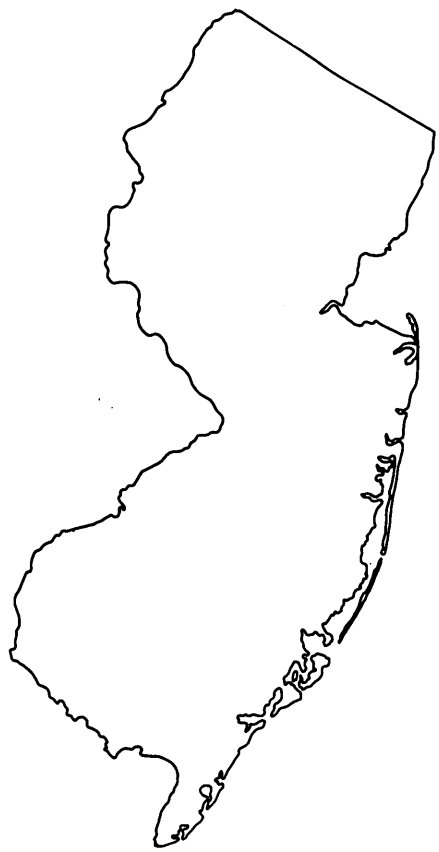
Water Resources Data New Jersey Water Year 1991

Volume 2. Ground-Water Data

by W.R. Bauersfeld, W.D. Jones, and E.A. Pustay



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ–91–2
Prepared in cooperation with the New Jersey Department
of Environmental Protection and Energy and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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1992

PREFACE

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

Hydrologic data for New Jersey are contained in 2 volumes:

Volume 1. Surface-Water Data
Volume 2. Ground-Water Data

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. The authors 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 completion of the report.

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Water Resources data for the 1991 water year for New Jersey consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. Volume 2 contains records of ground-water levels from 241 wells and water-quality analyses of ground water from 158 wells. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

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INTRODUCTION

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

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water quality at 158 wells and water levels at 241 observation wells. Locations of these sites are shown on figures 11 and 12. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Jersey.

This series of annual reports for New Jersey began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. For the 1975 through 1989 water years, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1977 water year, these data were published in two volumes. Beginning with the 1990 water year, the report format was changed to include surface-water and surface-water-quality data in Volume 1 and ground-water-level and ground-water-quality data in Volume 2.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for New Jersey were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Part 1B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado, 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NJ-91-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information, Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (609) 771-3900. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

New Jersey Department of Environmental Protection and Energy, Scott A. Weiner, Commissioner.
County of Gloucester, Robert V. Scolpino, Director of Planning.
Pinelands Commission, Terrance D. Moore, Executive Director.
Atlantic Highlands Water Department, Frank Dougherty, Superintendent.
Washington Township Municipal Utilities Authority, Paul R. DeCosta, Superintendent.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Streamflow for the 1991 water year generally was below normal throughout the State. Normal streamflow is defined as the median of the means for each year of the 30-year reference period 1951-80. The year began with streamflow above normal in northern New Jersey and about normal in southern New Jersey. Streamflow then began to decline steadily until May, when it was below normal throughout the State, and remained below normal through the end of the year. Precipitation ranged from 49.88 inches, 118 percent of the 30-year (1951-80) mean, at Newark to 36.90 inches, 88 percent of the 30-year mean, at Atlantic City. Figure 1 shows monthly precipitation at three National Weather Service sites compared with the 30-year means. Combined contents of 13 major water-supply reservoirs was above average at the beginning of the year and below average at the end of the year (see figure 2).

Water year 1991 began with streamflow above normal in the northern part of the State and about normal in the southern part. In October, streamflow was more than 150 percent of normal in northern New Jersey and 102 percent of normal in southern New Jersey, reflecting the difference in precipitation in these areas. Streamflow declined steadily through January. Precipitation in February was about 50 percent of normal, which resulted in below-average streamflow throughout the State. Because temperatures were mild during the winter months, little or no ice effect was noted in the streams. Streamflow continued to decrease from March through May. Precipitation in June was only about 75 percent of normal, which caused streamflow to decrease further to about 65 percent of normal in the southern part of the State and to 92 percent in the northern part. In July and August, precipitation was above or about normal and streamflow began to increase. By the end of the year, streamflow was about 98 percent of normal throughout the State, and flow in the Delaware River, which is regulated at low and medium flows, was about 75 percent of normal. Storage in most water-supply reservoirs had decreased to about 58 percent of capacity by the end of the year, and drought-emergency measures were being considered. There were many periods of flooding in the State during the year. On October 24, precipitation of 1.9 inches, a record for October in Union County, resulted in local flooding. On March 4, precipitation of as much as 4.0 inches in the northeastern part of the State caused some moderate flooding. On July 13, a record 12.5 inches of precipitation was reported in Loveladies and Harvey Cedars on Long Beach Island. On August 20, Hurricane Bob caused extensive damage to coastal areas with winds of up to 50 miles per hour and precipitation of 4.0 inches. Toms River reported 7.07 inches of precipitation during this period. A severe storm on September 25 resulted in additional flooding, and peak flows for the year were recorded at many sites. Other periods of flooding were reported on July 26 and August 10.

Streamflow at the index station for northern New Jersey (South Branch Raritan River near High Bridge) averaged 122 ft^3/s for the water year; this flow is 96.8 percent of the 1918-91 average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 79.9 ft^3/s for the water year; this flow is 89.3 percent of the 1926-91 average. The observed annual mean discharge of the Delaware River at Trenton was 10,760 ft^3/s, which is 93.8 percent of the 1913-91 average. The Delaware River is highly regulated by reservoirs and diversions. The natural flow at Trenton (adjusted for upstream storage and diversion) was 103 percent of normal for the year. Monthly mean discharge at each of these index gaging stations during the current water year and the long-term normal (1951-80) monthly discharge are shown in figure 3. Annual mean discharge at each of these index gaging stations and the mean annual discharge for the period of record are shown in figure 4.

Combined usable storage in 13 major water-supply reservoirs in New Jersey decreased from 68.6 billion gallons (88.6 percent of capacity) on October 1, 1990, to 46.3 billion gallons (57.6 percent of capacity) on September 30, 1991. Storage in Wanaque Reservoir decreased from 22.0 billion gallons (74.2 percent of capacity) on October 1, 1990, to 12.1 billion gallons (51.8 percent of capacity) on September 30, 1991. Pumped storage in Round Valley Reservoir, the largest capacity reservoir in the State, increased from 50.8 billion gallons (92.4 percent of capacity) on October 1, 1990, to 51.8 billion gallons (94.2 percent of capacity) on September 30, 1991. Combined total capacity of the reservoirs has been revised to 80.4 billion gallons (see figure 2).

Water Quality

Above-normal precipitation at the beginning of the water year caused increased dilution and, in turn, decreased concentrations of dissolved solids in streams in the northern part of the State. By the end of the year, low streamflows had resulted in above-normal concentrations of dissolved solids. Dilution of dissolved solids generally results in an improvement in water quality because concentrations of undesirable substances, such as trace elements, organic compounds, nutrients, bacteria, and nuisance aquatic organisms, usually also are diluted. The degree of dilution is apparent when monthly mean values of specific conductance, which is related directly to dissolved-solids concentration, for 1991 are compared with mean specific-conductance values for an earlier period. Specific-conductance values for the Delaware River at Trenton, a large drainage area in central New Jersey and parts of New York and Pennsylvania, in 1991 are compared with those for 1990 and with the mean for 1981-90 in figure 5. Below-average values reflecting above-normal streamflow are apparent during the first 4 months of the year; however, reduced streamflow for most of the last half of the year caused specific conductance to exceed the mean for the previous 10 years. By September, however, the specific conductance approximated the historic mean value for 1981-90.

Polychlorinated biphenyls (PCB's) and a number of pesticides commonly are detected in New Jersey streams. The organochlorine compounds chlordane, dieldrin, DDT (and its decomposition products DDE and DDD), and PCB's are the most commonly detected organic compounds in stream-bottom sediments in the State. Chlordane and dieldrin have been used widely to control soil pests as well as termites and ants. The production and use of DDT, a common, low-cost, broad-spectrum pesticide, have been banned in the United States since 1972. PCB's were used in many industrial and manufactured items (for example, lubricants, dyes, and hydraulic fluids), but their use has been restricted to environmentally closed systems (for example, electrical capacitors and transformers) since 1971. Common sources of PCB's include industrial and municipal effluents, landfills and other soil-disposal sites, and incineration of material containing PCB's (Natural Resources Council, 1979). All of these organochlorine compounds persist in the environment and still are found in surface and ground waters in the State despite the restriction or prohibition of their use.

Figure 6 summarizes the frequency of detection of chlordane, DDT, DDE, DDD, and PCB's in New Jersey stream-bottom samples for 1976-91. Only those sites for which water-quality data are presented in either volume of this report are included. The percentage of samples collected in which the concentration of at least one compound exceeded 20 $\mu g/kg$--a level selected to include the highest 15 to 20 percent of values measured nationwide (J.S. Cragwall, Jr., U.S. Geological Survey, written commun., 1977)--is shown in figure 6. Although it is detected frequently, dieldrin is not included in figure 6 because a concentration greater than 20 $\mu g/kg$ was measured in only three samples during this period. Figure 7 shows the locations of water-quality stations sampled during the 1991 water year at which the concentration of at least one of these compounds exceeded 20 $\mu g/kg$.

Ground-Water Levels

Ground-water levels fluctuate in response to such factors as recharge from precipitation, discharge of ground-water to streams, changes in atmospheric pressure, evapotranspiration, and ground-water withdrawals from wells. In addition, tidal fluctuations affect water levels in aquifers near oceans, bays, and estuaries. When recharge to the ground-water system exceeds discharge, water levels rise; conversely, when discharge from wells, to surface-water bodies, or to the atmosphere through evapotranspiration exceeds recharge, water levels decline. Records of water levels in wells, therefore, are useful in evaluating seasonal and long-term changes in ground-water storage and local and regional effects of pumping from wells (Rooney, 1971, p. 20).

Changes in ground-water levels during the 1991 water year were determined from a statewide network of observation wells. Ground-water levels in many water-table observation wells remained above average throughout most of the year. Water levels in observation wells that tap the heavily pumped confined aquifers in the southern part of the Coastal Plain continued to undergo long-term net declines, whereas water levels rose dramatically in the confined aquifers in the northern part of the Coastal Plain (Monmouth, eastern Middlesex, and northern Ocean Counties). The greatest water-level decline in the 1991 water year occurred in the Wenonah-Mount Laurel aquifer at the New Brooklyn Park 3 observation well in Camden County (NJ-WRD well number 07-0478), where the previous record low was exceeded by 4.6 feet. The water level in this well has declined a total of 29.8 feet since April 1983. Other aquifers in the southern New Jersey Coastal Plain in which previous lows of record were exceeded include the Potomac-Raritan-Magothy aquifer system, the Piney Point aquifer, and the Atlantic City 800-foot sand of the Kirkwood Formation.

Long-term declines in water levels reversed in a few observation wells in the lower confined aquifers during the 1991 water year. Water levels in these wells began to rise near the beginning of the water year. This reversal resulted, in part, from the substitution of surface water for the ground water previously used for public supply in parts of Middlesex and Monmouth Counties. In addition, some public-water-supply systems shifted their withdrawals from the deeper confined aquifers to the shallower confined aquifers and the unconfined aquifer. Consequently, water levels rose from 5 to 20 feet in several observation wells screened in the Potomac-Raritan-Magothy aquifer system; the water level in the Allaire State Park C observation well (NJ-WRD well number 25-0429) in the Englishtown aquifer system rose more than 24 feet; and the water level in the DOE-Sea Girt observation well (NJ-WRD well number 25-0486) in the Wenonah-Mount Laurel aquifer rose more than 32 feet.

Water-level hydrographs included in this report illustrate the data presented in the tables. Monthly water levels in two water-table observation wells in 1991 are compared with monthly extremes and long-term averages in figure 8. These two wells are the Lebanon State Forest 23-D well (NJ-WRD well number 05-0689) in Burlington County and the Bird well (NJ-WRD well number 19-0002) in Hunterdon County. For further comparison, 20-year water-level hydrographs of two wells in the Coastal Plain--one in an unconfined aquifer (NJ-WRD well number 05-0689) and one in a confined aquifer (NJ-WRD well number 07-0413)--are presented in figure 9. In addition, multiyear hydrographs that include the water-level data for the 1991 water year are provided with the tabular data for most of the wells in this report.

SALTWATER-MONITORING NETWORK

The U.S. Geological Survey maintains a saltwater-monitoring network in the Coastal Plain of New Jersey to document and evaluate the movement of saline water into freshwater aquifers that serve as sources of water supply. In the 1991 water year, samples of water were collected from 132 wells in eight counties. The results of analysis of the water samples collected from these wells are presented in the tables in the section of this report titled "Quality of ground water."

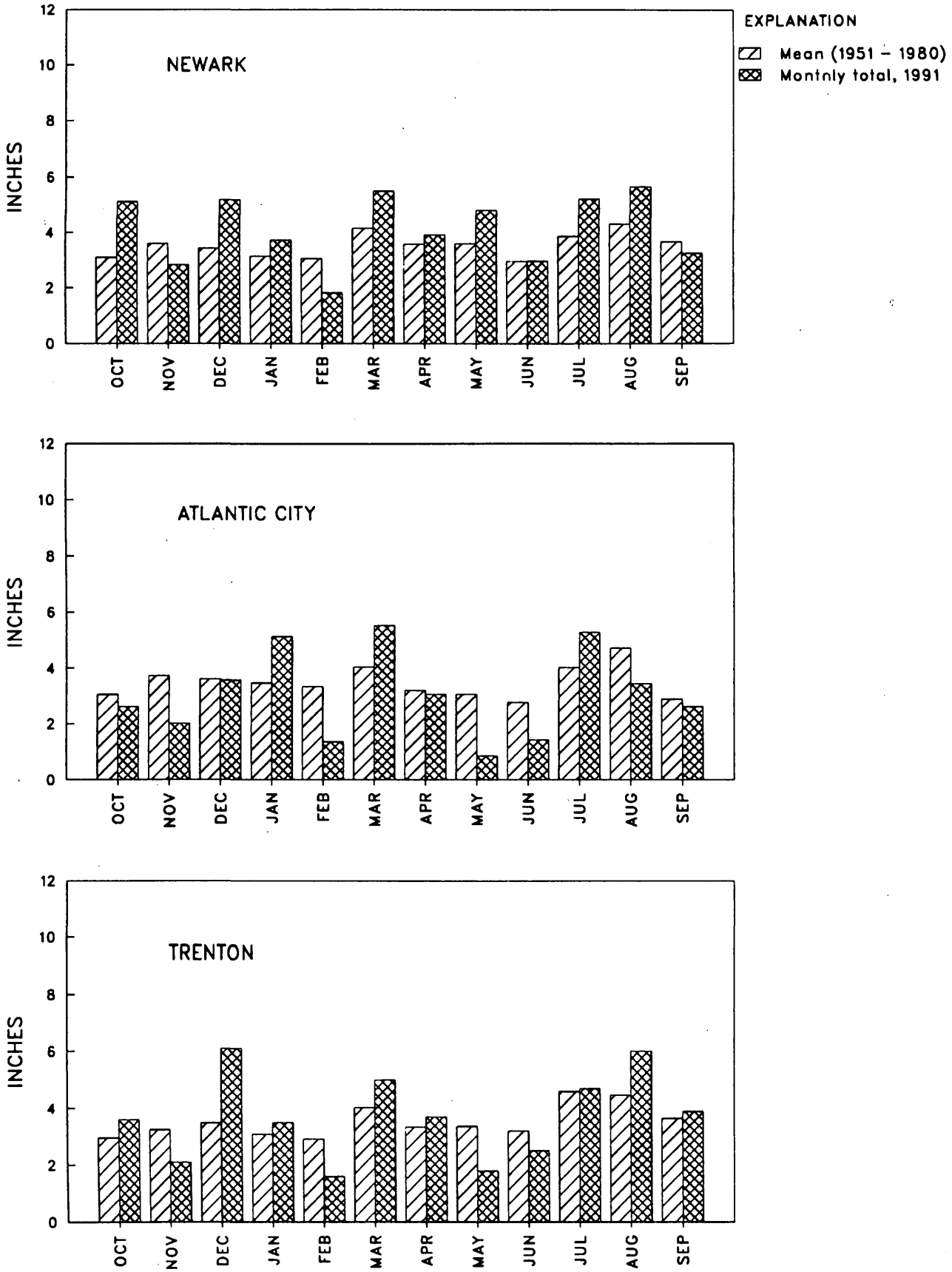
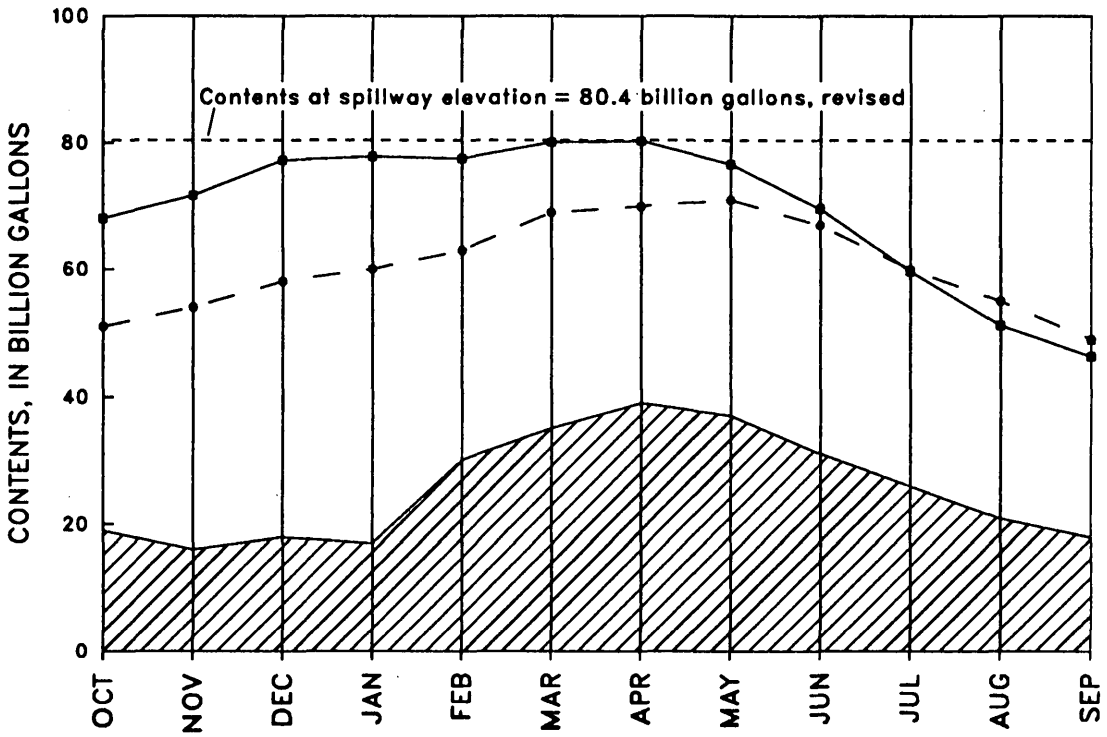
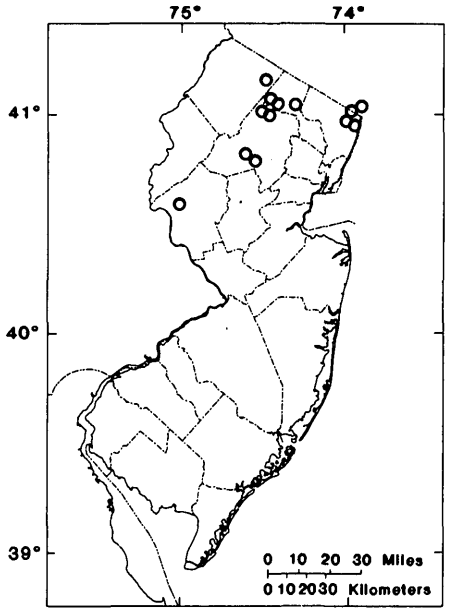


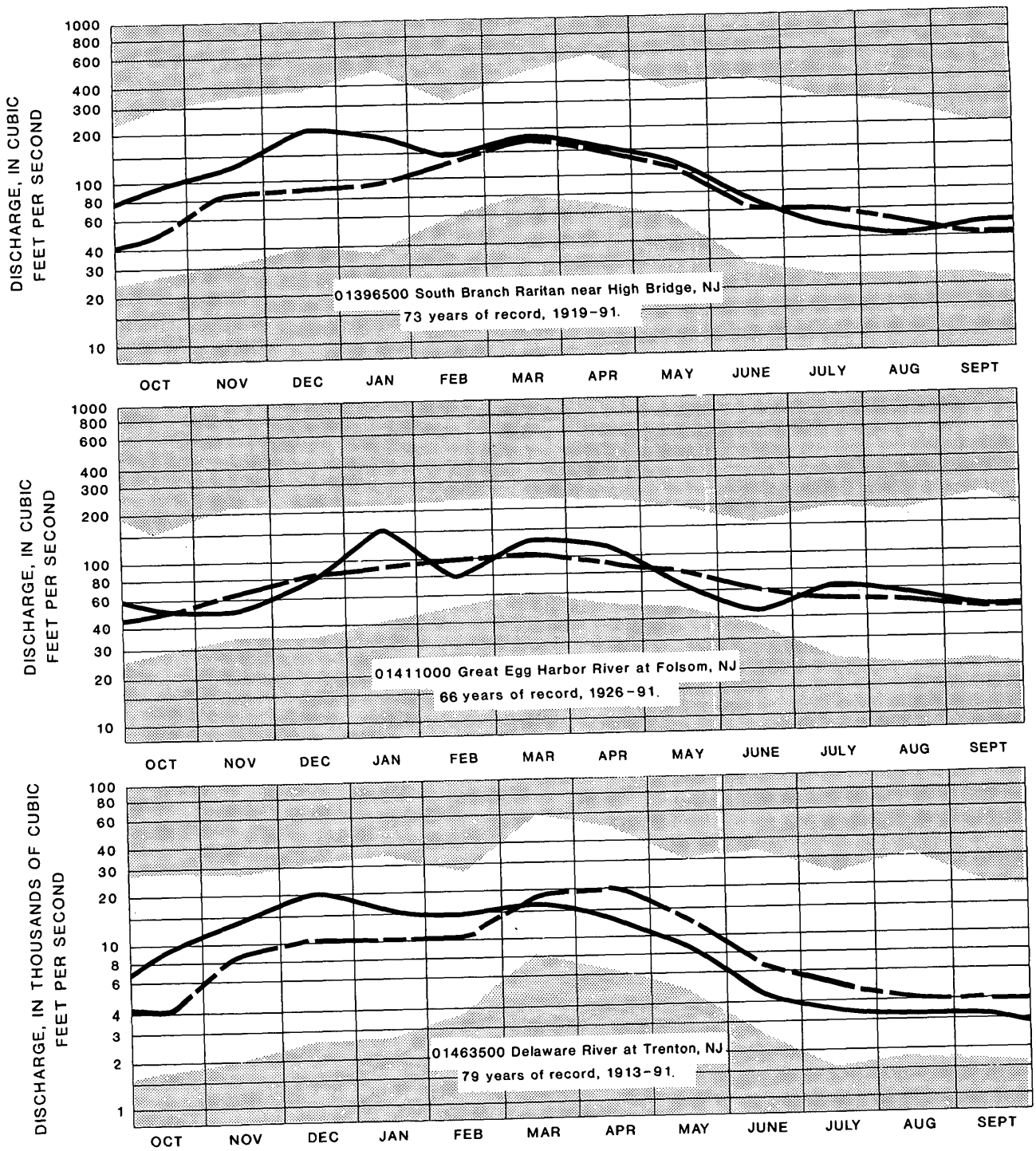
Figure 1.--Monthly precipitation at three National Weather Service locations.





Map showing location of reservoirs

Figure 2.--Combined usable storage in 13 major water-supply reservoirs.



Unshaded area.--Indicates range between highest and lowest mean recorded for the month, prior to 1991 water year.

Broken line.--Indicates normal (median of the monthly means) for the standard reference period, 1951-80.

Solid line.--Indicates observed monthly mean flow for the 1991 water year.

Figure 3.--Monthly mean discharge at index gaging station.

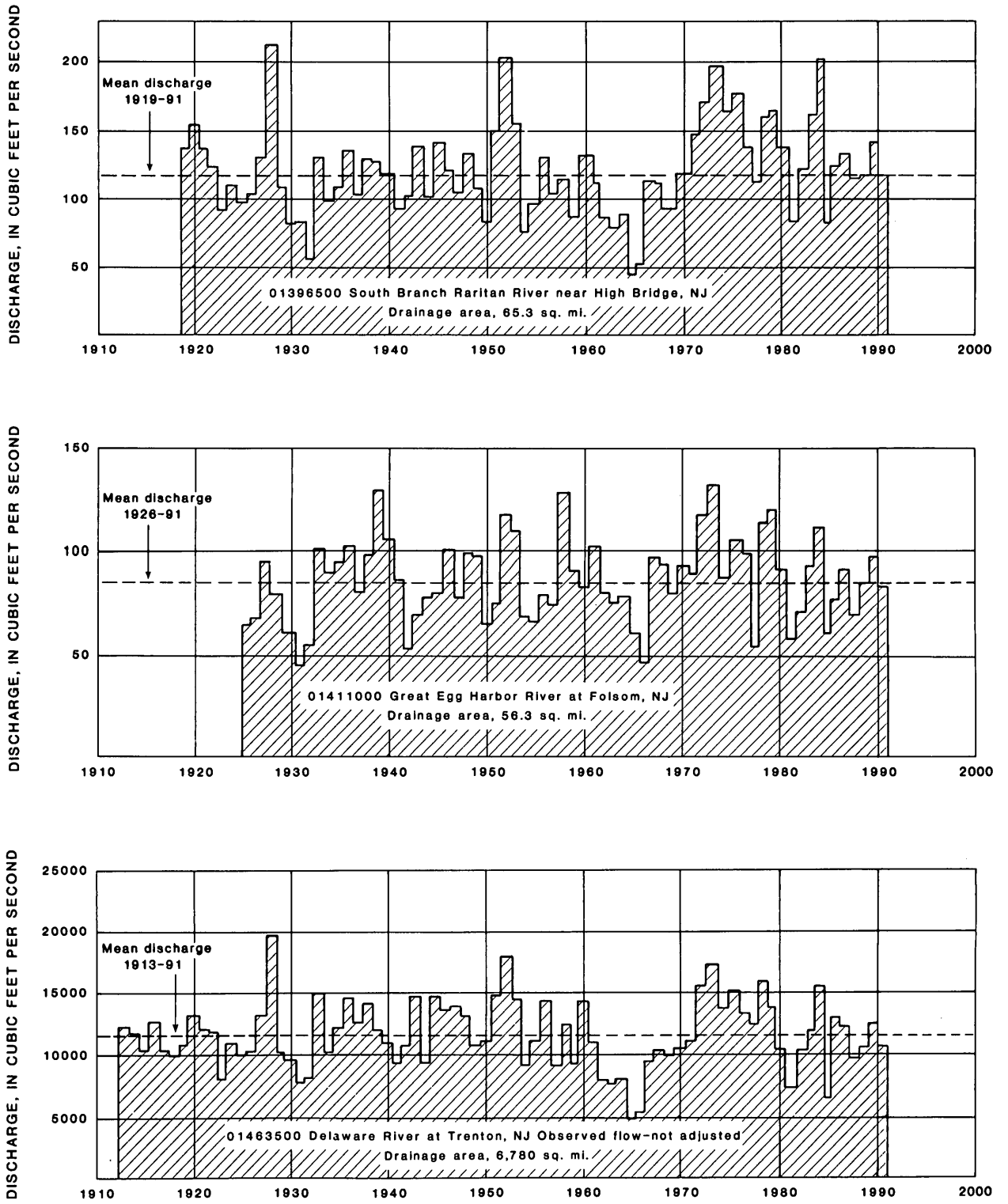


Figure 4.--Annual mean discharge at index gaging stations.

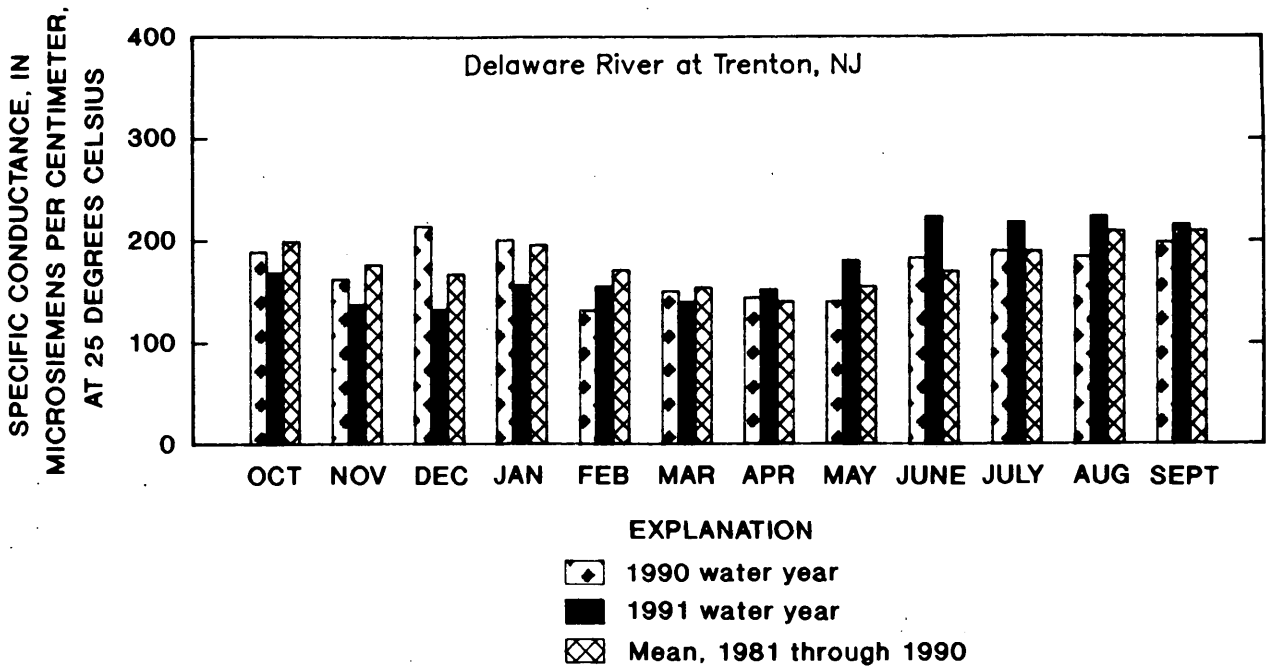


Figure 5.--Monthly mean specific conductance at Delaware River at Trenton.

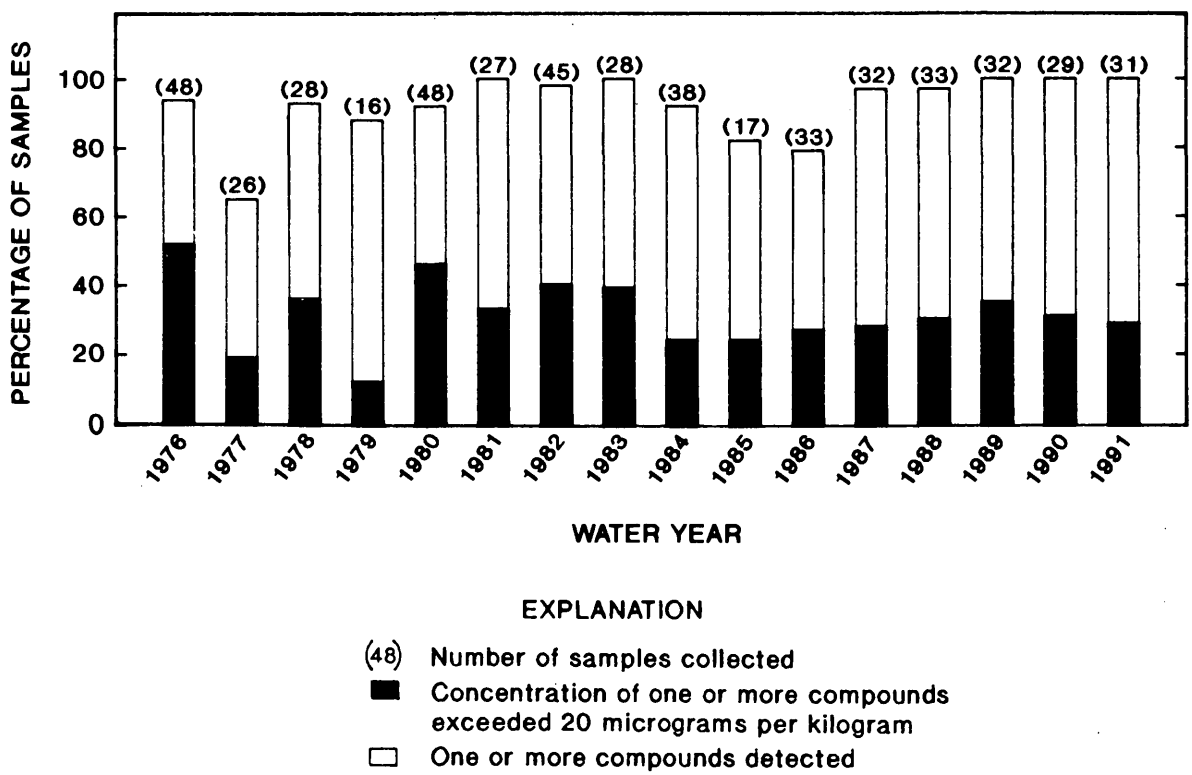


Figure 6.--Presence of chlordane, DDT, DDE, DDD, and PCB's in bottom sediments of New Jersey streams.

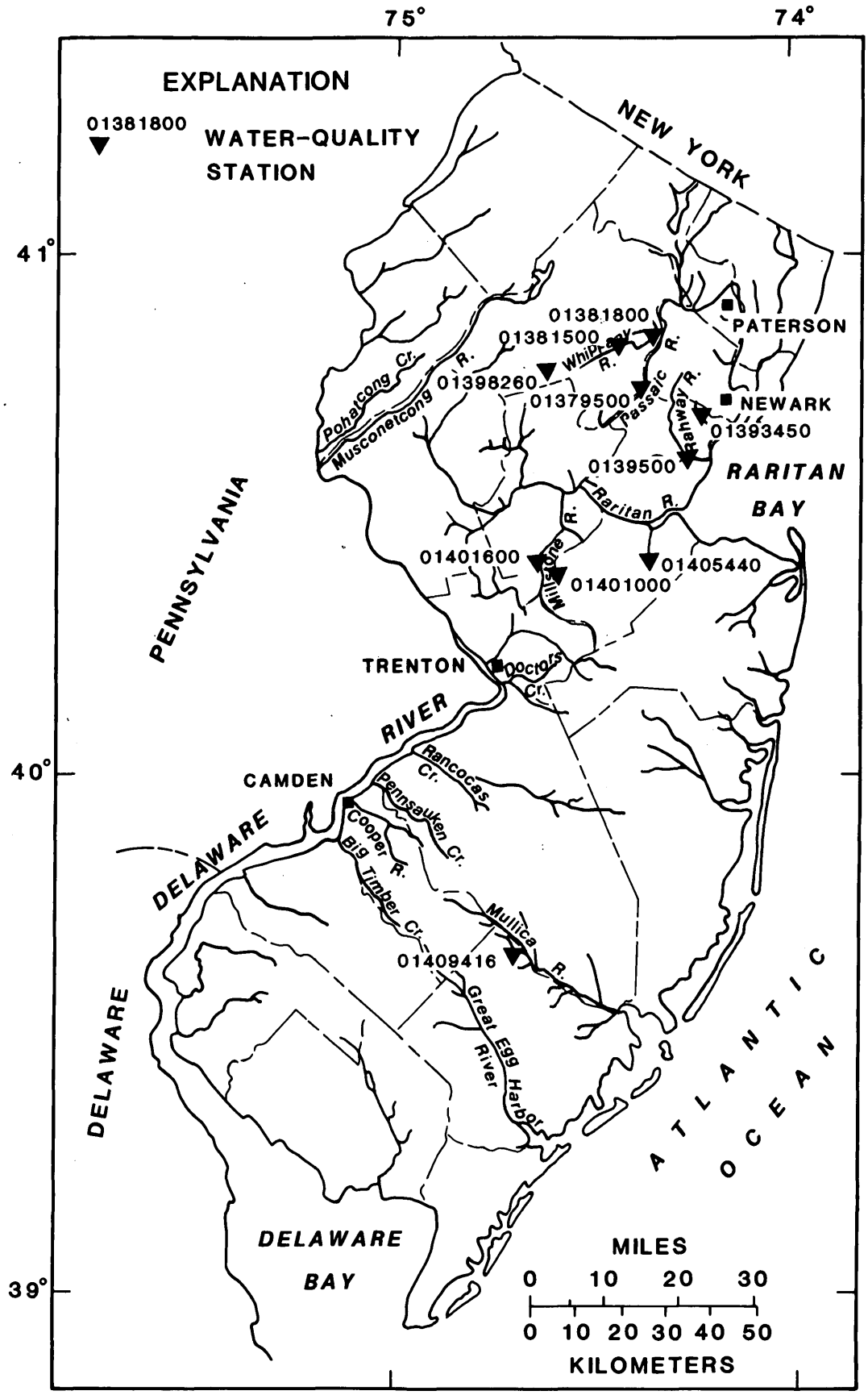
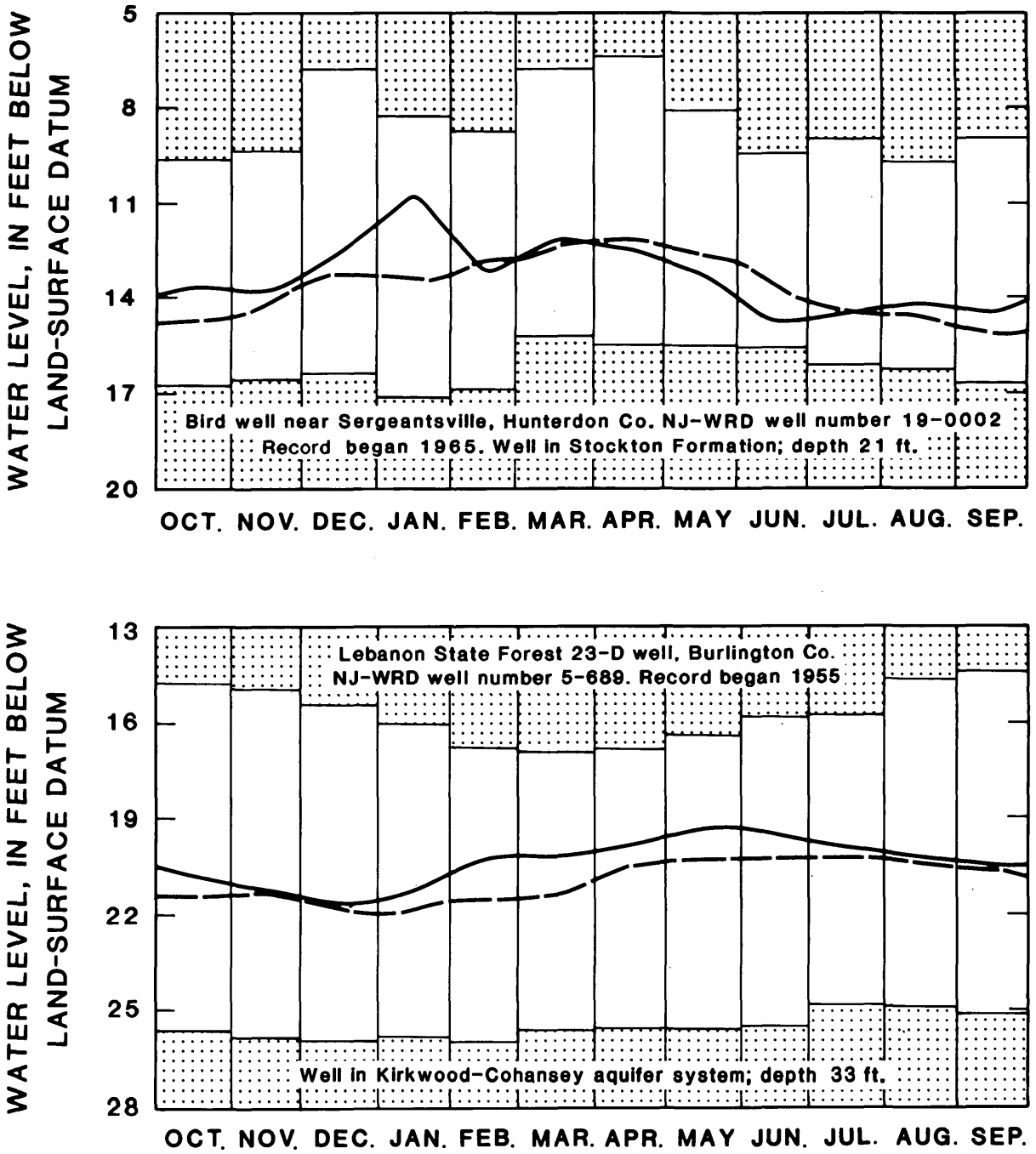


Figure 7.--Locations of water-quality stations at which concentrations of chlordane, DDD, DDE, DDT, or PCB's in bottom material exceeded 20 micrograms per kilogram, water year 1991.

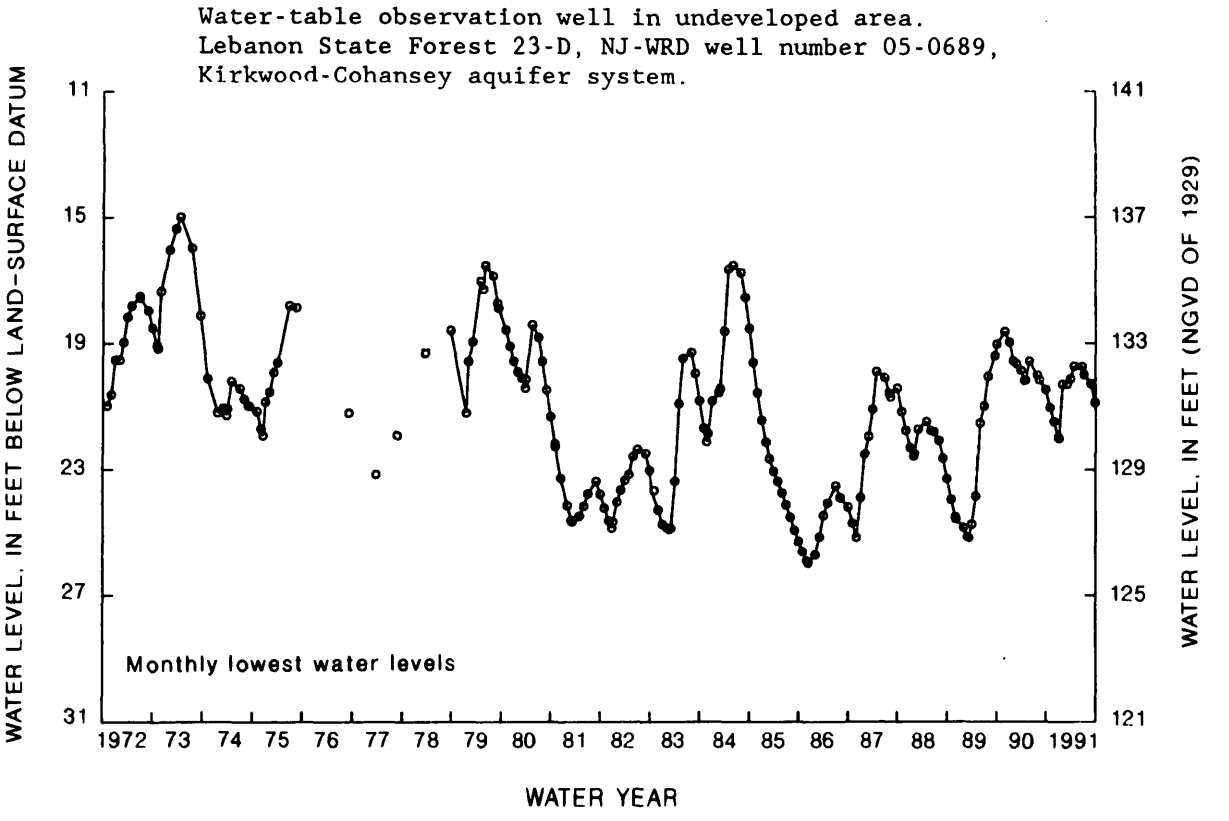


Unshaded area -- Indicates range between highest and lowest recorded monthly water levels, prior to current year.

Dashed line -- Indicates average of monthly water levels, prior to current year.

Solid line -- Indicates monthly mean water level for the current year.

Figure 8.--Monthly ground-water levels at key water-table observation wells.



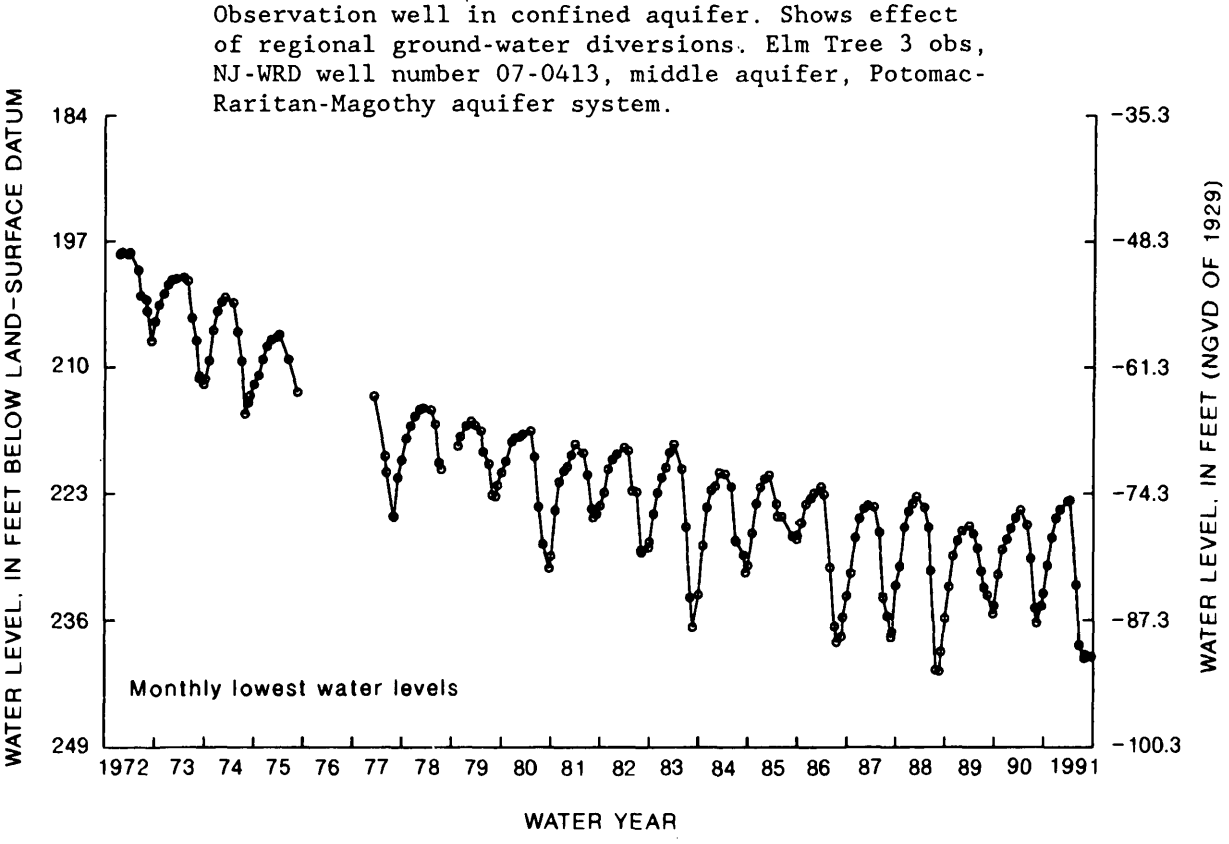


Figure 9.--Twenty-year water-level hydrographs of one artesian and one water-table observation well.

EXPLANATION OF THE RECORDS

The ground-water data in this report are for the water year that began October 1, 1990, and ended September 30, 1991. A calendar of the water year is provided on the inside of the front cover. The data include ground-water levels and ground-water quality. The locations of the wells where data was collected are shown in figures 11 and 12. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each well in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given well and to no other. The number usually is assigned when a well is first established and is retained for that well indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. Generally the "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells.

Latitude-Longitude System

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

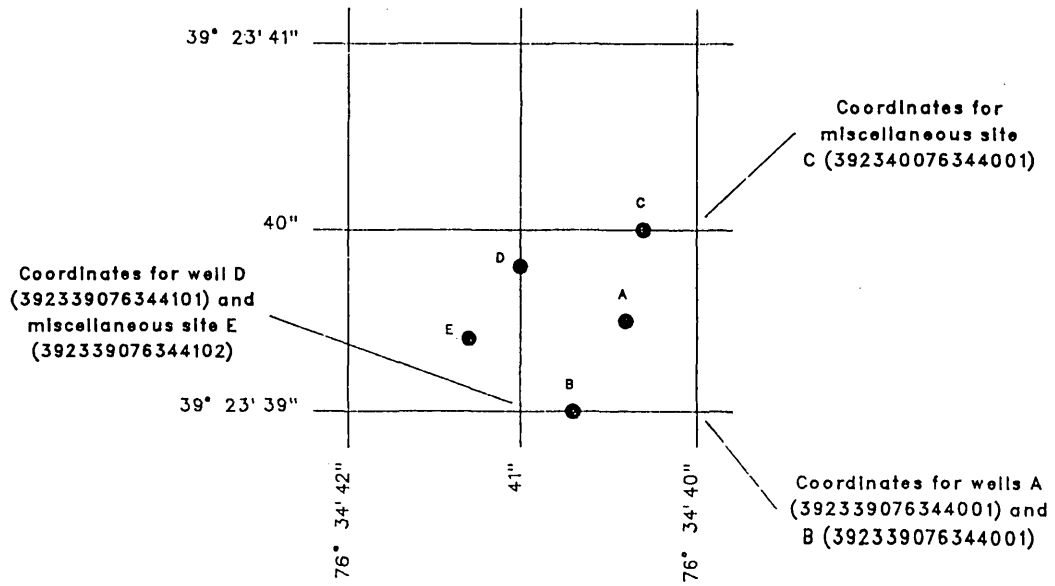


Figure 10.--System for numbering wells and miscellaneous sites (latitude and longitude)

Records of Ground-Water Levels

Water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in New Jersey are shown in figure 11.

Data Collection and Computation

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

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the NJ-WRD well number, a hyphenated 6 digit identification number assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. The first two digits are a code for the county in which the well is located and the last four digits are a sequence number. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water quality analyses, and on the corresponding location maps in this report.

Water-level records are obtained from direct measurments with a steel tape, from the punched tape of a water-level recorder, from a pressure transducer and data logger or from a water-level extremes recorder. Beginning in the 1977 water year, water-level recorders were removed from some wells and replaced by water-level extremes recorders. The extremes are read from these recorders at about three month intervals, but the actual dates of occurrence of these extremes (highest and lowest water levels) are unknown. In this report, the water-level extremes are given together with the manually measured water levels.

Most 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. The altitude of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with water-level recorders are reported for every fifth day and the end of each month (eom).

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

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the current water year, and a graph of the water levels for the current water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of the well description.

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

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

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

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

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

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

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

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet above or below land-surface datum or NGVD of 1929. For wells equipped with recorders, only abbreviated tables are published. Mean daily water-levels are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level. A hydrograph for a selected period of record follows each water-level table.

Records of Ground-Water Quality

Records of ground-water quality in this report usually consist of only one set of measurements for the water year. Because ground-water movement is normally slow compared to surface water, frequent measurements are not necessary for monitoring purposes. More frequent measurements may be necessary for studying ground-water problems, trends, or processes. Locations of wells for which water-quality data are published are shown in figure 12.

Data Collection and Computation

The records of ground-water quality in this report were obtained from water-quality monitoring studies in specific areas. Consequently, chemical analyses are presented for some counties but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

In ground-water observation wells, water in the casing may not be representative of aquifer water quality. To collect samples representative of aquifer water, samples are collected only after at least three casing volumes of water have been pumped from the well and measurements of temperature, specific conductance, and pH have stabilized during the pumping.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County and are identified by NJ-WRD well number. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.
#	Laboratory determination (used when field determination is otherwise expected or indicated in column heading).

CURRENT WATER RESOURCES PROJECTS IN NEW JERSEY

The Geological Survey is currently involved in a number of hydrologic investigations in the State of New Jersey. The following is a list of these investigations. Results are published at the conclusion of short-term projects or periodically in the case of long-term projects. Hydrologic data from these projects are entered into the WATSTORE data base. Subsequent sections contain information on recent publications and on WATSTORE.

Agricultural Water Demand Model for the State of New Jersey

An Assessment of Impacts of Rolling Knoll Landfill on Nearby Water Resources

Compositional Modeling of Organic Transport and Biodegradation in the Unsaturated Zone and Ground Water

Development of a Geographical Information System Data Base, Gloucester County, New Jersey

Effects of Streamflow Diversions on the Water-Quality of Selected New Jersey Estuaries

Flood Characteristics of New Jersey Streams

Geohydrology of Picatinny Arsenal in Morris County, New Jersey

Geophysical Characteristics of Aquifers in New Jersey

Ground-Water Contamination by Light Chlorinated Hydrocarbons at Picatinny Arsenal, Morris County, New Jersey

Ground-Water Data Collection Network

Ground-Water Resources and Saltwater Intrusion of Cape May County

Ground-Water Resources of the Buried Valley and Carbonate Rock Systems of the Lamington River and the South Branch Raritan River Drainage Areas in Northern New Jersey

Hydrology of the Kirkwood-Cohansey Aquifer System in Metedeconk and Toms River Basins

Interpretation of Water Quality in New Jersey Streams, 1976-1986

Investigation of Optimal Recharge to Augment Ground-Water Supply in Peninsular Cape May County, New Jersey

Investigation of Water Quality in the Wanaque South Diversion Area, Morris and Passaic Counties, New Jersey

Land Subsidence Related to Ground-Water Withdrawals in the Coastal Plain Aquifer of New Jersey

Modeling and Experimental Investigation of Hydrocarbon Transport and Biodegradation in the Unsaturated Zone

Mobility, Transport, and Fate of Naturally-Occurring Radionuclides in Ground-Water of the Kirkwood-Cohansey Aquifer System, Southern Coastal Plain, New Jersey

New Jersey Water Use Program

Nonpoint-Source Ground-Water Contamination, Coastal Plain of Long Island, New York, and of Southern New Jersey

Optimal Withdrawals from a Coastal Aquifer in Cape May County Subject to Salt-Water Encroachment: Numerical Analysis and Case Study

Optimization of Ground-Water-Withdrawal Strategies for the Coastal Plain Aquifer System of New Jersey

Presence of Pesticides from Agricultural Nonpoint-Source Runoff in Six Surface-Water-Supply Basins in New Jersey

Quality of Water Data Collection Network

Regionalization of Low Flows for New Jersey Streams

Relation Between Land Use and Ground-Water Quality in Franklin Township, Gloucester County, New Jersey

Removing Volatile Ground-Water Contaminants by Inducing Air-Phase Transport

Somerset County Flood-Monitoring Network

Spatial Analysis of Statewide Water-Quality Data

Surface Water Data Collection Network

Surfactant Sorption to Soil and its Effect on the Distribution of Anthropogenic Organic Compounds

Water Table, Hydrologic Properties and Ground-Water Quality of the Kirkwood-Cohansey Aquifer System, Gloucester County and Maurice River Basin North of Norma, New Jersey

Volatile Organic Contamination Transport and Plume Delineation in Fractured Bedrock of the Passaic Formation, Rutgers University Busch Campus, New Brunswick, New Jersey

WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS

Ayers, M.A., Wolock, D.M., McCabe, G.J., Jr., and Hay, L.E., 1990, Simulated hydrologic effects of climatic change in the Delaware River basin: Aspects of groundwater in New Jersey, Proceedings of the seventh annual meeting of the Geological Association of New Jersey, p. 01-08.

_____ 1990, Hydrologic effects of climatic change in the Delaware River basin: U.S. Geological Survey Yearbook, Fiscal Year 1989, p. 31-33.

_____ 1990, Simulated hydrologic effects of climatic change in the Delaware River basin: Proceedings of the Symposium on International and Transboundary Water Resources Issue, American Water Resources Association, p. 587-594.

Ayers, M.A., Tasker, G.D., Wolock, D.M., McCabe, G.J., Jr., and Hay, L.E., 1990, Simulated effects of climatic change on runoff and drought in the Delaware River basin: Proceedings of the American Society of Civil Engineers.

Ayers, M.A., and Leavesley, G.H., 1989, Assessment of the potential effects of climate change on water resources of the Delaware River basin: Work plan for 1988-90: U.S. Geological Survey Open-File Report 88-478, 37 p.

Baker, R.J., Fischer, J.M., Smith, N.P., Koehnlein, S.A., and Baehr, A.L., 1991, Gas chromatography methods for determining the composition of vapor phase in gasoline contaminated soils: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Baehr, A.L., and Bruell, C.J., 1990, Application of the Stefan-Maxwell equations to determine limitations of Fick's law when modeling organic vapor transport in sand columns: Water Resources Research, v. 26, no. 6, June 1990, p. 1155-1163.

Baehr, A.L., Fischer, J.M., Lahvis, Matthew, Baker, R.J., and Smith, N.P., 1991, A method to estimate microbial degradation rates for hydrocarbons based on gas transport in the unsaturated zone at a gasoline spill site in Galloway Township, N.J.: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Barringer, J.L., and Johnsson, P.A., 1989, Theoretical considerations and a simple method for measuring alkalinity and acidity in low-pH waters: U.S. Geological Survey Water-Resources Investigations Report 89-4029.

Barton, G.J., and Krebs, Martha, 1990, Hydrogeologic reconnaissance of the Swope Oil Superfund site and vicinity, Camden and Burlington Counties, New Jersey: U.S. Geological Survey Open-File Report 89-402, 247 p.

Battaglin, W.A., and Hill, M.C., 1989, Simulated effects of future withdrawals on water levels in the northeastern Coastal Plain aquifers of New Jersey: U.S. Geological Survey Water-Resources Investigations Report 88-4199, 58 p.

Bauersfeld, W.R., Moshinsky, E.W., and Pustay, E.A., 1991, Water resources data for New Jersey, 1990--Volume 1 - Surface-Water Data: U.S. Geological Survey Water-Data Report NJ-90-1, 436 p.

Bauersfeld, W.R., Jones, W.D., and Pustay, E.A., 1991, Water resources data, New Jersey, 1990--Volume 2 - Ground-Water Data: U.S. Geological Survey Water-Data Report NJ-90-2, 178 p.

Brown, G.A., and Zapecza, O.S., 1990, Results of test drilling in Howell Township, Monmouth County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 90-4062, 42 p.

Bruell, C.J., Gilbert, C.D., and Baehr, A.L., 1991, Non-Fickian vapor transport in sand columns contaminated with volatile organic compounds: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Cho, H.J., Jaffe, P.R., and Smith, J.A., 1991, Design of a field experiment to study the dynamics of trichloroethylene vapors in the unsaturated zone during an infiltration event: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Clark, J.S., and Paulachok, G.N., 1989, Water levels in the principal aquifers of Atlantic County and vicinity, New Jersey, 1985-86: New Jersey Department of Environmental Protection, New Jersey Geological Survey Open-File Report 88-3, 33 p.

Duran, P.B., 1987, The use of marine electromagnetic conductivity as a tool in hydrogeologic investigations: Ground Water, v. 25, no. 2, March-April 1987, p. 160-166.

Fischer, J.M., Baehr, A.L., and Smith, N.P., 1991, An investigation of the transport and microbial degradation of hydrocarbons in the subsurface at a gasoline spill site in Galloway Twp., New Jersey: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Fulton, J.L., 1989, Application of a distributed-routing rainfall-runoff model to flood-frequency estimation in Somerset County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 89-4210.

Gibs, Jacob, 1990, Well-purging criteria for sampling purgeable organic compounds: Ground Water, v. 28, no. 1, January-February 1990, p. 68-78.

Gibs, Jacob, Brown, G.A., and Turner, K.S., 1991, Use of a multi-level sampler to determine vertical concentration gradients of volatile aromatic hydrocarbons in ground water, Galloway Township, New Jersey: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Harriman, D.A., Pope, D.A., and Gordon, A.D., 1989, Water-quality data for the Potomac-Raritan-Magothy aquifer system in the northern Coastal Plain of New Jersey, 1923-86: New Jersey Department of Environmental Protection, New Jersey Geological Survey Report 19, 94 p.

Hay, L.E., and Battaglin, W.A., 1990, Effects of land-use buffer size on Spearman's partial correlations of land use and shallow ground-water quality: U.S. Geological Survey Water-Resources Investigations Report 89-4163, 28 p.

Hay, L.E., and Campbell, J.P., 1990, Water-quality trends in New Jersey streams: U.S. Geological Survey Water-Resources Investigations Report 90-4046.

Hay, L.E., McCabe, G.J., Jr., Wolock, D.M., and Ayers, M.A., 1989, Simulation of precipitation by weather-type analysis: Water Resources Research.

Hickman, R.E., 1989, Compilation of mean annual suspended-sediment yields for selected streams draining basins within and adjacent to coal fields in the eastern United States: U.S. Geological Survey Open-File Report 88-80, 57 p.

Johnsson, P.A., and Reddy, M.M., 1990, A monitor for continuous measurement of temperature, pH, and conductance of wet precipitation - Preliminary results from the Adirondack Mountains, New York: Atmospheric Environment, v. 24 A., no. 1, p. 233-236.

Kammer, J.A., and Gibs, Jacob, 1989, An analytical technique for screening purgeable volatile organic compounds in water: U.S. Geological Survey Open-File Report 89-53, 13 p.

Kozinski, Jane, Lacombe, P.J., Hochreiter, J.J., Jr., and Lewis, J.C., 1990, Geophysical and chemical investigations of ground water at five industrial or waste-disposal sites in Logan Township, Gloucester County, New Jersey, 1983-87: U.S. Geological Survey Water-Resources Investigations Report 90-4004, 131 p.

Lacombe, P.J., 1990, Types of surface- and borehole-geophysical equipment and methods used in hydrologic and geologic investigations in New Jersey: in Brown, J.O., and Kroll, R.L., comp., Aspects of ground water in New Jersey: Seventh annual meeting of the Geological Association of New Jersey: Field guide and proceedings, October 26-27, 1990, p. L1-L4.

Lewis, J.C., and Hochreiter, J.J., Jr., 1990, History of ground-water contamination and summary of ground-water investigations through 1985 at four industrial sites, Logan Township, New Jersey: U.S. Geological Survey Open-File Report 90-102, 39 p.

Lord, D.G., Barringer, J.L., Johnsson, P.A., Schuster, P.F., Walker, R.L., Fairchild, J.E., Sroka, B.N., and Jacobsen, E., 1990, Hydrogeochemical data from an acidic deposition study at McDonalds Branch basin in the New Jersey Pinelands: U.S. Geological Survey Open-File Report 88-500, 132 p.

Louis, J.B., and Vowinkel, E.F., 1989, Effect of agricultural chemicals on ground-water quality in the New Jersey Coastal Plain: Proceedings of the 1989 National Research Conference, Pesticides in Terrestrial and Aquatic Environments.

Martin, Mary, 1990, Ground-water flow in the New Jersey Coastal Plain aquifers: U.S. Geological Survey Open-File Report 87-528, 182 p.

McCabe, G.J., Jr., 1990, A conceptual weather-type classification procedure for the Philadelphia, Pennsylvania, area: U.S. Geological Survey Water-Resources Investigations Report 89-4183, 23 p.

McCabe, G.J., Jr., and Ayers, M.A., 1989, Hydrologic effects of climate change in the Delaware River basin: Water Resources Bulletin, v. 25, no. 6, p. 1231-1241.

McCabe, G.J., Jr., Hay, L.E., Kalkstein, L.S., Ayers, M.A., and Wolock, D.M., 1989, Simulation of precipitation by weather-type analysis: Proceedings of the American Society of Civil Engineers Meeting.

McCabe, G.J., Jr., and Wolock, D.M., 1990, Detectability of the effects of a hypothetical temperature increase on the Thornthwaite moisture index: Journal of Hydrology (in press).

McCabe, G.J., Jr., and Wolock, D.M., 1989, Effects of climatic change and climatic variability on the Thornthwaite moisture index in the Delaware River basin: Climatic Change.

McCabe, G.J., Jr., Wolock, D.M., Hay, L.E., and Ayers, M.A., 1990, Effects of climatic change on the Thornthwaite moisture index: Water Resources Bulletin, v. 26, no. 4, p. 633-643.

McDonald, C.L., Gibs, Jacob, Ehlke, T.A., and Koehnlein, S.A., 1991, Preservation of volatile aromatic hydrocarbons with silver salts: Proceedings of Water Quality Technology Conference, American Water Works Association, November 11-15, 1990, San Diego, California, p. 995-1008.

Meisler, Harold, 1989, The occurrence and geochemistry of salty ground water in the northern Atlantic Coastal Plain: U.S. Geological Survey Professional Paper 1404-D, 51 p.

Nicholson, R.S., 1990, Progress in the evaluation of a carbonate-rock aquifer near Long Valley in the New Jersey Highlands: in Brown, J.O., and Kroll, R.L., comp., Aspects of ground water in New Jersey: Seventh annual meeting of the Geological Association of New Jersey: Field guide and proceedings, October 26-27, 1990, p. N25-N31.

Price, C.V., Wolock, D.M., Ayers, M.A., 1989, Extraction of terrain features from digital elevation models: Proceedings of the American Society of Civil Engineers.

Pucci, A.A., Jr., Harriman, D.A., Ervin, E.M., Bratton, Lisa, and Gordon, Alison, 1989, Lead and cadmium contamination associated with saltwater intrusion in a ground-water basin of New Jersey: Science.

Pucci, A.A., Jr., Gronberg, J.A., and Pope, D.A., 1989, Hydraulic properties of the middle and upper aquifers of the Potomac-Raritan-Magothy aquifer system in the northern Coastal Plain of New Jersey: New Jersey Geological Survey, Geological Survey Report 18, 74 p.

Pucci, A.A., Jr., Pope, D.A., and Ivahnenko, T.I., 1989, Aquifer-test analysis of the upper aquifer of the Potomac-Raritan-Magothy aquifer system, Union Beach Borough, Monmouth County, New Jersey: New Jersey Department of Environmental Protection, 27 p.

Qualls, C.L., and Horn, M.A., 1990, New Jersey water supply and use: U.S. Geological Survey Water-Supply Paper 2350, p. 367-374.

Sargent, B.P., Fusillo, T.V., Storck, D.A., and Smith, J.A., 1990, Assessment of contamination of ground water and surface water in the area of Building 24, Picatinny Arsenal, New Jersey, 1986-87: U.S. Geological Survey Water-Resources Investigations Report 90-4057, 120 p.

Smith, J.A., Cho, H.J., Jaffe, P.R., MacLeod, C.L., and Koehnlein, S.A., 1991, Sampling and analysis of unsaturated-zone water for trichloroethene: A comparison of four methods: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, March 11-15, 1991, Monterey, California.

Smith, J.A., Chiou, C.T., Kammer, J.A., Kile, D.E., 1989, Effect of soil moisture on the sorption of trichloroethene vapor to vadose-zone soil at Picatinny Arsenal, New Jersey: Environmental Science and Technology.

Smith, J.A., and Jaffe, P.R., 1991, Comparison of tetrachloromethane sorption to an alkylammonium-clay and alkyldiammonium-clay, Environmental Science and Technology, submitted.

Smith, J.A., Jaffe, P.R., and Chiou, C.T., 1990, Effect of 10 quaternary ammonium cations on tetrachloromethane sorption to clay: Environmental Science and Technology, v. 24, no. 8, p. 1167-1172.

Smith, J.A., Tuck, D.M., Jaffe, P.R., and Mueller, R.T., 1991, Effects of surfactanct on the mobility of nonpolar organic contaminants in porous media: in Organic Substances and Sediments in Water, R. Backer, ed., Lewis Publishers (Chelsea, MI), p. 201-230.

Spitz, F.J., and Barringer, T.H., 1989, Simulation of ground-water flow in coastal southern New Jersey: Proceedings of the Sixth Symposium on Coastal and Ocean Management.

Szabo, Zoltan, 1990, Uranium, radium, and radon in ground water from the rock aquifers of the Piedmont province and the Kirkwood-Cohansey aquifer system of the Coastal Plain province, New Jersey: in Brown, J.O., and Kroll, R.L., comp., Aspects of ground water in New Jersey: Seventh annual meeting of the Geological Association of New Jersey: Field guide and proceedings, October 26-27, 1990, p. H1-H11.

Szabo, Zoltan, Zapecza, O.S., and Nawyn, J.P., 1989, Effects of ground-water geochemistry on the distribution of dissolved uranium and radium-226 in Newark basin, New Jersey: in Proceedings of the October 1989 Conference: Ground Water in the Piedmont.

Titus, E.O., Clawges, R.M., and Qualls, C.L., 1990, Estimated demand for agricultural water for irrigation use in New Jersey, 1990: U.S. Geological Survey Open-File Report 90-156, 23 p.

Vowinkel, E.F., 1991, Comparison of relations between shallow-ground-water quality and land use in two New Jersey Coastal Plain aquifer systems: Proceedings of the Fifth U.S. Geological Survey Toxic Substances Hydrology Technical Meeting, march 11-15, 1991, Monterey, California.

Wolock, D.M., Ayers, M.A., and McCabe, G.J., Jr., 1989, Prediction of the effects of climate change on watershed runoff in the Delaware River basin: Proceedings of the American Society of Civil Engineers Meeting.

Wolock, D.M., and Hornberger, G.M., 1991, Hydrological effects of changes in levels of atmospheric carbon dioxide: in Journal of Forecasting, v. 10, p. 105-116.

Zapecza, O.S., 1989, Hydrogeologic framework of the New Jersey Coastal Plain, Regional aquifer-system analysis--northern Atlantic Coastal Plain: U.S. Geological Survey Professional Paper 1404-B, 49 p. (Supercedes Open-File report 84-730.)

Zapecza, O.S., 1990, An overview of New Jersey ground-water hydrology: in Brown, J.O., and Kroll, R.L., comp., Aspects of ground water in New Jersey: Seventh annual meeting of the Geological Association of New Jersey: Field guide and proceedings, October 26-27, 1990, p. B1-B22.

ACCESS TO WATSTORE DATA

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

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

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

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

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data products, and user charges, can be obtained locally from each of the Water Resources Division's District Offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

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

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.

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

Continuing-record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.

2. When water temperature records include observations taken one or more times daily.

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

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCo_3$).

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

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

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

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

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

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

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

NJ-WRD well number is a hyphenated, 6-digit identification number which the U.S. Geological Survey assigned to all New Jersey wells in the Ground Water Site Inventory (GWSI) data base. This numbering system was developed in 1978 to simplify identification of wells. The first two digits are a code for the county in which the well is located, and the last four digits are a sequence number. Each well added to GWSI is assigned the next higher sequence number for the county in which the well is located. These NJ-WRD well numbers are being used now in the ground-water level descriptions, wells sampled for water-quality analyses, and on the corresponding location maps in this report.

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.

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

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

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

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

Solute is any substance that is dissolved in water.

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

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

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

Water table is that surface in an unconfined ground-water body at which the pressure is atmospheric.

Water year in Geological Survey reports dealing with 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, 1985, is called the "1985 water year."

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

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

SELECTED REFERENCES

Anderson, P.W., 1970, Occurrence and distribution of trace elements in New Jersey streams; New Jersey Division of Water Policy and Supply, Water-Resources Circular 24, 24 p.

Anderson, P.W., and Faust, S.D., 1973 Characteristics of water quality and stream flow, Passaic River basin above Little Falls, New Jersey: U.S. Geological Survey Water-Supply Paper 2026, 80 p.

____ 1974, Water-quality and stream flow characteristics, Raritan River basin, New Jersey: U.S. Geological Survey Water-Resources Investigations 14-74, 82 p.

Anderson, P.W., and George, J.R., 1966, Water-quality characteristics of New Jersey streams: U.S. Geological Survey Water-Supply Paper 1819-G, 48 p.

Ayers, M.A., and Pustay, E.A., 1988, New Jersey ground-water quality: in National Water Summary 1986, U.S. Geological Survey Water Supply Paper 2325, p. 369-376.

Barton, C., Vowinkel, E.F., and Nawyn, J.P., 1987, Preliminary assessment of water quality and its relation to hydrogeology and land use: Potomac-Raritan-Magothy aquifer system, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 87-4023, 79 p.

Campbell, J.B., 1987, Rainfall-runoff data for Somerset County, New Jersey, U.S. Geological Survey Open-File Report 87-384, 161 p.

Eckel, J.A., and Walker, R.L., 1986, Water levels in major artesian aquifers of the New Jersey Coastal Plain, 1983: U.S. Geological Survey Water-Resources Investigations 86-4028, 62 p.

Fusillo, T.V., 1982, Impact of suburban residential development on water resources in the area of Winslow Township, Camden County, New Jersey: U.S. Geological Survey Water-Resources Investigations 81-27, 38 p.

Fusillo, T.V., Hochreiter, J.J., Jr., and Lord, D.G., 1984, Water-quality data for the Potomac-Raritan-Magothy aquifer system in southwestern New Jersey, 1923-83: U.S. Geological Survey Open-File Report 84-737, 127 p, 1 plate.

Fusillo, T.V., and Voronin, L.M., 1982, Water-quality data for the Potomac-Raritan-Magothy aquifer system, Trenton to Pennsville, New Jersey, 1980: U.S. Geological Survey Open-File Report 81-814, 38 p. 2 plates.

Fusillo, T.V., Schornick, J.C., Jr., Koester, H.E., and Harriman, D.A., 1980, Investigation of acidity and other water-quality characteristics of upper Oyster Creek, Ocean County, New Jersey: U.S. Geological Survey Water-Resources Investigations 80-10, 30 p.

Gillespie, B.D., and Schopp, R.D., 1982, Low-flow characteristics and flow duration of New Jersey streams: U.S. Geological Survey Open-File Report 81-1110, 164 p.

Harriman, D.A., and Velnich, A.J., 1982, Flood data in West Windsor Township, Mercer County, New Jersey through 1982 Water Year: U.S. Geological Survey Open-File Report 82-434, 22 p.

Harriman, D.A., and Voronin, L.M., 1984, Water-quality data for aquifers in east-central New Jersey, 1981-82: U.S. Geological Survey Open-File Report 84-821, 39 p.

Harte, P.T., Sargent, B.P., and Vowinkel, E.F., 1986, Description and results of test-drilling program at Picatinny Arsenal, new Jersey, 1982-84: U.S. Geological Survey Open-File Report 86-316, 54 p.

Heath, R.C., 1983, Basic ground-water hydrology: U.S. Geological Survey Water-Supply Paper 2220, 84 p.

Hem, J.D., 1985, Study and interpretation of the chemical characteristics of natural water, 3d ed.: U.S. Geological Survey Water-Supply Paper 2254, 263 p.

Hindall, S.M., and Jungblut, D.W., 1980, Sediment yields of New Jersey streams: U.S. Geological Survey Open-File Report 80-432, 1 sheet.

Hochreiter, J.J., Jr., 1982, Chemical-quality reconnaissance of the water and surficial bed material in the Delaware River estuary and adjacent New Jersey tributaries, 1980-81: U.S. Geological Survey Water-Resources Investigations 82-36, 41 p.

Hochreiter, J.J., Jr., Kozinski, J., and Lewis, J.C., 1986, Characterization of organic ground-water contamination at a waste-oil disposal site, Bridgeport, N.J.: EOS, v. 67, no. 44, p. 945.

Keith, L.H., and Telliard, W.A., 1979, Priority Pollutants I - a perspective view: Environmental Science and Technology, v. 13, no. 4, p. 416-423.

Kish, G.R., Macy, J.A., and Mueller, R.T., 1987, Trace-metal leaching from plumbing materials exposed to acidic ground water in three areas of the Coastal Plain of New Jersey: U.S. Geological Survey Water-Resources Investigations Report 87-4146, 19 p.

Lacombe, P., Sargent, B.P., Harte, P.T., and Vowinkel, E.F., 1987, Determination of geohydrologic framework and extent of ground-water contamination using surface geophysical techniques at Picatinny Arsenal, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 86-4051, 31 p.

Langbein, W.B., and Iseri, K.T., 1960, General introduction of hydrologic definitions: U.S. Geological Survey Water-Supply Paper 1541-A, 29 p.

Laskowski, S.L., 1970, Statistical summaries of New Jersey stream flow records: New Jersey Division of Water Policy and Supply, Water-Resources Circular 23, 264 p.

Leahy, P.P., Paulachok, G.N., Navoy, A.S., and Pucci, A.A., Jr., 1987, Plan of study for the New Jersey Bond Issue ground-water supply investigations: New Jersey Geological Survey Open-File Report 87-1, 53 p.

Lewis, J.C., and Spitz, F.J., 1987, Hydrogeology, ground-water quality, and the possible effects of a hypothetical radioactive-water spill, Plainsboro Township, New Jersey: U.S. Geological Survey Water-Resources Investigation Report 87-4092, 45 p.

Lohman, S.W., and others, 1972, Definitions of selected ground-water terms-revisions and conceptual refinements: U.S. Geological Survey Water-Supply Paper 1988, 21 p.

Lord, D.G., Barringer, J., Johnsson, P., and Schuster, P., Effects of Acid precipitation on surface and ground waters in the New Jersey Pinelands [abs]: EOS, Transactions, American Geophysical Union, v. 67, no. 16., April 22, 1986, p. 282.

Lord, D.G., Johnsson, P.A., Barringer, J.L., and Schuster, P.F., 1987, Results of an acidic deposition study in McDonalds Branch watershed, New Jersey Pinelands [abs]: New Jersey Academy of Science Bulletin, v. 32, no. 1, p. 45.

Luzier, J.E., 1980, Digital-simulation and projection of head changes in the Potomac-Raritan-Magothy aquifer system, Coastal Plain, New Jersey: U.S. Geological Survey Water-Resources Investigations 80-11, 72 p.

Mansue, L.J., and Anderson, P.W., 1974, Effect of landuse and retention practices on sediment yields in the Stony Brook basin, New Jersey: U.S. Geological Survey Water-Supply Paper 1798-L.

National Research Council, 1979, Polychlorinated biphenyls: Washington D.C., National Academy of Sciences, 182 p.

Olsen, P.E., 1980, The latest Triassic and Early Jurassic Formations of the Newark Basin (eastern North America, Newark Supergroup)--Stratigraphy, structure and correlation: New Jersey Academy of Science, The Bulletin, V. 25, p. 25-51.

Paulachok, G.N., Walker, R.L., Barton, G.J., Clark, J.S., Duran, P.B., and Hochreiter, J.J., Jr., 1985, Marine well-drilling program for estimating the seaward extent of fresh ground water and evaluating the likelihood of seawater intrusion near Atlantic City, New Jersey [abs.]: EOS, Transactions, American Geophysical Union, v. 66, no. 46, Nov. 12, 1985, p. 889-890.

Philips, M.O., and Schopp, R.D., Flood of April 5-7, 1984, in northeastern New Jersey: U.S. Geological Survey Water-Resources Investigations Report 86-423W, 112 p.

Rantz, S.E., and others, 1982, Measurement and computation of streamflow; Volume 1. Measurement of stage and discharge, Volume 2. Computation of Discharge: U.S. Geological Survey Water-Supply Paper 2175, 631 p.

Sargent, B.P., Green, J.W., Harte, P.T., and Vowinkel, E.F., 1986, Ground-water-quality data for Picatinny Arsenal, New Jersey, 1958-85: U.S. Geological Survey Open-File Report 86-58, 66 p.

Schaefer, F.L., and Walker, R.L., 1982, Saltwater intrusion into the Old Bridge aquifer in the Keyport-Union Beach area of Monmouth County, New Jersey: U.S. Geological Survey Water-Supply Paper 2184, 21 p.

Schaefer, F.L., 1983, Distribution of chloride concentrations in the principal aquifers of the New Jersey Coastal Plain, 1977-81: U.S. Geological Survey Water-Resources Investigations Report 83-4061, 56 p.

Schaefer, F.L., 1987, Selected literature on the water resources of New Jersey by the U.S. Geological Survey, through 1986: U.S. Geological Survey Open-File Report 87-767, 45 p.

Schornick, J.C., and Ram, N.M., 1978, Nitrification in four acidic streams in southern New Jersey: U.S. Geological Survey Water-Resources Investigations, 77-121, 51 p.

Schornick, J.C., and Fishel, D.K., 1980, Effects of storm runoff on water quality in the Mill Creek drainage basin, Willingboro, New Jersey: U.S. Geological Survey Water-Resources Investigations 80-98, 111 p.

Schopp, R.D., and Bauersfeld, W.R., 1986, New Jersey surface-water resources: in National Water Summary 1985 Hydrologic events and surface-water resources, U.S. Geological Survey Water-Supply Paper 2300, p. 335-340.

Schopp, R.D., and Gillespie, B.D., 1979, Selected streamflow data for the Delaware River basin: U.S. Geological Survey Open-File Report 79-347, 16 p.

Schopp, R.D., and Ulery, R.L., 1984, Cost-effectiveness of the stream-gaging program in New Jersey: U.S. Geological Survey Water-Resources Investigations Report 84-4108, 97 p.

Schopp, R.D., and Velnich, A.J., 1979, Flood of November 8-10, 1977 in northeastern and central New Jersey: U.S. Geological Survey Open-File Report 79-559, 32 p.

Seaber, P.R., 1963, Chloride concentrations of water from wells in the Atlantic Coastal Plain of New Jersey, 1923-61: New Jersey Division of Water Policy and Supply, Special Report 22, 250 p.

Stankowski, S.J., 1972, Floods of August and September 1971 in New Jersey: New Jersey Division of Water Resources, Special Report 37, 329 p.

Stankowski, S.J., and Velnich, A.J., 1974, A summary of peak stages and discharges for the flood of August 1973 in New Jersey: U.S. Geological Survey Open-File Report, 12 p.

Stankowski, S.J., 1974, Magnitude and frequency of floods in New Jersey with effects of urbanization: New Jersey Department of Environmental Protection, Division of Water Resources, Special Report 38, 46 p.

Stankowski, S.J., Schopp, R.D., and Velnich, A.J., 1975, Flood of July 21, 1975 in Mercer County, New Jersey: U.S. Geological Survey Water-Resources Investigations 51-75, 52 p.

Szabo, Z., and Zapecza, O.S., 1987, Relation between radionuclide concentrations and other chemical constituents in ground water in the Newark Basin, New Jersey in Graves, Barbara, ed., Radon in ground water-Hydrogeologic impact and indoor air contamination [Conference on radon, radium, and other radioactivity in ground water-Hydrogeologic impact and application to indoor airborne contamination, Somerset, N.J., April 7-9, 1987]: Chelsea, Mich., Lewis Publishers Inc., p. 283-308.

U.S. Environmental Protection Agency, 1976, National interim primary drinking water regulations: U.S. Environmental Protection Agency report EPA 570/9-76-003, 159 p.

U.S. Geological Survey, 1976, Surface-water supply of the United States, 1966-70, Part 1. North Atlantic Slope basins, Volume 2. Basins from New York to Delaware: U.S. Geological Survey Water-Supply Paper 2102, 985 p., (most recent volume).

____1977, Ground-water levels in the United States, 1973-74, Northeastern States: U.S. Geological Survey Water-Supply Paper 2164, 126 p., (most recent volume).

Vecchioli, John, and Miller, E.G., 1973, Water resources of the New Jersey part of the Ramapo River basin: U.S. Geological Survey Water-Supply Paper 1974, 77 p.

Velnich, A.J., and Laskowski, S.L., 1979, Technique for estimating depth of 100-year flood in New Jersey: U.S. Geological Survey Open-File Report 79-419, 17 p.

Velnich, A.J., 1982, Drainage areas in New Jersey: Delaware River basin and streams tributary to Delaware Bay: U.S. Geological Survey Open-File Report 82-572, 48 p.

Velnich, A.J., 1984, Drainage areas in New Jersey: Atlantic Coastal basins, South Amboy to Cape May: U.S. Geological Survey Open-File Report 84-150, 33 p.

Vickers, A.A., and McCall, J.E., 1968, Surface water supply of New Jersey, streamflow records 1961-65: New Jersey Division of Water Policy and Supply, Special Report 31, 351 p., (most recent volume).

Vickers, A.A., 1982, Flood of August 31 - September 1, 1978, in Crosswicks Creek basin and vicinity, Central New Jersey: U.S. Geological Survey Water-Resources Investigations 80-115, 20 p.

Vickers, A.A., Farsett, H.A., and Green, J.W., 1982, Flood peaks and discharge summaries in the Delaware River basin: U.S. Geological Survey Open-File Report 81-912, 292 p.

Vowinkel, E.F., 1984, Ground-water withdrawals from the Coastal Plain of New Jersey, 1956-80: U.S. Geological Survey Open-File Report 84-226, 32 p.

Walker, R.L., 1983, Evaluation of water levels in major aquifers of the New Jersey Coastal Plain, 1978: U.S. Geological Survey Water-Resources Investigations 82-4077, 56 p.

Witkowski, P.J., Smith, J.A., Fusillo, T.V., and Chiou, C.T., 1987, A review of surface-water sediment fractions and their interactions with persistent anthropogenic organic compounds: U.S. Geological Survey Circular 993, 39 p.

Zapecza, O.S., and Szabo, Z., 1987, Source and distribution of natural radioactivity in ground water in the Newark Basin, New Jersey, in Graves, Barbara, ed., Radon in ground water-Hydrogeologic impact and indoor air contamination [Conference on radon, radium and other radioactivity-Hydrogeologic impact and application to indoor airborne contamination, Somerset, N.J., April 7-9, 1987]: Chelsea, Mich., Lewis Publishers., p. 31-46.

Zapecza, O.S., Voronin, L.M., and Martin, M., 1987, Ground-water-withdrawal and water-level data used to simulate regional flow in the major Coastal Plain aquifers of New Jersey: U.S. Geological Survey Water-Resources Investigations Report 87-4038, 120 p.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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WATER RESOURCES DATA–NEW JERSEY, 1991

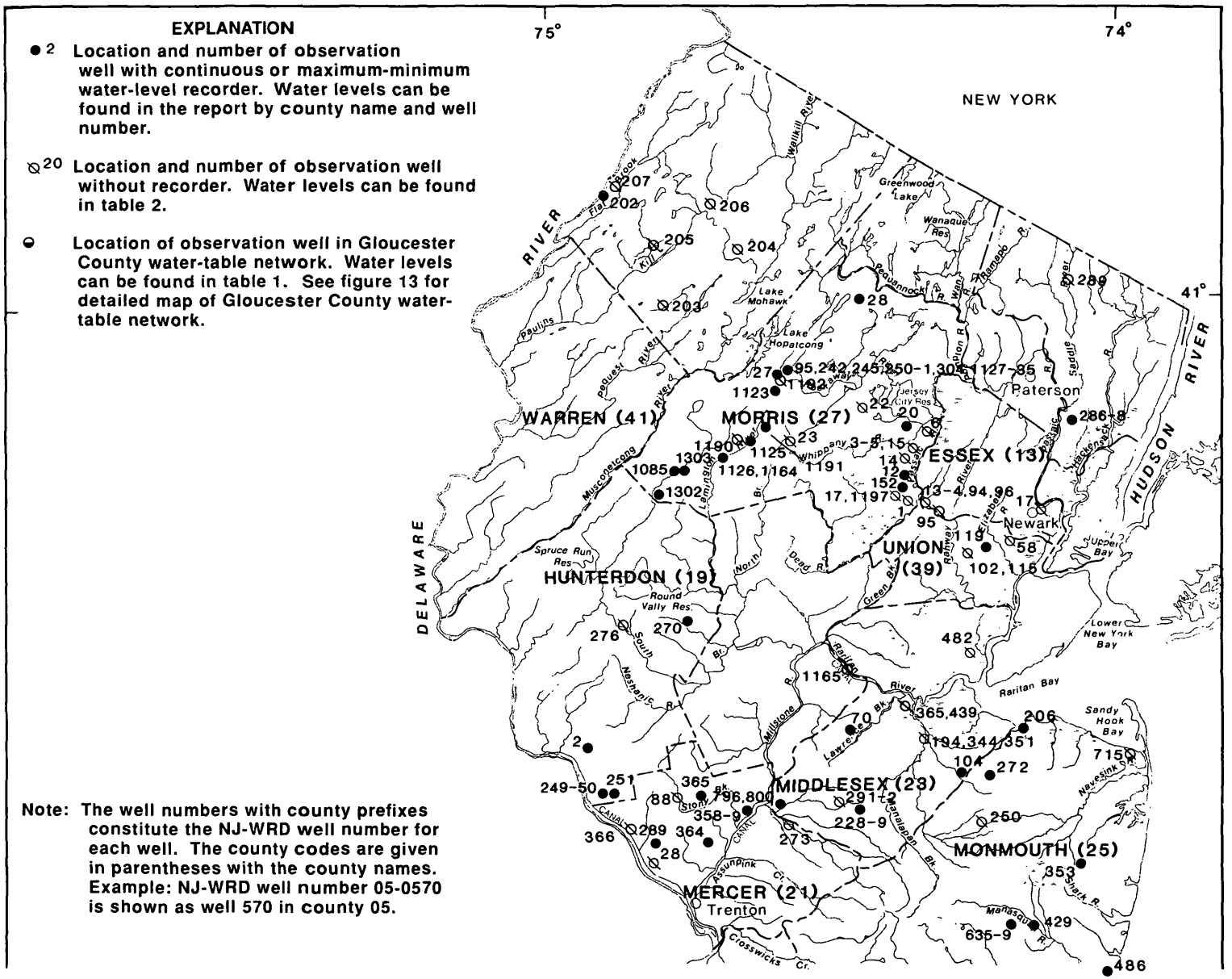
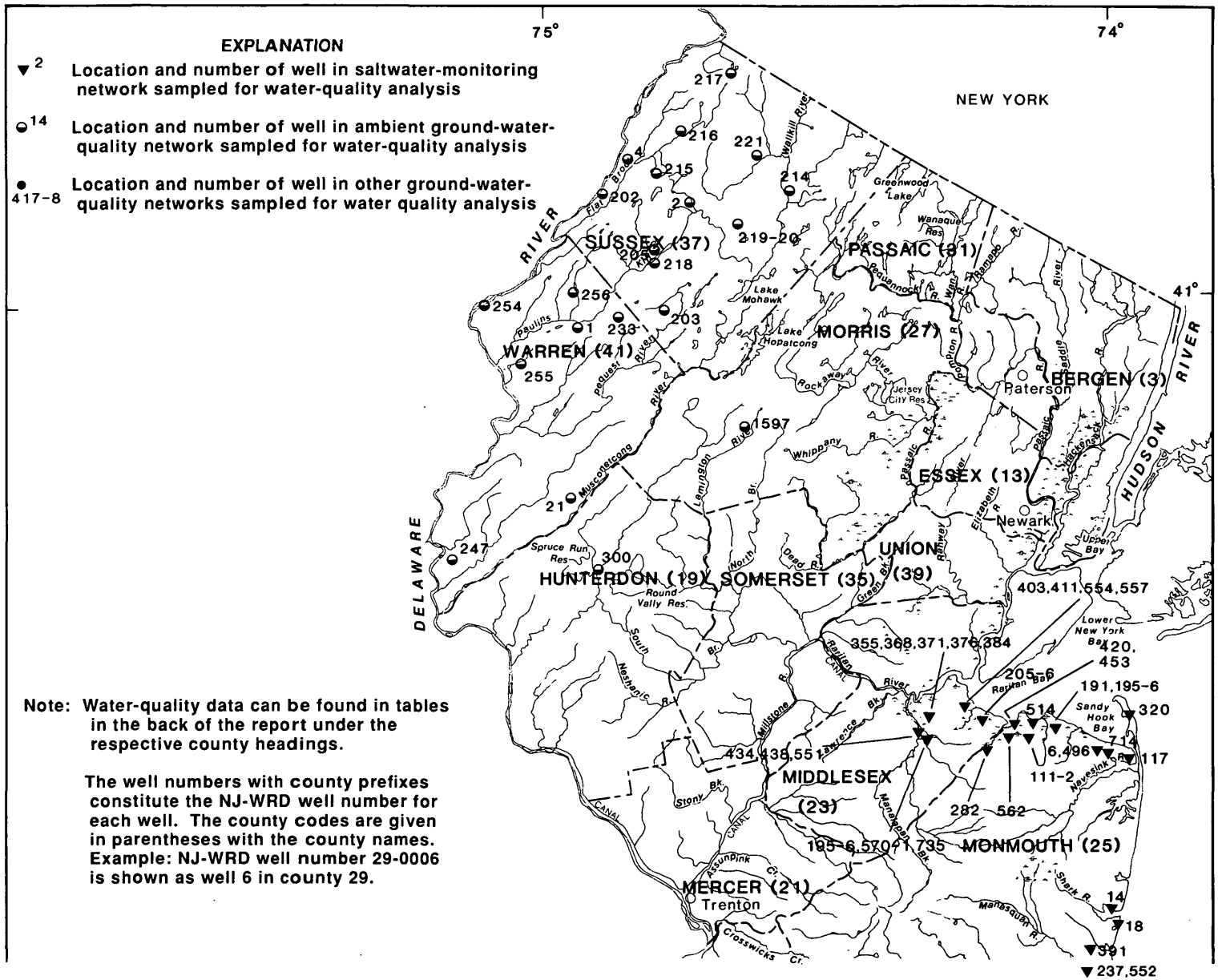


Figure 11.--Map showing location of ground-water observation wells.

WATER RESOURCES DATA–NEW JERSEY, 1991



Note: Water-quality data can be found in tables in the back of the report under the respective county headings.

The well numbers with county prefixes constitute the NJ-WRD well number for each well. The county codes are given in parentheses with the county names. Example: NJ-WRD well number 29-0006 is shown as well 6 in county 29.

Figure 12.--Map showing location of ground-water quality stations.

ATLANTIC COUNTY

391827074371001. Local I.D., Jobs Point Obs. NJ-WRD Well Number, 01-0578.
LOCATION.--Lat 39°18'26", long 74°37'09", Hydrologic Unit 02040302, on the west side of the Garden State Parkway at interchange 29, Somers Point City.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 680 ft, screened 670 to 680 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to Feb. 1984.
DATUM.--Land-surface datum is 10.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 9.34 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Oct. 1959 to June 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.10 ft below land-surface datum, Apr. 13, 1961; lowest, 79.51 ft below land-surface datum, Sept. 3, 1991.

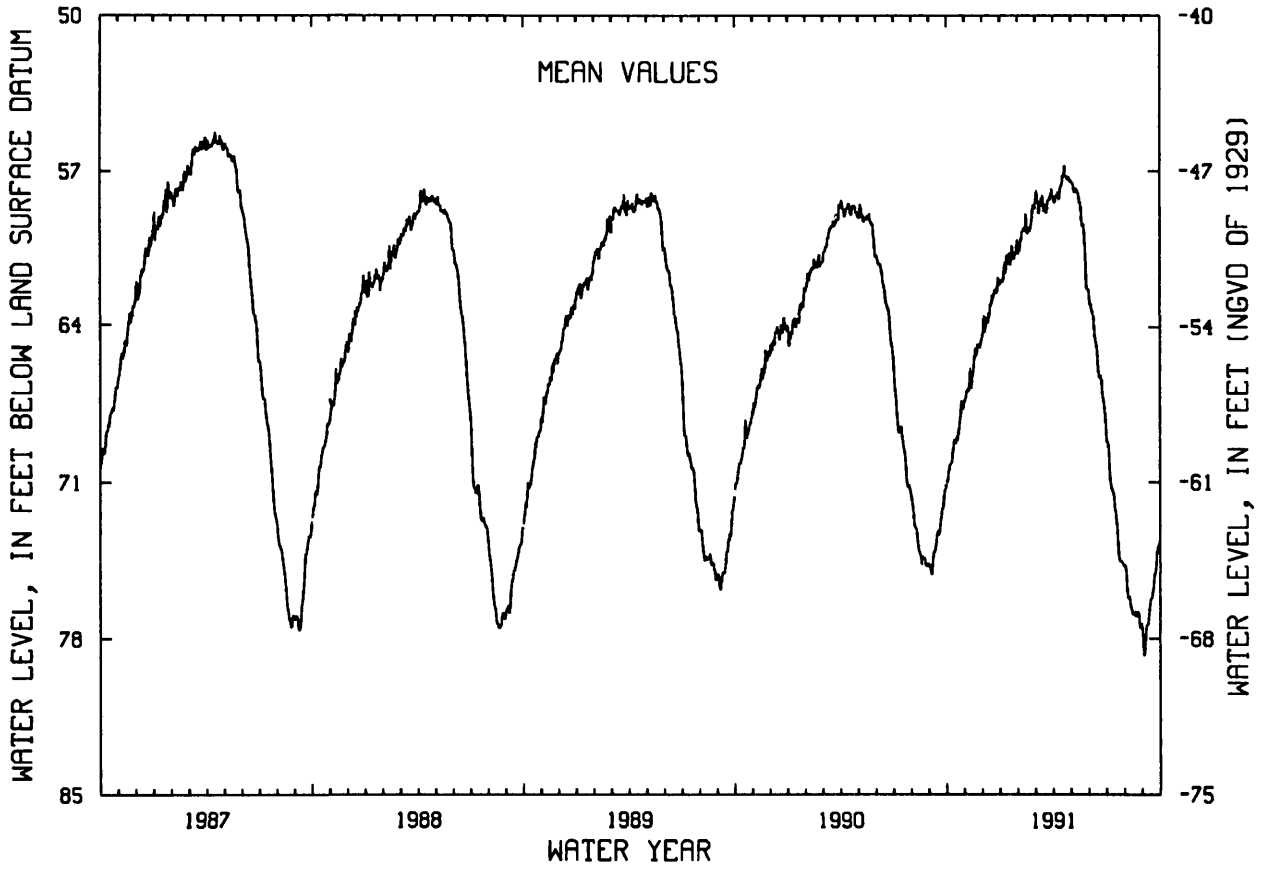
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.43	66.79	64.20	61.95	60.05	58.26	58.31	57.54	62.98	69.59	75.70	78.14
10	70.00	65.86	63.82	61.61	59.55	58.45	57.94	57.76	64.02	71.24	76.26	77.28
15	69.16	66.03	63.01	61.17	59.23	58.25	57.66	58.08	65.04	71.94	76.88	76.18
20	68.91	65.27	62.72	60.48	59.66	58.82	57.15	59.17	66.26	73.31	77.00	75.32
25	67.84	64.88	62.49	60.90	58.78	58.27	57.29	60.07	67.15	74.55	76.86	74.22
EOM	67.36	64.44	62.13	60.47	58.69	58.17	57.44	62.31	68.31	74.74	77.58	73.60
MEAN	69.12	65.83	63.06	61.07	59.58	58.39	57.68	58.96	65.22	72.27	76.53	76.12

WTR YR 1991 MEAN 65.36 HIGH 56.02 APR 21 LOW 79.51 SEP 3

NJ-WRD WELL NO.01-0578



ATLANTIC COUNTY

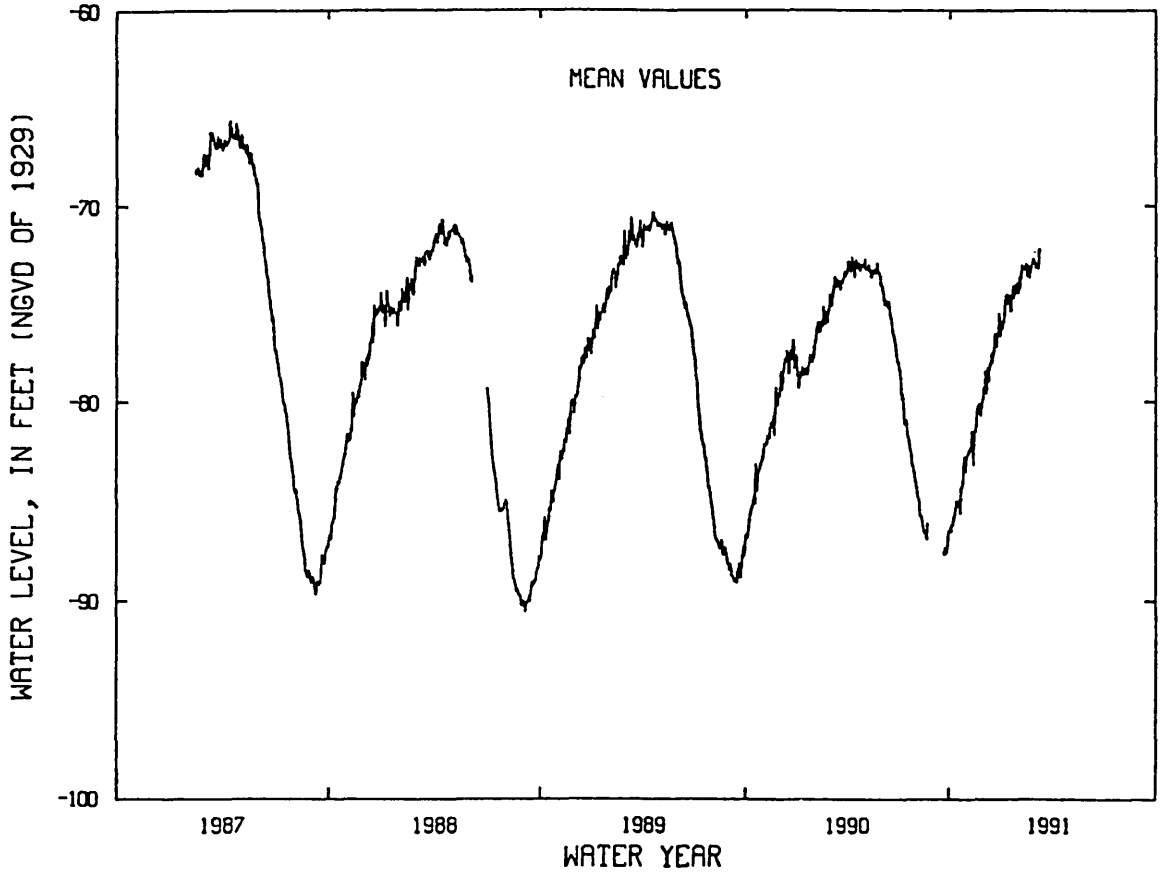
391955074250701. Local I.D., ACOW 1 Obs. NJ-WRD Well Number 01-0711.
LOCATION.--Lat 39°19'55", long 74°25'07", in the Atlantic Ocean, 1.9 miles offshore of Atlantic City
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.-- Drilled artesian observation well, diameter 4 in, depth 871 ft, screened 820 to 850 ft.
INSTRUMENTATION.--Digital data logger with differential pressure transducers and conductivity cells--60 minute recording interval. Recorder located on sea floor, about 33 ft below NGVD.
DATUM.-- 0.00 ft, National Geodetic Vertical Datum of 1929.
Measuring point: Deck of drilling platform at time when transducers were set at bottom of well.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping. Elevation of differential pressure transducers was determined by direct measurement from the deck of the drilling platform. Elevation of the deck of the drilling platform was determined by survey by the U.S. Geological Survey, National Mapping Division.
PERIOD OF RECORD.--Feb. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 63.72 ft below NGVD , Apr. 14,16, 1987; lowest, 92.42 ft below NGVD, Aug. 30, 1988.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-86.21	-82.43	-79.59	-75.81	-73.43	-73.11	---	---	---	---	---	---
10	-85.48	-81.61	-78.98	-75.03	-73.22	-72.24	---	---	---	---	---	---
15	-85.31	-81.36	-77.51	-74.95	-73.17	---	---	---	---	---	---	---
20	-84.89	-80.58	-76.61	-74.59	-73.69	---	---	---	---	---	---	---
25	-83.88	-80.71	-76.68	-74.19	-72.92	---	---	---	---	---	---	---
EOM	-82.83	-79.29	-76.61	-74.50	-72.93	---	---	---	---	---	---	---
MEAN	-84.88	-81.31	-77.65	-74.88	-73.32	---	---	---	---	---	---	---

WTR YR 1991 HIGH -70.40 MAR 12 LOW -88.43 OCT 2,5



ATLANTIC COUNTY

392017074300201. Local I.D., Margate Firehouse 1 Obs. NJ-WRD Well Number, 01-0834.
LOCATION.--Lat 39°20'17", long 74°30'02", Hydrologic Unit 02040302, behind Margate Firehouse no. 2, Fremont Ave., Margate City.
Owner: U.S. Geological Survey.
AQUIFER.--Piney Point aquifer of Oligocene-Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 997 ft, screened 970 to 991 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.00 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--May 1988 to current year. Records for 1988 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.05 ft below land-surface datum, June 2, 1988; lowest, 35.09 ft below land-surface datum, Feb. 1, 1991.

