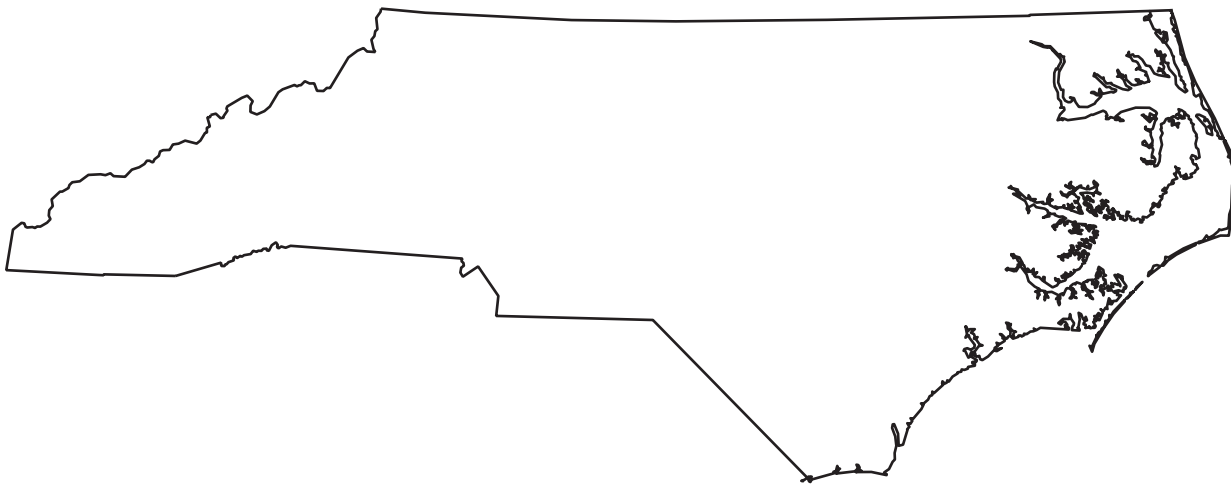


Prepared in cooperation with the North Carolina Department of Environment and Natural Resources, and with other State, municipal, and Federal agencies

Water Resources Data North Carolina Water Year 2005

Volume 2
Ground-Water Records



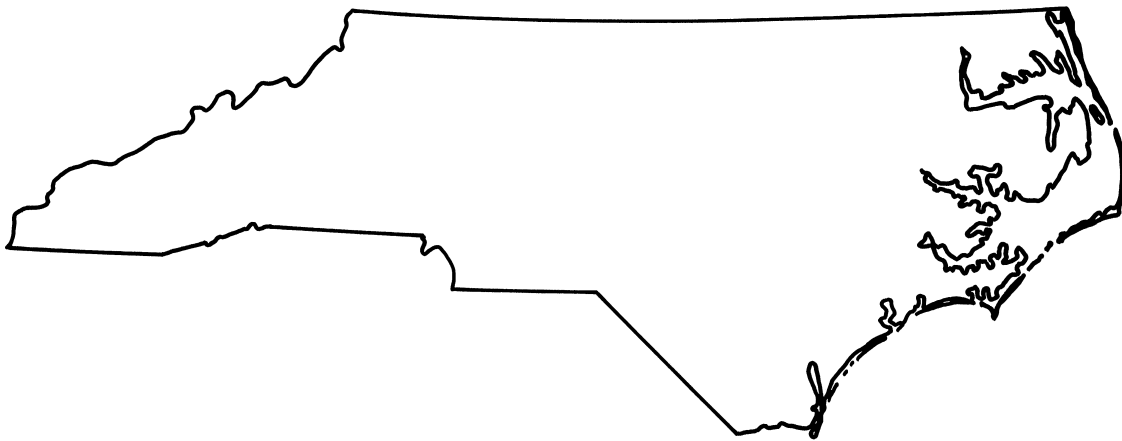
Water-Data Report NC-05-2

Water Resources Data North Carolina Water Year 2005

Volume 2. Ground-Water Records

By J.M. Fine, B.A. Huffman, and P.L. Breton

Water-Data Report NC-05-2



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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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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Pamilee L. Breton edited much of the text, tables and graphs, of this report. Pamilee L. Breton and Jason M. Fine assembled the report.

This report was prepared in cooperation with the State of North Carolina, other agencies, and under the general supervision of Gerald L. Ryan, Director, North Carolina Water Science Center; and Jess D. Weaver, Regional Hydrologist, Southeastern Region.

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INTRODUCTION

Water-resources data for the 2005 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; stage and contents of lakes and reservoirs; and precipitation. This volume contains ground-water-level data from 180 observation wells, ground-water-quality data from 36 wells, continuous water quality for 3 sites, and continuous precipitation at 4 sites. 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-05-2." 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
Division of Water Quality

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

Brunswick County
City of Laurinburg

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

U.S. Marine Corps, Camp Lejeune

OBJECTIVE CONCEPT FOR GROUND-WATER-LEVEL DATA

The ground-water-level data collected during the 2005 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.	Maps showing potentiometric-surface depressions. Hydrographs showing changes in water levels with time.
	To define the hydraulic characteristics of aquifers.	Graphs showing water levels during pumping conditions as a function of pumping rates.
	To define effectiveness of confining beds in separating aquifers.	
Areal effects	To determine status of storage over the entire areal extent of the aquifer.	Regional water-level maps. Maps showing net change in storage over a specific time period.
	To define regional continuity of aquifers.	Define recharge and discharge areas for areal extensive aquifers.

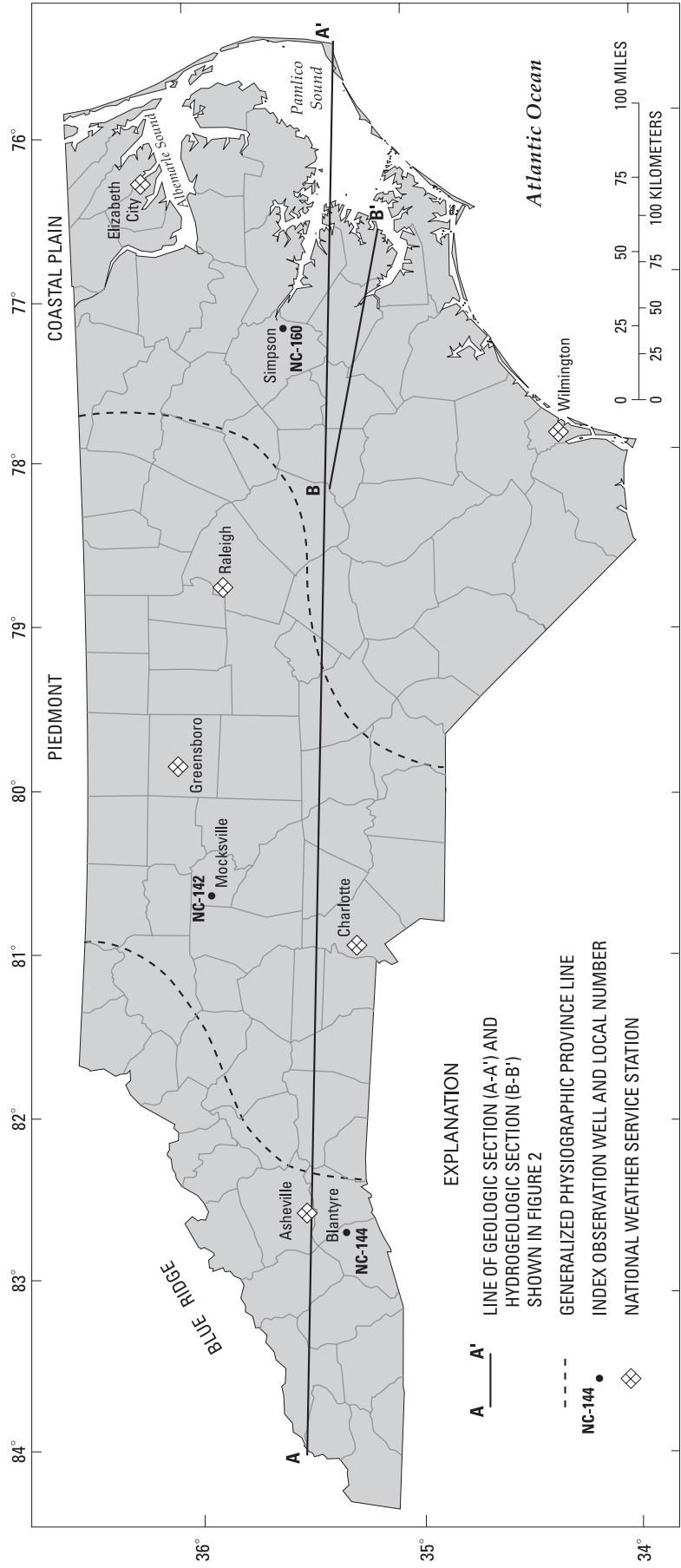


Figure 1.--Locations of National Weather Service stations, index wells, geologic section A-A', and hydrogeologic section B-B' in North Carolina.

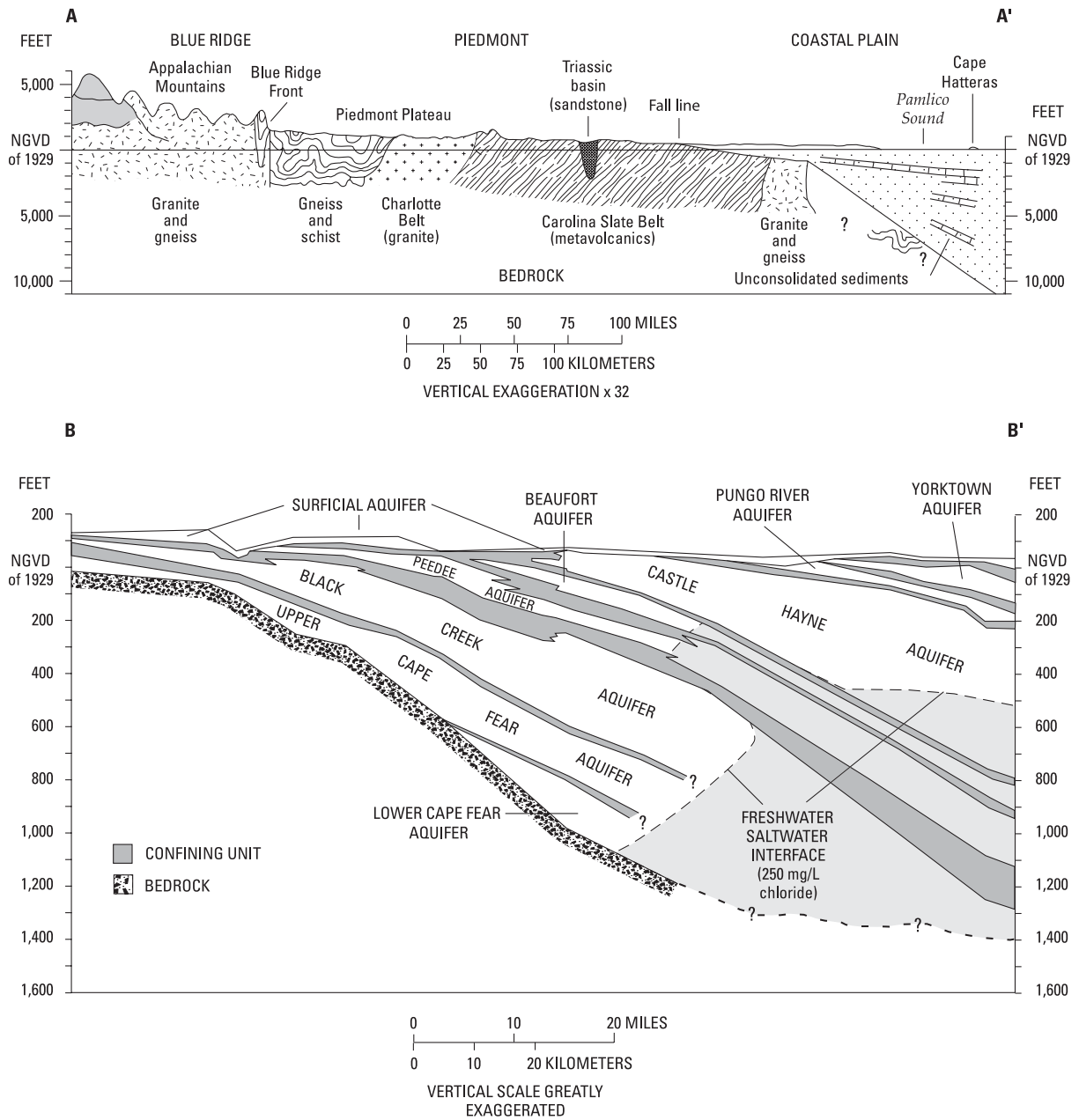


Figure 2.--Geologic section A-A' across North Carolina and hydrogeologic section B-B' in the Coastal Plain of North Carolina (as shown in figure 1).

NUMBERING SYSTEM FOR WELLS

The USGS well site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 3). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

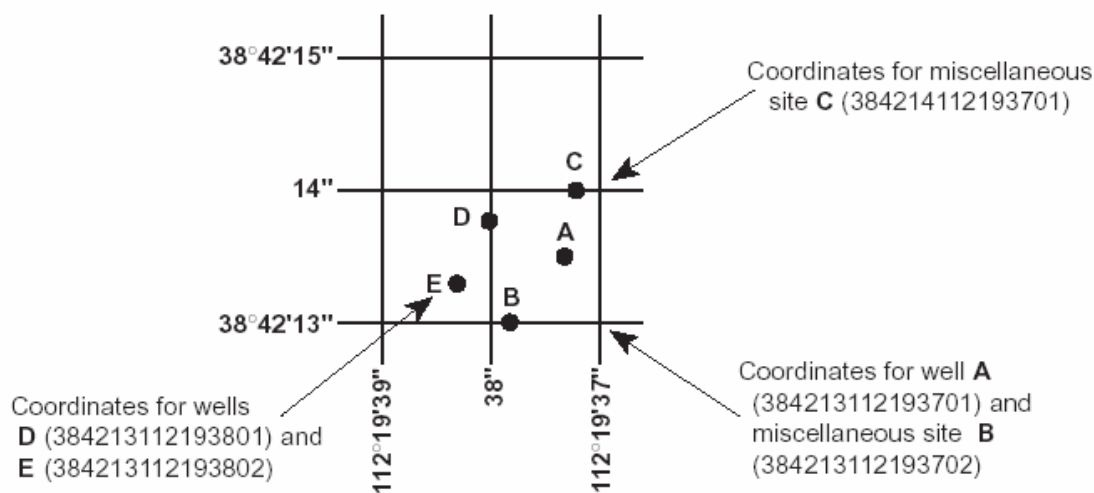


Figure 3. System for numbering wells and miscellaneous sites (latitude and longitude).

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 for a well in Mecklenburg County and RB-185 for a well in Robeson County. 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. Ground-water records for North Carolina are published in WDR NC-05-2.

SPECIAL NETWORKS AND PROGRAMS

The USGS National Water-Quality Assessment (NAWQA) Program 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; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions 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 for collaboration among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRI) referred to in the Onsite Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water

collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary 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 and each well is identified by its local well or county well number on maps in this report (fig. 4-8)

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

Station Manuscript

The manuscript provides, under various headings, descriptive information, such as station location; aquifer; period of record; extremes for the period of record; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each record of ground-water levels. Comments follow that clarify information presented under the various headings of the station description.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are referenced to the North American Datum of 1983 (NAD83).

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and 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 the altitude datum; 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 forth), 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 29) unless otherwise noted; it is reported with a precision depending on the method of determination.

REMARKS.—This entry describes factors that may affect the water level in a well or the measurement of the water level, 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 time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, 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

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show 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.

EXPLANATION OF PRECIPITATION RECORDS

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when

snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

Data Presentation

Precipitation records collected at ground-water gaging stations are identified with the same station number and name as the ground-water-gaging station. Where a ground-water daily-record station is not available, the precipitation record is published with its own name and identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the EXPLANATION OF GROUND-WATER-LEVEL RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF GROUND-WATER-LEVEL RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Ground-water samples for analysis usually are collected at or near ground-water stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, dissolved oxygen, and so forth); extremes for the current year; and general remarks.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs., which may be accessed from <http://water.usgs.gov/pubs/twri/>.

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

uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

GROUND-WATER-QUALITY RECORDS

Classification of Records

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

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

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating the accuracy of continuous water-quality records

[\leq , less than or equal to; \pm , plus or minus value shown; $^{\circ}\text{C}$, degree Celsius; $>$, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured field parameter	Ratings of accuracy (Based on combined fouling and calibration drift corrections applied to the record)			
	Excellent	Good	Fair	Poor
Water temperature	$\leq \pm 0.2$ $^{\circ}\text{C}$	$> \pm 0.2 - 0.5$ $^{\circ}\text{C}$	$> \pm 0.5 - 0.8$ $^{\circ}\text{C}$	$> \pm 0.8$ $^{\circ}\text{C}$
Specific conductance	$\leq \pm 3\%$	$> \pm 3 - 10\%$	$> \pm 10 - 15\%$	$> \pm 15\%$
Dissolved oxygen	$\leq \pm 0.3$ mg/L or $\leq \pm 5\%$, whichever is greater	$> \pm 0.3 - 0.5$ mg/L or $> \pm 5 - 10\%$, whichever is greater	$> \pm 0.5 - 0.8$ mg/L or $> \pm 10 - 15\%$, whichever is greater	$> \pm 0.8$ mg/L or $> \pm 15\%$, whichever is greater
pH	$\leq \pm 0.2$ units	$> \pm 0.2 - 0.5$ units	$> \pm 0.5 - 0.8$ units	$> \pm 0.8$ units

Arrangement of Records

Water-quality records collected at a ground-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Water-quality data for miscellaneous sampling sites appear in separate tables.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Water Science Center office (see address that is shown on the back of title page in this report).

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 wells within a county 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 the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4; and Book 9, Chapters A1-A6. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Water Science Center (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed onsite. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2 and Book 5, Chapters A1, A3, and A4, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical

data, and so forth, obtained at a frequency less than daily are presented first. Tables of “daily values” of specific conductance, pH, water temperature, and dissolved oxygen then follow in sequence.

In the descriptive headings, if the location is identical to that of the water-level gaging station, the LOCATION statement is not repeated. The following information is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation information in the EXPLANATION OF GROUND-WATER-LEVEL RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF GROUND-WATER-LEVEL RECORDS section of this report (same comments apply).

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

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device that is in operation at a station.

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

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The ground-water-quality records for miscellaneous sampling sites are published in separate tables. No descriptive statements are given for these records. Each station is published with its own station number and name.

Remark Codes

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

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.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Water-Quality Control Data

The USGS 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-MDLs) and laboratory reporting levels (LRLs). 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. 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 nondetection 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 less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the 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.

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 a USGS Water Science Center 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 in 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. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected by this USGS Water Science Center 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. The reference material 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. Many types of replicate samples are 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:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

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, each subsample 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 stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Science Center. (See address that is shown on the back of the title page of this report.)

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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, and 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. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

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.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

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. (See also “Biomass” and “Dry weight”)

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 through 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 percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is 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 collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate 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 a 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” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

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 peak flows per year will be published. (See also "Peak flow")

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.

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

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the 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," "Dry weight," "Sediment," and "Suspended-sediment discharge")

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 that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also "Phytoplankton" and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently 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 or 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:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159....

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

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 generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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 warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the 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 water 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.

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 that physically affects 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, ft³/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-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft³/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 numerically are 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, (ft³/s)/mi²] 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 mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “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 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 usually are 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 Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Verti-

cal Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

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 sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, 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 chemicals, 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 0.4917 to convert it to carbonate. Alterna-

tively, 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:

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

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”)

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded 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 (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus fecalis*, *Streptococcus*

faecium, *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 generally are considered pollution sensitive; the index usually decreases with pollution.

***Escherichia coli* (*E. coli*)** are bacteria present in the intestine and feces of warmblooded 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 (nutrient medium for bacterial growth). 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 identified qualitatively 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 (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are 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 semivolatile and extractable by ethyl acetate from air-dried streambed sediment. 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 sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are 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 intestines of warmblooded 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”)

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

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 exceeded. For example, the 90th percentile of river flow is the streamflow exceeded 90 percent of the time in the period of interest.

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 greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually 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 often is 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.

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.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

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 commonly is 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 (CaCO₃).

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.csc.noaa.gov/text/glossary.html> (see “High water”)

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

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

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 index stations referred to in this report are 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.), in reference to streamflow, 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 distributed uniformly on it. (See also “Annual runoff”)

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

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is 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 nondetection 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 (NWQL) 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 on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

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

$$I = I_0 e^{-\lambda L},$$

where I_0 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

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0}.$$

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 Website: <http://www.csc.noaa.gov/text/glossary.html> (see “Low water”)

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are 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.

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

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 code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

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.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). 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, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) 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, $\mu\text{g/L}$) 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, $\mu\text{S/cm}$) 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 milligrams per liter 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.

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 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was 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.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and

mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States 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 sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or volatile mass of a 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 (m²), 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 uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedimentograph) 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
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, 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 of 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 a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measure-

ments 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. Although 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 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are 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 commonly are 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.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

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 [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The 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 with unenriched water samples. 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 [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The 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 elements 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.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been

extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different 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 nonexceedance 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 nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. 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”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

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 is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during 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”)

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

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.

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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

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

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

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.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

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) 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 water, to evaluate mixing of different water, 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 (<2 mm, sand or finer). Below

are the class categories expressed as the percentage covered by fine sediment:

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

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 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Suspended”)

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (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 foot 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/d) 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 (ft³/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 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.

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, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

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 (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

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 ton 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 warmblooded 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 milliliters 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 “Bedload,” “Bedload

discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

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”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400–680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780–900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broad-band [400–680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30 ± 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30 ± 15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

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 path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the

constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

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 often are 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.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

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

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, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

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.)

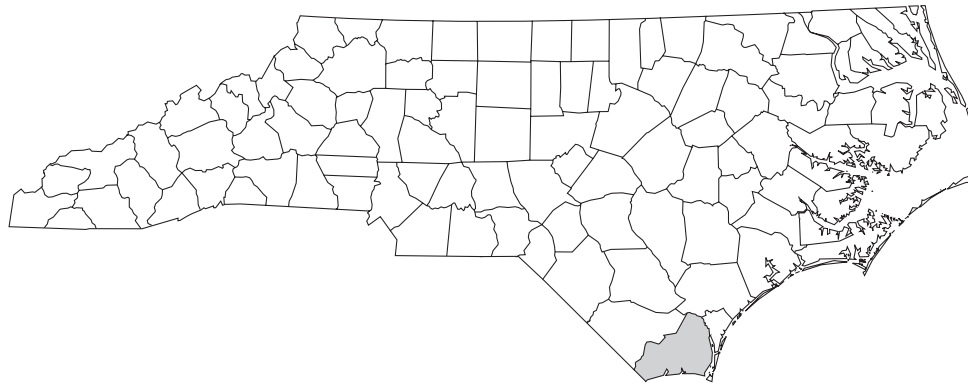
Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted 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 often are 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”)



LOCATION OF BRUNSWICK COUNTY IN NORTH CAROLINA

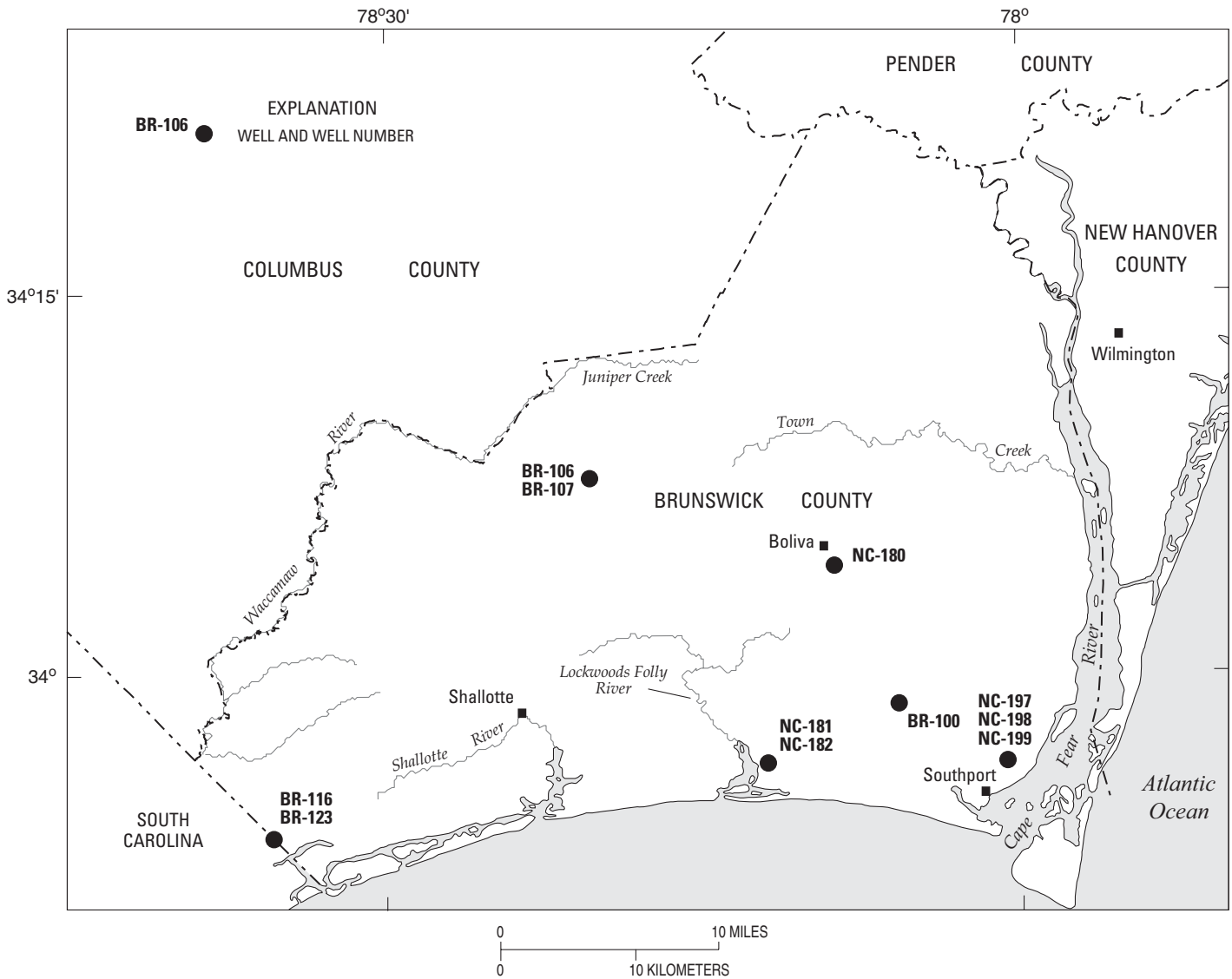
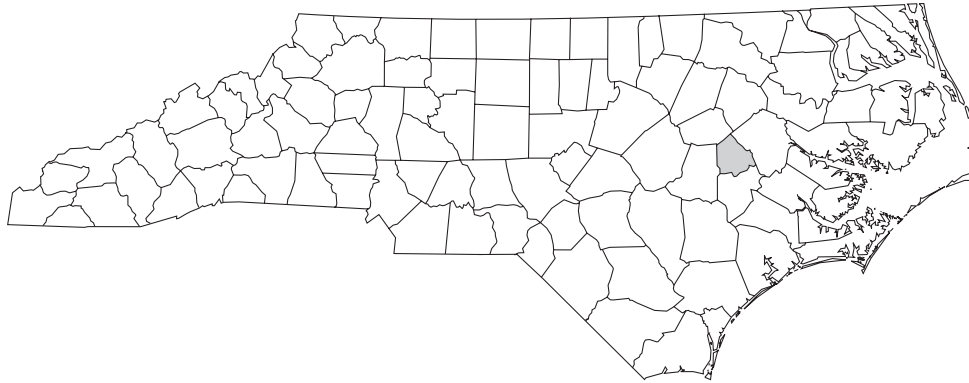


Figure 4.--Locations of observation wells in Brunswick County, North Carolina.



LOCATION OF GREENE COUNTY IN NORTH CAROLINA

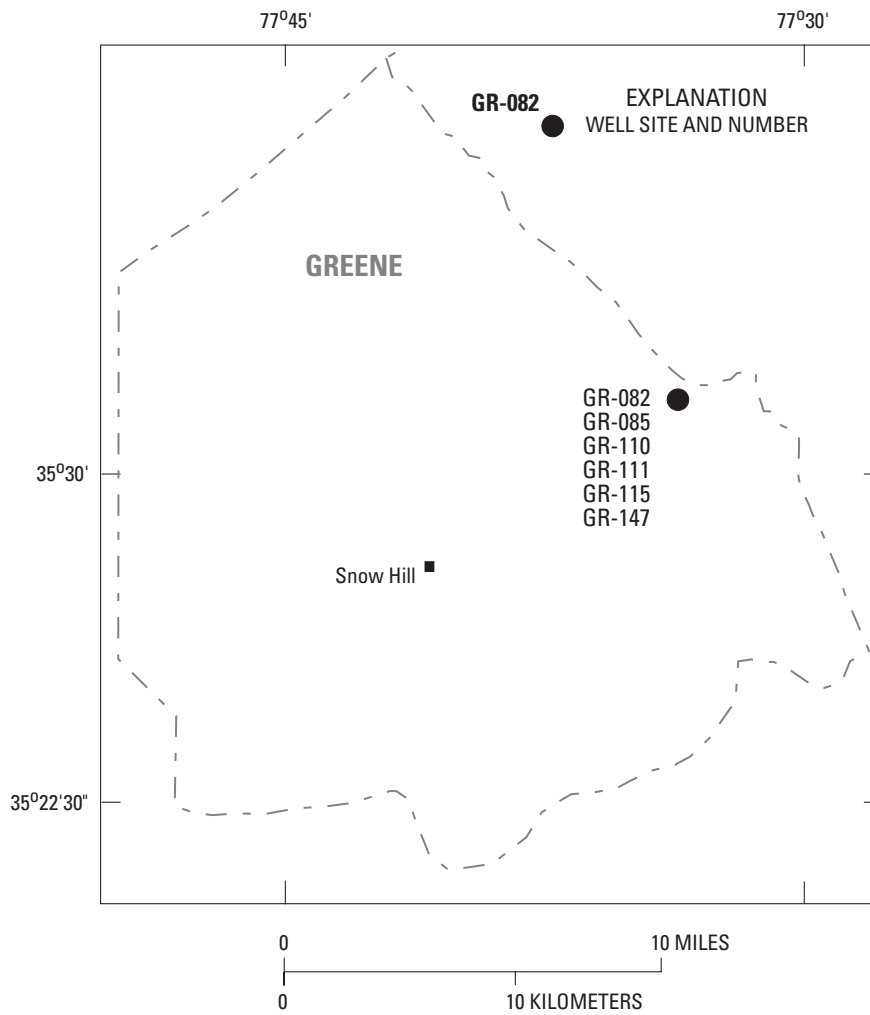
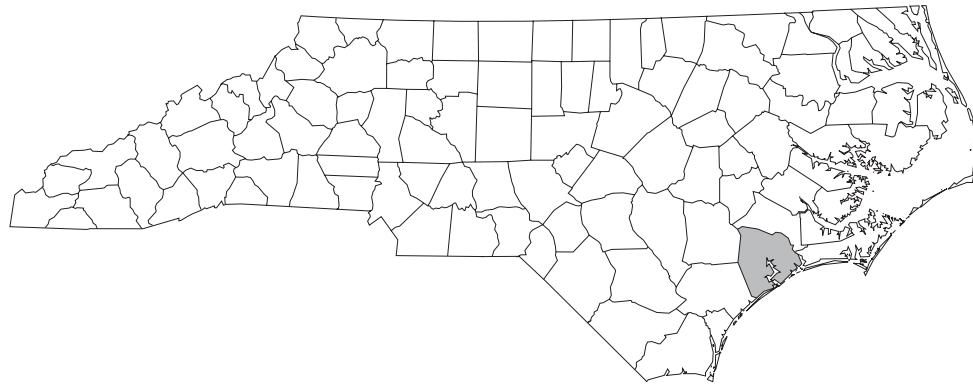


Figure 5.--Locations of observation wells in Greene County, North Carolina.



LOCATION OF ONSLOW COUNTY IN NORTH CAROLINA

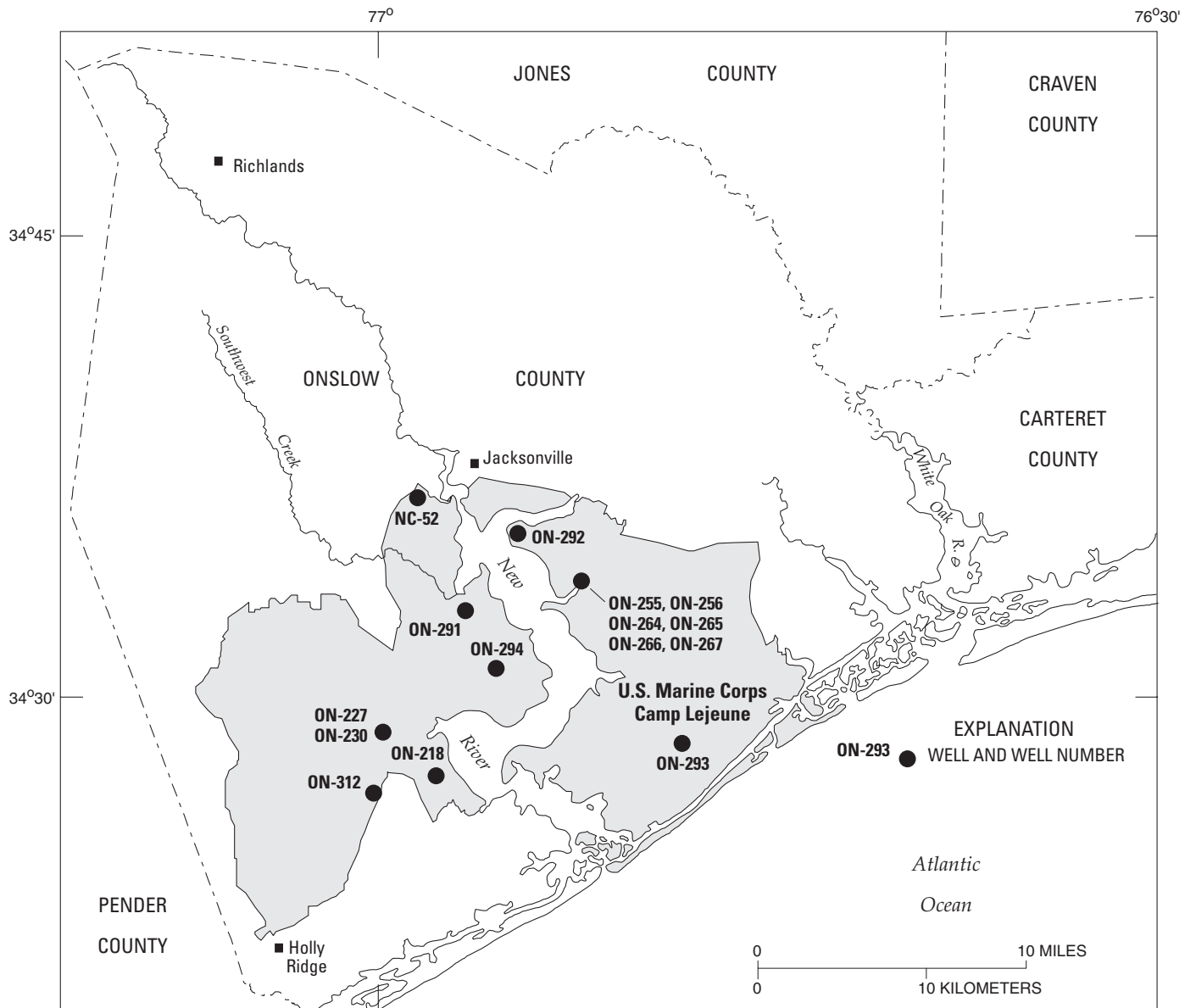


Figure 6.--Locations of observation wells in Onslow County, North Carolina.

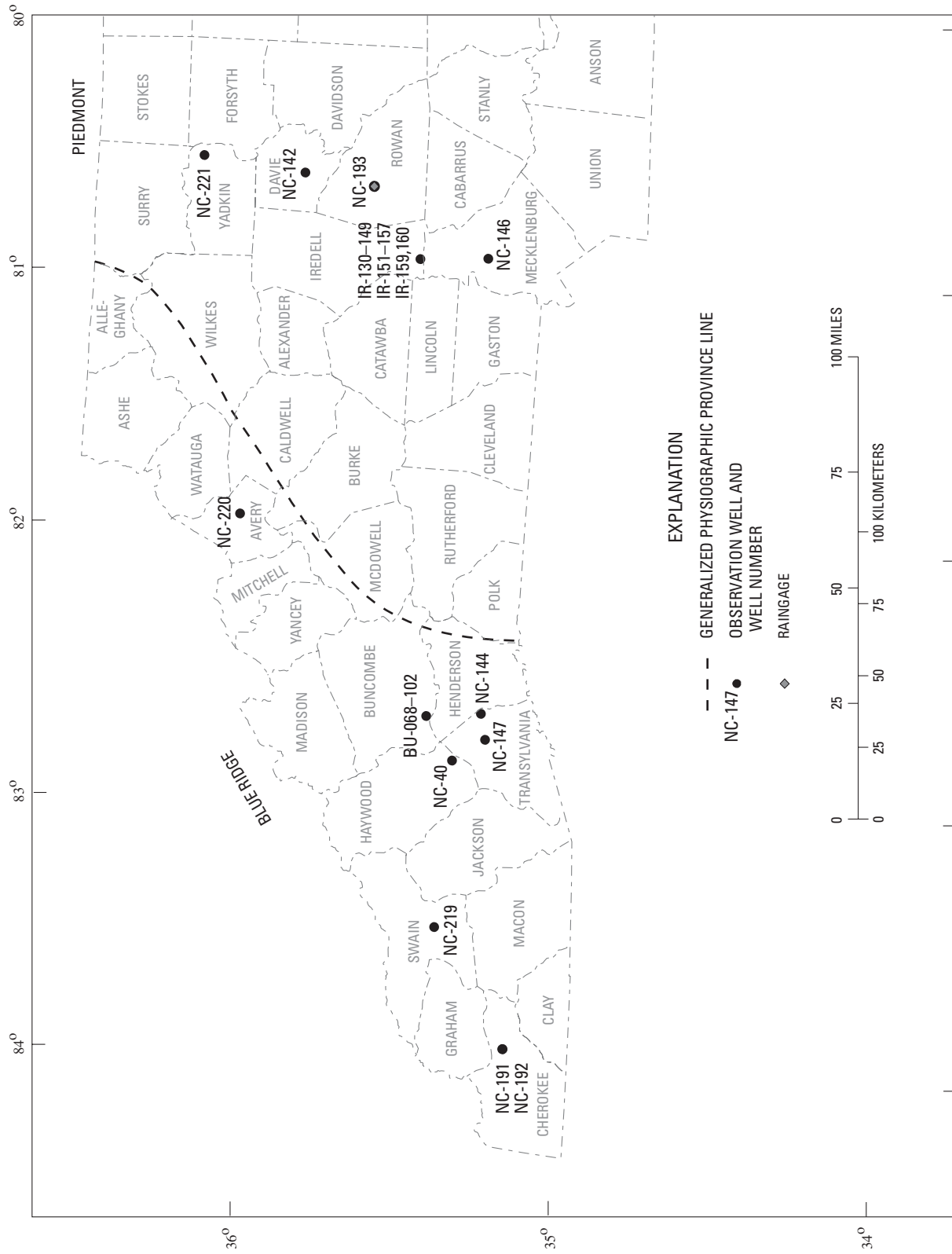


Figure 7.--Locations of observation wells in western North Carolina.

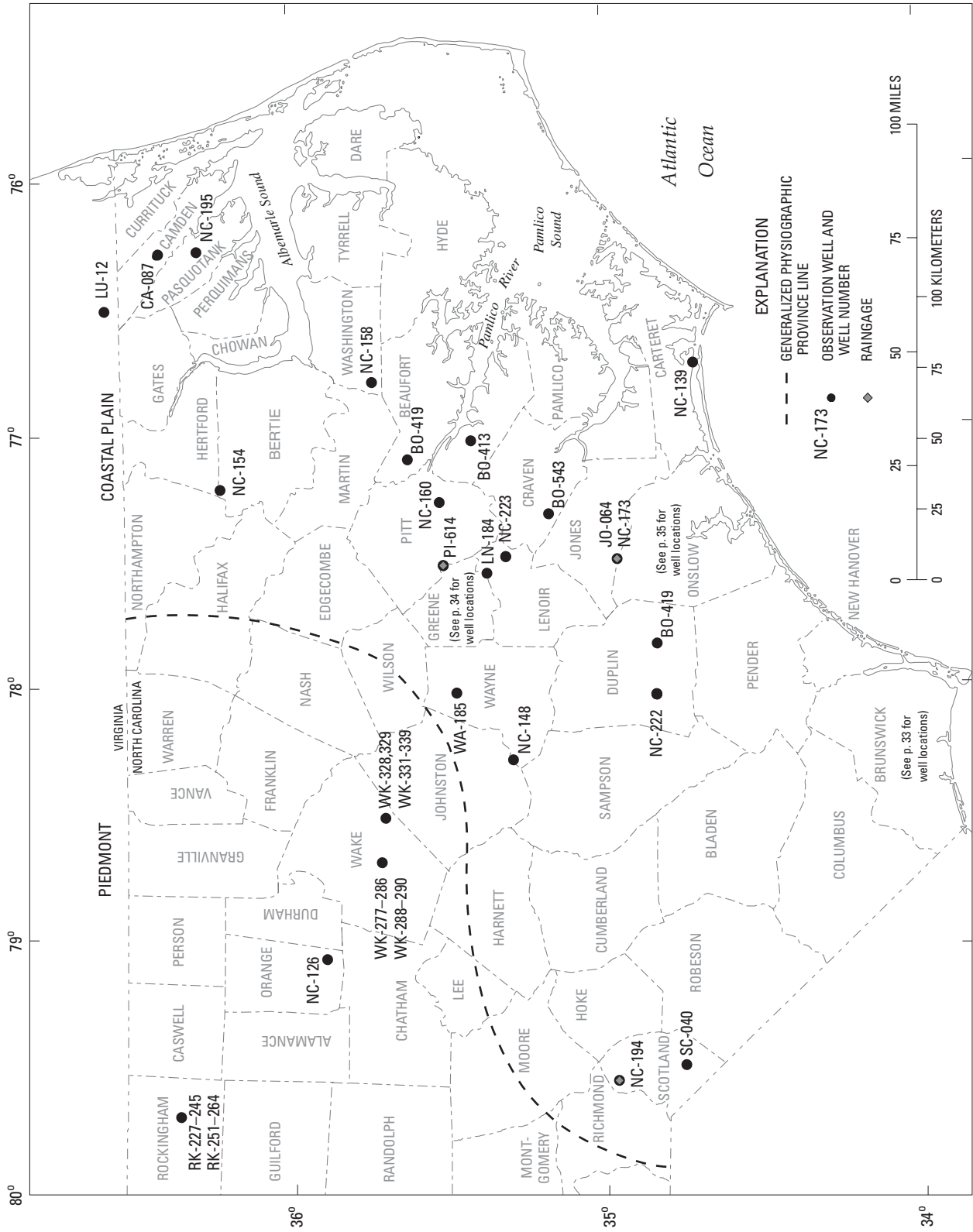


Figure 8.--Locations of observation wells in eastern North Carolina.

AVERY COUNTY

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

LOCATION.--Lat 36°04'55", long 81°53'02", Hydrologic Unit 03050101, near Linville. Owner: DENR (North Carolina Department of Environment and Natural Resources).

AQUIFER.--Phyllite.

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. Satellite telemetry at station.

DATUM.--Land-surface datum is 3,919.00 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelf, 1.00 ft above land-surface datum.

REMARKS.--Well is part of terrane-effects network.

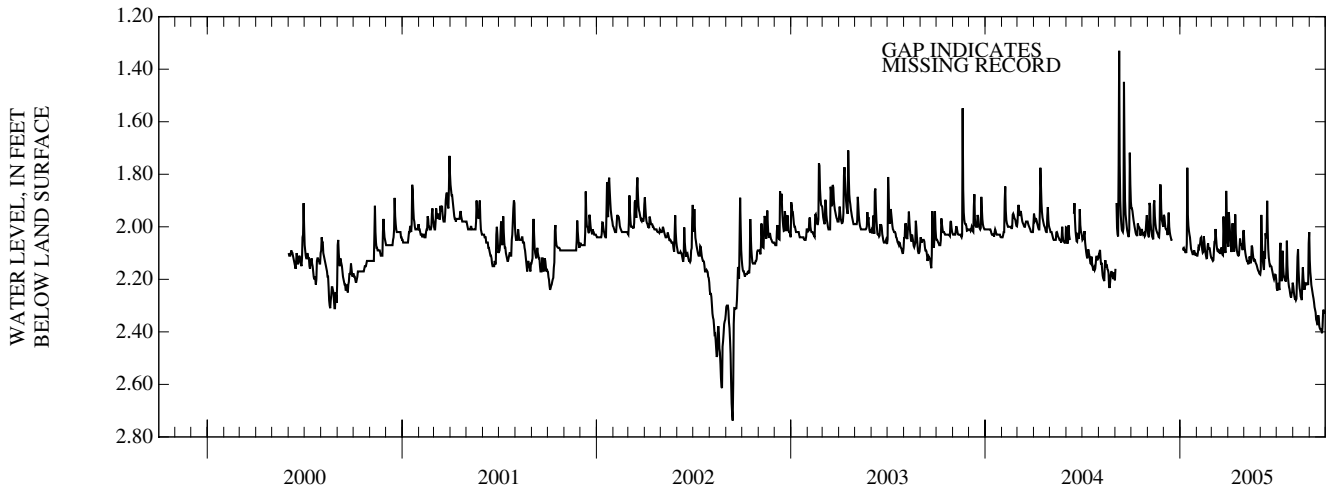
PERIOD OF RECORD.--June 2000 to current year. Records from March 1972 to March 2000 are unpublished and available in the files of the Division of Water Quality, DENR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.16 ft below land-surface datum, Sept. 8, 2004; lowest water level recorded, 2.74 ft below land-surface datum, Sept. 13, 14, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.93	2.02	1.95	---	2.11	2.12	2.08	2.06	2.16	2.23	2.23	2.13
2	1.93	2.04	1.96	---	2.11	2.13	1.94	2.08	1.95	2.24	2.25	2.17
3	1.94	2.04	1.99	---	2.10	2.13	1.98	2.10	2.05	2.23	2.26	2.19
4	1.96	1.91	2.01	---	2.08	2.13	2.01	2.11	2.10	2.21	2.27	2.22
5	1.97	1.92	2.01	2.08	2.08	2.09	2.05	2.12	2.13	2.23	2.27	2.23
6	1.99	1.98	2.01	2.08	2.07	2.06	2.08	2.13	2.15	2.24	2.28	2.25
7	2.00	2.01	2.01	2.09	2.06	2.06	2.10	2.13	2.16	2.09	2.27	2.26
8	2.01	2.02	2.03	2.08	2.04	2.01	2.04	2.14	2.09	2.06	2.20	2.27
9	2.02	2.04	1.99	2.09	2.04	2.04	1.99	2.14	2.12	2.17	2.11	2.29
10	2.03	2.04	1.95	2.10	2.07	2.07	2.04	2.14	2.02	2.21	2.09	2.31
11	2.03	2.05	2.00	2.09	2.09	2.09	2.07	2.11	2.04	2.19	2.17	2.32
12	2.04	1.92	2.02	2.10	2.10	2.09	2.09	2.13	2.04	2.09	2.21	2.33
13	1.99	1.90	2.03	2.07	2.10	2.09	2.07	2.14	1.90	2.15	2.23	2.35
14	2.00	1.96	2.04	1.78	2.04	2.09	1.95	2.12	2.01	2.18	2.25	2.36
15	2.00	1.99	2.05	1.95	2.06	2.09	2.02	2.07	2.08	2.19	2.27	2.37
16	2.00	2.00	2.05	2.00	2.08	2.10	2.07	2.08	2.12	2.20	2.27	2.37
17	2.01	2.01	2.05	2.01	2.10	2.10	2.09	2.10	2.13	2.20	2.28	2.34
18	2.03	2.02	---	2.03	2.11	2.10	2.10	2.12	2.15	2.21	2.21	2.35
19	2.02	2.03	---	2.04	2.12	2.08	2.11	2.13	2.15	2.17	2.15	2.38
20	2.01	2.03	---	2.06	2.12	2.09	2.11	2.12	2.15	2.05	2.19	2.39
21	2.01	2.04	---	2.08	2.08	2.11	2.11	2.13	2.15	2.15	2.22	2.39
22	2.02	2.04	---	2.09	2.06	2.11	2.08	2.14	2.16	2.19	2.24	2.39
23	2.03	2.00	---	2.10	2.09	1.96	2.04	2.14	2.17	2.21	2.23	2.39
24	2.03	1.84	---	2.10	2.08	2.02	2.06	2.14	2.18	2.23	2.22	2.41
25	2.02	1.84	---	2.10	2.08	2.07	2.07	2.15	2.19	2.24	2.22	2.38
26	2.04	1.93	---	2.10	2.10	2.10	2.07	2.16	2.20	2.25	2.22	2.33
27	2.03	1.97	---	2.09	2.11	2.10	2.08	2.17	2.19	2.26	2.21	2.32
28	2.01	1.98	---	2.10	2.12	1.86	2.09	2.17	2.18	2.27	2.22	2.33
29	1.98	1.99	---	2.11	---	1.96	2.02	2.18	2.18	2.25	2.22	2.32
30	1.96	2.00	---	2.10	---	2.03	2.01	2.18	2.20	2.25	2.06	2.32
31	2.00	---	---	2.11	---	2.06	---	2.18	---	2.21	2.02	---

WTR YR 2005 MEAN 2.11 HIGH 1.78 LOW 2.41



GROUND-WATER LEVELS

BEAUFORT COUNTY

352548077012701. County number, BO-413; LU-14.

LOCATION.--Lat 35°25'48", long 77°01'27", Hydrologic Unit 03020104, 2.2 mi southeast of intersection of Secondary Road 1181 and North Carolina State Highway 33, .4 mi north on farm road, near Rover.

WATER-LEVEL RECORDS

AQUIFER.--Yorktown.

WELL CHARACTERISTICS.--Drilled observation well, depth 27 ft, diameter 2 in., screened interval from 24 to 27 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 33 ft above NGVD of 1929. Measuring point: Top of casing, 0.8 ft above land-surface datum.

REMARKS.--Well is part of National Water Quality Assessment Program (NAWQA).

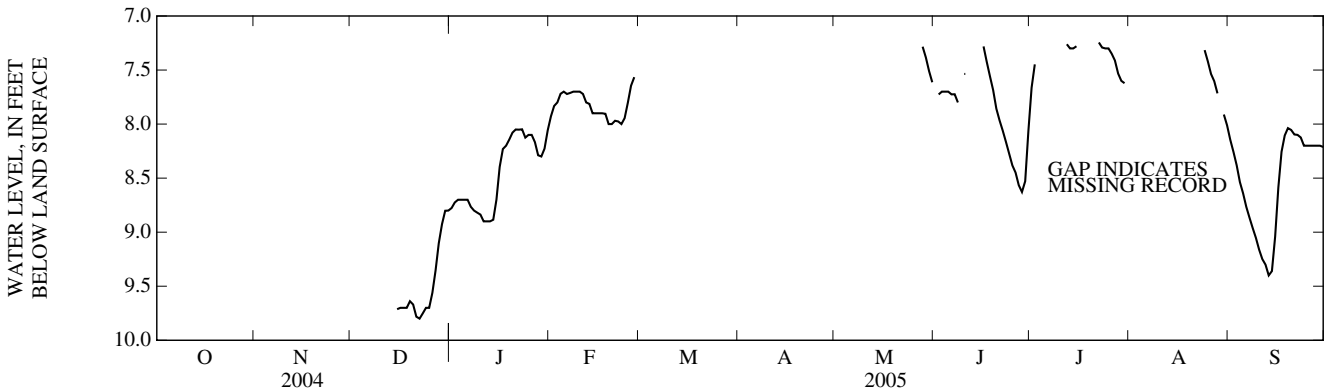
PERIOD OF RECORD.--December 2004 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.2 ft below land-surface datum, on several days during the period of record; lowest water level recorded, 10 ft below land-surface datum, Dec. 14, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	8.8	7.9	---	---	---	---	7.7	---	8.1
2	---	---	---	8.7	7.8	---	---	---	7.7	7.4	---	8.3
3	---	---	---	8.7	7.8	---	---	---	7.7	---	---	8.4
4	---	---	---	8.7	7.7	---	---	---	7.7	---	---	8.5
5	---	---	---	8.7	7.7	---	---	---	7.7	---	---	8.6
6	---	---	---	8.7	7.7	---	---	---	7.7	---	---	8.8
7	---	---	---	8.8	7.7	---	---	---	7.7	---	---	8.9
8	---	---	---	8.8	7.7	---	---	---	7.8	---	---	9.0
9	---	---	---	8.8	7.7	---	---	---	---	---	---	9.1
10	---	---	---	8.8	7.7	---	---	---	7.5	---	---	9.2
11	---	---	---	8.9	7.7	---	---	---	---	---	---	9.2
12	---	---	---	8.9	7.8	---	---	---	---	7.3	---	9.3
13	---	---	---	8.9	7.8	---	---	---	---	7.3	---	9.4
14	---	---	---	8.9	7.9	---	---	---	---	7.3	---	9.4
15	---	---	9.7	8.7	7.9	---	---	---	---	7.3	---	9.0
16	---	---	9.7	8.4	7.9	---	---	---	7.3	---	---	8.6
17	---	---	9.7	8.2	7.9	---	---	---	7.4	---	---	8.3
18	---	---	9.7	8.2	7.9	---	---	---	7.6	---	---	8.1
19	---	---	9.6	8.1	8.0	---	---	---	7.7	---	---	8.0
20	---	---	9.7	8.1	8.0	---	---	---	7.9	---	---	8.1
21	---	---	9.8	8.1	8.0	---	---	---	8.0	---	---	8.1
22	---	---	9.8	8.1	8.0	---	---	---	8.1	7.2	---	8.1
23	---	---	9.8	8.0	8.0	---	---	---	8.2	7.3	---	8.1
24	---	---	9.7	8.1	7.9	---	---	---	8.3	7.3	7.3	8.2
25	---	---	9.7	8.1	7.8	---	---	---	8.4	7.3	7.4	8.2
26	---	---	9.6	8.1	7.6	---	---	---	8.4	7.3	7.5	8.2
27	---	---	9.4	8.2	7.6	---	---	---	8.6	7.4	7.6	8.2
28	---	---	9.1	8.3	---	---	---	7.3	8.6	7.5	7.7	8.2
29	---	---	8.9	8.3	---	---	---	7.4	8.5	7.6	---	8.2
30	---	---	8.8	8.2	---	---	---	7.5	8.1	7.6	7.9	8.2
31	---	---	8.8	8.1	---	---	---	7.6	---	---	8.0	---

WTR YR 2005 MEAN 8.2 HIGH 7.2 LOW 9.8



352548077012701. County number BO-413. LU-14.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1994, 2001, 2002, October 2004 to September 2005.

REMARKS.--Well is part of National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	
Date		Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
Date		Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	1-Naphthol, water, fltrd, ug/L GF (49295)	2,6-Diethyl-aniline water fltrd, ug/L GF (82660)	2Chloro -2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)
DEC 14...	1515		39.1	1.31	.69	.3	7.54	104	127	<.20	10.6	.2	47.9	<.2
MAR 02...	1130		41.2	1.35	.67	.3	7.78	100	122	.18	10.7	.2	48.2	<.2
JUN 01...	1030		39.1	1.34	.64	.3	8.11	110	134	.18	10.5	.2	48.2	<.2
JUN 09...	1100		--	--	--	--	--	--	--	--	--	--	--	--
AUG 29...	1130		42.0	1.33	.67	.3	7.94	111	135	.35	10.2	.2	46.2	<.2
DEC 14...	192	E.04		<.06	.016	.13	.021	<.09	<.006	<.005	<.006	<.004	<.004	--
MAR 02...	174	.05		<.06	<.008	.14	<.006	<.09	<.006	<.005	<.006	<.004	<.004	--
JUN 01...	193	.06		<.06	.024	.15	<.006	--	--	--	--	--	--	--
JUN 09...	--	--		--	--	--	--	<.09	<.006	<.005	E.143	<.004	<.004	<.004
AUG 29...	199	.07		<.06	.021	.13	.009	<.09	<.006	<.005	<.006	<.004	<.004	<.004

352548077012701. County number BO-413. LU-14.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- Endo- sulfan, water, fltrd, ug/L (34362)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl oxon, water, fltrd, ug/L (61635)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos oxon, water, fltrd, ug/L (61636)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)
DEC 14...	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006
MAR 02...	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006
AUG 29...	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006
Date	cis- Propi- cona- zole, water, fltrd, ug/L (79846)	Cyana- zine, water, fltrd, ug/L (04041)	Cyflu- thrin, water, fltrd, ug/L (61585)	lambda- Cyhalo- thrin, water, fltrd, ug/L (61595)	Cyper- methrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf- inyl fipronil, water, fltrd, ug/L (62170)	Diaz- inon oxon, water, fltrd, ug/L (61638)	Diazi- non, water, fltrd, ug/L (39572)	Dicro- tophos, water, fltrd, ug/L (38454)	Diel- drin, water, fltrd, ug/L (39381)	Dimeth- oate, water, fltrd 0.7u GF ug/L (82662)	Disulf- oton sulfone water, fltrd, ug/L (61640)
DEC 14...	--	--	<.008	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--
MAR 02...	--	--	<.027	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01
AUG 29...	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01
Date	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	Endo- sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Fenami- phos sulfone water, fltrd, ug/L (61645)	Fenami- phos sulf- oxide, water, fltrd, ug/L (61646)	Fenami- phos, water, fltrd, ug/L (61591)	Desulf- inyl- fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)
DEC 14...	--	--	--	<.0020	<.004	--	<.049	--	<.03	<.029	<.013	<.024	<.016
MAR 02...	--	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016
AUG 29...	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016
Date	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa- zinone, water, fltrd, ug/L (04025)	Ipro- dione, water, fltrd, ug/L (61593)	Isofen- phos, water, fltrd, ug/L (61594)	Mala- oxon, water, fltrd, ug/L (61652)	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)
DEC 14...	<.003	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
MAR 02...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
AUG 29...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006

352548077012701. County number BO-413. LU-14.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

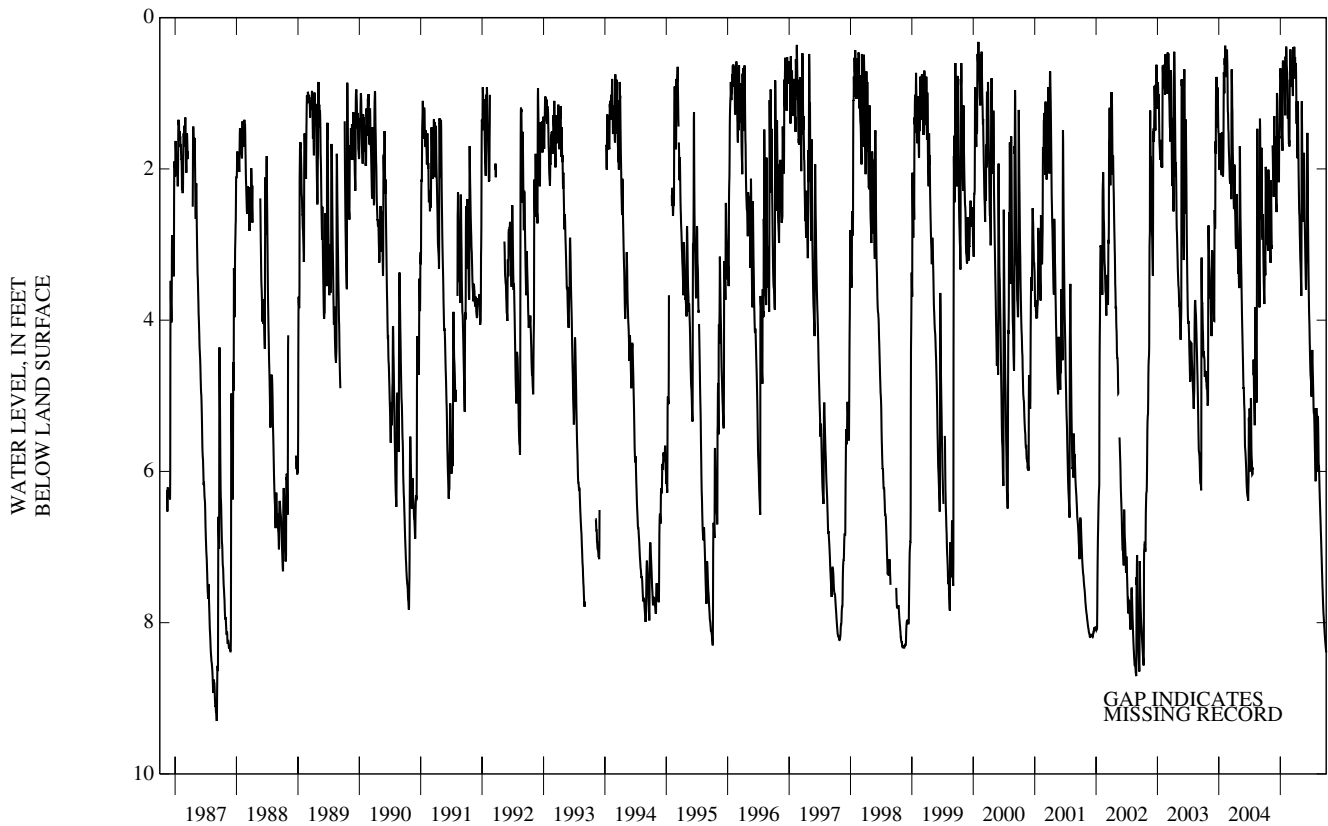
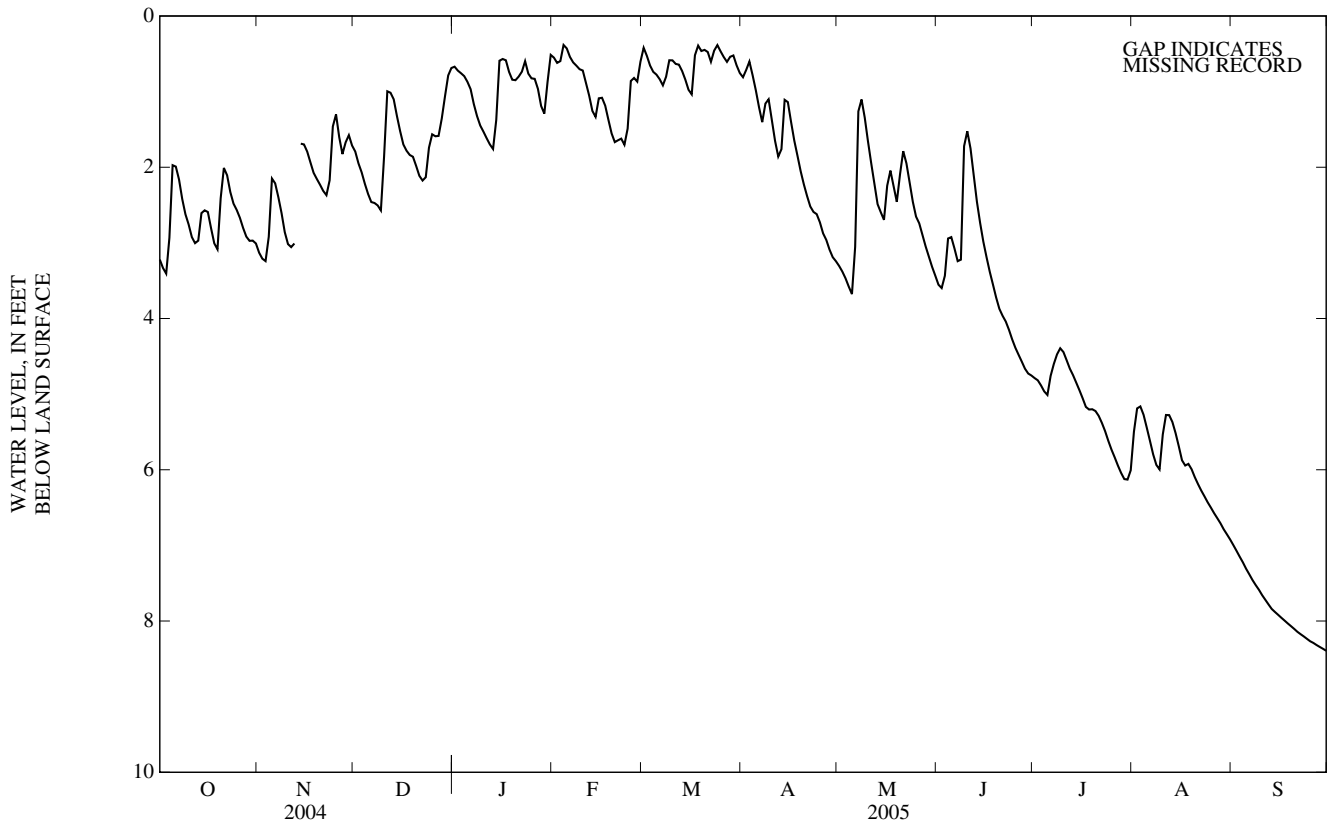
Date	Molinate, water, fltrd, 0.7u GF ug/L (82671)	Myclobutanil water, fltrd, ug/L (61599)	Oxyfluorfen, water, fltrd, ug/L (61600)	Pendimethalin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water, fltrd, 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd, 0.7u GF ug/L (82676)	Propanil, water, fltrd, 0.7u GF ug/L (82679)	Propargite, water, fltrd, 0.7u GF ug/L (82685)
DEC 14...	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--
MAR 02...	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011	<.02
AUG 29...	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011	<.02

Date	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Tefluthrin, water, fltrd, ug/L (61606)	Terbufos oxon sulfone water, fltrd, ug/L (61674)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Terbuthylazine, water, fltrd, ug/L (04022)	Thiobencarb water, fltrd, 0.7u GF ug/L (82681)	trans-Propiconazole, water, fltrd, ug/L (79847)	Tribuphos, water, fltrd, ug/L (61610)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Dichlorvos, water, fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
DEC 14...	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	<.04
MAR 02...	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--
AUG 29...	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--

GROUND-WATER LEVELS

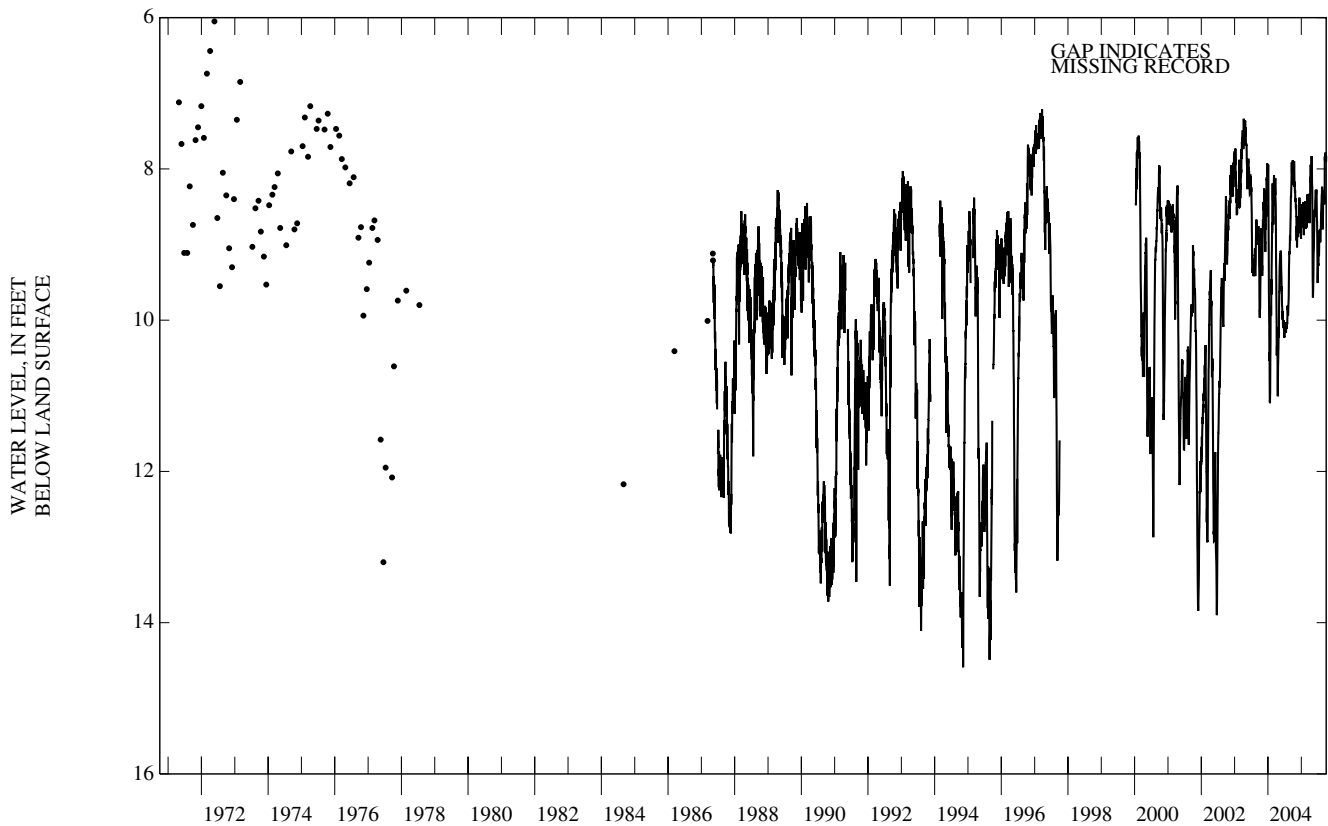
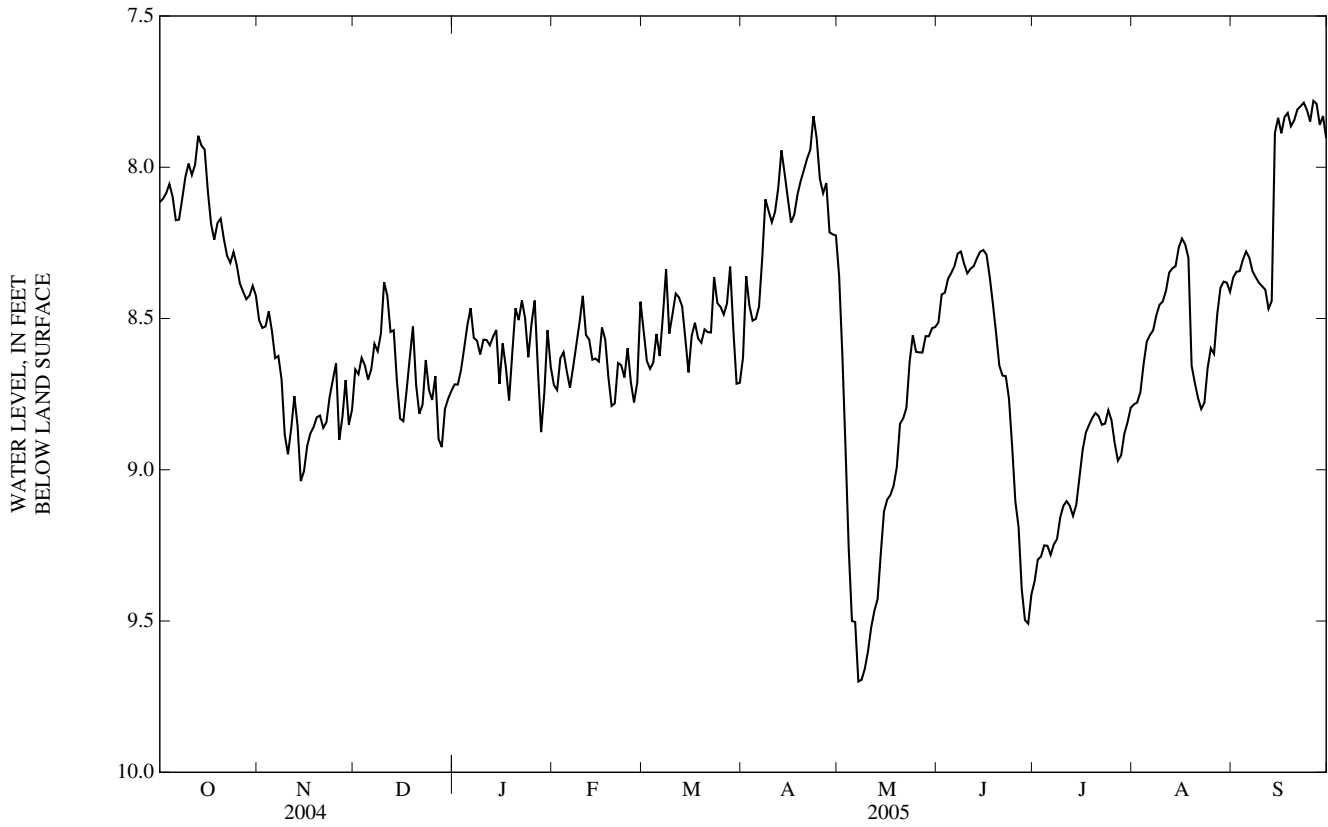
BERTIE COUNTY—Continued

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



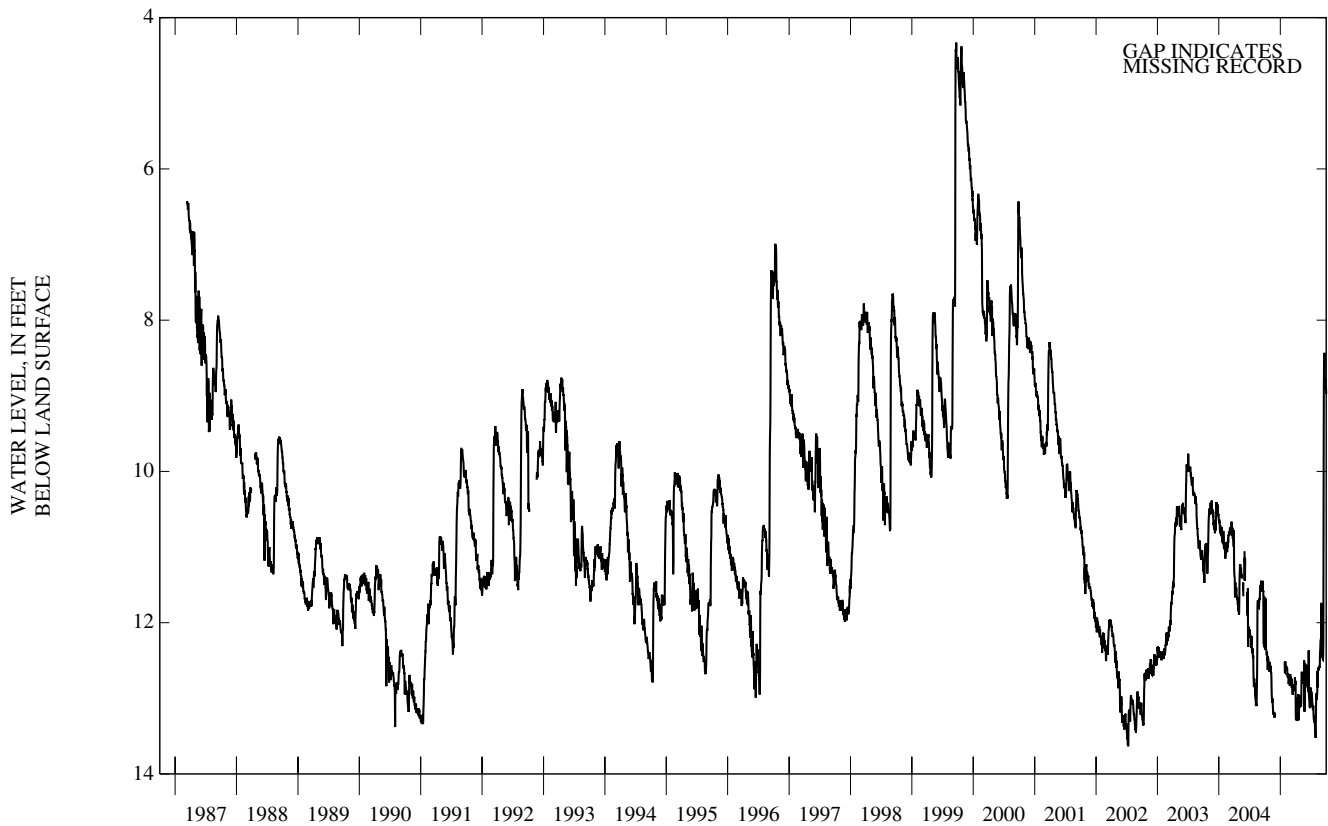
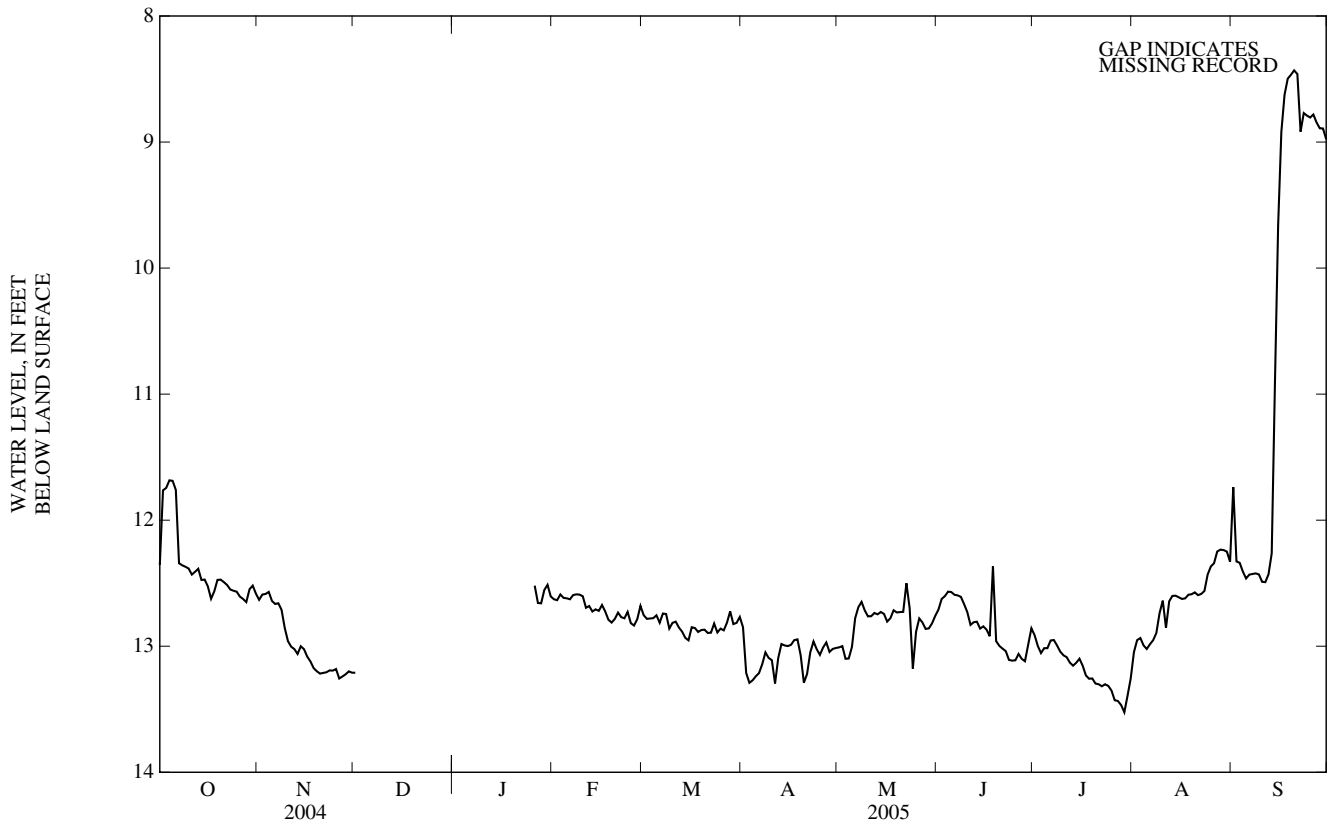
BRUNSWICK COUNTY—Continued

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



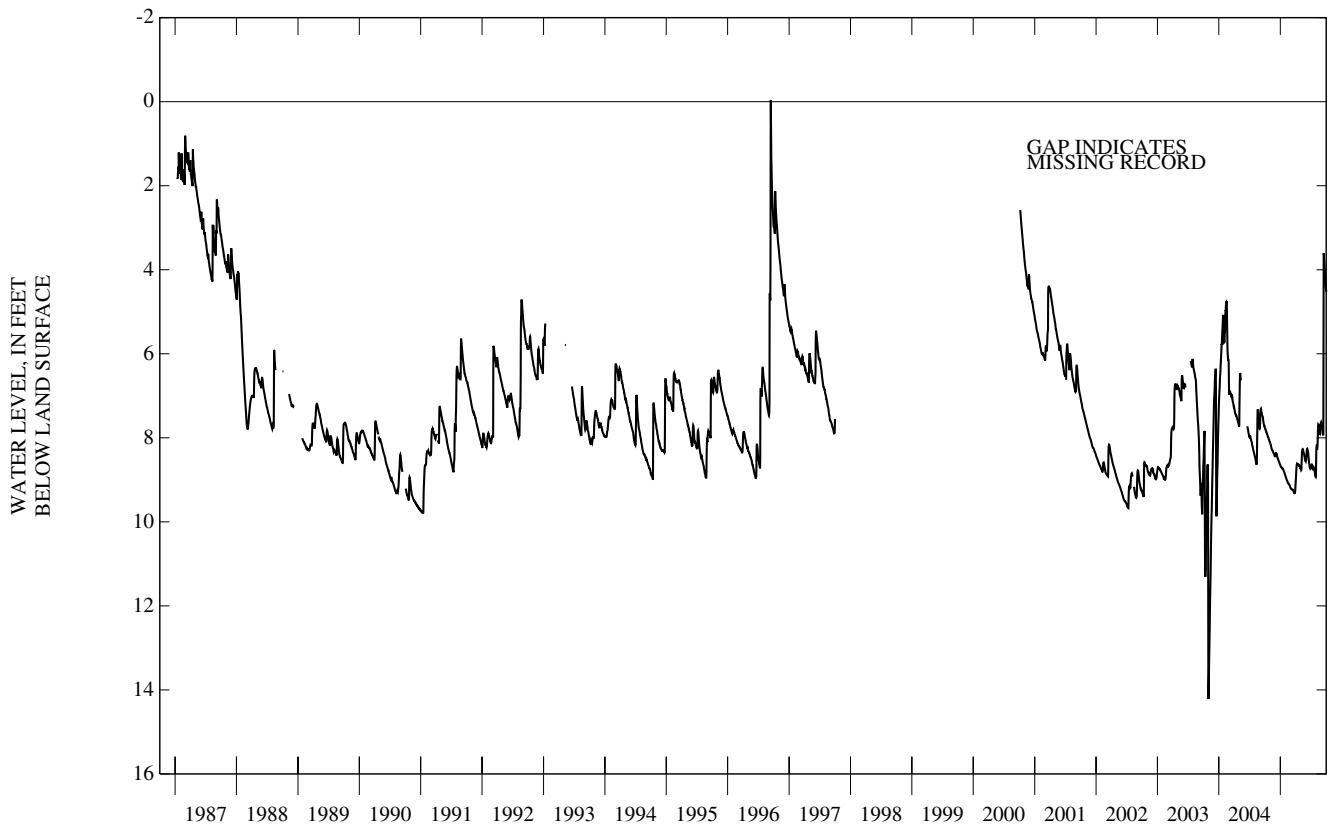
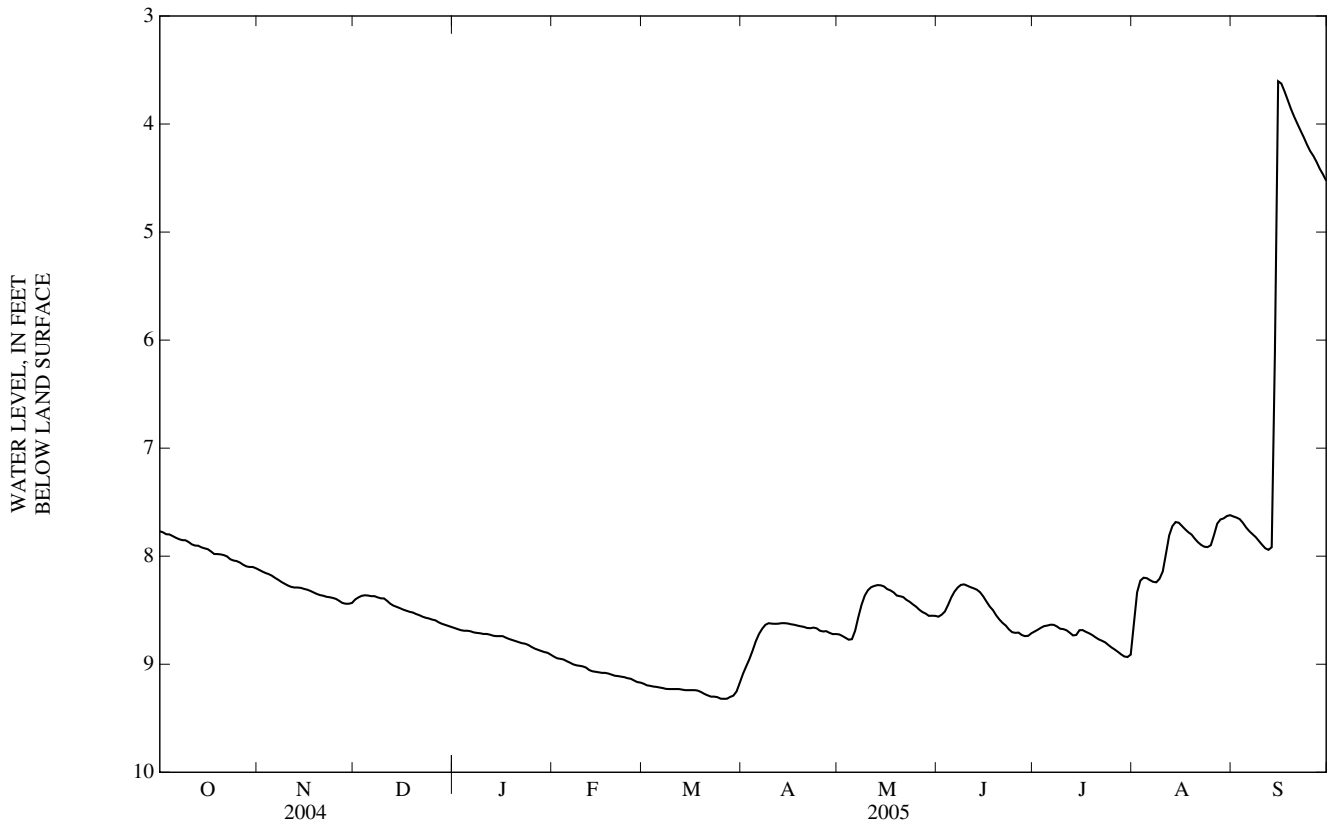
BRUNSWICK COUNTY—Continued

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



BRUNSWICK COUNTY—Continued

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



GROUND-WATER LEVELS
BRUNSWICK COUNTY—Continued

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

LOCATION.--Lat 33°56'31", long 78°00'35", 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 station.

DATUM.--Land-surface datum is 28.08 ft above NGVD of 1929. Measuring point: Top of casing, 1.17 ft above land-surface datum.

REMARKS.-- Well is part of areal-effects network. Water levels affected by localized pumping since Dec. 2002.

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 recorded, 58.39 ft below land-surface datum, Jan. 28, 2005.

REVISIONS.--Revised figures for depth to water level for the water year 2002, superseding those published in the report for 2002 are given below.

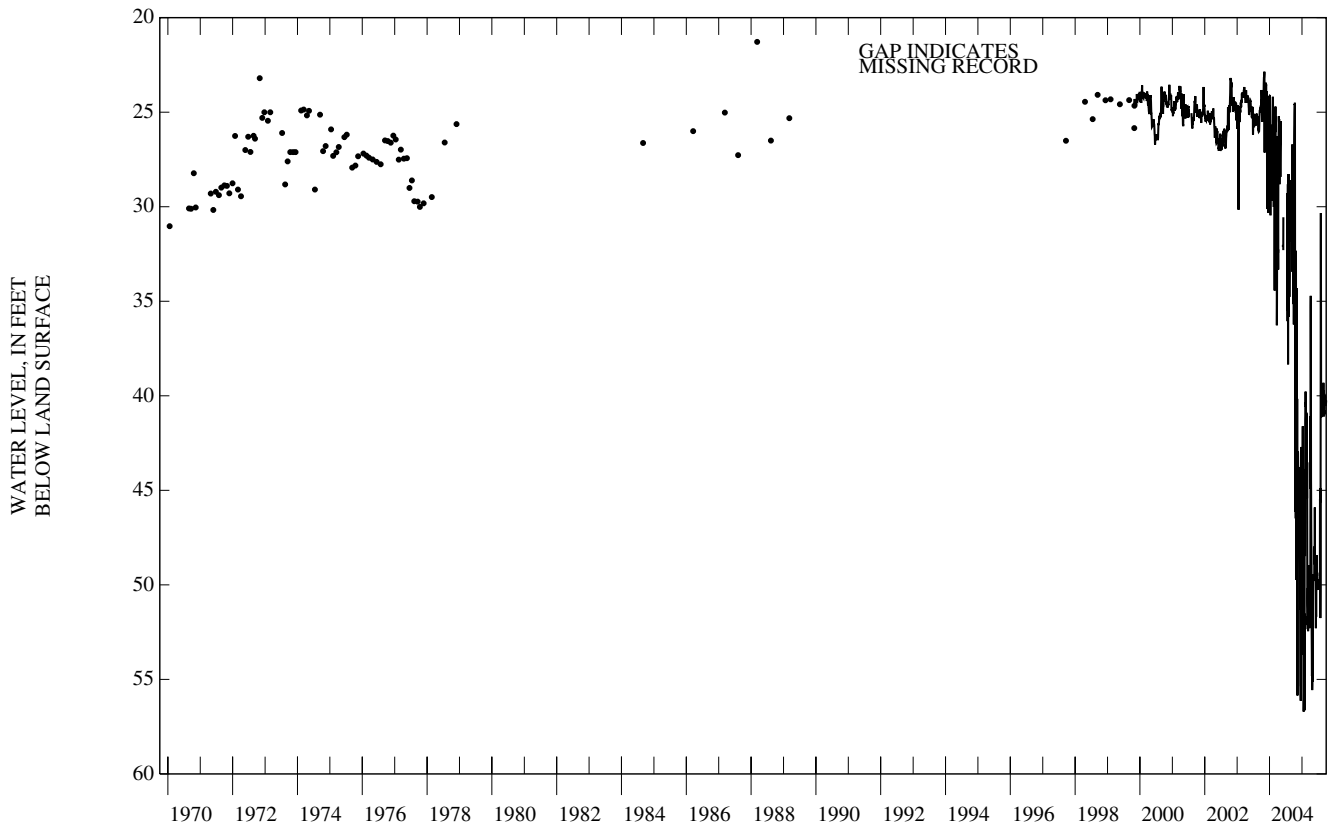
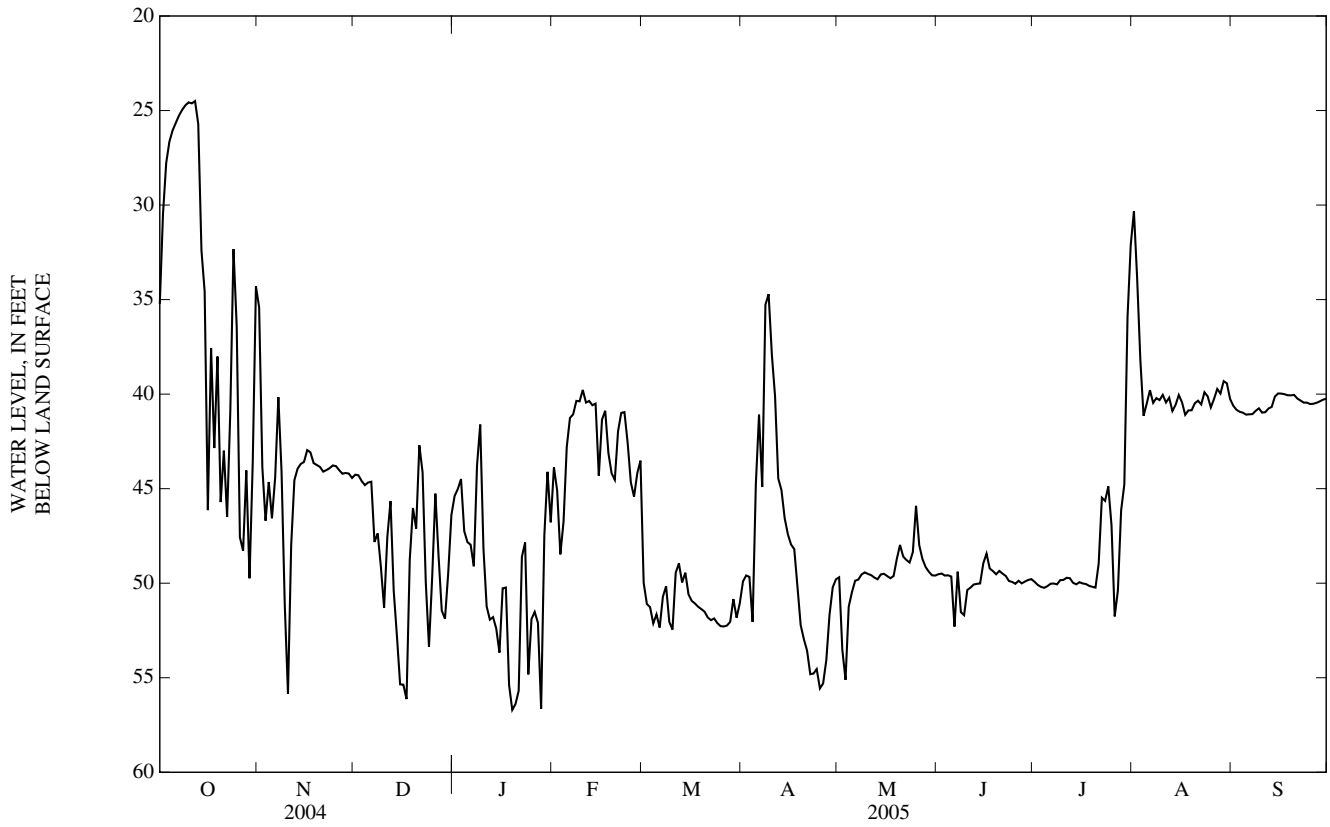
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.23	35.40	44.26	45.39	43.87	49.98	49.90	49.69	49.53	49.93	30.33	40.61
2	30.47	43.86	44.30	45.02	45.09	51.10	49.59	53.52	49.49	50.09	33.86	40.83
3	27.77	46.69	44.60	44.49	48.47	51.27	49.67	55.11	49.60	50.19	38.20	40.94
4	26.65	44.65	44.81	47.24	46.73	52.13	52.05	51.24	49.58	50.24	41.14	40.98
5	26.05	46.57	44.68	47.83	42.79	51.65	44.79	50.47	49.65	50.16	40.50	41.08
6	25.65	44.42	44.63	47.96	41.26	52.34	41.09	49.87	52.29	50.03	39.79	41.07
7	25.26	40.16	47.82	49.11	41.07	50.72	44.91	49.81	49.39	50.02	40.46	41.06
8	24.96	44.11	47.37	43.77	40.36	50.16	35.27	49.54	51.53	50.06	40.21	40.88
9	24.72	51.14	49.14	41.61	40.38	52.05	34.71	49.43	51.69	49.84	40.32	40.75
10	24.57	55.85	51.30	48.17	39.78	52.45	37.90	49.51	50.36	49.82	40.04	40.98
11	24.62	48.00	47.56	51.23	40.45	49.44	40.11	49.58	50.23	49.71	40.44	40.95
12	24.50	44.55	45.66	51.93	40.36	48.95	44.46	49.70	50.07	49.74	40.19	40.76
13	25.71	43.95	50.41	51.80	40.59	49.96	45.07	49.79	50.03	49.98	40.89	40.67
14	32.39	43.69	52.78	52.40	40.50	49.44	46.55	49.54	50.01	50.06	40.57	40.13
15	34.57	43.59	55.35	53.67	44.32	50.60	47.41	49.50	48.94	49.95	40.05	39.96
16	46.14	42.96	55.37	50.27	41.35	50.93	47.95	49.62	48.44	50.01	40.43	39.97
17	37.56	43.08	56.13	50.23	40.88	51.07	48.20	49.74	49.22	50.04	41.09	40.01
18	42.85	43.65	48.77	55.39	43.12	51.25	50.19	49.62	49.36	50.14	40.86	40.06
19	38.01	43.75	46.02	56.70	44.19	51.37	52.22	48.72	49.53	50.19	40.85	40.07
20	45.71	43.85	47.11	56.39	44.53	51.51	52.96	47.98	49.35	50.23	40.49	40.04
21	42.99	44.10	42.71	55.69	41.97	51.81	53.57	48.59	49.49	48.97	40.35	40.23
22	46.49	44.02	44.13	48.60	40.99	51.96	54.81	48.77	49.62	45.48	40.54	40.34
23	40.92	43.92	49.94	47.85	40.95	51.86	54.78	48.91	49.89	45.64	39.90	40.45
24	32.33	43.77	53.36	54.82	42.57	52.11	54.55	48.36	49.93	44.88	40.11	40.45
25	36.41	43.81	49.70	51.89	44.67	52.27	55.57	45.91	50.03	46.94	40.70	40.52
26	47.57	44.02	45.26	51.52	45.42	52.29	55.30	47.99	49.87	51.76	40.25	40.51
27	48.28	44.21	48.57	52.09	44.19	52.24	54.08	48.72	50.01	50.38	39.73	40.46
28	44.04	44.17	51.45	56.64	43.52	52.05	51.67	49.15	49.91	46.15	39.97	40.38
29	49.74	44.21	51.88	47.48	---	50.84	50.22	49.40	49.83	44.77	39.31	40.29
30	43.64	44.44	49.48	44.11	---	51.82	49.80	49.58	49.79	35.92	39.43	40.25
31	34.30	---	46.40	46.78	---	51.06	---	49.59	---	32.10	40.25	---

WTR YR 2005 MEAN 45.70 HIGH 24.50 LOW 56.70

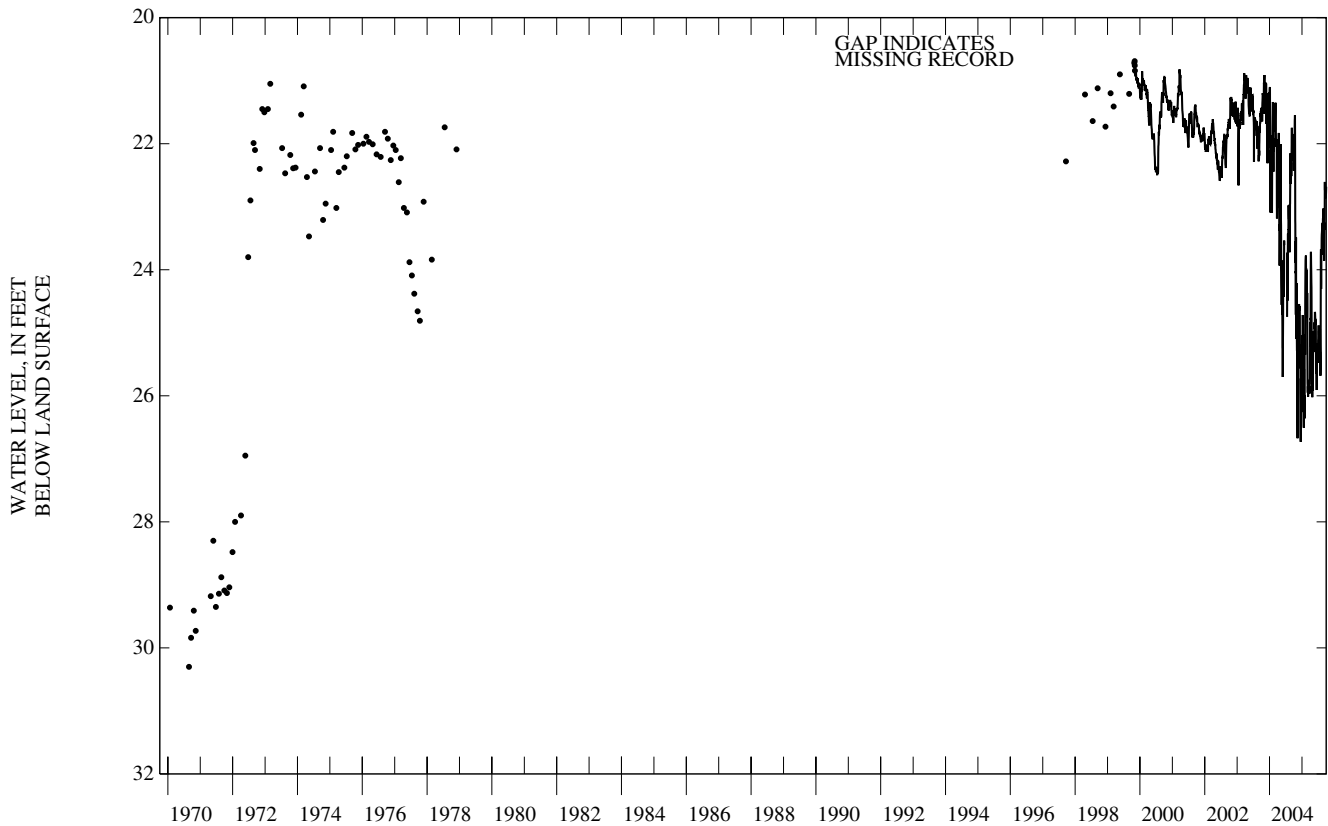
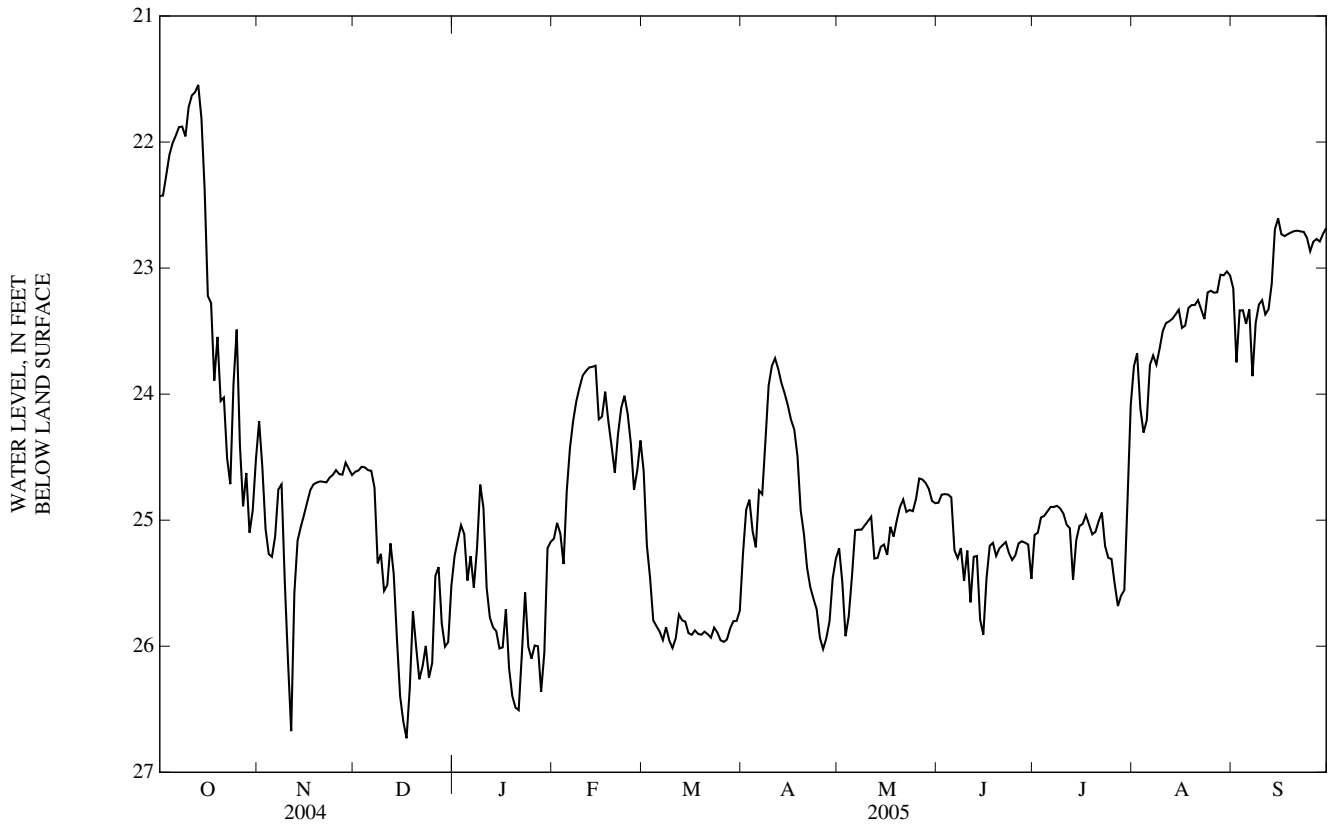
BRUNSWICK COUNTY—Continued

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



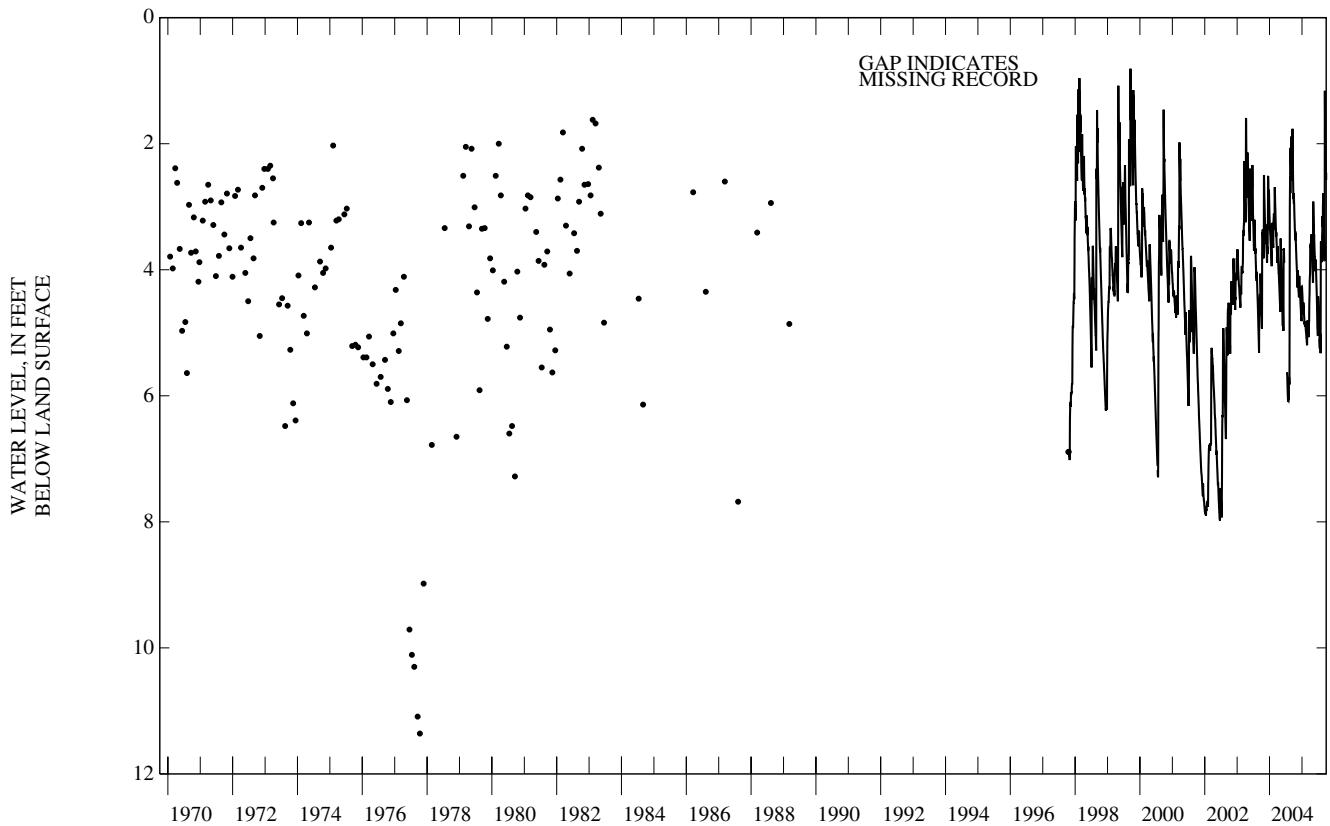
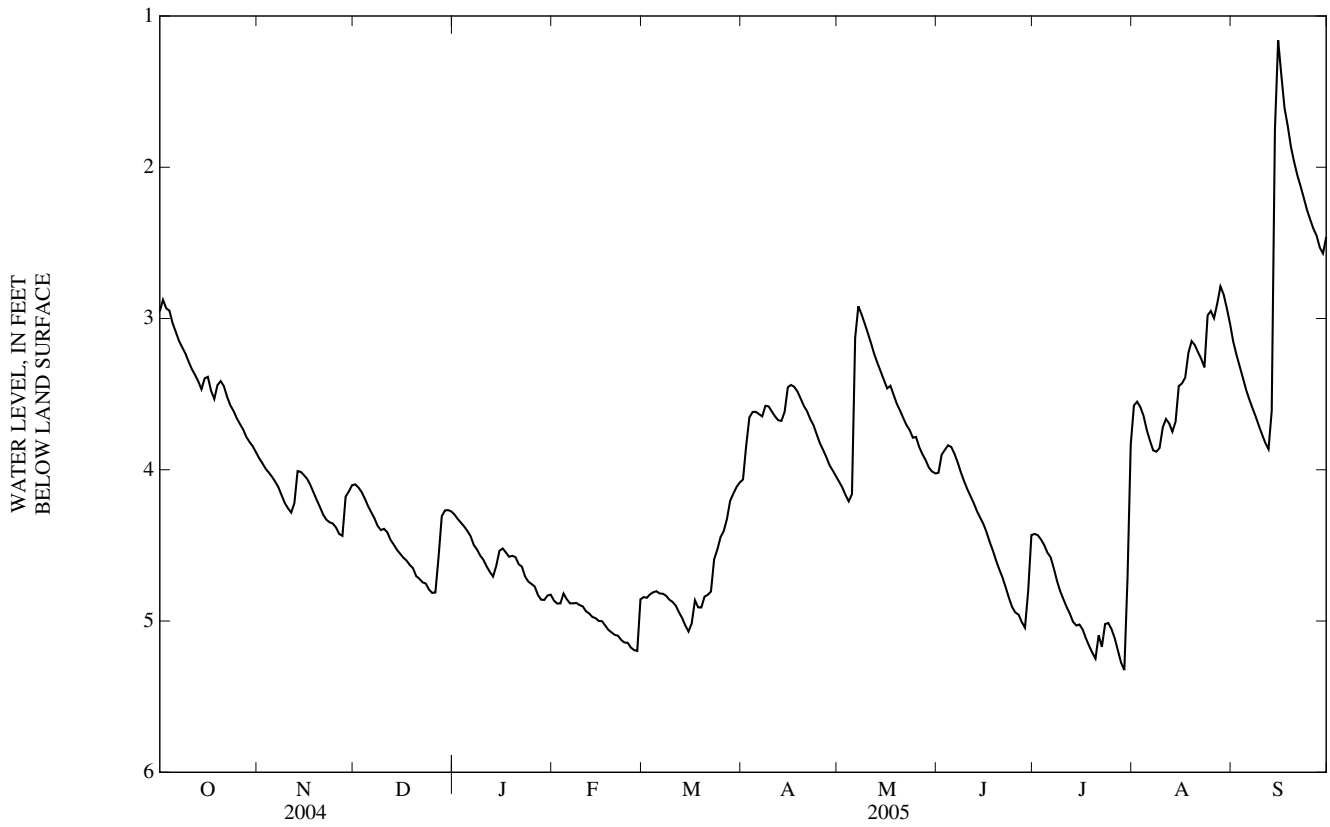
BRUNSWICK COUNTY—Continued

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



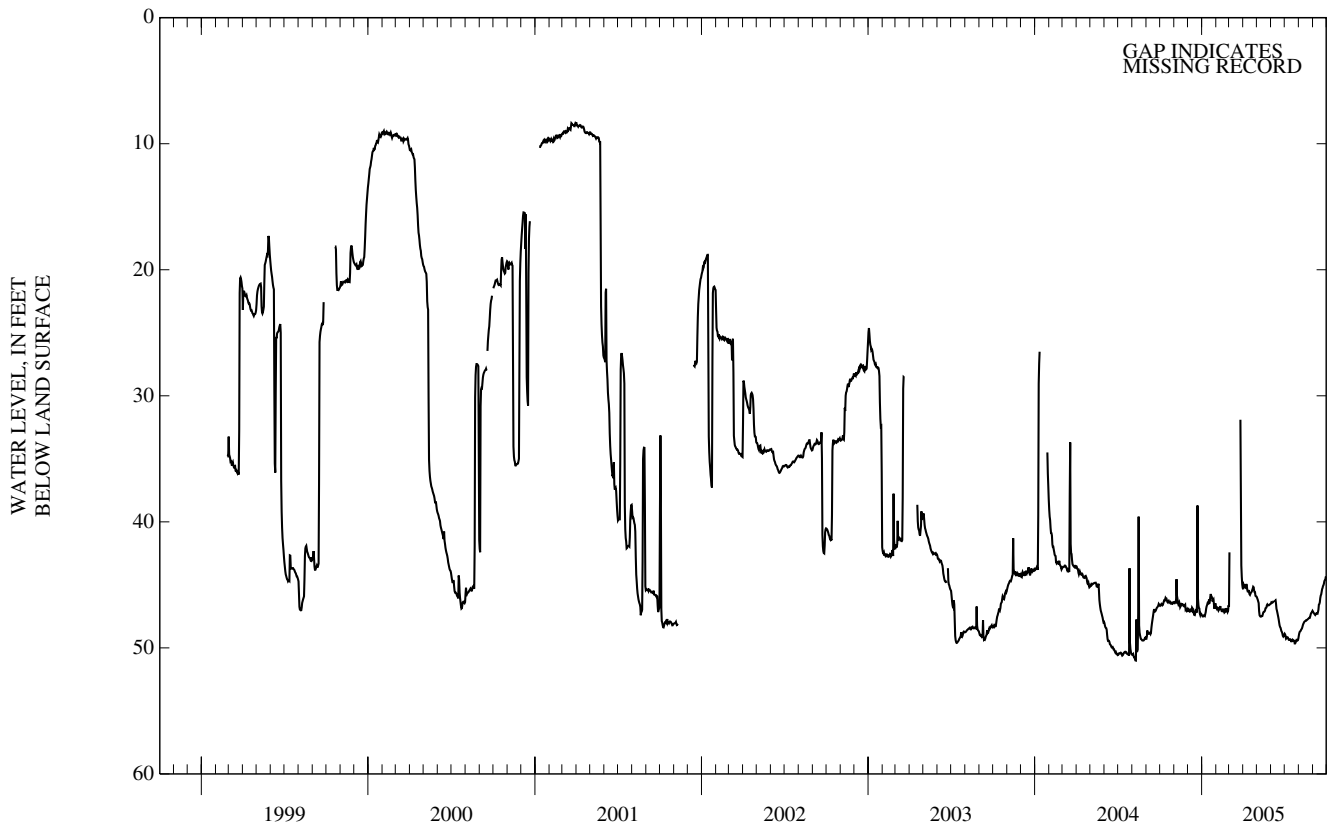
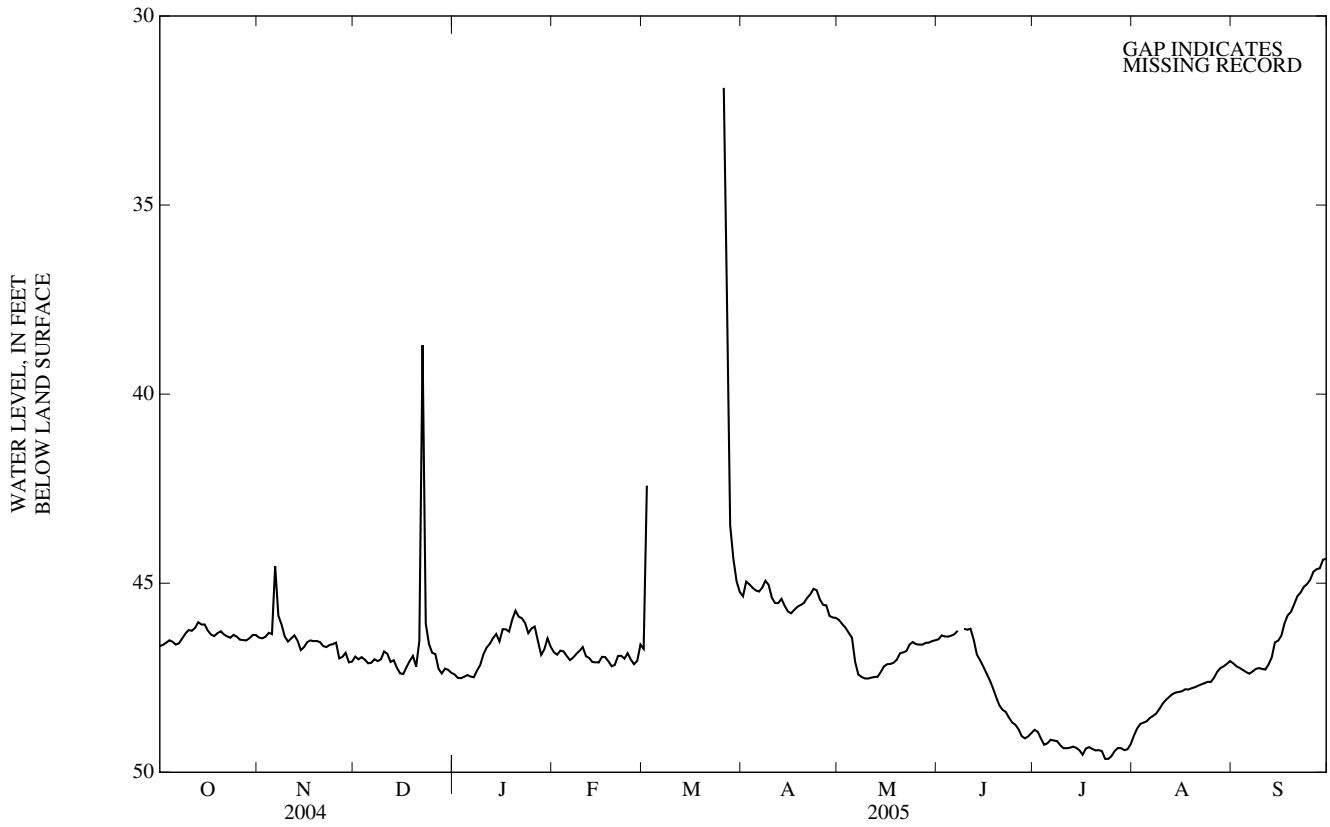
BRUNSWICK COUNTY—Continued

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



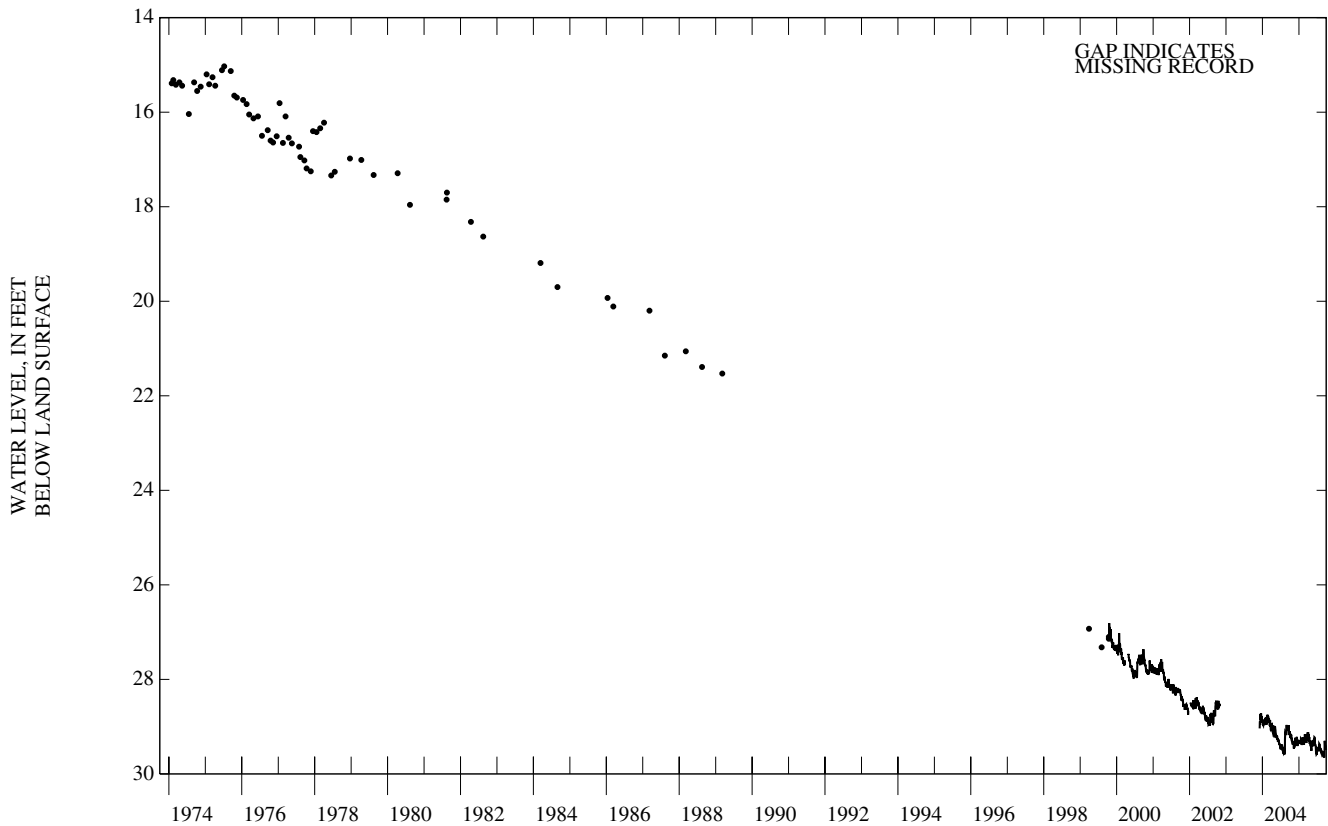
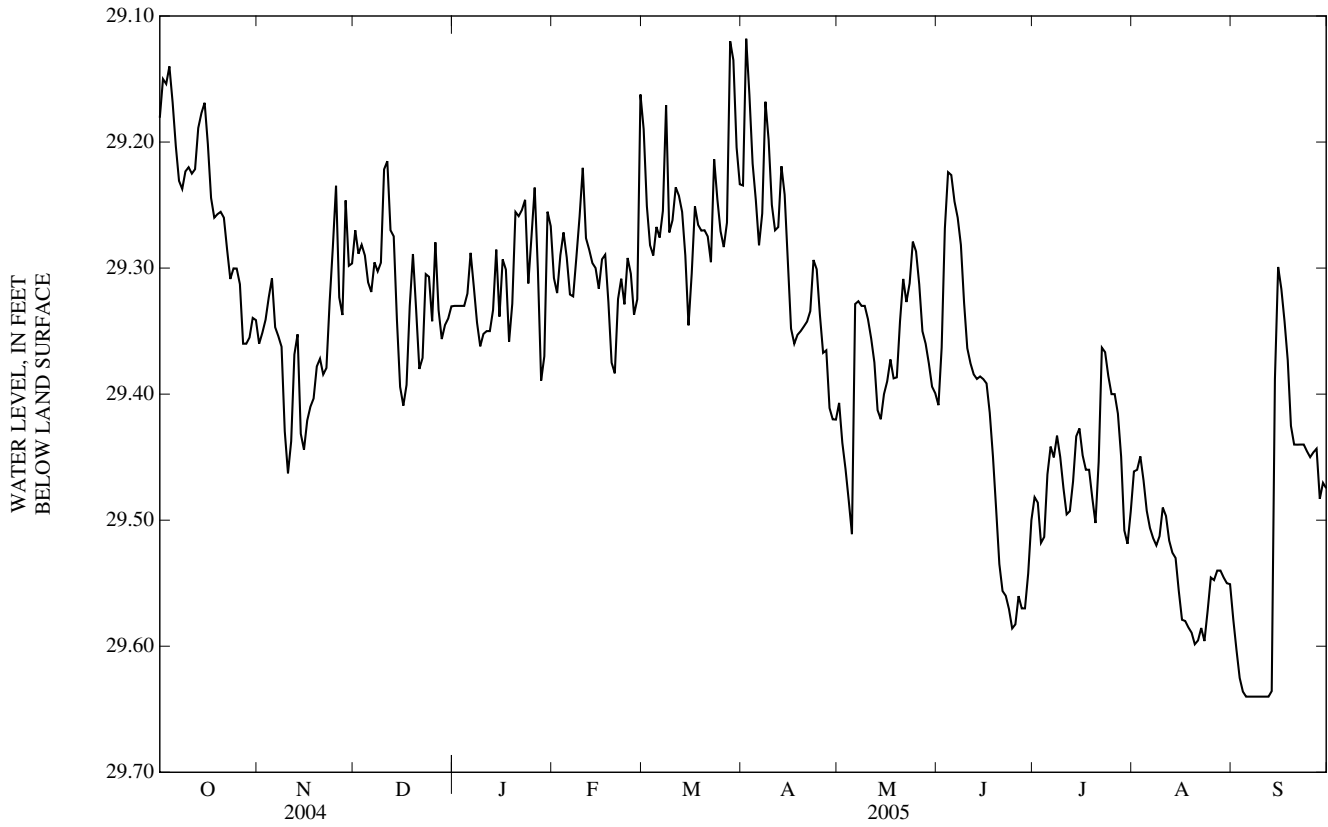
BRUNSWICK COUNTY—Continued

335849078054301. County number, BR-100; Well 15A.



BRUNSWICK COUNTY—Continued

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



GROUND-WATER LEVELS
BRUNSWICK COUNTY—Continued

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

LOCATION.--Lat 34°07'43", long 78°20'20", 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 15-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 61.00 ft above NGVD of 1929. Measuring point: Top of instrument shelf, 0.69 ft above land-surface datum.

REMARKS.--Well is part of Brunswick County ground-water study. Water-level data may be influenced by local pumping.

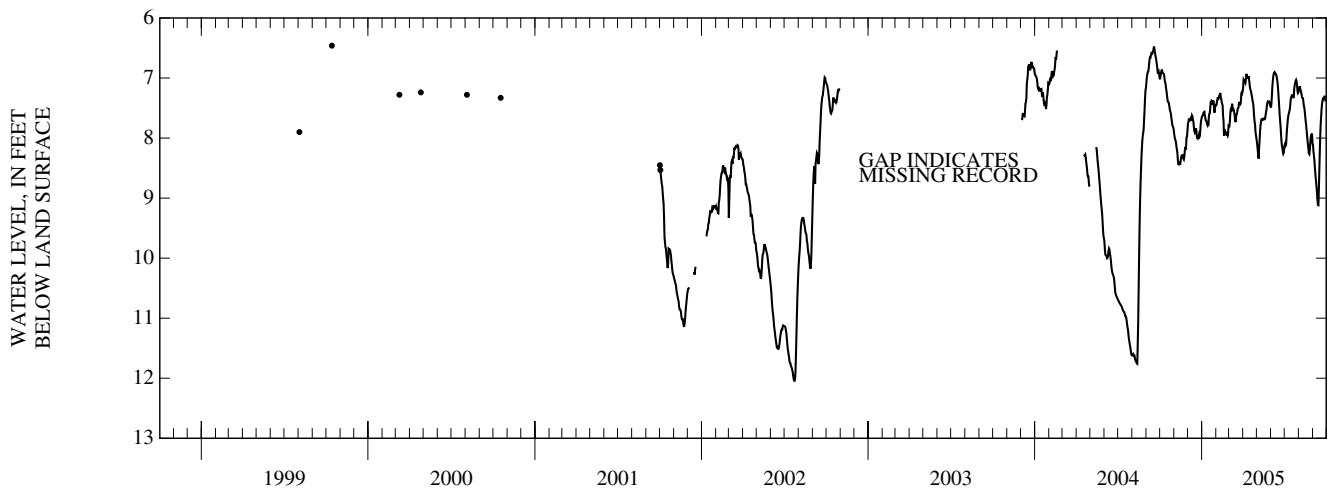
PERIOD OF RECORD.--August 1999 to current year. Continuous record began April 2000.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.37 ft below land-surface datum, Sept. 26, 2000; lowest water level recorded, 12.06 ft below land-surface datum, July 23, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.02	7.94	7.76	7.64	7.45	7.79	7.16	8.05	7.49	8.11	7.19	8.11
2	6.96	7.99	7.73	7.63	7.44	7.80	7.03	8.13	7.43	8.09	7.16	8.22
3	6.92	8.02	7.69	7.61	7.38	7.71	7.04	8.20	7.29	8.13	7.14	8.28
4	6.87	8.04	7.69	7.58	7.34	7.59	7.06	8.29	7.14	8.12	7.17	8.36
5	6.87	8.09	7.71	7.57	7.34	7.52	7.06	8.34	7.05	7.99	7.20	8.47
6	6.90	8.16	7.70	7.56	7.34	7.53	7.08	8.17	6.98	7.86	7.23	8.57
7	6.92	8.19	7.68	7.63	7.32	7.48	7.02	8.04	6.93	7.77	7.27	8.66
8	6.92	8.26	7.70	7.66	7.29	7.43	6.93	7.90	6.91	7.68	7.32	8.75
9	6.93	8.37	7.69	7.70	7.27	7.53	6.95	7.79	6.90	7.63	7.33	8.83
10	6.96	8.43	7.63	7.71	7.25	7.54	6.99	7.73	6.92	7.59	7.34	8.93
11	7.03	8.44	7.64	7.73	7.32	7.53	7.00	7.69	6.93	7.56	7.39	9.04
12	7.07	8.41	7.70	7.77	7.35	7.55	7.00	7.69	6.94	7.53	7.47	9.11
13	7.09	8.41	7.72	7.79	7.40	7.60	6.97	7.70	6.96	7.47	7.49	9.12
14	7.17	8.44	7.81	7.76	7.43	7.68	7.02	7.70	7.00	7.38	7.56	8.83
15	7.22	8.39	7.88	7.77	7.45	7.74	7.09	7.68	7.05	7.33	7.64	8.52
16	7.28	8.33	7.90	7.64	7.63	7.69	7.16	7.68	7.13	7.30	7.72	8.23
17	7.35	8.30	7.88	7.59	7.71	7.62	7.20	7.68	7.24	7.29	7.78	7.95
18	7.39	8.29	7.86	7.59	7.96	7.60	7.22	7.69	7.35	7.29	7.87	7.76
19	7.40	8.28	7.84	7.49	7.91	7.57	7.25	7.68	7.47	7.30	7.94	7.62
20	7.41	8.30	7.93	7.40	7.92	7.51	7.30	7.63	7.61	7.33	8.03	7.51
21	7.46	8.34	8.00	7.40	7.89	7.50	7.34	7.58	7.72	7.31	8.11	7.42
22	7.51	8.36	8.00	7.38	7.91	7.49	7.39	7.54	7.80	7.17	8.18	7.37
23	7.55	8.31	7.96	7.39	7.95	7.40	7.42	7.47	7.93	7.12	8.26	7.35
24	7.57	8.23	7.99	7.45	7.91	7.42	7.51	7.41	8.05	7.08	8.27	7.35
25	7.62	8.15	8.01	7.40	7.95	7.42	7.63	7.39	8.13	7.05	8.20	7.35
26	7.68	8.20	7.93	7.38	7.96	7.43	7.72	7.39	8.16	7.03	8.10	7.31
27	7.73	8.13	7.94	7.48	7.93	7.40	7.77	7.39	8.22	7.06	8.00	7.31
28	7.78	7.99	7.89	7.58	7.79	7.25	7.89	7.39	8.26	7.12	7.95	7.36
29	7.81	7.97	7.77	7.54	---	7.24	7.95	7.42	8.24	7.21	7.94	7.34
30	7.82	7.87	7.71	7.43	---	7.25	8.01	7.46	8.17	7.25	7.94	7.34
31	7.87	---	7.67	7.45	---	7.21	---	7.47	---	7.24	8.09	---

WTR YR 2005 MEAN 7.64 HIGH 6.87 LOW 9.12



GROUND-WATER LEVELS

62

BRUNSWICK COUNTY—Continued

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

LOCATION.--Lat 33°53'34", long 78°35'21", Hydrologic Unit 03040207, .75 mi west of Country 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 660 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 station.

DATUM.--Land-surface datum is 47.59 ft above NGVD of 1929. 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.

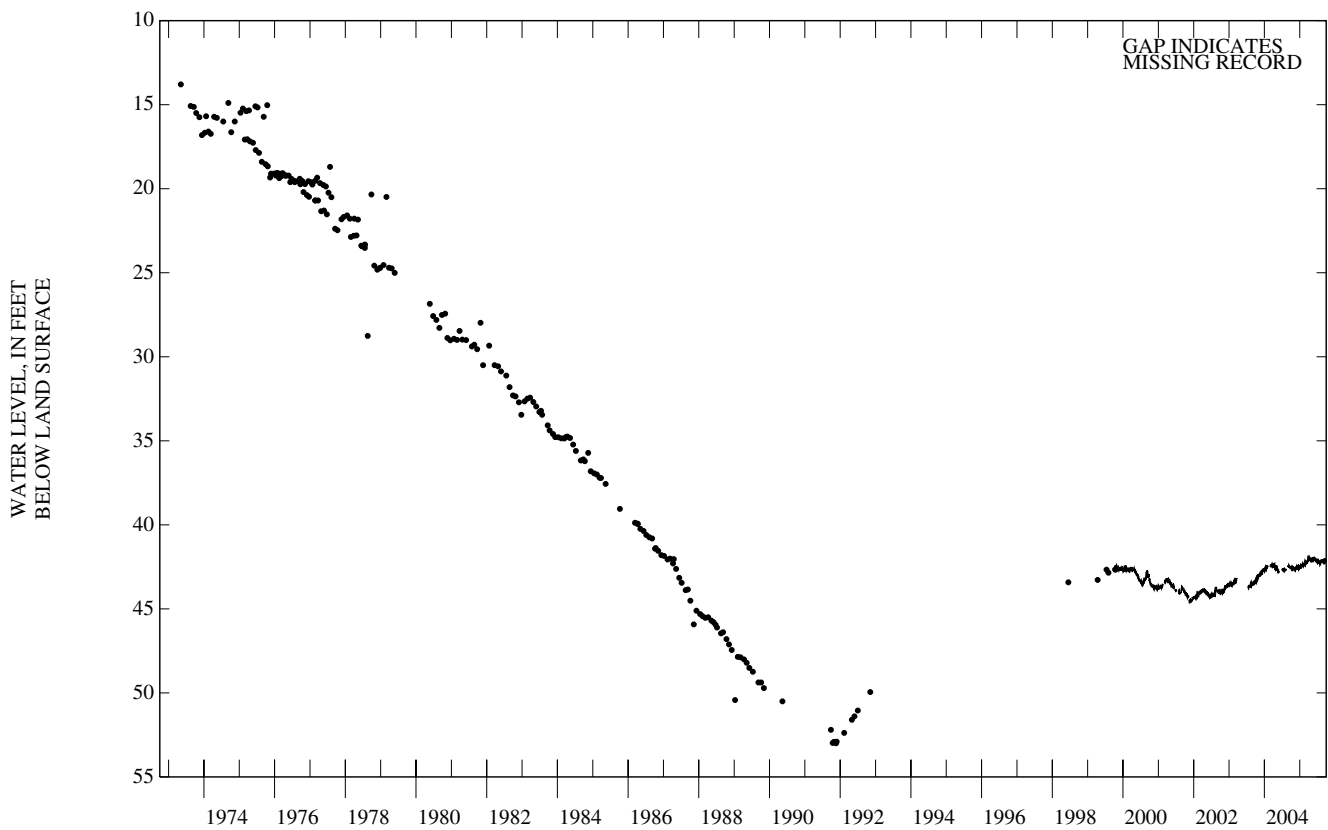
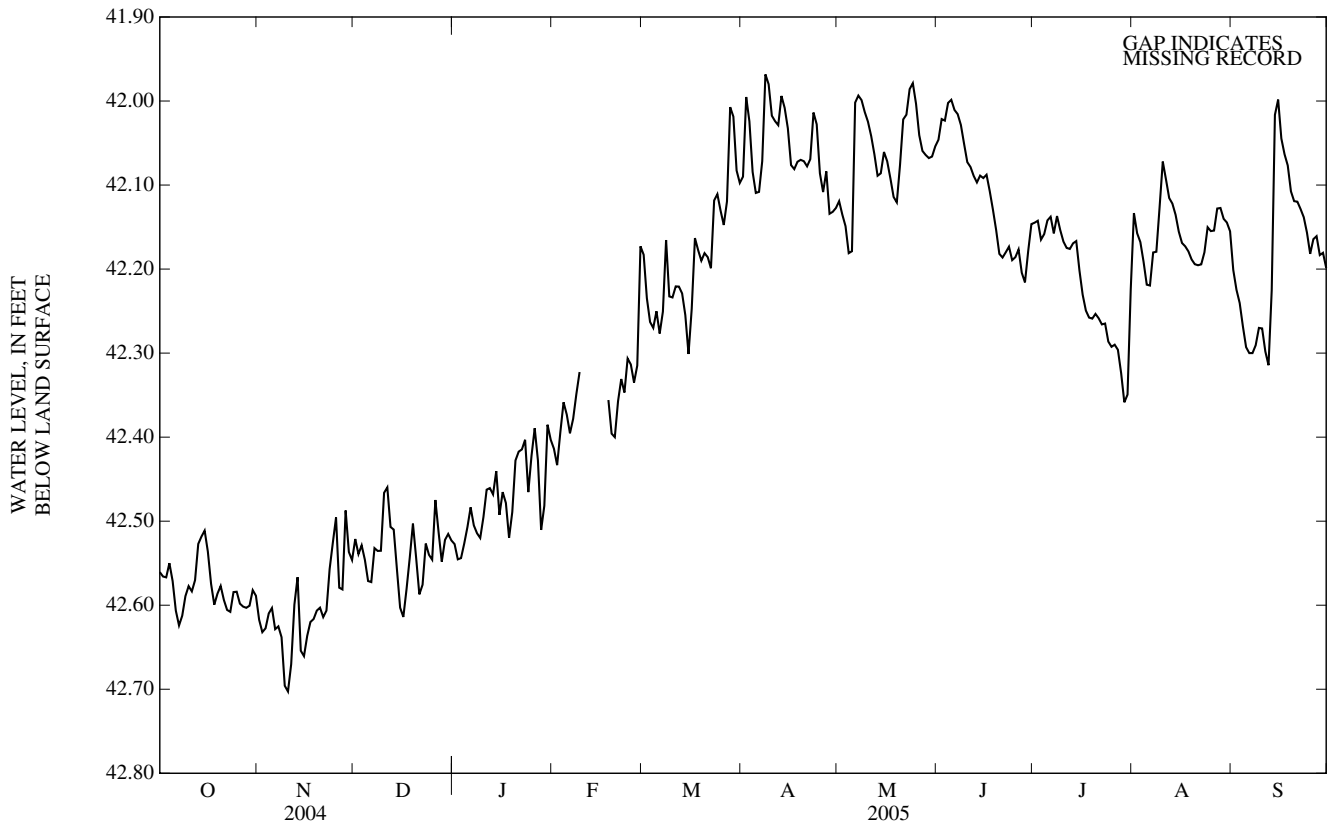
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.79 ft below land-surface datum, May 7, 1973; lowest water level measured, 53.00 ft below land-surface datum, Nov. 11, 1991.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	42.56	42.62	42.52	42.53	42.41	42.18	42.09	42.12	42.05	42.14	42.13	42.20	
2	42.57	42.63	42.54	42.55	42.43	42.23	42.00	42.14	42.02	42.14	42.16	42.22	
3	42.57	42.63	42.53	42.54	42.39	42.26	42.02	42.15	42.02	42.16	42.17	42.24	
4	42.55	42.61	42.55	42.53	42.36	42.27	42.08	42.18	42.00	42.16	42.19	42.27	
5	42.57	42.60	42.57	42.51	42.37	42.25	42.11	42.18	42.00	42.14	42.22	42.29	
6	42.61	42.63	42.57	42.48	42.40	42.28	42.11	42.00	42.01	42.14	42.22	42.30	
7	42.62	42.63	42.53	42.51	42.38	42.25	42.07	41.99	42.02	42.16	42.18	42.30	
8	42.61	42.64	42.54	42.51	42.35	42.17	41.97	42.00	42.03	42.14	42.18	42.29	
9	42.59	42.70	42.54	42.52	42.32	42.23	41.98	42.01	42.05	42.15	42.13	42.27	
10	42.58	42.70	42.47	42.49	---	42.23	42.02	42.02	42.07	42.17	42.07	42.27	
11	42.58	42.67	42.46	42.46	---	42.22	42.02	42.04	42.08	42.17	42.09	42.30	
12	42.57	42.60	42.51	42.46	---	42.22	42.03	42.06	42.09	42.18	42.12	42.31	
13	42.53	42.57	42.51	42.47	---	42.23	41.99	42.09	42.10	42.17	42.12	42.23	
14	42.52	42.65	42.56	42.44	---	42.25	42.01	42.09	42.09	42.17	42.14	42.02	
15	42.51	42.66	42.60	42.49	---	42.30	42.03	42.06	42.09	42.20	42.16	42.00	
16	42.54	42.64	42.61	42.47	---	42.25	42.08	42.07	42.09	42.23	42.17	42.04	
17	42.57	42.62	42.58	42.48	---	42.16	42.08	42.09	42.11	42.25	42.17	42.06	
18	42.60	42.62	42.54	42.52	42.36	42.18	42.07	42.11	42.13	42.26	42.18	42.08	
19	42.59	42.61	42.50	42.49	42.40	42.19	42.07	42.12	42.15	42.26	42.19	42.11	
20	42.58	42.60	42.54	42.43	42.40	42.18	42.07	42.08	42.18	42.25	42.19	42.12	
21	42.59	42.61	42.59	42.42	42.36	42.19	42.08	42.02	42.19	42.26	42.20	42.12	
22	42.61	42.61	42.58	42.41	42.33	42.20	42.07	42.02	42.18	42.27	42.19	42.13	
23	42.61	42.56	42.53	42.40	42.35	42.12	42.01	41.99	42.17	42.26	42.18	42.14	
24	42.58	42.53	42.54	42.47	42.31	42.11	42.03	41.98	42.19	42.29	42.15	42.16	
25	42.58	42.50	42.55	42.42	42.31	42.13	42.09	42.00	42.19	42.29	42.15	42.18	
26	42.60	42.58	42.47	42.39	42.34	42.15	42.11	42.04	42.18	42.29	42.15	42.16	
27	42.60	42.58	42.51	42.43	42.31	42.12	42.08	42.06	42.20	42.30	42.13	42.16	
28	42.60	42.49	42.55	42.51	42.17	42.01	42.13	42.06	42.22	42.32	42.13	42.18	
29	42.60	42.54	42.52	42.48	---	42.02	42.13	42.07	42.18	42.36	42.14	42.18	
30	42.58	42.55	42.52	42.39	---	42.08	42.13	42.07	42.15	42.35	42.14	42.20	
31	42.59	---	42.52	42.40	---	42.10	---	42.05	---	42.22	42.16	---	
WTR YR	2005	MEAN	42.29	HIGH	41.97	LOW	42.70						

GROUND-WATER LEVELS
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", long 78°35'21", Hydrologic Unit 03040207, .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 station.

DATUM.--Land-surface datum is 47.28 ft above NGVD of 1929. Measuring point: Top of casing, 1.97 ft above land-surface datum.

REMARKS.-- Well is part of Brunswick County ground-water study. Water levels may be affected by local pumping.

