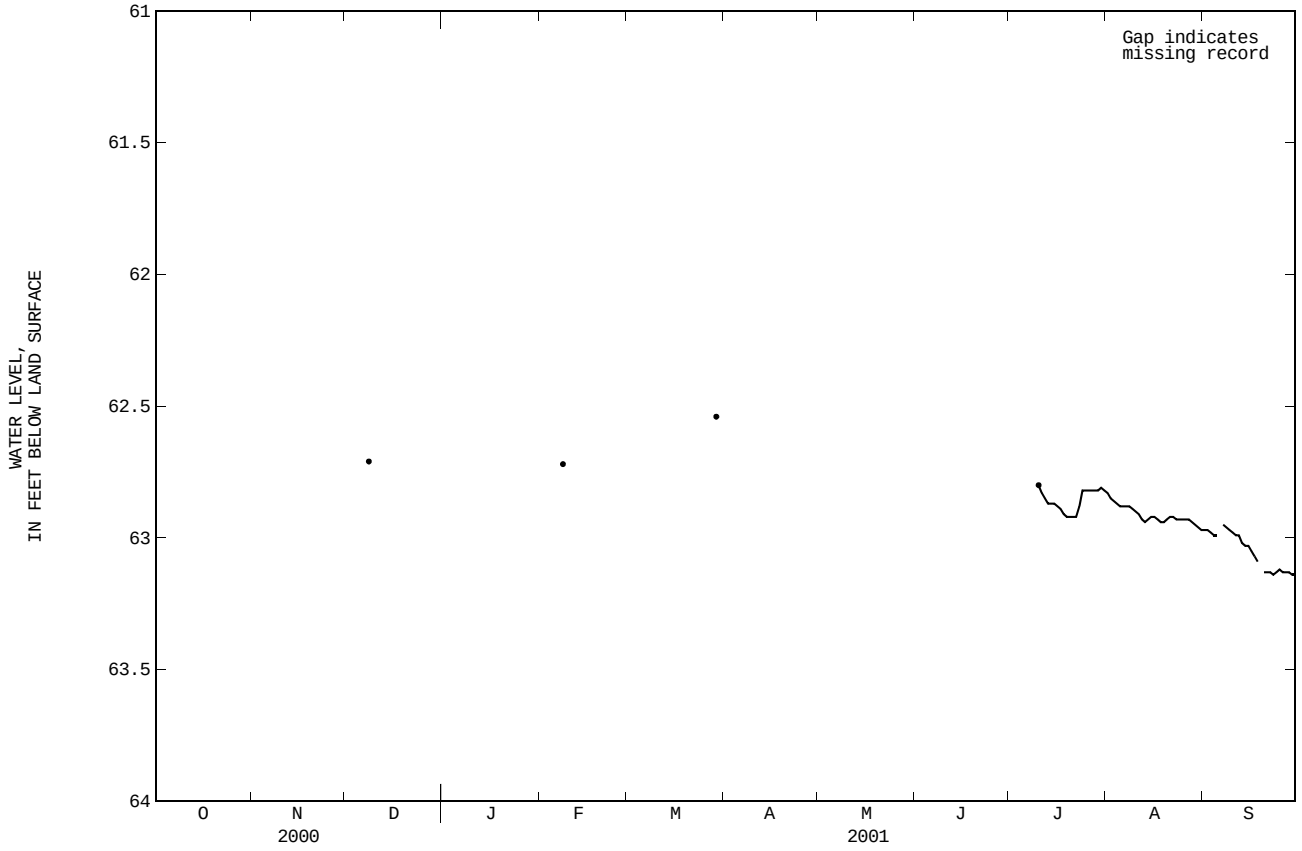
DAILY MEAN VALUES

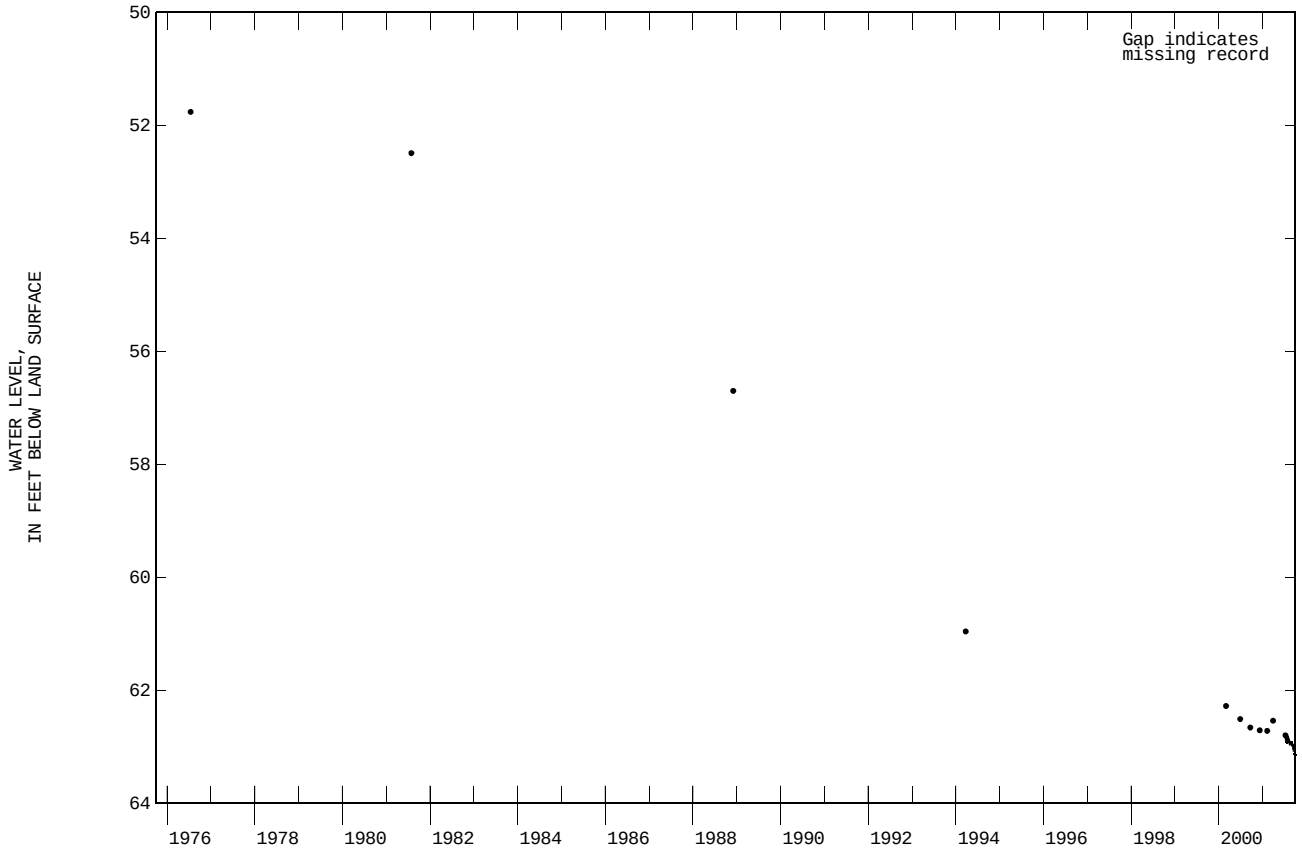
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	62.83	62.97
2	---	---	---	---	---	---	---	---	---	---	62.85	62.97
3	---	---	---	---	---	---	---	---	---	---	62.86	62.98
4	---	---	---	---	---	---	---	---	---	---	62.87	62.99
5	---	---	---	---	---	---	---	---	---	---	62.88	62.99
6	---	---	---	---	---	---	---	---	---	---	62.88	---
7	---	---	---	---	---	---	---	---	---	---	62.88	62.95
8	---	---	---	---	---	---	---	---	---	---	62.88	62.96
9	---	---	---	---	---	---	---	---	---	---	62.89	62.97
10	---	---	---	---	---	---	---	---	---	---	62.90	62.98
11	---	---	---	---	---	---	---	---	---	62.83	62.91	62.99
12	---	---	---	---	---	---	---	---	---	62.85	62.93	62.99
13	---	---	---	---	---	---	---	---	---	62.87	62.94	63.02
14	---	---	---	---	---	---	---	---	---	62.87	62.93	63.03
15	---	---	---	---	---	---	---	---	---	62.87	62.92	63.03
16	---	---	---	---	---	---	---	---	---	62.88	62.92	63.05
17	---	---	---	---	---	---	---	---	---	62.89	62.93	63.07
18	---	---	---	---	---	---	---	---	---	62.91	62.94	63.09
19	---	---	---	---	---	---	---	---	---	62.92	62.94	---
20	---	---	---	---	---	---	---	---	---	62.92	62.93	63.13
21	---	---	---	---	---	---	---	---	---	62.92	62.92	63.13
22	---	---	---	---	---	---	---	---	---	62.92	62.92	63.13
23	---	---	---	---	---	---	---	---	---	62.88	62.93	63.14
24	---	---	---	---	---	---	---	---	---	62.82	62.93	63.13
25	---	---	---	---	---	---	---	---	---	62.82	62.93	63.12
26	---	---	---	---	---	---	---	---	---	62.82	62.93	63.13
27	---	---	---	---	---	---	---	---	---	62.82	62.93	63.13
28	---	---	---	---	---	---	---	---	---	62.82	62.94	63.13
29	---	---	---	---	---	---	---	---	---	62.82	62.95	63.14
30	---	---	---	---	---	---	---	---	---	62.81	62.96	63.14
31	---	---	---	---	---	---	---	---	---	62.82	62.97	---

WTR YR 2001 MEAN 62.95 HIGH 62.81 LOW 63.14

COLUMBUS COUNTY--Continued

341237078534213 County number, CO-102; DENR Clarendon Research Station well DD42n4





COLUMBUS COUNTY--Continued

3419320783151O5. County number, CO-117; DENR Lake Waccamaw Research Station well CC38b8.
LOCATION.--Lat 34°19'33.1", long 78°31'46.7", North American Datum of 1983, Hydrologic Unit 03040206, in Lake Waccamaw, 0.4 mi west of Secondary Road 1735 on Secondary Road 1736. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 386 ft, diameter 4 in., screened interval from 376 to 386 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 64 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 2.57 ft above land-surface datum (since July 2001).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--November 1974 to current year. Water levels measured periodically since November 1974. Continuous record began July 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.54 ft below land-surface datum, Nov. 27, 1974; lowest recorded, 17.47 ft below land-surface datum, Aug. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 07	17.00	FEB 07	16.77	MAR 28	16.58

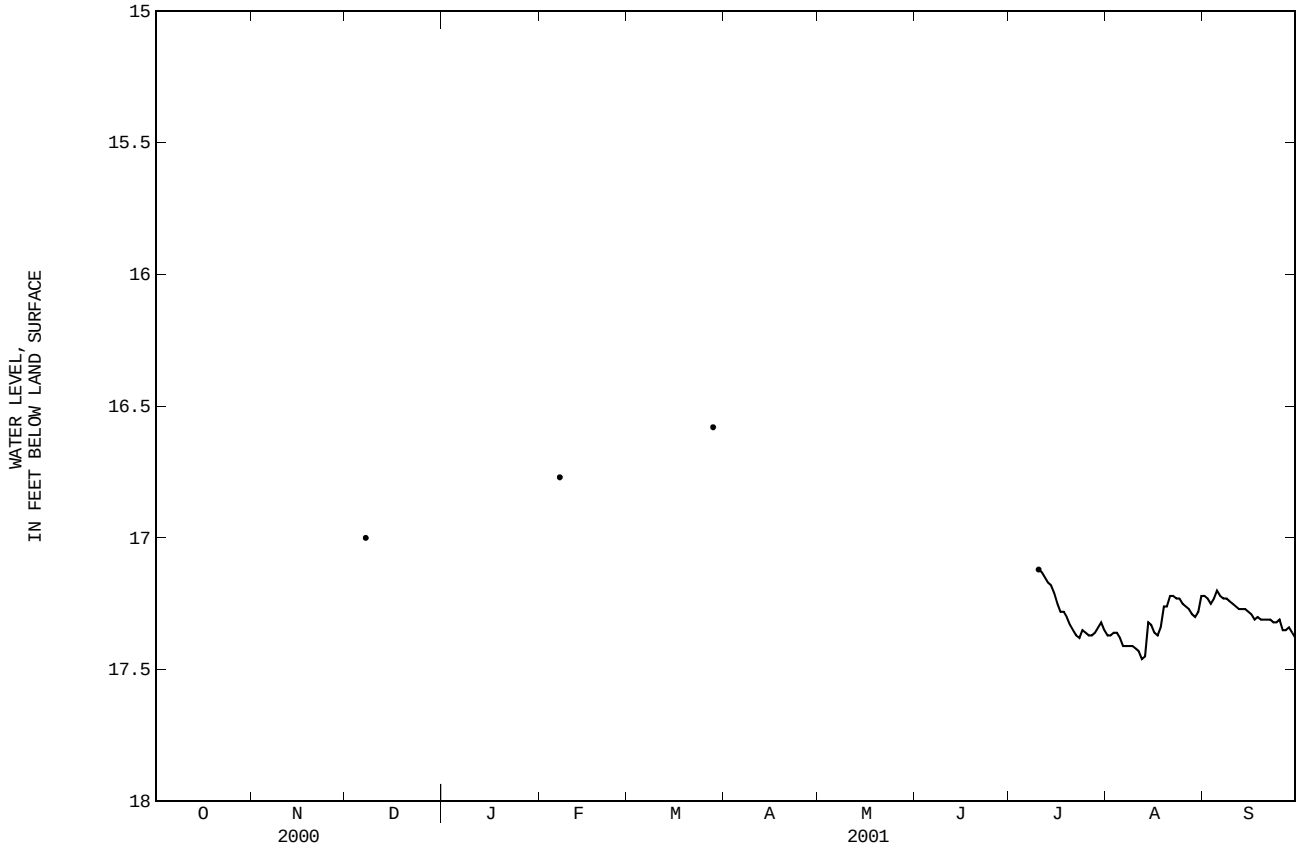
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR JULY 2001 TO SEPTEMBER 2001

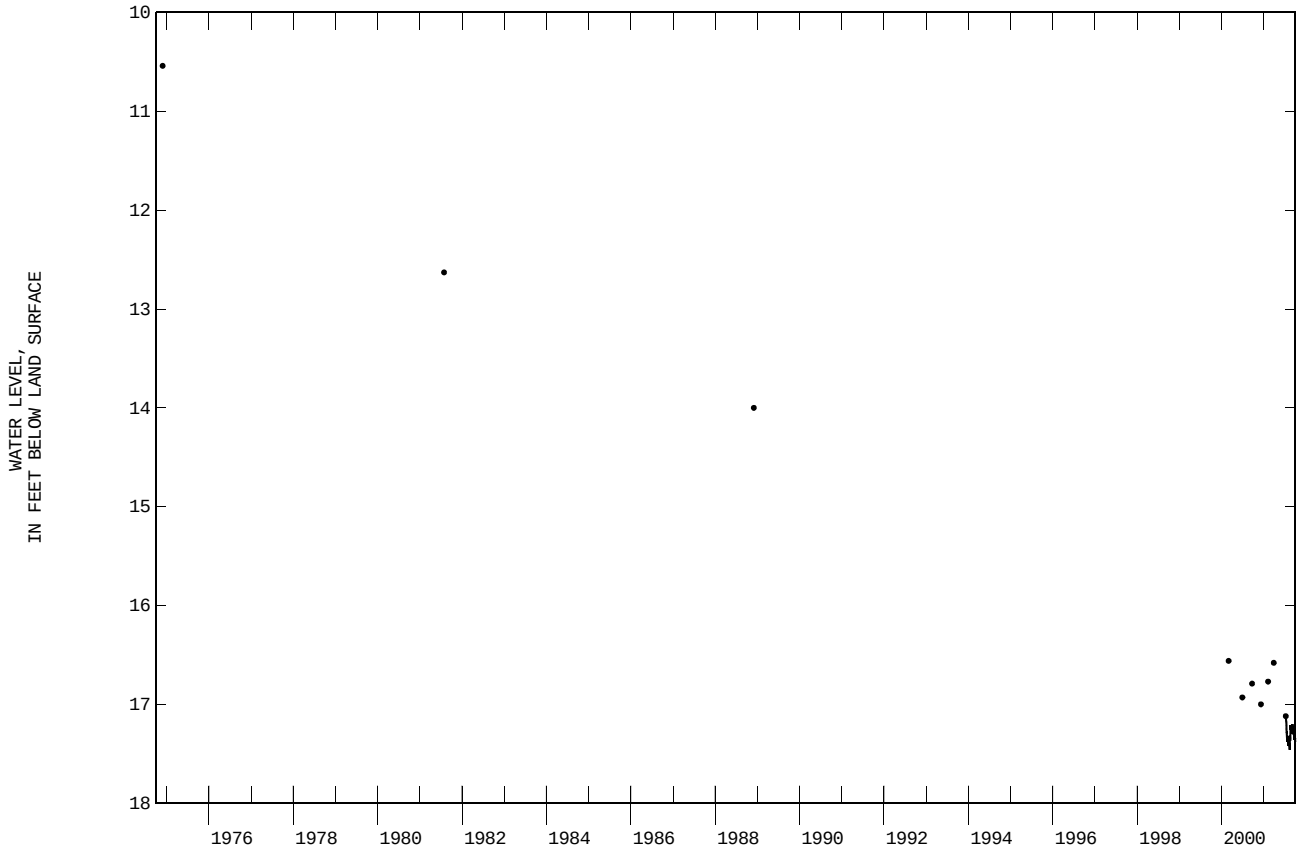
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	17.37	17.22
2	---	---	---	---	---	---	---	---	---	---	17.37	17.23
3	---	---	---	---	---	---	---	---	---	---	17.36	17.25
4	---	---	---	---	---	---	---	---	---	---	17.36	17.23
5	---	---	---	---	---	---	---	---	---	---	17.38	17.20
6	---	---	---	---	---	---	---	---	---	---	17.41	17.22
7	---	---	---	---	---	---	---	---	---	---	17.41	17.23
8	---	---	---	---	---	---	---	---	---	---	17.41	17.23
9	---	---	---	---	---	---	---	---	---	---	17.41	17.24
10	---	---	---	---	---	---	---	---	---	---	17.42	17.25
11	---	---	---	---	---	---	---	---	---	17.13	17.43	17.26
12	---	---	---	---	---	---	---	---	---	17.15	17.46	17.27
13	---	---	---	---	---	---	---	---	---	17.17	17.45	17.27
14	---	---	---	---	---	---	---	---	---	17.18	17.32	17.27
15	---	---	---	---	---	---	---	---	---	17.21	17.33	17.28
16	---	---	---	---	---	---	---	---	---	17.25	17.36	17.29
17	---	---	---	---	---	---	---	---	---	17.28	17.37	17.31
18	---	---	---	---	---	---	---	---	---	17.28	17.34	17.30
19	---	---	---	---	---	---	---	---	---	17.30	17.26	17.31
20	---	---	---	---	---	---	---	---	---	17.33	17.26	17.31
21	---	---	---	---	---	---	---	---	---	17.35	17.22	17.31
22	---	---	---	---	---	---	---	---	---	17.37	17.22	17.31
23	---	---	---	---	---	---	---	---	---	17.38	17.23	17.32
24	---	---	---	---	---	---	---	---	---	17.35	17.23	17.32
25	---	---	---	---	---	---	---	---	---	17.36	17.25	17.31
26	---	---	---	---	---	---	---	---	---	17.37	17.26	17.35
27	---	---	---	---	---	---	---	---	---	17.37	17.27	17.35
28	---	---	---	---	---	---	---	---	---	17.36	17.29	17.34
29	---	---	---	---	---	---	---	---	---	17.34	17.30	17.36
30	---	---	---	---	---	---	---	---	---	17.32	17.28	17.38
31	---	---	---	---	---	---	---	---	---	17.35	17.22	---

WTR YR 2001 MEAN 17.30 HIGH 17.13 LOW 17.46

341932078315105 County number, CO-117; DENR Lake Waccamaw Research Station well CC38b8



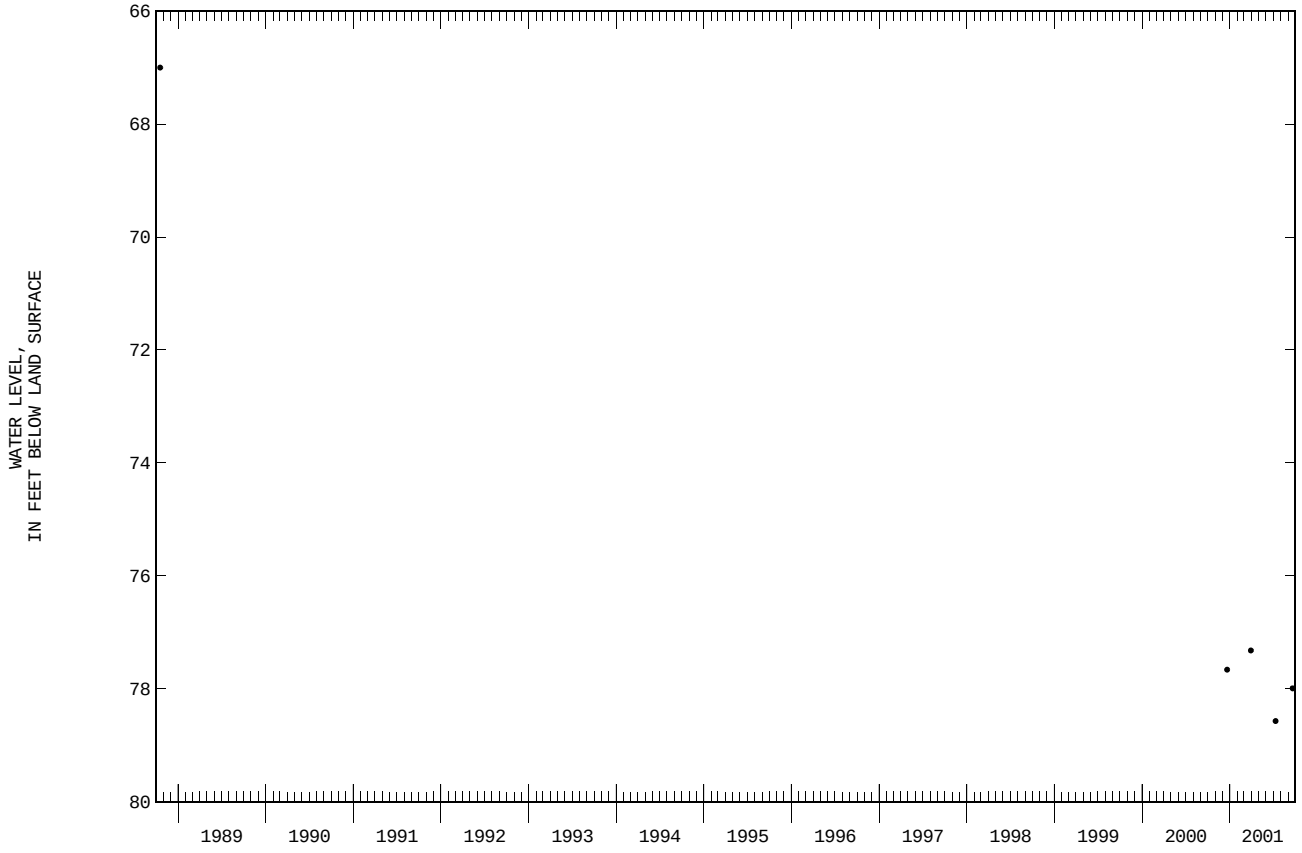


COLUMBUS COUNTY--Continued

340920078523904. County number, CO-161; Tabor City well 104.
LOCATION.--Lat 34°09'19.5", long 78°52'38.6", North American Datum of 1983, Hydrologic Unit 03040206, in Tabor City off Railroad Street. Owner: Town of Tabor City.
AQUIFER.--Peedee and Black Creek aquifers of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 362 ft, diameter 12 in., screened intervals from 193 to 198 ft, 215 to 220 ft, 255 to 295 ft, 307 to 317 ft, and 330 to 350 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 100 ft above sea level (from topographic map). Measuring point: Top of 1.5-inch nipple in well access pipe in pump pedestal, 1.48 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67 ft below land-surface datum, Oct. 18, 1988 (reported by driller); lowest measured, 78.57 ft below land-surface datum, July 10, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 20	77.66	MAR 29	77.32	JUL 10	78.57	SEP 19	77.99



Observation well NC-181 Sunset Harbor Research station,
Brunswick County, North Carolina (p. 76).

COLUMBUS COUNTY--Continued

342508078360802. Local number, NC-179; DENR Carver Moore Research Station well AA39v2; County number, CO-089.
LOCATION.--Lat 34°25'07", long 78°36'10", Hydrologic Unit 03040206, 6.7 mi north of Hallsboro, east of Secondary Road 1001 at abandoned school on Secondary Road 1724. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 506 ft, diameter 4 in., screened interval from 496 to 506 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 105.53 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 2.10 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--September 1975 to current year. Miscellaneous water-level measurements January 1987 to current year. Continuous record from January 1987 to November 1990 and June 2000 to current year. Records from September 1975 to April 1986 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.11 ft below land-surface datum, July 20, 1976; lowest water level recorded, 49.27 ft below land-surface datum, Sept. 28-30, 2001.

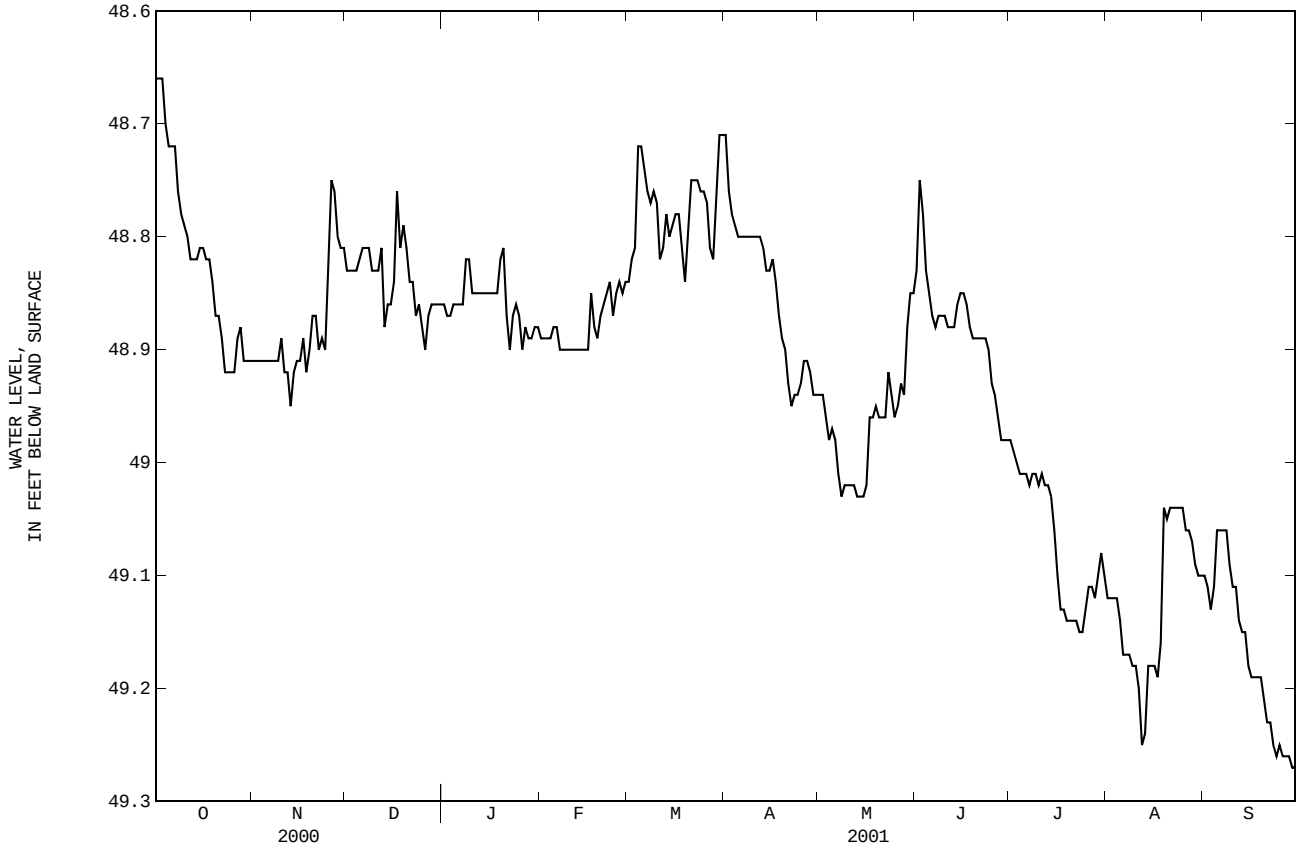
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

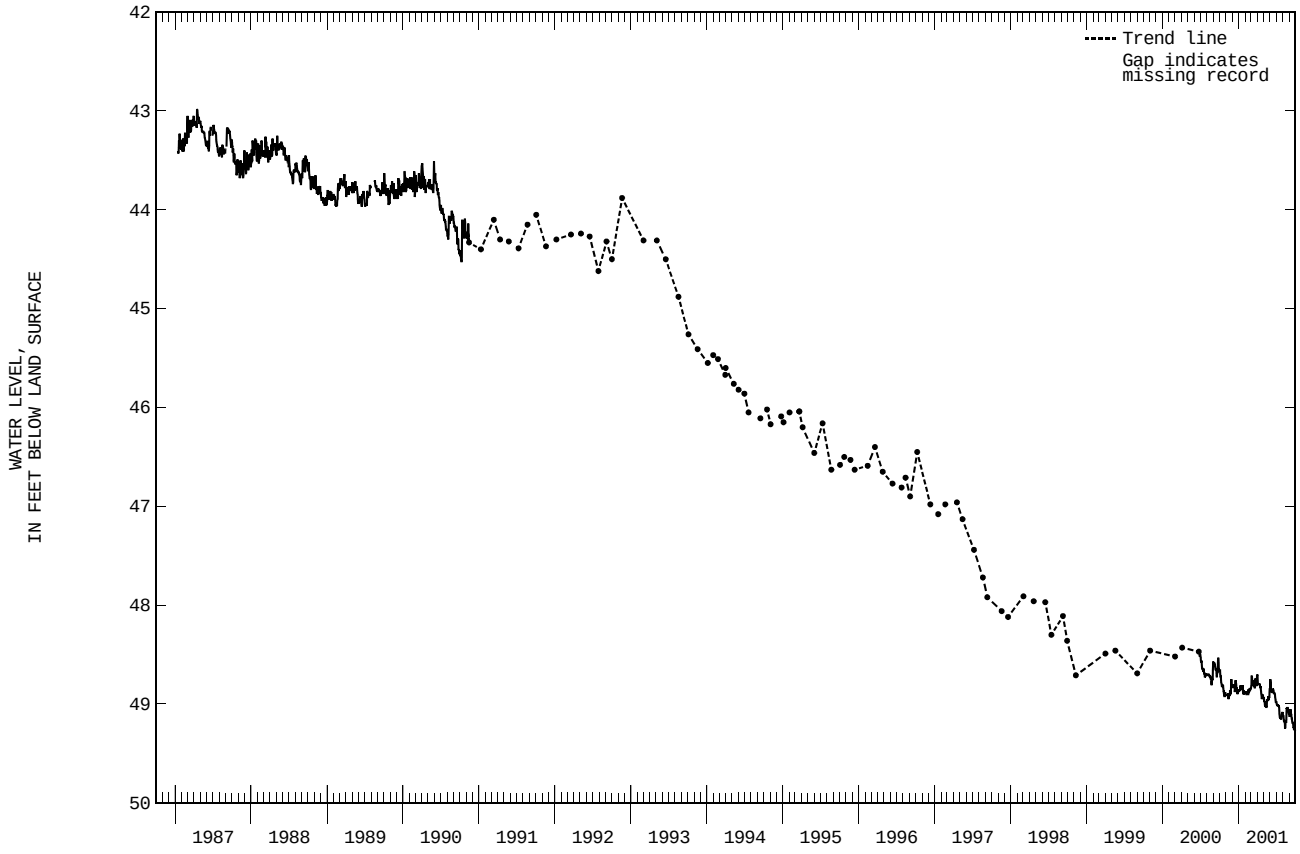
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.66	48.91	48.83	48.86	48.89	48.84	48.71	48.94	48.83	48.98	49.12	49.10
2	48.66	48.91	48.83	48.87	48.89	48.82	48.76	48.94	48.75	48.99	49.12	49.11
3	48.66	48.91	48.83	48.87	48.89	48.81	48.78	48.96	48.78	49.00	49.12	49.13
4	48.70	48.91	48.83	48.86	48.89	48.72	48.79	48.98	48.83	49.01	49.12	49.11
5	48.72	48.91	48.82	48.86	48.88	48.72	48.80	48.97	48.85	49.01	49.14	49.06
6	48.72	48.91	48.81	48.86	48.88	48.74	48.80	48.98	48.87	49.01	49.17	49.06
7	48.72	48.91	48.81	48.86	48.90	48.76	48.80	49.01	48.88	49.02	49.17	49.06
8	48.76	48.91	48.81	48.82	48.90	48.77	48.80	49.03	48.87	49.01	49.17	49.06
9	48.78	48.91	48.83	48.82	48.90	48.76	48.80	49.02	48.87	49.01	49.18	49.09
10	48.79	48.89	48.83	48.85	48.90	48.77	48.80	49.02	48.87	49.02	49.18	49.11
11	48.80	48.92	48.83	48.85	48.90	48.82	48.80	49.02	48.88	49.01	49.20	49.11
12	48.82	48.92	48.81	48.85	48.90	48.81	48.80	49.02	48.88	49.02	49.25	49.14
13	48.82	48.95	48.88	48.85	48.90	48.78	48.81	49.03	48.88	49.02	49.24	49.15
14	48.82	48.92	48.86	48.85	48.90	48.80	48.83	49.03	48.86	49.03	49.18	49.15
15	48.81	48.91	48.86	48.85	48.90	48.79	48.83	49.03	48.85	49.06	49.18	49.18
16	48.81	48.91	48.84	48.85	48.90	48.78	48.82	49.02	48.85	49.10	49.18	49.19
17	48.82	48.89	48.76	48.85	48.85	48.78	48.84	48.96	48.86	49.13	49.19	49.19
18	48.82	48.92	48.81	48.85	48.88	48.81	48.87	48.96	48.88	49.13	49.16	49.19
19	48.84	48.90	48.79	48.82	48.89	48.84	48.89	48.95	48.89	49.14	49.04	49.19
20	48.87	48.87	48.81	48.81	48.87	48.80	48.90	48.96	48.89	49.14	49.05	49.21
21	48.87	48.87	48.84	48.87	48.86	48.75	48.93	48.96	48.89	49.14	49.04	49.23
22	48.89	48.90	48.84	48.90	48.85	48.75	48.95	48.96	48.89	49.14	49.04	49.23
23	48.92	48.89	48.87	48.87	48.84	48.75	48.94	48.92	48.89	49.15	49.04	49.25
24	48.92	48.90	48.86	48.86	48.87	48.76	48.94	48.94	48.90	49.15	49.04	49.26
25	48.92	48.82	48.88	48.87	48.85	48.76	48.93	48.96	48.93	49.13	49.04	49.25
26	48.92	48.75	48.90	48.90	48.84	48.77	48.91	48.95	48.94	49.11	49.06	49.26
27	48.89	48.76	48.87	48.88	48.85	48.81	48.91	48.93	48.96	49.11	49.06	49.26
28	48.88	48.80	48.86	48.89	48.84	48.82	48.92	48.94	48.98	49.12	49.07	49.26
29	48.91	48.81	48.86	48.89	---	48.76	48.94	48.88	48.98	49.10	49.09	49.27
30	48.91	48.81	48.86	48.88	---	48.71	48.94	48.85	48.98	49.08	49.10	49.27
31	48.91	---	48.86	48.88	---	48.71	---	48.85	---	49.10	49.10	---

WTR YR 2001 MEAN 48.93 HIGH 48.66 LOW 49.27

COLUMBUS COUNTY--Continued

342508078360802 Local number, NC-179; DENR Carver Moore Research Station well AA39v2; County number, CO-089





CRAVEN COUNTY

345602076532405. County number, CR-552; DENR Cherry Point Research Station well U18q5.
LOCATION.--Lat 34°56'02", long 76°53'24", Hydrologic Unit 03020204, at U.S. Marine Corps Air Station Cherry Point. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Yorktown aquifer of the Pliocene and Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 80 ft, diameter 6 in., cased to 65 ft, screened interval from 65 ft to 80 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 26.11 ft above sea level (levels by DENR). Measuring point: Top of instrument shelter floor, 1.00 ft above land-surface datum.
REMARKS.--Well is part of Cherry Point MCAS Surface Geophysics project.
PERIOD OF RECORD.--April 1989 to September 1993, December 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.22 ft below land-surface datum, Feb. 9, 1993; lowest water level measured 19.91 ft below land-surface datum, Aug. 23, 1990.

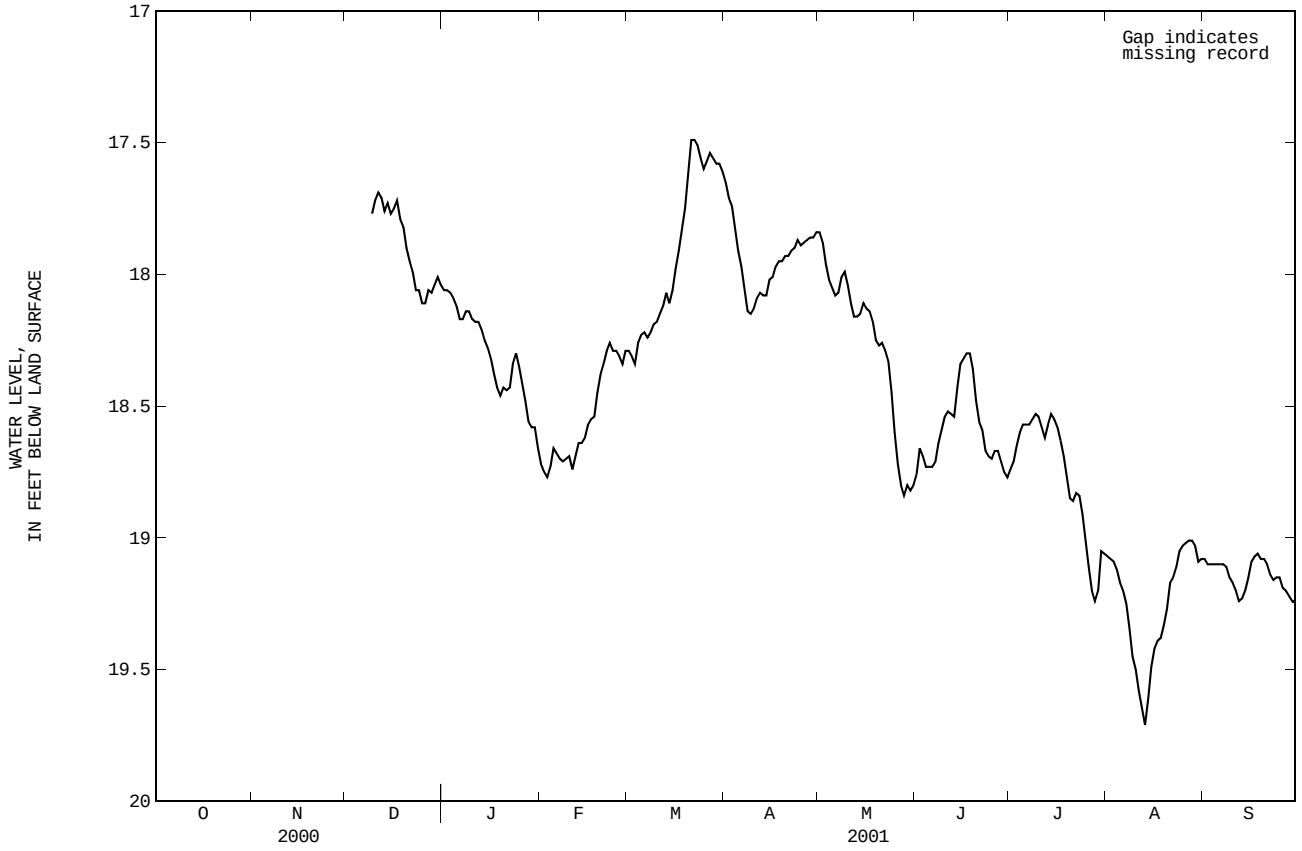
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

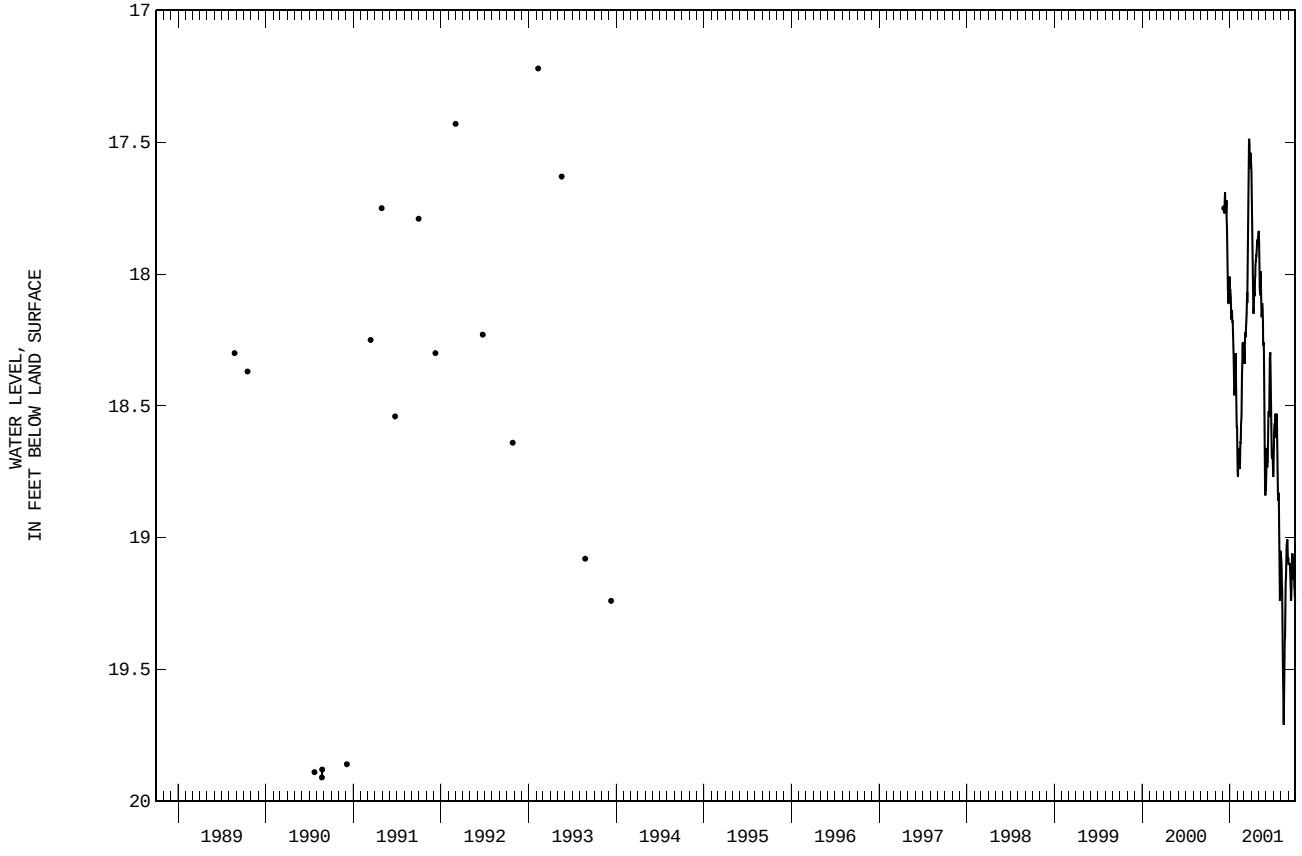
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	18.06	18.72	18.29	17.65	17.84	18.76	18.74	19.07	19.08
2	---	---	---	18.06	18.75	18.31	17.71	17.88	18.66	18.71	19.08	19.10
3	---	---	---	18.07	18.77	18.34	17.74	17.96	18.69	18.65	19.09	19.10
4	---	---	---	18.09	18.73	18.26	17.83	18.02	18.73	18.60	19.12	19.10
5	---	---	---	18.12	18.66	18.23	17.91	18.05	18.73	18.57	19.17	19.10
6	---	---	---	18.17	18.68	18.22	17.97	18.08	18.73	18.57	19.20	19.10
7	---	---	---	18.17	18.70	18.24	18.06	18.07	18.71	18.57	19.25	19.10
8	---	---	---	18.14	18.71	18.22	18.14	18.01	18.64	18.55	19.34	19.11
9	---	---	17.77	18.14	18.70	18.19	18.15	17.99	18.59	18.53	19.45	19.15
10	---	---	17.72	18.17	18.69	18.18	18.13	18.04	18.54	18.54	19.50	19.17
11	---	---	17.69	18.18	18.74	18.15	18.09	18.11	18.52	18.58	19.58	19.20
12	---	---	17.71	18.18	18.69	18.12	18.07	18.16	18.53	18.62	19.65	19.24
13	---	---	17.76	18.21	18.64	18.07	18.08	18.16	18.54	18.57	19.71	19.23
14	---	---	17.73	18.25	18.64	18.11	18.08	18.15	18.43	18.53	19.61	19.20
15	---	---	17.77	18.28	18.62	18.06	18.02	18.11	18.34	18.55	19.49	19.15
16	---	---	17.75	18.32	18.57	17.98	18.01	18.13	18.32	18.58	19.42	19.09
17	---	---	17.72	18.38	18.55	17.91	17.97	18.14	18.30	18.63	19.39	19.07
18	---	---	17.79	18.43	18.54	17.83	17.95	18.18	18.30	18.69	19.38	19.06
19	---	---	17.82	18.46	18.45	17.75	17.95	18.25	18.36	18.77	19.33	19.08
20	---	---	17.90	18.43	18.38	17.62	17.93	18.27	18.48	18.85	19.27	19.08
21	---	---	17.95	18.44	18.34	17.49	17.93	18.26	18.56	18.86	19.17	19.10
22	---	---	17.99	18.43	18.29	17.49	17.91	18.29	18.59	18.83	19.15	19.14
23	---	---	18.06	18.34	18.26	17.51	17.90	18.33	18.67	18.84	19.11	19.16
24	---	---	18.06	18.30	18.29	17.56	17.87	18.45	18.69	18.91	19.05	19.15
25	---	---	18.11	18.35	18.29	17.60	17.89	18.60	18.70	19.01	19.03	19.15
26	---	---	18.11	18.42	18.31	17.57	17.88	18.72	18.67	19.11	19.02	19.19
27	---	---	18.06	18.48	18.34	17.54	17.87	18.80	18.67	19.20	19.01	19.20
28	---	---	18.07	18.56	18.29	17.56	17.86	18.84	18.71	19.24	19.01	19.22
29	---	---	18.04	18.58	---	17.58	17.86	18.80	18.75	19.20	19.03	19.24
30	---	---	18.01	18.58	---	17.58	17.84	18.82	18.77	19.05	19.09	19.24
31	---	---	18.04	18.66	---	17.61	---	18.80	---	19.06	19.08	---

WTR YR 2001 MEAN 18.48 HIGH 17.49 LOW 19.71

CRAVEN COUNTY--Continued

345602076532405 County number, CR-552; DENR Cherry Point Research Station well U18q5





CRAVEN COUNTY--Continued

345504076562801. County number, CR-616; Strat Hole 5.
LOCATION.--Lat 34°55'04.34", long 76°56'28.30", North American Datum of 1983, Hydrologic Unit 03020204, at U.S. Marine Corps Air Station Cherry Point. Owner: U.S. Marine Corps.
AQUIFER.--Castle Hayne aquifer of the Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 235.5 ft, diameter 2 in., cased to 210 ft, screened interval from 210 ft to 220 ft. INSTRUMENTATION.-Water-level recorder collecting data at 60-minute intervale. Satellite telemetry at site.
DATUM.--Land-surface datum is 26 ft above sea level (from topographic map). Measuring point: Top of instrument shelter floor, 2.79 ft above land-surface datum.
REMARKS.--Well is part of Cherry Point MCAS Surface Geophysics project.
PERIOD OF RECORD.--September 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.36 ft below land-surface datum, Oct. 5, 2000; lowest water level measured 17.68 ft below land-surface datum, Aug. 23, 2001.

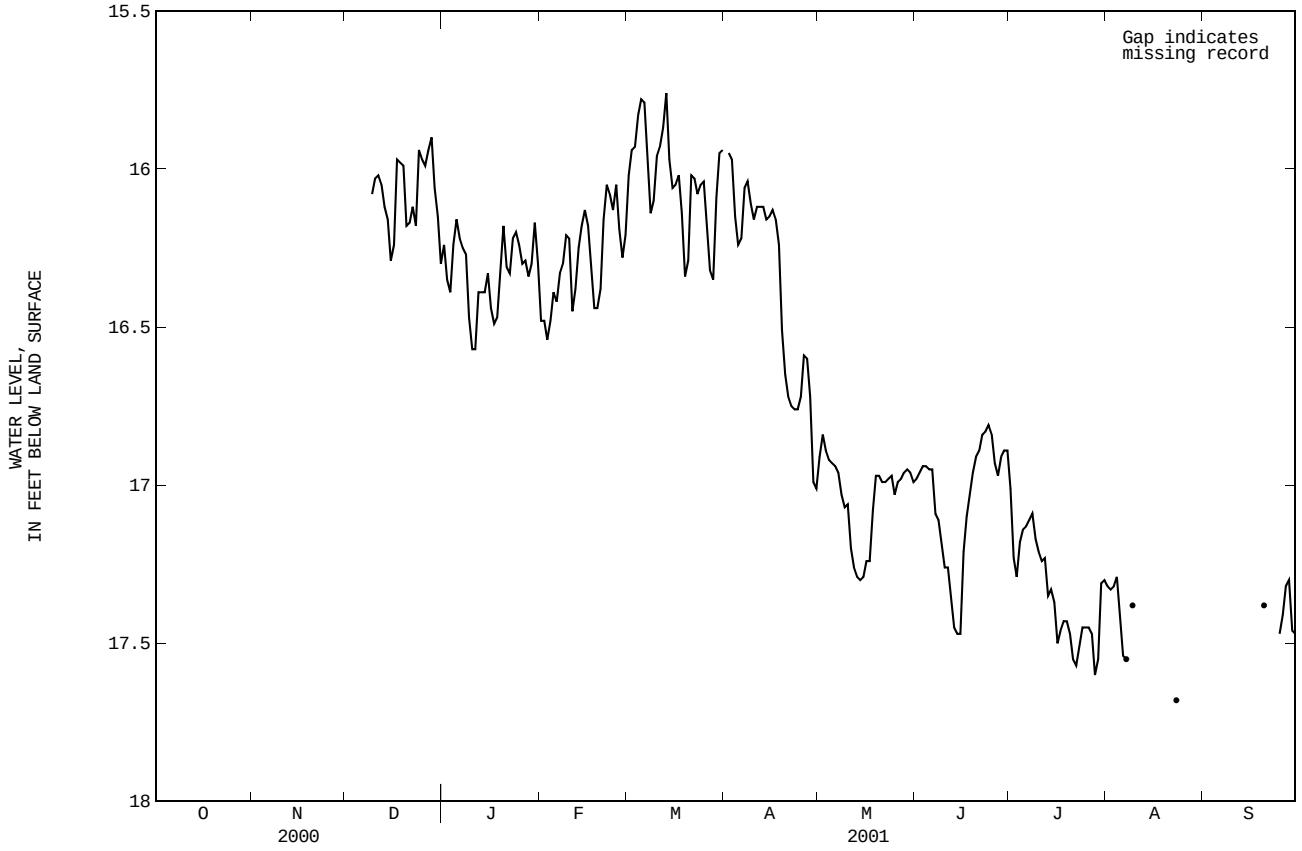
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

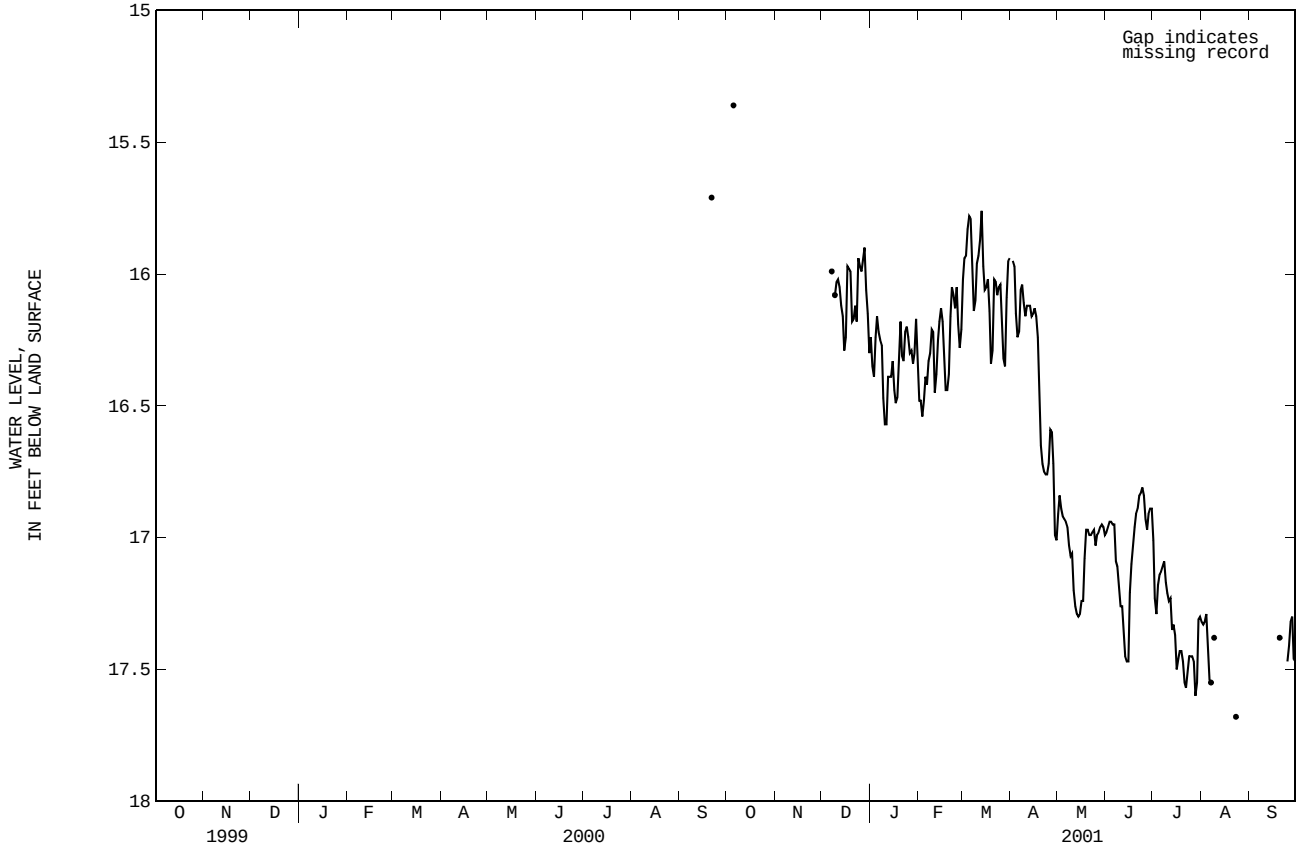
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	16.24	16.48	16.02	---	16.91	16.98	17.01	17.32	---
2	---	---	---	16.35	16.48	15.94	15.95	16.84	16.96	17.23	17.33	---
3	---	---	---	16.39	16.54	15.93	15.97	16.89	16.94	17.29	17.32	---
4	---	---	---	16.24	16.48	15.83	16.15	16.92	16.94	17.18	17.29	---
5	---	---	---	16.16	16.39	15.78	16.24	16.93	16.95	17.14	17.41	---
6	---	---	---	16.22	16.42	15.79	16.22	16.94	16.95	17.13	17.54	---
7	---	---	---	16.25	16.33	15.97	16.06	16.96	17.09	17.11	17.55	---
8	---	---	---	16.27	16.30	16.14	16.04	17.03	17.11	17.09	---	---
9	---	---	16.08	16.47	16.21	16.10	16.11	17.07	17.19	17.17	---	---
10	---	---	16.03	16.57	16.22	15.96	16.16	17.06	17.26	17.21	---	---
11	---	---	16.02	16.57	16.45	15.93	16.12	17.20	17.26	17.24	---	---
12	---	---	16.05	16.39	16.38	15.87	16.12	17.26	17.36	17.23	---	---
13	---	---	16.12	16.39	16.25	15.76	16.12	17.29	17.45	17.35	---	---
14	---	---	16.16	16.39	16.18	15.97	16.16	17.30	17.47	17.33	---	---
15	---	---	16.29	16.33	16.13	16.06	16.15	17.29	17.47	17.37	---	---
16	---	---	16.24	16.44	16.18	16.05	16.13	17.24	17.21	17.50	---	---
17	---	---	15.97	16.49	16.32	16.02	16.16	17.24	17.10	17.46	---	---
18	---	---	15.98	16.47	16.44	16.14	16.24	17.08	17.03	17.43	---	---
19	---	---	15.99	16.33	16.44	16.34	16.51	16.97	16.96	17.43	---	---
20	---	---	16.18	16.18	16.38	16.29	16.65	16.97	16.91	17.47	---	---
21	---	---	16.17	16.31	16.16	16.02	16.72	16.99	16.89	17.55	---	---
22	---	---	16.12	16.33	16.05	16.03	16.75	16.99	16.84	17.57	---	---
23	---	---	16.18	16.22	16.08	16.08	16.76	16.98	16.83	17.51	---	---
24	---	---	15.94	16.20	16.13	16.05	16.76	16.97	16.81	17.45	---	---
25	---	---	15.97	16.24	16.05	16.04	16.72	17.03	16.84	17.45	---	17.47
26	---	---	15.99	16.30	16.19	16.20	16.59	16.99	16.93	17.45	---	17.41
27	---	---	15.94	16.29	16.28	16.32	16.60	16.98	16.97	17.47	---	17.32
28	---	---	15.90	16.34	16.21	16.35	16.72	16.96	16.91	17.60	---	17.30
29	---	---	16.06	16.30	---	16.09	16.99	16.95	16.89	17.55	---	17.46
30	---	---	16.15	16.17	---	15.95	17.01	16.96	16.89	17.31	---	17.47
31	---	---	16.30	16.30	---	15.94	---	16.99	---	17.30	---	---

WTR YR 2001 MEAN 16.63 HIGH 15.76 LOW 17.60

CRAVEN COUNTY--Continued

345504076562801 County number, CR-616; Strat Hole 5





DAVIE COUNTY

355359080331701. Local number, NC-142; County number, DV-025.
LOCATION.--Lat 35°53'59", long 80°33'17", Hydrologic Unit 03040102, 0.5 mi northeast of Mocksville on U.S. Highway 158 at B.C. Brocks Community Center. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined weathered granite of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 30.8 ft, diameter 6 in., cased to 30.8 ft, open end, backfilled with gravel from 20 to 30.8 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 835 ft above sea level (from topographic map). Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--In October 1982, well replaced nearby NC-110. Well is part of terrane-effects network.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 10.64 ft below land-surface datum, Mar. 28, 1993; lowest water level recorded, 21.64 ft below land-surface datum, Sept. 30, 2001.

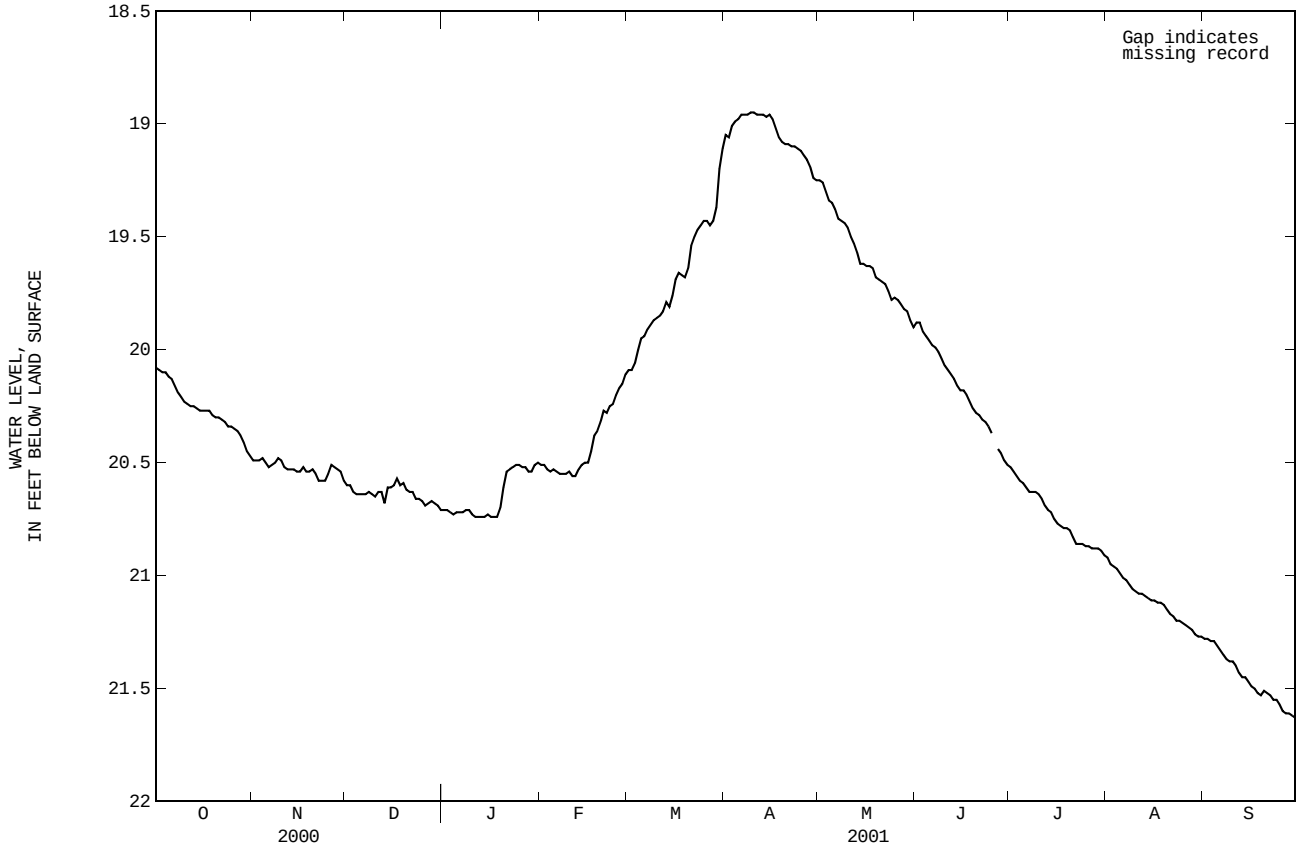
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

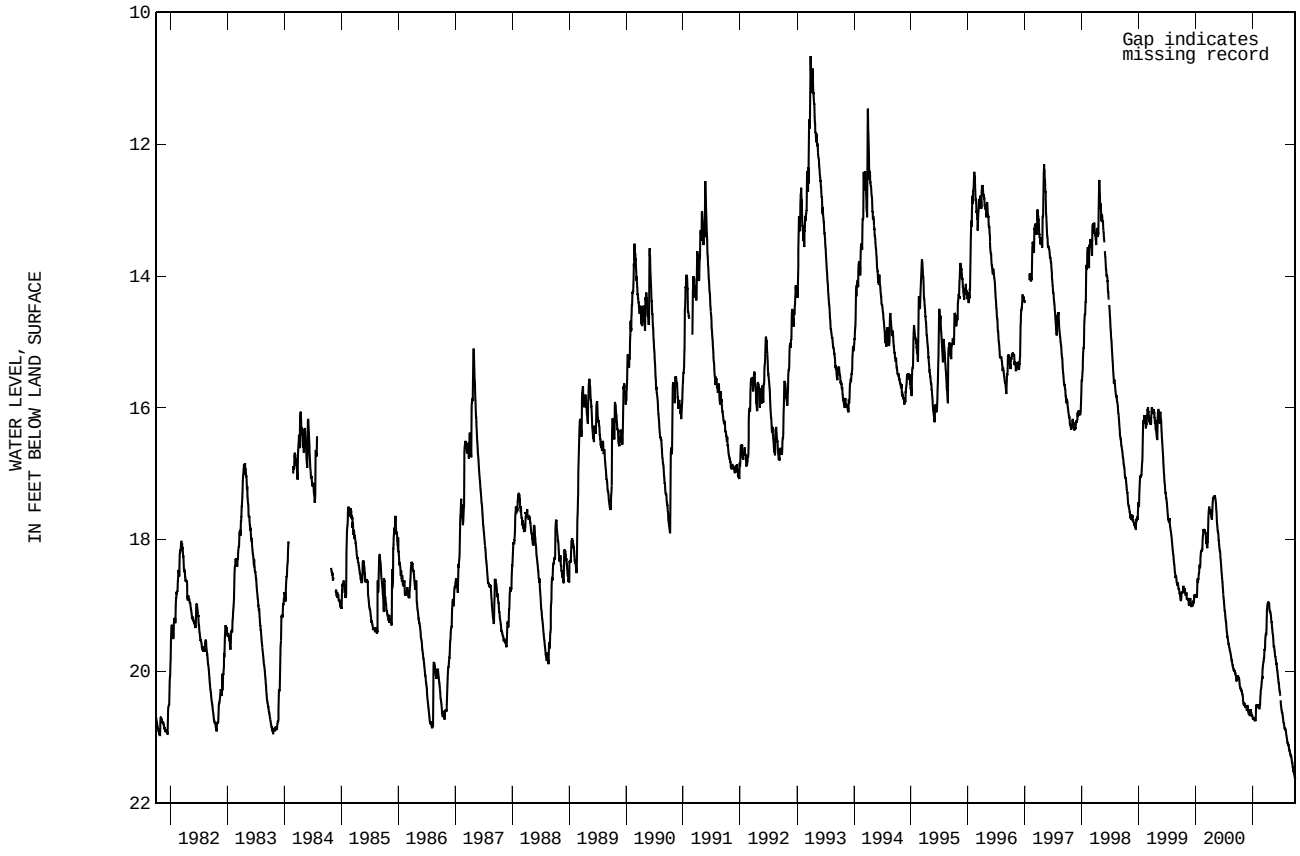
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.08	20.49	20.60	20.71	20.51	20.09	19.05	19.25	19.88	20.52	20.92	21.28
2	20.09	20.49	20.60	20.71	20.51	20.09	19.06	19.26	19.88	20.54	20.95	21.28
3	20.10	20.49	20.63	20.72	20.53	20.06	19.01	19.30	19.92	20.56	20.96	21.29
4	20.10	20.48	20.64	20.73	20.54	20.00	18.99	19.34	19.94	20.58	20.97	21.29
5	20.12	20.50	20.64	20.72	20.53	19.95	18.98	19.35	19.96	20.59	20.99	21.31
6	20.13	20.52	20.64	20.72	20.54	19.94	18.96	19.38	19.98	20.61	21.01	21.33
7	20.16	20.51	20.64	20.72	20.55	19.91	18.96	19.42	19.99	20.63	21.02	21.35
8	20.19	20.50	20.63	20.71	20.55	19.89	18.96	19.43	20.01	20.63	21.04	21.37
9	20.21	20.48	20.64	20.71	20.55	19.87	18.95	19.44	20.04	20.63	21.06	21.38
10	20.23	20.49	20.65	20.73	20.54	19.86	18.95	19.46	20.07	20.64	21.07	21.38
11	20.24	20.52	20.63	20.74	20.56	19.85	18.96	19.50	20.09	20.66	21.08	21.40
12	20.25	20.53	20.63	20.74	20.56	19.83	18.96	19.53	20.11	20.69	21.08	21.43
13	20.25	20.53	20.68	20.74	20.53	19.79	18.96	19.57	20.13	20.71	21.09	21.45
14	20.26	20.53	20.61	20.74	20.51	19.81	18.97	19.62	20.16	20.72	21.10	21.45
15	20.27	20.54	20.61	20.73	20.50	19.76	18.96	19.62	20.18	20.75	21.11	21.47
16	20.27	20.54	20.60	20.74	20.50	19.69	18.98	19.63	20.18	20.77	21.11	21.49
17	20.27	20.52	20.57	20.74	20.45	19.66	19.02	19.63	20.20	20.78	21.12	21.50
18	20.27	20.54	20.60	20.74	20.38	19.67	19.06	19.64	20.23	20.79	21.12	21.52
19	20.29	20.54	20.59	20.70	20.36	19.68	19.08	19.68	20.26	20.79	21.13	21.53
20	20.30	20.53	20.62	20.61	20.32	19.64	19.09	19.69	20.28	20.80	21.15	21.51
21	20.30	20.55	20.63	20.54	20.27	19.54	19.09	19.70	20.29	20.83	21.17	21.52
22	20.31	20.58	20.63	20.53	20.28	19.50	19.10	19.71	20.31	20.86	21.18	21.53
23	20.32	20.58	20.66	20.52	20.25	19.47	19.10	19.74	20.32	20.86	21.20	21.55
24	20.34	20.58	20.66	20.51	20.24	19.45	19.11	19.78	20.34	20.86	21.20	21.55
25	20.34	20.55	20.67	20.51	20.20	19.43	19.12	19.77	20.37	20.87	21.21	21.57
26	20.35	20.51	20.69	20.52	20.17	19.43	19.14	19.78	---	20.87	21.22	21.60
27	20.36	20.52	20.68	20.52	20.15	19.45	19.16	19.80	20.44	20.88	21.23	21.61
28	20.38	20.53	20.67	20.54	20.11	19.43	19.19	19.82	20.46	20.88	21.24	21.61
29	20.41	20.54	20.68	20.54	---	19.37	19.24	19.83	20.49	20.88	21.26	21.62
30	20.45	20.58	20.69	20.51	---	19.20	19.25	19.87	20.51	20.89	21.27	21.63
31	20.47	---	20.71	20.50	---	19.11	---	19.90	---	20.91	21.27	---

WTR YR 2001 MEAN 20.36 HIGH 18.95 LOW 21.63

DAVIE COUNTY--Continued

355359080331701. Local number, NC-142; County number, DV-025





DUPLIN COUNTY

345051078012101. Local number, NC-174; DENR Rose Hill Research Station well V32v1; County number, DU-126.
LOCATION.--Lat 34°50'51", long 78°01'21", Hydrologic Unit 03030007, 1.5 mi north of Rose Hill at Rose Hill-Magnolia Elementary School, east of U.S. Highway 117 on Secondary Road 1911. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 98 ft, diameter 4 in., screened interval from 83 to 98 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 85.89 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 1.75 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--March 1982 to current year. Continuous record began January 1987.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.00 ft below land-surface datum, Oct. 8, 1996; lowest water level recorded, 19.93 ft below land-surface datum, Aug. 4, 5, 1990.

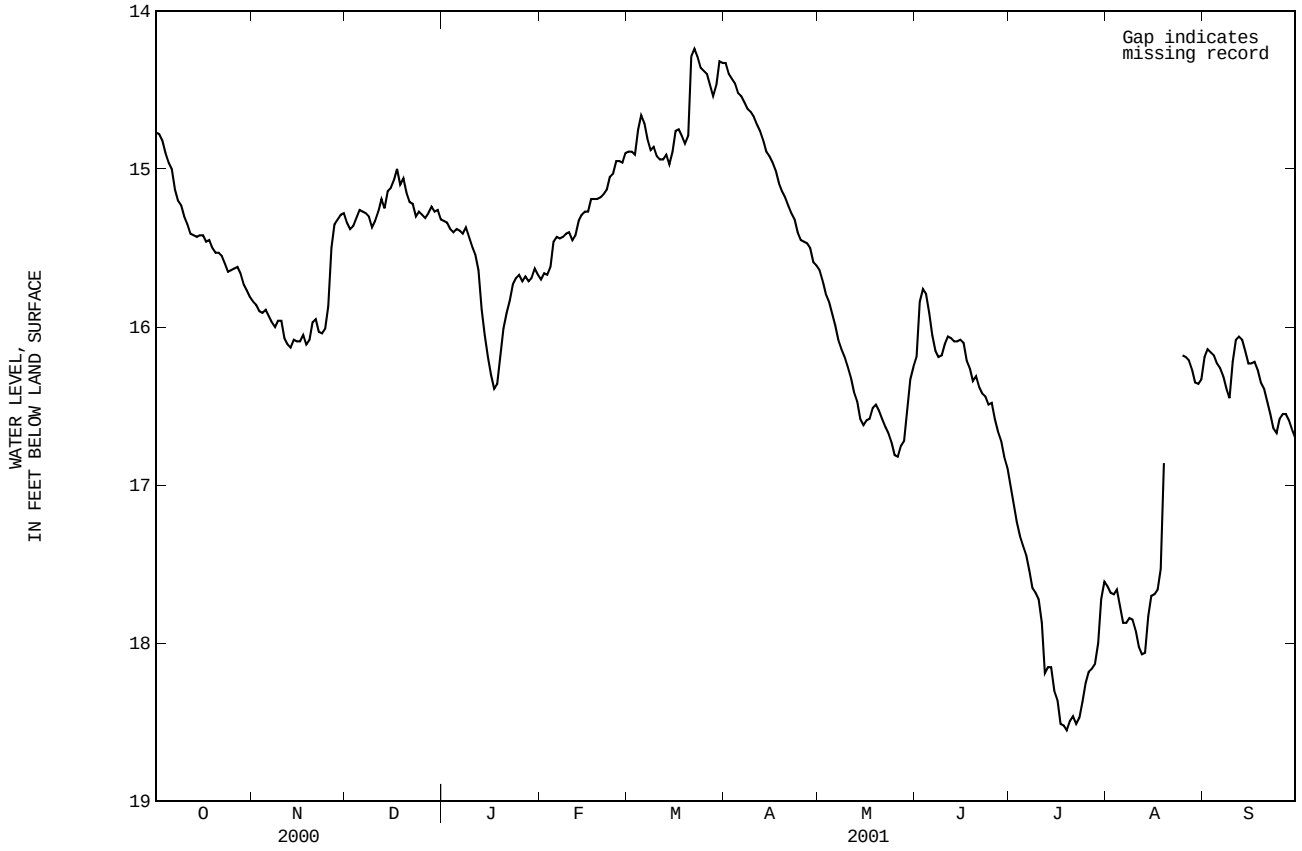
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

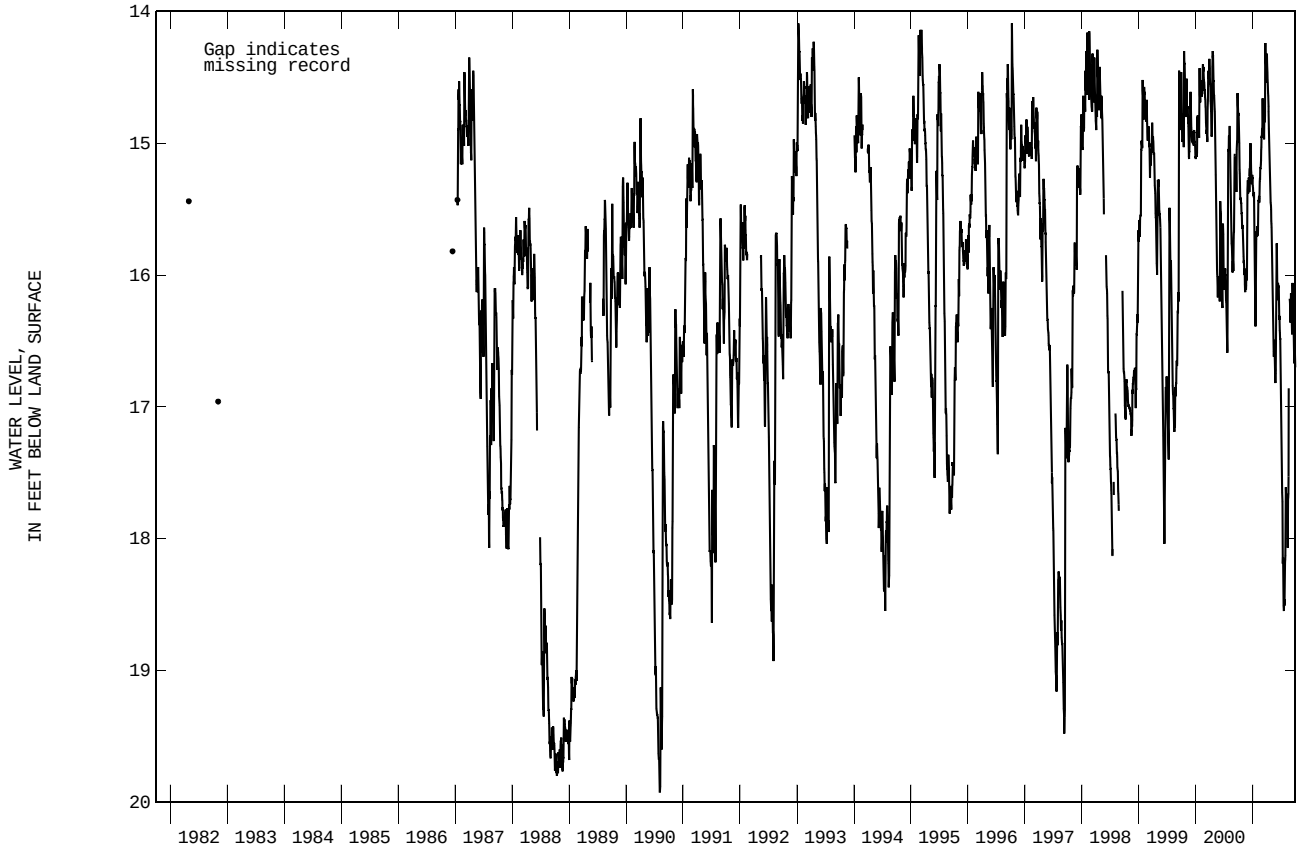
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.77	15.84	15.34	15.33	15.70	14.89	14.33	15.64	16.19	17.00	17.64	16.19
2	14.78	15.86	15.38	15.34	15.66	14.89	14.40	15.71	15.84	17.12	17.68	16.14
3	14.82	15.90	15.36	15.38	15.67	14.91	14.43	15.79	15.76	17.23	17.69	16.16
4	14.90	15.91	15.31	15.40	15.62	14.75	14.46	15.84	15.79	17.32	17.66	16.18
5	14.96	15.89	15.26	15.38	15.46	14.66	14.52	15.91	15.91	17.38	17.77	16.23
6	15.00	15.93	15.27	15.39	15.43	14.71	14.54	15.99	16.05	17.44	17.87	16.26
7	15.13	15.97	15.28	15.41	15.44	14.81	14.58	16.08	16.15	17.54	17.87	16.31
8	15.20	16.00	15.30	15.37	15.43	14.88	14.62	16.14	16.19	17.65	17.84	16.39
9	15.23	15.96	15.37	15.43	15.41	14.86	14.64	16.19	16.18	17.68	17.85	16.45
10	15.30	15.96	15.33	15.49	15.40	14.92	14.67	16.25	16.11	17.72	17.92	16.22
11	15.35	16.07	15.27	15.54	15.45	14.94	14.72	16.32	16.06	17.87	18.02	16.08
12	15.41	16.11	15.19	15.64	15.42	14.94	14.76	16.41	16.07	18.19	18.07	16.06
13	15.42	16.13	15.25	15.89	15.33	14.91	14.82	16.47	16.09	18.15	18.06	16.08
14	15.43	16.08	15.14	16.05	15.29	14.97	14.89	16.58	16.09	18.15	17.83	16.15
15	15.42	16.09	15.12	16.19	15.27	14.89	14.92	16.62	16.08	18.30	17.70	16.23
16	15.42	16.09	15.07	16.30	15.27	14.76	14.96	16.59	16.10	18.36	17.69	16.23
17	15.46	16.05	15.00	16.39	15.19	14.75	15.01	16.58	16.21	18.51	17.66	16.22
18	15.45	16.11	15.10	16.36	15.19	14.79	15.09	16.51	16.26	18.52	17.53	16.27
19	15.50	16.08	15.06	16.19	15.19	14.84	15.14	16.49	16.34	18.55	16.86	16.35
20	15.53	15.97	15.15	16.01	15.18	14.79	15.18	16.53	16.31	18.49	---	16.39
21	15.53	15.95	15.21	15.91	15.16	14.29	15.23	16.58	16.38	18.46	---	16.47
22	15.55	16.03	15.22	15.83	15.13	14.24	15.28	16.63	16.42	18.51	---	16.55
23	15.60	16.04	15.30	15.73	15.05	14.29	15.32	16.67	16.44	18.47	---	16.64
24	15.65	16.01	15.27	15.69	15.03	14.36	15.40	16.73	16.49	18.37	---	16.67
25	15.64	15.87	15.29	15.67	14.95	14.38	15.45	16.81	16.48	18.25	16.18	16.58
26	15.63	15.50	15.31	15.71	14.95	14.40	15.46	16.82	16.58	18.18	16.19	16.55
27	15.62	15.35	15.28	15.68	14.96	14.47	15.47	16.75	16.66	18.16	16.21	16.55
28	15.66	15.32	15.24	15.71	14.90	14.54	15.50	16.72	16.72	18.13	16.27	16.59
29	15.73	15.29	15.27	15.69	---	14.47	15.59	16.51	16.82	18.00	16.35	16.65
30	15.77	15.28	15.26	15.63	---	14.32	15.61	16.33	16.89	17.72	16.36	16.70
31	15.81	---	15.32	15.67	---	14.33	---	16.25	---	17.61	16.33	---

WTR YR 2001 MEAN 15.94 HIGH 14.24 LOW 18.55

DUPLIN COUNTY--Continued

345051078012101 Local number, NC-174; DENR Rose Hill Research Station well V32v1; County number, DU-126





DUPLIN COUNTY--Continued

345051078012106. Local number, NC-218; DENR Rose Hill Research Station well V32v6; County number, DU-135.
LOCATION.--Lat 34°50'51", long 78°01'21", Hydrologic Unit 03030007, 1.5 mi north of Rose Hill at Rose Hill-Magnolia Elementary School, east of U.S. Highway 117 on Secondary Road 1911. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 218 ft, diameter 4 in. to 103 ft, diameter 2.5 in. from 103 to 208 ft, screened interval from 208 to 218 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 86 ft above sea level (from topographic map). Measuring point: Top of collar attached to casing, 2.25 ft above land-surface datum; revised from 2.62 ft above land-surface datum, May 5, 1999
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--May 1982 to current year. Continuous record began August 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.14 ft below land-surface datum, May 19, 1982; lowest water level recorded, 44.23 ft below land-surface datum, July 26, 2001.

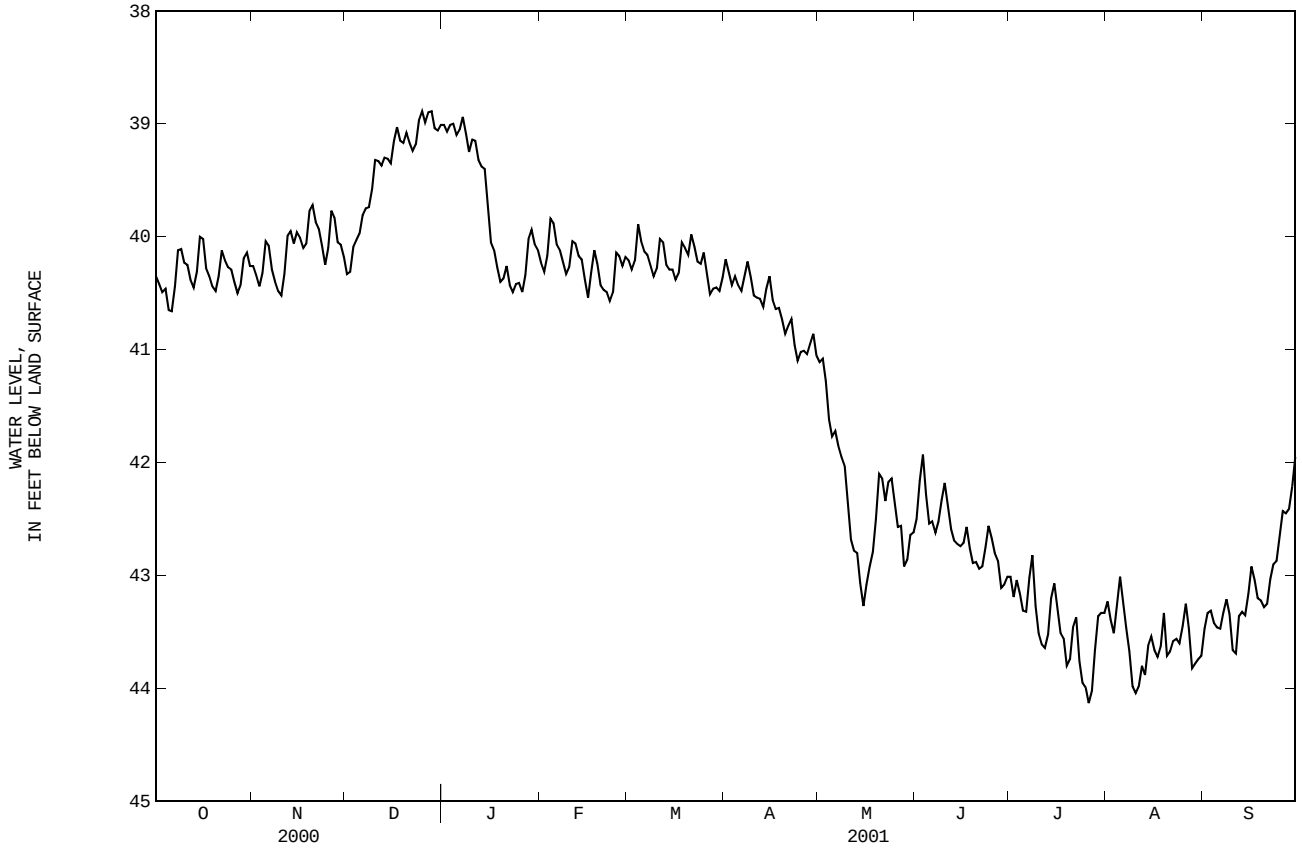
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

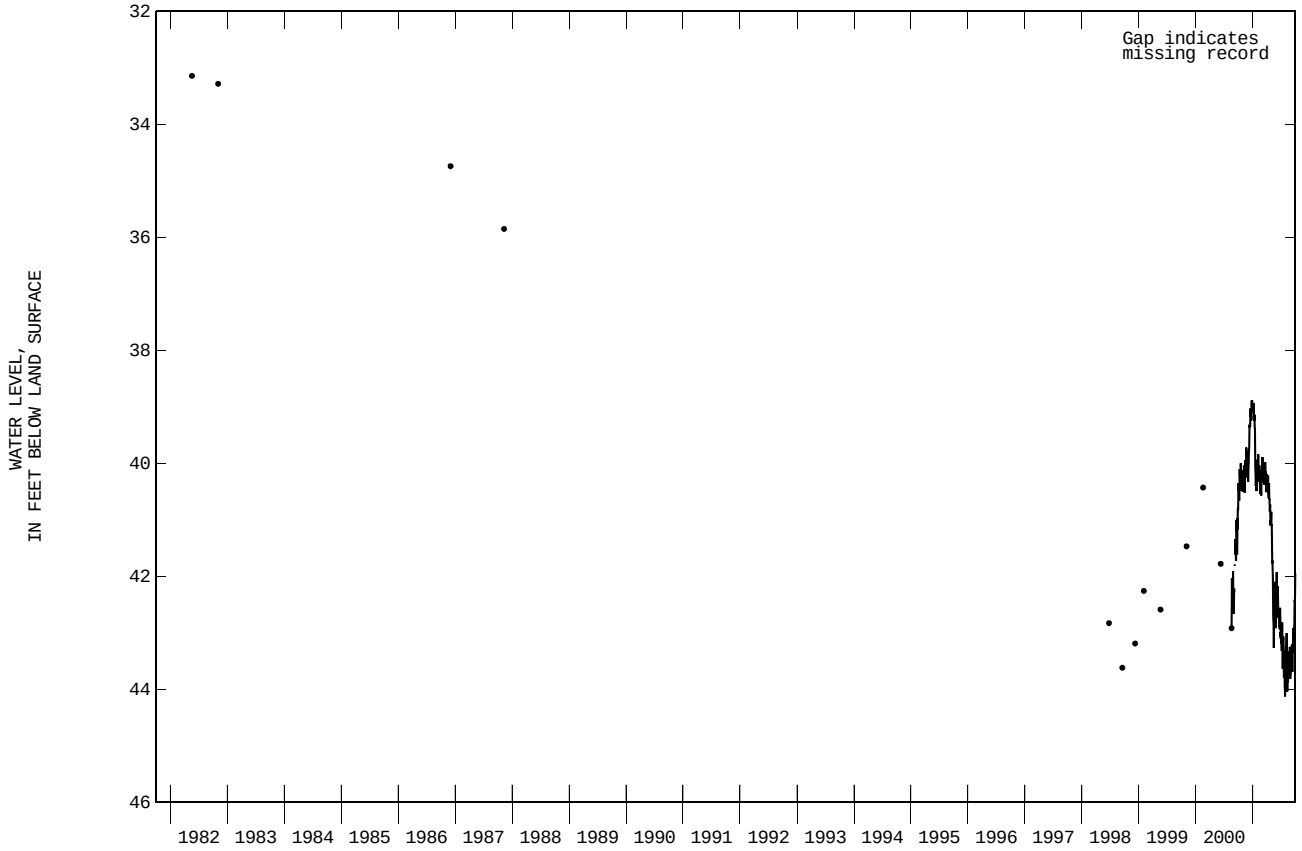
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.35	40.26	40.33	39.01	40.23	40.21	40.20	41.11	42.50	43.01	43.23	43.47
2	40.42	40.34	40.31	39.07	40.31	40.29	40.32	41.08	42.16	43.19	43.39	43.33
3	40.49	40.44	40.09	39.01	40.17	40.21	40.43	41.28	41.93	43.04	43.51	43.31
4	40.46	40.32	40.03	39.00	39.84	39.89	40.35	41.62	42.28	43.16	43.27	43.42
5	40.65	40.04	39.97	39.10	39.88	40.04	40.43	41.77	42.54	43.31	43.01	43.46
6	40.66	40.08	39.81	39.05	40.07	40.13	40.48	41.72	42.52	43.32	43.22	43.47
7	40.44	40.29	39.75	38.94	40.12	40.16	40.35	41.85	42.62	43.02	43.47	43.33
8	40.12	40.40	39.74	39.09	40.22	40.26	40.22	41.95	42.52	42.82	43.67	43.21
9	40.11	40.48	39.58	39.25	40.33	40.35	40.36	42.03	42.33	43.27	43.98	43.34
10	40.23	40.52	39.32	39.14	40.27	40.28	40.52	42.34	42.18	43.51	44.04	43.66
11	40.25	40.33	39.33	39.15	40.04	40.02	40.54	42.68	42.39	43.61	43.98	43.69
12	40.38	39.99	39.37	39.32	40.06	40.05	40.55	42.78	42.59	43.64	43.80	43.36
13	40.45	39.95	39.30	39.38	40.17	40.25	40.62	42.80	42.69	43.52	43.88	43.32
14	40.31	40.06	39.31	39.40	40.20	40.29	40.46	43.07	42.72	43.20	43.62	43.35
15	40.00	39.96	39.35	39.73	40.38	40.29	40.35	43.27	42.74	43.07	43.54	43.16
16	40.02	40.01	39.15	40.05	40.54	40.38	40.56	43.08	42.71	43.31	43.66	42.92
17	40.28	40.10	39.03	40.12	40.32	40.32	40.64	42.92	42.57	43.51	43.72	43.04
18	40.35	40.06	39.15	40.27	40.12	40.05	40.63	42.79	42.76	43.56	43.63	43.20
19	40.44	39.77	39.17	40.40	40.24	40.10	40.73	42.50	42.89	43.80	43.33	43.22
20	40.48	39.72	39.08	40.37	40.43	40.16	40.86	42.10	42.88	43.74	43.71	43.28
21	40.35	39.87	39.17	40.26	40.47	39.98	40.79	42.14	42.94	43.46	43.67	43.25
22	40.12	39.93	39.24	40.43	40.49	40.09	40.73	42.34	42.92	43.37	43.58	43.03
23	40.21	40.08	39.18	40.49	40.57	40.22	40.96	42.17	42.75	43.76	43.56	42.90
24	40.27	40.25	38.97	40.42	40.49	40.24	41.10	42.14	42.56	43.95	43.60	42.87
25	40.29	40.10	38.89	40.41	40.14	40.14	41.02	42.35	42.67	43.99	43.45	42.67
26	40.40	39.77	38.99	40.49	40.17	40.33	41.01	42.57	42.80	44.13	43.25	42.43
27	40.50	39.83	38.90	40.34	40.26	40.51	41.04	42.56	42.87	44.02	43.47	42.45
28	40.43	40.05	38.89	40.02	40.18	40.46	40.95	42.92	43.11	43.66	43.82	42.41
29	40.19	40.07	39.04	39.94	---	40.45	40.86	42.86	43.08	43.36	43.78	42.21
30	40.14	40.18	39.06	40.07	---	40.48	41.05	42.64	43.01	43.33	43.74	41.95
31	40.26	---	39.01	40.12	---	40.36	---	42.62	---	43.33	43.71	---

WTR YR 2001 MEAN 41.32 HIGH 38.89 LOW 44.13

DUPLIN COUNTY--Continued

345051078012106 Local number, NC-218; DENR Rose Hill Research Station well V32v6; County number, DU-135





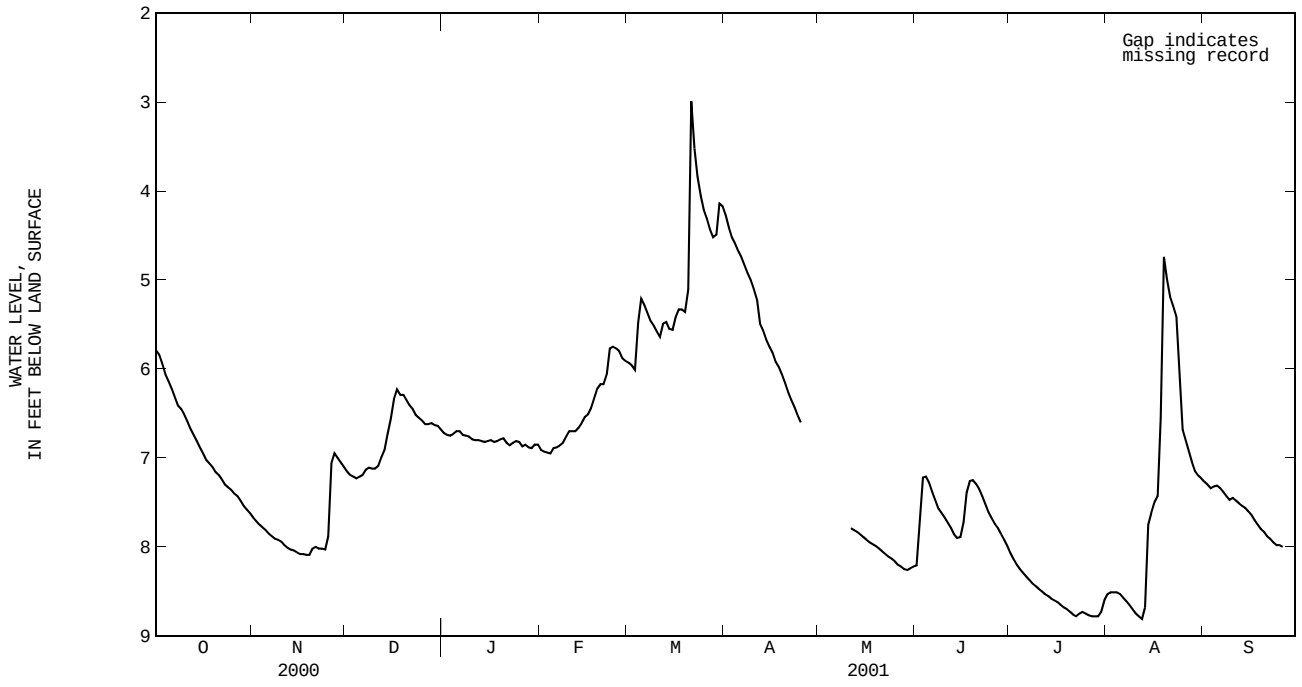
DUPLIN COUNTY--Continued

345051078012108. Local number, NC-222; DENR Rose Hill Research Station well V32v8; County number, DU-136.
LOCATION.--Lat 34°50'51", long 78°01'21", Hydrologic Unit 03030007, 1.5 mi north of Rose Hill at Rose Hill-Magnolia Elementary School, east of U.S. Highway 117 on Secondary Road 1911. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 14 ft, diameter 4 in., screened interval from 10 to 14 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 86 ft above sea level (from topographic map). Measuring point: Top of 4 in. casing collar, 1.48 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.59 ft below land-surface datum, Mar. 21, 2001; lowest water level recorded, 8.84 ft below land-surface datum, Aug. 13, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.79	7.67	7.15	6.72	6.91	5.93	4.27	---	8.21	8.07	8.53	7.27
2	5.84	7.71	7.19	6.74	6.93	5.96	4.41	---	7.66	8.14	8.51	7.30
3	5.94	7.75	7.21	6.75	6.94	6.01	4.52	---	7.22	8.20	8.51	7.34
4	6.06	7.78	7.23	6.73	6.95	5.48	4.59	---	7.21	8.25	8.51	7.32
5	6.14	7.81	7.21	6.70	6.89	5.21	4.67	---	7.28	8.29	8.53	7.31
6	6.22	7.85	7.19	6.70	6.88	5.28	4.74	---	7.38	8.33	8.57	7.34
7	6.32	7.88	7.13	6.74	6.86	5.37	4.83	---	7.48	8.37	8.61	7.38
8	6.41	7.91	7.11	6.75	6.83	5.46	4.92	---	7.57	8.41	8.65	7.43
9	6.45	7.92	7.12	6.76	6.76	5.51	5.00	---	7.62	8.44	8.70	7.47
10	6.51	7.94	7.12	6.79	6.70	5.58	5.10	---	7.67	8.47	8.75	7.45
11	6.59	7.98	7.09	6.80	6.70	5.64	5.22	7.79	7.73	8.50	8.78	7.48
12	6.67	8.01	6.99	6.80	6.70	5.49	5.49	7.81	7.79	8.53	8.81	7.51
13	6.74	8.03	6.91	6.81	6.66	5.47	5.57	7.83	7.86	8.55	8.68	7.54
14	6.81	8.04	6.72	6.82	6.61	5.55	5.67	7.86	7.90	8.58	7.75	7.56
15	6.88	8.06	6.56	6.81	6.54	5.56	5.75	7.89	7.89	8.60	7.62	7.60
16	6.95	8.08	6.34	6.80	6.51	5.42	5.82	7.92	7.72	8.62	7.50	7.64
17	7.02	8.08	6.23	6.82	6.44	5.33	5.92	7.95	7.39	8.65	7.43	7.70
18	7.06	8.09	6.29	6.81	6.33	5.33	5.98	7.97	7.26	8.68	6.55	7.75
19	7.10	8.09	6.29	6.79	6.22	5.36	6.06	7.99	7.25	8.70	4.74	7.80
20	7.16	8.02	6.35	6.78	6.17	5.11	6.16	8.02	7.29	8.73	4.99	7.83
21	7.19	8.00	6.41	6.83	6.17	2.99	6.26	8.05	7.35	8.76	5.19	7.88
22	7.24	8.02	6.45	6.86	6.06	3.52	6.35	8.08	7.43	8.78	5.29	7.91
23	7.30	8.02	6.52	6.83	5.77	3.84	6.43	8.11	7.52	8.75	5.41	7.95
24	7.33	8.03	6.55	6.81	5.75	4.05	6.52	8.13	7.61	8.73	5.98	7.98
25	7.36	7.88	6.58	6.82	5.77	4.21	6.60	8.16	7.68	8.75	6.68	7.98
26	7.40	7.06	6.62	6.87	5.80	4.31	---	8.20	7.74	8.77	6.80	8.00
27	7.43	6.95	6.62	6.85	5.88	4.43	---	8.22	7.79	8.78	6.92	---
28	7.48	7.00	6.61	6.88	5.91	4.52	---	8.25	7.86	8.78	7.05	---
29	7.54	7.05	6.63	6.89	---	4.49	---	8.26	7.92	8.78	7.15	---
30	7.58	7.10	6.64	6.85	---	4.14	---	8.24	7.99	8.73	7.20	---
31	7.62	---	6.68	6.85	---	4.17	---	8.22	---	8.60	7.23	---

WTR YR 2001 MEAN 7.02 HIGH 2.99 LOW 8.81



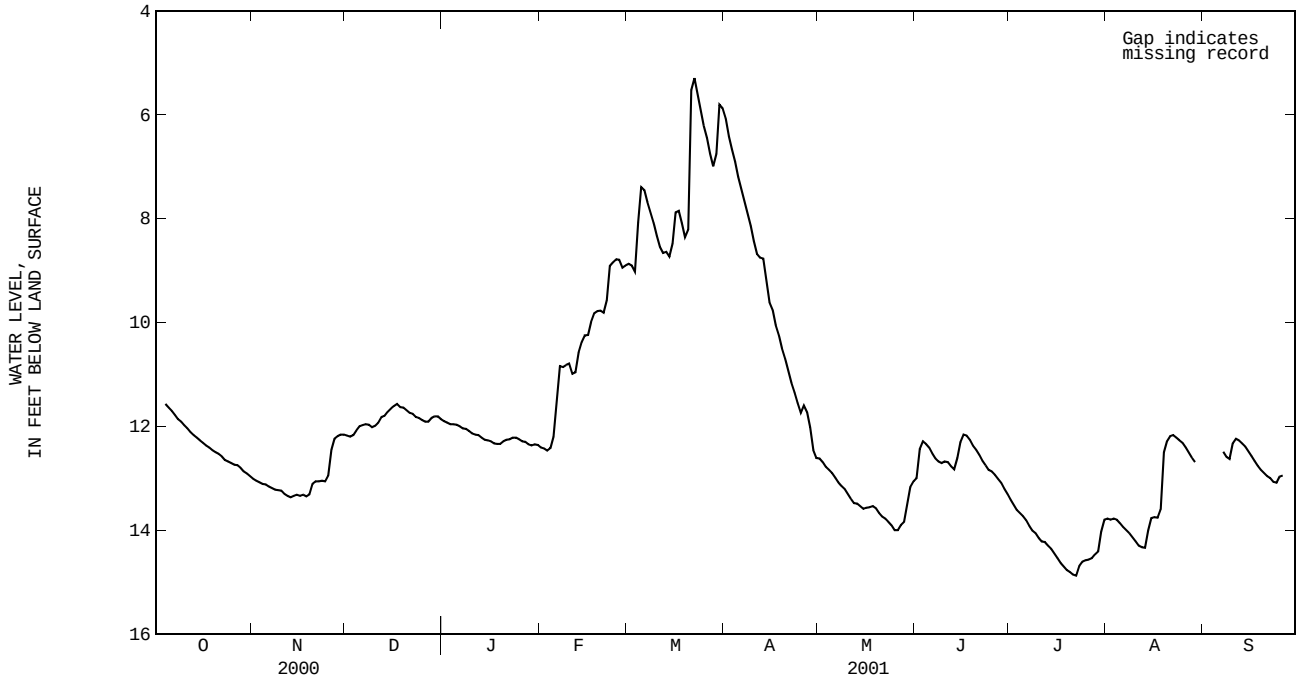
DUPLIN COUNTY--Continued

345051078012103. Local number, NC-224; DENR Rose Hill Research Station well V32v3; County number, DU-134.
LOCATION.--Lat 34°50'51", long 78°01'21", Hydrologic Unit 03030007, 1.5 mi north of Rose Hill at Rose Hill-Magnolia Elementary School, east of U.S. Highway 117 on Secondary Road 1911. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 46 ft, diameter 4 in., screened interval from 36 to 46 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 86 ft above sea level (from topographic map). Measuring point: Top of 4 in. casing collar, 1.50 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.21 ft below land-surface datum, March 22, 2001; lowest water level recorded, 14.93 ft below land-surface datum, July 22, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.01	12.18	11.90	12.41	8.87	6.06	12.62	13.00	13.41	13.78	---
2	---	13.05	12.20	11.93	12.43	8.90	6.41	12.69	12.44	13.51	13.80	---
3	---	13.08	12.17	11.96	12.47	9.02	6.66	12.78	12.29	13.61	13.78	---
4	11.57	13.11	12.08	11.96	12.42	8.07	6.90	12.84	12.34	13.67	13.80	---
5	11.64	13.12	12.00	11.97	12.20	7.39	7.19	12.90	12.41	13.73	13.87	---
6	11.70	13.16	11.98	12.00	11.56	7.45	7.42	12.99	12.52	13.81	13.94	---
7	11.78	13.19	11.96	12.04	10.84	7.68	7.65	13.08	12.62	13.92	14.00	12.49
8	11.86	13.22	11.97	12.05	10.86	7.89	7.88	13.15	12.68	14.01	14.06	12.59
9	11.91	13.23	12.02	12.09	10.82	8.08	8.14	13.21	12.71	14.06	14.14	12.63
10	11.98	13.24	11.99	12.14	10.79	8.33	8.43	13.30	12.68	14.15	14.22	12.33
11	12.04	13.30	11.93	12.16	10.99	8.54	8.68	13.40	12.69	14.22	14.30	12.24
12	12.11	13.34	11.82	12.17	10.96	8.66	8.75	13.48	12.77	14.23	14.33	12.27
13	12.17	13.37	11.80	12.22	10.58	8.64	8.77	13.49	12.83	14.30	14.34	12.33
14	12.22	13.34	11.72	12.26	10.38	8.73	9.20	13.54	12.61	14.36	14.00	12.39
15	12.27	13.32	11.66	12.27	10.25	8.48	9.61	13.59	12.31	14.45	13.77	12.48
16	12.32	13.34	11.61	12.29	10.24	7.88	9.76	13.57	12.16	14.54	13.75	12.57
17	12.37	13.32	11.57	12.33	9.99	7.85	10.05	13.56	12.18	14.63	13.76	12.67
18	12.41	13.35	11.63	12.34	9.82	8.08	10.25	13.54	12.26	14.70	13.60	12.76
19	12.46	13.31	11.64	12.34	9.78	8.36	10.50	13.58	12.37	14.77	12.50	12.84
20	12.50	13.11	11.69	12.29	9.77	8.21	10.70	13.67	12.45	14.81	12.29	12.90
21	12.53	13.06	11.74	12.26	9.81	5.52	10.93	13.74	12.55	14.86	12.19	12.96
22	12.58	13.06	11.76	12.25	9.57	5.29	11.16	13.78	12.66	14.88	12.17	13.00
23	12.65	13.05	11.82	12.22	8.91	5.59	11.35	13.84	12.75	14.69	12.22	13.07
24	12.68	13.06	11.84	12.22	8.84	5.92	11.55	13.91	12.84	14.61	12.27	13.09
25	12.71	12.95	11.88	12.25	8.78	6.21	11.74	14.00	12.87	14.58	12.32	12.97
26	12.74	12.45	11.91	12.29	8.79	6.44	11.60	14.00	12.93	14.57	12.41	12.95
27	12.75	12.24	11.91	12.30	8.94	6.74	11.73	13.90	13.01	14.54	12.51	---
28	12.80	12.19	11.84	12.35	8.90	6.99	12.02	13.84	13.09	14.47	12.61	---
29	12.87	12.16	11.81	12.37	---	6.75	12.46	13.48	13.20	14.41	12.69	---
30	12.91	12.16	11.81	12.35	---	5.80	12.61	13.17	13.30	14.03	---	---
31	12.96	---	11.86	12.36	---	5.87	---	13.06	---	13.80	---	---

WTR YR 2001 MEAN 11.92 HIGH 5.29 LOW 14.88



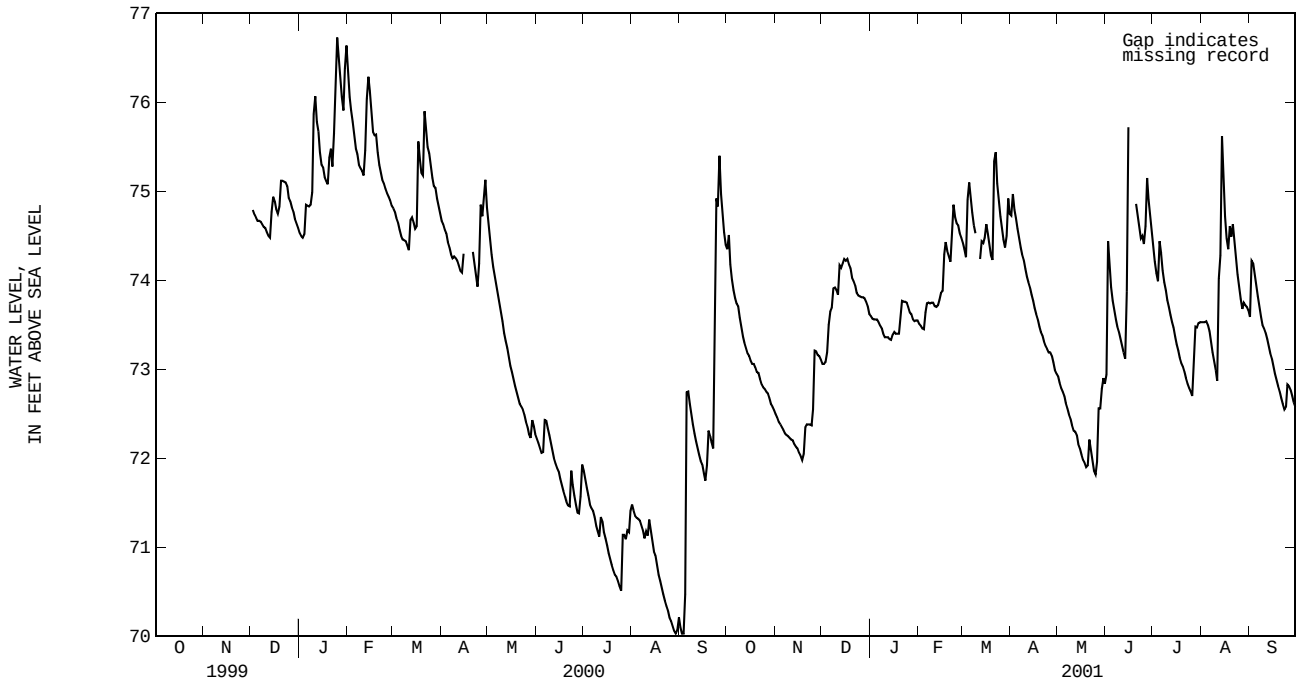
GREENE COUNTY

353103077333401. County number, GR-082; L2 Lizzie N26q2.
LOCATION.--Lat 35°31'03", long 77°33'34", Hydrologic Unit 03020203, near Lizzie, 20 ft north of State Road 1335. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial.
WELL CHARACTERISTICS.--Drilled observation well, depth 18 ft, diameter 2 in., cased to 6 ft, screened interval from 6 to 16 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 15-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 76.96 ft above National Geodetic Vertical Datum of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 2.71 ft above land surface datum.
REMARKS.--Well is part of multimedia integrated modeling system (MIMS) project.
PERIOD OF RECORD.--December 1999 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded 76.98 ft, above NGVD, Jan. 25, 2000; lowest water level recorded, 69.99 ft, above NGVD, Aug. 30, 2000.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74.35	72.50	73.06	73.60	73.51	74.42	74.73	72.92	72.94	74.38	73.53	73.59
2	74.51	72.46	73.06	73.57	73.49	74.35	74.97	72.85	74.44	74.21	73.53	74.22
3	74.18	72.41	73.08	73.56	73.46	74.26	74.79	72.79	74.15	74.08	73.53	74.19
4	74.01	72.38	73.19	73.56	73.45	74.91	74.70	72.75	73.92	73.99	73.54	74.07
5	73.89	72.35	73.50	73.56	73.64	75.10	74.58	72.70	73.77	74.44	73.50	73.95
6	73.80	72.32	73.65	73.53	73.74	74.94	74.48	72.62	73.66	74.31	73.43	73.82
7	73.74	72.28	73.69	73.49	73.75	74.76	74.37	72.56	73.56	74.11	73.32	73.71
8	73.71	72.26	73.91	73.46	73.74	74.62	74.29	72.49	73.48	73.98	73.19	73.59
9	73.58	72.25	73.92	73.40	73.75	74.53	74.23	72.44	73.42	73.89	73.09	73.50
10	73.47	72.23	73.89	73.36	73.75	---	74.13	72.37	73.34	73.78	72.99	73.46
11	73.37	72.21	73.84	73.36	73.71	---	74.04	72.31	73.26	73.70	72.87	73.41
12	73.30	72.20	74.17	73.36	73.70	74.24	73.98	72.30	73.19	73.61	74.02	73.34
13	73.24	72.16	74.14	73.34	73.72	74.44	73.92	72.26	73.12	73.53	74.28	73.26
14	73.18	72.13	74.19	73.33	73.78	74.42	73.84	72.16	73.87	73.47	75.62	73.18
15	73.15	72.11	74.24	73.39	73.86	74.48	73.77	72.11	75.72	73.37	75.10	73.12
16	73.10	72.06	74.22	73.42	73.88	74.63	73.69	72.04	---	73.28	74.72	73.03
17	73.06	72.03	74.24	73.40	74.29	74.52	73.62	71.98	---	73.21	74.47	72.95
18	73.06	71.98	74.18	73.40	74.43	74.39	73.56	71.95	---	73.13	74.35	72.88
19	73.02	72.05	74.14	73.40	74.33	74.28	73.48	71.90	---	73.07	74.61	72.81
20	72.97	72.35	74.03	73.59	74.27	74.23	73.42	71.92	74.86	73.03	74.49	72.75
21	72.96	72.38	73.99	73.77	74.21	75.34	73.38	72.21	74.72	72.97	74.63	72.68
22	72.89	72.38	73.94	73.76	74.48	75.44	73.31	72.09	74.59	72.90	74.42	72.61
23	72.83	72.38	73.86	73.76	74.85	75.09	73.26	71.97	74.47	72.84	74.22	72.55
24	72.80	72.37	73.83	73.75	74.71	74.89	73.23	71.86	74.50	72.79	74.07	72.58
25	72.78	72.55	73.82	73.70	74.64	74.72	73.19	71.82	74.41	72.75	73.93	72.83
26	72.75	73.21	73.81	73.64	74.62	74.58	73.19	71.96	74.61	72.70	73.79	72.81
27	72.73	73.20	73.81	73.62	74.53	74.46	73.15	72.56	75.15	73.07	73.68	72.77
28	72.68	73.16	73.80	73.56	74.48	74.37	73.08	72.56	74.91	73.48	73.75	72.70
29	72.61	73.15	73.76	73.54	---	74.50	72.99	72.78	74.73	73.47	73.72	72.63
30	72.58	73.11	73.71	73.55	---	74.92	72.95	72.90	74.55	73.52	73.70	72.58
31	72.54	---	73.62	73.55	---	74.75	---	72.84	---	73.53	73.66	---

WTR YR 2001 MEAN 73.53 MAX 75.72 MIN 71.82



Observation well GR-110 (L17) and GR-111 (L18) multimedia intergrated modeling system (MIMS) project, Greene County, North Carolina (p. 116, 118).

