Water Resources Data New Jersey Water Year 1990

Volume 2. Ground-Water Data

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-90-2

Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies

CALENDAR FOR WATER YEAR 1990

1989

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
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31						

1990

JANUARY

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MAY

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JULY

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SEPTEMBER

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30						

United States Department of the Interior

GEOLOGICAL SURVEY
Water Resources Division
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628

I am pleased to announce the release of our Annual report "Water Resources Data for New Jersey, Water Year 1990". This report was prepared by the U.S. Geological Survey, in cooperation with the State of New Jersey as well as local and federal government agencies.

This report is being published again in two volumes but the organization of data in the two volumes has changed considerably.

Volume 1.--Surface-water data.
Volume 2.--Ground-water data.

Volume 1 contains all records for surface water in the State and includes stream discharge and surface-water-quality measurements, elevations of lakes and reservoirs, major surface-water diversions and tidal elevations. Special sections are devoted to low-flow and crest-stage data as well as to summaries of tidal-crest elevations in the New Jersey estuaries and intracoastal waterways.

Streamflow data in Volume 1 again are presented in the format that was introduced in the 1988 report. The format includes extensive tabular presentations of streamflow statistics. Also, station numbers are included in the table of contents, and tables of discontinued surface-water and surface-water-quality stations are presented. Beginning this year, a list of discontinued low-flow partial-record sites has been added.

Volume 2 has been expanded to include data and hydrographs of most continuous record wells operated by the U.S. Geological Survey throughout the State. In addition, instantaneous water-level measurements are presented with the secondary observation wells. A table of discontinued ground-water-level sites for which data are available is included. The New Jersey District well numbers are included in the table of contents to facilitate cross referencing.

Copies of this report in paper or microfiche are for sale through the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161. When ordering, refer to U.S. Geological Survey Water-Data Report NJ-90-1 (for Volume 1) and NJ-90-2 (for Volume 2). For further information on this report, or to change or remove your address from our mailing list, please contact me at the above address or telephone (609) 771-3900.

Sincerely,

William R. Bauersfeld

William R. Bauersfeld, Chief
Hydrologic Data Assessment Program

Water Resources Data New Jersey Water Year 1990

Volume 2. Ground-Water Data

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

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NJ-90-2
Prepared in cooperation with the New Jersey
Department of Environmental Protection
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in New Jersey write to

District Chief, Water Resources Division
U.S. Geological Survey
Mountain View Office Park
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1991

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.

Jacob Gibs George M. Farlekas Edward W. Moshinsky Deloris W. Speight

M.D. Morgan word processed the text of the report, and G.L. Simpson drafted the illustrations.

The data were collected, computed, and processed by the following personnel:

G.L. Centinaro	J.F. Dudek	D.S. Kauffman
R.S. Cole	C.E. Gurney	T.J. Reed
M.J. DeLuca	J.D. Joyner	A.J. Velnich

This report was prepared in cooperation with the State of New Jersey and with other agencies under the general supervision of Janice R. Ward, Associate District Chief for Hydrologic Data Assessment and Information Management; Donald E. Vaupel, District Chief, New Jersey; and Stanley P. Sauer, Regional Hydrologist, Northeastern Region.

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Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies.

16. Abstract (Limit: 200 words)
Water Resources data for the 1990 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. This volume of the report contains ground water levels for 218 observation wells and water-quality data for 176 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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WATER RESOURCES DATA - NEW JERSEY, 1990

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 176 wells and water levels at 218 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 format was changed to include all surface water and surface-water quality in Volume 1 and all ground-water-level and ground-water quality 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 Books and Open-file Reports Section, Federal Center, Building 4, Box 25425, Denver, CO, 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NJ-90-2." 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.

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.

COOPERATION

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

New Jersey Department of Environmental Protection, Scott A. Weiner, Commissioner.
Division of Water Resources, Leroy T. Cattaneo, Acting Director.
County of Gloucester, Robert V. Scolpino, Director of Planning.
Pinelands Commission, Terrance D. Moore, Executive Director.
Washington Township Municipal Utilities Authority, Paul R. DeCosta, Superintendent.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Streamflow for the 1990 water year was above normal throughout the State. The year began with above-normal streamflow, which decreased to about or below normal from December through March, and then returned to above normal for the rest of the year. Precipitation ranged from 52.08 inches, 123 percent of the 30-year (1951-80) mean, at Newark to 36.81 inches, 87.8 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 for the year and, at many sites, water levels were above spillway elevations from March through June (see figure 2).

Water year 1990 began with above-normal streamflow. In October, precipitation was extremely high, ranging from 6.4 inches (206 percent of normal) in the northern part of the State to 4.5 inches (146 percent of normal) in the southern part. About 70 percent of the monthly precipitation fell during October 18-21. Peak discharges for the year were recorded at most sites during this period. Monthly streamflow for October averaged about 115 percent of normal. Above-normal streamflow continued through November. Streamflow decreased to below normal in December as a result of a period of severe cold weather. From December 15 through December 28, temperatures did not rise above freezing. Streamflow showed a sharp increase in January as temperatures began to rise, and precipitation was above normal. Streamflow remained near normal in January, but declined significantly in February and March. In April and May, streamflow increased significantly as a result of above-normal precipitation. May precipitation ranged from 226 percent of normal in the central part of the State to 186 percent of normal in the southern part. Streamflow remained above normal from May through August. By the end of the water year, streamflow was about normal. No significant flooding occurred in the State during the year. Some local flooding was reported on Weasel Brook in Clifton and in some of the urbanized areas in the northeastern part of the State.

Streamflow at the index station for northern New Jersey (South Branch Raritan River at High Bridge) averaged 144 ft^3/s for the water year; this flow is 117 percent of the 1918-90 average. Streamflow at the index station for southern New Jersey (Great Egg Harbor River at Folsom) averaged 94.5 ft^3/s for the water year; this flow is 109 percent of the 1926-90 average. The observed annual mean discharge of the Delaware River at Trenton was 12,600 ft^3/s, which is 108 percent of the 1913-90 mean. The Delaware River is highly regulated by reservoirs and diversions. The natural flow at Trenton (adjusted for upstream storage and diversion) was 116 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 increased from 67.9 billion gallons (87.6 percent of capacity) on October 1, 1989, to 68.6 billion gallons (88.6 percent of capacity) on September 30, 1990. Storage in Wanaque Reservoir decreased from 24.2 billion gallons (81.6 percent of capacity) on October 1, 1989, to 22.0 billion gallons (74.2 percent of capacity) on September 30, 1990. Pumped storage in Round Valley Reservoir, the largest capacity reservoir in the State, decreased from 53.4 billion gallons (97.1 percent of capacity) on October 1, 1989, to 50.8 billion gallons (92.4 percent of capacity) on September 30, 1990.

Water Quality

Above-normal precipitation during October, November, and May increased dilution of dissolved solids for those months in streams throughout the State. For the entire year, however, concentrations of dissolved solids were about normal. 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 1990 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 1990; and specific conductance values for 1989 and the mean for 1981-89 are shown in figure 5. Below-average values are apparent for October, November, and May. Above-average values for December are related to decreased streamflow, and possibly to the earlier than usual use of road salt.

Polychlorinated biphenyls (PCB's) and a number of pesticides commonly are detected in New Jersey streams. Table 1 summarizes the frequency of detection of these compounds in bottom sediments for 1976-90. Detection limits during this period were 1.0 µg/kg (micrograms per kilogram) for polychlorinated naphthalenes (PCN's), chlordane, and PCB's; 1.0 to 10 µg/kg for toxaphene; and 0.1 µg/kg for the other compounds. The number of sites at which samples were collected ranged from 13 to 35 per year, with a median of 27 per year. Sites sampled more than once in a year were counted only once. 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 1976-90. 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 µg/kg--a level selected to include the highest 15 to 20 percent of values measured nationwide (Cragwall, J.S., 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 µg/kg was measured in only three samples during this period. Figure 7 shows the locations of water-quality stations sampled during the 1990 water year at which the concentration of at least one of these compounds exceeded 20 µg/kg.

The U.S. Geological Survey maintains a saltwater-monitoring network in the Coastal Plain of New Jersey to document and evaluate the intrusion of saline water into freshwater aquifers that serve as sources of water supply. During the 1990 water year, 154 samples were collected from 152 wells in 8 counties. The results of the analysis of these samples are presented in the ground-water-quality tables.

Ground-Water Levels

Changes in ground-water levels during the 1990 water year were determined from a statewide network of observation wells. Ground-water levels in many water-table observation wells remained above average throughout the

year. Water levels in a few observation wells that tap the heavily pumped confined aquifers of the Coastal Plain continued to undergo long-term net declines.

Monthly water levels in two water-table observation wells in 1990, and monthly extremes and long-term averages are shown in figure 8. The wells are the Bird well (NJ-WRD well number 19-0002) in Hunterdon County and the Crammer well (NJ-WRD well number 29-0486) in Ocean County. For further comparison, 20-year water-level hydrographs of two Coastal Plain wells, one water-table well (NJ-WRD well number 05-0689), and one artesian well (NJ-WRD well number 07-0413) are presented in figure 9. In addition, multiyear hydrographs are provided with the 1990 water year water-level data for most of the wells included in this report.

At the beginning of the 1990 water year, water levels in many water-table aquifers in the Coastal Plain were near their highest levels since 1985. Levels remained relatively constant until June, when some water levels began to decline. This decline continued through the rest of the water year.

Water levels in a few of the observation wells screened in the heavily pumped confined Coastal Plain aquifers continued to undergo long-term net declines. New lows of record were set in five Coastal Plain artesian observation wells. The greatest water-level decline in the 1990 water year occurred in the Wenonah-Mount Laurel aquifer at the New Brooklyn Park 3 observation well (NJ-WRD well number 07-0478), where the previous record low was exceeded by 1.53 feet. The water level in this well has declined 25.2 feet since April 1983. Other aquifers in which previous lows of record were exceeded include the Potomac-Raritan-Magothy aquifer system and the Piney Point aquifer.

In many of the observation wells in the confined aquifers, water levels changed little during the water year. Water levels in a few of these wells have increased and appear to have reversed their long-term declines, because withdrawals of ground water were replaced with surface water in parts of Middlesex and Monmouth Counties and because ground-water withdrawals from the shallow confined aquifers and the water-table aquifer increased.

Table 1.--Frequency of detection of organochlorine and organophosphorus compounds in bottom materials of New Jersey streams, for water years 1976-90

COMPOUND	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Organochlorine compounds															
Chlordane	●	⊖	⊖	●	●	◒	◒	◒	◒	◒	◒	⊖	●	◒	●
DDD	●	⊖	◒	●	●	●	◒	●	◒	◒	◒	●	●	●	●
DDE	●		◒	◒	◒	◒	●	⊖	◒	◒	◒	●	◒	◒	●
DDT	●	⊖	◒	◒	◒	●	◒	◒	◒	◒	⊖	●	⊖	⊖	●
PCB	◒	⊖	◒	◒	●	◒	●	◒	◒	◒	⊖	◒	◒	⊖	◒
Dieldrin	●	⊖	⊖	◒	◒	◒	◒	⊖	⊖	⊖	◒	⊖	⊖	◒	◒
Endosulfane		○		○	○	○	○	○	○	○	○	⊖	○	○	○
Heptachlor epoxide	○	○	○	○	○	○	○	○	○	○	⊖	⊖	⊖	⊖	○
Aldrin, Lindane, Endrin, Toxaphene, Heptachlor	○	○	○	○	○	○	○	○	○	○	○	○	⊖	○	○
Perthane														○	○
PCN			○	○	○	○	○	○	○	○	○	○	○	○	○
Mirex					○	○	○	○	○	○	○	○	○	○	○
Organophosphorus compounds															
Methoxychlor, Malathion, Parathion, Diazanon, Methyl parathion, Ethyl trithion, Methyl trithion, Ethion			○	○	○	○	○	○	○	○	○	○	⊖	⊖	⊖

Frequency (rounded to nearest whole number): ○ (0 - 25%), ⊖ (26 - 50%), ◒ (51 - 75%), ● (76 - 100%)

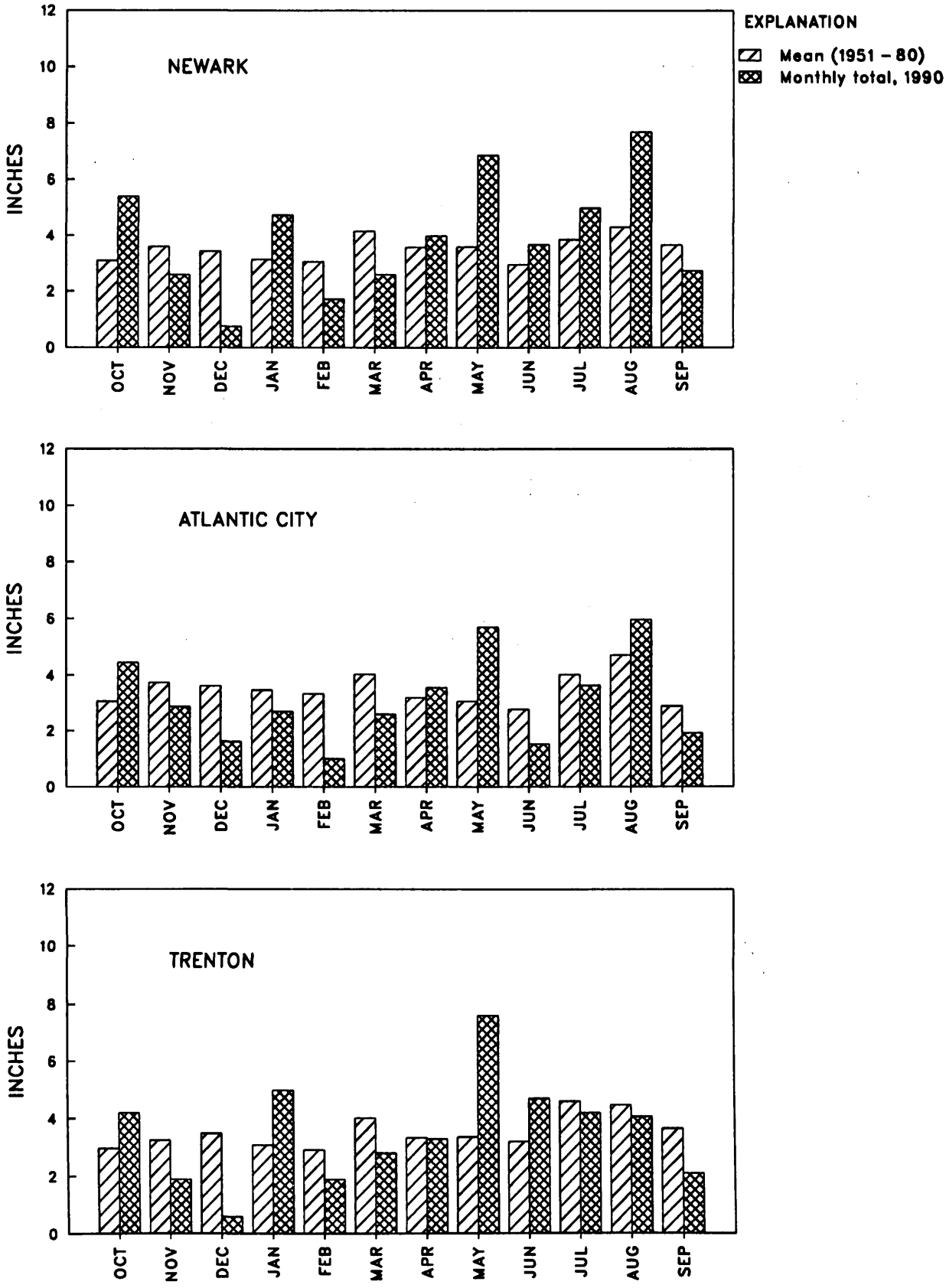
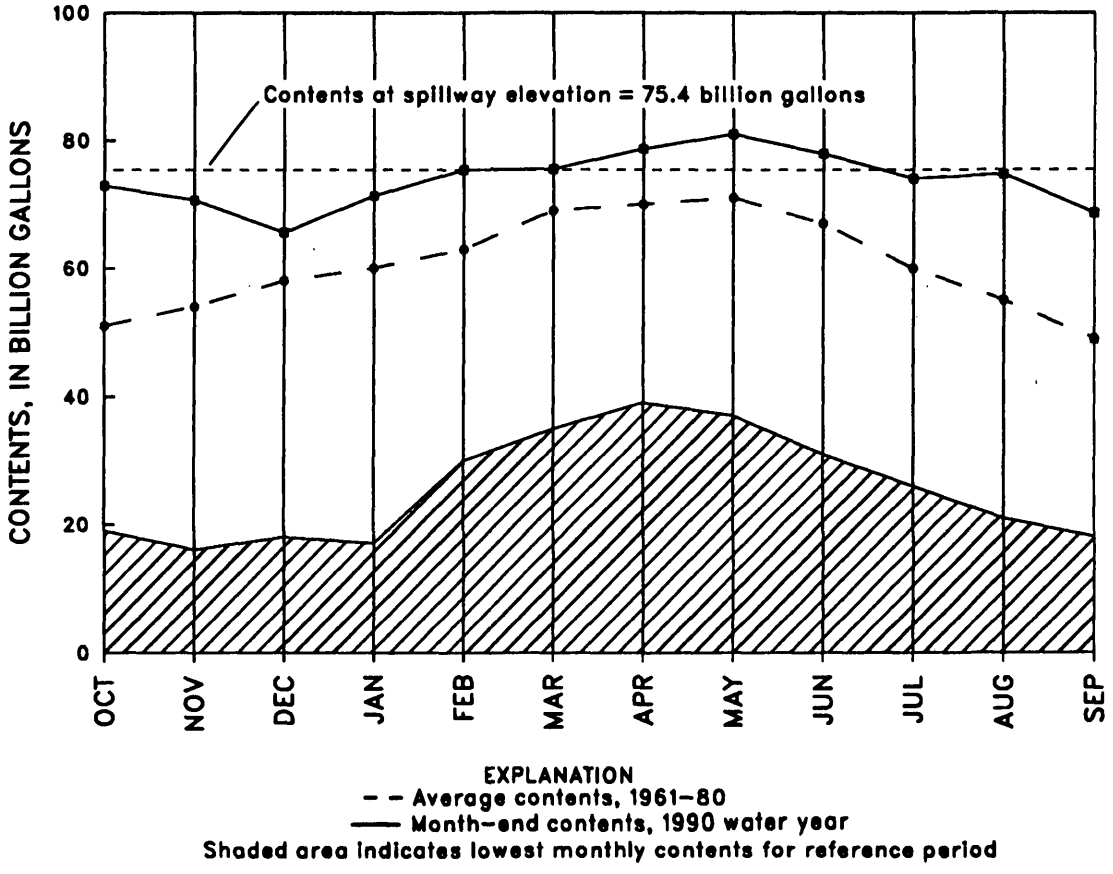
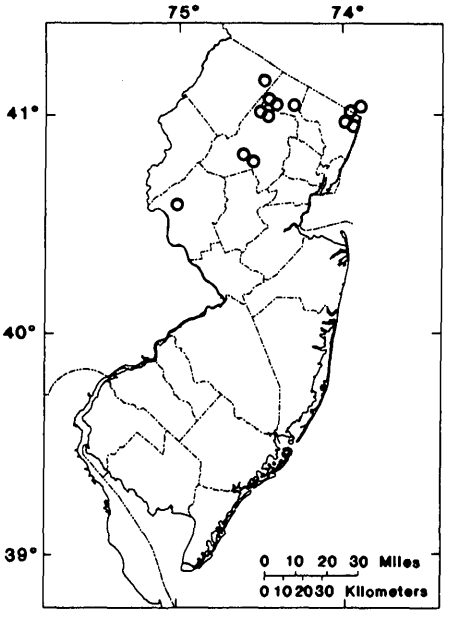


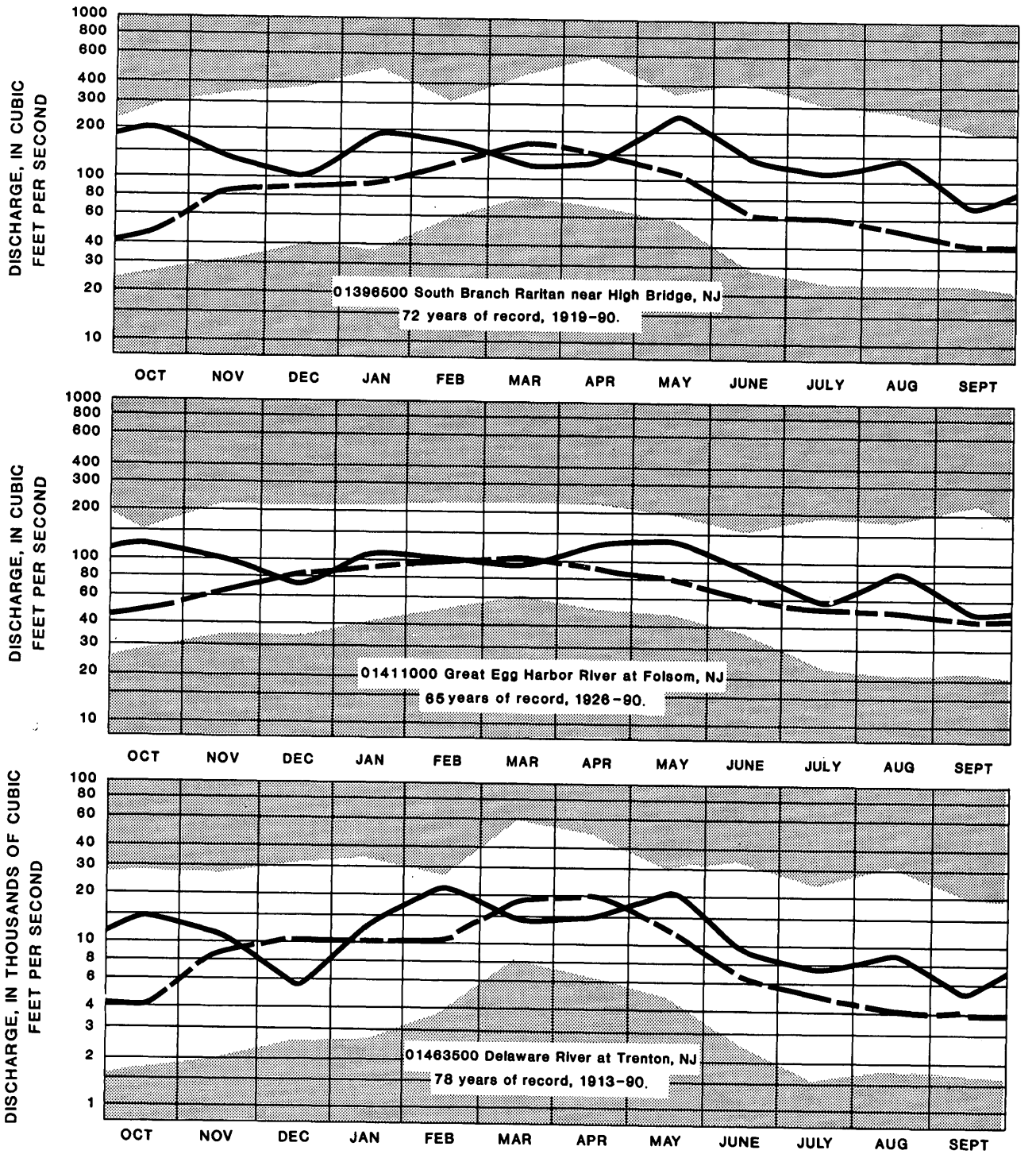
Figure 1.--Monthly precipitation at three National Weather Service locations.





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 1990 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 1990 water year.

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

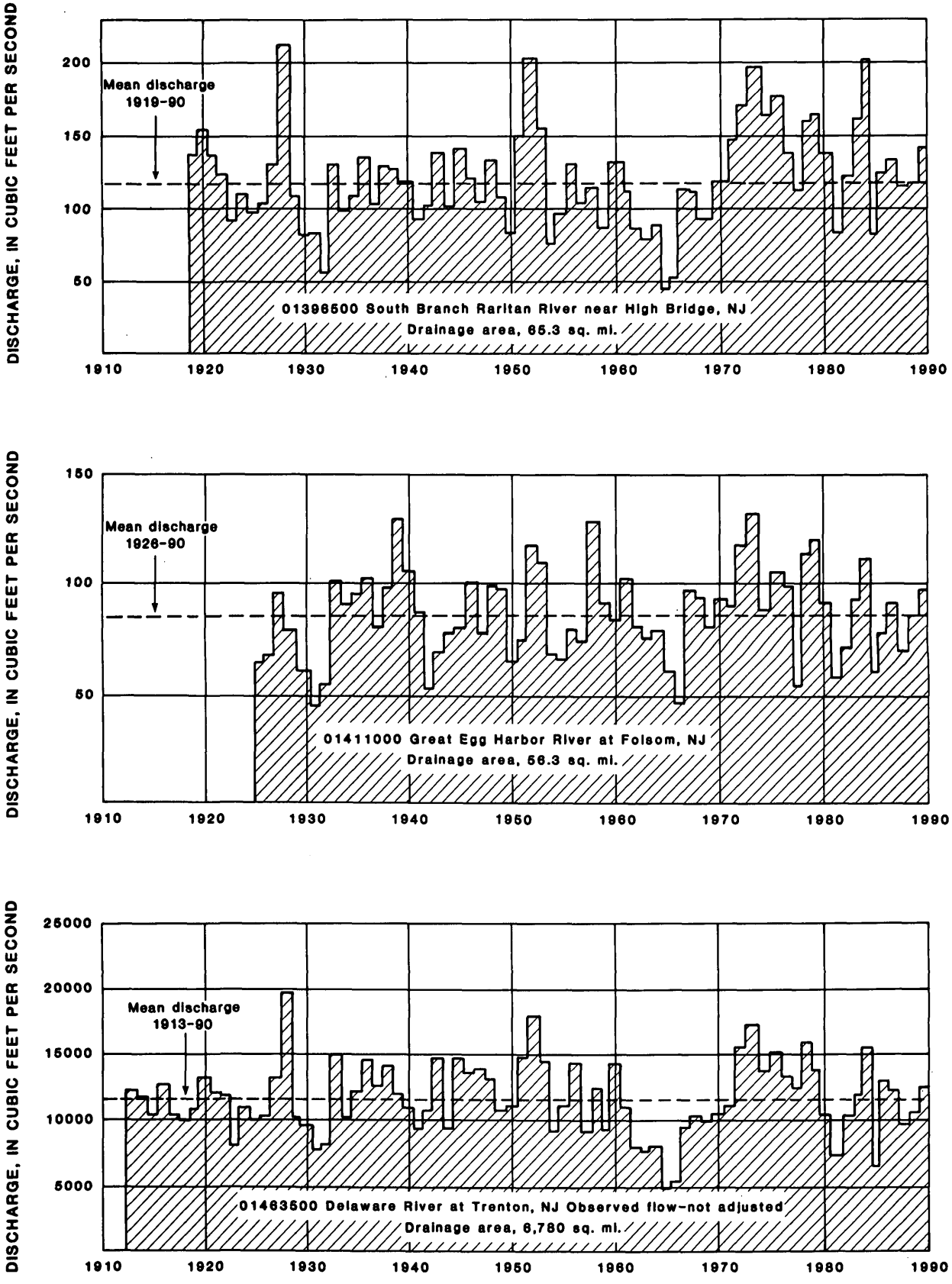


Figure 4.--Annual mean discharge at index gaging stations.

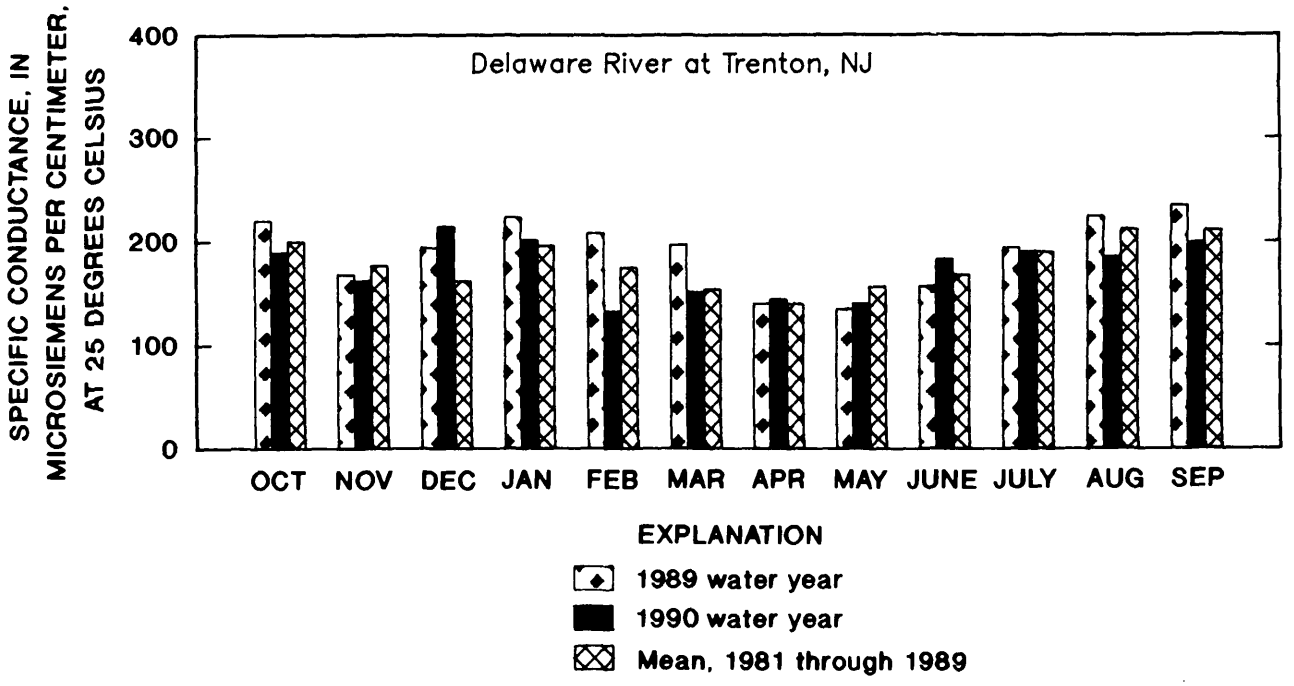


Figure 5.--Monthly mean specific conductance at Delaware River at Trenton.

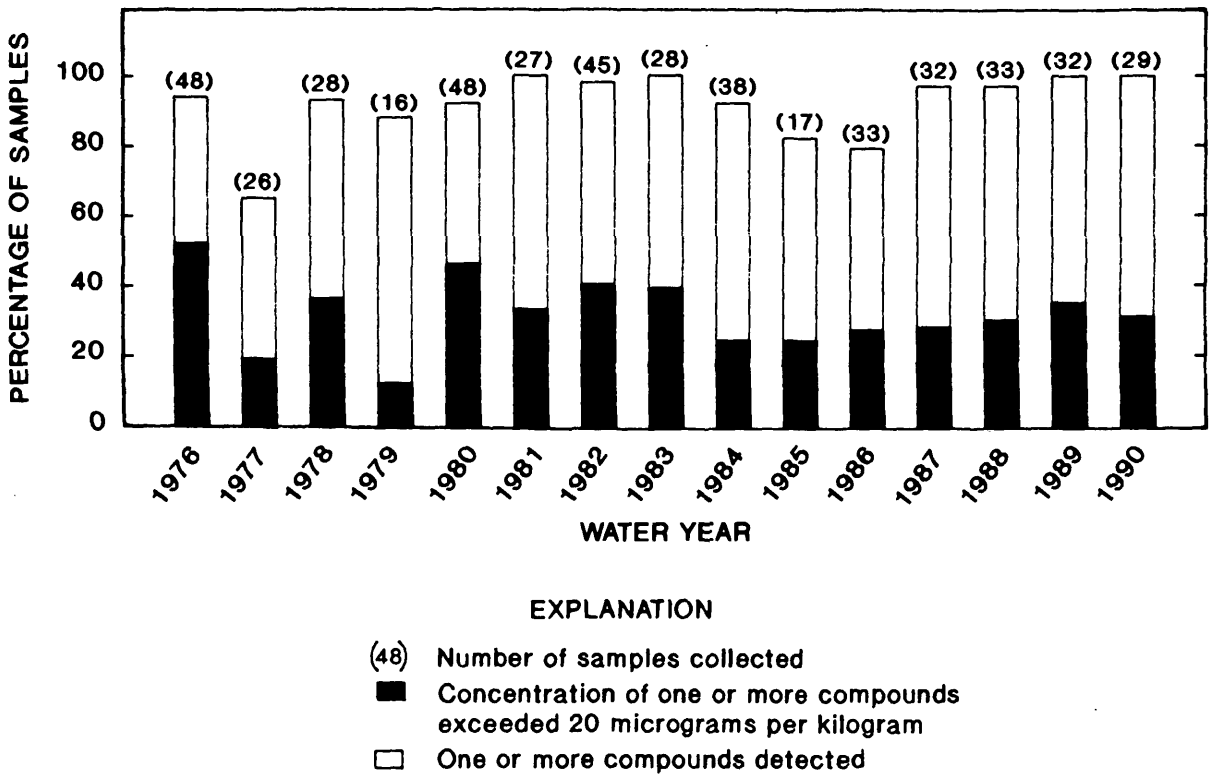


Figure 6.--Occurence of chlordane, DDT, DDE, DDD and PCBs in bottom sediments of New Jersey streams.

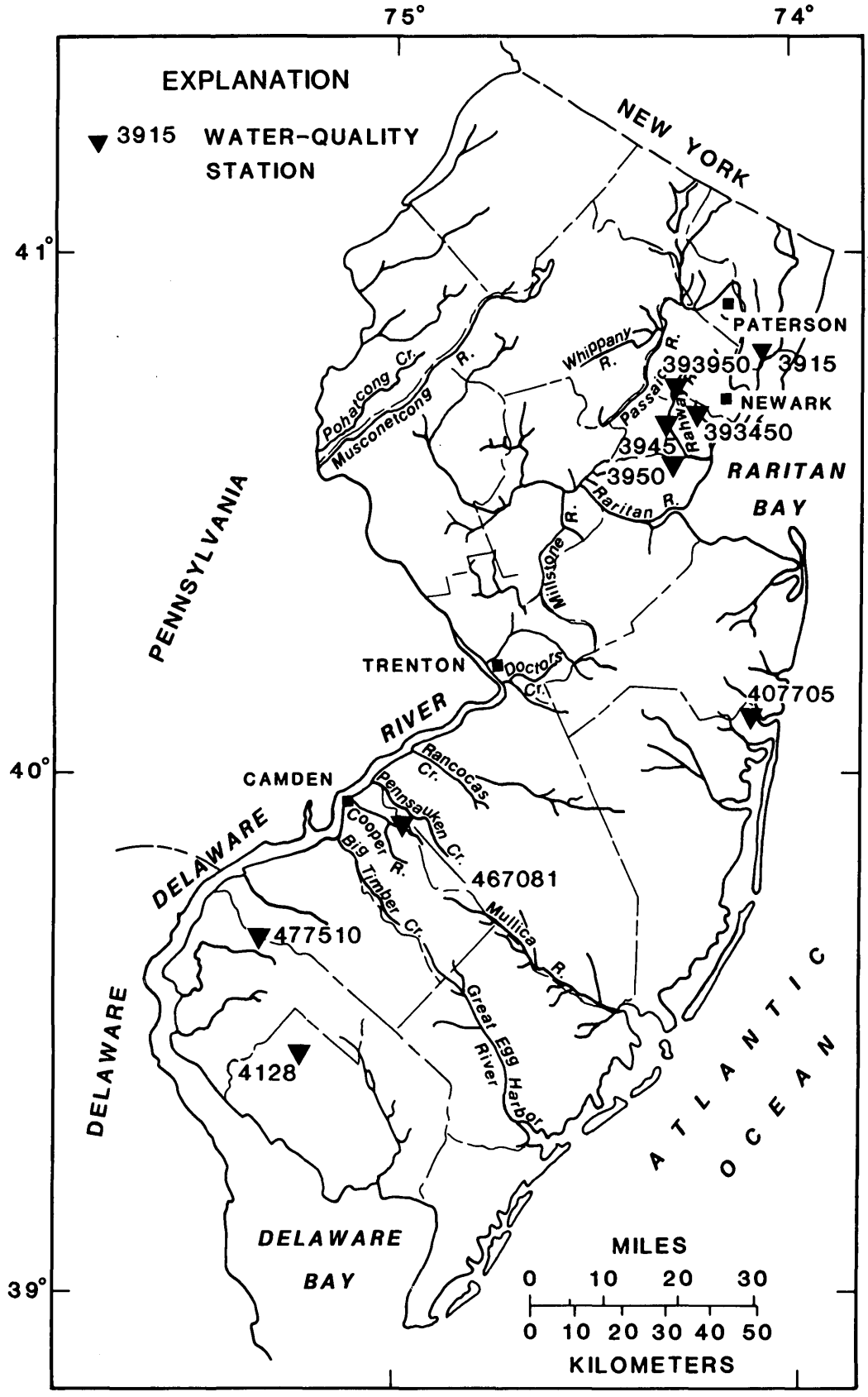
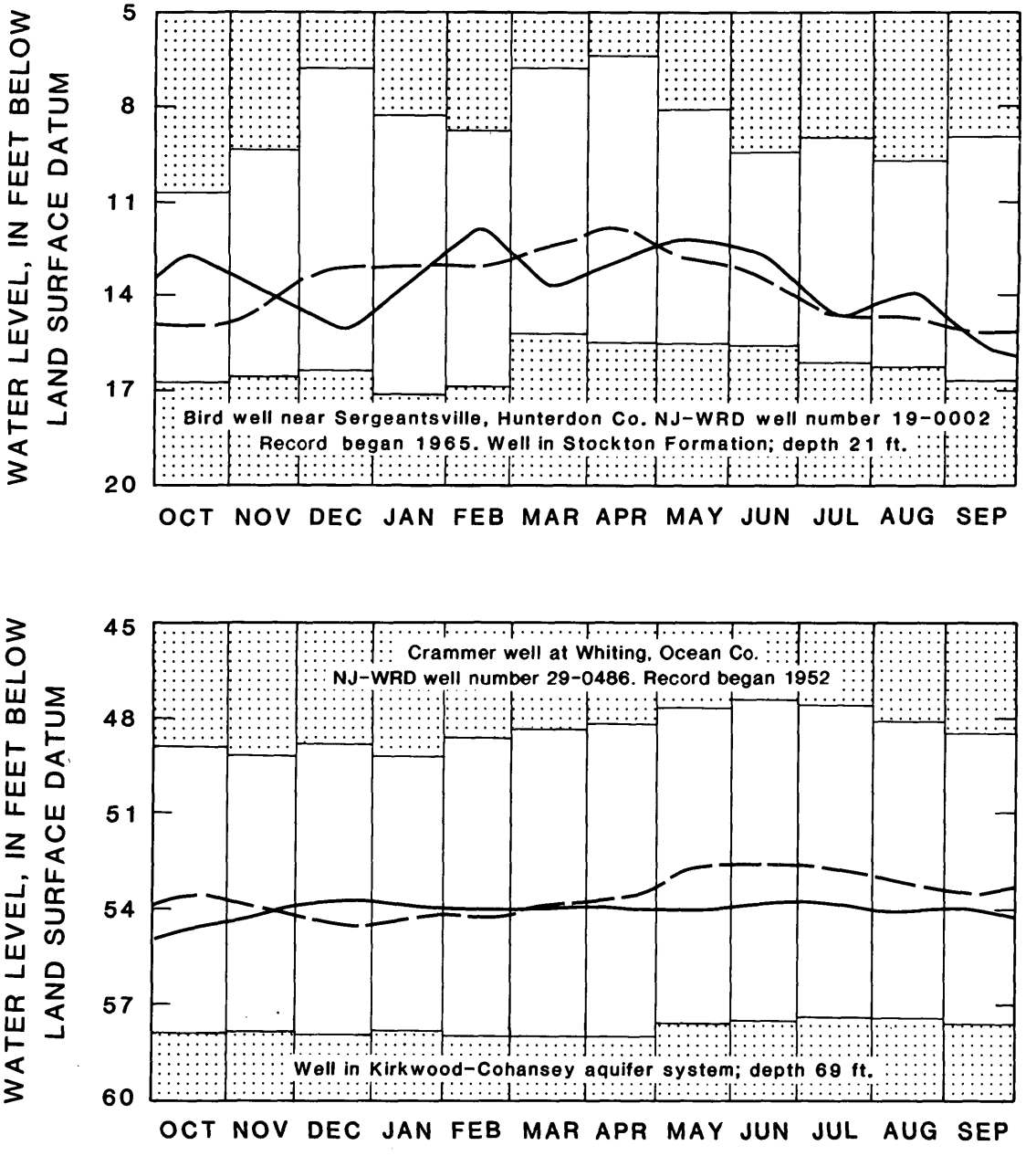


Figure 7.--Locations of water-quality stations with concentrations of chlordane, DDD, DDE, DDT, or PCBs in bottom material greater than 20 micrograms per kilogram, water year 1990.



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.

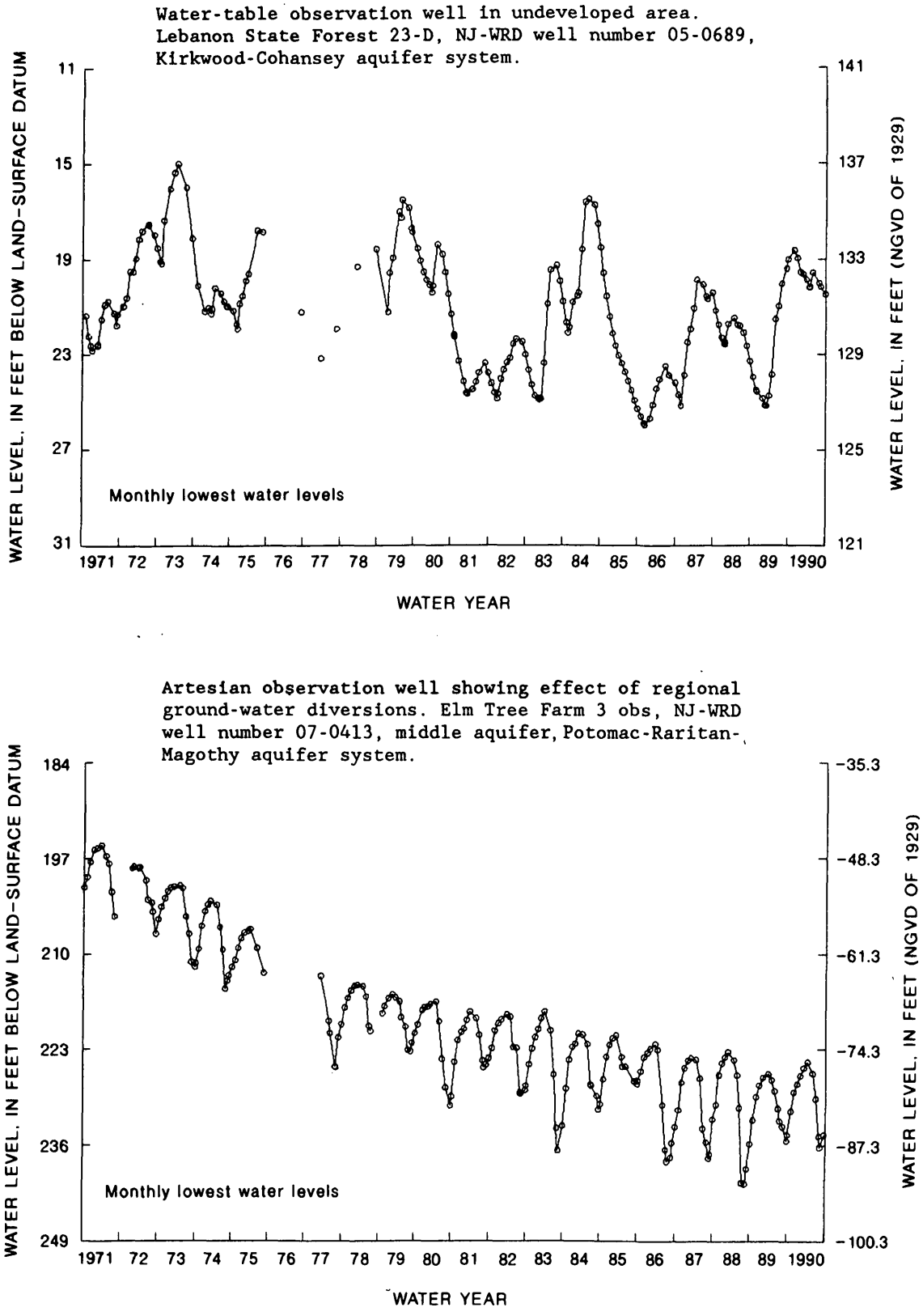


Figure 9.--Twenty-year water-level hydrographs of one artesian and one water-table observation well.

EXPLANATION OF THE RECORDS

The ground-water records published in this report are for the 1990 water year that began October 1, 1989, and ended September 30, 1990. A calendar of the water year is provided on the inside of the front cover. The records contain water-quality data for ground water and ground-water-level data. The locations of the wells where the data were 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.)

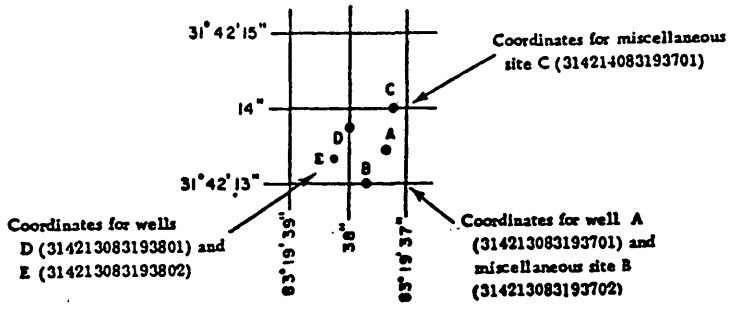


Figure 10.--System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Ground-Water Levels

Only 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 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 water year, and a multi-year hydrograph. 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.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; (a landline location designation); 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, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum or altitude of water level. 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.

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.

Laboratory Measurements

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

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).

NOTE: In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

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 (NJ Dept. of Agriculture)

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

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

Evaluation of Field Sampling Techniques and Analytical Methods for Organic Compounds in Ground-Water

Flood Characteristics of New Jersey Streams

Geohydrology of Picatinny Arsenal in Morris County, New Jersey

Geophysical and Water-Quality Reconnaissance of the Ciba-Geigy Superfund Site, Toms River, Ocean 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 Flow, Newark Basin, New Jersey

Ground-Water Quality and its Relationship to Geohydrology and Land Use in the Outcrop Area of the Potomac-Raritan-Magothy Aquifer System, Mercer and Middlesex Counties, New Jersey

Ground-Water Quality of the Central Passaic River Basin, Northeastern New Jersey

Ground-Water Resources and Saltwater Intrusion of Cape May County

Ground-Water Resources Investigation of the Rockaway River Buried Valley

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

Hydrologic Processes With Special Emphasis on Ground-Water Quality Near Camden, New Jersey

Hydrologic Processes With Special Emphasis on Ground-Water Quality Near South River, New Jersey

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

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

Land Subsidence Related to Ground-Water Withdrawls 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

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

Potential Effects of Climate Change on the Water Resources of the Delaware River Basin

Preliminary Natural Resource Surveys of Superfund Sites in 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

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 Levels in Major Artesian Aquifers of the New Jersey Coastal Plain and Surrounding Areas, 1989

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

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ACCESS TO WATSTORE DATA

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 surfce-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, the National Water Data Exchange (NAWDEX) services include data-search assistance, data dissemination, and data referrals. Data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk. The request for water-data should be forwarded to the local Geological Survey District office:

District Chief
U.S. Geological Survey
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, New Jersey 08628

If the district office does not have the facility to fulfill the request, it will be referred to the National Water Data Exchange (NAWDEX) office in Reston, Virginia.

DEFINITION OF TERMS

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

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).

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 surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 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.

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PUBLICATION OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.

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

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

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

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

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

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

3-A19. *Levels of streamflow gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS—Continued

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

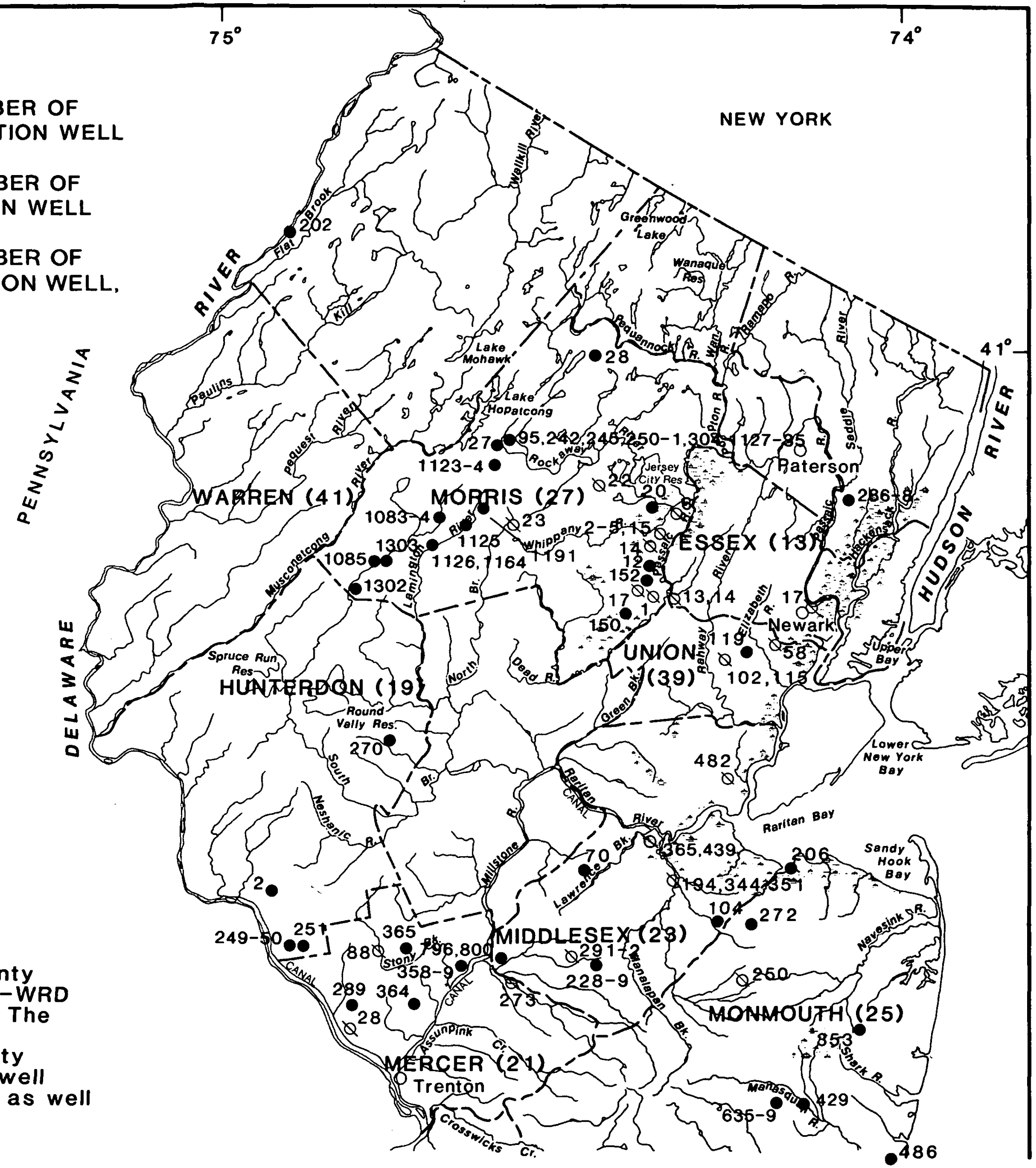
WATER RESOURCES DATA–NEW JERSEY, 1990

EXPLANATION

●20 LOCATION AND WELL NUMBER OF WATER-LEVEL OBSERVATION WELL

⌀17 LOCATION AND WELL NUMBER OF SECONDARY OBSERVATION WELL

◒811 LOCATION AND WELL NUMBER OF WATER-TABLE OBSERVATION WELL, GLOUCESTER COUNTY



Note: 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 05-0570 is shown as well 570 in county 05.

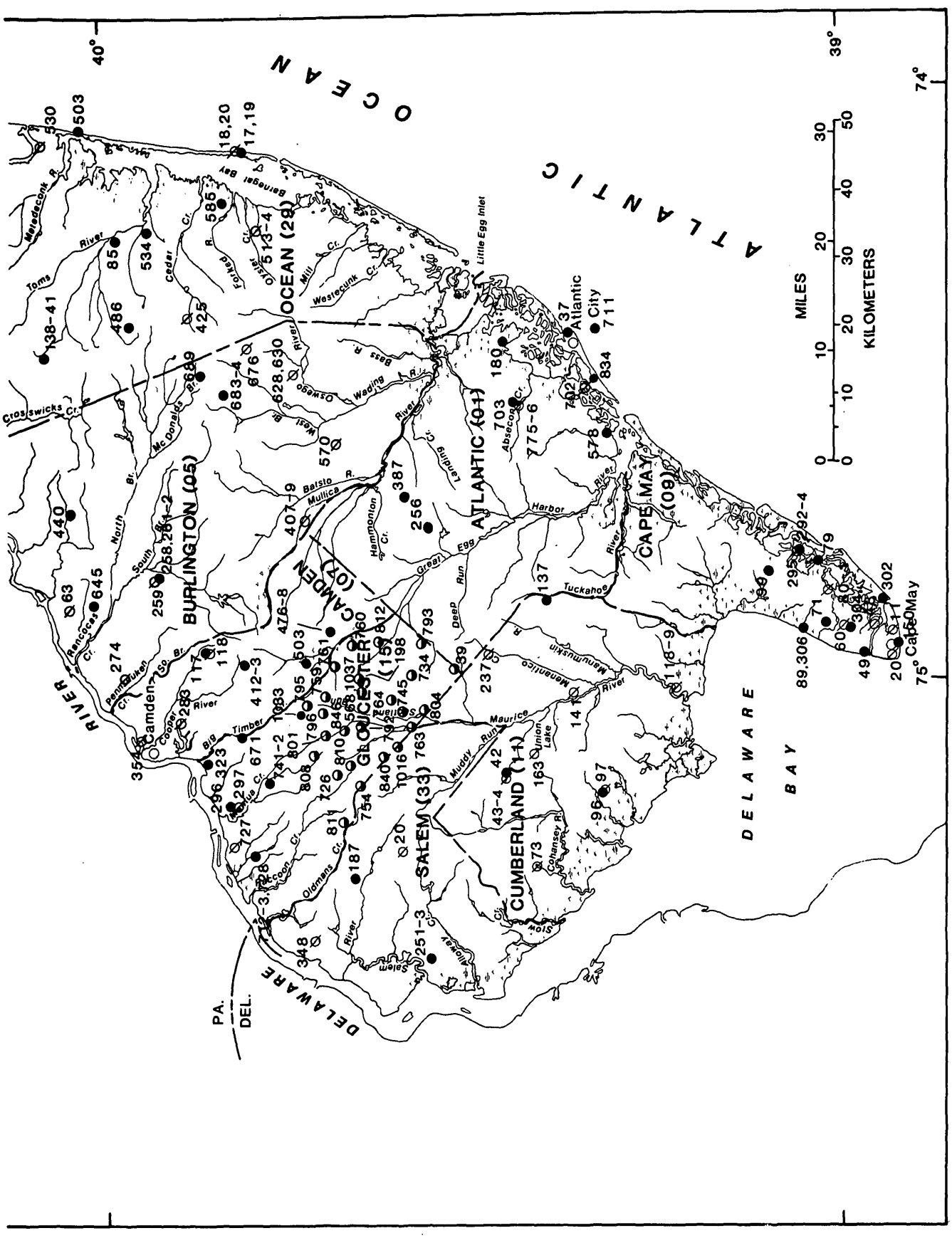
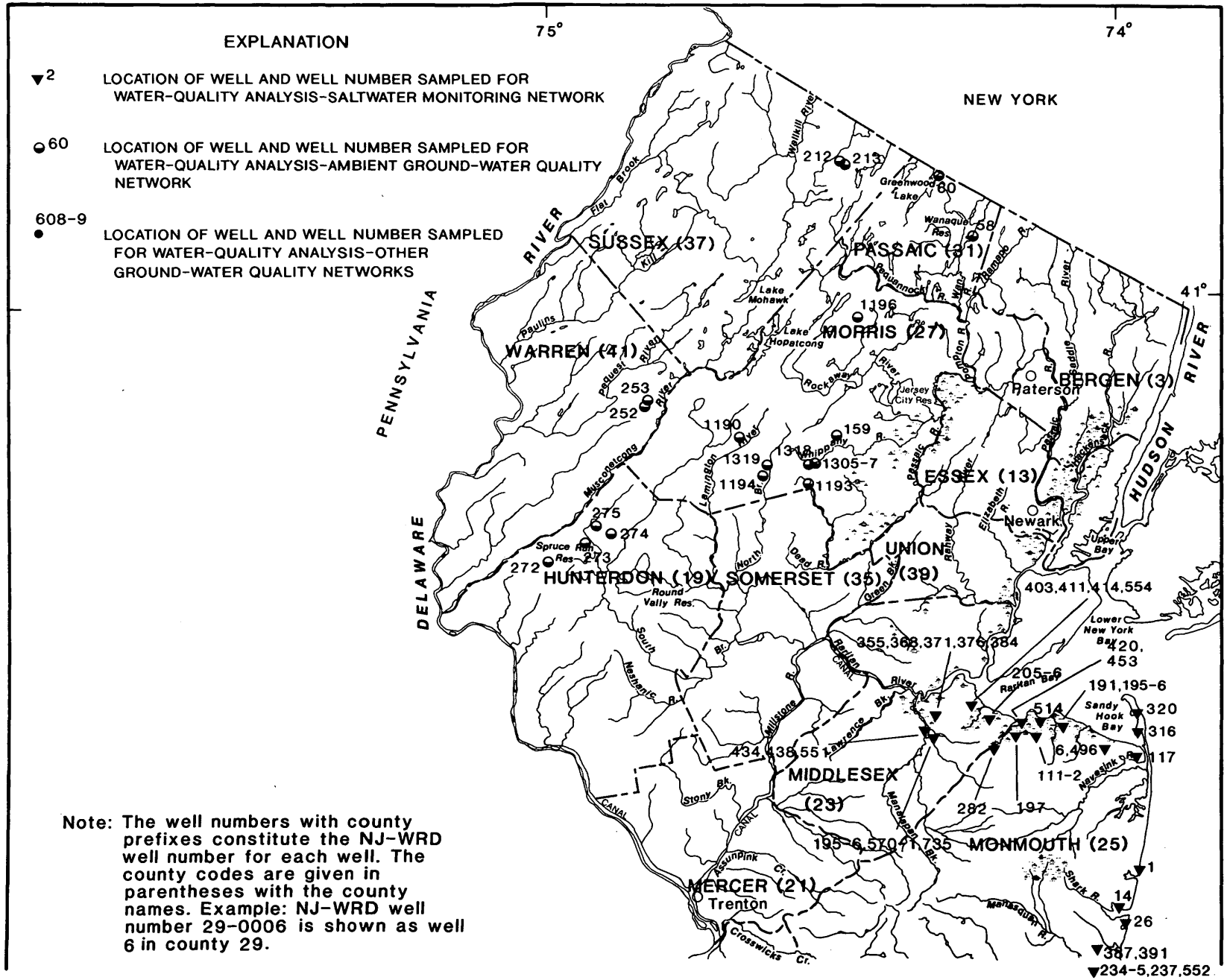


Figure 11.--Map showing location of ground-water observation wells.