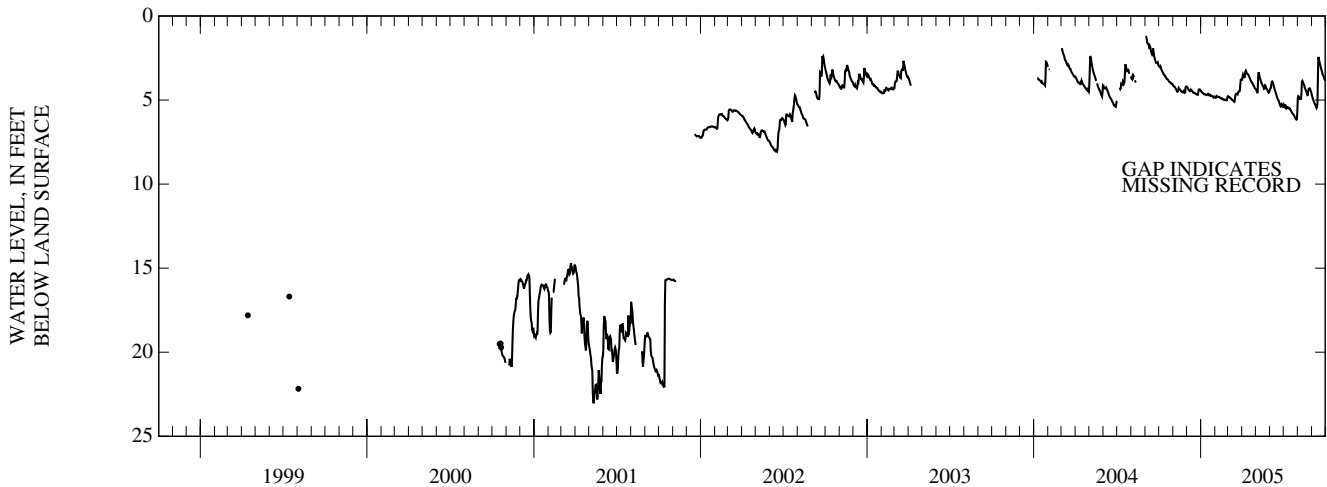
PERIOD OF RECORD.--April 1999 to current year. Continuous record began October 2000.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.05 ft below land-surface datum, Sept. 2, 2004; lowest water level recorded, 23.12 ft below land-surface datum, May 11, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.00	4.15	4.20	4.48	4.86	4.77	3.79	4.35	4.40	5.34	4.86	4.73
2	3.01	4.18	4.25	4.52	4.87	4.79	3.61	4.39	4.29	5.43	4.77	4.83
3	3.05	4.20	4.28	4.55	4.84	4.81	3.46	4.48	4.27	5.44	4.79	4.91
4	3.00	4.20	4.34	4.57	4.76	4.83	3.52	4.55	4.09	5.29	4.86	5.00
5	3.09	4.26	4.40	4.58	4.78	4.85	3.59	4.54	3.91	5.31	4.92	5.08
6	3.18	4.30	4.43	4.60	4.80	4.89	3.64	3.67	3.89	5.41	4.94	5.15
7	3.24	4.35	4.44	4.64	4.80	4.90	3.63	3.35	3.94	5.50	4.94	5.21
8	3.29	4.40	4.47	4.64	4.81	4.91	3.30	3.45	4.02	5.48	4.93	5.26
9	3.35	4.47	4.45	4.66	4.82	4.97	3.25	3.58	4.12	5.42	4.58	5.33
10	3.39	4.51	4.38	4.66	4.82	4.98	3.31	3.70	4.23	5.42	3.89	5.40
11	3.46	4.49	4.41	4.68	4.86	4.99	3.39	3.78	4.35	5.46	3.86	5.47
12	3.50	4.42	4.46	4.70	4.87	5.03	3.43	3.87	4.44	5.50	3.92	5.41
13	3.52	4.28	4.49	4.71	4.90	5.07	3.44	3.96	4.50	5.52	4.00	5.24
14	3.59	4.31	4.55	4.68	4.90	5.09	3.49	4.00	4.60	5.49	4.05	3.71
15	3.60	4.35	4.57	4.66	4.91	5.11	3.51	4.08	4.69	5.51	4.12	2.44
16	3.64	4.38	4.57	4.63	4.90	5.01	3.60	4.15	4.78	5.58	4.24	2.52
17	3.71	4.42	4.57	4.67	4.93	4.72	3.65	4.19	4.88	5.64	4.32	2.67
18	3.75	4.46	4.58	4.70	4.96	4.65	3.71	4.25	4.93	5.69	4.38	2.79
19	3.75	4.49	4.59	4.67	4.99	4.63	3.78	4.34	5.00	5.73	4.44	2.90
20	3.77	4.52	4.64	4.68	4.99	4.63	3.85	4.31	5.03	5.79	4.53	3.01
21	3.82	4.52	4.65	4.73	4.98	4.65	3.90	4.12	5.12	5.83	4.63	3.12
22	3.86	4.54	4.66	4.71	4.99	4.67	3.95	4.13	5.22	5.85	4.71	3.22
23	3.91	4.50	4.65	4.75	5.00	4.56	3.96	4.21	5.31	5.88	4.70	3.31
24	3.92	4.45	4.68	4.76	4.98	4.51	4.03	4.32	5.36	5.93	4.46	3.42
25	3.94	4.48	4.68	4.76	5.00	4.49	4.10	4.34	5.31	5.99	4.33	3.51
26	3.95	4.57	4.51	4.77	5.02	4.50	4.15	4.39	5.26	6.04	4.32	3.56
27	4.01	4.55	4.37	4.83	5.01	4.42	4.16	4.46	5.33	6.09	4.31	3.64
28	4.04	4.26	4.36	4.85	4.80	4.06	4.25	4.52	5.39	6.13	4.35	3.72
29	4.03	4.21	4.36	4.82	---	3.79	4.30	4.56	5.36	6.16	4.42	3.78
30	4.03	4.20	4.40	4.79	---	3.78	4.33	4.54	5.27	6.14	4.51	3.86
31	4.09	---	4.44	4.84	---	3.78	---	4.46	---	5.64	4.61	---

WTR YR 2005 MEAN 4.46 HIGH 2.44 LOW 6.16



GROUND-WATER LEVELS

BUNCOMBE COUNTY

352840082381001. County number, BU-068; DENR Bent Creek Research Station MW-1S (Regolith well).

LOCATION.--Lat 35°28'39", long 82°38'10", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 4 in., cased to 8 ft, screened interval from 8 to 22 ft, sand filter packed from 6 to 22 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,200.99 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.95 ft above land-surface datum.

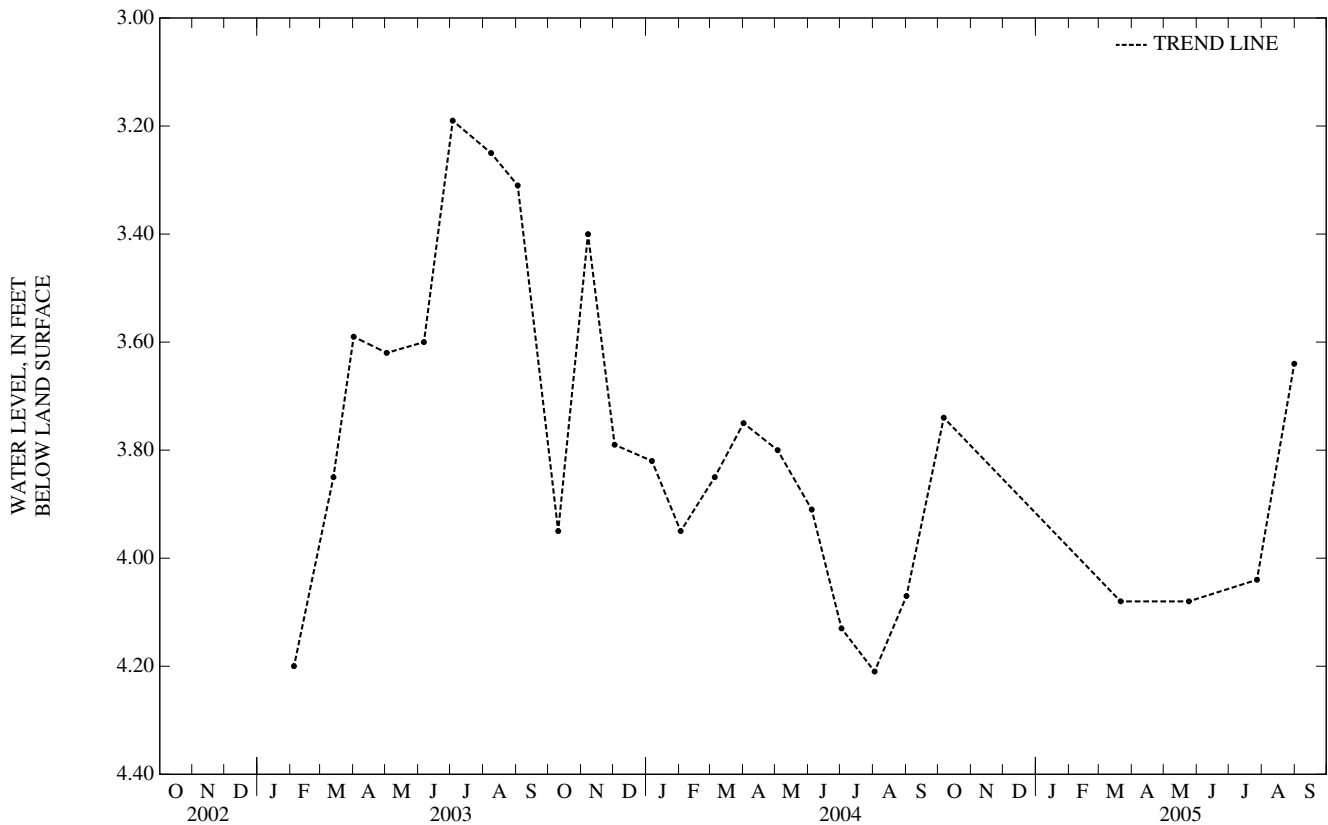
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.19 ft below land-surface datum, July 3, 2003; lowest water level measured, 4.21 ft below land-surface datum, Aug. 2, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	3.74	MAR 21	4.08	MAY 24	4.08	JUL 27	4.04	AUG 31	3.64



BUNCOMBE COUNTY—Continued

352840082381002. County number, BU-069; DENR Bent Creek Research Station MW-11 (Transition Zone well).

LOCATION.--Lat 35°28'40", long 82°38'10", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

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 from 32 to 53 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,202.52 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.77 ft above land-surface datum.

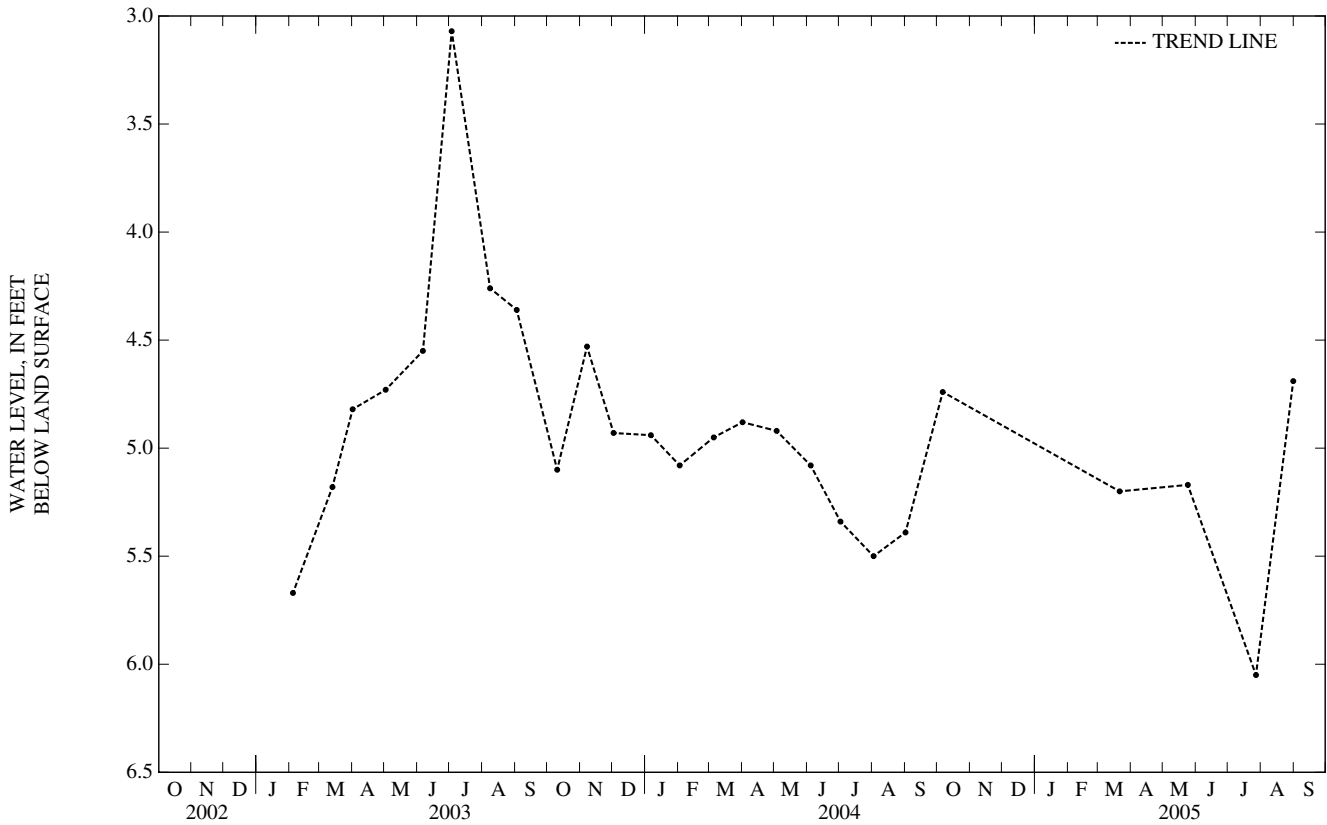
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.07 ft below land-surface datum, July 3, 2003; lowest water level measured, 5.67 ft below land-surface datum, Feb. 4, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	4.74	MAR 21	5.20	MAY 24	5.17	JUL 27	6.05	AUG 31	4.69



GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352840082381003. County number, BU-070; DENR Bent Creek Research Station MW-1D (Bedrock well).

LOCATION.--Lat 35°28'41", long 82°38'12", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 221 ft, diameter 6 in., cased to 55 ft, open hole from 55 to 221 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,201.77 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.50 ft above land-surface datum.

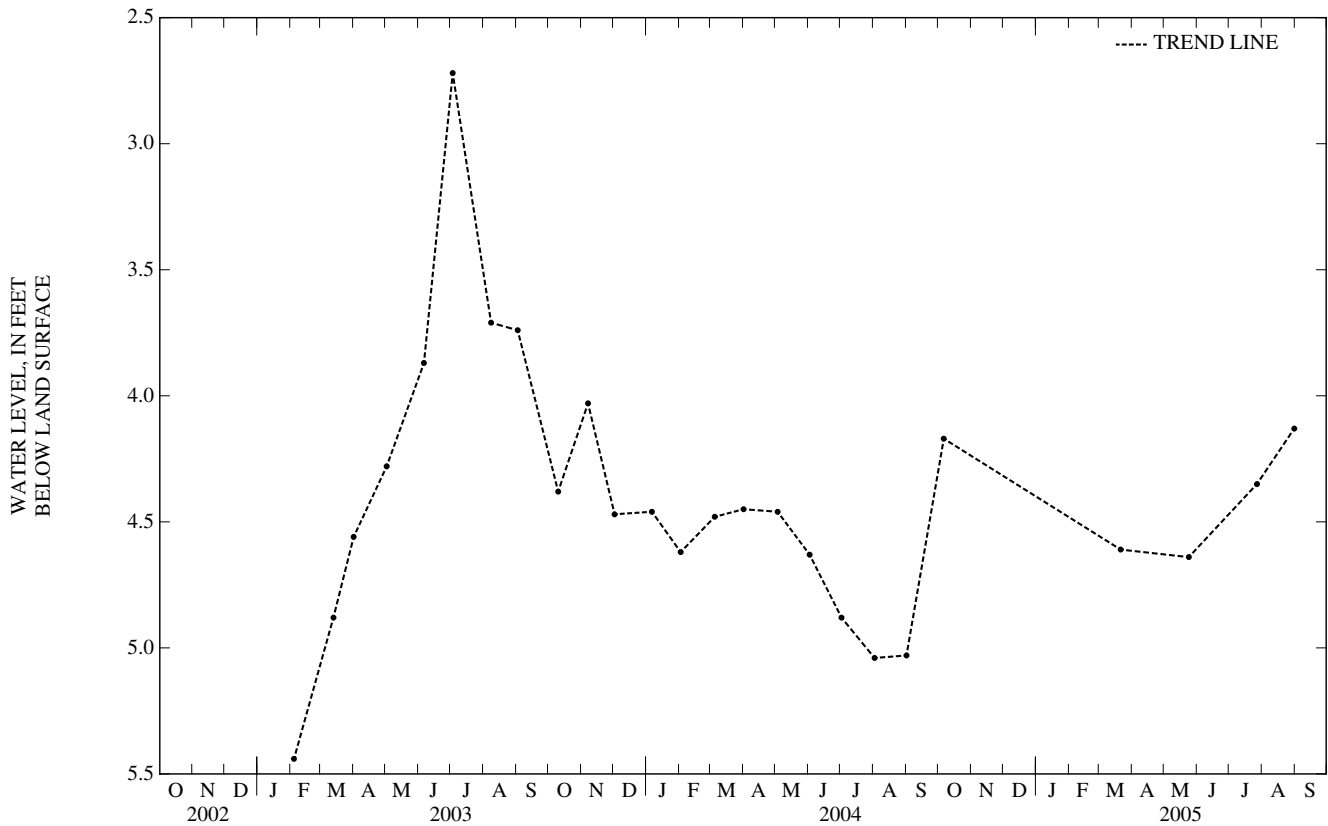
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.72 ft below land-surface datum, July 3, 2003; lowest water level measured, 5.44 ft below land-surface datum, Feb. 4, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	4.17	MAR 21	4.61	MAY 24	4.64	JUL 27	4.35	AUG 31	4.13



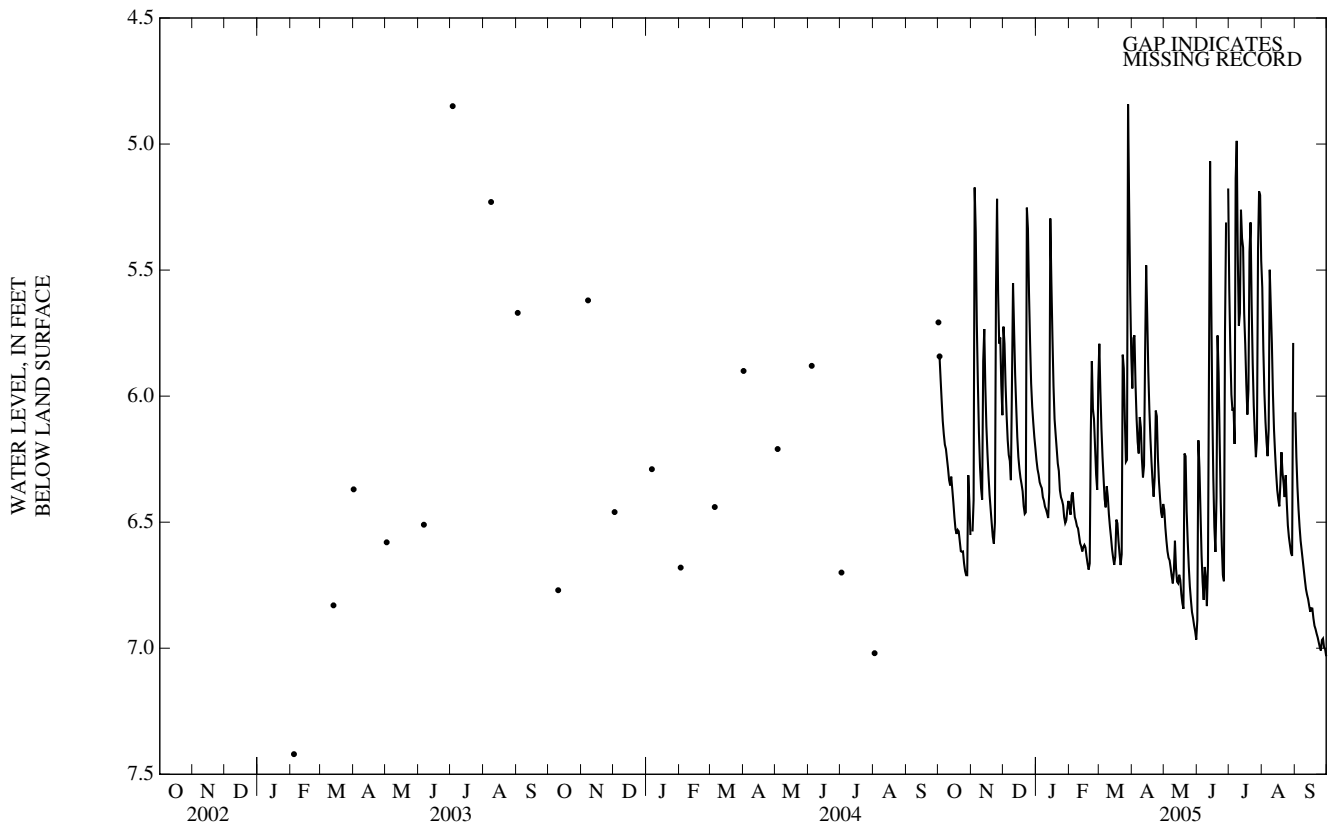
GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352854082380501. County number, BU-071; DENR Bent Creek Research Station MW-2S (Regolith well).

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.71	---	5.72	6.25	6.44	5.79	5.97	6.45	6.89	5.57	5.57	6.06
2	5.84	6.54	5.79	6.29	6.47	5.98	5.77	6.52	6.18	5.82	5.82	6.24
3	5.93	6.41	5.96	6.31	6.39	6.13	5.76	6.57	6.28	5.99	5.99	6.36
4	6.02	5.17	6.08	6.34	6.38	6.24	5.95	6.62	6.46	6.06	6.10	6.45
5	6.10	5.35	6.17	6.35	6.44	6.32	6.09	6.64	6.63	6.05	6.18	6.52
6	6.15	5.71	6.23	6.37	6.48	6.41	6.18	6.65	6.74	6.19	6.24	6.57
7	6.19	5.95	6.26	6.40	6.50	6.44	6.23	6.68	6.81	5.14	6.13	6.61
8	6.21	6.15	6.33	6.42	6.52	6.36	6.08	6.72	6.68	4.99	5.50	6.65
9	6.25	6.28	5.95	6.44	6.52	6.40	6.12	6.74	6.73	5.44	5.65	6.69
10	6.29	6.37	5.55	6.45	6.55	6.47	6.25	6.69	6.83	5.72	5.79	6.73
11	6.33	6.41	5.74	6.47	6.58	6.52	6.32	6.57	6.67	5.67	5.99	6.77
12	6.35	5.86	5.92	6.48	6.60	6.56	6.28	6.68	5.90	5.26	6.13	6.79
13	6.32	5.73	6.04	6.38	6.62	6.61	5.83	6.74	5.07	5.37	6.23	6.80
14	6.37	5.96	6.16	5.30	6.60	6.64	5.48	6.74	5.58	5.41	6.31	6.83
15	6.42	6.12	6.24	5.54	6.59	6.67	5.68	6.71	6.02	5.67	6.37	6.86
16	6.48	6.23	6.29	5.76	6.60	6.64	5.90	6.73	6.32	5.79	6.41	6.84
17	6.53	6.32	6.32	5.96	6.64	6.49	6.05	6.79	6.52	5.95	6.44	6.84
18	6.55	6.39	6.35	6.09	6.66	6.50	6.17	6.82	6.62	6.07	6.35	6.88
19	6.53	6.45	6.38	6.15	6.69	6.57	6.26	6.84	6.40	5.97	6.22	6.91
20	6.54	6.50	6.44	6.21	6.66	6.63	6.34	6.23	5.76	5.43	6.30	6.92
21	6.58	6.56	6.47	6.27	6.15	6.67	6.40	6.24	5.91	5.31	6.35	6.94
22	6.62	6.58	6.46	6.30	5.86	6.63	6.32	6.46	6.18	5.63	6.40	6.96
23	6.62	6.50	5.25	6.37	6.05	5.84	6.06	6.58	6.42	5.87	6.31	6.98
24	6.62	5.58	5.34	6.40	6.09	5.89	6.08	6.68	6.59	6.04	6.42	7.00
25	6.66	5.22	5.59	6.41	6.20	6.10	6.24	6.75	6.71	6.15	6.51	7.01
26	6.69	5.59	5.78	6.43	6.31	6.26	6.34	6.81	6.73	6.24	6.56	6.97
27	6.71	5.79	5.95	6.48	6.37	6.25	6.40	6.86	5.74	6.17	6.59	6.96
28	6.71	5.77	6.04	6.50	5.95	4.84	6.46	6.88	5.31	5.42	6.62	7.00
29	6.31	5.96	6.10	6.49	---	5.24	6.48	6.91	---	5.19	6.63	7.00
30	6.42	6.08	6.16	6.45	---	5.59	6.43	6.93	5.18	5.20	5.79	7.03
31	6.55	---	6.21	6.42	---	5.84	---	6.97	---	5.46	---	---

WTR YR 2005 MEAN 6.26 HIGH 4.84 LOW 7.03



352854082380501 BU-071 DENR Bent Creek Research Station MW-2S (Regolith Well)—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	---	13.9	13.4	13.0	11.6	11.5	11.7	11.6	12.7	13.1	13.2
2	12.9	---	13.9	13.4	13.0	11.8	11.4	11.8	11.6	12.5	12.8	12.9
3	12.9	---	13.8	13.4	12.9	11.9	11.2	11.8	11.6	12.3	12.6	12.9
4	12.9	---	13.8	13.4	12.9	12.0	11.4	11.8	11.6	12.2	12.5	12.8
5	---	---	13.7	13.4	12.9	12.1	11.6	11.8	11.6	12.3	12.4	12.8
6	---	---	13.6	13.4	12.9	12.2	11.6	11.8	11.6	12.2	12.4	12.8
7	---	---	13.6	13.3	12.9	12.2	11.7	11.8	11.6	12.8	12.4	12.8
8	13.2	---	13.6	13.3	12.9	12.1	11.6	11.8	11.6	13.3	13.2	12.8
9	13.2	---	13.7	13.3	12.9	12.0	11.6	11.8	11.6	13.0	13.2	12.8
10	13.2	---	13.7	13.3	12.9	12.1	11.7	11.8	11.6	12.7	13.1	12.8
11	13.2	---	13.7	13.3	12.9	12.2	11.7	11.8	11.6	12.7	12.8	12.8
12	13.2	---	13.7	13.3	12.9	12.2	11.8	11.8	11.8	13.3	12.6	12.8
13	13.2	---	13.7	13.3	12.9	12.2	11.4	11.8	12.2	13.2	12.6	12.8
14	13.2	---	13.6	12.5	12.9	12.2	11.2	11.8	12.1	13.3	12.5	12.8
15	13.2	---	13.6	12.4	12.8	12.3	11.3	11.8	11.9	13.0	12.5	12.8
16	13.2	---	13.6	12.6	12.8	12.2	11.4	11.8	11.8	12.9	12.5	12.8
17	13.2	---	13.6	12.8	12.8	12.1	11.5	11.8	11.8	12.6	12.5	12.8
18	13.2	---	13.6	12.9	12.8	12.0	11.6	11.8	11.7	12.4	12.5	12.9
19	13.2	---	13.5	12.9	12.8	12.1	11.7	11.8	11.8	12.5	12.6	12.9
20	13.2	---	13.5	12.9	12.8	12.1	11.7	11.7	12.3	13.4	12.6	12.9
21	13.2	---	13.5	13.0	12.4	12.1	11.8	11.6	12.3	13.6	12.6	12.9
22	13.2	---	13.5	13.0	11.9	12.2	11.7	11.7	12.2	13.3	12.6	12.9
23	13.2	---	13.3	13.0	12.1	11.4	11.5	11.7	12.0	13.0	12.7	12.9
24	13.2	13.9	13.2	13.0	12.1	11.3	11.5	11.6	11.9	12.7	12.6	12.9
25	13.2	14.1	13.2	13.0	12.1	11.5	11.6	11.6	11.8	12.5	12.6	12.9
26	13.2	14.0	13.3	13.0	12.2	11.7	11.7	11.6	11.8	12.4	12.6	13.0
27	13.3	13.9	13.3	13.0	12.3	11.7	11.7	11.6	---	---	12.6	13.0
28	13.3	14.0	13.4	13.1	11.9	11.1	11.7	11.6	---	12.8	12.6	13.0
29	13.5	13.9	13.4	13.1	---	11.0	11.8	11.6	---	13.2	12.6	13.0
30	13.5	13.8	13.4	13.1	---	11.2	11.8	11.6	12.9	13.4	13.2	13.0
31	13.4	---	13.4	13.1	---	11.4	---	11.6	---	13.1	13.7	---
MEAN	---	---	13.6	13.1	12.7	11.9	11.6	11.7	---	---	12.7	12.9
MAX	---	---	13.9	13.4	13.0	12.3	11.8	11.8	---	---	13.7	13.2
MIN	---	---	13.2	12.4	11.9	11.0	11.2	11.6	---	---	12.4	12.8

GROUND-WATER LEVELS

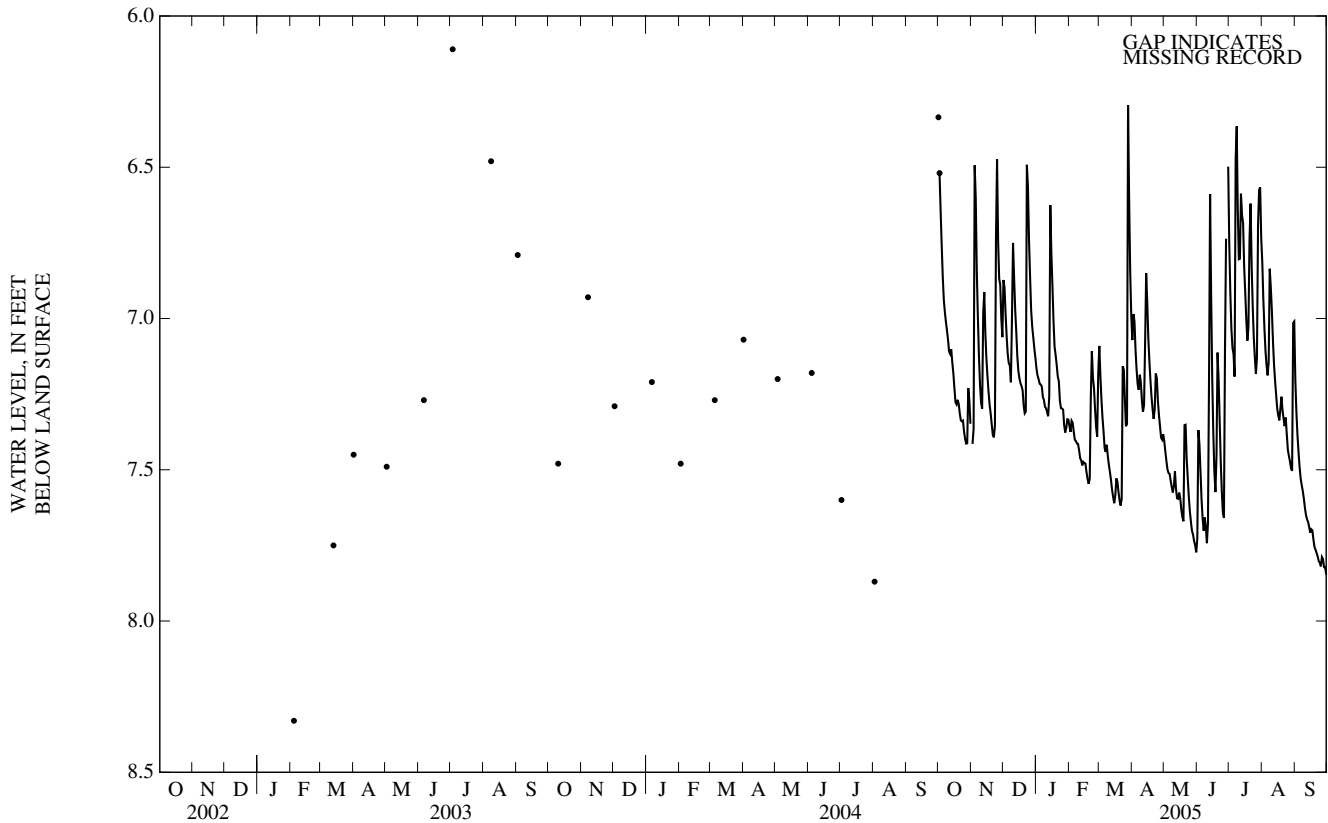
BUNCOMBE COUNTY—Continued

352854082380502. County number, BU-072; DENR Bent Creek Research Station MW-2I (Transition Zone well).

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.33	---	6.87	7.16	7.36	7.09	7.07	7.41	7.73	6.75	6.81	7.20
2	6.52	7.41	6.90	7.19	7.37	7.19	6.99	7.44	7.37	6.92	6.94	7.31
3	6.64	7.36	6.98	7.20	7.34	7.27	7.01	7.47	7.42	7.03	7.03	7.38
4	6.75	6.49	7.06	7.22	7.34	7.33	7.10	7.50	7.51	7.10	7.11	7.44
5	6.86	6.60	7.12	7.22	7.37	7.37	7.17	7.51	7.60	7.12	7.16	7.49
6	6.94	6.85	7.15	7.22	7.40	7.43	7.22	7.51	7.66	7.19	7.19	7.53
7	6.98	7.00	7.16	7.26	7.41	7.44	7.24	7.54	7.70	6.47	7.14	7.55
8	7.01	7.12	7.21	7.27	7.41	7.42	7.19	7.56	7.66	6.36	6.84	7.57
9	7.04	7.22	7.00	7.29	7.41	7.46	7.21	7.58	7.69	6.64	6.90	7.59
10	7.07	7.28	6.75	7.30	7.44	7.48	7.27	7.55	7.74	6.80	6.97	7.63
11	7.11	7.30	6.86	7.31	7.46	7.51	7.31	7.50	7.68	6.80	7.07	7.65
12	7.12	6.98	6.97	7.32	7.47	7.54	7.29	7.56	7.20	6.59	7.15	7.66
13	7.10	6.91	7.04	7.26	7.49	7.57	7.08	7.59	6.59	6.66	7.21	7.67
14	7.15	7.05	7.12	6.62	7.47	7.59	6.85	7.60	6.93	6.69	7.25	7.69
15	7.18	7.13	7.17	6.78	7.48	7.61	6.94	7.58	7.19	6.83	7.30	7.71
16	7.23	7.19	7.20	6.89	7.48	7.58	7.06	7.60	7.38	6.91	7.32	7.70
17	7.28	7.24	7.21	7.01	7.51	7.53	7.14	7.63	7.51	7.00	7.34	7.70
18	7.28	7.28	7.22	7.09	7.53	7.54	7.20	7.66	7.57	7.07	7.30	7.73
19	7.27	7.31	7.24	7.12	7.55	7.57	7.26	7.67	7.45	7.03	7.26	7.76
20	7.28	7.35	7.29	7.15	7.53	7.60	7.30	7.35	7.11	6.74	7.30	7.76
21	7.31	7.38	7.31	7.19	7.26	7.62	7.33	7.35	7.20	6.62	7.33	7.78
22	7.34	7.39	7.31	7.21	7.11	7.60	7.30	7.46	7.34	6.82	7.36	7.79
23	7.34	7.35	6.49	7.27	7.19	7.16	7.18	7.53	7.47	6.96	7.33	7.80
24	7.34	6.73	6.56	7.30	7.23	7.17	7.20	7.59	7.57	7.06	7.38	7.81
25	7.37	6.47	6.74	7.30	7.30	7.26	7.27	7.64	7.64	7.13	7.43	7.82
26	7.40	6.74	6.86	7.30	7.36	7.36	7.32	7.67	7.66	7.18	7.45	7.79
27	7.41	6.87	6.97	7.35	7.39	7.35	7.36	7.70	7.10	7.13	7.47	7.80
28	7.41	6.89	7.03	7.38	7.18	6.29	7.39	7.71	6.74	6.69	7.50	7.82
29	7.23	7.00	7.06	7.36	---	6.61	7.40	7.74	---	6.58	7.50	7.82
30	7.27	7.06	7.10	7.33	---	6.85	7.38	7.75	6.50	6.57	7.01	7.85
31	7.35	---	7.13	7.33	---	6.99	---	7.77	---	6.73	7.01	---

WTR YR 2005 MEAN 7.25 HIGH 6.29 LOW 7.85



352854082380502 BU-072 DENR Bent Creek Research Station MW-2I (Intermediate Zone Well)—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	---	13	12	11	43	29	19	12	33	40	24
2	12	11	13	12	11	37	34	17	34	27	30	20
3	11	12	12	12	12	32	40	16	34	23	24	19
4	11	17	12	12	13	27	32	15	27	21	20	17
5	11	15	12	12	12	22	27	14	20	24	19	16
6	11	13	12	12	11	19	23	14	17	20	17	15
7	12	13	12	12	11	18	21	14	15	45	20	15
8	12	12	12	12	11	21	25	13	18	53	44	14
9	12	12	13	12	11	22	27	13	20	35	39	12
10	12	12	14	12	11	18	22	13	15	25	33	12
11	12	12	13	12	11	16	20	18	20	25	27	11
12	12	14	13	12	11	16	19	15	44	45	22	11
13	12	14	12	12	11	15	35	14	74	39	20	11
14	12	13	12	19	11	14	48	13	59	40	18	11
15	12	13	12	17	11	13	42	14	43	29	17	10
16	12	12	12	15	11	13	34	14	32	26	17	10
17	12	12	12	14	11	20	28	14	24	21	16	10
18	12	12	12	13	11	22	24	13	21	18	17	11
19	12	12	12	12	11	18	21	12	27	19	22	10
20	12	12	12	12	11	15	19	28	58	40	20	10
21	12	12	12	12	22	15	18	33	55	46	20	10
22	12	12	12	12	37	15	19	24	42	33	18	11
23	12	12	16	12	30	43	30	20	31	26	21	11
24	12	16	14	12	27	45	30	16	24	21	19	11
25	12	15	12	12	25	37	25	14	19	17	17	11
26	12	13	13	12	22	30	21	14	17	16	16	11
27	12	13	12	12	19	27	19	13	---	16	16	11
28	12	13	12	12	33	62	18	12	---	44	15	11
29	12	13	12	12	---	52	17	12	---	53	15	11
30	13	12	12	11	---	42	18	12	47	52	30	11
31	12	---	12	11	---	33	---	11	---	42	29	---
MEAN	12	---	12	13	16	27	26	16	---	31	23	13
MAX	13	---	16	19	37	62	48	33	---	53	44	24
MIN	11	---	12	11	11	13	17	11	---	16	15	10

352854082380502 BU-072 DENR Bent Creek Research Station MW-2I (Intermediate Zone Well)—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.2	5.2	5.3	5.4	5.3	5.3	5.3	5.2	5.3	5.3	5.2
2	5.2	5.2	5.2	5.3	5.4	5.3	5.3	5.2	5.3	5.3	5.3	5.2
3	5.2	5.2	5.2	5.3	5.4	5.3	5.3	5.2	5.3	5.3	5.3	5.2
4	5.2	5.2	5.2	5.3	5.5	5.3	5.3	5.2	5.3	5.3	5.3	5.2
5	5.2	5.2	5.2	5.3	5.4	5.3	5.3	5.2	5.2	5.3	5.2	5.2
6	---	5.2	5.2	5.3	5.3	5.3	5.2	5.2	5.2	5.3	5.2	5.2
7	5.2	5.2	5.2	5.3	5.3	5.3	5.2	5.2	5.2	5.4	5.2	5.2
8	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.2	5.2	5.4	5.3	5.2
9	5.2	5.2	5.2	5.3	5.3	5.3	5.3	5.2	5.2	5.3	5.3	5.2
10	5.2	5.2	5.2	5.3	5.3	5.3	5.2	5.1	5.2	5.3	5.2	5.2
11	5.2	5.2	5.2	5.3	5.3	5.3	5.2	5.2	5.3	5.3	5.2	5.1
12	5.2	5.2	5.2	5.3	5.3	5.3	5.2	5.2	5.3	5.4	5.2	5.1
13	5.2	5.2	5.3	5.3	5.3	5.3	5.3	5.2	5.4	5.3	5.2	5.1
14	5.2	5.2	5.3	5.4	5.4	5.2	5.3	5.2	5.3	5.4	5.2	5.1
15	5.2	5.2	5.3	5.4	5.4	5.2	5.3	5.2	5.3	5.3	5.2	5.1
16	5.2	5.2	5.3	5.4	5.4	5.2	5.3	5.2	5.3	5.3	5.2	5.1
17	5.2	5.2	5.3	5.4	5.4	5.2	5.3	5.2	5.3	5.3	5.2	5.1
18	5.2	5.2	5.3	5.3	5.4	5.2	5.3	5.2	5.3	5.3	5.2	5.1
19	5.2	5.2	5.3	5.3	5.4	5.2	5.2	5.2	5.3	5.3	5.2	5.2
20	5.2	5.2	5.3	5.4	5.4	5.2	5.2	5.2	5.3	5.4	5.2	5.1
21	5.2	5.2	5.3	5.4	5.4	5.2	5.2	5.2	5.3	5.4	5.2	5.2
22	5.2	5.2	5.3	5.4	5.4	5.2	5.2	5.2	5.3	5.3	5.2	5.2
23	5.2	---	5.4	5.4	5.4	5.3	5.3	5.2	5.3	5.3	5.2	5.2
24	5.2	5.2	5.3	5.4	5.3	5.3	5.3	5.2	5.3	5.3	5.2	5.2
25	5.2	5.2	5.3	5.4	5.3	5.3	5.3	5.2	5.3	5.3	5.2	5.2
26	5.2	5.2	5.3	5.4	5.3	5.3	5.3	5.2	5.2	5.3	5.2	5.2
27	5.2	5.2	5.3	5.4	5.3	5.3	5.3	5.2	---	---	5.2	5.2
28	5.2	5.2	5.3	5.4	5.3	5.3	5.2	5.2	---	5.3	5.2	5.2
29	5.2	5.2	5.3	5.4	---	5.3	5.2	5.2	---	5.3	5.2	5.2
30	5.2	5.2	5.3	5.4	---	5.3	5.2	5.2	5.4	5.3	5.2	5.2
31	5.2	---	5.3	5.4	---	5.3	---	5.2	---	5.3	5.2	---
MEAN	---	---	5.3	5.4	5.4	5.3	5.3	5.2	---	---	5.2	5.2
MAX	---	---	5.4	5.4	5.5	5.3	5.3	5.3	---	---	5.3	5.2
MIN	---	---	5.2	5.3	5.3	5.2	5.2	5.1	---	---	5.2	5.1

352854082380502 BU-072 DENR Bent Creek Research Station MW-2I (Intermediate Zone Well)—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.1	12.1	12.2	12.3	12.3	12.4	12.3	12.3	12.2	12.0	12.1	12.1
2	12.1	12.1	12.2	12.3	12.3	12.4	12.3	12.3	12.1	12.1	12.1	12.1
3	12.1	12.1	12.2	12.3	12.4	12.4	12.2	12.3	12.1	12.1	12.1	12.1
4	12.1	12.1	12.2	12.3	12.4	12.4	12.3	12.3	12.1	12.1	12.1	12.1
5	12.1	12.1	12.2	12.3	12.4	12.4	12.3	12.3	12.2	12.1	12.1	12.1
6	12.1	12.1	12.2	12.3	12.4	12.4	12.3	12.3	12.2	12.1	12.1	12.1
7	12.1	12.1	12.2	12.3	12.4	12.4	12.3	12.3	12.2	12.0	12.1	12.1
8	12.1	12.1	12.2	12.3	12.4	12.4	12.3	12.3	12.2	12.0	12.1	12.1
9	12.1	12.1	12.2	12.3	12.4	12.4	12.3	12.3	12.2	12.1	12.1	12.1
10	12.1	12.2	12.2	12.3	12.4	12.4	12.3	12.3	12.2	12.1	12.1	12.1
11	12.1	12.2	12.2	12.3	12.4	12.4	12.3	12.2	12.2	12.1	12.1	12.1
12	12.1	12.2	12.2	12.3	12.4	12.4	12.3	12.3	12.0	12.0	12.1	12.1
13	12.1	12.2	12.2	12.3	12.4	12.4	12.2	12.3	11.8	12.1	12.1	12.1
14	12.1	12.2	12.2	12.3	12.4	12.4	12.1	12.3	11.9	12.0	12.1	12.1
15	12.1	12.2	12.2	12.3	12.4	12.4	12.2	12.3	12.0	12.1	12.1	12.1
16	12.1	12.2	12.2	12.3	12.4	12.4	12.2	12.3	12.1	12.1	12.1	12.1
17	12.1	12.2	12.2	12.3	12.4	12.4	12.2	12.3	12.1	12.1	12.1	12.1
18	12.1	12.2	12.2	12.3	12.4	12.4	12.3	12.3	12.1	12.1	12.1	12.1
19	12.1	12.2	12.3	12.3	12.4	12.4	12.3	12.3	12.1	12.1	12.1	12.1
20	12.1	12.2	12.3	12.3	12.4	12.4	12.3	12.2	11.9	12.1	12.1	12.1
21	12.1	12.2	12.3	12.3	12.4	12.4	12.3	12.1	12.0	12.1	12.1	12.1
22	12.1	12.2	12.3	12.3	12.4	12.4	12.3	12.2	12.0	12.1	12.1	12.1
23	12.1	12.2	12.3	12.3	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.1
24	12.1	12.2	12.3	12.3	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.1
25	12.1	12.2	12.3	12.3	12.4	12.3	12.2	12.2	12.1	12.1	12.1	12.1
26	12.1	12.2	12.3	12.3	12.4	12.3	12.3	12.2	12.1	12.1	12.1	12.1
27	12.1	12.2	12.3	12.3	12.4	12.3	12.3	12.2	---	12.1	12.1	12.1
28	12.1	12.2	12.3	12.3	12.4	12.2	12.3	12.2	---	12.1	12.1	12.1
29	12.1	12.2	12.3	12.3	---	12.2	12.3	12.2	---	12.1	12.1	12.1
30	12.1	12.2	12.3	12.3	---	12.2	12.3	12.2	12.0	12.1	12.1	12.1
31	12.1	---	12.3	12.3	---	12.3	---	12.2	---	12.1	---	---
MEAN	12.1	12.2	12.2	12.3	12.4	12.4	12.3	12.3	---	12.1	---	12.1
MAX	12.1	12.2	12.3	12.3	12.4	12.4	12.3	12.3	---	12.1	---	12.1
MIN	12.1	12.1	12.2	12.3	12.3	12.2	12.1	12.1	---	12.0	---	12.1

352854082380502 BU-072 DENR Bent Creek Research Station MW-2I (Intermediate Zone Well)—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	8.0	7.5	7.7	7.8	4.6	5.4	6.2	7.3	4.4	4.8	6.5
2	7.1	7.9	7.4	7.7	7.9	5.1	5.0	6.5	5.2	4.9	5.5	6.8
3	7.2	7.9	7.3	7.7	7.9	5.5	4.6	6.6	5.1	5.2	5.9	6.9
4	7.2	7.4	7.3	7.7	7.8	5.9	5.1	6.7	5.8	5.4	6.3	7.1
5	7.3	7.6	7.3	7.8	7.9	6.4	5.4	6.8	6.4	5.2	6.5	7.1
6	---	7.6	7.4	7.8	7.9	6.7	5.7	6.9	6.7	5.7	6.6	7.2
7	7.3	7.6	7.4	7.8	7.9	6.8	6.0	6.9	6.9	3.9	6.4	7.3
8	7.4	7.6	7.5	7.9	7.9	6.5	5.6	7.0	6.5	3.5	4.4	7.4
9	7.4	7.5	7.5	7.9	7.9	6.3	5.5	7.1	6.4	4.6	5.0	7.5
10	7.5	7.5	7.5	7.9	7.9	6.7	5.9	7.1	6.8	5.3	5.4	7.5
11	7.5	7.5	7.5	7.9	7.9	7.0	6.1	6.6	6.3	5.4	5.9	7.6
12	7.6	7.4	7.5	8.0	7.9	7.1	6.2	6.9	4.2	4.1	6.3	7.6
13	7.6	7.5	7.4	8.0	7.9	7.2	4.8	7.0	1.8	4.5	6.5	7.7
14	7.6	7.5	7.4	7.3	7.9	7.3	3.8	7.1	3.1	4.5	6.7	7.7
15	7.7	7.5	7.5	7.5	8.0	7.3	4.4	7.0	4.3	5.2	6.8	7.8
16	7.7	7.4	7.5	7.7	8.0	7.3	4.9	7.0	5.1	5.6	6.9	7.8
17	7.7	7.4	7.5	7.7	7.9	6.6	5.3	7.1	5.6	6.0	7.0	7.8
18	7.7	7.4	7.6	7.7	7.9	6.3	5.7	7.2	5.9	6.2	6.9	7.8
19	7.7	7.5	7.6	7.7	7.9	6.7	5.9	7.3	5.4	6.2	6.5	7.8
20	7.7	7.5	7.6	7.7	8.0	7.0	---	5.8	3.0	4.7	6.7	7.8
21	7.8	7.6	7.7	7.7	6.8	---	6.2	5.3	3.3	4.4	6.8	7.8
22	7.8	7.6	7.7	7.8	5.2	7.4	6.1	6.0	4.2	5.3	6.9	7.8
23	7.8	---	7.4	7.8	5.9	4.5	5.2	6.5	5.0	5.9	6.6	7.8
24	7.8	7.4	7.6	7.8	6.1	4.4	5.2	6.8	5.6	6.3	6.9	7.8
25	7.8	7.4	7.6	7.8	6.3	5.1	5.6	7.0	5.9	6.7	7.1	7.9
26	7.8	7.6	7.6	7.8	6.7	5.7	6.0	7.1	6.1	6.8	7.1	7.9
27	7.8	7.5	7.6	---	6.9	5.9	6.2	7.1	---	6.8	7.2	7.9
28	7.8	7.5	7.5	7.7	5.5	2.9	6.3	7.2	---	4.4	7.3	7.9
29	7.9	7.5	7.6	7.8	---	3.8	6.4	7.2	---	3.8	7.4	7.9
30	7.8	7.4	7.6	7.8	---	4.5	6.3	7.2	3.6	4.0	6.0	7.9
31	7.8	---	7.6	7.8	---	5.1	---	7.3	---	4.6	6.1	---
MEAN	---	---	7.5	---	7.4	---	---	6.8	---	5.1	6.4	7.6
MAX	---	---	7.7	---	8.0	---	---	7.3	---	6.8	7.4	7.9
MIN	---	---	7.3	---	5.2	---	---	5.3	---	3.5	4.4	6.5

352854082380502 BU-072 DENR Bent Creek Research Station MW-2I (Intermediate Zone Well)—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	80	75	77	78	46	54	62	73	44	48	65
2	71	79	74	77	79	51	50	65	52	49	55	68
3	72	79	73	77	79	55	46	66	51	52	59	69
4	72	74	73	77	78	59	51	67	58	54	63	71
5	73	76	74	78	79	64	54	68	64	52	65	71
6	---	76	74	78	79	67	57	69	67	57	66	72
7	73	76	74	78	79	68	60	69	69	39	64	73
8	74	76	75	79	79	65	56	70	65	35	44	74
9	74	75	75	79	79	64	55	71	64	46	50	75
10	75	75	75	79	79	67	59	71	68	53	54	76
11	75	75	75	79	79	70	61	66	63	54	59	76
12	76	74	75	80	79	71	62	69	42	41	63	76
13	76	75	74	80	79	72	48	70	18	45	65	77
14	76	75	74	73	79	73	38	71	31	45	67	77
15	77	75	75	75	80	73	44	70	43	52	68	78
16	77	74	75	77	80	73	49	70	51	56	69	78
17	77	74	75	77	79	66	53	71	56	60	70	78
18	77	74	76	77	79	63	56	72	59	62	69	78
19	77	75	76	77	79	67	59	73	54	62	65	78
20	77	75	76	77	80	70	---	58	30	47	67	78
21	78	76	77	77	68	72	62	53	33	44	68	78
22	78	76	77	78	52	74	61	60	42	53	69	78
23	78	---	74	78	59	45	52	65	50	59	66	78
24	78	74	76	78	61	44	52	68	56	63	69	78
25	78	74	76	78	63	51	56	70	59	67	71	79
26	78	76	76	78	67	57	60	71	61	68	71	79
27	78	75	76	78	69	59	62	71	---	69	72	79
28	78	75	76	77	55	29	63	72	---	44	73	79
29	79	75	76	78	---	38	64	72	---	38	74	79
30	78	74	76	78	---	45	64	72	36	40	60	79
31	78	---	76	79	---	51	---	73	---	46	---	---
MEAN	---	---	75	78	74	60	---	68	---	51	---	76
MAX	---	---	77	80	80	74	---	73	---	69	---	79
MIN	---	---	73	73	52	29	---	53	---	35	---	65

GROUND-WATER LEVELS

90

BUNCOMBE COUNTY—Continued

352854082380503. County number, BU-073; DENR Bent Creek Research Station MW-2D (Bedrock well).

LOCATION.--Lat 35°28'54", long 82°38'06", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

WATER-LEVEL RECORDS

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6 in., cased to 53 ft, open hole from 53 to 300 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 2,190.15 ft above NGVD of 1929. Measuring point: Top of 2-inch steel riser casing, 9.55 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains groundwater project.

PERIOD OF RECORD.--February 2003 to current year. Continuous record began August 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.91 ft above land-surface datum, Aug. 20, 2004; lowest water level recorded, 8.35 ft above land-surface datum, July 7, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	---	---	---	---	---	---	---	---	---	---	---	-7.13	
2	---	---	---	---	---	---	---	---	---	---	---	-7.18	
3	---	---	---	---	---	---	---	---	---	---	---	-7.19	
4	---	---	---	---	---	---	---	---	---	---	---	-7.18	
5	---	---	---	---	---	---	---	---	---	---	---	-7.18	
6	---	---	---	---	---	---	---	---	---	---	---	-7.20	
7	---	---	---	---	---	---	---	---	---	---	---	-7.31	
8	---	---	---	---	---	---	---	---	---	---	---	-7.54	
9	---	---	---	---	---	---	---	---	---	---	---	-7.49	
10	---	---	---	---	---	---	---	---	---	---	---	-7.45	
11	---	---	---	---	---	---	---	---	---	---	---	-7.44	
12	---	---	---	---	---	---	---	---	---	---	---	-7.43	
13	---	---	---	---	---	---	---	---	---	---	---	-7.42	
14	---	---	---	---	---	---	---	---	---	---	---	-7.42	
15	---	---	---	---	---	---	---	---	---	---	---	-7.42	
16	---	---	---	---	---	---	---	---	---	---	---	-7.46	
17	---	---	---	---	---	---	---	---	---	---	---	-7.79	
18	---	---	---	---	---	---	---	---	---	---	---	-7.75	
19	---	---	---	---	---	---	---	---	---	---	---	-7.74	
20	---	---	---	---	---	---	---	---	---	---	---	-7.73	
21	---	---	---	---	---	---	---	---	---	---	-7.01	-7.73	
22	---	---	---	---	---	---	---	---	---	---	-7.02	-7.72	
23	---	---	---	---	---	---	---	---	---	---	-7.03	-7.72	
24	---	---	---	---	---	---	---	---	---	---	-7.04	-7.73	
25	---	---	---	---	---	---	---	---	---	---	-7.04	-7.73	
26	---	---	---	---	---	---	---	---	---	---	-7.05	-7.74	
27	---	---	---	---	---	---	---	---	---	---	-7.06	-7.77	
28	---	---	---	---	---	---	---	---	---	---	-7.07	-7.92	
29	---	---	---	---	---	---	---	---	---	---	-7.09	-7.91	
30	---	---	---	---	---	---	---	---	---	---	-7.13	-7.90	
31	---	---	---	---	---	---	---	---	---	---	-7.13	---	
WTR YR	2004	MEAN	-7.41	HIGH	-7.92	LOW	-7.01						

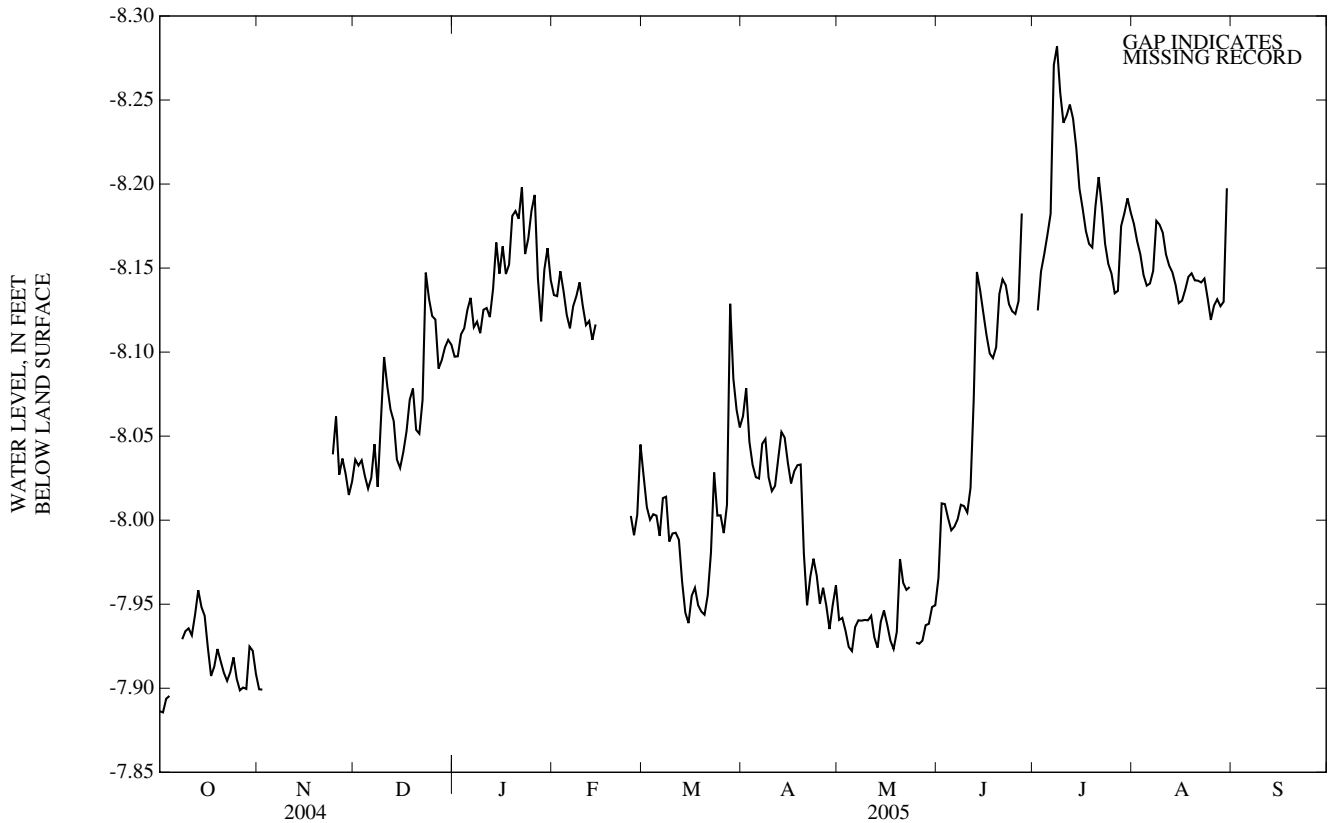
GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352854082380503. County number, BU-073; DENR Bent Creek Research Station MW-2D (Bedrock well)

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-7.89	-7.90	-8.04	-8.10	-8.13	-8.03	-8.06	-7.94	-7.97	---	-8.18	---
2	-7.89	-7.90	-8.03	-8.10	-8.13	-8.01	-8.08	-7.94	-8.01	-8.12	-8.17	---
3	-7.89	---	-8.04	-8.11	-8.15	-8.00	-8.05	-7.93	-8.01	-8.15	-8.16	---
4	-7.90	---	-8.03	-8.11	-8.14	-8.00	-8.03	-7.92	-8.00	-8.16	-8.15	---
5	---	---	-8.02	-8.13	-8.12	-8.00	-8.03	-7.92	-7.99	-8.17	-8.14	---
6	---	---	-8.03	-8.13	-8.11	-7.99	-8.02	-7.94	-8.00	-8.18	-8.14	---
7	---	---	-8.05	-8.11	-8.13	-8.01	-8.05	-7.94	-8.00	-8.27	-8.15	---
8	-7.93	---	-8.02	-8.12	-8.13	-8.01	-8.05	-7.94	-8.01	-8.28	-8.18	---
9	-7.93	---	-8.06	-8.11	-8.14	-7.99	-8.03	-7.94	-8.01	-8.25	-8.18	---
10	-7.94	---	-8.10	-8.13	-8.13	-7.99	-8.02	-7.94	-8.00	-8.24	-8.17	---
11	-7.93	---	-8.08	-8.13	-8.12	-7.99	-8.02	-7.94	-8.02	-8.24	-8.16	---
12	-7.94	---	-8.07	-8.12	-8.12	-7.99	-8.04	-7.93	-8.07	-8.25	-8.15	---
13	-7.96	---	-8.06	-8.14	-8.11	-7.96	-8.05	-7.92	-8.15	-8.24	-8.15	---
14	-7.95	---	-8.04	-8.17	-8.12	-7.95	-8.05	-7.94	-8.14	-8.22	-8.14	---
15	-7.94	---	-8.03	-8.15	---	-7.94	-8.03	-7.95	-8.12	-8.20	-8.13	---
16	-7.92	---	-8.04	-8.16	---	-7.96	-8.02	-7.94	-8.11	-8.19	-8.13	---
17	-7.91	---	-8.05	-8.15	---	-7.96	-8.03	-7.93	-8.10	-8.17	-8.14	---
18	-7.91	---	-8.07	-8.15	---	-7.95	-8.03	-7.92	-8.10	-8.16	-8.14	---
19	-7.92	---	-8.08	-8.18	---	-7.95	-8.03	-7.93	-8.10	-8.16	-8.15	---
20	-7.92	---	-8.05	-8.18	---	-7.94	-7.98	-7.98	-8.13	-8.19	-8.14	---
21	-7.91	---	-8.05	-8.18	---	-7.96	-7.95	-7.96	-8.14	-8.20	-8.14	---
22	-7.90	---	-8.07	-8.20	---	-7.98	-7.97	-7.96	-8.14	-8.19	-8.14	---
23	-7.91	---	-8.15	-8.16	---	-8.03	-7.98	-7.96	-8.13	-8.16	-8.14	---
24	-7.92	-8.04	-8.13	-8.17	---	-8.00	-7.97	---	-8.12	-8.15	-8.13	---
25	-7.91	-8.06	-8.12	-8.18	-8.00	-8.00	-7.95	-7.93	-8.12	-8.15	-8.12	---
26	-7.90	-8.03	-8.12	-8.19	-7.99	-7.99	-7.96	-7.93	-8.13	-8.13	-8.13	---
27	-7.90	-8.04	-8.09	-8.14	-8.00	-8.01	-7.95	-7.93	-8.18	-8.14	-8.13	---
28	-7.90	-8.03	-8.10	-8.12	-8.04	-8.13	-7.94	-7.94	---	-8.18	-8.13	---
29	-7.92	-8.02	-8.10	-8.15	---	-8.08	-7.95	-7.94	---	-8.18	-8.13	---
30	-7.92	-8.02	-8.11	-8.16	---	-8.07	-7.96	-7.95	---	-8.19	-8.20	---
31	-7.91	---	-8.10	-8.14	---	-8.06	---	-7.95	---	-8.18	---	---

WTR YR 2005 MEAN -8.06 HIGH -8.28 LOW -7.89



352854082380503 BU-073 DENR Bent Creek Research Station MW-2D (Bedrock Well)—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.1	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
2	---	13.1	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
3	---	---	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
4	---	---	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
5	---	---	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
6	---	---	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
7	13.1	---	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---
8	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	13.0	---
9	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	13.0	---
10	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	13.0	---
11	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	13.0	---
12	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	13.0	---
13	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	---	---
14	13.1	---	13.1	13.1	13.1	13.1	---	---	13.0	13.0	---	---
15	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
16	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
17	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
18	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
19	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
20	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
21	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
22	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
23	13.1	---	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
24	13.1	13.1	13.1	13.1	---	13.1	---	---	13.0	13.0	---	---
25	13.1	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---	---
26	13.1	13.1	13.1	13.1	13.1	13.1	---	13.0	13.0	13.0	---	---
27	13.1	13.1	13.1	13.1	13.1	13.1	---	13.0	---	13.0	---	---
28	13.1	13.1	13.1	13.1	13.1	13.1	---	13.0	---	13.0	---	---
29	13.1	13.1	13.1	13.1	---	13.1	---	13.0	---	13.0	---	---
30	13.1	13.1	13.1	13.1	---	13.1	---	13.0	---	13.0	---	---
31	13.1	---	13.1	13.1	---	13.1	---	13.0	---	13.0	---	---
MEAN	---	---	13.1	13.1	---	13.1	---	---	---	13.0	---	---
MAX	---	---	13.1	13.1	---	13.1	---	---	---	13.0	---	---
MIN	---	---	13.1	13.1	---	13.1	---	---	---	13.0	---	---

BUNCOMBE COUNTY—Continued

352856082381201. County number, BU-074; DENR Bent Creek Research Station MW-3S (Regolith well).

LOCATION.--Lat 35°28'57", long 82°38'12", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 30 ft, diameter 4 in., cased to 15 ft, screened interval from 15 to 30 ft, sand filter packed from 13 to 25 ft, natural fill from 25 to 30 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,210.12 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.82 ft above land-surface datum.

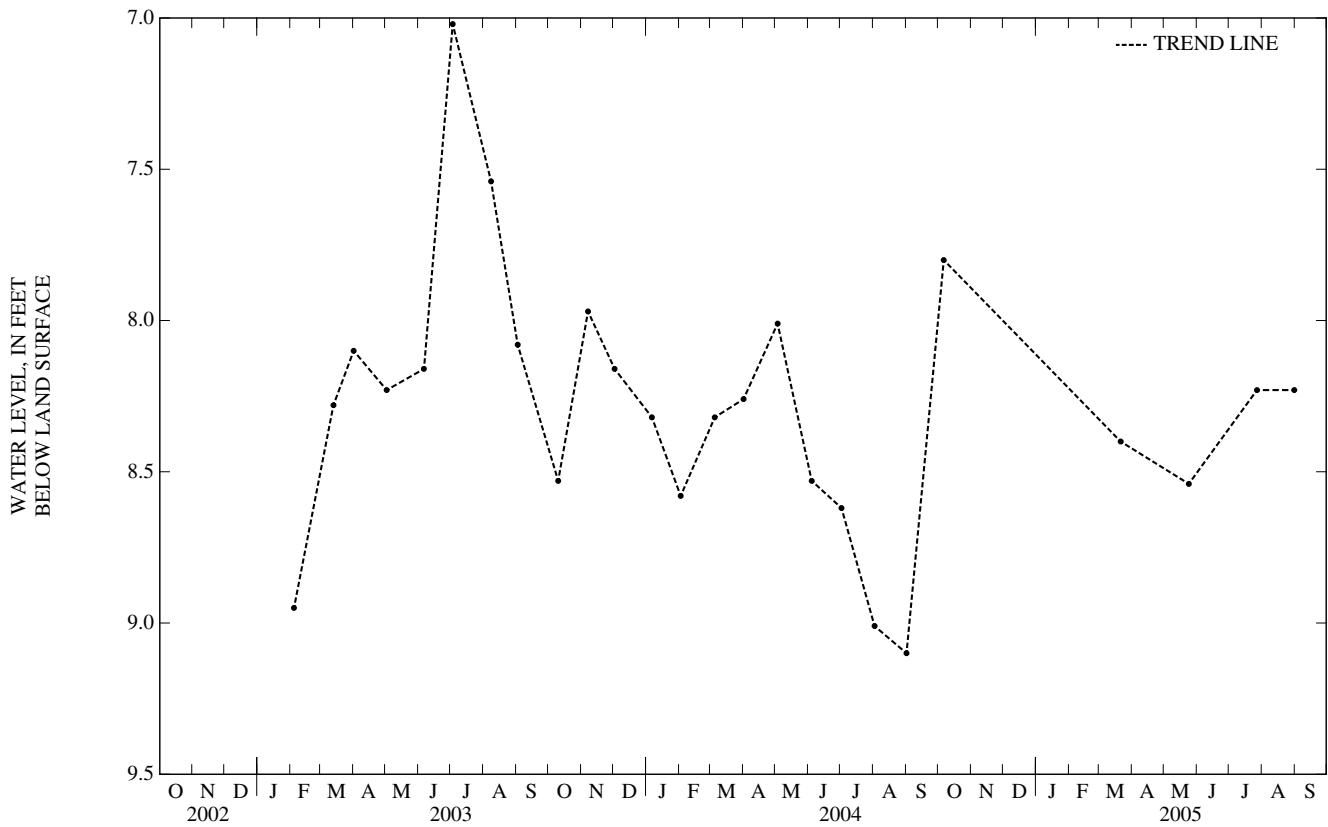
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.02 ft below land-surface datum, July 3, 2003; lowest water level measured, 9.10 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	7.80	MAR 21	8.40	MAY 24	8.54	JUL 27	8.23	AUG 31	8.23



GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352856082381202. County number, BU-075; DENR Bent Creek Research Station MW-3I (Transition Zone well).

LOCATION.--Lat 35°28'57", long 82°38'12", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 4 in., cased to 35 ft, screened interval from 35 to 50 ft, sand filter packed from 33 to 50 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,209.45 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.06 ft above land-surface datum.

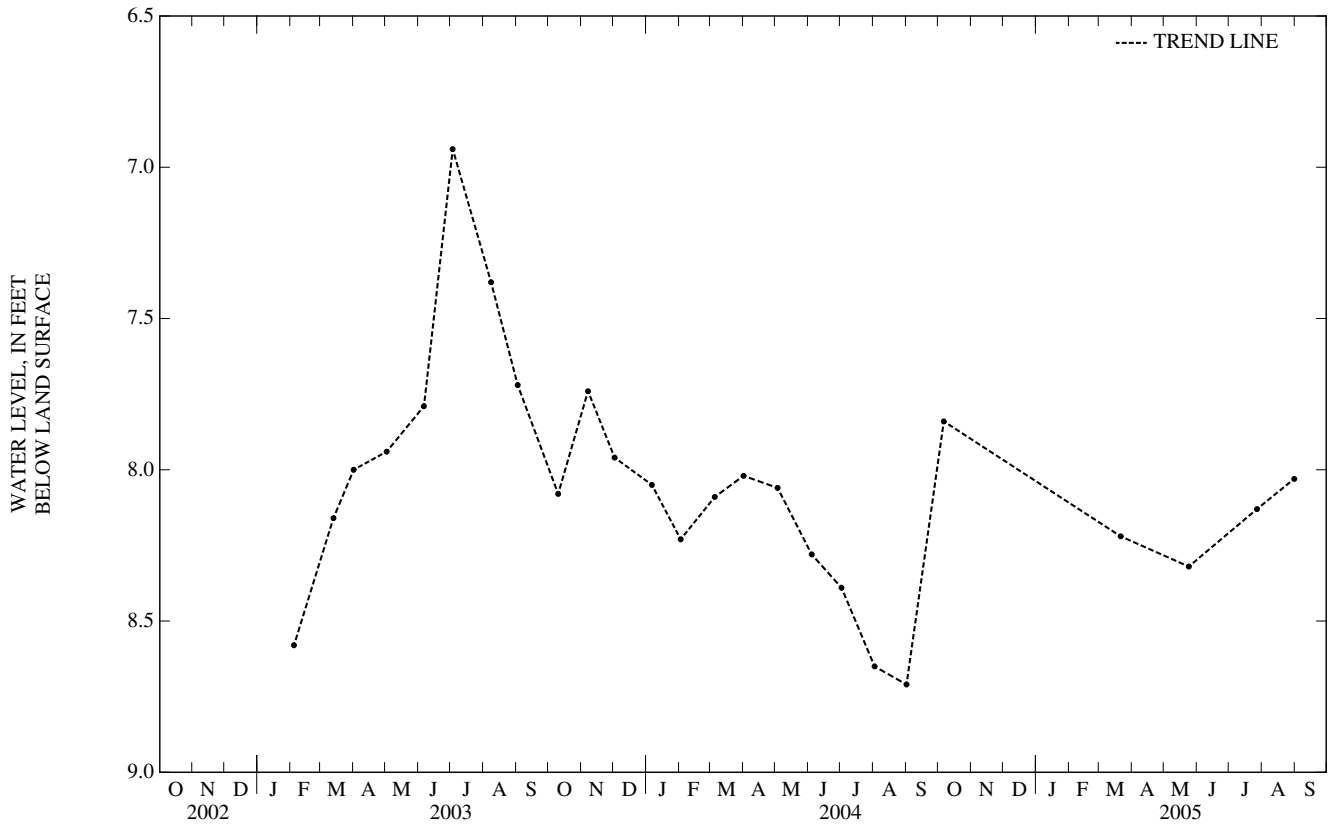
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.94 ft below land-surface datum, July 3, 2003; lowest water level measured, 8.71 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	7.84	MAR 21	8.22	MAY 24	8.32	JUL 27	8.13	AUG 31	8.03



BUNCOMBE COUNTY—Continued

352856082381203. County number, BU-076; DENR Bent Creek Research Station MW-3D (Bedrock well).

LOCATION.--Lat 35°28'57", long 82°38'12", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6 in., cased to 61 ft, open hole from 61 to 300 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,209.07 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.74 ft above land-surface datum.

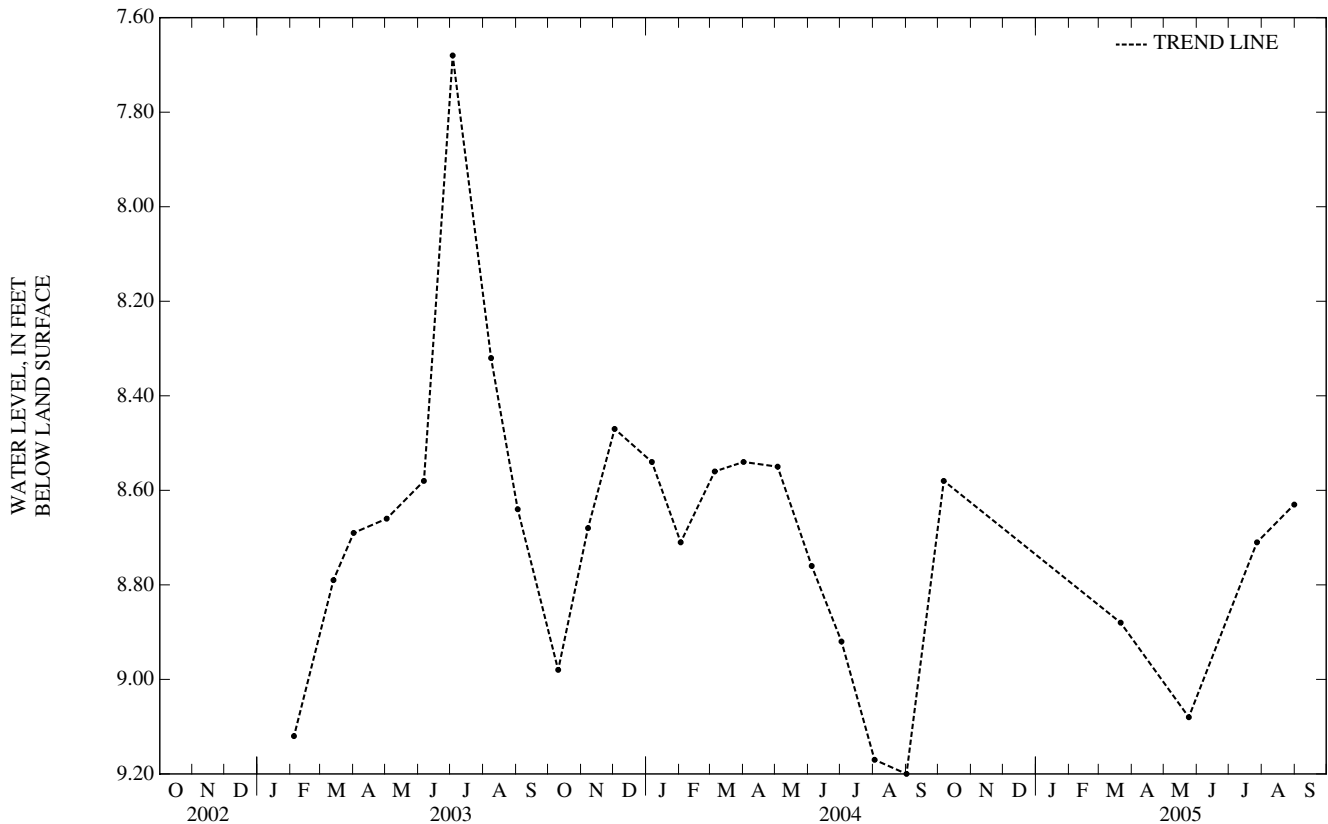
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.68 ft below land-surface datum, July 3, 2003; lowest water level measured, 9.20 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	8.58	MAR 21	8.88	MAY 24	9.08	JUL 27	8.71	AUG 31	8.63



GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352808082382601. County number, BU-077; DENR Bent Creek Research Station MW-4S (Regolith well).

LOCATION.--Lat 35°28'08", long 82°38'27", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 4 in., cased to 7 ft, screened interval from 7 to 22 ft, sand filter packed from 5 to 22 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,259.66 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.12 ft above land-surface datum.

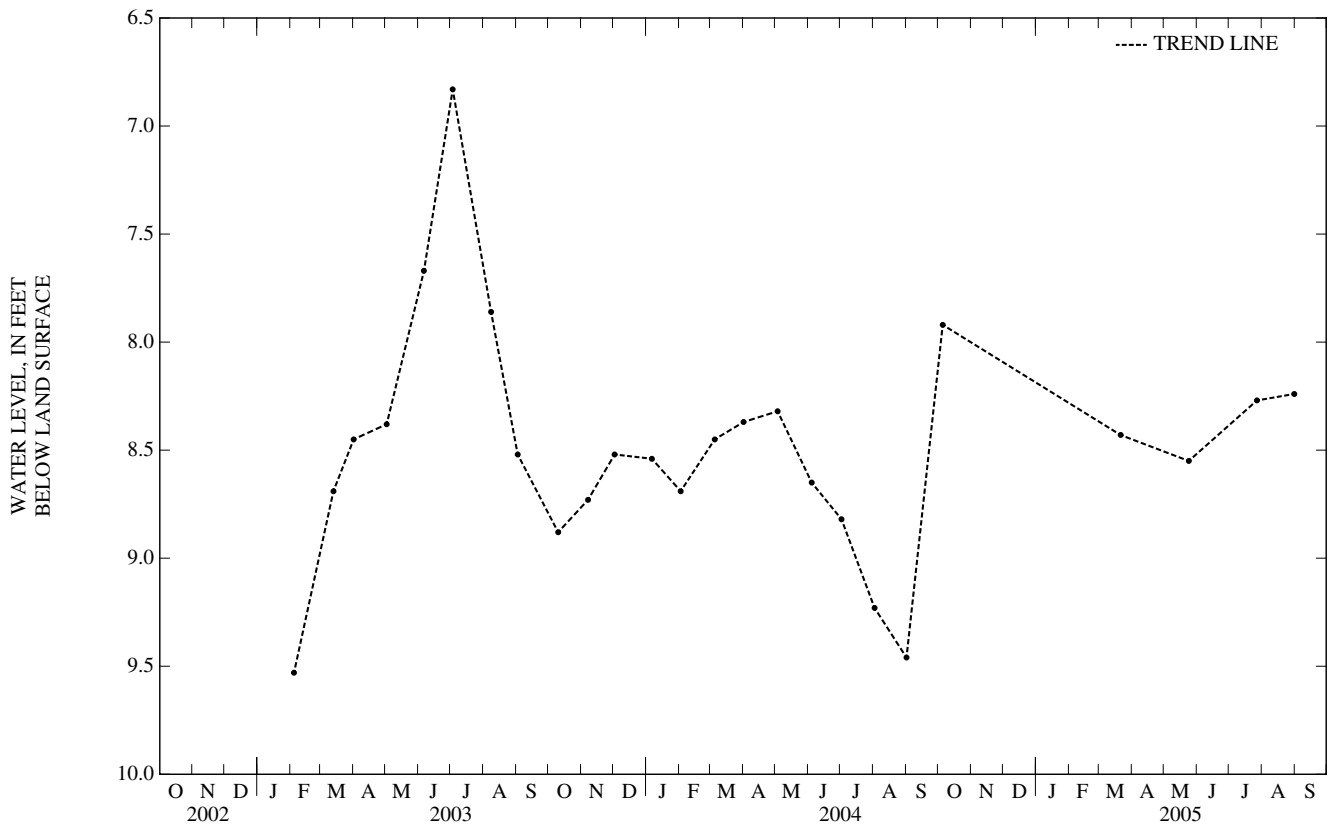
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.83 ft below land-surface datum, July 3, 2003; lowest water level measured, 9.53 ft below land-surface datum, Feb. 4, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.92	MAR 21	8.43	MAY 24	8.55	JUL 27	8.27	AUG 31	8.24



BUNCOMBE COUNTY—Continued

352808082382602. County number, BU-078; DENR Bent Creek Research Station MW-4I (Transition Zone well).

LOCATION.--Lat 35°28'08", long 82°38'26", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 41 ft, diameter 4 in., cased to 26 ft, screened interval from 26 to 41 ft, sand filter packed from 24 to 41 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,258.80 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.02 ft above land-surface datum.

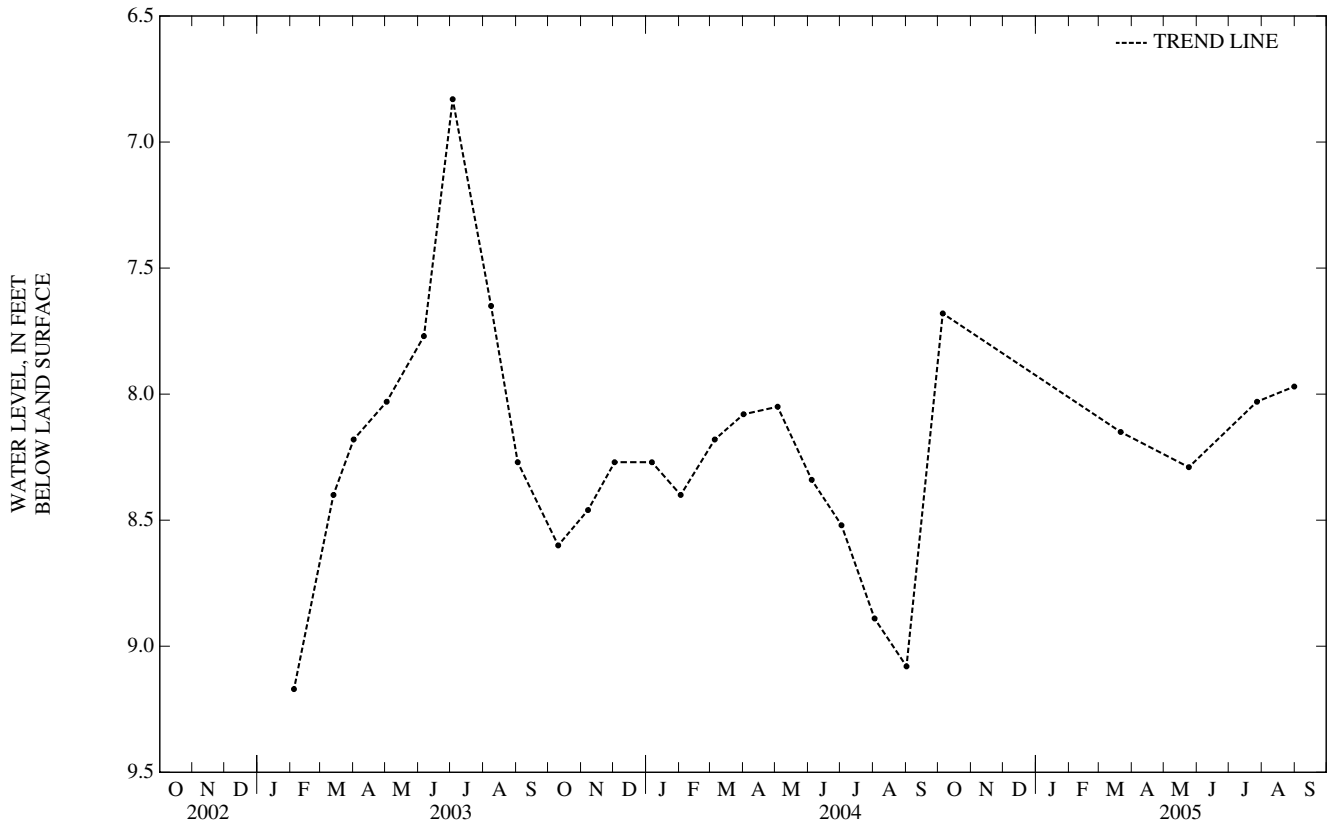
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.83 ft below land-surface datum, July 3, 2003; lowest water level measured, 9.17 ft below land-surface datum, Feb. 4, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.68	MAR 21	8.15	MAY 24	8.29	JUL 27	8.03	AUG 31	7.97



GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352808082382603. County number, BU-079; DENR Bent Creek Research Station MW-4D (Bedrock well).

LOCATION.--Lat 35°28'08", long 82°38'26", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 501 ft, diameter 6 in., cased to 61 ft, open hole from 61 to 501 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,258.53 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.02 ft above land-surface datum.

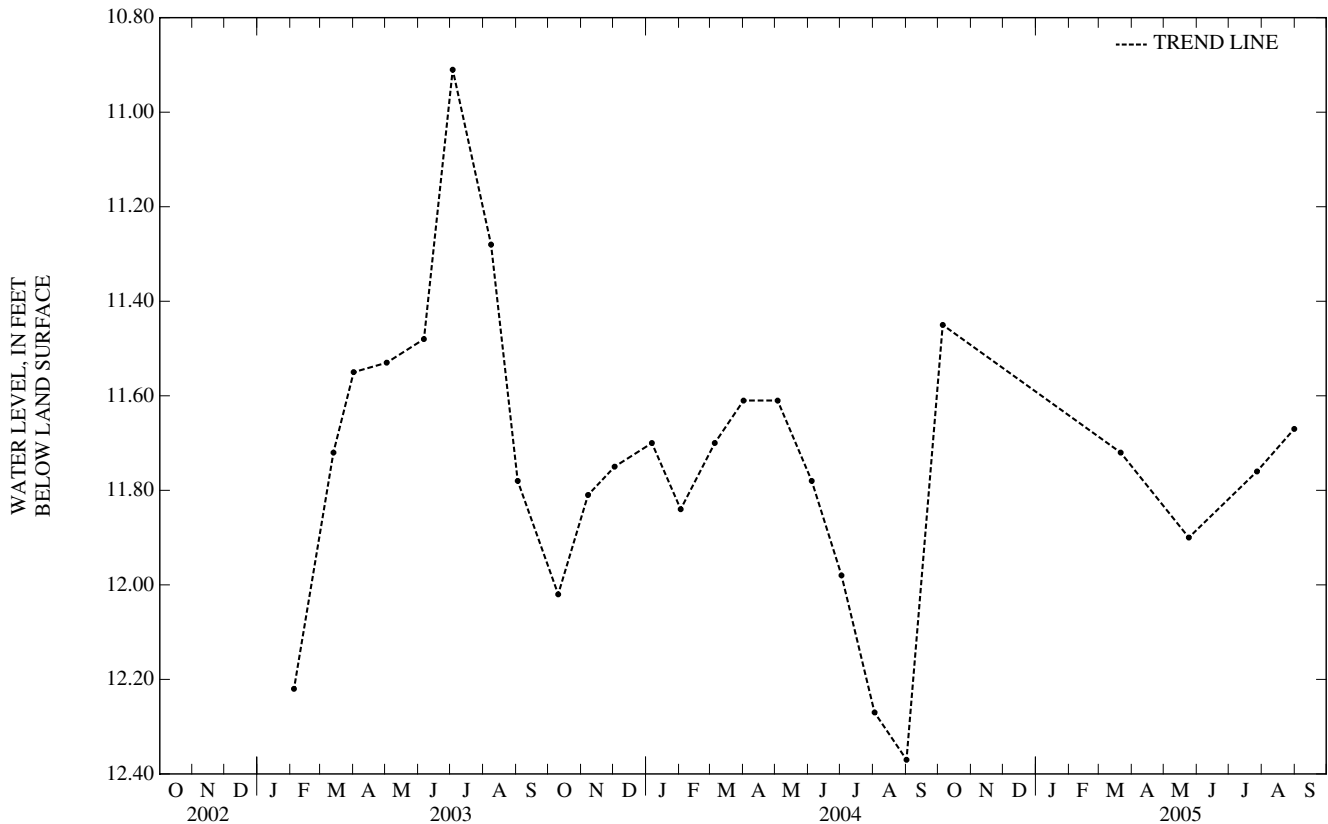
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.91 ft below land-surface datum, July 3, 2003; lowest water level measured, 12.37 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	11.45	MAR 21	11.72	MAY 24	11.90	JUL 27	11.76	AUG 31	11.67



BUNCOMBE COUNTY—Continued

352810082383501. County number, BU-080; DENR Bent Creek Research Station MW-5S (Regolith well).

LOCATION.--Lat 35°28'10", long 82°38'35", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 24 ft, diameter 4 in., cased to 9 ft, screened interval from 9 to 24 ft, sand filter packed from 7 to 9 ft, natural fill from 9 to 24 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,299.99 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.01 ft above land-surface datum.

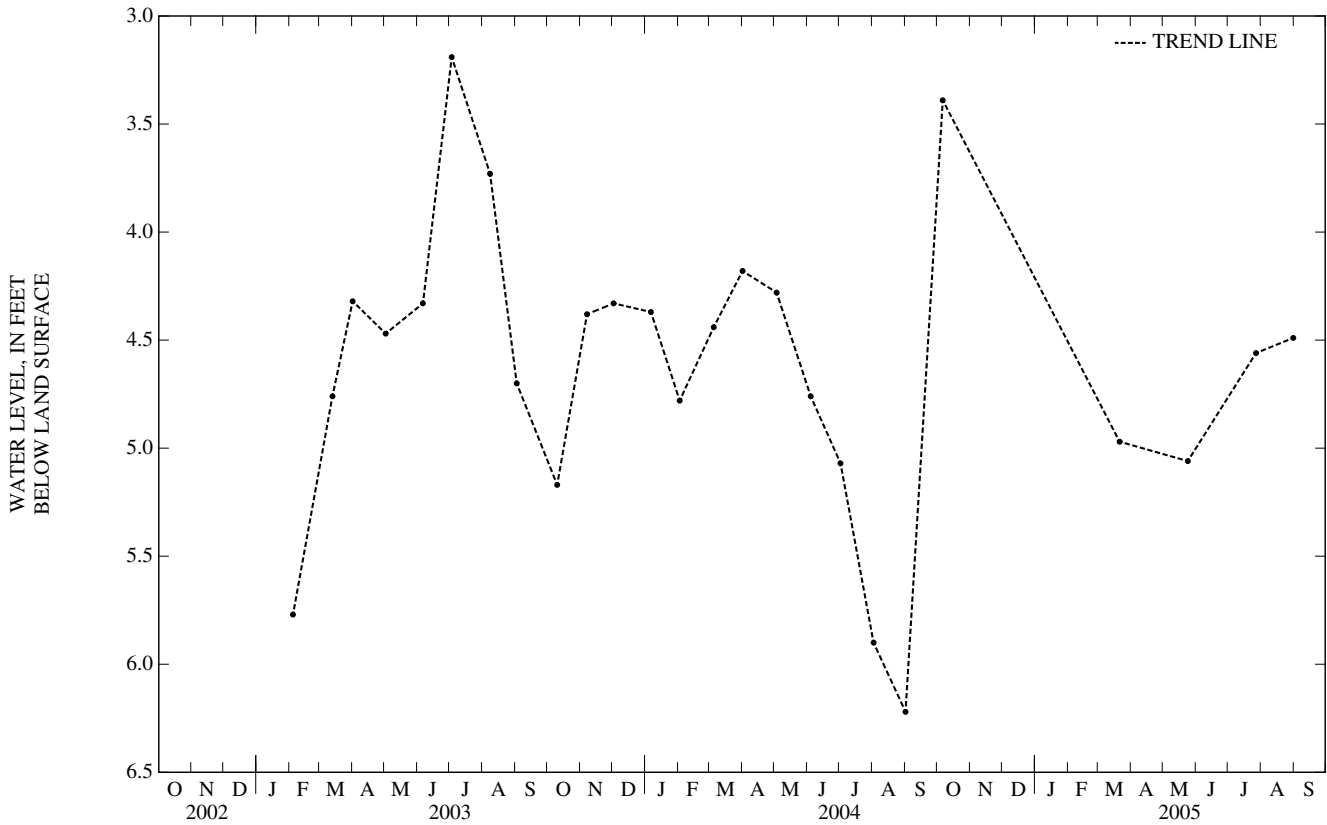
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.19 ft below land-surface datum, July 3, 2003; lowest water level measured, 6.22 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	3.39	MAR 21	4.97	MAY 24	5.06	JUL 27	4.56	AUG 31	4.49



GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352810082383502. County number, BU-081; DENR Bent Creek Research Station MW-5I (Transition Zone well).

LOCATION.--Lat 35°28'11", long 82°38'35", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 47 ft, diameter 4 in., cased to 32 ft, screened interval from 32 to 47 ft, sand filter packed from 28 to 47 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,302.19 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.70 ft above land-surface datum.

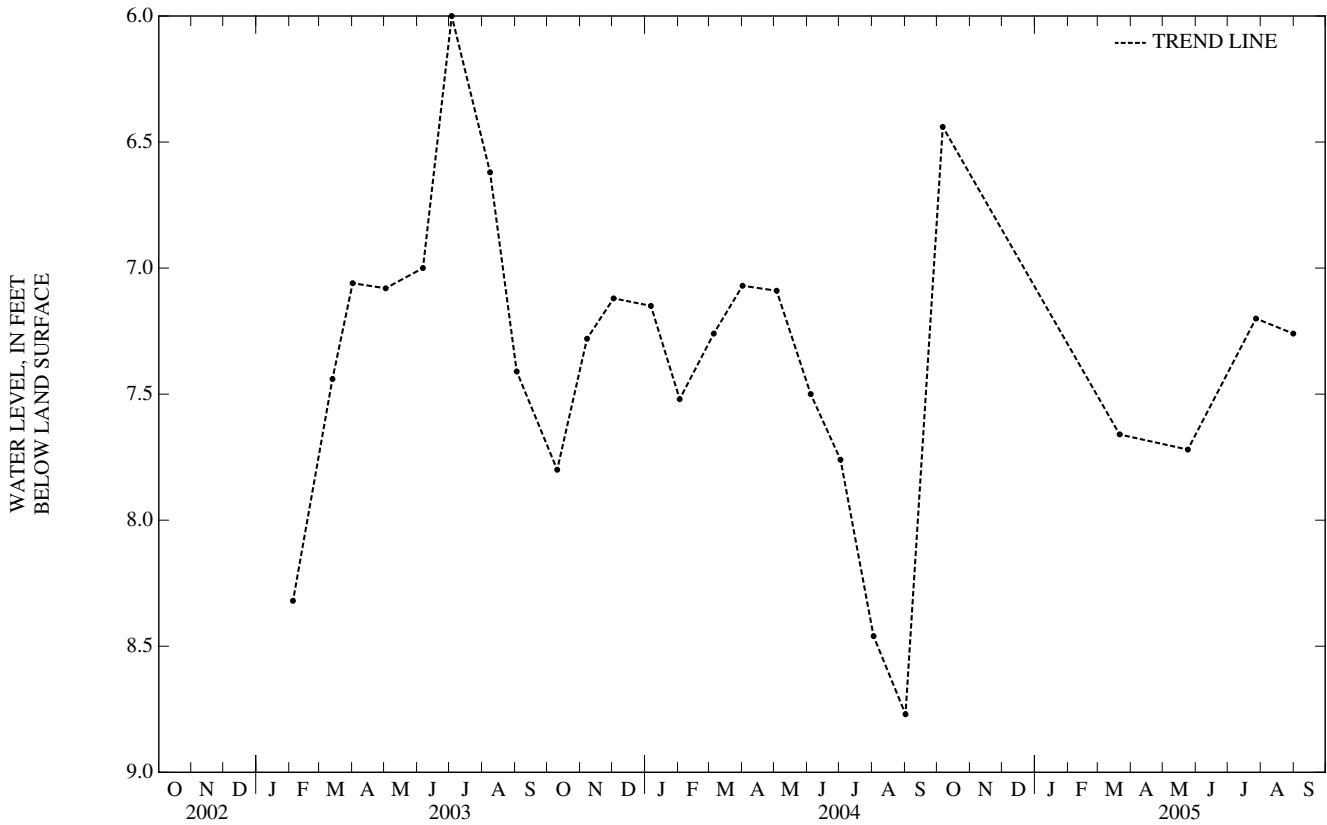
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.00 ft below land-surface datum, July 3, 2003; lowest water level measured, 8.77 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	6.44	MAR 21	7.66	MAY 24	7.72	JUL 27	7.20	AUG 31	7.26



BUNCOMBE COUNTY—Continued

352810082383503. County number, BU-082; DENR Bent Creek Research Station MW-5D (Bedrock well).

LOCATION.--Lat 35°28'10", long 82°38'35", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6 in., cased to 62 ft, open hole from 62 to 300 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,304.84 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.58 ft above land-surface datum.

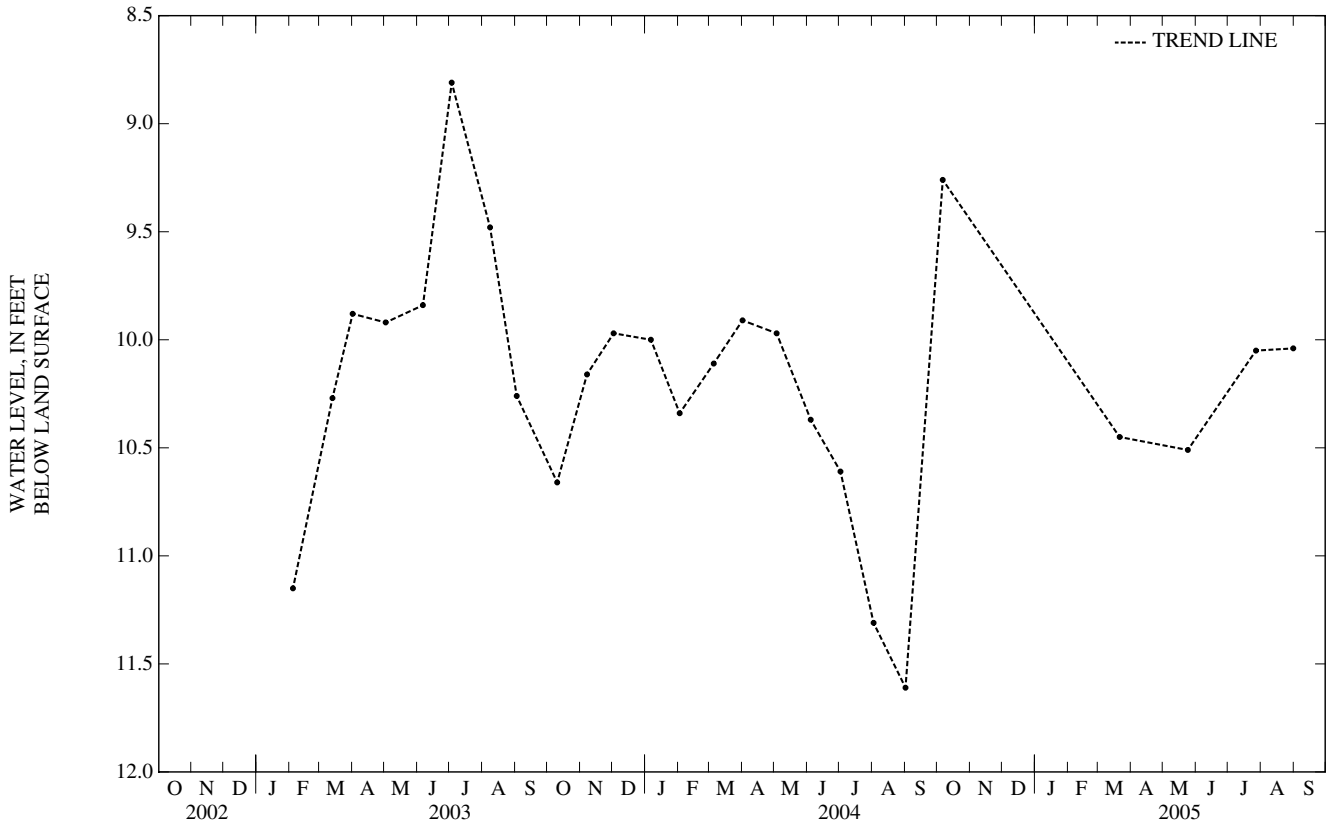
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.81 ft below land-surface datum, July 3, 2003; lowest water level measured 11.61 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	9.26	MAR 21	10.45	MAY 24	10.51	JUL 27	10.05	AUG 31	10.04



BUNCOMBE COUNTY—Continued

352827082383901. County number, BU-083; DENR Bent Creek Research Station MW-7S (Regolith well).

LOCATION.--Lat 35°29'27", long 82°38'39", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 25 ft, diameter 4 in., cased to 10 ft, screened interval from 10 to 25 ft, sand filter packed from 8 to 25 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 2,368.23 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.96 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year. Continuous record began June 2005.

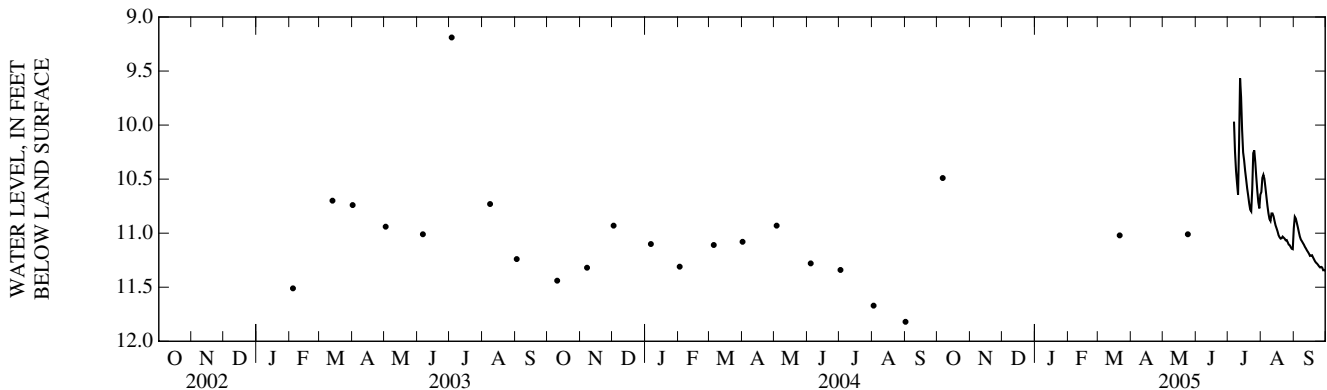
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.19 ft below land-surface datum, July 3, 2003, highest water level recorded, 9.19 ft below land-surface datum, June 29, 2005; lowest water level measured 11.82 ft below land-surface datum, Sept. 1, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	9.64	10.51	10.87
2	---	---	---	---	---	---	---	---	---	10.0	10.59	10.91
3	---	---	---	---	---	---	---	---	---	10.27	10.68	10.95
4	---	---	---	---	---	---	---	---	---	10.44	10.76	11.00
5	---	---	---	---	---	---	---	---	---	10.56	10.83	11.04
6	---	---	---	---	---	---	---	---	---	10.66	10.88	11.07
7	---	---	---	---	---	---	---	---	---	10.20	10.90	11.08
8	---	---	---	---	---	---	---	---	---	9.60	10.83	11.10
9	---	---	---	---	---	---	---	---	---	9.78	10.83	11.11
10	10.49*	---	---	---	---	---	---	---	---	10.07	10.85	11.13
11	---	---	---	---	---	---	---	---	---	10.28	10.90	11.15
12	---	---	---	---	---	---	---	---	---	10.35	10.94	11.16
13	---	---	---	---	---	---	---	---	---	10.44	10.96	11.18
14	---	---	---	---	---	---	---	---	---	10.52	10.99	11.19
15	---	---	---	---	---	---	---	---	---	10.60	11.03	11.21
16	---	---	---	---	---	---	---	---	---	10.67	11.04	11.21
17	---	---	---	---	---	---	---	---	---	10.74	11.06	11.21
18	---	---	---	---	---	---	---	---	---	10.79	11.05	11.23
19	---	---	---	---	---	---	---	---	---	10.81	11.04	11.24
20	---	---	---	---	---	---	---	---	---	10.61	11.05	11.26
21	---	---	---	---	---	11.02*	---	---	---	10.28	11.06	11.28
22	---	---	---	---	---	---	---	---	---	10.26	11.07	11.28
23	---	---	---	---	---	---	---	11.01*	---	10.36	11.07	11.30
24	---	---	---	---	---	---	---	---	---	10.50	11.09	11.31
25	---	---	---	---	---	---	---	---	---	10.62	11.11	11.32
26	---	---	---	---	---	---	---	---	---	10.73	11.12	11.31
27	---	---	---	---	---	---	---	---	---	10.78	11.13	11.32
28	---	---	---	---	---	---	---	---	---	10.66	11.15	11.34
29	---	---	---	---	---	---	---	---	---	10.63	11.15	11.34
30	---	---	---	---	---	---	---	---	9.33	10.51	10.96	11.35
31	---	---	---	---	---	---	---	---	---	10.48	10.86	---

WTR YR 2005 MEAN 10.83 HIGH 9.33 LOW 11.35

*Periodic water-level measurements with electric tape.



BUNCOMBE COUNTY—Continued

352827082383902. County number, BU-084; DENR Bent Creek Research Station MW-7I (Transition Zone well).

LOCATION.--Lat 35°28'27", long 82°38'39", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 4 in., cased to 30 ft, screened interval from 30 to 50 ft, sand filter packed from 27 to 45 ft, natural fill from 45 to 50 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,369.04 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.91 ft above land-surface datum.

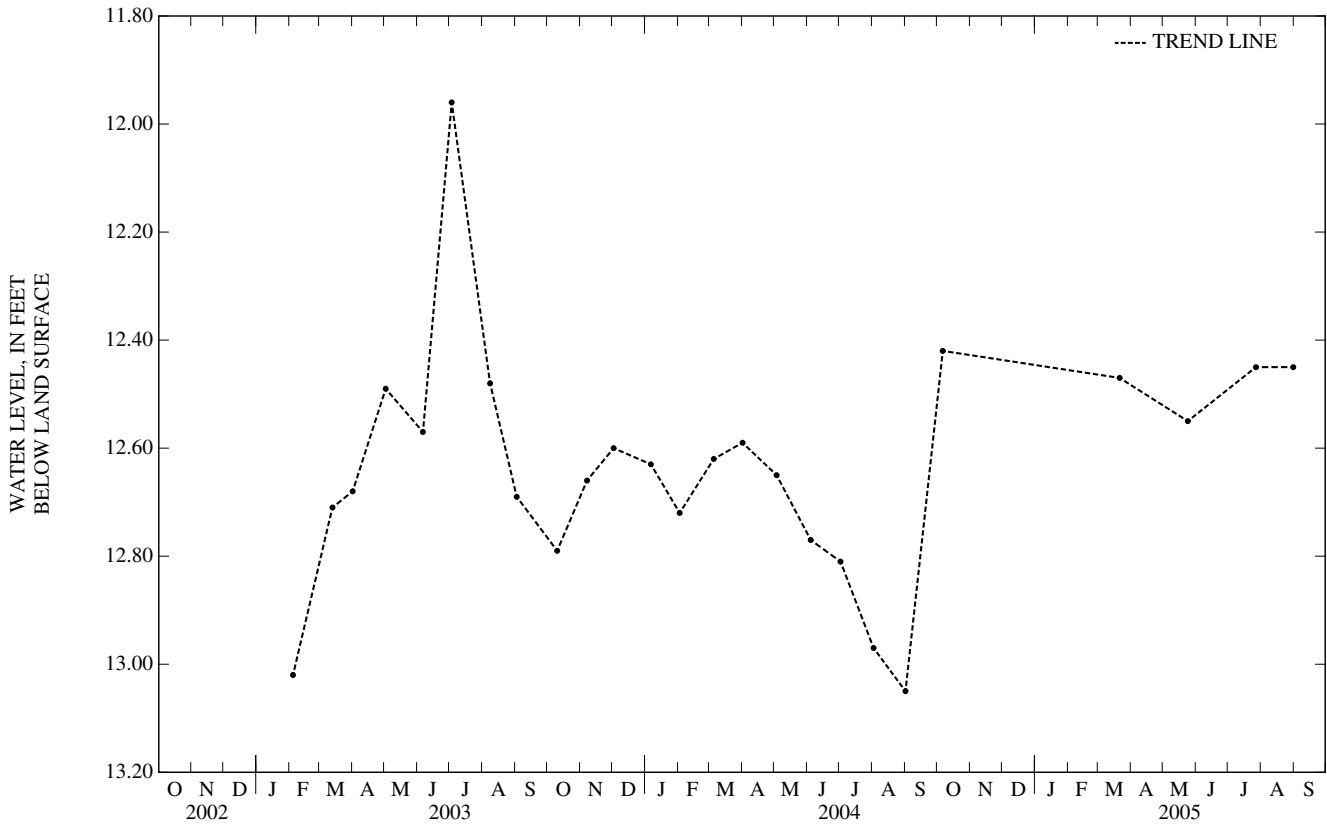
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.96 ft below land-surface datum, July 3, 2003; lowest water level measured, 13.05 ft below land-surface datum, Sept. 1, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	12.42	MAR 21	12.47	MAY 24	12.55	JUL 27	12.45	AUG 31	12.45



BUNCOMBE COUNTY—Continued

352827082383903. County number, BU-085; DENR Bent Creek Research Station MW-7D (Bedrock well).

LOCATION.--Lat 35°29'27", long 82°38'39", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 285 ft, diameter 6 in., cased to 62 ft, open hole from 62 to 285 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 2,369.88 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.93 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2003 to current year. Continuous record began July 2005.

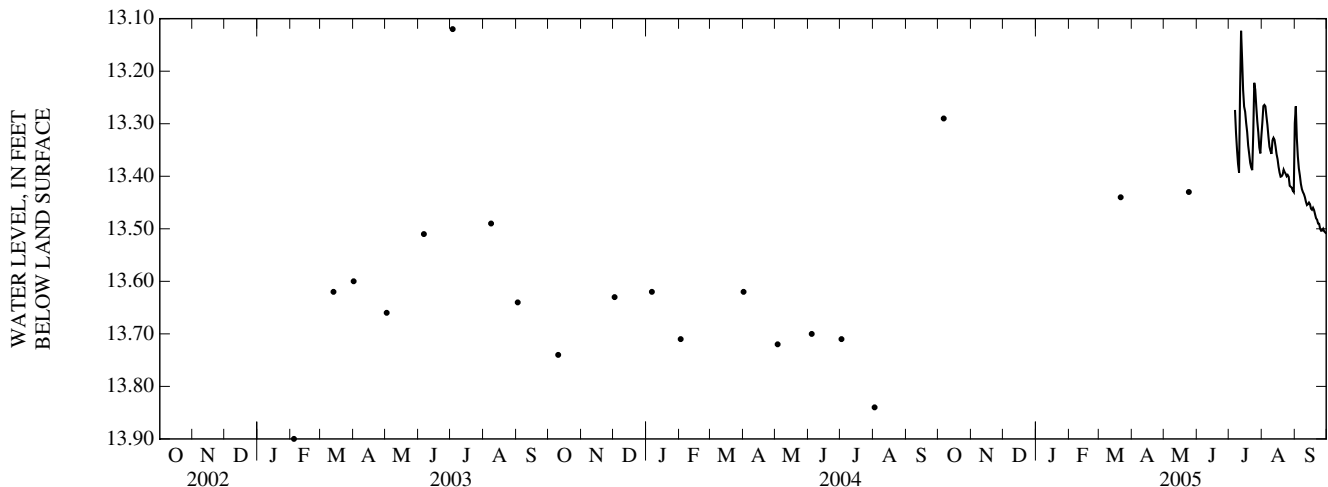
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.11 ft below land-surface datum, July 8, 2005; lowest water level measured 13.90 ft below land-surface datum, Feb. 4, 2003.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	13.27	13.33
2	---	---	---	---	---	---	---	---	---	13.27	13.29	13.36
3	---	---	---	---	---	---	---	---	---	13.32	13.30	13.38
4	---	---	---	---	---	---	---	---	---	13.35	13.32	13.40
5	---	---	---	---	---	---	---	---	---	13.38	13.34	13.41
6	13.29*	---	---	---	---	---	---	---	---	13.39	13.35	13.42
7	---	---	---	---	---	---	---	---	---	13.24	13.36	13.43
8	---	---	---	---	---	---	---	---	---	13.12	13.33	13.43
9	---	---	---	---	---	---	---	---	---	13.18	13.33	13.44
10	---	---	---	---	---	---	---	---	---	13.24	13.33	13.45
11	---	---	---	---	---	---	---	---	---	13.27	13.34	13.45
12	---	---	---	---	---	---	---	---	---	13.28	13.36	13.45
13	---	---	---	---	---	---	---	---	---	13.30	13.37	13.45
14	---	---	---	---	---	---	---	---	---	13.32	13.38	13.45
15	---	---	---	---	---	---	---	---	---	13.34	13.39	13.46
16	---	---	---	---	---	---	---	---	---	13.36	13.40	13.46
17	---	---	---	---	---	---	---	---	---	13.37	13.40	13.46
18	---	---	---	---	---	---	---	---	---	13.38	13.40	13.46
19	---	---	---	---	---	---	---	---	---	13.39	13.39	13.47
20	---	---	---	---	---	---	---	---	---	13.32	13.39	13.48
21	---	---	---	---	---	13.44*	---	---	---	13.22	13.40	13.48
22	---	---	---	---	---	---	---	---	---	13.24	13.40	13.49
23	---	---	---	---	---	---	---	---	---	13.27	13.40	13.49
24	---	---	---	---	---	---	---	13.43*	---	13.30	13.40	13.50
25	---	---	---	---	---	---	---	---	---	13.32	13.42	13.50
26	---	---	---	---	---	---	---	---	---	13.35	13.42	13.50
27	---	---	---	---	---	---	---	---	---	13.36	13.42	13.50
28	---	---	---	---	---	---	---	---	---	13.32	13.43	13.50
29	---	---	---	---	---	---	---	---	---	13.30	13.43	13.51
30	---	---	---	---	---	---	---	---	---	13.27	13.30	13.51
31	---	---	---	---	---	---	---	---	---	13.26	13.27	---

WTR YR 2005 MEAN 13.37 HIGH 13.12 LOW 13.51

*Periodic water-level measurements with electric tape.



BUNCOMBE COUNTY—Continued

352909082382801. County number, BU-086; DENR Bent Creek Research Station PZ-1S.

LOCATION.--Lat 35°29'09", long 82°38'28", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 17 ft, diameter 2 in., cased to 12 ft, screened interval from 12 to 17 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,260.35 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.86 ft above land-surface datum.

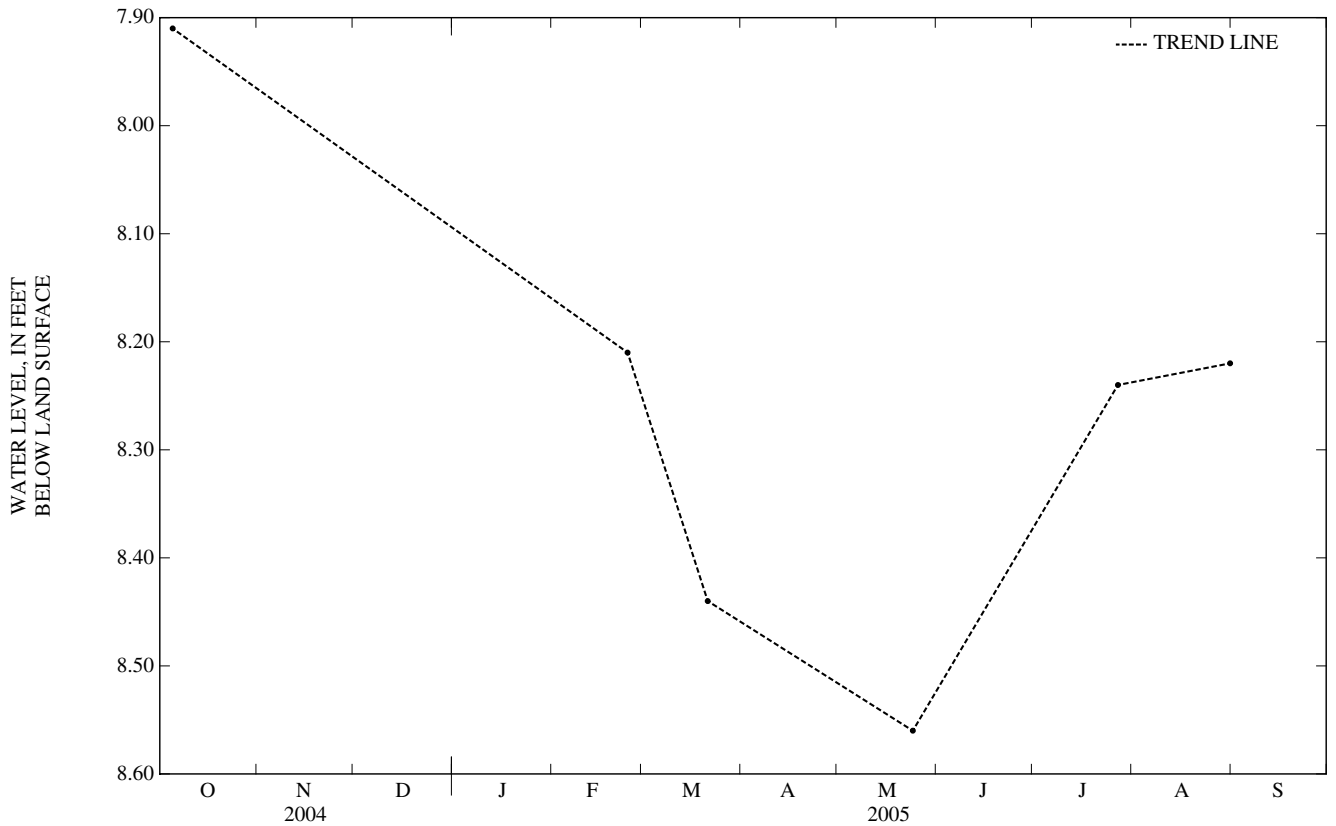
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.91 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 8.56 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.91	FEB 24	8.21	MAR 21	8.44	MAY 24	8.56	JUL 27	8.24	AUG 31	8.22



GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352909082382802. County number, BU-087; DENR Bent Creek Research Station PZ-1I.

LOCATION.--Lat 35°29'09", long 82°38'28", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 30 ft, diameter 2 in., cased to 25 ft, screened interval from 25 to 30 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,260.02 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.81 ft above land-surface datum.

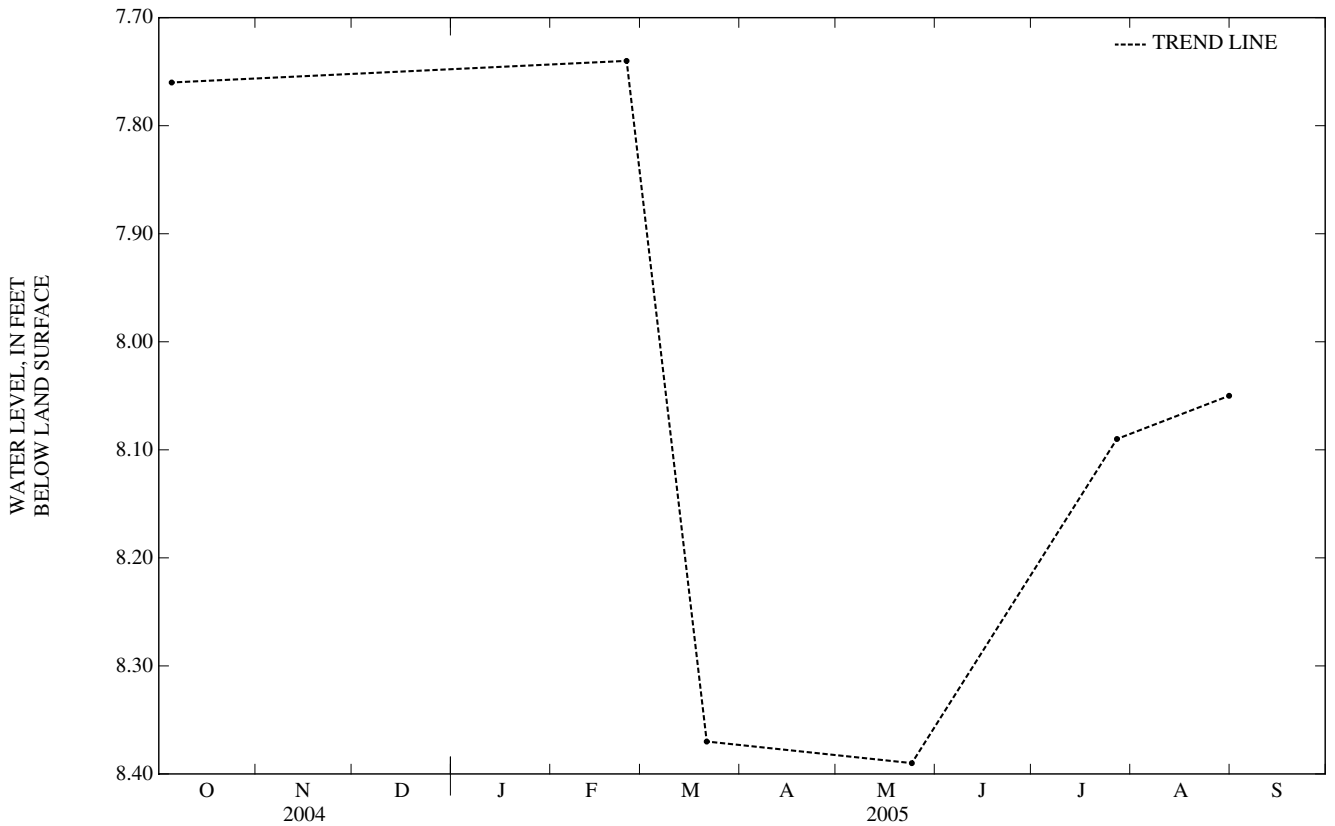
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.74 ft below land-surface datum, Feb. 24, 2005; lowest water level measured, 8.39 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.76	FEB 24	7.74	MAR 21	8.37	MAY 24	8.39	JUL 27	8.09	AUG 31	8.05



BUNCOMBE COUNTY—Continued

352907082382501. County number, BU-088; DENR Bent Creek Research Station PZ-2S.

LOCATION.--Lat 35°29'07", long 82°38'25", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 2 in., cased to 17 ft, screened interval from 17 to 22 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,252.11 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.90 ft above land-surface datum.

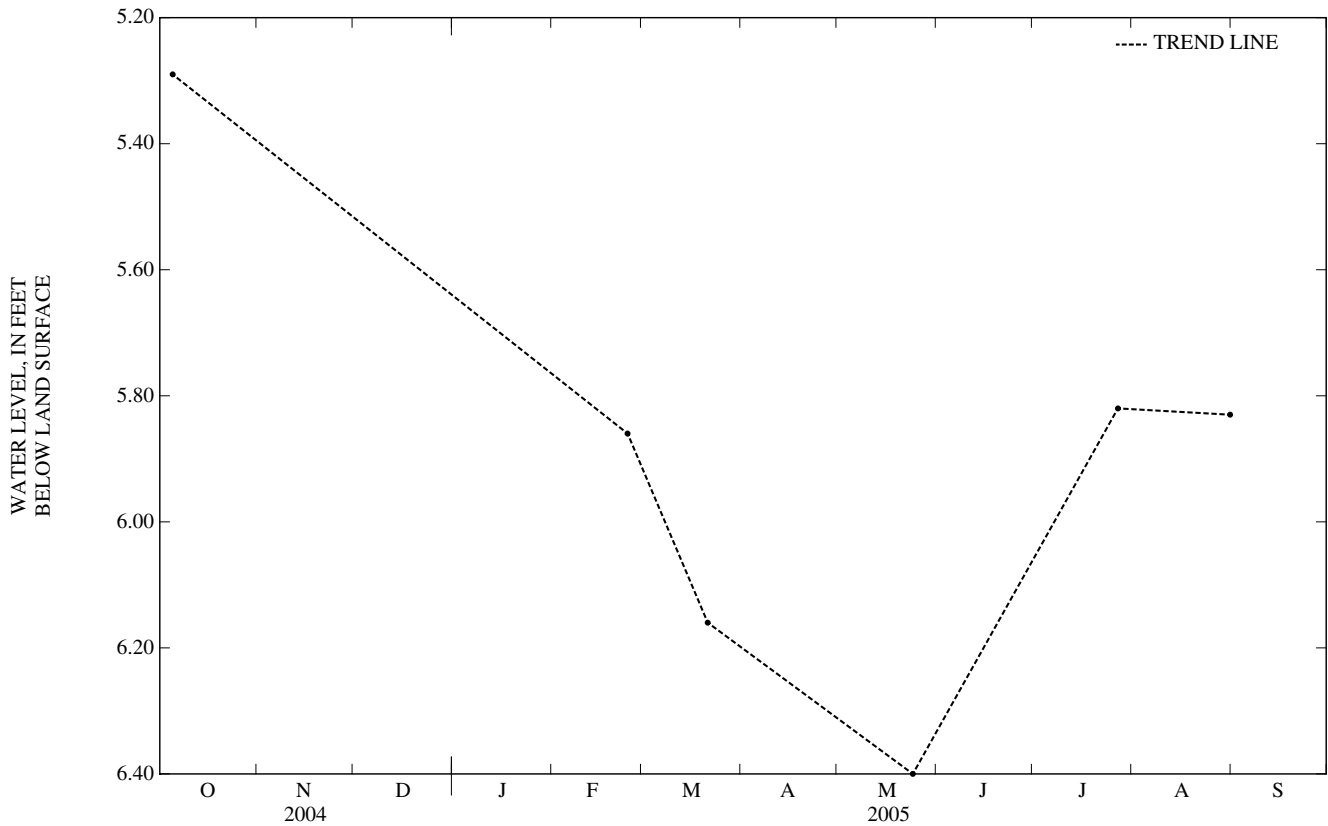
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.29 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 6.40 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	5.29	FEB 24	5.86	MAR 21	6.16	MAY 24	6.40	JUL 27	5.82	AUG 31	5.83



GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352907082382502. County number, BU-089; DENR Bent Creek Research Station PZ-2I.

LOCATION.--Lat 35°29'07", long 82°38'25", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 59 ft, diameter 2 in., cased to 54 ft, screened interval from 54 to 59 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,251.85 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.10 ft above land-surface datum.

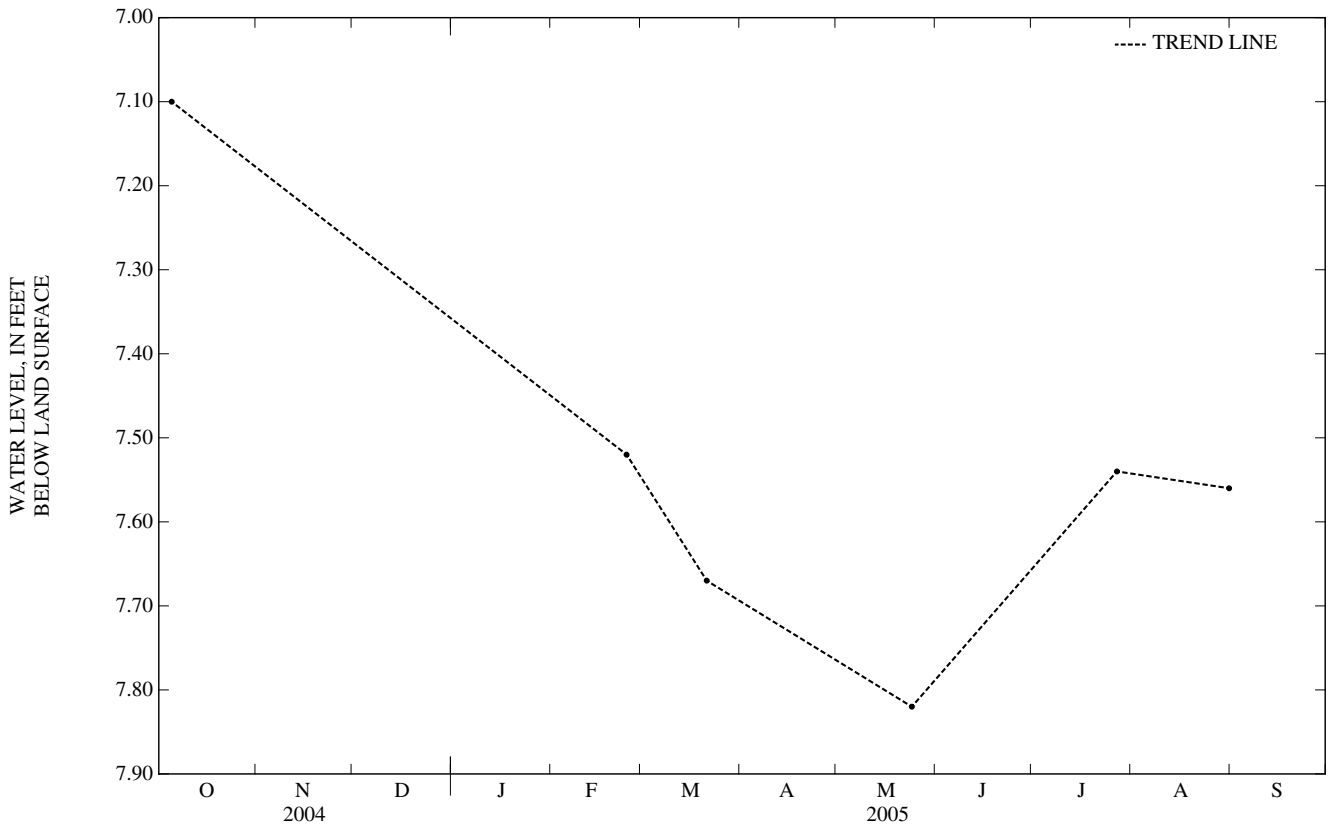
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.10 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 7.82 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.10	FEB 24	7.52	MAR 21	7.67	MAY 24	7.82	JUL 27	7.54	AUG 31	7.56



BUNCOMBE COUNTY—Continued

352907082382401. County number, BU-090; DENR Bent Creek Research Station PZ-3S.

LOCATION.--Lat 35°29'07", long 82°38'24", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 2 in., cased to 17 ft, screened interval from 17 to 22 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,251.40 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.88 ft above land-surface datum.

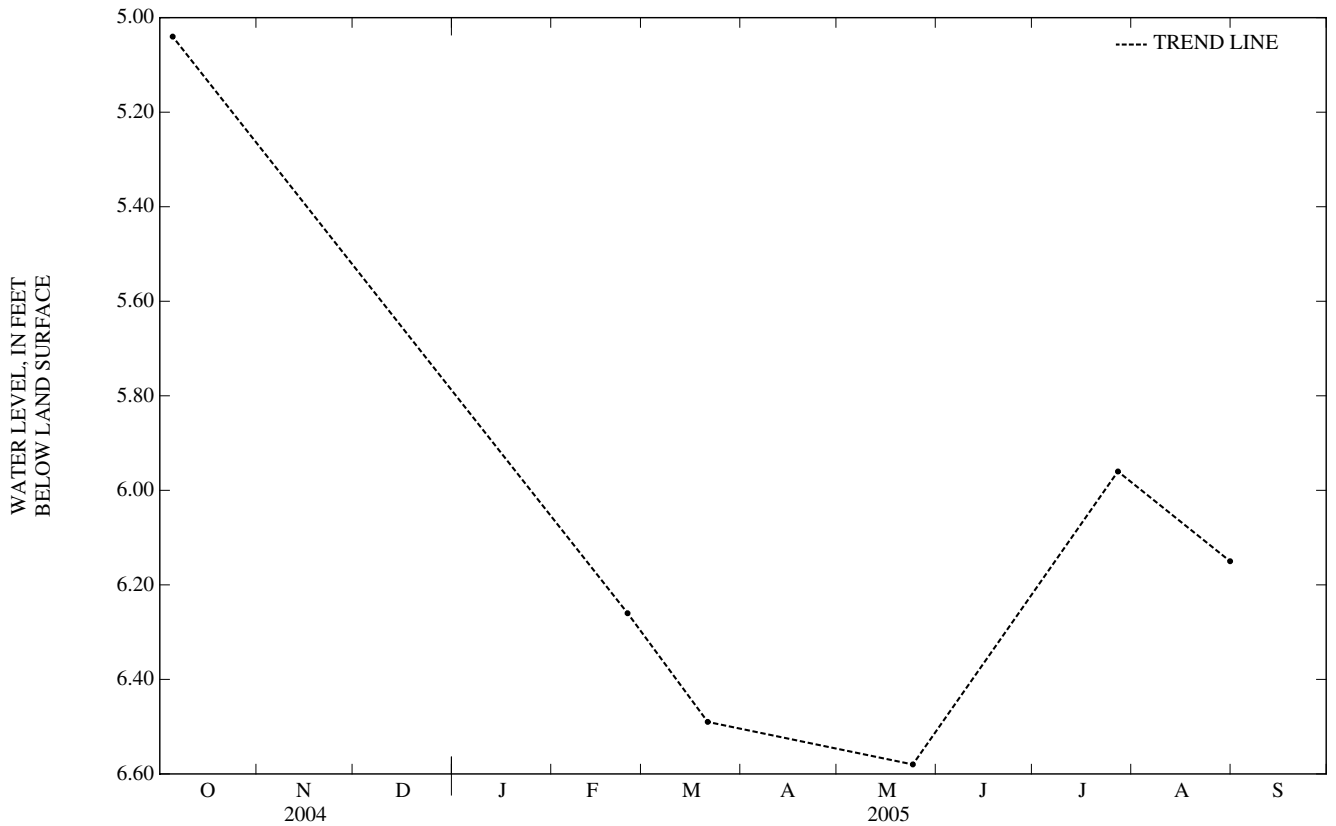
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.04 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 6.58 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	5.04	FEB 24	6.26	MAR 21	6.49	MAY 24	6.58	JUL 27	5.96	AUG 31	6.15



GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352904082382001. County number, BU-091; DENR Bent Creek Research Station PZ-4S.

LOCATION.--Lat 35°29'04", long 82°38'20", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 17 ft, diameter 2 in., cased to 12 ft, screened interval from 12 to 17 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,232.28 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.99 ft above land-surface datum.

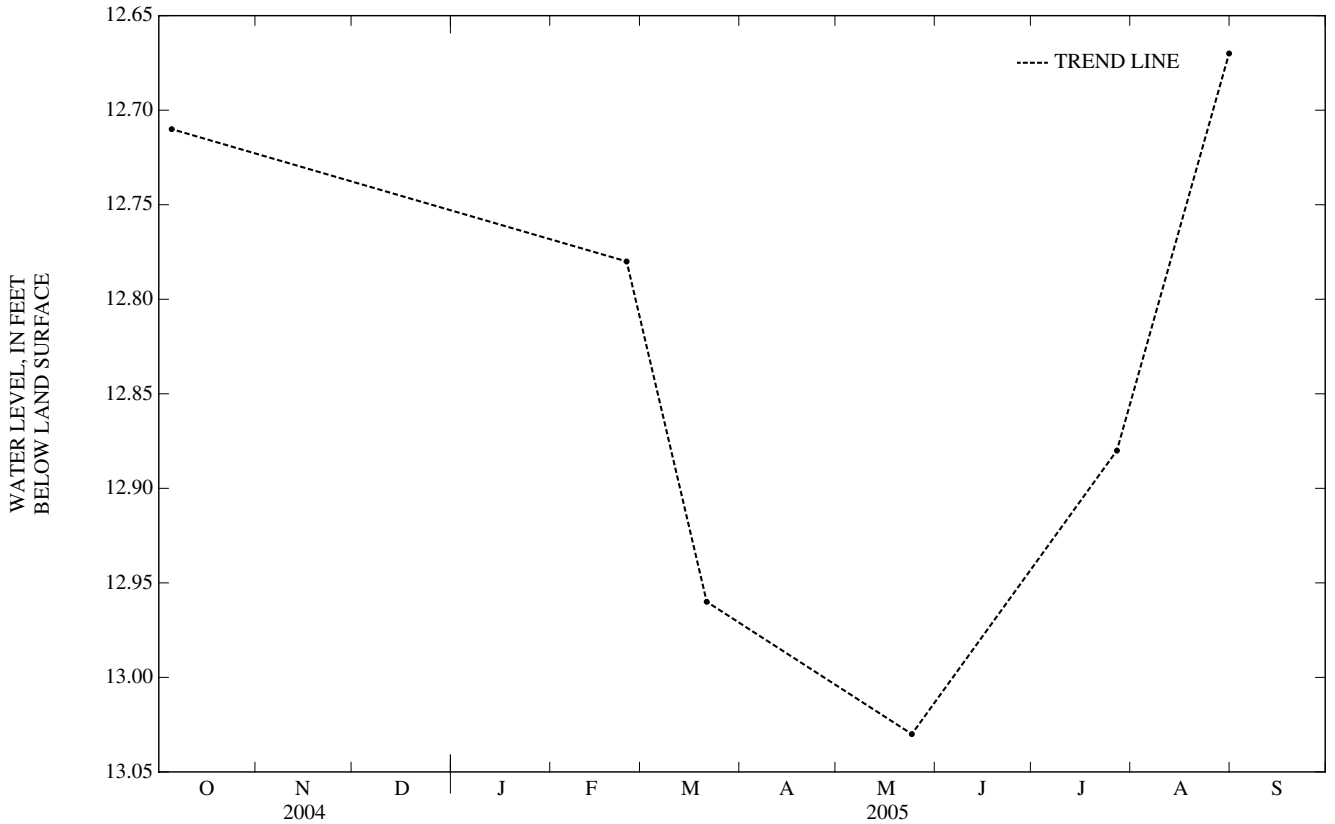
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.67 ft below land-surface datum, Aug. 31, 2005; lowest water level measured, 13.03 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	12.71	FEB 24	12.78	MAR 21	12.96	MAY 24	13.03	JUL 27	12.88	AUG 31	12.67



BUNCOMBE COUNTY—Continued

352904082382002. County number, BU-092; DENR Bent Creek Research Station PZ-4I.

LOCATION.--Lat 35°29'04", long 82°38'20", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 30 ft, diameter 2 in., cased to 25 ft, screened interval from 25 to 30 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,231.88 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.90 ft above land-surface datum.

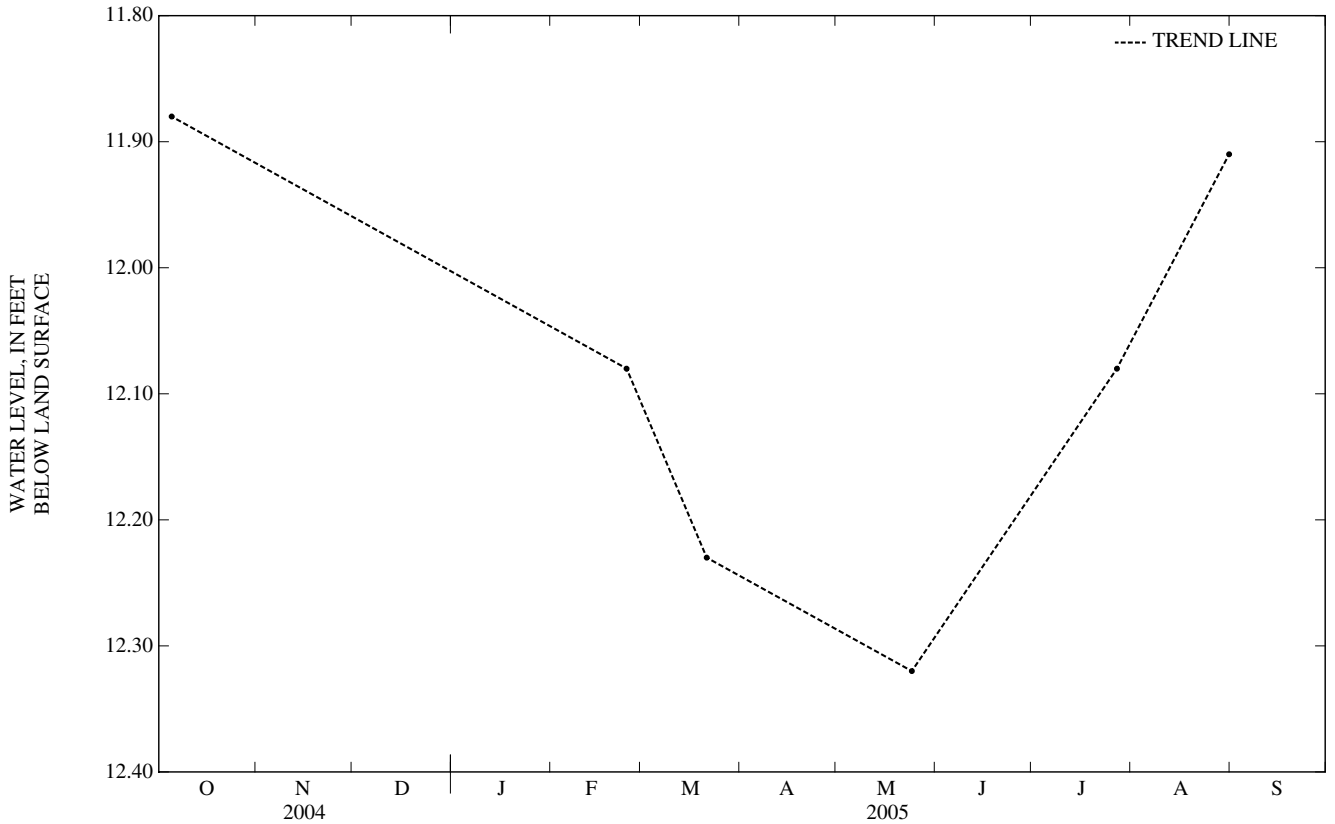
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.67 ft below land-surface datum, Aug. 31, 2005; lowest water level measured, 13.03 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	11.88	FEB 24	12.08	MAR 21	12.23	MAY 24	12.32	JUL 27	12.08	AUG 31	11.91



GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352908082382701. County number, BU-093; DENR Bent Creek Research Station PZ-5S.

LOCATION.--Lat 35°29'08", long 82°38'27", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 17 ft, diameter 2 in., cased to 12 ft, screened interval from 12 to 17 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,257.14 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.72 ft above land-surface datum.

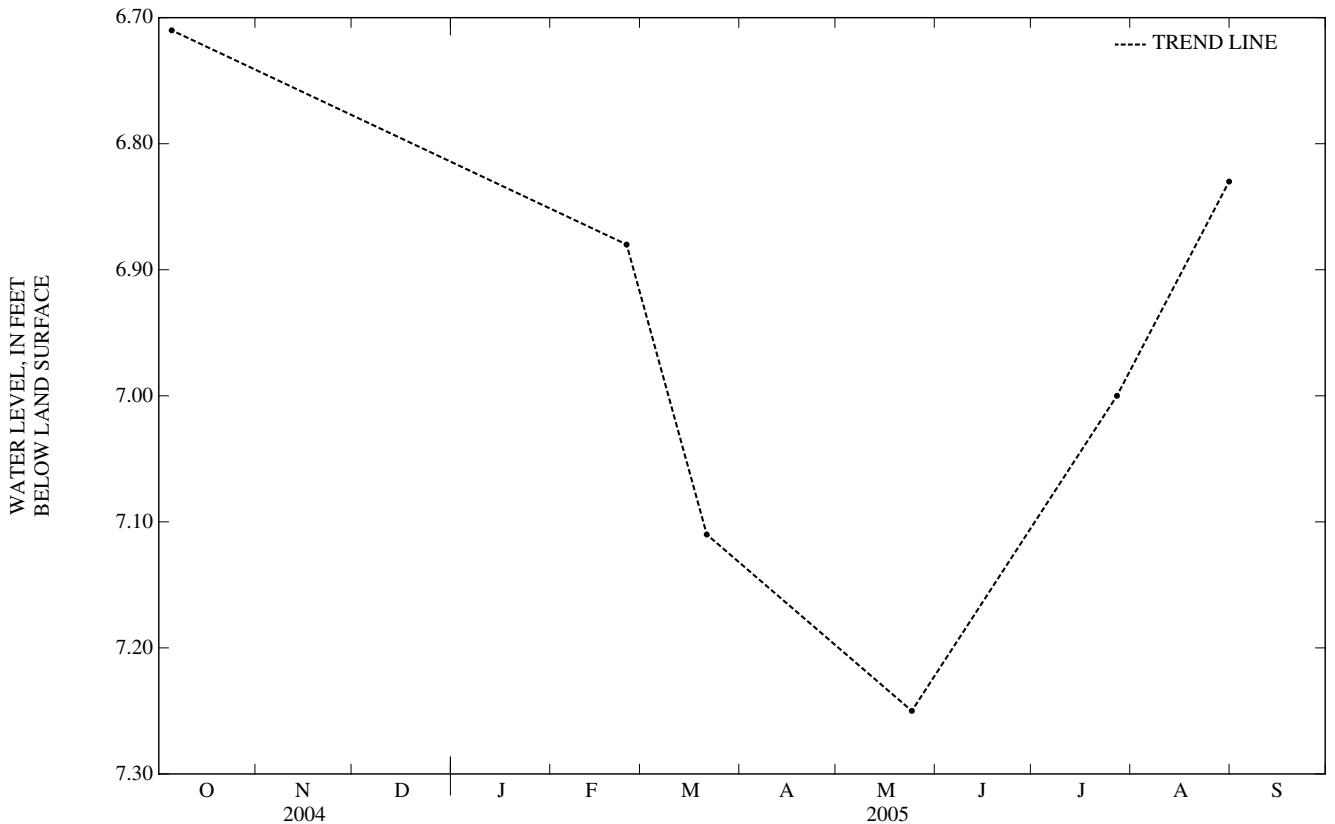
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.71 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 7.25 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	6.71	FEB 24	6.88	MAR 21	7.11	MAY 24	7.25	JUL 27	7.00	AUG 31	6.83



BUNCOMBE COUNTY—Continued

352908082382702. County number, BU-094; DENR Bent Creek Research Station PZ-5I.

LOCATION.--Lat 35°29'08", long 82°38'27", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 29 ft, diameter 2 in., cased to 24 ft, screened interval from 24 to 29 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,256.57 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.68 ft above land-surface datum.

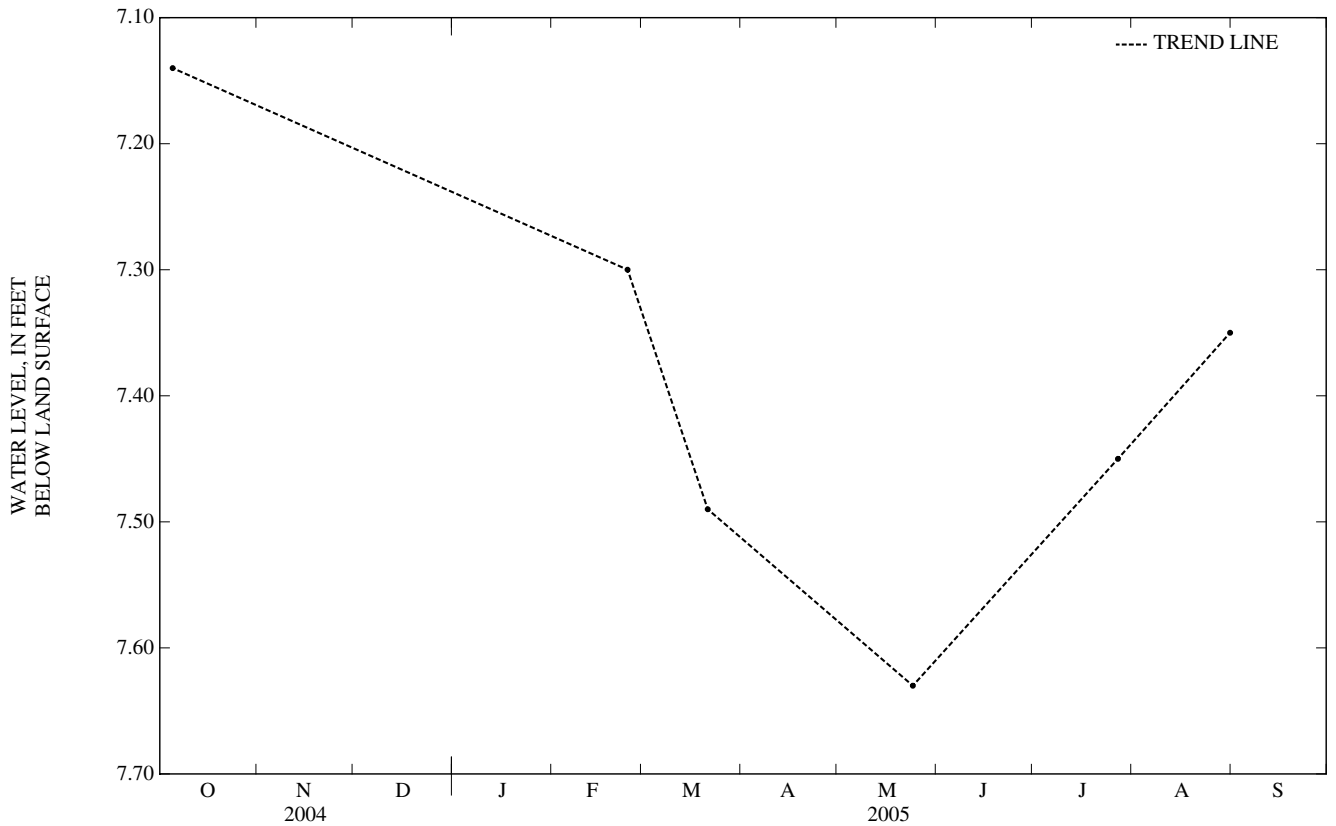
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.14 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 7.63 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.14	FEB 24	7.30	MAR 21	7.49	MAY 24	7.63	JUL 27	7.45	AUG 31	7.35



GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352909082382701. County number, BU-095; DENR Bent Creek Research Station PZ-6S.