GREENE COUNTY--Continued

353135077332701. County number, GR-110; L17.
LOCATION.--Lat 35°31'35", long 77°33'27", Hydrologic Unit 03020203, near Lizzie, 200 ft west of State Road 1345. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Yorktown.
WELL CHARACTERISTICS.--Drilled observation well, depth 68 ft, diameter 2 in., screened interval from 41 to 61 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 15-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 72.50 ft above National Geodetic Vertical Datum of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 2.74 ft above land surface datum.
REMARKS.--Well is part of multimedia integrated modeling system (MIMS) project.
PERIOD OF RECORD.--April 2000 to current year. Continuous record began December 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded 45.10 ft above NGVD, June 17, 2001; lowest water level measured 42.01 ft above NGVD, Aug. 24, 2000.

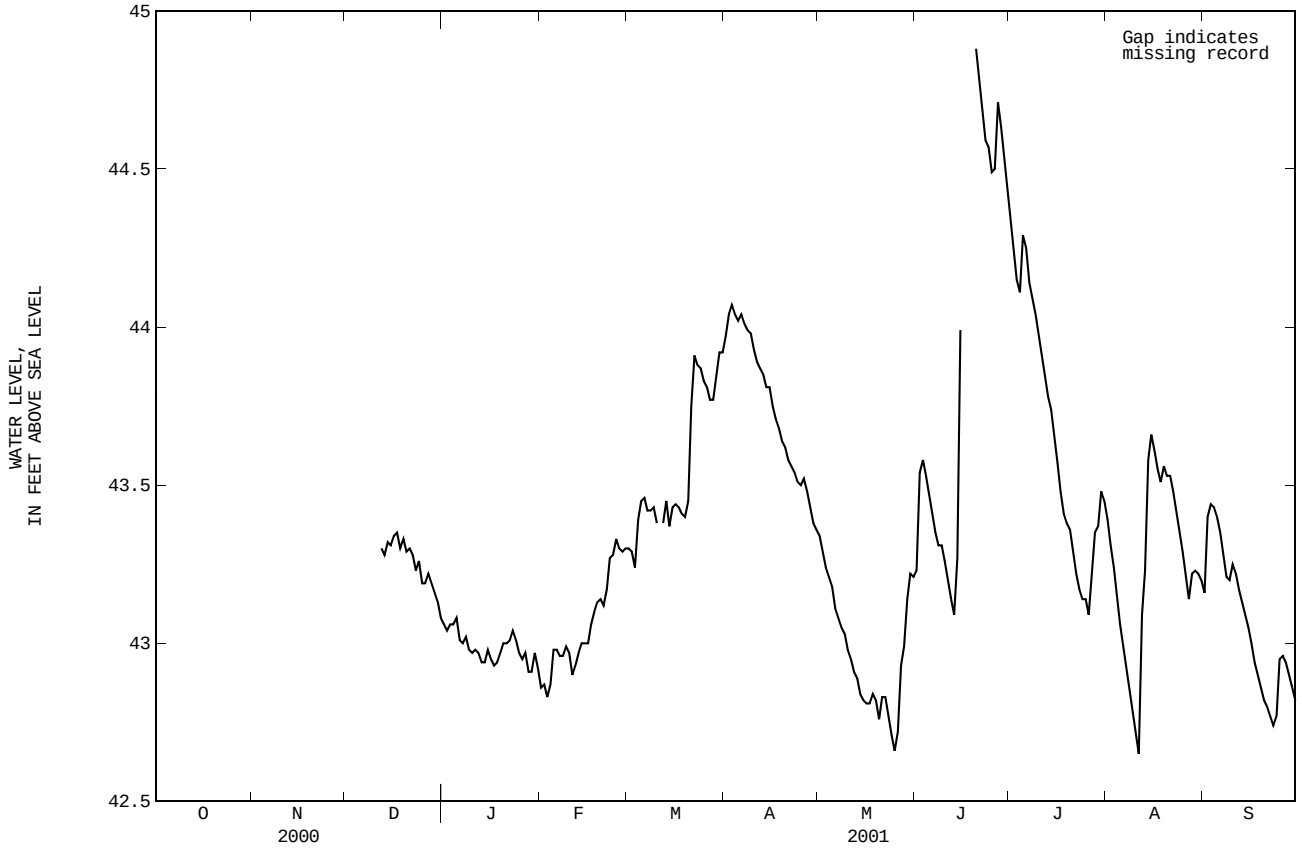
ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

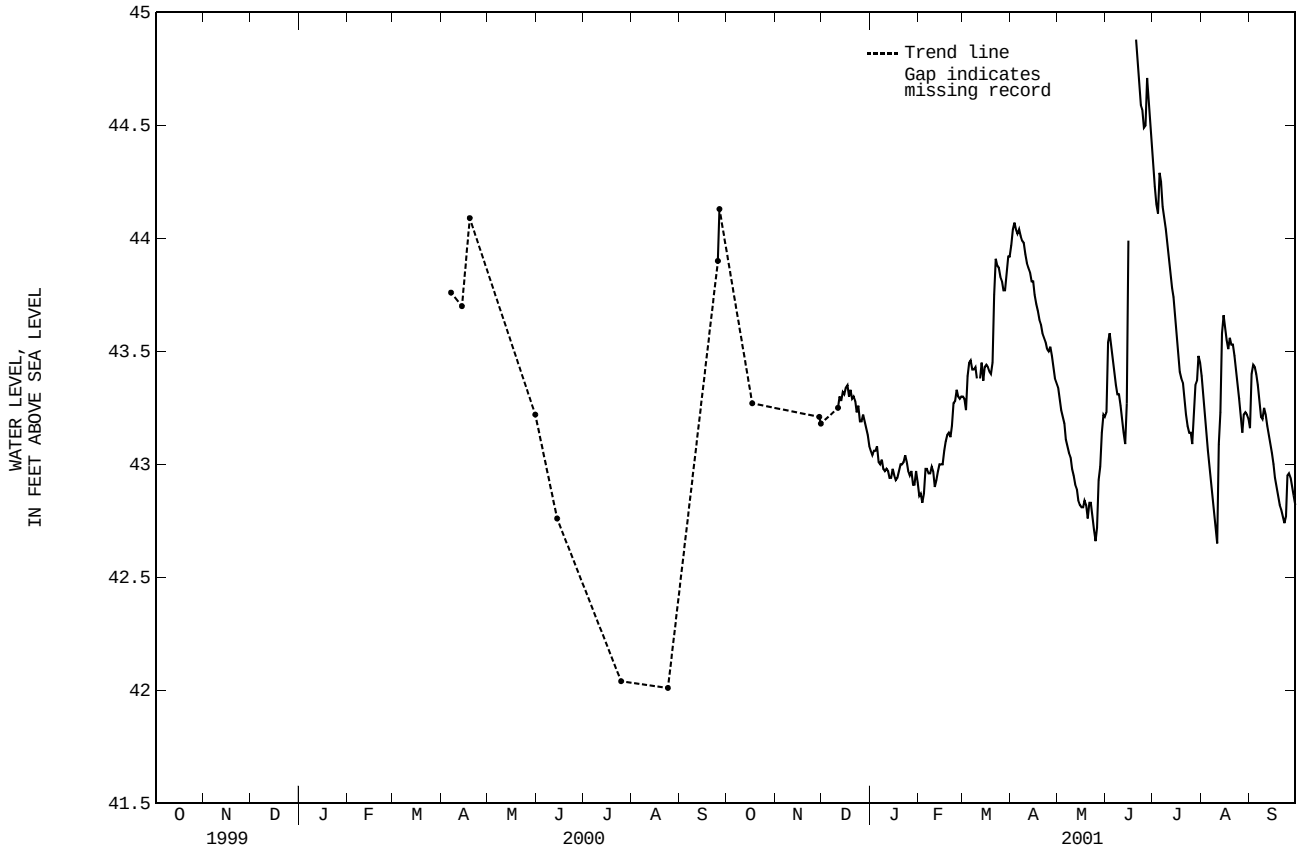
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	43.06	42.86	43.30	43.97	43.34	43.23	44.32	43.39	43.16
2	---	---	---	43.04	42.87	43.29	44.04	43.29	43.54	44.23	43.31	43.40
3	---	---	---	43.06	42.83	43.24	44.07	43.24	43.58	44.15	43.24	43.44
4	---	---	---	43.06	42.87	43.39	44.04	43.21	43.53	44.11	43.15	43.43
5	---	---	---	43.08	42.98	43.45	44.02	43.18	43.47	44.29	43.06	43.40
6	---	---	---	43.01	42.98	43.46	44.04	43.11	43.41	44.25	42.99	43.35
7	---	---	---	43.00	42.96	43.42	44.01	43.08	43.35	44.14	42.92	43.28
8	---	---	---	43.02	42.96	43.42	43.99	43.05	43.31	44.09	42.85	43.21
9	---	---	---	42.98	42.99	43.43	43.98	43.03	43.31	44.04	42.78	43.20
10	---	---	---	42.97	42.97	43.38	43.93	42.98	43.26	43.97	42.71	43.25
11	---	---	---	42.98	42.90	---	43.89	42.95	43.20	43.90	42.65	43.22
12	---	---	43.30	42.97	42.93	43.38	43.87	42.91	43.14	43.84	43.09	43.17
13	---	---	43.28	42.94	42.97	43.45	43.85	42.89	43.09	43.78	43.23	43.13
14	---	---	43.32	42.94	43.00	43.37	43.81	42.84	43.27	43.74	43.58	43.09
15	---	---	43.31	42.98	43.00	43.43	43.81	42.82	43.99	43.65	43.66	43.05
16	---	---	43.34	42.95	43.00	43.44	43.75	42.81	---	43.57	43.61	43.00
17	---	---	43.35	42.93	43.06	43.43	43.71	42.81	---	43.48	43.55	42.94
18	---	---	43.30	42.94	43.10	43.41	43.68	42.84	---	43.41	43.51	42.90
19	---	---	43.33	42.97	43.13	43.40	43.64	42.82	---	43.38	43.56	42.86
20	---	---	43.29	43.00	43.14	43.45	43.62	42.76	44.88	43.36	43.53	42.82
21	---	---	43.30	43.00	43.12	43.75	43.58	42.83	44.78	43.29	43.53	42.80
22	---	---	43.28	43.01	43.17	43.91	43.56	42.83	44.68	43.22	43.48	42.77
23	---	---	43.23	43.04	43.27	43.88	43.54	42.77	44.59	43.17	43.41	42.74
24	---	---	43.26	43.01	43.28	43.87	43.51	42.71	44.57	43.14	43.35	42.77
25	---	---	43.19	42.97	43.33	43.83	43.50	42.66	44.49	43.14	43.29	42.95
26	---	---	43.19	42.95	43.30	43.81	43.52	42.72	44.50	43.09	43.21	42.96
27	---	---	43.22	42.97	43.29	43.77	43.48	42.93	44.71	43.23	43.14	42.94
28	---	---	43.19	42.91	43.30	43.77	43.43	42.99	44.63	43.35	43.22	42.90
29	---	---	43.16	42.91	---	43.85	43.38	43.14	44.52	43.37	43.23	42.86
30	---	---	43.13	42.97	---	43.92	43.36	43.22	44.42	43.48	43.22	42.82
31	---	---	43.08	42.92	---	43.92	---	43.21	---	43.45	43.20	---

WTR YR 2001 MEAN 43.34 MAX 44.88 MIN 42.65

GREENE COUNTY--Continued

353135077332701 County number, GR-110; L17





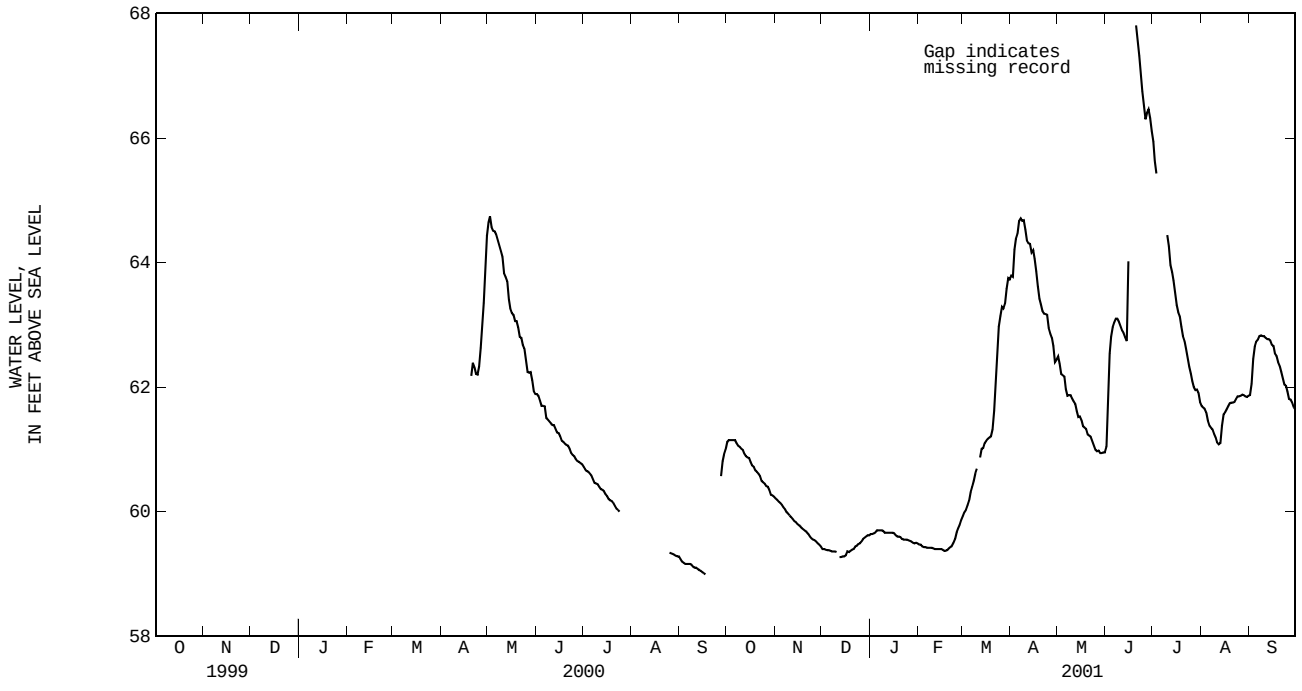
GREENE COUNTY--Continued

353135077332702. County number, GR-111; L18 Lizzie
LOCATION.--Lat 35°31'35", long 77°33'27", Hydrologic Unit 03020203, near Lizzie, 200 ft west of State Road 1345. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial.
WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 2 in., screened interval from 10 to 20 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 15-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 72.83 ft above National Geodetic Vertical Datum of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 3.26 ft above land-surface datum.
REMARKS.--Well is part of multimedia integrated modeling system (MIMS) project.
PERIOD OF RECORD.--April 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 68.40 ft above NGVD, June 17, 2001; lowest water level recorded, 58.99 ft above NGVD, Sept. 16, 2000.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61.12	60.21	59.40	59.64	59.47	59.93	63.79	62.49	61.04	65.94	61.70	61.87
2	61.15	60.19	59.40	59.64	59.47	59.99	63.77	62.38	61.71	65.63	61.67	62.05
3	61.15	60.16	59.39	59.65	59.44	60.03	64.21	62.21	62.54	65.43	61.65	62.45
4	61.15	60.14	59.38	59.67	59.43	60.10	64.38	62.19	62.81	---	61.59	62.65
5	61.15	60.11	59.38	59.70	59.43	60.18	64.46	62.17	62.96	---	61.46	62.73
6	61.15	60.07	59.37	59.70	59.42	60.31	64.67	61.97	63.04	---	61.38	62.76
7	61.10	60.04	59.36	59.70	59.42	60.40	64.71	61.86	63.10	---	61.35	62.82
8	61.06	59.99	59.36	59.70	59.42	60.50	64.67	61.87	63.10	---	61.32	62.83
9	61.04	59.97	59.36	59.69	59.42	60.62	64.68	61.87	63.05	---	61.25	62.82
10	61.01	59.94	59.35	59.66	59.41	60.69	64.53	61.82	62.98	64.44	61.19	62.82
11	60.99	59.91	---	59.66	59.40	---	64.35	61.77	62.91	64.26	61.11	62.79
12	60.93	59.88	59.27	59.66	59.40	60.87	64.31	61.73	62.87	63.96	61.08	62.77
13	60.89	59.85	59.27	59.66	59.40	61.01	64.30	61.61	62.80	63.85	61.10	62.77
14	60.87	59.83	59.28	59.66	59.40	61.02	64.16	61.52	62.74	63.71	61.38	62.75
15	60.86	59.80	59.28	59.66	59.40	61.10	64.20	61.53	64.02	63.51	61.56	62.68
16	60.80	59.78	59.30	59.65	59.39	61.14	64.06	61.47	---	63.32	61.59	62.66
17	60.74	59.76	59.36	59.62	59.37	61.17	63.86	61.37	---	63.20	61.64	62.54
18	60.72	59.73	59.35	59.60	59.37	61.19	63.62	61.35	---	63.14	61.69	62.50
19	60.66	59.71	59.37	59.60	59.38	61.21	63.42	61.33	---	62.97	61.74	62.40
20	60.64	59.69	59.39	59.59	59.41	61.32	63.33	61.24	67.81	62.82	61.75	62.34
21	60.61	59.67	59.40	59.56	59.43	61.62	63.22	61.22	67.57	62.74	61.75	62.25
22	60.57	59.64	59.44	59.55	59.45	62.09	63.18	61.20	67.32	62.62	61.76	62.14
23	60.49	59.60	59.45	59.55	59.50	62.56	63.17	61.13	67.01	62.47	61.81	62.04
24	60.47	59.57	59.48	59.55	59.56	62.97	63.16	61.06	66.75	62.33	61.85	62.02
25	60.45	59.55	59.49	59.54	59.67	63.14	62.95	60.99	66.52	62.22	61.85	61.93
26	60.41	59.54	59.52	59.53	59.73	63.29	62.86	60.97	66.30	62.10	61.86	61.81
27	60.40	59.52	59.56	59.52	59.79	63.26	62.79	60.98	66.41	62.00	61.88	61.80
28	60.35	59.49	59.58	59.50	59.87	63.34	62.66	60.94	66.46	61.95	61.87	61.75
29	60.27	59.47	59.60	59.49	---	63.58	62.40	60.94	66.32	61.96	61.85	61.68
30	60.26	59.44	59.62	59.50	---	63.75	62.44	60.95	66.11	61.91	61.84	61.64
31	60.24	---	59.62	59.49	---	63.73	---	60.95	---	61.76	61.86	---

WTR YR 2001 MEAN 61.40 MAX 67.81 MIN 59.27

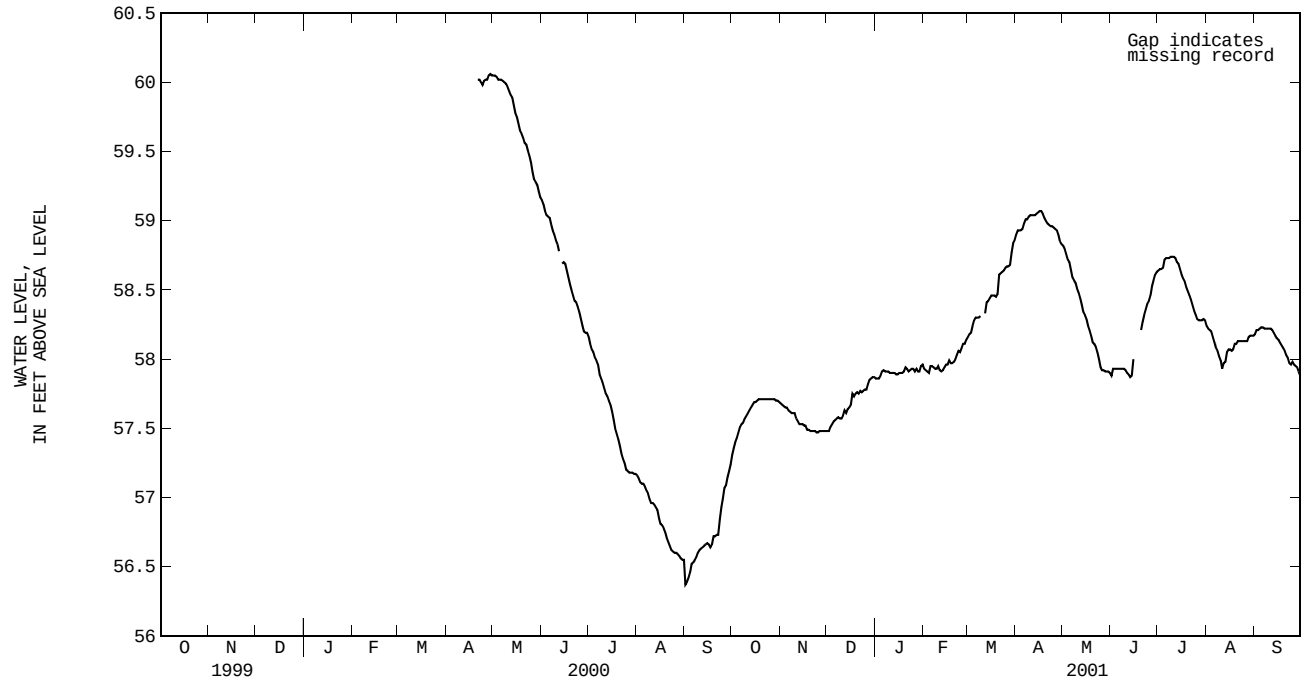


353103077333406. County number, GR-147; L55.
LOCATION.--Lat 35°31'03", long 77°33'34", Hydrologic Unit 03020203, near Lizzie, 20 ft north of State Road 1335. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Yorktown.
WELL CHARACTERISTICS.--Drilled observation well, depth 70 ft, diameter 2 in., screened interval from 50 to 70 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 15-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 77.46 ft above National Geodetic Vertical Datum of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 1.41 ft above land-surface datum.
REMARKS.--Well is part of multimedia integrated modeling system (MIMS) project. Minimum for period of record affected by pumping.
PERIOD OF RECORD.--April 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded 60.07 ft, above NGVD, Apr. 28, 29, 2000; lowest water level recorded 55.28 ft, above NGVD, Sept. 1, 2000.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57.31	57.68	57.48	57.86	57.93	58.16	58.90	58.82	57.88	58.64	58.24	58.18
2	57.36	57.67	57.48	57.86	57.92	58.18	58.93	58.80	57.93	58.65	58.22	58.21
3	57.40	57.66	57.51	57.86	57.91	58.19	58.93	58.76	57.93	58.65	58.21	58.21
4	57.43	57.65	57.53	57.88	57.90	58.24	58.93	58.72	57.93	58.66	58.20	58.22
5	57.47	57.65	57.55	57.91	57.95	58.28	58.94	58.70	57.93	58.72	58.16	58.23
6	57.51	57.63	57.56	57.92	57.95	58.30	58.98	58.65	57.93	58.73	58.12	58.23
7	57.53	57.62	57.57	57.91	57.94	58.30	59.01	58.59	57.93	58.73	58.08	58.22
8	57.54	57.61	57.58	57.91	57.93	58.30	59.01	58.57	57.93	58.73	58.06	58.22
9	57.57	57.61	57.57	57.91	57.93	58.31	59.03	58.55	57.93	58.74	58.02	58.22
10	57.59	57.61	57.57	57.90	57.95	---	59.04	58.51	57.92	58.74	57.99	58.22
11	57.61	57.57	57.59	57.90	57.92	---	59.04	58.48	57.90	58.74	57.93	58.22
12	57.63	57.55	57.63	57.90	57.91	58.33	59.04	58.44	57.89	58.73	57.97	58.21
13	57.65	57.53	57.61	57.90	57.92	58.41	59.04	58.39	57.87	58.70	57.98	58.19
14	57.67	57.53	57.64	57.89	57.94	58.42	59.05	58.34	57.88	58.69	58.05	58.17
15	57.69	57.53	57.65	57.89	57.96	58.44	59.06	58.32	58.00	58.65	58.07	58.15
16	57.69	57.52	57.67	57.90	57.96	58.46	59.07	58.29	---	58.61	58.07	58.14
17	57.70	57.52	57.75	57.90	57.99	58.46	59.07	58.24	---	58.58	58.06	58.12
18	57.71	57.49	57.73	57.90	57.97	58.46	59.05	58.21	---	58.56	58.07	58.10
19	57.71	57.49	57.75	57.91	57.97	58.45	59.02	58.17	---	58.52	58.11	58.08
20	57.71	57.48	57.76	57.94	57.98	58.47	59.00	58.12	58.21	58.49	58.11	58.06
21	57.71	57.48	57.75	57.93	58.00	58.61	58.98	58.11	58.27	58.46	58.13	58.03
22	57.71	57.48	57.77	57.91	58.03	58.62	58.97	58.09	58.32	58.43	58.13	58.01
23	57.71	57.48	57.76	57.92	58.06	58.63	58.96	58.05	58.36	58.39	58.13	57.97
24	57.71	57.47	57.77	57.93	58.05	58.64	58.96	58.00	58.40	58.35	58.13	57.96
25	57.71	57.47	57.78	57.93	58.08	58.66	58.95	57.94	58.42	58.32	58.13	57.98
26	57.71	57.48	57.78	57.91	58.11	58.67	58.94	57.92	58.46	58.29	58.13	57.96
27	57.71	57.48	57.82	57.93	58.11	58.67	58.93	57.92	58.53	58.28	58.13	57.95
28	57.71	57.48	57.85	57.91	58.14	58.68	58.90	57.91	58.57	58.28	58.16	57.94
29	57.70	57.48	57.86	57.91	---	58.77	58.85	57.91	58.61	58.28	58.17	57.91
30	57.70	57.48	57.87	57.95	---	58.84	58.83	57.91	58.63	58.29	58.17	57.88
31	57.69	---	57.87	57.96	---	58.86	---	57.90	---	58.28	58.17	---

WTR YR 2001 MEAN 58.11 MAX 59.07 MIN 57.31



HAYWOOD COUNTY

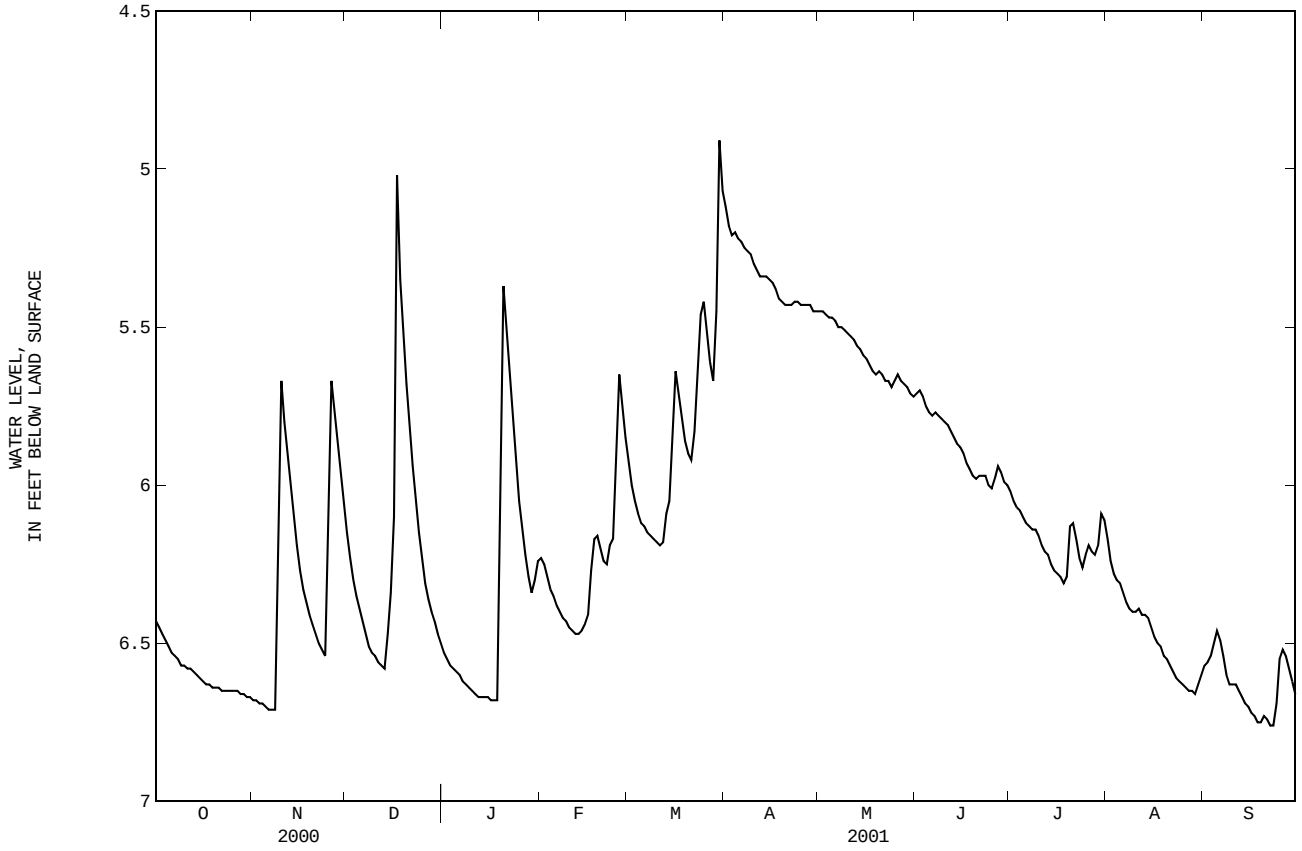
352315082484401. Local number, NC-40; County name, HW-047.
LOCATION.--Lat 35°23'15", long 82°48'44", Hydrologic Unit 06010106, 2 mi south of Cruso on U.S. Highway 276 at Camp Hope. Owner: Blue Ridge Paper Products, Inc.
AQUIFER.--Unconfined saprolite derived from muscovite-biotite gneiss of Precambrian age.
WELL CHARACTERISTICS.--Dug observation well, depth 18.5 ft, diameter 12 in., cased to 18.5 ft, open end, backfilled with gravel from 4 to 18.5 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 3,148.26 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--December 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.24 ft below land-surface datum, Mar. 12, 1977; lowest water level recorded, 6.90 ft below land-surface datum, Oct. 7, 8, 9, 1986.

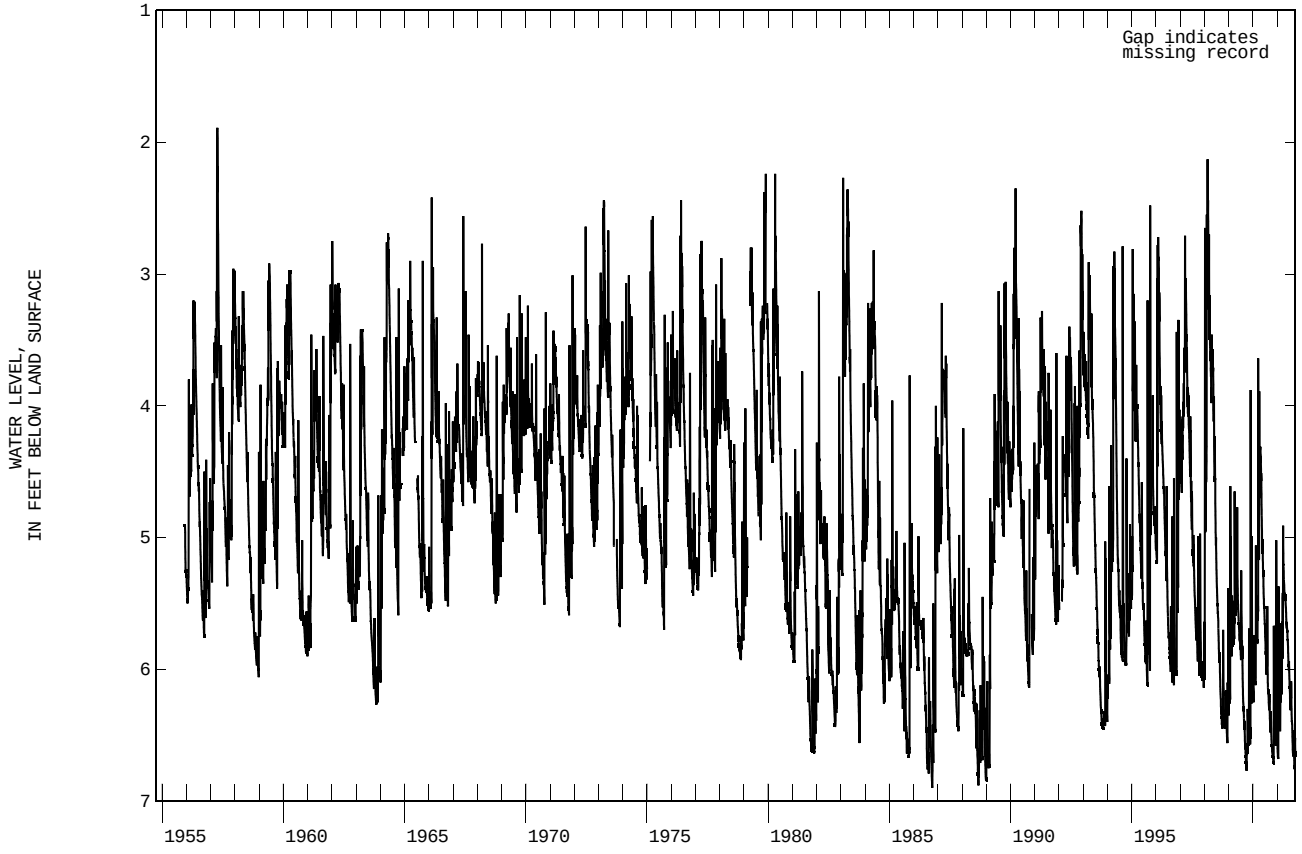
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.43	6.68	6.15	6.53	6.23	5.93	5.12	5.45	5.71	6.02	6.17	6.57
2	6.45	6.68	6.23	6.55	6.25	6.00	5.18	5.45	5.70	6.05	6.24	6.56
3	6.47	6.69	6.30	6.57	6.29	6.05	5.21	5.46	5.72	6.07	6.28	6.54
4	6.49	6.69	6.35	6.58	6.33	6.09	5.20	5.47	5.75	6.08	6.30	6.50
5	6.51	6.70	6.39	6.59	6.35	6.12	5.22	5.47	5.77	6.10	6.31	6.46
6	6.53	6.71	6.43	6.60	6.38	6.13	5.23	5.48	5.78	6.12	6.34	6.49
7	6.54	6.71	6.47	6.62	6.40	6.15	5.25	5.50	5.77	6.13	6.37	6.54
8	6.55	6.71	6.51	6.63	6.42	6.16	5.26	5.50	5.78	6.14	6.39	6.60
9	6.57	6.26	6.53	6.64	6.43	6.17	5.27	5.51	5.79	6.14	6.40	6.63
10	6.57	5.67	6.54	6.65	6.45	6.18	5.30	5.52	5.80	6.16	6.40	6.63
11	6.58	5.80	6.56	6.66	6.46	6.19	5.32	5.53	5.81	6.19	6.39	6.63
12	6.58	5.89	6.57	6.67	6.47	6.18	5.34	5.54	5.83	6.21	6.41	6.65
13	6.59	5.99	6.58	6.67	6.47	6.09	5.34	5.56	5.85	6.22	6.41	6.67
14	6.60	6.10	6.47	6.67	6.46	6.05	5.34	5.57	5.87	6.25	6.42	6.69
15	6.61	6.19	6.34	6.67	6.44	5.81	5.35	5.59	5.88	6.27	6.45	6.70
16	6.62	6.27	6.10	6.68	6.41	5.64	5.36	5.60	5.90	6.28	6.48	6.72
17	6.63	6.33	5.02	6.68	6.27	5.72	5.38	5.62	5.93	6.29	6.50	6.73
18	6.63	6.37	5.35	6.68	6.17	5.79	5.41	5.64	5.95	6.31	6.51	6.75
19	6.64	6.41	5.52	5.94	6.16	5.86	5.42	5.65	5.97	6.29	6.54	6.75
20	6.64	6.44	5.68	5.37	6.20	5.90	5.43	5.64	5.98	6.13	6.55	6.73
21	6.64	6.47	5.81	5.53	6.24	5.92	5.43	5.65	5.97	6.12	6.57	6.74
22	6.65	6.50	5.94	5.68	6.25	5.83	5.43	5.67	5.97	6.17	6.59	6.76
23	6.65	6.52	6.05	5.82	6.19	5.63	5.42	5.67	5.97	6.23	6.61	6.76
24	6.65	6.54	6.15	5.94	6.17	5.46	5.42	5.69	6.00	6.26	6.62	6.69
25	6.65	6.03	6.23	6.05	5.85	5.42	5.43	5.67	6.01	6.22	6.63	6.55
26	6.65	5.67	6.31	6.14	5.65	5.51	5.43	5.65	5.98	6.19	6.64	6.52
27	6.65	5.76	6.36	6.22	5.75	5.61	5.43	5.67	5.94	6.21	6.65	6.54
28	6.66	5.85	6.40	6.29	5.85	5.67	5.43	5.68	5.96	6.22	6.65	6.58
29	6.66	5.94	6.43	6.34	---	5.45	5.45	5.69	5.99	6.19	6.66	6.62
30	6.67	6.05	6.47	6.30	---	4.91	5.45	5.71	6.00	6.09	6.63	6.66
31	6.67	---	6.50	6.24	---	5.07	---	5.72	---	6.11	6.60	---

WTR YR 2001 MEAN 6.14 HIGH 4.91 LOW 6.76

352315082484401 Local number, NC-40; County name, HW-047





HERTFORD COUNTY

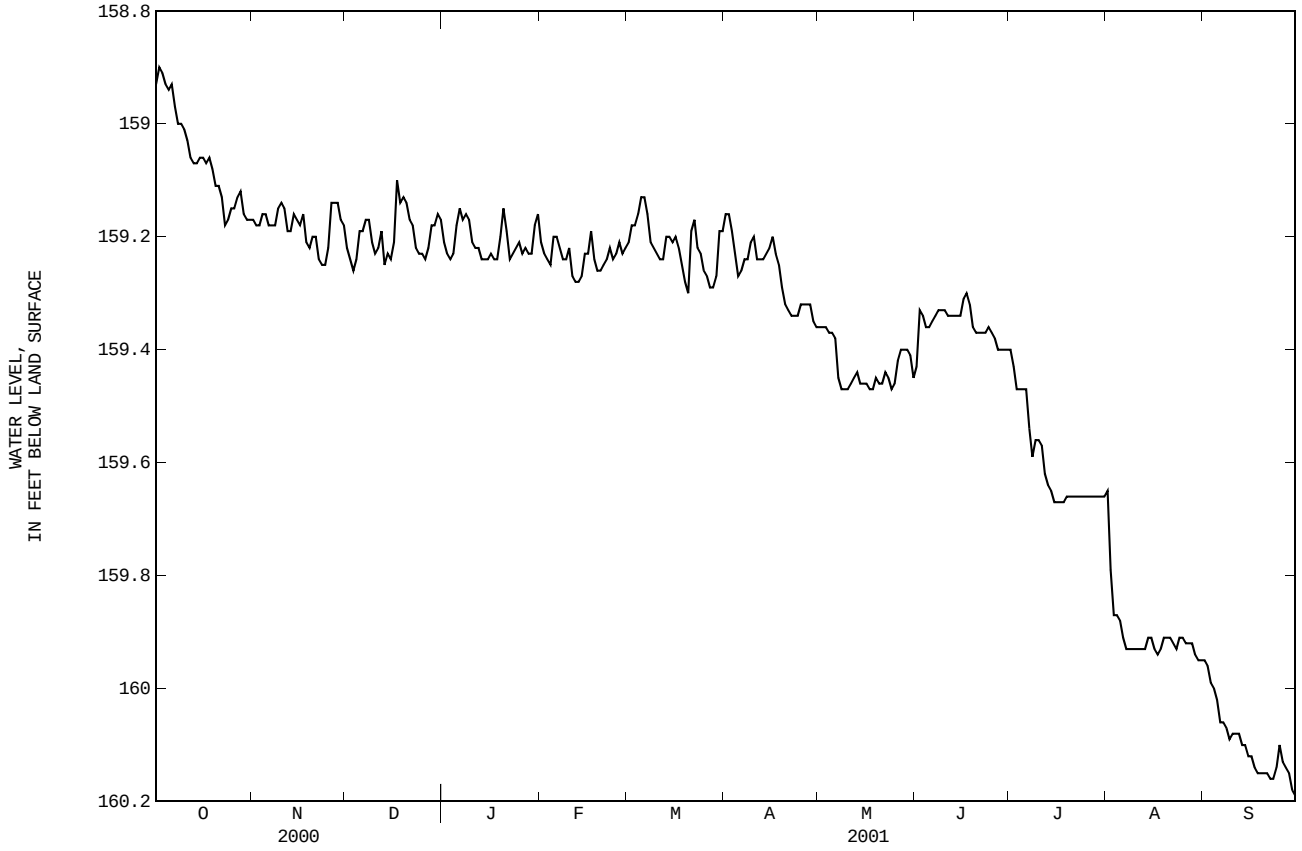
363026077001906. Local number, NC-155; DENR Como Research Station well B20u6; County number, HF-085.
LOCATION.--Lat 36°30'26", long 77°00'19", Hydrologic Unit 03010203, 0.5 mi northeast of Como, and northwest of U.S. Highway 258 on Secondary Road 1316. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Lower Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 570 ft, diameter 4 in. to 211 ft, diameter 2.5 in. from 211 to 570 ft, screened interval from 560 to 570 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 68.83 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 3.00 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--September 1981 to current year. Continuous record began June 2000. Records from September 1981 to October 1986 are from the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 143.04 ft below land-surface datum, Feb. 9, 1983; lowest water level measured, 162.05 ft below land-surface datum, June 3, 1998.

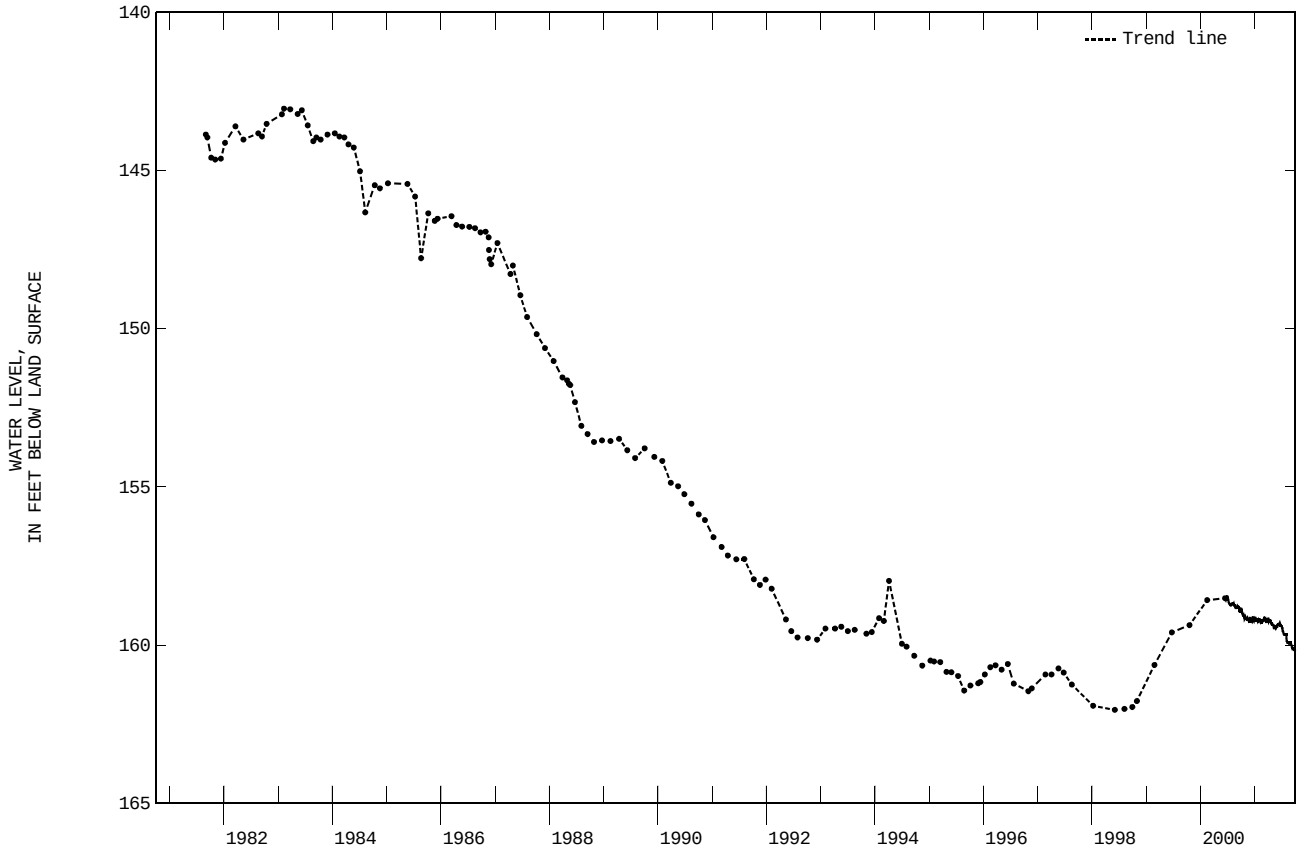
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158.93	159.17	159.22	159.21	159.21	159.21	159.16	159.36	159.43	159.40	159.65	159.95
2	158.90	159.18	159.24	159.23	159.23	159.18	159.16	159.36	159.33	159.43	159.79	159.96
3	158.91	159.18	159.26	159.24	159.24	159.18	159.19	159.36	159.34	159.47	159.87	159.99
4	158.93	159.16	159.24	159.23	159.25	159.16	159.23	159.37	159.36	159.47	159.87	160.00
5	158.94	159.16	159.19	159.18	159.20	159.13	159.27	159.37	159.36	159.47	159.88	160.02
6	158.93	159.18	159.19	159.15	159.20	159.13	159.26	159.38	159.35	159.47	159.91	160.06
7	158.97	159.18	159.17	159.17	159.22	159.16	159.24	159.45	159.34	159.54	159.93	160.06
8	159.00	159.18	159.17	159.16	159.24	159.21	159.24	159.47	159.33	159.59	159.93	160.07
9	159.00	159.15	159.21	159.17	159.24	159.22	159.21	159.47	159.33	159.56	159.93	160.09
10	159.01	159.14	159.23	159.21	159.22	159.23	159.20	159.47	159.33	159.56	159.93	160.08
11	159.03	159.15	159.22	159.22	159.27	159.24	159.24	159.46	159.34	159.57	159.93	160.08
12	159.06	159.19	159.19	159.22	159.28	159.24	159.24	159.45	159.34	159.62	159.93	160.08
13	159.07	159.19	159.25	159.24	159.28	159.20	159.24	159.44	159.34	159.64	159.93	160.10
14	159.07	159.16	159.23	159.24	159.27	159.20	159.23	159.46	159.34	159.65	159.91	160.10
15	159.06	159.17	159.24	159.24	159.23	159.21	159.22	159.46	159.34	159.67	159.91	160.12
16	159.06	159.18	159.21	159.23	159.23	159.20	159.20	159.46	159.31	159.67	159.93	160.12
17	159.07	159.16	159.10	159.24	159.19	159.22	159.23	159.47	159.30	159.67	159.94	160.14
18	159.06	159.21	159.14	159.24	159.24	159.25	159.25	159.47	159.32	159.67	159.93	160.15
19	159.08	159.22	159.13	159.20	159.26	159.28	159.29	159.45	159.36	159.66	159.91	160.15
20	159.11	159.20	159.14	159.15	159.26	159.30	159.32	159.46	159.37	159.66	159.91	160.15
21	159.11	159.20	159.17	159.19	159.25	159.19	159.33	159.46	159.37	159.66	159.91	160.15
22	159.13	159.24	159.18	159.24	159.24	159.17	159.34	159.44	159.37	159.66	159.92	160.16
23	159.18	159.25	159.22	159.23	159.22	159.22	159.34	159.45	159.37	159.66	159.93	160.16
24	159.17	159.25	159.23	159.22	159.24	159.23	159.34	159.47	159.36	159.66	159.91	160.14
25	159.15	159.22	159.23	159.21	159.23	159.26	159.32	159.46	159.37	159.66	159.91	160.10
26	159.15	159.14	159.24	159.23	159.21	159.27	159.32	159.42	159.38	159.66	159.92	160.13
27	159.13	159.14	159.22	159.22	159.23	159.29	159.32	159.40	159.40	159.66	159.92	160.14
28	159.12	159.14	159.18	159.23	159.22	159.29	159.32	159.40	159.40	159.66	159.92	160.15
29	159.16	159.17	159.18	159.23	---	159.27	159.35	159.40	159.40	159.66	159.94	160.18
30	159.17	159.18	159.16	159.18	---	159.19	159.36	159.41	159.40	159.66	159.95	160.19
31	159.17	---	159.17	159.16	---	159.19	---	159.45	---	159.66	159.95	---

WTR YR 2001 MEAN 159.40 HIGH 158.90 LOW 160.19

363026077001906 Local number, NC-155; DENR Como Research Station well B20u6; County number, HF-085





HOKE COUNTY

350314079213301. County number, HO-032; DENR McCain Research Station well T48i2.
LOCATION.--Lat 35°03'17", long 79°21'35", Hydrologic Unit 03040203, near McCain, 0.6 mi west of State Highway 211 off Hill Drive. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 110 ft, diameter 4 in. to 82 ft, diameter 2.5 in. from 82 to 110 ft, screened interval from 82 to 92 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 350 ft above sea level (from topographic map). Measuring point: Top of coupling plate attached to instrument shelf, 2.01 ft above land-surface datum (since November 2000).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study. Negative values of water levels measured in feet below land surface indicate ground-water levels that are above land surface. Well redeveloped by injecting air into well on July 31, 2001.
PERIOD OF RECORD.--February 1972 to current year. Records from February 1972 to December 1987 are from the files of the Groundwater Section, DENR. Water levels measured periodically by USGS personnel since July 1981. Continuous record began November 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.51 ft above land-surface datum, April 28, 1998; lowest water level measured, 4.52 ft below land-surface datum, July 15, 1981.
REVISIONS.--Water-level values and extremes for period of record published in Water Resources Data, North Carolina, NC-96-2 and NC-97-2, should be adjusted by -0.7 ft.

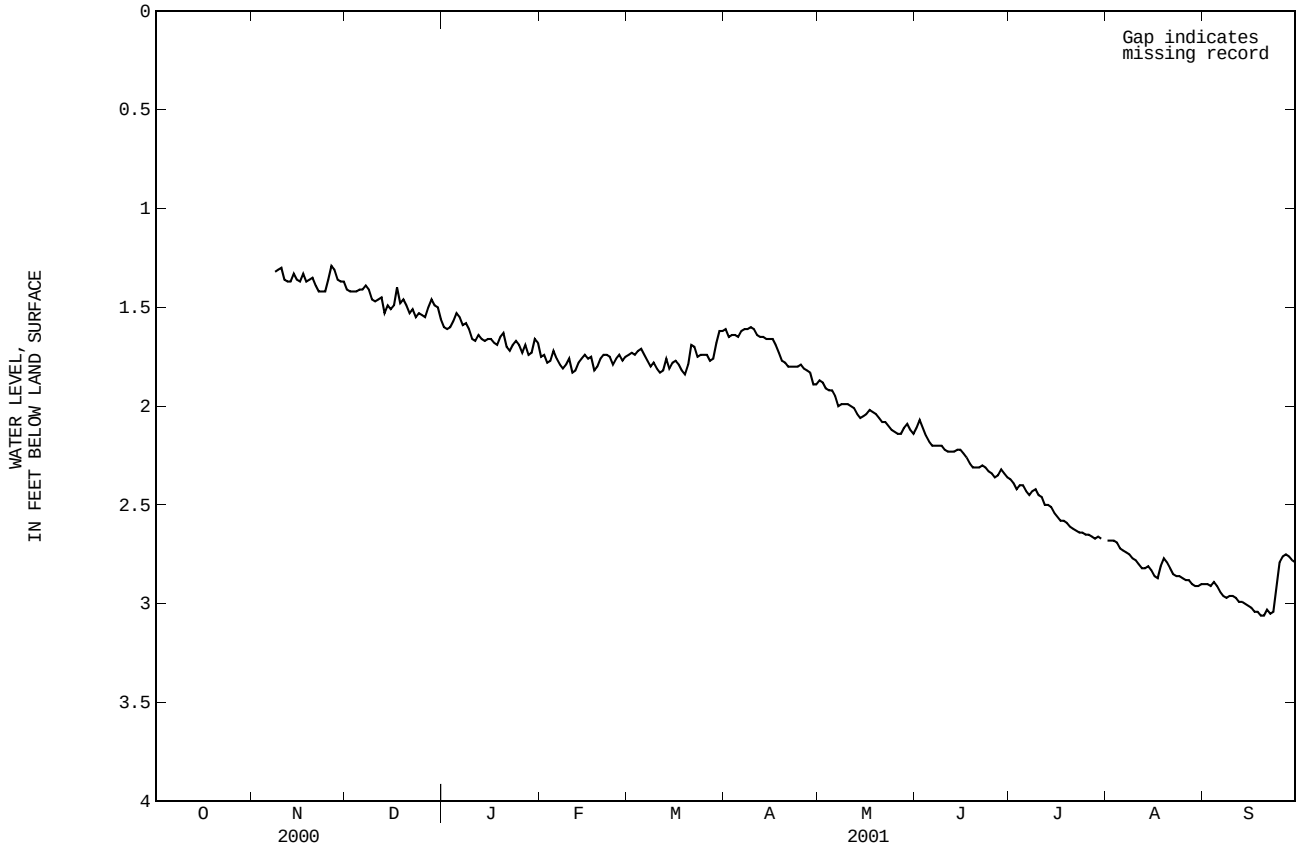
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR NOVEMBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

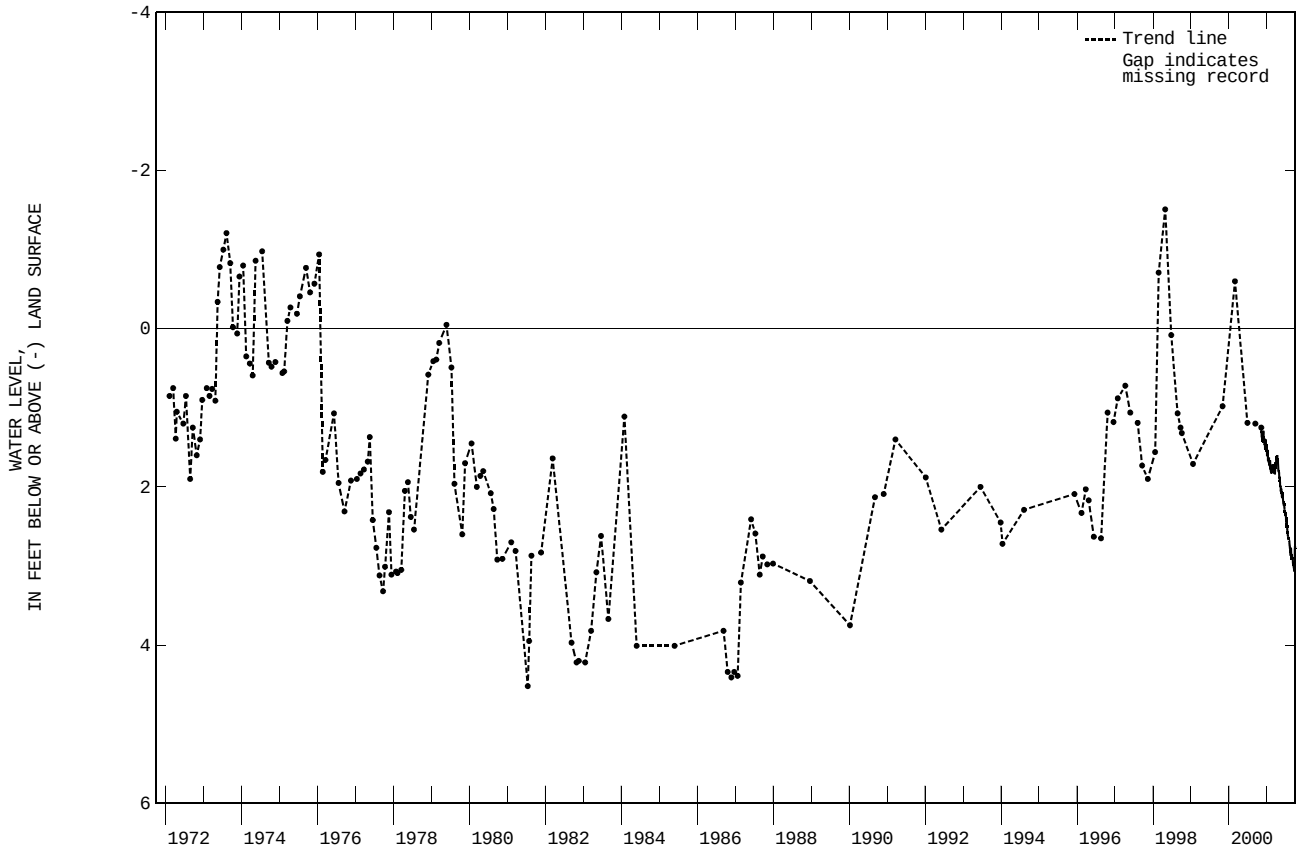
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	1.41	1.60	1.75	1.74	1.61	1.87	2.11	2.37	2.68	2.90
2	---	---	1.42	1.61	1.74	1.73	1.65	1.88	2.07	2.39	2.68	2.90
3	---	---	1.42	1.60	1.78	1.74	1.64	1.91	2.11	2.42	2.68	2.91
4	---	---	1.42	1.57	1.77	1.72	1.64	1.92	2.15	2.40	2.69	2.89
5	---	---	1.41	1.53	1.72	1.71	1.65	1.92	2.18	2.40	2.72	2.91
6	---	---	1.41	1.55	1.76	1.74	1.62	1.95	2.20	2.43	2.73	2.94
7	---	---	1.39	1.59	1.79	1.77	1.61	2.00	2.20	2.45	2.74	2.96
8	---	1.32	1.41	1.58	1.81	1.80	1.61	1.99	2.20	2.43	2.75	2.97
9	---	1.31	1.46	1.61	1.79	1.78	1.60	1.99	2.20	2.42	2.77	2.96
10	---	1.30	1.47	1.66	1.76	1.81	1.61	1.99	2.22	2.45	2.78	2.96
11	---	1.36	1.46	1.67	1.83	1.83	1.64	2.00	2.23	2.46	2.80	2.97
12	---	1.37	1.45	1.64	1.82	1.82	1.65	2.01	2.23	2.50	2.82	2.99
13	---	1.37	1.53	1.66	1.78	1.76	1.65	2.04	2.23	2.50	2.82	2.99
14	---	1.33	1.49	1.67	1.76	1.81	1.66	2.06	2.22	2.51	2.81	3.00
15	---	1.36	1.51	1.66	1.74	1.78	1.66	2.05	2.22	2.54	2.83	3.01
16	---	1.37	1.49	1.66	1.76	1.77	1.66	2.04	2.24	2.56	2.86	3.02
17	---	1.33	1.40	1.68	1.75	1.79	1.69	2.02	2.26	2.58	2.87	3.04
18	---	1.37	1.48	1.69	1.82	1.82	1.73	2.03	2.29	2.58	2.81	3.04
19	---	1.36	1.46	1.65	1.80	1.84	1.77	2.04	2.31	2.59	2.77	3.06
20	---	1.35	1.49	1.63	1.76	1.79	1.78	2.06	2.31	2.61	2.79	3.06
21	---	1.39	1.53	1.70	1.74	1.69	1.80	2.08	2.31	2.62	2.82	3.03
22	---	1.42	1.51	1.72	1.74	1.70	1.80	2.08	2.30	2.63	2.85	3.05
23	---	1.42	1.55	1.69	1.75	1.75	1.80	2.10	2.31	2.64	2.86	3.04
24	---	1.42	1.53	1.67	1.79	1.74	1.80	2.12	2.33	2.64	2.86	2.91
25	---	1.36	1.54	1.69	1.76	1.74	1.79	2.13	2.34	2.65	2.87	2.79
26	---	1.29	1.55	1.73	1.74	1.74	1.81	2.14	2.36	2.65	2.88	2.76
27	---	1.31	1.50	1.69	1.77	1.77	1.82	2.14	2.35	2.66	2.88	2.75
28	---	1.36	1.46	1.74	1.75	1.76	1.83	2.11	2.32	2.67	2.90	2.76
29	---	1.37	1.49	1.73	---	1.68	1.89	2.09	2.34	2.66	2.91	2.78
30	---	1.37	1.50	1.66	---	1.62	1.89	2.12	2.36	2.67	2.91	2.79
31	---	---	1.56	1.68	---	1.62	---	2.14	---	---	2.90	---

WTR YR 2001 MEAN 2.04 HIGH 1.29 LOW 3.06

HOKE COUNTY--Continued

350314079213301 County number, HO-032; DENR McCain Research Station well T48i2



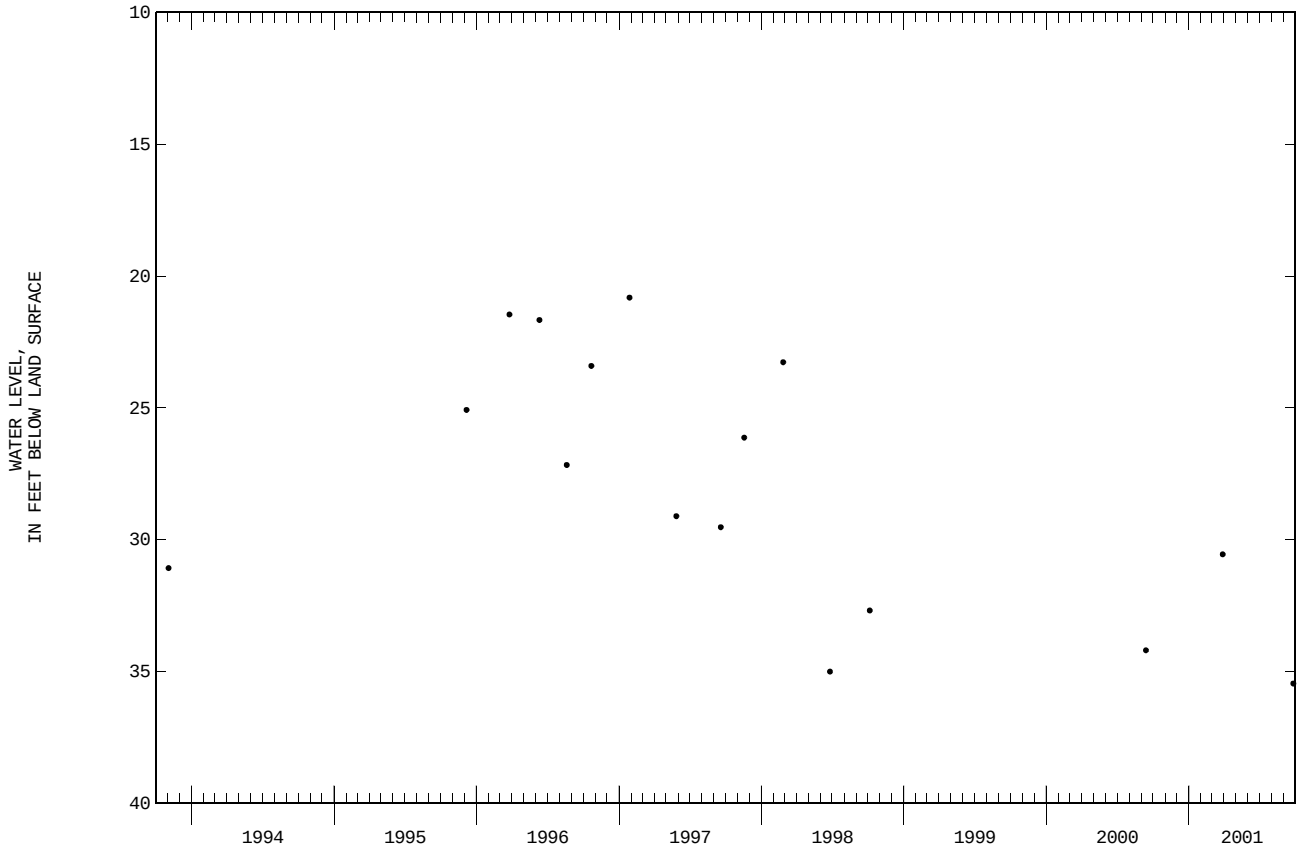


HOKE COUNTY--Continued

345807079134201. County number, HO-037; Raeford well 8.
LOCATION.--Lat 34°58'07", long 79°13'42", Hydrologic Unit 03030004, in Raeford, 0.1 mi south of Covington Avenue on Oak Street.
Owner: Town of Raeford.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 108 ft, diameter 8 in., screened intervals from 71 to 91 ft and 95 to 100 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 248 ft above sea level (from topographic map). Measuring point: Top of well vent pipe in pump pedestal, 1.0 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--August 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.82 ft below land-surface datum, Jan. 27, 1997; lowest water level measured, 35.46 ft below land-surface datum, Sept. 25, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 28	30.56	SEP 25	35.46



Observation well NC-154 Roxobel Research station, Bertie County, North Carolina (p. 50).

Observation wells NC-185, NC-223 Grainers Research station, Lenoir County, North Carolina (p. 154, 156).

HOKE COUNTY--Continued

345933079144406. County number, HO-047; DENR Raeford Research Station well U46e6.
LOCATION.--Lat 34°59'34", long 79°14'42", Hydrologic Unit 03030004, northwest of Raeford, 0.2 mi north of Secondary Road 1203 on Secondary Road 1311 at North Carolina Department of Transportation Maintenance Yard. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 111 ft, diameter 4 in. to 62 ft, diameter 2.5 in. from 62 to 111 ft, screened intervals from 62 to 67 ft and 96 to 101 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 274.37 ft above sea level (levels by DENR). Measuring point: Top of flange attached to floor of instrument shelter, 1.7 ft above land-surface datum (since December 1995).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study. Water levels affected by pumping of nearby municipal wells. Well redeveloped by injecting air into well on July 31, 2001.
PERIOD OF RECORD.--July 1981 to current year. Water levels measured periodically since July 1981. Continuous record from January 1994 to November 1994 and from December 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 33.31 ft below land-surface datum, Mar. 27, 2000; lowest water level recorded, 43.85 ft below land-surface datum, Jan. 20, 1994.

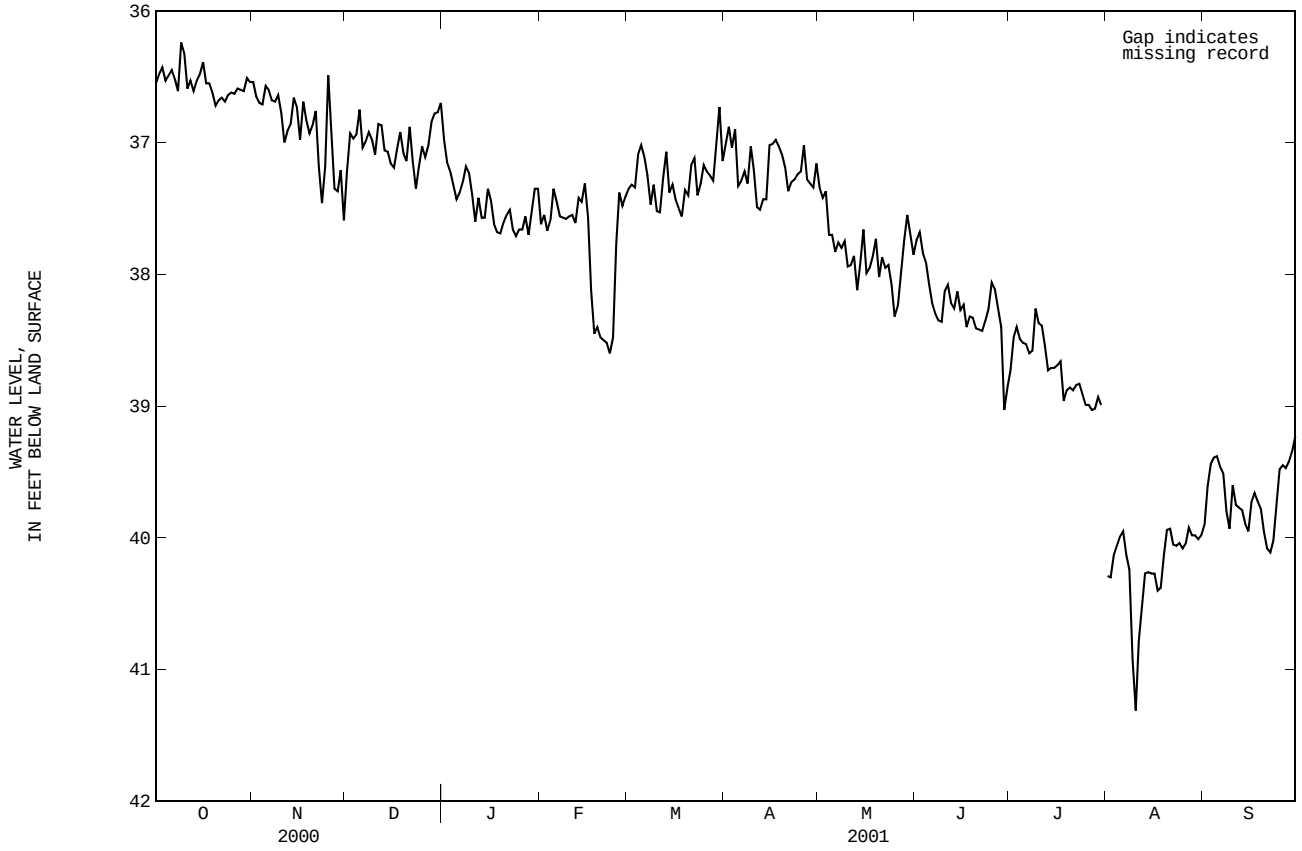
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

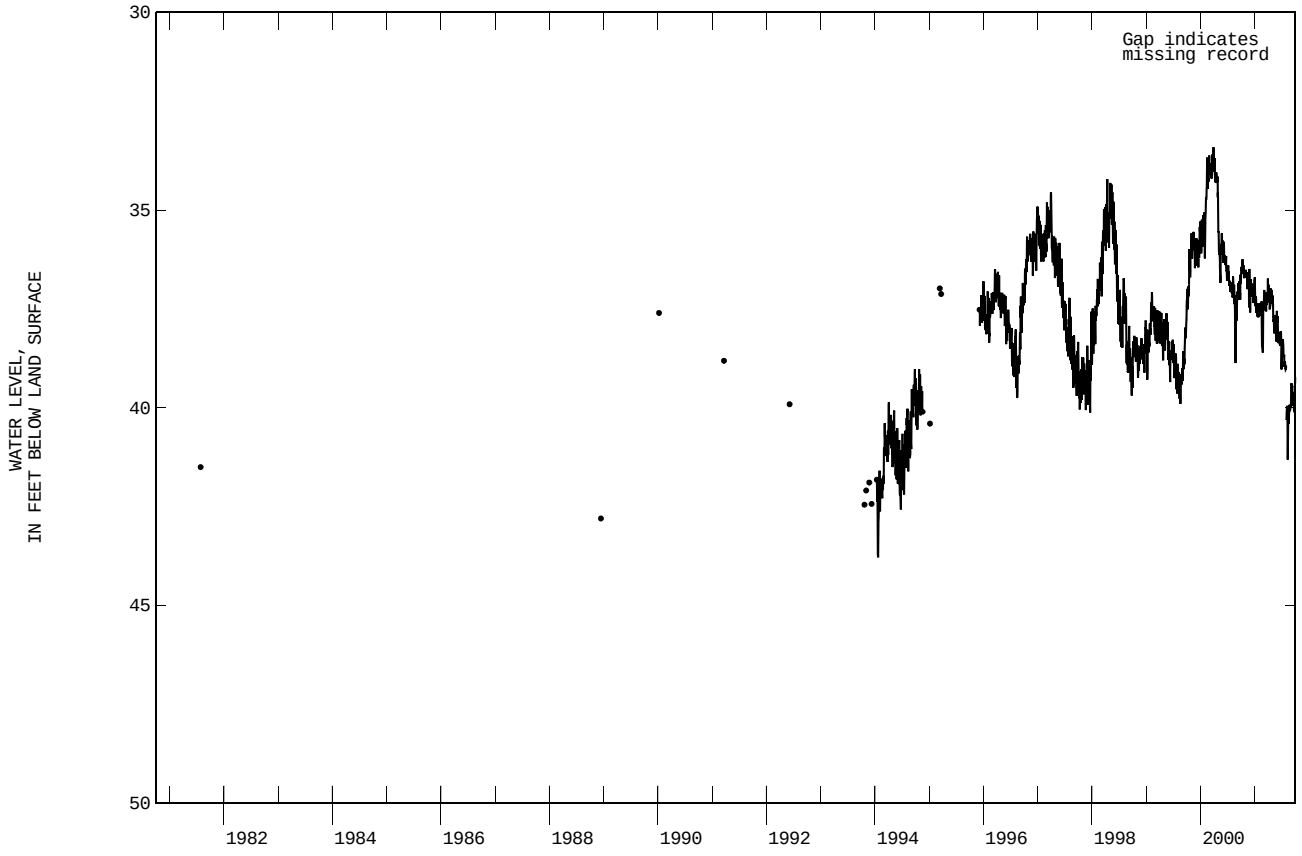
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.55	36.54	37.22	36.98	37.62	37.35	37.01	37.34	37.74	38.73	40.29	39.90
2	36.48	36.65	36.93	37.15	37.55	37.32	36.88	37.42	37.68	38.48	40.30	39.61
3	36.43	36.70	36.97	37.22	37.67	37.34	37.04	37.37	37.84	38.40	40.13	39.44
4	36.53	36.71	36.94	37.32	37.59	37.09	36.90	37.70	37.91	38.49	40.06	39.39
5	36.49	36.57	36.75	37.43	37.35	37.02	37.33	37.70	38.08	38.52	39.99	39.38
6	36.45	36.60	37.04	37.38	37.45	37.11	37.29	37.83	38.22	38.53	39.95	39.46
7	36.52	36.68	36.99	37.30	37.56	37.25	37.22	37.76	38.30	38.60	40.13	39.51
8	36.61	36.69	36.92	37.18	37.57	37.47	37.31	37.80	38.35	38.58	40.24	39.80
9	36.24	36.64	36.98	37.23	37.58	37.32	37.03	37.75	38.36	38.26	40.92	39.93
10	36.32	36.78	37.09	37.40	37.56	37.52	37.21	37.94	38.13	38.37	41.31	39.60
11	36.59	37.00	36.86	37.60	37.55	37.53	37.49	37.93	38.08	38.39	40.78	39.75
12	36.53	36.91	36.87	37.42	37.61	37.27	37.51	37.86	38.22	38.54	40.51	39.77
13	36.61	36.86	37.06	37.57	37.42	37.07	37.43	38.12	38.26	38.73	40.27	39.79
14	36.53	36.66	37.07	37.57	37.45	37.38	37.43	37.92	38.13	38.71	40.26	39.89
15	36.48	36.73	37.16	37.35	37.31	37.32	37.02	37.66	38.27	38.71	40.27	39.95
16	36.39	36.98	37.19	37.44	37.57	37.43	37.01	37.99	38.23	38.69	40.27	39.73
17	36.55	36.69	37.05	37.62	38.12	37.50	36.98	37.95	38.40	38.66	40.40	39.66
18	36.55	36.83	36.92	37.68	38.45	37.56	37.03	37.86	38.32	38.96	40.38	39.72
19	36.62	36.93	37.08	37.69	38.40	37.36	37.09	37.73	38.33	38.88	40.13	39.78
20	36.72	36.87	37.14	37.61	38.48	37.40	37.19	38.02	38.41	38.86	39.94	39.96
21	36.68	36.76	36.88	37.55	38.50	37.17	37.37	37.87	38.42	38.88	39.93	40.08
22	36.66	37.18	37.14	37.51	38.52	37.12	37.30	37.95	38.43	38.84	40.05	40.11
23	36.69	37.46	37.35	37.66	38.60	37.40	37.28	37.93	38.35	38.83	40.06	40.02
24	36.64	37.18	37.18	37.71	38.48	37.31	37.24	38.08	38.26	38.91	40.04	39.76
25	36.62	36.49	37.03	37.66	37.77	37.17	37.22	38.32	38.06	38.99	40.08	39.48
26	36.63	36.96	37.11	37.66	37.38	37.22	37.02	38.24	38.11	38.99	40.04	39.45
27	36.59	37.35	37.02	37.56	37.48	37.25	37.28	38.01	38.25	39.03	39.92	39.47
28	36.60	37.37	36.84	37.70	37.41	37.29	37.31	37.75	38.40	39.02	39.98	39.42
29	36.61	37.21	36.78	37.54	---	36.99	37.34	37.55	39.03	38.93	39.98	39.34
30	36.51	37.59	36.77	37.35	---	36.73	37.16	37.70	38.86	38.99	40.01	39.23
31	36.54	---	36.70	37.35	---	37.14	---	37.85	---	---	39.98	---

WTR YR 2001 MEAN 37.90 HIGH 36.24 LOW 41.31

HOKE COUNTY--Continued

345933079144406 County number, HO-047; DENR Raeford Research Station well U46e6



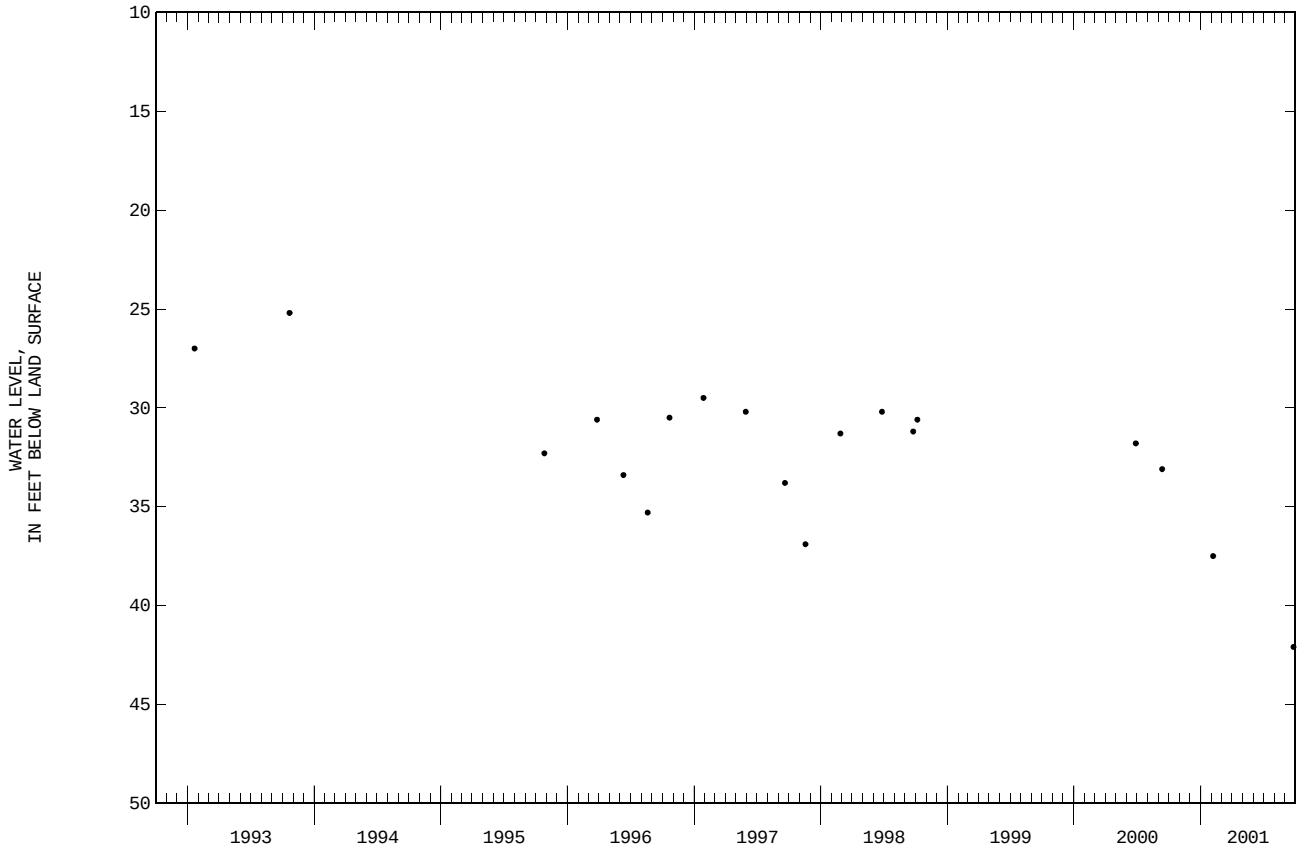


HOKE COUNTY--Continued

350210079064501. County number, HO-114; Hoke County Utilities well WA4.
LOCATION.--Lat 35°02'10", long 79°06'45", Hydrologic Unit 03030004, northeast of Raeford, 0.3 mi north of U.S. Highway 401 on Carolina Drive. Owner: Hoke County Utilities.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 120 ft, diameter 8 in., screened intervals from 60 to 80 ft and 105 to 115 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 262 ft above sea level (from topographic map). Measuring point: Top of well access pipe in pump pedestal, 2.1 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--January 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.2 ft below land-surface datum, Oct. 21, 1993; lowest water level measured, 42.1 ft below land-surface datum, Sept. 25, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 05	37.5	SEP 25	42.1



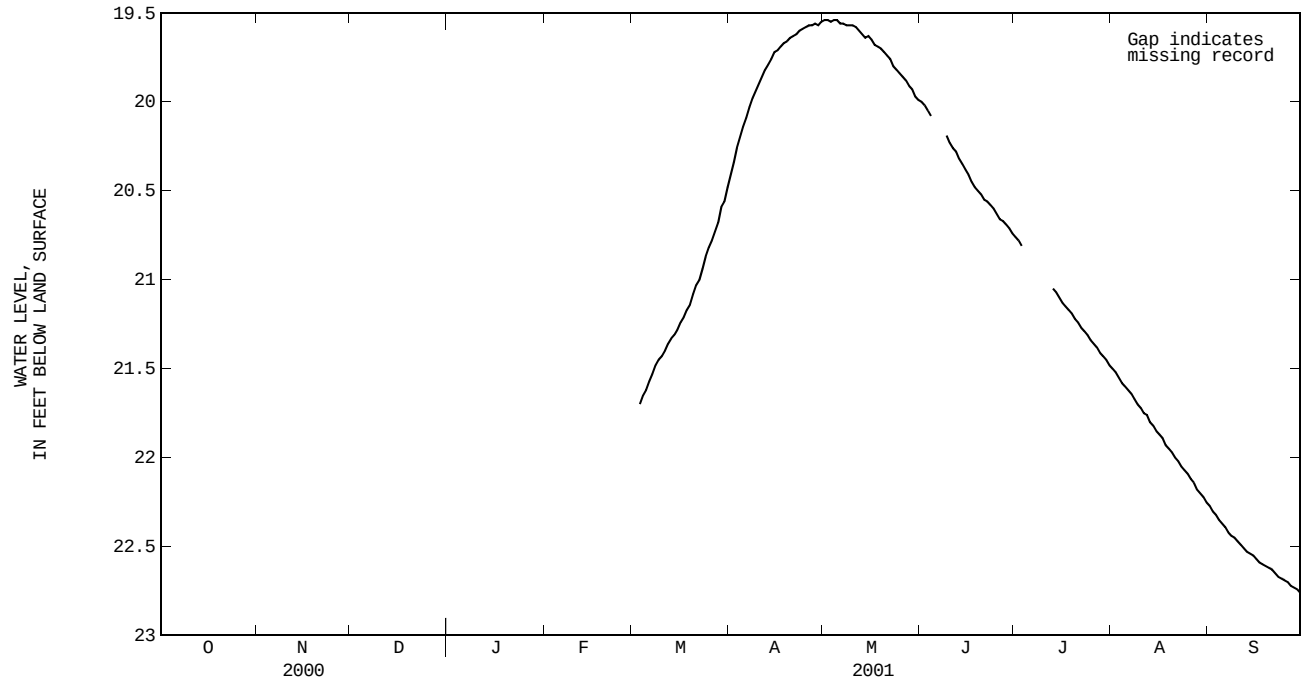
IREDELL COUNTY

353135080524201. County number, IR-130; DENR Langtree Research Station MW-2 (Regolith well).
LOCATION.--Lat 35°31'35.62", long 80°52'42.25", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .1 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 28 ft, diameter 4 in., cased to 13 ft, screened interval from 13 ft to 28 ft, sand filter packed from 10 ft to 28 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 802.48 ft above sea level (levels by DENR). Measuring point: Top of instrument shelter floor, 1.34 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--March 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.54 ft below land-surface datum, Apr. 30, May 1, May 2, May 3, May 4, May 5, 2001; lowest water level recorded 22.76 ft below land-surface datum, Sept. 30, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR MARCH 2001 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	20.41	19.54	20.00	20.76	21.50	22.27
2	---	---	---	---	---	---	20.34	19.54	20.02	20.78	21.52	22.30
3	---	---	---	---	---	21.70	20.26	19.55	20.05	20.81	21.55	22.32
4	---	---	---	---	---	21.65	20.20	19.54	20.08	---	21.58	22.35
5	---	---	---	---	---	21.62	20.14	19.54	---	---	21.60	22.37
6	---	---	---	---	---	21.57	20.09	19.56	---	---	21.62	22.39
7	---	---	---	---	---	21.53	20.03	19.56	---	---	21.64	22.42
8	---	---	---	---	---	21.48	19.98	19.57	---	---	21.67	22.44
9	---	---	---	---	---	21.45	19.94	19.57	20.19	---	21.70	22.45
10	---	---	---	---	---	21.43	19.90	19.57	20.23	---	21.72	22.47
11	---	---	---	---	---	21.40	19.86	19.58	20.26	---	21.75	22.49
12	---	---	---	---	---	21.36	19.82	19.60	20.28	---	21.76	22.51
13	---	---	---	---	---	21.33	19.79	19.62	20.32	21.05	21.80	22.53
14	---	---	---	---	---	21.31	19.76	19.64	20.35	21.07	21.82	22.54
15	---	---	---	---	---	21.28	19.72	19.63	20.38	21.10	21.85	22.55
16	---	---	---	---	---	21.24	19.71	19.65	20.41	21.13	21.87	22.57
17	---	---	---	---	---	21.21	19.69	19.68	20.45	21.15	21.89	22.59
18	---	---	---	---	---	21.17	19.67	19.69	20.48	21.17	21.93	22.60
19	---	---	---	---	---	21.14	19.66	19.70	20.50	21.19	21.95	22.61
20	---	---	---	---	---	21.08	19.64	19.72	20.52	21.22	21.97	22.62
21	---	---	---	---	---	21.03	19.63	19.74	20.55	21.24	22.00	22.63
22	---	---	---	---	---	21.00	19.62	19.76	20.56	21.27	22.02	22.65
23	---	---	---	---	---	20.94	19.60	19.80	20.58	21.29	22.05	22.67
24	---	---	---	---	---	20.87	19.59	19.82	20.60	21.31	22.07	22.68
25	---	---	---	---	---	20.82	19.58	19.84	20.63	21.34	22.09	22.69
26	---	---	---	---	---	20.78	19.57	19.86	20.66	21.36	22.12	22.70
27	---	---	---	---	---	20.73	19.57	19.88	20.67	21.38	22.14	22.72
28	---	---	---	---	---	20.68	19.56	19.91	20.69	21.41	22.18	22.73
29	---	---	---	---	---	20.59	19.57	19.93	20.71	21.43	22.20	22.74
30	---	---	---	---	---	20.56	19.55	19.97	20.74	21.45	22.22	22.76
31	---	---	---	---	---	20.48	---	19.99	---	21.48	22.25	---

WTR YR 2001 MEAN 20.96 HIGH 19.54 LOW 22.76



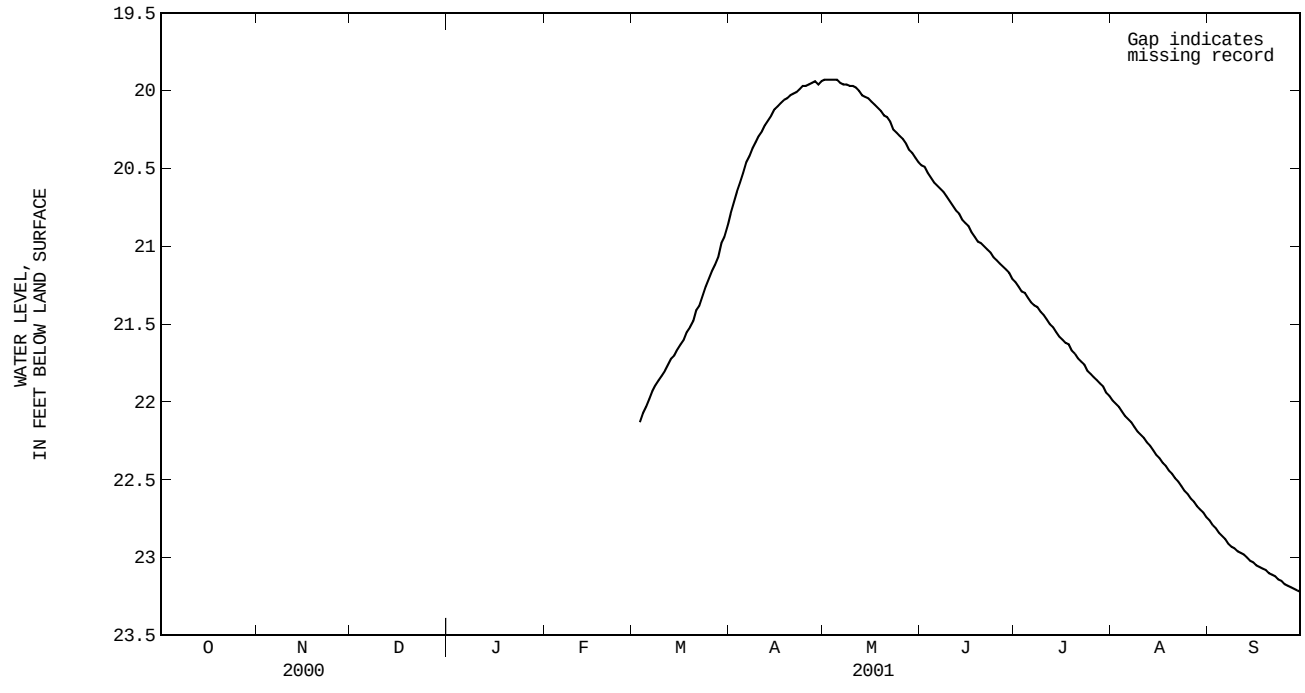
IREDELL COUNTY--Continued

353135080524202. County number, IR-131; DENR Langtree Research Station MW-2I (Transition zone well).
LOCATION.--Lat 35°31'35.47", long 80°52'42.23", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .1 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Transition zone (weathered and competent quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 48 ft, diameter 4 in., cased to 33 ft, screened interval from 33 ft to 48 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 802.67 ft above sea level (levels by DENR). Measuring point: Top of instrument shelter floor, 0.67 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--March 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 19.93 ft below land-surface datum, Apr. 30, May 1-5, 2001; lowest water level recorded 23.23 ft below land-surface datum, Sept. 30, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR MARCH 2001 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	20.79	19.93	20.48	21.23	21.99	22.76
2	---	---	---	---	---	---	20.72	19.93	20.49	21.26	22.01	22.79
3	---	---	---	---	---	22.13	20.65	19.93	20.53	21.29	22.03	22.81
4	---	---	---	---	---	22.07	20.59	19.93	20.56	21.30	22.06	22.84
5	---	---	---	---	---	22.03	20.53	19.93	20.59	21.33	22.09	22.86
6	---	---	---	---	---	21.98	20.46	19.95	20.61	21.36	22.11	22.88
7	---	---	---	---	---	21.93	20.42	19.96	20.63	21.38	22.13	22.91
8	---	---	---	---	---	21.89	20.37	19.96	20.65	21.39	22.16	22.93
9	---	---	---	---	---	21.86	20.33	19.97	20.68	21.42	22.19	22.94
10	---	---	---	---	---	21.83	20.29	19.97	20.71	21.44	22.21	22.96
11	---	---	---	---	---	21.80	20.26	19.98	20.74	21.47	22.23	22.97
12	---	---	---	---	---	21.76	20.22	20.00	20.77	21.50	22.26	22.98
13	---	---	---	---	---	21.72	20.19	20.03	20.79	21.52	22.28	23.00
14	---	---	---	---	---	21.70	20.16	20.04	20.83	21.55	22.31	23.02
15	---	---	---	---	---	21.66	20.12	20.05	20.85	21.58	22.34	23.03
16	---	---	---	---	---	21.63	20.10	20.07	20.87	21.60	22.36	23.05
17	---	---	---	---	---	21.60	20.08	20.09	20.91	21.62	22.39	23.06
18	---	---	---	---	---	21.55	20.06	20.11	20.94	21.63	22.41	23.07
19	---	---	---	---	---	21.52	20.05	20.13	20.97	21.67	22.44	23.08
20	---	---	---	---	---	21.48	20.03	20.16	20.98	21.69	22.46	23.10
21	---	---	---	---	---	21.41	20.02	20.17	21.00	21.72	22.49	23.11
22	---	---	---	---	---	21.38	20.01	20.20	21.02	21.74	22.51	23.12
23	---	---	---	---	---	21.32	19.99	20.25	21.04	21.76	22.54	23.14
24	---	---	---	---	---	21.26	19.97	20.27	21.07	21.80	22.57	23.15
25	---	---	---	---	---	21.21	19.97	20.29	21.09	21.82	22.59	23.17
26	---	---	---	---	---	21.16	19.96	20.31	21.11	21.84	22.62	23.18
27	---	---	---	---	---	21.12	19.95	20.34	21.13	21.86	22.64	23.19
28	---	---	---	---	---	21.07	19.94	20.38	21.15	21.88	22.67	23.20
29	---	---	---	---	---	20.98	19.96	20.40	21.17	21.90	22.69	23.21
30	---	---	---	---	---	20.94	19.94	20.43	21.21	21.94	22.71	23.22
31	---	---	---	---	---	20.87	---	20.46	---	21.96	22.74	---

WTR YR 2001 MEAN 21.38 HIGH 19.93 LOW 23.22



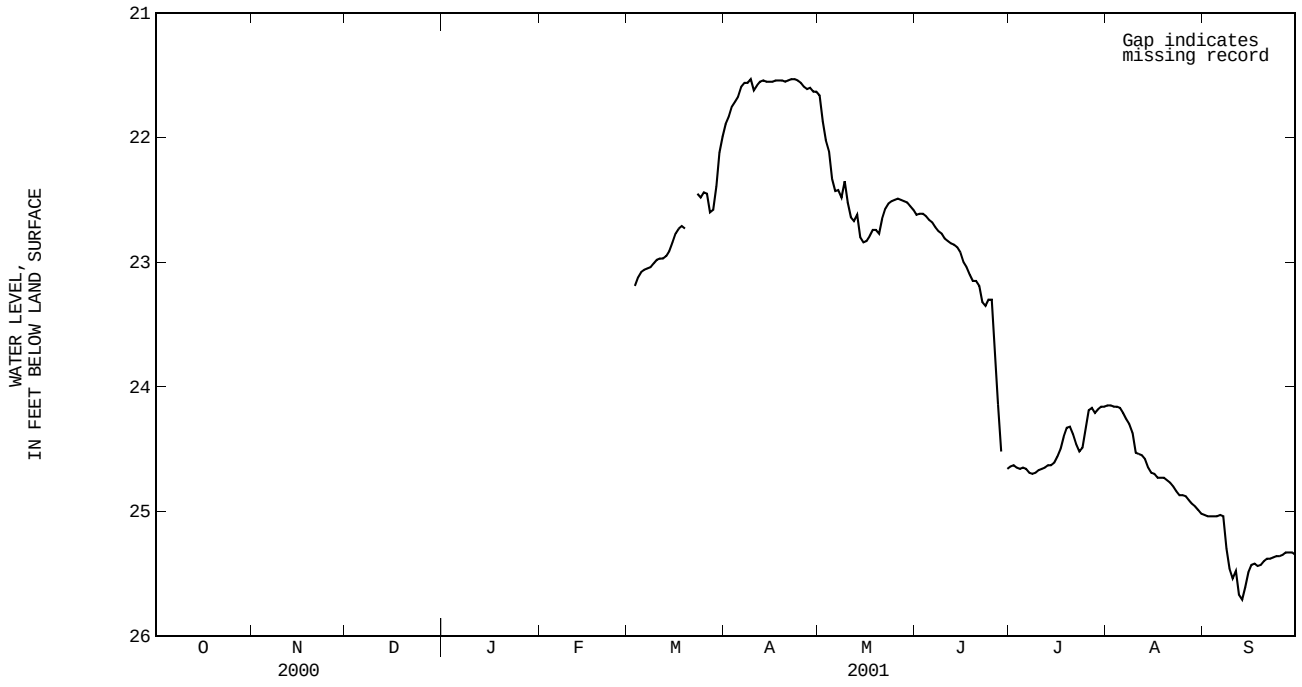
IREDELL COUNTY--Continued

353135080524203. County number, IR-132; DENR Langtree Research Station MW-2D (Bedrock well).
LOCATION.--Lat 35°31'35.62", long 80°52'42.29", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .1 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Quartz diorite bedrock.
WELL CHARACTERISTICS.--Drilled observation well, depth 400 ft, diameter 6 in., cased to 53 ft, open hole from 53 ft to 400 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 802.27 ft above sea level (levels by DENR). Measuring point: Top of instrument shelter floor, 1.39 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--March 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.51 ft below land-surface datum, Apr. 9, 2001; lowest water level recorded 25.76 ft below land-surface datum, Sept. 12, 13, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR MARCH 2001 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	21.89	21.66	22.62	24.64	24.15	25.03
2	---	---	---	---	---	---	21.83	21.87	22.61	24.63	24.15	25.04
3	---	---	---	---	---	23.19	21.75	22.02	22.61	24.65	24.16	25.04
4	---	---	---	---	---	23.12	21.71	22.11	22.63	24.66	24.16	25.04
5	---	---	---	---	---	23.08	21.67	22.33	22.66	24.65	24.17	25.04
6	---	---	---	---	---	23.06	21.59	22.43	22.68	24.66	24.21	25.03
7	---	---	---	---	---	23.05	21.56	22.42	22.72	24.69	24.26	25.04
8	---	---	---	---	---	23.04	21.56	22.48	22.75	24.70	24.30	25.30
9	---	---	---	---	---	23.01	21.53	22.35	22.77	24.69	24.37	25.46
10	---	---	---	---	---	22.98	21.62	22.52	22.81	24.67	24.53	25.54
11	---	---	---	---	---	22.97	21.58	22.64	22.83	24.66	24.54	25.48
12	---	---	---	---	---	22.97	21.55	22.67	22.85	24.65	24.55	25.67
13	---	---	---	---	---	22.95	21.54	22.62	22.86	24.63	24.58	25.71
14	---	---	---	---	---	22.91	21.55	22.80	22.88	24.63	24.65	25.61
15	---	---	---	---	---	22.84	21.55	22.84	22.92	24.61	24.69	25.49
16	---	---	---	---	---	22.77	21.55	22.83	23.00	24.56	24.70	25.43
17	---	---	---	---	---	22.73	21.54	22.79	23.04	24.50	24.73	25.42
18	---	---	---	---	---	22.71	21.54	22.74	23.10	24.40	24.73	25.44
19	---	---	---	---	---	22.73	21.54	22.74	23.15	24.33	24.73	25.43
20	---	---	---	---	---	---	21.55	22.77	23.15	24.32	24.75	25.40
21	---	---	---	---	---	---	21.54	22.65	23.19	24.38	24.77	25.38
22	---	---	---	---	---	---	21.53	22.57	23.32	24.46	24.80	25.38
23	---	---	---	---	---	22.45	21.53	22.53	23.35	24.52	24.84	25.37
24	---	---	---	---	---	22.48	21.54	22.51	23.30	24.49	24.87	25.36
25	---	---	---	---	---	22.44	21.56	22.50	23.30	24.33	24.87	25.36
26	---	---	---	---	---	22.45	21.59	22.49	23.69	24.19	24.88	25.35
27	---	---	---	---	---	22.60	21.61	22.50	24.14	24.17	24.91	25.33
28	---	---	---	---	---	22.58	21.60	22.51	24.52	24.21	24.94	25.33
29	---	---	---	---	---	22.39	21.63	22.52	---	24.18	24.96	25.33
30	---	---	---	---	---	22.12	21.63	22.55	24.66	24.16	24.99	25.35
31	---	---	---	---	---	21.99	---	22.58	---	24.16	25.02	---

WTR YR 2001 MEAN 23.51 HIGH 21.53 LOW 25.71



IREDELL COUNTY--Continued

353141080524701. County number, IR-145; DENR Langtree Research Station MW-1 (Regolith well).
LOCATION.--Lat 35°31'41.01", long 80°52'46.82", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .2 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 38 ft, diameter 4 in., cased to 28 ft, screened interval from 28 ft to 38 ft, sand filter packed from 26 ft to 38 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 812.17 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 2.43 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--January 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Well dry during periodic water-level measurements January 2001 to September 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JANUARY 2001 TO SEPTEMBER 2001

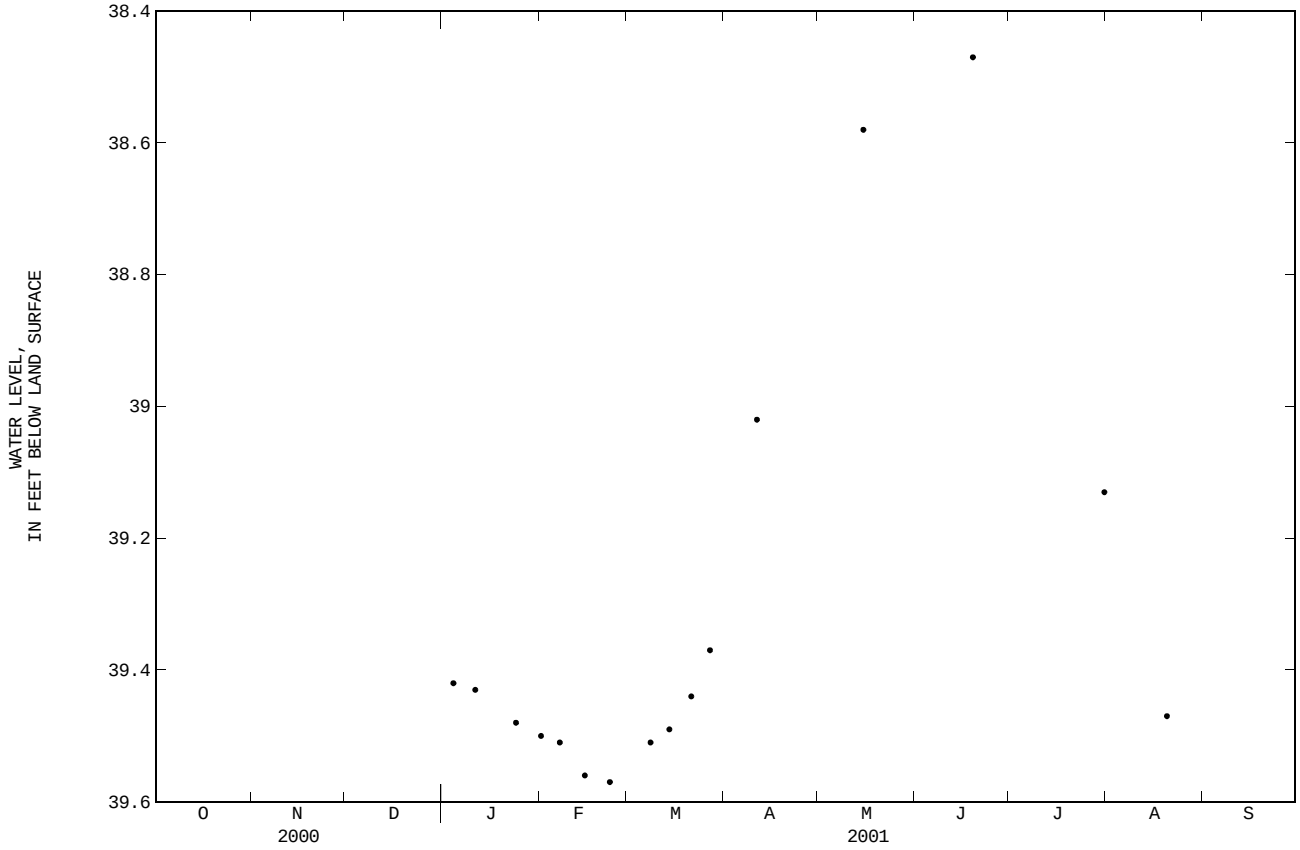
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 04	Dry	FEB 01	Dry	FEB 23	Dry	MAR 21	Dry	MAY 15	Dry	AUG 20	Dry
11	Dry	07	Dry	MAR 08	Dry	27	Dry	JUN 19	Dry		
24	Dry	15	Dry	14	Dry	APR 11	Dry	JUL 31	Dry		

IREDELL COUNTY--Continued

353141080524702. County number, IR-146; DENR Langtree Research Station MW-1I (Transition zone well).
LOCATION.--Lat 35°31'40.85", long 80°52'46.76", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .2 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Transition zone (weathered and competent quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 53 ft, diameter 4 in., cased to 38 ft, screened interval from 38 ft to 53 ft, sand filter packed from 34 ft to 53 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 812.18 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 2.42 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--January 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.47 ft below land-surface datum, June 19, 2001; lowest water level measured 39.57 ft below land surface datum, Feb. 23, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JANUARY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 04	39.42	FEB 01	39.50	FEB 23	39.57	MAR 21	39.44	MAY 15	38.58	AUG 20	39.47
11	39.43	07	39.51	MAR 08	39.51	27	39.37	JUN 19	38.47		
24	39.48	15	39.56	14	39.49	APR 11	39.02	JUL 31	39.13		