WATER RESOURCES DATA-NEW JERSEY, 1990



Note: 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.

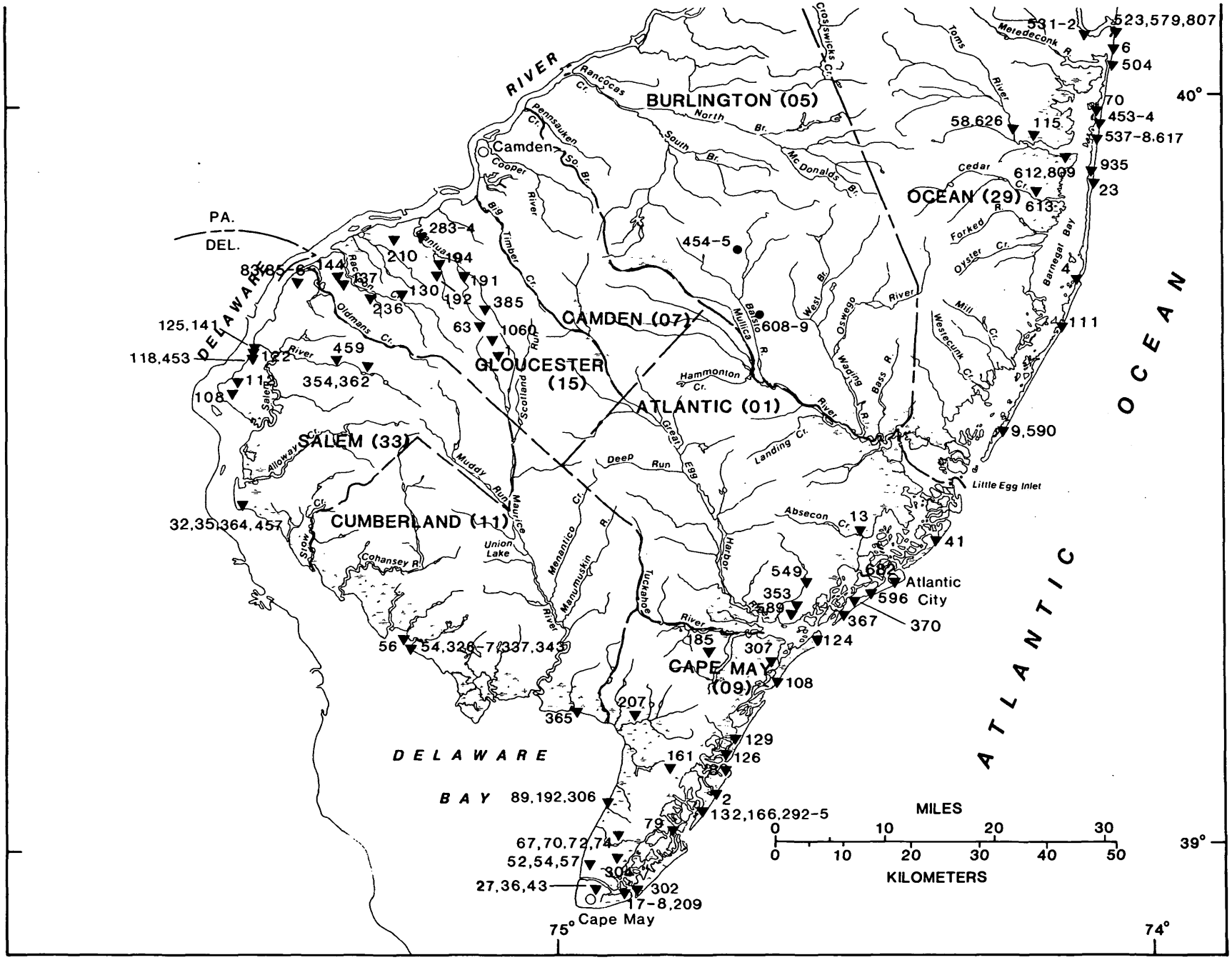


Figure 12.--Map showing location of ground-water quality stations.

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 February 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.--October 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, 78.41 ft below land-surface datum, Sept. 8, 1987.

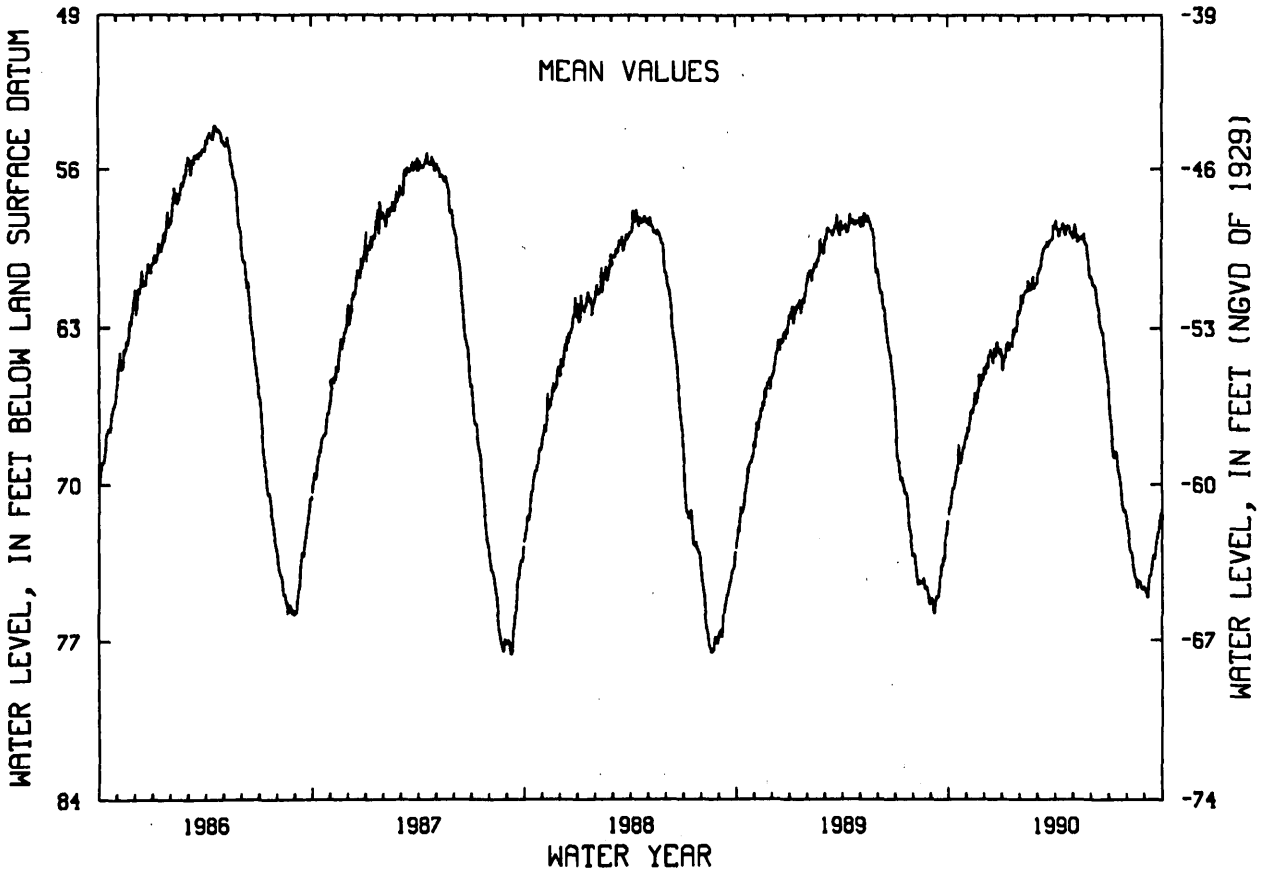
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.84	67.48	64.72	64.43	61.71	60.59	58.67	58.51	61.06	67.00	72.39	75.10
10	70.12	66.71	64.17	63.68	61.38	60.04	58.84	58.96	61.31	68.68	73.09	74.10
15	69.42	66.18	64.15	63.65	60.94	59.52	58.43	59.12	62.12	68.49	74.10	73.18
20	68.58	65.82	63.90	63.48	61.34	59.23	58.95	59.04	62.99	69.52	74.30	72.80
25	68.57	65.52	63.60	62.93	61.27	59.17	58.56	59.39	64.02	70.99	74.58	72.02
EOM	67.73	65.21	63.91	62.35	61.10	58.66	58.93	60.77	65.17	71.46	74.63	71.08
MEAN	69.44	66.31	64.27	63.58	61.38	59.73	58.68	59.22	62.47	69.02	73.73	73.26

WTR YR 1990 MEAN 65.12 HIGH 57.38 APR 25 LOW 75.86 SEP 5

NJ-WRD WELL NO.01-0578



ATLANTIC COUNTY

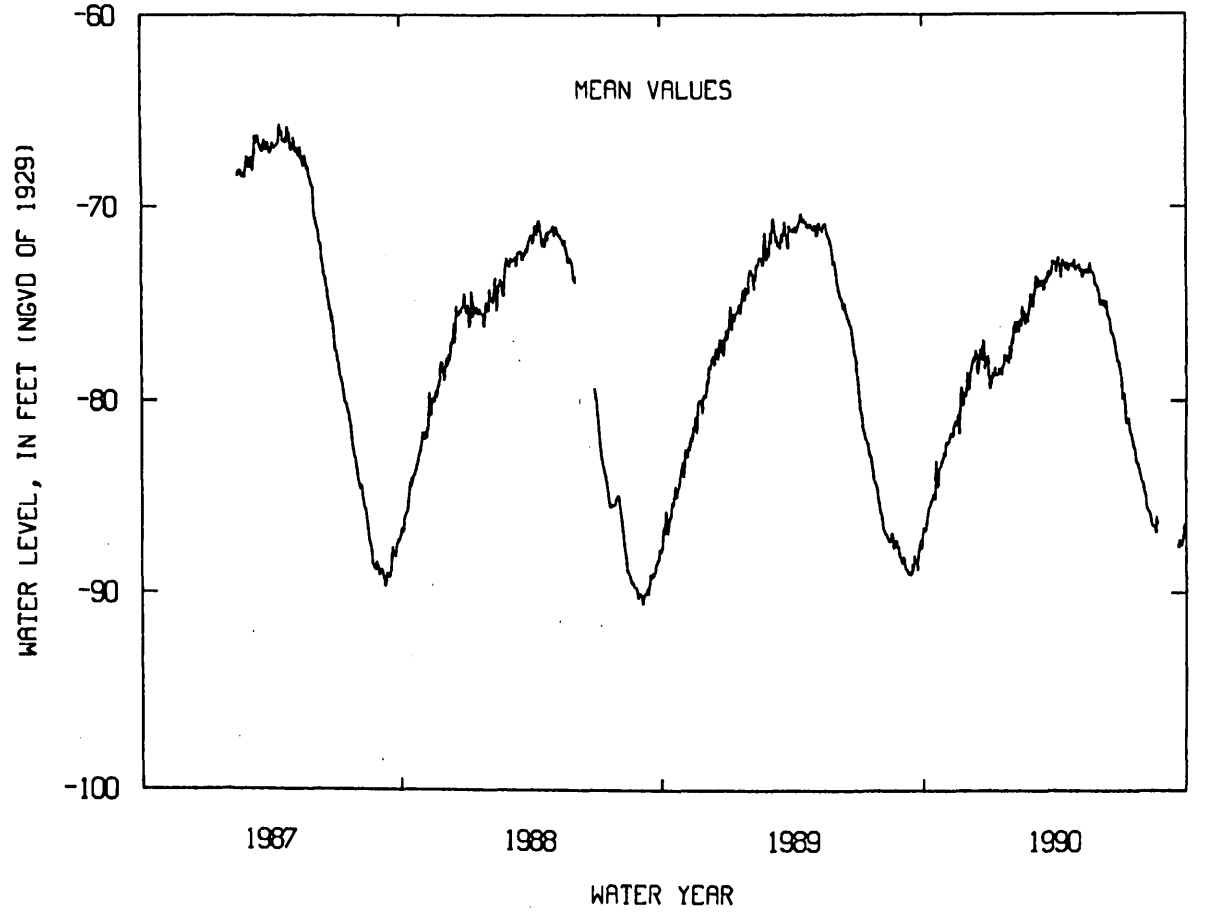
391955074250701. Local I.D., ACOW 1 Obs. NJ-WRD Well Number 01-0711.
LOCATION.--Lat 39°19'55", long 74°25'07", in the Atlantic Ocean, 1.9 miles offshore of Atlantic City
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of Miocene age.
WELL CHARACTERISTICS.-- 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 Geodedic 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. Specific conductance extremes for 1990 water year - maximum 167 µs/cm, minimum 165 µs/cm.
PERIOD OF RECORD.--February 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 63.72 ft below NGVD , April 14,16, 1987; lowest, 92.42 ft below NGVD, August 30, 1988.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-86.63	-82.17	-78.93	-78.82	-75.92	-74.24	-73.25	-73.19	-74.84	-79.89	-85.03	---
10	-85.49	-81.74	-77.84	-78.53	-76.43	-73.73	-73.38	-73.59	-75.20	-81.17	-85.83	---
15	-84.91	-81.06	-77.81	-78.28	-75.15	-73.82	-73.07	-73.26	-75.72	-81.62	-86.57	---
20	-84.03	-81.29	-77.46	-78.23	-75.94	-73.75	-73.20	-73.28	-76.54	-82.40	-86.09	-87.69
25	-83.52	-80.07	-77.38	-77.62	-75.39	-73.35	-72.99	-73.43	-77.47	-83.31	---	-87.41
EOM	-82.70	-79.62	-77.93	-77.05	-74.76	-72.99	-73.15	-74.26	-78.21	-84.28	---	-86.49
MEAN	-84.79	-81.13	-78.02	-78.28	-75.83	-73.89	-73.06	-73.44	-76.07	-81.66	-85.86	---

WTR YR 1990 MEAN -78.49 MAX 70.48 APR 26 MIN 89.69 SEP 20



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 Avenue, 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, 34.61 ft below land-surface datum, Feb. 26, 1990.

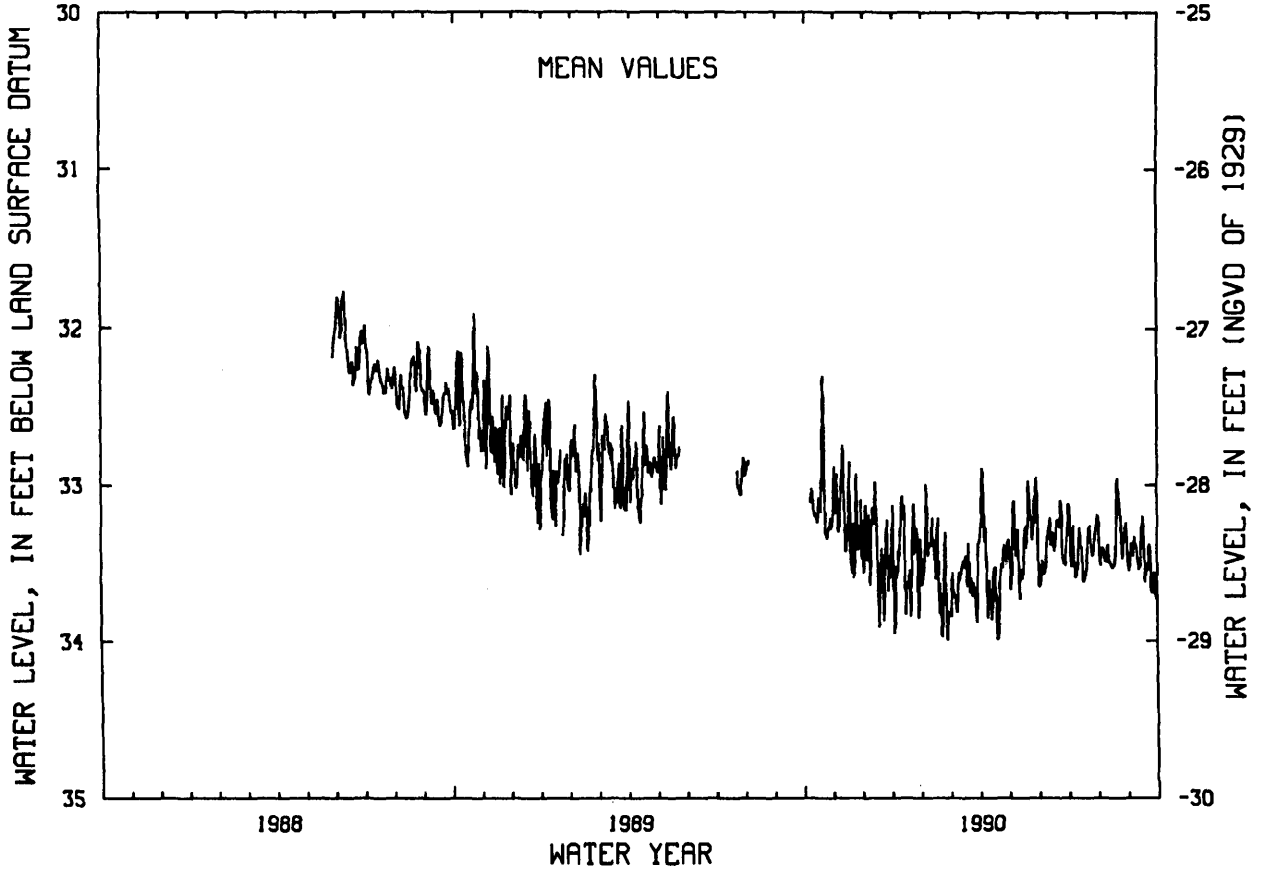
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	33.30	33.32	33.59	33.19	33.72	33.26	33.12	33.50	33.45	33.40	33.45
10	33.20	32.98	33.14	33.07	33.21	33.56	33.72	33.28	33.31	33.54	33.41	33.43
15	33.09	33.14	33.33	33.63	33.30	33.49	33.55	33.60	33.30	33.39	33.53	33.20
20	32.53	33.24	33.40	33.61	33.96	33.37	33.97	33.27	33.22	33.50	33.00	33.54
25	33.28	33.41	33.22	33.27	33.81	33.62	33.46	33.35	33.40	33.40	33.36	33.69
EOM	32.88	33.46	33.13	33.64	33.82	33.37	33.35	33.46	33.30	33.19	33.44	33.65
MEAN	33.10	33.23	33.41	33.49	33.53	33.62	33.52	33.33	33.39	33.40	33.37	33.49

WTR YR 1990 MEAN 33.41 HIGH 31.49 OCT 19 LOW 34.61 FEB 26

NJ-WRD WELL NO.01-0834



ATLANTIC COUNTY

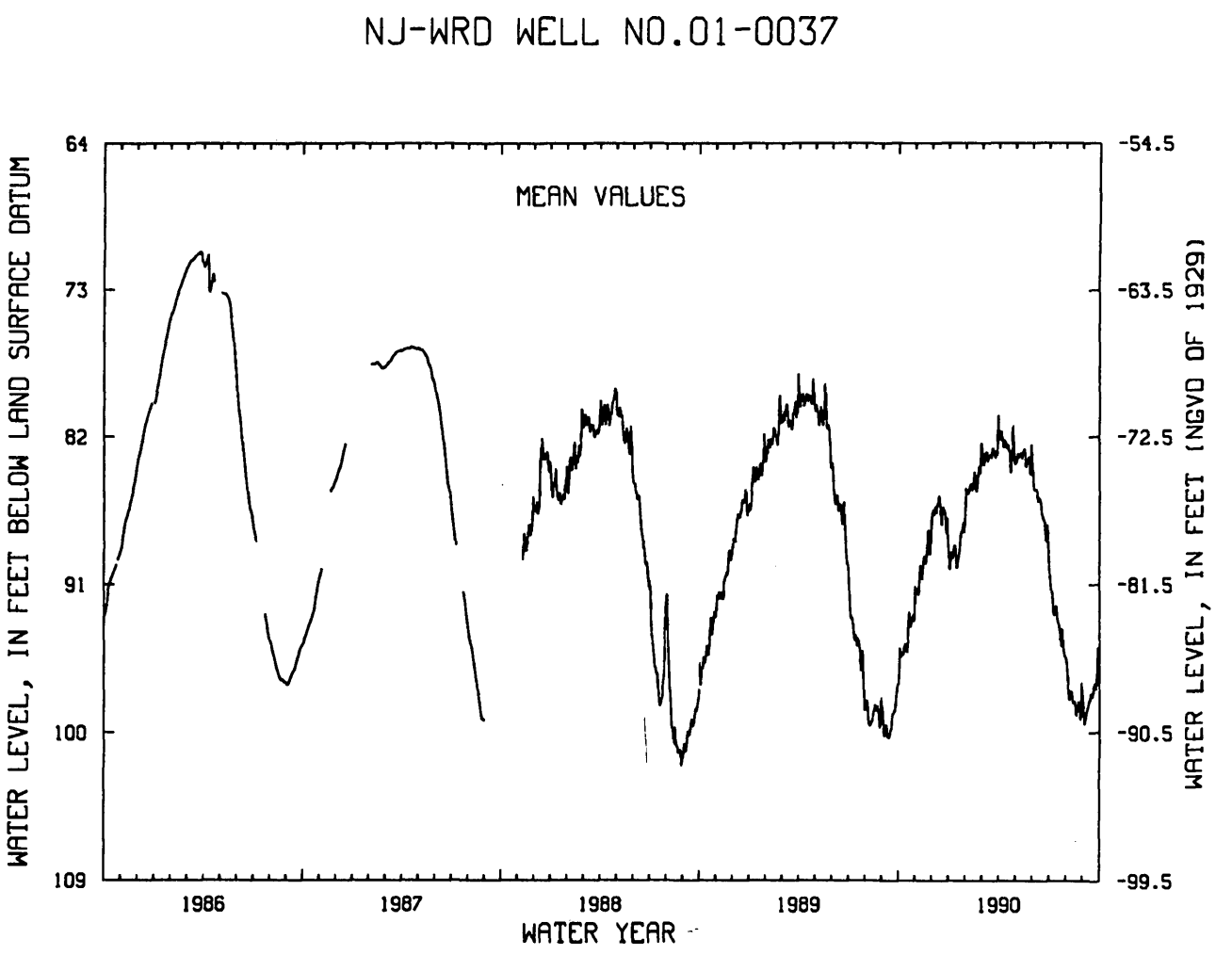
392153074250101. Local I.D., Galen Hall Obs. NJ-WRD Well Number, 01-0037.
LOCATION.--Lat 39°21'51", long 74°24'59", Hydrologic Unit 02040302, near the intersection of Pacific and Congress Avenues, Atlantic City.
Owner: Atlantic City Municipal Utilities Authority.
AQUIFER.--Atlantic City 800-foot sand 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, August 16-23, 1985. Well damaged by construction equipment in August 1987 and rehabilitated November 1987.
PERIOD OF RECORD.--January 1949 to August 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	95.40	91.63	86.59	89.07	85.38	83.75	81.70	83.06	85.22	91.28	97.31	99.18
10	95.04	89.82	86.09	88.62	84.88	82.94	82.61	83.13	85.74	92.82	97.52	98.36
15	95.01	89.68	86.18	90.02	84.51	83.19	82.70	82.97	85.88	92.63	98.07	97.62
20	92.65	89.53	86.33	88.71	85.36	82.74	82.87	83.84	86.96	93.61	98.93	97.24
25	93.17	88.46	87.00	87.57	83.95	83.19	83.21	83.22	88.15	93.68	98.38	97.18
EOM	91.08	86.69	88.88	85.13	82.37	80.67	83.65	83.13	88.78	95.41	97.92	95.85
MEAN	94.24	89.74	86.77	88.62	84.74	83.01	82.56	83.32	86.35	93.04	97.86	97.64

WTR YR 1990 MEAN 89.03 HIGH 80.33 MAR 31 LOW 99.63 SEP 3



ATLANTIC COUNTY

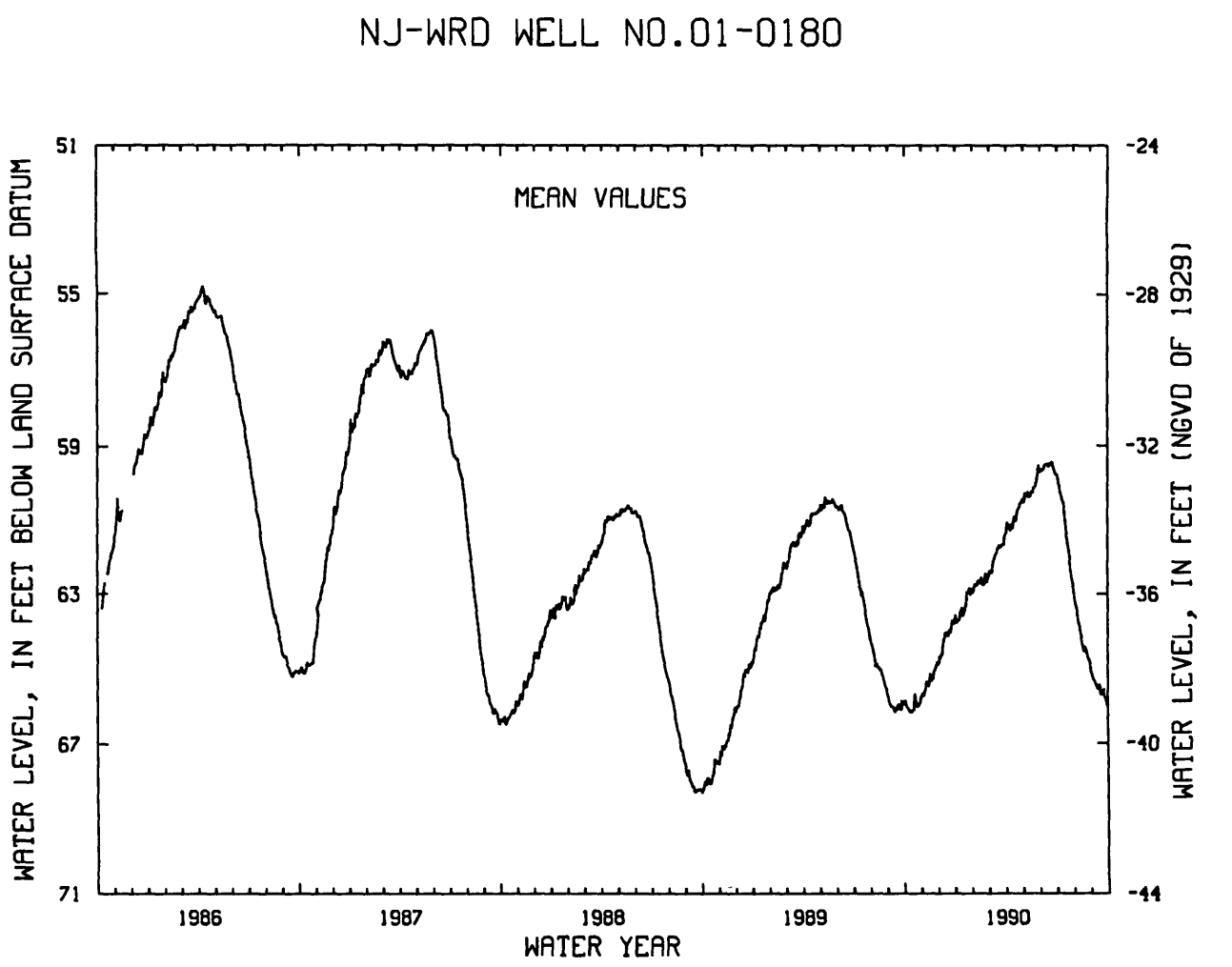
392754074270101. Local I.D., Oceanville 1 Obs. NJ-WRD Well Number, 01-0180.
LOCATION.--Lat 39°27'54", long 74°27'01", Hydrologic Unit 02040302, at Edwin B. Forsythe National Wildlife Refuge, Brigantine Division, Oceanville, Galloway Township.
Owner: U.S. Geological Survey.
AQUIFER.--Atlantic City 800-foot 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, April 1977 to February 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.--October 1959 to August 1975, April 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, 68.36 ft below land-surface datum, Sept. 29,30, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.02	65.72	64.67	63.73	62.77	62.45	61.15	60.28	59.65	60.01	63.37	65.29
10	66.15	65.34	64.28	63.43	62.63	62.14	61.21	60.23	59.53	60.38	63.80	65.44
15	66.10	65.29	64.02	63.55	62.66	61.89	61.01	60.35	59.48	60.73	64.24	65.41
20	65.65	65.16	63.98	63.20	62.75	61.67	60.98	60.23	59.47	61.52	64.44	65.67
25	65.99	65.02	63.77	62.87	62.60	61.67	60.65	60.06	59.54	62.14	64.64	65.75
EOM	65.71	64.86	63.61	62.96	62.55	61.40	60.45	59.63	59.76	62.81	65.00	66.00
MEAN	65.98	65.31	64.16	63.32	62.70	61.95	60.97	60.17	59.57	61.11	64.13	65.53

WTR YR 1990 MEAN 62.91 HIGH 59.18 JUN 23 LOW 66.22 OCT 10,12,14



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 Geodedic 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.--October 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, March 18, 1986; lowest, 85.26 ft below land-surface datum, Sept. 29, 1988.

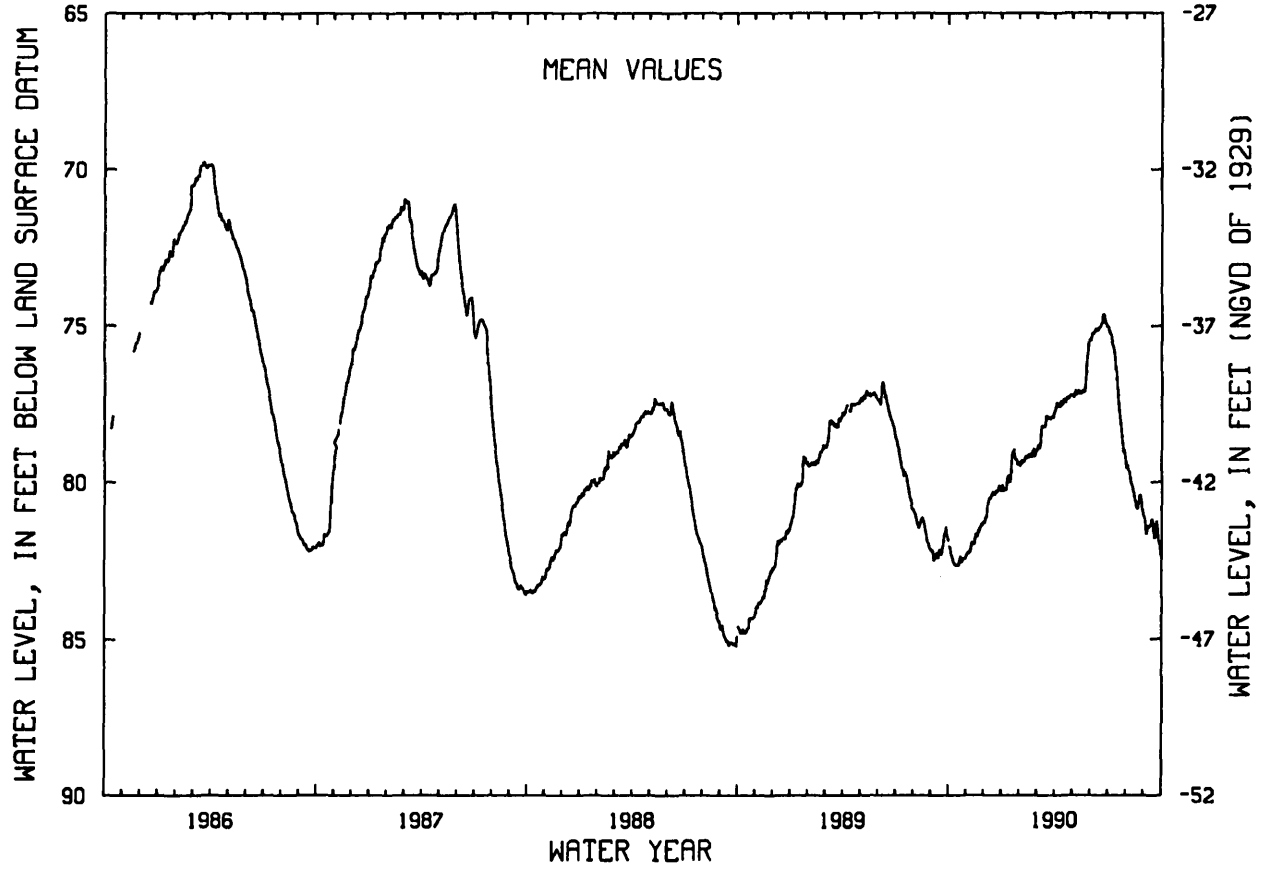
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	82.31	82.24	81.09	80.22	79.38	78.93	77.50	77.06	75.28	75.26	79.63	81.58
10	82.57	81.90	80.50	79.84	79.16	78.21	77.50	77.07	75.08	75.66	80.10	81.38
15	82.64	81.80	80.34	79.87	79.20	78.23	77.38	77.18	75.04	76.55	80.56	81.25
20	82.36	81.57	80.29	78.99	79.17	77.90	77.37	77.11	74.92	77.76	80.84	81.42
25	82.47	81.43	80.17	79.29	79.07	77.93	77.30	76.36	74.81	78.70	80.46	81.88
EOM	82.30	81.30	80.18	79.48	79.02	77.73	77.22	75.49	75.04	79.23	81.08	82.44
MEAN	82.44	81.78	80.50	79.66	79.20	78.22	77.41	76.80	75.04	76.98	80.33	81.57

WTR YR 1990 MEAN 79.16 HIGH 74.57 JUN 23 LOW 82.68 OCT 12,18,19

NJ-WRD WELL NO.01-0703



ATLANTIC COUNTY

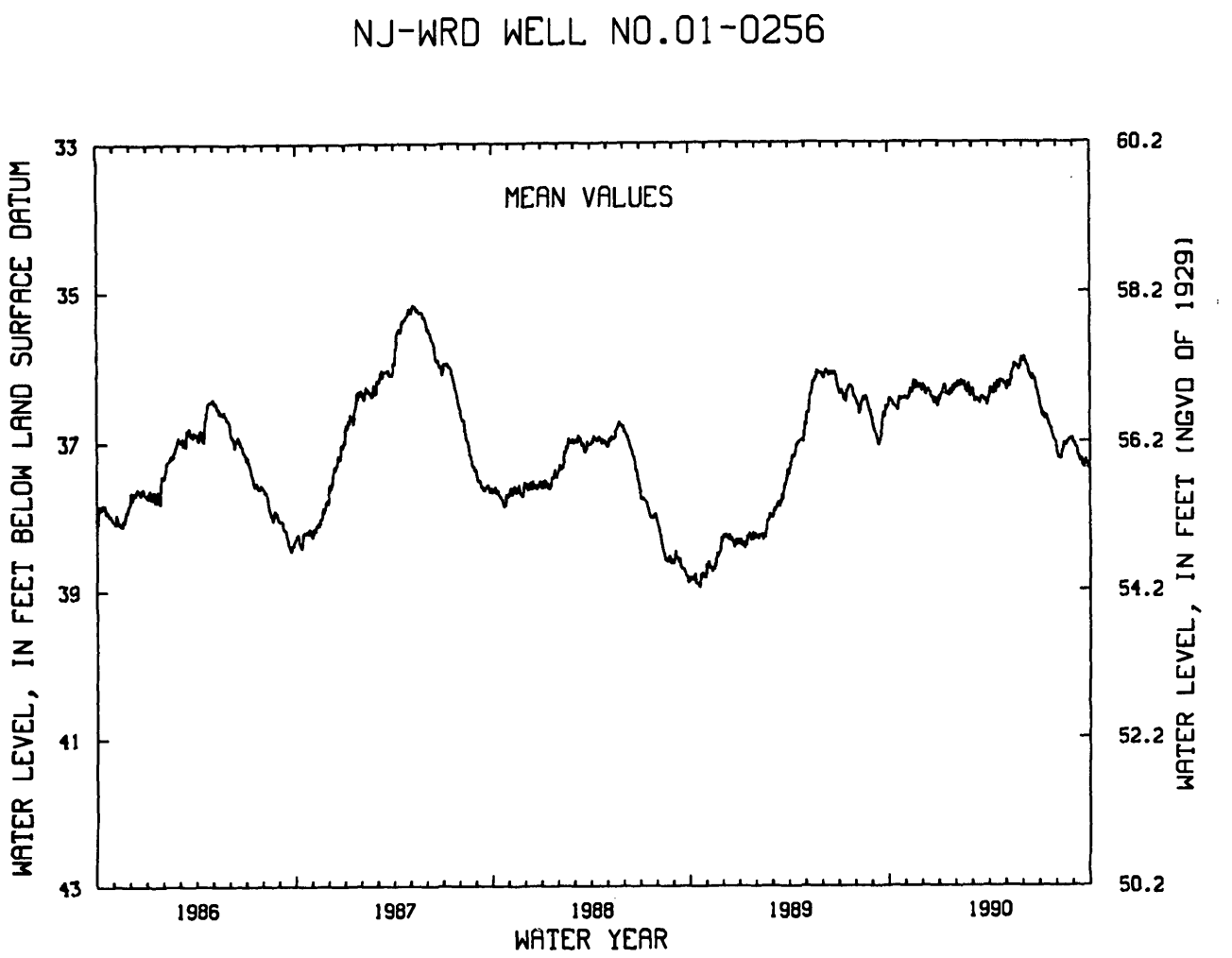
393333074442401. Local I.D., Scholler 1 Obs. NJ-WRD Well Number, 01-0256.
LOCATION.--Lat 39°33'33", long 74°44'26", Hydrologic Unit 02040302, at Scholler Brothers plant, near intersection of Weymouth and Second Roads, Elwood, Hamilton Township.
Owner: Scholler Brothers Incorporated.
AQUIFER.--Kirkwood-Cohansey 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 April 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.
PERIOD OF RECORD.--April 1962 to August 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.47	36.45	36.28	36.38	36.26	36.42	36.32	36.21	35.93	36.59	37.23	37.08
10	36.54	36.31	36.33	36.26	36.19	36.44	36.32	36.21	36.00	36.64	37.21	37.19
15	36.55	36.25	36.35	36.37	36.26	36.50	36.24	36.06	36.12	36.65	37.02	37.23
20	36.45	36.20	36.42	36.38	36.33	36.41	36.27	36.01	36.13	36.78	37.00	37.32
25	36.43	36.28	36.45	36.31	36.32	36.45	36.21	36.06	36.27	36.91	36.97	37.29
EOM	36.41	36.30	36.51	36.29	36.36	36.44	36.23	35.94	36.42	37.02	37.01	37.37
MEAN	36.49	36.32	36.40	36.34	36.28	36.44	36.28	36.10	36.12	36.74	37.07	37.23

WTR YR 1990 MEAN 36.48 HIGH 35.84 MAY 30 LOW 37.41 SEP 21



ATLANTIC COUNTY

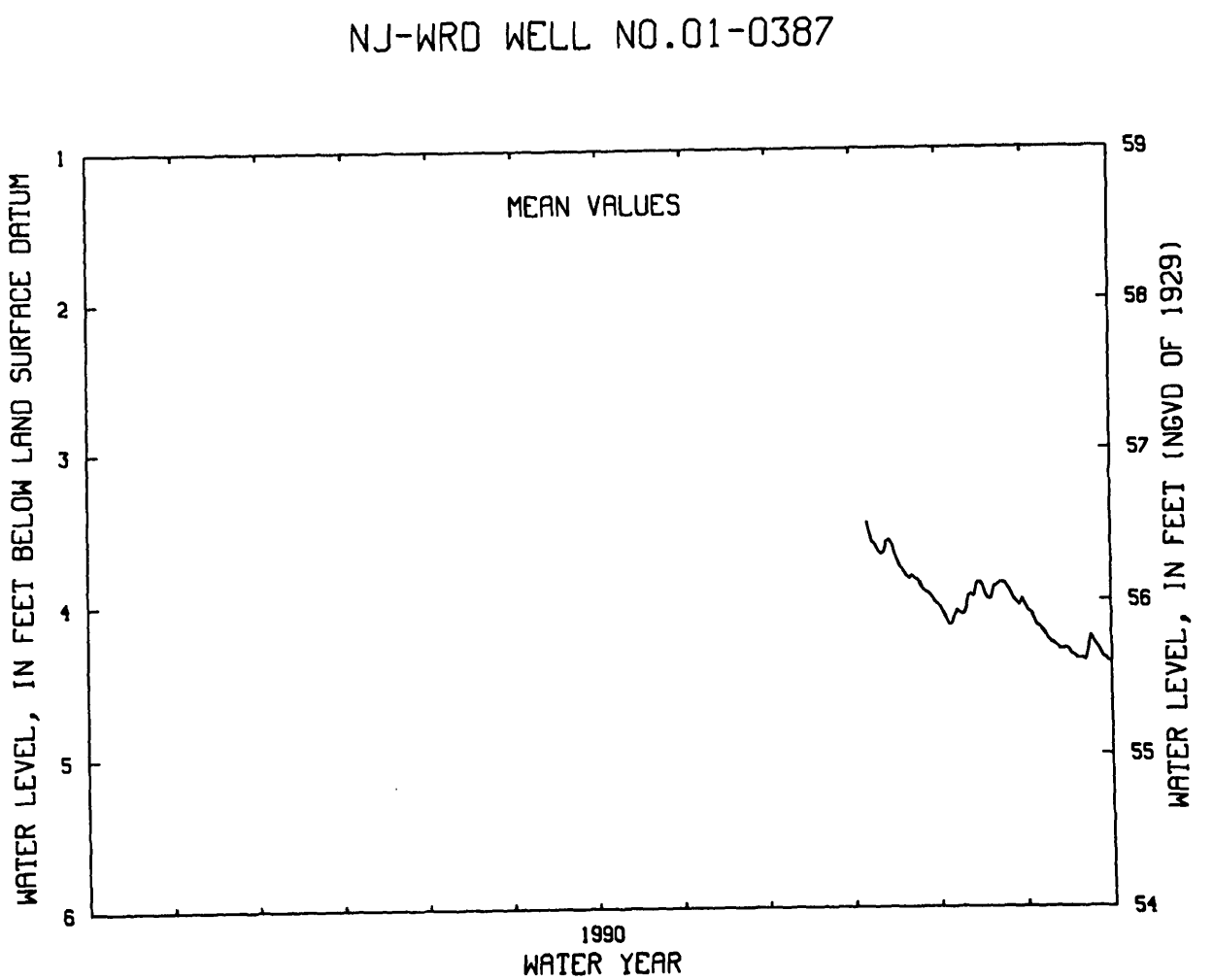
393557074411401. Local I.D., Amatol 6 Obs. NJ-WRD Well Number, 01-0387.
LOCATION.--Lat 39°35'57", long 74°41'14", Hydrologic Unit 02040301, about 200 feet east of Elwood-Pleasant Mills Road (Co. Rt. 623), 2.3 miles north of Rt. 30, Mullica Township.
Owner: Ralph Ramberg - Amatol.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in, depth 138 ft, open end.
INSTRUMENTATION.-- Digital data logger with differential pressure transducer(July 1990). Water level recorder, November 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.--November 1961 to May 1987, June 1990 to current year. 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, March 24, 1975; lowest, 6.45 ft below land-surface datum, Sept. 11, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	---	4.15	4.17
10	---	---	---	---	---	---	---	---	---	3.67	4.06	4.28
15	---	---	---	---	---	---	---	---	---	3.63	3.88	4.32
20	---	---	---	---	---	---	---	---	---	3.83	3.91	4.38
25	---	---	---	---	---	---	---	---	---	3.89	3.92	4.30
EOM	---	---	---	---	---	---	---	---	---	4.02	4.03	4.40
MEAN	---	---	---	---	---	---	---	---	---	3.77	3.99	4.29

WTR YR 1990 HIGH 3.22 JUN 27 LOW 4.40 SEP 29



BERGEN COUNTY

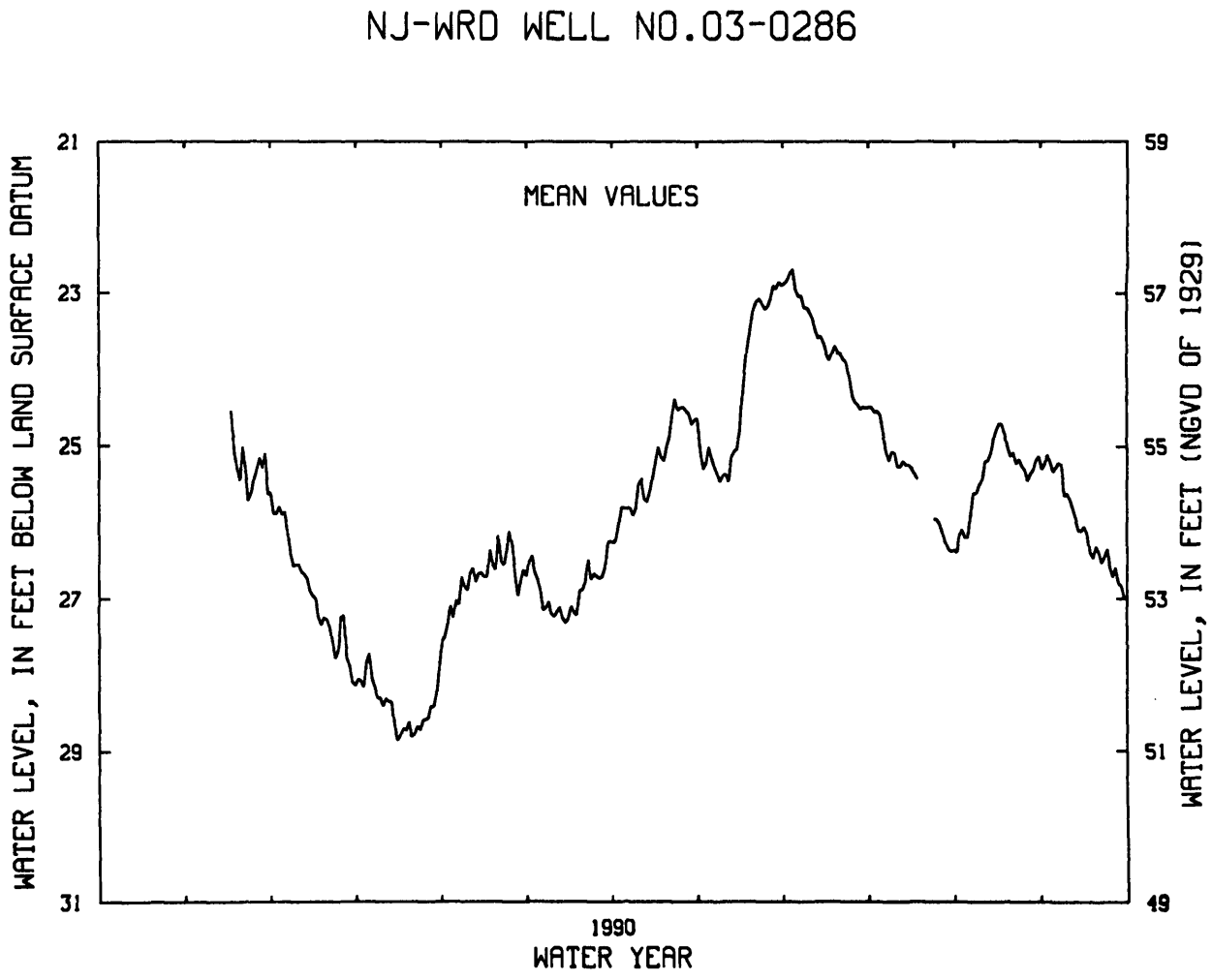
405053074060401. Local I.D., Wallington 2 Obs. NJ-WRD Well Number, 03-0286.
LOCATION.--Lat 40°50'53", long 74°06'04", Hydrologic Unit 02030103, at the baseball field off Lackawanna Avenue, Wallington Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled 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.
PERIOD OF RECORD.--November 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	25.86	28.03	27.06	26.73	25.80	25.00	22.96	24.60	26.20	25.28
10	---	---	26.55	28.29	26.59	27.18	25.50	25.37	23.24	25.07	25.44	25.70
15	---	---	26.95	28.78	26.70	27.30	25.40	25.02	23.65	25.24	24.80	26.06
20	---	25.01	27.26	28.76	26.51	26.88	24.99	23.42	23.78	---	25.13	26.40
25	---	25.29	27.23	28.55	26.66	26.68	24.50	23.20	24.33	25.96	25.31	26.71
EOM	---	25.60	28.04	27.48	26.61	26.24	24.66	22.90	24.51	26.37	25.30	26.98
MEAN	---	25.29	26.97	28.34	26.69	26.86	25.27	24.24	23.62	25.37	25.37	26.08

WTR YR 1990 MEAN 25.86 HIGH 22.61 JUN 4 LOW 28.87 JAN 19



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 Avenue 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.

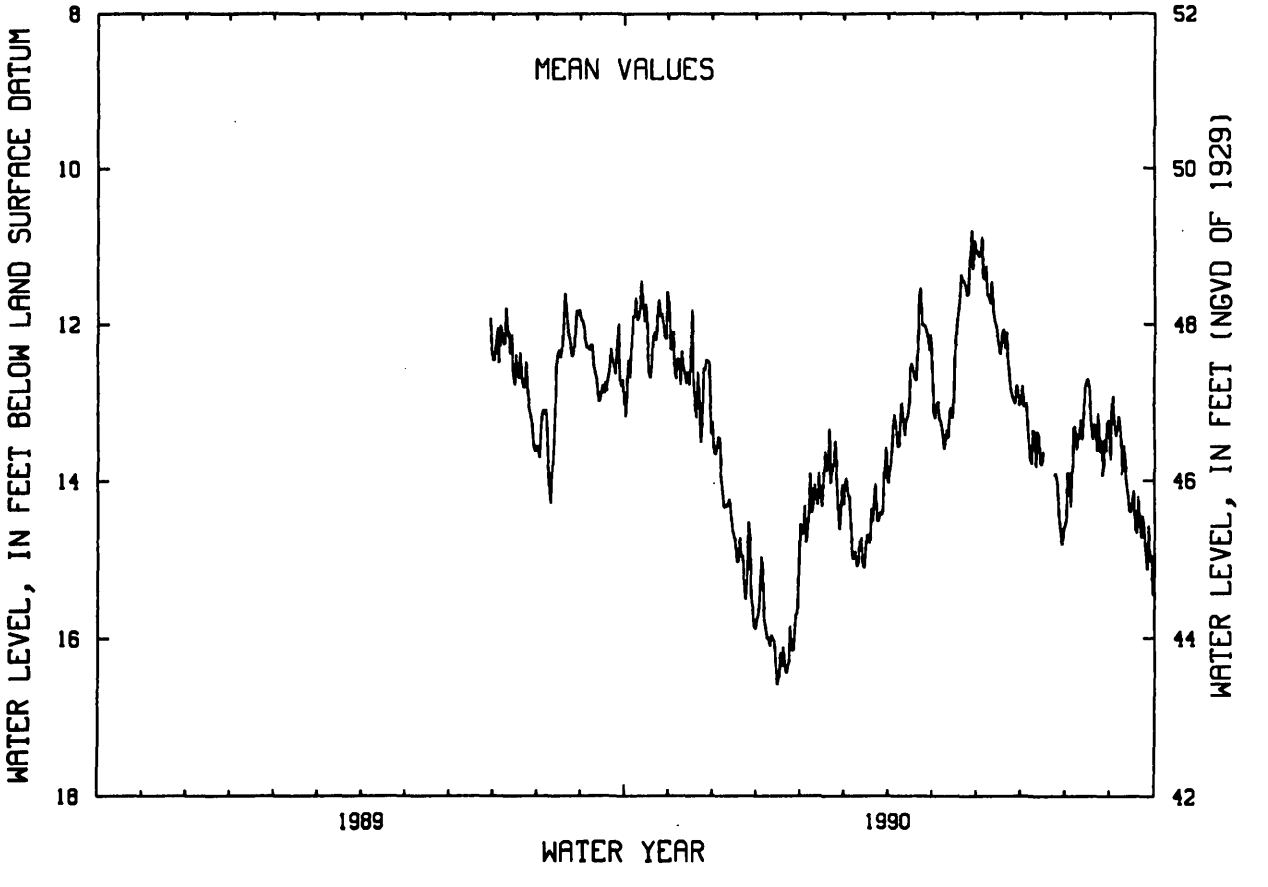
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.33	12.70	13.46	15.75	14.34	14.20	13.17	13.00	11.38	13.02	13.92	13.34
10	11.89	12.56	14.32	15.96	14.19	15.08	13.02	13.47	11.73	13.39	13.47	13.76
15	11.73	12.56	14.71	16.47	14.04	15.10	13.09	13.21	12.17	13.80	12.74	14.28
20	12.16	12.62	14.96	16.44	14.03	14.35	12.72	11.66	12.31	---	13.29	14.56
25	11.89	12.59	14.52	16.15	14.31	14.49	12.01	11.63	12.93	13.91	13.50	15.12
EOM	11.76	13.25	15.75	14.67	14.05	13.95	12.14	11.08	13.05	14.56	13.73	15.01
MEAN	12.08	12.68	14.66	15.87	14.12	14.51	12.81	12.35	12.05	13.73	13.46	14.21

YTR YR 1990 MEAN 13.54 HIGH 9.92 MAY 28 LOW 16.61 JAN 14

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 Avenue 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.
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, Sep. 8, 1989; lowest, 39.43 ft below land-surface datum, Jan. 27, 1990.

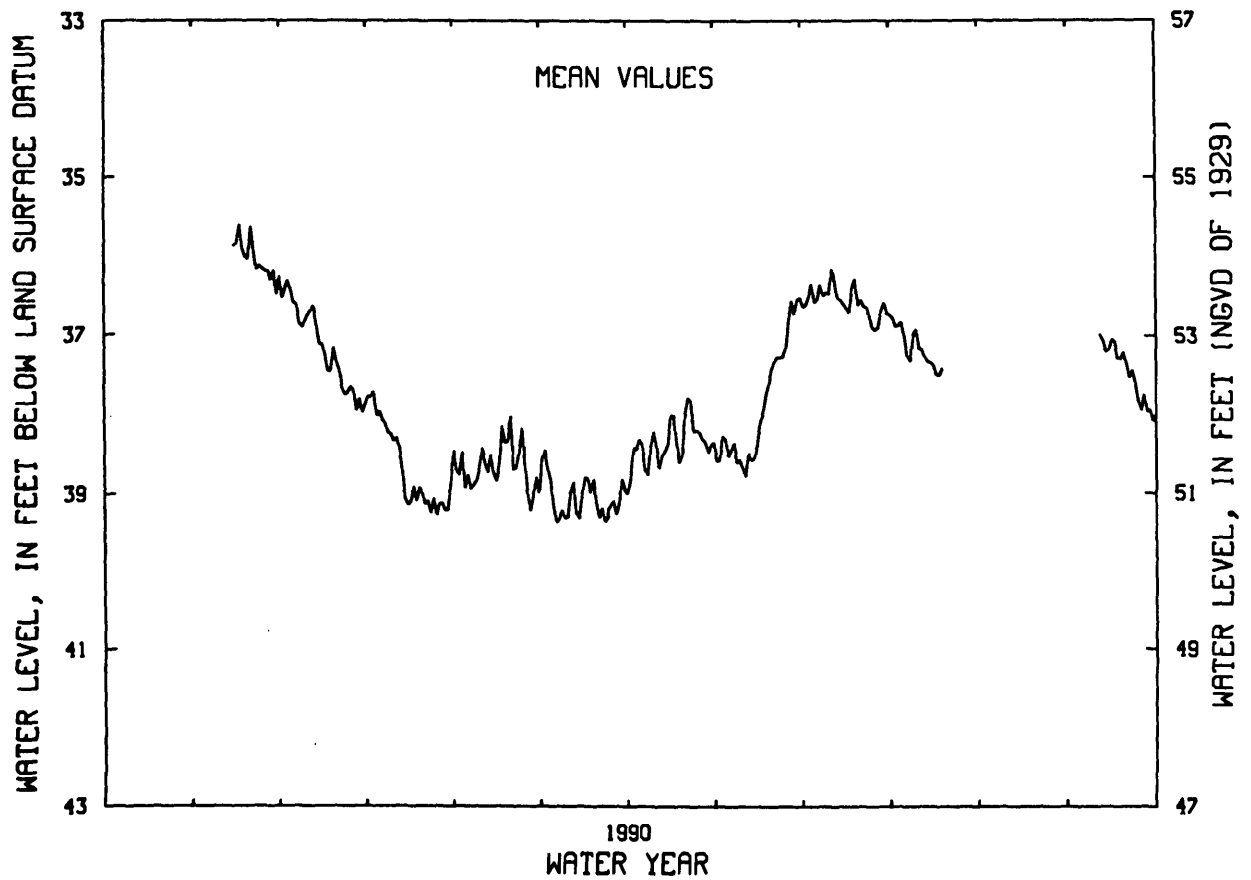
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	36.60	38.05	38.92	38.82	38.30	38.30	36.58	36.83	---	---
10	---	---	36.74	38.28	38.58	39.30	38.20	38.52	36.47	36.92	---	---
15	---	35.84	37.12	39.09	38.62	39.30	38.36	38.54	36.60	37.33	---	37.04
20	---	35.63	37.32	39.12	38.68	38.80	38.49	37.63	36.62	---	---	37.36
25	---	36.19	37.64	39.12	38.98	39.28	38.18	37.25	36.90	---	---	37.94
EOM	---	36.26	37.76	38.69	38.78	38.93	38.37	36.53	36.72	---	---	38.00
MEAN	---	36.05	37.17	38.68	38.64	39.04	38.35	37.87	36.57	37.08	---	37.49

WTR YR 1990 MEAN 37.81 HIGH 35.43 NOV 20 LOW 39.43 JAN 27

NJ-WRD WELL NO.03-0288



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.--October 1964 to August 1975, March 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.