LOCATION.--Lat 35°29'09", long 82°38'27", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 22 ft, diameter 2 in., cased to 17 ft, screened interval from 17 to 22 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,257.86 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.10 ft above land-surface datum.

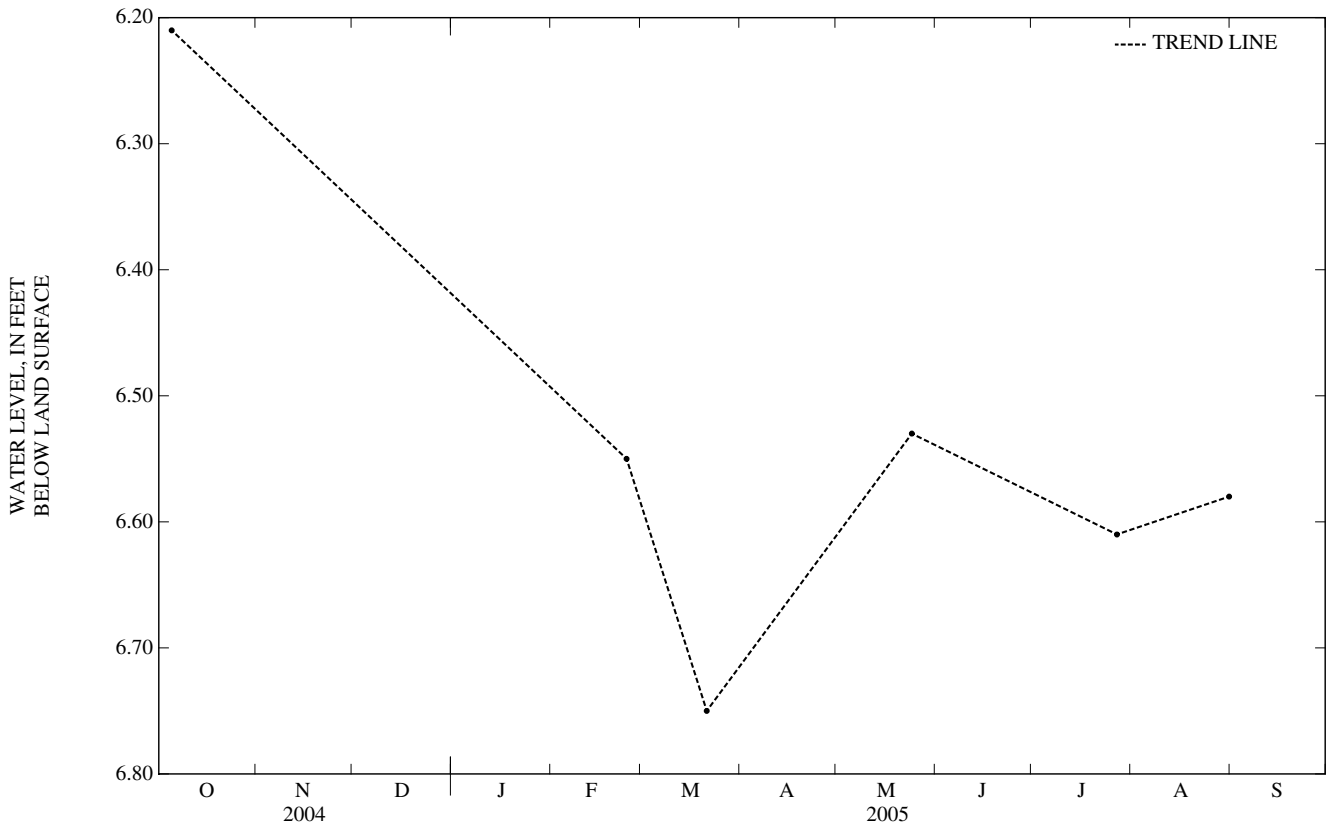
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.21 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 6.75 ft below land-surface datum, Mar. 21, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	6.21	FEB 24	6.55	MAR 21	6.75	MAY 24	6.53	JUL 27	6.61	AUG 31	6.58



BUNCOMBE COUNTY—Continued

352909082382702. County number, BU-096; DENR Bent Creek Research Station PZ-6I.

LOCATION.--Lat 35°29'09", long 82°38'27", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 34 ft, diameter 2 in., cased to 29 ft, screened interval from 29 to 34 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,257.69 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.90 ft above land-surface datum.

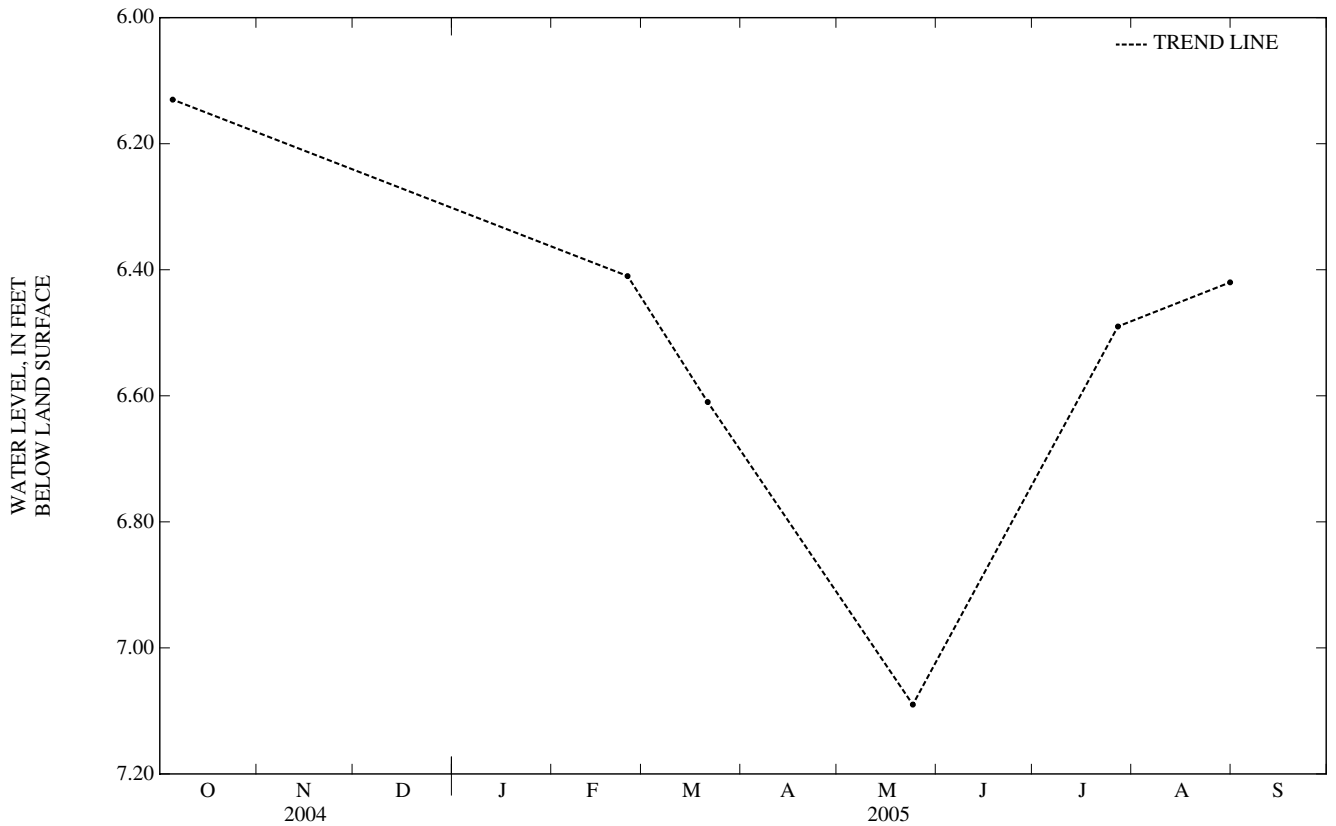
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.13 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 7.09 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	6.13	FEB 24	6.41	MAR 21	6.61	MAY 24	7.09	JUL 27	6.49	AUG 31	6.42



GROUND-WATER LEVELS
 BUNCOMBE COUNTY—Continued

352911082383101. County number, BU-097; DENR Bent Creek Research Station PZ-7S.

LOCATION.--Lat 35°29'11", long 82°38'31", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 13.5 ft, diameter 2 in., cased to 8 ft, screened interval from 8 to 13.5 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,271.29 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.97 ft above land-surface datum.

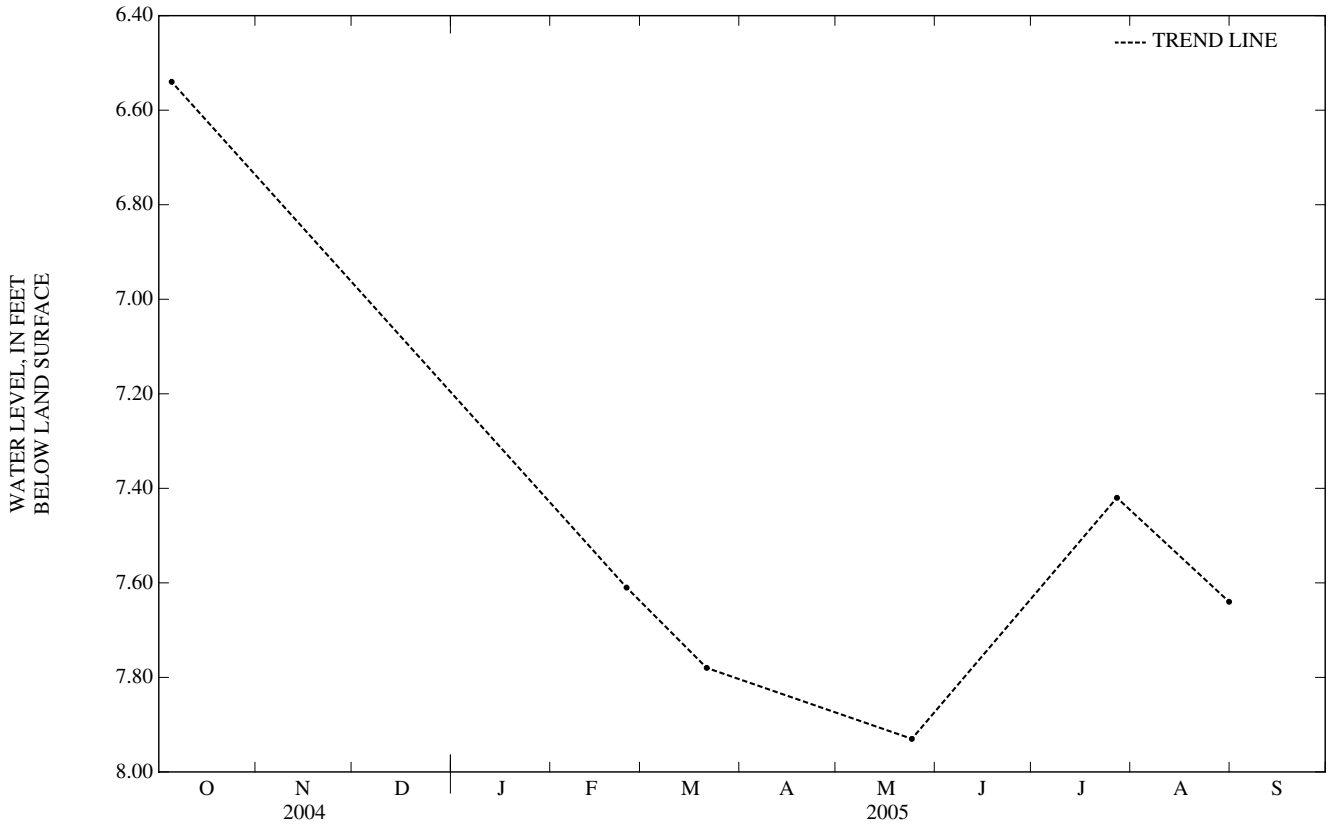
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.54 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 7.93 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	6.54	FEB 24	7.61	MAR 21	7.78	MAY 24	7.93	JUL 27	7.42	AUG 31	7.64



BUNCOMBE COUNTY—Continued

352911082383102. County number, BU-098; DENR Bent Creek Research Station PZ-7I.

LOCATION.--Lat 35°29'11", long 82°38'31", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 25 ft, diameter 2 in., cased to 20 ft, screened interval from 20 to 25 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,273.26 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.80 ft above land-surface datum.

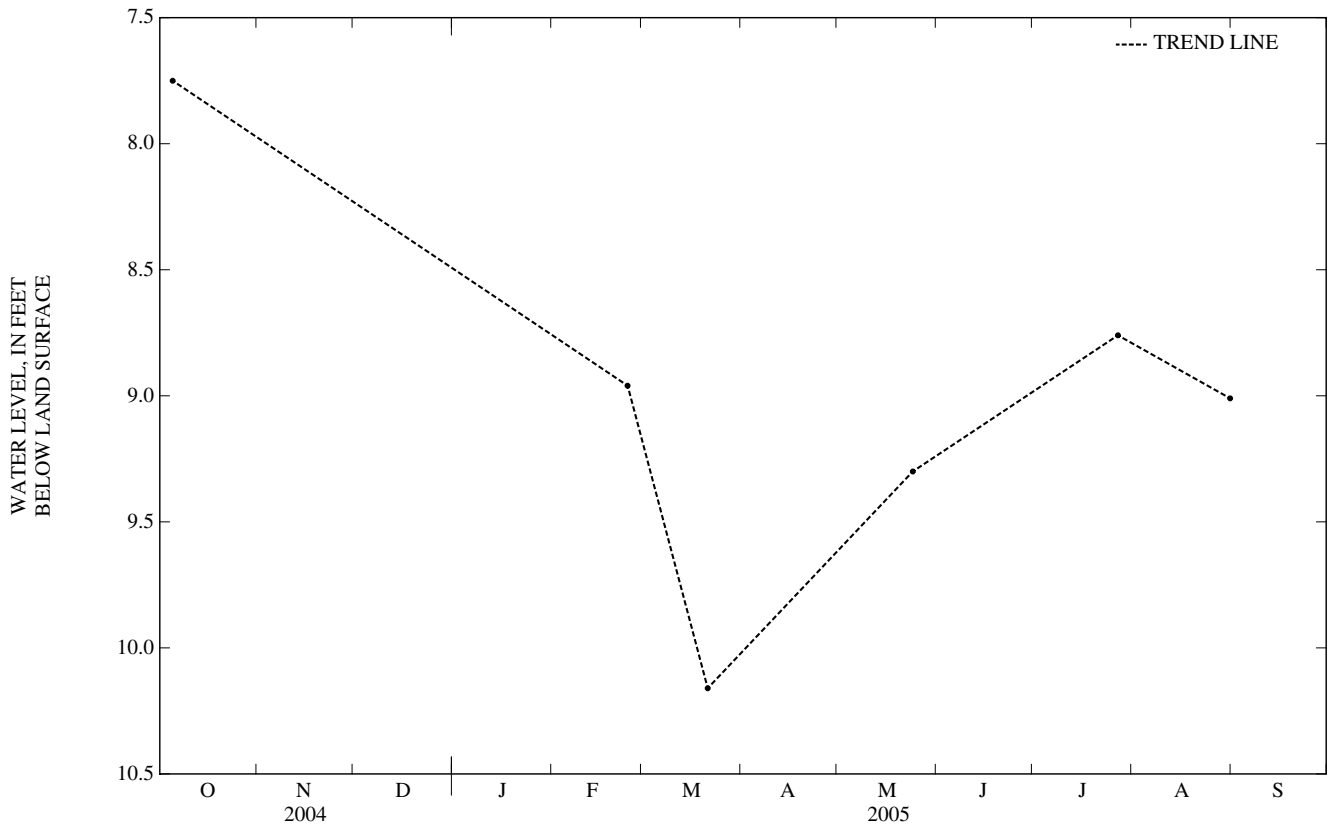
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.75 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 10.16 ft below land-surface datum, Mar. 21, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	7.75	FEB 24	8.96	MAR 21	10.16	MAY 24	9.30	JUL 27	8.76	AUG 31	9.01



GROUND-WATER LEVELS
BUNCOMBE COUNTY—Continued

352912082382601. County number, BU-099; DENR Bent Creek Research Station PZ-8S.

LOCATION.--Lat 35°29'12", long 82°38'26", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 2 in., cased to 15 ft, screened interval from 15 to 20 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,256.74 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.95 ft above land-surface datum.

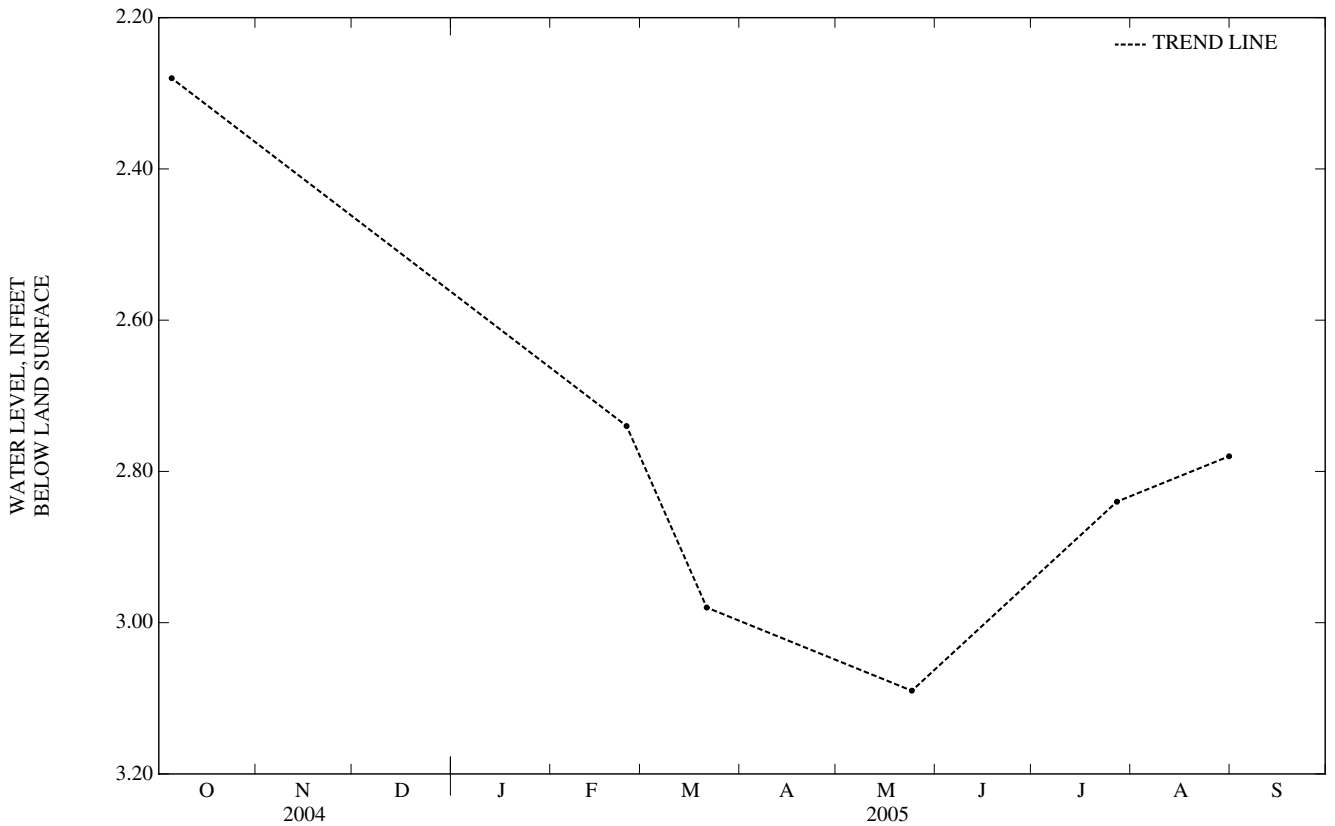
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.28 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 3.09 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	2.28	FEB 24	2.74	MAR 21	2.98	MAY 24	3.09	JUL 27	2.84	AUG 31	2.78



BUNCOMBE COUNTY—Continued

352912082382602. County number, BU-100; DENR Bent Creek Research Station PZ-8I.

LOCATION.--Lat 35°29'12", long 82°38'26", Hydrologic Unit 06010105, 1.2 mi north of Blue Ridge Parkway, 3.1 mi west of Brevard Road in Bent Creek Research Forest. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 34 ft, diameter 2 in., cased to 29 ft, screened interval from 29 to 34 ft.

INSTRUMENTATION.--Measured periodically with steel tape.

DATUM.--Land-surface datum is 2,256.74 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.95 ft above land-surface datum.

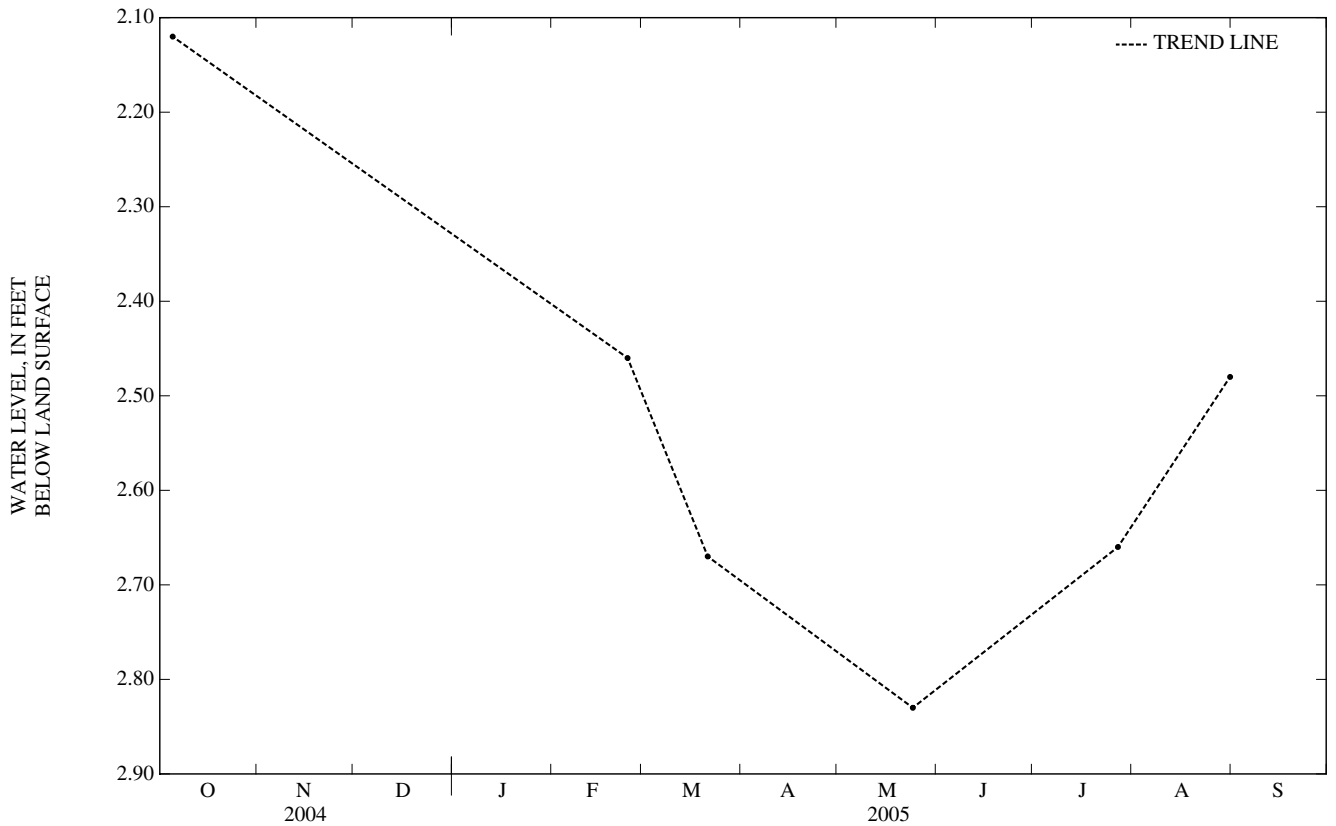
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.12 ft below land-surface datum, Oct. 5, 2004; lowest water level measured, 2.83 ft below land-surface datum, May 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	2.12	FEB 24	2.46	MAR 21	2.67	MAY 24	2.83	JUL 27	2.66	AUG 31	2.48



GROUND-WATER LEVELS

CAMDEN COUNTY

362527076163301. County number, CA-087; LU-03.

LOCATION.--Lat 36°25'27", long 76°16'33", Hydrologic Unit 03020105, 3 mi south of South Mills, on farm road, 1 mi north of North Carolina State Highway 343.

WATER-LEVEL RECORDS

AQUIFER.--Surficial.

WELL CHARACTERISTICS.--Drilled observation well, depth 10 ft, diameter 2 in., screened interval from 7 to 10 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 13 ft above NGVD of 1929. Measuring point: Top of casing, 2.58 ft above land-surface datum.

REMARKS.--Well is part of National Water Quality Assessment Program (NAWQA).

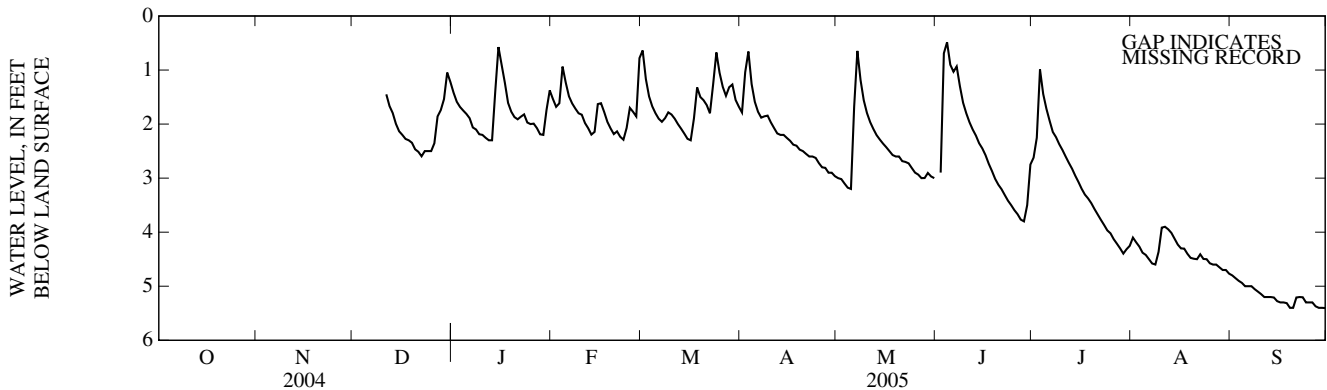
PERIOD OF RECORD.--December 2004 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, .1 ft below land-surface datum, June 3, 2005; lowest water level recorded, 5.5 ft below land-surface datum, Sept. 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	1.4	1.5	0.6	1.8	3.0	---	2.6	4.1	4.8
2	---	---	---	1.6	1.7	1.2	1.0	3.0	2.9	2.3	4.2	4.9
3	---	---	---	1.7	1.6	1.5	0.7	3.1	0.7	1.0	4.3	4.9
4	---	---	---	1.7	0.9	1.7	1.3	3.2	0.5	1.4	4.4	4.9
5	---	---	---	1.8	1.2	1.8	1.6	3.2	0.9	1.7	4.4	5.0
6	---	---	---	1.9	1.5	1.9	1.8	1.7	1.0	1.9	4.5	5.0
7	---	---	---	2.1	1.6	2.0	1.9	0.6	0.9	2.1	4.6	5.0
8	---	---	---	2.1	1.7	1.9	1.9	1.2	1.3	2.2	4.6	5.1
9	---	---	---	2.2	1.8	1.8	1.8	1.6	1.6	2.4	4.4	5.1
10	---	---	---	2.2	1.8	1.8	2.0	1.8	1.8	2.5	3.9	5.1
11	---	---	1.4	2.3	2.0	1.9	2.1	2.0	2.0	2.6	3.9	5.2
12	---	---	1.7	2.3	2.1	2.0	2.2	2.1	2.1	2.7	3.9	5.2
13	---	---	1.8	2.3	2.2	2.1	2.2	2.2	2.2	2.8	4.0	5.2
14	---	---	2.0	1.4	2.1	2.2	2.2	2.3	2.4	3.0	4.1	5.2
15	---	---	2.1	0.6	1.6	2.3	2.3	2.4	2.5	3.1	4.2	5.3
16	---	---	2.2	0.9	1.6	2.3	2.3	2.4	2.6	3.2	4.3	5.3
17	---	---	2.3	1.2	1.8	1.9	2.4	2.5	2.7	3.3	4.3	5.3
18	---	---	2.3	1.6	2.0	1.3	2.4	2.6	2.9	3.4	4.4	5.3
19	---	---	2.3	1.8	2.1	1.5	2.5	2.6	3.0	3.5	4.5	5.4
20	---	---	2.5	1.9	2.2	1.6	2.5	2.6	3.1	3.6	4.5	5.4
21	---	---	2.5	1.9	2.1	1.6	2.6	2.7	3.2	3.7	4.5	5.2
22	---	---	2.6	1.9	2.2	1.8	2.6	2.7	3.3	3.8	4.4	5.2
23	---	---	2.5	1.8	2.3	1.3	2.6	2.7	3.4	3.9	4.5	5.2
24	---	---	2.5	2.0	2.1	0.7	2.6	2.8	3.5	4.0	4.5	5.3
25	---	---	2.5	2.0	1.7	1.1	2.7	2.9	3.6	4.0	4.6	5.3
26	---	---	2.4	2.0	1.8	1.3	2.8	2.9	3.7	4.1	4.6	5.3
27	---	---	1.9	2.1	1.9	1.5	2.8	3.0	3.8	4.2	4.6	5.4
28	---	---	1.7	2.2	0.8	1.3	2.9	3.0	3.8	4.3	4.7	5.4
29	---	---	1.5	2.2	---	1.3	2.9	2.9	3.5	4.4	4.7	5.4
30	---	---	1.0	1.7	---	1.6	3.0	3.0	2.7	4.3	4.7	5.4
31	---	---	1.2	1.4	---	1.7	---	3.0	---	4.3	4.8	---

WTR YR 2005 MEAN 2.7 HIGH 0.5 LOW 5.4



362527076163301. County number, CA-087; LU-03.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1994, 2001, 2002, October 2004 to September 2005.

REMARKS.--Well is part of National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)
Date	Hardness, water, mg/L as CaCO3 (00900)	Calcium, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)
Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2Chloro -2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)
Date	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-Endosulfan, water, fltrd, ug/L (34362)	Atrazine, water, fltrd, ug/L (39632)	Azin-phosmethyl oxon, water, fltrd, ug/L (61635)	Azin-phosmethyl, water, fltrd 0.7u GF ug/L (82686)	Ben-fluralin, water, fltrd 0.7u GF ug/L (82673)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos oxon, water, fltrd, ug/L (61636)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)
DEC 10...	0900	10.0	2.02	13	4.60	.10	--	751	.3	4	6.5	450	16.0
MAR 07...	1545	10.0	1.95	13	4.53	1.0	110	752	.1	1	6.1	448	13.1
JUN 01...	1530	10.0	3.09	13	5.67	.10	5.0	764	.1	1	6.1	480	14.9
AUG 29...	1530	10.0	4.69	13	7.27	.30	6.9	758	.1	2	6.0	449	22.6
DEC 10...		6.82	7.78	1.45	4	58.5	27	33	.06	76.8	.1	38.9	14.4
MAR 07...	49	7.20	7.65	1.31	4	57.7	69	84	.22	83.1	.1	36.4	22.1
JUN 01...	47	6.96	7.17	1.45	4	61.8	72	88	.13	83.8	<.5	38.4	22.0
AUG 29...	45	6.77	6.71	1.63	4	57.4	66	81	1.86	83.5	.1	40.2	23.5
DEC 10...	266	.09	<.06	.015	.22	.042	<.09	<.006	<.005	<.006	<.004	<.004	--
MAR 07...	259	.09	<.06	E.006	.22	.087	<.09	<.006	<.005	<.006	<.004	<.004	--
JUN 01...	276	.09	<.06	.017	.22	<.006	<.09	<.006	<.005	<.006	<.004	<.004	<.004
AUG 29...	282	.10	<.06	.010	.23	.061	<.09	<.006	<.005	<.006	<.004	<.004	<.004
DEC 10...	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006
MAR 07...	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006
JUN 01...	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006
AUG 29...	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006

362527076163301. County number, CA-087; LU-03.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	cis-Propiconazole, water, fltrd, ug/L (79846)	Cyanazine, water, fltrd, ug/L (04041)	Cyfluthrin, water, fltrd, ug/L (61585)	lambda-Cyhalothrin, water, fltrd, ug/L (61595)	Cypermethrin, water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Dicrotophos, water, fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethoate, water, fltrd 0.7u GF ug/L (82662)	Disulfoton sulfone, water, fltrd, ug/L (61640)
DEC 10...	--	--	<.008	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--
MAR 07...	--	--	<.027	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--
JUN 01...	<.016	<.018	<.027	<.009	<.016	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01
AUG 29...	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01
Date	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	Endosulfan sulfate, water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethion monoxon, water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Fenamiphos sulfone, water, fltrd, ug/L (61645)	Fenamiphos sulf-oxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide, water, fltrd, ug/L (62167)	Fipronil sulfone, water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)
DEC 10...	--	--	--	<.0020	<.004	--	<.049	--	<.03	<.029	<.013	<.024	<.016
MAR 07...	--	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016
JUN 01...	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016
AUG 29...	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016
Date	Fonofos, water, fltrd, ug/L (61649)	Fonofos, water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methialthion, water, fltrd, ug/L (61598)	Methyl paraxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
DEC 10...	<.003	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
MAR 07...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
JUN 01...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
AUG 29...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
Date	Molinate, water, fltrd 0.7u GF ug/L (82671)	Myclobutanil, water, fltrd, ug/L (61599)	Oxyfluorfen, water, fltrd, ug/L (61600)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate, water, fltrd, ug/L (61666)	Phorate, water, fltrd 0.7u GF ug/L (82664)	Phosmet, water, fltrd, ug/L (61668)	Phosmet, water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)
DEC 10...	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--
MAR 07...	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--
JUN 01...	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011	<.02
AUG 29...	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011	<.02

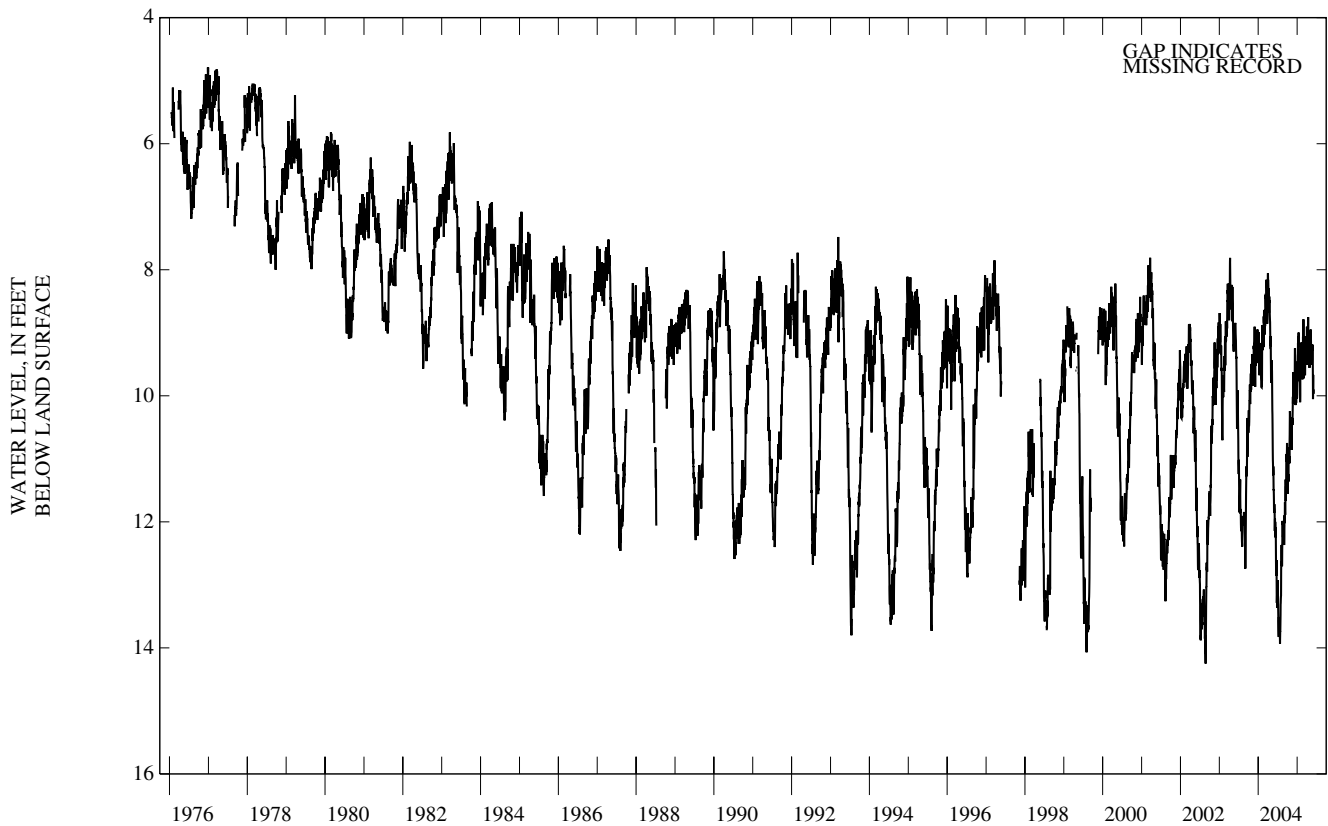
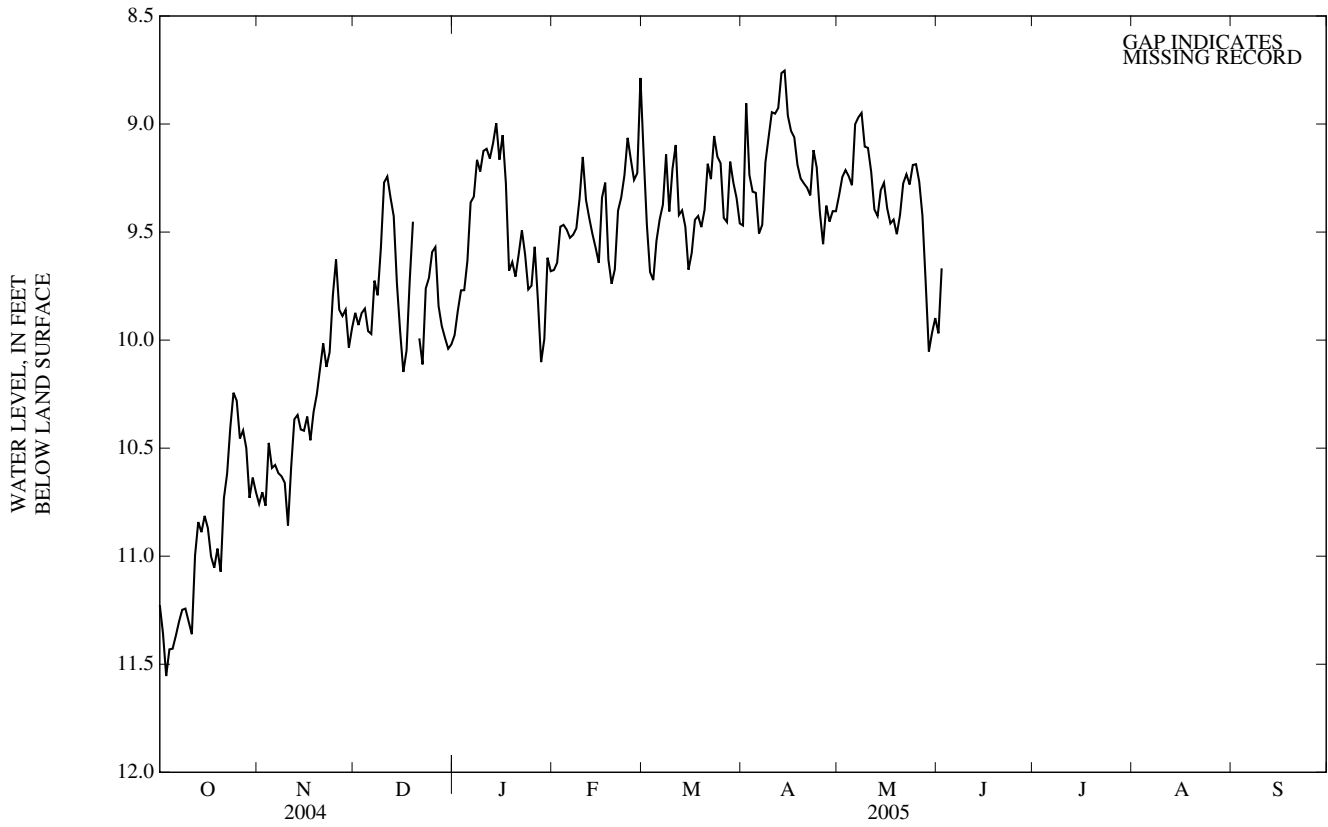
362527076163301. County number, CA-087; LU-03.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Thio- bencarb water fltrd 0.7u GF (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)	Tribu- phos, water, fltrd, ug/L (61610)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
DEC 10...	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	<.04
MAR 07...	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	--
JUN 01...	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.02	<.004	<.009	<.01	--
AUG 29...	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--

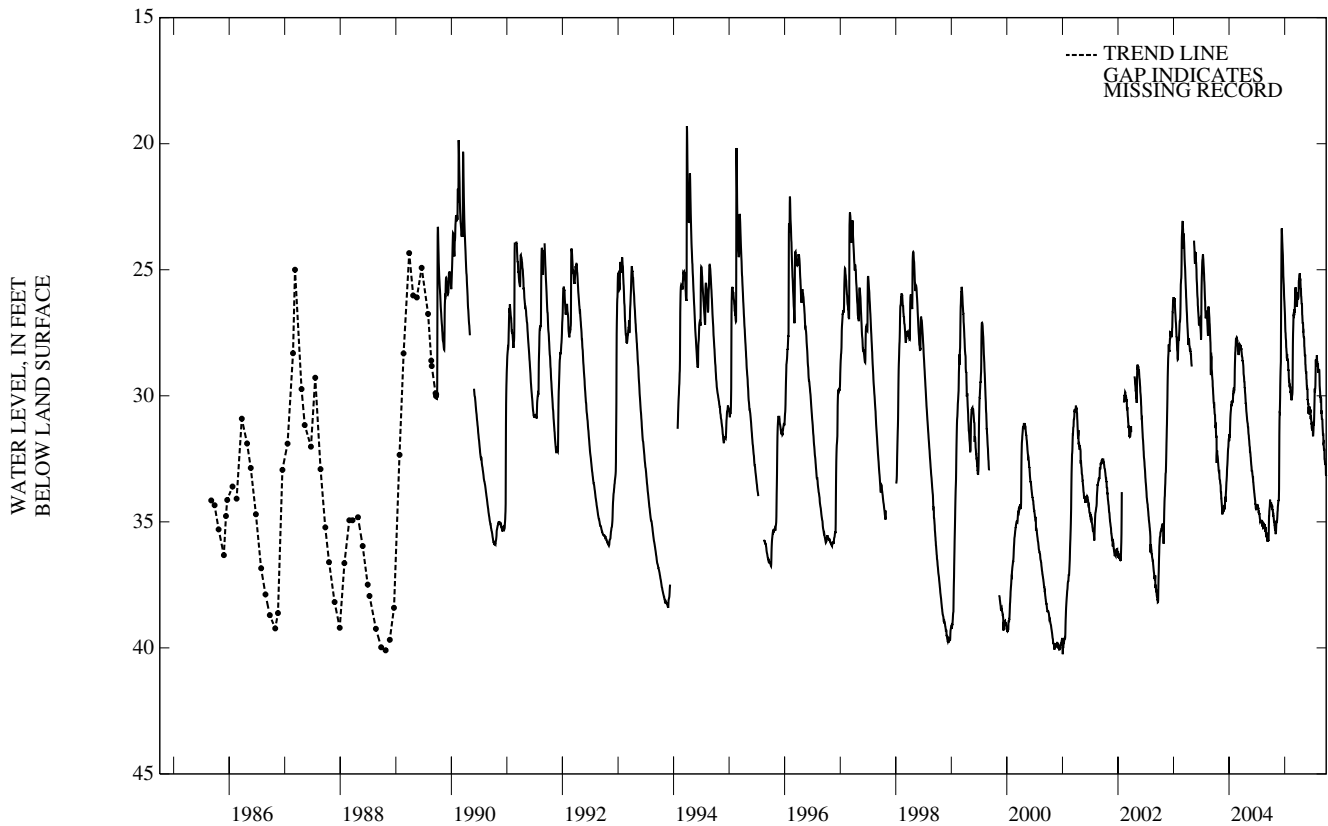
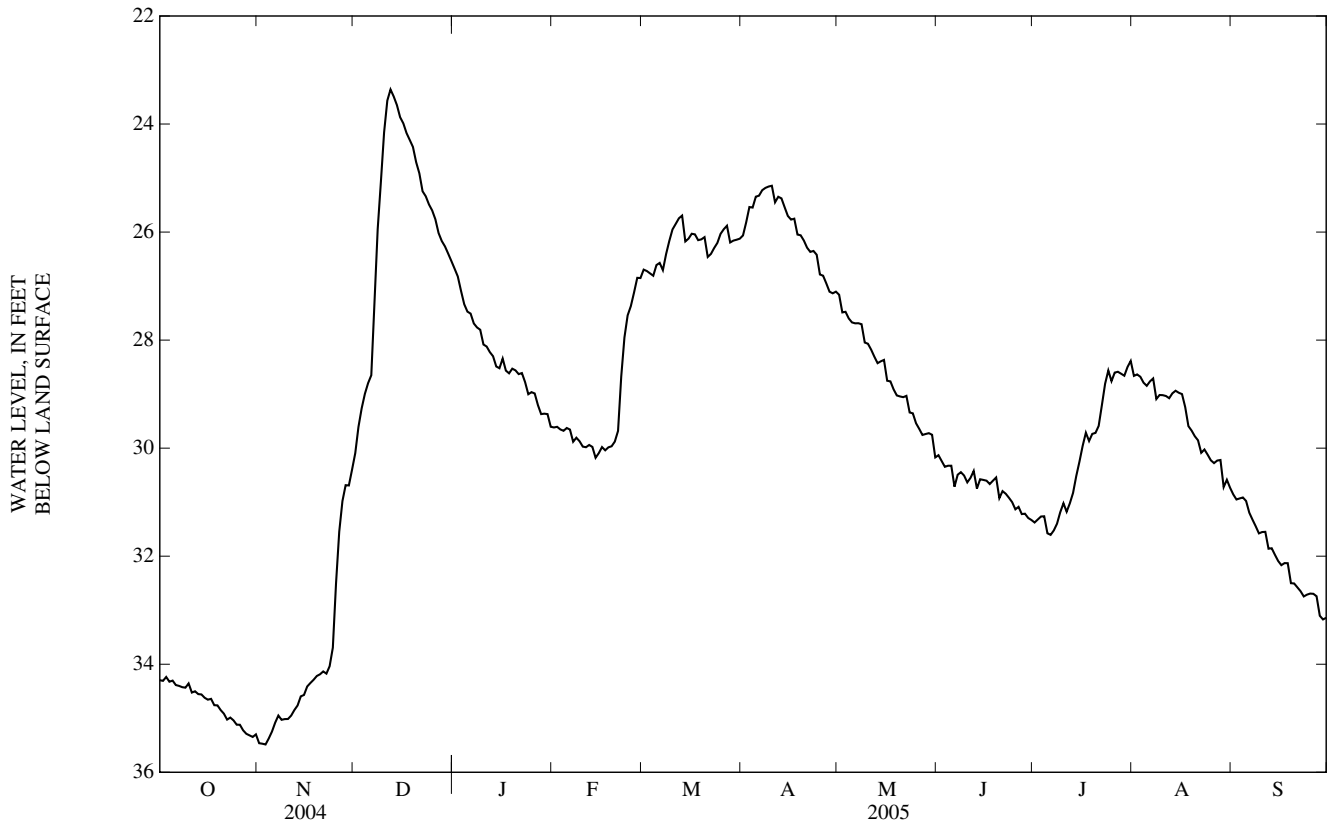
CARTERET COUNTY—Continued

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



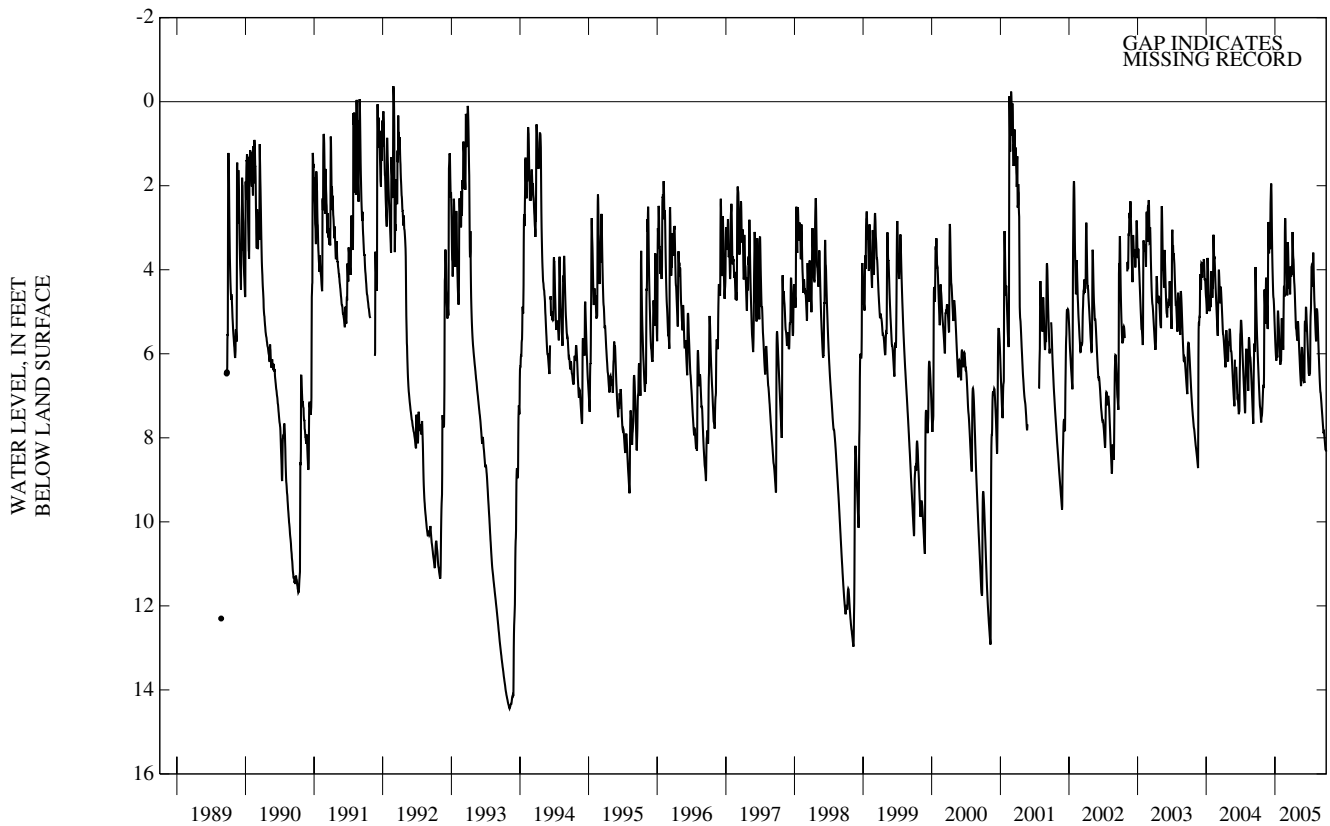
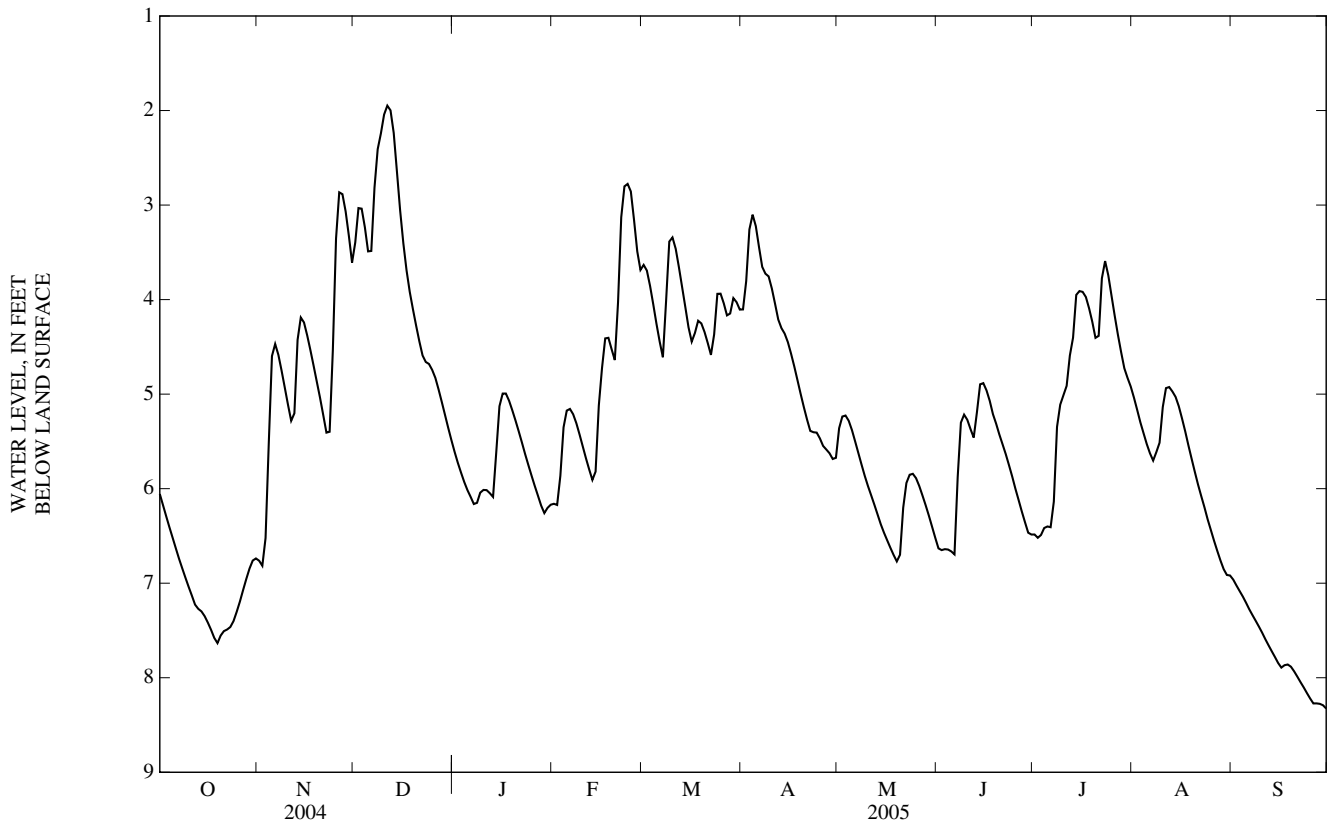
CHEROKEE COUNTY—Continued

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



CHEROKEE COUNTY—Continued

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



GROUND-WATER LEVELS

DAVIE COUNTY

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

LOCATION.--Lat 35°53'59", long 80°33'16", 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 station.

DATUM.--Land-surface datum is 835 ft above NGVD of 1929 (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.

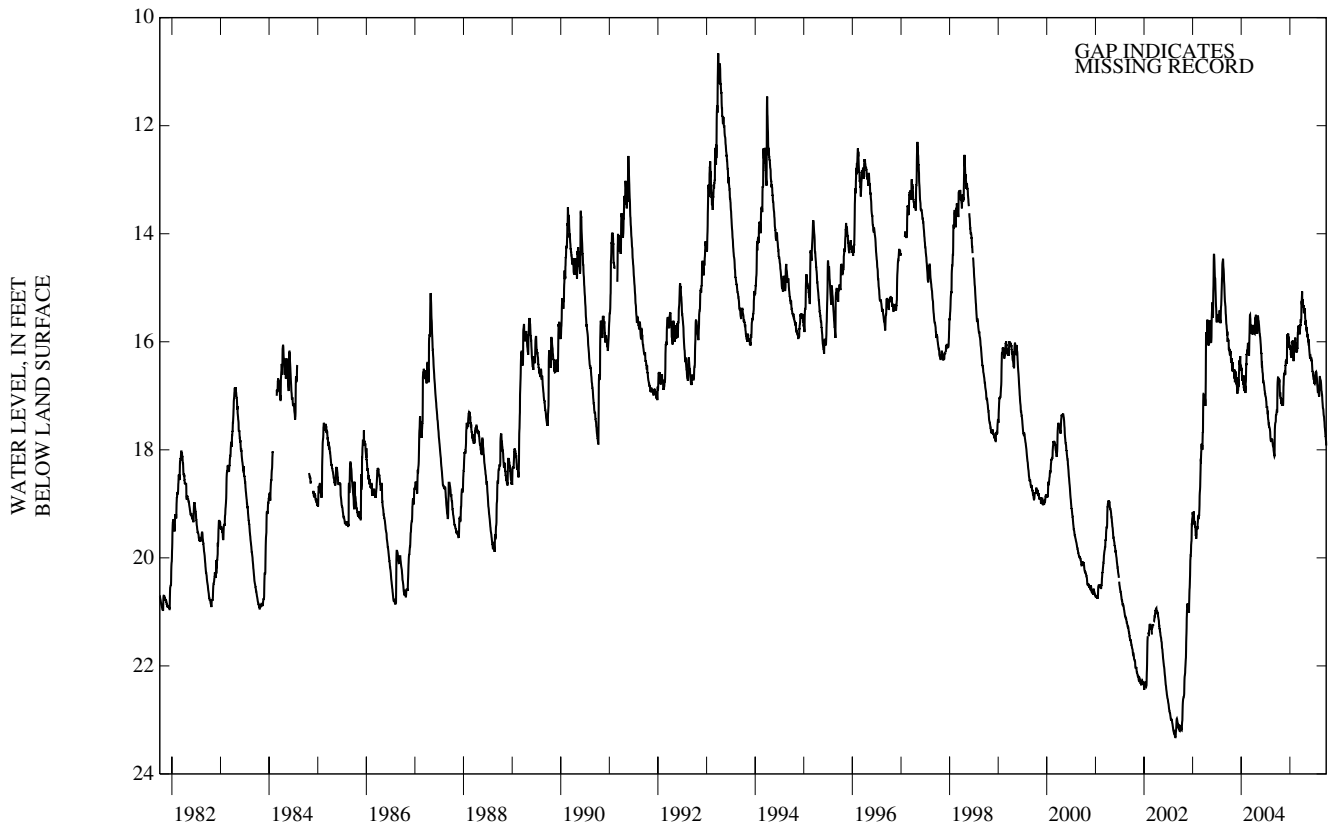
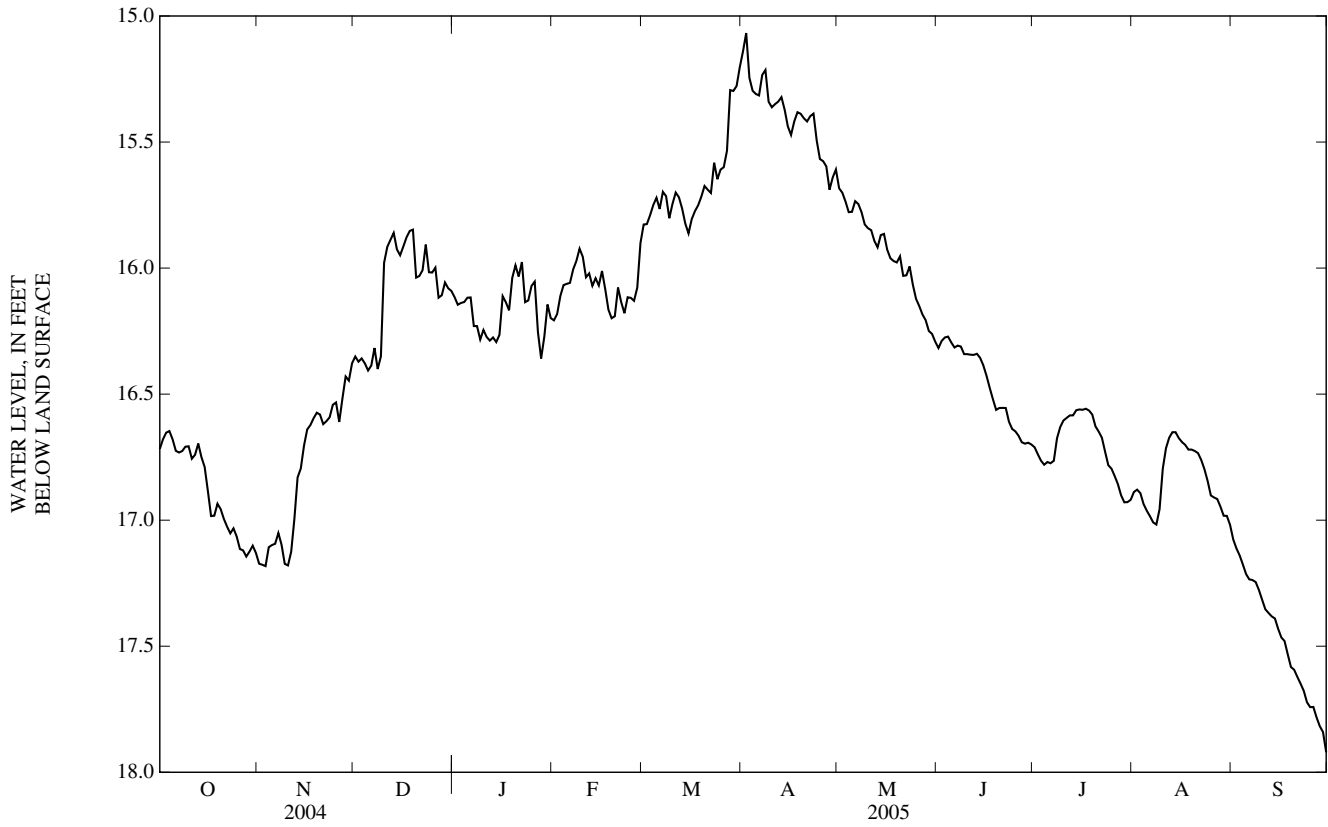
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 10.64 ft below land-surface datum, Mar. 28, 1993; lowest water level recorded, 23.22 ft below land-surface datum, Aug. 23, 24, 25, 26, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	16.72	17.17	16.35	16.12	16.21	15.83	15.14	15.68	16.32	16.71	16.89	17.08	
2	16.68	17.18	16.37	16.15	16.18	15.83	15.07	15.70	16.29	16.74	16.88	17.11	
3	16.65	17.18	16.36	16.14	16.11	15.79	15.24	15.74	16.28	16.76	16.89	17.14	
4	16.65	17.11	16.38	16.13	16.07	15.75	15.30	15.78	16.27	16.78	16.94	17.18	
5	16.68	17.10	16.41	16.12	16.06	15.72	15.31	15.78	16.30	16.77	16.96	17.21	
6	16.72	17.09	16.39	16.12	16.06	15.77	15.32	15.73	16.32	16.77	16.98	17.23	
7	16.73	17.05	16.32	16.23	16.01	15.70	15.23	15.75	16.31	16.76	17.01	17.24	
8	16.73	17.10	16.40	16.23	15.97	15.71	15.21	15.78	16.31	16.68	17.02	17.25	
9	16.71	17.17	16.35	16.28	15.92	15.80	15.34	15.83	16.34	16.63	16.96	17.28	
10	16.71	17.18	15.98	16.25	15.96	15.75	15.36	15.84	16.34	16.60	16.80	17.32	
11	16.76	17.13	15.92	16.27	16.04	15.70	15.35	15.85	16.34	16.59	16.71	17.35	
12	16.74	17.00	15.89	16.29	16.02	15.72	15.34	15.89	16.34	16.58	16.67	17.37	
13	16.70	16.83	15.86	16.28	16.07	15.76	15.32	15.92	16.34	16.58	16.65	17.38	
14	16.75	16.80	15.93	16.29	16.04	15.82	15.37	15.87	16.36	16.56	16.65	17.39	
15	16.79	16.70	15.95	16.27	16.07	15.86	15.44	15.86	16.39	16.56	16.67	17.43	
16	16.88	16.64	15.91	16.11	16.01	15.81	15.47	15.93	16.43	16.56	16.69	17.47	
17	16.98	16.62	15.88	16.14	16.08	15.77	15.42	15.96	16.48	16.56	16.70	17.48	
18	16.98	16.60	15.85	16.17	16.16	15.75	15.38	15.97	16.52	16.57	16.72	17.53	
19	16.93	16.57	15.85	16.04	16.20	15.72	15.39	15.98	16.56	16.58	16.72	17.58	
20	16.96	16.58	16.04	15.99	16.19	15.67	15.41	15.95	16.55	16.63	16.73	17.59	
21	17.00	16.62	16.03	16.03	16.08	15.69	15.42	16.03	16.55	16.65	16.73	17.62	
22	17.03	16.61	16.01	15.98	16.14	15.70	15.40	16.03	16.55	16.67	16.76	17.65	
23	17.05	16.59	15.91	16.14	16.18	15.58	15.39	15.99	16.61	16.73	16.80	17.68	
24	17.03	16.54	16.02	16.13	16.12	15.65	15.49	16.07	16.64	16.78	16.84	17.72	
25	17.07	16.53	16.02	16.07	16.12	15.61	15.57	16.12	16.65	16.80	16.90	17.74	
26	17.11	16.61	16.00	16.05	16.13	15.60	15.58	16.15	16.67	16.83	16.91	17.74	
27	17.12	16.52	16.12	16.25	16.08	15.53	15.60	16.18	16.69	16.86	16.92	17.78	
28	17.14	16.43	16.11	16.36	15.90	15.29	15.69	16.21	16.70	16.90	16.95	17.82	
29	17.12	16.45	16.06	16.27	---	15.30	15.64	16.25	16.69	16.93	16.98	17.84	
30	17.10	16.38	16.08	16.14	---	15.28	15.61	16.26	16.70	16.93	16.98	17.92	
31	17.13	---	16.09	16.20	---	15.20	---	16.29	---	16.92	17.02	---	
WTR YR	2005	MEAN	16.38	HIGH	15.07	LOW	17.92						

DAVIE COUNTY—Continued

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



GROUND-WATER LEVELS

DUPLIN COUNTY

345051078012108. Local number, NC-222; DENR Rose Hill Research Station well V32v8; County number, DU-136.

LOCATION.--Lat 34°50'52", long 78°01'20", 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 station.

DATUM.--Land-surface datum is 86 ft above NGVD of 1929 (from topographic map). Measuring point: Top of 4 in. casing collar, 1.21 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.62 ft below land-surface datum, June 18, 2003; lowest water level recorded occurred during period when well was dry, Sept. 1 to Sept. 30, 2002.

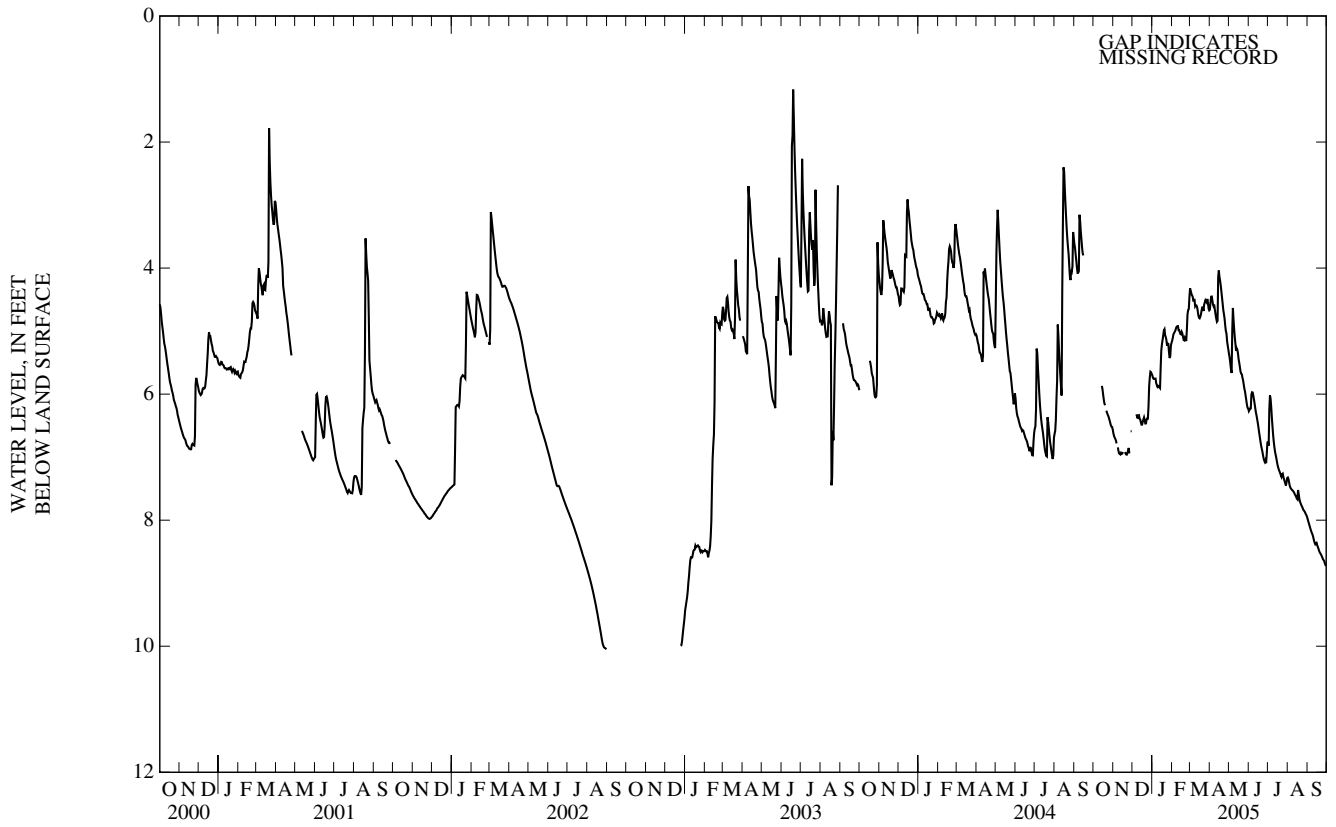
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	6.62	---	5.70	5.15	4.32	4.66	5.37	6.27	6.77	7.32	7.98
2	---	6.66	---	5.74	5.11	4.36	4.54	5.43	6.25	6.82	7.35	8.02
3	---	6.69	---	5.76	5.05	4.40	4.45	5.51	6.23	6.24	7.40	8.05
4	---	6.71	---	5.75	5.03	4.43	4.45	5.60	6.23	6.02	7.46	8.09
5	---	6.74	---	5.76	5.01	4.45	4.52	5.66	6.00	6.07	7.48	8.12
6	---	6.78	---	5.75	4.99	4.51	4.58	5.00	5.97	6.21	7.50	8.16
7	---	---	6.32	5.83	4.95	4.51	4.61	4.63	5.97	6.37	7.52	8.19
8	---	6.84	6.35	5.86	4.93	4.50	4.60	4.82	6.03	6.52	7.53	8.21
9	---	6.90	6.39	5.88	4.92	4.61	4.67	4.97	6.09	6.65	7.54	8.24
10	---	6.94	6.34	5.87	4.92	4.59	4.75	5.10	6.15	6.76	7.55	8.28
11	---	6.95	6.33	5.88	4.98	4.59	4.80	5.21	6.22	6.85	7.57	8.33
12	---	6.96	6.39	5.89	4.99	4.62	4.85	5.31	6.29	6.92	7.59	8.36
13	---	6.93	6.40	5.91	5.02	4.68	4.84	5.27	6.34	6.97	7.61	8.38
14	5.87	6.95	6.45	5.58	5.05	4.75	4.14	5.29	6.40	7.02	7.63	8.37
15	5.93	6.94	6.48	5.31	5.05	4.79	4.04	5.36	6.46	7.08	7.66	8.36
16	6.01	6.92	6.48	5.20	5.01	4.80	4.14	5.45	6.53	7.13	7.67	8.40
17	6.09	---	6.44	5.14	5.04	4.77	4.20	5.50	6.60	7.17	7.52	8.43
18	6.15	---	6.40	5.07	5.09	4.74	4.27	5.57	6.67	7.20	7.58	8.46
19	6.18	6.92	6.37	4.99	5.14	4.67	4.37	5.64	6.74	7.23	7.66	8.49
20	---	6.94	6.41	4.97	5.15	4.62	4.47	5.67	6.81	7.26	7.71	8.51
21	6.26	6.96	6.47	5.06	5.10	4.63	4.57	5.68	6.86	7.28	7.73	8.53
22	6.29	6.96	6.46	5.10	5.12	4.68	4.67	5.74	6.90	7.31	7.76	8.55
23	6.32	6.93	6.41	5.14	5.16	4.58	4.73	5.78	6.96	7.27	7.78	8.57
24	6.35	6.90	6.39	5.23	4.98	4.55	4.80	5.85	7.02	7.26	7.80	8.59
25	6.38	6.85	6.39	5.20	4.73	4.51	4.91	5.91	7.05	7.31	7.83	8.62
26	6.41	6.94	6.19	5.20	4.67	4.53	5.00	5.96	7.08	7.35	7.85	8.63
27	6.45	---	5.87	5.33	4.65	4.55	5.04	6.03	7.05	7.38	7.86	8.65
28	6.49	6.59	5.73	5.43	4.46	4.49	5.17	6.10	7.10	7.42	7.88	8.69
29	6.52	---	5.64	5.40	---	4.55	5.24	6.17	6.95	7.45	7.90	8.71
30	6.52	---	5.65	5.23	---	4.64	5.30	6.22	6.77	7.40	7.92	8.72
31	6.56	---	5.68	5.19	---	4.67	---	6.23	---	7.33	7.95	---

WTR YR 2005 MEAN 6.17 HIGH 4.04 LOW 8.72

DUPLIN COUNTY—Continued

345051078012108. Local number, NC-222; DENR Rose Hill Research Station well V32v8; County number, DU-136.



GROUND-WATER LEVELS

GREENE COUNTY

353103077333401. County number, GR-082; L2 Lizzie N26q2.

LOCATION.--Lat 35°31'04", long 77°33'33", Hydrologic Unit 03020203, near Lizzie, 20 ft north of Secondary 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 station.

DATUM.--Land-surface datum is 76.96 ft above NGVD of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 2.71 ft above land surface datum.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources and the U.S. Environmental Protection Agency as part of the Lizzie research site water-quality monitoring project.

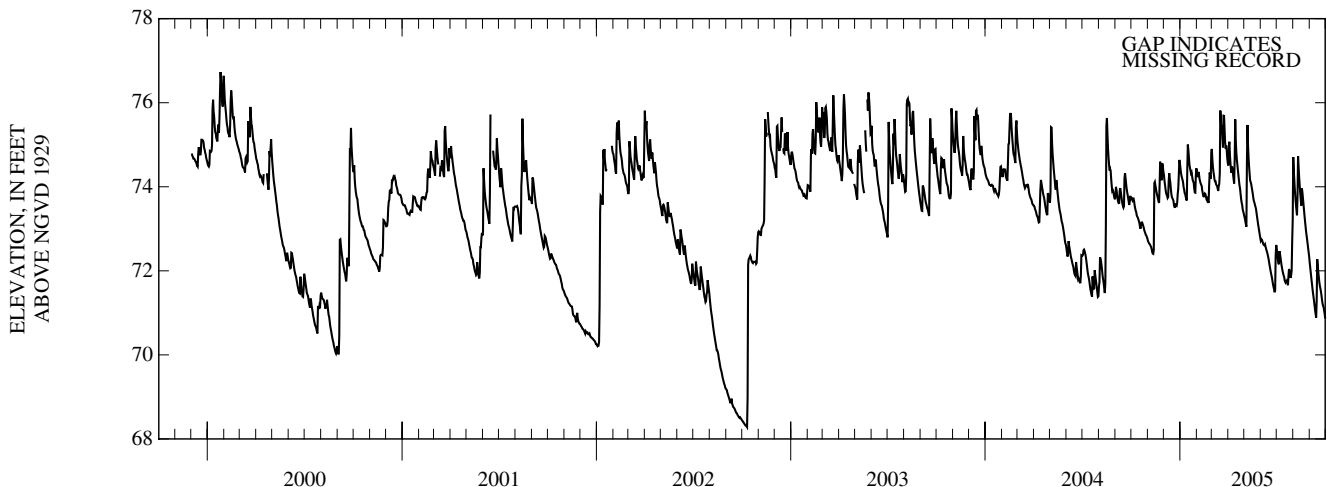
PERIOD OF RECORD.--December 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 76.98 ft above NGVD of 1929, Jan. 25, 2000; lowest water level recorded, 68.26 ft above NGVD of 1929, Oct. 11, 2002.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73.72	72.71	74.29	74.45	74.34	74.90	74.51	73.30	72.72	72.52	74.71	72.18
2	73.72	72.68	74.15	74.34	74.27	74.65	74.96	73.25	72.75	72.41	74.40	72.06
3	73.68	72.65	74.05	74.27	74.23	74.48	75.07	73.18	72.74	72.29	74.15	71.94
4	73.72	72.64	73.95	74.21	74.35	74.36	74.76	73.11	72.71	72.19	73.92	71.82
5	73.72	72.62	73.86	74.16	74.29	74.28	74.56	73.05	72.67	72.15	73.73	71.71
6	73.66	72.59	73.81	74.11	74.18	74.17	74.42	74.59	72.63	72.47	73.58	71.59
7	73.56	72.57	73.79	73.99	74.13	74.13	74.33	75.47	72.61	72.41	73.45	71.48
8	73.49	72.51	73.73	73.93	74.08	74.13	74.48	75.01	72.61	72.32	73.32	71.38
9	73.43	72.45	73.75	73.85	74.05	74.06	74.43	74.71	72.63	72.22	73.76	71.28
10	73.40	72.41	74.13	73.82	74.02	74.03	74.29	74.49	72.57	72.13	74.73	71.17
11	73.32	72.40	74.32	73.76	73.92	74.01	74.17	74.31	72.52	72.06	74.48	71.06
12	73.29	72.50	74.19	73.70	73.85	73.96	74.08	74.15	72.48	71.99	74.24	70.97
13	73.27	74.08	74.11	73.67	73.78	73.90	74.67	74.11	72.44	71.94	74.04	70.89
14	73.22	74.11	73.96	74.45	73.77	74.01	75.61	74.06	72.38	71.89	73.86	71.29
15	73.19	74.03	73.83	75.00	73.80	74.07	75.12	73.98	72.32	71.84	73.71	72.28
16	73.13	73.96	73.76	74.87	73.84	74.32	74.83	73.91	72.25	71.76	73.55	72.12
17	73.05	73.88	73.72	74.70	73.83	75.81	74.66	73.83	72.17	71.73	73.96	71.98
18	73.00	73.82	73.70	74.53	73.77	75.62	74.53	73.73	72.10	71.78	73.90	71.85
19	73.08	73.76	73.67	74.45	73.70	75.26	74.40	73.66	72.02	71.71	73.75	71.73
20	73.15	73.71	73.56	74.38	73.68	75.47	74.27	73.62	71.95	71.75	73.61	71.64
21	73.15	73.65	73.52	74.32	73.71	75.16	74.15	73.57	71.89	71.71	73.48	71.58
22	73.12	73.62	73.52	74.34	73.65	74.94	74.04	73.52	71.83	71.66	73.33	71.51
23	73.08	74.05	73.58	74.25	73.62	75.69	73.96	73.47	71.75	71.87	73.20	71.42
24	73.04	74.60	73.57	74.16	74.04	75.69	73.84	73.38	71.68	72.04	73.07	71.31
25	72.98	74.50	73.56	74.13	74.34	75.35	73.71	73.28	71.61	72.01	72.95	71.22
26	72.93	74.25	73.62	74.10	74.25	75.05	73.63	73.20	71.56	71.93	72.85	71.17
27	72.90	74.16	73.84	73.96	74.19	74.91	73.57	73.10	71.49	71.83	72.75	71.14
28	72.86	74.56	73.96	73.86	74.81	74.98	73.46	73.03	71.53	71.90	72.64	71.05
29	72.84	74.49	74.27	73.86	---	74.86	73.41	72.94	72.37	72.00	72.53	70.98
30	72.81	74.36	74.64	74.26	---	74.68	73.36	72.86	72.62	72.70	72.43	70.87
31	72.77	---	74.56	74.44	---	74.56	---	72.79	---	73.22	72.32	---

WTR YR 2005 MEAN 73.41 MAX 75.81 MIN 70.87



GREENE COUNTY—Continued

35311077334402. County number, GR-085; L6 Lizzie N26q6.

LOCATION.--Lat 35°31'13", long 77°33'42", Hydrologic Unit 03020203, near Lizzie, north of Secondary Road 1335 and west of Secondary Road 1345.
 Owner: DENR (North Carolina Department of Environment and Natural Resources).

WATER-LEVEL RECORDS

AQUIFER.--Surficial.

WELL CHARACTERISTICS.--Drilled observation well, depth 8 ft, diameter 2 in., screened interval from 4 to 7 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 73.38 ft above NGVD of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of protective outer casing, 3.38 ft above land surface datum.

REMARKS.--Well is part of National Water Quality Assessment Program (NAWQA). Environmental Protection Agency as part of the Lizzie research site water-quality monitoring project.

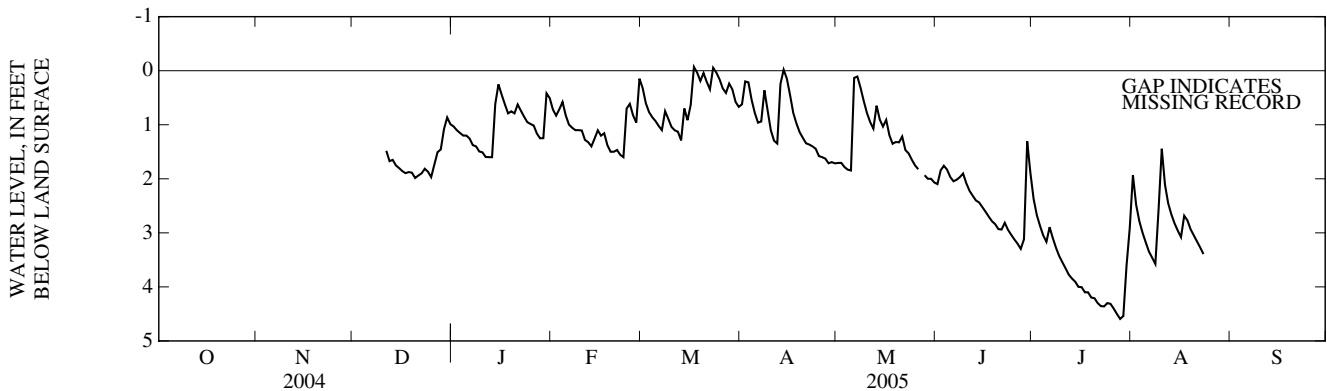
PERIOD OF RECORD.--December 2004 to August 2005

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, -0.2 ft below land-surface datum, March 23, May 6; lowest water level recorded, 4.6 ft below land-surface datum, July 28, 29, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	1.0	0.7	0.3	0.6	1.7	2.1	2.4	1.9	---
2	---	---	---	1.1	0.8	0.6	0.2	1.7	1.8	2.7	2.5	---
3	---	---	---	1.2	0.7	0.8	0.2	1.8	1.8	2.9	2.8	---
4	---	---	---	1.2	0.6	0.9	0.5	1.8	1.8	3.0	3.0	---
5	---	---	---	1.2	0.8	0.9	0.8	1.8	2.0	3.2	3.2	---
6	---	---	---	1.3	1.0	1.0	1.0	0.1	2.0	2.9	3.3	---
7	---	---	---	1.4	1.1	1.1	0.9	0.1	2.0	3.1	3.5	---
8	---	---	---	1.4	1.1	0.7	0.4	0.3	2.0	3.3	3.6	---
9	---	---	---	1.5	1.1	0.9	0.7	0.6	1.9	3.4	2.6	---
10	---	---	---	1.5	1.1	1.0	1.1	0.8	2.1	3.5	1.4	---
11	---	---	1.5	1.6	1.3	1.1	1.3	1.0	2.2	3.7	2.1	---
12	---	---	1.7	1.6	1.3	1.1	1.3	1.1	2.3	3.8	2.5	---
13	---	---	1.6	1.6	1.4	1.3	0.2	0.6	2.4	3.8	2.7	---
14	---	---	1.8	0.6	1.3	0.7	0.0	0.9	2.4	3.9	2.8	---
15	---	---	1.8	0.3	1.1	0.9	0.1	1.0	2.5	4.0	3.0	---
16	---	---	1.9	0.4	1.2	0.6	0.4	0.9	2.6	4.0	3.1	---
17	---	---	1.9	0.6	1.2	-0.1	0.8	1.2	2.7	4.1	2.7	---
18	---	---	1.9	0.8	1.4	0.0	1.0	1.4	2.8	4.1	2.8	---
19	---	---	1.9	0.8	1.5	0.2	1.1	1.3	2.8	4.2	2.9	---
20	---	---	2.0	0.8	1.5	0.0	1.2	1.3	2.9	4.2	3.0	---
21	---	---	1.9	0.6	1.5	0.2	1.3	1.2	2.9	4.3	3.2	---
22	---	---	1.9	0.7	1.6	0.3	1.4	1.5	2.8	4.4	3.3	---
23	---	---	1.8	0.9	1.6	-0.1	1.4	1.5	2.9	4.4	3.4	---
24	---	---	1.9	1.0	0.7	0.0	1.4	1.6	3.0	4.3	---	---
25	---	---	2.0	1.0	0.6	0.2	1.6	1.8	3.1	4.3	---	---
26	---	---	1.7	1.0	0.8	0.3	1.6	1.8	3.2	4.4	---	---
27	---	---	1.5	1.2	1.0	0.4	1.6	---	3.3	4.5	---	---
28	---	---	1.5	1.3	0.1	0.2	1.7	1.9	3.1	4.6	---	---
29	---	---	1.1	1.2	---	0.3	1.7	2.0	1.3	4.5	---	---
30	---	---	0.9	0.4	---	0.6	1.7	2.0	1.9	3.6	---	---
31	---	---	1.0	0.5	---	0.7	---	2.1	---	2.9	---	---

WTR YR 2005 MEAN 1.7 HIGH -0.1 LOW 4.6



353111077334402. County number, GR-085; L6 Lizzie N26q6—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1995, 2001, 2002, 2003, 2004, October 2004 to September 2005.

REMARKS.--Well is part of National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Sampling depth, feet (00003)	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)
Date	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat fltrd mg/L (70300)
Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat fltrd by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)
Date	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)	Vanadium, water, fltrd, ug/L (01085)
DEC 01...	1445	7.0	2.08	73.38	5.46	.20	5.00	--	758	2.8	29	4.2	653
MAR 03...	1200	7.0	.93	73.38	4.31	.20	--	.7	759	4.3	40	4.4	689
MAY 27...	0945	7.0	1.86	73.38	5.24	.20	--	1.2	756	.8	8	4.1	725
AUG 24...	1130	7.0	3.47	73.38	6.85	.10	--	8.9	758	.9	11	4.0	701
DEC 01...	17.5	130	31.8	12.3	9.27	2	41.4	E.02	101	.5	12.3	16.3	326
MAR 03...	12.0	150	36.9	14.1	12.0	2	43.5	<.02	116	.5	8.26	21.4	373
MAY 27...	17.8	150	35.7	14.9	14.4	2	46.9	.05	116	.6	10.0	17.9	422
AUG 24...	25.1	140	35.7	12.8	12.1	1	40.9	.07	114	.6	13.4	15.2	383
DEC 01...	<.04	30.7	<.008	29.7	.010	4,630	<.20	E.1	612	3.07	22	.30	E.7
MAR 03...	<.04	28.4	<.008	29.1	E.005	--	--	--	--	--	--	--	--
MAY 27...	<.04	31.1	<.008	32.6	E.004	--	--	--	--	--	--	--	--
AUG 24...	E.03	29.0	E.007	28.8	.013	--	--	--	--	--	--	--	--
DEC 01...	5.37	7.3	60	4.39	3.4	147	<.4	10.3	.4	<.2	195	.22	<.1
MAR 03...	--	--	59	--	--	145	--	--	--	--	--	--	--
MAY 27...	--	--	46	--	--	150	--	--	--	--	--	--	--
AUG 24...	--	--	186	--	--	154	--	--	--	--	--	--	--

353111077334402. County number, GR-085; L6 Lizzie N26q6—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Zinc, water, fltrd, ug/L (01090)	1-Naphthol, water, fltrd, 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water, fltrd, 0.7u GF ug/L (82660)	2Chloro -2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water, fltrd, ug/L (61625)	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-Endo-sulfan, water, fltrd, ug/L (34362)	Atra-zine, water, fltrd, ug/L (39632)
DEC 01...	28.2	<.09	<.006	<.005	<.006	<.004	<.004	--	<.006	<.006	<.005	--	<.007
MAR 03...	--	<.09	<.006	<.005	<.006	<.004	<.004	--	<.006	<.006	<.005	--	<.007
MAY 27...	--	<.09	<.006	<.005	<.006	<.004	<.004	--	<.006	<.006	<.005	--	.052
AUG 24...	--	<.09	<.006	<.005	E.006	<.004	<.004	<.004	<.006	<.006	<.005	<.005	.016
Date	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd, 0.7u GF ug/L (82674)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	cis-Propi-cona-zole, water, fltrd, ug/L (79846)	Cyana-zine, water, fltrd, ug/L (04041)	Cyflu-thrin, water, fltrd, ug/L (61585)	lambda-Cyhalo-thrin, water, fltrd, ug/L (61595)	Cyber-methrin water, fltrd, ug/L (61586)
DEC 01...	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--	--	<.008	--	<.009
MAR 03...	<.07	<.050	<.010	<.041	--	<.06	<.015	<.006	--	--	<.070	--	<.050
MAY 27...	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--	--	<.027	--	<.009
AUG 24...	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009
Date	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-nyl fipro-nil, water, fltrd, ug/L (62170)	Diaz-inon oxon, water, fltrd, ug/L (61638)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Disulf-oton sulfone water, fltrd, ug/L (61640)	Disul-foton, water, fltrd, 0.7u GF ug/L (82677)	Endo-sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd, 0.7u GF ug/L (82668)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)
DEC 01...	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--	--	--	--	<.0020	<.004
MAR 03...	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--	--	--	--	<.0020	<.004
MAY 27...	<.003	<.012	--	<.005	<.08	<.009	<.006	--	--	--	--	<.0020	<.004
AUG 24...	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004
Date	Etho-prop, water, fltrd, 0.7u GF ug/L (82672)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-nyl-fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)
DEC 01...	--	<.049	--	<.03	<.029	<.013	<.024	<.016	<.003	<.003	<.013	<.387	<.003
MAR 03...	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--	<.003	<.013	<.538	<.003
MAY 27...	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--	<.003	<.013	<.538	<.003
AUG 24...	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	--	<.003	<.013	<.538	<.003

353111077334402. County number, GR-085; L6 Lizzie N26q6—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Mala-oxon, water, fltrd, ug/L (61652)	Mala-thion, water, fltrd, ug/L (39532)	Meta-laxyl, water, fltrd, ug/L (61596)	Methi-althion, water, fltrd, ug/L (61598)	Methyl para-oxon, water, fltrd, ug/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd, 0.7u GF ug/L (82671)	Myclo-butanil, water, fltrd, ug/L (61599)	Oxy-fluor-fen, water, fltrd, ug/L (61600)	Pendi-meth-alin, water, fltrd, 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)
DEC 01...	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006	--	<.008	--	<.022	<.10
MAR 03...	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006	--	<.008	--	<.022	<.10
MAY 27...	<.030	<.027	<.005	<.006	<.03	<.015	.012	<.006	--	<.008	--	<.022	<.10
AUG 24...	<.030	<.027	<.005	<.006	<.03	<.015	.009	<.007	<.003	<.008	<.007	<.022	<.10

Date	Phorate water fltrd 0.7u GF ug/L (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome-ton, water, fltrd, ug/L (04037)	Prome-tryn, water, fltrd, ug/L (04036)	Propy-zamide, water, fltrd, 0.7u GF ug/L (82676)	Pro-panil, water, fltrd, 0.7u GF ug/L (82679)	Propar-gite, water, fltrd, 0.7u GF ug/L (82685)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Teflu-thrin, water, fltrd, ug/L (61606)	Ter-bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu-fos, water, fltrd, 0.7u GF ug/L (82675)
DEC 01...	<.011	--	<.008	<.01	<.005	<.004	--	--	<.005	<.02	--	<.07	<.02
MAR 03...	<.011	<.05	<.008	<.01	<.005	<.004	--	--	<.005	<.02	--	<.07	<.02
MAY 27...	<.011	--	--	<.01	<.005	<.004	--	--	<.005	<.02	--	<.07	<.02
AUG 24...	<.011	<.05	<.008	<.01	<.005	<.004	<.011	<.02	<.005	<.02	<.008	<.07	<.02

Date	Ter-buthyl-azine, water, fltrd, ug/L (04022)	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	trans-Propi-cona-zole, water, fltrd, ug/L (79847)	Tribu-phos, water, fltrd, ug/L (61610)	Tri-flur-alin, water, fltrd, 0.7u GF ug/L (82661)	Di-chlor-vo-s, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
DEC 01...	<.01	--	--	--	<.009	<.01	.17
MAR 03...	<.01	--	--	--	<.009	<.01	--
MAY 27...	<.01	--	--	--	<.009	<.01	--
AUG 24...	<.01	<.010	<.01	<.004	<.009	<.01	--

GREENE COUNTY—Continued

353135077332701. County number, GR-110; L17.

LOCATION.--Lat 35°31'36", long 77°33'26", Hydrologic Unit 03020203, near Lizzie, 200 ft west of Secondary 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 station.

DATUM.--Land-surface datum is 72.50 ft above NGVD of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 2.74 ft above land surface datum.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources and the U.S. Environmental Protection Agency as part of the Lizzie research site water-quality monitoring project.

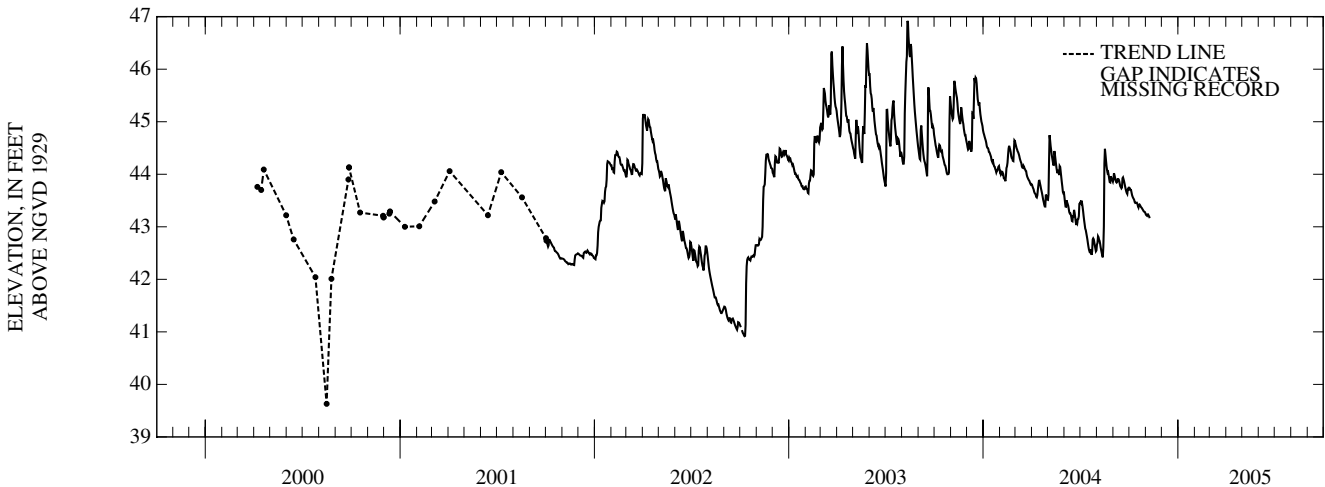
PERIOD OF RECORD.--April 2000 to November 2004 (discontinued). Continuous record began December 2000.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 46.97 ft above NGVD of 1929, Aug. 11, 12, 2003; lowest water level recorded, 40.91 ft above NGVD of 1929, Oct. 9, 2002.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43.74	43.23	---	---	---	---	---	---	---	---	---	---
2	43.73	43.22	---	---	---	---	---	---	---	---	---	---
3	43.70	43.21	---	---	---	---	---	---	---	---	---	---
4	43.70	43.23	---	---	---	---	---	---	---	---	---	---
5	43.65	43.24	---	---	---	---	---	---	---	---	---	---
6	43.60	43.21	---	---	---	---	---	---	---	---	---	---
7	43.57	43.20	---	---	---	---	---	---	---	---	---	---
8	43.55	43.16	---	---	---	---	---	---	---	---	---	---
9	43.53	---	---	---	---	---	---	---	---	---	---	---
10	43.51	---	---	---	---	---	---	---	---	---	---	---
11	43.47	---	---	---	---	---	---	---	---	---	---	---
12	43.45	---	---	---	---	---	---	---	---	---	---	---
13	43.46	---	---	---	---	---	---	---	---	---	---	---
14	43.45	---	---	---	---	---	---	---	---	---	---	---
15	43.46	---	---	---	---	---	---	---	---	---	---	---
16	43.43	---	---	---	---	---	---	---	---	---	---	---
17	43.39	---	---	---	---	---	---	---	---	---	---	---
18	43.37	---	---	---	---	---	---	---	---	---	---	---
19	43.42	---	---	---	---	---	---	---	---	---	---	---
20	43.42	---	---	---	---	---	---	---	---	---	---	---
21	43.41	---	---	---	---	---	---	---	---	---	---	---
22	43.39	---	---	---	---	---	---	---	---	---	---	---
23	43.37	---	---	---	---	---	---	---	---	---	---	---
24	43.36	---	---	---	---	---	---	---	---	---	---	---
25	43.34	---	---	---	---	---	---	---	---	---	---	---
26	43.33	---	---	---	---	---	---	---	---	---	---	---
27	43.31	---	---	---	---	---	---	---	---	---	---	---
28	43.29	---	---	---	---	---	---	---	---	---	---	---
29	43.29	---	---	---	---	---	---	---	---	---	---	---
30	43.28	---	---	---	---	---	---	---	---	---	---	---
31	43.26	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 43.41 MAX 43.74 MIN 43.16



GROUND-WATER LEVELS
 GREENE COUNTY—Continued

353135077332702. County number, GR-111; L18 Lizzie.

LOCATION.--Lat 35°31'36", long 77°33'26", Hydrologic Unit 03020203, near Lizzie, 200 ft west of Secondary 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 station.

DATUM.--Land-surface datum is 72.83 ft above NGVD of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 3.26 ft above land-surface datum.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources and the U.S. Environmental Protection Agency as part of the Lizzie research site water-quality monitoring project.

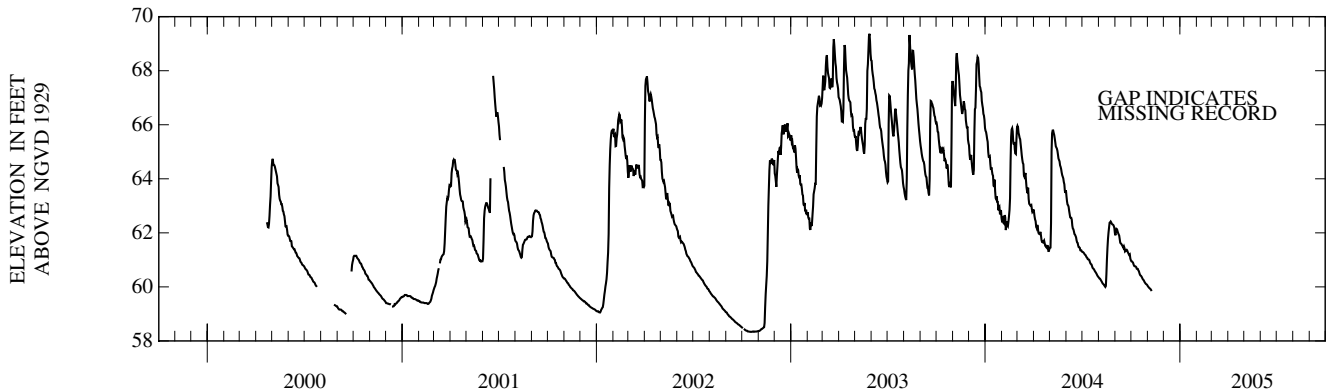
PERIOD OF RECORD.--April 2000 to November 2004 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.41 ft above NGVD of 1929, Aug. 11, 2003; lowest water level recorded, 58.33 ft above NGVD of 1929, Oct. 17, 2002.

ELEVATION ABOVE NGVD 1929, FEET
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.95	60.02	---	---	---	---	---	---	---	---	---	---
2	60.94	60.00	---	---	---	---	---	---	---	---	---	---
3	60.92	59.97	---	---	---	---	---	---	---	---	---	---
4	60.90	59.95	---	---	---	---	---	---	---	---	---	---
5	60.83	59.93	---	---	---	---	---	---	---	---	---	---
6	60.78	59.91	---	---	---	---	---	---	---	---	---	---
7	60.76	59.88	---	---	---	---	---	---	---	---	---	---
8	60.76	59.85	---	---	---	---	---	---	---	---	---	---
9	60.75	---	---	---	---	---	---	---	---	---	---	---
10	60.73	---	---	---	---	---	---	---	---	---	---	---
11	60.67	---	---	---	---	---	---	---	---	---	---	---
12	60.66	---	---	---	---	---	---	---	---	---	---	---
13	60.66	---	---	---	---	---	---	---	---	---	---	---
14	60.61	---	---	---	---	---	---	---	---	---	---	---
15	60.58	---	---	---	---	---	---	---	---	---	---	---
16	60.51	---	---	---	---	---	---	---	---	---	---	---
17	60.45	---	---	---	---	---	---	---	---	---	---	---
18	60.42	---	---	---	---	---	---	---	---	---	---	---
19	60.41	---	---	---	---	---	---	---	---	---	---	---
20	60.38	---	---	---	---	---	---	---	---	---	---	---
21	60.34	---	---	---	---	---	---	---	---	---	---	---
22	60.30	---	---	---	---	---	---	---	---	---	---	---
23	60.27	---	---	---	---	---	---	---	---	---	---	---
24	60.25	---	---	---	---	---	---	---	---	---	---	---
25	60.21	---	---	---	---	---	---	---	---	---	---	---
26	60.17	---	---	---	---	---	---	---	---	---	---	---
27	60.14	---	---	---	---	---	---	---	---	---	---	---
28	60.11	---	---	---	---	---	---	---	---	---	---	---
29	60.10	---	---	---	---	---	---	---	---	---	---	---
30	60.08	---	---	---	---	---	---	---	---	---	---	---
31	60.06	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 60.39 MAX 60.95 MIN 59.85



GREENE COUNTY—Continued

353027077340102. County number, GR-115; L20.

LOCATION.--Lat 35°30'28", long 77°34'00", Hydrologic Unit 03020203, .75 mi south of Secondary Road 1335, off Secondary Road 1342, near Maury.

WATER-LEVEL RECORDS

AQUIFER.--Surficial.

WELL CHARACTERISTICS.--Drilled observation well, depth 22.7 ft, diameter 2 in., screened interval from 12.07 to 15.07 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 79.27 ft above NGVD of 1929. Measuring point: Top of protective outer casing, 2.41 ft above land-surface datum.

REMARKS.--Well is part of the National Water Quality Assessment Program (NAWQA).

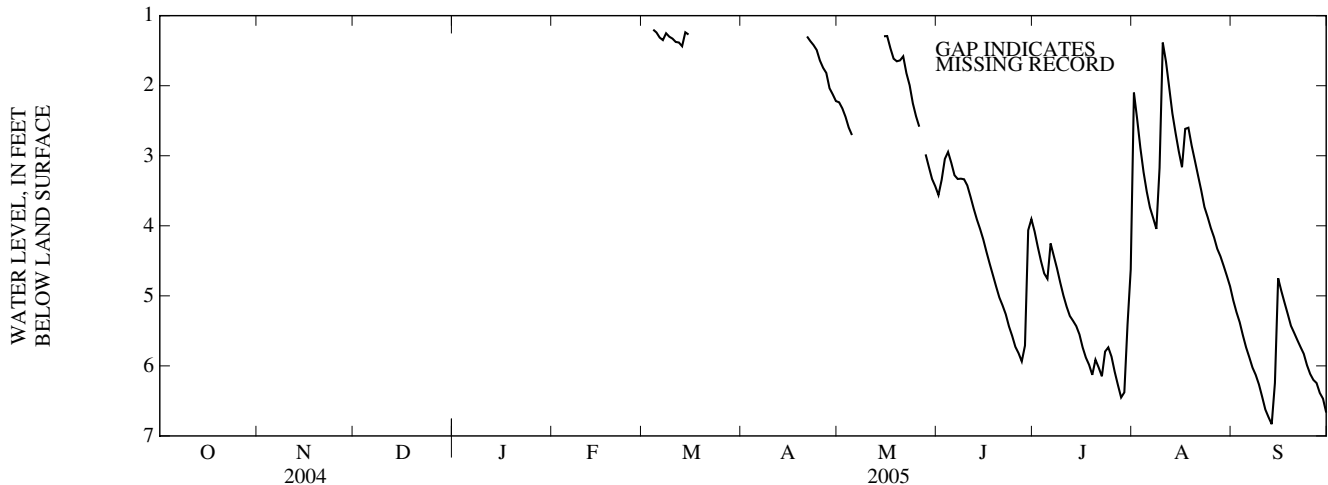
PERIOD OF RECORD.--March 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded undetermined due to instrument failure; lowest water level recorded, 6.9 ft below land-surface datum, Sept. 13, 14, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	2.2	3.6	4.1	2.1	5.1
2	---	---	---	---	---	---	---	2.3	3.3	4.3	2.5	5.2
3	---	---	---	---	---	---	---	2.4	3.0	4.5	2.9	5.4
4	---	---	---	---	---	1.2	---	2.6	2.9	4.7	3.2	5.6
5	---	---	---	---	---	1.2	---	2.7	3.1	4.8	3.5	5.7
6	---	---	---	---	---	1.3	---	---	3.3	4.3	3.7	5.9
7	---	---	---	---	---	1.3	---	---	3.3	4.4	3.9	6.0
8	---	---	---	---	---	1.3	---	---	3.3	4.6	4.0	6.1
9	---	---	---	---	---	1.3	---	---	3.3	4.8	3.2	6.3
10	---	---	---	---	---	1.3	---	---	3.4	5.0	1.4	6.4
11	---	---	---	---	---	1.4	---	---	3.6	5.2	1.7	6.6
12	---	---	---	---	---	1.4	---	---	3.8	5.3	2.0	6.7
13	---	---	---	---	---	1.4	---	---	3.9	5.4	2.4	6.8
14	---	---	---	---	---	1.2	---	---	4.0	5.4	2.7	6.2
15	---	---	---	---	---	1.3	---	1.3	4.2	5.6	2.9	4.7
16	---	---	---	---	---	---	---	1.3	4.4	5.7	3.2	4.9
17	---	---	---	---	---	---	---	1.5	4.5	5.9	2.6	5.1
18	---	---	---	---	---	---	---	1.6	4.7	6.0	2.6	5.3
19	---	---	---	---	---	---	---	1.7	4.9	6.1	2.9	5.4
20	---	---	---	---	---	---	---	1.6	5.0	5.9	3.1	5.5
21	---	---	---	---	---	---	1.3	1.6	5.1	6.0	3.3	5.6
22	---	---	---	---	---	---	1.4	1.8	5.3	6.1	3.5	5.7
23	---	---	---	---	---	---	1.4	2.0	5.4	5.8	3.7	5.8
24	---	---	---	---	---	---	1.5	2.3	5.6	5.7	3.9	6.0
25	---	---	---	---	---	---	1.6	2.4	5.7	5.9	4.0	6.1
26	---	---	---	---	---	---	1.7	2.6	5.8	6.1	4.2	6.2
27	---	---	---	---	---	---	1.8	---	5.9	6.3	4.3	6.2
28	---	---	---	---	---	---	2.0	3.0	5.7	6.5	4.4	6.4
29	---	---	---	---	---	---	2.1	3.2	4.1	6.4	4.6	6.5
30	---	---	---	---	---	---	2.2	3.3	3.9	5.4	4.7	6.7
31	---	---	---	---	---	---	---	3.4	---	4.6	4.9	---

WTR YR 2005 MEAN 4.0 HIGH 1.2 LOW 6.8



353027077340102. County number GR-115. L20.—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1999, 2001, October 2004 to September 2005.

REMARKS.--Well is part of National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	
Date		Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)
Date		Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)
Date		Chromium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Strontium, water, fltrd, ug/L (01080)	Thallium, water, fltrd, ug/L (01057)
MAR 03...	1400	22.7	1.25	79.27	5.02	.30	2.5	759	.2	2	5.0	47	14.2	
MAY 27...	0830	22.7	2.83	79.27	6.60	.50	1.3	756	.2	2	4.9	50	15.1	
AUG 24...	1000	22.7	3.92	79.27	7.69	.30	.7	758	.1	1	5.0	49	19.0	
MAR 03...	7	2.40	.325	.38	.6	3.73	4	4	.04	7.78	.1	13.0	.9	
MAY 27...	6	2.04	.325	.30	.7	3.96	7	8	.07	7.79	.1	12.2	1.1	
AUG 24...	7	2.14	.297	.41	.6	3.71	6	7	.08	7.86	.1	13.5	.9	
MAR 03...	39	<.04	<.06	<.008	E.05	.121	--	--	--	--	--	--	--	
MAY 27...	43	<.04	<.06	<.008	E.04	.293	--	--	--	--	--	--	--	
AUG 24...	40	<.04	<.06	<.008	<.06	.300	92	<.20	.4	16	.18	9	<.04	
MAR 03...	--	--	--	702	--	--	6.0	--	--	--	--	--	--	
MAY 27...	--	--	--	2,160	--	--	5.6	--	--	--	--	--	--	
AUG 24...	<.8	.451	<.4	1,870	E.07	1.4	5.5	<.4	1.55	<.4	<.2	15.3	<.04	

353027077340102. County number GR-115. L20.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Vanadium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	1-Naphthol, water, fltrd, 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd, 0.7u GF ug/L (82660)	2Chloro -2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl -6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water, fltrd, ug/L (61625)	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)	4Chloro 2methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-Endo-sulfan, water, fltrd, ug/L (34362)
MAR 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	--	--	<.09	<.006	<.005	<.006	<.004	<.004	--	<.006	<.006	<.005	--
AUG 24...	.6	5.1	<.09	<.006	<.005	<.006	<.004	<.004	<.004	<.006	<.006	<.005	<.005
Date	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd, 0.7u GF ug/L (82674)	Chlor-pyri-fos oxon, water, fltrd, ug/L (61636)	Chlor-pyri-fos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd, 0.7u GF ug/L (82687)	cis-Propi-cona-zole, water, fltrd, ug/L (79846)	Cyana-zine, water, fltrd, ug/L (04041)	Cyflu-thrin, water, fltrd, ug/L (61585)	lambda-Cyhalo-thrin, water, fltrd, ug/L (61595)
MAR 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006	--	--	<.027	--
AUG 24...	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009
Date	Cyber-methrin water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Dicro-tophos, water, fltrd, ug/L (38454)	Diel-drin, water, fltrd, ug/L (39381)	Dimeth-oate, water, fltrd, 0.7u GF ug/L (82662)	Disulf-oton sulfone water, fltrd, ug/L (61640)	Disul-foton, water, fltrd, 0.7u GF ug/L (82677)	Endo-sulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd, 0.7u GF ug/L (82668)	Ethion monoxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)
MAR 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	<.009	<.003	<.012	<.005	<.08	<.009	<.006	--	--	--	--	<.0020	<.004
AUG 24...	<.009	<.003	<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004
Date	Etho-prop, water, fltrd, 0.7u GF ug/L (82672)	Fenami-phos sulfone water, fltrd, ug/L (61645)	Fenami-phos sulf-oxide, water, fltrd, ug/L (61646)	Fenami-phos, water, fltrd, ug/L (61591)	Desulf-inyl fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Hexa-zinone, water, fltrd, ug/L (04025)	Ipro-dione, water, fltrd, ug/L (61593)	Isofen-phos, water, fltrd, ug/L (61594)	Mala-oxon, water, fltrd, ug/L (61652)
MAR 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003	<.013	<.538	<.003	<.030
AUG 24...	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003	<.013	<.538	<.003	<.030

353027077340102. County number GR-115. L20.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Mala- thion, water, fltrd, ug/L (39532)	Meta- laxyl, water, fltrd, ug/L (61596)	Methi- althion water, fltrd, ug/L (61598)	Methyl para- oxon, water, fltrd, ug/L (61664)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Myclo- butanil water, fltrd, ug/L (61599)	Oxy- fluor- fen, water, fltrd, ug/L (61600)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF ug/L (82664)
MAR 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	<.027	<.005	<.006	<.03	<.015	<.006	<.006	--	<.008	--	<.022	<.10	<.011
AUG 24...	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	<.007	<.022	<.10	<.011

Date	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prome- ton, water, fltrd, ug/L (04037)	Prome- tryn, water, fltrd, ug/L (04036)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Terbu- fos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)
MAR 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 27...	--	--	<.01	<.005	<.004	--	--	<.005	<.02	--	<.07	<.02	<.01
AUG 24...	<.05	<.008	<.01	<.005	<.004	<.011	<.02	<.005	<.02	<.008	<.07	<.02	<.01

Date	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)	Tribu- phos, water, fltrd, ug/L (61610)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
MAR 03...	--	--	--	--	--	--
MAY 27...	--	--	--	<.009	<.01	--
AUG 24...	<.010	<.01	<.004	<.009	<.01	E.03

GROUND-WATER LEVELS

GREENE COUNTY—Continued

353103077333406. County number, GR-147; L55.

LOCATION.--Lat 35°31'04", long 77°33'33", Hydrologic Unit 03020203, near Lizzie, 20 ft north of Secondary 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 station.

DATUM.--Land-surface datum is 77.46 ft above NGVD of 1929 (levels by North Carolina Geodetic Survey). Measuring point: Top of metal casing, 1.41 ft above land-surface datum.

REMARKS.--Station operated in cooperation with the North Carolina Department of Environment and Natural Resources and the U.S. Environmental Protection Agency as part of the Lizzie research site water-quality monitoring project. Minimum for period of record affected by pumping.

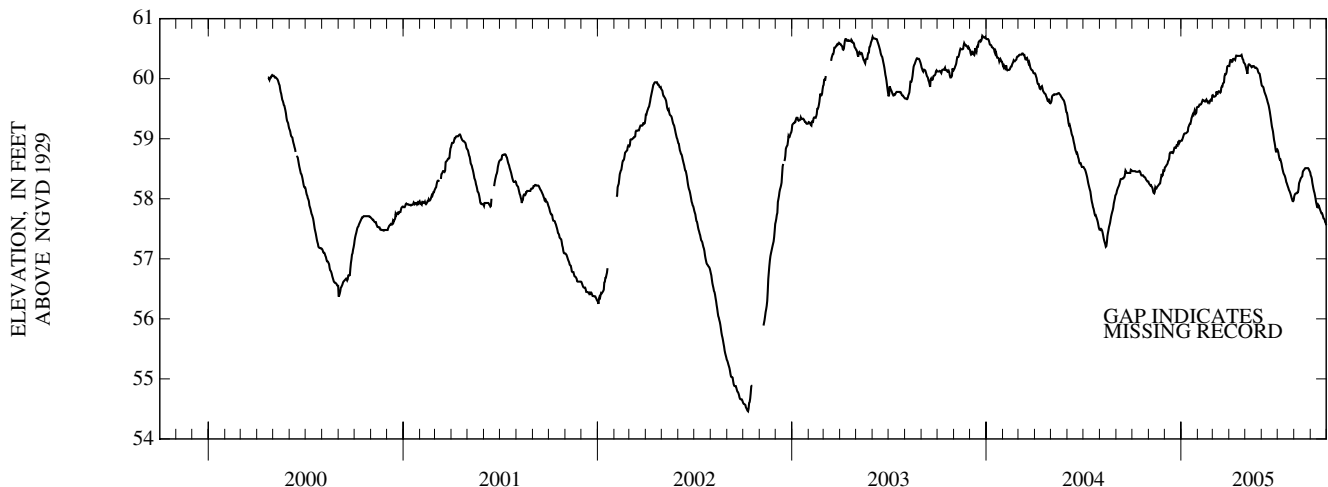
PERIOD OF RECORD.--April 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 60.72 ft above NGVD of 1929, Dec. 24, 25, 2003; lowest water level recorded, 54.46 ft above NGVD of 1929, Oct. 10, 2002.

ELEVATION ABOVE NGVD 1929, FEET
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

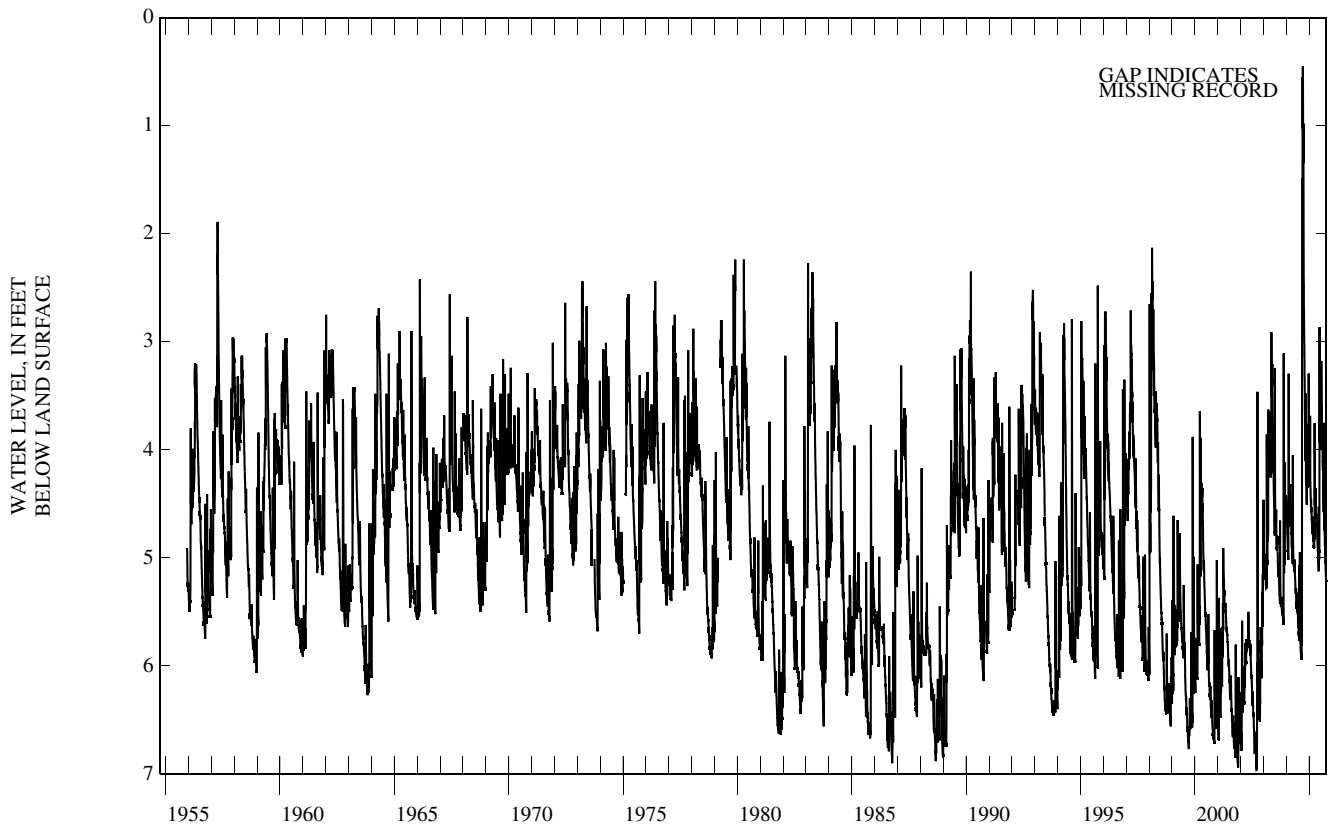
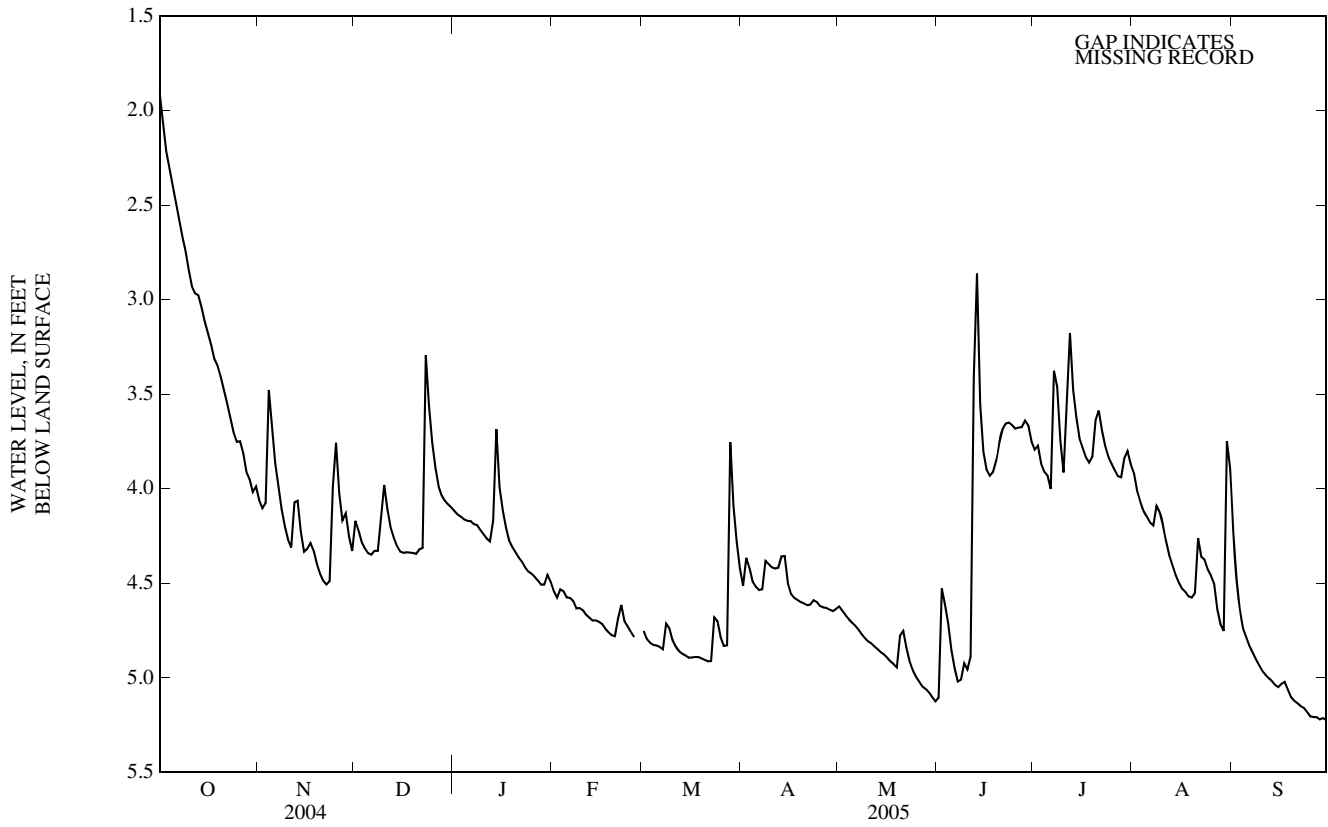
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.46	58.26	58.52	58.97	59.53	59.73	60.21	60.23	59.89	58.81	58.04	58.39
2	58.46	58.24	58.53	58.97	59.53	59.71	60.27	60.20	59.87	58.77	58.07	58.37
3	58.46	58.23	58.54	59.00	59.54	59.70	60.31	60.16	59.87	58.72	58.08	58.33
4	58.46	58.22	58.56	59.02	59.57	59.70	60.31	60.12	59.86	58.68	58.09	58.26
5	58.46	58.22	58.57	59.05	59.57	59.70	60.29	60.08	59.82	58.65	58.09	58.22
6	58.46	58.20	58.59	59.08	59.57	59.71	60.28	60.19	59.78	58.65	58.09	58.17
7	58.45	58.19	58.63	59.09	59.57	59.72	60.29	60.23	59.76	58.62	58.11	58.13
8	58.45	58.17	58.64	59.09	59.60	59.79	60.33	60.24	59.73	58.59	58.11	58.10
9	58.45	58.12	58.67	59.09	59.62	59.75	60.33	60.24	59.71	58.54	58.16	58.05
10	58.45	58.10	58.75	59.09	59.65	59.75	60.32	60.23	59.68	58.49	58.26	58.00
11	58.45	58.09	58.77	59.10	59.64	59.77	60.32	60.22	59.65	58.45	58.28	57.94
12	58.45	58.12	58.77	59.11	59.64	59.79	60.31	60.20	59.61	58.42	58.31	57.90
13	58.46	58.19	58.78	59.12	59.63	59.79	60.36	60.19	59.58	58.40	58.34	57.86
14	58.46	58.17	58.77	59.19	59.62	59.78	60.38	60.20	59.55	58.39	58.35	57.86
15	58.46	58.17	58.76	59.21	59.62	59.77	60.38	60.21	59.50	58.36	58.36	57.90
16	58.44	58.19	58.76	59.23	59.64	59.78	60.38	60.21	59.45	58.32	58.37	57.89
17	58.41	58.20	58.78	59.25	59.65	59.85	60.38	60.21	59.39	58.28	58.45	57.86
18	58.39	58.21	58.82	59.25	59.63	59.87	60.38	60.20	59.33	58.26	58.47	57.83
19	58.39	58.23	58.85	59.29	59.61	59.87	60.38	60.18	59.27	58.23	58.48	57.81
20	58.39	58.24	58.86	59.34	59.60	59.92	60.38	60.18	59.20	58.20	58.49	57.78
21	58.39	58.25	58.85	59.37	59.62	59.93	60.38	60.18	59.16	58.18	58.51	57.76
22	58.38	58.25	58.85	59.40	59.62	59.94	60.38	60.17	59.12	58.15	58.51	57.76
23	58.36	58.31	58.89	59.42	59.61	60.04	60.39	60.17	59.05	58.13	58.51	57.74
24	58.36	58.36	58.90	59.40	59.64	60.07	60.40	60.16	58.98	58.11	58.51	57.71
25	58.35	58.41	58.89	59.43	59.65	60.07	60.36	60.12	58.94	58.08	58.51	57.67
26	58.33	58.38	58.95	59.47	59.63	60.08	60.33	60.10	58.89	58.05	58.51	57.67
27	58.31	58.39	58.96	59.45	59.63	60.11	60.32	60.09	58.82	58.02	58.51	57.66
28	58.30	58.47	58.93	59.42	59.72	60.20	60.27	60.08	58.77	57.99	58.50	57.61
29	58.29	58.46	58.95	59.43	---	60.21	60.26	60.03	58.81	57.96	58.48	57.60
30	58.29	58.47	58.96	59.52	---	60.21	60.25	59.98	58.82	57.96	58.46	57.56
31	58.29	---	58.96	59.53	---	60.21	---	59.93	---	57.98	58.44	---

WTR YR 2005 MEAN 59.05 MAX 60.40 MIN 57.56



HAYWOOD COUNTY—Continued

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



GROUND-WATER LEVELS

IREDELL COUNTY

353135080524201. County number, IR-130; DENR Langtree Research Station MW-2S (Regolith well).

LOCATION.--Lat 35°31'35", long 80°52'42", 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 to 28 ft, sand filter packed from 10 to 28 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 803.08 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelter floor, 1.08 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

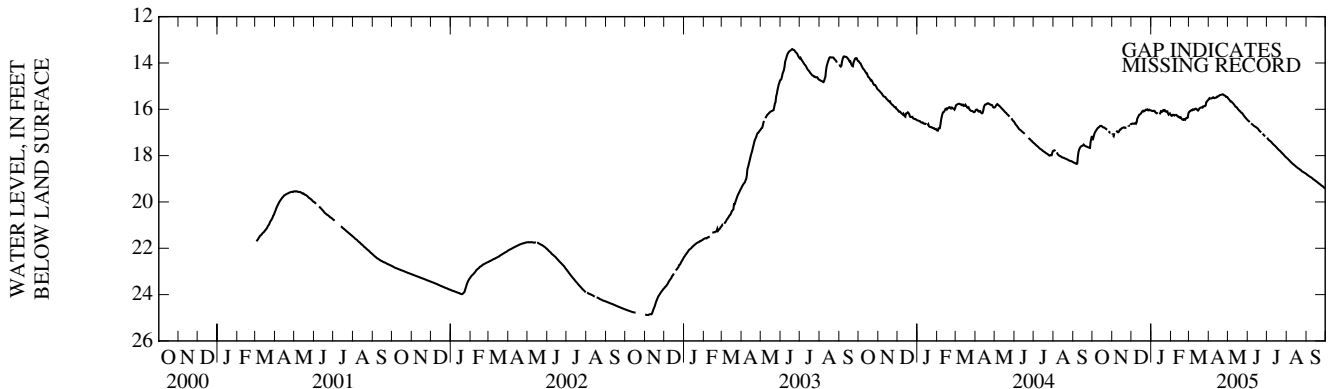
PERIOD OF RECORD.--March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.39 ft below land-surface datum, June 19, 2003; lowest water level recorded, 24.91 ft below land-surface datum, Nov. 5, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.33	---	16.63	16.06	16.27	16.12	15.56	15.53	16.48	17.23	18.10	18.81
2	17.25	17.13	16.63	16.07	16.28	16.09	15.52	15.55	16.50	17.26	18.13	18.83
3	17.15	17.16	16.61	16.07	16.25	16.07	15.54	15.59	16.52	17.31	18.15	18.85
4	17.05	17.03	16.62	16.07	16.23	16.05	15.53	15.62	16.55	17.33	18.18	18.87
5	16.98	---	16.63	16.06	16.25	16.03	15.53	15.66	---	17.35	18.21	18.89
6	16.94	---	16.61	16.07	16.27	16.04	15.52	15.66	16.61	17.37	18.24	18.91
7	16.89	16.92	16.59	16.13	16.25	16.00	15.49	15.68	16.63	17.39	18.27	18.93
8	16.85	16.94	16.62	16.14	16.25	16.01	15.48	15.72	16.65	17.43	18.30	18.94
9	16.81	16.98	16.56	16.17	16.24	16.02	15.51	15.75	16.68	17.46	18.32	18.96
10	16.79	16.99	16.40	16.16	16.27	15.99	15.52	15.78	16.70	17.49	18.35	18.98
11	16.78	16.97	16.35	16.19	16.30	15.97	15.50	15.82	16.73	17.52	18.37	19.01
12	16.74	16.92	16.28	---	16.31	15.98	15.49	15.86	16.74	17.54	18.39	19.03
13	16.72	16.88	16.24	---	16.34	16.00	15.49	15.89	16.76	17.57	18.42	19.05
14	16.72	16.87	16.22	16.22	16.35	16.03	15.45	15.90	16.78	17.59	18.44	19.07
15	16.72	16.84	16.20	16.16	16.37	16.05	15.45	15.93	16.80	17.62	18.47	19.09
16	16.74	16.81	16.16	16.08	16.35	16.02	15.44	15.97	16.82	17.65	18.49	19.11
17	16.77	16.80	16.12	16.09	16.39	15.97	15.41	16.01	16.85	17.68	18.51	19.13
18	16.78	16.79	16.08	16.10	16.43	15.95	15.39	16.04	16.89	17.71	18.53	19.15
19	16.78	16.78	16.06	16.05	16.45	15.93	15.38	16.07	16.92	17.74	18.55	19.18
20	16.80	16.78	16.09	16.03	16.46	15.92	15.37	16.08	16.95	17.77	18.57	19.20
21	16.82	16.80	16.07	16.06	16.43	15.93	15.37	16.13	16.97	17.79	18.59	19.22
22	16.85	16.80	16.06	16.04	16.44	15.93	15.36	16.15	16.99	17.81	18.61	19.24
23	16.86	16.79	16.02	16.10	16.45	15.88	15.35	16.16	---	17.85	18.63	19.26
24	16.87	---	16.02	16.10	16.40	15.87	15.37	16.20	17.05	17.88	18.66	19.29
25	---	16.72	16.01	16.09	16.37	15.86	15.40	16.25	17.08	17.91	18.69	19.31
26	16.95	---	16.00	16.09	16.38	15.86	15.41	16.28	17.11	17.93	18.70	19.32
27	16.97	16.71	16.05	16.17	16.35	15.83	15.42	16.32	17.14	17.96	18.71	19.35
28	17.01	---	16.05	16.23	16.17	15.69	15.47	16.35	17.16	17.99	18.73	19.37
29	17.01	16.67	16.02	16.20	---	15.66	15.46	16.39	---	18.03	18.75	19.40
30	---	16.64	16.03	16.18	---	15.62	15.48	16.42	---	18.05	18.76	19.43
31	17.07	---	16.04	16.23	---	15.60	---	16.45	---	18.08	18.78	---

WTR YR 2005 MEAN 16.83 HIGH 15.35 LOW 19.43



IREDELL COUNTY—Continued

353135080524202. County number, IR-131; DENR Langtree Research Station MW-2I (Transition zone well).

LOCATION.--Lat 35°31'36", long 80°52'42", 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 to 48 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 802.89 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelter floor, 0.93 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

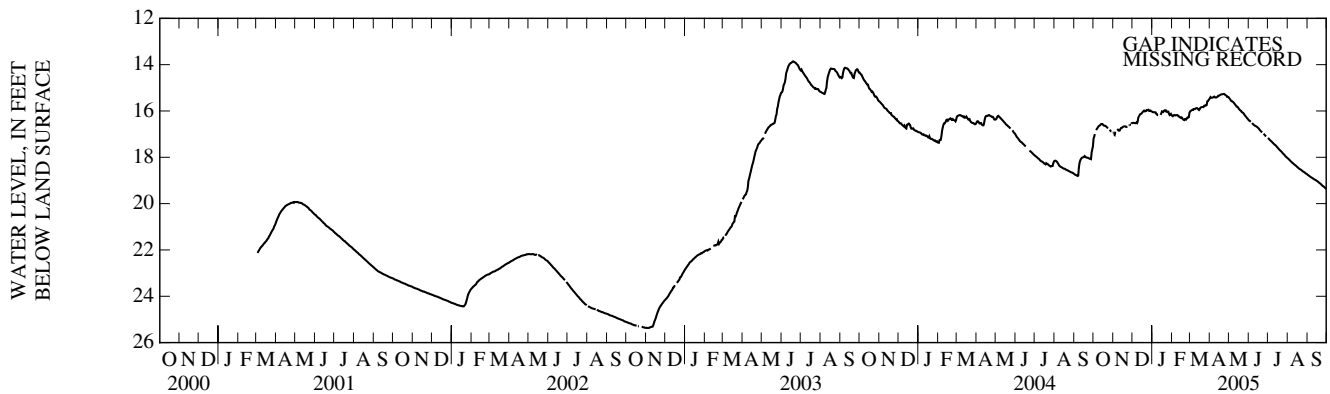
PERIOD OF RECORD.--March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 13.85 ft below land-surface datum, June 19, 2003; lowest water level recorded, 25.38 ft below land-surface datum, Nov. 3, 5, 6, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.19	---	16.52	16.04	16.21	16.02	15.45	15.44	16.40	17.16	18.05	18.76
2	17.11	17.00	16.52	16.05	16.23	16.00	15.40	15.47	16.42	17.19	18.07	18.77
3	17.00	17.03	16.51	16.06	16.19	15.98	15.43	15.51	16.44	17.23	18.10	18.80
4	---	16.89	16.52	16.06	16.17	15.96	15.43	15.55	16.46	17.26	18.13	18.82
5	16.83	---	16.53	16.05	16.18	15.94	15.43	15.58	---	17.28	18.16	18.84
6	16.78	---	16.52	16.06	16.19	15.95	15.42	15.58	16.52	17.31	18.18	18.86
7	16.74	16.78	16.50	16.12	16.18	15.91	15.39	15.60	16.56	17.33	18.21	18.88
8	16.69	16.81	16.53	16.13	16.18	15.91	15.38	15.63	16.58	17.36	18.24	18.89
9	16.66	16.84	16.46	16.18	16.18	15.91	15.41	15.67	16.61	17.39	18.26	18.91
10	16.63	16.86	16.29	16.18	16.20	15.89	15.42	15.70	16.63	17.42	18.28	18.93
11	16.62	16.84	16.23	---	16.23	15.88	15.42	15.74	16.64	17.45	18.31	18.95
12	16.59	16.78	16.18	---	16.24	15.88	15.40	15.78	16.66	17.47	18.33	18.96
13	16.56	16.74	16.14	---	16.27	15.90	15.39	15.81	16.67	17.49	18.35	18.98
14	16.56	16.73	16.13	16.17	16.28	15.94	15.34	15.82	16.70	17.52	18.37	18.99
15	16.57	16.71	16.11	16.10	16.30	15.96	15.34	15.85	16.71	17.56	18.40	19.01
16	16.60	16.68	16.07	16.02	16.28	15.93	15.33	15.89	16.75	17.58	18.43	19.03
17	16.63	16.67	16.04	16.04	16.33	15.87	15.31	15.93	16.78	17.62	18.45	19.05
18	16.64	16.67	16.01	16.05	16.36	15.84	15.29	15.96	16.81	17.65	18.47	19.08
19	16.64	16.66	15.98	15.99	16.38	15.84	15.29	15.98	16.85	17.68	18.50	19.10
20	16.65	16.67	16.02	15.98	16.39	15.83	15.28	16.00	16.88	17.70	18.52	19.12
21	16.68	16.69	16.01	16.00	16.35	15.83	15.28	16.05	16.90	17.73	18.53	19.14
22	16.71	16.68	16.00	15.98	16.36	15.83	15.27	16.06	16.92	17.76	18.55	19.17
23	16.72	16.68	15.96	16.03	16.37	15.78	15.26	16.08	---	17.79	18.57	19.19
24	16.73	---	15.97	16.04	16.31	15.78	15.28	16.12	16.98	17.83	18.60	19.22
25	---	16.61	15.95	16.02	16.28	15.76	15.31	16.16	17.01	17.85	18.62	19.25
26	16.82	---	15.95	16.03	16.29	15.76	15.32	16.20	17.04	17.88	18.63	19.26
27	16.84	16.59	16.00	16.12	16.27	15.74	15.34	16.23	17.07	17.91	18.65	19.29
28	16.88	---	16.00	16.17	16.08	15.58	15.39	16.27	17.10	17.94	18.67	19.31
29	16.88	16.55	15.98	16.15	---	15.57	15.39	16.31	---	17.98	18.70	19.34
30	---	16.52	16.00	16.12	---	15.53	15.40	16.33	---	18.00	18.71	19.37
31	16.94	---	16.02	16.18	---	15.50	---	16.37	---	18.02	18.73	---

WTR YR 2005 MEAN 16.75 HIGH 15.26 LOW 19.37



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353135080524203. County number, IR-132; DENR Langtree Research Station MW-2D (Bedrock well).

LOCATION.--Lat 35°31'36", long 80°52'42", 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 to 400 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 802.69 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelter floor, 1.40 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

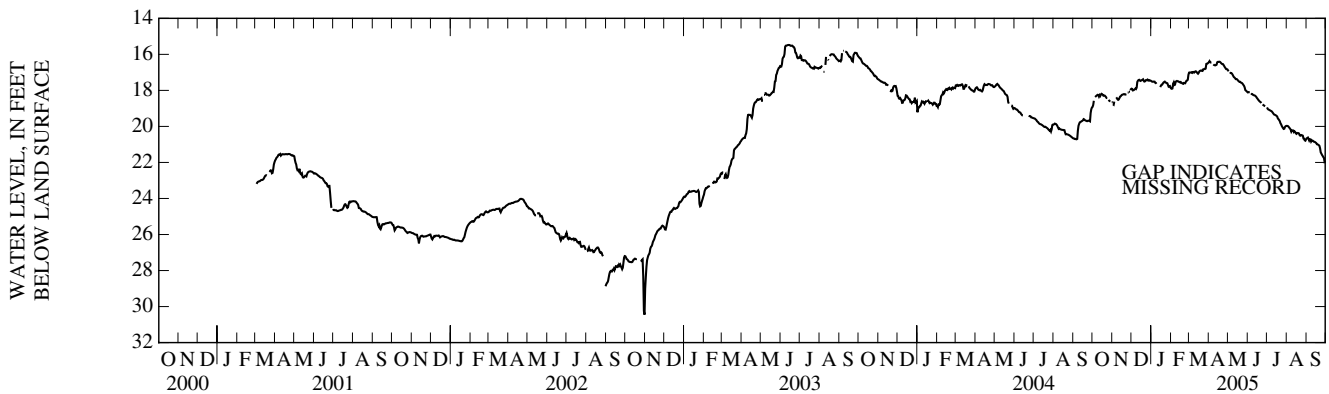
PERIOD OF RECORD.--March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 15.46 ft below land-surface datum, June 12, 13, 14, 2003; lowest water level recorded, 31.72 ft below land-surface datum, Oct. 30, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.92	---	17.91	17.49	17.90	17.01	16.44	16.89	18.11	18.95	19.97	20.66
2	18.81	18.78	17.92	17.51	17.91	17.00	16.38	16.94	18.10	19.02	19.98	20.65
3	18.58	18.80	18.00	17.52	17.89	17.01	16.43	---	18.10	19.06	19.99	20.62
4	---	18.62	17.99	17.51	17.64	17.01	16.45	16.99	18.10	19.07	20.03	20.69
5	18.37	---	17.97	17.51	17.56	16.99	16.46	17.04	---	19.10	20.08	20.79
6	18.33	---	17.94	17.51	17.70	17.03	---	17.04	18.16	19.12	20.12	20.72
7	18.30	18.38	17.90	17.58	17.69	17.00	---	17.07	18.20	19.14	20.18	20.72
8	18.27	18.43	17.92	17.58	17.52	16.98	16.56	17.12	18.21	19.15	20.29	20.84
9	18.24	18.49	17.85	17.64	17.49	17.01	16.59	17.19	18.25	19.19	20.23	20.78
10	18.25	18.53	17.53	---	17.48	16.97	16.60	17.26	18.27	19.24	20.22	20.78
11	18.34	18.50	17.46	---	17.50	16.94	16.61	17.28	18.27	19.29	20.23	20.81
12	18.26	18.43	17.42	---	17.50	16.95	16.60	17.32	18.29	19.34	20.31	20.84
13	18.31	18.35	17.41	---	17.52	16.99	16.58	17.37	18.32	19.35	20.27	20.85
14	18.23	18.33	17.46	---	17.53	17.04	16.44	17.37	18.35	19.37	20.31	20.87
15	18.19	18.28	17.48	17.82	17.56	17.07	16.42	17.38	18.41	19.39	20.38	20.90
16	18.21	18.25	17.45	17.73	17.54	17.03	16.42	17.42	18.46	19.42	20.41	20.92
17	18.25	18.23	17.43	17.69	17.58	16.95	16.41	17.47	18.51	19.46	20.38	20.99
18	18.30	18.22	17.41	17.68	17.60	16.92	16.41	17.50	18.55	19.56	20.36	21.00
19	18.28	18.21	17.39	17.61	17.63	16.90	16.44	17.53	18.60	19.60	20.37	21.02
20	18.29	18.21	17.47	17.57	17.64	16.90	16.48	17.52	18.63	19.65	20.39	21.04
21	18.33	18.23	17.51	17.53	17.59	16.92	16.52	17.56	18.65	19.71	20.48	21.08
22	18.37	18.23	17.50	17.51	17.60	16.92	16.54	17.58	18.70	19.82	20.52	21.22
23	18.42	18.21	17.44	17.56	17.60	16.83	16.54	17.60	---	19.88	20.50	21.44
24	18.42	---	17.44	17.57	17.52	16.83	16.59	17.64	18.78	19.97	20.48	21.51
25	---	18.12	17.42	17.59	17.46	16.81	16.65	17.70	18.81	20.03	20.50	21.58
26	18.53	---	17.40	17.61	17.45	16.81	16.72	17.75	18.83	20.09	20.51	21.64
27	18.57	18.07	17.46	17.70	17.41	16.79	16.76	17.83	18.86	20.14	20.67	21.70
28	18.59	---	17.46	17.79	17.14	16.53	16.82	17.98	18.88	20.13	20.68	21.75
29	18.61	17.98	17.43	17.77	---	16.52	16.82	18.01	---	20.04	20.77	21.96
30	---	17.93	17.45	17.76	---	16.50	16.84	18.05	---	19.99	20.79	21.92
31	18.65	---	17.46	17.85	---	16.47	---	18.08	---	19.98	20.73	---

WTR YR 2005 MEAN 18.34 HIGH 16.38 LOW 21.96



IREDELL COUNTY—Continued

353144080524601. County number, IR-133; DENR Langtree Research Station GP-1.

LOCATION.--Lat 35°31'44", long 80°52'47", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 38.5 ft, diameter 0.5 in., cased to 29.5 ft, open hole from 29.5 to 38.5 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 805.10 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.85 ft below land-surface datum.