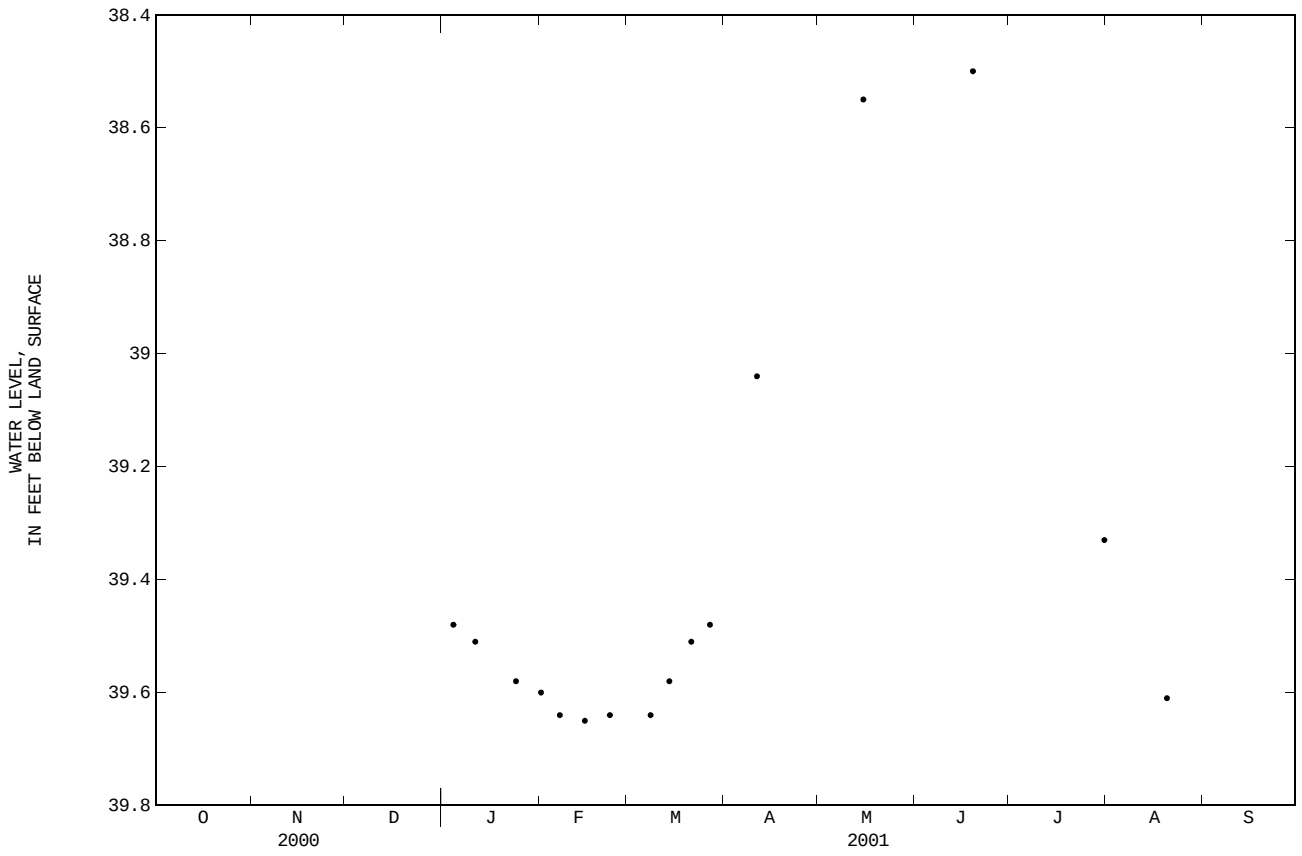


IREDELL COUNTY--Continued

353141080524703. County number, IR-147; DENR Langtree Research Station MW-1D (Bedrock well).
LOCATION.--Lat 35°31'40.9", long 80°52'46.87",, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .2 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Quartz diorite bedrock.
WELL CHARACTERISTICS.--Drilled observation well, depth 602 ft, diameter 6.25 in., cased to 55 ft, open hole from 55 ft to 602 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 812.04 ft above sea level (levels by DENR). Measuring point: Top of steel protective casing, 2.17 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project. Possible well construction problems. Monitored zone may be connected to overlying transition zone and regolith.
PERIOD OF RECORD.--January 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.50 ft below land-surface datum, June 19, 2001; lowest water level measured 39.65 ft below land surface datum, Feb. 15, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JANUARY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 04	39.48	FEB 01	39.60	FEB 23	39.64	MAR 21	39.51	MAY 15	38.55	AUG 20	39.61
11	39.51	07	39.64	MAR 08	39.64	27	39.48	JUN 19	38.50		
24	39.58	15	39.65	14	39.58	APR 11	39.04	JUL 31	39.33		

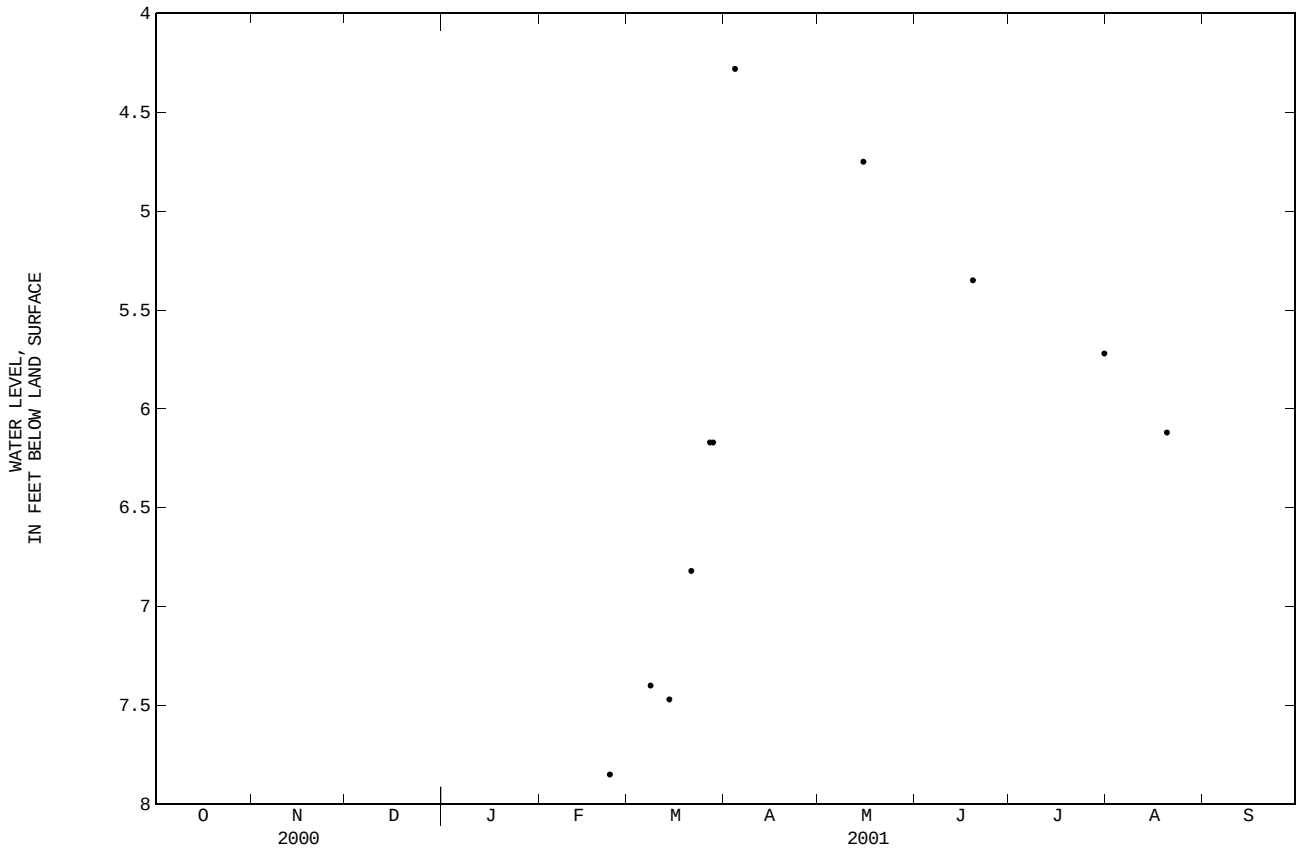


IREDELL COUNTY--Continued

353157080525301. County number, IR-148; DENR Langtree Research Station MW-3 (Regolith well).
LOCATION.--Lat 35°31'57", long 80°52'53", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .5 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 4 in., cased to 5 ft, screened interval from 5 ft to 15 ft, sand filter packed from 4 ft to 20 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 761.42 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.37 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--February 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.28 ft below land-surface datum, Apr. 4, 2001; lowest water level measured 7.85 ft below land surface datum, Feb. 23, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR FEBRUARY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 23	7.85	MAR 14	7.47	MAR 27	6.17	APR 04	4.28	JUN 19	5.35	AUG 20	6.12
MAR 08	7.40	21	6.82	28	6.17	MAY 15	4.75	JUL 31	5.72		

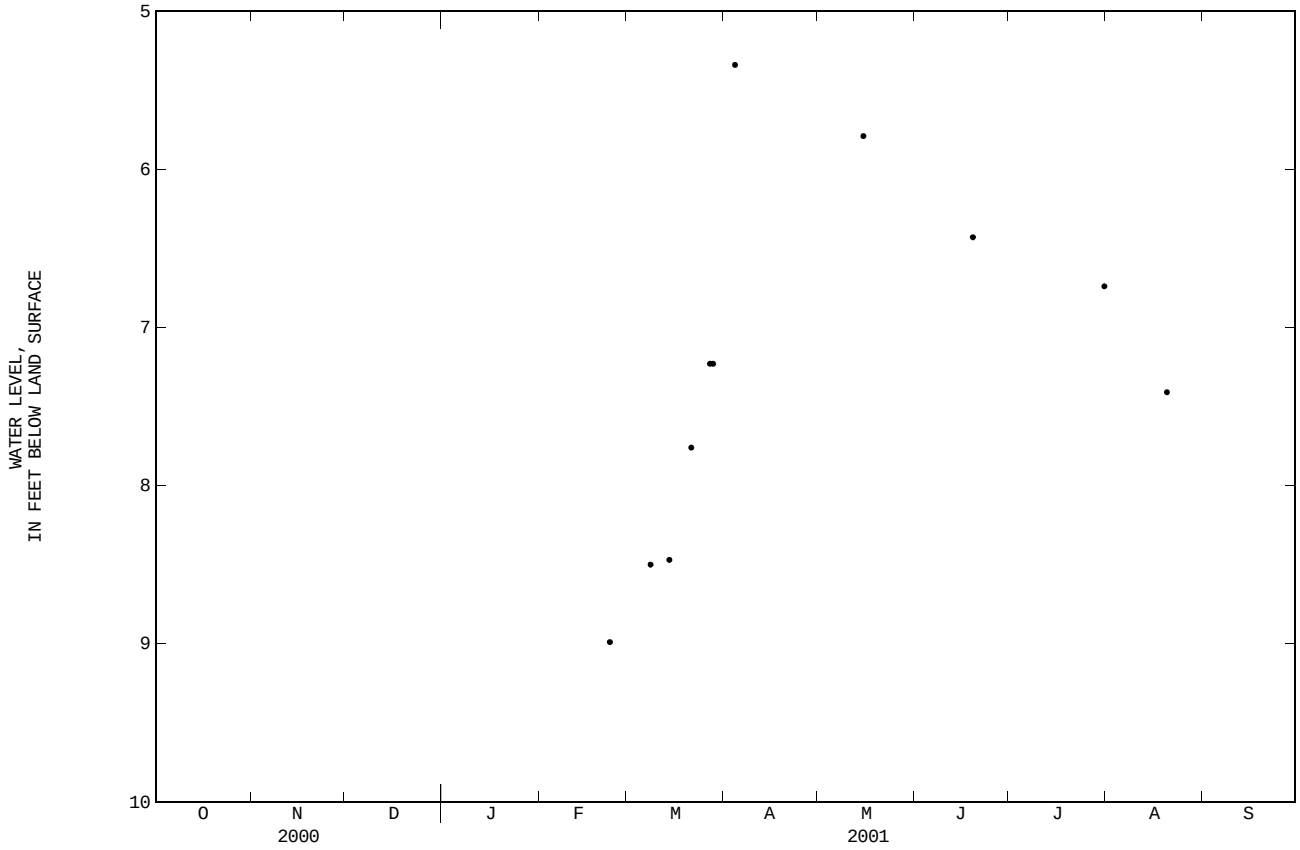


IREDELL COUNTY--Continued

353157080525302. County number, IR-149; DENR Langtree Research Station MW-3I (Transition zone well).
LOCATION.--Lat 35°31'57.13", long 80°52'53.34", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .5 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Transition zone (weathered and competent quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 73 ft, diameter 4 in., cased to 43 ft, screened interval from 43 ft to 73 ft, native fill from 10 ft to 73 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 762.45 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.29 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project. Possible well construction problems. Monitored zone may be connected to overlying regolith.
PERIOD OF RECORD.--February 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.34 ft below land-surface datum, Apr. 4, 2001; lowest water level measured 8.99 ft below land surface datum, Feb. 23, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR FEBRUARY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 23	8.99	MAR 14	8.47	MAR 27	7.23	APR 04	5.34	JUN 19	6.43	AUG 20	7.41
MAR 08	8.50	21	7.76	28	7.23	MAY 15	5.79	JUL 31	6.74		

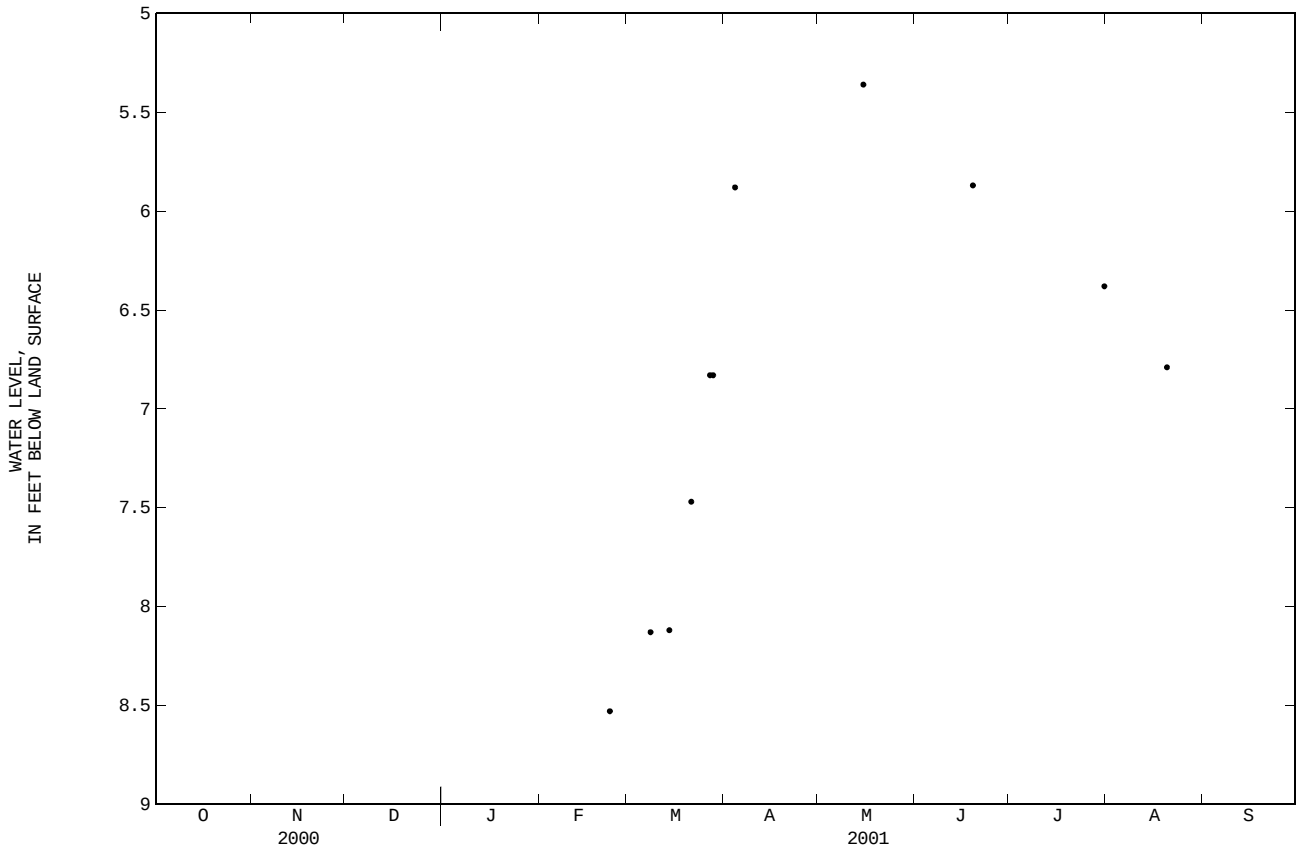


IREDELL COUNTY--Continued

353157080525303. County number, IR-150; DENR Langtree Research Station MW-3D (Bedrock well).
LOCATION.--Lat 35°31'57.17", long 80°52'53.21", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .5 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Quartz diorite bedrock.
WELL CHARACTERISTICS.--Drilled observation well, depth 400 ft, diameter 6.25 in., cased to 90 ft, open hole from 90 to 400 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 762.12 ft above sea level, (levels by DENR). Measuring point: Top of 6.25 in. PVC casing, 0.23 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project. Possible well construction problems. Monitored zone may be connected to overlying transition zone and regolith.
PERIOD OF RECORD.--February 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.36 ft below land-surface datum, May 15, 2001; lowest water level measured 8.53 ft below land surface datum, Feb. 23, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR FEBRUARY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 23	8.53	MAR 14	8.12	MAR 27	6.83	APR 04	5.88	JUN 19	5.87	AUG 20	6.79
MAR 08	8.13	21	7.47	28	6.83	MAY 15	5.36	JUL 31	6.38		

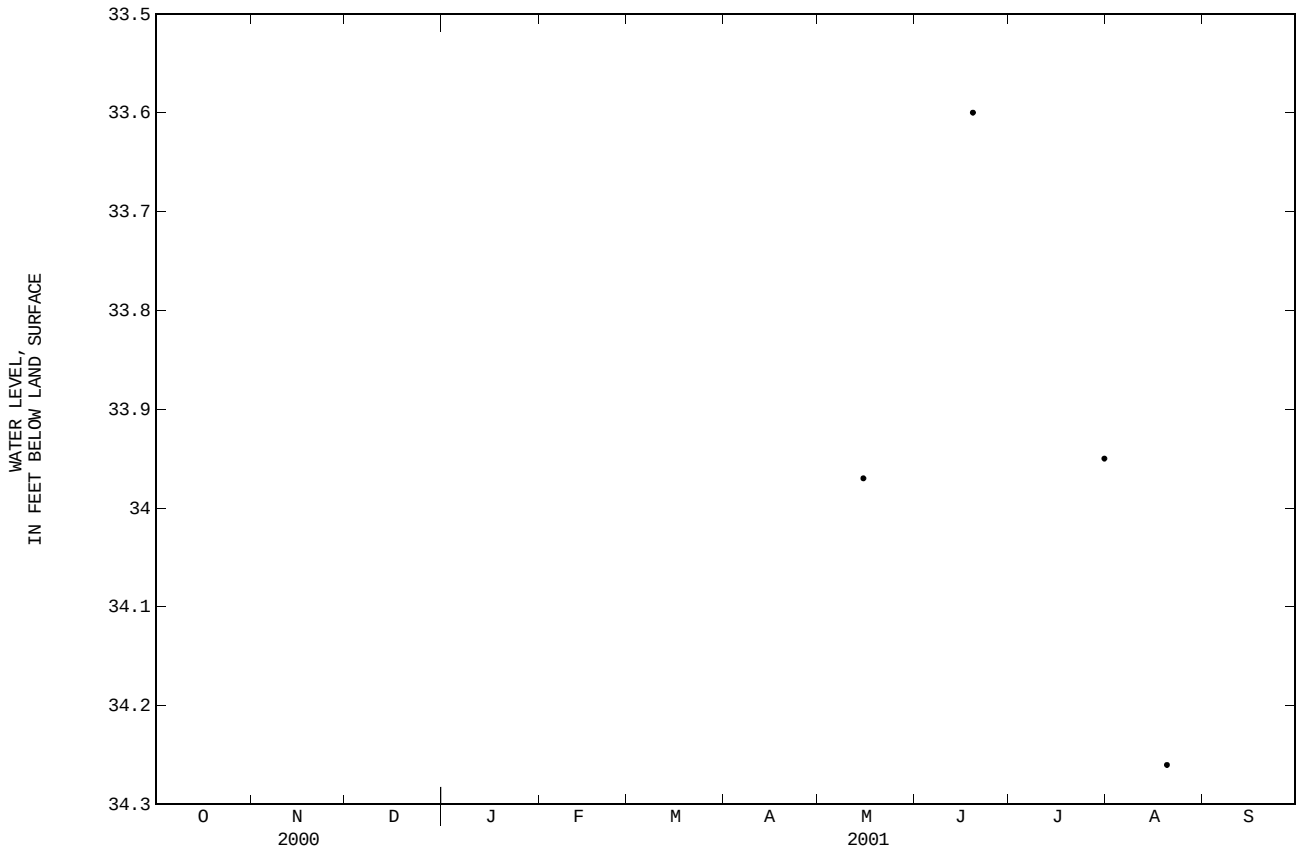


IREDELL COUNTY--Continued

353145080524701. County number, IR-151; DENR Langtree Research Station MW-4 (Regolith well).
LOCATION.--Lat 35°31'44.81", long 80°52'47.33", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .3 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 38 ft, diameter 4 in., cased to 23 ft, screened interval from 23 to 38 ft, sand filter packed with native fill 20 ft to 38 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 802.19 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.00 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.60 ft below land-surface datum, June 19, 2001; lowest water level measured 34.26 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	33.97	JUN 19	33.60	JUL 31	33.95	AUG 20	34.26

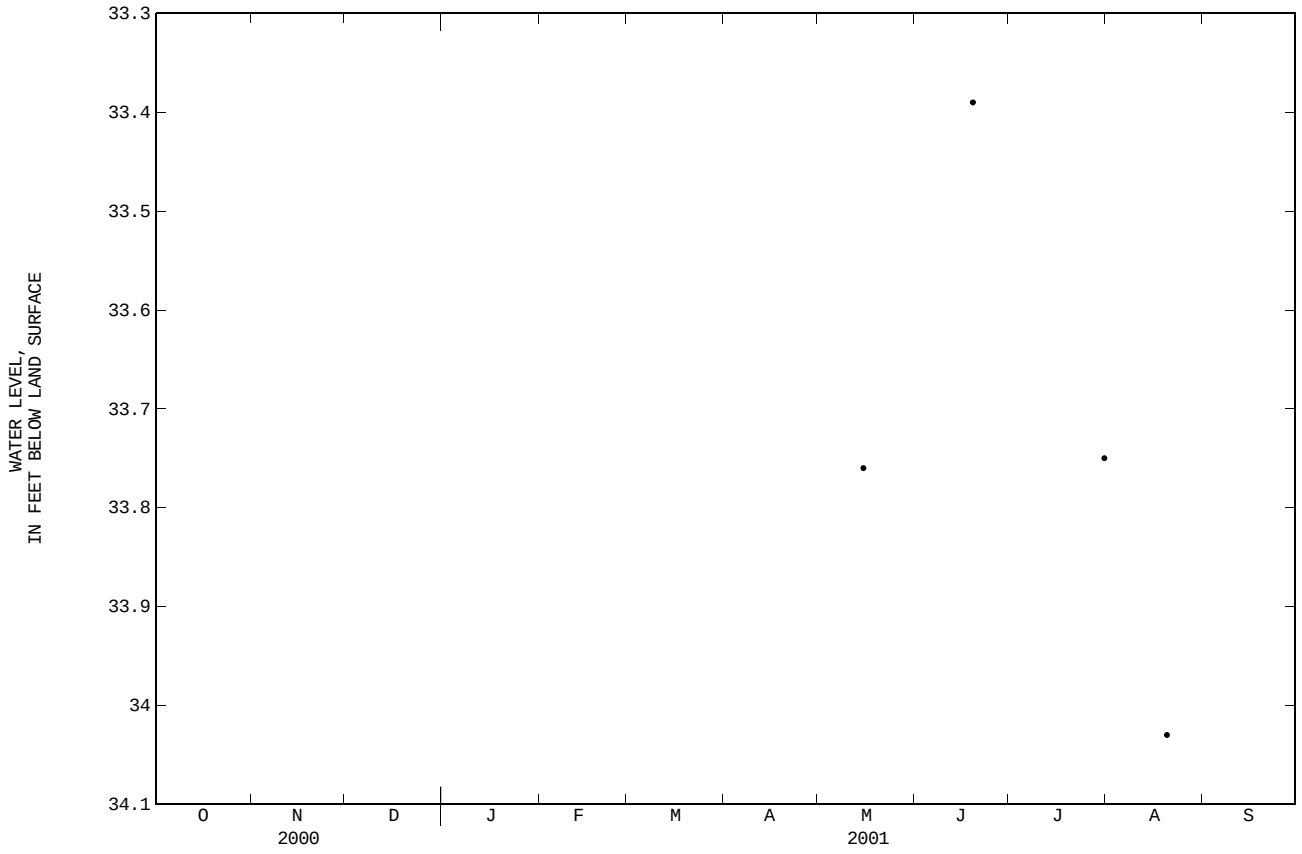


IREDELL COUNTY--Continued

353145080524702. County number, IR-152; DENR Langtree Research Station MW-4I (Transition zone well).
LOCATION.--Lat 35°31'44.99", long 80°52'47.32", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .3 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Transition zone (weathered and competent quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 53 ft, diameter 4 in., cased to 38 ft, screened interval from 38 to 53 ft, sand filter packed with native fill 35 ft to 53 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 801.69 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.10 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project. Possible well construction problems. Monitored zone may be connected to overlying regolith.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.39 ft below land-surface datum, June 19, 2001; lowest water level measured 34.03 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	33.76	JUN 19	33.39	JUL 31	33.75	AUG 20	34.03

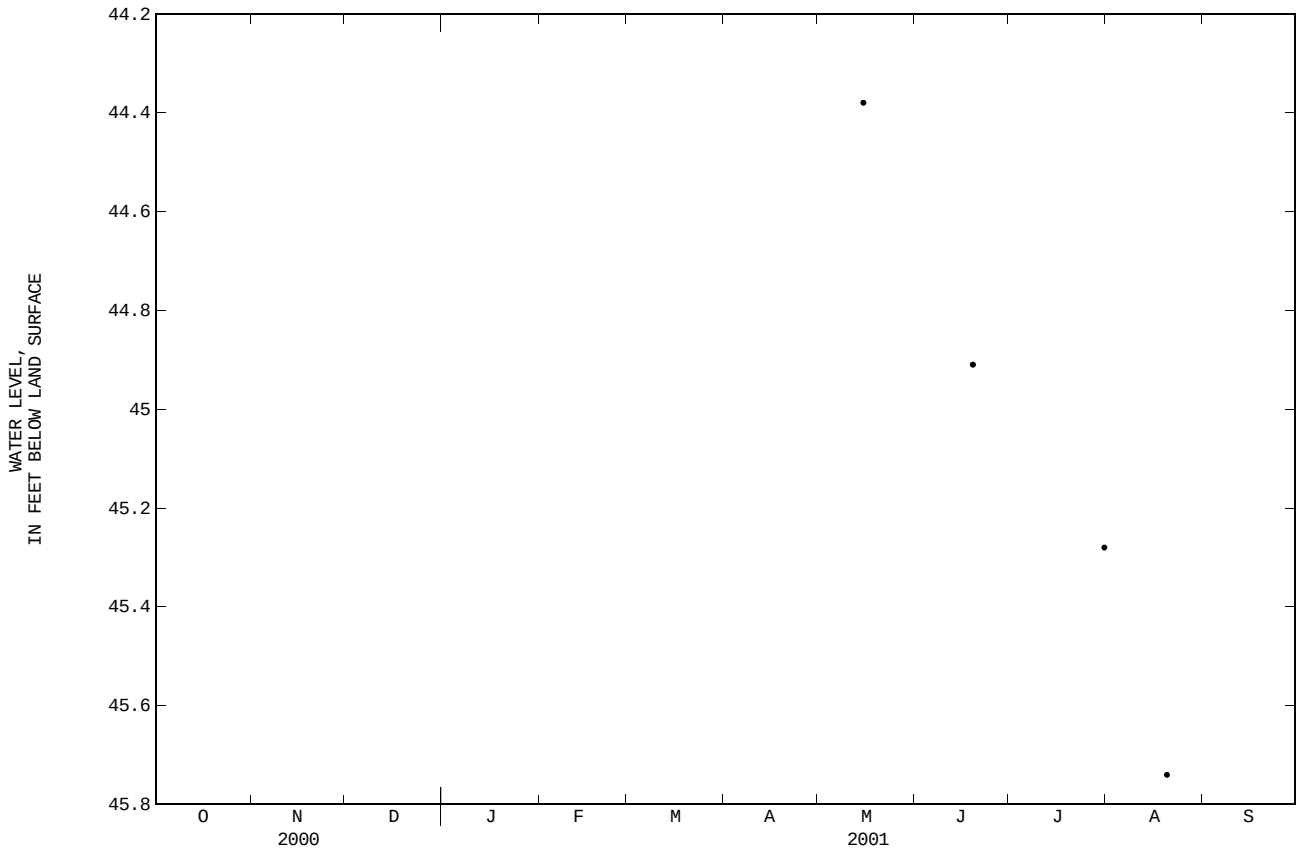


IREDELL COUNTY--Continued

353145080524703. County number, IR-153; DENR Langtree Research Station MW-4D (Bedrock well).
LOCATION.--Lat 35°31'45.15", long 80°52'47.31", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .3 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Quartz diorite bedrock.
WELL CHARACTERISTICS.--Drilled observation well, depth 400 ft, diameter 6.25 in., cased to 61 ft, open hole from 61 ft to 400 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 801.09 ft above sea level, (levels by DENR). Measuring point: Top of steel protective casing, 1.60 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.38 ft below land-surface datum, May 15, 2001; lowest water level measured 45.74 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	44.38	JUN 19	44.91	JUL 31	45.28	AUG 20	45.74



IREDELL COUNTY--Continued

353148080524701. County number, IR-154; DENR Langtree Research Station MW-5S (Regolith well).
LOCATION.--Lat 35°31'47.94", long 80°52'47.06", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .3 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 4 in., cased to 10 ft, screened interval from 10 ft to 20 ft, sand filter packed from 8 ft to 20 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 785.49 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.00 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Well dry during periodic water-level measurements on May 15, June 19, July 31, and Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

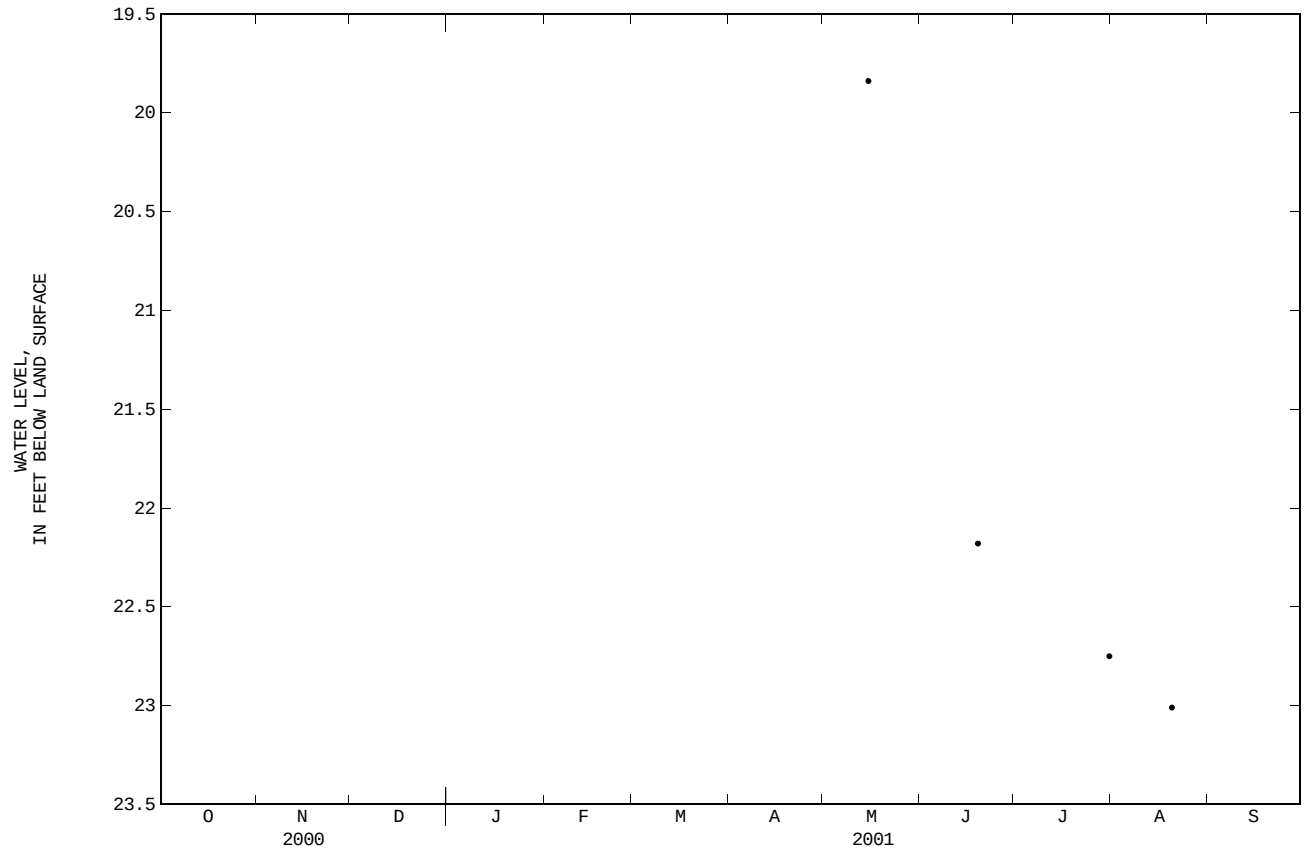
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	Dry	JUN 19	Dry	JUL 31	Dry	AUG 20	Dry

IREDELL COUNTY--Continued

353148080524702. County number, IR-155; DENR Langtree Research Station MW-5I (Transition zone well).
LOCATION.--Lat 35°31'48.32", long 80°52'46.96", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .3 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Transition zone (weathered and competent quartz diorite bedrock).
WELL CHARACTERISTICS.--Drilled observation well, depth 35 ft, diameter 4 in., cased to 20 ft, screened interval from 20 ft to 35 ft, sand filter packed from 18 ft to 35 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 784.49 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.20 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.84 ft below land-surface datum, May 15, 2001; lowest water level measured 23.01 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	19.84	JUN 19	22.18	JUL 31	22.75	AUG 20	23.01

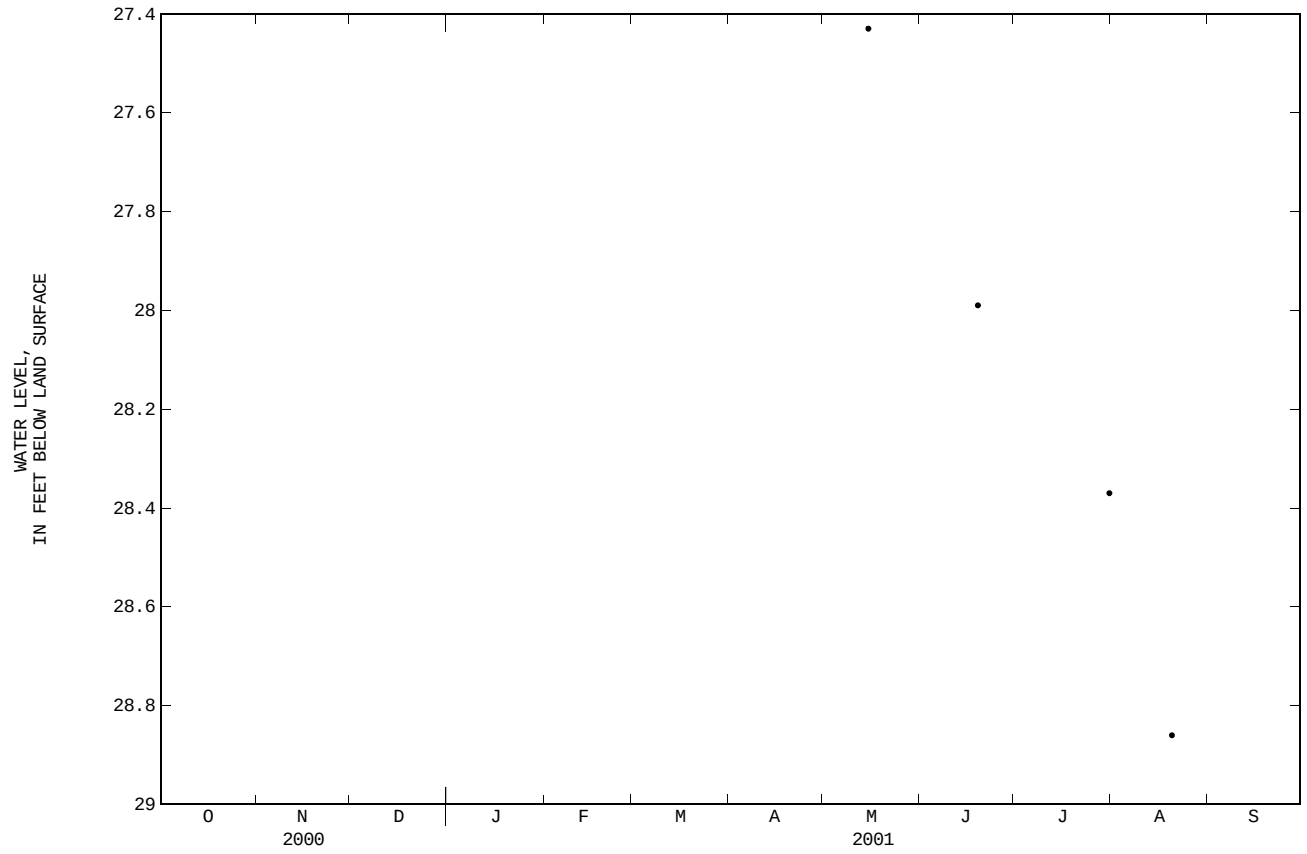


IREDELL COUNTY--Continued

353148080524703. County number, IR-156; DENR Langtree Research Station MW-5D (Bedrock well).
LOCATION.--Lat 35°31'48.13", long 80°52'46.98", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .3 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Quartz diorite bedrock.
WELL CHARACTERISTICS.--Drilled observation well, depth 400 ft, diameter 6.25 in., cased to 40 ft, open hole from 40 ft to 400 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 784.09 ft above sea level, (levels by DENR). Measuring point: Top of steel protective casing, 1.40 ft above land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.43 ft below land-surface datum, May 15, 2001; lowest water level measured 28.86 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	27.43	JUN 19	27.99	JUL 31	28.37	AUG 20	28.86

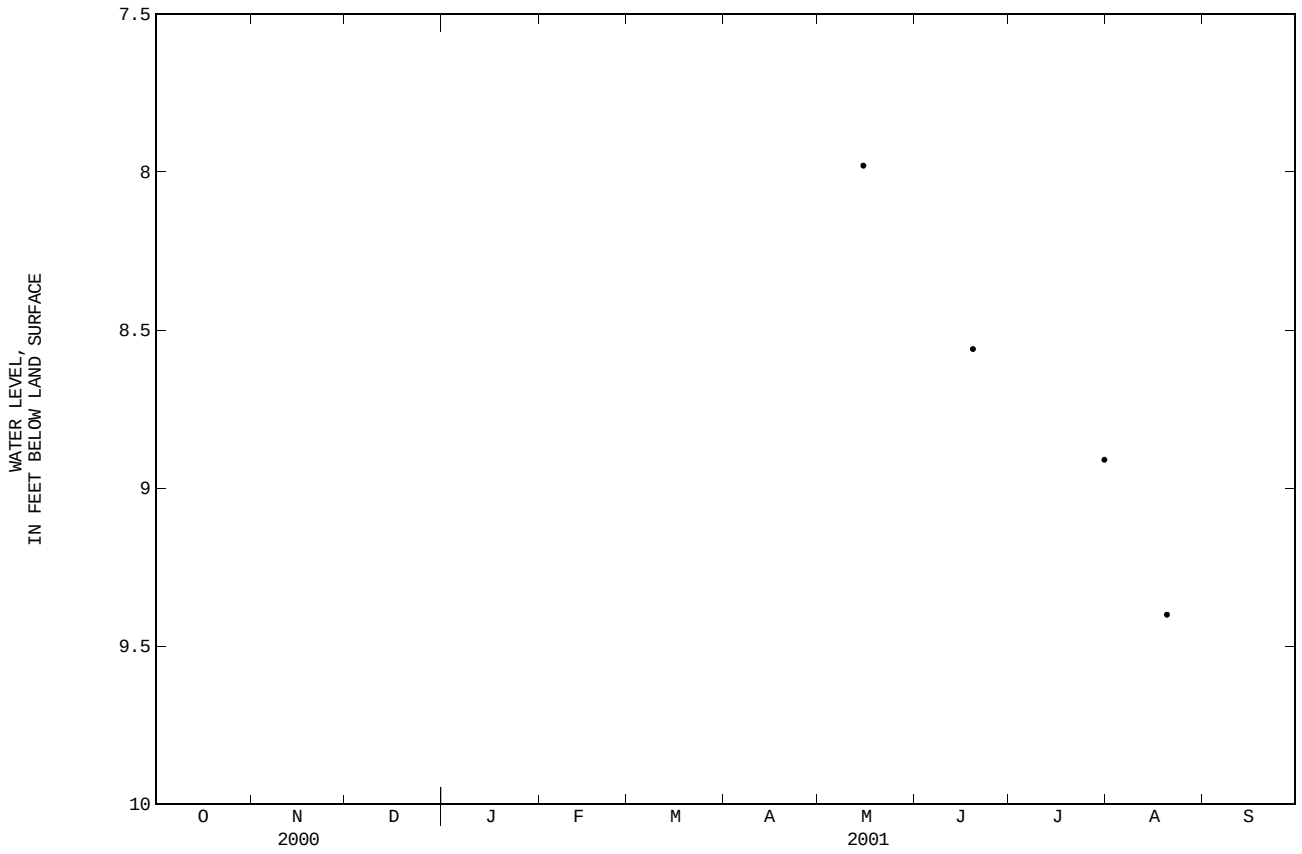


IREDELL COUNTY--Continued

353151080524601. County number, IR-157; DENR Langtree Research Station MW-6S (Regolith well).
LOCATION.--Lat 35°31'51.37", long 80°52'45.90", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .4 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 18 ft, diameter 4 in., cased to 8 ft, screened interval from 8 ft to 18 ft, sand filter packed from 6 ft to 18 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 764.59 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.16 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.98 ft below land surface datum, May 15, 2001; lowest water level measured, 9.40 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	7.98	JUN 19	8.56	JUL 31	8.91	AUG 20	9.40

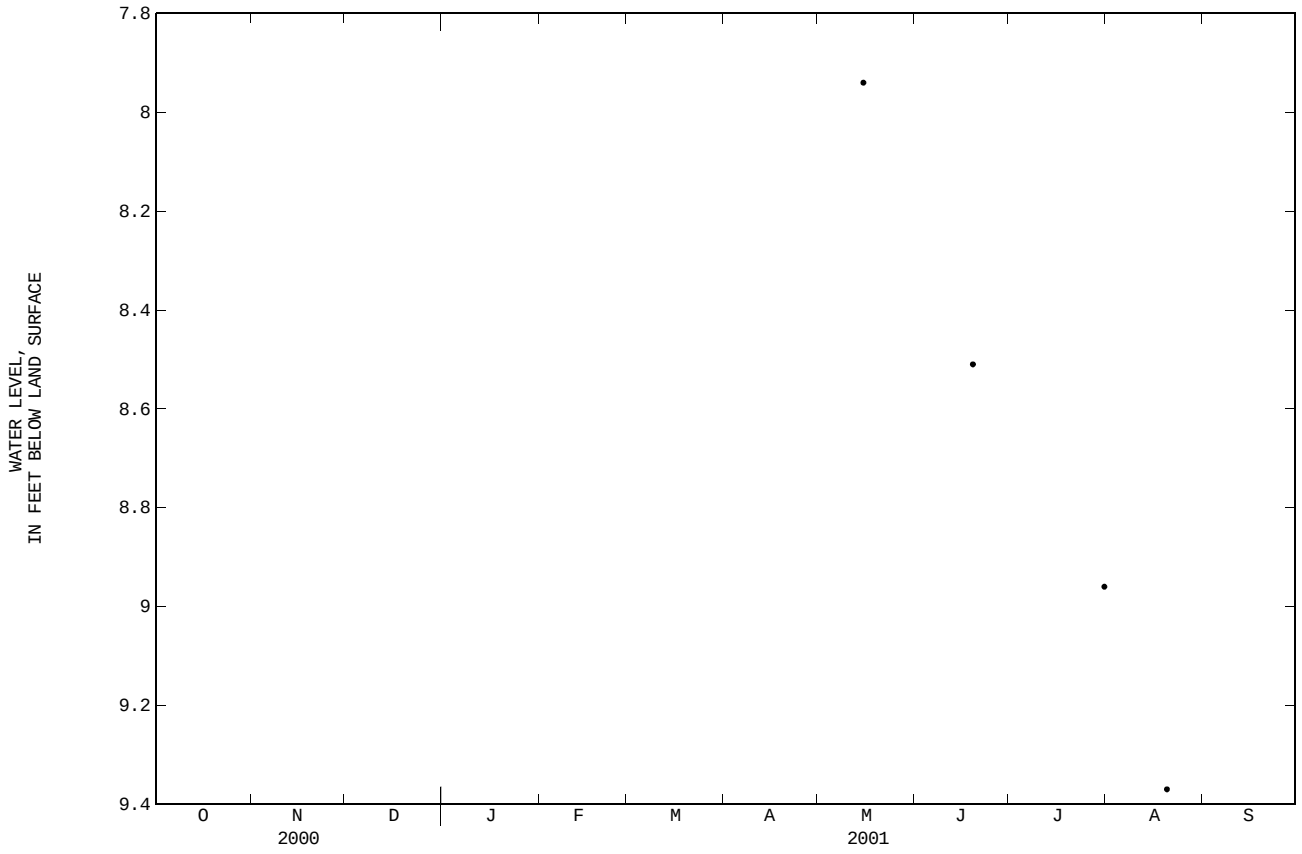


IREDELL COUNTY--Continued

353151080524602. County number, IR-158; DENR Langtree Research Station MW-6I (Transition zone well).
LOCATION.--Lat 35°31'51.68", long 80°52'45.74", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .4 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Transition zone (weathered and competent quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 35 ft, diameter 4 in., cased to 20 ft, screened interval from 20 ft to 35 ft, sand filter packed with native fill from 15 ft to 35 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 764.59 ft above sea level, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.10 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project. Possible well construction problems. Monitored zone may be connected to overlying regolith.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.94 ft below land surface datum, May 15, 2001; lowest water level measured, 9.37 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	7.94	JUN 19	8.51	JUL 31	8.96	AUG 20	9.37

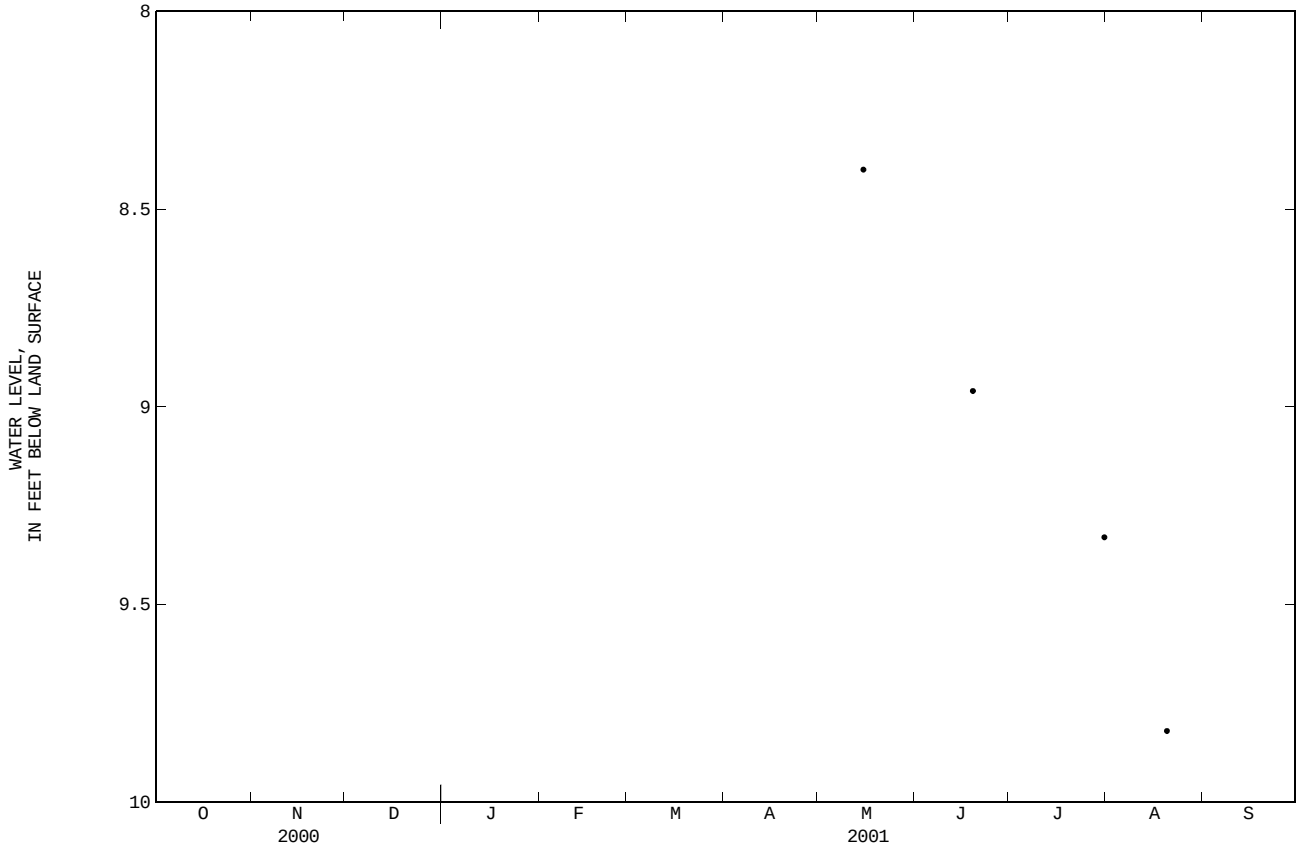


IREDELL COUNTY--Continued

353151080524603. County number, IR-159; DENR Langtree Research Station MW-6D (Bedrock well).
LOCATION.--Lat 35°31'51.58", long 80°52'45.91", North American Datum of 1983, Hydrologic Unit 03050101, 2.5 mi northwest of Davidson, .4 mi north of Langtree Road at Davidson College Lake Campus. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Quartz diorite bedrock.
WELL CHARACTERISTICS.--Drilled observation well, depth 400 ft, diameter 6.25 in., cased to 43 ft, open hole from 43 ft to 400 ft.
INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)
DATUM.--Land surface datum is 765.09 ft above sea level, (levels by DENR). Measuring point: Top of 6.25 in. PVC casing, 0.20 ft below land surface datum.
REMARKS.--Well is part of Piedmont/Mountains ground-water project. Possible well construction problems. Monitored zone may be connected to overlying transition zone and regolith.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.40 ft below land surface datum, May 15, 2001; lowest water level measured, 9.82 ft below land surface datum, Aug. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 15	8.40	JUN 19	8.96	JUL 31	9.33	AUG 20	9.82



Observation wells IR-130, 131, and 132 Langtree Research station,
Iredell County, North Carolina (p. 131-133).

JONES COUNTY

345809077301408. Local number, NC-173; DENR Comfort Research Station well U26j8; County number, JO-035.
LOCATION.--Lat 34°58'09", long 77°30'14", Hydrologic Unit 03020204, 2.5 mi south of Comfort at North Carolina Division of Forest Resources Fire Tower on Secondary Road 1003. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 15 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 15 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.
DATUM.--Land-surface datum is 68 ft above sea level (from topographic map). Measuring point: Top of collar on casing, 2.35 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--January 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.06 ft above land-surface datum, Sept. 16, 1999; lowest water level recorded, 9.97 ft below land-surface datum, Sept. 19, 20, 21, 1994.

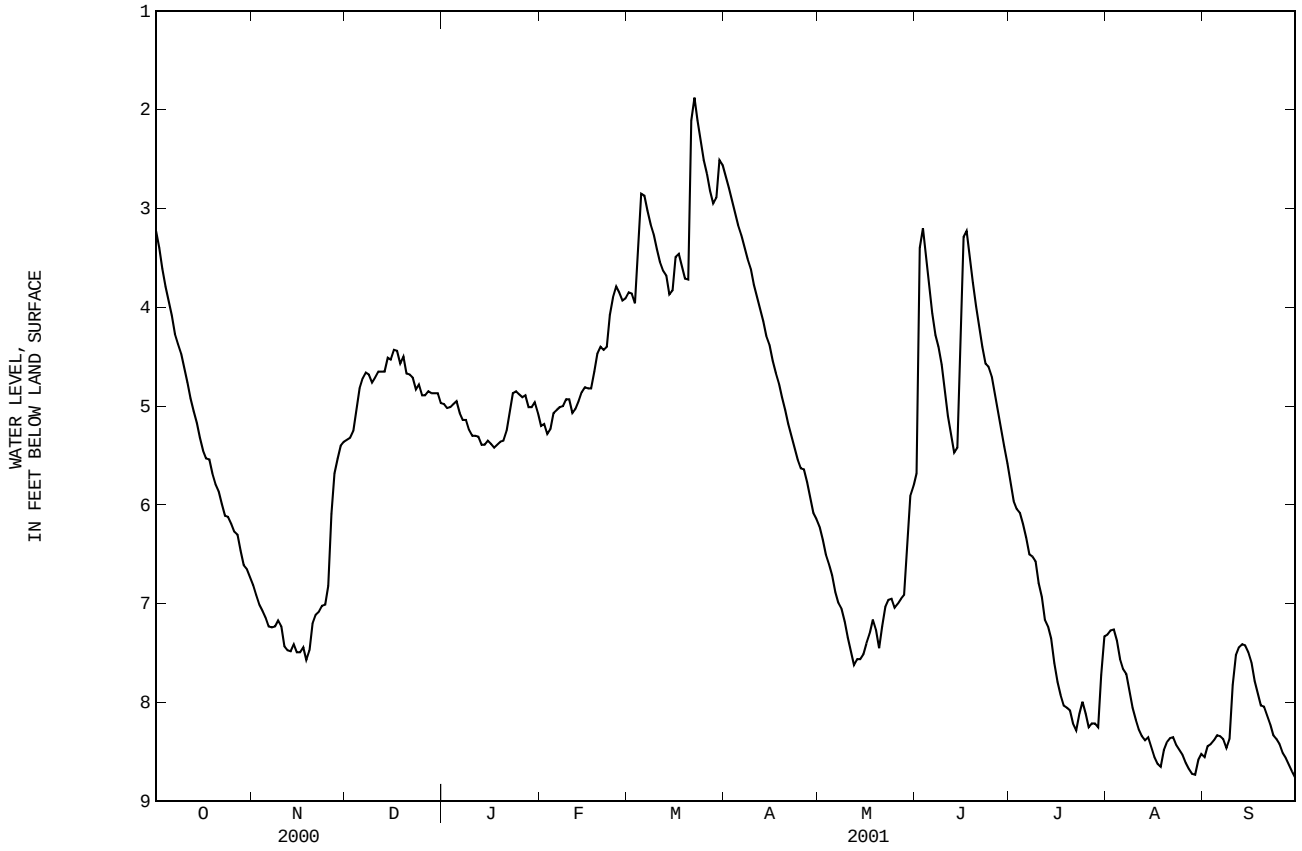
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

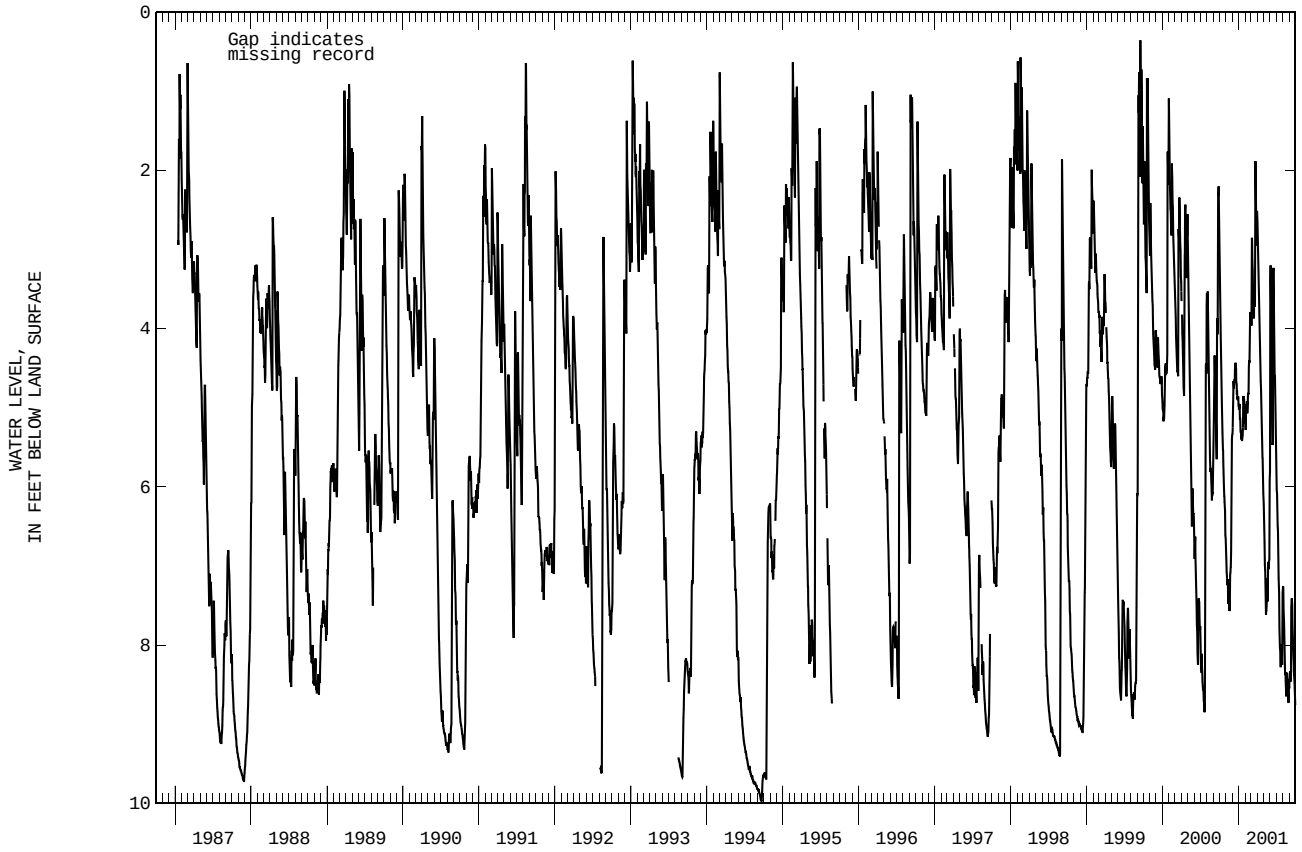
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.23	6.81	5.34	4.98	5.20	3.85	2.67	6.22	5.68	5.77	7.31	8.55
2	3.40	6.91	5.32	5.02	5.18	3.86	2.79	6.35	3.40	5.96	7.27	8.44
3	3.61	7.01	5.25	5.01	5.28	3.96	2.92	6.50	3.20	6.04	7.26	8.42
4	3.79	7.07	5.05	4.98	5.23	3.41	3.05	6.60	3.47	6.08	7.37	8.38
5	3.94	7.14	4.82	4.95	5.07	2.85	3.17	6.71	3.76	6.19	7.56	8.33
6	4.08	7.23	4.72	5.07	5.04	2.87	3.27	6.88	4.06	6.33	7.66	8.34
7	4.27	7.24	4.66	5.14	5.01	3.02	3.39	6.99	4.28	6.50	7.71	8.37
8	4.37	7.23	4.68	5.14	5.00	3.16	3.51	7.05	4.40	6.52	7.87	8.46
9	4.47	7.17	4.76	5.24	4.93	3.26	3.61	7.18	4.58	6.57	8.05	8.37
10	4.61	7.23	4.71	5.30	4.93	3.41	3.77	7.34	4.84	6.79	8.17	7.82
11	4.76	7.43	4.65	5.30	5.07	3.54	3.90	7.48	5.10	6.93	8.27	7.52
12	4.92	7.47	4.65	5.31	5.03	3.63	4.02	7.62	5.29	7.16	8.34	7.44
13	5.05	7.48	4.65	5.39	4.95	3.68	4.14	7.56	5.47	7.23	8.38	7.41
14	5.17	7.41	4.51	5.39	4.86	3.87	4.29	7.56	5.42	7.35	8.35	7.42
15	5.32	7.49	4.53	5.35	4.81	3.83	4.38	7.51	4.51	7.60	8.45	7.49
16	5.45	7.49	4.43	5.38	4.82	3.49	4.54	7.40	3.29	7.79	8.55	7.59
17	5.53	7.44	4.44	5.42	4.82	3.46	4.66	7.30	3.23	7.92	8.62	7.78
18	5.54	7.57	4.57	5.39	4.65	3.58	4.77	7.16	3.48	8.03	8.65	7.90
19	5.68	7.47	4.50	5.36	4.47	3.71	4.91	7.26	3.75	8.05	8.48	8.03
20	5.79	7.20	4.67	5.35	4.40	3.72	5.04	7.45	3.99	8.08	8.40	8.04
21	5.86	7.11	4.68	5.25	4.43	2.11	5.18	7.23	4.20	8.21	8.36	8.13
22	5.99	7.08	4.71	5.05	4.40	1.88	5.30	7.03	4.40	8.28	8.35	8.22
23	6.11	7.02	4.83	4.87	4.08	2.11	5.42	6.96	4.57	8.11	8.43	8.33
24	6.12	7.01	4.78	4.85	3.90	2.32	5.54	6.95	4.60	7.99	8.48	8.37
25	6.19	6.82	4.89	4.88	3.79	2.51	5.63	7.04	4.70	8.11	8.53	8.42
26	6.27	6.09	4.89	4.91	3.85	2.65	5.64	7.00	4.87	8.25	8.61	8.51
27	6.30	5.68	4.85	4.89	3.93	2.82	5.77	6.95	5.04	8.21	8.67	8.56
28	6.46	5.53	4.87	5.01	3.91	2.95	5.92	6.91	5.22	8.21	8.72	8.63
29	6.61	5.40	4.87	5.01	---	2.89	6.08	6.44	5.41	8.25	8.73	8.70
30	6.65	5.36	4.87	4.96	---	2.51	6.14	5.91	5.58	7.72	8.58	8.76
31	6.73	---	4.97	5.07	---	2.56	---	5.81	---	7.33	8.52	---

WTR YR 2001 MEAN 5.80 HIGH 1.88 LOW 8.76

JONES COUNTY--Continued

345809077301408 Local number, NC-173; DENR Comfort Research Station well U26j8; County number, JO-035





LENOIR COUNTY

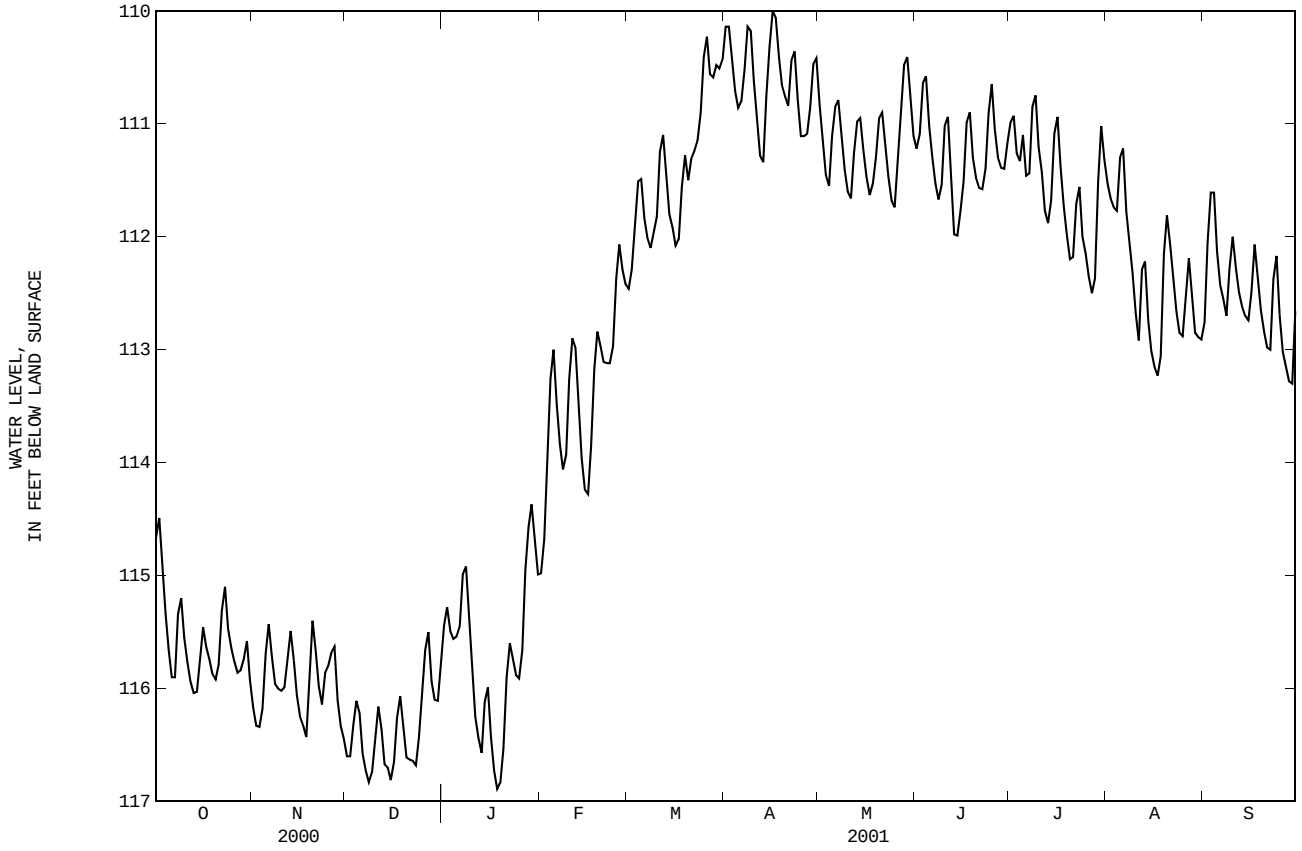
351600077381001. Local number, NC-128; County number, LN-128.
LOCATION.--Lat 35°15'59", long 77°37'52", Hydrologic Unit 03020202, on west edge of Kinston at intersection of U.S. Highways 70 and 258 Bypass, and U.S. Highways 70 and 258 Business. Owner: City of Kinston.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 10 in., cased to 160 ft, screened intervals unknown.
INSTRUMENTATION.--Water-level recorder collecting data at 30-minute intervals.
DATUM.--Land-surface datum is 33.5 ft above sea level. Measuring point: Top of instrument shelf, 2.10 ft above land-surface datum.
REMARKS.--Well is part of local-effects network. Water levels affected by nearby pumping.
PERIOD OF RECORD.--December 1968 to current year. Continuous record began January 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.83 ft below land-surface datum, Dec. 30, 1968; lowest water level recorded 125.96 ft below land-surface datum, Sept. 27, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114.66	116.17	116.60	115.44	114.98	112.46	110.14	110.83	111.22	110.99	111.53	112.76
2	114.49	116.33	116.60	115.28	114.68	112.29	110.14	111.15	111.09	110.93	111.66	112.05
3	114.91	116.34	116.32	115.49	113.95	111.93	110.41	111.45	110.64	111.26	111.74	111.61
4	115.33	116.18	116.11	115.56	113.26	111.51	110.71	111.55	110.58	111.33	111.77	111.61
5	115.66	115.69	116.22	115.54	113.00	111.49	110.86	111.11	111.02	111.10	111.30	112.13
6	115.90	115.43	116.58	115.45	113.48	111.84	110.80	110.85	111.29	111.46	111.22	112.43
7	115.90	115.72	116.73	114.99	113.84	112.01	110.52	110.79	111.53	111.44	111.78	112.55
8	115.34	115.96	116.83	114.92	114.06	112.10	110.14	111.11	111.67	110.85	112.05	112.70
9	115.20	116.00	116.74	115.47	113.93	111.96	110.18	111.41	111.54	110.75	112.32	112.28
10	115.55	116.02	116.44	115.90	113.26	111.82	110.62	111.60	111.02	111.21	112.68	112.00
11	115.77	115.99	116.16	116.25	112.90	111.25	110.98	111.66	110.94	111.43	112.92	112.28
12	115.94	115.73	116.36	116.44	112.98	111.10	111.28	111.26	111.54	111.77	112.29	112.49
13	116.04	115.49	116.67	116.57	113.53	111.45	111.34	110.98	111.98	111.88	112.22	112.62
14	116.03	115.75	116.70	116.12	113.96	111.80	110.76	110.95	111.99	111.68	112.74	112.70
15	115.77	116.06	116.81	115.99	114.24	111.92	110.32	111.24	111.78	111.09	113.01	112.74
16	115.46	116.25	116.65	116.43	114.28	112.08	110.00	111.47	111.51	110.94	113.15	112.49
17	115.63	116.33	116.26	116.73	113.85	112.02	110.06	111.63	110.99	111.38	113.23	112.07
18	115.74	116.43	116.07	116.89	113.17	111.56	110.41	111.53	110.90	111.73	113.06	112.37
19	115.87	115.91	116.33	116.83	112.84	111.28	110.66	111.30	111.30	111.98	112.15	112.65
20	115.92	115.40	116.61	116.53	112.97	111.50	110.76	110.95	111.48	112.20	111.81	112.84
21	115.79	115.67	116.63	115.90	113.11	111.31	110.84	110.90	111.57	112.18	112.07	112.98
22	115.31	115.98	116.64	115.60	113.12	111.24	110.44	111.17	111.58	111.71	112.38	113.00
23	115.10	116.14	116.68	115.73	113.12	111.15	110.36	111.47	111.40	111.56	112.66	112.38
24	115.47	115.86	116.43	115.88	112.97	110.90	110.78	111.68	110.91	112.00	112.85	112.17
25	115.64	115.80	116.04	115.91	112.37	110.41	111.11	111.74	110.65	112.15	112.88	112.69
26	115.76	115.68	115.66	115.66	112.07	110.23	111.11	111.28	111.05	112.35	112.53	113.02
27	115.86	115.63	115.50	114.95	112.29	110.56	111.09	110.85	111.30	112.50	112.19	113.15
28	115.84	116.11	115.94	114.57	112.42	110.59	110.86	110.48	111.39	112.37	112.50	113.28
29	115.74	116.33	116.10	114.37	---	110.48	110.47	110.41	111.40	111.51	112.85	113.30
30	115.58	116.45	116.11	114.66	---	110.51	110.42	110.75	111.17	111.02	112.89	112.66
31	115.93	---	115.77	114.99	---	110.43	---	111.11	---	111.32	112.91	---

WTR YR 2001 MEAN 113.16 HIGH 110.00 LOW 116.89

351600077381001 Local number, NC-128; County number, LN-128



LENOIR COUNTY--Continued

351937077284201. Local number, NC-185; DENR Graingers Research Station well Q25d12; County number, LN-110.
LOCATION.--Lat 35°19'37", long 77°28'42", Hydrologic Unit 03020202, 1.6 mi northeast of Graingers on N.C. Highway 11 at E. I. du Pont de Nemours and Company, Kinston Plant. Owner: DENR (North Carolina Department of Environment, and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 134 ft, diameter 4 in., screened interval from 124 to 134 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 66 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.10 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--December 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 38.14 ft below land-surface datum, Sept. 24, 1999; lowest water level recorded, 60.61 ft below land-surface datum, July 31, 1987.

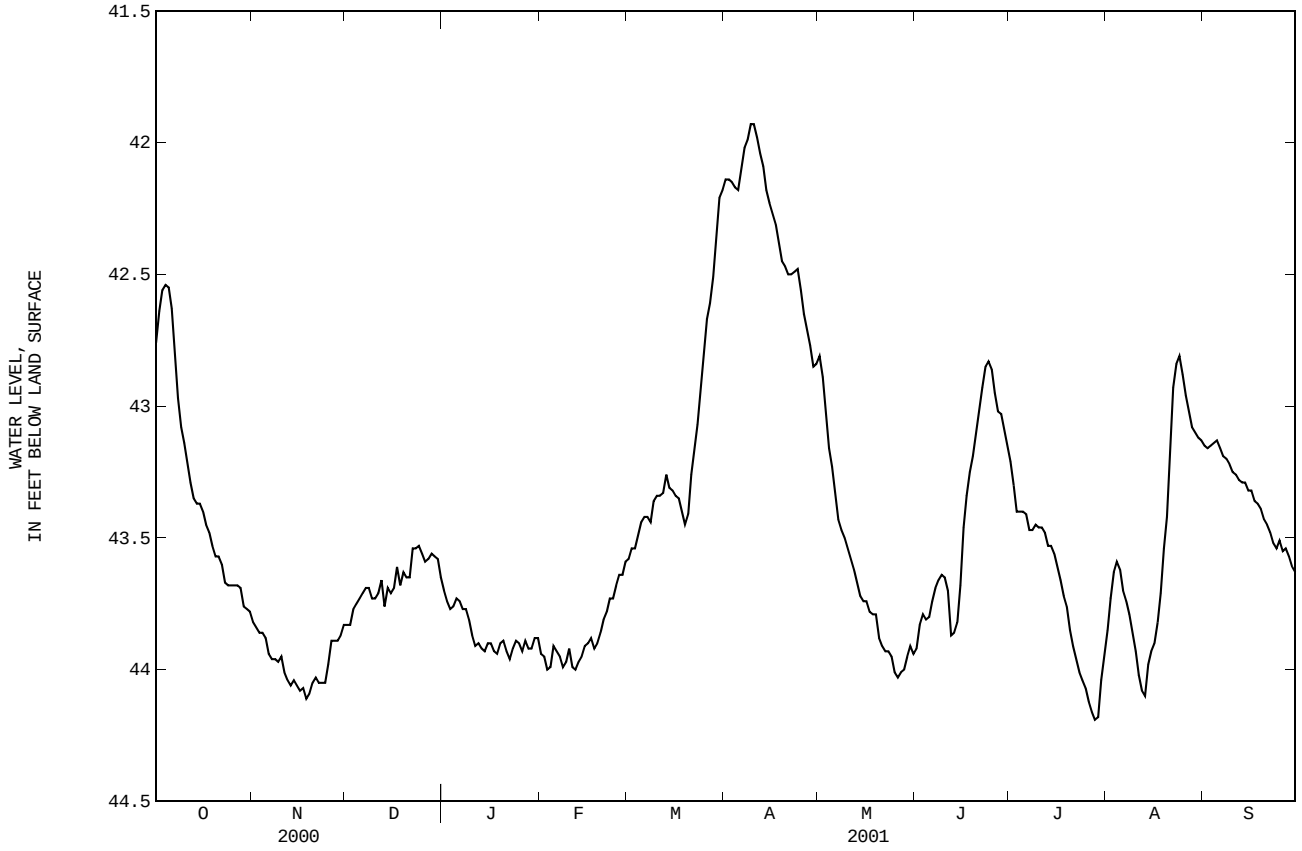
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

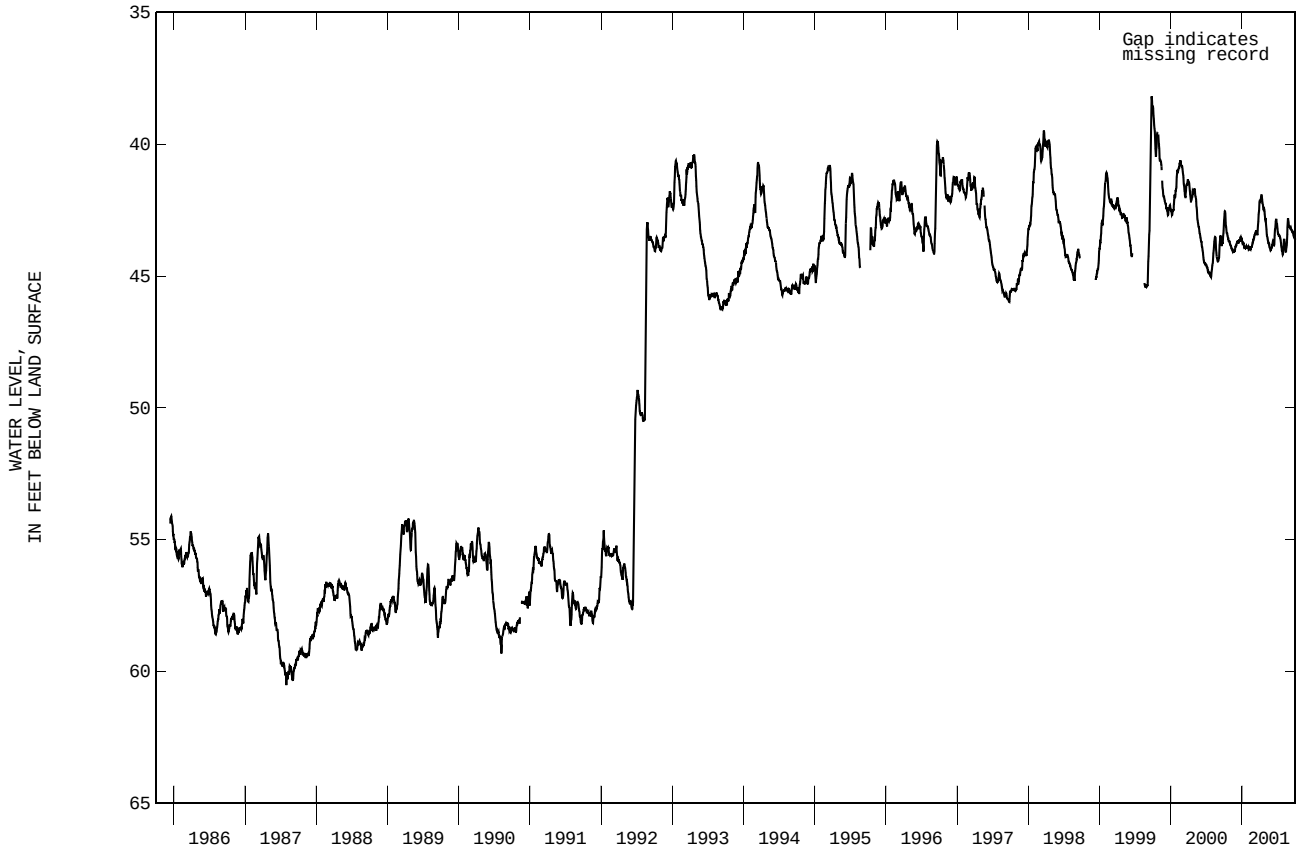
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42.76	43.82	43.83	43.70	43.94	43.58	42.14	42.81	43.92	43.21	43.85	43.15
2	42.64	43.84	43.83	43.74	43.95	43.54	42.14	42.89	43.83	43.30	43.73	43.16
3	42.56	43.86	43.77	43.77	44.00	43.54	42.15	43.03	43.79	43.40	43.63	43.15
4	42.54	43.86	43.75	43.76	43.99	43.49	42.17	43.16	43.81	43.40	43.59	43.14
5	42.55	43.88	43.73	43.73	43.91	43.44	42.18	43.23	43.80	43.40	43.62	43.13
6	42.63	43.94	43.71	43.74	43.93	43.42	42.10	43.33	43.74	43.41	43.70	43.16
7	42.80	43.96	43.69	43.77	43.95	43.42	42.02	43.43	43.69	43.47	43.74	43.19
8	42.97	43.96	43.69	43.77	43.99	43.44	41.99	43.47	43.66	43.47	43.79	43.20
9	43.08	43.97	43.73	43.81	43.97	43.36	41.93	43.50	43.64	43.45	43.86	43.22
10	43.14	43.95	43.73	43.87	43.92	43.34	41.93	43.54	43.65	43.46	43.93	43.25
11	43.22	44.01	43.71	43.91	43.99	43.34	41.98	43.58	43.70	43.46	44.02	43.26
12	43.29	44.04	43.66	43.90	44.00	43.33	42.04	43.62	43.87	43.48	44.08	43.28
13	43.35	44.06	43.76	43.92	43.97	43.26	42.09	43.67	43.86	43.53	44.10	43.29
14	43.37	44.04	43.69	43.93	43.95	43.31	42.18	43.72	43.82	43.53	43.98	43.29
15	43.37	44.06	43.71	43.90	43.91	43.32	42.23	43.74	43.68	43.56	43.93	43.32
16	43.40	44.08	43.69	43.90	43.90	43.34	42.27	43.74	43.46	43.61	43.90	43.32
17	43.45	44.07	43.61	43.93	43.88	43.35	42.31	43.78	43.34	43.66	43.82	43.36
18	43.48	44.11	43.68	43.94	43.92	43.40	42.38	43.79	43.25	43.72	43.71	43.37
19	43.53	44.09	43.63	43.90	43.90	43.45	42.45	43.79	43.19	43.76	43.54	43.39
20	43.57	44.05	43.65	43.89	43.86	43.41	42.47	43.88	43.11	43.85	43.42	43.43
21	43.57	44.03	43.65	43.93	43.81	43.26	42.50	43.91	43.02	43.91	43.14	43.45
22	43.60	44.05	43.54	43.96	43.78	43.16	42.50	43.93	42.93	43.96	42.93	43.48
23	43.67	44.05	43.54	43.92	43.73	43.07	42.49	43.93	42.85	44.01	42.84	43.52
24	43.68	44.05	43.53	43.89	43.73	42.93	42.48	43.95	42.83	44.04	42.81	43.54
25	43.68	43.98	43.56	43.90	43.68	42.80	42.56	44.01	42.86	44.07	42.88	43.51
26	43.68	43.89	43.59	43.93	43.64	42.67	42.65	44.03	42.95	44.12	42.96	43.55
27	43.68	43.89	43.58	43.89	43.64	42.61	42.71	44.01	43.02	44.16	43.02	43.54
28	43.69	43.89	43.56	43.92	43.59	42.51	42.77	44.00	43.03	44.19	43.08	43.57
29	43.76	43.87	43.57	43.92	---	42.35	42.85	43.95	43.09	44.18	43.10	43.61
30	43.77	43.83	43.58	43.88	---	42.21	42.84	43.91	43.15	44.04	43.12	43.63
31	43.78	---	43.65	43.88	---	42.18	---	43.94	---	43.95	43.13	---

WTR YR 2001 MEAN 43.48 HIGH 41.93 LOW 44.19

LENOIR COUNTY--Continued

351937077284201 Local number, NC-185; DENR Graingers Research Station well Q25d12; County number, LN-110





LENOIR COUNTY--Continued

351937077284211. Local number, NC-223; DENR Graingers Research Station well Q25d11; County number, LN-105.
LOCATION.--Lat 35°19'37", long 77°28'42", Hydrologic Unit 03020202, 1.6 mi northeast of Graingers on N.C. Highway 11 at E. I. du Pont de Nemours and Company, Kinston Plant. Owner: DENR (North Carolina Department of Environment, and Natural Resources).
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 4 in., screened interval from 30 to 40 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 66 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.80 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--June 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 10.61 ft below land-surface datum, Dec. 28-31, 2000; lowest water level measured, 20.60 ft below land-surface datum, Nov. 19, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR JUNE 2000 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	11.49	11.63	11.38
2	---	---	---	---	---	---	---	---	---	11.50	11.62	11.36
3	---	---	---	---	---	---	---	---	---	11.52	11.61	11.34
4	---	---	---	---	---	---	---	---	---	11.54	11.59	11.31
5	---	---	---	---	---	---	---	---	---	11.56	11.57	11.27
6	---	---	---	---	---	---	---	---	---	11.56	11.54	11.22
7	---	---	---	---	---	---	---	---	---	11.58	11.53	11.19
8	---	---	---	---	---	---	---	---	---	11.59	11.52	11.17
9	---	---	---	---	---	---	---	---	---	11.62	11.50	11.16
10	---	---	---	---	---	---	---	---	---	11.63	11.50	11.14
11	---	---	---	---	---	---	---	---	---	11.64	11.49	11.13
12	---	---	---	---	---	---	---	---	---	11.64	11.48	11.11
13	---	---	---	---	---	---	---	---	---	11.66	11.48	11.09
14	---	---	---	---	---	---	---	---	---	11.66	11.48	11.09
15	---	---	---	---	---	---	---	---	---	11.66	11.49	11.07
16	---	---	---	---	---	---	---	---	---	11.67	11.49	11.06
17	---	---	---	---	---	---	---	---	---	11.67	11.47	11.07
18	---	---	---	---	---	---	---	---	---	11.69	11.46	11.06
19	---	---	---	---	---	---	---	---	---	11.70	11.45	11.02
20	---	---	---	---	---	---	---	---	---	11.71	11.45	10.99
21	---	---	---	---	---	---	---	---	---	11.73	11.46	10.97
22	---	---	---	---	---	---	---	---	---	11.73	11.47	10.96
23	---	---	---	---	---	---	---	---	11.35	11.74	11.47	10.93
24	---	---	---	---	---	---	---	---	11.38	11.75	11.47	10.88
25	---	---	---	---	---	---	---	---	11.41	11.75	11.47	10.84
26	---	---	---	---	---	---	---	---	11.43	11.75	11.47	10.79
27	---	---	---	---	---	---	---	---	11.45	11.72	11.47	10.76
28	---	---	---	---	---	---	---	---	11.47	11.70	11.45	10.74
29	---	---	---	---	---	---	---	---	11.47	11.69	11.44	10.73
30	---	---	---	---	---	---	---	---	11.47	11.68	11.43	10.72
31	---	---	---	---	---	---	---	---	---	11.65	11.41	---

WTR YR 2000 MEAN 11.41 HIGH 10.72 LOW 11.75

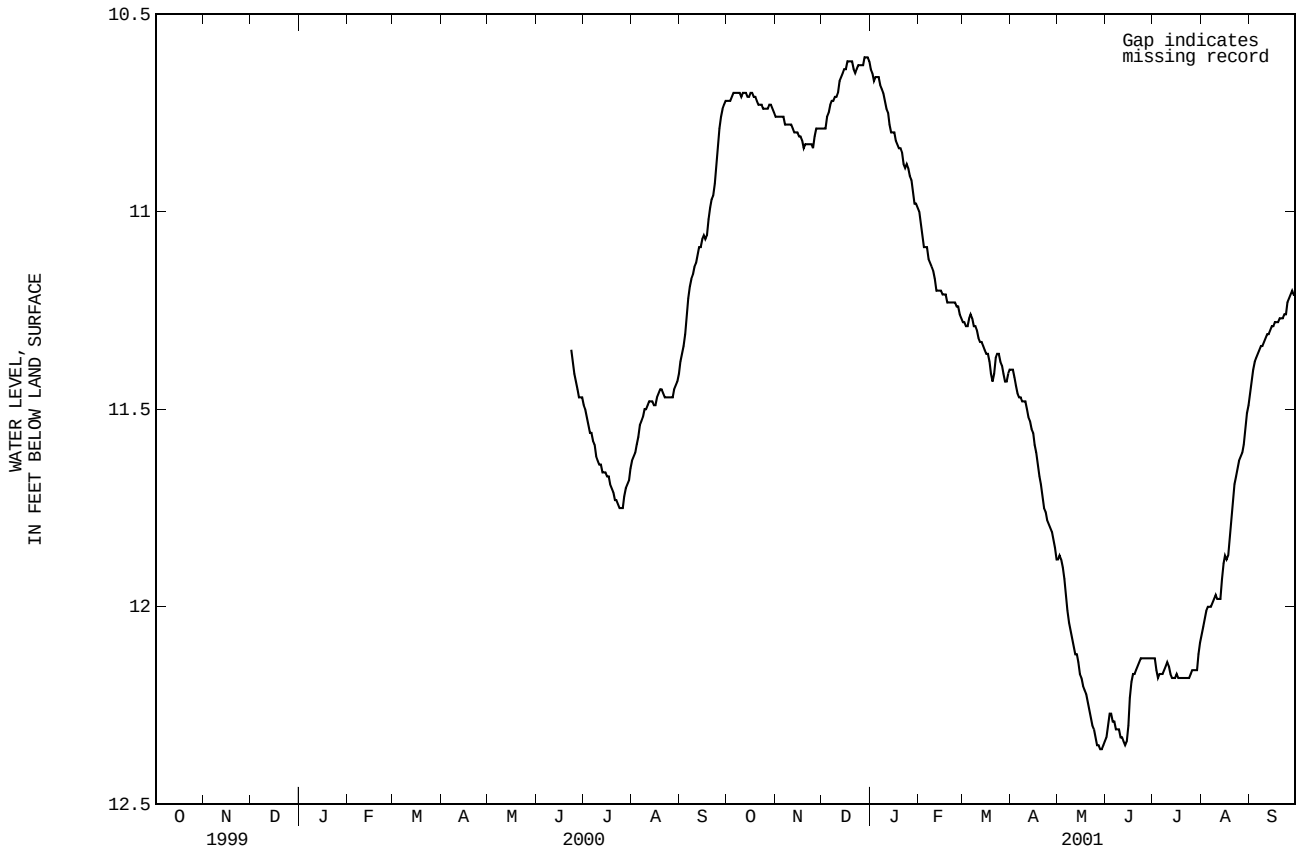
LENOIR COUNTY--Continued

351937077284211 Local number, NC-223; DENR Graingers Research Station well Q25d11; County number, LN-105

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.72	10.76	10.79	10.64	11.00	11.28	11.40	11.88	12.33	12.13	12.07	11.46
2	10.72	10.76	10.79	10.65	11.03	11.28	11.40	11.87	12.30	12.13	12.05	11.43
3	10.72	10.76	10.79	10.67	11.06	11.29	11.42	11.88	12.27	12.16	12.03	11.40
4	10.71	10.76	10.76	10.66	11.09	11.29	11.44	11.90	12.27	12.18	12.01	11.38
5	10.70	10.76	10.75	10.66	11.09	11.27	11.46	11.93	12.29	12.17	12.00	11.37
6	10.70	10.76	10.73	10.66	11.09	11.26	11.47	11.97	12.29	12.17	12.00	11.36
7	10.70	10.78	10.72	10.68	11.12	11.27	11.47	12.01	12.31	12.17	12.00	11.35
8	10.70	10.78	10.72	10.69	11.13	11.29	11.48	12.04	12.31	12.16	11.99	11.34
9	10.70	10.78	10.71	10.70	11.14	11.29	11.48	12.06	12.31	12.15	11.98	11.34
10	10.71	10.78	10.71	10.72	11.15	11.30	11.48	12.08	12.33	12.14	11.97	11.33
11	10.70	10.78	10.70	10.74	11.17	11.32	11.50	12.10	12.33	12.15	11.98	11.32
12	10.70	10.79	10.67	10.75	11.20	11.33	11.52	12.12	12.34	12.17	11.98	11.31
13	10.70	10.80	10.66	10.78	11.20	11.33	11.53	12.12	12.35	12.18	11.98	11.31
14	10.71	10.80	10.65	10.80	11.20	11.34	11.55	12.14	12.34	12.18	11.93	11.30
15	10.71	10.80	10.64	10.80	11.20	11.35	11.56	12.17	12.30	12.18	11.89	11.29
16	10.70	10.81	10.64	10.80	11.21	11.36	11.59	12.18	12.23	12.17	11.87	11.29
17	10.70	10.81	10.62	10.82	11.21	11.36	11.61	12.20	12.19	12.18	11.88	11.28
18	10.71	10.82	10.62	10.83	11.21	11.38	11.64	12.21	12.17	12.18	11.87	11.28
19	10.71	10.84	10.62	10.84	11.23	11.41	11.67	12.22	12.17	12.18	11.83	11.28
20	10.72	10.83	10.62	10.84	11.23	11.43	11.69	12.24	12.16	12.18	11.79	11.27
21	10.73	10.83	10.64	10.85	11.23	11.41	11.72	12.26	12.15	12.18	11.74	11.27
22	10.73	10.83	10.65	10.88	11.23	11.37	11.75	12.28	12.14	12.18	11.69	11.27
23	10.73	10.83	10.64	10.89	11.23	11.36	11.76	12.30	12.13	12.18	11.67	11.26
24	10.74	10.83	10.63	10.88	11.23	11.36	11.78	12.31	12.13	12.18	11.65	11.26
25	10.74	10.84	10.63	10.89	11.24	11.38	11.79	12.33	12.13	12.17	11.63	11.23
26	10.74	10.81	10.63	10.91	11.24	11.39	11.80	12.35	12.13	12.16	11.62	11.22
27	10.74	10.79	10.63	10.92	11.26	11.41	11.81	12.35	12.13	12.16	11.61	11.21
28	10.73	10.79	10.61	10.95	11.27	11.43	11.83	12.36	12.13	12.16	11.59	11.20
29	10.73	10.79	10.61	10.98	---	11.43	11.85	12.36	12.13	12.16	11.55	11.21
30	10.74	10.79	10.61	10.98	---	11.41	11.88	12.35	12.13	12.12	11.51	11.21
31	10.75	---	10.62	10.99	---	11.40	---	12.34	---	12.09	11.49	---

WTR YR 2001 MEAN 11.40 HIGH 10.61 LOW 12.36



MECKLENBURG COUNTY

351730080524203. Local number, NC-146; County number, ME-301.
LOCATION.--Lat 35°19'16", long 80°52'39", Hydrologic Unit 03050101, 6 mi south of Huntersville in Hornets Nest Park. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from metamorphosed quartz diorite.
WELL CHARACTERISTICS.--Drilled observation well, depth 17.1 ft, diameter 4 in., cased to 12.1 ft, screened interval from 12.1 to 17.1 ft, sand filter packed from 12.1 to 17.1 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 730 ft above sea level (from topographic map). Measuring point: Top of casing, 1.90 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.28 ft below land-surface datum, Mar. 24, 1993; lowest water level recorded, 8.42 ft below land-surface datum, Aug. 31, Sep. 1, 2001.

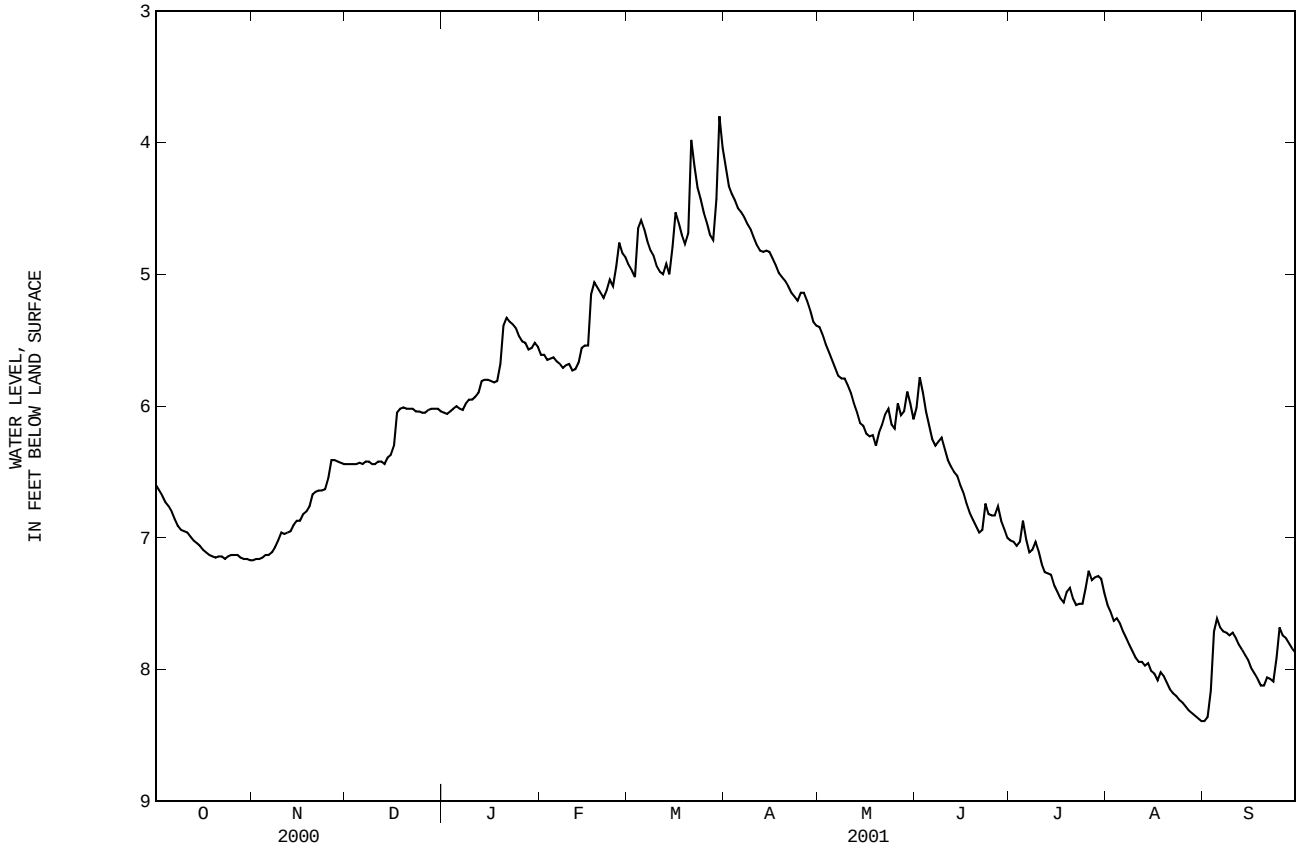
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

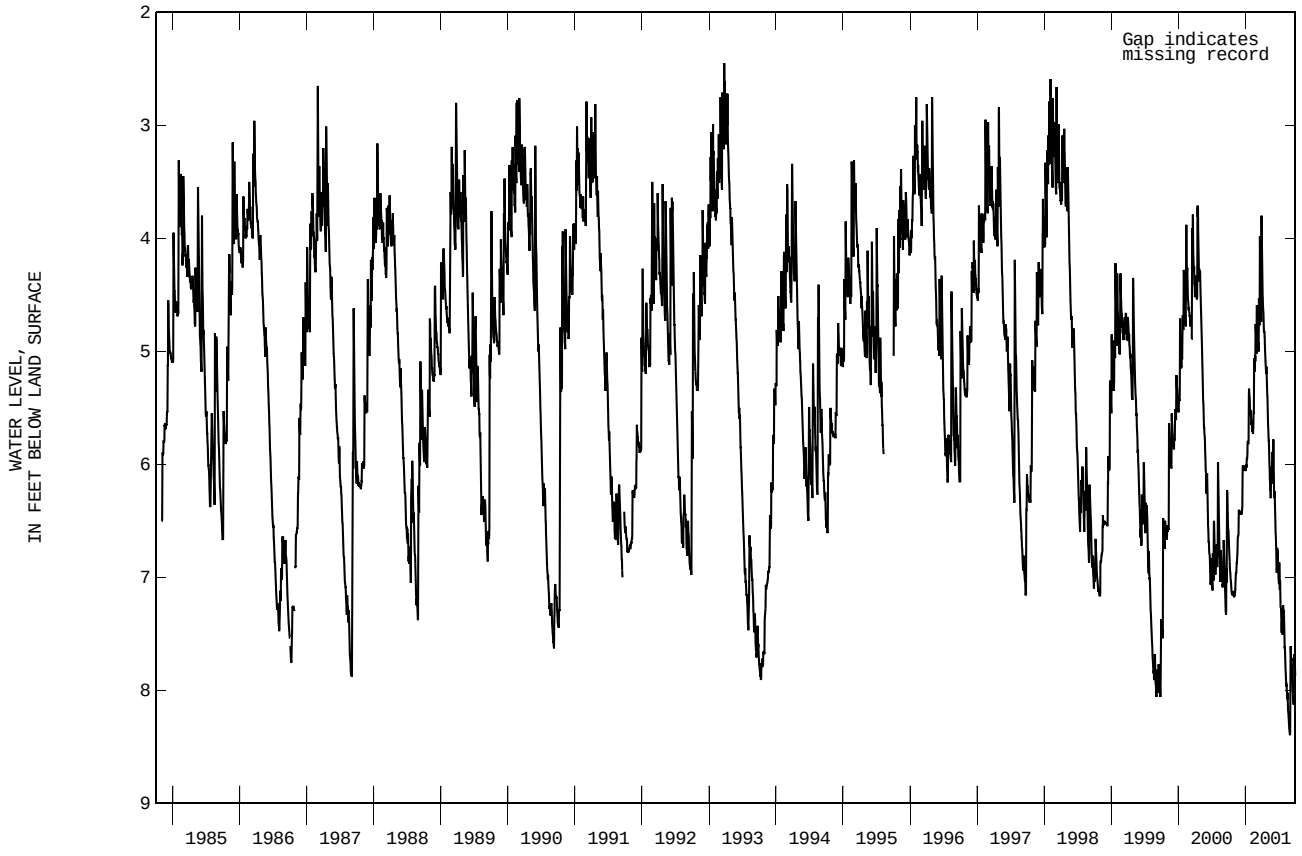
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.60	7.17	6.44	6.05	5.61	4.93	4.18	5.40	6.01	7.02	7.51	8.39
2	6.64	7.16	6.44	6.06	5.61	4.97	4.33	5.46	5.78	7.03	7.56	8.36
3	6.68	7.16	6.44	6.04	5.65	5.02	4.39	5.53	5.90	7.06	7.63	8.16
4	6.73	7.15	6.44	6.02	5.64	4.65	4.44	5.59	6.04	7.03	7.61	7.71
5	6.76	7.13	6.43	6.00	5.63	4.59	4.50	5.65	6.15	6.87	7.65	7.61
6	6.80	7.13	6.44	6.02	5.66	4.66	4.53	5.71	6.25	7.01	7.71	7.68
7	6.86	7.11	6.42	6.03	5.68	4.75	4.57	5.77	6.30	7.11	7.76	7.71
8	6.91	7.07	6.42	5.98	5.71	4.82	4.62	5.79	6.27	7.09	7.81	7.72
9	6.94	7.02	6.44	5.95	5.69	4.86	4.66	5.79	6.24	7.03	7.86	7.74
10	6.95	6.96	6.44	5.95	5.68	4.94	4.72	5.84	6.32	7.10	7.91	7.72
11	6.96	6.97	6.42	5.93	5.73	4.98	4.78	5.90	6.41	7.20	7.94	7.76
12	6.99	6.96	6.42	5.90	5.72	5.00	4.82	5.98	6.46	7.26	7.94	7.81
13	7.02	6.95	6.44	5.81	5.67	4.92	4.83	6.05	6.50	7.27	7.97	7.85
14	7.04	6.90	6.39	5.80	5.56	5.00	4.82	6.13	6.53	7.28	7.95	7.89
15	7.06	6.87	6.37	5.80	5.54	4.79	4.83	6.15	6.60	7.36	8.01	7.93
16	7.09	6.87	6.30	5.81	5.54	4.53	4.88	6.21	6.66	7.41	8.03	7.99
17	7.11	6.82	6.05	5.82	5.15	4.61	4.93	6.23	6.74	7.46	8.08	8.03
18	7.13	6.80	6.02	5.81	5.06	4.70	4.99	6.22	6.81	7.49	8.02	8.07
19	7.14	6.76	6.01	5.68	5.10	4.77	5.02	6.30	6.86	7.41	8.05	8.12
20	7.15	6.67	6.02	5.39	5.14	4.69	5.05	6.20	6.91	7.38	8.10	8.12
21	7.14	6.65	6.02	5.33	5.18	3.98	5.09	6.14	6.96	7.46	8.15	8.06
22	7.14	6.64	6.02	5.36	5.12	4.18	5.14	6.06	6.94	7.51	8.18	8.07
23	7.16	6.64	6.04	5.38	5.04	4.34	5.17	6.02	6.74	7.50	8.20	8.09
24	7.14	6.63	6.04	5.41	5.09	4.43	5.20	6.14	6.82	7.50	8.23	7.91
25	7.13	6.55	6.05	5.47	4.94	4.53	5.14	6.17	6.83	7.38	8.25	7.68
26	7.13	6.41	6.05	5.51	4.76	4.61	5.14	5.98	6.83	7.25	8.28	7.74
27	7.13	6.41	6.03	5.52	4.84	4.70	5.20	6.07	6.76	7.32	8.31	7.76
28	7.15	6.42	6.02	5.57	4.87	4.74	5.27	6.04	6.87	7.30	8.33	7.80
29	7.16	6.43	6.02	5.56	---	4.43	5.36	5.89	6.93	7.29	8.35	7.84
30	7.16	6.44	6.02	5.52	---	3.80	5.39	5.98	7.00	7.31	8.37	7.87
31	7.17	---	6.04	5.55	---	4.04	---	6.10	---	7.42	8.39	---

WTR YR 2001 MEAN 6.37 HIGH 3.80 LOW 8.39

MECKLENBURG COUNTY--Continued

351730080524203 Local number, NC-146; County number, ME-301





ONSLOW COUNTY

344425077272501. Local number, NC-52; County number, ON-035.
LOCATION.--Lat 34°44'18", long 77°27'29", Hydrologic Unit 03030001, southwest of Jacksonville, 0.25 mi east of U.S. Highway 17 at U.S. Marine Corps Camp Geiger, and 2 mi south of U.S. Highway 258. Owner: U.S. Marine Corps.
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled abandoned supply well, depth 70 ft, diameter 18 in. to 23 ft, open hole from 23 to 70 ft; measured depth 68 ft, January 1974.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 17 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.83 ft above land-surface datum (since April 1993).
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--January 1963 to current year. Continuous record began December 1966.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.19 ft below land-surface datum, Sept. 16, 1999; lowest water level recorded, 10.44 ft below land-surface datum, Jan. 3, 1966.