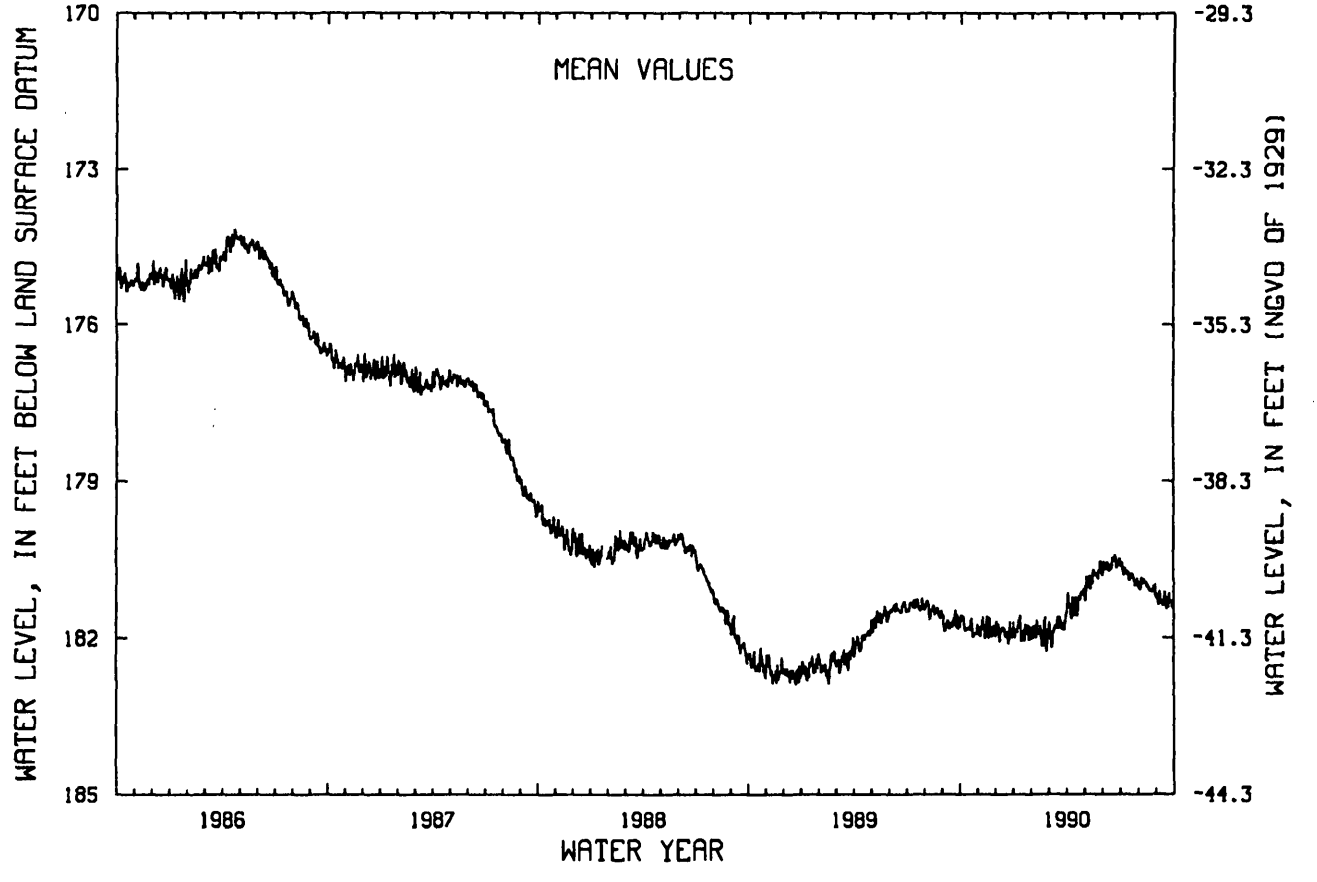
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	181.65	181.97	181.74	181.87	181.98	182.01	181.30	180.83	180.68	180.55	181.08	181.27
10	181.87	181.70	181.84	181.63	181.66	181.89	181.41	180.82	180.55	180.67	180.94	181.29
15	181.82	181.80	181.82	182.00	181.95	181.79	181.29	180.97	180.61	180.72	180.98	181.12
20	181.63	181.61	181.88	181.96	182.07	181.60	181.47	180.80	180.50	180.81	181.09	181.33
25	181.94	181.93	181.82	181.81	181.96	181.77	181.23	180.88	180.61	180.90	181.11	181.33
EOM	181.74	181.85	181.78	182.01	181.99	181.57	181.13	180.76	180.53	180.87	181.20	181.37
MEAN	181.79	181.83	181.88	181.87	181.92	181.81	181.34	180.87	180.61	180.78	181.02	181.30

WTR YR 1990 MEAN 181.42 HIGH 180.39 JUN 23,24 LOW 182.31 FEB 26

NJ-WRD WELL NO.05-0683

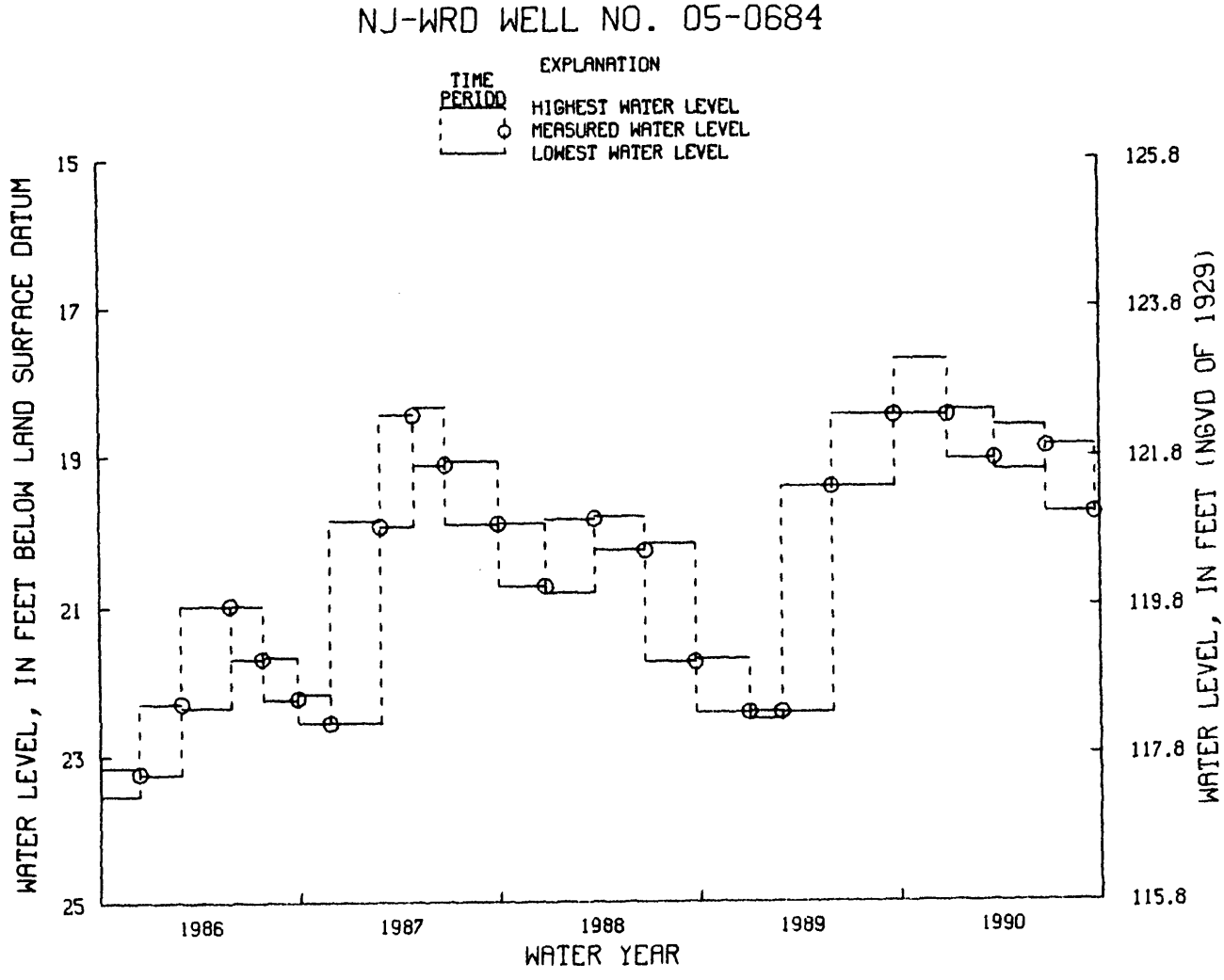


BURLINGTON COUNTY

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, March 1977 to current year. Water-level recorder, May 1965 to April 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 April 1975, March 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 22, 1989 TO DEC. 28, 1989	17.71	18.46	DEC. 28, 1989	18.46
DEC. 28, 1989 TO MAR. 23, 1990	18.39	19.03	MAR. 23, 1990	19.02
MAR. 23, 1990 TO JUNE 25, 1990	18.60	19.17	JUNE 25, 1990	18.86
JUNE 25, 1990 TO SEPT. 20, 1990	18.83	19.75	SEPT. 20, 1990	19.75



BURLINGTON COUNTY

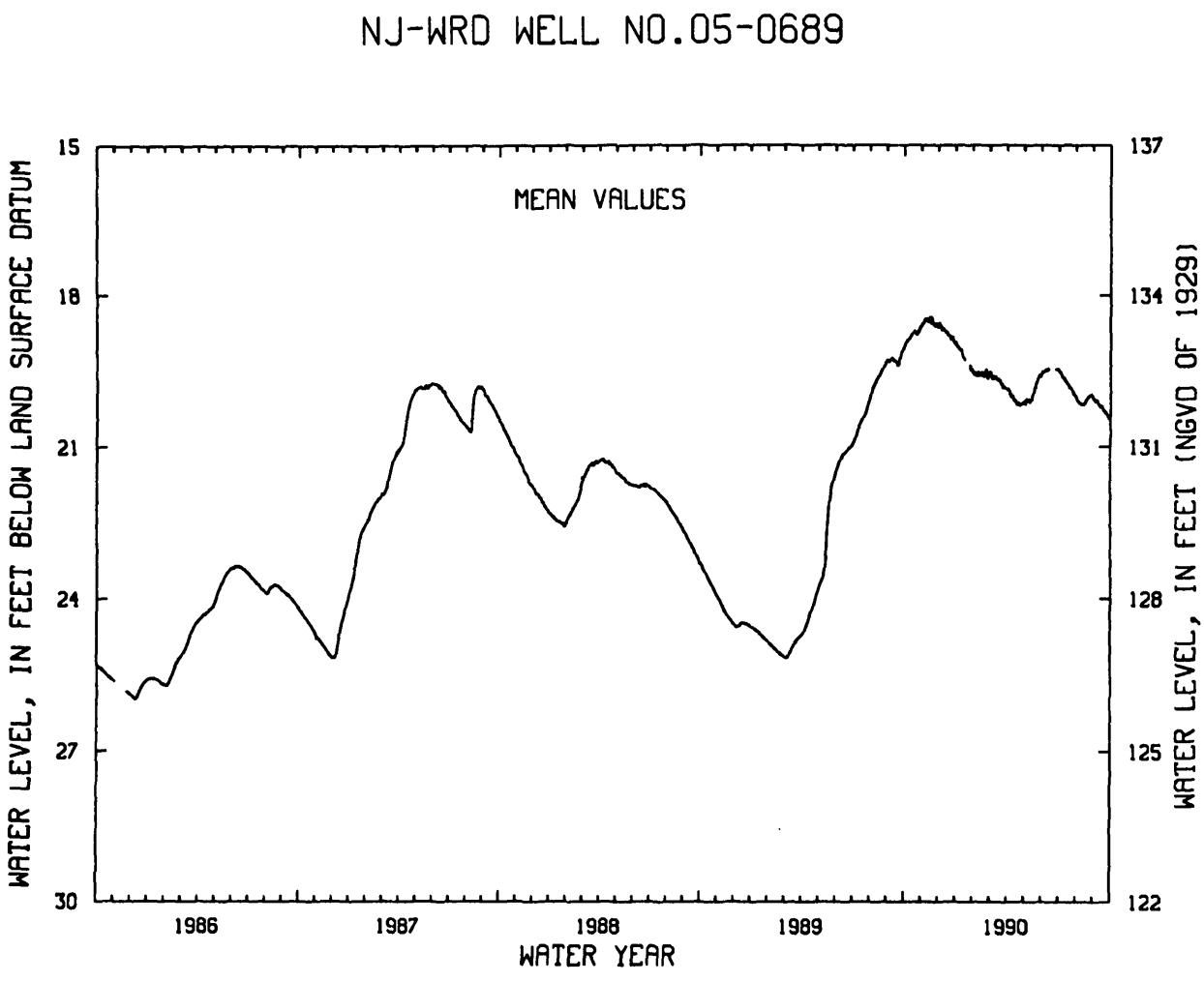
395150074284201. Local I.D., Lebanon State Forest 23-D Obs. NJ-WRD Well Number, 05-0689.
LOCATION.--Lat 39°51'52", long 74°28'48", Hydrologic Unit 02040202, in Lebanon State Forest, Woodland Township.
Owner: U.S. Geological Survey.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Drilled 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.--September 1955 to April 1975, January 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.92	18.54	18.60	19.05	19.60	19.62	19.91	20.04	19.52	19.53	20.11	20.09
10	18.86	18.49	18.65	19.09	19.51	19.61	19.98	20.06	19.47	19.63	20.16	20.16
15	18.77	18.45	18.72	19.24	19.58	19.67	20.05	20.03	19.46	19.71	20.15	20.19
20	18.71	18.45	18.79	---	19.59	19.68	20.15	19.81	---	19.79	20.05	20.30
25	18.74	18.59	18.83	19.39	19.59	19.79	20.16	19.67	---	19.90	19.99	20.37
EOM	18.60	18.59	18.92	19.54	19.57	19.84	20.13	19.59	19.46	19.99	20.04	20.46
MEAN	18.80	18.53	18.76	19.22	19.56	19.69	20.05	19.90	19.49	19.74	20.07	20.24

WTR YR 1990 MEAN 19.51 HIGH 18.39 NOV 20 LOW 20.47 SEP 30



BURLINGTON COUNTY

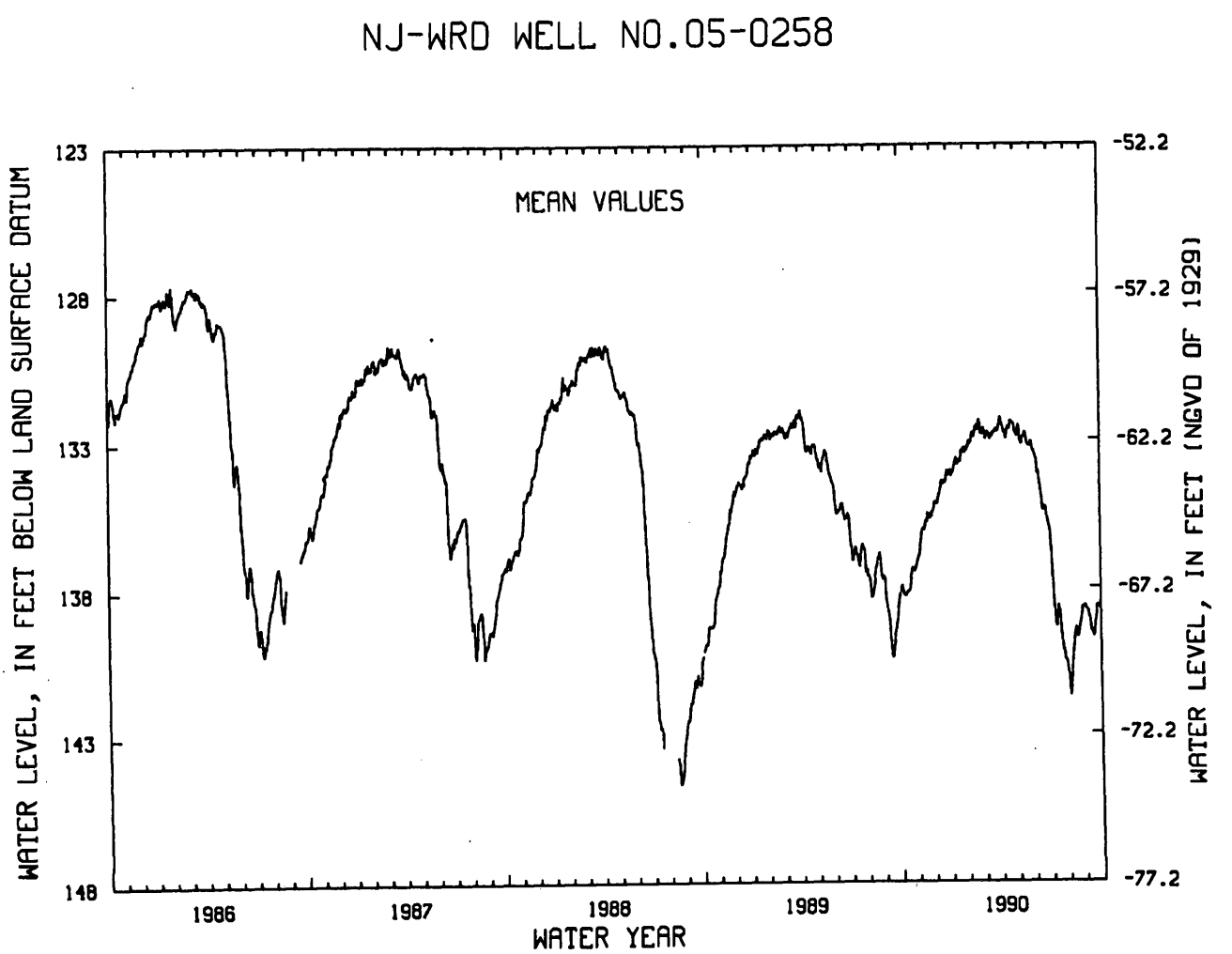
395524074502501. Local I.D., Medford 1 Obs. NJ-WRD Well Number, 05-0258.
LOCATION.--Lat 39°55'24", long 74°50'25", Hydrologic Unit 02040202, at Medford Public Shooting Grounds, Medford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Upper aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous 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, February 1977 to December 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.--October 1963 to August 1975, February 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	138.07	136.71	135.10	134.11	133.14	132.77	132.37	132.51	133.59	137.39	141.71	138.75
10	138.27	136.02	134.89	133.70	132.76	132.74	132.76	133.07	134.04	138.99	140.41	139.03
15	138.09	135.87	134.47	133.73	132.74	132.96	132.67	132.92	134.81	138.67	139.50	139.53
20	137.54	135.45	134.40	133.61	132.58	132.76	132.56	132.94	135.27	139.35	139.70	139.20
25	137.40	135.56	134.17	133.29	132.48	132.68	132.44	133.23	135.48	140.12	139.13	138.62
EOM	137.09	135.37	134.09	133.38	132.79	132.53	132.79	133.25	135.93	140.62	138.68	138.55
MEAN	137.80	135.96	134.62	133.68	132.80	132.77	132.57	132.96	134.67	138.97	139.89	138.99

WTR YR 1990 MEAN 135.49 HIGH 132.20 APR 4 LOW 141.87 AUG 6



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.--January 1968 to March 1975, March 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.

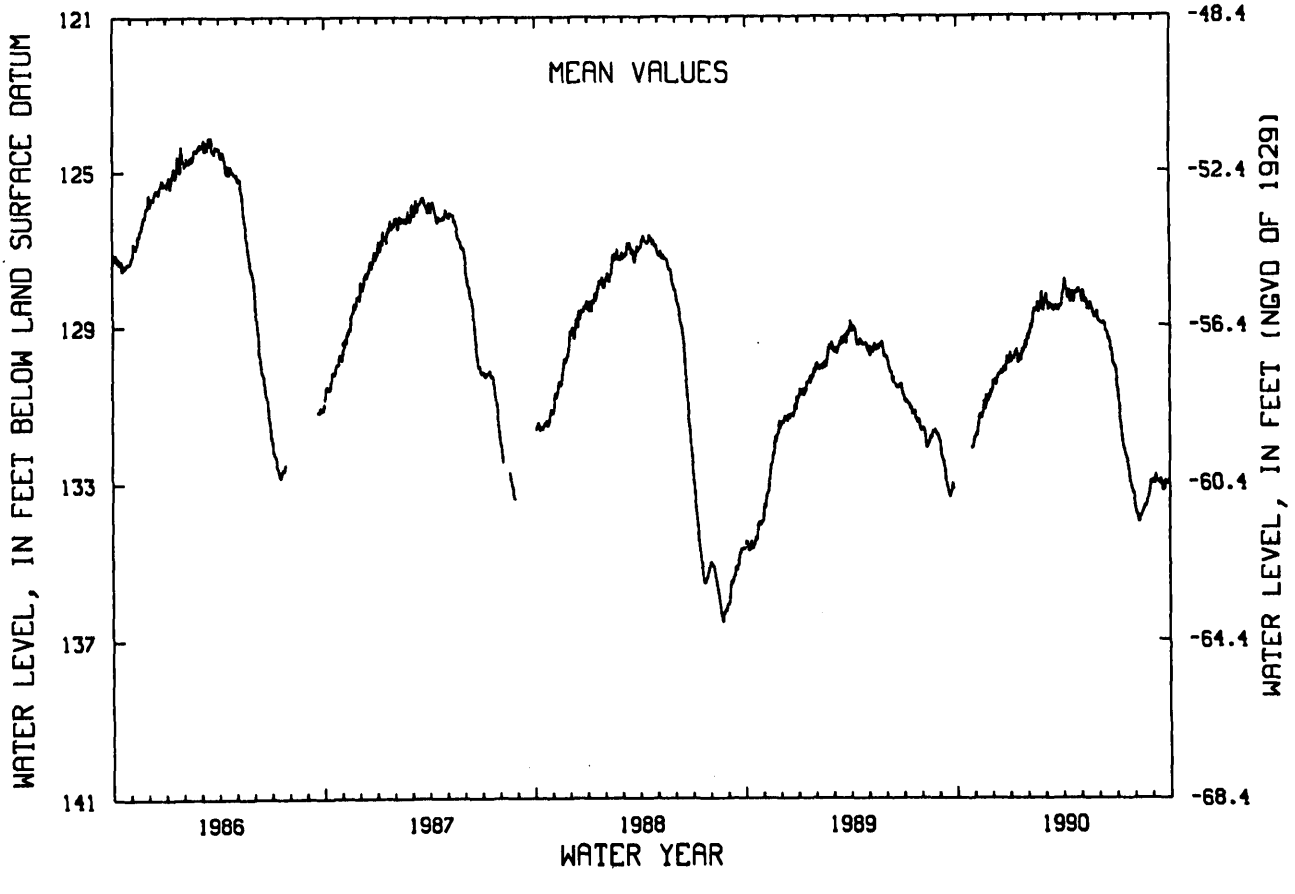
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	131.74	130.37	129.82	129.08	128.43	127.91	128.09	128.93	130.75	133.82	132.93
10	---	131.25	130.27	129.64	128.55	128.46	128.17	128.30	128.90	131.63	133.92	132.93
15	---	131.11	130.19	129.89	128.55	128.61	128.16	128.59	129.18	132.12	133.74	132.90
20	---	130.78	130.05	129.80	128.53	128.47	128.31	128.54	129.45	132.41	133.61	133.11
25	---	130.85	129.92	129.50	128.38	128.53	128.14	128.80	129.88	132.94	133.32	133.04
EOM	131.81	130.64	129.78	129.34	128.39	128.18	128.13	128.83	130.07	133.29	133.01	132.91
MEAN	---	131.16	130.19	129.69	128.65	128.47	128.14	128.50	129.33	132.05	133.56	133.00

WTR YR 1990 MEAN 130.29 HIGH 127.76 APR 4 LOW 134.01 AUG 9

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, February 1977 to December 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.--January 1968 to July 1975, February 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, 135.51 ft below land-surface datum, Aug. 23, 1988.

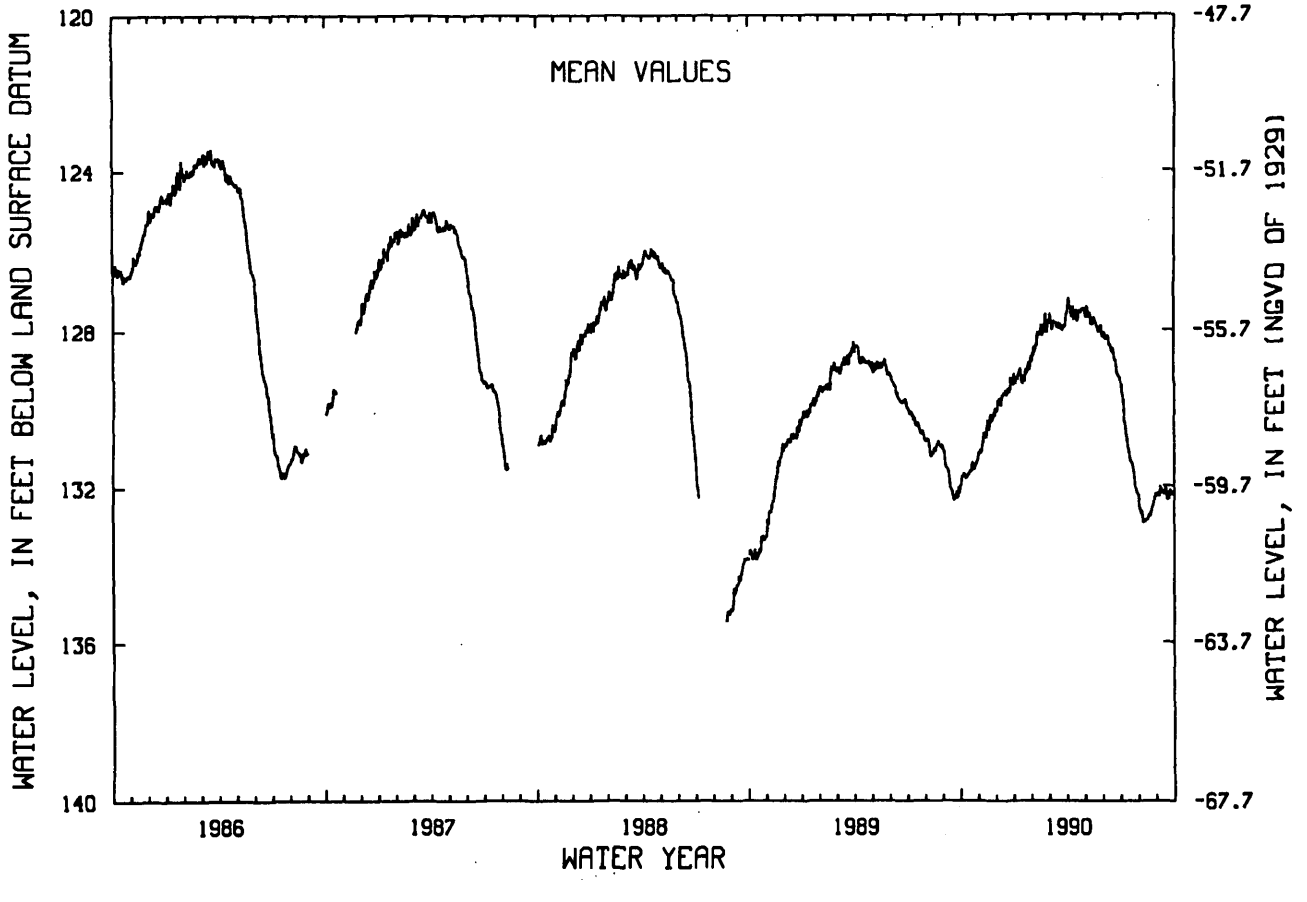
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	131.72	131.12	129.78	129.24	128.57	127.83	127.31	127.36	128.21	129.76	132.73	132.17
10	131.80	130.66	129.69	129.05	128.05	127.81	127.50	127.55	128.16	130.54	132.93	132.14
15	131.66	130.54	129.62	129.31	128.05	127.92	127.50	127.87	128.40	131.09	132.89	132.04
20	131.39	130.20	129.50	129.20	128.03	127.84	127.70	127.81	128.60	131.40	132.79	132.27
25	131.48	130.26	129.32	128.92	127.83	127.94	127.53	128.06	129.04	131.90	132.53	132.21
EOM	131.15	130.04	129.19	128.82	127.83	127.60	127.46	128.11	129.20	132.25	132.27	132.12
MEAN	131.60	130.56	129.62	129.11	128.13	127.85	127.51	127.77	128.54	131.03	132.66	132.19

WTR YR 1990 MEAN 129.73 HIGH 127.16 APR 4 LOW 132.99 AUG 9

NJ-WRD WELL NO.05-0262



BURLINGTON COUNTY

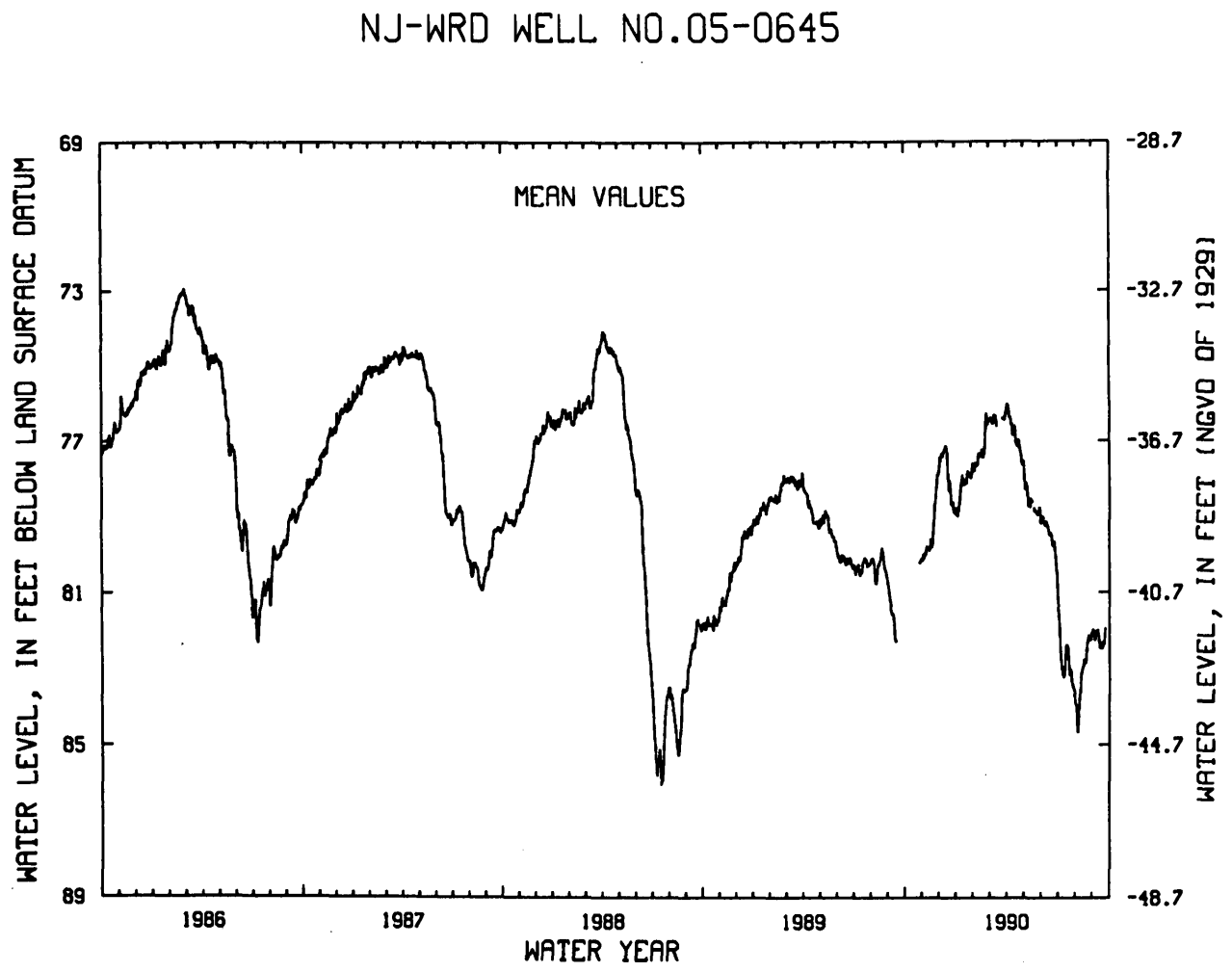
400010074521601. Local I.D., Willingboro 2 Obs. NJ-WRD Well Number, 05-0645.
LOCATION.--Lat 40°00'10", long 74°52'16", Hydrologic Unit 02040202, near intersection of Bridge Street and Tiffany Lane, Willingboro Township.
Owner: Willingboro Municipal Utilities Authority.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy 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.--March 1966 to September 1975, March 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	80.03	77.42	78.83	77.64	76.43	76.31	78.11	79.14	82.42	84.68	82.24
10	---	79.84	77.27	78.05	77.31	76.31	76.53	78.75	79.12	83.20	83.53	82.02
15	---	79.84	77.21	78.11	77.39	---	76.59	78.61	79.41	82.46	82.97	82.33
20	---	79.52	78.03	77.99	77.29	---	77.15	78.87	79.53	82.79	82.77	82.30
25	---	78.47	78.64	77.92	76.39	76.38	77.24	78.96	79.75	83.28	82.14	---
EOM	---	77.89	78.78	77.79	76.50	76.18	77.52	79.13	80.89	83.72	82.07	81.54
MEAN	---	79.39	77.92	78.16	77.22	76.40	76.80	78.60	79.51	82.83	83.05	82.18

WTR YR 1990 MEAN 79.36 HIGH 75.81 APR 3 LOW 84.86 AUG 5

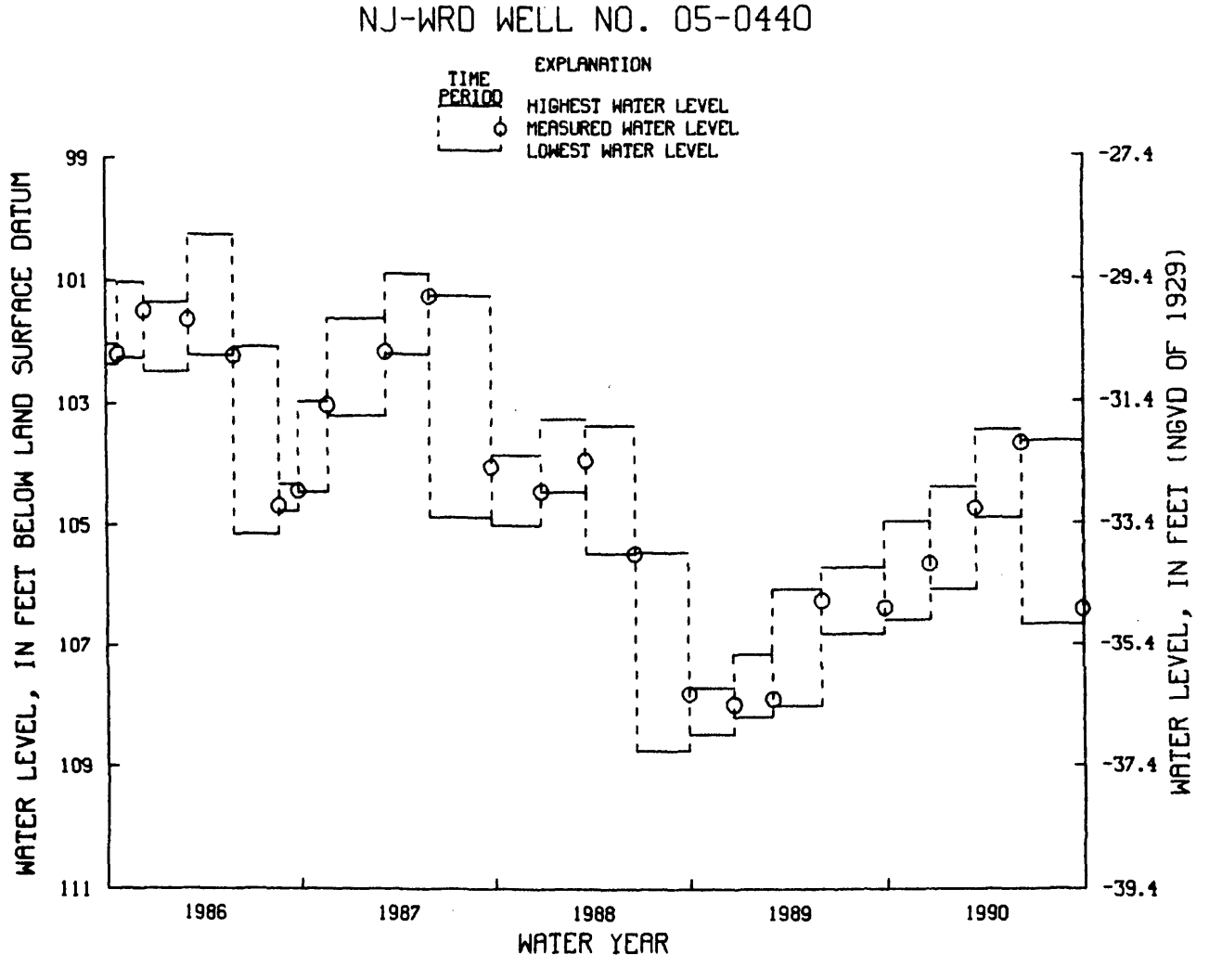


BURLINGTON COUNTY

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, on the lands of Rhodia Corporation near Jobstown.
Owner: Rhodia Corporation.
AQUIFER.--Middle aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 in, depth 615 ft, screened 603 to 613 ft.
INSTRUMENTATION.--Water-level extremes recorder, April 1977 to current year. Water-level recorder, December 1968 to March 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.--December 1968 to March 1975, April 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, 108.74 ft below land-surface datum, between Jun. 21 and Sep. 28, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 19, 1989	104.96	106.60	DEC. 19, 1989	105.66
DEC. 19, 1989 TO MAR. 13, 1990	104.40	106.09	MAR. 13, 1990	104.75
MAR. 13, 1990 TO JUNE 7, 1990	103.46	104.90	JUNE 7, 1990	103.68
JUNE 7, 1990 TO SEPT. 27, 1990	103.65	106.68	SEPT. 27, 1990	106.42



CAMDEN COUNTY

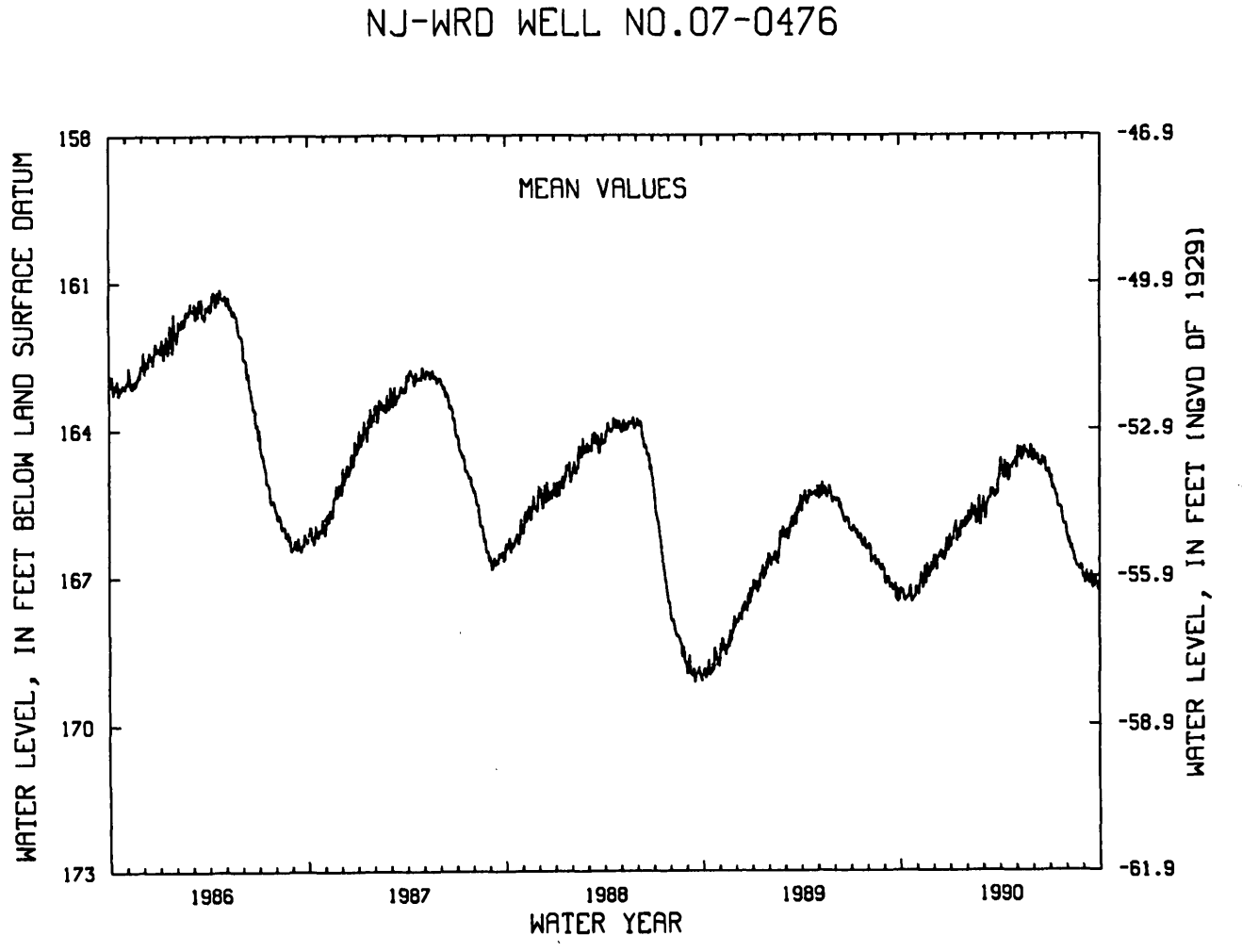
394215074561701. Local I.D., New Brooklyn Park 1 Obs. NJ-WRD Well Number, 07-0476.
LOCATION.--Lat 39°42'15", long 74°56'17", Hydrologic Unit 02040302, on eastern shore of New Brooklyn Lake about 900 ft upstream of Route 536, Winslow Township.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac-Raritan-Magothy 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, February 1977 to December 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.--February 1963 to August 1975, February 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, March 6, 1963; lowest, 169.15 ft below land-surface datum, Sept. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	167.32	167.34	166.60	166.26	165.88	165.66	164.72	164.35	164.58	164.96	166.28	167.05
10	167.49	167.02	166.62	165.97	165.54	165.52	164.82	164.37	164.51	165.17	166.41	167.06
15	167.41	167.01	166.52	166.22	165.75	165.42	164.74	164.57	164.66	165.35	166.59	166.91
20	167.19	166.74	166.50	166.10	165.84	165.21	164.98	164.45	164.63	165.58	166.79	167.13
25	167.45	166.93	166.37	165.88	165.69	165.33	164.78	164.61	164.82	165.80	166.86	167.17
EOM	167.20	166.79	166.24	165.97	165.70	165.04	164.67	164.58	164.85	165.93	166.99	167.21
MEAN	167.37	167.03	166.57	166.09	165.75	165.41	164.81	164.50	164.67	165.44	166.57	167.10

WTR YR 1990 MEAN 165.94 HIGH 164.20 MAY 10 LOW 167.54 OCT 10



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 Route 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.--January 1963 to August 1975, March 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, 196.20 ft below land-surface datum, Aug. 19,20, 1988.

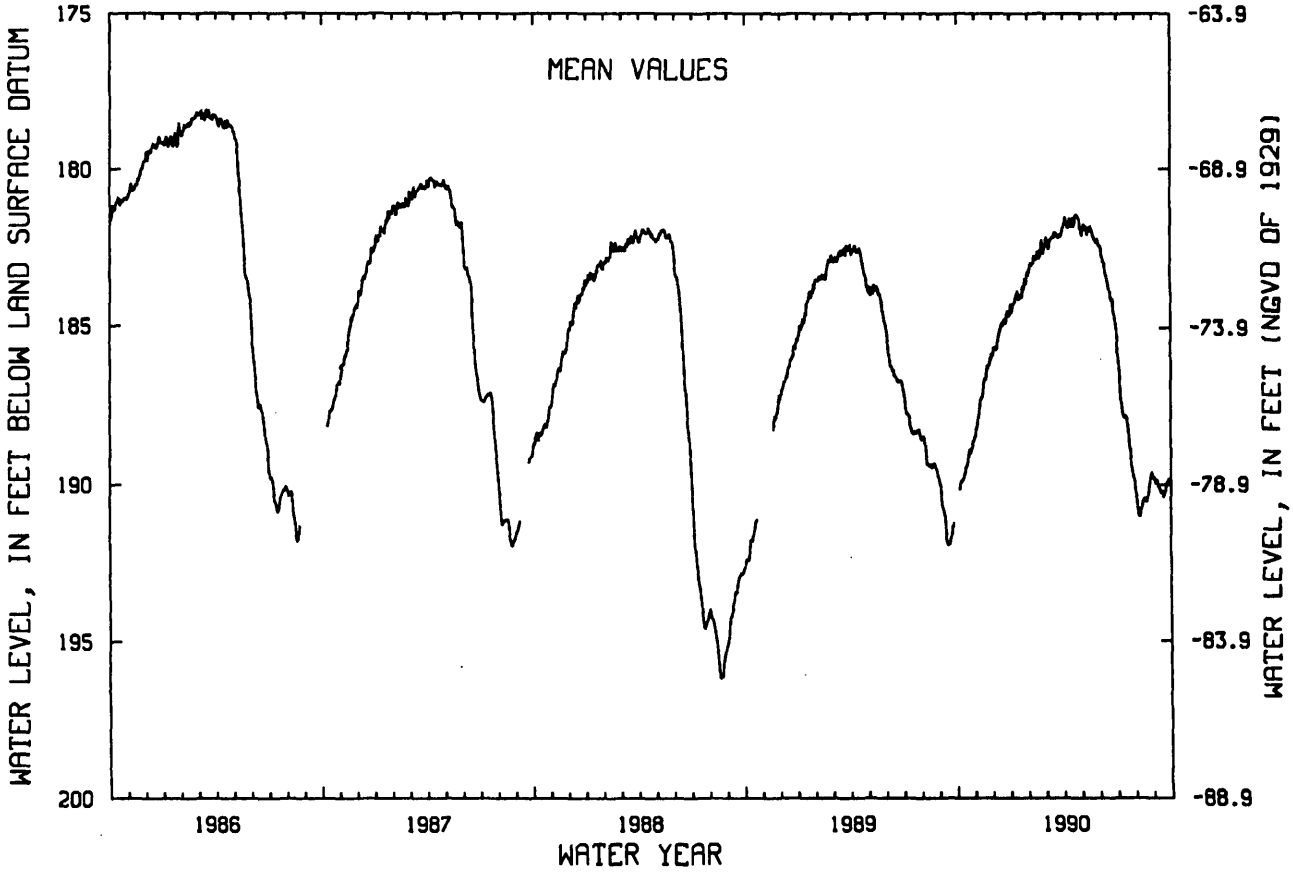
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	190.15	188.10	185.63	184.32	183.12	182.40	181.64	181.77	182.73	186.47	190.70	189.93
10	189.87	187.30	185.31	183.98	182.78	182.28	181.74	181.83	183.02	187.56	190.89	190.04
15	189.49	186.88	184.93	184.12	182.86	182.22	181.62	182.02	183.51	187.77	190.52	190.19
20	188.96	186.26	184.76	184.01	182.74	182.06	181.75	181.98	184.12	188.14	190.56	190.22
25	188.84	186.13	184.59	183.63	182.52	182.16	181.56	182.30	184.47	189.28	189.99	189.90
EOM	188.46	185.85	184.42	183.43	182.50	181.91	181.90	182.42	185.03	189.89	189.79	189.77
MEAN	189.29	186.94	185.07	183.97	182.83	182.21	181.69	182.05	183.62	187.96	190.38	190.03

WTR YR 1990 MEAN 185.48 HIGH 181.44 APR 23 LOW 191.03 AUG 8

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 Route 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.--December 1962 to August 1975, March 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, 94.79 ft below land-surface datum, Sept. 29, 1990.

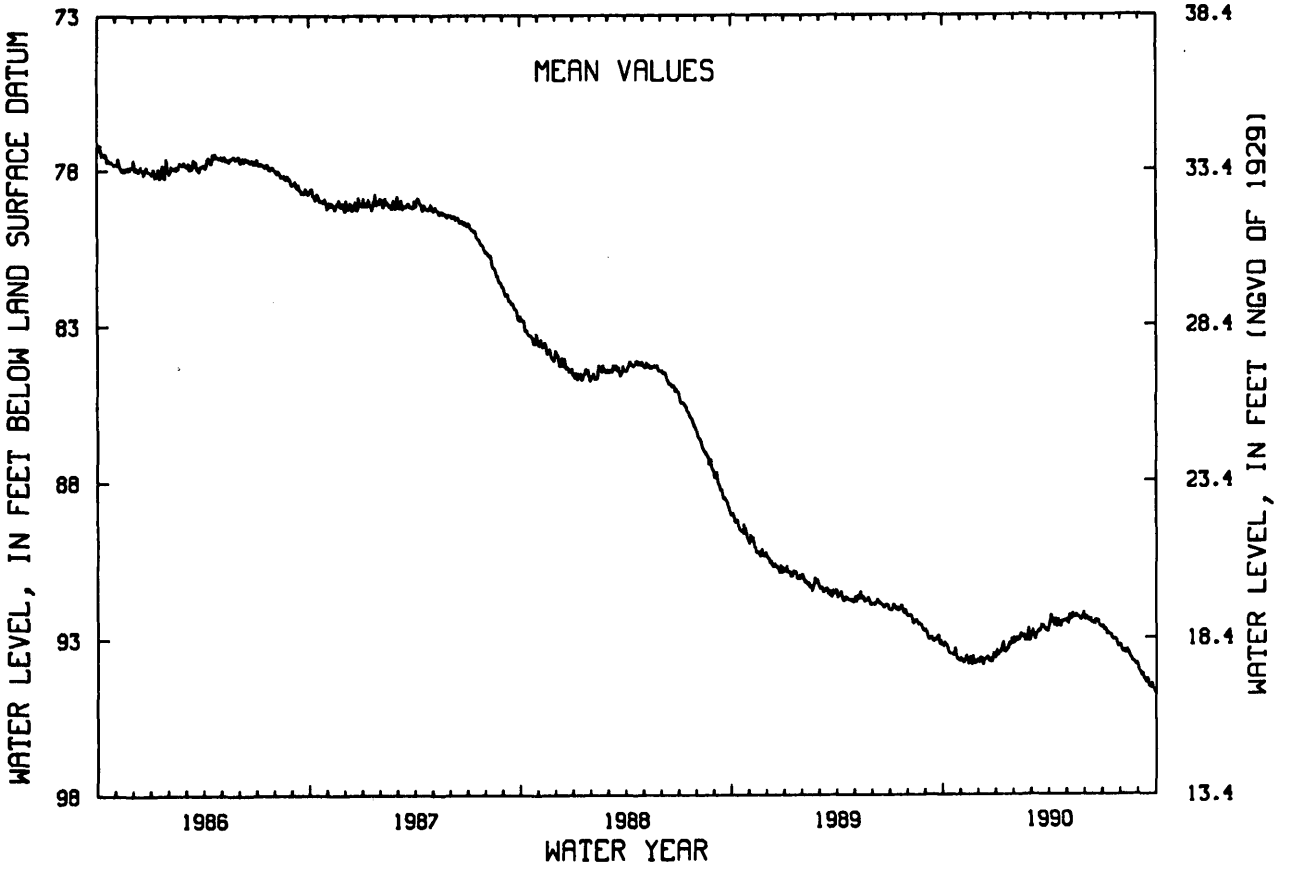
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	93.19	93.77	93.61	93.41	93.03	92.91	92.31	92.28	92.38	92.72	93.44	94.19
10	93.44	93.54	93.66	93.19	92.83	92.84	92.55	92.32	92.37	92.82	93.45	94.29
15	93.47	93.71	93.62	93.42	92.98	92.76	92.49	92.34	92.48	92.87	93.51	94.28
20	93.36	93.63	93.62	93.35	92.99	92.59	92.65	92.32	92.43	93.03	93.69	94.51
25	93.62	93.79	93.58	93.14	92.84	92.74	92.50	92.43	92.56	93.14	93.79	94.61
EOM	93.62	93.71	93.50	93.11	92.95	92.60	92.47	92.30	92.63	93.22	93.97	94.77
MEAN	93.43	93.68	93.64	93.27	92.97	92.77	92.48	92.33	92.48	92.96	93.58	94.40

WTR YR 1990 MEAN 93.17 HIGH 92.12 MAY 30 LOW 94.79 SEP 29

NJ-WRD WELL NO.07-0478



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 and Erial-Williamstown Roads, 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, November 1977 to December 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.--December 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.

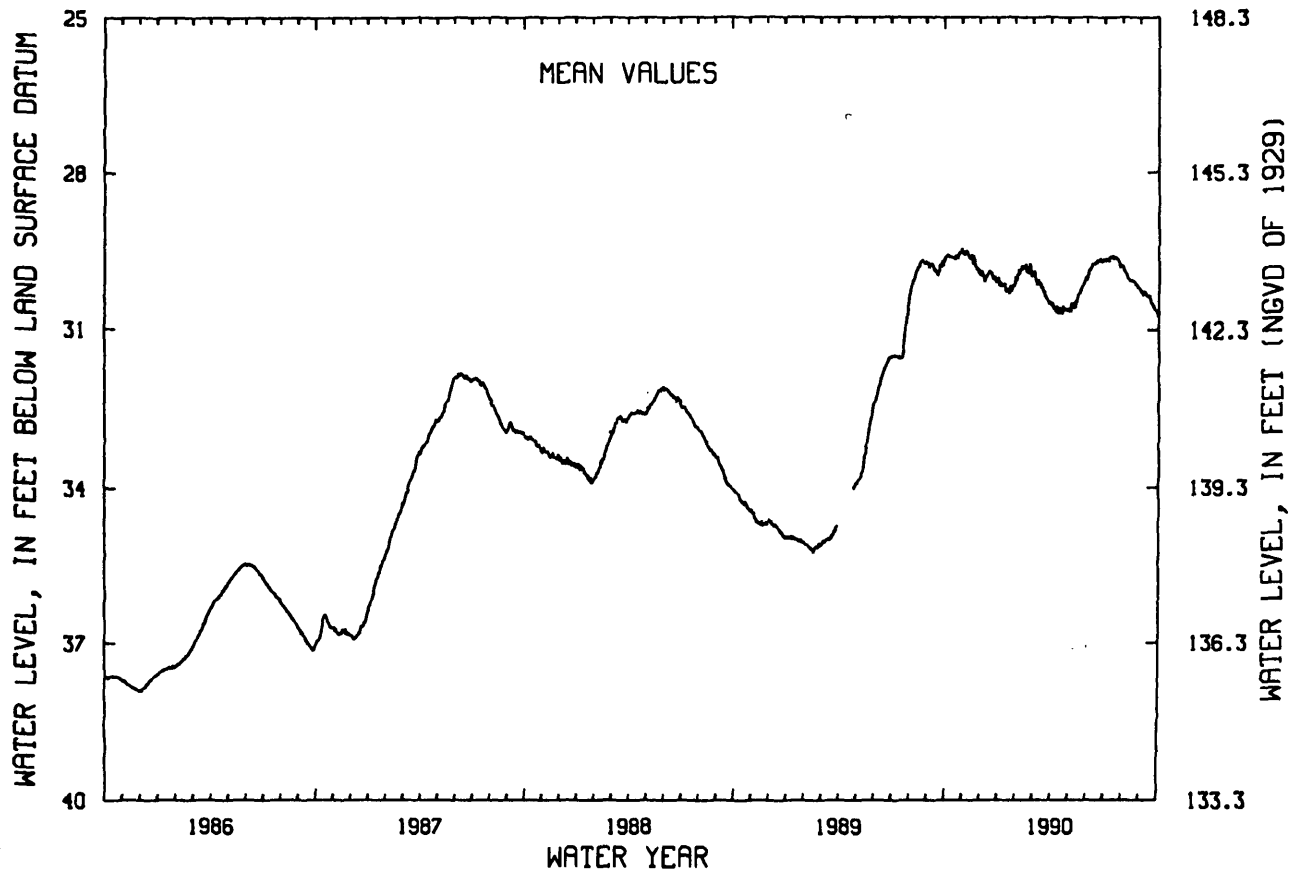
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.61	29.57	29.98	30.19	29.96	30.08	30.62	30.52	29.90	29.67	29.96	30.32
10	29.63	29.59	30.01	30.16	29.80	30.13	30.58	30.51	29.77	29.64	30.07	30.36
15	29.65	29.61	29.90	30.27	29.83	30.23	30.60	30.46	29.74	29.61	30.10	30.38
20	29.60	29.61	29.97	30.23	29.95	30.30	30.64	30.28	29.71	29.64	30.14	30.56
25	29.58	29.85	30.01	30.18	29.96	30.44	30.63	30.17	29.73	29.76	30.21	30.66
EOM	29.48	29.92	30.02	30.09	29.94	30.52	30.64	30.06	29.68	29.82	30.31	30.77
MEAN	29.61	29.69	30.00	30.20	29.89	30.25	30.63	30.38	29.77	29.69	30.10	30.49

WTR YR 1990 MEAN 30.06 HIGH 29.43 OCT 31 LOW 30.80 SEP 30

NJ-WRD WELL NO.07-0503



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 Road 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, February 1977 to December 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 August 1969.
PERIOD OF RECORD.--January 1963 to June 1975, February 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.