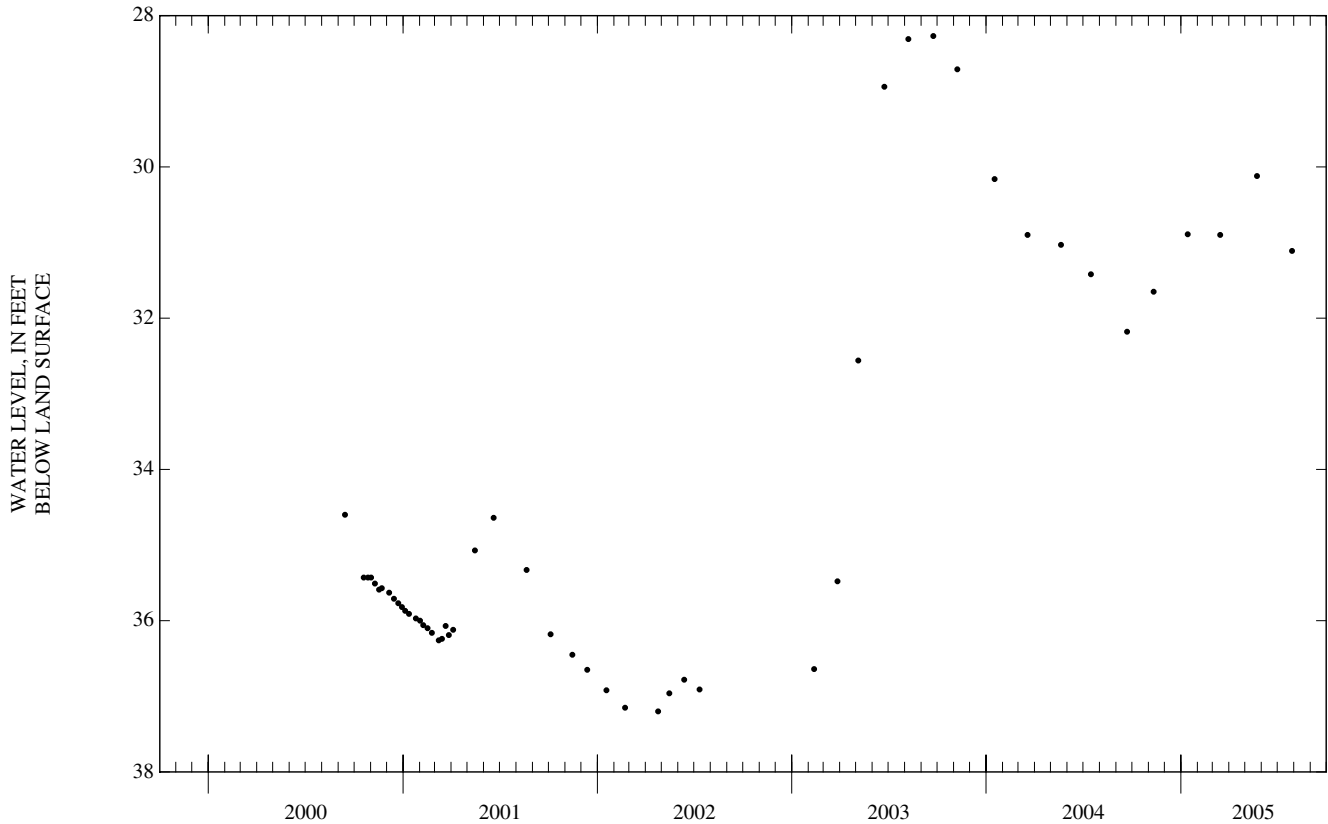
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.27 ft below land-surface datum, Sept. 23, 2003; lowest water level measured, 37.20 ft below land-surface datum, April 24, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	31.65	JAN 13	30.89	MAR 15	30.90	MAY 23	30.12	JUL 28	31.11



GROUND-WATER LEVELS
 IREDELL COUNTY—Continued

353148080524901. County number, IR-134; DENR Langtree Research Station GP-2.

LOCATION.--Lat 35°31'48", long 80°52'49", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77, on Lake Campus road.
 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 36 ft, diameter 0.5 in., cased to 27 ft, open hole from 27 to 36 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 793.48 ft above NGVD of 1929. Measuring point: Top of PVC casing, 3.15 ft below land-surface datum.

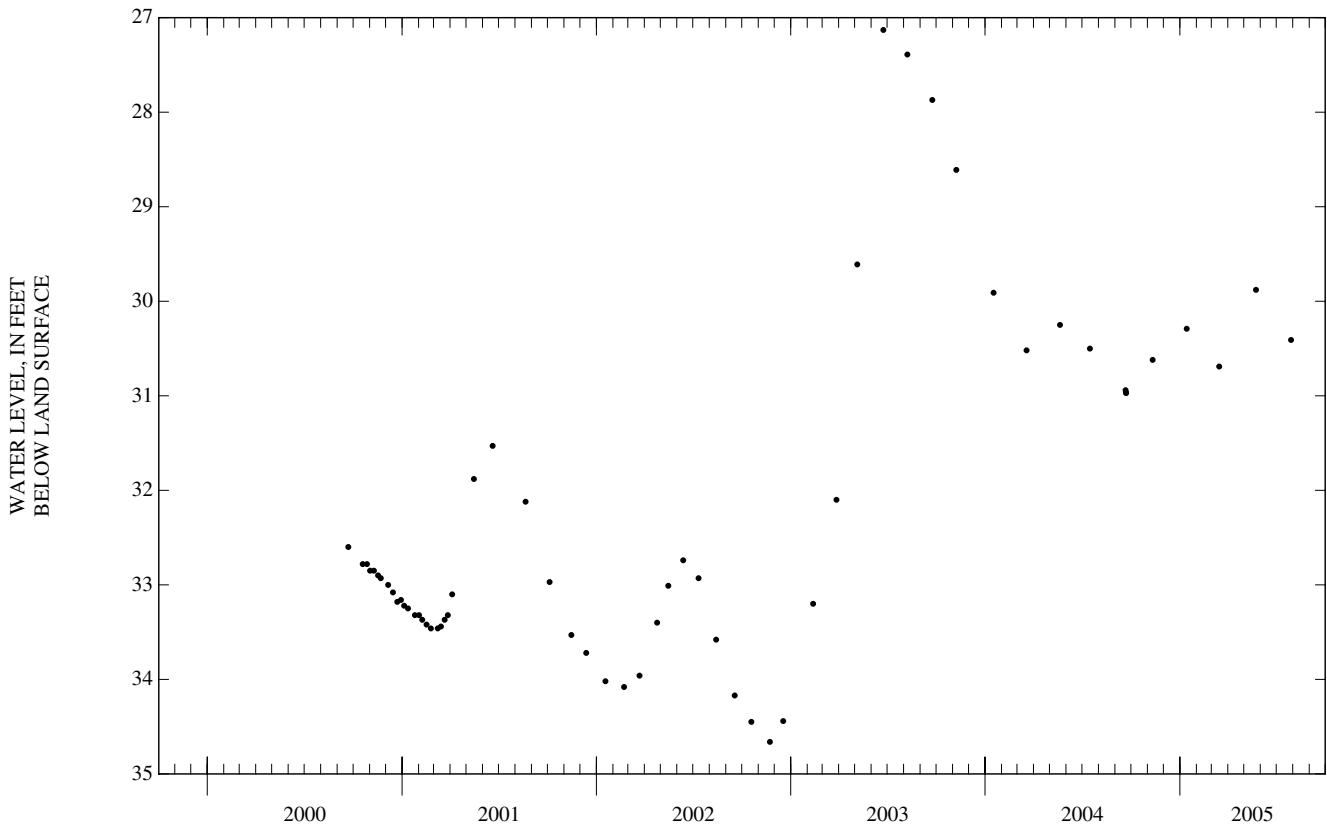
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--September 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.13 ft below land-surface datum, June 23, 2003; lowest water level measured, 34.66 ft below land-surface datum, Nov. 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	30.62	JAN 13	30.29	MAR 15	30.69	MAY 23	29.88	JUL 28	30.41



IREDELL COUNTY—Continued

353146080524601. County number, IR-135; DENR Langtree Research Station GP-3.

LOCATION.--Lat 35°31'47", long 80°52'47", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 31 ft, diameter 0.5 in., cased to 22 ft, open hole from 22 to 31 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 791.04 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.76 ft below land-surface datum.

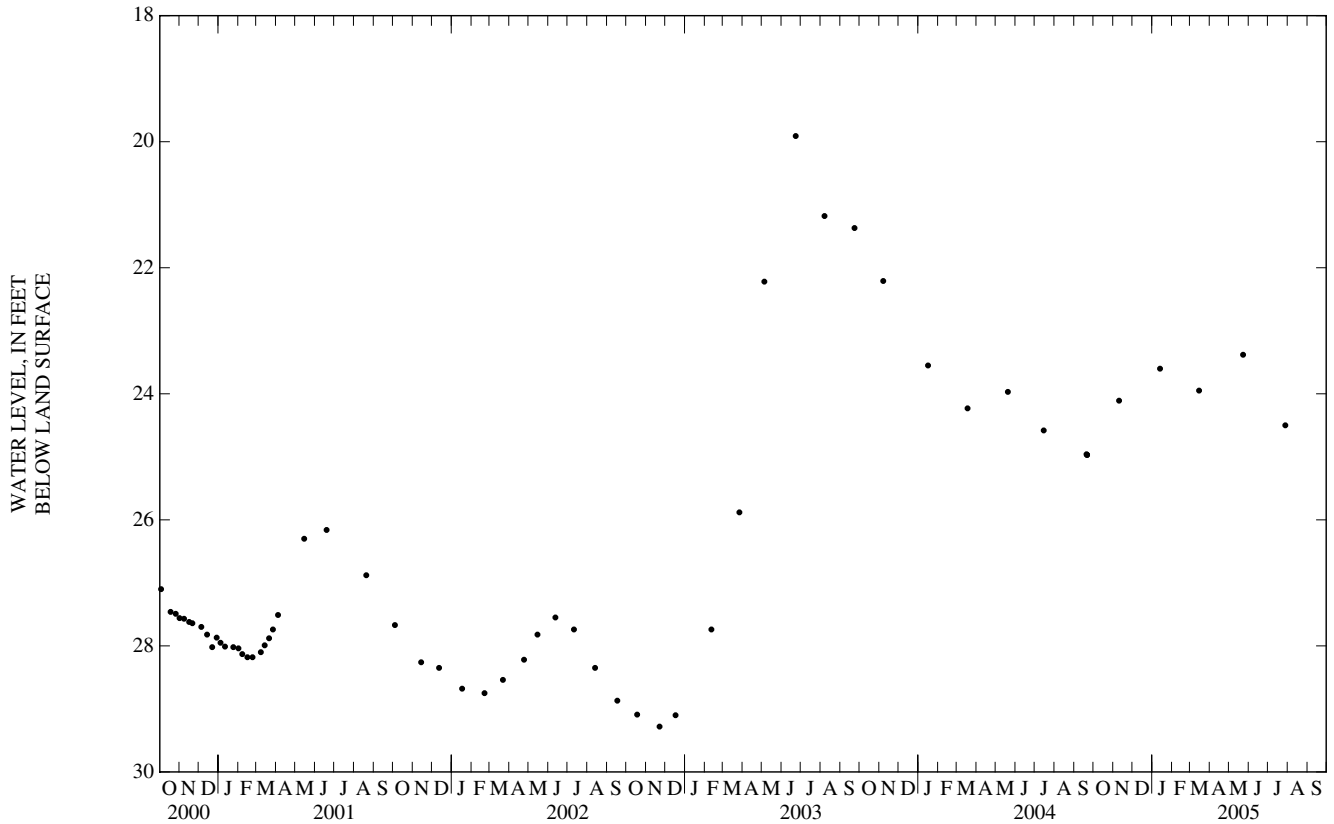
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.91 ft below land-surface datum, June 23, 2003; lowest water level measured, 29.28 ft below land-surface datum, Nov. 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	24.11	JAN 13	23.60	MAR 15	23.95	MAY 23	23.38	JUL 28	24.50



GROUND-WATER LEVELS
 IREDELL COUNTY—Continued

353145080524401. County number, IR-136; DENR Langtree Research Station GP-4.

LOCATION.--Lat 35°31'45", long 80°52'44", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 34 ft, diameter 0.5 in., cased to 25 ft, open hole from 25 to 34 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 793.08 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.68 ft below land-surface datum.

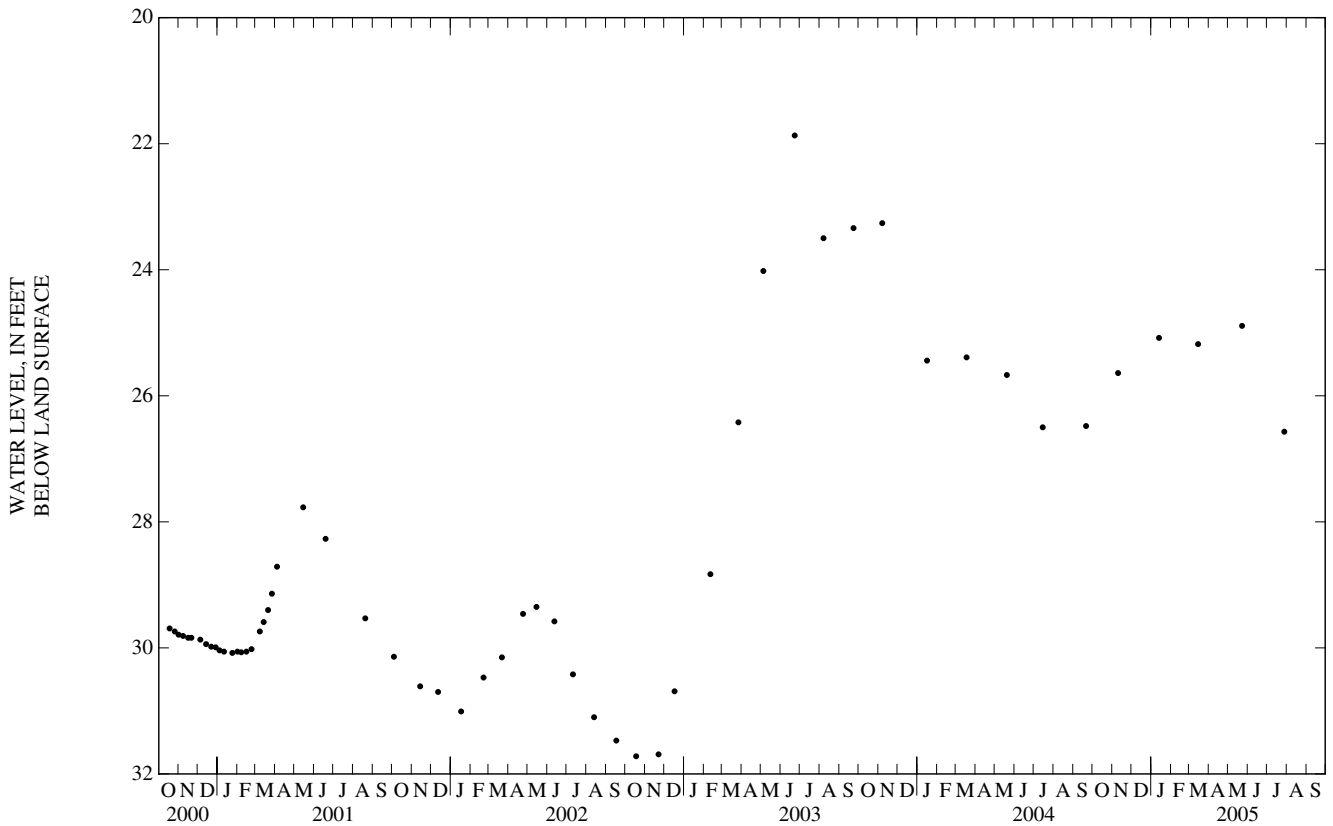
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.87 ft below land-surface datum, June 23, 2003; lowest water level measured, 31.72 ft below land-surface datum, Oct. 18, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	25.64	JAN 13	25.08	MAR 15	25.18	MAY 23	24.89	JUL 28	26.57



IREDELL COUNTY—Continued

353149080524801. County number, IR-137; DENR Langtree Research Station GP-5.

LOCATION.--Lat 35°31'50", long 80°52'48", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 32 ft, diameter 0.5 in., cased to 23 ft, open hole from 23 to 32 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 786.81 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.20 ft below land-surface datum.

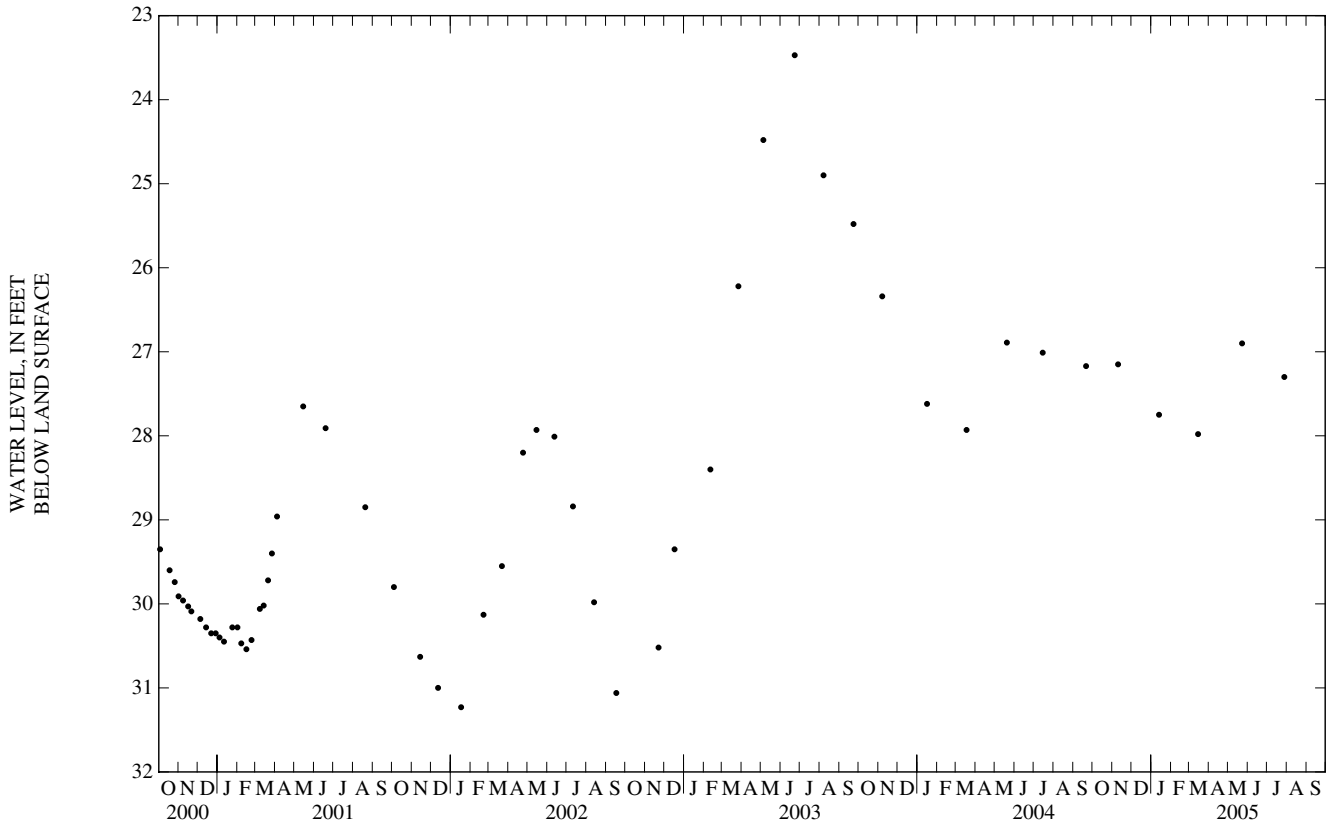
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.47 ft below land-surface datum, June 23, 2003; lowest water level measured, 31.23 ft below land-surface datum, Jan. 17, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	27.15	JAN 13	27.75	MAR 15	27.98	MAY 23	26.90	JUL 28	27.30



GROUND-WATER LEVELS
 IREDELL COUNTY—Continued

353150080524701. County number, IR-138; DENR Langtree Research Station GP-6.

LOCATION.--Lat 35°31'51", long 80°52'48", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 25 ft, diameter 0.5 in., cased to 23 ft, open hole from 16 to 25 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 776.58 ft above NGVD of 1929. Measuring point: Top of PVC casing, -0.16 ft below land-surface datum.

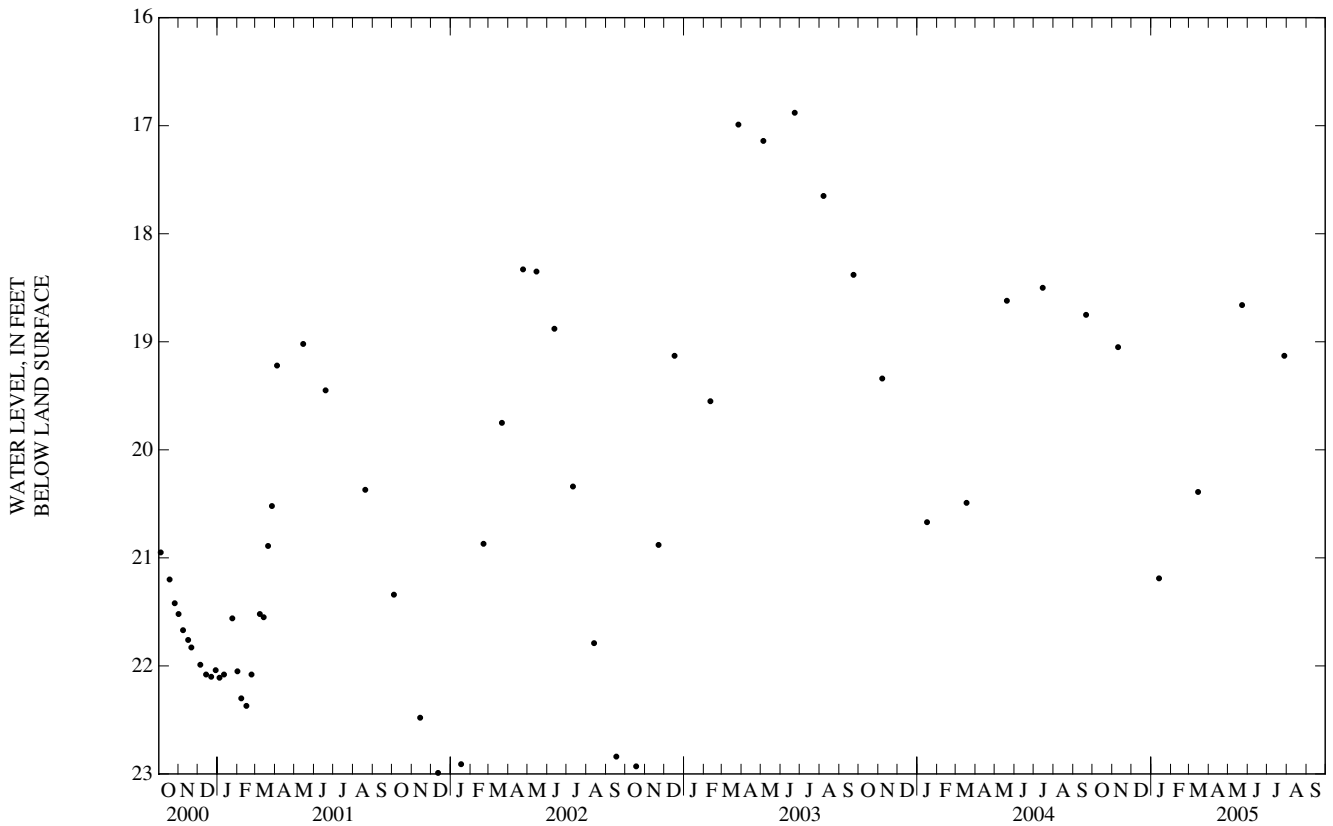
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.14 ft below land-surface datum, May 5, 2003; lowest water level measured, 22.99 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	19.05	JAN 13	21.19	MAR 15	20.39	MAY 23	18.66	JUL 28	19.13



IREDELL COUNTY—Continued

353151080524701. County number, IR-139; DENR Langtree Research Station GP-7.

LOCATION.--Lat 35°31'52", long 80°52'47", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 0.5 in., cased to 9 ft, open hole from 9 to 18 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 767.37 ft above NGVD of 1929. Measuring point: Top of PVC casing, -0.17 ft below land-surface datum.

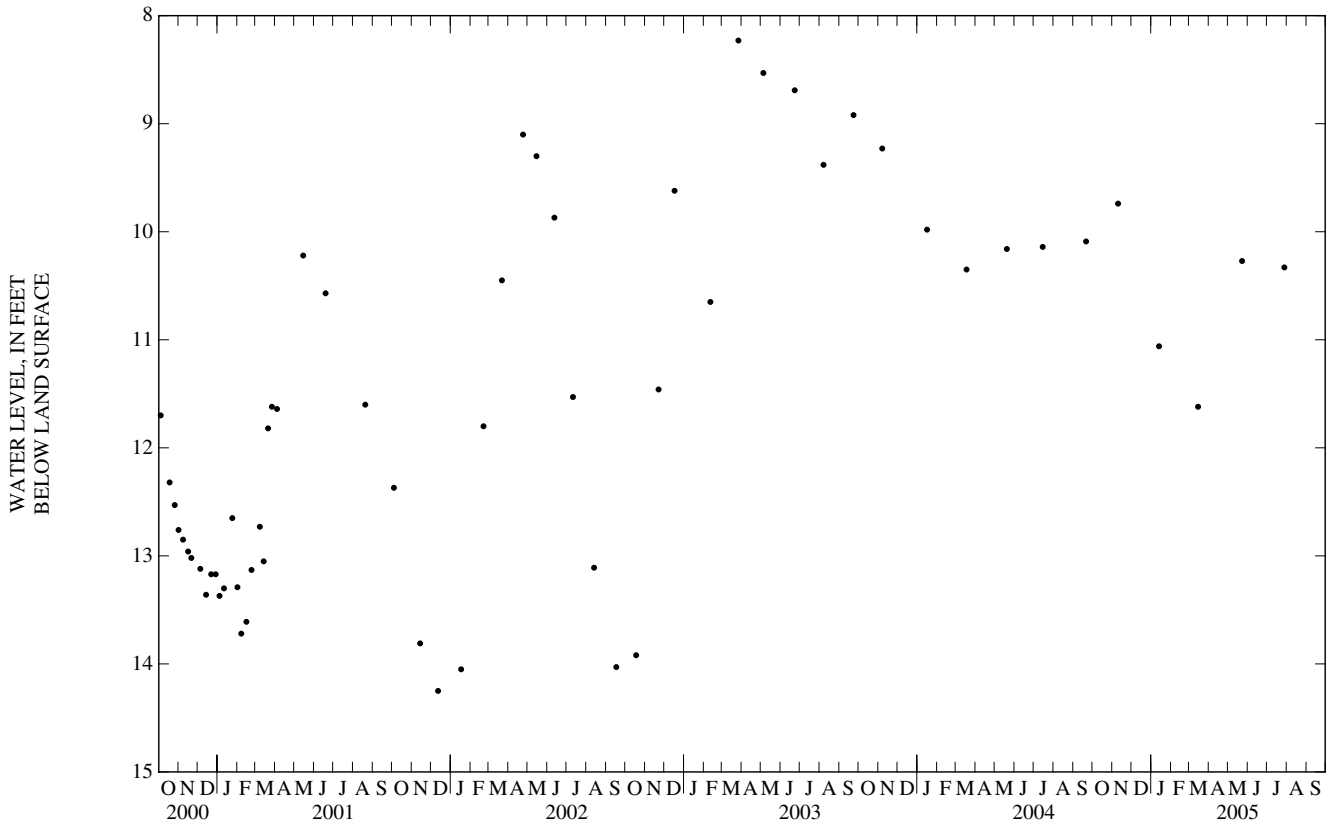
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.23 ft below land-surface datum, March 27, 2003; lowest water level measured, 14.25 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	9.74	JAN 13	11.06	MAR 15	11.62	MAY 23	10.27	JUL 28	10.33



GROUND-WATER LEVELS
 IREDELL COUNTY—Continued

353151080524501. County number, IR-140; DENR Langtree Research Station GP-8.

LOCATION.--Lat 35°31'51", long 80°52'45", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 0.5 in., cased to 7 ft, open hole from 7 to 18 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 768.04 ft above NGVD of 1929. Measuring point: Top of PVC casing, -0.18 ft below land-surface datum.

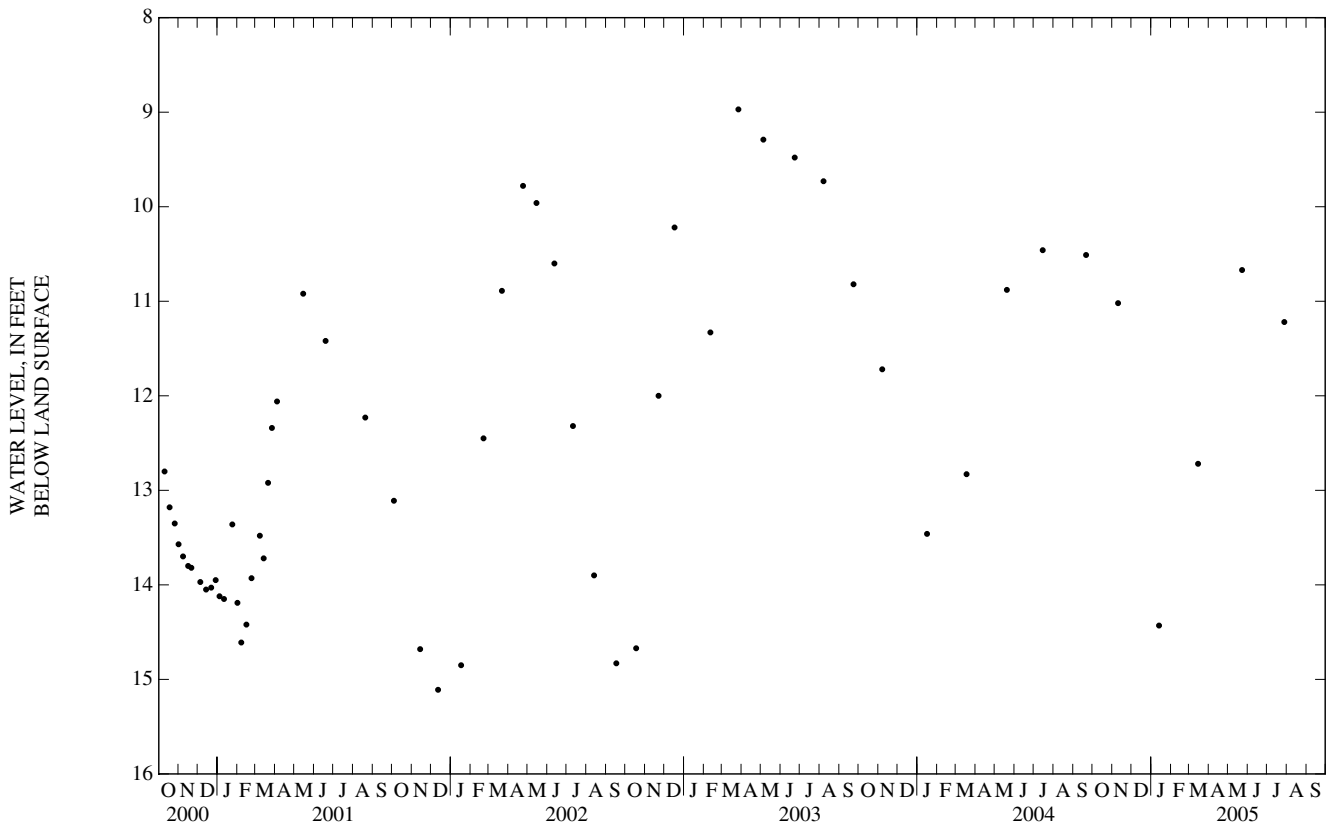
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.97 ft below land-surface datum, March 27, 2003; lowest water level measured, 15.11 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	11.02	JAN 13	14.43	MAR 15	12.72	MAY 23	10.67	JUL 28	11.22



IREDELL COUNTY—Continued

353147080524401. County number, IR-141; DENR Langtree Research Station WL-1.

LOCATION.--Lat 35°31'48", long 80°52'44", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 1 in., cased to 20 ft, open hole from 20 to 35 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 784.27 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.90 ft below land-surface datum.

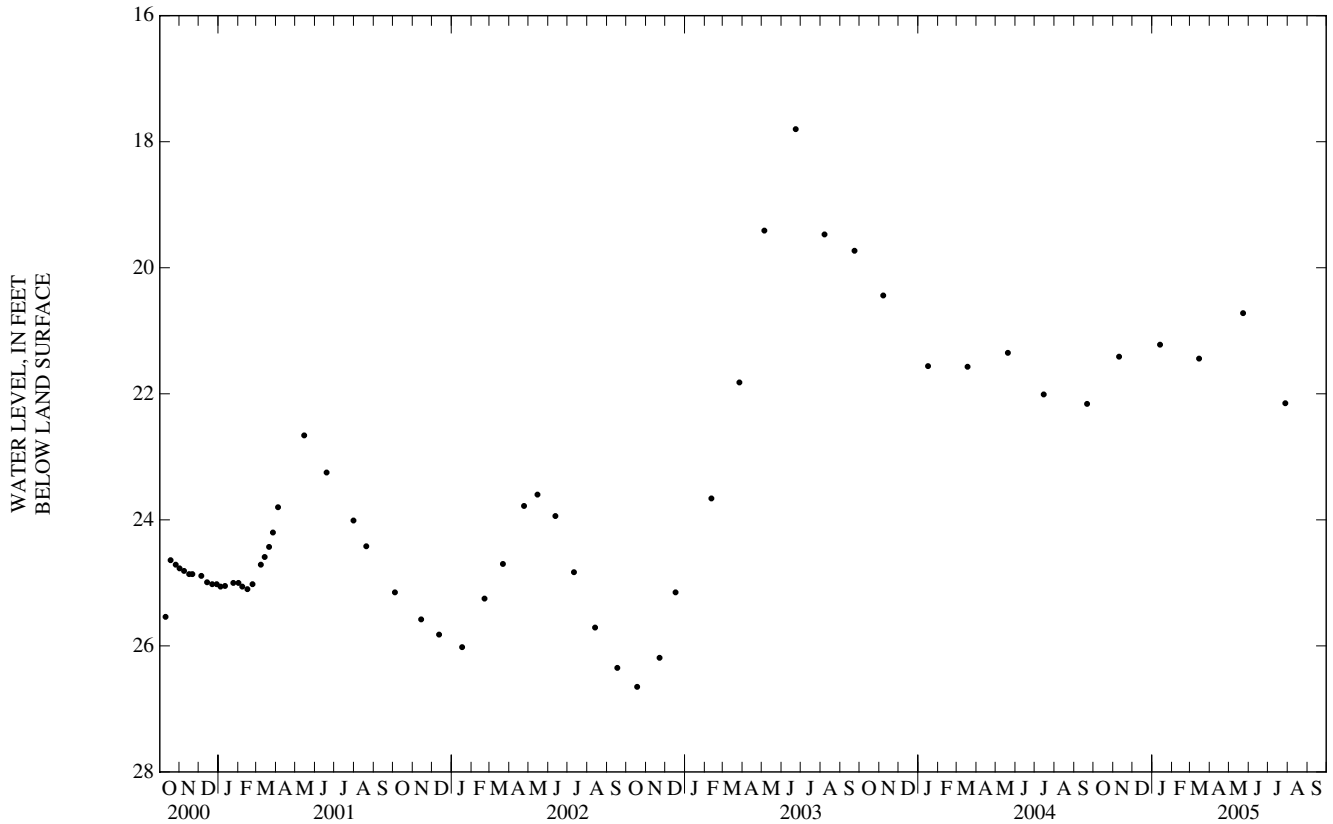
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.80 ft below land-surface datum, June 23, 2003; lowest water level measured, 26.65 ft below land-surface datum, Oct. 18, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	21.41	JAN 13	21.22	MAR 15	21.44	MAY 23	20.72	JUL 28	22.15



GROUND-WATER LEVELS
 IREDELL COUNTY—Continued

353148080524601. County number, IR-142; DENR Langtree Research Station WL-2.

LOCATION.--Lat 35°31'48", long 80°52'46", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 26 ft, diameter 1 in., cased to 16 ft, open hole from 16 to 26 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 780.74 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.86 ft below land-surface datum.

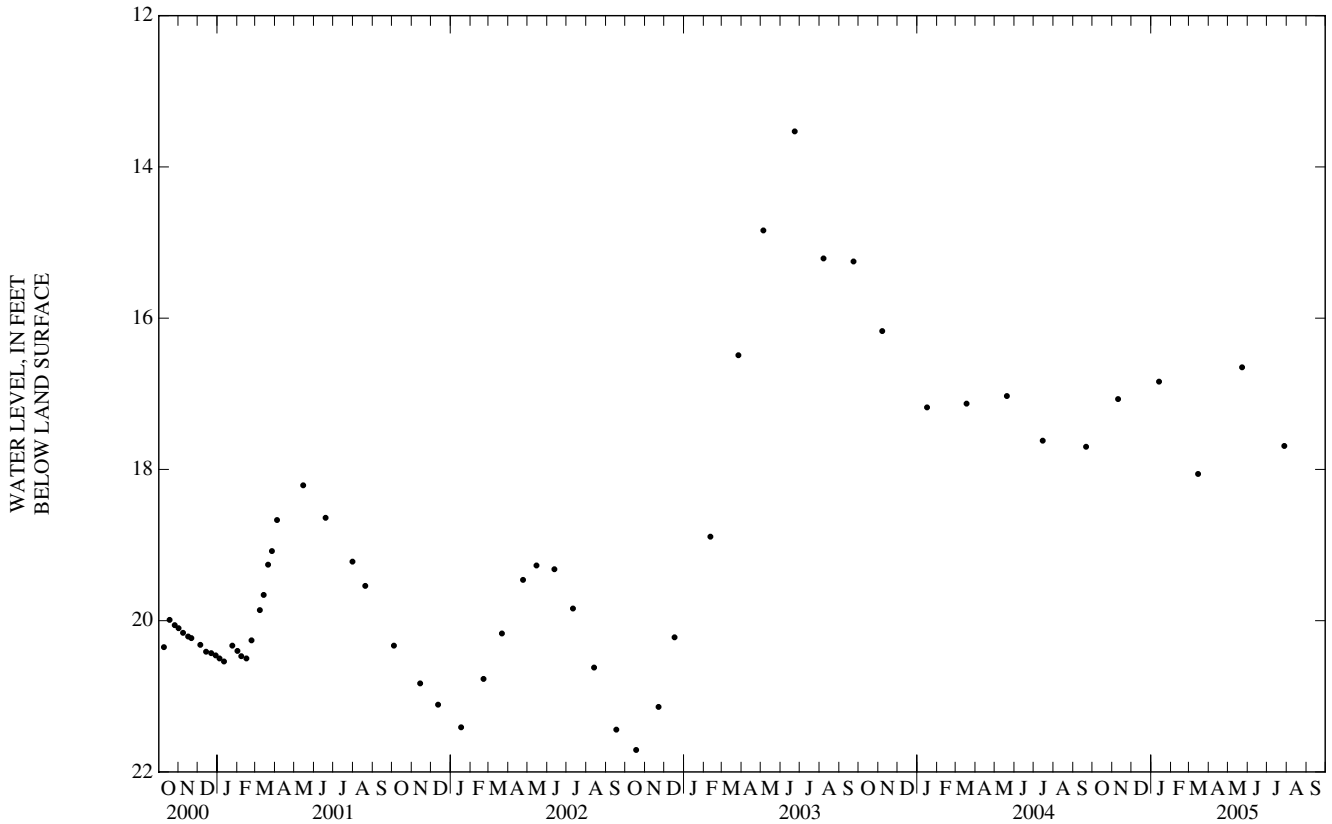
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.53 ft below land surface datum, June 23, 2003; lowest water level measured, 21.71 ft below land-surface datum, Oct. 18, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	17.07	JAN 13	16.84	MAR 15	18.06	MAY 23	16.65	JUL 28	17.69



IREDELL COUNTY—Continued

353150080524501. County number, IR-143; DENR Langtree Research Station WL-3.

LOCATION.--Lat 35°31'50", long 80°52'46", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 1 in., cased to 10 ft, open hole from 10 to 20 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 770.46 ft above NGVD of 1929. Measuring point: Top of PVC casing, -0.20 ft below land-surface datum.

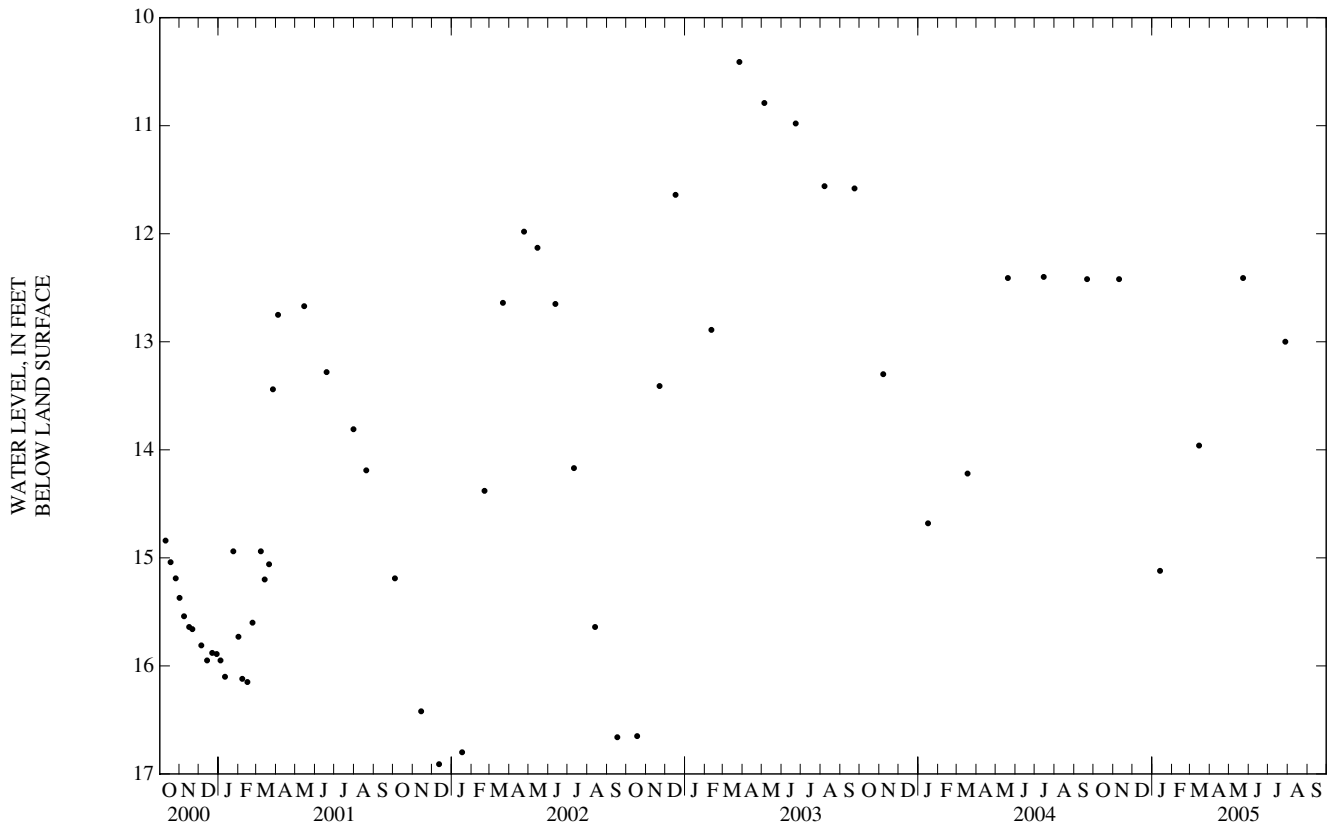
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.41 ft below land-surface datum, March 27, 2003; lowest water level measured, 16.91 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	12.42	JAN 13	15.12	MAR 15	13.96	MAY 23	12.41	JUL 28	13.00



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353149080524401. County number, IR-144; DENR Langtree Research Station WL-4.

LOCATION.--Lat 35°31'49", long 80°52'45", Hydrologic Unit 03050101, .3 mi north of Langtree Road, .9 mi west of Interstate 77 on Lake Campus Road.
 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 30 ft, diameter 1 in., cased to 17 ft, open hole from 17 to 30 ft.

INSTRUMENTATION.--Measured periodically with steel tape. (by DENR and USGS)

DATUM.--Land-surface datum is 775.85 ft above NGVD of 1929. Measuring point: Top of PVC casing, -0.10 ft below land-surface datum.

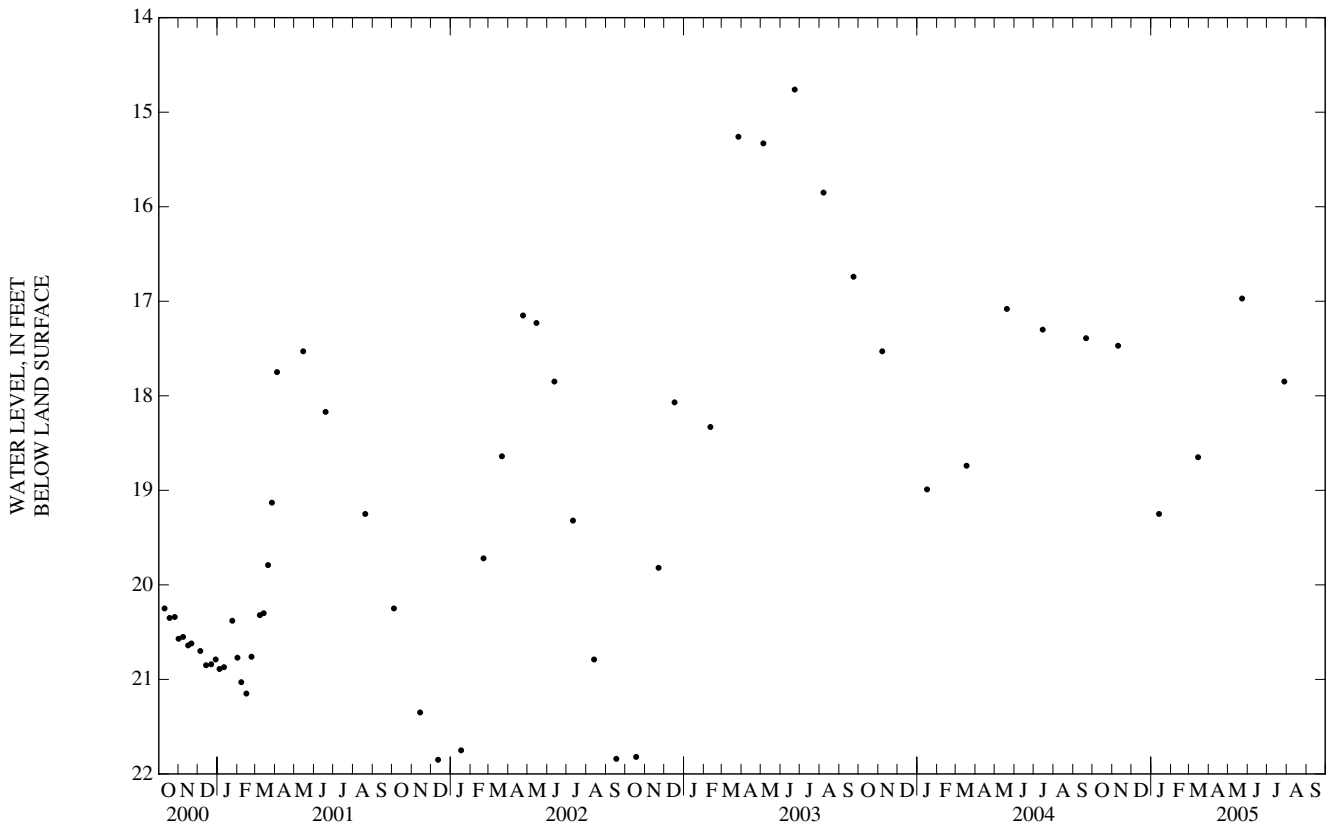
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--October 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.76 ft below land-surface datum, June 23, 2003; lowest water level measured, 21.85 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	17.47	JAN 13	19.25	MAR 15	18.65	MAY 23	16.97	JUL 28	17.85



IREDELL COUNTY—Continued

353141080524701. County number, IR-145; DENR Langtree Research Station MW-1S (Regolith well).

LOCATION.--Lat 35°31'41", long 80°52'47", 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 to 38 ft, sand filter packed from 26 to 38 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 812.57 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 2.50 ft above land-surface datum.

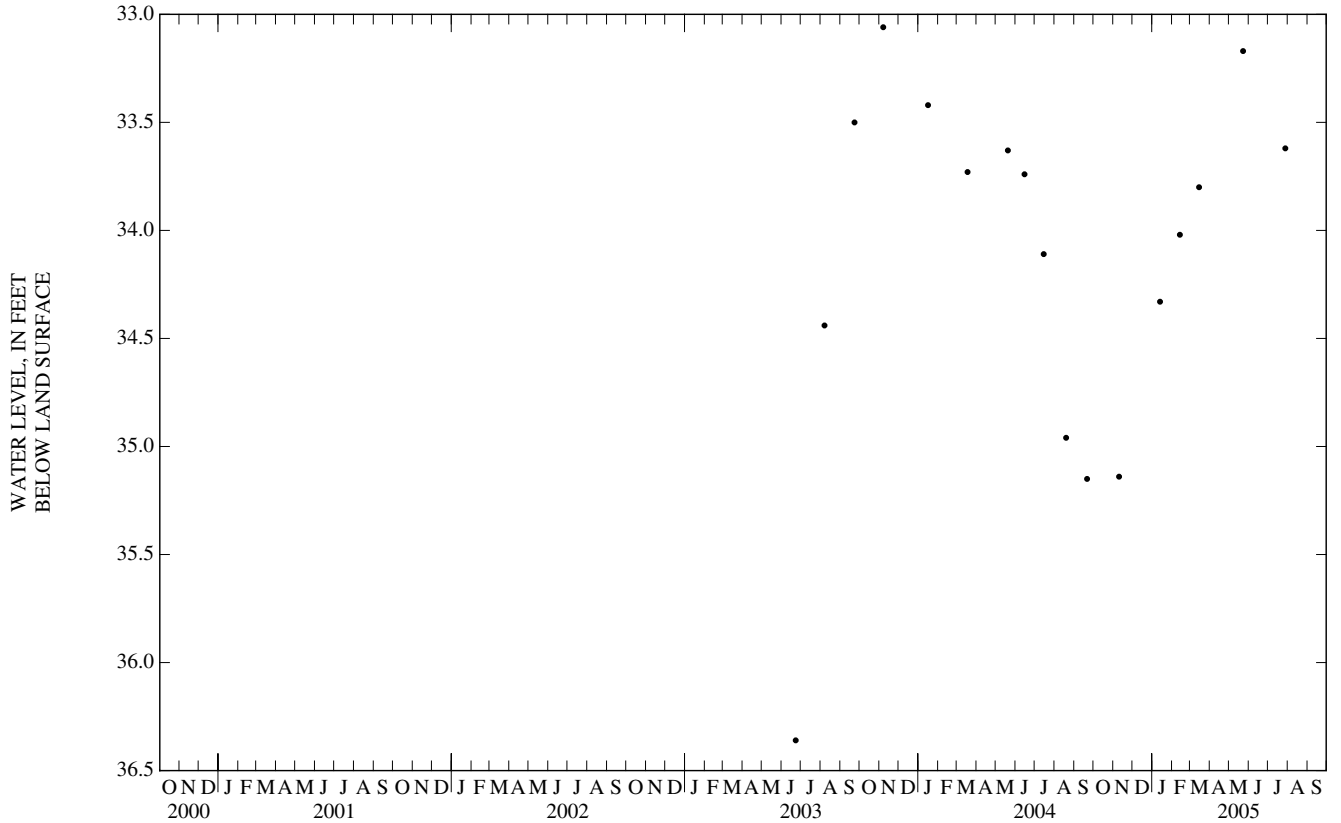
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--January 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Well dry during periodic water-level measurements January 2001 to June 2003. Highest water level measured, 33.06 ft below land-surface datum, Nov. 7, 2003; lowest water level measured, 36.36 ft below land-surface datum, June 23, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	35.14	JAN 13	34.33	FEB 13	34.02	MAR 15	33.80	MAY 23	33.17	JUL 28	33.62



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353141080524702. County number, IR-146; DENR Langtree Research Station MW-II (Transition zone well).

LOCATION.--Lat 35°31'41", long 80°52'47", 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 to 53 ft, sand filter packed from 34 to 53 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 812.65 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 2.42 ft above land-surface datum.

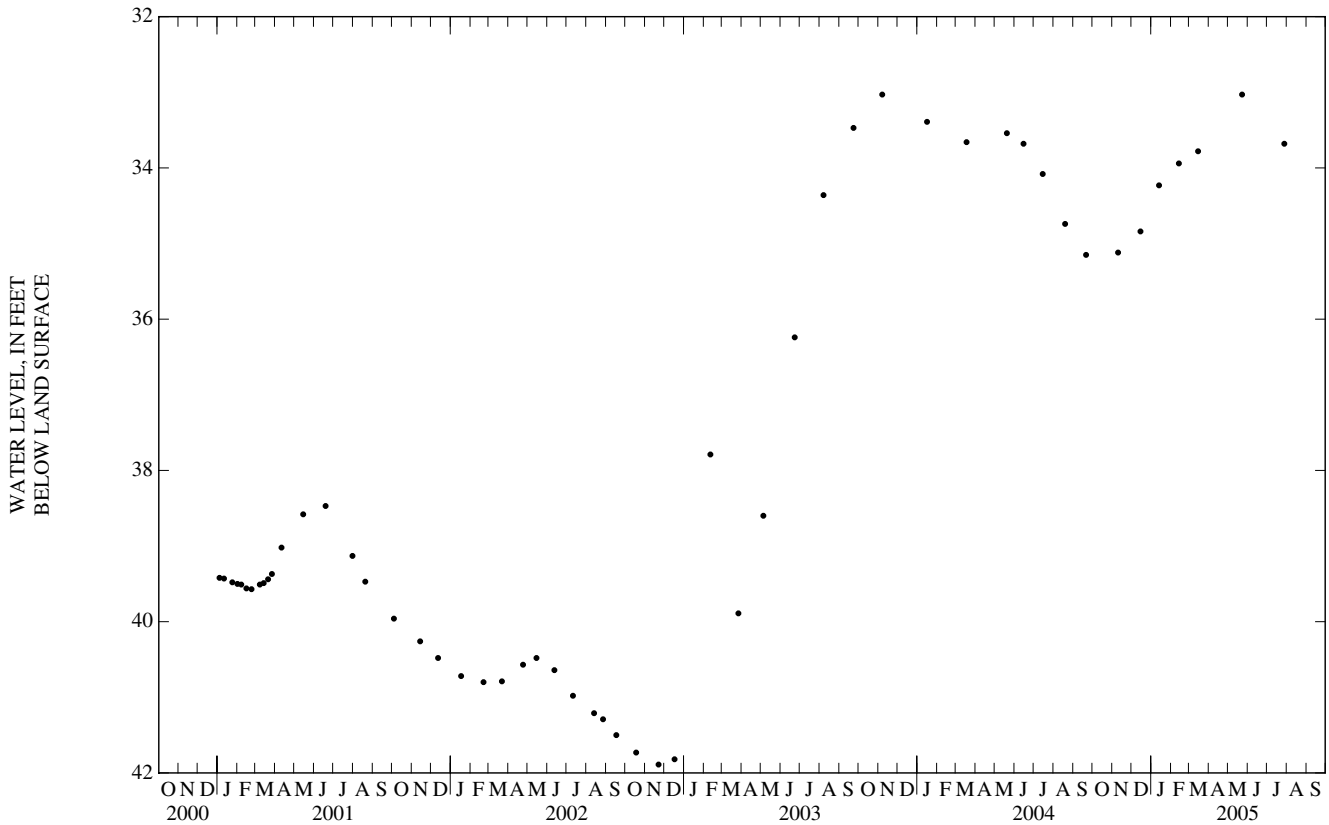
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--January 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.03 ft below land-surface datum, Nov. 7, 2003, May 23, 2005; lowest water level measured, 41.89 ft below land-surface datum, Nov. 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	35.12	JAN 13	34.23	MAR 15	33.78	JUL 28	33.68
DEC 15	34.84	FEB 13	33.94	MAY 23	33.03		



IREDELL COUNTY—Continued

353141080524703. County number, IR-147; DENR Langtree Research Station MW-1D (Bedrock well).

LOCATION.--Lat 35°31'41", long 80°52'47", 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., steel cased to 55 ft, initially open hole from 55 to 602 ft. Well modified in December 2001, 4 in. PVC liner installed to 76 ft, open hole from 76 to 602 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 812.51 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of steel protective casing, 2.16 ft above land-surface datum.

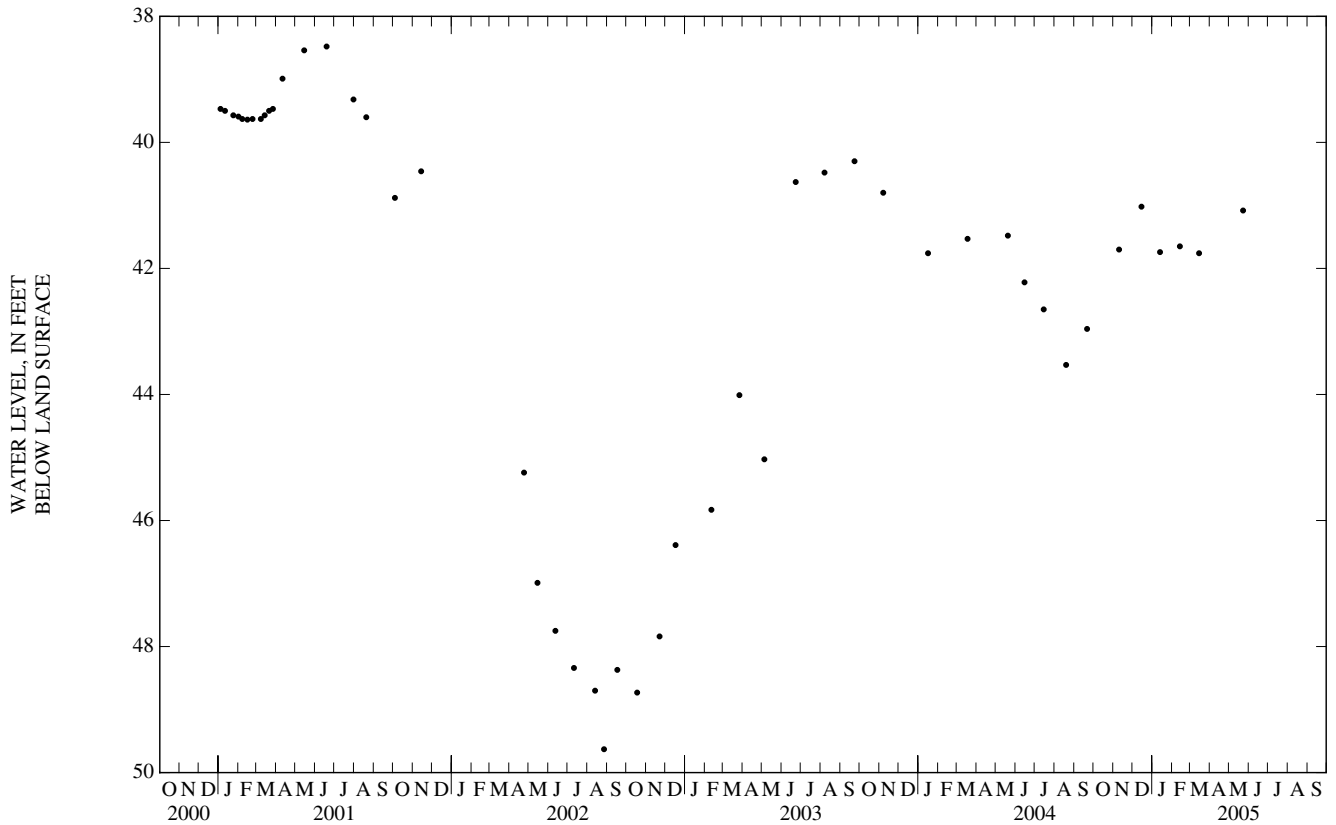
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--January 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.48 ft below land-surface datum, June 19, 2001; lowest water level measured, 52.61 ft below land-surface datum, Feb. 21, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	41.70	DEC 15	41.02	JAN 13	41.74	FEB 13	41.65	MAR 15	41.76	MAY 23	41.08



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353157080525301. County number, IR-148; DENR Langtree Research Station MW-3S (Regolith well).

LOCATION.--Lat 35°31'57", long 80°52'53", 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 to 15 ft, sand filter packed from 4 to 20 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 761.96 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.40 ft below land-surface datum.

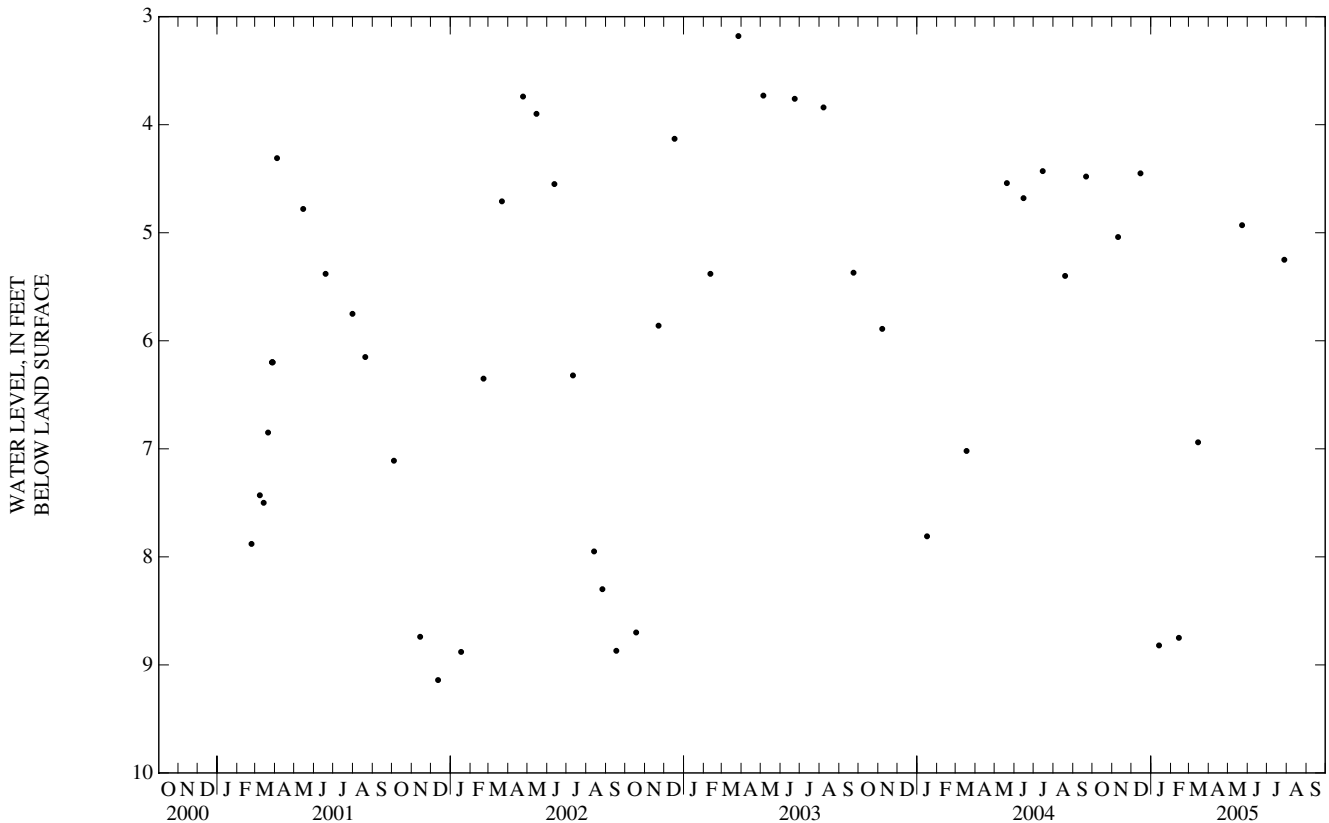
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--February 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.18 ft below land-surface datum, Mar. 27, 2003; lowest water level measured 9.14 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	5.04	JAN 13	8.82	MAR 15	6.94	JUL 28	5.25
DEC 15	4.45	FEB 13	8.75	MAY 23	4.93		



IREDELL COUNTY—Continued

353157080525302. County number, IR-149; DENR Langtree Research Station MW-3I (Transition zone well).

LOCATION.--Lat 35°31'57", long 80°52'53", 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 to 73 ft, native fill from 10 to 73 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land surface datum is 762.92 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.26 ft below land surface datum.

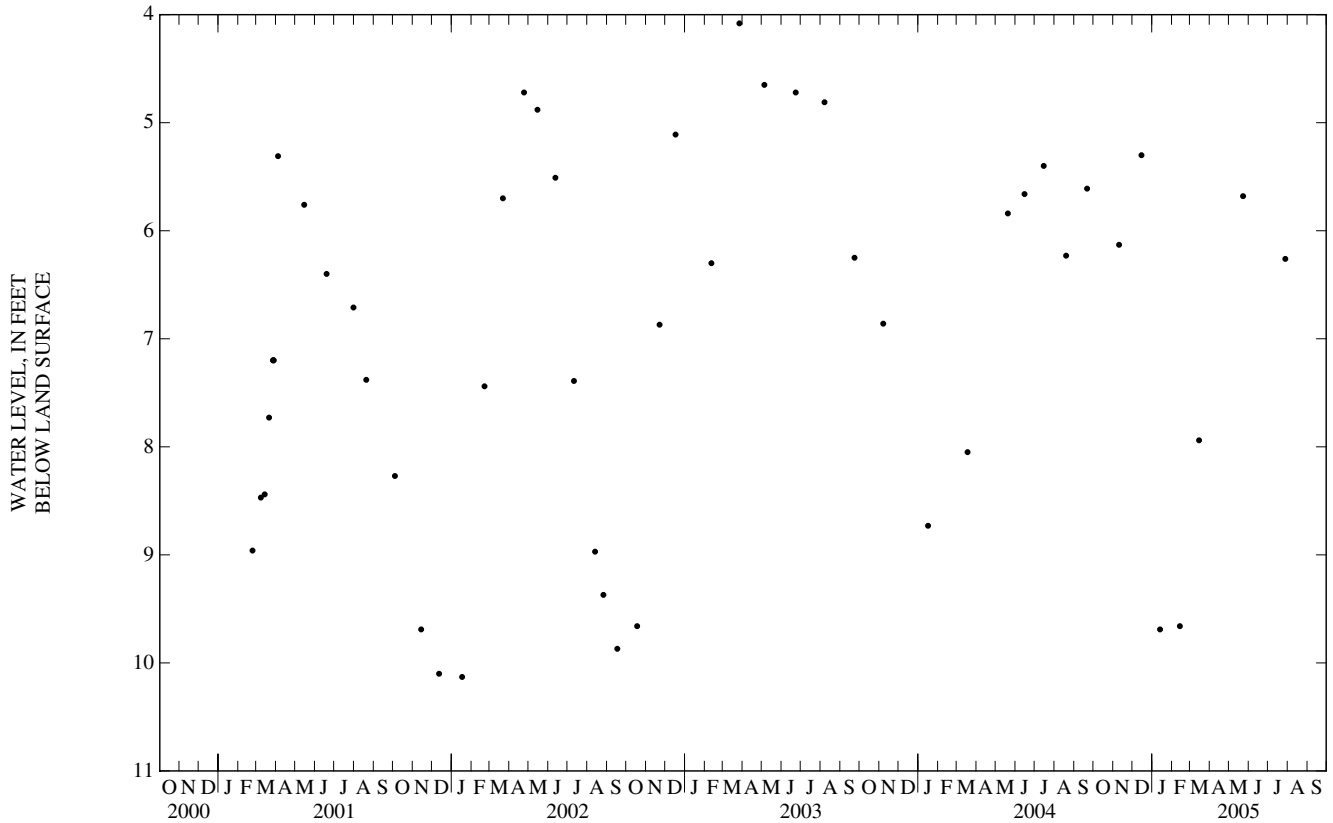
REMARKS.--Well is part of Piedmont/Mountains ground-water study. Possible well construction problems. Monitored zone may be connected to overlying regolith.

PERIOD OF RECORD.--February 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.08 ft below land-surface datum, Mar. 27, 2003; lowest water level measured 10.13 ft below land surface datum, Jan. 17, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	6.13	JAN 13	9.69	MAR 15	7.94	JUL 28	6.26
DEC 15	5.30	FEB 13	9.66	MAY 23	5.68		



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353145080524701. County number, IR-151; DENR Langtree Research Station MW-4IB (Transition zone well).

LOCATION.--Lat 35°31'45", long 80°52'47", 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 (bedrock 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 to 53 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 802.93 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.03 ft below land-surface datum.

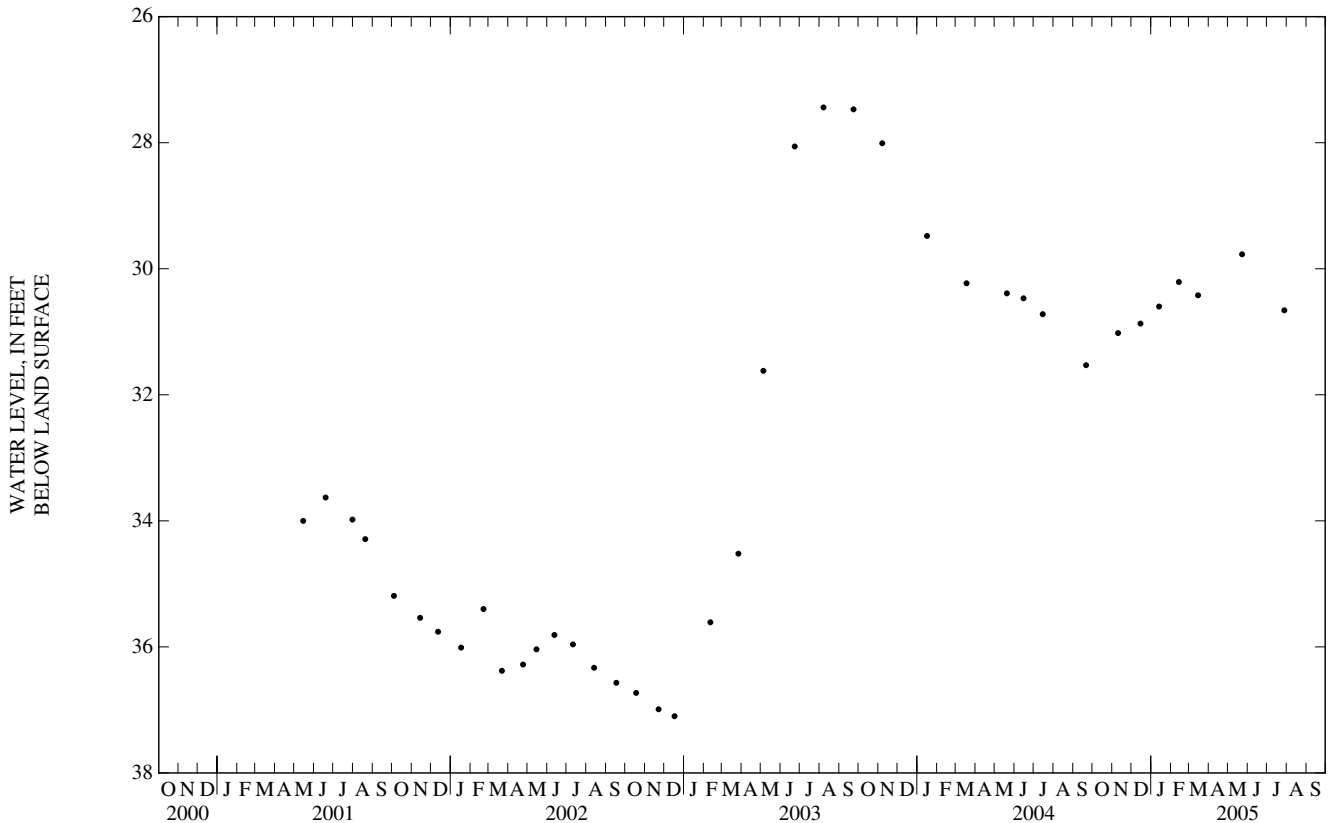
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.44 ft below land-surface datum, Aug. 7, 2003; lowest water level measured, 37.10 ft below land-surface datum, Dec. 17, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	31.02	JAN 13	30.60	MAR 15	30.42	JUL 28	30.66
DEC 15	30.87	FEB 13	30.21	MAY 23	29.77		



IREDELL COUNTY—Continued

353145080524704. County number, IR-152A; DENR Langtree Research Station MW-4IA (Transition zone well).

LOCATION.--Lat 35°31'45", long 80°52'47", 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 55 ft, diameter 2 in., cased to 40 ft, screened interval from 40 to 55 ft, sand filter packed with native fill 35 to 55 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 802.39 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 2 in. PVC casing, 0.69 ft above land-surface datum.

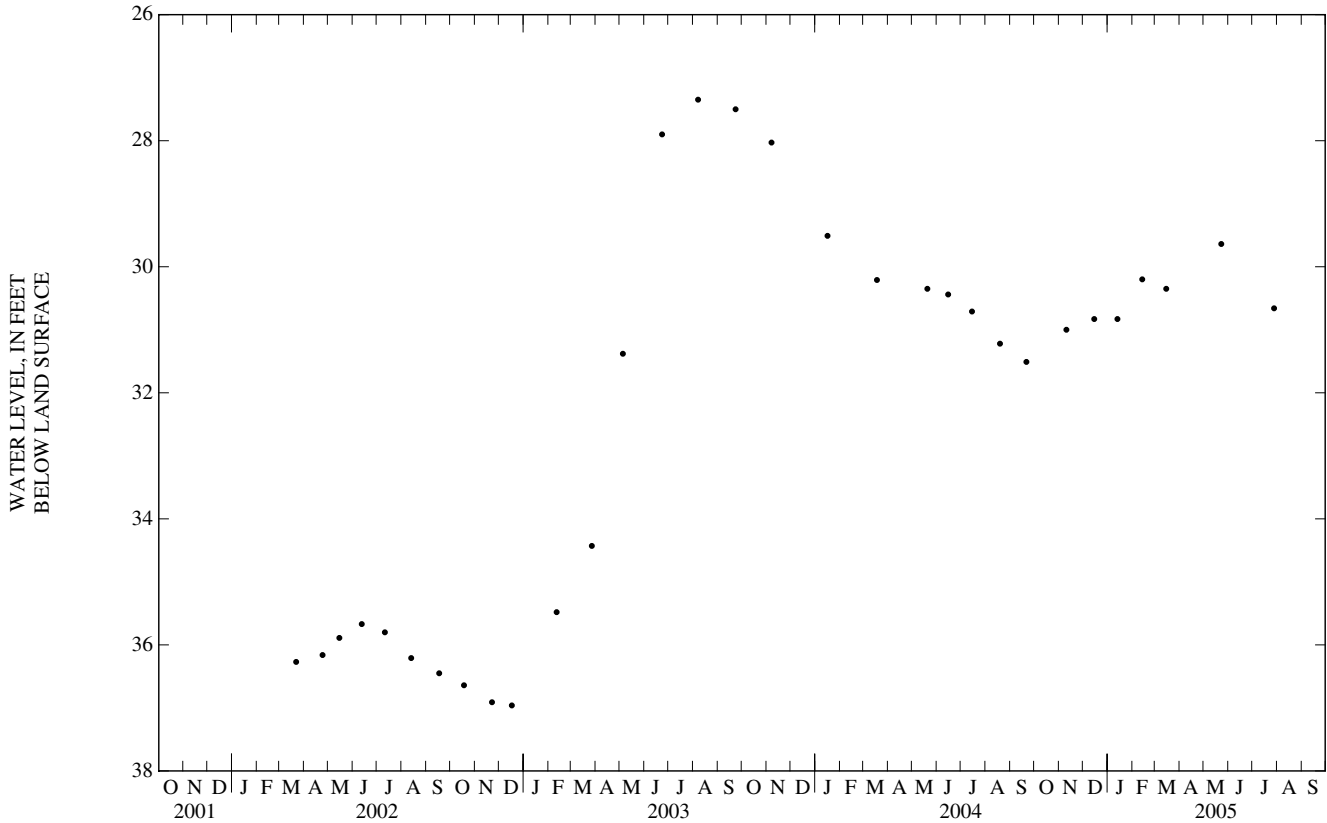
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--March 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.35 ft below land-surface datum, Aug. 7, 2003; lowest water level measured, 36.96 ft below land-surface datum, Dec. 17, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	31.00	JAN 13	30.83	MAR 15	30.35	JUL 28	30.66
DEC 15	30.83	FEB 13	30.20	MAY 23	29.64		



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353145080524703. County number, IR-153; DENR Langtree Research Station MW-4D (Bedrock well).

LOCATION.--Lat 35°31'45", long 80°52'47", 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., steel cased to 61 ft, initially open hole from 61 to 400 ft. Well modified in December 2001, 4 in. PVC liner installed to 69 ft, open hole from 69 to 400 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 801.84 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 1.25 ft above land-surface datum.

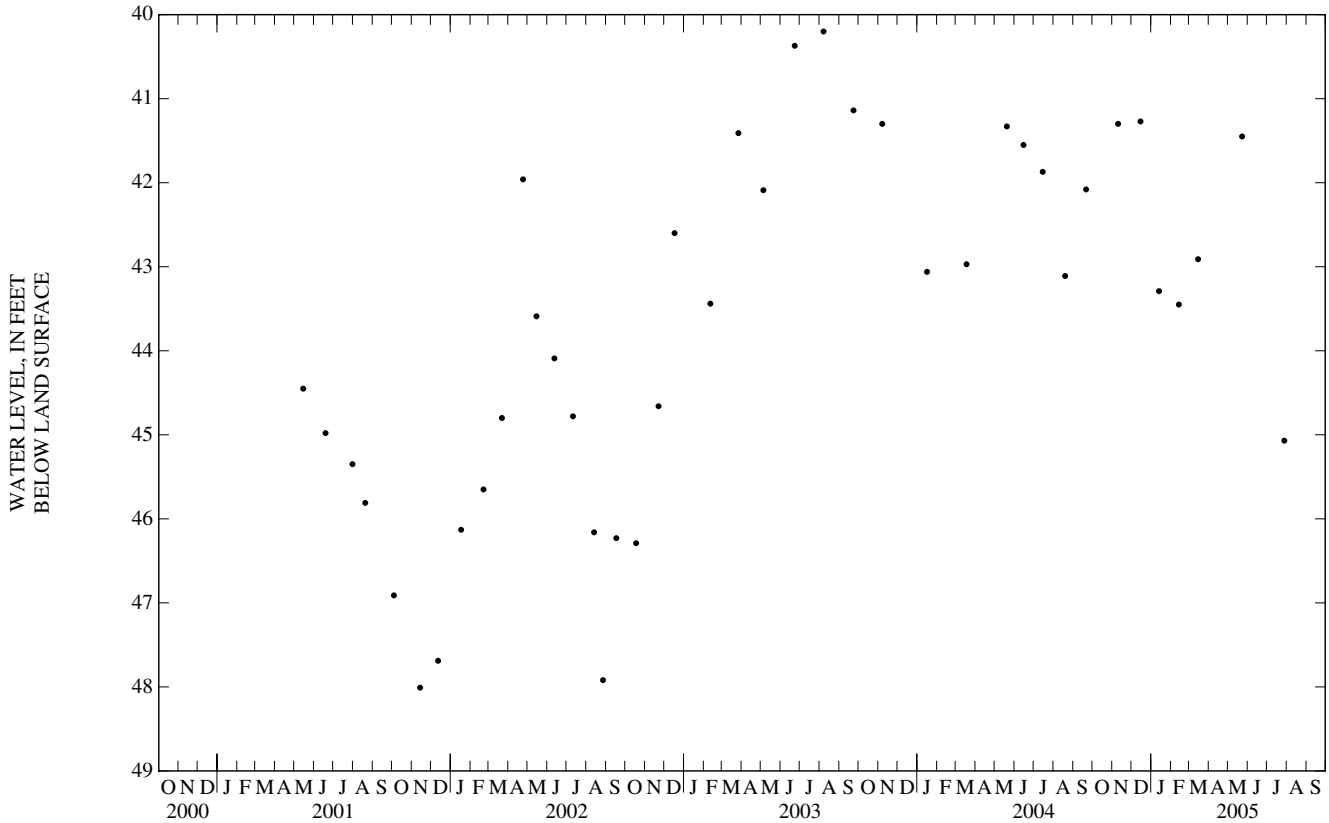
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.20 ft below land-surface datum, Aug. 7, 2003; lowest water level measured, 48.01 ft below land-surface datum, Nov. 14, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	41.30	JAN 13	43.29	MAR 15	42.91	JUL 28	45.07
DEC 15	41.27	FEB 13	43.45	MAY 23	41.45		



IREDELL COUNTY—Continued

353148080524701. County number, IR-154; DENR Langtree Research Station MW-5S (Regolith well).

LOCATION.--Lat 35°31'48", long 80°52'47", 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 to 20 ft, sand filter packed from 8 to 20 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 786.18 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.04 ft below land-surface datum.

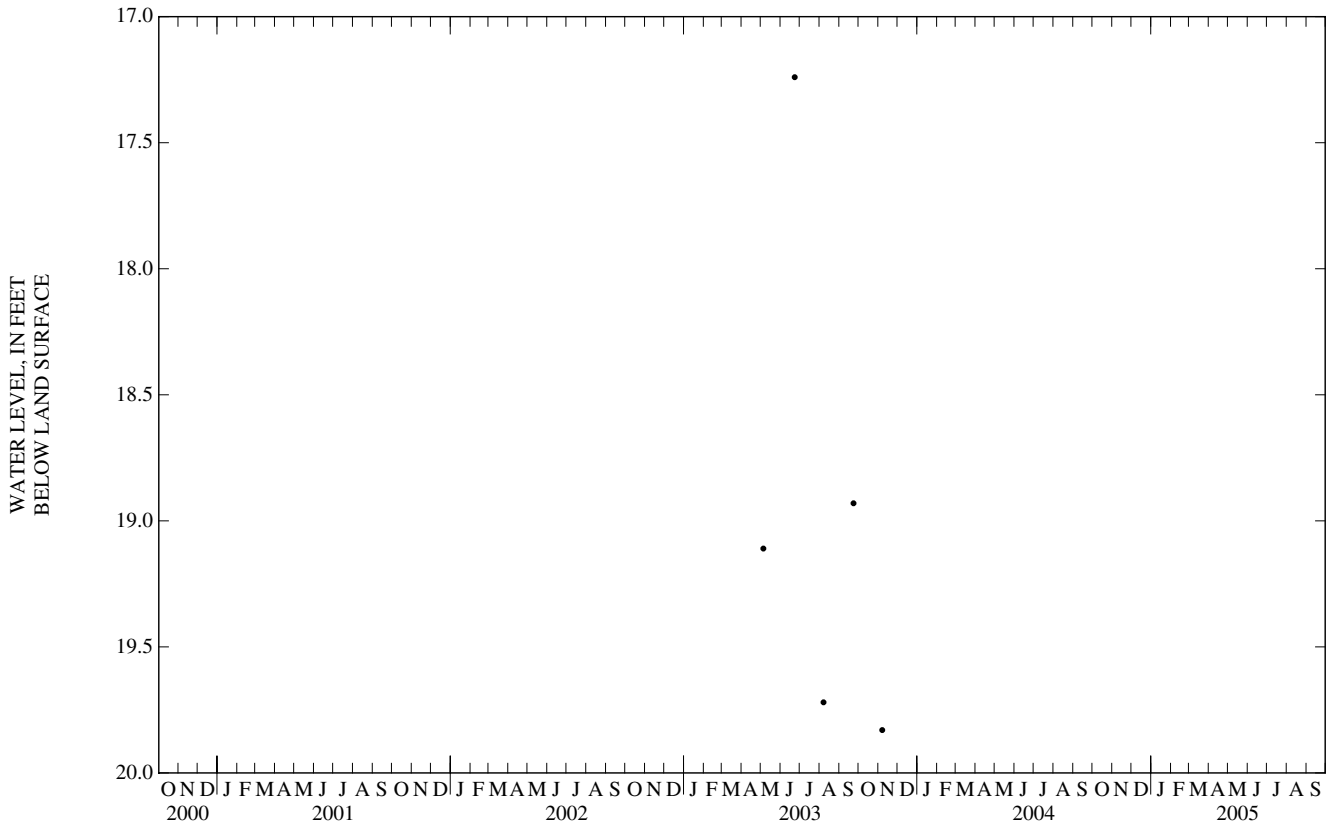
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Well dry during periodic water-level measurements May 2001 to May 2003 and Jan. 2004 to July 2005. Highest water level measured, 17.24 ft below land-surface datum, June 23, 2003; lowest water level measured, 19.83 ft below land-surface datum, Nov. 7, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	DRY	JAN 13	DRY	MAR 15	DRY	JUL 28	DRY
DEC 15	DRY	FEB 13	DRY	MAY 23	DRY		



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353148080524702. County number, IR-155; DENR Langtree Research Station MW-5I (Transition zone well).

LOCATION.--Lat 35°31'48", long 80°52'47", 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 to 35 ft, sand filter packed from 18 to 35 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 785.07 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.21 ft above land-surface datum.

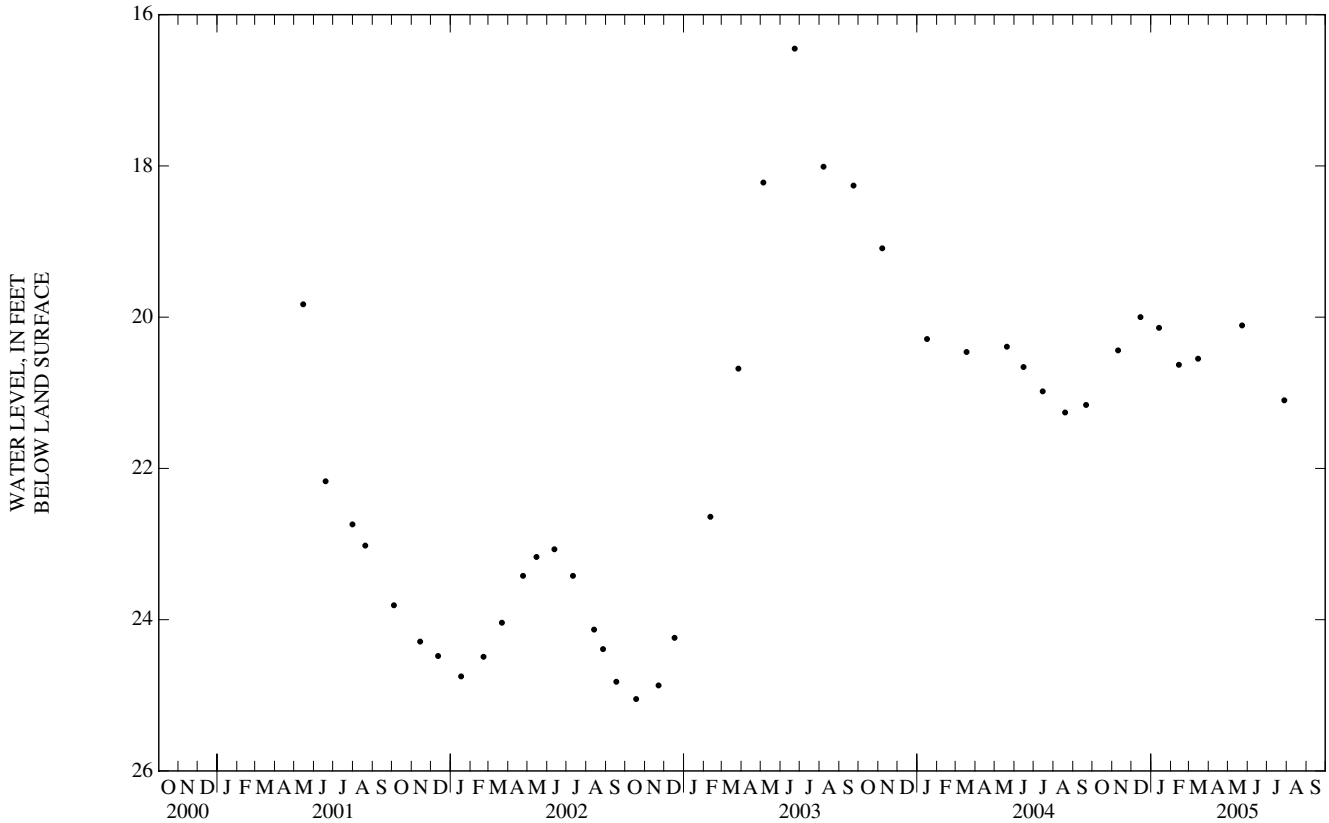
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.45 ft below land-surface datum, June 23, 2003; lowest water level measured, 25.05 ft below land-surface datum, Oct. 18, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	20.44	JAN 13	20.14	MAR 15	20.55	JUL 28	21.10
DEC 15	20.00	FEB 13	20.63	MAY 23	20.11		



IREDELL COUNTY—Continued

353148080524703. County number, IR-156; DENR Langtree Research Station MW-5D (Bedrock well).

LOCATION.--Lat 35°31'48", long 80°52'47", 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 to 400 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 784.73 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of steel protective casing, 1.37 ft above land-surface datum.

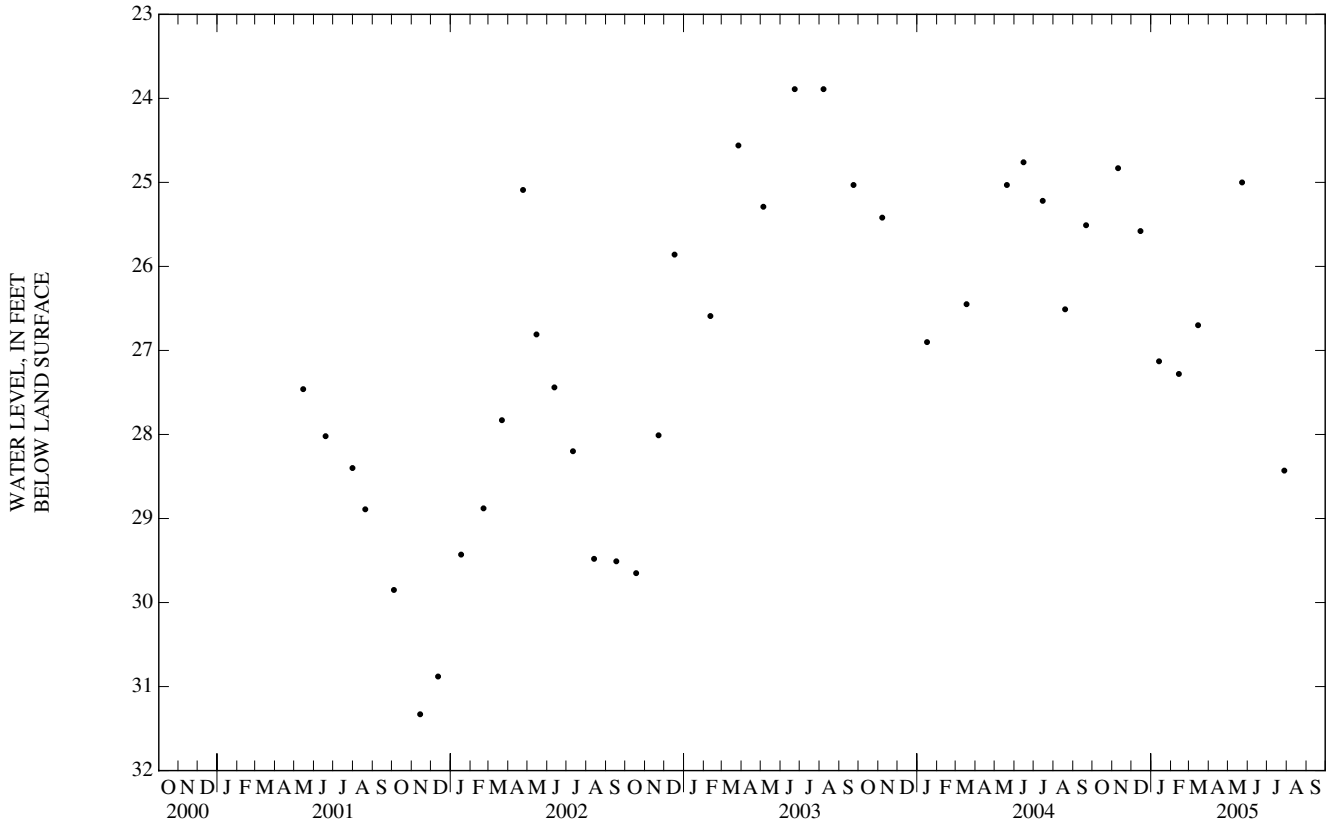
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.89 ft below land-surface datum, June 23, Aug. 7, 2003; lowest water level measured, 31.33 ft below land-surface datum, Nov. 14, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	24.83	JAN 13	27.13	MAR 15	26.70	JUL 28	28.43
DEC 15	25.58	FEB 13	27.28	MAY 23	25.00		



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353151080524601. County number, IR-157; DENR Langtree Research Station MW-6S (Regolith well).

LOCATION.--Lat 35°31'51", long 80°52'46", 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 to 18 ft, sand filter packed from 6 to 18 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 765.32 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.28 ft below land-surface datum.

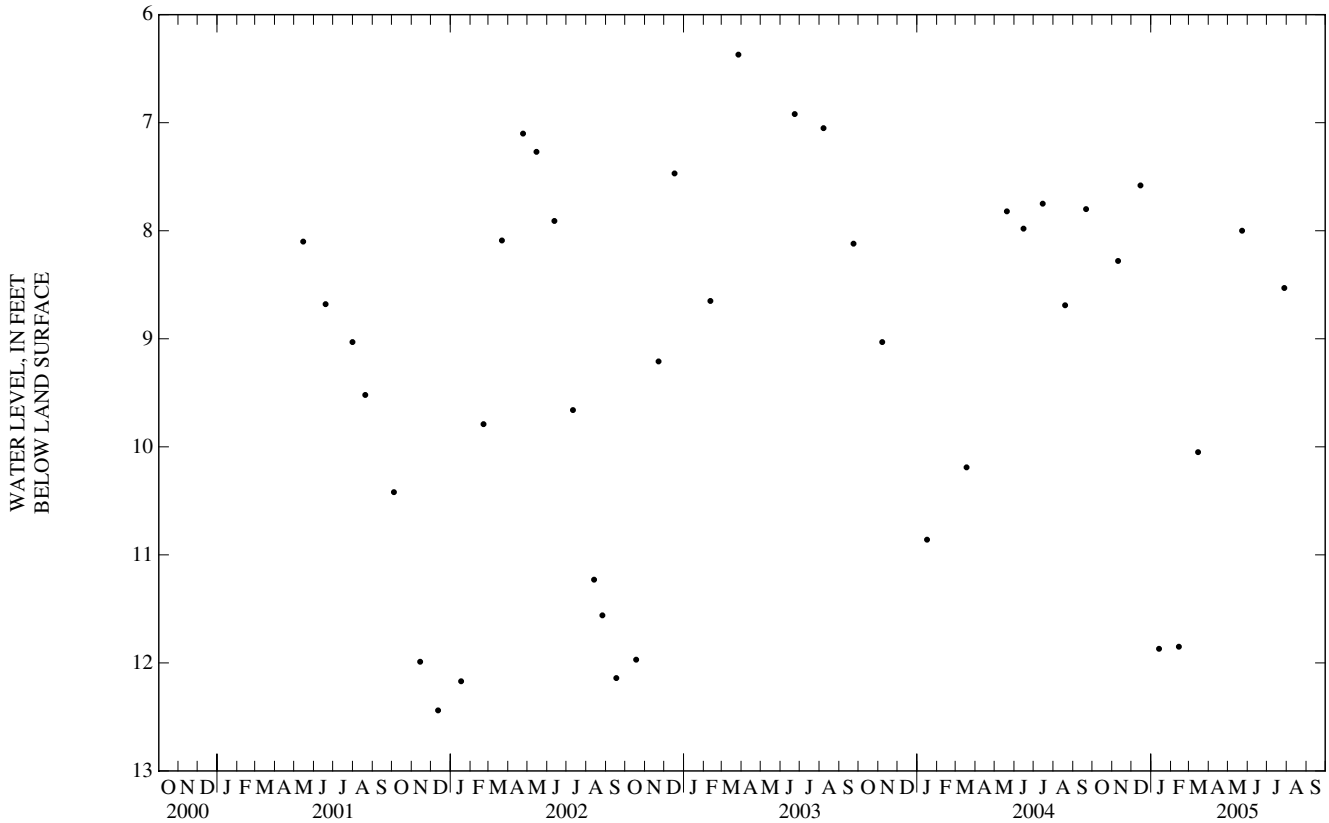
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.37 ft below land-surface datum, Mar. 27, 2003; lowest water level measured, 12.44 ft below land-surface datum, Dec. 12, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	8.28	JAN 13	11.87	MAR 15	10.05	JUL 28	8.53
DEC 15	7.58	FEB 13	11.85	MAY 23	8.00		



IREDELL COUNTY—Continued

353151080524603. County number, IR-159; DENR Langtree Research Station MW-6D (Bedrock well).

LOCATION.--Lat 35°31'52", long 80°52'46", 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., steel cased to 43 ft, initially open hole from 43 to 400 ft. Well modified in December 2001, 4 in. PVC liner installed to 69 ft, open hole from 69 to 400 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 765.84 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 6.25 in. PVC casing, 0.29 ft below land-surface datum.

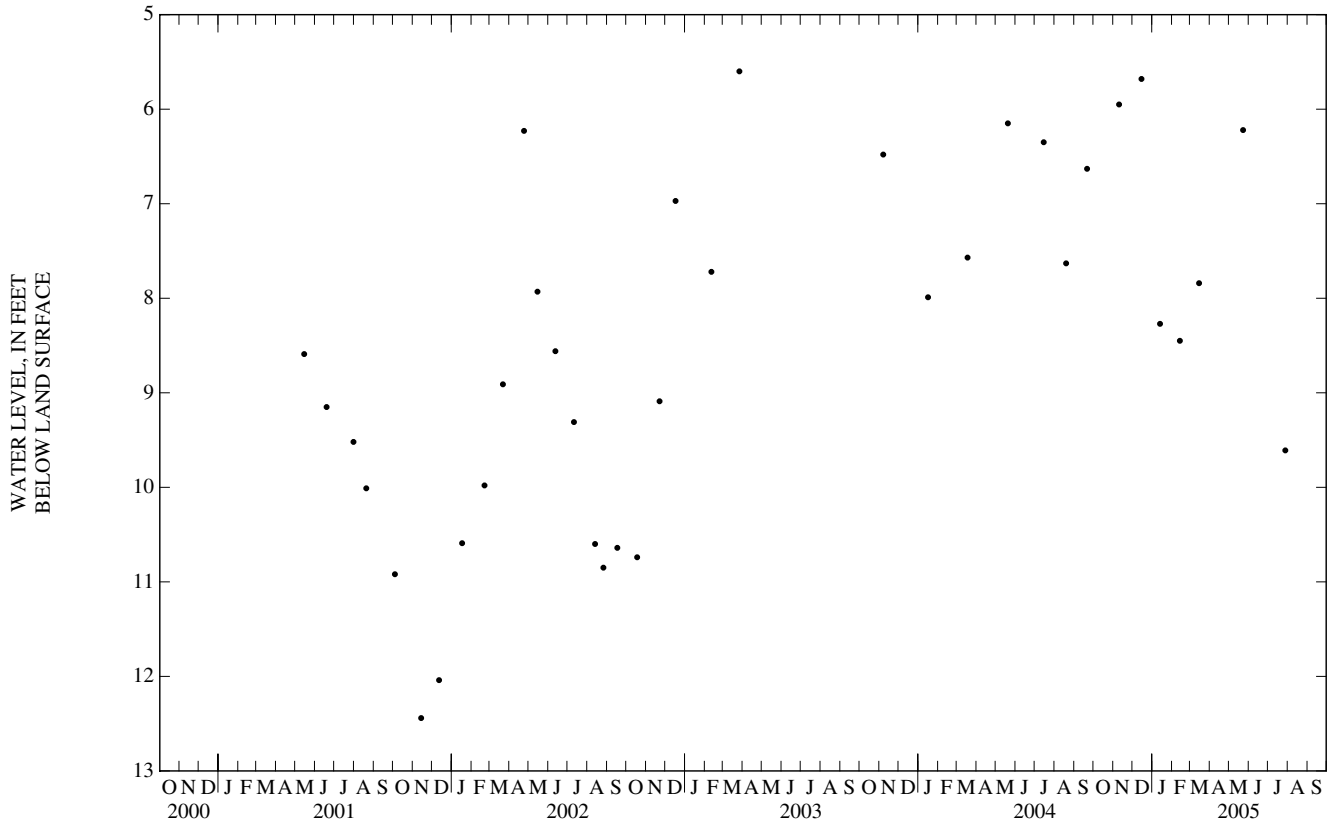
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.60 ft below land-surface datum, Mar. 27, 2003; lowest water level measured, 12.44 ft below land-surface datum, Nov. 14, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	5.95	JAN 13	8.27	MAR 15	7.84	JUL 28	9.61
DEC 15	5.68	FEB 13	8.45	MAY 23	6.22		



GROUND-WATER LEVELS

IREDELL COUNTY—Continued

353151080524604. County number, IR-160; DENR Langtree Research Station MW-6IB (Transition zone well).

LOCATION.--Lat 35°31'52", long 80°52'46", 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 30 ft, diameter 4 in., cased to 15 ft, screened interval from 15 to 30 ft, sand filter packed from 12 to 30 ft.

INSTRUMENTATION.--Measured periodically with steel and electric tape. (by DENR and USGS)

DATUM.--Land-surface datum is 765.73 ft above NGVD of 1929, (levels by DENR). Measuring point: Top of 4 in. PVC casing, 0.27 ft below land-surface datum.

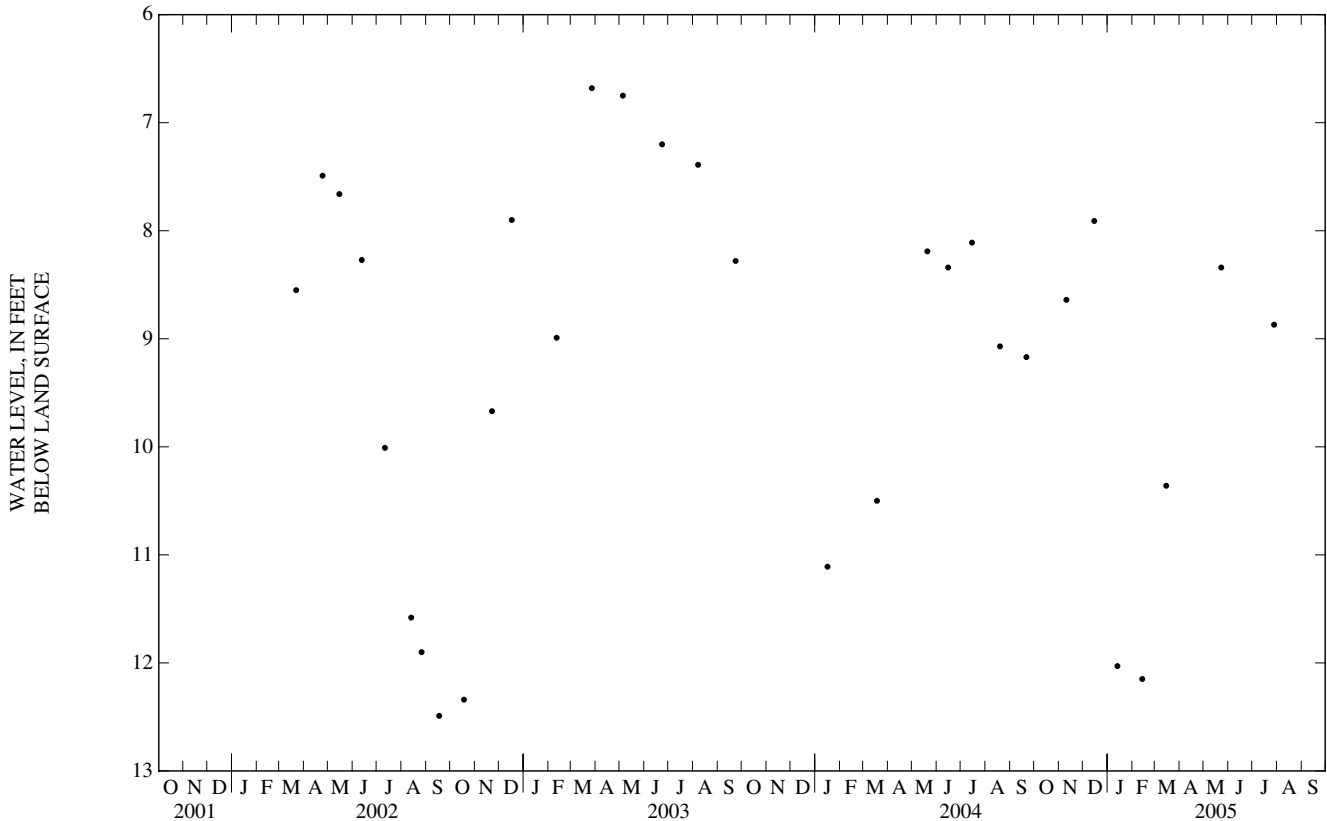
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--March 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.68 ft below land-surface datum, Mar. 27, 2003; lowest water level measured, 12.49 ft below land-surface datum, Sept. 17, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

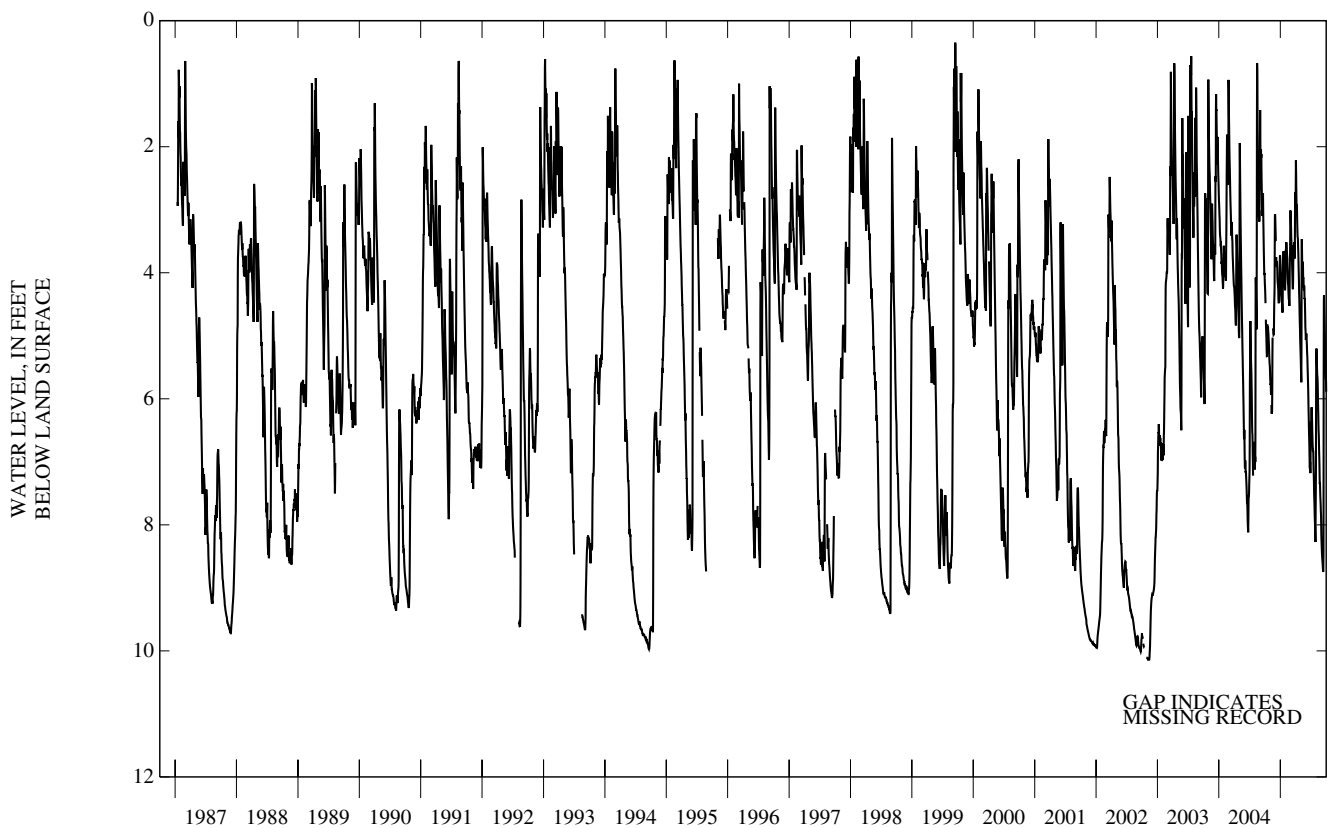
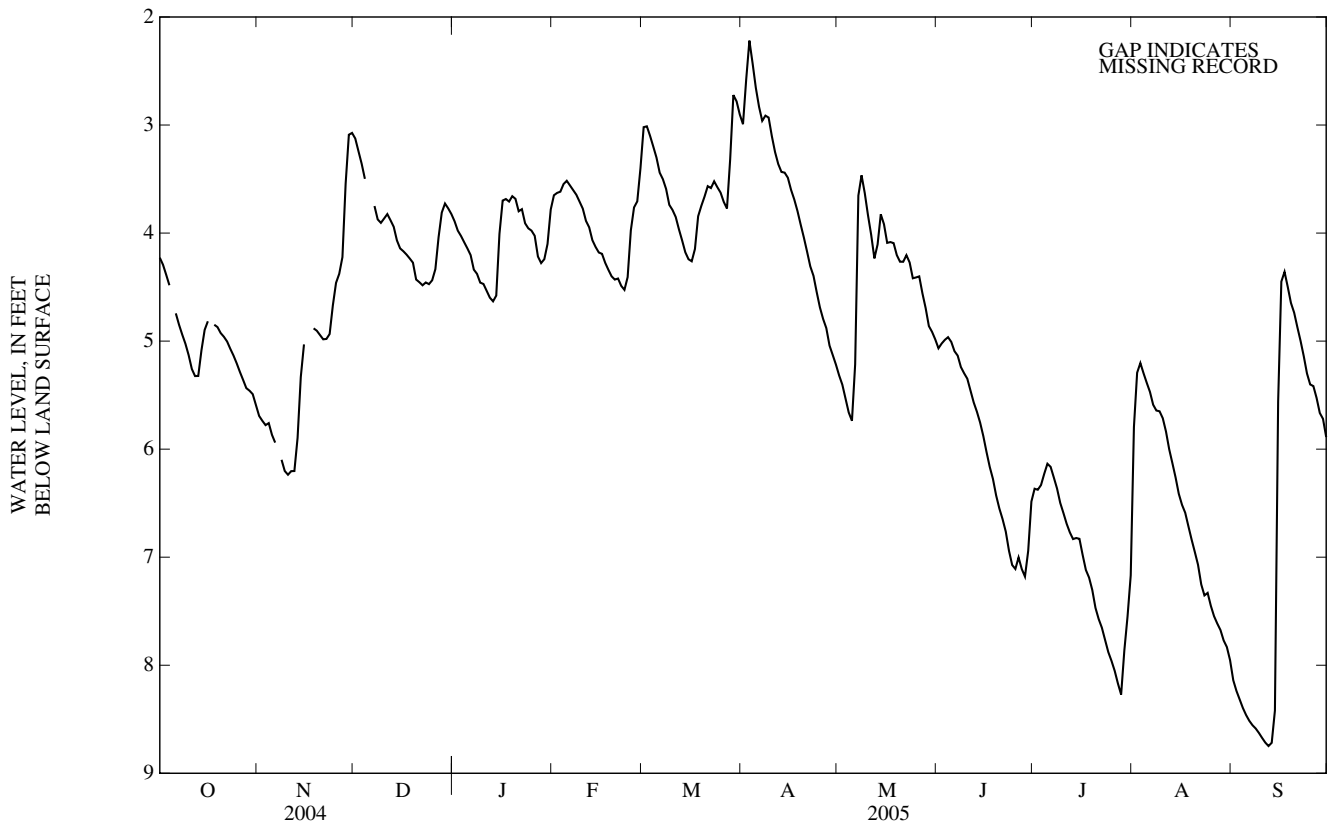
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	8.64	JAN 13	12.03	MAR 15	10.36	JUL 28	8.87
DEC 15	7.91	FEB 13	12.15	MAY 23	8.34		



GROUND-WATER LEVELS

JONES COUNTY—Continued

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



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

PRECIPITATION RECORDS

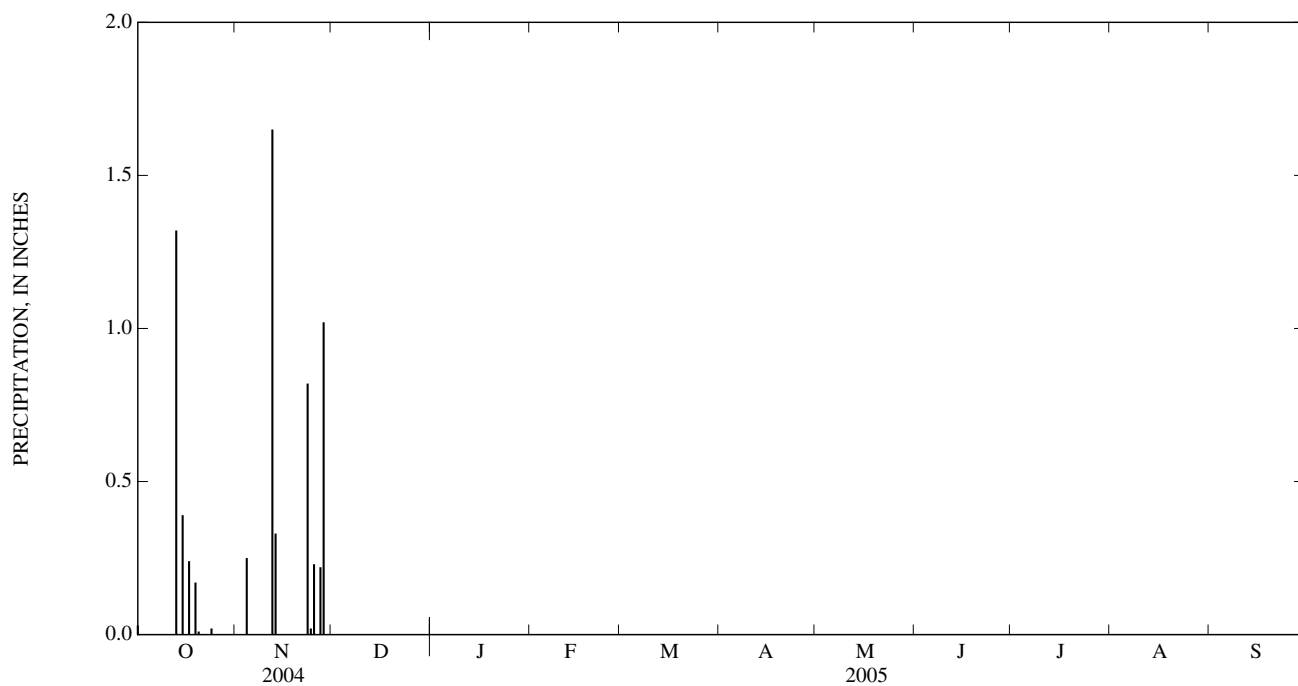
PERIOD OF RECORD.--July 2003 to December 2004.

GAGE.--Tipping-bucket raingage and electronic datalogger.

REMARKS.--Gage is operated as part of a U.S. Geological Survey Ground-water Resources Program recharge study. Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

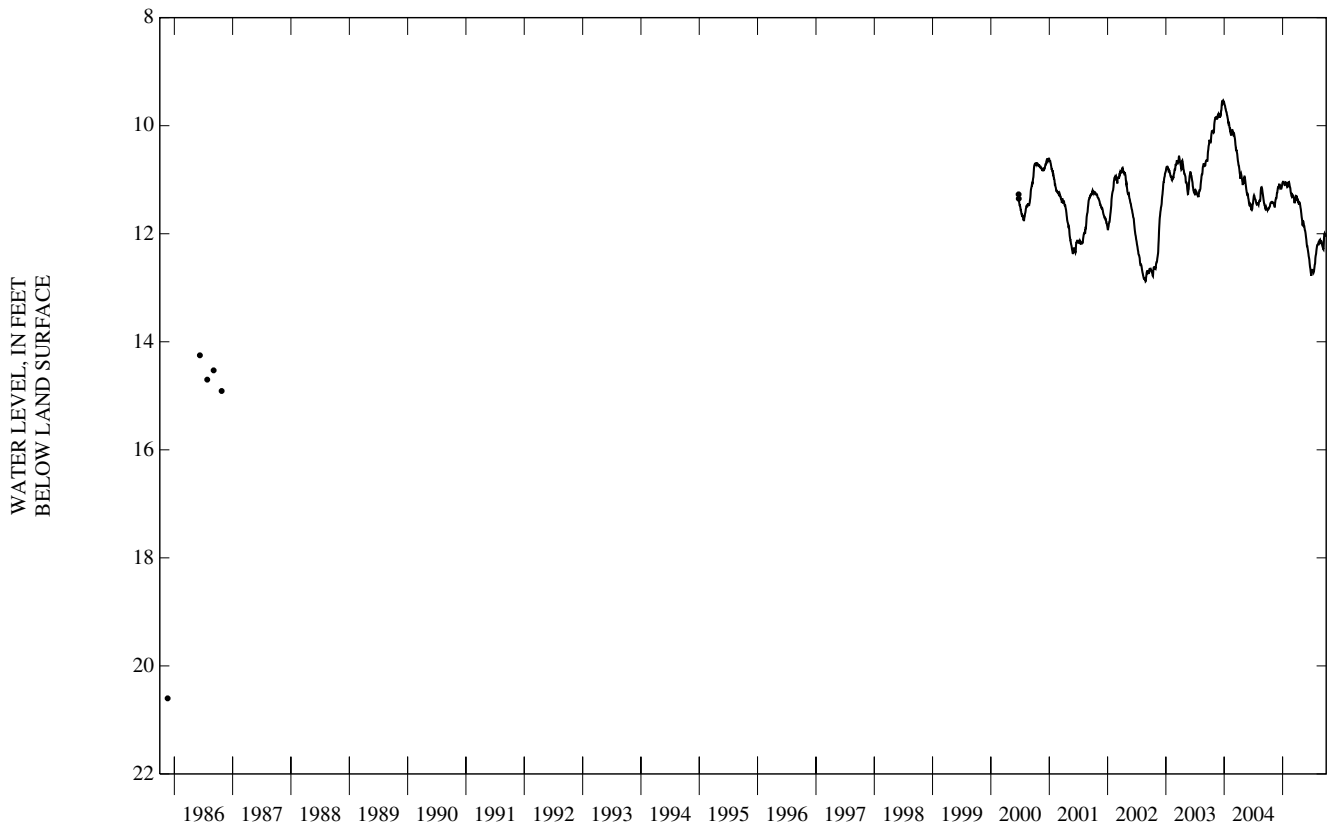
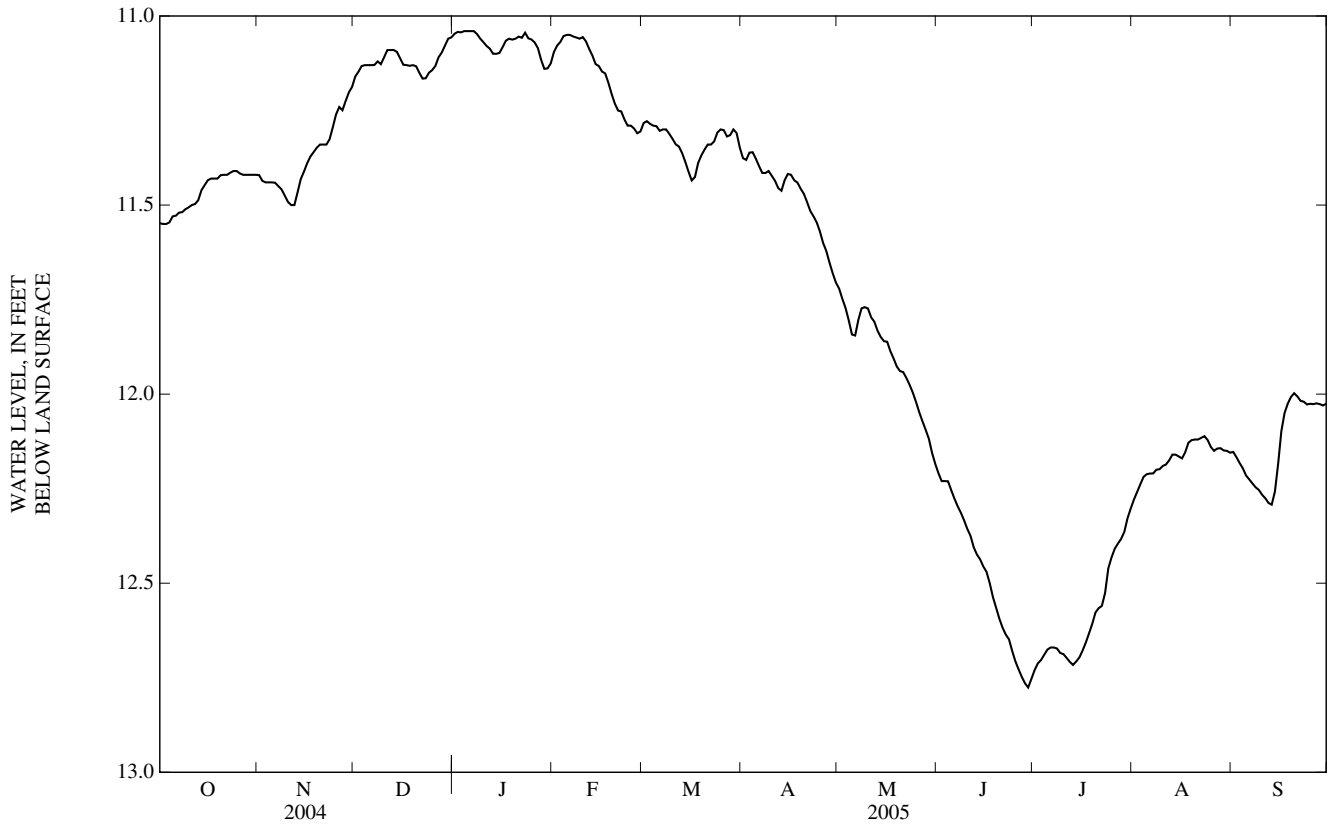
PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.00	0.00	---	---	---	---	---	---	---	---	---
2	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
3	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
4	0.00	0.25	0.00	---	---	---	---	---	---	---	---	---
5	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
6	0.00	0.00	---	---	---	---	---	---	---	---	---	---
7	0.00	0.00	---	---	---	---	---	---	---	---	---	---
8	0.00	0.00	---	---	---	---	---	---	---	---	---	---
9	0.00	0.00	---	---	---	---	---	---	---	---	---	---
10	0.00	0.00	---	---	---	---	---	---	---	---	---	---
11	0.00	0.00	---	---	---	---	---	---	---	---	---	---
12	0.00	1.65	---	---	---	---	---	---	---	---	---	---
13	1.32	0.33	---	---	---	---	---	---	---	---	---	---
14	0.00	0.00	---	---	---	---	---	---	---	---	---	---
15	0.39	0.00	---	---	---	---	---	---	---	---	---	---
16	0.00	0.00	---	---	---	---	---	---	---	---	---	---
17	0.24	0.00	---	---	---	---	---	---	---	---	---	---
18	0.00	0.00	---	---	---	---	---	---	---	---	---	---
19	0.17	0.00	---	---	---	---	---	---	---	---	---	---
20	0.01	0.00	---	---	---	---	---	---	---	---	---	---
21	0.00	0.00	---	---	---	---	---	---	---	---	---	---
22	0.00	0.00	---	---	---	---	---	---	---	---	---	---
23	0.00	0.82	---	---	---	---	---	---	---	---	---	---
24	0.02	0.02	---	---	---	---	---	---	---	---	---	---
25	0.00	0.23	---	---	---	---	---	---	---	---	---	---
26	0.00	0.00	---	---	---	---	---	---	---	---	---	---
27	0.00	0.22	---	---	---	---	---	---	---	---	---	---
28	0.00	1.02	---	---	---	---	---	---	---	---	---	---
29	0.00	0.00	---	---	---	---	---	---	---	---	---	---
30	0.00	0.00	---	---	---	---	---	---	---	---	---	---
31	0.00	---	---	---	---	---	---	---	---	---	---	---
TOTAL	2.18	4.54	---	---	---	---	---	---	---	---	---	---



LENOIR COUNTY—Continued

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



352305077321701. County number, LN-184; LU-15.

LOCATION.--Lat 35°23'05", long 77°32'17", Hydrologic Unit 03020203, intersection of Secondary Road 1004 and Secondary Road 1707, south of Hugo.

WATER-LEVEL RECORDS

AQUIFER.--Peedee.

WELL CHARACTERISTICS.--Drilled observation well, depth 15.07 ft, diameter 2 in., screened interval from 12.07 to 15.07 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 33 ft above NGVD of 1929. Measuring point: Top of casing, 2.93 ft above land-surface datum.

REMARKS.--Well is part of National Water Quality Assessment Program (NAWQA).

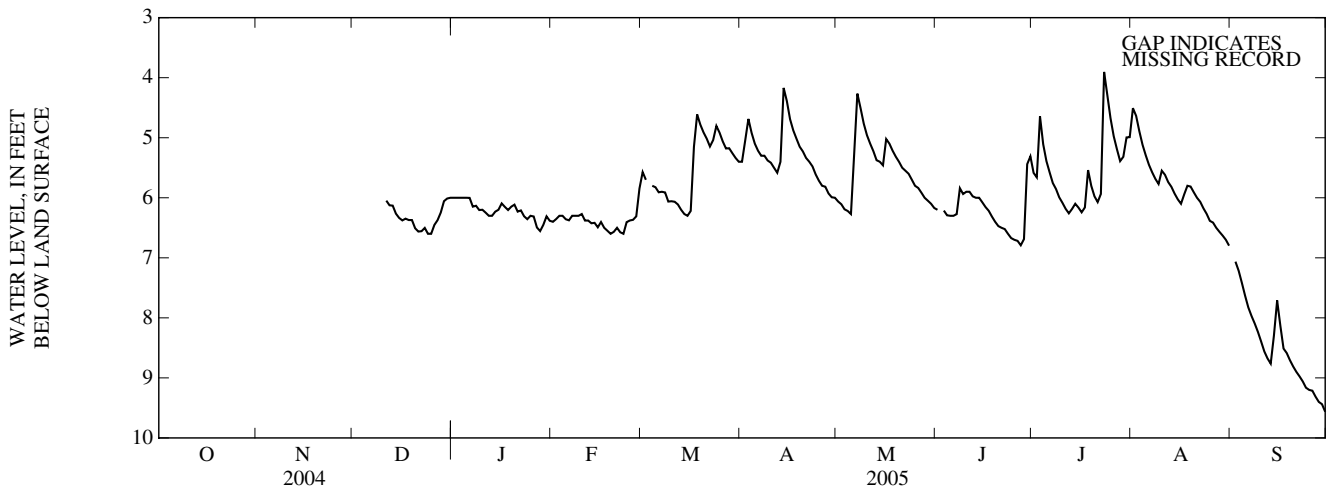
PERIOD OF RECORD.--December 2004 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.8 ft below land-surface datum, July 23, 2005; lowest water level recorded, 9.6 ft below land-surface datum, Sept. 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	6.0	6.4	5.6	5.4	6.1	6.2	5.6	4.5	---
2	---	---	---	6.0	6.4	5.7	5.0	6.1	---	5.7	4.6	7.1
3	---	---	---	6.0	6.3	---	4.7	6.2	6.2	4.6	4.9	7.2
4	---	---	---	6.0	6.3	5.8	4.9	6.2	6.3	5.1	5.1	7.4
5	---	---	---	6.0	6.4	5.8	5.1	6.3	6.3	5.4	5.3	7.6
6	---	---	---	6.0	6.4	5.9	5.2	5.3	6.3	5.6	5.5	7.8
7	---	---	---	6.1	6.3	5.9	5.3	4.3	6.3	5.8	5.6	8.0
8	---	---	---	6.1	6.3	5.9	5.3	4.5	5.8	5.9	5.7	8.1
9	---	---	---	6.2	6.3	6.1	5.4	4.8	5.9	6.0	5.8	8.2
10	---	---	---	6.2	6.3	6.1	5.4	5.0	5.9	6.1	5.5	8.4
11	---	---	6.0	6.2	6.4	6.1	5.5	5.1	5.9	6.2	5.6	8.6
12	---	---	6.1	6.3	6.4	6.1	5.6	5.2	6.0	6.3	5.7	8.7
13	---	---	6.1	6.3	6.4	6.2	5.4	5.4	6.0	6.2	5.8	8.8
14	---	---	6.3	6.2	6.4	6.3	4.2	5.4	6.0	6.1	5.9	8.3
15	---	---	6.3	6.2	6.5	6.3	4.4	5.5	6.1	6.2	6.0	7.7
16	---	---	6.4	6.1	6.4	6.2	4.7	5.0	6.2	6.2	6.1	8.1
17	---	---	6.3	6.2	6.5	5.1	4.9	5.1	6.2	6.2	5.9	8.5
18	---	---	6.4	6.2	6.5	4.6	5.0	5.2	6.3	5.5	5.8	8.6
19	---	---	6.4	6.1	6.6	4.8	5.1	5.3	6.4	5.8	5.8	8.7
20	---	---	6.5	6.1	6.6	4.9	5.2	5.4	6.5	6.0	5.9	8.8
21	---	---	6.6	6.2	6.5	5.0	5.3	5.5	6.5	6.1	6.0	8.9
22	---	---	6.6	6.2	6.6	5.1	5.4	5.5	6.5	5.9	6.1	9.0
23	---	---	6.5	6.3	6.6	5.0	5.5	5.6	6.6	3.9	6.2	9.1
24	---	---	6.6	6.4	6.4	4.8	5.6	5.7	6.7	4.3	6.3	9.2
25	---	---	6.6	6.3	6.4	4.9	5.7	5.8	6.7	4.7	6.4	9.2
26	---	---	6.5	6.3	6.4	5.1	5.8	5.8	6.7	5.0	6.4	9.2
27	---	---	6.4	6.5	6.3	5.2	5.8	5.9	6.8	5.2	6.5	9.3
28	---	---	6.2	6.6	5.8	5.2	5.9	6.0	6.7	5.4	6.6	9.4
29	---	---	6.1	6.5	---	5.3	6.0	6.0	5.4	5.3	6.6	9.4
30	---	---	6.0	6.3	---	5.3	6.0	6.1	5.3	5.0	6.7	9.6
31	---	---	6.0	6.4	---	5.4	---	6.2	---	5.0	6.8	---

WTR YR 2005 MEAN 6.1 HIGH 3.9 LOW 9.6



352305077321701. County number LN-184. LU-15.—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1994, 2001, 2002, October 2004 to September 2005.

REMARKS.--Well is part of the National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Sampling depth, feet (00003)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)
DEC 02...	1415	15.07	5.54	72	8.47	.15	13.0	--	762	4.5	48	6.3	217
MAR 03...	1000	15.07	5.93	72	8.86	.10	--	3.5	760	4.9	47	6.3	213
JUN 02...	1145	15.07	6.18	72	9.11	.10	--	5.1	758	4.8	49	6.1	232
SEP 01...	1130	15.07	6.89	72	9.82	.10	--	1.4	757	5.1	57	7.1	215

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
DEC 02...	18.9		18.0	5.74	5.47	.1	2.34	27	33	.05	7.36	.4	8.13
MAR 03...	13.8	71	18.9	5.75	5.12	.1	2.35	28	34	.04	7.47	.3	6.87
JUN 02...	15.8	69	18.7	5.35	4.83	.1	2.31	31	38	.08	7.66	.4	7.47
SEP 01...	21.1	74	20.4	5.71	5.55	.1	2.33	36	44	.09	7.93	.3	7.44

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	1-Naphthol, water, fltrd, 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water, fltrd, 0.7u GF ug/L (82660)	2-Chloro-2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water, fltrd, ug/L (61625)
DEC 02...	13.9	133	<.04	10.7	<.008	11.1	.008	<.09	<.006	<.005	E.058	<.004	<.004
MAR 03...	15.2	114	<.04	9.63	<.008	10.0	.015	<.09	<.006	<.005	E.046	<.004	<.004
JUN 02...	15.1	165	E.02	10.2	.010	10.5	.009	<.09	<.006	<.005	E.045	<.004	<.004
SEP 01...	14.1	139	<.04	9.55	<.008	9.71	.017	<.09	<.006	<.005	E.069	<.004	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)	4-Chloro-2-methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-Endo-sulfan, water, fltrd, ug/L (34362)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd, 0.7u GF ug/L (82674)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)
DEC 02...	--	<.006	<.006	<.005	--	.391	<.07	<.050	<.010	<.041	--	<.06	<.005
MAR 03...	--	<.006	<.006	<.005	--	.345	<.07	<.050	<.010	<.041	--	<.06	<.005
JUN 02...	<.004	<.006	<.006	<.005	<.005	.318	<.07	<.050	<.010	<.041	<.020	<.06	<.005
SEP 01...	<.004	<.006	<.006	<.005	<.005	.314	<.07	<.050	<.010	<.041	<.020	<.06	<.005

352305077321701. County number LN-184. LU-15.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	cis-Permethrin water fltrd, 0.7u GF ug/L (82687)	cis-Propiconazole, water, fltrd, ug/L (79846)	Cyanazine, water, fltrd, ug/L (04041)	Cyfluthrin, water, fltrd, ug/L (61585)	lambda-Cyhalothrin, water, fltrd, ug/L (61595)	Cypermethrin, water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Dicrotophos, water, fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethoate, water, fltrd, 0.7u GF ug/L (82662)
DEC 02...	<.006	--	--	<.008	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006
MAR 03...	<.006	--	--	<.027	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006
JUN 02...	<.006	<.016	<.018	<.027	<.009	<.016	<.003	<.012	--	<.005	<.08	<.009	<.006
SEP 01...	<.006	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Disulfoton sulfone water, fltrd, ug/L (61640)	Disulfoton, water, fltrd, 0.7u GF ug/L (82677)	Endosulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd, 0.7u GF ug/L (82668)	Ethion monooxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoprop, water, fltrd, 0.7u GF ug/L (82672)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulf-oxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
DEC 02...	--	--	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024
MAR 03...	--	--	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024
JUN 02...	<.01	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024
SEP 01...	<.01	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos, water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methiathion, water, fltrd, ug/L (61598)	Methyl paraxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd, 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)
DEC 02...	<.016	<.003	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.009
MAR 03...	<.016	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.006
JUN 02...	<.016	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006
SEP 01...	<.016	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	.008

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd, 0.7u GF (82671)	Myclobutanil, water, fltrd, ug/L (61599)	Oxyfluorfen, water, fltrd, ug/L (61600)	Pendimethalin, water, fltrd, 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd, 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet, water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd, 0.7u GF (82676)	Propanil, water, fltrd, 0.7u GF (82679)
DEC 02...	<.006	--	<.008	--	<.022	<.10	<.011	--	<.008	<.01	<.005	<.004	--
MAR 03...	<.006	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--
JUN 02...	<.006	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011
SEP 01...	<.006	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011

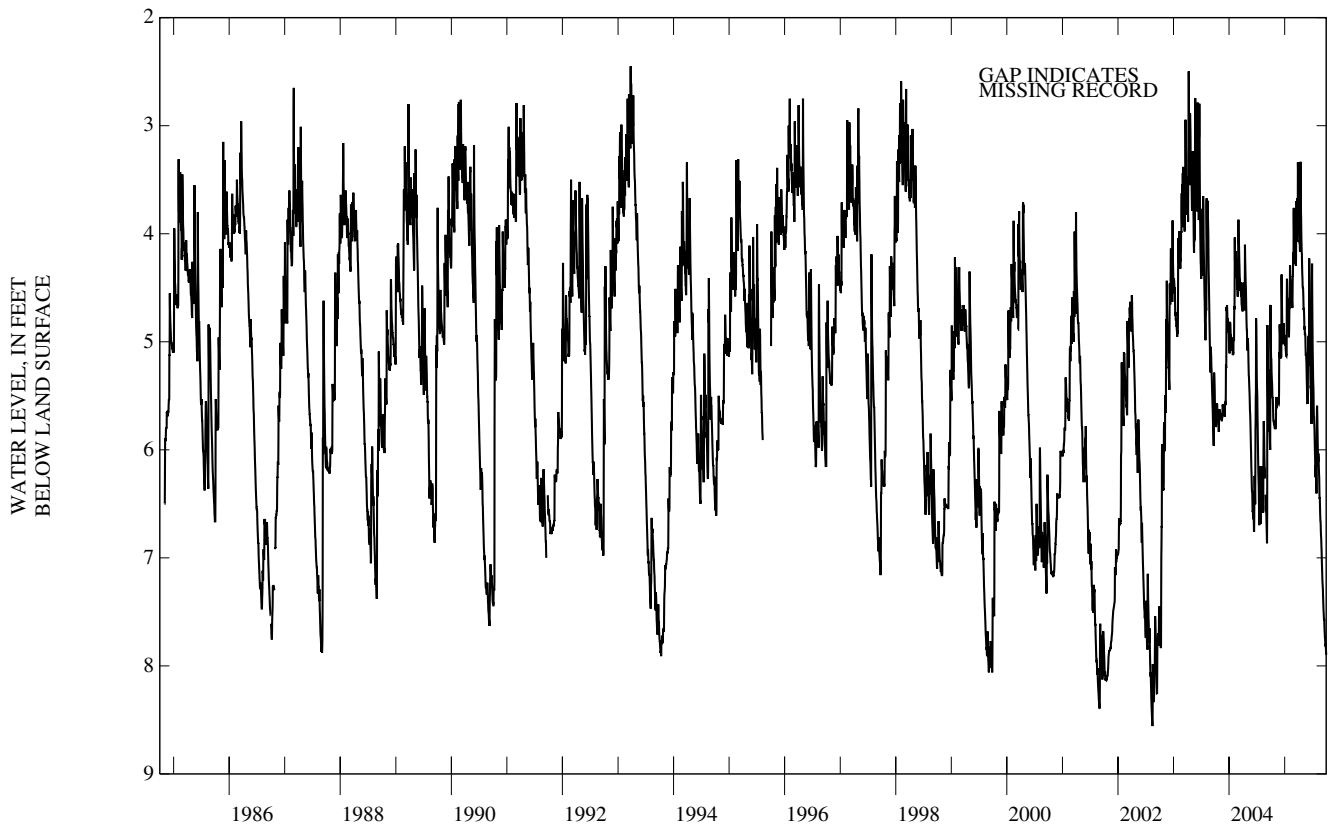
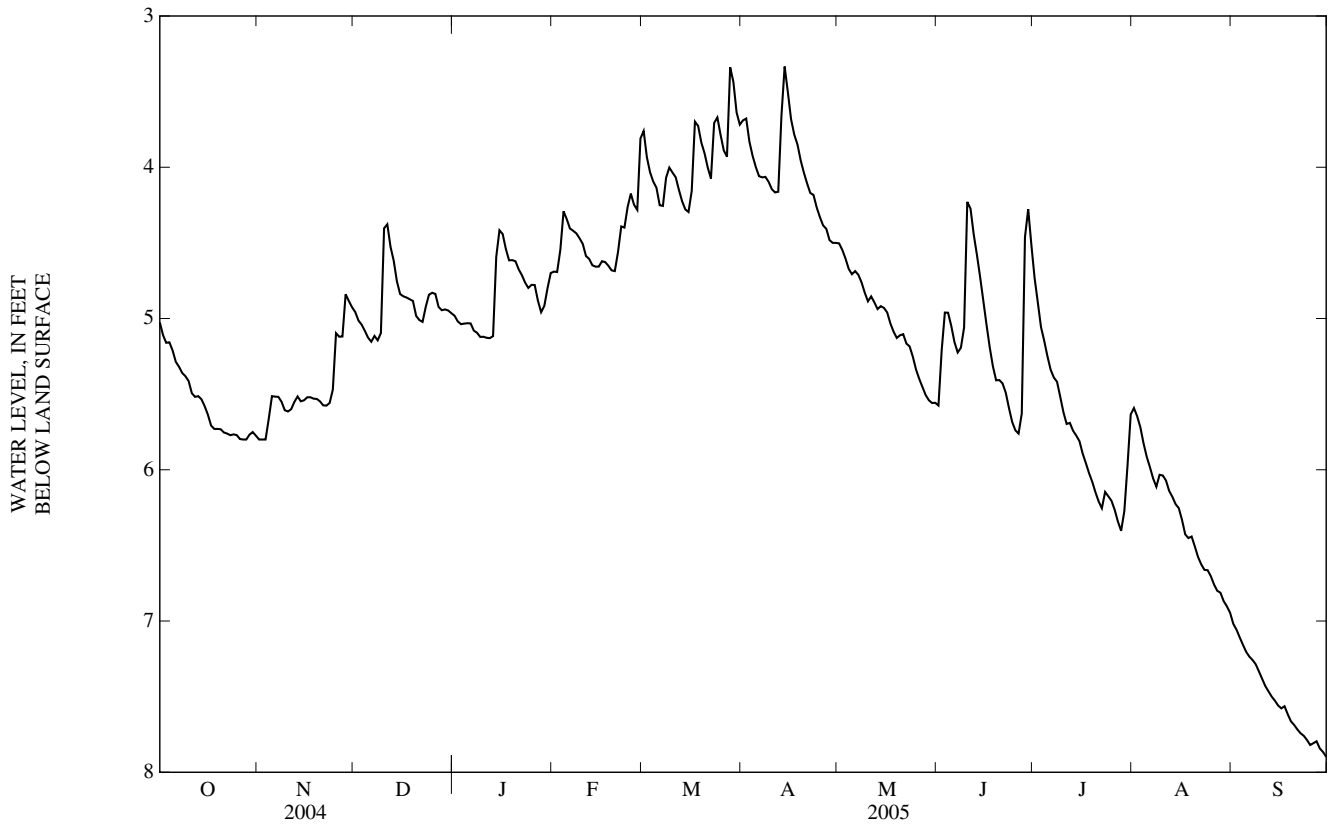
352305077321701. County number LN-184. LU-15.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Thio- bencarb water fltrd 0.7u GF (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)	Tribu- phos, water, fltrd, ug/L (61610)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
DEC 02...	--	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	E.22
MAR 03...	--	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	--
JUN 02...	<.02	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.02	<.004	<.009	<.01	--
SEP 01...	<.02	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--

MECKLENBURG COUNTY—Continued

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



GROUND-WATER LEVELS

ONSLOW COUNTY

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

LOCATION.--Lat 34°44'18", long 77°27'27", 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 NGVD of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.83 ft above land-surface datum.

REMARKS.--Well is part of areal-effects network.

PERIOD OF RECORD.--January 1963 to June 2005 (discontinued). 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.