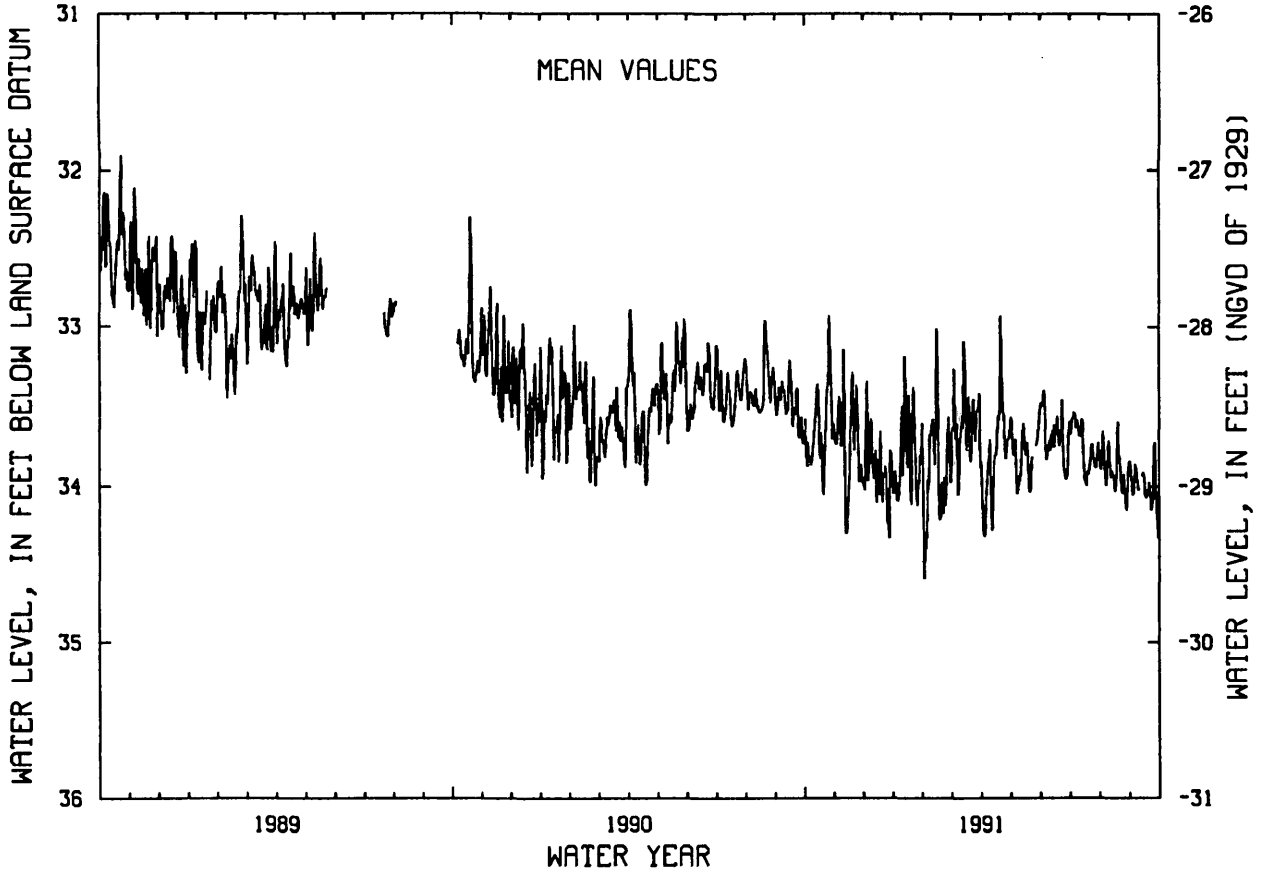
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	33.81	33.43	33.96	34.09	33.96	33.66	34.26	33.76	33.42	33.53	33.76	33.97
10	33.72	33.14	33.87	33.93	33.57	33.70	33.70	33.93	33.71	33.64	33.71	34.01
15	33.52	34.02	33.83	33.88	33.26	33.17	33.80	33.65	33.75	33.80	33.93	33.93
20	34.05	33.62	34.10	33.53	34.05	33.73	33.48	34.00	33.74	33.92	33.85	33.97
25	33.32	33.72	34.23	34.12	33.74	33.64	33.70	---	33.87	33.81	33.92	33.75
EOM	33.65	33.98	34.04	33.99	33.97	33.88	33.67	33.51	33.59	33.80	33.84	34.28
MEAN	33.63	33.73	33.89	33.81	33.89	33.61	33.80	33.79	33.68	33.74	33.90	34.01

WTR YR 1991 MEAN 33.79 HIGH 32.22 DEC 4 LOW 35.09 FEB 1

NJ-WRD WELL NO.01-0834



ATLANTIC COUNTY

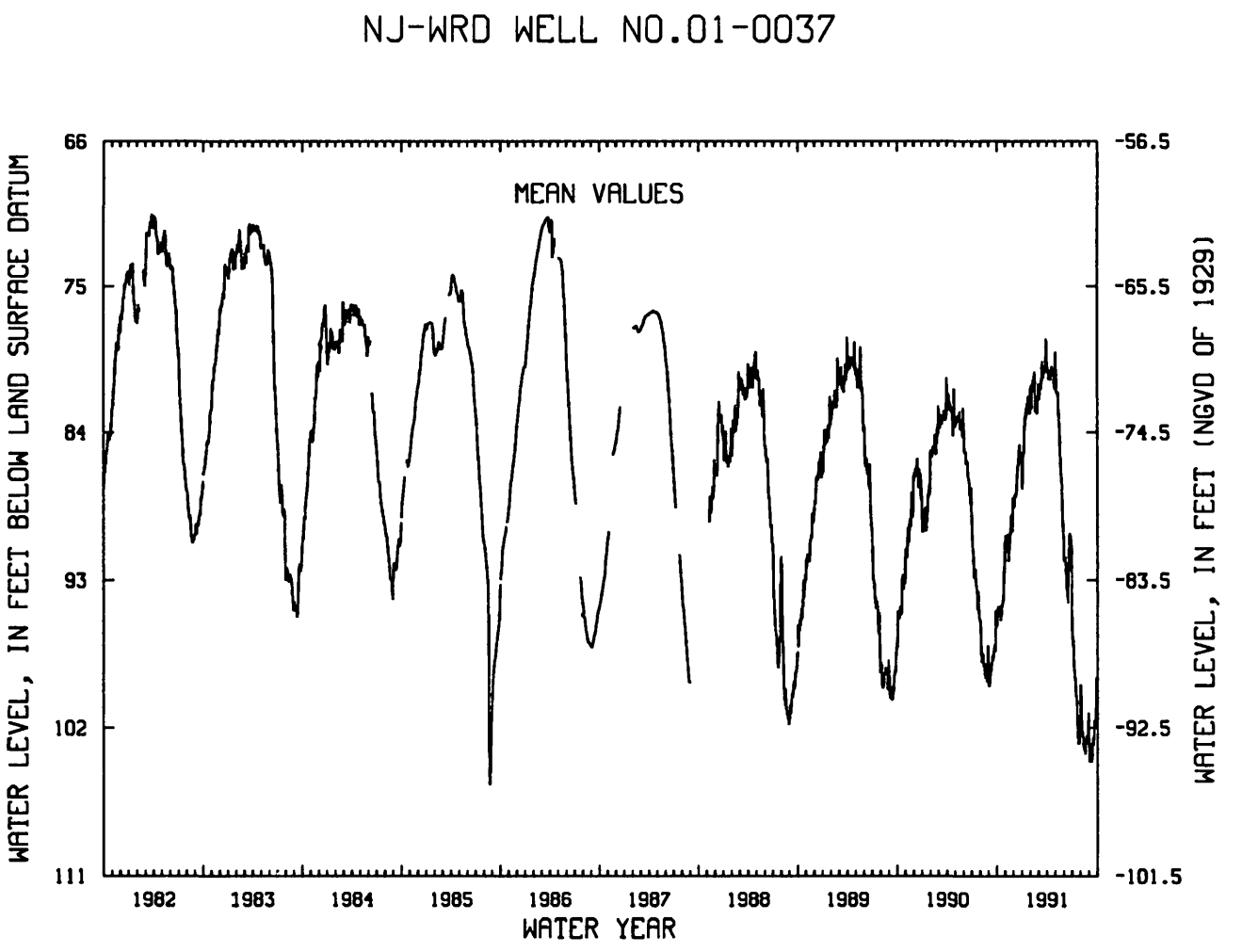
392153074250101. Local I.D., Galen Hall Obs. NJ-WRD Well Number, 01-0037.
LOCATION.--Lat 39°21'51", long 74°24'59", Hydrologic Unit 02040302, near the intersection of Pacific Ave. and Congress Ave., Atlantic City.
Owner: Atlantic City Municipal Utilities Authority.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 842 ft, screened 782 to 837 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to July 1980.
DATUM.--Land-surface datum is 9.54 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.75 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping. Water level affected by USGS aquifer test, Aug. 16-23, 1985. Well damaged by construction equipment in Aug. 1987 and rehabilitated Nov. 1987.
PERIOD OF RECORD.--Jan. 1949 to Aug. 1975, May 1977 to current year. Records for 1949 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.58 ft below land-surface datum, Mar. 7, 1962; lowest, 105.70 ft below land-surface datum, Aug. 22, 1985. (see remarks)

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	94.58	91.22	87.92	85.39	82.12	81.69	80.30	81.11	91.79	96.81	101.82	103.71
10	94.89	90.28	87.87	83.62	81.20	81.35	80.22	81.52	93.03	98.60	102.61	104.07
15	95.44	90.86	86.13	83.04	80.28	79.63	80.78	83.48	93.83	99.97	103.38	102.85
20	94.49	89.71	85.25	82.80	82.63	80.24	80.05	86.04	91.03	101.12	102.97	101.93
25	93.57	89.87	85.58	81.94	82.66	80.33	80.28	87.40	90.46	102.95	102.58	101.01
EOM	90.31	88.19	87.01	81.71	81.77	79.55	80.87	90.43	95.01	101.02	102.59	100.39
MEAN	94.24	90.21	86.59	83.45	81.77	80.52	80.43	84.44	92.05	99.96	102.36	102.37

WTR YR 1991 MEAN 89.92 HIGH 77.96 MAR 29 LOW 104.21 SEP 3



ATLANTIC COUNTY

392754074270101. Local I.D., Oceanville 1 Obs. NJ-WRD Well Number, 01-0180.
LOCATION.--Lat 39°27'54", long 74°27'01", Hydrologic Unit 02040302, at Edwin B. Forsythe National Wildlife Refuge, Brigantine Division, Oceanville, Galloway Township.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 570 ft, screened 560 to 570 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Apr. 1977 to Feb. 1984.
DATUM.--Land-surface datum is 27 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of bushing, 2.30 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Oct. 1959 to Aug. 1975, Apr. 1977 to current year. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.62 ft below land-surface datum, Apr. 13, 1961; lowest, 69.38 ft below land-surface datum, Sept. 30, 1991.

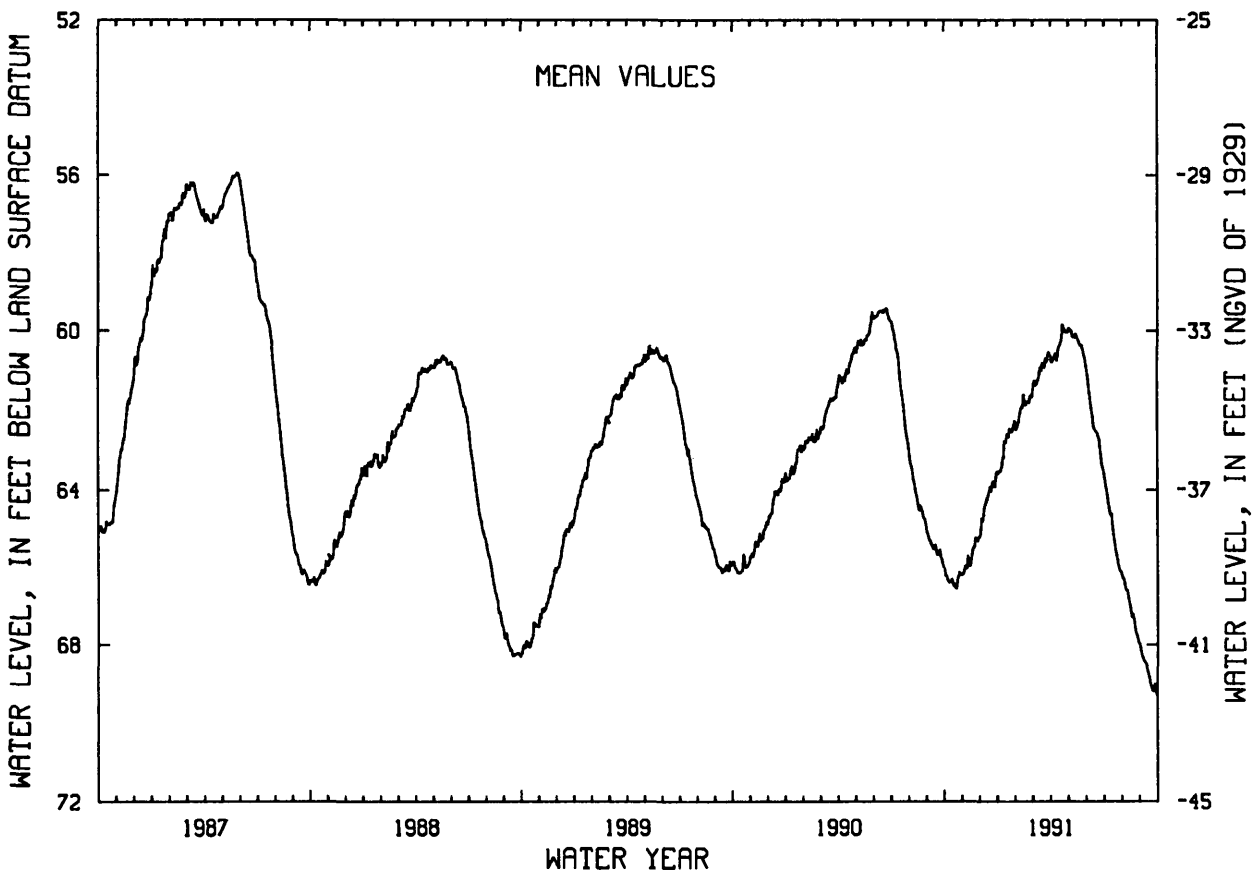
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.24	65.98	64.83	63.53	62.31	61.36	60.71	60.01	61.27	63.96	66.39	68.32
10	66.40	65.70	64.36	63.20	61.91	61.23	60.54	60.15	61.92	64.48	66.60	68.48
15	66.37	65.91	64.13	62.78	61.58	60.88	60.42	60.12	62.44	64.81	67.03	68.73
20	66.56	65.49	64.04	62.51	61.75	60.85	60.17	60.33	62.56	65.45	67.23	69.06
25	66.25	65.26	63.89	62.53	61.68	60.73	59.99	60.39	62.99	65.89	67.71	69.05
EOM	66.19	65.24	63.57	62.30	61.65	60.62	60.00	60.73	63.48	66.16	67.99	69.30
MEAN	66.31	65.70	64.21	62.84	61.92	60.99	60.35	60.24	62.26	64.99	67.09	68.75

WTR YR 1991 MEAN 63.81 HIGH 59.68 APR 22 LOW 69.38 SEP 30

NJ-WRD WELL NO.01-0180



ATLANTIC COUNTY

393232074263901. Local I.D., FAA Pomona Obs. NJ-WRD Well Number, 01-0703.
LOCATION.--Lat 39°26'39", long 74°32'32", Hydrologic Unit 02040302, at the NAFEC Atlantic City Airport, Egg Harbor Township.
Owner: U.S. Geological Survey
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 575 ft, screened 560 to 570 ft.
INSTRUMENTATION.--Digital water-level recorder--60 minute punch.
DATUM.--Land-surface datum is 38 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 1.75 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Oct. 1985 to current year. Records for 1985 to 1986 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.74 ft below land-surface datum, Mar. 18, 1986; lowest, 85.75 ft below land-surface datum, Sept. 30, 1991.

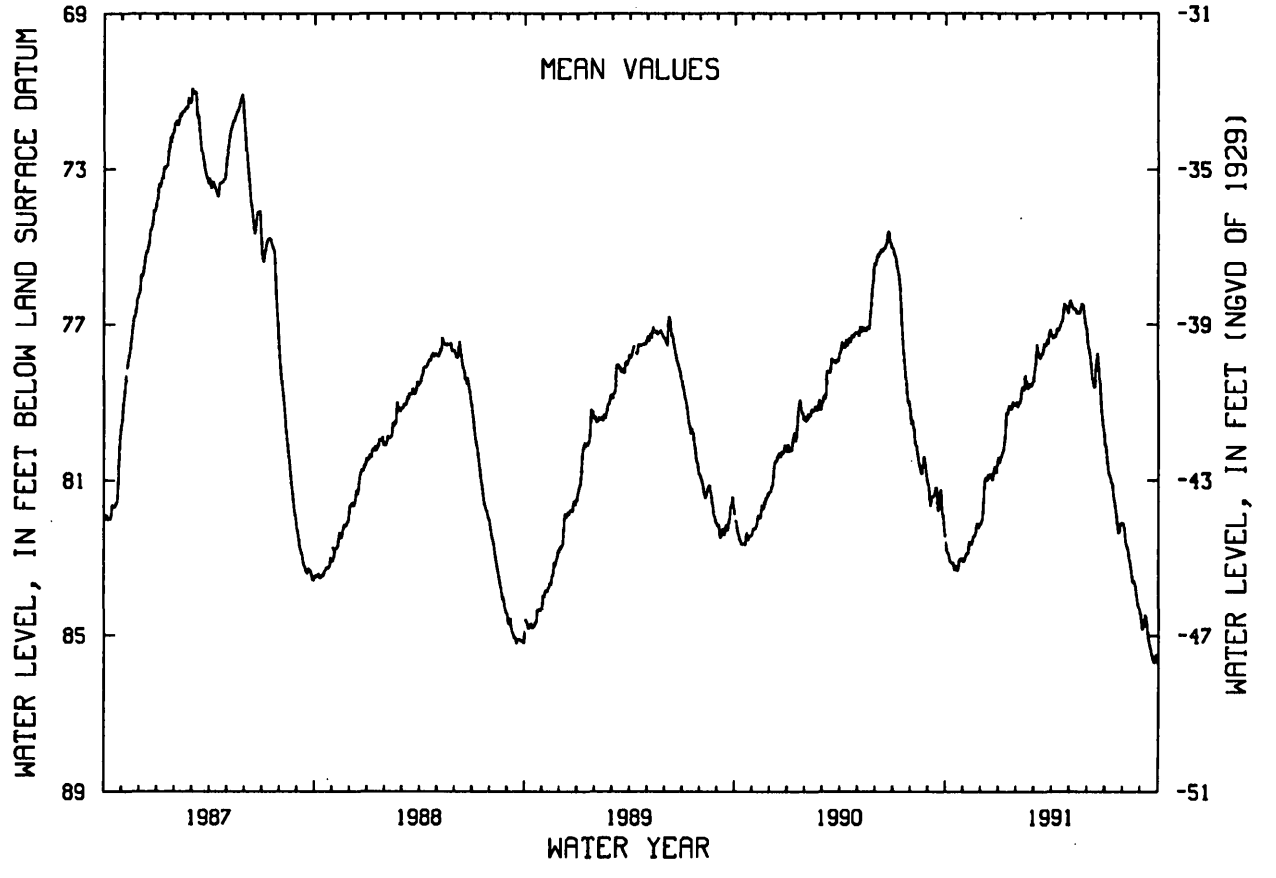
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	82.86	82.92	81.53	80.37	79.00	77.98	77.33	76.51	77.68	80.51	82.53	84.78
10	83.09	82.59	80.93	79.98	78.60	77.73	77.11	76.59	78.40	80.92	82.80	84.66
15	83.18	82.63	80.89	79.32	78.30	77.74	77.10	76.71	78.27	81.33	83.29	85.24
20	83.27	82.41	81.00	79.14	78.56	77.48	76.84	76.67	77.85	81.84	83.59	85.55
25	83.05	82.13	80.78	79.06	78.56	77.45	76.50	76.50	79.17	82.34	84.06	85.57
EOM	83.07	82.14	80.45	79.00	78.46	77.25	76.70	77.12	79.88	82.09	84.45	85.73
MEAN	83.07	82.55	81.00	79.54	78.66	77.66	76.97	76.64	78.38	81.38	83.34	85.18

WTR YR 1991 MEAN 80.38 HIGH 76.32 MAY 2 LOW 85.75 SEP 30

NJ-WRD WELL NO.01-0703



ATLANTIC COUNTY

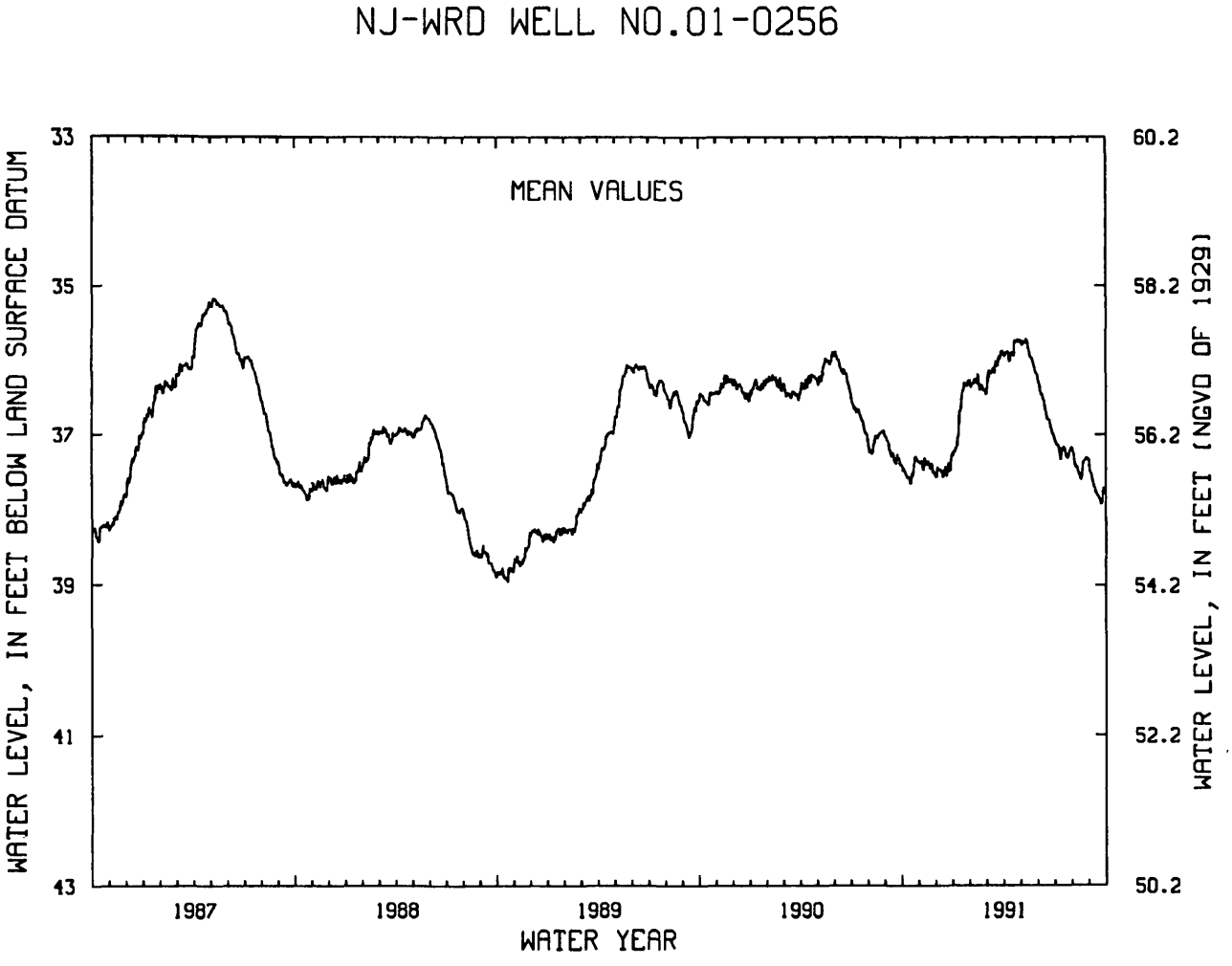
393333074442401. Local I.D., Scholler 1 Obs. NJ-WRD Well Number, 01-0256.
LOCATION.--Lat 39°33'33", long 74°44'26", Hydrologic Unit 02040302, at Scholler Brothers plant, near intersection of Weymouth Rd. and Second Rd., Elwood, Hamilton Township.
Owner: Scholler Brothers Incorporated.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 275 ft, screened 254 to 275 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, May 1977 to Apr. 1984.
DATUM.--Land-surface datum is 93.19 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.66 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Apr. 1962 to Aug. 1975, May 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.18 ft below land-surface datum, Mar. 20, 1963; lowest, 39.56 ft below land-surface datum, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.42	37.32	37.43	37.20	36.30	36.23	35.91	35.80	36.39	37.12	37.29	37.52
10	37.53	37.29	37.43	37.02	36.25	36.16	35.89	35.75	36.49	37.21	37.39	37.69
15	37.57	37.37	37.49	36.63	36.22	36.12	35.91	35.80	36.67	37.19	37.52	37.79
20	37.53	37.39	37.53	36.32	36.33	36.06	35.93	35.96	36.79	37.20	37.43	37.85
25	37.28	37.39	37.43	36.34	36.39	35.97	35.75	36.04	36.92	37.28	37.31	37.79
EOM	37.33	37.53	37.23	36.27	36.45	35.93	35.74	36.20	37.02	37.16	37.31	37.76
MEAN	37.45	37.38	37.43	36.67	36.33	36.10	35.86	35.89	36.66	37.19	37.37	37.71

WTR YR 1991 MEAN 36.84 HIGH 35.69 MAY 1 LOW 37.93 SEP 24



ATLANTIC COUNTY

393557074411401. Local I.D., Amatol 6 Obs. NJ-WRD Well Number, 01-0387.
LOCATION.--Lat 39°35'57", long 74°41'14", Hydrologic Unit 02040301, about 200 feet east of Elwood-Pleasant Mills Rd. (County Rt. 623), 2.3 miles north of Rt. 30, Mullica Township.
Owner: Ralph Ramberg - Amatol.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, casing diameter 6 in, depth 136 ft, open end.
INSTRUMENTATION.-- Digital data logger with differential pressure transducer(July 1990). Water level recorder, Nov. 1961 to June 1970.
DATUM.--Land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929 from topographic map.
Measuring point: Top of casing, 2.60 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1961 to May 1987, June 1990 to Oct. 1991 (discontinued). Periodic manual measurements, July 1970 to May 1987. Records for 1961 to 1989 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.39 ft below land-surface datum, Mar. 24, 1975; lowest, 6.45 ft below land-surface datum, Sept. 11, 1966.

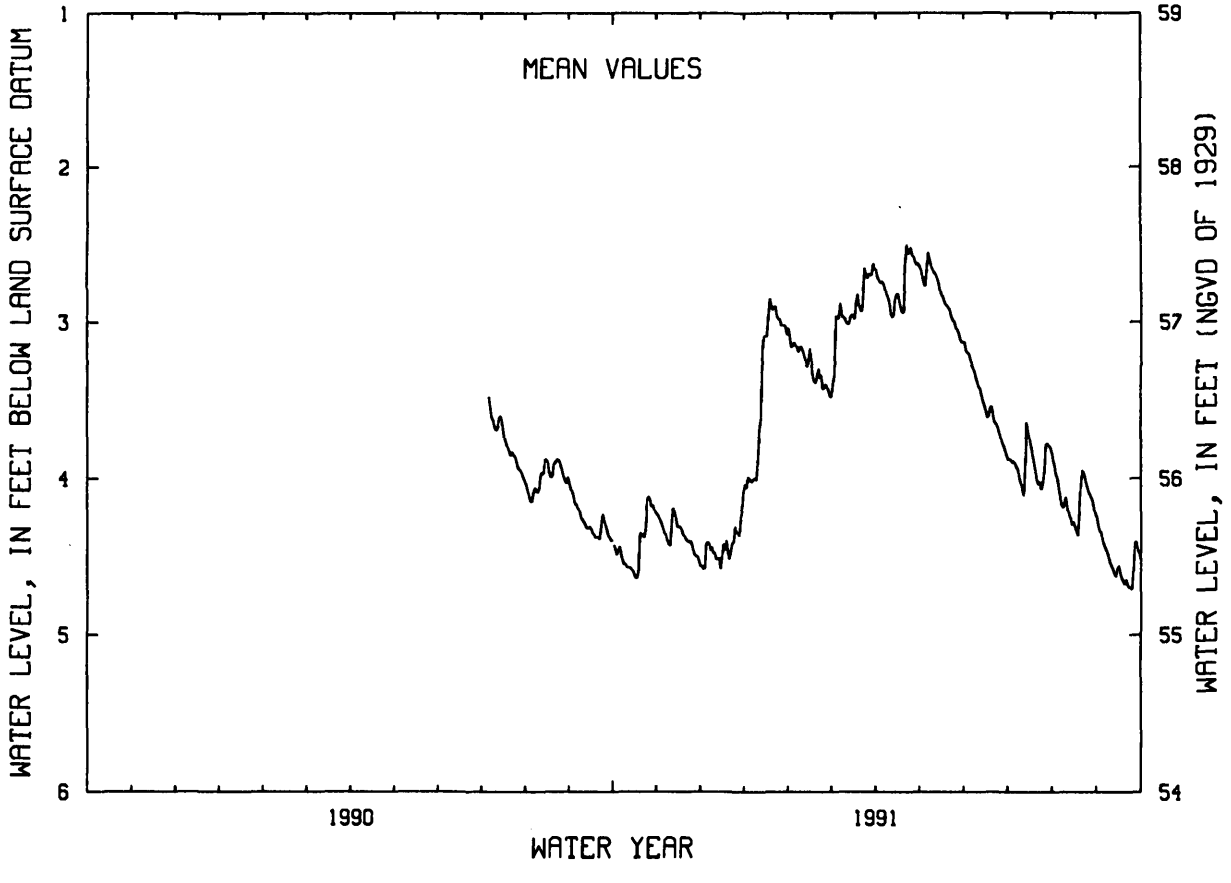
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.44	4.35	4.41	4.02	3.16	2.98	2.74	2.77	3.24	3.89	4.06	4.43
10	4.57	4.27	4.48	3.69	3.21	2.97	2.87	2.66	3.39	4.03	4.12	4.56
15	4.61	4.31	4.51	3.09	3.25	2.95	2.82	2.79	3.54	3.70	4.28	4.56
20	4.36	4.39	4.52	2.90	3.30	2.89	2.93	2.90	3.54	3.95	4.06	4.65
25	4.12	4.46	4.35	3.02	3.40	2.69	2.52	3.00	3.70	4.03	4.07	4.59
EOM	4.23	4.56	4.04	3.09	3.47	2.66	2.62	3.13	3.85	3.83	4.25	4.52
MEAN	4.42	4.37	4.42	3.33	3.28	2.92	2.75	2.84	3.50	3.90	4.13	4.54

WTR YR 1991 MEAN 3.70 HIGH 2.50 APR 22 LOW 4.71 SEP 24

NJ-WRD WELL NO.01-0387



BERGEN COUNTY

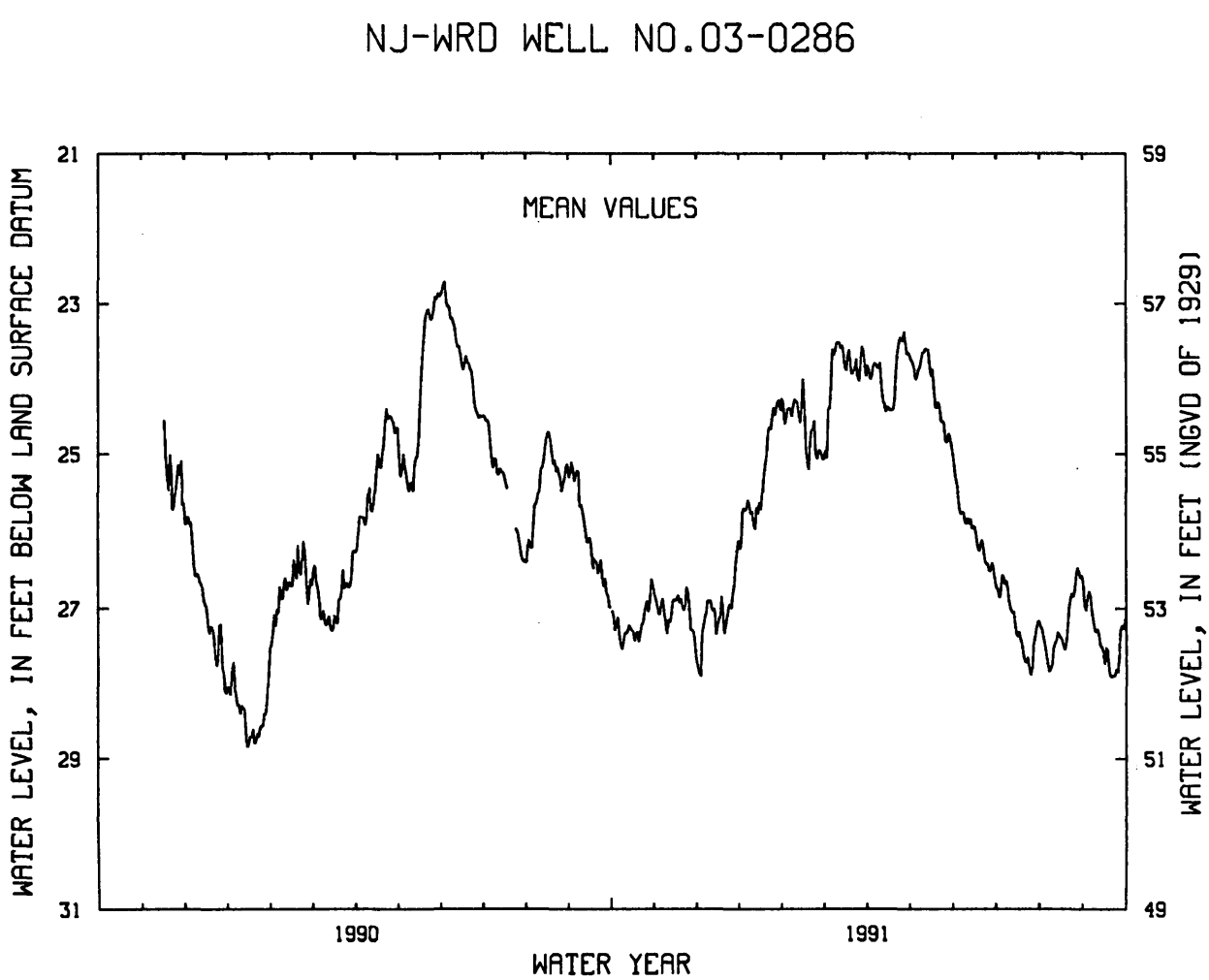
405053074060401. Local I.D., Wallington 2 Obs. NJ-WRD Well Number, 03-0286.
LOCATION.--Lat 40°50'53", long 74°06'04", Hydrologic Unit 02030103, at the baseball field off Lackawanna Ave., Wallington Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 126 ft, open hole 49 to 126 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.00 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Nov. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.61 ft below land-surface datum, June 4, 1990; lowest, 28.87 ft below land-surface datum, Jan. 19, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.11	26.93	27.23	25.67	24.39	24.39	23.83	24.00	25.67	26.52	27.60	26.83
10	27.33	27.15	26.89	25.89	24.31	23.52	23.78	23.64	25.88	26.91	27.54	27.27
15	27.29	26.89	27.23	25.69	24.36	23.66	24.37	23.81	25.91	27.33	27.39	27.73
20	27.44	26.96	27.33	24.72	24.68	23.82	24.29	24.38	26.13	27.62	27.25	27.90
25	26.97	26.99	27.00	24.48	24.96	23.96	23.49	24.59	26.41	27.87	26.76	27.65
EOM	26.81	27.68	26.21	24.34	25.07	23.96	23.64	24.97	26.62	27.16	26.66	27.09
MEAN	27.18	27.05	27.02	25.18	24.63	23.91	23.92	24.15	25.99	27.19	27.20	27.40

WTR YR 1991 MEAN 25.91 HIGH 23.33 APR 27 LOW 28.00 DEC 3



BERGEN COUNTY

405106074055701. Local I.D., Wallington 1 Obs. NJ-WRD Well Number, 03-0287.
LOCATION.--Lat 40°51'06", long 74°05'57", Hydrologic Unit 02030103, near the corner of Lackawanna Ave. and Spring Street, Wallington Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 184 ft, open hole 39 to 184 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--June 1989 to current year. Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.92 ft below land-surface datum, May 28, 1990 ; lowest, 16.61 ft below land-surface datum, Jan. 14, 1990.

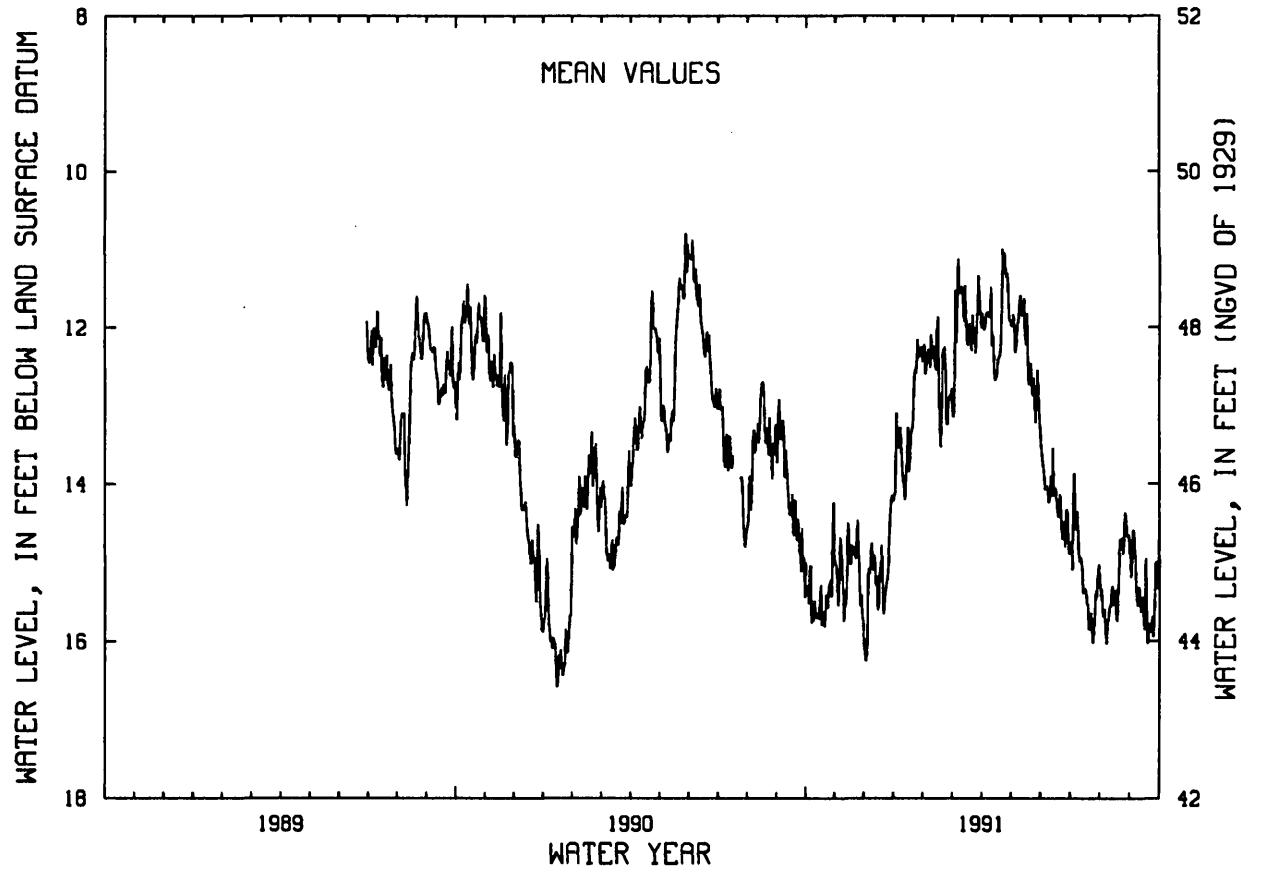
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.05	14.68	15.15	13.54	12.37	12.20	11.83	12.32	14.07	13.87	15.60	14.80
10	15.64	15.53	14.91	14.03	12.24	11.48	11.48	11.59	14.17	15.00	15.57	15.36
15	15.39	15.02	15.53	13.85	12.67	11.84	12.66	12.07	14.07	15.36	15.39	15.86
20	15.82	14.91	15.66	12.81	12.54	12.18	12.25	12.51	14.14	15.86	14.98	15.78
25	15.27	15.29	14.99	12.39	12.91	12.33	11.33	12.91	14.55	15.87	14.77	15.64
EOM	15.04	16.06	14.15	12.22	12.79	12.01	11.91	13.34	14.90	15.22	14.87	14.69
MEAN	15.40	15.14	15.09	13.15	12.60	11.95	11.90	12.32	14.20	15.17	15.24	15.39

WTR YR 1991 MEAN 13.97 HIGH 10.38 APR 22 LOW 16.42 DEC 3

NJ-WRD WELL NO.03-0287



BERGEN COUNTY

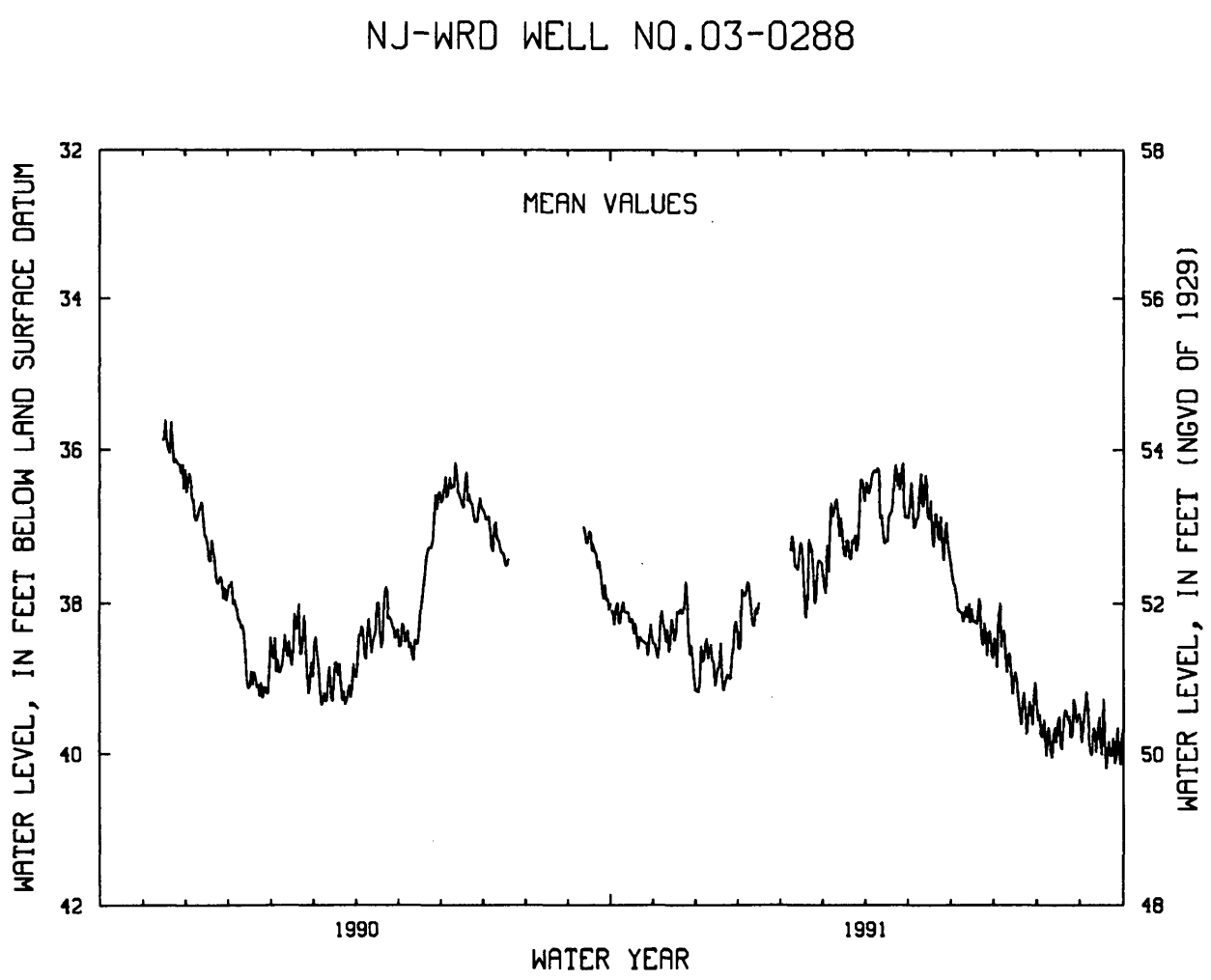
405107074060901. Local I.D., Wallington 3 Obs. NJ-WRD Well Number, 03-0288.
LOCATION.--Lat 40°51'07", long 74°06'09", Hydrologic Unit 02030103, at the Mount Pleasant Ave. Little League Baseball Field, Wallington Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 179 ft, open hole 55 to 179 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.60 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--June 1989 to current year. Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.97 ft below land-surface datum, Sept. 8, 1989; lowest, 40.23 ft below land-surface datum, Sept. 21, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.99	38.19	38.77	37.84	---	37.57	36.32	36.99	38.07	37.99	39.54	39.38
10	38.11	38.33	38.62	38.27	37.50	36.63	36.28	36.31	38.16	38.91	39.96	39.71
15	38.22	38.49	38.96	---	37.60	37.10	37.16	36.82	38.07	38.99	39.56	40.01
20	38.60	38.12	39.16	---	37.22	37.38	36.64	36.81	37.93	39.61	39.41	39.83
25	38.53	38.41	39.00	---	37.50	37.30	36.50	37.17	38.38	39.48	39.76	40.04
EOM	38.53	39.16	38.60	---	37.46	36.62	36.82	37.45	38.72	39.37	39.62	39.66
MEAN	38.30	38.38	38.77	---	37.50	37.06	36.58	36.87	38.19	38.99	39.65	39.79

WTR YR 1991 MEAN 38.20 HIGH 36.00 APR 22 LOW 40.23 SEP 21



BURLINGTON COUNTY

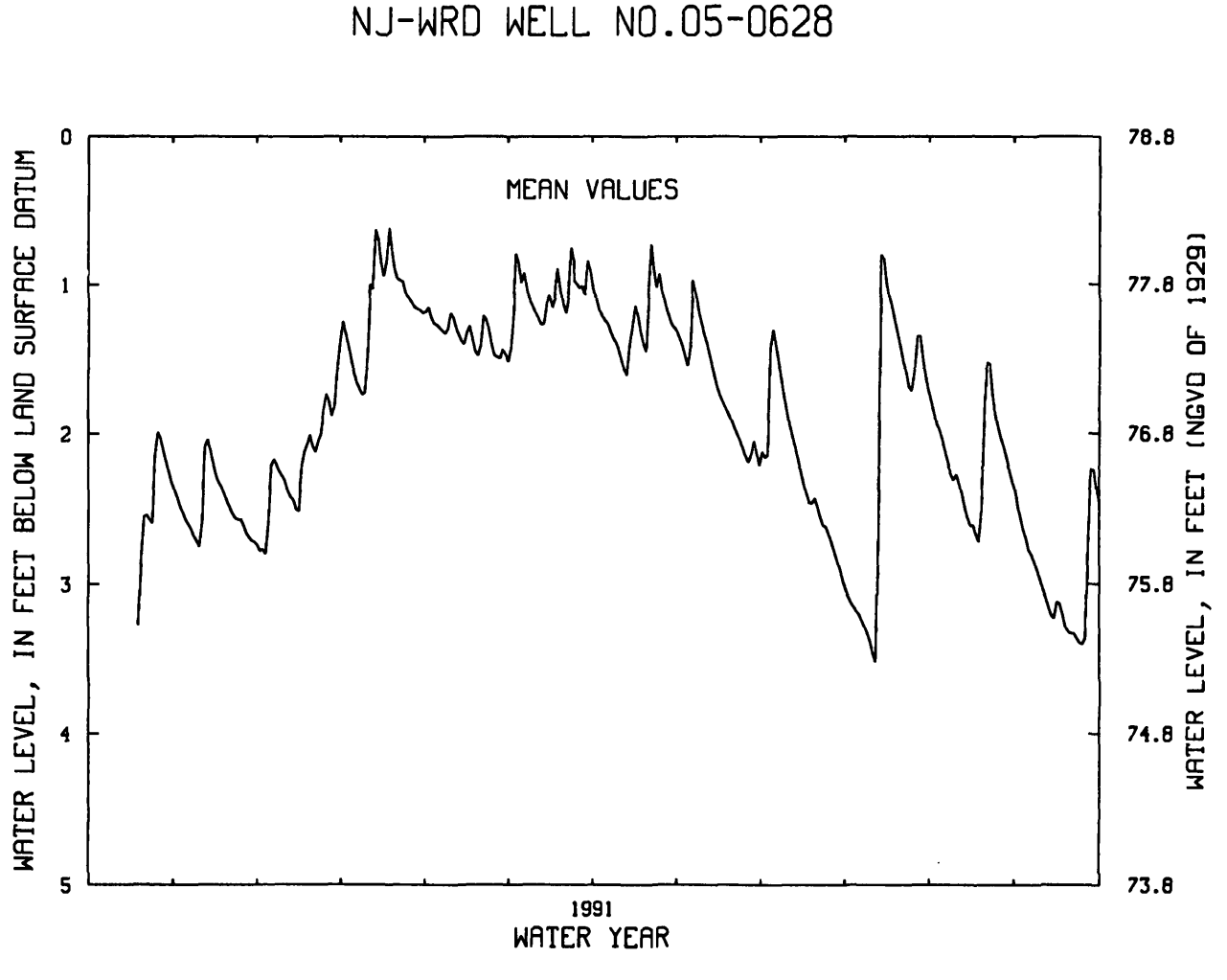
394452074281901. Local I.D., Penn State Forest Shallow Obs. NJ-WRD Well Number, 05-0628.
LOCATION.--Lat 39°44'52", long 74°28'19", Hydrologic Unit 02040301, on the west side of Cabin Rd., about 500 ft south of intersection with Sooy Rd. in Penn State Forest, Washington Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, casing diameter 6 in, depth 12 ft, open-end.
INSTRUMENTATION.--Digital water-level recorder -- 60-minute punch.
DATUM.--Land-surface datum is 78.78 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.70 ft above land-surface datum.
REMARKS.--Well deepened from 10 to 12 ft in July 1963. Measuring point prior to July 1963, top of coupling, 0.11 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1936 to Jan. 1975, Oct. 1977 to Sept. 1984, June 1990 to Oct. 1991 (discontinued). Periodic manual measurements Oct. 1984 to May 1990. Records for 1975 to 1981 and 1985 to 1990 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.11 ft above land-surface datum (flowing), several times, 1959-1962; lowest, 5.92 ft below land-surface datum, Dec. 11, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	2.60	2.21	1.66	1.31	.86	1.24	1.55	1.31	3.18	2.04	2.76
10	---	2.58	2.31	1.00	1.29	1.15	1.44	1.26	1.85	3.38	2.27	3.04
15	---	2.27	2.51	.94	1.28	1.12	1.28	1.64	2.25	.83	2.61	3.12
20	2.55	2.49	2.08	.96	1.21	1.02	1.45	1.88	2.43	1.34	1.94	3.33
25	1.99	2.61	1.74	1.12	1.49	.84	.93	2.10	2.67	1.72	1.96	3.36
EOM	2.37	2.74	1.25	1.15	1.47	.91	1.29	2.21	2.97	1.71	2.37	2.45
MEAN	---	2.50	2.15	1.15	1.34	1.07	1.23	1.69	2.23	2.14	2.18	2.96

WTR YR 1991 MEAN 1.90 HIGH .58 JAN 12 LOW 3.56 JUL 13



BURLINGTON COUNTY

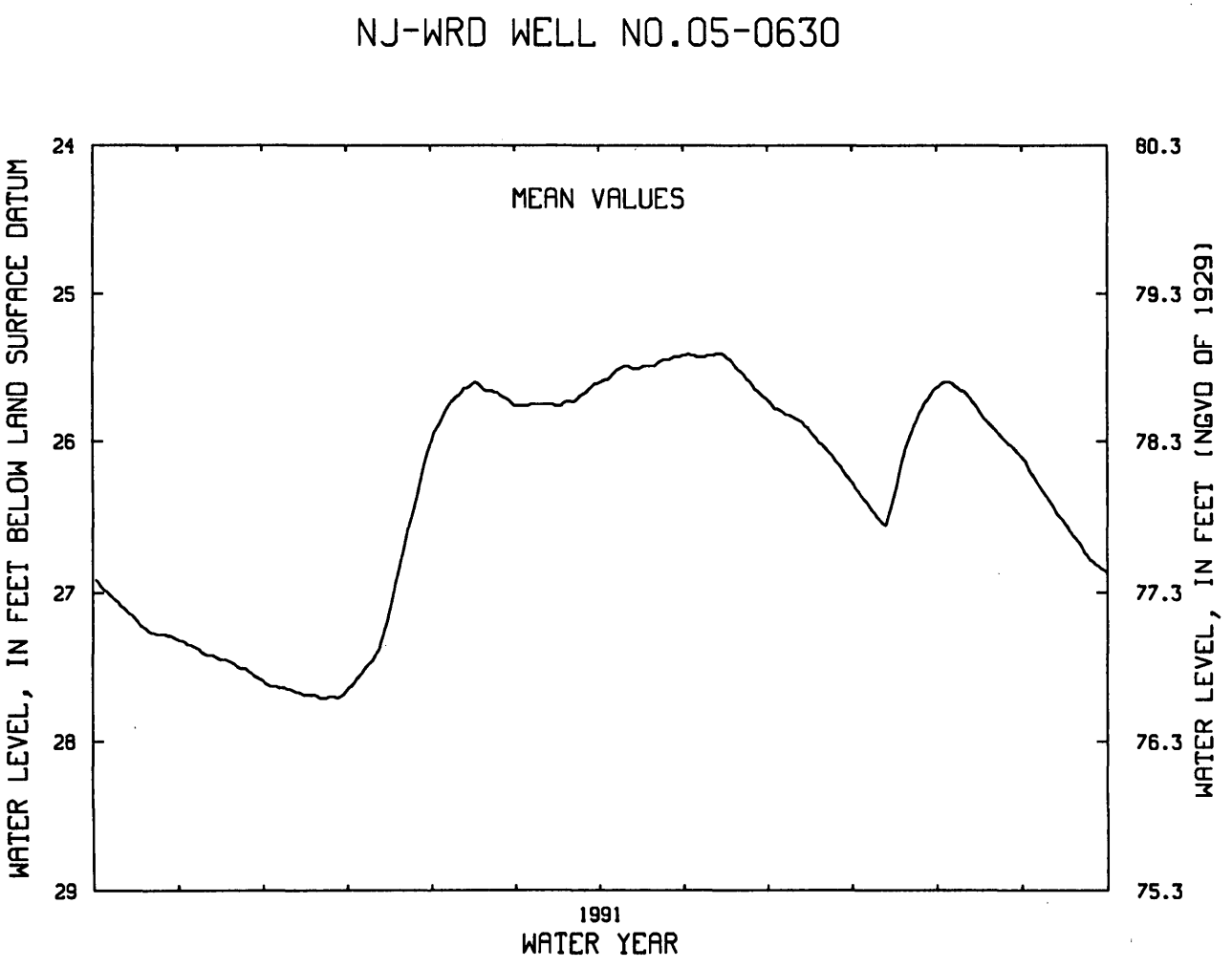
394513074280601. Local I.D., Penn State Forest Deep Obs. NJ-WRD Well Number, 05-0630.
LOCATION.--Lat 39°45'13", long 74°28'06", Hydrologic Unit 02040301, Along Sooy Rd., about 800 south of the intersection of Sooy Rd. and Chatsworth Rd. in Penn State Forest, Washington Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, casing diameter 6 in, depth 41 ft, open-end.
INSTRUMENTATION.--Digital water-level recorder -- 60-minute punch.
DATUM.--Land-surface datum is 104.30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of recorder shelf, 2.36 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1951 to Oct. 1991 (discontinued). Periodic manual measurements Jan. 1951 to Aug. 1963, July 1970 to Nov. 1977, and Mar. 1982 to June 1990. Data from 1951 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.73 ft below land-surface datum, May 11, 1970; lowest measured, 29.60 ft below land-surface datum, Jan. 31, Feb. 1, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.99	27.36	27.63	27.54	25.77	25.76	25.56	25.42	25.79	26.37	25.60	26.25
10	27.09	27.42	27.65	27.41	25.67	25.75	25.49	25.42	25.84	26.50	25.66	26.40
15	27.17	27.45	27.69	27.11	25.60	25.75	25.51	25.41	25.91	26.42	25.78	26.54
20	27.26	27.48	27.70	26.71	25.66	25.73	25.49	25.50	26.02	26.05	25.90	26.66
25	27.28	27.53	27.70	26.33	25.70	25.69	25.45	25.59	26.13	25.81	26.00	26.79
EOM	27.32	27.59	27.64	25.94	25.74	25.61	25.43	25.71	26.24	25.64	26.11	26.87
MEAN	27.16	27.45	27.67	26.93	25.70	25.73	25.50	25.50	25.95	26.16	25.82	26.54

WTR YR 1991 MEAN 26.35 HIGH 25.41 MAY 3-4,12-15 LOW 27.71 DEC 20-24,27-28



BURLINGTON COUNTY

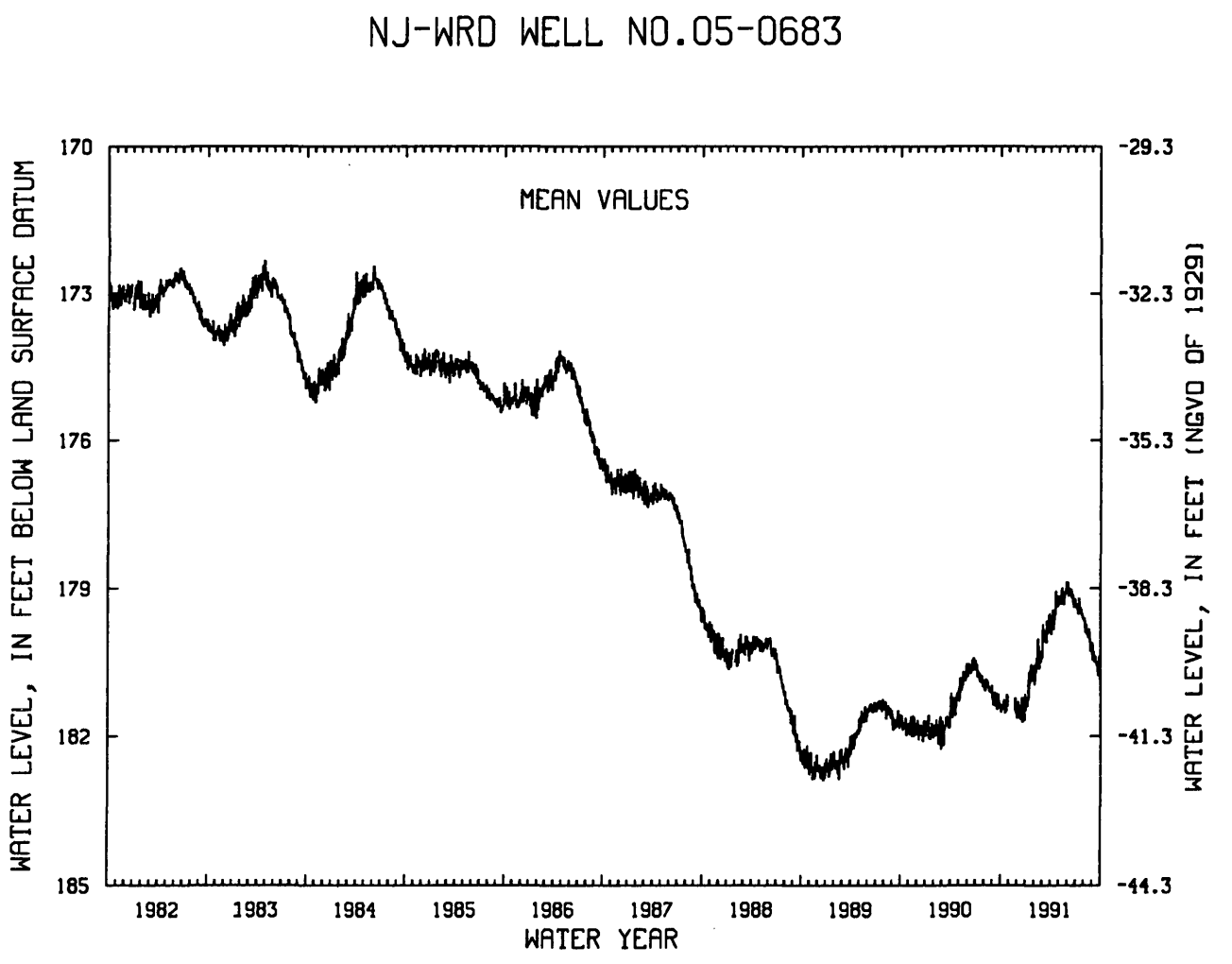
395122074301701. Local I.D., Butler Place 1 Obs. NJ-WRD Well Number, 05-0683.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 2,117 ft, screened 2,102 to 2,117 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 140.66 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 2.80 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1964 to Aug. 1975, Mar. 1977 to current year. Records for 1964 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 143.20 ft below land-surface datum, Feb. 25, 1965; lowest, 182.96 ft below land-surface datum, Dec. 22,23, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	181.38	---	181.41	181.38	180.69	179.99	179.73	179.30	179.04	179.38	179.73	180.29
10	181.44	---	181.40	181.26	180.41	180.02	179.44	179.27	179.10	179.44	179.74	180.44
15	181.33	---	181.52	180.96	180.11	179.99	179.52	179.09	179.08	179.39	179.92	180.55
20	181.49	---	181.72	180.57	180.38	179.84	179.44	179.31	179.16	179.47	179.88	180.63
25	181.21	181.31	181.51	180.89	180.32	179.80	179.31	179.06	179.35	179.54	180.27	180.44
EOM	---	181.63	181.29	180.63	180.42	179.84	179.24	178.87	179.21	179.61	180.10	180.86
MEAN	181.38	---	181.46	180.95	180.49	179.89	179.50	179.15	179.13	179.44	179.93	180.53

WTR YR 1991 MEAN 180.19 HIGH 178.84 JUN 4 LOW 181.77 DEC 14

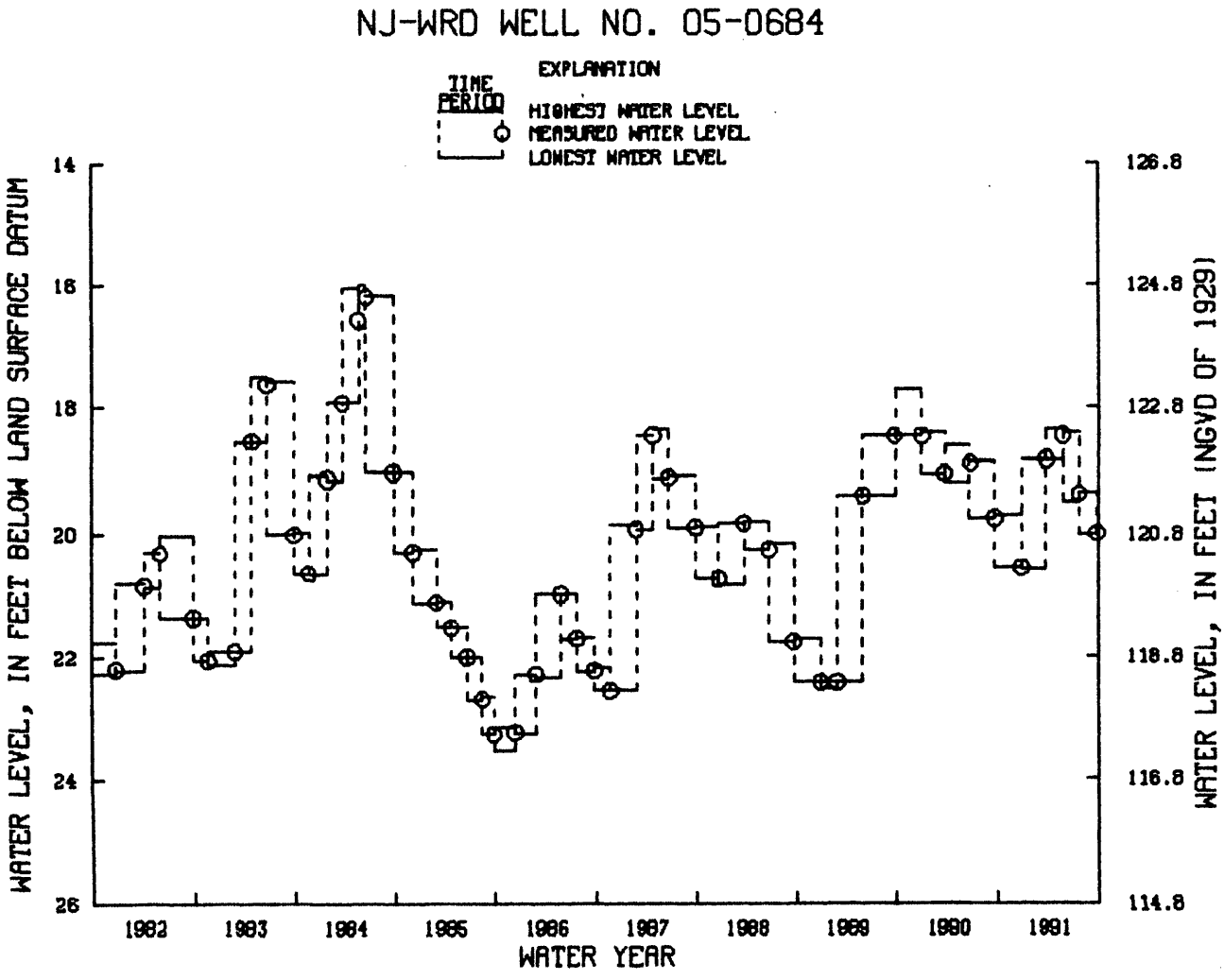


BURLINGTON COUNTY

395122074301702. Local I.D., Butler Place 2 Obs. NJ-WRD Well Number, 05-0684.
LOCATION.--Lat 39°51'22", long 74°30'17", Hydrologic Unit 02040301, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in, depth 170 ft, screened 160 to 170 ft.
INSTRUMENTATION.--Water-level extremes recorder, Mar. 1977 to current year. Water-level recorder, May 1965 to Apr. 1975.
DATUM.--Land-surface datum is 140.82 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.67 ft above land-surface datum.
PERIOD OF RECORD.--May 1965 to Apr. 1975, Mar. 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.14 ft below land-surface datum, Feb. 15, 1973; lowest, 23.53 ft below land-surface datum, between Sept. 26, and Dec. 11, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 20, 1990 TO DEC. 27, 1990	19.71	20.56	DEC. 27, 1990	20.56
DEC. 27, 1990 TO MAR. 26, 1991	18.80	20.57	MAR. 26, 1991	18.80
MAR. 26, 1991 TO MAY 23, 1991	18.34	18.80	MAY 23, 1991	18.45
MAY 23, 1991 TO JULY 22, 1991	18.40	19.50	JULY 22, 1991	19.37
JULY 22, 1991 TO SEPT. 25, 1991	19.35	20.01	SEPT. 25, 1991	19.99



BURLINGTON COUNTY

395150074284201. Local I.D., Lebanon State Forest 23-D Obs. NJ-WRD Well Number, 05-0689.
LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in, depth 33 ft, open-end cement casing.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 152.02 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 8 inch casing, 0.70 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1955 to Apr. 1975, Jan. 1979 to current year. Records for 1955 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.37 ft below land-surface datum, Sept. 11, 1958; lowest, 25.97 ft below land-surface datum, Dec. 8-10, 1985.

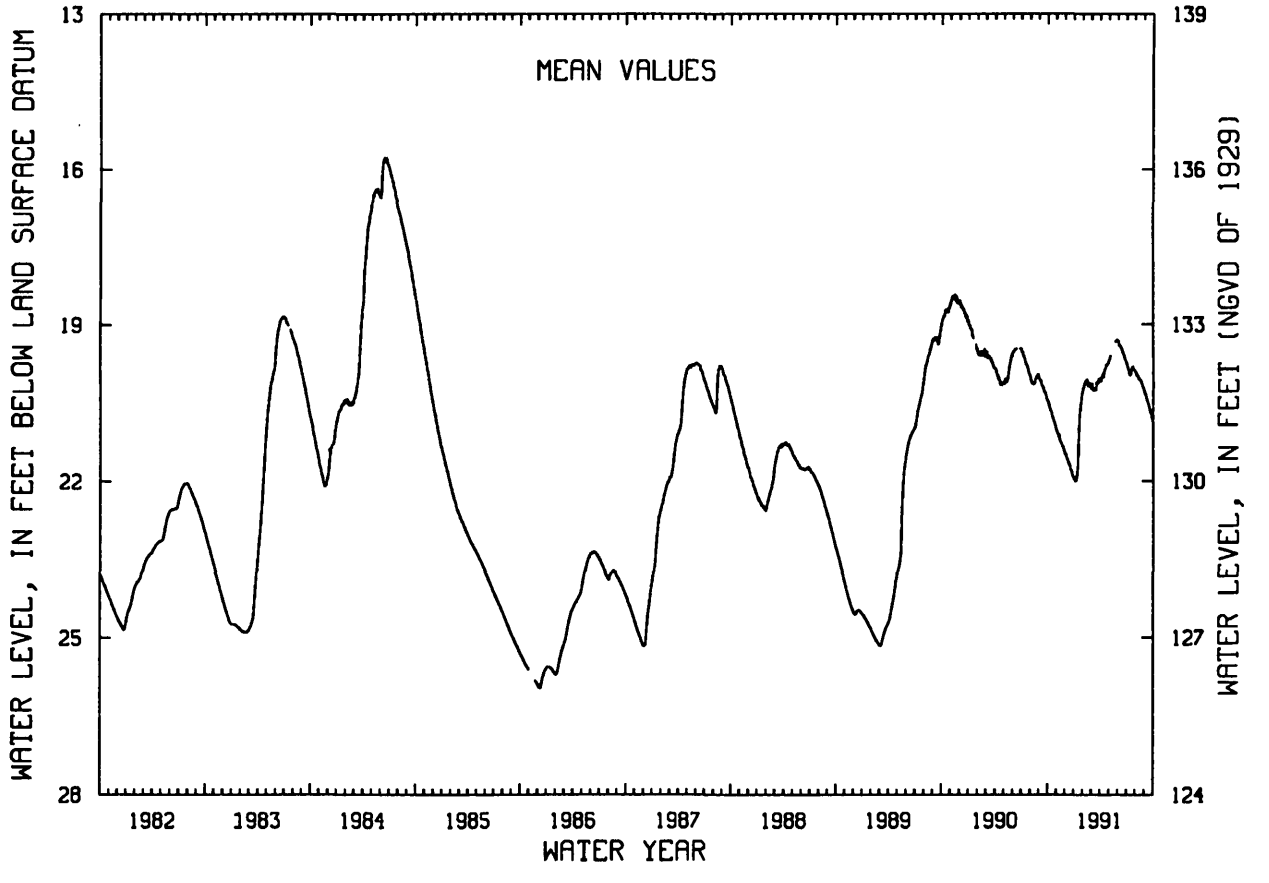
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.54	21.09	21.53	22.01	20.16	20.22	20.04	19.64	19.37	19.83	19.97	20.35
10	20.64	21.11	21.60	21.92	20.09	20.27	19.97	---	19.41	19.93	20.00	20.45
15	20.72	21.26	21.68	21.57	20.08	20.25	19.91	---	19.47	19.97	20.05	20.55
20	20.83	21.32	21.80	20.76	20.14	20.15	19.83	---	19.56	19.85	20.10	20.65
25	20.89	21.37	21.87	20.51	20.16	20.11	19.79	19.32	19.66	19.85	20.20	20.72
EOM	21.02	21.47	21.95	20.27	20.23	20.11	19.73	19.29	19.72	19.90	20.26	20.86
MEAN	20.74	21.25	21.71	21.25	20.15	20.17	19.91	---	19.50	19.87	20.08	20.56

WTR YR 1991 MEAN 20.44 HIGH 19.28 MAY 30-31 LOW 22.02 JAN 4-5,7

NJ-WRD WELL NO.05-0689



BURLINGTON COUNTY

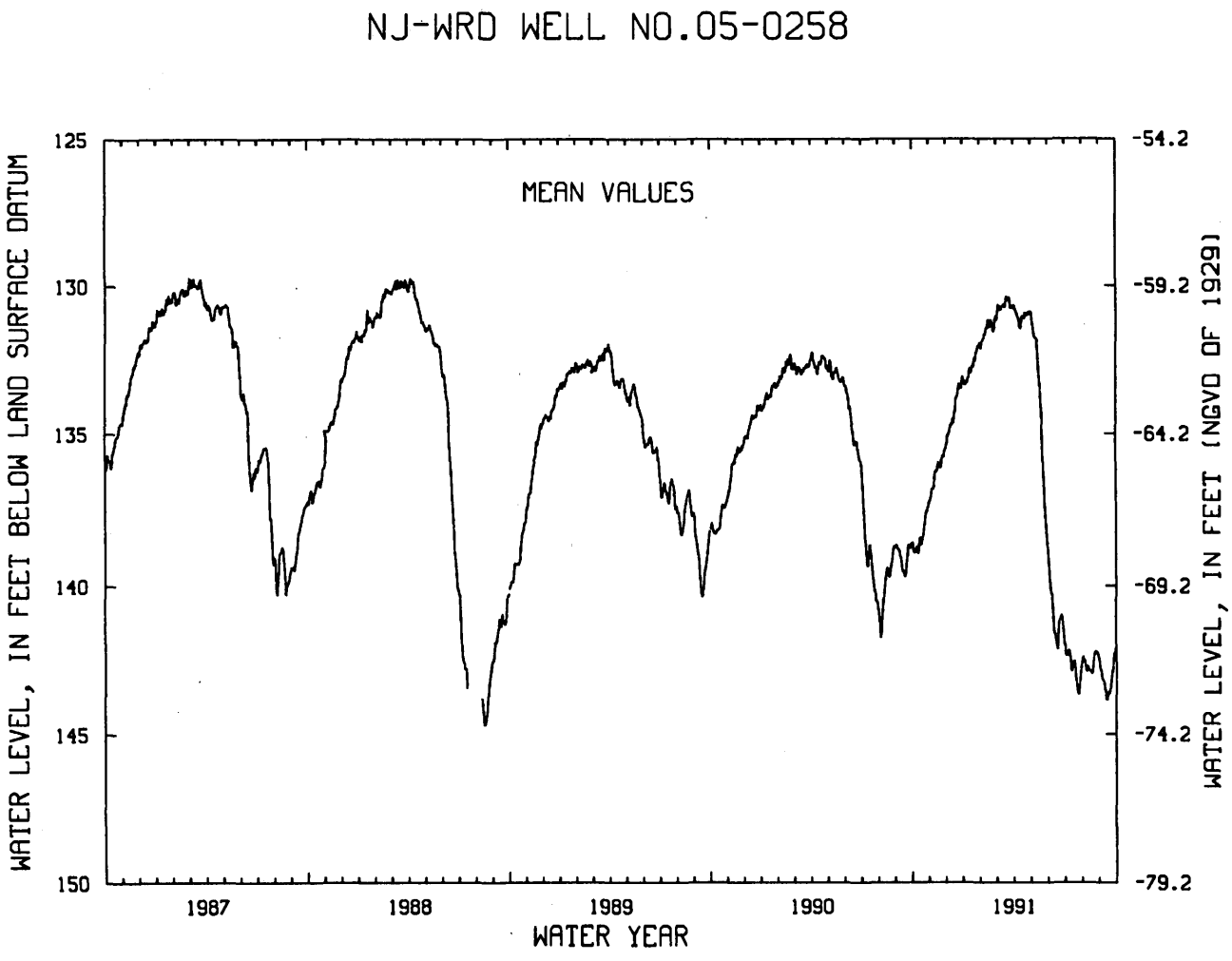
395524074502501. Local I.D., Medford 1 Obs. NJ-WRD Well Number, 05-0258.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 410 ft, screened 400 to 410 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984.
DATUM.--Land-surface datum is 70.77 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 2.70 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1963 to Aug. 1975, Feb. 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 85.22 ft below land-surface datum, Feb. 16-19, 1964; lowest, 144.81 ft below land-surface datum, Aug. 17,18, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	138.87	136.75	135.06	133.30	131.80	130.82	130.87	131.39	139.98	142.26	142.49	143.09
10	138.75	136.26	134.65	133.10	131.46	130.71	131.11	131.75	140.69	142.33	142.69	143.49
15	138.38	136.12	134.46	132.94	131.24	130.70	131.12	132.61	141.68	142.58	142.82	143.72
20	138.37	136.09	133.77	132.49	131.15	130.43	131.10	134.08	141.50	143.06	142.67	143.33
25	137.60	135.74	133.44	132.24	131.41	130.54	130.97	136.57	140.96	143.63	142.24	142.52
EOM	137.20	135.53	133.07	131.95	131.14	130.76	130.90	138.60	141.73	142.52	142.50	142.05
MEAN	138.28	136.23	134.21	132.71	131.47	130.67	131.00	133.77	140.92	142.70	142.55	143.06

WTR YR 1991 MEAN 136.49 HIGH 130.32 MAR 24 LOW 143.90 SEP 14



BURLINGTON COUNTY

395525074502505. Local I.D., Medford 5 Obs. NJ-WRD Well Number, 05-0261.
LOCATION.--Lat 39°55'25", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 750 ft, screened 740 to 750 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 72.60 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.60 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1968 to Mar. 1975, Mar. 1977 to current year. Records for 1968 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.46 ft below land-surface datum, Mar. 1, 1968; lowest, 136.57 ft below land-surface datum, Aug. 23, 1988.

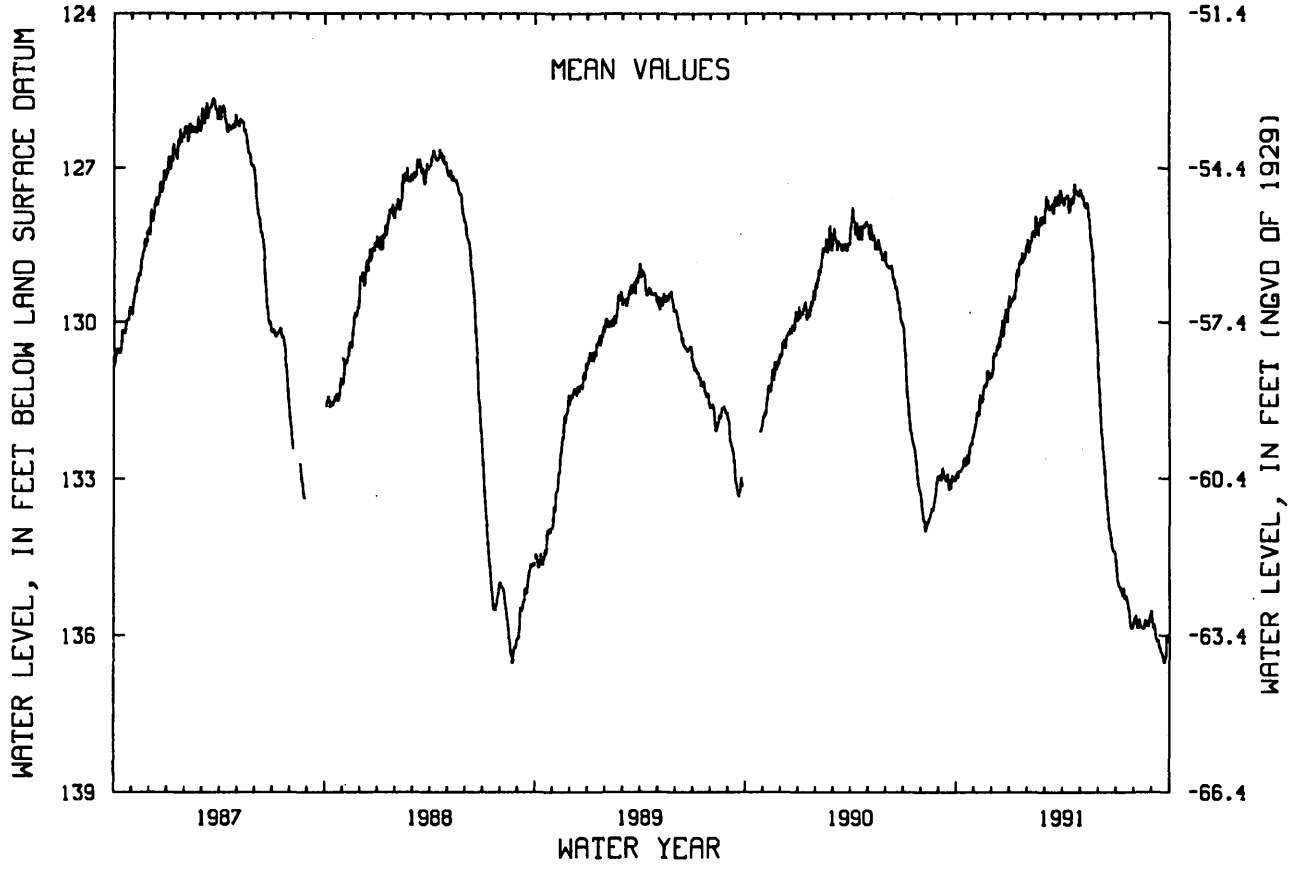
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.85	131.76	130.65	129.57	128.42	127.74	127.62	127.61	131.74	134.99	135.71	135.84
10	132.80	131.40	130.43	129.41	128.23	127.78	127.53	127.75	132.58	135.13	135.68	136.09
15	132.62	131.49	130.28	129.09	128.00	127.79	127.64	127.83	133.38	135.23	135.83	136.31
20	132.70	131.23	130.27	128.66	128.05	127.68	127.61	128.52	133.95	135.32	135.71	136.45
25	132.35	130.96	129.93	128.78	127.96	127.64	127.48	129.29	134.31	135.72	135.80	136.11
EOM	132.10	131.06	129.57	128.42	128.07	127.67	127.46	130.57	134.43	135.73	135.52	136.10
MEAN	132.62	131.41	130.25	129.03	128.22	127.70	127.58	128.41	133.15	135.29	135.73	136.15

WTR YR 1991 MEAN 131.31 HIGH 127.23 APR 22 LOW 136.56 SEP 22

NJ-WRD WELL NO.05-0261



BURLINGTON COUNTY

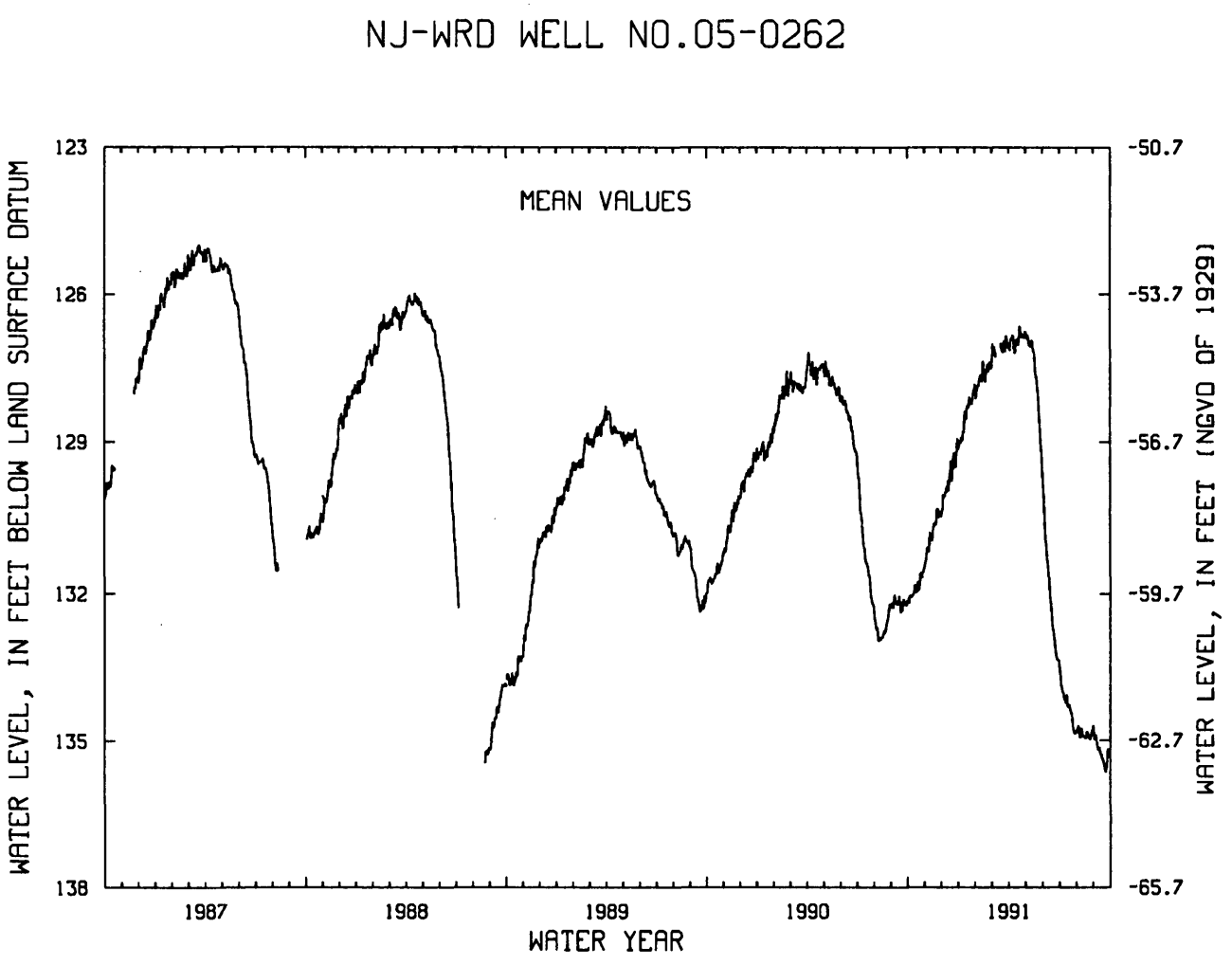
395525074502601. Local I.D., Medford 4 Obs. NJ-WRD Well Number, 05-0262.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,145 ft, screened 1,125 to 1,145 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984.
DATUM.--Land-surface datum is 72.32 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1968 to July 1975, Feb. 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.24 ft below land-surface datum, Mar. 13, 1968; lowest, 135.69 ft below land-surface datum, Sept. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	132.04	131.10	130.06	129.00	127.86	127.21	127.00	126.93	130.49	133.91	134.80	134.93
10	132.01	130.76	129.85	128.82	127.65	---	126.86	127.05	131.34	134.14	134.74	135.17
15	131.84	130.86	129.74	128.53	127.43	---	126.98	127.08	132.12	134.24	134.91	135.36
20	131.92	130.61	129.73	128.10	127.53	127.15	126.97	127.66	132.74	134.34	134.82	135.54
25	131.60	130.32	129.42	128.23	127.42	127.10	126.87	128.21	133.25	134.66	134.98	135.27
EOM	131.46	130.46	129.03	127.88	127.52	127.10	126.83	129.35	133.36	134.82	134.69	135.34
MEAN	131.85	130.77	129.69	128.46	127.66	127.12	126.94	127.56	131.96	134.27	134.85	135.27

WTR YR 1991 MEAN 130.63 HIGH 126.58 APR 22 LOW 135.69 SEP 22



BURLINGTON COUNTY

400010074521601. Local I.D., Willingboro 2 Obs. NJ-WRD Well Number, 05-0645.
LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, near intersection of Bridge Street and Tiffany Lane, Willingboro Township.
Owner: Willingboro Municipal Utilities Authority.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 441 ft, screened 431 to 441 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 40.30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.00 ft below land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Mar. 1966 to Sept. 1975, Mar. 1977 to current year. Records for 1966 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.79 ft below land-surface datum, June 21, 1967; lowest, 86.22 ft below land-surface datum, July 18, 1988.

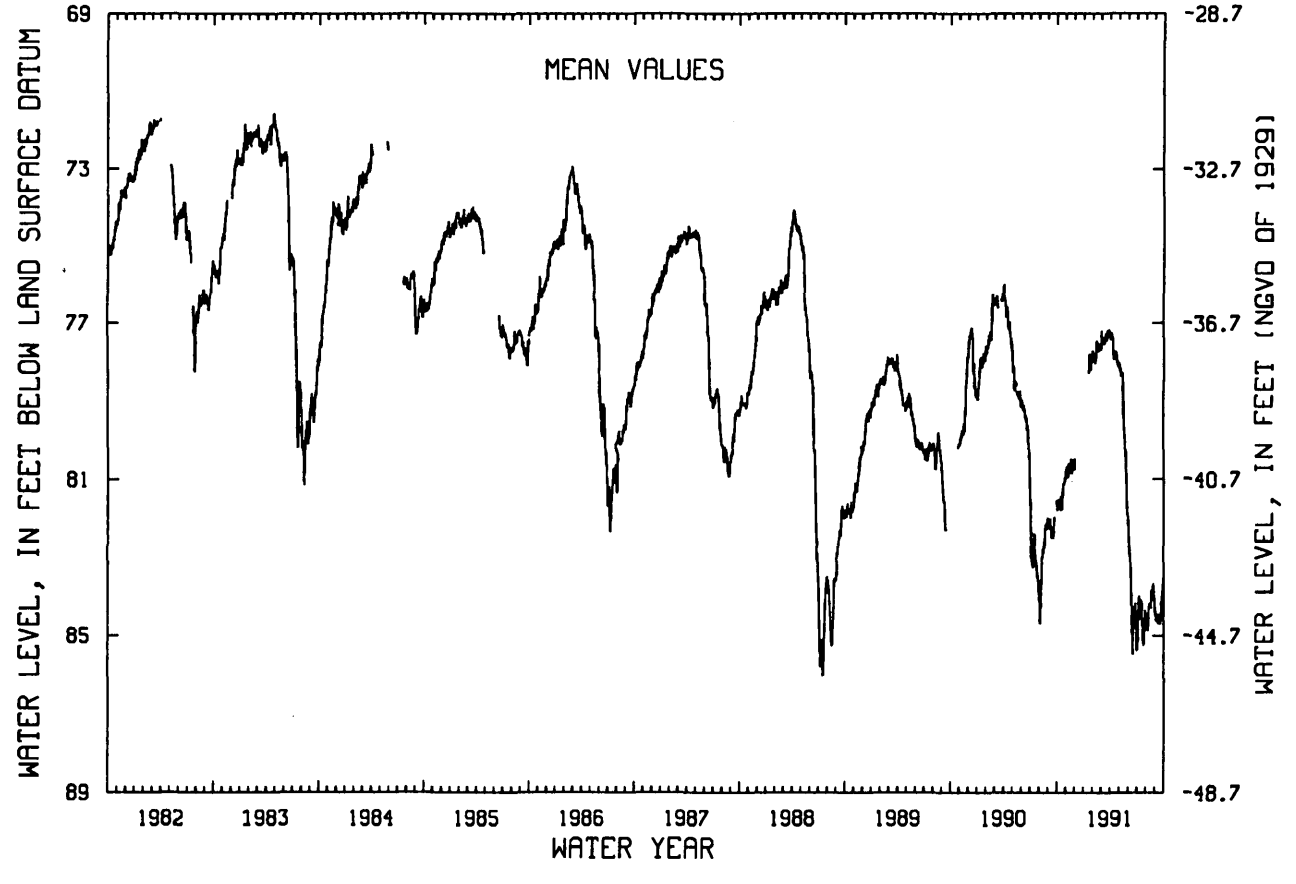
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	81.71	80.68	---	---	77.88	77.42	77.31	78.23	82.68	85.06	84.45	84.62
10	81.74	80.64	---	---	77.79	77.44	77.37	78.31	83.16	84.10	84.41	84.43
15	81.47	80.78	---	---	77.45	77.38	77.89	78.62	84.70	84.28	84.17	84.58
20	81.71	80.71	---	77.85	77.61	77.41	77.93	79.75	84.55	84.57	83.93	84.63
25	81.13	80.52	---	78.22	77.62	77.33	78.00	80.58	84.19	85.20	83.73	83.98
EOM	80.96	80.76	---	77.71	77.68	77.30	78.08	81.91	85.14	84.38	84.25	83.54
MEAN	81.46	80.72	---	---	77.74	77.37	77.71	79.38	83.85	84.64	84.19	84.36

WTR YR 1991 MEAN 81.03 HIGH 76.96 MAR 30 LOW 85.59 JUN 17

NJ-WRD WELL NO.05-0645

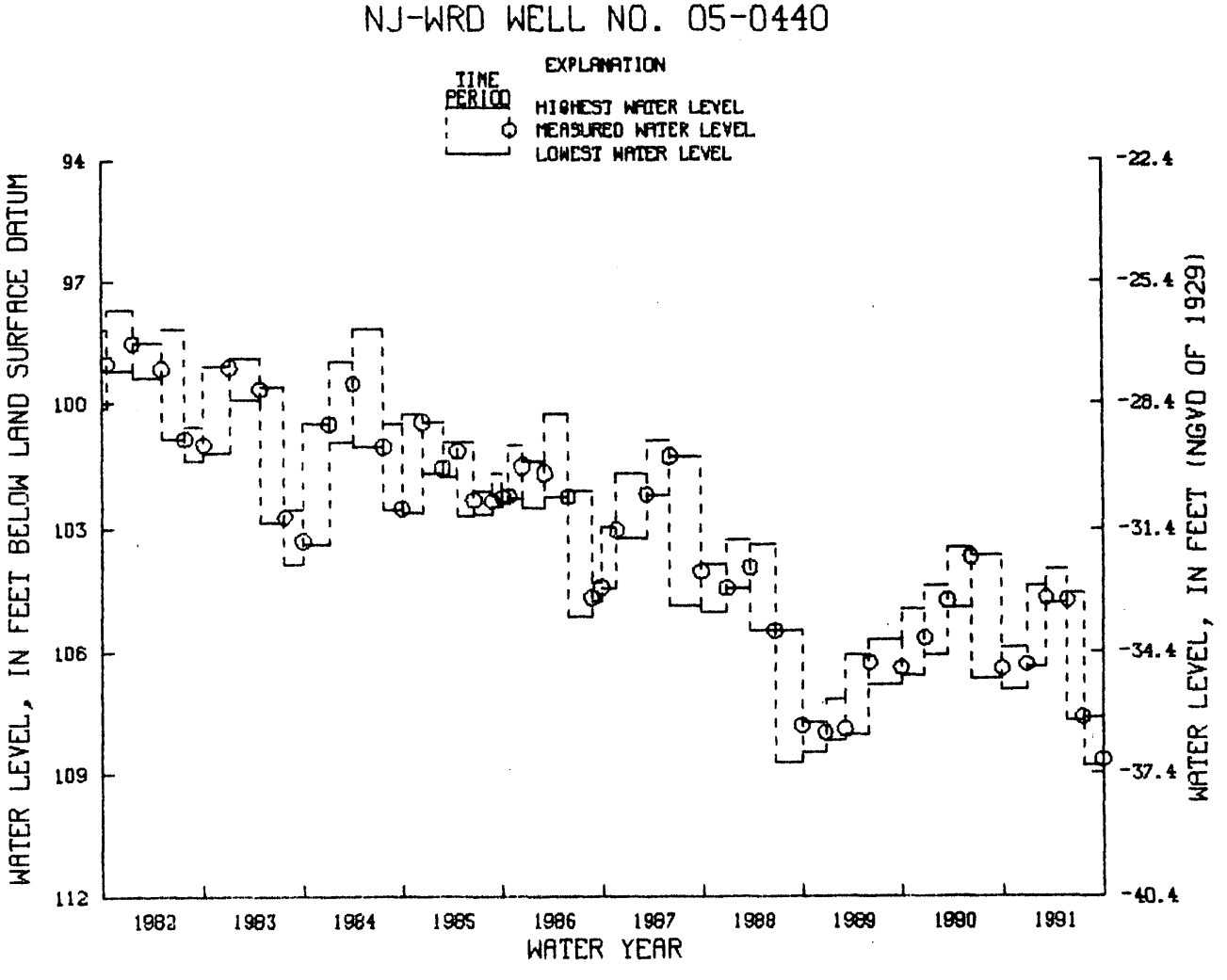


BURLINGTON COUNTY

400242074422301. Local I.D., Rhodia 1 Obs. NJ-WRD Well Number, 05-0440.
LOCATION.--Lat 40°02'42", long 74°42'23", Hydrologic Unit 02040201, at 1 Devi Dr. in Saddle Ridge Estates, near Jobstown, Springfield Township.
Owner: Toll Brothers Corp.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 615 ft, screened 603 to 613 ft.
INSTRUMENTATION.--Water-level extremes recorder, Apr. 1977 to current year. Water-level recorder, Dec. 1968 to Mar. 1975.
DATUM.--Land-surface datum is 71.65 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.22 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1968 to Mar. 1975, Apr. 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 86.55 ft below land-surface datum, Dec. 31, 1969; lowest, 108.81 ft below land-surface datum, between July 18 and Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	105.89	106.95	DEC. 26, 1990	106.32
DEC. 26, 1990 TO MAR. 6, 1991	104.39	106.36	MAR. 6, 1991	104.68
MAR. 6, 1991 TO MAY 22, 1991	103.96	104.82	MAY 22, 1991	104.74
MAY 22, 1991 TO JULY 18, 1991	104.59	107.67	JULY 18, 1991	107.61
JULY 18, 1991 TO SEPT. 30, 1991	107.61	108.81	SEPT. 30, 1991	108.67



CAMDEN COUNTY

394215074561701. Local I.D., New Brooklyn Park 1 Obs. NJ-WRD Well Number, 07-0476.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Rt. 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 1,505 ft, screened 1,485 to 1,495 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984.
DATUM.--Land-surface datum is 111.13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 1.75 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1963 to Aug. 1975, Feb. 1977 to current year. Records for 1963 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft below land-surface datum, Mar. 6, 1963; lowest, 169.86 ft below land-surface datum, Sept. 30, 1991.