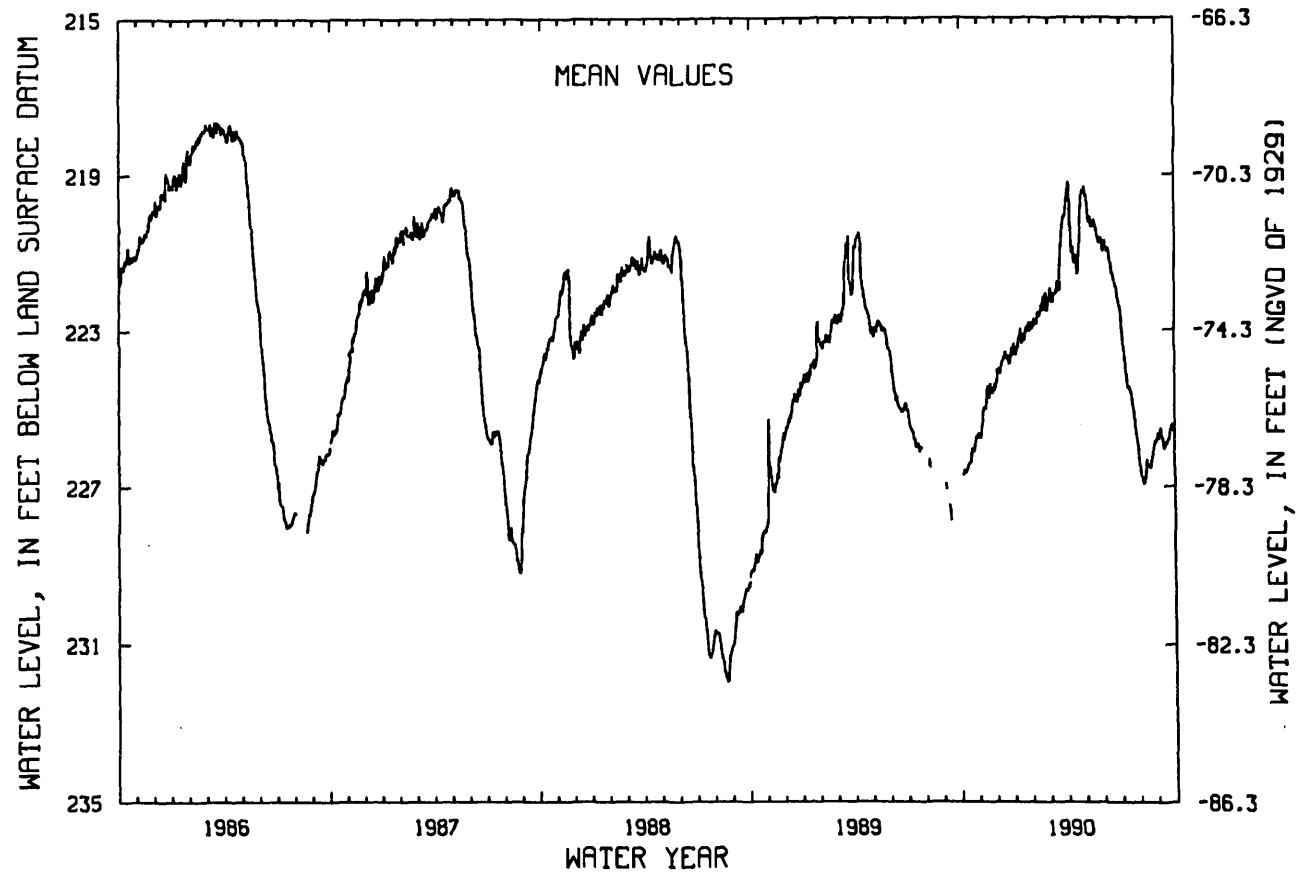
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	226.71	225.68	224.02	223.51	222.86	222.09	219.34	219.58	220.87	223.15	226.73	225.70
10	226.65	225.00	223.83	223.16	222.53	222.08	220.97	220.08	220.88	223.98	226.90	225.75
15	226.44	224.54	223.58	223.29	222.53	221.74	221.06	220.33	221.33	224.44	226.32	225.89
20	226.06	224.38	223.66	223.15	222.40	221.26	221.49	220.39	221.71	224.69	226.54	225.78
25	225.96	224.59	223.66	222.90	222.28	220.23	219.71	220.76	222.11	225.25	226.19	225.42
EOM	225.64	224.40	223.42	222.99	222.26	219.70	219.41	220.91	222.42	225.94	225.85	225.51
MEAN	226.25	224.90	223.80	223.18	222.53	221.36	220.39	220.25	221.45	224.42	226.42	225.72

WTR YR 1990 MEAN 223.37 HIGH 219.17 APR 4 LOW 226.96 AUG 9

NJ-WRD WELL NO.07-0412



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 Road 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.--December 1963 to April 1975, March 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.

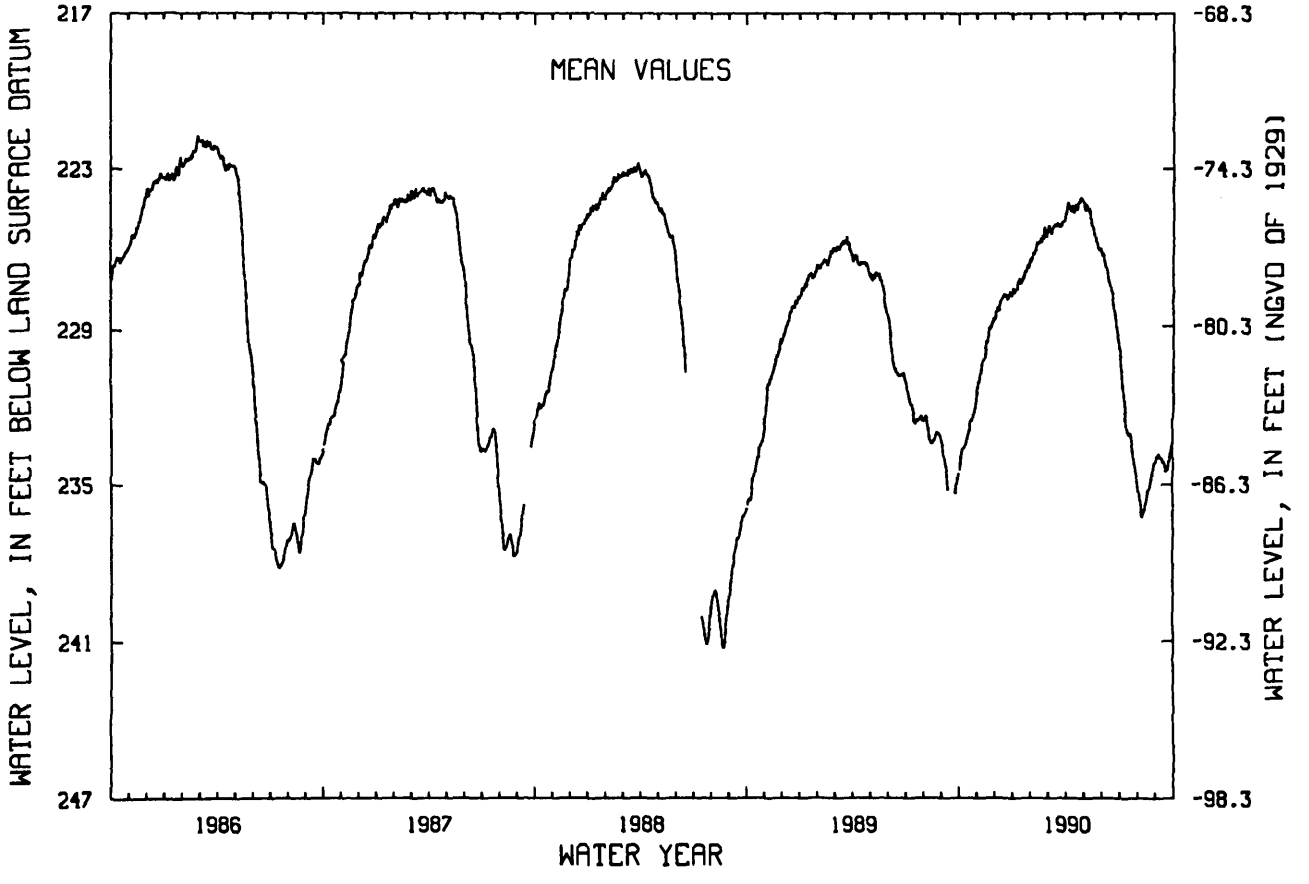
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	233.78	230.96	228.34	227.61	226.28	225.35	224.36	224.35	226.44	230.79	235.56	233.92
10	233.55	230.22	228.13	227.29	225.81	225.25	224.54	224.53	226.80	232.04	236.21	233.93
15	233.09	229.76	227.85	227.31	225.81	225.19	224.46	225.17	227.42	232.93	235.73	234.14
20	232.58	229.10	227.81	227.09	225.67	225.14	224.51	225.59	227.99	233.04	235.24	234.43
25	232.31	228.93	227.78	226.77	225.43	225.09	224.23	225.99	228.95	233.97	234.85	233.98
EOM	231.39	228.69	227.65	226.56	225.41	224.73	224.23	226.19	229.59	234.69	234.15	233.33
MEAN	232.97	229.80	228.03	227.16	225.84	225.17	224.41	225.22	227.65	232.66	235.30	234.03

WTR YR 1990 MEAN 229.05 HIGH 224.11 APR 28 LOW 236.27 AUG 9

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 and Cropwell Roads, 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, February 1977 to December 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.--August 1967 to April 1975, February 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.

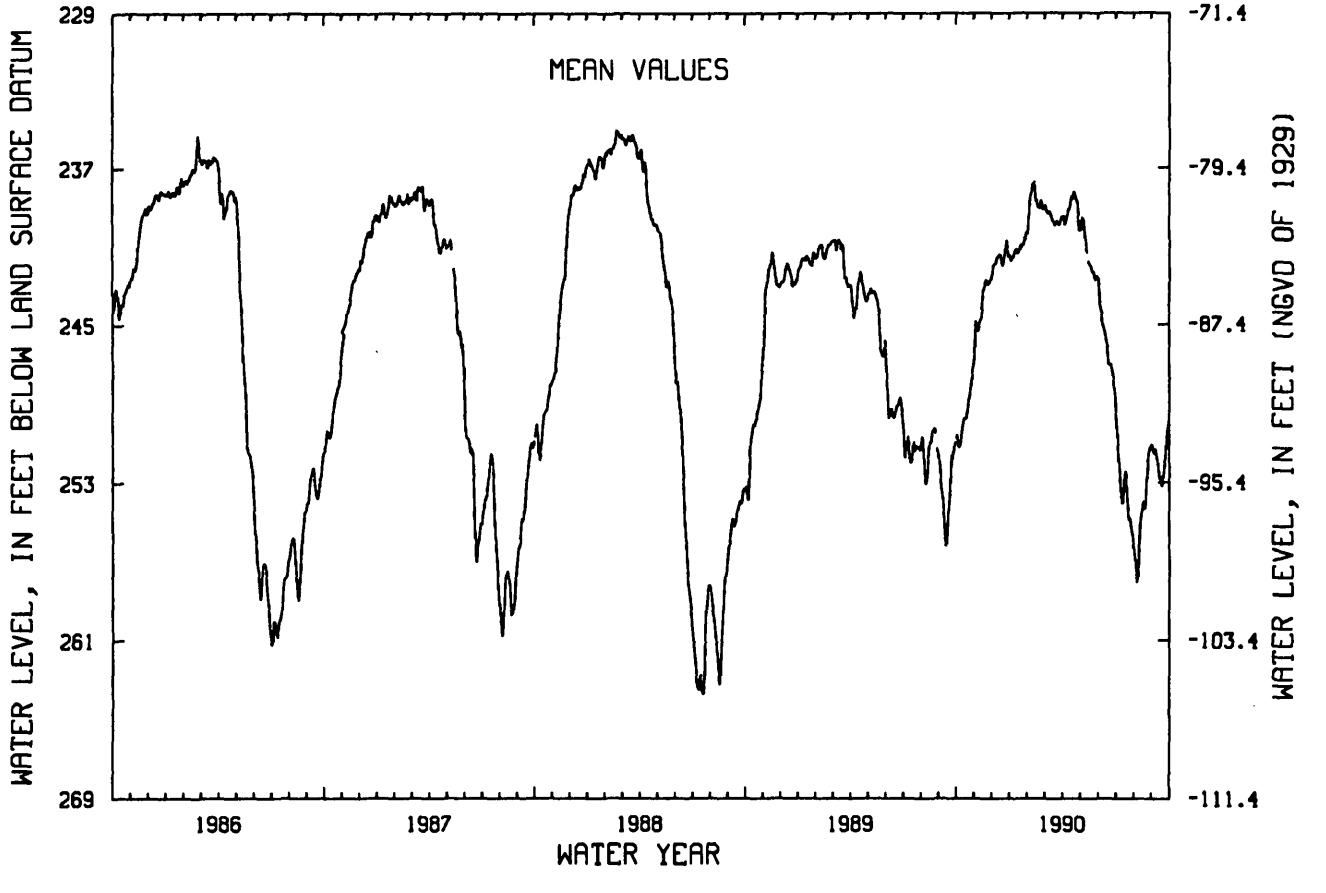
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	251.13	245.20	241.91	241.61	238.57	239.24	239.80	239.57	244.08	251.03	257.62	251.55
10	250.50	244.87	241.60	241.26	237.83	239.25	239.25	240.55	245.07	253.46	256.30	251.83
15	249.70	243.69	241.43	241.31	238.71	239.67	238.72	241.75	245.87	253.08	254.51	252.69
20	249.26	242.76	241.97	241.05	239.06	239.81	238.35	242.11	247.06	253.49	254.40	252.60
25	248.26	242.89	240.95	240.71	238.90	239.82	238.67	242.53	247.35	254.87	252.02	251.34
EOM	246.92	242.55	241.45	240.32	239.07	239.49	240.23	242.66	248.54	256.02	251.12	249.87
MEAN	249.51	243.96	241.62	241.10	238.72	239.54	239.09	241.42	245.88	253.29	254.54	251.76

WTR YR 1990 MEAN 245.09 HIGH 237.66 FEB 12 LOW 258.19 AUG 6

NJ-WRD WELL NO.07-0117

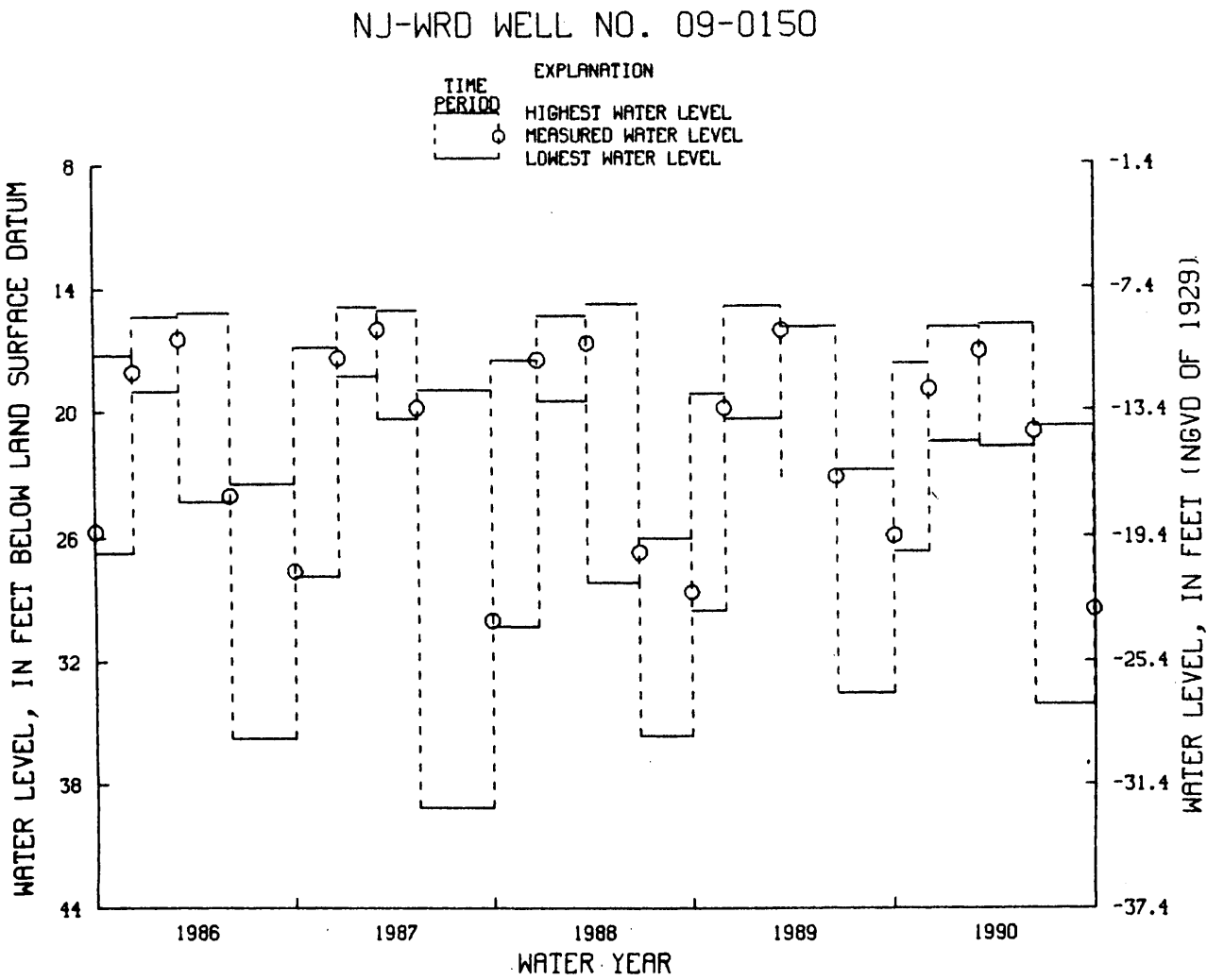


CAPE MAY COUNTY

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 Boulevard, 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 December 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 December 1972, May 1977 to current year. Periodic manual measurements, February 1973 to September 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1989 TO DEC. 7, 1989	17.69	26.68	DEC. 7, 1989	18.96
DEC. 7, 1989 TO MAR. 7, 1990	15.93	21.49	MAR. 7, 1990	17.11
MAR. 7, 1990 TO JUNE 13, 1990	15.81	21.71	JUNE 13, 1990	21.02
JUNE 13, 1990 TO SEPT. 28, 1990	20.77	34.14	SEPT. 28, 1990	29.51



CAPE MAY COUNTY

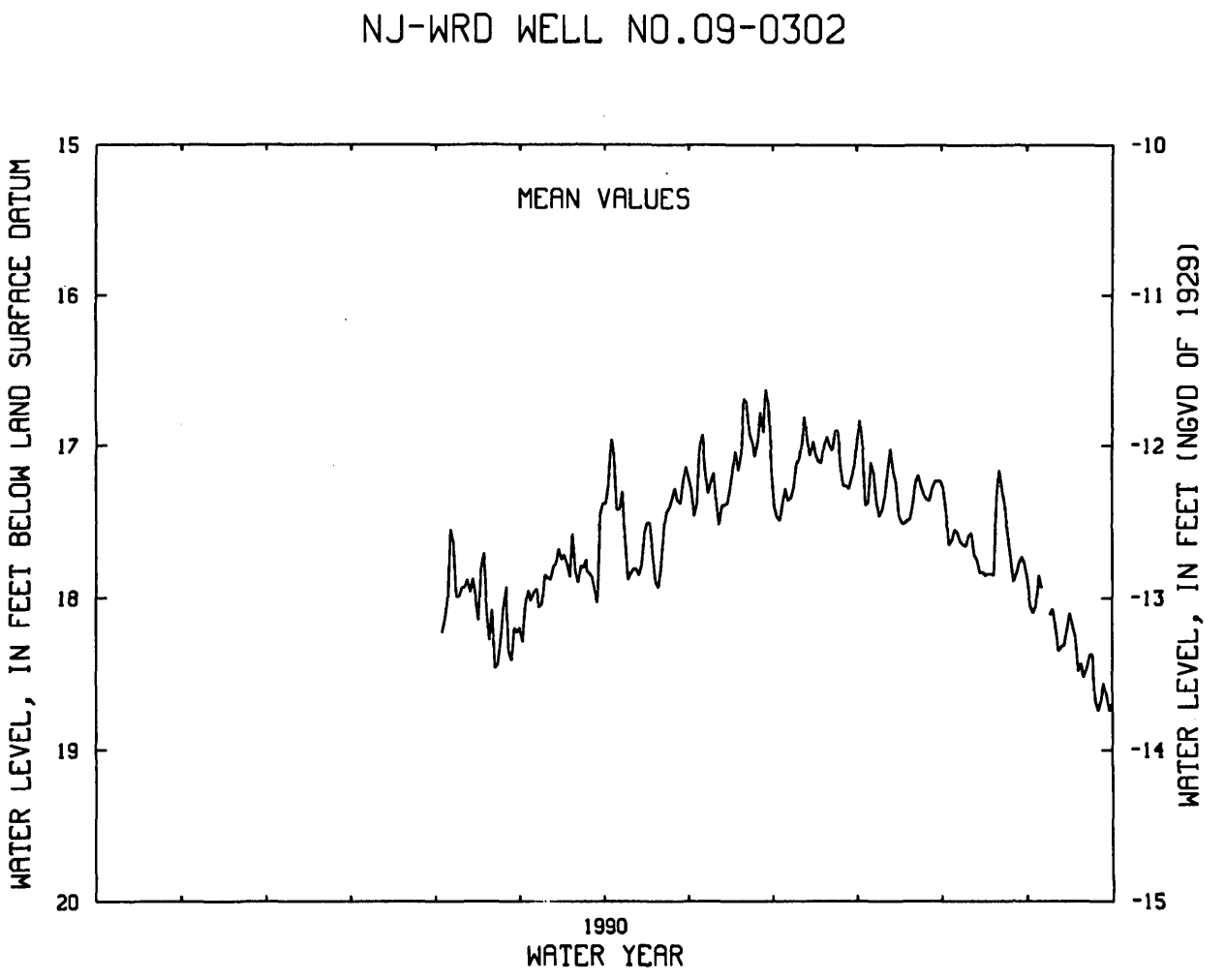
385709074512801. Local I.D., Coast Guard 800 Obs. NJ-WRD Well Number, 09-0302.
LOCATION.--Lat 38°57'09", long 74°51'28", Hydrologic Unit 02040302, at U.S. Coast Guard Electronics and Engineering Center, Lower Township.
Owner: U. S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood 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. Water-quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--February 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.12 ft below land-surface datum, May 21, 1990; lowest, 19.08 ft below land-surface datum, Sept. 25, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	17.64	18.02	17.42	16.99	17.28	17.37	17.55	17.93
10	---	---	---	---	17.88	17.85	17.84	17.18	17.09	17.42	17.59	18.19
15	---	---	---	---	17.80	17.68	17.57	17.38	16.97	17.24	17.83	18.10
20	---	---	---	---	18.46	17.58	17.93	17.06	16.94	17.48	17.34	18.52
25	---	---	---	---	18.36	17.75	17.35	17.07	17.13	17.32	17.74	18.74
EOM	---	---	---	---	18.23	17.38	17.14	17.15	17.13	17.23	17.88	18.69
MEAN	---	---	---	---	18.06	17.86	17.52	17.11	17.14	17.28	17.65	18.34

WTR YR 1990 HIGH 16.12 MAY 21 LOW 19.08 SEP 25

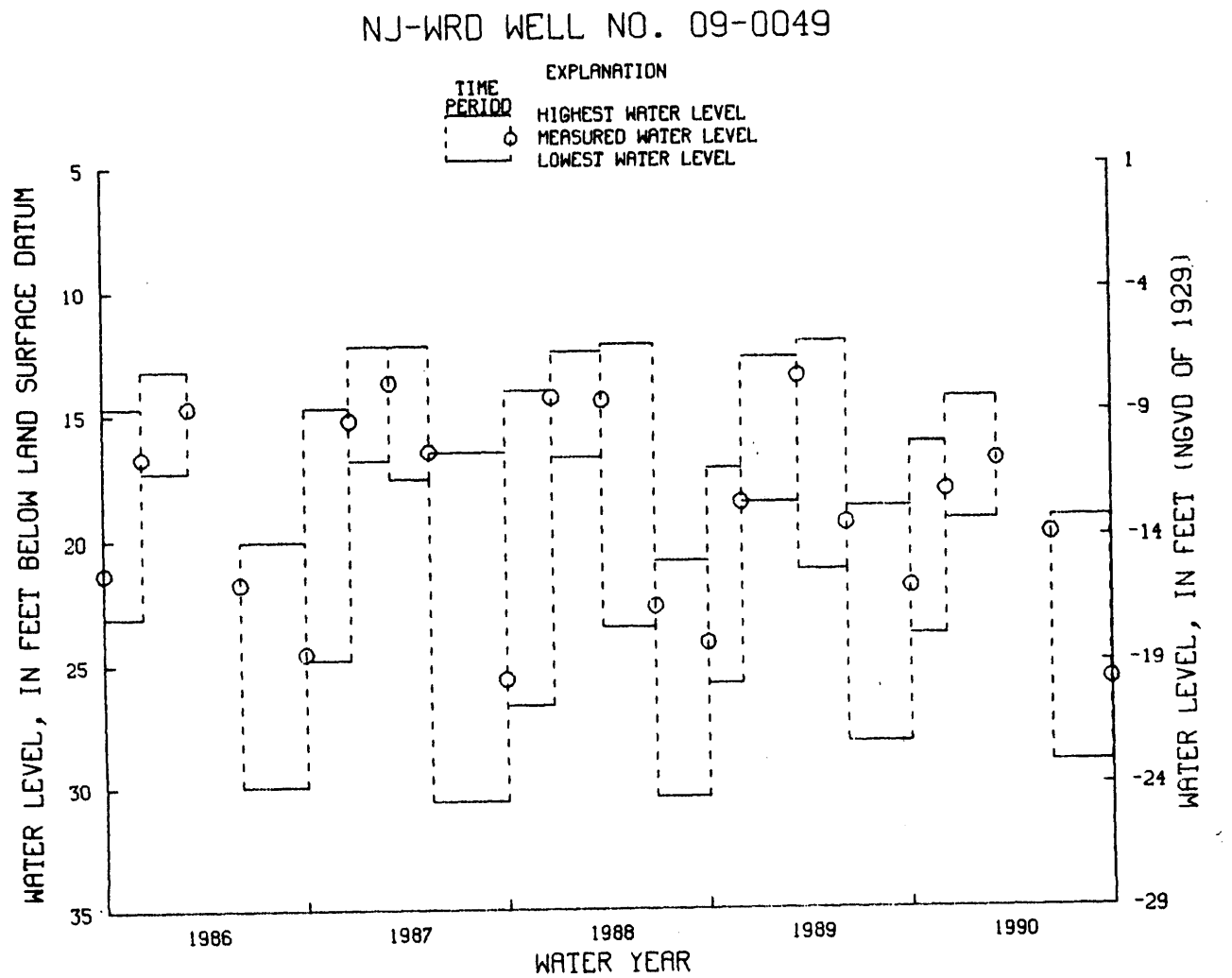


CAPE MAY COUNTY

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 September 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 September 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 Jun. 9, 1989; lowest, 34.22 ft below land-surface datum, July 31, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1989 TO DEC. 7, 1989	16.17	23.88	DEC. 7, 1989	18.09
DEC. 7, 1989 TO MAR. 7, 1990	14.39	19.28	MAR. 7, 1990	16.86
MAR. 7, 1990 TO JUNE 13, 1990	---	---	JUNE 13, 1990	19.87
JUNE 13, 1990 TO SEPT. 28, 1990	19.18	29.07	SEPT. 28, 1990	25.72



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 the 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 520 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. Water-quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--February 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.21 ft below land-surface datum, March 18, 1990; lowest, 45.47 ft below land-surface datum, Sept. 4, 1990.

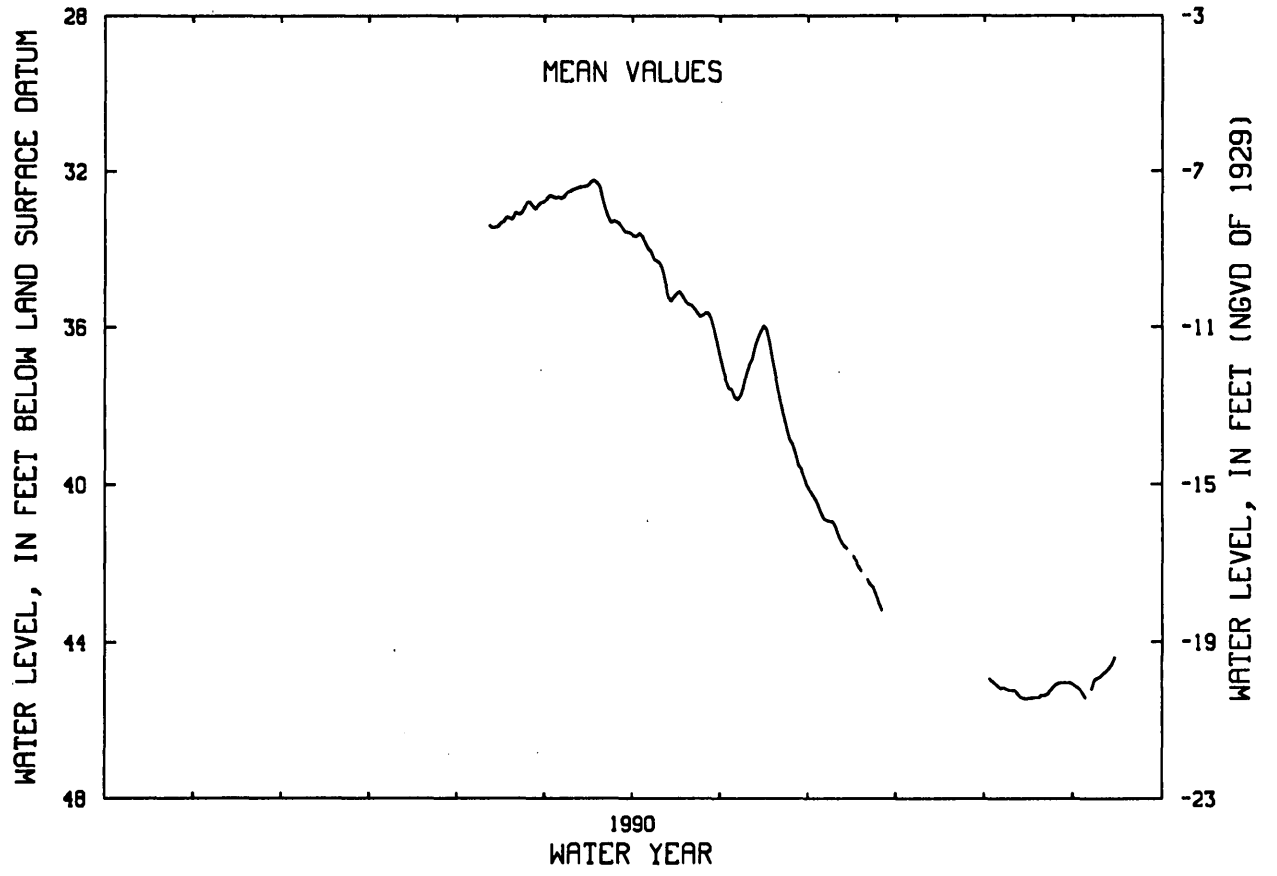
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	32.68	33.84	37.58	40.75	---	45.12	---
10	---	---	---	---	33.39	32.51	34.35	37.19	41.09	---	45.23	44.81
15	---	---	---	---	33.28	32.39	35.22	36.11	---	---	45.44	---
20	---	---	---	---	33.09	32.36	35.41	37.20	---	---	45.35	---
25	---	---	---	---	32.90	33.30	35.70	38.86	43.01	---	45.07	---
EOM	---	---	---	---	32.80	33.59	36.44	40.02	---	---	45.09	---
MEAN	---	---	---	---	33.12	32.78	34.95	37.68	41.57	---	45.21	---

WTR YR 1990 HIGH 32.21 MAR 18 LOW 45.47 SEP 4

NJ-WRD WELL NO.09-0304



CAPE MAY COUNTY

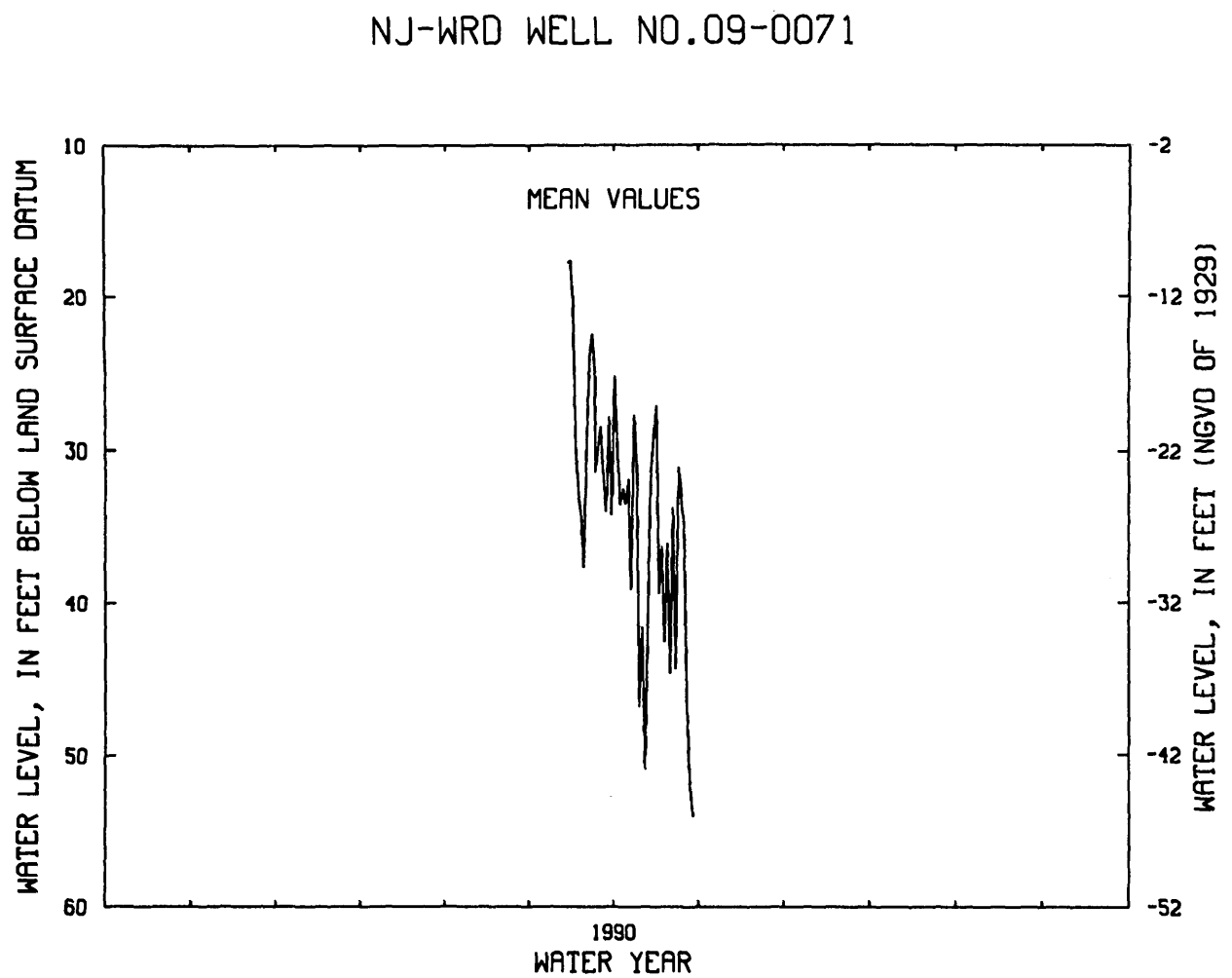
390138074534801. Local I.D., Rio Grande 23 Obs. NJ-WRD Well Number, 09-0071.
LOCATION.--Lat 39°01'38", long 74°53'48", Hydrologic Unit 02040206, at the Wildwood Water Department, Rio Grande Pumping Station, Middle Township.
Owner: Wildwood Water Department.
AQUIFER.--Rio Grande water-bearing zone of 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. Water-quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--March to April 1990. Recorder removed April 30, 1990. Periodic Manual measurments April to September 1990.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.44 ft below land-surface datum, March 17, 1990; lowest measured, 69.44 ft below land-surface datum, Aug. 1, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	33.48	---	---	---	---	---
10	---	---	---	---	---	---	46.78	---	---	---	---	---
15	---	---	---	---	---	17.79	29.12	---	---	---	---	---
20	---	---	---	---	---	34.02	36.10	---	---	---	---	---
25	---	---	---	---	---	25.37	33.02	---	---	---	---	---
EOM	---	---	---	---	---	34.20	---	---	---	---	---	---
MEAN	---	---	---	---	---	28.19	37.28	---	---	---	---	---

WTR YR 1990 HIGH 17.44 MAR 17 LOW 69.44 Aug 1



CAPE MAY COUNTY

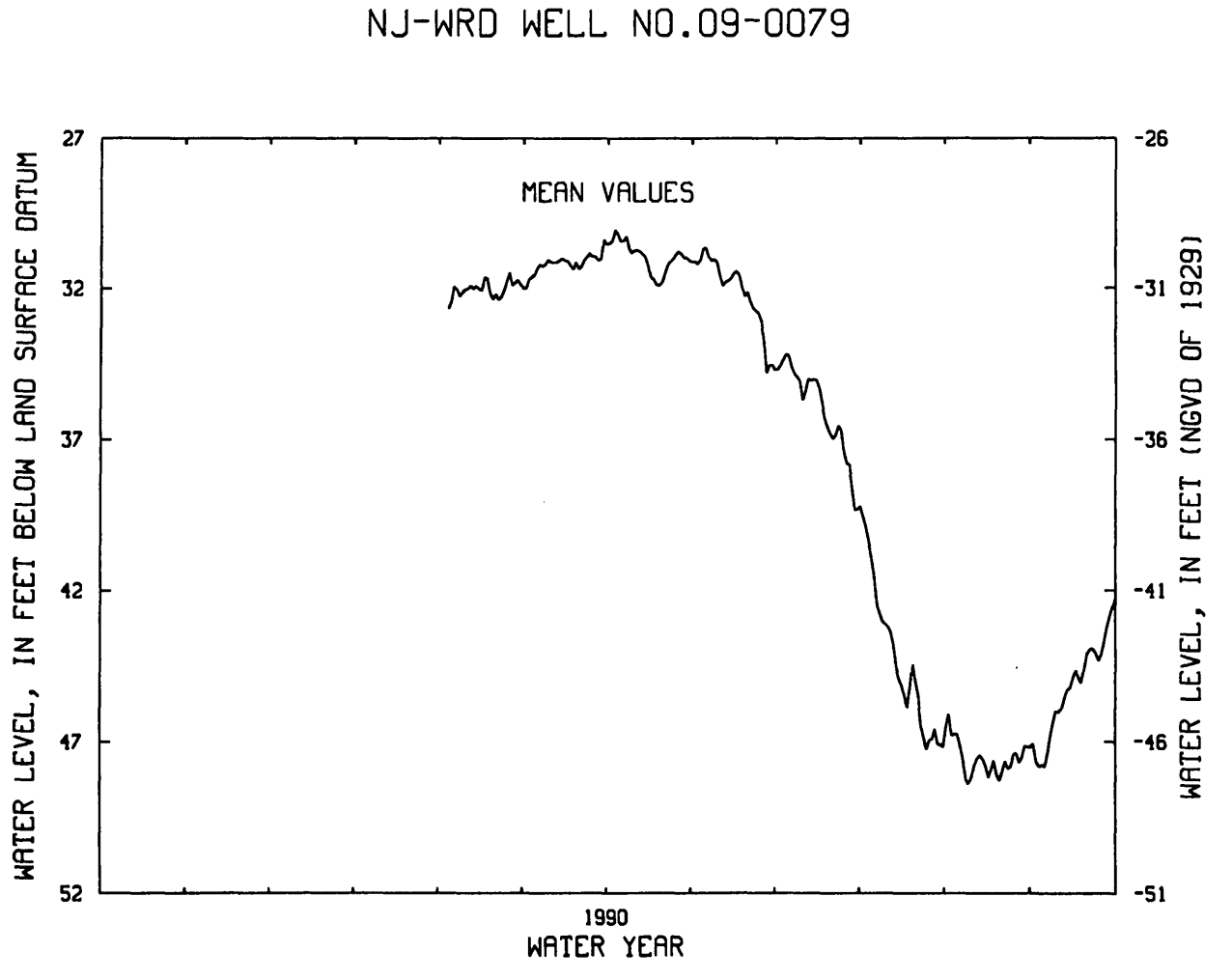
390210074473001. Local I.D., Nummy Island 2 Obs. NJ-WRD Well Number, 09-0079.
LOCATION.--Lat 39°02'10", long 74°47'30", Hydrologic Unit 02040302, on Nummy Island, along Ocean Drive, (County Rt. 619) Middle Township.
Owner: Haller, Lee.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation of 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 quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--February 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.17 ft below land-surface datum, March 30, 1990; lowest, 49.34 ft below land-surface datum, August 20, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	32.03	31.55	30.44	30.68	34.22	40.87	46.75	47.84
10	---	---	---	---	31.90	31.05	30.75	31.14	35.68	43.09	48.16	46.02
15	---	---	---	---	31.63	31.01	31.26	31.67	35.02	44.90	47.79	44.93
20	---	---	---	---	32.36	31.14	31.81	32.25	36.79	44.45	48.29	44.09
25	---	---	---	---	31.89	30.83	30.90	32.82	37.41	47.25	47.42	44.12
EOM	---	---	---	---	31.87	30.54	31.09	34.69	39.29	47.16	47.18	42.27
MEAN	---	---	---	---	32.02	31.18	30.95	32.12	36.01	44.23	47.53	45.20

WTR YR 1990 HIGH 29.17 MAR 30 LOW 49.34 AUG 20



CAPE MAY COUNTY

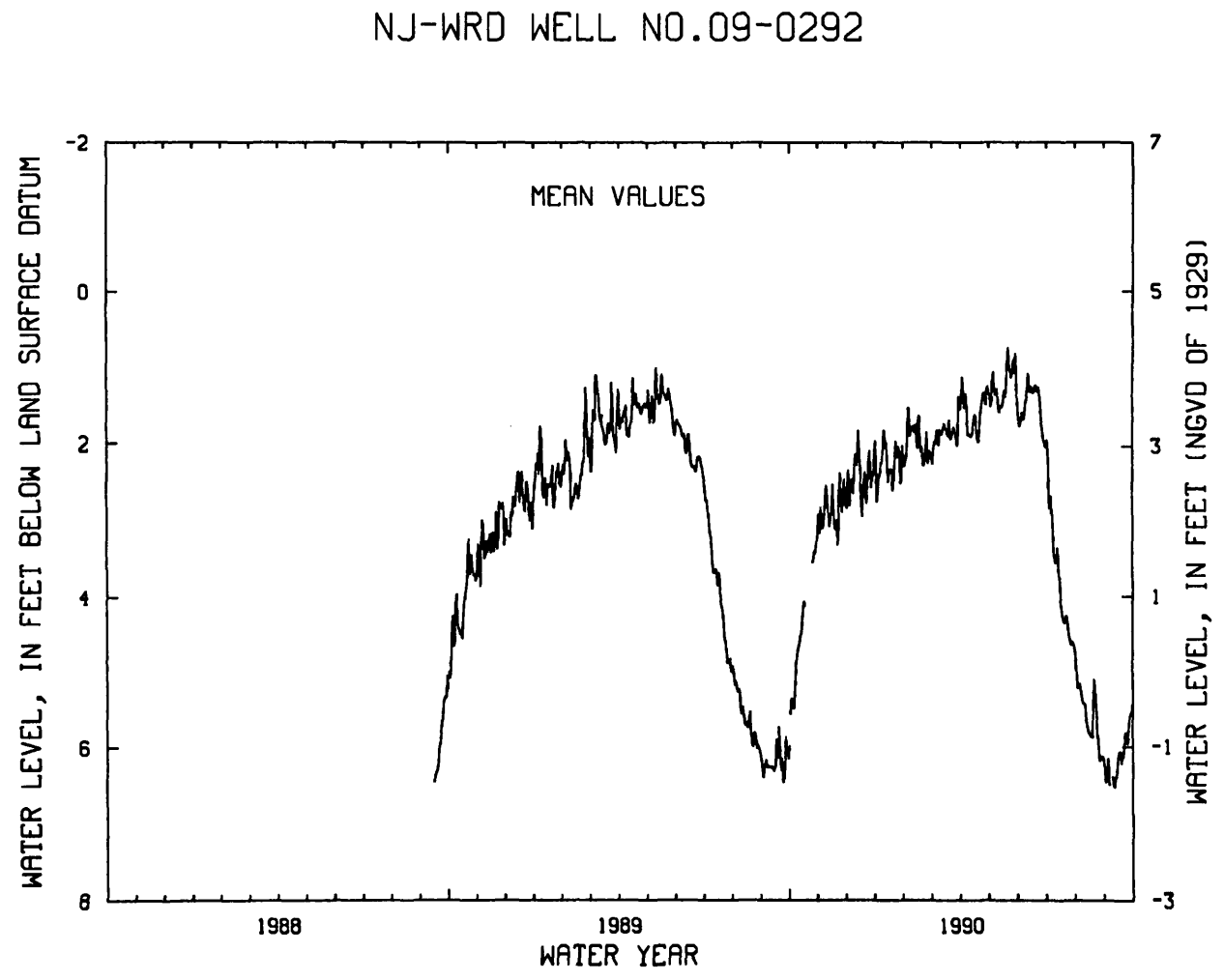
390337074462301. Local I.D., Wetlands 1 Obs. NJ-WRD Well Number, 09-0292.
LOCATION.--Lat 39°03'37", long 74°46'23", Hydrologic Unit 02040302, at the Wetlands Institute, County Rt 657 (Stone Harbor Boulevard), Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL 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. Water quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--September 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, 0.73 ft above land-surface datum, May 21, 1990; lowest, 7.23 ft below land-surface datum, Sep. 8, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.47	3.07	2.60	2.39	1.55	1.97	1.54	1.16	1.59	2.83	5.16	6.42
10	4.66	2.67	2.09	1.82	1.76	1.81	1.86	1.29	1.43	3.51	5.42	6.49
15	4.13	2.74	2.28	2.32	1.63	1.73	1.67	1.52	1.26	3.77	5.80	6.10
20	---	2.97	2.34	2.42	2.26	1.68	1.95	1.23	1.24	4.35	5.11	6.14
25	3.54	2.77	2.05	1.99	2.23	1.77	1.37	1.15	1.60	4.53	6.02	5.92
EOM	2.89	2.78	1.93	2.27	2.11	1.55	1.25	1.39	2.01	4.70	6.25	5.43
MEAN	4.38	2.84	2.39	2.24	1.94	1.86	1.59	1.25	1.51	3.74	5.61	6.11

WTR YR 1990 MEAN 2.93 HIGH -0.73 MAY 21 LOW 7.23 SEP 8



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 Boulevard), 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. Water quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--September 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, 6.93 ft below land-surface datum, Jan. 22, 1989.

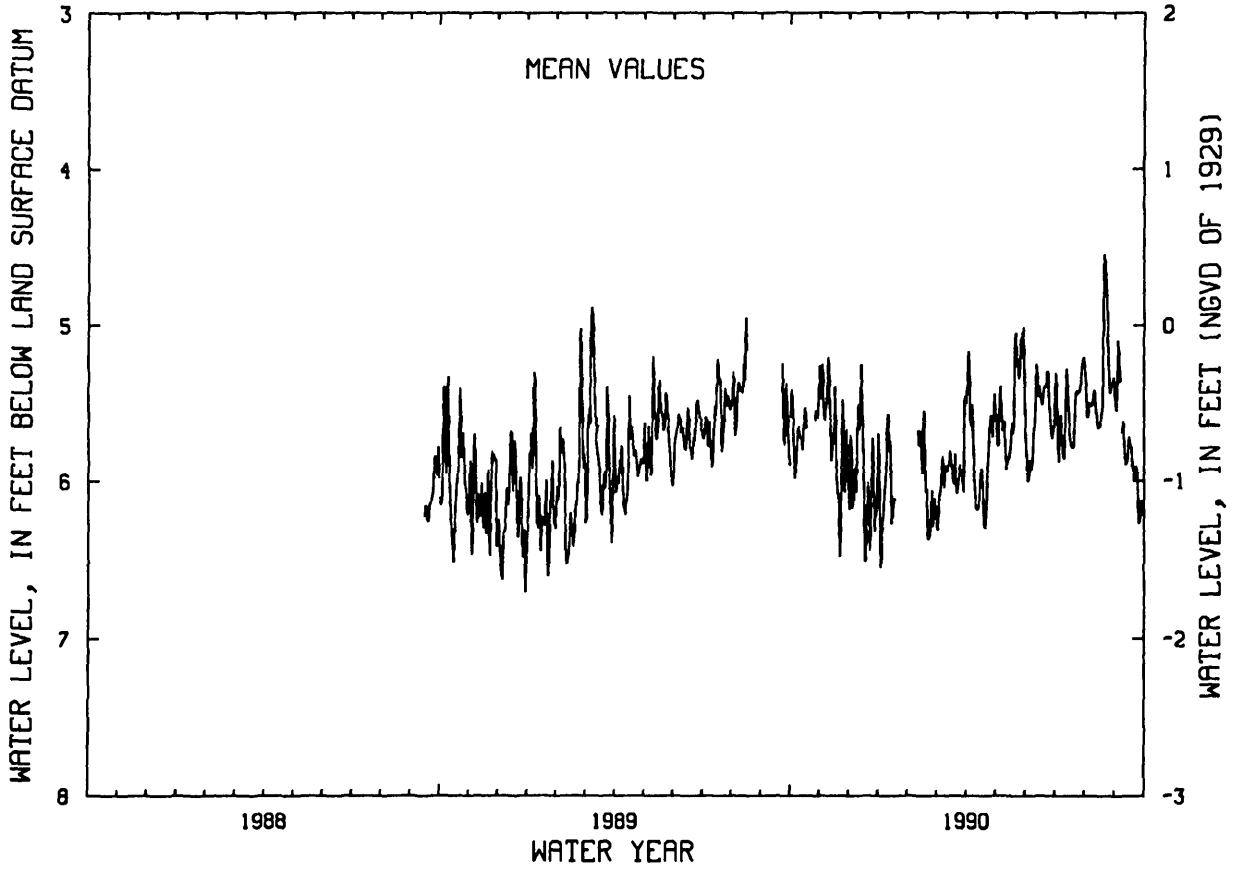
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.98	5.61	6.12	6.22	---	6.06	5.62	5.52	5.87	5.88	5.50	5.25
10	5.69	5.35	5.51	5.57	5.68	5.91	6.09	5.62	5.65	5.86	5.43	5.76
15	5.58	5.66	5.74	6.18	5.66	5.81	6.00	5.84	5.39	5.49	5.66	5.72
20	---	6.08	6.01	---	6.34	5.83	6.30	5.59	5.40	5.76	4.66	6.00
25	5.61	5.82	5.73	---	6.29	5.90	5.64	5.34	5.46	5.44	5.24	6.27
EOM	5.26	6.06	5.70	---	6.16	5.46	5.44	5.44	5.67	5.21	5.37	6.21
MEAN	5.64	5.73	5.97	6.05	6.01	5.95	5.82	5.51	5.60	5.55	5.36	5.82

WTR YR 1990 MEAN 5.73 HIGH 3.19 AUG 20 LOW 6.80 NOV 21, JAN 3

NJ-WRD WELL NO.09-0293



CAPE MAY COUNTY

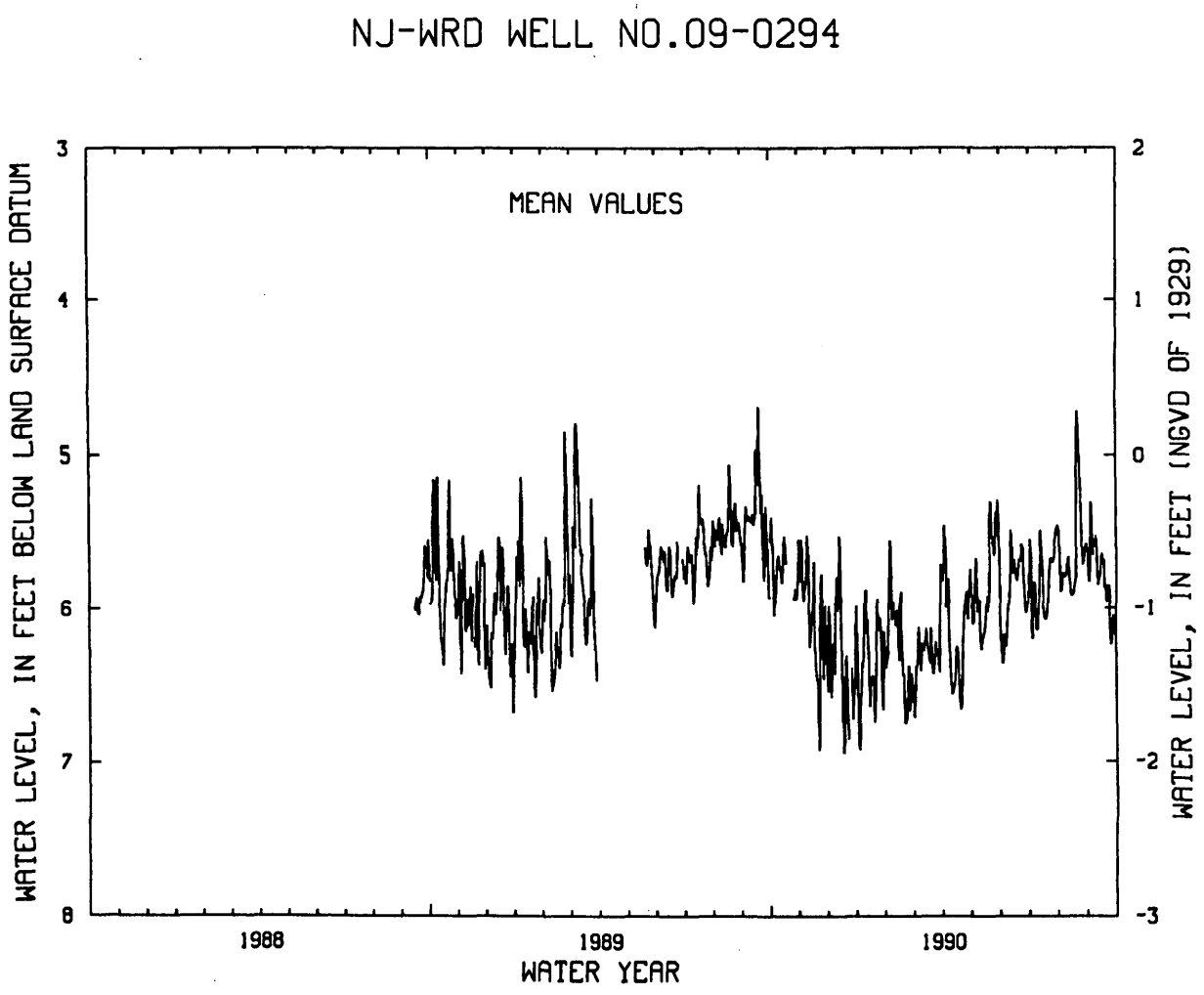
390337074462303. Local I.D., Wetlands 3 Obs. NJ-WRD Well Number, 09-0294.
LOCATION.--Lat 39°03'37", long 74°46'23", Hydrologic Unit 02040302, at the Wetlands Institute, County Rt 657 (Stone Harbor Boulevard), Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cape May Formation, estuarine sand facies.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in, depth 115 ft, screened 105 to 115 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. Water quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--September 1988 to September 1990 (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, 3.08 ft below land-surface datum, Sep. 19, 1989; lowest, 7.26 ft below land-surface datum, Jan. 2, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.04	5.95	6.46	6.55	5.56	6.38	5.99	5.82	6.17	6.20	5.77	5.50
10	5.70	5.68	5.79	5.88	6.04	6.23	6.48	5.95	5.96	6.14	5.69	5.70
15	5.58	5.98	6.10	6.50	5.94	6.13	6.32	6.16	5.68	5.77	5.91	5.64
20	---	6.46	6.31	6.57	6.75	6.13	6.66	5.89	5.68	6.03	4.89	5.96
25	5.93	6.21	---	6.06	6.67	6.22	5.94	5.65	5.78	5.70	5.49	6.24
EOM	5.55	6.44	5.98	6.39	6.52	5.77	5.74	5.79	5.95	5.46	5.61	6.17
MEAN	5.75	6.07	6.31	6.36	6.25	6.29	6.16	5.83	5.90	5.81	5.62	5.83

WTR YR 1990 MEAN 6.02 HIGH 3.13 AUG 20 LOW 7.26 NOV 21, DEC 17, JAN 2



CAPE MAY COUNTY

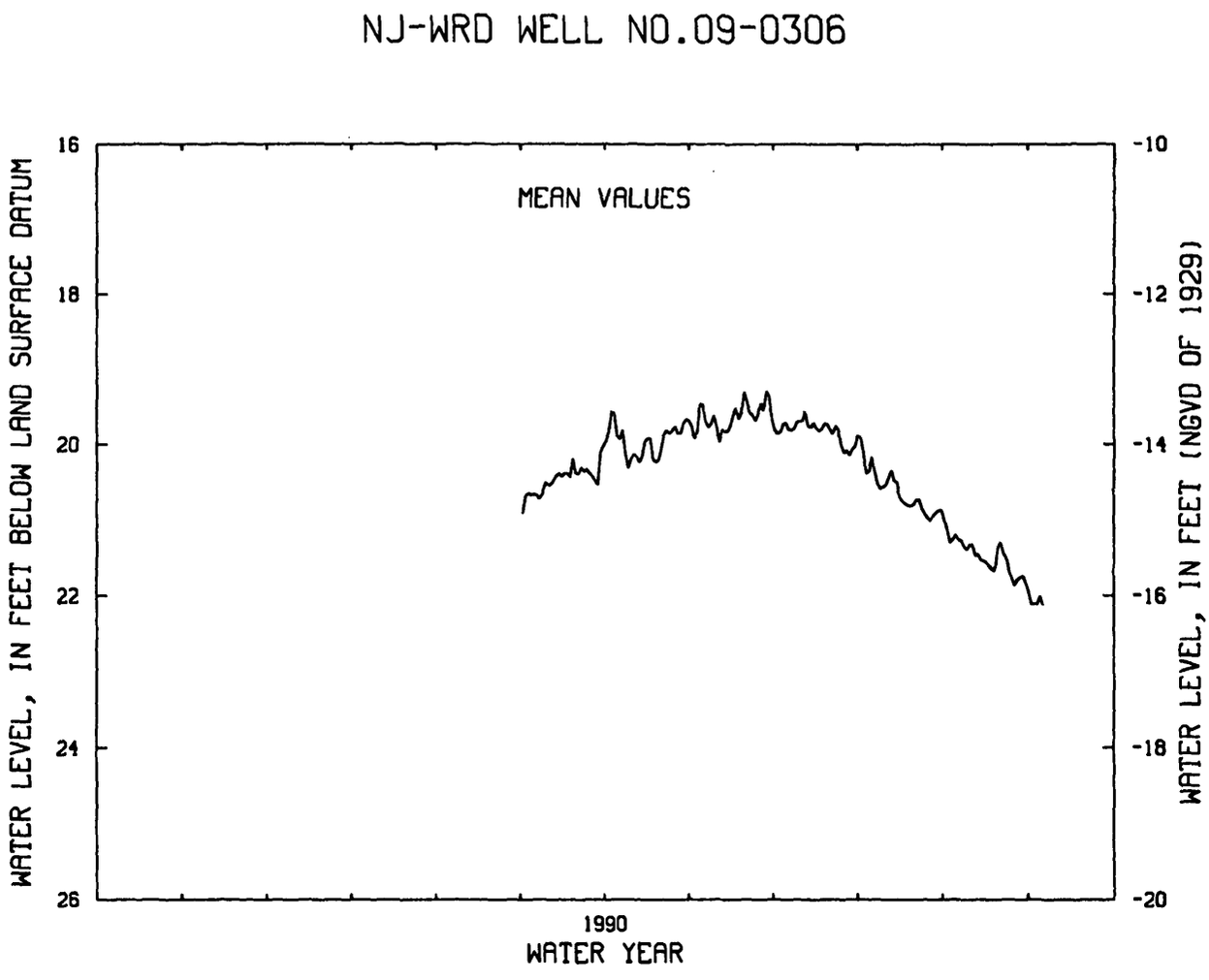
390422074544701. Local I.D., Oyster 800 Obs. NJ-WRD Well Number, 09-0306.
LOCATION.--Lat 39°04'22", long 74°54'47", Hydrologic Unit 02040206, at the Rutgers Oyster Laboratory near Green Creek, Middle Township.
Owner: U. S. Geological Survey.
AQUIFER.--Atlantic City 800-foot sand of the Kirkwood Formation 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. Water-quality data for 1990 appears elsewhere in this report.
PERIOD OF RECORD.--March 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.04 ft below land-surface datum, May 26, 1990; lowest, 23.15 ft below land-surface datum, Sept. 5, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	20.67	19.88	19.46	19.71	20.36	21.20	22.12
10	---	---	---	---	---	20.51	20.20	19.62	19.69	20.56	21.32	---
15	---	---	---	---	---	20.39	19.96	19.82	19.71	20.50	21.54	---
20	---	---	---	---	---	20.19	20.21	19.57	19.73	20.81	21.36	---
25	---	---	---	---	---	20.33	19.81	19.68	20.01	20.92	21.76	---
EOM	---	---	---	---	---	20.02	19.67	19.66	20.02	20.87	21.95	---
MEAN	---	---	---	---	---	20.46	19.95	19.63	19.82	20.60	21.49	---