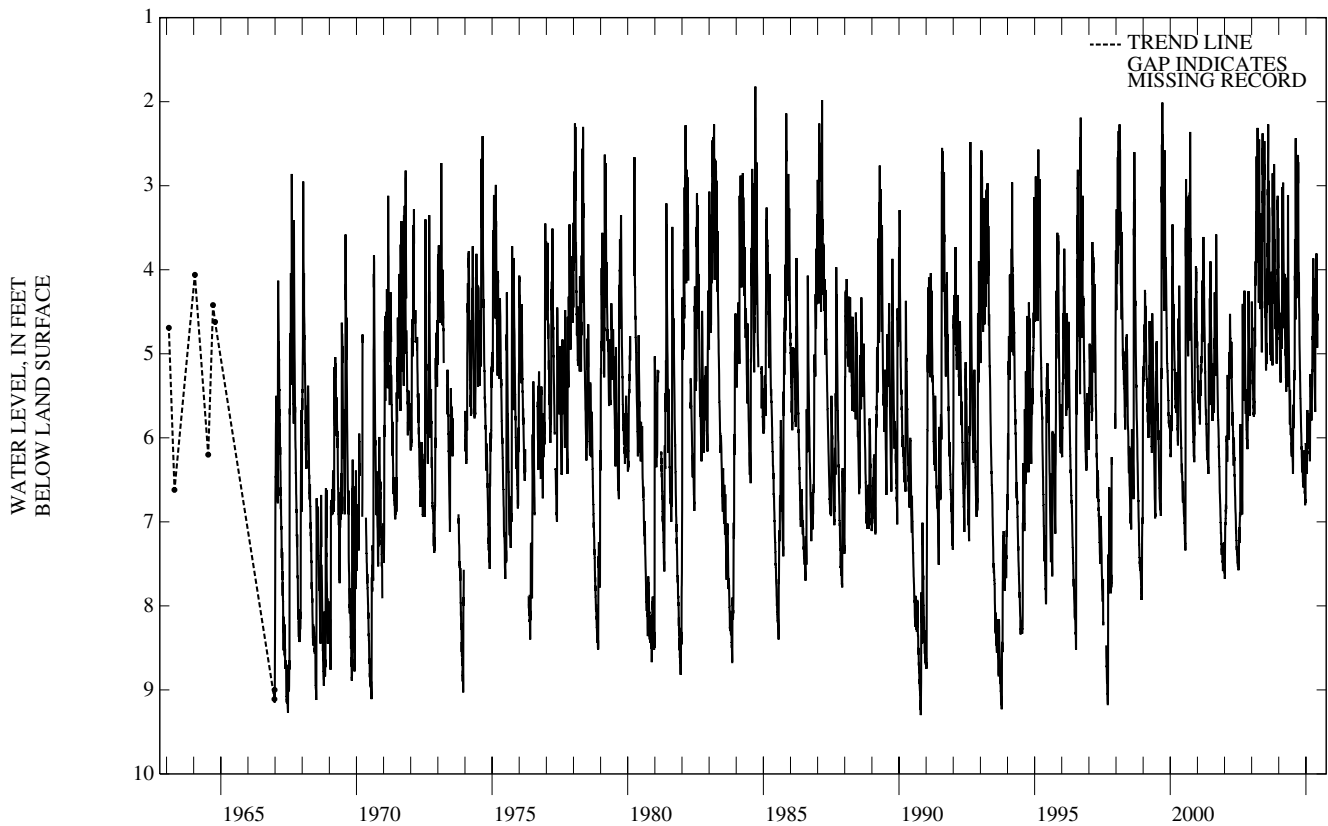
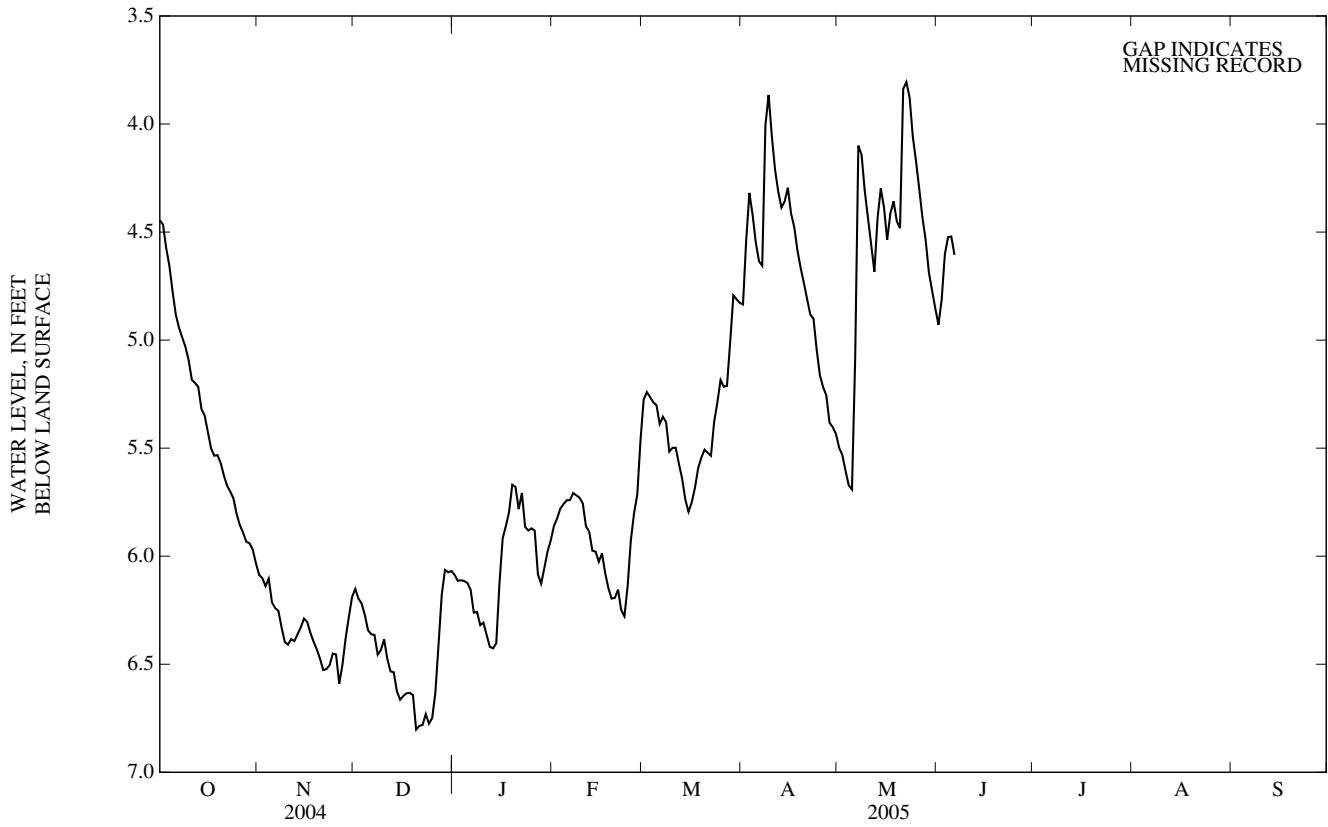
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.45	6.09	6.15	6.09	5.86	5.27	4.83	5.50	4.93	---	---	---
2	4.47	6.10	6.20	6.11	5.83	5.24	4.54	5.53	4.81	---	---	---
3	4.57	6.14	6.22	6.11	5.78	5.26	4.32	5.60	4.60	---	---	---
4	4.66	6.10	6.27	6.12	5.76	5.29	4.42	5.67	4.52	---	---	---
5	4.78	6.21	6.34	6.12	5.74	5.30	4.55	5.69	4.52	---	---	---
6	4.88	6.24	6.36	6.16	5.74	5.39	4.63	5.09	4.61	---	---	---
7	4.94	6.25	6.36	6.26	5.71	5.35	4.66	4.10	---	---	---	---
8	4.99	6.33	6.46	6.26	5.72	5.38	4.00	4.14	---	---	---	---
9	5.03	6.40	6.43	6.32	5.73	5.52	3.87	4.31	---	---	---	---
10	5.09	6.41	6.38	6.31	5.76	5.50	4.06	4.43	---	---	---	---
11	5.18	6.38	6.47	6.37	5.86	5.50	4.21	4.56	---	---	---	---
12	5.20	6.39	6.53	6.42	5.89	5.57	4.31	4.68	---	---	---	---
13	5.22	6.36	6.54	6.43	5.97	5.64	4.39	4.43	---	---	---	---
14	5.32	6.33	6.63	6.40	5.98	5.74	4.36	4.30	---	---	---	---
15	5.35	6.29	6.66	6.13	6.03	5.79	4.29	4.39	---	---	---	---
16	5.42	6.30	6.65	5.92	5.99	5.75	4.41	4.54	---	---	---	---
17	5.50	6.35	6.63	5.86	6.08	5.68	4.48	4.41	---	---	---	---
18	5.54	6.40	6.63	5.80	6.15	5.59	4.59	4.36	---	---	---	---
19	5.53	6.43	6.64	5.67	6.20	5.54	4.67	4.45	---	---	---	---
20	5.57	6.47	6.80	5.68	6.19	5.51	4.74	4.48	---	---	---	---
21	5.63	6.53	6.79	5.78	6.15	5.52	4.81	3.84	---	---	---	---
22	5.67	6.52	6.78	5.71	6.25	5.54	4.88	3.81	---	---	---	---
23	5.70	6.50	6.73	5.86	6.28	5.38	4.90	3.88	---	---	---	---
24	5.73	6.45	6.78	5.88	6.14	5.29	5.05	4.06	---	---	---	---
25	5.81	6.45	6.75	5.87	5.93	5.18	5.16	4.17	---	---	---	---
26	5.86	6.59	6.63	5.88	5.80	5.22	5.22	4.30	---	---	---	---
27	5.89	6.50	6.41	6.08	5.72	5.21	5.26	4.43	---	---	---	---
28	5.93	6.38	6.18	6.13	5.47	5.01	5.38	4.54	---	---	---	---
29	5.94	6.28	6.06	6.05	---	4.79	5.40	4.69	---	---	---	---
30	5.97	6.19	6.07	5.98	---	4.81	5.43	4.77	---	---	---	---
31	6.03	---	6.07	5.93	---	4.83	---	4.85	---	---	---	---

WTR YR 2005 MEAN 5.57 HIGH 3.81 LOW 6.80

ONslow COUNTY—Continued

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



GROUND-WATER LEVELS
 ONSLOW COUNTY—Continued

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

LOCATION.--Lat 34°35'13", long 77°26'55", Hydrologic Unit 03030001, at U.S. Marine Corps Base, Camp Lejeune Rifle Range. Owner: U.S. Marine Corps.
 AQUIFER.--Castle Hayne 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 NGVD of 1929 (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.

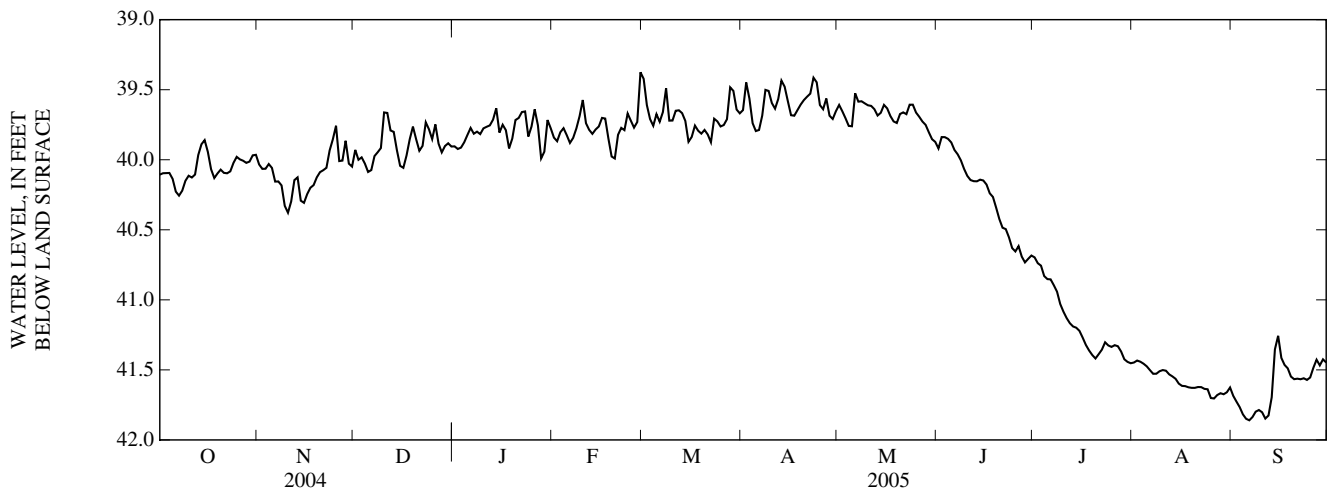
PERIOD OF RECORD.--October 1994 to October 2005 (discontinued). Prior to October 1, 1997 published as ON-292, Rifle Range Well RR-97.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 36.19 ft below land-surface datum, Mar. 23, 1995; lowest water level recorded, 42.69 ft below land-surface datum, Aug. 22, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.11	40.03	39.93	39.90	39.84	39.42	39.65	39.61	39.92	40.70	41.45	41.69
2	40.10	40.07	40.00	39.92	39.87	39.61	39.45	39.65	39.84	40.74	41.43	41.73
3	40.10	40.06	39.98	39.91	39.80	39.71	39.56	39.70	39.84	40.76	41.44	41.77
4	40.09	40.03	40.03	39.88	39.77	39.76	39.74	39.76	39.85	40.83	41.46	41.82
5	40.14	40.06	40.09	39.82	39.82	39.67	39.80	39.76	39.88	40.85	41.47	41.85
6	40.23	40.16	40.07	39.77	39.88	39.73	39.79	39.53	39.93	40.85	41.50	41.86
7	40.26	40.16	39.97	39.81	39.84	39.66	39.69	39.59	39.96	40.90	41.53	41.84
8	40.22	40.18	39.95	39.80	39.78	39.49	39.50	39.58	40.00	40.94	41.53	41.80
9	40.15	40.33	39.92	39.82	39.69	39.72	39.51	39.60	40.07	41.03	41.51	41.79
10	40.11	40.38	39.66	39.78	39.57	39.72	39.59	39.61	40.12	41.08	41.50	41.80
11	40.13	40.30	39.67	39.76	39.74	39.65	39.64	39.62	40.14	41.13	41.51	41.85
12	40.11	40.15	39.79	39.75	39.79	39.65	39.57	39.64	40.15	41.17	41.53	41.83
13	39.97	40.13	39.80	39.71	39.82	39.67	39.44	39.68	40.15	41.19	41.55	41.70
14	39.89	40.29	39.93	39.63	39.78	39.72	39.48	39.66	40.14	41.20	41.56	41.35
15	39.86	40.31	40.04	39.81	39.76	39.87	39.58	39.61	40.15	41.22	41.60	41.26
16	39.94	40.24	40.06	39.75	39.70	39.84	39.68	39.63	40.18	41.27	41.61	41.41
17	40.07	40.20	39.97	39.79	39.71	39.76	39.69	39.69	40.24	41.32	41.62	41.46
18	40.13	40.18	39.85	39.92	39.85	39.79	39.65	39.73	40.27	41.36	41.62	41.49
19	40.10	40.13	39.76	39.85	39.98	39.81	39.61	39.74	40.34	41.39	41.63	41.55
20	40.07	40.09	39.85	39.72	39.99	39.79	39.57	39.67	40.42	41.42	41.63	41.57
21	40.09	40.07	39.94	39.70	39.82	39.82	39.55	39.66	40.49	41.39	41.62	41.56
22	40.10	40.06	39.90	39.66	39.77	39.88	39.53	39.67	40.49	41.36	41.62	41.57
23	40.08	39.93	39.73	39.66	39.79	39.71	39.41	39.61	40.55	41.30	41.64	41.56
24	40.02	39.85	39.78	39.83	39.67	39.73	39.45	39.61	40.63	41.33	41.64	41.57
25	39.98	39.76	39.85	39.76	39.72	39.76	39.61	39.66	40.65	41.34	41.70	41.55
26	40.00	40.01	39.75	39.64	39.77	39.75	39.64	39.69	40.62	41.32	41.70	41.48
27	40.01	40.01	39.89	39.75	39.73	39.71	39.56	39.73	40.69	41.33	41.68	41.43
28	40.02	39.86	39.95	39.99	39.38	39.48	39.69	39.75	40.73	41.37	41.67	41.47
29	40.01	40.03	39.90	39.94	---	39.51	39.71	39.80	40.71	41.42	41.67	41.42
30	39.97	40.05	39.88	39.72	---	39.64	39.65	39.85	40.68	41.44	41.66	41.45
31	39.96	---	39.91	39.78	---	39.67	---	39.87	---	41.45	41.63	---

WTR YR 2005 MEAN 40.27 HIGH 39.38 LOW 41.86

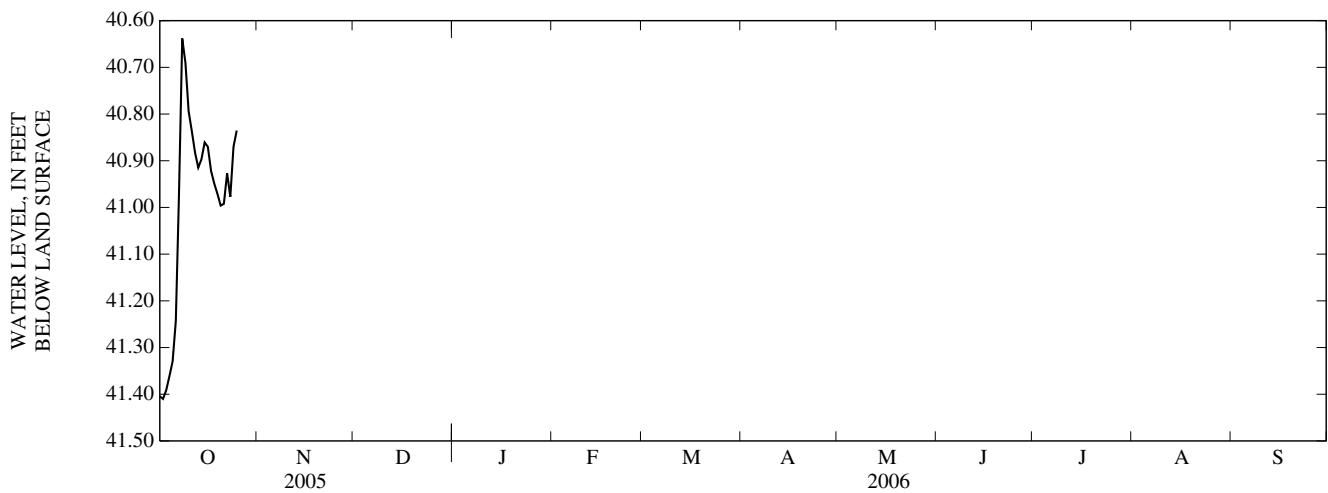


ONSIOW COUNTY—Continued

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

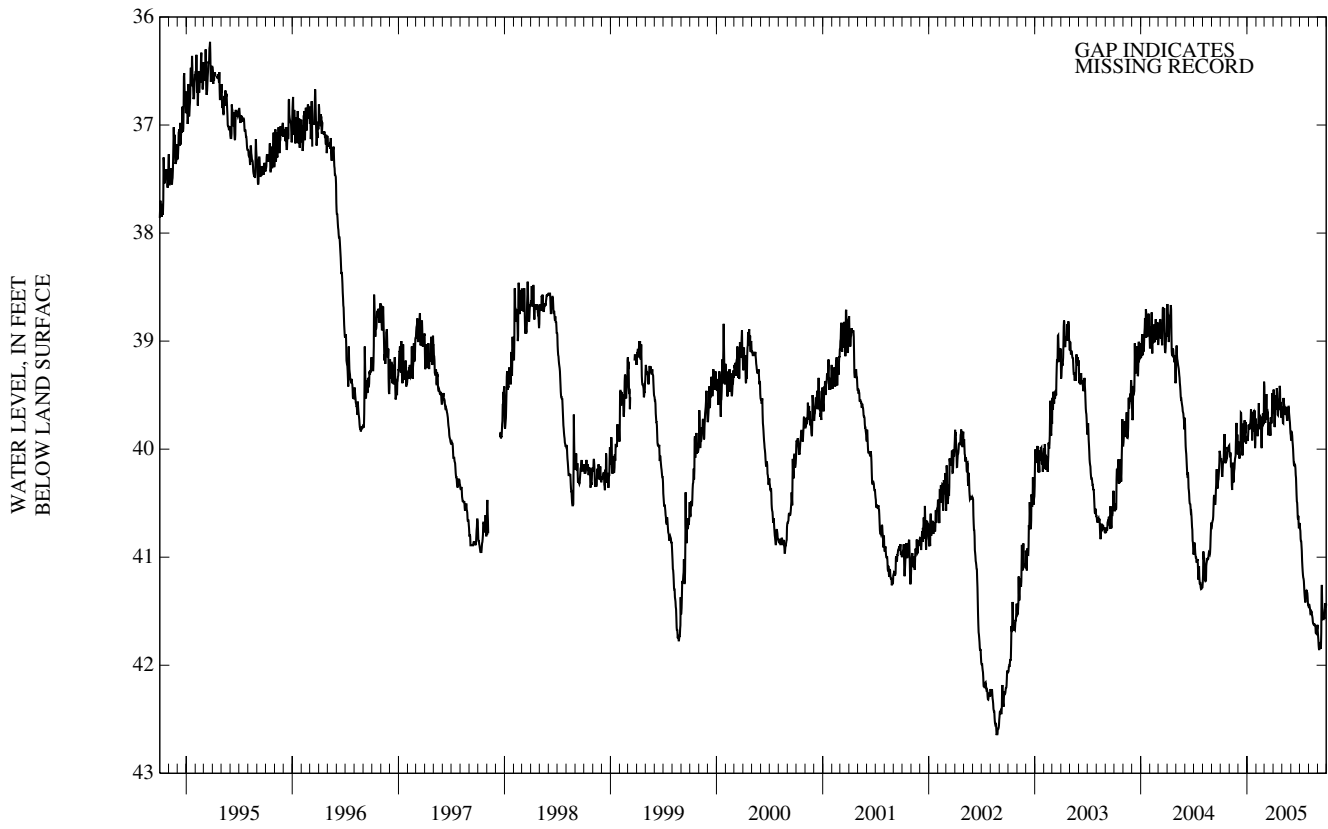
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.40	---	---	---	---	---	---	---	---	---	---	---
2	41.41	---	---	---	---	---	---	---	---	---	---	---
3	41.39	---	---	---	---	---	---	---	---	---	---	---
4	41.36	---	---	---	---	---	---	---	---	---	---	---
5	41.33	---	---	---	---	---	---	---	---	---	---	---
6	41.24	---	---	---	---	---	---	---	---	---	---	---
7	40.97	---	---	---	---	---	---	---	---	---	---	---
8	40.64	---	---	---	---	---	---	---	---	---	---	---
9	40.69	---	---	---	---	---	---	---	---	---	---	---
10	40.79	---	---	---	---	---	---	---	---	---	---	---
11	40.84	---	---	---	---	---	---	---	---	---	---	---
12	40.88	---	---	---	---	---	---	---	---	---	---	---
13	40.91	---	---	---	---	---	---	---	---	---	---	---
14	40.90	---	---	---	---	---	---	---	---	---	---	---
15	40.86	---	---	---	---	---	---	---	---	---	---	---
16	40.87	---	---	---	---	---	---	---	---	---	---	---
17	40.92	---	---	---	---	---	---	---	---	---	---	---
18	40.95	---	---	---	---	---	---	---	---	---	---	---
19	40.97	---	---	---	---	---	---	---	---	---	---	---
20	41.00	---	---	---	---	---	---	---	---	---	---	---
21	40.99	---	---	---	---	---	---	---	---	---	---	---
22	40.93	---	---	---	---	---	---	---	---	---	---	---
23	40.98	---	---	---	---	---	---	---	---	---	---	---
24	40.87	---	---	---	---	---	---	---	---	---	---	---
25	40.84	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
WTR YR	2006	MEAN 41.00	HIGH 40.64	LOW 41.41								



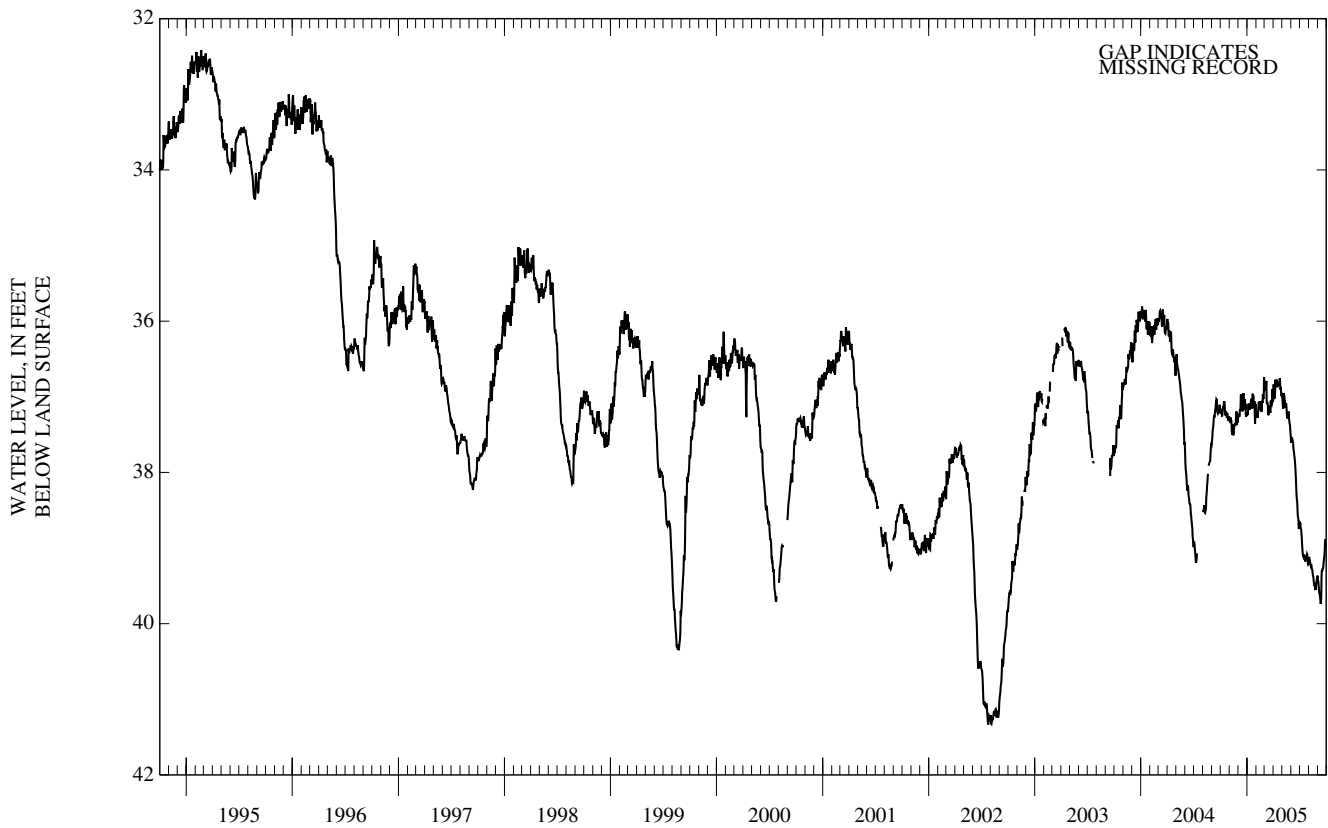
GROUND-WATER LEVELS
ONslow COUNTY—Continued

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



GROUND-WATER LEVELS
ONslow COUNTY—Continued

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



GROUND-WATER LEVELS

196

ONslow COUNTY—Continued

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

LOCATION.--Lat 34°36'40.5", long 77°28'58.9", 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 station.

DATUM.--Land-surface datum is 68 ft above NGVD of 1929, (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 September 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 6.37 ft below land-surface datum, Jan. 22, 1995; lowest water level recorded, 12.44 ft below land-surface datum, Aug. 25, 26, 2002.

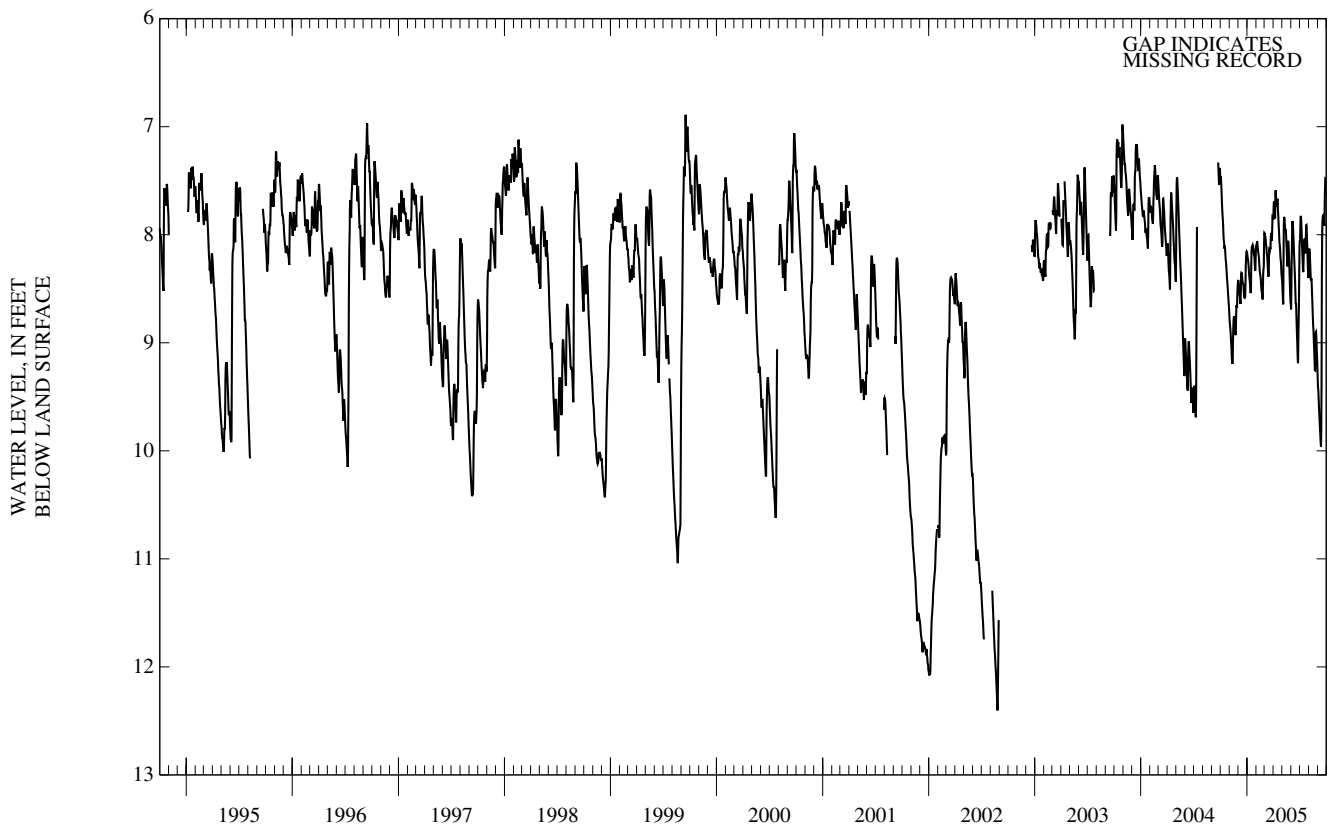
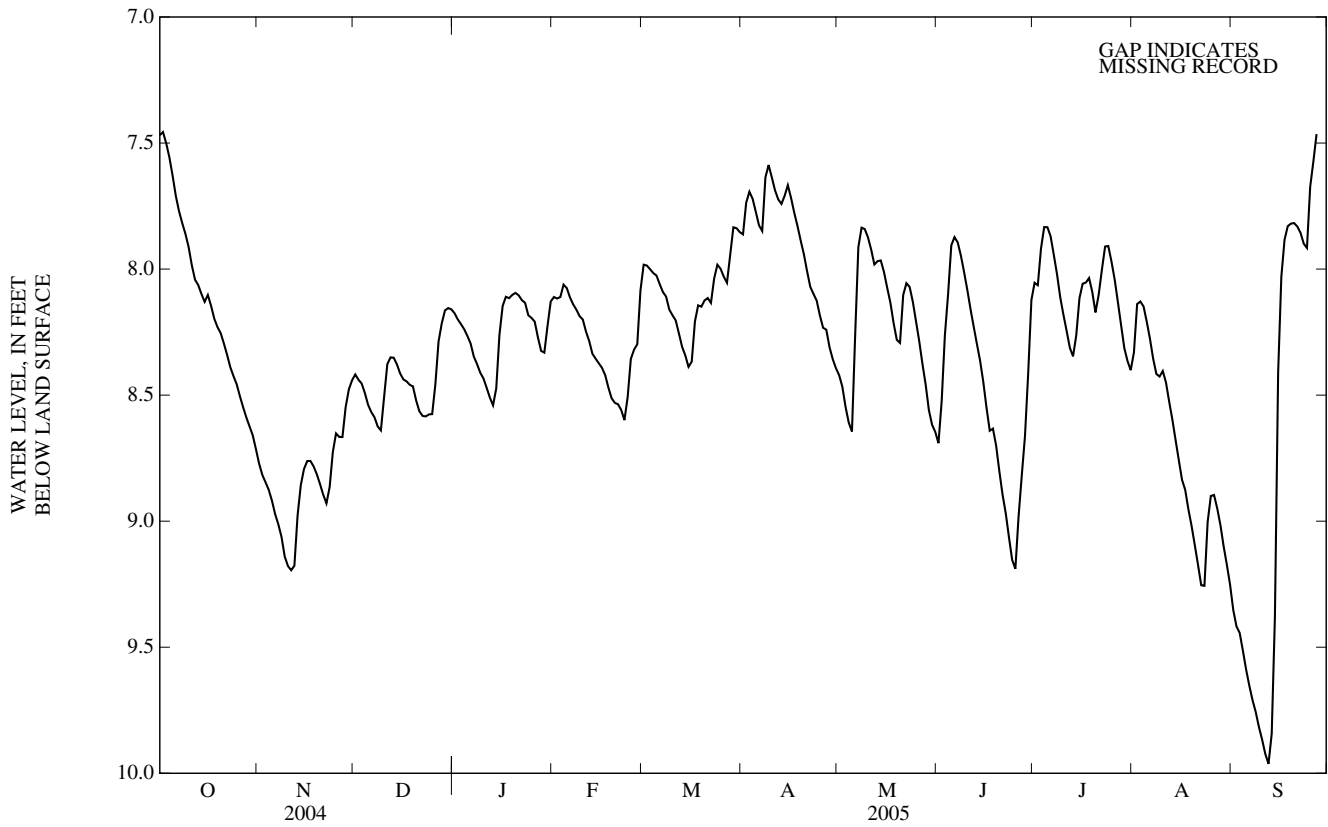
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.47	8.77	8.42	8.18	8.11	7.98	7.86	8.42	8.69	8.05	8.33	9.35
2	7.46	8.82	8.44	8.20	8.12	7.99	7.74	8.47	8.52	8.06	8.14	9.42
3	7.50	8.85	8.45	8.22	8.11	8.00	7.69	8.55	8.26	7.92	8.13	9.44
4	7.56	8.88	8.49	8.24	8.06	8.02	7.72	8.61	8.10	7.83	8.15	9.51
5	7.63	8.92	8.54	8.27	8.08	8.03	7.77	8.64	7.91	7.83	8.21	9.59
6	7.71	8.97	8.57	8.30	8.11	8.06	7.83	8.26	7.87	7.87	8.28	9.65
7	7.77	9.01	8.59	8.35	8.14	8.09	7.85	7.91	7.89	7.94	8.36	9.71
8	7.82	9.06	8.62	8.38	8.16	8.11	7.64	7.84	7.95	8.02	8.42	9.76
9	7.86	9.14	8.64	8.41	8.19	8.16	7.59	7.84	8.01	8.11	8.43	9.82
10	7.91	9.18	8.51	8.43	8.20	8.18	7.64	7.87	8.08	8.18	8.40	9.87
11	7.99	9.19	8.38	8.47	8.25	8.20	7.69	7.92	8.16	8.25	8.45	9.92
12	8.04	9.18	8.35	8.51	8.29	8.26	7.72	7.98	8.23	8.31	8.53	9.96
13	8.06	8.98	8.35	8.54	8.34	8.31	7.74	7.97	8.30	8.35	8.60	9.84
14	8.10	8.86	8.38	8.47	8.36	8.34	7.71	7.97	8.36	8.26	8.68	9.38
15	8.13	8.79	8.41	8.26	8.37	8.39	7.67	8.01	8.45	8.12	8.76	8.41
16	8.10	8.76	8.44	8.15	8.39	8.37	7.72	8.07	8.55	8.06	8.84	8.03
17	8.15	8.76	8.45	8.11	8.42	8.21	7.78	8.13	8.64	8.05	8.88	7.88
18	8.20	8.78	8.46	8.12	8.47	8.14	7.83	8.21	8.63	8.04	8.95	7.83
19	8.23	8.81	8.47	8.10	8.51	8.15	7.89	8.28	8.70	8.09	9.02	7.82
20	8.25	8.85	8.52	8.09	8.53	8.12	7.94	8.29	8.80	8.17	9.10	7.82
21	8.30	8.89	8.56	8.10	8.54	8.11	8.01	8.10	8.89	8.10	9.17	7.83
22	8.34	8.93	8.58	8.12	8.56	8.13	8.07	8.06	8.97	8.00	9.25	7.86
23	8.39	8.87	8.58	8.13	8.60	8.04	8.10	8.07	9.06	7.91	9.26	7.90
24	8.42	8.73	8.58	8.18	8.51	7.98	8.13	8.13	9.15	7.91	9.00	7.92
25	8.46	8.65	8.58	8.19	8.36	8.00	8.18	8.21	9.19	7.97	8.90	7.67
26	8.50	8.67	8.46	8.21	8.32	8.03	8.23	8.29	8.98	8.04	8.90	7.57
27	8.55	8.67	8.29	8.27	8.30	8.05	8.24	8.38	8.82	8.13	8.95	7.46
28	8.59	8.55	8.21	8.32	8.08	7.94	8.31	8.46	8.66	8.22	9.02	---
29	8.62	8.48	8.16	8.33	---	7.83	8.36	8.56	8.41	8.31	9.10	---
30	8.66	8.44	8.15	8.22	---	7.84	8.39	8.62	8.12	8.37	9.17	---
31	8.71	---	8.16	8.13	---	7.85	---	8.65	---	8.40	9.25	---

WTR YR 2005 MEAN 8.35 HIGH 7.46 LOW 9.96

GROUND-WATER LEVELS
ONSLow COUNTY—Continued

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



GROUND-WATER LEVELS

198

ONslow COUNTY—Continued

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

LOCATION.--Lat 34°41'30", long 77°21'03", 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 NGVD of 1929, (levels by DENR). Measuring point: Top of shelter floor 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 July 2005 (discontinued).

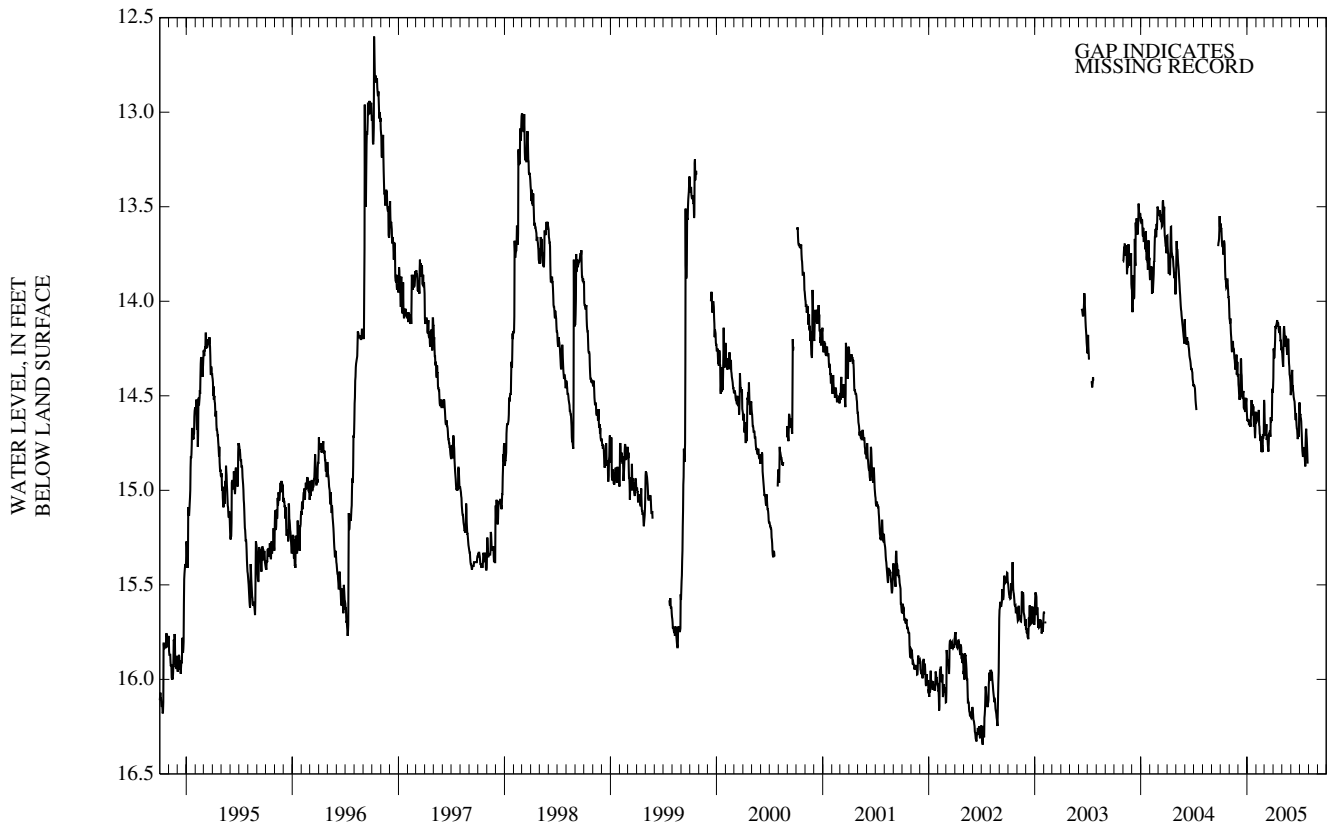
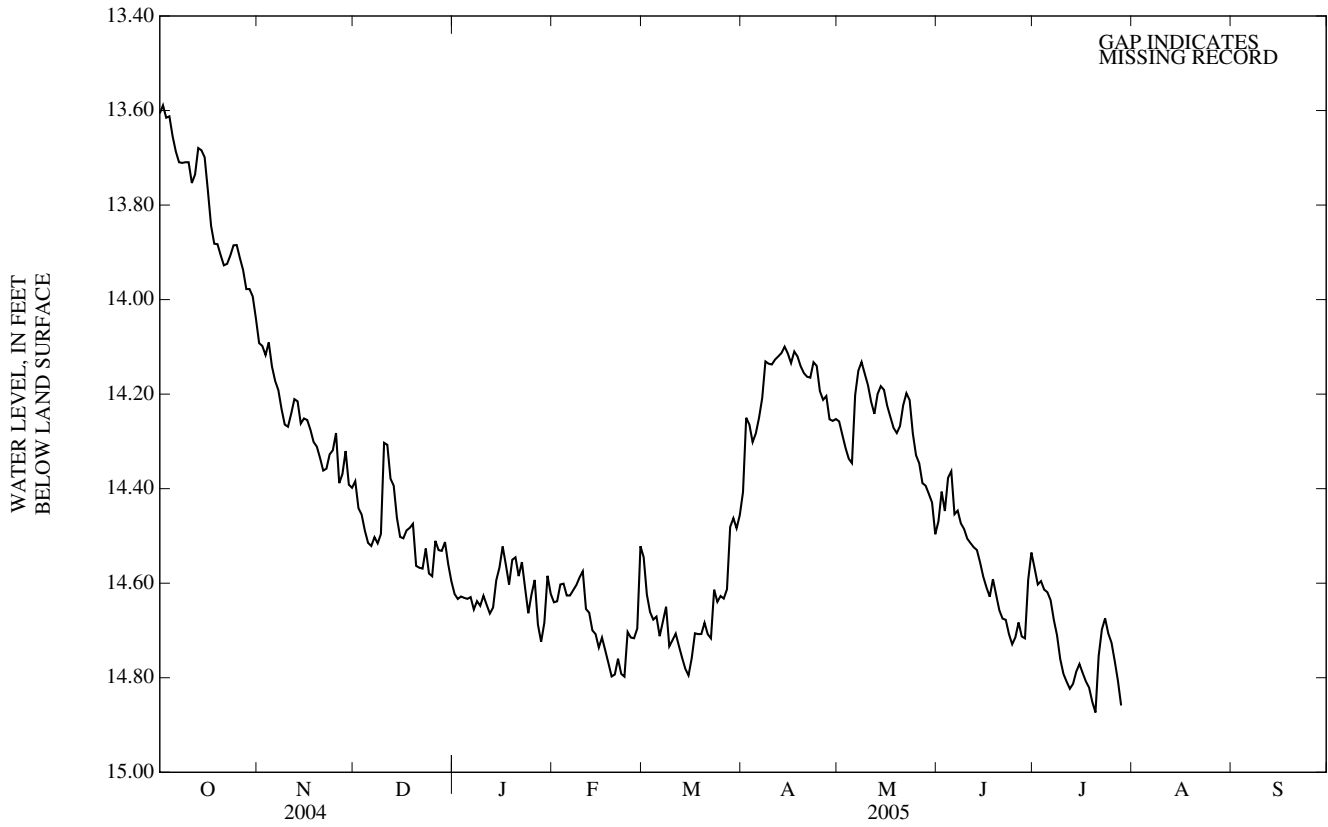
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.36 ft below land-surface datum, Oct. 8, 1996; lowest water level recorded, 16.37 ft below land-surface datum, July 5, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	13.61	14.09	14.38	14.62	14.64	14.54	14.41	14.26	14.47	14.57	---	---	
2	13.59	14.10	14.44	14.63	14.64	14.62	14.25	14.29	14.41	14.60	---	---	
3	13.62	14.12	14.46	14.63	14.60	14.66	14.26	14.31	14.45	14.60	---	---	
4	13.61	14.09	14.49	14.63	14.60	14.68	14.30	14.34	14.38	14.61	---	---	
5	13.65	14.14	14.51	14.63	14.63	14.67	14.28	14.35	14.36	14.62	---	---	
6	13.69	14.17	14.52	14.63	14.63	14.71	14.25	14.20	14.45	14.64	---	---	
7	13.71	14.19	14.50	14.66	14.62	14.68	14.21	14.15	14.45	14.68	---	---	
8	13.71	14.23	14.52	14.64	14.60	14.65	14.13	14.13	14.47	14.71	---	---	
9	13.71	14.26	14.50	14.65	14.59	14.73	14.14	14.16	14.49	14.76	---	---	
10	13.71	14.27	14.30	14.63	14.57	14.72	14.14	14.18	14.51	14.79	---	---	
11	13.75	14.24	14.31	14.65	14.65	14.71	14.13	14.22	14.52	14.81	---	---	
12	13.74	14.21	14.38	14.66	14.66	14.73	14.12	14.24	14.52	14.82	---	---	
13	13.68	14.22	14.39	14.65	14.70	14.76	14.11	14.20	14.53	14.81	---	---	
14	13.68	14.26	14.46	14.59	14.71	14.78	14.10	14.18	14.56	14.79	---	---	
15	13.70	14.25	14.50	14.57	14.74	14.79	14.11	14.19	14.59	14.77	---	---	
16	13.77	14.25	14.51	14.52	14.71	14.76	14.13	14.22	14.61	14.79	---	---	
17	13.84	14.28	14.49	14.56	14.74	14.71	14.11	14.25	14.63	14.81	---	---	
18	13.88	14.30	14.48	14.60	14.77	14.71	14.12	14.27	14.59	14.82	---	---	
19	13.88	14.31	14.47	14.55	14.80	14.71	14.14	14.28	14.62	14.85	---	---	
20	13.91	14.33	14.56	14.55	14.79	14.68	14.16	14.27	14.66	14.87	---	---	
21	13.93	14.36	14.57	14.59	14.76	14.71	14.16	14.22	14.67	14.75	---	---	
22	13.92	14.36	14.57	14.56	14.79	14.72	14.17	14.20	14.68	14.70	---	---	
23	13.91	14.33	14.53	14.61	14.80	14.61	14.13	14.21	14.71	14.67	---	---	
24	13.89	14.32	14.58	14.66	14.70	14.64	14.14	14.28	14.73	14.71	---	---	
25	13.88	14.28	14.59	14.62	14.71	14.63	14.19	14.33	14.71	14.73	---	---	
26	13.91	14.39	14.51	14.59	14.72	14.63	14.21	14.35	14.68	14.76	---	---	
27	13.94	14.37	14.53	14.69	14.70	14.61	14.20	14.39	14.71	14.81	---	---	
28	13.98	14.32	14.53	14.72	14.52	14.48	14.25	14.39	14.72	14.86	---	---	
29	13.98	14.39	14.51	14.68	---	14.46	14.26	14.41	14.59	---	---	---	
30	13.99	14.40	14.56	14.58	---	14.48	14.25	14.43	14.54	---	---	---	
31	14.04	---	14.60	14.62	---	14.46	---	14.50	---	---	---	---	
WTR YR	2005	MEAN	14.42	HIGH	13.59	LOW	14.87						

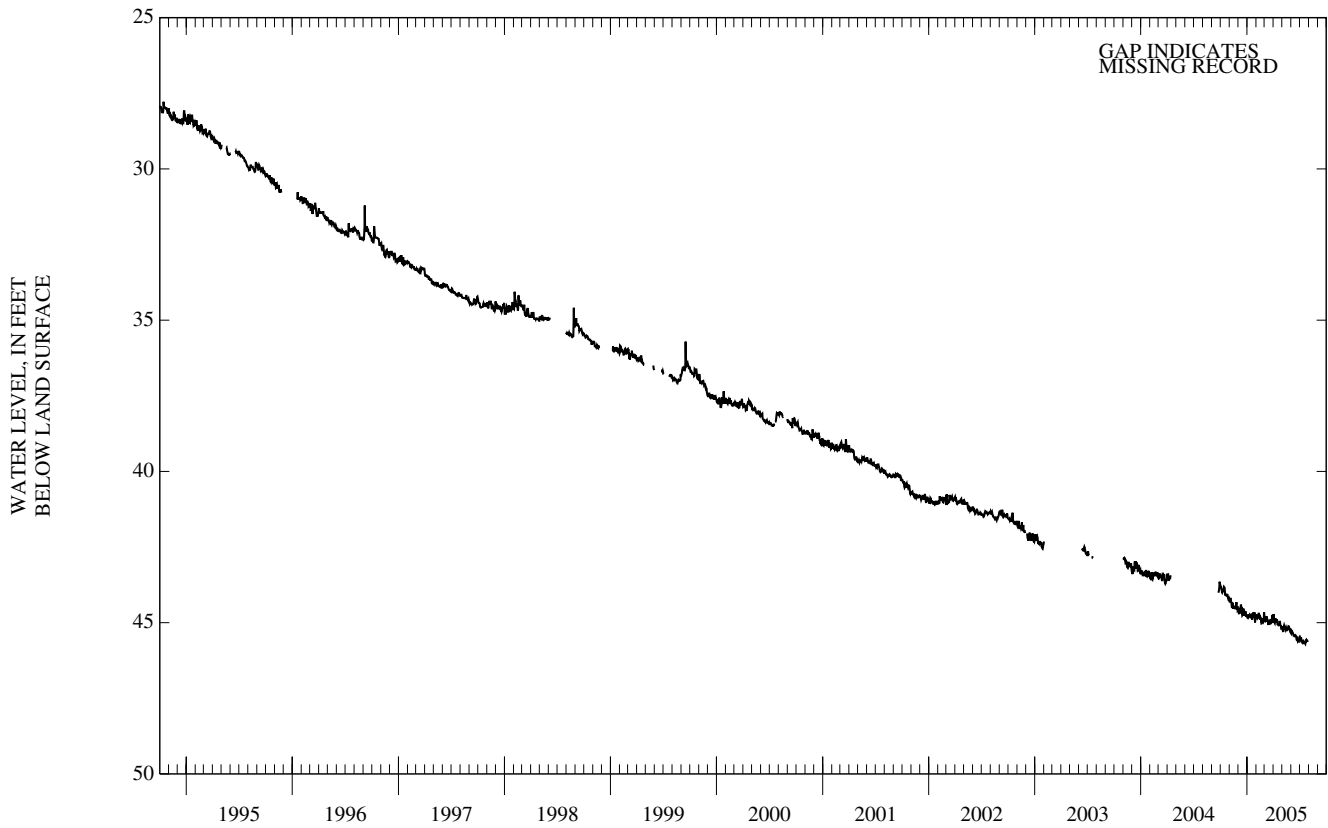
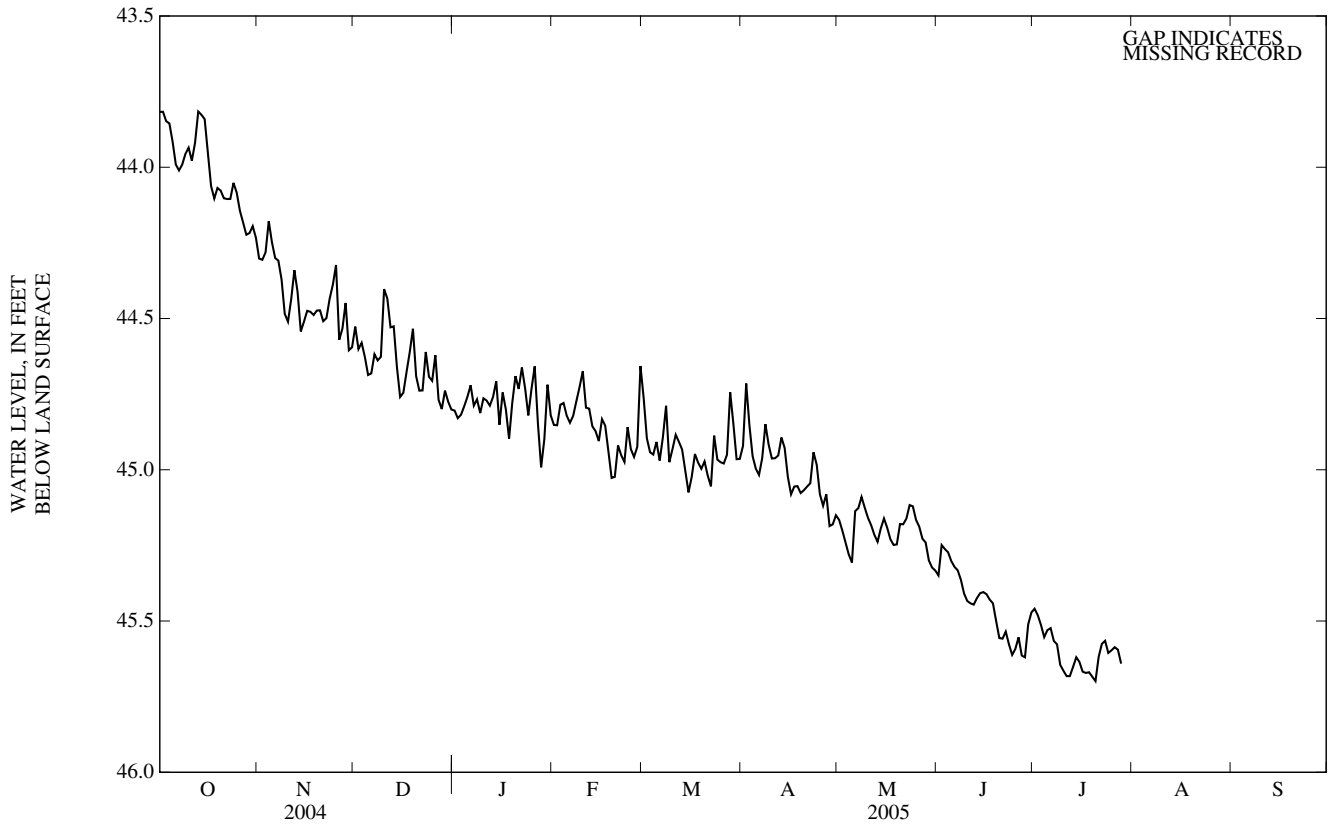
GROUND-WATER LEVELS
ON SLOW COUNTY—Continued

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



GROUND-WATER LEVELS
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°41'35", long 77°21'06", 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 station.

DATUM.--Land-surface datum is 23.19 ft above NGVD of 1929, (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 July 2005 (discontinued).

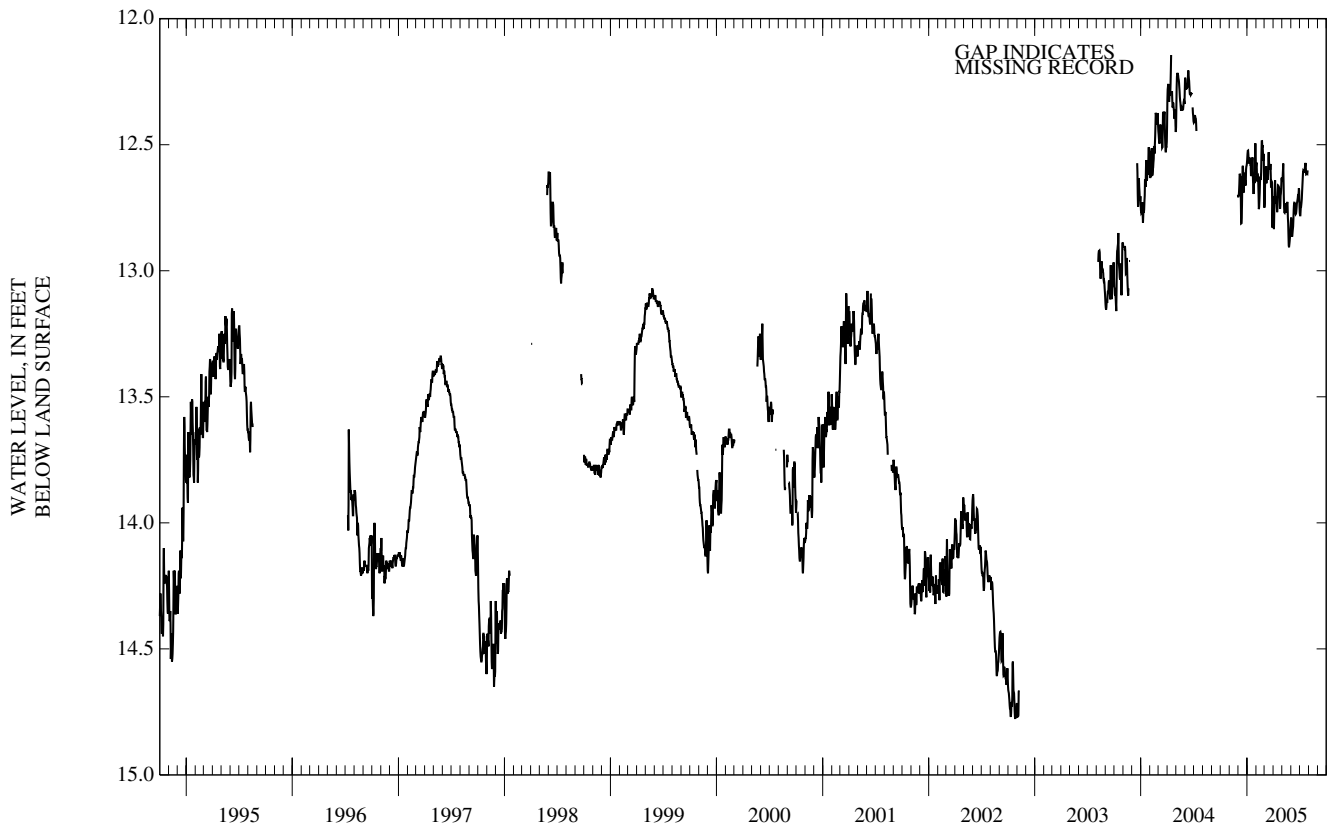
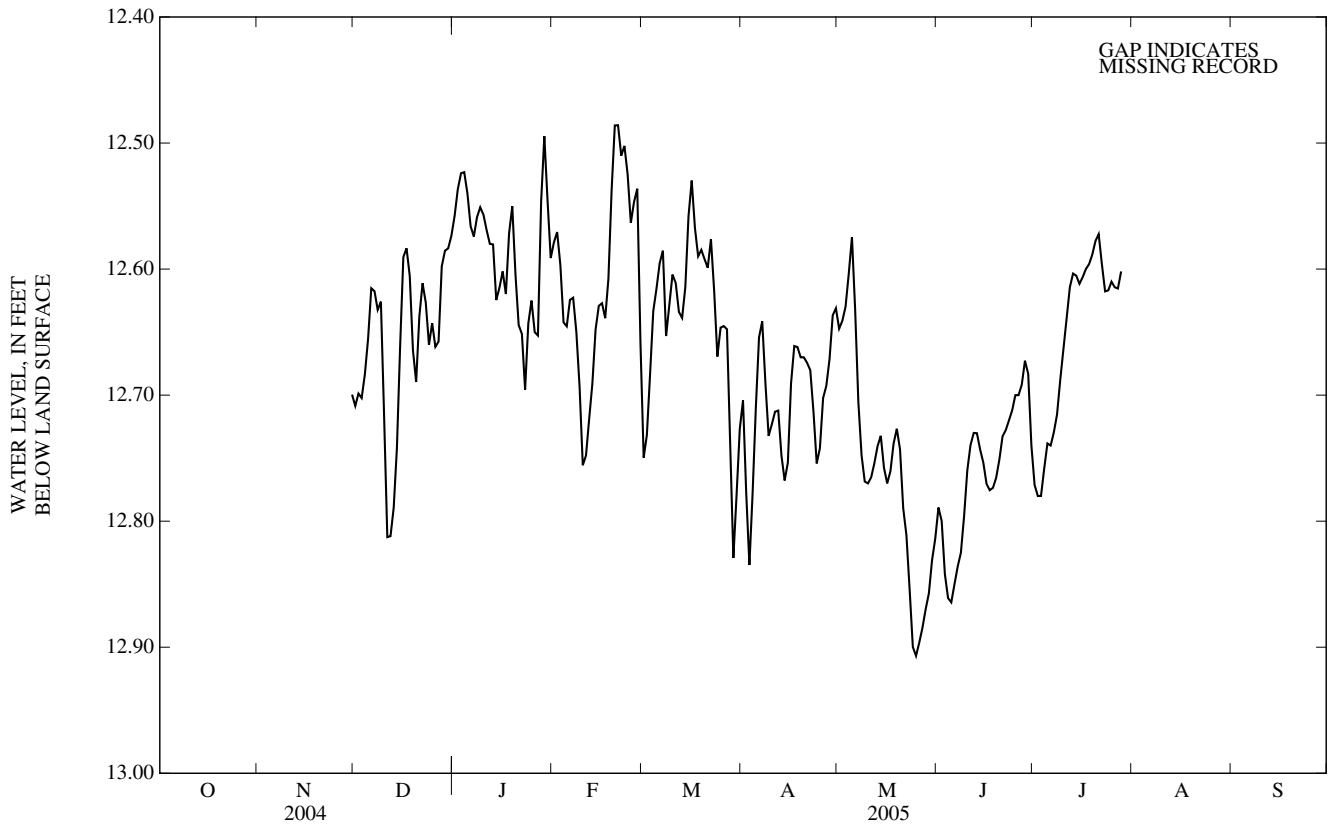
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.14 ft below land-surface datum, Apr. 14-15, 2004; lowest water level recorded, 14.65 ft below land-surface datum, Sept. 25, 30, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	---	---	12.71	12.56	12.58	12.75	12.70	12.65	12.79	12.77	---	---	
2	---	---	12.70	12.54	12.57	12.73	12.78	12.64	12.80	12.78	---	---	
3	---	---	12.70	12.52	12.60	12.68	12.83	12.63	12.84	12.78	---	---	
4	---	---	12.68	12.52	12.64	12.63	12.78	12.60	12.86	12.76	---	---	
5	---	---	12.66	12.54	12.65	12.62	12.71	12.57	12.86	12.74	---	---	
6	---	---	12.62	12.57	12.62	12.60	12.65	12.63	12.85	12.74	---	---	
7	---	---	12.62	12.57	12.62	12.59	12.64	12.71	12.84	12.73	---	---	
8	---	---	12.63	12.56	12.65	12.65	12.69	12.75	12.82	12.72	---	---	
9	---	---	12.63	12.55	12.69	12.63	12.73	12.77	12.80	12.69	---	---	
10	---	---	12.72	12.56	12.76	12.60	12.72	12.77	12.76	12.66	---	---	
11	---	---	12.81	12.57	12.75	12.61	12.71	12.77	12.74	12.64	---	---	
12	---	---	12.81	12.58	12.72	12.63	12.71	12.75	12.73	12.61	---	---	
13	---	---	12.79	12.58	12.69	12.64	12.75	12.74	12.73	12.60	---	---	
14	---	---	12.74	12.62	12.65	12.61	12.77	12.73	12.74	12.61	---	---	
15	---	---	12.66	12.61	12.63	12.56	12.75	12.76	12.75	12.61	---	---	
16	---	---	12.59	12.60	12.63	12.53	12.69	12.77	12.77	12.61	---	---	
17	---	---	12.58	12.62	12.64	12.57	12.66	12.76	12.78	12.60	---	---	
18	---	---	12.61	12.57	12.61	12.59	12.66	12.74	12.77	12.60	---	---	
19	---	---	12.66	12.55	12.54	12.58	12.67	12.73	12.77	12.59	---	---	
20	---	---	12.69	12.60	12.49	12.59	12.67	12.74	12.75	12.58	---	---	
21	---	---	12.64	12.64	12.49	12.60	12.67	12.79	12.73	12.57	---	---	
22	---	---	12.61	12.65	12.51	12.58	12.68	12.81	12.73	12.60	---	---	
23	---	---	12.63	12.70	12.50	12.62	12.71	12.85	12.72	12.62	---	---	
24	---	---	12.66	12.64	12.53	12.67	12.75	12.90	12.71	12.62	---	---	
25	---	---	12.64	12.62	12.56	12.65	12.74	12.91	12.70	12.61	---	---	
26	---	---	12.66	12.65	12.55	12.65	12.70	12.90	12.70	12.61	---	---	
27	---	---	12.66	12.65	12.54	12.65	12.69	12.88	12.69	12.62	---	---	
28	---	---	12.60	12.55	12.66	12.74	12.67	12.87	12.67	12.60	---	---	
29	---	---	12.59	12.49	---	12.83	12.64	12.86	12.68	---	---	---	
30	---	12.70	12.58	12.55	---	12.78	12.63	12.83	12.74	---	---	---	
31	---	---	12.57	12.59	---	12.73	---	12.81	---	---	---	---	
WTR YR	2005	MEAN	12.67	HIGH	12.49	LOW	12.91						

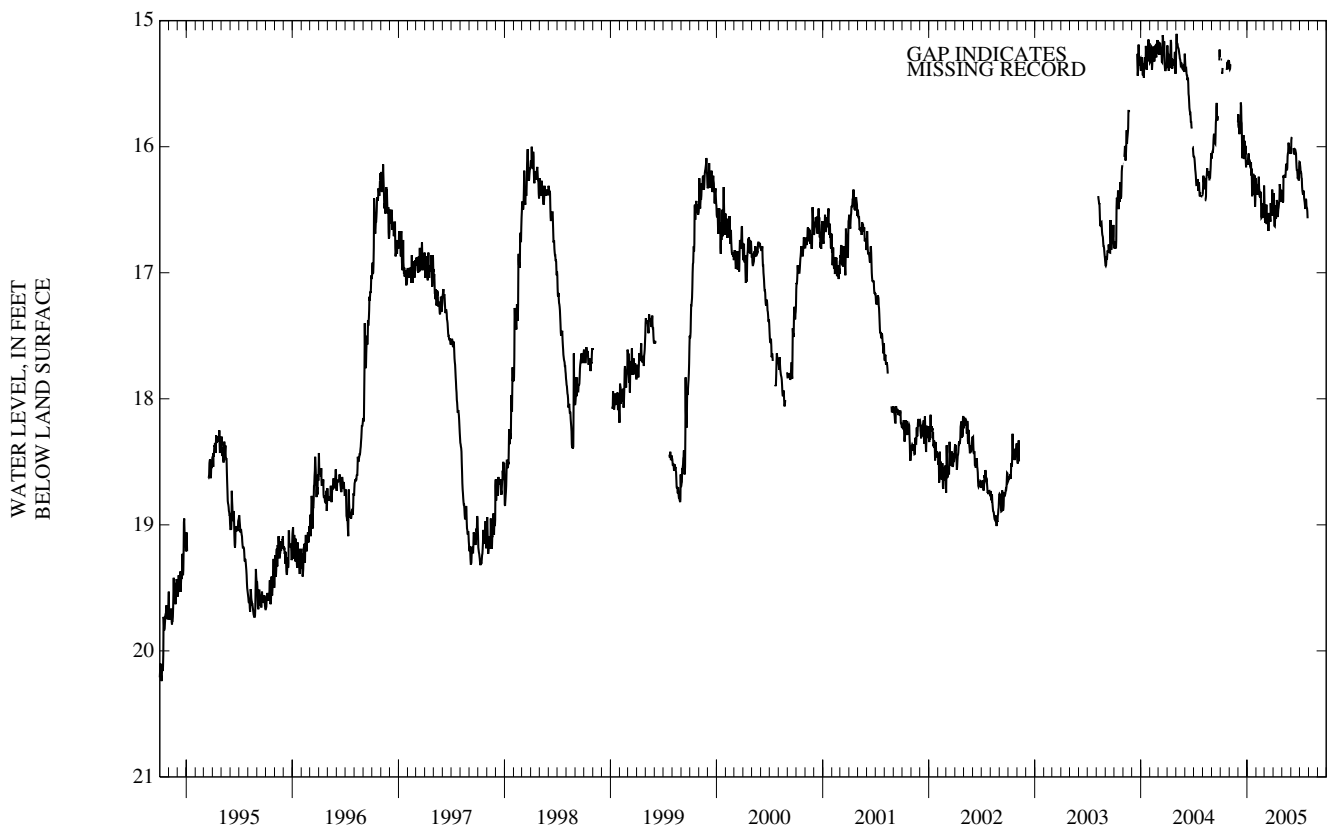
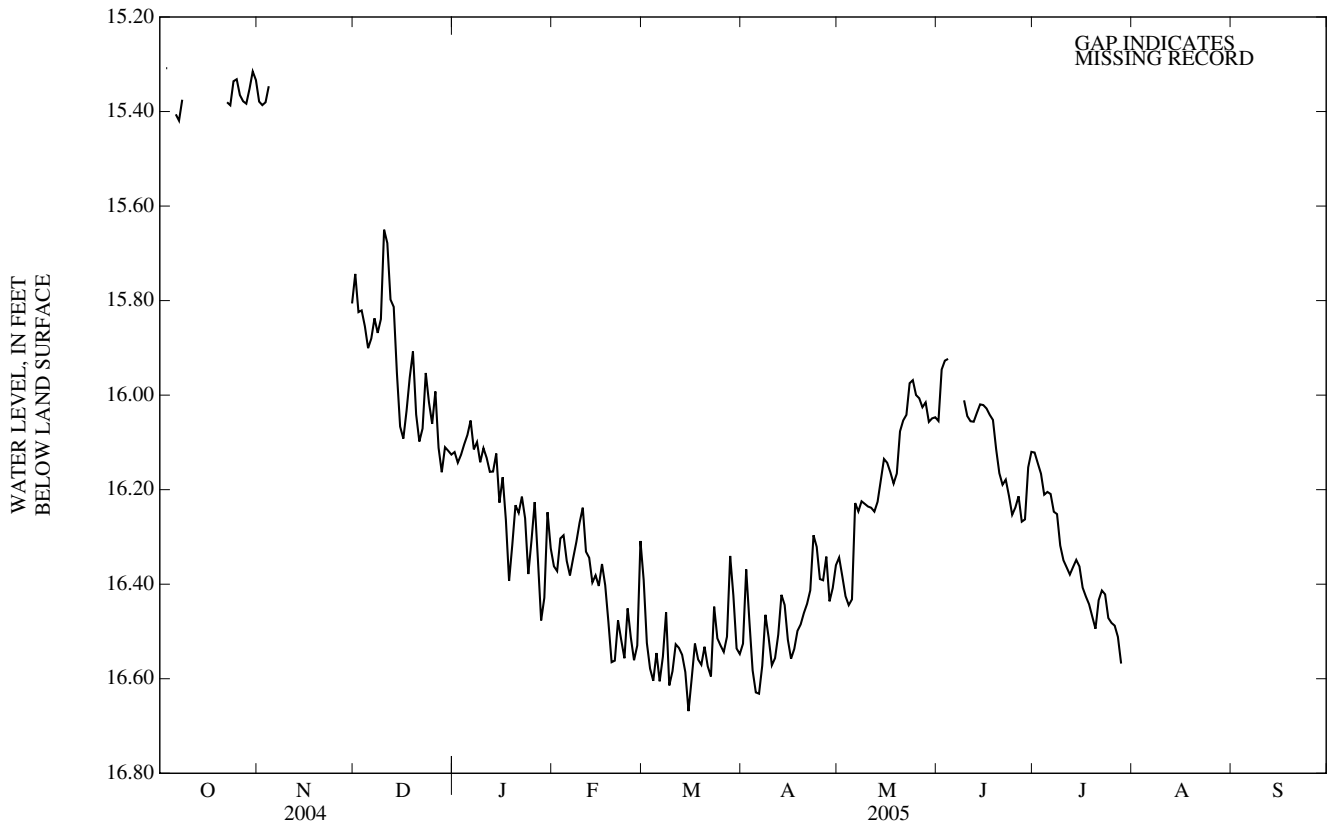
GROUND-WATER LEVELS
ONSLow COUNTY—Continued

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



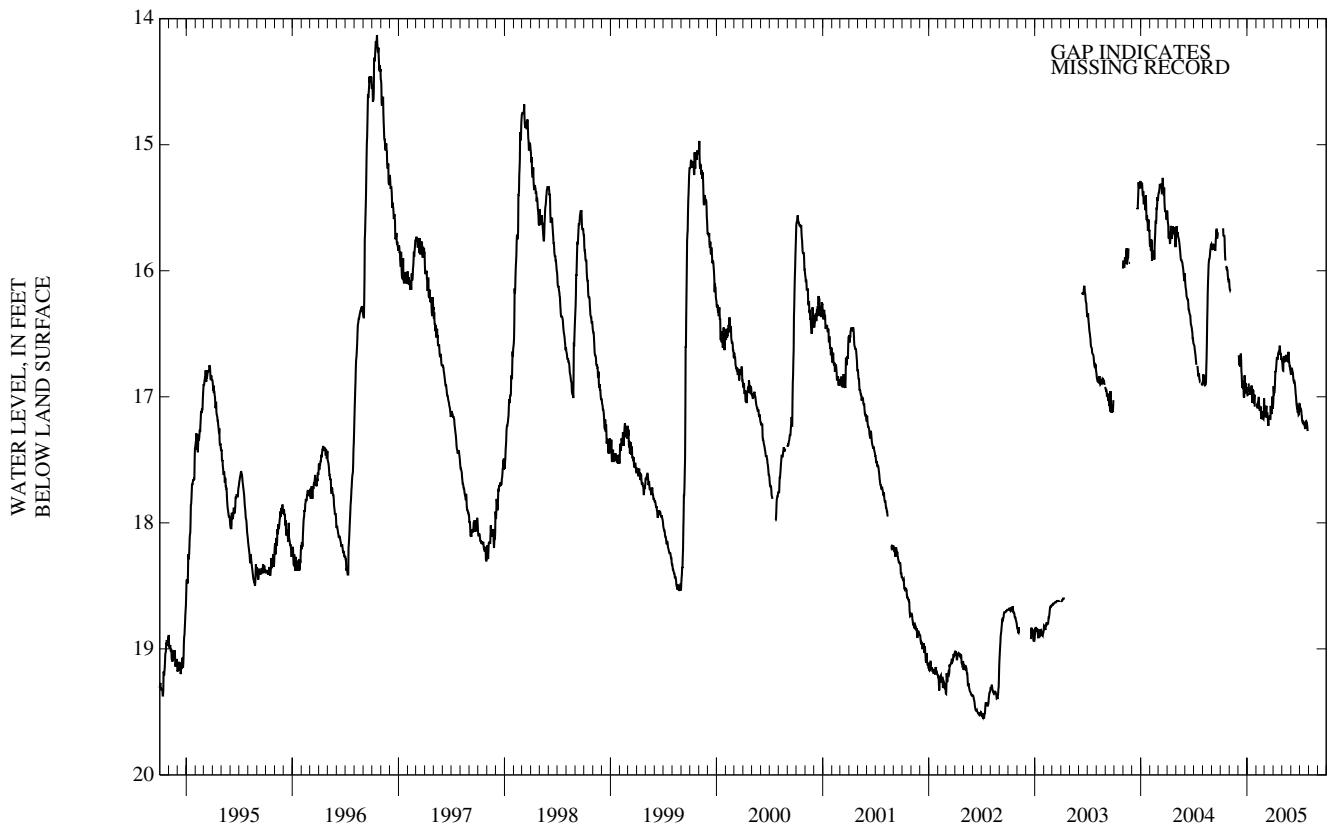
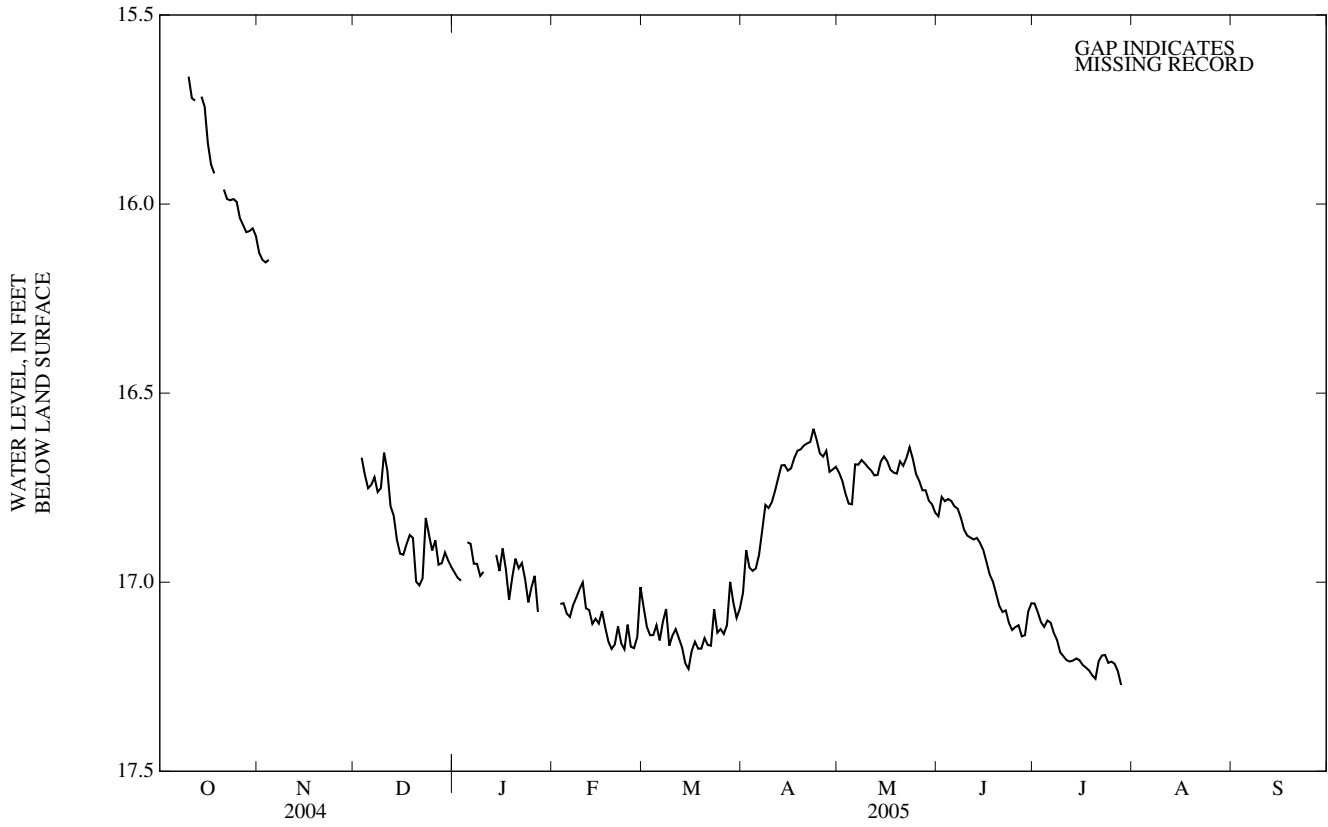
GROUND-WATER LEVELS
ONSLOW COUNTY—Continued

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



GROUND-WATER LEVELS
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°41'36", long 77°21'06", 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 station.

DATUM.--Land-surface datum is 24.06 ft above NGVD of 1929, (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 July 2005 (discontinued).

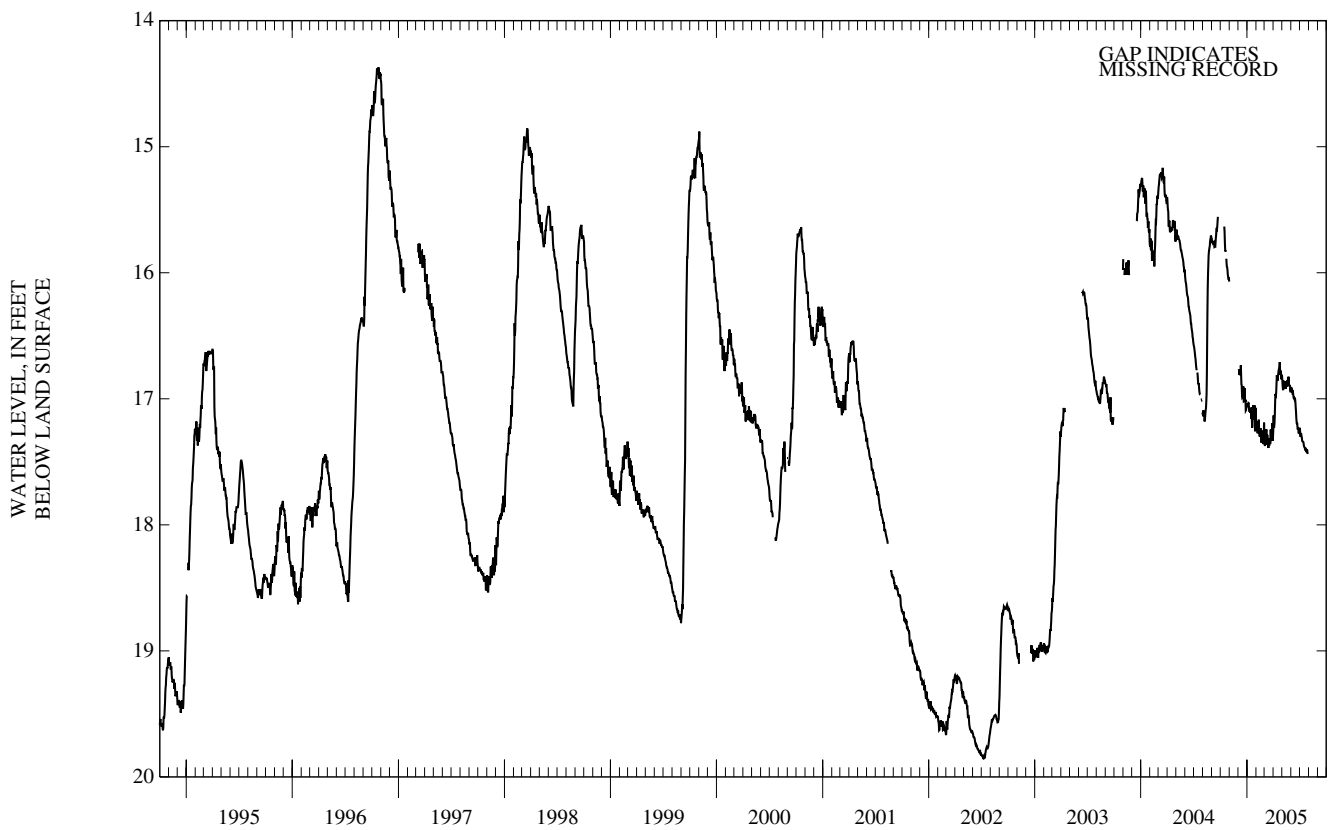
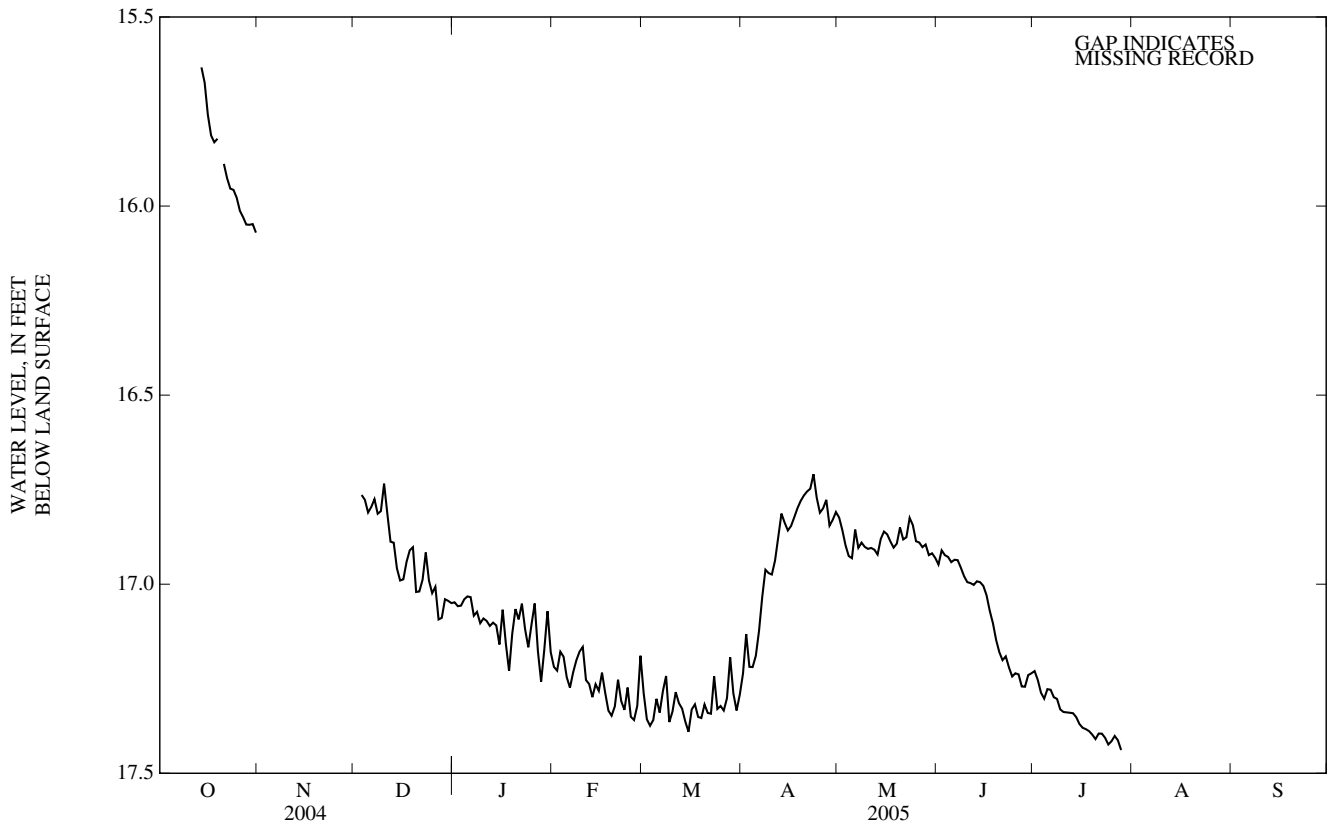
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.35 ft below land-surface datum, Oct. 18, 1996; lowest water level recorded, 19.86 ft below land-surface datum, July 7, 8, 9, 10, 12, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	---	---	---	17.05	17.22	17.29	17.24	16.82	16.95	17.23	---	---	
2	---	---	---	17.06	17.23	17.36	17.13	16.86	16.91	17.25	---	---	
3	---	---	16.76	17.06	17.18	17.37	17.22	16.90	16.92	17.29	---	---	
4	---	---	16.78	17.04	17.19	17.36	17.22	16.93	16.93	17.30	---	---	
5	---	---	16.81	17.03	17.25	17.30	17.19	16.93	16.94	17.28	---	---	
6	---	---	16.80	17.03	17.27	17.34	17.12	16.86	16.94	17.28	---	---	
7	---	---	16.78	17.08	17.23	17.28	17.03	16.90	16.94	17.30	---	---	
8	---	---	16.81	17.07	17.20	17.24	16.96	16.89	16.96	17.30	---	---	
9	---	---	16.81	17.10	17.18	17.36	16.97	16.90	16.98	17.33	---	---	
10	---	---	16.73	17.09	17.17	17.34	16.97	16.91	16.99	17.34	---	---	
11	---	---	16.81	17.10	17.25	17.29	16.94	16.90	17.00	17.34	---	---	
12	---	---	16.89	17.11	17.26	17.31	16.88	16.91	17.00	17.34	---	---	
13	---	---	16.89	17.10	17.30	17.33	16.81	16.92	16.99	17.34	---	---	
14	15.63	---	16.96	17.11	17.26	17.36	16.84	16.88	16.99	17.35	---	---	
15	15.67	---	16.99	17.16	17.28	17.39	16.86	16.86	17.00	17.37	---	---	
16	15.76	---	16.99	17.07	17.23	17.33	16.85	16.87	17.03	17.38	---	---	
17	15.81	---	16.94	17.16	17.29	17.32	16.82	16.89	17.07	17.38	---	---	
18	15.83	---	16.91	17.23	17.33	17.35	16.80	16.90	17.10	17.39	---	---	
19	15.82	---	16.90	17.13	17.35	17.35	16.78	16.89	17.15	17.40	---	---	
20	---	---	17.02	17.07	17.32	17.32	16.77	16.85	17.18	17.41	---	---	
21	15.89	---	17.02	17.09	17.25	17.34	16.75	16.88	17.20	17.39	---	---	
22	15.93	---	16.99	17.05	17.31	17.34	16.75	16.88	17.19	17.40	---	---	
23	15.95	---	16.92	17.12	17.33	17.24	16.71	16.82	17.22	17.41	---	---	
24	15.96	---	16.99	17.17	17.27	17.33	16.77	16.84	17.24	17.42	---	---	
25	15.98	---	17.02	17.11	17.35	17.32	16.81	16.89	17.24	17.42	---	---	
26	16.01	---	17.01	17.05	17.36	17.33	16.80	16.89	17.24	17.40	---	---	
27	16.03	---	17.09	17.18	17.32	17.30	16.78	16.90	17.27	17.41	---	---	
28	16.05	---	17.09	17.26	17.19	17.19	16.85	16.89	17.27	17.44	---	---	
29	16.05	---	17.04	17.17	---	---	17.29	16.83	16.92	17.24	---	---	
30	16.05	---	17.04	17.07	---	---	17.33	16.81	16.92	17.24	---	---	
31	16.07	---	17.05	17.18	---	---	17.29	---	16.93	---	---	---	
WTR YR	2005	MEAN	17.02	HIGH	15.63	LOW	17.44						

GROUND-WATER LEVELS
ON SLOW 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°40'35", 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 NGVD of 1929 (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.

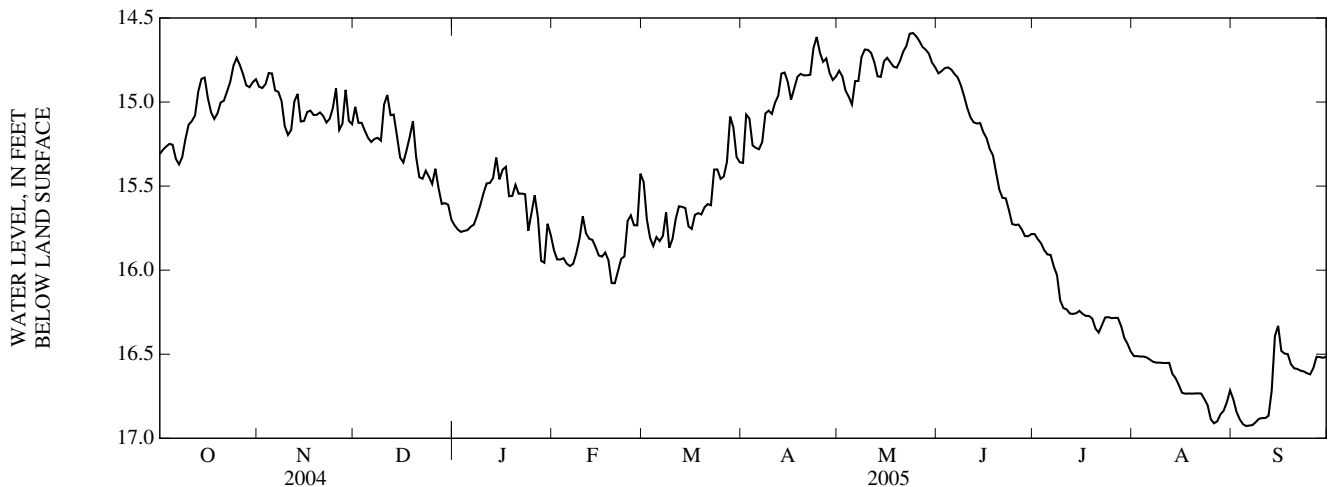
PERIOD OF RECORD.--October 1994 to October 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 14.31 ft below land-surface datum, Nov. 20, 29, 2003; lowest water level recorded, 20.18 ft below land-surface datum, Aug. 21, 1998.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.31	14.91	15.03	15.73	15.88	15.48	15.36	14.81	14.83	15.79	16.51	16.77
2	15.28	14.92	15.12	15.76	15.94	15.70	15.07	14.85	14.82	15.82	16.51	16.84
3	15.26	14.89	15.12	15.77	15.94	15.81	15.10	14.93	14.80	15.84	16.51	16.89
4	15.25	14.83	15.17	15.77	15.93	15.86	15.26	14.97	14.79	15.88	16.51	16.92
5	15.25	14.83	15.21	15.76	15.96	15.80	15.27	15.01	14.81	15.91	16.52	16.93
6	15.34	14.93	15.24	15.74	15.98	15.83	15.28	14.88	14.83	15.91	16.53	16.92
7	15.37	14.94	15.22	15.73	15.96	15.80	15.24	14.87	14.85	15.98	16.55	16.92
8	15.33	14.99	15.21	15.68	15.90	15.66	15.07	14.73	14.90	16.03	16.55	16.90
9	15.22	15.14	15.23	15.61	15.81	15.87	15.05	14.69	14.96	16.18	16.55	16.88
10	15.13	15.20	15.01	15.54	15.68	15.81	15.07	14.69	15.04	16.23	16.55	16.88
11	15.11	15.17	14.96	15.48	15.78	15.70	15.00	14.71	15.09	16.23	16.55	16.88
12	15.08	15.00	15.08	15.48	15.81	15.62	14.96	14.76	15.12	16.26	16.55	16.87
13	14.94	14.95	15.07	15.45	15.82	15.62	14.83	14.85	15.13	16.26	16.62	16.72
14	14.86	15.12	15.20	15.33	15.86	15.63	14.82	14.85	15.12	16.26	16.64	16.39
15	14.85	15.11	15.33	15.46	15.91	15.74	14.88	14.76	15.18	16.24	16.68	16.33
16	14.98	15.06	15.36	15.40	15.92	15.76	14.99	14.74	15.21	16.26	16.73	16.48
17	15.06	15.05	15.29	15.38	15.90	15.67	14.92	14.76	15.28	16.27	16.73	16.50
18	15.10	15.08	15.21	15.56	15.94	15.66	14.85	14.79	15.32	16.27	16.73	16.50
19	15.07	15.08	15.11	15.56	16.08	15.67	14.83	14.80	15.42	16.29	16.73	16.56
20	15.00	15.06	15.33	15.49	16.08	15.63	14.84	14.76	15.52	16.35	16.73	16.58
21	14.99	15.08	15.45	15.55	16.00	15.61	14.84	14.70	15.57	16.37	16.73	16.59
22	14.94	15.12	15.46	15.54	15.93	15.61	14.84	14.67	15.57	16.33	16.73	16.60
23	14.88	15.10	15.41	15.55	15.92	15.40	14.68	14.59	15.64	16.28	16.77	16.60
24	14.78	15.04	15.44	15.77	15.71	15.40	14.61	14.59	15.73	16.28	16.80	16.61
25	14.74	14.92	15.49	15.66	15.67	15.46	14.71	14.61	15.73	16.29	16.89	16.62
26	14.78	15.17	15.40	15.55	15.73	15.44	14.76	14.64	15.73	16.28	16.91	16.58
27	14.84	15.13	15.51	15.69	15.73	15.35	14.74	14.67	15.76	16.28	16.90	16.52
28	14.90	14.93	15.61	15.94	15.43	15.09	14.83	14.69	15.80	16.33	16.86	16.52
29	14.91	15.11	15.60	15.96	---	15.15	14.87	14.71	15.80	16.40	16.84	16.52
30	14.88	15.13	15.61	15.72	---	15.33	14.85	14.77	15.79	16.44	16.79	16.51
31	14.86	---	15.70	15.79	---	15.36	---	14.79	---	16.48	16.71	---

WTR YR 2005 MEAN 15.58 HIGH 14.59 LOW 16.93



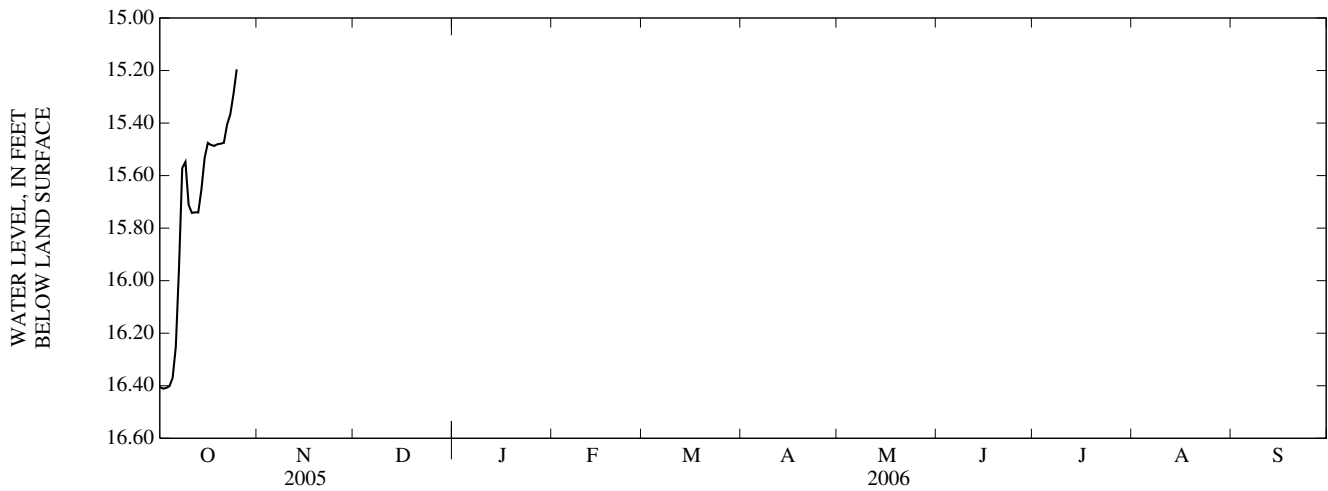
GROUND-WATER LEVELS

ONSWLOW COUNTY—Continued

344037077253901. County number, ON-291; Ragged Point Well.

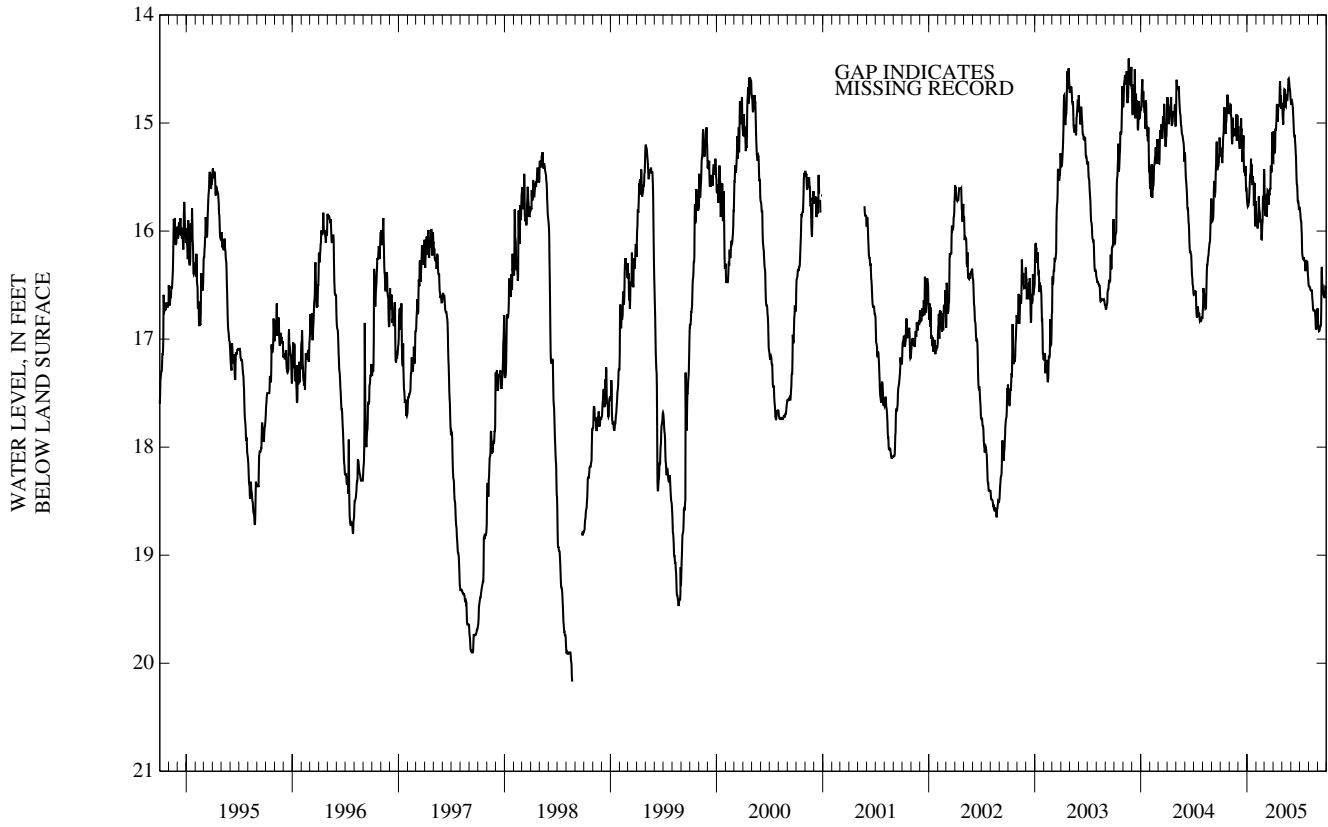
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.40	---	---	---	---	---	---	---	---	---	---	---
2	16.41	---	---	---	---	---	---	---	---	---	---	---
3	16.41	---	---	---	---	---	---	---	---	---	---	---
4	16.40	---	---	---	---	---	---	---	---	---	---	---
5	16.37	---	---	---	---	---	---	---	---	---	---	---
6	16.25	---	---	---	---	---	---	---	---	---	---	---
7	15.95	---	---	---	---	---	---	---	---	---	---	---
8	15.57	---	---	---	---	---	---	---	---	---	---	---
9	15.55	---	---	---	---	---	---	---	---	---	---	---
10	15.71	---	---	---	---	---	---	---	---	---	---	---
11	15.74	---	---	---	---	---	---	---	---	---	---	---
12	15.74	---	---	---	---	---	---	---	---	---	---	---
13	15.74	---	---	---	---	---	---	---	---	---	---	---
14	15.65	---	---	---	---	---	---	---	---	---	---	---
15	15.53	---	---	---	---	---	---	---	---	---	---	---
16	15.48	---	---	---	---	---	---	---	---	---	---	---
17	15.48	---	---	---	---	---	---	---	---	---	---	---
18	15.49	---	---	---	---	---	---	---	---	---	---	---
19	15.48	---	---	---	---	---	---	---	---	---	---	---
20	15.48	---	---	---	---	---	---	---	---	---	---	---
21	15.47	---	---	---	---	---	---	---	---	---	---	---
22	15.41	---	---	---	---	---	---	---	---	---	---	---
23	15.37	---	---	---	---	---	---	---	---	---	---	---
24	15.29	---	---	---	---	---	---	---	---	---	---	---
25	15.20	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
WTR YR	2006	MEAN 15.74	HIGH 15.20	LOW 16.41								



ONSLow COUNTY—Continued

344037077253901. County number, ON-291; Ragged Point Well.



GROUND-WATER LEVELS
ONslow COUNTY—Continued

344304077232901. County number, ON-292; Paradise Point Well.

LOCATION.--Lat 34°43'05", long 77°23'31", 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 NGVD of 1929 (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 July 2005 (discontinued). Prior to October 1997, published as ON-290, Paradise Point Well.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.62 ft below land-surface datum, Nov. 28, 2003; lowest water level recorded, 13.80 ft below land-surface datum, Aug. 20, 1998.

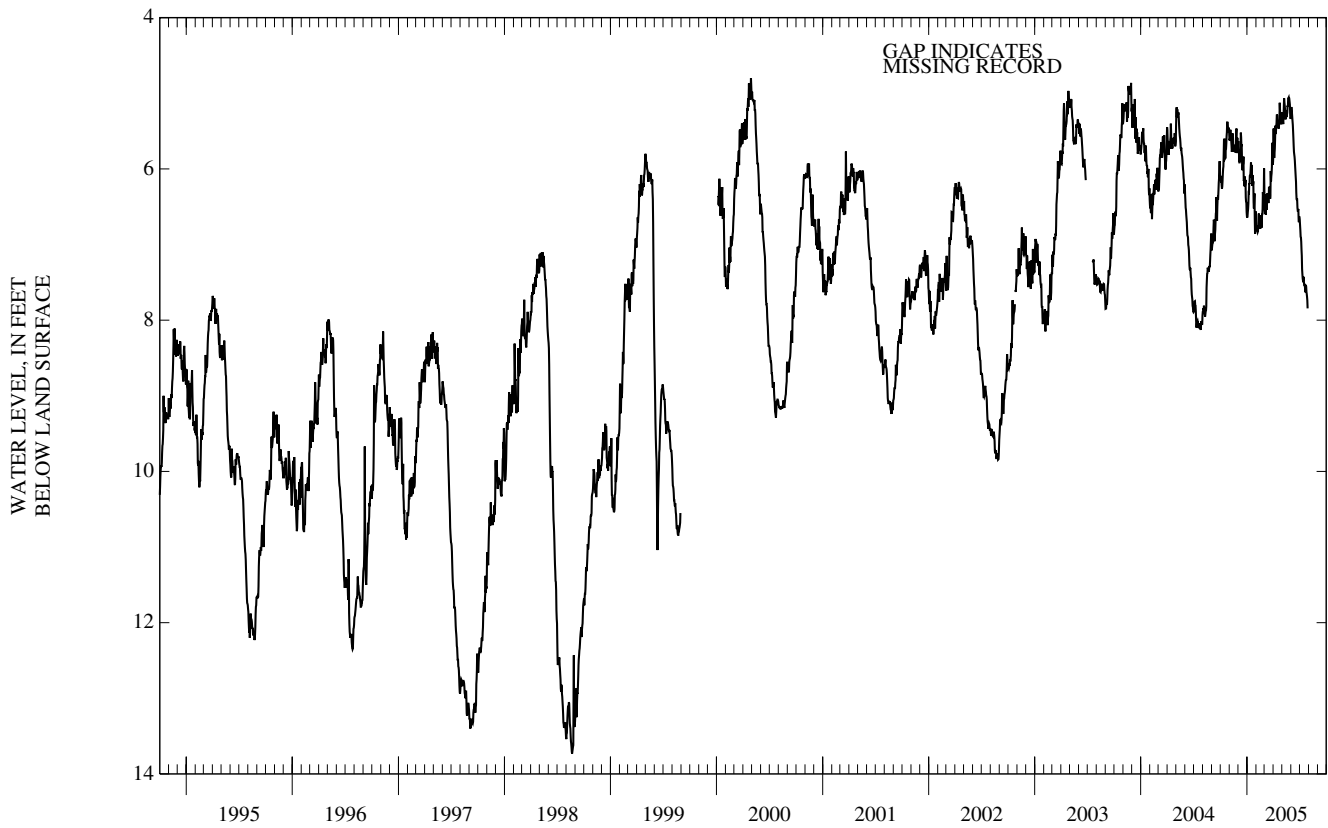
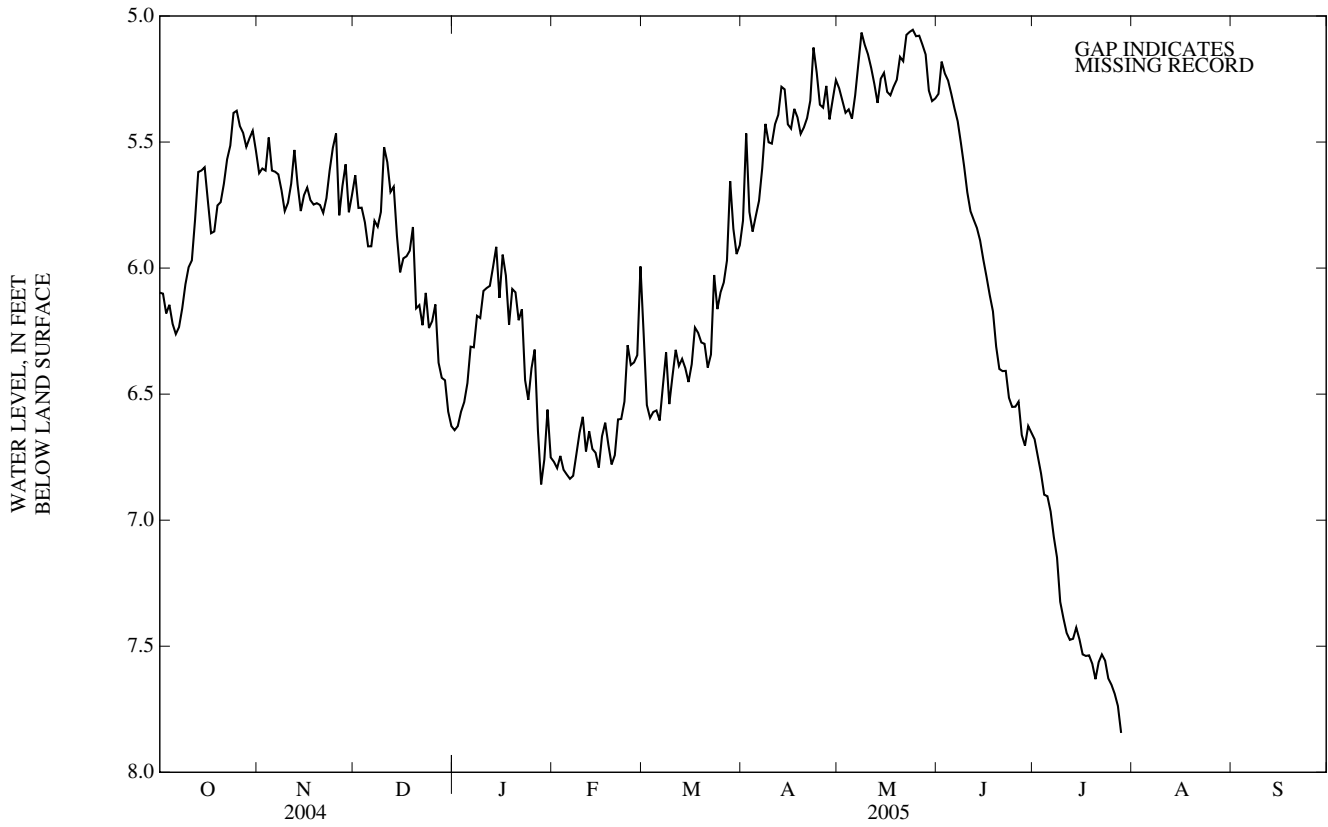
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.10	5.62	5.63	6.64	6.77	6.26	5.81	5.29	5.31	6.68	---	---
2	6.10	5.61	5.76	6.63	6.79	6.54	5.47	5.33	5.18	6.75	---	---
3	6.18	5.61	5.76	6.57	6.75	6.59	5.78	5.38	5.23	6.81	---	---
4	6.15	5.48	5.82	6.53	6.80	6.57	5.86	5.37	5.26	6.90	---	---
5	6.22	5.61	5.91	6.46	6.82	6.56	5.79	5.41	5.31	6.91	---	---
6	6.26	5.62	5.91	6.31	6.84	6.60	5.73	5.31	5.37	6.97	---	---
7	6.23	5.63	5.81	6.31	6.82	6.47	5.60	5.19	5.42	7.07	---	---
8	6.16	5.69	5.84	6.19	6.74	6.33	5.43	5.07	5.50	7.15	---	---
9	6.06	5.77	5.78	6.20	6.65	6.54	5.50	5.11	5.60	7.32	---	---
10	6.00	5.74	5.52	6.09	6.59	6.43	5.51	5.15	5.70	7.39	---	---
11	5.97	5.67	5.58	6.08	6.73	6.32	5.43	5.21	5.77	7.45	---	---
12	5.81	5.53	5.70	6.07	6.65	6.39	5.39	5.27	5.81	7.47	---	---
13	5.62	5.67	5.68	6.00	6.72	6.36	5.28	5.34	5.84	7.47	---	---
14	5.61	5.77	5.87	5.92	6.73	6.40	5.29	5.25	5.89	7.43	---	---
15	5.60	5.71	6.02	6.12	6.79	6.45	5.43	5.23	5.97	7.47	---	---
16	5.73	5.68	5.96	5.95	6.67	6.38	5.45	5.30	6.03	7.53	---	---
17	5.86	5.73	5.95	6.03	6.61	6.24	5.37	5.31	6.11	7.54	---	---
18	5.85	5.75	5.93	6.22	6.70	6.26	5.40	5.28	6.17	7.54	---	---
19	5.75	5.74	5.84	6.08	6.78	6.29	5.47	5.25	6.31	7.57	---	---
20	5.74	5.75	6.16	6.10	6.74	6.30	5.44	5.16	6.40	7.63	---	---
21	5.67	5.78	6.15	6.21	6.60	6.39	5.41	5.18	6.41	7.56	---	---
22	5.57	5.72	6.23	6.16	6.60	6.34	5.34	5.08	6.41	7.53	---	---
23	5.51	5.61	6.10	6.44	6.53	6.03	5.13	5.06	6.51	7.56	---	---
24	5.38	5.52	6.24	6.52	6.31	6.16	5.22	5.05	6.55	7.63	---	---
25	5.38	5.47	6.21	6.40	6.38	6.10	5.35	5.08	6.55	7.65	---	---
26	5.44	5.79	6.14	6.32	6.37	6.06	5.36	5.08	6.53	7.69	---	---
27	5.46	5.67	6.38	6.65	6.35	5.97	5.28	5.11	6.66	7.74	---	---
28	5.52	5.59	6.44	6.86	5.99	5.66	5.41	5.15	6.70	7.84	---	---
29	5.48	5.78	6.45	6.76	---	5.84	5.33	5.30	6.63	---	---	---
30	5.46	5.71	6.57	6.56	---	5.94	5.25	5.34	6.65	---	---	---
31	5.53	---	6.63	6.75	---	5.91	---	5.33	---	---	---	---

WTR YR 2005 MEAN 6.06 HIGH 5.05 LOW 7.84

ONslow COUNTY—Continued

344304077232901. County number, ON-292; Paradise Point Well.



GROUND-WATER LEVELS
ONslow COUNTY—Continued

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

LOCATION.--Lat 34°36'09", long 77°17'11", 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 42.56 ft above North American Vertical Datum of 1988. 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 July 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 7.46 ft below land-surface datum, July 22, 2000; lowest water level recorded, 15.28 ft below land-surface datum, Jul. 12, 13, 2004.

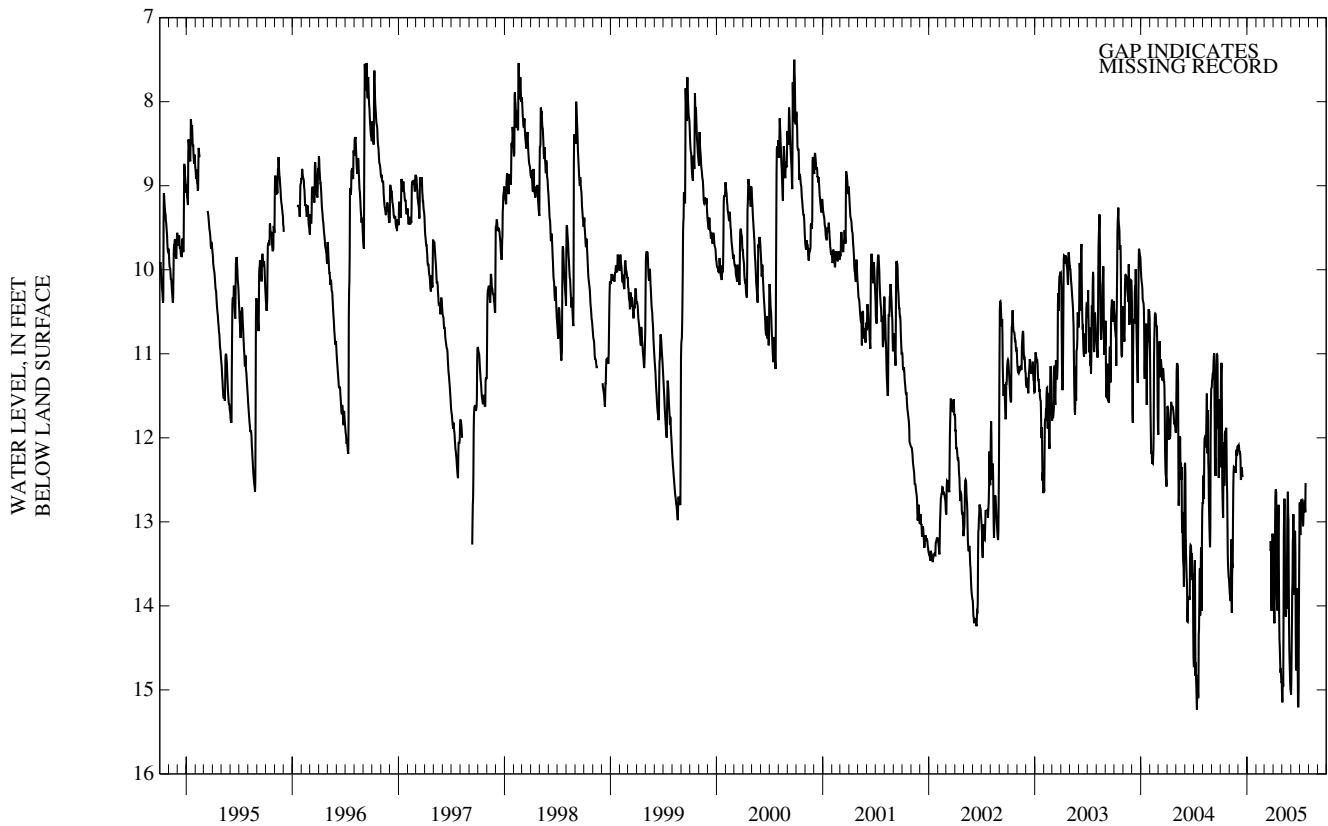
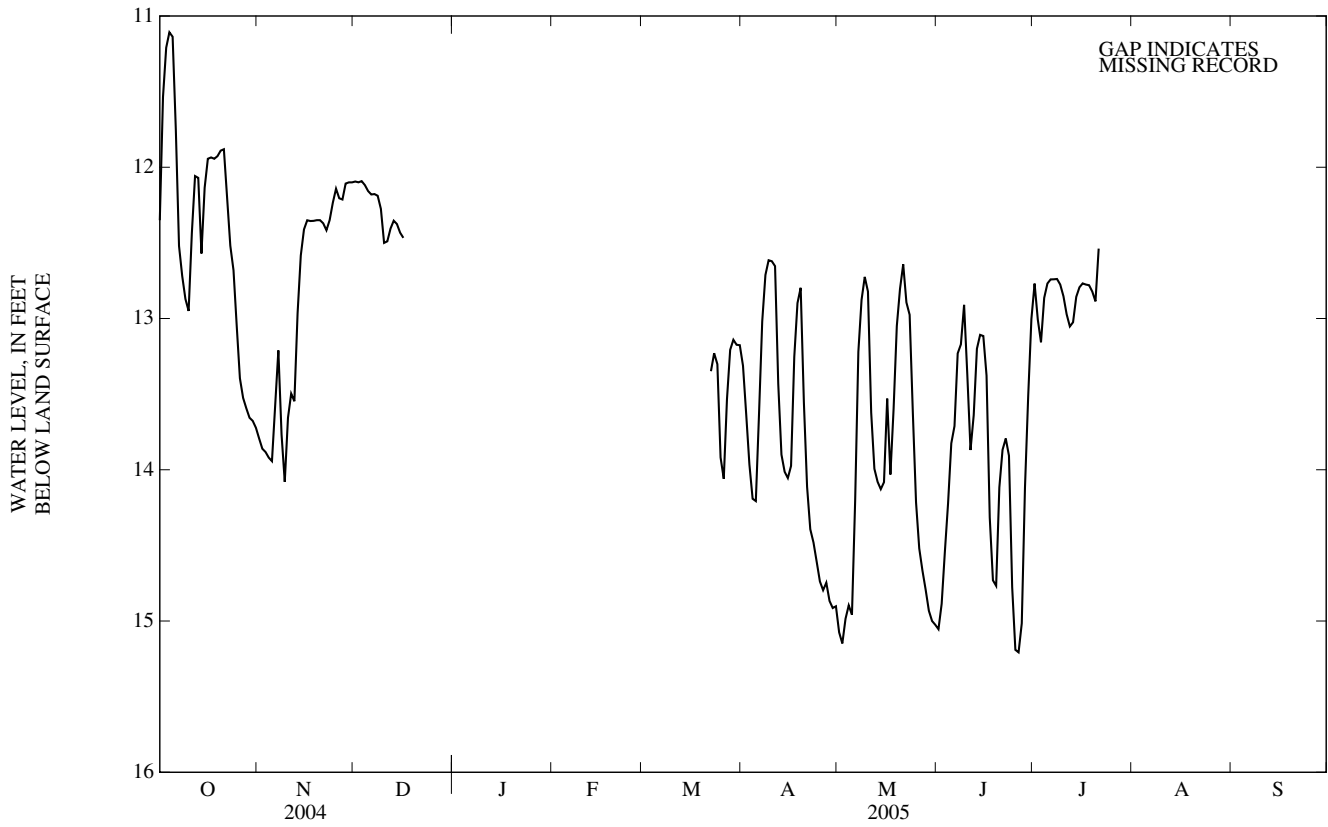
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.35	13.79	12.09	---	---	---	13.31	15.07	15.05	12.77	---	---
2	11.54	13.86	12.10	---	---	---	13.63	15.15	14.89	13.01	---	---
3	11.21	13.88	12.09	---	---	---	13.96	14.98	14.54	13.16	---	---
4	11.11	13.92	12.12	---	---	---	14.19	14.90	14.22	12.86	---	---
5	11.14	13.94	12.16	---	---	---	14.21	14.96	13.83	12.77	---	---
6	11.75	13.58	12.18	---	---	---	13.63	14.20	13.71	12.74	---	---
7	12.52	13.21	12.18	---	---	---	13.02	13.22	13.23	12.74	---	---
8	12.72	13.77	12.19	---	---	---	12.71	12.88	13.17	12.74	---	---
9	12.87	14.08	12.28	---	---	---	12.61	12.72	12.91	12.78	---	---
10	12.95	13.66	12.50	---	---	---	12.62	12.82	13.37	12.85	---	---
11	12.44	13.50	12.49	---	---	---	12.65	13.62	13.87	12.97	---	---
12	12.06	13.55	12.41	---	---	---	13.43	13.99	13.64	13.05	---	---
13	12.07	12.97	12.35	---	---	---	13.90	14.08	13.20	13.02	---	---
14	12.57	12.58	12.38	---	---	---	14.01	14.13	13.11	12.86	---	---
15	12.14	12.41	12.43	---	---	---	14.05	14.08	13.12	12.79	---	---
16	11.94	12.35	12.47	---	---	---	13.97	13.53	13.38	12.77	---	---
17	11.94	12.36	---	---	---	---	13.25	14.03	14.32	12.78	---	---
18	11.94	12.35	---	---	---	---	12.90	13.60	14.73	12.78	---	---
19	11.93	12.35	---	---	---	---	12.80	13.05	14.77	12.82	---	---
20	11.89	12.35	---	---	---	---	13.55	12.80	14.12	12.89	---	---
21	11.88	12.37	---	---	---	---	14.11	12.64	13.87	12.54	---	---
22	12.20	12.42	---	---	---	13.35	14.39	12.89	13.79	---	---	---
23	12.52	12.35	---	---	---	13.23	14.48	12.98	13.91	---	---	---
24	12.68	12.23	---	---	---	13.30	14.61	13.62	14.78	---	---	---
25	13.05	12.14	---	---	---	13.92	14.74	14.22	15.19	---	---	---
26	13.40	12.21	---	---	---	14.06	14.80	14.52	15.21	---	---	---
27	13.52	12.21	---	---	---	13.53	14.75	14.67	15.02	---	---	---
28	13.59	12.11	---	---	---	13.21	14.87	14.79	14.12	---	---	---
29	13.66	12.10	---	---	---	13.14	14.91	14.93	13.51	---	---	---
30	13.68	12.10	---	---	---	13.17	14.90	15.00	13.00	---	---	---
31	13.72	---	---	---	---	13.18	---	15.02	---	---	---	---

WTR YR 2005 MEAN 13.26 HIGH 11.11 LOW 15.21

GROUND-WATER LEVELS
ONslow COUNTY—Continued

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



GROUND-WATER LEVELS
 ONSLOW COUNTY—Continued

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

LOCATION.--Lat 34°38'42", long 77°24'29", 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 29.83 ft above North American Vertical Datum of 1988. 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.

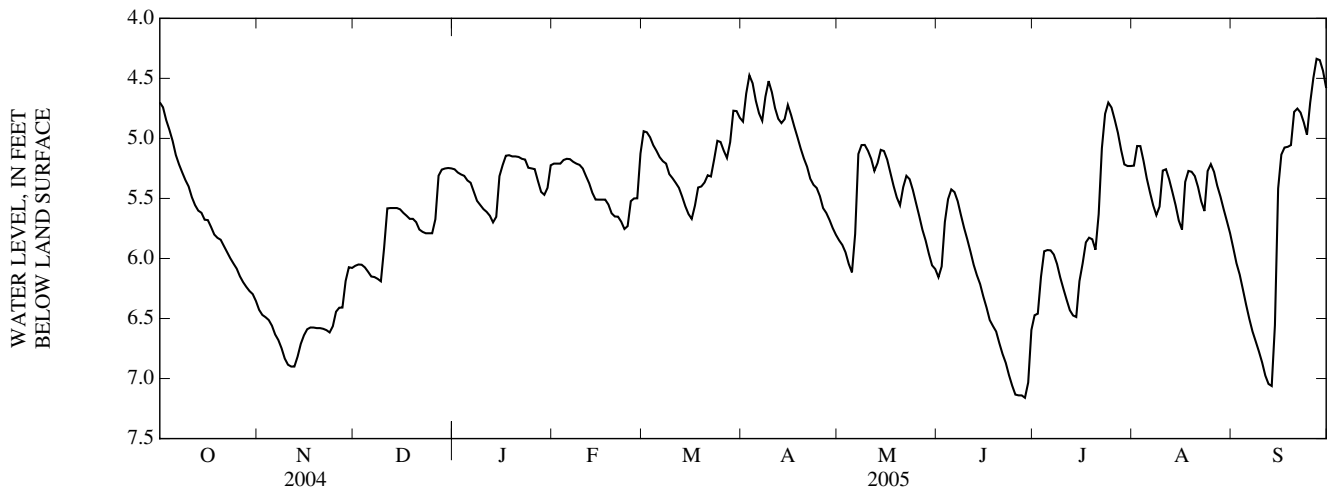
PERIOD OF RECORD.--October 1994 to October 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 3.55 ft below land-surface datum, Mar. 21, 22, 2003, Oct. 29, 2003; lowest water level recorded, 11.29 ft below land-surface datum, Dec. 10-13, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.70	6.43	6.06	5.26	5.21	4.94	4.86	5.85	6.16	6.47	5.23	5.91
2	4.74	6.47	6.05	5.28	5.21	4.95	4.63	5.89	6.07	6.46	5.06	6.04
3	4.85	6.49	6.05	5.30	5.21	4.99	4.47	5.95	5.70	6.15	5.06	6.13
4	4.93	6.51	6.07	5.31	5.18	5.06	4.54	6.04	5.51	5.94	5.19	6.26
5	5.02	6.56	6.11	5.35	5.17	5.10	4.69	6.12	5.42	5.93	5.33	6.38
6	5.14	6.63	6.15	5.37	5.17	5.16	4.79	5.80	5.45	5.93	5.45	6.50
7	5.22	6.68	6.15	5.44	5.19	5.19	4.85	5.13	5.52	5.97	5.56	6.61
8	5.28	6.75	6.17	5.52	5.21	5.21	4.65	5.06	5.64	6.05	5.64	6.69
9	5.35	6.83	6.19	5.55	5.22	5.30	4.52	5.05	5.75	6.16	5.57	6.77
10	5.40	6.88	5.91	5.59	5.25	5.33	4.62	5.10	5.84	6.25	5.27	6.87
11	5.49	6.90	5.58	5.61	5.31	5.37	4.75	5.17	5.94	6.34	5.26	6.97
12	5.56	6.90	5.58	5.64	5.37	5.41	4.84	5.27	6.05	6.43	5.34	7.04
13	5.60	6.82	5.58	5.70	5.45	5.48	4.87	5.20	6.14	6.47	5.45	7.06
14	5.62	6.71	5.58	5.65	5.51	5.56	4.84	5.10	6.21	6.49	5.56	6.56
15	5.68	6.64	5.59	5.31	5.51	5.63	4.72	5.11	6.32	6.19	5.68	5.42
16	5.68	6.59	5.62	5.22	5.51	5.67	4.80	5.18	6.41	6.04	5.76	5.13
17	5.74	6.57	5.64	5.14	5.51	5.56	4.90	5.29	6.51	5.87	5.36	5.08
18	5.80	6.58	5.67	5.14	5.55	5.41	4.99	5.40	6.56	5.83	5.27	5.07
19	5.83	6.58	5.67	5.15	5.62	5.40	5.08	5.49	6.61	5.84	5.28	5.06
20	5.84	6.58	5.70	5.15	5.65	5.37	5.17	5.56	6.71	5.93	5.31	4.78
21	5.90	6.59	5.76	5.15	5.65	5.31	5.24	5.41	6.80	5.63	5.40	4.75
22	5.95	6.60	5.78	5.17	5.69	5.32	5.34	5.31	6.87	5.08	5.52	4.78
23	6.00	6.62	5.79	5.18	5.75	5.17	5.39	5.34	6.97	4.80	5.60	4.87
24	6.04	6.56	5.79	5.24	5.73	5.02	5.41	5.43	7.06	4.70	5.27	4.97
25	6.08	6.44	5.79	5.25	5.52	5.03	5.48	5.54	7.13	4.74	5.21	4.70
26	6.15	6.41	5.67	5.26	5.50	5.10	5.58	5.65	7.14	4.84	5.28	4.50
27	6.20	6.41	5.31	5.35	5.50	5.16	5.62	5.76	7.14	4.95	5.39	4.34
28	6.24	6.19	5.26	5.45	5.13	5.03	5.68	5.85	7.16	5.10	5.48	4.35
29	6.27	6.07	5.25	5.47	---	4.77	5.75	5.96	7.03	5.22	5.59	4.44
30	6.30	6.08	5.25	5.41	---	4.77	5.80	6.06	6.60	5.23	5.69	4.58
31	6.35	---	5.25	5.22	---	4.83	---	6.09	---	5.23	5.79	---

WTR YR 2005 MEAN 5.63 HIGH 4.34 LOW 7.16

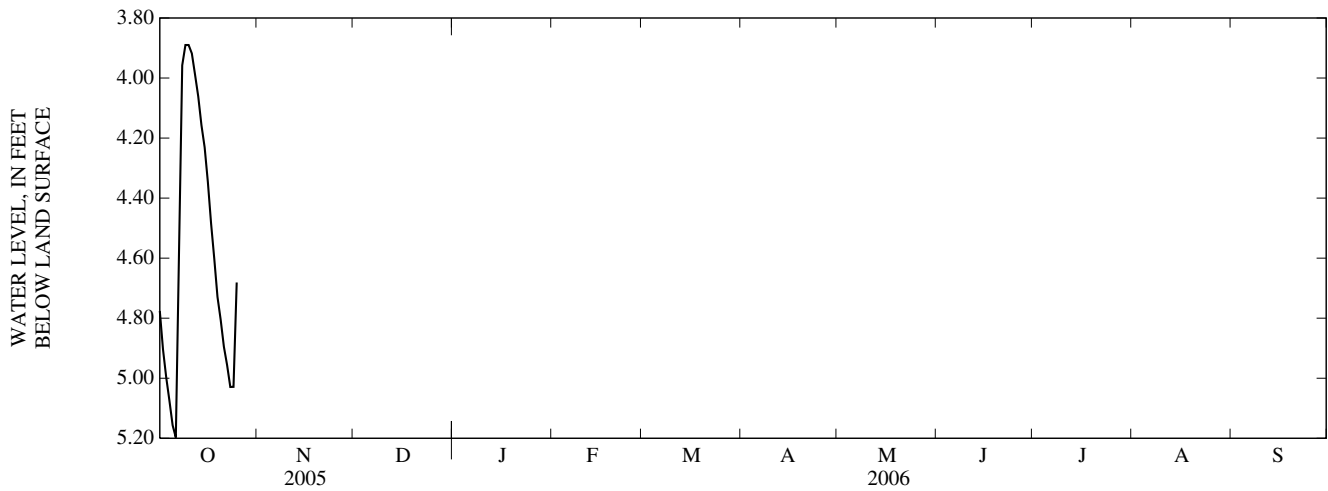


ONSWLOW COUNTY—Continued

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

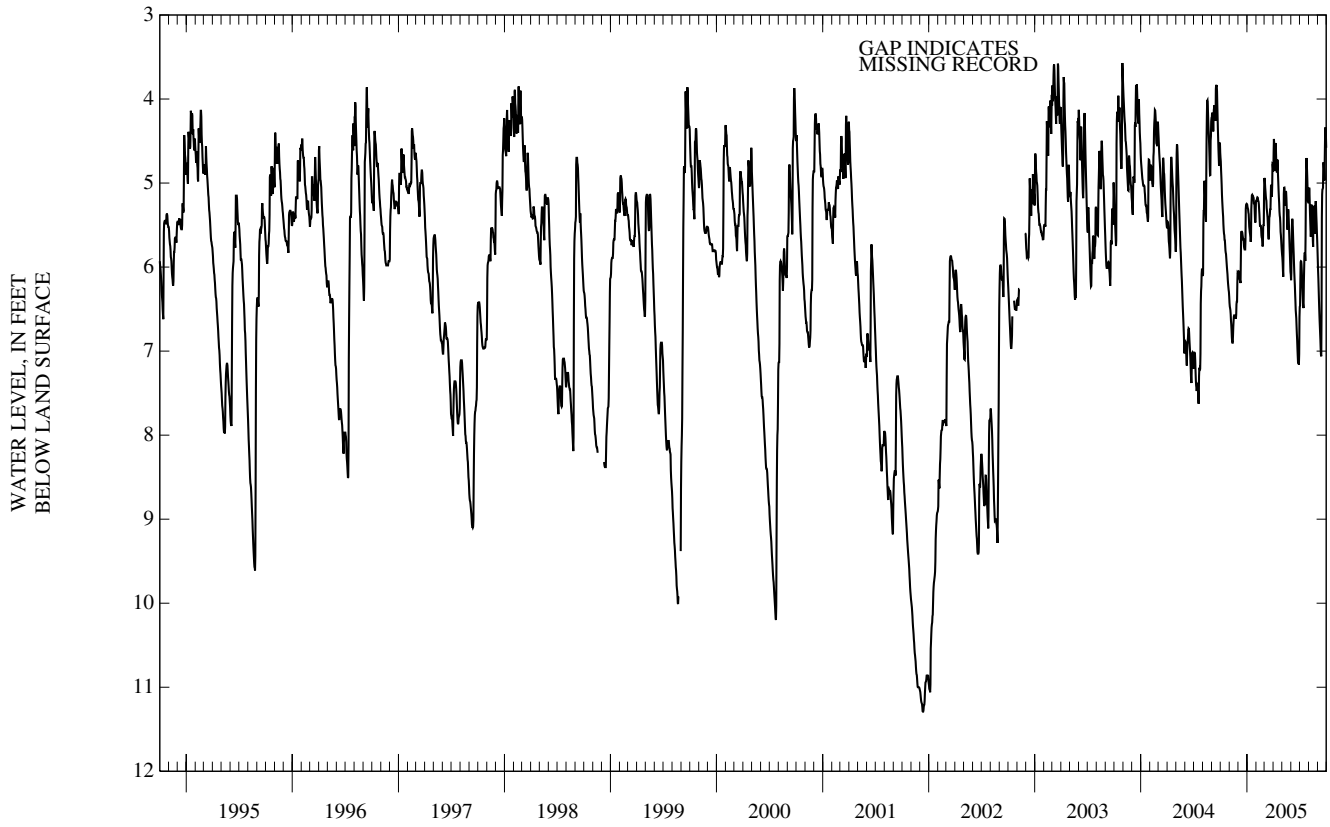
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.78	---	---	---	---	---	---	---	---	---	---	---
2	4.90	---	---	---	---	---	---	---	---	---	---	---
3	5.00	---	---	---	---	---	---	---	---	---	---	---
4	5.07	---	---	---	---	---	---	---	---	---	---	---
5	5.16	---	---	---	---	---	---	---	---	---	---	---
6	5.20	---	---	---	---	---	---	---	---	---	---	---
7	4.57	---	---	---	---	---	---	---	---	---	---	---
8	3.96	---	---	---	---	---	---	---	---	---	---	---
9	3.89	---	---	---	---	---	---	---	---	---	---	---
10	3.89	---	---	---	---	---	---	---	---	---	---	---
11	3.92	---	---	---	---	---	---	---	---	---	---	---
12	3.99	---	---	---	---	---	---	---	---	---	---	---
13	4.06	---	---	---	---	---	---	---	---	---	---	---
14	4.16	---	---	---	---	---	---	---	---	---	---	---
15	4.23	---	---	---	---	---	---	---	---	---	---	---
16	4.35	---	---	---	---	---	---	---	---	---	---	---
17	4.48	---	---	---	---	---	---	---	---	---	---	---
18	4.60	---	---	---	---	---	---	---	---	---	---	---
19	4.73	---	---	---	---	---	---	---	---	---	---	---
20	4.81	---	---	---	---	---	---	---	---	---	---	---
21	4.89	---	---	---	---	---	---	---	---	---	---	---
22	4.96	---	---	---	---	---	---	---	---	---	---	---
23	5.03	---	---	---	---	---	---	---	---	---	---	---
24	5.03	---	---	---	---	---	---	---	---	---	---	---
25	4.68	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
WTR YR	2006	MEAN 4.57	HIGH 3.89	LOW 5.20								



GROUND-WATER LEVELS
ONSLow COUNTY—Continued

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



ONslow COUNTY—Continued

343442077292301. County number, ON-312; Great Sandy Run well.

LOCATION.--Lat 34°34'42", long 77°29'23", Hydrologic Unit 03030007, at Camp Lejeune, 13.5 mi south of Highway 24 and Highway 17 intersection, on dirt road. Owner: U.S. Geological Survey.

AQUIFER.--Surficial aquifer.

WELL CHARACTERISTICS.--Drilled observation well, depth 5.9 ft, diameter 2 in., cased to 5.9 ft, screened interval from 0.6 to 5.6 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 15-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 25 ft above NGVD of 1929 (from topographic map). Measuring point: Bottom of shelter floor, 3.82 ft above land-surface datum.

REMARKS.--Well is part of a Coastal Plains recharge study.

PERIOD OF RECORD.--December 2003 to February 2005 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.14 ft above land-surface datum, Aug. 14, 2004; lowest water level recorded, 3.64 ft below land-surface datum, June 30, 2004.

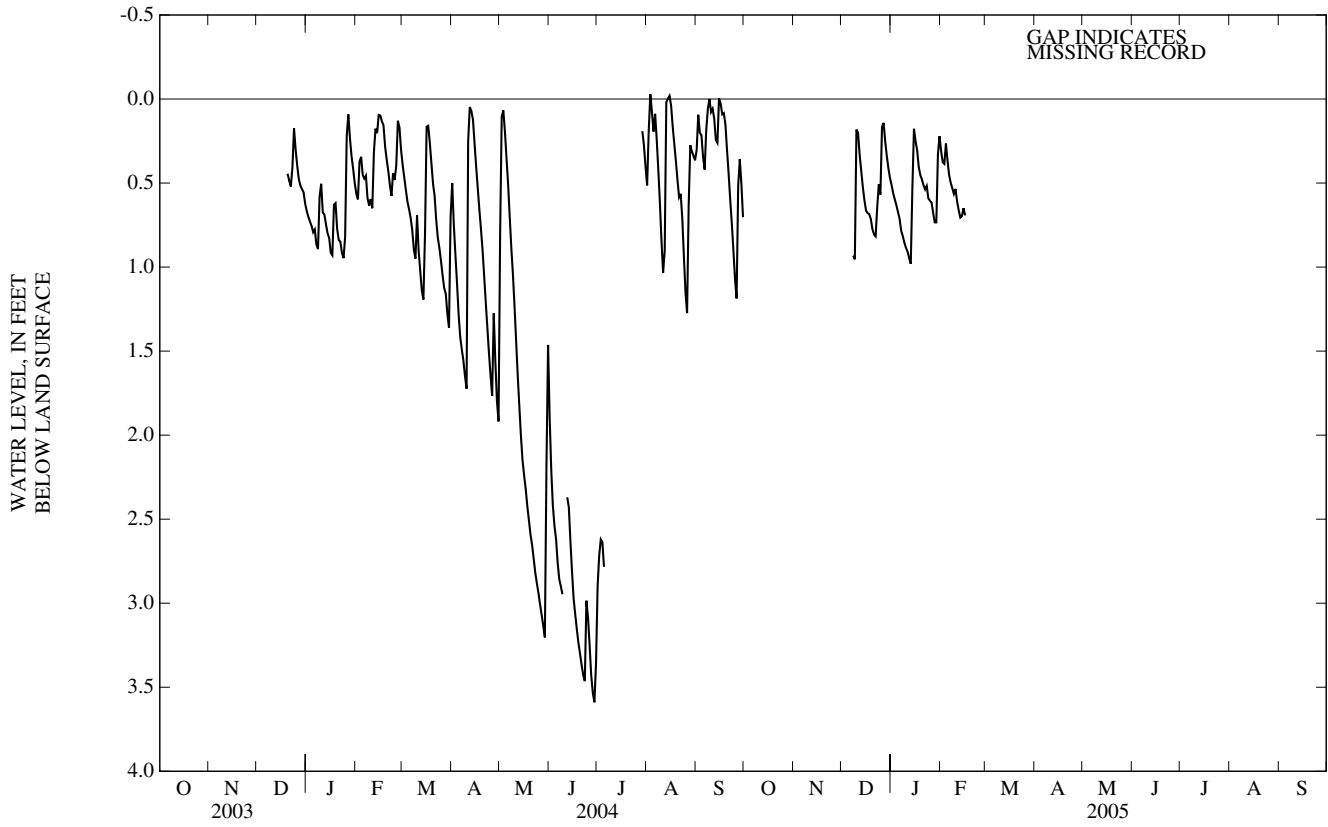
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.51	0.31	---	---	---	---	---	---	---
2	---	---	---	0.56	0.38	---	---	---	---	---	---	---
3	---	---	---	0.60	0.39	---	---	---	---	---	---	---
4	---	---	---	0.63	0.27	---	---	---	---	---	---	---
5	---	---	---	0.67	0.37	---	---	---	---	---	---	---
6	---	---	---	0.71	0.45	---	---	---	---	---	---	---
7	---	---	---	0.78	0.50	---	---	---	---	---	---	---
8	---	---	0.93	0.82	0.53	---	---	---	---	---	---	---
9	---	---	0.95	0.86	0.56	---	---	---	---	---	---	---
10	---	---	0.18	0.89	0.53	---	---	---	---	---	---	---
11	---	---	0.20	0.91	0.61	---	---	---	---	---	---	---
12	---	---	0.33	0.95	0.66	---	---	---	---	---	---	---
13	---	---	0.43	0.98	0.71	---	---	---	---	---	---	---
14	---	---	0.52	0.54	0.70	---	---	---	---	---	---	---
15	---	---	0.60	0.18	0.65	---	---	---	---	---	---	---
16	---	---	0.66	0.25	0.69	---	---	---	---	---	---	---
17	---	---	0.68	0.31	---	---	---	---	---	---	---	---
18	---	---	0.69	0.41	---	---	---	---	---	---	---	---
19	---	---	0.71	0.45	---	---	---	---	---	---	---	---
20	---	---	0.77	0.48	---	---	---	---	---	---	---	---
21	---	---	0.81	0.51	---	---	---	---	---	---	---	---
22	---	---	0.82	0.54	---	---	---	---	---	---	---	---
23	---	---	0.64	0.52	---	---	---	---	---	---	---	---
24	---	---	0.51	0.59	---	---	---	---	---	---	---	---
25	---	---	0.57	0.61	---	---	---	---	---	---	---	---
26	---	---	0.17	0.62	---	---	---	---	---	---	---	---
27	---	---	0.14	0.68	---	---	---	---	---	---	---	---
28	---	---	0.25	0.73	---	---	---	---	---	---	---	---
29	---	---	0.34	0.73	---	---	---	---	---	---	---	---
30	---	---	0.41	0.33	---	---	---	---	---	---	---	---
31	---	---	0.47	0.22	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 0.56 HIGH 0.14 LOW 0.98

GROUND-WATER LEVELS
ONSLow COUNTY—Continued

343442077292301. County number, ON-312; Great Sandy Run well.



ORANGE COUNTY

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

LOCATION.--Lat 35°54'31", long 79°03'29", 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 NGVD of 1929. Measuring point: Top of shelf, 3.27 ft above land-surface datum.

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.--January 1943 to current year. Continuous record January 1943 to March 1948, December 1999 to current year.