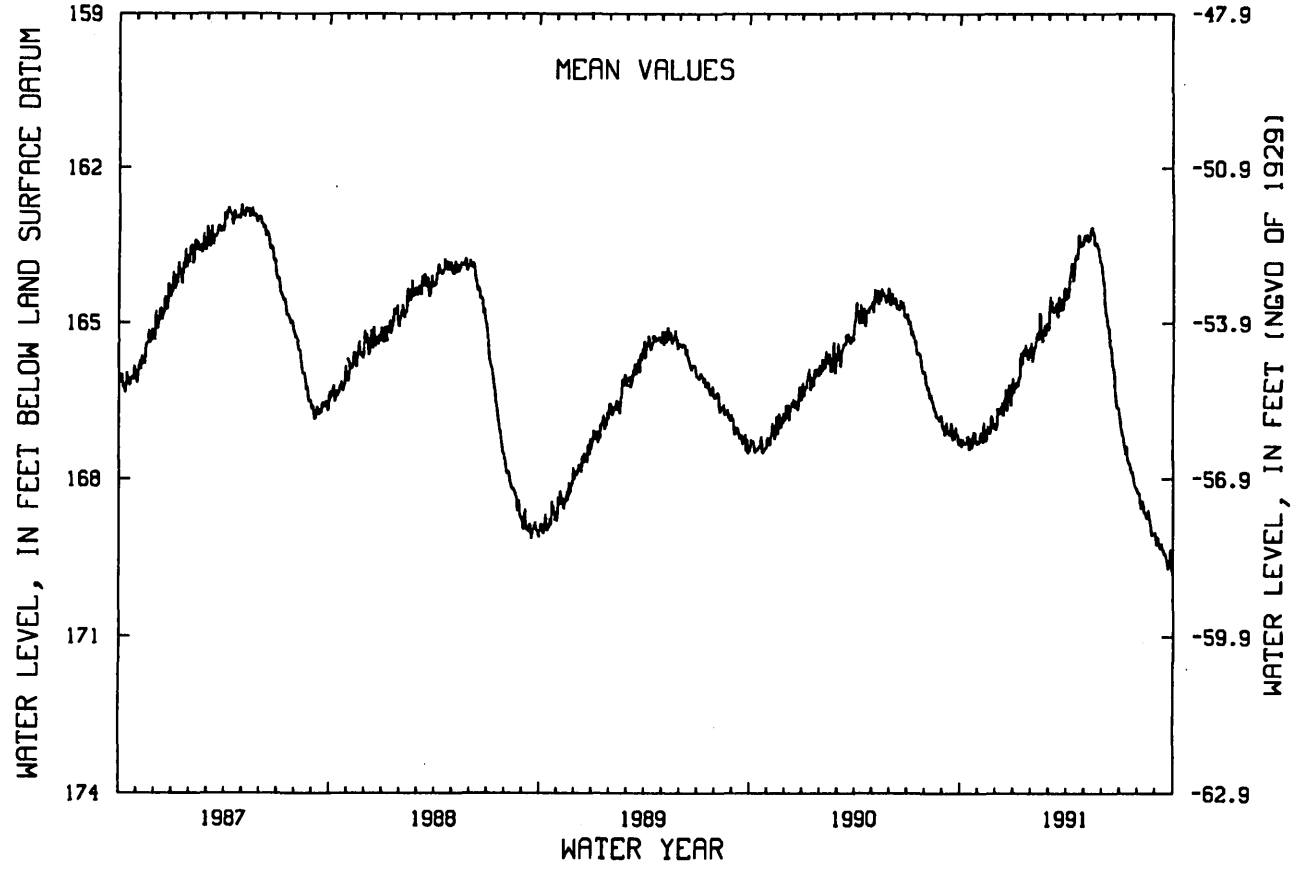
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	167.23	167.10	166.73	166.22	165.47	164.72	164.27	163.40	164.54	167.06	168.39	169.11
10	167.30	166.90	166.60	166.07	165.19	164.74	163.83	163.37	165.05	167.36	168.42	169.29
15	167.23	167.23	166.61	165.79	164.88	164.73	163.80	163.22	165.45	167.59	168.66	169.43
20	167.39	167.08	166.69	165.43	165.12	164.67	163.64	163.48	165.89	167.81	168.65	169.56
25	167.12	166.83	166.44	165.70	165.05	164.66	163.48	163.53	166.46	168.01	169.07	169.41
EOM	167.31	167.05	166.16	165.45	165.13	164.53	163.38	163.87	166.65	168.22	169.01	169.82
MEAN	167.27	167.08	166.56	165.78	165.25	164.67	163.83	163.43	165.48	167.58	168.68	169.42

WTR YR 1991 MEAN 166.26 HIGH 163.12 MAY 13-14 LOW 169.86 SEP 30

NJ-WRD WELL NO.07-0476



CAMDEN COUNTY

394215074561702. Local I.D., New Brooklyn Park 2 Obs. NJ-WRD Well Number, 07-0477.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Rt. 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 849 ft, screened 829 to 839 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.30 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1963 to Aug. 1975, Mar. 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.54 ft below land-surface datum, Mar. 6, 1963; lowest, 196.26 ft below land-surface datum, Sept. 21-22, 1991.

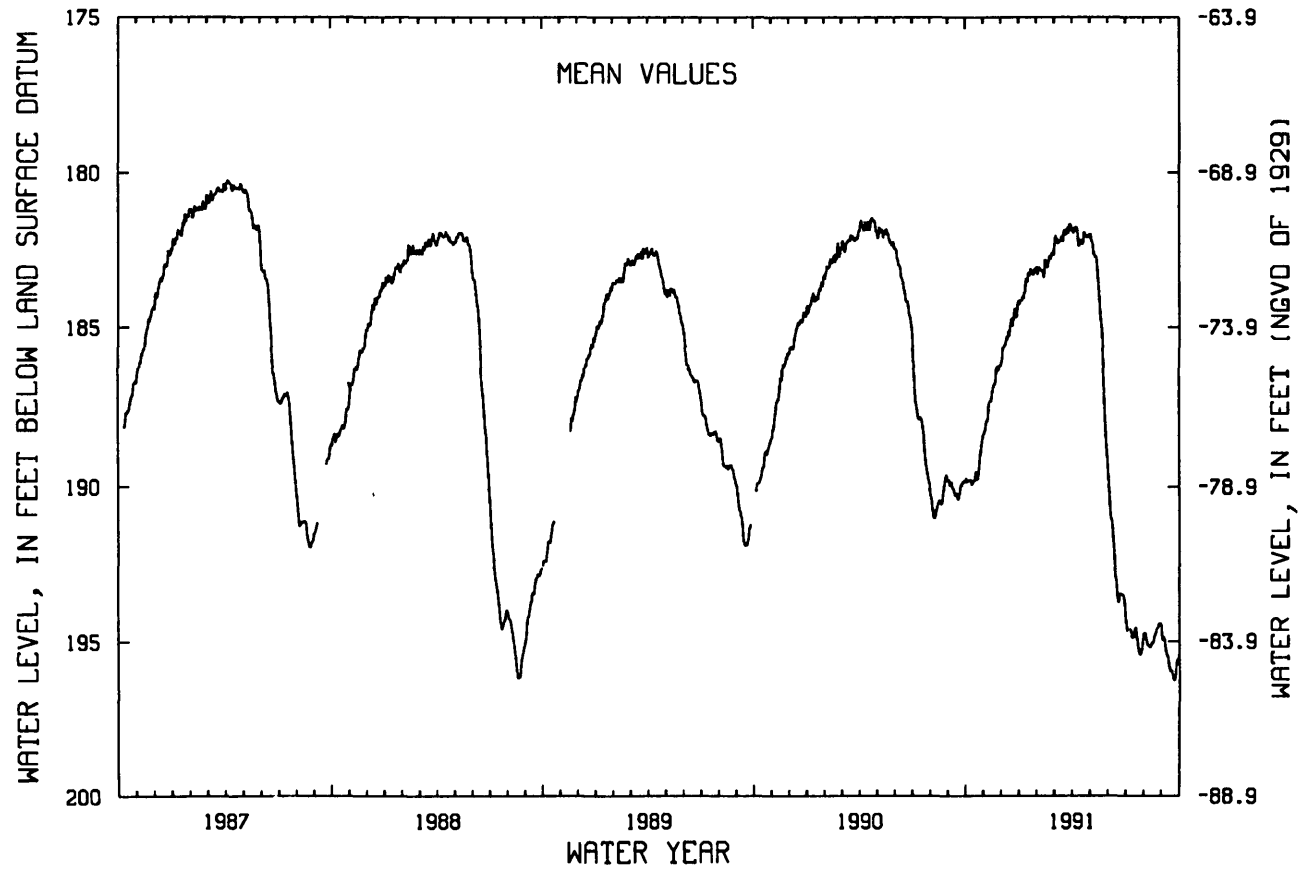
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	189.80	188.03	185.66	184.12	183.06	182.22	181.85	182.25	190.76	---	194.91	194.92
10	189.78	187.33	185.30	183.89	183.18	182.24	181.85	182.67	191.60	194.63	195.12	195.48
15	189.77	187.18	185.11	183.51	182.82	182.14	182.20	183.30	192.95	194.86	195.04	195.98
20	189.73	186.74	184.97	183.11	182.81	181.97	182.26	184.75	193.65	194.78	194.81	196.20
25	189.23	186.26	184.59	183.30	182.64	181.89	182.08	186.41	193.50	195.40	194.56	195.78
EOM	188.37	186.24	184.15	183.07	182.66	181.88	182.04	189.01	193.83	194.91	194.52	195.42
MEAN	189.52	187.14	185.06	183.53	182.98	182.06	182.05	184.37	192.38	194.86	194.82	195.61

WTR YR 1991 MEAN 187.83 HIGH 181.59 MAR 29-30 LOW 196.26 SEP 21-22

NJ-WRD WELL NO.07-0477



CAMDEN COUNTY

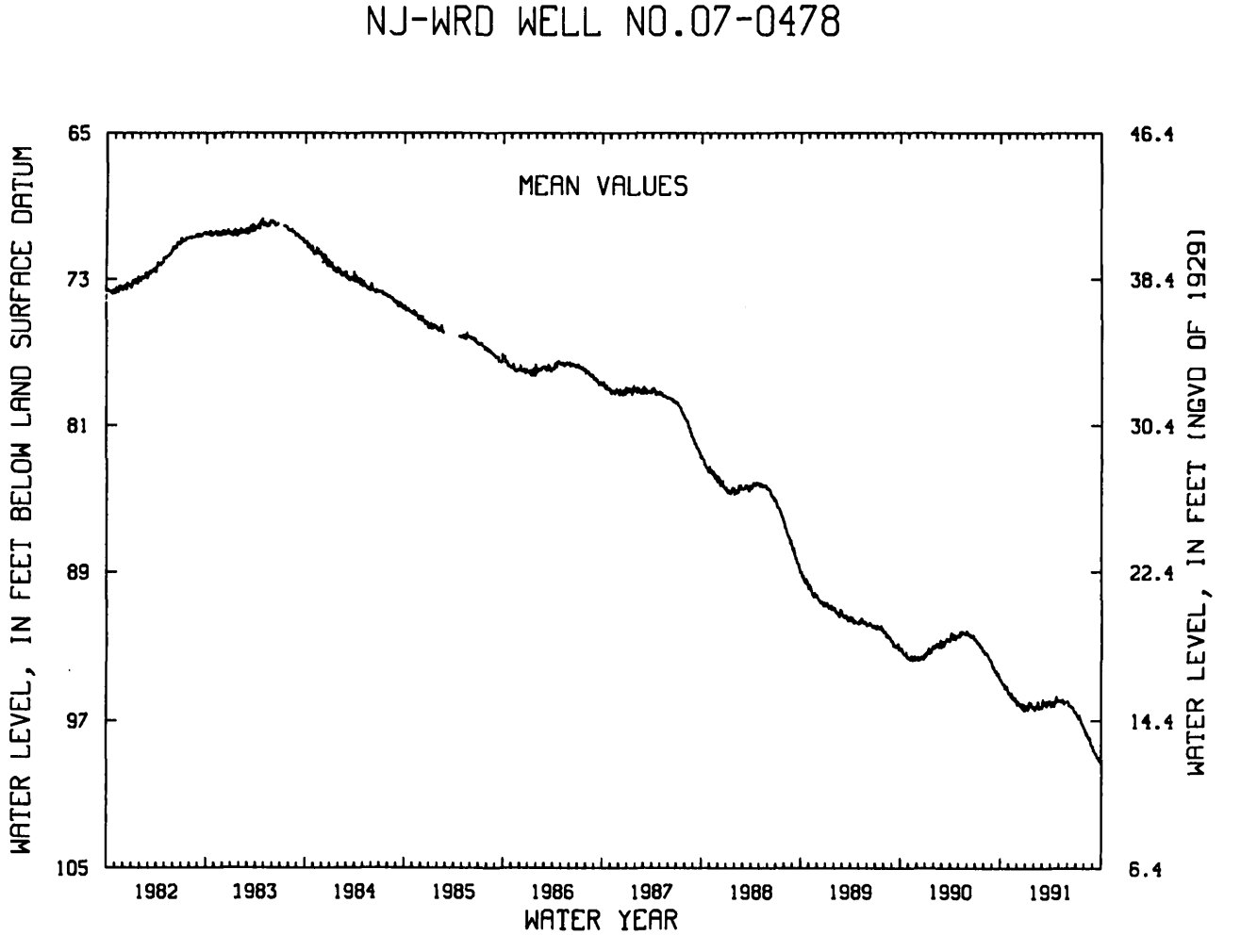
394215074561703. Local I.D., New Brooklyn Park 3 Obs. NJ-WRD Well Number, 07-0478.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Rt. 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 530 ft, screened 520 to 530 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.45 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1962 to Aug. 1975, Mar. 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.53 ft below land-surface datum, Dec. 18, 1962; lowest, 99.39 ft below land-surface datum, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	94.87	95.52	95.96	96.43	96.34	95.96	96.18	95.99	96.08	96.70	97.56	98.58
10	95.04	95.51	96.07	96.33	96.18	96.14	95.97	96.00	96.22	96.82	97.65	98.80
15	95.08	95.86	96.26	96.19	95.97	96.11	96.08	95.88	96.26	96.76	97.90	98.94
20	95.26	95.85	96.36	96.07	96.25	96.04	96.03	96.12	96.29	97.04	97.87	99.06
25	95.20	95.82	96.27	96.30	96.28	96.02	95.86	95.99	96.49	97.20	98.30	99.06
EOM	95.52	96.10	96.17	96.19	96.32	96.10	95.95	95.93	96.51	97.39	98.35	99.37
MEAN	95.14	95.75	96.18	96.24	96.27	96.08	96.02	95.97	96.26	96.94	97.91	98.92

WTR YR 1991 MEAN 96.47 HIGH 94.76 OCT 1 LOW 99.39 SEP 30



CAMDEN COUNTY

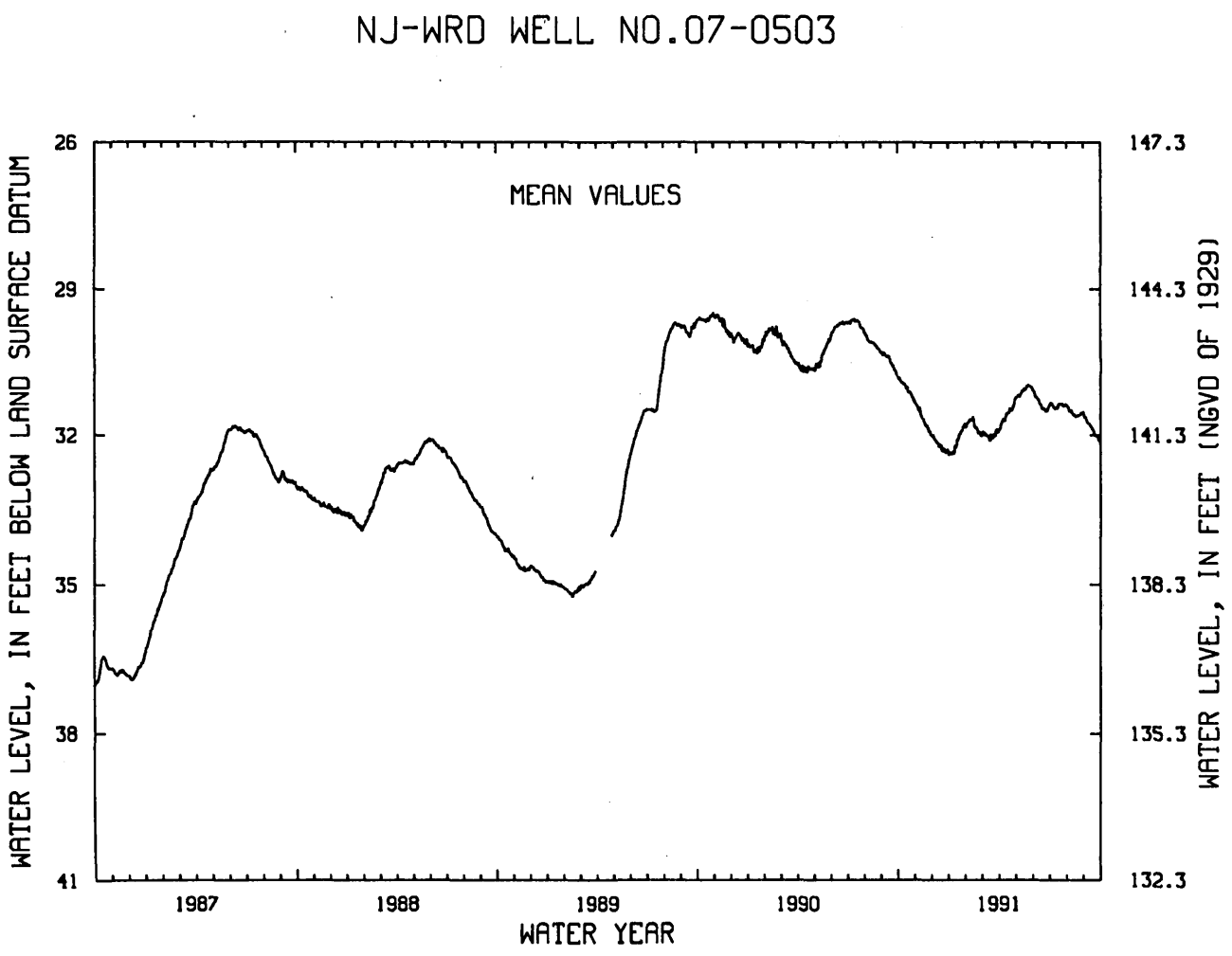
394440074593101. Local I.D., Winslow 5 Obs. NJ-WRD Well Number, 07-0503.
LOCATION.--Lat 39°44'40", long 74°59'31", Hydrologic Unit 02040302, about 1,000 ft east of intersection of Cross Keys-Berlin Rd. and Erial-Williamstown Rd., Winslow Township.
Owner: Winslow Water Company.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 76 ft, screened 71 to 76 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Nov. 1977 to Dec. 1984.
DATUM.--Land-surface datum is 173.26 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.00 ft above land surface datum.
PERIOD OF RECORD.--Dec. 1972 to current year. Records for 1972 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.78 ft below land-surface datum, May 20-21, 1973; lowest, 38.35 ft below land-surface datum, between June 3 and Oct. 6, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.87	31.39	32.06	32.37	31.73	32.01	31.77	31.21	31.18	31.34	31.49	31.68
10	30.94	31.43	32.13	32.38	31.67	31.99	31.67	31.17	31.27	31.43	31.51	31.75
15	31.00	31.67	32.17	32.20	31.70	32.09	31.55	31.10	31.35	31.45	31.60	31.86
20	31.12	31.80	32.33	31.96	31.84	32.06	31.50	31.04	31.44	31.36	31.60	31.97
25	31.16	31.87	32.34	31.91	31.93	32.02	31.49	30.98	31.51	31.39	31.58	32.00
EOM	31.31	32.00	32.39	31.83	32.02	31.95	31.27	31.04	31.39	31.37	31.53	32.14
MEAN	31.03	31.66	32.20	32.12	31.80	31.99	31.60	31.10	31.34	31.38	31.54	31.87

WTR YR 1991 MEAN 31.64 HIGH 30.76 OCT 4 LOW 32.44 DEC 31



CAMDEN COUNTY

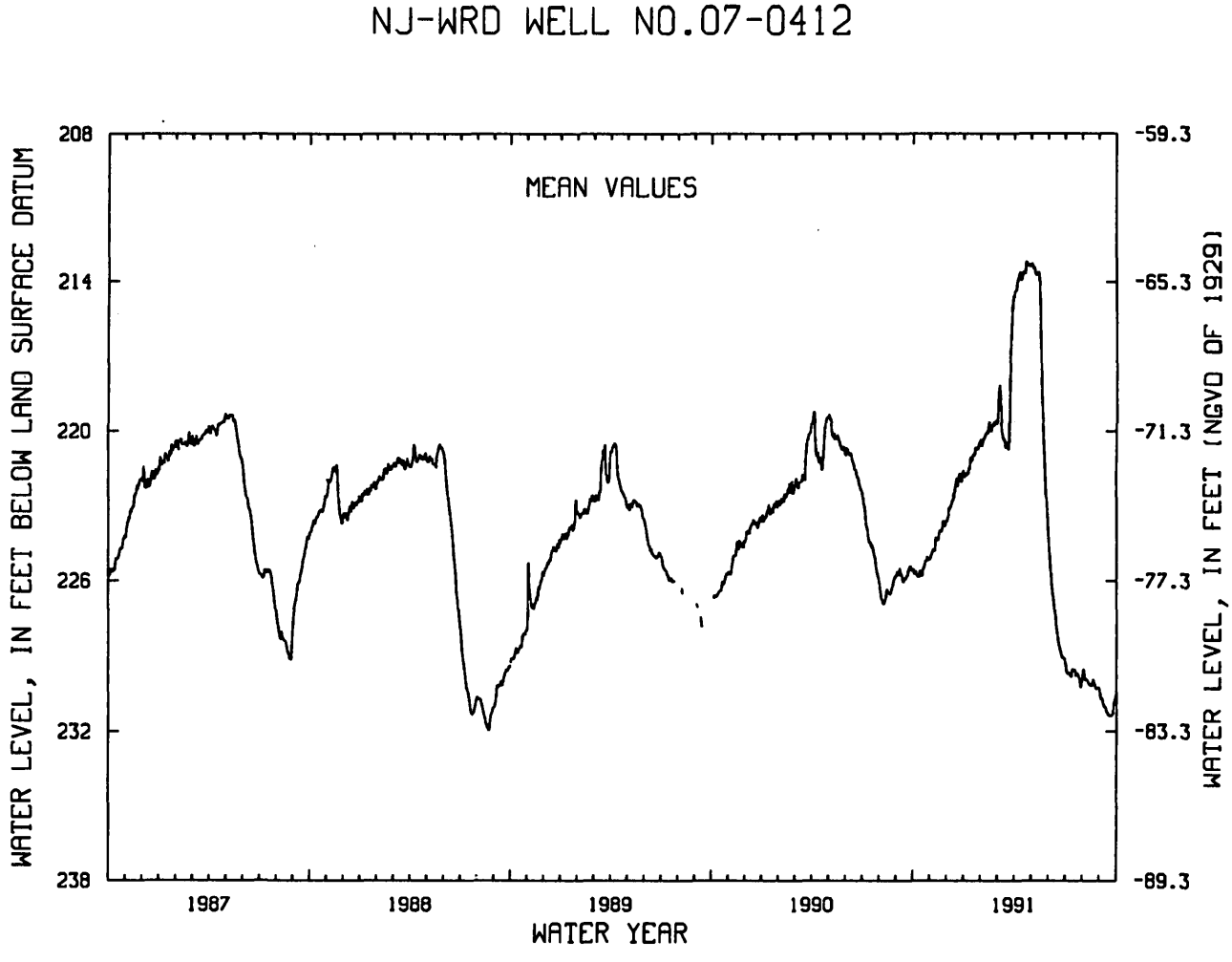
394922074563301. Local I.D., Elm Tree 2 Obs. NJ-WRD Well Number, 07-0412.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Rd. and about 2 mi. northwest of Berlin, Voorhees Township.
Owner: New Jersey - American Water Company.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,092 ft, screened 1,082 to 1,092 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984.
DATUM.--Land-surface datum is 148.68 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.80 ft above land-surface datum.
REMARKS.--Well was originally screened 1,217 to 1,227 ft; rehabilitated Aug. 1969.
PERIOD OF RECORD.--Jan. 1963 to June 1975, Feb. 1977 to current year. Records for 1963 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 166.06 ft below land-surface datum, July 21, 1965; lowest, 232.01 ft below land-surface datum, Aug. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	225.62	224.78	223.10	221.80	220.28	218.20	214.09	213.47	225.63	229.70	229.88	230.75
10	225.83	224.25	222.78	221.52	220.04	220.10	213.61	213.69	226.77	229.79	230.00	231.03
15	225.64	224.32	222.37	221.22	219.67	220.48	213.67	213.79	227.85	229.62	230.16	231.34
20	225.52	224.01	222.24	220.72	219.76	220.64	213.56	218.82	228.60	229.82	229.96	231.37
25	225.21	223.64	221.94	220.74	219.60	216.48	213.32	221.15	229.05	229.85	230.32	230.96
EOM	225.12	223.64	221.69	220.38	219.71	214.64	213.29	223.88	229.17	229.95	230.29	230.45
MEAN	225.51	224.23	222.42	221.10	219.97	218.70	213.68	216.90	227.51	229.75	230.07	231.02

WTR YR 1991 MEAN 223.43 HIGH 213.11 APR 22 LOW 231.42 SEP 19-21



CAMDEN COUNTY

394922074563302. Local I.D., Elm Tree 3 Obs. NJ-WRD Well Number, 07-0413.
LOCATION.--Lat 39°49'22", long 74°56'30", Hydrologic Unit 02040202, about 200 ft northeast of Thomas Rd. and about 2 miles northwest of Berlin, Voorhees Township.
Owner: New Jersey - American Water Company.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 717 ft, screened 706 to 717 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 148.73 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 0.60 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1963 to Apr. 1975, Mar. 1977 to current year. Records for 1963 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 174.21 ft below land-surface datum, Feb. 6, 1964; lowest, 241.24 ft below land-surface datum, Aug. 20, 1988.

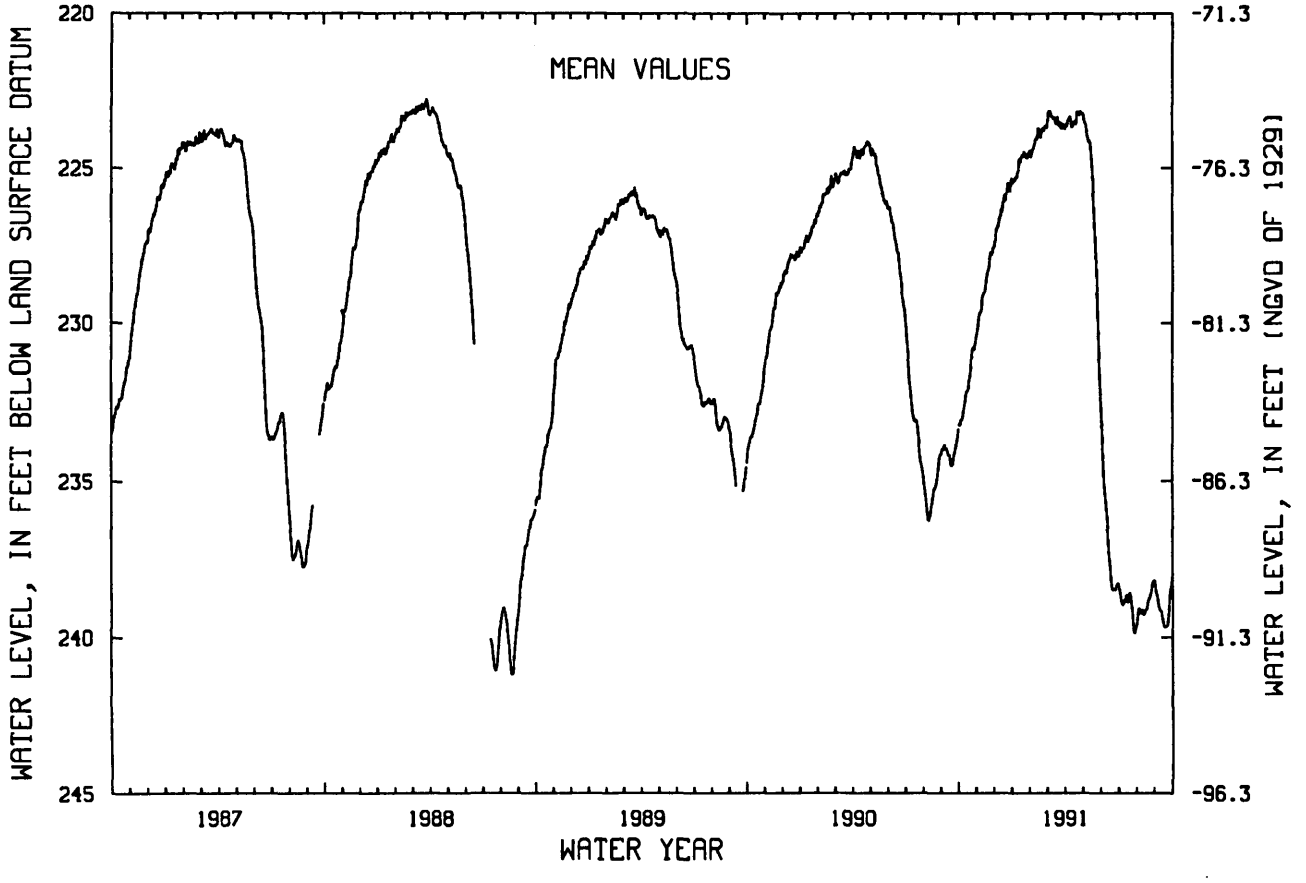
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	233.04	229.74	226.98	225.37	224.38	223.28	223.51	223.56	234.54	238.80	239.12	238.77
10	232.62	229.17	226.58	225.12	224.04	223.32	223.33	224.05	235.90	238.84	239.11	239.16
15	232.08	228.90	226.26	224.81	223.73	223.44	223.55	224.51	237.42	238.84	239.13	239.63
20	231.64	228.29	226.05	224.49	223.78	223.49	223.53	226.40	238.48	238.60	238.81	239.64
25	230.79	227.72	225.66	224.69	223.66	223.64	223.28	228.73	238.48	239.53	238.52	238.78
EOM	230.42	227.58	225.37	224.45	223.70	223.74	223.22	232.14	238.28	239.56	238.17	238.07
MEAN	231.93	228.78	226.25	224.85	224.01	223.47	223.43	226.08	236.79	238.98	238.89	239.06

WTR YR 1991 MEAN 230.24 HIGH 223.09 MAR 4,7 LOW 239.87 JUL 28

NJ-WRD WELL NO.07-0413



CAMDEN COUNTY

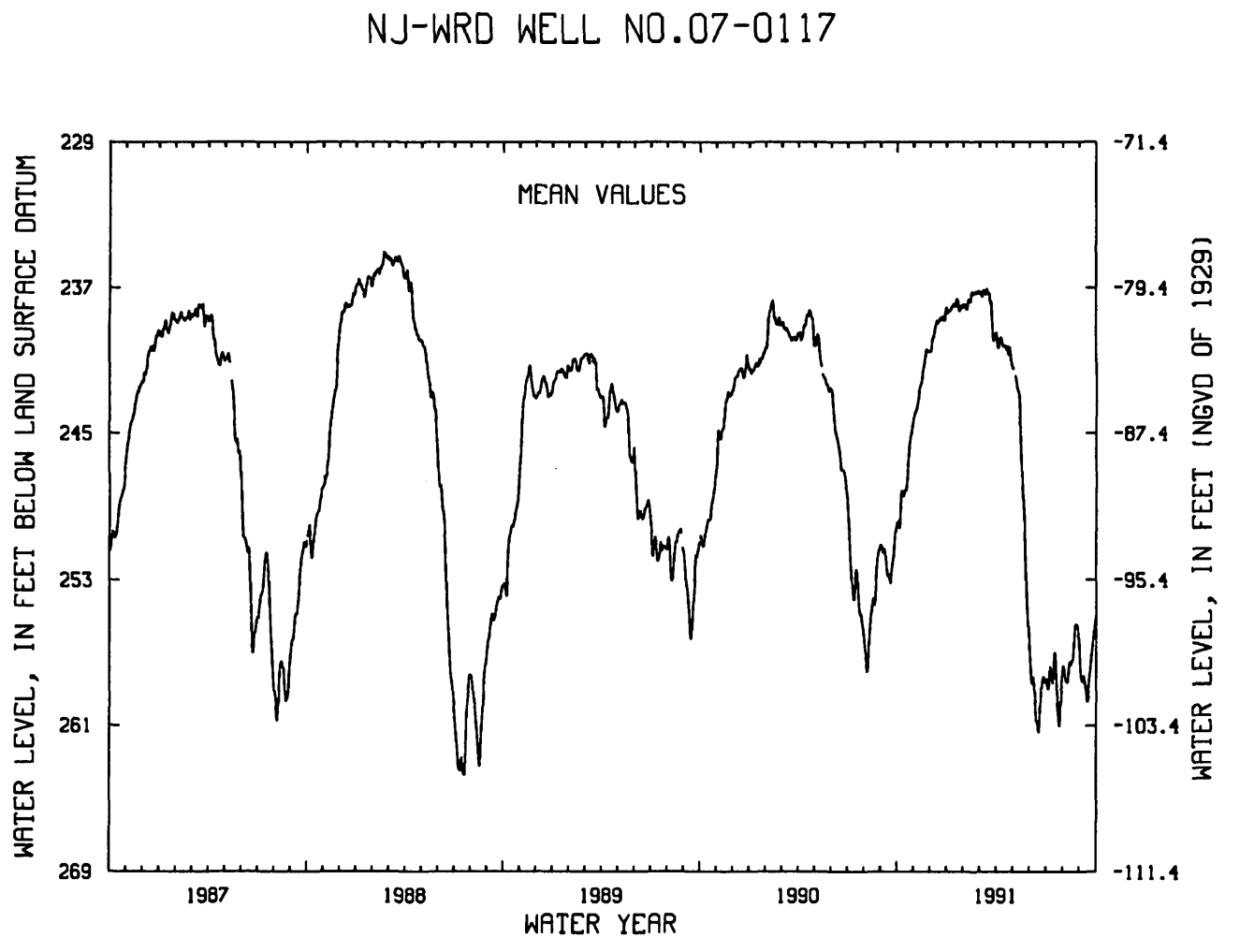
395229074571201. Local I.D., Hutton Hill 1 Obs. NJ-WRD Well Number, 07-0117.
LOCATION.--Lat 39°52'29", long 74°57'12", Hydrologic Unit 02040202, about 800 ft northeast of intersection of Kresson Rd. and Cropwell Rd., Cherry Hill Township.
Owner: New Jersey - American Water Company.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 562 ft, screened 552 to 562 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Dec. 1984.
DATUM.--Land-surface datum is 157.61 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1967 to Apr. 1975, Feb. 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 200.77 ft below land-surface datum, Mar. 23, 1968; lowest, 263.74 ft below land-surface datum, July 20, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	249.99	243.64	239.84	238.30	238.20	237.46	240.32	241.85	258.72	259.01	258.36	258.61
10	248.39	242.59	239.09	238.04	237.69	237.15	239.77	242.65	259.20	257.94	258.46	258.75
15	248.11	241.98	238.89	238.04	237.20	237.14	240.21	244.91	260.75	257.86	257.70	259.58
20	247.02	241.05	238.83	237.70	237.25	237.69	240.41	248.58	260.09	258.51	257.07	257.76
25	245.27	240.46	238.82	238.19	237.27	239.42	240.28	252.41	258.45	261.03	255.47	256.27
EOM	244.12	240.53	238.24	237.89	237.24	239.54	241.39	256.02	258.49	258.00	256.74	255.04
MEAN	247.39	241.94	239.07	238.06	237.56	237.94	240.28	247.16	259.20	258.74	257.20	257.80

WTR YR 1991 MEAN 246.91 HIGH 237.01 MAR 14 LOW 261.53 JUN 18

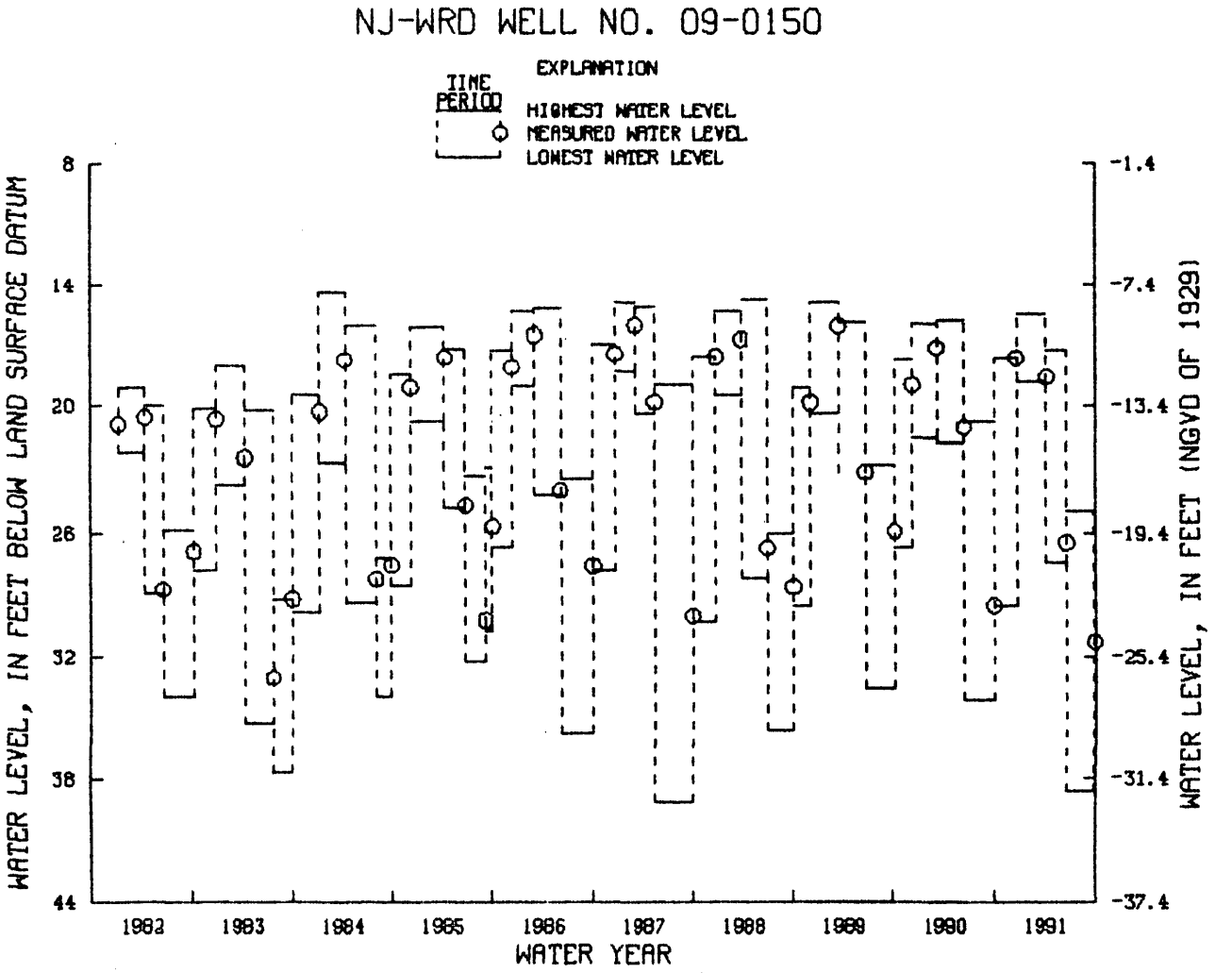


CAPE MAY COUNTY

385607074555201. Local I.D., West Cape May 1 Obs. NJ-WRD Well Number, 09-0150.
LOCATION.--Lat 38°56'07", long 74°55'56", Hydrologic Unit 02040302, on the north side of Sunset Blvd., West Cape May Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 293 ft, screened 283 to 293 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, July 1957 to Dec. 1972.
DATUM.--Land-surface datum is 6.60 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.88 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--July 1957 to Dec. 1972, May 1977 to current year. Periodic manual measurements, Feb. 1973 to Sept. 1976. Records for 1957 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.38 ft below land-surface datum, between Jan. 10 and Apr. 10, 1984; lowest, 41.30 ft below land-surface datum, Sept. 3, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1990 TO DEC. 20, 1990	17.59	29.53	DEC. 20, 1990	17.62
DEC. 20, 1990 TO APR. 8, 1991	15.49	18.80	APR. 8, 1991	18.55
APR. 8, 1991 TO JUNE 17, 1991	17.26	27.43	JUNE 17, 1991	26.45
JUNE 17, 1991 TO SEPT. 27, 1991	24.96	38.64	SEPT. 27, 1991	31.28



CAPE MAY COUNTY

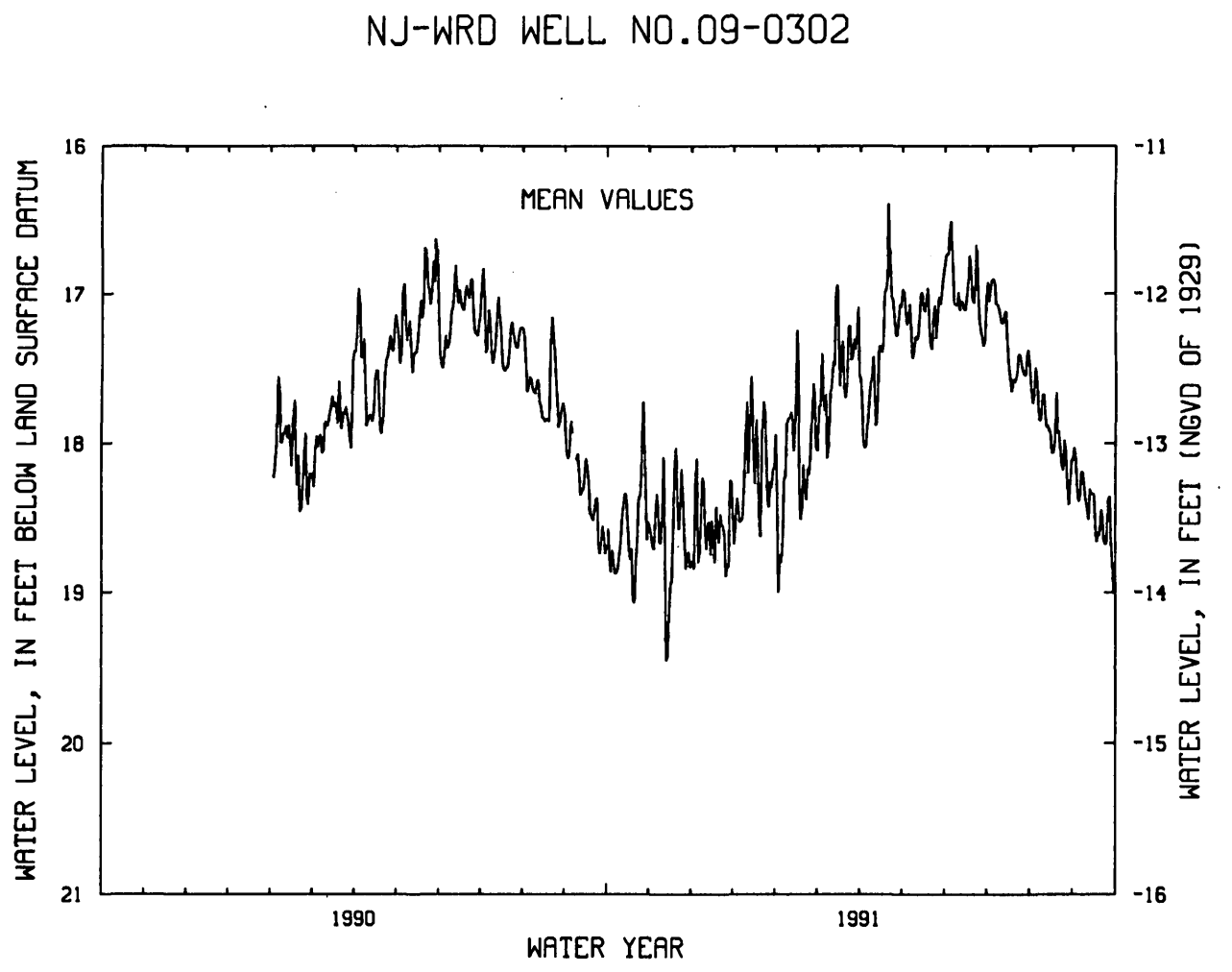
385709074512801. Local I.D., Coast Guard 800 Obs. NJ-WRD Well Number, 09-0302.
LOCATION.--Lat 38°57'09", long 74°51'28", Hydrologic Unit 02040302, at U.S. Coast Guard Electronics and Engineering Center, Lower Township.
Owner: U. S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 903 ft, screened 883 to 893 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.05 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--Feb. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.04 ft below land-surface datum, Apr. 21, 1991; lowest, 19.88 ft below land-surface datum, Nov. 12, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.81	18.34	18.80	18.52	18.24	17.70	18.01	17.17	16.51	16.90	17.58	18.35
10	18.67	18.09	18.61	18.20	17.79	17.65	17.42	17.29	16.99	17.15	17.67	18.43
15	18.52	18.95	18.52	18.27	17.49	16.94	17.35	16.99	17.11	17.31	17.93	18.35
20	19.07	18.38	18.67	18.00	18.30	17.62	16.90	17.20	17.03	17.59	17.93	18.45
25	18.21	18.64	18.89	18.43	17.82	17.44	17.16	17.30	17.17	17.47	17.98	18.38
EOM	18.57	18.80	18.68	18.35	18.02	17.54	17.09	16.82	17.05	17.50	18.11	18.93
MEAN	18.59	18.64	18.58	18.17	18.11	17.51	17.38	17.14	16.98	17.30	17.92	18.47

WTR YR 1991 MEAN 17.90 HIGH 16.04 APR 21 LOW 19.88 NOV 12

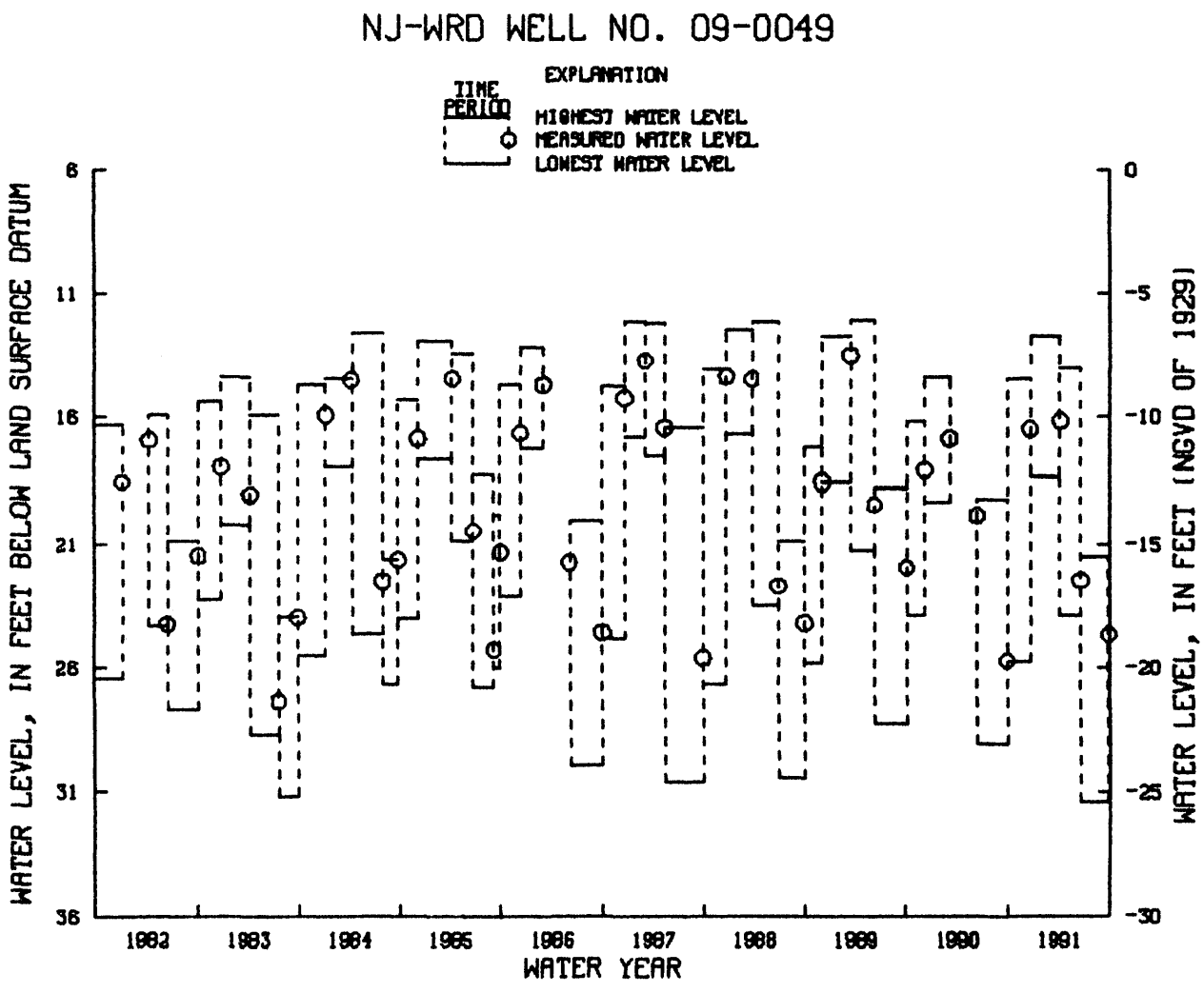


CAPE MAY COUNTY

385804074574201. Local I.D., Higbee Beach 3 Obs. NJ-WRD Well Number, 09-0049.
LOCATION.--Lat 38°58'04", long 74°57'42", Hydrologic Unit 02040206, on the north bank of the west end of the Cape May Canal, Lower Township.
OWNER: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 250 ft, screened 241 to 250 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, June 1965 to Sept. 1975.
DATUM.--Land-surface datum is 6.00 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Front edge of cutout in recorder housing, 2.93 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--June 1965 to Sept. 1975, May 1977 to current year. Records for 1975 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.10 ft below land-surface datum, between Mar. 14 and June 9, 1989; lowest, 34.22 ft below land-surface datum, July 31, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1990 TO DEC. 20, 1990	14.45	25.74	DEC. 20, 1990	16.49
DEC. 20, 1990 TO APR. 8, 1991	12.76	18.29	APR. 8, 1991	16.17
APR. 8, 1991 TO JUNE 17, 1991	13.97	23.90	JUNE 17, 1991	22.49
JUNE 17, 1991 TO SEPT. 27, 1991	21.47	31.35	SEPT. 27, 1991	24.66



CAPE MAY COUNTY

390002074541002. Local I.D., Airport Rio Grande Obs. NJ-WRD Well Number, 09-0304.
LOCATION.--Lat 39°00'02", long 74°54'10", Hydrologic Unit 02040302, at Cape May County Airport, Lower Township.
Owner: U. S. Geological Survey.
AQUIFER.--Rio Grande water-bearing zone of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 510 ft, screened 495 to 505 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 4.65 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Feb. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.21 ft below land-surface datum, Mar. 18, 1990; lowest, 47.52 ft below land-surface datum, Sept. 3, 1991.

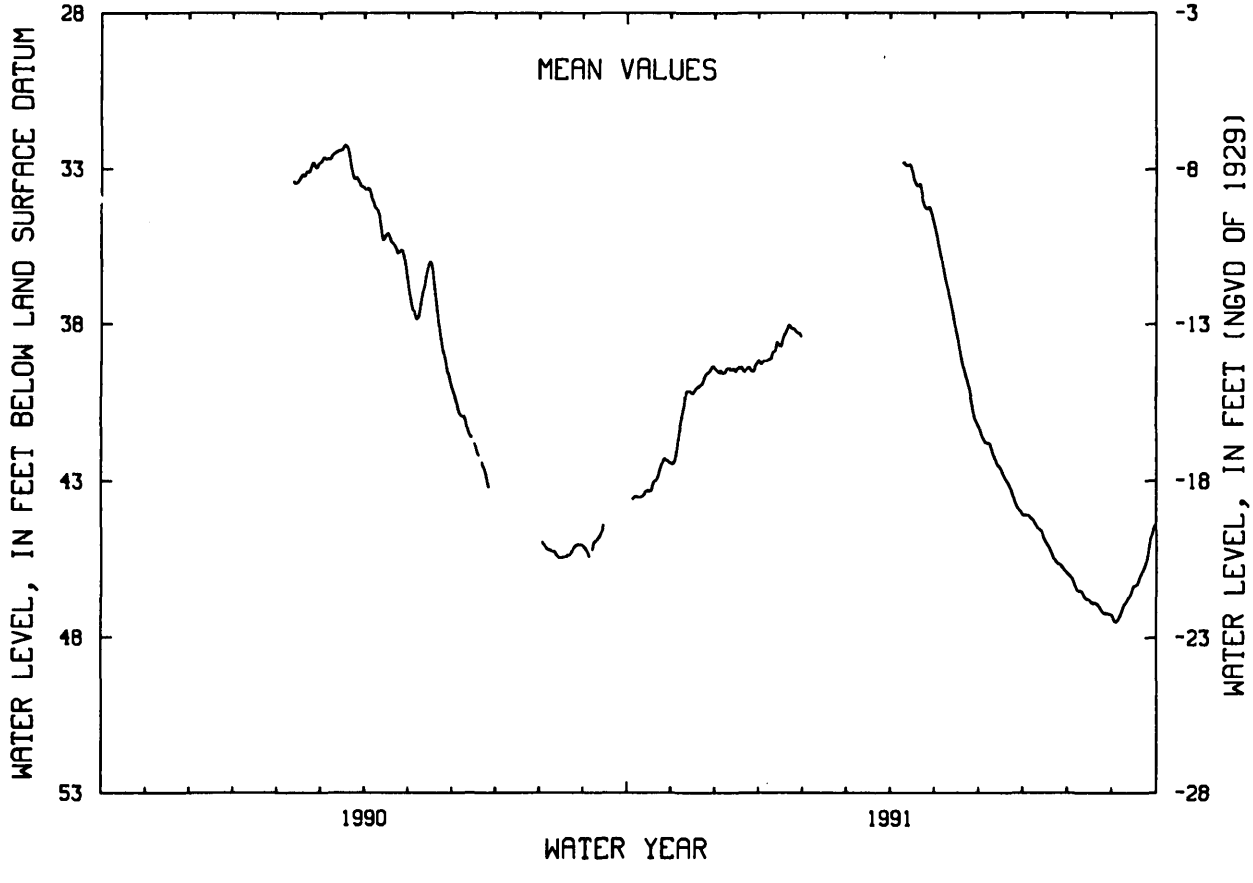
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.53	41.59	39.58	39.18	---	---	---	35.69	41.79	44.08	46.28	47.34
10	43.51	40.20	39.41	38.89	---	34.16	32.78	36.83	42.10	44.39	46.50	46.84
15	43.30	40.22	39.46	38.71	---	---	32.93	38.00	42.57	44.79	46.77	46.34
20	43.01	39.95	39.53	38.05	---	---	33.53	39.20	43.01	45.23	46.91	45.94
25	42.41	39.56	39.50	38.23	---	---	34.26	40.07	43.57	45.63	47.20	45.11
EOM	42.45	39.43	39.19	---	---	---	34.58	41.21	43.98	45.92	47.27	44.36
MEAN	43.03	40.38	39.44	38.62	---	---	33.56	38.16	42.65	44.90	46.76	46.21

WTR YR 1991 MEAN 41.55 HIGH 32.76 APR 10 LOW 47.52 SEP 3

NJ-WRD WELL NO.09-0304



CAPE MAY COUNTY

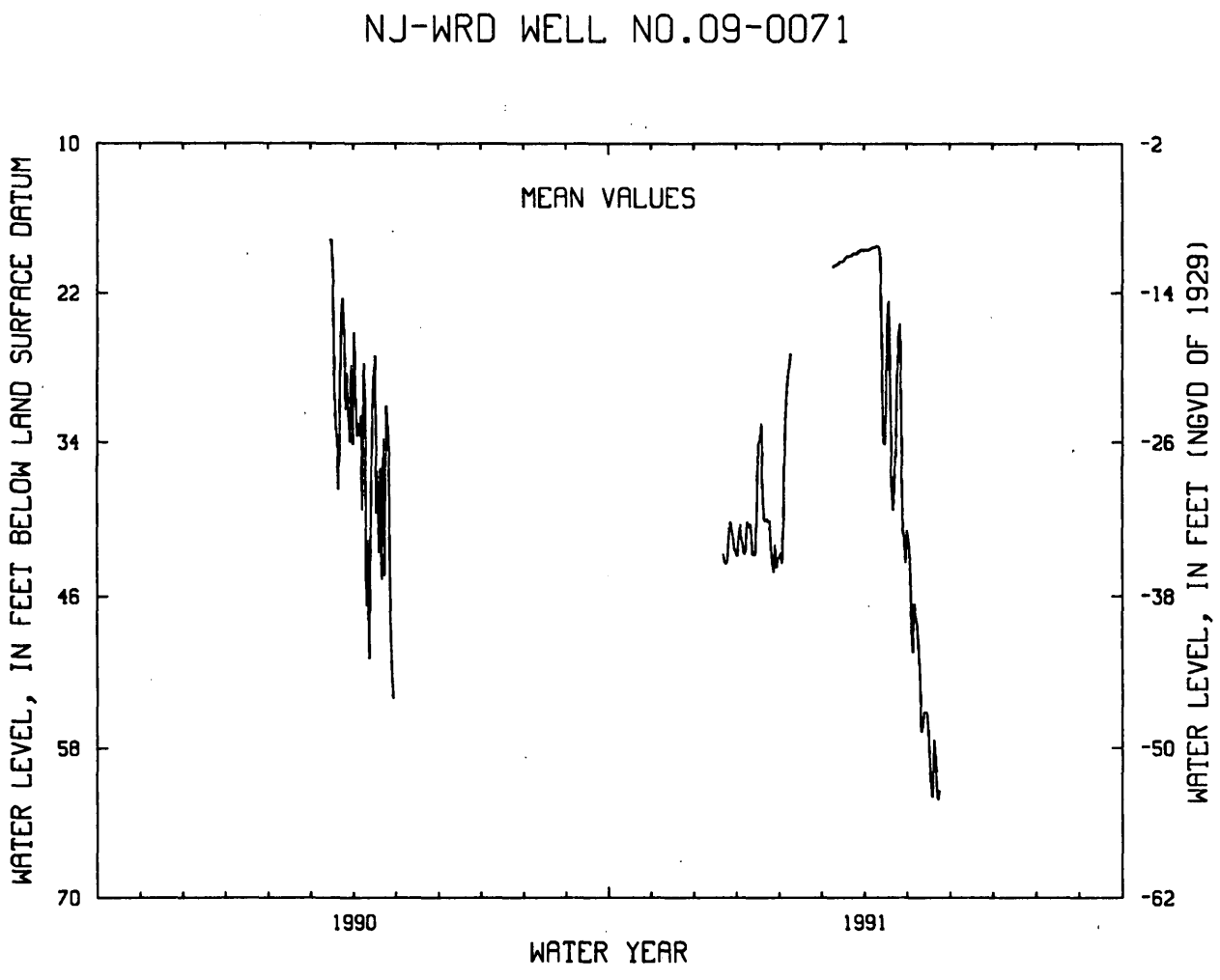
390138074534801. Local I.D., Rio Grande 23 Obs. NJ-WRD Well Number, 09-0071.
LOCATION.--Lat 39°01'38", long 74°53'48", Hydrologic Unit 02040206, at the Wildwood Water Department, Rio Grande Pumping Station, Middle Township.
Owner: Wildwood Water Department.
AQUIFER.--Rio Grande water-bearing zone of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in, depth 523 ft, screened 473 to 523 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 4.35 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Mar. 1990 to current year. Periodic manual measurements Apr. to Nov. 1990 and June to Sept. 1991.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.44 ft below land-surface datum, Mar. 17, 1990; lowest measured, 73.18 ft below land-surface datum, Aug. 16, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	42.65	28.89	---	18.42	50.40	---	---	---	---
10	---	---	---	40.77	---	19.79	18.22	52.41	---	---	---	---
15	---	---	---	34.05	---	19.45	34.18	55.16	---	---	---	---
20	---	---	---	40.04	---	19.05	37.16	57.35	---	---	---	---
25	---	---	41.47	43.30	---	18.84	25.43	---	---	---	---	---
EOM	---	---	42.79	42.55	---	18.57	43.31	---	---	---	---	---
MEAN	---	---	---	40.64	---	19.12	26.94	53.59	---	---	---	---

WTR YR 1991 HIGH 18.03 APR 9 LOW 73.18 AUG 16



CAPE MAY COUNTY

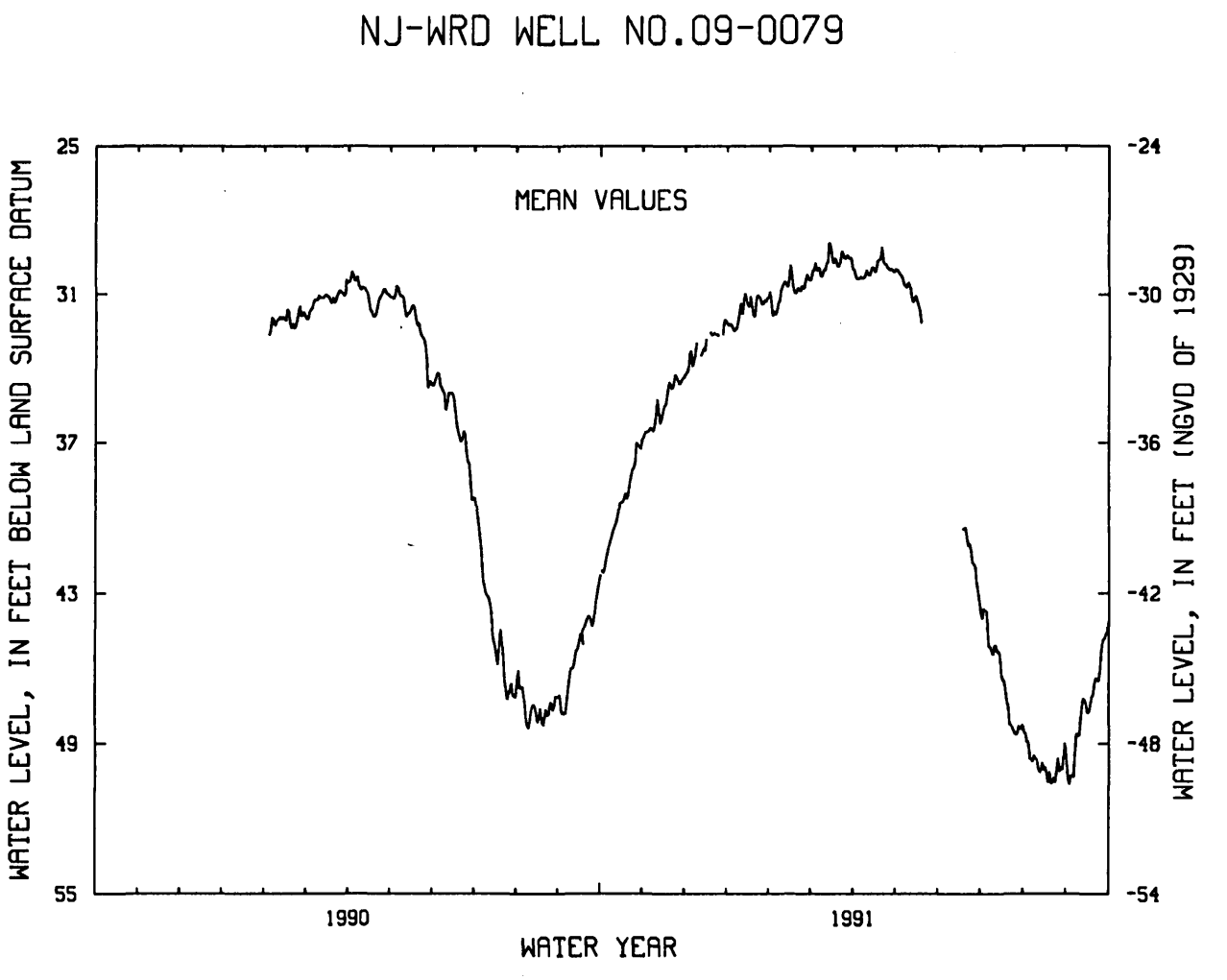
390210074473001. Local I.D., Nummy Island 2 Obs. NJ-WRD Well Number, 09-0079.
LOCATION.--Lat 39°02'10", long 74°47'30", Hydrologic Unit 02040302, on Nummy Island, Ocean Drive, (County Rt. 619) Middle Township.
Owner: Lee Haller.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 876 ft, screened 833 to 876 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 1 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top edge of recorder shelf, 2.90 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Feb. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.81 ft below land-surface datum, Mar. 14, 1991; lowest, 51.34 ft below land-surface datum, Sept. 2, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.40	36.40	33.91	32.42	31.34	30.02	30.33	30.24	---	43.71	49.59	50.32
10	40.39	35.25	---	31.79	30.49	30.00	30.00	30.52	---	45.46	49.63	48.19
15	39.41	35.53	32.79	31.49	30.10	29.00	29.94	31.05	---	45.50	50.07	47.76
20	39.06	34.81	32.60	31.27	30.83	29.85	29.50	---	40.40	47.36	50.59	46.61
25	37.76	34.51	---	31.39	30.44	29.52	29.89	---	41.79	48.57	49.58	45.28
EOM	36.78	34.29	32.26	31.36	30.44	29.96	30.08	---	43.31	48.25	49.61	44.13
MEAN	39.39	35.40	32.97	31.54	30.80	29.71	29.99	---	---	46.32	49.78	47.42

WTR YR 1991 MEAN 37.26 HIGH 27.81 MAR 14 LOW 51.34 SEP 2



CAPE MAY COUNTY

390337074462301. Local I.D., Wetlands 1 Obs. NJ-WRD Well Number, 09-0292.
LOCATION.--Lat 39°03'37", long 74°46'23", Hydrologic Unit 02040302, at the Wetlands Institute, County Rt. 657 (Stone Harbor Blvd.), Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 266 ft, screened 251 to 261 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.90 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Sept. 1988 to current year. Records for 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.80 ft above land-surface datum, Apr. 21, 1991; lowest, 7.23 ft below land-surface datum, Sept. 8, 1990.

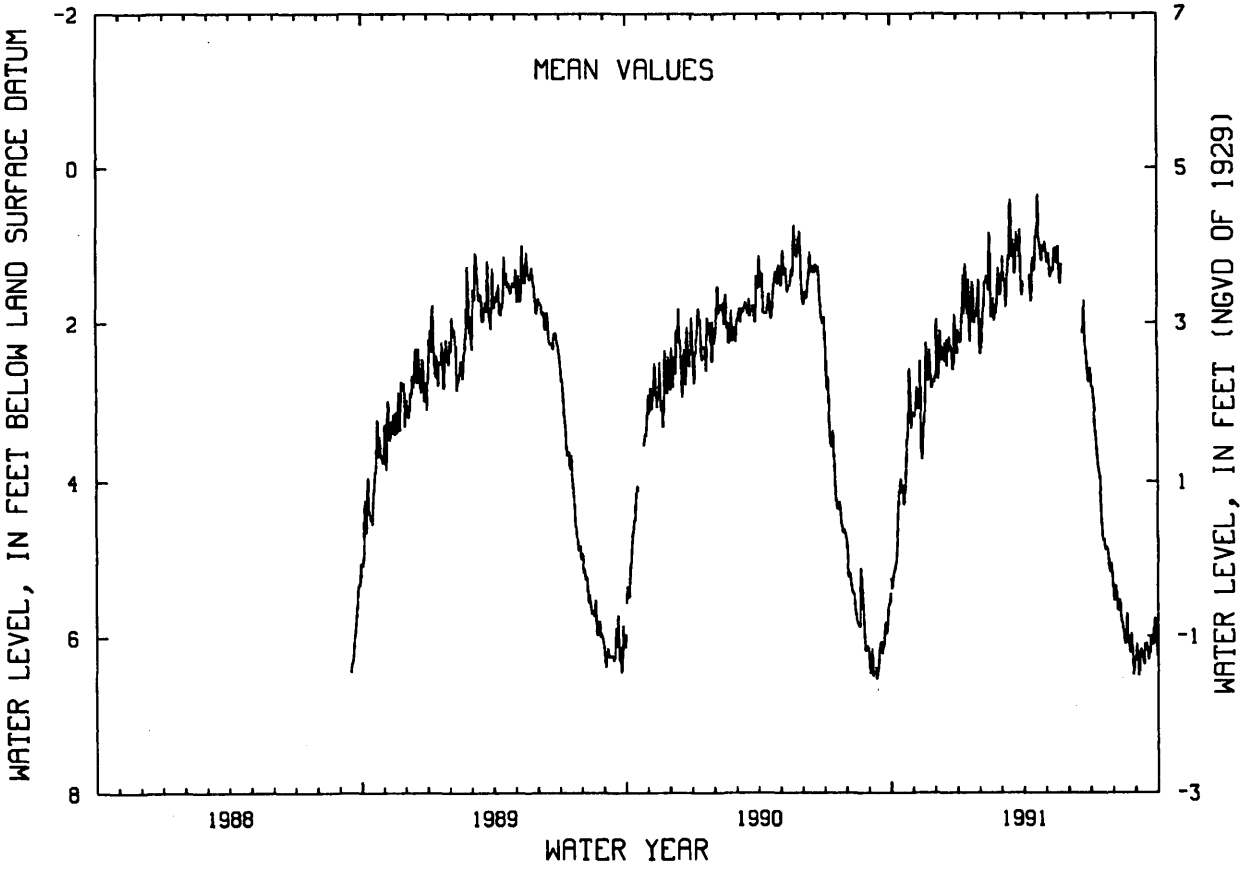
WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.17	2.79	2.68	2.25	1.87	1.43	---	1.15	---	2.94	5.43	6.42
10	4.64	2.47	2.44	1.89	1.39	1.39	1.37	1.29	---	3.65	5.55	6.30
15	4.05	3.27	2.26	1.89	1.10	.51	1.22	1.03	---	4.19	5.95	6.08
20	4.24	2.58	2.34	1.70	1.87	1.35	.82	1.29	---	4.82	6.02	5.99
25	3.21	2.68	2.57	2.00	1.52	.96	1.10	---	2.35	4.97	5.96	5.80
EOM	3.15	2.68	2.39	1.85	1.63	1.56	1.05	---	2.56	5.25	6.31	6.10
MEAN	4.13	2.89	2.34	1.82	1.70	1.22	1.13	1.21	---	4.16	5.89	6.16

WTR YR 1991 MEAN 3.04 HIGH -.80 APR 21 LOW 7.12 SEP 4

NJ-WRD WELL NO.09-0292



CAPE MAY COUNTY

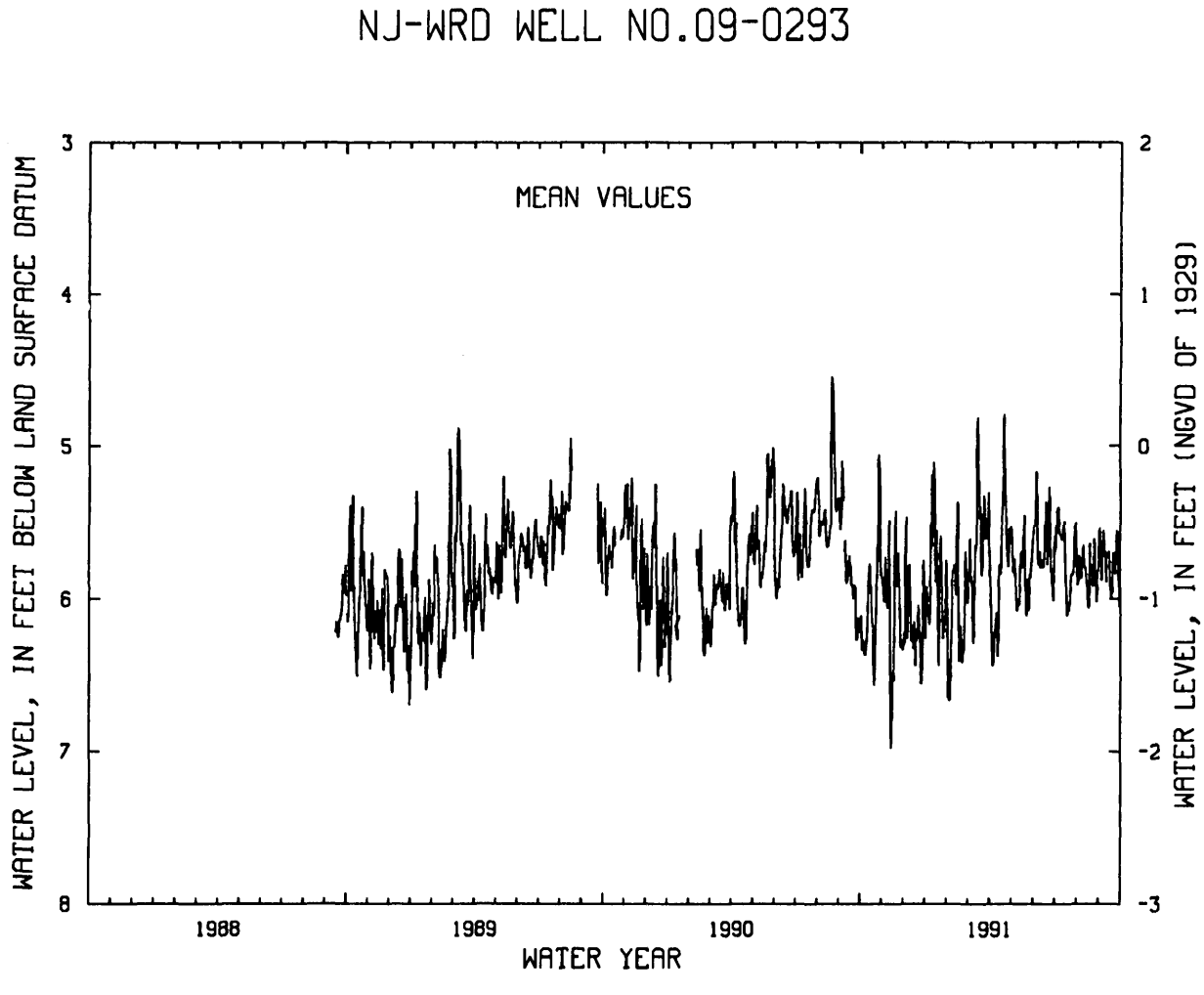
390337074462302. Local I.D., Wetlands 2 Obs. NJ-WRD Well Number, 09-0293.
LOCATION.--Lat 39°03'37", long 74°46'23", Hydrologic Unit 02040302, at the Wetlands Institute, County Rt. 657 (Stone Harbor Blvd.), Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 170 ft, screened 155 to 165 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.10 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Sept. 1988 to current year. Records for 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.19 ft below land-surface datum, Aug. 20, 1990; lowest, 7.27 ft below land-surface datum, Nov. 14, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.31	5.73	6.20	6.13	6.32	5.79	6.44	5.81	5.17	5.41	5.73	5.87
10	6.20	5.49	6.09	5.66	5.78	5.99	6.09	6.00	5.69	5.59	5.65	5.76
15	5.91	6.53	6.15	5.89	5.50	4.81	5.76	5.69	5.80	5.62	5.91	5.69
20	6.57	5.70	6.24	6.02	6.30	5.75	5.25	5.73	5.65	6.08	5.81	5.76
25	5.72	6.11	6.56	6.26	5.96	5.61	5.64	6.08	5.67	5.84	5.61	5.61
EOM	5.86	6.31	6.26	6.07	5.97	5.64	5.59	5.66	5.80	5.62	5.82	5.98
MEAN	6.03	6.08	6.15	5.87	6.11	5.64	5.83	5.83	5.65	5.72	5.83	5.77

WTR YR 1991 MEAN 5.87 HIGH 3.87 DEC 4 LOW 7.27 NOV 14



CAPE MAY COUNTY

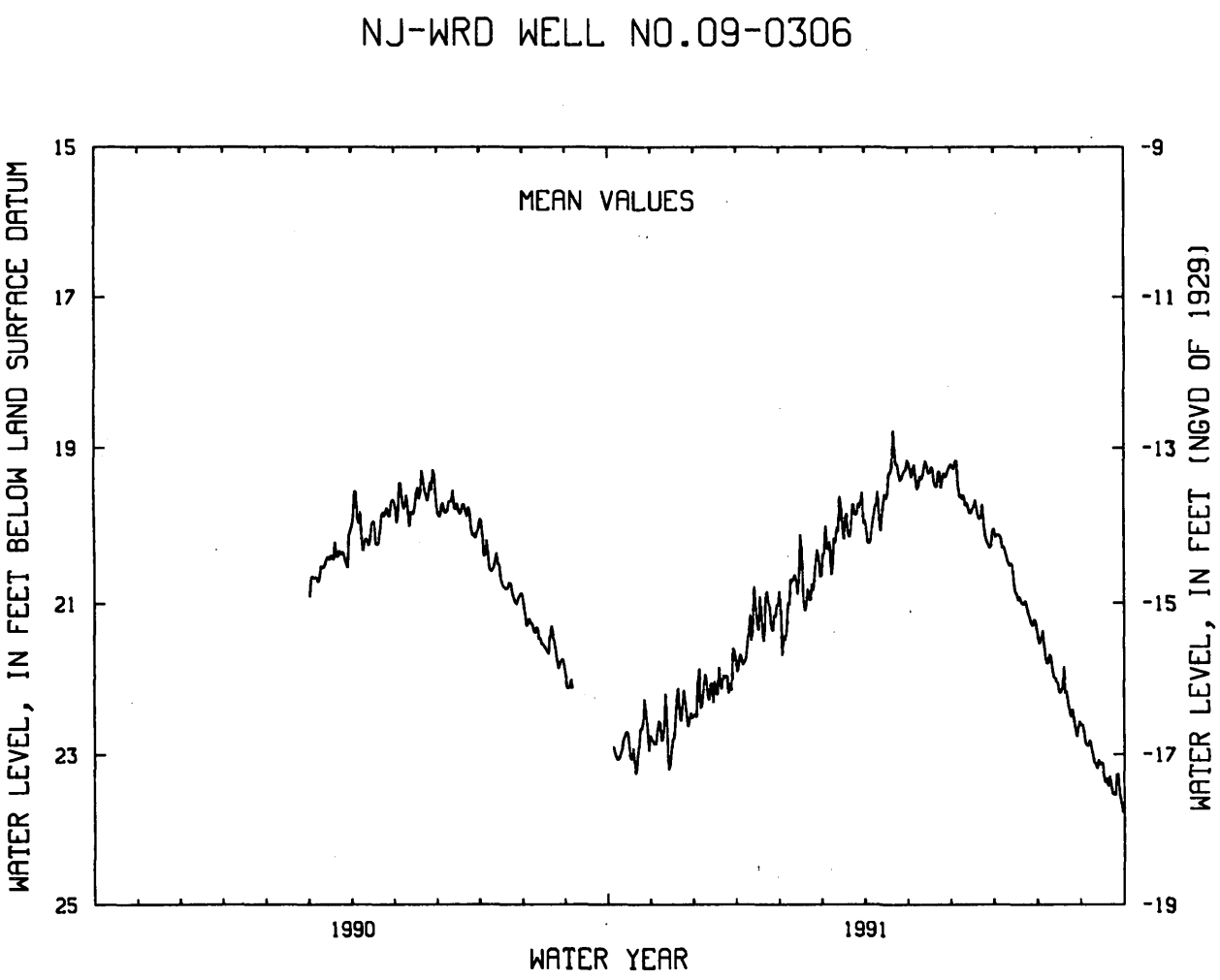
390422074544701. Local I.D., Oyster 800 Obs. NJ-WRD Well Number, 09-0306.
LOCATION.--Lat 39°04'22", long 74°54'47", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.
Owner: U. S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 709 ft, screened 656 to 666 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.64 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--Mar. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.74 ft below land-surface datum, May 15, 1991; lowest, 24.54 ft below land-surface datum, Sept. 29, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.98	22.55	22.38	21.78	20.99	20.28	20.16	19.28	19.17	20.11	21.52	22.88
10	22.93	22.19	22.21	21.49	20.63	20.14	19.55	19.37	19.58	20.40	21.72	23.12
15	22.85	22.79	22.03	21.35	20.30	19.70	19.58	19.22	19.80	20.71	22.05	23.13
20	23.26	22.45	22.13	20.95	20.94	20.08	19.25	19.43	19.86	20.98	22.19	23.29
25	22.58	22.48	22.18	21.36	20.44	19.83	19.33	19.50	20.11	21.14	22.40	23.27
EOM	22.79	22.48	21.91	21.17	20.65	19.95	19.29	19.24	20.05	21.36	22.61	23.71
MEAN	22.85	22.60	22.07	21.28	20.82	20.02	19.59	19.33	19.72	20.71	22.07	23.21

WTR YR 1991 MEAN 21.18 HIGH 17.74 MAY 15 LOW 24.54 SEP 29

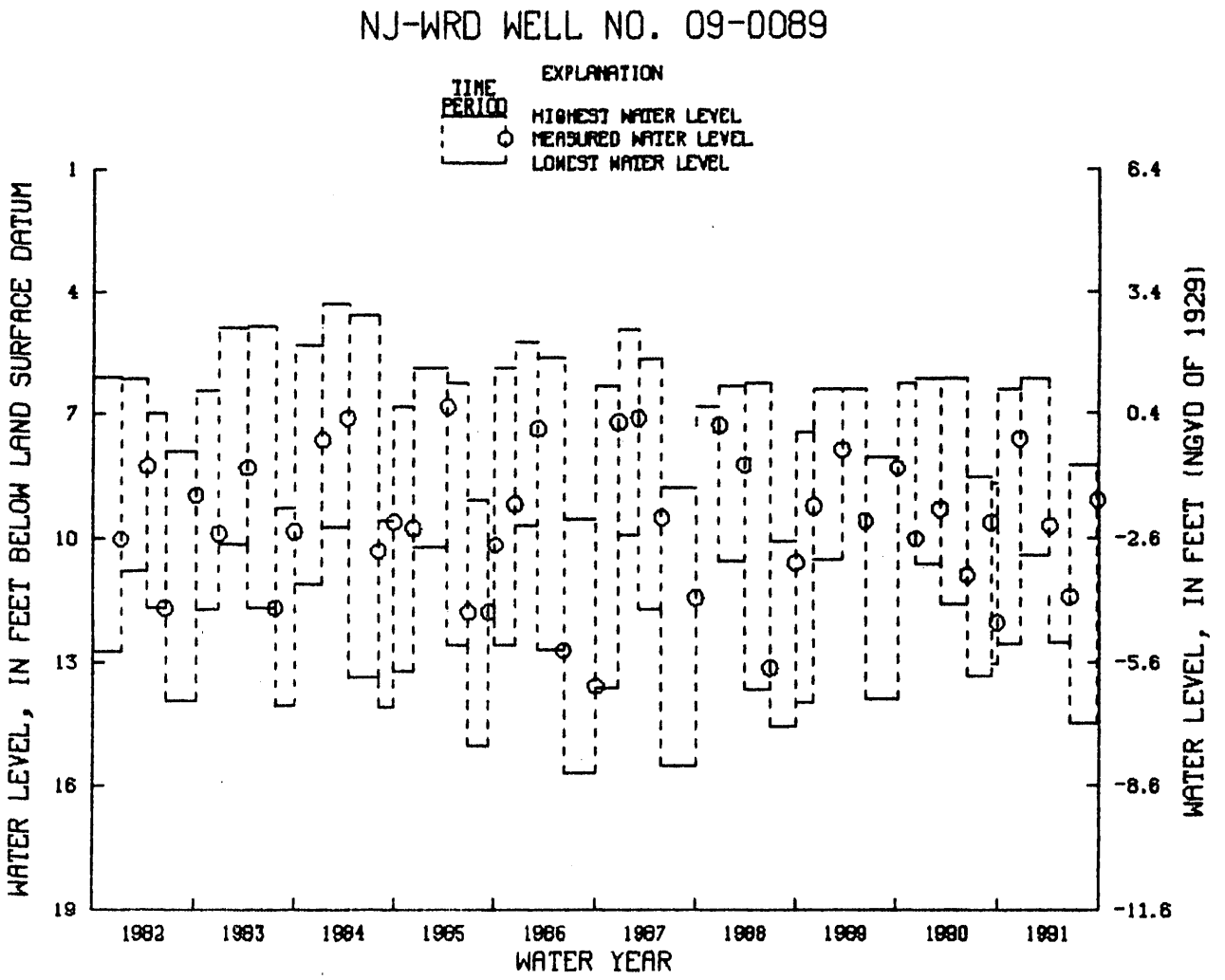


CAPE MAY COUNTY

390425074544601. Local I.D., Oyster Lab 4 Obs. NJ-WRD Well Number, 09-0089.
LOCATION.--Lat 39°04'25", long 74°54'46", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 210 ft, screened 195 to 210 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, Aug. 1957 to Aug. 1975.
DATUM.--Land-surface datum is 7.37 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.90 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Aug. 1957 to Aug. 1975, May 1977 to current year. Periodic manual measurements, Sept. 1975 to Apr. 1977. Records for 1957 to 1982 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.07 ft below land-surface datum, Apr. 3, 1958; lowest, 15.71 ft below land-surface datum, between June 4 and Sept. 30, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1990 TO DEC. 20, 1990	6.39	12.55	DEC. 20, 1990	7.61
DEC. 20, 1990 TO APR. 8, 1991	6.15	10.42	APR. 8, 1991	9.71
APR. 8, 1991 TO JUNE 17, 1991	---	12.51	JUNE 17, 1991	11.43
JUNE 17, 1991 TO SEPT. 27, 1991	8.24	14.45	SEPT. 27, 1991	9.11



CAPE MAY COUNTY

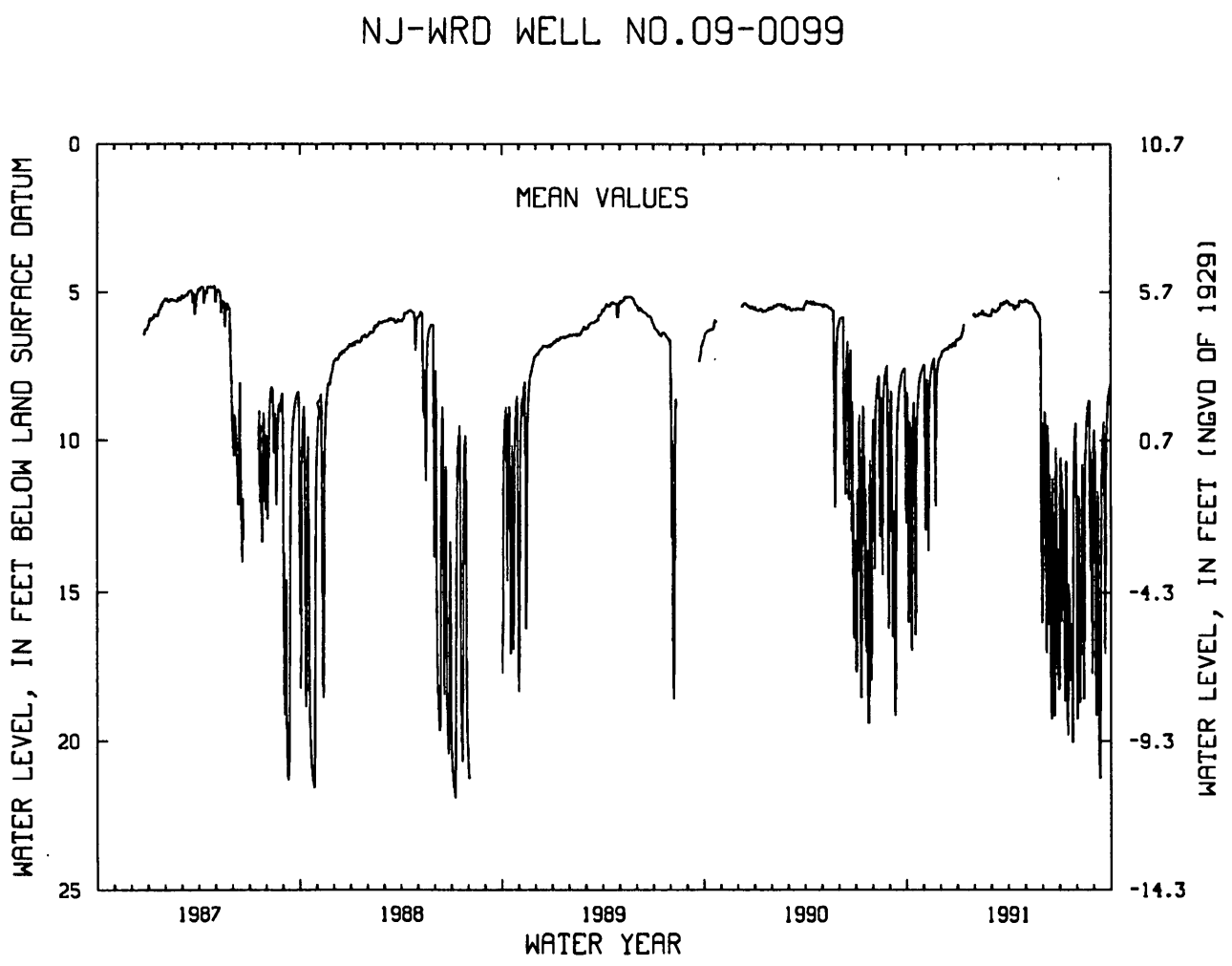
390608074483801. Local I.D., Cape May County Park 8 Obs. NJ-WRD Well Number, 09-0099.
LOCATION.--Lat 39°06'11", long 74°48'38", Hydrologic Unit 02040302, at the Cape May County Park on Rt. 9, Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 230 ft, screened 214 to 230 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 10.73 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Oct. 1957 to current year. Periodic manual measurements, Jan. 1959 to Dec. 1960 and from Nov. 1968 to Nov. 1986. Records from 1957 to 1987 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.73 ft below land-surface datum, Apr. 5, 1958; lowest, 22.01 ft below land-surface datum, July 9, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.46	9.11	6.99	6.56	5.80	5.63	5.41	5.31	9.04	15.95	13.58	19.10
10	16.92	9.36	6.91	6.36	5.71	5.66	5.43	5.35	9.49	17.47	11.99	20.81
15	10.07	7.60	6.89	---	5.64	5.53	5.47	5.40	16.47	18.63	11.95	10.58
20	9.09	7.24	6.87	---	5.72	5.40	5.47	5.61	12.95	16.75	9.06	17.03
25	7.90	7.64	6.79	---	5.79	5.37	5.29	5.72	10.22	15.72	14.27	8.85
EOM	7.52	7.23	6.61	5.74	5.81	5.34	5.32	16.00	18.25	11.62	10.19	8.16
MEAN	10.37	8.45	6.87	---	5.75	5.50	5.40	6.12	14.07	14.36	13.19	12.59

WTR YR 1991 MEAN 9.23 HIGH 5.21 MAY 1,2 LOW 21.58 SEP 12



CUMBERLAND COUNTY

391828075120902. Local I.D., Jones Island 2 Obs. NJ-WRD Well Number, 11-0096.
LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, in Nantuxent Wildlife Management Area, about 1.7 mi. south of Cedarville, Lawrence Township.
Owner: Cumberland County.
AQUIFER.--Piney Point aquifer of Oligocene-Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 375 ft, screened 365 to 375 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 10.10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.90 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation. Well was pumped on Sept. 22, 1986. After pumping, the water level did not return to its previous level. Therefore, the screen may have been partially clogged prior to the pumping on Sept. 22, 1986.
PERIOD OF RECORD.--Mar. 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.99 ft below land-surface datum, Mar. 22, 1977; lowest, 41.65 ft below land-surface datum, Sept. 30, 1991.