WTR YR 1990 HIGH 18.04 MAY 26 LOW 23.15 SEP 5

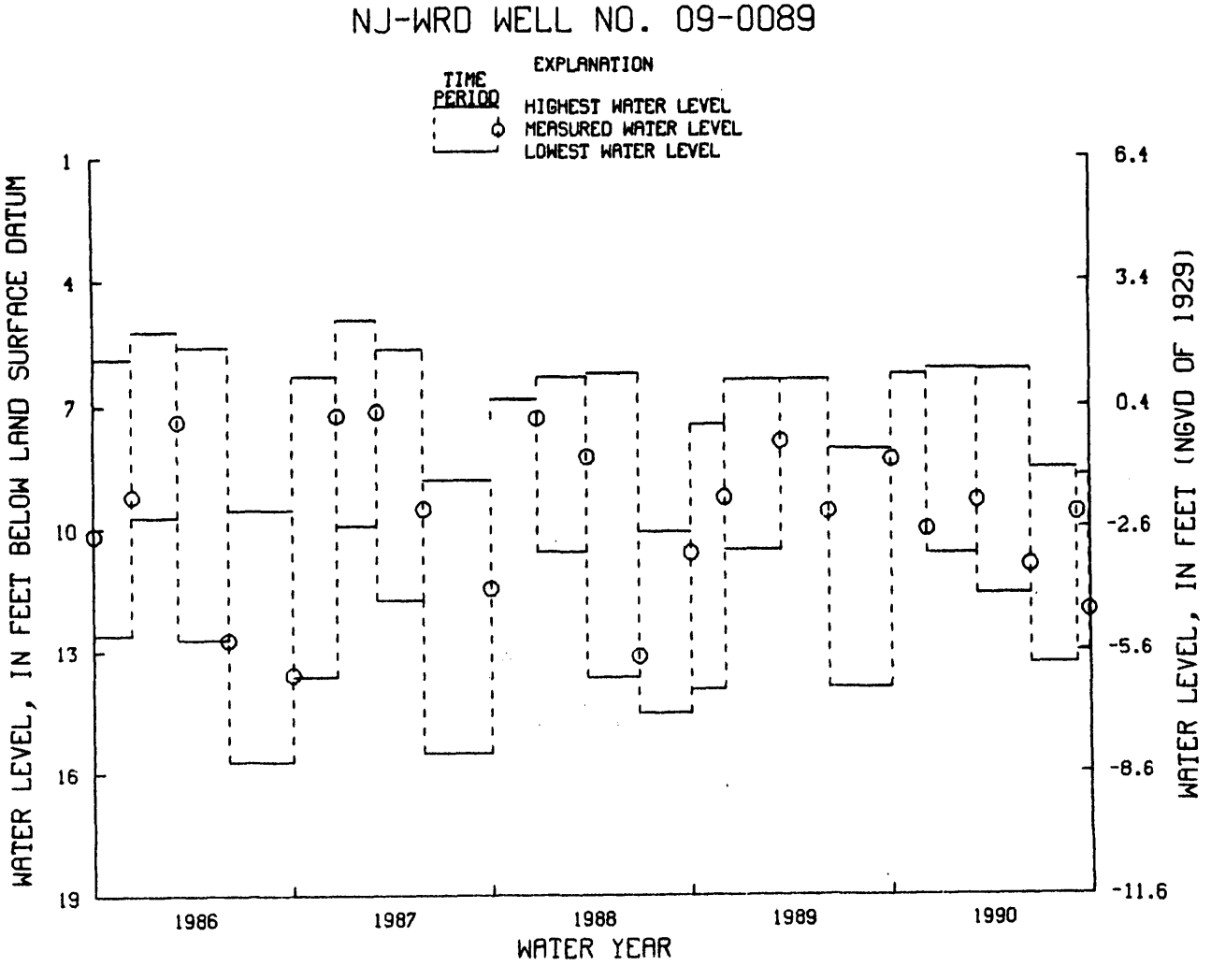


CAPE MAY COUNTY

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, August 1957 to August 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. Water quality data for 1990 available elsewhere in this report.
PERIOD OF RECORD.--August 1957 to August 1975, May 1977 to current year. Periodic manual measurements, September 1975 to April 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1989 TO DEC. 7, 1989	6.26	---	DEC. 7, 1989	10.02
DEC. 7, 1989 TO MAR. 7, 1990	6.12	10.63	MAR. 7, 1990	9.33
MAR. 7, 1990 TO JUNE 13, 1990	6.14	11.60	JUNE 13, 1990	10.91
JUNE 13, 1990 TO SEPT. 6, 1990	8.53	13.32	SEPT. 6, 1990	9.63
SEPT. 6, 1990 TO SEPT. 28, 1990	8.70	13.02	SEPT. 28, 1990	12.03



CAPE MAY COUNTY

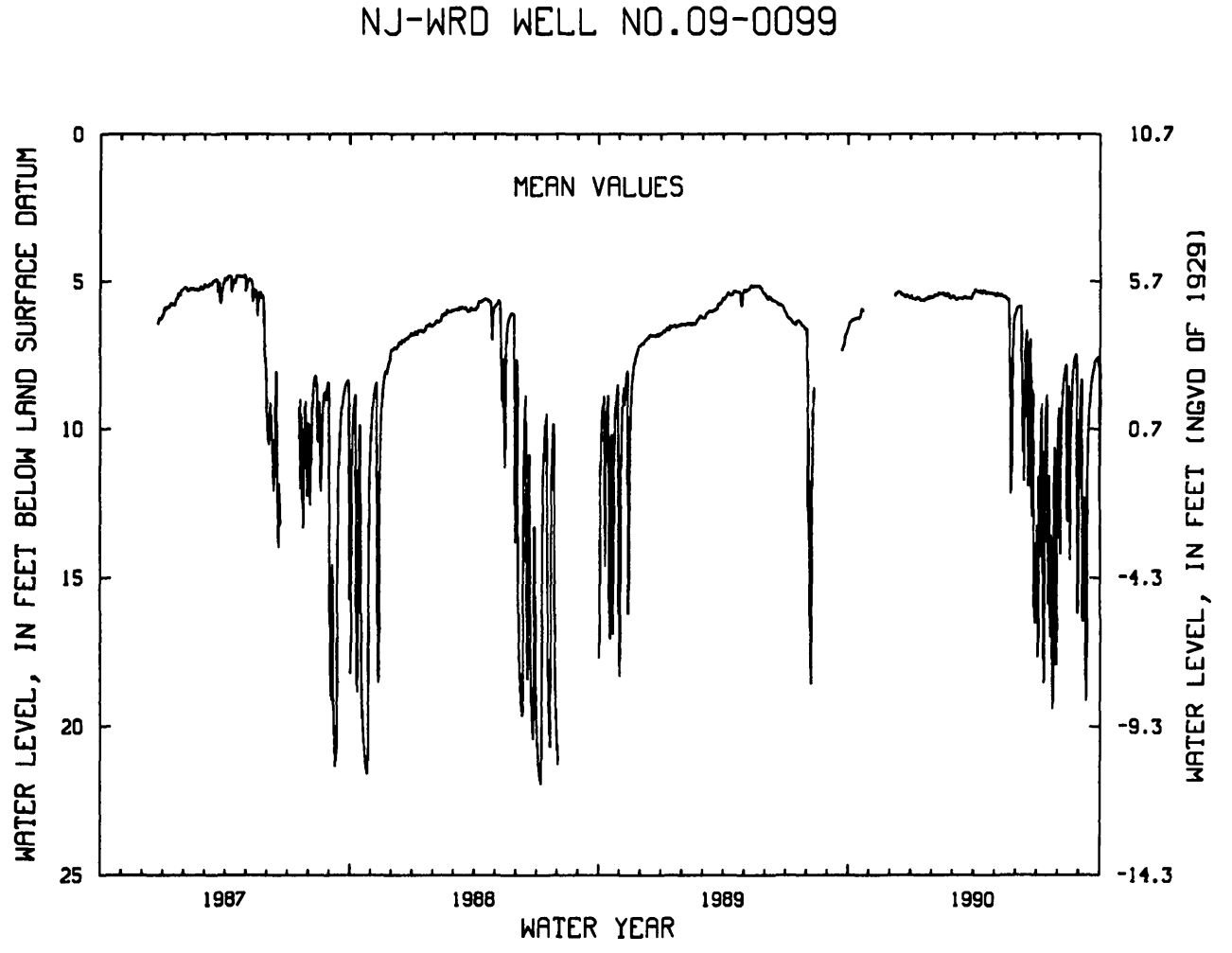
390608074483801. Local I.D., Cape May County Park 8 Obs. NJ-WRD Well Number, 09-0099.
LOCATION.--Lat 39°06'11", long 74°48'38", Hydrologic Unit 02040302, at the Cape May County Park on Rt. 9, Middle Township.
Owner: U.S. Geological Survey.
AQUIFER.--Cohansey Sand of Miocene age.
WELL CHARACTERISTICS.--Drilled 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.--October 1957 to current year. Periodic manual measurements, January 1959 to December 1960 and from November 1968 to November 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, April 5, 1958; lowest, 22.01 ft below land-surface datum, July 9, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.35	---	---	5.61	5.48	5.57	5.31	5.39	5.88	13.21	10.22	16.46
10	6.29	---	5.42	5.55	5.38	5.57	5.34	5.44	9.33	16.89	8.07	19.12
15	6.26	---	5.37	5.64	5.43	5.58	5.33	5.54	7.22	8.86	9.39	9.02
20	5.95	---	5.46	5.64	5.48	5.52	5.42	5.61	8.15	16.97	8.83	8.01
25	---	---	5.49	5.54	5.50	5.56	5.40	12.17	8.71	18.74	7.62	7.66
EOM	---	---	5.53	5.55	5.53	5.44	5.41	6.14	16.27	11.23	10.66	12.68
MEAN	6.24	---	5.47	5.59	5.47	5.56	5.37	6.28	9.08	14.02	9.85	10.53

WTR YR 1990 MEAN 7.68 HIGH 5.26 APR 4 LOW 20.12 JUL 25



CUMBERLAND COUNTY

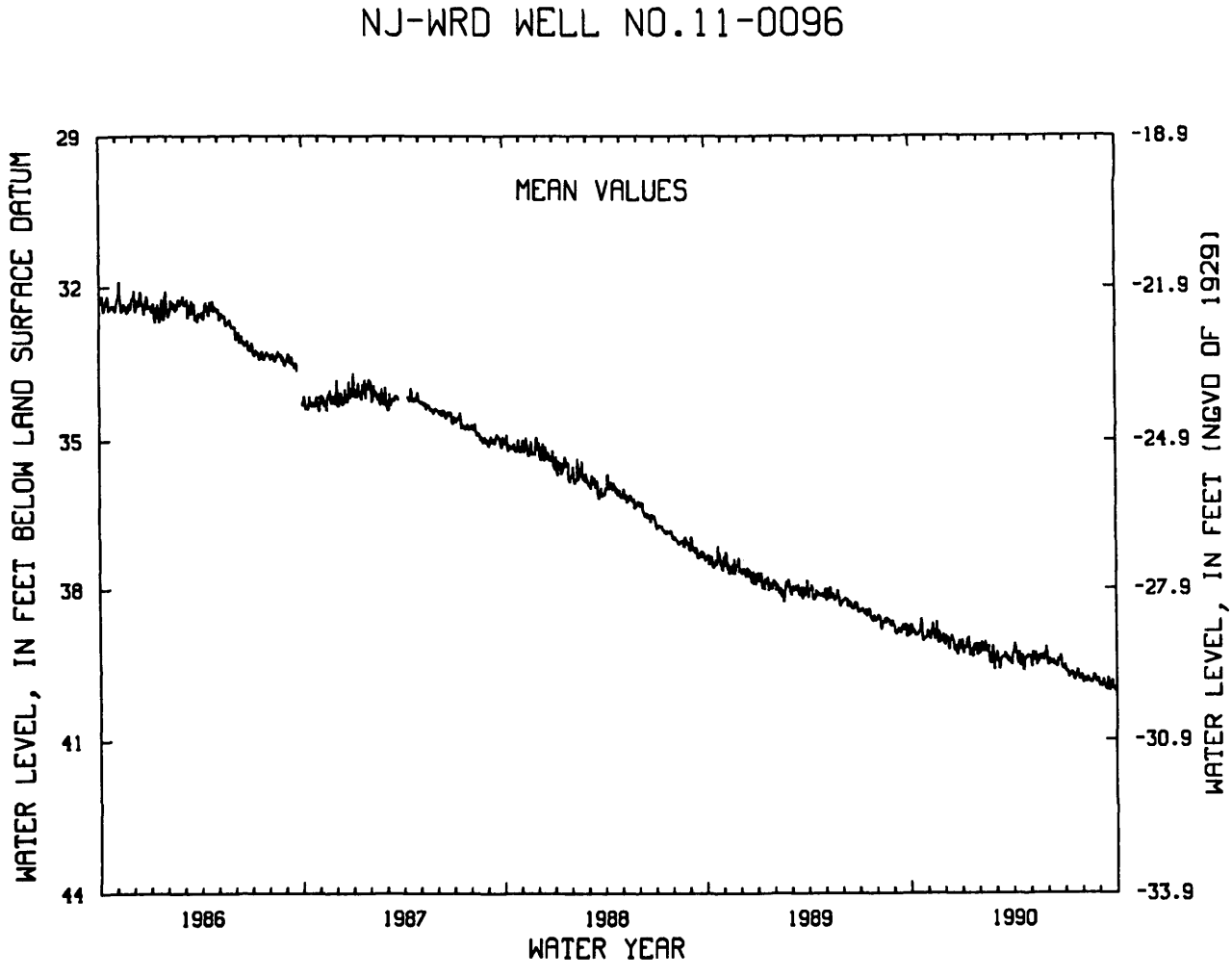
391828075120902. Local I.D., Jones Island 2 Obs. NJ-WRD Well Number, 11-0096.
LOCATION.--Lat 39°18'29", long 75°12'08", Hydrologic Unit 02040206, in Nantuxent Wildlife Management Area, about 1.7 mi south of Cedarville, Lawrence Township.
Owner: Cumberland County.
AQUIFER.--Piney Point aquifer of Oligocene-Eocene 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 recover to its previous level. The screen may have been partially clogged.
PERIOD OF RECORD.--March 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.99 ft below land-surface datum, Mar. 22, 1977; lowest, 40.13 ft below land-surface datum, Sept. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.86	38.98	38.97	39.17	39.22	39.44	39.21	39.24	39.49	39.64	39.82	39.89
10	38.92	38.77	38.99	38.97	39.04	39.39	39.36	39.26	39.42	39.72	39.78	39.91
15	38.85	38.84	39.00	39.27	39.25	39.35	39.32	39.47	39.47	39.66	39.86	39.78
20	38.59	38.82	39.12	39.27	39.46	39.32	39.55	39.37	39.43	39.74	39.78	39.93
25	38.98	39.01	39.07	39.09	39.41	39.41	39.37	39.42	39.51	39.74	39.85	40.00
EOM	38.81	39.04	39.02	39.28	39.40	39.28	39.33	39.45	39.55	39.71	39.92	40.01
MEAN	38.87	38.92	39.08	39.17	39.27	39.39	39.36	39.37	39.48	39.71	39.82	39.94

WTR YR 1990 MEAN 39.36 HIGH 38.43 OCT 19 LOW 40.13 SEP 28



CUMBERLAND COUNTY

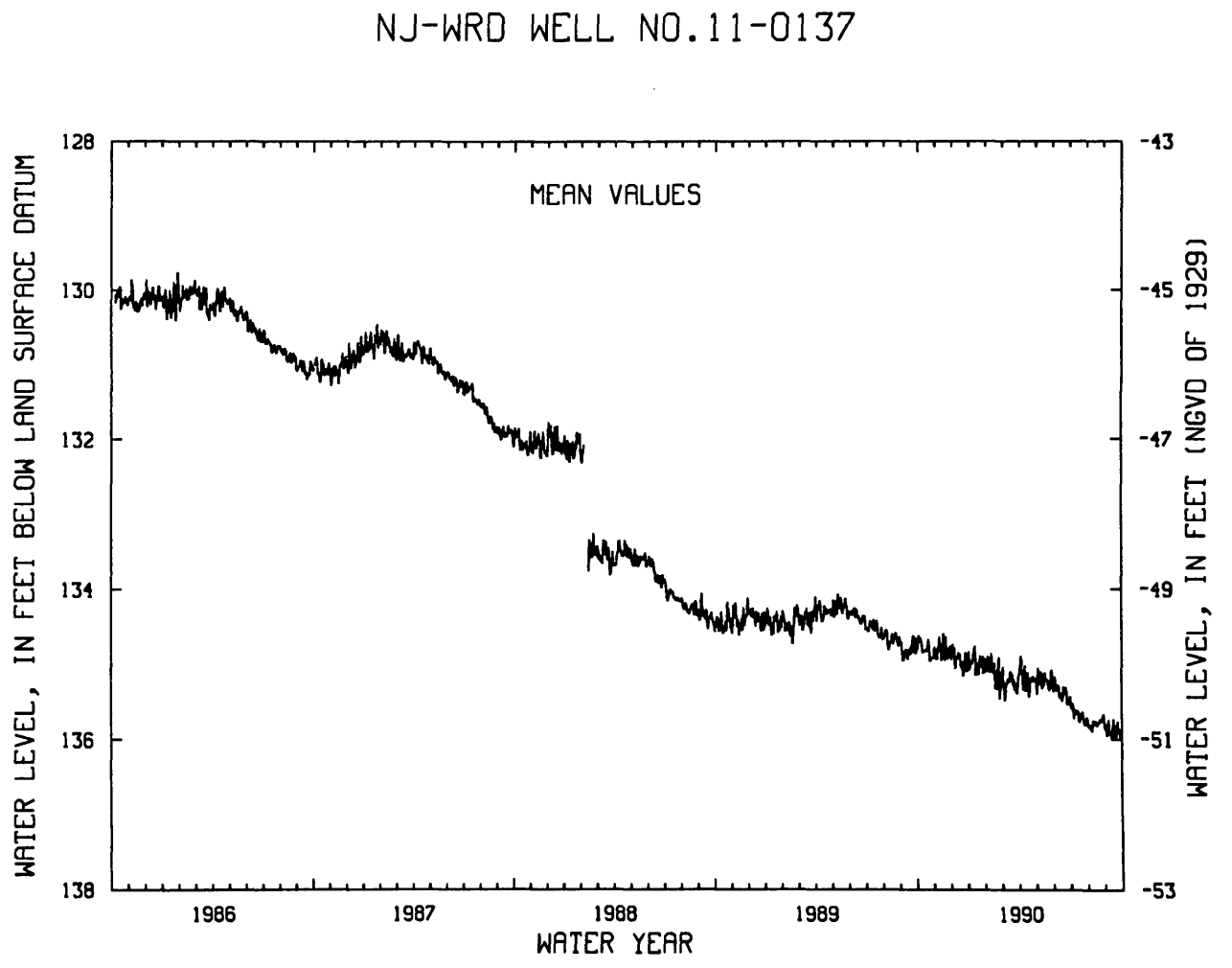
392512074521206. Local I.D., Ragovin 2100 Obs. NJ-WRD Well Number 11-0137.
LOCATION.--Lat 39°25'14", long 74°52'17", Hydrologic Unit 02040302, in wooded area off Harriet Avenue, 1.5 mi southeast of Milmay, Maurice River Township.
Owner: Sam DeRosa.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 5 in, depth 2,093 ft, perforated casing 2083 to 2,093 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 85 ft above National Geodedic 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. Well was pumped on February 3, 1988. After pumping, the water-level did not recover to its previous level. The perforated area may have been partially clogged.
PERIOD OF RECORD.--October 1974 to April 1975, February 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, 136.03 ft below land-surface datum, Sept. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.70	134.93	134.78	134.98	135.09	135.31	135.01	135.05	135.30	135.52	135.85	135.88
10	134.85	134.72	134.90	134.80	134.86	135.26	135.18	135.10	135.28	135.61	135.80	135.89
15	134.81	134.77	134.89	135.10	135.11	135.23	135.13	135.29	135.39	135.62	135.79	135.73
20	134.67	134.63	134.97	135.06	135.25	135.13	135.36	135.21	135.35	135.68	135.78	135.90
25	134.92	134.89	134.95	134.94	135.21	135.30	135.22	135.35	135.48	135.75	135.77	135.92
EOM	134.77	134.86	134.92	135.10	135.26	135.18	135.22	135.30	135.47	135.71	135.83	135.95
MEAN	134.80	134.82	134.95	134.99	135.10	135.25	135.18	135.22	135.38	135.67	135.79	135.89

WTR YR 1990 MEAN 135.25 HIGH 134.47 NOV 20 LOW 136.03 SEP 28



CUMBERLAND COUNTY

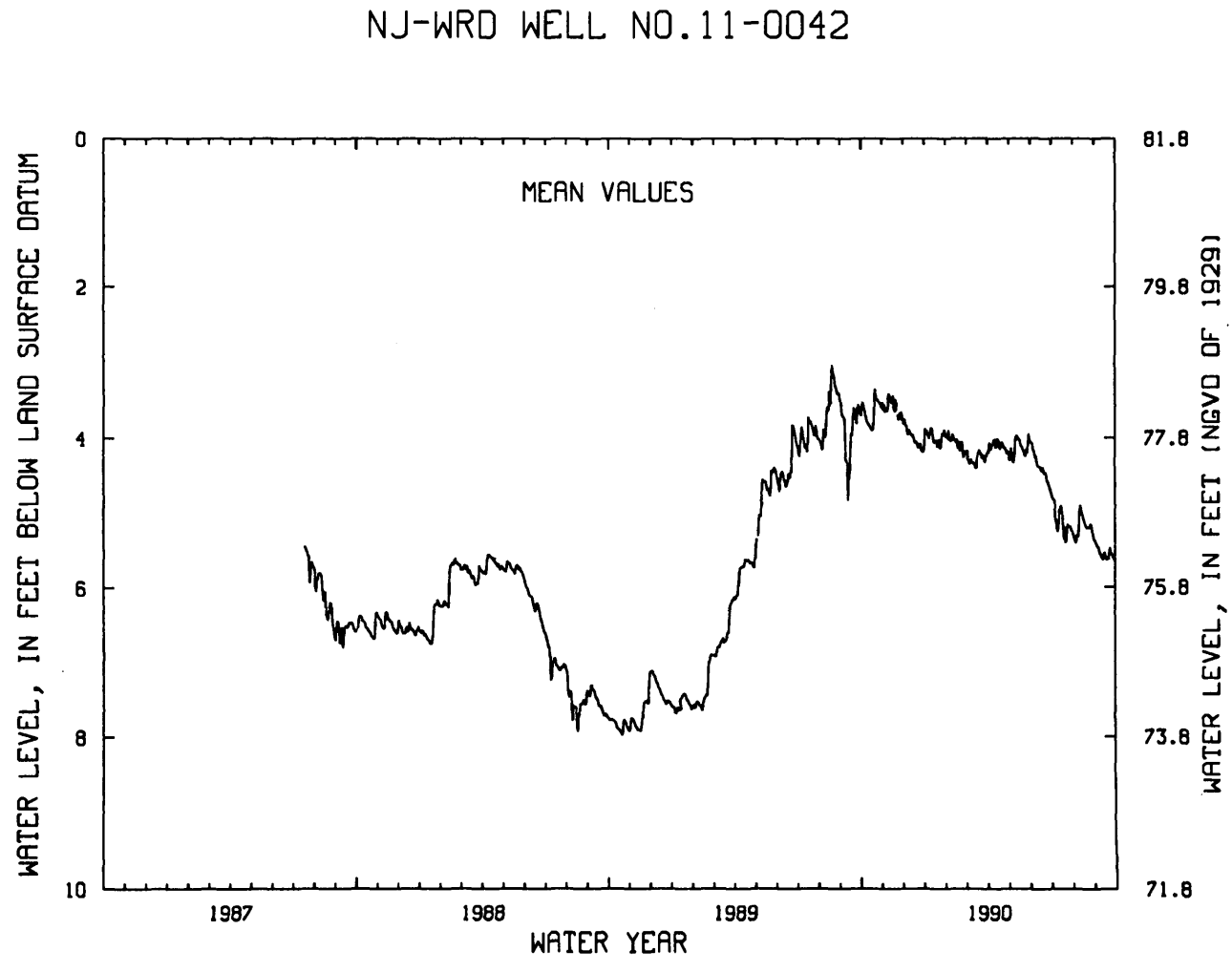
392731075092401. Local I.D., Vocational School 2 Obs. NJ-WRD Well Number, 11-0042.
LOCATION.--Lat 39°27'32", long 75°09'29", Hydrologic Unit 02040206, next to the Cumberland County Vocational and Technical School on Bridgeton Avenue, Deerfield Township.
Owner: Cumberland County.
AQUIFER.--Kirkwood-Cohansey 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.
PERIOD OF RECORD.--March 1972 to current year. Periodic manual measurements, March 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, April 21, 1972; lowest, 8.12 ft below land-surface datum, Aug. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.62	3.65	3.83	3.97	4.03	4.30	4.12	4.13	4.14	4.82	5.40	5.45
10	3.79	3.44	3.91	3.87	3.95	4.32	4.03	4.23	4.26	5.25	5.05	5.56
15	3.87	3.51	3.96	4.03	4.06	4.39	4.01	4.03	4.38	4.91	5.04	5.53
20	3.56	3.51	4.06	4.06	4.16	4.16	4.12	4.12	4.43	5.36	5.20	5.61
25	3.52	3.71	4.08	4.03	4.21	4.24	4.13	4.25	4.56	5.15	5.20	5.56
EOM	3.55	3.73	4.11	3.99	4.18	4.20	4.18	4.02	4.69	5.24	5.35	5.63
MEAN	3.66	3.61	4.00	3.99	4.06	4.27	4.11	4.14	4.37	5.09	5.19	5.55

WTR YR 1990 MEAN 4.34 HIGH 3.36 OCT 21 LOW 5.74 JUL 22



GLOUCESTER COUNTY

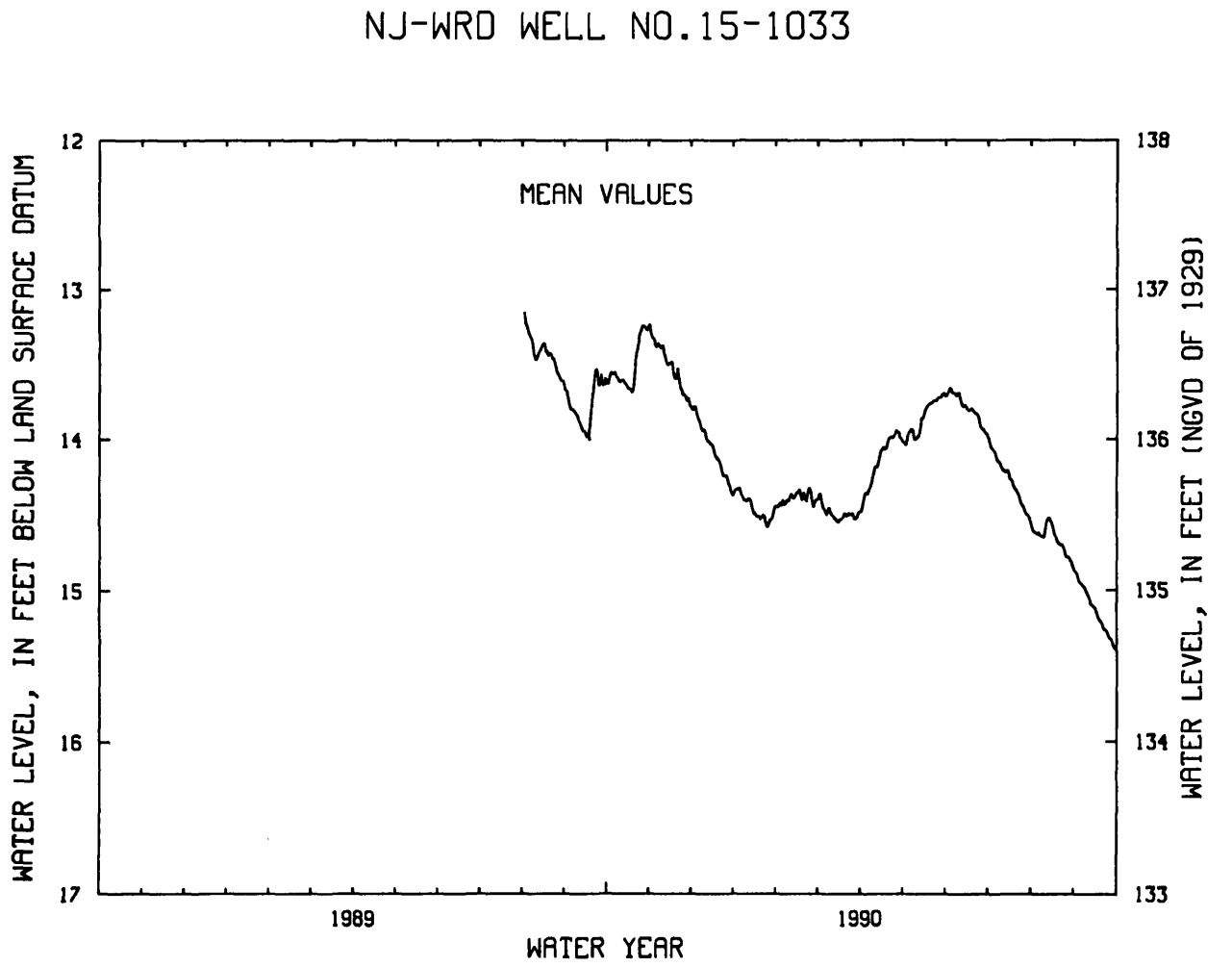
394354075025901. Local I.D., WTMUA Monitoring 1 Obs. NJ-WRD Well Number, 15-1033.
LOCATION.--Lat 39°43'54", long 75°02'59", Hydrologic Unit 02040202, next to the Washington Township MUA Water Tank at the intersection of White Birches Rd. and Rt. 655 (Fries Mill Rd.), Washington Township.
Owner: Washington 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.--August 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.14 ft below land-surface datum, Aug. 2, 1989; lowest, 15.40 ft below land-surface datum, Sep. 30, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.56	13.38	13.86	14.36	14.43	14.46	14.36	13.95	13.69	14.08	14.63	14.96
10	13.61	13.41	13.95	14.39	14.36	14.48	14.22	14.00	13.69	14.18	14.64	15.04
15	13.65	13.49	14.03	14.49	14.35	14.54	14.08	13.86	13.78	14.21	14.55	15.12
20	13.57	13.52	14.14	14.51	14.39	14.49	14.02	13.76	13.81	14.33	14.69	15.23
25	13.27	13.70	14.24	14.56	14.41	14.50	13.97	13.74	13.91	14.44	14.76	15.32
EOM	13.23	13.78	14.35	14.45	14.40	14.48	14.00	13.71	13.97	14.54	14.87	15.40
MEAN	13.50	13.53	14.07	14.45	14.39	14.49	14.14	13.85	13.79	14.27	14.67	15.14

WTR YR 1990 MEAN 14.19 HIGH 13.23 OCT 31 LOW 15.40 SEP 30



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, 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, 139.61 ft below land-surface datum, July 17, 1988.

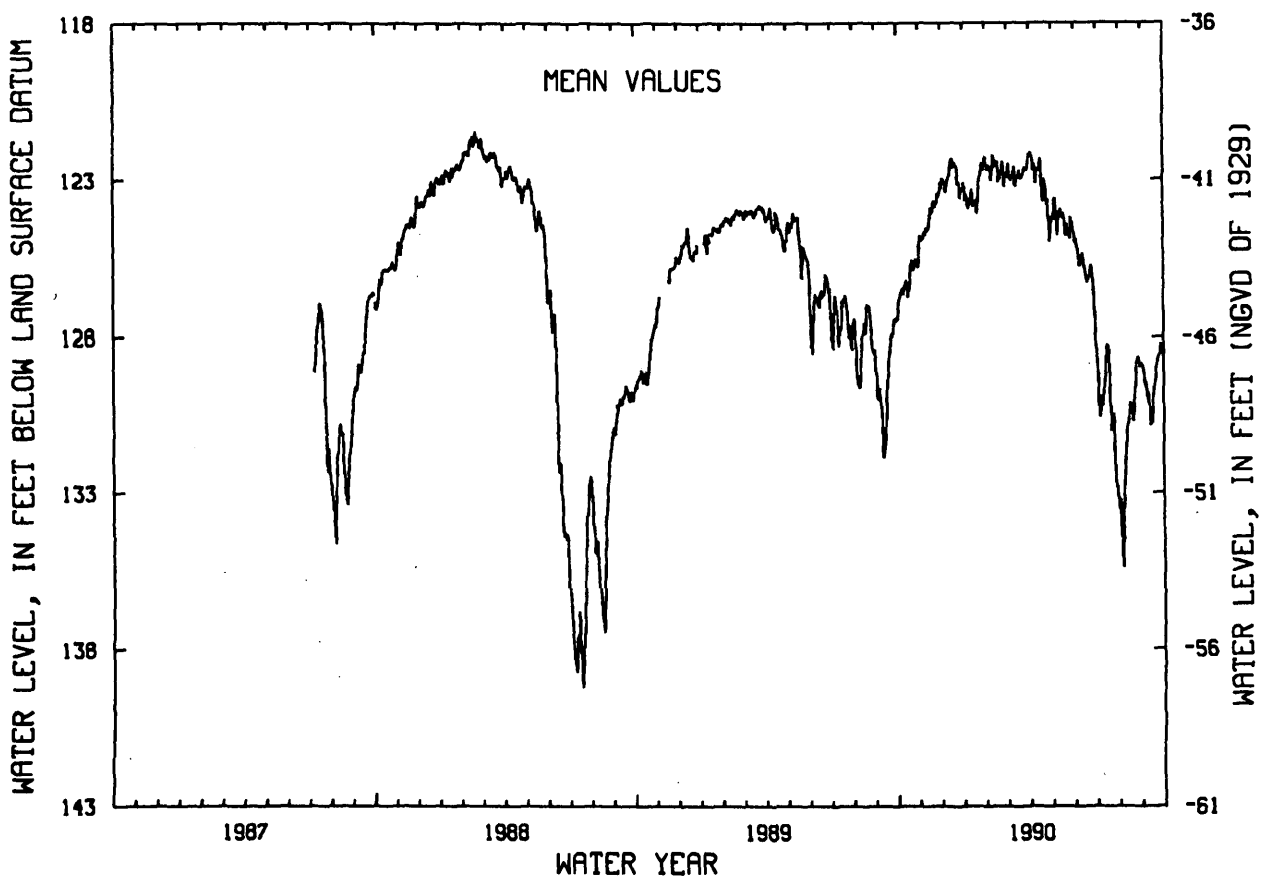
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.77	124.95	123.01	123.55	122.67	122.96	122.37	123.67	125.17	130.57	135.38	129.57
10	126.68	124.57	122.99	123.60	122.21	122.80	123.13	124.33	125.64	130.11	131.60	129.80
15	126.48	124.25	122.31	123.68	122.55	122.96	122.39	124.25	125.84	128.27	130.16	130.20
20	125.65	123.69	122.55	123.93	123.00	122.95	123.70	124.77	126.19	130.33	130.44	128.99
25	125.75	123.73	123.17	122.53	122.81	122.63	123.77	124.75	126.00	131.21	128.80	128.58
EOM	125.21	123.11	123.18	122.53	122.88	122.19	124.44	124.69	128.01	133.51	128.91	128.68
MEAN	126.24	124.20	122.94	123.32	122.68	122.80	123.07	124.35	125.88	130.32	130.96	129.38

WTR YR 1990 MEAN 125.53 HIGH 121.73 APR 4 LOW 135.46 AUG 5

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, 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.--November 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.89 ft below land-surface datum, April 4, 1990; lowest, 126.62 ft below land-surface datum, Aug. 19, 1988.

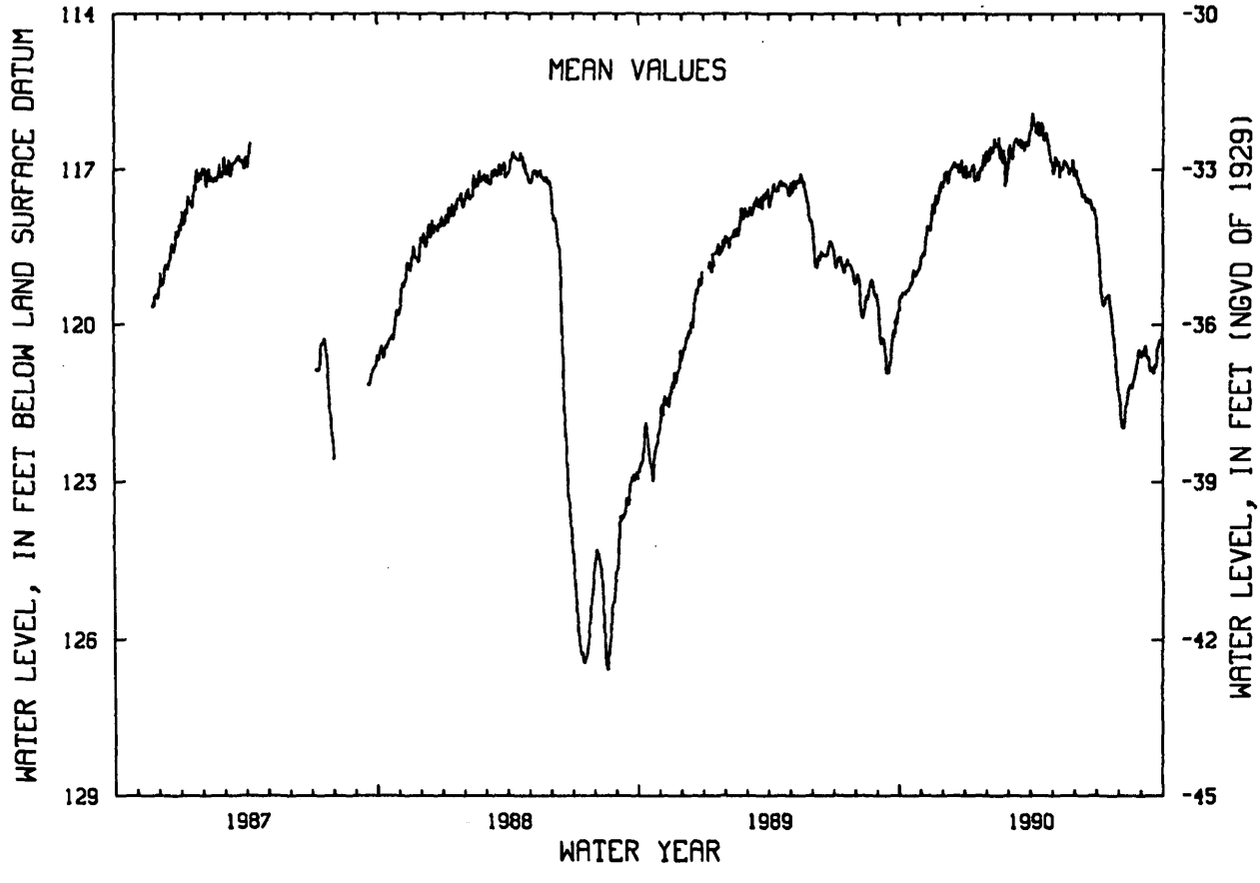
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	119.43	118.61	117.06	117.12	116.70	116.68	116.02	116.75	117.17	118.76	121.86	120.49
10	119.39	118.14	117.05	116.94	116.40	116.47	116.18	116.85	117.31	119.51	121.72	120.61
15	119.27	117.89	116.89	117.18	116.56	116.52	116.11	117.01	117.48	119.45	121.25	120.82
20	118.95	117.49	116.91	117.14	116.74	116.43	116.42	116.89	117.62	119.52	121.21	120.77
25	119.00	117.49	116.90	116.83	117.07	116.54	116.50	117.09	117.76	120.20	120.82	120.38
EOM	118.67	117.26	116.98	116.83	117.00	116.27	116.86	117.09	117.85	121.11	120.62	120.22
MEAN	119.20	117.93	117.03	117.01	116.71	116.53	116.30	116.94	117.48	119.62	121.24	120.59

WTR YR 1990 MEAN 118.06 HIGH 115.89 APR 4 LOW 122.01 AUG 6,7

NJ-WRD WELL NO.15-0742



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.--March 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.

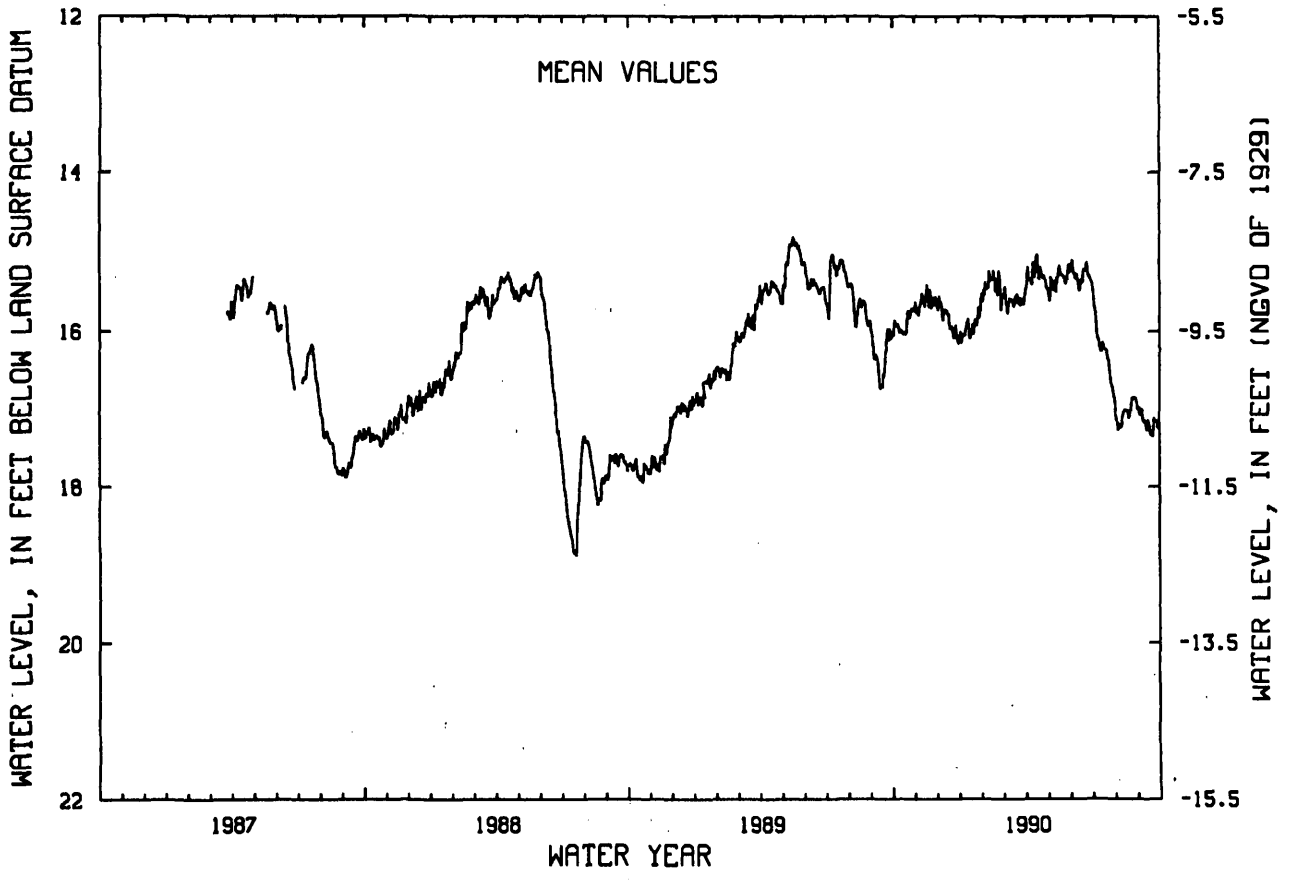
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.93	15.78	15.66	16.05	15.50	15.67	15.31	15.34	15.27	15.78	17.27	17.02
10	16.02	15.58	15.74	15.88	15.27	15.63	15.31	15.40	15.31	16.15	17.21	17.14
15	16.04	15.55	15.78	16.05	15.38	15.70	15.10	15.36	15.38	16.15	17.02	17.14
20	15.81	15.50	15.93	15.99	15.49	15.56	15.33	15.32	15.25	16.27	17.12	17.29
25	15.75	15.66	15.97	15.82	15.55	15.65	15.36	15.43	15.30	16.58	16.87	17.17
EOM	15.66	15.68	16.08	15.65	15.58	15.52	15.49	15.27	15.42	16.86	17.00	17.20
MEAN	15.89	15.65	15.87	15.92	15.45	15.63	15.31	15.38	15.32	16.24	17.04	17.17

WTR YR 1990 MEAN 15.91 HIGH 15.01 APR 17 LOW 17.37 SEP 20,21

NJ-WRD WELL NO.15-0712



GLOUCESTER COUNTY

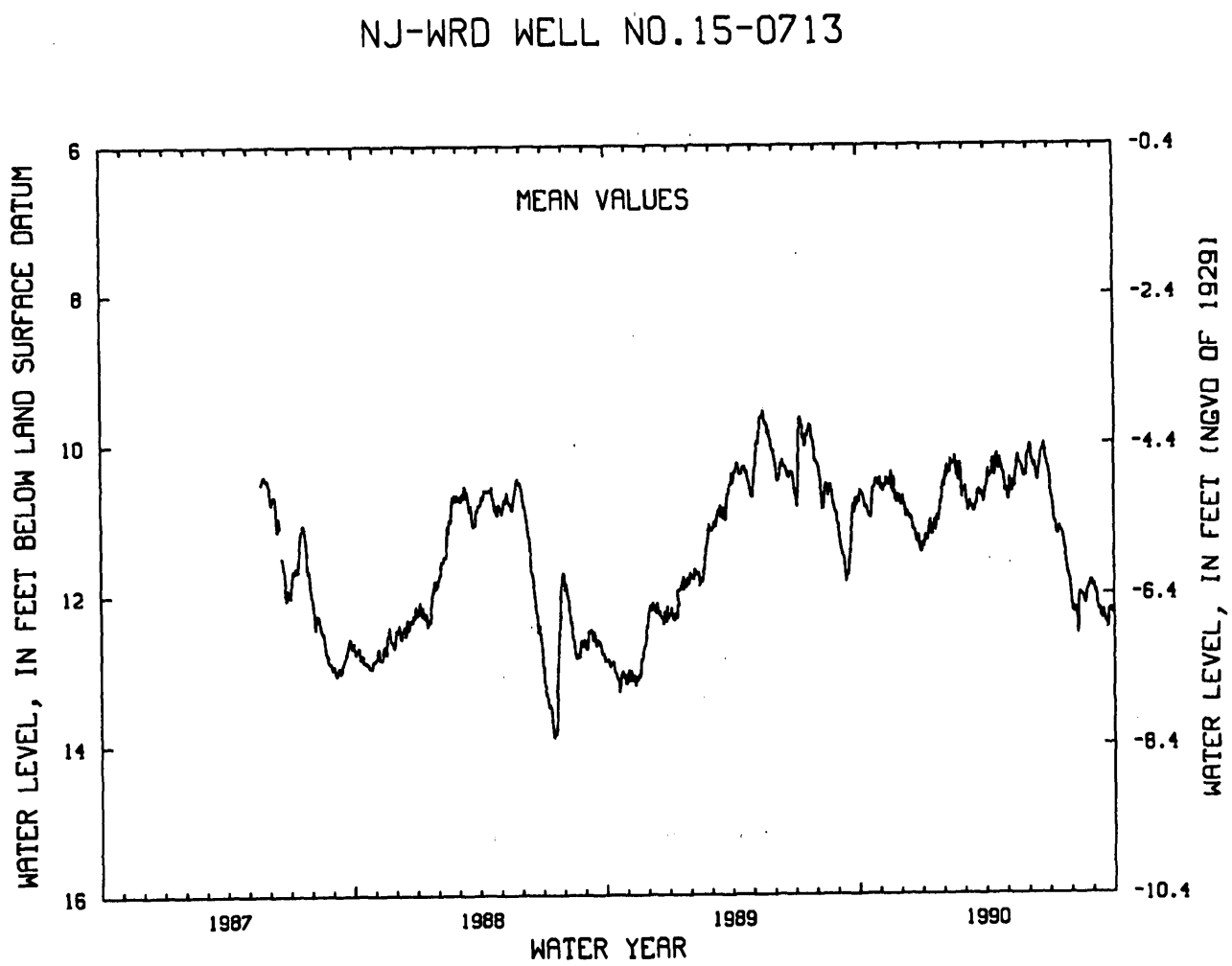
394808075172402. Local I.D., Stefka 2 Obs. NJ-WRD Well Number, 15-0713.
LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.68	10.63	10.80	11.28	10.41	10.80	10.41	10.46	10.18	10.80	12.26	11.96
10	10.85	10.47	10.90	11.09	10.21	10.82	10.27	10.51	10.27	11.12	12.53	12.19
15	10.94	10.45	10.98	11.13	10.27	10.91	10.20	10.31	10.35	11.11	12.01	12.22
20	10.70	10.44	11.14	11.06	10.46	10.64	10.28	10.26	10.10	11.25	12.11	12.40
25	10.48	10.72	11.22	10.88	10.59	10.65	10.39	10.45	10.17	11.63	11.94	12.21
EOM	10.45	10.73	11.35	10.58	10.61	10.63	10.62	10.15	10.40	11.94	11.91	12.24
MEAN	10.71	10.59	11.07	11.04	10.38	10.75	10.37	10.42	10.23	11.24	12.07	12.21

WTR YR 1990 MEAN 10.93 HIGH 9.97 JUN 4 LOW 12.71 AUG 10



GLOUCESTER COUNTY

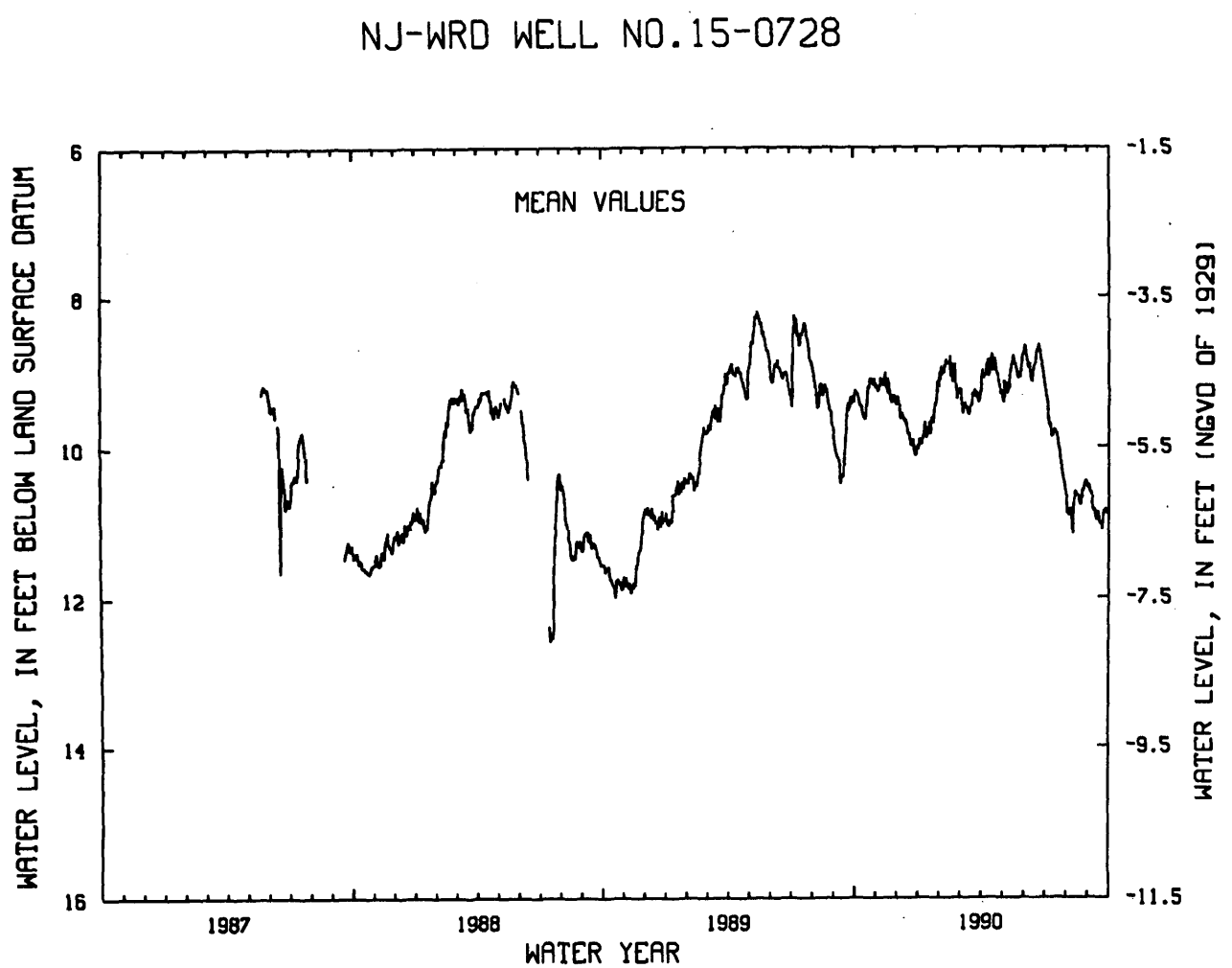
394808075172404. Local I.D., Stefka 4 Obs. NJ-WRD Well Number, 15-0728.
LOCATION.--Lat 39°48'08", long 75°17'24", Hydrologic Unit 02040202, near the intersection of Swedesboro and Tomlin Station roads, next to Pargey Creek, on land owned by Mr. William Stefka, Greenwich Township.
Owner: U.S. Geological 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.33	9.28	9.46	9.95	9.06	9.46	9.07	9.14	8.83	9.44	10.91	10.60
10	9.48	9.12	9.58	9.78	8.86	9.49	8.93	9.18	8.92	9.77	11.16	10.83
15	9.59	9.11	9.66	9.80	8.92	9.59	8.86	8.97	9.01	9.77	10.62	10.86
20	9.36	9.11	9.82	9.74	9.12	9.31	8.93	8.92	8.74	9.90	10.75	11.03
25	9.12	9.39	9.91	9.55	9.26	9.31	9.05	9.11	8.82	10.28	10.58	10.84
EOM	9.11	9.39	10.04	9.22	9.27	9.30	9.29	8.80	9.05	10.61	10.54	10.88
MEAN	9.35	9.25	9.75	9.71	9.03	9.42	9.03	9.08	8.88	9.89	10.70	10.84

WTR YR 1990 MEAN 9.58 HIGH 8.63 JUN 3,4 LOW 11.29 AUG 10



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 intersection of Mantua Grove Road and Route 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.