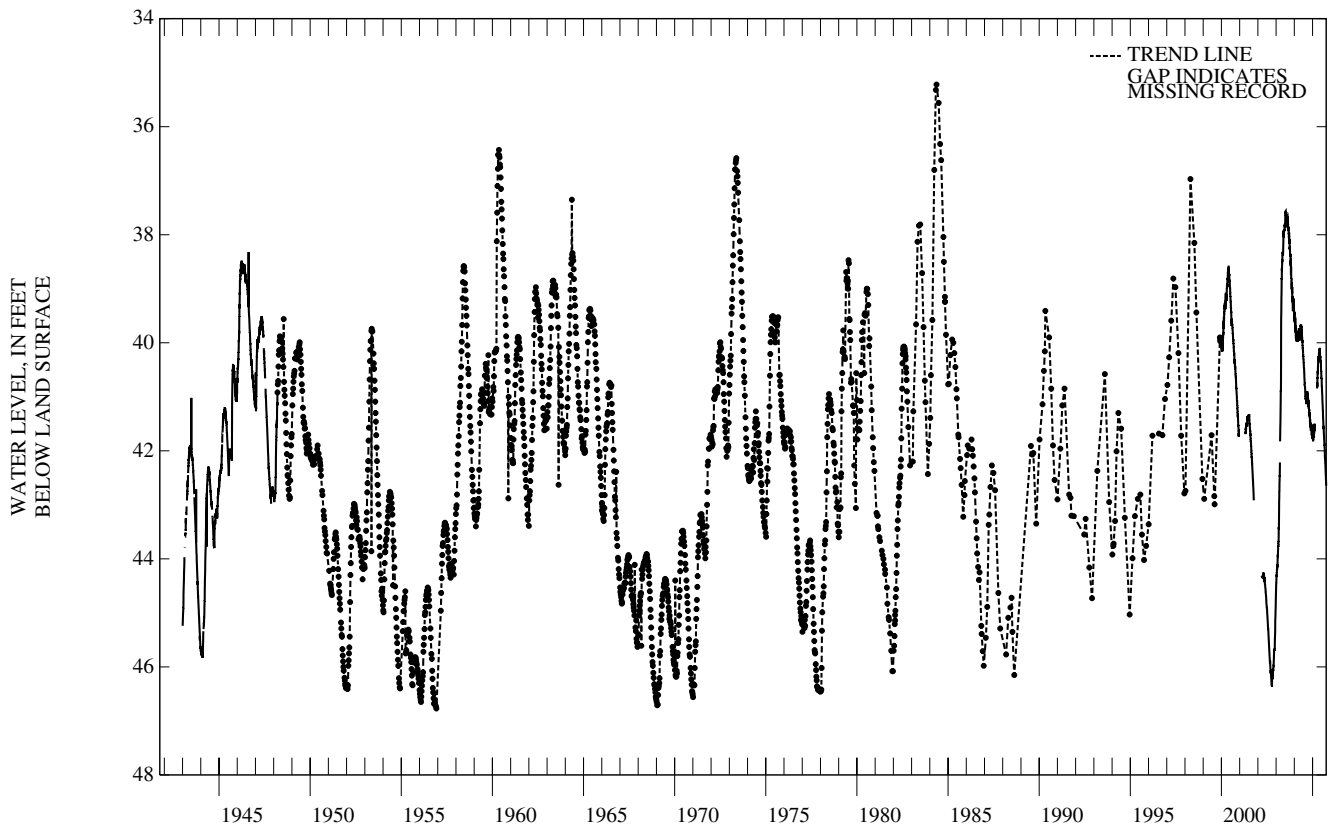
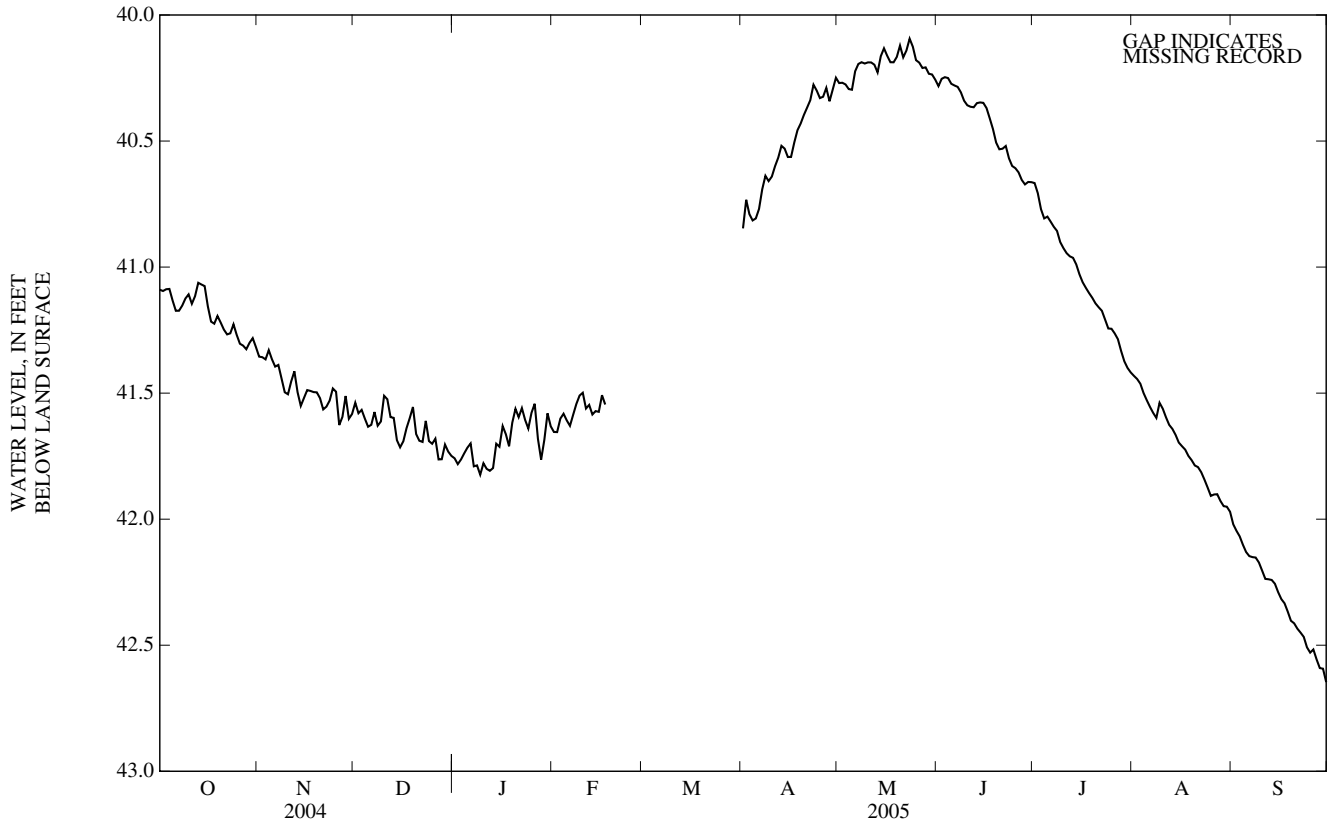
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.22 ft below land-surface datum, May 14, 1984; lowest water level occurred during periods when well was dry, Oct. 11 to Dec. 31, 1940, and Oct. 13, 1988 to Jan. 24, 1989.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.09	41.36	41.54	41.76	41.65	---	40.85	40.27	40.28	40.67	41.43	42.02
2	41.09	41.36	41.58	41.78	41.65	---	40.73	40.27	40.25	40.71	41.44	42.05
3	41.09	41.37	41.57	41.76	41.60	---	40.79	40.28	40.25	40.77	41.46	42.07
4	41.09	41.33	41.60	41.74	41.58	---	40.81	40.29	40.25	40.81	41.50	42.10
5	41.13	41.37	41.63	41.72	41.61	---	40.81	40.30	40.27	40.80	41.53	42.13
6	41.17	41.39	41.63	41.70	41.63	---	40.77	40.22	40.28	40.82	41.55	42.15
7	41.17	41.39	41.58	41.79	41.59	---	40.69	40.19	40.29	40.84	41.58	42.15
8	41.15	41.44	41.63	41.79	41.54	---	40.64	40.19	40.31	40.86	41.60	42.15
9	41.12	41.50	41.61	41.82	41.51	---	40.66	40.19	40.34	40.90	41.54	42.17
10	41.11	41.50	41.51	41.78	41.50	---	40.64	40.19	40.36	40.92	41.56	42.20
11	41.15	41.45	41.52	41.80	41.56	---	40.60	40.19	40.36	40.95	41.60	42.24
12	41.12	41.41	41.59	41.81	41.55	---	40.57	40.20	40.37	40.96	41.63	42.24
13	41.06	41.50	41.60	41.80	41.58	---	40.52	40.23	40.35	40.96	41.64	42.24
14	41.07	41.55	41.69	41.70	41.57	---	40.53	40.16	40.35	40.99	41.67	42.26
15	41.08	41.52	41.72	41.71	41.57	---	40.56	40.13	40.35	41.03	41.70	42.29
16	41.16	41.49	41.69	41.63	41.51	---	40.56	40.16	40.37	41.06	41.71	42.32
17	41.22	41.49	41.64	41.66	41.55	---	40.51	40.19	40.41	41.08	41.72	42.33
18	41.22	41.50	41.60	41.71	---	---	40.46	40.19	40.45	41.10	41.75	42.37
19	41.19	41.50	41.55	41.62	---	---	40.43	40.17	40.51	41.12	41.77	42.40
20	41.22	41.52	41.66	41.56	---	---	40.40	40.12	40.53	41.14	41.79	42.41
21	41.25	41.56	41.69	41.60	---	---	40.37	40.17	40.53	41.16	41.79	42.43
22	41.27	41.55	41.69	41.56	---	---	40.34	40.14	40.52	41.17	41.81	42.45
23	41.26	41.53	41.61	41.61	---	---	40.28	40.09	40.57	41.21	41.84	42.47
24	41.23	41.48	41.69	41.64	---	---	40.30	40.13	40.60	41.24	41.87	42.51
25	41.27	41.49	41.70	41.58	---	---	40.33	40.18	40.61	41.24	41.91	42.53
26	41.30	41.63	41.68	41.54	---	---	40.32	40.19	40.62	41.26	41.90	42.52
27	41.31	41.59	41.76	41.68	---	---	40.29	40.21	40.65	41.29	41.90	42.56
28	41.33	41.51	41.76	41.76	---	---	40.34	40.21	40.67	41.33	41.93	42.59
29	41.30	41.60	41.70	41.69	---	---	40.30	40.23	40.66	41.37	41.95	42.59
30	41.28	41.58	41.73	41.58	---	---	40.25	40.24	40.66	41.40	41.95	42.65
31	41.32	---	41.75	41.63	---	---	---	40.26	---	41.42	41.97	---
WTR YR	2005	MEAN	41.24	HIGH	40.09	LOW	42.65					

GROUND-WATER LEVELS
ORANGE COUNTY—Continued

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



PASQUOTANK COUNTY

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

LOCATION.--Lat 36°18'30.1", long 76°16'31.4", 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 station.

DATUM.--Land-surface datum is 15 ft above NGVD of 1929 (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.

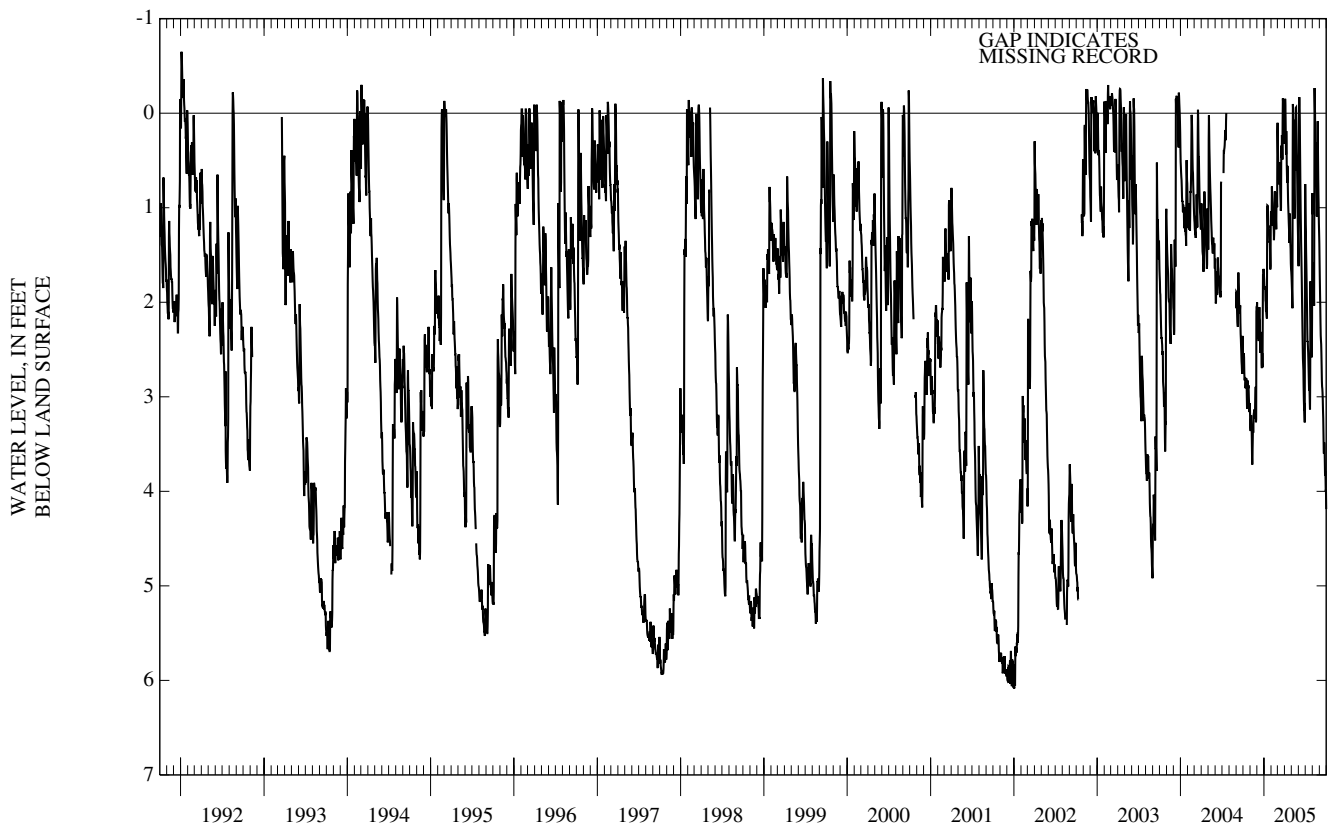
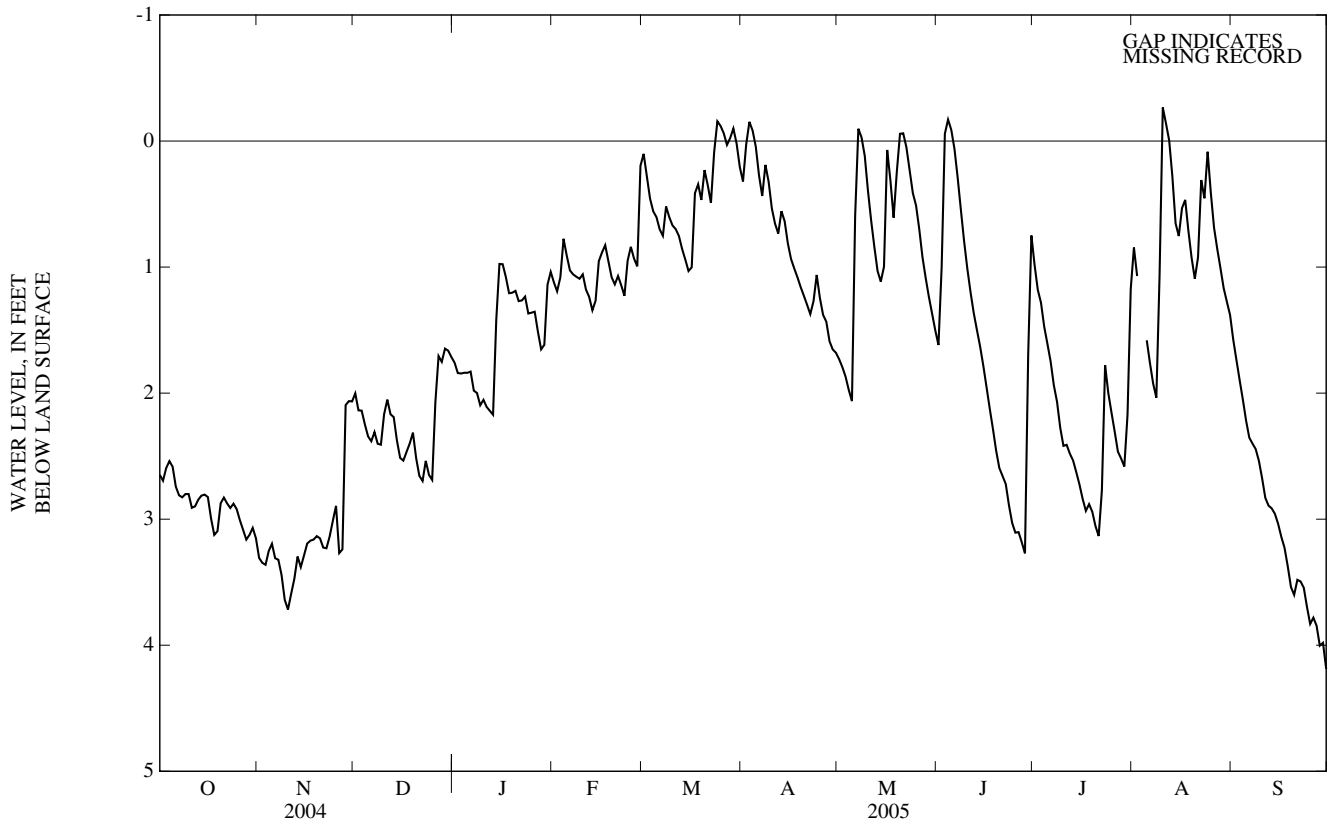
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.56 ft above land-surface datum, Oct. 1, 2000; lowest water level recorded, 6.15 ft below land-surface datum, Jan. 2, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.65	3.31	2.00	1.76	1.12	0.10	0.32	1.73	1.62	0.98	0.84	1.58
2	2.69	3.35	2.14	1.84	1.19	0.28	0.03	1.79	1.00	1.18	1.07	1.74
3	2.59	3.36	2.14	1.84	1.08	0.46	-0.15	1.87	-0.06	1.28	---	1.90
4	2.54	3.25	2.25	1.84	0.78	0.56	-0.08	1.97	-0.17	1.47	---	2.05
5	2.58	3.19	2.34	1.84	0.91	0.60	0.05	2.06	-0.09	1.61	1.58	2.22
6	2.74	3.31	2.38	1.83	1.03	0.70	0.27	0.59	0.06	1.75	1.76	2.35
7	2.81	3.32	2.31	1.98	1.06	0.75	0.44	-0.10	0.29	1.94	1.92	2.40
8	2.83	3.44	2.40	2.00	1.08	0.52	0.19	-0.03	0.55	2.07	2.04	2.44
9	2.80	3.64	2.41	2.10	1.09	0.60	0.32	0.12	0.79	2.27	1.07	2.54
10	2.80	3.72	2.17	2.05	1.06	0.67	0.53	0.39	1.01	2.42	-0.27	2.68
11	2.91	3.59	2.05	2.11	1.18	0.70	0.66	0.63	1.20	2.41	-0.14	2.83
12	2.90	3.47	2.17	2.14	1.24	0.75	0.73	0.84	1.36	2.48	0.00	2.89
13	2.85	3.30	2.19	2.17	1.34	0.86	0.56	1.03	1.50	2.53	0.28	2.91
14	2.81	3.38	2.38	1.42	1.27	0.94	0.64	1.11	1.63	2.63	0.65	2.96
15	2.81	3.29	2.51	0.98	0.95	1.03	0.81	1.00	1.78	2.72	0.75	3.04
16	2.82	3.19	2.54	0.98	0.88	1.00	0.94	0.07	1.95	2.84	0.53	3.14
17	3.00	3.17	2.47	1.08	0.83	0.41	1.01	0.31	2.12	2.93	0.47	3.23
18	3.12	3.16	2.40	1.21	0.95	0.34	1.08	0.61	2.28	2.88	0.71	3.37
19	3.10	3.13	2.31	1.20	1.08	0.47	1.16	0.24	2.46	2.94	0.93	3.54
20	2.87	3.15	2.52	1.19	1.14	0.23	1.23	-0.06	2.59	3.05	1.09	3.60
21	2.83	3.23	2.66	1.27	1.07	0.35	1.30	-0.06	2.66	3.13	0.92	3.48
22	2.88	3.23	2.70	1.26	1.14	0.49	1.37	0.05	2.72	2.77	0.31	3.49
23	2.91	3.14	2.54	1.23	1.23	0.09	1.27	0.23	2.89	1.78	0.45	3.54
24	2.88	3.01	2.65	1.37	0.95	-0.16	1.06	0.41	3.03	2.00	0.09	3.70
25	2.92	2.89	2.69	1.36	0.84	-0.12	1.25	0.51	3.11	2.15	0.41	3.83
26	3.01	3.27	2.07	1.35	0.93	-0.06	1.38	0.70	3.10	2.31	0.69	3.78
27	3.08	3.24	1.71	1.51	0.99	0.03	1.43	0.92	3.18	2.46	0.86	3.84
28	3.16	2.09	1.75	1.65	0.20	-0.02	1.59	1.08	3.27	2.52	1.01	4.00
29	3.12	2.06	1.65	1.62	---	-0.10	1.65	1.24	1.69	2.58	1.17	3.98
30	3.07	2.07	1.66	1.14	---	0.02	1.68	1.37	0.75	2.17	1.27	4.19
31	3.15	---	1.71	1.04	---	0.21	---	1.50	---	1.17	1.38	---
WTR YR	2005	MEAN 1.73	HIGH -0.27	LOW 4.19								

GROUND-WATER LEVELS
PASQUOTANK COUNTY—Continued

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



PITT COUNTY

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

LOCATION.--Lat 35°32'18", long 77°15'41", 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 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 NGVD of 1929 (levels by Soil Conservation Service). Measuring point: Top of instrument shelf, 3.72 ft above land-surface datum.

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, 8.87 ft below land-surface datum, Oct. 10, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

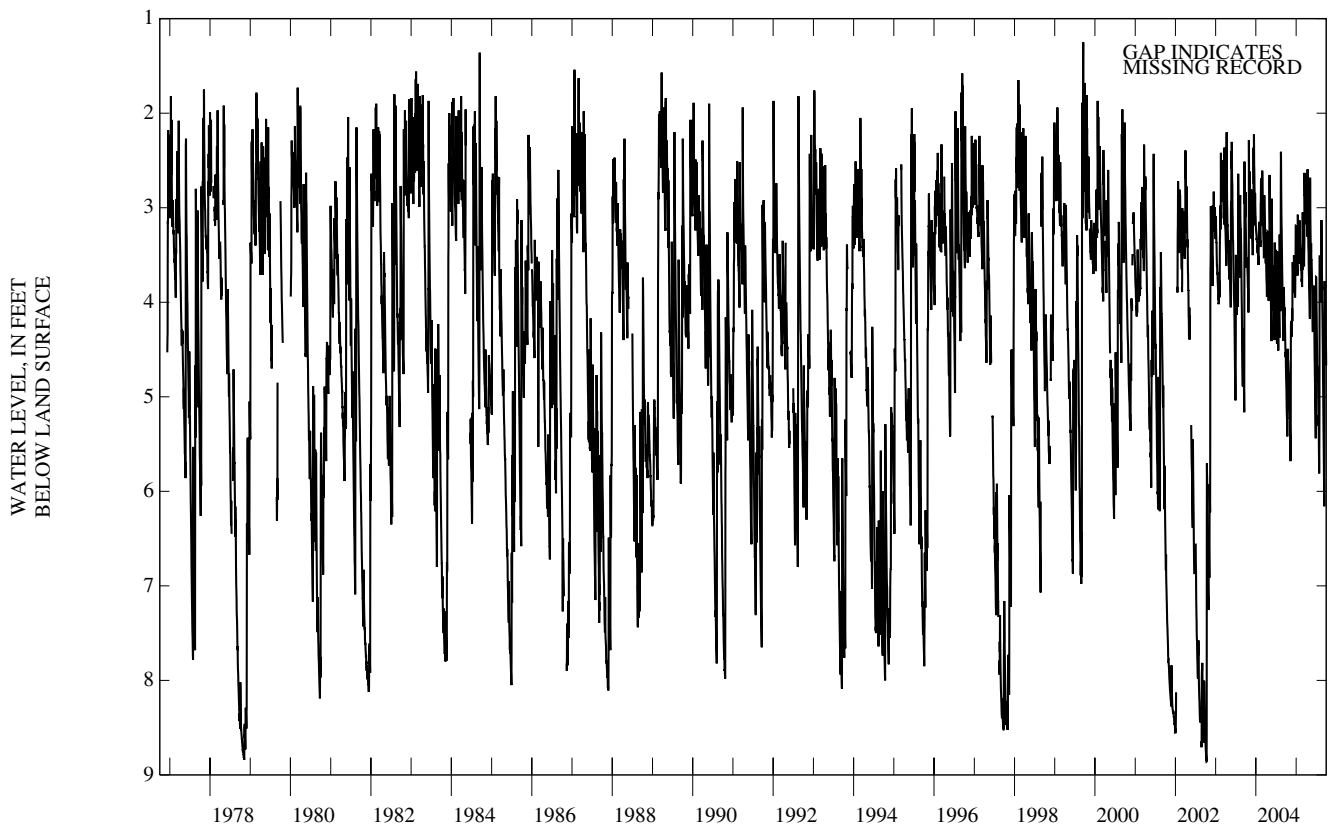
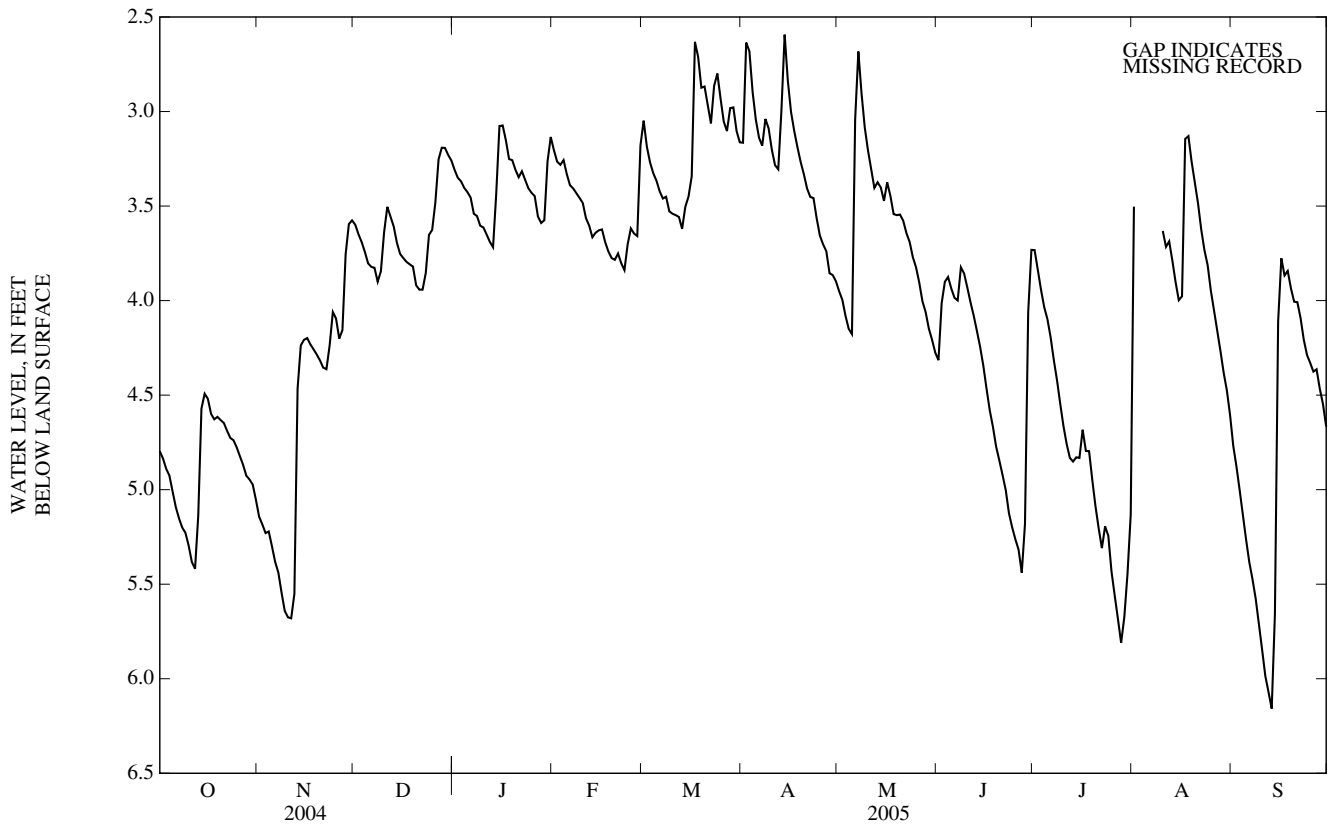
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.80	5.14	3.60	3.31	3.20	3.05	3.17	3.95	4.32	3.73	3.50	4.77
2	4.84	5.18	3.65	3.35	3.26	3.19	2.64	4.00	4.01	3.84	---	4.88
3	4.89	5.23	3.69	3.37	3.28	3.27	2.68	4.08	3.90	3.94	---	5.00
4	4.93	5.22	3.74	3.40	3.26	3.33	2.90	4.15	3.88	4.03	---	5.13
5	5.01	5.30	3.80	3.43	3.33	3.37	3.04	4.18	3.94	4.10	---	5.26
6	5.09	5.38	3.82	3.45	3.39	3.42	3.14	3.04	3.99	4.19	---	5.38
7	5.15	5.44	3.83	3.54	3.41	3.46	3.18	2.68	4.00	4.32	---	5.47
8	5.20	5.54	3.90	3.55	3.43	3.45	3.04	2.91	3.82	4.42	---	5.58
9	5.23	5.64	3.85	3.60	3.46	3.53	3.09	3.08	3.86	4.55	---	5.71
10	5.29	5.68	3.64	3.61	3.48	3.54	3.20	3.20	3.93	4.66	3.63	5.85
11	5.38	5.68	3.50	3.65	3.56	3.55	3.28	3.31	4.01	4.76	3.72	5.99
12	5.42	5.55	3.56	3.69	3.60	3.56	3.31	3.40	4.08	4.83	3.69	6.07
13	5.14	4.47	3.61	3.72	3.67	3.62	2.99	3.37	4.16	4.85	3.79	6.16
14	4.57	4.24	3.69	3.43	3.64	3.50	2.59	3.40	4.24	4.83	3.90	5.66
15	4.49	4.21	3.75	3.08	3.63	3.45	2.84	3.47	4.34	4.83	4.00	4.11
16	4.52	4.20	3.78	3.07	3.62	3.34	3.00	3.37	4.47	4.68	3.98	3.78
17	4.60	4.23	3.80	3.15	3.69	2.63	3.10	3.45	4.58	4.80	3.14	3.87
18	4.63	4.26	3.81	3.25	3.74	2.71	3.19	3.54	4.67	4.80	3.13	3.84
19	4.62	4.29	3.82	3.26	3.78	2.87	3.27	3.55	4.77	4.95	3.27	3.94
20	4.63	4.32	3.92	3.31	3.78	2.87	3.33	3.54	4.85	5.09	3.38	4.01
21	4.65	4.35	3.94	3.35	3.75	2.97	3.41	3.58	4.92	5.20	3.49	4.01
22	4.69	4.36	3.94	3.32	3.80	3.06	3.45	3.64	5.00	5.31	3.62	4.09
23	4.73	4.24	3.85	3.36	3.84	2.86	3.46	3.69	5.13	5.19	3.73	4.21
24	4.74	4.06	3.65	3.40	3.70	2.80	3.57	3.77	5.20	5.24	3.81	4.29
25	4.78	4.09	3.63	3.43	3.62	2.93	3.66	3.82	5.26	5.43	3.95	4.33
26	4.82	4.20	3.48	3.45	3.65	3.05	3.70	3.90	5.32	5.56	4.05	4.38
27	4.87	4.16	3.25	3.56	3.66	3.10	3.74	4.00	5.44	5.68	4.16	4.36
28	4.93	3.75	3.19	3.59	3.18	2.98	3.85	4.06	5.18	5.81	4.27	4.47
29	4.95	3.60	3.19	3.58	---	2.98	3.87	4.15	4.06	5.67	4.38	4.55
30	4.97	3.58	3.23	3.26	---	3.10	3.90	4.21	3.73	5.44	4.48	4.67
31	5.05	---	3.26	3.13	---	3.16	---	4.28	---	5.13	4.61	---

WTR YR 2005 MEAN 4.01 HIGH 2.59 LOW 6.16

GROUND-WATER LEVELS

PITT COUNTY—Continued

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



PITT COUNTY—Continued

353143077303501. County number, PI-614; Ballard's Crossroads well.

LOCATION.--Lat 35°31'44", long 77°30'34", Hydrologic Unit 03020203, at intersection of Crossroads Road and Pocosin Road in Pitt County. Owner: U.S. Geological Survey.

WATER-LEVEL RECORDS

AQUIFER.--Surficial aquifer.

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 15-minute intervals. Satellite telemetry at station.

DATUM.--Land-surface datum is 75 ft above NGVD of 1929 (from topographic map). Measuring point: Bottom of shelter floor, 3.26 ft above land-surface datum.

REMARKS.--Well is operated as part of a U.S. Geological Survey Ground-water Resources Program recharge study.

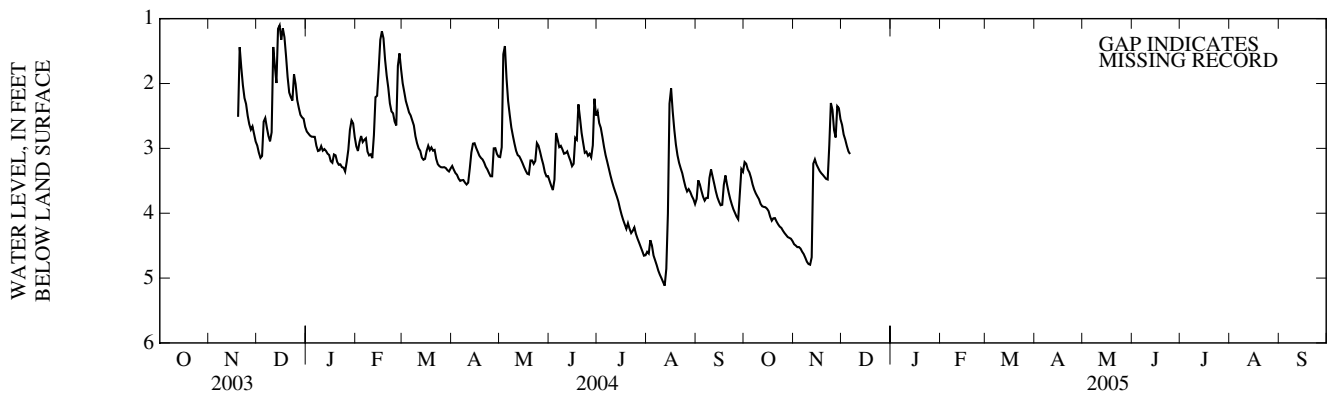
PERIOD OF RECORD.--November 2003 to December 2004 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.81 ft below land-surface datum, Dec. 14, 2003; lowest water level recorded, 5.14 ft below land-surface datum, Aug. 12, 13, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.21	4.48	2.64	---	---	---	---	---	---	---	---	---
2	3.24	4.50	2.79	---	---	---	---	---	---	---	---	---
3	3.33	4.52	2.87	---	---	---	---	---	---	---	---	---
4	3.37	4.52	2.96	---	---	---	---	---	---	---	---	---
5	3.45	4.54	3.05	---	---	---	---	---	---	---	---	---
6	3.56	4.59	3.09	---	---	---	---	---	---	---	---	---
7	3.63	4.63	---	---	---	---	---	---	---	---	---	---
8	3.69	4.69	---	---	---	---	---	---	---	---	---	---
9	3.74	4.75	---	---	---	---	---	---	---	---	---	---
10	3.78	4.78	---	---	---	---	---	---	---	---	---	---
11	3.85	4.79	---	---	---	---	---	---	---	---	---	---
12	3.89	4.68	---	---	---	---	---	---	---	---	---	---
13	3.90	3.24	---	---	---	---	---	---	---	---	---	---
14	3.91	3.17	---	---	---	---	---	---	---	---	---	---
15	3.93	3.25	---	---	---	---	---	---	---	---	---	---
16	3.97	3.30	---	---	---	---	---	---	---	---	---	---
17	4.05	3.35	---	---	---	---	---	---	---	---	---	---
18	4.12	3.38	---	---	---	---	---	---	---	---	---	---
19	4.08	3.41	---	---	---	---	---	---	---	---	---	---
20	4.08	3.44	---	---	---	---	---	---	---	---	---	---
21	4.13	3.47	---	---	---	---	---	---	---	---	---	---
22	4.17	3.48	---	---	---	---	---	---	---	---	---	---
23	4.21	2.95	---	---	---	---	---	---	---	---	---	---
24	4.23	2.30	---	---	---	---	---	---	---	---	---	---
25	4.27	2.41	---	---	---	---	---	---	---	---	---	---
26	4.31	2.72	---	---	---	---	---	---	---	---	---	---
27	4.34	2.83	---	---	---	---	---	---	---	---	---	---
28	4.37	2.35	---	---	---	---	---	---	---	---	---	---
29	4.38	2.38	---	---	---	---	---	---	---	---	---	---
30	4.39	2.55	---	---	---	---	---	---	---	---	---	---
31	4.43	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 3.71 HIGH 2.30 LOW 4.79



PRECIPITATION RECORDS

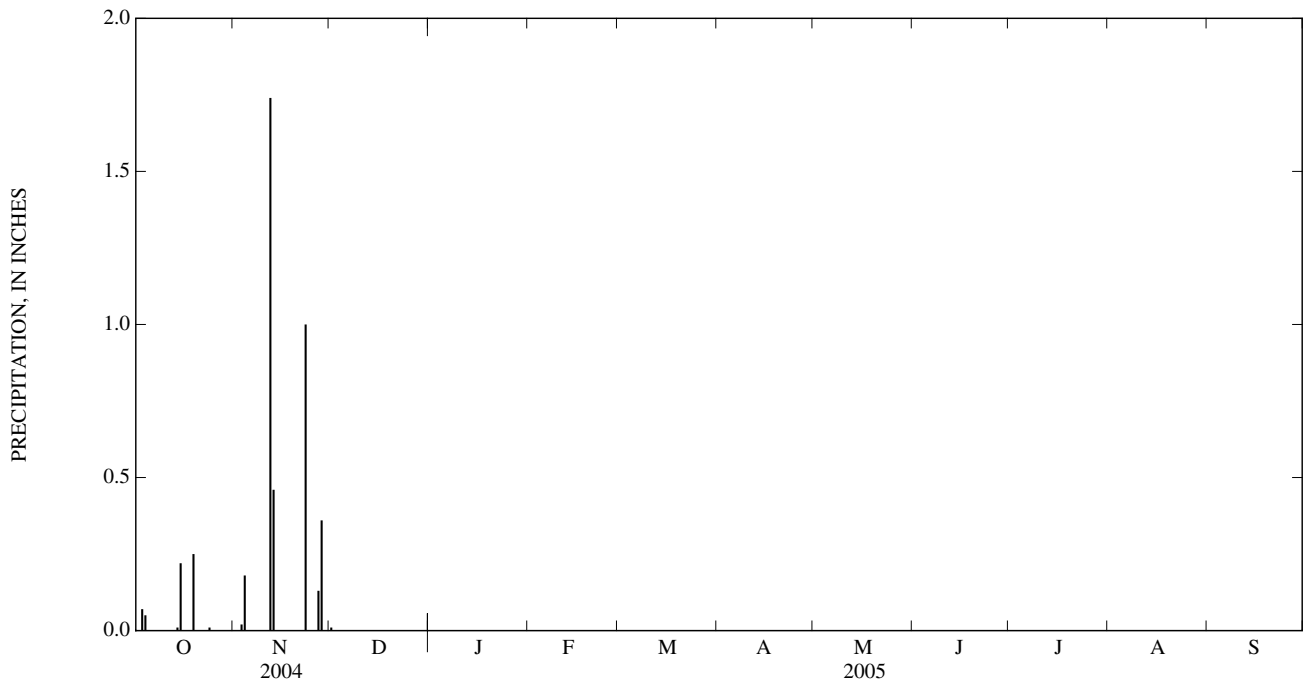
PERIOD OF RECORD.--November 2003 to December 2004.

GAGE.--Tipping-bucket raingage collecting data at 15-minute intervals. Satellite telemetry at station.

REMARKS.--Gage is operated as part of a U.S. Geological Survey Ground-water Resources Program recharge study. 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 2004 TO SEPTEMBER 2005
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.01	---	---	---	---	---	---	---	---	---
2	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
3	0.07	0.02	0.00	---	---	---	---	---	---	---	---	---
4	0.05	0.18	0.00	---	---	---	---	---	---	---	---	---
5	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
6	0.00	0.00	0.00	---	---	---	---	---	---	---	---	---
7	0.00	0.00	---	---	---	---	---	---	---	---	---	---
8	0.00	0.00	---	---	---	---	---	---	---	---	---	---
9	0.00	0.00	---	---	---	---	---	---	---	---	---	---
10	0.00	0.00	---	---	---	---	---	---	---	---	---	---
11	0.00	0.00	---	---	---	---	---	---	---	---	---	---
12	0.00	1.74	---	---	---	---	---	---	---	---	---	---
13	0.00	0.46	---	---	---	---	---	---	---	---	---	---
14	0.01	0.00	---	---	---	---	---	---	---	---	---	---
15	0.22	0.00	---	---	---	---	---	---	---	---	---	---
16	0.00	0.00	---	---	---	---	---	---	---	---	---	---
17	0.00	0.00	---	---	---	---	---	---	---	---	---	---
18	0.00	0.00	---	---	---	---	---	---	---	---	---	---
19	0.25	0.00	---	---	---	---	---	---	---	---	---	---
20	0.00	0.00	---	---	---	---	---	---	---	---	---	---
21	0.00	0.00	---	---	---	---	---	---	---	---	---	---
22	0.00	0.00	---	---	---	---	---	---	---	---	---	---
23	0.00	1.00	---	---	---	---	---	---	---	---	---	---
24	0.01	0.00	---	---	---	---	---	---	---	---	---	---
25	0.00	0.00	---	---	---	---	---	---	---	---	---	---
26	0.00	0.00	---	---	---	---	---	---	---	---	---	---
27	0.00	0.13	---	---	---	---	---	---	---	---	---	---
28	0.00	0.36	---	---	---	---	---	---	---	---	---	---
29	0.00	0.00	---	---	---	---	---	---	---	---	---	---
30	0.00	0.00	---	---	---	---	---	---	---	---	---	---
31	0.00	---	---	---	---	---	---	---	---	---	---	---
TOTAL	0.61	3.89	---	---	---	---	---	---	---	---	---	---



ROCKINGHAM COUNTY

362334079421601. County number, RK-227; DENR Upper Piedmont Research Station MW-N1S (Regolith well).

LOCATION.--Lat 36°23'35", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 15 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 15 ft, sand filter packed from 4 to 15 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.76 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.98 ft above land-surface datum.

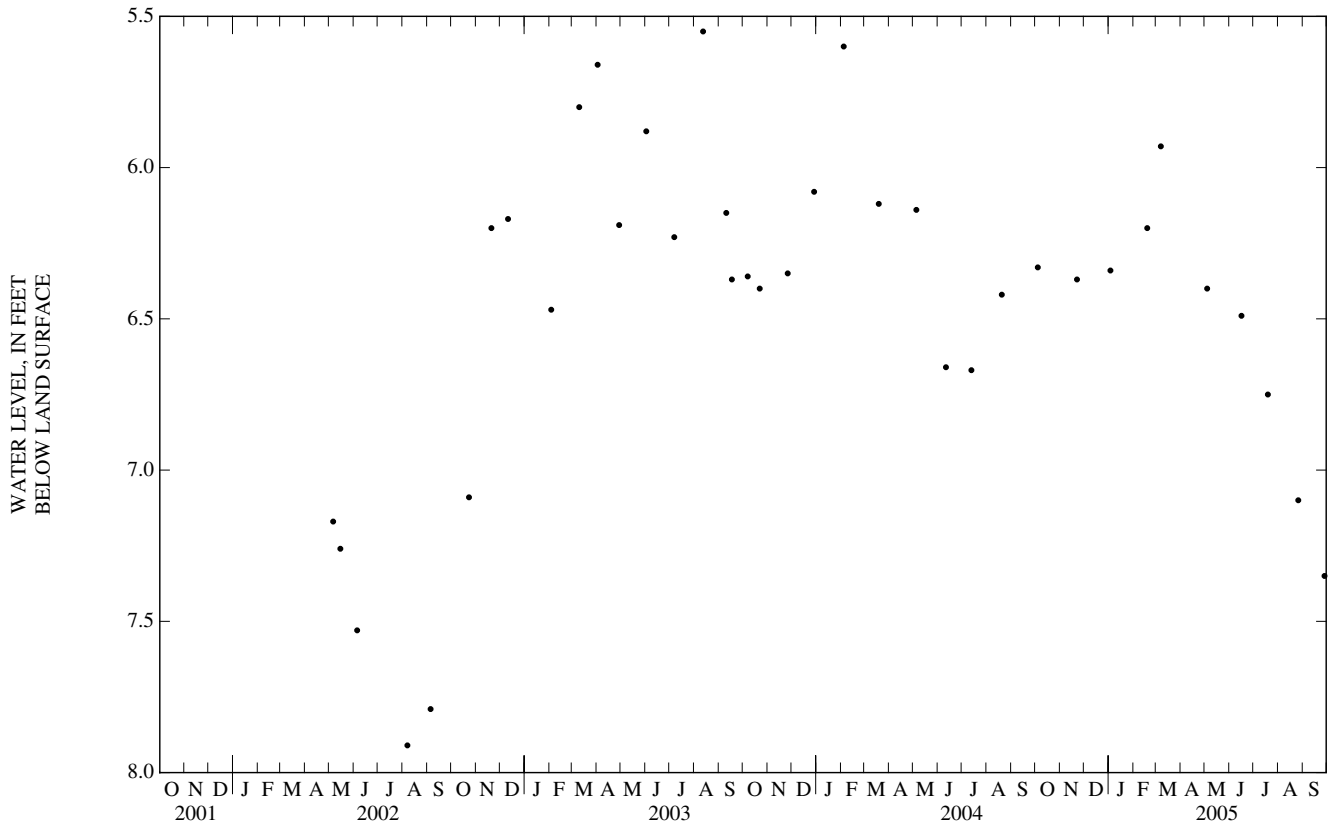
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.55 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.91 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	6.33	JAN 03	6.34	MAR 07	5.93	JUN 16	6.49	AUG 26	7.10
NOV 22	6.37	FEB 18	6.20	MAY 04	6.40	JUL 19	6.75	SEP 28	7.35



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362334079421602. County number, RK-228; DENR Upper Piedmont Research Station MW-N11 (Transition Zone well).

LOCATION.--Lat 36°23'35", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 65 ft, diameter 4 in., cased to 50 ft, screened interval from 50 to 65 ft, sand filter packed from 20 to 50 ft, natural fill from 50 to 65 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.27 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.82 ft above land-surface datum.

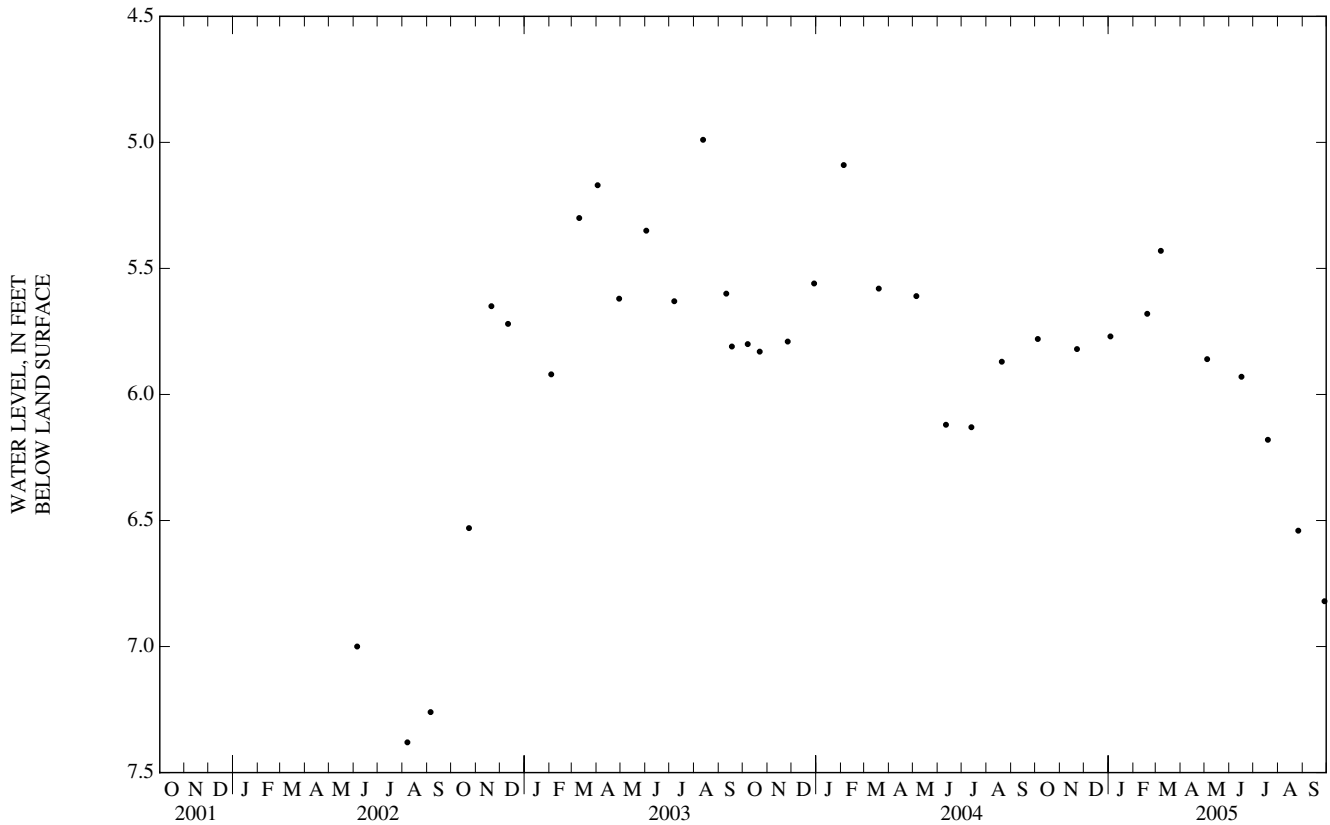
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.99 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.38 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	5.78	JAN 03	5.77	MAR 07	5.43	JUN 16	5.93	AUG 26	6.54
NOV 22	5.82	FEB 18	5.68	MAY 04	5.86	JUL 19	6.18	SEP 28	6.82



ROCKINGHAM COUNTY—Continued

362334079421603. County number, RK-229; DENR Upper Piedmont Research Station MW-N1D (Bedrock well).

LOCATION.--Lat 36°23'35", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6 in., cased to 100 ft, open hole from 100 to 300 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.51 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.90 ft above land-surface datum.

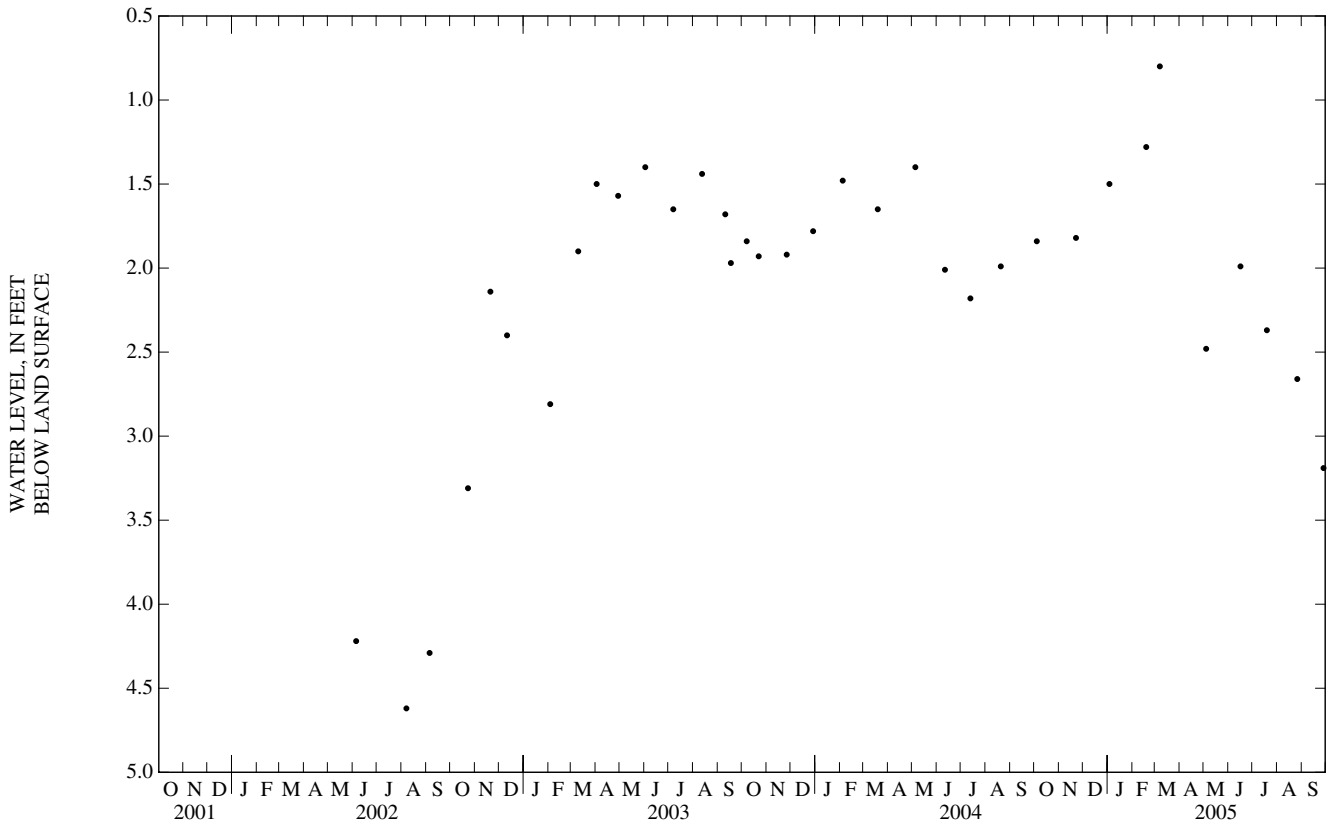
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.80 ft below land-surface datum, March 7, 2005; lowest water level measured, 4.62 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	1.84	JAN 03	1.50	MAR 07	.80	JUN 16	1.99	AUG 26	2.66
NOV 22	1.82	FEB 18	1.28	MAY 04	2.48	JUL 19	2.37	SEP 28	3.19



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362331079421601. County number, RK-230; DENR Upper Piedmont Research Station MW-N2S (Regolith well).

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 13 ft, diameter 4 in., cased to 3 ft, screened interval from 3 to 13 ft, sand filter packed from 3 to 13 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.48 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.47 ft above land-surface datum.

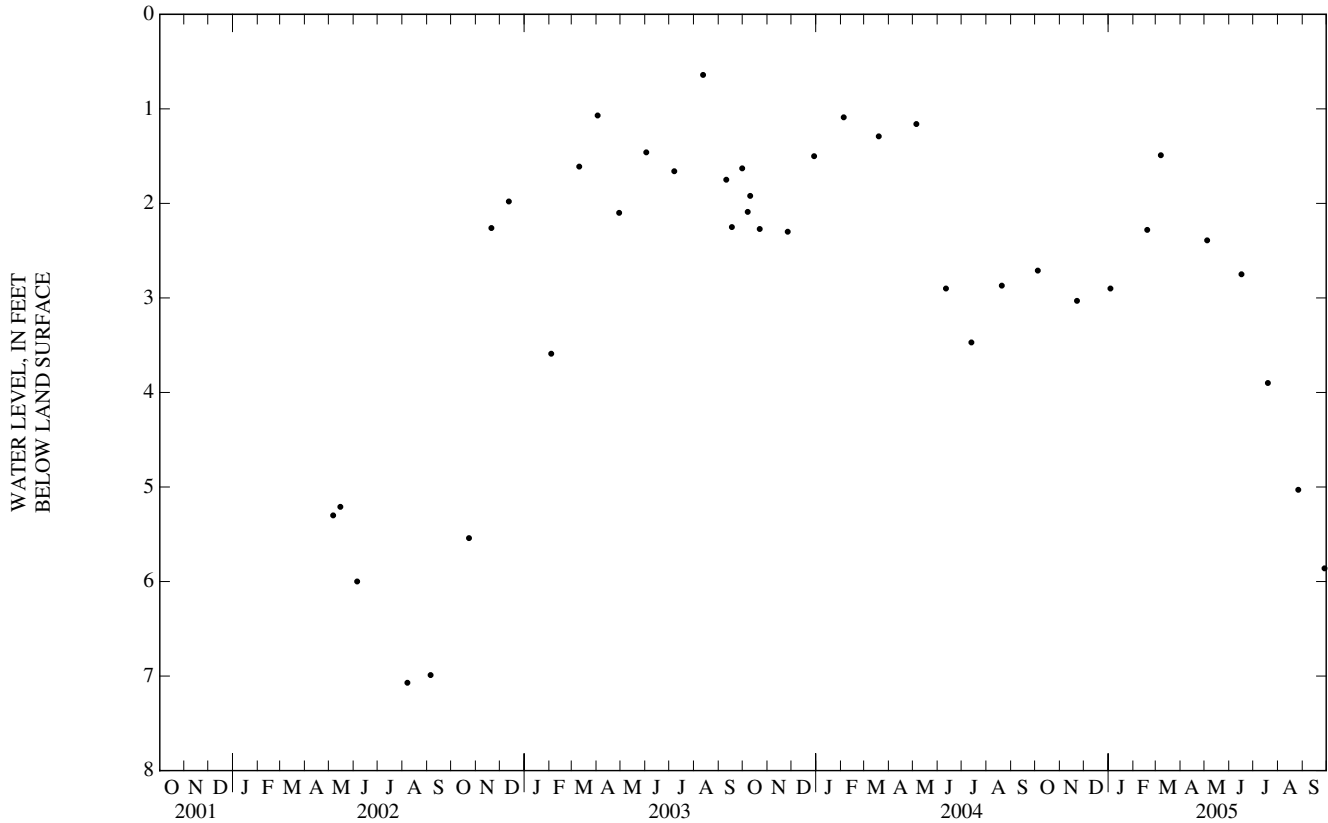
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.64 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.07 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	2.71	JAN 03	2.90	MAR 07	1.49	JUN 16	2.75	AUG 26	5.03
NOV 22	3.03	FEB 18	2.28	MAY 04	2.39	JUL 19	3.90	SEP 28	5.86



ROCKINGHAM COUNTY—Continued

362331079421602. County number, RK-231; DENR Upper Piedmont Research Station MW-N2I (Transition Zone well).

LOCATION.--Lat 36°23'32", long 79°42'16", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 4 in., cased to 25 ft, open hole from 25 to 50 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.56 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.06 ft above land-surface datum.

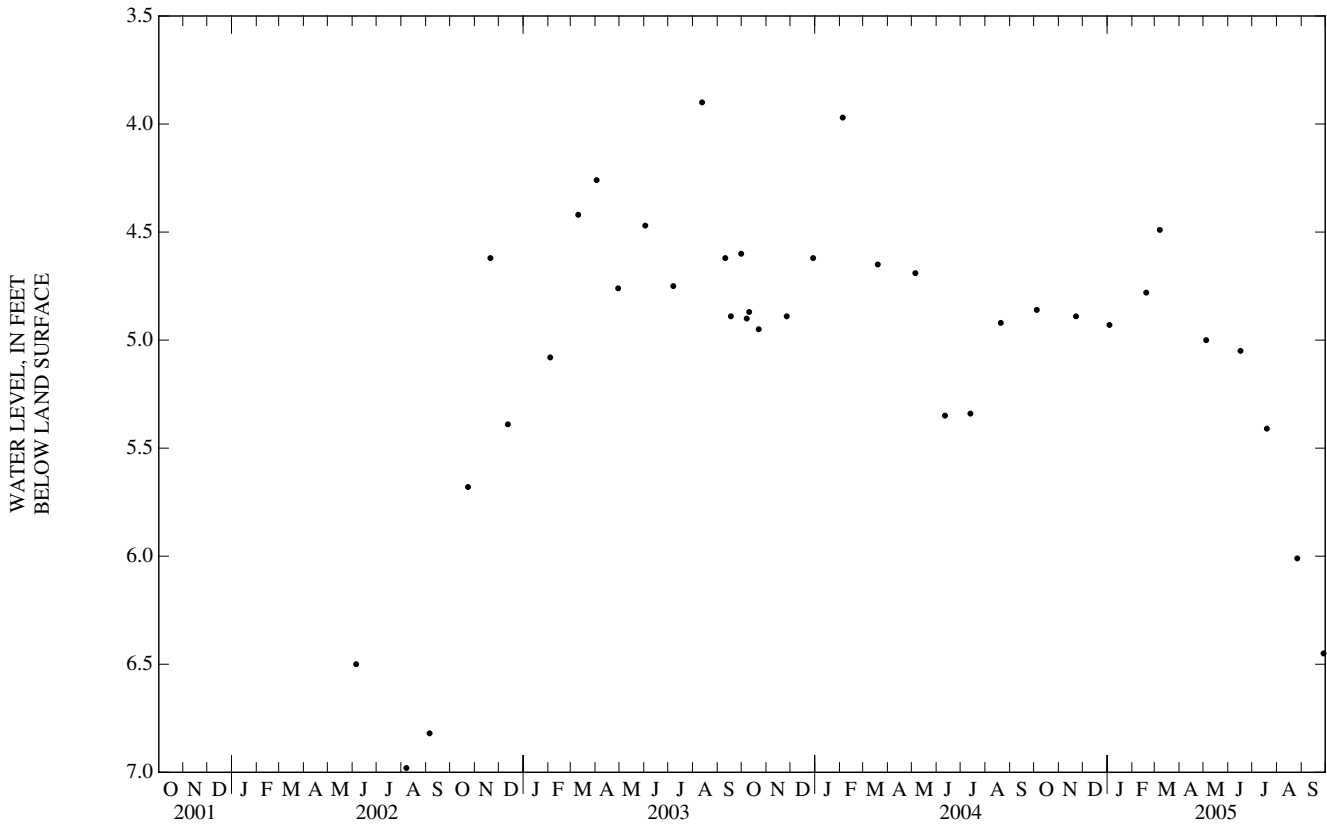
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.90 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 6.98 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.86	JAN 03	4.93	MAR 07	4.49	JUN 16	5.05	AUG 26	6.01
NOV 22	4.89	FEB 18	4.78	MAY 04	5.00	JUL 19	5.41	SEP 28	6.45



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362331079421603. County number, RK-232; DENR Upper Piedmont Research Station MW-N2D (Bedrock well).

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 4 in., cased to 60 ft, open hole from 60 to 300 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.91 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.01 ft above land-surface datum.

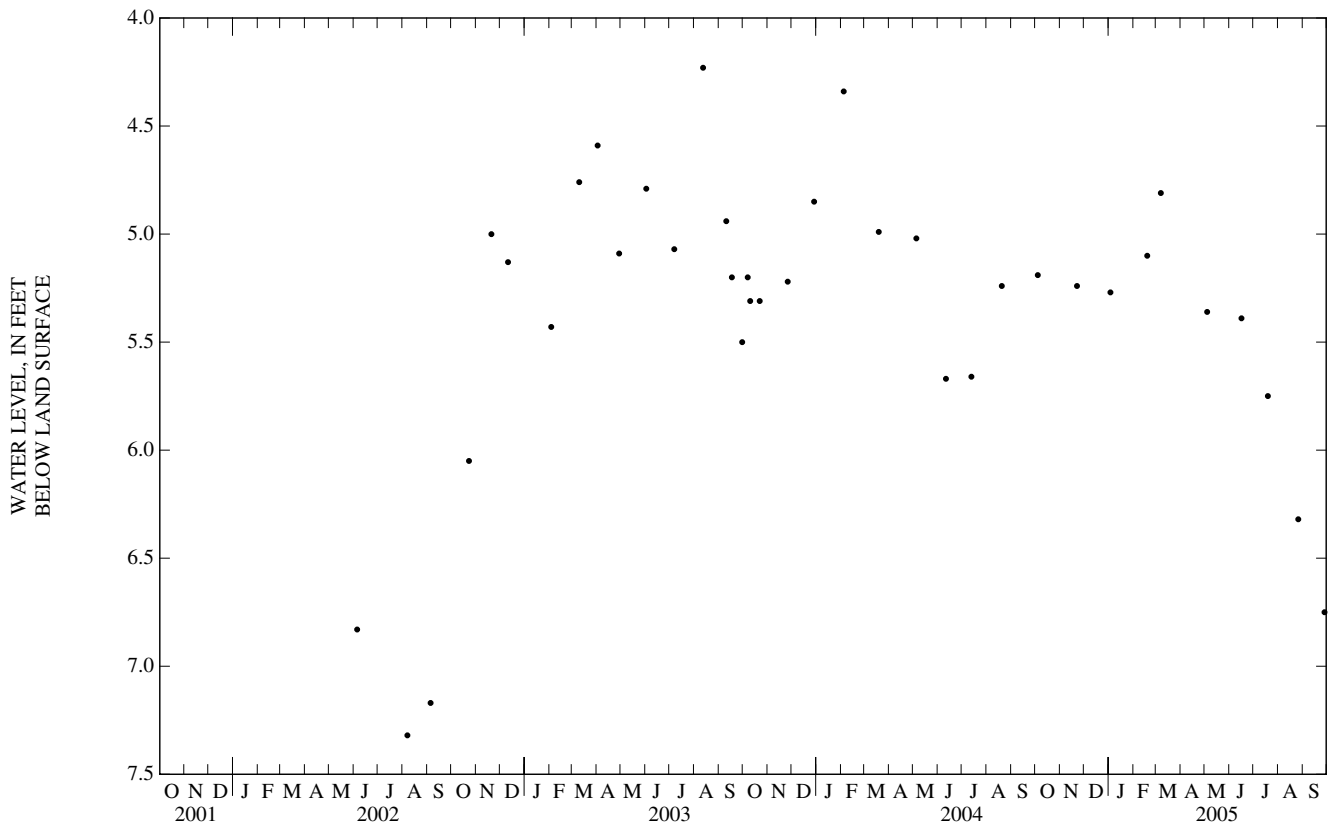
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.23 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.32 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	5.19	JAN 03	5.27	MAR 07	4.81	JUN 16	5.39	AUG 26	6.32
NOV 22	5.24	FEB 18	5.10	MAY 04	5.36	JUL 19	5.75	SEP 28	6.75



ROCKINGHAM COUNTY—Continued

362328079421701. County number, RK-233; DENR Upper Piedmont Research Station MW-N3I (Transition Zone well).

LOCATION.--Lat 36°23'28", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 30 ft, diameter 4 in., cased to 15 ft, screened interval from 25 to 50 ft, sand filter packed from 12 to 30 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 770.44 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.20 ft above land-surface datum.

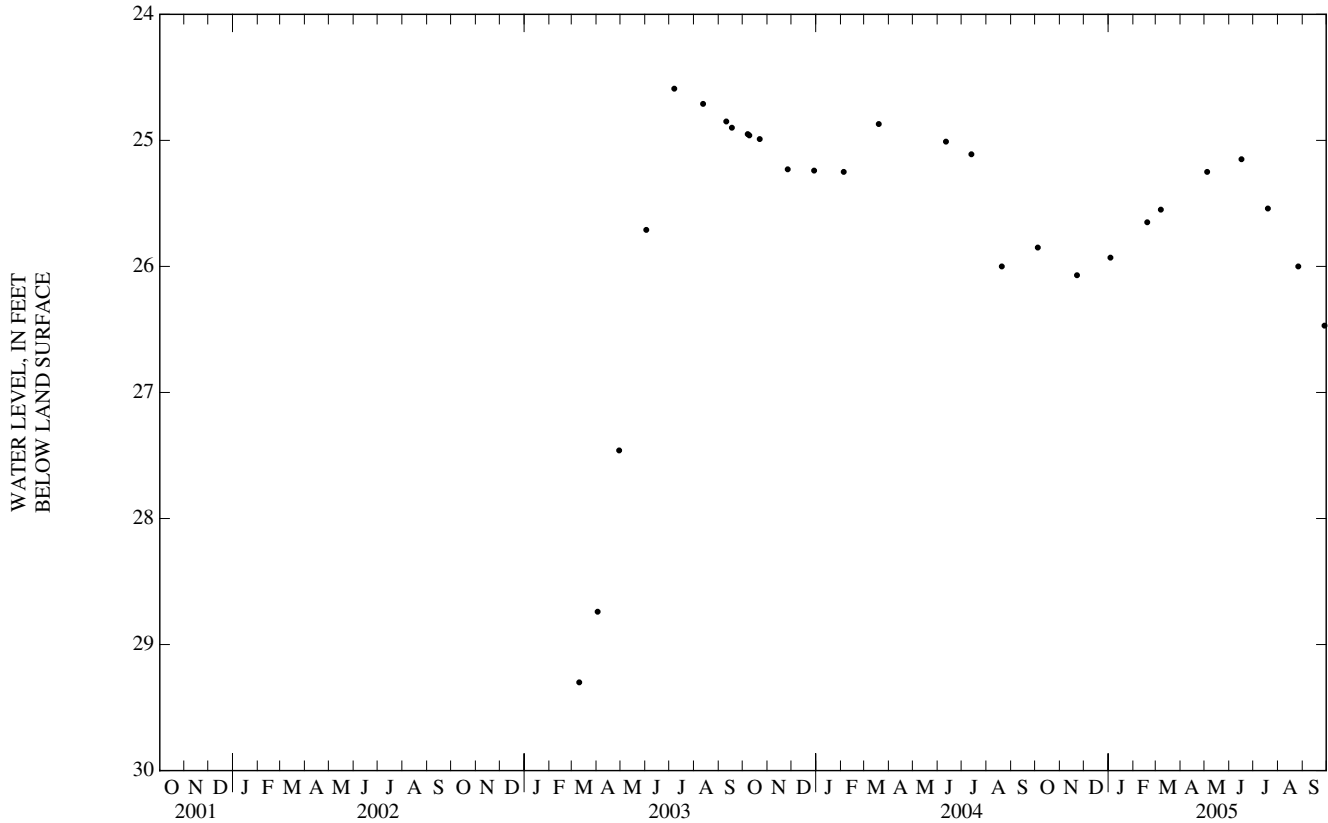
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--August 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.59 ft below land-surface datum, July 7, 2003; lowest water level measured, 29.30 ft below land-surface datum, Mar. 10, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	25.85	JAN 03	25.93	MAR 07	25.55	JUN 16	25.15	AUG 26	26.00
NOV 22	26.07	FEB 18	25.65	MAY 04	25.25	JUL 19	25.54	SEP 28	26.47



GROUND-WATER LEVELS

ROCKINGHAM COUNTY—Continued

362328079421702. County number, RK-234; DENR Upper Piedmont Research Station MW-N3D (Bedrock well).

LOCATION.--Lat 36°23'28", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of State Highway 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 260 ft, diameter 6 in., cased to 40 ft, open hole from 40 to 300 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 770.26 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.26 ft above land-surface datum.

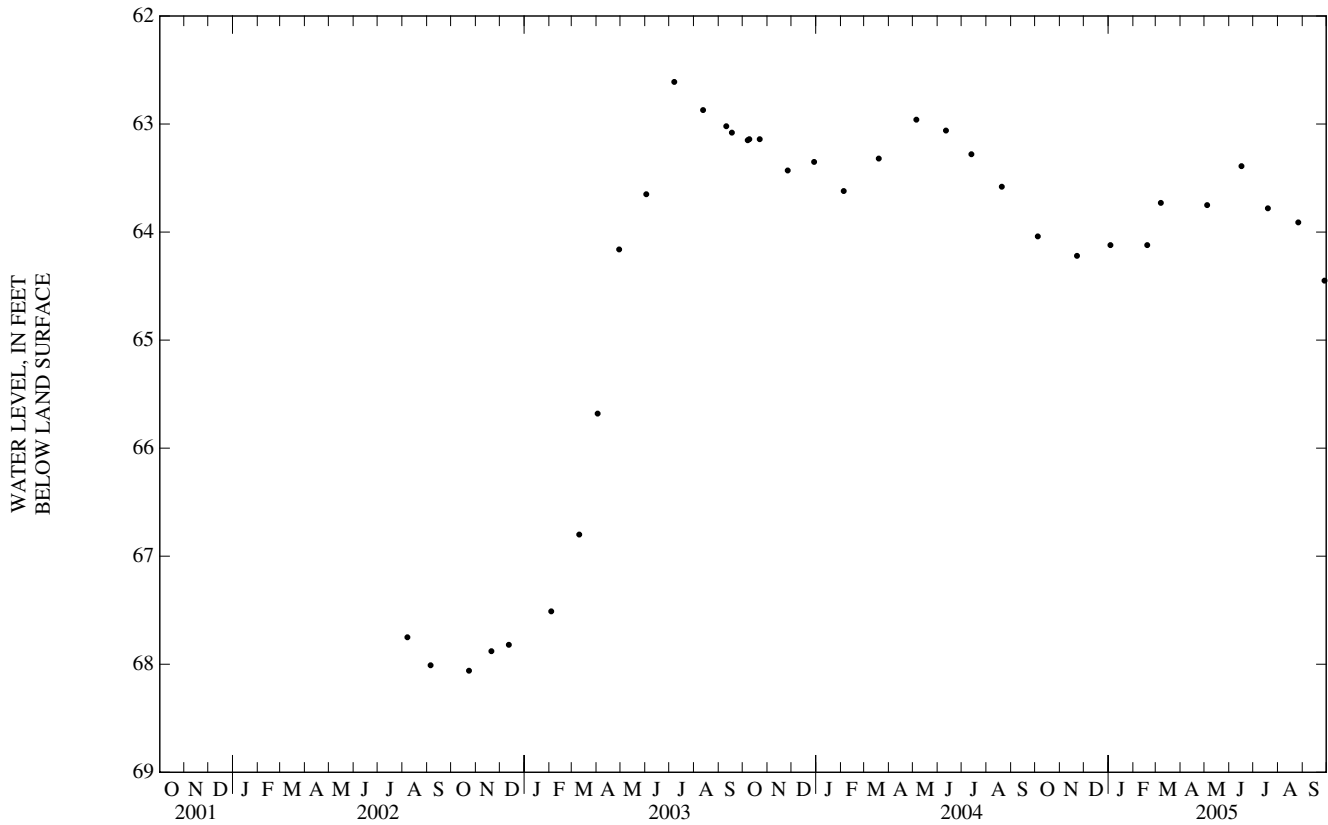
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--August 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.61 ft below land-surface datum, July 7, 2003; lowest water level measured, 68.06 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	64.04	JAN 03	64.12	MAR 07	63.73	JUN 16	63.39	AUG 26	63.91
NOV 22	64.22	FEB 18	64.12	MAY 04	63.75	JUL 19	63.78	SEP 28	64.45



ROCKINGHAM COUNTY—Continued

362323079421201. County number, RK-235; DENR Upper Piedmont Research Station MW-N4I (Transition Zone well).

LOCATION.--Lat 36°23'23", long 79°42'13", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 70 ft, diameter 4 in., cased to 44 ft, open hole from 44 to 70 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 839.63 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.80 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study. Feb. 2005 to Aug. 2005, measuring point floor of shelter, 2.85 ft above land-surface datum. Shelter removed Aug. 2005, measuring point returned to 2.80 ft above land-surface datum.

PERIOD OF RECORD.--June 2002 to current year. Continuous record February 2005 to August 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.36 ft below land-surface datum, July 7, 2003; lowest water level measured, 37.54 ft below land-surface datum, Oct. 23, 2002.

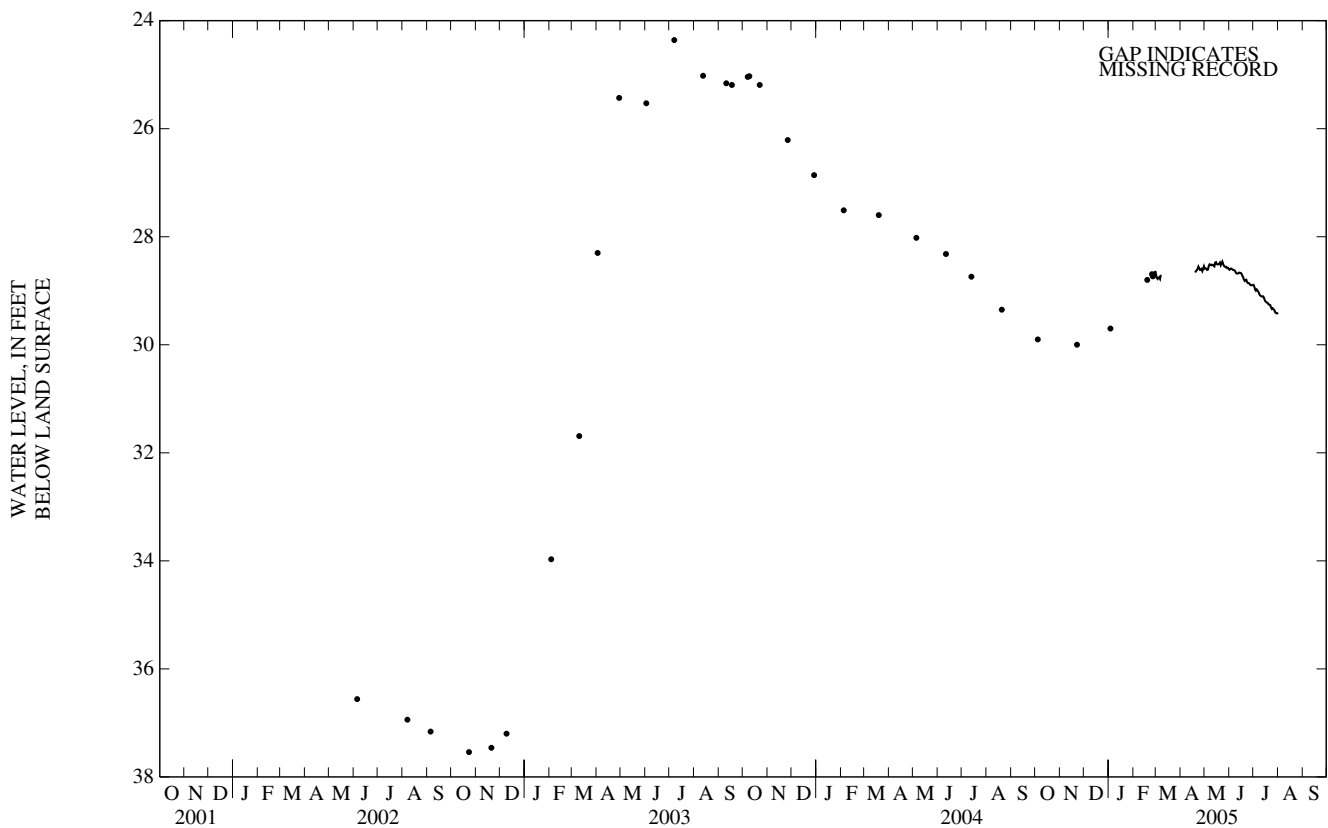
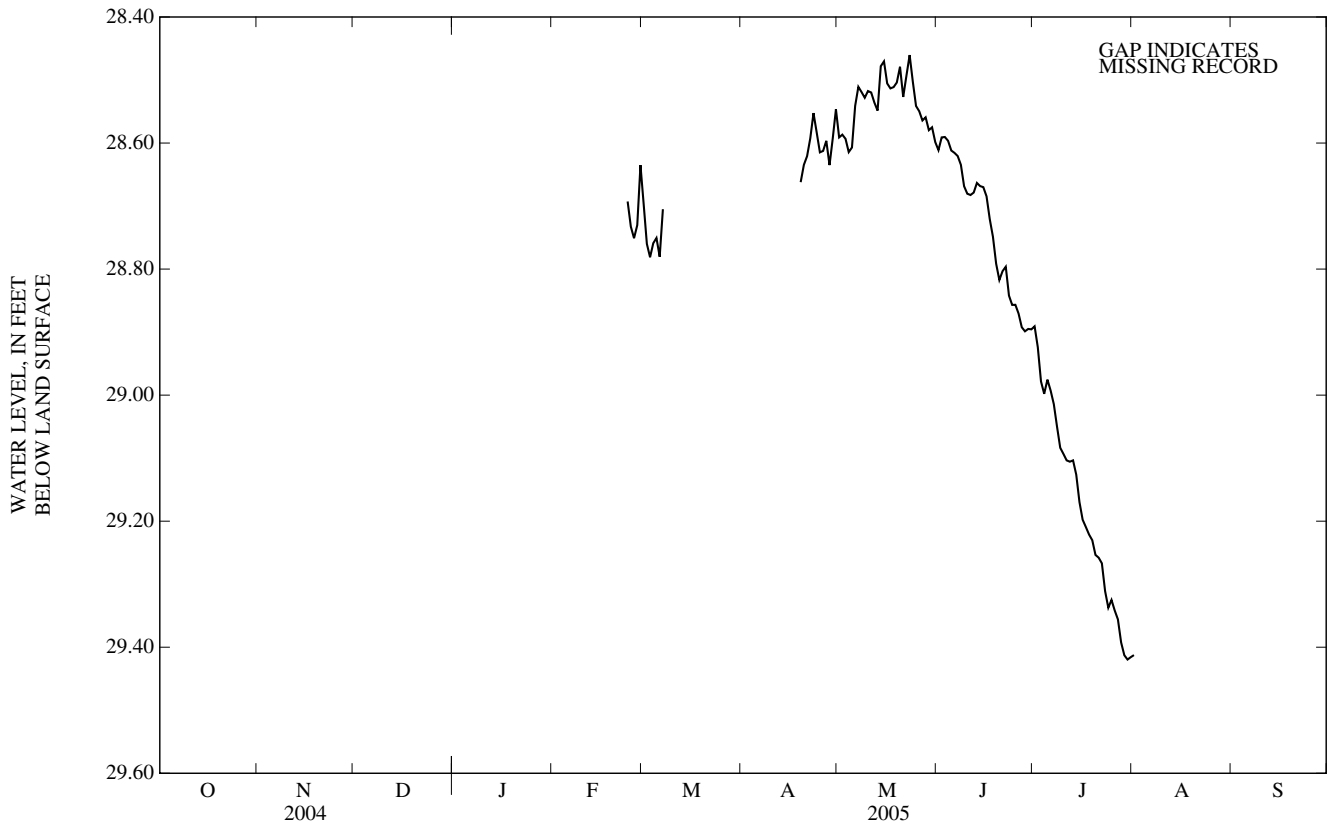
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	28.70	---	28.59	28.61	28.89	29.41	---
2	---	---	---	---	---	28.76	---	28.59	28.59	28.92	---	---
3	---	---	---	---	---	28.78	---	28.59	28.59	28.98	---	---
4	---	---	---	---	---	28.76	---	28.61	28.60	29.00	---	---
5	---	---	---	---	---	28.75	---	28.61	28.61	28.98	---	---
6	---	---	---	---	---	28.78	---	28.54	28.62	28.99	---	---
7	---	---	---	---	---	28.70	---	28.51	28.62	29.01	---	---
8	---	---	---	---	---	---	---	28.52	28.63	29.05	---	---
9	---	---	---	---	---	---	---	28.53	28.67	29.08	---	---
10	---	---	---	---	---	---	---	28.52	28.68	29.09	---	---
11	---	---	---	---	---	---	---	28.52	28.68	29.10	---	---
12	---	---	---	---	---	---	---	28.54	28.68	29.11	---	---
13	---	---	---	---	---	---	---	28.55	28.66	29.10	---	---
14	---	---	---	---	---	---	---	28.48	28.67	29.13	---	---
15	---	---	---	---	---	---	---	28.47	28.67	29.17	---	---
16	---	---	---	---	---	---	---	28.51	28.68	29.20	---	---
17	---	---	---	---	---	---	---	28.51	28.72	29.21	---	---
18	---	---	---	---	---	---	---	28.51	28.75	29.22	---	---
19	---	---	---	---	---	---	28.66	28.50	28.79	29.23	---	---
20	---	---	---	---	---	---	28.63	28.48	28.82	29.25	---	---
21	---	---	---	---	---	---	28.62	28.53	28.80	29.26	---	---
22	---	---	---	---	---	---	28.59	28.49	28.80	29.27	---	---
23	---	---	---	---	---	---	28.55	28.46	28.84	29.31	---	---
24	---	---	---	---	28.69	---	28.58	28.50	28.86	29.34	---	---
25	---	---	---	---	28.73	---	28.61	28.54	28.86	29.32	---	---
26	---	---	---	---	28.75	---	28.61	28.55	28.87	29.34	---	---
27	---	---	---	---	28.73	---	28.60	28.56	28.89	29.36	---	---
28	---	---	---	---	28.64	---	28.64	28.56	28.90	29.39	---	---
29	---	---	---	---	---	---	28.59	28.58	28.89	29.41	---	---
30	---	---	---	---	---	---	28.55	28.57	28.90	29.42	---	---
31	---	---	---	---	---	---	---	28.60	---	29.42	---	---

WTR YR 2005 MEAN 28.79 HIGH 28.46 LOW 29.42

GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362323079421201. County number, RK-235; DENR Upper Piedmont Research Station MW-N4I (Transition Zone well).



ROCKINGHAM COUNTY—Continued

362323079421202. County number, RK-236; DENR Upper Piedmont Research Station MW-N4D (Bedrock well).

LOCATION.--Lat 36°23'23", long 79°42'13", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6 in., cased to 80 ft, open hole from 80 to 300 ft.

INSTRUMENTATION.--Walter-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 840.19 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.58 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study. During period of continuous record, Feb. 2005 to Aug. 2005, measuring point floor of shelter, 2.63 ft above land-surface datum. Shelter removed Aug. 2005 and measuring point returned to 2.58 ft above land-surface datum.

PERIOD OF RECORD.--June 2002 to current year. Continuous record February 2005 to August 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.34 ft below land-surface datum, Oct. 7, 2003; lowest water level measured, 43.96 ft below land-surface datum, Sept. 5, 2002.

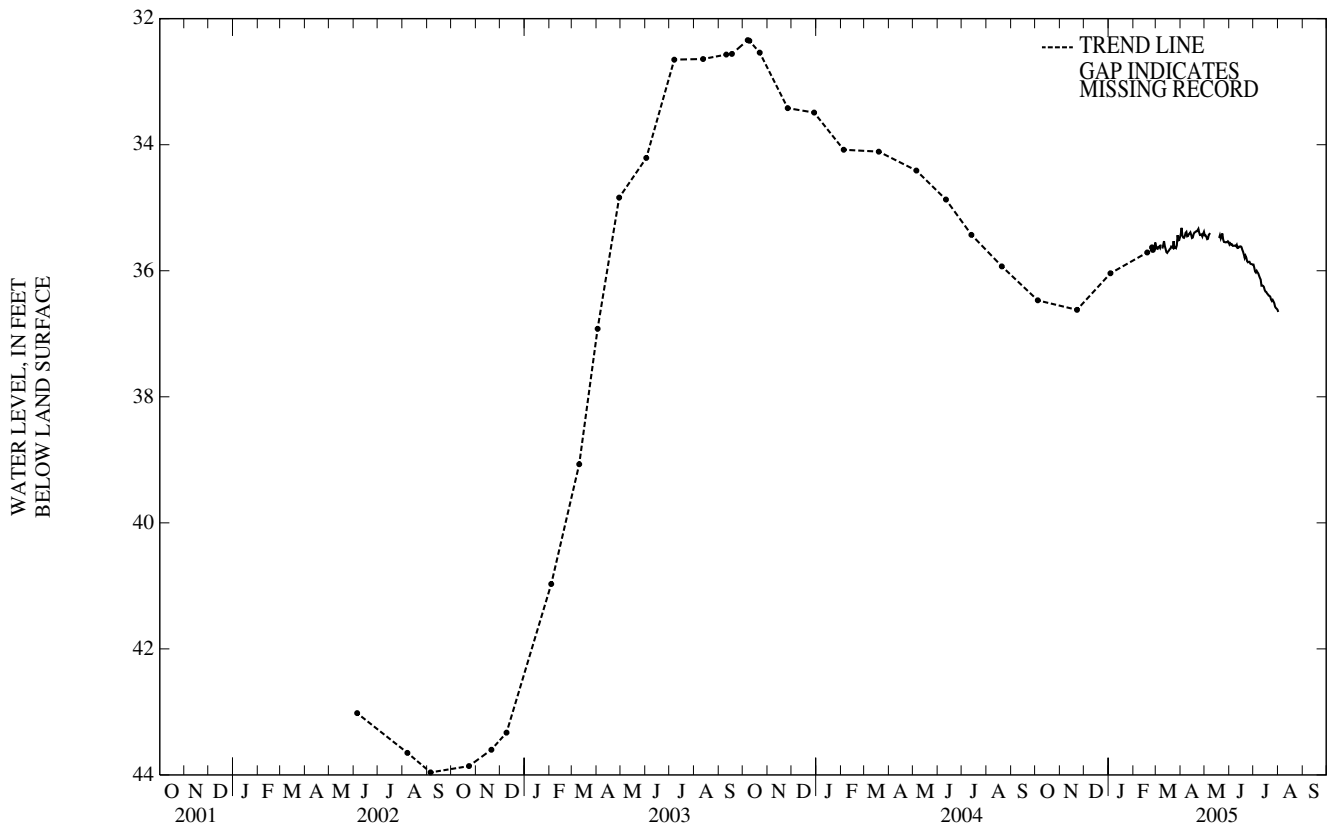
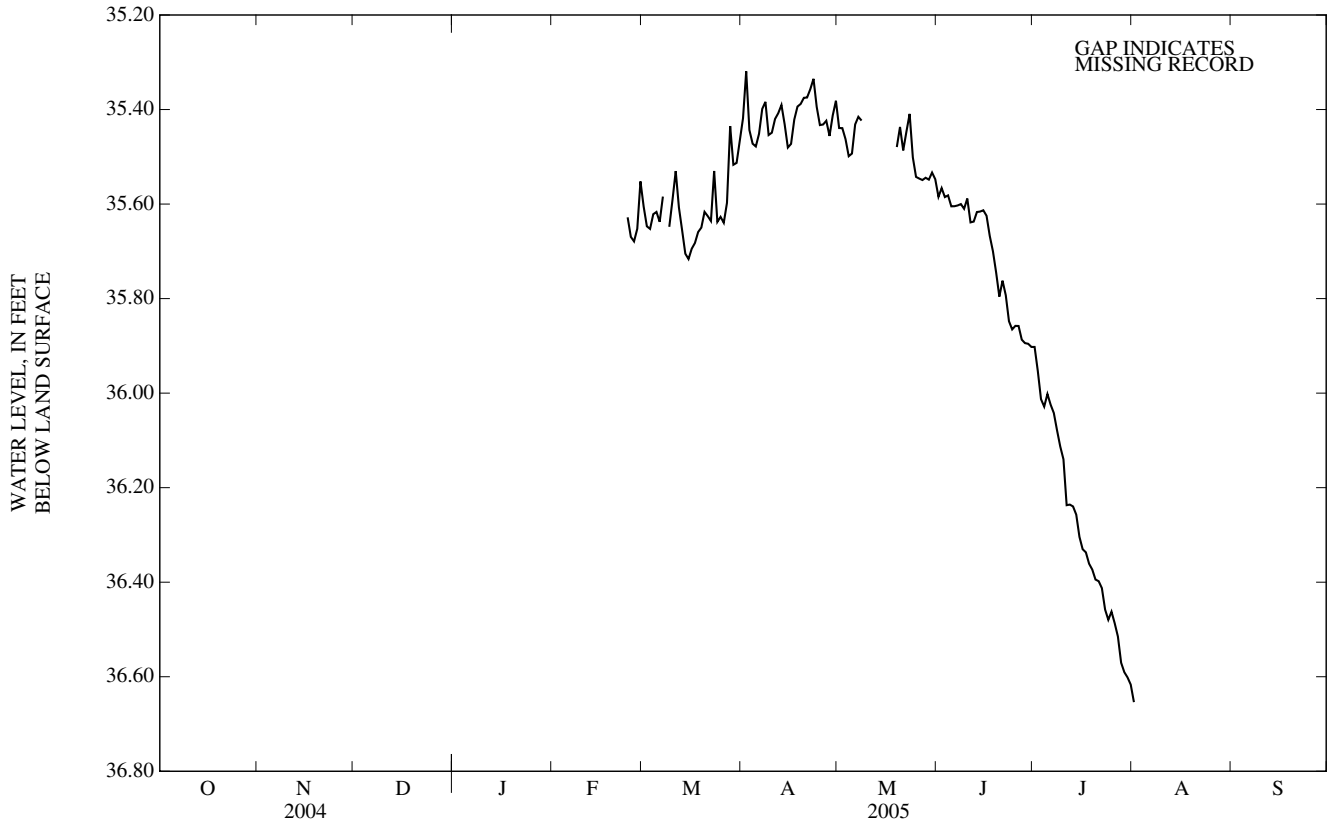
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	35.61	35.42	35.44	35.58	35.90	36.65	---
2	---	---	---	---	---	35.65	35.32	35.44	35.57	35.95	---	---
3	---	---	---	---	---	35.65	35.44	35.46	35.59	36.01	---	---
4	---	---	---	---	---	35.62	35.47	35.50	35.58	36.03	---	---
5	---	---	---	---	---	35.62	35.48	35.49	35.60	36.00	---	---
6	---	---	---	---	---	35.64	35.45	35.43	35.60	36.02	---	---
7	---	---	---	---	---	35.58	35.40	35.42	35.60	36.04	---	---
8	---	---	---	---	---	---	35.38	35.42	35.60	36.08	---	---
9	---	---	---	---	---	35.65	35.45	---	35.61	36.11	---	---
10	---	---	---	---	---	35.59	35.45	---	35.59	36.14	---	---
11	---	---	---	---	---	35.53	35.42	---	35.64	36.24	---	---
12	---	---	---	---	---	35.61	35.41	---	35.64	36.24	---	---
13	---	---	---	---	---	35.66	35.39	---	35.62	36.24	---	---
14	---	---	---	---	---	35.70	35.43	---	35.62	36.26	---	---
15	---	---	---	---	---	35.72	35.48	---	35.61	36.30	---	---
16	---	---	---	---	---	35.69	35.47	---	35.62	36.33	---	---
17	---	---	---	---	---	35.68	35.42	---	35.67	36.34	---	---
18	---	---	---	---	---	35.66	35.39	---	35.70	36.36	---	---
19	---	---	---	---	---	35.65	35.39	35.48	35.74	36.37	---	---
20	---	---	---	---	---	35.62	35.38	35.44	35.80	36.39	---	---
21	---	---	---	---	---	35.63	35.37	35.49	35.76	36.40	---	---
22	---	---	---	---	---	35.64	35.36	35.45	35.79	36.41	---	---
23	---	---	---	---	---	35.53	35.34	35.41	35.85	36.46	---	---
24	---	---	---	---	35.63	35.64	35.39	35.50	35.87	36.48	---	---
25	---	---	---	---	35.67	35.63	35.43	35.54	35.86	36.46	---	---
26	---	---	---	---	35.68	35.64	35.43	35.55	35.86	36.49	---	---
27	---	---	---	---	35.65	35.60	35.42	35.55	35.89	36.52	---	---
28	---	---	---	---	35.55	35.44	35.46	35.54	35.89	36.57	---	---
29	---	---	---	---	---	35.52	35.41	35.55	35.90	36.59	---	---
30	---	---	---	---	---	35.51	35.38	35.53	35.90	36.60	---	---
31	---	---	---	---	---	35.47	---	35.55	---	36.62	---	---

WTR YR 2005 MEAN 35.72 HIGH 35.32 LOW 36.65

GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362323079421202. County number, RK-236; DENR Upper Piedmont Research Station MW-N4D (Bedrock well).



ROCKINGHAM COUNTY—Continued

362240079411801. County number, RK-237; DENR Upper Piedmont Research Station MW-S1I (Transition Zone well).

LOCATION.--Lat 36°22'41", long 79°41'19", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 4 in., cased to 35 ft, screened interval from 35 to 50 ft, sand filter packed from 30 to 50 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 803.34 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.50 ft above land-surface datum.

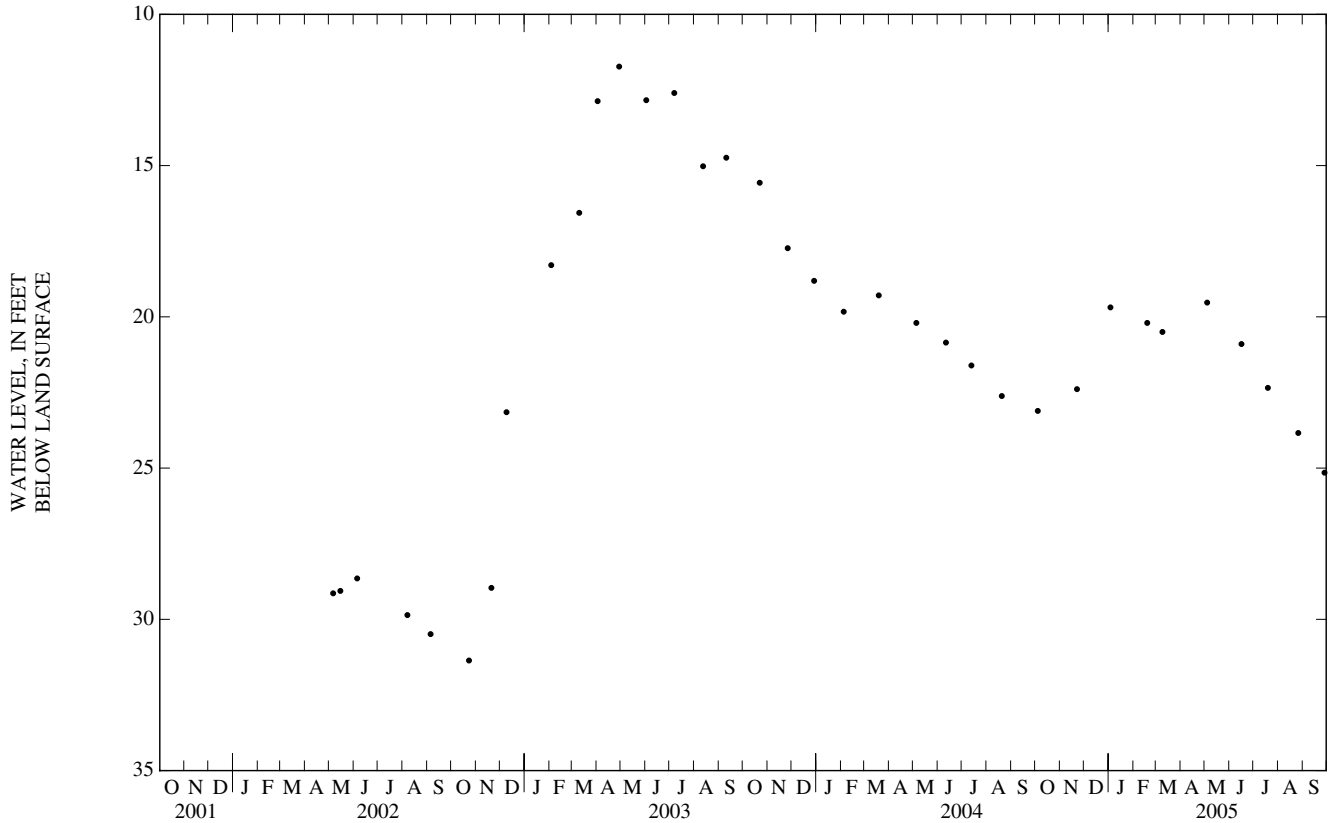
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.73 ft below land-surface datum, April 29, 2003; lowest water level measured, 31.36 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	23.11	JAN 03	19.69	MAR 09	20.50	JUN 16	20.90	AUG 26	23.84
NOV 22	22.39	FEB 18	20.20	MAY 04	19.53	JUL 19	22.35	SEP 28	25.15



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362240079411802. County number, RK-238; DENR Upper Piedmont Research Station MW-S1D (Bedrock well).

LOCATION.--Lat 36°22'41", long 79°41'19", Hydrologic Unit 03010103, .2 mi north of Wentworth Street, 1.5 mi west of State Highway 14 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 302 ft, diameter 6 in., cased to 62 ft, open hole from 62 to 302 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 802.55 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.80 ft above land-surface datum.

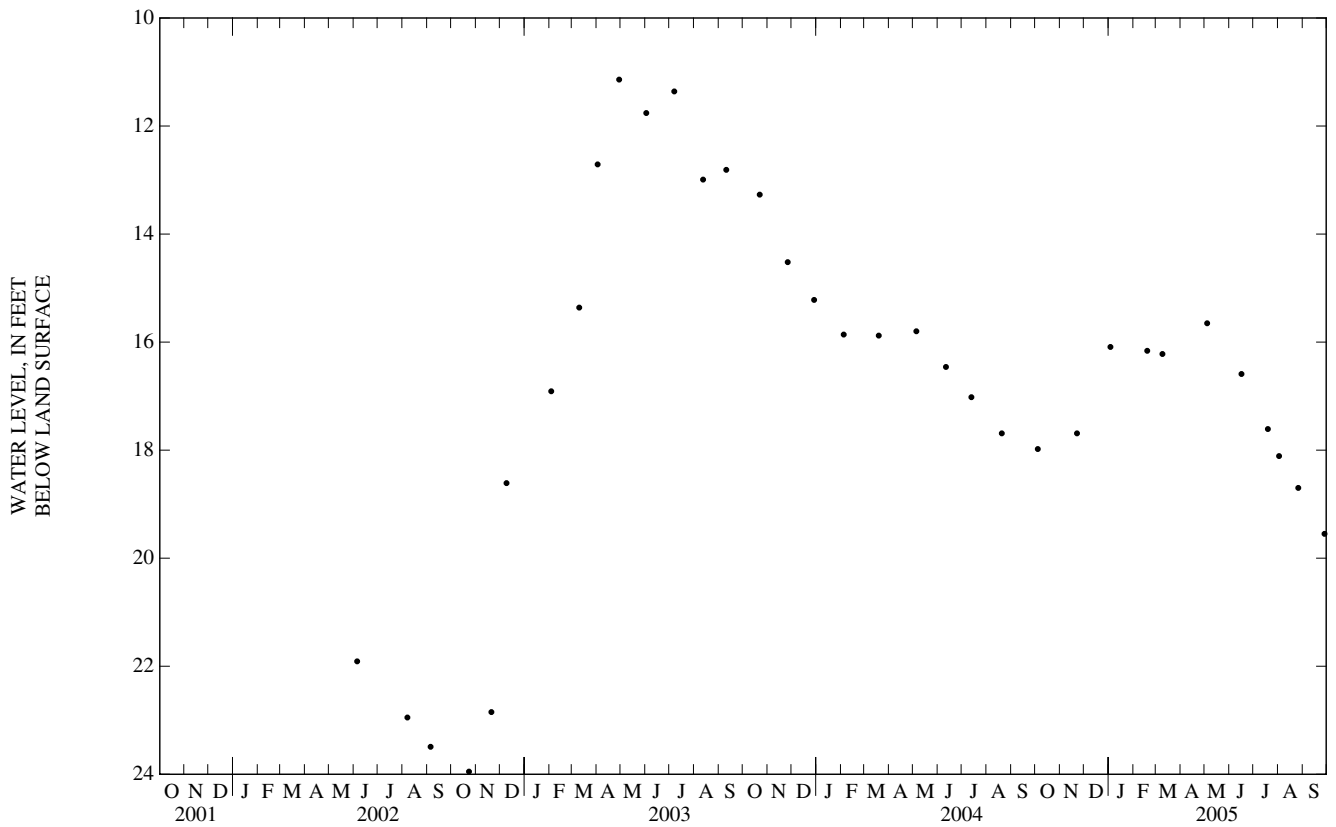
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.14 ft below land-surface datum, April 29, 2003; lowest water level measured, 23.95 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	17.98	JAN 03	16.09	MAR 09	16.22	JUN 16	16.59	AUG 02	18.11	SEP 28	19.55
NOV 22	17.69	FEB 18	16.16	MAY 04	15.65	JUL 19	17.61	26	18.70		



ROCKINGHAM COUNTY—Continued

362231079410801. County number, RK-239; DENR Upper Piedmont Research Station MW-S3S (Regolith well).

LOCATION.--Lat 36°22'31", long 79°41'08", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

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 from 21 to 38 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 705.16 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.99 ft above land-surface datum.

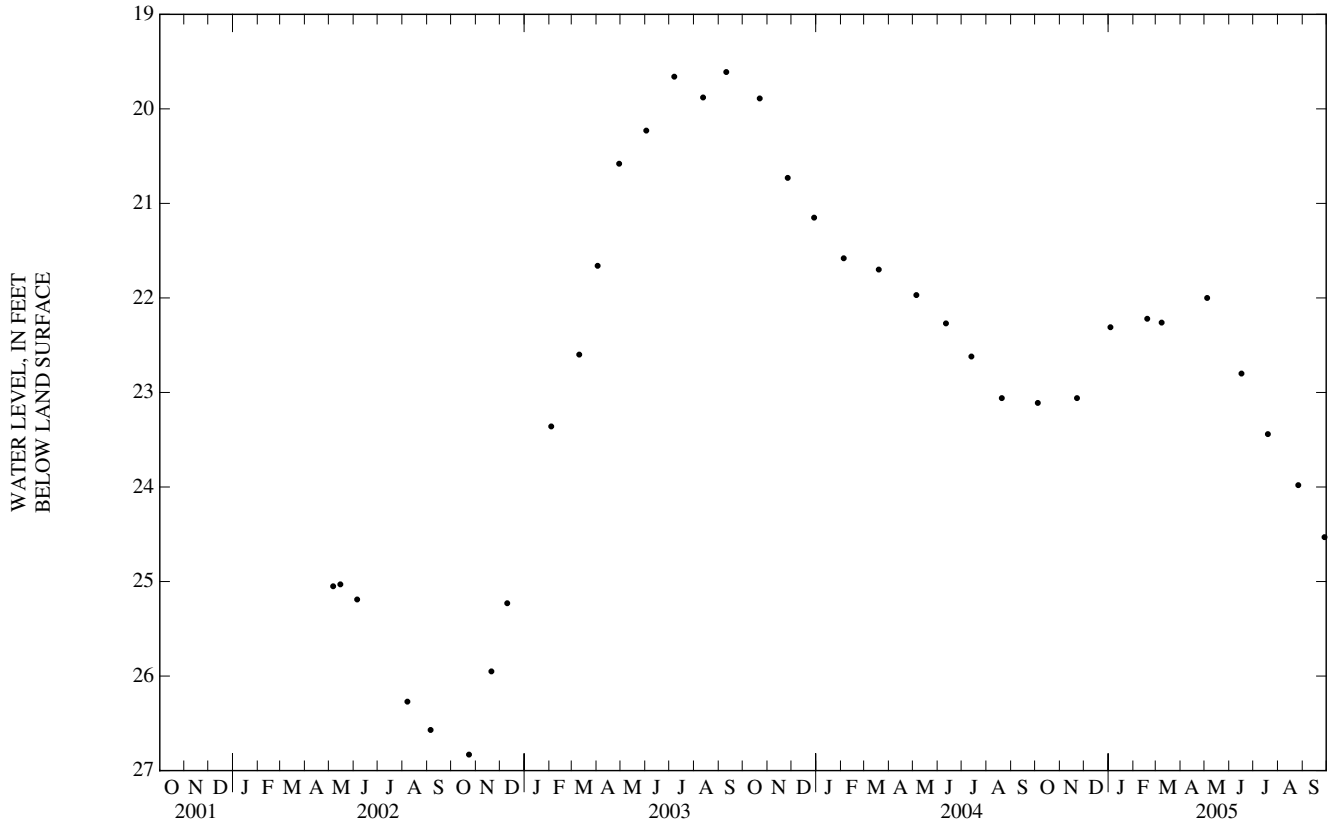
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.61 ft below land-surface datum, Sept. 10, 2003; lowest water level measured, 26.83 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	23.11	JAN 03	22.31	MAR 08	22.26	JUN 16	22.80	AUG 26	23.98
NOV 22	23.06	FEB 18	22.22	MAY 04	22.00	JUL 19	23.44	SEP 28	24.53



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362231079410802. County number, RK-240; DENR Upper Piedmont Research Station MW-S3UI (Transition Zone well).

LOCATION.--Lat 36°22'32", long 79°41'08", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 55 ft, diameter 4 in., cased to 45 ft, screened interval from 45 to 55 ft, sand filter packed from 38 to 55 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 705.60 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.73 ft above land-surface datum.

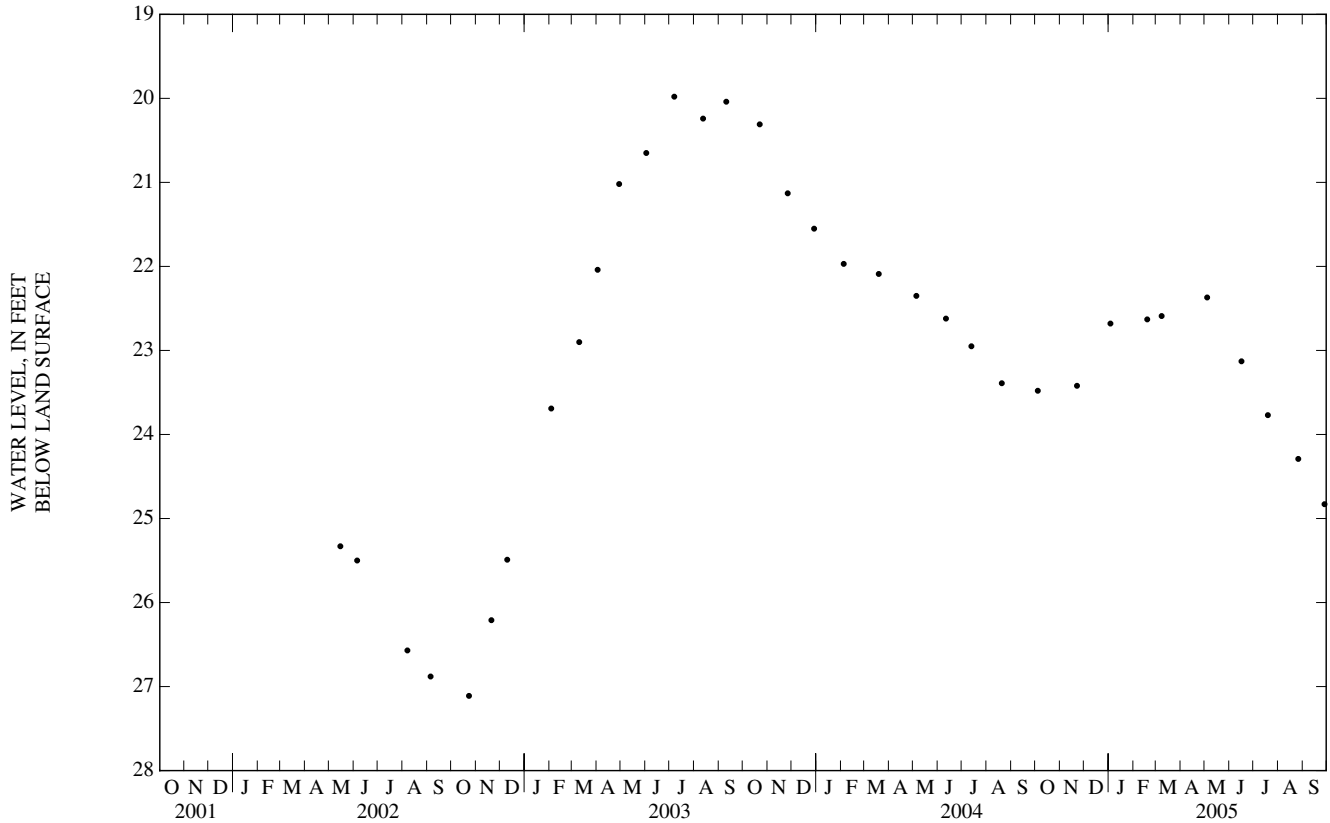
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.98 ft below land-surface datum, July 7, 2003; lowest water level measured, 27.11 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	23.48	JAN 03	22.68	MAR 08	22.59	JUN 16	23.13	AUG 26	24.29
NOV 22	23.42	FEB 18	22.63	MAY 04	22.37	JUL 19	23.77	SEP 28	24.83



ROCKINGHAM COUNTY—Continued

362231079310803. County number, RK-241; DENR Upper Piedmont Research Station MW-S3LI (Transition Zone well).

LOCATION.--Lat 36°22'32", long 79°41'08", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 73 ft, diameter 4 in., cased to 63 ft, screened interval from 63 to 73 ft, sand filter packed from 61 to 73 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 705.60 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.65 ft above land-surface datum.

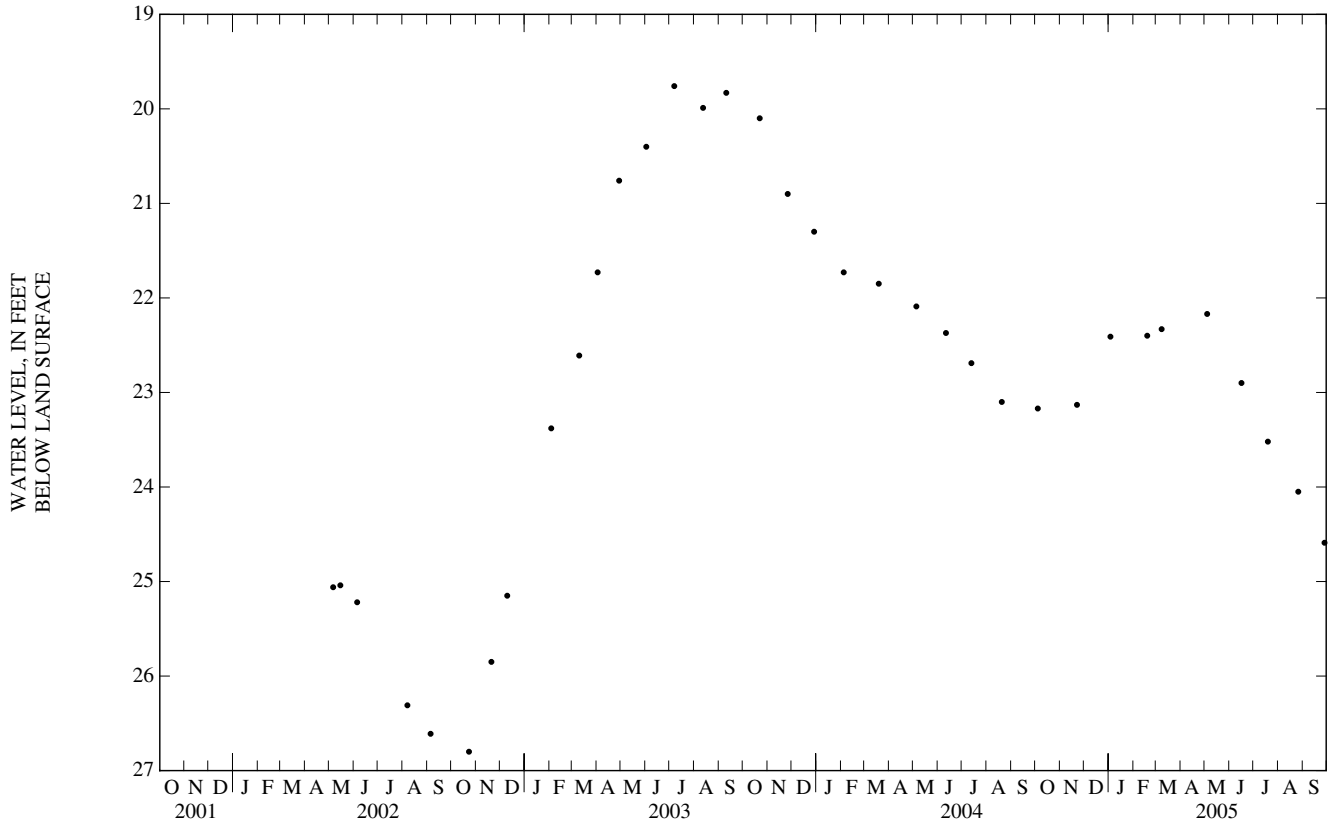
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.76 ft below land-surface datum, July 7, 2003; lowest water level measured, 26.80 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	23.17	JAN 03	22.41	MAR 08	22.33	JUN 16	22.90	AUG 26	24.05
NOV 22	23.13	FEB 18	22.40	MAY 04	22.17	JUL 19	23.52	SEP 28	24.59



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362231079310804. County number, RK-242; DENR Upper Piedmont Research Station MW-S3D (Bedrock well).

LOCATION.--Lat 36°22'32", long 79°41'08", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Biotite Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 438 ft, diameter 6 in., cased to 88 ft, open hole from 88 to 438 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 705.48 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.94 ft above land-surface datum.

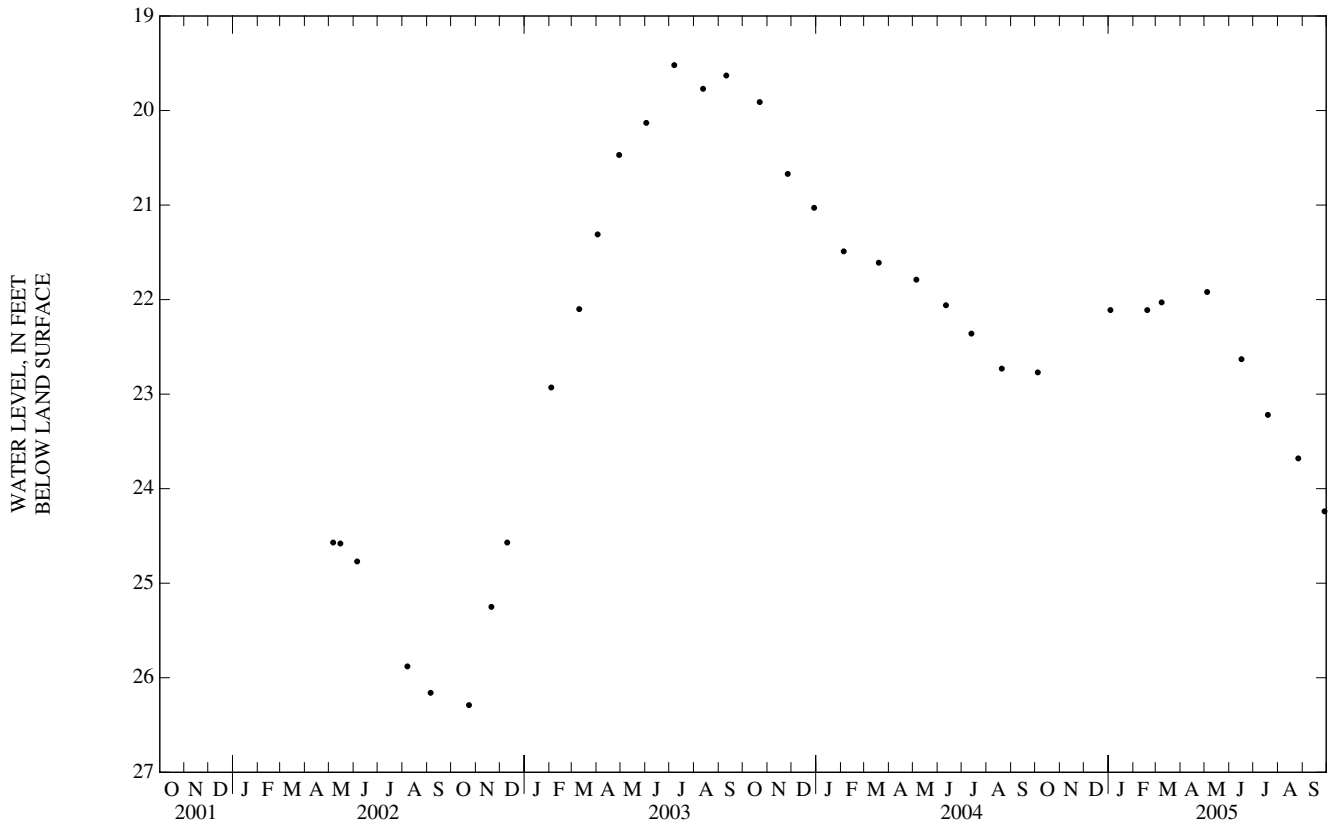
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.52 ft below land-surface datum, July 7, 2003; lowest water level measured, 26.29 ft below land-surface datum, Oct. 23, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	22.77	FEB 18	22.11	MAY 04	21.92	JUL 19	23.22	SEP 28	24.24
JAN 03	22.11	MAR 08	22.03	JUN 16	22.63	AUG 26	23.68		



ROCKINGHAM COUNTY—Continued

362226079410101. County number, RK-243; DENR Upper Piedmont Research Station MW-S4S (Regolith well).

LOCATION.--Lat 36°22'26", long 79°41'01", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Felsic Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 15 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 15 ft, sand filter packed from 4 to 15 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.

DATUM.--Land-surface datum is 659.50 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 1.99 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study. Well is located in close proximity of stream.

PERIOD OF RECORD.--May 2002 to current year. Continuous record May 2003 to October 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.13 ft below land-surface datum, May 26, 2003; lowest water level measured 5.47 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.78	JAN 03	4.76	MAR 09	4.61	JUN 16	5.03	AUG 26	5.29
NOV 22	4.76	FEB 18	4.72	MAY 04	4.87	JUL 19	5.16	SEP 28	5.38

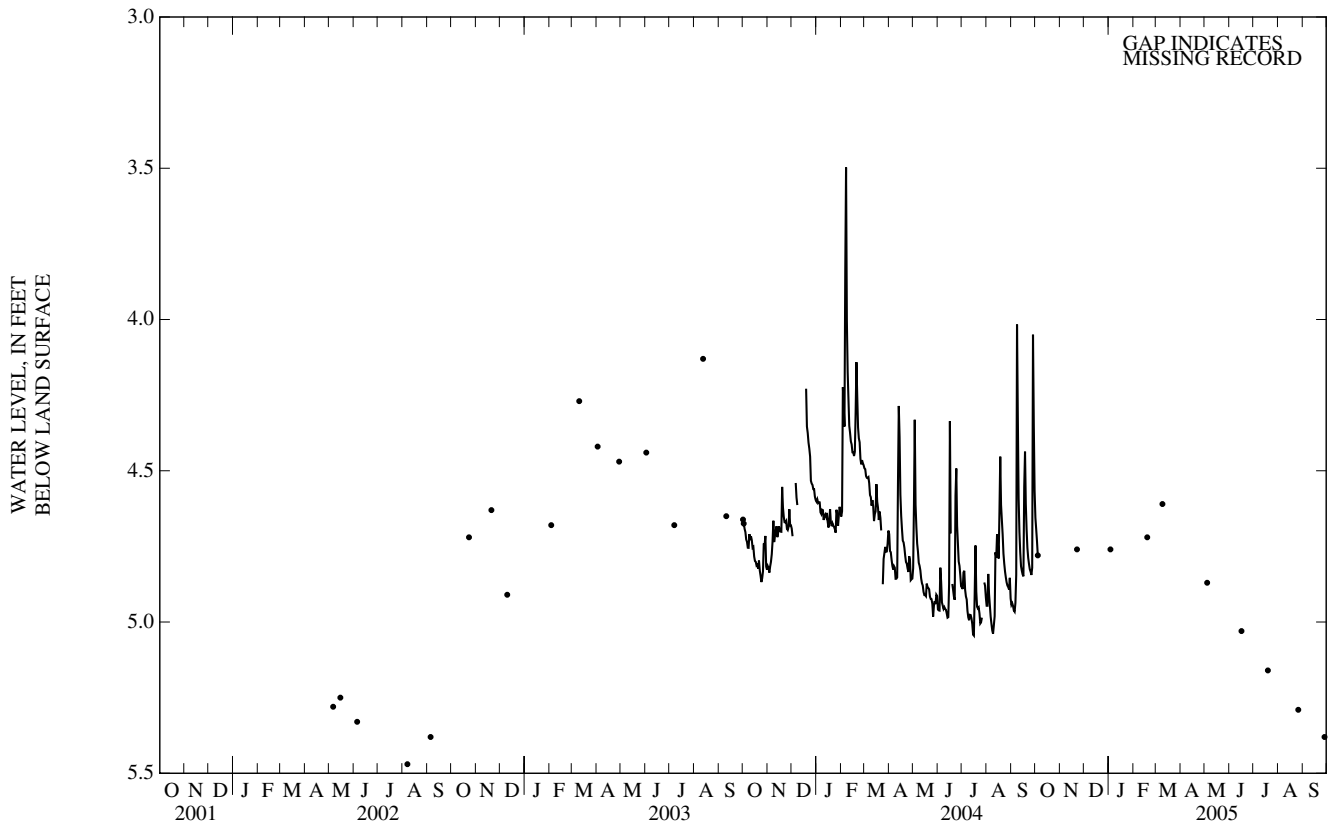
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.66	---	---	---	---	---	---	---	---	---	---	---
2	4.69	---	---	---	---	---	---	---	---	---	---	---
3	4.73	---	---	---	---	---	---	---	---	---	---	---
4	4.75	---	---	---	---	---	---	---	---	---	---	---
5	4.77	---	---	---	---	---	---	---	---	---	---	---
6	4.80	---	---	---	---	---	---	---	---	---	---	---
7	4.81	---	---	---	---	---	---	---	---	---	---	---
8	4.81	---	---	---	---	---	---	---	---	---	---	---
9	4.82	---	---	---	---	---	---	---	---	---	---	---
10	4.83	---	---	---	---	---	---	---	---	---	---	---
11	4.85	---	---	---	---	---	---	---	---	---	---	---
12	4.85	---	---	---	---	---	---	---	---	---	---	---
13	4.83	---	---	---	---	---	---	---	---	---	---	---
14	4.83	---	---	---	---	---	---	---	---	---	---	---
15	4.87	---	---	---	---	---	---	---	---	---	---	---
16	4.89	---	---	---	---	---	---	---	---	---	---	---
17	4.90	---	---	---	---	---	---	---	---	---	---	---
18	4.89	---	---	---	---	---	---	---	---	---	---	---
19	4.59	---	---	---	---	---	---	---	---	---	---	---
20	4.54	---	---	---	---	---	---	---	---	---	---	---
21	4.66	---	---	---	---	---	---	---	---	---	---	---
22	4.72	---	---	---	---	---	---	---	---	---	---	---
23	4.75	---	---	---	---	---	---	---	---	---	---	---
24	4.77	---	---	---	---	---	---	---	---	---	---	---
25	4.80	---	---	---	---	---	---	---	---	---	---	---
26	4.83	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 4.78 HIGH 4.54 LOW 4.90

GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362226079410101. County number, RK-243; DENR Upper Piedmont Research Station MW-S4S (Regolith well)



ROCKINGHAM COUNTY—Continued

362226079410102. County number, RK-244; DENR Upper Piedmont Research Station MW-S4I (Transition Zone well).

LOCATION.--Lat 36°22'26", long 79°41'01", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Felsic Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 35 ft, diameter 4 in., cased to 25 ft, open hole from 25 to 35 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.

DATUM.--Land-surface datum is 659.32 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.85 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study. Well is located in close proximity to stream.

PERIOD OF RECORD.--May 2002 to current year. Continuous record May 2003 to October 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.11 ft below land-surface datum, May 26, 2003; lowest water level measured, 5.28 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.34	JAN 03	4.35	MAR 09	4.15	JUN 16	4.78	AUG 26	5.06
NOV 22	4.42	FEB 18	4.34	MAY 04	4.52	JUL 19	4.90	SEP 28	5.20

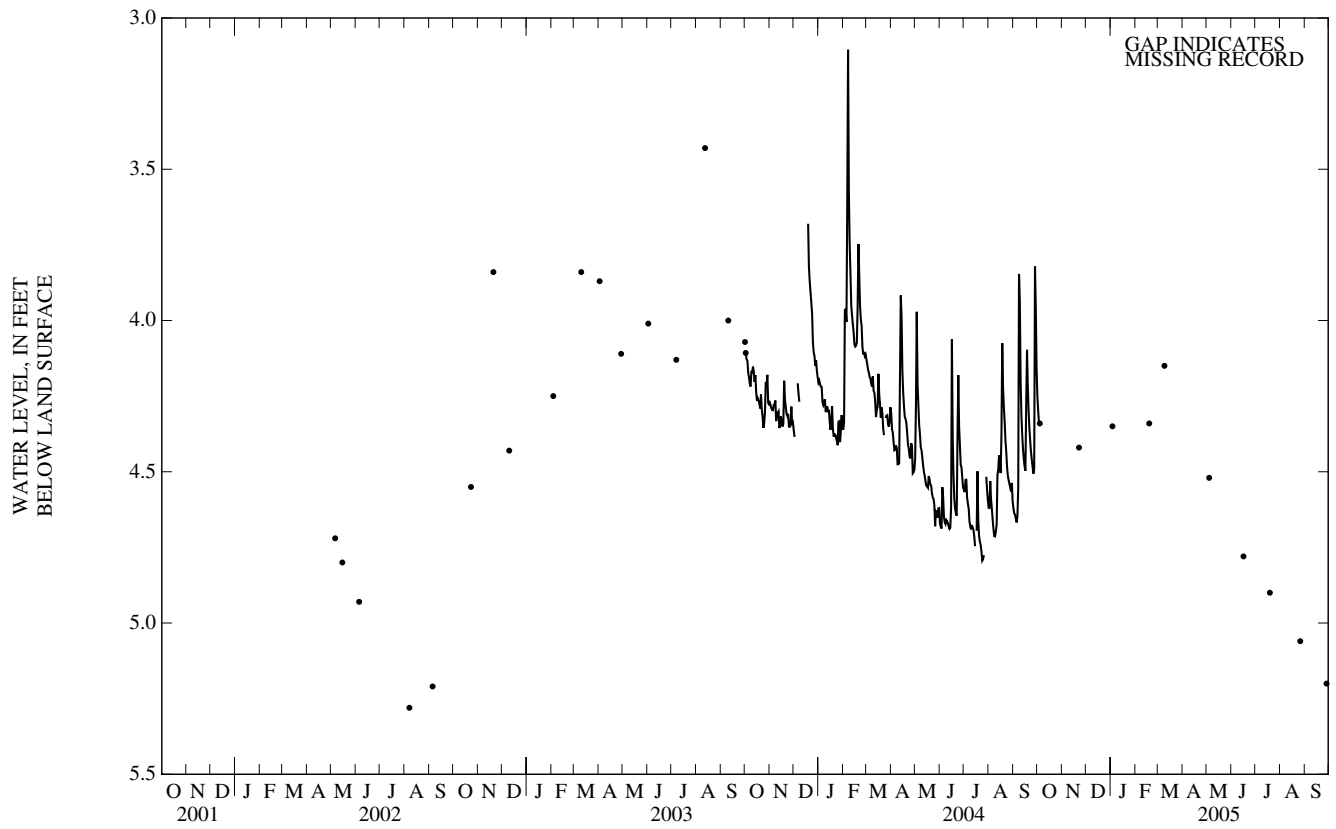
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.25	---	---	---	---	---	---	---	---	---	---	---
2	4.30	---	---	---	---	---	---	---	---	---	---	---
3	4.34	---	---	---	---	---	---	---	---	---	---	---
4	4.37	---	---	---	---	---	---	---	---	---	---	---
5	4.41	---	---	---	---	---	---	---	---	---	---	---
6	4.44	---	---	---	---	---	---	---	---	---	---	---
7	4.46	---	---	---	---	---	---	---	---	---	---	---
8	4.46	---	---	---	---	---	---	---	---	---	---	---
9	4.48	---	---	---	---	---	---	---	---	---	---	---
10	4.49	---	---	---	---	---	---	---	---	---	---	---
11	4.52	---	---	---	---	---	---	---	---	---	---	---
12	4.51	---	---	---	---	---	---	---	---	---	---	---
13	4.50	---	---	---	---	---	---	---	---	---	---	---
14	4.50	---	---	---	---	---	---	---	---	---	---	---
15	4.55	---	---	---	---	---	---	---	---	---	---	---
16	4.58	---	---	---	---	---	---	---	---	---	---	---
17	4.61	---	---	---	---	---	---	---	---	---	---	---
18	4.60	---	---	---	---	---	---	---	---	---	---	---
19	4.37	---	---	---	---	---	---	---	---	---	---	---
20	4.22	---	---	---	---	---	---	---	---	---	---	---
21	4.34	---	---	---	---	---	---	---	---	---	---	---
22	4.38	---	---	---	---	---	---	---	---	---	---	---
23	4.40	---	---	---	---	---	---	---	---	---	---	---
24	4.41	---	---	---	---	---	---	---	---	---	---	---
25	4.45	---	---	---	---	---	---	---	---	---	---	---
26	4.46	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 4.44 HIGH 4.22 LOW 4.61

GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362226079410102. County number, RK-244; DENR Upper Piedmont Research Station MW-S4I (Transition Zone well)



ROCKINGHAM COUNTY—Continued

362226079410103. County number, RK-245; DENR Upper Piedmont Research Station MW-S4D (Bedrock well).

LOCATION.--Lat 36°22'26", long 79°41'01", Hydrologic Unit 03010103, .6 mi north of Wentworth Street, .6 mi west of Secondary Road 1993 on North Carolina State University 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 380 ft, diameter 6 in., cased to 77 ft, open hole from 77 to 380 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals. Satellite telemetry at site.

DATUM.--Land-surface datum is 659.57 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 3.02 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study. Well is located in close proximity to stream.

PERIOD OF RECORD.--May 2002 to current year. Continuous record May 2003 to October 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.40 ft below land-surface datum, May 26, 2003; lowest water level measured, 5.55 ft below land-surface datum, Aug. 7, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.50	JAN 03	4.46	MAR 09	4.24	JUN 16	4.93	AUG 26	5.27
NOV 22	4.55	FEB 18	4.53	MAY 04	4.64	JUL 19	5.10	SEP 28	5.44

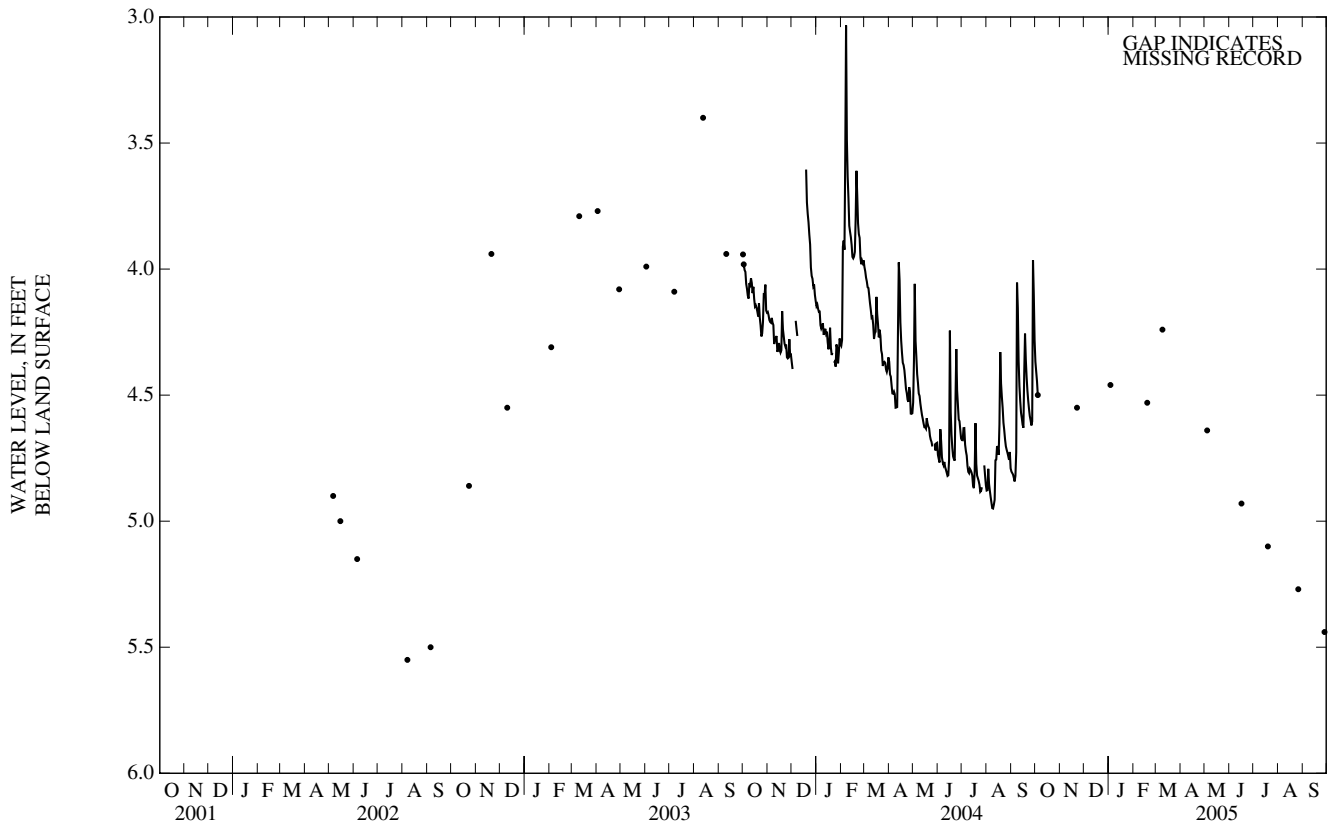
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.37	---	---	---	---	---	---	---	---	---	---	---
2	4.41	---	---	---	---	---	---	---	---	---	---	---
3	4.44	---	---	---	---	---	---	---	---	---	---	---
4	4.48	---	---	---	---	---	---	---	---	---	---	---
5	4.52	---	---	---	---	---	---	---	---	---	---	---
6	4.55	---	---	---	---	---	---	---	---	---	---	---
7	4.57	---	---	---	---	---	---	---	---	---	---	---
8	4.58	---	---	---	---	---	---	---	---	---	---	---
9	4.59	---	---	---	---	---	---	---	---	---	---	---
10	4.61	---	---	---	---	---	---	---	---	---	---	---
11	4.63	---	---	---	---	---	---	---	---	---	---	---
12	4.62	---	---	---	---	---	---	---	---	---	---	---
13	4.61	---	---	---	---	---	---	---	---	---	---	---
14	4.61	---	---	---	---	---	---	---	---	---	---	---
15	4.66	---	---	---	---	---	---	---	---	---	---	---
16	4.70	---	---	---	---	---	---	---	---	---	---	---
17	4.72	---	---	---	---	---	---	---	---	---	---	---
18	4.72	---	---	---	---	---	---	---	---	---	---	---
19	4.50	---	---	---	---	---	---	---	---	---	---	---
20	4.36	---	---	---	---	---	---	---	---	---	---	---
21	4.46	---	---	---	---	---	---	---	---	---	---	---
22	4.49	---	---	---	---	---	---	---	---	---	---	---
23	4.50	---	---	---	---	---	---	---	---	---	---	---
24	4.51	---	---	---	---	---	---	---	---	---	---	---
25	4.54	---	---	---	---	---	---	---	---	---	---	---
26	4.57	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 MEAN 4.55 HIGH 4.36 LOW 4.72

GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362226079410103. County number, RK-245; DENR Upper Piedmont Research Station MW-S4D (Bedrock well)



ROCKINGHAM COUNTY—Continued

362335079421701. County number, RK-251; DENR Upper Piedmont Research Station PZ-1.

LOCATION.--Lat 36°23'35", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 2 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.

DATUM.--Land-surface datum is 675.95 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.33 ft above land-surface datum.

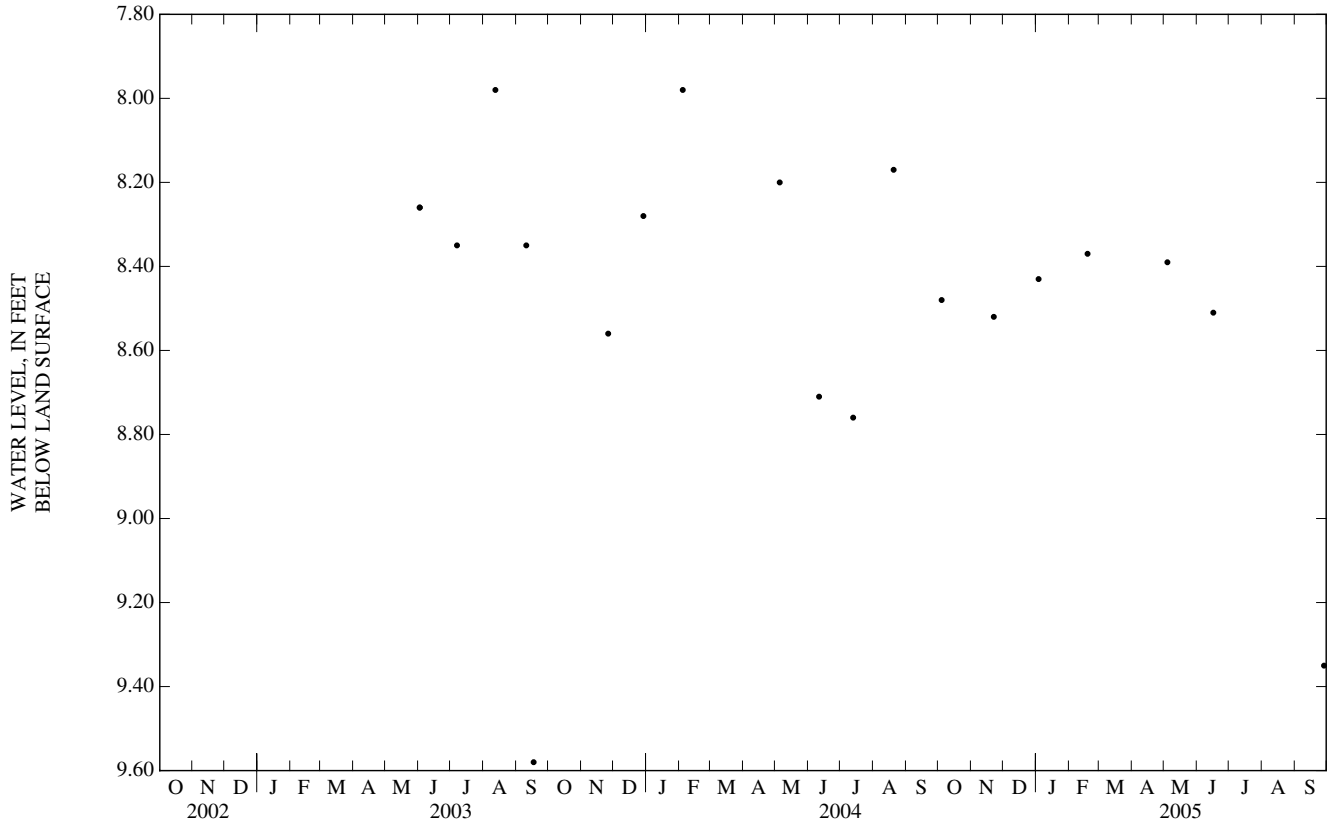
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.98 ft below land-surface datum, Aug. 12, 2003, Feb. 4, 2004; lowest water level measured 9.58 ft below land-surface datum, Sept. 12, 2003.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	8.48	JAN 03	8.43	MAY 04	8.39	SEP 28	9.35
NOV 22	8.52	FEB 18	8.37	JUN 16	8.51		



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362334079421701. County number, RK-252; DENR Upper Piedmont Research Station PZ-2.

LOCATION.--Lat 36°23'34", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 24 ft, diameter 2 in., cased to 14 ft, screened interval from 14 to 24 ft, sand filter packed from 12 to 24 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 673.02 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.63 ft above land-surface datum.

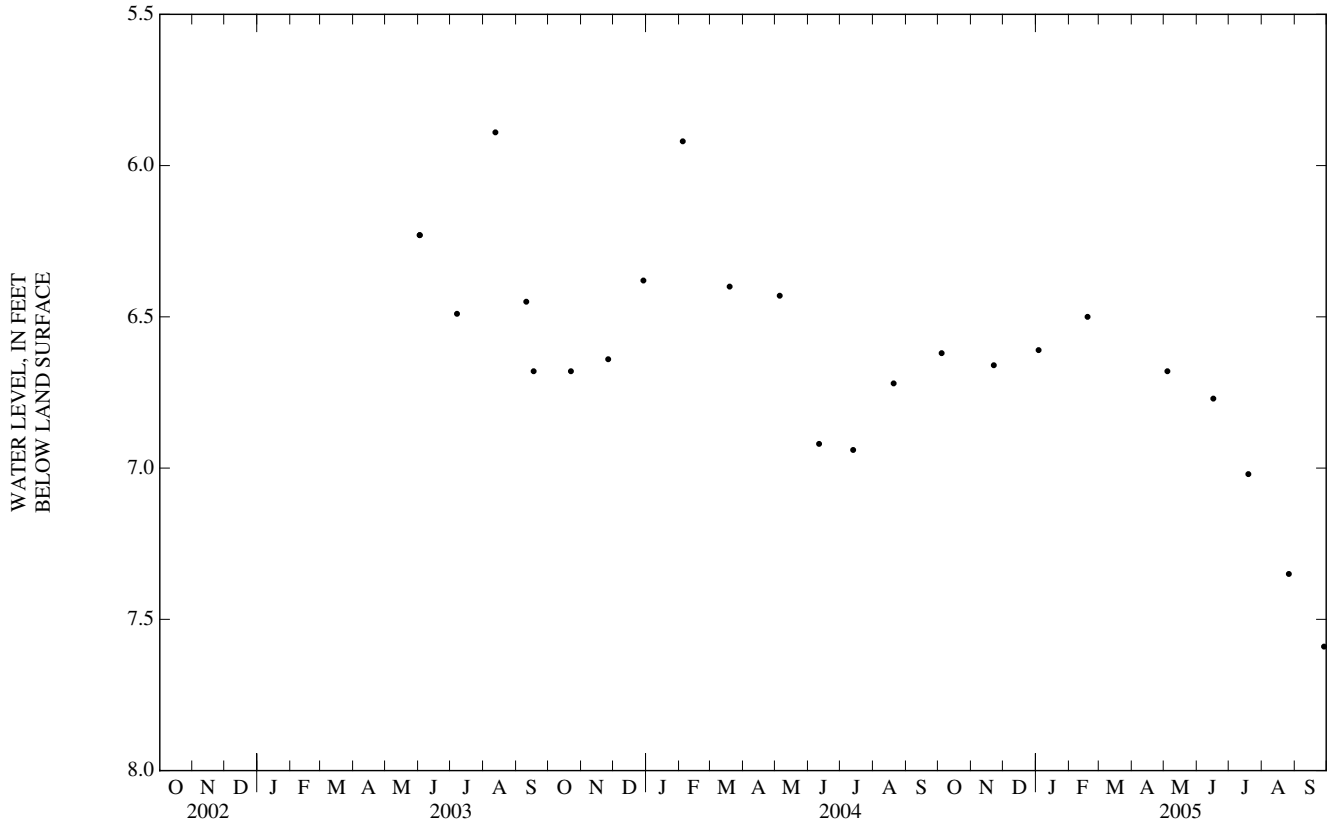
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.89 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.59 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	6.62	JAN 03	6.61	MAY 04	6.68	JUL 19	7.02	SEP 28	7.59
NOV 22	6.66	FEB 18	6.50	JUN 16	6.77	AUG 26	7.35		



ROCKINGHAM COUNTY—Continued

362334079421703. County number, RK-253; DENR Upper Piedmont Research Station PZ-3.

LOCATION.--Lat 36°23'34", long 79°42'16", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 39 ft, diameter 2 in., cased to 29 ft, screened interval from 29 to 39 ft, sand filter packed from 27 to 39 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.17 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.33 ft above land-surface datum.

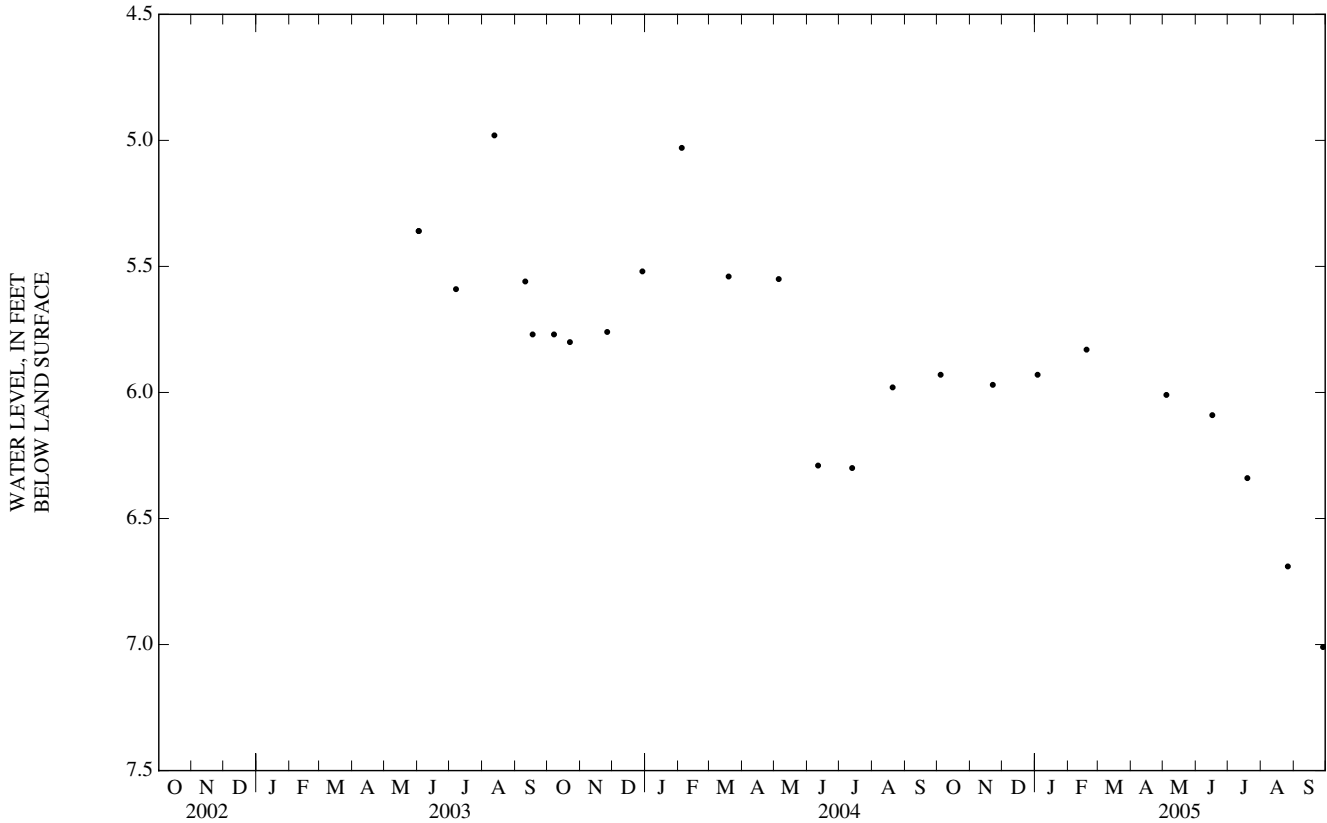
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.98 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.01 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	5.93	JAN 03	5.93	MAY 04	6.01	JUL 19	6.34	SEP 28	7.01
NOV 22	5.97	FEB 18	5.83	JUN 16	6.09	AUG 26	6.69		



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362334079421704. County number, RK-254; DENR Upper Piedmont Research Station PZ-4.