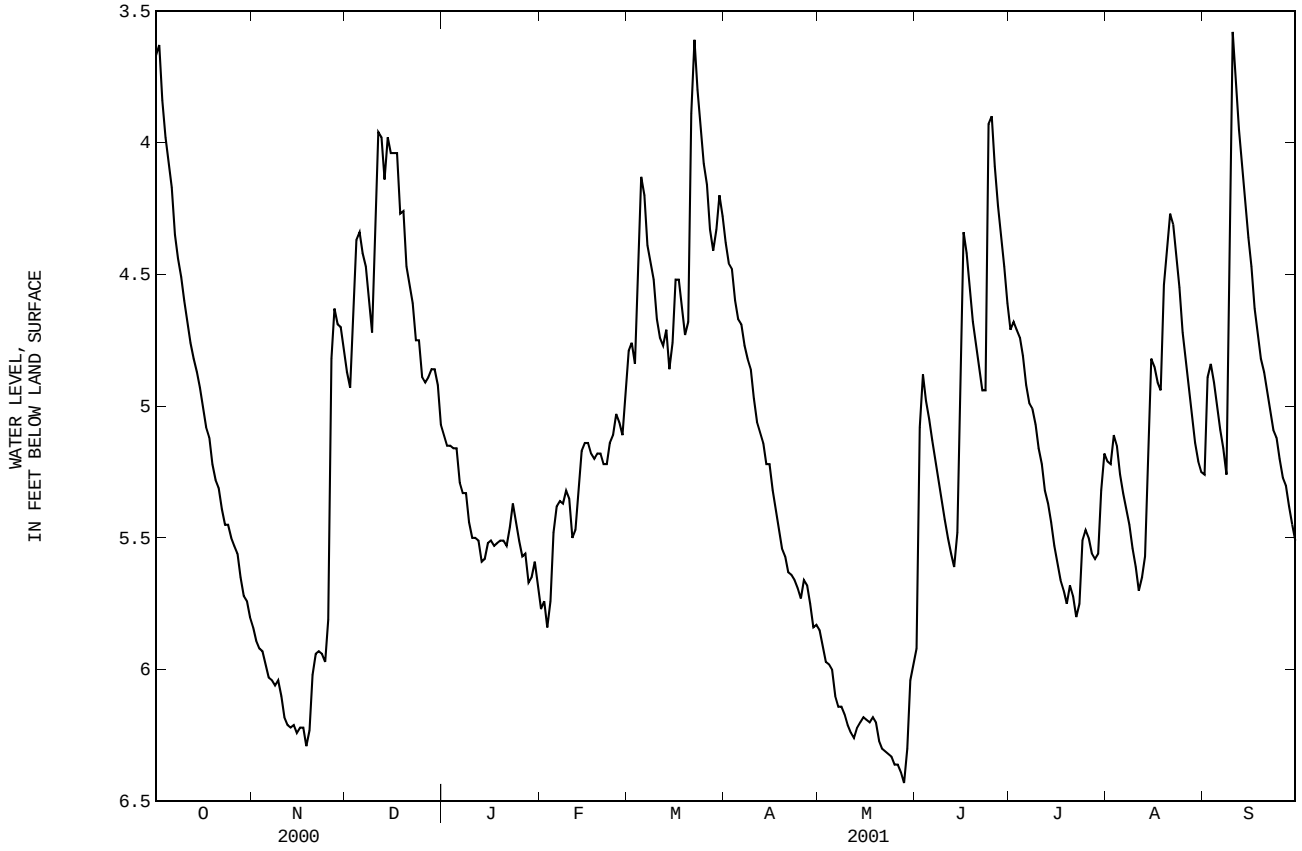
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

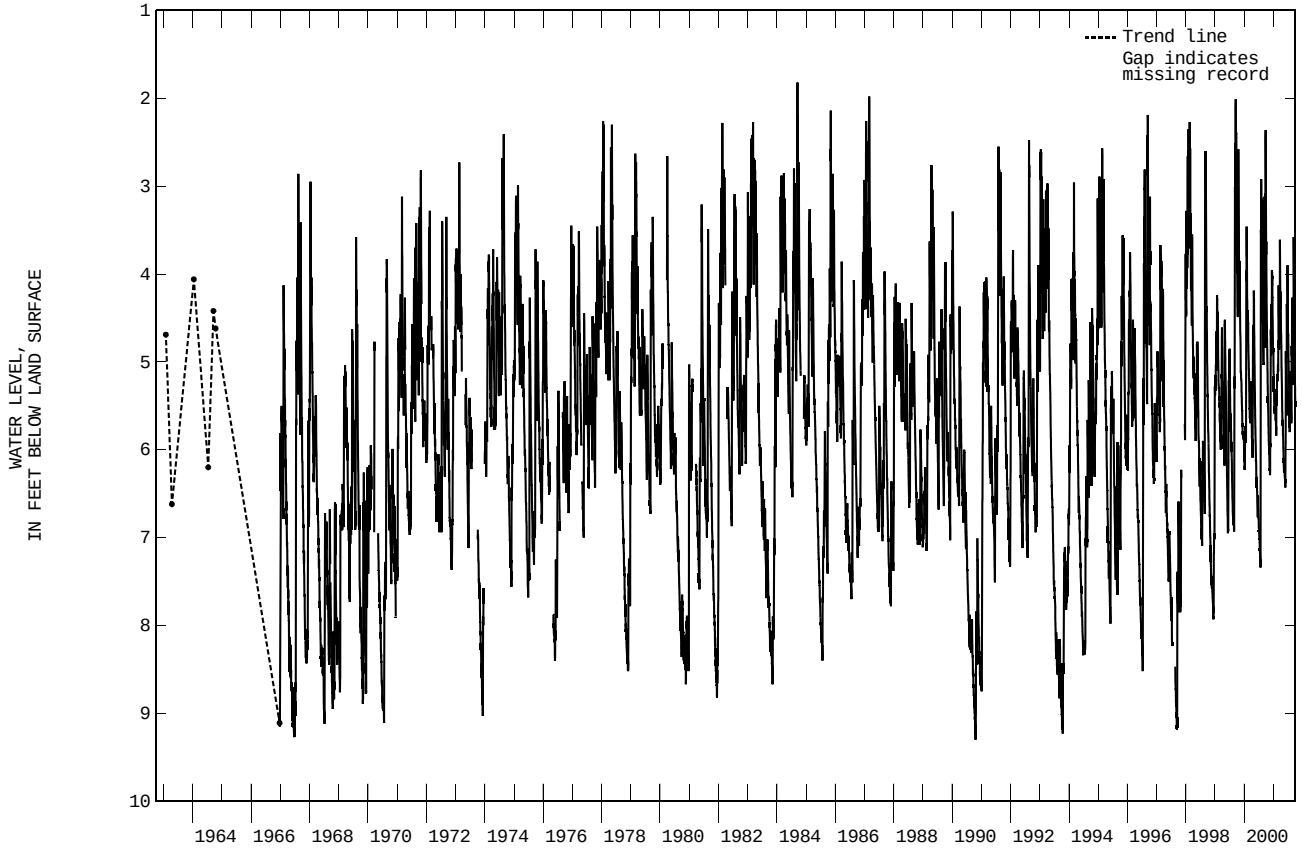
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.67	5.84	4.87	5.11	5.77	4.79	4.38	5.85	5.92	4.71	5.21	5.26
2	3.63	5.89	4.93	5.15	5.74	4.76	4.46	5.91	5.08	4.68	5.22	4.89
3	3.84	5.92	4.65	5.15	5.84	4.84	4.48	5.97	4.88	4.71	5.11	4.84
4	3.98	5.93	4.37	5.16	5.74	4.43	4.60	5.98	4.98	4.74	5.15	4.91
5	4.08	5.98	4.34	5.16	5.48	4.13	4.67	6.00	5.05	4.81	5.26	5.00
6	4.17	6.03	4.42	5.29	5.38	4.20	4.69	6.10	5.13	4.92	5.33	5.09
7	4.35	6.04	4.47	5.33	5.36	4.39	4.77	6.14	5.20	4.99	5.39	5.16
8	4.44	6.06	4.59	5.33	5.37	4.46	4.82	6.14	5.27	5.01	5.45	5.26
9	4.51	6.04	4.72	5.44	5.32	4.52	4.86	6.17	5.35	5.07	5.54	4.28
10	4.60	6.10	4.43	5.50	5.35	4.67	4.97	6.21	5.43	5.16	5.61	3.58
11	4.68	6.18	3.96	5.50	5.50	4.74	5.06	6.24	5.50	5.22	5.70	3.76
12	4.76	6.21	3.98	5.51	5.47	4.77	5.10	6.26	5.56	5.32	5.65	3.95
13	4.82	6.22	4.14	5.59	5.32	4.71	5.14	6.22	5.61	5.37	5.57	4.09
14	4.87	6.21	3.98	5.58	5.17	4.86	5.22	6.20	5.48	5.44	5.18	4.22
15	4.93	6.24	4.04	5.52	5.14	4.76	5.22	6.18	4.79	5.53	4.82	4.36
16	5.01	6.22	4.04	5.51	5.14	4.52	5.32	6.19	4.34	5.60	4.85	4.47
17	5.08	6.22	4.04	5.53	5.18	4.52	5.39	6.20	4.42	5.66	4.91	4.63
18	5.12	6.29	4.27	5.52	5.20	4.63	5.47	6.18	4.56	5.70	4.94	4.72
19	5.22	6.23	4.26	5.51	5.18	4.73	5.54	6.20	4.68	5.75	4.54	4.82
20	5.28	6.02	4.47	5.51	5.18	4.68	5.57	6.27	4.77	5.68	4.42	4.87
21	5.31	5.94	4.54	5.53	5.22	3.89	5.63	6.30	4.86	5.72	4.27	4.94
22	5.39	5.93	4.61	5.46	5.22	3.61	5.64	6.31	4.94	5.80	4.31	5.02
23	5.45	5.94	4.75	5.37	5.14	3.80	5.66	6.32	4.94	5.75	4.43	5.09
24	5.45	5.97	4.75	5.44	5.11	3.94	5.69	6.33	3.93	5.51	4.55	5.12
25	5.50	5.81	4.89	5.51	5.03	4.08	5.73	6.36	3.90	5.47	4.72	5.20
26	5.53	4.82	4.91	5.57	5.06	4.16	5.66	6.36	4.09	5.50	4.82	5.27
27	5.56	4.63	4.89	5.56	5.11	4.33	5.68	6.39	4.24	5.56	4.93	5.30
28	5.65	4.69	4.86	5.67	4.97	4.41	5.75	6.43	4.36	5.58	5.04	5.38
29	5.72	4.70	4.86	5.65	---	4.33	5.84	6.30	4.47	5.56	5.14	5.45
30	5.74	4.79	4.92	5.59	---	4.20	5.83	6.04	4.61	5.32	5.21	5.51
31	5.80	---	5.07	5.68	---	4.28	---	5.98	---	5.18	5.25	---

WTR YR 2001 MEAN 5.16 HIGH 3.58 LOW 6.43

ONSLOW COUNTY--Continued

344425077272501 Local number, NC-52; County number, ON-035



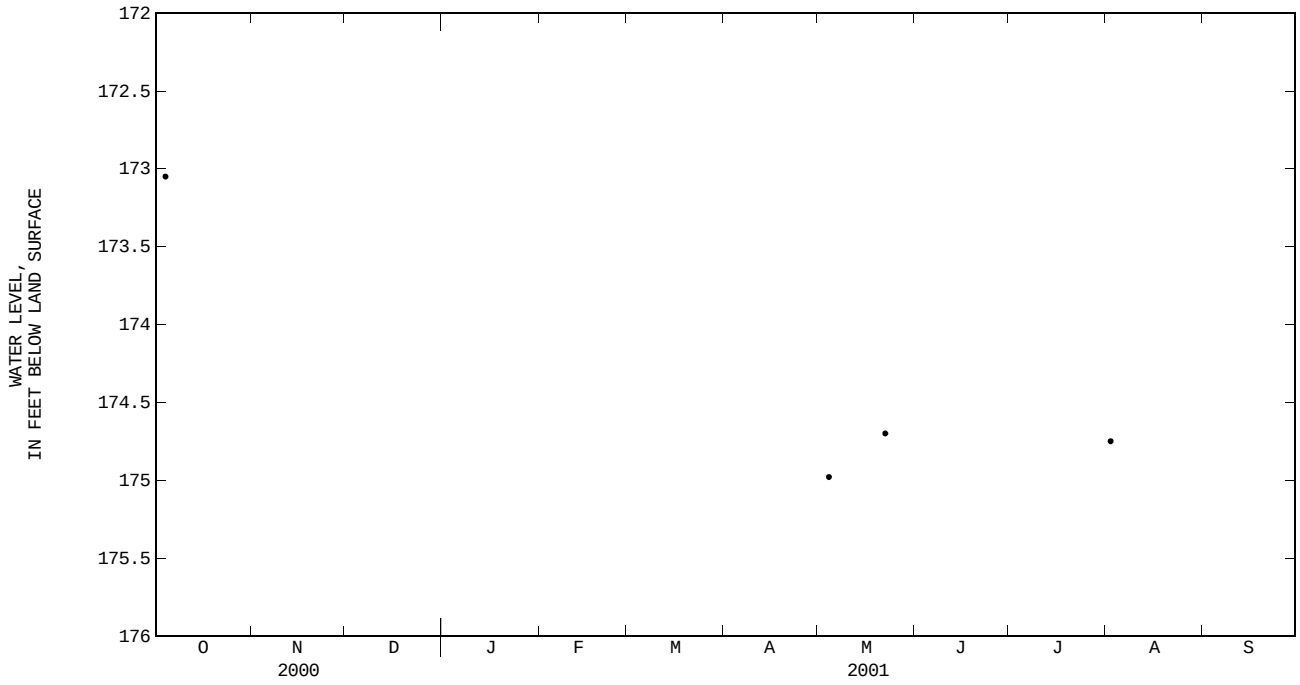


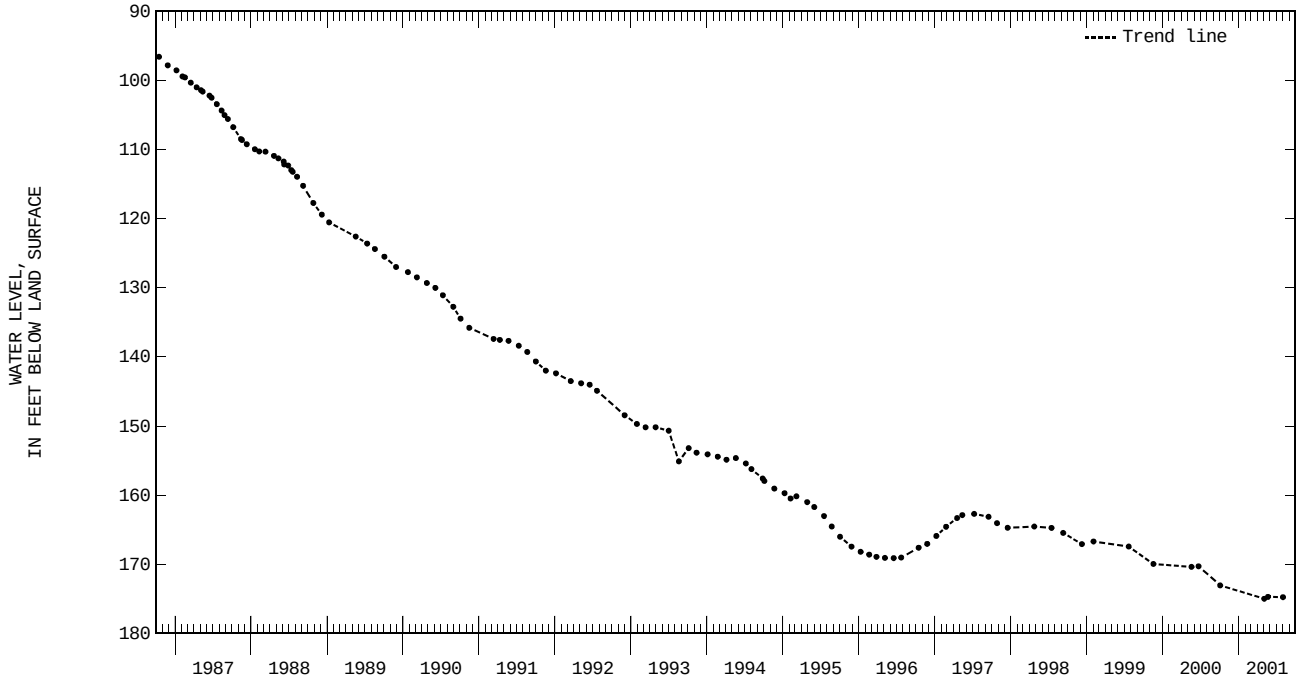
ONSLOW COUNTY--Continued

344837077291607. Local number, NC-189; DENR Jacksonville Well Field 258 Research Station well W25f7; County number, ON-224.
LOCATION.--Lat 34°48'37", long 77°29'16", Hydrologic Unit 03030001, 1.4 mi northeast of U.S. Highway 258 and State Highway 24 on Wells Road. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 834 ft, diameter 4 in., cased to 824 ft, screened interval from 824 to 834 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 26.62 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 2.50 ft above land-surface datum. Changed from 3.78 ft above land-surface datum, Oct. 4, 2000.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 1986 to current year. Continuous record from October 1986 to April 1988 is unreliable and unpublished.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 96.64 ft below land-surface datum, Oct. 15, 1986; lowest water level measured, 174.98 ft below land-surface datum, May 4, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	173.05	MAY 04	174.98	MAY 22	174.70	AUG 02	174.75





Observation well ON-295 Wallace Creek well, Camp Lejeune, Onslow County, North Carolina (p. 190).

Observation well NC-52 Camp Geiger, Onslow County, North Carolina (p. 160).

ONSLOW COUNTY--Continued

343512077265601. County number, ON-218; Rifle Range Well RR-97A.
LOCATION.--Lat 34°35'12", long 77°26'56", Hydrologic Unit 03030001, at U.S. Marine Corps Base, Camp Lejeune Rifle Range. Owner: U.S. Marine Corps.
AQUIFER.--Peedee aquifer.
WELL CHARACTERISTICS.--Drilled supply well, depth 437 ft, diameter 8 in., cased to 365 ft, screened interval from 365 to 395 ft and 415 to 425 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 50 ft above sea level (from topographic map). Measuring point: Top of shelter floor, 1.97 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year. Prior to October 1, 1997 published as ON-292, Rifle Range Well RR-97.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 36.19 ft below land-surface datum, Mar. 23, 1995; lowest water level recorded, 41.77 ft below land-surface datum, Aug. 23, 24, 1999.

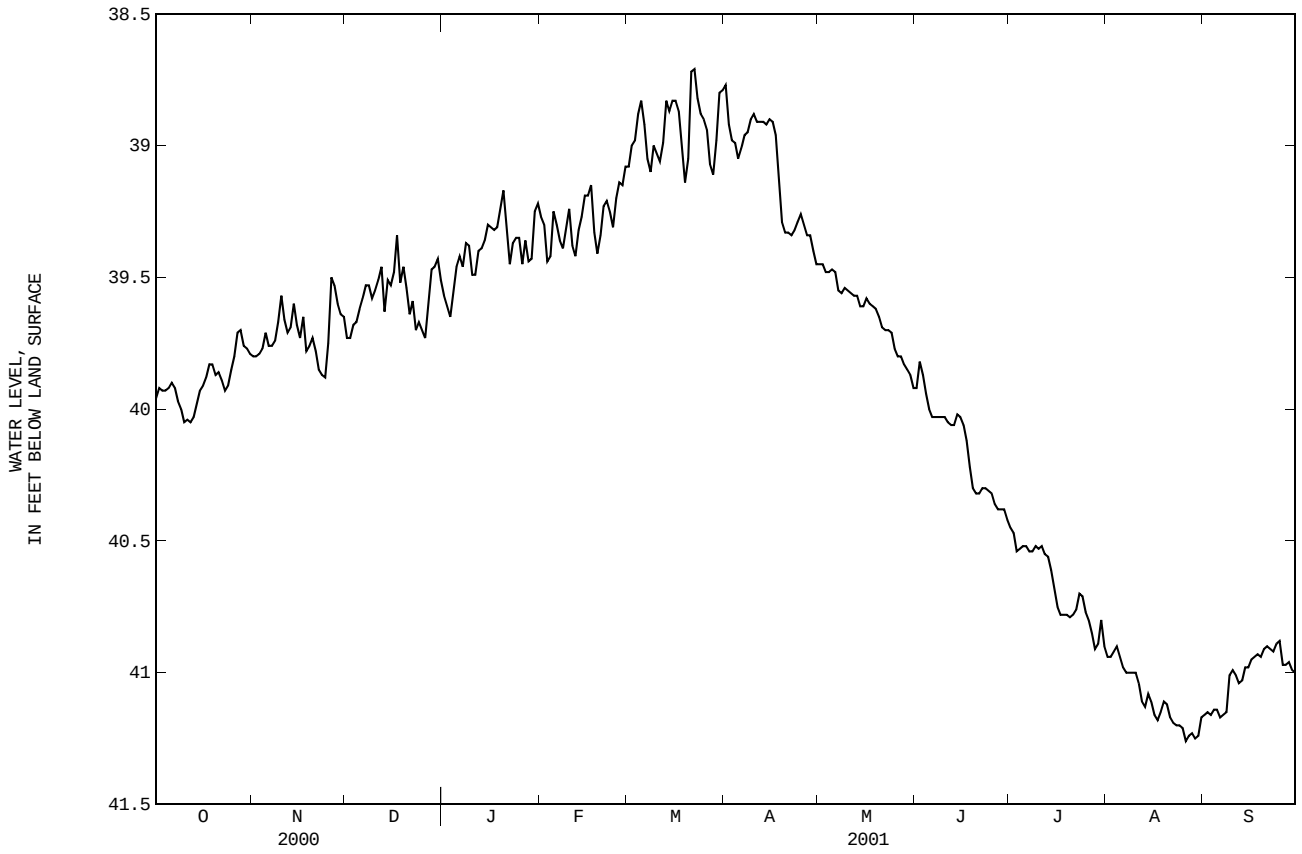
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.96	39.80	39.73	39.57	39.27	39.08	38.77	39.45	39.92	40.45	40.94	41.16
2	39.92	39.80	39.73	39.61	39.30	39.00	38.92	39.45	39.82	40.47	40.94	41.15
3	39.93	39.79	39.68	39.65	39.44	38.98	38.98	39.48	39.87	40.54	40.92	41.16
4	39.93	39.77	39.67	39.56	39.42	38.88	38.99	39.48	39.94	40.53	40.90	41.14
5	39.92	39.71	39.62	39.46	39.25	38.83	39.05	39.47	40.00	40.52	40.94	41.14
6	39.90	39.76	39.58	39.42	39.30	38.92	39.01	39.48	40.03	40.52	40.98	41.17
7	39.92	39.76	39.53	39.46	39.36	39.05	38.96	39.55	40.03	40.54	41.00	41.16
8	39.97	39.74	39.53	39.37	39.39	39.10	38.95	39.56	40.03	40.54	41.00	41.15
9	40.00	39.67	39.58	39.38	39.31	39.00	38.90	39.54	40.03	40.52	41.00	41.01
10	40.05	39.57	39.55	39.49	39.24	39.03	38.88	39.55	40.03	40.53	41.00	40.99
11	40.04	39.66	39.51	39.49	39.38	39.06	38.91	39.56	40.05	40.52	41.04	41.01
12	40.05	39.71	39.46	39.40	39.42	38.99	38.91	39.57	40.06	40.55	41.11	41.04
13	40.03	39.69	39.63	39.39	39.32	38.83	38.91	39.57	40.06	40.56	41.13	41.03
14	39.98	39.60	39.51	39.36	39.27	38.87	38.92	39.61	40.02	40.61	41.08	40.98
15	39.93	39.68	39.53	39.30	39.19	38.83	38.90	39.61	40.03	40.68	41.11	40.98
16	39.91	39.73	39.48	39.31	39.19	38.83	38.91	39.58	40.06	40.75	41.16	40.95
17	39.88	39.65	39.34	39.32	39.15	38.87	38.96	39.60	40.12	40.78	41.18	40.94
18	39.83	39.78	39.52	39.31	39.33	38.99	39.11	39.61	40.22	40.78	41.15	40.93
19	39.83	39.76	39.46	39.24	39.41	39.14	39.29	39.62	40.30	40.78	41.11	40.94
20	39.87	39.73	39.54	39.17	39.34	39.05	39.33	39.65	40.32	40.79	41.12	40.91
21	39.86	39.78	39.64	39.32	39.23	38.72	39.33	39.69	40.32	40.78	41.17	40.90
22	39.89	39.85	39.59	39.45	39.21	38.71	39.34	39.70	40.30	40.76	41.19	40.91
23	39.93	39.87	39.70	39.37	39.25	38.82	39.32	39.70	40.30	40.70	41.20	40.92
24	39.91	39.88	39.67	39.35	39.31	38.88	39.29	39.71	40.31	40.71	41.20	40.89
25	39.85	39.75	39.70	39.35	39.20	38.90	39.26	39.77	40.32	40.77	41.21	40.88
26	39.80	39.50	39.73	39.45	39.14	38.94	39.30	39.80	40.36	40.80	41.26	40.97
27	39.71	39.53	39.61	39.36	39.15	39.07	39.34	39.80	40.38	40.85	41.24	40.97
28	39.70	39.60	39.47	39.44	39.08	39.11	39.34	39.83	40.38	40.91	41.23	40.96
29	39.76	39.64	39.46	39.43	---	38.98	39.40	39.85	40.38	40.89	41.25	40.99
30	39.77	39.65	39.43	39.25	---	38.80	39.45	39.87	40.42	40.80	41.24	41.00
31	39.79	---	39.51	39.22	---	38.79	---	39.92	---	40.90	41.17	---

WTR YR 2001 MEAN 39.87 HIGH 38.71 LOW 41.26

ONSLOW COUNTY--Continued

343512077265601 County number, ON-218; Rifle Range Well RR-97A



ONSLOW COUNTY--Continued

343641077290103. County number, ON-227; DENR Dixon Tower Research Station well Y25q3.
LOCATION.--Lat 34°36'41", long 77°29'01", Hydrologic Unit 03030001, 1.5 mi north of Dixon on U.S. Highway 17. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 240 ft, diameter 4 in., cased to 150 ft, screened interval from 150 to 240 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 68 ft above sea level, (from topographic map). Measuring point: Top of shelter floor, 2.13 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 32.35 ft below land-surface datum, Feb. 22, 1995; lowest water level recorded, 40.37 ft below land-surface datum, Aug. 23, 24, 1999.

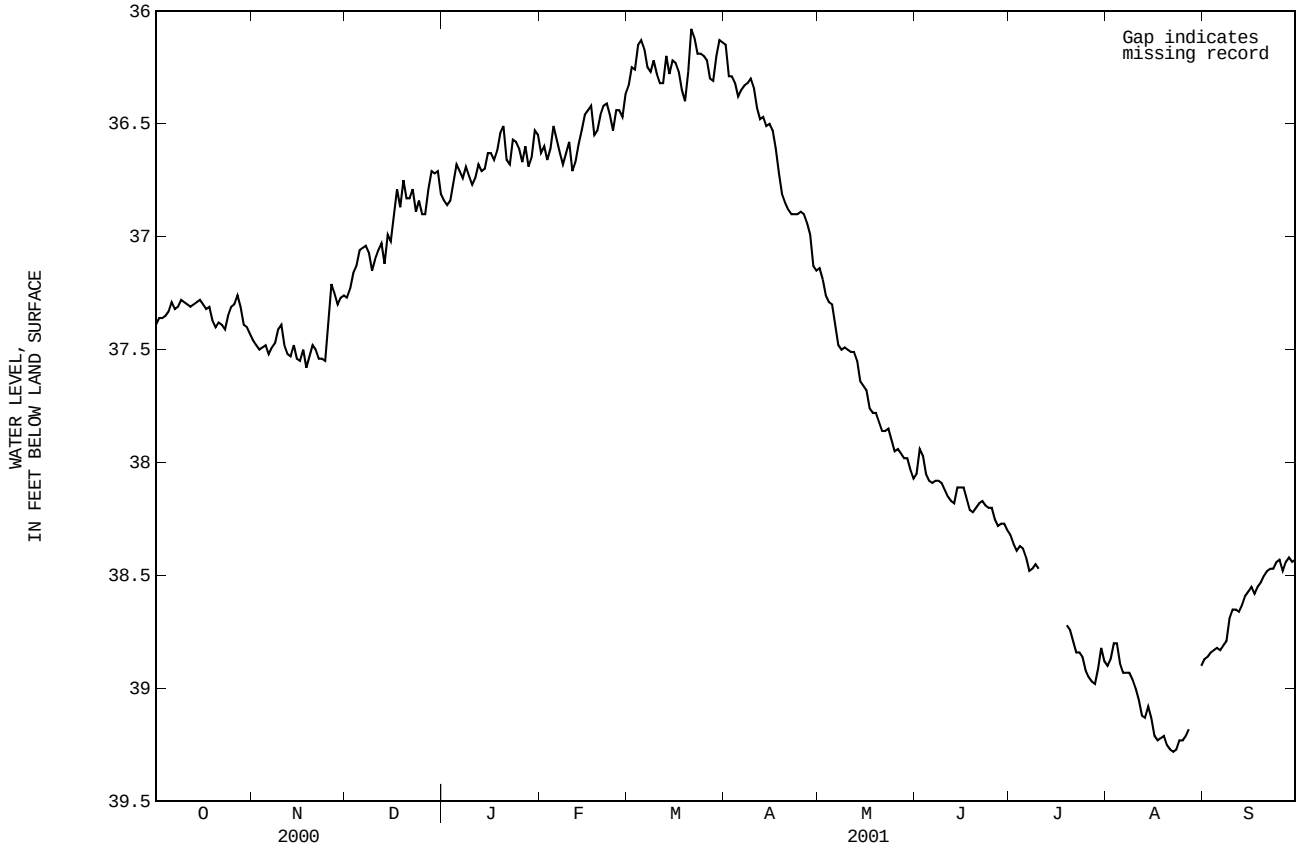
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.39	37.46	37.27	36.84	36.63	36.33	36.15	37.14	38.05	38.32	38.90	38.87
2	37.36	37.48	37.23	36.86	36.60	36.25	36.29	37.19	37.94	38.36	38.87	38.86
3	37.36	37.50	37.16	36.84	36.66	36.26	36.29	37.26	37.97	38.39	38.80	38.84
4	37.35	37.49	37.13	36.76	36.61	36.15	36.32	37.29	38.05	38.37	38.80	38.83
5	37.33	37.48	37.06	36.68	36.51	36.13	36.38	37.30	38.08	38.38	38.89	38.82
6	37.29	37.52	37.05	36.71	36.57	36.17	36.35	37.39	38.09	38.42	38.93	38.83
7	37.32	37.49	37.04	36.74	36.63	36.25	36.33	37.48	38.08	38.48	38.93	38.81
8	37.31	37.47	37.07	36.69	36.68	36.27	36.32	37.50	38.08	38.47	38.93	38.79
9	37.28	37.41	37.15	36.73	36.63	36.22	36.30	37.49	38.09	38.45	38.96	38.69
10	37.29	37.39	37.10	36.77	36.58	36.28	36.34	37.50	38.12	38.47	39.00	38.65
11	37.30	37.48	37.06	36.74	36.71	36.32	36.43	37.51	38.15	---	39.05	38.65
12	37.31	37.52	37.03	36.68	36.67	36.32	36.48	37.51	38.17	---	39.12	38.66
13	37.30	37.53	37.12	36.71	36.59	36.20	36.47	37.55	38.18	---	39.13	38.63
14	37.29	37.48	36.99	36.70	36.53	36.28	36.51	37.64	38.11	---	39.08	38.59
15	37.28	37.54	37.02	36.63	36.46	36.22	36.50	37.66	38.11	---	39.13	38.57
16	37.30	37.55	36.91	36.63	36.44	36.23	36.53	37.68	38.11	---	39.21	38.55
17	37.32	37.50	36.79	36.66	36.42	36.27	36.61	37.76	38.16	---	39.23	38.58
18	37.31	37.58	36.87	36.62	36.55	36.35	36.72	37.78	38.21	---	39.22	38.55
19	37.37	37.53	36.75	36.54	36.53	36.40	36.81	37.78	38.22	38.72	39.21	38.53
20	37.40	37.48	36.83	36.51	36.46	36.27	36.85	37.82	38.20	38.74	39.25	38.50
21	37.38	37.50	36.83	36.66	36.42	36.08	36.88	37.86	38.18	38.79	39.27	38.48
22	37.39	37.54	36.79	36.68	36.41	36.12	36.90	37.86	38.17	38.84	39.28	38.47
23	37.41	37.54	36.89	36.57	36.46	36.19	36.90	37.85	38.19	38.84	39.27	38.47
24	37.35	37.55	36.84	36.58	36.53	36.19	36.90	37.90	38.20	38.86	39.23	38.44
25	37.31	37.40	36.90	36.61	36.44	36.20	36.89	37.95	38.20	38.92	39.23	38.43
26	37.30	37.21	36.90	36.67	36.44	36.22	36.90	37.94	38.25	38.95	39.21	38.48
27	37.26	37.25	36.79	36.60	36.47	36.30	36.94	37.96	38.28	38.97	39.18	38.44
28	37.31	37.30	36.71	36.69	36.37	36.31	36.99	37.98	38.27	38.98	---	38.42
29	37.39	37.27	36.72	36.65	---	36.20	37.13	37.98	38.27	38.91	---	38.44
30	37.40	37.26	36.71	36.53	---	36.13	37.15	38.03	38.30	38.82	---	38.43
31	37.43	---	36.81	36.55	---	36.14	---	38.07	---	38.88	38.90	---

WTR YR 2001 MEAN 37.46 HIGH 36.08 LOW 39.28

ONSLOW COUNTY--Continued

343641077290103 County number, ON-227; DENR Dixon Tower Research Station well Y25q3



ONSLOW COUNTY--Continued

343641077290106. County number, ON-230; DENR Dixon Tower Research Station well Y25q6.
LOCATION.--Lat 34°36'41", long 77°29'01", Hydrologic Unit 03030001, 1.5 mi. north of Dixon on U.S. Highway 17. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 22.0 ft, diameter 4 in., cased to 18.4 ft, screened interval from 18.4 to 22.0 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 68 ft above sea level, (levels by DENR). Measuring point: Top of shelter floor, 2.52 ft above land-surface datum; revised from 2.10 ft above land-surface datum July 21, 1999.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.37 ft below land-surface datum, Jan. 22, 1995; lowest water level recorded, 11.07 ft below land-surface datum, Aug. 20, 1999.

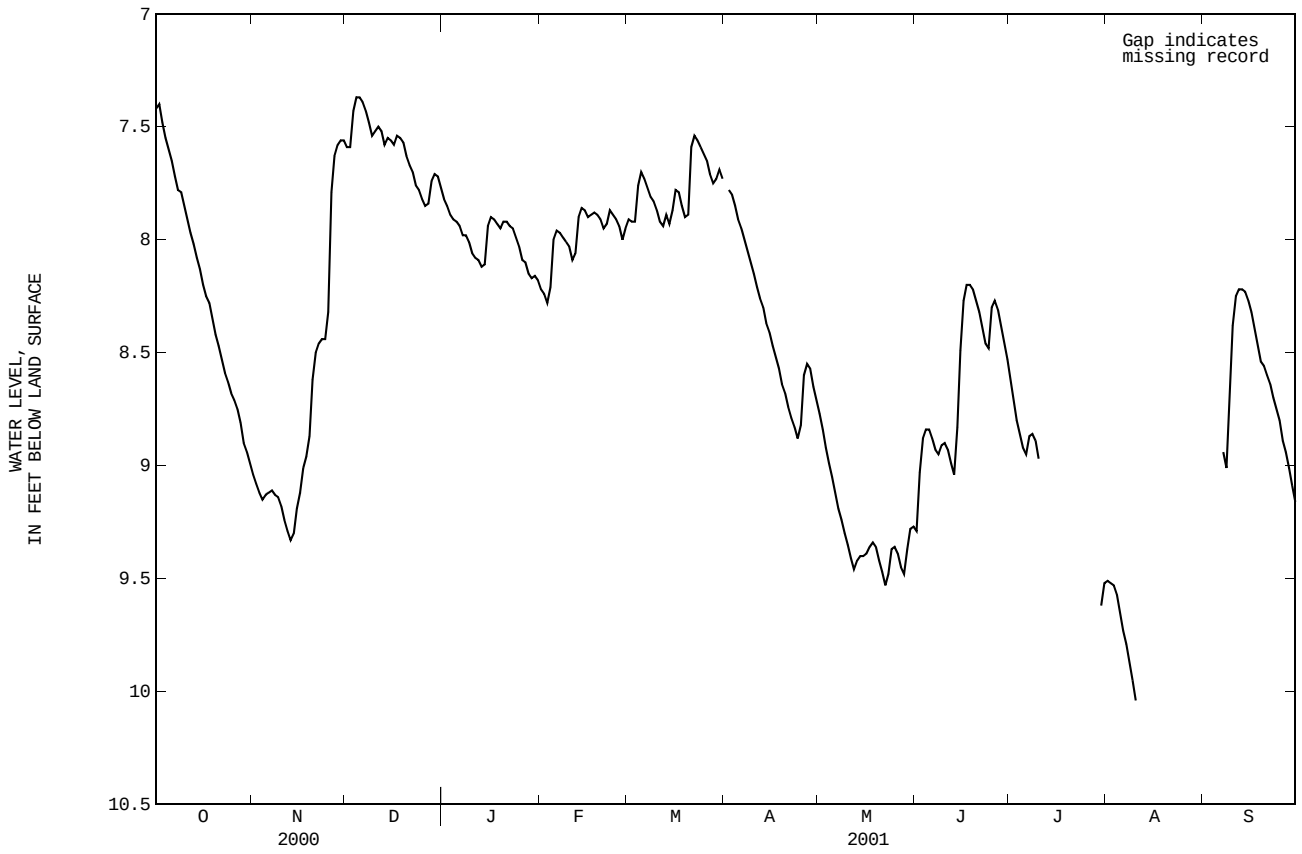
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

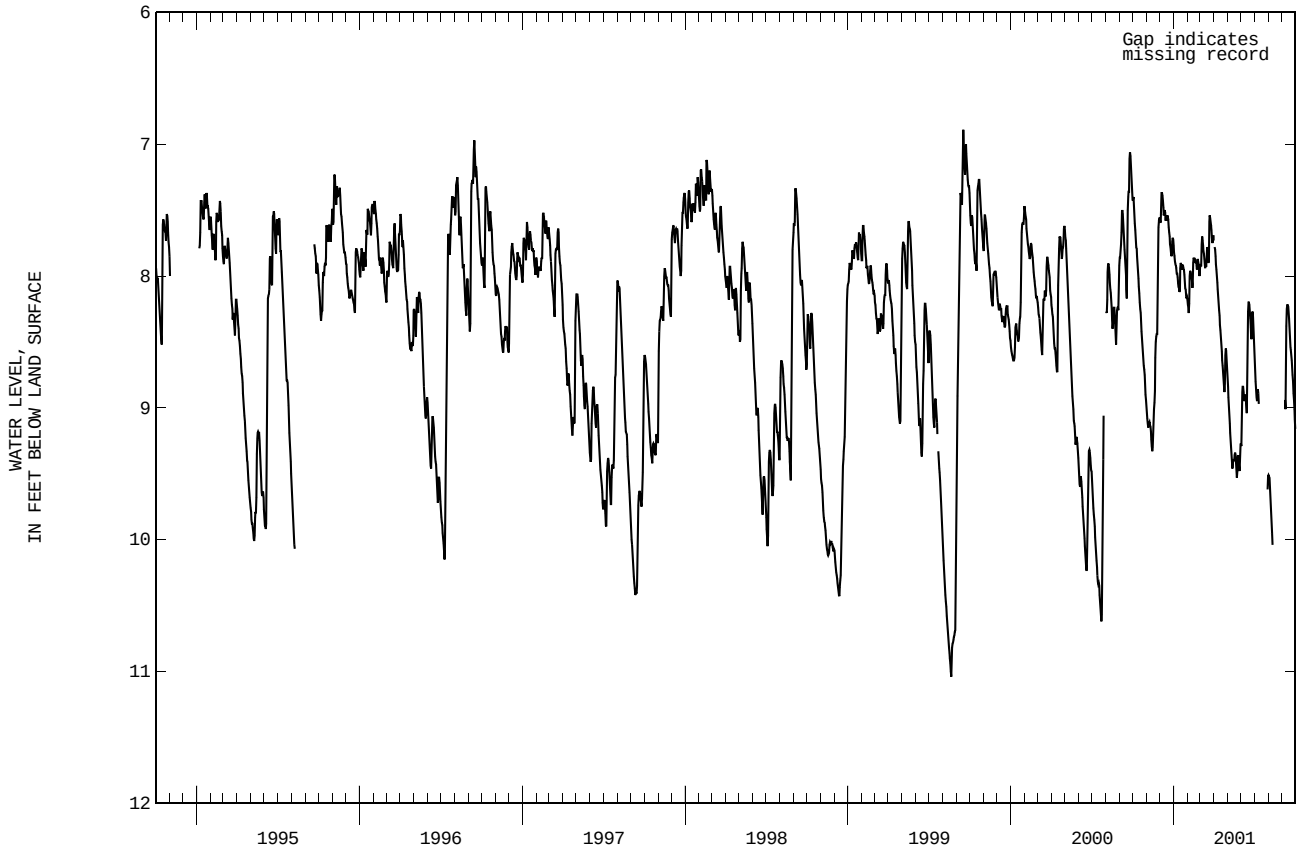
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.42	9.04	7.59	7.82	8.22	7.91	---	8.77	9.29	8.62	9.51	---
2	7.40	9.08	7.59	7.85	8.24	7.92	7.78	8.84	9.03	8.71	9.52	---
3	7.48	9.12	7.43	7.89	8.28	7.92	7.80	8.92	8.88	8.80	9.53	---
4	7.55	9.15	7.37	7.91	8.21	7.76	7.85	8.99	8.84	8.86	9.57	---
5	7.60	9.13	7.37	7.92	8.00	7.70	7.91	9.05	8.84	8.92	9.65	---
6	7.65	9.12	7.39	7.94	7.96	7.73	7.95	9.12	8.88	8.95	9.73	---
7	7.72	9.11	7.43	7.98	7.97	7.77	8.00	9.19	8.93	8.87	9.79	8.94
8	7.78	9.13	7.48	7.98	7.99	7.81	8.05	9.24	8.95	8.86	9.87	9.01
9	7.79	9.14	7.54	8.01	8.01	7.83	8.10	9.30	8.91	8.89	9.95	8.71
10	7.85	9.18	7.52	8.06	8.03	7.87	8.15	9.35	8.90	8.97	10.04	8.38
11	7.91	9.24	7.50	8.08	8.09	7.92	8.21	9.41	8.93	---	---	8.25
12	7.97	9.29	7.52	8.09	8.06	7.94	8.26	9.46	8.99	---	---	8.22
13	8.02	9.33	7.58	8.12	7.90	7.89	8.30	9.42	9.04	---	---	8.22
14	8.08	9.30	7.55	8.11	7.86	7.93	8.37	9.40	8.83	---	---	8.23
15	8.13	9.19	7.56	7.94	7.87	7.87	8.41	9.40	8.49	---	---	8.27
16	8.20	9.12	7.58	7.90	7.90	7.78	8.47	9.39	8.27	---	---	8.32
17	8.25	9.01	7.54	7.91	7.89	7.79	8.52	9.36	8.20	---	---	8.40
18	8.28	8.96	7.55	7.93	7.88	7.85	8.57	9.34	8.20	---	---	8.47
19	8.35	8.87	7.57	7.95	7.89	7.90	8.64	9.36	8.22	---	---	8.54
20	8.42	8.62	7.63	7.92	7.91	7.89	8.68	9.42	8.27	---	---	8.56
21	8.47	8.50	7.67	7.92	7.95	7.59	8.74	9.47	8.32	---	---	8.60
22	8.53	8.46	7.70	7.94	7.93	7.54	8.79	9.53	8.39	---	---	8.64
23	8.59	8.44	7.76	7.95	7.87	7.56	8.83	9.48	8.46	---	---	8.70
24	8.63	8.44	7.78	7.99	7.89	7.59	8.88	9.37	8.48	---	---	8.75
25	8.68	8.32	7.82	8.03	7.91	7.62	8.82	9.36	8.30	---	---	8.80
26	8.71	7.79	7.85	8.09	7.94	7.65	8.60	9.39	8.27	---	---	8.89
27	8.75	7.63	7.84	8.10	8.00	7.71	8.55	9.45	8.31	---	---	8.94
28	8.81	7.58	7.74	8.15	7.95	7.75	8.57	9.48	8.38	---	---	9.01
29	8.90	7.56	7.71	8.17	---	7.73	8.65	9.37	8.45	---	---	9.09
30	8.94	7.56	7.72	8.16	---	7.69	8.71	9.28	8.53	9.62	---	9.16
31	8.99	---	7.77	8.18	---	7.73	---	9.27	---	9.52	---	---

WTR YR 2001 MEAN 8.39 HIGH 7.37 LOW 10.04

ONSLOW COUNTY--Continued

343641077290106 County number, ON-230; DENR Dixon Tower Research Station well Y25q6





ONSLOW COUNTY--Continued

344139077211201. County number, ON-255; DENR Hadnot Point Research Station well X24s1.
LOCATION.--Lat 34°41'39", long 77°21'12", Hydrologic Unit 03030001, at Camp Lejeune, 1.6 mi south of intersection of Brewster Boulevard and Stone Street Extension, on Stone Street Extension, near tack shop, in pasture. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 90 ft, diameter 4 in., cased to 80 ft, screened interval from 80 to 90 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.
DATUM.--Land-surface datum is 18.63 ft above sea level, (levels by DENR). Measuring point: Top of floor of shelter 1.32 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.36 ft below land-surface datum, Oct. 8, 1996; lowest water level recorded, 16.19 ft below land-surface datum, Oct. 11, 1994.

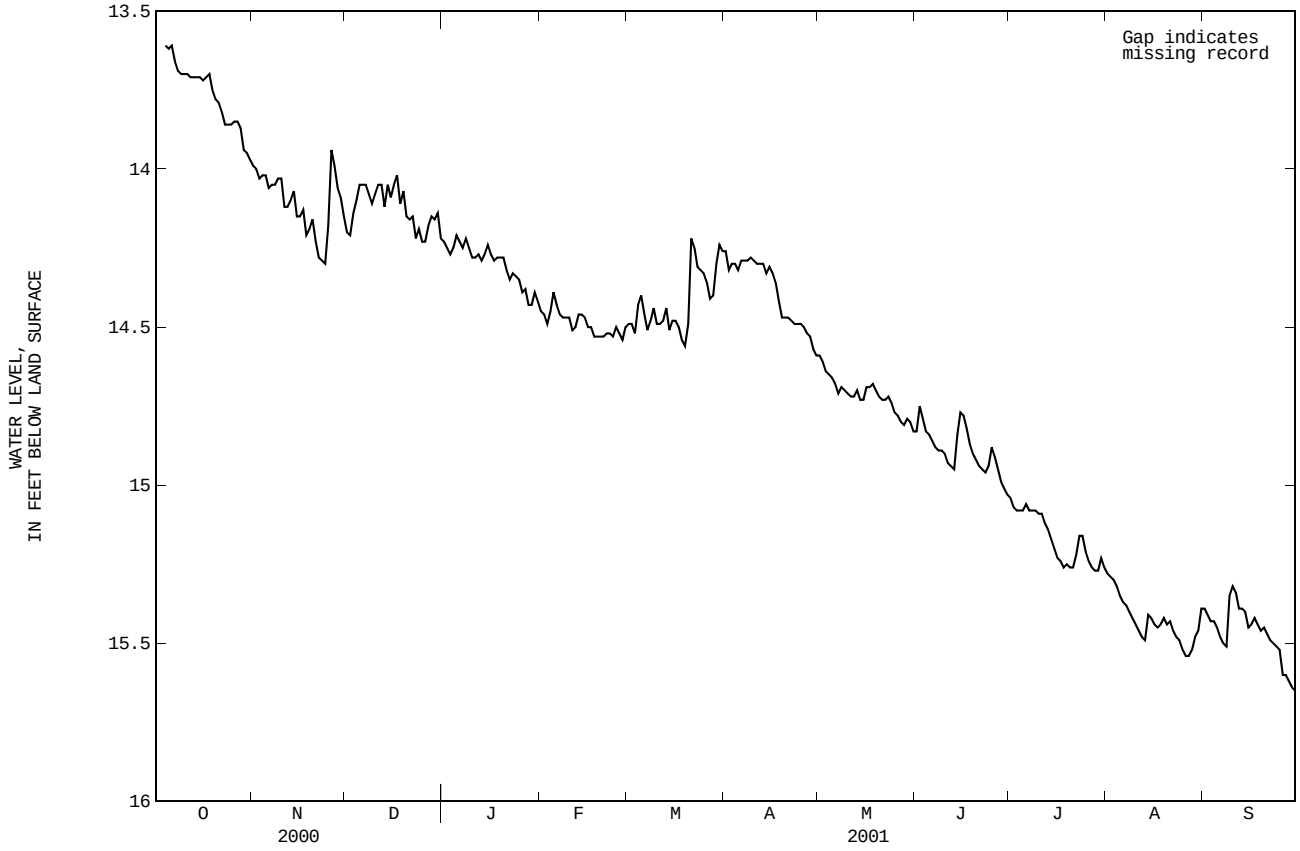
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

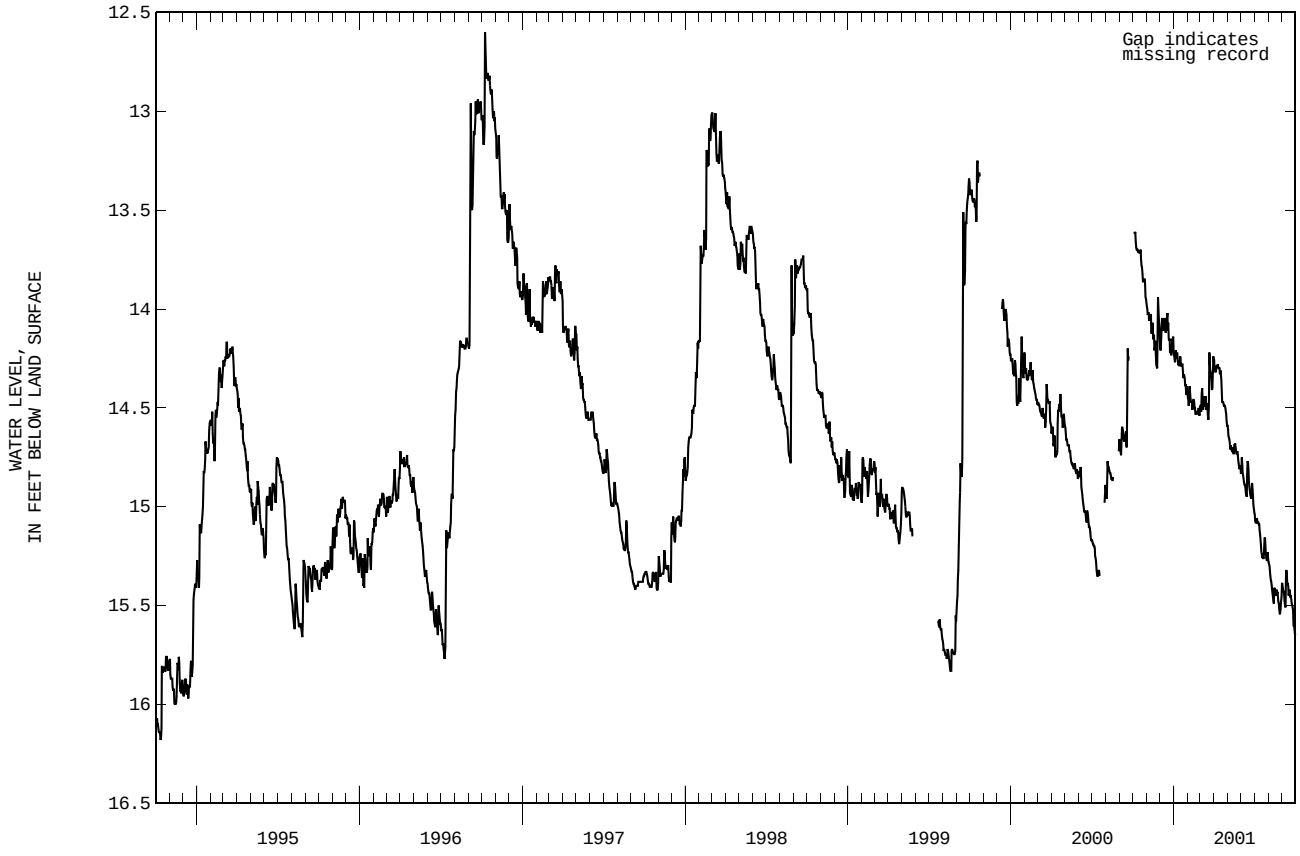
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.99	14.20	14.23	14.45	14.49	14.26	14.59	14.83	15.04	15.28	15.39
2	---	14.00	14.21	14.25	14.46	14.49	14.32	14.61	14.75	15.07	15.29	15.41
3	---	14.03	14.14	14.27	14.49	14.52	14.30	14.64	14.79	15.08	15.30	15.43
4	13.61	14.02	14.10	14.25	14.45	14.43	14.30	14.65	14.83	15.08	15.32	15.43
5	13.62	14.02	14.05	14.21	14.39	14.40	14.32	14.66	14.84	15.08	15.35	15.45
6	13.61	14.06	14.05	14.23	14.43	14.46	14.29	14.68	14.86	15.06	15.37	15.48
7	13.66	14.05	14.05	14.25	14.46	14.51	14.29	14.71	14.88	15.08	15.38	15.50
8	13.69	14.05	14.08	14.22	14.47	14.48	14.29	14.69	14.89	15.08	15.40	15.51
9	13.70	14.03	14.11	14.25	14.47	14.44	14.28	14.70	14.89	15.08	15.42	15.35
10	13.70	14.03	14.08	14.28	14.47	14.49	14.29	14.71	14.90	15.09	15.44	15.32
11	13.70	14.12	14.05	14.28	14.51	14.49	14.30	14.72	14.93	15.09	15.46	15.34
12	13.71	14.12	14.05	14.27	14.50	14.48	14.30	14.72	14.94	15.12	15.48	15.39
13	13.71	14.10	14.12	14.29	14.46	14.44	14.30	14.70	14.95	15.14	15.49	15.39
14	13.71	14.07	14.05	14.27	14.46	14.51	14.33	14.73	14.84	15.17	15.41	15.40
15	13.71	14.15	14.09	14.24	14.47	14.48	14.31	14.73	14.77	15.20	15.42	15.45
16	13.72	14.15	14.05	14.27	14.50	14.48	14.33	14.69	14.78	15.23	15.44	15.44
17	13.71	14.13	14.02	14.29	14.50	14.50	14.36	14.69	14.82	15.24	15.45	15.42
18	13.70	14.21	14.11	14.28	14.53	14.54	14.42	14.68	14.87	15.26	15.44	15.44
19	13.75	14.19	14.07	14.28	14.53	14.56	14.47	14.70	14.90	15.25	15.42	15.46
20	13.78	14.16	14.15	14.28	14.53	14.49	14.47	14.72	14.92	15.26	15.44	15.45
21	13.79	14.23	14.16	14.32	14.53	14.22	14.47	14.73	14.94	15.26	15.43	15.47
22	13.82	14.28	14.15	14.35	14.52	14.25	14.48	14.73	14.95	15.22	15.46	15.49
23	13.86	14.29	14.22	14.33	14.52	14.31	14.49	14.72	14.96	15.16	15.48	15.50
24	13.86	14.30	14.19	14.34	14.53	14.32	14.49	14.74	14.94	15.16	15.49	15.51
25	13.86	14.18	14.23	14.35	14.50	14.33	14.49	14.77	14.88	15.21	15.52	15.52
26	13.85	13.94	14.23	14.39	14.52	14.36	14.50	14.78	14.91	15.24	15.54	15.60
27	13.85	13.99	14.18	14.38	14.54	14.41	14.52	14.80	14.95	15.26	15.54	15.60
28	13.87	14.06	14.15	14.43	14.50	14.40	14.53	14.81	14.99	15.27	15.52	15.62
29	13.94	14.09	14.16	14.43	---	14.30	14.57	14.79	15.01	15.27	15.48	15.64
30	13.95	14.15	14.14	14.39	---	14.24	14.59	14.80	15.03	15.23	15.46	15.65
31	13.97	---	14.22	14.42	---	14.26	---	14.83	---	15.26	15.39	---

WTR YR 2001 MEAN 14.61 HIGH 13.61 LOW 15.65

ONSLOW COUNTY--Continued

344139077211201 County number, ON-255; DENR Hadnot Point Research Station well X24s1





ONSLOW COUNTY--Continued

344139077211202. County number, ON-256; DENR Hadnot Point Research Station well X24s2.
LOCATION.--Lat 34°41'39", long 77°21'12", Hydrologic Unit 03030001, at Camp Lejeune, 1.6 mi south of intersection of Brewster Boulevard and Stone Street Extension, on Stone Street Extension, near tack shop, in pasture. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 918.0 ft, well cased 2.5 in. to 918.0 ft in the Black Creek aquifer, screened interval from 908.0 to 918.0 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 19.24 ft above sea level, (levels by DENR). Measuring point: Top of floor of shelter 4.69 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 27.70 ft below land-surface datum, Oct. 14, 1994; lowest water level recorded, 40.31 ft below land-surface datum, Sept. 29, 2001.

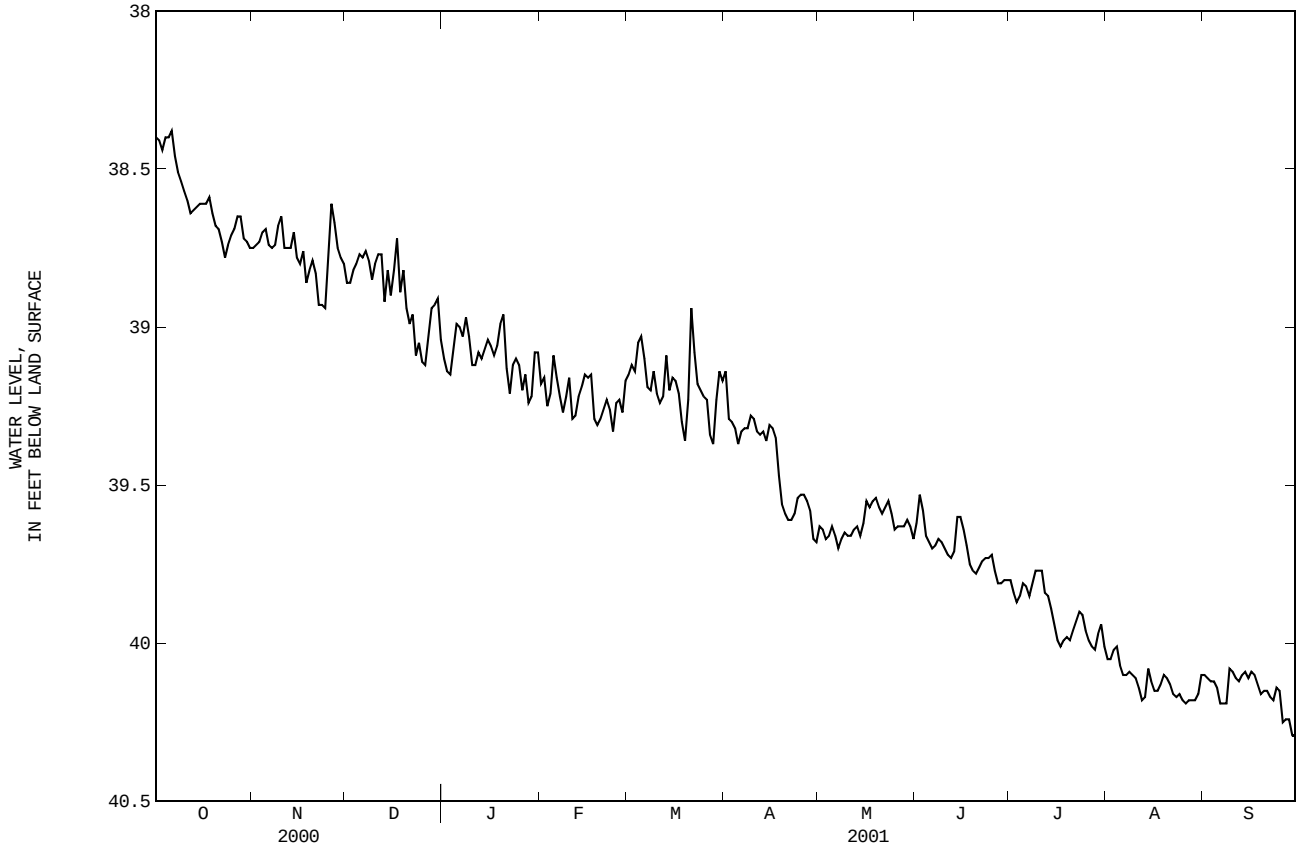
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.40	38.75	38.86	39.10	39.18	39.15	39.14	39.63	39.62	39.80	40.05	40.10
2	38.41	38.74	38.86	39.14	39.16	39.12	39.29	39.64	39.53	39.84	40.05	40.11
3	38.44	38.73	38.82	39.15	39.25	39.14	39.30	39.67	39.58	39.87	40.02	40.12
4	38.40	38.70	38.80	39.07	39.21	39.05	39.32	39.66	39.66	39.85	40.01	40.12
5	38.40	38.69	38.77	38.99	39.09	39.03	39.37	39.63	39.68	39.81	40.07	40.14
6	38.38	38.74	38.78	39.00	39.16	39.10	39.33	39.66	39.70	39.82	40.10	40.19
7	38.46	38.75	38.76	39.03	39.22	39.19	39.32	39.70	39.69	39.85	40.10	40.19
8	38.51	38.74	38.79	38.97	39.27	39.20	39.32	39.67	39.67	39.81	40.09	40.19
9	38.54	38.68	38.85	39.03	39.22	39.14	39.28	39.65	39.68	39.77	40.10	40.08
10	38.57	38.65	38.80	39.12	39.16	39.21	39.29	39.66	39.70	39.77	40.11	40.09
11	38.60	38.75	38.77	39.12	39.29	39.24	39.33	39.66	39.72	39.77	40.14	40.11
12	38.64	38.75	38.77	39.08	39.28	39.22	39.34	39.64	39.73	39.84	40.18	40.12
13	38.63	38.75	38.92	39.10	39.22	39.09	39.33	39.63	39.71	39.85	40.17	40.10
14	38.62	38.70	38.82	39.07	39.19	39.20	39.36	39.66	39.60	39.89	40.08	40.09
15	38.61	38.78	38.90	39.04	39.15	39.16	39.31	39.62	39.60	39.94	40.12	40.11
16	38.61	38.80	38.82	39.06	39.16	39.17	39.32	39.55	39.64	39.99	40.15	40.09
17	38.61	38.76	38.72	39.09	39.15	39.21	39.35	39.57	39.69	40.01	40.15	40.10
18	38.59	38.86	38.89	39.06	39.29	39.30	39.47	39.55	39.75	39.99	40.13	40.13
19	38.64	38.82	38.82	38.99	39.31	39.36	39.56	39.54	39.77	39.98	40.10	40.16
20	38.68	38.79	38.94	38.96	39.29	39.23	39.59	39.57	39.78	39.99	40.11	40.15
21	38.69	38.83	38.99	39.13	39.26	38.94	39.61	39.59	39.76	39.96	40.13	40.15
22	38.73	38.93	38.96	39.21	39.23	39.08	39.61	39.57	39.74	39.93	40.16	40.17
23	38.78	38.93	39.09	39.12	39.26	39.18	39.59	39.55	39.73	39.90	40.17	40.18
24	38.74	38.94	39.05	39.10	39.33	39.20	39.54	39.59	39.73	39.91	40.16	40.14
25	38.71	38.80	39.11	39.12	39.24	39.22	39.53	39.64	39.72	39.96	40.18	40.15
26	38.69	38.61	39.12	39.20	39.23	39.23	39.53	39.63	39.77	39.99	40.19	40.25
27	38.65	38.67	39.03	39.15	39.27	39.34	39.55	39.63	39.81	40.01	40.18	40.24
28	38.65	38.75	38.94	39.24	39.17	39.37	39.58	39.63	39.81	40.02	40.18	40.24
29	38.72	38.78	38.93	39.22	---	39.23	39.67	39.61	39.80	39.97	40.18	40.29
30	38.73	38.80	38.91	39.08	---	39.14	39.68	39.63	39.80	39.94	40.16	40.29
31	38.75	---	39.04	39.08	---	39.17	---	39.67	---	40.01	40.10	---

WTR YR 2001 MEAN 39.39 HIGH 38.38 LOW 40.29

ONSLOW COUNTY--Continued

344139077211202 County number, ON-256; DENR Hadnot Point Research Station well X24s2



ONSLOW COUNTY--Continued

344139077211204. County number, ON-264; DENR Hadnot Point Research Station well X24s4.
LOCATION.--Lat 34°41'39", long 77°21'12", Hydrologic Unit 03030001, at Camp Lejeune, 1.6 mi south of intersection of Brewster Boulevard and Stone Street Extension, on Stone Street Extension, near tack shop, in pasture. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Pee Dee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 527 ft, diameter 4 in., cased to 517 ft, screened interval from 517 to 527 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 23.19 ft above sea level, (levels by DENR). Measuring point: Top of shelter floor, 3.74 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year. Continuous record October 1994 to September 1998, October 2000 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.59 ft below land-surface datum, June 2, 3, 1998; lowest water level recorded, 14.57 ft below land-surface datum, Nov. 11, 1994.

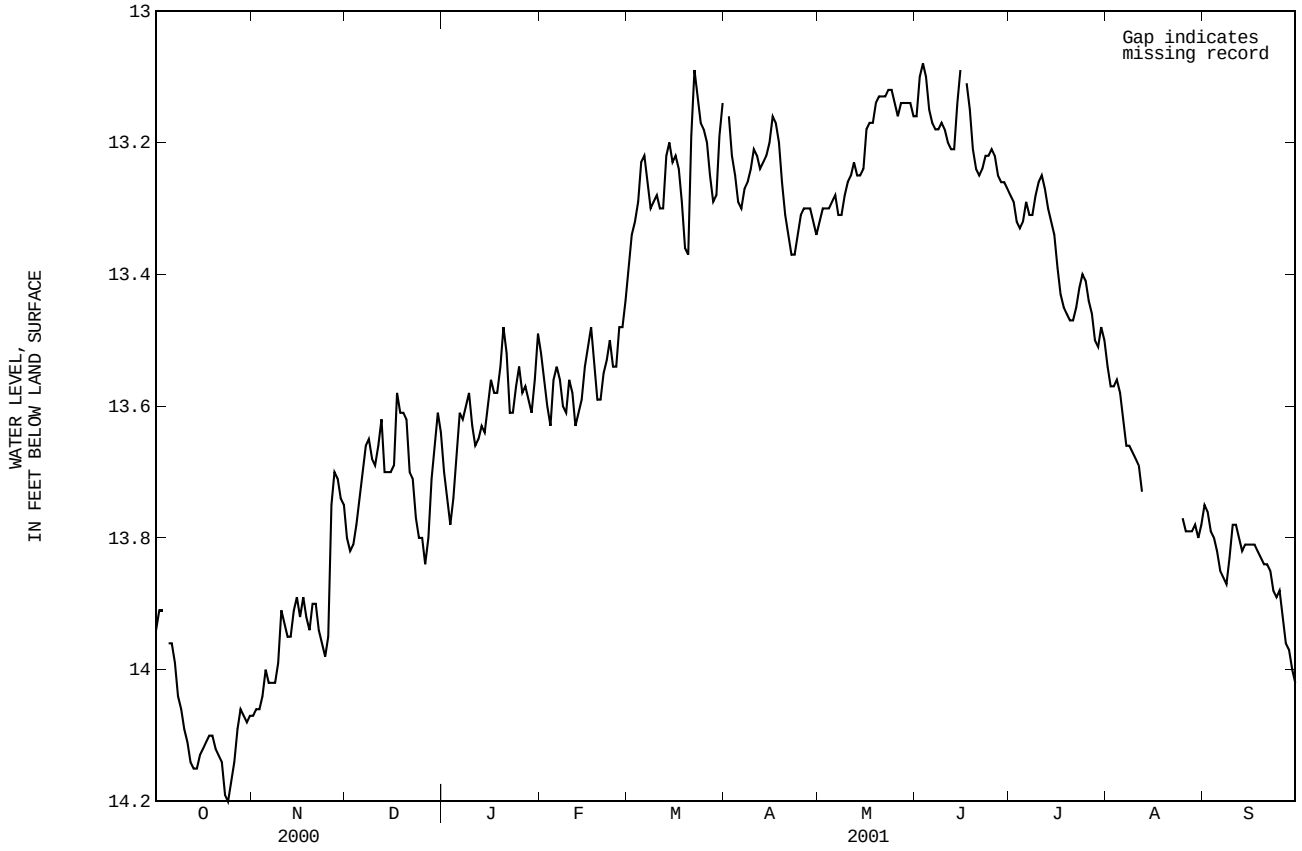
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

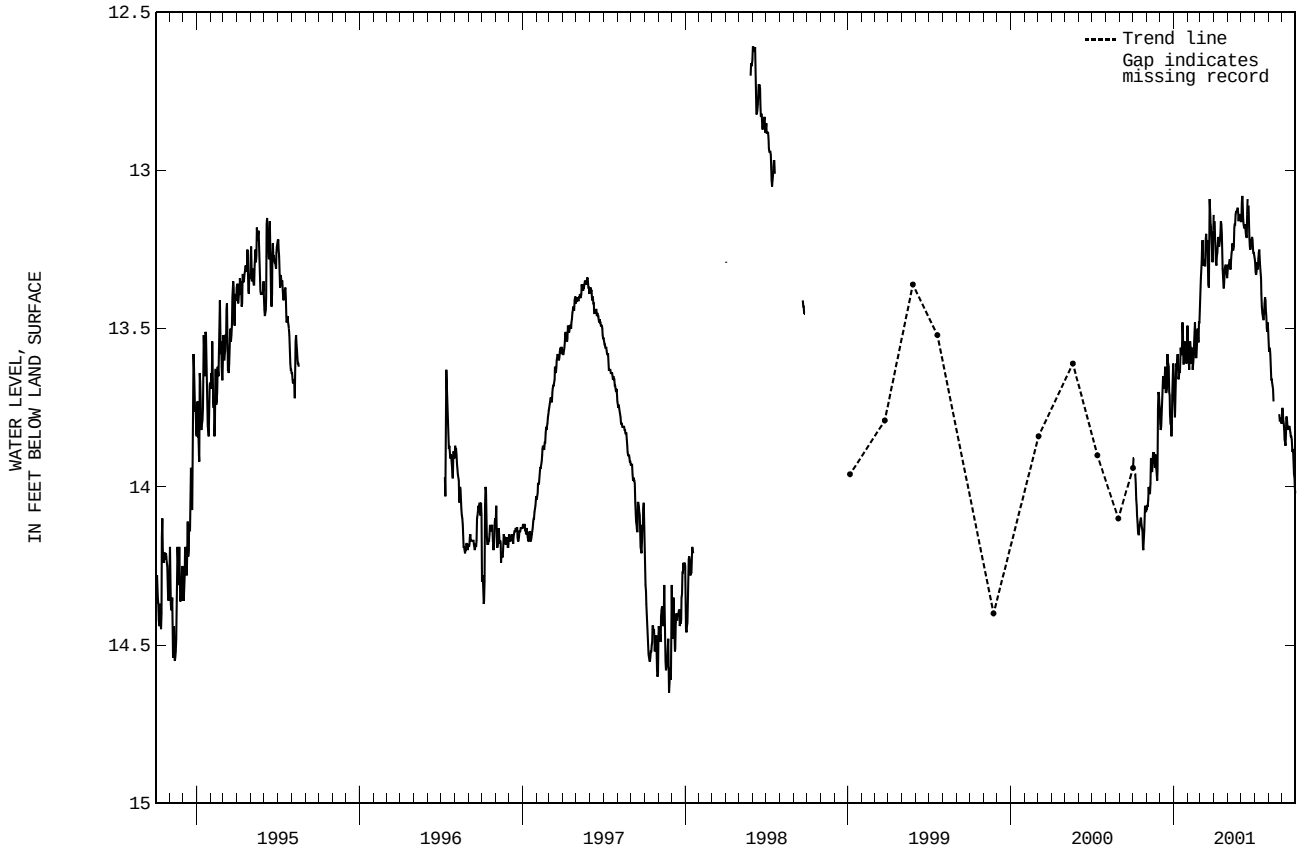
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.94	14.07	13.80	13.70	13.52	13.39	---	13.32	13.16	13.28	13.54	13.75
2	13.91	14.06	13.82	13.74	13.56	13.34	13.16	13.30	13.10	13.29	13.57	13.76
3	13.91	14.06	13.81	13.78	13.60	13.32	13.22	13.30	13.08	13.32	13.57	13.79
4	---	14.04	13.78	13.74	13.63	13.29	13.25	13.30	13.10	13.33	13.56	13.80
5	13.96	14.00	13.74	13.68	13.56	13.23	13.29	13.29	13.15	13.32	13.58	13.82
6	13.96	14.02	13.70	13.61	13.54	13.22	13.30	13.28	13.17	13.29	13.62	13.85
7	13.99	14.02	13.66	13.62	13.56	13.26	13.27	13.31	13.18	13.31	13.66	13.86
8	14.04	14.02	13.65	13.60	13.60	13.30	13.26	13.31	13.18	13.31	13.66	13.87
9	14.06	13.99	13.68	13.58	13.61	13.29	13.24	13.28	13.17	13.28	13.67	13.83
10	14.09	13.91	13.69	13.63	13.56	13.28	13.21	13.26	13.18	13.26	13.68	13.78
11	14.11	13.93	13.66	13.66	13.58	13.30	13.22	13.25	13.20	13.25	13.69	13.78
12	14.14	13.95	13.62	13.65	13.63	13.30	13.24	13.23	13.21	13.27	13.73	13.80
13	14.15	13.95	13.70	13.63	13.61	13.22	13.23	13.25	13.21	13.30	---	13.82
14	14.15	13.91	13.70	13.64	13.59	13.20	13.22	13.25	13.14	13.32	---	13.81
15	14.13	13.89	13.70	13.60	13.54	13.23	13.20	13.24	13.09	13.34	---	13.81
16	14.12	13.92	13.69	13.56	13.51	13.22	13.16	13.18	---	13.39	---	13.81
17	14.11	13.89	13.58	13.58	13.48	13.24	13.17	13.17	13.11	13.43	---	13.81
18	14.10	13.92	13.61	13.58	13.54	13.29	13.20	13.17	13.15	13.45	---	13.82
19	14.10	13.94	13.61	13.54	13.59	13.36	13.26	13.14	13.21	13.46	---	13.83
20	14.12	13.90	13.62	13.48	13.59	13.37	13.31	13.13	13.24	13.47	---	13.84
21	14.13	13.90	13.70	13.52	13.55	13.19	13.34	13.13	13.25	13.47	---	13.84
22	14.14	13.94	13.71	13.61	13.53	13.09	13.37	13.13	13.24	13.45	---	13.85
23	14.19	13.96	13.77	13.61	13.50	13.13	13.37	13.12	13.22	13.42	---	13.88
24	14.20	13.98	13.80	13.57	13.54	13.17	13.34	13.12	13.22	13.40	---	13.89
25	14.17	13.95	13.80	13.54	13.54	13.18	13.31	13.14	13.21	13.41	13.77	13.88
26	14.14	13.75	13.84	13.58	13.48	13.20	13.30	13.16	13.22	13.44	13.79	13.92
27	14.09	13.70	13.80	13.57	13.48	13.25	13.30	13.14	13.25	13.46	13.79	13.96
28	14.06	13.71	13.71	13.59	13.44	13.29	13.30	13.14	13.26	13.50	13.79	13.97
29	14.07	13.74	13.66	13.61	---	13.28	13.32	13.14	13.26	13.51	13.78	14.00
30	14.08	13.75	13.61	13.56	---	13.19	13.34	13.14	13.27	13.48	13.80	14.02
31	14.07	---	13.64	13.49	---	13.14	---	13.16	---	13.50	13.78	---

WTR YR 2001 MEAN 13.55 HIGH 13.08 LOW 14.20

ONSLOW COUNTY--Continued

344139077211204 County number, ON-264; DENR Hadnot Point Research Station well X24s4





ONSLOW COUNTY--Continued

344139077211205. County number, ON-265; DENR Hadnot Point Research Station well X24s5.
LOCATION.--Lat 34°41'39", long 77°21'12", Hydrologic Unit 03030001, at Camp Lejeune, 1.6 mi south of intersection of Brewster Boulevard and Stone Street Extension, on Stone Street Extension, near tack shop, in pasture. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 295 ft, diameter 4 in., well cased to 285 ft, screened interval from 285 to 295 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 23.26 ft above sea level, (levels by DENR). Measuring point: Top of shelter floor, 3.47 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 16.06 ft below land-surface datum, Nov. 26, 27, 1999; lowest water level recorded, 20.26 ft below land-surface datum, Oct. 7, 1994.

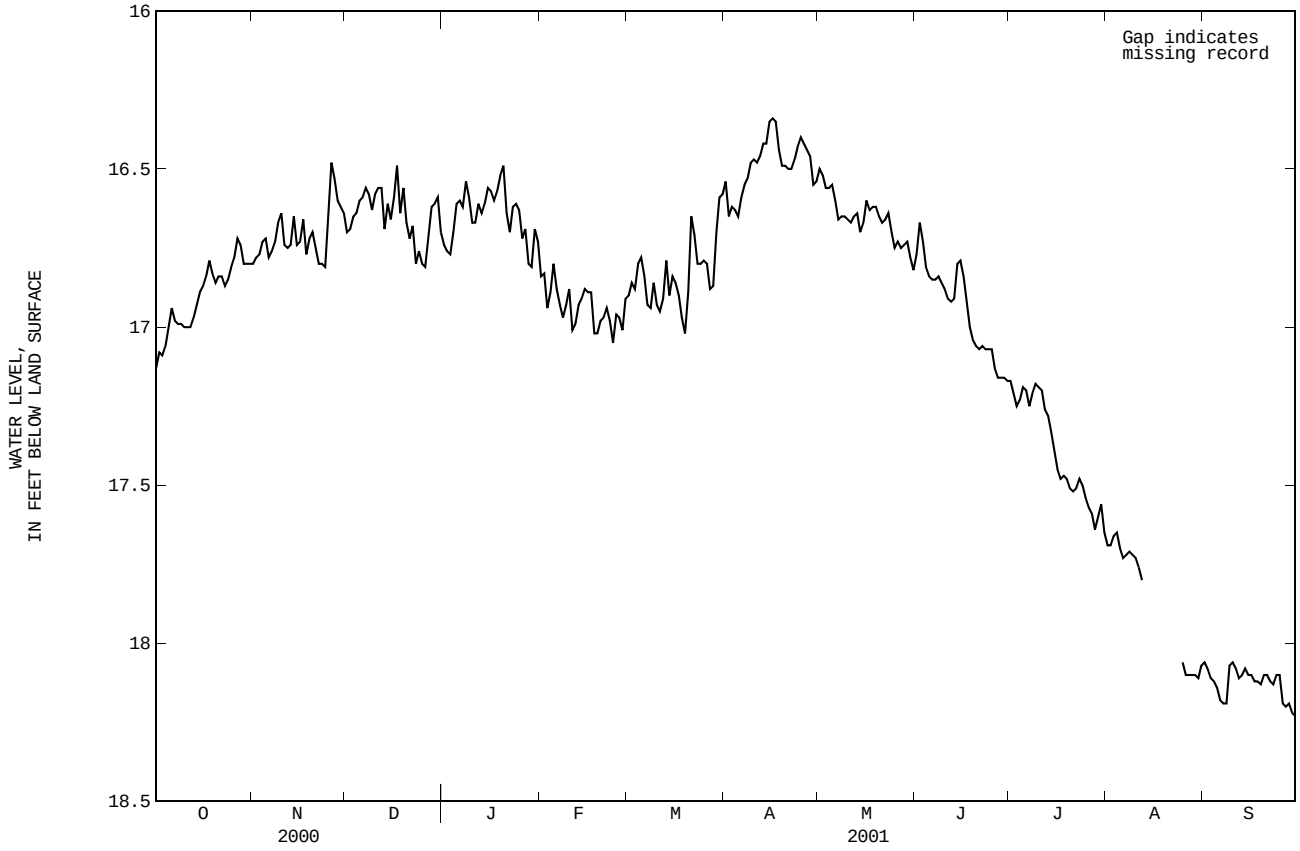
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.13	16.80	16.70	16.74	16.84	16.90	16.54	16.50	16.77	17.17	17.69	18.06
2	17.08	16.78	16.69	16.76	16.83	16.86	16.65	16.52	16.67	17.21	17.69	18.08
3	17.09	16.77	16.65	16.77	16.94	16.88	16.62	16.56	16.73	17.25	17.66	18.11
4	17.06	16.73	16.64	16.70	16.89	16.80	16.63	16.56	16.81	17.23	17.65	18.12
5	17.00	16.72	16.60	16.61	16.80	16.78	16.65	16.55	16.84	17.19	17.70	18.14
6	16.94	16.78	16.59	16.60	16.88	16.84	16.59	16.60	16.85	17.20	17.73	18.18
7	16.98	16.76	16.56	16.62	16.93	16.93	16.55	16.66	16.85	17.25	17.72	18.19
8	16.99	16.73	16.58	16.54	16.97	16.94	16.53	16.65	16.84	17.21	17.71	18.19
9	16.99	16.67	16.63	16.59	16.93	16.86	16.48	16.65	16.86	17.18	17.72	18.07
10	17.00	16.64	16.58	16.67	16.88	16.93	16.47	16.66	16.88	17.19	17.73	18.06
11	17.00	16.74	16.56	16.67	17.01	16.95	16.48	16.67	16.91	17.20	17.76	18.08
12	17.00	16.75	16.56	16.61	16.99	16.91	16.46	16.65	16.92	17.26	17.80	18.11
13	16.97	16.74	16.69	16.64	16.93	16.79	16.42	16.64	16.91	17.28	---	18.10
14	16.93	16.65	16.61	16.61	16.91	16.90	16.42	16.70	16.80	17.33	---	18.08
15	16.89	16.74	16.66	16.56	16.88	16.84	16.35	16.67	16.79	17.39	---	18.10
16	16.87	16.73	16.59	16.57	16.89	16.86	16.34	16.60	16.84	17.45	---	18.10
17	16.84	16.66	16.49	16.60	16.89	16.90	16.35	16.63	16.92	17.48	---	18.12
18	16.79	16.77	16.64	16.57	17.02	16.97	16.44	16.62	17.00	17.47	---	18.12
19	16.83	16.72	16.56	16.52	17.02	17.02	16.49	16.62	17.04	17.48	---	18.13
20	16.86	16.70	16.67	16.49	16.98	16.89	16.49	16.65	17.06	17.51	---	18.10
21	16.84	16.75	16.72	16.64	16.97	16.65	16.50	16.67	17.07	17.52	---	18.10
22	16.84	16.80	16.68	16.70	16.94	16.71	16.50	16.66	17.06	17.51	---	18.12
23	16.87	16.80	16.80	16.62	16.98	16.80	16.47	16.64	17.07	17.48	---	18.13
24	16.85	16.81	16.76	16.61	17.05	16.80	16.43	16.70	17.07	17.50	---	18.10
25	16.81	16.66	16.80	16.63	16.96	16.79	16.40	16.75	17.07	17.54	18.06	18.10
26	16.78	16.48	16.81	16.72	16.97	16.80	16.42	16.73	17.13	17.57	18.10	18.19
27	16.72	16.53	16.71	16.69	17.01	16.88	16.44	16.75	17.16	17.59	18.10	18.20
28	16.74	16.60	16.62	16.80	16.91	16.87	16.46	16.74	17.16	17.64	18.10	18.19
29	16.80	16.62	16.61	16.81	---	16.70	16.55	16.73	17.16	17.60	18.10	18.22
30	16.80	16.64	16.59	16.69	---	16.59	16.54	16.78	17.17	17.56	18.11	18.23
31	16.80	---	16.70	16.73	---	16.58	---	16.82	---	17.65	18.07	---

WTR YR 2001 MEAN 16.98 HIGH 16.34 LOW 18.23

ONSLOW COUNTY--Continued

344139077211205 County number, ON-265; DENR Hadnot Point Research Station well X24s5



ONSLOW COUNTY--Continued

344139077211206. County number, ON-266; DENR Hadnot Point Research Station well X24s6.
LOCATION.--Lat 34°41'39", long 77°21'12", Hydrologic Unit 03030001, at Camp Lejeune, 1.6 mi south of intersection of Brewster Boulevard and Stone Street Extension, on Stone Street Extension, near tack shop, in pasture. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 130 ft, diameter 6 in., cased to 120 ft, screened interval from 120 to 130 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 23.47 ft above sea level, (levels by DENR). Measuring point: Top of shelter floor, 1.73 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.09 ft below land-surface datum, Oct. 18, 1996; lowest water level recorded, 19.38 ft below land-surface datum, Oct. 11, 1994.

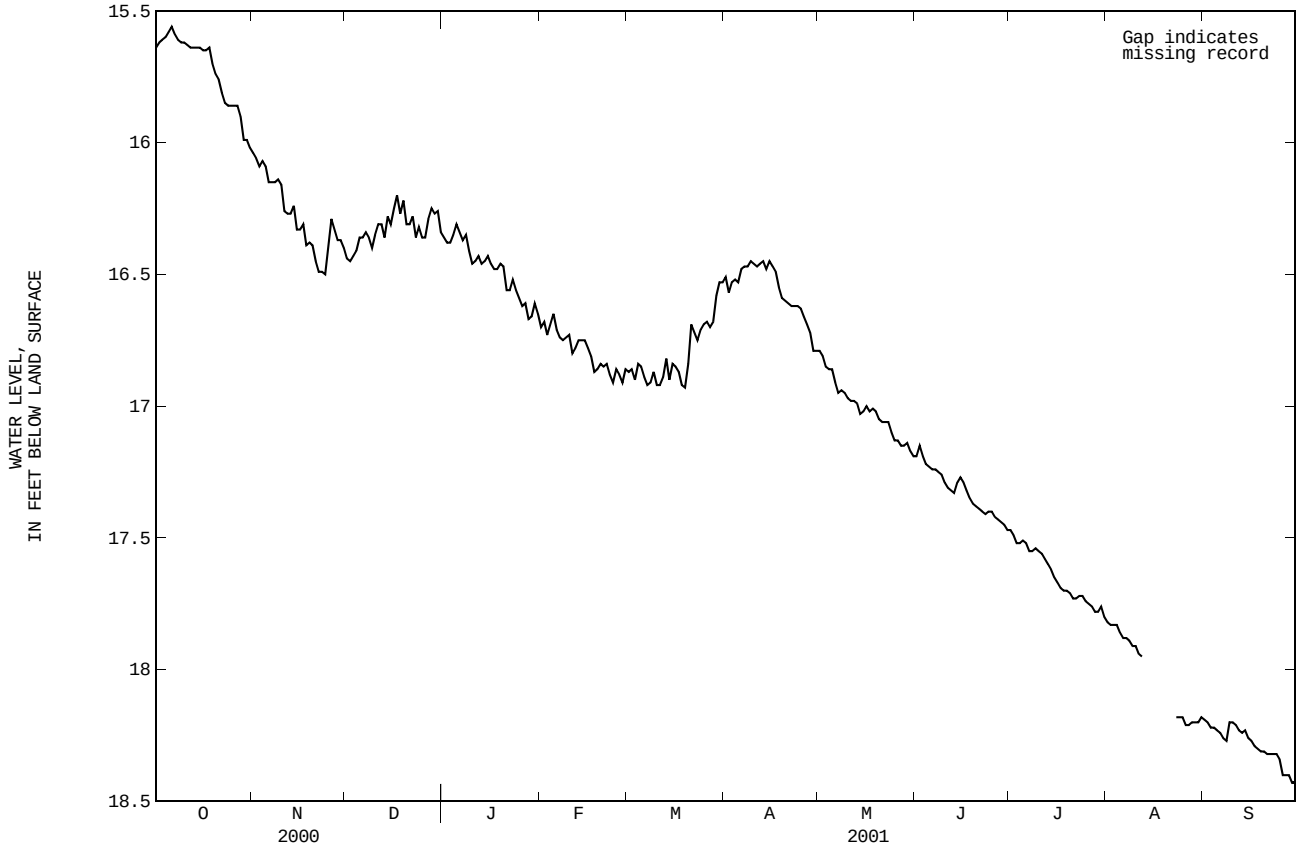
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

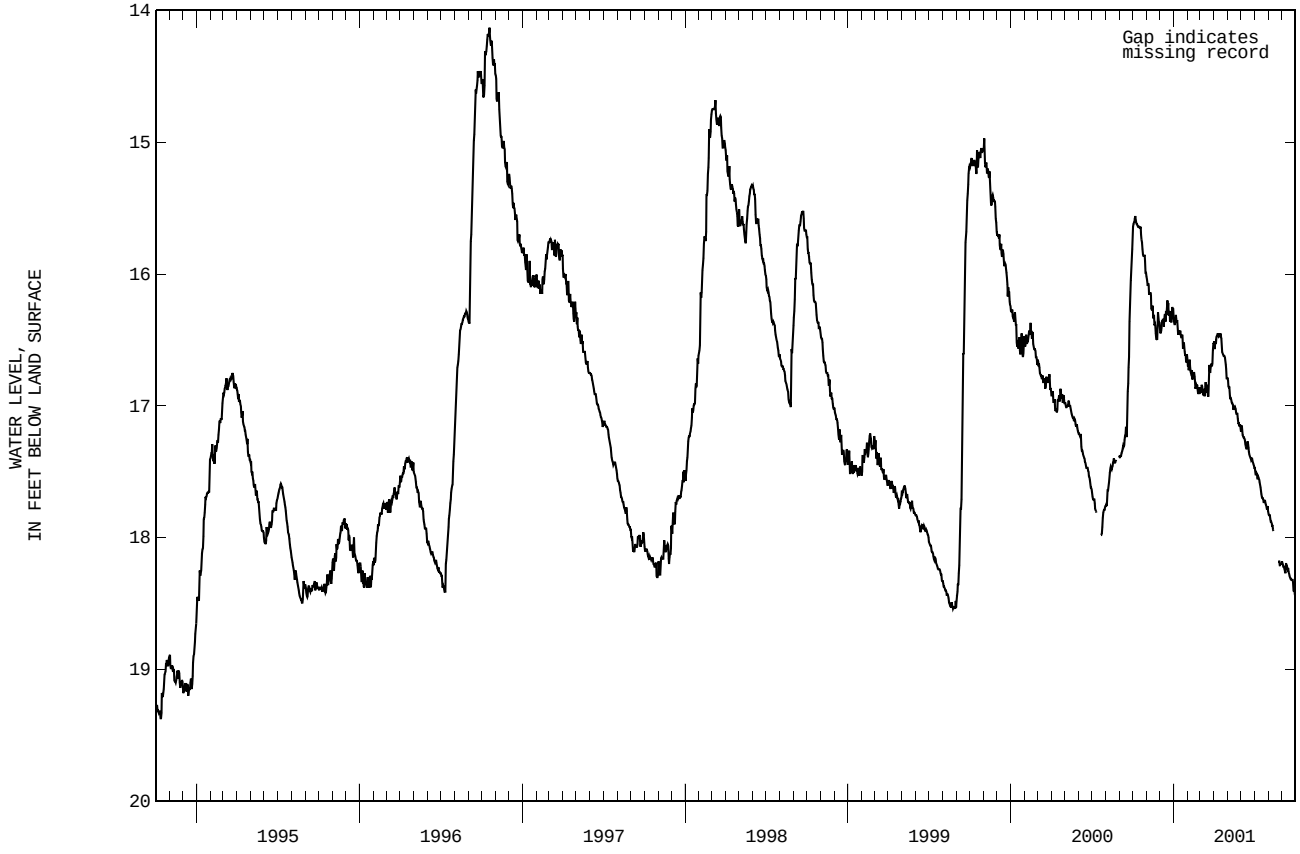
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.64	16.04	16.44	16.36	16.70	16.87	16.51	16.79	17.19	17.47	17.82	18.19
2	15.62	16.06	16.45	16.38	16.68	16.86	16.57	16.81	17.15	17.49	17.83	18.20
3	15.61	16.09	16.43	16.38	16.73	16.90	16.53	16.85	17.19	17.52	17.83	18.22
4	15.60	16.07	16.41	16.35	16.69	16.84	16.52	16.86	17.22	17.52	17.83	18.22
5	15.58	16.09	16.36	16.31	16.65	16.85	16.53	16.86	17.23	17.51	17.86	18.23
6	15.56	16.15	16.36	16.34	16.71	16.89	16.48	16.91	17.24	17.52	17.88	18.24
7	15.59	16.15	16.34	16.37	16.74	16.92	16.47	16.95	17.24	17.55	17.88	18.26
8	15.61	16.15	16.36	16.35	16.75	16.91	16.47	16.94	17.25	17.55	17.89	18.27
9	15.62	16.14	16.40	16.41	16.74	16.87	16.45	16.95	17.26	17.54	17.91	18.20
10	15.62	16.16	16.35	16.46	16.73	16.92	16.46	16.97	17.29	17.55	17.91	18.20
11	15.63	16.26	16.31	16.45	16.80	16.92	16.47	16.98	17.31	17.56	17.94	18.21
12	15.64	16.27	16.31	16.43	16.78	16.89	16.46	16.98	17.32	17.58	17.95	18.23
13	15.64	16.27	16.36	16.46	16.75	16.82	16.45	16.99	17.33	17.60	---	18.24
14	15.64	16.24	16.28	16.45	16.75	16.90	16.48	17.03	17.29	17.62	---	18.23
15	15.64	16.33	16.31	16.43	16.75	16.84	16.45	17.02	17.27	17.65	---	18.26
16	15.65	16.33	16.25	16.46	16.78	16.85	16.47	17.00	17.29	17.67	---	18.27
17	15.65	16.31	16.20	16.48	16.81	16.87	16.49	17.02	17.32	17.69	---	18.29
18	15.64	16.39	16.27	16.48	16.87	16.92	16.55	17.01	17.35	17.70	---	18.30
19	15.70	16.38	16.22	16.46	16.86	16.93	16.59	17.02	17.37	17.70	---	18.31
20	15.74	16.39	16.31	16.47	16.84	16.84	16.60	17.05	17.38	17.71	---	18.31
21	15.76	16.45	16.31	16.56	16.85	16.69	16.61	17.06	17.39	17.73	---	18.32
22	15.81	16.49	16.28	16.56	16.84	16.72	16.62	17.06	17.40	17.73	---	18.32
23	15.85	16.49	16.36	16.52	16.88	16.75	16.62	17.06	17.41	17.72	18.18	18.32
24	15.86	16.50	16.32	16.56	16.91	16.71	16.62	17.10	17.40	17.72	18.18	18.32
25	15.86	16.39	16.36	16.59	16.86	16.69	16.63	17.13	17.40	17.74	18.18	18.34
26	15.86	16.29	16.36	16.62	16.88	16.68	16.66	17.13	17.42	17.75	18.21	18.40
27	15.86	16.33	16.29	16.61	16.91	16.70	16.69	17.15	17.43	17.76	18.21	18.40
28	15.90	16.37	16.25	16.67	16.86	16.68	16.72	17.15	17.44	17.78	18.20	18.40
29	15.99	16.37	16.27	16.66	---	16.58	16.79	17.14	17.45	17.78	18.20	18.43
30	15.99	16.40	16.26	16.61	---	16.53	16.79	17.17	17.47	17.76	18.20	18.43
31	16.02	---	16.34	16.65	---	16.53	---	17.19	---	17.80	18.18	---

WTR YR 2001 MEAN 16.91 HIGH 15.56 LOW 18.43

ONSLOW COUNTY--Continued

344139077211206 County number, ON-266; DENR Hadnot Point Research Station well X24s6





ONSLOW COUNTY--Continued

344139077211207. County number, ON-267; DENR Hadnot Point Research Station well X24s7.
LOCATION.--Lat 34°41'39", long 77°21'12", Hydrologic Unit 03030001, at Camp Lejeune, 1.6 mi south of intersection of Brewster Boulevard and Stone Street Extension, on Stone Street Extension, near tack shop, in pasture. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 4 in., cased to 30 ft, screened interval from 30 to 40 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 24.06 ft above sea level, (levels by DENR). Measuring point: Top of shelter floor, 0.93 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.35 ft below land-surface datum, Oct. 18, 1996; lowest water level recorded, 19.63 ft below land-surface datum, Oct. 11, 1994.

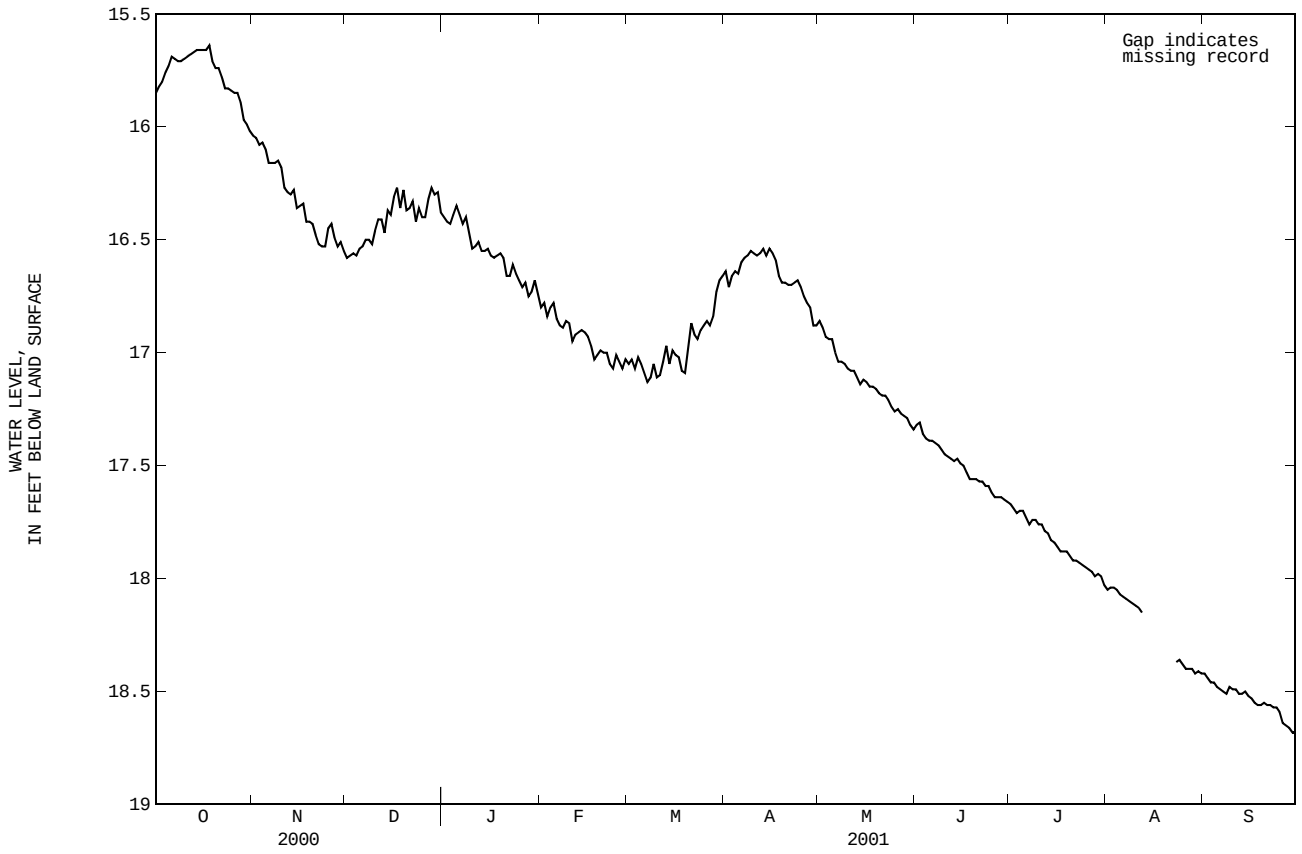
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

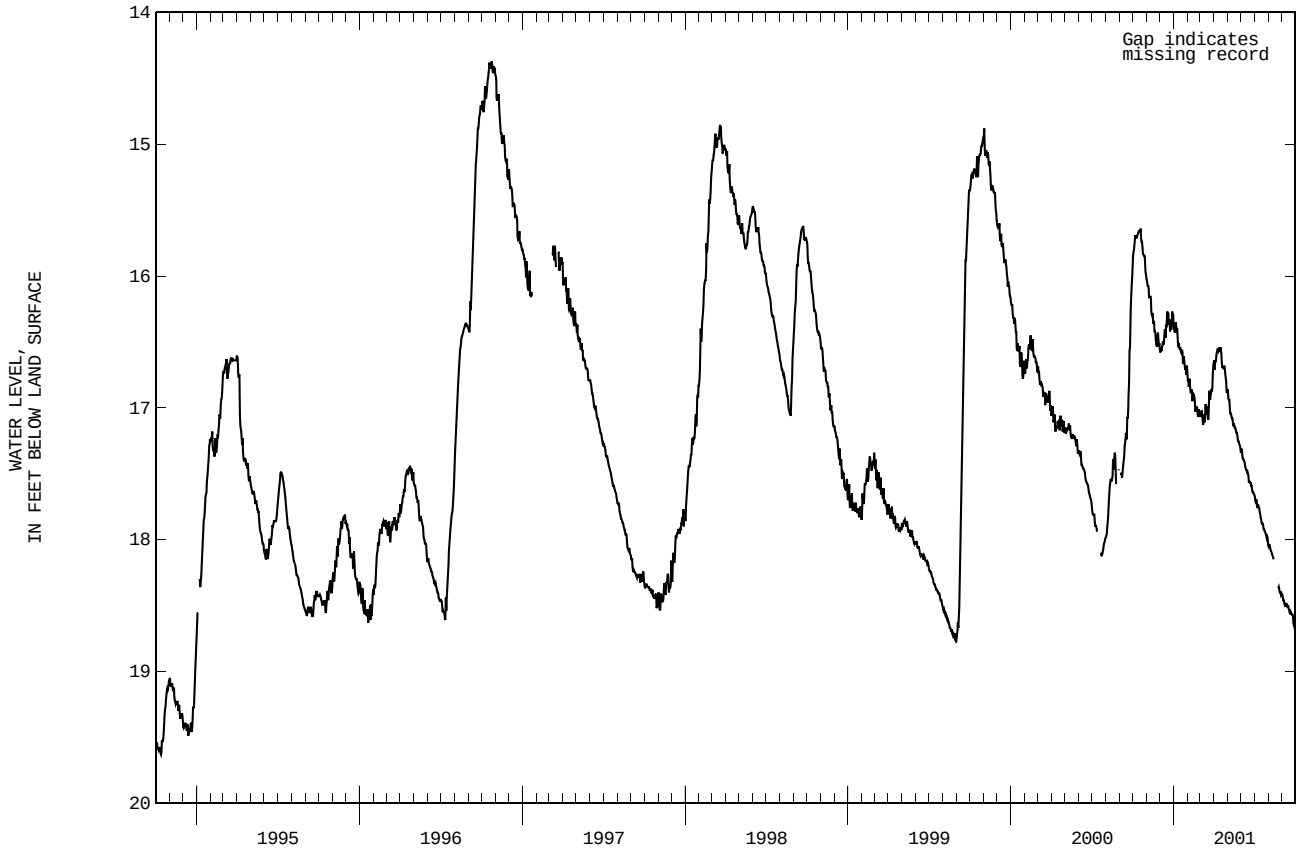
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.85	16.04	16.58	16.40	16.80	17.05	16.64	16.86	17.32	17.67	18.05	18.42
2	15.82	16.05	16.57	16.42	16.78	17.03	16.71	16.89	17.31	17.69	18.04	18.44
3	15.80	16.08	16.56	16.43	16.84	17.07	16.66	16.93	17.36	17.71	18.04	18.46
4	15.76	16.07	16.57	16.39	16.80	17.02	16.64	16.94	17.38	17.70	18.05	18.46
5	15.73	16.10	16.54	16.35	16.78	17.05	16.65	16.94	17.39	17.70	18.07	18.48
6	15.69	16.16	16.53	16.39	16.85	17.09	16.60	17.00	17.39	17.73	18.08	18.49
7	15.70	16.16	16.50	16.43	16.88	17.13	16.58	17.04	17.40	17.76	18.09	18.50
8	15.71	16.16	16.50	16.40	16.89	17.11	16.57	17.04	17.41	17.74	18.10	18.51
9	15.71	16.15	16.52	16.47	16.86	17.05	16.55	17.05	17.43	17.74	18.11	18.48
10	15.70	16.18	16.46	16.54	16.87	17.11	16.56	17.07	17.45	17.76	18.12	18.49
11	15.69	16.27	16.41	16.53	16.95	17.10	16.57	17.08	17.46	17.76	18.13	18.49
12	15.68	16.29	16.41	16.51	16.92	17.04	16.56	17.08	17.47	17.79	18.15	18.51
13	15.67	16.30	16.47	16.55	16.91	16.97	16.54	17.11	17.48	17.80	---	18.51
14	15.66	16.28	16.37	16.55	16.90	17.05	16.57	17.14	17.47	17.83	---	18.50
15	15.66	16.36	16.39	16.54	16.91	16.99	16.54	17.12	17.49	17.84	---	18.52
16	15.66	16.35	16.31	16.57	16.93	17.01	16.56	17.13	17.50	17.86	---	18.53
17	15.66	16.34	16.27	16.58	16.97	17.02	16.59	17.15	17.53	17.88	---	18.55
18	15.64	16.42	16.36	16.57	17.03	17.08	16.66	17.15	17.56	17.88	---	18.56
19	15.71	16.42	16.28	16.56	17.01	17.09	16.69	17.16	17.56	17.88	---	18.56
20	15.74	16.43	16.37	16.58	16.99	16.97	16.69	17.18	17.56	17.90	---	18.55
21	15.74	16.48	16.36	16.66	17.00	16.87	16.70	17.19	17.57	17.92	---	18.56
22	15.78	16.52	16.33	16.66	17.00	16.92	16.70	17.19	17.57	17.92	---	18.56
23	15.83	16.53	16.42	16.61	17.05	16.94	16.69	17.21	17.59	17.93	18.37	18.57
24	15.83	16.53	16.36	16.65	17.07	16.90	16.68	17.24	17.59	17.94	18.36	18.57
25	15.84	16.45	16.40	16.68	17.01	16.88	16.71	17.26	17.62	17.95	18.38	18.59
26	15.85	16.43	16.40	16.71	17.04	16.86	16.75	17.25	17.64	17.96	18.40	18.64
27	15.85	16.49	16.32	16.69	17.07	16.88	16.78	17.27	17.64	17.97	18.40	18.65
28	15.89	16.53	16.27	16.75	17.03	16.84	16.80	17.28	17.64	17.99	18.40	18.66
29	15.97	16.51	16.30	16.73	---	16.73	16.88	17.29	17.65	17.98	18.42	18.68
30	15.99	16.55	16.29	16.68	---	16.68	16.88	17.32	17.66	17.99	18.41	18.68
31	16.02	---	16.38	16.74	---	16.66	---	17.34	---	18.03	18.42	---

WTR YR 2001 MEAN 17.04 HIGH 15.64 LOW 18.68

ONSLOW COUNTY--Continued

344139077211207 County number, ON-267; DENR Hadnot Point Research Station well X24s7





ONSLOW COUNTY--Continued

344037077253901. County number, ON-291; Ragged Point Well.
LOCATION.--Lat 34°40'37", long 77°25'39", Hydrologic Unit 03030001, 2.05 mi east of Verona, on Town Point Road, 0.9 mi north on TLZ Eagle road. Owner: U.S. Geological Survey.
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 180 ft, diameter 2 in., cased to 170 ft, screened interval from 170 to 180 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 25 ft above sea level (from topographic map). Measuring point: Top of shelter floor, 2.87 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.53 ft below land-surface datum, July 23, 2000; lowest water level recorded, 20.18 ft below land-surface datum, Aug. 21, 1998.

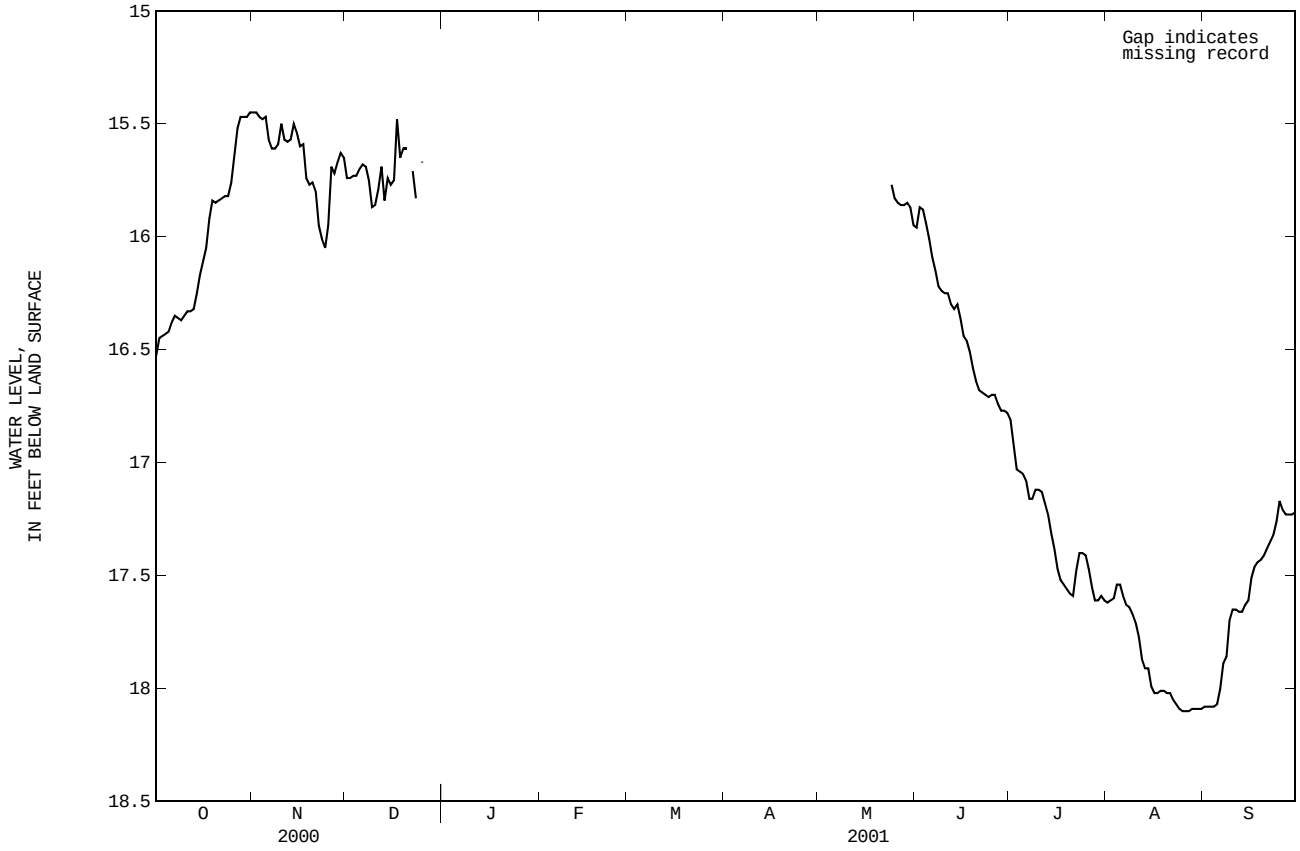
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

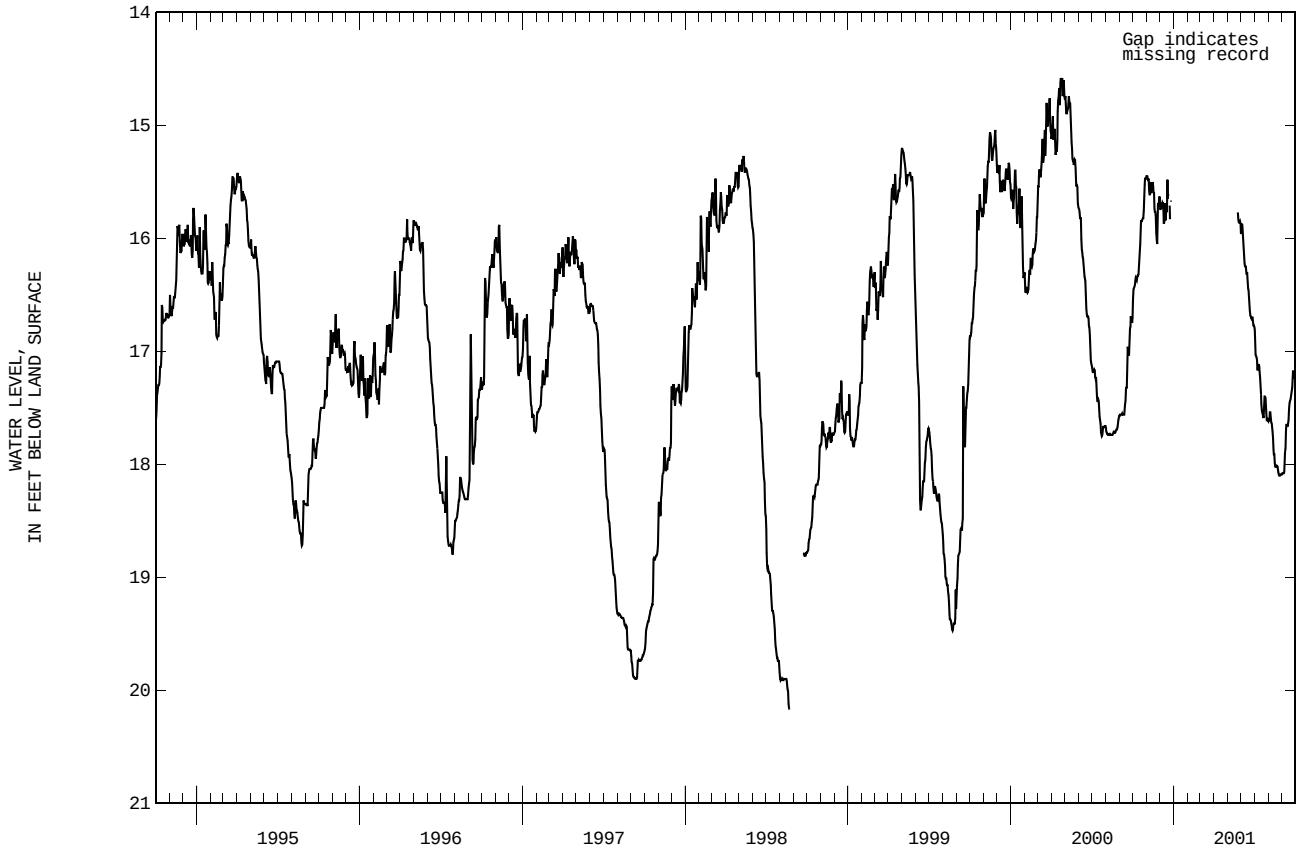
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.53	15.45	15.74	---	---	---	---	---	15.96	16.81	17.62	18.08
2	16.45	15.45	15.74	---	---	---	---	---	15.87	16.92	17.61	18.08
3	16.44	15.47	15.73	---	---	---	---	---	15.88	17.03	17.60	18.08
4	16.43	15.48	15.73	---	---	---	---	---	15.94	17.04	17.54	18.08
5	16.42	15.47	15.70	---	---	---	---	---	16.01	17.05	17.54	18.07
6	16.38	15.57	15.68	---	---	---	---	---	16.09	17.08	17.59	18.00
7	16.35	15.61	15.69	---	---	---	---	---	16.15	17.16	17.63	17.89
8	16.36	15.61	15.75	---	---	---	---	---	16.22	17.16	17.64	17.86
9	16.37	15.59	15.87	---	---	---	---	---	16.24	17.12	17.67	17.70
10	16.35	15.50	15.86	---	---	---	---	---	16.25	17.12	17.71	17.65
11	16.33	15.57	15.79	---	---	---	---	---	16.25	17.13	17.77	17.65
12	16.33	15.58	15.69	---	---	---	---	---	16.30	17.18	17.87	17.66
13	16.32	15.57	15.84	---	---	---	---	---	16.32	17.23	17.91	17.66
14	16.25	15.50	15.74	---	---	---	---	---	16.30	17.31	17.91	17.63
15	16.17	15.54	15.77	---	---	---	---	---	16.36	17.38	17.99	17.61
16	16.11	15.60	15.75	---	---	---	---	---	16.44	17.47	18.02	17.51
17	16.05	15.59	15.48	---	---	---	---	---	16.46	17.52	18.02	17.46
18	15.92	15.74	15.65	---	---	---	---	---	16.51	17.54	18.01	17.44
19	15.84	15.77	15.61	---	---	---	---	---	16.58	17.56	18.01	17.43
20	15.85	15.76	15.61	---	---	---	---	---	16.64	17.58	18.02	17.41
21	15.84	15.80	---	---	---	---	---	---	16.68	17.59	18.02	17.38
22	15.83	15.95	15.71	---	---	---	---	---	16.69	17.48	18.05	17.35
23	15.82	16.01	15.83	---	---	---	---	---	16.70	17.40	18.07	17.32
24	15.82	16.05	---	---	---	---	---	15.77	16.71	17.40	18.09	17.26
25	15.76	15.95	15.67	---	---	---	---	15.83	16.70	17.41	18.10	17.17
26	15.65	15.69	---	---	---	---	---	15.85	16.70	17.47	18.10	17.21
27	15.52	15.72	---	---	---	---	---	15.86	16.74	17.55	18.10	17.23
28	15.47	15.67	---	---	---	---	---	15.86	16.77	17.61	18.09	17.23
29	15.47	15.63	---	---	---	---	---	15.85	16.77	17.61	18.09	17.23
30	15.47	15.65	---	---	---	---	---	15.87	16.78	17.59	18.09	17.22
31	15.45	---	---	---	---	---	---	15.95	---	17.61	18.09	---

WTR YR 2001 MEAN 16.67 HIGH 15.45 LOW 18.10

ONSLOW COUNTY--Continued

344037077253901 County number, ON-291; Ragged Point Well





ONSLOW COUNTY--Continued

344304077232901. County number, ON-292; Paradise Point Well.
LOCATION.--Lat 34°43'04", long 77°23'29", Hydrologic Unit 03030001, north of Camp Lejeune golf course driving range. Owner: U.S. Geological Survey.
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 232 ft, diameter 2 in., cased to 222 ft, screened interval from 222 to 232 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 15 ft above sea level (from topographic map). Measuring point: Top of shelter floor, 2.47 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year. Prior to October 1997, published as ON-290, Paradise Point Well.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.68 ft below land-surface datum, Apr. 28, 2000; lowest water level recorded, 13.80 ft below land-surface datum, Aug. 20, 1998.