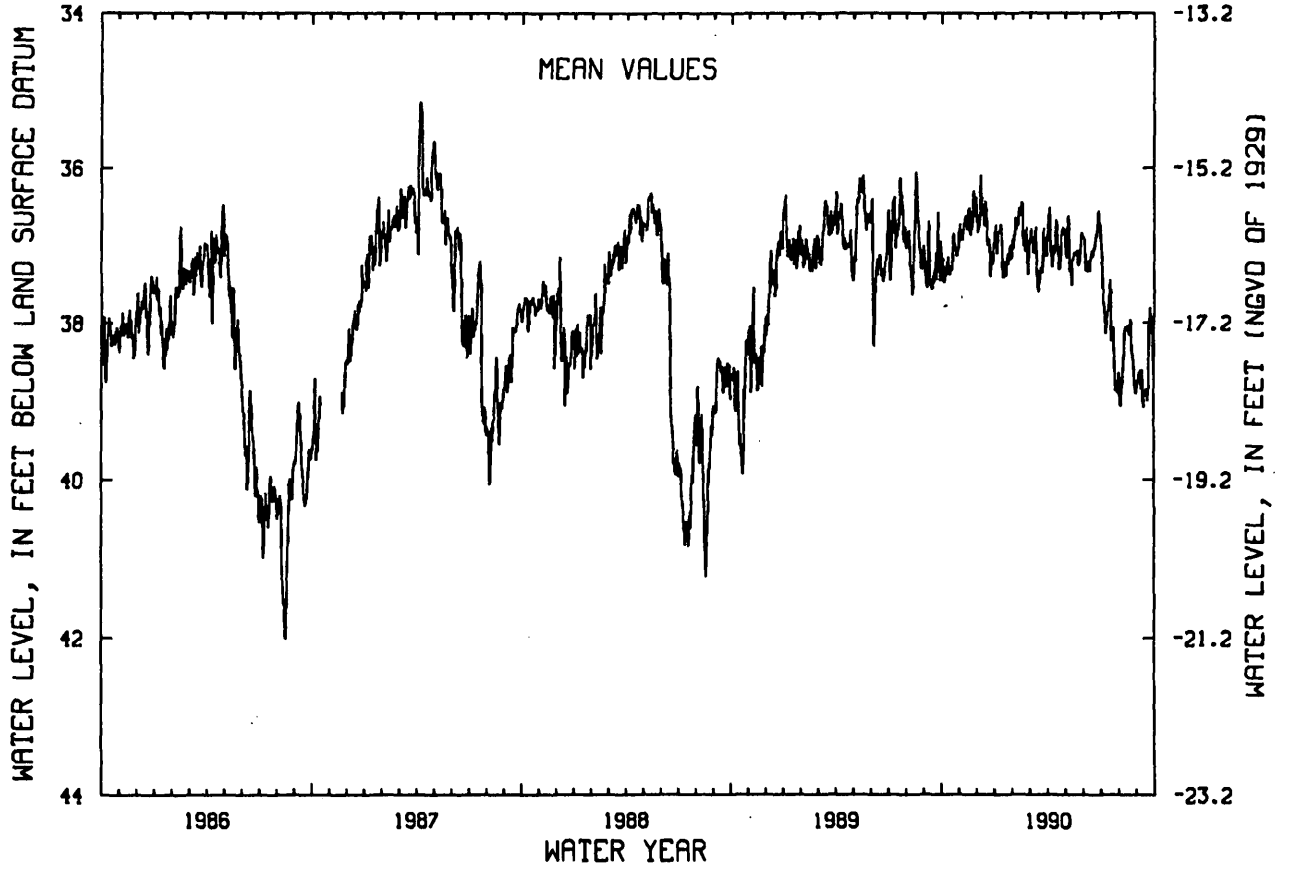
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.44	36.85	36.28	36.94	36.78	36.93	36.78	36.64	37.32	37.73	39.07	38.64
10	37.19	36.67	36.52	36.74	36.52	36.83	37.10	37.20	37.20	38.13	38.41	38.61
15	37.27	36.73	36.55	37.36	36.44	37.60	36.67	37.14	37.07	37.69	38.09	38.93
20	36.83	36.56	36.91	37.26	37.06	37.28	37.30	37.11	37.05	38.23	38.11	39.00
25	37.12	36.48	37.08	37.03	37.21	36.77	36.86	37.25	36.86	38.47	38.42	37.96
EOM	36.72	36.71	36.78	37.03	36.99	36.91	36.82	36.88	36.74	38.90	38.91	38.26
MEAN	37.17	36.68	36.78	37.06	36.81	37.11	36.94	37.07	37.02	38.01	38.46	38.60

WTR YR 1990 MEAN 37.31 HIGH 35.83 DEC 6 LOW 39.36 SEP 13

NJ-WRD WELL NO.15-0296



GLOUCESTER COUNTY

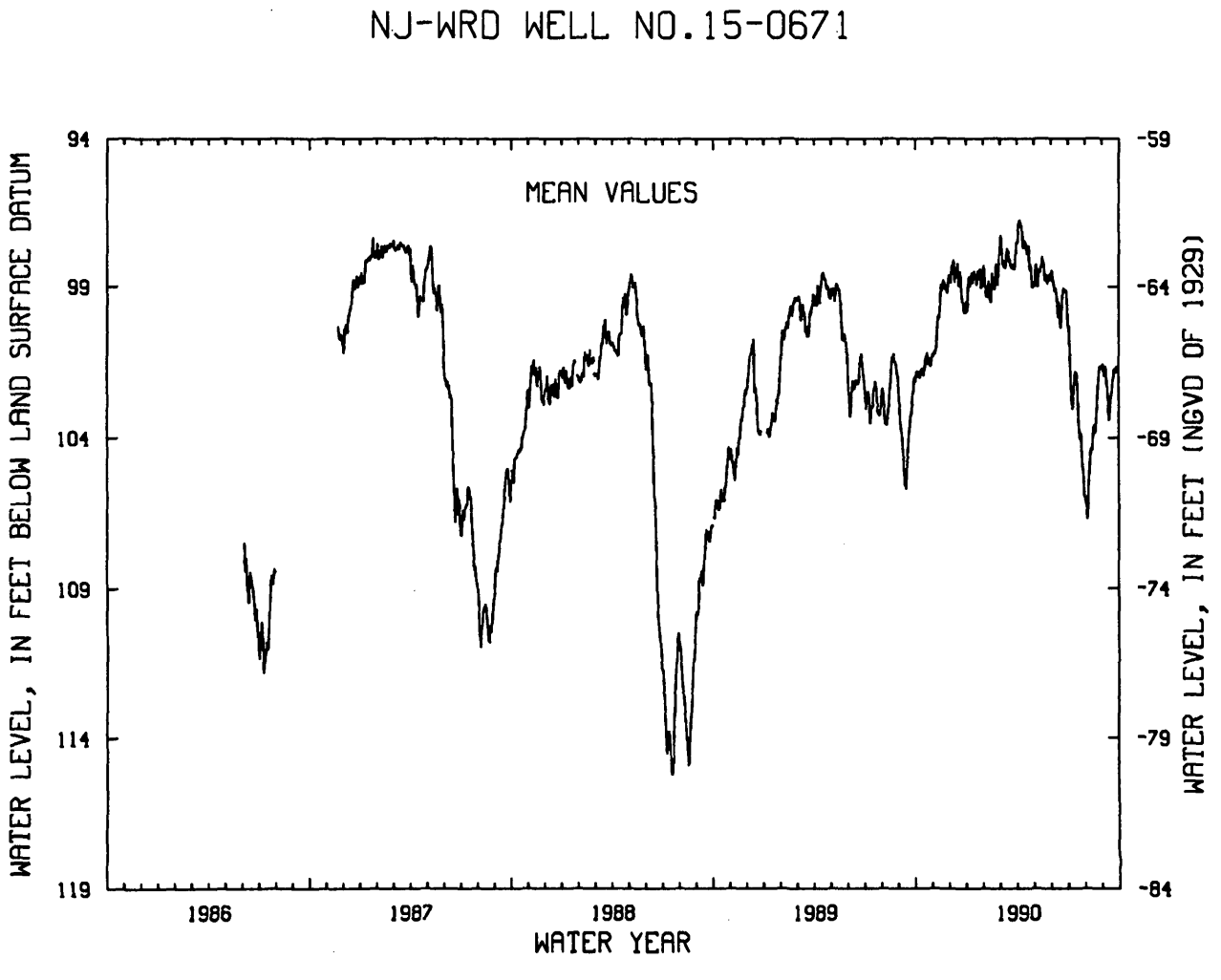
394957075053001. Local I.D., Deptford Deep Obs. NJ-WRD Well Number, 15-0671.
LOCATION.--Lat 39°49'57", Long 75°05'30", Hydrologic Unit 02040202, at N.J. Dept. of Transportation facility off N.J. Route 41, Deptford Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy 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 Geodedic 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 96.57 ft below land surface datum, Apr. 6, 1990; lowest 115.36 ft below land surface datum, July 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	101.83	101.24	98.51	98.71	99.28	97.81	96.85	98.29	98.80	101.21	106.68	101.83
10	102.00	100.21	98.50	98.60	98.80	98.35	96.93	98.56	99.07	103.03	104.77	102.35
15	101.89	99.35	98.38	98.46	98.96	97.78	97.45	98.29	99.69	101.84	104.02	102.88
20	101.42	98.78	98.51	98.85	99.09	98.06	97.87	98.30	100.07	103.09	103.70	102.09
25	101.37	99.01	99.54	98.39	98.63	98.23	98.45	98.71	99.17	103.84	102.17	101.77
EOM	101.35	98.60	99.48	98.47	98.25	97.47	98.98	98.65	99.56	105.90	101.74	101.88
MEAN	101.72	99.78	98.84	98.80	98.87	98.02	97.65	98.56	99.30	102.83	103.96	102.14

WTR YR 1990 MEAN 100.05 HIGH 96.57 APR 6 LOW 106.82 AUG 5



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, April 1981 to December 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.--November 1949 to July 1975, April 1981 to current year. Periodic manual measurements, October 1976 to March 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.

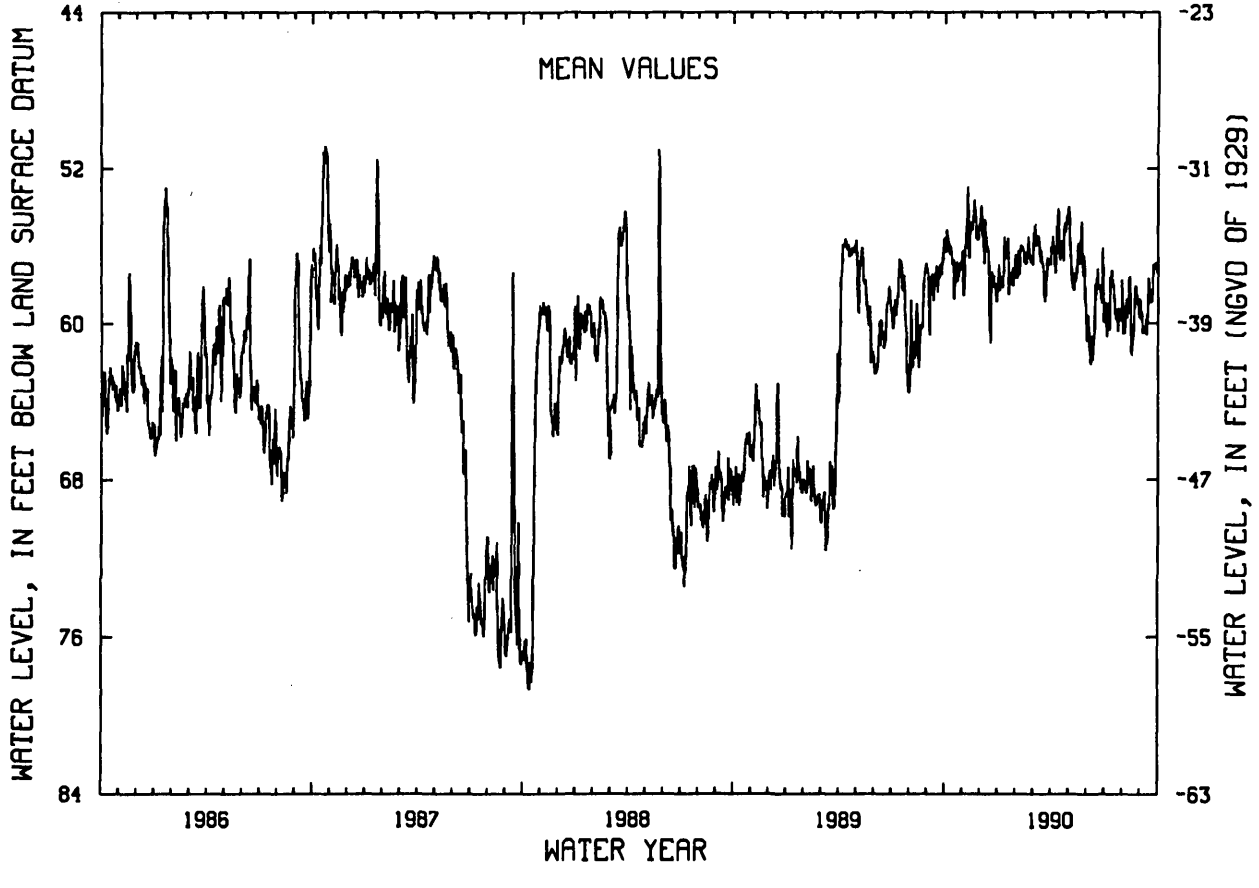
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	55.45	56.14	55.43	57.59	57.47	54.88	56.20	56.77	60.60	60.69	60.36	60.17
10	55.98	55.78	55.38	57.20	56.16	55.46	56.37	58.28	60.66	60.35	59.27	59.78
15	56.71	54.86	57.09	56.06	56.40	56.24	55.93	56.82	57.97	57.75	59.87	57.83
20	56.83	53.64	57.34	57.37	56.63	58.45	55.74	56.49	57.82	59.56	60.08	58.87
25	57.32	55.64	58.14	57.14	56.87	56.61	54.83	57.54	58.45	59.23	58.50	57.13
EOM	56.23	54.68	57.86	56.91	56.95	56.96	54.15	59.84	59.96	57.76	58.86	57.27
MEAN	56.73	55.41	57.05	57.23	56.57	56.60	55.73	56.97	59.44	59.16	59.36	58.71

WTR YR 1990 MEAN 57.42 HIGH 50.55 NOV 9 LOW 63.27 JUN 11

NJ-WRD WELL NO.15-0323



GLOUCESTER COUNTY

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.*)
15-039	CIFALOGLIO, SYLVESTER	1	393148	745822	110	75-123	10-30-89	5.10
							4-20-90	6.28
15-198	LESHAY BROS	1965 WELL	393944	745934	130	93-141	10-30-89	7.23
							1-29-90	8.13
							5-01-90	8.02
							7-30-90	8.72
15-726	SMITH, JOHN	AURA ORCHARDS	394130	750921	140	52-62	10-31-89	8.81
							4-19-90	9.03
15-734	DASE, DENNIS	DASE 1	393523	745912	138	100-110	10-30-89	14.83
							4-19-90	15.62
15-745	FRANKLIN TWP SANITARY LANDFILL	DUMP NORTH	393608	750257	124	15-35	11-01-89	22.47
							4-19-90	23.35
15-754	DEAN, GEORGE	DEAN 1	393934	751033	143	48-58	10-30-89	7.89
							4-19-90	10.27
15-759	MESIANO, JIM	MESIANO 1	394232	750126	159	130-135	10-31-89	35.04
							1-29-90	35.15
							4-20-90	35.78
							7-30-90	35.69
15-760	WILLIAMS, RONALD	RW 1	394020	745611	115	25-30	10-30-89	14.01
							1-29-90	14.64
							4-20-90	13.69
							7-30-90	14.87
15-761	LUCAS, HARRY	LUCAS IRR 1	394142	745818	130	33-38	10-30-89	11.40
							1-29-90	11.75
							4-20-90	11.49
							7-30-90	12.11
15-763	MOORE, EAYRE	MOORE 2	393525	750521	109	55-60	10-30-89	16.82
							4-19-90	17.91
15-764	SCAFONIS, FELIX	SCAFONIS D	393708	750143	130	44-49	10-30-89	16.26
							4-19-90	17.12
15-792	THE PLANT PLACE INC	PP 1	393928	750434	110	65-75	10-31-89	9.25
							4-20-90	9.27
15-793	FERRUCCI, MARY	FERRUCCI 10	393448	745606	110	100-150	10-30-89	10.08
							4-20-90	9.87
15-795	SMITH, FRED	SMITH-1965	394140	750312	150	90-100	10-31-89	10.07
							1-29-90	11.60
							4-20-90	11.24
							7-30-90	12.41
15-796	SMITH, FRED	SMITH 5	394238	750308	160	85-90	10-31-89	15.50
							4-19-90	16.06
15-801	CHILLARI, JOE	CHILLARI 1	394227	750522	144	80-85	10-31-89	11.34
							1-29-90	12.35
							4-20-90	12.19
							7-30-90	15.72
15-804	FRANKLIN TWP BOARD OF EDUCATION	MALAGA 1	393428	750244	110	95-100	10-30-89	29.03
							4-19-90	29.66
15-808	GLASSBORO WATER DEPT	GLASS OBS 1	394319	750725	122	50-60	10-31-89	28.60
							4-19-90	28.88
15-810	ELK TWP MUA	ELK 1	394021	750827	144	58-63	10-31-89	12.28
							4-19-90	12.53
15-811	SHOEMAKER, G	SHOEMAKER 1	394055	751412	140	27-32	10-31-89	16.25
							4-19-90	17.36
15-812	CORONA PUMPS	CORONA 1	393805	745554	123	100-110	10-30-89	26.61
							1-29-90	27.06
							4-20-90	26.46
							7-30-90	27.66
15-846	US GEOLOGICAL SURVEY	CARPENTER 126	394053	750453	126	9-10	10-31-89	4.14
							4-18-90	3.51
15-1016	DUFFIELD, CLAUDE	DUFFIELD 2	393633	750630	129	50-60	10-31-89	20.11
							4-19-90	21.80
15-1037	DILLNER, PETER	FRIMAIR IRR	394303	750303	150	72-77	11-01-89	10.05
							4-19-90	16.34

Altitudes are from USGS topographic maps

* - below land surface datum.

Aquifer unit: 121CKKD - Kirkwood-Cohansey aquifer system

HUNTERDON COUNTY

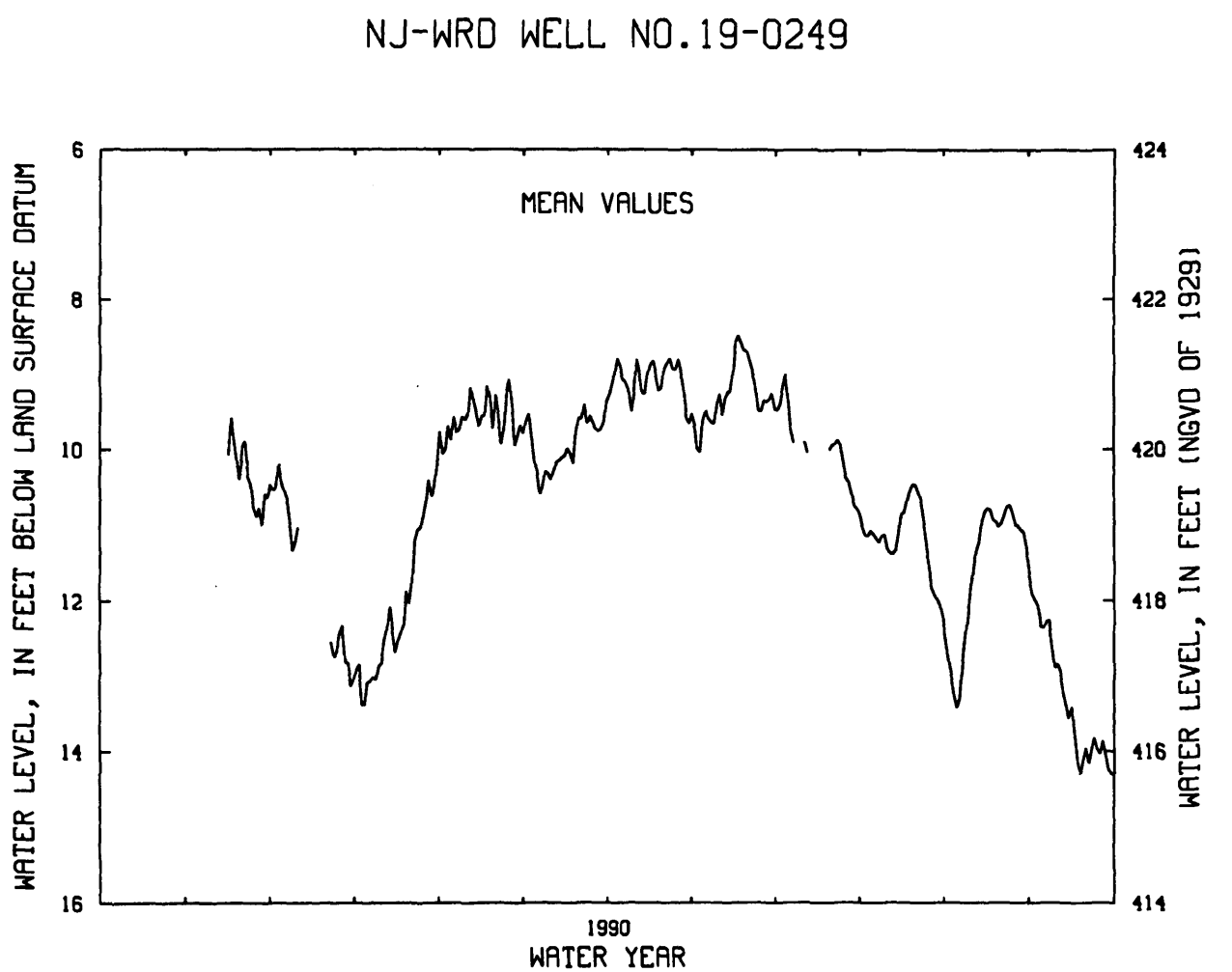
402141074535801. Local I.D., Hunter Rd TB 3 Obs. NJ-WRD Well Number, 19-0249.
LOCATION.--Lat 40°21'41", long 74°53'58", Hydrologic Unit 02040105, At the intersection of Hunter Rd and Rt 518, West Amwell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL 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.--November 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.46 ft below land-surface datum, May 17, 1990; lowest, 14.31 ft below land-surface datum, Sept. 18, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	10.55	13.07	9.77	10.17	8.90	9.60	9.41	11.08	13.42	12.35
10	---	---	11.04	12.54	9.18	10.32	9.27	9.40	---	11.13	11.86	12.84
15	---	10.07	---	12.54	9.55	10.11	8.99	9.22	---	11.12	10.83	13.42
20	---	9.96	---	11.77	9.54	9.79	9.19	8.69	10.00	10.48	11.02	13.96
25	---	10.89	12.43	10.69	9.45	9.60	8.94	9.48	10.18	11.22	10.85	14.03
EOM	---	10.47	12.90	10.06	9.68	9.37	9.65	9.46	10.79	12.23	11.69	14.30
MEAN	---	10.37	11.75	11.90	9.58	9.93	9.08	9.29	9.94	11.17	11.60	13.37

WTR YR 1990 MEAN 10.74 HIGH 8.46 MAY 17 LOW 14.31 SEP 18



HUNTERDON COUNTY

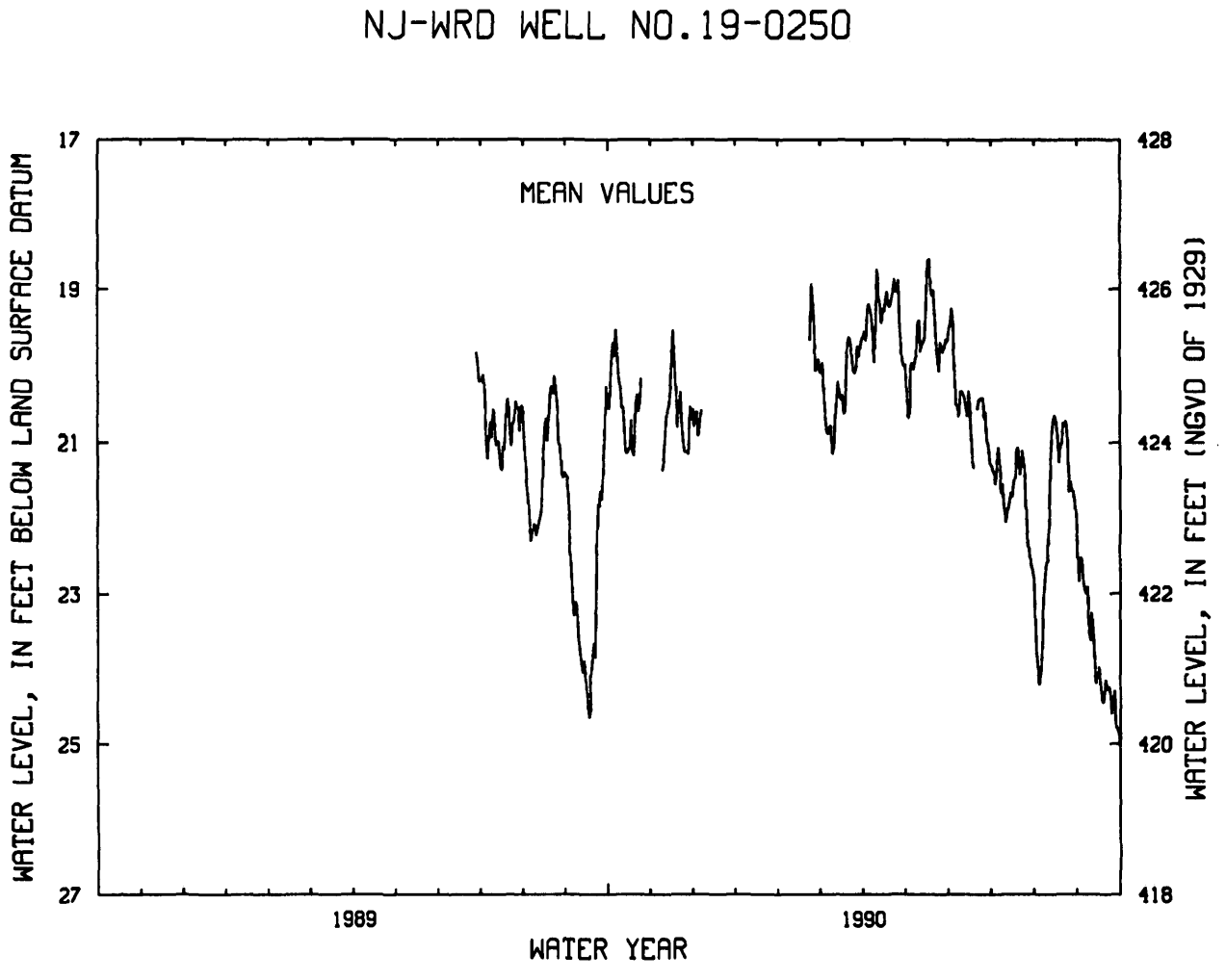
402146074535102. Local I.D., West Amwell Fire TB 2 Obs. NJ-WRD Well Number, 19-0250.
LOCATION.--Lat 40°21'46", long 74°53'51", Hydrologic Unit 02040105, At the West Amwell Fire House, Rt 518 West Amwell Township.
Owner: U.S. Geological Survey.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL 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, 27.19 ft below land-surface datum, Sept. 21, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.90	---	20.77	---	---	20.70	19.20	20.03	20.01	21.30	24.04	22.96
10	20.57	20.99	20.96	---	---	21.16	19.46	19.45	20.36	21.82	22.57	23.26
15	21.09	19.97	---	---	---	20.43	19.26	19.64	20.36	21.67	20.67	23.98
20	20.54	20.54	---	---	---	20.06	19.23	19.09	---	21.07	21.03	24.15
25	---	21.13	---	---	19.50	20.08	18.97	20.10	20.45	21.55	21.66	24.43
EOM	---	20.59	---	---	19.93	19.67	20.03	19.71	21.28	22.79	22.41	25.03
MEAN	20.49	20.67	---	---	---	20.30	19.33	19.69	20.45	21.68	21.94	23.90

WTR YR 1990 MEAN 20.92 HIGH 18.30 MAY 18 LOW 25.42 SEP 30



HUNTERDON COUNTY

402151074525301. Local I.D., Corsalo Rd TB1 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 Road, West Amwell.
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, 0.23 ft below land-surface datum, April 4, 1990; lowest, 5.66 ft below land-surface datum, Sept. 29, 1990.

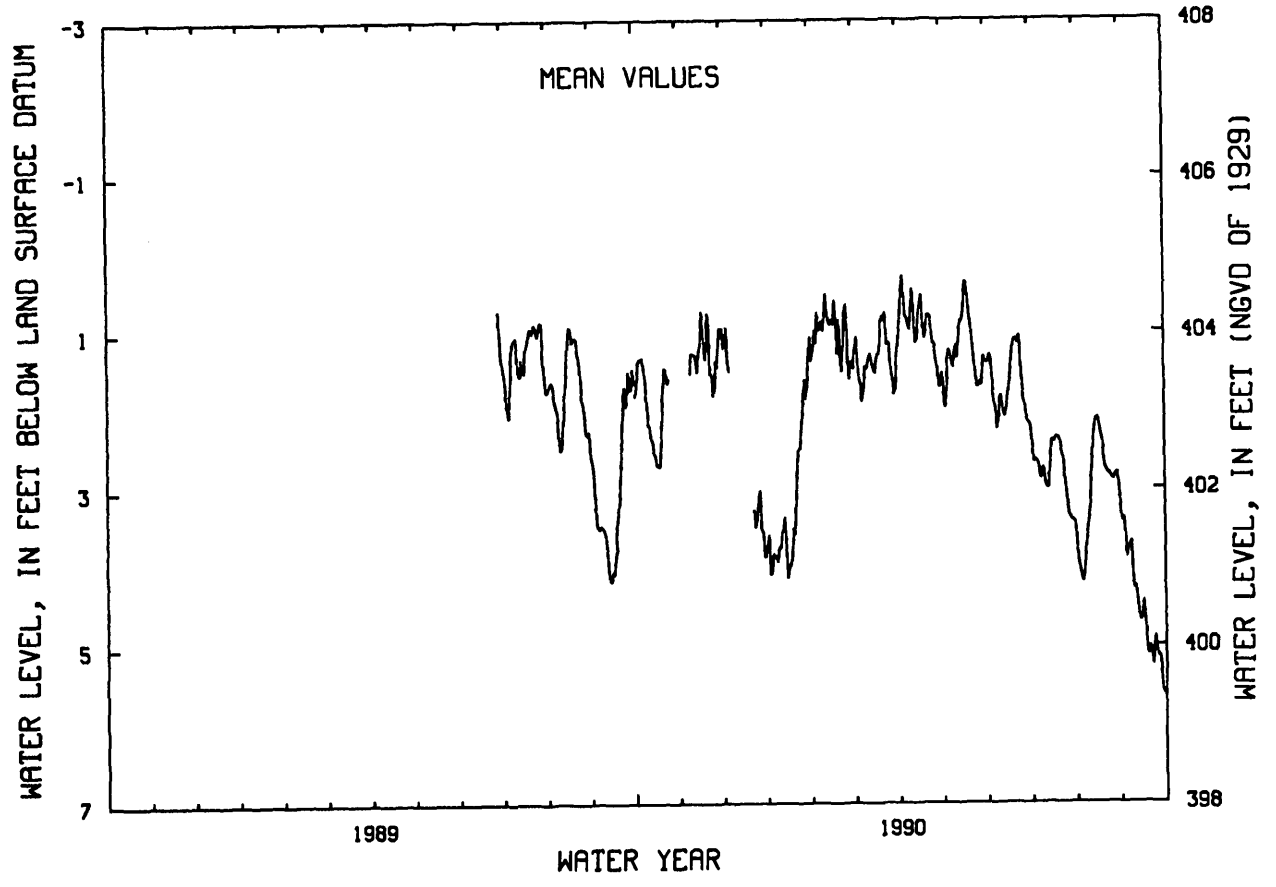
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.34	---	1.50	3.87	.98	1.62	.54	1.36	1.74	2.65	4.19	3.78
10	2.17	1.27	---	3.54	.52	1.47	.69	1.27	1.84	2.78	3.30	4.25
15	2.57	1.14	---	3.99	.91	1.48	.80	.86	1.90	2.41	2.10	4.43
20	1.71	.75	---	3.18	1.23	.87	.99	.78	1.10	2.35	2.71	5.03
25	---	1.69	3.12	1.92	1.12	1.14	1.16	1.70	1.62	3.03	2.86	5.15
EOM	---	.95	3.69	1.37	1.38	1.33	1.70	1.38	2.16	3.45	3.30	5.61
MEAN	1.93	1.25	2.72	3.09	1.00	1.35	.93	1.25	1.67	2.78	3.02	4.61

WTR YR 1990 MEAN 2.14 HIGH .23 APR 4 LOW 5.66 SEP 29

NJ-WRD WELL NO.19-0251



HUNTERDON COUNTY

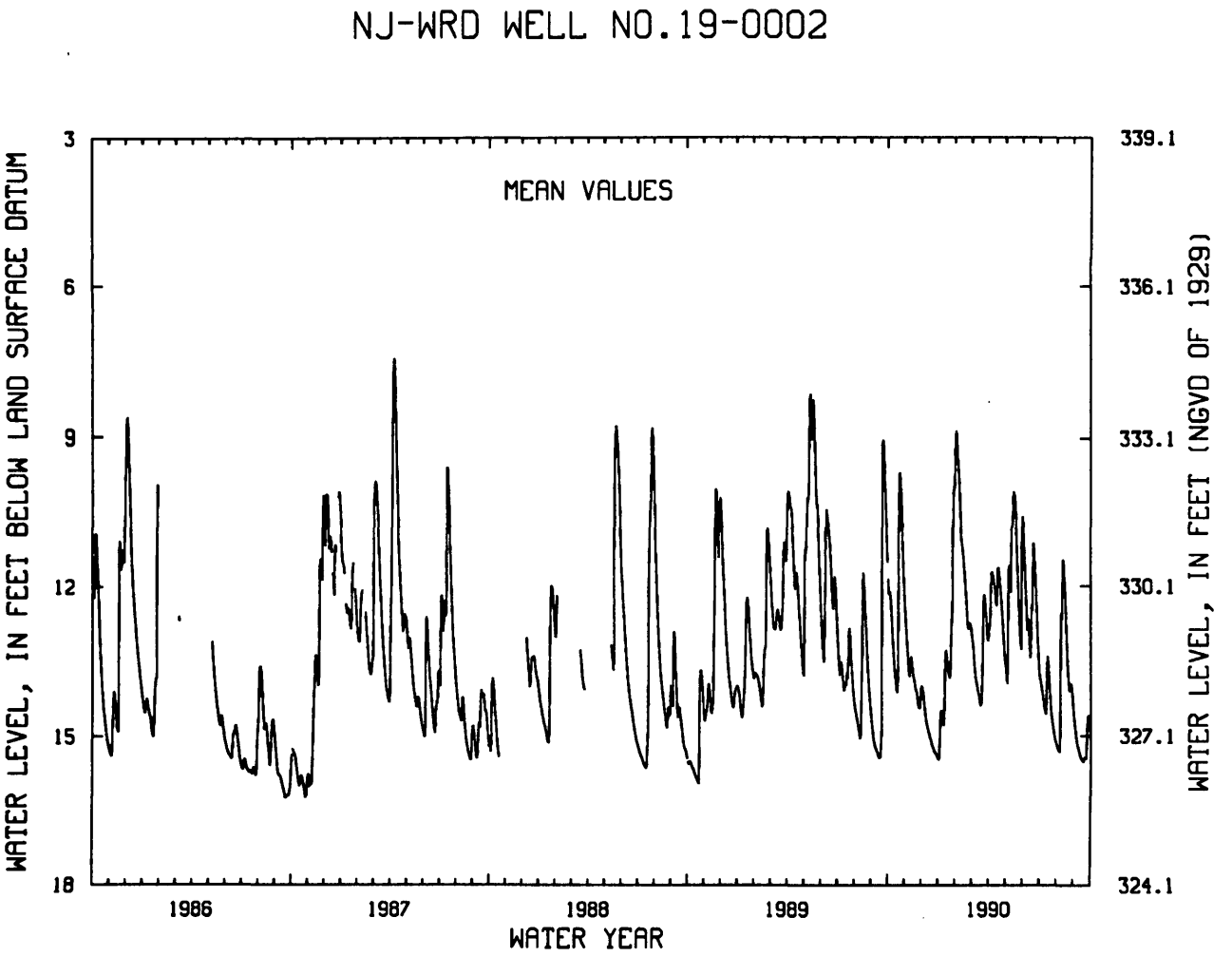
402644074563601. Local I.D., Bird Obs. NJ-WRD Well Number, 19-0002.
LOCATION.--Lat 40°26'44", long 74°56'36", Hydrologic Unit 02040105, near U.S. Post Office, Sergeantsville, Delaware Township
Owner: Phillip Fleming.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Dug water-table 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, September 1970 to September 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 1988 TO SEPTEMBER 1989

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.19	13.31	14.33	14.49	9.68	13.46	11.87	13.11	11.81	14.06	15.32	15.10
10	13.22	13.58	14.78	14.65	11.01	13.96	11.94	12.12	12.66	14.46	12.65	15.35
15	13.93	13.77	15.02	13.40	11.59	14.28	12.39	10.09	13.28	13.40	12.08	15.50
20	11.60	14.08	15.21	13.83	12.46	13.74	11.85	10.92	11.12	14.27	13.59	15.44
25	10.39	14.42	15.34	12.45	12.73	12.32	12.63	12.58	12.33	14.83	14.01	14.63
EOM	12.34	14.00	15.48	9.03	12.85	13.02	13.52	10.59	13.65	15.17	14.58	15.09
MEAN	12.24	13.77	14.94	13.17	11.35	13.41	12.29	11.82	12.31	14.34	13.64	15.17

WTR YR 1990 MEAN 13.22 HIGH 8.84 FEB 1 LOW 15.53 SEP 17



HUNTERDON COUNTY

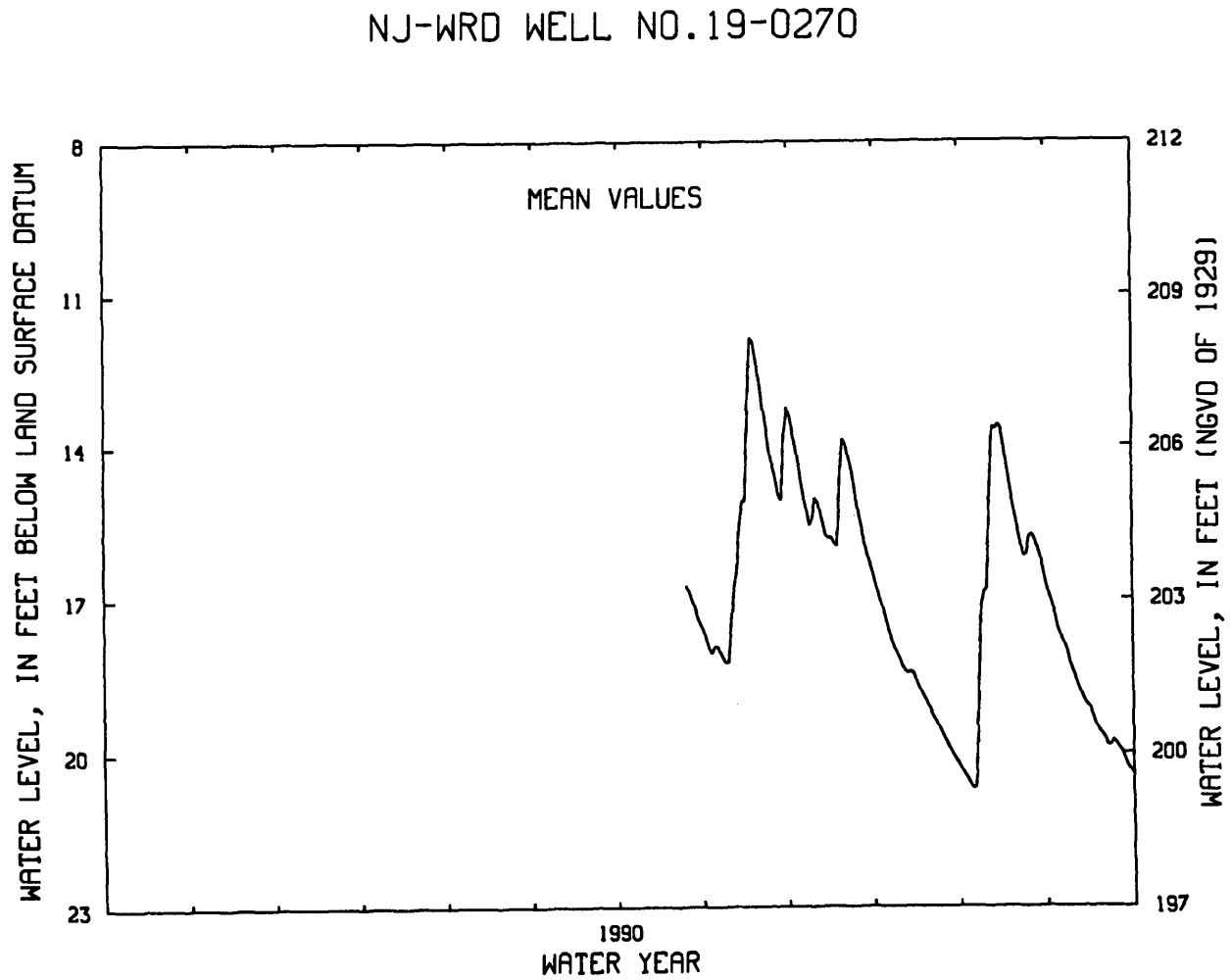
403517074452501. Local I.D., Readington School 11 Obs. NJ-WRD Well Number, 19-0270.
LOCATION.--Lat 40°35'17", long 74°45'25", Hydrologic Unit 02030105, behind Readington School, on Readington Road (County Rd. 620), Readington Township.
Owner: State of New Jersey.
AQUIFER.--Passaic Formation of Jurassic-Triassic 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 220 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--April 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.79 ft below land-surface datum, May 18, 1990; lowest, 20.73 ft below land-surface datum, Aug. 5,6, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	17.91	14.67	17.33	20.70	17.74
10	---	---	---	---	---	---	---	18.21	15.02	18.15	16.80	18.53
15	---	---	---	---	---	---	---	15.08	15.80	18.45	13.66	19.12
20	---	---	---	---	---	---	---	12.26	13.87	19.05	15.39	19.72
25	---	---	---	---	---	---	16.72	14.17	15.13	19.62	15.79	19.90
EOM	---	---	---	---	---	---	17.46	13.23	16.38	20.22	16.74	20.43
MEAN	---	---	---	---	---	---	---	15.42	15.06	18.62	16.53	19.02

WTR YR 1990 HIGH 11.79 MAY 18 LOW 20.73 AUG 5,6



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, about 1.1 mi. north of I-95, interchange 3 Hopewell Township.
Owner: Bristol-Myers 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.--December 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, 11.56 ft below land-surface datum, May 21, 1990; lowest, 20.96 ft below land-surface datum, Oct. 31, 1988.

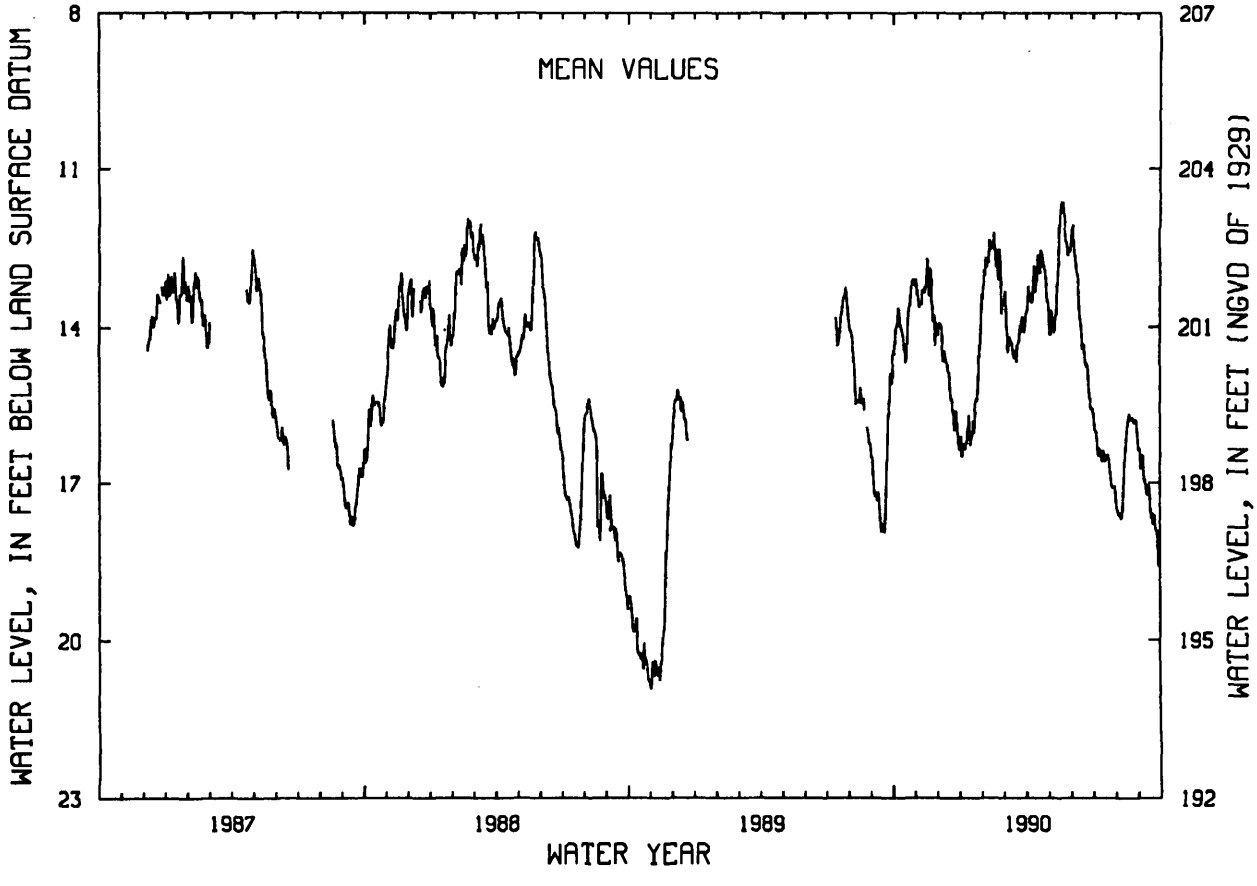
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.98	13.64	13.97	16.28	12.87	13.99	13.37	13.69	12.42	16.01	17.64	16.62
10	13.97	13.32	14.44	16.00	12.34	14.23	13.16	13.88	13.08	16.36	17.57	16.93
15	14.30	12.96	14.85	16.14	12.45	14.56	12.92	12.76	14.02	16.37	16.13	17.02
20	14.04	12.88	15.37	15.84	12.89	14.35	12.82	11.63	14.49	16.46	15.80	17.59
25	13.22	13.86	15.69	14.98	13.22	13.93	12.89	12.35	15.17	16.87	15.82	17.94
EOM	13.09	13.94	16.19	13.46	13.50	13.78	13.53	12.57	15.55	17.08	16.29	18.54
MEAN	13.85	13.45	15.07	15.58	12.80	14.13	13.13	12.89	13.93	16.51	16.53	17.34

WTR YR 1990 MEAN 14.62 HIGH 11.56 MAY 21 LOW 18.67 SEP 28,29

NJ-WRD WELL NO.21-0289



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 Road 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 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 2.30 ft above land-surface datum.
PERIOD OF RECORD.--March 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.73 ft below land-surface datum, May 22, 1990; lowest, 31.16 ft below land-surface datum, Sept. 30, 1990.

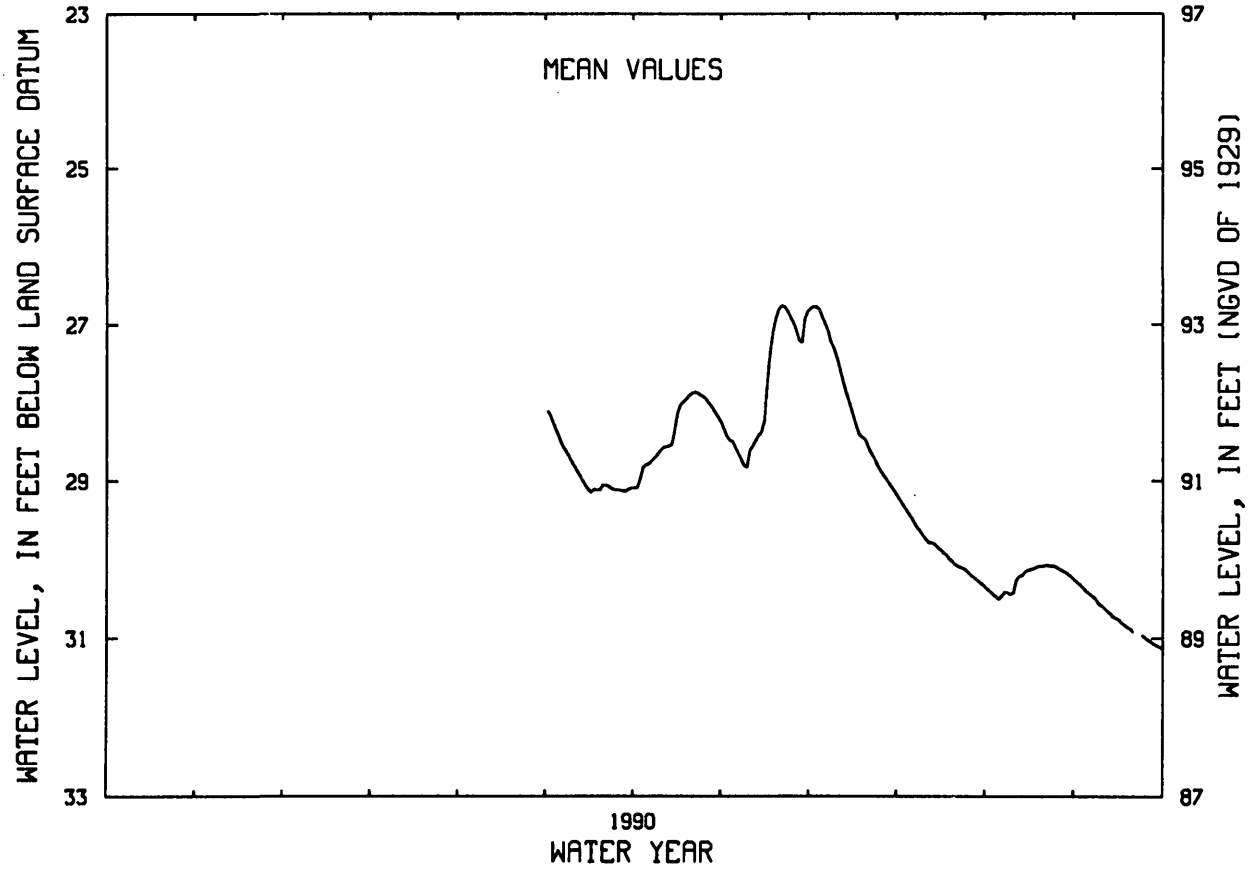
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	28.36	28.79	28.49	26.90	29.41	30.50	30.43
10	---	---	---	---	---	28.73	28.61	28.82	27.40	29.69	30.42	30.61
15	---	---	---	---	---	29.05	28.33	28.37	28.06	29.84	30.13	30.76
20	---	---	---	---	---	29.11	27.90	26.91	28.47	30.02	30.08	30.92
25	---	---	---	---	---	29.10	27.92	26.90	28.85	30.14	30.10	31.02
EOM	---	---	---	---	---	29.08	28.18	26.83	29.12	30.33	30.26	31.13
MEAN	---	---	---	---	---	28.87	28.35	27.79	27.98	29.84	30.23	30.74

WTR YR 1990 HIGH 26.73 MAY 22 LOW 31.16 SEP 30

NJ-WRD WELL NO.21-0364



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 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, 40.81 ft below land-surface datum, May 17,18, 1990; lowest, 46.44 ft below land-surface datum, Sept. 13, 1989.