LOCATION.--Lat 36°23'34", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 31 ft, diameter 2 in., cased to 21 ft, screened interval from 21 to 31 ft, sand filter packed from 19 to 31 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.25 ft above NGVD of 1929. Measuring point: Top of protective steel casing, -0.22 ft above land-surface datum.

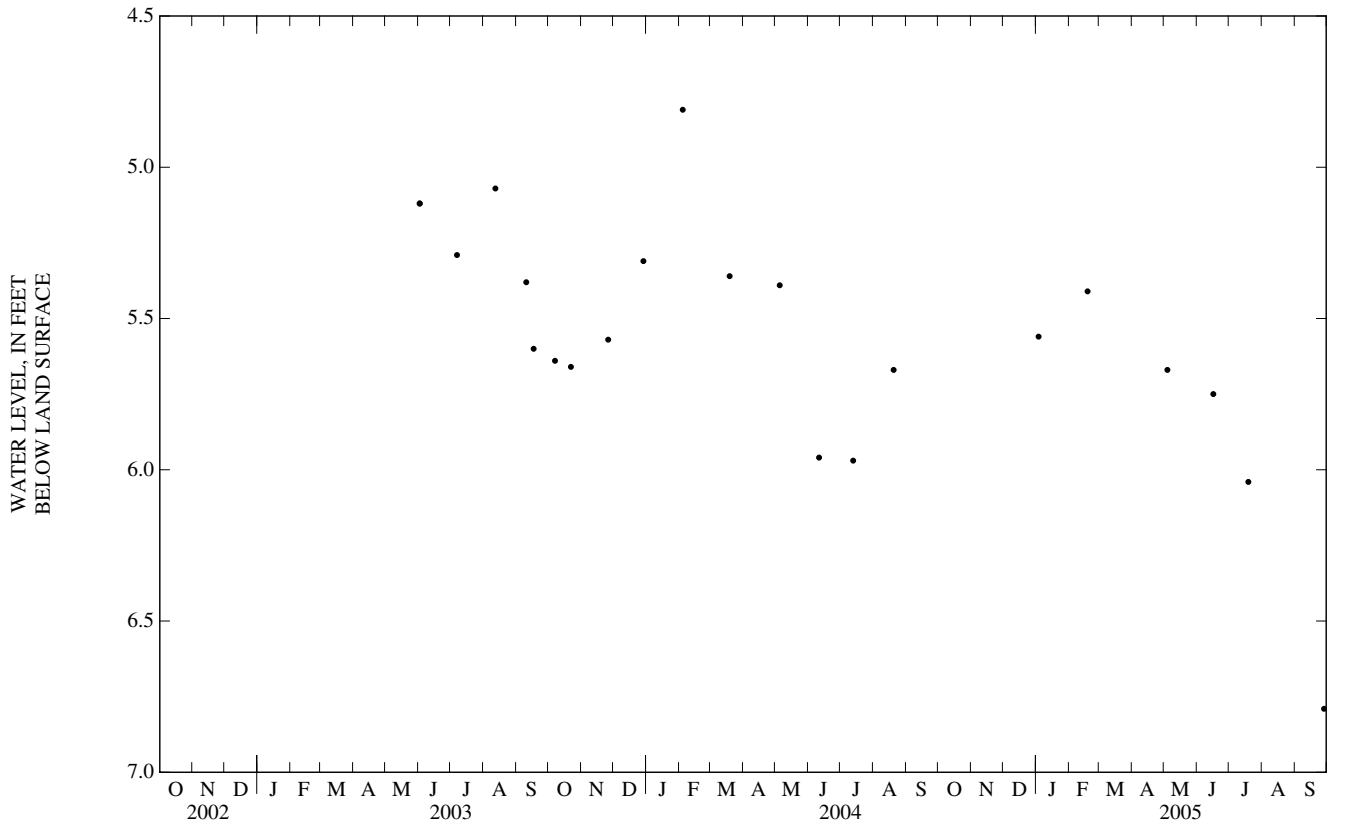
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.81 ft below land-surface datum, Feb. 4, 2004; lowest water level measured, 6.79 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 03	5.56	FEB 18	5.41	MAY 04	5.67	JUN 16	5.75	JUL 19	6.04	SEP 28	6.79



ROCKINGHAM COUNTY—Continued

362332079421601. County number, RK-255; DENR Upper Piedmont Research Station PZ-5.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 26 ft, diameter 2 in., cased to 16 ft, screened interval from 16 to 26 ft, sand filter packed from 14 to 26 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.62 ft above NGVD of 1929. Measuring point: Top of protective steel casing, -0.23 ft above land-surface datum.

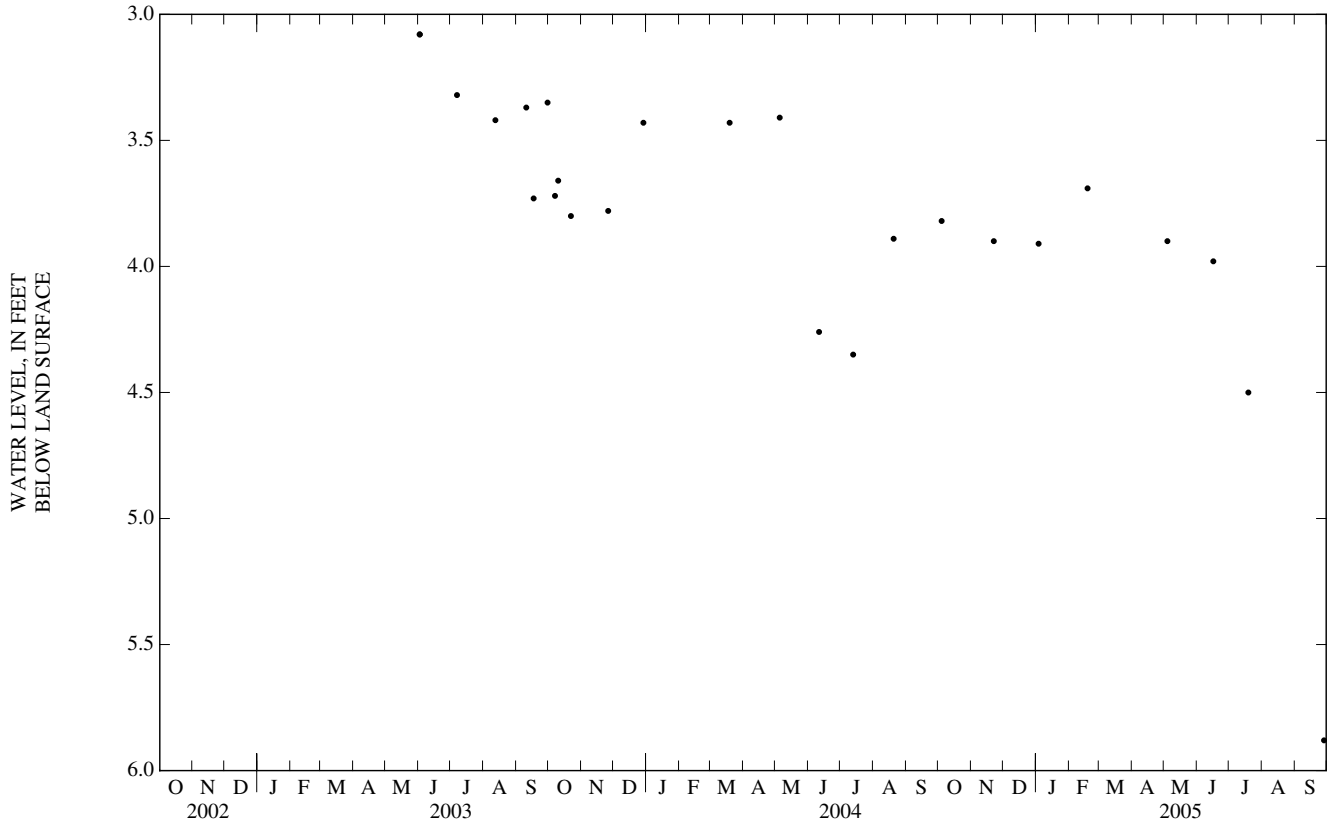
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.08 ft below land-surface datum, June 2, 2003; lowest water level measured, 5.88 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	3.82	JAN 03	3.91	MAY 04	3.90	JUL 19	4.50
NOV 22	3.90	FEB 18	3.69	JUN 16	3.98	SEP 28	5.88



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362332079421602. County number, RK-256; DENR Upper Piedmont Research Station PZ-5I.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 2 in., cased to 30 ft, screened interval from 30 to 40 ft, sand filter packed from 27 to 40 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.79 ft above NGVD of 1929. Measuring point: Top of protective steel casing, -0.33 ft above land-surface datum.

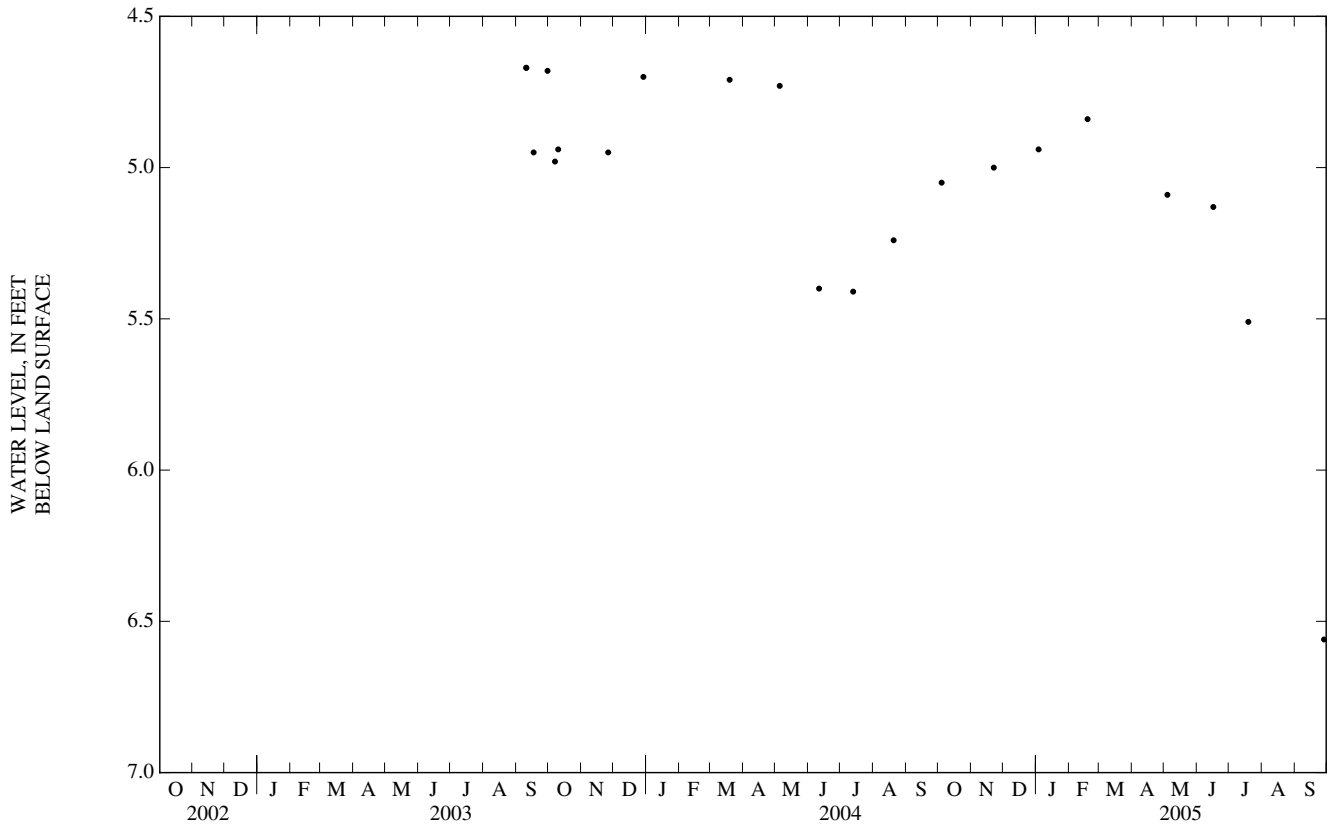
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--September 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.67 ft below land-surface datum, Sept. 10, 2003; lowest water level measured, 6.56 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	5.05	JAN 03	4.94	MAY 04	5.09	JUL 19	5.51
NOV 22	5.00	FEB 18	4.84	JUN 16	5.13	SEP 28	6.56



ROCKINGHAM COUNTY—Continued

362332079421603. County number, RK-257; DENR Upper Piedmont Research Station PZ-5D.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 90 ft, diameter 2 in., cased to 70 ft, screened interval from 70 to 90 ft, sand filter packed from 67 to 90 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.72 ft above NGVD of 1929. Measuring point: Top of protective steel casing, -0.51 ft above land-surface datum.

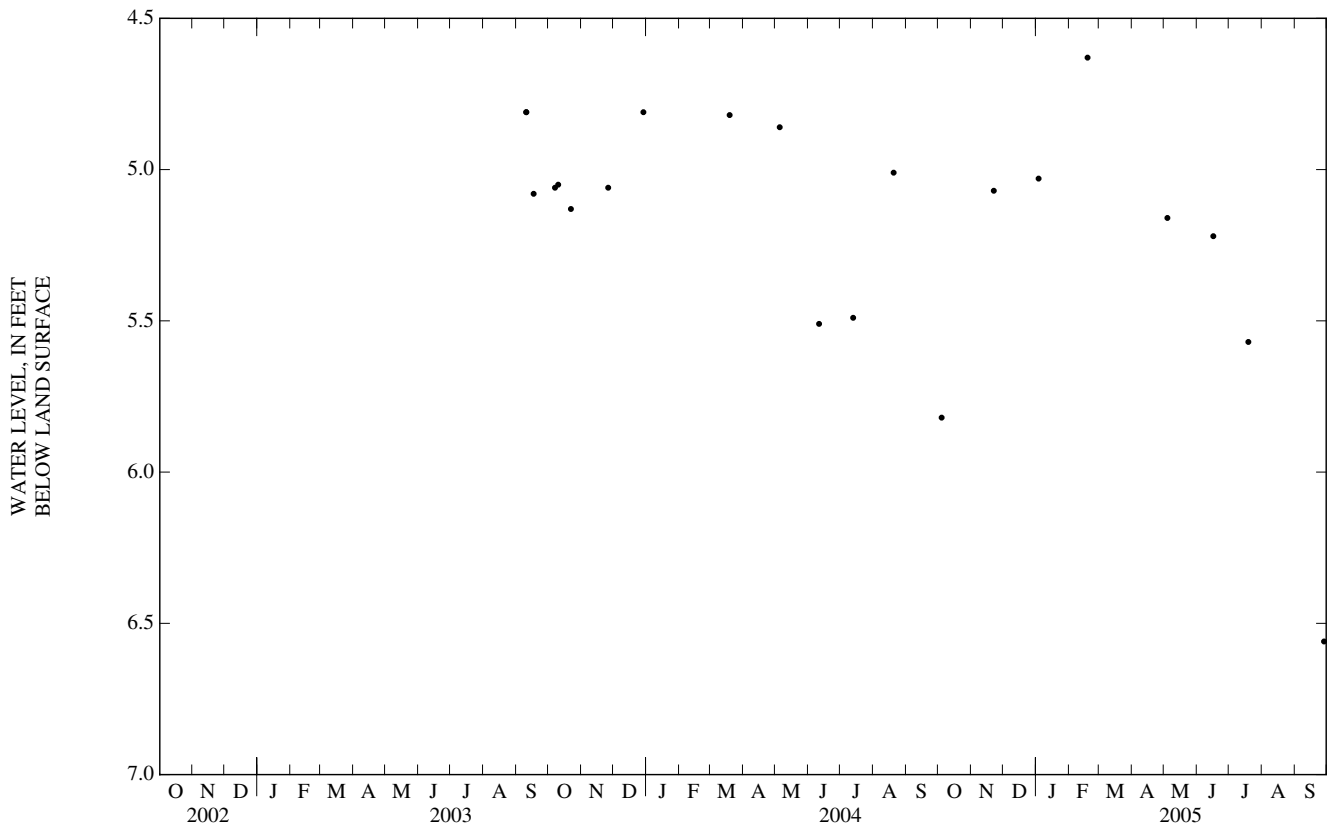
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--September 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.63 ft below land-surface datum, Feb. 18, 2005; lowest water level measured, 6.56 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	5.82	JAN 03	5.03	MAY 04	5.16	JUL 19	5.57
NOV 22	5.07	FEB 18	4.63	JUN 16	5.22	SEP 28	6.56



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362331079421701. County number, RK-258; DENR Upper Piedmont Research Station PZ-6.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 13 ft, diameter 2 in., cased to 8 ft, screened interval from 8 to 13 ft, sand filter packed from 6 to 13 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 672.91 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.40 ft above land-surface datum.

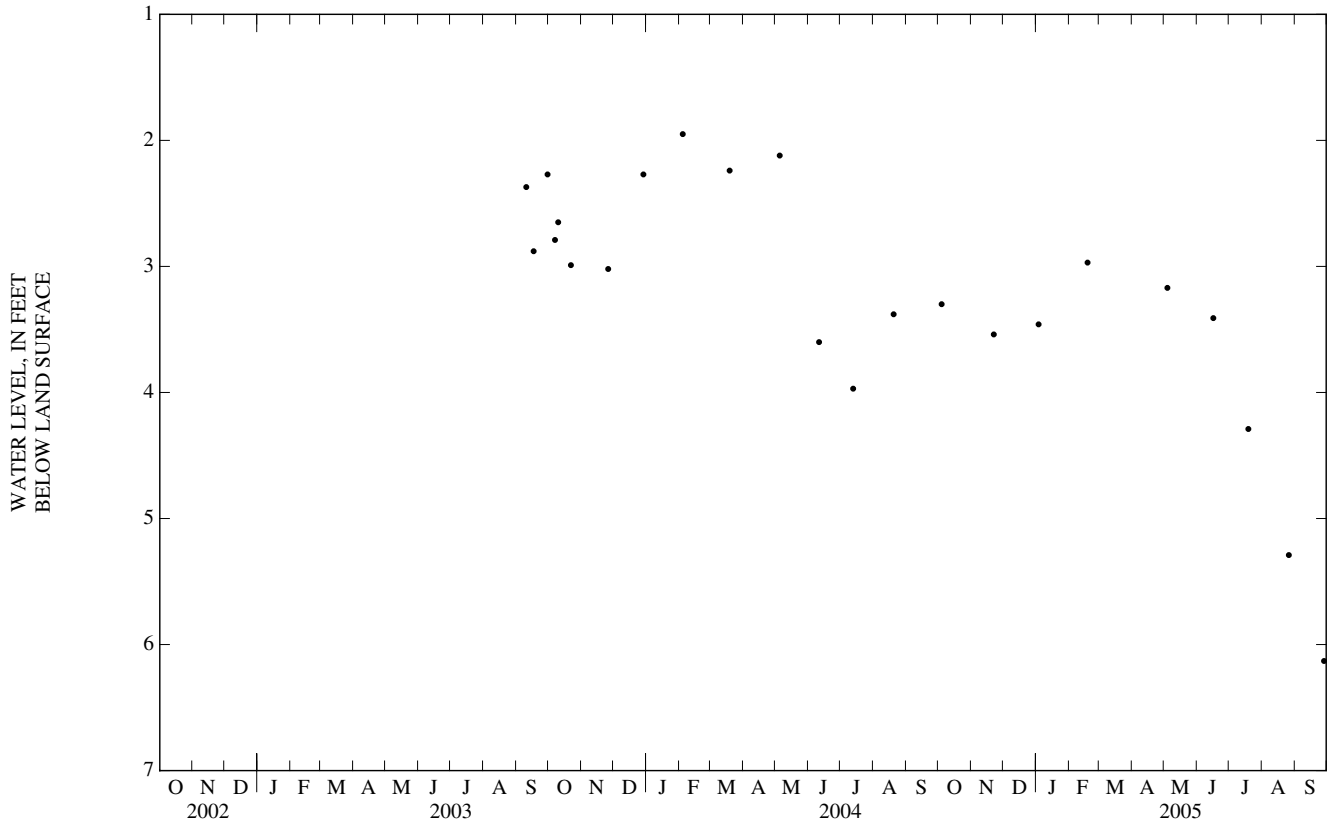
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.16 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 6.13 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	3.30	JAN 03	3.46	MAY 04	3.17	JUL 19	4.29	SEP 28	6.13
NOV 22	3.54	FEB 18	2.97	JUN 16	3.41	AUG 26	5.29		



ROCKINGHAM COUNTY—Continued

362331079421702. County number, RK-259; DENR Upper Piedmont Research Station PZ-6I.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 2 in., cased to 30 ft, screened interval from 30 to 40 ft, sand filter packed from 4 to 15 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 673.02 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.35 ft above land-surface datum.

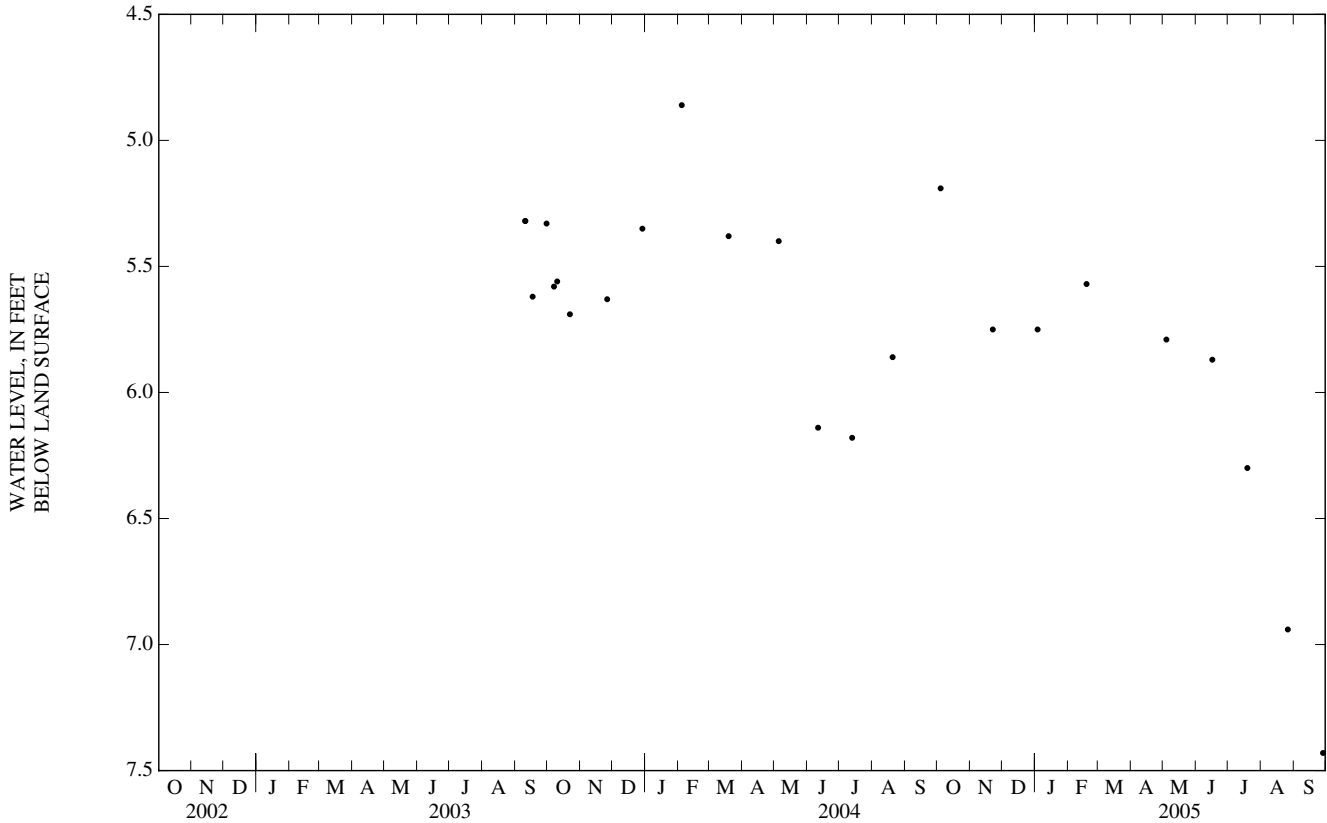
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--September 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.86 ft below land-surface datum, Feb. 4, 2004; lowest water level measured, 7.43 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	5.19	JAN 03	5.75	MAY 04	5.79	JUL 19	6.30	SEP 28	7.43
NOV 22	5.75	FEB 18	5.57	JUN 16	5.87	AUG 26	6.94		



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362331079421703. County number, RK-260; DENR Upper Piedmont Research Station PZ-6D.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 90 ft, diameter 2 in., cased to 70 ft, screened interval from 70 to 90 ft, sand filter packed from 67 to 90 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 673.04 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.34 ft above land-surface datum.

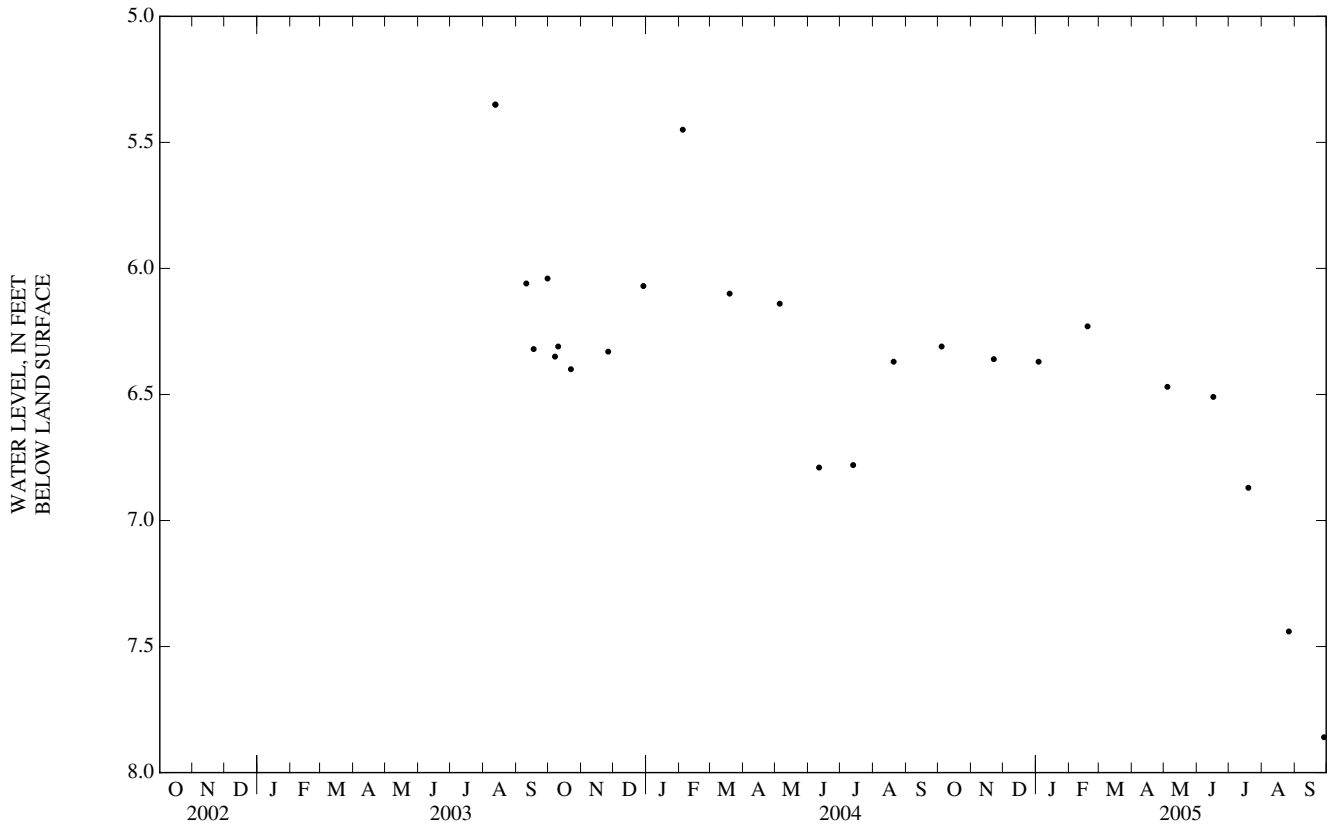
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.35 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 7.86 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	6.31	JAN 03	6.37	MAY 04	6.47	JUL 19	6.87	SEP 28	7.86
NOV 22	6.36	FEB 18	6.23	JUN 16	6.51	AUG 26	7.44		



ROCKINGHAM COUNTY—Continued

362332079421604. County number, RK-261; DENR Upper Piedmont Research Station PZ-7.

LOCATION.--Lat 36°23'32", long 79°42'16", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 19 ft, diameter 2 in., cased to 14 ft, screened interval from 14 to 19 ft, sand filter packed from 12 to 19 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.43 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.19 ft above land-surface datum.

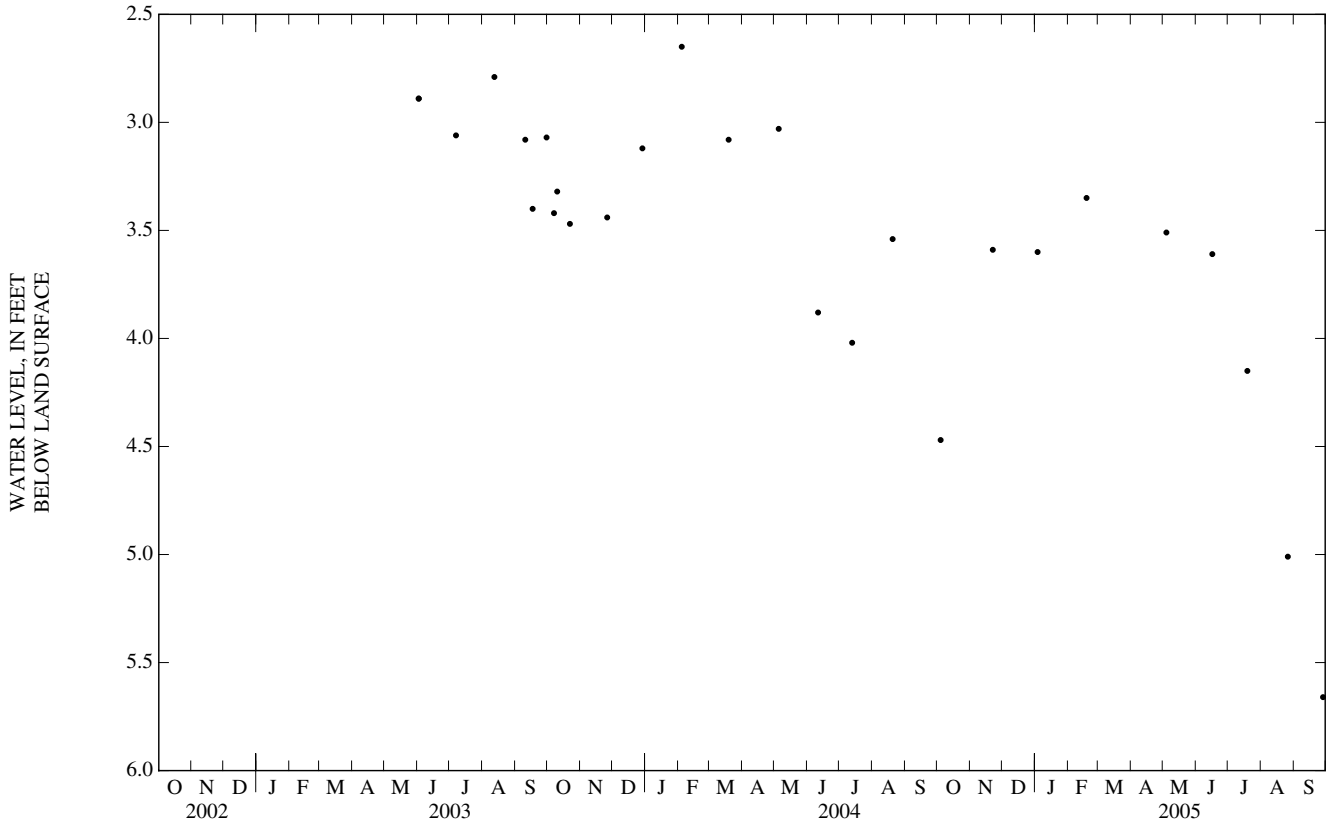
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.65 ft below land-surface datum, Feb. 4, 2004; lowest water level measured, 5.66 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.47	JAN 03	3.60	MAY 04	3.51	JUL 19	4.15	SEP 28	5.66
NOV 22	3.59	FEB 18	3.35	JUN 16	3.61	AUG 26	5.01		



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362331079421501. County number, RK-262; DENR Upper Piedmont Research Station PZ-7I.

LOCATION.--Lat 36°23'32", long 79°42'16", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 2 in., cased to 30 ft, screened interval from 30 to 40 ft, sand filter packed from 26 to 30 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.28 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.33 ft above land-surface datum.

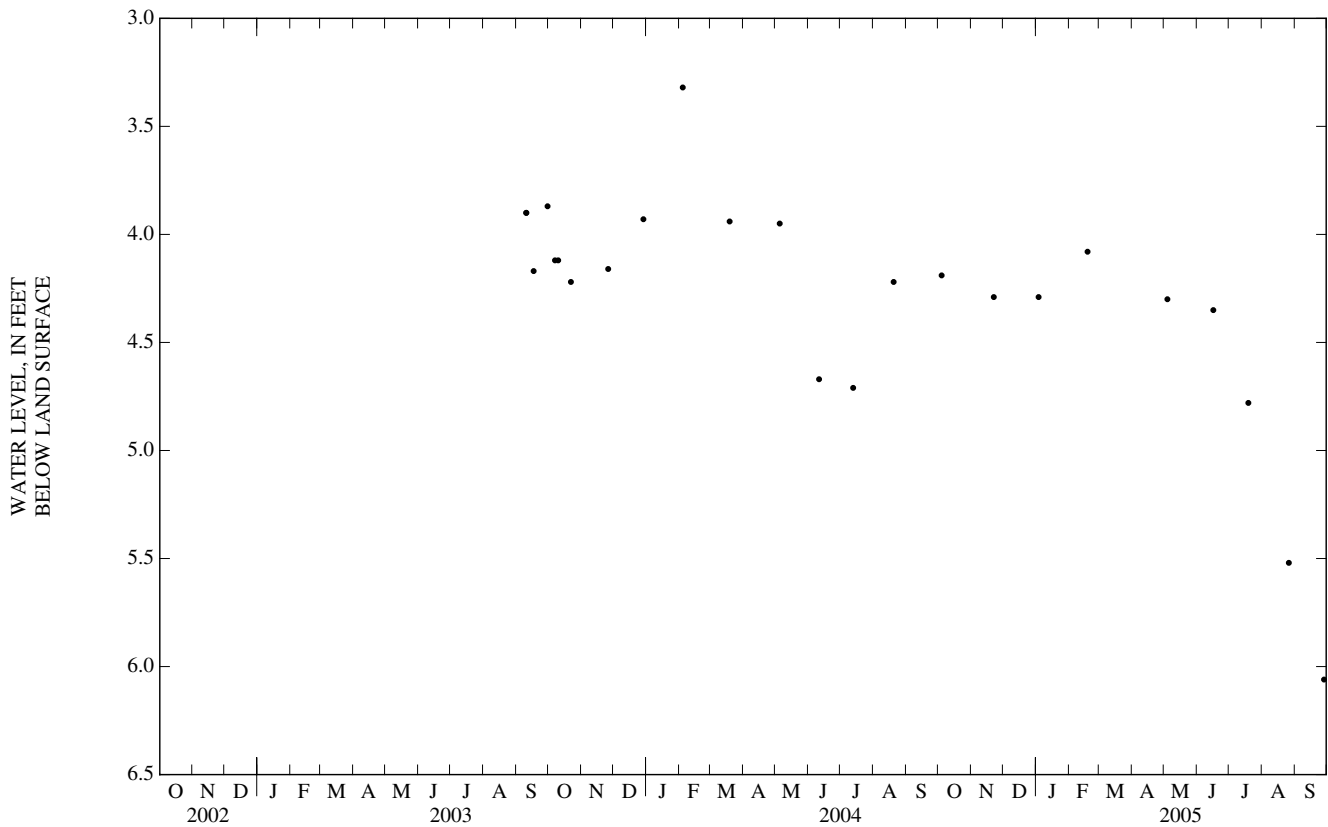
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--September 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.32 ft below land-surface datum, Feb. 4, 2004; lowest water level measured, 6.06 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.19	JAN 03	4.29	MAY 04	4.30	JUL 19	4.78	SEP 28	6.06
NOV 22	4.29	FEB 18	4.08	JUN 16	4.35	AUG 26	5.52		



ROCKINGHAM COUNTY—Continued

362331079421502. County number, RK-263; DENR Upper Piedmont Research Station PZ-7D.

LOCATION.--Lat 36°23'32", long 79°42'16", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 95 ft, diameter 2 in., cased to 75 ft, screened interval from 75 to 95 ft, sand filter packed from 71 to 95 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 671.48 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.22 ft above land-surface datum.

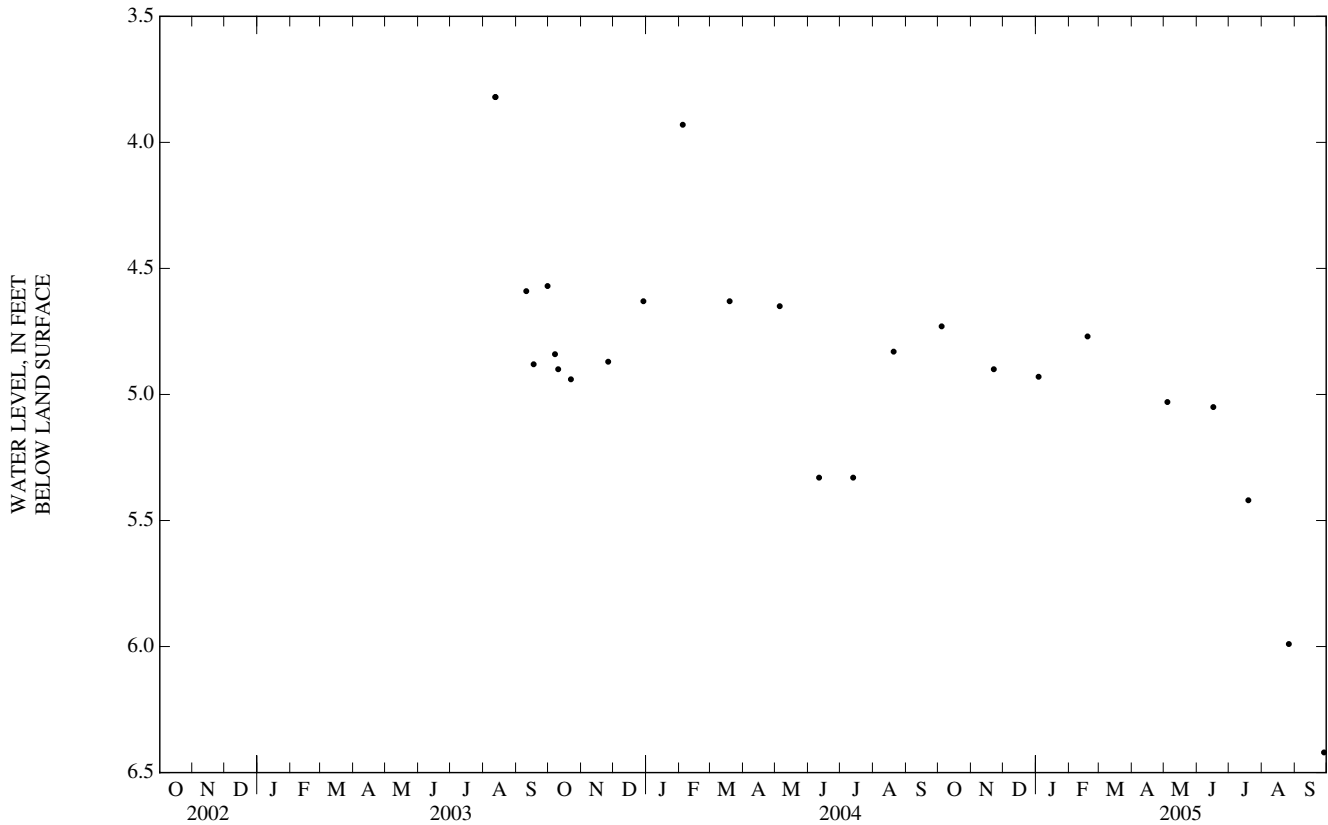
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.82 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 6.42 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	4.73	JAN 03	4.93	MAY 04	5.03	JUL 19	5.42	SEP 28	6.42
NOV 22	4.90	FEB 18	4.77	JUN 16	5.05	AUG 26	5.99		



GROUND-WATER LEVELS
ROCKINGHAM COUNTY—Continued

362332079421605. County number, RK-264; DENR Upper Piedmont Research Station PZ-8.

LOCATION.--Lat 36°23'32", long 79°42'17", Hydrologic Unit 03010103, .6 mi north of Wentworth St, .6 mi west of Secondary Road 1993 on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Biotite Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 24 ft, diameter 2 in., cased to 14 ft, screened interval from 14 to 24 ft, sand filter packed from 12 to 24 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR.

DATUM.--Land-surface datum is 677.21 ft above NGVD of 1929. Measuring point: Top of protective steel casing, 2.34 ft above land-surface datum.

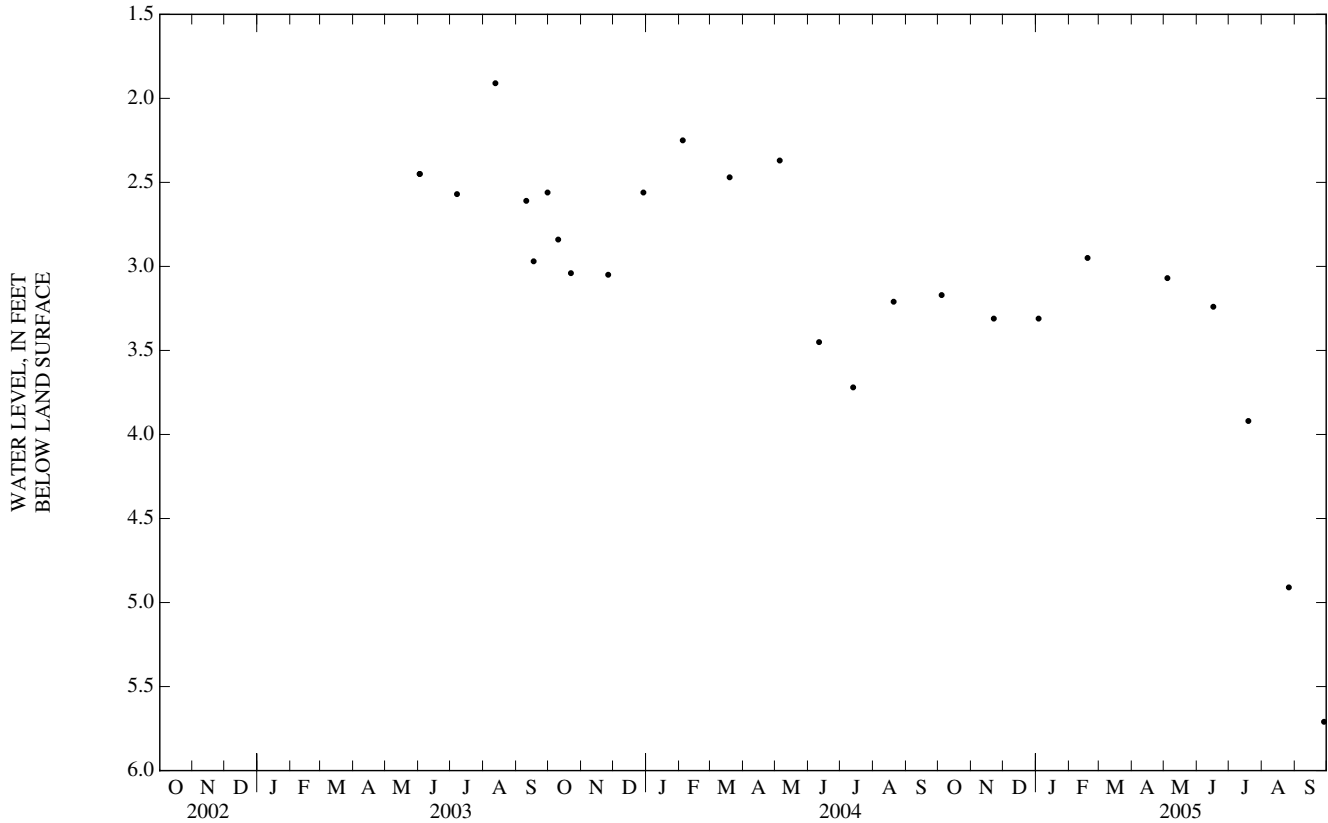
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--June 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.91 ft below land-surface datum, Aug. 12, 2003; lowest water level measured, 5.71 ft below land-surface datum, Sept. 28, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	3.17	JAN 03	3.31	MAY 04	3.07	JUL 19	3.92	SEP 28	5.71
NOV 22	3.31	FEB 18	2.95	JUN 16	3.24	AUG 26	4.91		



ROWAN COUNTY

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

LOCATION.--Lat 35°40'58", long 80°36'25", 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.

WATER-LEVEL RECORDS

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 NGVD of 1929 (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, 11.15 ft below land-surface datum, Sept. 14, 15, 16, 2002.

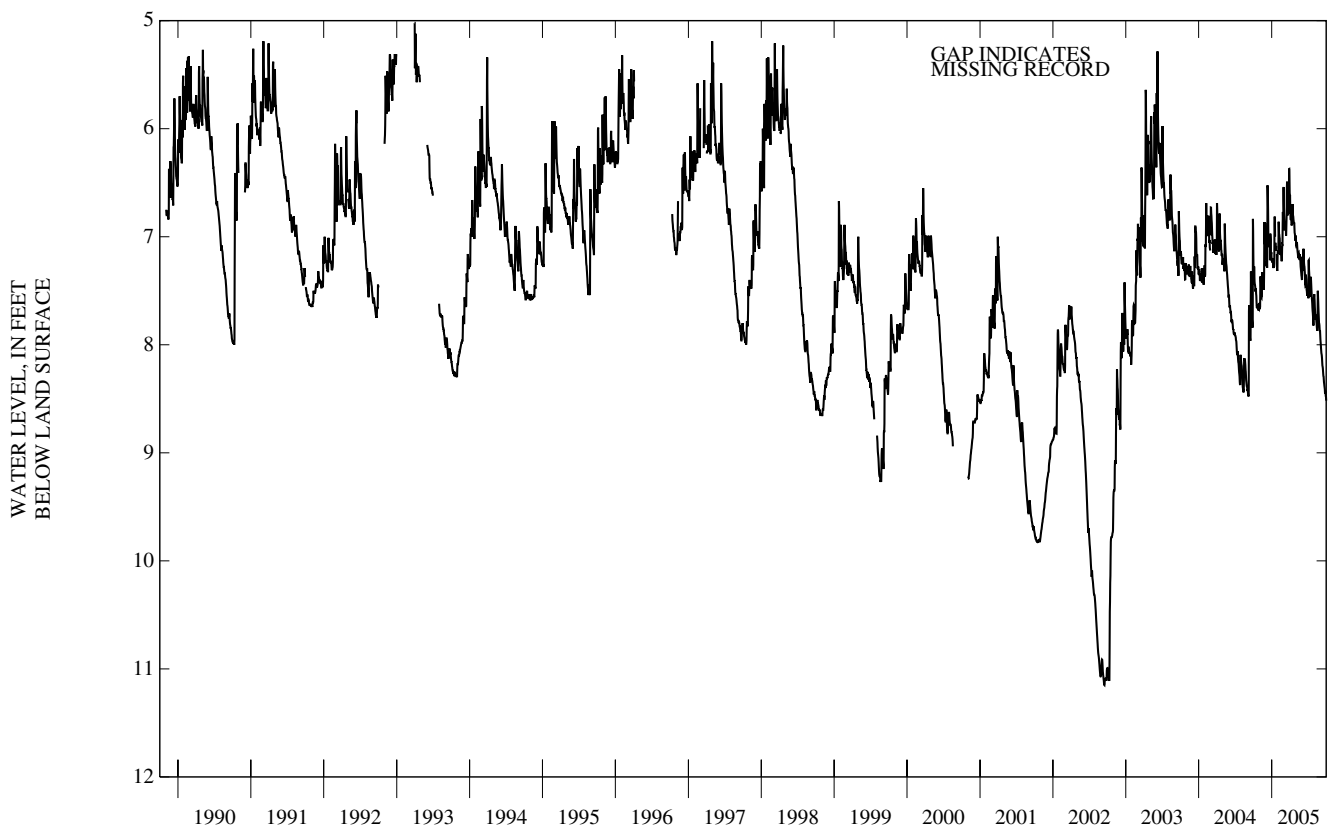
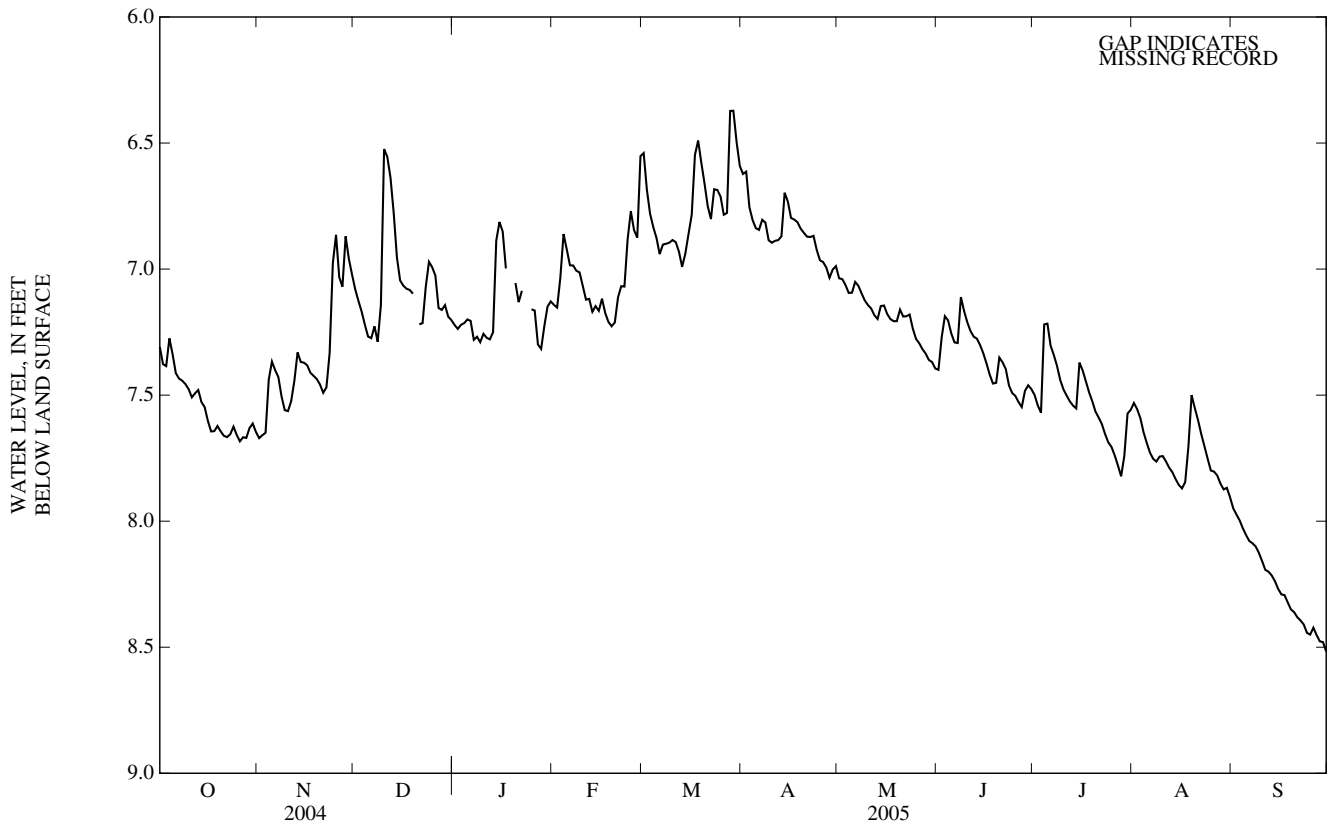
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.31	7.67	7.08	7.22	7.14	6.54	6.62	7.04	7.40	7.50	7.53	7.95
2	7.38	7.66	7.13	7.24	7.15	6.68	6.61	7.04	7.27	7.54	7.56	7.97
3	7.38	7.65	7.17	7.22	7.03	6.78	6.75	7.06	7.19	7.57	7.59	8.00
4	7.28	7.44	7.22	7.21	6.86	6.83	6.81	7.09	7.20	7.22	7.65	8.03
5	7.34	7.37	7.27	7.20	6.92	6.88	6.84	7.09	7.26	7.22	7.69	8.06
6	7.41	7.40	7.27	7.21	6.99	6.94	6.84	7.05	7.29	7.30	7.73	8.08
7	7.43	7.43	7.23	7.28	6.99	6.90	6.80	7.07	7.29	7.34	7.75	8.09
8	7.44	7.51	7.29	7.27	7.01	6.90	6.82	7.10	7.11	7.38	7.76	8.10
9	7.46	7.56	7.14	7.29	7.01	6.90	6.89	7.12	7.17	7.44	7.74	8.13
10	7.48	7.56	6.52	7.26	7.07	6.88	6.90	7.14	7.21	7.48	7.74	8.16
11	7.51	7.52	6.55	7.27	7.12	6.89	6.89	7.16	7.25	7.50	7.76	8.19
12	7.49	7.44	6.64	7.28	7.12	6.93	6.88	7.18	7.27	7.52	7.79	8.20
13	7.48	7.33	6.78	7.25	7.17	6.99	6.87	7.20	7.28	7.54	7.81	8.22
14	7.53	7.37	6.95	6.89	7.15	6.94	6.70	7.15	7.30	7.55	7.83	8.24
15	7.55	7.37	7.04	6.81	7.17	6.86	6.73	7.14	7.33	7.37	7.86	8.27
16	7.60	7.38	7.07	6.85	7.12	6.79	6.80	7.18	7.38	7.40	7.87	8.29
17	7.64	7.41	7.08	7.00	7.17	6.55	6.80	7.20	7.42	7.45	7.84	8.29
18	7.64	7.42	7.08	---	7.21	6.49	6.81	7.21	7.45	7.49	7.70	8.32
19	7.62	7.44	7.10	---	7.23	6.58	6.84	7.21	7.45	7.52	7.50	8.35
20	7.64	7.46	---	7.06	7.21	6.66	6.86	7.16	7.35	7.57	7.55	8.36
21	7.66	7.49	7.22	7.13	7.11	6.75	6.87	7.19	7.37	7.59	7.60	8.38
22	7.67	7.47	7.21	7.09	7.07	6.80	6.87	7.19	7.40	7.62	7.65	8.39
23	7.65	7.33	7.07	---	7.07	6.68	6.87	7.18	7.46	7.65	7.70	8.41
24	7.62	6.98	6.97	---	6.88	6.69	6.92	7.24	7.49	7.69	7.75	8.44
25	7.66	6.86	6.99	7.16	6.77	6.71	6.96	7.28	7.50	7.71	7.80	8.45
26	7.68	7.03	7.03	7.16	6.85	6.78	6.97	7.29	7.53	7.74	7.80	8.42
27	7.67	7.07	7.15	7.30	6.88	6.78	6.99	7.32	7.55	7.78	7.82	8.45
28	7.67	6.87	7.16	7.32	6.55	6.37	7.03	7.33	7.48	7.82	7.85	8.48
29	7.63	6.96	7.14	7.23	---	6.37	7.00	7.36	7.46	7.74	7.87	8.48
30	7.61	7.02	7.19	7.15	---	6.50	6.99	7.37	7.48	7.57	7.87	8.52
31	7.65	---	7.20	7.13	---	6.59	---	7.39	---	7.56	7.91	---

WTR YR 2005 MEAN 7.32 HIGH 6.37 LOW 8.52

GROUND-WATER LEVELS
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—Continued

PRECIPITATION RECORDS

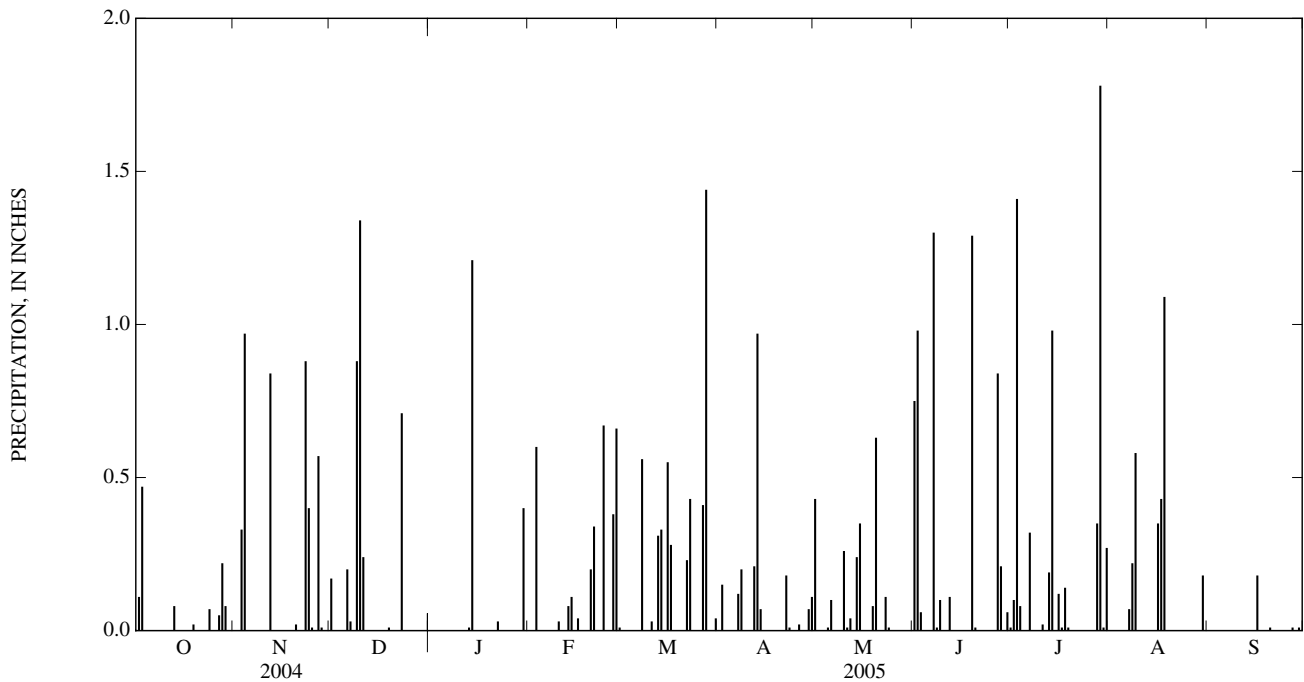
PERIOD OF RECORD.--April 1996 to current year.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

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 2004 TO SEPTEMBER 2005
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.17	0.00	0.00	0.01	0.00	0.43	0.75	0.01	0.00	0.00
2	0.11	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.98	0.10	0.00	0.00
3	0.47	0.33	0.00	0.00	0.60	0.00	0.00	0.00	0.06	1.41	0.00	0.00
4	0.00	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
6	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
7	0.00	0.00	0.03	0.00	0.00	0.00	0.12	0.00	1.30	0.32	0.07	0.00
8	0.00	0.00	0.00	0.00	0.00	0.56	0.20	0.00	0.01	0.00	0.22	0.00
9	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.58	0.00
10	0.00	0.00	1.34	0.00	0.03	0.00	0.00	0.26	0.00	0.00	0.00	0.00
11	0.00	0.00	0.24	0.00	0.00	0.03	0.00	0.01	0.00	0.02	0.00	0.00
12	0.00	0.84	0.00	0.00	0.00	0.00	0.21	0.04	0.11	0.00	0.00	0.00
13	0.08	0.00	0.00	0.01	0.08	0.31	0.97	0.00	0.00	0.19	0.00	0.00
14	0.00	0.00	0.00	1.21	0.11	0.33	0.07	0.24	0.00	0.98	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.04	0.55	0.00	0.00	0.00	0.12	0.35	0.18
17	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.01	0.43	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	1.09	0.00
19	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.08	1.29	0.01	0.00	0.00
20	0.00	0.02	0.00	0.00	0.20	0.00	0.00	0.63	0.01	0.00	0.00	0.01
21	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.03	0.00	0.23	0.18	0.00	0.00	0.00	0.00	0.00
23	0.00	0.88	0.71	0.00	0.00	0.43	0.01	0.11	0.00	0.00	0.00	0.00
24	0.07	0.40	0.00	0.00	0.67	0.00	0.00	0.01	0.00	0.00	0.00	0.00
25	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
27	0.05	0.57	0.00	0.00	0.38	0.41	0.00	0.00	0.84	0.00	0.00	0.01
28	0.22	0.01	0.00	0.00	0.66	1.44	0.00	0.00	0.21	0.35	0.00	0.00
29	0.08	0.00	0.00	0.00	---	0.00	0.07	0.00	0.00	1.78	0.00	0.01
30	0.00	0.00	0.00	0.40	---	0.00	0.11	0.00	0.06	0.01	0.18	0.00
31	0.00	---	0.00	0.00	---	0.04	---	0.00	---	0.27	0.00	---
TOTAL	1.10	4.03	3.58	1.65	3.11	4.62	2.11	2.27	5.72	5.80	2.92	0.21



GROUND-WATER LEVELS

SCOTLAND COUNTY

344520079281001. County number, SC-040; Laurinburg well 4.

LOCATION.--Lat 34°45'18", long 79°28'02", 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 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 NGVD of 1929 (from topographic map). Measuring point: Top of instrument shelf, 1.5 ft above land-surface datum (since July 2000).

REMARKS.--Station operated in cooperation with the City of Laurinburg. Water levels affected by nearby municipal wells.

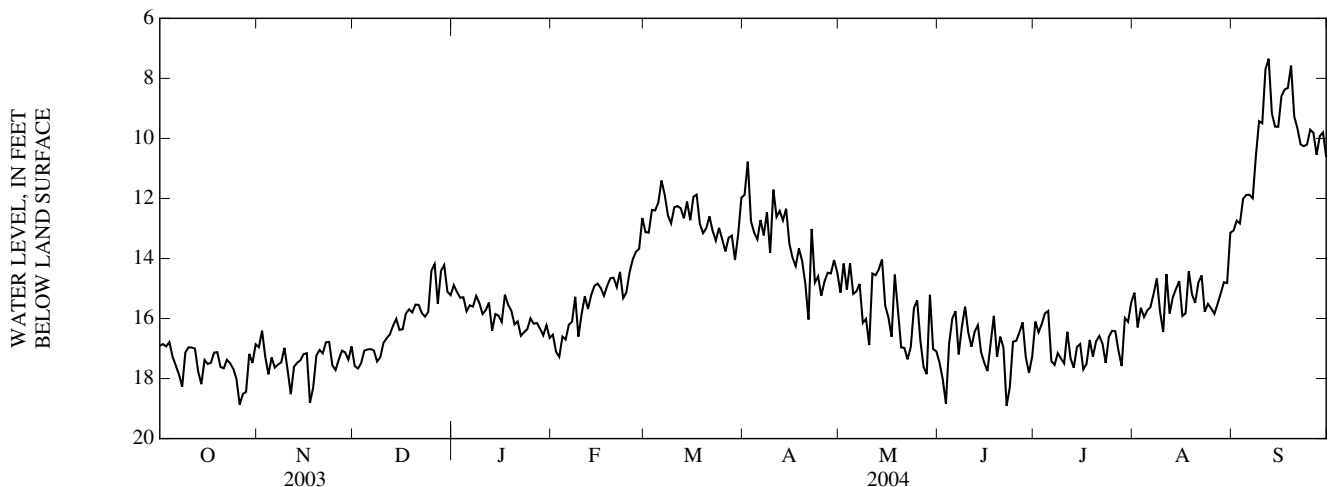
PERIOD OF RECORD.--July 1969 to current year. Continuous record December 2000 to November 2004, April 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.94 ft below land-surface datum, July 10, 2005; lowest water level recorded, 21.83 ft below land-surface datum, June 3, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.91	16.96	17.58	14.89	16.54	13.12	11.88	15.14	17.47	16.10	15.14	13.07
2	16.85	16.41	17.67	15.12	17.11	13.14	10.78	14.17	18.02	16.46	16.30	12.74
3	16.93	17.28	17.49	15.31	17.28	12.38	12.76	15.03	18.84	16.18	15.64	12.83
4	16.78	17.86	17.07	15.29	16.60	12.40	13.14	14.17	16.85	15.83	15.95	12.01
5	17.27	17.30	17.03	15.76	16.70	12.14	13.36	15.18	16.00	15.75	15.73	11.88
6	17.56	17.63	17.02	15.56	16.21	11.40	12.72	15.09	15.76	17.42	15.62	11.88
7	17.86	17.53	17.06	15.60	16.11	11.88	13.23	14.85	17.20	17.55	15.17	11.99
8	18.27	17.46	17.43	15.25	15.28	12.56	12.46	16.14	16.26	17.16	14.67	10.58
9	17.13	16.98	17.29	15.48	16.60	12.83	13.82	16.01	15.61	17.33	15.78	9.43
10	16.96	17.71	16.81	15.85	15.85	12.29	11.71	16.89	16.47	17.50	16.45	9.50
11	16.97	18.52	16.66	15.72	15.26	12.26	12.61	14.50	16.94	16.44	14.52	7.70
12	17.00	17.61	16.53	15.47	15.68	12.33	12.41	14.56	16.44	17.32	15.83	7.35
13	17.76	17.48	16.24	16.40	15.22	12.66	12.73	14.36	16.22	17.64	15.30	9.17
14	18.19	17.39	16.01	15.85	14.91	12.11	12.34	14.04	17.12	16.95	15.01	9.61
15	17.38	17.18	16.38	15.90	14.84	12.73	13.50	15.57	17.48	16.85	14.76	9.61
16	17.51	17.16	16.36	16.11	14.98	11.94	13.98	15.96	17.75	17.70	15.92	8.59
17	17.47	18.81	15.84	15.21	15.24	11.87	14.26	16.61	16.82	17.52	15.83	8.37
18	17.14	18.30	15.70	15.54	14.91	12.85	13.67	14.54	15.91	16.71	14.43	8.32
19	17.12	17.23	15.80	15.74	14.66	13.15	14.08	15.74	17.27	17.27	15.19	7.58
20	17.61	17.05	15.54	16.20	14.64	12.99	14.84	16.96	16.60	16.76	15.48	9.27
21	17.66	17.16	15.55	16.10	14.95	12.60	16.03	16.98	16.97	16.58	14.80	9.67
22	17.37	16.79	15.82	16.58	14.45	13.08	13.02	17.36	18.90	16.84	14.56	10.20
23	17.49	16.78	15.94	16.46	15.32	13.40	14.80	16.95	18.28	17.48	15.78	10.26
24	17.67	17.56	15.78	16.35	15.13	12.98	14.60	15.65	16.77	16.61	15.51	10.20
25	18.02	17.72	14.41	16.00	14.46	13.36	15.24	15.40	16.74	16.41	15.66	9.71
26	18.87	17.37	14.19	16.17	14.03	13.77	14.77	16.73	16.46	16.42	15.85	9.81
27	18.51	17.07	15.51	16.15	13.78	13.31	14.47	17.61	16.13	17.08	15.51	10.54
28	18.44	17.13	14.41	16.34	13.68	13.24	14.50	17.85	17.29	17.58	15.16	9.92
29	17.18	17.37	14.22	16.56	12.65	14.05	14.05	15.21	17.81	15.98	14.79	9.80
30	17.48	16.93	15.11	16.23	---	13.19	14.46	17.02	17.26	16.11	14.82	10.62
31	16.86	---	15.22	16.65	---	11.97	---	17.09	---	15.46	13.14	---

WTR YR 2004 MEAN 15.29 HIGH 7.35 LOW 18.90



GROUND-WATER LEVELS

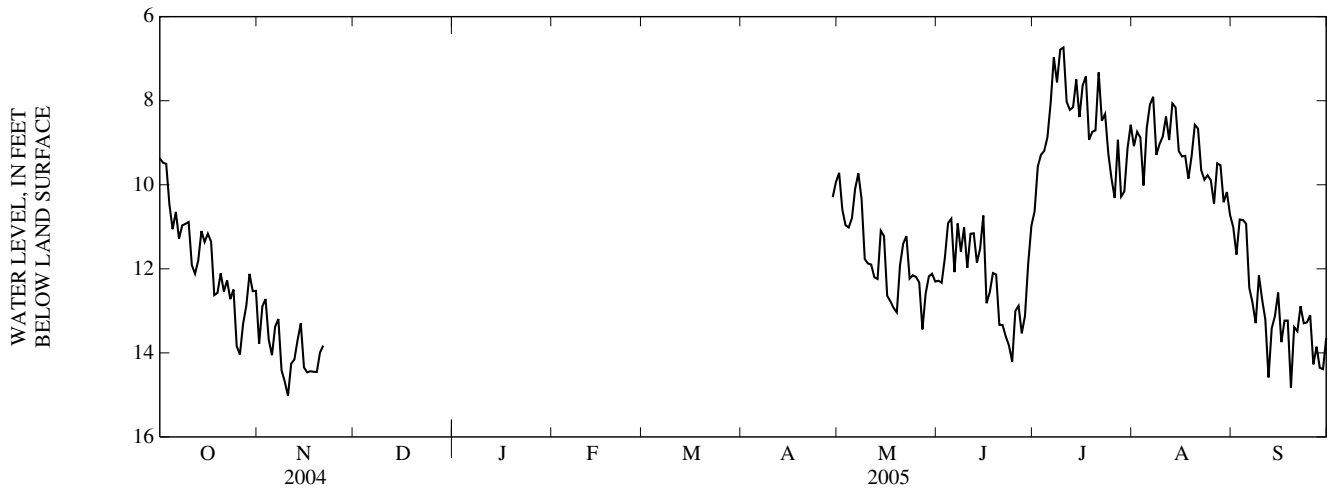
SCOTLAND COUNTY—Continued

344520079281001. County number, SC-040; Laurinburg well 4.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

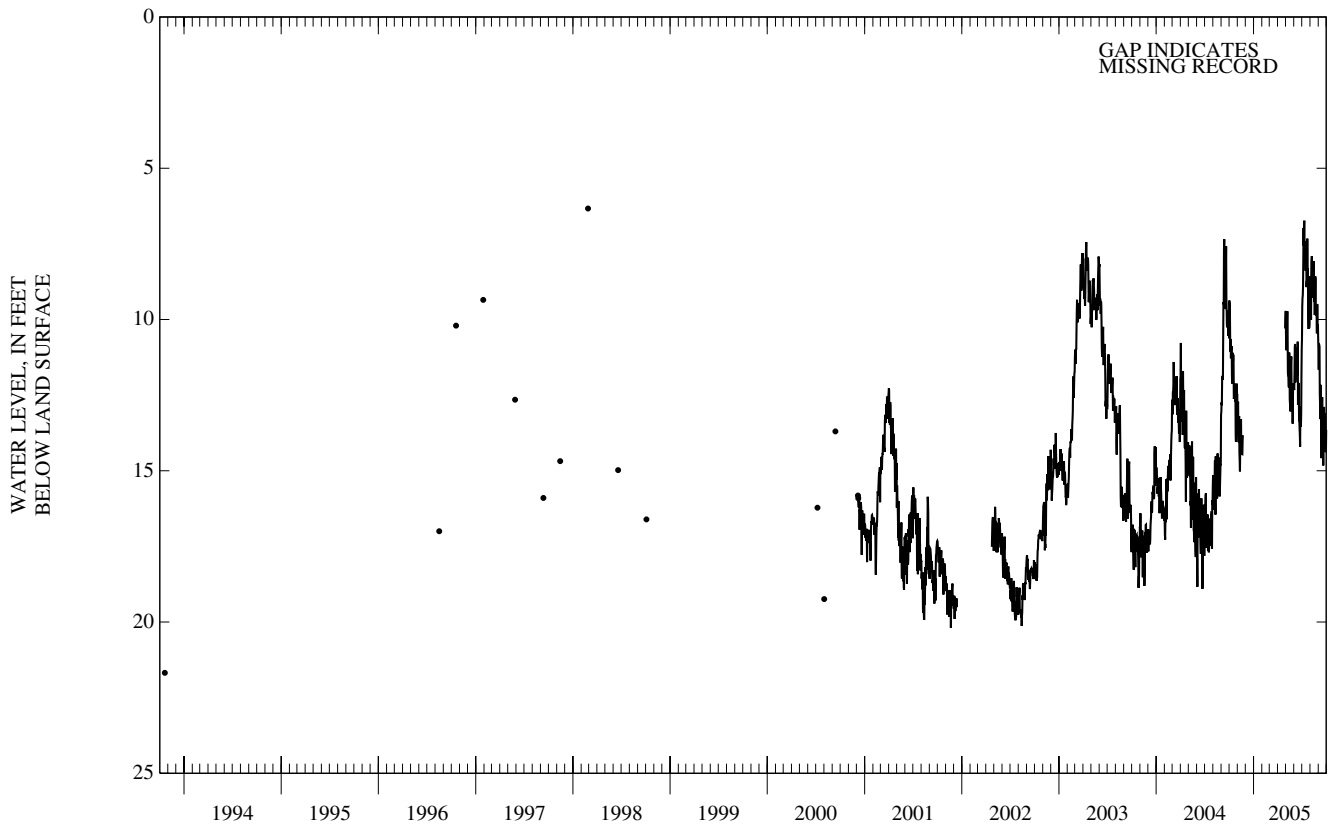
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.37	13.78	---	---	---	---	---	9.72	12.28	10.63	9.08	11.01
2	9.47	12.90	---	---	---	---	---	10.59	12.33	9.56	8.74	11.66
3	9.50	12.72	---	---	---	---	---	10.96	11.74	9.29	8.88	10.83
4	10.47	13.69	---	---	---	---	---	11.02	10.91	9.20	10.02	10.84
5	11.06	14.06	---	---	---	---	---	10.79	10.81	8.87	8.65	10.93
6	10.64	13.37	---	---	---	---	---	10.09	12.08	8.06	8.09	12.45
7	11.28	13.20	---	---	---	---	---	9.73	10.92	6.97	7.91	12.80
8	10.97	14.41	---	---	---	---	---	10.33	11.59	7.56	9.29	13.29
9	10.93	14.69	---	---	---	---	---	11.77	11.02	6.79	9.03	12.16
10	10.89	15.02	---	---	---	---	---	11.87	11.98	6.73	8.85	12.73
11	11.91	14.26	---	---	---	---	---	11.90	11.17	8.03	8.38	13.20
12	12.12	14.16	---	---	---	---	---	12.20	11.15	8.22	8.94	14.58
13	11.80	13.70	---	---	---	---	---	12.24	11.86	8.16	8.07	13.42
14	11.10	13.30	---	---	---	---	---	11.09	11.52	7.49	8.16	13.13
15	11.36	14.35	---	---	---	---	---	11.22	10.73	8.39	9.20	12.57
16	11.16	14.46	---	---	---	---	---	12.64	12.82	7.64	9.33	13.74
17	11.35	14.44	---	---	---	---	---	12.77	12.56	7.42	9.31	13.23
18	12.63	14.45	---	---	---	---	---	12.93	12.10	8.93	9.85	13.23
19	12.57	14.45	---	---	---	---	---	13.04	12.13	8.74	9.32	14.83
20	12.11	13.99	---	---	---	---	---	11.92	13.33	8.71	8.57	13.39
21	12.54	13.83	---	---	---	---	---	11.40	13.34	7.33	8.66	13.49
22	12.28	---	---	---	---	---	---	11.22	13.61	8.48	9.66	12.89
23	12.72	---	---	---	---	---	---	12.23	13.83	8.32	9.88	13.30
24	12.49	---	---	---	---	---	---	12.15	14.21	9.26	9.77	13.27
25	13.84	---	---	---	---	---	---	12.19	13.00	9.85	9.89	13.10
26	14.04	---	---	---	---	---	---	12.33	12.88	10.31	10.46	14.27
27	13.31	---	---	---	---	---	---	13.44	13.53	8.93	9.49	13.85
28	12.88	---	---	---	---	---	---	12.59	13.12	10.28	9.54	14.36
29	12.12	---	---	---	---	---	10.29	12.18	11.88	10.16	10.42	14.39
30	12.53	---	---	---	---	---	9.94	12.12	10.98	9.13	10.17	13.65
31	12.52	---	---	---	---	---	---	12.30	---	8.57	10.72	---

WTR YR 2005 MEAN 11.35 HIGH 6.73 LOW 15.02



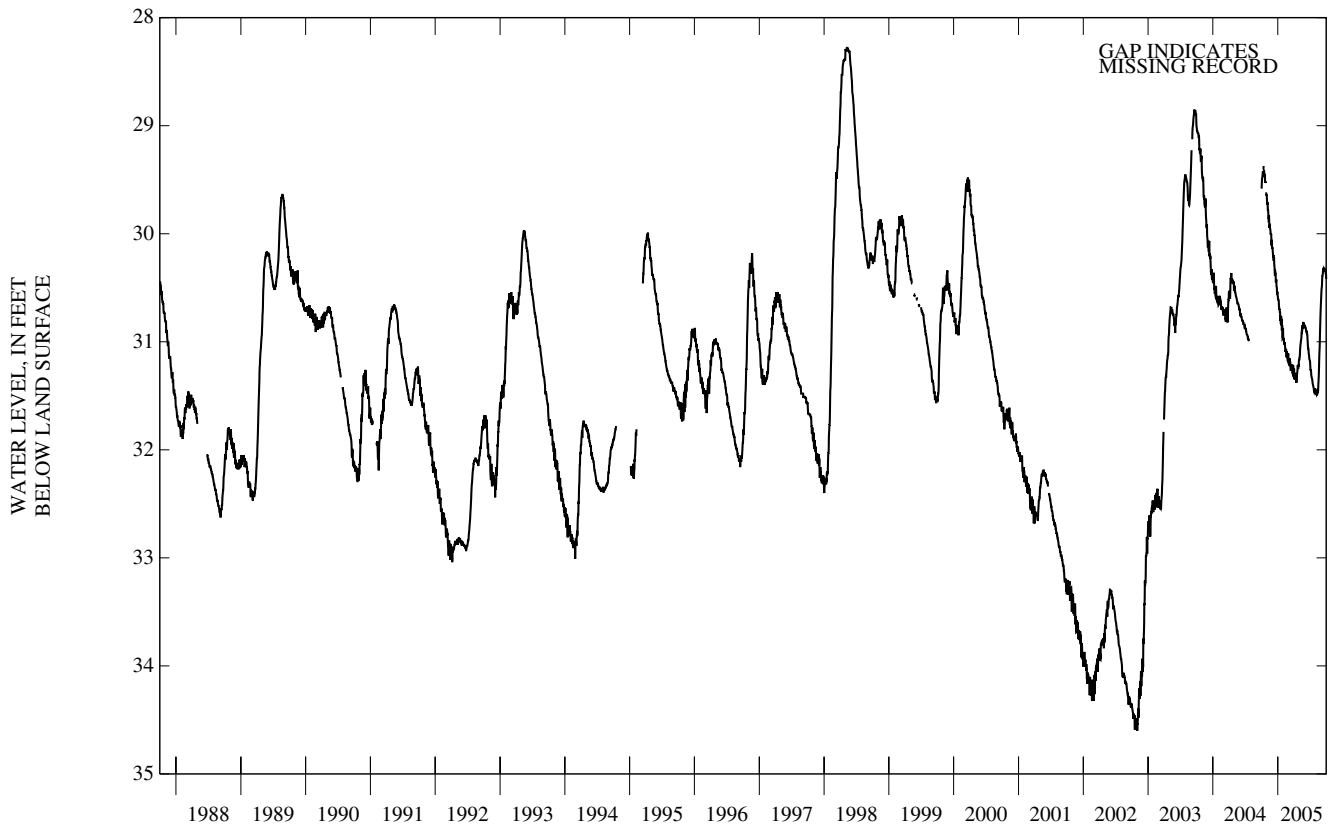
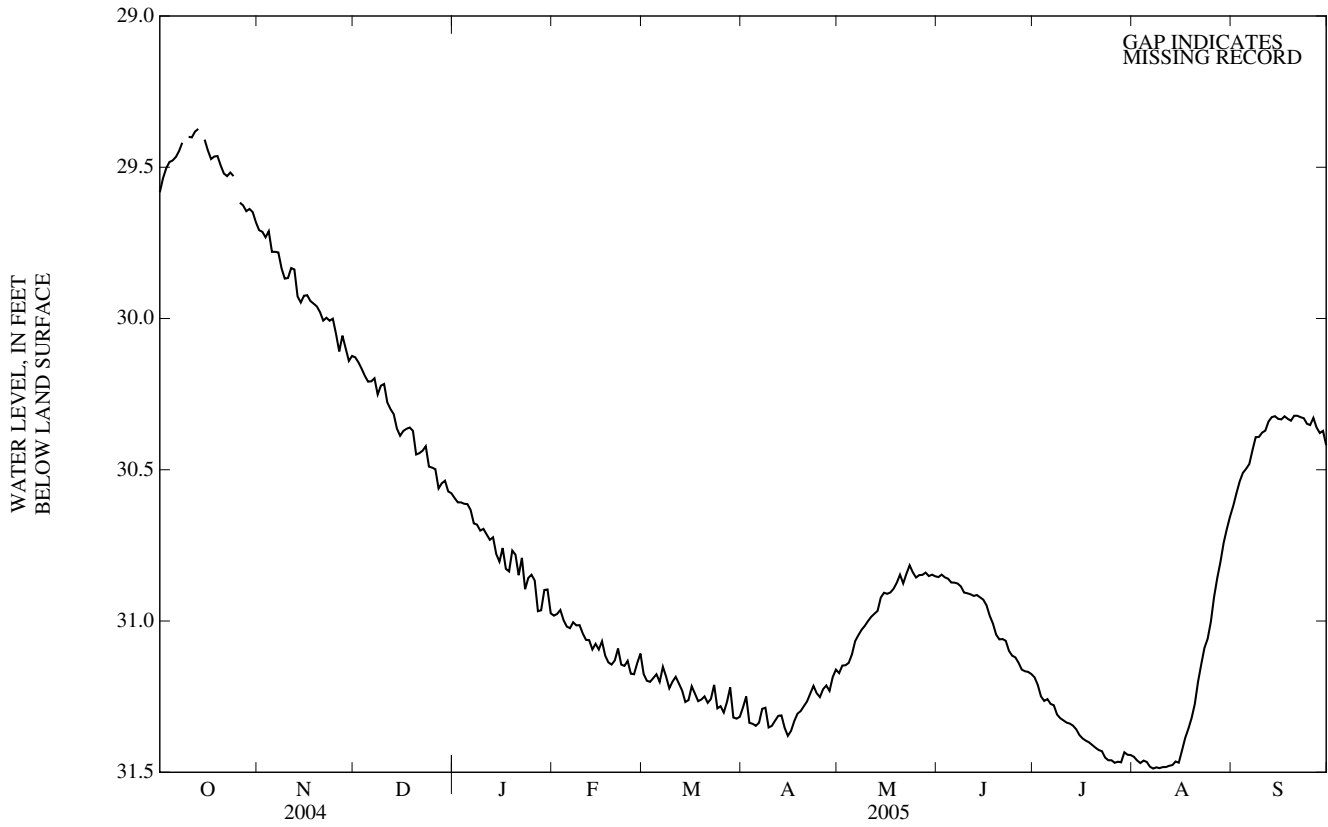
GROUND-WATER LEVELS
SCOTLAND COUNTY—Continued

344520079281001. County number, SC-040; Laurinburg well 4.



GROUND-WATER LEVELS
SCOTLAND COUNTY—Continued

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



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

PRECIPITATION RECORDS

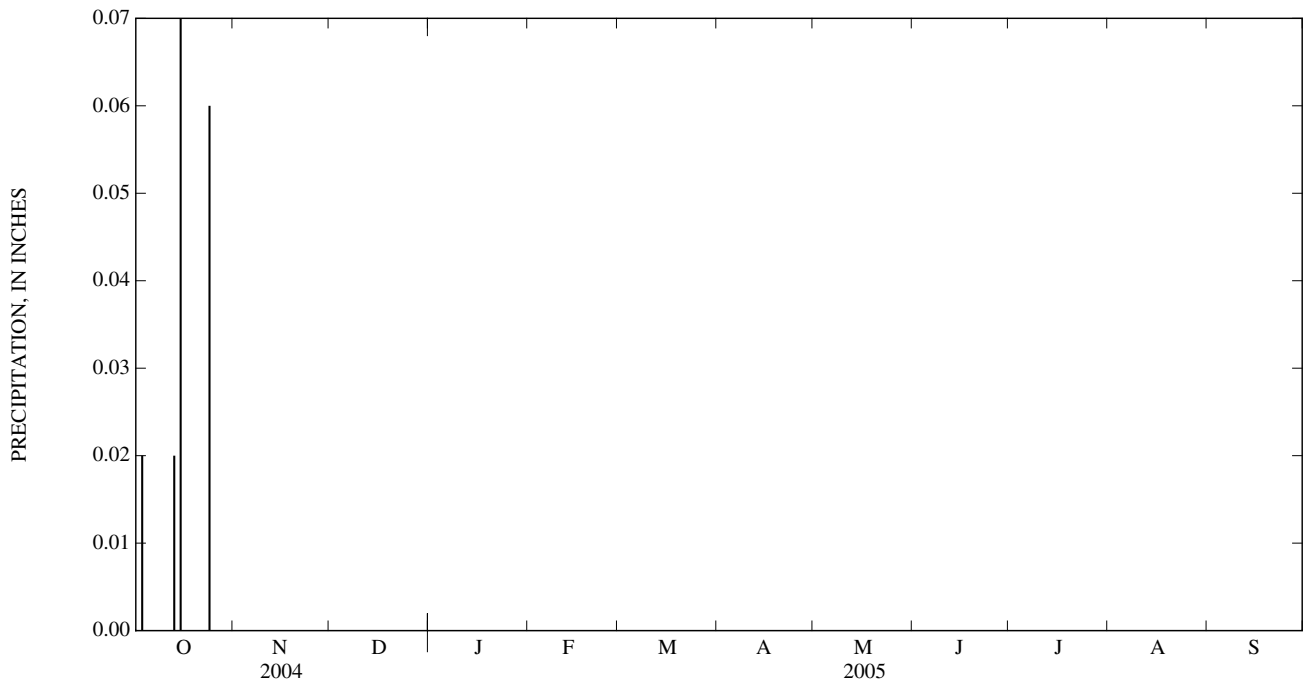
PERIOD OF RECORD.--September 2003 to October 2004.

GAGE.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Gage is operated as part of a U.S. Geological Survey Ground-water Resources Program recharge study. 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 2004 TO SEPTEMBER 2005
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	---	---	---	---	---	---	---	---	---	---	---
2	0.00	---	---	---	---	---	---	---	---	---	---	---
3	0.02	---	---	---	---	---	---	---	---	---	---	---
4	0.00	---	---	---	---	---	---	---	---	---	---	---
5	0.00	---	---	---	---	---	---	---	---	---	---	---
6	0.00	---	---	---	---	---	---	---	---	---	---	---
7	0.00	---	---	---	---	---	---	---	---	---	---	---
8	0.00	---	---	---	---	---	---	---	---	---	---	---
9	0.00	---	---	---	---	---	---	---	---	---	---	---
10	0.00	---	---	---	---	---	---	---	---	---	---	---
11	0.00	---	---	---	---	---	---	---	---	---	---	---
12	0.00	---	---	---	---	---	---	---	---	---	---	---
13	0.02	---	---	---	---	---	---	---	---	---	---	---
14	0.00	---	---	---	---	---	---	---	---	---	---	---
15	0.07	---	---	---	---	---	---	---	---	---	---	---
16	0.00	---	---	---	---	---	---	---	---	---	---	---
17	0.00	---	---	---	---	---	---	---	---	---	---	---
18	0.00	---	---	---	---	---	---	---	---	---	---	---
19	0.00	---	---	---	---	---	---	---	---	---	---	---
20	0.00	---	---	---	---	---	---	---	---	---	---	---
21	0.00	---	---	---	---	---	---	---	---	---	---	---
22	0.00	---	---	---	---	---	---	---	---	---	---	---
23	0.00	---	---	---	---	---	---	---	---	---	---	---
24	0.06	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---



GROUND-WATER LEVELS

SWAIN COUNTY

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

LOCATION.--Lat 35°29'19", long 83°27'23", Hydrologic Unit 06010203, in Bryson City, 0.75 mi southwest of intersection Fontana Dam road and Tuskasegee 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 station.

DATUM.--Land-surface datum is 1,719.00 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of instrument shelf, 6.90 ft above land-surface datum.

REMARKS.--Well is part of terrane-effects network.

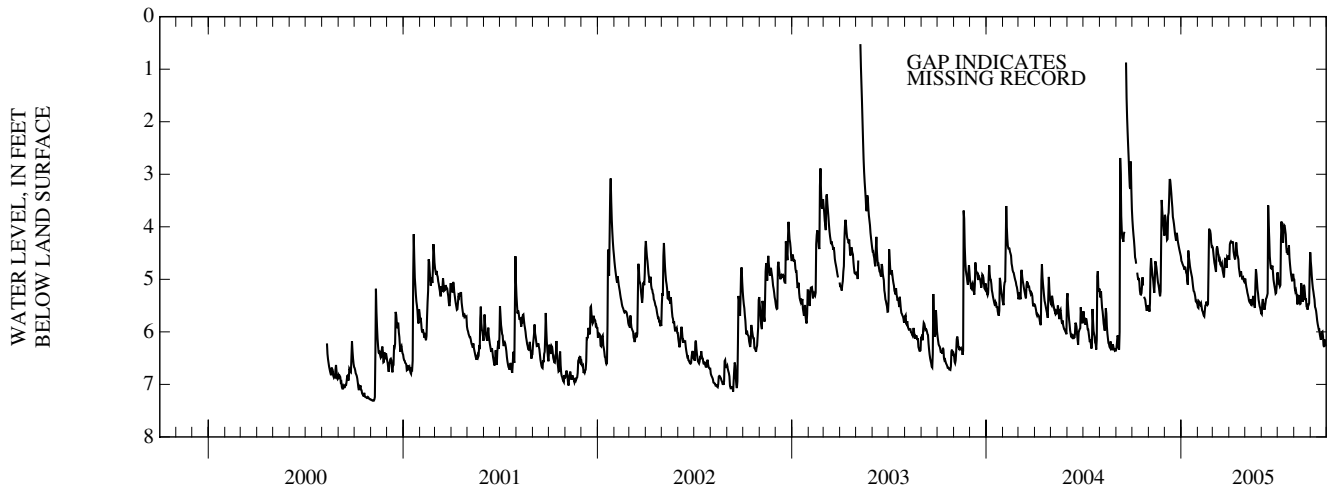
PERIOD OF RECORD.--August 2000 to current year. Records from February 1965 to March 1999 are unpublished and available in the files of the Division of Water Quality, DENR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.86 ft above land-surface datum, Sept. 18, 2004; lowest water level recorded, 7.31 ft below land-surface datum, Nov. 4-7, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

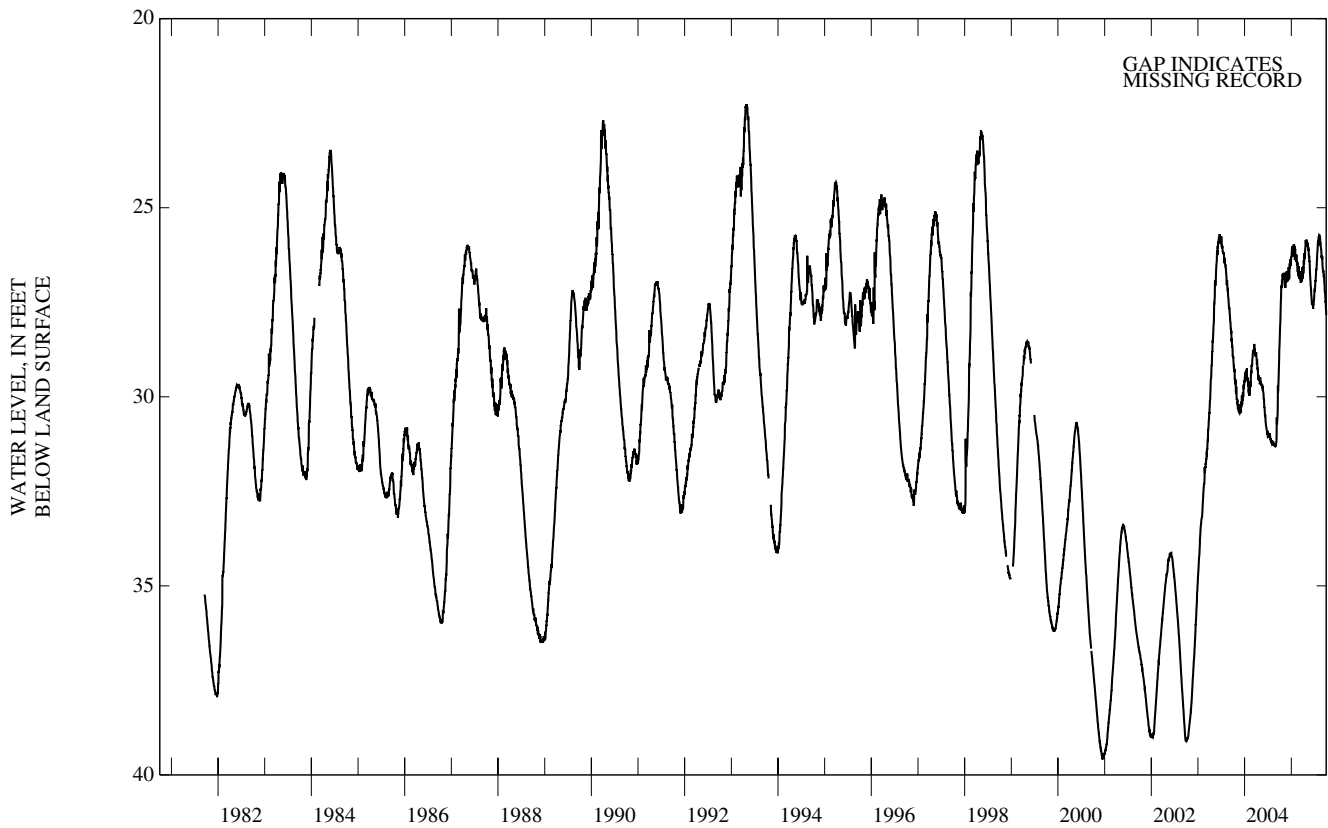
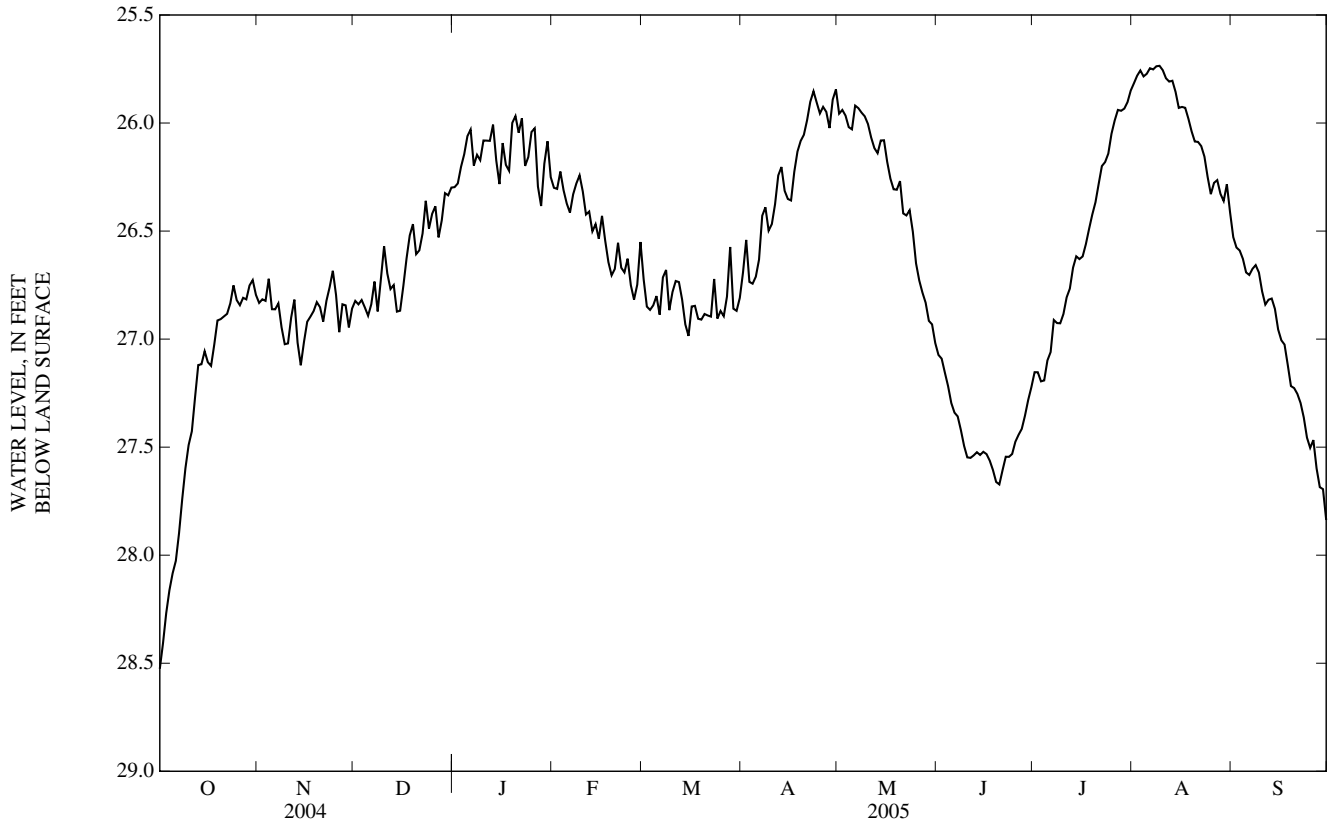
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.87	5.53	3.77	4.65	5.53	4.39	4.63	4.99	5.66	4.87	5.00	4.66
2	4.03	5.62	3.81	4.67	5.55	4.50	4.33	5.08	5.44	5.01	5.17	4.78
3	4.15	5.45	3.96	4.71	5.42	4.59	4.29	5.14	5.37	5.09	5.23	4.95
4	4.27	4.80	4.09	4.73	5.44	4.68	4.28	5.19	5.48	5.09	5.20	5.08
5	4.41	4.60	4.25	4.76	5.47	4.74	4.30	5.26	5.48	5.13	5.27	5.17
6	4.58	4.74	4.23	4.78	5.49	4.81	4.29	5.30	5.58	5.11	5.33	5.24
7	4.62	4.84	3.79	4.82	5.46	4.86	4.29	5.34	5.52	4.26	5.48	5.32
8	4.70	4.94	3.73	4.76	5.53	4.43	4.29	5.41	5.45	3.90	5.31	5.38
9	---	5.02	3.45	4.81	5.59	4.38	4.47	5.43	5.37	4.07	5.31	5.53
10	4.87	5.14	3.09	4.88	5.61	4.42	4.54	5.45	5.35	4.14	5.32	5.55
11	4.95	5.26	3.11	4.90	5.65	4.51	4.59	5.38	5.31	4.30	5.44	5.60
12	5.01	5.05	3.23	5.03	5.69	4.54	4.62	5.48	5.27	4.02	5.47	5.69
13	4.97	4.66	3.36	5.10	5.70	4.63	4.50	5.49	3.59	3.97	5.46	5.78
14	5.05	4.70	3.51	4.45	5.60	4.61	4.30	5.46	3.96	3.98	5.07	5.85
15	5.21	4.77	3.63	4.57	5.50	4.71	4.42	5.38	4.22	4.06	5.20	5.90
16	5.28	4.86	3.81	4.64	5.49	4.73	4.53	5.32	4.56	4.15	5.33	5.95
17	5.29	4.96	3.87	4.74	5.42	4.71	4.57	5.47	4.70	4.38	5.43	5.95
18	5.26	5.06	3.95	4.81	5.47	4.69	4.62	5.49	4.79	4.50	5.32	6.05
19	5.12	5.11	4.03	4.86	5.49	4.80	4.78	5.54	4.79	4.47	5.10	6.10
20	4.96	5.17	4.13	4.91	5.47	4.86	4.85	5.10	4.78	4.53	5.14	6.15
21	5.12	5.26	4.20	4.96	4.77	4.91	4.93	4.81	4.74	4.50	5.26	6.08
22	---	5.32	4.27	5.05	4.04	4.96	4.92	4.90	4.87	4.35	5.40	6.00
23	5.33	5.23	4.12	5.15	4.07	4.73	4.85	5.04	5.01	4.58	5.36	5.99
24	5.37	4.31	4.16	5.22	4.08	4.61	4.93	5.20	5.08	4.71	5.50	6.08
25	5.38	3.49	4.26	5.23	4.14	4.61	4.98	5.27	5.14	4.82	5.49	6.26
26	5.47	3.69	4.32	5.27	4.30	4.72	4.98	5.39	5.20	4.91	5.58	6.29
27	5.53	3.84	4.37	5.33	4.38	4.78	4.96	5.45	5.27	4.97	5.51	6.14
28	5.60	3.94	4.42	5.42	4.37	4.57	5.02	5.51	5.26	5.04	5.49	6.22
29	5.50	4.06	4.47	5.43	---	4.58	5.04	5.54	5.13	4.93	5.45	6.25
30	5.54	4.17	4.52	5.42	---	4.57	5.02	5.60	4.89	4.89	4.83	6.27
31	5.55	---	4.56	5.48	---	4.58	---	5.65	---	4.99	4.49	---

WTR YR 2005 MEAN 4.92 HIGH 3.09 LOW 6.29



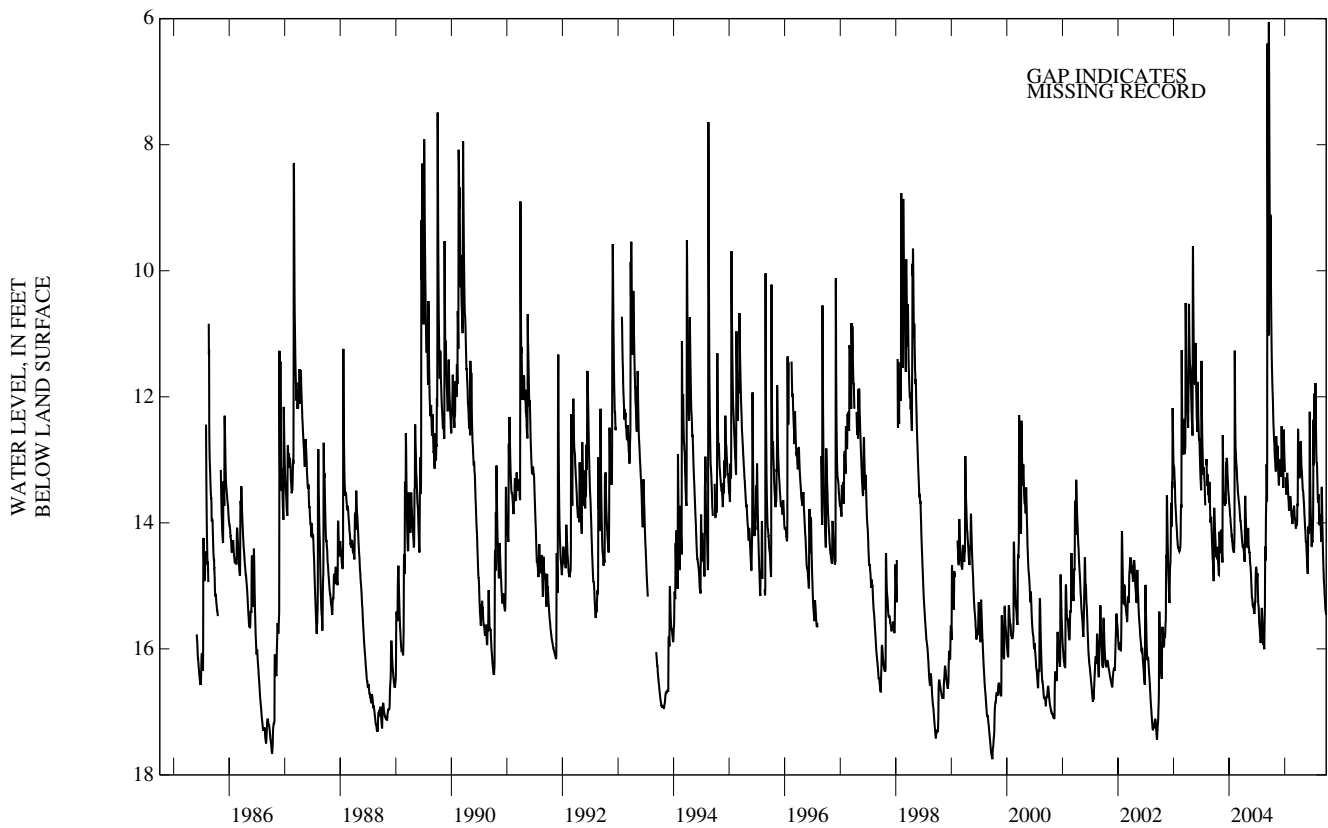
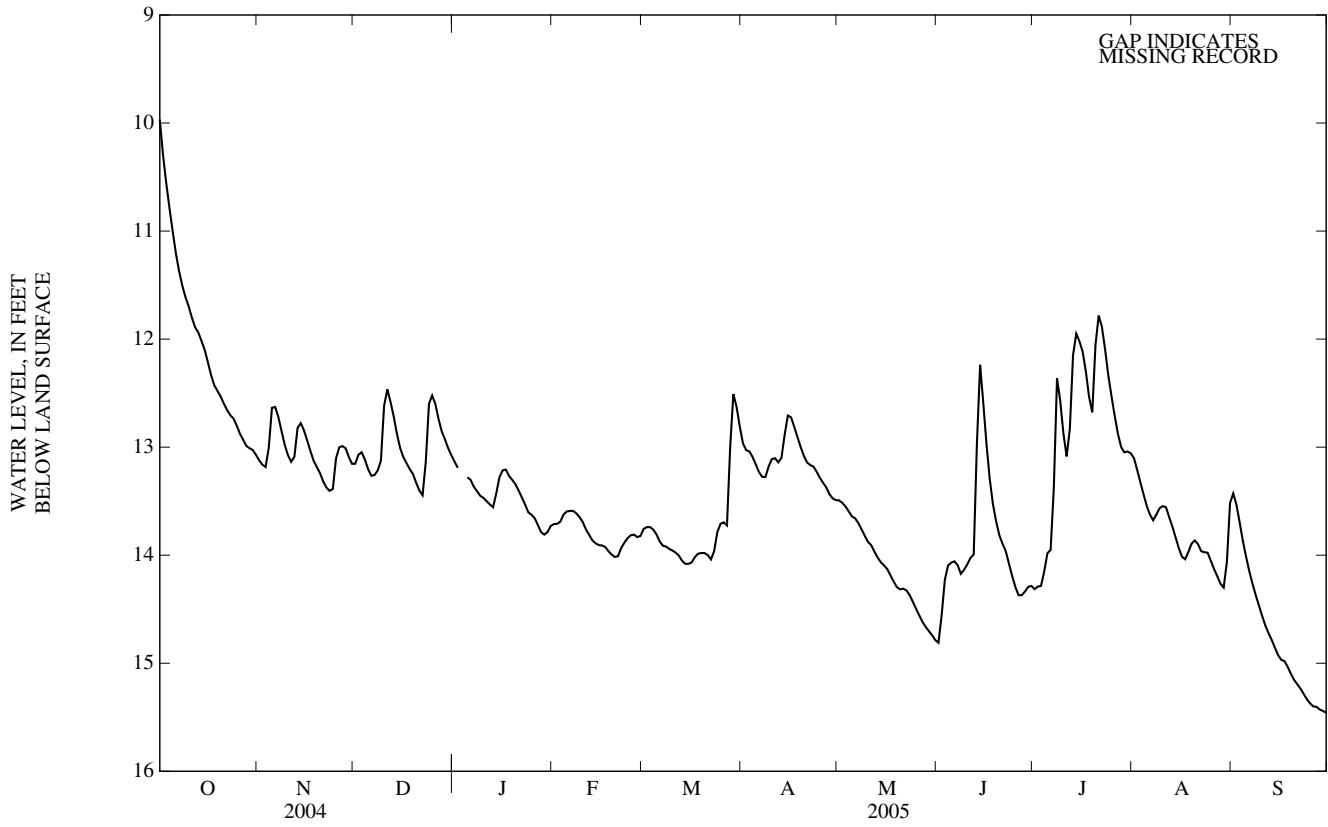
GROUND-WATER LEVELS
TRANSYLVANIA COUNTY—Continued

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



GROUND-WATER LEVELS
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°43'57", long 78°40'35", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 20 ft, diameter 4 in., cased to 5 ft, screened interval from 5 to 20 ft, sand filter packed from 5 to 20 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 334.38 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.97. Instrument shelter removed June 17, 2004.

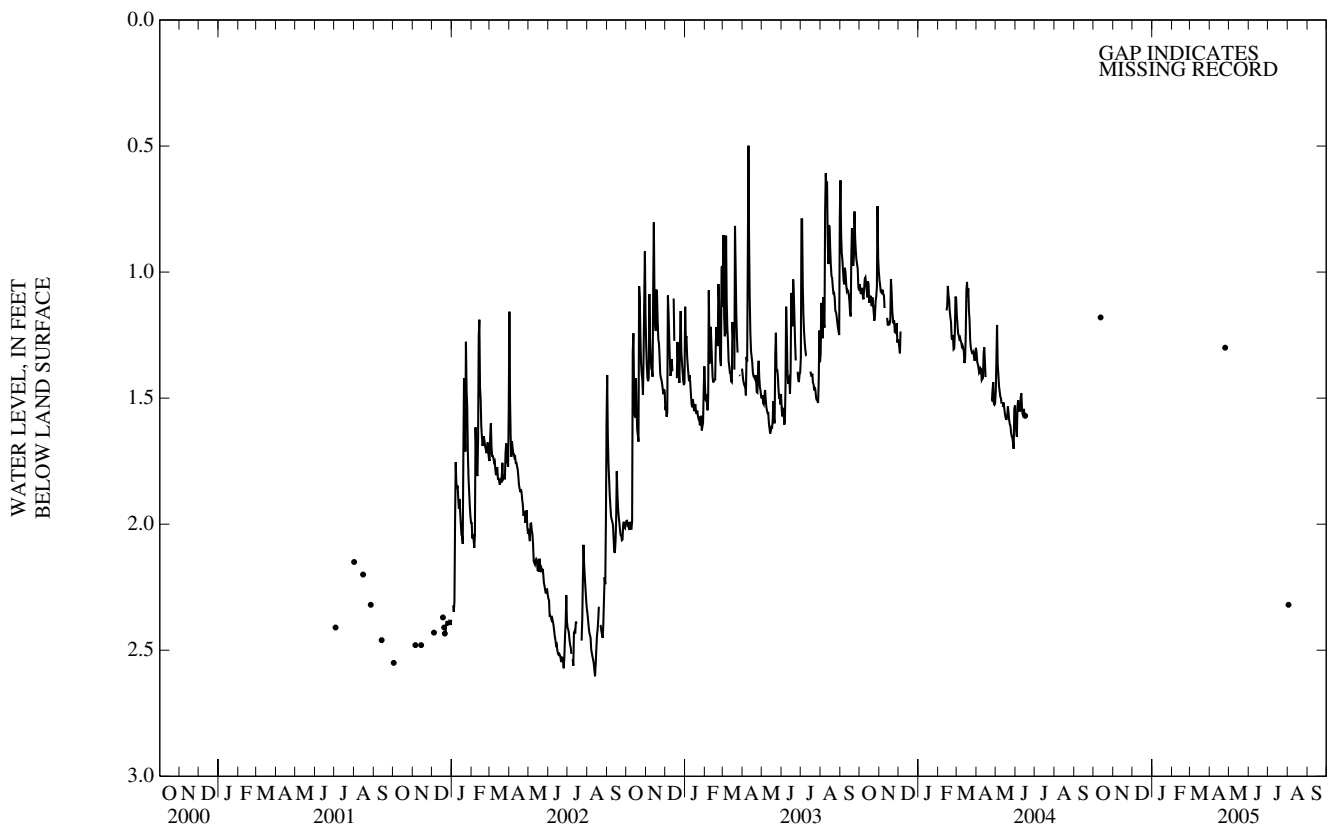
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year. Continuous record December 2001 to June 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, -0.38 ft below land-surface datum, July 2, 2003; lowest water level recorded, 2.71 ft below land-surface datum, Aug. 13, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	1.18	APR 25	1.30	AUG 02	2.32



GROUND-WATER LEVELS
WAKE COUNTY—Continued

354356078403502. County number, WK-278; DENR Lake Wheeler Research Station MW-11 (Transition zone well).

LOCATION.--Lat 35°43'56", long 78°40'35", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 41.5 ft, diameter 4 in., cased to 31.5 ft, screened interval from 31.5 to 41.5 ft, sand filter packed from 26.5 to 42 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by USGS and DENR)

DATUM.--Land-surface datum is 335.36 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.91 ft above land-surface datum. Instrument shelter removed June 17, 2004.

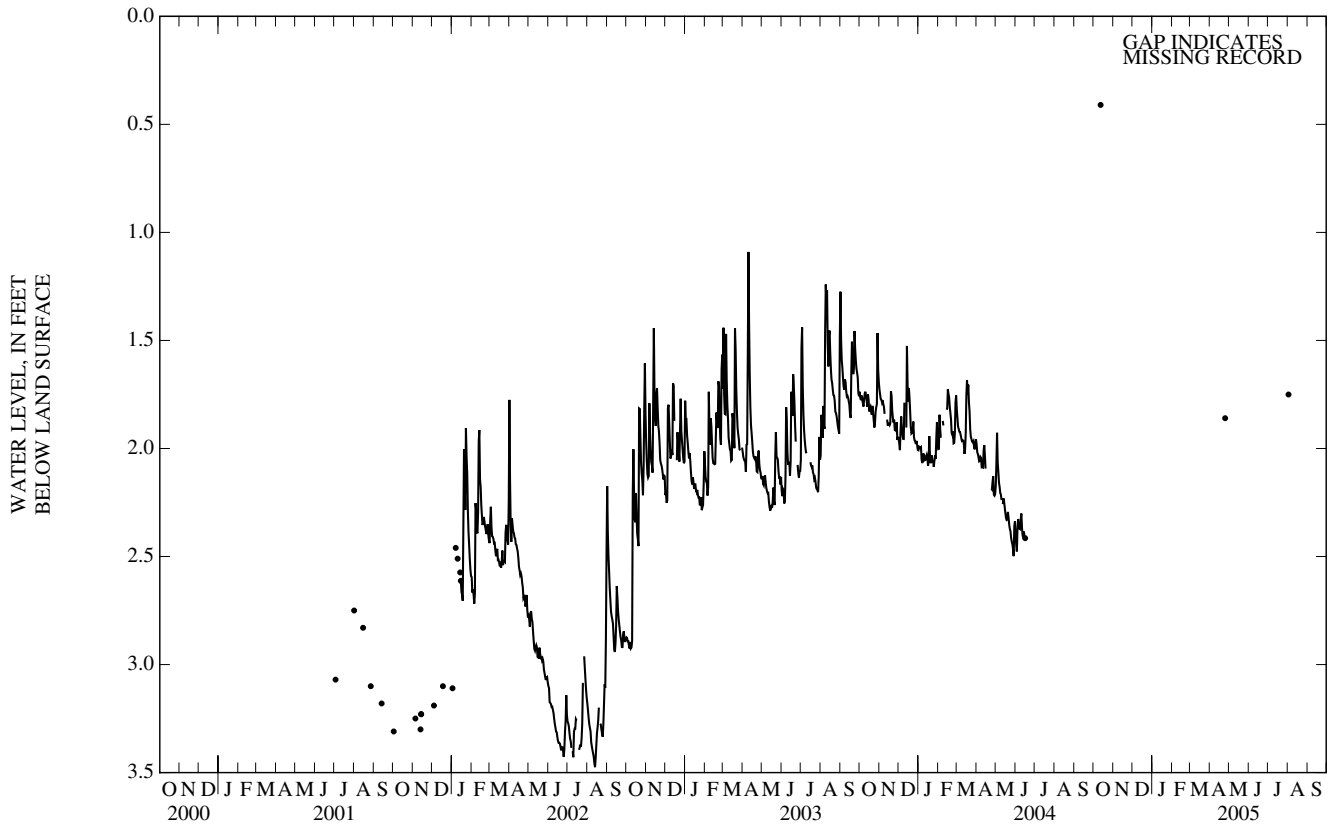
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year. Continuous record December 2001 to June 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.41 ft below land-surface datum, Oct. 12, 2004; lowest water level recorded, 3.57 ft below land-surface datum, Aug. 13, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	.41	APR 25	1.86	AUG 02	1.75



WAKE COUNTY—Continued

354356078403503. County number, WK-279; DENR Lake Wheeler Research Station MW-1D (Bedrock well).

LOCATION.--Lat 35°43'56", long 78°40'34", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Raleigh Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 302 ft, diameter 6 in., cased to 47 ft, open hole from 47 to 302 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by USGS and DENR).

DATUM.--Land-surface datum is 358.62 ft above NGVD of 1929. Measuring point: Top of 6-inch PVC, 1.84 ft above land-surface datum. Instrument shelter removed June 17, 2004.

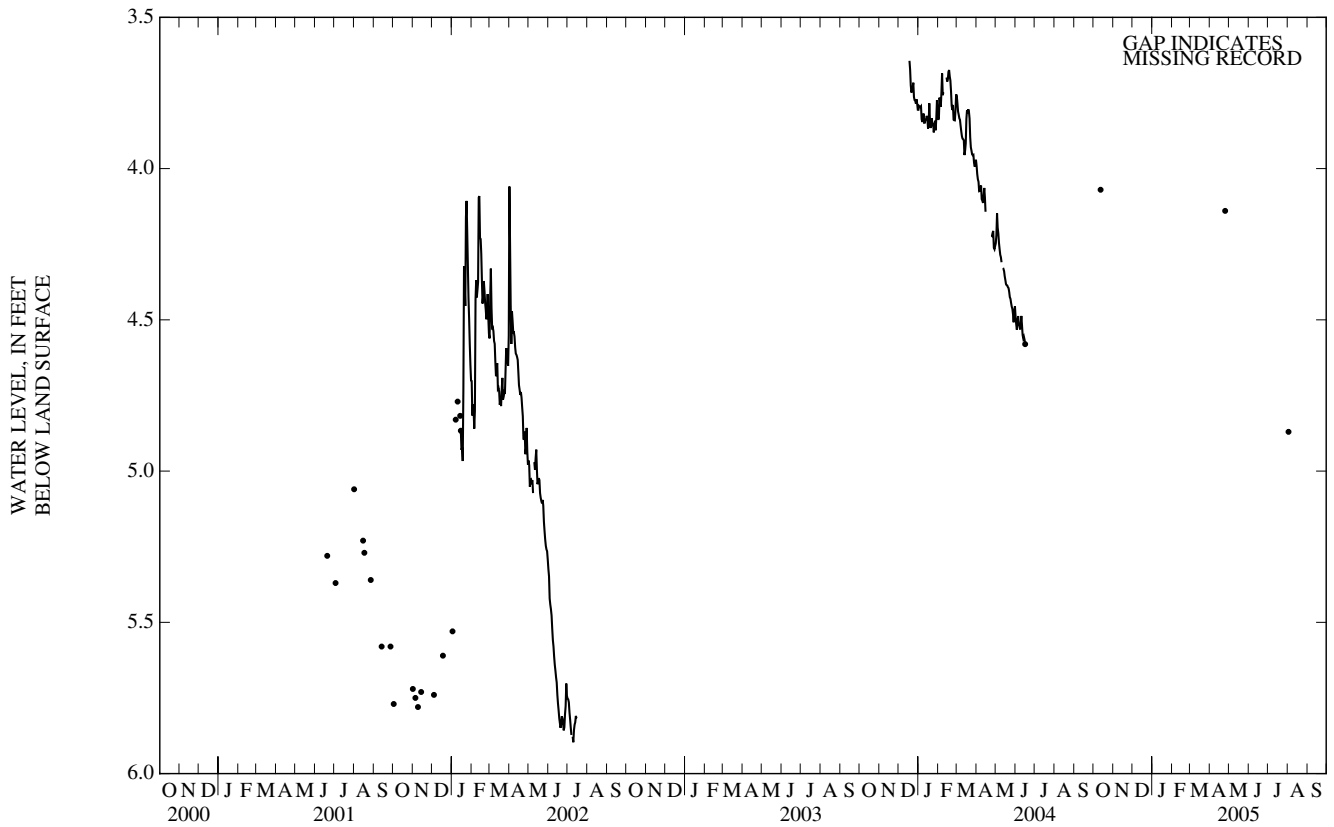
REMARKS.--Well is part of Piedmont/Mountains ground-water study. Inflatable packer installed on July 16, 2001 and water-level records stored as 354356078403504 (WK-279A) and 354356078403505 (WK279B). Packer set at 75 ft below land surface. Packer removed Nov. 13, 2003.

PERIOD OF RECORD.--June 2001 to July 2002, November 2003 to current year. Continuous record December 2001 to July 2002, November 2003 to June 2004. Periodic measurements made by DENR and U.S. Geological Survey, June 2001 to August 2004.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.28 ft below land-surface datum, Aug. 31, 2004; lowest water level recorded, 5.94 ft below land-surface datum, July 10, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	4.07	APR 25	4.14	AUG 02	4.87



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354359078403101. County number, WK-280; DENR Lake Wheeler Research Station MW-2S (Regolith well).

LOCATION.--Lat 35°44'00", long 78°40'31", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 40 ft, diameter 4 in., cased to 20 ft, screened interval from 20 to 40 ft, sand filter packed from 17 to 40 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 362 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.81 ft above land-surface datum.

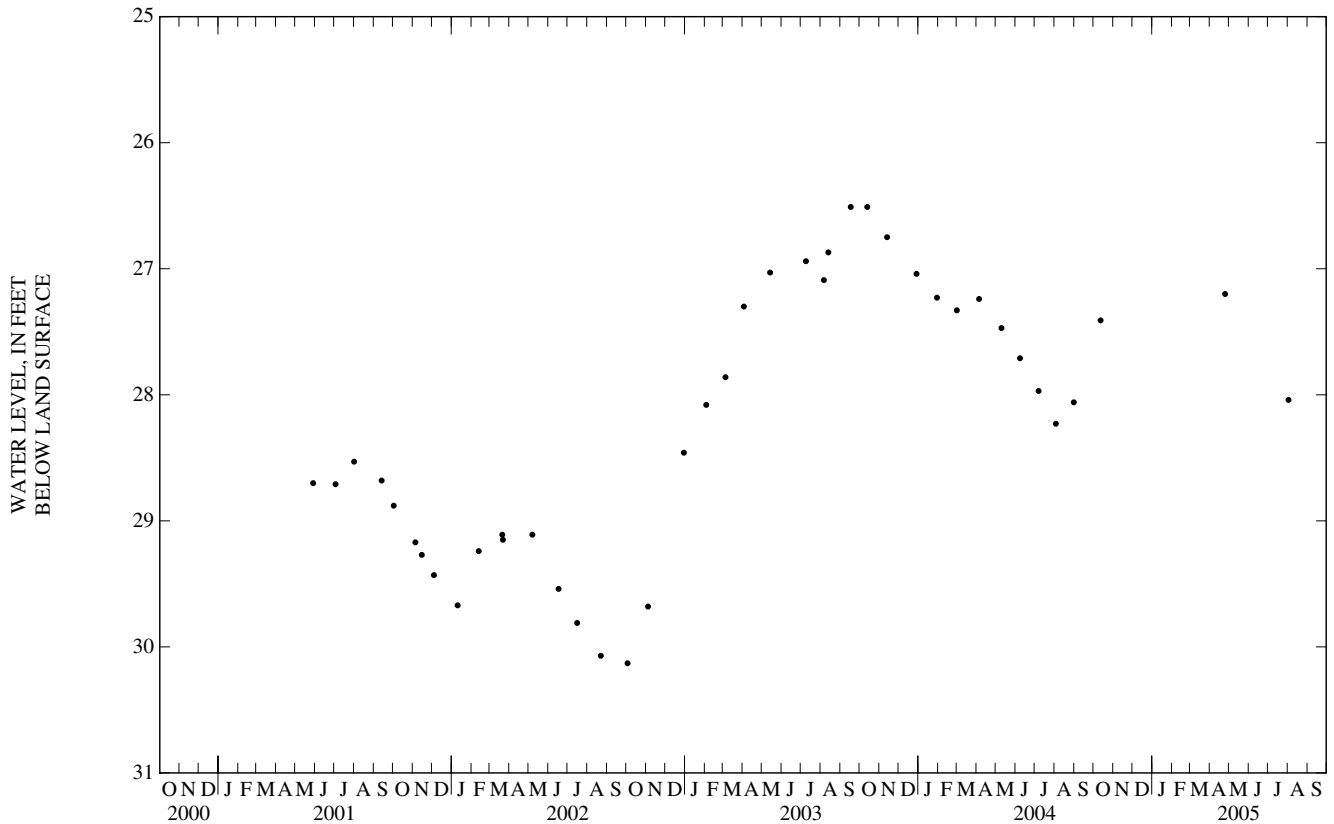
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.51 ft below land-surface datum, Sept. 17, 2003; lowest water level measured, 30.13 ft below land-surface datum, Oct. 3, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	27.41	APR 25	27.20	AUG 02	28.04



WAKE COUNTY—Continued

354359078403102. County number, WK-281; DENR Lake Wheeler Research Station MW-2I (Intermediate well).

LOCATION.--Lat 35°44'00", long 78°40'32", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Transition zone (Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 4 in., cased to 40 ft, screened interval from 40 to 50 ft, sand filter packed from 38 to 50 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 361.19 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.82 ft above land-surface datum.

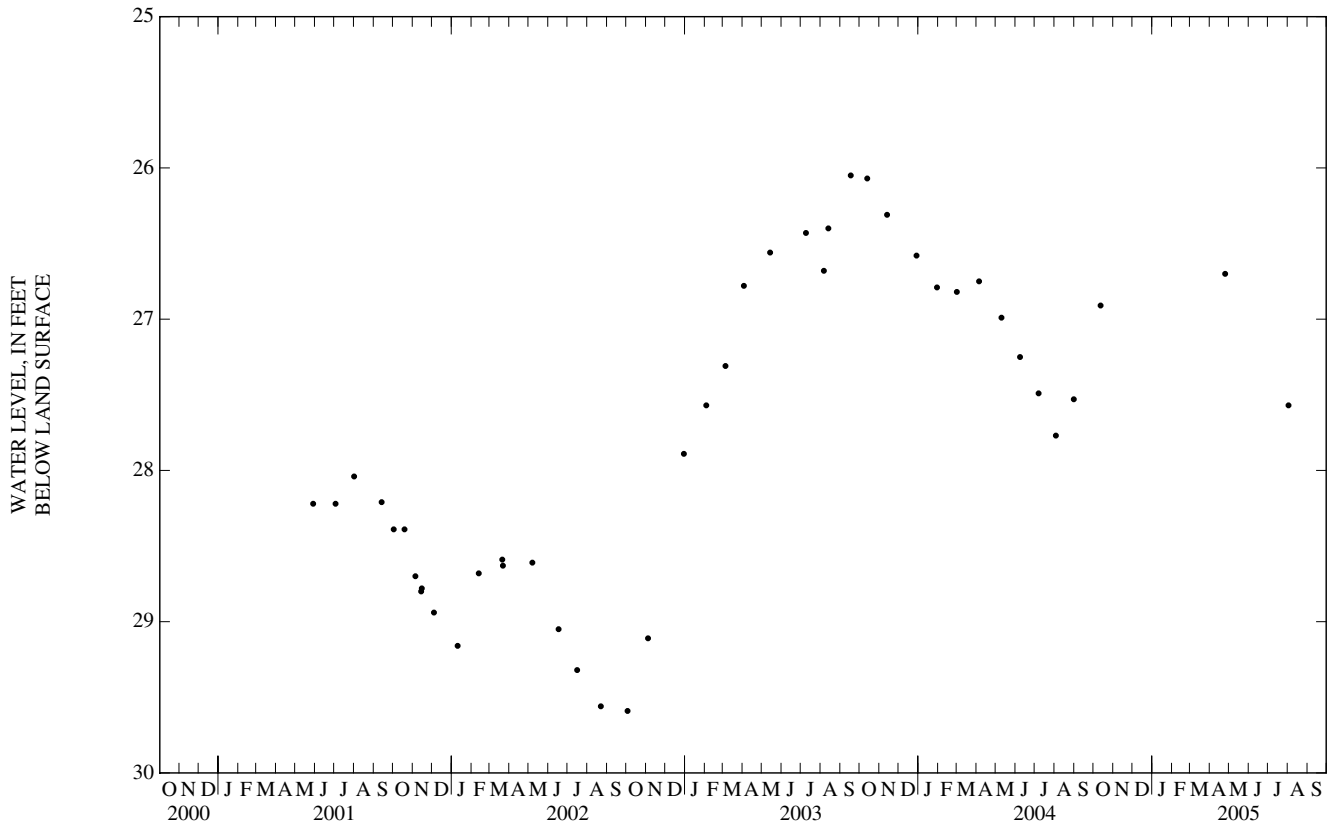
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.05 ft below land-surface datum, Sept. 17, 2003; lowest water level measured 29.59 ft below land-surface datum, Oct. 3, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	26.91	APR 25	26.70	AUG 02	27.57



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354359078403103. County number, WK-282; DENR Lake Wheeler Research Station MW-2T (Transition zone well).

LOCATION.--Lat 35°43'59", long 78°40'32", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Transition zone (Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 80 ft, diameter 6 in., cased to 50 ft, open hole from 50 to 80 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 360.44 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.88 ft above land-surface datum.

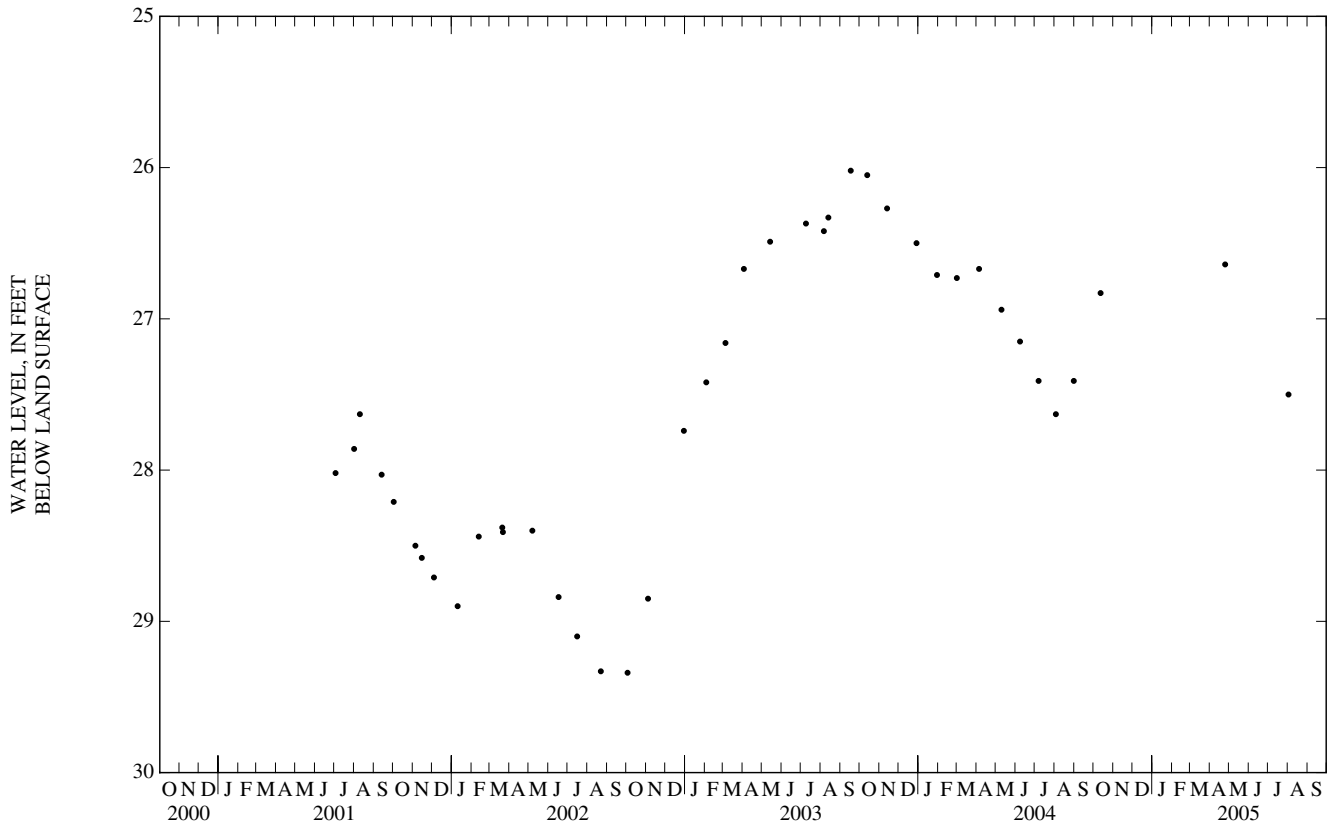
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.02 ft below land-surface datum, Sept. 17, 2003; lowest water level measured, 29.34 ft below land-surface datum, Oct. 3, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	26.83	APR 25	26.64	AUG 02	27.50



WAKE COUNTY—Continued

354359078403104. County number, WK-283; DENR Lake Wheeler Research Station MW-2D (Bedrock well).

LOCATION.--Lat 35°43'59", long 78°40'32", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Raleigh Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 601 ft, diameter 6 in., cased to 80 ft, open hole from 80 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 359.77 ft above NGVD of 1929. Measuring point: Top of casing, 1.90 ft above land-surface datum.

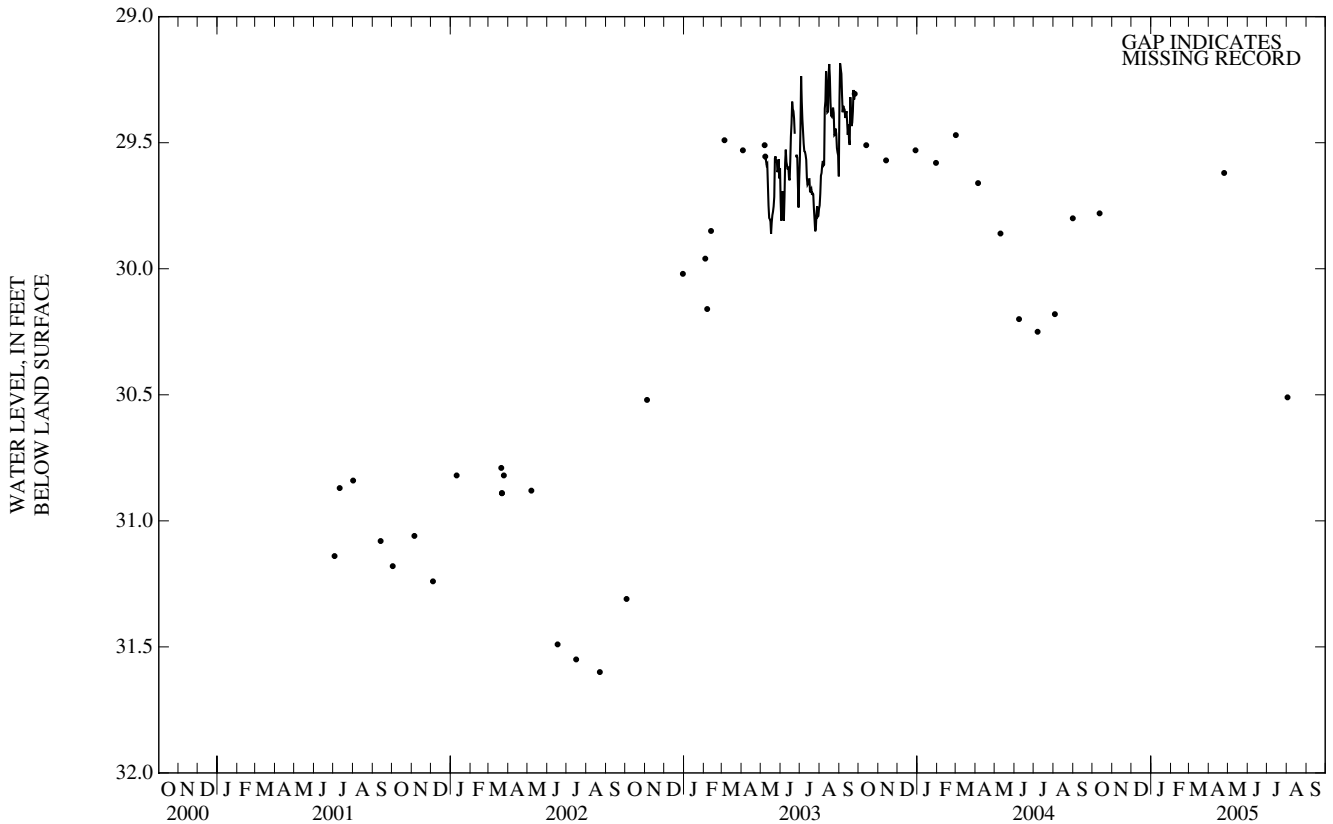
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year. Continuous record May 2003 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 29.02 ft below land-surface datum, Sept. 18, 2003; lowest water level measured, 31.60 ft below land-surface datum, Aug. 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	29.78	APR 25	29.62	AUG 02	30.51



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354404078403101. County number, WK-284; DENR Lake Wheeler Research Station MW-3S (Regolith well).

LOCATION.--Lat 35°44'04", long 78°40'31", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 35 ft, diameter 4 in., cased to 20 ft, screened interval from 20 to 35 ft, sand filter packed from 17 to 35 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 375.02 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.91 ft above land-surface datum.

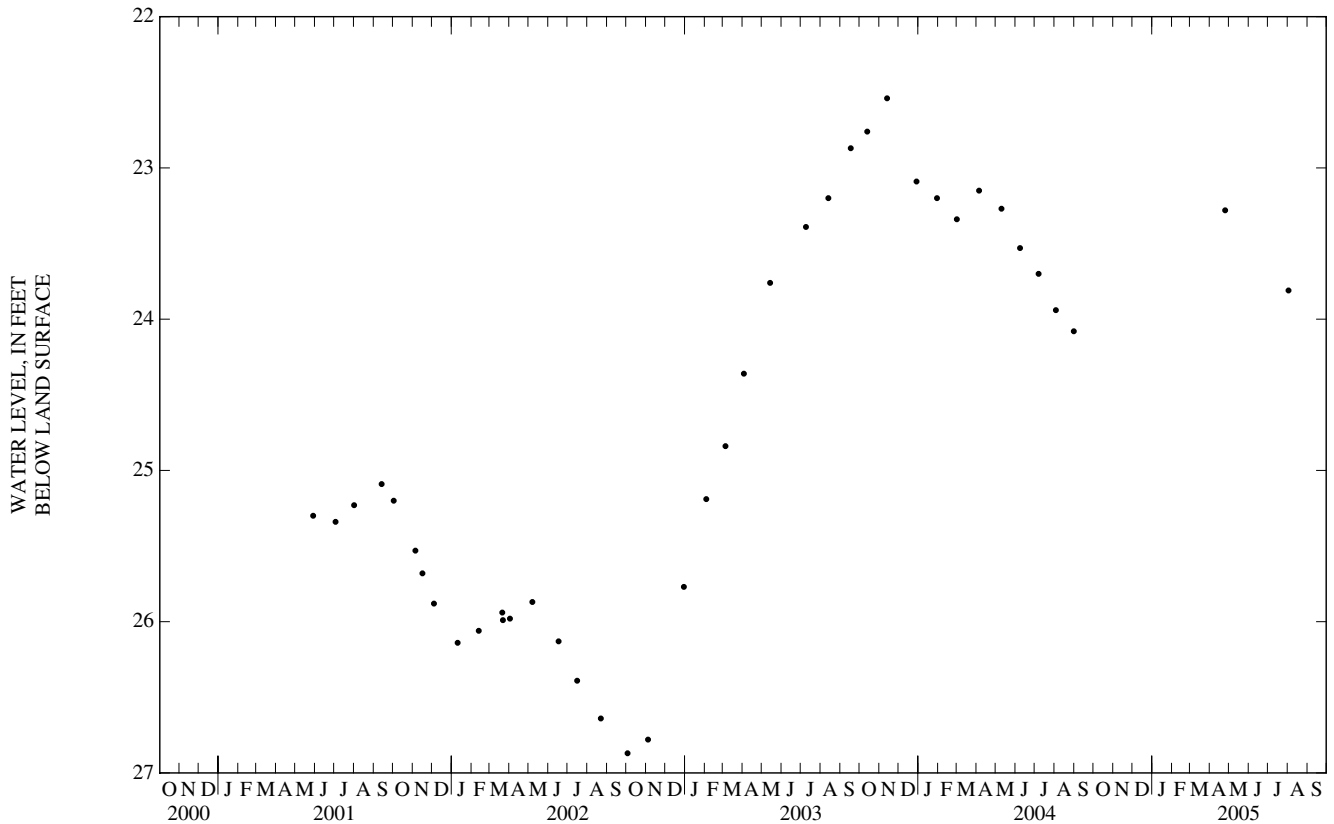
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.54 ft below land-surface datum, Nov. 13, 2004; lowest water level measured, 26.87 ft below land-surface datum, Oct. 3, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	23.28	AUG 02	23.81



WAKE COUNTY—Continued

354404078403102. County number, WK-285; DENR Lake Wheeler Research Station MW-3I (Transition zone well).

LOCATION.--Lat 35°44'05", long 78°40'31", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Transition zone (Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 60 ft, diameter 4 in., cased to 45 ft, screened interval from 45 to 60 ft, sand filter packed from 33 to 60 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 375.49 ft above NGVD of 1929. Measuring point: Top of 4-inch casing, 1.91 ft above land-surface datum.

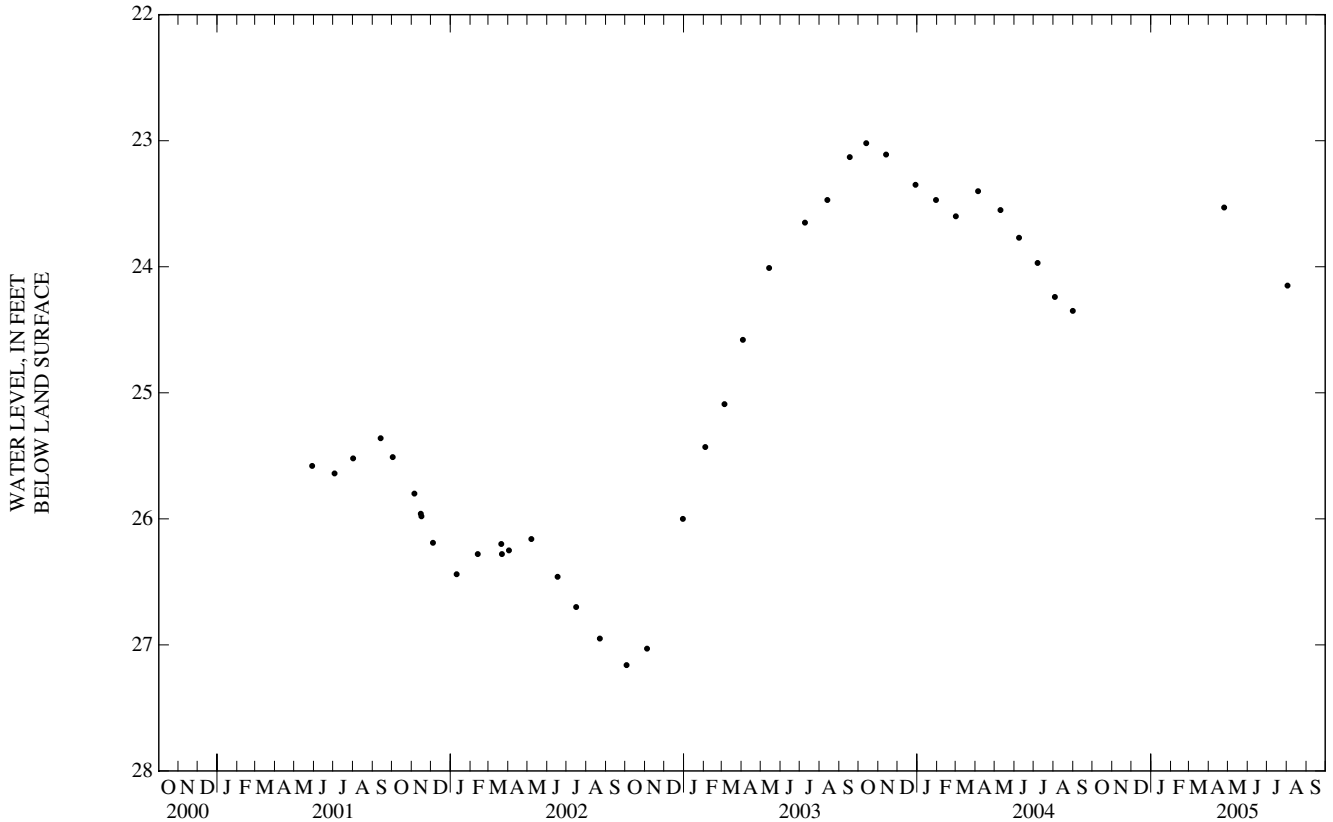
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.02 ft below land-surface datum, Oct. 13, 2003; lowest water level measured, 27.16 ft below land-surface datum, Oct. 3, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	23.53	AUG 02	24.15



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354404078403103. County number, WK-286; DENR Lake Wheeler Research Station MW-3D (Bedrock well).