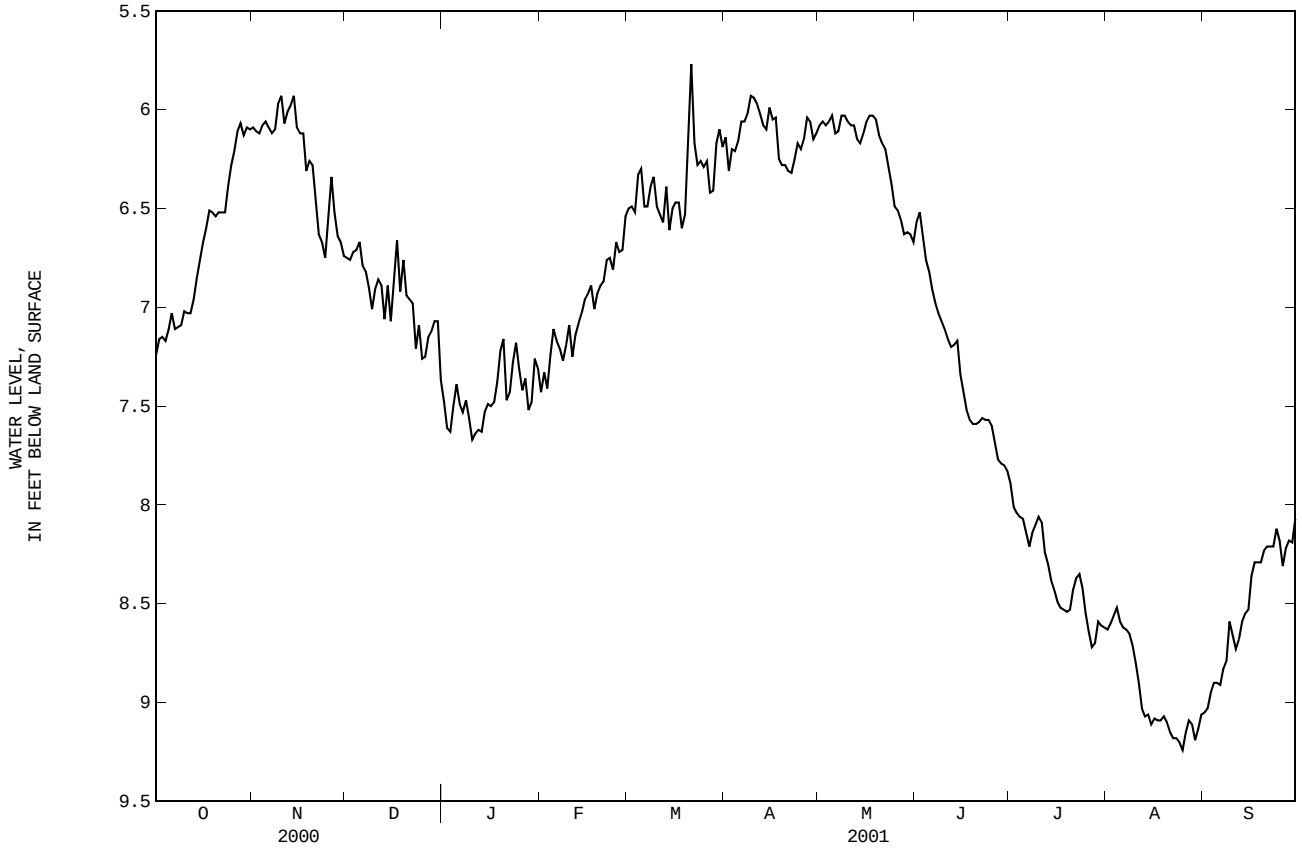
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

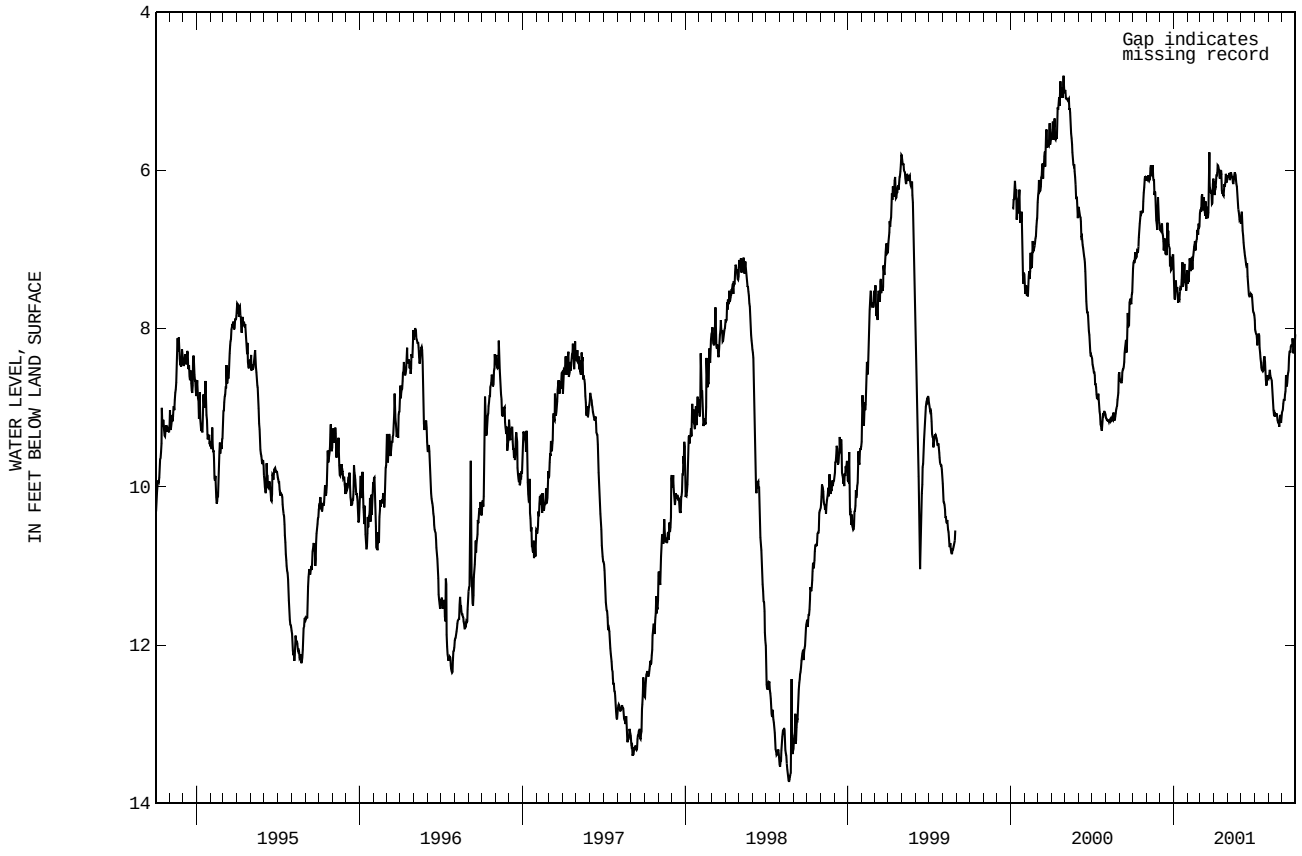
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.24	6.09	6.75	7.48	7.43	6.50	6.14	6.08	6.57	7.89	8.63	9.05
2	7.16	6.11	6.76	7.61	7.33	6.49	6.31	6.06	6.52	8.01	8.60	9.03
3	7.15	6.12	6.72	7.63	7.41	6.52	6.20	6.08	6.65	8.04	8.56	8.95
4	7.17	6.08	6.71	7.50	7.24	6.33	6.21	6.06	6.76	8.06	8.52	8.90
5	7.11	6.06	6.67	7.39	7.11	6.30	6.16	6.03	6.82	8.07	8.59	8.90
6	7.03	6.09	6.79	7.49	7.17	6.49	6.06	6.12	6.91	8.14	8.62	8.91
7	7.11	6.12	6.82	7.53	7.21	6.49	6.06	6.11	6.98	8.21	8.63	8.83
8	7.10	6.10	6.90	7.47	7.27	6.39	6.02	6.03	7.03	8.14	8.65	8.79
9	7.09	5.97	7.01	7.56	7.19	6.34	5.93	6.03	7.07	8.10	8.71	8.59
10	7.02	5.93	6.91	7.67	7.09	6.49	5.94	6.06	7.11	8.06	8.80	8.66
11	7.03	6.07	6.86	7.64	7.25	6.53	5.97	6.08	7.16	8.09	8.90	8.73
12	7.03	6.01	6.89	7.62	7.14	6.57	6.02	6.08	7.20	8.24	9.03	8.68
13	6.96	5.98	7.06	7.63	7.08	6.39	6.08	6.15	7.19	8.30	9.07	8.59
14	6.85	5.93	6.89	7.53	7.03	6.61	6.10	6.17	7.17	8.38	9.06	8.55
15	6.76	6.09	7.07	7.49	6.96	6.50	5.99	6.12	7.34	8.43	9.11	8.53
16	6.67	6.12	6.87	7.50	6.93	6.47	6.05	6.06	7.43	8.49	9.08	8.36
17	6.60	6.12	6.66	7.48	6.89	6.47	6.04	6.03	7.52	8.52	9.09	8.29
18	6.51	6.31	6.92	7.38	7.01	6.60	6.25	6.03	7.57	8.53	9.09	8.29
19	6.52	6.26	6.76	7.22	6.93	6.53	6.28	6.05	7.59	8.54	9.07	8.29
20	6.54	6.28	6.94	7.16	6.89	6.21	6.28	6.13	7.59	8.53	9.10	8.23
21	6.52	6.47	6.96	7.47	6.87	5.77	6.31	6.17	7.58	8.43	9.15	8.21
22	6.52	6.63	6.98	7.43	6.76	6.17	6.32	6.20	7.56	8.37	9.18	8.21
23	6.52	6.67	7.21	7.28	6.75	6.28	6.25	6.29	7.57	8.35	9.18	8.21
24	6.39	6.75	7.09	7.18	6.81	6.26	6.17	6.38	7.57	8.42	9.20	8.12
25	6.28	6.55	7.26	7.31	6.67	6.29	6.20	6.49	7.60	8.55	9.24	8.18
26	6.21	6.34	7.25	7.42	6.72	6.26	6.15	6.51	7.68	8.64	9.15	8.31
27	6.11	6.52	7.15	7.36	6.71	6.42	6.04	6.56	7.77	8.72	9.09	8.22
28	6.07	6.64	7.12	7.52	6.54	6.41	6.06	6.63	7.79	8.70	9.11	8.18
29	6.13	6.67	7.07	7.48	---	6.17	6.15	6.62	7.80	8.59	9.19	8.19
30	6.09	6.74	7.07	7.26	---	6.10	6.12	6.63	7.83	8.61	9.13	8.07
31	6.10	---	7.37	7.31	---	6.19	---	6.67	---	8.62	9.06	---

WTR YR 2001 MEAN 7.19 HIGH 5.77 LOW 9.24

ONSLOW COUNTY--Continued

344304077232901 County number, ON-292; Paradise Point Well





ONSLOW COUNTY--Continued

343609077171301. County number, ON-293; Sneads Ferry Road Well.
LOCATION.--Lat 34°36'09", long 77°17'13", Hydrologic Unit 03030001, at Camp Lejeune, approximately 6.0 mi south on Sneads Ferry Road. Owner: U.S. Geological Survey.
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 235 ft, diameter 2 in., cased to 225 ft, screened interval from 225 to 235 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 40 ft above sea level (from topographic map). Measuring point: Top of shelter floor, 2.30 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.46 ft below land-surface datum, July 22, 2000; lowest water level recorded, 13.28 ft below land-surface datum, Sept. 10, 11, 1997.

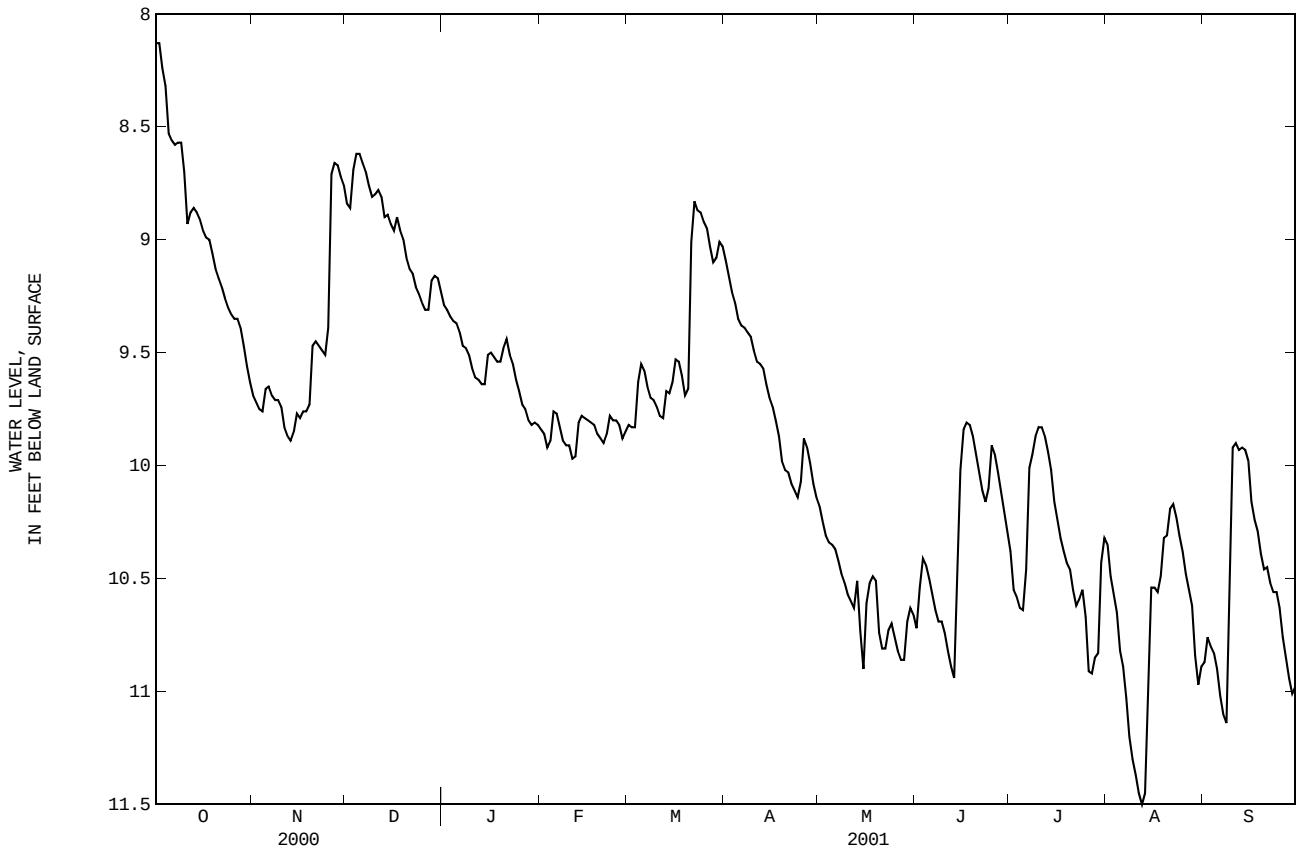
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

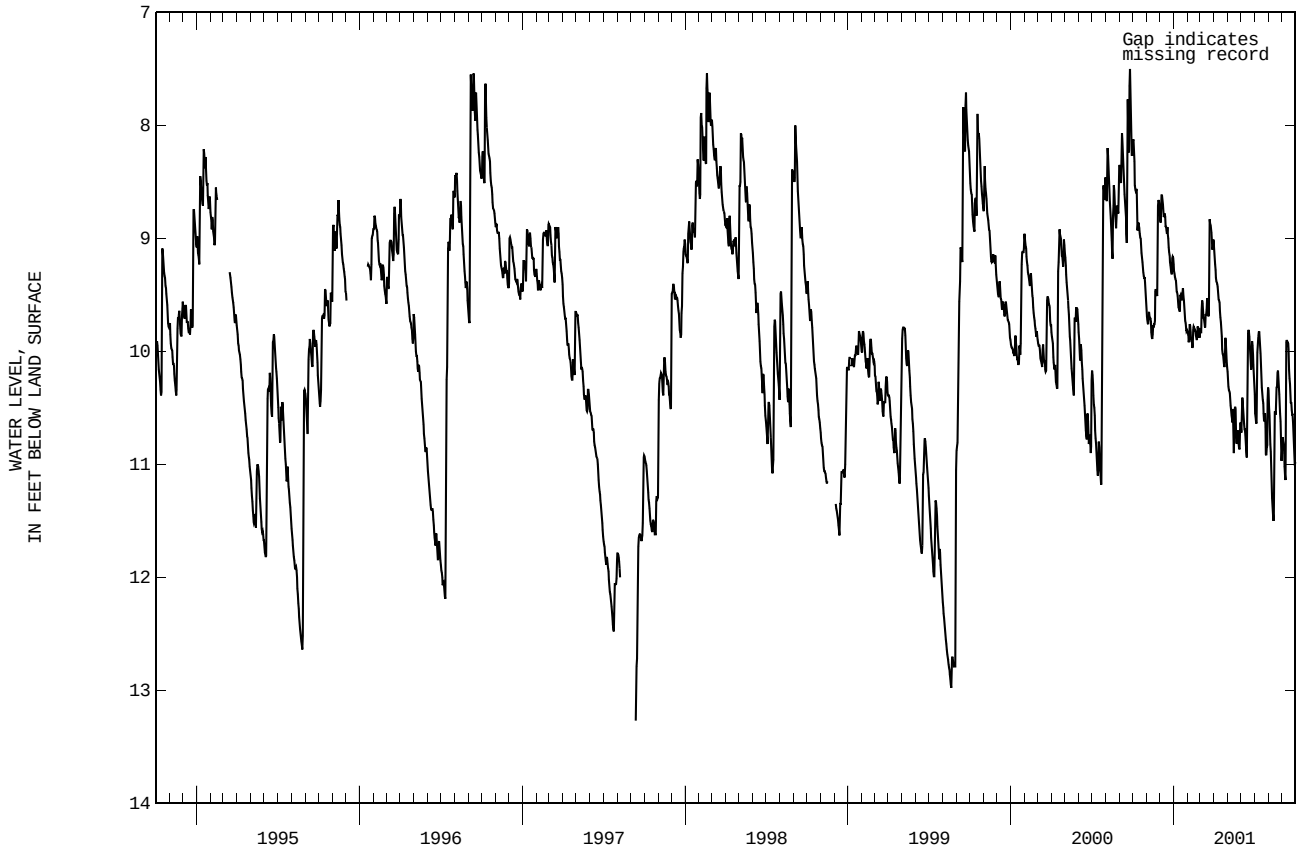
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.13	9.69	8.84	9.29	9.84	9.82	9.09	10.18	10.72	10.38	10.35	10.87
2	8.13	9.72	8.86	9.31	9.86	9.83	9.16	10.25	10.54	10.55	10.49	10.76
3	8.24	9.75	8.69	9.34	9.92	9.83	9.23	10.31	10.41	10.58	10.57	10.80
4	8.32	9.76	8.62	9.36	9.89	9.63	9.28	10.34	10.44	10.63	10.65	10.83
5	8.53	9.66	8.62	9.37	9.76	9.55	9.35	10.35	10.50	10.64	10.82	10.90
6	8.56	9.65	8.66	9.41	9.77	9.58	9.38	10.37	10.57	10.46	10.89	11.02
7	8.58	9.69	8.70	9.47	9.83	9.65	9.39	10.42	10.64	10.01	11.03	11.10
8	8.57	9.71	8.76	9.48	9.89	9.70	9.41	10.48	10.69	9.95	11.20	11.14
9	8.57	9.71	8.81	9.51	9.91	9.71	9.43	10.52	10.69	9.87	11.30	10.56
10	8.70	9.74	8.80	9.57	9.91	9.74	9.49	10.57	10.74	9.83	11.37	9.92
11	8.93	9.83	8.78	9.61	9.97	9.78	9.54	10.60	10.82	9.83	11.45	9.90
12	8.88	9.87	8.81	9.62	9.96	9.79	9.55	10.63	10.89	9.87	11.50	9.93
13	8.86	9.89	8.90	9.64	9.81	9.67	9.57	10.51	10.94	9.94	11.45	9.92
14	8.88	9.85	8.89	9.64	9.78	9.68	9.64	10.73	10.44	10.02	10.92	9.93
15	8.91	9.77	8.93	9.51	9.79	9.63	9.70	10.90	10.02	10.16	10.54	9.98
16	8.96	9.79	8.96	9.50	9.80	9.53	9.74	10.61	9.84	10.24	10.54	10.16
17	8.99	9.76	8.90	9.52	9.81	9.54	9.80	10.52	9.81	10.32	10.56	10.24
18	9.00	9.76	8.96	9.54	9.82	9.60	9.87	10.49	9.82	10.38	10.49	10.29
19	9.06	9.73	9.00	9.54	9.86	9.69	9.98	10.51	9.87	10.43	10.32	10.39
20	9.13	9.47	9.08	9.48	9.88	9.66	10.02	10.74	9.95	10.46	10.31	10.46
21	9.17	9.45	9.13	9.44	9.90	9.01	10.03	10.81	10.03	10.55	10.19	10.45
22	9.21	9.47	9.15	9.51	9.86	8.83	10.08	10.81	10.11	10.62	10.17	10.52
23	9.26	9.49	9.21	9.55	9.78	8.87	10.11	10.73	10.16	10.59	10.23	10.56
24	9.30	9.51	9.24	9.62	9.80	8.88	10.14	10.70	10.10	10.55	10.31	10.56
25	9.33	9.39	9.28	9.67	9.80	8.92	10.07	10.76	9.91	10.67	10.38	10.63
26	9.35	8.71	9.31	9.73	9.82	8.95	9.88	10.82	9.95	10.91	10.48	10.76
27	9.35	8.66	9.31	9.75	9.88	9.03	9.92	10.86	10.03	10.92	10.55	10.85
28	9.39	8.67	9.18	9.80	9.85	9.10	9.99	10.86	10.12	10.85	10.62	10.94
29	9.47	8.72	9.16	9.82	---	9.08	10.08	10.69	10.20	10.83	10.84	11.01
30	9.56	8.76	9.17	9.81	---	9.01	10.14	10.63	10.29	10.43	10.97	10.98
31	9.63	---	9.23	9.82	---	9.03	---	10.66	---	10.32	10.89	---

WTR YR 2001 MEAN 9.87 HIGH 8.13 LOW 11.50

ONSLOW COUNTY--Continued

343609077171301 County number, ON-293; Sneads Ferry Road Well





ONSLOW COUNTY--Continued

343842077241501. County number, ON-294; Town Creek Well 1.
LOCATION.--Lat 34°38'42", long 77°24'15", Hydrologic Unit 03030001, 4 mi east of Verona, 0.4 mi north of Town Point Road, on dirt road. Owner: U.S. Geological Survey.
AQUIFER.--Surficial Aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 23 ft, diameter 2 in., screened interval from 12 to 22 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 65 ft above sea level (from topographic map). Measuring point: Top of shelter floor, 2.43 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.82 ft below land-surface datum, Sept. 16, 1999; lowest water level recorded, 10.20 ft below land-surface datum, July 22, 23, 24, 2000.

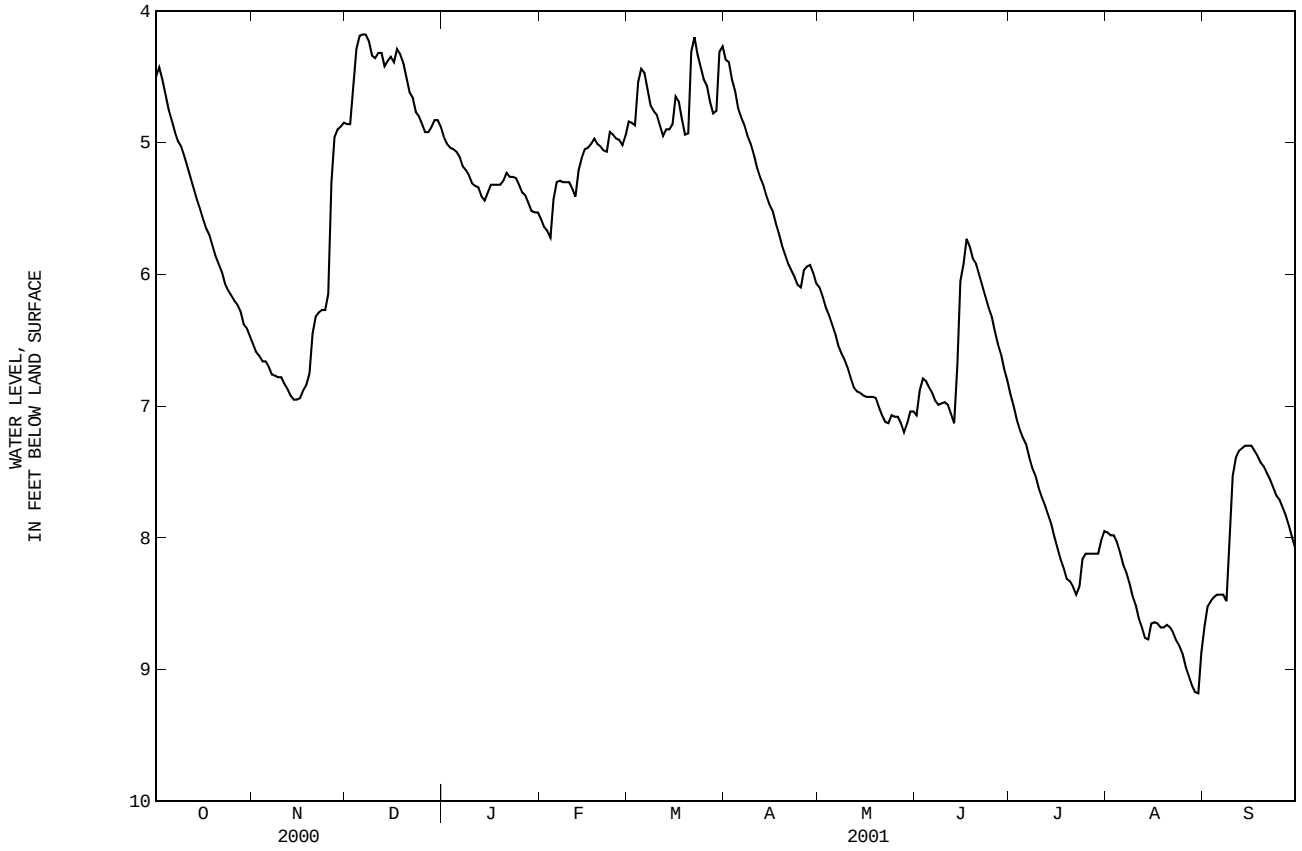
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

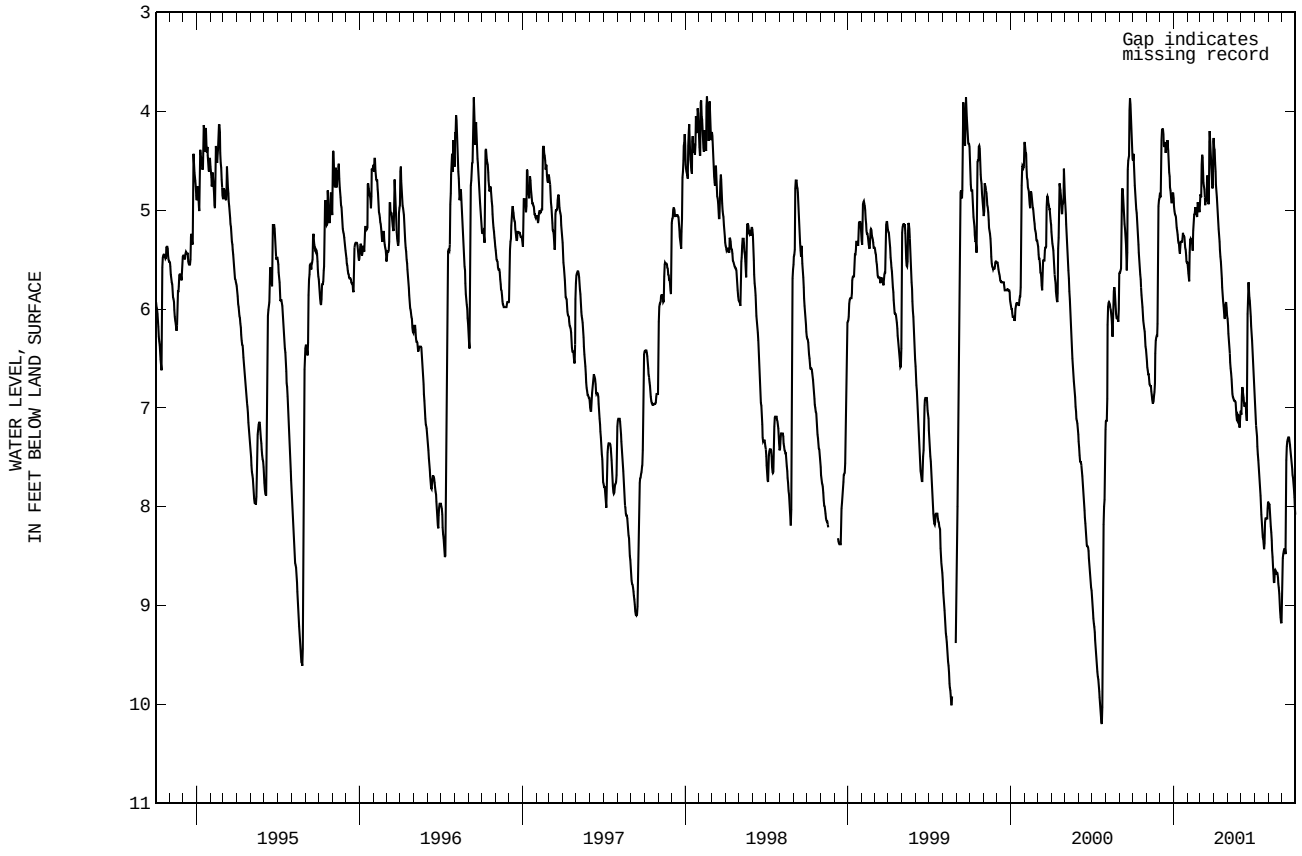
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.50	6.53	4.86	4.96	5.58	4.84	4.37	6.10	7.07	6.91	7.96	8.67
2	4.43	6.59	4.86	5.01	5.64	4.85	4.39	6.17	6.88	7.00	7.98	8.52
3	4.52	6.62	4.58	5.04	5.67	4.87	4.52	6.25	6.79	7.10	7.98	8.48
4	4.64	6.66	4.29	5.05	5.72	4.54	4.61	6.31	6.81	7.18	8.03	8.45
5	4.75	6.66	4.19	5.07	5.43	4.44	4.74	6.38	6.86	7.24	8.11	8.43
6	4.83	6.70	4.18	5.11	5.30	4.47	4.81	6.45	6.90	7.29	8.20	8.43
7	4.92	6.76	4.18	5.18	5.29	4.59	4.87	6.54	6.96	7.39	8.26	8.43
8	4.99	6.77	4.23	5.21	5.30	4.72	4.95	6.60	6.99	7.47	8.34	8.48
9	5.03	6.78	4.34	5.25	5.30	4.76	5.01	6.65	6.98	7.53	8.44	8.07
10	5.10	6.78	4.36	5.31	5.30	4.79	5.09	6.71	6.97	7.62	8.51	7.53
11	5.19	6.83	4.32	5.33	5.35	4.87	5.19	6.79	6.99	7.69	8.61	7.39
12	5.27	6.87	4.32	5.34	5.41	4.95	5.26	6.86	7.06	7.75	8.68	7.34
13	5.35	6.92	4.42	5.41	5.21	4.90	5.32	6.89	7.13	7.82	8.76	7.32
14	5.43	6.95	4.38	5.44	5.12	4.90	5.40	6.90	6.69	7.89	8.77	7.30
15	5.50	6.95	4.35	5.38	5.05	4.86	5.47	6.92	6.05	7.99	8.65	7.30
16	5.58	6.94	4.39	5.32	5.04	4.65	5.52	6.93	5.92	8.08	8.64	7.30
17	5.65	6.88	4.29	5.32	5.01	4.69	5.61	6.93	5.73	8.16	8.65	7.34
18	5.70	6.84	4.33	5.32	4.97	4.82	5.69	6.93	5.79	8.23	8.68	7.38
19	5.78	6.75	4.40	5.32	5.01	4.94	5.78	6.94	5.88	8.31	8.68	7.43
20	5.86	6.45	4.51	5.29	5.03	4.93	5.85	7.01	5.92	8.33	8.66	7.46
21	5.92	6.32	4.62	5.23	5.06	4.31	5.92	7.07	6.00	8.37	8.68	7.51
22	5.98	6.29	4.66	5.26	5.07	4.20	5.97	7.12	6.08	8.43	8.72	7.56
23	6.07	6.27	4.77	5.26	4.92	4.33	6.02	7.13	6.17	8.37	8.78	7.62
24	6.12	6.27	4.80	5.27	4.94	4.43	6.08	7.07	6.25	8.16	8.82	7.68
25	6.16	6.15	4.86	5.32	4.97	4.52	6.10	7.08	6.32	8.12	8.88	7.71
26	6.20	5.30	4.92	5.38	4.98	4.57	5.97	7.08	6.43	8.12	8.98	7.77
27	6.23	4.96	4.92	5.40	5.02	4.69	5.94	7.13	6.53	8.12	9.05	7.83
28	6.28	4.90	4.88	5.46	4.95	4.78	5.93	7.20	6.61	8.12	9.12	7.91
29	6.38	4.88	4.83	5.52	---	4.76	5.99	7.13	6.72	8.12	9.17	8.00
30	6.41	4.85	4.83	5.53	---	4.31	6.07	7.04	6.81	8.02	9.18	8.08
31	6.47	---	4.88	5.53	---	4.27	---	7.04	---	7.95	8.87	---

WTR YR 2001 MEAN 6.22 HIGH 4.18 LOW 9.18

ONSLOW COUNTY--Continued

343842077241501 County number, ON-294; Town Creek Well 1





ONSLOW COUNTY--Continued

344203077182001. County number, ON-295; Wallace Creek Well.
LOCATION.--Lat 34°42'03", long 77°18'20", Hydrologic Unit 03030001, at Camp Lejeune, 1.8 mi from the Piney Green gate, on dirt road. Owner: U.S. Geological Survey.
AQUIFER.--Castle Hayne aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 253 ft, diameter 2 in., cased to 243 ft, screened interval from 243 to 253 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 35 ft above sea level (from topographic map). Measuring point: Top of shelter, 2.38 ft above land-surface datum.
REMARKS.--Well is part of U.S. Marine Corps Base, Camp Lejeune, North Carolina, Water Resources Network project.
PERIOD OF RECORD.--October 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 9.07 ft below land-surface datum, Sept. 12, 1996; lowest water level recorded, 19.72 ft below land-surface datum, Aug. 24, 1999.

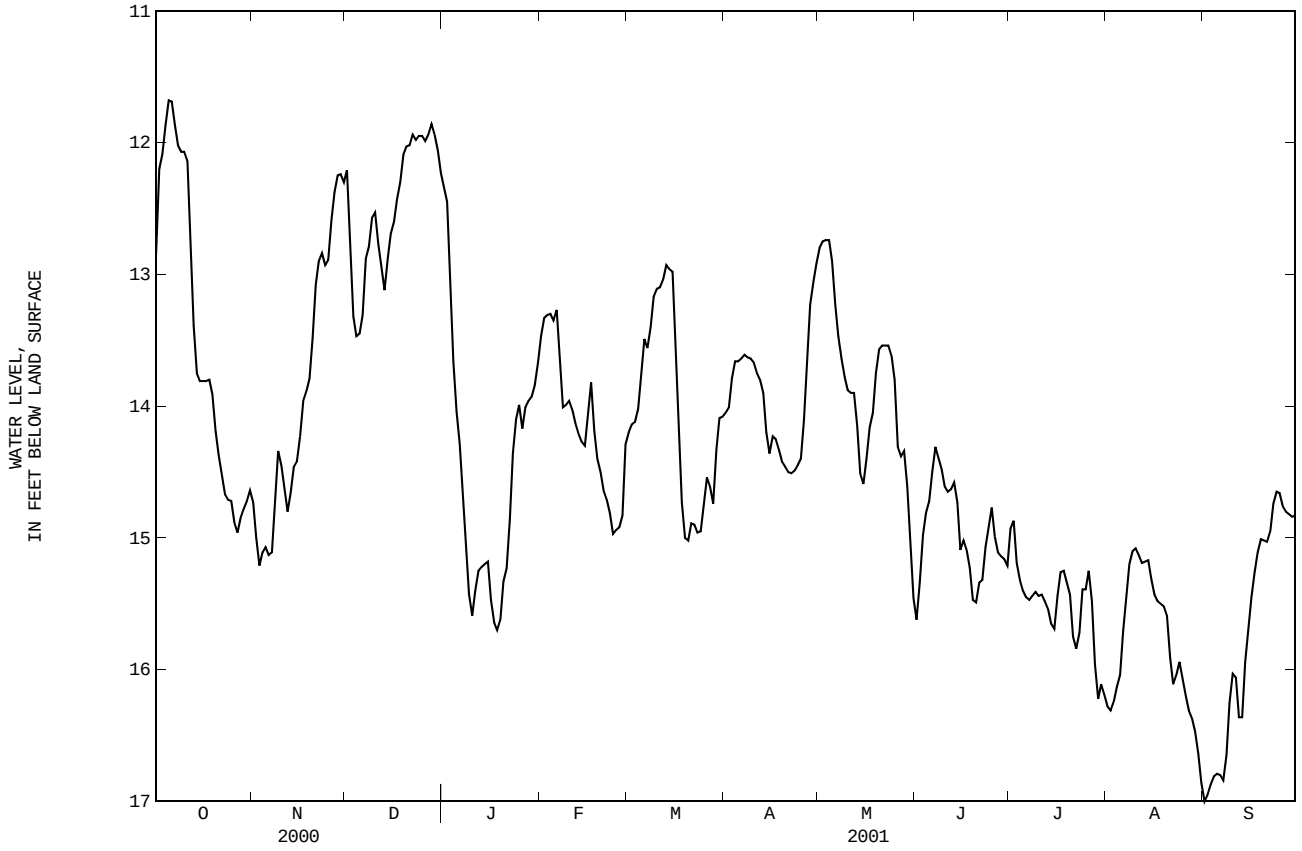
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.85	14.73	12.21	12.34	13.47	14.20	14.05	12.80	15.62	14.93	16.28	17.00
2	12.20	15.00	12.67	12.45	13.33	14.14	14.01	12.75	15.34	14.87	16.31	16.95
3	12.09	15.21	13.32	13.11	13.31	14.12	13.79	12.74	14.98	15.19	16.24	16.87
4	11.87	15.11	13.47	13.66	13.30	14.02	13.66	12.74	14.81	15.32	16.13	16.81
5	11.68	15.07	13.45	14.04	13.35	13.74	13.66	12.90	14.72	15.40	16.04	16.79
6	11.69	15.13	13.31	14.29	13.27	13.49	13.64	13.23	14.50	15.45	15.71	16.80
7	11.87	15.11	12.88	14.66	13.63	13.56	13.61	13.47	14.31	15.47	15.44	16.84
8	12.02	14.75	12.79	15.07	14.01	13.40	13.63	13.64	14.39	15.44	15.20	16.65
9	12.07	14.34	12.57	15.43	13.99	13.17	13.64	13.78	14.48	15.41	15.10	16.25
10	12.07	14.45	12.53	15.59	13.96	13.11	13.67	13.88	14.61	15.44	15.08	16.03
11	12.14	14.61	12.77	15.40	14.03	13.10	13.75	13.90	14.65	15.43	15.13	16.06
12	12.75	14.80	12.94	15.25	14.13	13.04	13.80	13.90	14.63	15.48	15.19	16.36
13	13.39	14.66	13.12	15.22	14.21	12.93	13.90	14.15	14.58	15.54	15.18	16.36
14	13.75	14.46	12.88	15.20	14.27	12.96	14.20	14.51	14.73	15.65	15.17	15.94
15	13.81	14.42	12.69	15.18	14.30	12.98	14.36	14.59	15.09	15.69	15.31	15.70
16	13.81	14.23	12.60	15.47	14.06	13.67	14.23	14.40	15.02	15.44	15.43	15.45
17	13.81	13.96	12.43	15.64	13.82	14.29	14.25	14.16	15.09	15.26	15.48	15.26
18	13.80	13.89	12.30	15.70	14.19	14.73	14.33	14.05	15.23	15.25	15.50	15.11
19	13.91	13.79	12.09	15.62	14.40	15.00	14.42	13.75	15.47	15.34	15.52	15.01
20	14.19	13.49	12.03	15.33	14.50	15.02	14.46	13.57	15.49	15.43	15.59	15.02
21	14.37	13.08	12.02	15.23	14.64	14.89	14.50	13.54	15.34	15.75	15.91	15.03
22	14.52	12.90	11.94	14.86	14.71	14.90	14.51	13.54	15.32	15.84	16.11	14.95
23	14.67	12.84	11.98	14.36	14.81	14.96	14.49	13.54	15.07	15.72	16.04	14.74
24	14.71	12.93	11.95	14.10	14.97	14.95	14.45	13.62	14.92	15.39	15.94	14.65
25	14.72	12.89	11.95	13.99	14.94	14.76	14.40	13.80	14.77	15.39	16.07	14.66
26	14.88	12.59	11.99	14.17	14.92	14.54	14.11	14.31	14.99	15.25	16.20	14.76
27	14.96	12.38	11.94	14.01	14.83	14.61	13.61	14.38	15.11	15.48	16.31	14.80
28	14.85	12.25	11.86	13.96	14.29	14.74	13.23	14.34	15.14	15.96	16.37	14.82
29	14.78	12.24	11.94	13.93	---	14.33	13.06	14.61	15.16	16.22	16.47	14.84
30	14.72	12.30	12.06	13.84	---	14.09	12.92	15.07	15.21	16.11	16.64	14.83
31	14.64	---	12.23	13.67	---	14.08	---	15.46	---	16.19	16.86	---

WTR YR 2001 MEAN 14.36 HIGH 11.68 LOW 17.00

ONSLOW COUNTY--Continued

344203077182001 County number, ON-295; Wallace Creek Well



ORANGE COUNTY

355522079043001. Local number, NC-126; County number, OR-069.
LOCATION.--Lat 35°55'22", long 79°04'30", Hydrologic Unit 03030002, in Chapel Hill, west of University of North Carolina campus, southeast of intersection of Cameron Avenue and Ransom Street. Owner: Chi Psi Fraternity.
AQUIFER.--Unconfined saprolite derived from granite of Paleozoic age.
WELL CHARACTERISTICS.--Dug observation well, depth 48 ft, diameter 36 in., lined with rock; measured depth 46.2 ft, August 1986.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 511.50 ft above sea level. Measuring point: Top of shelf, 3.27 ft above land-surface datum (since July 1981).
REMARKS.-- Well is part of terrane-effects network. Well found dry from October 13, 1988 to January 24, 1989. No periodic measurements made from January 24 to July 19, 1989.
PERIOD OF RECORD.--March 1948 to current year. Continuous record began December 1999.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.22 ft below land-surface datum, May 14, 1984; lowest water level occurred during periods when well was dry, Oct. 11 to Dec. 31, 1940, and Oct. 13, 1988 to Jan. 24, 1989.

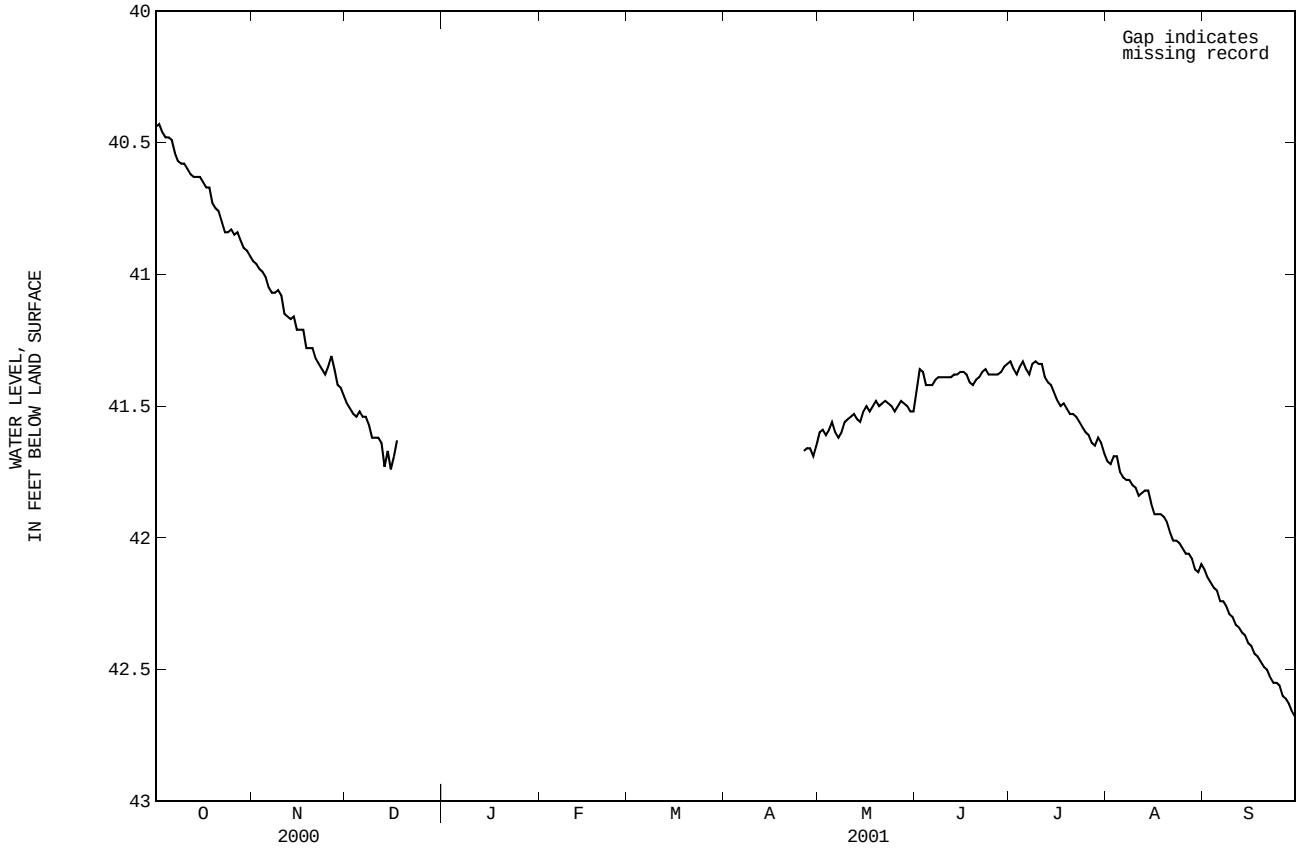
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

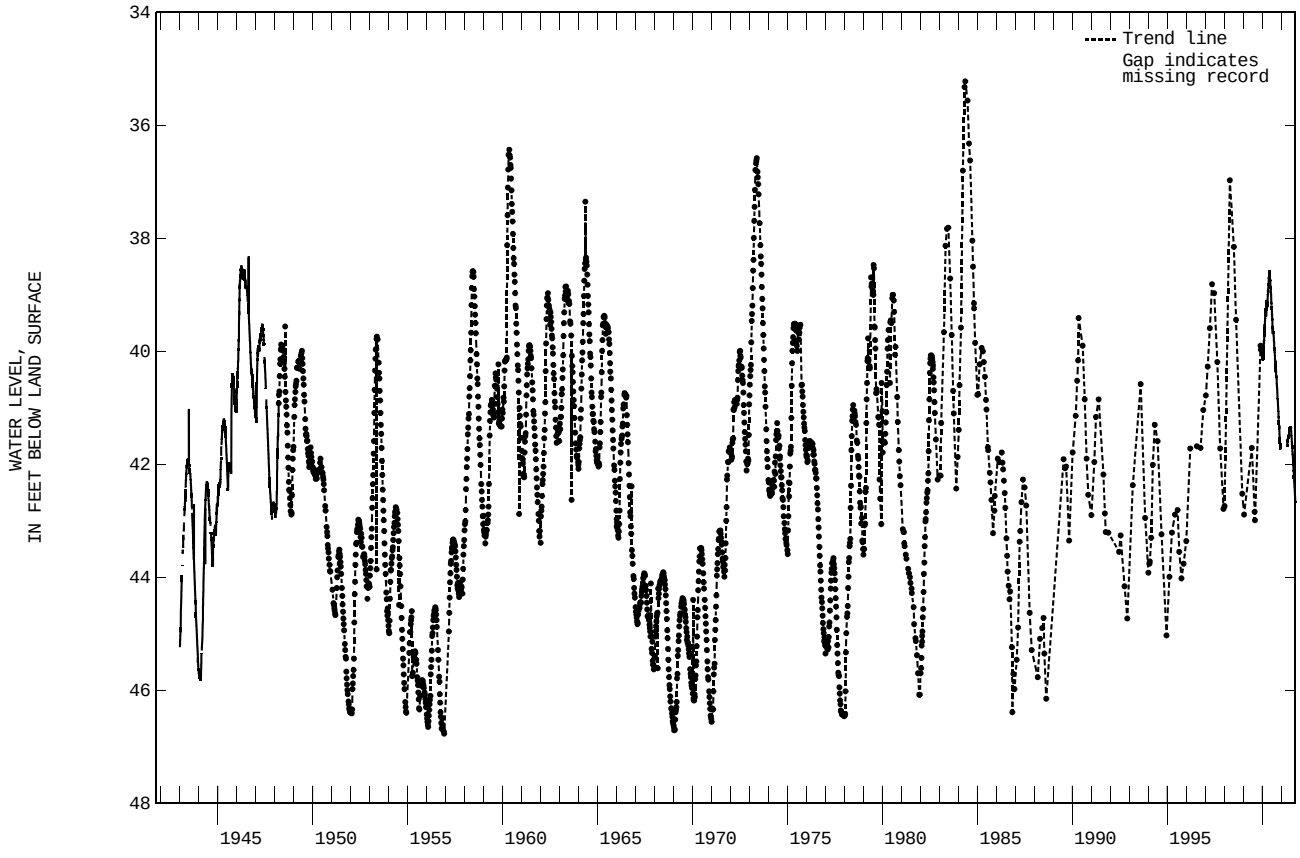
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.44	40.95	41.49	---	---	---	---	41.60	41.44	41.33	41.71	42.12
2	40.43	40.96	41.51	---	---	---	---	41.59	41.36	41.36	41.72	42.15
3	40.46	40.98	41.53	---	---	---	---	41.61	41.37	41.38	41.69	42.17
4	40.48	40.99	41.54	---	---	---	---	41.59	41.42	41.35	41.69	42.19
5	40.48	41.01	41.52	---	---	---	---	41.56	41.42	41.33	41.75	42.20
6	40.49	41.05	41.54	---	---	---	---	41.60	41.42	41.36	41.77	42.24
7	40.54	41.07	41.54	---	---	---	---	41.62	41.40	41.38	41.78	42.24
8	40.57	41.07	41.57	---	---	---	---	41.60	41.39	41.34	41.78	42.26
9	40.58	41.06	41.62	---	---	---	---	41.56	41.39	41.33	41.80	42.29
10	40.58	41.08	41.62	---	---	---	---	41.55	41.39	41.34	41.81	42.30
11	40.60	41.15	41.62	---	---	---	---	41.54	41.39	41.34	41.84	42.33
12	40.62	41.16	41.64	---	---	---	---	41.53	41.39	41.39	41.83	42.34
13	40.63	41.17	41.73	---	---	---	---	41.55	41.38	41.41	41.82	42.36
14	40.63	41.16	41.67	---	---	---	---	41.56	41.38	41.42	41.82	42.37
15	40.63	41.21	41.74	---	---	---	---	41.52	41.37	41.45	41.87	42.40
16	40.65	41.21	41.69	---	---	---	---	41.50	41.37	41.48	41.91	42.41
17	40.67	41.21	41.63	---	---	---	---	41.52	41.38	41.50	41.91	42.44
18	40.67	41.28	---	---	---	---	---	41.50	41.41	41.49	41.91	42.45
19	40.73	41.28	---	---	---	---	---	41.48	41.42	41.51	41.92	42.47
20	40.75	41.28	---	---	---	---	---	41.50	41.40	41.53	41.94	42.49
21	40.76	41.32	---	---	---	---	---	41.49	41.39	41.53	41.98	42.50
22	40.80	41.34	---	---	---	---	---	41.48	41.37	41.54	42.01	42.53
23	40.84	41.36	---	---	---	---	---	41.49	41.36	41.56	42.01	42.55
24	40.84	41.38	---	---	---	---	---	41.50	41.38	41.58	42.02	42.55
25	40.83	41.35	---	---	---	---	---	41.52	41.38	41.60	42.04	42.56
26	40.85	41.31	---	---	---	---	41.67	41.50	41.38	41.61	42.06	42.60
27	40.84	41.36	---	---	---	---	41.66	41.48	41.38	41.64	42.06	42.61
28	40.87	41.42	---	---	---	---	41.66	41.49	41.37	41.65	42.08	42.63
29	40.90	41.43	---	---	---	---	41.69	41.50	41.35	41.62	42.12	42.66
30	40.91	41.46	---	---	---	---	41.65	41.52	41.34	41.64	42.13	42.68
31	40.93	---	---	---	---	---	---	41.52	---	41.68	42.10	---

WTR YR 2001 MEAN 41.52 HIGH 40.43 LOW 42.68

ORANGE COUNTY--Continued

355522079043001 Local number, NC-126; County number, OR-069





PASQUOTANK COUNTY

362050076163705. Local number, NC-150; DENR Elizabeth City Forest Service Research Station well D11v5; County number, PK-199.
LOCATION.--Lat 36°20'50", long 76°16'37", Hydrologic Unit 03010205, 4 mi northwest of Elizabeth City at North Carolina Division of Forest Resources Maintenance Yard, west of U.S. Highways 17 and 158 on Secondary Road 1338. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 130 ft, diameter 4 in., screened interval from 120 to 130 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 7.14 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 3.48 ft above land-surface datum; revised from 3.13 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--July 1975 to current year. Continuous record began November 1986. Records from July 1975 to November 1986 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.22 ft below land-surface datum, June 26, 1979; lowest water level recorded, 10.29 ft below land-surface datum, Aug. 26, 1995.

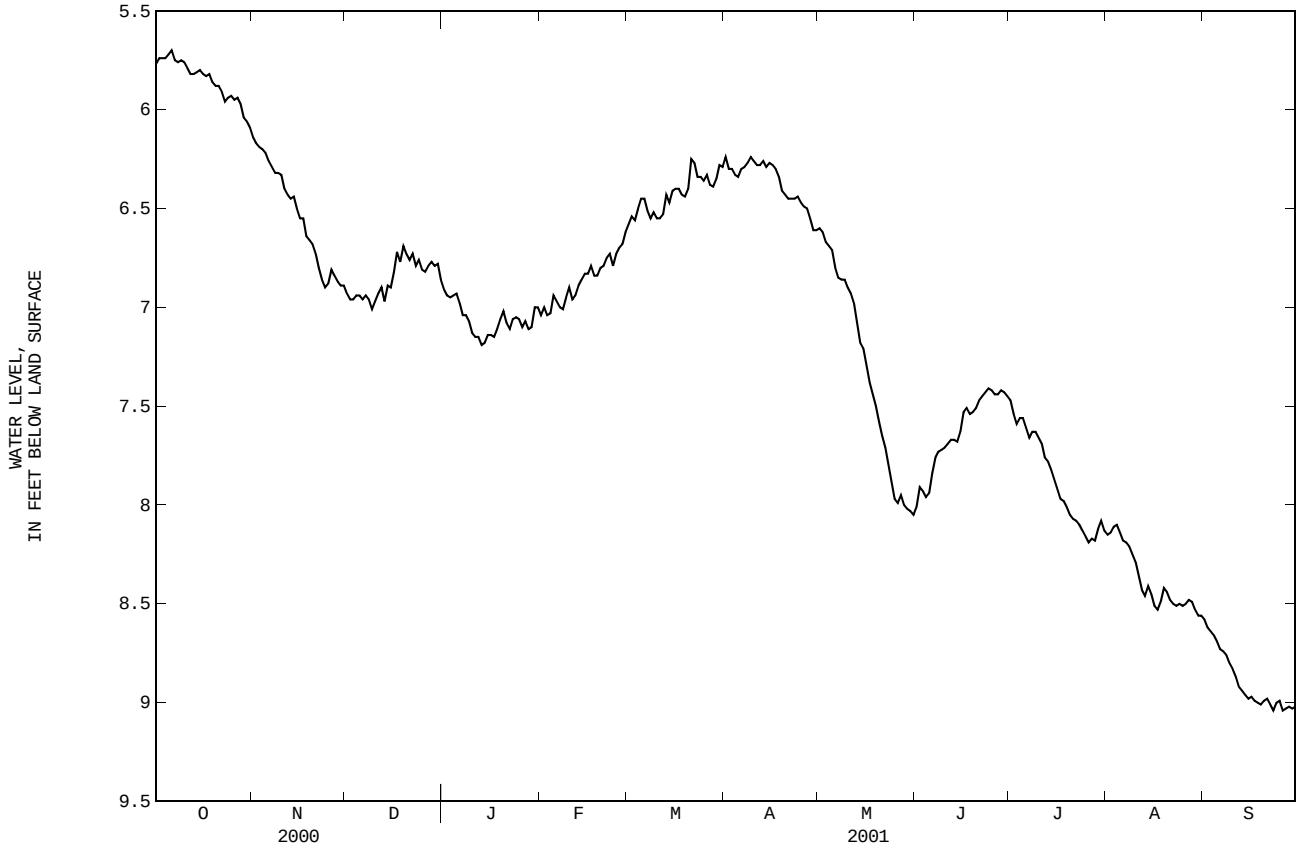
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

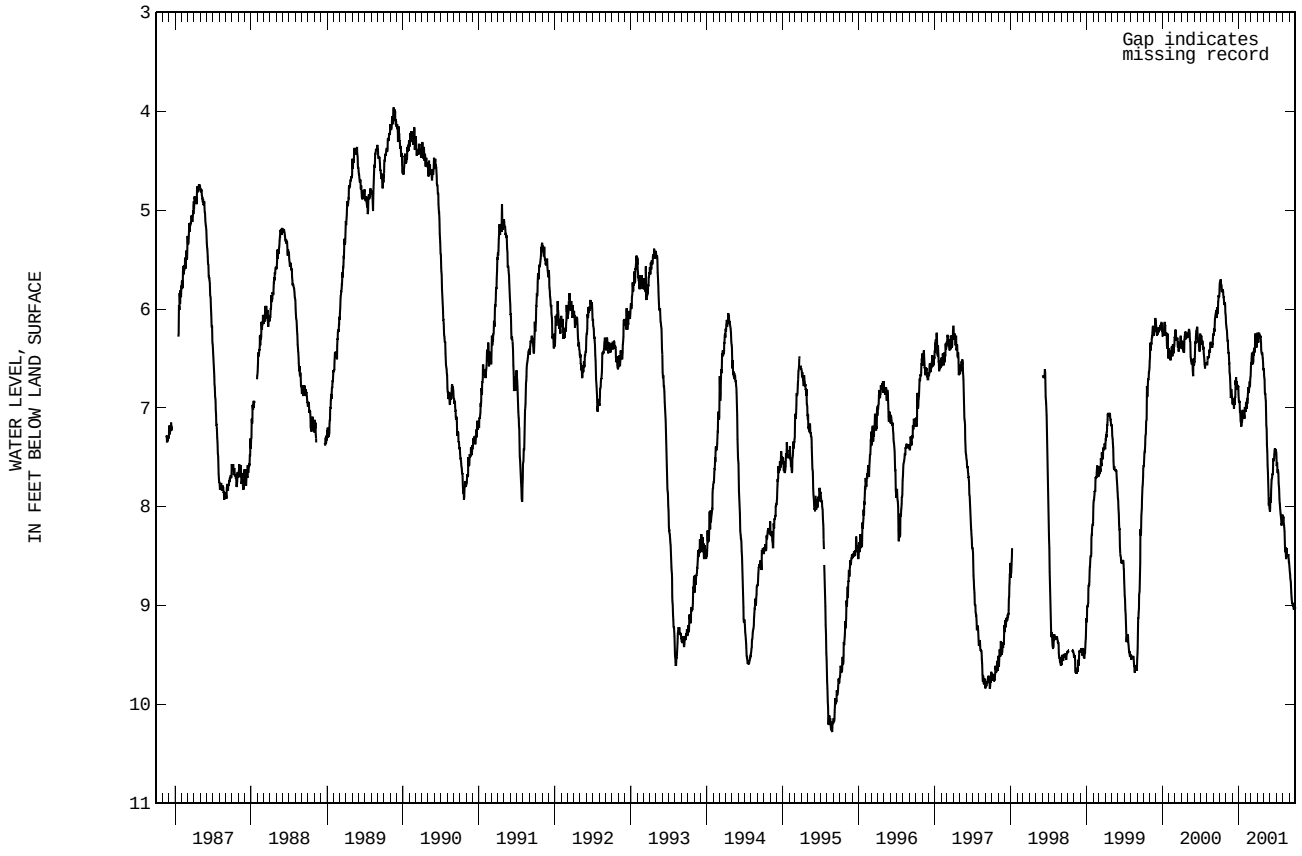
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.77	6.14	6.93	6.91	7.04	6.58	6.24	6.60	8.01	7.47	8.15	8.58
2	5.74	6.17	6.96	6.94	7.00	6.54	6.30	6.62	7.91	7.54	8.14	8.62
3	5.74	6.19	6.96	6.95	7.04	6.56	6.30	6.67	7.93	7.59	8.11	8.64
4	5.74	6.20	6.94	6.94	7.03	6.50	6.33	6.69	7.96	7.56	8.10	8.66
5	5.72	6.22	6.94	6.93	6.94	6.45	6.34	6.71	7.94	7.56	8.14	8.69
6	5.70	6.26	6.96	6.98	6.97	6.45	6.30	6.80	7.84	7.61	8.18	8.73
7	5.75	6.29	6.94	7.04	7.00	6.51	6.29	6.85	7.76	7.66	8.19	8.74
8	5.76	6.32	6.96	7.04	7.01	6.55	6.27	6.86	7.73	7.63	8.21	8.76
9	5.75	6.32	7.01	7.07	6.95	6.52	6.24	6.86	7.72	7.63	8.25	8.80
10	5.76	6.33	6.97	7.13	6.90	6.55	6.26	6.90	7.71	7.66	8.29	8.83
11	5.79	6.40	6.93	7.15	6.96	6.55	6.28	6.93	7.69	7.69	8.36	8.87
12	5.82	6.43	6.90	7.15	6.94	6.53	6.28	6.98	7.67	7.76	8.43	8.92
13	5.82	6.45	6.97	7.19	6.89	6.43	6.26	7.08	7.67	7.78	8.46	8.94
14	5.81	6.44	6.89	7.18	6.86	6.47	6.29	7.18	7.68	7.82	8.41	8.96
15	5.80	6.50	6.90	7.14	6.83	6.41	6.27	7.21	7.63	7.87	8.45	8.98
16	5.82	6.55	6.82	7.14	6.83	6.40	6.28	7.29	7.53	7.92	8.51	8.97
17	5.83	6.55	6.72	7.15	6.79	6.40	6.30	7.38	7.51	7.97	8.53	8.99
18	5.82	6.64	6.77	7.11	6.84	6.43	6.34	7.44	7.54	7.98	8.49	9.00
19	5.86	6.66	6.69	7.06	6.84	6.44	6.41	7.50	7.53	8.01	8.42	9.01
20	5.88	6.68	6.73	7.02	6.80	6.40	6.43	7.58	7.51	8.05	8.44	8.99
21	5.88	6.73	6.76	7.08	6.79	6.25	6.45	7.65	7.47	8.07	8.48	8.98
22	5.91	6.80	6.73	7.11	6.75	6.27	6.45	7.71	7.45	8.08	8.50	9.01
23	5.96	6.86	6.79	7.06	6.73	6.34	6.45	7.79	7.43	8.10	8.51	9.04
24	5.94	6.90	6.76	7.05	6.79	6.34	6.44	7.88	7.41	8.13	8.50	9.00
25	5.93	6.88	6.81	7.06	6.73	6.36	6.47	7.97	7.42	8.16	8.51	8.99
26	5.95	6.81	6.82	7.10	6.70	6.33	6.49	7.99	7.44	8.19	8.50	9.04
27	5.94	6.84	6.79	7.07	6.68	6.38	6.50	7.95	7.44	8.17	8.48	9.03
28	5.97	6.87	6.77	7.11	6.62	6.39	6.55	8.00	7.42	8.18	8.49	9.02
29	6.04	6.89	6.79	7.10	---	6.35	6.61	8.02	7.43	8.12	8.53	9.03
30	6.06	6.89	6.78	7.00	---	6.28	6.61	8.03	7.45	8.08	8.56	9.02
31	6.09	---	6.86	7.00	---	6.29	---	8.05	---	8.13	8.56	---

WTR YR 2001 MEAN 7.17 HIGH 5.70 LOW 9.04

PASQUOTANK COUNTY--Continued

362050076163705 Local number, NC-150; DENR Elizabeth City Forest Service Research Station well D11v5; County number, PK-199





PASQUOTANK COUNTY--Continued

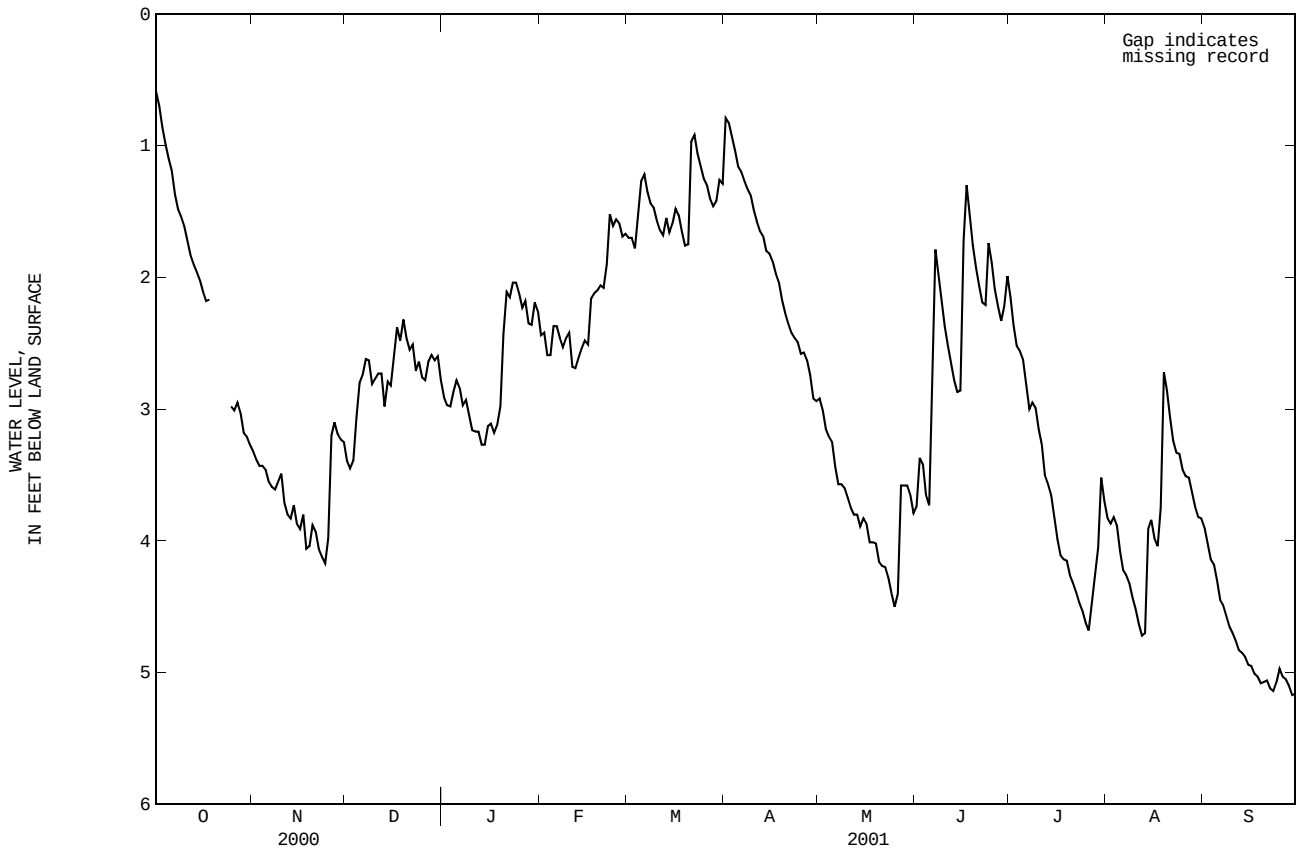
361829076163201. Local number, NC-195; County number, PK-141.
LOCATION.--Lat 36°18'29", long 76°16'32", Hydrologic Unit 03010205, northwest of Elizabeth City, 1.2 mi west of Secondary Road 1307 on Secondary Road 1309. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 13.0 ft, diameter 4 in., cased to 2.4 ft, screened interval from 2.4 to 12.4 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 15 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.38 ft above land-surface datum.
REMARKS.--In October 1991, well replaced nearby NC-143. Well is part of climatic-effects network. Negative values of water levels in feet below land surface indicate ground-water levels that are above land surface.
PERIOD OF RECORD.--October 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.56 ft above land-surface datum, Oct. 1, 2000; lowest water level recorded, 5.96 ft below land-surface datum, Oct. 12, 1997.

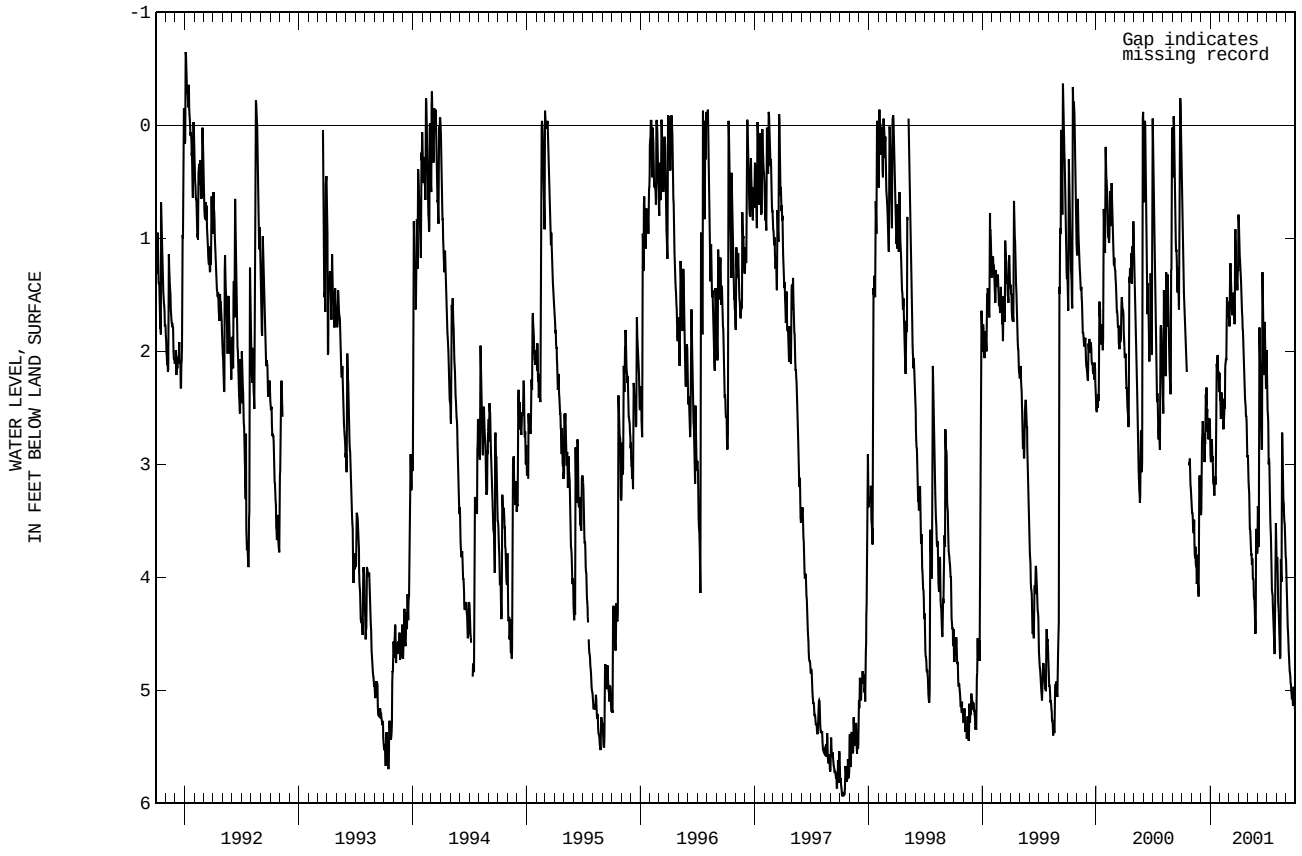
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.59	3.32	3.39	2.91	2.44	1.70	.79	2.92	3.74	2.15	3.83	3.90
2	.70	3.38	3.45	2.97	2.42	1.70	.83	3.01	3.37	2.37	3.87	4.02
3	.86	3.43	3.39	2.98	2.59	1.78	.93	3.15	3.42	2.52	3.82	4.14
4	.99	3.43	3.07	2.87	2.59	1.52	1.04	3.21	3.65	2.56	3.88	4.18
5	1.10	3.46	2.80	2.78	2.37	1.27	1.16	3.25	3.73	2.62	4.08	4.30
6	1.19	3.55	2.74	2.84	2.37	1.22	1.20	3.44	2.92	2.82	4.22	4.45
7	1.37	3.59	2.62	2.97	2.46	1.35	1.27	3.57	1.79	3.00	4.26	4.49
8	1.48	3.61	2.63	2.93	2.53	1.44	1.33	3.57	1.98	2.95	4.32	4.57
9	1.54	3.55	2.81	3.04	2.46	1.47	1.38	3.60	2.18	2.99	4.43	4.65
10	1.61	3.49	2.77	3.16	2.42	1.57	1.49	3.67	2.37	3.15	4.52	4.70
11	1.72	3.71	2.73	3.17	2.68	1.64	1.58	3.75	2.52	3.27	4.63	4.76
12	1.83	3.80	2.73	3.17	2.69	1.68	1.65	3.80	2.65	3.50	4.72	4.83
13	1.90	3.83	2.98	3.27	2.61	1.55	1.69	3.80	2.78	3.57	4.70	4.85
14	1.96	3.73	2.79	3.27	2.54	1.66	1.80	3.89	2.87	3.65	3.91	4.88
15	2.02	3.87	2.82	3.13	2.48	1.59	1.82	3.83	2.86	3.82	3.84	4.94
16	2.11	3.91	2.60	3.11	2.51	1.48	1.88	3.87	1.72	3.99	3.98	4.95
17	2.18	3.80	2.38	3.18	2.16	1.53	1.97	4.01	1.30	4.11	4.04	5.01
18	2.17	4.06	2.48	3.12	2.12	1.65	2.04	4.01	1.54	4.14	3.75	5.03
19	---	4.04	2.32	2.98	2.10	1.76	2.17	4.02	1.76	4.15	2.72	5.08
20	---	3.88	2.46	2.43	2.06	1.75	2.27	4.16	1.93	4.26	2.86	5.07
21	---	3.93	2.55	2.11	2.08	.97	2.35	4.19	2.07	4.32	3.07	5.06
22	---	4.06	2.51	2.15	1.90	.92	2.42	4.20	2.19	4.39	3.24	5.12
23	---	4.12	2.71	2.04	1.52	1.06	2.46	4.28	2.21	4.47	3.33	5.14
24	---	4.17	2.64	2.04	1.61	1.16	2.49	4.40	1.74	4.53	3.34	5.07
25	2.98	3.98	2.76	2.12	1.56	1.25	2.58	4.50	1.89	4.62	3.46	4.97
26	3.01	3.20	2.78	2.23	1.59	1.30	2.57	4.40	2.09	4.68	3.51	5.03
27	2.95	3.10	2.64	2.18	1.69	1.40	2.63	3.58	2.22	4.47	3.52	5.05
28	3.03	3.19	2.59	2.35	1.67	1.46	2.74	3.58	2.33	4.28	3.63	5.10
29	3.18	3.23	2.63	2.36	---	1.42	2.92	3.58	2.22	4.05	3.74	5.17
30	3.21	3.25	2.60	2.19	---	1.26	2.94	3.65	1.99	3.52	3.82	5.16
31	3.27	---	2.78	2.26	---	1.29	---	3.79	---	3.70	3.83	---

WTR YR 2001 MEAN 2.94 HIGH .59 LOW 5.17

361829076163201 Local number, NC-195; County number, PK-141





PASQUOTANK COUNTY--Continued

362601076230702. Local number, NC-203; DENR Morgans Corner Research Station well C12w2; County number, PK-190.
LOCATION.--Lat 36°26'01", long 76°23'07", Hydrologic Unit 03010205, near Morgans Corners on Secondary Road 1360 0.8 mi northeast of U.S. Highway 158. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Surficial aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 37 ft, diameter 2.5 in., cased to 27 ft, screened interval from 27 to 32 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 12.42 ft above sea level. Measuring point: Top of casing, 2.28 ft above land-surface datum.
REMARKS.-- Well is part of induced-effects network.
PERIOD OF RECORD.--September 1981 to current year. Continuous record began August 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.98 ft below land-surface datum, August 24, 2000; lowest water level measured, 8.27 ft below land-surface datum, Aug. 10, 2001.

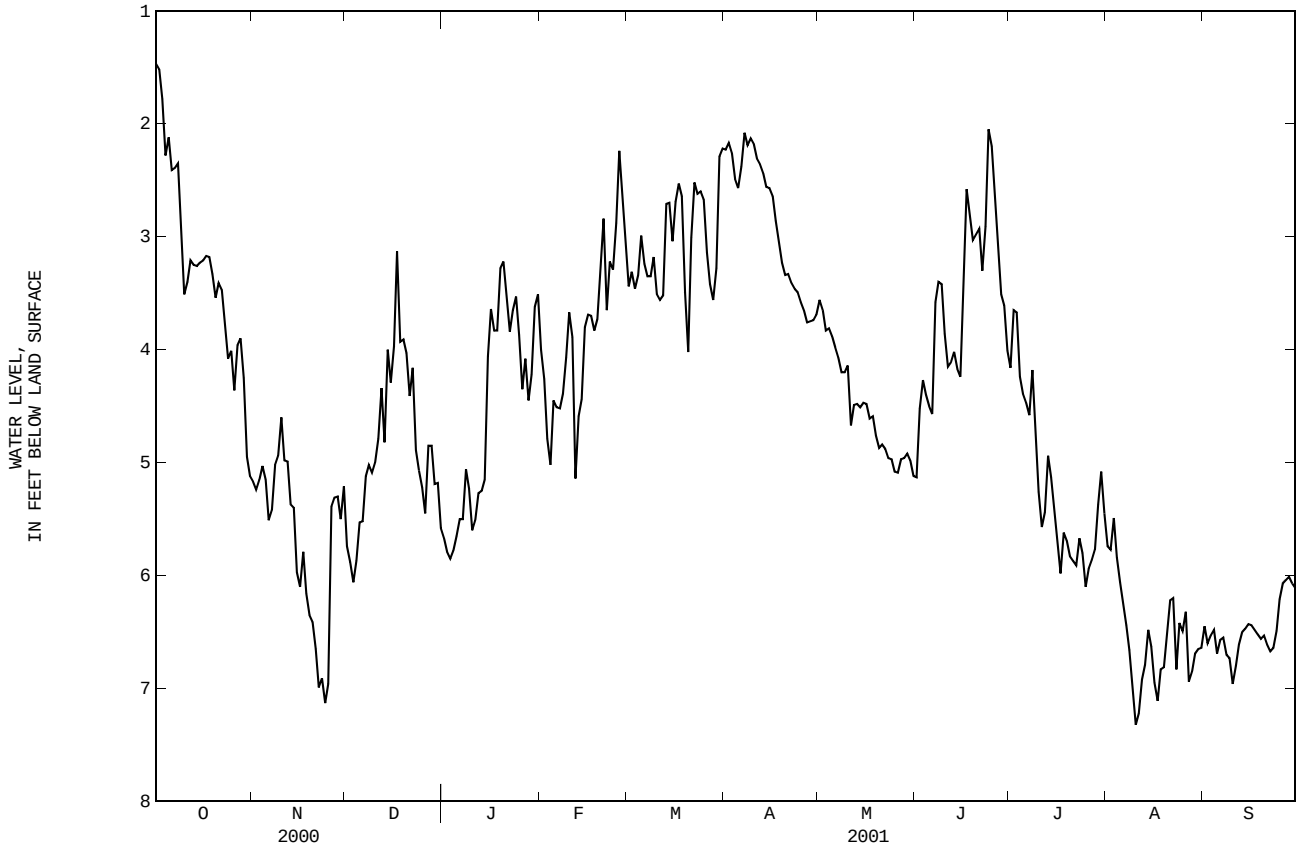
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

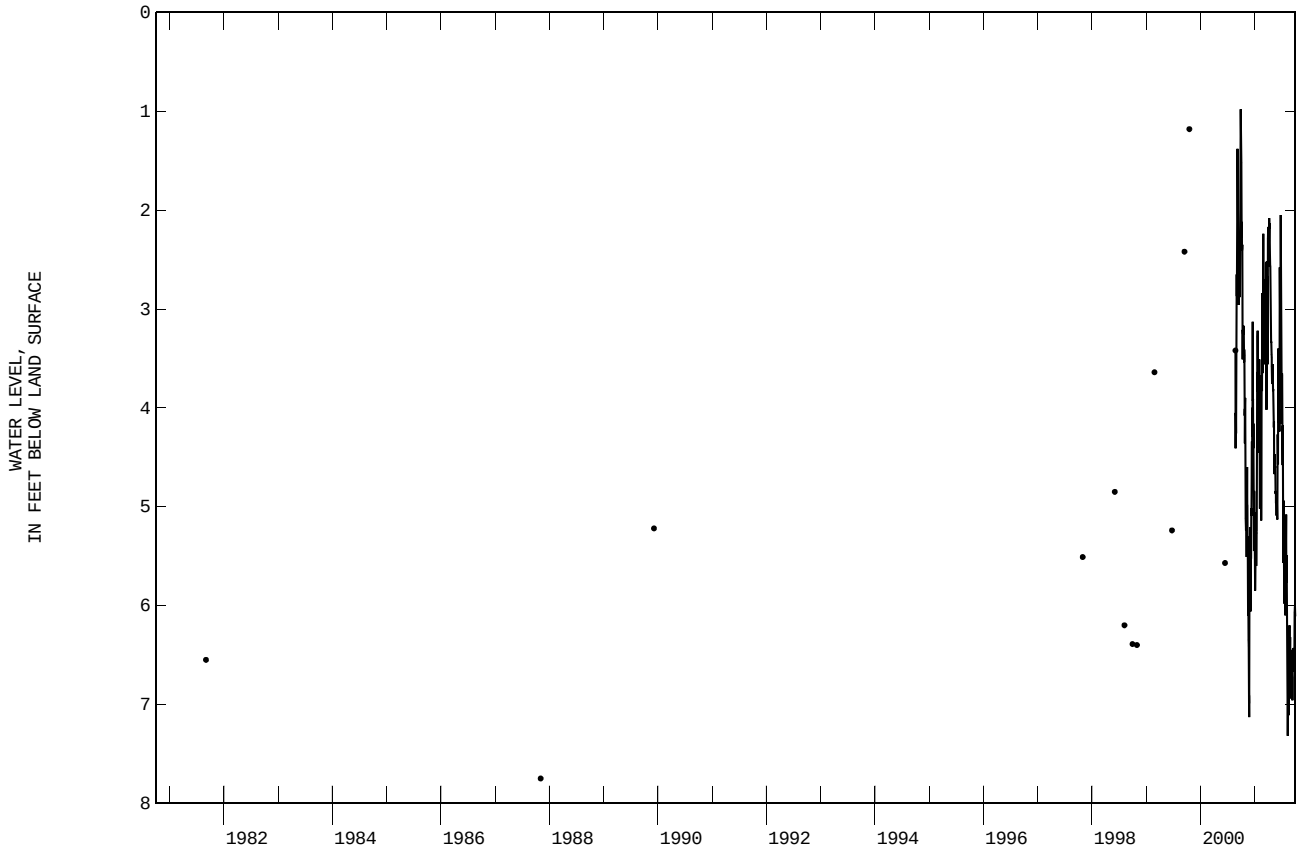
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.47	5.17	5.74	5.67	4.00	3.44	2.23	3.56	5.13	4.16	5.74	6.45
2	1.52	5.24	5.88	5.79	4.26	3.31	2.17	3.65	4.52	3.65	5.77	6.60
3	1.78	5.15	6.06	5.85	4.79	3.46	2.26	3.83	4.27	3.67	5.49	6.53
4	2.28	5.03	5.87	5.78	5.02	3.34	2.49	3.81	4.40	4.24	5.84	6.48
5	2.12	5.15	5.53	5.65	4.45	2.99	2.57	3.88	4.50	4.39	6.06	6.69
6	2.41	5.51	5.52	5.50	4.51	3.24	2.38	3.98	4.57	4.47	6.24	6.57
7	2.39	5.42	5.12	5.50	4.52	3.35	2.08	4.07	3.58	4.58	6.44	6.55
8	2.35	5.02	5.02	5.06	4.39	3.35	2.19	4.20	3.40	4.18	6.66	6.70
9	2.94	4.94	5.09	5.23	4.07	3.18	2.13	4.20	3.42	4.76	7.01	6.73
10	3.51	4.60	5.00	5.60	3.67	3.51	2.18	4.14	3.86	5.26	7.32	6.96
11	3.40	4.98	4.79	5.51	3.89	3.56	2.31	4.67	4.15	5.57	7.22	6.80
12	3.21	4.99	4.34	5.27	5.14	3.52	2.36	4.49	4.11	5.44	6.92	6.61
13	3.25	5.37	4.82	5.25	4.59	2.71	2.44	4.48	4.02	4.94	6.79	6.50
14	3.26	5.40	4.00	5.15	4.44	2.70	2.56	4.51	4.17	5.13	6.48	6.47
15	3.23	5.97	4.29	4.06	3.80	3.04	2.57	4.47	4.24	5.38	6.63	6.43
16	3.21	6.10	3.97	3.64	3.69	2.69	2.64	4.48	3.33	5.67	6.95	6.44
17	3.17	5.79	3.13	3.83	3.70	2.53	2.86	4.61	2.58	5.98	7.11	6.48
18	3.18	6.16	3.93	3.83	3.83	2.64	3.04	4.59	2.81	5.62	6.83	6.52
19	3.33	6.35	3.91	3.28	3.73	3.49	3.23	4.76	3.03	5.69	6.81	6.56
20	3.54	6.41	4.03	3.22	3.27	4.02	3.34	4.87	2.98	5.83	6.51	6.53
21	3.41	6.65	4.41	3.52	2.84	3.01	3.33	4.84	2.93	5.87	6.22	6.61
22	3.47	6.99	4.16	3.84	3.65	2.52	3.41	4.88	3.30	5.91	6.20	6.67
23	3.76	6.91	4.89	3.65	3.22	2.62	3.46	4.96	2.91	5.67	6.83	6.64
24	4.08	7.13	5.07	3.53	3.29	2.60	3.49	4.97	2.05	5.80	6.42	6.49
25	4.01	6.96	5.22	3.87	2.88	2.67	3.58	5.08	2.20	6.10	6.49	6.21
26	4.36	5.39	5.45	4.35	2.24	3.14	3.65	5.09	2.59	5.94	6.32	6.07
27	3.96	5.31	4.85	4.08	2.70	3.42	3.76	4.97	3.10	5.86	6.94	6.04
28	3.90	5.30	4.85	4.45	3.06	3.56	3.75	4.96	3.51	5.77	6.85	6.01
29	4.25	5.50	5.19	4.22	---	3.28	3.74	4.92	3.61	5.37	6.69	6.07
30	4.95	5.21	5.18	3.62	---	2.29	3.69	4.98	4.01	5.08	6.65	6.11
31	5.12	---	5.58	3.51	---	2.22	---	5.12	---	5.45	6.64	---

WTR YR 2001 MEAN 4.54 HIGH 1.47 LOW 7.32

PASQUOTANK COUNTY--Continued

362601076230702 Local number, NC-203; DENR Morgans Corner Research Station well C12w2; County number, PK-190





PASQUOTANK COUNTY--Continued

362601076230704. Local number, NC-204: DENR Morgans Corner Research Station well C12w4; County number, PK-191.
LOCATION.--Lat 36°26'00", long 76°22'00", Hydrologic Unit 03010205, near Morgans Corners on Secondary Road 1360 0.8 mi northeast of U.S. Highway 158. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Castle Hayne aquifer of Oligocene and Eocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 648 ft, diameter 4 in., cased to 385 ft, screened interval from 385 to 420 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 12.42 ft above sea level. Measuring point: Top of casing, 2.57 ft above land-surface datum; revised from 2.40 ft above land-surface datum, May 2, 2001.
REMARKS.-- Well is part of areal-effects network.
PERIOD OF RECORD.--September 1981 to current year. Continuous record began May 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.42 ft above land-surface datum, Sept. 2, 1981; lowest water level measured, 5.57 ft below land-surface, Sept. 19, 2001.

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

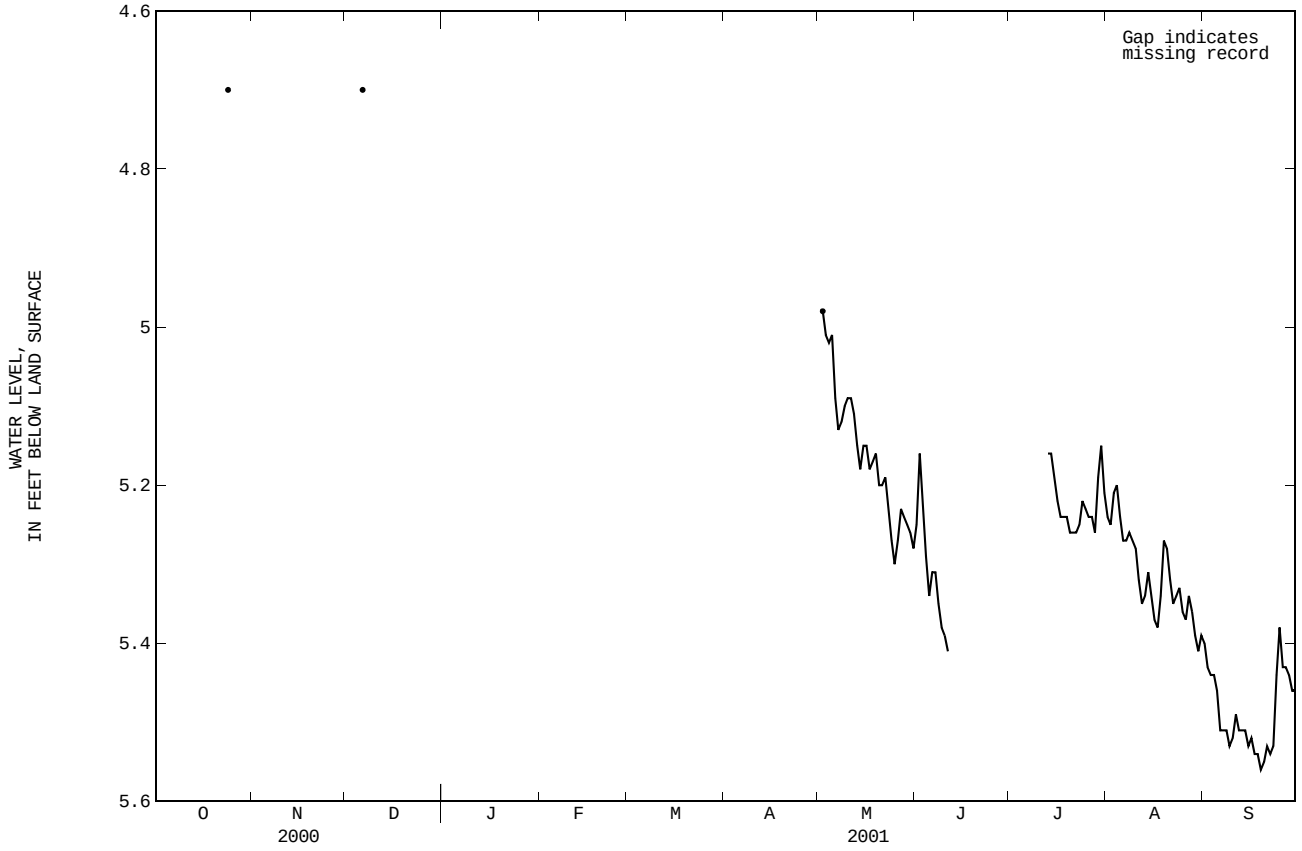
DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	4.70	DEC 06	4.70

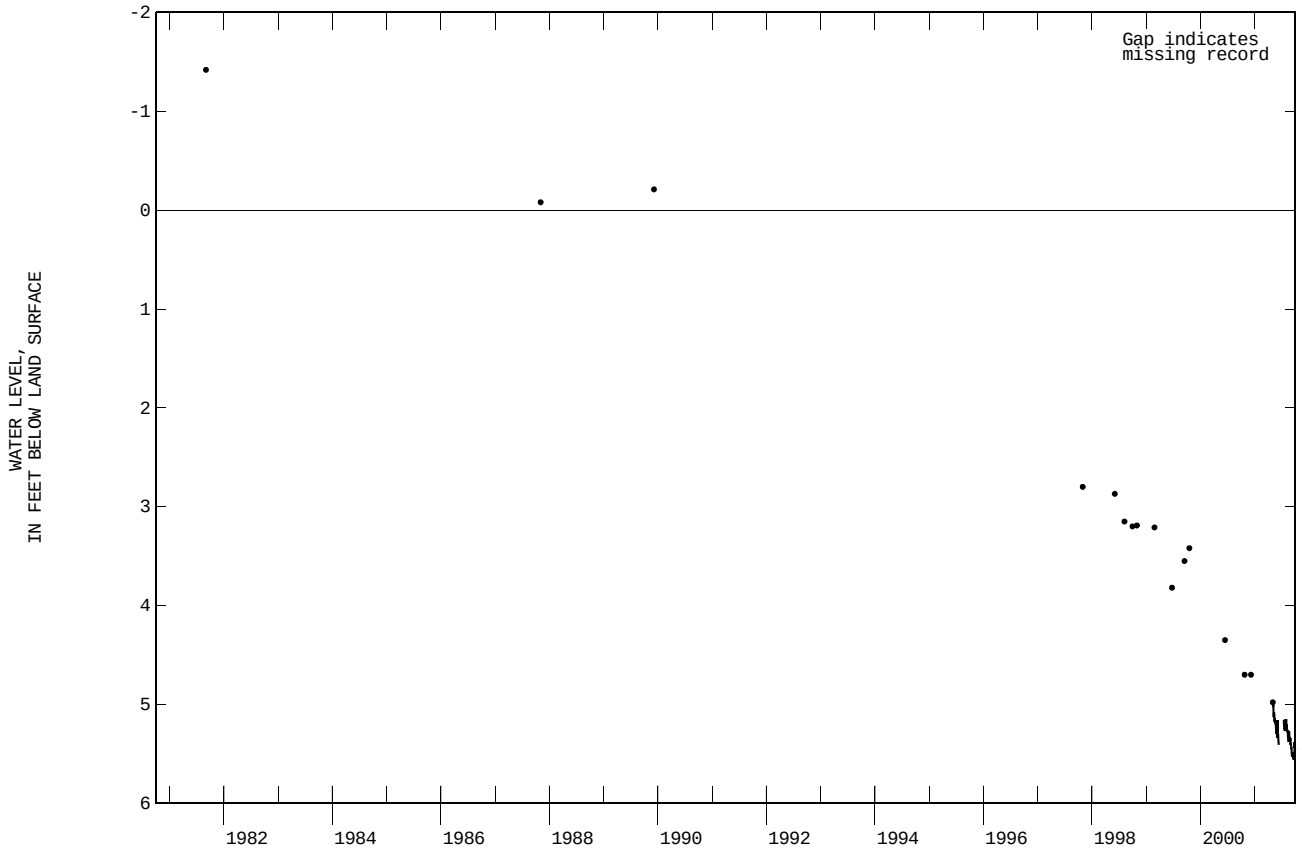
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR MAY 2001TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	5.25	---	5.24	5.40
2	---	---	---	---	---	---	---	---	5.16	---	5.25	5.43
3	---	---	---	---	---	---	---	5.01	5.22	---	5.21	5.44
4	---	---	---	---	---	---	---	5.02	5.29	---	5.20	5.44
5	---	---	---	---	---	---	---	5.01	5.34	---	5.24	5.46
6	---	---	---	---	---	---	---	5.09	5.31	---	5.27	5.51
7	---	---	---	---	---	---	---	5.13	5.31	---	5.27	5.51
8	---	---	---	---	---	---	---	5.12	5.35	---	5.26	5.51
9	---	---	---	---	---	---	---	5.10	5.38	---	5.27	5.53
10	---	---	---	---	---	---	---	5.09	5.39	---	5.28	5.52
11	---	---	---	---	---	---	---	5.09	5.41	---	5.32	5.49
12	---	---	---	---	---	---	---	5.11	---	---	5.35	5.51
13	---	---	---	---	---	---	---	5.15	---	5.16	5.34	5.51
14	---	---	---	---	---	---	---	5.18	---	5.16	5.31	5.51
15	---	---	---	---	---	---	---	5.15	---	5.19	5.34	5.53
16	---	---	---	---	---	---	---	5.15	---	5.22	5.37	5.52
17	---	---	---	---	---	---	---	5.18	---	5.24	5.38	5.54
18	---	---	---	---	---	---	---	5.17	---	5.24	5.34	5.54
19	---	---	---	---	---	---	---	5.16	---	5.24	5.27	5.56
20	---	---	---	---	---	---	---	5.20	---	5.26	5.28	5.55
21	---	---	---	---	---	---	---	5.20	---	5.26	5.32	5.53
22	---	---	---	---	---	---	---	5.19	---	5.26	5.35	5.54
23	---	---	---	---	---	---	---	5.23	---	5.25	5.34	5.53
24	---	---	---	---	---	---	---	5.27	---	5.22	5.33	5.44
25	---	---	---	---	---	---	---	5.30	---	5.23	5.36	5.38
26	---	---	---	---	---	---	---	5.27	---	5.24	5.37	5.43
27	---	---	---	---	---	---	---	5.23	---	5.24	5.34	5.43
28	---	---	---	---	---	---	---	5.24	---	5.26	5.36	5.44
29	---	---	---	---	---	---	---	5.25	---	5.19	5.39	5.46
30	---	---	---	---	---	---	---	5.26	---	5.15	5.41	5.46
31	---	---	---	---	---	---	---	5.28	---	5.21	5.39	---
MEAN	---	---	---	---	---	---	---	5.17	5.31	5.22	5.31	5.49
MAX	---	---	---	---	---	---	---	5.30	5.41	5.26	5.41	5.56
MIN	---	---	---	---	---	---	---	5.01	5.16	5.15	5.20	5.38

PASQUOTANK COUNTY--Continued

362601076230704 Local number, NC-204: DENR Morgans Corner Research Station well C12w4; County number, PK-191





PITT COUNTY

353219077153801. Local number, NC-160; County number, PI-532.
LOCATION.--Lat 35°32'19", long 77°15'38", Hydrologic Unit 03020103, 2.7 mi southwest of Simpson at intersection of Secondary Roads 1755 and 1769. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 12 ft, diameter 6 in., cased to 5.9 ft, screened interval from 5.9 ft to 10.9 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.
DATUM.--Land-surface datum is 56.27 ft above sea level (levels by Soil Conservation Service). Measuring point: Top of instrument shelf, 3.72 ft above land-surface datum; revised from 1.04 ft above land-surface datum, Oct. 4, 1990.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--December 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.55 ft below land-surface datum, Sept. 16, 1999; lowest water level recorded, 8.84 ft below land-surface datum, Nov. 6, 7, 8, 1978.

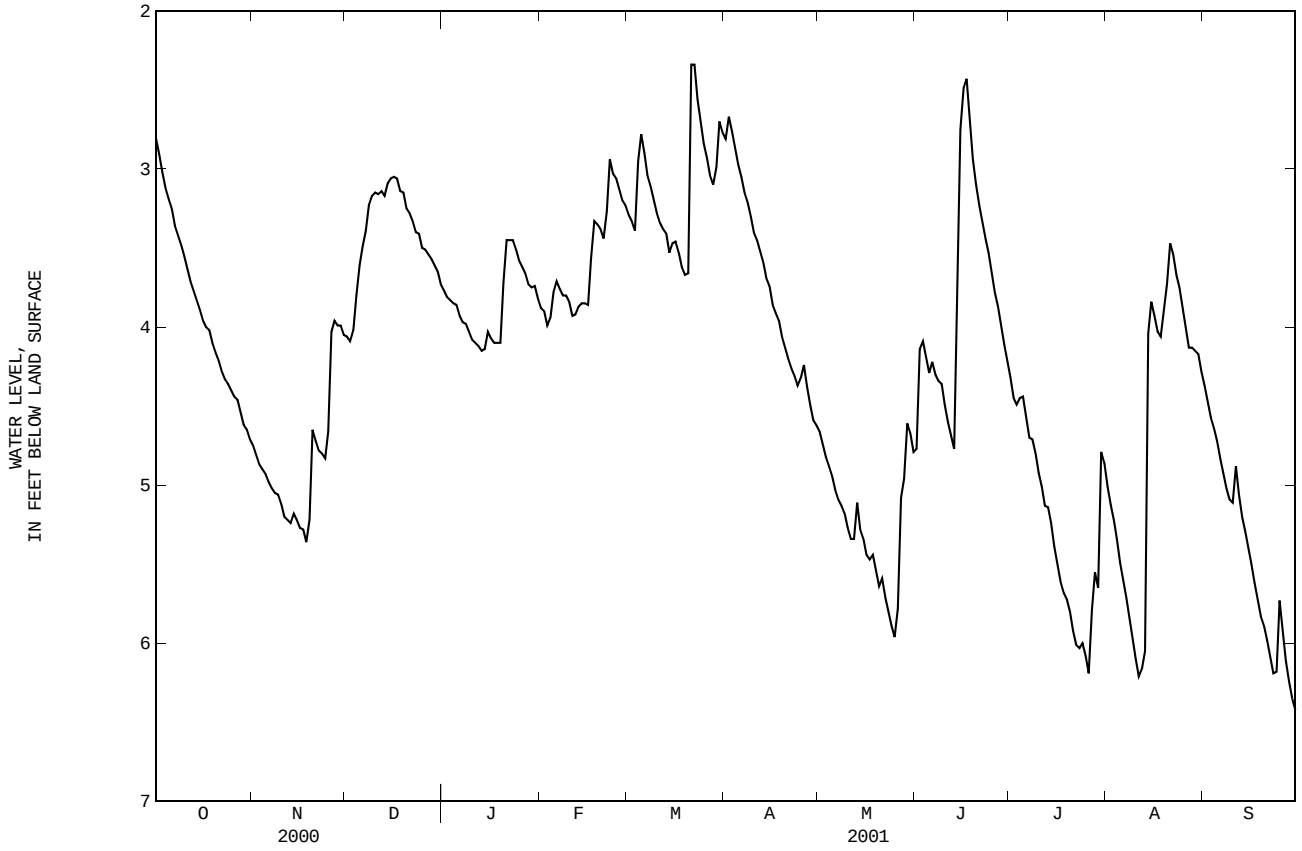
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

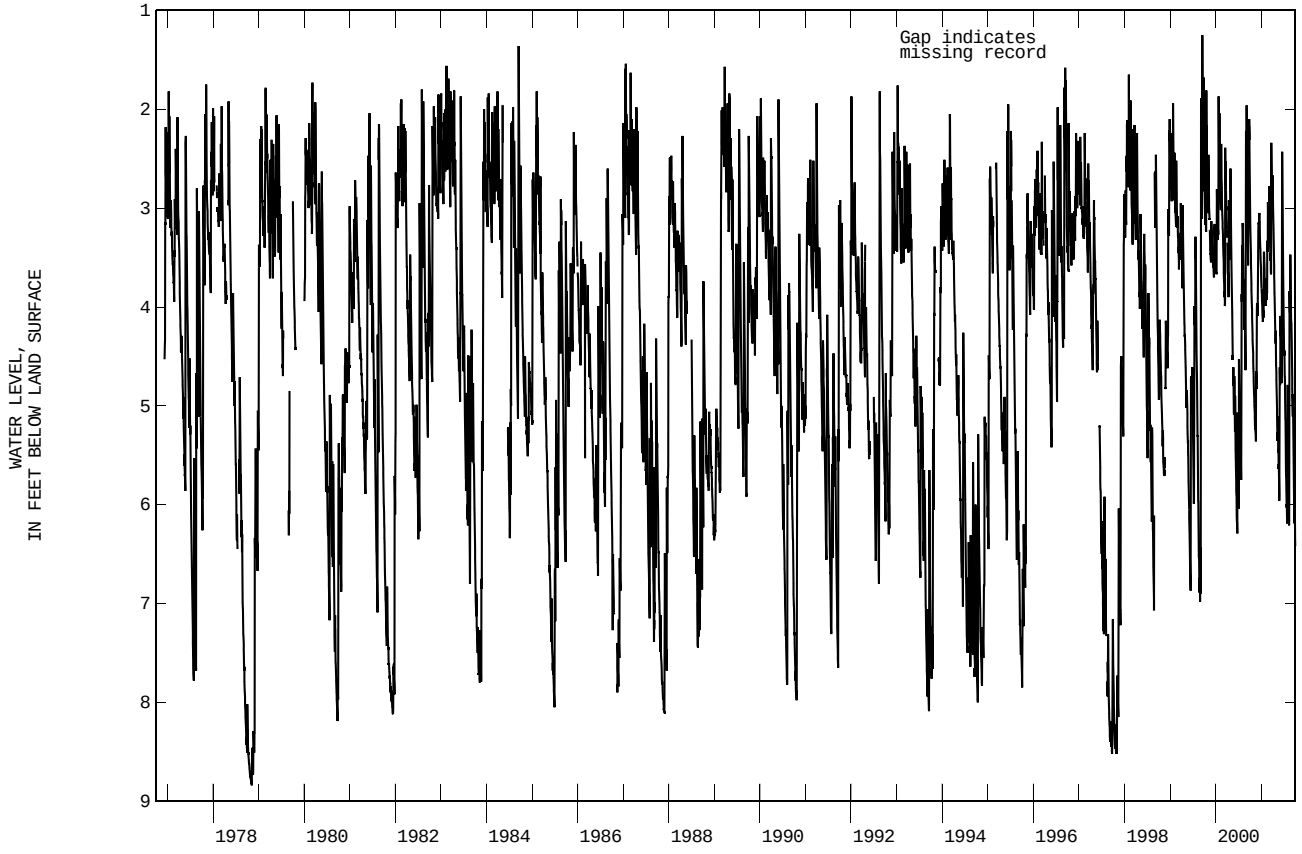
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.81	4.75	4.06	3.77	3.88	3.29	2.81	4.66	4.77	4.32	5.01	4.37
2	2.91	4.81	4.09	3.81	3.90	3.33	2.67	4.74	4.14	4.45	5.12	4.47
3	3.02	4.87	4.02	3.83	3.99	3.39	2.76	4.82	4.09	4.49	5.22	4.57
4	3.12	4.90	3.80	3.85	3.94	2.95	2.87	4.88	4.19	4.45	5.34	4.64
5	3.19	4.93	3.61	3.86	3.78	2.78	2.97	4.94	4.29	4.44	5.49	4.72
6	3.25	4.98	3.49	3.93	3.71	2.90	3.05	5.03	4.22	4.57	5.60	4.83
7	3.36	5.02	3.39	3.97	3.76	3.04	3.15	5.09	4.30	4.70	5.71	4.92
8	3.42	5.05	3.23	3.98	3.80	3.11	3.21	5.13	4.34	4.71	5.83	5.02
9	3.48	5.06	3.17	4.03	3.80	3.19	3.30	5.18	4.36	4.80	5.97	5.09
10	3.55	5.12	3.15	4.08	3.84	3.28	3.40	5.27	4.49	4.92	6.10	5.11
11	3.63	5.20	3.16	4.10	3.93	3.34	3.45	5.34	4.60	5.01	6.21	4.88
12	3.71	5.22	3.14	4.12	3.92	3.38	3.52	5.34	4.69	5.13	6.16	5.06
13	3.77	5.24	3.17	4.15	3.87	3.41	3.59	5.11	4.77	5.14	6.05	5.20
14	3.83	5.18	3.09	4.14	3.85	3.53	3.69	5.28	4.06	5.24	4.04	5.29
15	3.89	5.22	3.06	4.03	3.85	3.47	3.74	5.34	2.75	5.39	3.84	5.40
16	3.96	5.27	3.05	4.07	3.86	3.46	3.86	5.44	2.49	5.50	3.93	5.50
17	4.00	5.28	3.06	4.10	3.56	3.53	3.91	5.47	2.43	5.61	4.03	5.62
18	4.02	5.36	3.14	4.10	3.33	3.62	3.96	5.44	2.72	5.68	4.06	5.72
19	4.10	5.22	3.15	4.10	3.35	3.67	4.06	5.54	2.94	5.72	3.88	5.83
20	4.16	4.65	3.25	3.72	3.38	3.66	4.13	5.64	3.10	5.80	3.73	5.89
21	4.21	4.72	3.28	3.45	3.44	2.34	4.20	5.59	3.23	5.92	3.47	5.98
22	4.28	4.78	3.33	3.45	3.27	2.34	4.26	5.71	3.33	6.01	3.54	6.09
23	4.33	4.80	3.40	3.45	2.94	2.56	4.31	5.80	3.44	6.03	3.67	6.19
24	4.36	4.83	3.41	3.51	3.03	2.71	4.37	5.89	3.53	6.00	3.75	6.18
25	4.40	4.66	3.50	3.58	3.06	2.84	4.32	5.96	3.66	6.08	3.88	5.73
26	4.44	4.03	3.51	3.62	3.13	2.93	4.24	5.78	3.78	6.19	4.01	5.93
27	4.46	3.96	3.54	3.66	3.20	3.04	4.38	5.08	3.87	5.79	4.13	6.11
28	4.54	3.99	3.57	3.73	3.23	3.10	4.49	4.96	3.99	5.55	4.13	6.24
29	4.62	3.99	3.61	3.75	---	2.99	4.59	4.61	4.11	5.65	4.15	6.35
30	4.65	4.05	3.65	3.74	---	2.70	4.62	4.67	4.22	4.79	4.17	6.42
31	4.71	---	3.73	3.82	---	2.77	---	4.79	---	4.86	4.28	---

WTR YR 2001 MEAN 4.24 HIGH 2.34 LOW 6.42

PITT COUNTY--Continued

353219077153801 Local number, NC-160; County number, PI-532





PITT COUNTY--Continued

353146077193403. Local number, NC-184; DENR Conley Research Station well N23p3; County number, PI-536.
LOCATION.--Lat 35°31'46", long 77°19'34", Hydrologic Unit 03020203, 0.2 mi west of State Highway 43 on Secondary Road 1711 at Conley High School, and 6 mi southeast of Greenville. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Peedee aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 132 ft, diameter 4 in., cased to 122 ft, screened interval from 122 to 132 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 69 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 3.63 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--June 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 17.84 ft below land-surface datum, May 24, 1989; lowest water level recorded, 23.15 ft below land-surface datum, Oct. 6, 1993.