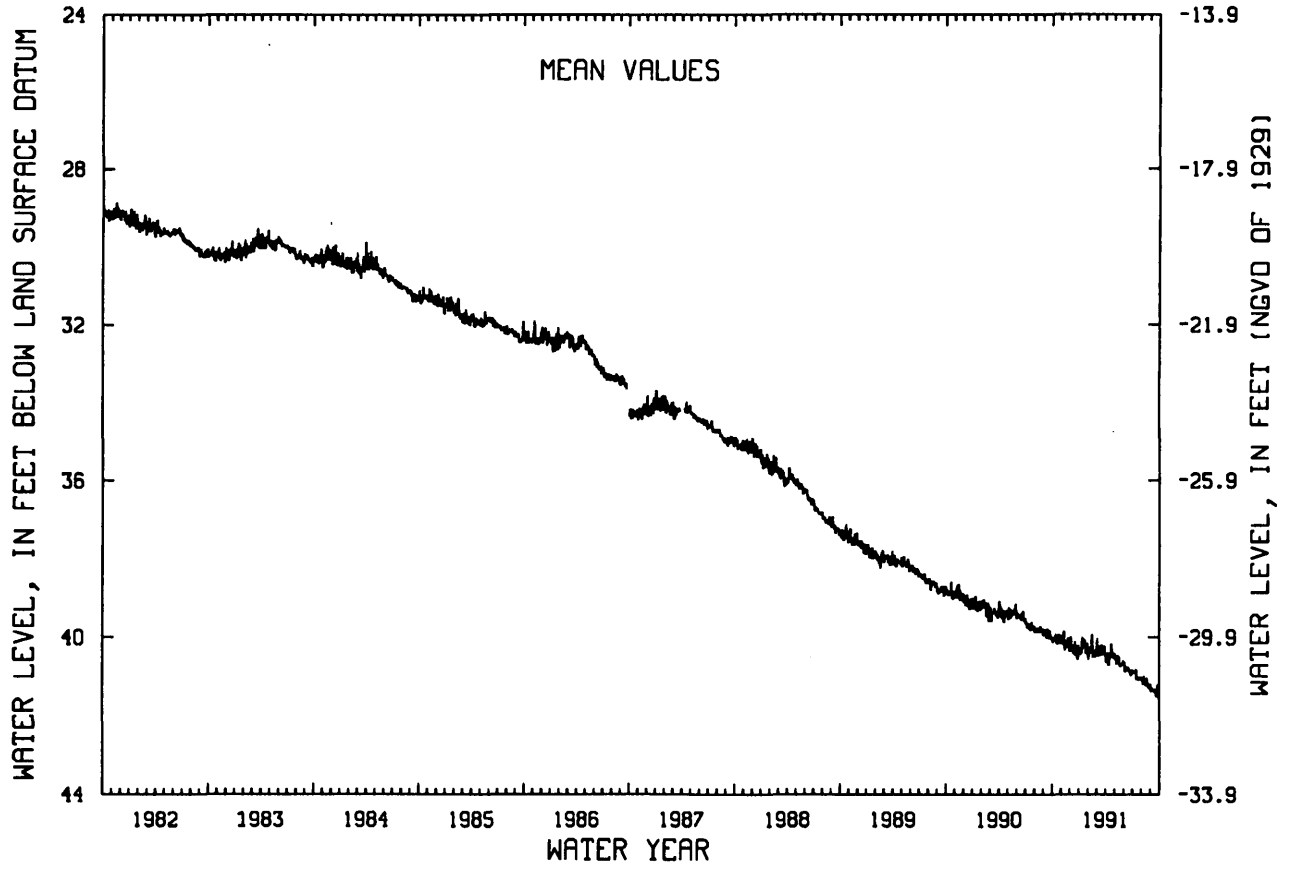
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.03	39.95	40.23	40.44	40.39	40.28	40.55	40.58	40.73	40.89	41.09	41.29
10	40.07	39.85	40.22	40.39	40.25	40.39	40.40	40.64	40.81	40.90	41.01	41.33
15	40.00	40.25	40.28	40.29	40.04	40.29	40.45	40.52	40.78	41.00	41.15	41.37
20	40.18	40.18	40.46	40.08	40.38	40.36	40.40	40.73	40.86	41.08	41.08	41.46
25	39.95	40.13	40.45	40.41	40.37	40.38	40.49	40.68	40.95	41.06	41.28	41.24
EOM	40.10	40.36	40.34	40.27	40.47	40.47	40.46	40.61	40.83	41.04	41.19	41.55
MEAN	40.05	40.14	40.28	40.27	40.37	40.33	40.47	40.61	40.81	40.98	41.16	41.38

WTR YR 1991 MEAN 40.57 HIGH 39.71 NOV 10, FEB 14 LOW 41.65 SEP 30

NJ-WRD WELL NO.11-0096



CUMBERLAND COUNTY

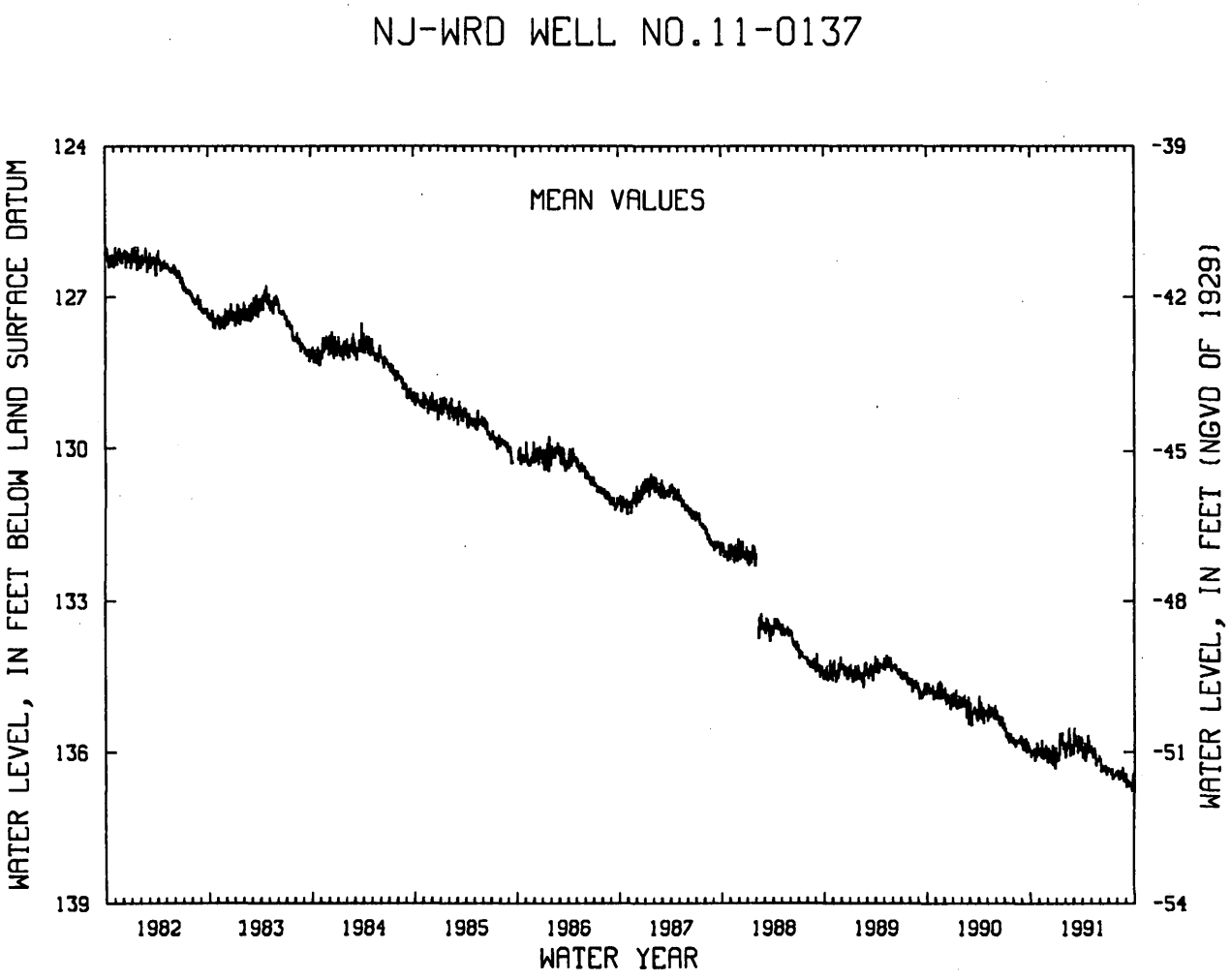
392512074521206. Local I.D., Ragovin 2100 Obs. NJ-WRD Well Number 11-0137.
LOCATION.--Lat 39°25'14", long 74°52'17", Hydrologic Unit 02040302, in wooded area off Harriet Ave., 1.5 mi. southeast of Milmay, Maurice River Township.
Owner: Sam DeRosa.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in, depth 2,093 ft, perforated casing 2,083 to 2,093 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 85 ft above National Geodetic Vertical Datum of 1929, by altimeter.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
REMARKS.--This well is perforated in a saline zone of the aquifer system (Luzier, 1980,p. 8-12). An equivalent freshwater head is obtained by multiplying the column of water in the well by the ratio of density of water in the well to the density of freshwater. In 1974, the density of water was 1.011 grams per milliliter at 20 deg. C and a plus 17 foot correction was needed to obtain the equivalent freshwater head. The well was pumped on Feb. 3, 1988. After pumping, the water-level did not return to its previous level. Therefore, the perforated area may have been partially clogged prior to the pumping on Feb. 3, 1988.
PERIOD OF RECORD.--Oct. 1974 to Apr. 1975, Feb. 1977 to current year. Records for 1974 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.82 ft below land-surface datum, Apr. 3, 1975; lowest, 136.81 ft below land-surface datum, Sept. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	135.98	135.91	136.00	136.16	135.95	135.74	135.99	136.03	136.27	136.37	136.44	136.54
10	136.05	135.76	135.98	136.07	135.79	135.84	135.83	136.09	136.35	136.40	136.38	136.62
15	135.99	136.12	136.08	135.87	135.60	135.89	135.95	136.00	136.34	136.47	136.47	136.66
20	136.10	136.05	136.26	135.62	135.90	135.83	135.95	136.26	136.29	136.49	136.31	136.69
25	135.84	135.93	136.15	135.95	135.92	135.87	135.94	136.12	136.43	136.46	136.58	136.48
EOM	136.04	136.20	136.01	135.84	136.04	135.99	135.94	136.07	136.30	136.38	136.41	136.76
MEAN	136.00	136.01	136.07	135.90	135.91	135.83	135.95	136.07	136.31	136.41	136.46	136.64

WTR YR 1991 MEAN 136.13 HIGH 135.44 MAR 4 LOW 136.81 SEP 22



CUMBERLAND COUNTY

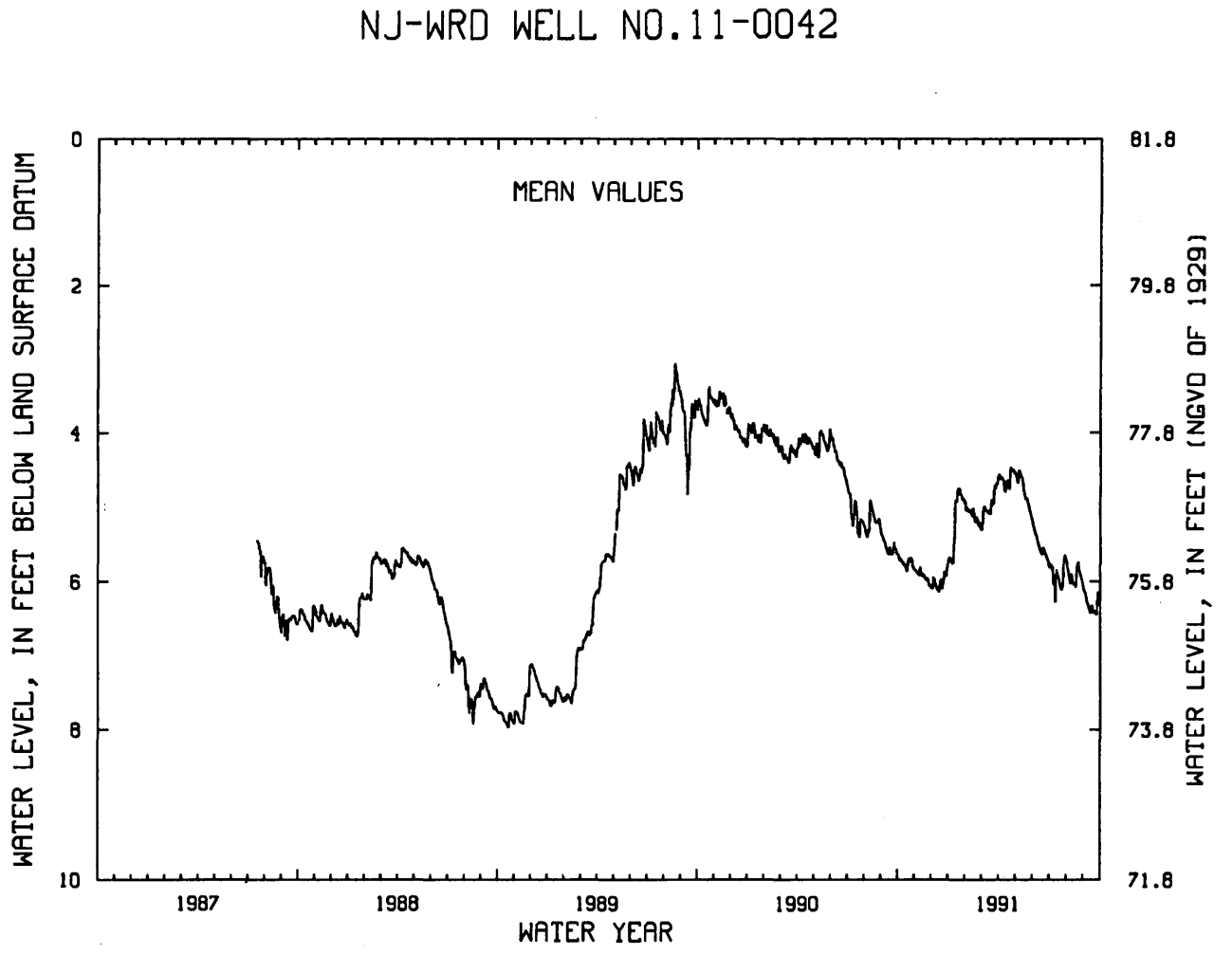
392731075092401. Local I.D., Vocational School 2 Obs. NJ-WRD Well Number, 11-0042.
LOCATION.--Lat 39°27'32", long 75°09'29", Hydrologic Unit 02040206, next to the Cumberland County Vocational and Technical School on Bridgeton Ave., Deerfield Township.
Owner: Cumberland County.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in, depth 47 ft, screened 42 to 47 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 81.77 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.92 ft above land-surface datum.
REMARKS.-- Water level is occasionally affected by pumping from nearby irrigation well.
PERIOD OF RECORD.--Mar. 1972 to current year. Periodic manual measurements, Mar. 1972 to June 1987. Records from 1972 to 1987 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.40 ft below land-surface datum, Apr. 21, 1972; lowest, 8.12 ft below land-surface datum, Aug. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.69	5.87	5.96	5.74	5.04	5.05	4.59	4.67	5.33	5.78	5.90	6.20
10	5.76	5.80	6.07	5.44	5.06	5.04	4.67	4.56	5.46	5.93	5.89	6.36
15	5.80	5.93	6.08	4.92	5.10	5.06	4.63	4.74	5.59	5.88	6.03	6.32
20	5.72	5.97	6.10	4.74	5.13	4.94	4.74	4.88	5.54	6.04	5.80	6.39
25	5.70	6.00	5.90	4.90	5.20	4.74	4.50	4.98	5.65	6.07	5.88	6.33
EOM	5.84	6.08	5.69	4.99	5.30	4.59	4.53	5.16	5.77	5.71	6.06	6.30
MEAN	5.75	5.93	5.99	5.14	5.12	4.95	4.61	4.78	5.52	5.90	5.92	6.31

WTR YR 1991 MEAN 5.50 HIGH 4.44 APR 21-22 LOW 6.53 JUL 12



GLOUCESTER COUNTY

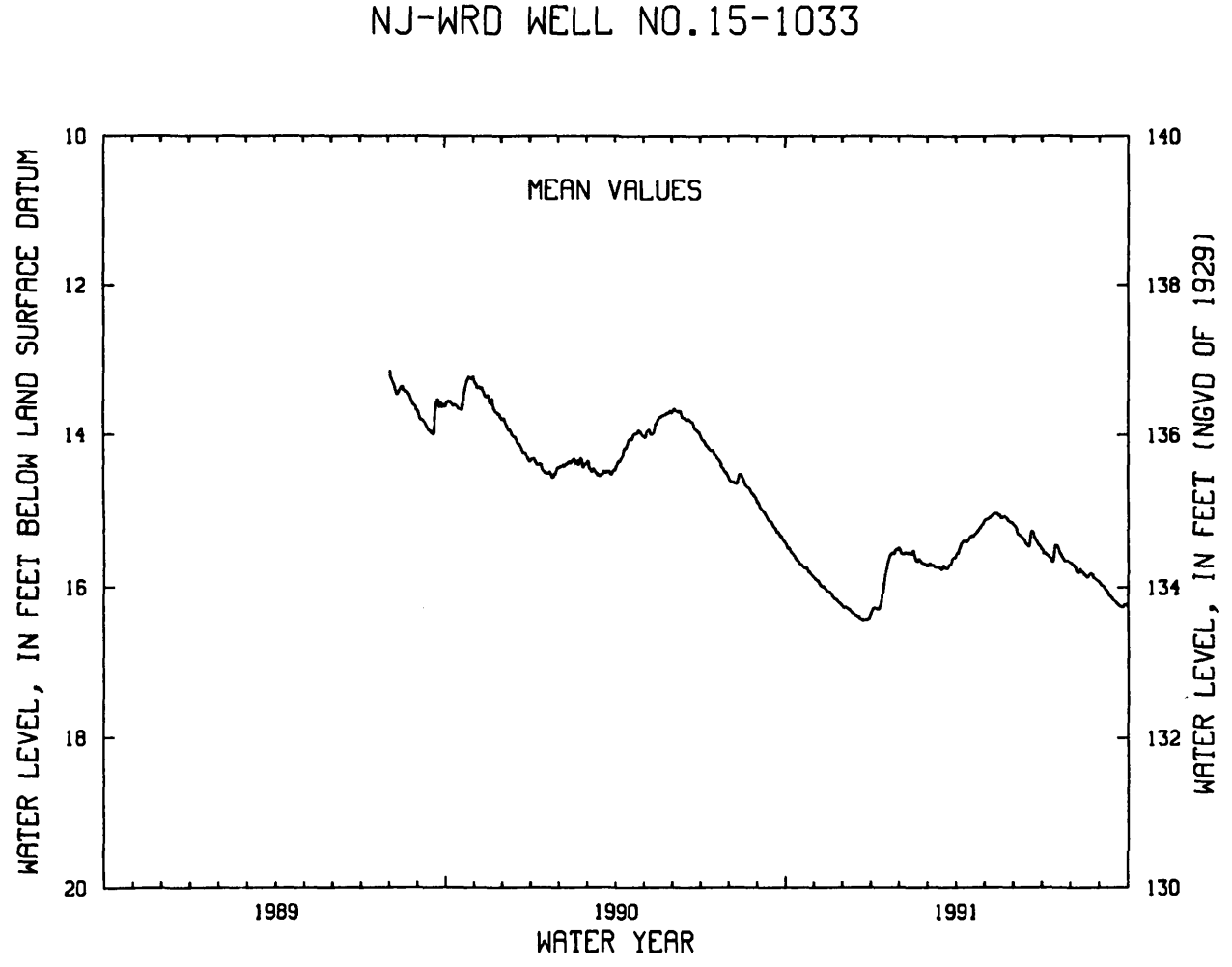
394354075025901. Local I.D., WTMUA Monitoring 1 Obs. NJ-WRD Well Number, 15-1033.
LOCATION.--Lat 39°43'54", long 75°02'59", Hydrologic Unit 02040202, next to the Washington Township MUA Water Tank at the intersection of White Birches Rd. and Rt. 655 (Fries Mill Rd.), Washington Township.
Owner: Washington Township Municipal Utilities Authority.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in, depth 54 ft, screened 44 to 54 ft.
INSTRUMENTATION.--Digital data logger with differential pressure transducer.
DATUM.--Land-surface datum is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of steel outer casing 2.50 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.14 ft below land-surface datum, Aug. 2, 1989; lowest, 16.43 ft below land-surface datum, Dec. 22-23, 25, 27, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.49	15.92	16.27	16.28	15.52	15.71	15.47	15.08	15.27	15.55	15.73	16.00
10	15.58	15.98	16.32	16.24	15.54	15.72	15.38	15.01	15.33	15.61	15.75	16.10
15	15.68	16.05	16.37	15.86	15.54	15.76	15.34	15.02	15.42	15.45	15.83	16.17
20	15.74	16.12	16.42	15.58	15.62	15.74	15.31	15.06	15.26	15.52	15.82	16.23
25	15.79	16.17	16.43	15.52	15.68	15.70	15.23	15.07	15.37	15.65	15.87	16.26
EOM	15.86	16.24	16.35	15.50	15.71	15.60	15.12	15.15	15.48	15.67	15.93	16.26
MEAN	15.67	16.06	16.36	15.87	15.59	15.71	15.34	15.07	15.34	15.57	15.81	16.14

WTR YR 1991 MEAN 15.71 HIGH 15.00 MAY 12-14 LOW 16.43 DEC 22-23,25,27



GLOUCESTER COUNTY

394652075100401. Local I.D., Mantua Shallow Obs. NJ-WRD Well Number, 15-0741.
LOCATION.--Lat 39°46'52", long 75°10'04", Hydrologic Unit 02040202, at the Township of Mantua Road Dept. off Main Street (County Rt. 553), Mantua Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 313 ft, screened 293 to 313 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 82 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 4.00 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--July 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 121.20 ft below land-surface datum, Feb. 20, 1988; lowest, 139.83 ft below land-surface datum, June 16, 1991.

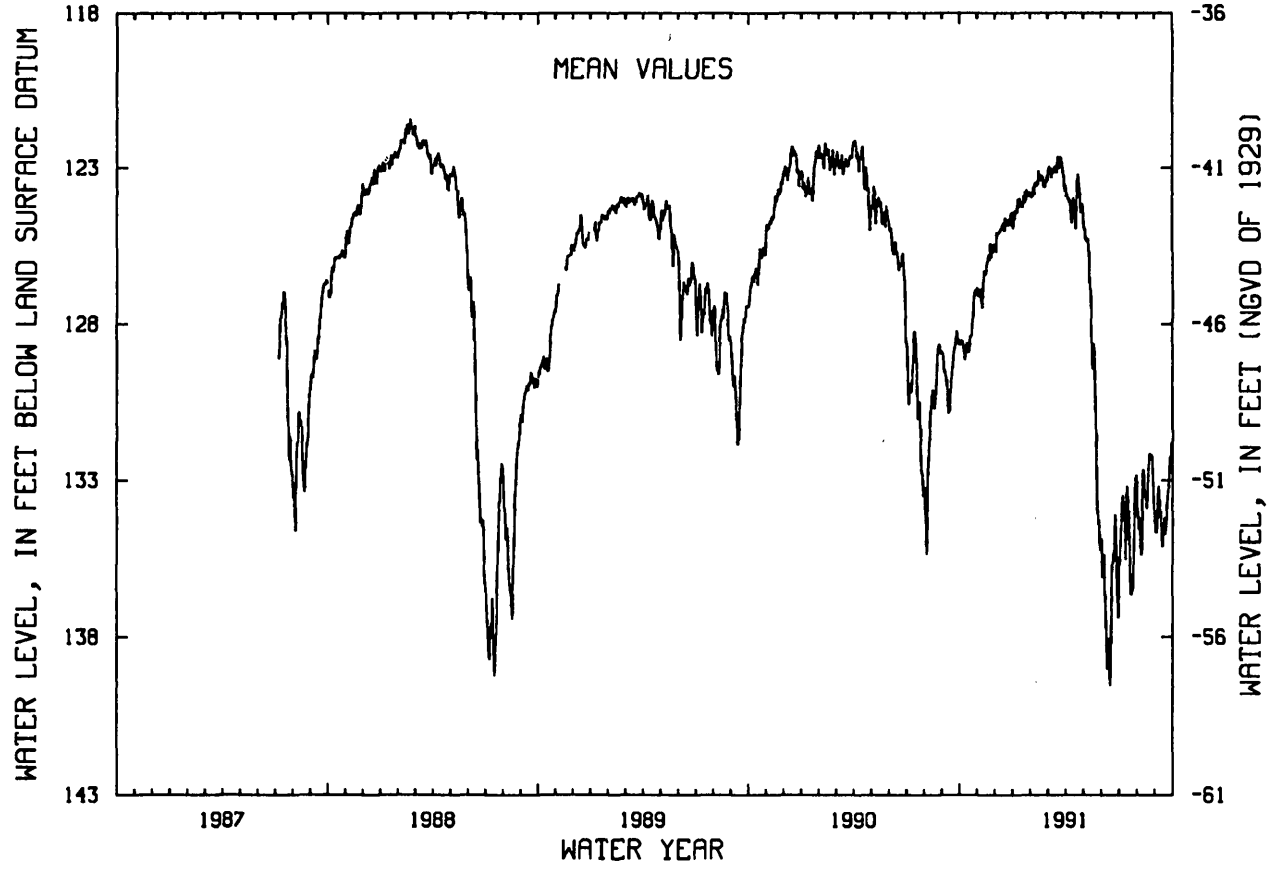
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	128.53	126.92	125.15	124.37	123.63	123.21	123.93	125.10	135.40	134.40	134.18	133.65
10	129.16	126.69	125.01	124.08	123.61	123.15	124.33	125.29	138.39	134.17	133.56	134.22
15	128.84	126.39	124.80	124.14	123.32	123.15	123.97	127.85	138.90	133.18	133.56	134.28
20	128.37	125.78	124.87	123.79	123.30	123.01	124.30	128.86	135.65	135.74	132.83	134.19
25	127.17	125.60	124.85	123.92	123.64	122.71	123.67	133.39	134.37	136.55	132.23	132.80
EOM	126.86	125.60	124.68	123.81	123.31	123.77	124.17	134.89	137.39	132.84	134.35	131.84
MEAN	128.25	126.32	124.92	124.15	123.52	123.07	124.10	128.84	136.60	134.64	133.46	133.75

WTR YR 1991 MEAN 128.49 HIGH 122.37 MAR 23 LOW 139.83 JUN 16

NJ-WRD WELL NO.15-0741



GLOUCESTER COUNTY

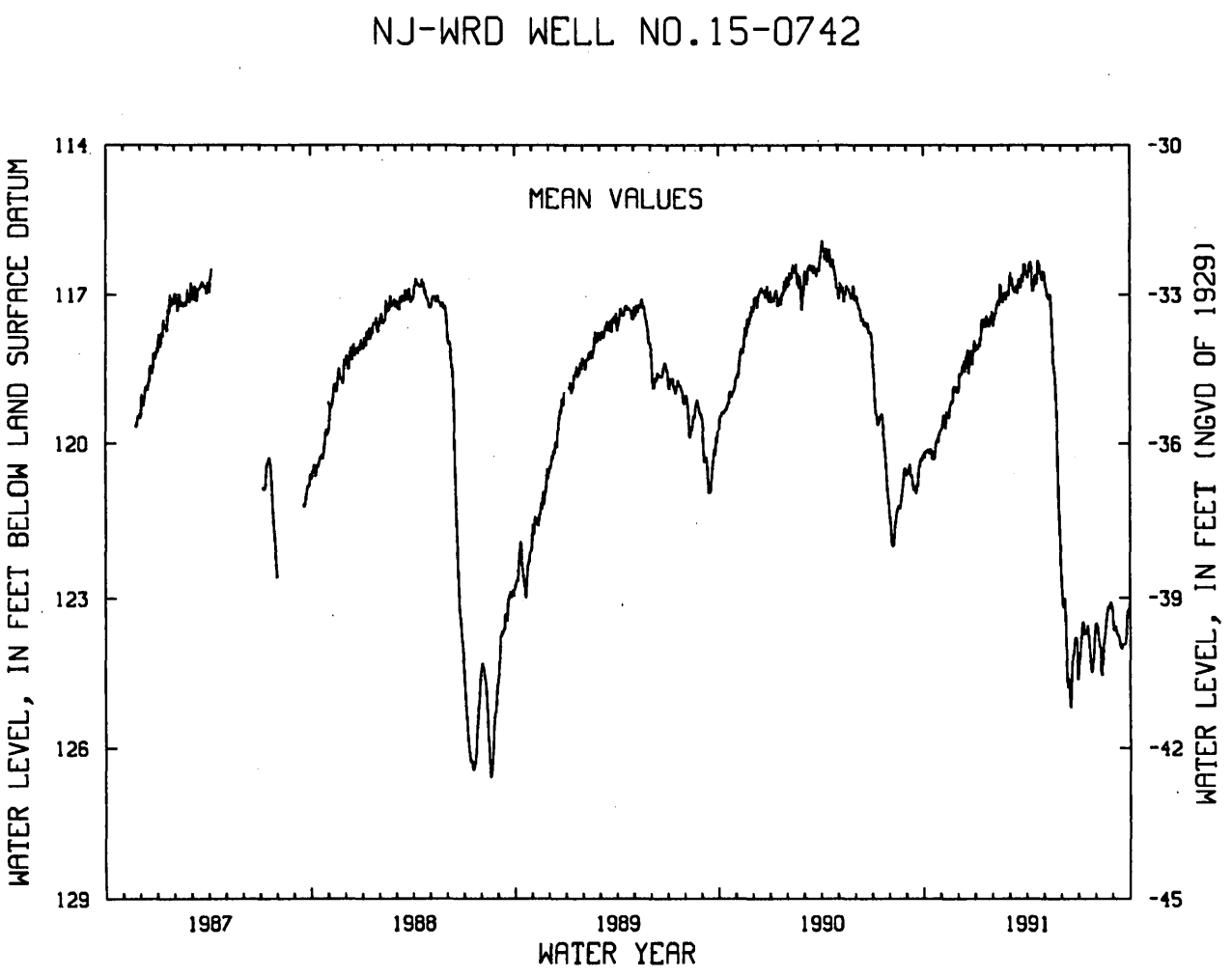
394652075100402. Local I.D., Mantua Deep Obs. NJ-WRD Well Number, 15-0742.
LOCATION.--Lat 39°46'52", long 75°10'04", Hydrologic Unit 02040202, at the Township of Mantua Road Dept. off Main Street (County Rt. 553), Mantua Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 777 ft, screened 757 to 777 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 84 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 4.20 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Nov. 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.89 ft below land-surface datum, Apr. 4, 1990; lowest, 126.62 ft below land-surface datum, Aug. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	120.16	119.45	118.63	118.10	117.38	116.76	116.49	116.86	123.18	123.98	123.64	123.56
10	120.15	119.36	118.41	117.93	117.13	116.91	116.44	117.04	123.89	123.48	124.21	123.76
15	120.13	119.47	118.38	117.66	116.84	116.87	116.68	117.39	124.60	123.71	123.92	124.01
20	120.31	119.17	118.59	117.46	116.98	116.83	116.69	118.48	124.55	123.82	123.39	123.92
25	119.96	118.85	118.33	117.65	116.97	116.70	116.50	119.64	123.82	124.47	123.21	123.41
EOM	119.73	118.98	118.02	117.40	117.02	116.60	116.59	122.00	124.26	123.63	123.27	123.12
MEAN	120.10	119.29	118.42	117.71	117.15	116.76	116.58	118.27	123.92	123.93	123.62	123.68

WTR YR 1991 MEAN 119.96 HIGH 116.25 APR 22 LOW 125.28 JUN 18



GLOUCESTER COUNTY

394808075172401. Local I.D., Stefka 1 Obs. NJ-WRD Well Number, 15-0712.
LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 295 ft, screened 275 to 290 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 6.50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.80 ft below land-surface datum, May 16, 1989; lowest, 18.88 ft below land-surface datum, July 20,21, 1988.

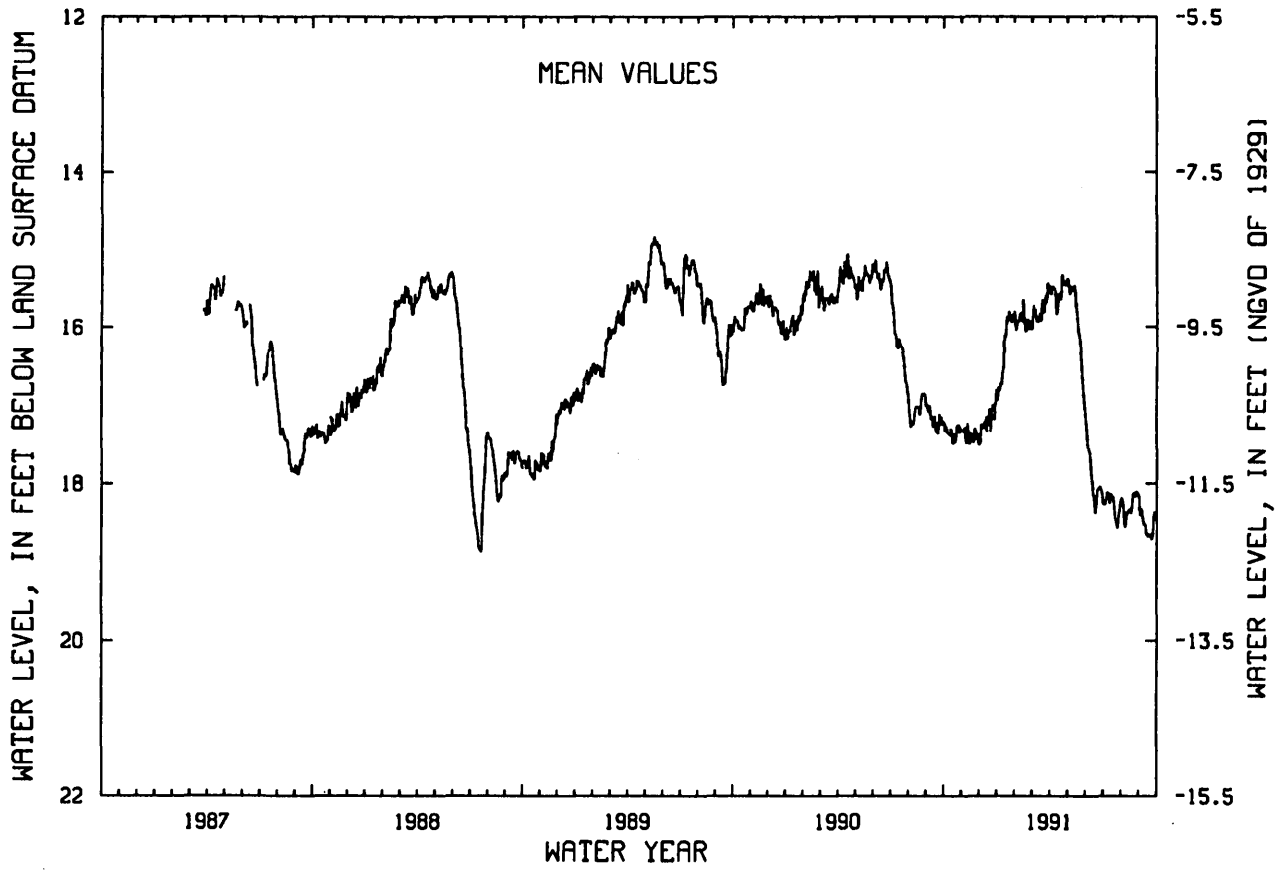
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.28	17.28	17.28	16.78	15.93	15.86	15.48	15.57	17.49	18.23	18.38	18.35
10	17.37	17.23	17.21	16.56	15.82	15.90	15.53	15.51	17.81	18.16	18.37	18.53
15	17.37	17.46	17.22	16.09	15.72	15.87	15.62	15.65	18.18	18.19	18.34	18.68
20	17.47	17.44	17.33	15.81	15.90	15.74	15.59	16.08	18.15	18.33	18.20	18.66
25	17.26	17.33	---	15.94	15.94	15.65	15.43	16.46	18.04	18.57	18.17	18.46
EOM	17.32	17.50	16.85	15.84	16.03	15.56	15.40	17.04	18.19	18.22	18.17	18.44
MEAN	17.34	17.38	17.19	16.20	15.92	15.76	15.53	15.95	17.91	18.28	18.28	18.53

WTR YR 1991 MEAN 17.03 HIGH 15.28 APR 22 LOW 18.73 SEP 22

NJ-WRD WELL NO.15-0712



GLOUCESTER COUNTY

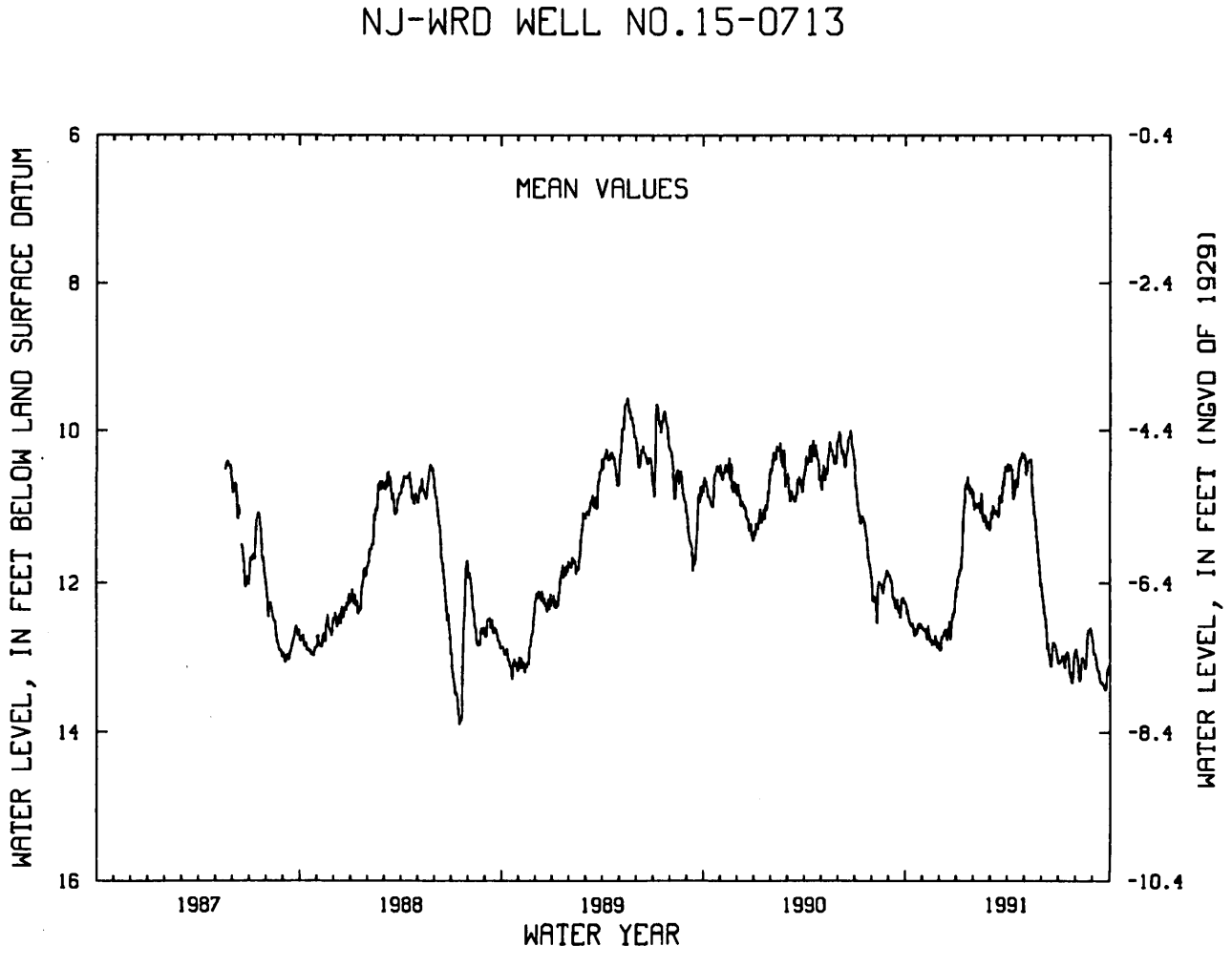
394808075172402. Local I.D., Stefka 2 Obs. NJ-WRD Well Number, 15-0713.
LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 155 ft, screened 125 to 155 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 5.64 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--May 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.53 ft below land-surface datum, May 16, 1989; lowest, 13.96 ft below land-surface datum, July 17, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.41	12.60	12.73	11.86	10.96	11.14	10.46	10.59	12.36	13.02	13.10	12.98
10	12.56	12.56	12.61	11.62	10.94	11.03	10.58	10.39	12.67	13.01	13.08	13.16
15	12.62	12.75	12.63	10.90	10.92	11.10	10.68	10.68	12.98	12.93	13.04	13.34
20	12.68	12.80	12.75	10.61	11.09	10.91	10.67	11.11	12.86	13.12	12.91	13.38
25	12.54	12.77	12.44	10.80	11.19	10.71	10.37	11.51	12.83	13.34	12.65	13.23
EOM	12.60	12.88	12.09	10.85	11.30	10.55	10.31	11.99	13.04	12.90	12.78	13.13
MEAN	12.54	12.73	12.57	11.15	11.06	10.91	10.53	10.95	12.73	13.06	12.93	13.20

WTR YR 1991 MEAN 12.04 HIGH 10.27 APR 27 LOW 13.47 SEP 22



GLOUCESTER COUNTY

394808075172404. Local I.D., Stefka 4 Obs. NJ-WRD Well Number, 15-0728.
LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 56 ft, screened 46 to 56 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 4.46 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.42 ft above land-surface datum.
PERIOD OF RECORD.--May 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.17 ft below land-surface datum, May 16, 1989; lowest, 12.64 ft below land-surface datum, July 17, 1988.

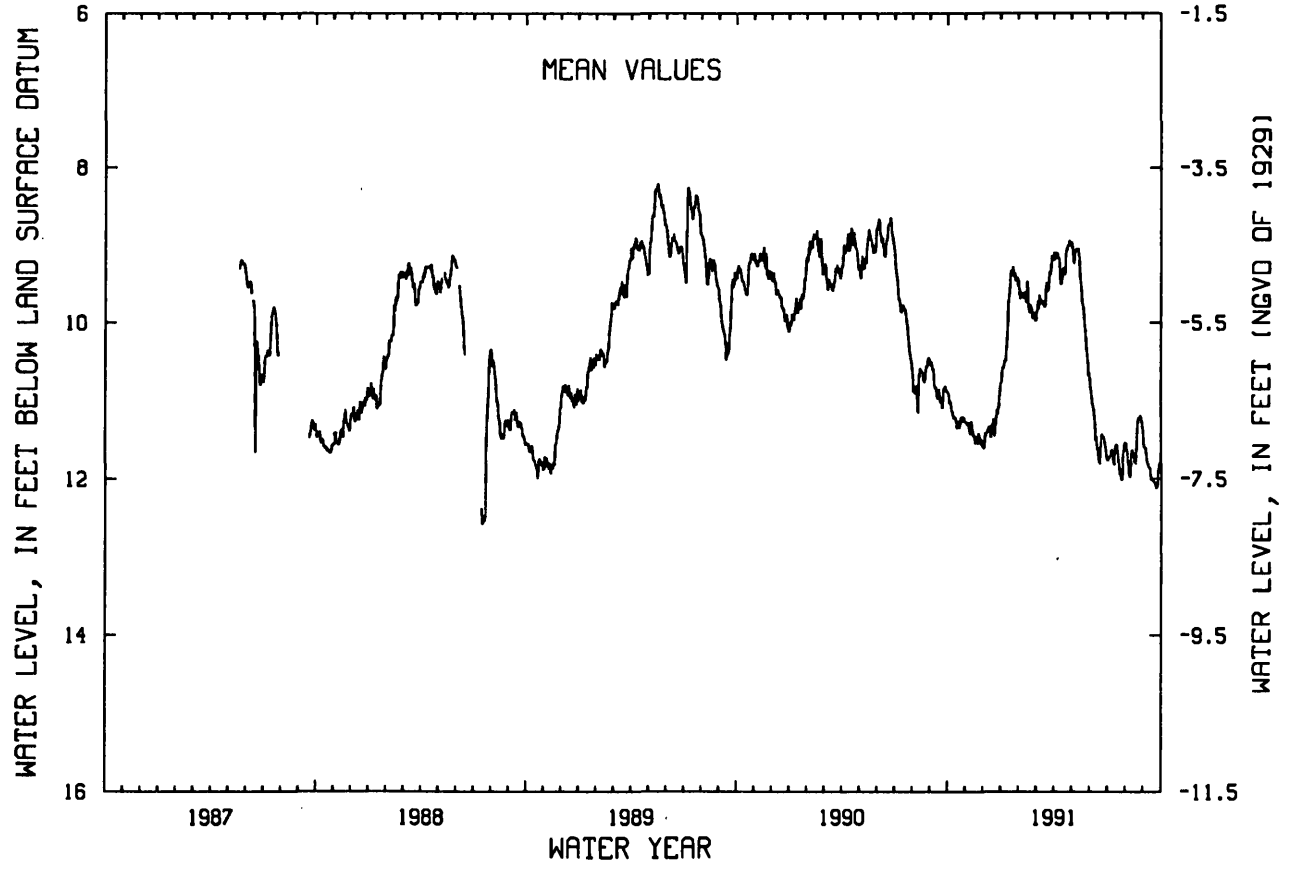
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.03	11.28	11.45	10.56	9.64	9.82	9.11	9.24	11.02	11.71	11.75	11.65
10	11.20	11.27	11.33	10.28	9.61	9.71	9.23	9.04	11.32	11.69	11.76	11.85
15	11.26	11.45	11.36	9.55	9.59	9.78	9.35	9.33	11.66	11.59	11.70	12.02
20	11.35	11.51	11.46	9.28	9.77	9.58	9.35	9.77	11.52	11.79	11.55	12.06
25	11.22	11.49	11.17	9.46	9.87	9.37	9.01	10.16	11.48	12.02	11.25	11.94
EOM	11.28	11.60	10.78	9.52	9.98	9.20	8.96	10.65	11.72	11.54	11.41	11.81
MEAN	11.20	11.43	11.29	9.82	9.74	9.59	9.18	9.60	11.39	11.73	11.57	11.88

WTR YR 1991 MEAN 10.71 HIGH 8.93 APR 27,28 LOW 12.14 SEP 22

NJ-WRD WELL NO.15-0728



GLOUCESTER COUNTY

394942075131701. Local I.D., Shell Chemical 5 Obs. NJ-WRD Well Number, 15-0296.
LOCATION.--Lat 39°49'42", long 75°13'17", Hydrologic Unit 02040202, near the interchange of Mantua Grove Rd. and I-295, West Deptford Township.
Owner: Huntsman Polypropylene Corp.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 327 ft, screened 321 to 326 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 20.76 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.90 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.-June 1962 to current year. Records for 1962 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.75 ft below land-surface datum, Dec. 6, 1962; lowest, 42.50 ft below land-surface datum, Aug. 15, 1986.

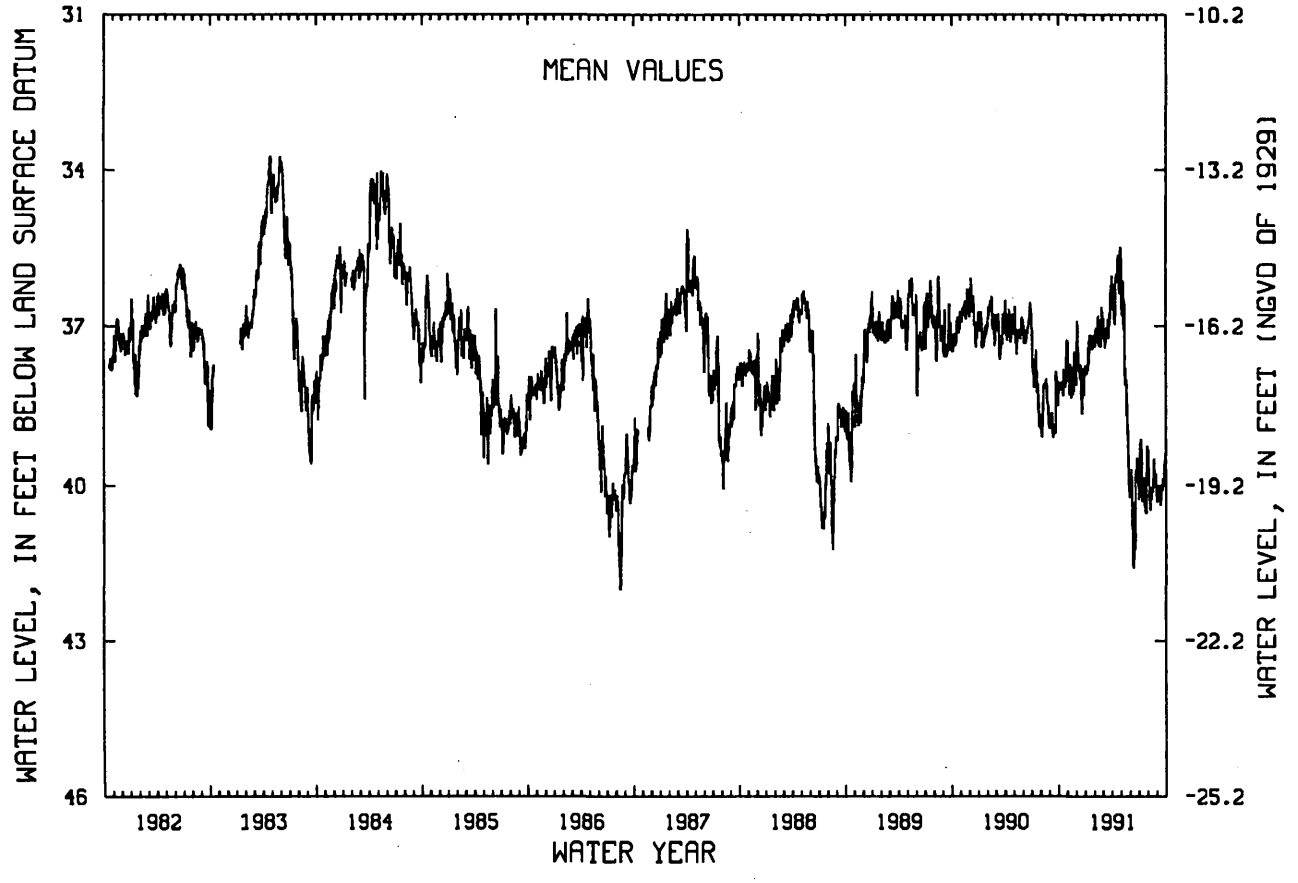
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.07	37.77	37.23	37.85	37.09	37.14	36.70	36.79	39.69	39.26	40.12	40.07
10	38.18	37.67	37.67	37.78	37.05	37.20	36.84	36.81	41.30	39.63	40.17	40.04
15	38.08	38.10	37.79	37.48	36.91	37.07	36.00	37.81	40.89	40.01	40.04	40.05
20	37.93	38.27	38.64	37.19	37.29	37.22	35.99	38.06	39.75	40.19	39.57	39.86
25	38.06	37.47	38.06	37.42	36.87	36.85	36.09	39.16	39.55	40.54	39.98	39.63
EOM	37.28	38.09	37.86	37.17	37.20	36.22	35.49	39.93	40.26	39.36	40.31	39.45
MEAN	37.99	37.87	37.81	37.48	37.16	36.95	36.20	37.82	40.29	39.83	39.99	39.96

WTR YR 1991 MEAN 38.29 HIGH 35.24 MAY 1 LOW 41.84 JUN 12

NJ-WRD WELL NO.15-0296



GLOUCESTER COUNTY

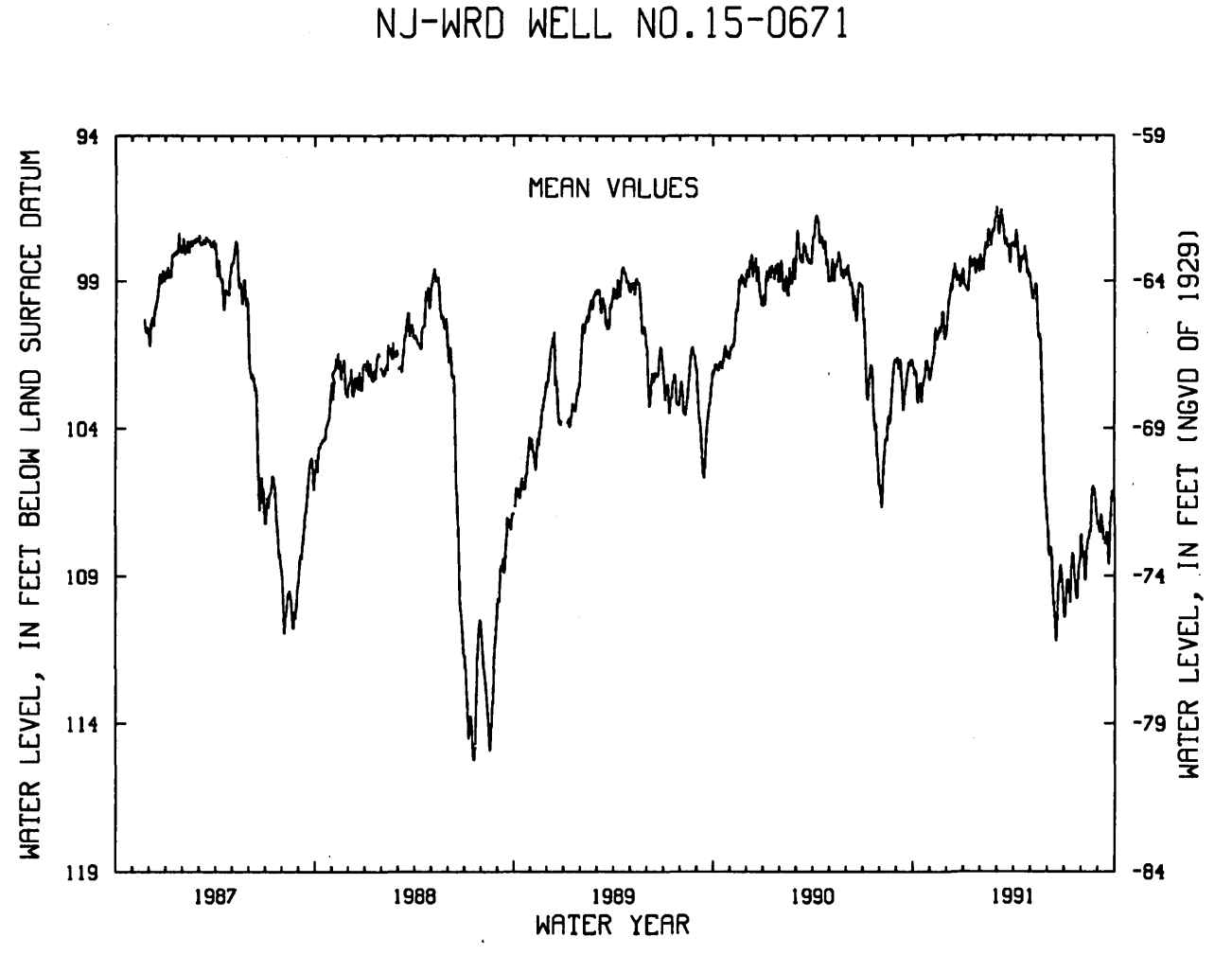
394957075053001. Local I.D., Deptford Deep Obs. NJ-WRD Well Number, 15-0671.
LOCATION.--Lat 39°49'57", Long 75°05'30", Hydrologic Unit 02040202, at N.J. Dept. of Transportation facility off N.J. Rt. 41, Deptford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 670 ft, screened 650 to 670 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 35 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.55 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--June 1986 to current year. Records for 1986 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level 96.22 ft below land surface datum, Mar. 2, 1991; lowest 115.36 ft below land surface datum, July 19, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.06	101.77	99.65	99.27	98.62	97.37	97.32	99.51	108.02	109.67	108.15	107.16
10	103.02	100.61	99.31	98.86	97.72	96.57	98.09	99.19	108.94	109.41	108.31	107.76
15	102.88	100.85	98.39	98.42	97.22	97.39	98.23	100.39	110.53	108.48	107.64	107.53
20	102.40	100.66	98.98	98.20	97.52	97.75	98.20	101.01	109.63	109.05	106.76	108.16
25	101.70	100.11	99.20	98.58	97.18	98.26	98.49	104.03	108.62	109.77	106.05	106.52
EOM	102.34	100.81	98.86	98.09	96.81	97.81	98.73	106.70	109.92	107.66	107.26	106.39
MEAN	102.35	100.98	99.09	98.65	97.65	97.39	98.14	101.42	109.15	109.18	107.42	107.27

WTR YR 1991 MEAN 102.41 HIGH 96.22 MAR 2 LOW 111.39 JUN 17



GLOUCESTER COUNTY

395232075094201. Local I.D., Eagle Point 3 Obs. NJ-WRD Well Number, 15-0323.
LOCATION.--Lat 39°52'35", long 75°09'50", Hydrologic Unit 02040202, at the Coastal Eagle Point Oil Company, West Deptford Township.
Owner: Coastal Eagle Point Oil Company.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 276 ft, screened 255 to 275 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Apr. 1981 to Dec. 1984.
DATUM.--Land-surface datum is 20.96 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.00 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--Nov. 1949 to July 1975, Apr. 1981 to current year. Periodic manual measurements, Oct. 1976 to Mar. 1981. Records for 1975 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.70 ft below land-surface datum, Nov. 25, 1950; lowest, 87.30 ft below land-surface datum, June 28, 1963.

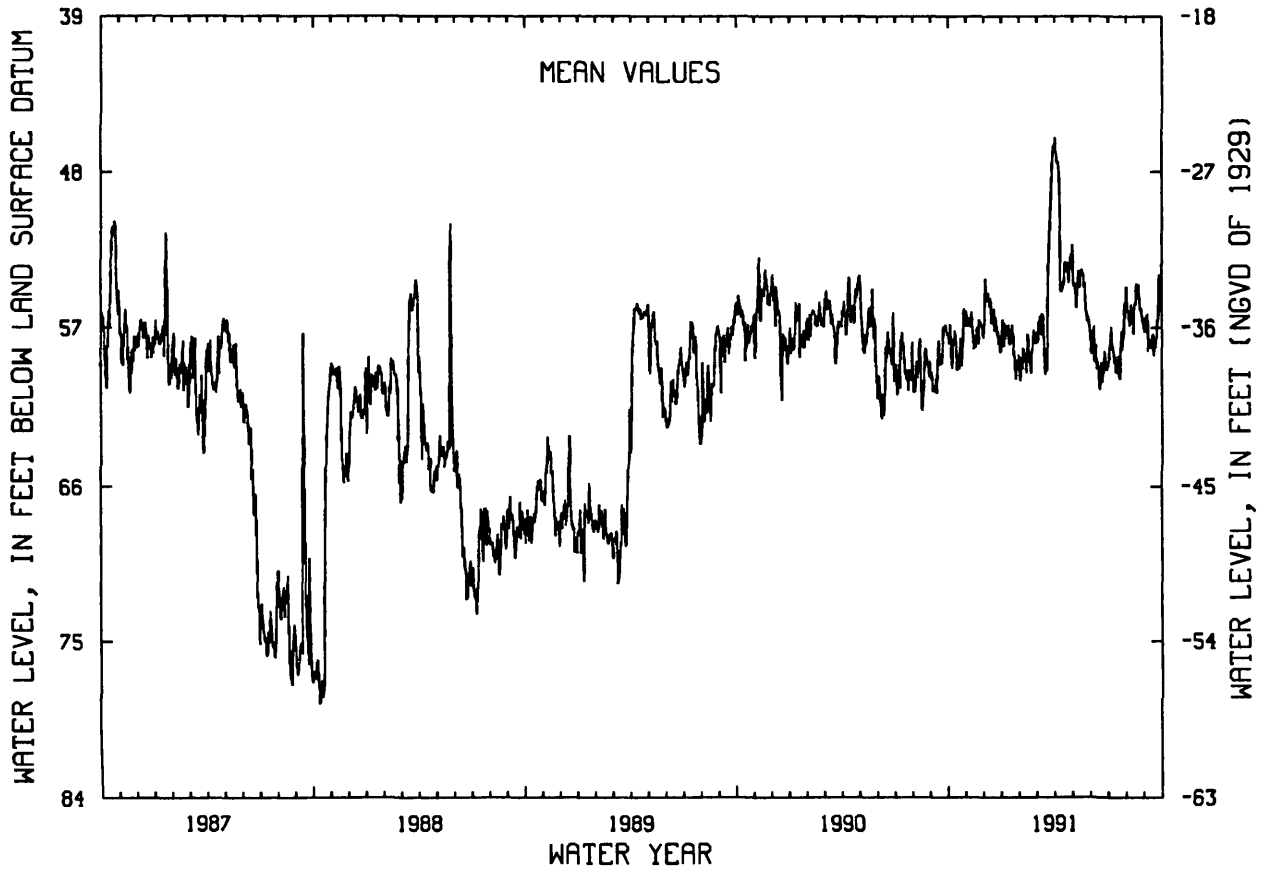
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.49	56.45	55.33	56.72	59.19	56.62	47.49	54.58	57.19	57.71	56.13	56.36
10	57.57	56.08	55.55	57.29	58.60	56.22	52.08	54.67	57.83	57.98	56.29	57.61
15	58.12	57.77	56.17	57.82	57.59	58.68	54.42	54.02	59.33	58.99	55.71	57.32
20	59.21	57.31	57.03	57.25	59.47	55.82	53.64	53.97	58.85	59.69	54.87	57.55
25	58.50	56.65	57.18	59.81	57.28	49.95	54.45	56.01	58.17	58.13	55.99	54.41
EOM	56.04	57.50	58.16	58.87	57.48	46.79	52.88	57.17	58.97	55.91	57.03	56.16
MEAN	57.82	57.05	56.46	57.81	58.37	54.63	51.82	54.89	58.73	58.14	55.95	56.84

WTR YR 1991 MEAN 56.53 HIGH 44.96 APR 3 LOW 61.93 JUN 18

NJ-WRD WELL NO.15-0323



HUNTERDON COUNTY

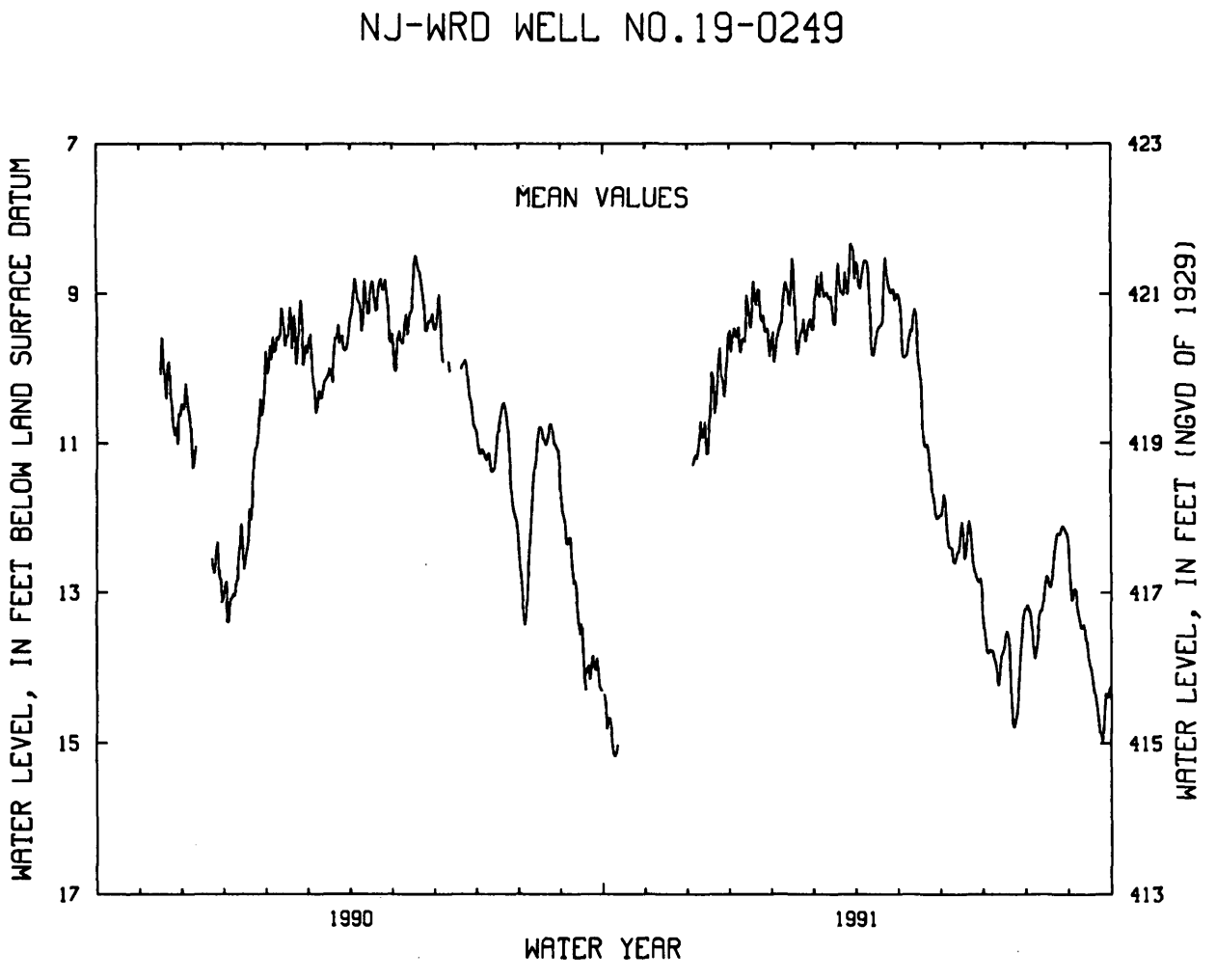
402141074535801. Local I.D., Hunter Rd TB 3 Obs. NJ-WRD Well Number, 19-0249.
LOCATION.--Lat 40°21'41", long 74°53'58", Hydrologic Unit 02040105, At the intersection of Hunter Rd and Rt. 518, West Amwell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 63.5 ft, open hole 11.5 to 63.5 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.85 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.27 ft below land-surface datum, Mar. 28, 1991; lowest, 15.18 ft below land-surface datum, Oct. 8-9, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.66	---	11.23	9.58	9.42	8.98	8.77	9.84	12.07	13.80	13.45	12.97
10	15.13	---	10.71	9.60	8.90	9.00	8.73	9.48	12.58	13.92	13.34	13.46
15	---	---	11.14	9.45	8.70	9.25	9.69	9.57	12.23	13.80	12.78	13.97
20	---	---	10.60	8.95	9.50	8.83	9.37	11.04	12.21	13.72	12.69	14.53
25	---	---	10.09	9.50	9.47	8.87	8.93	11.39	12.70	14.61	12.22	14.67
EOM	---	---	9.49	9.51	9.47	8.80	9.03	11.97	12.93	13.22	12.34	14.25
MEAN	---	---	10.52	9.41	9.33	8.93	9.04	10.37	12.38	13.89	12.86	13.90

WTR YR 1991 MEAN 11.21 HIGH 8.27 MAR 28 LOW 15.18 OCT 8-9



HUNTERDON COUNTY

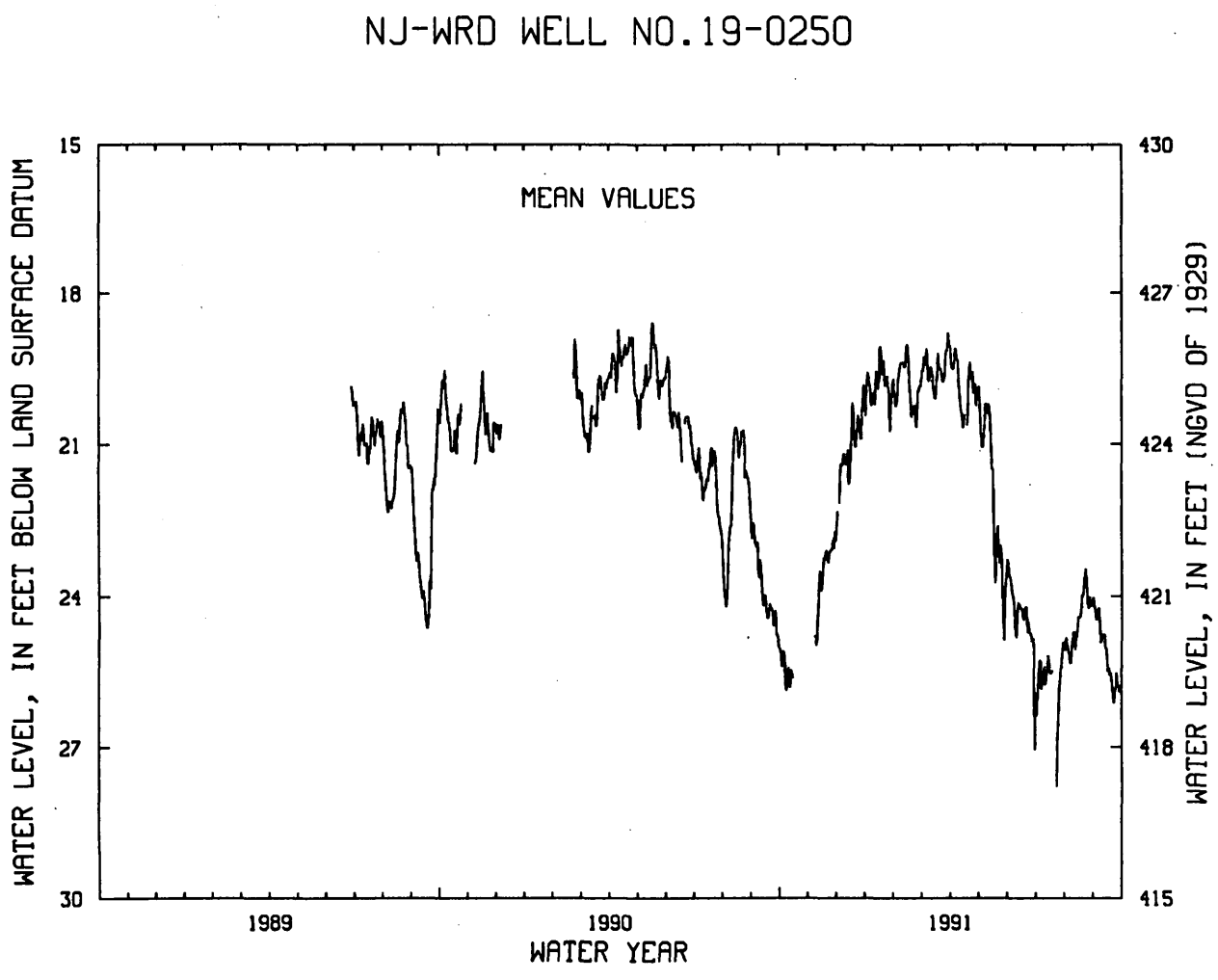
402146074535102. Local I.D., West Amwell Fire TB 2 Obs. NJ-WRD Well Number, 19-0250.
LOCATION.--Lat 40°21'46", long 74°53'51", Hydrologic Unit 02040105, At the West Amwell Fire House, Rt. 518 West Amwell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 428 ft, open hole 12 to 428 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 445 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.20 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--June 1989 to current year. Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.30 ft below land-surface datum, May 18, 1990; lowest, 28.47 ft below land-surface datum, July 23, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.11	---	21.55	19.78	19.67	19.31	19.40	21.06	23.77	25.29	25.12	24.25
10	25.42	24.50	21.31	20.16	19.39	19.74	19.71	20.22	24.84	25.41	24.71	24.78
15	25.64	23.78	21.67	19.89	19.11	19.95	20.67	21.25	24.26	25.31	24.43	25.37
20	---	23.08	21.01	19.34	20.33	19.45	20.48	23.17	24.21	---	23.99	25.72
25	---	23.07	20.59	19.85	20.43	19.77	19.56	22.98	24.74	26.46	24.15	25.54
EOM	---	22.88	19.90	19.70	19.84	19.07	19.91	23.53	27.05	24.94	24.02	25.85
MEAN	---	23.54	21.04	19.84	19.84	19.52	19.82	21.90	24.39	25.70	24.48	25.22

WTR YR 1991 MEAN 22.41 HIGH 18.44 MAR 30 LOW 28.47 JUL 23



HUNTERDON COUNTY

402151074525301. Local I.D., Corsalo Rd TB 1 Obs. NJ-WRD Well Number, 19-0251.
LOCATION.--Lat 40°21'51", long 74°52'53", Hydrologic Unit 02040105, Along Rt. 518, 1100 ft east of intersection with Corsalo Rd., West Amwell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 299 ft, open hole 21.5 to 299 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.60 ft above land-surface datum.
PERIOD OF RECORD.--June 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.20 ft below land-surface datum, Mar. 28, 1991; lowest, 7.54 ft below land-surface datum, Sept. 22, 24, 1991.

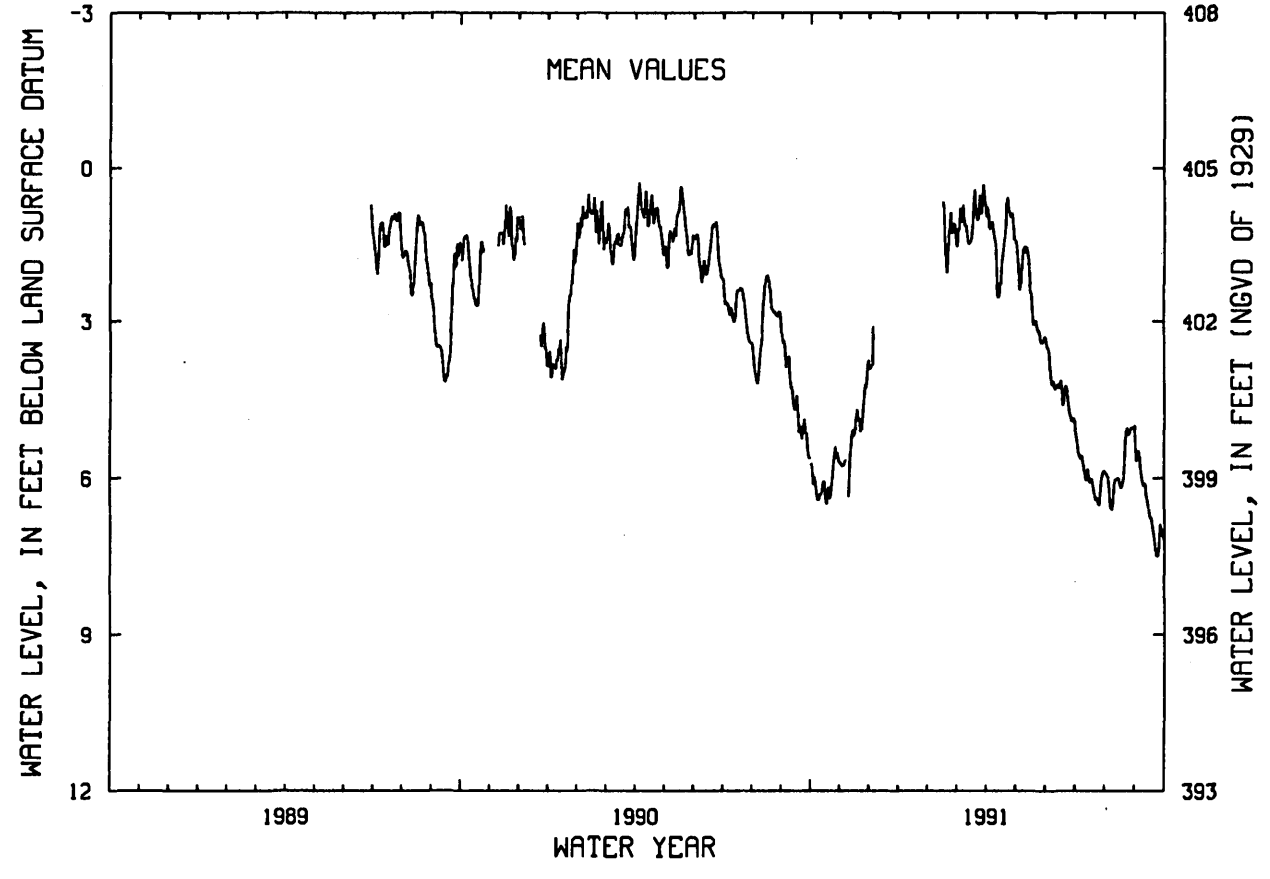
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.04	5.66	---	---	---	1.06	1.11	2.39	3.93	5.55	6.21	5.56
10	6.30	5.68	---	---	---	1.12	1.57	1.54	4.30	5.82	6.14	6.11
15	6.08	5.10	---	---	.76	1.42	2.23	2.17	4.19	5.99	6.02	6.73
20	6.39	5.00	---	---	1.29	.77	1.17	3.06	4.31	6.23	5.99	7.19
25	5.57	4.23	---	---	1.08	.78	.94	3.16	4.77	6.51	5.17	7.12
EOM	5.69	3.92	---	---	1.50	.95	1.41	3.30	4.90	5.86	5.00	7.19
MEAN	6.03	5.01	---	---	1.27	.98	1.36	2.47	4.30	5.92	5.78	6.56

WTR YR 1991 MEAN 4.10 HIGH .20 MAR 28 LOW 7.54 SEP 22,24

NJ-WRD WELL NO.19-0251



HUNTERDON COUNTY

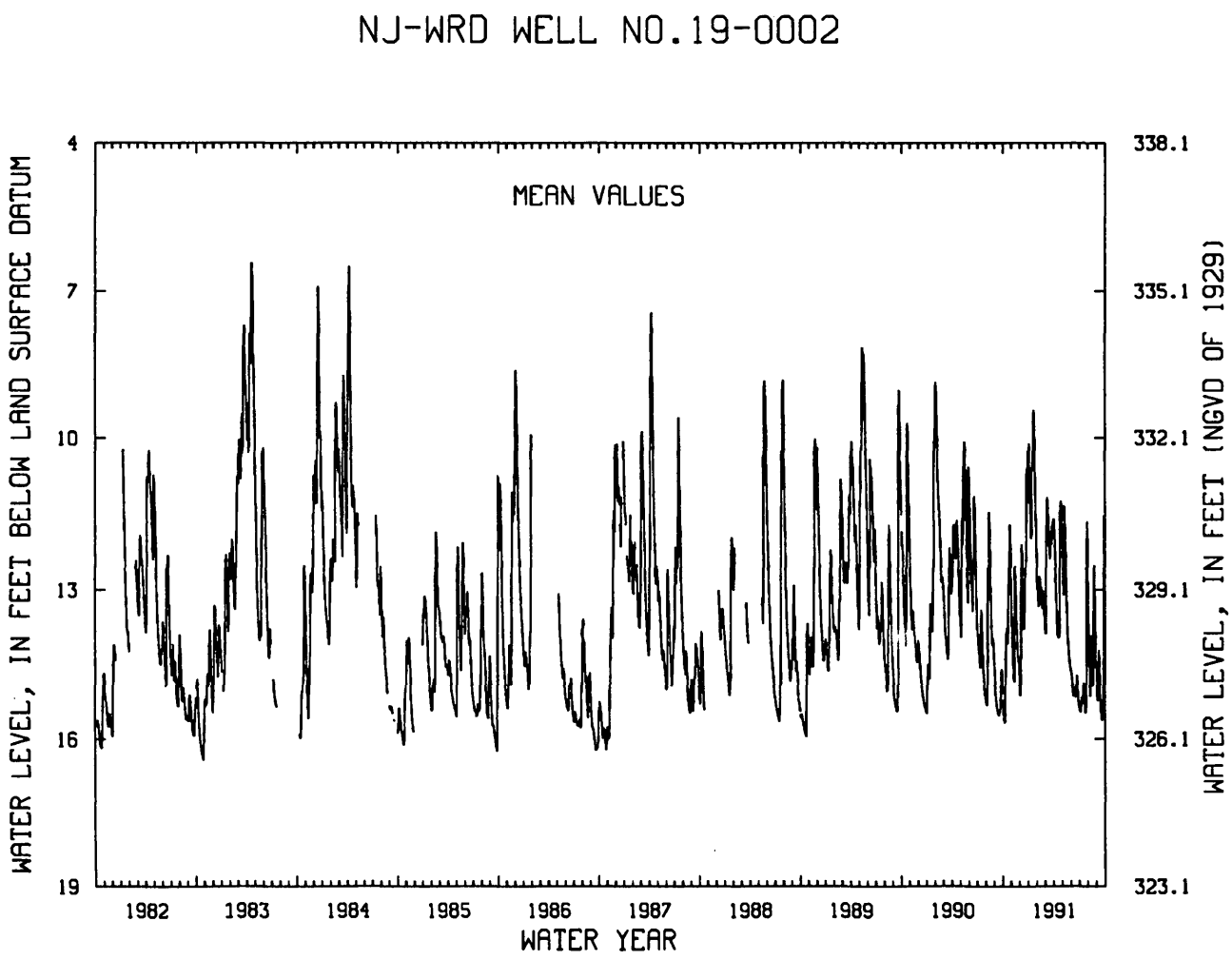
402644074563601. Local I.D., Bird Obs. NJ-WRD Well Number, 19-0002.
LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, near U.S. Post Office, Sergeantsville, Delaware Township
Owner: Phillip Fleming.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 36 in, depth 21 ft, lined with stone.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 342.08 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--June 1965 to July 1970, May 1977 to current year. Periodic manual measurements, Sept. 1970 to Sept. 1976. Records for 1965 to 1976 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.37 ft below land-surface datum, Apr. 18, 1983; lowest, 17.04 ft below land-surface datum, Jan. 26-28, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.58	14.30	13.08	10.85	13.22	12.04	12.26	13.01	14.83	15.46	14.42	15.22
10	14.66	14.84	12.56	12.00	12.72	11.26	13.19	11.66	15.09	15.16	14.97	14.49
15	13.76	12.80	13.76	10.65	12.95	12.21	13.92	12.84	14.97	14.97	14.25	15.31
20	13.14	13.87	12.67	9.51	13.31	11.86	13.95	13.88	14.89	15.20	14.54	15.62
25	11.73	14.33	10.75	11.09	13.30	11.79	11.40	14.32	14.97	15.29	13.21	15.13
EOM	13.17	14.86	10.53	12.77	13.65	11.65	11.88	14.62	15.29	12.75	14.70	12.30
MEAN	13.86	13.97	12.65	10.94	13.12	12.04	12.65	13.20	14.97	14.76	14.11	14.58

WTR YR 1991 MEAN 13.40 HIGH 9.43 JAN 19 LOW 15.69 OCT 8,9



HUNTERDON COUNTY

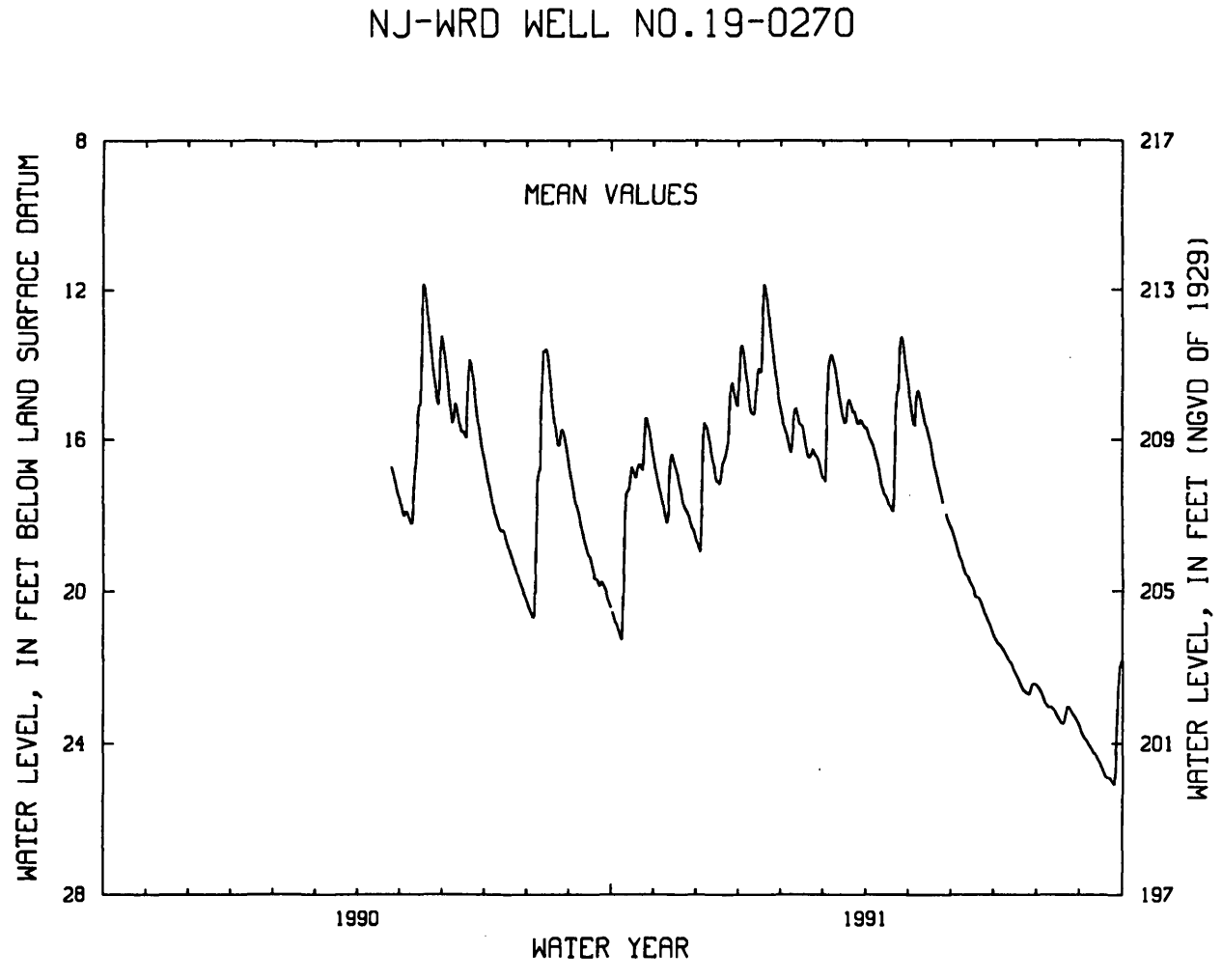
403517074452501. Local I.D., Readington School 11 Obs. NJ-WRD Well Number, 19-0270.
LOCATION.--Lat 40°35'17", long 74°45'25", Hydrologic Unit 02030105, behind Readington School, on Readington Rd. (County Rd. 620), Readington Township.
Owner: State of New Jersey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 101 ft, open hole 50 to 101 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 224.99 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.79 ft below land-surface datum, May 18, 1990; lowest, 25.10 ft below land-surface datum, Sept. 24, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.96	17.49	15.99	14.29	16.17	14.05	16.08	15.57	18.88	21.39	22.79	23.94
10	17.90	18.01	16.09	15.31	15.16	14.14	16.73	14.92	19.46	21.67	23.05	24.25
15	16.73	16.71	17.10	14.21	15.74	15.29	17.49	15.80	19.84	22.05	23.28	24.60
20	16.66	17.53	16.56	12.18	16.45	14.94	17.91	16.72	20.17	22.45	23.42	24.90
25	15.44	18.06	14.57	13.94	16.47	15.41	13.54	17.50	20.61	22.69	23.17	24.73
EOM	16.58	18.66	14.25	15.35	16.88	15.71	14.21	18.30	21.05	22.45	23.58	21.86
MEAN	17.83	17.53	16.27	14.03	16.04	15.17	16.06	16.17	19.81	22.04	23.13	24.09

WTR YR 1991 MEAN 18.19 HIGH 11.81 JAN 18 LOW 25.10 SEP 24



MERCER COUNTY

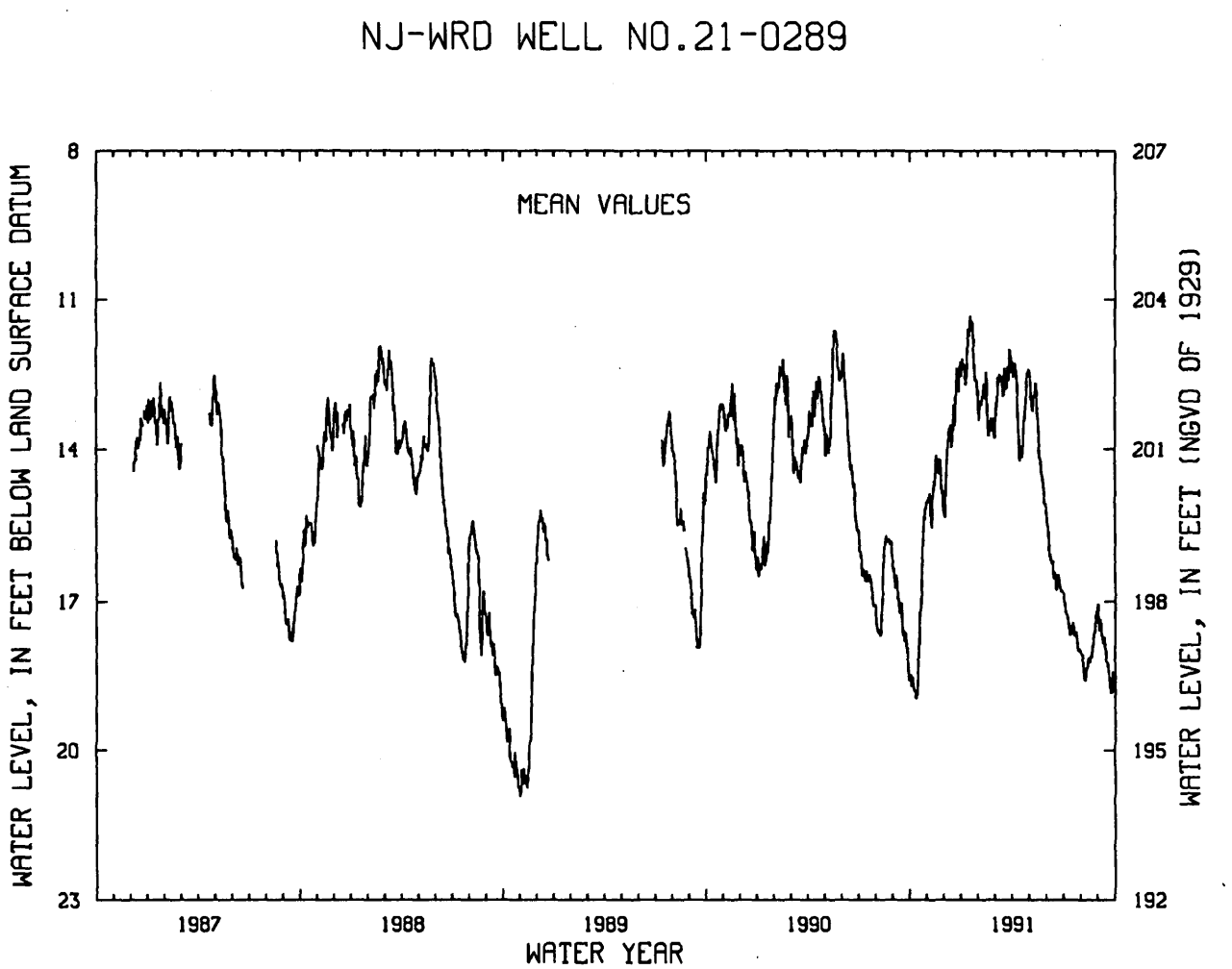
401753074483501. Local I.D., Bristol-Myers 100 Obs. NJ-WRD Well Number, 21-0289.
LOCATION.--Lat 40°17'53", long 74°48'35", Hydrologic Unit 02040105, Scotch Rd., about 1.1 mi. north of I-95, interchange 3, Hopewell Township.
Owner: Bristol-Myers Squibb Company.
AQUIFER.--Lockatong Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 300 ft, open hole 12 to 300 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 215 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 5.90 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1986 to current year. Records for 1986 to 1989 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.22 ft below land-surface datum, Jan. 17, 1991; lowest, 20.96 ft below land-surface datum, Oct. 31, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.54	14.89	14.53	12.37	13.05	13.16	12.34	13.02	15.80	17.21	18.30	17.42
10	18.82	15.01	13.57	12.56	12.69	12.50	12.70	12.93	16.22	17.45	18.34	17.75
15	18.26	14.56	13.82	11.73	12.67	12.78	14.23	13.08	16.45	17.63	18.14	18.21
20	17.15	14.36	13.52	11.44	13.57	12.68	14.07	14.19	16.58	17.68	18.14	18.60
25	15.57	14.39	12.64	12.61	13.42	12.51	13.16	14.56	16.72	17.82	17.62	18.47
EOM	15.02	15.19	12.36	12.94	13.74	12.46	12.43	15.07	16.81	18.01	17.05	18.81
MEAN	17.42	14.74	13.52	12.19	13.21	12.68	13.11	13.65	16.32	17.54	17.98	18.16

WTR YR 1991 MEAN 15.05 HIGH 11.22 JAN 17 LOW 18.96 OCT 11-12



MERCER COUNTY

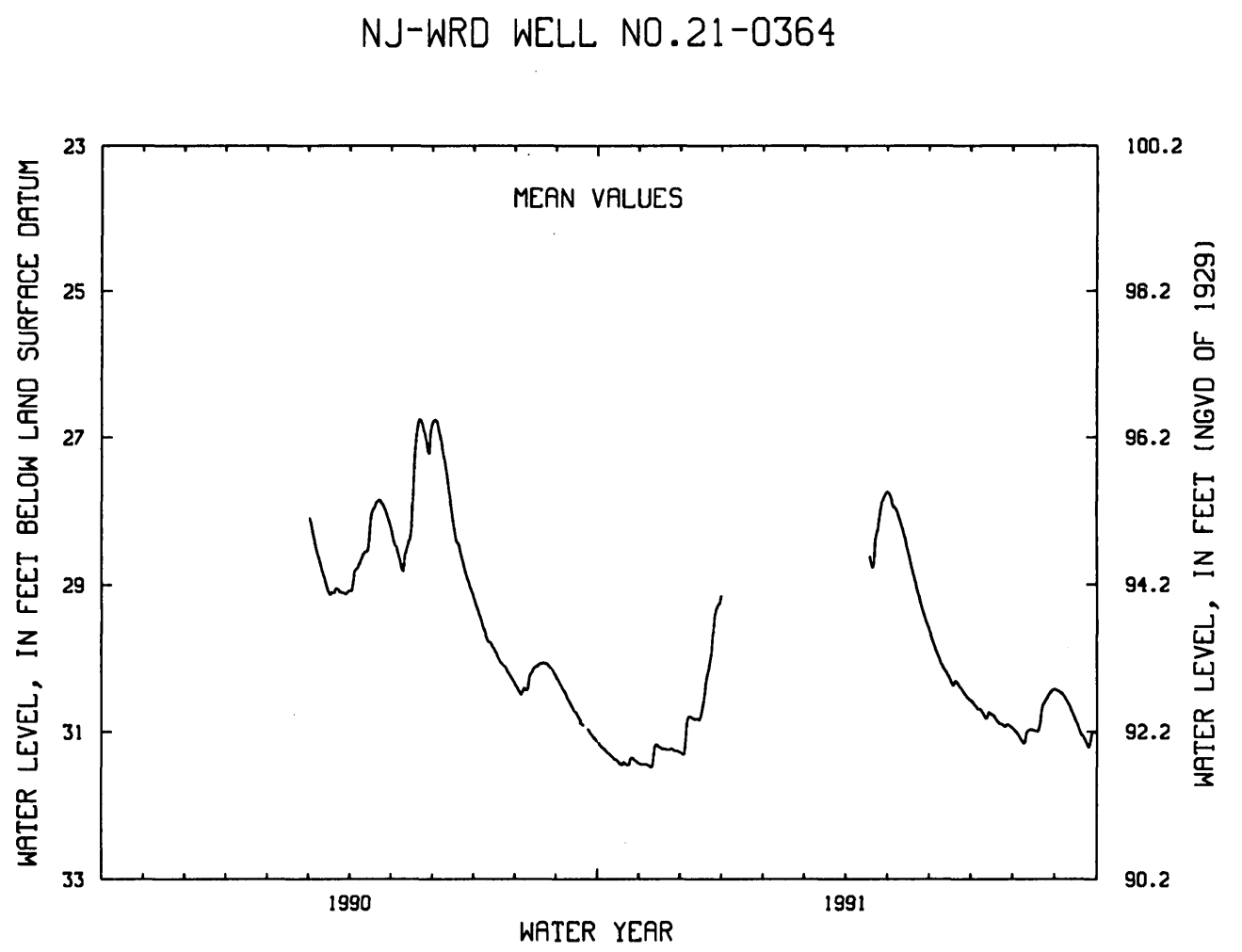
401804074432601. Local I.D., Cranston Farms 15 Obs. NJ-WRD Well Number, 21-0364.
LOCATION.--Lat 40°18'04", long 74°43'26", Hydrologic Unit 02040105, 1200 ft. north of intersection of Cold Soil Rd. and Rt. 206, Lawrenceville, Lawrence Township.
Owner: State of New Jersey.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 200 ft, open hole 50 to 200 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 123.2 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.73 ft below land-surface datum, May 22, 1990; lowest, 31.49 ft below land-surface datum, Nov. 9, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.23	31.44	30.86	---	---	---	---	27.94	29.87	30.67	31.07	30.49
10	31.32	31.39	30.83	---	---	---	---	28.13	30.10	30.76	31.03	30.64
15	31.40	31.21	30.81	---	---	---	---	28.48	30.26	30.75	30.98	30.86
20	31.42	31.24	30.23	---	---	---	28.77	28.87	30.31	30.86	30.90	31.06
25	31.35	31.24	29.47	---	---	---	28.11	29.23	30.45	30.93	30.55	31.17
EOM	31.43	31.28	---	---	---	---	27.75	29.59	30.57	30.95	30.43	31.02
MEAN	31.35	31.30	30.41	---	---	---	---	28.60	30.20	30.80	30.85	30.83

WTR YR 1991 HIGH 27.72 APR 30 LOW 31.49 NOV 9



MERCER COUNTY

402023074391901. Local I.D., Princeton 1-Brick Rd. Obs. NJ-WRD Well Number, 21-0358.
LOCATION.--Lat 40°20'23", long 74°39'19", Hydrologic Unit 02030105, Princeton University, Main Campus, Princeton Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 304.5 ft, open hole 24 to 304.5 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--June 1989 to Oct. 1990 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.81 ft below land-surface datum, May 17-18, 1990; lowest, 46.44 ft below land-surface datum, Sept. 13, 1989.