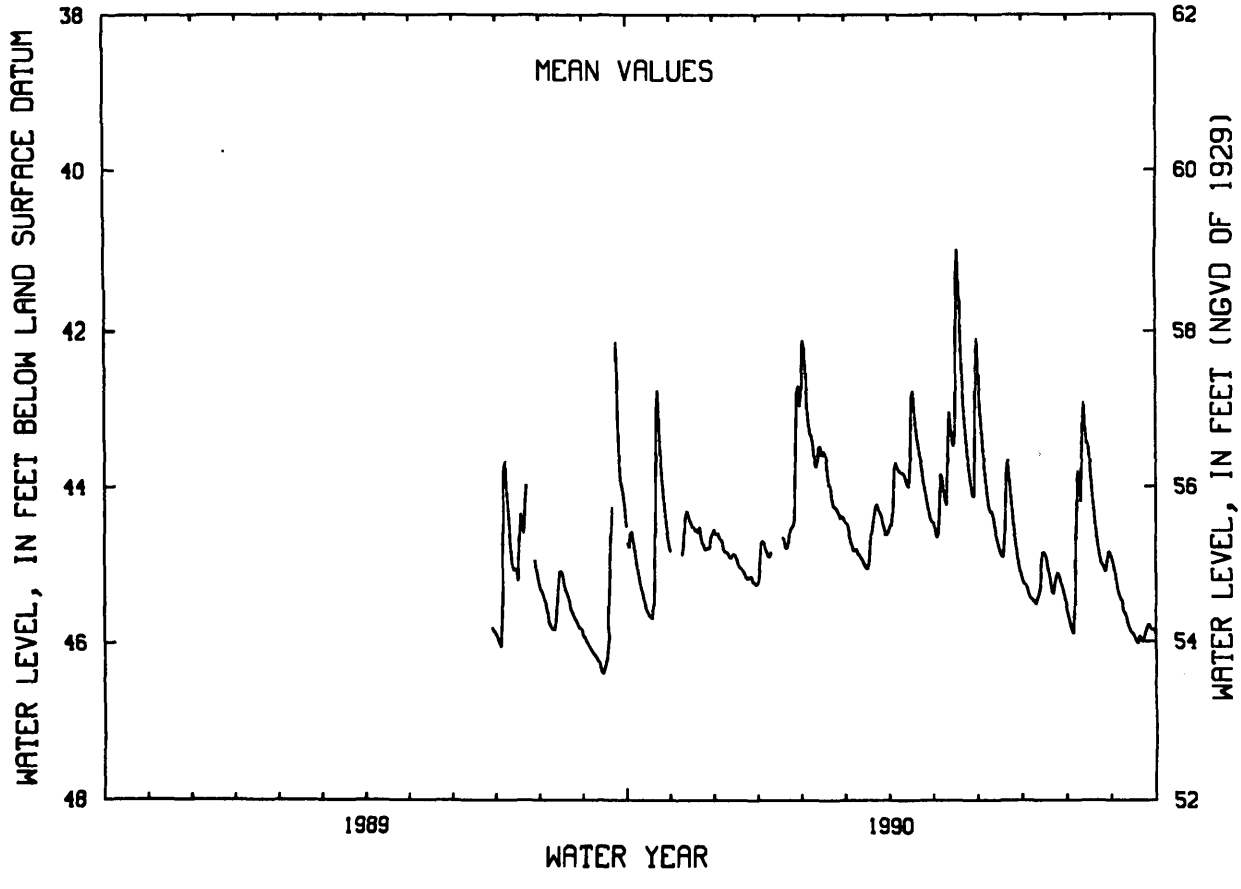
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.69	---	44.67	44.79	43.30	44.69	43.68	44.37	43.74	45.36	45.90	45.40
10	45.29	44.40	44.85	---	43.67	44.85	43.82	44.23	44.32	45.51	44.19	45.67
15	45.61	44.51	44.87	---	43.52	45.01	43.71	43.47	44.77	44.85	43.45	45.91
20	44.80	44.51	45.06	44.78	44.15	44.51	43.39	42.16	43.85	45.20	44.52	45.96
25	43.92	44.79	45.15	44.42	44.35	44.32	44.02	43.72	44.49	45.11	45.01	45.78
EOM	44.82	44.54	45.21	42.11	44.40	44.56	44.45	42.09	45.12	45.51	44.92	45.90
MEAN	44.75	44.60	44.95	44.23	43.71	44.65	43.83	43.41	44.26	45.25	44.57	45.72

WTR YR 1990 MEAN 44.50 HIGH 40.81 MAY 17,18 LOW 46.21 SEP 18

NJ-WRD WELL NO.21-0358



MERCER COUNTY

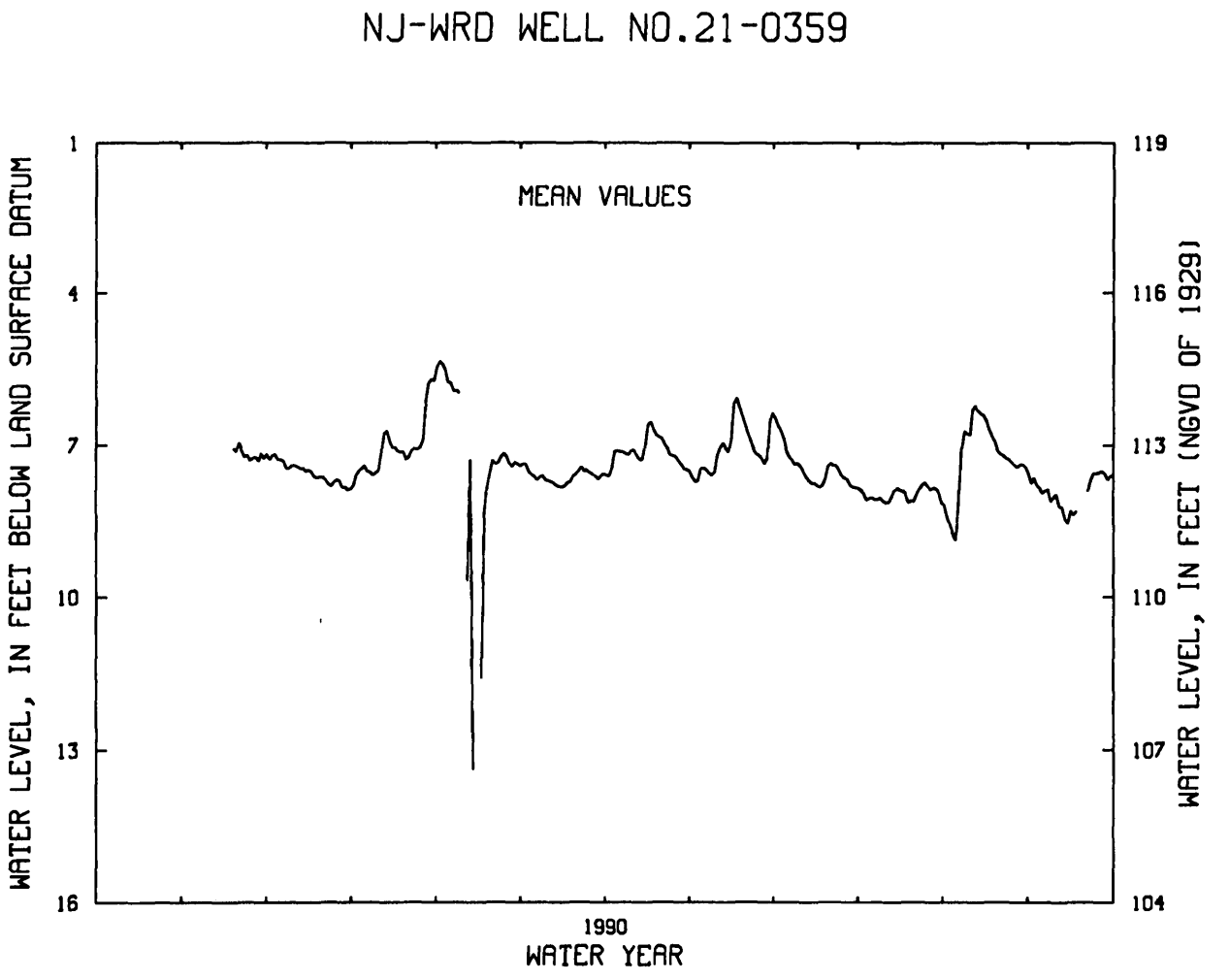
402032074392501. Local I.D., Princeton 2-Chill PL Obs. NJ-WRD Well Number, 21-0359.
LOCATION.--Lat 40°20'32", long 74°39'25", Hydrologic Unit 02030105, Princeton University, Main Campus, Princeton Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stockton Formation of Triassic age.
WELL CHARACTERISTICS.--Drilled 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.--November 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	7.29	7.51	5.93	7.58	7.11	7.46	7.11	8.04	8.87	7.94
10	---	---	7.40	7.17	9.68	7.68	7.11	7.53	7.41	8.10	6.80	7.97
15	---	---	7.49	7.05	11.58	7.81	6.97	7.13	7.74	7.84	6.41	8.29
20	---	6.95	7.62	7.23	7.37	7.61	6.84	6.41	7.41	8.09	7.10	---
25	---	7.26	7.69	6.89	7.36	7.49	7.21	7.17	7.61	7.73	7.34	7.54
EOM	---	7.18	7.79	5.35	7.37	7.56	7.48	6.37	7.83	8.12	7.55	7.60
MEAN	---	---	7.55	6.92	7.46	7.61	7.14	7.07	7.44	7.96	7.26	7.90

WTR YR 1990 MEAN 7.42 HIGH 5.29 JAN 31 LOW 27.98 FEB 12



MERCER COUNTY

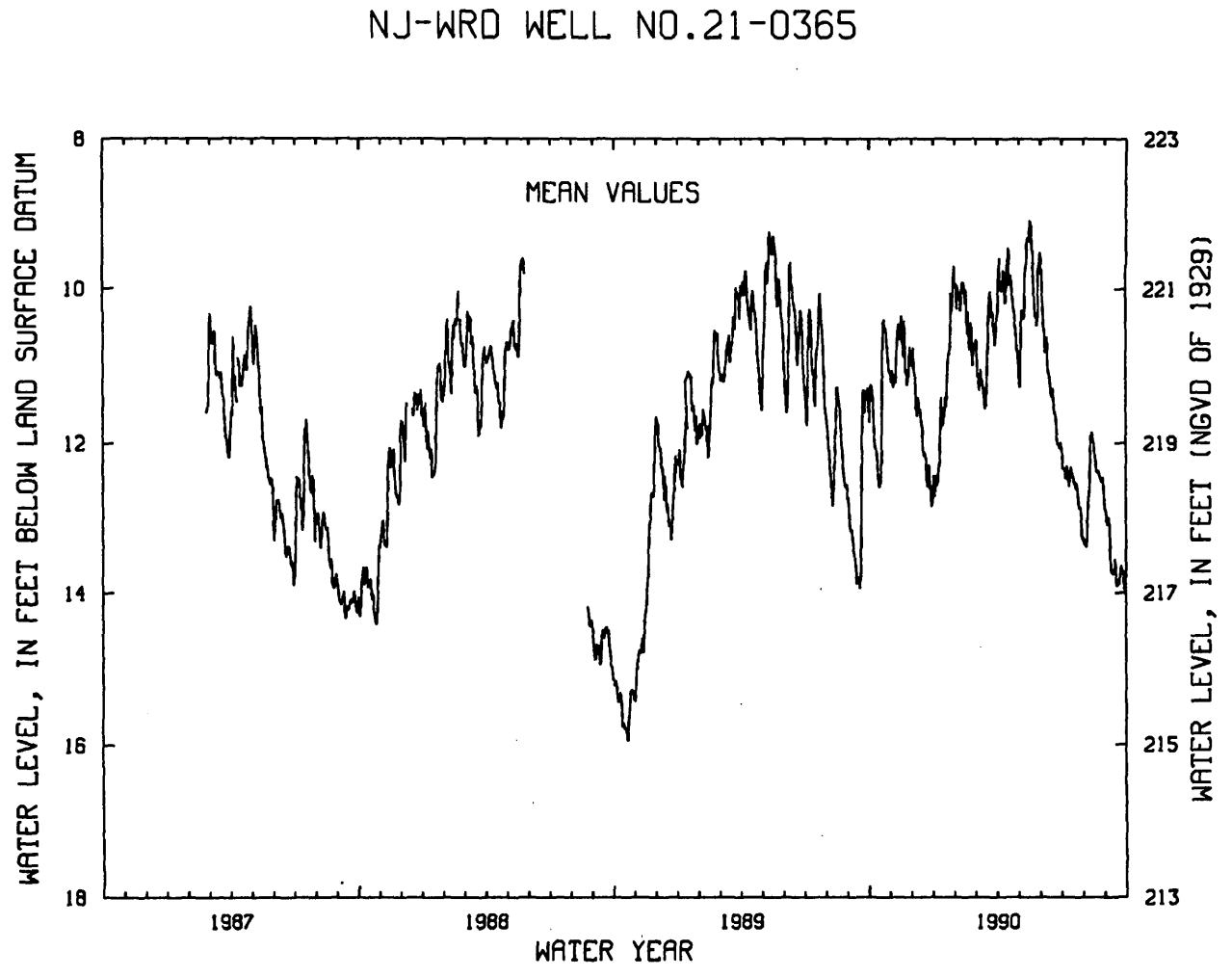
402138074435801. Local I.D., AT&T North Obs. NJ-WRD Well Number, 21-0365.
LOCATION.--Lat 40°21'38", long 74°43'58", Hydrologic Unit 02030105, AT&T, Carter Road, Hopewell Township.
Owner: AT&T.
AQUIFER.--Passaic Formation of Jurassic-Triassic age.
WELL CHARACTERISTICS.--Drilled domestic well, depth 99 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.--February 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.30	11.28	11.09	12.57	10.06	11.14	9.86	10.61	10.30	12.34	13.38	13.03
10	12.06	10.63	11.42	12.03	10.00	11.22	9.76	10.28	10.63	12.35	12.57	13.69
15	12.56	10.54	11.75	11.63	10.19	11.55	9.76	9.33	11.18	12.32	11.95	13.54
20	10.93	10.42	12.18	11.32	10.68	10.36	9.89	9.38	11.45	12.52	12.39	13.83
25	10.56	11.22	12.29	10.55	10.85	10.30	10.27	10.34	11.93	12.75	12.45	13.73
EOM	11.07	10.80	12.63	9.98	10.73	10.42	10.79	9.52	11.99	13.27	12.86	14.01
MEAN	11.48	10.89	11.88	11.43	10.30	10.85	10.06	10.03	11.10	12.54	12.56	13.60

WTR YR 1990 MEAN 11.40 HIGH 8.90 MAY 17 LOW 14.18 SEP 30

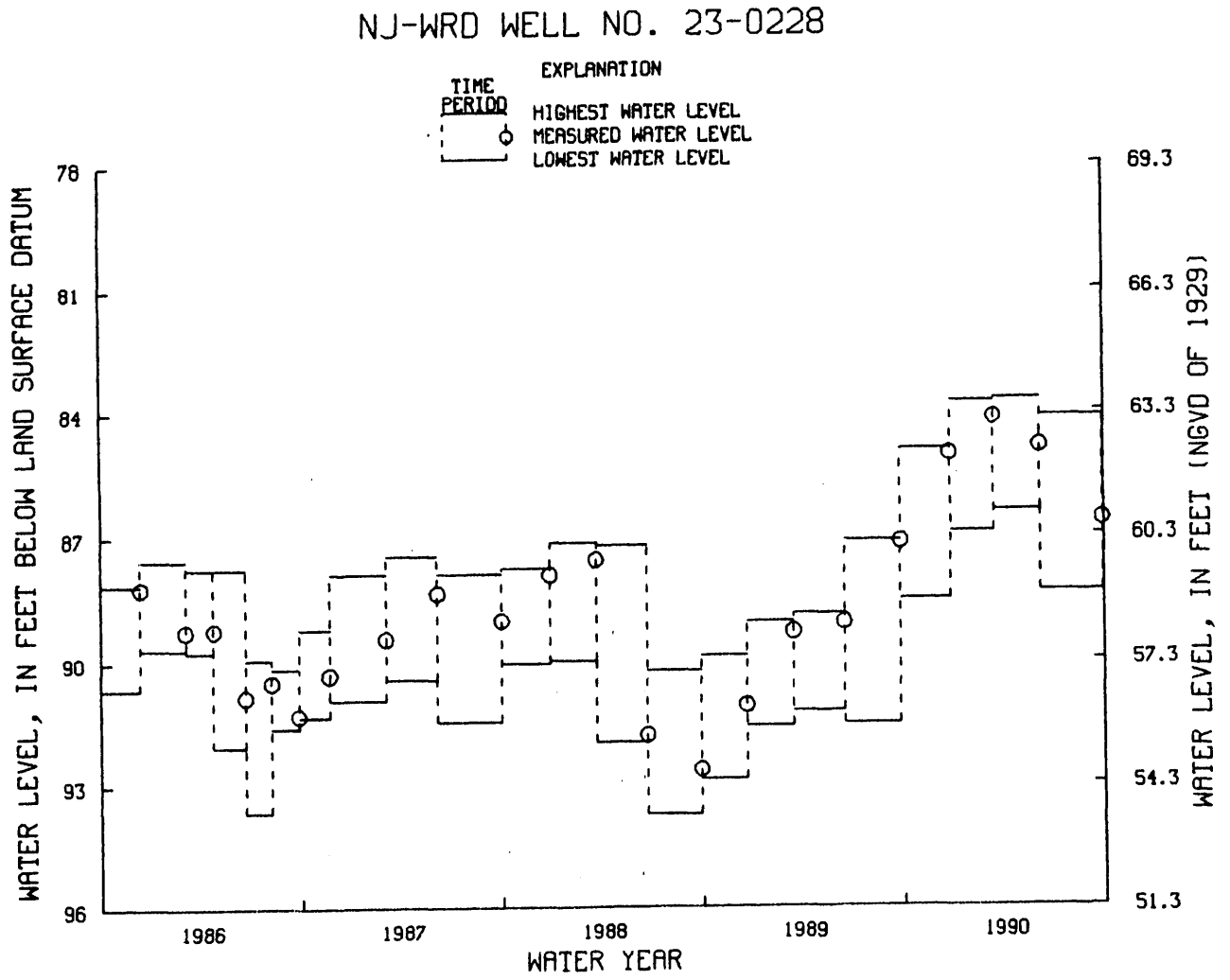


MIDDLESEX COUNTY

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, on 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, January 1977 to current year. Water-level recorder, October 1961 to August 1967, August 1968 to August 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.--October 1961 to August 1967, August 1968 to August 1975, January 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 26, 1989	84.92	88.54	DEC. 26, 1989	85.04
DEC. 26, 1989 TO MAR. 14, 1990	83.78	86.93	MAR. 14, 1990	84.17
MAR. 14, 1990 TO JUNE 7, 1990	83.71	86.41	JUNE 7, 1990	84.86
JUNE 7, 1990 TO SEPT. 27, 1990	84.13	88.37	SEPT. 27, 1990	86.63

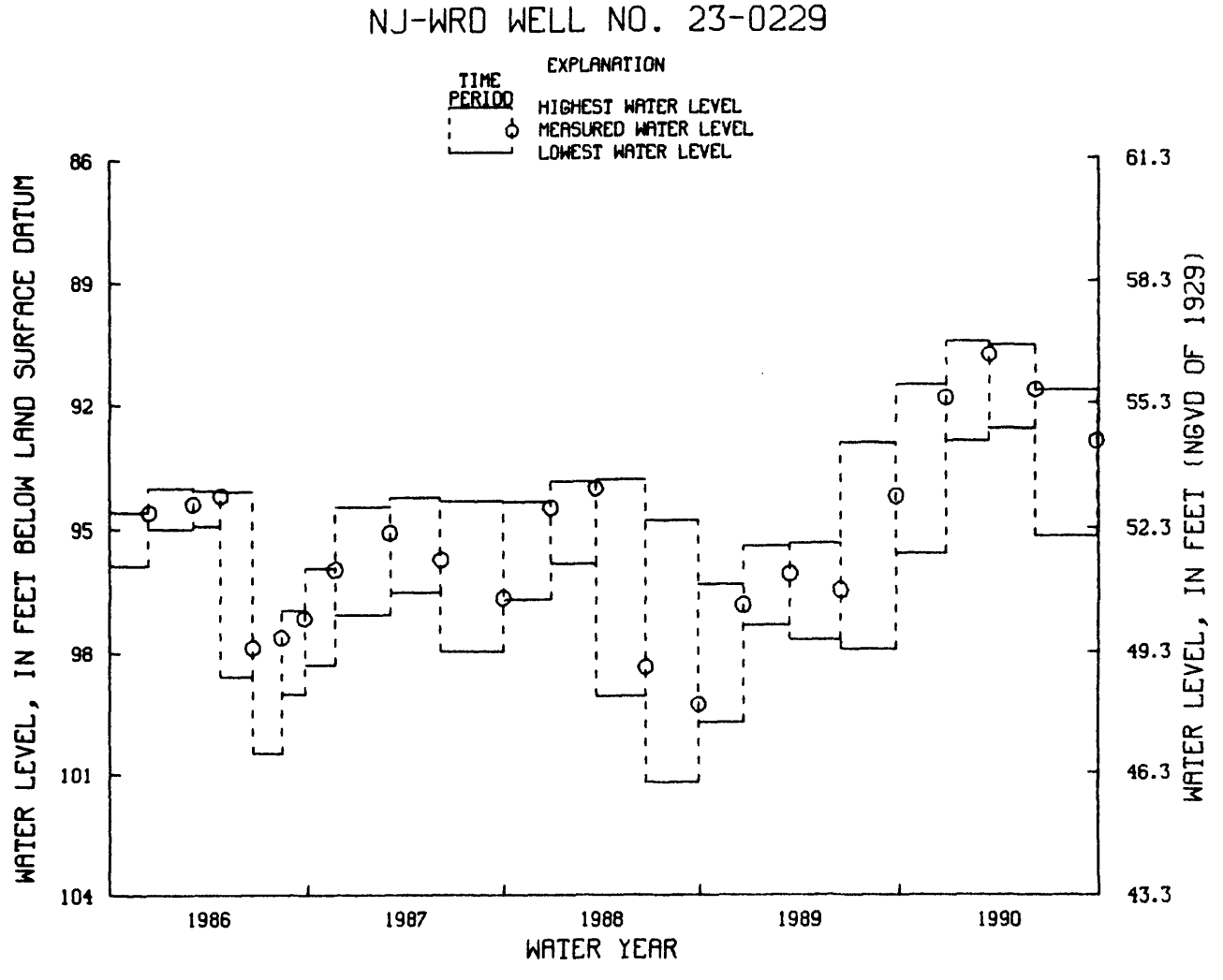


MIDDLESEX COUNTY

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, on 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, January 1977 to current year. Water-level recorder, April 1965 to August 1967, August 1968 to August 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.--April 1965 to August 1967, August 1968 to August 1975, January 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 26, 1989	91.55 / 95.63	DEC. 26, 1989	91.88
DEC. 26, 1989 TO MAR. 14, 1990	90.50 / 92.87	MAR. 14, 1990	90.82
MAR. 14, 1990 TO JUNE 7, 1990	90.57 / 92.61	JUNE 7, 1990	91.68
JUNE 7, 1990 TO SEPT. 27, 1990	91.68 / 95.20	SEPT. 27, 1990	92.88



MIDDLESEX COUNTY

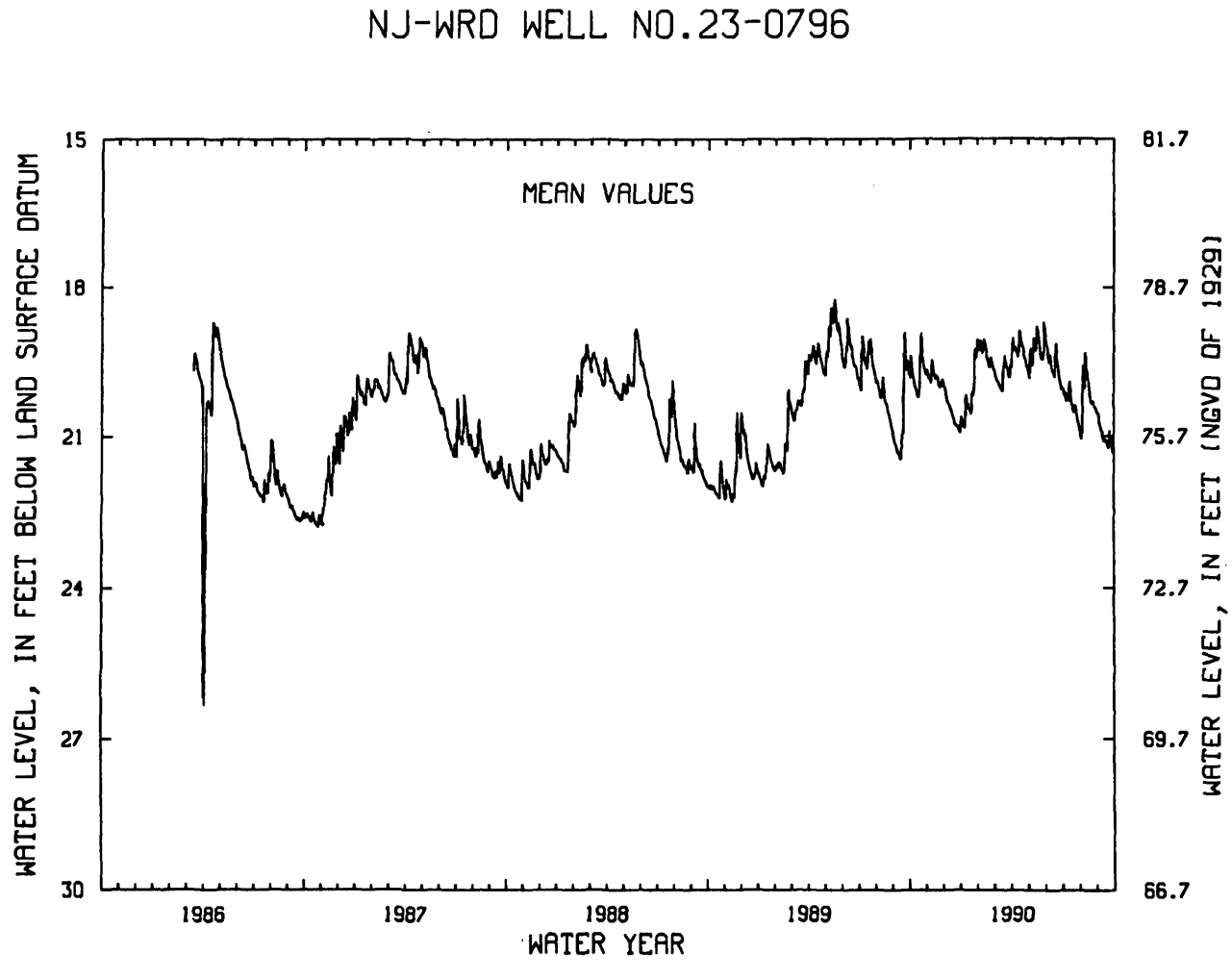
402058074355901. Local I.D., Test Well 5 Obs. NJ-WRD Well Number, 23-0796.
LOCATION.--Lat 40°20'58", long 74°35'59", Hydrologic Unit 02030105, at the Plasma Physics Laboratory, James Forrestal Campus, Princeton University, Plainsboro Township.
Owner: Princeton University.
AQUIFER.--Stockton Formation 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, March 31-April 4, 1986.
PERIOD OF RECORD.--March 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, April 4, 1986. (see remarks)

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.66	19.83	20.12	20.76	19.08	19.82	19.15	19.38	19.30	20.17	21.05	20.76
10	20.00	19.46	20.34	20.35	19.24	19.95	19.32	19.52	19.36	20.17	19.99	20.94
15	20.17	19.80	20.50	20.44	19.27	20.08	19.07	19.28	19.70	20.02	19.79	21.08
20	19.25	19.81	20.70	20.54	19.56	19.57	19.17	19.03	19.14	20.47	20.23	21.19
25	19.50	20.01	20.79	19.99	19.45	19.63	19.42	19.44	19.76	20.45	20.30	21.08
EOM	19.75	19.90	20.93	19.06	19.61	19.59	19.61	18.81	20.04	20.82	20.52	21.33
MEAN	19.74	19.81	20.51	20.23	19.33	19.78	19.29	19.28	19.55	20.31	20.23	21.00

WTR YR 1990 MEAN 19.93 HIGH 18.67 MAY 30 LOW 21.36 SEP 29



MIDDLESEX COUNTY

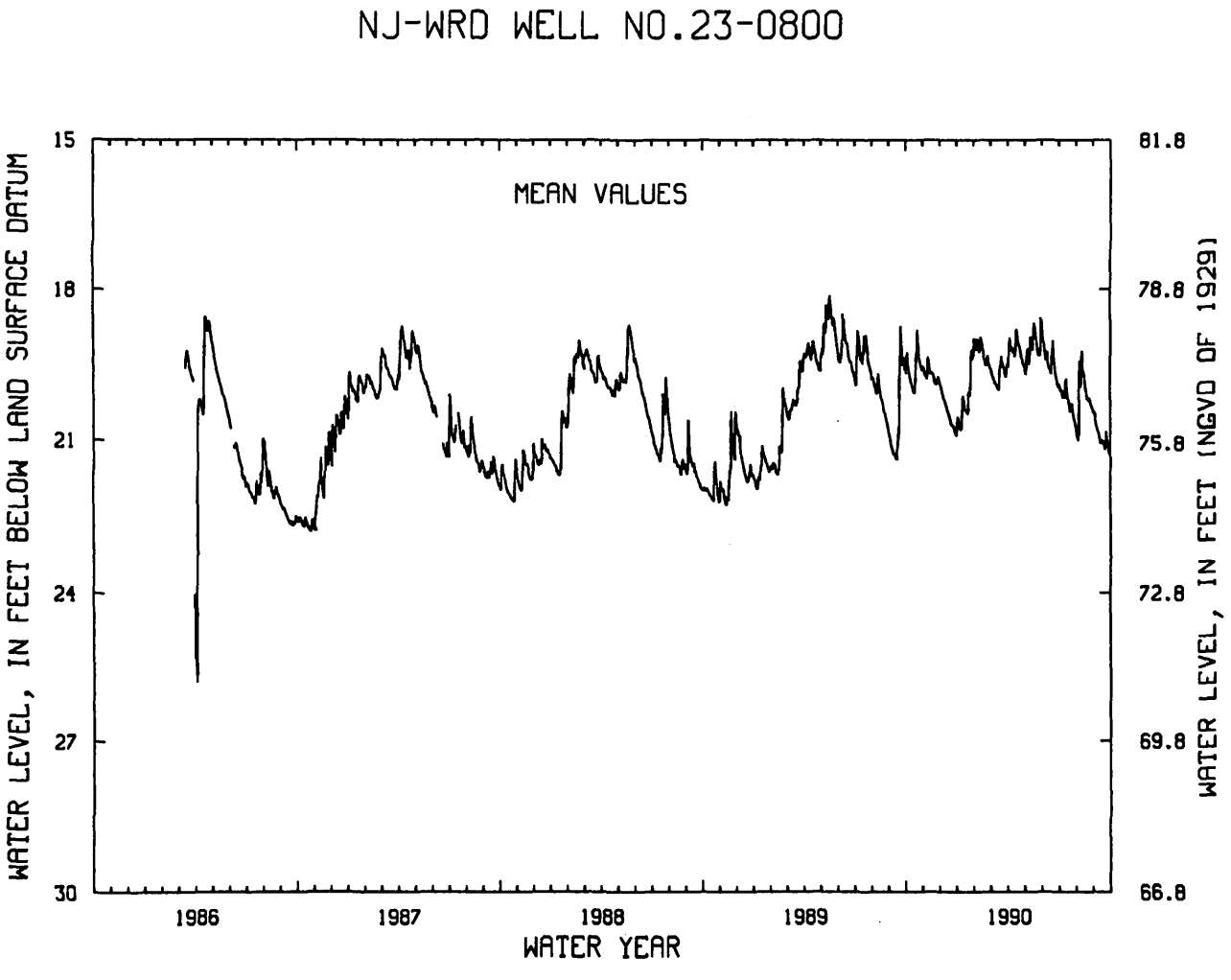
402058074355902. Local I.D., Test Well 9 Obs. NJ-WRD Well Number, 23-0800.
LOCATION.--Lat 40°20'58", long 74°35'59", Hydrologic Unit 02030105, at the Plasma Physics Laboratory, James Forrestal Campus, Princeton University, Plainsboro Township.
Owner: Princeton University.
AQUIFER.--Stockton Formation 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, March 31-April 4, 1986.
PERIOD OF RECORD.--March 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, April 4, 1986. (see remarks)

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.50	19.68	19.99	20.67	18.96	19.69	19.08	19.25	19.16	20.01	20.94	20.64
10	19.80	19.32	20.21	20.25	19.12	19.82	19.24	19.40	19.22	20.01	19.84	20.83
15	19.99	19.65	20.40	20.37	19.18	19.94	18.97	19.20	19.55	19.89	19.67	20.97
20	19.10	19.68	20.60	20.45	19.45	19.47	19.09	18.87	19.01	20.34	20.10	21.08
25	19.35	19.87	20.69	19.89	19.34	19.53	19.31	19.28	19.62	20.34	20.16	20.97
EOM	19.59	19.77	20.84	18.97	19.50	19.49	19.49	18.66	19.89	20.70	20.41	21.22
MEAN	19.57	19.67	20.40	20.14	19.23	19.67	19.20	19.15	19.40	20.18	20.10	20.89

WTR YR 1990 MEAN 19.80 HIGH 18.52 MAY 30 LOW 21.25 SEP 29



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 Road, about .4 mi. east of Route 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 Geodedic 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 September 1932.
PERIOD OF RECORD.--October 1923 to July 1975, January 1985 to current year. Periodic manual measurements August 1975 to December 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, September 19, 1989; lowest, 10.40 ft below land surface datum, October 13, 1953. Well was dry, August to September 1932, before deepening.

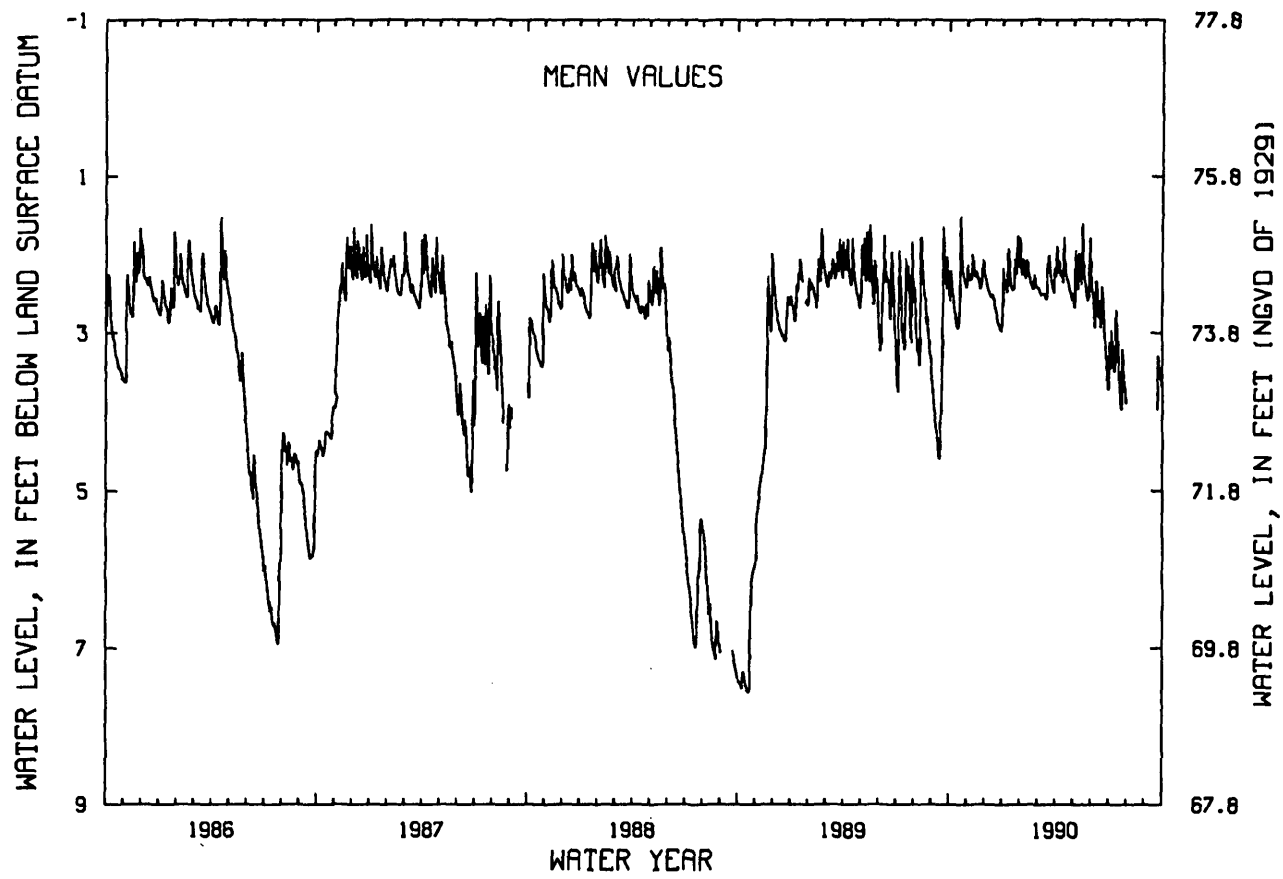
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.44	2.31	2.42	2.40	2.06	2.49	2.14	1.94	2.59	3.46	---	---
10	2.74	2.02	2.52	1.92	2.09	2.49	2.26	2.29	2.33	3.44	---	---
15	2.93	2.27	2.56	2.41	2.28	2.55	1.77	2.37	2.58	2.85	---	---
20	1.52	2.29	2.72	2.36	2.42	2.03	2.30	2.30	2.50	3.76	---	---
25	2.27	2.33	2.90	1.91	2.32	2.34	2.45	2.58	3.14	3.32	---	3.43
EOM	2.29	2.22	2.85	2.06	2.41	2.15	2.50	2.14	3.72	---	---	3.68
MEAN	2.46	2.24	2.64	2.21	2.27	2.38	2.25	2.27	2.79	3.41	---	---

WTR YR 1990 MEAN 2.53 HIGH 1.15 OCT 20 LOW 4.08 JUL 23

NJ-WRD WELL NO.23-0104



MIDDLESEX COUNTY

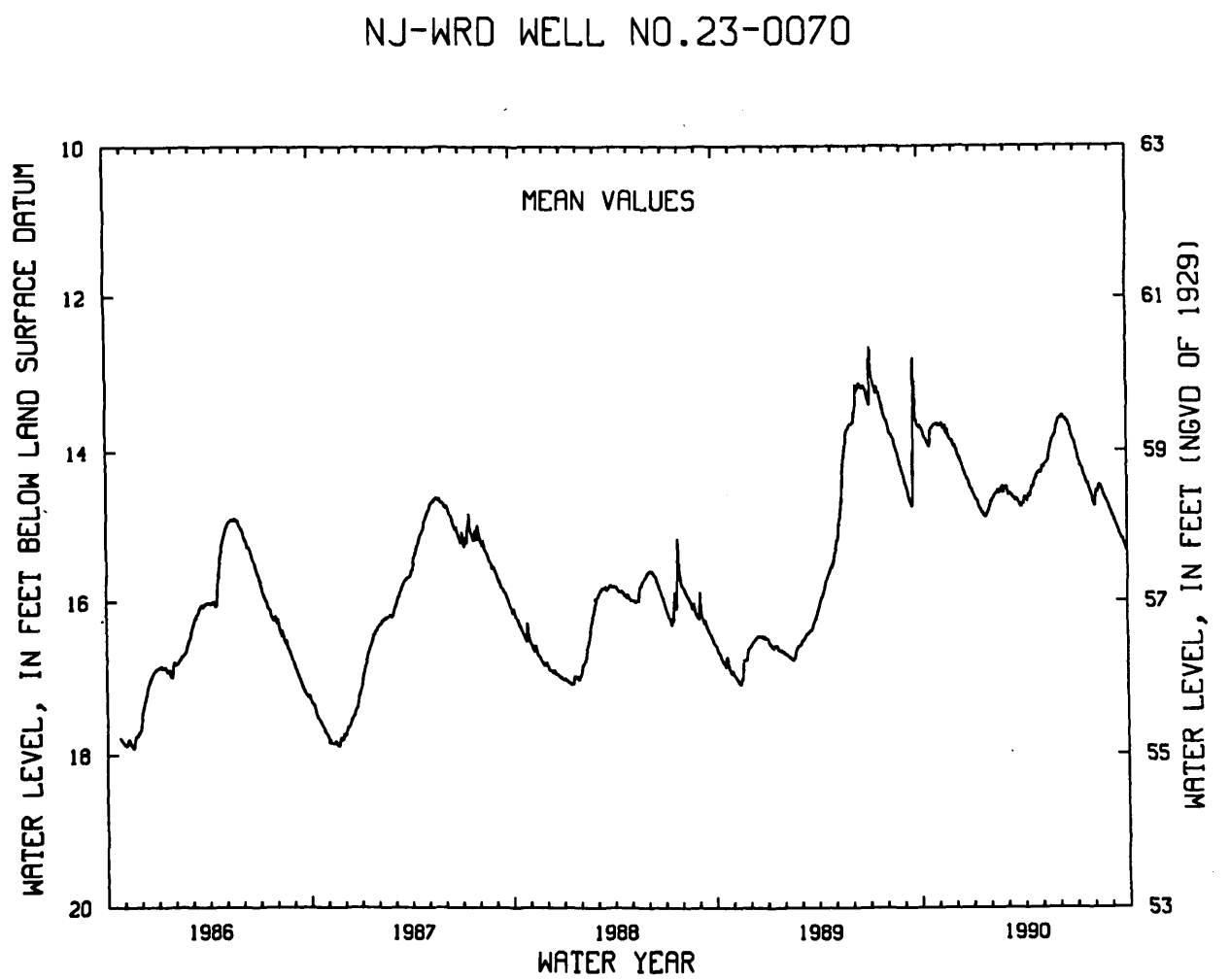
402553074271701. Local I.D., Fischer Obs. NJ-WRD Well Number, 23-0070.
LOCATION.--Lat 40°25'55", long 74°27'19", Hydrologic Unit 02030105, about 1,800 ft southeast of Weber School on Hardenburg Lane, East Brunswick Township.
Owner: Robert D. Fischer.
AQUIFER.--Farrington aquifer, Potomac-Raritan-Magothy 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, January 1977 to April 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 October 29, 1965 from 17 to 21 ft.
PERIOD OF RECORD.--June 1936 to April 1975, January 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.69	13.66	13.97	14.58	14.68	14.54	14.63	14.22	13.58	14.00	14.75	14.86
10	13.80	13.62	14.07	14.65	14.58	14.57	14.61	14.18	13.52	14.15	14.56	14.96
15	13.88	13.67	14.16	14.75	14.54	14.62	14.53	14.14	13.57	14.23	14.46	15.05
20	13.83	13.70	14.27	14.82	14.54	14.63	14.43	13.93	13.62	14.38	14.57	15.15
25	13.67	13.84	14.37	14.88	14.51	14.69	14.33	13.83	13.76	14.45	14.65	15.23
EOM	13.62	13.90	14.49	14.80	14.50	14.71	14.28	13.66	13.87	14.60	14.77	15.33
MEAN	13.75	13.73	14.20	14.73	14.58	14.62	14.50	14.03	13.64	14.27	14.60	15.06

WTR YR 1990 MEAN 14.31 HIGH 13.51 JUN 11 LOW 15.34 SEP 30



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 Geodedic 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, 176.58 ft below land-surface datum, May 25, 1984; lowest, 195.60 ft below land-surface datum, Sept. 17, 1988.

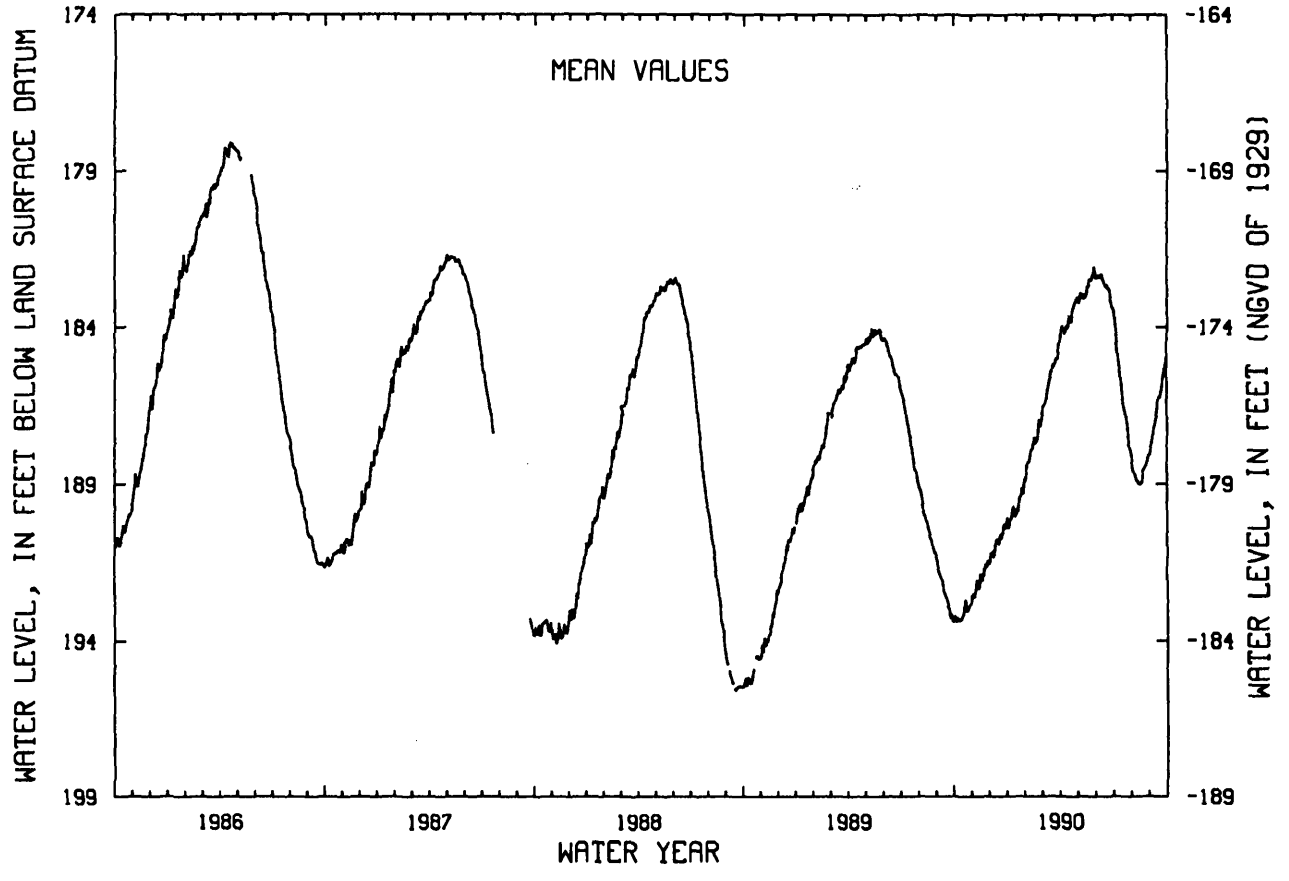
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	193.40	192.59	191.27	190.17	188.28	186.51	184.00	183.02	182.34	184.04	188.63	187.58
10	193.36	192.05	191.02	189.79	187.95	186.12	184.16	182.99	182.31	184.91	188.90	187.00
15	193.24	192.09	190.80	190.02	187.71	185.66	183.84	182.99	182.50	185.75	189.01	186.36
20	192.67	191.93	190.61	189.84	187.59	185.28	183.82	182.67	182.66	186.58	188.70	186.06
25	193.02	191.68	190.36	189.30	186.94	185.12	183.35	182.48	182.92	187.17	188.43	185.58
EOM	192.64	191.53	190.16	188.92	186.98	184.58	183.05	182.21	183.37	187.97	188.06	184.95
MEAN	193.12	192.04	190.83	189.73	187.80	185.71	183.77	182.74	182.64	185.82	188.61	186.47

WTR YR 1990 MEAN 187.45 HIGH 181.98 MAY 30 LOW 193.47 OCT 1

NJ-WRD WELL NO.25-0486

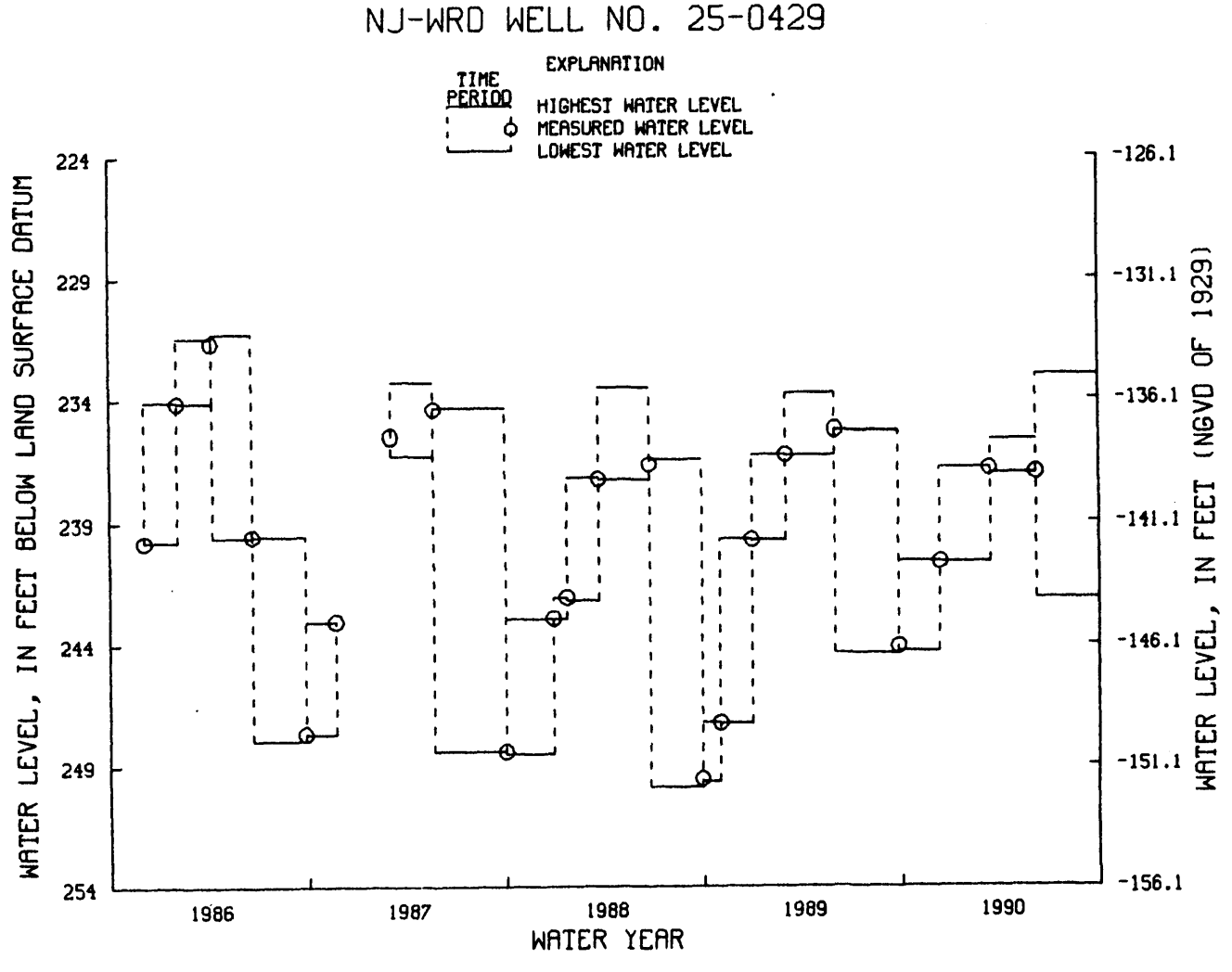


MONMOUTH COUNTY

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, 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, February 1977 to current year. Water-level recorder, January 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.--January 1964 to July 1975, February 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 12, 1989	240.61	244.32	DEC. 12, 1989	240.63
DEC. 12, 1989 TO MAR. 13, 1990	236.78	240.63	MAR. 13, 1990	236.80
MAR. 13, 1990 TO JUNE 7, 1990	235.58	236.99	JUNE 7, 1990	236.96
JUNE 7, 1990 TO OCT. 1, 1990	233.03	242.14	OCT. 1, 1990	233.03



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 and Peskin Roads, 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.--December 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 138.88 ft below land-surface datum, May 29,30, 1990; lowest, 150.32 ft below land-surface datum, Sept. 2, 1988.

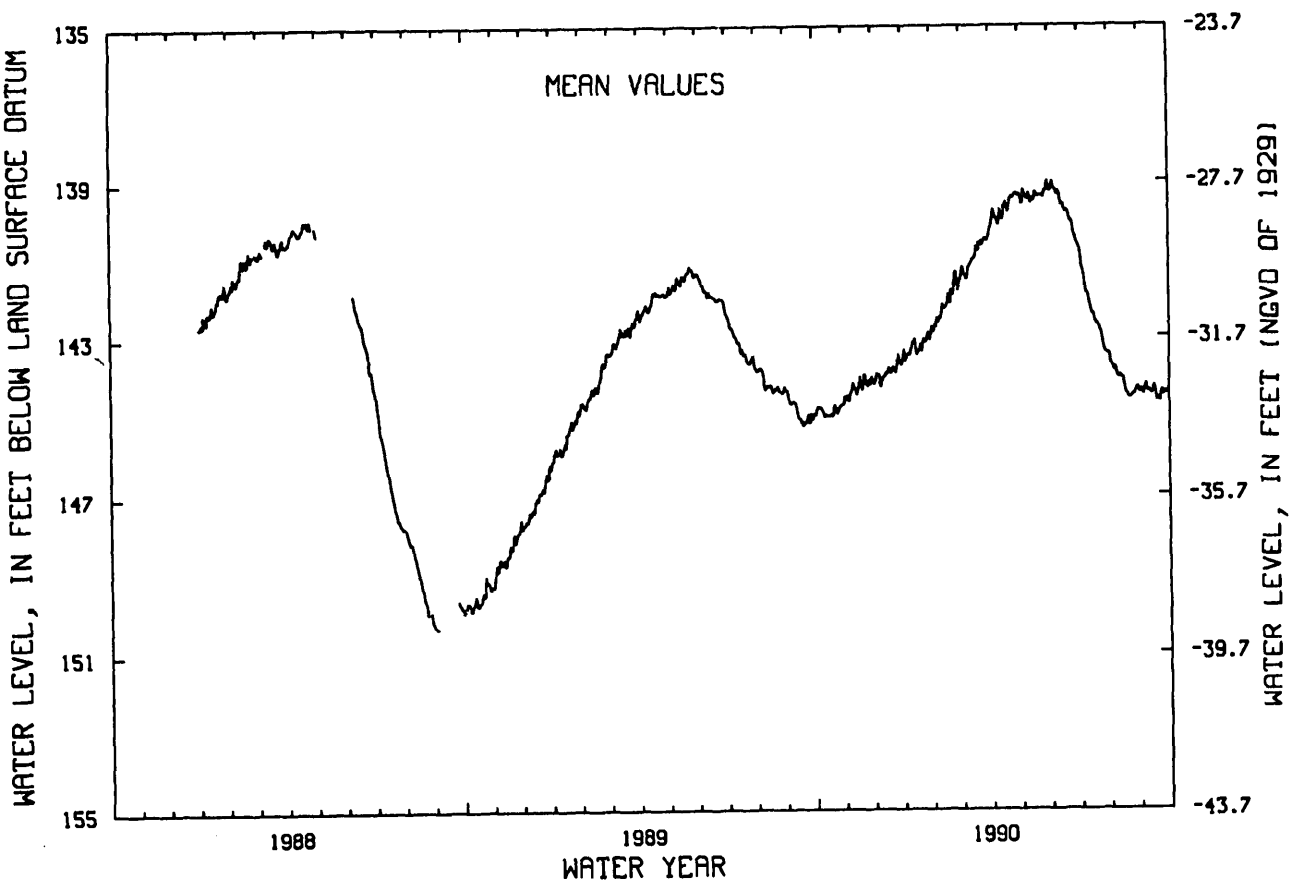
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	144.79	144.58	143.95	143.45	142.63	141.42	139.84	139.22	139.17	141.33	143.86	144.36
10	145.01	144.21	144.00	143.14	142.15	141.19	139.92	139.31	139.26	141.94	144.02	144.35
15	144.97	144.22	143.86	143.38	142.16	140.97	139.64	139.53	139.62	142.40	144.13	144.24
20	144.71	143.93	143.75	143.27	141.90	140.58	139.69	139.40	139.86	142.70	144.55	144.55
25	144.79	144.18	143.59	142.99	141.57	140.56	139.39	139.42	140.32	143.17	144.47	144.47
EOM	144.48	144.07	143.45	142.87	141.53	140.24	139.37	139.20	140.66	143.43	144.43	144.31
MEAN	144.84	144.25	143.85	143.21	142.11	140.91	139.70	139.36	139.73	142.39	144.17	144.41

WTR YR 1990 MEAN 142.42 HIGH 138.88 MAY 29,30 LOW 145.07 OCT 10

NJ-WRD WELL NO.25-0635



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 and Peskin Roads, 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 Resovoir and by nearby pumping.
PERIOD OF RECORD.--December 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.48 ft below land-surface datum, Aug. 25,26, 1990; lowest, 56.09 ft below land-surface datum, April 29, 1988.

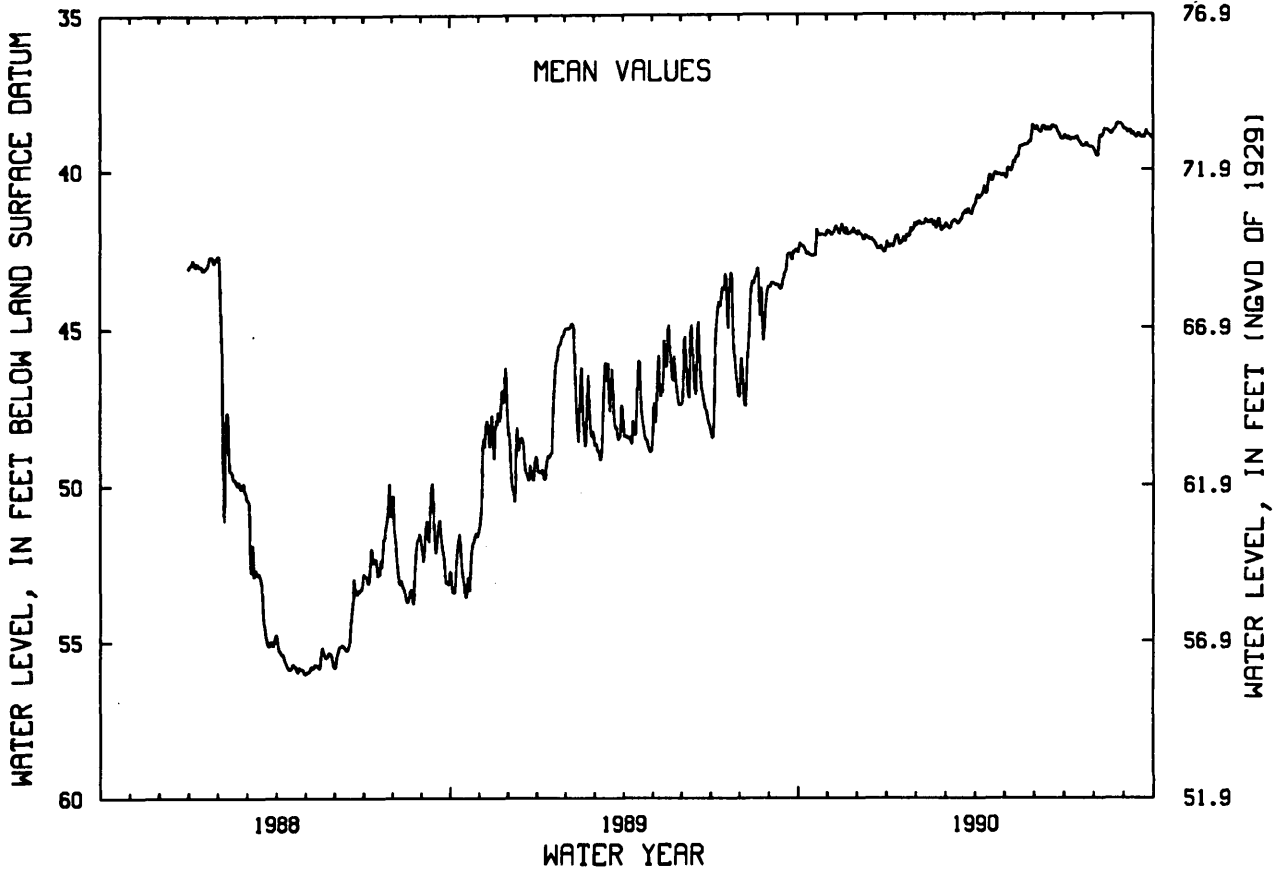
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	42.45	42.11	42.08	42.42	41.76	41.85	40.87	39.95	38.73	39.01	39.56	38.74
10	42.71	41.81	42.11	42.15	41.59	41.66	40.67	39.90	38.60	38.98	38.90	38.79
15	42.75	41.90	42.25	42.36	41.69	41.74	40.42	39.59	38.63	38.93	38.74	38.82
20	42.26	41.87	42.36	42.30	41.77	41.45	40.30	39.24	38.59	39.22	38.77	38.91
25	42.09	42.04	42.49	42.05	41.76	41.30	40.15	39.20	38.78	39.17	38.50	38.86
EOM	42.01	42.02	42.48	41.80	41.84	41.20	40.16	38.58	38.99	39.28	38.67	38.95
MEAN	42.41	41.97	42.31	42.20	41.73	41.59	40.49	39.51	38.72	39.09	38.85	38.85

WTR YR 1990 MEAN 40.64 HIGH 38.48 AUG 25,26 LOW 42.81 OCT 16

NJ-WRD WELL NO.25-0636



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 and Peskin Roads, 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.--December 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.88 ft below land-surface datum, June 8, 1988; lowest, 140.65 ft below land-surface datum, Oct. 6,7, 1988.

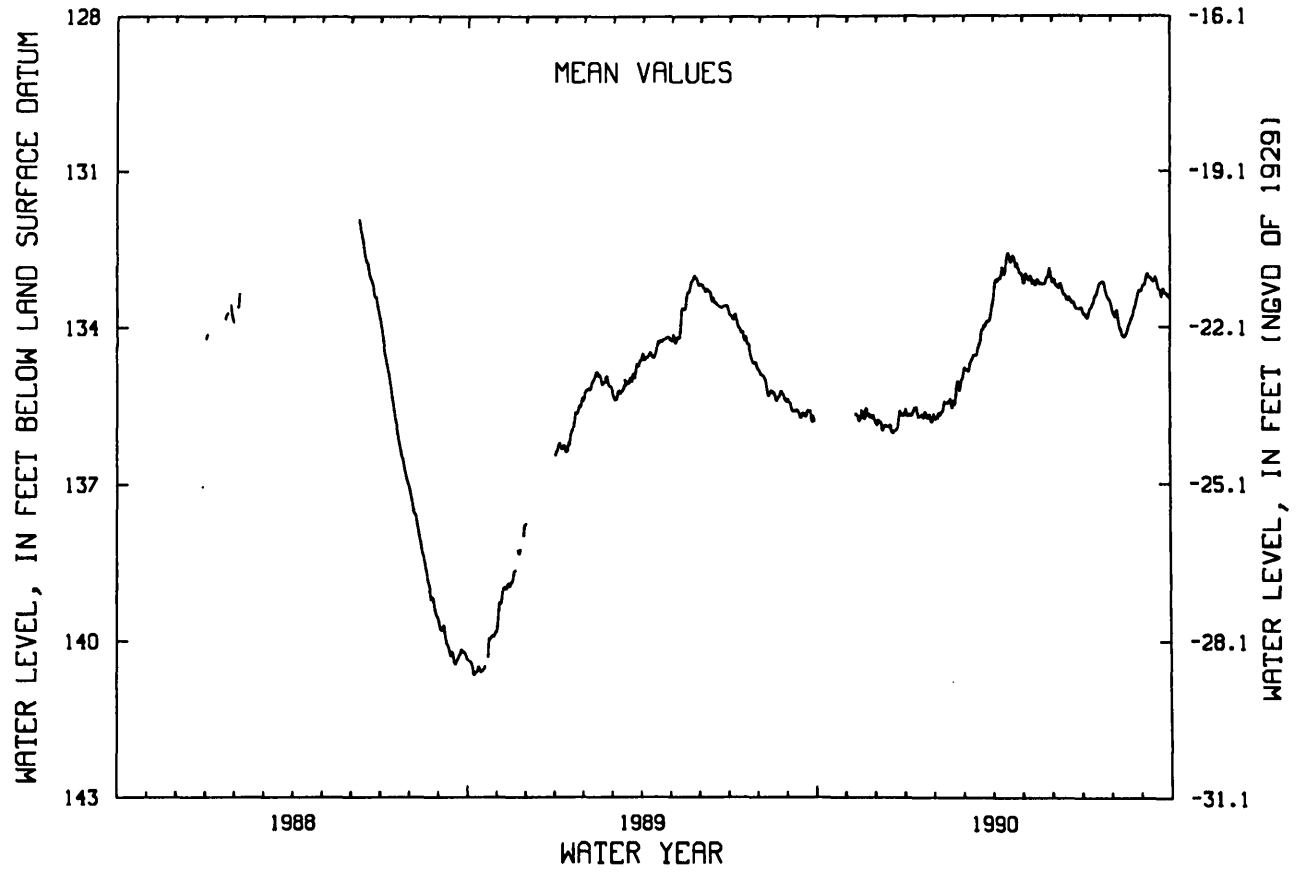
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	135.81	135.68	135.70	134.84	133.11	132.97	133.18	133.76	133.82	133.11
10	---	135.65	135.87	135.55	135.43	134.67	132.98	133.04	133.16	133.65	134.03	133.03
15	---	135.72	135.91	135.72	135.46	134.56	132.72	133.20	133.38	133.42	134.19	133.03
20	---	135.57	135.99	135.73	135.48	134.13	132.75	133.17	133.46	133.17	133.93	133.31
25	---	135.73	135.70	135.72	135.13	133.94	132.79	133.17	133.61	133.19	133.62	133.35
EOM	---	135.79	135.64	135.76	135.02	133.63	132.97	132.99	133.64	133.50	133.32	133.41
MEAN	---	135.70	135.85	135.68	135.45	134.38	132.92	133.09	133.38	133.48	133.80	133.21

WTR YR 1990 MEAN 134.23 HIGH 132.55 APR 17 LOW 136.04 DEC 19

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 and Peskin Roads, 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.--December 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 155.72 ft below land-surface datum, May 11,12, 1989; lowest, 165.02 ft below land-surface datum, Oct. 21, 1988.