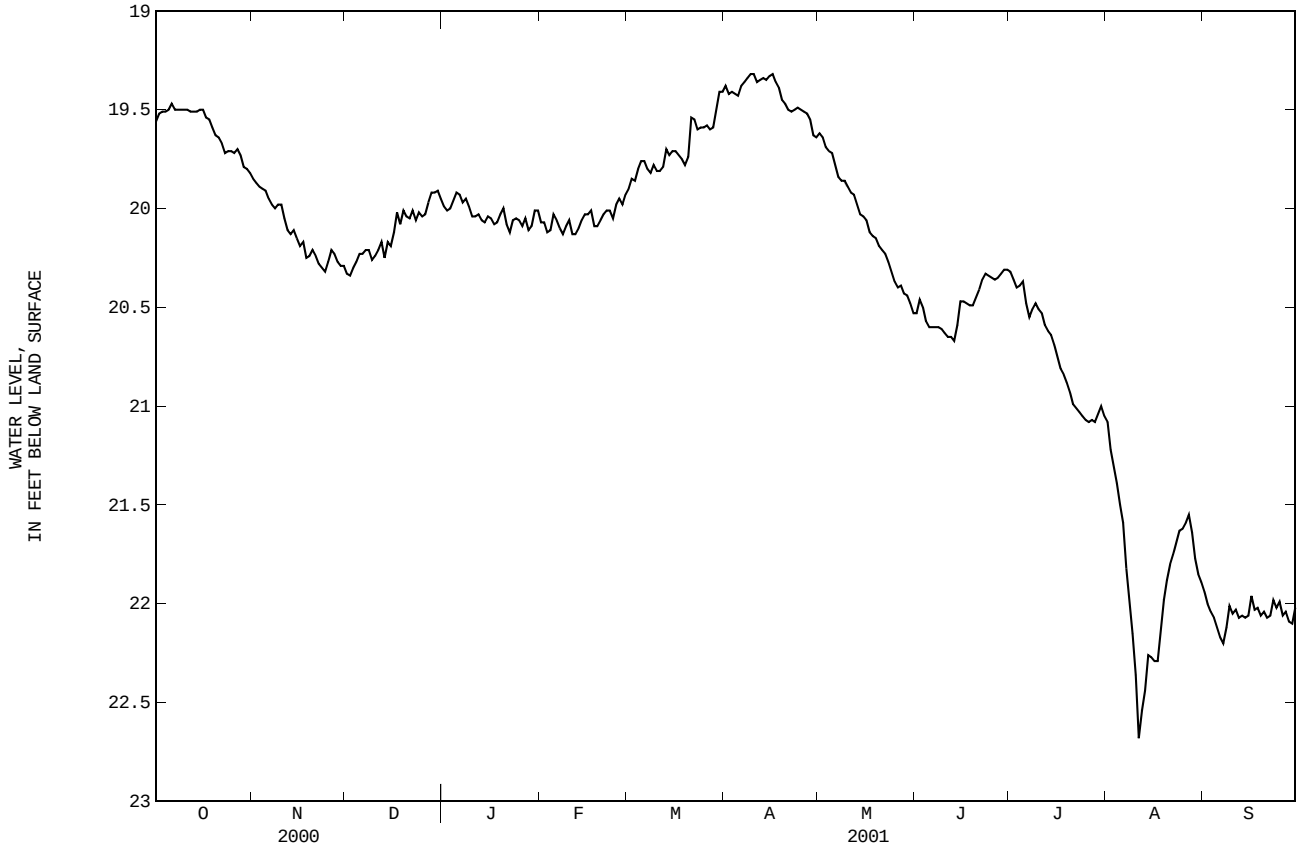
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

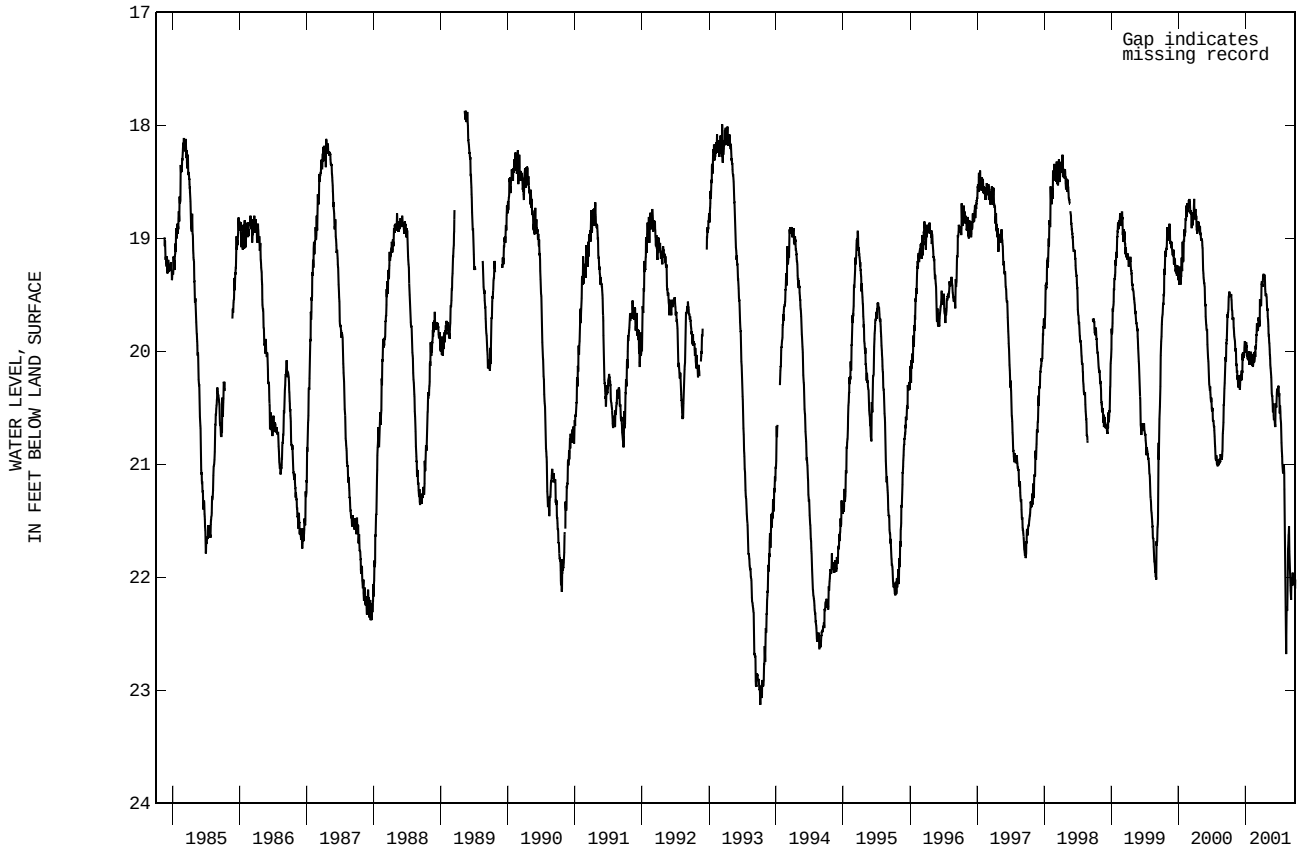
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.56	19.85	20.33	19.99	20.07	19.90	19.38	19.62	20.53	20.32	21.08	21.94
2	19.52	19.87	20.34	20.01	20.07	19.85	19.42	19.64	20.46	20.36	21.22	22.00
3	19.51	19.89	20.30	20.00	20.12	19.86	19.41	19.69	20.50	20.40	21.31	22.04
4	19.51	19.90	20.27	19.96	20.11	19.80	19.42	19.71	20.57	20.39	21.39	22.07
5	19.50	19.91	20.23	19.92	20.03	19.76	19.43	19.72	20.60	20.37	21.50	22.12
6	19.47	19.95	20.23	19.93	20.06	19.76	19.38	19.78	20.60	20.48	21.59	22.17
7	19.50	19.98	20.21	19.97	20.10	19.80	19.36	19.84	20.60	20.55	21.82	22.20
8	19.50	20.00	20.21	19.95	20.13	19.82	19.34	19.86	20.60	20.51	21.99	22.12
9	19.50	19.98	20.26	19.99	20.09	19.78	19.32	19.86	20.61	20.48	22.15	22.01
10	19.50	19.98	20.24	20.04	20.06	19.81	19.32	19.89	20.63	20.51	22.36	22.05
11	19.50	20.05	20.21	20.04	20.13	19.81	19.36	19.92	20.65	20.53	22.68	22.03
12	19.51	20.11	20.17	20.03	20.13	19.79	19.35	19.93	20.65	20.59	22.54	22.07
13	19.51	20.13	20.25	20.06	20.10	19.70	19.34	19.98	20.67	20.62	22.44	22.06
14	19.51	20.11	20.17	20.07	20.06	19.73	19.35	20.03	20.59	20.64	22.26	22.07
15	19.50	20.15	20.19	20.04	20.03	19.71	19.33	20.04	20.47	20.69	22.27	22.06
16	19.50	20.19	20.12	20.05	20.03	19.71	19.32	20.06	20.47	20.75	22.29	21.96
17	19.54	20.17	20.02	20.08	20.01	19.73	19.36	20.12	20.48	20.81	22.29	22.03
18	19.55	20.25	20.08	20.07	20.09	19.75	19.39	20.14	20.49	20.84	22.15	22.02
19	19.59	20.24	20.01	20.03	20.09	19.78	19.45	20.15	20.49	20.88	21.98	22.06
20	19.63	20.21	20.04	20.00	20.06	19.74	19.47	20.19	20.45	20.93	21.88	22.04
21	19.64	20.24	20.05	20.08	20.03	19.54	19.50	20.21	20.41	20.99	21.80	22.07
22	19.67	20.28	20.01	20.12	20.01	19.55	19.51	20.23	20.36	21.01	21.75	22.06
23	19.72	20.30	20.06	20.06	20.01	19.60	19.50	20.27	20.33	21.03	21.69	21.98
24	19.71	20.32	20.02	20.05	20.05	19.59	19.49	20.32	20.34	21.05	21.63	22.02
25	19.71	20.27	20.04	20.06	19.98	19.59	19.50	20.37	20.35	21.07	21.62	21.99
26	19.72	20.21	20.03	20.09	19.95	19.58	19.51	20.40	20.36	21.08	21.59	22.06
27	19.70	20.23	19.97	20.05	19.98	19.60	19.52	20.39	20.35	21.07	21.55	22.04
28	19.73	20.27	19.92	20.11	19.93	19.59	19.55	20.43	20.33	21.08	21.64	22.09
29	19.79	20.29	19.92	20.09	---	19.50	19.63	20.44	20.31	21.04	21.77	22.10
30	19.80	20.29	19.91	20.01	---	19.41	19.64	20.48	20.31	21.00	21.85	22.02
31	19.82	---	19.95	20.01	---	19.41	---	20.53	---	21.05	21.89	---

WTR YR 2001 MEAN 20.36 HIGH 19.32 LOW 22.68

PITT COUNTY--Continued

353146077193403 Local number, NC-184; DENR Conley Research Station well N23p3; County number, PI-536





ROBESON COUNTY

343840078550009. Local number, NC-177; DENR Littlefield School Research Station well Y42f9; County number, RB-183.
LOCATION.--Lat 34°38'40", long 78°55'00", Hydrologic Unit 03040203, 6 mi east of Lumberton on State Highway 41 at Littlefield School. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 468 ft; diameter 6 in. to 348 ft, diameter 4 in. from 348 to 468 ft; screened intervals from 390 to 395 ft, 429 to 434 ft, and 444 to 449 ft; measured depth 462 ft, December 1987.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 142 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.40 ft above land-surface datum.
REMARKS.--Well is part of areal-effects network. Records prior to July 1985 are from Littlefield School Research Station well Y42f3 which was adjacent to and of similar construction to well Y42f9. Well Y42f3 was destroyed in September 1987.
PERIOD OF RECORD.--October 1970 to current year. Continuous record began March 2000. Records for well Y42f3 from October 1970 to June 1985 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.40 ft below land-surface datum, Jan. 5, 1971; lowest water level recorded, 152.32 ft below land-surface datum, Sept. 23, 30, 2001.

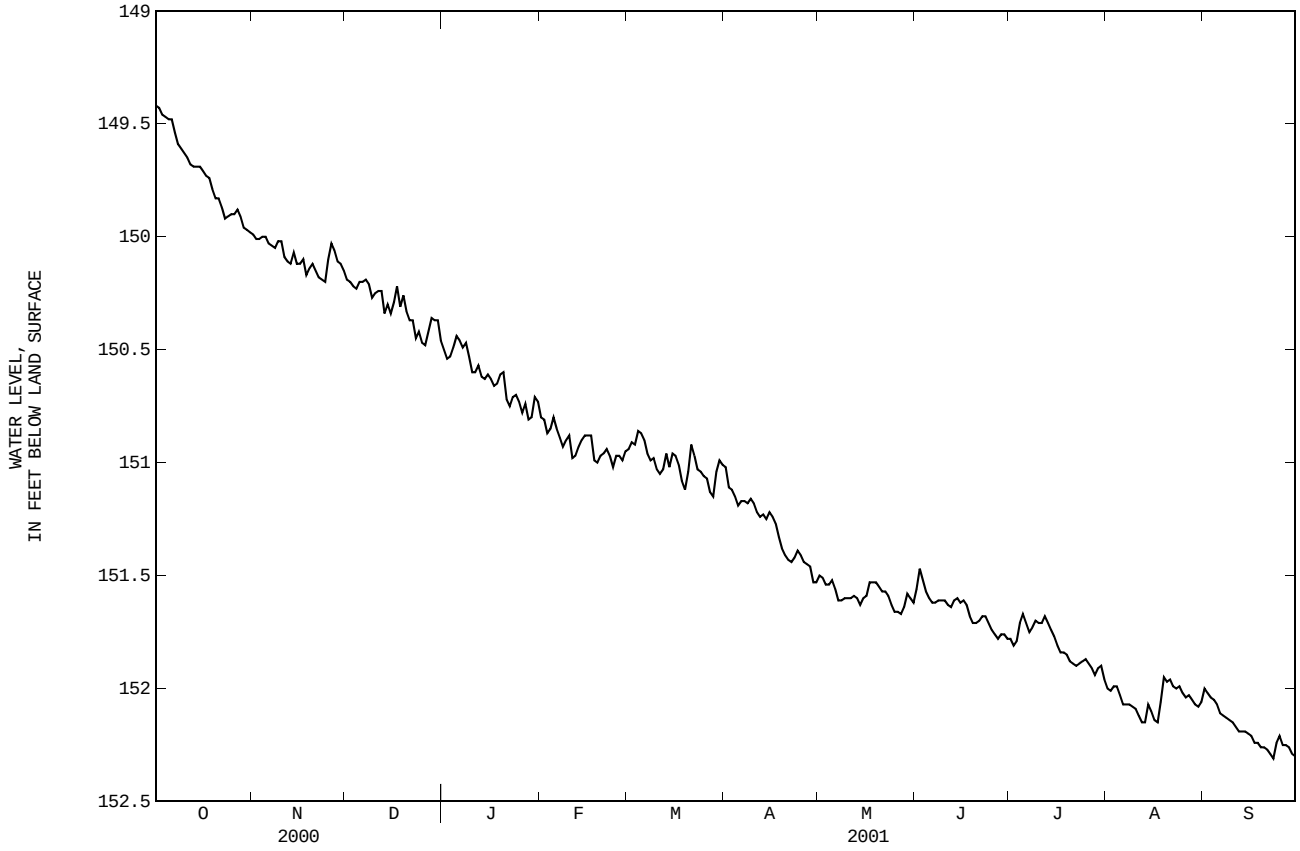
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

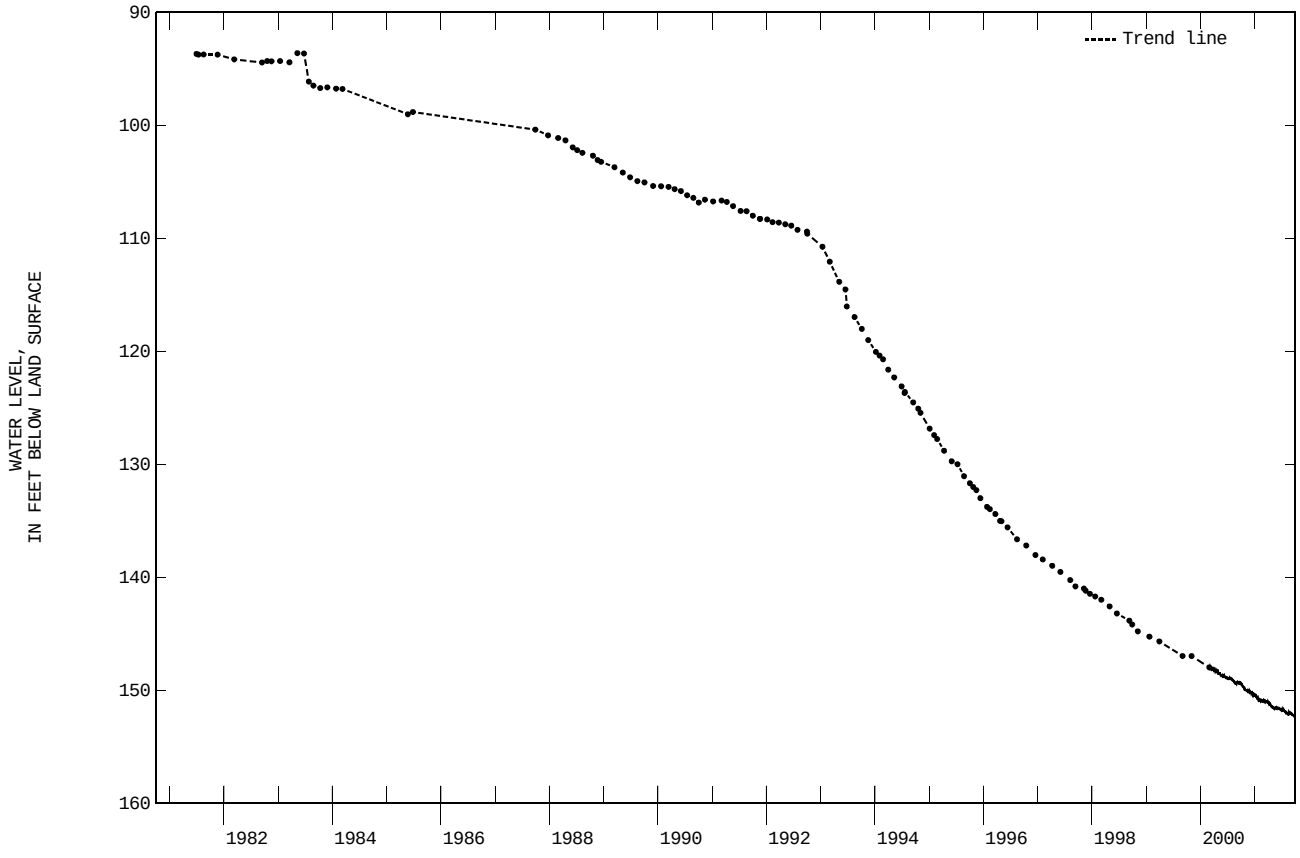
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149.42	149.99	150.19	150.50	150.80	150.94	151.02	151.50	151.56	151.78	152.00	152.00
2	149.43	150.01	150.20	150.54	150.81	150.91	151.11	151.51	151.47	151.81	152.01	152.02
3	149.46	150.01	150.22	150.53	150.87	150.92	151.12	151.54	151.52	151.79	151.99	152.04
4	149.47	150.00	150.23	150.49	150.85	150.86	151.15	151.54	151.57	151.71	151.99	152.05
5	149.48	150.00	150.20	150.44	150.80	150.87	151.19	151.52	151.60	151.67	152.03	152.07
6	149.48	150.03	150.20	150.46	150.85	150.90	151.17	151.56	151.62	151.71	152.07	152.11
7	149.54	150.04	150.19	150.49	150.89	150.96	151.17	151.61	151.62	151.75	152.07	152.12
8	149.59	150.05	150.21	150.47	150.93	150.99	151.18	151.61	151.61	151.73	152.07	152.13
9	149.61	150.02	150.27	150.53	150.90	150.98	151.16	151.60	151.61	151.70	152.08	152.14
10	149.63	150.02	150.25	150.60	150.88	151.03	151.18	151.60	151.61	151.71	152.09	152.15
11	149.65	150.09	150.24	150.60	150.98	151.05	151.22	151.60	151.63	151.71	152.12	152.17
12	149.68	150.11	150.24	150.57	150.97	151.03	151.24	151.59	151.64	151.68	152.15	152.19
13	149.69	150.12	150.34	150.62	150.93	150.96	151.23	151.60	151.61	151.71	152.15	152.19
14	149.69	150.07	150.30	150.63	150.90	151.02	151.25	151.63	151.60	151.74	152.07	152.19
15	149.69	150.12	150.34	150.61	150.88	150.96	151.22	151.60	151.62	151.77	152.10	152.20
16	149.71	150.12	150.29	150.63	150.88	150.97	151.24	151.59	151.61	151.81	152.14	152.21
17	149.73	150.10	150.22	150.66	150.88	151.01	151.27	151.53	151.63	151.84	152.15	152.24
18	149.74	150.17	150.31	150.65	150.99	151.08	151.33	151.53	151.68	151.84	152.06	152.24
19	149.79	150.14	150.26	150.61	151.00	151.12	151.38	151.53	151.71	151.85	151.95	152.26
20	149.83	150.12	150.33	150.60	150.97	151.04	151.41	151.55	151.71	151.88	151.97	152.26
21	149.83	150.15	150.37	150.72	150.96	150.92	151.43	151.57	151.70	151.89	151.96	152.27
22	149.87	150.18	150.37	150.75	150.94	150.97	151.44	151.57	151.68	151.90	151.99	152.29
23	149.92	150.19	150.45	150.71	150.97	151.03	151.42	151.59	151.68	151.89	152.00	152.31
24	149.91	150.20	150.42	150.70	151.02	151.04	151.39	151.63	151.71	151.88	151.99	152.24
25	149.90	150.10	150.47	150.73	150.97	151.06	151.41	151.66	151.74	151.87	152.02	152.21
26	149.90	150.03	150.48	150.78	150.97	151.07	151.44	151.66	151.76	151.89	152.04	152.25
27	149.88	150.06	150.42	150.74	150.99	151.13	151.45	151.67	151.78	151.91	152.03	152.25
28	149.91	150.11	150.36	150.81	150.95	151.15	151.46	151.64	151.76	151.94	152.05	152.26
29	149.96	150.12	150.37	150.80	---	151.04	151.53	151.58	151.76	151.91	152.07	152.29
30	149.97	150.15	150.37	150.71	---	150.99	151.53	151.60	151.78	151.90	152.08	152.30
31	149.98	---	150.46	150.73	---	151.01	---	151.62	---	151.96	152.06	---

WTR YR 2001 MEAN 151.10 HIGH 149.42 LOW 152.31

ROBESON COUNTY--Continued

343840078550009 Local number, NC-177; DENR Littlefield School Research Station well Y42f9; County number, RB-183





ROBESON COUNTY--Continued

343156079174702. County number, RB-148; DENR Rowland Research Station well Z47m2.
LOCATION.--Lat 34°31'55", long 79°17'47", Hydrologic Unit 03040204, in Rowland, southwest of corner of West Elm and South Railroad Streets. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 263 ft, diameter 4 in. to 230 ft, diameter 2.5 in. from 205 to 263 ft, screened intervals from 247 to 252 ft and 258 to 263 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 143.15 ft above sea level (levels by DENR). Measuring point: Top of flange attached to floor of instrument shelter, 2.1 ft above land-surface datum (since December 1995).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--April 1971 to current year. Records from April 1971 to January 1984 are from the files of the Groundwater Section, DENR. Water levels measured periodically by USGS personnel since July 1981. Continuous record began December 1995.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.80 ft below land-surface datum, Apr. 30, 1971; lowest recorded, 42.79 ft below land-surface datum, Sept. 13, 1999.

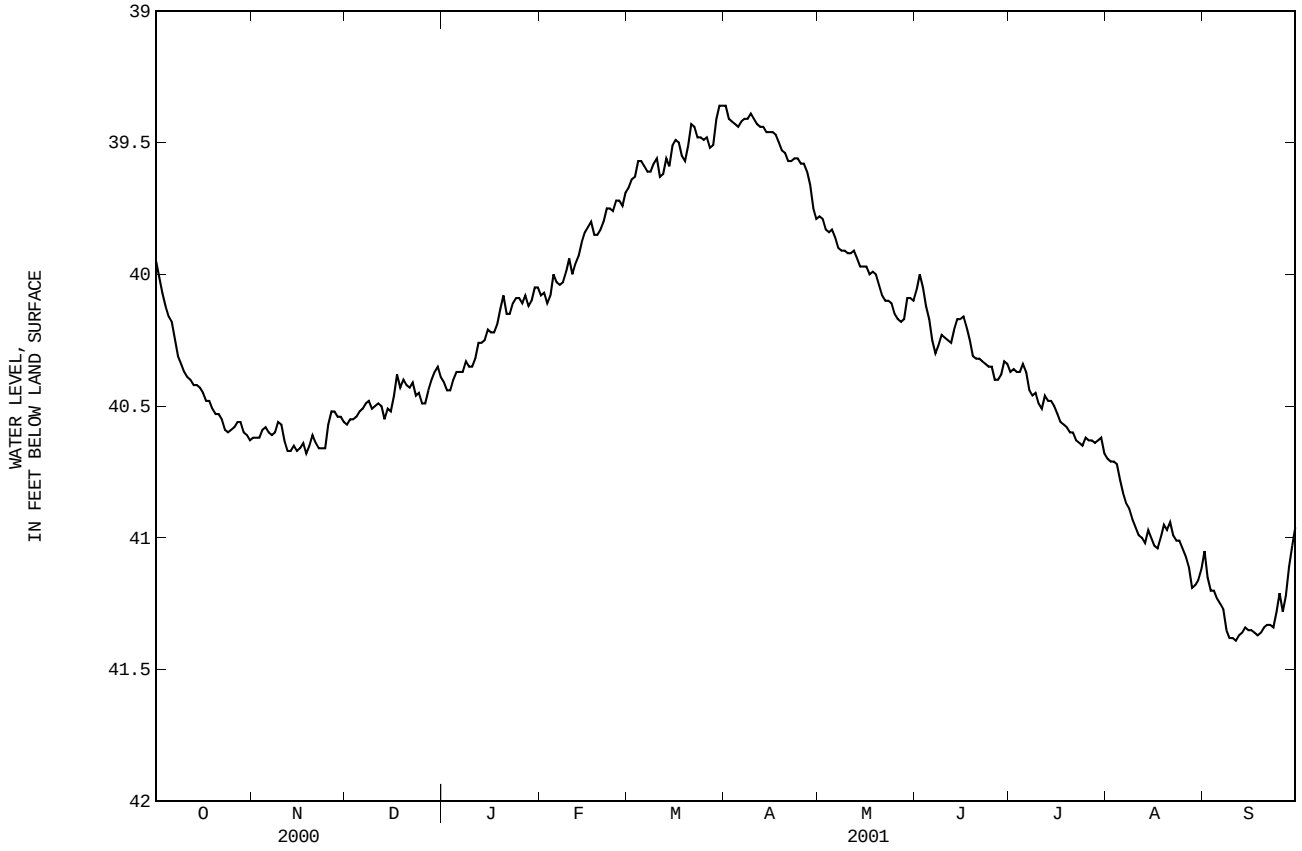
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

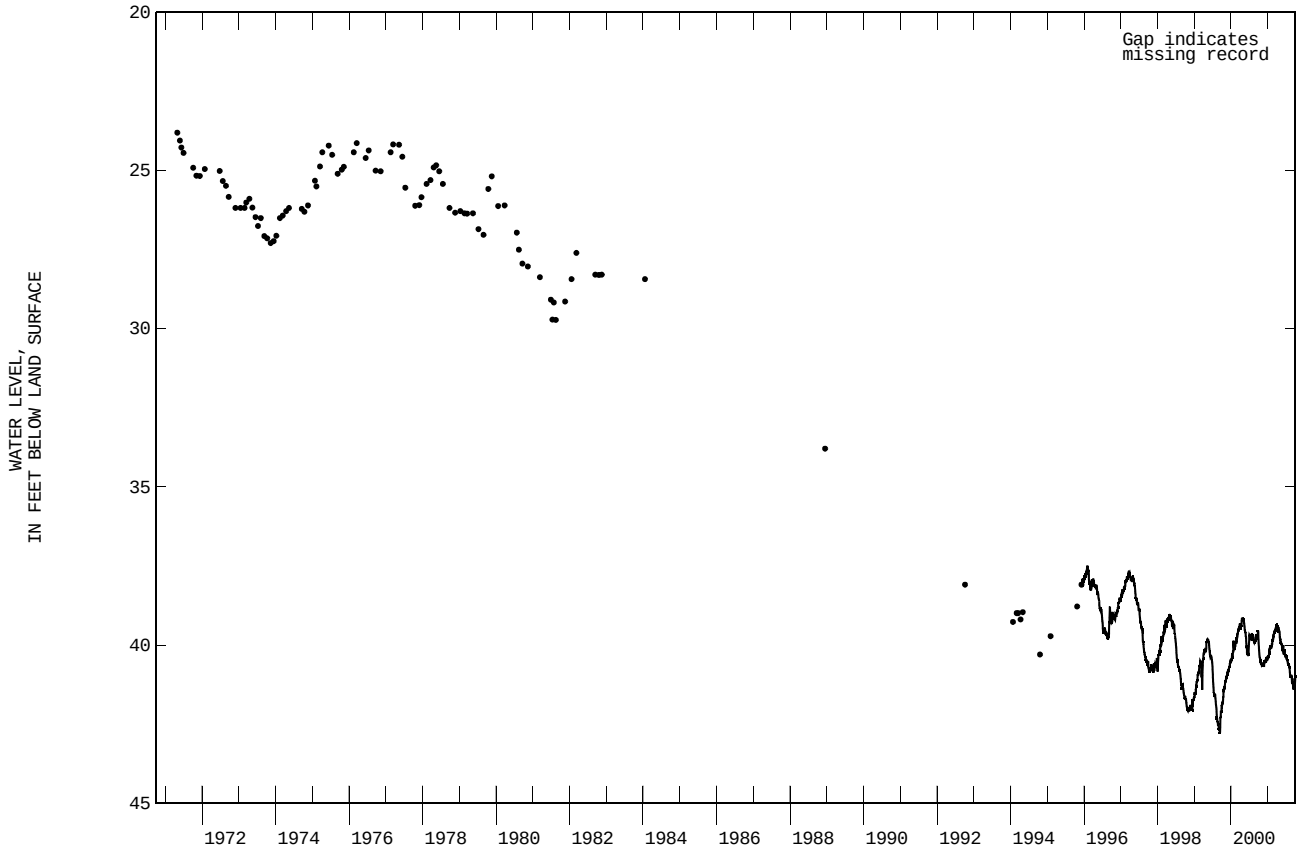
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.95	40.62	40.57	40.41	40.08	39.67	39.36	39.78	40.06	40.37	40.70	41.05
2	40.01	40.62	40.55	40.44	40.07	39.64	39.41	39.79	40.00	40.36	40.71	41.15
3	40.07	40.62	40.55	40.44	40.11	39.63	39.42	39.83	40.05	40.37	40.71	41.20
4	40.12	40.59	40.54	40.40	40.08	39.57	39.43	39.84	40.12	40.37	40.72	41.20
5	40.16	40.58	40.52	40.37	40.00	39.57	39.44	39.83	40.17	40.34	40.78	41.23
6	40.18	40.60	40.51	40.37	40.03	39.59	39.42	39.86	40.25	40.37	40.83	41.25
7	40.25	40.61	40.49	40.37	40.04	39.61	39.41	39.90	40.30	40.44	40.87	41.27
8	40.31	40.60	40.48	40.33	40.03	39.61	39.41	39.91	40.27	40.46	40.89	41.35
9	40.34	40.56	40.51	40.35	39.99	39.58	39.39	39.91	40.23	40.45	40.93	41.38
10	40.37	40.57	40.50	40.35	39.94	39.56	39.41	39.92	40.24	40.49	40.96	41.38
11	40.39	40.63	40.49	40.32	40.00	39.63	39.43	39.92	40.25	40.51	40.99	41.39
12	40.40	40.67	40.50	40.26	39.96	39.62	39.44	39.91	40.26	40.46	41.00	41.37
13	40.42	40.67	40.55	40.26	39.93	39.56	39.44	39.94	40.21	40.48	41.02	41.36
14	40.42	40.65	40.51	40.25	39.88	39.59	39.46	39.97	40.17	40.48	40.97	41.34
15	40.43	40.67	40.52	40.21	39.84	39.51	39.46	39.97	40.17	40.50	41.00	41.35
16	40.45	40.66	40.46	40.22	39.82	39.49	39.46	39.97	40.16	40.53	41.03	41.35
17	40.48	40.64	40.38	40.22	39.80	39.50	39.47	40.00	40.20	40.56	41.04	41.36
18	40.48	40.68	40.43	40.19	39.85	39.55	39.50	39.99	40.25	40.57	41.00	41.37
19	40.51	40.65	40.40	40.13	39.85	39.57	39.53	40.00	40.31	40.58	40.95	41.36
20	40.53	40.61	40.42	40.08	39.83	39.51	39.54	40.04	40.32	40.60	40.97	41.34
21	40.53	40.64	40.43	40.15	39.80	39.43	39.57	40.08	40.32	40.60	40.94	41.33
22	40.55	40.66	40.41	40.15	39.75	39.44	39.57	40.10	40.33	40.63	40.99	41.33
23	40.59	40.66	40.46	40.11	39.75	39.48	39.56	40.10	40.34	40.64	41.01	41.34
24	40.60	40.66	40.45	40.09	39.76	39.48	39.56	40.11	40.35	40.65	41.01	41.28
25	40.59	40.57	40.49	40.09	39.72	39.49	39.58	40.15	40.35	40.62	41.04	41.21
26	40.58	40.52	40.49	40.11	39.72	39.48	39.58	40.17	40.40	40.63	41.07	41.28
27	40.56	40.52	40.44	40.08	39.74	39.52	39.61	40.18	40.40	40.63	41.11	41.22
28	40.56	40.54	40.40	40.12	39.69	39.51	39.66	40.17	40.38	40.64	41.19	41.11
29	40.60	40.54	40.37	40.10	---	39.41	39.75	40.09	40.33	40.63	41.18	41.03
30	40.61	40.56	40.35	40.05	---	39.36	39.79	40.09	40.34	40.62	41.16	40.96
31	40.63	---	40.39	40.05	---	39.36	---	40.10	---	40.68	41.12	---

WTR YR 2001 MEAN 40.31 HIGH 39.36 LOW 41.39

ROBESON COUNTY--Continued

343156079174702 County number, RB-148; DENR Rowland Research Station well Z47m2





ROBESON COUNTY--Continued

345035079051804. County number, RB-168; DENR Rex Rennert Research Station well V45u4.
LOCATION.--Lat 34°50'35", long 79°05'16", Hydrologic Unit 03040203, 1.6 mi southeast of State Highway 71 on Secondary Road 1752 at Rex Rennert School. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 132 ft, diameter 4 in. to 115 ft, diameter 2.5 in. from 101 to 132 ft, screened interval from 122 to 127 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 187.28 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 2.28 ft above land-surface datum (since July 2001).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--July 1981 to current year. Water levels measured periodically since July 1981. Continuous record began December 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.26 ft below land-surface datum, Jan. 29, 1997; lowest measured, 6.87 ft below land-surface datum, October 23, 1998.

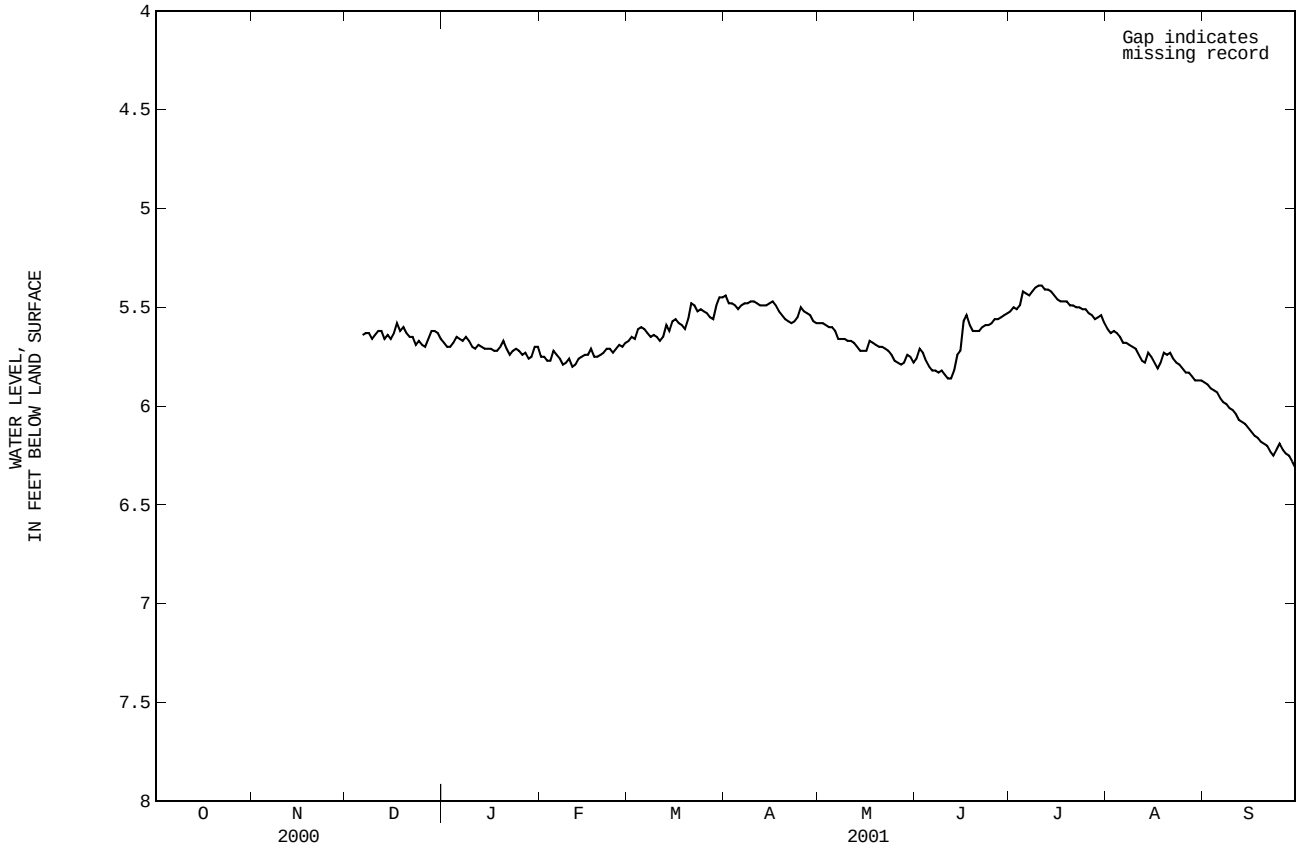
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR DECEMBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

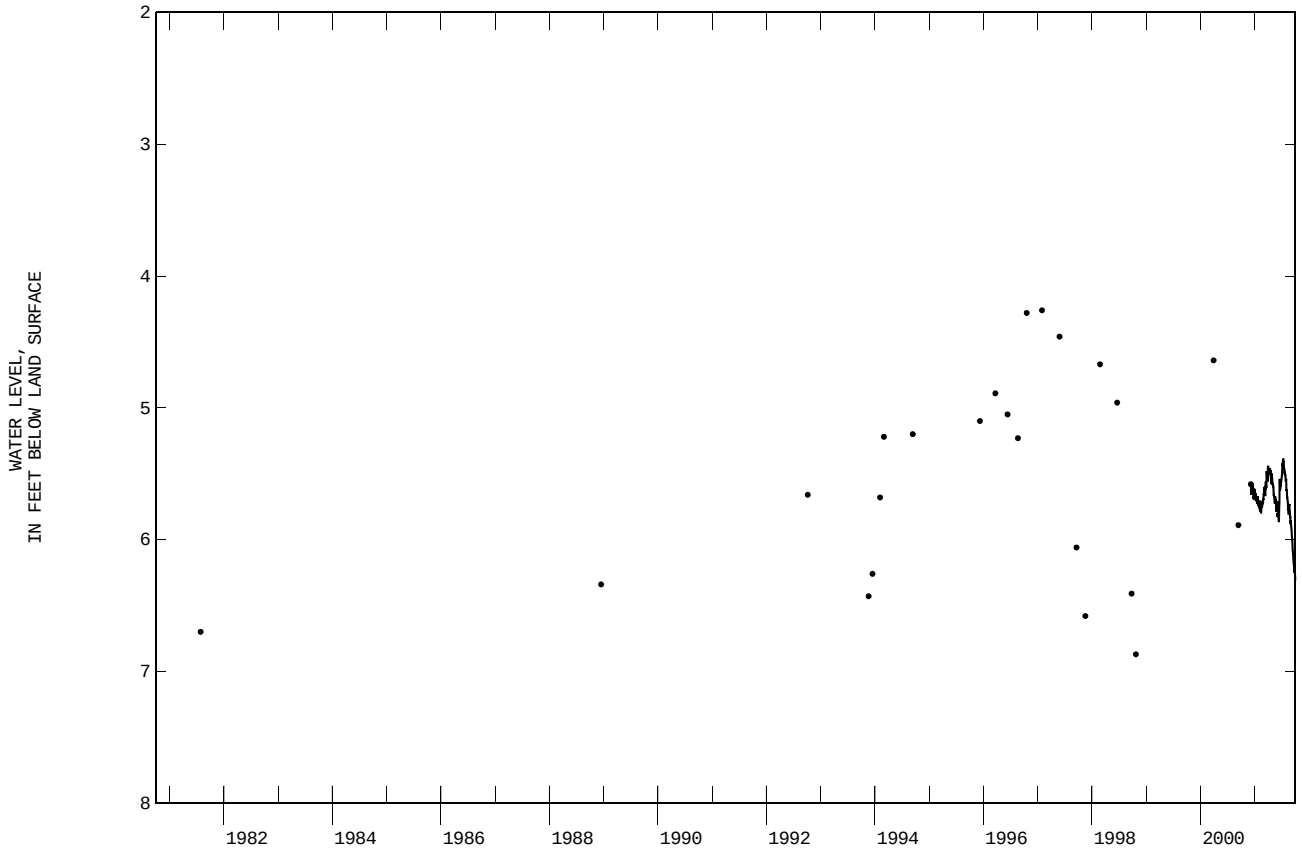
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	5.68	5.75	5.67	5.44	5.58	5.76	5.52	5.61	5.88
2	---	---	---	5.70	5.75	5.65	5.48	5.58	5.71	5.50	5.63	5.89
3	---	---	---	5.70	5.77	5.66	5.48	5.59	5.73	5.51	5.62	5.91
4	---	---	---	5.68	5.77	5.61	5.49	5.60	5.77	5.49	5.63	5.92
5	---	---	---	5.65	5.72	5.60	5.51	5.60	5.80	5.42	5.65	5.93
6	---	---	5.64	5.66	5.74	5.61	5.49	5.62	5.82	5.43	5.68	5.96
7	---	---	5.63	5.67	5.76	5.63	5.48	5.66	5.82	5.44	5.68	5.98
8	---	---	5.63	5.65	5.79	5.65	5.48	5.66	5.83	5.42	5.69	5.99
9	---	---	5.66	5.67	5.78	5.64	5.47	5.66	5.82	5.40	5.70	6.01
10	---	---	5.64	5.70	5.76	5.65	5.47	5.67	5.84	5.39	5.71	6.02
11	---	---	5.62	5.71	5.80	5.67	5.48	5.67	5.86	5.39	5.74	6.04
12	---	---	5.62	5.69	5.79	5.65	5.49	5.68	5.86	5.41	5.77	6.07
13	---	---	5.66	5.70	5.76	5.59	5.49	5.70	5.82	5.41	5.78	6.08
14	---	---	5.64	5.71	5.75	5.62	5.49	5.72	5.74	5.42	5.73	6.09
15	---	---	5.66	5.71	5.74	5.57	5.48	5.72	5.72	5.44	5.75	6.11
16	---	---	5.63	5.71	5.74	5.56	5.47	5.72	5.57	5.46	5.78	6.13
17	---	---	5.58	5.72	5.71	5.58	5.49	5.67	5.54	5.47	5.81	6.15
18	---	---	5.62	5.72	5.75	5.59	5.52	5.68	5.59	5.47	5.78	6.16
19	---	---	5.60	5.70	5.75	5.61	5.54	5.69	5.62	5.47	5.73	6.18
20	---	---	5.63	5.67	5.74	5.56	5.56	5.70	5.62	5.49	5.74	6.19
21	---	---	5.65	5.71	5.73	5.48	5.57	5.70	5.62	5.49	5.73	6.20
22	---	---	5.65	5.74	5.71	5.49	5.58	5.71	5.60	5.50	5.76	6.23
23	---	---	5.69	5.72	5.71	5.52	5.57	5.72	5.59	5.50	5.78	6.25
24	---	---	5.67	5.71	5.73	5.51	5.55	5.74	5.59	5.51	5.79	6.22
25	---	---	5.69	5.72	5.71	5.52	5.50	5.77	5.58	5.51	5.81	6.19
26	---	---	5.70	5.74	5.69	5.53	5.52	5.78	5.56	5.53	5.83	6.22
27	---	---	5.66	5.73	5.70	5.55	5.53	5.79	5.56	5.54	5.83	6.24
28	---	---	5.62	5.76	5.68	5.56	5.54	5.78	5.55	5.56	5.85	6.25
29	---	---	5.62	5.75	---	5.49	5.57	5.74	5.54	5.55	5.87	6.28
30	---	---	5.63	5.70	---	5.45	5.58	5.75	5.53	5.54	5.87	6.31
31	---	---	5.66	5.70	---	5.45	---	5.78	---	5.58	5.87	---

WTR YR 2001 MEAN 5.69 HIGH 5.39 LOW 6.31

ROBESON COUNTY--Continued

345035079051804 County number, RB-168; DENR Rex Rennert Research Station well V45u4



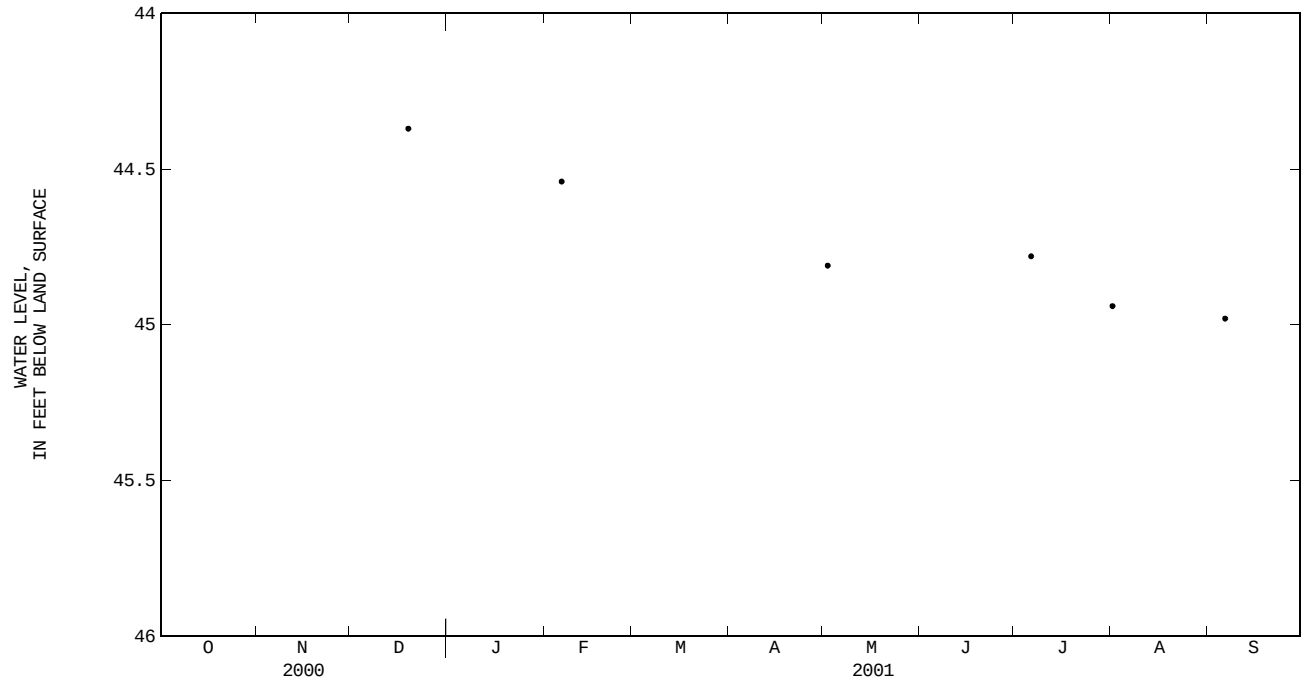


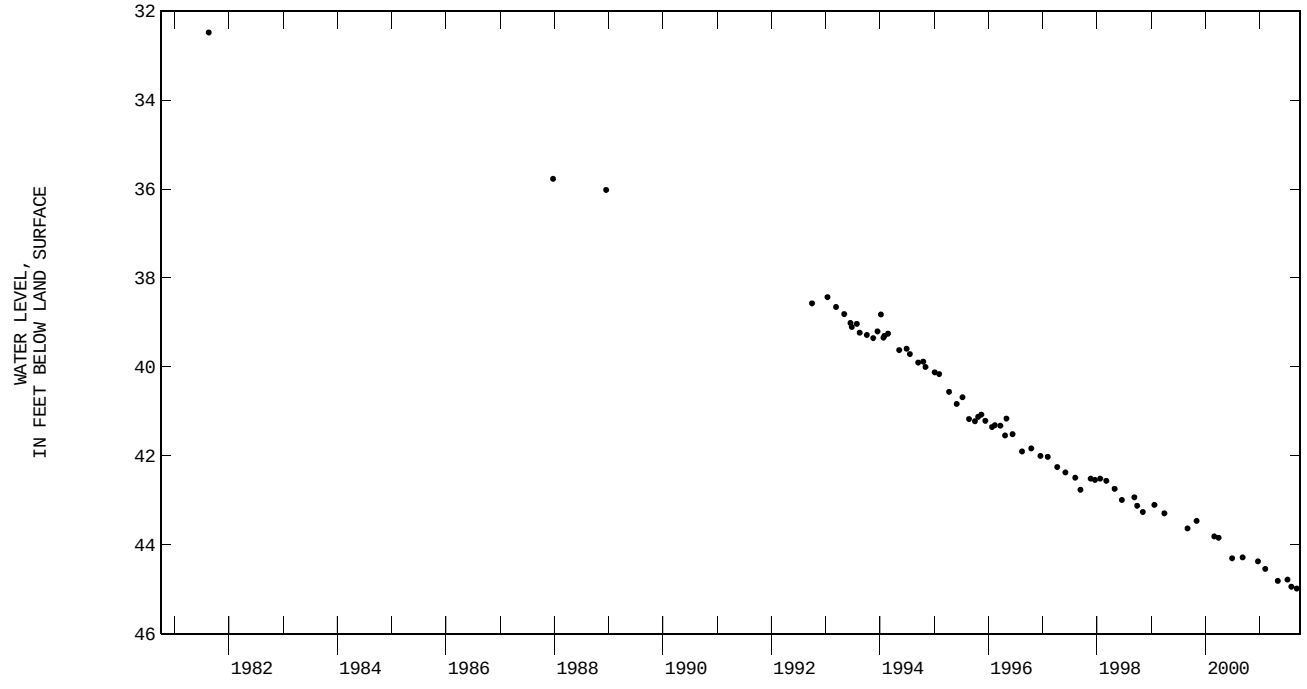
ROBESON COUNTY--Continued

343840078550010. County number, RB-184; DENR Littlefield School Research Station well Y42f10.
LOCATION.--Lat 34°38'40", long 78°54'58", Hydrologic Unit 03040203, 4 mi east of Lumberton on State Highway 41 at Littlefield School. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 330 ft, diameter 6 in. to 280 ft, diameter 4 in. from 258 to 330 ft, screened intervals from 300 to 305 ft, 310 to 315 ft, and 320 to 325 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 141 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 2.28 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--August 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.48 ft below land-surface datum, Aug. 18, 1981; lowest measured, 44.98 ft below land-surface datum, Sept. 6, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 19	44.37	FEB 06	44.54	MAY 02	44.81	JUL 06	44.78	AUG 01	44.94	SEP 06	44.98





Observation well NC-139 Camp Glenn Research station,
Carteret County, North Carolina (p. 86).

ROBESON COUNTY--Continued

343840078550011. County number, RB-185; DENR Littlefield School Research Station well Y42f11.
LOCATION.--Lat 34°38'39", long 78°54'59", Hydrologic Unit 03040203, 4 mi east of Lumberton on State Highway 41 at Littlefield School. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 155 ft, diameter 6 in. to 140 ft, diameter 4 in. from 140 to 155 ft, screened intervals from 140 to 145 ft and 150 to 155 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 142 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.05 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study. Well redeveloped by injecting air into well on August 1, 2001.
PERIOD OF RECORD.--August 1981 to current year. Water levels measured periodically since August 1981. Continuous record began March 1993.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 20.41 ft below land-surface datum, Feb. 28 and Mar. 1, 1997; lowest recorded, 37.36 ft below land-surface datum, May 27, 28, 1995.

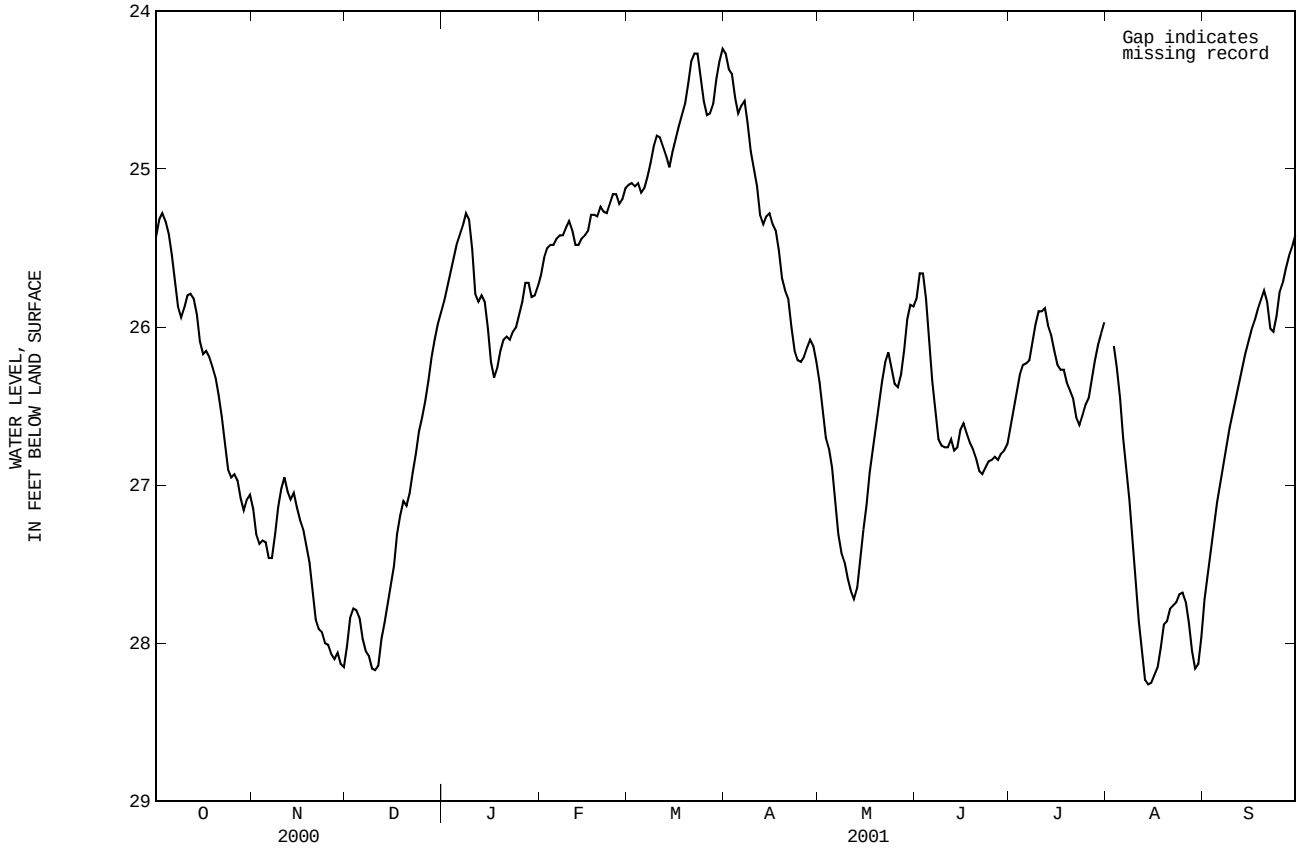
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

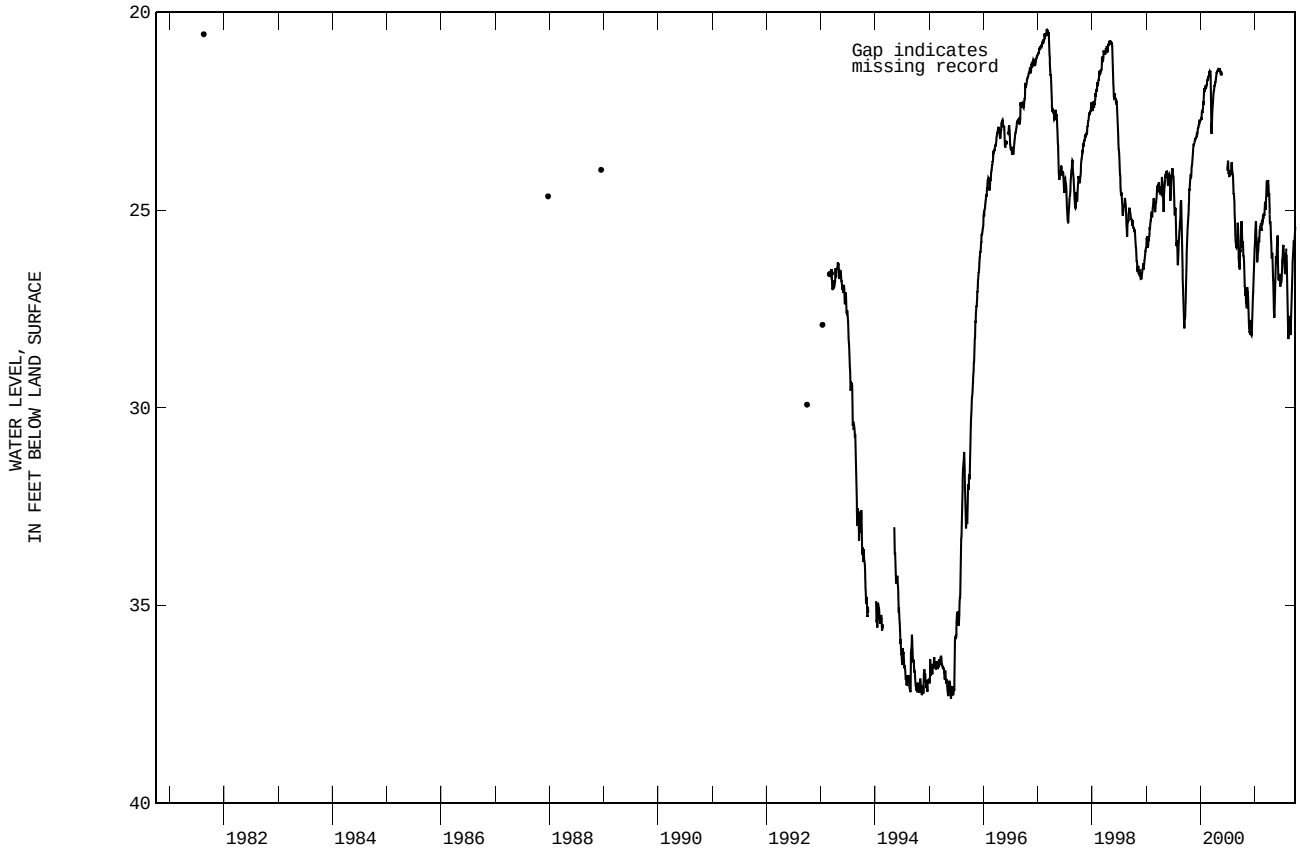
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.43	27.15	28.02	25.84	25.67	25.10	24.27	26.35	25.82	26.64	---	27.72
2	25.32	27.31	27.84	25.76	25.56	25.09	24.37	26.54	25.66	26.53	---	27.57
3	25.28	27.37	27.78	25.67	25.50	25.11	24.40	26.70	25.66	26.42	26.12	27.41
4	25.33	27.35	27.79	25.58	25.48	25.09	24.55	26.77	25.82	26.30	26.26	27.25
5	25.41	27.36	27.84	25.48	25.48	25.15	24.65	26.89	26.11	26.24	26.45	27.11
6	25.54	27.46	27.97	25.42	25.44	25.12	24.60	27.10	26.34	26.23	26.70	26.99
7	25.71	27.46	28.05	25.36	25.42	25.05	24.57	27.31	26.54	26.21	26.90	26.87
8	25.87	27.31	28.08	25.28	25.42	24.96	24.71	27.43	26.71	26.10	27.09	26.75
9	25.94	27.14	28.16	25.32	25.37	24.86	24.89	27.49	26.75	25.98	27.35	26.64
10	25.88	27.02	28.17	25.51	25.33	24.79	25.00	27.59	26.76	25.90	27.63	26.54
11	25.80	26.95	28.14	25.79	25.39	24.80	25.11	27.67	26.76	25.90	27.86	26.44
12	25.79	27.04	27.97	25.84	25.48	24.86	25.29	27.72	26.71	25.88	28.05	26.35
13	25.82	27.09	27.87	25.80	25.48	24.92	25.35	27.65	26.78	25.99	28.23	26.26
14	25.92	27.05	27.75	25.84	25.44	24.99	25.30	27.48	26.76	26.05	28.26	26.17
15	26.09	27.14	27.63	26.01	25.42	24.89	25.28	27.28	26.65	26.15	28.25	26.09
16	26.17	27.22	27.51	26.22	25.39	24.81	25.35	27.13	26.61	26.24	28.20	26.02
17	26.15	27.28	27.31	26.32	25.29	24.73	25.39	26.92	26.67	26.27	28.15	25.96
18	26.19	27.38	27.19	26.26	25.29	24.66	25.52	26.76	26.73	26.27	28.03	25.89
19	26.25	27.49	27.10	26.15	25.30	24.59	25.69	26.61	26.77	26.35	27.88	25.83
20	26.32	27.66	27.13	26.08	25.24	24.46	25.77	26.47	26.83	26.40	27.86	25.77
21	26.43	27.85	27.05	26.06	25.27	24.32	25.82	26.34	26.91	26.45	27.78	25.84
22	26.57	27.91	26.92	26.08	25.28	24.27	26.00	26.22	26.93	26.57	27.76	26.01
23	26.75	27.93	26.80	26.03	25.22	24.27	26.15	26.16	26.89	26.62	27.74	26.03
24	26.90	28.00	26.66	26.00	25.16	24.42	26.21	26.26	26.85	26.56	27.69	25.93
25	26.95	28.01	26.57	25.92	25.16	24.57	26.22	26.36	26.84	26.49	27.68	25.78
26	26.93	28.07	26.47	25.84	25.22	24.66	26.19	26.38	26.82	26.45	27.74	25.72
27	26.97	28.10	26.34	25.72	25.19	24.65	26.13	26.30	26.84	26.33	27.87	25.63
28	27.08	28.06	26.19	25.72	25.12	24.59	26.08	26.15	26.80	26.21	28.05	25.55
29	27.16	28.13	26.08	25.81	---	24.43	26.12	25.95	26.78	26.11	28.16	25.49
30	27.09	28.15	25.98	25.80	---	24.32	26.22	25.86	26.74	26.04	28.13	25.42
31	27.06	---	25.91	25.74	---	24.24	---	25.87	---	25.97	27.96	---

WTR YR 2001 MEAN 26.32 HIGH 24.24 LOW 28.26

ROBESON COUNTY--Continued

343840078550011 County number, RB-185; DENR Littlefield School Research Station well Y42f11



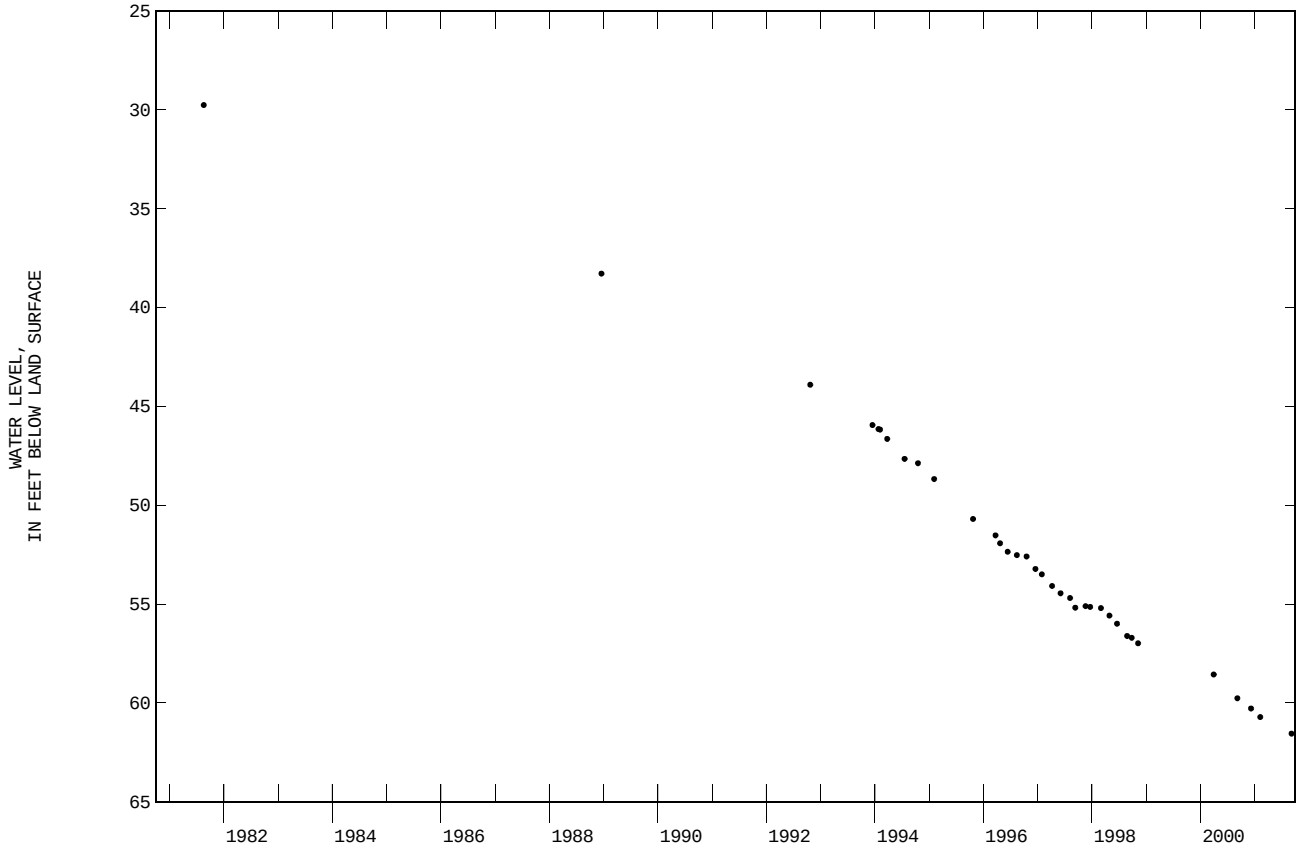


ROBESON COUNTY--Continued

342620078581801. County number, RB-188; DENR Boardman Research Station well AA43q1.
LOCATION.--Lat 34°26'22", long 78°58'19", Hydrologic Unit 03040203, west of Boardman, 0.6 mi southwest of U.S. Highway 74 on Secondary Road 2245. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 497 ft, diameter 4 in. to 220 ft, diameter 2.5 in. from 214 to 497 ft, screened interval from 445 to 455 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 80.46 ft above sea level (levels by DENR). Measuring point: Top of 4-inch casing, 2.45 ft above land-surface datum (since June 2000).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--August 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.75 ft below land-surface datum, Aug. 18, 1981; lowest water level measured, 61.55 ft below land-surface datum, Sept. 5, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 06	60.28	FEB 06	60.71	SEP 05	61.55

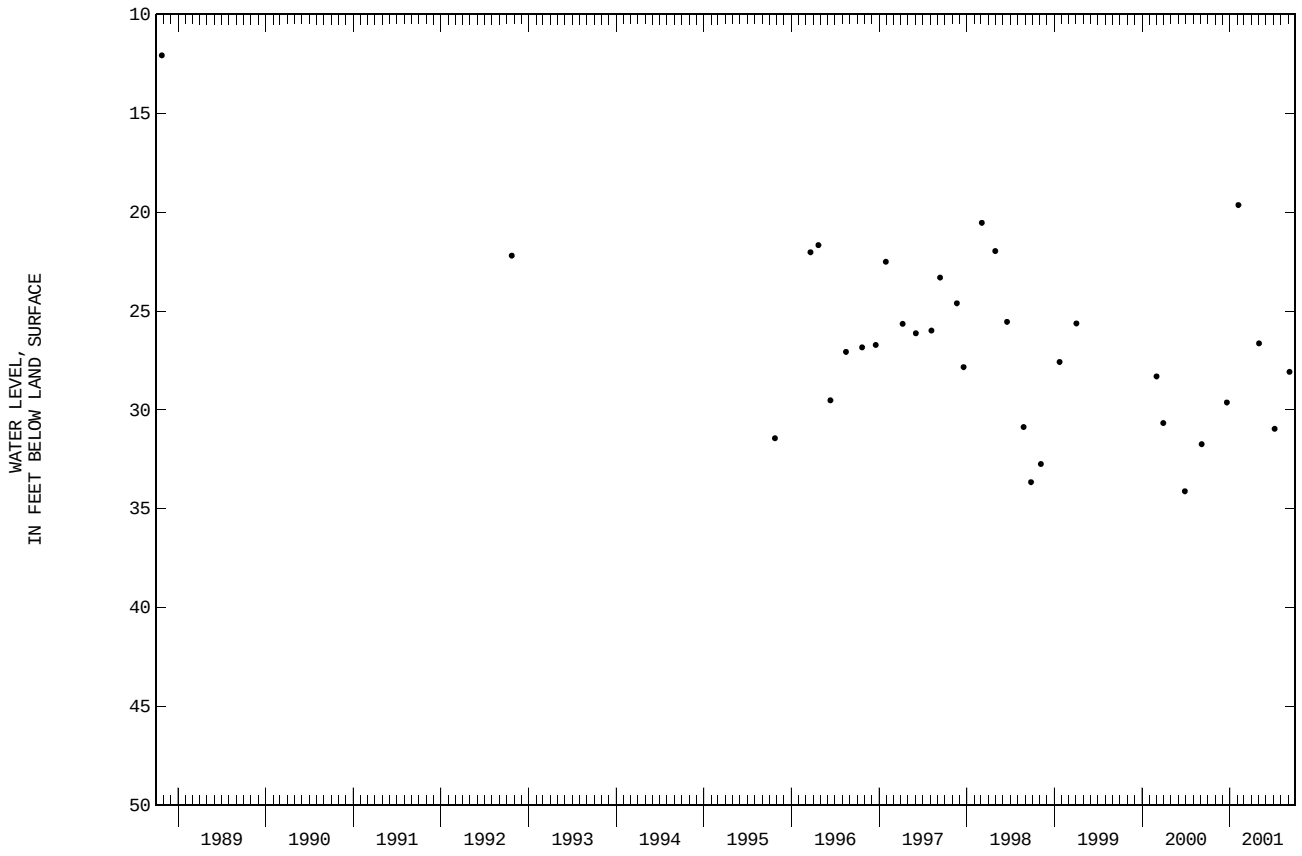


ROBESON COUNTY--Continued

343800079015201. County number, RB-202.
LOCATION.--Lat 34°37'57.8", long 79°01'56.4", North American Datum of 1983, Hydrologic Unit 03040203, in Lumberton off Carthage Road at McMillan's Beach City Park. Owner: City of Lumberton.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled monitoring well, depth 98 ft, diameter 2.4 in., screened interval from 45.4 to 98 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 115 ft above sea level (from topographic map). Measuring point: Top of 2.4-inch casing, 1.45 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.07 ft below land-surface datum, Oct. 25, 1988; lowest water level measured, 34.12 ft below land-surface datum, June 27, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 19	29.63	FEB 05	19.64	MAY 02	26.64	JUL 06	30.96	SEP 06	28.08



ROBESON COUNTY--Continued

344621079192401. County number, RB-264.
LOCATION.--Lat 34°46'21", long 79°19'24", Hydrologic Unit 03040203, 2.4 mi northeast of Maxton on State Highway 71 at Campbell Soup Company. Owner: Campbell Soup Company.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled well, measured depth 84.3 ft, diameter 4 in., screened interval from 59 to 79 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 30-minute intervals.
DATUM.--Land-surface datum is 195 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.37 ft above land-surface datum (since August 1996).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study. Water levels affected by pumping of nearby municipal wells.
PERIOD OF RECORD.--December 1993 to current year. Water levels measured periodically since December 1993. Continuous record began August 1996.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.55 ft below land-surface datum, Mar. 22, 1998; lowest water level recorded, 12.54 ft below land-surface datum, Oct. 29, 1997.

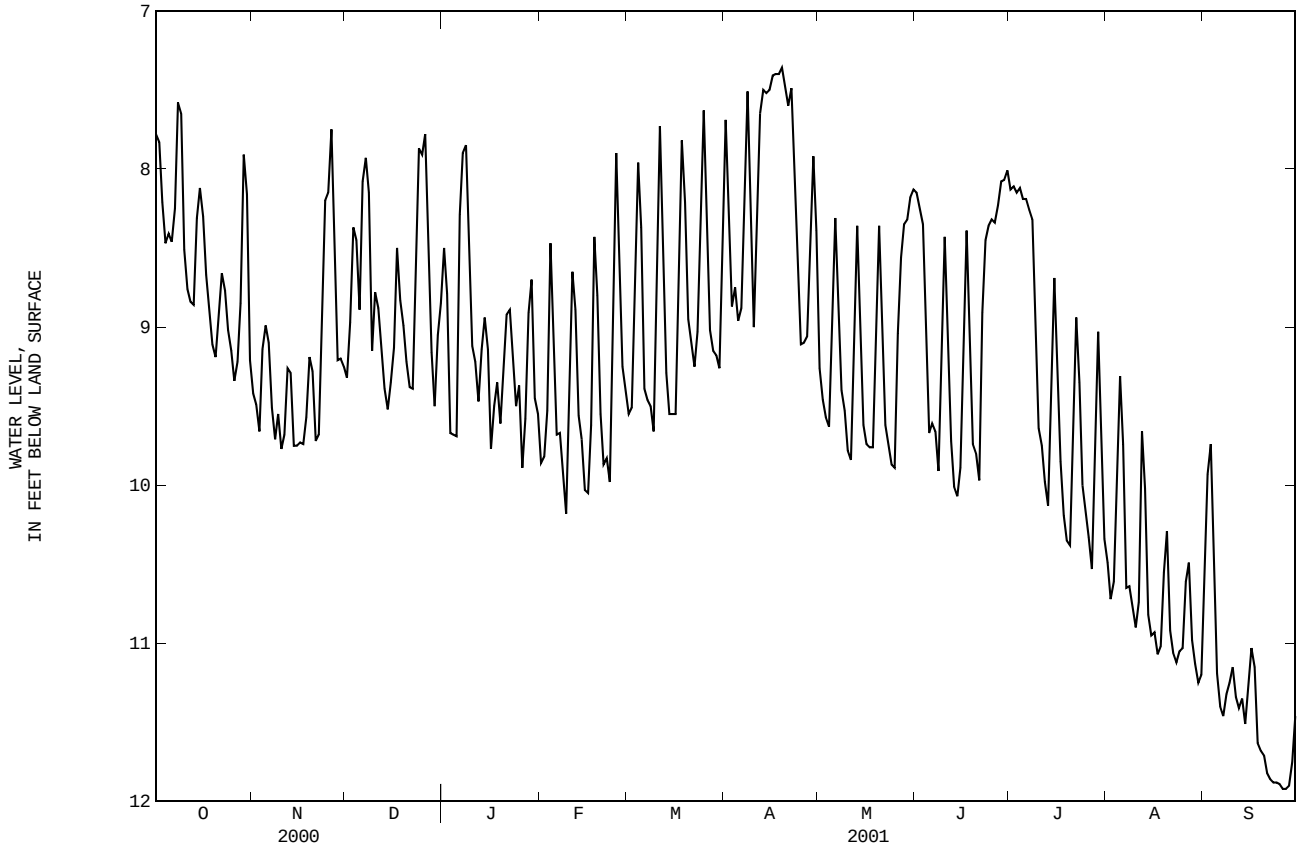
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

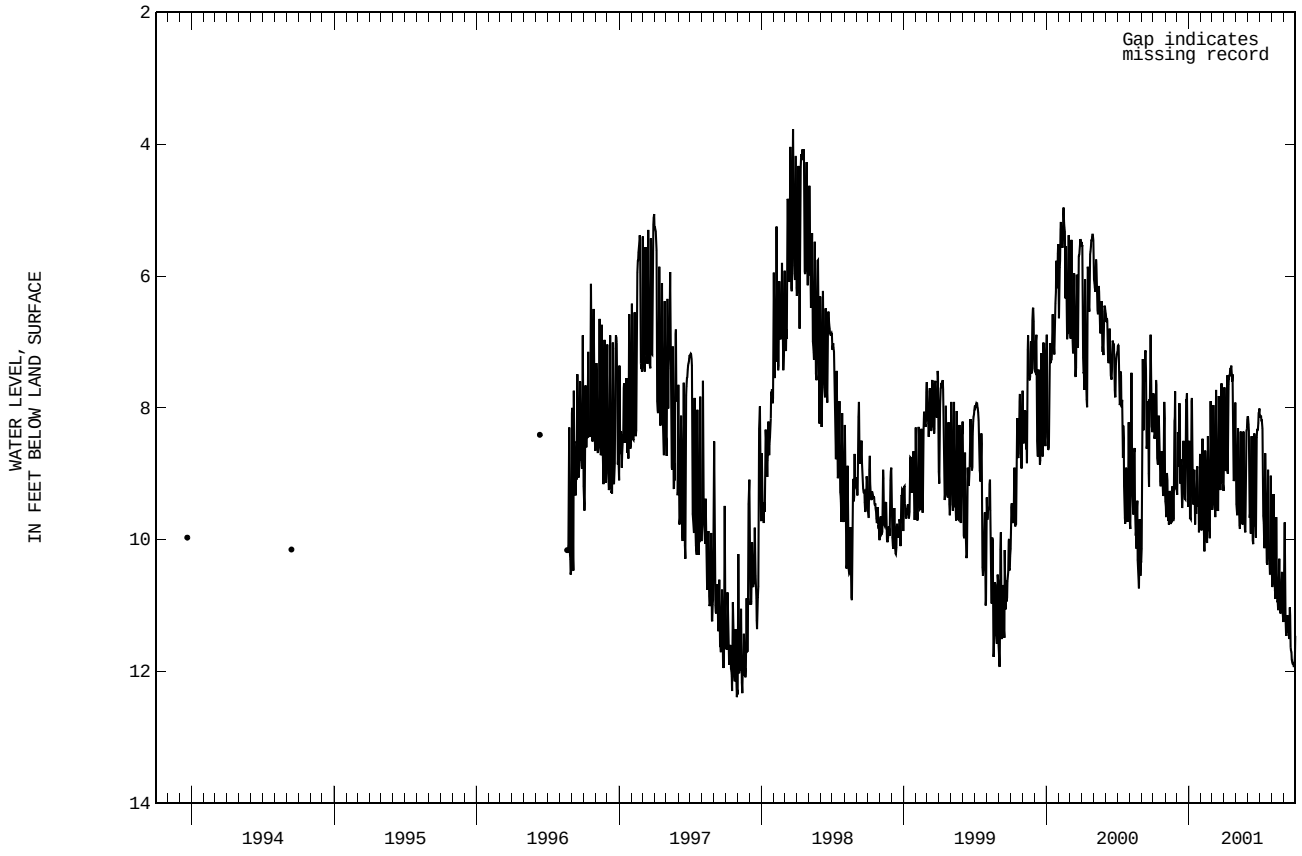
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.78	9.42	9.32	8.50	9.86	9.55	7.69	9.26	8.15	8.13	10.49	10.46
2	7.83	9.49	8.97	8.79	9.82	9.51	8.29	9.46	8.25	8.11	10.72	9.93
3	8.21	9.66	8.37	9.67	9.53	8.72	8.87	9.57	8.35	8.15	10.61	9.74
4	8.47	9.14	8.45	9.68	8.47	7.96	8.75	9.63	9.01	8.12	10.13	10.40
5	8.41	8.99	8.89	9.69	8.99	8.37	8.96	8.83	9.67	8.19	9.31	11.19
6	8.46	9.10	8.08	8.29	9.68	9.39	8.88	8.31	9.61	8.19	9.74	11.40
7	8.25	9.51	7.93	7.90	9.67	9.46	7.99	8.80	9.66	8.26	10.65	11.46
8	7.58	9.71	8.15	7.85	9.91	9.50	7.51	9.40	9.91	8.32	10.64	11.32
9	7.65	9.55	9.15	8.45	10.18	9.66	8.27	9.53	9.12	8.94	10.77	11.25
10	8.51	9.77	8.78	9.12	9.52	8.65	9.00	9.78	8.43	9.64	10.90	11.15
11	8.76	9.68	8.88	9.22	8.65	7.73	8.48	9.84	8.99	9.75	10.74	11.34
12	8.84	9.26	9.16	9.47	8.89	8.42	7.65	8.99	9.72	9.98	9.66	11.41
13	8.86	9.29	9.39	9.14	9.56	9.29	7.50	8.36	10.01	10.13	10.02	11.35
14	8.31	9.75	9.52	8.94	9.71	9.55	7.52	8.90	10.07	9.33	10.82	11.51
15	8.12	9.75	9.35	9.14	10.03	9.55	7.50	9.62	9.89	8.69	10.95	11.26
16	8.30	9.73	9.13	9.77	10.05	9.55	7.41	9.74	9.13	9.22	10.93	11.03
17	8.67	9.74	8.50	9.50	9.62	8.55	7.40	9.76	8.39	9.85	11.07	11.15
18	8.91	9.57	8.83	9.35	8.43	7.82	7.40	9.76	8.93	10.19	11.02	11.63
19	9.11	9.19	8.99	9.61	8.80	8.21	7.36	8.92	9.74	10.35	10.55	11.68
20	9.19	9.28	9.22	9.32	9.55	8.95	7.48	8.36	9.80	10.38	10.29	11.71
21	8.91	9.72	9.38	8.92	9.87	9.10	7.60	8.91	9.97	9.54	10.92	11.82
22	8.66	9.68	9.39	8.89	9.83	9.25	7.49	9.62	8.91	8.94	11.06	11.86
23	8.77	8.85	8.51	9.21	9.98	9.03	8.17	9.74	8.45	9.35	11.12	11.88
24	9.02	8.20	7.87	9.50	8.74	8.27	8.69	9.87	8.36	10.00	11.05	11.88
25	9.15	8.15	7.91	9.37	7.90	7.63	9.11	9.89	8.32	10.18	11.03	11.89
26	9.34	7.75	7.78	9.89	8.53	8.23	9.10	9.04	8.34	10.33	10.61	11.92
27	9.22	8.43	8.43	9.58	9.25	9.02	9.06	8.56	8.23	10.53	10.49	11.92
28	8.85	9.21	9.16	8.91	9.40	9.15	8.44	8.35	8.08	9.57	10.98	11.90
29	7.91	9.20	9.50	8.70	---	9.18	7.92	8.32	8.07	9.03	11.13	11.75
30	8.16	9.25	9.05	9.45	---	9.26	8.39	8.18	8.01	9.50	11.25	11.46
31	9.21	---	8.85	9.55	---	8.44	---	8.13	---	10.34	11.20	---

WTR YR 2001 MEAN 9.30 HIGH 7.36 LOW 11.92

ROBESON COUNTY--Continued

344621079192401 County number, RB-264





ROWAN COUNTY

354057080362601. Local number, NC-193; DENR Piedmont Research Station well L63t1; County number, RO-149.
LOCATION.--Lat 35°40'57", long 80°36'26", Hydrologic Unit 03040102, 0.75 mi south of Secondary Road 1526 on Piedmont Research Station road, 2.75 mi south of Barber. Owner: North Carolina Department of Agriculture.
AQUIFER.--Unconfined alluvial silt.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 24 ft, diameter 4 in., cased to 9 ft, screened interval from 9 to 19 ft, sand filter pack from 7.2 to 24 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.
DATUM.--Land-surface datum is 678 ft above sea level (from topographic map). Measuring point: Two saw cuts in top of casing, 3.30 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--November 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.97 ft below land-surface datum, Mar. 30, 1993; lowest water level recorded, 9.74 ft below land-surface datum, Sept. 29, 30, 2001.

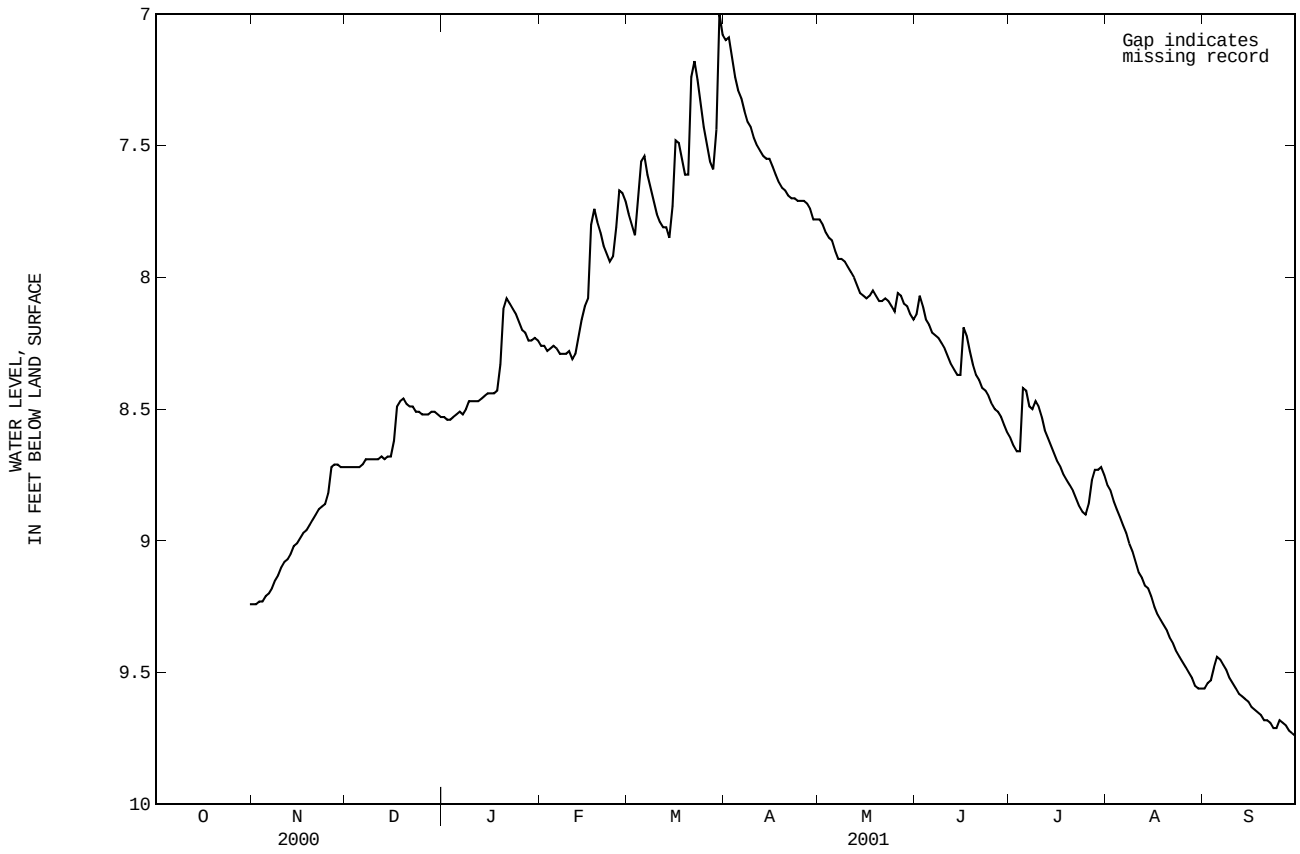
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

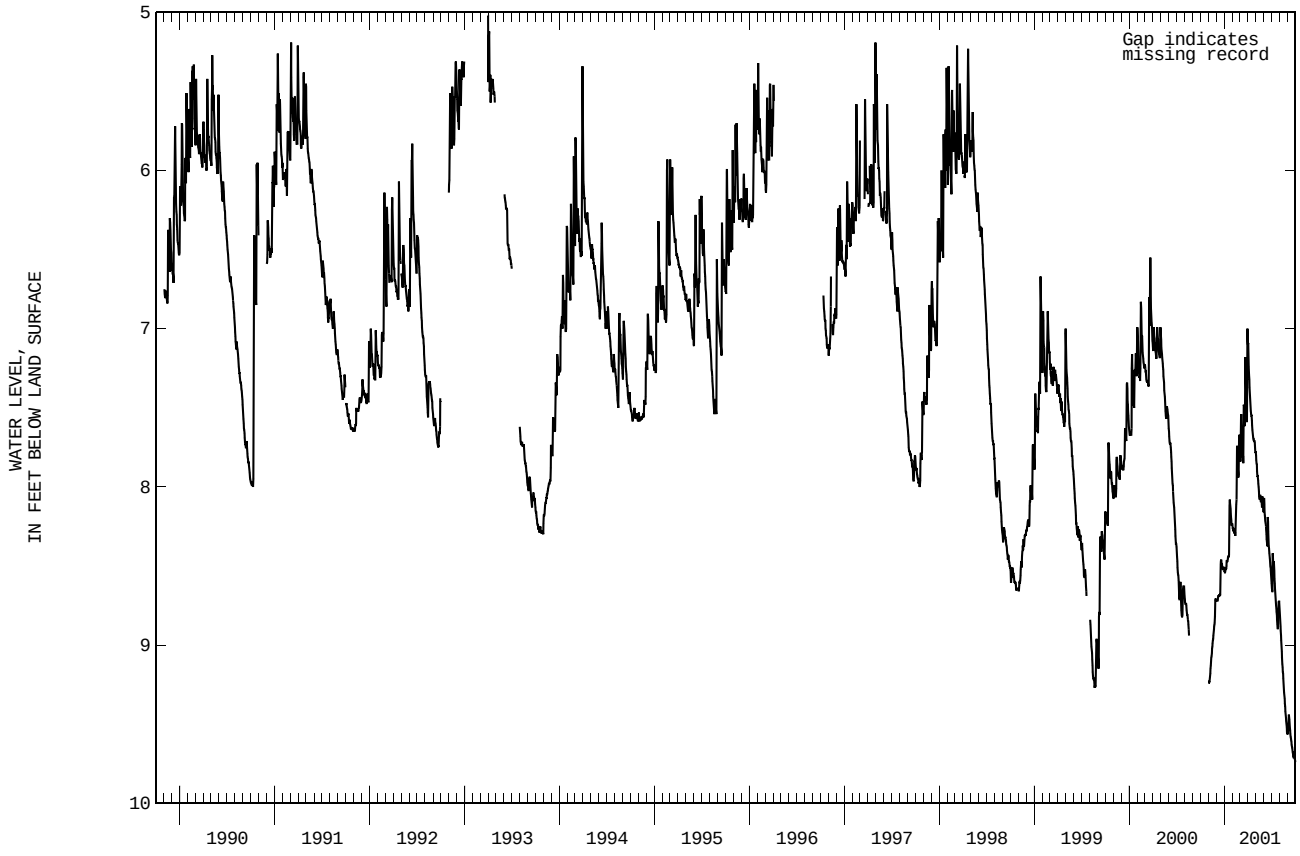
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.24	8.72	8.53	8.26	7.76	7.10	7.78	8.14	8.61	8.79	9.56
2	---	9.24	8.72	8.54	8.26	7.80	7.09	7.80	8.07	8.64	8.81	9.54
3	---	9.23	8.72	8.54	8.28	7.84	7.16	7.83	8.11	8.66	8.85	9.53
4	---	9.23	8.72	8.53	8.27	7.70	7.24	7.85	8.16	8.66	8.88	9.48
5	---	9.21	8.72	8.52	8.26	7.56	7.29	7.86	8.18	8.42	8.91	9.44
6	---	9.20	8.71	8.51	8.27	7.54	7.32	7.90	8.21	8.43	8.94	9.45
7	---	9.18	8.69	8.52	8.29	7.61	7.37	7.93	8.22	8.49	8.97	9.47
8	---	9.15	8.69	8.50	8.29	7.66	7.41	7.93	8.23	8.50	9.01	9.49
9	---	9.13	8.69	8.47	8.29	7.71	7.43	7.94	8.25	8.47	9.04	9.52
10	---	9.10	8.69	8.47	8.28	7.76	7.47	7.96	8.27	8.49	9.08	9.54
11	---	9.08	8.69	8.47	8.31	7.79	7.50	7.98	8.30	8.53	9.12	9.56
12	---	9.07	8.68	8.47	8.29	7.81	7.52	8.00	8.33	8.58	9.14	9.58
13	---	9.05	8.69	8.46	8.22	7.81	7.54	8.03	8.35	8.61	9.17	9.59
14	---	9.02	8.68	8.45	8.16	7.85	7.55	8.06	8.37	8.64	9.18	9.60
15	---	9.01	8.68	8.44	8.11	7.73	7.55	8.07	8.37	8.67	9.21	9.61
16	---	8.99	8.62	8.44	8.08	7.48	7.58	8.08	8.19	8.70	9.25	9.63
17	---	8.97	8.49	8.44	7.80	7.49	7.61	8.07	8.22	8.72	9.28	9.64
18	---	8.96	8.47	8.43	7.74	7.55	7.64	8.05	8.28	8.75	9.30	9.65
19	---	8.94	8.46	8.33	7.79	7.61	7.66	8.07	8.33	8.77	9.32	9.66
20	---	8.92	8.48	8.12	7.83	7.61	7.67	8.09	8.37	8.79	9.34	9.68
21	---	8.90	8.49	8.08	7.88	7.24	7.69	8.09	8.39	8.81	9.37	9.68
22	---	8.88	8.49	8.10	7.91	7.18	7.70	8.08	8.42	8.84	9.39	9.69
23	---	8.87	8.51	8.12	7.94	7.25	7.70	8.09	8.43	8.87	9.42	9.71
24	---	8.86	8.51	8.14	7.92	7.34	7.71	8.11	8.45	8.89	9.44	9.71
25	---	8.82	8.52	8.17	7.81	7.43	7.71	8.13	8.48	8.90	9.46	9.68
26	---	8.72	8.52	8.20	7.67	7.50	7.71	8.06	8.50	8.86	9.48	9.69
27	---	8.71	8.52	8.21	7.68	7.56	7.72	8.07	8.51	8.77	9.50	9.70
28	---	8.71	8.51	8.24	7.71	7.59	7.74	8.10	8.53	8.73	9.52	9.72
29	---	8.72	8.51	8.24	---	7.44	7.78	8.11	8.56	8.73	9.55	9.73
30	---	8.72	8.52	8.23	---	7.00	7.78	8.14	8.59	8.72	9.56	9.74
31	9.24	---	8.53	8.24	---	7.08	---	8.16	---	8.75	9.56	---

WTR YR 2001 MEAN 8.45 HIGH 7.00 LOW 9.74

ROWAN COUNTY--Continued

354057080362601 Local number, NC-193; DENR Piedmont Research Station well L63t1; County number, RO-149

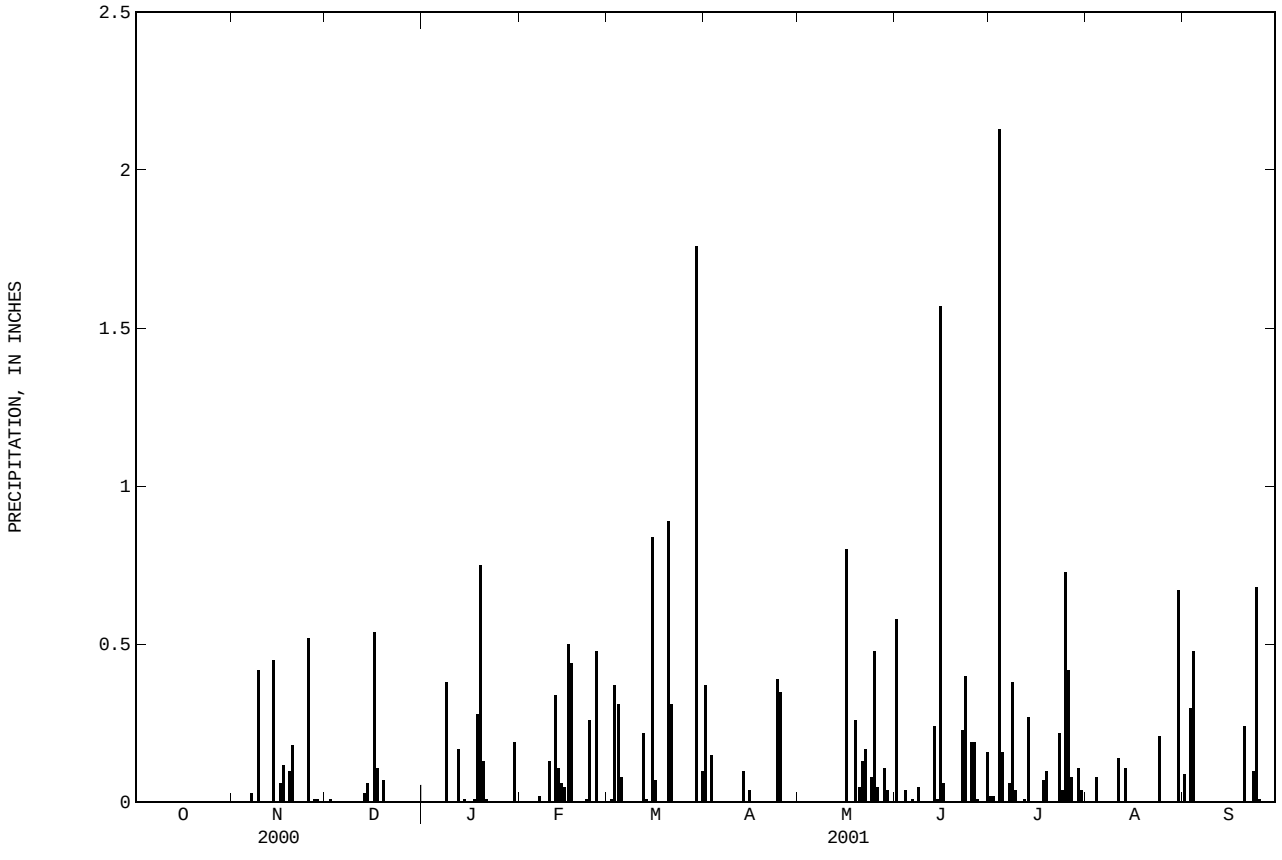




354057080362601. Local number, NC-193; DENR Piedmont Research Station well L63t1; County number, RO-149.
PERIOD OF RECORD.--April 1996 to current year.
INSTRUMENTATION--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at site.
REMARKS.--Gage is operated as part of climatic-effects network. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently winter record is poor.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.37	.00	.58	.02	.00	.09
2	.00	.00	.01	.00	.00	.01	.00	.00	.00	.02	.00	.00
3	.00	.00	.00	.00	.00	.37	.15	.00	.00	.00	.00	.30
4	.00	.00	.00	.00	.00	.31	.00	.00	.04	2.13	.08	.48
5	.00	.00	.00	.00	.00	.08	.00	.00	.00	.16	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
7	.00	.03	.00	.00	.02	.00	.00	.00	.00	.06	.00	.00
8	.00	.00	.00	.38	.00	.00	.00	.00	.05	.38	.00	.00
9	.00	.42	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00
10	.00	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00
12	.00	.00	.00	.17	.34	.22	.00	.00	.00	.01	.00	.00
13	.00	.00	.03	.00	.11	.01	.10	.00	.24	.27	.11	.00
14	.00	.45	.06	.01	.06	.00	.00	.00	.01	.00	.00	.00
15	.00	.00	.00	.00	.05	.84	.04	.00	1.57	.00	.00	.00
16	.00	.06	.54	.00	.50	.07	.00	.80	.06	.00	.00	.00
17	.00	.12	.11	.01	.44	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.28	.00	.00	.00	.00	.00	.07	.00	.00
19	.00	.10	.07	.75	.00	.00	.00	.26	.00	.10	.00	.00
20	.00	.18	.00	.13	.00	.89	.00	.05	.00	.00	.00	.24
21	.00	.00	.00	.01	.00	.31	.00	.13	.00	.00	.00	.00
22	.00	.00	.00	.00	.01	.00	.00	.17	.23	.00	.00	.00
23	.00	.00	.00	.00	.26	.00	.00	.00	.40	.22	.00	.10
24	.00	.00	.00	.00	.00	.00	.39	.08	.00	.04	.21	.68
25	.00	.52	.00	.00	.48	.00	.35	.48	.19	.73	.00	.01
26	.00	.00	.00	.00	.00	.00	.00	.05	.19	.42	.00	.00
27	.00	.01	.00	.00	.00	.00	.00	.00	.01	.08	.00	.00
28	.00	.01	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00
29	.00	.00	.00	.00	---	1.76	.00	.04	.00	.11	.00	.00
30	.00	.00	.00	.19	---	.00	.00	.00	.16	.04	.67	.00
31	.00	---	.00	.00	---	.10	---	.00	---	.00	.00	---
TOTAL	0.00	1.90	0.82	1.93	2.40	4.97	1.40	2.17	3.74	4.90	1.21	1.90

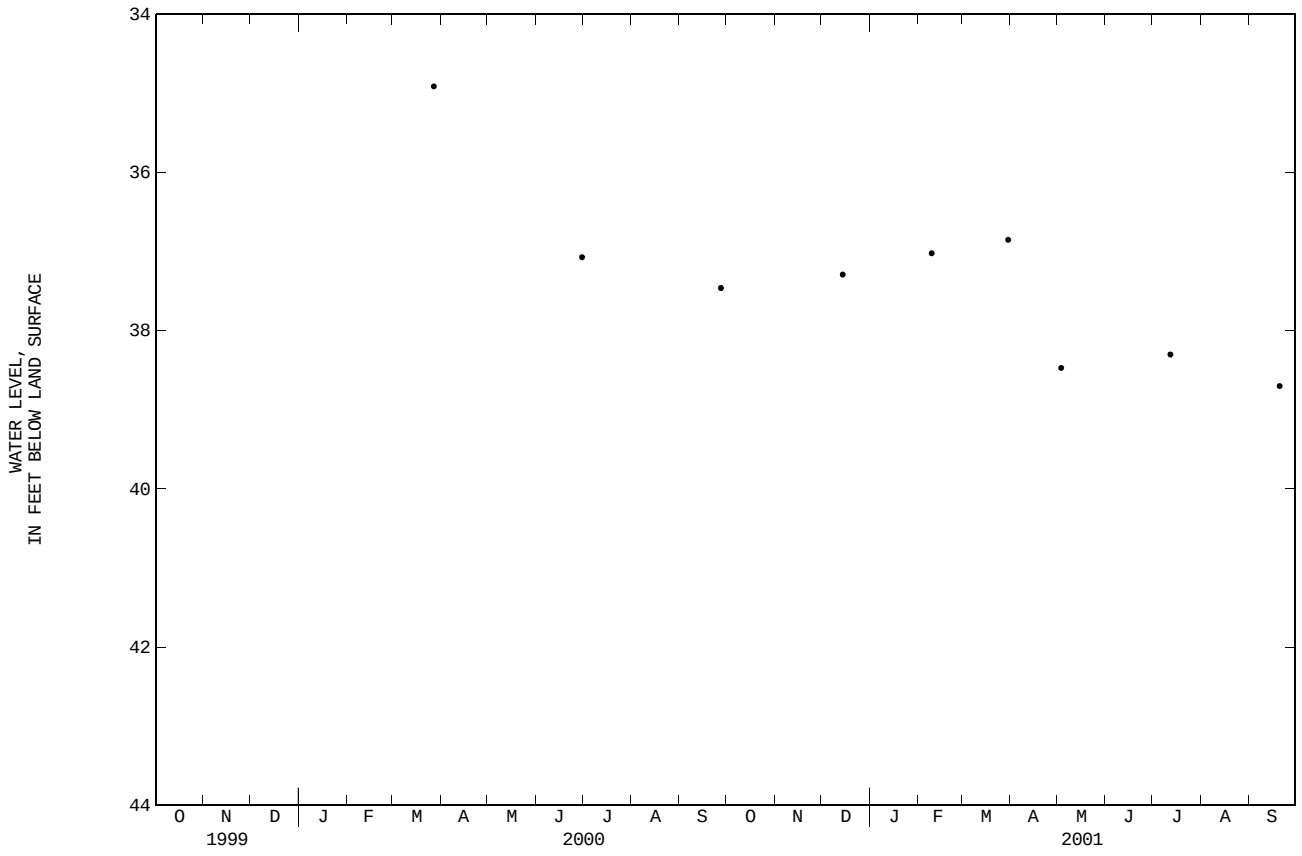


SAMPSON COUNTY

345919078112204. County number, SA-113; DENR Turkey Research Station well U34b4.
LOCATION.--Lat 34°59'19.2", long 78°11'22.4", North American Datum of 1983, Hydrologic Unit 03030006, on west edge of Turkey on State Highway 24. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 134 ft, diameter 4 in., screened interval from 124 to 134 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 140.4 ft above sea level (levels by DENR). Measuring point: Top of 4-inch casing, 1.25 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--August 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.48 ft below land-surface datum, Aug. 25, 1981; lowest water level measured, 38.70 ft below land-surface datum, Sept. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 14	37.29	FEB 09	37.02	MAR 30	36.85	MAY 03	38.47	JUL 12	38.30	SEP 20	38.70

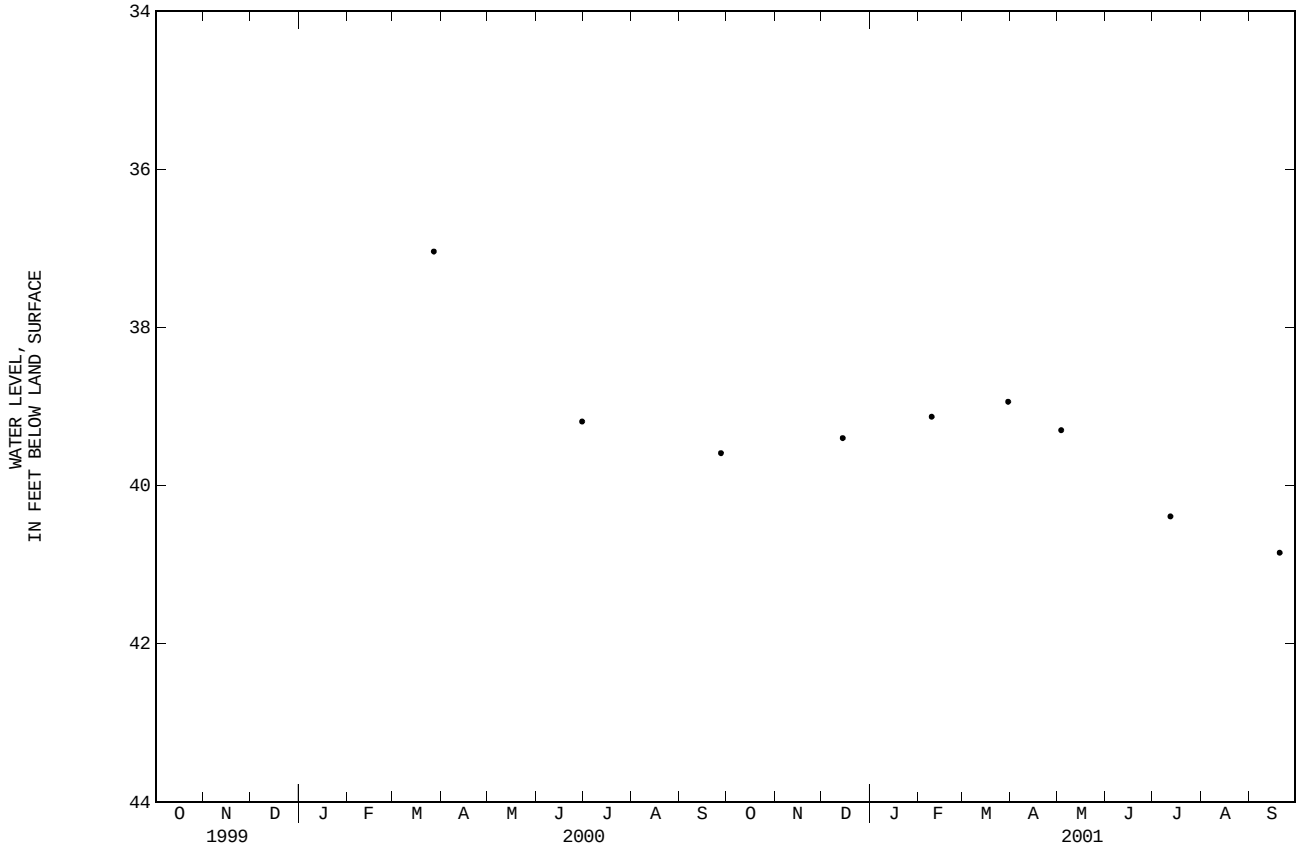


SAMPSON COUNTY--Continued

345920078112106. County number, SA-114; DENR Turkey Research Station well U34b6.
LOCATION.--Lat 34°59'20.0", long 78°11'21.5", North American Datum of 1983, Hydrologic Unit 03030006, on west edge of Turkey on State Highway 24. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Upper Cape Fear aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation well, depth 264 ft, diameter 6 in. to 148 ft, diameter 4 in. from 128 to 264 ft, screened interval from 254 to 264 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 141.8 ft above sea level (levels by DENR). Measuring point: Top of 6-inch casing, 1.44 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--August 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.04 ft below land-surface datum, Mar. 27, 2000; lowest water level measured, 40.85 ft below land-surface datum, Sept. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 14	39.40	FEB 09	39.13	MAR 30	38.94	MAY 03	39.30	JUL 12	40.39	SEP 20	40.85

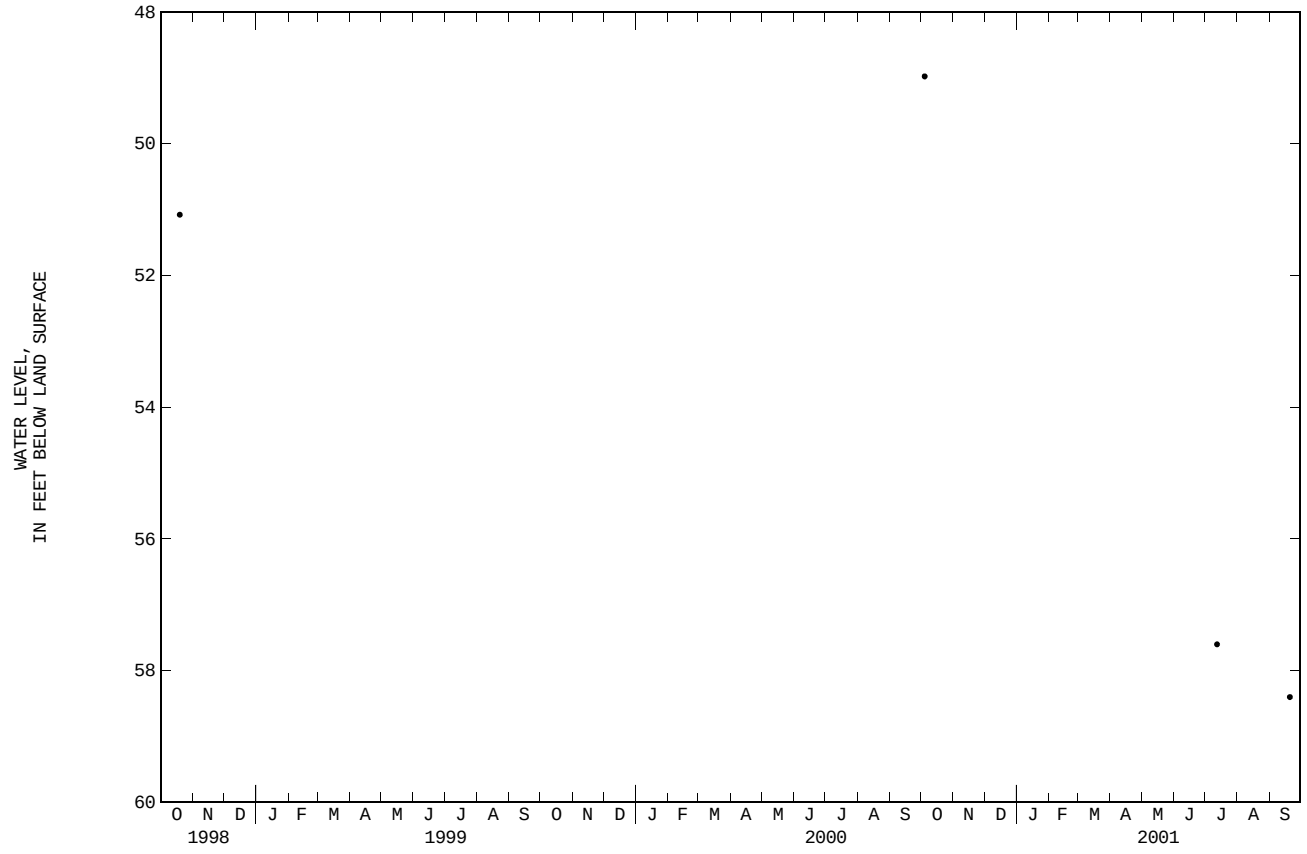


SAMPSON COUNTY--Continued

345927078170302. County number, SA-135; Clinton well 18S.
LOCATION.--Lat 34°59'26.8", long 78°17'03.2", North American Datum of 1983, Hydrologic Unit 03030006, 0.3 mi south of State Highway 24 on Secondary Road 1921. Owner: City of Clinton.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 200 ft, diameter 10 in., screened intervals from 105 to 145 ft, 158 to 168 ft, and 180 to 190 ft.
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 154 ft above sea level (from topographic map). Measuring point: Top of 1-inch well access pipe in pump pedestal, 2.2 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--October 1998 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.98 ft below land-surface datum, Oct. 4, 2000; lowest measured, 58.4 ft below land-surface datum, Sept. 20, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	48.98	JUL 12	57.6	SEP 20	58.4



SCOTLAND COUNTY

345812079313401. Local number, NC-194; County number, SC-080.
LOCATION.--Lat 34°58'17", long 79°31'41", Hydrologic Unit 03040204, in Sandhills Game Management Area, 0.15 mi west of Secondary Road 1328, 3.4 mi east of Marston, 4.8 mi south of Hoffman, and 6.1 mi southwest of Silver Hill. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined sands in the upper Black Creek aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 35.6 ft, diameter 4 in., cased to 30.5 ft, screened interval from 30.6 to 35.6 ft. Annular space filled with native clayey sand from 0 to 30 ft below land surface.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 433 ft above sea level (from topographic map). Measuring point: Top of casing, 2.93 ft above land-surface datum.
REMARKS.--Well is part of terrane-effects network.
PERIOD OF RECORD.--September 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 28.28 ft below land-surface datum, May 7-12, 1998; lowest water level recorded, 33.35 ft below land-surface datum, Sept. 26, 28, 29, 2001. .