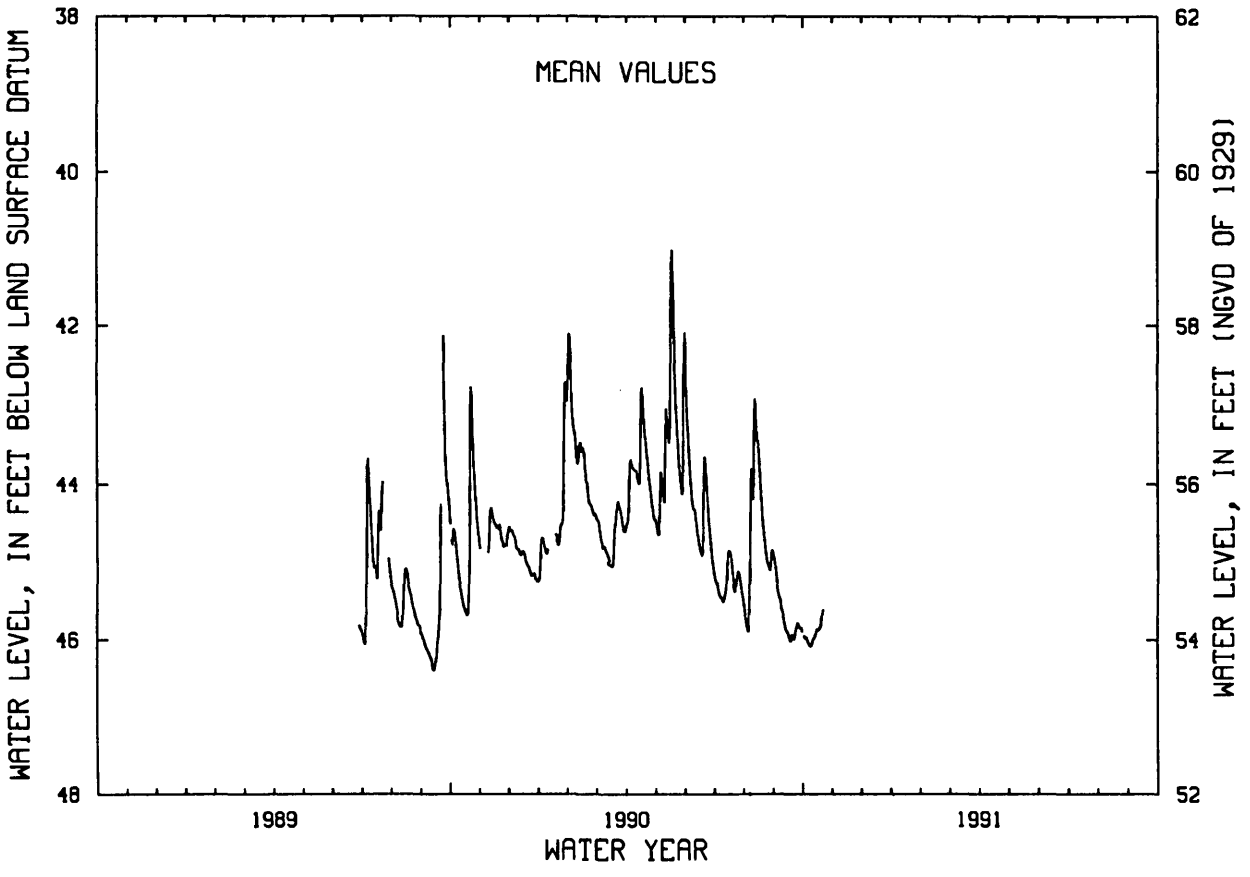
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.00	---	---	---	---	---	---	---	---	---	---	---
10	46.04	---	---	---	---	---	---	---	---	---	---	---
15	45.86	---	---	---	---	---	---	---	---	---	---	---
20	45.69	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
EOM	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	45.93	---	---	---	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH 45.57 OCT 21 LOW 46.13 OCT 8

NJ-WRD WELL NO.21-0358



MERCER COUNTY

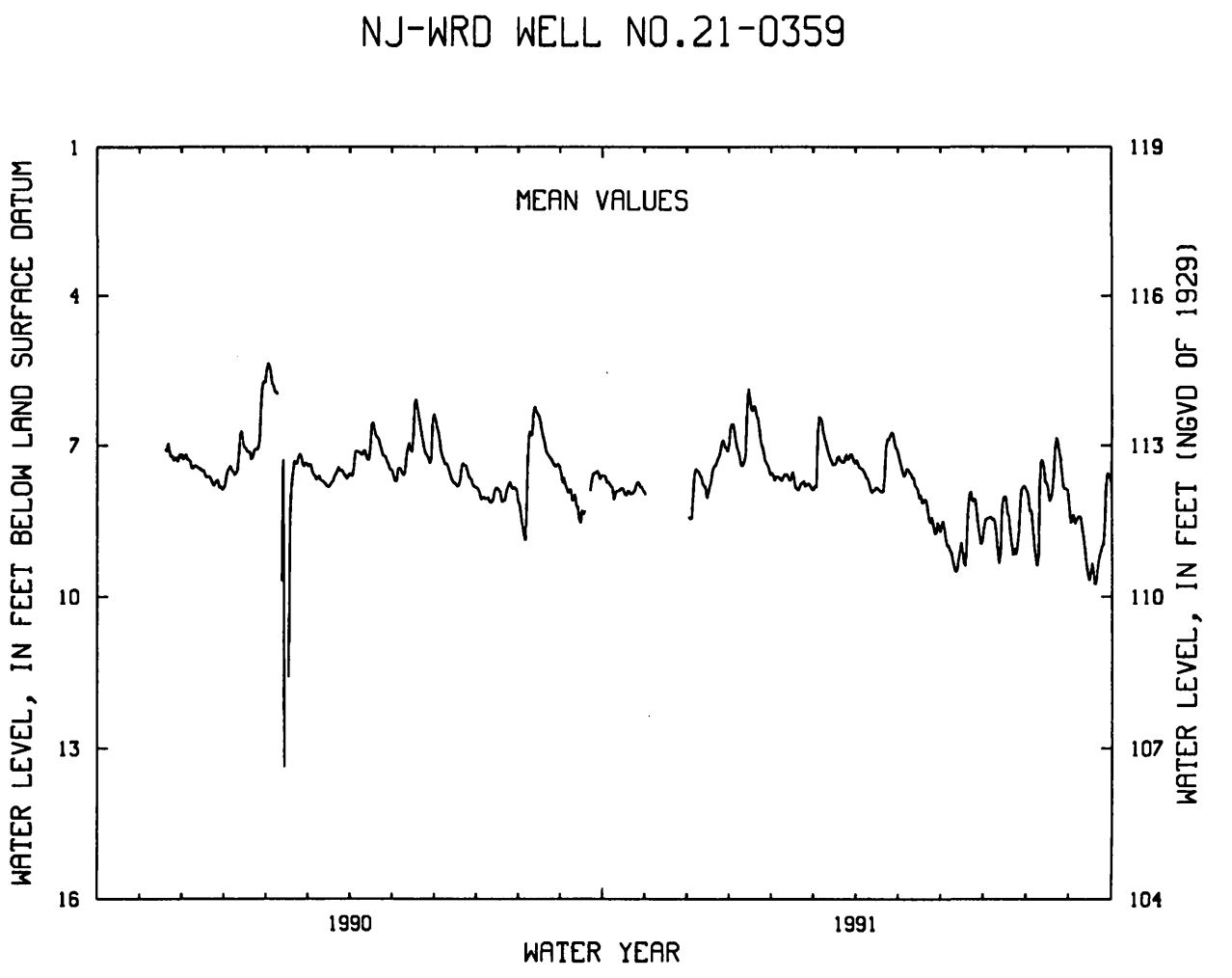
402032074392501. Local I.D., Princeton 2-Chill PL Obs. NJ-WRD Well Number, 21-0359.
LOCATION.--Lat 40°20'32", long 74°39'25", Hydrologic Unit 02030105, Princeton University, Main Campus, Princeton Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 3 in, depth 439 ft, open hole 28 to 439 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.80 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Nov. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.29 ft below land-surface datum, Jan. 31, 1990; lowest, 27.98 ft below land-surface datum, Feb. 12, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.77	---	7.60	7.05	7.67	6.43	7.47	7.62	9.00	8.42	8.61	8.48
10	7.91	---	7.63	7.32	7.59	6.96	7.75	7.57	9.41	8.75	7.85	8.82
15	7.89	---	7.95	6.27	7.67	7.39	7.83	7.89	8.91	8.07	7.75	9.54
20	7.97	---	7.42	6.48	7.74	7.29	7.92	8.07	8.20	8.72	7.61	9.40
25	7.74	---	6.91	7.30	7.76	7.25	6.81	8.43	8.06	8.98	7.29	8.61
EOM	7.98	---	6.66	7.60	7.88	7.36	7.08	8.72	8.89	7.85	8.19	7.75
MEAN	7.86	---	7.53	6.89	7.71	7.19	7.46	7.99	8.80	8.52	7.92	8.77

WTR YR 1991 MEAN 7.88 HIGH 5.77 JAN 13 LOW 9.80 SEP 18



MERCER COUNTY

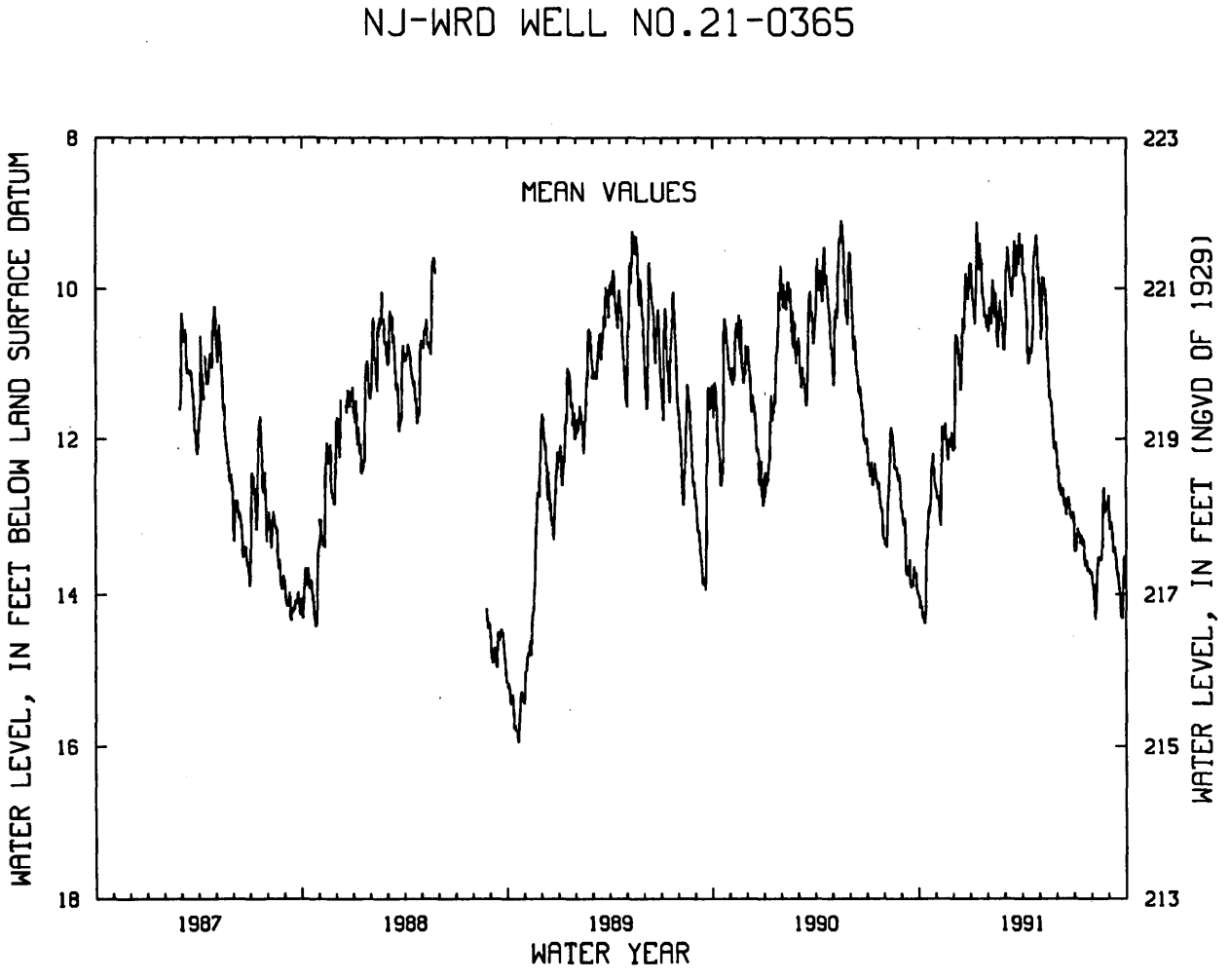
402138074435801. Local I.D., AT&T North Obs. NJ-WRD Well Number, 21-0365.
LOCATION.--Lat 40°21'38", long 74°43'58", Hydrologic Unit 02030105, AT&T, Carter Rd., Hopewell Township.
Owner: AT&T.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled well, depth 99 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 231 ft above National Geodetic Vertical Datum of 1929, by altimeter.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1987 to current year. Records for 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.90 ft below land-surface datum, May 17, 1990; lowest, 16.07 ft below land-surface datum, Oct. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.15	12.69	10.76	10.16	10.39	9.73	9.79	10.68	12.52	13.35	14.02	13.10
10	14.25	12.49	10.70	10.13	9.94	9.71	10.42	9.86	12.69	13.20	13.84	13.38
15	13.31	11.94	11.23	9.75	10.24	10.11	10.82	10.65	12.72	13.33	13.56	13.75
20	12.95	12.12	10.60	9.62	10.30	9.63	10.67	11.46	12.76	13.55	13.29	14.00
25	12.24	12.00	9.88	10.37	10.38	9.55	9.40	11.82	12.96	13.68	12.92	13.94
EOM	12.58	12.16	9.66	10.37	10.80	9.58	9.71	12.16	12.92	13.71	12.69	13.57
MEAN	13.37	12.26	10.65	9.98	10.36	9.79	10.11	10.94	12.72	13.42	13.41	13.61

WTR YR 1991 MEAN 11.72 HIGH 8.95 JAN 12 LOW 14.48 AUG 7

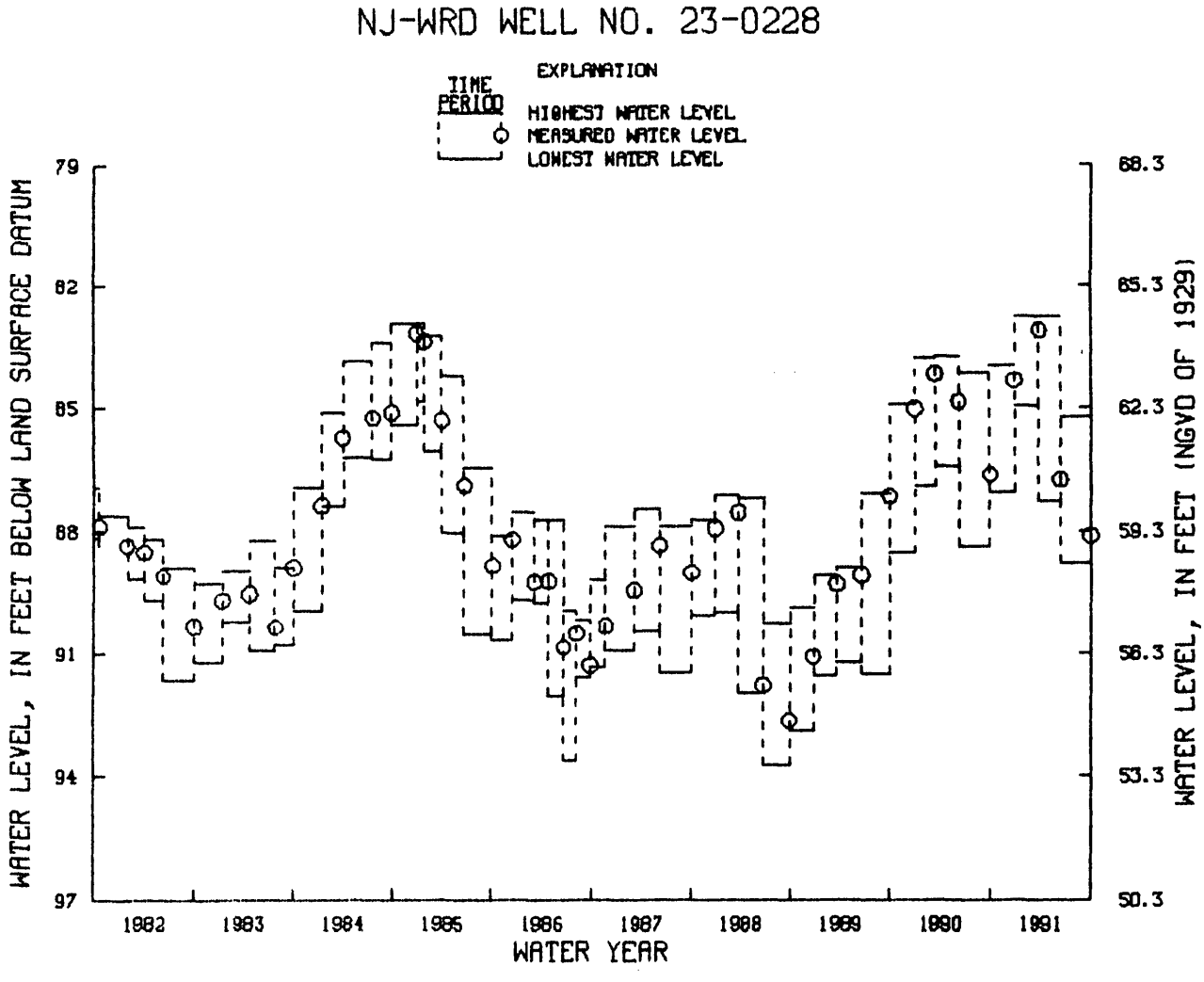


MIDDLESEX COUNTY

402015074275701. Local I.D., Forsgate 3 Obs. NJ-WRD Well Number, 23-0228.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 138 ft, screened 128 to 138 ft.
INSTRUMENTATION.--Water-level extremes recorder, Jan. 1977 to current year. Water-level recorder, Oct. 1961 to Aug. 1967, Aug. 1968 to Aug. 1975.
DATUM.--Land-surface datum is 147.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.40 ft below land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Oct. 1961 to Aug. 1967, Aug. 1968 to Aug. 1975, Jan. 1977 to current year. Records for 1961 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.32 ft below land-surface datum, May 6, 1962; lowest, 93.72 ft below land-surface datum, between June 22 and Sept. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	83.97 / 87.06	DEC. 26, 1990	84.33
DEC. 26, 1990 TO MAR. 25, 1991	82.79 / 84.97	MAR. 25, 1991	83.11
MAR. 25, 1991 TO JUNE 10, 1991	82.78 / 87.27	JUNE 10, 1991	86.75
JUNE 10, 1991 TO SEPT. 30, 1991	85.24 / 88.77	SEPT. 30, 1991	88.12

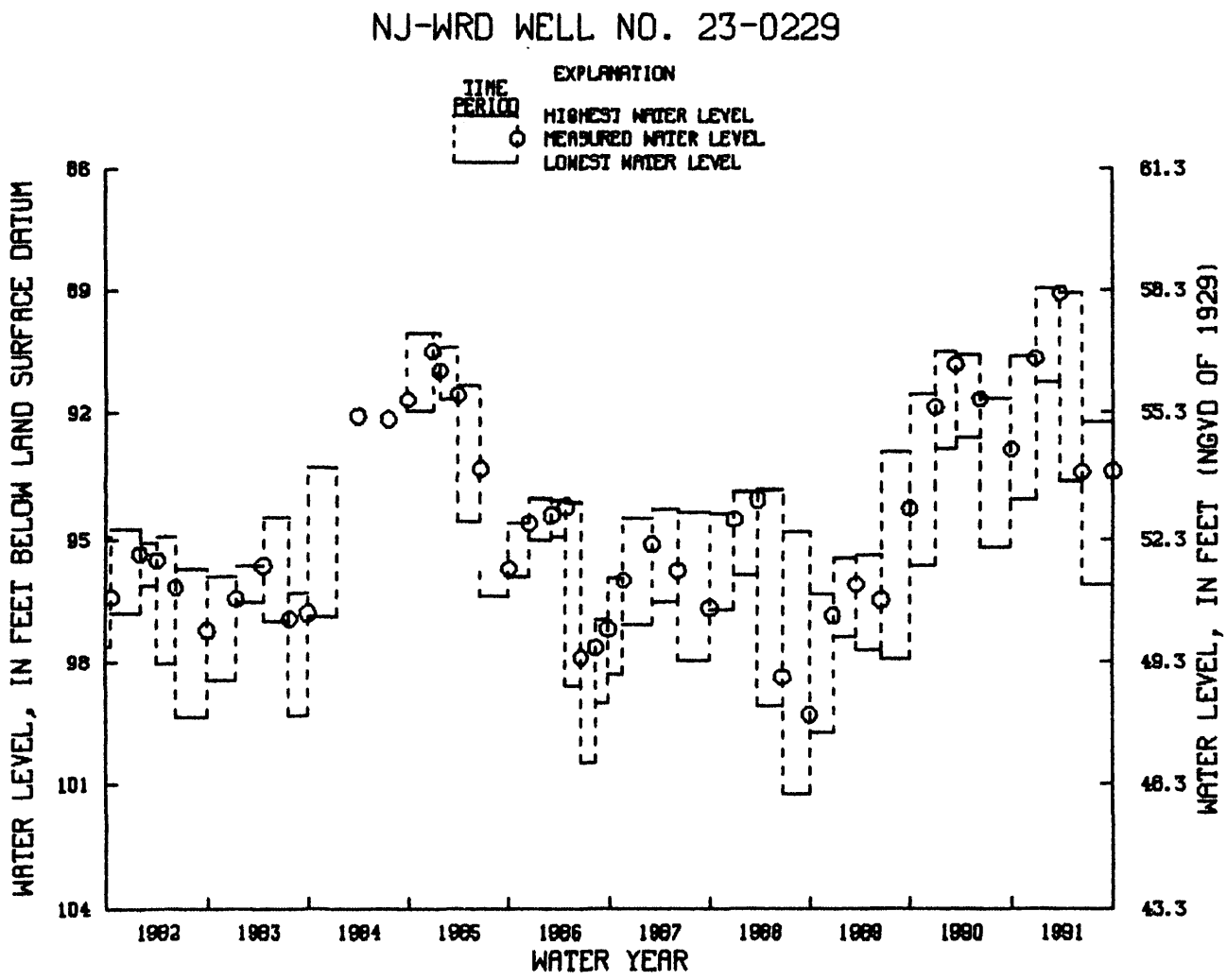


MIDDLESEX COUNTY

402015074275702. Local I.D., Forsgate 4 Obs. NJ-WRD Well Number, 23-0229.
LOCATION.--Lat 40°20'15", long 74°27'57", Hydrologic Unit 02030105, Hanover Lane at Rossmoor, Monroe Township.
Owner: Monroe Township Municipal Utilities Authority.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 330 ft screened 319 to 330 ft.
INSTRUMENTATION.--Water-level extremes recorder, Jan. 1977 to current year. Water-level recorder, Apr. 1965 to Aug. 1967, Aug. 1968 to Aug. 1975.
DATUM.--Land-surface datum is 147.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.50 ft below land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Apr. 1965 to Aug. 1967, Aug. 1968 to Aug. 1975, Jan. 1977 to current year. Records for 1965 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.09 ft below land-surface datum, July 16, 1973; lowest, 101.23 ft below land-surface datum, between June 22 and Sept. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	90.63	94.02	DEC. 26, 1990	90.67
DEC. 26, 1990 TO MAR. 25, 1991	88.98	91.25	MAR. 25, 1991	89.09
MAR. 25, 1991 TO JUNE 10, 1991	89.09	93.63	JUNE 10, 1991	93.44
JUNE 10, 1991 TO SEPT. 30, 1991	92.21	96.13	SEPT. 30, 1991	93.42



MIDDLESEX COUNTY

402058074355901. Local I.D., Test Well 5 Obs. NJ-WRD Well Number, 23-0796.
LOCATION.--Lat 40°20'58", long 74°35'59", Hydrologic Unit 02030105, at the Plasma Physics Laboratory, James Forrestal Campus, Princeton University, Plainsboro Township.
Owner: Princeton University.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 60 ft, open hole 20 to 60 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 96.7 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 4.10 ft above land-surface datum.
REMARKS.--Water level affected by large drainage pipelines at the perimeter of the Tokamak Fusion Test Reactor building. Water level affected by aquifer test, Mar. 31-Apr. 4, 1986.
PERIOD OF RECORD.--Mar. 1986 to current year. Records for 1986 to 1989 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.17 ft below land-surface datum, May 17, 1989; lowest, 26.59 ft below land-surface datum, Apr. 4, 1986 (see remarks).

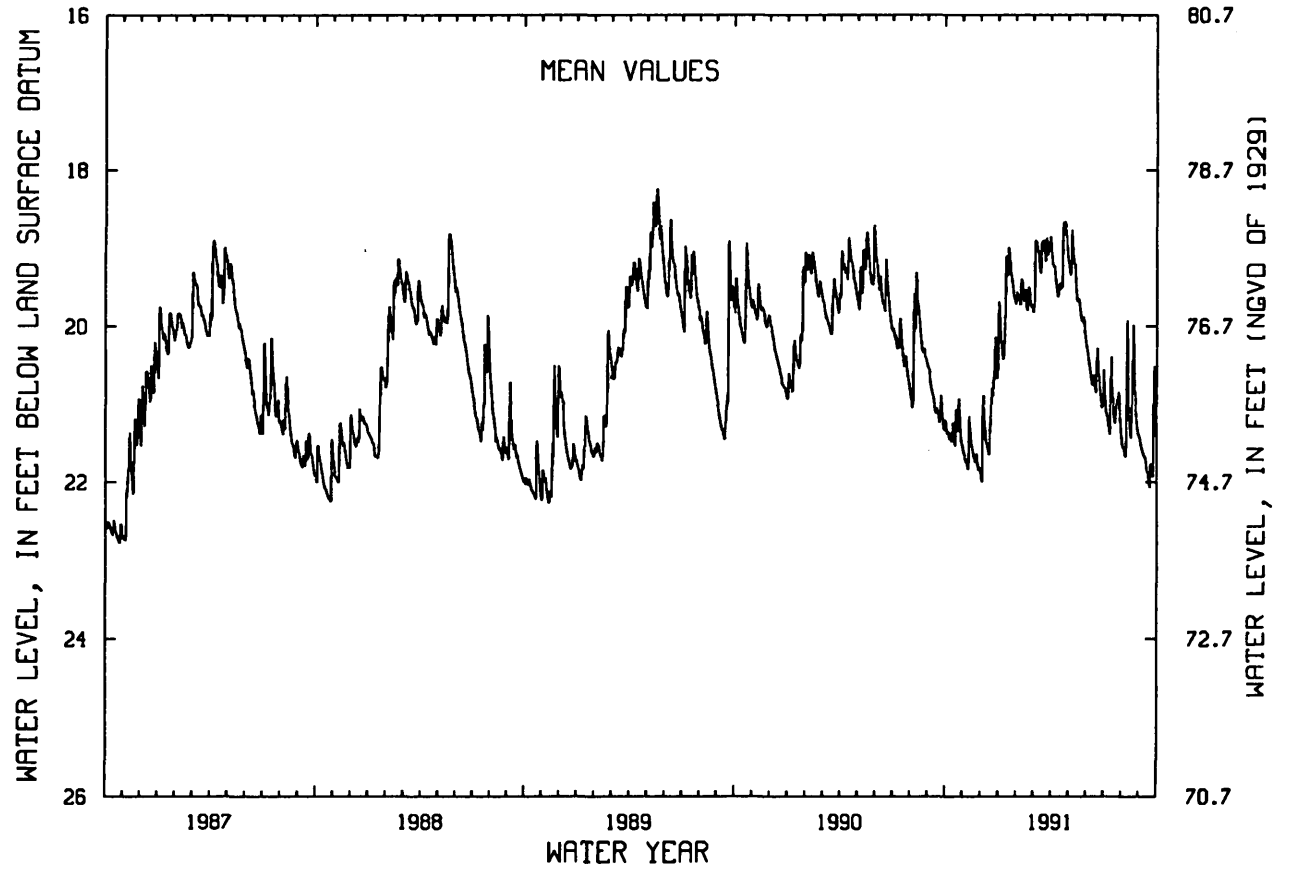
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.35	21.75	20.89	20.27	19.67	18.90	19.22	19.34	20.46	21.06	21.56	21.57
10	21.37	21.59	21.49	19.91	19.53	19.03	19.48	19.14	20.69	21.28	19.92	21.68
15	21.32	21.54	21.63	19.35	19.54	19.12	19.50	19.61	20.72	20.75	21.28	21.87
20	21.13	21.69	20.89	19.27	19.50	19.01	19.49	19.72	20.28	21.18	20.43	21.78
25	21.01	21.78	20.14	19.57	19.75	18.97	18.66	19.94	20.85	20.99	20.92	21.45
EOM	21.56	21.88	19.68	19.56	19.79	18.85	19.11	20.21	21.01	21.36	21.40	21.42
MEAN	21.34	21.66	21.04	19.66	19.62	19.10	19.20	19.56	20.66	21.03	21.12	21.62

WTR YR 1991 MEAN 20.47 HIGH 18.58 APR 22 LOW 22.09 SEP 19

NJ-WRD WELL NO.23-0796



MIDDLESEX COUNTY

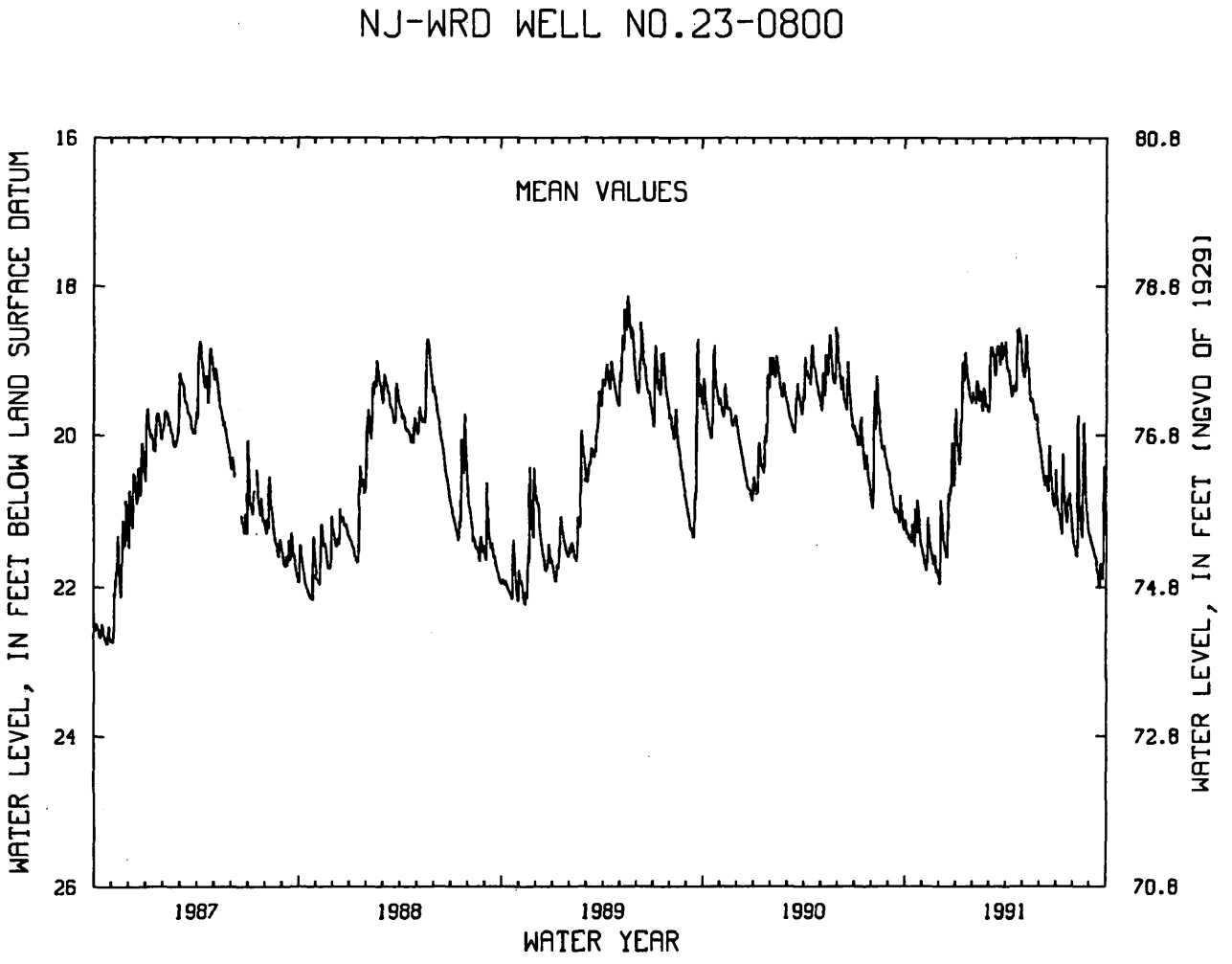
402058074355902. Local I.D., Test Well 9 Obs. NJ-WRD Well Number, 23-0800.
LOCATION.--Lat 40°20'58", long 74°35'59", Hydrologic Unit 02030105, at the Plasma Physics Laboratory, James Forrestal Campus, Princeton University, Plainsboro Township.
Owner: Princeton University.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 110 ft, open hole 90 to 110 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 96.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.95 ft above land-surface datum.
REMARKS.--Water level affected by large drainage pipelines at the perimeter of the Tokamak Fusion Test Reactor building. Water level affected by aquifer test, Mar. 31-Apr. 4, 1986.
PERIOD OF RECORD.--Mar. 1986 to current year. Records for 1986 to 1989 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.07 ft below land-surface datum, May 17, 1989; lowest, 26.06 ft below land-surface datum, Apr. 4, 1986 (see remarks).

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.25	21.68	20.83	20.18	19.52	18.81	19.11	19.22	20.30	20.93	21.44	21.45
10	21.29	21.49	21.41	19.81	19.42	18.91	19.35	19.02	20.55	21.16	19.73	21.60
15	21.25	21.46	21.58	19.27	19.42	18.98	19.36	19.48	20.59	20.62	21.17	21.79
20	21.03	21.63	20.84	19.16	19.37	18.90	19.39	19.57	20.13	21.06	20.29	21.68
25	20.93	21.73	20.10	19.45	19.62	18.86	18.56	19.79	20.72	20.85	20.80	21.32
EOM	21.47	21.84	19.64	19.42	19.66	18.74	18.99	20.04	20.87	21.25	21.29	21.31
MEAN	21.24	21.60	20.99	19.56	19.49	18.99	19.09	19.42	20.52	20.90	21.00	21.53

WTR YR 1991 MEAN 20.36 HIGH 18.49 APR 22 LOW 22.03 SEP 19



MIDDLESEX COUNTY

402143074185201. Local I.D., Morrell 1 Obs. NJ-WRD Well Number 23-0104.
LOCATION.--Lat 40°21'43", long 74°18'49", Hydrologic Unit 02030105, on the north side of Texas Rd., about .4 mi. east of Rt. 9, Old Bridge Township
OWNER: Olympia and York Bridge Development Corp.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 17 in, depth 11 ft, cased with precast concrete rings.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 76.75 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top inside edge of concrete ring, .20 ft above land-surface datum.
REMARKS.--Well depth was 6 ft before deepening in Sept. 1932.
PERIOD OF RECORD.--Oct. 1923 to July 1975, Jan. 1985 to current year. Periodic manual measurements Aug. 1975 to Dec. 1984. Records for 1973 to 1985 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.97 ft below land-surface datum, Sept. 19, 1989; lowest, 10.40 ft below land surface datum, Oct. 13, 1953. Well was dry, Aug. to Sept. 1932, before deepening.

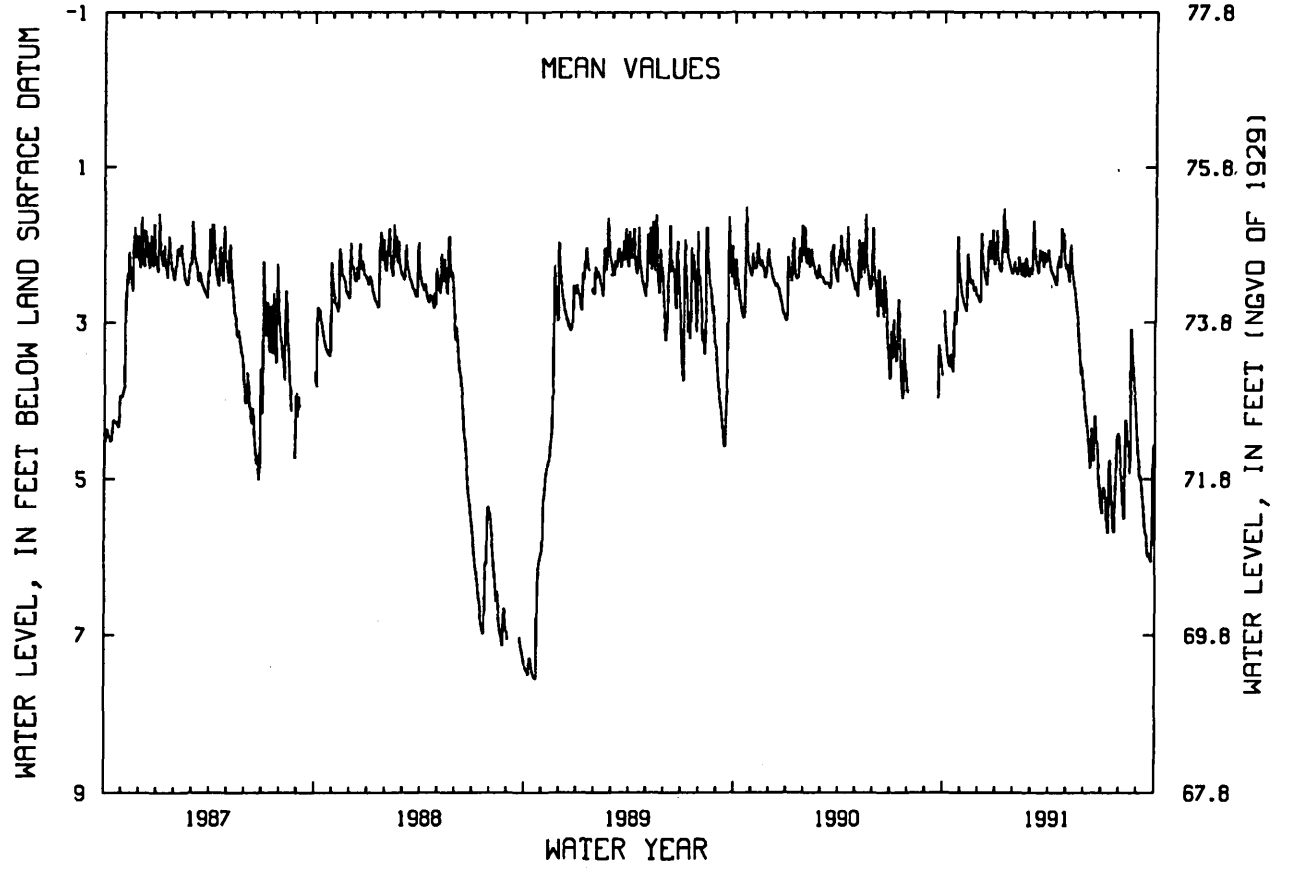
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.20	2.78	2.02	2.30	2.39	2.02	2.36	2.48	4.30	5.16	5.07	5.00
10	3.54	2.35	2.38	1.96	2.30	2.27	2.46	2.36	4.75	5.53	4.55	5.37
15	3.48	2.47	2.37	2.11	2.26	2.07	2.26	2.60	4.49	4.76	4.56	5.72
20	2.89	2.54	2.18	2.18	2.17	2.20	2.30	2.94	4.20	5.50	3.60	5.95
25	2.15	2.58	2.04	2.33	2.41	2.15	1.85	3.47	4.77	5.20	3.68	5.88
EOM	2.63	2.71	1.82	2.22	2.35	2.14	2.26	3.86	5.32	4.49	4.51	4.60
MEAN	3.03	2.59	2.22	2.16	2.32	2.18	2.26	2.84	4.58	5.16	4.42	5.37

WTR YR 1991 MEAN 3.26 HIGH 1.12 MAR 3 LOW 6.10 SEP 24

NJ-WRD WELL NO.23-0104



MIDDLESEX COUNTY

402553074271701. Local I.D., Fischer Obs. NJ-WRD Well Number, 23-0070.
LOCATION.--Lat 40°25'55", long 74°27'19", Hydrologic Unit 02030105, 32 Beaver Dam Dr. and Hardenburg Lane, East Brunswick Township.
Owner: Abe Weiss.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Dug water-table observation well, diameter 54 in, depth 21 ft, lined with concrete blocks.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Jan. 1977 to Apr. 1985.
DATUM.--Land-surface datum is 73.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of angle iron at bottom of shelter doors, 1.70 ft above land-surface datum.
REMARKS.--Well deepened Oct. 29, 1965 from 17 to 21 ft.
PERIOD OF RECORD.--June 1936 to Apr. 1975, Jan. 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.88 ft below land-surface datum, Apr. 26-27, 1939; lowest, 19.11 ft below land-surface datum, between July 24 and Oct. 6, 1981; well was dry many times, 1963-1965 before deepening.

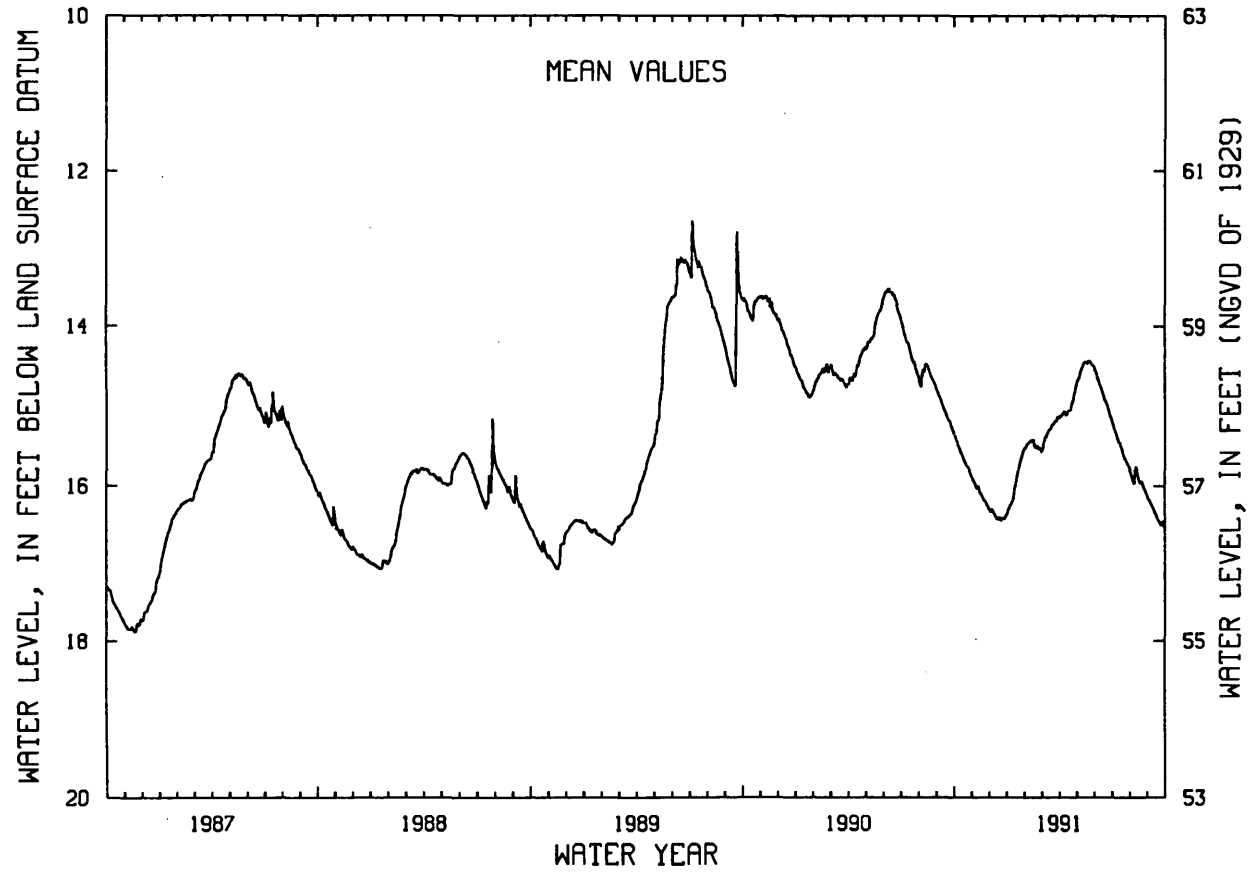
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.43	15.96	16.30	16.27	15.45	15.43	15.09	14.63	14.60	15.28	15.89	16.20
10	15.53	16.01	16.36	16.20	15.42	15.34	15.05	14.49	14.72	15.39	15.78	16.28
15	15.62	16.09	16.43	16.00	15.42	15.28	15.05	14.42	14.82	15.48	15.89	16.37
20	15.72	16.16	16.45	15.79	15.48	15.22	15.03	14.43	14.92	15.60	15.94	16.45
25	15.77	16.22	16.43	15.64	15.51	15.18	14.90	14.41	15.03	15.68	16.02	16.50
EOM	15.88	16.30	16.37	15.51	15.56	15.14	14.72	14.48	15.15	15.78	16.12	16.53
MEAN	15.63	16.10	16.39	15.94	15.47	15.28	15.00	14.49	14.83	15.50	15.94	16.36

WTR YR 1991 MEAN 15.58 HIGH 14.40 MAY 17-18, 21-24 LOW 16.54 SEP 30

NJ-WRD WELL NO.23-0070



MONMOUTH COUNTY

400711074020201. Local I.D., DOE - Sea Girt Obs. NJ-WRD Well Number, 25-0486.
LOCATION.--Lat 40°07'11", long 74°02'02", Hydrologic Unit 02040301, at the National Guard Camp, Sea Girt, Sea Girt Borough.
Owner: State of New Jersey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 614 ft, perforated casing 604 to 614 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.20 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--May 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 144.02 ft below land-surface datum, July 1, 1991; lowest, 195.60 ft below land-surface datum, Sept. 17, 1988.

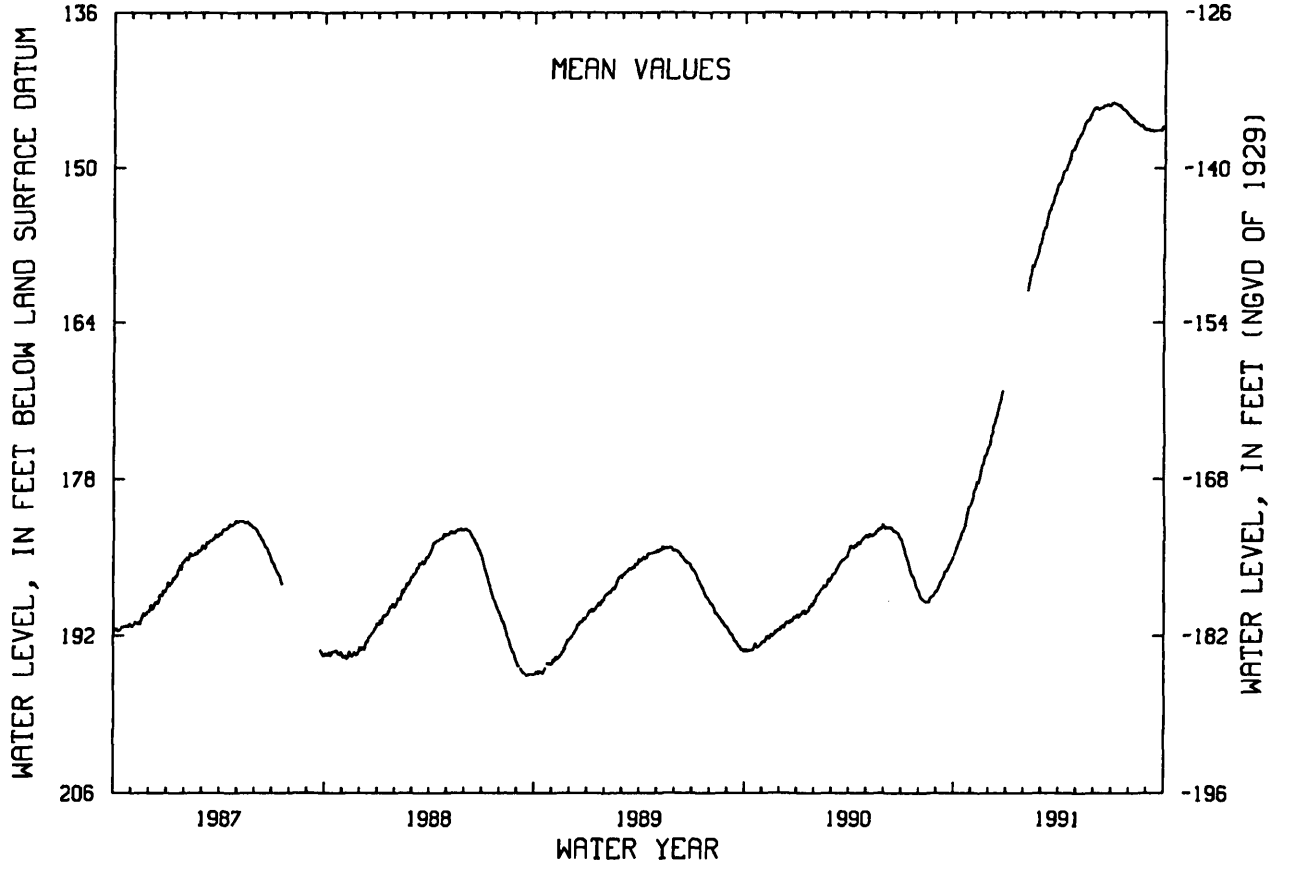
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	184.27	179.26	174.05	---	---	155.69	151.05	147.17	144.47	144.12	145.49	146.58
10	183.54	178.39	173.12	---	160.06	155.08	---	146.70	144.60	144.24	145.74	146.65
15	182.71	177.96	172.27	---	158.83	153.93	149.74	145.90	144.48	144.34	146.04	146.61
20	182.26	176.77	171.22	---	158.42	153.28	148.98	145.66	144.33	144.64	146.09	146.58
25	181.03	175.92	170.13	---	157.49	152.46	148.30	145.19	144.30	144.84	146.43	146.41
EOM	180.17	175.22	---	---	156.92	151.54	147.75	144.61	144.15	145.27	146.41	146.41
MEAN	182.58	177.63	172.54	---	158.89	154.00	149.52	146.03	144.42	144.51	146.02	146.55

WTR YR 1991 MEAN 156.32 HIGH 144.02 JUL 1 LOW 184.87 OCT 1

NJ-WRD WELL NO.25-0486

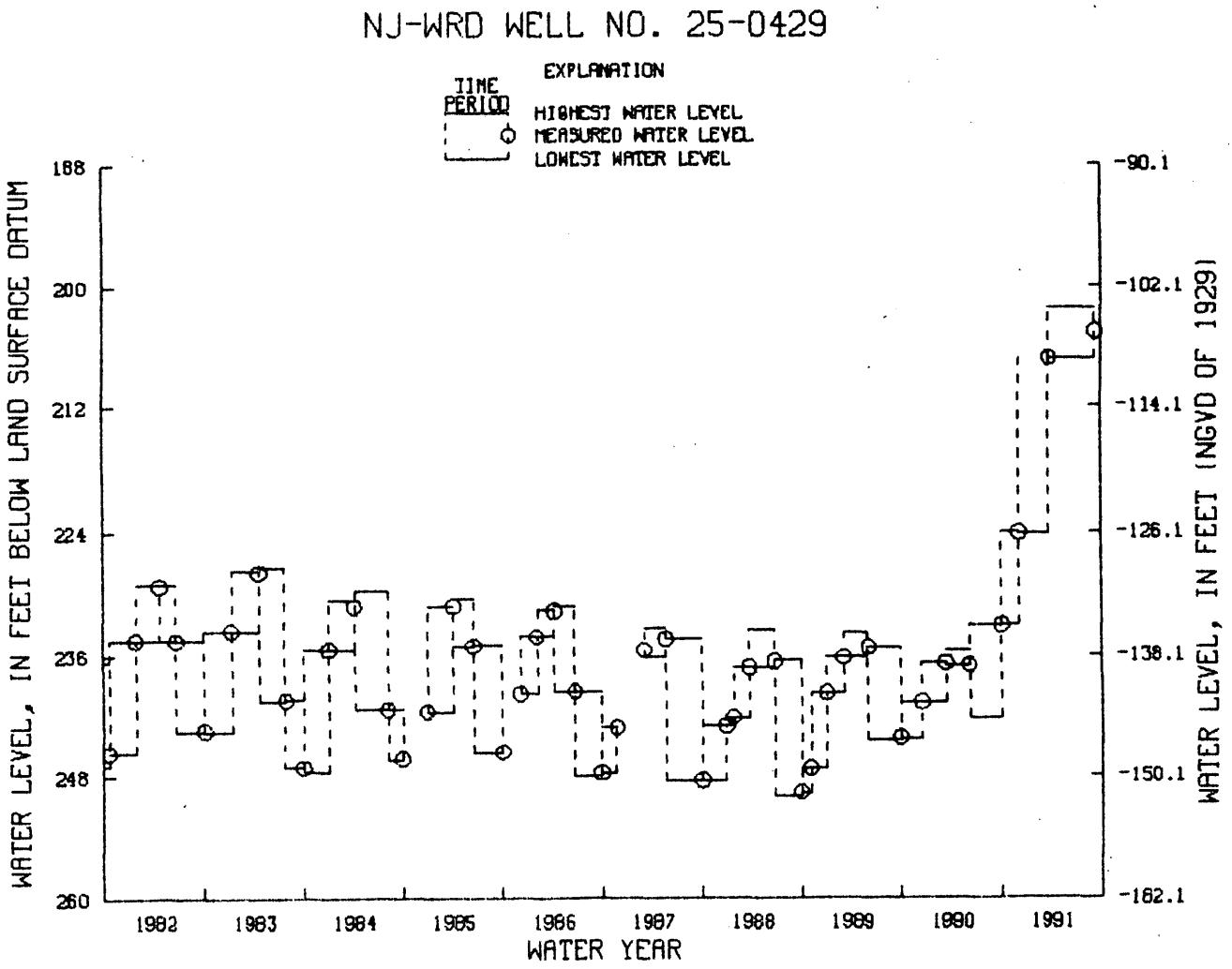


MONMOUTH COUNTY

400832074082101. Local I.D., Allaire State Park C Obs. NJ-WRD Well Number, 25-0429.
LOCATION.--Lat 40°08'34", long 74°08'34", Hydrologic Unit 02040301, about 1.3 mi. southeast of Lower Squankum off County Rt. 21, in Allaire State Park, Howell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 633 ft, screened 623 to 633 ft.
INSTRUMENTATION.--Water-level extremes recorder, Feb. 1977 to current year. Water-level recorder, Jan. 1964 to July 1975.
DATUM.--Land-surface datum is 97.93 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 1.64 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1964 to July 1975, Feb. 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 141.05 ft below land-surface datum, Apr. 8, 1964; lowest, 249.89 ft below land-surface datum, between June 24 and Sept. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1990 TO DEC. 7, 1990	224.06	233.03	DEC. 7, 1990	224.10
DEC. 7, 1990 TO MAR. 25, 1991	---	224.10	MAR. 25, 1991	207.19
MAR. 25, 1991 TO SEPT. 10, 1991	202.28	207.19	SEPT. 10, 1991	204.52
SEPT. 10, 1991 TO SEPT. 30, 1991	204.52	208.86	SEPT. 30, 1991	207.99



MONMOUTH COUNTY

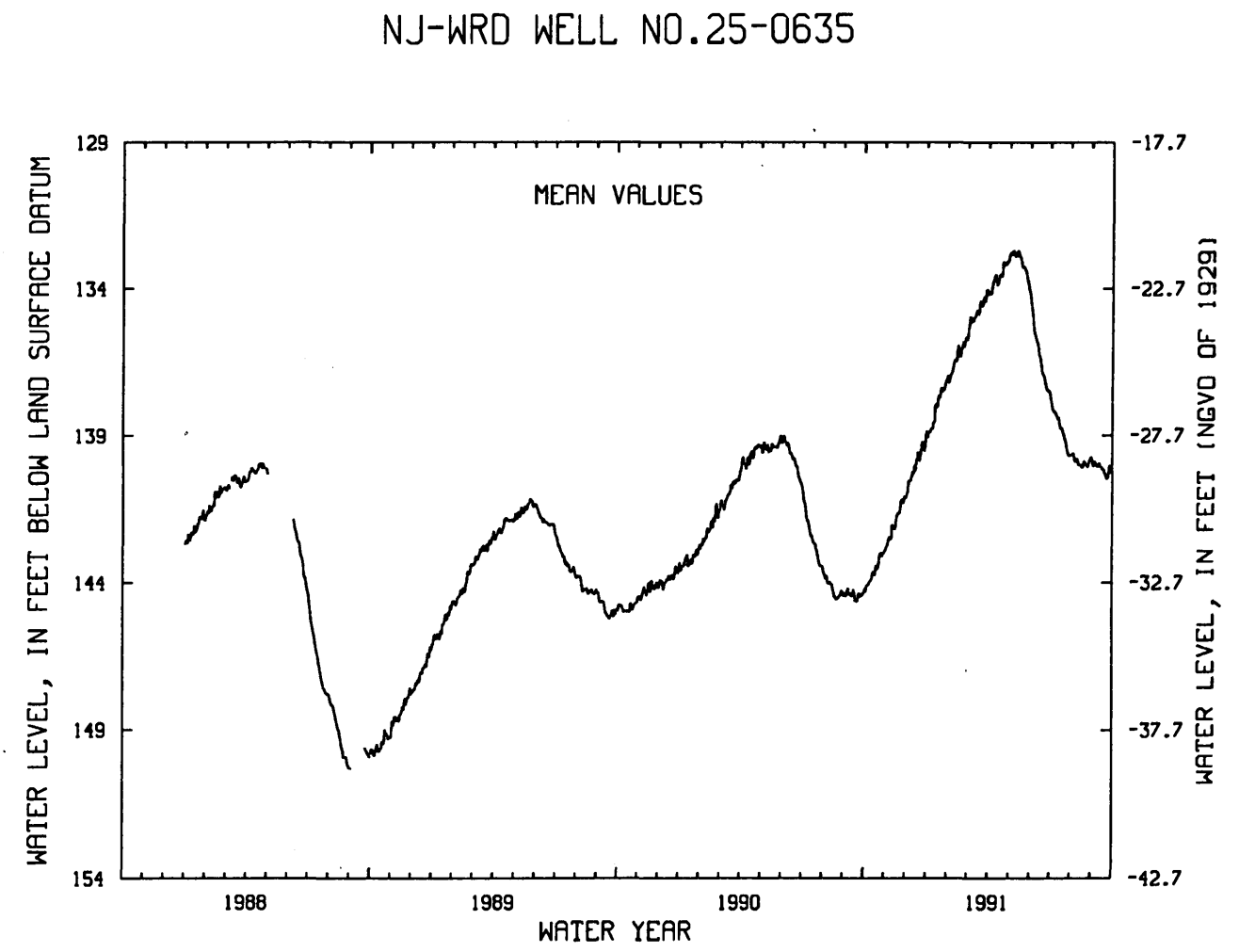
401105074120201. Local I.D., Howell Twp 1 Obs. NJ-WRD Well Number, 25-0635.
LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 2 in, depth 1360 ft, screened 1226 to 1240, 1280 to 1290 and 1320 to 1330 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.3 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.61 ft below land-surface datum, May 6, 1991; lowest, 150.32 ft below land-surface datum, Sept. 2, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	144.09	142.52	140.56	138.87	136.88	135.16	133.95	132.84	135.19	138.13	139.71	139.88
10	143.94	142.03	140.24	138.57	136.43	135.01	133.52	132.88	135.79	138.31	139.78	140.00
15	143.65	142.10	139.99	138.02	135.97	134.80	133.61	132.82	136.31	138.66	139.99	140.14
20	143.56	141.65	139.87	137.43	135.99	134.54	133.49	133.27	136.93	138.93	139.90	140.33
25	143.04	141.19	139.45	137.47	135.77	134.38	133.18	133.41	137.39	139.46	140.07	140.11
EOM	142.93	141.14	138.93	136.97	135.75	134.23	132.93	134.21	137.53	139.67	139.72	140.28
MEAN	143.61	141.92	139.94	137.96	136.32	134.74	133.54	133.14	136.30	138.74	139.88	140.13

WTR YR 1991 MEAN 138.03 HIGH 132.61 MAY 6 LOW 144.36 OCT 3



MONMOUTH COUNTY

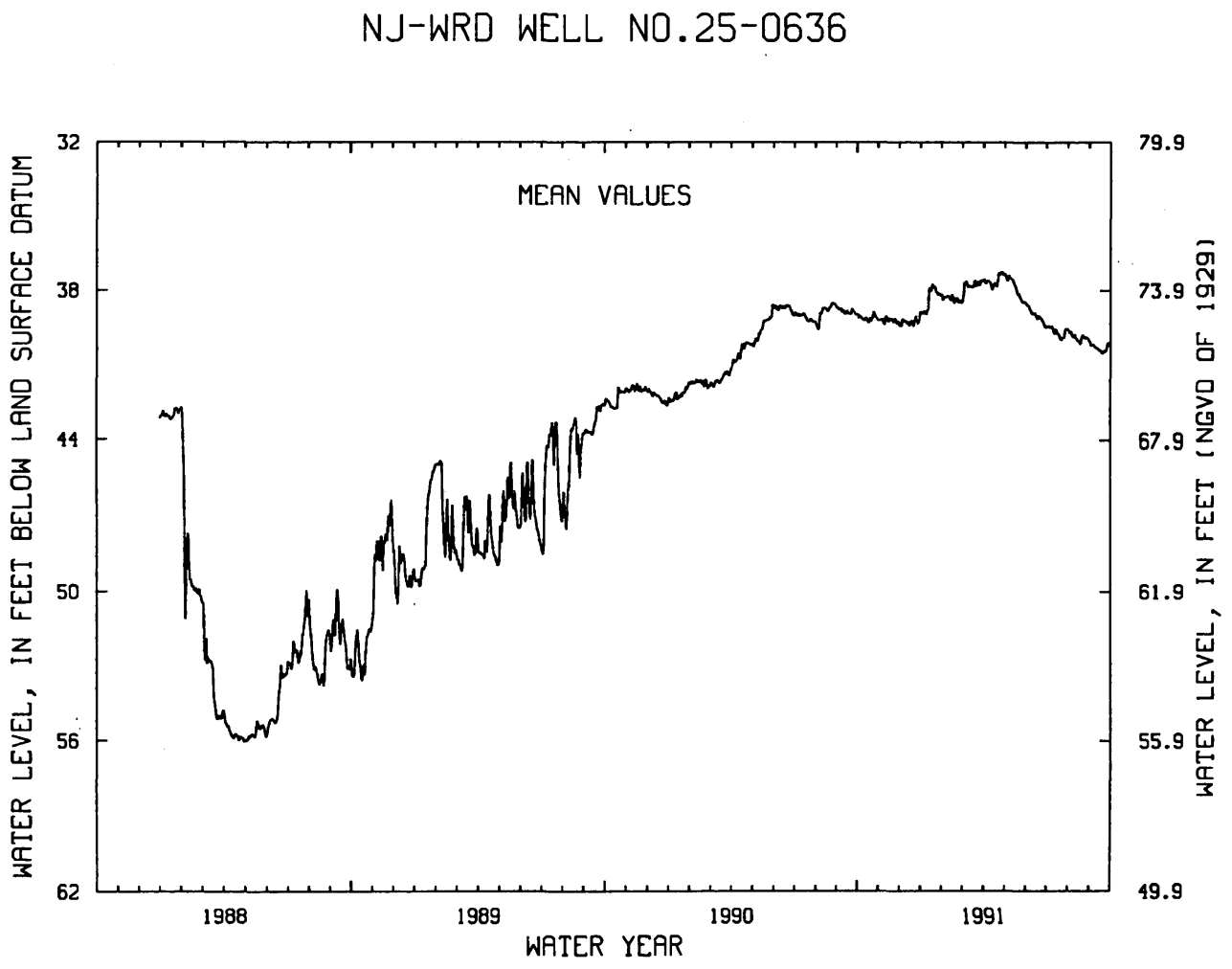
401105074120202. Local I.D., Howell Twp 2 Obs. NJ-WRD Well Number, 25-0636.
LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Vincentown Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 100 ft, screened 85 to 95 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.9 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.20 ft above land-surface datum.
REMARKS.--Water level affected by stage of Manasquan Reservoir and by nearby pumping.
PERIOD OF RECORD.--Dec. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.22 ft below land-surface datum, Apr. 27, 1991; lowest, 56.09 ft below land-surface datum, Apr. 29, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.03	39.16	39.17	38.88	38.25	37.68	37.63	37.61	38.63	39.44	39.70	40.18
10	39.17	39.09	39.22	38.78	38.24	37.79	37.68	37.49	38.92	39.56	39.76	40.30
15	39.19	39.25	39.38	38.01	38.21	37.85	37.76	37.74	38.97	39.64	40.03	40.41
20	39.24	39.22	39.44	37.83	38.28	37.68	37.81	38.16	39.02	39.95	39.87	40.43
25	38.91	39.19	39.23	38.15	38.39	37.71	37.28	38.37	39.23	39.92	39.91	40.25
EOM	39.20	39.41	38.85	38.17	38.50	37.62	37.33	38.44	39.48	39.56	40.02	40.26
MEAN	39.12	39.21	39.25	38.32	38.34	37.79	37.59	37.88	38.99	39.65	39.88	40.31

WTR YR 1991 MEAN 38.86 HIGH 37.22 APR 27 LOW 40.56 SEP 18



MONMOUTH COUNTY

401105074120203. Local I.D., Howell Twp 3 Obs. NJ-WRD Well Number, 25-0637.
LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 324 ft, screened 307 to 317 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.9 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.80 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 117.27 ft below land-surface datum, May 14-15, 1991; lowest, 140.65 ft below land-surface datum, Oct. 6-7, 1988.

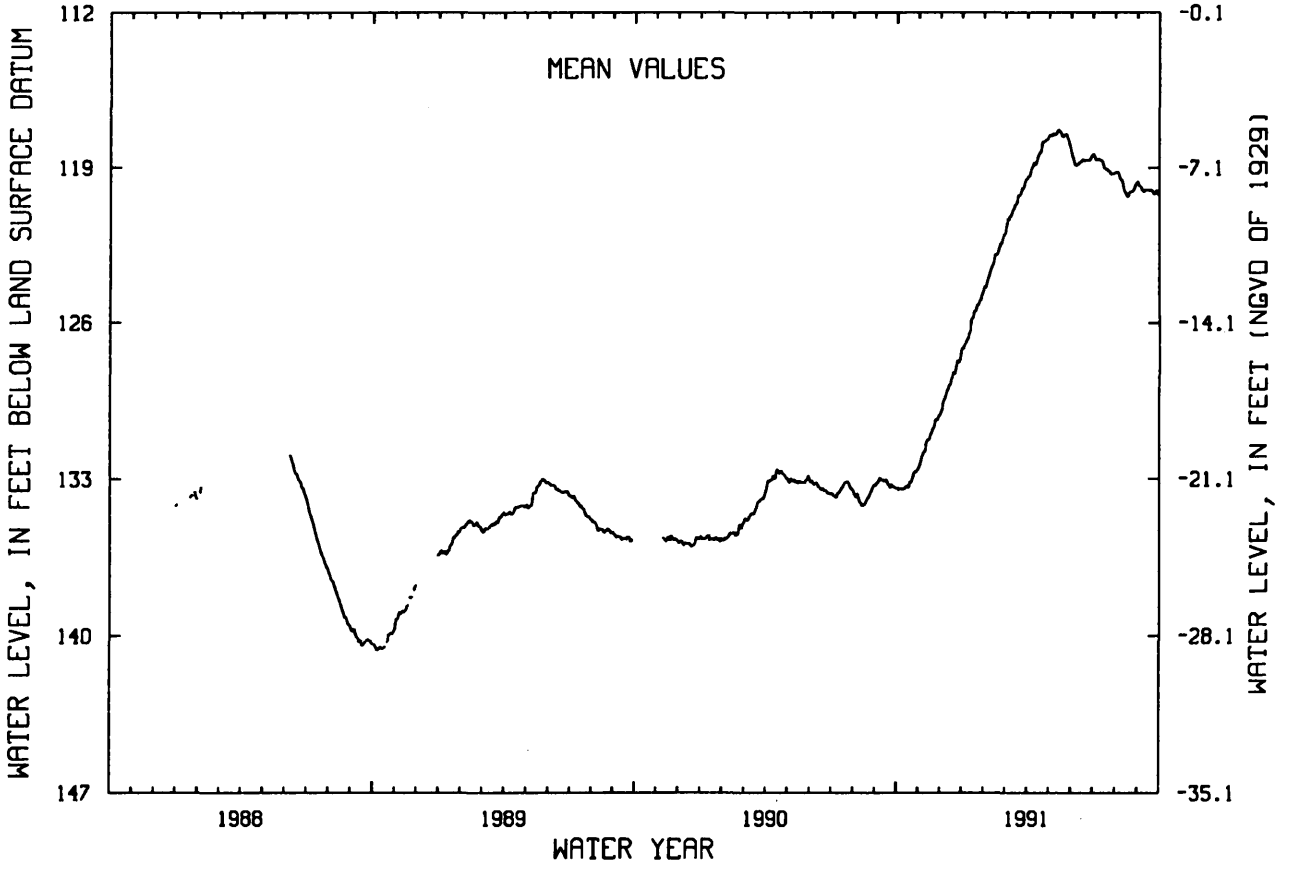
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	133.43	131.96	129.52	126.90	123.99	121.36	119.18	117.57	118.79	118.64	119.26	119.85
10	133.44	131.43	129.03	126.44	123.47	121.04	118.76	117.49	118.84	118.62	119.61	120.03
15	133.34	131.20	128.68	125.75	122.91	120.65	118.51	117.31	118.69	118.89	120.15	120.02
20	133.17	130.77	128.34	125.28	122.61	120.24	118.20	117.60	118.67	119.08	120.13	120.00
25	132.73	130.34	127.79	125.01	122.22	119.92	117.79	117.48	118.67	119.27	120.02	120.06
EOM	132.49	130.15	127.14	124.38	122.02	119.52	117.64	118.12	118.41	119.22	119.60	120.23
MEAN	133.16	131.14	128.58	125.76	123.13	120.59	118.47	117.55	118.67	118.90	119.79	120.01

WTR YR 1991 MEAN 122.99 HIGH 117.27 MAY 14-15 LOW 133.52 OCT 3

NJ-WRD WELL NO.25-0637



MONMOUTH COUNTY

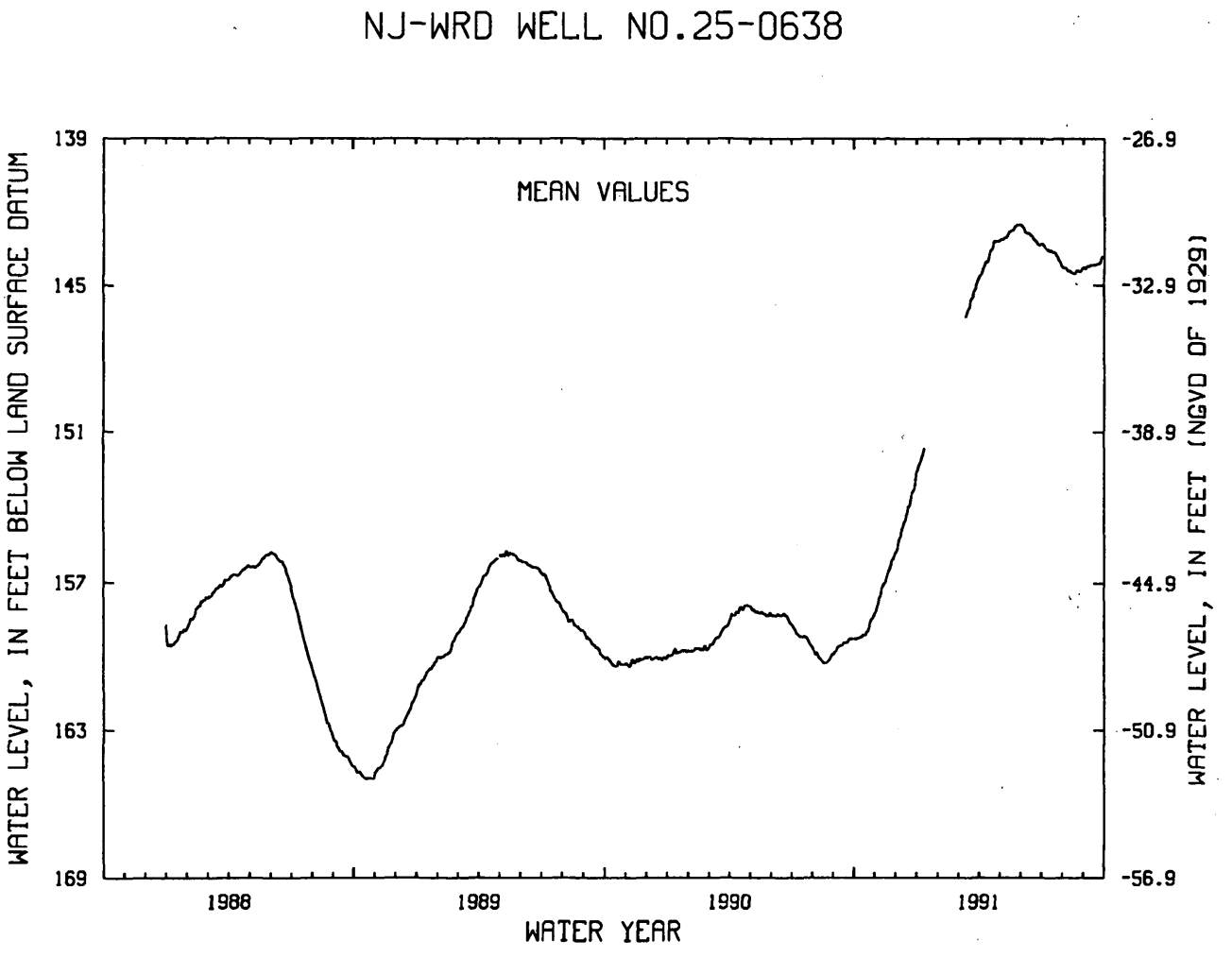
401105074120204. Local I.D., Howell Twp 4 Obs. NJ-WRD Well Number, 25-0638.
LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 499 ft, screened 483 to 493 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 112.1 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.80 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 142.49 ft below land-surface datum, May 28-29, 1991; lowest, 165.02 ft below land-surface datum, Oct. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	159.24	157.79	155.25	152.23	---	---	144.43	143.12	142.68	143.44	144.26	144.22
10	159.20	157.33	154.82	151.72	---	---	144.04	143.03	142.87	143.54	144.38	144.18
15	159.10	156.97	154.44	---	---	146.00	143.81	142.79	142.96	143.56	144.49	144.17
20	158.96	156.51	153.91	---	---	145.56	143.48	142.74	143.13	143.66	144.42	144.12
25	158.53	156.05	153.28	---	---	145.21	143.19	142.51	143.30	143.92	144.44	143.99
EOM	158.21	155.77	152.54	---	---	144.76	143.19	142.51	143.29	144.23	144.24	143.86
MEAN	158.95	156.90	154.24	---	---	145.51	143.78	142.81	142.98	143.67	144.39	144.12

WTR YR 1991 MEAN 147.98 HIGH 142.49 MAY 28-29 LOW 159.28 OCT 3-4



MONMOUTH COUNTY

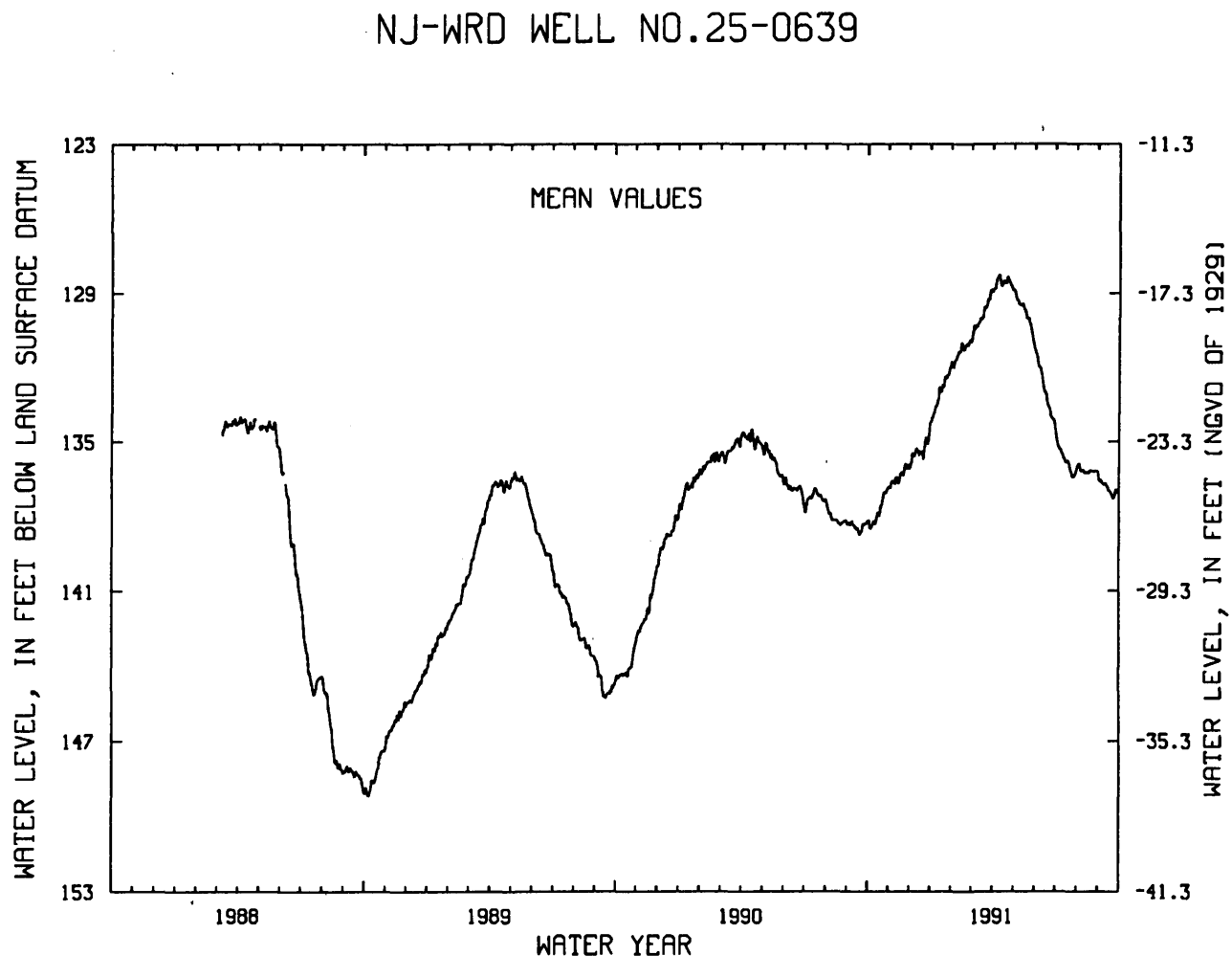
401105074120205. Local I.D., Howell Twp 5 Obs. NJ-WRD Well Number, 25-0639.
LOCATION.--Lat 40°11'05", long 74°12'02", Hydrologic Unit 02040301, on the south side of Peskin Rd., about 5000 ft east of the intersection of Georgia Tavern Rd. and Peskin Rd., Howell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 907 ft, screened 891 to 901 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 111.7 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 128.22 ft below land-surface datum, Apr. 10, 1991; lowest, 149.23 ft below land-surface datum, Oct. 6-7, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	138.50	136.58	135.48	133.80	131.69	130.43	128.59	129.29	131.80	135.17	136.02	136.57
10	138.31	136.48	135.27	133.33	131.36	130.28	128.26	129.47	132.23	135.46	136.14	136.71
15	137.85	136.61	135.48	133.01	131.02	130.01	128.58	129.60	133.01	135.83	136.23	136.96
20	137.60	136.29	135.72	132.46	131.11	129.60	128.60	130.01	133.60	135.90	136.20	137.14
25	137.04	135.92	134.98	132.34	130.98	129.25	128.58	130.26	134.04	136.42	136.23	137.05
EOM	136.81	136.11	134.20	131.77	130.97	128.97	128.86	131.20	134.34	136.15	136.22	137.08
MEAN	137.76	136.39	135.30	132.90	131.32	129.84	128.58	129.82	132.95	135.74	136.17	136.90

WTR YR 1991 MEAN 133.66 HIGH 128.22 APR 10 LOW 138.59 OCT 3-4



MONMOUTH COUNTY

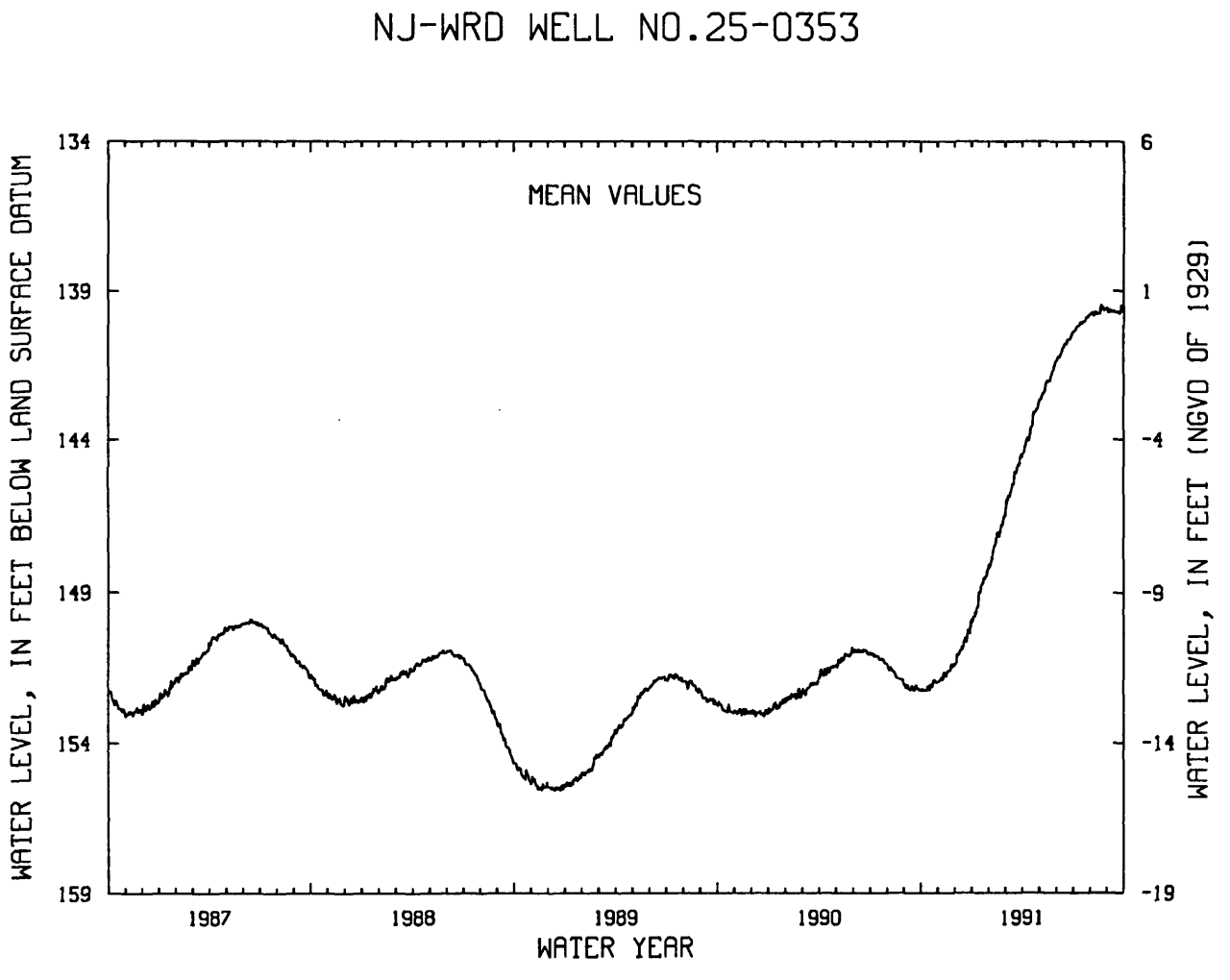
401542074053001. Local I.D., Fort Monmouth 1-NCO Obs. NJ-WRD Well Number, 25-0353.
LOCATION.--Lat 40°15'42", long 74°05'30", Hydrologic Unit 02030104, at Training Center, Wyckoff Rd. and Wayside Rd., Tinton Falls Borough.
Owner: U.S. Army.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 327 ft, screened 321 to 327 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land surface datum is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 1.50 ft above land surface datum.
PERIOD OF RECORD.--Feb. 1985 to current year. Records for 1985 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level 139.46 ft below land surface datum, Aug. 19-21, Sept. 26, 1991; lowest, 155.63 ft below land surface datum Dec. 22-23, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	152.19	151.85	151.03	149.76	147.85	145.91	144.31	142.66	141.23	140.32	139.76	139.62
10	152.24	151.64	150.87	149.44	147.44	145.74	143.93	142.39	141.09	140.19	139.69	139.69
15	152.12	151.75	150.77	148.99	147.00	145.43	143.75	142.07	140.86	140.09	139.75	139.73
20	152.13	151.58	150.64	148.57	146.89	145.08	143.48	142.02	140.72	140.04	139.52	139.71
25	151.90	151.37	150.32	148.46	146.63	144.84	143.06	141.70	140.63	139.90	139.65	139.57
EOM	151.96	151.39	149.87	148.04	146.48	144.59	142.82	141.37	140.41	139.79	139.56	139.71
MEAN	152.11	151.65	150.66	148.96	147.24	145.36	143.68	142.09	140.89	140.08	139.69	139.68

WTR YR 1991 MEAN 145.17 HIGH 139.46 AUG 19-21, SEP 26 LOW 152.28 OCT 3



MONMOUTH COUNTY

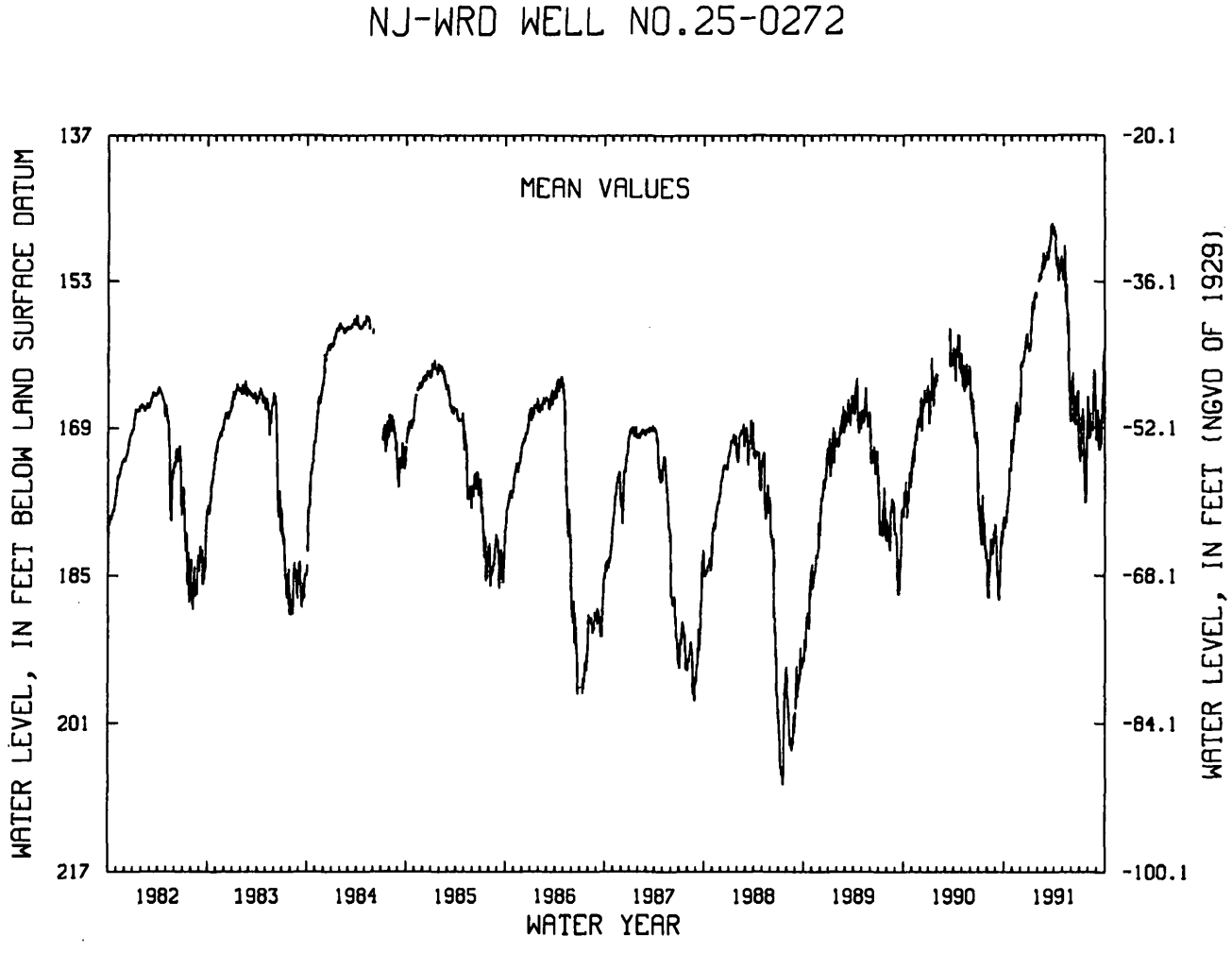
402208074145201. Local I.D., Marlboro 1 Obs. NJ-WRD Well Number, 25-0272.
LOCATION.--Lat 40°22'08", long 74°14'52", Hydrologic Unit 02030105, on the west side of NJ Rt. 79, 0.9 mi. south of Morganville, Marlboro Township.
Owner: Marlboro Township Municipal Utilities Authority.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 680 ft, screened 670 to 680 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 116.93 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.50 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Jan. 1973 to July 1975, Mar. 1977 to current year. Records for 1973 to 1977 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 144.06 ft below land-surface datum, Apr. 4, 1973; lowest, 207.78 ft below land-surface datum, Jul. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	179.91	170.52	161.91	160.14	153.01	---	147.97	152.65	164.59	171.78	169.97	167.16
10	179.24	168.29	161.63	156.90	152.69	150.58	150.49	149.05	167.32	167.91	167.38	171.17
15	177.28	166.72	160.82	155.34	151.99	149.16	151.53	155.34	165.74	168.86	169.25	168.69
20	175.72	167.24	159.69	155.14	151.65	147.52	152.36	157.79	166.55	175.09	167.23	168.62
25	173.64	167.21	159.45	154.85	151.48	147.09	150.96	162.66	166.51	175.68	163.50	164.57
EOM	171.64	165.50	160.32	---	151.05	147.88	151.56	168.36	171.14	166.51	169.85	160.30
MEAN	176.15	167.98	160.84	156.48	151.76	148.74	150.40	156.84	166.40	171.34	167.67	167.53

WTR YR 1991 MEAN 162.15 HIGH 145.37 MAR 24 LOW 180.57 OCT 10

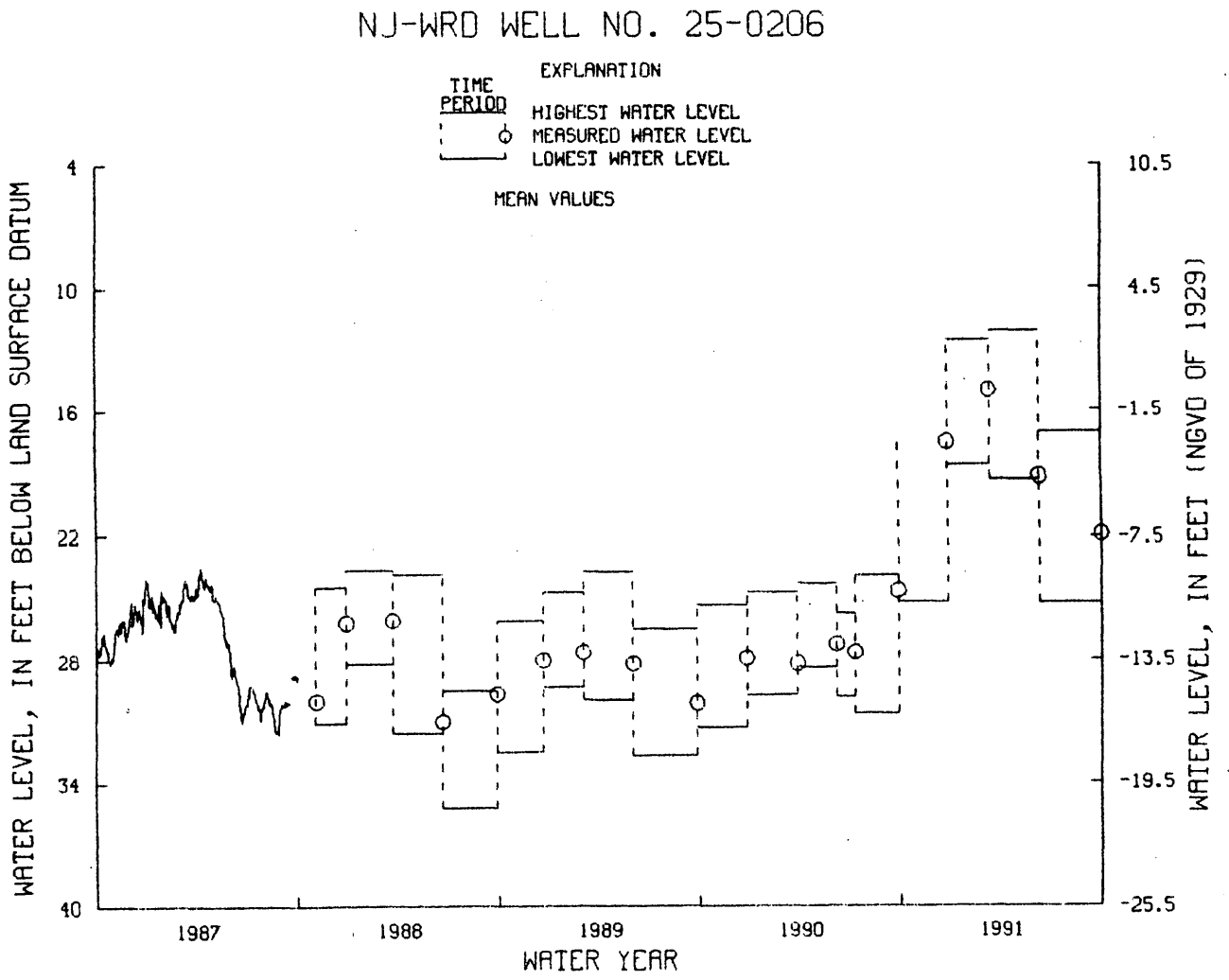


MONMOUTH COUNTY

402626074114204. Local I.D., Keyport 4 Obs. NJ-WRD Well Number, 25-0206.
LOCATION.--Lat 40°26'25", long 74°11'45", Hydrologic Unit 02030104, at the Benjamin C. Terry Park, Myrtle Ave. Keyport Borough.
Owner: Keyport Borough Water Department.
AQUIFER.--Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 249 ft, screened 225 to 249 ft.
INSTRUMENTATION.--Water-level extremes recorder. Digital water-level recorder, June 1978 to Nov. 1987.
DATUM.--Land-surface datum is 14.47 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.47 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.14 ft below land-surface datum, between Mar. 11 and June 10, 1991; lowest, 35.22 ft below land-surface datum, between June 20 and Sept. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	---	25.19	DEC. 26, 1990	17.54
DEC. 26, 1990 TO MAR. 11, 1991	12.56	18.65	MAR. 11, 1991	15.05
MAR. 11, 1991 TO JUNE 10, 1991	12.14	19.33	JUNE 10, 1991	19.17
JUNE 10, 1991 TO SEPT. 30, 1991	17.09	25.23	SEPT. 30, 1991	21.86



MORRIS COUNTY

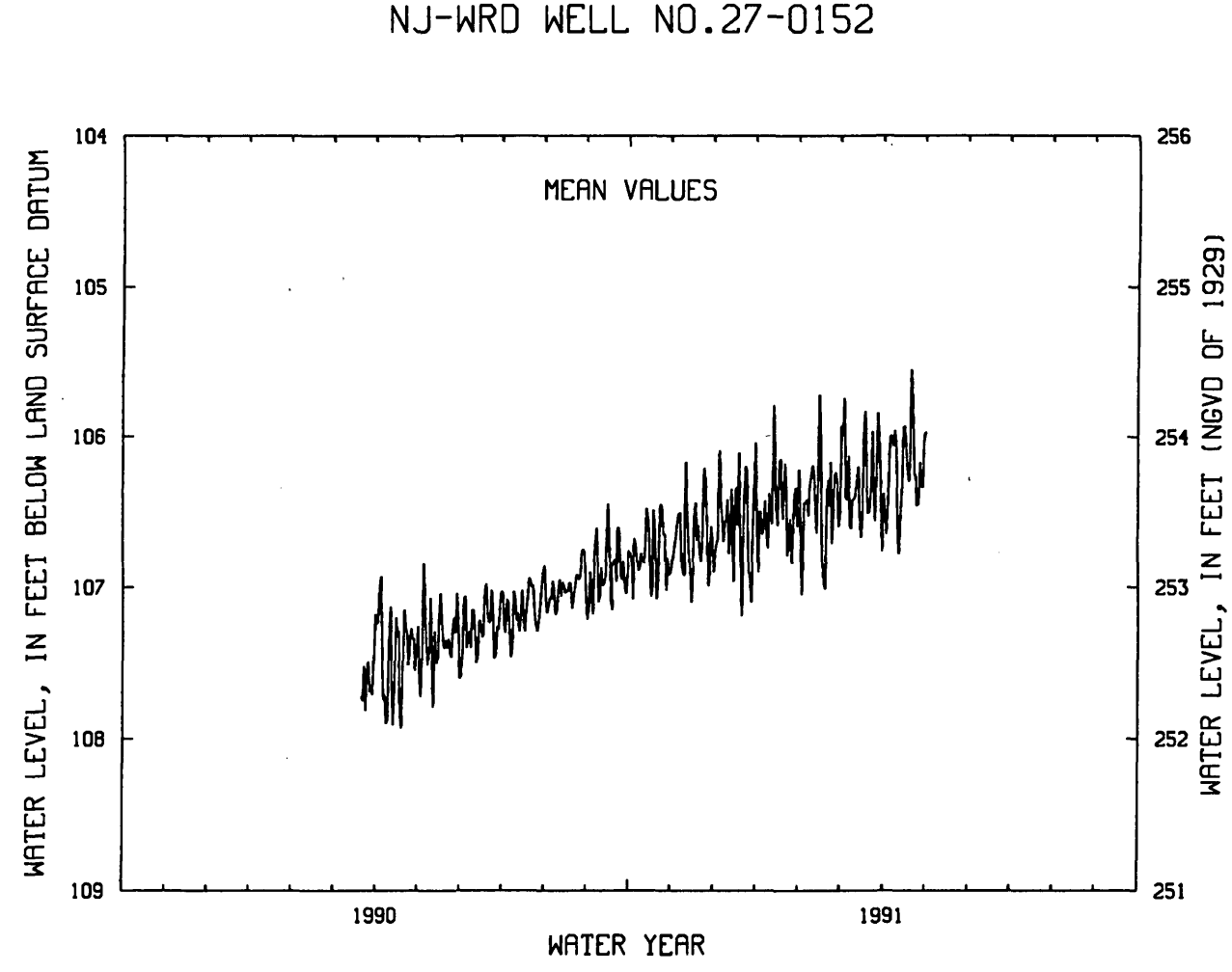
404450074245901. Local I.D., Niles Park 1 Obs. NJ-WRD Well Number, 27-0152.
LOCATION.--Lat 40°44'50", long 74°24'59", Hydrologic Unit 02030103, in Niles Park, near the intersection of Woodland Ave. and Garfield Ave., Madison Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 1.3 in, depth 173 ft, screened 170 to 172.5 ft.
INSTRUMENTATION.--Digital data logger with differential pressure transducer.
DATUM.--Land-surface datum is 360 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of PVC casing, at land-surface datum.
PERIOD OF RECORD.--Mar. 1990 to May 1991 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 105.55 ft below land-surface datum, Apr. 21, 1991; lowest, 107.93 ft below land-surface datum, Apr. 19, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	106.73	106.52	106.42	106.60	106.42	106.40	106.11	---	---	---	---	---
10	106.82	106.17	106.42	106.55	106.26	106.42	106.04	---	---	---	---	---
15	106.71	106.86	106.56	106.59	106.06	106.49	105.94	---	---	---	---	---
20	107.08	106.77	107.19	106.18	106.29	106.34	106.11	---	---	---	---	---
25	106.65	106.54	106.90	106.84	106.26	106.37	106.46	---	---	---	---	---
EOM	106.83	106.90	106.52	106.41	106.60	106.76	106.04	---	---	---	---	---
MEAN	106.78	106.68	106.57	106.48	106.46	106.30	106.22	---	---	---	---	---

WTR YR 1991 HIGH 105.55 APR 21 LOW 107.19 DEC 20



MORRIS COUNTY

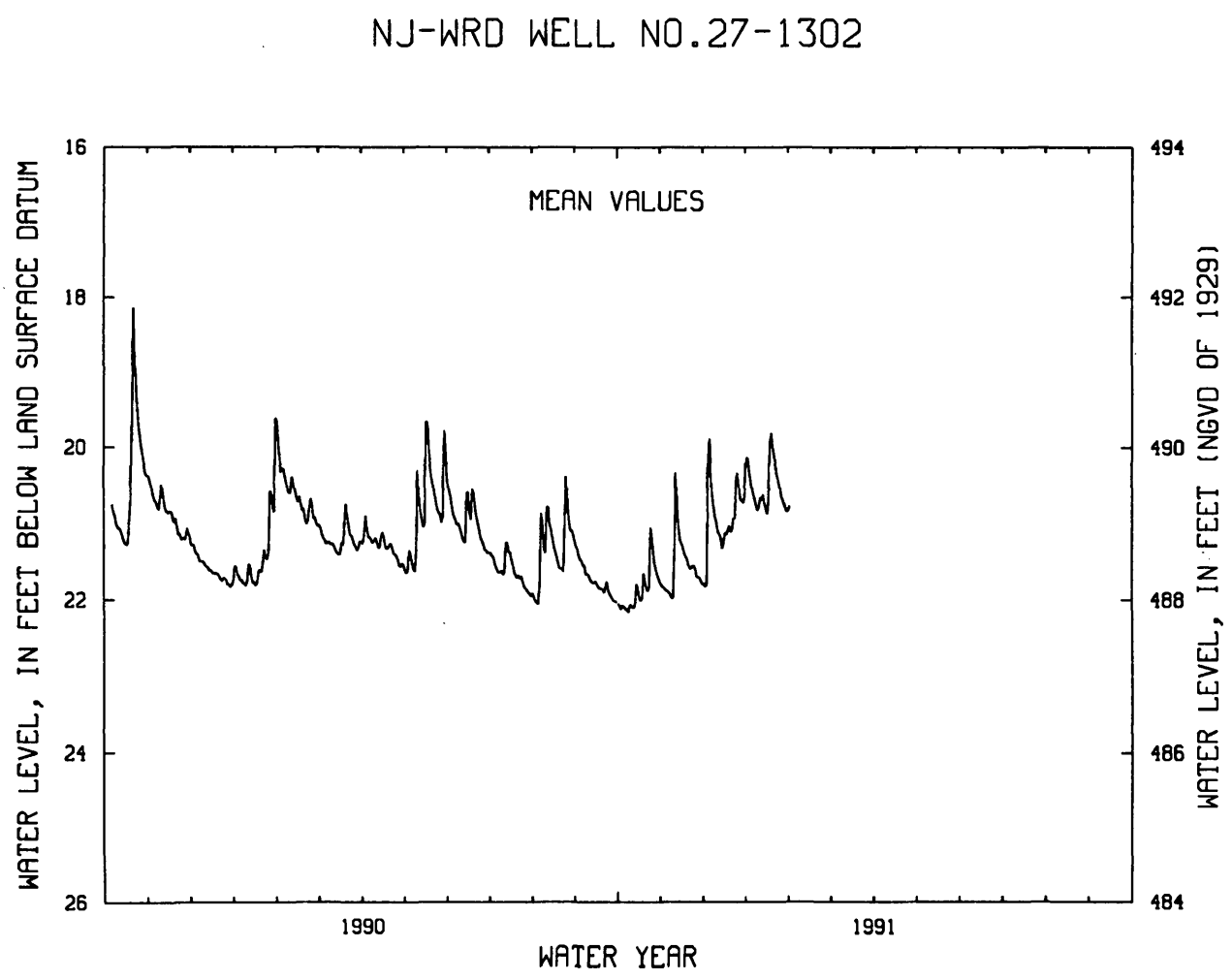
404452074493101. Local I.D., Jenkinson Farm 1 Obs. NJ-WRD Well Number, 27-1302.
LOCATION.--Lat 40°44'52", long 74°49'31", Hydrologic Unit 02030105, Jenkinson farm, Rt. 513, Washington Township.
Owner: State of New Jersey.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, depth 597 ft, open hole 50 to 597 ft.
INSTRUMENTATION.--Digital water-level recorder--60 minute punch.
DATUM.--Land-surface datum is 510 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.00 ft above land-surface datum.
REMARKS.--Well located approximately 800 ft from South Branch Raritan River. Water levels affected by bank storage.
PERIOD OF RECORD.--Oct. 1989 to Jan. 1991 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.90 ft below land-surface datum, Oct. 21, 1989; lowest, 22.28 ft below land-surface datum, Oct. 8, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.09	21.88	19.88	20.60	---	---	---	---	---	---	---	---
10	22.06	21.42	20.98	20.66	---	---	---	---	---	---	---	---
15	21.85	21.26	21.25	20.85	---	---	---	---	---	---	---	---
20	21.75	21.54	21.10	20.11	---	---	---	---	---	---	---	---
25	21.19	21.60	20.34	20.63	---	---	---	---	---	---	---	---
EOM	21.78	21.79	20.18	20.75	---	---	---	---	---	---	---	---
MEAN	21.86	21.56	20.89	20.53	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH 19.48 DEC 4 LOW 22.28 OCT 8



MORRIS COUNTY

404639074230001. Local I.D., Briarwood School Obs. NJ-WRD Well Number, 27-0012.
LOCATION.--Lat 40°46'39", long 74°23'00", Hydrologic Unit 02030103, at Briarwood School, Florham Park Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 110 ft, screened 100 to 110 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 198 ft above National Geodetic Vertical Datum of 1929, by altimeter.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1967 to May 1975, Apr. 1977 to current year. Records for 1967 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.17 ft below land-surface datum, June 3, 1968; lowest, 59.71 ft below land-surface datum, May 4, 1989.