LOCATION.--Lat 35°44'05", long 78°40'31", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Raleigh Gneiss.

WELL CHARACTERISTICS.--Drilled observation well, depth 301 ft, diameter 6 in., cased to 66 ft, open hole from 66 to 301 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 376.35 ft above NGVD of 1929. Measuring point: Top of 6-inch casing, 1.73 ft above land-surface datum.

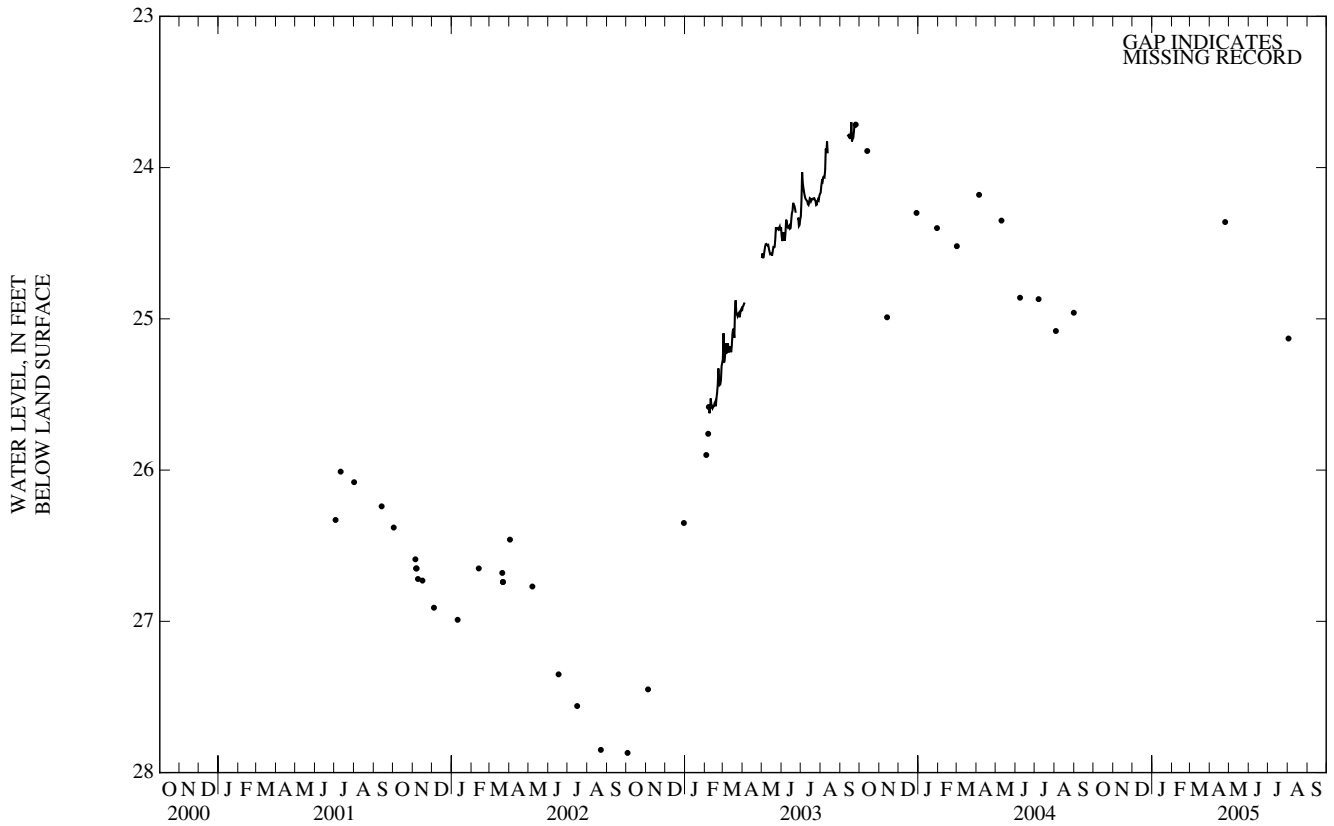
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year. Continuous record February 2003 to September 2003.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 23.55 ft below land-surface datum, Sept. 18, 2003; lowest water level measured 27.87 ft below land-surface datum, Oct. 3, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	24.36	AUG 02	25.13



WAKE COUNTY—Continued

354400078403401. County number, WK-288; DENR Lake Wheeler Research Station PZ-1.

LOCATION.--Lat 35°44'00", long 78°40'34", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 50 ft, diameter 2 in., cased to 30 ft, screened interval from 30 to 50 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 354.87 ft above NGVD of 1929. Measuring point: Top of 2-inch casing, 1.97 ft above land-surface datum.

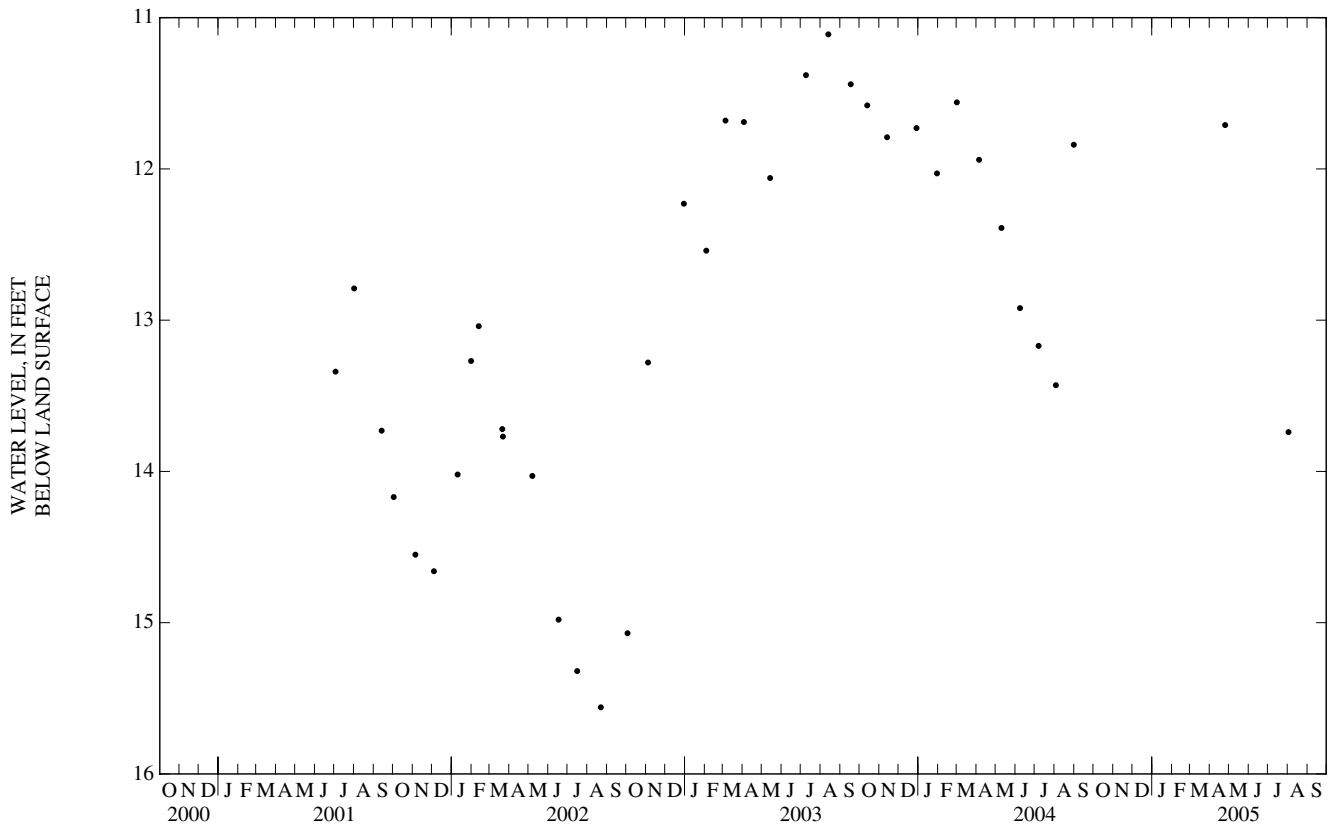
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.11 ft below land-surface datum, Aug. 13, 2003; lowest water level measured, 15.56 ft below land-surface datum, Aug. 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	11.71	AUG 02	13.74



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354402078403401. County number, WK-289; DENR Lake Wheeler Research Station PZ-2.

LOCATION.--Lat 35°44'02", long 78°40'34", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 37 ft, diameter 2 in., cased to 17 ft, screened interval from 17 to 37 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

DATUM.--Land-surface datum is 359.09 ft above NGVD of 1929. Measuring point: Top of 2-inch casing, 1.75 ft above land-surface datum.

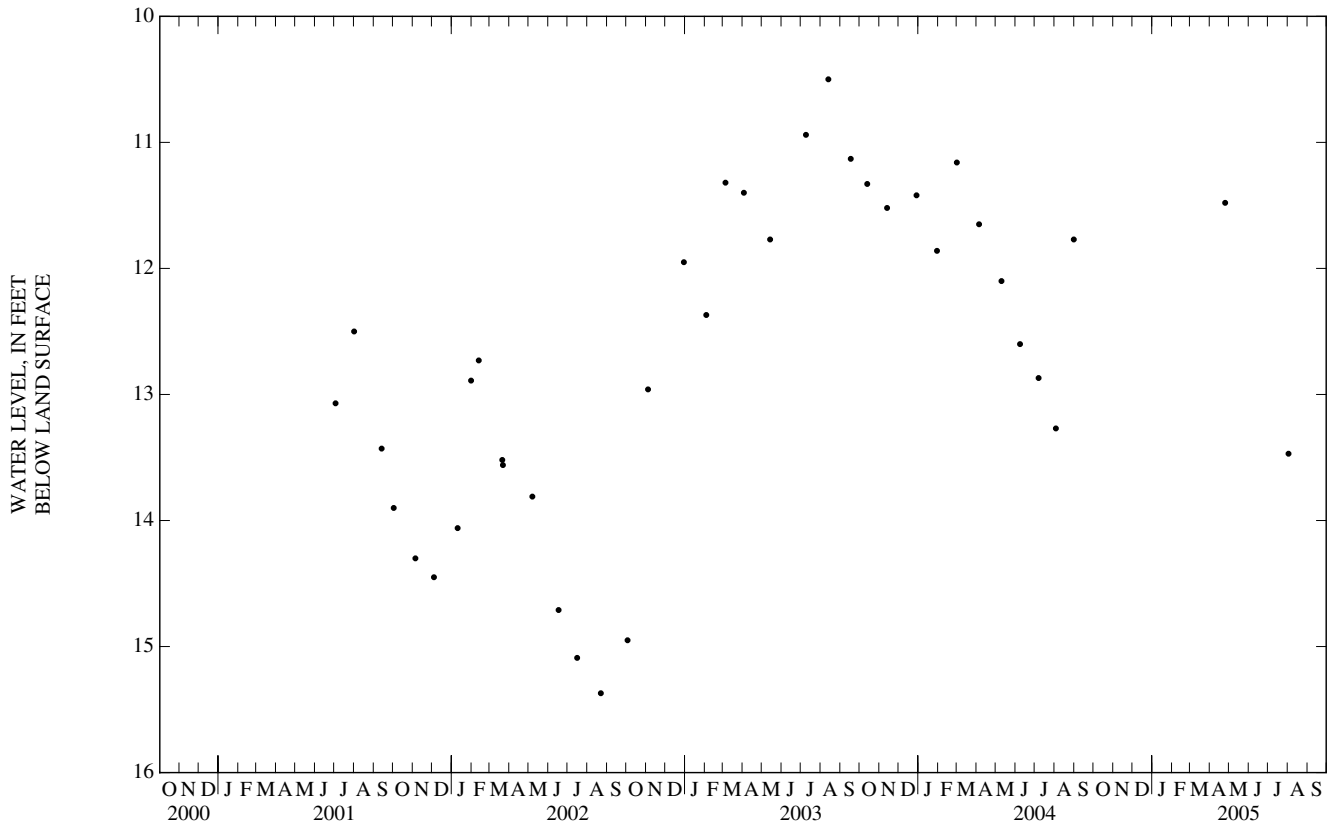
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--July 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.50 ft below land-surface datum, Aug. 13, 2003; lowest water level measured, 15.37 ft below land-surface datum, Aug. 22, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	11.48	AUG 02	13.47



WAKE COUNTY—Continued

354400078403301. County number, WK-290; DENR Lake Wheeler Research Station PZ-3.

LOCATION.--Lat 35°44'01", long 78°40'34", Hydrologic Unit 03020201, .6 mi south of Tryon Road, .2 mi east of Lake Wheeler Road on North Carolina State University Research Farm. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith (saprolitic Raleigh Gneiss).

WELL CHARACTERISTICS.--Drilled observation well, depth 47 ft, diameter 2 in., cased to 32 ft, screened interval from 32 to 47 ft.

INSTRUMENTATION.--Measured periodically with electric tape (by DENR and USGS).

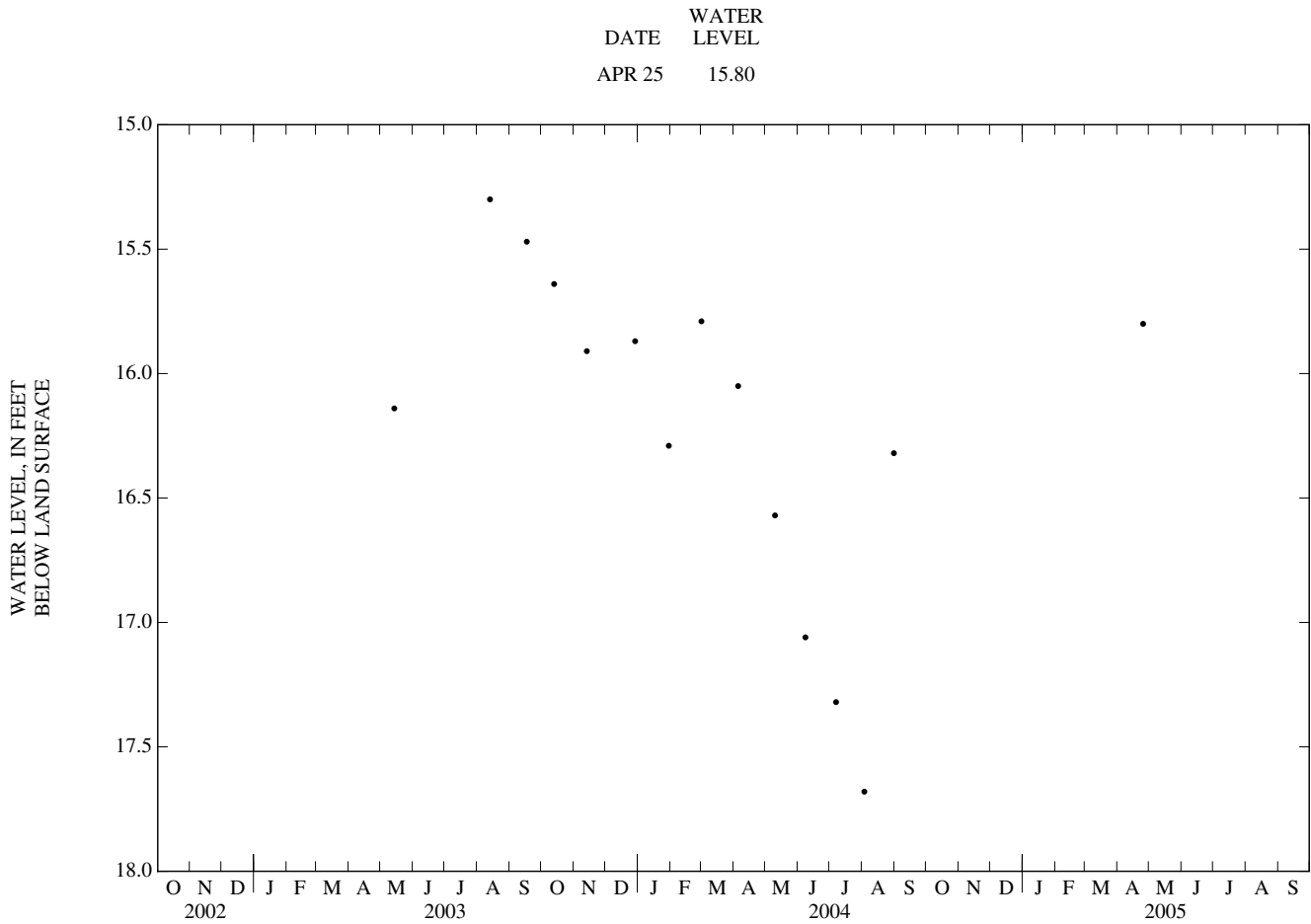
DATUM.--Land-surface datum is 358.83 ft above NGVD of 1929. Measuring point: Top of 2-inch casing, 1.35 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.30 ft below land-surface datum, Aug. 13, 2003; lowest water level measured 17.68 ft below land-surface datum, Aug. 3, 2004.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005



GROUND-WATER LEVELS
WAKE COUNTY—Continued

354328078295701. County number, WK-328; Raleigh Hydrogeologic Research Station WC-1S (Regolith).

LOCATION.--Lat 35°43'28", long 78°29'57", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith.

WELL CHARACTERISTICS.--Drilled observation well, depth 28 ft, diameter 4 in., cased to 13 ft, screened interval from 13 to 28 ft, sand filter packed from 9 to 33 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 30-minute intervals.

DATUM.--Land-surface datum is 152.10 ft above NGVD of 1929. Measuring point: Top of PVC casing, 2.50 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

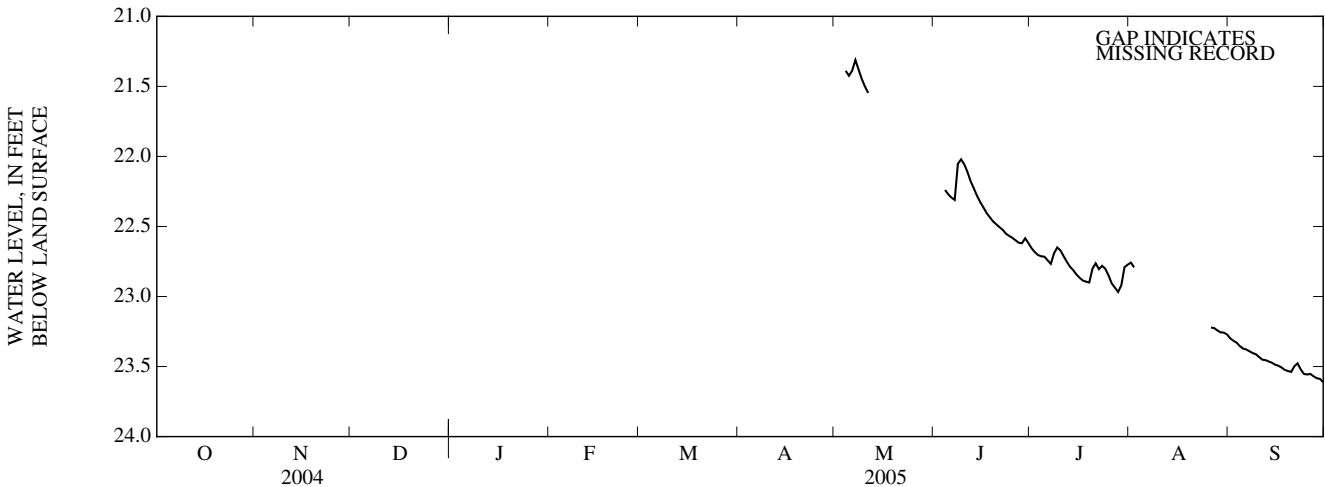
PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.29 ft below land-surface datum, May 3, 7, 2005; lowest water level recorded, 23.76 ft below land-surface datum, Sept. 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	22.66	22.76	23.30
2	---	---	---	---	---	---	---	---	---	22.68	22.79	23.32
3	---	---	---	---	---	---	---	---	---	22.70	---	23.33
4	---	---	---	---	---	---	---	21.39	22.24	22.71	---	23.35
5	---	---	---	---	---	---	---	21.42	22.27	22.72	---	23.37
6	---	---	---	---	---	---	---	21.39	22.29	22.74	---	23.38
7	---	---	---	---	---	---	---	21.31	22.31	22.77	---	23.39
8	---	---	---	---	---	---	---	21.38	22.05	22.69	---	23.40
9	---	---	---	---	---	---	---	21.45	22.02	22.65	---	23.41
10	---	---	---	---	---	---	---	21.50	22.06	22.67	---	23.43
11	---	---	---	---	---	---	---	21.55	22.11	22.71	---	23.45
12	---	---	---	---	---	---	---	---	22.18	22.75	---	23.45
13	---	---	---	---	---	---	---	---	22.23	22.79	---	23.46
14	---	---	---	---	---	---	---	---	22.28	22.81	---	23.47
15	---	---	---	---	---	---	---	---	22.33	22.84	---	23.49
16	---	---	---	---	---	---	---	---	22.37	22.87	---	23.49
17	---	---	---	---	---	---	---	---	22.41	22.89	---	23.51
18	---	---	---	---	---	---	---	---	22.44	22.89	---	23.52
19	---	---	---	---	---	---	---	---	22.46	22.90	---	23.53
20	---	---	---	---	---	---	---	---	22.48	22.80	---	23.54
21	---	---	---	---	---	---	---	---	22.51	22.76	---	23.50
22	---	---	---	---	---	---	---	---	22.52	22.80	---	23.48
23	---	---	---	---	---	---	---	---	22.55	22.78	---	23.52
24	---	---	---	---	---	---	---	---	22.57	22.80	---	23.55
25	---	---	---	---	---	---	---	---	22.58	22.85	---	23.56
26	---	---	---	---	---	---	---	---	22.60	22.91	23.22	23.55
27	---	---	---	---	---	---	---	---	22.62	22.94	23.23	23.57
28	---	---	---	---	---	---	---	---	22.62	22.97	23.24	23.58
29	---	---	---	---	---	---	---	---	22.58	22.92	23.26	23.59
30	---	---	---	---	---	---	---	---	22.62	22.79	23.26	23.61
31	---	---	---	---	---	---	---	---	---	22.77	23.27	---

WTR YR 2005 MEAN 22.80 HIGH 21.31 LOW 23.61



WAKE COUNTY—Continued

354328078295702. County number, WK-329; Raleigh Hydrogeologic Research Station WC-11 (Intermediate Zone).

LOCATION.--Lat 35°43'28", long 78°29'57", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith.

WELL CHARACTERISTICS.--Drilled observation well, depth 39 ft, diameter 4 in., cased to 24 ft, screened interval from 24 to 39 ft, sand filter packed from 19 to 42 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 30-minute intervals.

DATUM.--Land-surface datum is 106.33 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 2.72 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

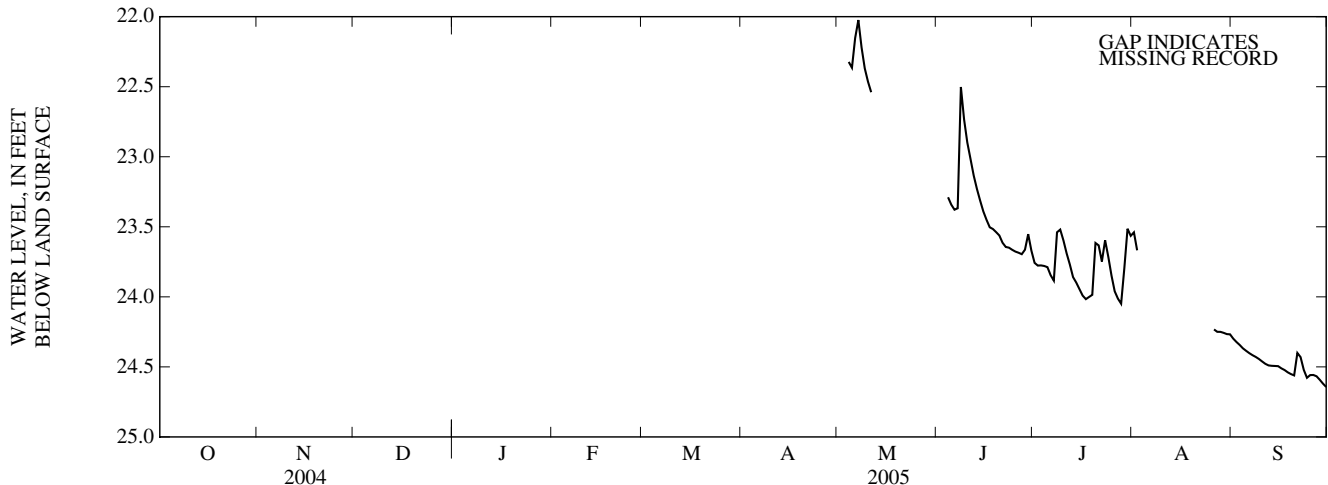
PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.89 ft below land-surface datum, May 6, 2005; lowest water level recorded, 24.65 ft below land-surface datum, Sept. 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	23.76	23.54	24.30
2	---	---	---	---	---	---	---	---	---	23.78	23.67	24.32
3	---	---	---	---	---	---	---	---	---	23.78	---	24.34
4	---	---	---	---	---	---	---	22.32	23.29	23.78	---	24.37
5	---	---	---	---	---	---	---	22.36	23.34	23.79	---	24.39
6	---	---	---	---	---	---	---	22.15	23.38	23.85	---	24.40
7	---	---	---	---	---	---	---	22.02	23.37	23.88	---	24.42
8	---	---	---	---	---	---	---	22.22	22.50	23.54	---	24.43
9	---	---	---	---	---	---	---	22.37	22.73	23.52	---	24.44
10	---	---	---	---	---	---	---	22.46	22.90	23.60	---	24.46
11	---	---	---	---	---	---	---	22.54	23.02	23.69	---	24.48
12	---	---	---	---	---	---	---	---	23.13	23.77	---	24.49
13	---	---	---	---	---	---	---	---	23.23	23.86	---	24.49
14	---	---	---	---	---	---	---	---	23.31	23.90	---	24.49
15	---	---	---	---	---	---	---	---	23.39	23.94	---	24.49
16	---	---	---	---	---	---	---	---	23.45	23.99	---	24.51
17	---	---	---	---	---	---	---	---	23.50	24.02	---	24.52
18	---	---	---	---	---	---	---	---	23.52	24.00	---	24.54
19	---	---	---	---	---	---	---	---	23.54	23.99	---	24.55
20	---	---	---	---	---	---	---	---	23.56	23.62	---	24.56
21	---	---	---	---	---	---	---	---	23.61	23.63	---	24.40
22	---	---	---	---	---	---	---	---	23.64	23.75	---	24.43
23	---	---	---	---	---	---	---	---	23.65	23.60	---	24.52
24	---	---	---	---	---	---	---	---	23.66	23.71	---	24.58
25	---	---	---	---	---	---	---	---	23.68	23.85	---	24.56
26	---	---	---	---	---	---	---	---	23.69	23.96	24.23	24.56
27	---	---	---	---	---	---	---	---	23.70	24.01	24.25	24.57
28	---	---	---	---	---	---	---	---	23.66	24.05	24.25	24.59
29	---	---	---	---	---	---	---	---	23.55	23.80	24.26	24.62
30	---	---	---	---	---	---	---	---	23.67	23.51	24.27	24.64
31	---	---	---	---	---	---	---	---	---	23.56	24.27	---

WTR YR 2005 MEAN 23.80 HIGH 22.02 LOW 24.64



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354328078295704. County number, WK-331; Raleigh Hydrogeologic Research Station WC-1CH (Bedrock).

LOCATION.--Lat 38°43'28", long 78°29'57", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Felsic intrusive igneous rock.

WELL CHARACTERISTICS.--Drilled observation well, depth 90 ft, diameter 6 in., cased to 21 ft, open hole from 21 to 90 ft, diameter 3 in.

INSTRUMENTATION.--Water-level recorder collecting data at 30-minute intervals.

DATUM.--Land-surface datum is 100.91 ft above NAVD of 1988. Measuring point: Top of steel casing, 2.40 ft above land-surface datum.

REMARKS.--Well is part of Piedmont/Mountains ground-water study.

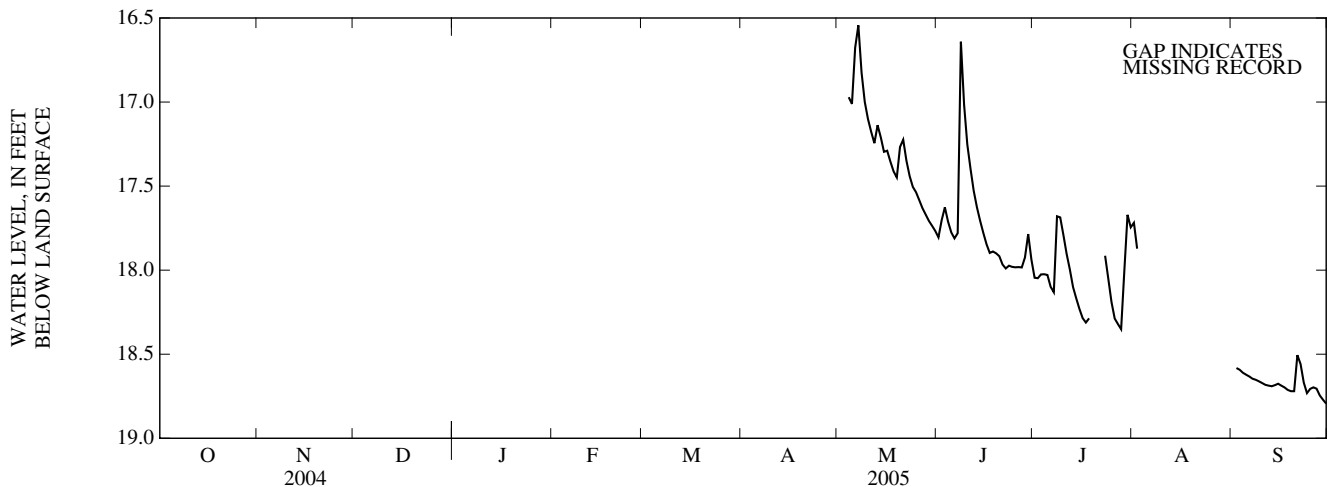
PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 16.10 ft below land-surface datum, June 8, 2005; lowest water level recorded, 18.91 ft below land-surface datum, Sept. 10-13, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	17.80	18.05	17.72	---
2	---	---	---	---	---	---	---	---	17.70	18.05	17.87	18.58
3	---	---	---	---	---	---	---	---	17.63	18.03	---	18.59
4	---	---	---	---	---	---	---	16.97	17.71	18.02	---	18.61
5	---	---	---	---	---	---	---	17.01	17.78	18.03	---	18.62
6	---	---	---	---	---	---	---	16.68	17.81	18.10	---	18.63
7	---	---	---	---	---	---	---	16.54	17.78	18.13	---	18.65
8	---	---	---	---	---	---	---	16.82	16.64	17.68	---	18.65
9	---	---	---	---	---	---	---	17.00	17.02	17.69	---	18.66
10	---	---	---	---	---	---	---	17.10	17.25	17.79	---	18.67
11	---	---	---	---	---	---	---	17.18	17.40	17.90	---	18.68
12	---	---	---	---	---	---	---	17.24	17.53	18.00	---	18.69
13	---	---	---	---	---	---	---	17.14	17.63	18.10	---	18.69
14	---	---	---	---	---	---	---	17.21	17.71	18.17	---	18.68
15	---	---	---	---	---	---	---	17.30	17.78	18.23	---	18.68
16	---	---	---	---	---	---	---	17.29	17.85	18.29	---	18.69
17	---	---	---	---	---	---	---	17.35	17.90	18.31	---	18.70
18	---	---	---	---	---	---	---	17.41	17.89	18.29	---	18.71
19	---	---	---	---	---	---	---	17.45	17.90	---	---	18.72
20	---	---	---	---	---	---	---	17.27	17.92	---	---	18.72
21	---	---	---	---	---	---	---	17.22	17.97	---	---	18.51
22	---	---	---	---	---	---	---	17.35	17.99	---	---	18.56
23	---	---	---	---	---	---	---	17.44	17.97	17.91	---	18.67
24	---	---	---	---	---	---	---	17.50	17.98	18.05	---	18.73
25	---	---	---	---	---	---	---	17.54	17.98	18.19	---	18.71
26	---	---	---	---	---	---	---	17.58	17.98	18.29	---	18.70
27	---	---	---	---	---	---	---	17.63	17.98	18.32	---	18.70
28	---	---	---	---	---	---	---	17.67	17.92	18.35	---	18.75
29	---	---	---	---	---	---	---	17.71	17.79	18.00	---	18.77
30	---	---	---	---	---	---	---	17.74	17.94	17.67	---	18.79
31	---	---	---	---	---	---	---	17.77	---	17.75	---	---

WTR YR 2005 MEAN 17.94 HIGH 16.54 LOW 18.79



WAKE COUNTY—Continued

354315078300101. County number, WK-332; Raleigh Hydrogeologic Research Station WC-2S (Regolith).

LOCATION.--Lat 35°43'15", long 78°30'01", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith.

WELL CHARACTERISTICS.--Drilled observation well, depth 28.6 ft, diameter 4 in., cased to 13.6 ft, screened interval from 13.6 to 28.6 ft, sand filter packed from 7 to 28.6 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 125.14 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 2.51 ft above land-surface datum.

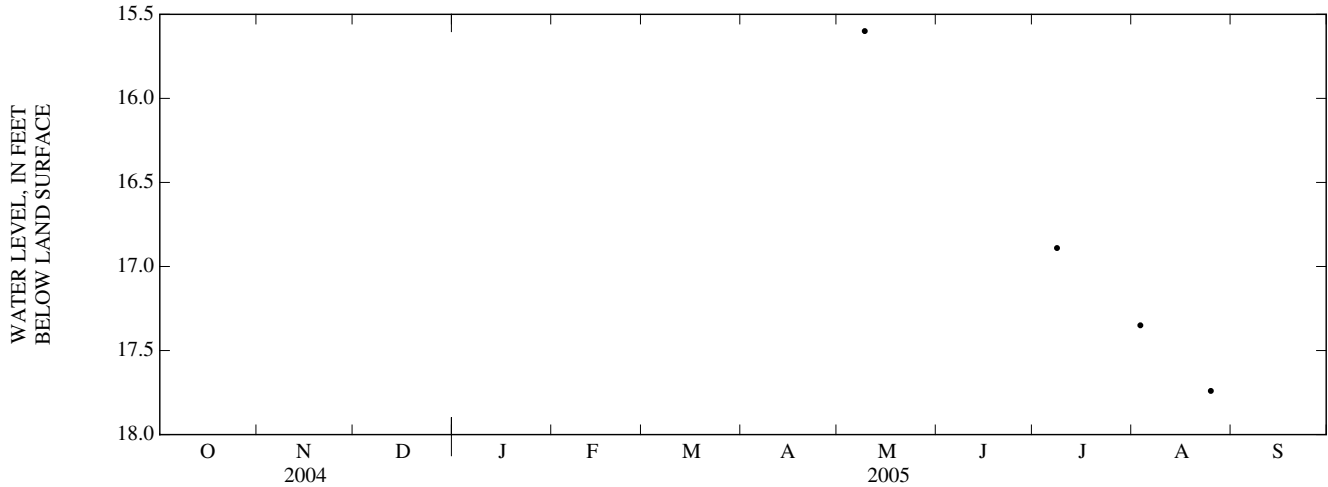
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.60 ft below land-surface datum, May 9, 2005; lowest water level measured, 17.74 ft below land-surface datum, Aug. 25, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	15.60	JUL 08	16.89	AUG 03	17.35	AUG 25	17.74



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354315078300102. County number, WK-333; Raleigh Hydrogeologic Research Station WC-2I (Intermediate Zone).

LOCATION.--Lat 35°43'15", long 78°30'01", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith.

WELL CHARACTERISTICS.--Drilled observation well, depth 42 ft, diameter 4 in., cased to 27 ft, screened interval from 27 to 42 ft, sand filter packed from 21 to 42 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 125.43 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 2.27 ft above land-surface datum.

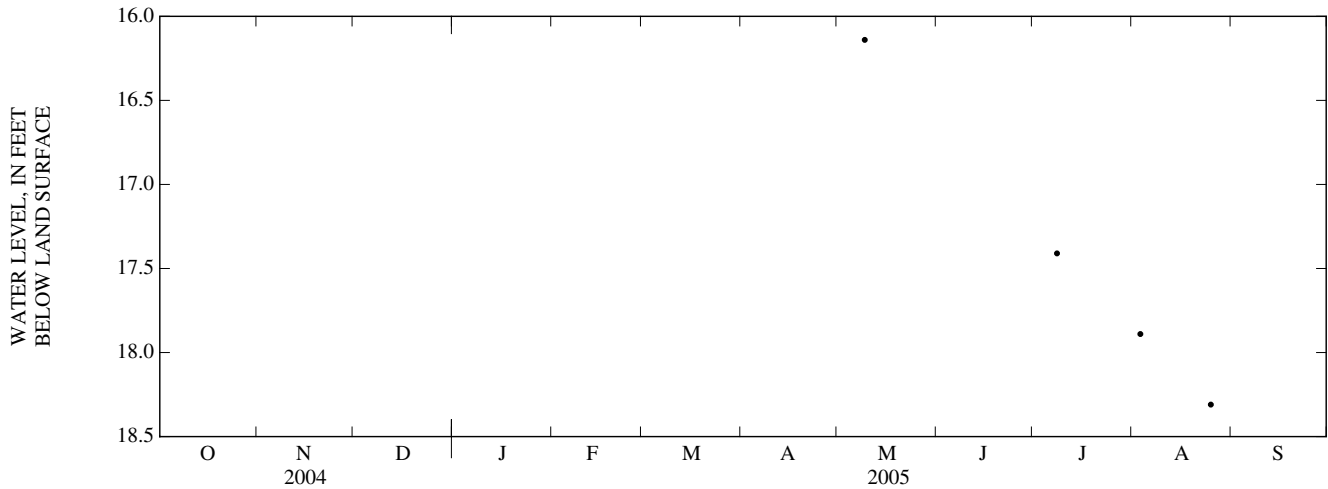
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.14 ft below land-surface datum, May 9, 2005; lowest water level measured, 18.31 ft below land-surface datum, Aug. 25, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	16.14	JUL 08	17.41	AUG 03	17.89	AUG 25	18.31



WAKE COUNTY—Continued

354315078300103. County number, WK-334; Raleigh Hydrogeologic Research Station WC-2D (Bedrock).

LOCATION.--Lat 35°43'15", long 78°30'01", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Felsic intrusive igneous rock.

WELL CHARACTERISTICS.--Drilled observation well, depth 460 ft, diameter 6.25 in., cased to 59 ft, open hole from 59 to 460 ft, diameter 6 in.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 123.98 ft above North American Vertical Datum of 1988. Measuring point: Top of steel casing, 2.58 ft above land-surface datum.

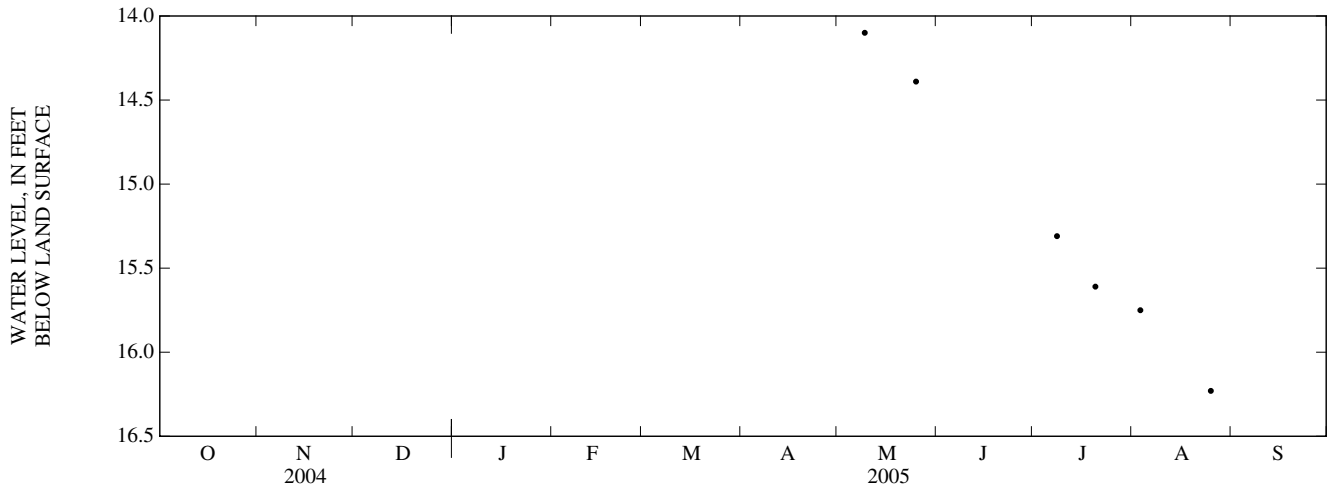
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.10 ft below land-surface datum, May 9, 2005; lowest water level measured, 17.67 ft below land-surface datum, Aug. 25, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	14.10	MAY 25	14.39	JUL 08	15.31	JUL 20	15.61	AUG 03	15.75	AUG 25	16.23



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354315078300104. County number, WK-335; Raleigh Hydrogeologic Research Station WC-2CH (Bedrock).

LOCATION.--Lat 38°43'15", long 78°30'01", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Felsic intrusive igneous rock.

WELL CHARACTERISTICS.--Drilled observation well, depth 85 ft, diameter 4 in., cased to 70 ft, screened interval from 70 to 85 ft, sand filter packed from 65 to 85 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 135.03 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 2.41 ft above land-surface datum.

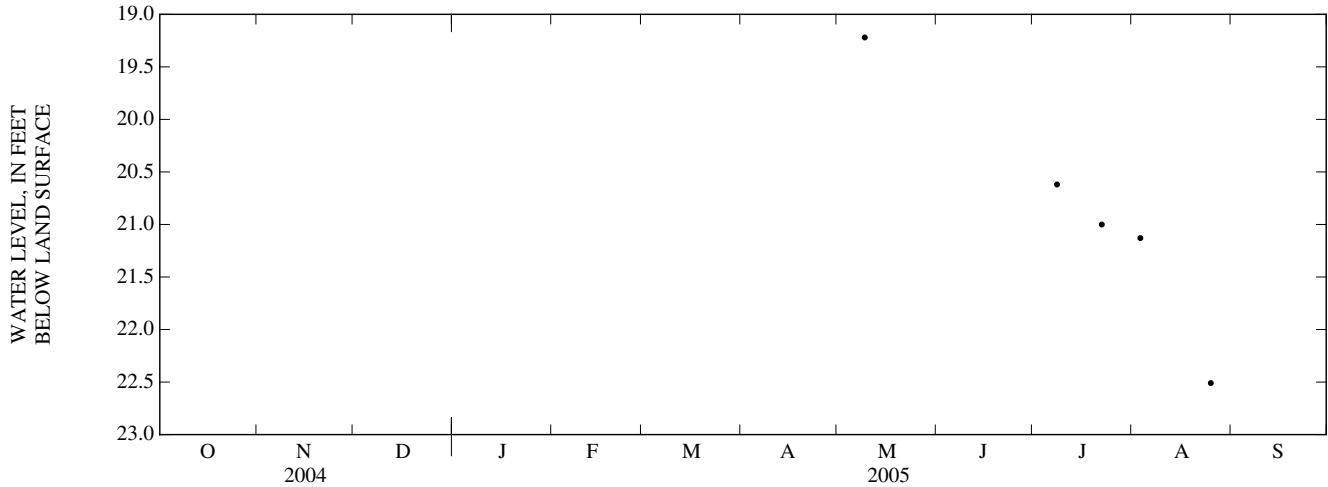
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.22 ft below land-surface datum, May 9, 2005; lowest water level measured, 22.51 ft below land-surface datum, Aug. 25, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	19.22	JUL 08	20.62	JUL 22	21.00	AUG 03	21.13	AUG 25	22.51



WAKE COUNTY—Continued

354305078295801. County number, WK-336; Raleigh Hydrogeologic Research Station WC-3S (Regolith).

LOCATION.--Lat 35°43'05", long 78°29'58", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith.

WELL CHARACTERISTICS.--Drilled observation well, depth 28.6 ft, diameter 4 in., cased to 13.6 ft, screened interval from 13.6 to 28.6 ft, sand filter packed from 9 to 28.6 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 145.23 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 2.69 ft above land-surface datum.

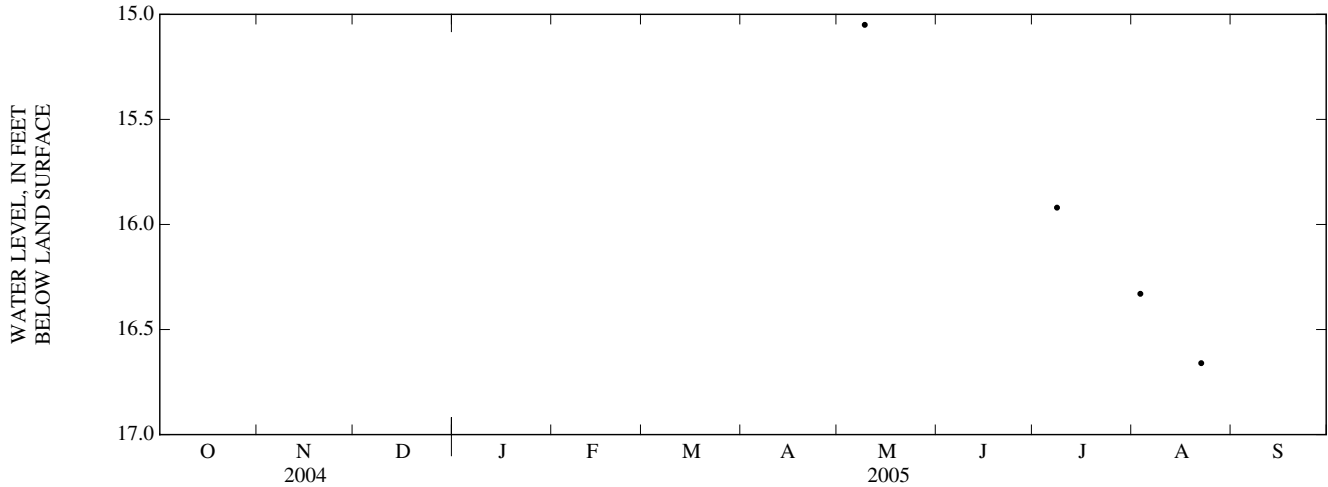
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.94 ft below land-surface datum, May 9, 2005; lowest water level measured, 22.23 ft below land-surface datum, Aug. 25, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	15.05	JUL 08	15.92	AUG 03	16.33	AUG 22	16.66



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354305078295802. County number, WK-337; Raleigh Hydrogeologic Research Station WC-3I (Intermediate Zone).

LOCATION.--Lat 35°43'05", long 78°29'58", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Regolith.

WELL CHARACTERISTICS.--Drilled observation well, depth 49 ft, diameter 4 in., cased to 34 ft, screened interval from 34 to 49 ft, sand filter packed from 22 to 53 ft.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 145.77 ft above North American Vertical Datum of 1988. Measuring point: Top of PVC casing, 2.69 ft above land-surface datum.

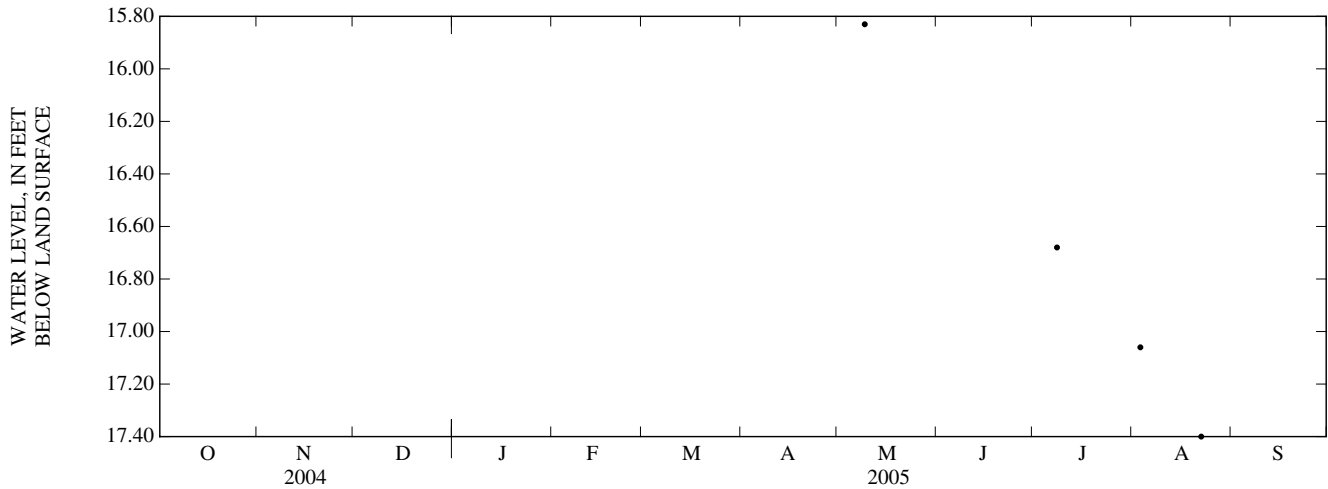
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.83 ft below land-surface datum, May 9, 2005; lowest water level measured, 17.40 ft below land-surface datum, Aug. 22, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	15.83	JUL 08	16.68	AUG 03	17.06	AUG 22	17.40



WAKE COUNTY—Continued

354305078295803. County number, WK-338; Raleigh Hydrogeologic Research Station WC-3D (Bedrock).

LOCATION.--Lat 35°43'05", long 78°29'58", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Felsic intrusive igneous rock.

WELL CHARACTERISTICS.--Drilled observation well, depth 300 ft, diameter 6.25 in., cased to 40 ft, open hole from 40 to 300 ft, diameter 6 in.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 145.34 ft above North American Vertical Datum of 1988. Measuring point: Top of steel casing, 2.75 ft above land-surface datum.

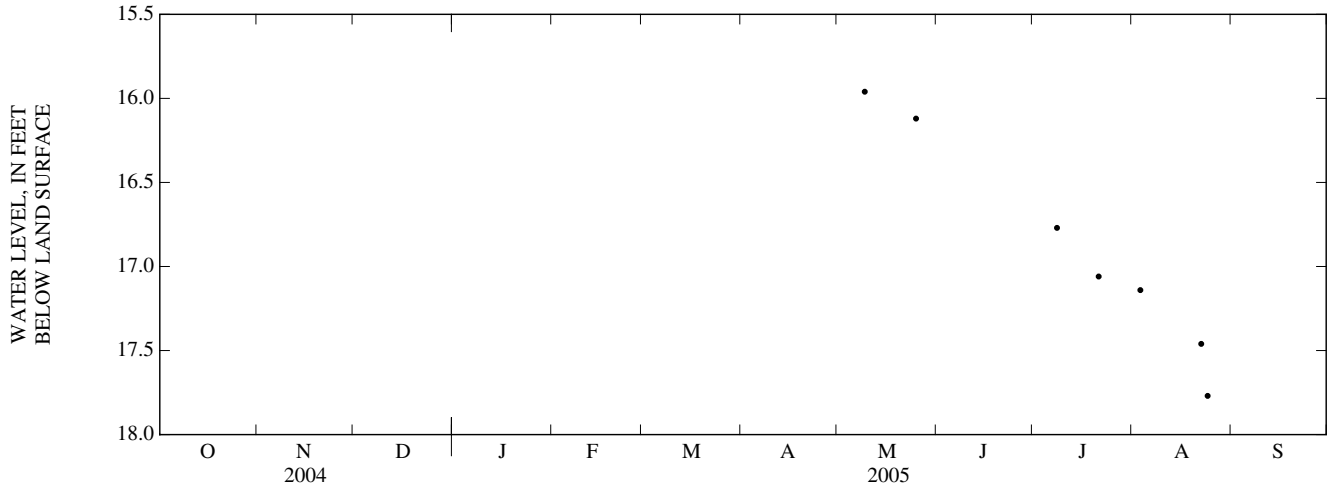
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.96 ft below land-surface datum, May 9, 2005; lowest water level measured, 17.77 ft below land-surface datum, Aug. 24, 2005.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	15.96	JUL 08	16.77	AUG 03	17.14	AUG 24	17.77
25	16.12	21	17.06	22	17.46		



GROUND-WATER LEVELS

WAKE COUNTY—Continued

354305078295804. County number, WK-339; Raleigh Hydrogeologic Research Station WC-3CH (Bedrock).

LOCATION.--Lat 38°43'05", long 78°29'58", Hydrologic Unit 03020201, 9.3 mi east south east of Raleigh. Owner: DENR (North Carolina Department of Environment and Natural Resources), Division of Water Quality.

AQUIFER.--Felsic intrusive igneous rock.

WELL CHARACTERISTICS.--Drilled observation well, depth 125 ft, diameter 4 in., cased to 40 ft, open hole from 40 to 125 ft, diameter 4 in.

INSTRUMENTATION.--Measured periodically with electric tape by DENR and USGS.

DATUM.--Land-surface datum is 141.76 ft above NAVD of 1988. Measuring point: Top of PVC casing, 2.42 ft above land-surface datum.

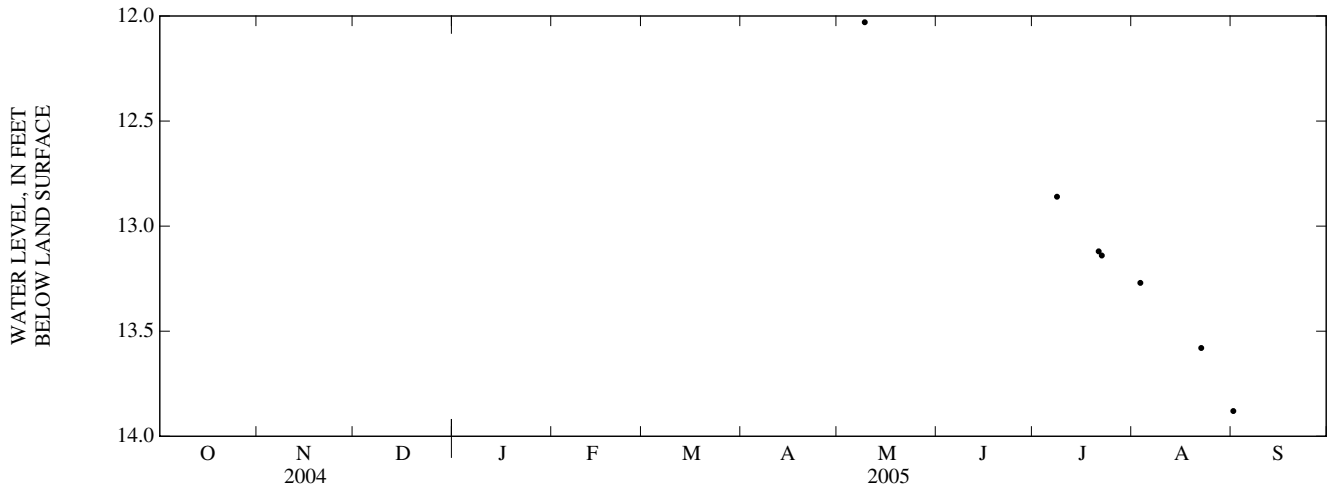
REMARKS.--Well is part of Piedmont/Mountains ground-water study.

PERIOD OF RECORD.--May 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.03 ft below land-surface datum, May 9, 2005; lowest water level measured, 13.88 ft below land-surface datum, Sept. 1, 2005.

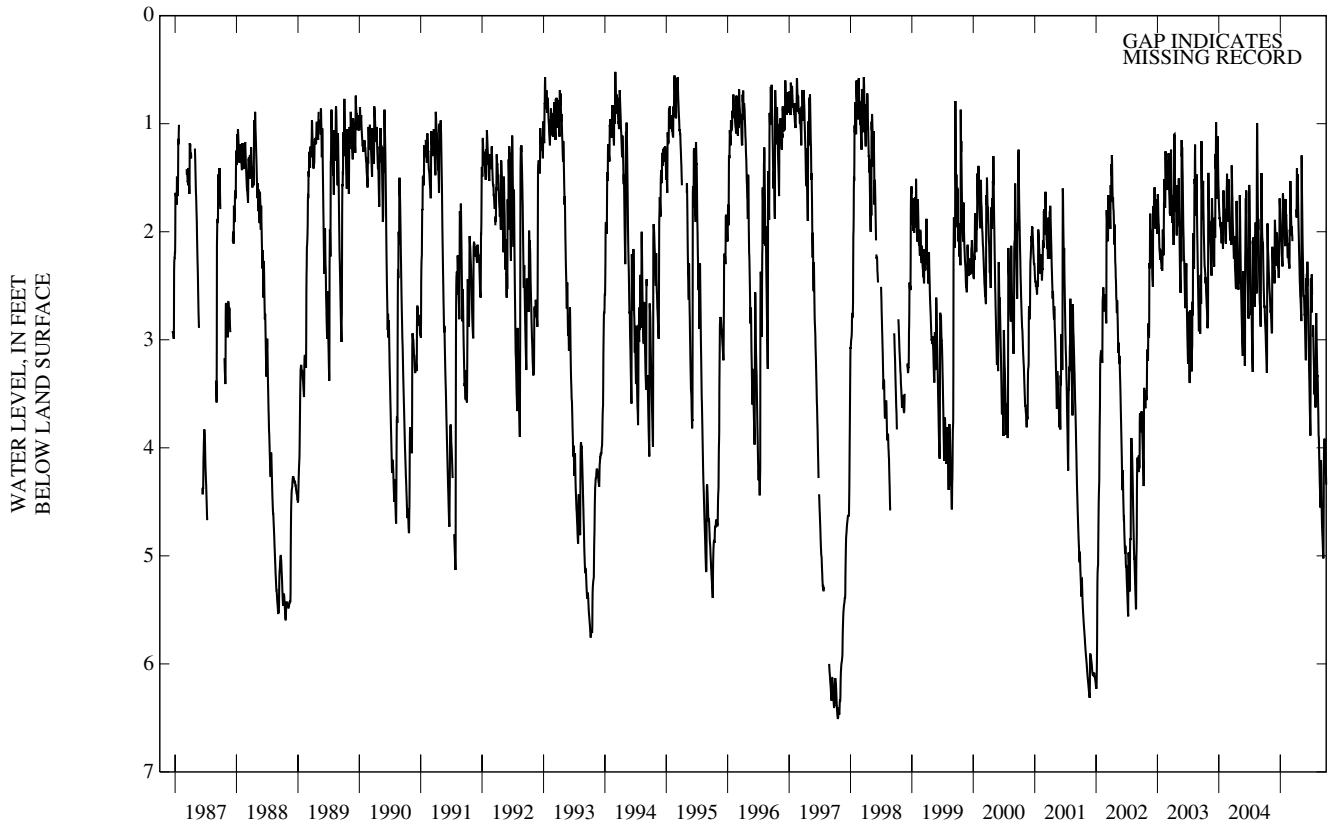
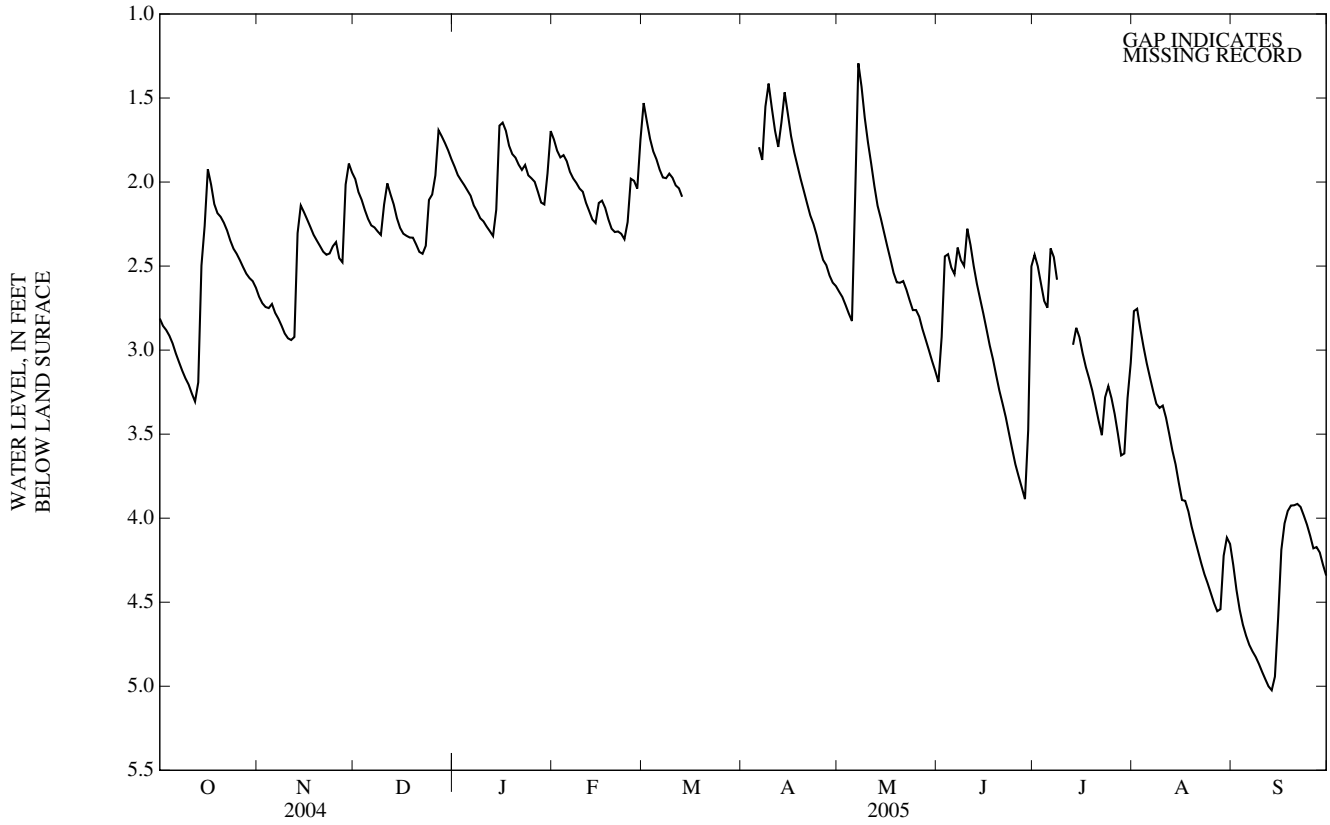
WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 09	12.03	JUL 21	13.12	AUG 03	13.27	SEP 01	13.88
JUL 08	12.86	JUL 22	13.14	AUG 22	13.58		



GROUND-WATER LEVELS
WASHINGTON COUNTY—Continued

354418076463601. Local number, NC-158; County number, WS-100—Continued



WAYNE COUNTY

351849078163901. Local number, NC-148; County number, WA-154.

LOCATION.--Lat 35°18'35", long 78°16'22", 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 NGVD of 1929 (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, Sept. 24, 25, 1997.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

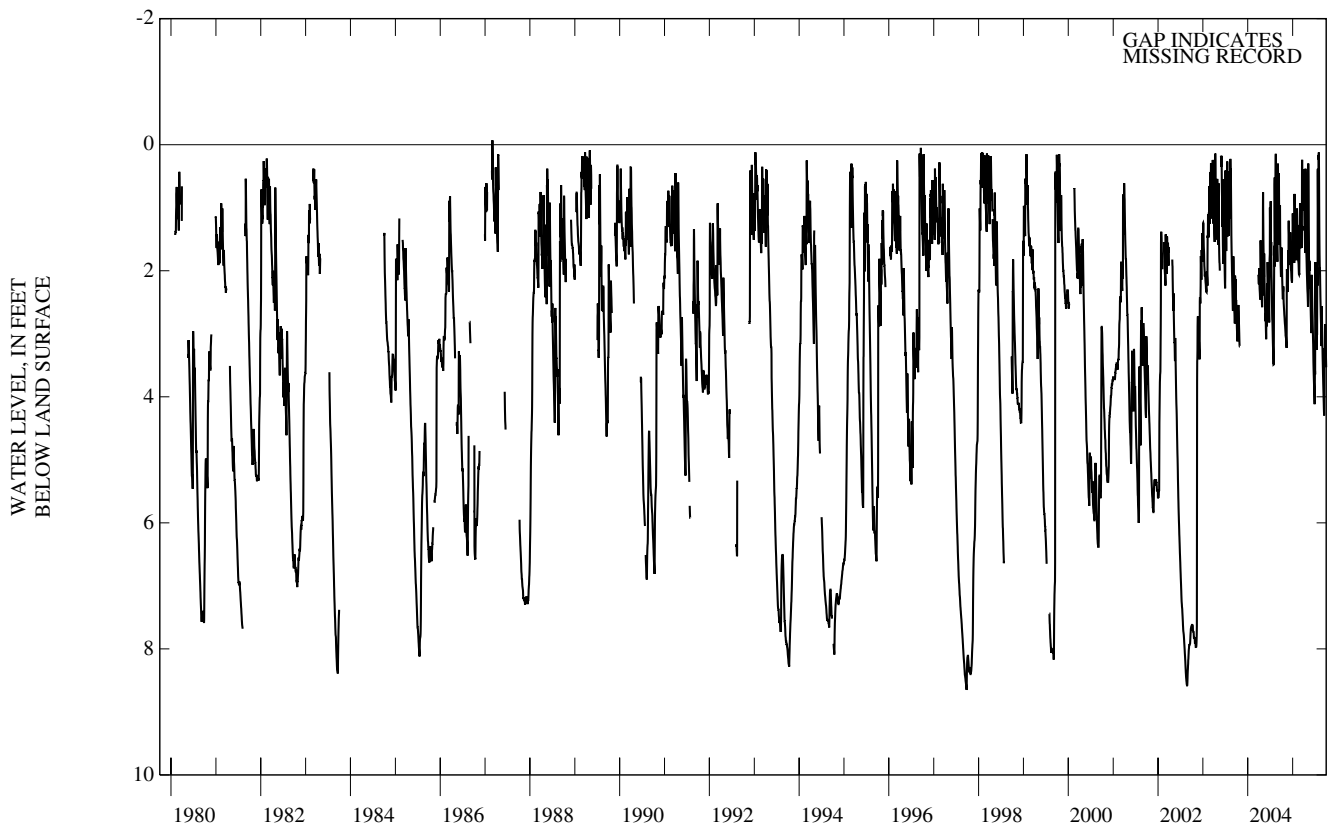
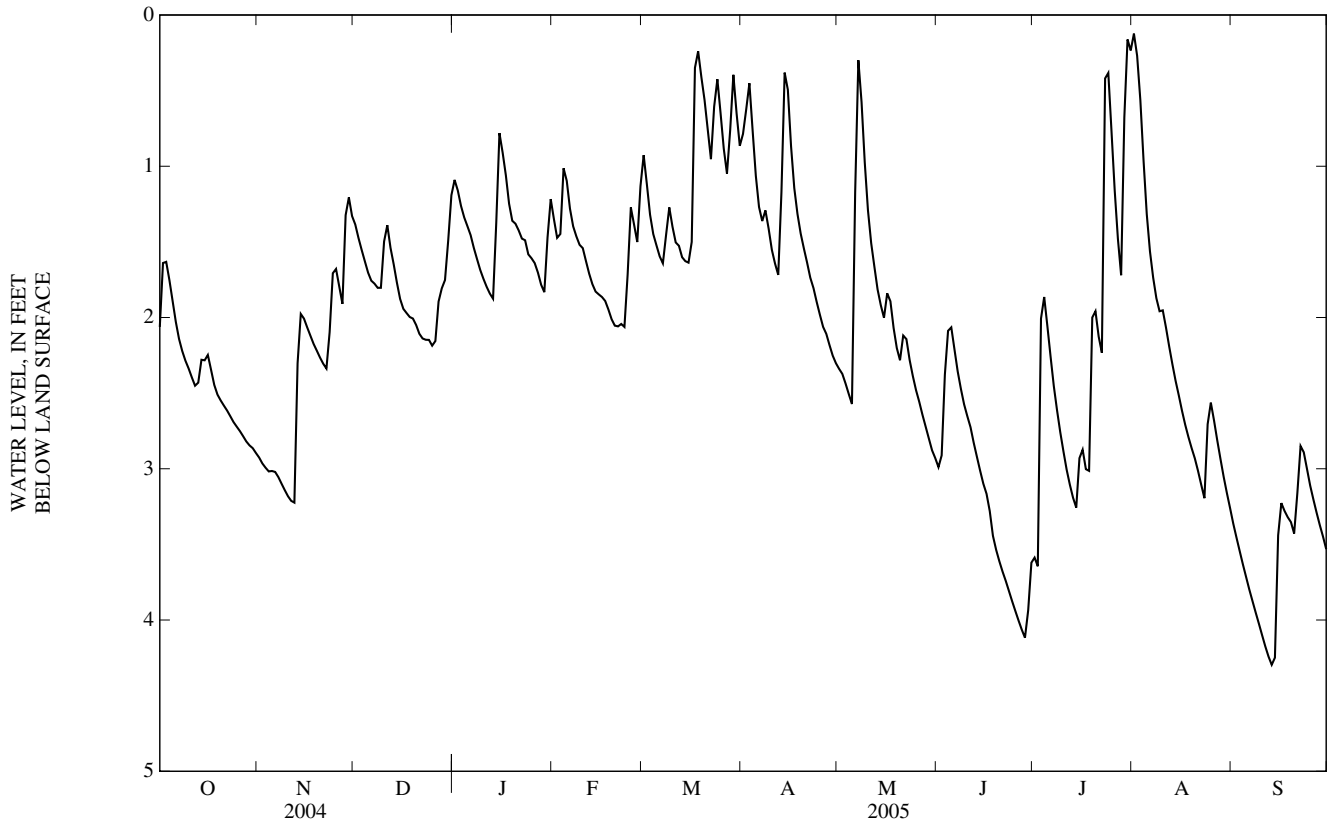
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.06	2.93	1.39	1.09	1.35	0.93	0.79	2.34	2.99	3.59	0.12	3.36
2	1.64	2.96	1.47	1.16	1.47	1.12	0.62	2.37	2.91	3.64	0.27	3.45
3	1.63	2.99	1.55	1.26	1.45	1.32	0.45	2.44	2.38	2.01	0.56	3.54
4	1.75	3.02	1.63	1.34	1.01	1.45	0.76	2.51	2.09	1.86	0.96	3.63
5	1.89	3.01	1.70	1.40	1.10	1.52	1.06	2.57	2.07	2.06	1.32	3.72
6	2.03	3.02	1.76	1.46	1.28	1.60	1.27	1.17	2.21	2.26	1.56	3.80
7	2.14	3.06	1.78	1.54	1.40	1.64	1.36	0.30	2.36	2.45	1.74	3.87
8	2.22	3.10	1.80	1.61	1.46	1.45	1.29	0.58	2.47	2.61	1.87	3.95
9	2.29	3.14	1.80	1.69	1.52	1.27	1.41	0.97	2.57	2.76	1.96	4.02
10	2.34	3.18	1.50	1.74	1.54	1.40	1.55	1.29	2.65	2.89	1.95	4.10
11	2.40	3.21	1.39	1.80	1.63	1.50	1.64	1.51	2.73	3.01	2.07	4.17
12	2.45	3.22	1.54	1.84	1.71	1.53	1.72	1.66	2.83	3.11	2.19	4.24
13	2.43	2.30	1.65	1.88	1.78	1.60	1.17	1.81	2.92	3.19	2.31	4.30
14	2.28	1.98	1.77	1.37	1.83	1.63	0.38	1.92	3.01	3.26	2.42	4.25
15	2.28	2.01	1.88	0.78	1.85	1.64	0.49	2.00	3.10	2.93	2.51	3.44
16	2.25	2.07	1.94	0.91	1.86	1.50	0.87	1.84	3.17	2.87	2.62	3.23
17	2.35	2.12	1.97	1.06	1.89	0.35	1.14	1.89	3.28	3.00	2.71	3.28
18	2.45	2.17	2.00	1.25	1.95	0.24	1.32	2.07	3.44	3.01	2.79	3.32
19	2.51	2.22	2.01	1.36	2.01	0.41	1.44	2.20	3.54	2.00	2.86	3.35
20	2.55	2.26	2.05	1.38	2.05	0.56	1.54	2.28	3.61	1.96	2.93	3.43
21	2.58	2.31	2.11	1.42	2.06	0.76	1.64	2.12	3.68	2.13	3.01	3.16
22	2.62	2.34	2.14	1.48	2.04	0.95	1.74	2.14	3.74	2.23	3.11	2.85
23	2.65	2.10	2.15	1.49	2.06	0.61	1.81	2.28	3.81	0.42	3.19	2.89
24	2.69	1.71	2.15	1.58	1.72	0.42	1.90	2.39	3.88	0.38	2.71	3.00
25	2.72	1.68	2.19	1.61	1.27	0.65	1.98	2.48	3.94	0.77	2.56	3.11
26	2.75	1.79	2.16	1.64	1.38	0.88	2.06	2.56	4.00	1.16	2.68	3.20
27	2.78	1.91	1.89	1.70	1.50	1.05	2.11	2.64	4.06	1.48	2.81	3.29
28	2.82	1.32	1.81	1.78	1.13	0.76	2.18	2.72	4.12	1.72	2.94	3.37
29	2.85	1.21	1.75	1.83	---	0.40	2.25	2.80	3.94	0.68	3.05	3.45
30	2.86	1.33	1.49	1.47	---	0.65	2.30	2.88	3.62	0.16	3.16	3.53
31	2.90	---	1.19	1.22	---	0.86	---	2.93	---	0.23	3.26	---

WTR YR 2005 MEAN 2.10 HIGH 0.12 LOW 4.30

GROUND-WATER LEVELS

WAYNE COUNTY—Continued

351849078163901. Local number, NC-148; County number, WA-154



WAYNE COUNTY--Continued

352905077594501. County number, WA-185; LU-13.

LOCATION.--Lat 35°29'05", long 77°59'45", Hydrologic Unit 03020202, on Secondary Road 1321, 1 mi north of Secondary Road 1320, near Pikeville.

WATER-LEVEL RECORDS

AQUIFER.--Upper Cape Fear.

WELL CHARACTERISTICS.--Drilled observation well, depth 33 ft, diameter 2 in., screened interval from 26.76 to 29.76 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 134 ft above NGVD of 1929. Measuring point: Top of casing, 3.24 ft above land-surface datum.

REMARKS.--Well is part of National Water Quality Assessment Program (NAWQA).

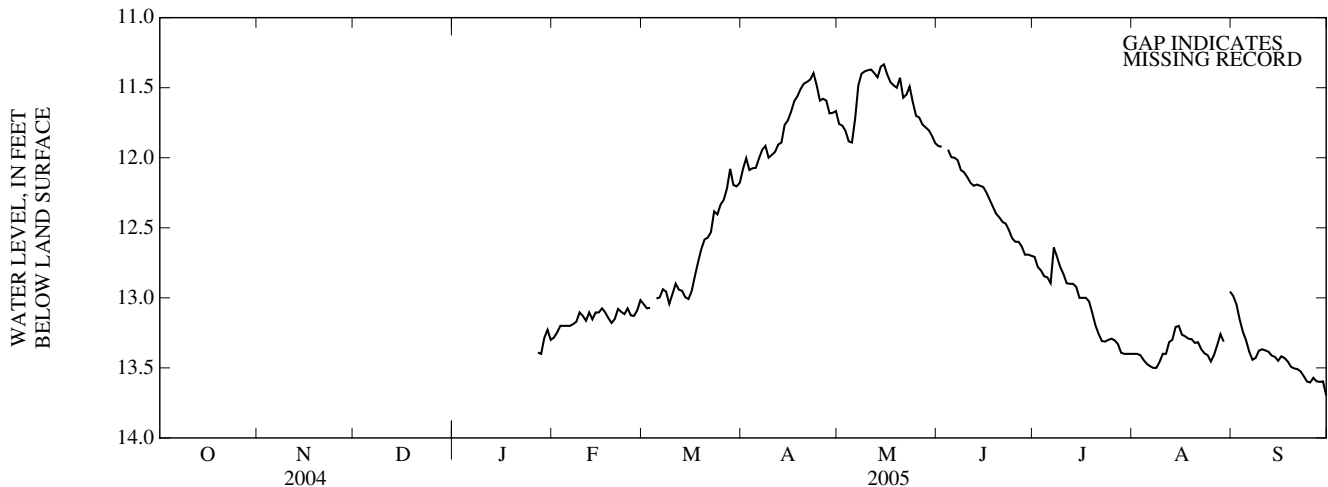
PERIOD OF RECORD.--January 2005 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.3 ft below land-surface datum, Apr. 22, 23, May 10-12, May 14-15, 2005; lowest water level recorded, 13.7 ft below land-surface datum, Sept. 24, 25, 29, 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	13.3	13.0	12.1	11.8	11.9	12.7	13.4	13.0
2	---	---	---	---	13.2	13.1	12.0	11.8	11.9	12.8	13.4	13.0
3	---	---	---	---	13.2	13.1	12.1	11.8	---	12.8	13.4	13.2
4	---	---	---	---	13.2	---	12.1	11.9	11.9	12.8	13.4	13.2
5	---	---	---	---	13.2	13.0	12.1	11.9	12.0	12.9	13.5	13.3
6	---	---	---	---	13.2	13.0	12.0	11.7	12.0	12.9	13.5	13.4
7	---	---	---	---	13.2	12.9	11.9	11.5	12.0	12.6	13.5	13.4
8	---	---	---	---	13.2	13.0	11.9	11.4	12.1	12.7	13.5	13.4
9	---	---	---	---	13.1	13.0	12.0	11.4	12.1	12.8	13.5	13.4
10	---	---	---	---	13.1	13.0	12.0	11.4	12.1	12.8	13.4	13.4
11	---	---	---	---	13.2	12.9	12.0	11.4	12.2	12.9	13.4	13.4
12	---	---	---	---	13.1	12.9	11.9	11.4	12.2	12.9	13.3	13.4
13	---	---	---	---	13.2	12.9	11.9	11.4	12.2	12.9	13.3	13.4
14	---	---	---	---	13.1	13.0	11.8	11.3	12.2	12.9	13.2	13.4
15	---	---	---	---	13.1	13.0	11.7	11.3	12.2	13.0	13.2	13.4
16	---	---	---	---	13.1	13.0	11.7	11.4	12.2	13.0	13.3	13.4
17	---	---	---	---	13.1	12.8	11.6	11.5	12.3	13.0	13.3	13.4
18	---	---	---	---	13.1	12.7	11.6	11.5	12.4	13.0	13.3	13.5
19	---	---	---	---	13.2	12.7	11.5	11.5	12.4	13.1	13.3	13.5
20	---	---	---	---	13.2	12.6	11.5	11.4	12.4	13.2	13.3	13.5
21	---	---	---	---	13.1	12.6	11.5	11.6	12.5	13.3	13.3	13.5
22	---	---	---	---	13.1	12.5	11.4	11.5	12.5	13.3	13.4	13.5
23	---	---	---	---	13.1	12.4	11.4	11.5	12.5	13.3	13.4	13.6
24	---	---	---	---	13.1	12.4	11.5	11.6	12.6	13.3	13.4	13.6
25	---	---	---	---	13.1	12.3	11.6	11.7	12.6	13.3	13.5	13.6
26	---	---	---	---	13.1	12.3	11.6	11.7	12.6	13.3	13.4	13.6
27	---	---	---	13.4	13.1	12.2	11.6	11.8	12.6	13.3	13.3	13.6
28	---	---	---	13.4	13.0	12.1	11.7	11.8	12.7	13.4	13.3	13.6
29	---	---	---	13.3	---	12.2	11.7	11.8	12.7	13.4	13.3	13.6
30	---	---	---	13.2	---	12.2	11.7	11.8	12.7	13.4	---	13.7
31	---	---	---	13.3	---	12.2	---	11.9	---	13.4	13.0	---

WTR YR 2005 MEAN 12.7 HIGH 11.3 LOW 13.7



WATER-QUALITY RECORDS

PERIOD OF RECORD.--1994, 2001, 2002, October 2004 to September 2005.

REMARKS.--Well is part of National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Sampling depth, feet (00003)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)
Date	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	1-Naphthol, water, fltrd, 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd, 0.7u GF ug/L (82660)	2-Chloro-2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)
Date	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)	4-Chloro-2-methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-Endo-sulfan, water, fltrd, ug/L (34362)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd, 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd, 0.7u GF ug/L (82673)	Car-baryl, water, fltrd, 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd, 0.7u GF ug/L (82674)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)
DEC 02...	1115	33.0	13.79	134	17.03	.40	20.0	--	762	.2	2	5.3	120
MAR 04...	1030	33.0	13.00	134	16.24	1.0	--	1.7	760	.8	8	5.3	121
JUN 03...	1000	33.0	11.92	134	15.16	.50	--	3.5	751	.1	1	5.3	119
AUG 30...	1700	33.0	13.59	134	16.83	.50	--	1.6	751	.2	2	5.5	119
DEC 02...	17.2		3.39	1.41	2.28	1	8.85	5	7	.05	17.9	E.1	22.7
MAR 04...	16.3	14	3.48	1.38	2.31	1	8.89	8	9	.21	18.1	<.1	22.4
JUN 03...	17.4	14	3.24	1.35	2.33	1	8.96	7	8	.05	17.9	<.1	23.1
AUG 30...	22.1	15	3.57	1.38	2.37	1	8.63	10	12	.11	18.4	<.1	22.5
DEC 02...	15.6	76	E.03	<.06	<.008	E.04	E.003	<.09	<.006	<.005	<.006	<.004	<.004
MAR 04...	14.2	87	E.02	<.06	<.008	E.04	E.004	--	--	--	--	--	--
JUN 03...	14.1	76	<.04	<.06	<.008	<.06	E.003	<.09	<.006	<.005	E.023	<.004	<.004
AUG 30...	13.5	91	<.04	<.06	<.008	E.04	<.006	<.09	<.006	<.005	<.006	<.004	<.004
DEC 02...	--	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	<.004	<.006	<.006	<.005	<.005	.031	<.07	<.050	<.010	<.041	<.020	<.06	<.005
AUG 30...	<.004	<.006	<.006	<.005	<.005	.013	<.07	<.050	<.010	<.041	<.020	<.06	<.005

352905077594501. County number WA-185. LU-13.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	cis-Permethrin water fltrd 0.7u GF (82687)	cis-Propiconazole, water, fltrd, ug/L (79846)	Cyanazine, water, fltrd, ug/L (04041)	Cyfluthrin, water, fltrd, ug/L (61585)	lambda-Cyhalothrin, water, fltrd, ug/L (61595)	Cypermethrin water, fltrd, ug/L (61586)	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazinon oxon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Dicrotophos, water fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethoate, water, fltrd 0.7u GF (82662)
DEC 02...	<.006	--	--	<.008	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	<.006	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006
AUG 30...	<.006	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006
Date	Disulfoton sulfone water, fltrd, ug/L (61640)	Disulfoton, water, fltrd 0.7u GF (82677)	Endosulfan sulfate water, fltrd, ug/L (61590)	EPTC, water, fltrd 0.7u GF (82668)	Ethion monooxon water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoprop, water, fltrd 0.7u GF (82672)	Fenamiphos sulfone water, fltrd, ug/L (61645)	Fenamiphos sulf-oxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)
DEC 02...	--	--	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	<.01	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024
AUG 30...	<.01	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024
Date	Fipronil, water, fltrd, ug/L (62166)	Fonofos oxon, water, fltrd, ug/L (61649)	Fonofos water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methiathion water, fltrd, ug/L (61598)	Methyl paraxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd 0.7u GF (82667)	Metolachlor, water, fltrd, ug/L (39415)
DEC 02...	<.016	<.003	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	<.016	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	E.004
AUG 30...	<.016	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006
Date	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF (82671)	Myclobutanil water, fltrd, ug/L (61599)	Oxyfluorfen, water, fltrd, ug/L (61600)	Pendimethalin, water, fltrd 0.7u GF (82683)	Phorate oxon, water, fltrd, ug/L (61666)	Phorate water fltrd 0.7u GF (82664)	Phosmet oxon, water, fltrd, ug/L (61668)	Phosmet water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd 0.7u GF (82676)	Propanil, water, fltrd 0.7u GF (82679)
DEC 02...	<.006	--	<.008	--	<.022	<.10	<.011	--	<.008	<.01	<.005	<.004	--
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	<.006	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011
AUG 30...	<.006	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011

352905077594501. County number WA-185. LU-13.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)	Tribu- phos, water, fltrd, ug/L (61610)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
DEC 02...	--	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	<.04
MAR 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 03...	<.02	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--
AUG 30...	<.02	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--

YADKIN COUNTY

361307080293101. Local number NC-221; DENR East Bend Research Station well F61f3; County number, YD-200.

LOCATION.--Lat 36°13'08", long 80°29'32", 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 station.

DATUM.--Land-surface datum is 1,009.00 ft above NGVD of 1929 (levels by DENR). Measuring point: Top of 12 in. PVC well cap, 3.52 ft above land-surface datum; revised from 0.56 ft above land-surface datum, June 8, 2005.

REMARKS.--Well is part of terrane-effects network.

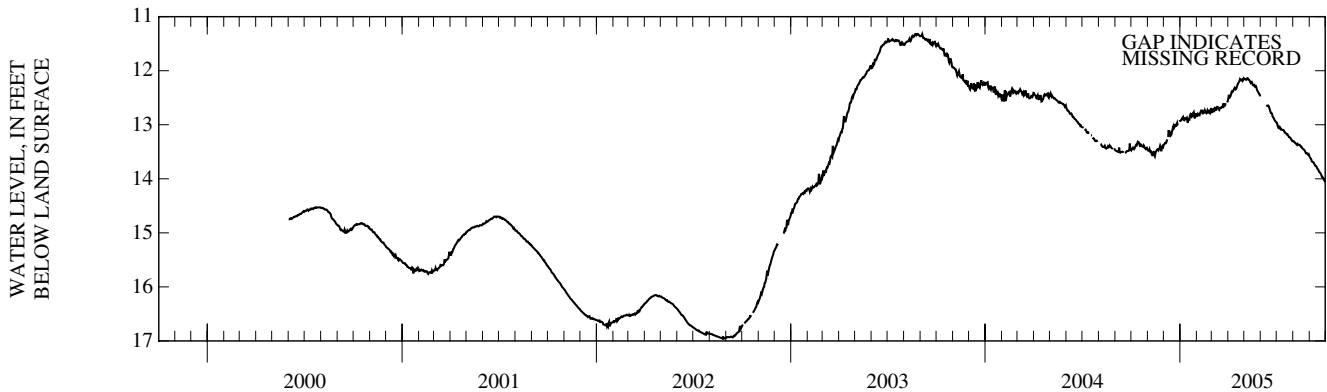
PERIOD OF RECORD.--June 2000 to current year. Records from June 1972 to May 2000 are unpublished and available in the files of the Groundwater Section, DENR.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 11.30 ft below land-surface datum, Aug. 22, 23, 25, 26, 27, Sept. 4, 2003; lowest water level recorded, 16.97 ft below land-surface datum, Aug. 25, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.47	13.47	13.37	12.93	12.84	12.73	12.52	12.15	---	12.96	13.31	13.60
2	13.45	13.48	13.36	12.92	12.84	12.76	12.45	12.16	---	12.99	13.31	13.61
3	13.43	13.48	13.34	12.90	12.80	12.76	12.50	12.16	---	13.03	13.32	13.63
4	13.42	13.45	13.34	12.89	12.80	12.74	12.49	12.17	---	13.05	13.33	13.65
5	13.44	13.49	13.34	12.87	12.82	12.72	12.47	12.17	---	13.04	13.34	13.68
6	13.45	13.50	13.31	12.86	12.83	12.73	12.44	12.14	---	13.06	13.35	13.69
7	13.44	13.50	13.27	12.90	12.79	12.69	12.40	12.14	---	13.04	13.36	13.69
8	13.41	13.54	---	12.89	12.76	12.69	12.38	12.14	---	13.06	13.37	13.70
9	13.39	13.56	13.23	12.91	12.74	12.74	12.39	12.16	---	13.09	13.35	13.71
10	13.37	13.56	13.10	12.88	12.75	12.70	12.38	12.17	---	13.09	13.37	13.74
11	13.38	13.53	13.17	12.89	12.77	12.67	12.36	12.18	12.64	13.09	13.37	13.76
12	13.35	13.49	13.19	12.89	12.75	12.67	12.33	12.20	12.65	13.10	13.37	13.76
13	13.32	13.56	13.16	12.87	12.78	12.69	12.31	12.22	12.65	13.10	13.37	13.77
14	13.33	13.58	13.20	12.93	12.76	12.71	12.33	12.21	12.65	13.10	13.39	13.78
15	13.33	13.54	13.18	12.96	12.77	12.73	12.34	12.21	12.64	13.12	13.40	13.81
16	13.36	13.50	13.14	12.88	12.73	12.70	12.33	12.23	12.66	13.14	13.40	13.82
17	13.39	13.48	13.09	12.90	12.75	12.68	12.30	12.26	12.69	13.15	13.42	13.83
18	13.39	13.47	13.06	12.91	12.78	12.69	12.27	12.27	12.72	13.16	13.44	13.86
19	13.37	13.45	13.02	12.83	12.79	12.69	12.24	12.27	12.76	13.16	13.44	13.87
20	13.38	13.45	13.06	12.81	12.78	12.67	12.22	12.26	12.78	13.18	13.46	13.88
21	13.39	13.47	13.04	12.83	12.74	12.67	12.21	12.30	12.78	13.18	13.46	13.90
22	13.41	13.45	13.02	12.79	12.76	12.67	12.19	12.30	12.79	13.19	13.47	13.91
23	13.40	13.43	12.99	12.84	12.77	12.60	12.16	12.29	12.84	13.21	13.49	13.94
24	13.38	13.39	13.03	12.82	12.75	12.67	12.17	12.32	12.86	13.23	13.51	13.97
25	13.40	13.42	13.00	12.79	12.77	12.64	12.18	12.36	12.87	13.23	13.53	13.98
26	13.43	13.49	12.97	12.77	12.79	12.64	12.17	12.38	12.89	13.24	13.52	13.98
27	13.43	13.43	13.01	12.85	12.77	12.60	12.16	12.40	12.92	13.25	13.53	14.01
28	13.45	13.41	---	12.88	12.69	---	12.18	12.41	12.93	13.27	13.55	14.03
29	13.43	13.44	---	12.84	---	---	12.16	12.43	12.94	13.28	13.56	14.03
30	13.43	13.39	12.94	12.79	---	12.59	12.14	12.44	12.96	13.30	13.55	14.07
31	13.45	---	12.93	12.83	---	12.55	---	12.47	---	13.30	13.57	---

WTR YR 2005 MEAN 13.01 HIGH 12.14 LOW 14.07



GROUND-WATER LEVELS

SUFFOLK CITY, VA

363529076291701. LU-12.

LOCATION.--Lat 36°35'30", long 76°29'16", Hydrologic Unit 03010205, approximately 30 ft into the woods on south side of Interior Ditch in the Great Dismal Swamp National Wildlife Refuge, Virginia. Owner: U.S. Fish and Wildlife Service.

WATER-LEVEL RECORDS

AQUIFER.--Surficial.

WELL CHARACTERISTICS.--Drilled observation well, depth 5 ft, diameter 2 in., screened interval from 2 to 5 ft.

INSTRUMENTATION.--Water-level recorder collecting data at 60-minute intervals.

DATUM.--Land-surface datum is 15 ft above NGVD of 1929. Measuring point: Top of casing, 2.85 ft above land-surface datum.

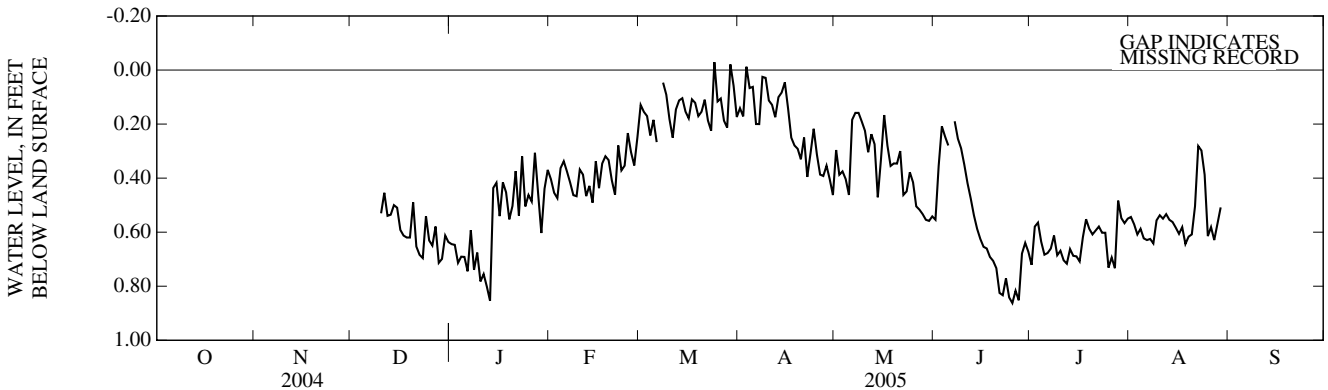
REMARKS.--Well is part of National Water Quality Assessment Program (NAWQA).

PERIOD OF RECORD.--December 2004 to September 2005.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, .3 ft below land-surface datum, Mar. 8, Apr. 3, 4, 2005; lowest water level recorded, 1.4 ft below land-surface datum, June 21, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	0.6	0.4	0.1	0.1	0.3	0.6	0.7	0.5	---
2	---	---	---	0.6	0.5	0.2	0.2	0.4	0.4	0.6	0.6	---
3	---	---	---	0.7	0.5	0.2	0.0	0.4	0.2	0.6	0.6	---
4	---	---	---	0.7	0.4	0.2	0.1	0.4	0.2	0.6	0.6	---
5	---	---	---	0.7	0.3	0.2	0.1	0.5	0.3	0.7	0.6	---
6	---	---	---	0.7	0.4	0.3	0.2	0.2	---	0.7	0.6	---
7	---	---	---	0.6	0.4	---	0.2	0.2	0.2	0.7	0.6	---
8	---	---	---	0.7	0.5	0.0	0.0	0.2	0.3	0.6	0.6	---
9	---	---	---	0.7	0.5	0.1	0.0	0.2	0.3	0.7	0.6	---
10	---	---	0.5	0.8	0.4	0.2	0.1	0.2	0.3	0.7	0.5	---
11	---	---	0.5	0.8	0.4	0.3	0.1	0.3	0.4	0.7	0.6	---
12	---	---	0.5	0.8	0.5	0.1	0.2	0.2	0.5	0.7	0.5	---
13	---	---	0.5	0.9	0.4	0.1	0.1	0.3	0.5	0.7	0.6	---
14	---	---	0.5	0.4	0.5	0.1	0.1	0.5	0.6	0.7	0.6	---
15	---	---	0.5	0.4	0.3	0.2	0.0	0.3	0.6	0.7	0.6	---
16	---	---	0.6	0.5	0.4	0.2	0.1	0.2	0.7	0.7	0.6	---
17	---	---	0.6	0.4	0.3	0.1	0.3	0.3	0.7	0.6	0.6	---
18	---	---	0.6	0.5	0.3	0.1	0.3	0.4	0.7	0.6	0.6	---
19	---	---	0.6	0.6	0.3	0.2	0.3	0.3	0.7	0.6	0.6	---
20	---	---	0.5	0.5	0.4	0.2	0.3	0.3	0.7	0.6	0.6	---
21	---	---	0.7	0.4	0.5	0.1	0.2	0.3	0.8	0.6	0.5	---
22	---	---	0.7	0.5	0.3	0.2	0.4	0.5	0.8	0.6	0.3	---
23	---	---	0.7	0.3	0.4	0.2	0.3	0.4	0.8	0.6	0.3	---
24	---	---	0.5	0.5	0.4	0.0	0.2	0.4	0.8	0.6	0.4	---
25	---	---	0.6	0.5	0.2	0.1	0.3	0.4	0.9	0.7	0.6	---
26	---	---	0.6	0.5	0.3	0.1	0.4	0.5	0.8	0.7	0.6	---
27	---	---	0.6	0.3	0.4	0.2	0.4	0.5	0.9	0.7	0.6	---
28	---	---	0.7	0.5	0.2	0.2	0.4	0.5	0.7	0.5	0.6	---
29	---	---	0.7	0.6	---	0.0	0.4	0.6	0.6	0.5	0.5	---
30	---	---	0.6	0.4	---	0.1	0.5	0.6	0.7	0.6	---	---
31	---	---	0.6	0.4	---	0.2	---	0.5	---	0.6	---	---
WTR YR	2005	MEAN 0.4	HIGH 0.0	LOW 0.9								



363529076291701. LU-012.—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1994, 2001, 2002, October 2004 to September 2005.

REMARKS.--Well is part of National Water Quality Assessment (NAWQA) Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Turbidity white light, det ang 90+/-30 correctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)
Date	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)
Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Orthophosphate, water, fltrd, mg/L as P (00671)	1-Naphthol, water, fltrd 0.7u GF ug/L (49295)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	2-Chloro-2',6'-diethyl acet-anilide wat flt ug/L (61618)	CIAT, water, fltrd, ug/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, ug/L (61620)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)
Date	4-Chloro-2-methyl phenol, water, fltrd, ug/L (61633)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-Endo-sulfan, water, fltrd, ug/L (34362)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl oxon, water, fltrd, ug/L (61635)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyrifos oxon, water, fltrd, ug/L (61636)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)
DEC 09...	1400	5.0	1.59	15	4.44	--	--	761	1.3	12	5.1	93	13.0
MAR 07...	1300	5.0	.34	15	3.19	.10	89	754	4.0	35	5.4	81	9.3
JUN 06...	1300	5.0	.43	15	3.28	.10	72	760	1.2	12	5.1	92	16.6
AUG 30...	1130	5.0	.77	15	3.62	.10	42	758	2.7	31	5.8	148	20.8
DEC 09...		6.57	1.13	.96	.8	8.01	--	--	--	--	<.1	12.4	--
MAR 07...	18	5.57	.952	.84	.5	4.81	18	22	--	16.0	<.1	9.15	108
JUN 06...	23	7.13	1.17	1.10	.5	5.69	41	50	2.15	6.66	E.1	9.80	.2
AUG 30...	26	8.40	1.34	1.22	.7	8.24	58	70	3.05	7.51	<.1	14.6	E.2
DEC 09...	289	.48	<.06	.026	3.36	.025	<.09	<.006	<.005	<.006	<.004	<.004	--
MAR 07...	219	.26	<.06	.020	2.45	.007	<.09	<.006	<.005	<.006	<.004	<.004	--
JUN 06...	296	.43	<.06	.063	3.55	.025	<.09	<.006	<.005	<.006	<.004	<.004	<.004
AUG 30...	344	.97	<.06	.056	4.51	.041	<.09	<.006	<.005	<.006	<.004	<.004	<.004
DEC 09...	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006
MAR 07...	<.006	<.006	<.005	--	<.007	<.07	<.050	<.010	<.041	--	<.06	<.005	<.006
JUN 06...	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006
AUG 30...	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	cis-Propiconazole, water, fltrd, ug/L (79846)	Cyanazine, water, fltrd, ug/L (04041)	Cyfluthrin, water, fltrd, ug/L (61585)	lambda-Cyhalothrin, water, fltrd, ug/L (61595)	Cypermethrin, water, fltrd, ug/L (61586)	DCPA, water fltrd, 0.7u GF, ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (61638)	Diazinon, water, fltrd, ug/L (39572)	Dicrotophos, water, fltrd, ug/L (38454)	Dieldrin, water, fltrd, ug/L (39381)	Dimethoate, water, fltrd, 0.7u GF, ug/L (82662)	Disulfoton sulfone, water, fltrd, ug/L (61640)
DEC 09...	--	--	<.008	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--
MAR 07...	--	--	<.027	--	<.009	<.003	<.012	<.01	<.005	<.08	<.009	<.006	--
JUN 06...	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01
AUG 30...	<.008	<.018	<.027	<.009	<.009	<.003	<.012	--	<.005	<.08	<.009	<.006	<.01
Date	Disulfoton, water, fltrd, 0.7u GF, ug/L (82677)	Endosulfan sulfate, water, fltrd, ug/L (61590)	EPTC, water, fltrd, 0.7u GF, ug/L (82668)	Ethion monooxon, water, fltrd, ug/L (61644)	Ethion, water, fltrd, ug/L (82346)	Ethoprop, water, fltrd, 0.7u GF, ug/L (82672)	Fenamiphos sulfone, water, fltrd, ug/L (61645)	Fenamiphos sulf-oxide, water, fltrd, ug/L (61646)	Fenamiphos, water, fltrd, ug/L (61591)	Desulfinyl-fipronil amide, wat flt, ug/L (62169)	Fipronil sulfide, water, fltrd, ug/L (62167)	Fipronil sulfone, water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)
DEC 09...	--	--	--	<.0020	<.004	--	<.049	--	<.03	<.029	<.013	<.024	<.016
MAR 07...	--	--	--	<.0020	<.004	--	<.049	<.04	<.03	<.029	<.013	<.024	<.016
JUN 06...	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016
AUG 30...	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016
Date	Fonofos, water, fltrd, ug/L (61649)	Fonofos, water, fltrd, ug/L (04095)	Hexazinone, water, fltrd, ug/L (04025)	Iprodione, water, fltrd, ug/L (61593)	Isofenphos, water, fltrd, ug/L (61594)	Malaoxon, water, fltrd, ug/L (61652)	Malathion, water, fltrd, ug/L (39532)	Metaxyl, water, fltrd, ug/L (61596)	Methiathion, water, fltrd, ug/L (61598)	Methyl paraoxon, water, fltrd, ug/L (61664)	Methyl parathion, water, fltrd, 0.7u GF, ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)
DEC 09...	<.003	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
MAR 07...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
JUN 06...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
AUG 30...	--	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006	<.006
Date	Molinate, water, fltrd, 0.7u GF, ug/L (82671)	Myclobutanil, water, fltrd, ug/L (61599)	Oxyfluorfen, water, fltrd, ug/L (61600)	Pendimethalin, water, fltrd, 0.7u GF, ug/L (82683)	Phorate, water, fltrd, ug/L (61666)	Phorate, water, fltrd, 0.7u GF, ug/L (82664)	Phosmet, water, fltrd, ug/L (61668)	Phosmet, water, fltrd, ug/L (61601)	Prometon, water, fltrd, ug/L (04037)	Prometryn, water, fltrd, ug/L (04036)	Propyzamide, water, fltrd, 0.7u GF, ug/L (82676)	Propanil, water, fltrd, 0.7u GF, ug/L (82679)	Propargite, water, fltrd, 0.7u GF, ug/L (82685)
DEC 09...	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--
MAR 07...	--	<.008	--	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	--	--
JUN 06...	<.003	<.008	<.007	<.022	<.10	<.011	--	--	<.01	<.005	<.004	<.011	<.02
AUG 30...	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01	<.005	<.004	<.011	<.02

363529076291701. LU-012.—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Teflu- thrin, water, fltrd, ug/L (61606)	Ter- bufos oxon sulfone water, fltrd, ug/L (61674)	Terbu- fos, water, fltrd 0.7u GF (82675)	Ter- buthyl- azine, water, fltrd, ug/L (04022)	Thio- bencarb water fltrd 0.7u GF (82681)	trans- Propi- cona- zole, water, fltrd, ug/L (79847)	Tribu- phos, water, fltrd, ug/L (61610)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Di- chlor- vos, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
DEC 09...	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	.12
MAR 07...	<.005	<.02	--	<.07	<.02	<.01	--	--	--	<.009	<.01	--
JUN 06...	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--
AUG 30...	<.005	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.01	--

WATER QUALITY DATA
MISCELLANEOUS STATION ANALYSES

Ground-water-quality data presented in these tables were collected from the following sites in Buncombe County during the 2005 water year in support of the Piedmont/Mountains ground-water study in cooperation with the North Carolina Department of Environment and Natural Resources, Division of Water Quality, Groundwater Section. Well locations for these sites listed in the following table are shown in figure 7.

Date	Time	Medium code	S	m	Sample type	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, uS/cm 25 degC (90095)	Specif. conductance, wat unfl lab, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)
352840082381001 BU-068 BENT CREEK RS MW-1S (REGOLITH WELL) (LAT 35 28 39N LONG 082 38 10W)															
JUN 2005 27...	1215		6		9	22.0	2,200.99	--	4.9	--	5.5	5.5	17	17	13.7
352840082381002 BU-069 BENT CREEK RS MW-1I (TRANSITION ZONE WELL) (LAT 35 28 40N LONG 082 38 10W)															
JUN 2005 27...	1100		6		9	53.0	2,202.52	--	8.0	--	5.6	5.7	14	14	12.7
352840082381003 BU-070 BENT CREEK RS MW-1D (BEDROCK WELL) (LAT 35 28 41N LONG 082 38 12W)															
JUN 2005 27...	1250		6		9	221	2,201.77	--	.3	--	7.2	6.8	69	75	13.6
	1300		S		5	221	2,201.77	--	--	--	--	6.7	69	--	--
352854082380502 BU-072 BENT CREEK RS MW-2I (TRANSITION ZONE WELL) (LAT 35 28 54N LONG 082 38 05W)															
JUN 2005 29...	1300		6		9	36	2,191.72	--	7.4	--	5.3	6.1	45	11	12.2
352856082381201 BU-074 BENT CREEK RS MW-3S (REGOLITH WELL) (LAT 35 28 57N LONG 082 38 12W)															
JUN 2005 27...	1130		6		9	30	2,210.12	--	7.3	--	5.0	5.5	17	14	12.4
	1135		S		5	30	2,210.12	--	--	--	--	5.5	17	--	--
352856082381202 BU-075 BENT CREEK RS MW-3I (TRANSITION ZONE WELL) (LAT 35 28 57N LONG 082 38 12W)															
JUN 2005 27...	1400		6		9	50	2,209.45	717	7.7	77	5.2	5.7	19	16	12.9
352808082382601 BU-077 BENT CREEK RS MW-4S (REGOLITH WELL) (LAT 35 28 08N LONG 082 38 27W)															
JUN 2005 27...	1615		6		9	22	2,259.66	--	8.4	--	5.5	5.4	13	14	12.3
352808082382602 BU-078 BENT CREEK RS MW-4I (TRANSITION ZONE WELL) (LAT 35 28 08N LONG 082 38 26W)															
JUN 2005 27...	1545		6		9	41	2,258.80	--	9.1	--	5.6	5.7	14	11	12.8
352810082383501 BU-080 BENT CREEK RS MW-5S (REGOLITH WELL) (LAT 35 28 10N LONG 082 38 35W)															
JUN 2005 28...	1300		6		9	24	2,299.99	--	2.1	--	5.5	5.4	22	24	13.2
352810082383502 BU-081 BENT CREEK RS MW-5I (TRANSITION ZONE WELL) (LAT 35 28 11N LONG 082 38 35W)															
JUN 2005 28...	1100		6		9	47	2,302.19	--	6.1	--	5.6	5.6	18	20	13.2
352810082383503 BU-082 BENT CREEK RS MW-5D (BEDROCK WELL) (LAT 35 28 10N LONG 082 38 35W)															
JUN 2005 28...	1400		Q		2	300	2,304.84	--	--	--	--	E5.4	<3	--	--
	1430		S		5	300	2,304.84	--	--	--	--	6.3	50	--	--
	1440		6		9	300	2,304.84	--	4.2	--	6.2	6.4	50	50	14.6

MISCELLANEOUS STATION ANALYSES—Continued

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO ₃ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)
352840082381001 BU-068 BENT CREEK RS MW-1S (REGOLITH WELL) (LAT 35 28 39N LONG 082 38 10W)													
JUN 2005 27...	.84	.561	.35	1.22	10	5	6	E.01	.63	<.1	9.46	1.1	14
352840082381002 BU-069 BENT CREEK RS MW-1I (TRANSITION ZONE WELL) (LAT 35 28 40N LONG 082 38 10W)													
JUN 2005 27...	.72	.491	.30	.93	9	6	7	E.01	.51	<.1	8.80	.7	13
352840082381003 BU-070 BENT CREEK RS MW-1D (BEDROCK WELL) (LAT 35 28 41N LONG 082 38 12W)													
JUN 2005 27...	6.49	1.16	.81	4.71	24	23	27	.07	1.93	.2	24.0	8.6	68
JUN 2005 27...	6.64	1.16	.79	4.62	24	--	--	.07	1.90	.2	23.9	8.5	64
352854082380502 BU-072 BENT CREEK RS MW-2I (TRANSITION ZONE WELL) (LAT 35 28 54N LONG 082 38 05W)													
JUN 2005 29...	4.12	2.10	.39	1.10	18	13	16	.03	1.44	<.1	7.06	4.3	36
352856082381201 BU-074 BENT CREEK RS MW-3S (REGOLITH WELL) (LAT 35 28 57N LONG 082 38 12W)													
JUN 2005 27...	.69	.597	.66	1.26	9	6	8	.02	.78	<.1	9.89	.6	18
JUN 2005 27...	.69	.595	.63	1.25	11	--	--	.03	.77	<.1	9.89	.6	15
352856082381202 BU-075 BENT CREEK RS MW-3I (TRANSITION ZONE WELL) (LAT 35 28 57N LONG 082 38 12W)													
JUN 2005 27...	.96	.587	.83	1.12	9	6	7	E.02	.84	<.1	9.42	.9	15
352808082382601 BU-077 BENT CREEK RS MW-4S (REGOLITH WELL) (LAT 35 28 08N LONG 082 38 27W)													
JUN 2005 27...	.53	.454	.67	.67	8	5	5	E.02	.60	<.2	7.06	.2	13
352808082382602 BU-078 BENT CREEK RS MW-4I (TRANSITION ZONE WELL) (LAT 35 28 08N LONG 082 38 26W)													
JUN 2005 27...	.68	.428	.72	.79	10	6	7	E.01	.59	<.1	7.71	.3	10
352810082383501 BU-080 BENT CREEK RS MW-5S (REGOLITH WELL) (LAT 35 28 10N LONG 082 38 35W)													
JUN 2005 28...	.88	.627	.83	1.57	10	6	7	E.02	1.04	<.1	11.7	1.9	20
352810082383502 BU-081 BENT CREEK RS MW-5I (TRANSITION ZONE WELL) (LAT 35 28 11N LONG 082 38 35W)													
JUN 2005 28...	.73	.528	.58	1.58	10	6	7	.02	.90	<.1	11.9	.3	18
352810082383503 BU-082 BENT CREEK RS MW-5D (BEDROCK WELL) (LAT 35 28 10N LONG 082 38 35W)													
JUN 2005 28...	.02	.008	<.16	<.20	<5	--	--	E.01	<.20	<.1	E.03	<.2	<10
JUN 2005 28...	4.62	1.38	1.85	2.66	24	--	--	.03	.92	<.1	17.9	3.2	44
JUN 2005 28...	4.30	1.33	1.80	2.66	25	19	23	.03	.92	E.1	17.7	3.0	47

WATER QUALITY DATA

MISCELLANEOUS STATION ANALYSES—Continued

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitro- gen, wat flt by anal ysis, mg/L (62854)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Alum- inum, water, fltrd, ug/L (01106)	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)
352840082381001 BU-068 BENT CREEK RS MW-1S (REGOLITH WELL) (LAT 35 28 39N LONG 082 38 10W)													
JUN 2005 27...	<.04	<.06	<.008	E.04	<.006	--	--	<2	--	--	<7.0	--	--
352840082381002 BU-069 BENT CREEK RS MW-1I (TRANSITION ZONE WELL) (LAT 35 28 40N LONG 082 38 10W)													
JUN 2005 27...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
352840082381003 BU-070 BENT CREEK RS MW-1D (BEDROCK WELL) (LAT 35 28 41N LONG 082 38 12W)													
JUN 2005 27...	<.04	<.06	<.008	<.06	<.006	<2	<.20	<2	1	<.06	<7.0	<.04	<.8
JUN 2005 27...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
352854082380502 BU-072 BENT CREEK RS MW-2I (TRANSITION ZONE WELL) (LAT 35 28 54N LONG 082 38 05W)													
JUN 2005 29...	<.04	.11	<.008	.12	<.006	--	--	<2	--	--	<7.0	--	--
352856082381201 BU-074 BENT CREEK RS MW-3S (REGOLITH WELL) (LAT 35 28 57N LONG 082 38 12W)													
JUN 2005 27...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
JUN 2005 27...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
352856082381202 BU-075 BENT CREEK RS MW-3I (TRANSITION ZONE WELL) (LAT 35 28 57N LONG 082 38 12W)													
JUN 2005 27...	<.04	E.05	<.008	E.04	.007	--	--	<2	--	--	<7.0	--	--
352808082382601 BU-077 BENT CREEK RS MW-4S (REGOLITH WELL) (LAT 35 28 08N LONG 082 38 27W)													
JUN 2005 27...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
352808082382602 BU-078 BENT CREEK RS MW-4I (TRANSITION ZONE WELL) (LAT 35 28 08N LONG 082 38 26W)													
JUN 2005 27...	--	--	--	<.06	--	--	--	<2	--	--	<7.0	--	--
352810082383501 BU-080 BENT CREEK RS MW-5S (REGOLITH WELL) (LAT 35 28 10N LONG 082 38 35W)													
JUN 2005 28...	<.04	E.05	<.008	E.06	<.006	--	--	<2	--	--	<7.0	--	--
352810082383502 BU-081 BENT CREEK RS MW-5I (TRANSITION ZONE WELL) (LAT 35 28 11N LONG 082 38 35W)													
JUN 2005 28...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
352810082383503 BU-082 BENT CREEK RS MW-5D (BEDROCK WELL) (LAT 35 28 10N LONG 082 38 35W)													
JUN 2005 28...	<.04	<.06	<.008	<.06	<.006	--	--	<2	--	--	<7.0	--	--
JUN 2005 28...	<.04	<.06	<.008	<.06	E.004	--	--	<2	--	--	<7.0	--	--
JUN 2005 28...	<.04	<.06	<.008	<.06	E.003	--	--	<2	--	--	<7.0	--	--

MISCELLANEOUS STATION ANALYSES—Continued

Date	Cobalt water, flt'd, ug/L (01035)	Copper, water, flt'd, ug/L (01040)	Iron, water, flt'd, ug/L (01046)	Lead, water, flt'd, ug/L (01049)	Mangan- ese, water, flt'd, ug/L (01056)	Molyb- denum, water, flt'd, ug/L (01060)	Nickel, water, flt'd, ug/L (01065)	Selen- ium, water, flt'd, ug/L (01145)	Silver, water, flt'd, ug/L (01075)	Zinc, water, flt'd, ug/L (01090)	Uranium natural water, flt'd, ug/L (22703)
352840082381001 BU-068 BENT CREEK RS MW-1S (REGOLITH WELL) (LAT 35 28 39N LONG 082 38 10W)											
JUN 2005 27...	--	--	<6	--	2.9	--	--	--	--	--	--
352840082381002 BU-069 BENT CREEK RS MW-1I (TRANSITION ZONE WELL) (LAT 35 28 40N LONG 082 38 10W)											
JUN 2005 27...	--	--	<6	--	.8	--	--	--	--	--	--
352840082381003 BU-070 BENT CREEK RS MW-1D (BEDROCK WELL) (LAT 35 28 41N LONG 082 38 12W)											
JUN 2005 27...	.145	<.4	642	<.08	18.1	<.4	.85	<3	<.2	119	.10
27...	--	--	675	--	20.8	--	--	--	--	--	--
352854082380502 BU-072 BENT CREEK RS MW-2I (TRANSITION ZONE WELL) (LAT 35 28 54N LONG 082 38 05W)											
JUN 2005 29...	--	--	<6	--	7.5	--	--	--	--	--	--
352856082381201 BU-074 BENT CREEK RS MW-3S (REGOLITH WELL) (LAT 35 28 57N LONG 082 38 12W)											
JUN 2005 27...	--	--	<6	--	9.9	--	--	--	--	--	--
27...	--	--	<6	--	9.7	--	--	--	--	--	--
352856082381202 BU-075 BENT CREEK RS MW-3I (TRANSITION ZONE WELL) (LAT 35 28 57N LONG 082 38 12W)											
JUN 2005 27...	--	--	<6	--	5.8	--	--	--	--	--	--
352808082382601 BU-077 BENT CREEK RS MW-4S (REGOLITH WELL) (LAT 35 28 08N LONG 082 38 27W)											
JUN 2005 27...	--	--	<6	--	3.4	--	--	--	--	--	--
352808082382602 BU-078 BENT CREEK RS MW-4I (TRANSITION ZONE WELL) (LAT 35 28 08N LONG 082 38 26W)											
JUN 2005 27...	--	--	<6	--	.9	--	--	--	--	--	--
352810082383501 BU-080 BENT CREEK RS MW-5S (REGOLITH WELL) (LAT 35 28 10N LONG 082 38 35W)											
JUN 2005 28...	--	--	<6	--	13.1	--	--	--	--	--	--
352810082383502 BU-081 BENT CREEK RS MW-5I (TRANSITION ZONE WELL) (LAT 35 28 11N LONG 082 38 35W)											
JUN 2005 28...	--	--	<6	--	1.9	--	--	--	--	--	--
352810082383503 BU-082 BENT CREEK RS MW-5D (BEDROCK WELL) (LAT 35 28 10N LONG 082 38 35W)											
JUN 2005 28...	--	--	E4	--	<.6	--	--	--	--	--	--
28...	--	--	54	--	66.0	--	--	--	--	--	--
28...	--	--	46	--	62.0	--	--	--	--	--	--

WATER QUALITY DATA

MISCELLANEOUS STATION ANALYSES—Continued

Date	Time	Medium code	S	m	Sample type	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc-tance, wat unfltrd lab, uS/cm 25 degC (90095)	Specif. conduc-tance, wat unfltrd lab, uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
352827082383901 BU-083 BENT CREEK RS MW-7S (REGOLITH WELL) (LAT 35 29 27N LONG 082 38 39W)															
JUN 2005	28...		6		9	25	2,368.23	5.4	5.1	5.3	19	18	14.0	.73	.668
352827082383902 BU-084 BENT CREEK RS MW-7I (TRANSITION ZONE WELL) (LAT 35 28 27N LONG 082 38 39W)															
JUN 2005	28...		6		9	50	2,369.04	7.4	5.6	5.5	14	17	14.1	.43	.678
352827082383903 BU-085 BENT CREEK RS MW-7D (BEDROCK WELL) (LAT 35 29 27N LONG 082 38 39W)															
JUN 2005	29...		Q		2	285	2,369.88	--	--	E5.5	<3	--	--	<.02	<.008
353014082360701 BU-101 BENT CREEK ARBORETUM WELL 3 (LAT 35 30 14N LONG 082 36 07W)															
JUN 2005	29...		6		9	265	--	2.9	6.7	6.9	69	73	14.2	5.60	1.91
353014082360702 BU-102 BENT CREEK ARBORETUM WELL 4 (LAT 35 30 14N LONG 082 36 07W)															
JUN 2005	29...		6		9	400	--	1.9	6.7	7.0	91	87	18.6	10.8	2.08
Date		Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unfltrd, field, titr., mg/L as CaCO3 (00419)	Bicar-bonate, wat unfltrd, field, titr., mg/L (00450)	Bromide water, fltrd, mg/L (71870)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	
352827082383901 BU-083 BENT CREEK RS MW-7S (REGOLITH WELL) (LAT 35 29 27N LONG 082 38 39W)															
JUN 2005	28...	1.43	.82	9	7	8	.03	1.10	<.1	6.41	.2	12	<.04	<.06	
352827082383902 BU-084 BENT CREEK RS MW-7I (TRANSITION ZONE WELL) (LAT 35 28 27N LONG 082 38 39W)															
JUN 2005	28...	.71	.60	7	5	5	.02	1.09	<.1	7.03	E.1	<10	<.04	<.06	
352827082383903 BU-085 BENT CREEK RS MW-7D (BEDROCK WELL) (LAT 35 29 27N LONG 082 38 39W)															
JUN 2005	29...	<.16	<.20	6	--	--	<.02	<.20	<.1	<.04	<.2	<10	<.04	<.06	
353014082360701 BU-101 BENT CREEK ARBORETUM WELL 3 (LAT 35 30 14N LONG 082 36 07W)															
JUN 2005	29...	2.11	4.40	23	21	25	--	.52	.1	27.6	11.9	66	<.04	<.06	
353014082360702 BU-102 BENT CREEK ARBORETUM WELL 4 (LAT 35 30 14N LONG 082 36 07W)															
JUN 2005	29...	1.05	5.12	38	34	41	--	1.21	.1	26.1	9.2	77	<.04	<.06	

MISCELLANEOUS STATION ANALYSES—Continued

Date	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic, water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Cobalt, water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)
352827082383901 BU-083 BENT CREEK RS MW-7S (REGOLITH WELL) (LAT 35 29 27N LONG 082 38 39W)													
JUN 2005 28...	<.008	.09	<.006	--	--	<2	--	--	E3.7	--	--	--	--
352827082383902 BU-084 BENT CREEK RS MW-7I (TRANSITION ZONE WELL) (LAT 35 28 27N LONG 082 38 39W)													
JUN 2005 28...	<.008	.17	<.006	--	--	<2	--	--	<7.0	--	--	--	--
352827082383903 BU-085 BENT CREEK RS MW-7D (BEDROCK WELL) (LAT 35 29 27N LONG 082 38 39W)													
JUN 2005 29...	<.008	.33	<.006	--	--	<2	--	--	<7.0	--	--	--	--
353014082360701 BU-101 BENT CREEK ARBORETUM WELL 3 (LAT 35 30 14N LONG 082 36 07W)													
JUN 2005 29...	<.008	<.06	<.006	<2	<.20	<2	8	<.06	<7.0	<.04	<.8	.057	.5
353014082360702 BU-102 BENT CREEK ARBORETUM WELL 4 (LAT 35 30 14N LONG 082 36 07W)													
JUN 2005 29...	<.008	E.03	<.006	<2	<.20	<2	3	<.06	<7.0	<.04	<.8	.053	.6

Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Molybdenum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Uranium natural, water, fltrd, ug/L (22703)
352827082383901 BU-083 BENT CREEK RS MW-7S (REGOLITH WELL) (LAT 35 29 27N LONG 082 38 39W)									
JUN 2005 28...	<6	--	4.3	--	--	--	--	--	--
352827082383902 BU-084 BENT CREEK RS MW-7I (TRANSITION ZONE WELL) (LAT 35 28 27N LONG 082 38 39W)									
JUN 2005 28...	<6	--	4.9	--	--	--	--	--	--
352827082383903 BU-085 BENT CREEK RS MW-7D (BEDROCK WELL) (LAT 35 29 27N LONG 082 38 39W)									
JUN 2005 29...	<6	--	<.6	--	--	--	--	--	--
353014082360701 BU-101 BENT CREEK ARBORETUM WELL 3 (LAT 35 30 14N LONG 082 36 07W)									
JUN 2005 29...	1,170	.44	38.9	<.4	.37	<3	<.2	291	.07
353014082360702 BU-102 BENT CREEK ARBORETUM WELL 4 (LAT 35 30 14N LONG 082 36 07W)									
JUN 2005 29...	20	<.08	19.2	<.4	.44	<3	<.2	88.3	.06

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

Medium codes used in this table:

- 6 -- Ground-water sample.
- S -- Ground-water quality-control sample.

Sample Type codes used in this table:

- 9 -- Regular
- 5 -- Duplicate
- 2 -- Blank

WATER QUALITY DATA
MISCELLANEOUS STATION ANALYSES

Ground-water-quality data presented in these tables were collected from the following sites in Iredell County during the 2005 water year 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. Well locations for these sites listed in the following table are shown in figure 8.

Date	Time	Depth of well, feet below LSD (72008)	Depth to bot sample intrval feet below LSD (72016)	Depth to top sample intrval feet below LSD (72015)	Altitude of land surface feet (72000)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd lab, uS/cm 25 degC (90095)	Specif. conduc-tance, wat unfltrd lab, uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	
353135080524201 IR-130 LANGTREE RS MW-2S (REGOLITH WELL) (LAT 35 31 35N LONG 080 52 42W)														
JAN 2005	12...	1420	28	--	--	803	--	7.0	75	6.6	73	68	--	17.7
353135080524203 IR-132 LANGTREE RS MW-2D (QUARTZ DIORITE BEDROCK) (LAT 35 31 36N LONG 080 52 42W)														
JAN 2005	11...	1250	400	84	53	803	744	5.6	59	7.3	96	97	17.5	17.2
	12...	1040	400	400	89	803	745	4.6	48	7.7	118	119	17.5	16.9
353157080525301 IR-148 LANGTREE RS MW-3S (REGOLITH WELL) (LAT 35 31 57N LONG 080 52 53W)														
JAN 2005	14...	0930	20	--	--	762	744	5.7	61	5.4	33	29	11.0	17.3
353157080525302 IR-149 LANGTREE RS MW-3I (TRANSITION ZONE WELL) (LAT 35 31 57N LONG 080 52 53W)														
JAN 2005	13...	1645	73	--	--	762.92	741	11.9	126	6.1	89	89	--	16.5
353148080524702 IR-155 LANGTREE RS MW-5I (TRANSITION ZONE WELL) (LAT 35 31 48N LONG 080 52 47W)														
JAN 2005	13...	0930	35	--	--	785	--	7.2	76	6.4	59	58	18.5	17.0
Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, titr., mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd, titr., mg/L (00450)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	
353135080524201 IR-130 LANGTREE RS MW-2S (REGOLITH WELL) (LAT 35 31 35N LONG 080 52 42W)														
JAN 2005	12...	6.58	3.15	.60	4.01	25	31	.03	2.84	<.1	29.2	.4	69	<.04
353135080524203 IR-132 LANGTREE RS MW-2D (QUARTZ DIORITE BEDROCK) (LAT 35 31 36N LONG 080 52 42W)														
JAN 2005	11...	10.3	2.71	1.96	5.11	42	51	.03	1.21	E.1	39.1	1.0	84	<.04
	12...	14.4	3.15	2.27	5.32	53	65	.04	1.25	E.1	38.6	1.3	101	<.04
353157080525301 IR-148 LANGTREE RS MW-3S (REGOLITH WELL) (LAT 35 31 57N LONG 080 52 53W)														
JAN 2005	14...	.69	.808	.55	4.23	9	11	E.02	3.10	<.1	8.13	1.3	26	<.04
353157080525302 IR-149 LANGTREE RS MW-3I (TRANSITION ZONE WELL) (LAT 35 31 57N LONG 080 52 53W)														
JAN 2005	13...	7.93	4.06	1.19	4.31	42	51	E.01	2.20	E.1	25.1	1.4	64	<.04
353148080524702 IR-155 LANGTREE RS MW-5I (TRANSITION ZONE WELL) (LAT 35 31 48N LONG 080 52 47W)														
JAN 2005	13...	5.18	2.62	.80	2.34	24	29	.02	2.48	<.1	22.6	.4	54	<.04

MISCELLANEOUS STATION ANALYSES—Continued

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by anal ysis, mg/L (62854)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)
353135080524201 IR-130 LANGTREE RS MW-2S (REGOLITH WELL) (LAT 35 31 35N LONG 080 52 42W)								
JAN 2005 12...	1.37	<.008	1.48	.066	<2	<7.0	7	E.4
353135080524203 IR-132 LANGTREE RS MW-2D (QUARTZ DIORITE BEDROCK) (LAT 35 31 36N LONG 080 52 42W)								
JAN 2005 11...	1.39	<.008	1.49	.038	<2	<7.0	E3	<.6
JAN 2005 12...	1.40	<.008	1.57	.035	<2	<7.0	E5	E.4
353157080525301 IR-148 LANGTREE RS MW-3S (REGOLITH WELL) (LAT 35 31 57N LONG 080 52 53W)								
JAN 2005 14...	.13	<.008	.17	<.006	<2	E6.1	9	10.2
353157080525302 IR-149 LANGTREE RS MW-3I (TRANSITION ZONE WELL) (LAT 35 31 57N LONG 080 52 53W)								
JAN 2005 13...	.26	<.008	.29	.013	<2	<7.0	9	1.9
353148080524702 IR-155 LANGTREE RS MW-5I (TRANSITION ZONE WELL) (LAT 35 31 48N LONG 080 52 47W)								
JAN 2005 13...	.86	<.008	.89	.022	<2	<7.0	8	1.3

Remark codes used in this table:

< -- Less than.

E -- Estimated.

WATER QUALITY DATA
MISCELLANEOUS STATION ANALYSES

Ground-water-quality data presented in these tables were collected from the following sites in Rockingham County during the 2005 water year 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. Well locations for these sites listed in the following table are shown in figure 8.

Date	Time	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unflab, uS/cm (90095)	Specif. conductance, wat unflab, uS/cm (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
362334079421602 RK-228 UPPER PIEDMONT RS MW-N11 (LAT 36 23 35N LONG 079 42 17W)														
MAR 2005	07...	1315	65	672.27	742	2.5	25	6.1	187	195	15.2	15.3	7.23	1.59
362328079421701 RK-233 UPPER PIEDMONT RS MW-N3I (LAT 36 23 28N LONG 079 42 17W)														
MAR 2005	08...	0940	30	770.44	726	1.8	16	6.7	301	195	12.3	24.8	14.2	4.77
362231079410802 RK-240 UPPER PIEDMONT RS MW-S3UI (LAT 36 22 32N LONG 079 41 08W)														
MAR 2005	08...	1235	55	705.60	726	7.6	82	5.7	148	152	15.6	7.71	2.43	1.80
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unflab, titr., mg/L as CaCO3 (00419)	Bicarbonate, wat unflab, titr., mg/L (00450)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt, mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat flt by analysis, mg/L (62854)	
362334079421602 RK-228 UPPER PIEDMONT RS MW-N11 (LAT 36 23 35N LONG 079 42 17W)														
MAR 2005	07...	13.9	72	88	.05	8.64	.2	39.6	3.6	125	<.04	1.99	<.008	2.04
362328079421701 RK-233 UPPER PIEDMONT RS MW-N3I (LAT 36 23 28N LONG 079 42 17W)														
MAR 2005	08...	20.8	104	127	.87	7.28	1.1	26.1	35.7	211	1.05	.30	E.007	1.46
362231079410802 RK-240 UPPER PIEDMONT RS MW-S3UI (LAT 36 22 32N LONG 079 41 08W)														
MAR 2005	08...	16.3	19	23	.03	6.81	<.1	43.1	2.0	130	<.04	9.96	<.008	10.0
Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)									
362334079421602 RK-228 UPPER PIEDMONT RS MW-N11 (LAT 36 23 35N LONG 079 42 17W)														
MAR 2005	07...	.039	<2	<7.0	E6	29.1								
362328079421701 RK-233 UPPER PIEDMONT RS MW-N3I (LAT 36 23 28N LONG 079 42 17W)														
MAR 2005	08...	<.006	<2	20	7,050	3,180								
362231079410802 RK-240 UPPER PIEDMONT RS MW-S3UI (LAT 36 22 32N LONG 079 41 08W)														
MAR 2005	08...	.006	<2	<7.0	E4	1.3								

Remark codes used in this table:
 < -- Less than.
 E -- Estimated.

MISCELLANEOUS STATION ANALYSES

Ground-water-quality data presented in these tables were collected from the following sites in North Carolina during the 2005 water year in support of the Albemarle-Pamlico Drainage Basin study unit for the National Water Quality Assessment Program. Objectives of the study are to provide data primarily for characterizing water quality of shallow aquifers in the Coastal Plain of North Carolina and for evaluating trends in ground-water quality. Well locations for sites listed in the following tables are shown in figures 4 and 8.

Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Water level, depth below MP, feet (61055)	Flow rate, instantaneous gal/min (00059)	Sampling depth, feet (00003)	Turbidity white light, 90+/-30 corrdtd NTRU (63676)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfiltered uS/cm 25 degC (00095)
353747077052001 BO-419 RSK NR WASHINGTON, NC (LAT 35 37 47N LONG 077 05 20W)													
DEC 2004 03...	0945	82	13.94	35.85	17.63	1.2	--	--	760	.8	8	7.5	335
MAR 2005 02...	1445	82	13.13	35.85	16.82	1.0	--	5.4	756	.1	1	7.8	328
MAY 26...	1430	82	13.20	35.85	16.89	1.1	--	3.0	755	.1	.0	7.4	333
AUG 23...	1500	82	13.85	35.85	17.54	1.0	--	1.0	757	.1	.0	7.5	327
335631078003605 BR-082 (NC-198) SOUTHPORT RS GG32t5 (CASTLE HAYNE) (LAT 33 56 31N LONG 078 00 35W)													
NOV 2004 30...	1200	74	24.23	28.26	26.36	1.0	--	--	767	.2	2	7.5	422
MAR 2005 09...	1145	74	25.98	28.26	28.11	1.0	--	.8	760	.1	1	7.5	429
MAY 25...	1200	74	24.94	28.26	27.07	1.0	--	1.1	754	1.2	13	7.5	416
AUG 22...	1230	74	23.42	28.26	25.55	1.0	--	.8	758	.1	.0	7.5	400
351019077184102 CR-543 COVE CITY RS 2 (LAT 35 10 19N LONG 077 18 41W)													
DEC 2004 01...	1200	98	3.67	46	5.01	1.2	25.0	--	756	.1	1	7.0	576
MAR 2005 08...	1100	98	4.49	46	5.83	1.2	--	4.7	737	.1	.0	7.0	577
MAY 26...	1115	98	5.17	46	6.51	1.1	--	1.2	755	.1	.0	7.0	577
AUG 23...	1200	98	7.16	46	8.50	1.0	--	.9	758	.1	1	7.0	531
344922077484705 DU-128 CHINQUAPIN RS 5 (LAT 34 49 22N LONG 077 48 47W)													
NOV 2004 30...	1600	130	6.93	42.62	6.28	1.2	--	--	763	.1	1	7.4	447
MAR 2005 08...	1630	130	7.38	42.62	7.38	1.2	--	40	745	.1	1	7.5	445
MAY 25...	1630	130	7.41	42.62	6.76	1.2	--	2.3	755	.1	1	7.4	422
AUG 22...	1700	130	8.67	42.62	8.02	1.0	--	1.4	756	.1	.0	7.4	404
345809077301401 JO-064 COMFORT RS 1 (LAT 34 58 09N LONG 077 30 14W)													
DEC 2004 01...	0930	60	8.57	70	9.56	1.2	--	--	756	.2	2	7.3	354
MAR 2005 08...	1330	60	8.91	70	9.90	1.2	--	2.2	742	.1	.0	7.4	343
MAY 26...	0930	60	8.95	70	9.94	1.1	--	2.7	755	.1	.0	7.3	337
AUG 23...	0930	60	10.99	70	11.98	1.0	--	.8	757	.1	.0	7.3	338

WATER QUALITY DATA

MISCELLANEOUS STATION ANALYSES—Continued

Date	Temperature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Alka- linity, wat flt inc tit field, mg/L as CaCO ₃ (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Bromide water, fltrd, mg/L (71870)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
353747077052001 BO-419 RSK NR WASHINGTON, NC (LAT 35 37 47N LONG 077 05 20W)													
DEC 2004 03...	16.9	160	59.5	2.13	2.32	.3	7.27	180	220	.15	5.07	.2	34.9
MAR 2005 02...	16.7	160	61.0	2.11	2.27	.3	7.30	198	242	.19	5.17	.1	35.3
MAY 26...	17.9	150	56.1	2.04	2.23	.3	7.37	188	229	.15	5.16	.2	35.6
AUG 23...	18.3	160	61.0	1.99	2.21	.2	7.16	166	203	.23	5.59	.2	34.3
335631078003605 BR-082 (NC-198) SOUTHPORT RS GG32t5 (CASTLE HAYNE) (LAT 33 56 31N LONG 078 00 35W)													
NOV 2004 30...	19.8	190	70.5	4.38	3.26	.4	11.6	202	246	<.20	13.0	.1	46.6
MAR 2005 09...	19.5	210	75.4	4.43	3.10	.4	11.6	228	278	.29	13.1	E.1	46.5
MAY 25...	19.5	190	67.9	4.30	3.28	.4	11.7	224	273	.16	12.8	.1	49.4
AUG 22...	20.7	200	72.9	4.23	3.33	.3	11.0	198	242	.28	13.0	.1	48.1
351019077184102 CR-543 COVE CITY RS 2 (LAT 35 10 19N LONG 077 18 41W)													
DEC 2004 01...	18.0	330	127	2.21	1.04	.1	3.43	290	354	--	5.28	.1	13.5
MAR 2005 08...	17.4	330	130	2.15	1.11	.1	3.46	344	419	.35	5.21	.1	12.8
MAY 26...	17.6	320	125	2.18	1.11	.1	3.53	360	439	.33	5.18	.1	13.2
AUG 23...	18.4	330	127	2.10	1.09	.1	3.31	296	361	.35	5.38	.1	12.8
344922077484705 DU-128 CHINQUAPIN RS 5 (LAT 34 49 22N LONG 077 48 47W)													
NOV 2004 30...	18.3	230	88.5	1.87	1.54	.1	3.12	216	264	.42	6.86	.1	39.0
MAR 2005 08...	17.3	230	89.5	1.79	1.59	.1	3.08	252	307	.78	7.10	E.1	37.2
MAY 25...	18.2	220	84.7	1.82	1.55	.1	3.16	250	305	.17	6.75	E.1	39.6
AUG 22...	19.1	240	91.2	1.79	1.58	.1	3.02	220	268	.24	7.00	E.1	38.7
345809077301401 JO-064 COMFORT RS 1 (LAT 34 58 09N LONG 077 30 14W)													
DEC 2004 01...	17.2	180	68.5	1.56	.84	.1	3.62	164	200	<.20	6.11	.1	15.6
MAR 2005 08...	16.6	180	67.6	1.55	.89	.1	3.57	196	239	.24	5.94	E.1	15.0
MAY 26...	16.7	170	63.7	1.50	.90	.1	3.72	184	224	.22	5.89	.1	15.8
AUG 23...	17.6	180	71.3	1.52	.81	.1	3.53	170	207	.26	6.17	E.1	15.0

MISCELLANEOUS STATION ANALYSES—Continued

Date	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitro- gen, wat flt by anal ysis, mg/L (62854)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Alum- inum, water, fltrd, ug/L (01106)	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)
353747077052001 BO-419 RSK NR WASHINGTON, NC (LAT 35 37 47N LONG 077 05 20W)													
DEC 2004 03...	.9	214	.10	<.06	<.008	.15	.061	<2	<.20	E.2	7	<.06	18
MAR 2005 02...	.9	197	.10	<.06	<.008	.11	.049	--	--	--	--	--	--
MAY 26...	.8	212	.09	<.06	<.008	.12	.025	--	--	--	--	--	--
AUG 23...	.9	217	.09	<.06	<.008	.10	.034	--	--	--	--	--	--
335631078003605 BR-082 (NC-198) SOUTHPORT RS GG32t5 (CASTLE HAYNE) (LAT 33 56 31N LONG 078 00 35W)													
NOV 2004 30...	E.1	271	.44	<.06	<.008	.54	.081	<2	<.20	<.2	4	<.06	46
MAR 2005 09...	<.2	272	.41	<.06	<.008	.51	.087	--	--	--	--	--	--
MAY 25...	<.2	277	.43	<.06	<.008	.48	.084	--	--	--	--	--	--
AUG 22...	E.1	270	.44	<.06	<.008	.50	.076	--	--	--	--	--	--
351019077184102 CR-543 COVE CITY RS 2 (LAT 35 10 19N LONG 077 18 41W)													
DEC 2004 01...	<.2	359	E.04	<.06	<.008	.25	.419	E2	<.20	<.2	46	<.06	8
MAR 2005 08...	<.2	358	E.04	<.06	<.008	.29	.406	--	--	--	--	--	--
MAY 26...	<.2	365	.04	<.06	<.008	.24	.370	--	--	--	--	--	--
AUG 23...	<.2	362	.05	<.06	<.008	.23	.187	--	--	--	--	--	--
344922077484705 DU-128 CHINQUAPIN RS 5 (LAT 34 49 22N LONG 077 48 47W)													
NOV 2004 30...	E.1	275	.21	<.06	.011	.25	E.003	<2	<.20	E.1	M	<.06	E7
MAR 2005 08...	<.2	274	.19	<.06	.012	.24	<.006	--	--	--	--	--	--
MAY 25...	<.2	283	.19	<.06	E.006	.22	E.003	--	--	--	--	--	--
AUG 22...	<.2	264	.20	<.06	E.006	.23	E.004	--	--	--	--	--	--
345809077301401 JO-064 COMFORT RS 1 (LAT 34 58 09N LONG 077 30 14W)													
DEC 2004 01...	E.2	207	.06	<.06	<.008	.09	.154	<2	<.20	<.2	17	<.06	11
MAR 2005 08...	E.1	196	.06	<.06	<.008	.11	.140	--	--	--	--	--	--
MAY 26...	E.1	206	.07	<.06	<.008	.07	.050	--	--	--	--	--	--
AUG 23...	E.2	208	.07	<.06	<.008	.09	.138	--	--	--	--	--	--

WATER QUALITY DATA

MISCELLANEOUS STATION ANALYSES—Continued

Date	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront- ium, water, fltrd, ug/L (01080)
353747077052001 BO-419 RSK NR WASHINGTON, NC (LAT 35 37 47N LONG 077 05 20W)													
DEC 2004 03...	<.04	<.8	.176	<.4	1,650	<.08	7.3	92.0	<.4	1.78	<.4	<.2	201
MAR 2005 02...	--	--	--	--	1,800	--	--	53.9	--	--	--	--	--
MAY 26...	--	--	--	--	1,760	--	--	54.3	--	--	--	--	--
AUG 23...	--	--	--	--	1,760	--	--	53.8	--	--	--	--	--
335631078003605 BR-082 (NC-198) SOUTHPORT RS GG32t5 (CASTLE HAYNE) (LAT 33 56 31N LONG 078 00 35W)													
NOV 2004 30...	<.04	<.8	.210	E.3	584	<.08	2.5	137	<.4	4.06	<.4	<.2	318
MAR 2005 09...	--	--	--	--	566	--	--	90.7	--	--	--	--	--
MAY 25...	--	--	--	--	495	--	--	84.3	--	--	--	--	--
AUG 22...	--	--	--	--	551	--	--	84.1	--	--	--	--	--
351019077184102 CR-543 COVE CITY RS 2 (LAT 35 10 19N LONG 077 18 41W)													
DEC 2004 01...	<.04	1.2	.358	E.4	1,550	<.08	1.6	114	<.4	12.4	<.4	<.2	244
MAR 2005 08...	--	--	--	--	1,360	--	--	66.1	--	--	--	--	--
MAY 26...	--	--	--	--	1,730	--	--	65.5	--	--	--	--	--
AUG 23...	--	--	--	--	1,510	--	--	62.7	--	--	--	--	--
344922077484705 DU-128 CHINQUAPIN RS 5 (LAT 34 49 22N LONG 077 48 47W)													
NOV 2004 30...	<.04	<.8	.255	E.3	3,840	<.08	2.1	136	<.4	27.3	<.4	<.2	126
MAR 2005 08...	--	--	--	--	5,290	--	--	115	--	--	--	--	--
MAY 25...	--	--	--	--	3,710	--	--	106	--	--	--	--	--
AUG 22...	--	--	--	--	3,740	--	--	100	--	--	--	--	--
345809077301401 JO-064 COMFORT RS 1 (LAT 34 58 09N LONG 077 30 14W)													
DEC 2004 01...	<.04	<.8	.184	E.4	1,620	<.08	2.2	31.7	<.4	2.20	<.4	E.2	65.1
MAR 2005 08...	--	--	--	--	1,680	--	--	33.2	--	--	--	--	--
MAY 26...	--	--	--	--	1,660	--	--	32.8	--	--	--	--	--
AUG 23...	--	--	--	--	1,690	--	--	33.6	--	--	--	--	--

WATER QUALITY DATA

MISCELLANEOUS STATION ANALYSES—Continued

Date	trans-1,2-Dichloroethene, water, unfltrd ug/L (34546)	trans-1,3-Dichloropropene, water, unfltrd ug/L (34699)	trans-1,4-Dichloro-2-butene, wat unfltrd ug/L (73547)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Di-chloro-vos, water fltrd, ug/L (38775)	Uranium natural water, fltrd, ug/L (22703)
353747077052001 BO-419 RSK NR WASHINGTON, NC (LAT 35 37 47N LONG 077 05 20W)										
DEC 2004 03...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	.1	<.01	<.04
MAR 2005 02...	--	--	--	--	--	--	--	--	<.01	--
MAY 26...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	.2	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--
335631078003605 BR-082 (NC-198) SOUTHPORT RS GG32t5 (CASTLE HAYNE) (LAT 33 56 31N LONG 078 00 35W)										
NOV 2004 30...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	<.04
MAR 2005 09...	--	--	--	--	--	--	--	--	<.01	--
MAY 25...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	--	--
AUG 22...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	--	--
351019077184102 CR-543 COVE CITY RS 2 (LAT 35 10 19N LONG 077 18 41W)										
DEC 2004 01...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	<.04
MAR 2005 08...	--	--	--	--	--	--	--	--	<.01	--
MAY 26...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--
344922077484705 DU-128 CHINQUAPIN RS 5 (LAT 34 49 22N LONG 077 48 47W)										
NOV 2004 30...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	<.04
MAR 2005 08...	--	--	--	--	--	--	--	--	<.01	--
MAY 25...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	--	--
AUG 22...	--	--	--	--	--	--	--	--	--	--
345809077301401 JO-064 COMFORT RS 1 (LAT 34 58 09N LONG 077 30 14W)										
DEC 2004 01...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	<.04
MAR 2005 08...	--	--	--	--	--	--	--	--	<.01	--
MAY 26...	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

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Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter (mm)
	2.54×10^{-2}	meter (m)
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^0	kilometer (km)
Area		
acre	4.047×10^3	square meter (m ²)
	4.047×10^{-1}	square hectometer (hm ²)
	4.047×10^{-3}	square kilometer (km ²)
square mile (mi ²)	2.590×10^0	square kilometer (km ²)
Volume		
gallon (gal)	3.785×10^0	liter (L)
	3.785×10^{-3}	cubic meter (m ³)
	3.785×10^0	cubic decimeter (dm ³)
million gallons (Mgal)	3.785×10^3	cubic meter (m ³)
	3.785×10^{-3}	cubic hectometer (hm ³)
cubic foot (ft ³)	2.832×10^{-2}	cubic meter (m ³)
	2.832×10^1	cubic decimeter (dm ³)
cubic foot per second per day [(ft ³ /s)/d]	2.447×10^3	cubic meter (m ³)
	2.447×10^{-3}	cubic hectometer (hm ³)
acre-foot (acre-ft)	1.233×10^3	cubic meter (m ³)
	1.233×10^{-3}	cubic hectometer (hm ³)
	1.233×10^{-6}	cubic kilometer (km ³)
Flow		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second (L/s)
	2.832×10^{-2}	cubic meter per second (m ³ /s)
	2.832×10^1	cubic decimeter per second (dm ³ /s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m ³ /s)
	6.309×10^{-2}	cubic decimeter per second (dm ³ /s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second (m ³ /s)
	4.381×10^1	cubic decimeter per second (dm ³ /s)
Mass		
ton (short)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows: °F = (1.8 x °C) + 32