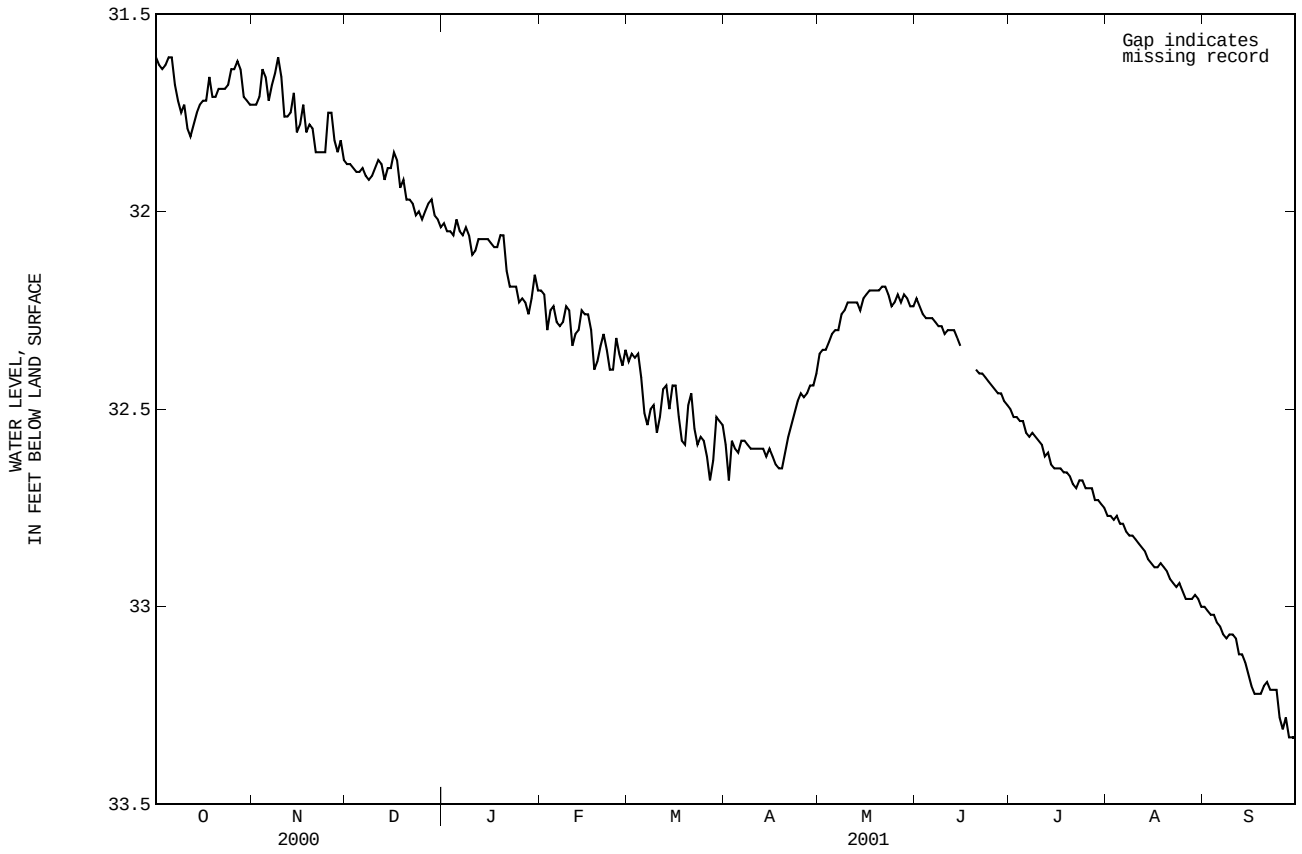
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

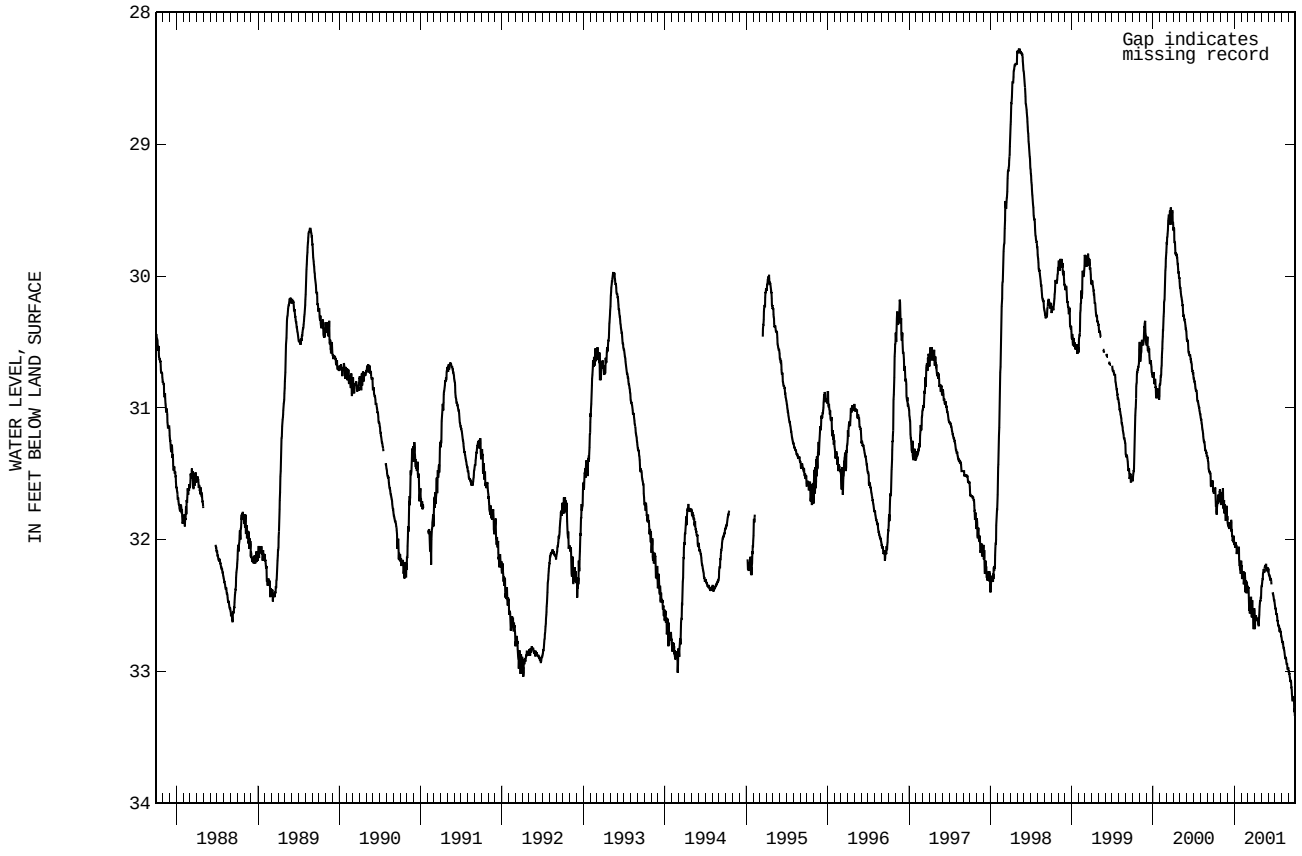
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.61	31.73	31.88	32.03	32.20	32.38	32.59	32.36	32.22	32.50	32.77	33.00
2	31.63	31.73	31.88	32.05	32.21	32.36	32.68	32.35	32.24	32.52	32.77	33.01
3	31.64	31.71	31.89	32.05	32.30	32.37	32.58	32.35	32.26	32.52	32.78	33.02
4	31.63	31.64	31.90	32.06	32.25	32.36	32.60	32.33	32.27	32.53	32.77	33.02
5	31.61	31.66	31.90	32.02	32.24	32.42	32.61	32.31	32.27	32.53	32.79	33.04
6	31.61	31.72	31.89	32.05	32.28	32.51	32.58	32.30	32.27	32.56	32.79	33.05
7	31.68	31.68	31.91	32.06	32.29	32.54	32.58	32.30	32.28	32.57	32.81	33.07
8	31.72	31.65	31.92	32.04	32.28	32.50	32.59	32.26	32.29	32.56	32.82	33.08
9	31.75	31.61	31.91	32.06	32.24	32.49	32.60	32.25	32.29	32.57	32.82	33.07
10	31.73	31.66	31.89	32.11	32.25	32.56	32.60	32.23	32.31	32.58	32.83	33.07
11	31.79	31.76	31.87	32.10	32.34	32.52	32.60	32.23	32.30	32.59	32.84	33.08
12	31.81	31.76	31.88	32.07	32.31	32.45	32.60	32.23	32.30	32.62	32.85	33.12
13	31.78	31.75	31.92	32.07	32.30	32.44	32.60	32.23	32.30	32.61	32.86	33.12
14	31.75	31.70	31.89	32.07	32.25	32.50	32.62	32.25	32.32	32.64	32.88	33.14
15	31.73	31.80	31.89	32.07	32.26	32.44	32.60	32.22	32.34	32.65	32.89	33.17
16	31.72	31.78	31.85	32.08	32.26	32.44	32.62	32.21	---	32.65	32.90	33.20
17	31.72	31.73	31.87	32.09	32.30	32.52	32.64	32.20	---	32.65	32.90	33.22
18	31.66	31.80	31.94	32.09	32.40	32.58	32.65	32.20	---	32.66	32.89	33.22
19	31.71	31.78	31.92	32.06	32.38	32.59	32.65	32.20	---	32.66	32.90	33.22
20	31.71	31.79	31.97	32.06	32.34	32.49	32.61	32.20	32.40	32.67	32.91	33.20
21	31.69	31.85	31.97	32.15	32.31	32.46	32.57	32.19	32.41	32.69	32.93	33.19
22	31.69	31.85	31.98	32.19	32.35	32.55	32.54	32.19	32.41	32.70	32.94	33.21
23	31.69	31.85	32.01	32.19	32.40	32.59	32.51	32.21	32.42	32.68	32.95	33.21
24	31.68	31.85	32.00	32.19	32.40	32.57	32.48	32.24	32.43	32.68	32.94	33.21
25	31.64	31.75	32.02	32.23	32.32	32.58	32.46	32.23	32.44	32.70	32.96	33.28
26	31.64	31.75	32.00	32.22	32.36	32.62	32.47	32.21	32.45	32.70	32.98	33.31
27	31.62	31.82	31.98	32.23	32.39	32.68	32.46	32.23	32.46	32.70	32.98	33.28
28	31.64	31.85	31.97	32.26	32.35	32.63	32.44	32.21	32.46	32.73	32.98	33.33
29	31.71	31.82	32.01	32.22	---	32.52	32.44	32.22	32.48	32.73	32.97	33.33
30	31.72	31.87	32.02	32.16	---	32.53	32.41	32.24	32.49	32.74	32.98	33.33
31	31.73	---	32.04	32.20	---	32.54	---	32.24	---	32.75	33.00	---

WTR YR 2001 MEAN 32.34 HIGH 31.61 LOW 33.33

SCOTLAND COUNTY--Continued

345812079313401 Local number, NC-194; County number, SC-080





SCOTLAND COUNTY--Continued

344520079281001. County number, SC-040; Laurinburg well 4.
LOCATION.--Lat 34°45'17", long 79°28'03", Hydrologic Unit 03040204, in Laurinburg off Willow Drive. Owner: City of Laurinburg.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled unused supply well, depth 240 ft, diameter 10 and 8 in., screened intervals from 70 to 106 ft, 150 to 165 ft, 185 to 195 ft, 200 to 205 ft, and 217 to 224 ft (reported by driller).
INSTRUMENTATION.--Pressure transducer recording data at 15-minute intervals.
DATUM.--Land-surface datum is 210 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 1.5 ft above land-surface datum (since July 2000).
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study. Water levels affected by pumping of nearby municipal wells.
PERIOD OF RECORD.--July 1969 to current year. Water levels measured periodically since July 1969. Continuous record began December 2000.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.33 ft below land-surface datum, Feb. 26, 1998; lowest measured, 21.68 ft below land-surface datum, Oct. 20, 1993.

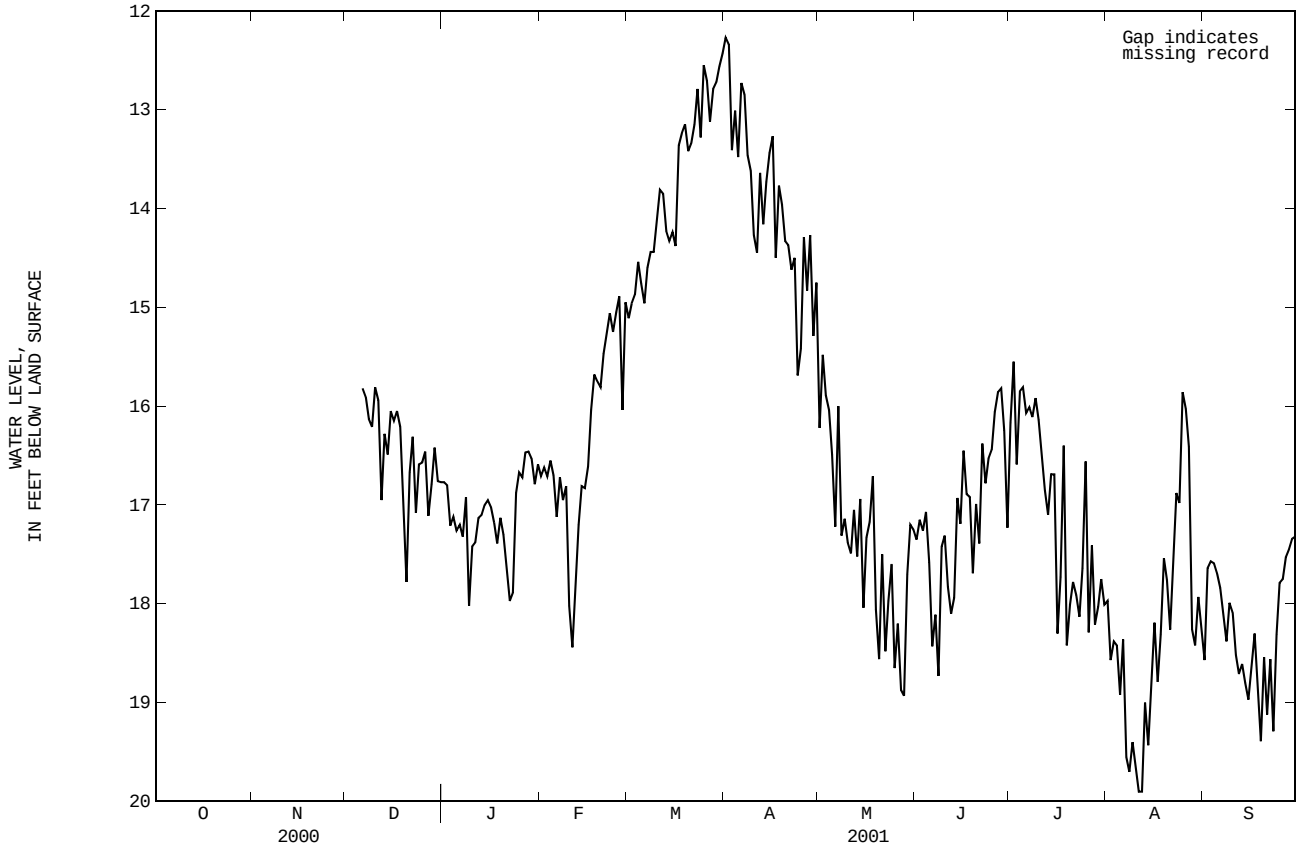
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

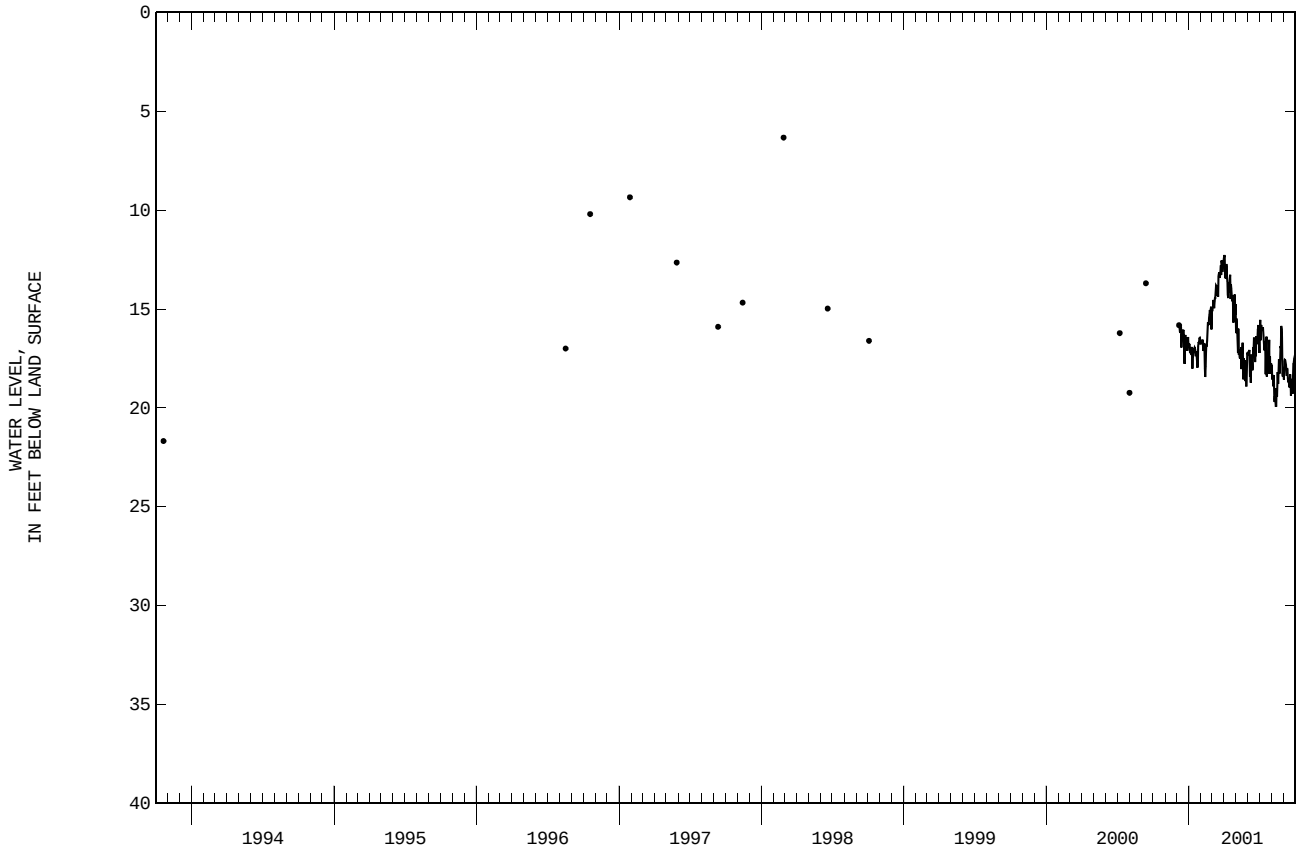
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	16.77	16.71	15.11	12.27	16.22	17.35	16.17	17.97	18.57
2	---	---	---	16.80	16.62	14.96	12.34	15.48	17.15	15.55	18.57	17.64
3	---	---	---	17.21	16.71	14.87	13.41	15.89	17.26	16.59	18.38	17.57
4	---	---	---	17.12	16.55	14.54	13.01	16.04	17.07	15.85	18.42	17.59
5	---	---	---	17.26	16.70	14.76	13.48	16.49	17.58	15.81	18.92	17.69
6	---	---	15.82	17.20	17.12	14.96	12.73	17.22	18.43	16.07	18.36	17.84
7	---	---	15.91	17.32	16.72	14.60	12.85	16.00	18.11	16.01	19.55	18.11
8	---	---	16.13	16.92	16.95	14.44	13.46	17.31	18.73	16.11	19.70	18.38
9	---	---	16.21	18.02	16.81	14.44	13.62	17.14	17.42	15.92	19.40	17.99
10	---	---	15.81	17.42	18.02	14.10	14.27	17.38	17.31	16.14	19.65	18.09
11	---	---	15.94	17.38	18.44	13.81	14.45	17.49	17.83	16.52	19.90	18.52
12	---	---	16.95	17.13	17.91	13.85	13.64	17.05	18.10	16.85	19.90	18.71
13	---	---	16.28	17.10	17.20	14.23	14.16	17.52	17.94	17.10	19.00	18.61
14	---	---	16.49	17.00	16.81	14.33	13.73	16.94	16.93	16.69	19.43	18.80
15	---	---	16.05	16.95	16.83	14.24	13.44	18.04	17.19	16.69	18.91	18.97
16	---	---	16.15	17.02	16.61	14.38	13.27	17.33	16.45	18.30	18.19	18.64
17	---	---	16.05	17.18	16.04	13.36	14.50	17.17	16.89	17.73	18.79	18.30
18	---	---	16.21	17.39	15.68	13.24	13.77	16.71	16.92	16.40	18.31	18.82
19	---	---	16.88	17.13	15.75	13.15	13.96	18.06	17.69	18.42	17.54	19.39
20	---	---	17.78	17.30	15.81	13.42	14.33	18.56	16.99	18.01	17.76	18.54
21	---	---	16.67	17.64	15.47	13.34	14.37	17.50	17.39	17.78	18.26	19.12
22	---	---	16.31	17.97	15.27	13.15	14.62	18.48	16.38	17.91	17.59	18.56
23	---	---	17.08	17.89	15.06	12.79	14.50	17.97	16.78	18.13	16.88	19.29
24	---	---	16.59	16.88	15.25	13.28	15.69	17.60	16.53	17.64	16.98	18.31
25	---	---	16.57	16.67	15.05	12.55	15.42	18.65	16.44	16.56	15.86	17.79
26	---	---	16.46	16.72	14.89	12.71	14.29	18.20	16.06	18.29	16.03	17.75
27	---	---	17.11	16.47	16.04	13.12	14.83	18.87	15.86	17.41	16.41	17.53
28	---	---	16.79	16.46	14.95	12.79	14.27	18.93	15.82	18.21	18.26	17.45
29	---	---	16.42	16.53	---	12.72	15.29	17.70	16.25	18.03	18.42	17.34
30	---	---	16.76	16.79	---	12.56	14.75	17.20	17.23	17.75	17.93	17.32
31	---	---	16.77	16.59	---	12.43	---	17.25	---	18.01	18.22	---

WTR YR 2001 MEAN 16.58 HIGH 12.27 LOW 19.90

SCOTLAND COUNTY--Continued

344520079281001 County number, SC-040; Laurinburg well 4



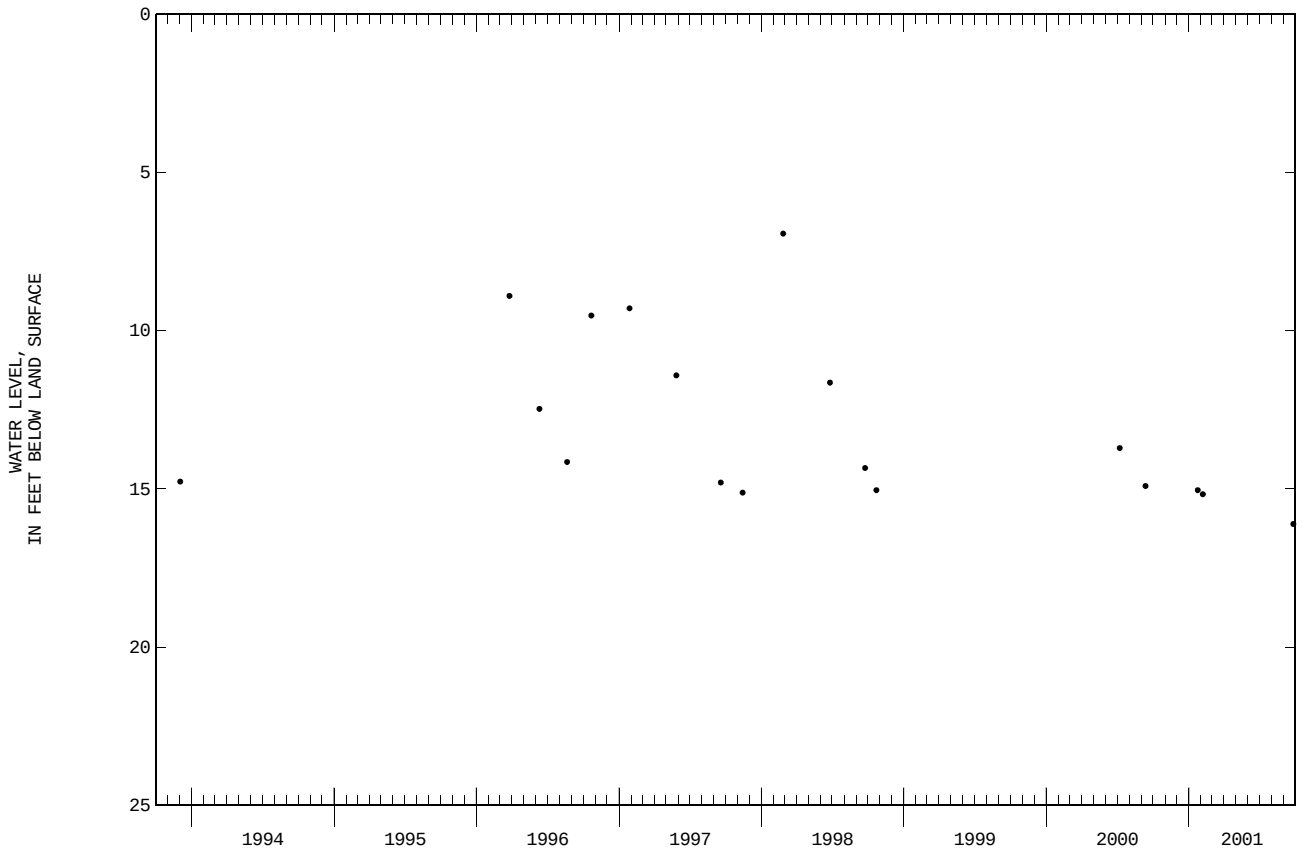


SCOTLAND COUNY--Continued

345313079220901. County number, SC-106; Wagram well 3.
LOCATION.--Lat 34°53'13", long 79°22'09", Hydrologic Unit 03040204, in Wagram, northwest of intersection of First and Richmond Streets. Owner: Town of Wagram.
AQUIFER.--Black Creek aquifer of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled supply well, depth 63 ft, diameter 8 in., screened interval from 47 to 57 ft (reported by owner).
INSTRUMENTATION.--Measured periodically with steel tape.
DATUM.--Land-surface datum is 235 ft above sea level (from topographic map). Measuring point: Top of nipple in well sanitary seal, 1.35 ft above land-surface datum.
REMARKS.--Well is part of southern Coastal Plain ground-water level monitoring study.
PERIOD OF RECORD.--December 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.93 ft below land-surface datum, Feb. 25, 1998; lowest water level measured, 16.11 ft below land-surface datum, Sept. 25, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 23	15.04	FEB 05	15.17	SEP 25	16.11



Observation well NC-195 Elizabeth City, Pasquotank County, North Carolina (p. 196).

SWAIN COUNTY

352519083272401. Local number, NC-219; County number, SW-036.
LOCATION.--Lat 35°25'19", long 83°27'24", Hydrologic Unit 06010203, in Bryson City, 0.75 mi southwest of intersection Fontana Dam road and Tuskaseegee River. Owner: Wallace Company of North Carolina.
AQUIFER.--Felsic Gneiss.
WELL CHARACTERISTICS.--Drilled observation well, depth 555 ft, diameter 10 in.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 1,719.00 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 6.90 ft above land-surface datum.
REMARKS.--Well is part of terrane-effects network.
PERIOD OF RECORD.--August 2000 to current year. Records from February 1965 to March 1999 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.91 ft below land-surface datum, Jan. 19, 2001; lowest water level recorded, 7.31 ft below land-surface datum, Nov. 4-7, 2000.

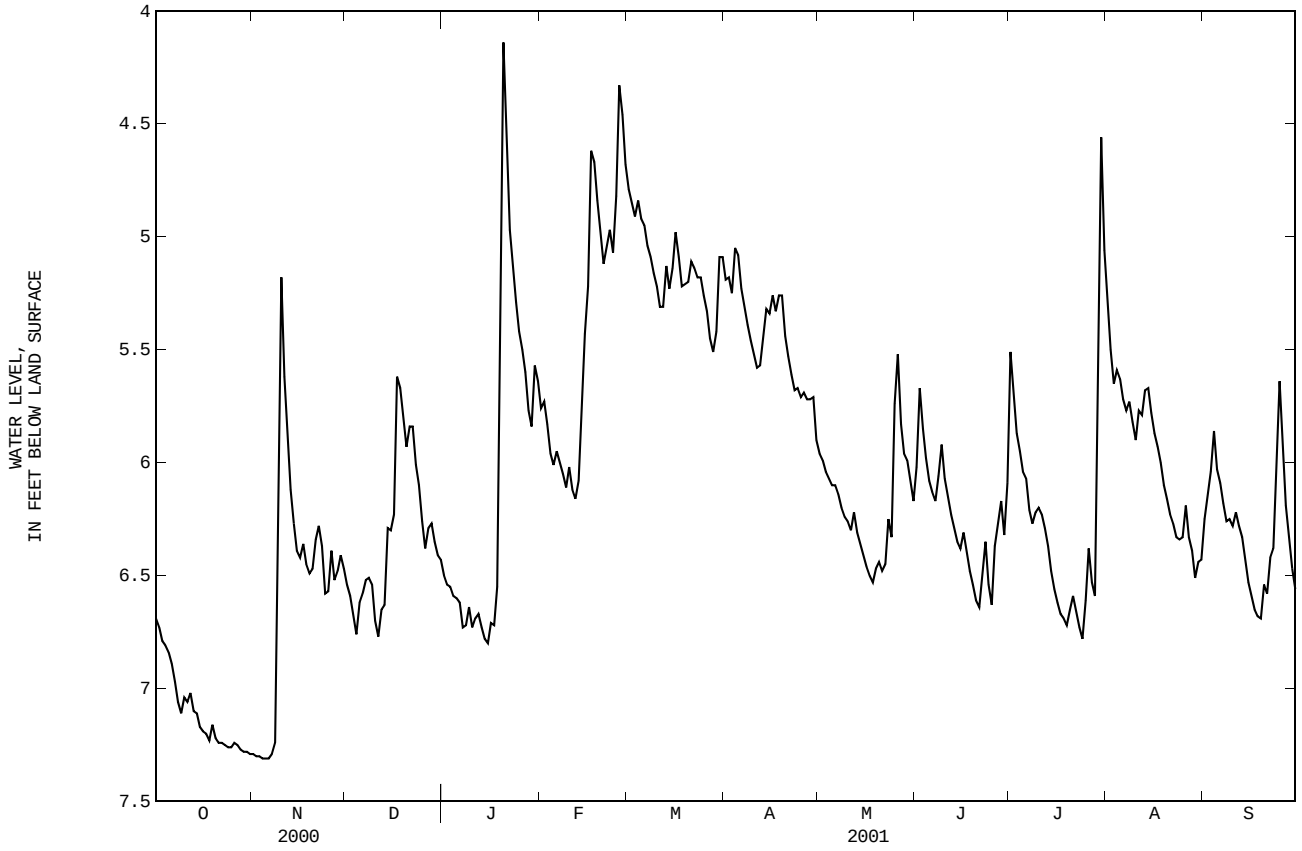
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

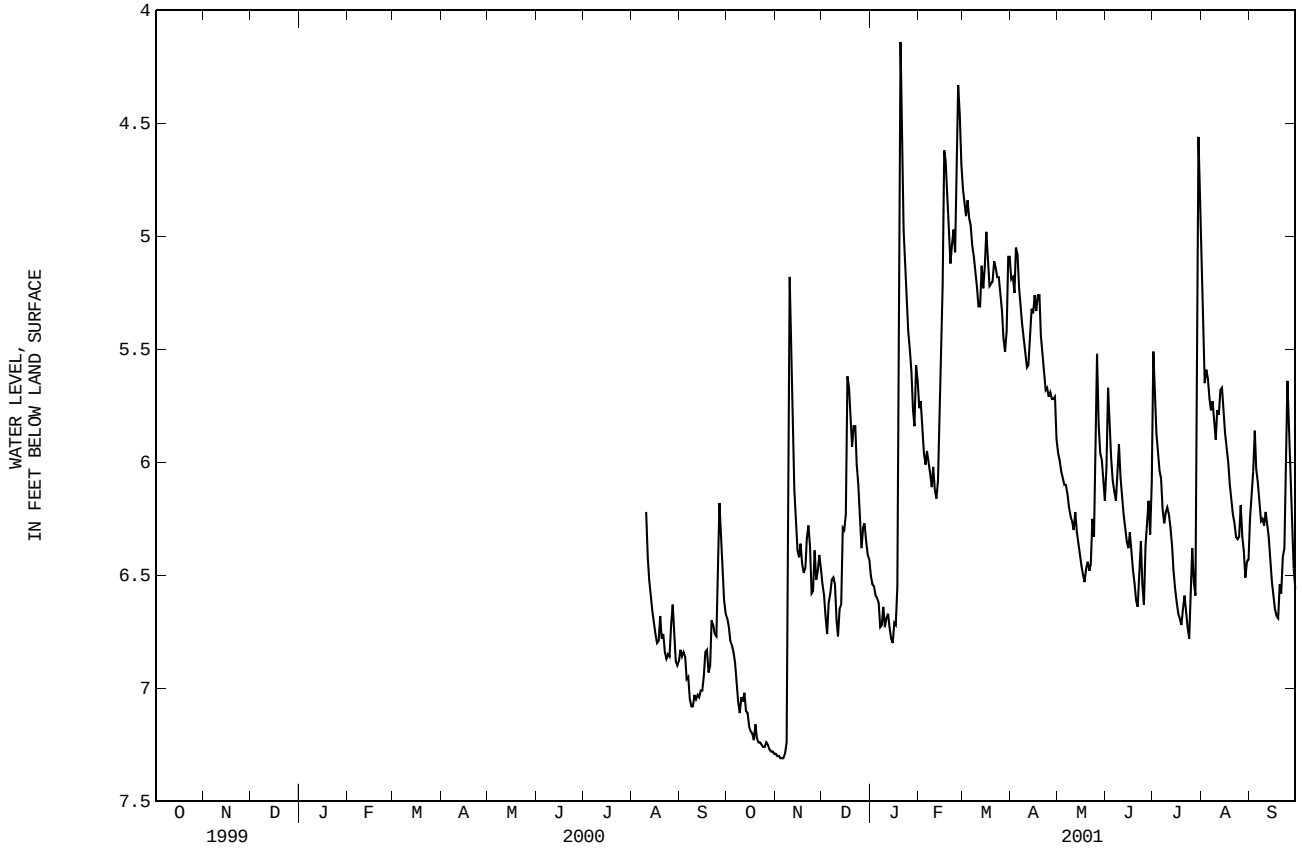
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.69	7.29	6.54	6.50	5.76	4.79	5.19	5.96	6.02	5.51	5.31	6.25
2	6.73	7.30	6.59	6.54	5.73	4.85	5.18	5.99	5.67	5.69	5.50	6.15
3	6.79	7.30	6.68	6.55	5.83	4.91	5.25	6.04	5.85	5.87	5.65	6.04
4	6.81	7.31	6.76	6.59	5.96	4.84	5.05	6.07	5.98	5.95	5.59	5.86
5	6.84	7.31	6.62	6.60	6.01	4.92	5.08	6.10	6.08	6.04	5.63	6.03
6	6.89	7.31	6.58	6.62	5.95	4.95	5.23	6.10	6.13	6.07	5.72	6.09
7	6.97	7.29	6.52	6.73	6.00	5.04	5.31	6.14	6.17	6.21	5.77	6.18
8	7.06	7.24	6.51	6.72	6.05	5.09	5.39	6.20	6.06	6.27	5.73	6.26
9	7.11	6.38	6.54	6.64	6.11	5.16	5.46	6.24	5.92	6.22	5.82	6.25
10	7.04	5.18	6.70	6.73	6.02	5.22	5.52	6.26	6.07	6.20	5.90	6.28
11	7.06	5.62	6.77	6.69	6.12	5.31	5.58	6.30	6.15	6.23	5.77	6.22
12	7.02	5.90	6.65	6.67	6.16	5.31	5.57	6.22	6.23	6.29	5.79	6.28
13	7.10	6.12	6.63	6.73	6.08	5.13	5.45	6.31	6.29	6.37	5.68	6.33
14	7.11	6.27	6.29	6.78	5.72	5.23	5.32	6.36	6.35	6.48	5.67	6.43
15	7.17	6.39	6.30	6.80	5.43	5.14	5.34	6.41	6.38	6.56	5.78	6.53
16	7.19	6.42	6.23	6.71	5.22	4.98	5.26	6.46	6.31	6.62	5.87	6.59
17	7.20	6.36	5.62	6.72	4.62	5.09	5.33	6.50	6.39	6.67	5.93	6.65
18	7.23	6.45	5.67	6.55	4.67	5.22	5.26	6.53	6.48	6.69	6.00	6.68
19	7.16	6.49	5.80	4.92	4.84	5.21	5.26	6.47	6.54	6.72	6.10	6.69
20	7.22	6.47	5.93	4.14	4.98	5.20	5.44	6.44	6.61	6.65	6.16	6.54
21	7.24	6.34	5.84	4.60	5.12	5.11	5.53	6.48	6.64	6.59	6.23	6.58
22	7.24	6.28	5.84	4.97	5.04	5.14	5.61	6.45	6.51	6.66	6.27	6.42
23	7.25	6.37	6.01	5.12	4.97	5.18	5.68	6.25	6.35	6.73	6.33	6.38
24	7.26	6.58	6.10	5.29	5.07	5.18	5.67	6.33	6.54	6.78	6.34	6.07
25	7.26	6.57	6.26	5.42	4.82	5.26	5.71	5.74	6.63	6.61	6.33	5.64
26	7.24	6.39	6.38	5.50	4.33	5.33	5.69	5.52	6.37	6.38	6.19	5.96
27	7.25	6.52	6.29	5.60	4.46	5.45	5.72	5.83	6.27	6.53	6.33	6.19
28	7.27	6.48	6.27	5.77	4.68	5.51	5.72	5.96	6.17	6.59	6.39	6.34
29	7.28	6.41	6.35	5.84	---	5.42	5.71	5.99	6.32	5.54	6.51	6.47
30	7.28	6.47	6.41	5.57	---	5.09	5.90	6.08	6.09	4.56	6.44	6.56
31	7.29	---	6.43	5.64	---	5.09	---	6.17	---	5.06	6.43	---

WTR YR 2001 MEAN 6.09 HIGH 4.14 LOW 7.31

SWAIN COUNTY--Continued

352519083272401 Local number, NC-219; County number, SW-036





TRANSYLVANIA COUNTY

351808082374302. Local number NC-144; County number, TR-065.
LOCATION.--Lat 35°18'08", long 82°37'43", Hydrologic Unit 06010105, at Blantyre, 0.25 mi northwest of U.S. Highway 64 on King Road (Secondary Road 1502). Owner: U.S. Geological Survey.
AQUIFER.--Unconfined saprolite derived from gneiss of Paleozoic age.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 70 ft, diameter 4 in., cased to 58 ft, casing perforated from 15 to 58 ft, gravel filter pack from 5 to 58 ft, backfilled with gravel and saprolite from 58 to 70 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 2,147.11 ft above sea level. Measuring point: Top of casing, 1.30 ft above land-surface datum.
REMARKS.--In September 1984, well replaced nearby well NC-127. Well is part of terrane-effects network.
PERIOD OF RECORD.--Continuous record October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 22.20 ft below land-surface datum, Apr. 26, 1993; lowest water level recorded, 39.63 ft below land-surface datum, Dec. 12, 2000.

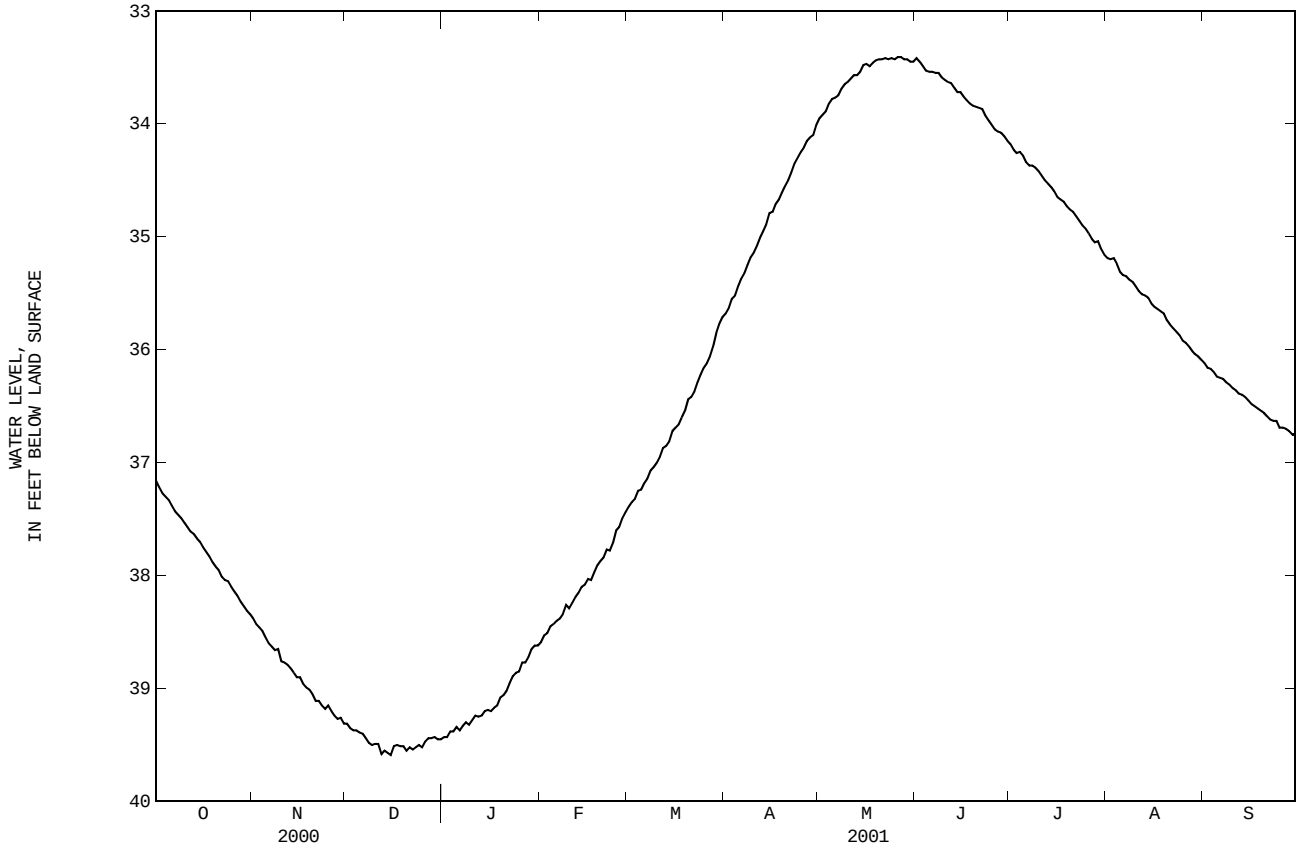
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

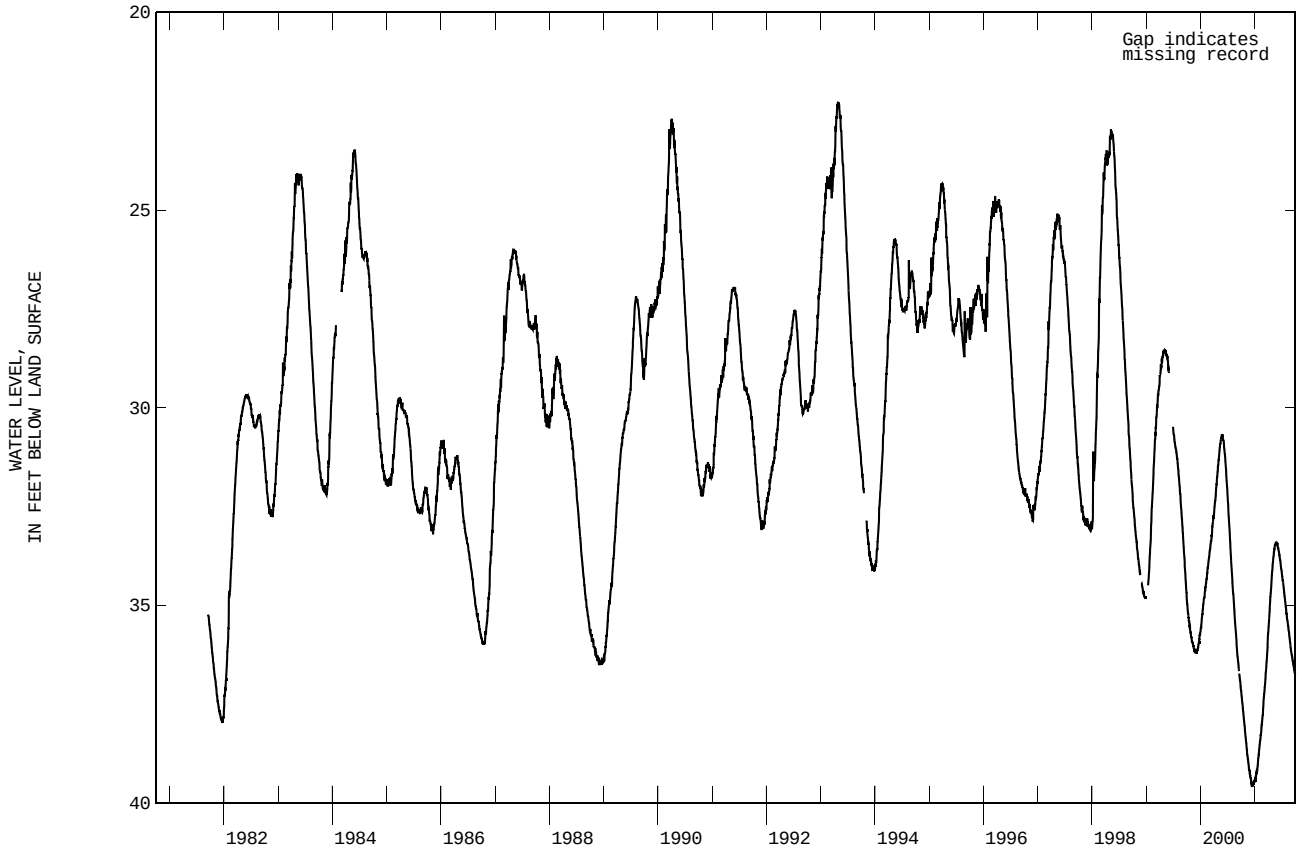
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.16	38.38	39.31	39.43	38.59	37.39	35.68	33.95	33.42	34.18	35.19	36.12
2	37.22	38.43	39.35	39.43	38.53	37.35	35.63	33.92	33.45	34.23	35.20	36.16
3	37.27	38.46	39.37	39.38	38.51	37.32	35.55	33.89	33.49	34.26	35.19	36.17
4	37.30	38.49	39.37	39.38	38.45	37.25	35.52	33.82	33.53	34.25	35.24	36.20
5	37.33	38.55	39.39	39.34	38.43	37.24	35.44	33.78	33.54	34.28	35.31	36.24
6	37.38	38.60	39.40	39.37	38.40	37.18	35.37	33.77	33.54	34.34	35.34	36.25
7	37.43	38.63	39.44	39.33	38.38	37.14	35.32	33.75	33.55	34.37	35.35	36.26
8	37.46	38.66	39.48	39.30	38.34	37.07	35.25	33.69	33.55	34.37	35.38	36.29
9	37.49	38.65	39.50	39.32	38.26	37.04	35.18	33.65	33.59	34.39	35.40	36.31
10	37.53	38.76	39.49	39.28	38.29	37.00	35.14	33.63	33.61	34.42	35.44	36.34
11	37.57	38.77	39.49	39.24	38.24	36.95	35.08	33.60	33.63	34.46	35.48	36.36
12	37.61	38.79	39.58	39.25	38.19	36.87	35.01	33.57	33.64	34.50	35.51	36.39
13	37.63	38.82	39.55	39.24	38.15	36.85	34.95	33.57	33.68	34.53	35.52	36.40
14	37.67	38.86	39.57	39.20	38.10	36.81	34.89	33.54	33.72	34.56	35.54	36.42
15	37.70	38.90	39.59	39.19	38.08	36.72	34.79	33.48	33.72	34.60	35.59	36.45
16	37.75	38.90	39.51	39.20	38.03	36.69	34.78	33.47	33.76	34.65	35.62	36.48
17	37.79	38.96	39.50	39.17	38.04	36.66	34.71	33.49	33.79	34.67	35.64	36.50
18	37.83	38.99	39.51	39.15	37.97	36.60	34.67	33.46	33.82	34.69	35.66	36.52
19	37.88	39.01	39.51	39.08	37.91	36.54	34.61	33.44	33.84	34.73	35.68	36.54
20	37.92	39.05	39.55	39.06	37.87	36.44	34.55	33.43	33.85	34.76	35.74	36.56
21	37.95	39.11	39.52	39.02	37.84	36.42	34.50	33.43	33.86	34.78	35.78	36.59
22	38.01	39.11	39.54	38.95	37.77	36.37	34.43	33.42	33.87	34.82	35.81	36.62
23	38.04	39.15	39.52	38.89	37.78	36.29	34.35	33.43	33.93	34.86	35.84	36.63
24	38.05	39.18	39.50	38.86	37.71	36.22	34.30	33.42	33.97	34.90	35.87	36.63
25	38.10	39.15	39.52	38.85	37.60	36.16	34.25	33.43	34.01	34.93	35.92	36.69
26	38.14	39.20	39.47	38.77	37.57	36.12	34.21	33.41	34.05	34.97	35.94	36.69
27	38.18	39.24	39.44	38.77	37.49	36.06	34.15	33.41	34.07	35.02	35.97	36.70
28	38.23	39.27	39.44	38.72	37.44	35.97	34.12	33.43	34.08	35.05	36.01	36.72
29	38.27	39.26	39.43	38.65	---	35.85	34.10	33.43	34.11	35.04	36.04	36.75
30	38.31	39.31	39.45	38.62	---	35.77	34.01	33.45	34.15	35.11	36.06	36.75
31	38.34	---	39.45	38.62	---	35.71	---	33.45	---	35.16	36.09	---

WTR YR 2001 MEAN 36.56 HIGH 33.41 LOW 39.59

TRANSYLVANIA COUNTY--Continued

351808082374302 Local number NC-144; County number, TR-065





TRANSYLVANIA COUNTY--Continued

351709082434101. Local number, NC-147; County number, TR-066.
LOCATION.--Lat 35°17'09", long 82°43'41", Hydrologic Unit 06010105, 3.5 mi north of Brevard on U.S. Highway 276, 700 ft northwest of U.S. Forest Service Ranger Station in Pisgah National Forest. Owner: U.S. Geological Survey.
AQUIFER.--Unconfined alluvial sand.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 25 ft, diameter 4 in., cased to 11.6 ft, screened interval from 11.6 to 21.6 ft; measured depth 22.9 ft, June 1985.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 2,176.70 ft above sea level. Measuring point: Top of casing, 2.24 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--June 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.43 ft below land-surface datum, Oct. 2, 1989; lowest water level recorded, 17.75 ft below land-surface datum, Sept. 26, 27, 28, 1999.

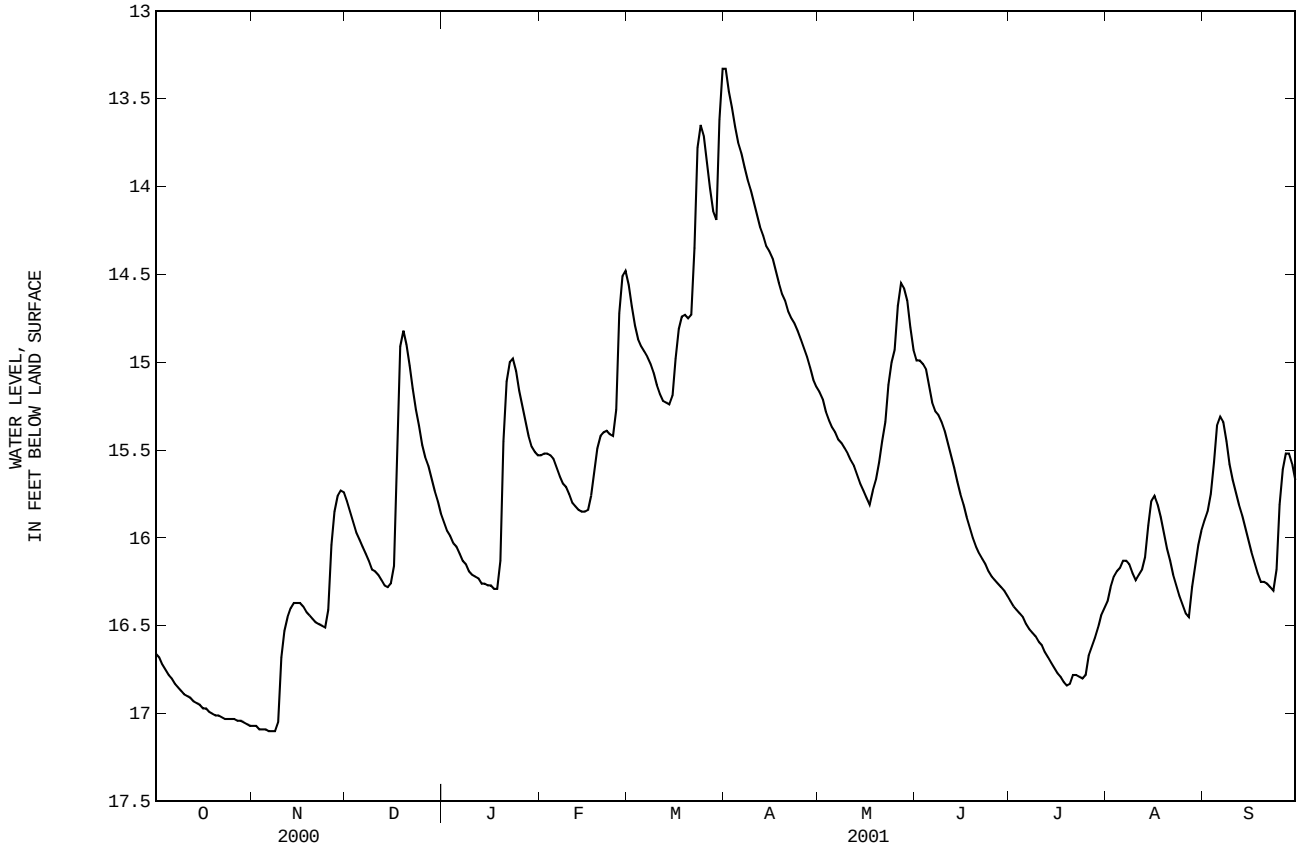
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

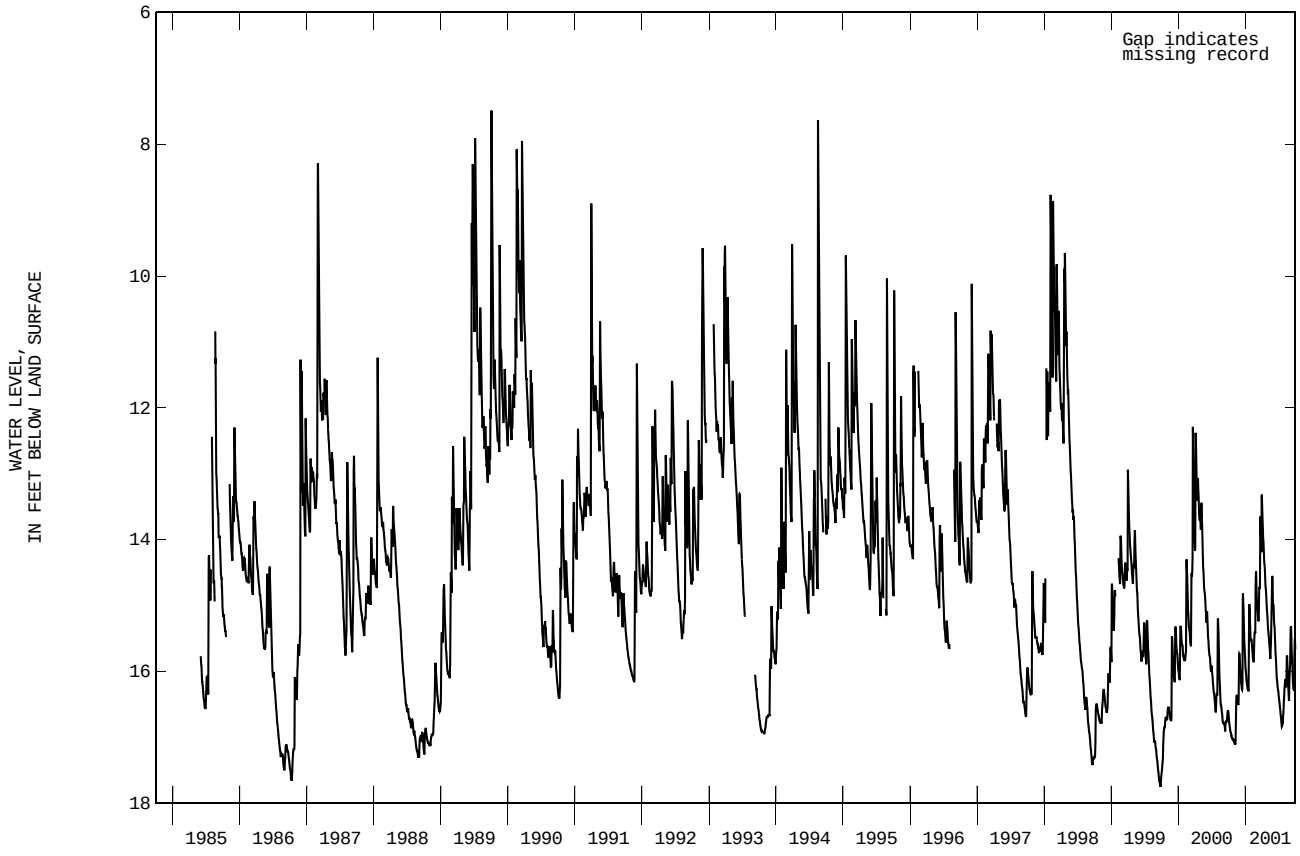
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.66	17.07	15.79	15.91	15.53	14.56	13.33	15.17	14.99	16.36	16.36	15.90
2	16.68	17.07	15.85	15.96	15.52	14.68	13.46	15.21	14.99	16.39	16.28	15.85
3	16.72	17.09	15.91	15.99	15.52	14.79	13.55	15.28	15.01	16.41	16.22	15.75
4	16.75	17.09	15.97	16.03	15.53	14.87	13.66	15.33	15.04	16.43	16.19	15.57
5	16.78	17.09	16.01	16.05	15.55	14.91	13.75	15.37	15.14	16.45	16.17	15.36
6	16.80	17.10	16.05	16.09	15.60	14.94	13.81	15.40	15.23	16.49	16.13	15.31
7	16.83	17.10	16.09	16.13	15.65	14.97	13.89	15.44	15.28	16.52	16.13	15.34
8	16.85	17.10	16.13	16.15	15.69	15.01	13.96	15.46	15.30	16.54	16.15	15.45
9	16.87	17.05	16.18	16.19	15.71	15.06	14.02	15.49	15.34	16.56	16.20	15.58
10	16.89	16.68	16.19	16.21	15.75	15.13	14.09	15.52	15.39	16.59	16.24	15.67
11	16.90	16.53	16.21	16.22	15.80	15.18	14.16	15.56	15.46	16.61	16.21	15.74
12	16.91	16.45	16.24	16.23	15.82	15.22	14.23	15.59	15.53	16.65	16.18	15.81
13	16.93	16.40	16.27	16.26	15.84	15.23	14.28	15.64	15.60	16.68	16.11	15.87
14	16.94	16.37	16.28	16.26	15.85	15.24	14.34	15.69	15.68	16.71	15.93	15.94
15	16.95	16.37	16.26	16.27	15.85	15.19	14.37	15.73	15.75	16.74	15.79	16.01
16	16.97	16.37	16.16	16.27	15.84	14.98	14.41	15.77	15.81	16.77	15.76	16.08
17	16.97	16.39	15.42	16.29	15.76	14.81	14.48	15.81	15.88	16.79	15.81	16.14
18	16.99	16.42	14.91	16.29	15.62	14.74	14.55	15.73	15.94	16.82	15.88	16.20
19	17.00	16.44	14.82	16.13	15.49	14.73	14.61	15.67	16.00	16.84	15.97	16.25
20	17.01	16.46	14.90	15.45	15.42	14.75	14.65	15.57	16.05	16.83	16.06	16.25
21	17.01	16.48	15.02	15.11	15.40	14.73	14.71	15.45	16.09	16.78	16.13	16.26
22	17.02	16.49	15.15	15.00	15.39	14.35	14.75	15.34	16.12	16.78	16.21	16.28
23	17.03	16.50	15.27	14.98	15.41	13.78	14.78	15.13	16.15	16.79	16.27	16.30
24	17.03	16.51	15.36	15.05	15.42	13.65	14.82	15.00	16.19	16.80	16.33	16.18
25	17.03	16.41	15.47	15.16	15.27	13.71	14.87	14.93	16.22	16.78	16.38	15.81
26	17.03	16.04	15.54	15.25	14.72	13.86	14.92	14.68	16.24	16.67	16.43	15.61
27	17.04	15.85	15.59	15.33	14.51	14.01	14.97	14.55	16.26	16.62	16.45	15.52
28	17.04	15.76	15.66	15.42	14.48	14.14	15.03	14.58	16.28	16.57	16.28	15.52
29	17.05	15.73	15.73	15.48	---	14.19	15.10	14.65	16.30	16.51	16.16	15.58
30	17.06	15.74	15.79	15.51	---	13.62	15.14	14.80	16.33	16.44	16.04	15.67
31	17.07	---	15.86	15.53	---	13.33	---	14.93	---	16.40	15.96	---

WTR YR 2001 MEAN 15.76 HIGH 13.33 LOW 17.10

TRANSYLVANIA COUNTY--Continued

351709082434101 Local number, NC-147; County number, TR-066



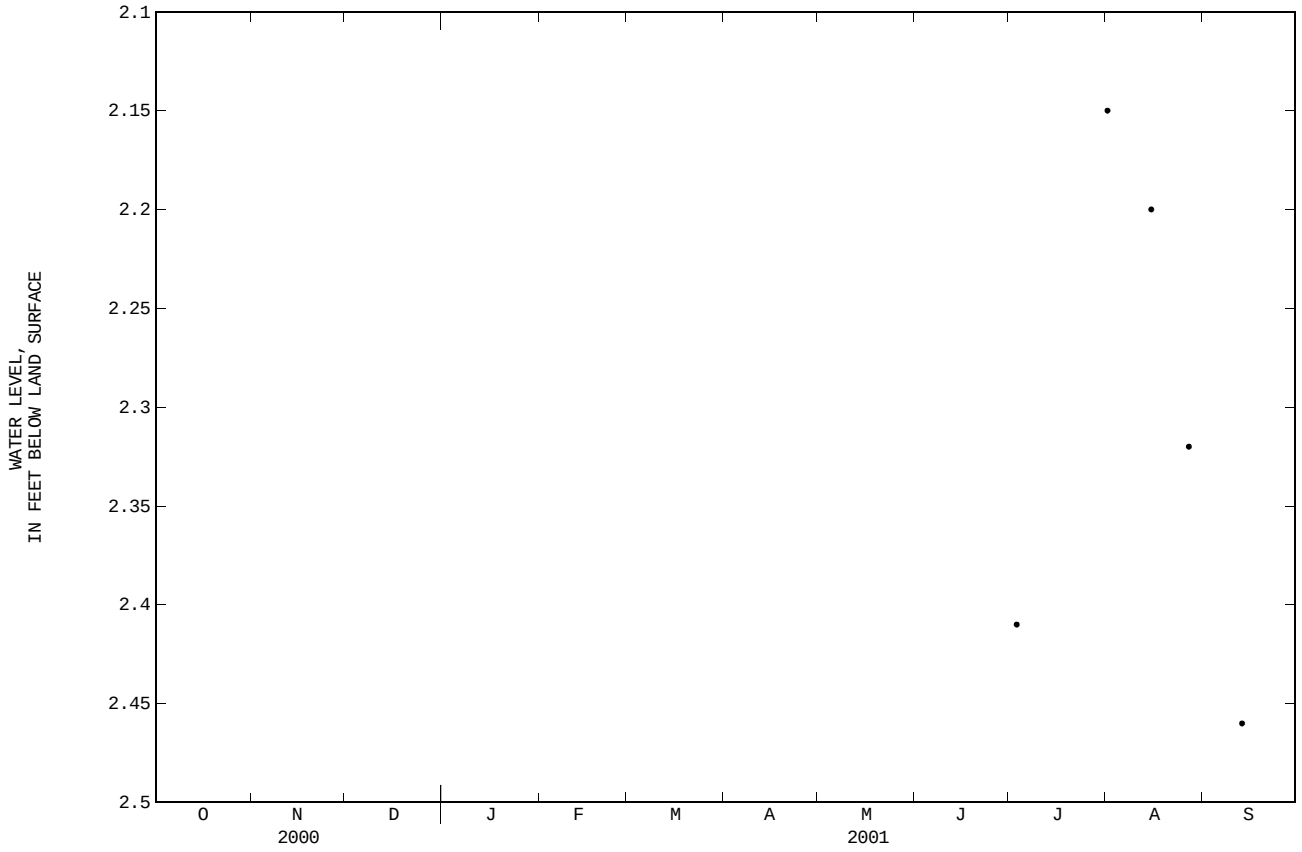


WAKE COUNTY

354356078403501. County number, WK-277; DENR Lake Wheeler Research Station MW-1S (Regolith well).
LOCATION.--Lat 35°43'55.6", long 78°40'34.6", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 4 in., cased to 5 ft, screened interval from 5 ft to 20 ft, sand filter packed from 5 ft to 20 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 330 ft above sea level. Measuring point: Top of instrument shelter floor, 2.10 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.15 ft below land-surface datum, Aug. 1 , 2001; lowest water level recorded 2.46 ft below land-surface datum, Sept. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	2.41	AUG 01	2.15	AUG 15	2.20	AUG 27	2.32	SEP 13	2.46

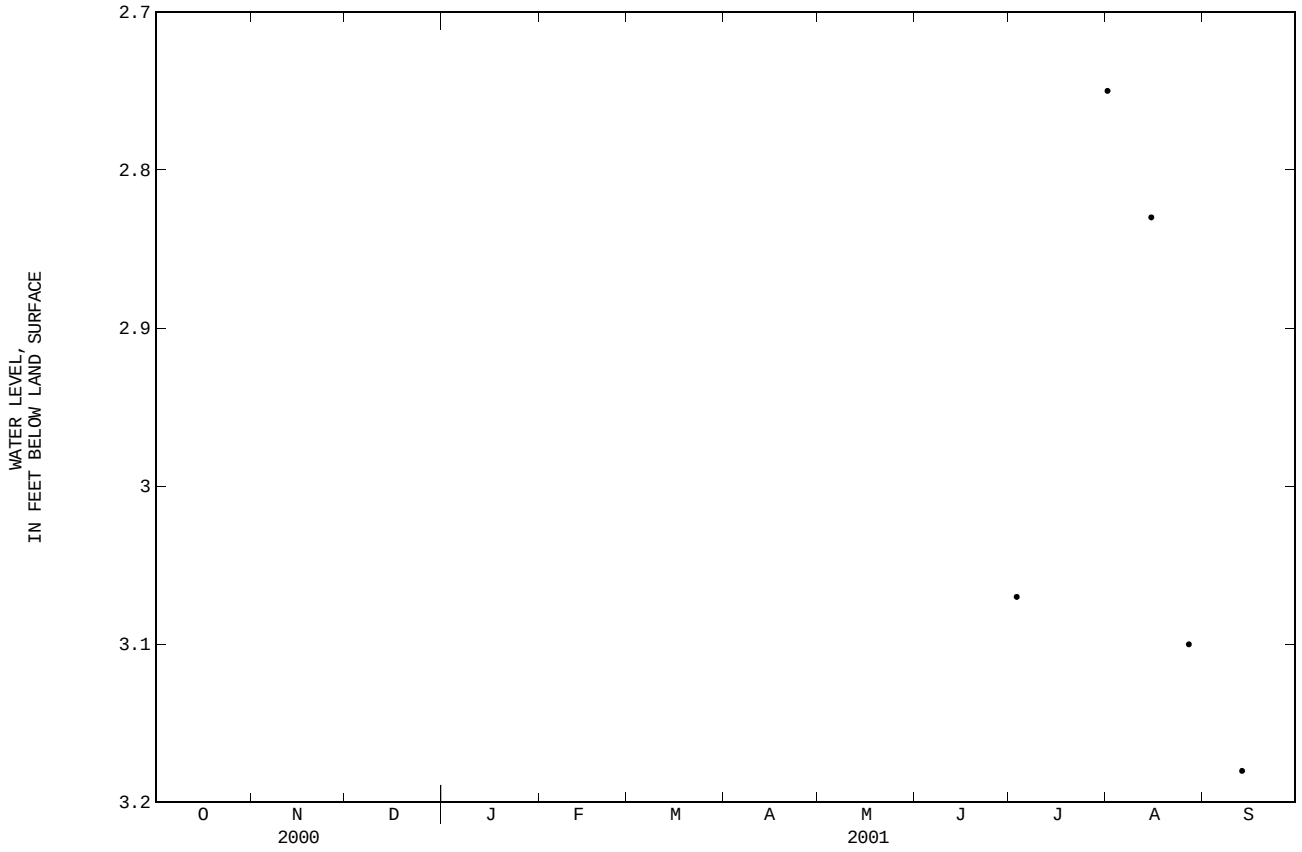


WAKE COUNTY--Continued

354356078403502. County number, WK-278; DENR Lake Wheeler Research Station MW-1I (Transition zone well).
LOCATION.--Lat 35°43'55.8", long 78°40'34.5", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.---Drilled observation well, depth 41.5 ft, diameter 4 in., cased to 31.5 ft, screened interval from 31.5 ft to 41.5 ft, sand filter packed from 26.5 ft to 42 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 330 ft above sea level. Measuring point: Top of instrument shelter floor, 1.87 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.---Highest water level recorded, 2.75 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 3.18 ft below land-surface datum, Sept. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	3.07	AUG 01	2.75	AUG 15	2.83	AUG 27	3.10	SEP 13	3.18

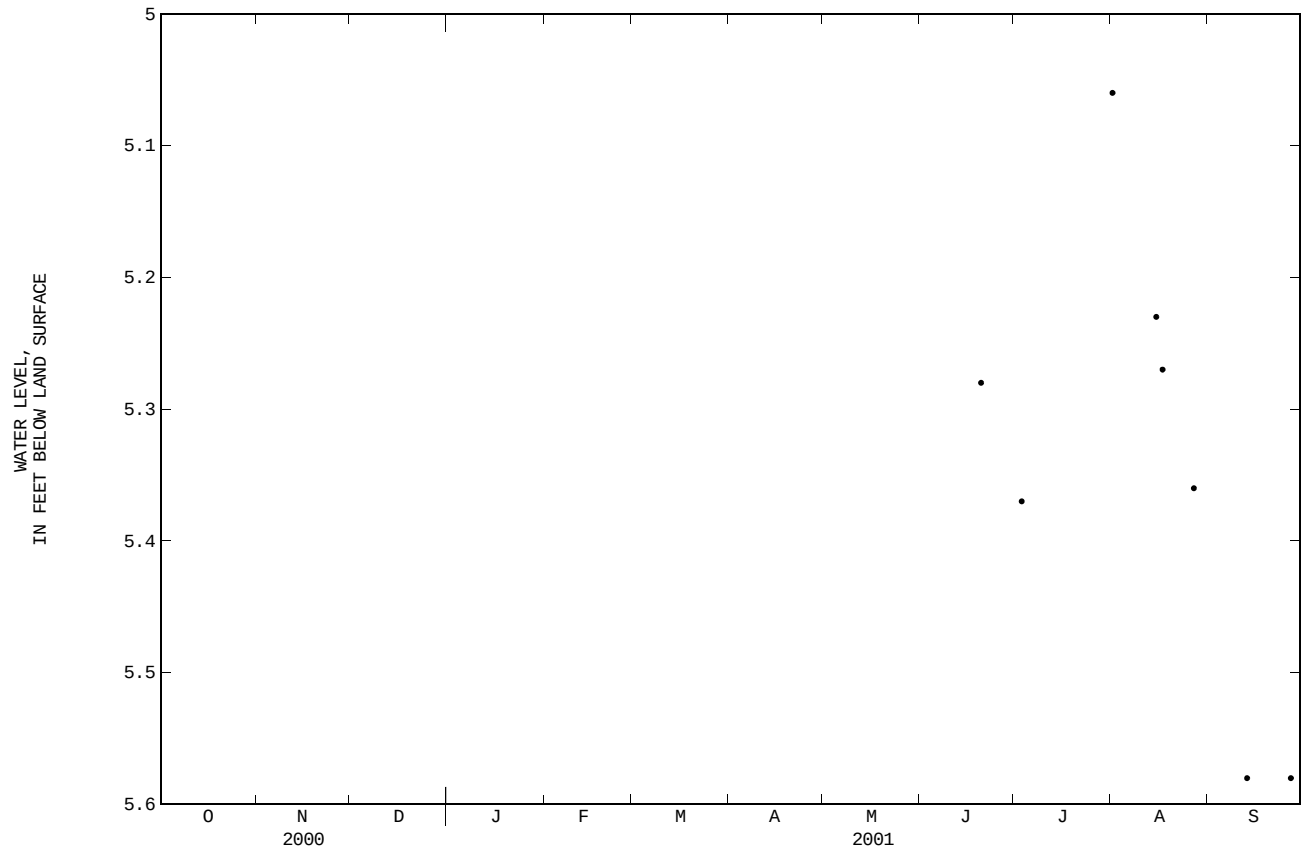


WAKE COUNTY--Continued

354356078403503. County number, WK-279; DENR Lake Wheeler Research Station MW-1D (Bedrock well).
LOCATION.--Lat 35°43'56.2", long 78°40'34.1", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Felsic Gneiss.
WELL CHARACTERISTICS.--Drilled observation well, depth 302 ft, diameter 6 in., cased to 47 ft, open hole from 47 ft to 302 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 330 ft above sea level. Measuring point: Top of instrument shelter floor, 2.60 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--June 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.06 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 5.58 ft below land-surface datum, Sept. 13, Sept. 27, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JUNE 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 20	5.28	AUG 01	5.06	AUG 17	5.27	SEP 13	5.58
JUL 03	5.37	15	5.23	27	5.36	27	5.58

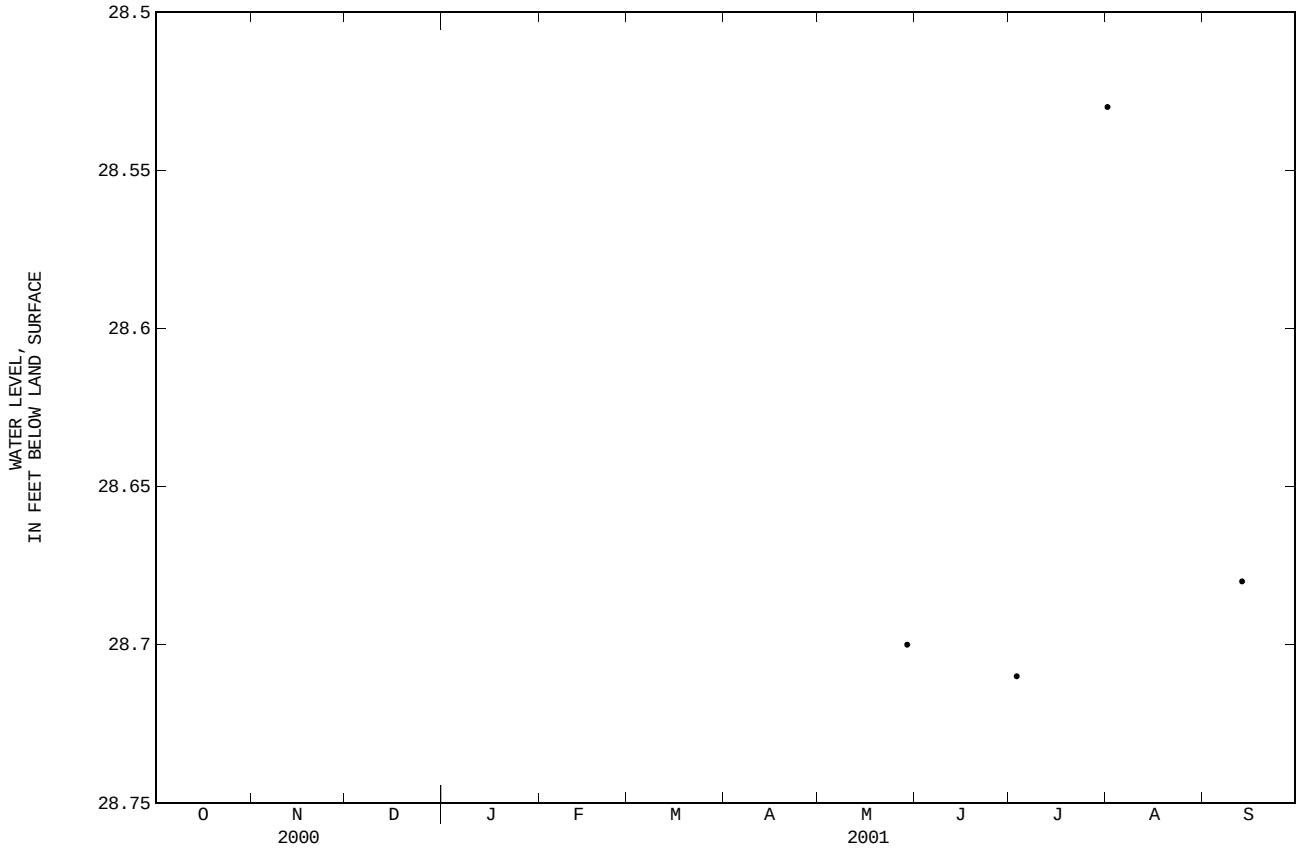


WAKE COUNTY--Continued

354359078403101. County number, WK-280; DENR Lake Wheeler Research Station MW-2S (Regolith well).
LOCATION.--Lat 35°43'59.7", long 78°40'31.4", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 4 in., cased to 20 ft, screened interval from 20 ft to 40 ft, sand filter packed from 17 ft to 40 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 358 ft above sea level. Measuring point: Top of 4-inch casing, 1.81 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 28.53 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 28.71 ft below land-surface datum, May 29, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 29	28.70	JUL 03	28.71	AUG 01	28.53	SEP 13	28.68

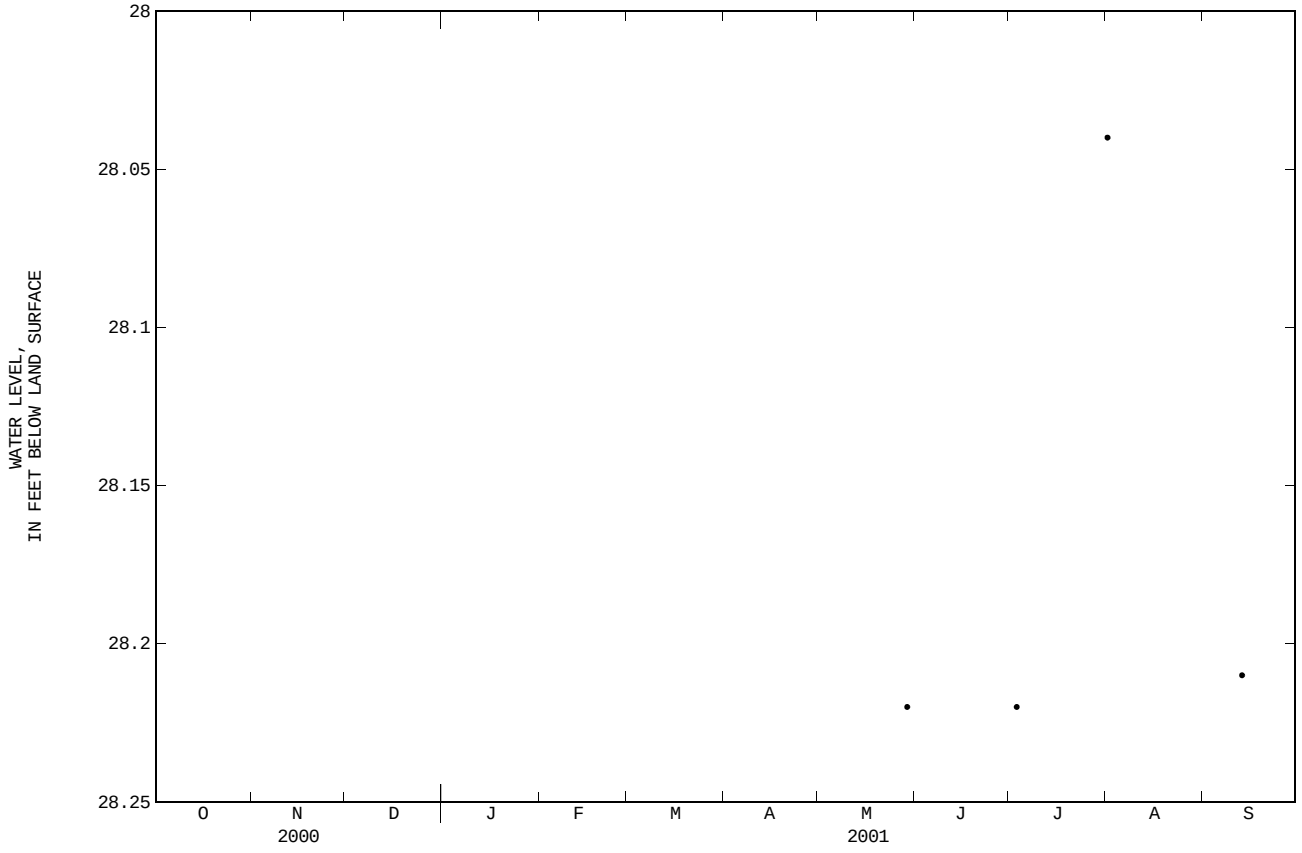


WAKE COUNTY--Continued

354359078403102. County number, WK-281; DENR Lake Wheeler Research Station MW-2I (Intermediate well).
LOCATION.--Lat 35°43'59.9", long 78°40'31.5", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 4 in., cased to 40 ft, screened interval from 40 ft to 50 ft, sand filter packed from 38 ft to 50 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 358 ft above sea level. Measuring point: Top of 4-inch casing, 1.82 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 28.04 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 28.22 ft below land-surface datum, May 29, July 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 29	28.22	JUL 03	28.22	AUG 01	28.04	SEP 13	28.21

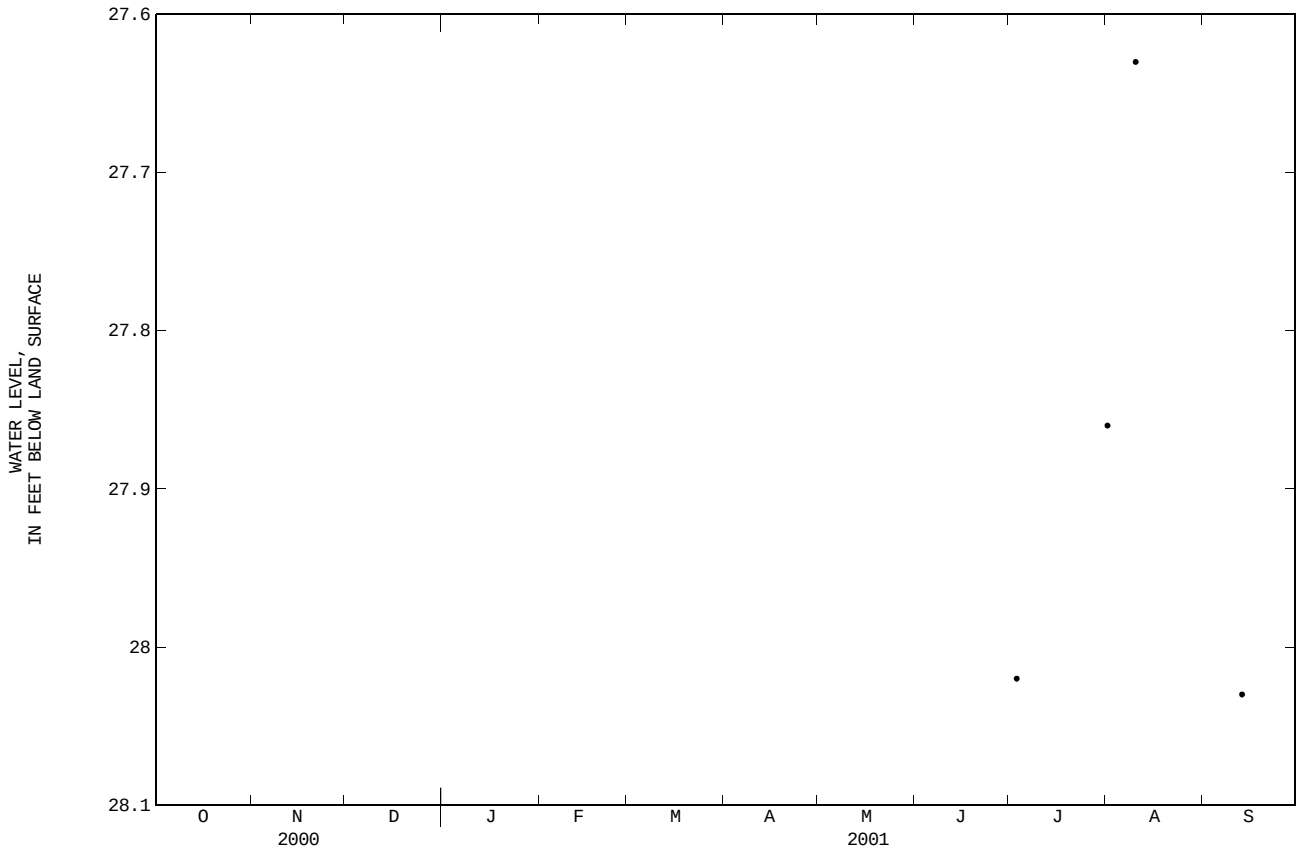


WAKE COUNTY--Continued

354359078403103. County number, WK-282; DENR Lake Wheeler Research Station MW-2T (Transition zone well).
LOCATION.--Lat 35°43'59.0", long 78°40'31.5", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 80 ft, diameter 6 in., cased to 50 ft, open hole from 50 ft to 80 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 358 ft above sea level. Measuring point: Top of 4-inch casing, 1.88 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 27.63 ft below land-surface datum, Aug. 10, 2001; lowest water level recorded 28.03 ft below land-surface datum, Sept. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	28.02	AUG 01	27.86	AUG 10	27.63	SEP 13	28.03

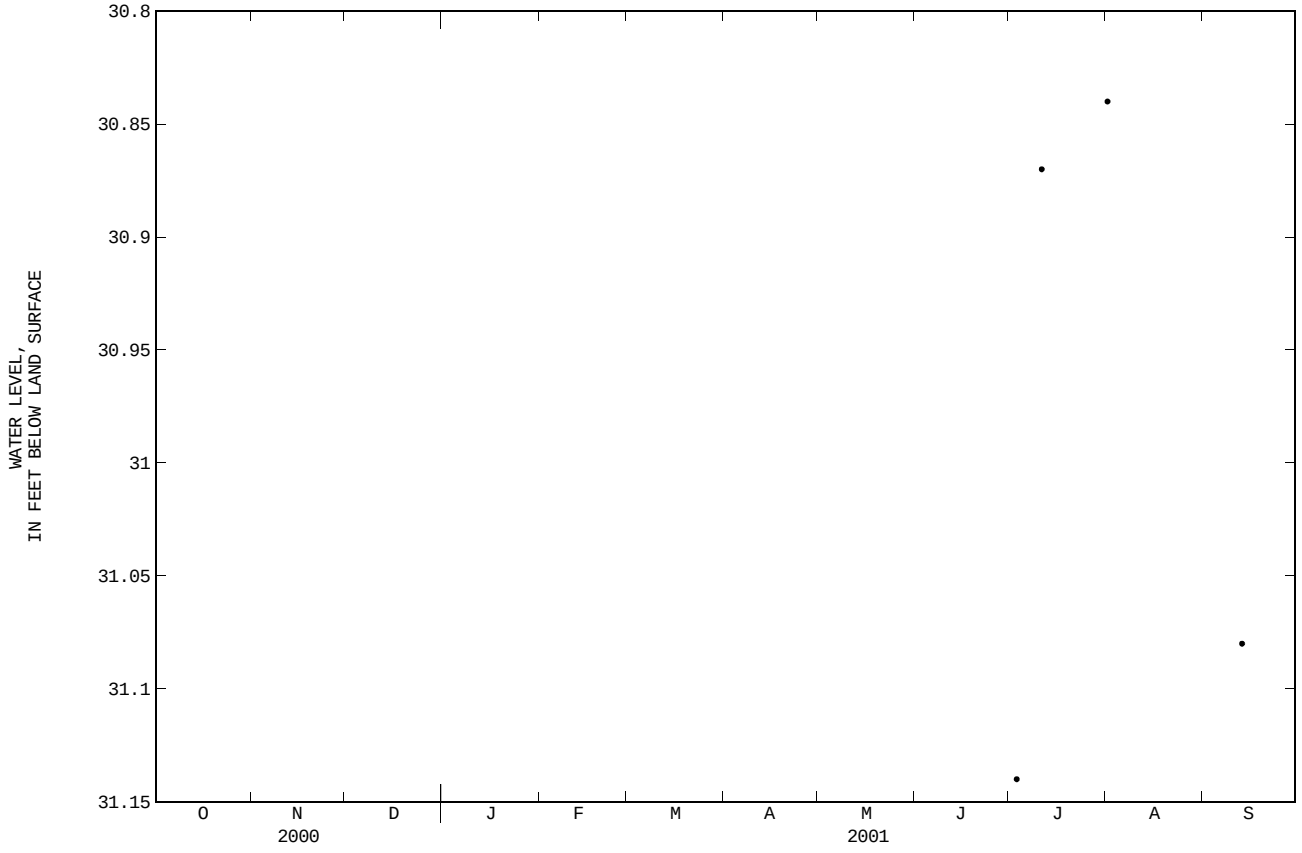


WAKE COUNTY--Continued

354359078403104. County number, WK-283; DENR Lake Wheeler Research Station MW-2D (Bedrock well).
LOCATION.--Lat 35°43'59.0", long 78°40'31.6", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Felsic Gneiss.
WELL CHARACTERISTICS.--Drilled observation well, depth 601 ft, diameter 6 in., cased to 80 ft, open hole from 80 ft to 447 ft, hole collapsed from 447 to 601 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 358 ft above sea level. Measuring point: Top of casing, 1.84 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 30.84 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 31.14 ft below land-surface datum, July 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	31.14	JUL 11	30.87	AUG 01	30.84	SEP 13	31.08

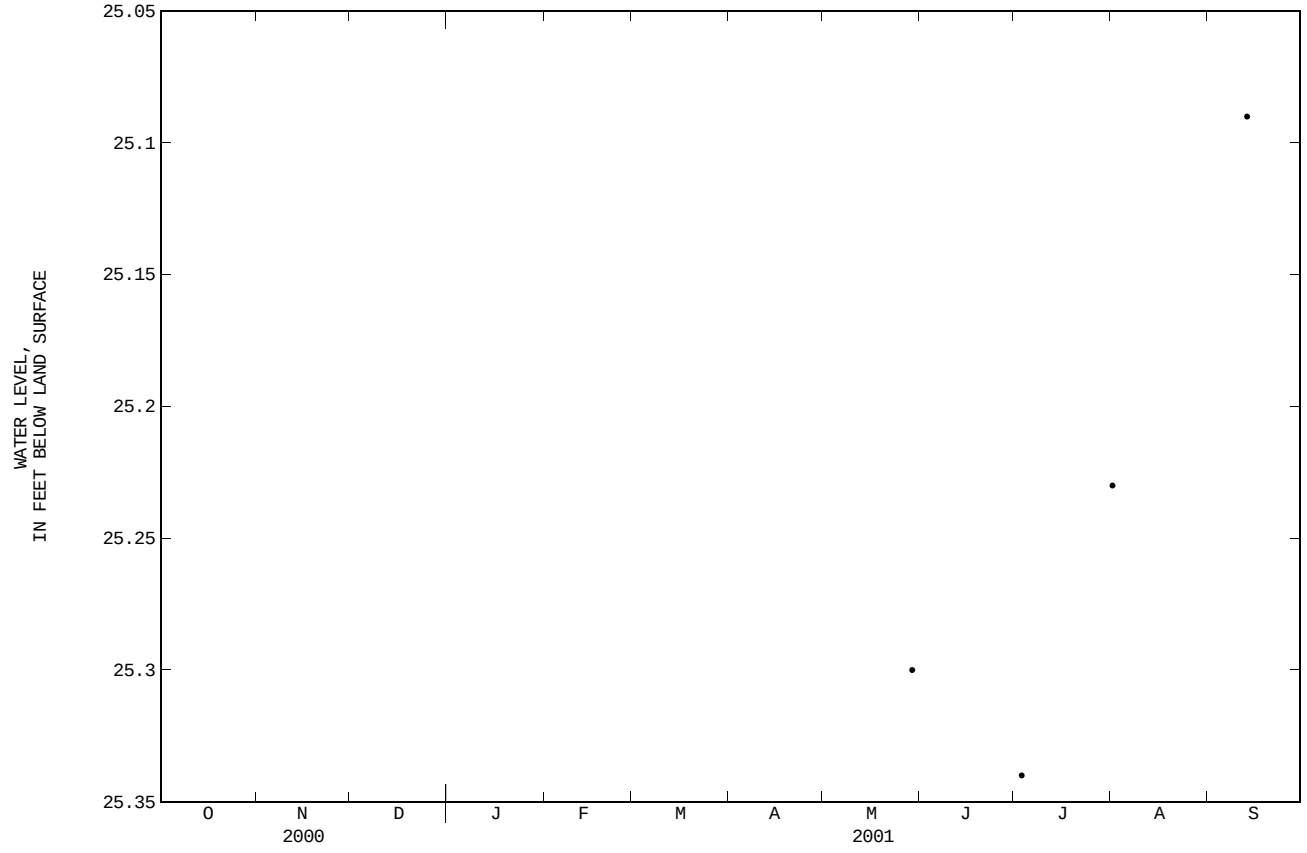


WAKE COUNTY--Continued

354404078403101. County number, WK-284; DENR Lake Wheeler Research Station MW-3S (Regolith well).
LOCATION.--Lat 35°44'04.3", long 78°40'30.7", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 35 ft, diameter 4 in., cased to 20 ft, screened interval from 20 ft to 35 ft, sand filter packed from 17 ft to 35 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 372 ft above sea level. Measuring point: Top of 4-inch casing, 1.91 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 25.09 ft below land-surface datum, Sept. 13, 2001; lowest water level recorded 25.34 ft below land-surface datum, July 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 29	25.30	JUL 03	25.34	AUG 01	25.23	SEP 13	25.09

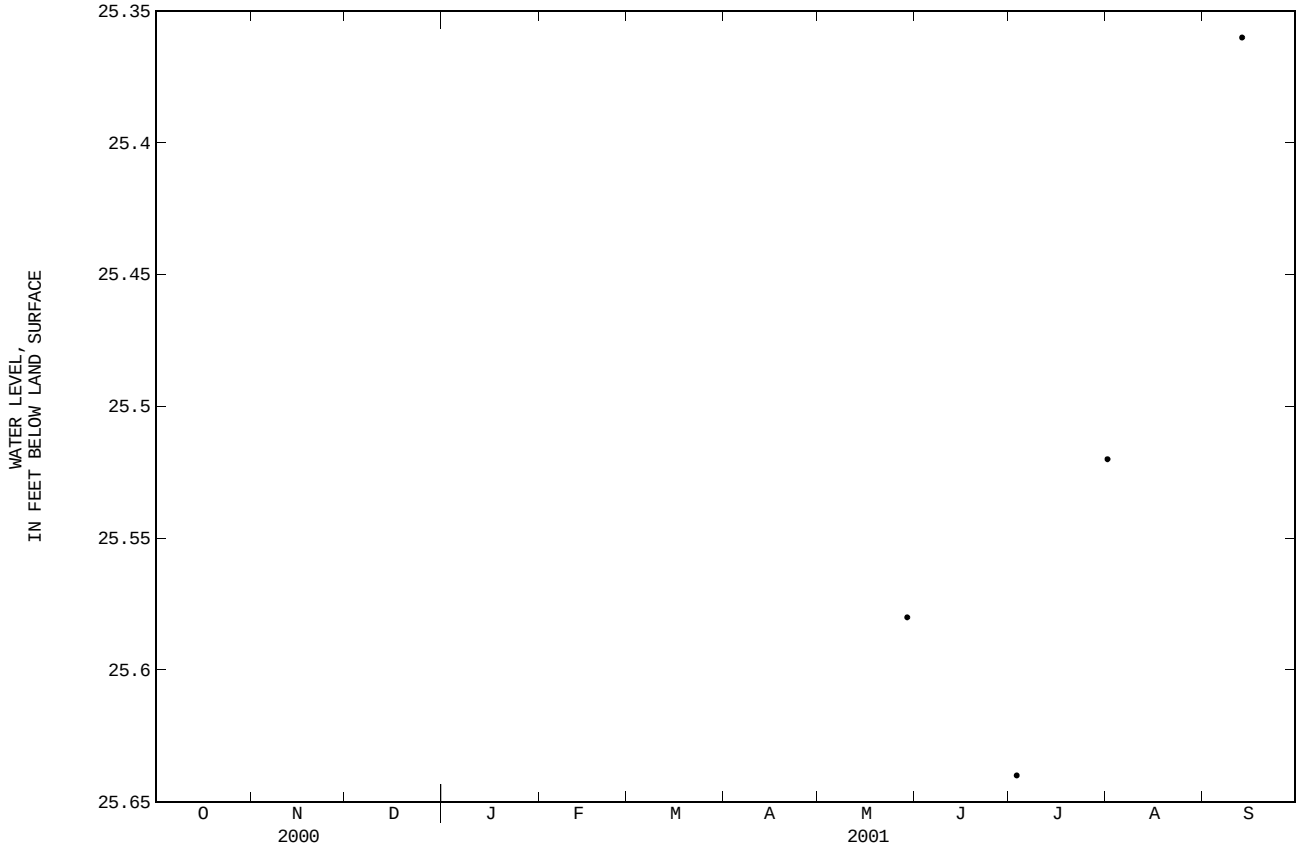


WAKE COUNTY--Continued

354404078403102. County number, WK-285; DENR Lake Wheeler Research Station MW-3I (Transition zone well).
LOCATION.--Lat 35°44'04.5", long 78°40'30.7", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 60 ft, diameter 4 in., cased to 45 ft, screened interval from 45 ft to 60 ft, sand filter packed from 33 ft to 60 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 372 ft above sea level. Measuring point: Top of 4-inch casing, 1.91 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--May 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 25.36 ft below land-surface datum, Sept. 13, 2001; lowest water level recorded 25.64 ft below land-surface datum, July 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR MAY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 29	25.58	JUL 03	25.64	AUG 01	25.52	SEP 13	25.36

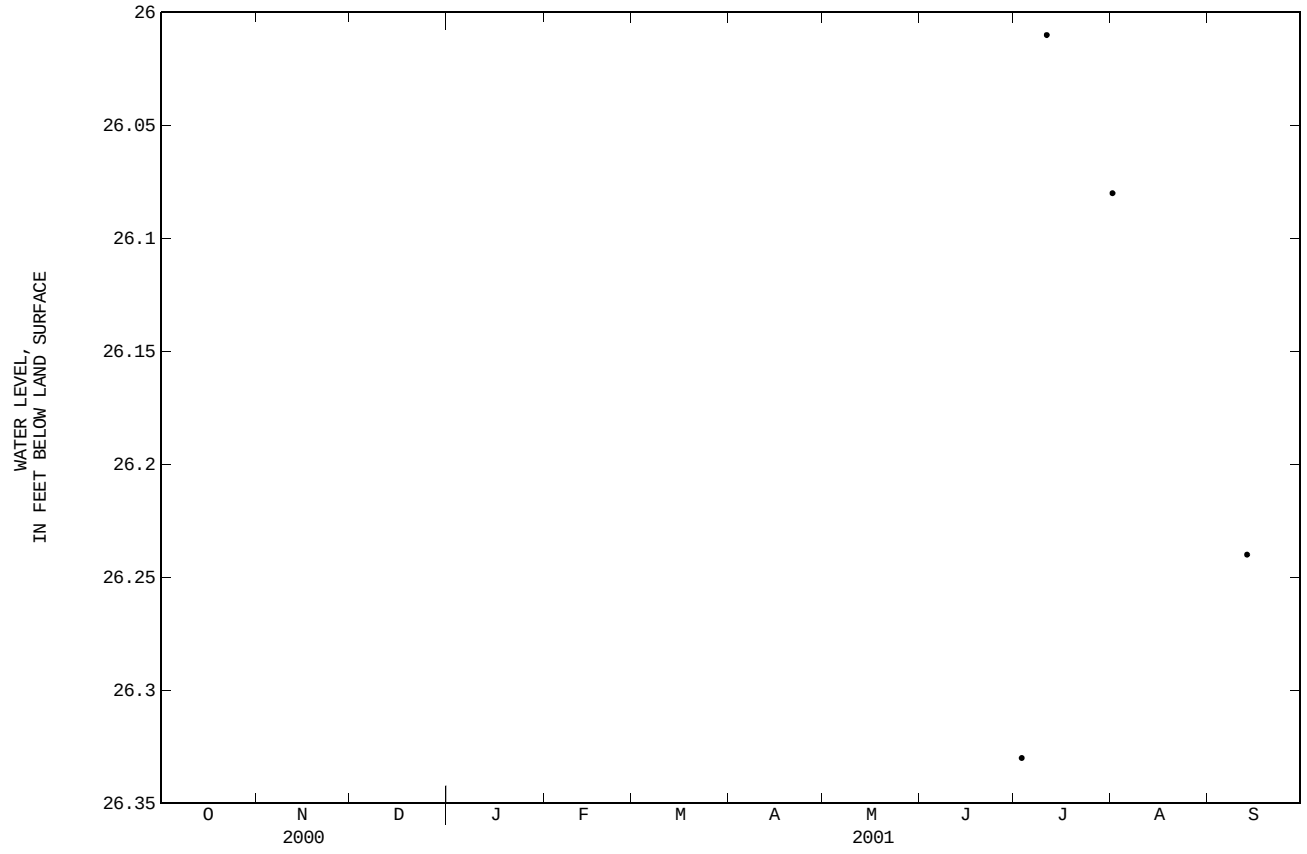


WAKE COUNTY--Continued

354404078403103. County number, WK-286; DENR Lake Wheeler Research Station MW-3D (Bedrock well).
LOCATION.--Lat 35°44'04.7", long 78°40'30.7", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Felsic Gneiss.
WELL CHARACTERISTICS.--Drilled observation well, depth 301 ft, diameter 6 in., cased to 66 ft, open hole from 66 ft to 301 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 372 ft above sea level. Measuring point: Top of 6-inch casing, 1.73 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 26.01 ft below land-surface datum, July 11, 2001; lowest water level recorded 26.33 ft below land-surface datum, July 3, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	26.33	JUL 11	26.01	AUG 01	26.08	SEP 13	26.24

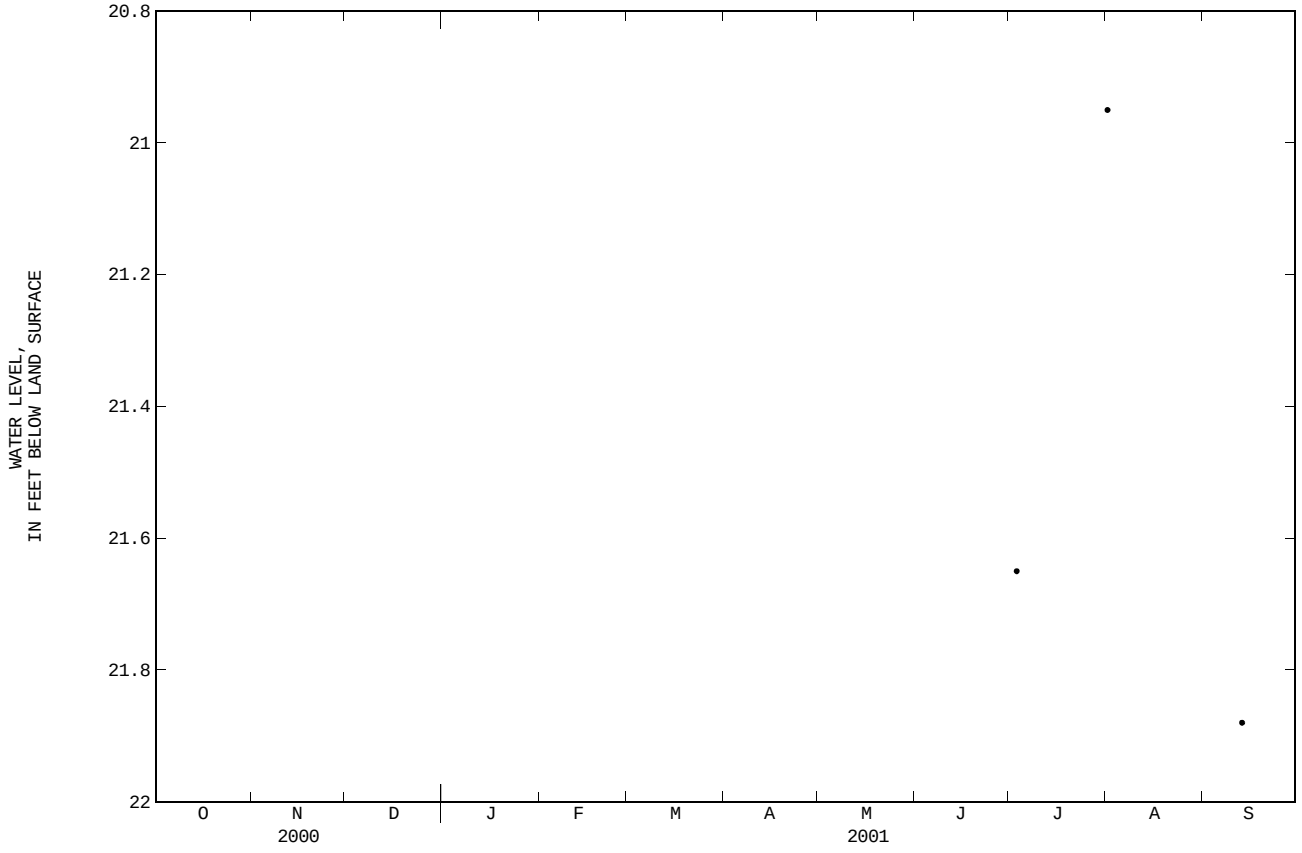


WAKE COUNTY--Continued

354401078403401. County number, WK-287; DENR Lake Wheeler Research Station PW-1.
LOCATION.--Lat 35°44'00.9", long 78°40'33.7", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Felsic Gneiss.
WELL CHARACTERISTICS.--Drilled observation well, depth 302 ft, diameter 6 in., cased to 62.5 ft, open hole from 62.5 ft to 302 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 352 ft above sea level. Measuring point: Top of 6-inch casing, 1.33 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 20.95 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 21.88 ft below land-surface datum, Sept. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	21.65	AUG 01	20.95	SEP 13	21.88

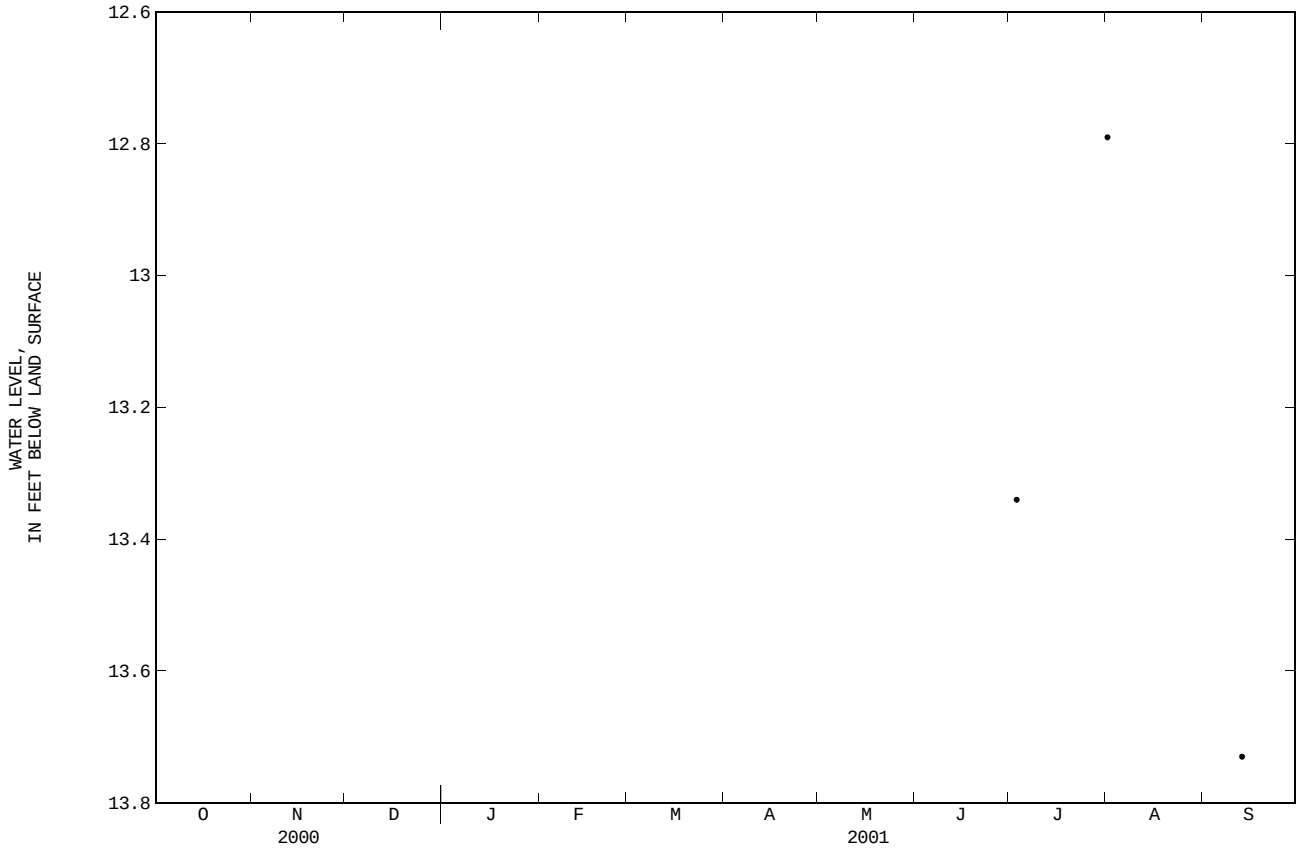


WAKE COUNTY--Continued

354400078403401. County number, WK-288; DENR Lake Wheeler Research Station PZ-1.
LOCATION.--Lat 35°44'00.3", long 78°40'34.0", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 2 in., cased to 30 ft, screened interval from 30 ft to 50 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 350 ft above sea level. Measuring point: Top of 2-inch casing, 1.97 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.79 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 13.73 ft below land-surface datum, Sept. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	13.34	AUG 01	12.79	SEP 13	13.73

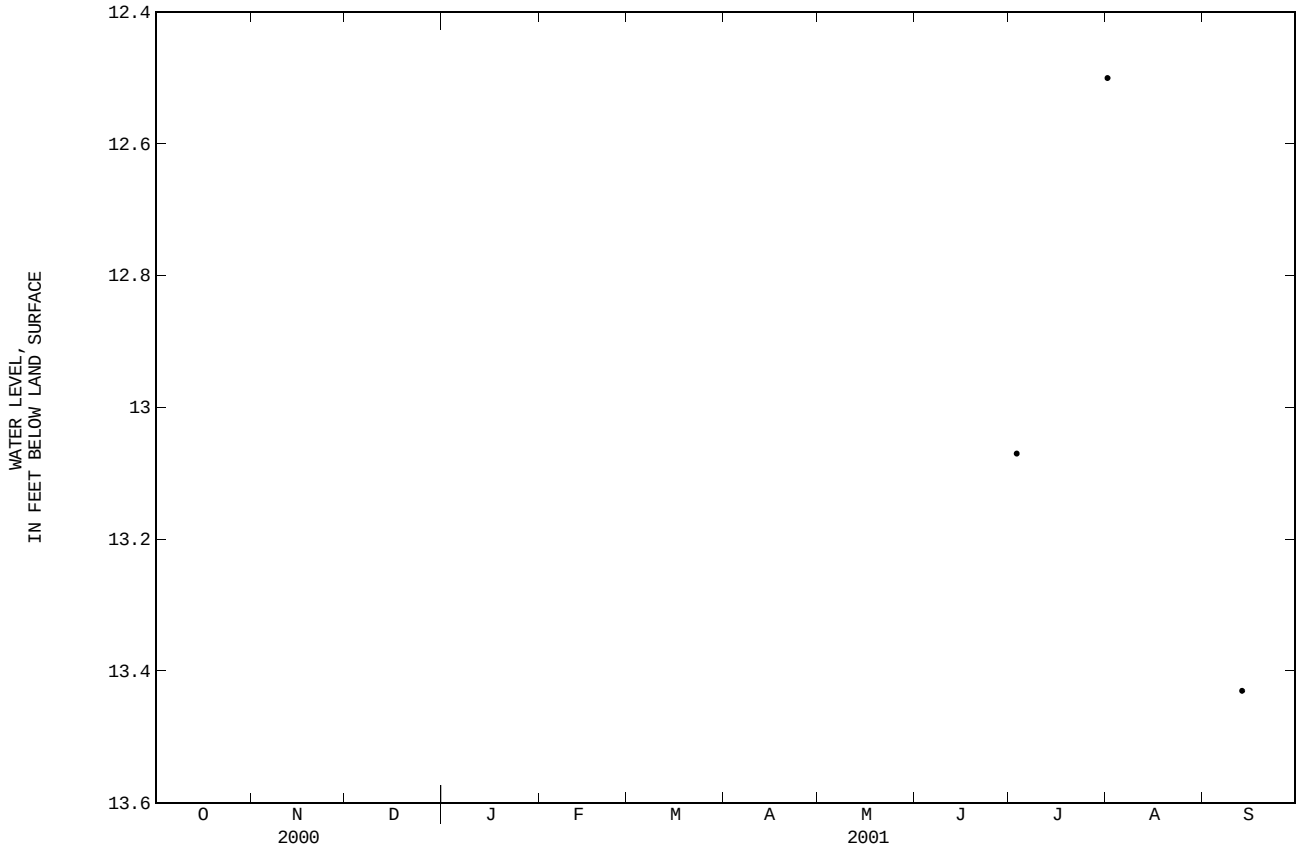


WAKE COUNTY--Continued

354402078403401. County number, WK-289; DENR Lake Wheeler Research Station PZ-2.
LOCATION.--Lat 35°44'01.8", long 78°40'34.0", North American Datum of 1983, Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on NCSU Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.
AQUIFER.--Regolith (saprolitic quartz diorite).
WELL CHARACTERISTICS.--Drilled observation well, depth 37 ft, diameter 2 in., cased to 17 ft, screened interval from 17 ft to 37 ft.
INSTRUMENTATION.--Measured periodically with electric tape. (by DENR and USGS)
DATUM.--Land-surface datum is 354 ft above sea level. Measuring point: Top of 2-inch casing, 1.75 ft above land-surface datum.
REMARKS.--Well is part of Piedmont/Mountains groundwater project.
PERIOD OF RECORD.--July 2001 to September 2001.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.50 ft below land-surface datum, Aug. 1, 2001; lowest water level recorded 13.43 ft below land-surface datum, Sept. 13, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR JULY 2001 TO SEPTEMBER 2001

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03	13.07	AUG 01	12.50	SEP 13	13.43



Observation wells WK-279 Lake Wheeler Research station, Wake County, North Carolina (p. 240).