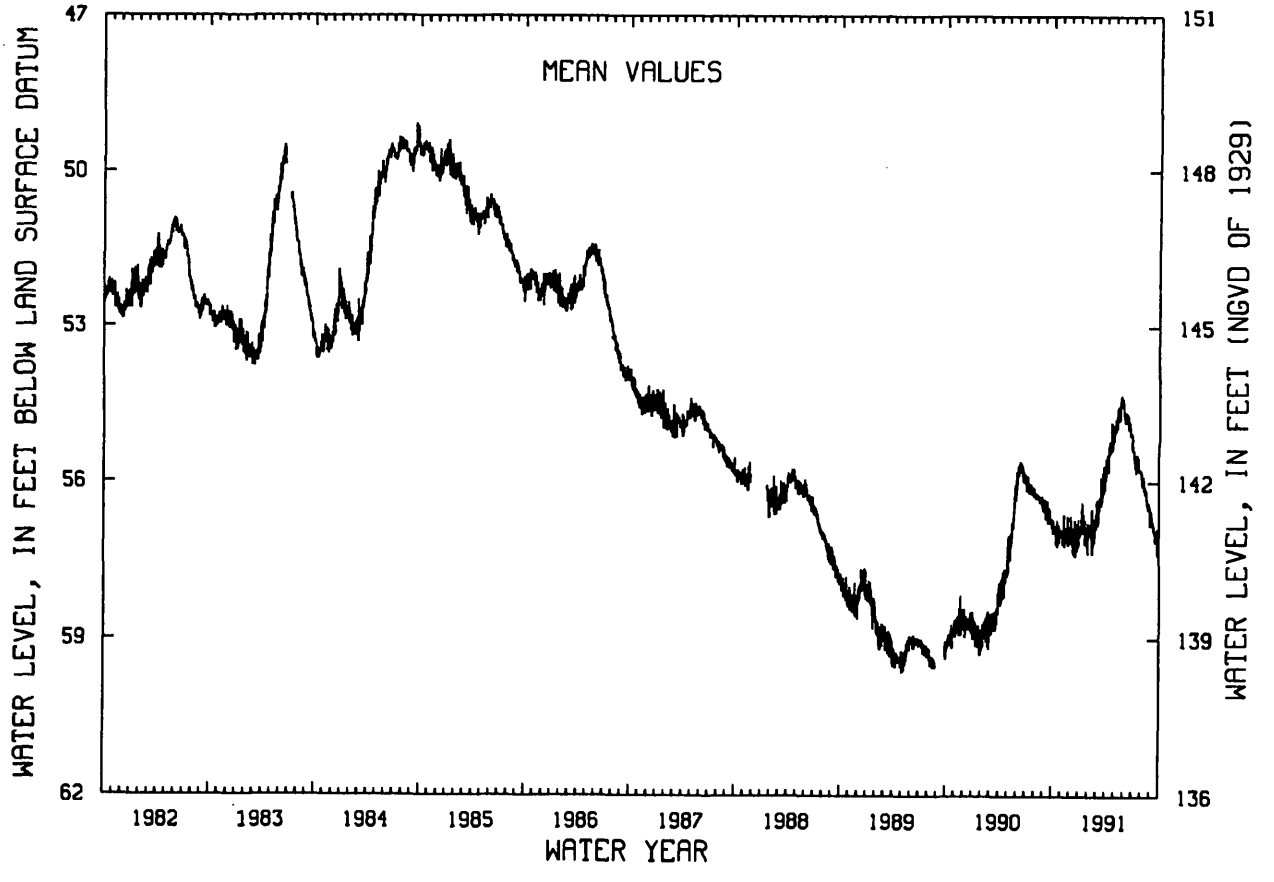
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	56.87	56.92	57.02	56.92	56.88	56.82	55.55	55.01	54.83	55.37	56.01	56.74
10	56.96	56.62	56.92	56.94	56.85	56.43	55.52	54.80	54.71	55.52	55.99	56.76
15	57.01	57.01	56.87	56.97	56.93	56.43	55.21	54.78	54.70	55.82	56.12	57.02
20	57.24	57.05	57.42	56.72	56.83	56.38	55.22	54.65	54.82	55.53	56.32	57.14
25	56.93	56.93	57.32	57.17	56.69	56.19	55.35	54.32	55.08	55.77	56.51	56.89
EOM	57.02	57.17	57.22	57.10	56.89	56.14	54.89	54.54	55.12	55.78	56.53	57.37
MEAN	56.95	57.00	57.02	56.92	56.92	56.29	55.42	54.67	54.86	55.56	56.18	56.98

WTR YR 1991 MEAN 56.23 HIGH 54.24 MAY 24 LOW 57.52 DEC 20

NJ-WRD WELL NO.27-0012



MORRIS COUNTY

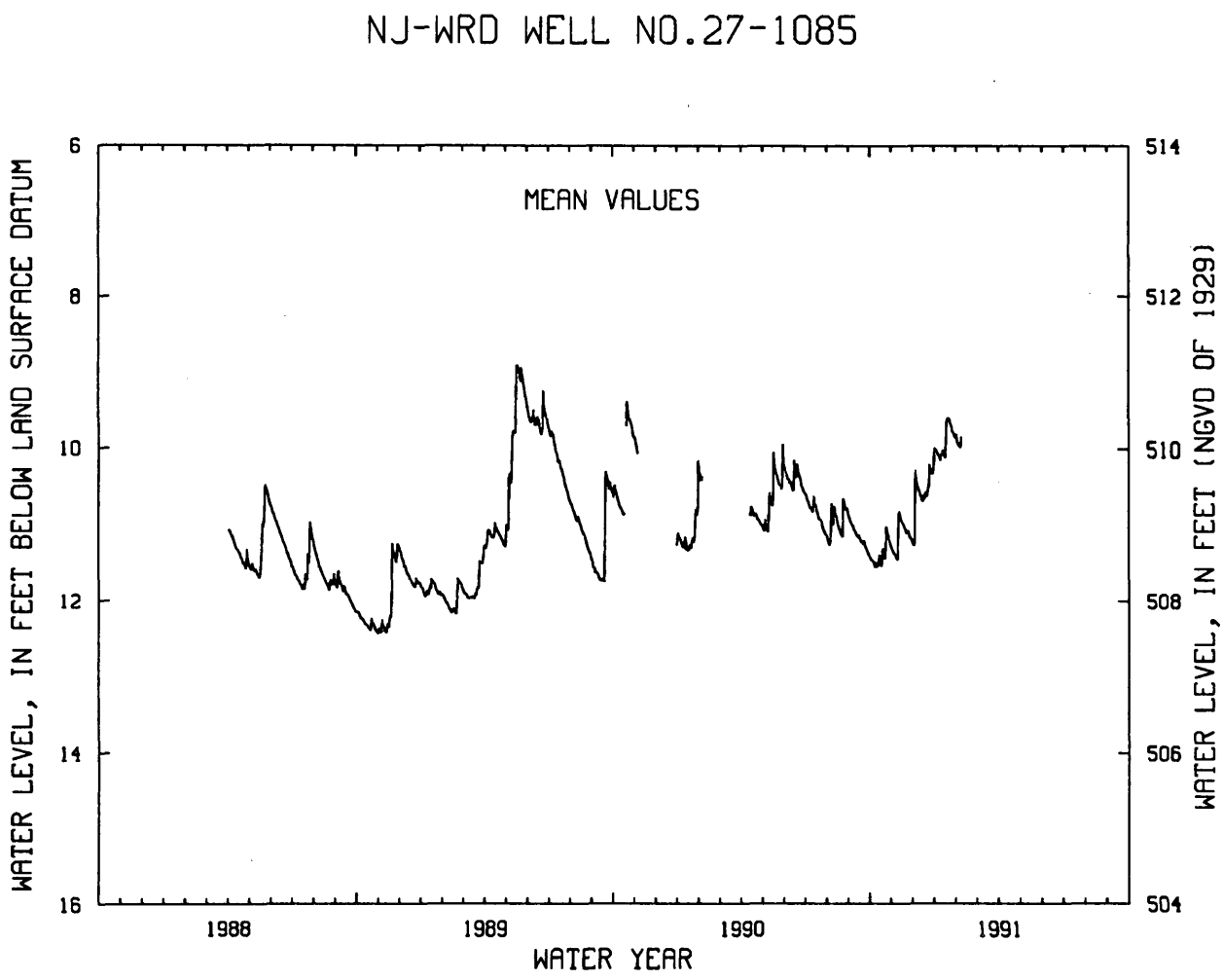
404705074463801. Local I.D., Washington Twp TW Obs. NJ-WRD Well Number, 27-1085.
LOCATION.--Lat 40°47'05", long 74°46'38", Hydrologic Unit 02030105, Behind the Washington Township MUA Building on Rt. 24 (East Mill Rd.), Long Valley, Washington Township.
Owner: Washington Township Municipal Utilities Authority.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 290 ft, open hole 117 to 290 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 520 ft above National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--Well located approximately 400 feet from South Branch Raritan River. Water levels affected by bank storage.
Measuring point: Top edge of recorder shelf, 3.60 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1988 to Feb. 1991 (discontinued). Records for 1988 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.73 ft below land-surface datum, May 17, 1989; lowest, 12.43 ft below land-surface datum, Oct. 30-Nov. 1, Nov. 12-13, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.46	11.38	10.39	10.08	9.98	---	---	---	---	---	---	---
10	11.52	11.02	10.55	10.07	---	---	---	---	---	---	---	---
15	11.46	10.95	10.66	10.11	---	---	---	---	---	---	---	---
20	11.38	11.06	10.61	9.60	---	---	---	---	---	---	---	---
25	11.08	11.11	10.24	9.77	---	---	---	---	---	---	---	---
EOM	11.28	11.22	9.99	9.82	---	---	---	---	---	---	---	---
MEAN	11.38	11.14	10.53	9.90	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH 9.59 JAN 20-21 LOW 11.55 OCT 12,17



MORRIS COUNTY

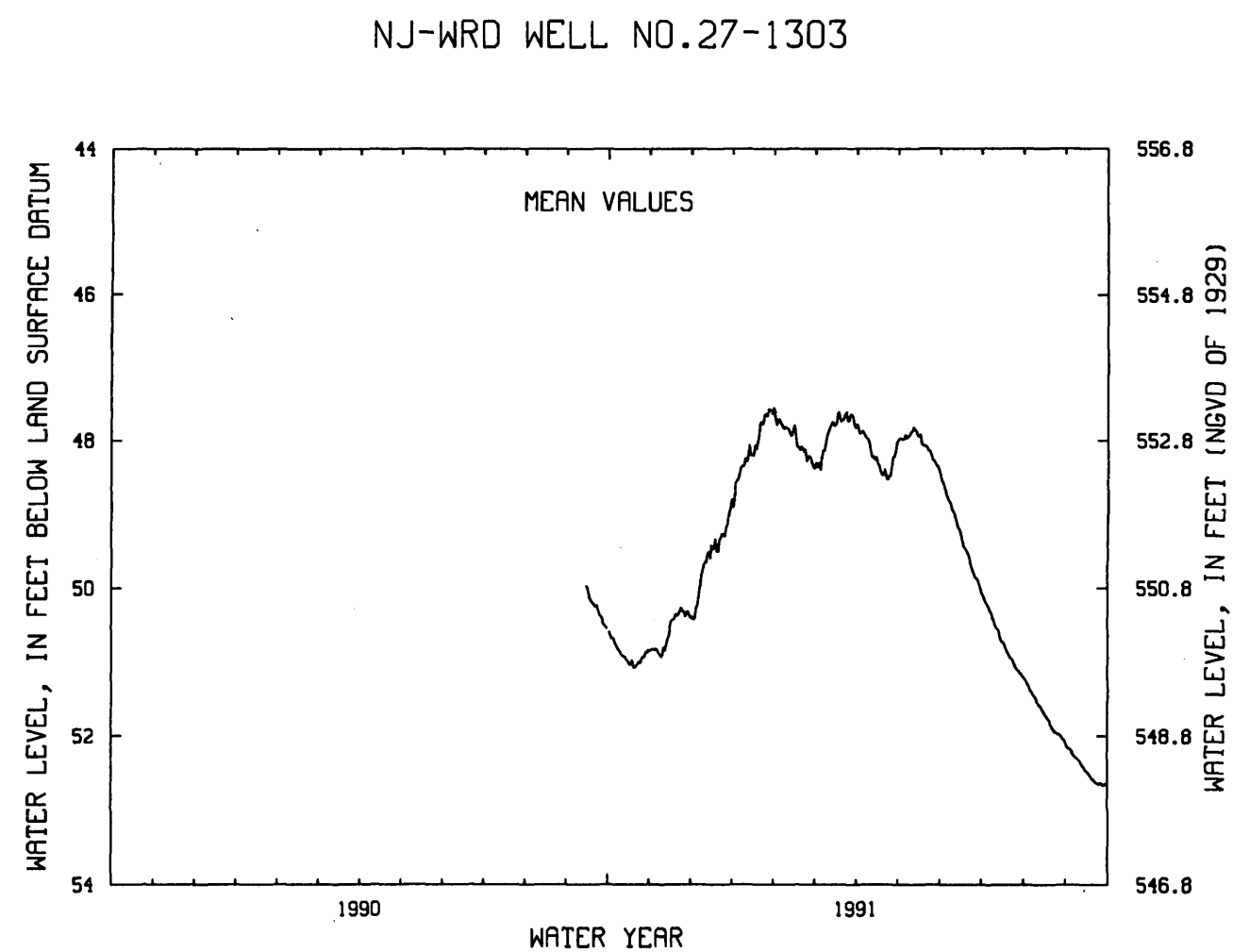
404712074454701. Local I.D., Drew University Farm Obs. NJ-WRD Well Number, 27-1303.
LOCATION.--Lat 40°47'12", long 74°45'47", Hydrologic Unit 02030105, near the intersection of Bartley Rd. and Rt. 24, Long Valley, Washington Township.
Owner: State of New Jersey.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 118 ft, open hole 97.6 to 118 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 600.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.50 ft below land-surface datum, Jan. 30, 1991; lowest, 52.69 ft below land-surface datum, Sept. 26, 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	50.72	50.82	50.22	48.40	47.79	48.40	47.87	47.98	48.73	50.22	51.37	52.23
10	50.89	50.79	49.65	48.29	47.86	47.92	48.05	47.89	48.96	50.43	51.53	52.33
15	50.99	50.51	49.42	48.20	47.94	47.80	48.22	47.93	49.21	50.70	51.67	52.48
20	51.07	50.37	49.50	47.74	48.11	47.74	48.46	48.07	49.51	50.87	51.84	52.59
25	50.95	50.31	49.30	47.67	48.21	47.73	48.48	48.19	49.79	51.04	51.97	52.63
EOM	50.84	50.40	48.91	47.69	48.37	47.83	48.02	48.41	50.00	51.19	52.10	52.66
MEAN	50.89	50.57	49.56	48.04	47.99	47.88	48.18	48.05	49.26	50.68	51.69	52.46

WTR YR 1991 MEAN 49.61 HIGH 47.50 JAN 30 LOW 52.69 SEP 26,30



MORRIS COUNTY

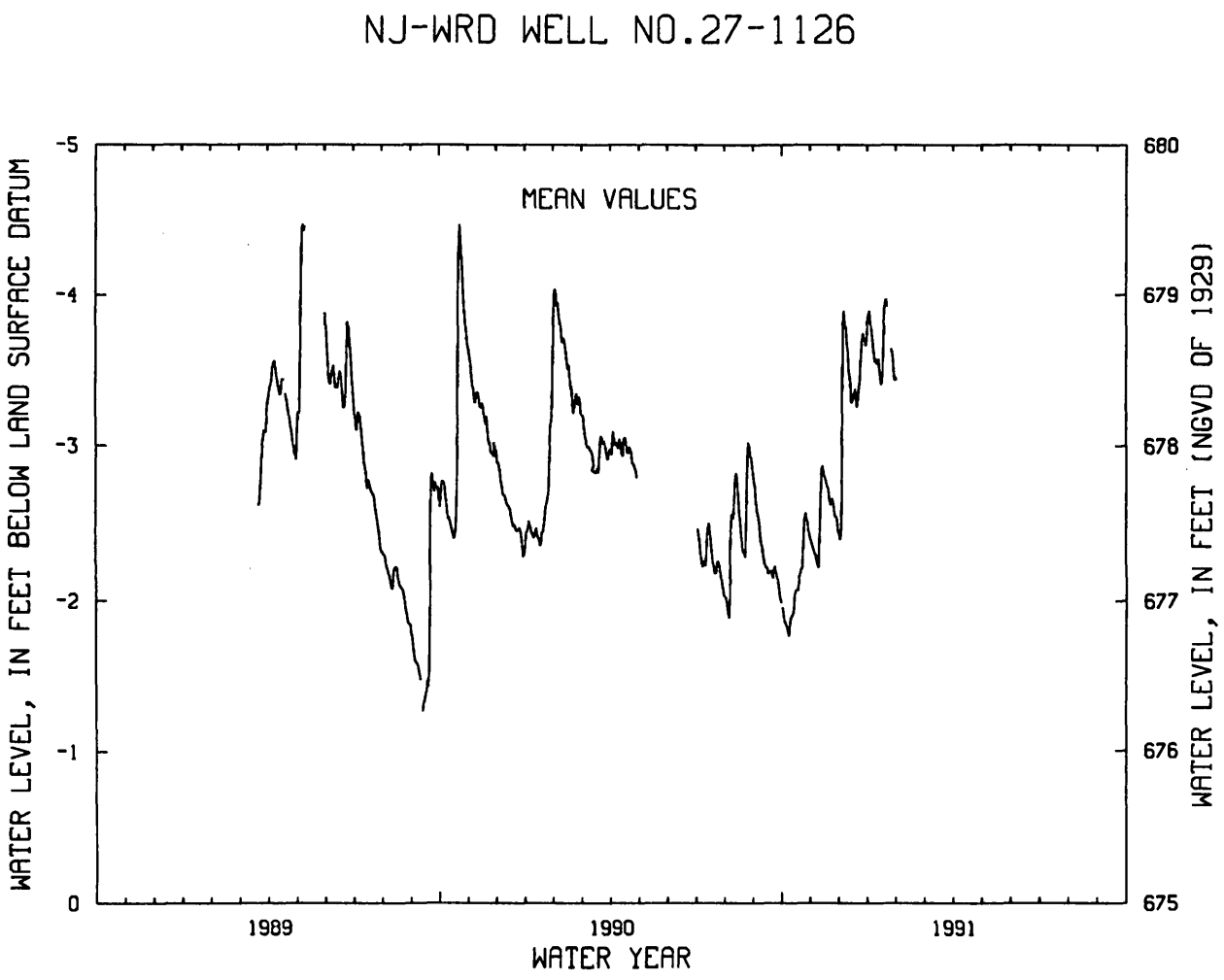
404809074415501. Local I.D., Black River 4 Obs. NJ-WRD Well Number, 27-1126.
LOCATION.--Lat 40°48'09", long 74°41'55", Hydrologic Unit 02030105, in the Black River Wildlife Management Area off Pleasant Hill Rd., Chester Township.
Owner: U.S. Geological Survey.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 237 ft, screened 234 to 237 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 675 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 7.65 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to Jan. 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.59 ft above land-surface datum, May 15, 1989; lowest, 1.20 ft above land-surface datum, Sept. 12, 1989.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-1.84	-2.31	-3.79	-3.71	---	---	---	---	---	---	---	---
10	-1.89	-2.42	-3.62	-3.54	---	---	---	---	---	---	---	---
15	-2.07	-2.80	-3.29	-3.40	---	---	---	---	---	---	---	---
20	-2.17	-2.67	-3.25	-3.97	---	---	---	---	---	---	---	---
25	-2.54	-2.62	-3.70	-3.64	---	---	---	---	---	---	---	---
EOM	-2.41	-2.45	-3.82	-3.43	---	---	---	---	---	---	---	---
MEAN	-2.12	-2.56	-3.43	-3.64	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH -3.98 JAN 20 LOW -1.76 OCT 8



MORRIS COUNTY

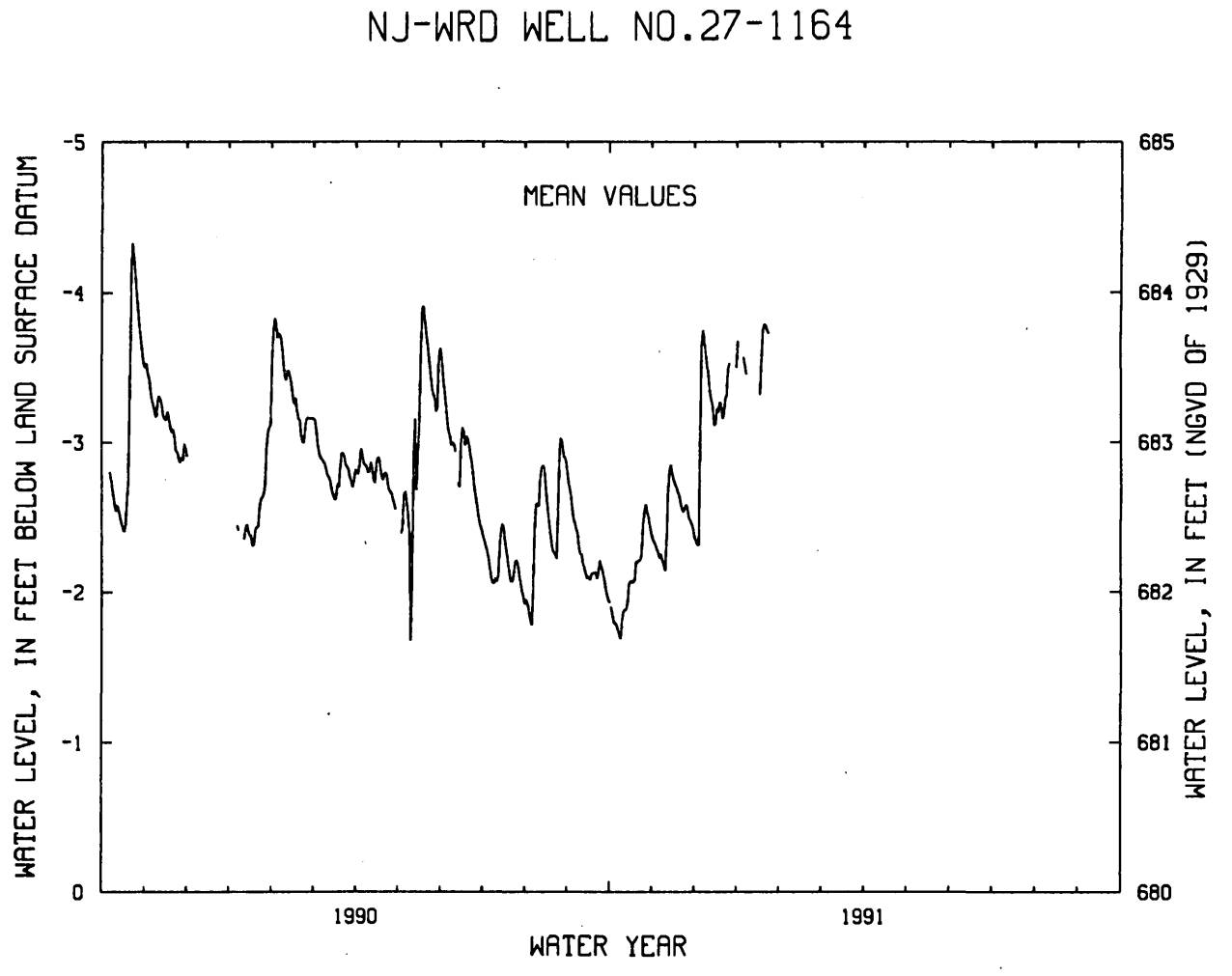
404809074415502. Local I.D., Black River 5 Obs. NJ-WRD Well Number, 27-1164.
LOCATION.--Lat 40°48'09", long 74°41'55", Hydrologic Unit 02030105, in the Black River Wildlife Management Area off Pleasant Hill Rd., Chester Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified Drift of Pleistocene age
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 49 ft, screened 39 to 49 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 7.30 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping. Water level affected by aquifer test, May 1990.
PERIOD OF RECORD.--Oct. 1989 to Jan. 1991 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.34 ft above land-surface datum, Oct. 22, 1989; lowest, 0.56 ft below land-surface datum, May 10, 1990.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-1.78	-2.24	-3.64	-3.52	---	---	---	---	---	---	---	---
10	-1.87	-2.36	-3.45	---	---	---	---	---	---	---	---	---
15	-2.07	-2.75	-3.12	---	---	---	---	---	---	---	---	---
20	-2.19	-2.59	-3.16	-3.78	---	---	---	---	---	---	---	---
25	-2.53	-2.55	-3.53	---	---	---	---	---	---	---	---	---
EOM	-2.35	-2.36	-3.68	---	---	---	---	---	---	---	---	---
MEAN	-2.09	-2.49	-3.25	---	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH -3.80 JAN 18-19 LOW -1.69 OCT 8-9



MORRIS COUNTY

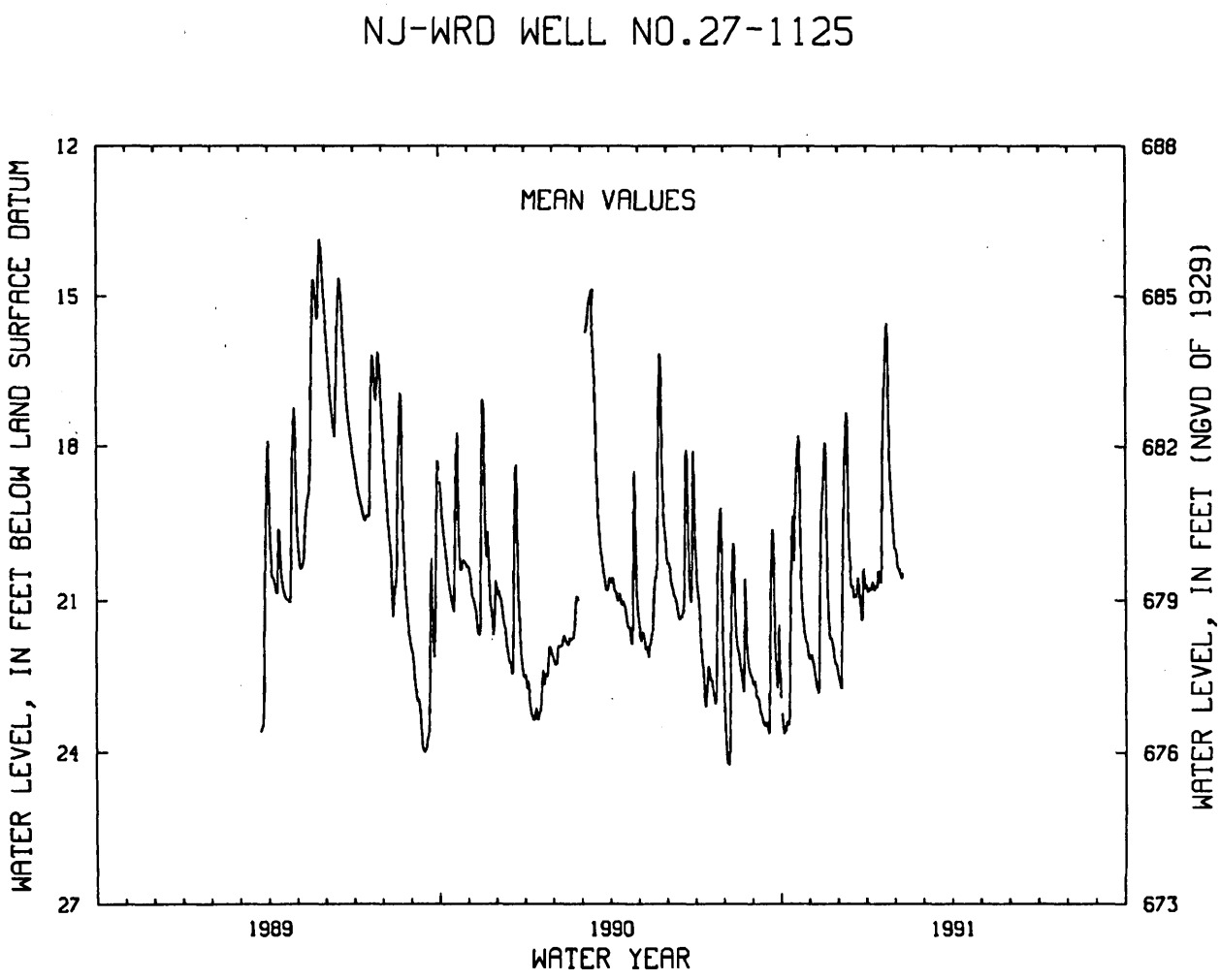
404934074385901. Local I.D., Black River 3 Obs. NJ-WRD Well Number, 27-1125.
LOCATION.--Lat 40°49'34", long 74°38'59", Hydrologic Unit 02030105, in the Black River Wildlife Management Area off Ironia Rd., Chester Township.
Owner: U.S. Geological Survey.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 419.5 ft, screened 408.5 to 419.5 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 4.00 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Mar. 1989 to Feb. 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.84 ft below land-surface datum, May 26, 1989; lowest, 24.28 ft below land-surface datum, Aug. 6, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.56	22.43	20.14	20.72	20.48	---	---	---	---	---	---	---
10	21.56	22.20	17.43	20.73	---	---	---	---	---	---	---	---
15	19.25	18.45	20.70	20.65	---	---	---	---	---	---	---	---
20	18.00	21.40	20.86	15.86	---	---	---	---	---	---	---	---
25	21.61	21.93	21.40	18.80	---	---	---	---	---	---	---	---
EOM	22.16	22.47	20.76	20.06	---	---	---	---	---	---	---	---
MEAN	21.25	21.27	20.46	19.35	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH 15.37 JAN 22 LOW 23.66 OCT 3-4

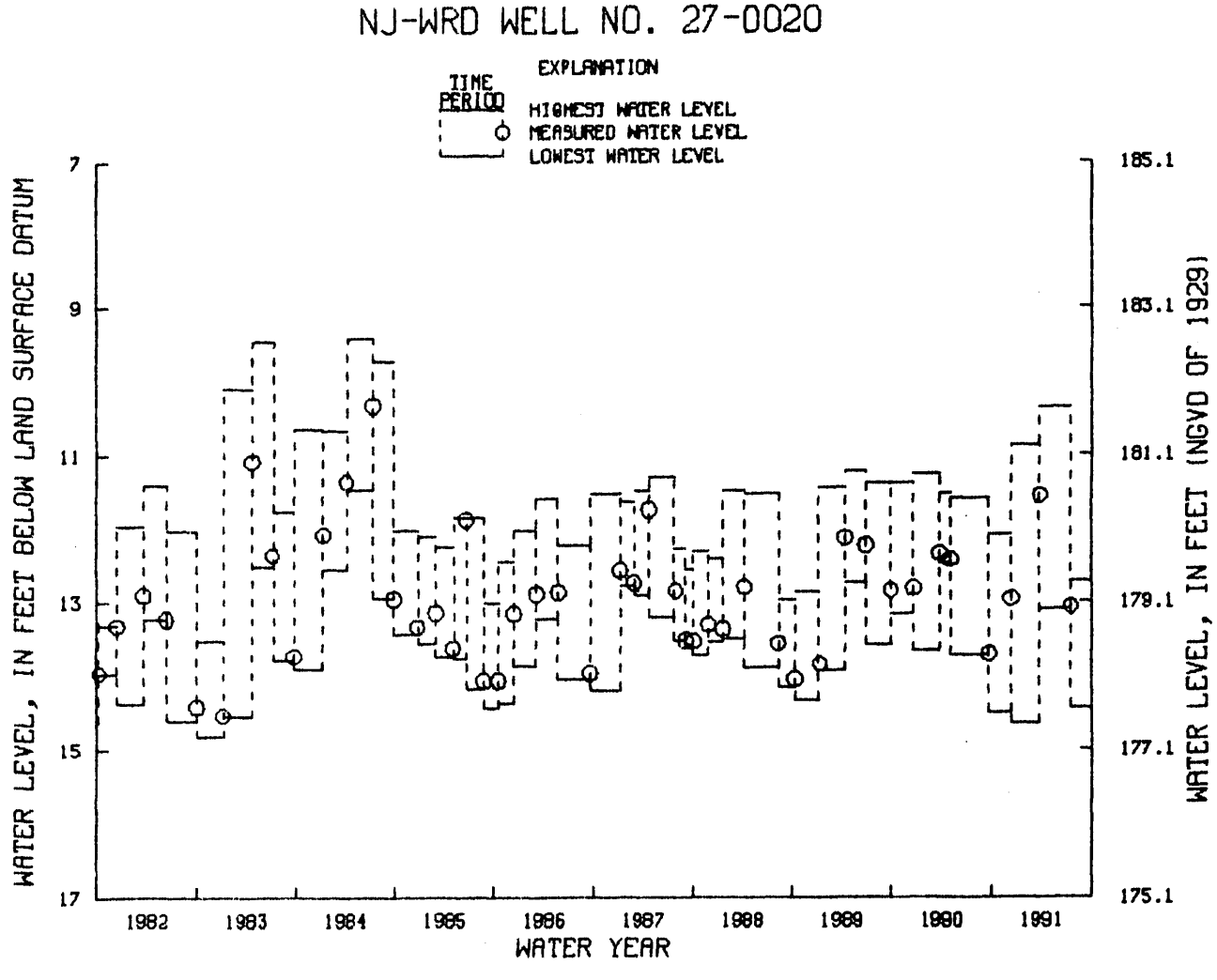


MORRIS COUNTY

405027074232301. Local I.D., Troy Meadows 1 Obs. NJ-WRD Well Number, 27-0020.
LOCATION.--Lat 40°50'27", long 74°23'23", Hydrologic Unit 02030103, on the east side of Beverwyck Rd., 0.8 mi. north of intersection with Troy Rd., Parsippany-Troy Hills Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 89 ft, screened 79 to 89 ft.
INSTRUMENTATION.--Water-level extremes recorder, Apr. 1977 to current year. Water-level recorder, Dec. 1965 to July 1970.
DATUM.--Land-surface datum is 192.07 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.32 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1965 to July 1970, Apr. 1977 to current year. Periodic manual measurements, Dec. 1970 to Feb. 1975. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.00 ft below land-surface datum, Mar. 15-16, 1967 and June 15, 1968; lowest, 15.77 ft below land-surface datum, between Feb. 10 and May 31, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 21, 1990 TO DEC. 11, 1990	12.08	14.50	DEC. 11, 1990	12.97
DEC. 11, 1990 TO MAR. 27, 1991	10.87	14.64	MAR. 27, 1991	11.57
MAR. 27, 1991 TO JULY 17, 1991	10.38	13.10	JULY 17, 1991	13.07
JULY 17, 1991 TO OCT. 1, 1991	12.72	14.43	OCT. 1, 1991	13.80



MORRIS COUNTY

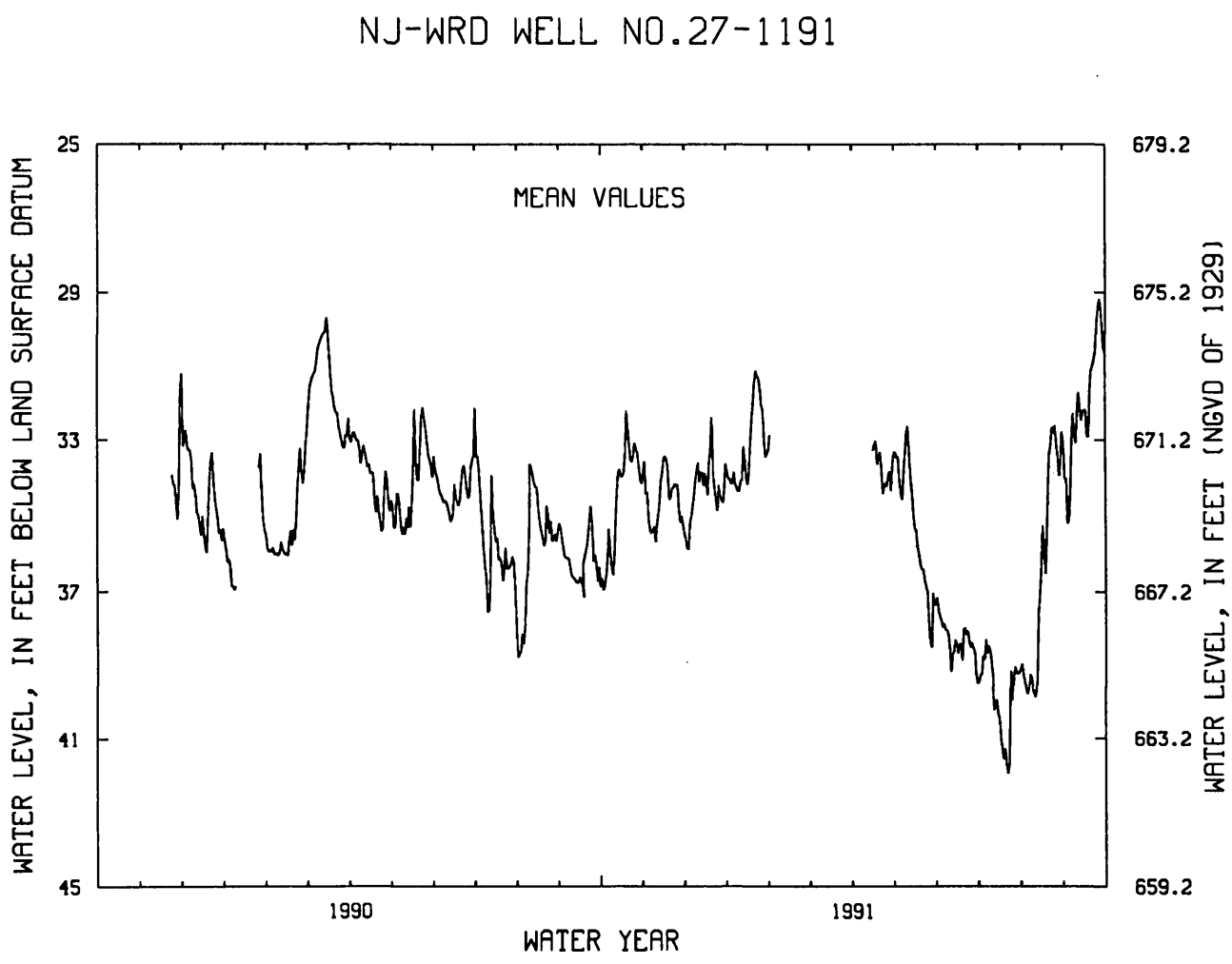
405123074375701. Local I.D., Roxbury 1 Obs. NJ-WRD Well Number, 27-1191.
LOCATION.--Lat 40°51'23", long 74°37'57", Hydrologic Unit 02030105, next to Horseshoe Lake, behind Roxbury Municipal Building, off Eyland Ave., Roxbury Township.
Owner: State of New Jersey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 154 ft, screened 134 to 154 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 704.2 ft above National Geodetic Vertical Datum of 1929.
REMARKS.--Water level affected by nearby pumping.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.09 ft below land-surface datum, Sept. 26, 1991; lowest, 42.08 ft below land-surface datum, July 23, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.09	35.37	34.95	33.85	---	---	---	34.03	37.94	38.83	39.77	34.20
10	35.98	35.20	33.62	34.09	---	---	---	32.86	38.51	38.90	39.76	32.25
15	33.97	33.50	33.89	34.17	---	---	---	34.90	38.41	40.30	36.33	32.25
20	32.70	34.49	32.39	31.42	---	---	33.48	36.26	38.00	41.29	34.17	31.11
25	33.08	34.18	34.20	32.03	---	---	34.13	37.00	38.49	39.93	32.62	29.37
EOM	33.89	35.45	33.84	32.87	---	---	33.62	37.29	39.48	39.11	33.13	30.63
MEAN	34.50	34.57	34.28	33.18	---	---	---	35.29	38.31	39.79	36.34	31.96

WTR YR 1991 MEAN 35.28 HIGH 29.09 SEP 26 LOW 42.08 JUL 23



MORRIS COUNTY

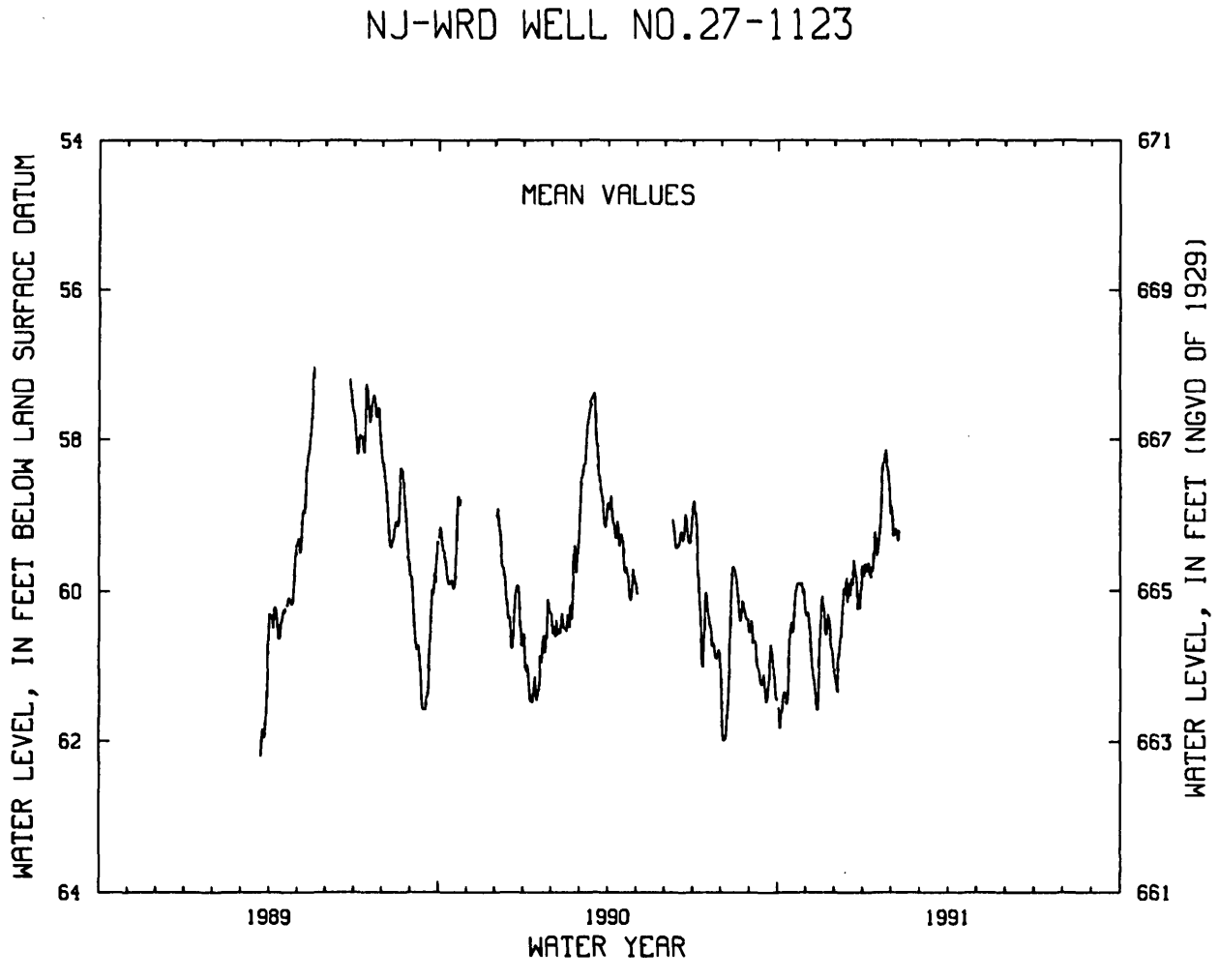
405330074363801. Local I.D., Kenvil Newcrete 1 Obs. NJ-WRD Well Number, 27-1123.
LOCATION.--Lat 40°53'30", long 74°36'38", Hydrologic Unit 02030105, at Kenvil Newcrete on Dell Ave., Roxbury Township.
Owner: U.S. Geological Survey.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 307 ft, open hole 297 to 307 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 725 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to Feb. 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 56.83 ft below land-surface datum, May 19, 1989; lowest, 62.33 ft below land-surface datum, Mar. 23, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.57	60.73	60.87	59.71	59.24	---	---	---	---	---	---	---
10	61.51	61.37	59.97	59.75	---	---	---	---	---	---	---	---
15	60.42	60.51	59.96	59.54	---	---	---	---	---	---	---	---
20	59.98	60.54	59.88	58.50	---	---	---	---	---	---	---	---
25	59.93	60.44	60.24	58.36	---	---	---	---	---	---	---	---
EOM	60.33	61.10	59.75	59.01	---	---	---	---	---	---	---	---
MEAN	60.67	60.72	60.19	59.14	---	---	---	---	---	---	---	---

WTR YR 1991 HIGH 58.07 JAN 24 LOW 61.92 OCT 3



MORRIS COUNTY

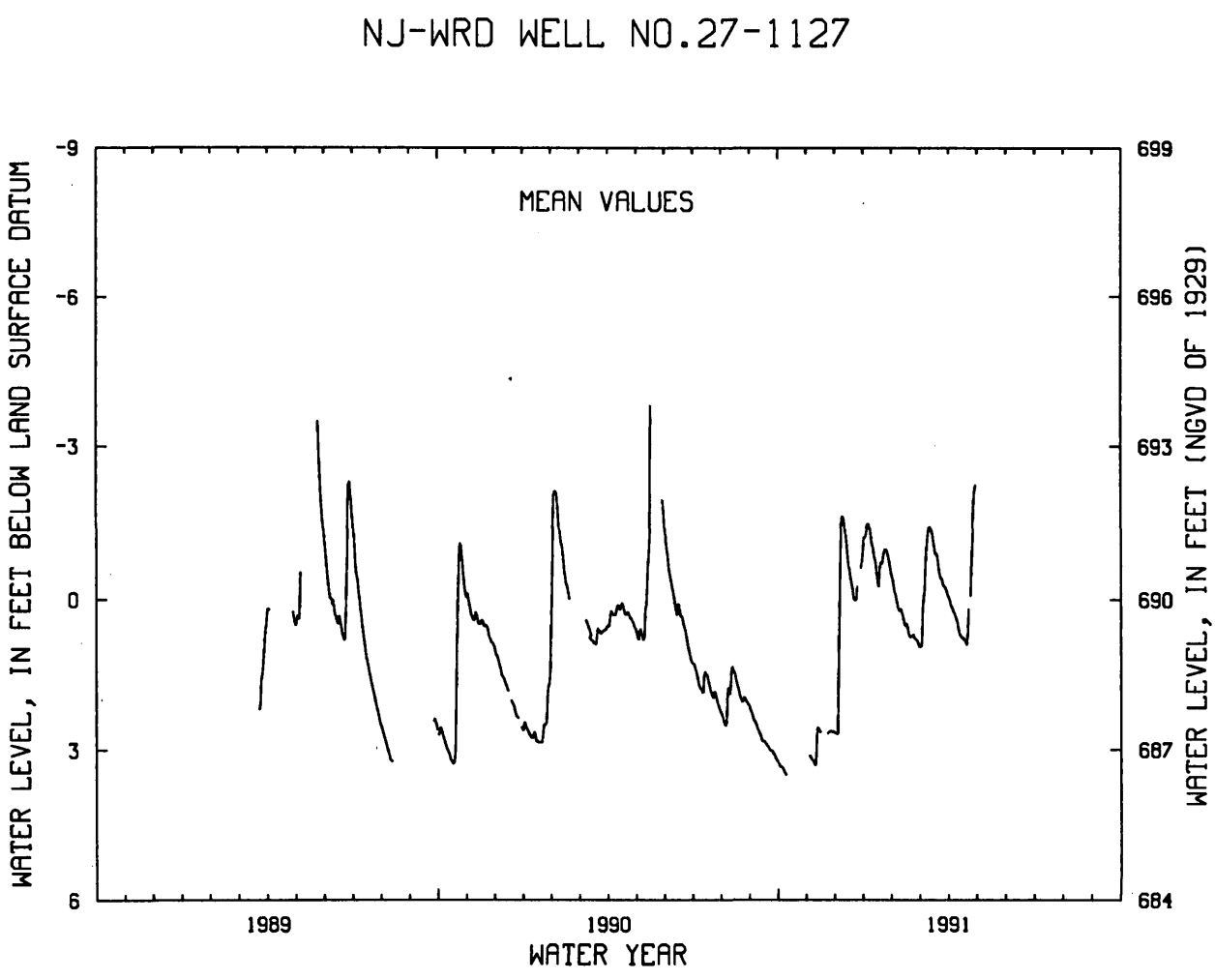
405458074345501. Local I.D., Picatinny SB1-1 Obs. NJ-WRD Well Number, 27-1127.
LOCATION.--Lat 40°54'58", long 74°34'55", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Precambrian Erathem.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 93 ft, screened 83 to 93 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 690 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 6.65 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.90 ft above land-surface datum, May 17, 1990; lowest, 3.50 ft below land-surface datum, Oct. 9, 1990.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.35	3.17	.31	-1.50	.07	-.04	.18	---	---	---	---	---
10	---	3.08	-1.59	-1.04	.25	-1.37	.44	---	---	---	---	---
15	---	2.64	-.65	-.38	.47	-1.21	.75	---	---	---	---	---
20	---	---	-.08	-.75	.72	-.80	.89	---	---	---	---	---
25	---	2.62	---	-.94	.78	-.38	-.69	---	---	---	---	---
EOM	---	2.65	-1.25	-.41	.90	-.08	-2.28	---	---	---	---	---
MEAN	---	2.82	-.30	-.90	.44	-.54	.00	---	---	---	---	---

WTR YR 1991 HIGH -2.28 APR 30 LOW 3.50 OCT 9



MORRIS COUNTY

405458074345502. Local I.D., Picatinny SB1-2 Obs. NJ-WRD Well Number, 27-1128.
LOCATION.--Lat 40°54'58", long 74°34'55", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 18 ft, screened 8 to 18 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 690 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.30 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.14 ft above land-surface datum, May 19, 1989, May 19, 1990; lowest, 4.99 ft below land-surface datum, Sept. 19, 1989.

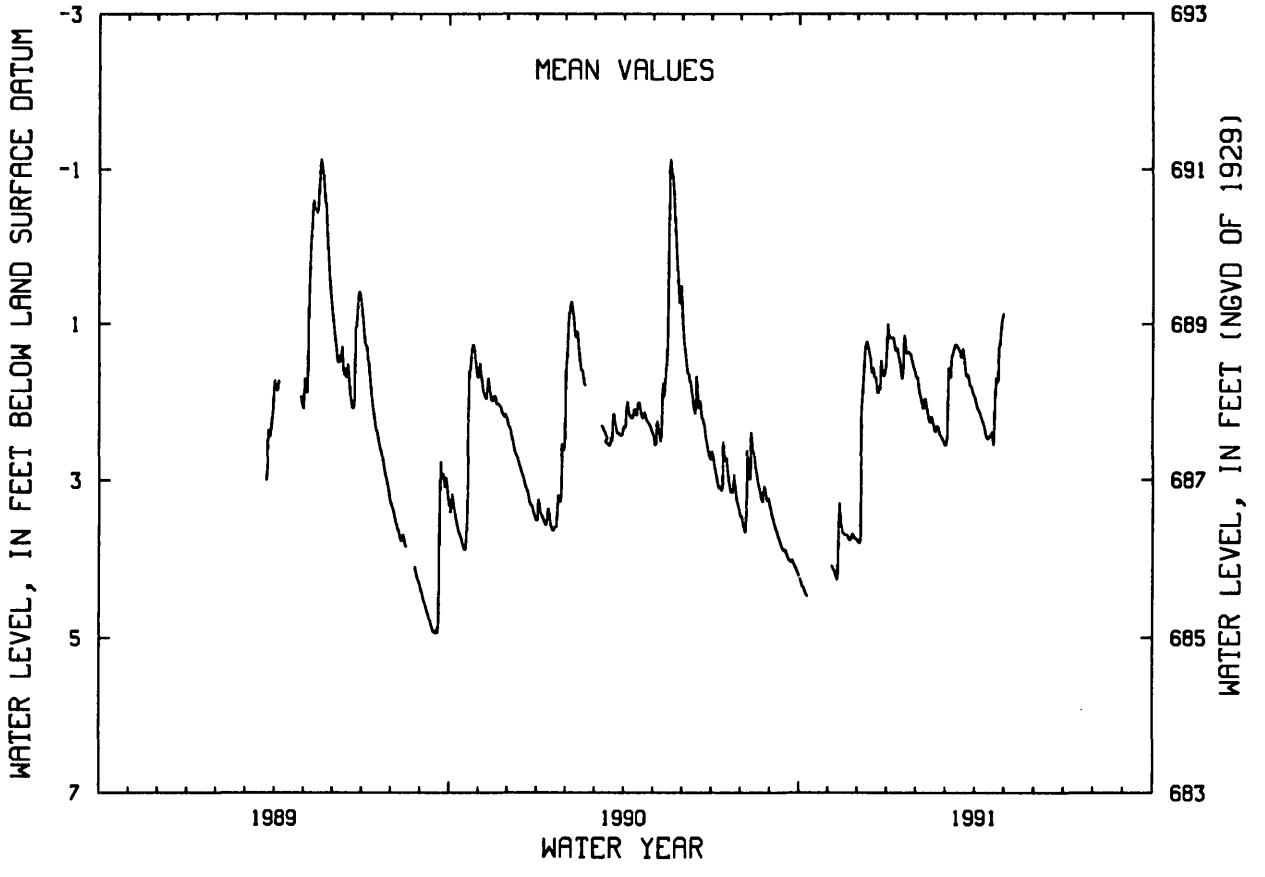
WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.36	4.13	1.90	1.17	2.03	1.63	2.12	---	---	---	---	---
10	---	3.78	1.24	1.31	2.09	1.29	2.29	---	---	---	---	---
15	---	3.67	1.63	1.71	2.18	1.33	2.46	---	---	---	---	---
20	---	3.72	1.85	1.38	2.31	1.42	2.52	---	---	---	---	---
25	---	3.68	1.54	1.47	2.45	1.71	1.29	---	---	---	---	---
EOM	---	3.77	1.00	1.68	2.54	1.93	.86	---	---	---	---	---
MEAN	---	3.80	1.78	1.40	2.21	1.63	1.99	---	---	---	---	---

WTR YR 1991 HIGH .85 APR 30 LOW 4.48 OCT 8-9

NJ-WRD WELL NO.27-1128



MORRIS COUNTY

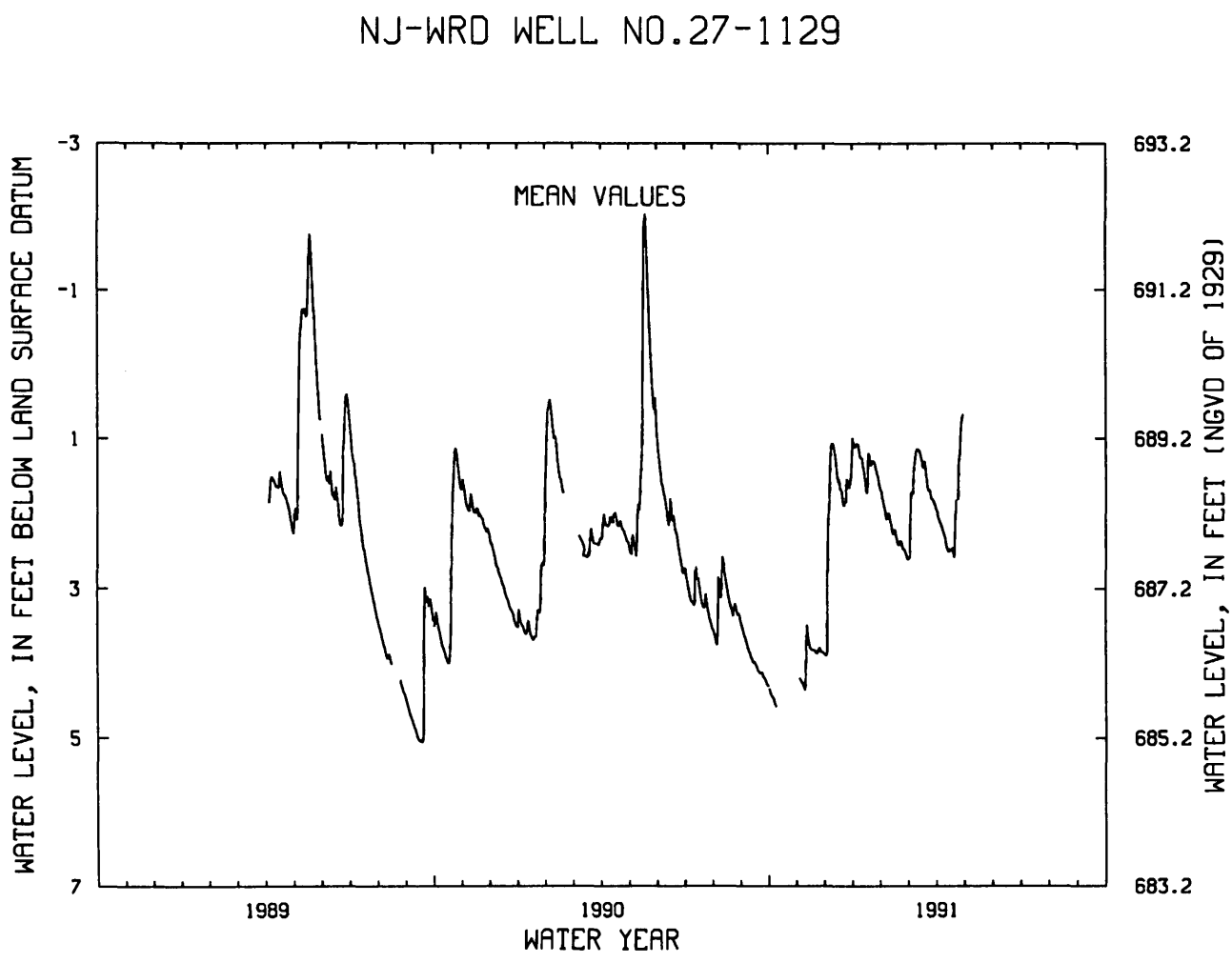
405458074345503. Local I.D., Picatinny SB1-3 Obs. NJ-WRD Well Number, 27-1129.
LOCATION.--Lat 40°54'58", long 74°34'55", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 34 ft, screened 24 to 34 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 690.2 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.40 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.03 ft above land-surface datum, May 18-19, 1990; lowest, 5.09 ft below land-surface datum, Sept. 19, 1989.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.46	4.25	1.92	1.07	2.00	1.68	2.10	---	---	---	---	---
10	---	3.98	1.08	1.26	2.08	1.17	2.29	---	---	---	---	---
15	---	3.80	1.55	1.70	2.19	1.24	2.49	---	---	---	---	---
20	---	3.84	1.81	1.35	2.35	1.39	2.57	---	---	---	---	---
25	---	3.79	1.53	1.39	2.47	1.70	1.32	---	---	---	---	---
EOM	---	3.87	1.00	1.67	2.58	1.91	.68	---	---	---	---	---
MEAN	---	3.92	1.74	1.35	2.22	1.60	1.98	---	---	---	---	---

WTR YR 1991 HIGH .68 APR 30 LOW 4.58 OCT 8-9



MORRIS COUNTY

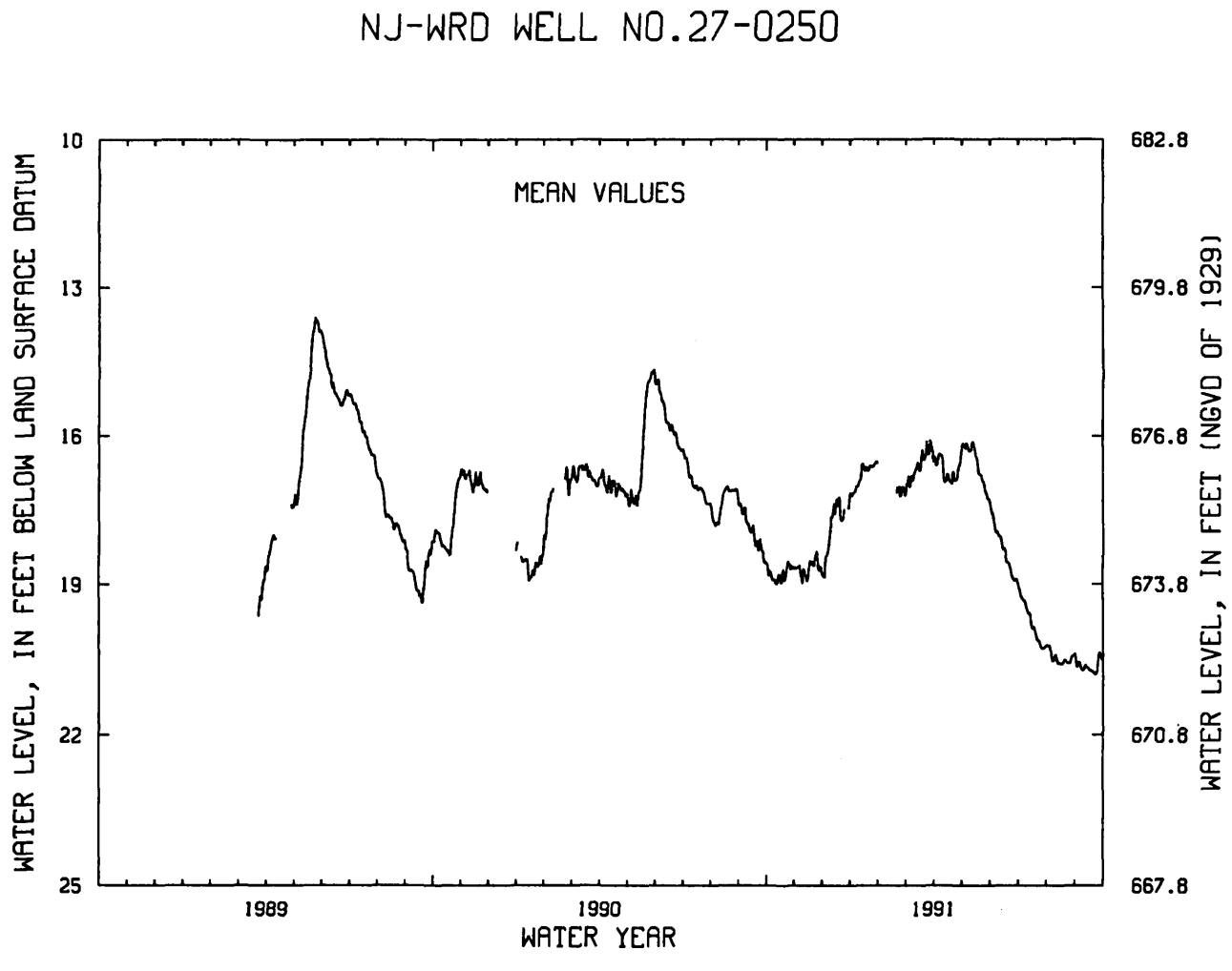
405509074350401. Local I.D., Picatinny LF 1 Obs. NJ-WRD Well Number, 27-0250.
LOCATION.--Lat 40°55'09", long 74°35'04", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 345 ft, screened 325 to 345 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 692.85 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.70 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1983 to May 1984, Mar. 1989 to current year. Records for 1983 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.54 ft below land-surface datum, May 24, 1989; lowest, 21.46 ft below land-surface datum, Feb. 13-14, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.75	18.65	18.43	17.14	---	17.04	16.45	16.26	17.78	19.27	20.31	20.54
10	18.94	18.69	17.62	16.90	---	16.78	16.48	16.28	18.03	19.49	20.39	20.66
15	18.83	18.86	17.43	16.70	---	16.62	16.78	16.31	18.30	19.79	20.57	20.70
20	18.93	18.57	17.66	16.67	17.04	16.43	16.99	16.78	18.56	19.99	20.50	20.75
25	18.62	18.46	---	16.61	17.06	16.25	16.89	16.95	18.87	20.21	20.57	20.44
EOM	18.66	18.78	17.15	---	17.21	16.53	16.32	17.31	18.92	20.22	20.37	20.50
MEAN	18.79	18.68	17.79	16.79	---	16.60	16.67	16.57	18.30	19.75	20.46	20.63

WTR YR 1991 MEAN 18.25 HIGH 16.01 MAR 28 LOW 20.81 SEP 22-23



MORRIS COUNTY

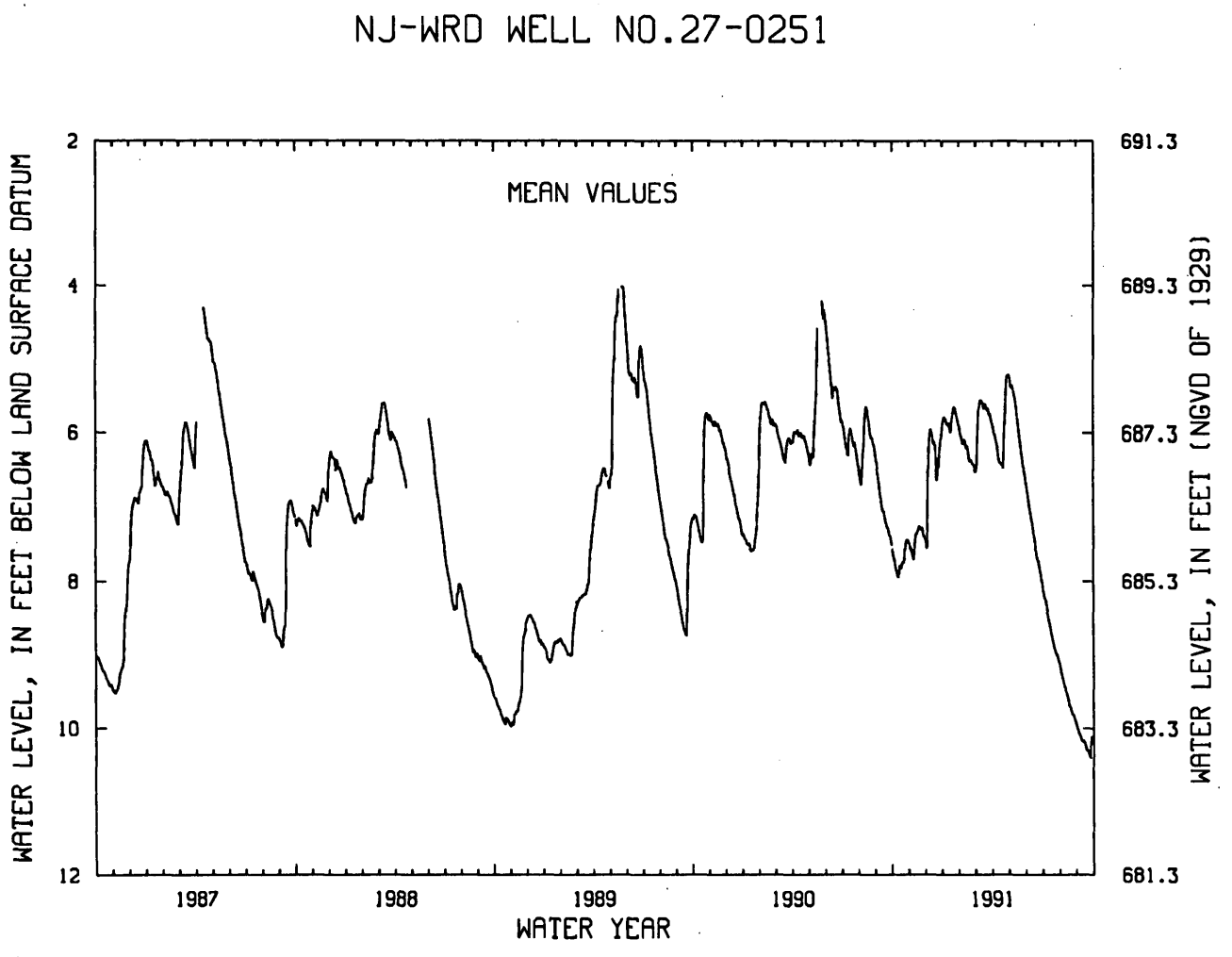
405509074350402. Local I.D., Picatinny LF 2 Obs. NJ-WRD Well Number, 27-0251.
LOCATION.--Lat 40°55'09", long 74°35'04", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 65 ft, screened 60 to 65 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 693.29 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 4.10 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1983 to current year. Records for 1983 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.47 ft below land-surface datum, Apr. 20, 1983; lowest, 10.40 ft below land-surface datum, Sept. 24-25, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.71	7.58	6.47	5.81	6.10	6.04	6.02	5.40	6.87	8.24	9.30	10.08
10	7.90	7.54	5.95	5.89	6.10	5.57	6.17	5.46	7.13	8.45	9.44	10.17
15	7.80	7.33	6.14	6.00	6.17	5.62	6.37	5.71	7.38	8.64	9.57	10.22
20	7.75	7.26	6.49	5.69	6.33	5.63	6.45	6.05	7.64	8.83	9.71	10.30
25	7.49	7.31	6.28	5.74	6.39	5.70	5.56	6.33	7.80	8.99	9.82	10.22
EOM	7.48	7.43	5.90	5.91	6.47	5.87	5.22	6.60	8.02	9.12	9.96	10.11
MEAN	7.70	7.42	6.34	5.82	6.22	5.79	5.99	5.84	7.38	8.65	9.60	10.18

WTR YR 1991 MEAN 7.25 HIGH 5.21 APR 30, MAY 1 LOW 10.40 SEP 24-25



MORRIS COUNTY

405509074350901. Local I.D., Picatinny SB2-1 Obs. NJ-WRD Well Number, 27-1130.
LOCATION.--Lat 40°55'09", long 74°35'09", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 168 ft, screened 158 to 168 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 688 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.05 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.31 ft below land-surface datum, May 24, 1989; lowest, 14.30 ft below land-surface datum, Oct. 8-9, 1990.

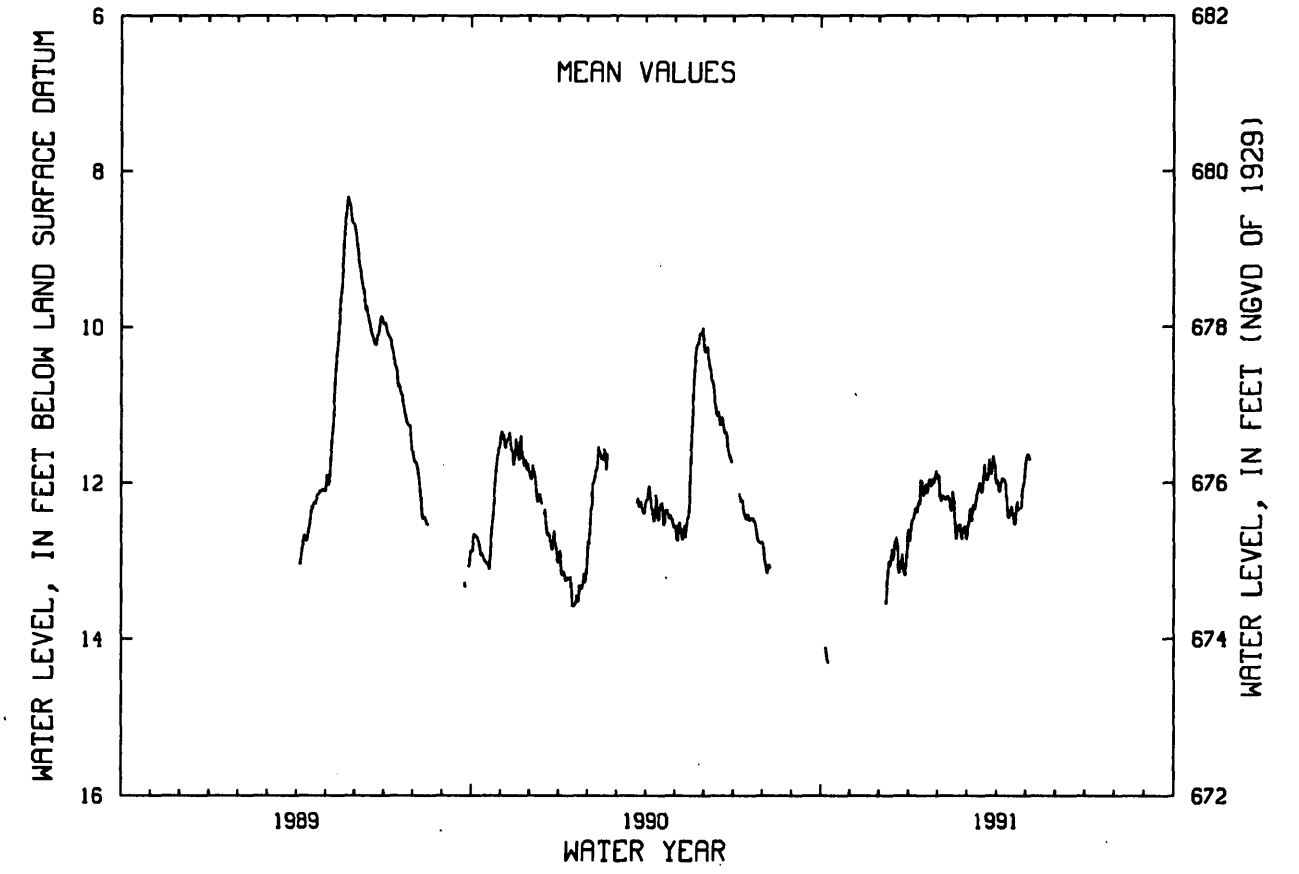
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.11	---	---	12.44	12.18	12.46	12.03	11.71	---	---	---	---
10	---	---	13.01	12.24	12.18	12.24	12.01	---	---	---	---	---
15	---	---	12.94	12.17	12.15	12.02	12.35	---	---	---	---	---
20	---	---	13.14	12.01	12.54	11.89	12.53	---	---	---	---	---
25	---	---	13.13	12.01	12.61	11.76	12.33	---	---	---	---	---
EOM	---	---	12.61	11.91	12.69	12.01	11.83	---	---	---	---	---
MEAN	---	---	13.00	12.15	12.39	12.09	12.19	---	---	---	---	---

WTR YR 1991 HIGH 11.62 MAY 3 LOW 14.30 OCT 8-9

NJ-WRD WELL NO.27-1130



MORRIS COUNTY

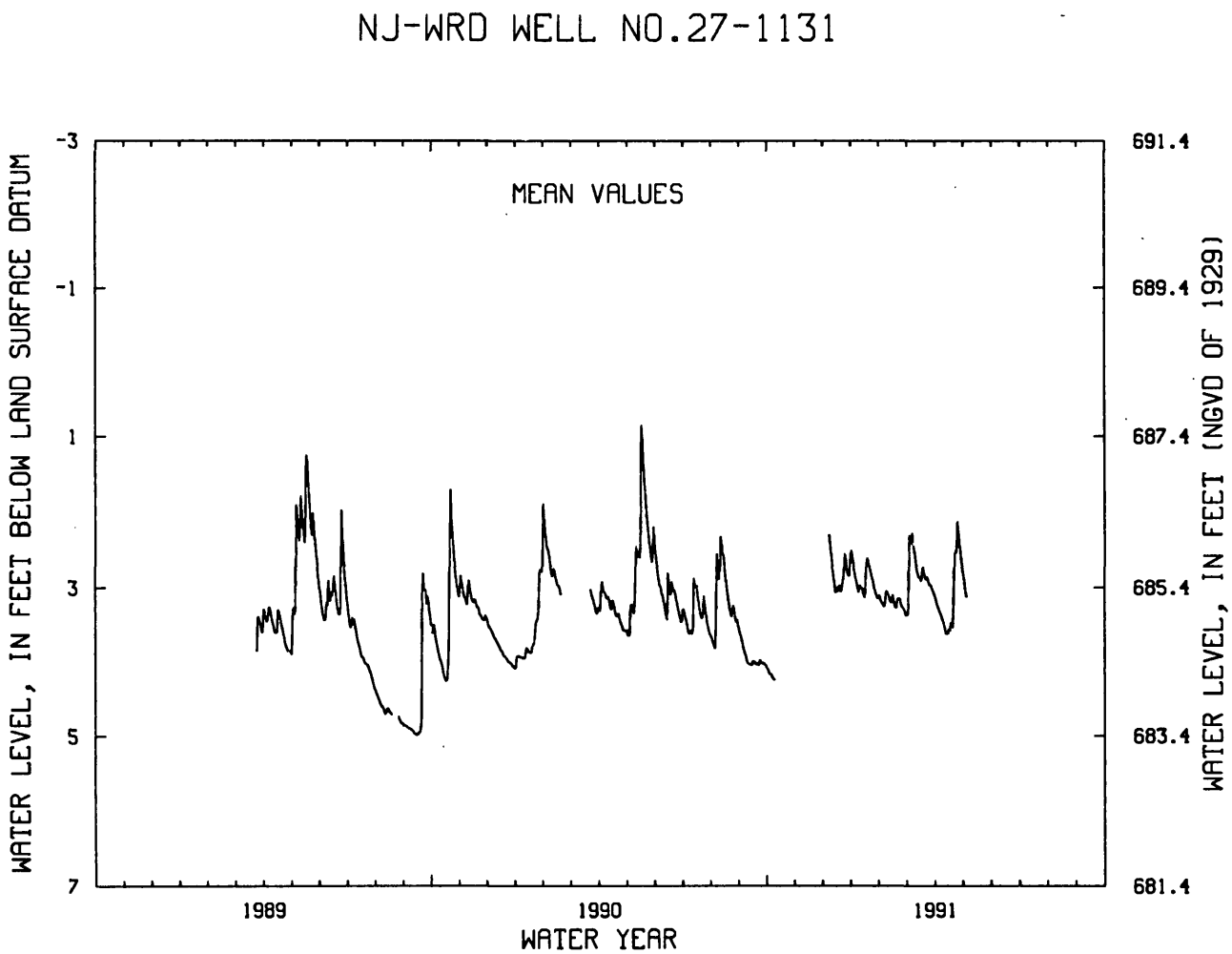
405509074350902. Local I.D., Picatinny SB2-2 Obs. NJ-WRD Well Number, 27-1131.
LOCATION.--Lat 40°55'09", long 74°35'09", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 35 ft, screened 25 to 35 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 688.4 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.10 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.79 ft below land-surface datum, May 17, 1990; lowest, 4.99 ft below land-surface datum, Sept. 14, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.17	---	---	2.88	3.26	2.39	3.29	3.13	---	---	---	---
10	---	---	2.65	2.97	3.12	2.57	3.46	---	---	---	---	---
15	---	---	3.05	3.14	3.17	2.86	3.61	---	---	---	---	---
20	---	---	3.06	2.72	3.15	2.80	3.54	---	---	---	---	---
25	---	---	2.62	3.00	3.27	2.93	2.12	---	---	---	---	---
EOM	---	---	2.50	3.11	3.36	3.09	2.71	---	---	---	---	---
MEAN	---	---	2.79	2.92	3.20	2.82	3.13	---	---	---	---	---

WTR YR 1991 HIGH 1.99 APR 24 LOW 4.25 OCT 8-9



MORRIS COUNTY

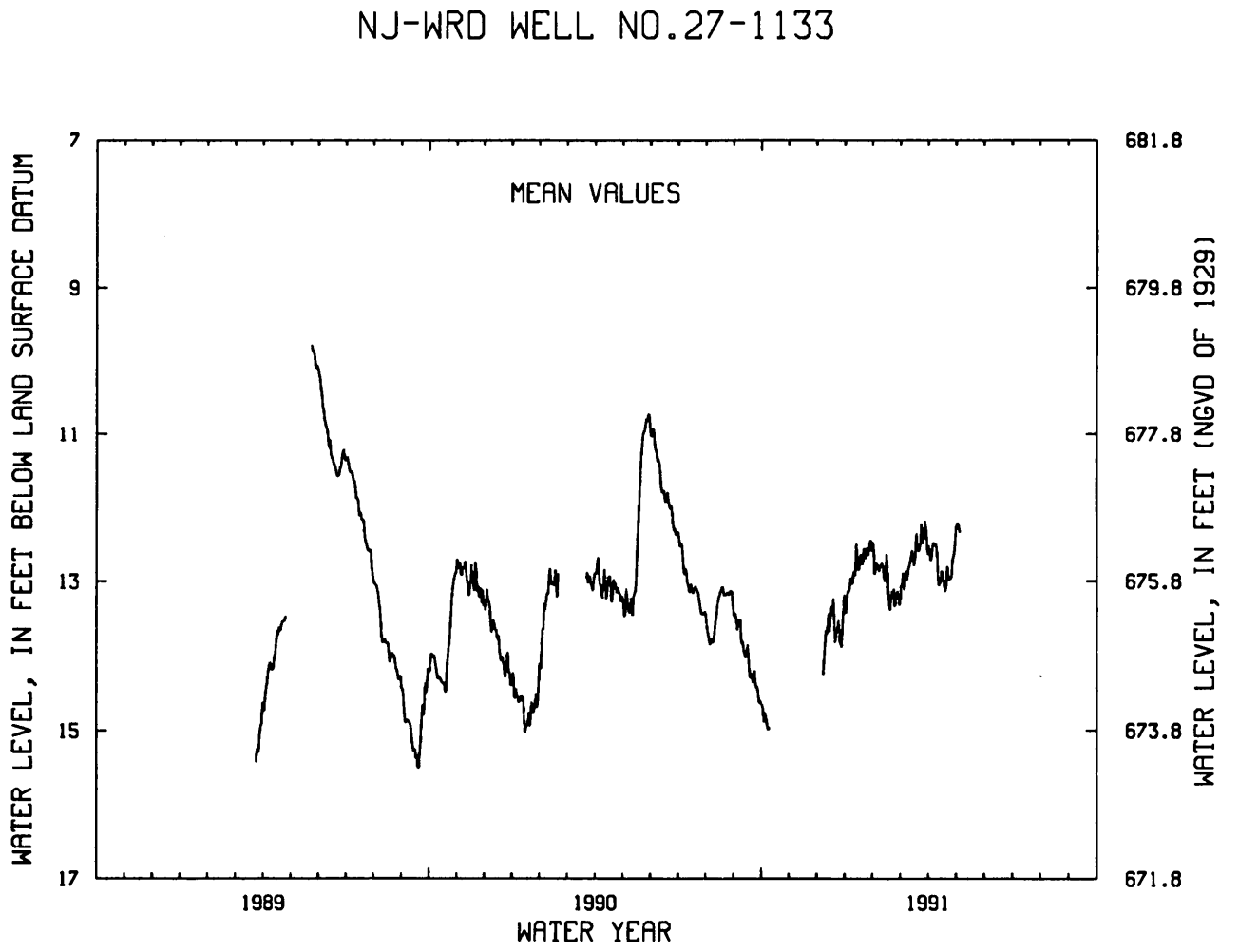
405509074350903. Local I.D., Picatinny SB2-3 Obs. NJ-WRD Well Number, 27-1133.
LOCATION.--Lat 40°55'09", long 74°35'09", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 253 ft, screened 243 to 253 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 688.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 4.20 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.73 ft below land-surface datum, May 24, 1989; lowest, 15.62 ft below land-surface datum, Sept. 19, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.80	---	---	13.08	12.81	13.11	12.57	12.35	---	---	---	---
10	---	---	13.66	12.90	12.80	12.84	12.58	---	---	---	---	---
15	---	---	13.49	12.86	12.78	12.69	12.87	---	---	---	---	---
20	---	---	13.82	12.58	13.13	12.54	13.08	---	---	---	---	---
25	---	---	13.81	12.66	13.17	12.38	12.97	---	---	---	---	---
EOM	---	---	13.30	12.56	13.31	12.64	12.40	---	---	---	---	---
MEAN	---	---	13.62	12.78	13.01	12.69	12.78	---	---	---	---	---

WTR YR 1991 HIGH 12.13 MAR 28 LOW 15.04 OCT 8



MORRIS COUNTY

405517074351501. Local I.D., Picatinny SB3-1 Obs. NJ-WRD Well Number, 27-1132.
LOCATION.--Lat 40°55'17", long 74°35'15", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 360 ft, screened 340 to 360 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 699 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.50 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.10 ft below land-surface datum, May 28-29, 1989; lowest, 29.49 ft below land-surface datum, Dec. 11, 1990

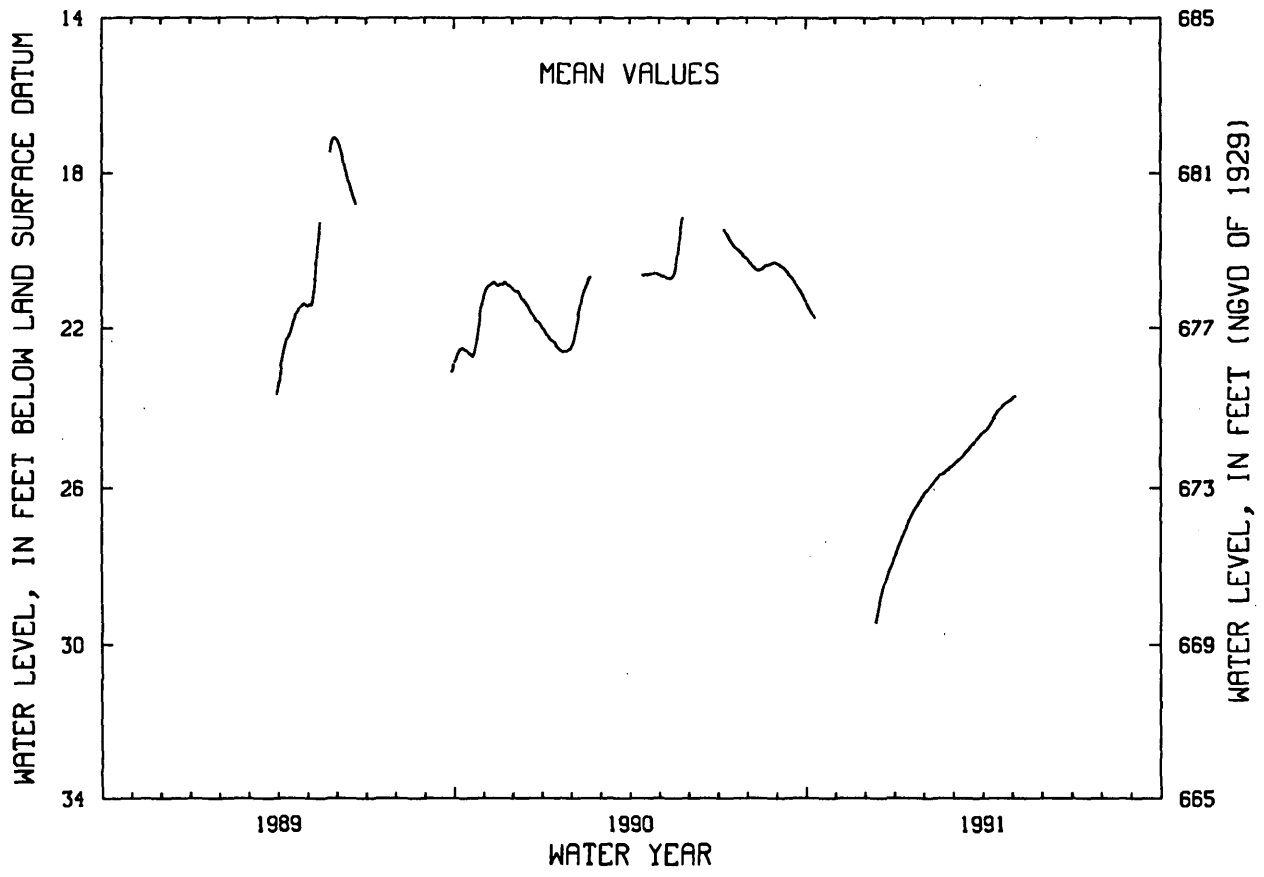
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.55	---	---	27.41	25.98	25.33	24.52	23.65	---	---	---	---
10	---	---	---	27.10	25.82	25.22	24.31	---	---	---	---	---
15	---	---	28.95	26.81	25.67	25.07	24.13	---	---	---	---	---
20	---	---	28.46	26.56	25.60	24.92	23.96	---	---	---	---	---
25	---	---	28.13	26.36	25.51	24.77	23.82	---	---	---	---	---
EOM	---	---	27.73	26.11	25.45	24.62	23.74	---	---	---	---	---
MEAN	---	---	28.47	26.81	25.74	25.04	24.14	---	---	---	---	---

WTR YR 1991 HIGH 21.35 OCT 1 LOW 29.49 DEC 11

NJ-WRD WELL NO.27-1132



MORRIS COUNTY

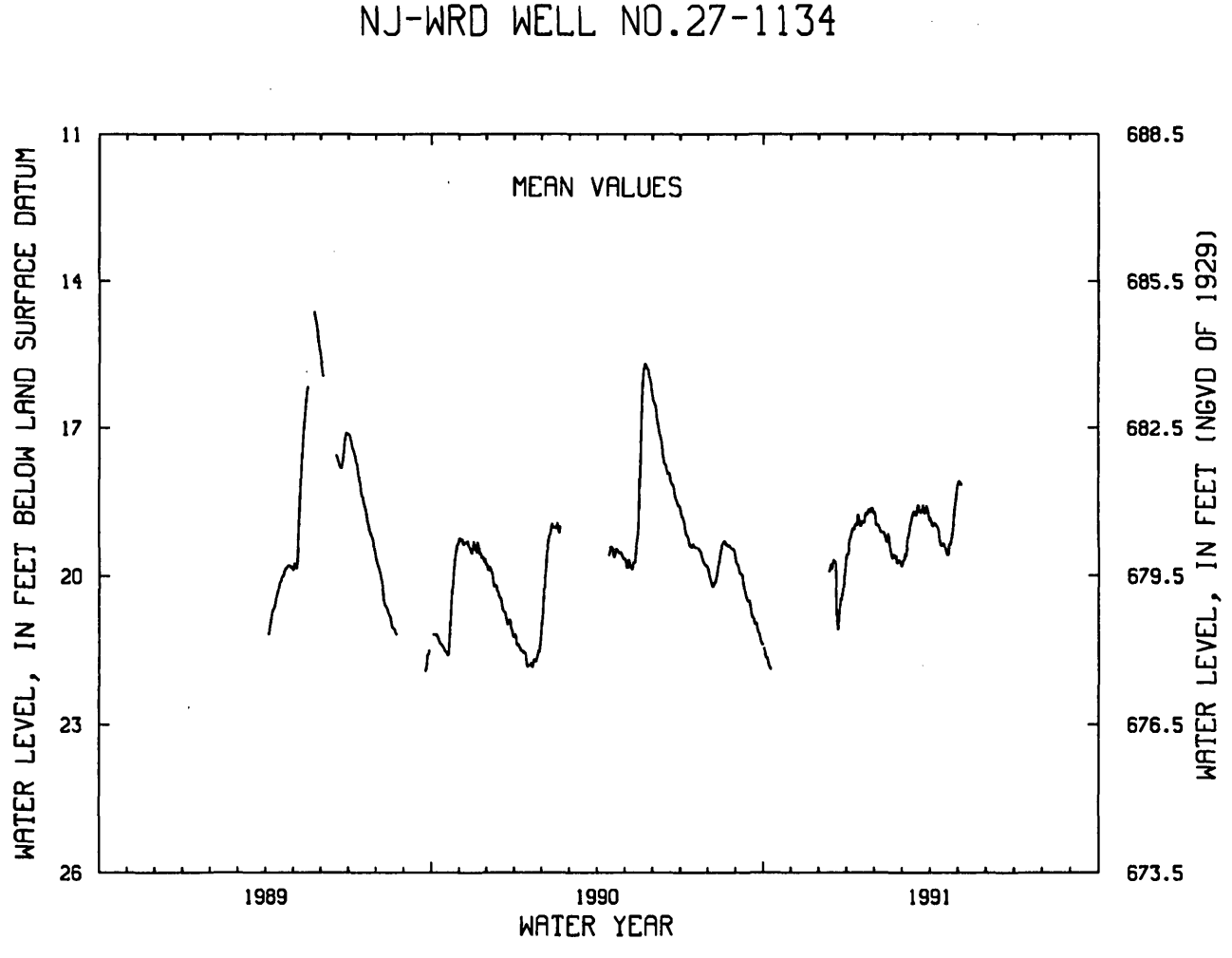
405517074351502. Local I.D., Picatinny SB3-2 Obs. NJ-WRD Well Number, 27-1134.
LOCATION.--Lat 40°55'17", long 74°35'15", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 180 ft, screened 170 to 180 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 699.5 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.60 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.58 ft below land-surface datum, May 24, 1989; lowest, 21.95 ft below land-surface datum, Sept. 24, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.67	---	---	19.15	19.06	19.62	18.95	18.17	---	---	---	---
10	---	---	---	18.98	19.17	18.99	19.08	---	---	---	---	---
15	---	---	19.76	19.01	19.26	18.73	19.36	---	---	---	---	---
20	---	---	20.88	18.77	19.58	18.68	19.58	---	---	---	---	---
25	---	---	20.48	18.72	19.69	18.67	19.16	---	---	---	---	---
EOM	---	---	19.58	18.77	19.81	18.88	18.26	---	---	---	---	---
MEAN	---	---	20.12	18.92	19.38	18.95	19.12	---	---	---	---	---

WTR YR 1991 HIGH 18.04 MAY 3 LOW 21.90 OCT 9



MORRIS COUNTY

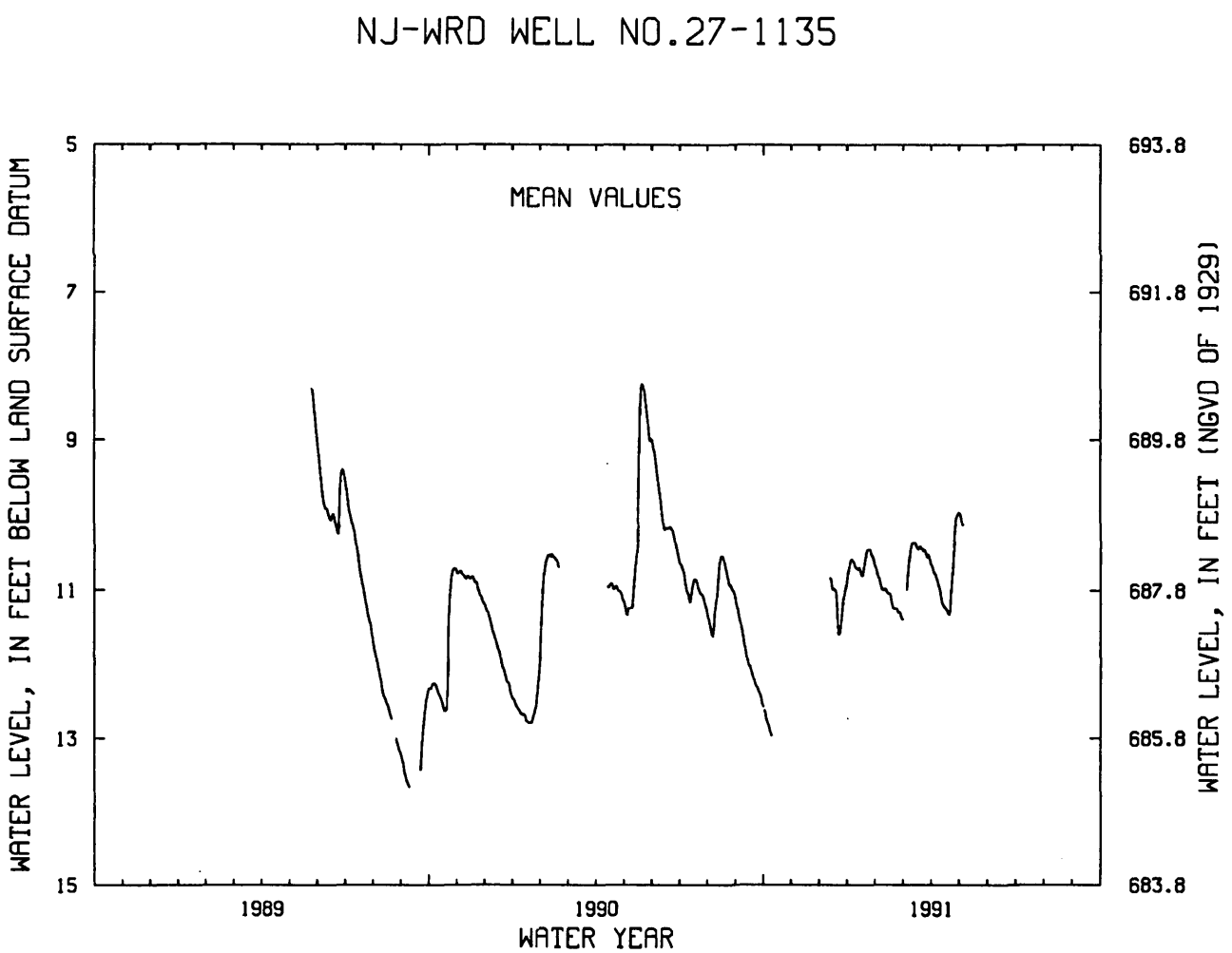
405517074351503. Local I.D., Picatinny SB3-3 Obs. NJ-WRD Well Number, 27-1135.
LOCATION.--Lat 40°55'17", long 74°35'15", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 31 ft, screened 21 to 31 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 698.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.50 ft above land-surface datum.
PERIOD OF RECORD.--May 1989 to May 1991 (discontinued). Records for 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.25 ft below land-surface datum, May 20-21, 1990; lowest, 13.68 ft below land-surface datum, Sept. 9, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.81	---	---	10.60	10.93	10.99	10.78	10.12	---	---	---	---
10	---	---	---	10.70	10.97	10.38	10.99	---	---	---	---	---
15	---	---	10.99	10.80	11.04	10.39	11.22	---	---	---	---	---
20	---	---	11.42	10.49	11.24	10.42	11.32	---	---	---	---	---
25	---	---	11.26	10.50	11.29	10.47	10.46	---	---	---	---	---
EOM	---	---	10.77	10.71	11.38	10.64	9.95	---	---	---	---	---
MEAN	---	---	11.10	10.62	11.09	10.52	10.83	---	---	---	---	---

WTR YR 1991 HIGH 9.94 APR 30, MAY 1-2 LOW 12.99 OCT 9



MORRIS COUNTY

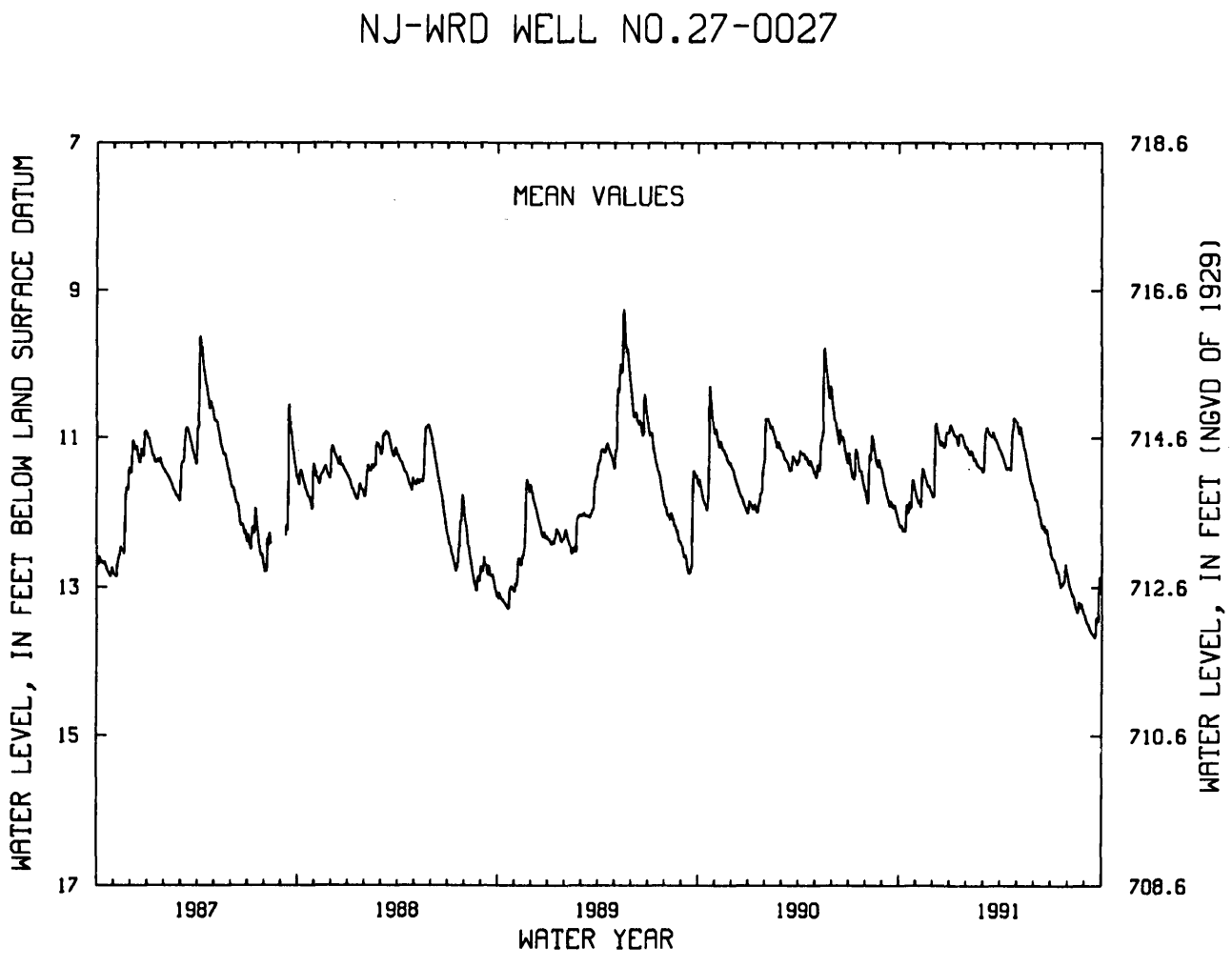
405531074361901. Local I.D., Berkshire Valley 9 Obs. NJ-WRD Well Number, 27-0027.
LOCATION.--Lat 40°55'31", long 74°36'19", Hydrologic Unit 02030103, about 1,000 ft east of the intersection of Lower Berkshire Valley Rd. and Minnisink Rd., Jefferson Township.
Owner: State of New Jersey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 98 ft, screened 78 to 98 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 725.64 ft above National Geodetic Vertical Datum of 1929 (levels by Woodward-Clyde Consultants).
Measuring point: Top of 6 inch casing, 2.25 ft above land surface datum.
PERIOD OF RECORD.--Nov. 1981 to current year. Periodic manual measurements Nov. 1981 to Mar. 1985.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.25 ft below land-surface datum, May 18, 1989; lowest, 13.69 ft below land-surface datum, Sept. 18-19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.17	11.88	10.83	10.90	11.22	10.92	11.24	10.95	11.83	12.62	13.01	13.49
10	12.24	11.77	10.96	10.97	11.21	10.91	11.34	10.97	12.00	12.73	13.10	13.59
15	11.89	11.49	11.09	11.10	11.27	10.97	11.41	11.14	12.18	12.84	13.27	13.65
20	11.88	11.61	11.13	10.95	11.34	10.93	11.43	11.34	12.18	12.95	13.19	13.41
25	11.56	11.66	10.92	11.04	11.39	11.04	10.76	11.53	12.26	12.93	13.22	13.09
EOM	11.75	11.77	10.84	11.11	11.44	11.15	10.77	11.70	12.46	12.85	13.40	13.00
MEAN	11.97	11.68	11.07	10.99	11.29	11.03	11.17	11.21	12.10	12.79	13.18	13.42

WTR YR 1991 MEAN 11.83 HIGH 10.72 APR 26 LOW 13.69 SEP 18-19



MORRIS COUNTY

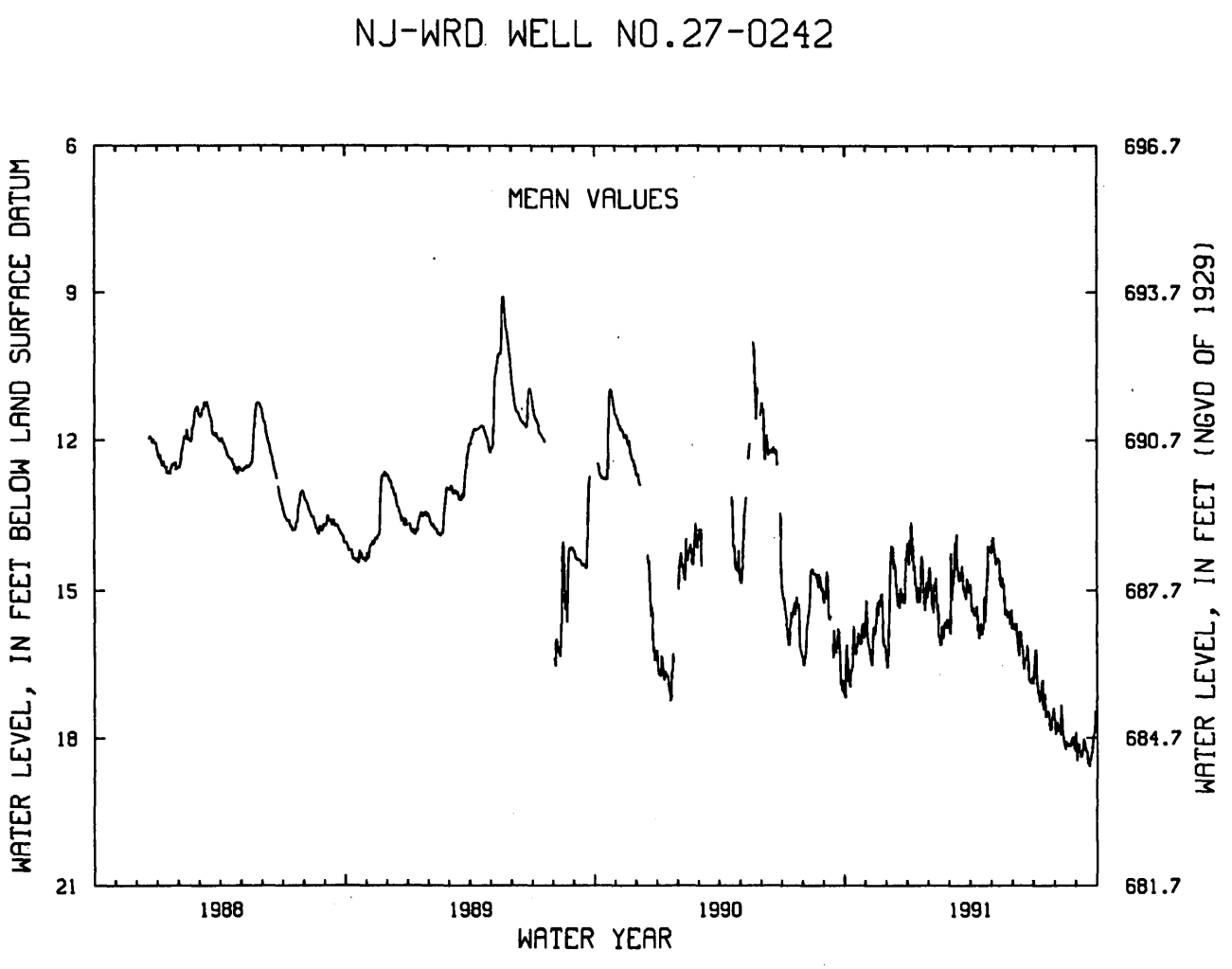
405623074341301. Local I.D., Picatinny Caf 1 Obs. NJ-WRD Well Number, 27-0242.
LOCATION.--Lat 40°56'23", long 74°34'13", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Hardyston Quartzite of Lower Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 268 ft, screened 253 to 268 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 702.72 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Jan. 1983 to May 1984, Dec. 1987 to current year. Records for 1983 to 1989 are unpublished and are available in the files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.59 ft below land-surface datum, Apr. 18, 1983; lowest, 18.68 ft below land-surface datum, Sept. 17, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.85	16.16	15.02	13.61	15.24	15.19	15.35	14.03	15.81	16.32	17.86	18.30
10	16.63	16.20	14.11	14.47	14.74	14.02	15.31	14.35	16.33	17.26	17.33	18.16
15	16.17	15.67	14.98	15.22	15.91	14.73	15.74	14.90	16.16	17.37	18.15	18.25
20	15.88	15.29	14.99	14.35	15.76	14.49	15.78	15.17	16.38	17.45	18.17	18.45
25	16.06	15.73	15.11	15.40	15.77	15.17	14.81	15.54	16.81	17.84	18.02	17.99
EOM	15.52	16.35	14.03	14.59	15.68	14.95	14.17	15.77	16.84	17.55	17.88	17.64
MEAN	16.22	15.80	14.96	14.70	15.46	14.82	15.28	14.84	16.25	17.20	17.97	18.19

WTR YR 1991 MEAN 15.97 HIGH 13.41 DEC 31 LOW 18.68 SEP 17



MORRIS COUNTY

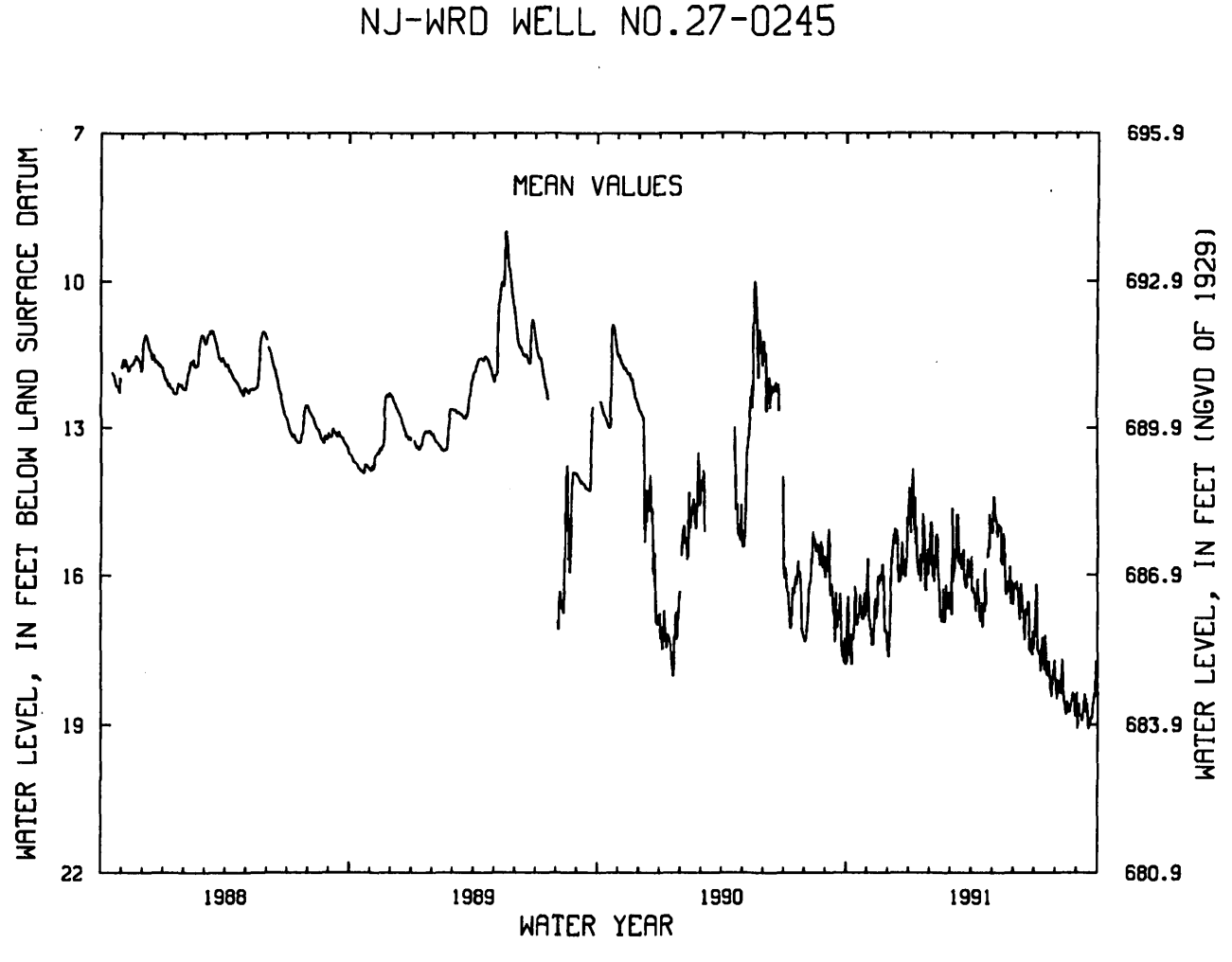
405623074341304. Local I.D., Picatinny Caf 4 Obs. NJ-WRD Well Number, 27-0245.
LOCATION.--Lat 40°56'23", long 74°34'13", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 173 ft, screened 168 to 173 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 702.91 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.10 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Feb. 1983 to Aug. 1984, Oct. 1987 to current year. Records for 1983 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.82 ft below land-surface datum, Apr. 18, 1983; lowest, 19.41 ft below land-surface datum, Sept. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.61	17.09	15.92	13.85	15.93	16.13	16.35	14.84	16.26	16.81	18.36	18.79
10	17.29	16.99	15.06	15.04	15.31	14.77	16.08	14.98	16.89	17.93	17.69	18.64
15	16.89	16.59	15.78	15.90	16.74	15.79	16.55	15.68	16.76	17.86	18.73	18.58
20	16.39	16.10	15.34	14.76	16.41	15.49	16.72	15.98	16.80	17.86	18.72	18.88
25	16.88	16.84	15.80	16.31	16.67	16.25	15.45	16.33	17.42	18.43	18.35	18.36
EOM	16.11	17.45	14.24	14.99	16.46	15.83	15.15	16.58	17.47	17.97	18.35	18.12
MEAN	16.86	16.66	15.71	15.37	16.16	15.78	16.18	15.57	16.75	17.63	18.45	18.65

WTR YR 1991 MEAN 16.65 HIGH 12.66 DEC 31 LOW 19.41 SEP 19



MORRIS COUNTY

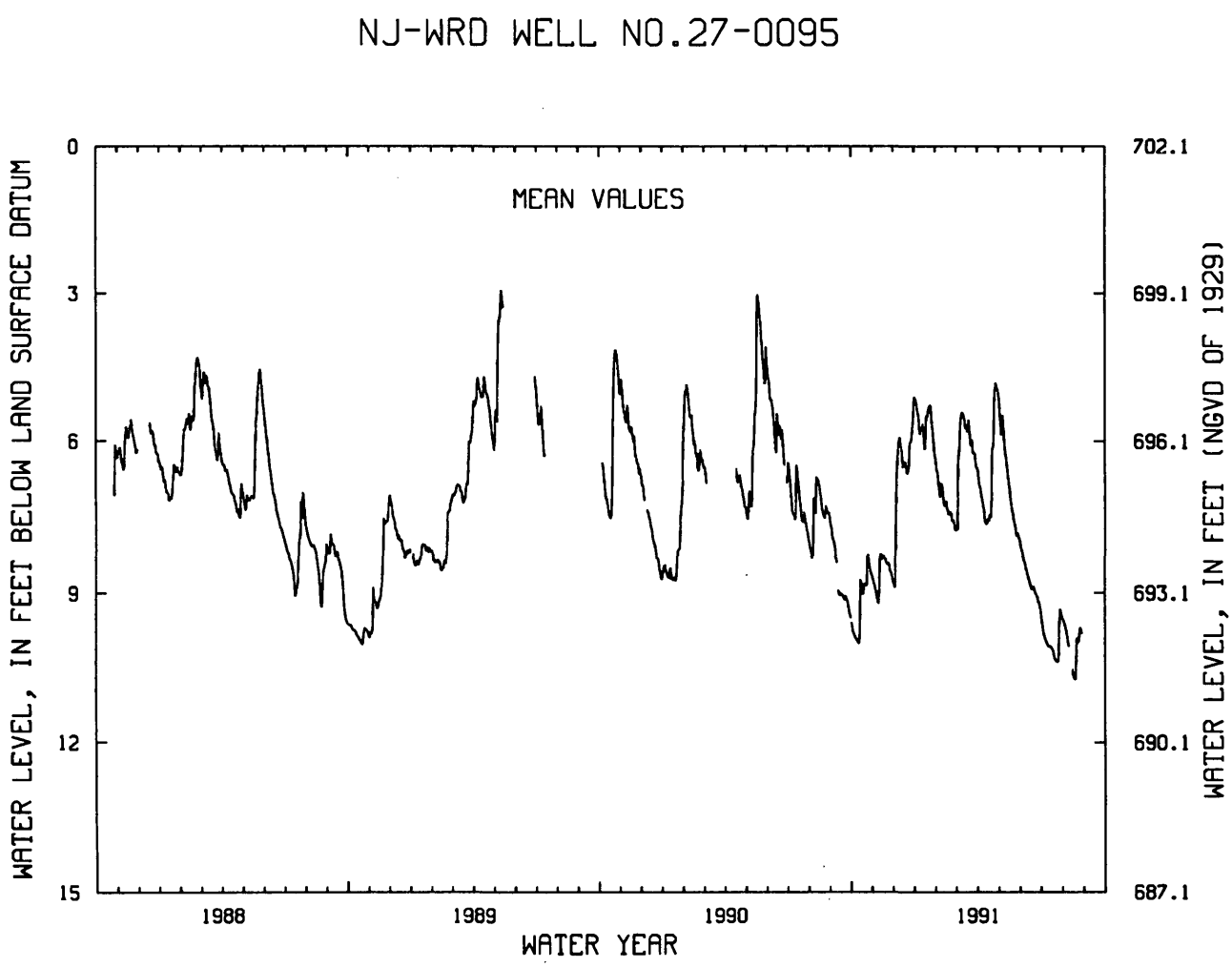
405628074341801. Local I.D., Picatinny 9C Obs. NJ-WRD Well Number, 27-0095.
LOCATION.--Lat 40°56'28", long 74°34'18", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 20.3 ft, screened 10 to 20.3 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 702.11 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Oct. 1987 to current year. Records for 1987 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.88 ft below land-surface datum, May 11, 1989; lowest, 10.72 ft below land-surface datum, Aug. 18-19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.84	8.94	6.81	5.43	6.93	6.28	6.88	5.87	8.25	9.82	9.70	---
10	9.97	8.95	5.93	5.74	6.97	5.42	7.32	6.11	8.51	10.02	10.07	---
15	8.77	8.27	6.47	6.16	7.13	5.75	7.55	6.73	8.79	10.08	10.52	---
20	8.80	8.36	6.64	5.35	7.35	5.71	7.47	7.29	8.87	10.30	10.36	---
25	8.22	8.44	6.02	5.63	7.53	6.17	5.19	7.66	9.06	10.37	9.73	---
EOM	8.67	8.76	5.11	6.41	7.72	6.53	4.98	7.91	9.32	9.49	---	---
MEAN	9.17	8.58	6.48	5.67	7.19	6.10	6.66	6.72	8.72	9.95	10.00	10.17

WTR YR 1991 MEAN 7.72 HIGH 4.79 APR 27 LOW 10.72 AUG 18-19



MORRIS COUNTY

405629074340901. Local I.D., Picatinny Caf 5 Obs. NJ-WRD Well Number, 27-0304.
LOCATION.--Lat 40°56'29", long 74°34'09", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 29 ft, screened 24 to 29 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 703.24 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 3.35 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--June to Sept. 1984, Oct. 1987 to current year. Records for 1984 to 1989 are unpublished and are available in files of the New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.47 ft below land-surface datum, May 18-20, 1989; lowest, 14.95 ft below land-surface datum, Sept. 24-25, 1991.

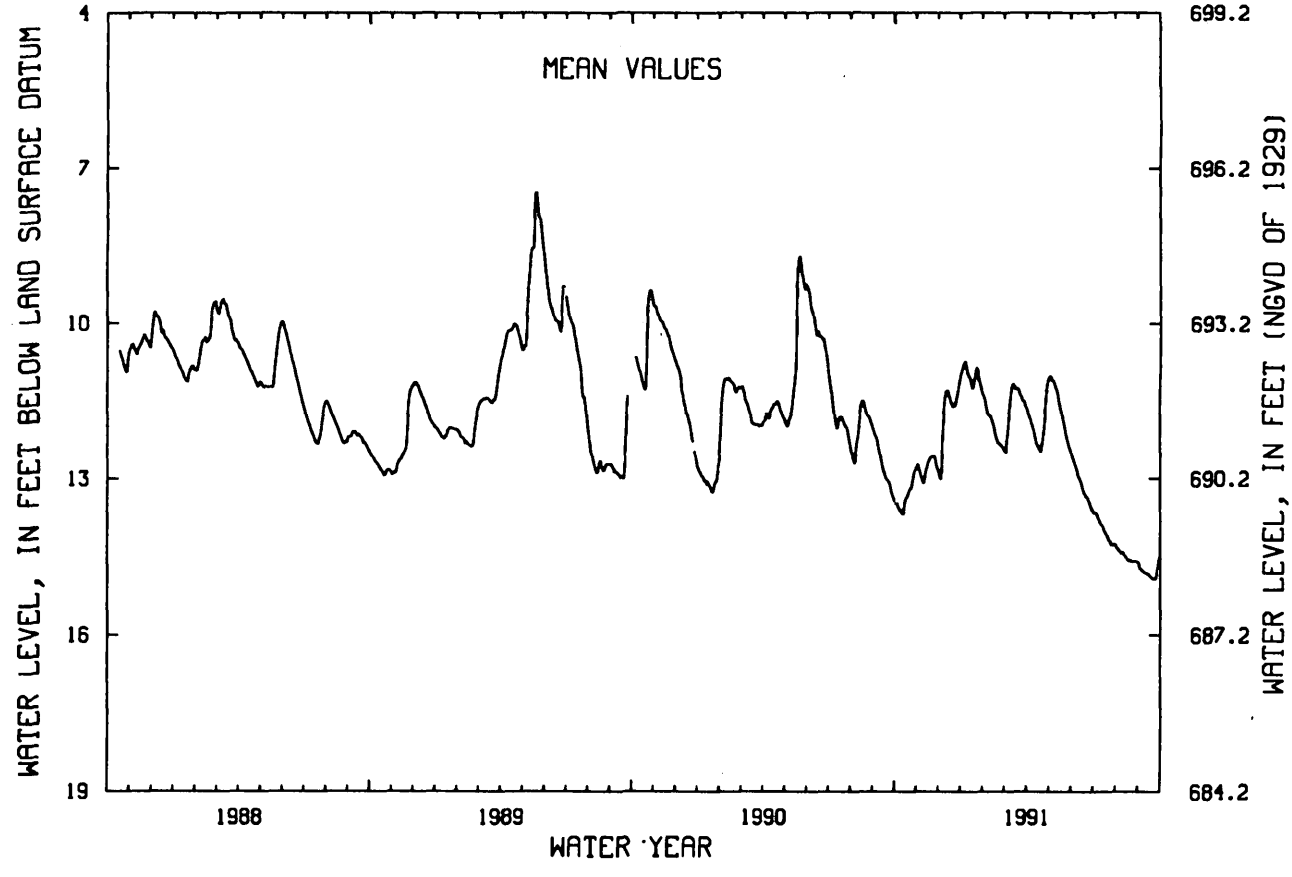
WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.55	12.92	12.38	10.75	11.68	12.16	11.84	11.08	12.71	13.66	14.38	14.77
10	13.67	13.08	11.33	10.99	11.81	11.35	12.07	11.23	12.95	13.86	14.41	14.82
15	13.43	12.70	11.43	11.24	12.05	11.24	12.36	11.52	13.11	13.98	14.53	14.86
20	13.25	12.58	11.62	10.94	12.28	11.26	12.49	11.83	13.30	14.11	14.58	14.93
25	13.05	12.62	11.46	11.09	12.38	11.45	11.91	12.19	13.44	14.25	14.60	14.89
EOM	12.77	12.89	10.97	11.40	12.44	11.63	11.09	12.48	13.61	14.27	14.61	14.51
MEAN	13.32	12.78	11.67	11.04	12.02	11.58	11.99	11.64	13.11	13.99	14.51	14.80

WTR YR 1991 MEAN 12.70 HIGH 10.73 JAN 5-6 LOW 14.95 SEP 24-25

NJ-WRD WELL NO.27-0304



MORRIS COUNTY

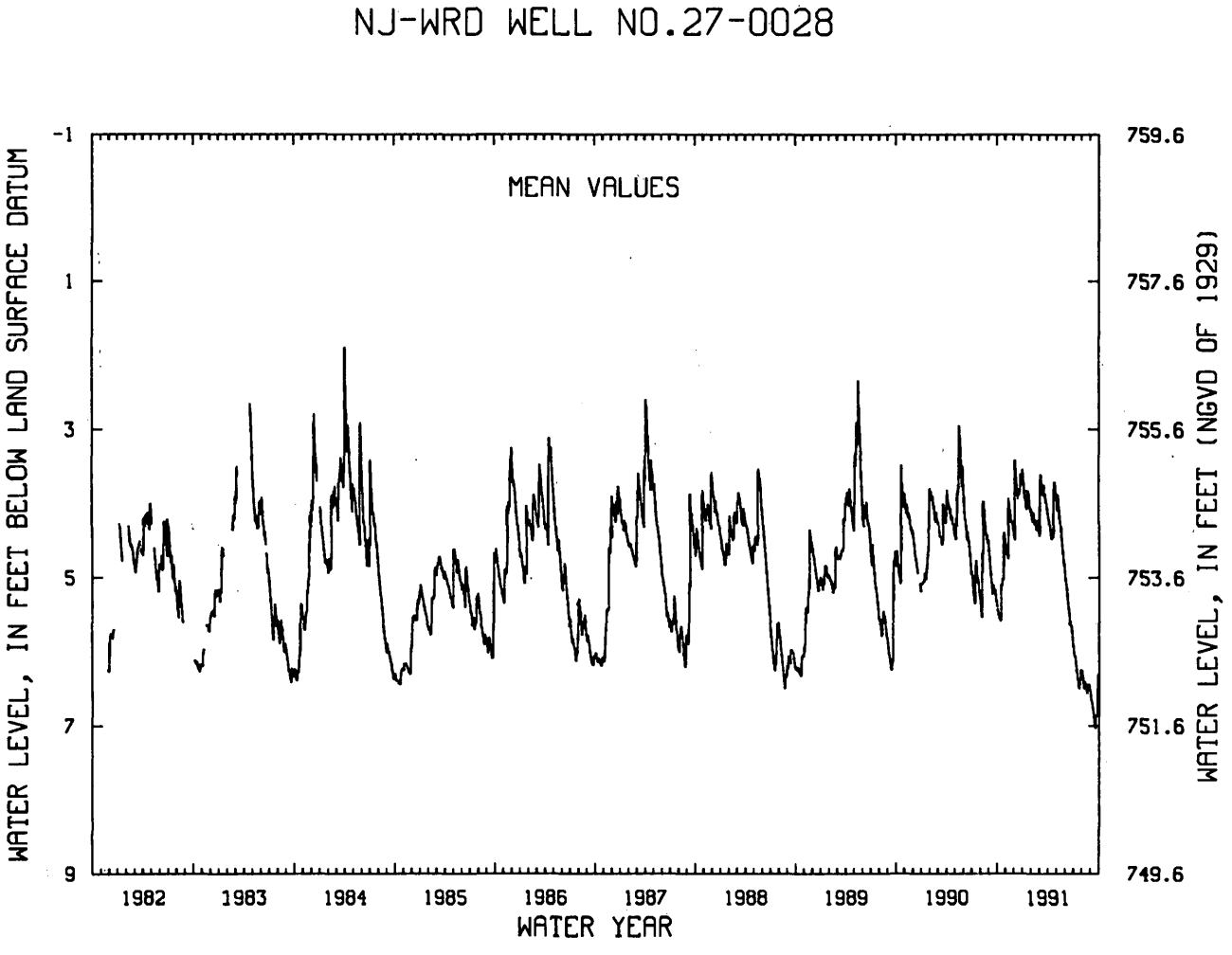
410207074270001. Local I.D., Green Pond 5 Obs. NJ-WRD Well Number, 27-0028.
LOCATION.--Lat 41°02'07", long 74°27'00", Hydrologic Unit 02030103, about 500 ft east of County Rt. 513 and 1.1 mi. south of the intersection with Rt. 23, Rockaway Township.
Owner: State of New Jersey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 120 ft, screened 80 to 120 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 758.56 ft above National Geodetic Vertical Datum of 1929 (levels by Woodward-Clyde Consultants).
Measuring point: Top edge of recorder shelf, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.35 ft below land-surface datum, Apr. 5, 1984; lowest, 7.05 ft below land-surface datum, Sept. 18-19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.47	4.71	3.38	3.75	4.21	3.65	4.21	4.09	5.11	6.05	6.40	6.70
10	5.56	4.39	3.67	3.92	4.16	3.70	4.35	4.01	5.31	6.17	6.40	6.83
15	5.08	4.07	3.92	4.07	4.22	3.86	4.45	4.24	5.48	6.32	6.49	6.96
20	5.01	4.19	3.86	3.83	4.23	---	4.46	4.48	5.58	6.49	6.48	6.88
25	4.38	4.27	3.58	3.99	4.32	3.94	3.69	4.71	5.68	6.37	6.44	6.57
EOM	4.58	4.42	3.51	4.06	4.41	4.11	3.85	4.93	5.89	6.25	6.57	6.29
MEAN	5.09	4.34	3.78	3.89	4.24	3.90	4.17	4.34	5.45	6.25	6.45	6.74

WTR YR 1991 MEAN 4.89 HIGH 3.35 DEC 4-5 LOW 7.05 SEP 18-19

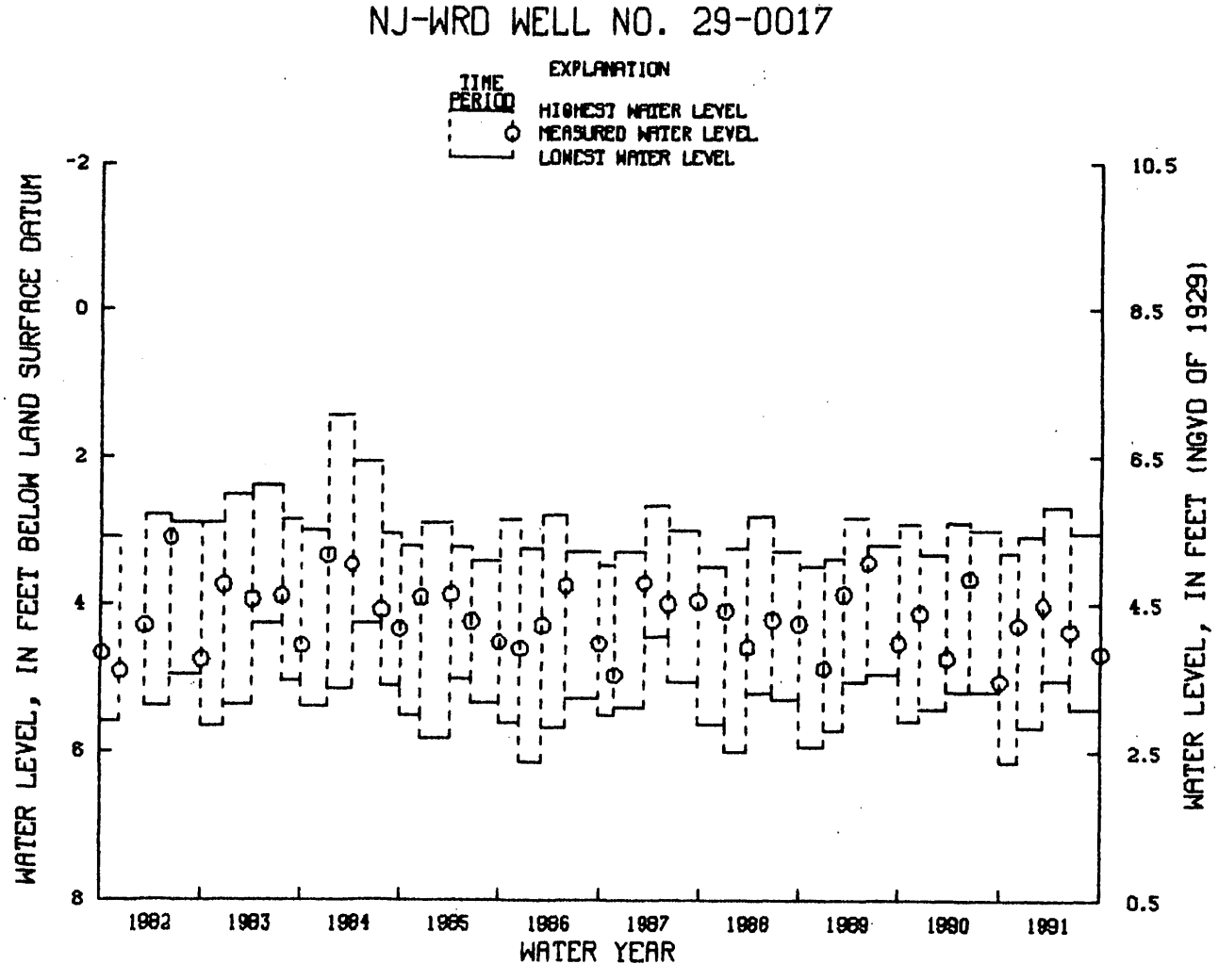


OCEAN COUNTY

394829074053501. Local I.D., Island Beach 1 Obs. NJ-WRD Well Number, 29-0017.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi. south of the main entrance, Lacey Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 397 ft, screened 377 to 397 ft.
INSTRUMENTATION.--Water-level extremes recorder, Feb. 1977 to current year. Water-level recorder, July 1962 to Mar. 1975.
DATUM.--Land-surface datum is 8.50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.40 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--July 1962 to Mar. 1975, Feb. 1977 to current year. Records for 1962 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.05 ft below land-surface datum, Dec. 6, 1962; lowest, 6.15 ft below land-surface datum, between Oct. 1 and Dec. 7, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1990 TO DEC. 7, 1990	3.32	6.15	DEC. 7, 1990	4.28
DEC. 7, 1990 TO MAR. 6, 1991	3.08	5.67	MAR. 6, 1991	4.02
MAR. 6, 1991 TO JUNE 11, 1991	2.69	5.04	JUNE 11, 1991	4.36
JUNE 11, 1991 TO SEPT. 30, 1991	3.04	5.41	SEPT. 30, 1991	4.67

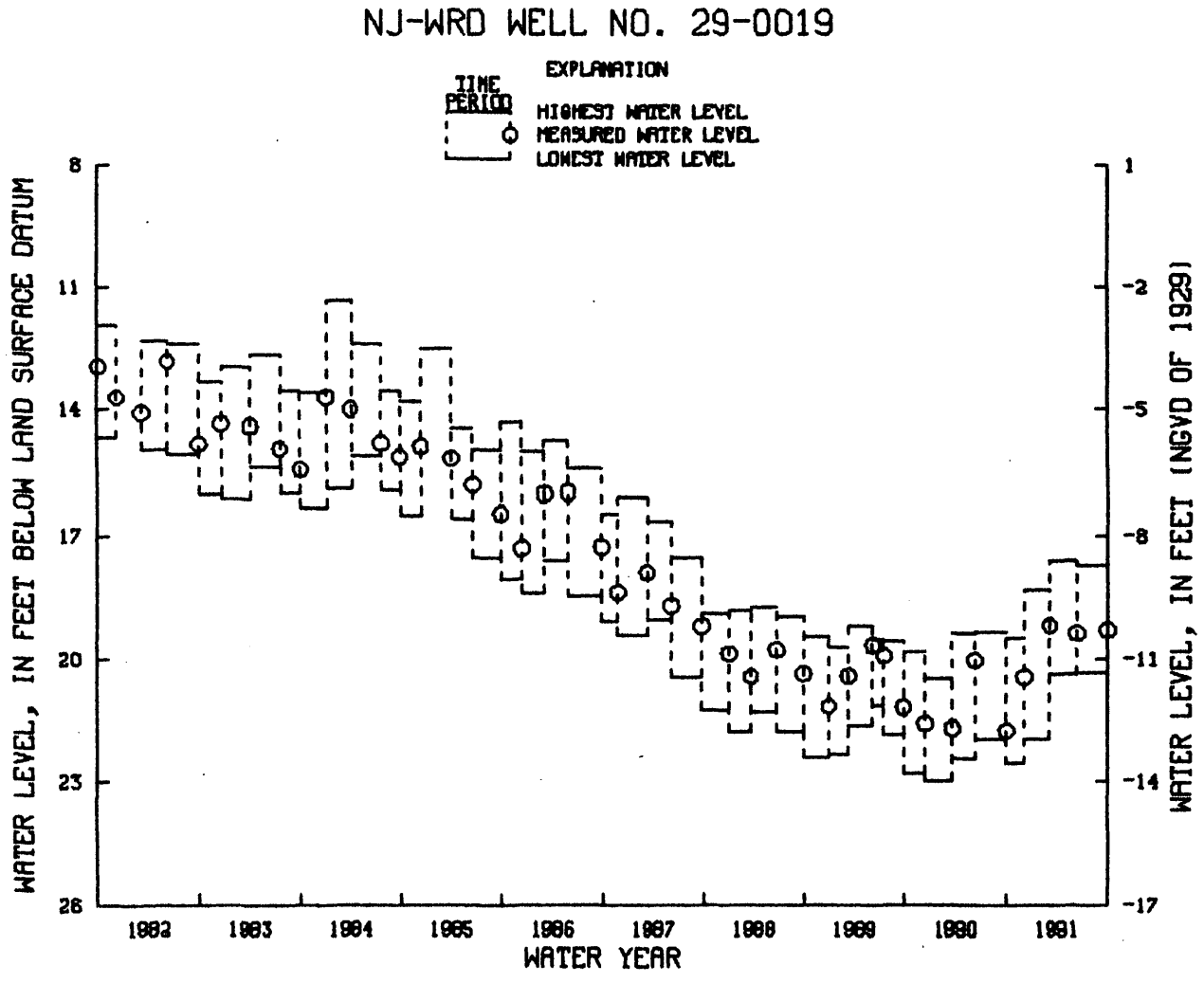


OCEAN COUNTY

394829074053503. Local I.D., Island Beach 3 Obs. NJ-WRD Well Number, 29-0019.
LOCATION.--Lat 39°48'29", long 74°05'35", Hydrologic Unit 02040301, in Island Beach State Park, about 6.6 mi. south of the main entrance, Lacey Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 2,756 ft, screened 2,736 to 2,756 ft.
INSTRUMENTATION.--Water-level extremes recorder, Feb. 1977 to current year. Water-level recorder, Nov. 1968 to Mar. 1975.
DATUM.--Land-surface datum is 9.02 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 5.11 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation.
PERIOD OF RECORD.--Nov. 1968 to Mar. 1975, Feb. 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.95 ft above land-surface datum, Apr. 23, 1969; lowest, 23.00 ft below land-surface datum, between Dec. 12, 1989 and Mar. 22, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1990 TO DEC. 7, 1990	19.46	22.56	DEC. 7, 1990	20.45
DEC. 7, 1990 TO MAR. 6, 1991	18.32	21.93	MAR. 6, 1991	19.17
MAR. 6, 1991 TO JUNE 11, 1991	17.61	20.38	JUNE 11, 1991	19.35
JUNE 11, 1991 TO SEPT. 30, 1991	17.71	20.34	SEPT. 30, 1991	19.28



OCEAN COUNTY

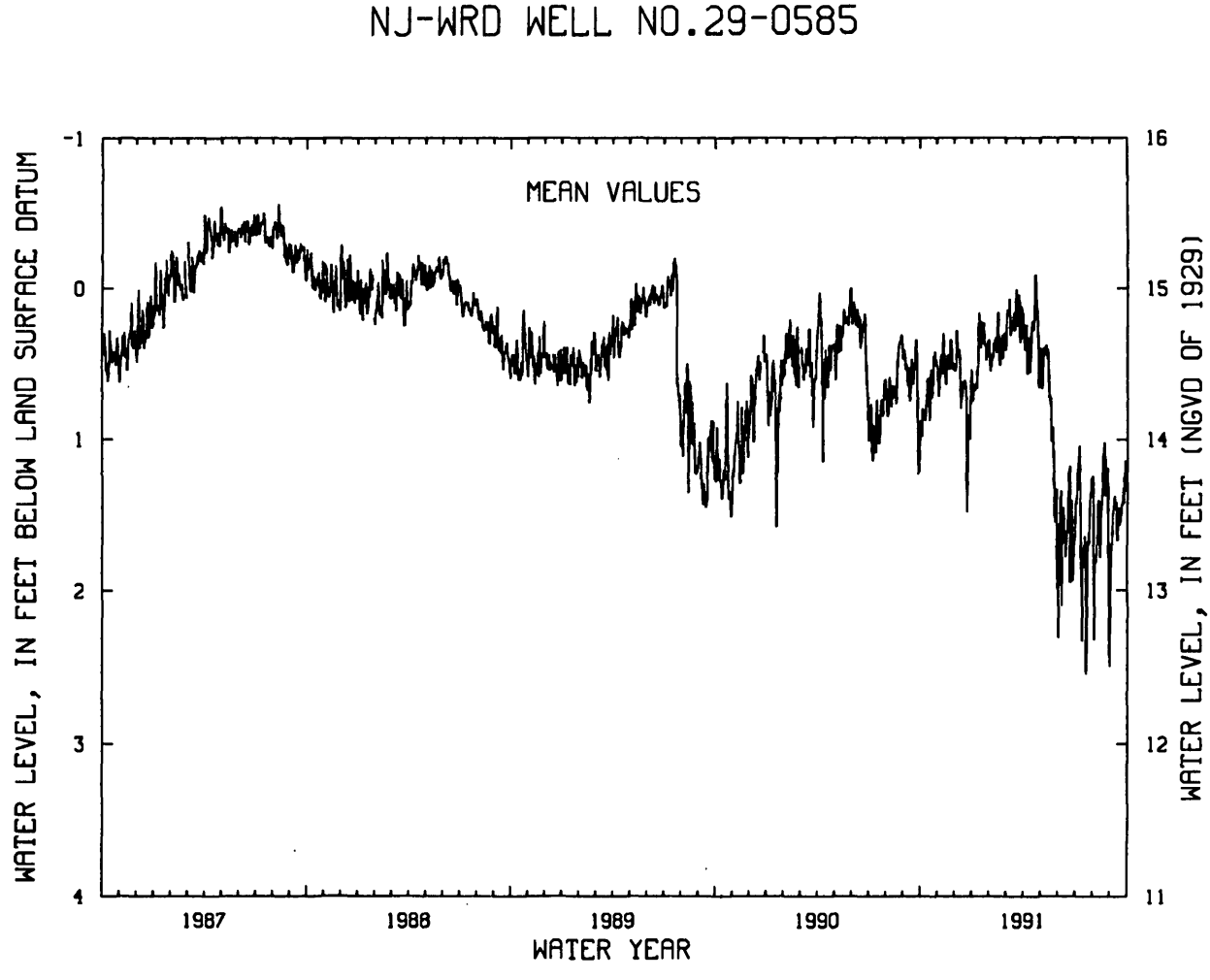
395028074104401. Local I.D., DOE-Forked River Obs. NJ-WRD Well Number, 29-0585.
LOCATION.--Lat 39°50'28", long 74°10'44", Hydrologic Unit 02040301, at the Forked River Game Farm, Forked River, Lacey Township.
Owner: State of New Jersey.
AQUIFER.--Piney Point aquifer of Oligocene-Eocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 422 ft, perforated casing 412 to 422 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.80 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--Apr. 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft above land-surface datum, June 1, 1984; lowest, 2.79 ft below land-surface datum, Jul. 20, 1991.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	.83	.49	.38	.68	.45	.17	.30	.58	1.35	1.23	1.81	1.50
10	.81	.30	.54	.52	.33	.26	.33	.40	1.45	1.48	1.42	1.46
15	.62	.64	.65	.40	.16	.21	.26	.51	1.77	1.72	1.52	1.45
20	.73	.50	.71	.23	.34	.17	.19	1.01	1.21	2.54	1.06	1.45
25	.46	.41	.98	.48	.35	.17	.18	1.43	1.40	1.70	1.26	1.35
EOM	.52	.54	.59	.39	.41	.33	.41	1.92	1.64	1.36	2.13	1.29
MEAN	.69	.51	.67	.44	.39	.21	.32	.84	1.65	1.59	1.54	1.47

WTR YR 1991 MEAN .86 HIGH -.17 APR 21 LOW 2.79 JUL 20



OCEAN COUNTY

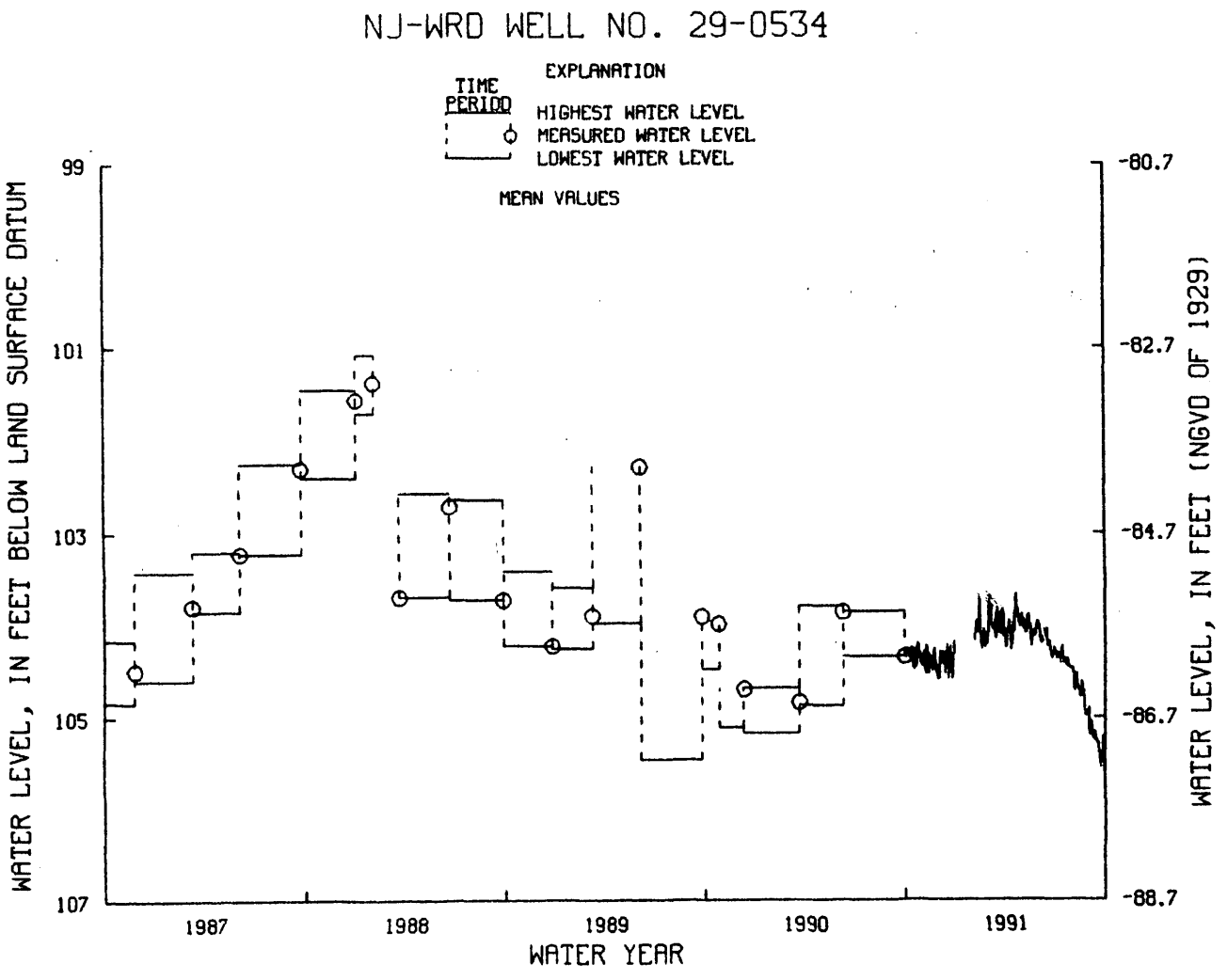
395609074124001. Local I.D., Toms River 2 Obs. NJ-WRD Well Number, 29-0534.
LOCATION.--Lat 39°56'09", long 74°12'40", Hydrologic Unit 02040301, about 200 ft east of Double Trouble Rd. on the north side of Jakes Branch, South Toms River Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 1,146 ft, screened 1,080 to 1,146 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch. Water-level extremes recorder, Feb. 1977 to Sept. 1990.
DATUM.--Land-surface datum is 18.34 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.63 ft above land-surface datum.
REMARKS.--The well was pumped on Feb. 5, 1988. After pumping, the water level did not return to its previous level. Therefore, the screen may have been partially clogged prior to the pumping on Feb. 5, 1988.
PERIOD OF RECORD.--Dec. 1965 to Mar. 1975, Feb. 1977 to current year. Records for 1965 to 1975 and 1989 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.37 ft below land-surface datum, May 28, 1966; lowest, 105.66 ft below land-surface datum, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	104.26	104.34	104.33	---	---	103.87	104.13	104.04	104.13	104.37	104.57	105.06
10	104.36	104.23	104.29	---	103.95	104.02	103.95	104.08	104.18	104.36	104.53	105.20
15	104.31	104.53	104.43	---	103.76	104.03	104.06	103.97	104.09	104.35	104.72	105.29
20	104.45	104.44	104.58	---	104.09	103.97	104.01	104.22	104.19	104.41	104.65	105.43
25	104.24	104.32	104.47	---	104.13	104.01	103.90	104.06	104.35	104.46	104.98	105.29
EOM	104.43	104.58	---	---	104.21	104.13	103.92	103.96	104.25	104.47	104.90	105.64
MEAN	104.34	104.41	104.40	---	104.07	103.98	104.02	104.04	104.18	104.38	104.72	105.30

WTR YR 1991 MEAN 104.35 HIGH 103.58 APR 21 LOW 105.66 SEP 30



OCEAN COUNTY

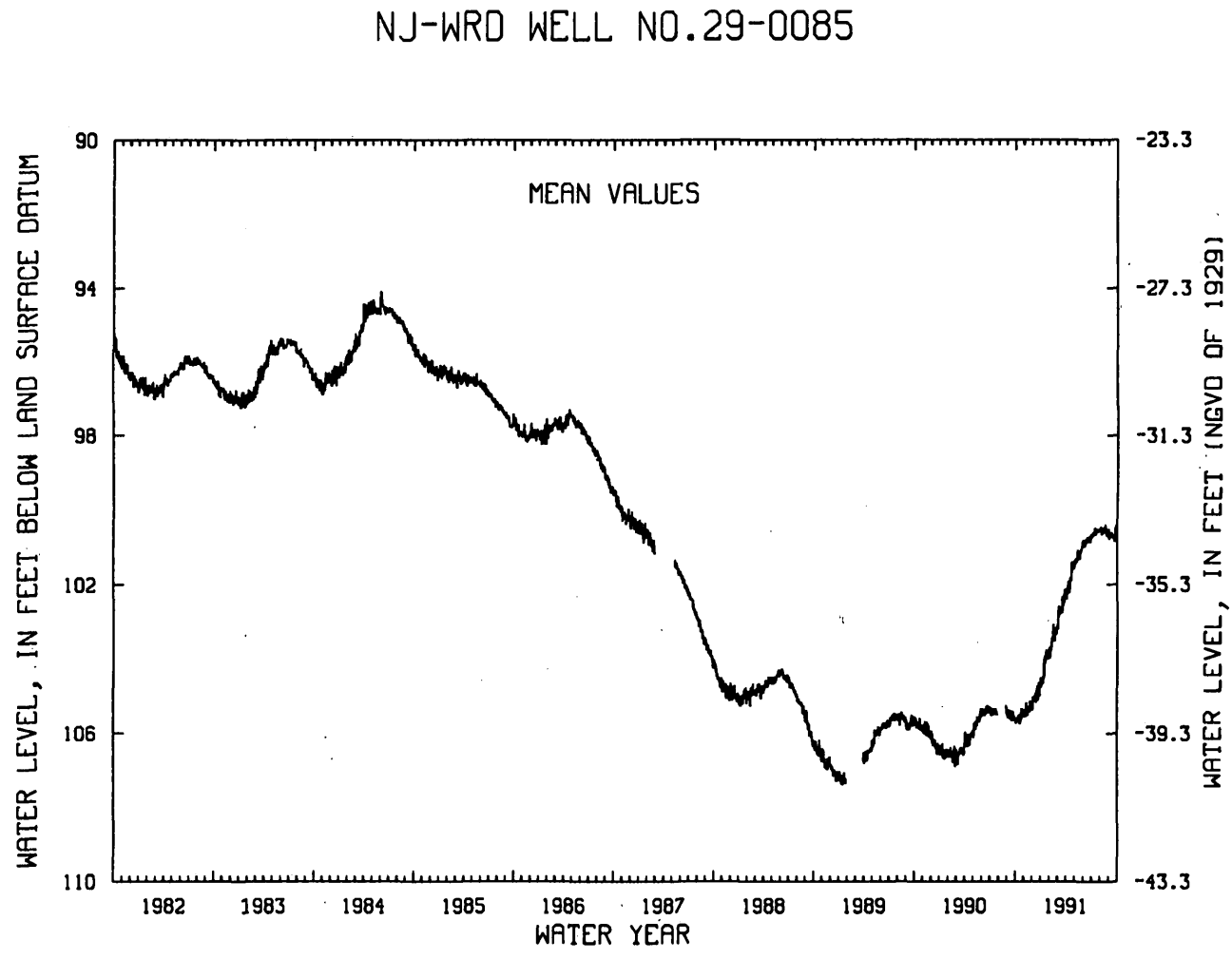
395930074142101. Local I.D., Toms River Chem 84 Obs. NJ-WRD Well Number, 29-0085.
LOCATION.--Lat 39°59'29", long 74°14'20", Hydrologic Unit 02040301, at Toms River Plant, Ciba-Geigy Corporation, Dover Township.
Owner: Ciba-Geigy Corporation.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 1,480 ft, screened 1,460 to 1,480 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 66.71 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.70 ft above land-surface datum.
PERIOD OF RECORD.--July 1968 to July 1975, Mar. 1977 to current year. Records for 1968 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.32 ft below land-surface datum, July 19, 1968 and Feb. 9, 1969; lowest, 107.45 ft below land-surface datum, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	105.60	105.39	105.08	104.65	103.73	102.75	102.23	101.47	100.91	100.72	100.55	100.61
10	105.67	105.19	104.98	104.49	103.42	102.75	101.92	101.35	100.92	100.66	100.50	100.69
15	105.56	105.48	105.02	104.12	103.11	102.66	101.94	101.15	100.82	100.63	100.59	100.74
20	105.65	105.38	105.11	103.77	103.28	102.46	101.81	101.30	100.81	100.61	100.45	100.75
25	105.37	105.17	104.86	104.00	103.19	102.37	101.56	101.04	100.87	100.59	100.72	100.55
EOM	105.54	105.37	104.61	103.72	---	102.35	101.48	100.86	100.67	100.56	100.53	100.82
MEAN	105.57	105.36	104.96	104.14	103.46	102.58	101.89	101.21	100.84	100.62	100.58	100.71

WTR YR 1991 MEAN 102.66 HIGH 100.31 AUG 19 LOW 105.77 OCT 3,17



OCEAN COUNTY

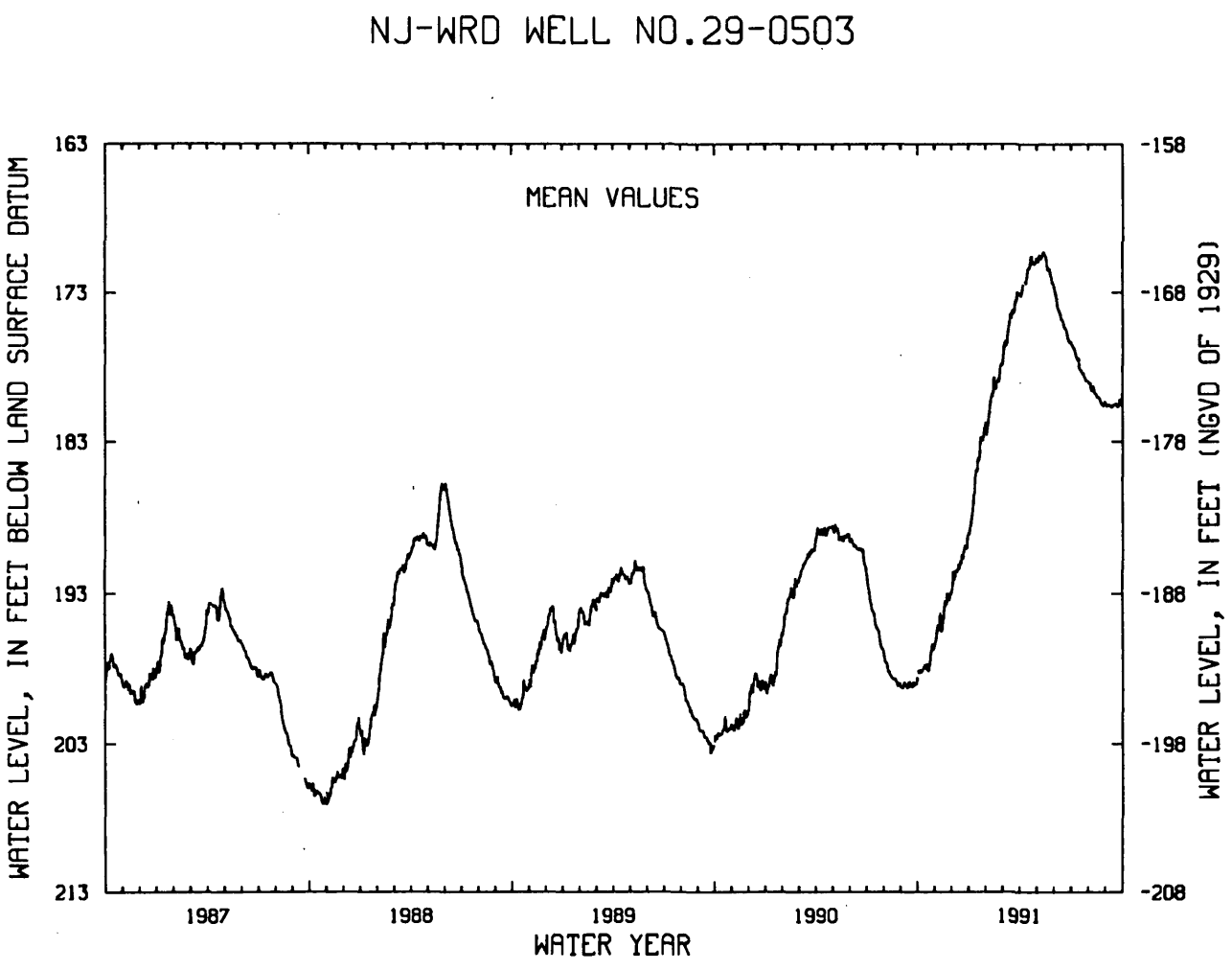
400210074031001. Local I.D., Mantoloking 6 Obs. NJ-WRD Well Number, 29-0503.
LOCATION.--Lat 40°02'10", long 74°03'10", Hydrologic Unit 02040301, at the Bay Ave. water treatment plant, Mantoloking Boro.
Owner: New Jersey - American Water Company.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 906 ft, screened 845 to 906 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.40 ft above land-surface datum.
REMARKS.--Water level affected by tidal fluctuation and nearby pumping.
PERIOD OF RECORD.--May 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 169.72 ft below land-surface datum, May 13, 1991; lowest, 207.49 ft below land-surface datum, Oct. 31, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	198.15	195.27	192.08	188.03	181.19	176.60	172.94	170.81	173.32	176.69	179.22	180.53
10	198.01	194.26	191.47	186.33	179.88	175.85	---	170.61	174.27	177.27	179.27	180.59
15	197.75	194.85	191.02	184.89	178.66	174.42	171.57	170.39	174.83	177.81	179.82	180.53
20	198.15	193.65	190.70	183.27	178.92	174.37	171.12	171.25	175.37	178.28	180.05	180.55
25	196.87	193.13	190.01	182.95	178.23	173.60	171.00	171.59	175.99	178.58	180.50	180.19
EOM	196.41	193.04	189.07	181.88	177.89	173.18	170.90	172.46	176.28	178.88	180.28	179.74
MEAN	197.60	194.40	190.83	184.83	179.69	174.93	171.72	171.08	174.79	177.77	179.85	180.49

WTR YR 1991 MEAN 181.61 HIGH 169.72 MAY 13 LOW 198.67 OCT 6



OCEAN COUNTY

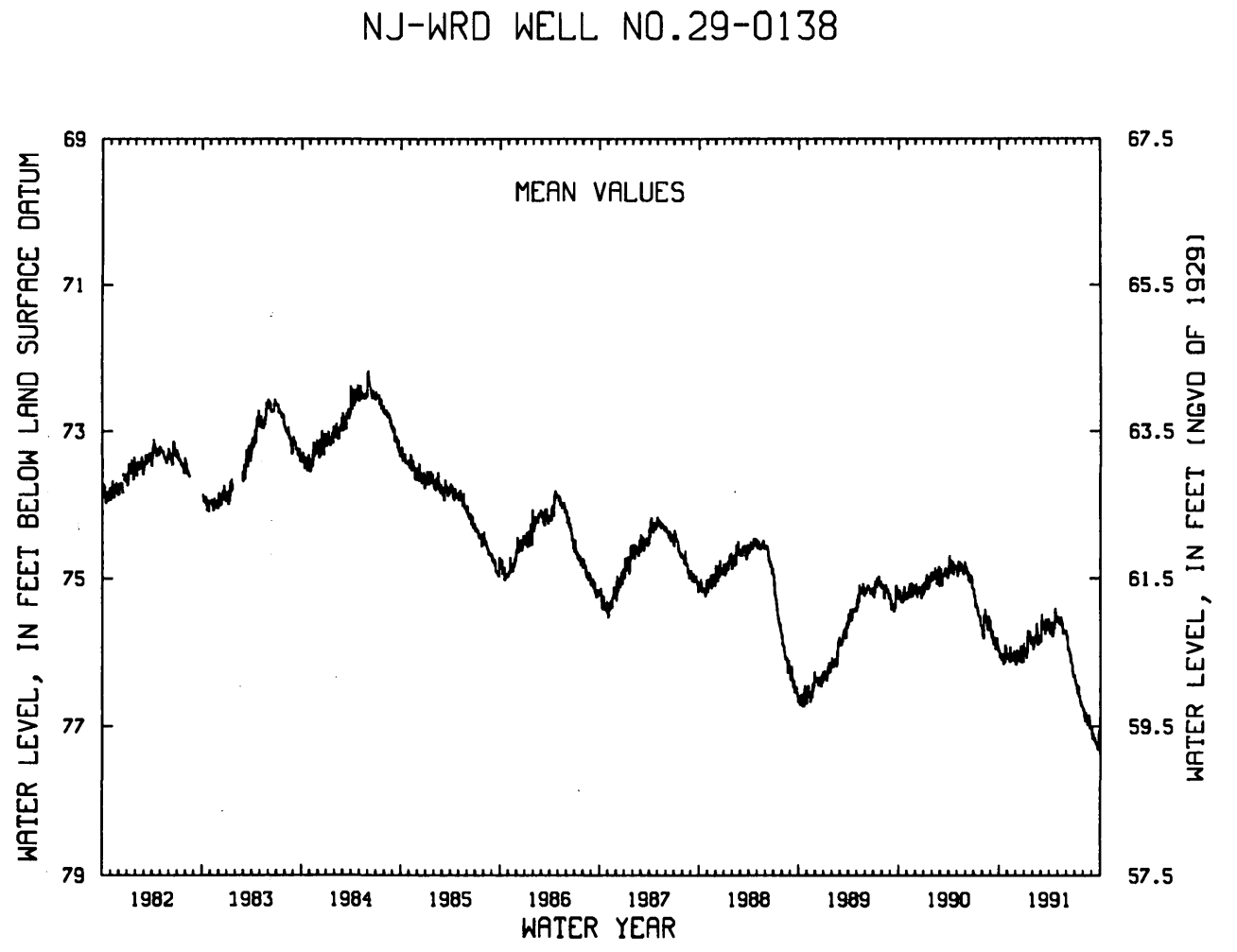
400416074270101. Local I.D., Colliers Mills 1 Obs. NJ-WRD Well Number, 29-0138.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 427 ft, screened 417 to 427 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 136.52 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch coupling, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1964 to July 1975, Mar. 1977 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.02 ft below land-surface datum, Feb. 19, 1964; lowest, 77.34 ft below land-surface datum, Sept. 22, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	76.01	76.02	75.99	76.04	75.87	75.62	75.67	75.61	75.87	76.42	76.84	77.09
10	76.09	75.92	75.99	76.00	75.77	75.67	75.59	75.61	75.98	76.50	76.81	77.17
15	76.05	76.10	76.04	75.85	75.64	75.69	75.64	75.59	76.03	76.54	76.93	77.25
20	76.12	76.08	76.13	75.71	75.79	75.65	75.63	75.74	76.13	76.64	76.85	77.26
25	75.93	76.01	76.04	75.88	75.79	75.65	75.52	75.69	76.29	76.72	77.03	77.13
EOM	76.07	76.16	75.95	75.81	75.85	75.68	75.54	75.70	76.29	76.76	77.00	77.28
MEAN	76.04	76.06	76.02	75.87	75.82	75.65	75.61	75.64	76.06	76.56	76.91	77.20

WTR YR 1991 MEAN 76.12 HIGH 75.35 APR 21 LOW 77.34 SEP 22

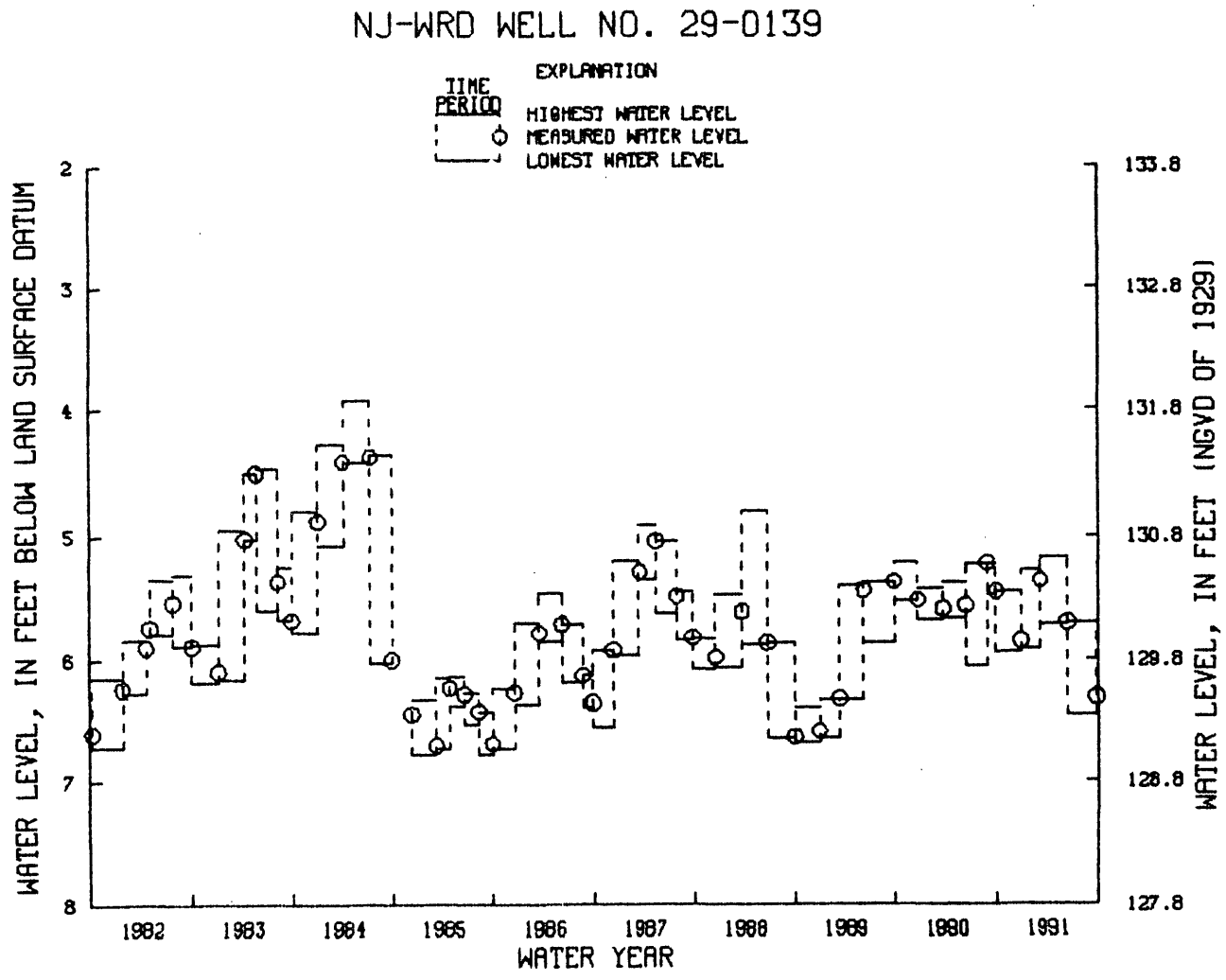


OCEAN COUNTY

400416074270102. Local I.D., Colliers Mills 2 Obs. NJ-WRD Well Number, 29-0139.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Vincentown Formation of Paleocene age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 171 ft, screened 161 to 171 ft.
INSTRUMENTATION.--Water-level extremes recorder, Oct. 1976 to current year. Water-level recorder, Jan. 1964 to Aug. 1975.
DATUM.--Land-surface datum is 135.76 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.25 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1964 to Aug. 1975, Oct. 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.92 ft below land-surface datum, between Apr. 3 and July 11, 1984; lowest, 6.77 ft below land-surface datum, between Dec. 4, 1984 and Mar. 6, 1985 and between Aug. 6 and Sept. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	5.45 / 5.94	DEC. 26, 1990	5.85
DEC. 26, 1990 TO MAR. 6, 1991	5.28 / 5.91	MAR. 6, 1991	5.36
MAR. 6, 1991 TO JUNE 11, 1991	5.17 / 5.71	JUNE 11, 1991	5.70
JUNE 11, 1991 TO SEPT. 25, 1991	5.70 / 6.45	SEPT. 25, 1991	6.31

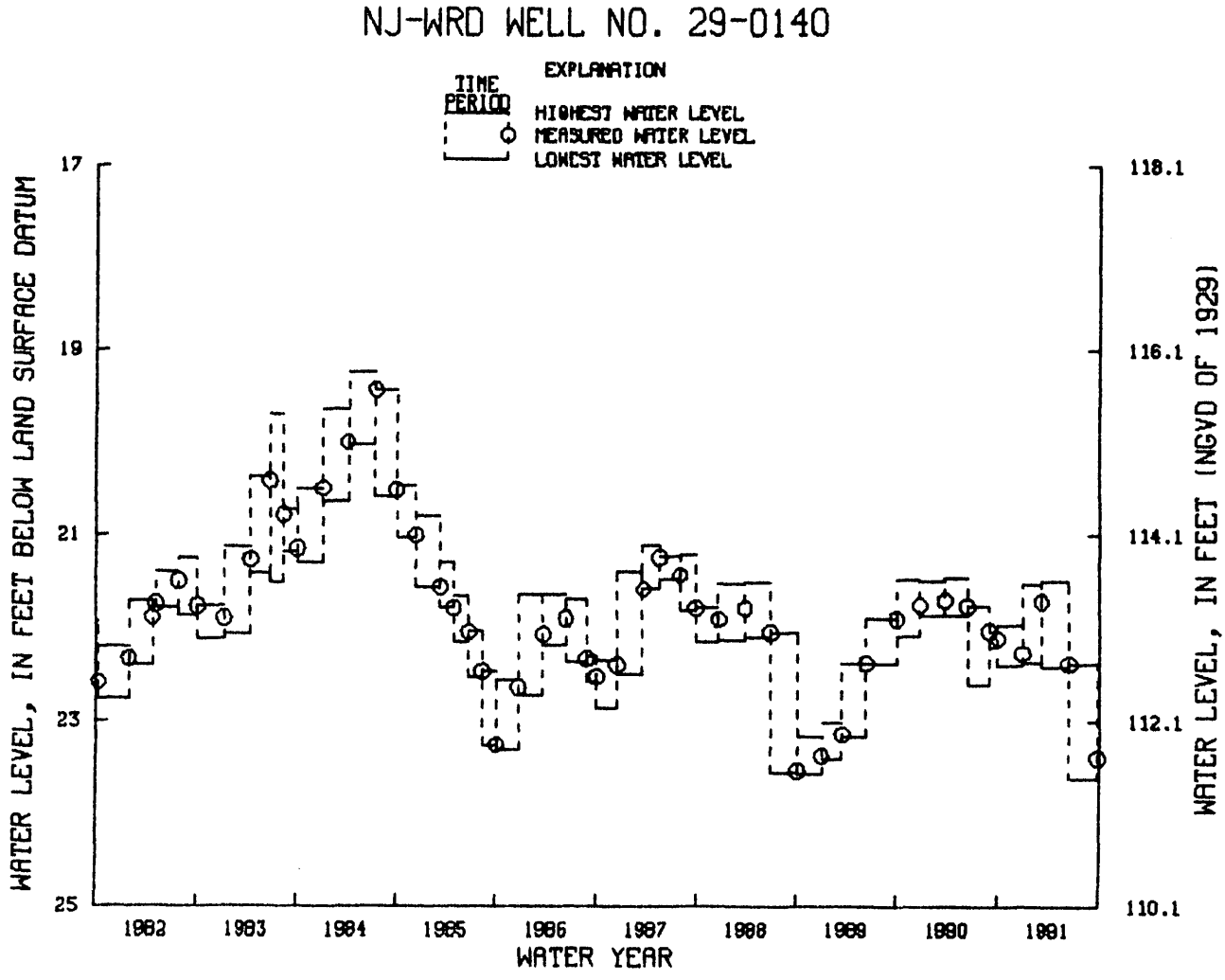


OCEAN COUNTY

400416074270103. Local I.D., Colliers Mills 3 Obs. NJ-WRD Well Number, 29-0140.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 267 ft, screened 257 to 267 ft.
INSTRUMENTATION.--Water-level extremes recorder, Oct. 1976 to current year. Water-level recorder, Jan. 1964 to July 1975.
DATUM.--Land-surface datum is 135.15 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 3.49 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1964 to July 1975, Oct. 1976 to current year. Records for 1964 to 1975 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.72 ft below land-surface datum, May 9, 1964; lowest, 23.64 ft below land-surface datum, between June 11 and Sept. 25, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	21.97 / 22.40	DEC. 26, 1990	22.27
DEC. 26, 1990 TO MAR. 6, 1991	21.53 / 22.37	MAR. 6, 1991	21.72
MAR. 6, 1991 TO JUNE 11, 1991	21.50 / 22.41	JUNE 11, 1991	22.38
JUNE 11, 1991 TO SEPT. 25, 1991	22.38 / 23.64	SEPT. 25, 1991	23.40

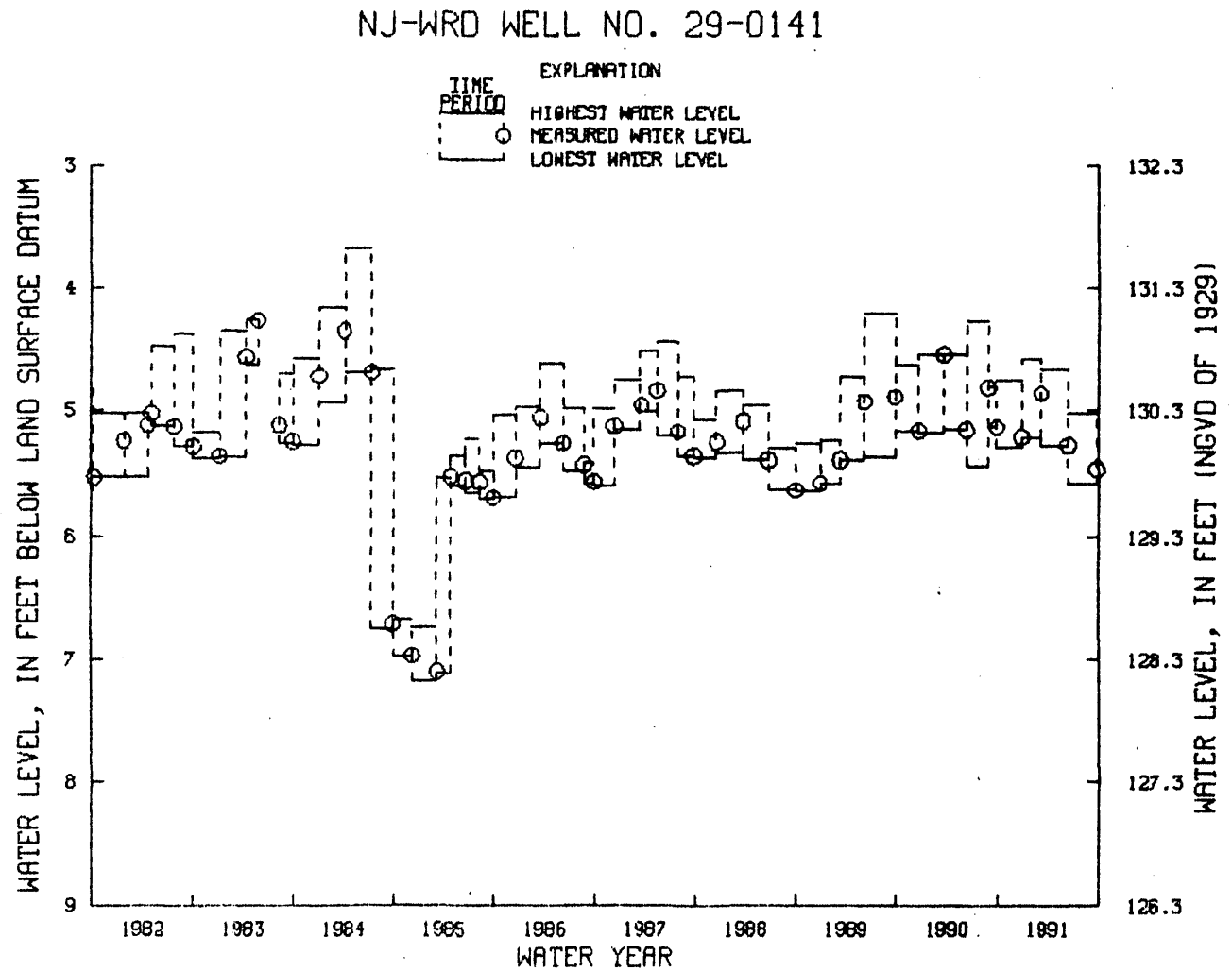


OCEAN COUNTY

400416074270104. Local I.D., Colliers Mills 4 Obs. NJ-WRD Well Number, 29-0141.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 71 ft, gravel-filled hole 46 to 71 ft.
INSTRUMENTATION.--Water-level extremes recorder, Oct. 1976 to current year. Water-level recorder, Mar. 1964 to Apr. 1975.
DATUM.--Land-surface datum is 135.31 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.86 ft above land-surface datum.
REMARKS.--Water level affected by stage of Colliers Mills Pond.
PERIOD OF RECORD.--Mar. 1964 to Apr. 1975, Oct. 1976 to current year. Records for 1964 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.68 ft below land-surface datum, between Apr. 3 and July 11, 1984; lowest, 7.17 ft below land-surface datum, between Dec. 4, 1984 and Mar. 6, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 27, 1990 TO DEC. 26, 1990	4.75	5.29	DEC. 26, 1990	5.21
DEC. 26, 1990 TO MAR. 6, 1991	4.57	5.21	MAR. 6, 1991	4.86
MAR. 6, 1991 TO JUNE 11, 1991	4.66	5.27	JUNE 11, 1991	5.27
JUNE 11, 1991 TO SEPT. 25, 1991	5.02	5.58	SEPT. 25, 1991	5.45

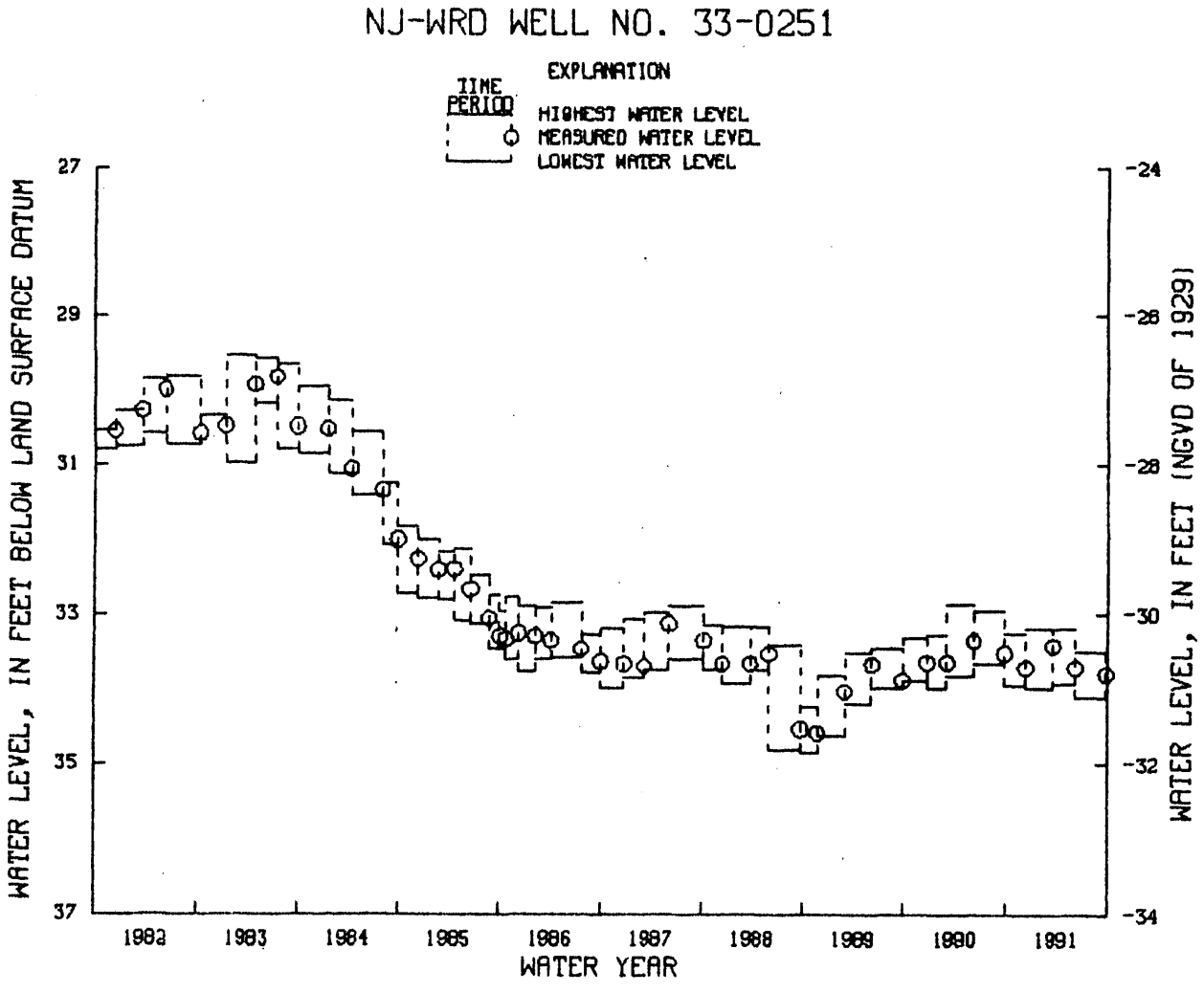


SALEM COUNTY

393348075275701. Local I.D., Salem 1 Obs. NJ-WRD Well Number, 33-0251.
LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem City.
Owner: U.S. Geological Survey.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 709 ft, screened 699 to 709 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, Dec. 1965 to Aug. 1975.
DATUM.--Land-surface datum is 3.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.87 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1965 to Aug. 1975, May 1977 to current year. Records for 1965 to 1980 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.97 ft below land-surface datum, Dec. 13, 1965; lowest, 34.86 ft below land-surface datum, between Sept. 23 and Nov. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1990 TO DEC. 12, 1990	33.24	33.95	DEC. 12, 1990	33.72
DEC. 12, 1990 TO MAR. 19, 1991	33.19	33.99	MAR. 19, 1991	33.42
MAR. 19, 1991 TO JUNE 7, 1991	33.19	33.93	JUNE 7, 1991	33.72
JUNE 7, 1991 TO SEPT. 26, 1991	33.49	34.13	SEPT. 26, 1991	33.80

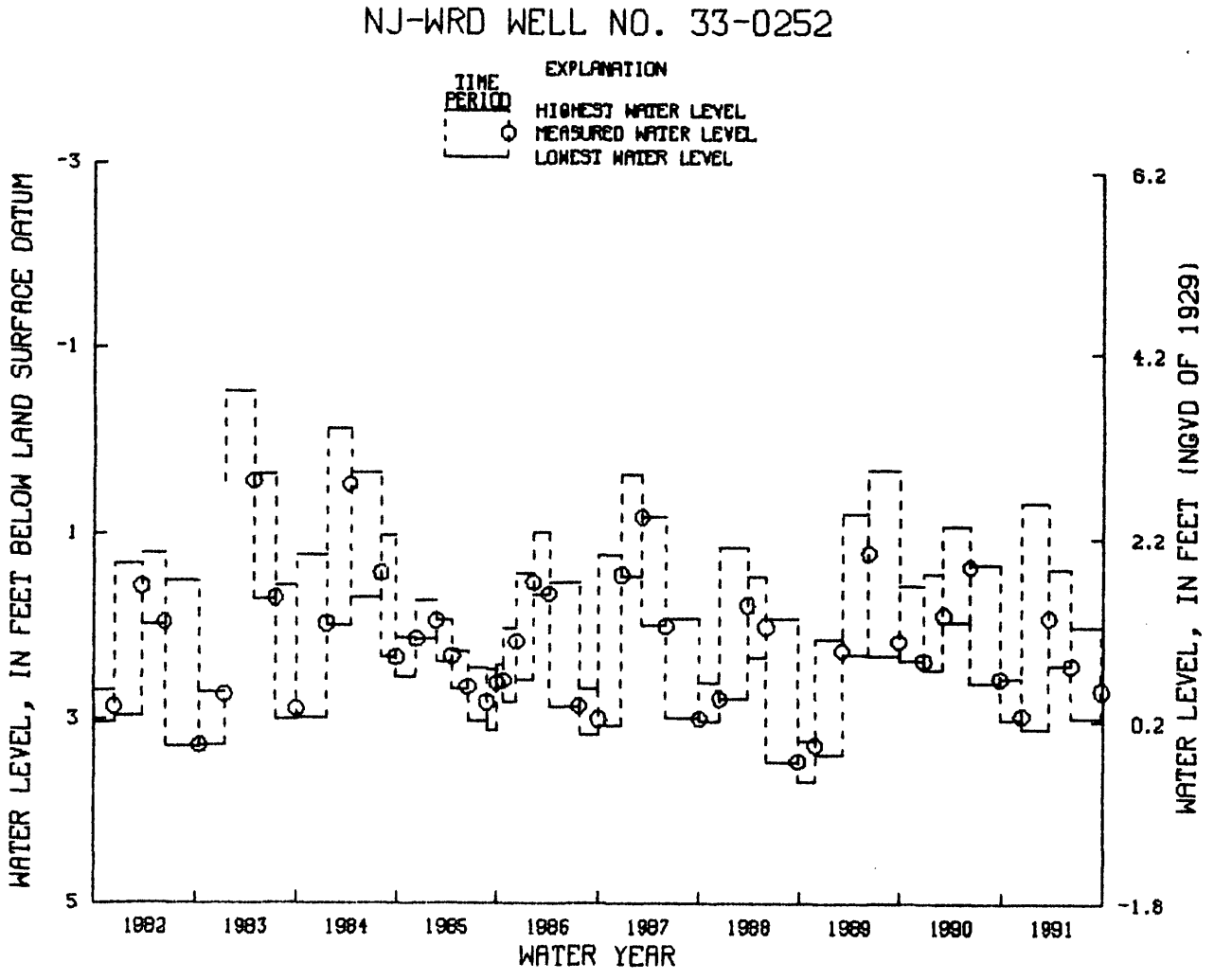


SALEM COUNTY

393348075275702. Local I.D., Salem 2 Obs. NJ-WRD Well Number, 33-0252.
LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem City.
Owner: U.S. Geological Survey.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 96 ft, screened 91 to 96 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, Nov. 1965 to July 1975.
DATUM.--Land-surface datum is 3.25 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.77 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1965 to July 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.51 ft above land-surface datum, between Jan. 12 and Apr. 27, 1983; lowest, 6.45 ft below land-surface datum, Sept. 9, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1990 TO DEC. 12, 1990	2.56	3.00	DEC. 12, 1990	2.96
DEC. 12, 1990 TO MAR. 19, 1991	0.66	3.10	MAR. 19, 1991	1.91
MAR. 19, 1991 TO JUNE 7, 1991	1.39	2.42	JUNE 7, 1991	2.42
JUNE 7, 1991 TO SEPT. 26, 1991	2.00	2.99	SEPT. 26, 1991	2.70

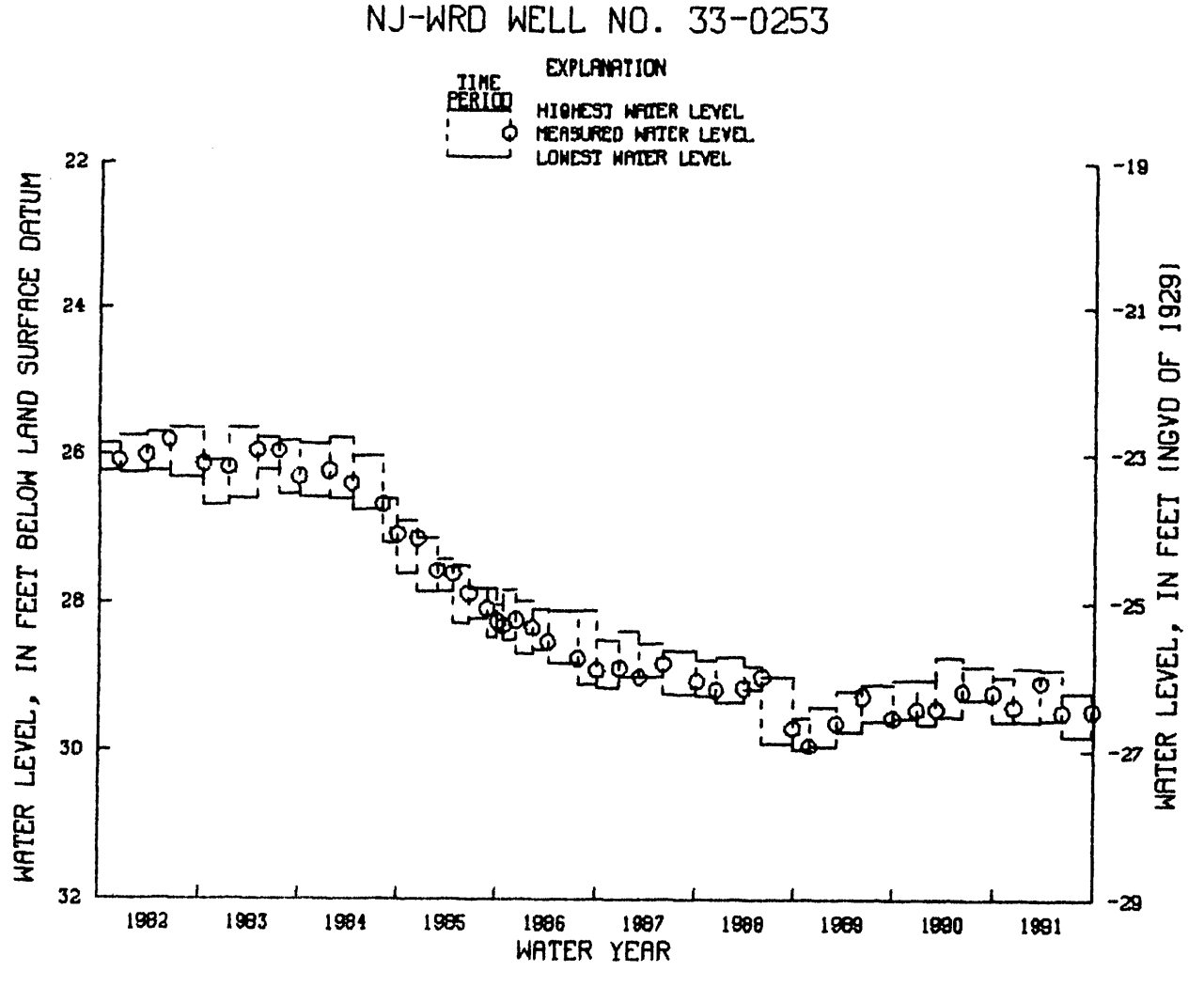


SALEM COUNTY

393348075275703. Local I.D., Salem 3 Obs. NJ-WRD Well Number, 33-0253.
LOCATION.--Lat 39°33'48", long 75°27'55", Hydrologic Unit 02040206, about 300 ft south of the intersection of Elm and Magnolia Streets, Salem City.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in, depth 340 ft, screened 335 to 340 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, Nov. 1965 to Aug. 1975.
DATUM.--Land-surface datum is 3.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Front edge of cutout in recorder housing, 2.30 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1965 to Aug. 1975, May 1977 to current year. Records for 1965 to 1981 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.28 ft below land-surface datum, Feb. 13, 1966; lowest, 29.98 ft below land-surface datum, between Sept. 23 and Nov. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1990 TO DEC. 12, 1990	28.99	29.58	DEC. 12, 1990	29.39
DEC. 12, 1990 TO MAR. 19, 1991	28.87	29.59	MAR. 19, 1991	29.07
MAR. 19, 1991 TO JUNE 7, 1991	28.90	29.57	JUNE 7, 1991	29.46
JUNE 7, 1991 TO SEPT. 26, 1991	29.20	29.79	SEPT. 26, 1991	29.44



SALEM COUNTY

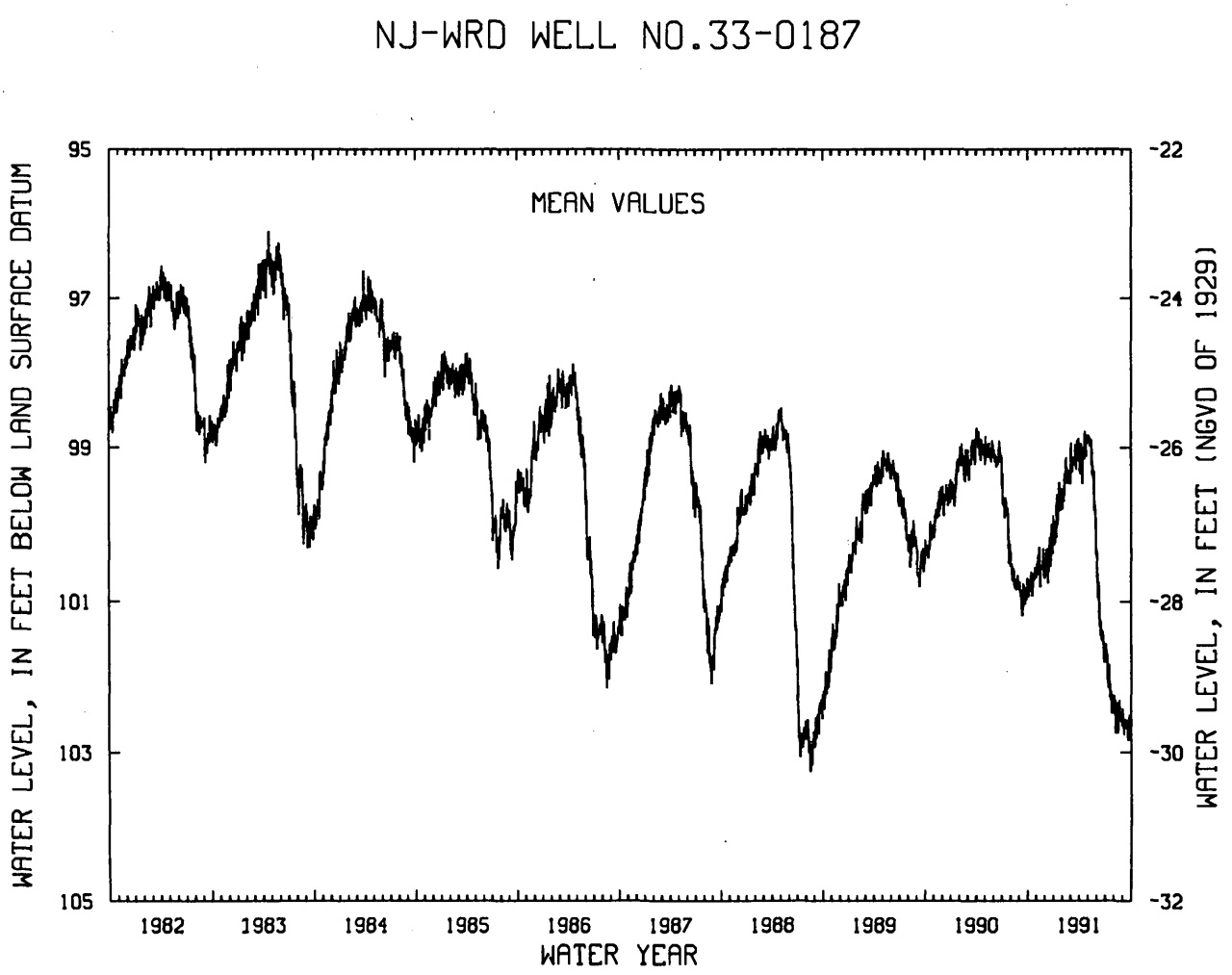
394037075191501. Local I.D., Point Airy Obs. NJ-WRD Well Number, 33-0187.
LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, at intersection of Point Airy Rd. and Woodstown-Swedesboro Rd., 1 mi. north of Woodstown Borough boundary, Pilesgrove Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 672 ft, screened 664 to 672 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 72.97 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 6 inch casing, 1.80 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1959 to Aug. 1975, Mar. 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 78.55 ft below land-surface datum, Mar. 6, 1959; lowest, 103.37 ft below land-surface datum, Aug. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	100.82	100.42	100.50	100.11	99.59	99.13	99.14	98.93	100.68	101.65	102.36	102.62
10	100.84	100.28	100.30	100.15	99.33	99.16	99.14	98.96	100.94	102.05	102.36	102.64
15	100.67	100.81	100.36	99.99	99.26	99.20	98.99	99.06	101.30	102.00	102.74	102.58
20	100.79	100.54	100.54	99.49	99.33	99.26	98.99	99.34	101.39	102.21	102.43	102.84
25	100.66	100.36	100.20	99.84	99.31	99.06	99.02	99.72	101.53	102.48	102.49	102.51
EOM	100.65	100.69	99.98	99.61	99.48	99.17	98.86	100.40	101.57	102.36	102.42	102.54
MEAN	100.74	100.53	100.34	99.82	99.45	99.13	99.07	99.31	101.20	102.04	102.50	102.63

WTR YR 1991 MEAN 100.57 HIGH 98.68 APR 22 LOW 102.92 SEP 20



SUSSEX COUNTY

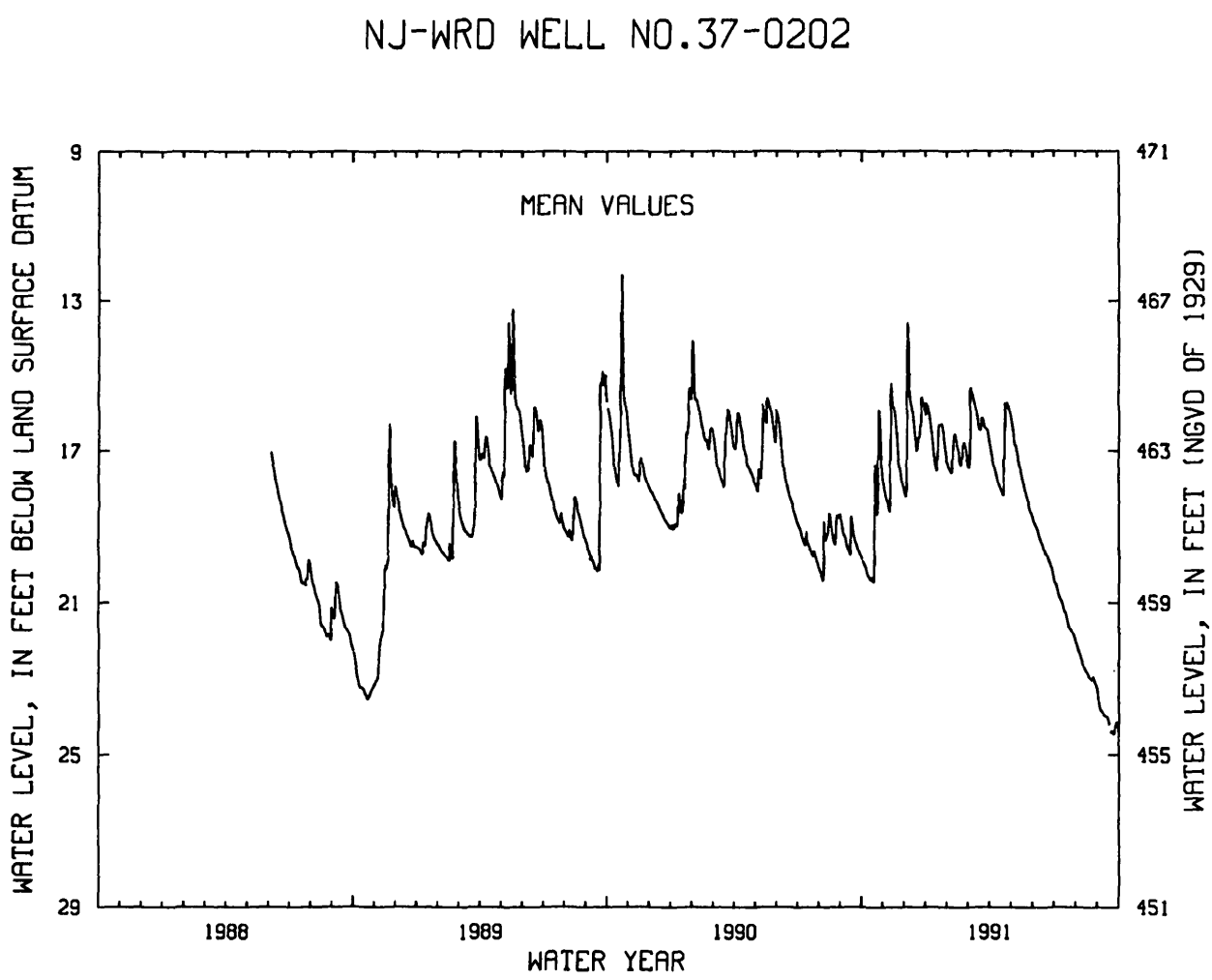
410914074540401. Local I.D., Taylor Obs. NJ-WRD Well Number, 37-0202.
LOCATION.--Lat 41°09'14", long 74°53'04", Hydrologic Unit 02040104, near Walpack Center, Delaware Water Gap National Recreation Area, Walpack Township.
Owner: National Park Service.
AQUIFER.--Bossardville Limestone of Silurian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 95 ft, open hole 42 to 95 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
REMARKS.--Water quality data for 1991 appears elsewhere in this report.
PERIOD OF RECORD.--June 1988 to current year. Records for 1988 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.28 ft below land-surface datum, Oct. 20, 1989; lowest, 24.46 ft below land-surface datum, Sept. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.06	18.34	13.77	16.22	17.59	15.34	17.27	16.77	18.97	20.64	22.31	23.82
10	20.33	16.57	15.81	16.99	16.57	15.73	17.63	17.13	19.25	20.91	22.57	23.97
15	20.39	15.94	16.64	17.54	17.02	16.35	17.97	17.57	19.49	21.19	22.79	24.09
20	18.23	16.93	16.66	16.33	17.31	16.12	18.18	18.03	19.75	21.48	22.96	24.37
25	16.19	17.65	15.58	16.69	16.94	16.40	15.73	18.36	20.00	21.73	22.93	24.30
EOM	17.88	18.10	15.75	17.33	17.31	16.81	16.11	18.72	20.36	22.03	23.25	24.37
MEAN	19.06	17.29	16.14	16.69	17.09	16.25	17.09	17.61	19.53	21.24	22.74	24.07

WTR YR 1991 MEAN 18.72 HIGH 13.15 DEC 4 LOW 24.46 SEP 19



UNION COUNTY

404106074171901. Local I.D., Union County Park Obs. NJ-WRD Well Number, 39-0119.
LOCATION.--Lat 40°41'06", long 74°17'19", Hydrologic Unit 02030104, at Galloping Hill Golf Course, Kenilworth.
Owner: Union County Park Commission.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 290 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 69.00 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--June 1943 to May 1975, July 1984 to current year. Periodic manual measurements, Aug. 1976 to Apr. 1984. Records for 1975 to 1983 are unpublished and are available in files of New Jersey District Office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land-surface datum, June 2, 1952; lowest, 16.05 ft below land-surface datum, June 29, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.92	6.48	5.96	5.64	5.65	5.30	5.68	5.68	6.50	---	6.69	7.13
10	6.84	6.24	5.93	5.76	5.66	5.37	5.74	5.90	6.36	---	6.63	7.77
15	6.29	6.25	6.12	5.59	5.74	5.52	5.87	6.44	6.38	---	7.32	7.12
20	6.34	6.23	6.12	5.25	5.70	5.43	5.90	6.54	6.34	7.41	6.54	7.25
25	6.18	6.04	5.68	5.49	5.77	5.46	5.67	6.56	6.62	6.89	6.40	7.08
EOM	6.31	6.35	5.46	5.58	5.91	5.53	5.54	6.61	6.69	6.47	6.81	6.82
MEAN	6.49	6.25	5.94	5.51	5.74	5.49	5.72	6.10	6.51	---	6.79	7.14

WTR YR 1991 MEAN 6.19 HIGH 5.21 JAN 21 LOW 8.16 SEP 19

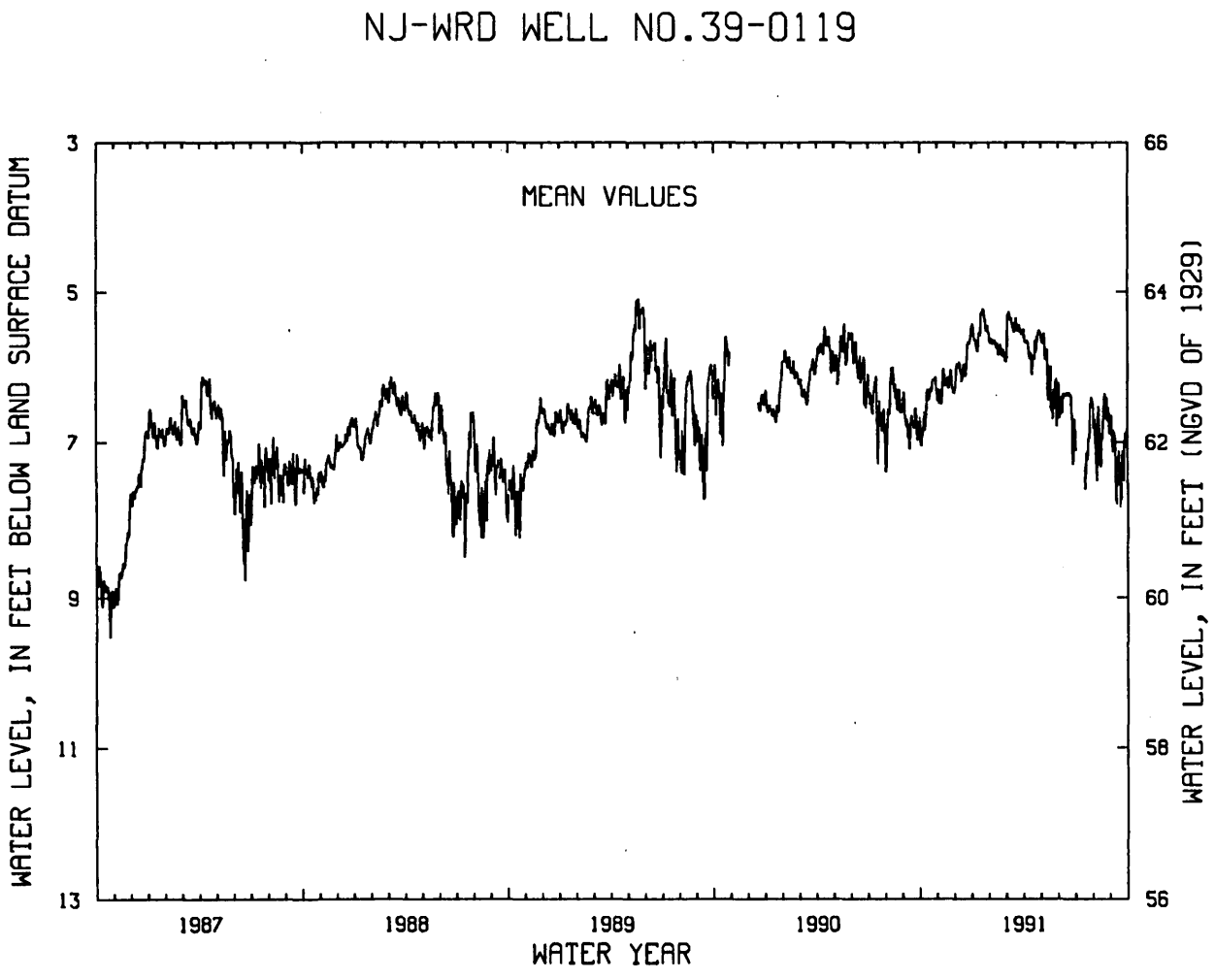


Table 1.--Ground-water levels in wells in the Gloucester County water-table network

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE DATUM (FT.)	SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
15-0039	CIFALOGLIO, SYLVESTER	1	393148	745822	110	75-123	11-13-90	9.61
							5-16-91	6.41
15-0198	LESHAY BROS	1965 WELL	393944	745934	126	93-141	11-14-90	10.08
							2-20-91	8.54
							3-20-91	8.50
							9- 5-91	10.42
15-0726	SMITH, JOHN	AURA ORCHARDS	394130	750921	140	52-62	11-13-90	11.84
							5-14-91	9.14
							8-26-91	13.37
15-0734	DASE, DENNIS	DASE 1	393523	745912	138	100-110	11-13-90	18.36
							5-16-91	15.68
							8-26-91	17.86
15-0745	FRANKLIN TWP SANITARY LANDFILL	DUMP NORTH	393608	750257	124	15-35	11-14-90	24.67
							5-16-91	23.03
15-0754	DEAN, GEORGE	DEAN 1	393934	751033	143	48-58	11-13-90	14.00
							5-14-91	11.17
							8-26-91	12.65
15-0759	MESIANO, JIM	MESIANO 1	394232	750126	159	130-135	11-14-90	38.14
							2-20-91	38.54
							5-16-91	37.68
							9- 5-91	38.54
15-0760	WILLIAMS, RONALD	RW 1	394020	745611	115	25-30	11-14-90	16.58
							2-20-91	14.26
							5-14-91	13.28
							8-26-91	16.31
15-0761	LUCAS, HARRY	LUCAS IRR 1	394142	745818	130	33-38	11-14-90	12.88
							2-20-91	12.19
							5-14-91	12.19
							8-26-91	13.15
15-0763	MOORE, EAYRE	MOORE 2	393525	750521	109	55-60	11-13-90	19.02
							5-14-91	18.05
							8-26-91	20.11
15-0764	SCAFONIS, FELIX	SCAFONIS D	393708	750143	130	44-49	11-13-90	19.26
							5-14-91	17.50
							8-26-91	19.87
15-0792	THE PLANT PLACE INC	PP 1	393928	750434	110	65-75	11-13-90	12.52
							5-14-91	10.90
15-0793	FERRUCCI, MARY	FERRUCCI 10	393448	745606	110	100-150	11-13-90	11.33
							5-16-91	10.00
							8-26-91	12.57
15-0795	SMITH, FRED	SMITH-1965	394140	750312	150	90-100	11-14-90	14.72
							2-20-91	13.68
							5-16-91	10.38
							9- 5-91	14.34
15-0796	SMITH, FRED	SMITH 5	394238	750308	160	85-90	11-14-90	17.27
							5-16-91	16.77
							8-26-91	21.88
15-0801	CHILLARI, JOE	CHILLARI 1	394227	750522	144	80-85	11-14-90	14.86
							2-20-91	14.13
							5-16-91	14.94
							8-26-91	14.90

Altitudes are from USGS topographic maps

* - below land surface datum.