WASHINGTON COUNTY

354351076260502. Local number, NC-157; DENR Lake Phelps Research Station well L13i2; County number, WS-099.
LOCATION.--Lat 35°43'51", long 76°26'05", Hydrologic Unit 03010205, on south shore of Lake Phelps, south of Secondary Road 1126 on Secondary Road 1183. Owner: DENR (North Carolina Department of Environment and Natural Resources).
AQUIFER.--Yorktown aquifer of Pliocene and Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 120 ft, diameter 4 in., screened interval from 110 to 120 ft; measured depth 120.2 ft, October 1986.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 16.35 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 2.84 ft above land-surface datum; revised from 3.20 ft above land-surface datum, October 1987.
REMARKS.--Well is part of areal-effects network.
PERIOD OF RECORD.--October 1980 to current year. Continuous record from November 1986 to November 1990, February 2000 to current year. Records from October 1977 to September 1980 are unpublished and available in the files of the Groundwater Section, DENR. Records from October 1980 to July 1986 are from the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.89 ft below land-surface datum, May 10, 1993; lowest water level measured, 9.35 ft below land-surface datum, Feb. 24, 1981.

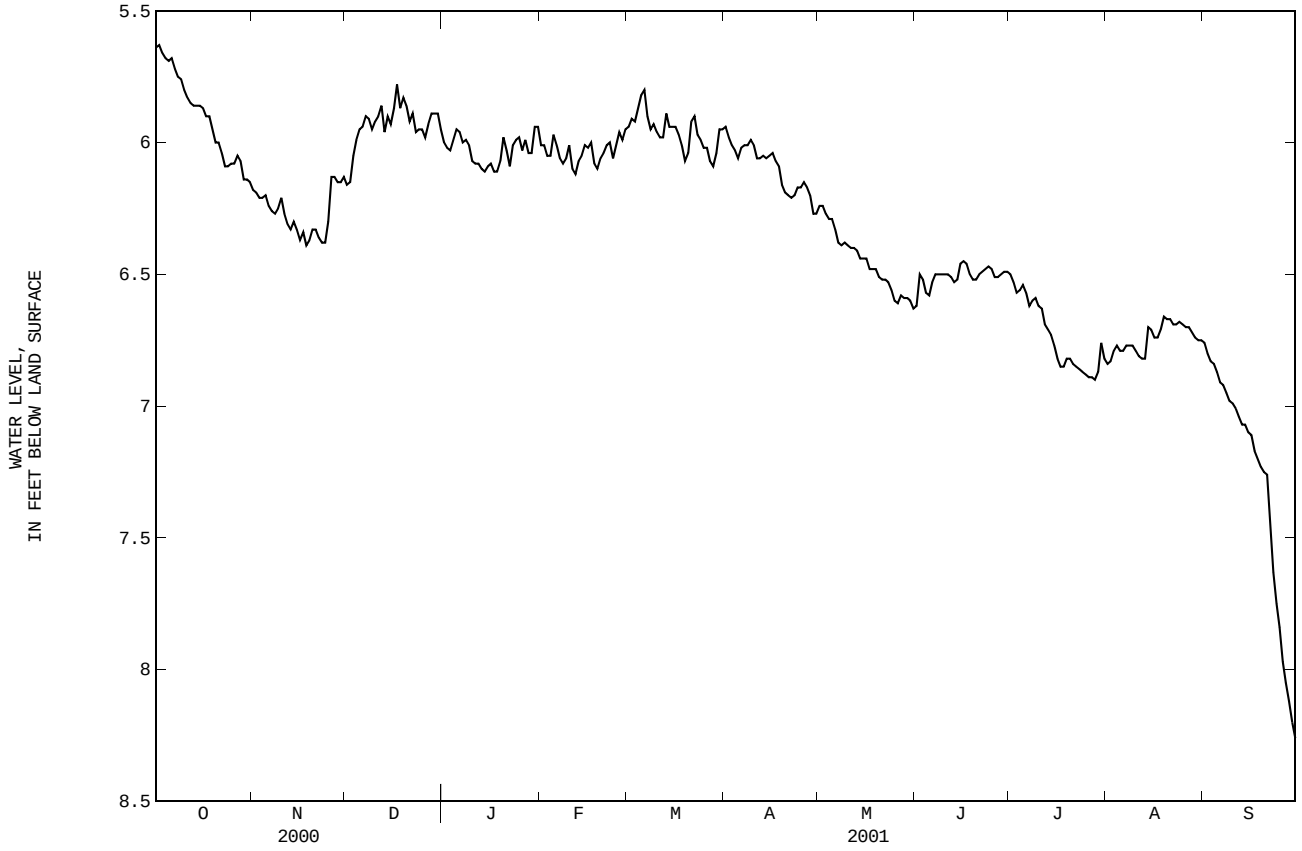
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

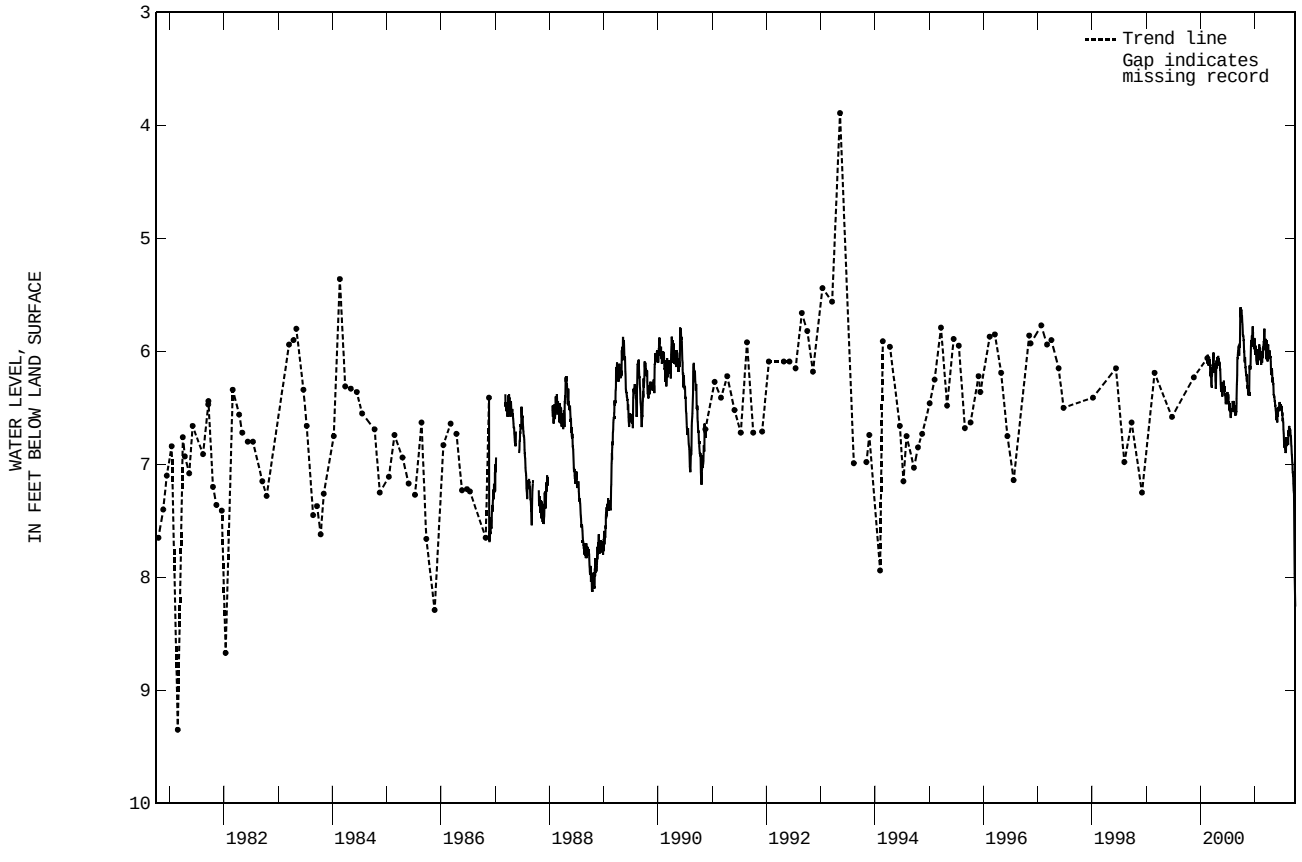
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.64	6.18	6.16	6.00	6.01	5.94	5.94	6.24	6.62	6.50	6.84	6.76
2	5.63	6.19	6.15	6.02	6.01	5.91	5.98	6.24	6.50	6.53	6.83	6.80
3	5.66	6.21	6.05	6.03	6.05	5.92	6.01	6.27	6.52	6.57	6.79	6.83
4	5.68	6.21	5.99	5.99	6.05	5.87	6.03	6.29	6.57	6.56	6.77	6.84
5	5.69	6.20	5.95	5.95	5.97	5.82	6.06	6.29	6.58	6.54	6.79	6.87
6	5.68	6.24	5.94	5.96	6.01	5.80	6.02	6.33	6.53	6.57	6.79	6.91
7	5.72	6.26	5.90	6.00	6.06	5.90	6.01	6.38	6.50	6.62	6.77	6.92
8	5.75	6.27	5.91	5.99	6.08	5.95	6.01	6.39	6.50	6.60	6.77	6.95
9	5.76	6.25	5.95	6.01	6.06	5.93	5.99	6.38	6.50	6.59	6.77	6.98
10	5.80	6.21	5.92	6.07	6.01	5.96	6.01	6.39	6.50	6.62	6.79	6.99
11	5.83	6.27	5.90	6.08	6.10	5.98	6.06	6.40	6.50	6.63	6.81	7.01
12	5.85	6.31	5.86	6.08	6.12	5.98	6.06	6.40	6.51	6.69	6.82	7.04
13	5.86	6.33	5.96	6.10	6.07	5.89	6.05	6.41	6.53	6.71	6.82	7.07
14	5.86	6.30	5.90	6.11	6.05	5.94	6.06	6.44	6.52	6.73	6.70	7.07
15	5.86	6.33	5.93	6.09	6.01	5.94	6.05	6.44	6.46	6.77	6.71	7.10
16	5.87	6.37	5.87	6.08	6.02	5.94	6.04	6.44	6.45	6.82	6.74	7.11
17	5.90	6.34	5.78	6.11	6.00	5.97	6.07	6.48	6.46	6.85	6.74	7.17
18	5.90	6.39	5.87	6.11	6.08	6.01	6.09	6.48	6.50	6.85	6.71	7.20
19	5.95	6.37	5.83	6.07	6.10	6.07	6.16	6.48	6.52	6.82	6.66	7.23
20	6.00	6.33	5.86	5.98	6.06	6.04	6.19	6.51	6.52	6.82	6.67	7.25
21	6.00	6.33	5.92	6.03	6.04	5.92	6.20	6.52	6.50	6.84	6.67	7.26
22	6.04	6.36	5.89	6.09	6.01	5.90	6.21	6.52	6.49	6.85	6.69	7.45
23	6.09	6.38	5.96	6.01	6.00	5.97	6.20	6.53	6.48	6.86	6.69	7.63
24	6.09	6.38	5.95	5.99	6.06	5.99	6.17	6.56	6.47	6.87	6.68	7.75
25	6.08	6.30	5.95	5.98	6.01	6.02	6.17	6.60	6.48	6.88	6.69	7.84
26	6.08	6.13	5.98	6.03	5.96	6.02	6.15	6.61	6.51	6.89	6.70	7.97
27	6.05	6.13	5.93	5.99	5.99	6.07	6.17	6.58	6.51	6.89	6.70	8.05
28	6.07	6.15	5.89	6.04	5.95	6.09	6.20	6.59	6.50	6.90	6.72	8.12
29	6.14	6.15	5.89	6.04	---	6.04	6.27	6.59	6.49	6.87	6.74	8.20
30	6.14	6.13	5.89	5.94	---	5.95	6.27	6.60	6.49	6.76	6.75	8.26
31	6.15	---	5.95	5.94	---	5.95	---	6.63	---	6.82	6.75	---

WTR YR 2001 MEAN 6.33 HIGH 5.63 LOW 8.26

WASHINGTON COUNTY--Continued

354351076260502 Local number, NC-157; DENR Lake Phelps Research Station well L13i2; County number, WS-099





WASHINGTON COUNTY--Continued

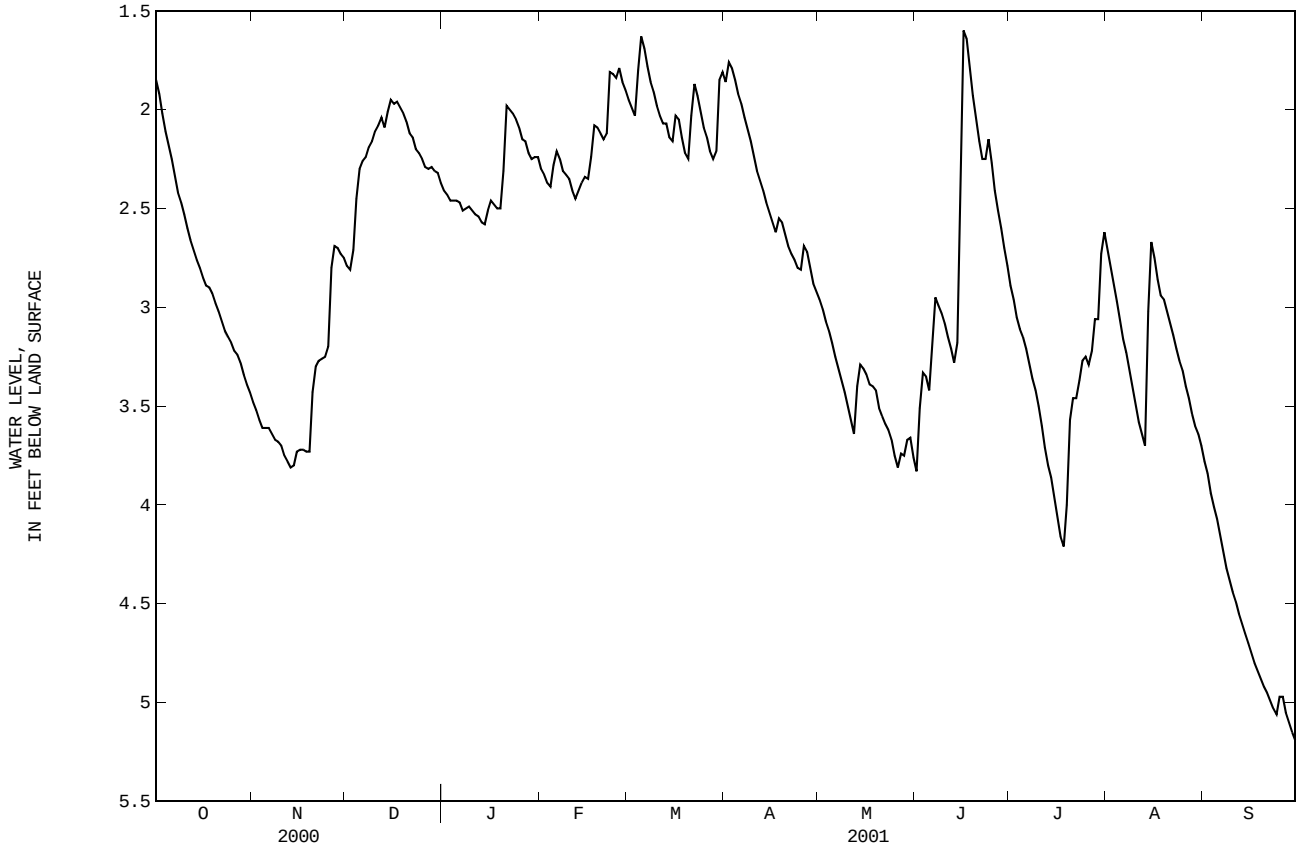
354418076463601. Local number, NC-158; County number, WS-100.
LOCATION.--Lat 35°44'18", long 76°46'36", Hydrologic Unit 03020104, 2.4 mi west of State Highway 32 on Secondary Road 1101. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Drilled observation well, depth 15 ft, diameter 4 in., screened interval from 10 to 15 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 35 ft above sea level (from topographic map). Measuring point: Top of instrument shelf, 2.49 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--December 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.50 ft below land-surface datum, Mar. 2, 3, 1994; lowest water level recorded, 6.51 ft below land-surface datum, Sept. 17, 18, 1998.

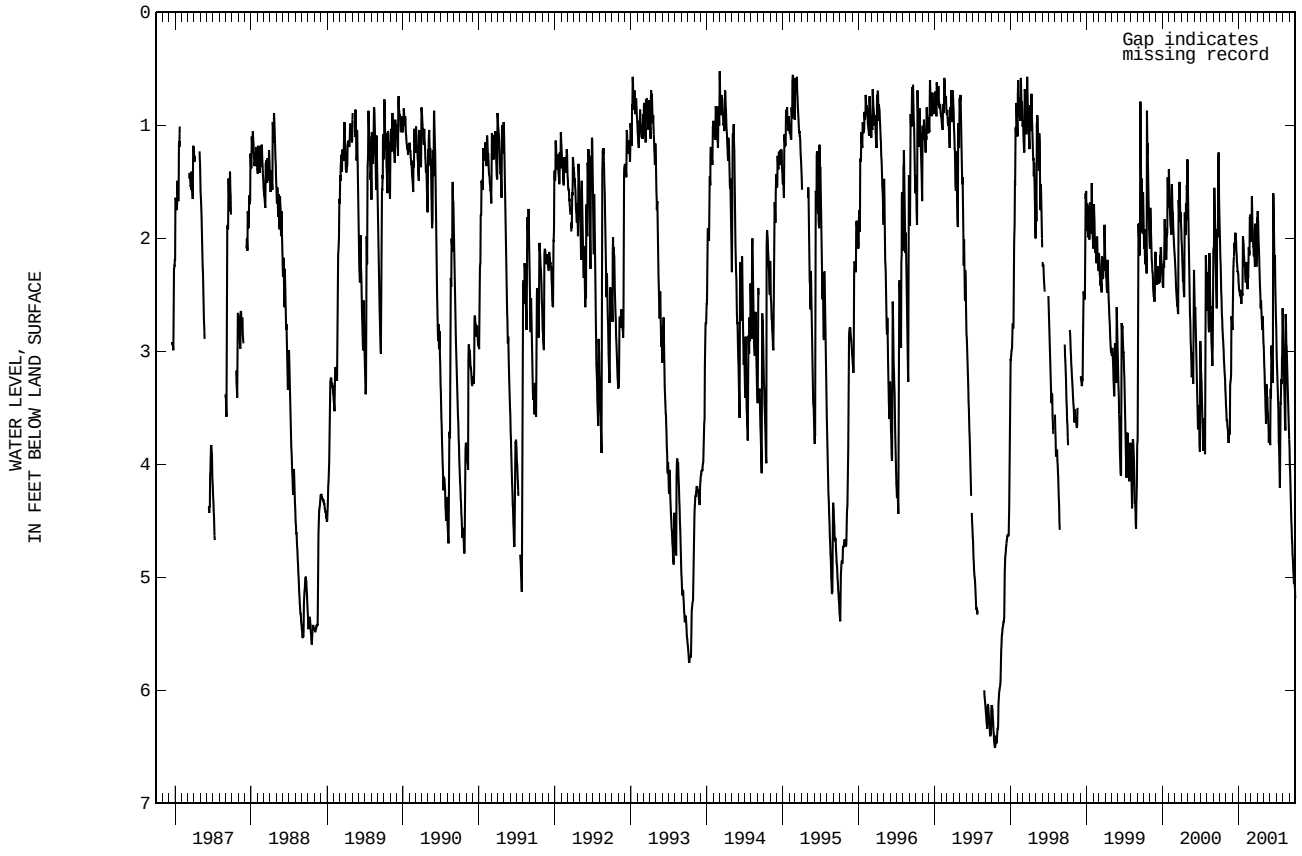
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.85	3.48	2.79	2.41	2.30	1.95	1.86	2.96	3.83	2.89	2.71	3.78
2	1.92	3.52	2.81	2.43	2.33	1.99	1.76	3.01	3.51	2.96	2.80	3.84
3	2.02	3.57	2.71	2.46	2.37	2.03	1.79	3.07	3.33	3.05	2.89	3.94
4	2.11	3.61	2.45	2.46	2.39	1.80	1.85	3.12	3.35	3.11	2.97	4.01
5	2.18	3.61	2.30	2.46	2.28	1.63	1.92	3.18	3.42	3.15	3.07	4.07
6	2.25	3.61	2.26	2.47	2.21	1.69	1.97	3.25	3.17	3.21	3.16	4.16
7	2.34	3.64	2.24	2.51	2.25	1.78	2.04	3.31	2.95	3.29	3.23	4.24
8	2.42	3.67	2.19	2.50	2.31	1.86	2.10	3.37	2.99	3.36	3.31	4.32
9	2.47	3.68	2.16	2.49	2.33	1.91	2.16	3.43	3.03	3.42	3.40	4.38
10	2.53	3.70	2.11	2.51	2.35	1.98	2.23	3.50	3.08	3.50	3.49	4.44
11	2.60	3.75	2.08	2.53	2.41	2.03	2.31	3.57	3.15	3.60	3.58	4.49
12	2.66	3.78	2.04	2.54	2.45	2.07	2.36	3.64	3.21	3.71	3.64	4.55
13	2.71	3.81	2.09	2.57	2.41	2.07	2.41	3.40	3.28	3.80	3.70	4.60
14	2.76	3.80	2.01	2.58	2.37	2.14	2.47	3.29	3.18	3.86	3.02	4.65
15	2.80	3.73	1.95	2.51	2.34	2.16	2.52	3.31	2.21	3.97	2.67	4.70
16	2.85	3.72	1.97	2.46	2.35	2.03	2.57	3.34	1.60	4.07	2.75	4.75
17	2.89	3.72	1.96	2.48	2.24	2.05	2.62	3.39	1.64	4.16	2.86	4.80
18	2.90	3.73	1.99	2.50	2.08	2.14	2.55	3.40	1.78	4.21	2.94	4.84
19	2.93	3.73	2.02	2.50	2.09	2.22	2.57	3.42	1.93	4.00	2.96	4.88
20	2.98	3.43	2.06	2.31	2.12	2.25	2.63	3.51	2.05	3.57	3.02	4.92
21	3.02	3.30	2.12	1.98	2.15	2.03	2.69	3.55	2.16	3.46	3.08	4.95
22	3.07	3.27	2.14	2.00	2.12	1.87	2.73	3.59	2.25	3.46	3.14	4.99
23	3.12	3.26	2.20	2.02	1.81	1.93	2.76	3.62	2.25	3.37	3.21	5.03
24	3.15	3.25	2.22	2.05	1.82	2.01	2.80	3.67	2.15	3.27	3.27	5.06
25	3.18	3.20	2.25	2.09	1.84	2.09	2.81	3.75	2.27	3.25	3.32	4.97
26	3.22	2.80	2.29	2.15	1.79	2.14	2.69	3.81	2.41	3.29	3.40	4.97
27	3.24	2.69	2.30	2.16	1.86	2.21	2.72	3.74	2.51	3.22	3.46	5.05
28	3.28	2.70	2.29	2.22	1.90	2.25	2.80	3.75	2.60	3.06	3.54	5.10
29	3.34	2.73	2.31	2.25	---	2.21	2.88	3.67	2.70	3.06	3.60	5.15
30	3.39	2.75	2.32	2.24	---	1.85	2.92	3.66	2.79	2.73	3.64	5.19
31	3.43	---	2.37	2.24	---	1.81	---	3.76	---	2.62	3.70	---

WTR YR 2001 MEAN 2.90 HIGH 1.60 LOW 5.19

354418076463601 Local number, NC-158; County number, WS-100





WAYNE COUNTY

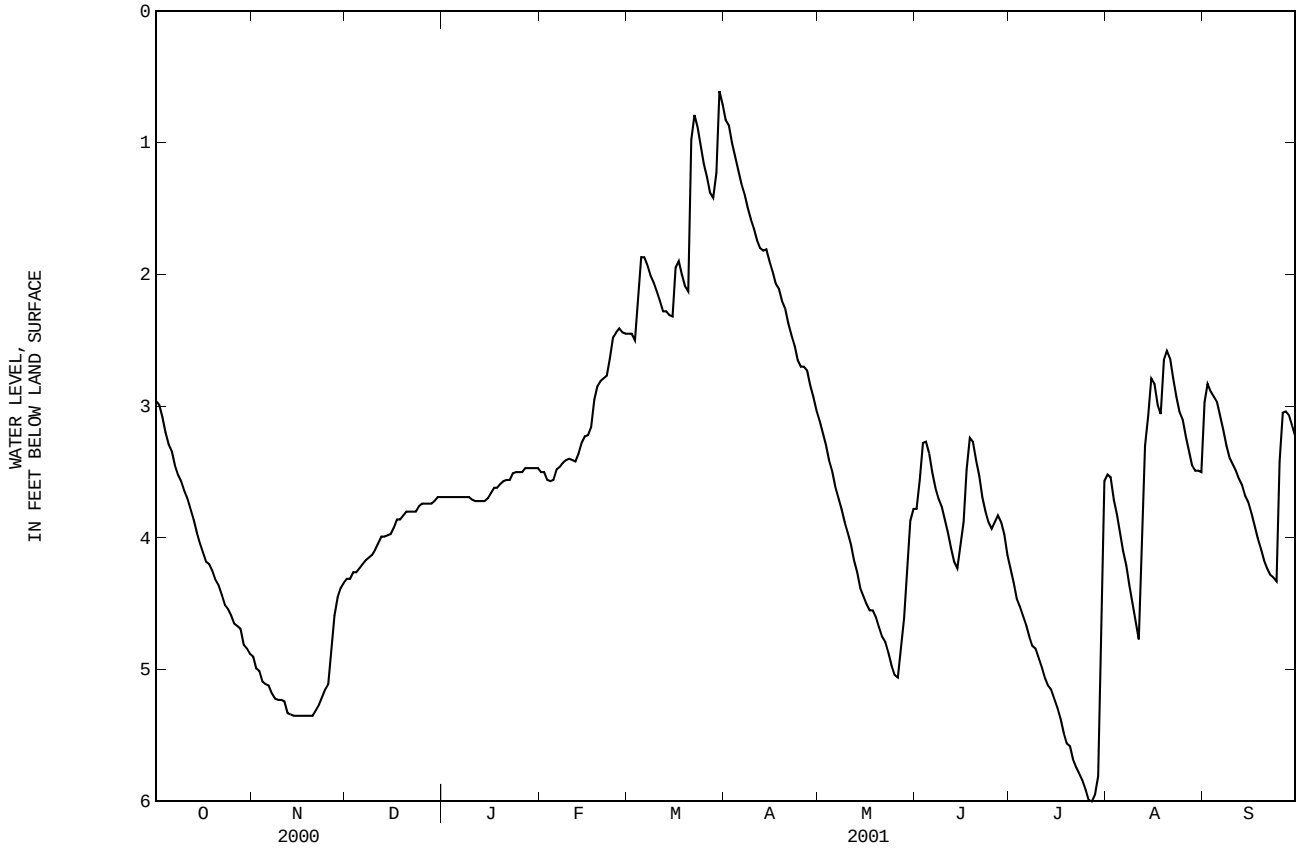
351849078163901. Local number, NC-148; County number, WA-154.
LOCATION.--Lat 35°18'49", long 78°16'39", Hydrologic Unit 03020201, 0.5 mi south of Johnston county line on Secondary Road 1009, and 6 mi west of Grantham. Owner: U.S. Geological Survey.
AQUIFER.--Surficial aquifer of post-Miocene age.
WELL CHARACTERISTICS.--Bored observation well, augered to 10.4 ft, diameter 3 in., cased to 5.4 ft, screened interval from 5.4 to 10.4 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.
DATUM.--Land-surface datum is 190 ft above sea level (from topographic map). Measuring point: File cut on top of casing, 1.80 ft above land-surface datum.
REMARKS.--Well is part of climatic-effects network.
PERIOD OF RECORD.--February 1980 to current year. Records for June 17 to Sept. 30, 1987, published in Water Resources Data, North Carolina, NC-87-1, are unreliable and should not be used.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.04 ft above land-surface datum, May 2, 1989; lowest water level recorded, 8.65 ft below land-surface datum, Oct. 8, 1996, Sept. 24, 25, 1997.

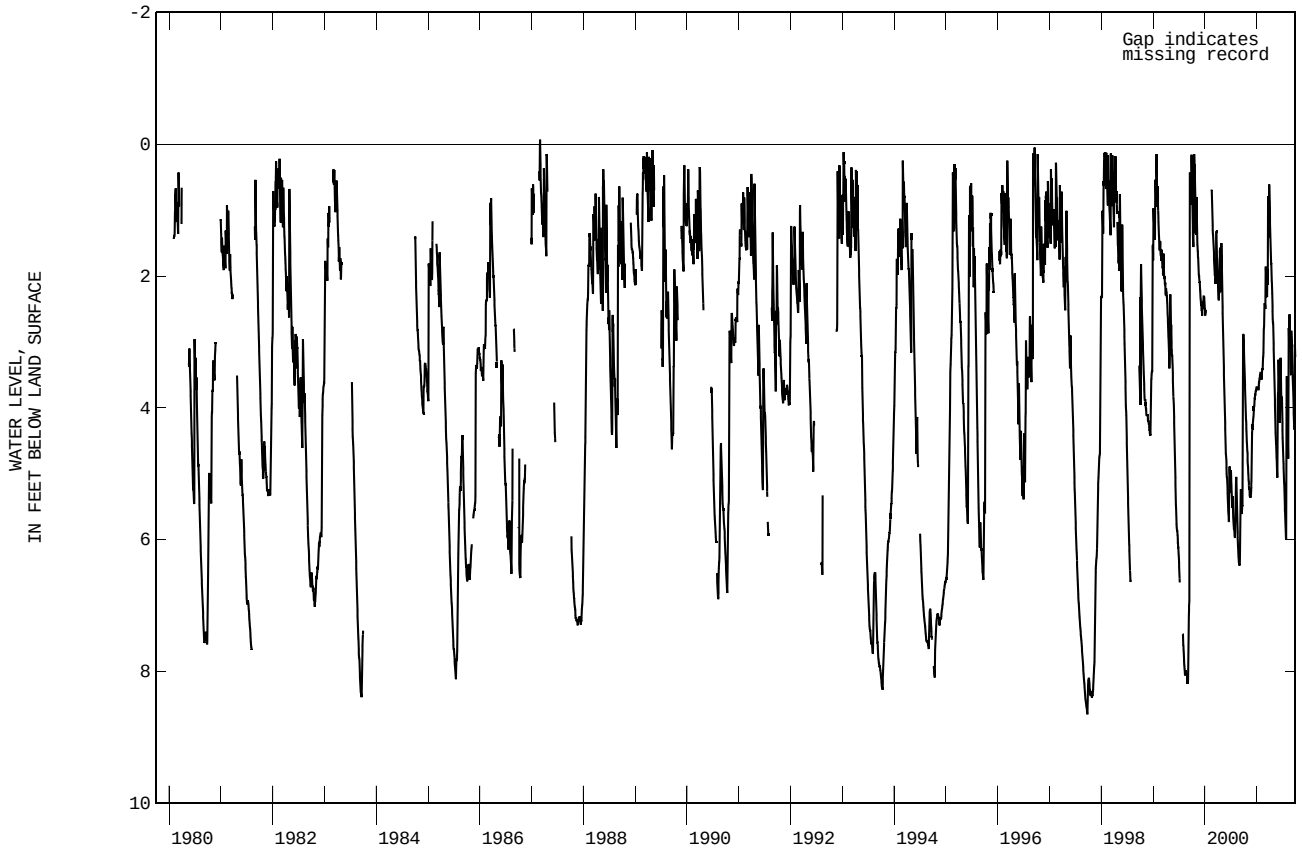
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.96	4.90	4.31	3.69	3.50	2.45	.83	3.11	3.78	4.23	3.52	2.97
2	2.99	4.99	4.31	3.69	3.50	2.45	.87	3.20	3.56	4.34	3.54	2.83
3	3.08	5.01	4.26	3.69	3.56	2.50	1.00	3.29	3.28	4.46	3.71	2.89
4	3.20	5.09	4.26	3.69	3.57	2.21	1.10	3.41	3.27	4.52	3.82	2.93
5	3.29	5.11	4.23	3.69	3.56	1.87	1.20	3.49	3.36	4.59	3.96	2.97
6	3.34	5.12	4.20	3.69	3.48	1.87	1.31	3.61	3.50	4.66	4.10	3.08
7	3.45	5.18	4.17	3.69	3.46	1.93	1.39	3.69	3.62	4.75	4.21	3.18
8	3.52	5.22	4.15	3.69	3.43	2.01	1.49	3.78	3.70	4.82	4.36	3.30
9	3.57	5.23	4.13	3.69	3.41	2.06	1.58	3.88	3.76	4.84	4.50	3.39
10	3.64	5.23	4.09	3.71	3.40	2.13	1.65	3.96	3.86	4.91	4.64	3.44
11	3.70	5.24	4.04	3.72	3.41	2.20	1.74	4.05	3.96	4.98	4.77	3.49
12	3.78	5.33	3.99	3.72	3.42	2.28	1.80	4.17	4.08	5.06	3.85	3.55
13	3.86	5.34	3.99	3.72	3.36	2.28	1.82	4.26	4.18	5.12	3.30	3.60
14	3.96	5.35	3.98	3.72	3.28	2.31	1.81	4.38	4.23	5.15	3.07	3.68
15	4.04	5.35	3.97	3.70	3.23	2.32	1.90	4.44	4.05	5.22	2.79	3.73
16	4.11	5.35	3.92	3.66	3.22	1.95	1.98	4.50	3.88	5.29	2.83	3.81
17	4.18	5.35	3.86	3.62	3.16	1.90	2.07	4.55	3.48	5.37	2.99	3.91
18	4.20	5.35	3.86	3.62	2.95	2.00	2.11	4.55	3.24	5.48	3.06	4.00
19	4.25	5.35	3.83	3.59	2.85	2.09	2.20	4.60	3.27	5.56	2.65	4.08
20	4.32	5.35	3.80	3.57	2.81	2.13	2.26	4.68	3.41	5.58	2.58	4.17
21	4.36	5.31	3.80	3.56	2.79	.98	2.37	4.75	3.53	5.68	2.64	4.23
22	4.43	5.27	3.80	3.56	2.77	.79	2.46	4.79	3.69	5.74	2.79	4.28
23	4.51	5.21	3.80	3.51	2.64	.88	2.54	4.87	3.80	5.79	2.93	4.30
24	4.54	5.15	3.76	3.50	2.48	1.03	2.65	4.97	3.88	5.84	3.04	4.33
25	4.59	5.11	3.74	3.50	2.44	1.16	2.70	5.04	3.93	5.91	3.10	3.42
26	4.65	4.86	3.74	3.50	2.41	1.26	2.70	5.06	3.88	5.99	3.23	3.05
27	4.67	4.59	3.74	3.47	2.44	1.38	2.73	4.84	3.83	6.00	3.34	3.04
28	4.69	4.45	3.74	3.47	2.45	1.42	2.84	4.61	3.88	5.95	3.45	3.07
29	4.81	4.38	3.72	3.47	---	1.23	2.93	4.20	3.97	5.81	3.49	3.15
30	4.84	4.34	3.69	3.47	---	.61	3.03	3.87	4.13	4.69	3.49	3.23
31	4.88	---	3.69	3.47	---	.71	---	3.78	---	3.57	3.50	---

WTR YR 2001 MEAN 3.64 HIGH .61 LOW 6.00

351849078163901 Local number, NC-148; County number, WA-154





YADKIN COUNTY

361307080293101. Local number NC-221; DENR East Bend Research Station well F61f3; County number, YD-200.
LOCATION.--Lat 36°13'07.89", long 80°29'31.54", North American Datum of 1983, Hydrologic Unit 03040101, near East Bend. Owner: DENR (North Carolina Department of Environment and Natural Resources.
AQUIFER.--Mafic Gneiss.
WELL CHARACTERISTICS.--Drilled observation well, drilled to 400 ft, diameter 6 in., cased to 54 ft.
INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.
DATUM.--Land-surface datum is 1,009.00 ft above sea level (levels by DENR). Measuring point: Top of instrument shelf, 0.56 ft above land-surface datum.
REMARKS.--Well is part of terrane-effects network.
PERIOD OF RECORD.--June 2000 to current year. Records from June 1972 to May 2000 are unpublished and available in the files of the Groundwater Section, DENR.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.51 ft below land-surface datum, July 28-30, 2000; lowest water level recorded, 15.79 ft below land-surface datum, Feb. 17, 18, 2001.

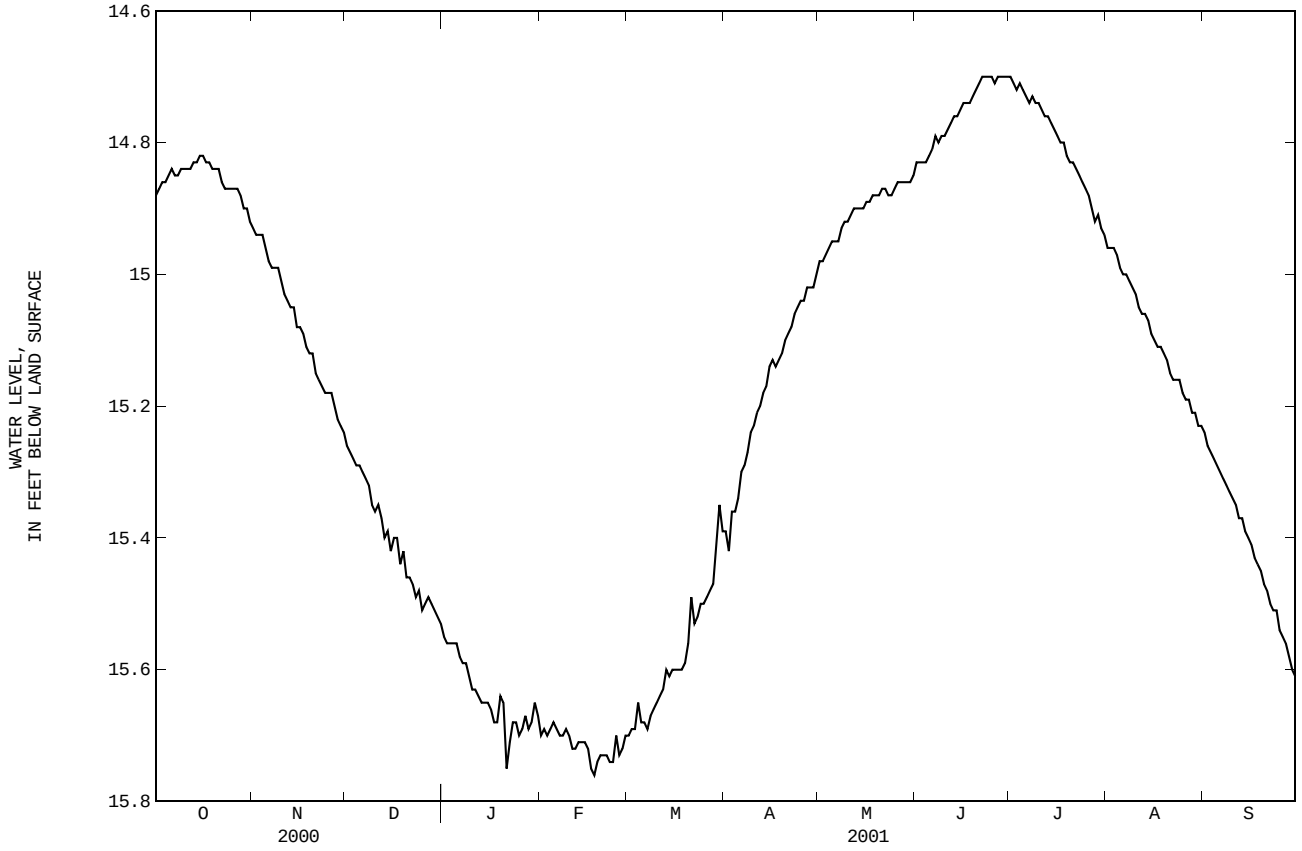
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

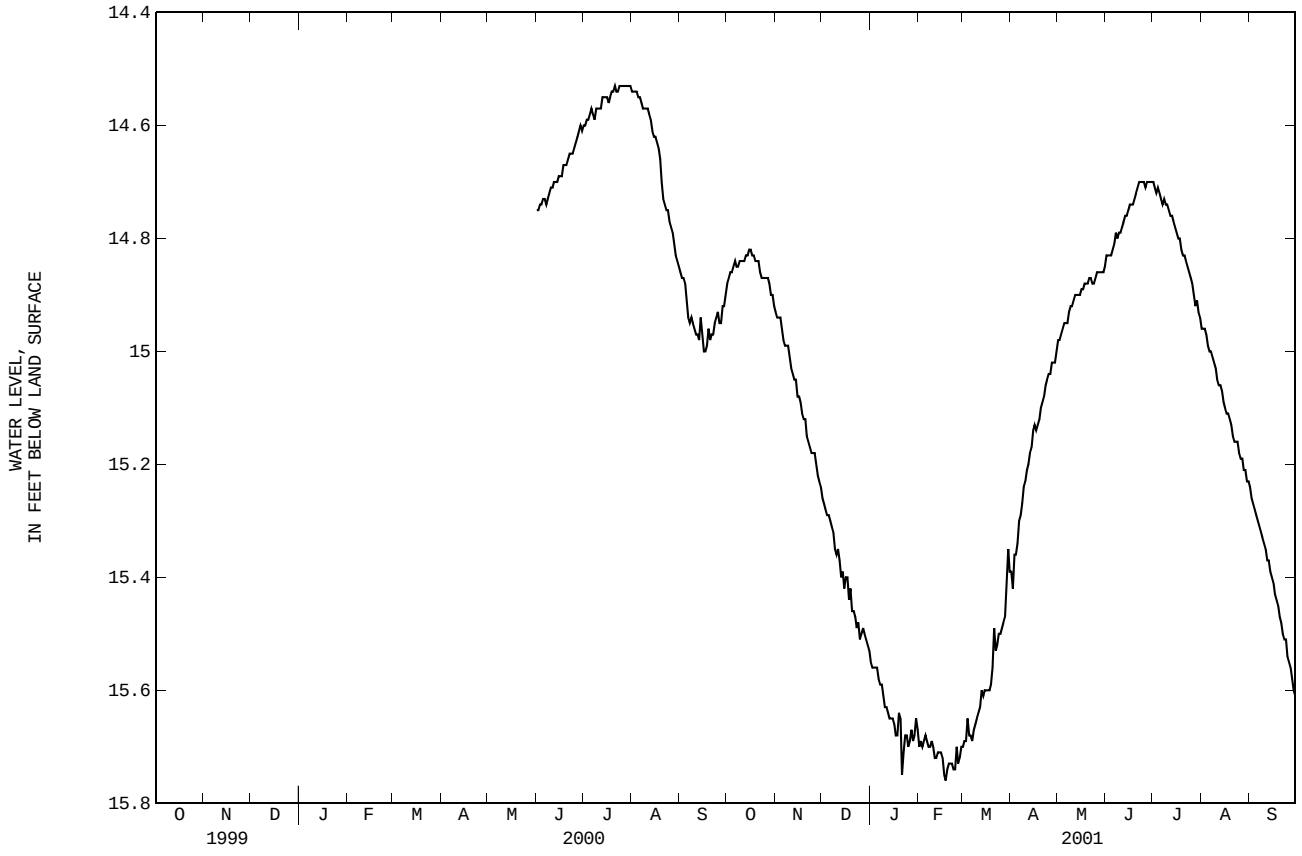
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.88	14.93	15.26	15.55	15.70	15.70	15.39	14.98	14.83	14.70	14.96	15.24
2	14.87	14.94	15.27	15.56	15.69	15.69	15.42	14.98	14.83	14.71	14.96	15.26
3	14.86	14.94	15.28	15.56	15.70	15.69	15.36	14.97	14.83	14.72	14.96	15.27
4	14.86	14.94	15.29	15.56	15.69	15.65	15.36	14.96	14.83	14.71	14.97	15.28
5	14.85	14.96	15.29	15.56	15.68	15.68	15.34	14.95	14.82	14.72	14.99	15.29
6	14.84	14.98	15.30	15.58	15.69	15.68	15.30	14.95	14.81	14.73	15.00	15.30
7	14.85	14.99	15.31	15.59	15.70	15.69	15.29	14.95	14.79	14.74	15.00	15.31
8	14.85	14.99	15.32	15.59	15.70	15.67	15.27	14.93	14.80	14.73	15.01	15.32
9	14.84	14.99	15.35	15.61	15.69	15.66	15.24	14.92	14.79	14.74	15.02	15.33
10	14.84	15.01	15.36	15.63	15.70	15.65	15.23	14.92	14.79	14.74	15.03	15.34
11	14.84	15.03	15.35	15.63	15.72	15.64	15.21	14.91	14.78	14.75	15.05	15.35
12	14.84	15.04	15.37	15.64	15.72	15.63	15.20	14.90	14.77	14.76	15.06	15.37
13	14.83	15.05	15.40	15.65	15.71	15.60	15.18	14.90	14.76	14.76	15.06	15.37
14	14.83	15.05	15.39	15.65	15.71	15.61	15.17	14.90	14.76	14.77	15.07	15.39
15	14.82	15.08	15.42	15.65	15.71	15.60	15.14	14.90	14.75	14.78	15.09	15.40
16	14.82	15.08	15.40	15.66	15.72	15.60	15.13	14.89	14.74	14.79	15.10	15.41
17	14.83	15.09	15.40	15.68	15.75	15.60	15.14	14.89	14.74	14.80	15.11	15.43
18	14.83	15.11	15.44	15.68	15.76	15.60	15.13	14.88	14.74	14.80	15.11	15.44
19	14.84	15.12	15.42	15.64	15.74	15.59	15.12	14.88	14.73	14.82	15.12	15.45
20	14.84	15.12	15.46	15.65	15.73	15.56	15.10	14.88	14.72	14.83	15.13	15.47
21	14.84	15.15	15.46	15.75	15.73	15.49	15.09	14.87	14.71	14.83	15.15	15.48
22	14.86	15.16	15.47	15.71	15.73	15.53	15.08	14.87	14.70	14.84	15.16	15.50
23	14.87	15.17	15.49	15.68	15.74	15.52	15.06	14.88	14.70	14.85	15.16	15.51
24	14.87	15.18	15.48	15.68	15.74	15.50	15.05	14.88	14.70	14.86	15.16	15.51
25	14.87	15.18	15.51	15.70	15.70	15.50	15.04	14.87	14.70	14.87	15.18	15.54
26	14.87	15.18	15.50	15.69	15.73	15.49	15.04	14.86	14.71	14.88	15.19	15.55
27	14.87	15.20	15.49	15.67	15.72	15.48	15.02	14.86	14.70	14.90	15.19	15.56
28	14.88	15.22	15.50	15.69	15.70	15.47	15.02	14.86	14.70	14.92	15.21	15.58
29	14.90	15.23	15.51	15.68	---	15.41	15.02	14.86	14.70	14.91	15.21	15.60
30	14.90	15.24	15.52	15.65	---	15.35	15.00	14.86	14.70	14.93	15.23	15.61
31	14.92	---	15.53	15.67	---	15.39	---	14.85	---	14.94	15.23	---

WTR YR 2001 MEAN 15.20 HIGH 14.70 LOW 15.76

YADKIN COUNTY--Continued

361307080293101 Local number NC-221; DENR East Bend Research Station well F61f3; County number, YD-200





WATER LEVEL MEASUREMENTS MADE AT MISCELLANEOUS SAMPLING SITES

The following sites in Craven county were measured during the period September 2000 to August 2001 for the Cherry Point Marine Corps Air Station investigation. The aquifer designation indicates the unit containing the screened interval of the well. Well locations are presented in figure 8.

STATION NUMBER	LOCAL IDENTIFIER	DATE	AQUIFER	WATER LEVEL (BELOW LAND SURFACE)
345318076541001	CR-617 Strat Hole 1 at Cherry Point, MCAS	09-21-2000	Castle Hayne	14.53
		02-09-2001		14.65
		05-03-2001		15.55
		08-09-2001		13.83
345335076530701	CR-618 Strat Hole 2 at Cherry Point, MCAS	09-21-2001	Castle Hayne	14.23
		02-09-2001		14.68
		05-03-2001		14.76
		08-09-2001		11.51
345539076524201	CR-619 Strat Hole 4 at Cherry Point, MCAS	09-21-2000	Castle Hayne	21.56
		02-09-2001		22.61
		05-03-2001		21.58
		08-09-2001		23.21
345613076513701	CR-620 Strat Hole 6 at Cherry Point, MCAS	09-21-2000	River Bend	11.05
		02-09-2001		11.43
		05-03-2001		10.78
		08-09-2001		12.72
345510076544901	CR-621 Strat Hole 7 at Cherry Point, MCAS	09-21-2000	River Bend	17.33
		10-05-2000		17.15
		02-09-2001		17.60
		05-03-2001		17.92
		08-09-2001		18.74
345312076540701	CR-623 Strat Hole 3 at Cherry Point, MCAS	02-09-2001	Castle Hayne	14.09
		05-03-2001		16.11
		08-09-2001		16.14

QUALITY OF GROUND WATER

Ground-water-quality data were collected during August 2001 for the ongoing Piedmont/Mountains ground-water study in cooperation with the North Carolina Department of Environment and Natural Resources, Division of Water Quality, Groundwater Section. Wake county well locations are presented in figure 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	STATION NUMBER	DATE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
WK-277	354356078403501	08-27-01	1130	110SPRL	20	330	--	--	18.9	24.5
WK-278	354356078403502	08-27-01	1530	110SPRL	41.5	330	5.4	125	17.9	27.6
WK-279	354356078403503	08-27-01	1345	310FCMG	302	330	6.0	678	17.3	167

LOCAL IDENT-I-FIER	DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
WK-277	08-27-01	6.14	2.23	3.91	12.7	28	.05	7.8	<.2	26.5	.8
WK-278	08-27-01	7.92	1.90	3.20	11.3	18	.03	8.1	<.2	28.7	1.1
WK-279	08-27-01	50.1	10.1	16.8	27.7	205	.27	58.4	.3	18.8	37.0

LOCAL IDENT-I-FIER	DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)
WK-277	08-27-01	108	E.030	E5.65	<2.0	<13	<10	653	5090	1.25	6.33
WK-278	08-27-01	114	E.053	E6.72	<2.0	<13	<10	250	12000	1.44	7.15
WK-279	08-27-01	318	E21.9	E2.96	<2.0	16	<10	3360	5360	79.9	46.1

Remark Codes Used in This report:
< -- Less than
E -- Estimated value

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

Ground-water-quality data were collected for the Albemarle-Pamlico Drainage Basin study unit for the National Water Quality Assessment Program during April 2001. Objectives of the study are to provide data for characterizing water-quality of shallow aquifers in the Coastal Plain of North Carolina and for evaluating trends in ground-water quality. Well CA-087 is located in Camden county; well LU-012 is located in Suffolk county, Virginia; well WA-185 is located in Wayne county; well BO-413 is located in Beaufort county; well LN-184 is located in Lenoir county. Well locations for sites listed in the following tables are shown in figure 10.

WATER QUALITY DATA, APRIL 2001

LOCAL IDENT-I-FIER	STATION NUMBER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)
CA-087	362527076163301	04-23-01	1556	2.65	10.0	13	768	.1	5.7	407
LU-012	363529076291701	04-23-01	1325	.54	5.0	15	768	1.6	4.8	56
WA-185	352905077594501	04-24-01	1317	11.68	33.0	134	659	.1	5.1	106
BO-413	352548077012701	04-24-01	0949	6.90	27.0	33.0	768	M	7.0	242
LN-184	352305077321701	04-26-01	1230	7.38	15.07	72	767	3.0	6.0	200

LOCAL IDENT-I-FIER	DATE	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY WAT.DIS FET LAB CACO3 (MG/L) (29801)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
CA-087	04-23-01	18.0	5.95	6.79	1.43	46.7	--	57	--	.18	71.9
LU-012	04-23-01	14.5	5.93	.945	1.35	4.2	--	--	--	1.17	7.2
WA-185	04-24-01	19.5	3.17	1.28	2.21	8.0	5	6	7	.06	15.9
BO-413	04-24-01	17.0	40.6	1.35	.67	7.6	78	112	95	.13	12.1
LN-184	04-26-01	15.0	15.8	5.07	4.55	2.0	34	28	40	.06	7.2

LOCAL IDENT-I-FIER	DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
CA-087	04-23-01	E.1	32.6	10.7	252	.195	.32	<.047	<.006	.054	<.018
LU-012	04-23-01	<.2	9.7	.8	286	.557	3.5	<.047	.013	.052	.028
WA-185	04-24-01	<.2	21.7	15.0	78	E.023	E.07	<.047	.019	.036	.021
BO-413	04-24-01	.3	43.5	.2	184	.041	E.09	<.047	<.006	.007	<.018
LN-184	04-26-01	.3	6.6	17.0	131	.052	.17	7.99	.006	.018	<.018

LOCAL IDENT-I-FIER	DATE	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)
CA-087	04-23-01	<.002	<.004	<.002	<.005	<.007	<.010	<.002	<.041	<.020	<.005
LU-012	04-23-01	<.002	<.004	<.002	<.005	<.007	<.010	<.002	<.041	<.020	<.005
WA-185	04-24-01	<.002	<.004	<.002	<.005	<.007	<.010	<.002	<.041	<.020	<.005
BO-413	04-24-01	<.002	<.004	<.002	<.005	<.007	<.010	<.002	<.041	<.020	<.005
LN-184	04-26-01	<.002	<.004	<.002	<.005	.433	<.010	<.002	<.041	<.020	<.005

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, APRIL 2001

LOCAL IDENT-I-FIER	DATE	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)
CA-087	04-23-01	<.018	<.003	<.006	<.005	<.005	<.021	<.002	<.009	<.005	<.003
LU-012	04-23-01	<.018	<.003	<.006	<.005	<.005	<.021	<.002	<.009	<.005	<.003
WA-185	04-24-01	<.018	<.003	<.006	<.005	<.005	<.021	<.002	<.009	<.005	<.003
BO-413	04-24-01	<.018	<.003	<.006	<.005	<.005	<.021	<.002	<.009	<.005	<.003
LN-184	04-26-01	<.018	<.003	E.043	<.005	<.005	<.021	<.002	<.009	<.005	<.003

LOCAL IDENT-I-FIER	DATE	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, DISSOLVED (UG/L) (39532)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)
CA-087	04-23-01	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003
LU-012	04-23-01	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003
WA-185	04-24-01	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003
BO-413	04-24-01	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003
LN-184	04-26-01	<.004	<.035	<.027	<.050	<.006	.062	<.006	<.002	<.007	<.003

LOCAL IDENT-I-FIER	DATE	PARATHION, DISSOLVED (UG/L) (39542)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PROMETON, WATER, DISS, REC (UG/L) (04037)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPACHLOR, WATER, DISS, REC (UG/L) (04024)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
CA-087	04-23-01	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
LU-012	04-23-01	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
WA-185	04-24-01	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
BO-413	04-24-01	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023
LN-184	04-26-01	<.007	<.002	<.010	<.006	<.011	<.015	<.004	<.010	<.011	<.023

LOCAL IDENT-I-FIER	DATE	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)
CA-087	04-23-01	<.011	<.016	<.034	<.017	<.008	<.002	<.009	<.03	<.06	<.04
LU-012	04-23-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009	--	--	--
WA-185	04-24-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009	<.03	<.06	E.07
BO-413	04-24-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009	<.03	<.06	<.04
LN-184	04-26-01	<.011	<.016	<.034	<.017	<.005	<.002	<.009	<.03	<.06	<.04

LOCAL IDENT-I-FIER	DATE	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1-DICHLOROPROPENE, WAT, WH TOTAL (UG/L) (77168)	123-TRICHLOROPROPANE WATER WHOLE TOTAL (UG/L) (77443)	1,2-DIBROMOETHANE WATER WHOLE TOTAL (UG/L) (77651)	1,2-DICHLOROETHANE TOTAL (UG/L) (32103)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	2,2-DICHLOROPROPANE WAT, WH TOTAL (UG/L) (77170)	2BUTENE TRANS-1 4-DICHLORO UNFLTRD RECOVER (UG/L) (73547)	2-HEXANONE WATER WHOLE TOTAL (UG/L) (77103)
CA-087	04-23-01	<.04	<.03	<.2	<.04	<.1	<.03	<.03	<.05	<.7	<.7
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.04	<.03	<.2	<.04	<.1	<.03	<.03	<.05	<.7	<.7
BO-413	04-24-01	<.04	<.03	<.2	<.04	<.1	<.03	<.03	<.05	<.7	<.7
LN-184	04-26-01	<.04	<.03	<.2	<.04	<.1	<.03	<.03	<.05	<.7	<.7

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, APRIL 2001

LOCAL IDENT-I-FIER	DATE	ACETONE WATER WHOLE TOTAL (UG/L) (81552)	ACRYLO-NITRILE TOTAL (UG/L) (34215)	1,2,3-TRI-CHLORO BENZENE WAT, WH REC (UG/L) (77613)	BENZENE 123-TRI METHYL- WATER UNFLTRD RECOVER (UG/L) (77221)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 124-TRI METHYL UNFILT RECOVER (UG/L) (77222)	BENZENE 135-TRI METHYL WATER UNFLTRD REC (UG/L) (77226)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	ISO-PROPYL-BENZENE WATER WHOLE REC (UG/L) (77223)
CA-087	04-23-01	<7	<1	<.3	<.1	<.2	<.06	<.04	<.03	<.05	<.03
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<7	<1	<.3	<.1	<.2	<.06	<.04	<.03	<.05	<.03
BO-413	04-24-01	<7	<1	<.3	<.1	<.2	<.06	<.04	<.03	<.05	<.03
LN-184	04-26-01	<7	<1	<.3	<.1	<.2	<.06	<.04	<.03	<.05	<.03

LOCAL IDENT-I-FIER	DATE	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC BUTYL-WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT-BUTYL-WATER UNFLTRD REC (UG/L) (77353)	BENZENE TOTAL (UG/L) (34030)	BROMO-BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	BROMO-ETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	BROMO-FORM TOTAL (UG/L) (32104)	CARBON DI-SULFIDE WATER WHOLE TOTAL (UG/L) (77041)
CA-087	04-23-01	<.2	<.04	<.03	<.03	<.06	<.04	<.04	<.1	<.06	<.07
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.2	<.04	<.03	<.03	<.06	<.04	<.04	<.1	<.06	<.07
BO-413	04-24-01	<.2	<.04	<.03	<.03	<.06	<.04	<.04	<.1	<.06	<.07
LN-184	04-26-01	<.2	<.04	<.03	<.03	<.06	<.04	<.04	<.1	<.06	<.07

LOCAL IDENT-I-FIER	DATE	CARBON TETRA-CHLO-RIDE TOTAL (UG/L) (32102)	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L) (32105)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHLORO-FORM TOTAL (UG/L) (32106)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (UG/L) (77093)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DIBROMO CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)
CA-087	04-23-01	<.06	<.03	<.2	<.1	<.02	<.04	<.09	<.2	<.05	<.05
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.06	<.03	<.2	<.1	<.02	<.04	<.09	<.2	<.05	<.05
BO-413	04-24-01	<.06	<.03	<.2	<.1	<.02	<.04	<.09	<.2	<.05	<.05
LN-184	04-26-01	<.06	<.03	<.2	<.1	<.02	<.04	<.09	<.2	<.05	<.05

LOCAL IDENT-I-FIER	DATE	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	DI-ISO-PROPYL-ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112-TETRA-CHLORO-WAT UNF REC (UG/L) (77562)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	ETHANE 12DICL SURROG VOC UNFLTRD REC PERCENT (99832)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	ETHER ETHYL WATER UNFLTRD RECOVER (UG/L) (81576)	ETHER TERT-BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	ETHER TERT-PENTYL METHYL UNFLTRD RECOVER (UG/L) (50005)	ETHYL-BENZENE TOTAL (UG/L) (34371)
CA-087	04-23-01	<.3	<.1	<.03	<.09	119	<.2	<.2	<.05	<.1	<.03
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.3	<.1	<.03	<.09	115	<.2	<.2	<.05	<.1	<.03
BO-413	04-24-01	<.3	<.1	<.03	<.09	119	<.2	<.2	<.05	<.1	<.03
LN-184	04-26-01	<.3	<.1	<.03	<.09	120	<.2	<.2	<.05	<.1	<.03

LOCAL IDENT-I-FIER	DATE	FREON-113 WATER UNFLTRD REC (UG/L) (77652)	FURAN, TETRA-HYDRO-WATER UNFLTRD RECOVER (UG/L) (81607)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	ISO-DURENE WATER UNFLTRD RECOVER (UG/L) (50000)	METHAC-RYLATE ETHYL-WATER UNFLTRD RECOVER (UG/L) (73570)	METHAC-RYLATE METHYL WATER UNFLTRD RECOVER (UG/L) (81597)	METH-ACRYLO-NITRILE WATER UNFLTRD RECOVER (UG/L) (81593)	METHANE BROMO CHLORO-WAT UNFLTRD REC (UG/L) (77297)	METHYL ACRY-LATE WATER UNFLTRD RECOVER (UG/L) (49991)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)
CA-087	04-23-01	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.04	<1	<.1
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.04	<1	<.1
BO-413	04-24-01	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.04	<1	<.1
LN-184	04-26-01	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.04	<1	<.1

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, APRIL 2001

LOCAL IDENT-I-FIER	DATE	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	METHYL-ETHYL-KETONE WATER WHOLE TOTAL (UG/L) (81595)	METHYL ISO-BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)	META/ PARA-XYLENE WATER UNFLTRD REC (UG/L) (85795)	NAPHTH-ALENE TOTAL (UG/L) (34696)	O-CHLORO-TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)
CA-087	04-23-01	<.2	<.3	<.2	<.2	<2	<.4	<.06	<.2	<.03	<.04
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.2	<.3	<.2	<.2	<2	<.4	<.06	<.2	<.03	<.04
BO-413	04-24-01	<.2	<.3	<.2	<.2	<2	<.4	<.06	<.2	<.03	<.04
LN-184	04-26-01	<.2	<.3	<.2	<.2	<2	<.4	<.06	<.2	<.03	<.04

LOCAL IDENT-I-FIER	DATE	P-ISO-PROPYL-TOLUENE WATER WHOLE REC (UG/L) (77356)	1234-TETRA METHYL BENZENE UNFLTRD REC (UG/L) (49999)	1,3-DI-CHLORO-PROPANE WAT. WH TOTAL (UG/L) (77173)	PROPENE 3-CHLORO-WATER UNFLTRD RECOVER (UG/L) (78109)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE O-ETHYL WATER UNFLTRD RECOVER (UG/L) (77220)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)
CA-087	04-23-01	<.07	<.2	<.1	<.1	<.04	<.1	<.06	<.06	<.05	<.09
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.07	<.2	<.1	<.1	<.04	<.1	<.06	<.06	<.05	<.09
BO-413	04-24-01	<.07	<.2	<.1	<.1	<.04	<.1	<.06	<.06	<.05	<.09
LN-184	04-26-01	<.07	<.2	<.1	<.1	<.04	<.1	<.06	<.06	<.05	<.09

LOCAL IDENT-I-FIER	DATE	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS ALPHA, 2X CL, SS MDC, WATER, FLTRD, (PCI/L) (99337)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, 2X CL, SS MDC, WATER, FLTRD, (PCI/L) (99323)	RADIUM 228 DIS-SOLVED (PCI/L AS RA-228) (81366)
CA-087	04-23-01	<.04	<.09	<.1	--	--	--	--	--	--	--
LU-012	04-23-01	--	--	--	--	--	--	--	--	--	--
WA-185	04-24-01	<.04	<.09	<.1	--	--	--	--	--	--	--
BO-413	04-24-01	<.04	<.09	<.1	--	--	--	--	--	--	--
LN-184	04-26-01	<.04	<.09	<.1	2.2	14.0	1.4	1.130	11.0	1.700	1.91

LOCAL IDENT-I-FIER	DATE	RA-228 2 SIGMA WATER, DISS, (PCI/L) (76000)	RADIUM 228, 2X CL, SS MDC, WATER, FLTRD, (PCI/L) (99326)	RADON 222 TOTAL (PCI/L) (82303)	RADON 222, 2X CL, SS MDC, WATER, UNFLTRD (PCI/L) (99327)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
CA-087	04-23-01	--	--	237	24.0	20	<.02
LU-012	04-23-01	--	--	57.0	24.0	16	.08
WA-185	04-24-01	--	--	432	21.0	22	<.02
BO-413	04-24-01	--	--	1160	21.0	32	<.02
LN-184	04-26-01	.63	.72700	1640	22.0	37	.23

Remark codes used in this report:
   < -- Less than
   E -- Estimated value
Null value remark codes used in this report:
   M -- Presence verified, not quantified

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

Ground-water-quality data presented in these tables were collected from November 2000 to September 2001 and will be used to determine fate and transport of nitrogen in a Coastal Plain stream-aquifer system. The data will be used to develop a model of nitrogen movement through a small Coastal Plain watershed. This is a cooperative project between the U. S. Geological Survey, the U.S. Environmental Protection Agency National Exposure Research Laboratory, and the North Carolina Department of Environment and Natural Resources. Wells listed in the following ground-water-quality table are completed in the surficial aquifer, with the exception of well GR-120, which is completed in the Yorktown aquifer. Well locations for these sampling sites in Greene county are presented in figure 7.

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	STATION NUMBER	DATE	TIME	DEPTH BELOW MP (WATER LEVEL) (FEET) (61055)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)
GR-160	353128077330502	02-06-01	1614	--	--	--	--	20	148	5.7
GR-114	353027077340101	02-01-01	1020	14.32	11.82	67.68	79.27	36	310	7.5
GR-115	353027077340102	02-01-01	1050	8.11	4.61	22.7	79.27	15	46	5.1
GR-121	353042077334501	11-30-00	1230	18.67	15.25	74.65	79.72	20	286	7.5
GR-122	353042077334502	11-30-00	1400	12.98	9.40	22.08	79.62	15	23	5.0
GR-118	353050077333401	05-16-01	1120	8.32	4.86	10.19	76.93	30	97	5.3
		08-16-01	1000	5.28	1.82	10.19	76.93	--	108	5.2
GR-119	353050077333402	02-01-01	1230	11.59	8.05	25.35	76.81	15	495	7.0
		08-16-01	0930	10.86	7.32	25.35	76.81	--	521	7.0
GR-120	353050077333403	02-01-01	1400	32.56	28.85	111	76.41	45	340	7.3
GR-117	353051077333401	02-01-01	1200	15.90	12.19	61.4	76.82	30	363	7.3
GR-099	353052077335501	02-05-01	1610	7.41	4.31	23.84	75.67	18	278	6.0
GR-154	353052077335502	02-05-01	1630	5.75	--	--	--	--	60	5.2
GR-088	353103077333402	11-16-00	1200	7.18	5.60	20	77.42	--	148	5.2
		02-15-01	1330	5.30	3.72	20	77.42	70	145	5.1
		05-07-01	1115	6.69	5.11	20	77.42	25	121	5.1
GR-090	353103077333403	11-16-00	1145	8.58	5.31	40.65	76.96	25	74	4.9
GR-159	353104077334306	02-08-01	1000	--	--	--	--	10	202	6.0
		05-03-01	1230	--	--	--	--	--	163	6.6
		08-15-01	1215	--	--	--	--	--	196	5.4
GR-155	353104077334307	02-08-01	1030	--	--	--	--	15	194	5.6
		08-15-01	1030	--	--	--	--	--	227	5.5
GR-156	353104077334308	02-08-01	1100	--	--	--	--	13	216	5.5
		05-03-01	1300	--	--	--	--	--	150	5.1
		08-15-01	1130	--	--	--	--	--	226	5.5
GR-157	353104077334309	02-08-01	1200	--	--	--	--	15	150	4.5
		05-03-01	1400	--	--	--	--	--	150	4.5
		08-15-01	1300	--	--	--	--	--	188	4.3
GR-084	353111077334401	09-05-01	1130	4.40	--	29.0	73.17	140	87	4.3
GR-085	353111077334402	02-06-01	0915	5.43	2.05	7.0	73.38	--	665	4.5
		04-04-01	1045	3.72	.34	7.0	73.38	15	795	4.3
		05-02-01	1215	5.42	2.04	7.0	73.38	15	646	4.9
		06-07-01	1030	4.76	1.38	7.0	73.38	30	770	4.2
		07-03-01	1045	4.94	1.56	7.0	73.38	--	720	4.0
		08-07-01	1100	6.95	3.57	7.0	73.38	--	697	4.2
		09-05-01	1030	4.46	1.08	7.0	73.38	--	670	3.8

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WAT.DIS FET FIELD HCO3 (MG/L) (29804)
GR-160	02-06-01	8.5	767	.7	6	33	10.3	1.76	5.4	1.57	59
GR-114	02-01-01	16.5	767	.1	2	150	58.2	1.31	4.8	1.35	190
GR-115	02-01-01	15.0	767	.1	1	9	3.31	.275	3.3	.49	8
GR-121	11-30-00	16.1	768	.6	6	140	52.5	1.18	16.9	1.28	193
GR-122	11-30-00	17.3	768	4.5	46	3	.83	.153	2.1	.09	3
GR-118	05-16-01	16.0	759	.8	8	10	3.60	.133	16.9	.22	9
	08-16-01	20.5	760	3.3	37	--	--	--	--	--	--
GR-119	02-01-01	16.5	767	1.0	10	220	84.6	1.68	17.5	.93	277
	08-16-01	17.5	760	.3	4	--	--	--	--	--	--
GR-120	02-01-01	17.0	767	.1	0	160	59.4	2.35	8.7	2.17	214
GR-117	02-01-01	16.5	767	.1	1	170	66.0	1.44	7.2	1.14	226
GR-099	02-05-01	15.5	760	.2	2	110	38.2	2.45	5.2	1.68	38
GR-154	02-05-01	11.5	760	5.8	53	7	1.48	.911	5.3	.92	13
GR-088	11-16-00	19.3	770	1.5	16	20	6.20	1.05	14.1	3.93	10
	02-15-01	16.5	761	.6	6	20	5.99	1.12	14.6	4.05	9
	05-07-01	17.0	773	.7	7	17	5.09	1.09	13.4	3.70	8
GR-090	11-16-00	18.3	770	.7	7	8	2.40	.435	4.4	2.06	5
GR-159	02-08-01	7.0	775	6.2	50	61	17.7	4.21	7.5	3.89	12
	05-03-01	15.0	768	.6	6	68	19.0	4.94	7.0	5.74	26
	08-15-01	23.0	760	4.2	49	52	14.4	3.98	8.4	9.74	7
GR-155	02-08-01	9.5	775	.3	2	49	15.9	2.34	6.0	2.61	60
	08-15-01	22.5	760	.3	4	50	15.0	3.12	7.8	5.36	48
GR-156	02-08-01	10.5	775	.2	2	34	8.32	3.29	7.7	7.49	38
	05-03-01	15.0	768	.1	1	35	9.63	2.64	10.2	8.33	10
	08-15-01	22.5	760	.2	2	37	9.89	2.87	10.8	8.64	32
GR-157	02-08-01	15.5	775	1.0	10	30	5.53	3.90	7.6	3.86	--
	05-03-01	16.0	768	.1	0	40	7.20	5.42	8.7	4.18	--
	08-15-01	22.5	760	.2	3	41	7.29	5.48	9.3	4.43	--
GR-084	09-05-01	19.0	762	.1	2	--	--	--	--	--	--
GR-085	02-06-01	9.5	767	6.0	53	160	39.9	14.6	40.3	8.25	--
	04-04-01	11.5	770	3.0	28	--	--	--	--	--	--
	05-02-01	16.5	764	4.6	47	170	42.8	15.8	36.7	9.21	--
	06-07-01	22.0	760	1.6	18	--	--	--	--	--	--
	07-03-01	23.5	768	3.6	42	--	--	--	--	--	--
	08-07-01	26.0	763	.5	7	160	40.6	14.9	38.6	10.9	--
	09-05-01	24.0	762	3.1	37	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
GR-160	02-06-01	48	3.6	13.8	E.1	.17	6.4	93	<.006	<.047	1.22
GR-114	02-01-01	160	1.1	4.0	.2	.05	23.7	197	<.006	<.047	.045
GR-115	02-01-01	7.0	.8	7.0	E.1	.04	14.7	35	<.006	<.047	<.041
GR-121	11-30-00	160	6.2	4.2	.3	.02	25.2	200	<.006	<.047	E.033
GR-122	11-30-00	2.8	1.3	3.4	E.1	.01	4.7	<10	<.006	<.047	<.041
GR-118	05-16-01	7.6	11.8	21.9	<.2	.12	12.2	104	<.006	.066	.067
	08-16-01	--	--	--	--	--	--	--	--	--	--
GR-119	02-01-01	230	4.0	21.1	.4	.08	37.0	327	<.006	<.047	.046
	08-16-01	--	--	--	--	--	--	--	--	--	--
GR-120	02-01-01	180	.4	4.3	.2	.04	25.9	213	<.006	<.047	.064
GR-117	02-01-01	180	.8	5.1	.2	.07	32.5	235	<.006	<.047	E.034
GR-099	02-05-01	31	59.8	25.8	E.1	.11	12.9	202	<.006	<.047	E.028
GR-154	02-05-01	11	3.0	7.5	<.2	.14	11.5	60	<.006	<.047	E.032
GR-088	11-16-00	8.2	10.3	22.6	<.2	.05	10.7	80	<.006	.730	<.041
	02-15-01	7.6	11.8	23.0	<.2	.07	9.8	84	E.004	.768	<.041
	05-07-01	6.6	9.6	22.6	<.2	.09	9.9	77	E.003	1.02	<.041
GR-090	11-16-00	4.4	9.6	11.8	<.2	.10	16.9	52	<.006	<.047	<.041
GR-159	02-08-01	10	18.0	29.4	.2	.01	8.3	121	.025	3.60	E.037
	05-03-01	21	13.9	34.2	.2	<.01	8.0	156	.149	3.09	.324
	08-15-01	5.9	13.9	26.3	E.1	<.01	8.2	151	.013	5.88	.058
GR-155	02-08-01	49	--	--	<.2	.26	5.4	--	<.006	<.047	.686
	08-15-01	39	4.3	39.7	E.1	.16	8.7	148	<.006	E.028	1.30
GR-156	02-08-01	31	--	--	<.2	.09	9.6	--	<.006	<.047	.816
	05-03-01	8.0	10.2	42.0	<.2	.06	9.6	139	<.006	<.047	.517
	08-15-01	26	8.2	43.5	E.1	.26	10.9	155	<.006	<.050	.924
GR-157	02-08-01	--	10.4	22.1	<.2	.08	5.4	73	<.006	3.15	<.041
	05-03-01	--	9.2	26.7	<.2	.07	6.1	101	<.006	6.58	<.041
	08-15-01	--	8.7	27.8	E.1	.06	7.3	90	E.003	6.53	<.040
GR-084	09-05-01	--	--	--	--	--	--	--	--	--	--
GR-085	02-06-01	--	20.4	102	.4	.05	6.6	399	<.006	33.3	<.041
	04-04-01	--	--	--	--	--	--	--	--	--	--
	05-02-01	--	15.4	98.3	.4	.06	7.9	467	<.006	51.8	E.039
	06-07-01	--	--	--	--	--	--	--	--	--	--
	07-03-01	--	--	--	--	--	--	--	--	--	--
	08-07-01	--	12.8	94.3	.4	.07	11.4	406	.009	37.3	.176
	09-05-01	--	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	N15/N14 NH4 FRAC WATER FLTRD 0.45 U PER MIL (82691)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)
GR-160	02-06-01	1.6	.473	.445	10500	47.1	6.1	--	--	--
GR-114	02-01-01	E.07	.075	.038	1180	20.5	.51	--	--	--
GR-115	02-01-01	E.06	.259	.256	510	6.2	.72	--	--	--
GR-121	11-30-00	E.08	.278	.339	830	21.2	.67	--	2.6	1.0
GR-122	11-30-00	<.10	.072	.072	110	E2.4	E.26	--	17.6	1.3
GR-118	05-16-01	.24	.028	E.011	310	7.2	--	--	--	--
	08-16-01	--	--	--	--	--	--	--	28.5	3.2
GR-119	02-01-01	.17	.056	.029	2810	31.4	3.7	--	--	--
	08-16-01	--	--	--	--	--	--	--	-0.6	2.6
GR-120	02-01-01	.11	.051	.030	1180	77.2	.74	--	--	--
GR-117	02-01-01	E.07	.111	.028	2450	50.8	.55	--	--	--
GR-099	02-05-01	<.10	.105	.094	2480	51.8	.81	--	--	--
GR-154	02-05-01	.12	.014	<.018	3360	12.5	5.7	--	--	--
GR-088	11-16-00	<.10	.022	.019	730	46.3	.35	--	--	--
	02-15-01	E.07	.016	<.018	260	46.0	.46	--	--	--
	05-07-01	<.10	.021	<.018	250	37.3	.56	--	--	--
GR-090	11-16-00	<.10	.011	E.009	5320	9.6	<.33	--	--	--
GR-159	02-08-01	.18	.006	<.018	350	49.6	3.3	--	--	--
	05-03-01	.70	.006	<.018	380	65.4	4.1	--	--	--
	08-15-01	.96	.043	.033	720	42.2	22	--	--	--
GR-155	02-08-01	.90	.034	.027	14200	32.6	8.0	--	--	--
	08-15-01	1.8	.096	.089	13500	37.6	10	8.60	--	--
GR-156	02-08-01	1.2	.078	.071	20100	31.6	12	--	--	--
	05-03-01	.87	.018	<.018	5920	31.4	6.0	--	--	--
	08-15-01	1.5	.086	.080	14300	27.0	12	9.50	--	--
GR-157	02-08-01	<.10	<.006	<.018	90	48.5	1.1	--	--	--
	05-03-01	.11	<.006	<.018	90	35.6	.79	--	--	--
	08-15-01	.11	<.006	<.020	10	35.4	1.3	--	--	--
GR-084	09-05-01	--	--	--	--	--	--	--	43.8	3.8
GR-085	02-06-01	.25	.014	<.018	10	171	1.5	--	--	--
	04-04-01	--	--	--	--	--	--	--	--	--
	05-02-01	.30	.013	<.018	90	185	1.6	--	--	--
	06-07-01	--	--	--	--	--	--	--	--	--
	07-03-01	--	--	--	--	--	--	--	--	--
	08-07-01	.50	.010	<.020	290	198	3.2	--	--	--
	09-05-01	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	STATION NUMBER	DATE	TIME	DEPTH BELOW MP (WATER LEVEL) (FEET) (61055)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)
GR-094	353111077334404	11-16-00	1300	6.41	4.49	18.0	73.37	19	89	4.3
		04-04-01	1015	2.00	.08	18.0	73.37	20	89	4.3
		05-02-01	1145	3.95	2.03	18.0	73.37	20	61	4.8
		06-07-01	1110	3.23	1.31	18.0	73.37	--	96	4.3
		07-03-01	1115	3.42	1.50	18.0	73.37	--	89	4.3
		08-07-01	1145	5.88	3.96	18.0	73.37	--	91	4.4
		09-05-01	1100	3.10	1.18	18.0	73.37	--	90	4.7
GR-092	353122077334903	11-08-00	1430	--	--	12	64.47	55	273	5.4
		03-01-01	1230	8.33	6.83	12	64.47	--	330	5.0
		04-04-01	1120	8.11	6.61	12	64.47	--	347	5.1
		05-02-01	1235	8.66	7.16	12	64.47	--	274	4.9
		06-07-01	1230	8.64	7.14	12	64.47	--	377	4.9
		07-03-01	1400	8.27	6.77	12	64.47	--	376	4.8
		08-07-01	1330	8.83	7.33	12	64.47	--	381	4.8
		09-05-01	1300	8.29	6.79	12	64.47	--	390	5.1
GR-091	353122077334904	03-01-01	1100	7.96	6.63	8	64.39	15	378	4.2
		05-02-01	1330	8.31	6.98	8	64.39	--	229	4.4
		08-07-01	1400	8.52	7.19	8	64.39	--	429	4.4
GR-106	353127077333701	11-27-00	1215	28.22	25.51	56.6	73.07	45	281	7.4
GR-107	353127077333702	11-27-00	1330	10.38	7.75	21.46	72.95	30	242	4.2
		02-15-01	1130	9.94	7.31	21.46	72.95	35	251	4.0
GR-109	353127077333704	11-27-00	1300	9.78	8.40	23	73.59	25	200	5.8
		02-15-01	1200	9.36	7.98	23	73.59	60	210	5.8
GR-104	353134077334601	11-27-00	1130	23.00	20.58	57.93	65.12	40	330	7.5
GR-113	353135077332704	11-20-00	1100	15.97	14.55	26	72.69	--	133	5.4
		08-16-01	1215	14.33	12.91	26	72.69	50	150	5.4
GR-089	353137077334603	12-06-00	1000	--	--	5.1	15.5	10	167	5.6
GR-148	353137077334604	12-06-00	1150	--	--	4	15	20	125	5.5
GR-149	353137077334605	12-06-00	1110	--	--	1.5	15.5	15	--	5.0
GR-095	353142077332701	11-20-00	1300	22.63	19.63	49.09	62.07	--	184	4.8
		02-14-01	1000	22.68	19.68	49.09	62.07	20	189	4.3
GR-097	353142077332702	11-20-00	1400	20.61	19.11	21	61.81	20	187	4.3
		02-14-01	1130	20.70	19.20	21	61.81	15	191	4.0
		05-07-01	0930	19.88	18.38	21	61.81	30	166	4.3
		08-09-01	1230	20.25	18.75	21	61.81	--	187	4.4
GR-098	353142077332703	11-20-00	1325	22.04	19.62	36	62.03	25	195	4.7
		02-14-01	1045	22.10	19.68	36	62.03	20	190	4.8
		05-07-01	1015	21.83	19.41	36	62.03	--	176	4.7
		08-09-01	1300	22.12	19.70	36	62.03	--	195	4.9
GR-100	353148077332101	11-09-00	1300	8.35	5.54	46.34	47.13	30	195	6.1
		02-02-01	0955	8.36	5.55	46.34	47.13	25	215	6.2
		05-07-01	1230	8.28	5.47	46.34	47.13	45	189	6.0
		08-09-01	1100	8.48	5.67	46.34	47.13	45	223	6.3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WAT.DIS FET FIELD HCO3 (MG/L) (29804)
GR-094	11-16-00	17.5	768	.2	2	8	1.92	.706	7.3	1.82	--
	04-04-01	14.0	770	.3	3	--	--	--	--	--	--
	05-02-01	16.0	764	.3	3	8	2.10	.722	7.3	1.96	--
	06-07-01	16.5	760	.2	2	--	--	--	--	--	--
	07-03-01	16.5	768	.1	1	--	--	--	--	--	--
	08-07-01	20.0	763	.3	3	8	1.80	.743	8.0	1.96	--
	09-05-01	18.5	762	.2	3	--	--	--	--	--	--
GR-092	11-08-00	19.0	767	4.2	45	110	34.2	5.11	7.3	6.35	9
	03-01-01	15.0	762	2.2	22	110	34.2	5.63	6.9	6.60	5
	04-04-01	13.5	770	3.1	29	--	--	--	--	--	--
	05-02-01	16.5	764	3.5	36	120	36.0	6.32	8.8	7.51	3
	06-07-01	19.0	760	2.9	31	--	--	--	--	--	--
	07-03-01	19.5	768	2.5	27	--	--	--	--	--	--
	08-07-01	21.0	763	2.2	25	120	35.6	6.65	10.9	7.46	14
	09-05-01	21.5	762	1.7	20	--	--	--	--	--	--
GR-091	03-01-01	14.0	762	2.8	27	110	32.4	7.65	6.3	9.16	--
	05-02-01	16.5	764	5.4	55	100	28.2	7.17	8.5	8.27	--
	08-07-01	21.5	763	4.2	47	110	31.2	8.79	10.4	9.44	--
GR-106	11-27-00	19.5	765	.2	2	140	51.8	2.07	3.9	1.00	145
GR-107	11-27-00	19.2	765	1.6	17	68	15.2	7.43	3.6	2.45	--
	02-15-01	16.0	761	1.7	17	71	15.5	7.81	3.7	2.40	--
GR-109	11-27-00	19.5	765	1.0	11	75	24.3	3.54	4.5	1.52	19
	02-15-01	17.5	761	.3	3	76	24.2	3.76	4.6	1.55	18
GR-104	11-27-00	17.7	765	.1	0	160	59.0	2.24	8.5	1.96	200
GR-113	11-20-00	10.6	767	2.1	19	36	12.8	.872	8.4	1.53	6
	08-16-01	17.5	760	.6	7	--	--	--	--	--	--
GR-089	12-06-00	9.3	772	.1	0	26	7.13	2.05	8.9	2.25	31
GR-148	12-06-00	6.0	772	M	0	20	6.48	.843	6.8	.39	26
GR-149	12-06-00	9.5	772	M	--	18	5.18	1.14	7.5	1.71	8
GR-095	11-20-00	16.8	767	8.4	86	60	12.9	6.85	2.4	4.49	2
	02-14-01	16.0	768	5.8	58	66	13.9	7.51	2.3	4.63	--
GR-097	11-20-00	16.6	767	6.4	65	56	12.2	6.14	2.1	4.43	--
	02-14-01	16.5	768	3.8	38	53	11.4	5.90	2.0	4.46	--
	05-07-01	17.0	773	8.6	88	53	10.6	6.32	2.2	4.32	--
	08-09-01	24.5	760	6.6	79	51	9.60	6.45	2.1	4.40	--
GR-098	11-20-00	16.7	747	1.2	13	67	15.5	6.96	3.0	4.22	1
	02-14-01	16.5	768	5.3	54	64	15.0	6.56	2.7	4.44	M
	05-07-01	17.5	773	2.1	22	65	15.1	6.71	2.6	4.66	2
	08-09-01	19.5	760	1.9	21	66	14.9	7.02	2.3	4.51	4
GR-100	11-09-00	18.8	764	.3	3	84	31.5	1.37	4.0	1.59	56
	02-02-01	17.5	764	.2	2	85	31.6	1.36	4.7	1.62	46
	05-07-01	18.0	773	M	0	81	30.4	1.31	4.7	1.48	46
	08-09-01	20.5	760	.1	2	87	32.7	1.42	4.5	1.49	47

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
GR-094	11-16-00	--	17.3	10.0	<.2	.13	13.5	55	<.006	.190	<.041
	04-04-01	--	--	--	--	--	--	--	--	--	--
	05-02-01	--	16.7	10.2	<.2	.14	11.9	60	<.006	.216	<.041
	06-07-01	--	--	--	--	--	--	--	--	--	--
	07-03-01	--	--	--	--	--	--	--	--	--	--
	08-07-01	--	15.6	10.2	<.2	.12	12.6	49	<.006	.151	E.030
	09-05-01	--	--	--	--	--	--	--	--	--	--
GR-092	11-08-00	7.0	35.6	33.5	.4	.05	5.9	189	.050	11.0	E.026
	03-01-01	4.2	32.8	33.2	.5	.06	4.7	194	.021	15.4	<.041
	04-04-01	--	--	--	--	--	--	--	.019	15.8	<.041
	05-02-01	2.6	29.3	37.1	.4	.06	5.1	233	.020	19.8	<.041
	06-07-01	--	--	--	--	--	--	--	.018	20.3	<.040
	07-03-01	--	--	--	--	--	--	--	.017	18.5	E.024
	08-07-01	11	35.6	37.7	.5	.05	6.0	248	.021	15.5	.047
	09-05-01	--	--	--	--	--	--	--	.024	20.8	<.040
GR-091	03-01-01	--	52.3	29.4	.8	.05	4.6	223	<.006	18.1	<.041
	05-02-01	--	16.3	32.4	.6	.05	5.0	206	<.006	20.5	<.041
	08-07-01	--	12.5	40.1	.7	.05	5.9	260	.012	27.1	E.030
GR-106	11-27-00	120	16.5	7.5	.2	.06	14.5	179	<.006	<.047	E.022
GR-107	11-27-00	--	16.3	25.1	.2	.04	7.2	116	<.006	11.6	<.041
	02-15-01	--	14.7	25.3	.2	.05	6.2	144	<.006	12.6	<.041
GR-109	11-27-00	16	40.1	18.8	.5	.06	9.9	131	<.006	.763	<.041
	02-15-01	15	43.2	19.1	.5	.06	9.7	131	E.005	.887	<.041
GR-104	11-27-00	160	5.2	5.5	.2	.03	35.3	229	<.006	<.047	.065
GR-113	11-20-00	4.8	34.3	11.4	.6	.05	8.3	86	E.003	.437	<.041
	08-16-01	--	--	--	--	--	--	--	--	--	--
GR-089	12-06-00	25	3.6	27.8	E.1	.14	13.3	100	<.006	<.047	.155
GR-148	12-06-00	21	6.9	19.2	<.2	.07	12.5	85	<.006	<.047	.130
GR-149	12-06-00	6.4	9.3	21.1	E.1	.05	11.0	73	<.006	<.047	.288
GR-095	11-20-00	1.8	4.5	17.8	.5	.03	6.2	112	<.006	11.6	<.041
	02-14-01	--	3.9	16.7	.5	.04	6.2	119	<.006	11.8	<.041
GR-097	11-20-00	--	6.5	17.6	.4	.03	6.9	104	<.006	11.5	<.041
	02-14-01	--	6.1	16.7	.4	.04	6.3	105	<.006	11.8	<.041
	05-07-01	--	5.5	18.1	.4	.03	6.0	112	<.006	11.2	<.041
	08-09-01	--	3.9	17.2	.3	.03	6.3	123	<.006	11.4	E.026
GR-098	11-20-00	1.2	42.9	15.5	.6	.02	6.3	118	.020	4.77	<.041
	02-14-01	.8	26.4	15.2	.7	.03	6.1	110	.061	7.81	<.041
	05-07-01	1.2	35.7	14.8	.8	.03	6.0	118	.031	6.39	<.041
	08-09-01	3.2	31.7	15.6	.6	.03	6.4	126	.069	6.51	E.026
GR-100	11-09-00	46	37.9	11.8	.6	.07	10.4	136	<.006	<.047	E.025
	02-02-01	38	38.5	12.3	.7	.04	11.2	132	<.006	<.047	E.028
	05-07-01	37	40.0	13.7	.7	.09	10.6	149	<.006	<.047	E.031
	08-09-01	38	41.0	14.0	.6	.05	11.7	152	<.006	E.035	E.037

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)
GR-094	11-16-00	<.10	<.006	<.018	650	21.7	E.23	--	--
	04-04-01	--	--	--	--	--	--	--	--
	05-02-01	<.10	<.006	<.018	740	26.4	E.17	--	--
	06-07-01	--	--	--	--	--	--	--	--
	07-03-01	--	--	--	--	--	--	--	--
	08-07-01	<.10	<.006	<.020	700	22.8	.43	--	--
	09-05-01	--	--	--	--	--	--	--	--
GR-092	11-08-00	.14	.016	<.018	560	146	.88	--	--
	03-01-01	.15	.030	E.014	590	152	.88	--	--
	04-04-01	.15	.026	E.016	--	--	--	--	--
	05-02-01	.13	.030	<.018	100	162	.96	--	--
	06-07-01	.11	--	--	--	--	--	--	--
	07-03-01	.13	--	--	--	--	--	--	--
	08-07-01	.26	.024	E.011	150	157	1.1	--	--
	09-05-01	.14	--	--	--	--	--	--	--
GR-091	03-01-01	.15	.180	.148	10	222	1.2	--	--
	05-02-01	.17	.306	.166	20	153	1.1	--	--
	08-07-01	.26	.183	.172	M	181	2.0	--	--
GR-106	11-27-00	E.07	.099	.039	710	65.4	E.32	--	--
GR-107	11-27-00	.15	.020	E.017	20	57.0	.73	--	--
	02-15-01	.13	.016	E.016	20	53.6	.72	--	--
GR-109	11-27-00	<.10	.040	.026	260	94.0	E.31	--	--
	02-15-01	<.10	.037	.025	50	99.6	E.31	--	--
GR-104	11-27-00	E.09	.107	.077	270	73.2	.52	--	--
GR-113	11-20-00	.12	.158	.116	110	80.8	.40	--	--
	08-16-01	--	--	--	--	--	--	31.4	3.2
GR-089	12-06-00	.31	.015	E.009	15800	37.6	4.0	--	--
GR-148	12-06-00	.28	.341	.344	14300	48.9	3.7	--	--
GR-149	12-06-00	.54	.107	.075	6970	33.6	5.6	--	--
GR-095	11-20-00	<.10	.588	.506	M	25.5	E.27	--	--
	02-14-01	E.10	.497	.465	<10	25.8	.48	--	--
GR-097	11-20-00	<.10	.054	.039	<10	33.7	.37	--	--
	02-14-01	E.07	.057	.049	<10	30.3	.42	--	--
	05-07-01	<.10	.050	.019	30	25.2	.63	--	--
	08-09-01	E.10	.051	.040	50	24.3	.37	--	--
GR-098	11-20-00	.14	.726	.620	M	48.8	E.30	--	--
	02-14-01	E.09	.704	.647	<10	49.0	.74	--	--
	05-07-01	E.06	.590	.468	40	51.6	.51	--	--
	08-09-01	E.06	.657	.625	M	51.2	E.30	--	--
GR-100	11-09-00	<.10	.440	.380	1010	50.8	.37	--	--
	02-02-01	E.07	.512	.452	1020	48.6	.38	--	--
	05-07-01	<.10	.507	.376	1300	48.8	.49	--	--
	08-09-01	E.06	.379	.373	1120	50.3	E.33	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	STATION NUMBER	DATE	TIME	DEPTH BELOW MP (WATER LEVEL) (FEET) (61055)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)
GR-103	353148077332102	11-09-00	1330	7.38	5.96	23.00	47.55	15	183	4.4
		02-02-01	1010	7.38	5.96	23.00	47.55	13	207	4.5
		05-07-01	1300	7.31	5.89	23.00	47.55	--	187	4.4
		08-09-01	1015	7.49	6.07	23.00	47.55	30	239	4.6
GR-102	353148077332103	11-09-00	1345	7.65	6.15	8	47.86	5	73	5.0
		02-02-01	1115	7.63	6.13	8	47.86	12	114	5.1
		05-07-01	1330	7.49	5.99	8	47.86	--	120	5.0
		08-09-01	0930	7.67	6.17	8	47.86	--	97	5.2
GR-101	353149077332101	02-02-01	1050	7.70	4.89	16.44	47.13	30	100	5.0
GR-151	353153077333203	11-15-00	1200	--	--	3.0	45	15	153	6.0
		05-08-01	1130	--	--	3.0	45	--	--	6.0
		08-14-01	1100	--	--	3.0	45	--	175	6.1
GR-152	353153077333204	11-15-00	1330	--	--	2.0	45	--	319	5.8
		05-08-01	1200	--	--	2.0	45	--	178	6.0
		08-14-01	1145	--	--	2.0	45	--	180	6.0
GR-153	353153077333206	05-08-01	1030	--	--	3.5	45	--	126	5.7
		08-14-01	1230	--	--	3.5	45	--	134	5.7

LOCAL IDENT-I-FIER	DATE	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WAT.DIS FET FIELD HCO3 (MG/L) (29804)
GR-103	11-09-00	19.8	764	4.7	51	62	15.4	5.67	2.1	7.14	--
	02-02-01	18.0	764	3.9	41	64	15.9	5.97	2.1	7.24	--
	05-07-01	17.0	773	4.6	47	69	17.1	6.43	2.1	7.05	--
	08-09-01	19.5	760	4.3	47	75	18.1	7.16	2.2	7.75	--
GR-102	11-09-00	20.0	764	2.5	27	22	6.55	1.42	2.0	4.16	3
	02-02-01	13.0	764	2.8	27	34	10.3	2.15	2.3	4.37	5
	05-07-01	16.5	773	4.4	44	40	11.7	2.69	2.5	4.52	4
	08-09-01	23.5	760	1.8	22	25	7.28	1.72	2.3	5.18	4
GR-101	02-02-01	13.0	764	3.2	31	29	7.88	2.25	2.2	4.60	4
GR-151	11-15-00	14.5	769	.1	0	54	19.6	1.19	8.1	1.57	59
	05-08-01	18.5	773	1.0	--	58	21.1	1.35	9.2	1.81	40
	08-14-01	25.0	760	.3	4	58	21.8	1.00	8.5	1.95	34
GR-152	11-15-00	14.5	769	.4	4	98	35.6	2.25	8.0	2.73	172
	05-08-01	18.0	773	M	0	63	23.5	.935	8.0	1.73	36
	08-14-01	24.0	760	.2	2	58	21.7	.953	8.5	1.81	31
GR-153	05-08-01	16.5	773	.4	4	37	12.1	1.65	5.4	1.79	52
	08-14-01	23.0	760	.3	4	33	10.5	1.53	5.3	1.86	46

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS WATER-QUALITY SAMPLING SITES

WATER QUALITY DATA, NOVEMBER 2000 TO SEPTEMBER 2001

LOCAL IDENT-I-FIER	DATE	ALKALINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
GR-103	11-09-00	--	14.3	23.8	<.2	.03	3.2	108	<.006	7.87	<.041
	02-02-01	--	15.8	24.4	<.2	.03	3.5	111	<.006	7.75	<.041
	05-07-01	--	16.9	26.2	<.2	.04	3.4	149	<.006	7.73	<.041
	08-09-01	--	14.0	36.9	<.2	.04	3.4	147	<.006	7.48	E.031
GR-102	11-09-00	2.2	9.2	5.8	<.2	.03	2.6	45	<.006	2.58	<.041
	02-02-01	4.2	9.1	7.1	<.2	.02	2.7	63	<.006	5.60	<.041
	05-07-01	3.4	8.4	15.1	<.2	.03	2.5	83	<.006	5.51	<.041
	08-09-01	3.0	8.6	11.0	<.2	.03	2.6	73	<.006	2.93	E.027
GR-101	02-02-01	3.2	9.0	8.3	<.2	.02	2.4	56	<.006	3.88	<.041
GR-151	11-15-00	48	21.0	11.7	.8	<.01	11.4	103	<.006	<.047	9.42
	05-08-01	33	34.1	13.0	.7	<.01	9.8	122	<.006	<.047	.589
	08-14-01	28	38.5	11.8	.8	<.01	10.6	105	<.006	E.030	.255
GR-152	11-15-00	140	.2	12.0	.3	.67	25.6	187	<.006	<.047	.839
	05-08-01	30	35.3	12.4	.5	<.01	10.6	126	<.006	<.047	.140
	08-14-01	25	39.9	11.5	.8	.01	11.4	104	<.006	E.027	.205
GR-153	05-08-01	42	.1	13.6	.2	.09	9.8	102	<.006	<.047	1.98
	08-14-01	38	1.5	13.4	.2	.13	10.3	79	<.006	E.032	1.96

LOCAL IDENT-I-FIER	DATE	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	N15/N14 NH4 FRAC WATER FLTRD 0.45 U PER MIL (82691)
GR-103	11-09-00	<.10	.066	.037	10	35.9	.36	--
	02-02-01	E.08	.048	.047	M	35.2	.54	--
	05-07-01	<.10	.054	.027	10	37.5	.61	--
	08-09-01	E.07	.051	.034	M	41.2	.40	--
GR-102	11-09-00	<.10	.027	.018	<10	23.1	.54	--
	02-02-01	E.08	.016	E.012	<10	30.1	.61	--
	05-07-01	E.07	.015	.050	10	34.2	.67	--
	08-09-01	E.08	.025	E.014	M	21.1	.55	--
GR-101	02-02-01	E.10	.020	E.016	M	20.9	.50	--
GR-151	11-15-00	2.0	1.15	.600	60	28.0	7.6	--
	05-08-01	.61	.835	.863	90	74.5	2.0	4.40
	08-14-01	.21	.869	.841	20	19.7	1.1	--
GR-152	11-15-00	.87	.767	.791	12100	354	2.7	--
	05-08-01	.17	.802	.857	40	21.6	2.0	3.00
	08-14-01	.22	.890	.868	20	24.4	--	--
GR-153	05-08-01	2.0	.667	.709	6160	49.6	8.5	5.60
	08-14-01	2.1	.888	.896	6010	44.6	8.5	5.50

Remark codes used in this report:
< -- Less than
E -- Estimated value
Null value remark codes used in this report:
M -- Presence verified, not quantified

CALENDAR FOR WATER YEAR 2001

2000

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23

2001

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24

MARCH

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MAY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23

JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25

SEPTEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.