Aquifer unit: 121CKKD - Kirkwood-Cohansey aquifer system

Table 1.--Ground-water levels in wells in the Gloucester County water-table network--Continued

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE DATUM (FT.)	SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
15-0804	FRANKLIN TWP BOARD OF EDUCATION	MALAGA 1	393428	750244	110	95-100	11-13-90	31.08
							5-14-91	29.64
							8-26-91	31.13
15-0808	GLASSBORO WATER DEPT	GLASS 1 OBS	394319	750725	122	50-60	11-13-90	41.39
							5-14-91	38.96
15-0810	ELK TWP MUA	ELK 1	394021	750827	144	58-63	11-13-90	14.73
							5-14-91	12.39
							8-26-91	13.89
15-0811	SHOEMAKER, G	SHOEMAKER 1	394055	751412	140	27-32	11-13-90	19.30
							5-14-91	17.47
							8-26-91	19.05
15-0812	CORONA PUMPS	CORONA 1	393805	745554	123	100-110	11-14-90	28.76
							2-20-91	26.81
							5-14-91	26.21
							8-26-91	28.32
15-0846	US GEOLOGICAL SURVEY	CARPENTER 126	394053	750453	126	9-10	11-14-90	6.75
							5-14-91	4.38
15-1016	DUFFIELD, CLAUDE	DUFFIELD 2	393633	750630	129	50-60	11-13-90	24.43
							5-14-91	21.83
							8-26-91	23.94
15-1037	DILLNER, PETER	FRIMAIR IRR	394303	750303	150	72-77	11-14-90	19.03
							5-16-91	17.53
15-1051	US GEOLOGICAL SURVEY	WTMUA OBS-1 SHALLOW	394314	750145	155	22-27	2-26-91	11.51
							5-30-91	11.37
							6-21-91	11.63
							7-29-91	12.04
							7-31-91	12.08
15-1054	US GEOLOGICAL SURVEY	GSC OBS-1 SHALLOW	394221	750722	155	31-36	3- 1-91	19.26
							5-30-91	18.51
							6-21-91	19.01
							7-31-91	19.66
							8-12-91	19.79
15-1057	US GEOLOGICAL SURVEY	TPE OBS-1 SHALLOW	394242	750330	152	22-27	2-26-91	16.30
							5-30-91	15.40
							6-21-91	15.89
							8- 1-91	16.26
							9- 9-91	16.80

Altitudes are from USGS topographic maps

* - below land surface datum.

Aquifer unit: 121CKKD - Kirkwood-Cohansey aquifer system

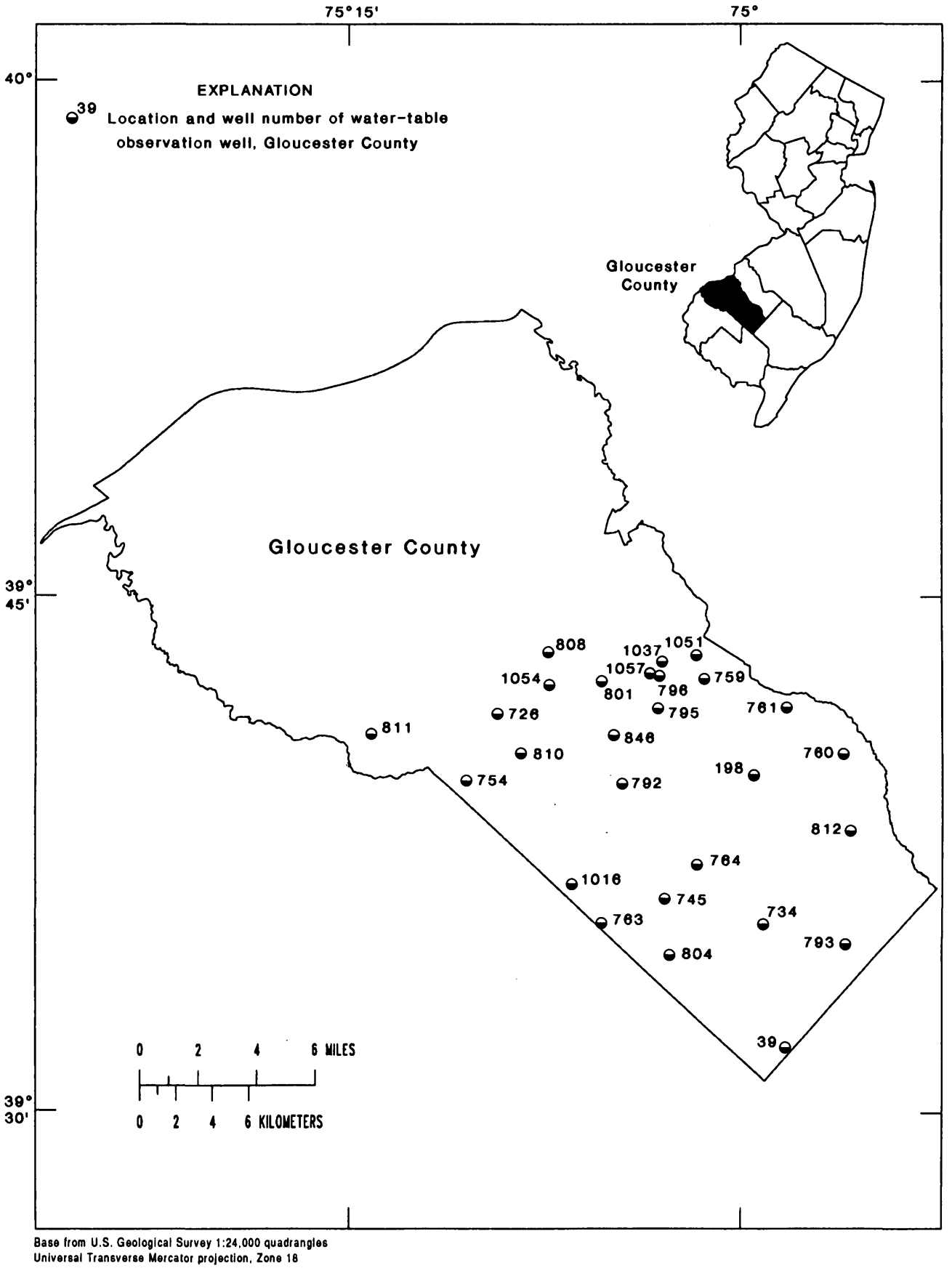


Figure 13.--Locations of ground-water observation wells in the Gloucester County water-table network.

Table 2.--Observation wells at which periodic manual water-level measurements were made

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD	ALTITUDE OF LAND SURFACE DATUM (FT.)	OPEN OR SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
01-702	US GEOLOGICAL SURVEY	BURKE AVE TW OBS	392032	743008	122KRKDL	1985-P	5	740-750	3- 5-91	85.25
									7-19-91	115.01
									9-19-91	112.88
01-775	ATLANTIC CITY MUA	FAA INTERMEDIATE OBS	392639	743232	121CKKD	1985-P	38.1	132-182	10-24-90	30.43
									1- 4-91	27.95
									3- 5-91	37.62
									5-16-91	29.03
									7-19-91	36.03
									9-19-91	34.06
01-776	ATLANTIC CITY MUA	FAA SHALLOW OBS	392639	743232	121CKKD	1985-P	38.1	73- 93	10-24-90	19.34
									1- 4-91	18.96
									3- 5-91	19.11
									5-16-91	18.32
									7-19-91	19.76
									9-19-91	20.93
03-289	STATE OF NJ - NJGS	SADDLE RIVER 17 OBS	410155	740602	227PSSC	1991-P	148.9	165-175	3-21-91	-1.87
									9-17-91	2.99
05-063	WILLINGBORO MUA	WILLINGBORO 1 OBS	400213	745108	211MRPAM	1966-P	45.45	284-294	3-20-91	65.57
									9-10-91	69.56
05-259	US GEOLOGICAL SURVEY	MEDFORD 2 OBS	395524	745025	211EGLS	1963-P	72.92	253-263	10-22-90	48.52
									12-27-90	48.21
									2-25-91	47.47
									4-29-91	47.51
									6-24-91	48.70
									8-29-91	49.41
05-274	CAMPBELL SOUP	CAMPBELL 1 OBS	395841	745905	211MRPAM	1972-P	40	241-262	3-26-91	68.60
									9- 9-91	69.93
05-407	US GEOLOGICAL SURVEY	ATSION 1 OBS	394422	744309	124PNPN	1963-P	46.76	240-260	3- 5-91	-5.15
									9-19-91	-4.56
05-408	US GEOLOGICAL SURVEY	ATSION 2 OBS	394422	744309	121CKKD	1963-P	47.52	63- 65	10-17-90	4.76
									11- 6-90	4.14
									1- 4-91	3.28
									3- 5-91	2.95
									5- 1-91	3.14
									6-13-91	4.72
									7-19-91	3.86
									9-19-91	4.78
05-409	US GEOLOGICAL SURVEY	ATSION 3 OBS	394422	744309	121CKKD	1963-P	47.13	14- 17	10-17-90	7.18
									11- 6-90	6.80
									1- 4-91	6.04
									3- 5-91	5.40
									5- 1-91	5.17
									6-13-91	6.55
									7-19-91	6.40
									9-19-91	7.03
05-570	US GEOLOGICAL SURVEY	MOUNT OBS	394106	743623	121CKKD	1955-P	63.24	25**	5-23-91	9.55
05-676	US GEOLOGICAL SURVEY	COYLE AIRPORT OBS	394914	742546	124PNPN	1962-P	199.19	530-540	3-26-91	79.03
									8-29-91	79.00
07-118	NJ-AMERICAN WATER CO	HUTTON HILL 2 OBS	395229	745712	211MLRW	1967-P	157.53	137-147	11-15-90	89.16
									1-15-91	88.43
									3-20-91	88.20
									7-23-91	89.23
									9-17-91	89.48
07-283	NJ-AMERICAN WATER CO	EGBERT OBS	395246	750434	211MRPAL	1963-P	23.66	445-455	3-28-91	83.14
									9-10-91	91.05
07-354	GENERAL FOODS	PETTY IS OBS	395811	750556	211MRPAL	1950-P	11.55	78**	3-28-91	9.50
									9-10-91	10.35

Aquifer unit:
- 121CKKD - Kirkwood Cohansey aquifer system
- 122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
- 124PNPN - Piney Point aquifer
- 211MLRW - Wenonah-Mount Laurel aquifer
- 211EGLS - Englishtown aquifer system
- 211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
- 211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system
- 227PSSC - Passaic Formation

* - below land surface datum. Water levels above land surface datum are listed as negative values.
** - total depth of well (extent of screen or open interval is not known).

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD	ALTITUDE OF LAND SURFACE DATUM (FT.)	SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
09-020	US GEOLOGICAL SURVEY	TRAFFIC CIRCLE OBS	385616	745800	112HLBC	1967-P	9.12	15- 20	4- 8-91	4.05
									9-27-91	5.10
09-048	US GEOLOGICAL SURVEY	CANAL 5 OBS	385748	745533	121CNSY	1957-P	17.48	242-252	4- 8-91	33.88
									6-17-91	44.80
									9-27-91	47.60
09-060	US GEOLOGICAL SURVEY	AIRPORT 7 OBS	390056	745426	121CNSY	1963-P	13.11	242-257	4- 8-91	26.68
									9-27-91	27.18
09-080	US GEOLOGICAL SURVEY	CAPE MAY 42 OBS	390213	745056	121CNSY	1957-P	13.67	242-252	4- 9-91	16.22
									9-27-91	19.08
09-081	US GEOLOGICAL SURVEY	CAPE MAY 23 OBS	390211	745055	112HLBC	1957-P	14.90	23- 26	4- 9-91	7.35
									9-27-91	9.97
09-294	US GEOLOGICAL SURVEY	WETLANDS 3 OBS	390337	744623	112ESRNS	1988-P	5	105-115	10-16-90	5.80
									12- 4-90	4.97
									1-28-91	6.21
									3- 8-91	6.57
									4- 9-91	6.50
									6-17-91	5.71
									8- 9-91	5.53
									9-12-91	5.12
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	390337	744623	112HLBC	1988-P	5	80- 90	10- 3-90	6.33
									12- 4-90	4.80
									1-28-91	6.05
									3- 8-91	6.36
									4- 9-91	6.31
									6-17-91	5.51
									8- 9-91	5.31
									9-12-91	4.85
11-043	CUMBERLAND COUNTY	VOCATIONAL SCHOOL 1 OBS	392732	750929	121CKKD	1972-P	82.14	133-138	11- 6-90	5.94
									1-17-91	8.09
									3-19-91	5.10
									7-31-91	5.78
									9-26-91	6.37
11-044	CUMBERLAND COUNTY	VOCATIONAL SCHOOL 3 OBS	392732	750929	124PNPN	1972-P	81.95	361-376	11- 6-90	77.54
									1-17-91	77.37
									3-19-91	77.53
									6- 7-91	78.23
									7-31-91	78.44
									9-26-91	78.58
11-073	CUMBERLAND COUNTY	SHEPPARDS 2 OBS	392508	751846	121CKKD	1973-P	37.35	35- 40	3-19-91	4.63
									9-26-91	5.01
11-097	CUMBERLAND COUNTY	JONES ISLAND 1 OBS	391829	751208	121CKKD	1972-P	10.10	166-171	11- 6-90	9.05
									1-17-91	8.12
									3-19-91	8.33
									9-26-91	9.16
11-118	CUMBERLAND COUNTY	HEISLERVILLE 1 OBS	391350	750018	121CKKD	1972-P	6.22	36- 41	10-16-90	3.35
									4- 8-91	3.52
11-119	CUMBERLAND COUNTY	HEISLERVILLE 2 OBS	391350	750018	121CKKD	1972-P	5.98	125-135	10-16-90	2.70
									4- 8-91	2.26
11-163	CUMBERLAND COUNTY	FAIR GROUNDS 3 OBS	392526	750643	124PNPN	1973-P	80	463-473	3-19-91	74.56
									9-26-91	75.01
11-237	CUMBERLAND COUNTY	NATURAL AREA 1 OBS	392920	745700	121CKKD	1972-P	88	76- 81	3- 5-91	7.89
									9-27-91	9.97
11-692	US GEOLOGICAL SURVEY	RUTGERS R&D 1 SHALLOW OBS	393104	751222	121CKKD	1991-P	119.62	33- 38	2-27-91	23.11
									5-30-91	22.47
									6-21-91	22.78
									7-31-91	23.43
									9- 4-91	24.02

Aquifer unit:
- 112ESRNS - Cape May Formation, estuarine sand facies
- 112HLBC - Holly Beach water-bearing zone
- 121CKKD - Kirkwood-Cohansey aquifer system
- 121CNSY - Cohansey Sand
- 124PNPN - Piney Point aquifer

* - below land surface datum.

Table 2.--Observation wells at which periodic manual water-level measurements were made--Continued

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD	ALTITUDE OF LAND SURFACE DATUM (FT.)	OPEN OR SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
11-693	US GEOLOGICAL SURVEY	RUTGERS R&D 2 MED OBS	393104	751222	121CKKD	1991-P	119.67	73- 78	2-27-91	23.18
									5-30-91	22.55
									6-21-91	22.84
									7-31-91	23.50
									9- 4-91	24.09
11-694	US GEOLOGICAL SURVEY	RUTGERS R&D 3 DEEP OBS	393104	751222	121CKKD	1991-P	119.95	105-110	2-27-91	23.50
									5-30-91	22.89
									6-21-91	23.22
									7-31-91	23.85
									9- 4-91	24.46
13-013	NJ-AMERICAN WATER CO	CANOE BROOK 30 OBS	404452	742116	112SFDF	1950-P	170	130**	5-28-91	71.21
									8-20-91	68.76
13-014	EAST ORANGE WD	NEUTRAL ZONE OBS	404454	742021	112SFDF	1926-P	179.37	64**	4- 3-91	52.80
									8-13-91	47.10
13-017	WALSH BROS INC	BALLENTINE 8 OBS	404401	740834	227PSSC	1949-P	12.79	95-875	3-21-91	20.16
									9-12-91	20.46
13-094	STATE OF NJ - NJGS	EAST ORANGE 28 OBS	404455	742032	227TOWC	1991-P	184.7	112-298	4- 3-91	56.95
									8-13-91	51.47
13-095	STATE OF NJ	CHRIST CHURCH 2 OBS	404347	741933	112SFDF	1991-P	276.9	180-200	4- 3-91	119.77
									8-13-91	118.12
13-096	STATE OF NJ - NJGS	EAST ORANGE SHALLOW OBS	404455	742032	112SFDF	1991-P	184.7	79- 84	4- 3-91	57.90
									8-13-91	51.20
15-297	HUNTSMAN CORP	SHELL 6 OBS	394942	751317	211MRPAU	1970-P	20.50	113-118	10- 5-90	32.32
									12-12-90	32.23
									2-12-91	31.68
									4-10-91	30.90
									6-12-91	33.47
									8-30-91	32.71
15-727	US GEOLOGICAL SURVEY	STEFKA 3 OBS	394808	751724	211MRPAM	1987-P	5.06	195-205	11-20-90	12.85
									3-28-91	10.79
15-1052	US GEOLOGICAL SURVEY	USGS WTMUA OBS-2 MED	394314	750145	121CKKD	1991-P	155	60- 65	2-26-91	11.53
									5-30-91	11.39
									6-21-91	11.66
									7-29-91	12.06
									7-31-91	12.10
15-1053	US GEOLOGICAL SURVEY	USGS WTMUA OBS-3 DEEP	394314	750145	121CKKD	1991-P	155	92- 97	2-26-91	11.53
									5-30-91	11.41
									6-21-91	11.68
									7-29-91	12.09
									7-31-91	12.13
15-1055	US GEOLOGICAL SURVEY	USGS GSC OBS-2 MED	394221	750722	121CKKD	1991-P	155	61- 66	3- 1-91	19.74
									5-30-91	18.95
									6-21-91	19.48
									7-31-91	20.09
									8-12-91	20.21
15-1056	US GEOLOGICAL SURVEY	USGS GSC OBS-3 DEEP	394221	750722	121CKKD	1991-P	155	79- 84	3- 1-91	19.72
									5-30-91	18.87
									6-21-91	19.38
									7-31-91	19.98
									8-12-91	20.15
15-1058	US GEOLOGICAL SURVEY	USGS TPE OBS-2 MED-DEEP	394242	750330	121CKKD	1991-P	152	70- 75	2-26-91	16.19
									5-30-91	15.29
									6-21-91	15.77
									7-29-91	16.12
									8- 1-91	16.13
									9- 9-91	16.35
15-1059	US GEOLOGICAL SURVEY	USGS TPE OBS-3 DEEP	394242	750330	121CKKD	1991-P	152	95-100	2-26-91	16.60
									5-30-91	15.70
									6-21-91	16.19
									7-29-91	16.57
									8- 1-91	16.56
									9- 9-91	17.12

Aquifer unit:
112SFDF - Stratified drift
121CKKD - Kirkwood-Cohansey aquifer system
211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
227PSSC - Passaic Formation
227TOWC - Towaco Formation
* - below land surface datum. ** - total depth of well (extent of screen or open interval is not known).

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD	ALTITUDE OF LAND SURFACE DATUM (FT.)	OPEN OR SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
15-1063	US GEOLOGICAL SURVEY	USGS TPE OBS-4 MED-SHAL	394242	750330	121CKKD	1991-P	155.78	35- 40	2-26-91	16.69
									5-30-91	15.81
									6-21-91	16.30
									7-29-91	16.66
									8- 1-91	16.66
									9- 9-91	17.56
19-276	STATE OF NJ - NJGS	ENVIRONMENTAL CTR 1 OBS	403455	745148	231SCKN	1991-P	170.4	55-175	3-26-91	9.39
									8-16-91	10.85
21-028	STATE OF NJ	CIVIL DEFENSE OBS	401553	745012	231LCKG	1964-P	122.99	33-300	3-26-91	16.08
									6-21-91	18.90
									8-12-91	18.95
21-088	US GEOLOGICAL SURVEY	HONEY BRANCH 10 OBS	402128	744613	227PSSC	1968-P	179.50	20-150	3-29-91	24.12
									9-27-91	26.63
21-366	STATE OF NJ - NJGS	WASH CROSSING PK 14 OBS	401837	745115	227PSSC	1991-P	183.3	50-225	4- 4-91	66.52
									8-12-91	71.17
23-194	PERTH AMBOY WD	RUNYON 1 OBS	402536	742018	211FRNG	1934-P	18.30	201-281	4- 4-91	50.18
									9-11-91	50.66
23-273	STATE OF NJ	PLAINSBORO POND OBS	401932	743529	211MRPAM	1970-P	76	70- 75	4- 4-91	27.88
									9-11-91	28.69
23-291	MONROE TWP MUA	FORSGATE 1 OBS	402109	743013	211FRNG	1965-P	106.79	192-203	3-25-91	37.94
									9-11-91	39.98
23-292	MONROE TWP MUA	FORSGATE 2 OBS	402109	743012	211ODBG	1961-P	106.89	93-104	3-25-91	31.48
									9-11-91	33.64
23-344	SAYREVILLE WD	SWD 2 OBS	402558	742013	211ODBG	1968-P	22.19	31- 37	4- 4-91	4.58
									9-11-91	7.67
23-351	SAYREVILLE WD	SWD 1 OBS	402605	741959	211ODBG	1968-P	35.27	76- 82	4- 4-91	12.50
									9-11-91	17.28
23-365	DUHERNAL WC	DUH SAY 4 OBS	402633	742120	211FRNG	1932-P	5.70	148-160	4- 4-91	28.41
									9-11-91	37.43
23-439	SOUTH RIVER WD	SRWD 2 OBS	402633	742200	211FRNG	1968-P	20.69	121-126	4- 4-91	33.46
									9-11-91	41.86
23-482	AMERICAN CYANAMID CO	TEST 1 OBS	403242	741617	211FRNG	1950-P	11.00	44- 76	3-21-91	0.72
									9-12-91	1.90
23-1165	STATE OF NJ	RUTGERS GOLF 13 OBS	403108	742812	227PSSC	1991-P	58.8	50-200	6- 3-91	0.72
									9-27-91	1.69
25-250	GORDONS CRNR WC	VILLAGE 215 OBS	401918	741529	211EGLS	1971-P	138.60	185-215	3-11-91	37.21
									9-11-91	47.14
25-715	ATLAN HIGH WD	AHWD B OBS	402426	740019	211EGLS	1991-P	220	350-360	8-28-91	224.57
27-001	US GEOLOGICAL SURVEY	RECREATION FLD OBS	404432	742252	112SFDF	1967-P	218.80	140-150	10-10-90	76.88
									5- 2-91	76.89
									9-16-91	80.06
27-003	US GEOLOGICAL SURVEY	W B DRIVER 2 OBS	404748	742419	112SFDF	1966-P	178.26	99-108	4- 1-91	23.40
									8-13-91	33.35
27-004	US GEOLOGICAL SURVEY	CLEMENS OBS	404816	742359	112SFDF	1966-P	174.91	100-110	3-25-91	21.00
									8-12-91	26.58
27-005	US GEOLOGICAL SURVEY	SANDOZ CHEM CO OBS	404826	742347	112SFDF	1966-P	188.25	113-123	3-25-91	33.92
									8-12-91	38.14
27-006	US GEOLOGICAL SURVEY	GREEN ACRES OBS	404937	742200	112SFDF	1967-P	181	94-104	3-25-91	9.98
									8-12-91	12.48

Aquifer unit:
- 112SFDF - Stratified drift
- 121CKKD - Kirkwood-Cohansey aquifer system
- 211EGLS - Englishtown aquifer system
- 211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
- 211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system
- 211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
- 227PSSC - Passaic Formation
- 231SCKN - Stockton Formation
- 231LCKG - Lockatong Formation

* - below land surface datum.

Table 2.--Observation wells at which periodic manual water-level measurements were made--Continued

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD	ALTITUDE OF LAND SURFACE DATUM (FT.)	OPEN OR SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
27-014	US GEOLOGICAL SURVEY	ESSO SIX INCH OBS	404705	742452	112SFDF	1967-P	176	110-120	3-27-91	13.55
									8-13-91	18.10
27-015	MORRISTOWN ARPT	TEST 2 OBS	404743	742522	112SFDF	1960-P	180.60	51- 62	4- 1-91	2.20
									8-13-91	4.94
27-017	MADISON BORO WD	MBWD 4 OBS	404508	742402	112SFDF	1958-P	194.90	100**	10-10-90	29.84
									5- 2-91	28.09
									9-16-91	32.05
27-022	INT PIPE AND CERAMIC	INT PIPE OBS	405209	742638	112SFDF	1963-P	353.05	146-155	3-25-91	70.70
									8-12-91	76.10
27-023	RANDOLPH TWP WD	MT FREEDOM 2 OBS	404921	743356	400PCMB	1964-P	800	11-218	3-20-91	0.08
									8-12-91	1.10
27-1190	STATE OF NJ	BLACK RIVER 10 OBS	404934	744005	400PCMB	1991-P	820	87-200	4- 3-91	5.73
									9- 4-91	9.98
27-1192	STATE OF NJ	MORRIS MAINT YD 22 OBS	405414	743542	112SFDF	1991-P	669.1	80-100	3-20-91	19.55
27-1197	STATE OF NJ-NJGS	MADISON 8 OBS	404513	742454	112SFDF	1991-P	246.6	142-161	5- 2-91	71.49
									9-16-91	74.90
29-018	US GEOLOGICAL SURVEY	ISLAND BEACH 2 OBS	394829	740535	124PNPN	1962-P	8.50	468-474	10- 1-90	9.50
									3- 6-91	8.56
									9-30-91	9.59
29-020	US GEOLOGICAL SURVEY	ISLAND BEACH 4 OBS	394829	740535	121CKKD	1962-P	8.19	9- 12	10- 1-90	3.85
									3- 6-91	3.48
									9-30-91	3.92
29-425	US GEOLOGICAL SURVEY	WEBBS MILLS 2 OBS	395322	742252	124PNPN	1962-P	128.27	348**	4-29-91	8.67
									8-29-91	9.12
29-513	US GEOLOGICAL SURVEY	GARDEN ST PKY 1 OBS	394744	741418	121CKKD	1962-P	44.25	18- 21	3-26-91	5.62
									8-29-91	6.30
29-514	US GEOLOGICAL SURVEY	GARDEN ST PKY 2 OBS	394744	741418	121CKKD	1962-P	43.82	306-316	3-26-91	6.94
									8-29-91	7.33
29-530	PT PLEASANT WD	PPWD 6 OBS	400454	740413	211EGLS	1988-P	20	730-790	4-11-91	181.43
									8- 2-91	214.92
33-020	HORNER,EPHRAIM	HORNER OBS	393534	751752	211MLRW	1959-P	76.75	283**	3-28-91	43.91
									9-10-91	46.62
33-348	STATE OF NJ	PENNS GROVE 14 OBS	394317	752619	211MRPAU	1959-P	25.40	18**	3-19-91	4.00
									9-10-91	7.16
33-680	US GEOLOGICAL SURVEY	USGS COLES FARM OBS-1	393818	751324	121CKKD	1991-P	142	27- 32	2-26-91	14.75
									5-30-91	14.52
									6-21-91	14.72
									7-31-91	15.45
									9- 4-91	16.12
33-681	US GEOLOGICAL SURVEY	USGS COLES FARM OBS-2	393818	751324	121CKKD	1991-P	142	40- 45	2-26-91	15.01
									5-30-91	14.79
									6-21-91	15.02
									7-31-91	15.72
									9- 4-91	16.40

Aquifer unit:
- 112SFDF - Stratified drift
- 121CKKD - Kirkwood-Cohansey aquifer system
- 124PNPN - Piney Point aquifer
- 211MLRW - Wenonah-Mount Laurel aquifer
- 211EGLS - Englishtown aquifer system
- 211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
- 400PCMB - Precambrian Erathem

* - below land surface datum.
** - total depth of well (extent of screen or open interval is not known).

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD	ALTITUDE OF LAND SURFACE DATUM (FT.)	OPEN OR SCREEN INTERVAL (FT.*)	DATE OF MEASUREMENT	WATER LEVEL (FT.*)
#37-203	STATE OF NJ	WHITTINGHAM 19 OBS	410010	744728	371ALNN	1991-P	648.5	50-500	4- 2-91	18.78
									9-27-91	29.12
37-204	STATE OF NJ	SPARTA TWP 6 OBS	410431	743958	112SFDF	1991-P	621.7	123-143	9-27-91	37.04
#37-205	STATE OF NJ	SWARTSWOOD PARK 5 OBS	410449	744833	371ALNN	1991-P	514.1	50-148	4- 2-91	21.30
									8-23-91	23.05
37-206	STATE OF NJ	FAIRGROUNDS 7 OBS	410804	744244	112SFDF	1991-P	533.5	64- 84	4- 2-91	37.40
									8-23-91	38.55
37-207	STATE OF NJ	WALPACK TWP 4 OBS	410928	745228	112SFDF	1991-P	425.3	46- 55	4- 2-91	24.82
									8-20-91	28.32
39-058	SCHWEITZER, P J	SCHWEITZER OBS	404113	741216	227BRCKS	1956-P	28.23	660**	3-21-91	13.64
									9-12-91	14.66
39-102	SCHERING CORP	WHITE LAB 3 OBS	404027	741644	227BRCKS	1952-P	85.22	49-251	5-17-91	24.48
									8-14-91	24.98
39-115	SCHERING CORP	WHITE LAB 4 OBS	404043	741618	227BRCKS	1952-P	96.20	47-251	5-17-91	60.70
									8-14-91	63.69

Aquifer unit:
112SFDF - Stratified drift
227BRCKS - Brunswick Group sedimentary rocks
371ALLN - Allentown Dolomite

* - below land surface datum.
** - total depth of well (extent of screen or open interval is not known).
# - Water-quality data appears elsewhere in this report.

Table 3.--Discontinued observation wells

for which ground-water-level data are available

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	AQUIFER UNIT	PERIOD OF RECORD
01-496	US GEOLOGICAL SURVEY	USGS 4-H-2	394029	743957	121CKKD	1963-86
01-542	US GEOLOGICAL SURVEY	WHARTON 2G	394028	744000	121CKKD	1960-86
01-545	US GEOLOGICAL SURVEY	WHARTON 11	394058	744022	121CKKD	1957-86
05-029	US GEOLOGICAL SURVEY	OSWEGO LAKE 1	394208	742645	121CKKD	1962-86
05-030	US GEOLOGICAL SURVEY	OSWEGO LAKE 2	394208	742645	121CKKD	1962-86
05-648	WILLINGBORO MUA	WMUA 3-OBS	400103	745409	211MRPAL	1966-86
05-690	US GEOLOGICAL SURVEY	LEBANON SF 2	395211	743103	121CKKD	1964-86
07-030	SO JRSY PORT CM	NY SHIP 5A	395447	750711	211MRPAU	1950-86
07-322	NJ/AMERICAN WATER CO	OAKLYN TEST	395359	750445	211MRPAU	1963-86
09-011	CAPE MAY CITY WD	CMCWD 1 OBS	385612	745457	121CNSY	1967-86
09-097	US GEOLOGICAL SURVEY	BDWLL DCH 31ES	390527	745024	112ESRNS	1968-84
09-098	US GEOLOGICAL SURVEY	BDWLL DCH 31HB	390527	745024	112HLBC	1968-84
11-141	MILLVILLE WD	ORANGE ST	392219	750113	121CKKD	1962-86
11-161	CUMBERLAND COUNTY	FAIR GROUNDS 1	392526	750643	121CKKD	1972-86
11-162	CUMBERLAND COUNTY	FAIR GROUNDS 2	392526	750643	121CKKD	1972-86
11-188	CUMBERLAND COUNTY	BOSTWICK LK 1	393141	751601	121CKKD	1972-86
15-097	HERCULES CHEM	GIBBSTOWN TH 8/TW8	395000	751636	211MRPAM	1953-89
15-279	HUNTSMAN POLYPROPYLENE CORP	SHELL OBS 7	394857	751250	211MRPAL	1962-86
15-540	US EPA	EPA 108	394800	751936	211MRPAM	1985-88
15-564	US EPA-GAVENTA	S-9	394802	751933	211MRPAU	1985-88
15-615	US GEOLOGICAL SURVEY	SHIVELER LOWER	394637	751916	211MRPAL	1985-88
15-616	US GEOLOGICAL SURVEY	SHIVELER MIDDLE	394637	751916	211MRPAM	1985-88
15-617	US GEOLOGICAL SURVEY	SHIVELER UPPER	394637	751916	211MRPAU	1985-88
15-618	US GEOLOGICAL SURVEY	GAVENTA DEEP	394804	751933	211MRPAL	1985-88
15-620	US GEOLOGICAL SURVEY	GAVENTA MIDDLE 1	394804	751933	211MRPAM	1985-88
23-159	DUHERNAL WC	DUHERNAL OBS 5	402353	742152	211ODBG	1939-86
23-180	DUHERNAL WC	DUHERNAL OBS 1	402438	742129	211ODBG	1938-86
23-181	PERTH AMBOY WD	RUNYON 123	402442	742136	211ODBG	1955-86
23-265	CHEVRON OIL CO	11	403211	741612	211FRNG	1950-86
23-270	AMER CYANAMID	TEST 2	403231	741616	211FRNG	1950-86
23-306	PHELPS DODGE CO	PHELPS DODGE 3	402147	742847	211FRNG	1969-87
23-433	STATE OF NJ	SO RIVER 4	402555	742133	211ODBG	1968-86
23-516	NOVAK	HULSART	402123	741849	211EGLS	1936-84
27-150	US GEOLOGICAL SURVEY	GREAT SWAMP 4 OBS	404349	742516	112SFDF	1989-90
27-321	ROCKAWAY RIVER C C	GEONICS 2	405344	742740	112SFDF	1985-90
27-322	DOVER TOWN WD	DTWD TW 2	405314	743250	112SFDF	1985-89
27-323	MOUNTAIN LAKES WD	CRANE RD (GEONICS 1)	405253	742708	112SFDF	1985-89
27-324	ST CLARES HOSPITAL	POCONO RD (GEONICS 2)	405334	742828	112SFDF	1985-89
27-325	BOONTON TOWNSHIP	VALLEY RD (GEONICS 3)	405542	742617	400PCMB	1985-89
27-709	KEUFFEL & ESSER CO	KEUFFEL 2	405441	742948	112SFDF	1985-89
27-1083	MORRIS COUNTY MUA	MCMUA TEST WELL 1 OBS	405005	744101	374LSVL	1988-90
27-1084	MORRIS COUNTY MUA	MCMUA TEST WELL 2 OBS	404954	744122	374LSVL	1988-90
27-1124	US GEOLOGICAL SURVEY	KENVIL NEWCRETE 2 OBS	405330	743638	112SFDF	1989-90
27-1183	US GEOLOGICAL SURVEY	KENVIL NEWCRETE 7 OBS	405330	743638	112SFDF	1989-90
29-486	WHITING BIBLE CHURCH	CRAMMER OBS	395714	742234	121CKKD	1952-90
29-532	PT PLEASANT WD	PPWD 3	400459	740359	211EGLS	1986-88
31-011	WANAQUE WD	HASKELL OBS	410209	741708	112SFDF	1965-82
33-279	DARETOWN FIRE CO	GARRISON	393622	751531	211MLRW	1959-86
33-342	STATE OF NJ	PENNS GROVE 24	394236	752724	211MRPAU	1942-87
39-133	HATFIELD WIRE	HATFIELD OBS	403726	741623	227BRCKS	1959-87
41-013	HOFFMAN-LAROCHE	HOF LAR 4	405050	750332	112SFDF	1960-85

Data available in the files of the New Jersey District Office.

Aquifer unit:

112SFDF - Stratified drift
112HLBC - Holly Beach water-bearing zone
112ESRNS - Cape May Formation, estuarine sand facies
121CNSY - Cohansey Sand
121CKKD - Kirkwood-Cohansey aquifer system
211MLRW - Wenonah-Mount Laurel aquifer
211EGLS - Englishtown aquifer system
211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system
211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system (Mercer, Middlesex, Monmouth Counties)
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system (Mercer, Middlesex, Monmouth Counties)
227BRCKS - Brunswick Group sedimentary rocks
374LSVL - Leithsville Formation
400PCMB - Precambriam Erathem

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ATLANTIC COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
01-369	LONGPORT WD	LONGPORT 3	391905	743128	10	760 - 810	122KRKDL
01-582	NJ/AMERICAN WATER CO	NJWC 5	391906	743629	15	79 - 99	121CKKD
01-589	NJ/AMERICAN WATER CO	NJWC 9	391924	743550	19	129 - 159	121CKKD
01-370	MARGATE CITY WD	MCWD 6	391928	743055	10	748 - 798	122KRKDL
01-353	NJ/AMERICAN WATER CO	SHORE-KIRKLIN	392001	743522	10	56 - 71	121CKKD
01-598	VENTNOR CITY WD	VCWD 9	392030	742852	8	740 - 800	122KRKDL
01-682	RESORTS INTERNATIONAL	1-1980	392134	742521	8	840*	122KRKDL
01-918	NJ/AMERICAN WATER CO	MILL RD AC-4R	392158	743317	25	108 - 148	121CKKD
01-041	BRIGANTINE WD	BRIG WD 1	392431	742153	9	769 - 806	122KRKDL
01-013	NJ/AMERICAN WATER CO	SHORE-ABSECON1	392554	743027	22	178 - 205	121CKKD

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
01-369	LONGPORT WD	LONGPORT 3	8-16-91	19.5	168	7.4	24	4.4
01-582	NJ/AMERICAN WATER CO	NJWC 5	8-16-91	14.0	136	5.0	13	21
01-589	NJ/AMERICAN WATER CO	NJWC 9	8-16-91	14.0	652	4.5	80	180
01-370	MARGATE CITY WD	MCWD 6	8-15-91	19.5	175	7.4	25	8.2
01-353	NJ/AMERICAN WATER CO	SHORE-KIRKLIN	8-16-91	14.0	129	5.3	15	12
01-598	VENTNOR CITY WD	VCWD 9	8-15-91	19.0	148	7.5	21	3.8
01-682	RESORTS INTERNATIONAL	1-1980	8-16-91	19.0	178	7.5	29	8.1
01-918	NJ/AMERICAN WATER CO	MILL RD AC-4R	8-16-91	14.0	151	5.1	14	19
01-041	BRIGANTINE WD	BRIG WD 1	8-15-91	19.0	116	7.3	19	2.9
01-013	NJ/AMERICAN WATER CO	SHORE-ABSECON1	8-16-91	13.5	53	4.8	4.1	6.6

* - total depth of well (extent of open or screen interval is not known).

Aquifer unit:

122CKKD - Kirkwood-Cohansey aquifer system
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

BURLINGTON COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
05-417	STATE OF NJ	MULLICA 10D	394608	744054	48.49	95-100	121CKKD
05-418	STATE OF NJ	MULLICA 29S	394608	744054	48.52	41- 46	121CKKD
05-451	STATE OF NJ	MULLICA 5D	394536	743542	64.86	165-170	121CKKD
05-452	STATE OF NJ	MULLICA 55S	394536	743542	64.86	16- 21	121CKKD

NJ-WRD WELL NUMBER	DATE	TEMPERATURE WATER (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
05-417	09-23-91	13.5	195#	8.0	69	26	1.0	12
05-418	09-23-91	15.5	37#	5.5	3	0.63	0.32	1.6
05-451	09-24-91	13.0	155#	6.8	3	0.64	0.41	32
05-452	09-24-91	13.0	28#	4.5	2	0.22	0.25	1.6

NJ-WRD WELL NUMBER	DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
05-417	09-23-91	5.0	103	84	8.0	2.3	<0.10	20	126
05-418	09-23-91	0.30	29	12	3.2	3.2	<0.10	4.2	34
05-451	09-24-91	3.9	105	85	3.7	2.8	<0.10	14	110
05-452	09-24-91	0.80	--	1.5#	3.5	3.0	<0.10	7.4	18

NJ-WRD WELL NUMBER	DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM DISSOLVED (UG/L AS CD)
05-417	09-23-91	<0.010	<0.050	0.050	<0.20	0.160	0.150	<10	<1.0
05-418	09-23-91	<0.010	<0.050	0.060	<0.20	0.010	0.010	170	<1.0
05-451	09-24-91	<0.010	<0.050	0.040	<0.20	0.080	0.070	20	<1.0
05-452	09-24-91	<0.010	<0.050	<0.010	<0.20	<0.010	<0.010	70	<1.0

NJ-WRD WELL NUMBER	DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
05-417	09-23-91	<5	<10	210	<1	52	6	0.5
05-418	09-23-91	<5	<10	6400	<1	18	11	3.9
05-451	09-24-91	<5	<10	1100	<1	12	5	1.0
05-452	09-24-91	<5	<10	26	<1	7	13	0.3

- Laboratory determination

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CAPE MAY COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
09-027	CAPE MAY CITY WD	CMCWD 3	385643	745533	7	277 - 306	121CNSY
09-017	US COAST GUARD	USCG 1	385651	745310	11	292 - 322	121CNSY
09-018	US COAST GUARD	USCG 2	385652	745327	11	295 - 325	121CNSY
09-209	COLD SPRING PACKING CO	COLD SPRING PACKING 1	385656	745422	5	90 - 110	112ESRNS
09-036	CAPE MAY CITY WD	CMCWD 2/CMCWD 4 (NEW)	385701	745528	10	174 - 282	121CNSY
09-043	CAPE MAY CITY WD	CMCWD 5	385724	745521	15	276*	121CNSY
09-052	LOWER TWP MUA	LTMUA 1	385851	745715	18	241 - 262	121CNSY
09-054	LOWER TWP MUA	LTMUA 2	385905	745625	14	212 - 247	121CNSY
09-057	LOWER TWP MUA	LTMUA 3	385919	745518	20	262 - 302	121CNSY
09-067	WILDWOOD WD	RIO GRANDE 38	390135	745352	10	461 - 590	122KRKDU
09-069	WILDWOOD WD	RIO GRANDE 33	390136	745342	9	236 - 260	121CNSY
09-072	WILDWOOD WD	RIO GRANDE 31	390138	745350	10	108 - 135	112ESRNS
09-132	STONE HARBOR WD	SHWD 4	390301	744545	10	830 - 880	122KRKDL
09-173	STONE HARBOR WD	SHWD 6	390314	744532	10	822 - 862	122KRKDL
09-192	RUTGERS UNIVERSITY	RUTGERS OYSTER LAB	390425	745446	7	64 - 71	112ESRNS
09-004	AVALON WD	AVALON WD 6	390528	744338	10	880 - 920	122KRKDL
09-291	AVALON WD	AVALON WD 9	390627	744254	7	764 - 941	122KRKDL
09-126	SEA ISLE CITY WD	SICWD 5	390747	744241	7	731 - 802	122KRKDL
09-129	SEA ISLE CITY WD	SICWD 2	390926	744131	7	744 - 861	122KRKDL
09-106	NJ/AMERICAN WATER CO	SHORE DIV 7	391343	743755	8	760 - 810	122KRKDL
09-124	NJ/AMERICAN WATER CO	SHORE DIV 13	391712	743340	8	757 - 840	122KRKDL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
09-027	CAPE MAY CITY WD	CMCWD 3	8-27-91	16.5	808	7.6#	130	180
09-017	US COAST GUARD	USCG 1	8-29-91	16.0	940	7.8#	120	220
09-018	US COAST GUARD	USCG 2	8-29-91	15.0	351	7.9#	62	35
09-209	COLD SPRING PACKING CO	COLD SPRING PACKING 1	8-23-91	15.5	1,010	7.0#	45	300
09-036	CAPE MAY CITY WD	CMCWD 2/CMCWD 4 (NEW)	8-27-91	16.5	718	7.6#	100	150
09-043	CAPE MAY CITY WD	CMCWD 5	8-27-91	16.5	298	7.7#	29	21
09-052	LOWER TWP MUA	LTMUA 1	8-28-91	15.5	261	8.0#	35	15
09-054	LOWER TWP MUA	LTMUA 2	8-28-91	13.5	272	7.9#	25	16
09-057	LOWER TWP MUA	LTMUA 3	8-28-91	15.0	209	7.8#	18	9.3
09-067	WILDWOOD WD	RIO GRANDE 38	8-30-91	16.0	570	---	73	78
09-069	WILDWOOD WD	RIO GRANDE 33	8-30-91	14.5	191	7.6#	8.4	13
09-072	WILDWOOD WD	RIO GRANDE 31	8-30-91	13.5	208	7.7#	7.5	14
09-132	STONE HARBOR WD	SHWD 4	8-15-91	20.0	366	8.8	67	39
09-173	STONE HARBOR WD	SHWD 6	8-15-91	20.0	302	8.7	55	23
09-192	RUTGERS UNIVERSITY	RUTGERS OYSTER LAB	8-27-91	15.0	828	7.5	100	210
09-004	AVALON WD	AVALON WD 6	8-15-91	20.5	375	8.7	65	51
09-291	AVALON WD	AVALON WD 9	8-15-91	20.5	320	8.6	52	36
09-126	SEA ISLE CITY WD	SICWD 5	8-15-91	19.5	239	8.5	30	15
09-129	SEA ISLE CITY WD	SICWD 2	8-15-91	20.0	234	8.4	32	15
09-106	NJ/AMERICAN WATER CO	SHORE DIV 7	8-16-91	19.5	205	8.0	30	12
09-124	NJ/AMERICAN WATER CO	SHORE DIV 13	8-16-91	19.5	200	7.9	30	11

* - total depth of well (extent of open or screen interval is not known).
# - Laboratory determination

Aquifer unit:

112ESRNS - Cape May Formation, estuarine sand facies
121CNSY - Cohansey Sand
122KRKDU - Rio Grande water-bearing zone of the Kirkwood Formation
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CUMBERLAND COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
11-324	EAST PT W ASSOC	1	391138	750117	5	242 - 262	121CKKD
11-030	ROBBINS BROS	ROBBINS 1	391413	750115	10	192 - 212	121CKKD
11-035	PORT NORRIS BD ED	BOARD OF EDUC	391450	750205	10	227 - 242	121CKKD
11-054	GANDYS BEACH WC	GANDYS BEACH	391618	751354	5	378 - 402	124PNPN
11-327	MYERS, H	1	391619	751357	5	399 - 409	124PNPN
11-321	GONDOLF, RICHARD	1	391620	751410	5	405 - 425	124PNPN
11-337	COVE RD WATER ASSOC	1	391622	751414	5	373 - 393	124PNPN
11-038	J S MORIE INC	J S MORIE 2	391658	750015	10	175 - 205	121CKKD
11-056	MONEY IS MARINA	POLLINO 1	391704	751415	4	350 - 370	124PNPN

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
11-324	EAST PT W ASSOC	1	8-16-91	---	200	6.8	11	1.4
11-030	ROBBINS BROS	ROBBINS 1	8-22-91	17.0	106	6.9	3.7	3.2
11-035	PORT NORRIS BD ED	BOARD OF EDUC	8-22-91	15.5	127	7.0	2.9	3.6
11-054	GANDYS BEACH WC	GANDYS BEACH	8-22-91	14.5	3,780	7.4	180	1,100
11-327	MYERS, H	1	8-22-91	16.0	980	7.6	110	220
11-321	GONDOLF, RICHARD	1	8-22-91	17.0	639	7.9	120	61
11-337	COVE RD WATER ASSOC	1	8-22-91	---	592	---	100	54
11-038	J S MORIE INC	J S MORIE 2	8-22-91	15.0	118	7.6	6.5	4.3
11-056	MONEY IS MARINA	POLLINO 1	8-22-91	16.0	765	8.8	140	87

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
124PNPN - Piney Point aquifer

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GLOUCESTER COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
15-001	CLAYTON WD	CWD 3	393913	750517	133	746 - 800	211MRPAU
15-361	GLASSBORO WD	GWD 5	394141	750710	140	610 - 657	211MRPAU
15-385	PITMAN WD	PWD P4	394345	750804	125	520*	211MRPAU
15-130	SOUTH JERSEY WC	SJWC 3	394408	751330	35	234 - 265	211MRPAU
15-236	SWEDESBORO WD	SBWD 3	394434	751843	75	241 - 312	211MRPAM
15-137	PURELAND WATER CO	PURE 2(3-1973)	394535	752054	29	158 - 208	211MRPAM
15-144	PURELAND WATER CO	1-1973	394613	752129	7.6	81 - 136	211MRPAM
15-191	MANTUA TWP MUA	MTMUA 2	394629	750859	72	336 - 368	211MRPAU
15-192	MANTUA TWP MUA	MTMUA 5	394635	751116	80	315 - 337	211MRPAU
15-194	MANTUA TWP MUA	MTMUA 4	394732	751037	10	230 - 265	211MRPAU
15-283	HUNTSMAN POLYPROPYLENE CO	SHELL 3	394919	751256	30	358 - 383	211MRPAL
15-210	PAULSBORO WD	6-1973	394921	751417	15	185 - 227	211MRPAM

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
15-001	CLAYTON WD	CWD 3	8- 9-91	20.0	994	8.4	230	150
15-361	GLASSBORO WD	GWD 5	8- 7-91	19.5	740	8.3	160	72
15-385	PITMAN WD	PWD P4	8- 7-91	17.0	589	8.0	130	53
15-130	SOUTH JERSEY WC	SJWC 3	8- 8-91	15.5	825	7.8	210	170
15-236	SWEDESBORO WD	SBWD 3	8-13-91	15.0	342	7.0	39	36
15-137	PURELAND WATER CO	PURE 2(3-1973)	8- 8-91	14.5	246	6.6	23	23
15-144	PURELAND WATER CO	1-1973	8- 8-91	13.5	214	5.7	31	21
15-191	MANTUA TWP MUA	MTMUA 2	8-13-91	15.0	420	8.2	85	32
15-192	MANTUA TWP MUA	MTMUA 5	8-13-91	15.0	515	8.0	110	53
15-194	MANTUA TWP MUA	MTMUA 4	8-13-91	15.0	419	8.0	85	36
15-283	HUNTSMAN POLYPROPYLENE CO	SHELL 3	8- 8-91	15.5	789	7.1	150	140
15-210	PAULSBORO WD	6-1973	8- 8-91	15.0	268	5.6	24	32

* - total depth of well (extent of open or screen interval is not known).

Aquifer unit:

211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HUNTERDON COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN INTERVAL (FT.)	AQUIFER UNIT
19-300	HIGH BRIDGE BORO	HIGH BRIDGE ZELLMAN 8	403923	745433	205	55-115	360KTTN

NJ-WRD WELL NUMBER	DATE	TIME	TEMPERATURE WATER (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)
19-300	09-11-91	1325	12.5	474	7.3	200	43	22	13	1.1	203

NJ-WRD WELL NUMBER	DATE	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)
19-300	09-11-91	165	18	25	<0.10	14	242	<0.010	1.30	<0.010	<0.20

NJ-WRD WELL NUMBER	DATE	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)
19-300	09-11-91	0.020	<0.010	<10	<1	<1.0	<1	<1	7	<1	<1

NJ-WRD WELL NUMBER	DATE	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	1,2-DICHLOROETHANE TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)
19-300	09-11-91	<0.1	<3	0.5	2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

NJ-WRD WELL NUMBER	DATE	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	ETHYLBENZENE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)
19-300	09-11-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

NJ-WRD WELL NUMBER	DATE	TRICHLOROFLUOROMETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)
19-300	09-11-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--Continued

HUNTERDON COUNTY--Continued

NJ-WRD WELL NUMBER	DATE	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)
19-300	09-11-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2

NJ-WRD WELL NUMBER	DATE	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	BETA, 2 SIGMA WATER, DISS, AS SR90/Y90 (PCI/L
19-300	09-11-91	<0.2	<0.2	<0.2	1.2	0.80	1.8	1.4	0.9	0.60

Aquifer unit:

360KTTN - Kittatinny Limestone

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

MIDDLESEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
23-735	PERTH AMBOY WD	RUNYON 8R	402524	741940	10	70 - 85	211ODBG
23-571	PERTH AMBOY WD	PERTH AMBOY 7	402531	741932	15	67 - 82	211ODBG
23-195	PERTH AMBOY WD	PERTH AMBOY 5	402537	742001	15	50 - 80	211ODBG
23-196	PERTH AMBOY WD	PERTH AMBOY 1A	402537	742020	20	201 - 261	211FRNG
23-570	PERTH AMBOY WD	PERTH AMBOY 6	402538	741950	15	60 - 80	211ODBG
23-551	SOUTH RIVER WD	SRWD 6	402548	742155	47	155 - 208	211FRNG
23-434	SOUTH RIVER WD	SRWD 2	402556	742141	20	173 - 198	211FRNG
23-438	SOUTH RIVER WD	SRWD 5	402559	742142	19.7	132 - 182	211FRNG
23-355	SAYREVILLE WD	SWD A	402614	741950	30	72 - 82	211ODBG
23-368	SAYREVILLE WD	SWD I	402626	741936	58	83 - 94	211ODBG
23-371	HERCULES POWDER	HERCULES 5	402638	742022	48	182 - 228	211FRNG
23-376	HERCULES POWDER	HERCULES 3	402649	742025	40.8	180 - 220	211FRNG
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	402700	741454	60	193 - 213	211ODBG
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	402700	741454	60	360 - 395	211FRNG
23-384	HERCULES POWDER	HERCULES 1REBT	402705	742023	54.3	170 - 225	211FRNG
23-403	SAYREVILLE WD	SWD Q-1973	402745	741631	40	78 - 136	211ODBG
23-554	SAYREVILLE WD	SWD S	402745	741645	100	213 - 286	211FRNG
23-557	SOUTH AMBOY WD	SAWD 9A	402820	741629	20	48 - 58	211ODBG
23-411	SOUTH AMBOY WD	SAWD 8	402822	741630	10	209 - 234	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
23-735	PERTH AMBOY WD	RUNYON 8R	8-26-91	12.5	272	4.4	21	42
23-571	PERTH AMBOY WD	PERTH AMBOY 7	8-26-91	12.0	195	4.3	10	16
23-195	PERTH AMBOY WD	PERTH AMBOY 5	8-26-91	13.5	400	5.2	29	88
23-196	PERTH AMBOY WD	PERTH AMBOY 1A	8-26-91	13.0	1,180	5.9	130	370
23-570	PERTH AMBOY WD	PERTH AMBOY 6	8-26-91	12.5	300	4.3	21	46
23-551	SOUTH RIVER WD	SRWD 6	8-29-91	14.0	108	6.7	5.2	12
23-434	SOUTH RIVER WD	SRWD 2	8-29-91	13.0	89	6.5	5.4	11
23-438	SOUTH RIVER WD	SRWD 5	8-29-91	13.0	118	6.5	6.5	17
23-355	SAYREVILLE WD	SWD A	8-30-91	14.0	226	4.2	20	35
23-368	SAYREVILLE WD	SWD I	8-30-91	13.0	490	3.6	11	19
23-371	HERCULES POWDER	HERCULES 5	9- 6-91	12.5	7,970	5.5	1,300	2,700
23-376	HERCULES POWDER	HERCULES 3	9- 6-91	12.5	6,800	5.6	1,000	2,300
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	9- 3-91	12.5	100	5.5	5.0	18
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	9- 3-91	13.5	66	6.3	2.4	2.2
23-384	HERCULES POWDER	HERCULES 1REBT	9- 6-91	13.5	1,720	5.9	170	530
23-403	SAYREVILLE WD	SWD Q-1973	8-30-91	13.0	228	4.2	17	32
23-554	SAYREVILLE WD	SWD S	8-30-91	13.0	70	6.2	2.8	4.1
23-557	SOUTH AMBOY WD	SAWD 9A	8-28-91	13.0	232	5.1	14	33
23-411	SOUTH AMBOY WD	SAWD 8	8-28-91	14.0	98	6.3	2.8	13

Aquifer unit:

211ODBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

MONMOUTH COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
25-552	MANASQUAN WD	MWD 7	400712	740328	20	94 - 112	121CKKD
25-237	MANASQUAN WD	MWD 5	400714	740329	15	97 - 117	121CKKD
25-391	SPRING LK HT WD	SPRING LK HGT4	400928	740211	20	485 - 561	211MLRW
25-018	BELMAR BORO WD	BWD 2 ELEC (10)	401038	740146	20	581*	211EGLS
25-014	AVON WD	AWD 1	401138	740125	28	424 - 504	211MLRW
25-117	HIGHLANDS WD	HWD 4	402401	735920	20	630 - 680	2110DBG
25-714	ATLAN HIGH WD	AHWD 6	402424	740144	80	198 - 248	211EGLS
25-006	ATLAN HIGH WD	AHWD 1	402437	740236	20	519 - 582	2110DBG
25-496	ATLAN HIGH WD	AHWD 4	402441	740233	15	510 - 543	2110DBG
25-282	BAYSHORE SEW AU	BAYSHORE 1	402507	741344	20	245 - 260	2110DBG
25-111	SHORELANDS WC INC	W KEANSBURG 1	402532	740932	59	326 - 366	2110DBG
25-112	SHORELANDS WC INC	W KEANSBURG 2	402537	740933	43.5	312 - 352	2110DBG
25-562	KEYPORT BORO WD	8 PERRY ST	402539	741214	30	500 - 555	211FRNG
25-191	KEANSBURG MUA	KWD 6	402620	740741	10	302 - 362	2110DBG
25-195	KEANSBURG MUA	KWD 5A	402621	740743	15	290 - 350	2110DBG
25-196	KEANSBURG MUA	KWD 3	402628	740744	12	308 - 348	2110DBG
25-453	UNION BEACH WD	UBWD 3 1977	402632	741051	10	480 - 532	211FRNG
25-420	UNION BEACH WD	UBWD 2 1969	402634	741051	10	262 - 289	2110DBG
25-514	INT FLAVOR FRAG	IFF-2R	402641	740911	14	266 - 312	2110DBG
25-320	NATIONAL PARK SERVICE	FT HANCOCK 5A	402705	735959	14	838 - 878	211FRNG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
25-552	MANASQUAN WD	MWD 7	9-24-91	13.5	73	5.3	6.8	13
25-237	MANASQUAN WD	MWD 5	9-24-91	13.5	67	5.7	6.1	12
25-391	SPRING LK HT WD	SPRING LK HGT4	9-20-91	18.0	207	8.0	8.2	5.7
25-018	BELMAR BORO WD	BWD 2 ELEC (10)	9-20-91	18.0	220	8.2	5.3	5.2
25-014	AVON WD	AWD 1	9-20-91	17.0	258	8.0	3.3	7.9
25-117	HIGHLANDS WD	HWD 4	9-11-91	20.0	105	6.5	1.5	1.2
25-714	ATLAN HIGH WD	AHWD 6	9-19-91	13.5	199	7.0	2.6	6.3
25-006	ATLAN HIGH WD	AHWD 1	9-12-91	16.5	100	6.5	1.4	1.5
25-496	ATLAN HIGH WD	AHWD 4	9-12-91	16.5	101	6.5	1.5	1.6
25-282	BAYSHORE SEW AU	BAYSHORE 1	9-17-91	13.0	93	6.0	1.8	2.6
25-111	SHORELANDS WC INC	W KEANSBURG 1	9-11-91	13.5	66	6.2	1.4	1.5
25-112	SHORELANDS WC INC	W KEANSBURG 2	9-11-91	14.0	69	6.2	1.5	1.6
25-562	KEYPORT BORO WD	8 PERRY ST	9-12-91	14.5	70	6.2	2.1	1.7
25-191	KEANSBURG MUA	KWD 6	9-17-91	14.0	278	6.1	6.6	58
25-195	KEANSBURG MUA	KWD 5A	9-17-91	14.0	290	6.2	14	61
25-196	KEANSBURG MUA	KWD 3	9-17-91	14.0	424	6.1	18	110
25-453	UNION BEACH WD	UBWD 3 1977	9-30-91	14.5	81	6.6	2.5	2.5
25-420	UNION BEACH WD	UBWD 2 1969	9-30-91	14.0	8,480	5.8	1,200	2,700
25-514	INT FLAVOR FRAG	IFF-2R	9-18-91	14.0	62	6.1	1.5	1.4
25-320	NATIONAL PARK SERVICE	FT HANCOCK 5A	9-10-91	19.5	122	6.7	4.5	6.3

* - total depth of well (extent of open or screen interval is not known).

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
211MLRW - Wenonah-Mount Laurel aquifer
211EGLS - Englishtown aquifer system
2110DBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

MORRIS COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN INTERVAL (FT.)	AQUIFER UNIT
27-1597	STATE OF NJ - DEP	NJDEP KENNEDY SCHOOL MW	405047	743929	777.3	290.5-345	374LSVL

NJ-WRD WELL NUMBER	DATE	TEMPERATURE WATER (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
27-1597	05-07-91	11.5	123	8.5	53	12	5.7	5.0	0.60

NJ-WRD WELL NUMBER	DATE	BICARBONATE IT-FLD (MG/L AS HCO3)	CARBONATE IT-FLD (MG/L AS CO3)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
27-1597	05-07-91	59	2.0	55	1.6	2.6	<0.10	17	78

NJ-WRD WELL NUMBER	DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
27-1597	05-07-91	<0.010	0.500	0.030	0.20	0.010	0.030	<10	<1

NJ-WRD WELL NUMBER	DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	ZINC, DISSOLVED (UG/L AS ZN)
27-1597	05-07-91	<1.0	<1	<1	10	<1	2	0.2	<3

NJ-WRD WELL NUMBER	DATE	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	BETA, 2 SIGMA WATER, DISS, AS SR90/Y90 (PCI/L
27-1597	05-07-91	0.2	<1	1.0	0.60	<0.6	0.40	0.9	0.50

Aquifer unit:

374LSVL - Leithsville Formation

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

OCEAN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
29-012	BEACH HAVEN WD	BHWD 7	393346	741434	5	572 - 665	122KRKDL
29-111	HARVEY CDRS WD	HCWD 4	394134	740832	9	465 - 500	122KRKDL
29-002	BARNEGAT LT WD	BLWD 3	394522	740636	7	597 - 654	124PNPN
29-613	BERKELEY WC	PINEWALD 1/NEW OW 3	395236	741008	30	194 - 235	121CKKD
29-022	SHORE WATER CO	SWC 1	395422	740458	7	175 - 200	121CKKD
29-023	SHORE WATER CO	SWC 2	395423	740458	7	490 - 527	124PNPN
29-935	SEASIDE PARK WD	EAST-REP (8)	395450	740455	10	474 - 514	124PNPN
29-809	OCEAN GATE BORO WD	OGBWD 4	395527	740826	10	330 - 370	124PNPN
29-1010	BERKELEY WC	LIFETIME 4	395545	741039	40	156 - 216	121CKKD
29-515	PINE BEACH WU	PBWU 1	395558	741013	30	135 - 197	121CKKD
29-537	SEASIDE HGTS WD	SHWD 2	395636	740439	4	400 - 430	124PNPN
29-538	SEASIDE HGTS WD	SHWD 1R	395636	740439	5	144 - 175	121CKKD
29-815	SEASIDE HGTS WD	SHWD 6	395643	740443	7	129 - 149	121CKKD
29-058	TOMS RIVER WC	TRWC 21	395715	741231	10	46 - 56	121CKKD
29-626	TOMS RIVER WC	TRWC 30	395721	741230	9	1,700 - 1,875	211MRPA
29-452	LAVALLETTE WD	LWD 3	395741	740437	7	1,120 - 1,180	211EGLS
29-577	LAVALLETTE WD	LWD 5	395741	740437	7	1,394 - 1,498	211MRPA
29-504	NJ/AMERICAN WATER CO	MANTOLOKING 7	400210	740310	5	1,263 - 1,368	211MRPA
29-006	NJ/AMERICAN WATER CO	BAY HEAD 6	400405	740244	10	778 - 818	211EGLS
29-531	PT PLEASANT WD	PPWD 5	400454	740414	18	1,256 - 1,342	211MRPA
29-532	PT PLEASANT WD	PPWD 3	400459	740359	10	748 - 798	211EGLS
29-579	PT PLEASANT BCH WD	PPBWD 11	400512	740251	5	130 - 143	121CKKD
29-807	PT PLEASANT BCH WD	PPBWD 12	400536	740251	5	108 - 132	121CKKD

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (US/CM)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
29-012	BEACH HAVEN WD	BHWD 7	8- 8-91	17.5	64	6.5	4.6	3.0
29-111	HARVEY CDRS WD	HCWD 4	8- 8-91	16.5	69	6.5	4.5	2.7
29-002	BARNEGAT LT WD	BLWD 3	8- 8-91	19.0	349	8.4	67	5.8
29-613	BERKELEY WC	PINEWALD 1/NEW OW 3	8- 6-91	12.5	51	5.2	4.3	4.6
29-022	SHORE WATER CO	SWC 1	8- 1-91	14.0	55	5.8	5.9	4.5
29-023	SHORE WATER CO	SWC 2	8- 1-91	17.0	295	9.0	62	0.2
29-935	SEASIDE PARK WD	EAST-REP (8)	8- 1-91	16.5	250	8.7	49	0.3
29-809	OCEAN GATE BORO WD	OGBWD 4	8- 6-91	14.0	169	7.5	14	3.6
29-1010	BERKELEY WC	LIFETIME 4	8- 6-91	13.0	64	4.6	3.9	6.5
29-515	PINE BEACH WU	PBWU 1	8- 6-91	12.5	70	4.5	4.5	6.7
29-537	SEASIDE HGTS WD	SHWD 2	8- 1-91	15.5	225	8.9	43	3.6
29-538	SEASIDE HGTS WD	SHWD 1R	8- 1-91	15.5	1,410	6.3	170	360
29-815	SEASIDE HGTS WD	SHWD 6	8- 1-91	14.0	1,210	6.0	140	310
29-058	TOMS RIVER WC	TRWC 21	8- 7-91	14.0	200	5.8	23	38
29-626	TOMS RIVER WC	TRWC 30	8- 7-91	26.5	122	7.4	3.1	0.5
29-452	LAVALLETTE WD	LWD 3	8- 2-91	22.5	349	8.4	70	3.9
29-577	LAVALLETTE WD	LWD 5	8- 2-91	24.5	187	7.6	26	0.2
29-504	NJ/AMERICAN WATER CO	MANTOLOKING 7	8- 2-91	25.0	162	7.4	9.5	1.8
29-006	NJ/AMERICAN WATER CO	BAY HEAD 6	8- 2-91	21.0	208	8.1	12	0.4
29-531	PT PLEASANT WD	PPWD 5	8- 2-91	25.5	145	7.0	3.5	1.6
29-532	PT PLEASANT WD	PPWD 3	8- 2-91	21.0	193	8.0	6.6	0.1
29-579	PT PLEASANT BCH WD	PPBWD 11	8- 7-91	14.0	1,460	6.7	96	400
29-807	PT PLEASANT BCH WD	PPBWD 12	8- 7-91	14.0	1,660	6.5	84	540

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation
124PNPN - Piney Point aquifer
211EGLS - Englishtown aquifer system
211MRPA - Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

SALEM COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
33-032	PUBLIC SERV E-G	PW 3	392740	753201	12	242 - 293	211MLRW
33-364	PUBLIC SERV E-G	PW 5	392743	753158	17	765 - 840	211MRPAM
33-457	PUBLIC SERV E-G	PSEG 6	392751	753207	20	1,115 - 1,135	211MRPA
33-108	US ARMY	FINNS POINT	393641	753322	7	290 - 319	211MRPAM
33-112	PENNSVILLE TWP WD	PTWD 4	393754	753147	10	117 - 137	211MRPAU
33-354	WOODSTOWN WD	WWD 2	393904	751946	45	670 - 705	211MRPAM
33-362	WOODSTOWN WD	WWD 3	393926	751927	60	692 - 712	211MRPAM
33-459	RICHMAN ICE CRM	1A	393928	752147	25	414 - 457	211MRPAM
33-118	PENNSVILLE TWP WD	PTWD 1	393958	753045	8	213 - 238	211MRPAM
33-119	PENNSVILLE TWP WD	PTWD 2	394009	753043	7	210 - 230	211MRPAM
33-122	ATL CITY ELEC	DEEPWATER 3R	394045	753018	10	165 - 235	211MRPAM
33-123	ATL CITY ELEC	DEEPWATER 2	394047	753027	10	154 - 234	211MRPAM
33-125	ATL CITY ELEC	DEEPWATER 5	394051	753030	10	149 - 219	211MRPAM
33-428	PENNS GROVE WSC	PGWSC 2A	394245	752718	19	60*	211MRPAU
33-460	PENNS GROVE WSC	PGWSC 1A/RF2A	394247	752714	19	41 - 61	211MRPAU
33-346	PENNS GROVE WSC	LAYNE 1	394256	752718	19	317 - 357	211MRPAL
33-085	B F GOODRICH CO	6 (PW-2)	394556	752530	10	109 - 129	211MRPAM
33-086	B F GOODRICH CO	4 (PW-3)	394557	752523	13	169 - 189	211MRPAL

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE	WATER TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (UNITS)	SODIUM DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)
33-032	PUBLIC SERV E-G	PW 3	8-15-91	20.0	411	8.2	82	32
33-364	PUBLIC SERV E-G	PW5	8-15-91	20.0	381	7.9	86	23
33-457	PUBLIC SERV E-G	PSEG 6	8-15-91	20.0	858	8.2	170	200
33-108	US ARMY	FINNS POINT	8-14-91	---	540	7.6	110	110
33-112	PENNSVILLE TWP WD	PTWD 4	8-14-91	15.0	168	6.7	9.6	14
33-354	WOODSTOWN WD	WWD 2	8-14-91	17.0	957	8.1	200	180
33-362	WOODSTOWN WD	WWD 3	8-14-91	17.5	840	8.1	190	140
33-459	RICHMAN ICE CRM	1A	8-14-91	15.0	370	8.2	88	15
33-118	PENNSVILLE TWP WD	PTWD 1	8-14-91	14.5	520	6.7	74	120
33-119	PENNSVILLE TWP WD	PTWD 2	8-14-91	14.5	482	7.4	38	70
33-122	ATL CITY ELEC	DEEPWATER 3R	8-14-91	15.0	450	6.9	76	69
33-123	ATL CITY ELEC	DEEPWATER 2	8-14-91	17.0	598	6.7	85	120
33-125	ATL CITY ELEC	DEEPWATER 5	8-14-91	17.0	403	7.0	62	73
33-428	PENNS GROVE WSC	PGWSC 2A	8-14-91	15.0	176	5.3	8.8	15
33-460	PENNS GROVE WSC	PGWSC 1A/RF2A	8-14-91	15.0	228	5.2	8.2	16
33-346	PENNS GROVE WSC	LAYNE 1	8-14-91	16.0	962	7.5	190	220
33-085	B F GOODRICH CO	6 (PW-2)	8-15-91	14.5	405	5.9	28	45
33-086	B F GOODRICH CO	4 (PW-3)	8-15-91	14.0	1,140	6.9	210	260

* - total depth of well (extent of open or screen interval is not known).

Aquifer unit:

211MLRW - Wenonah-Mount Laurel aquifer
211MRPA - Potomac-Raritan-Magothy aquifer system
211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAL - Lower aquifer, Potomac-Raritan-Magothy aquifer system

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

SUSSEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN INTERVAL (FT.)	AQUIFER UNIT
37-002	BOROUGH OF BRANCHVILLE	BRANCHVILLE WD 1	410851	744443	540	54-170	360KTTN
37-004	NATIONAL PARK SERVICE	PETERS VALLEY	411151	745107	535	123-300	344ESPS
37-202	NATIONAL PARK SERVICE	TAYLOR OBS	410914	745304	480	42- 95	351BDVL
37-203	STATE OF NJ	WHITTINGHAM REFUG 19 OBS	410010	744728	648.5	50-500	371ALNN
37-205	STATE OF NJ	SWARTSWOOD PARK 5 OBS	410449	744833	514.1	50-148	371ALNN
37-214	HAMBURG BORO	HAMBURG BORO 3	410914	743423	460	99.5-300	360KTTN
37-215	STATE OF NJ-STOKES STATE FOREST	STOKES FOREST DEPOT	411117	744804	760	85-185	350HGFL
37-216	STATE OF NJ-STOKES STATE FOREST	STOKES FOREST CABIN 16	411400	744530	860	21.3-130	350HGFL
37-217	PARIS MANAGEMENT	HIGH POINT RESIDENCE DOM	411827	744017	1520	50-180	361MRBG
37-218	STILLWATER WD	STILLWATER WD	410347	744843	585	699*	371ALNN
37-219	D ANGELI, LOU AND DEBBIE	D ANGELI DOM	410654	743959	585	50-173	371ALNN
37-220	D ANGELO, THOMAS A	D ANGELO DOM	410713	743937	565	50-102	371ALNN
37-221	SUSSEX COUNTY-BD OF FREEHOLDERS	SUSSEX COUNTY GARAGE	411202	743740	440	42-147	361MRBG

NJ-WRD WELL NUMBER	DATE	TEMPERATURE WATER (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)
37-002	05-09-91	11.0	878	7.3	390	81	46	22	1.7	365
37-004	04-24-91	11.0	1010	7.0	470	99	54	38	1.7	498
37-202	05-15-91	10.5	588	7.1	300	65	34	5.5	0.60	325
37-203	09-10-91	9.5	--	--	--	--	--	--	--	293
37-205	09-09-91	11.0	512	7.3	270	70	24	10	1.1	214
37-214	04-17-91	10.5	509	6.6	170	50	12	31	1.7	154
37-215	04-16-91	11.5	552	7.4	280	64	30	6.3	1.3	293
37-216	09-18-91	10.5	459	7.3	270	92	9.1	1.5	0.50	290
37-217	03-22-91	10.0	86	7.2	46	10	5.2	1.9	0.60	56
	05-29-91	--	--	--	--	--	--	--	--	--
37-218	09-20-91	11.5	371	7.7	180	43	17	3.7	0.70	190
37-219	09-10-91	12.5	273	7.8	120	40	5.5	5.2	0.50	107
37-220	04-04-91	10.5	322	7.6	140	38	11	15	0.90	196
37-221	04-25-91	10.0	476	7.2	190	50	15	21	2.7	181

NJ-WRD WELL NUMBER	DATE	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
37-002	05-09-91	299	44	78	<0.10	6.5	459	<0.010	0.072	<0.010	<0.20
37-004	04-24-91	412	47	69	<0.10	6.6	563	0.060	0.530	0.010	<0.20
37-202	05-15-91	265	14	11	<0.10	5.8	297	<0.010	0.390	0.010	0.30
37-203	09-10-91	240	18	5.2	0.20	5.3	--	<0.010	2.60	<0.010	0.20
37-205	09-09-91	175	71	22	0.10	8.4	314	<0.010	0.085	0.180	0.40
37-214	04-17-91	126	28	53	<0.10	9.0	282	<0.010	4.90	<0.010	0.20
37-215	04-16-91	240	23	13	<0.10	11	305	<0.010	2.70	<0.010	0.40
37-216	09-18-91	236	27	7.8	0.10	4.9	286	<0.010	0.084	<0.010	<0.20
37-217	03-22-91	46	6.9	1.6	<0.10	7.2	61	<0.010	<0.050	<0.010	<0.20
	05-29-91	--	--	--	--	--	--	--	--	--	--
37-218	09-20-91	155	41	2.5	0.30	9.2	211	<0.010	<0.050	<0.010	<0.20
37-219	09-10-91	88	30	4.4	0.10	11	150	0.020	0.180	0.010	<0.20
37-220	04-04-91	162	5.7	2.6	0.10	9.4	179	<0.010	<0.050	<0.010	<0.20
37-221	04-25-91	148	12	54	0.10	9.7	254	<0.010	<0.050	0.140	0.20

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--Continued

SUSSEX COUNTY--Continued

NJ-WRD WELL NUMBER	DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
37-002	05-09-91	<0.010	<0.010	<10	<1	<1.0	<1	1	5	<1	5
37-004	04-24-91	<0.010	<0.010	<10	<1	<1.0	<1	1	9	<1	3
37-202	05-15-91	<0.010	<0.010	<10	<1	<1.0	<1	2	<3	<1	<1
37-203	09-10-91	<0.010	<0.010	<10	<1	<1.0	<1	--	--	<1	<1
37-205	09-09-91	0.020	<0.010	<10	2	<1.0	<1	<1	870	<1	250
37-214	04-17-91	<0.010	<0.010	10	<1	<1.0	<1	6	4	1	<1
37-215	04-16-91	0.020	<0.010	10	<1	<1.0	<1	4	<3	2	<1
37-216	09-18-91	<0.010	0.020	<10	<1	<1.0	<1	3	8	<1	<1
37-217	03-22-91	0.070	0.070	<10	<1	<1.0	<1	1	5	<1	<1
	05-29-91	--	--	--	--	--	--	--	--	--	--
37-218	09-20-91	<0.010	<0.010	<10	<1	<1.0	<1	<1	6	<1	2
37-219	09-10-91	<0.010	<0.010	<10	<1	<1.0	<1	<1	15	<1	5
37-220	04-04-91	0.030	0.040	<10	<1	1.0	<1	2	<3	<1	1
37-221	04-25-91	0.010	<0.010	<10	<1	<1.0	<1	2	92	<1	160

NJ-WRD WELL NUMBER	DATE	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)
37-002	05-09-91	<0.1	7	0.4	1	--	--	--	--	--	--
37-004	04-24-91	<0.1	34	0.7	1	--	--	--	--	--	--
37-202	05-15-91	<0.1	3	0.6	1	--	--	--	--	--	--
37-203	09-10-91	<0.1	<3	0.9	2	--	--	--	--	--	--
37-205	09-09-91	<0.1	<3	1.8	1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
37-214	04-17-91	1.0	9	0.7	<1	--	--	--	--	--	--
37-215	04-16-91	<0.1	5	0.5	<1	--	--	--	--	--	--
37-216	09-18-91	<0.1	7	0.5	1	--	--	--	--	--	--
37-217	03-22-91	0.1	<3	0.4	<1	--	--	--	--	--	--
	05-29-91	<0.1	--	--	--	--	--	--	--	--	--
37-218	09-20-91	<0.1	11	0.2	1	--	--	--	--	--	--
37-219	09-10-91	<0.1	24	0.5	2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
37-220	04-04-91	<0.1	88	0.3	<1	--	--	--	--	--	--
37-221	04-25-91	0.2	7	0.5	<1	--	--	--	--	--	--

NJ-WRD WELL NUMBER	DATE	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)
37-002	05-09-91	--	--	--	--	--	--	--	--	--
37-004	04-24-91	--	--	--	--	--	--	--	--	--
37-202	05-15-91	--	--	--	--	--	--	--	--	--
37-203	09-10-91	--	--	--	--	--	--	--	--	--
37-205	09-09-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
37-214	04-17-91	--	--	--	--	--	--	--	--	--
37-215	04-16-91	--	--	--	--	--	--	--	--	--
37-216	09-18-91	--	--	--	--	--	--	--	--	--
37-217	03-22-91	--	--	--	--	--	--	--	--	--
	05-29-91	--	--	--	--	--	--	--	--	--
37-218	09-20-91	--	--	--	--	--	--	--	--	--
37-219	09-10-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
37-220	04-04-91	--	--	--	--	--	--	--	--	--
37-221	04-25-91	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--Continued

SUSSEX COUNTY--Continued

NJ-WRD WELL NUMBER	DATE	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)
37-002	05-09-91	--	--	--	--	--	--	--	--	--
37-004	04-24-91	--	--	--	--	--	--	--	--	--
37-202	05-15-91	--	--	--	--	--	--	--	--	--
37-203	09-10-91	--	--	--	--	--	--	--	--	--
37-205	09-09-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
37-214	04-17-91	--	--	--	--	--	--	--	--	--
37-215	04-16-91	--	--	--	--	--	--	--	--	--
37-216	09-18-91	--	--	--	--	--	--	--	--	--
37-217	03-22-91	--	--	--	--	--	--	--	--	--
	05-29-91	--	--	--	--	--	--	--	--	--
37-218	09-20-91	--	--	--	--	--	--	--	--	--
37-219	09-10-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
37-220	04-04-91	--	--	--	--	--	--	--	--	--
37-221	04-25-91	--	--	--	--	--	--	--	--	--

NJ-WRD WELL NUMBER	DATE	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)
37-002	05-09-91	--	--	--	--	--	--	--	--	--
37-004	04-24-91	--	--	--	--	--	--	--	--	--
37-202	05-15-91	--	--	--	--	--	--	--	--	--
37-203	09-10-91	--	--	--	--	--	--	--	--	--
37-205	09-09-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2
37-214	04-17-91	--	--	--	--	--	--	--	--	--
37-215	04-16-91	--	--	--	--	--	--	--	--	--
37-216	09-18-91	--	--	--	--	--	--	--	--	--
37-217	03-22-91	--	--	--	--	--	--	--	--	--
	05-29-91	--	--	--	--	--	--	--	--	--
37-218	09-20-91	--	--	--	--	--	--	--	--	--
37-219	09-10-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2
37-220	04-04-91	--	--	--	--	--	--	--	--	--
37-221	04-25-91	--	--	--	--	--	--	--	--	--

NJ-WRD WELL NUMBER	DATE	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L
37-002	05-09-91	--	--	--	2.9	1.5	3.6	2.5	2.1	1.2
37-004	04-24-91	--	--	--	5.3	2.0	4.4	3.1	4.1	1.5
37-202	05-15-91	--	--	--	1.4	0.90	1.5	1.3	1.0	0.70
37-203	09-10-91	--	--	--	<0.6	0.60	0.8	1.1	<0.6	0.40
37-205	09-09-91	<0.2	<0.2	<0.2	2.1	1.1	1.2	1.5	1.6	0.80
37-214	04-17-91	--	--	--	1.7	0.80	<0.6	0.70	1.2	0.60
37-215	04-16-91	--	--	--	2.9	1.0	1.6	1.4	2.2	0.80
37-216	09-18-91	--	--	--	0.8	0.80	0.7	1.2	<0.6	0.60
37-217	03-22-91	--	--	--	1.9	0.70	1.3	0.70	1.7	0.60
	05-29-91	--	--	--	--	--	--	--	--	--
37-218	09-20-91	--	--	--	1.2	0.70	2.8	1.7	0.9	0.50
37-219	09-10-91	<0.2	<0.2	<0.2	1.1	0.60	1.0	0.90	0.9	0.50
37-220	04-04-91	--	--	--	2.2	1.0	1.7	1.3	1.6	0.80
37-221	04-25-91	--	--	--	2.9	1.0	0.9	1.2	2.1	0.70

* - total depth of well (extent of open or screen interval is not known).

Aquifer unit:

344ESPS - Esopus Formation
350HGFL - High Falls Formation
351BDVL - Bossardville Limestone
360KTTN - Kittatinny Limestone
361MRBG - Martinsburg Shale
371ALNN - Allentown Dolomite

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WARREN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN INTERVAL (FT.)	AQUIFER UNIT
41-001	BLAIRSTOWN TWP WD	BLAIR 2	405835	745638	355	318*	361MRBG
41-021	NJ/AMERICAN WATER CO	WASHINGTON 5	404519	745736	460	152-407	360KTTN
41-233	FRELINGHUYSEN TWP SCHOOL	FRELINGHUYSEN TWP SCH	405919	745206	840	20-153	361MRBG
41-247	BOROUGH OF ALPHA	ALPHA WD 2	404008	750927	320	37.5-230	367EPLR
41-254	STATE OF NJ-DEPT OF CONSERVATION	WORTHINGTON ST FOREST 1	410017	750615	290	61-100	350HGFL
41-255	STATE OF NJ-DOT	NJDOT 8A/ WARREN CTY 1	405539	750225	662	50-310	361MRBG
41-256	PRINCETON UNIVERSITY-DEVELOPMENTAL CTR	DEV CTR AT BASS LAKE 3	410125	745707	765	50-300	361MRBG

NJ-WRD WELL NUMBER	DATE	TEMPERATURE WATER (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)
41-001	09-25-91	12.0	486	7.7	210	49	21	20	1.8	177
41-021	09-30-91	11.5	410	7.6	200	41	23	7.5	1.4	210
41-233	09-26-91	12.5	975	7.7	340	95	24	57	0.80	190
41-247	04-11-91	11.5	519	7.2	340	83	33	22	2.9	283
41-254	09-09-91	13.0	1150	7.3	400	110	30	110	1.9	315
41-255	03-15-91	10.0	178	8.6	99	23	10	1.9	0.40	105
41-256	09-30-91	11.0	314	6.5	150	51	5.3	5.3	0.50	127

NJ-WRD WELL NUMBER	DATE	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
41-001	09-25-91	146	31	36	<0.10	11	264	0.030	1.50	0.090	0.50
41-021	09-30-91	172	13	15	<0.10	14	243	<0.010	5.60	0.020	<0.20
41-233	09-26-91	156	120	150	0.10	12	561	0.110	1.90	0.020	<0.20
41-247	04-11-91	232	44	83	<0.10	15	423	<0.010	<0.050	0.220	0.30
41-254	09-09-91	257	38	250	0.20	10	713	<0.010	1.70	<0.010	0.40
41-255	03-15-91	85	12	4.0	<0.10	7.0	114	<0.010	0.900	0.020	<0.20
41-256	09-30-91	108	27	8.5	<0.10	14	177	<0.010	0.570	<0.010	<0.20

NJ-WRD WELL NUMBER	DATE	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)
41-001	09-25-91	0.180	0.170	<10	<1	<1.0	<1	<1	3	<1	<1
41-021	09-30-91	0.040	<0.010	--	<1	<1.0	<1	13	<3	1	<1
41-233	09-26-91	<0.010	<0.010	10	<1	<1.0	<1	<1	14	<1	78
41-247	04-11-91	0.010	<0.010	<10	<1	<1.0	<1	1	180	1	430
41-254	09-09-91	<0.010	<0.010	<10	<1	<1.0	<1	3	6	<1	2
41-255	03-15-91	0.020	0.010	<10	<1	<1.0	<1	2	4	<1	<1
41-256	09-30-91	0.020	<0.010	--	<1	<1.0	<1	12	<3	<1	<1

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--Continued

WARREN COUNTY--Continued

NJ-WRD WELL NUMBER	DATE	MERCURY DIS-SOLVED (UG/L AS HG)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)
41-001	09-25-91	<0.1	12	0.3	1	--	--	--	--	--	--
41-021	09-30-91	0.2	<3	0.3	<1	--	--	--	--	--	--
41-233	09-26-91	0.2	39	0.5	<1	--	--	--	--	--	--
41-247	04-11-91	<0.1	35	0.4	<1	--	--	--	--	--	--
41-254	09-09-91	<0.1	6	1.5	1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
41-255	03-15-91	<0.1	6	0.3	<1	--	--	--	--	--	--
41-256	09-30-91	<0.1	160	0.4	<1	--	--	--	--	--	--

NJ-WRD WELL NUMBER	DATE	TOLUENE TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)
41-001	09-25-91	--	--	--	--	--	--	--	--	--
41-021	09-30-91	--	--	--	--	--	--	--	--	--
41-233	09-26-91	--	--	--	--	--	--	--	--	--
41-247	04-11-91	--	--	--	--	--	--	--	--	--
41-254	09-09-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
41-255	03-15-91	--	--	--	--	--	--	--	--	--
41-256	09-30-91	--	--	--	--	--	--	--	--	--

NJ-WRD WELL NUMBER	DATE	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)
41-001	09-25-91	--	--	--	--	--	--	--	--	--
41-021	09-30-91	--	--	--	--	--	--	--	--	--
41-233	09-26-91	--	--	--	--	--	--	--	--	--
41-247	04-11-91	--	--	--	--	--	--	--	--	--
41-254	09-09-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
41-255	03-15-91	--	--	--	--	--	--	--	--	--
41-256	09-30-91	--	--	--	--	--	--	--	--	--

NJ-WRD WELL NUMBER	DATE	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)
41-001	09-25-91	--	--	--	--	--	--	--	--	--
41-021	09-30-91	--	--	--	--	--	--	--	--	--
41-233	09-26-91	--	--	--	--	--	--	--	--	--
41-247	04-11-91	--	--	--	--	--	--	--	--	--
41-254	09-09-91	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2
41-255	03-15-91	--	--	--	--	--	--	--	--	--
41-256	09-30-91	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--Continued

WARREN COUNTY--Continued

NJ-WRD WELL NUMBER	DATE	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	BETA, 2 SIGMA WATER, DISS, AS SR90/Y90 (PCI/L
41-001	09-25-91	--	--	--	1.9	0.90	1.5	1.5	1.4	0.70
41-021	09-30-91	--	--	--	1.8	0.80	1.2	1.1	1.3	0.60
41-233	09-26-91	--	--	--	3.9	1.6	8.4	4.9	2.9	1.2
41-247	04-11-91	--	--	--	2.4	1.3	3.2	2.4	1.7	0.90
41-254	09-09-91	<0.2	<0.2	<0.2	4.6	2.3	<0.6	1.8	3.5	1.8
41-255	03-15-91	--	--	--	0.8	0.60	<0.6	0.60	0.6	0.50
41-256	09-30-91	--	--	--	2.2	0.90	3.4	1.8	1.7	0.60

* - total depth of well (extent of open or screen interval is not known).

Aquifer units:

350HGFL - High Falls Formation
360KTTN - Kittatinny Limestone
361MRBG - Martinsburg Shale
367EPLR - Epler Formation

October 1, 1978

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

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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