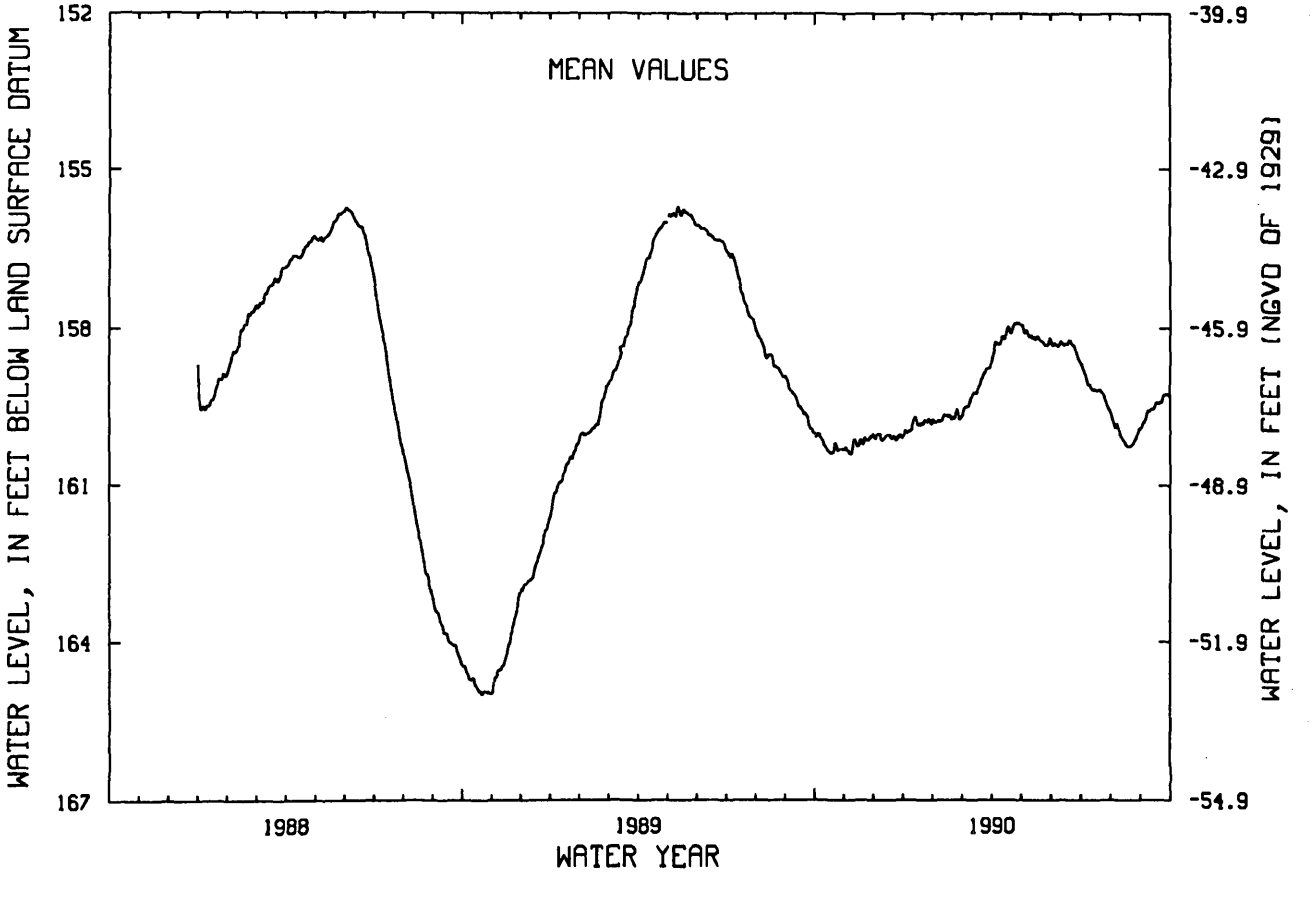
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	160.02	160.37	160.00	159.94	159.74	159.50	158.25	158.06	158.29	158.84	159.88	159.74
10	160.22	160.10	160.10	159.75	159.66	159.35	158.27	158.16	158.26	159.06	160.01	159.55
15	160.35	160.21	160.02	159.84	159.68	159.23	158.12	158.20	158.30	159.16	160.16	159.45
20	160.28	160.15	160.05	159.82	159.68	159.04	158.09	158.22	158.23	159.16	160.25	159.40
25	160.30	160.13	160.08	159.76	159.57	158.83	157.91	158.31	158.37	159.29	160.13	159.27
EOM	160.30	160.03	160.04	159.74	159.69	158.64	157.93	158.20	158.64	159.57	159.89	159.27
MEAN	160.23	160.18	160.05	159.81	159.69	159.16	158.12	158.17	158.34	159.14	160.02	159.49

WTR YR 1990 MEAN 159.37 HIGH 157.88 APR 26,27 LOW 160.39 NOV 5-8

NJ-WRD WELL NO.25-0638



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 and Peskin Roads, 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.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 133.93 ft below land-surface datum, April 4, 1988; lowest, 149.23 ft below land-surface datum, Oct. 6,7, 1988.

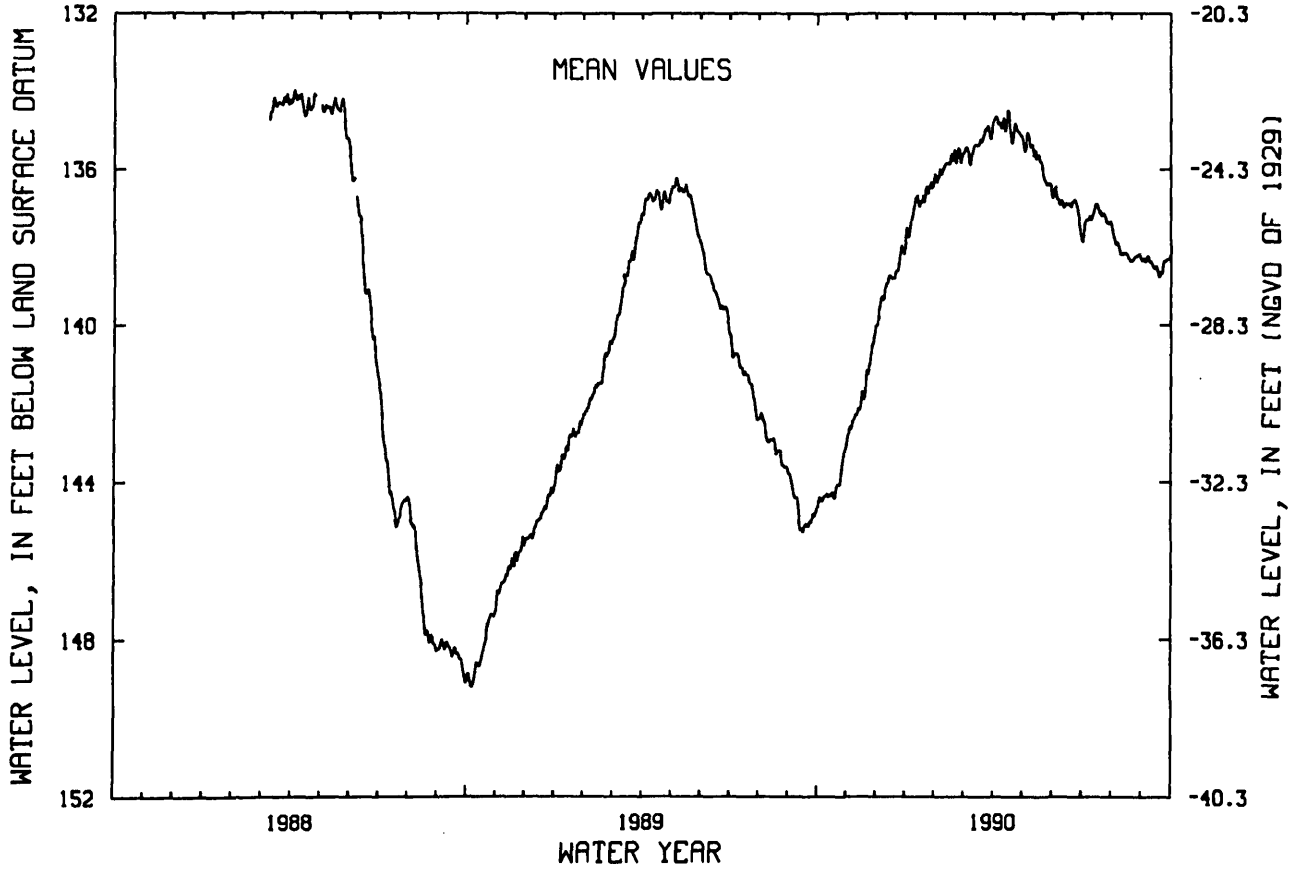
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	144.48	142.61	139.32	137.44	136.10	135.54	134.78	135.07	136.69	137.30	137.94	138.32
10	144.34	142.29	138.96	136.75	135.84	135.53	134.78	135.39	136.80	137.31	138.18	138.36
15	144.29	141.91	138.73	136.85	135.80	135.38	134.49	135.74	136.89	136.91	138.16	138.47
20	144.18	141.26	138.64	136.69	135.63	135.23	135.32	135.80	136.99	137.09	138.37	138.62
25	143.79	140.77	138.15	136.39	135.62	134.91	134.97	136.35	136.87	137.24	138.25	138.36
EOM	142.93	140.01	137.73	136.27	135.59	134.80	135.13	136.59	137.63	137.33	138.33	138.19
MEAN	144.09	141.69	138.79	136.82	135.83	135.30	134.88	135.77	136.90	137.26	138.12	138.42

WTR YR 1990 MEAN 137.84 HIGH 134.41 APR 16 LOW 144.67 OCT 1

NJ-WRD WELL NO.25-0639



MONMOUTH COUNTY

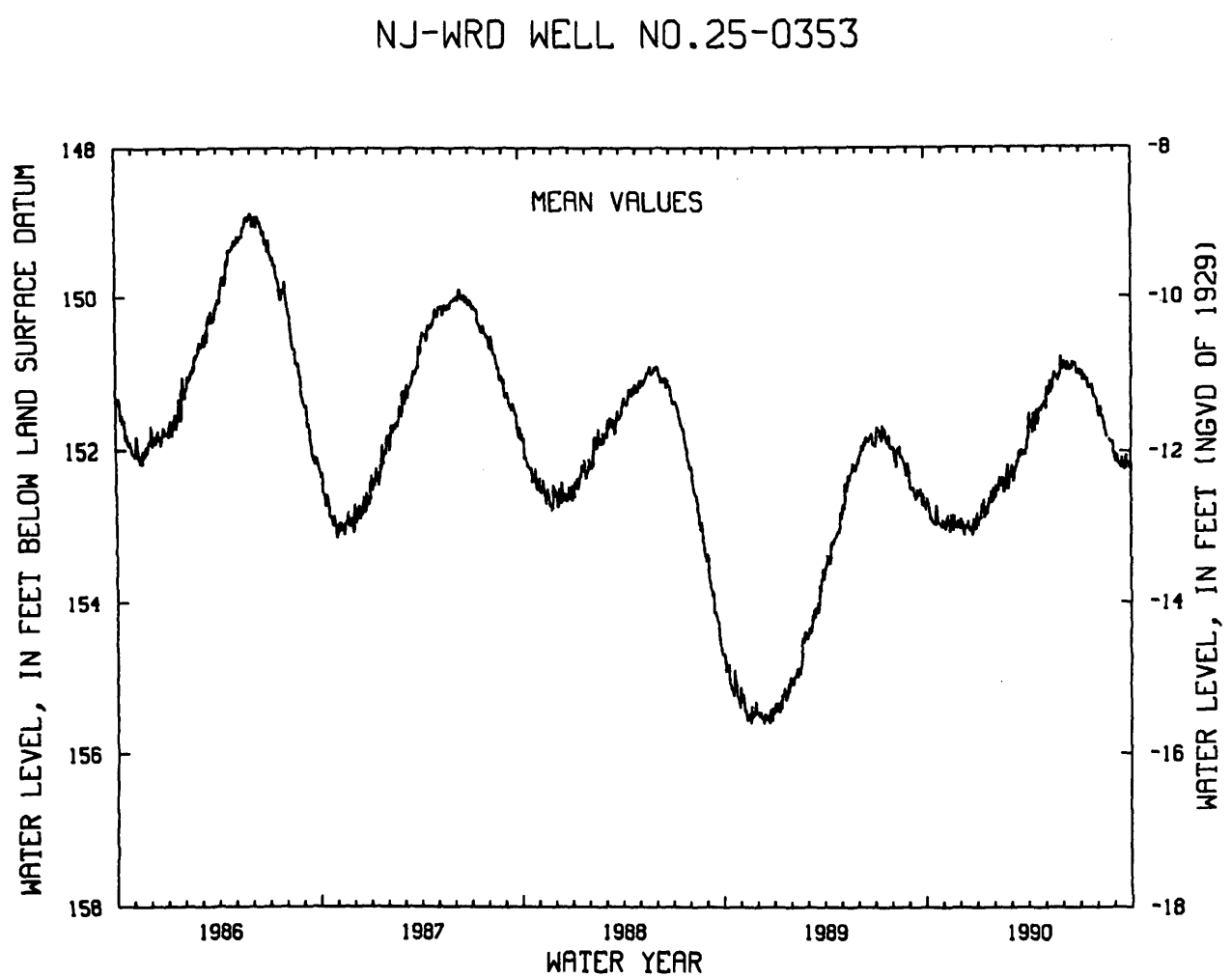
401542074053001. Local I.D., Fort Monmouth 1-NCO Obs. NJ-WRD Well Number, 25-0353.
LOCATION.--Lat 40°15'42", long 74°05'30", Hydrologic Unit 02030104, at Training Center, Wyckoff Rd. and Wayside Rd., Tinton Falls Borough.
Owner: U.S. Army.
AQUIFER.--Wenonah-Mount Laurel aquifer of Cretaceous age.
WELL 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 Geodedic Vertical Datum of 1929, from topographic map.
Measuring point: Top edge of recorder shelf, 1.50 ft above land surface datum.
PERIOD OF RECORD.--February 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 148.88 ft below land surface datum, May 31-Jun. 2, 1985; lowest, 155.63 ft below land surface datum Dec. 22, 23, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	152.69	153.03	152.93	152.88	152.53	152.32	151.59	151.21	150.93	150.99	151.58	152.10
10	152.90	152.88	152.99	152.68	152.34	152.21	151.66	151.20	150.86	151.04	151.58	152.16
15	152.93	152.98	152.99	152.84	152.46	152.14	151.54	151.23	150.91	151.08	151.70	152.08
20	152.72	152.86	153.00	152.78	152.44	151.98	151.62	151.07	150.89	151.20	---	152.19
25	152.95	153.00	152.96	152.61	152.32	152.02	151.48	151.11	150.96	151.21	151.86	152.16
EOM	152.92	152.97	152.91	152.61	152.35	151.84	151.42	150.90	150.98	151.34	152.01	152.19
MEAN	152.86	152.96	152.99	152.74	152.43	152.12	151.58	151.15	150.93	151.15	151.70	152.15

WTR YR 1990 MEAN 152.06 HIGH 150.73 MAY 29,30 LOW 153.13 DEC 7,8



MONMOUTH COUNTY

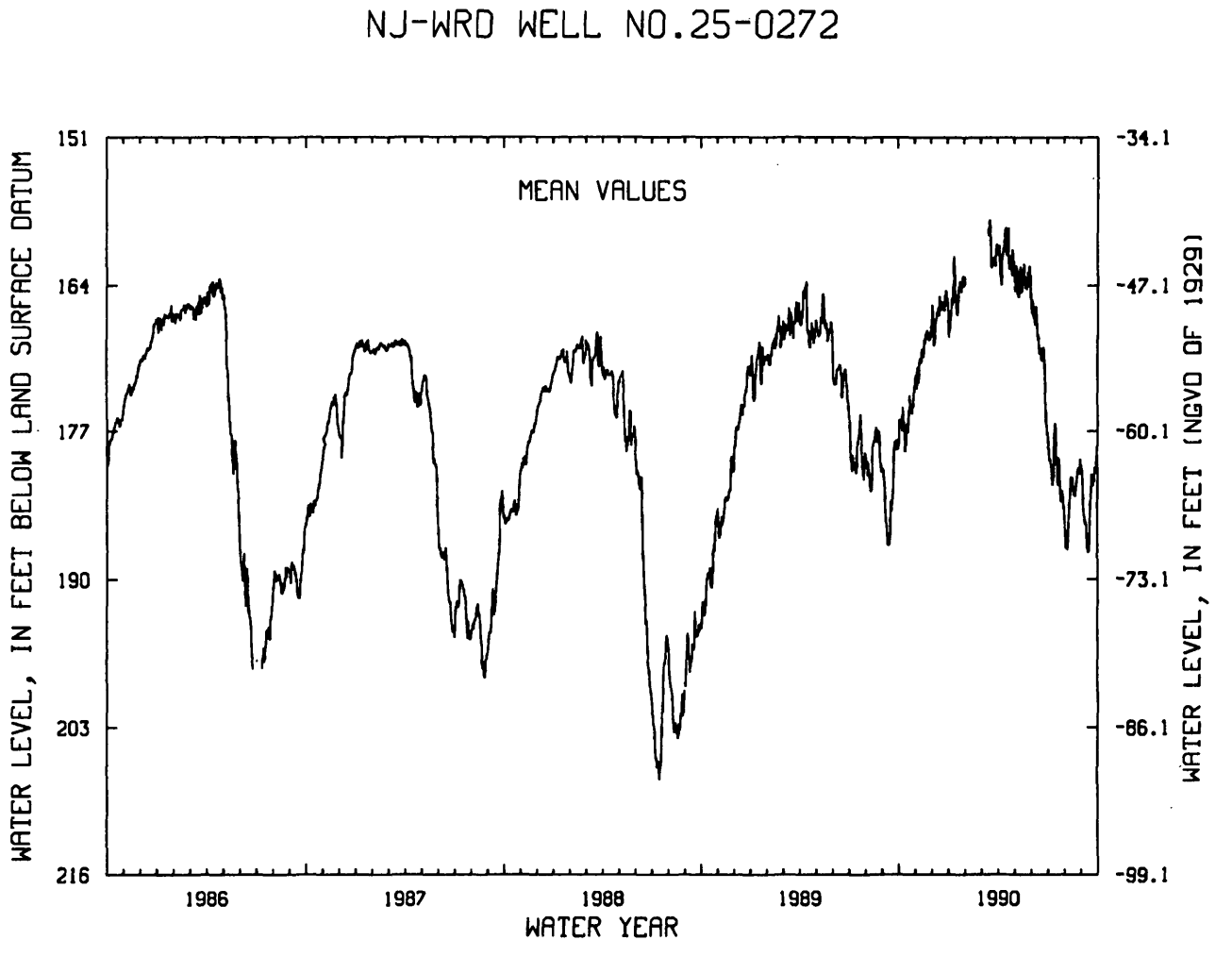
402208074145201. Local I.D., Marlboro 1 Obs. NJ-WRD Well Number, 25-0272.
LOCATION.--Lat 40°22'08", long 74°14'52", Hydrologic Unit 02030105, on the west side of New Jersey Route 79, 0.9 mi south of Morganville, Marlboro Township.
Owner: Marlboro Township Municipal Utilities Authority.
AQUIFER.--Farrington 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.--January 1973 to July 1975, March 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	176.42	171.88	168.39	166.88	---	---	160.44	163.44	166.59	178.38	187.21	183.69
10	175.96	170.80	166.86	164.86	---	---	161.51	165.04	165.83	181.17	184.42	185.16
15	178.15	169.70	166.68	165.03	---	159.27	159.65	164.56	168.49	176.31	181.15	187.02
20	175.41	169.19	166.07	164.30	---	159.67	159.92	162.07	169.64	181.48	182.55	180.77
25	174.62	168.73	166.21	164.51	---	162.12	162.46	164.32	169.46	182.07	180.74	180.19
EOM	172.91	168.07	165.07	163.18	---	160.29	161.25	163.29	176.50	183.25	179.47	179.10
MEAN	175.99	170.13	166.29	164.95	---	160.81	161.33	163.45	169.00	180.11	182.82	182.98

WTR YR 1990 MEAN 171.11 HIGH 157.73 MAR 18 LOW 188.45 AUG 4

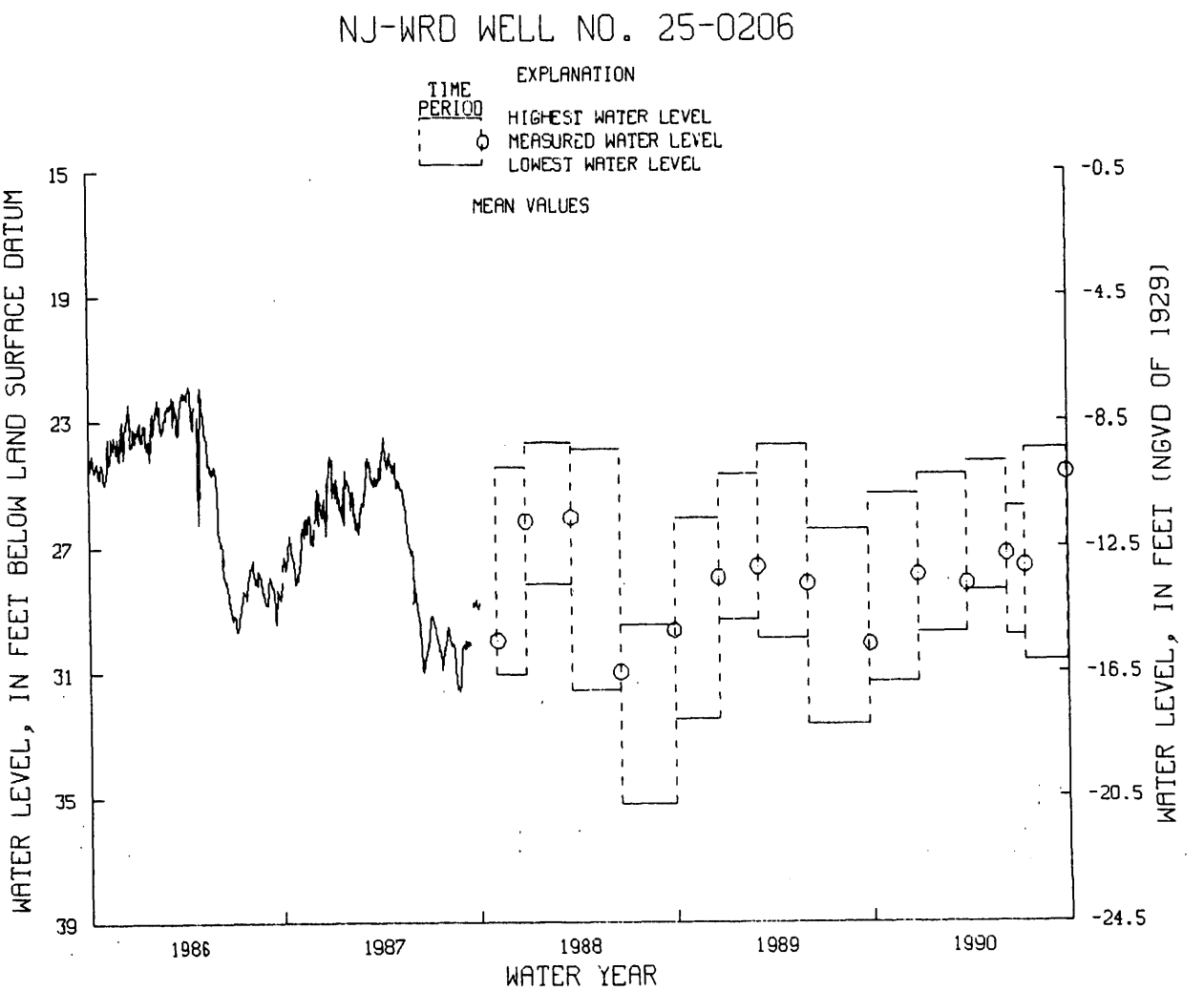


MONMOUTH COUNTY

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 unused Myrtle Avenue Water Plant, 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 November 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. Water level affected by USGS aquifer test, April 22-28, 1986.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.57 ft below land-surface datum, Mar. 27, 1986; 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 26, 1989	25.30	31.28	DEC. 26, 1989	27.90
DEC. 26, 1989 TO MAR. 27, 1990	24.67	29.71	MAR. 27, 1990	28.19
MAR. 27, 1990 TO JUNE 7, 1990	24.29	28.39	JUNE 7, 1990	27.24
JUNE 7, 1990 TO JULY 10, 1990	25.71	29.82	JULY 10, 1990	27.62
JULY 10, 1990 TO SEPT. 27, 1990	23.86	30.62	SEPT. 27, 1990	24.63



MORRIS COUNTY

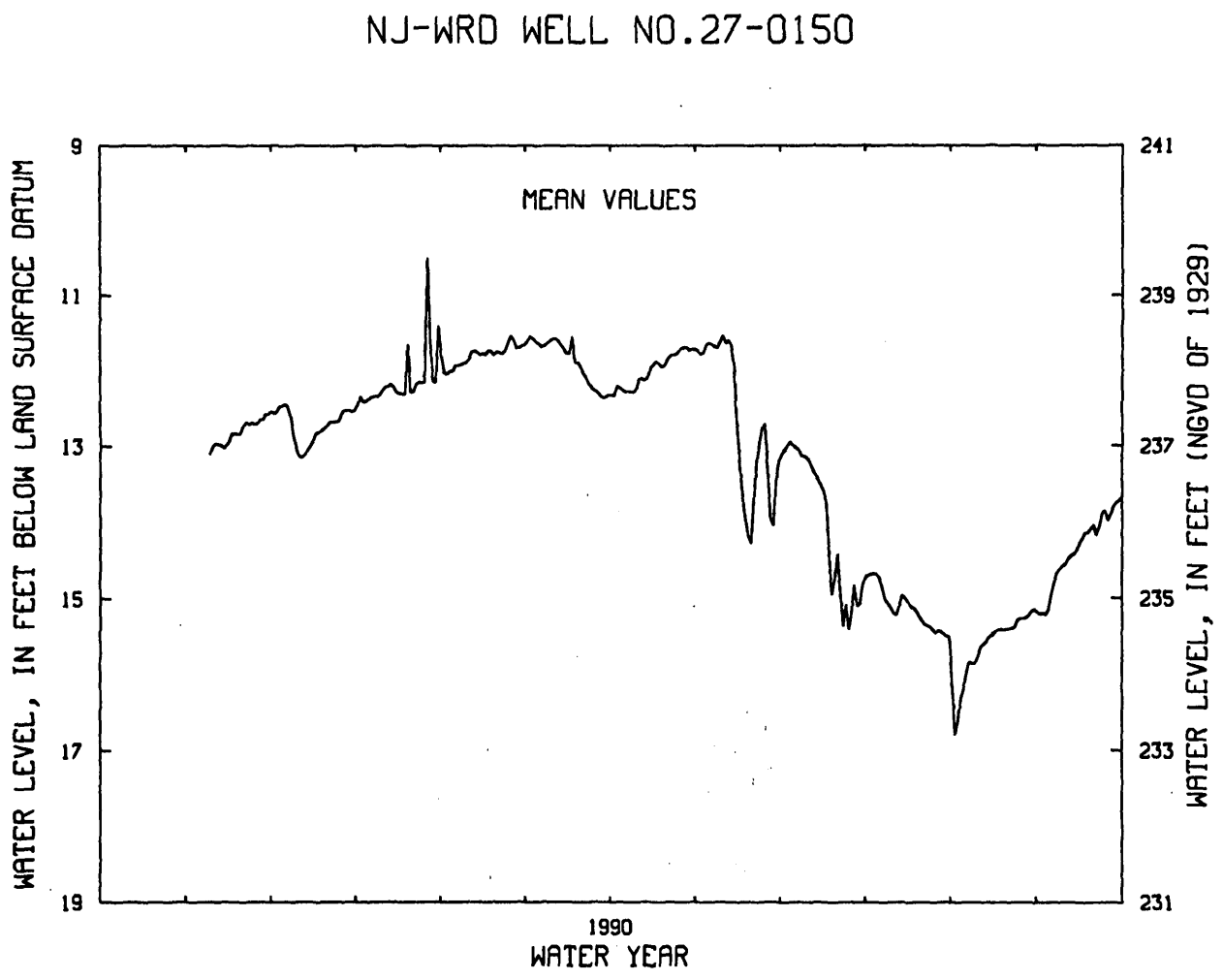
404349074251601. Local I.D., Great Swamp 4 Obs. NJ-WRD Well Number, 27-0150.
LOCATION.--Lat 40°43'49", long 74°25'16", Hydrologic Unit 02030103, in the Great Swamp National Wildlife Refuge near the Outdoor Education Center, Southern Boulevard, Chatham Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 1.3 in, depth 113 ft, screened 110 to 112.5 ft.
INSTRUMENTATION.--Digital data logger with differential pressure transducer.
DATUM.--Land-surface datum is 250 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.--November 1989 to October 1990. (discontinued)
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.81 ft below land-surface datum, Jan. 29,1990; lowest, 16.93 ft below land-surface datum, Aug. 2, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	12.45	12.36	11.93	11.62	12.26	11.66	12.99	14.68	16.18	14.96
10	---	12.97	13.13	12.22	11.75	11.61	12.24	11.61	13.16	15.12	15.76	14.52
15	---	12.93	12.93	12.32	11.79	11.71	11.97	11.95	13.51	14.99	15.48	14.27
20	---	12.74	12.73	12.28	11.76	11.90	11.93	14.17	14.75	15.22	15.40	14.04
25	---	12.70	12.60	10.51	11.59	12.22	11.76	12.76	15.40	15.41	15.26	13.98
EOM	---	12.55	12.46	12.04	11.67	12.33	11.72	13.21	14.83	15.50	15.18	13.66
MEAN	---	12.81	12.72	12.12	11.79	11.86	12.01	12.60	13.97	15.12	15.61	14.34

WTR YR 1990 MEAN 13.20 HIGH 7.81 JAN 29 LOW 16.93 AUG 2



MORRIS COUNTY

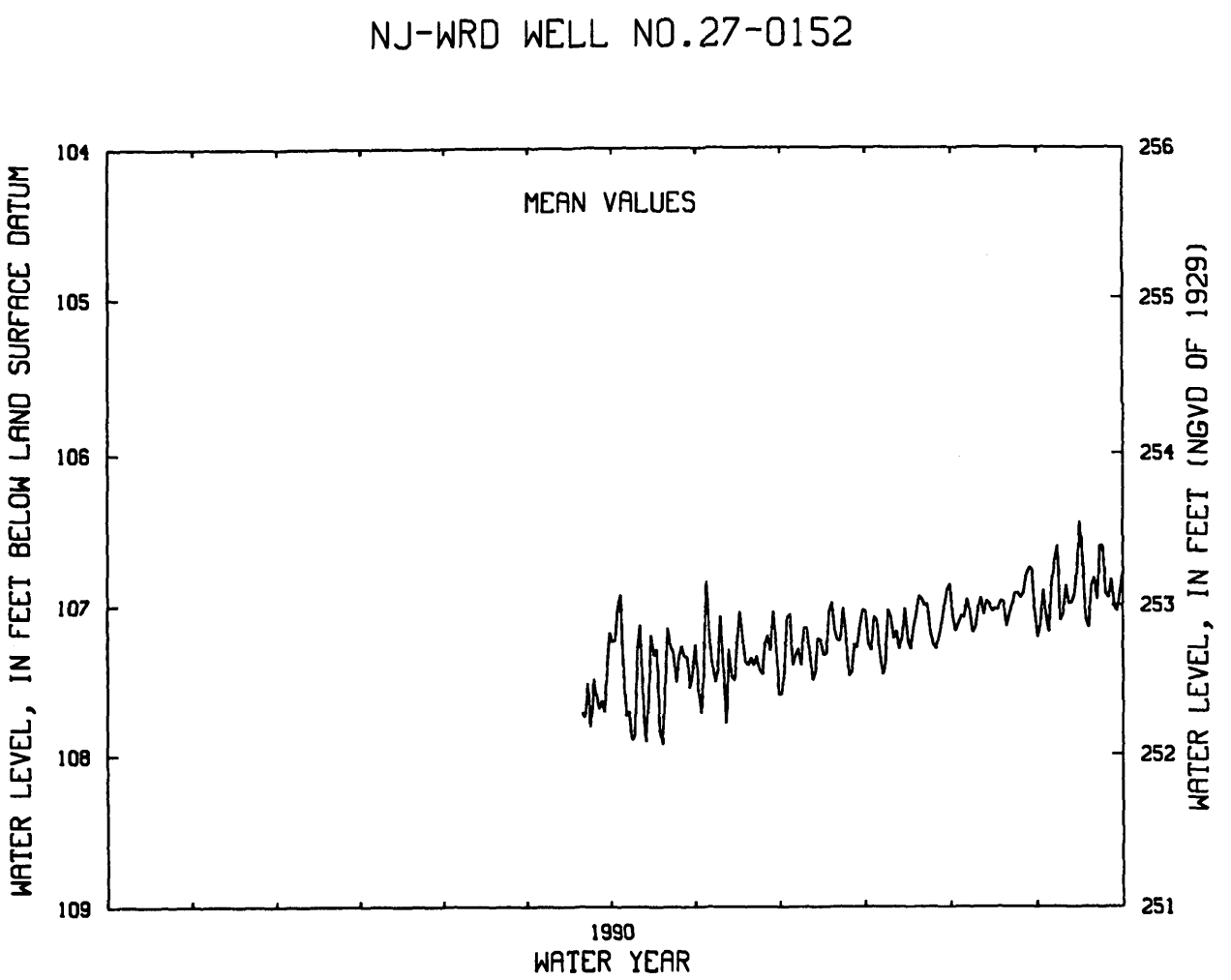
404450074245901. Local I.D., Niles Park 1 Obs. NJ-WRD Well Number, 27-0152.
LOCATION.--Lat 40°44'50", long 74°24'59", Hydrologic Unit 02030103, in Niles Park, near the intersection of Woodland and Garfield Avenues, Madison Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene 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.--March 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 106.32 ft below land-surface datum, Sept. 15, 1990; lowest, 107.93 ft below land-surface datum, April 19, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	107.46	106.84	107.40	107.10	107.08	106.84
10	---	---	---	---	---	---	107.29	107.07	107.15	107.08	107.02	106.87
15	---	---	---	---	---	---	107.20	107.50	107.23	107.02	107.04	106.45
20	---	---	---	---	---	---	107.52	107.40	107.17	106.94	107.14	106.82
25	---	---	---	---	---	107.58	107.35	107.46	107.47	107.25	106.95	106.95
EOM	---	---	---	---	---	107.18	107.42	107.60	107.03	106.86	107.21	106.76
MEAN	---	---	---	---	---	---	107.44	107.35	107.26	107.14	107.01	106.89

WTR YR 1990 HIGH 106.32 SEP 15 LOW 107.93 APR 19



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.--October 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.90 ft below land-surface datum, Oct. 21, 1989; lowest, 22.19 ft below land-surface datum, Aug. 5, 1990.

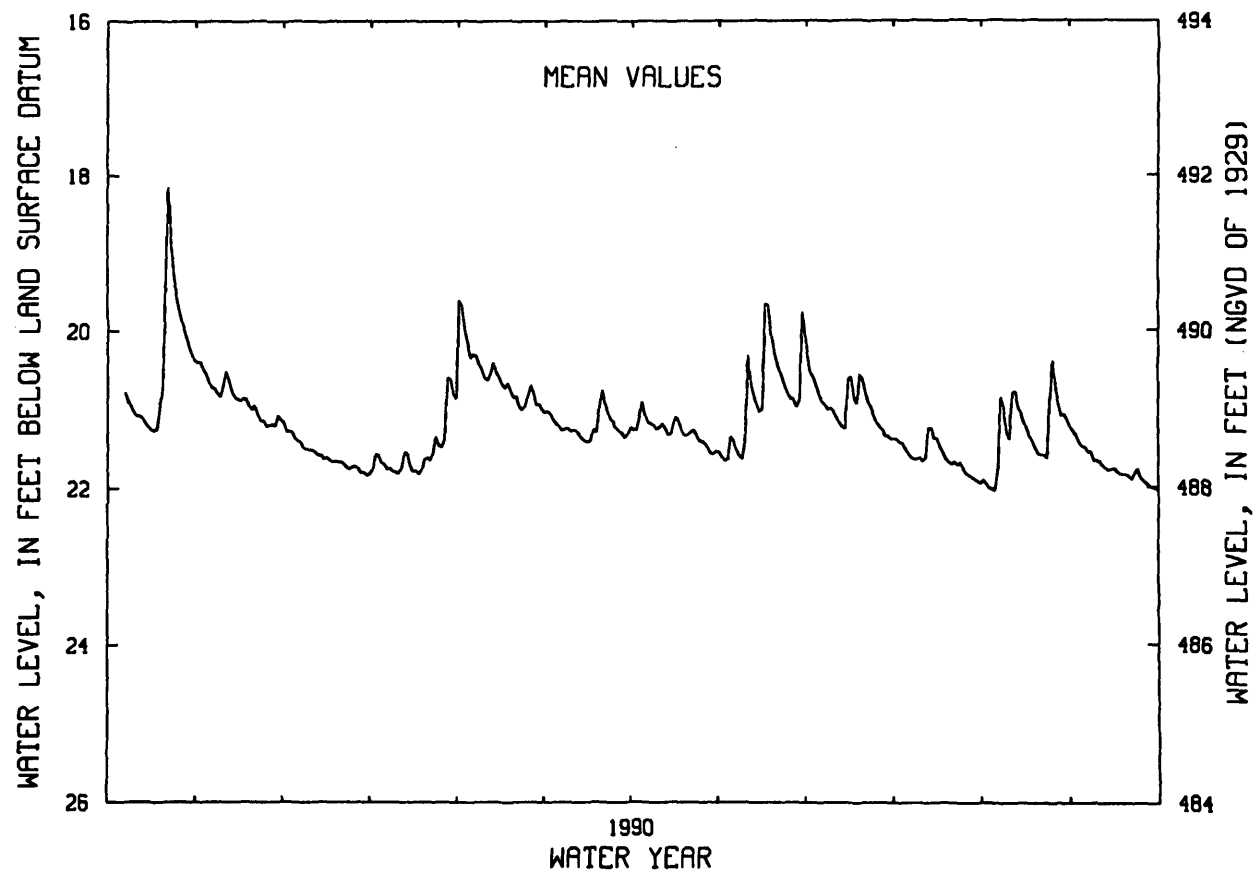
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	20.71	21.39	21.75	20.30	21.18	21.06	21.35	20.84	21.51	22.05	21.49
10	21.07	20.51	21.51	21.75	20.53	21.27	21.22	21.42	21.03	21.62	21.39	21.68
15	21.25	20.88	21.61	21.77	20.73	21.39	21.16	21.03	20.62	21.38	21.17	21.76
20	19.45	20.95	21.66	21.64	20.95	21.00	21.32	20.24	20.62	21.68	21.58	21.86
25	19.77	21.19	21.72	21.38	20.79	21.15	21.41	20.81	21.18	21.76	20.40	21.92
EOM	20.39	21.16	21.76	19.67	20.99	21.22	21.53	20.06	21.39	21.95	21.24	22.03
MEAN	20.42	20.88	21.60	21.39	20.64	21.20	21.27	20.84	20.95	21.61	21.31	21.75

WTR YR 1990 MEAN 21.17 HIGH 17.90 OCT 21 LOW 22.19 AUG 5

NJ-WRD WELL NO.27-1302



MORRIS COUNTY

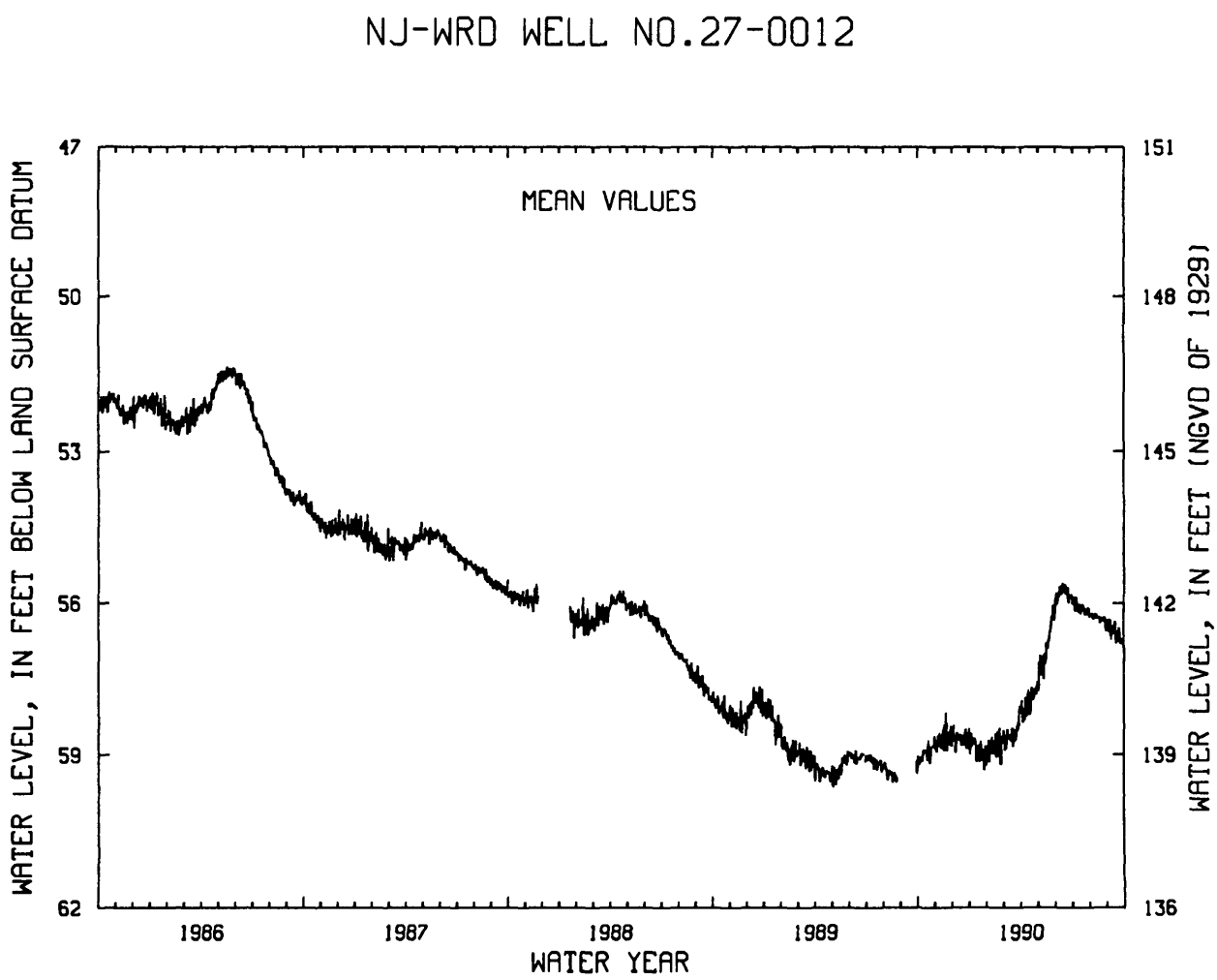
404639074230001. Local I.D., Briarwood School Obs. NJ-WRD Well Number, 27-0012.
LOCATION.--Lat 40°46'39", long 74°23'00", Hydrologic Unit 02030103, at Briarwood School, Florham Park Borough.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation 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 Geodedic Vertical Datum of 1929, by altimeter.
Measuring point: Top edge of recorder shelf, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--March 1967 to May 1975, April 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 1988 TO SEPTEMBER 1989

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.15	58.83	58.65	58.84	59.15	58.91	58.34	57.03	56.02	55.94	56.25	56.33
10	59.07	58.82	58.56	58.67	58.65	58.68	57.88	57.04	55.67	56.03	56.22	56.45
15	58.93	58.58	58.62	58.85	58.86	58.67	57.73	57.16	55.68	56.01	56.29	56.35
20	58.73	58.18	58.63	58.83	59.04	58.50	57.82	56.82	55.81	56.02	56.39	56.63
25	58.86	58.60	58.50	58.90	59.19	58.46	57.74	56.49	55.99	56.21	56.35	56.75
EOM	58.64	58.58	58.49	59.21	58.70	58.05	57.67	56.33	55.83	56.11	56.54	56.70
MEAN	58.98	58.71	58.68	58.89	58.86	58.60	57.97	56.93	55.81	56.08	56.29	56.58

WTR YR 1990 MEAN 57.70 HIGH 55.54 JUN 18 LOW 59.43 JAN 27



MORRIS COUNTY

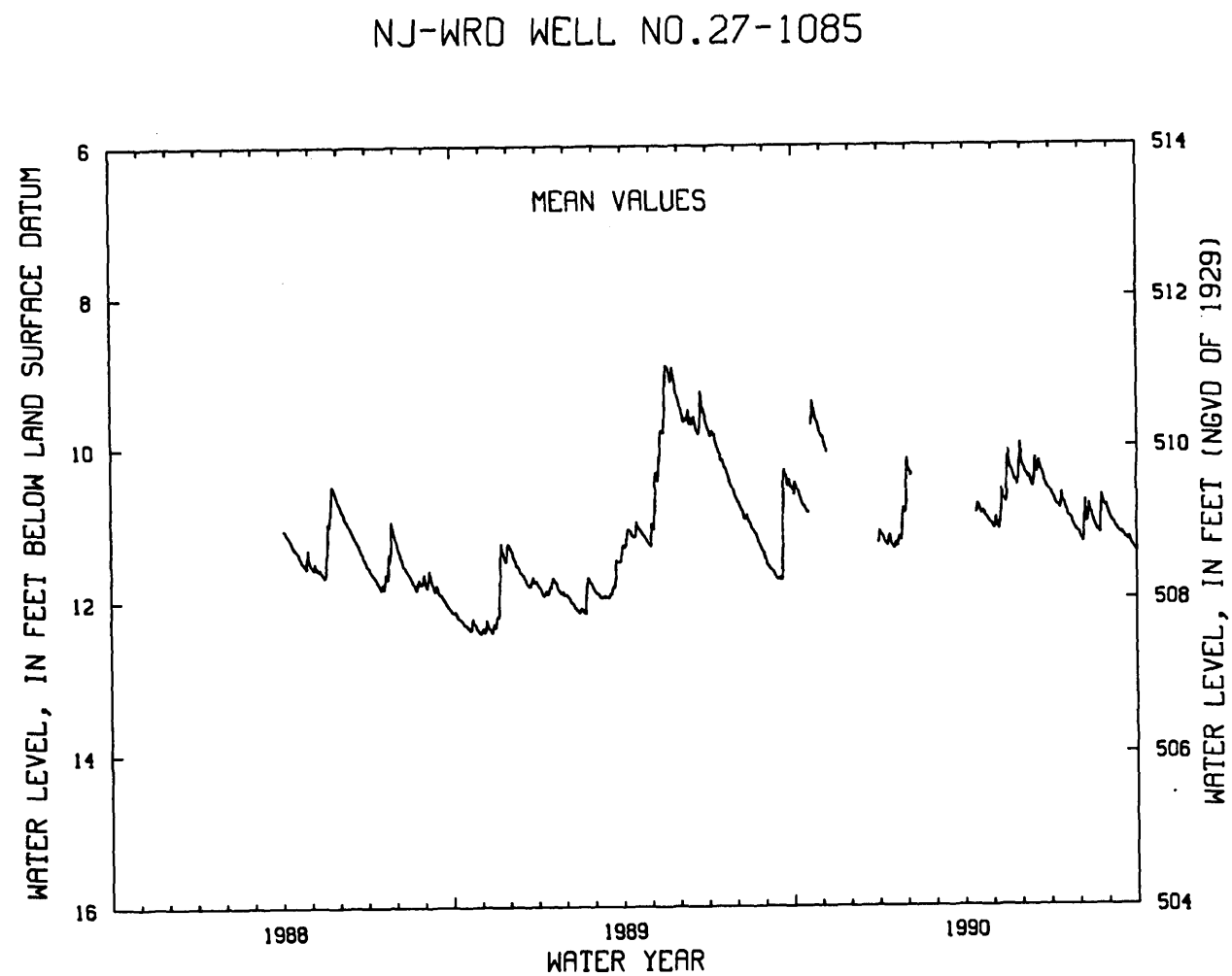
404705074463801. Local I.D., Washington Twp TW Obs. NJ-WRD Well Number, 27-1085.
LOCATION.--Lat 40°47'05", long 74°46'38", Hydrologic Unit 02030105, Behind the Washington Township MUA Building on Rt 24 (East Mill Rd.), Long Valley, Washington Township.
Owner: Washington Township Municipal Utilities Authority.
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.--April 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, 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.55	10.07	---	11.19	---	---	---	10.92	10.35	10.68	11.26	10.99
10	10.74	---	---	11.25	---	---	---	10.85	10.42	10.78	10.99	11.08
15	10.84	---	---	11.30	---	---	10.75	10.74	10.15	10.73	10.93	11.13
20	9.71	---	---	11.30	---	---	10.88	10.29	10.24	10.90	11.10	11.21
25	9.64	---	---	11.11	---	---	10.92	10.45	10.44	11.00	10.69	11.29
EOM	9.87	---	11.24	10.29	---	---	11.00	10.16	10.57	11.13	10.86	11.39
MEAN	10.26	---	---	11.11	---	---	10.88	10.61	10.38	10.84	10.96	11.15

WTR YR 1990 HIGH 8.95 OCT 20 LOW 11.40 SEP 30



MORRIS COUNTY

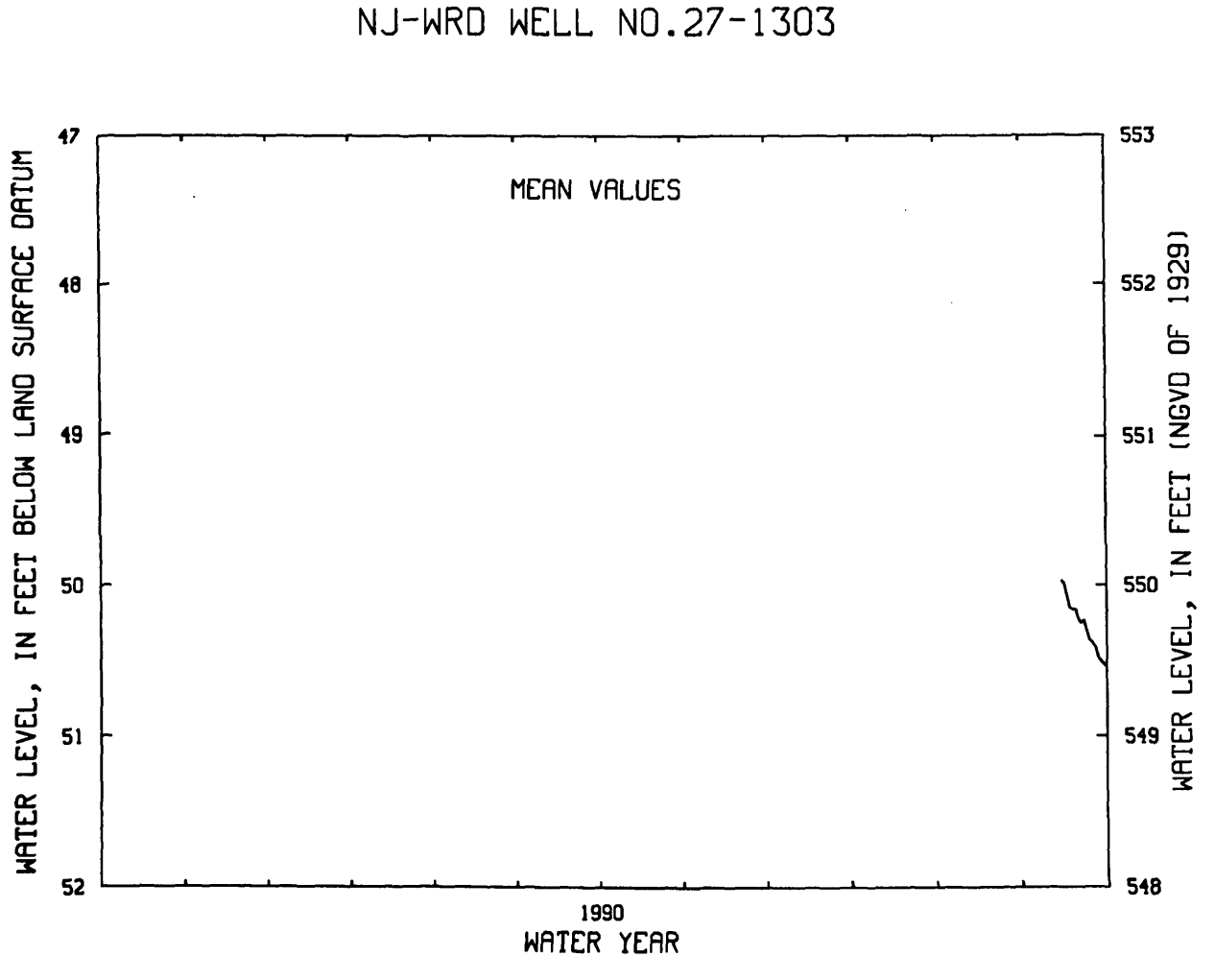
404712074454701. Local I.D., Drew University Farm Obs. NJ-WRD Well Number, 27-1303.
LOCATION.--Lat 40°47'12", long 74°45'47", Hydrologic Unit 02030105, near the intersection of Bartley Road and Rt. 24, Long Valley, Washington Township.
Owner: State of New Jersey.
AQUIFER.--Leithsville Formation of Cambrian 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 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.--September 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.93 ft below land-surface datum, Sept. 15, 1990; lowest, 50.59 ft below land-surface datum, Sept. 30, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	49.99
20	---	---	---	---	---	---	---	---	---	---	---	50.22
25	---	---	---	---	---	---	---	---	---	---	---	50.38
EOM	---	---	---	---	---	---	---	---	---	---	---	50.54
MEAN	---	---	---	---	---	---	---	---	---	---	---	50.28

WTR YR 1990 HIGH 49.93 SEP 15 LOW 50.59 SEP 30



MORRIS COUNTY

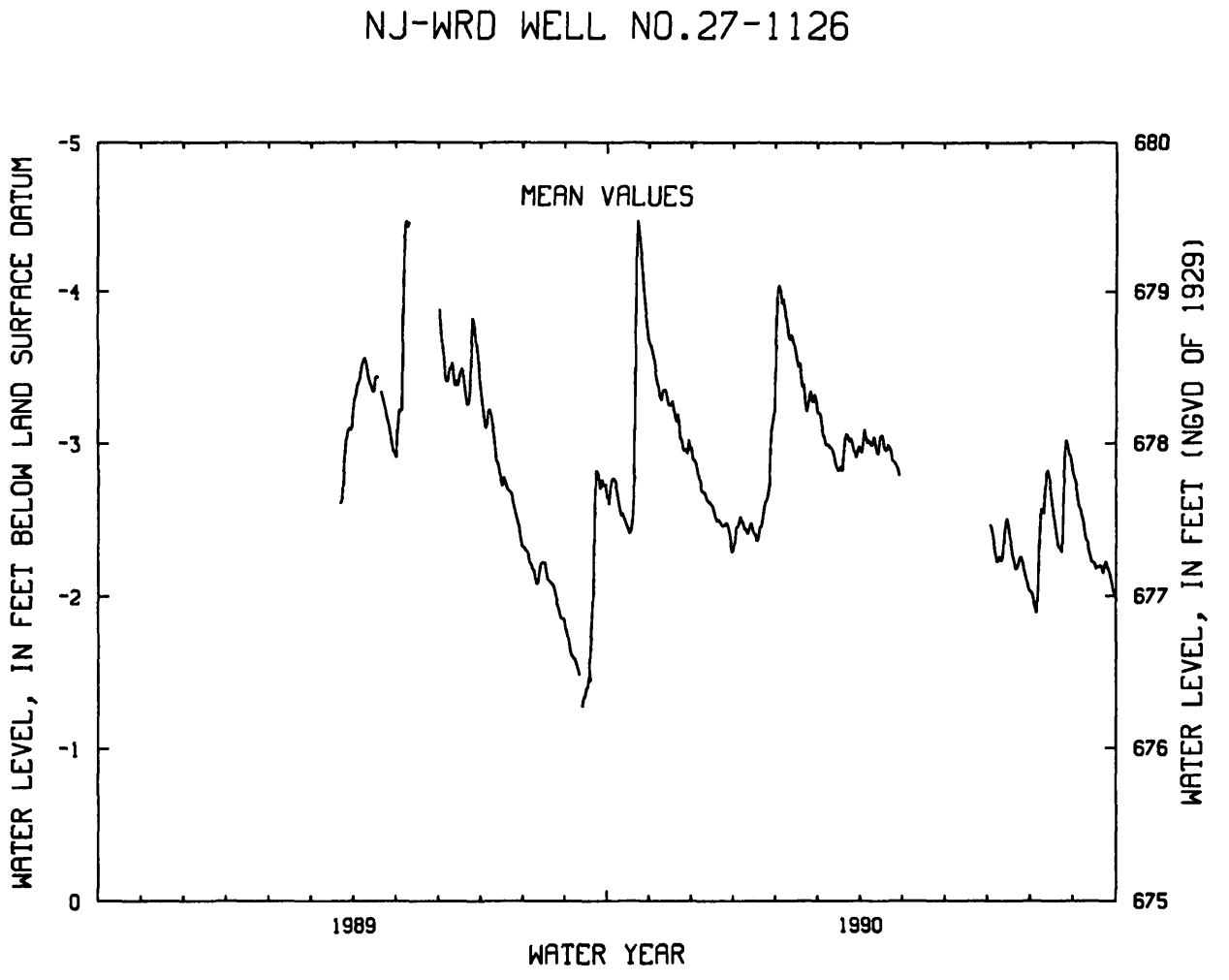
404809074415501. Local I.D., Black River 4 Obs. NJ-WRD Well Number, 27-1126.
LOCATION.--Lat 40°48'09", long 74°41'55", Hydrologic Unit 02030105, in the Black River Wildlife Management Area off Pleasant Hill Rd., Chester Township.
Owner: U.S. Geological Survey.
AQUIFER.--Leithsville Formation of Cambrian 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.--March 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, 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 BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	-2.76	-3.40	-2.77	-2.49	-3.89	-3.06	-3.04	---	---	-2.39	-1.89	-2.57
10	-2.53	-3.35	-2.66	-2.43	-3.71	-2.97	-3.01	---	---	-2.26	-2.54	-2.36
15	-2.44	-3.25	-2.59	-2.40	-3.50	-2.84	-3.03	---	---	-2.51	-2.69	-2.22
20	-3.22	-3.19	-2.49	-2.50	-3.27	-2.94	-2.96	---	---	-2.23	-2.34	-2.19
25	-4.18	-2.95	-2.48	-2.71	-3.28	-3.03	-2.88	---	---	-2.26	-2.93	-2.17
EOM	-3.65	-2.97	-2.35	-3.99	-3.28	-2.98	---	---	---	-2.03	-2.81	-1.99
MEAN	-3.12	-3.22	-2.58	-2.65	-3.56	-2.98	-2.97	---	---	-2.28	-2.52	-2.30

WTR YR 1990 MEAN -2.81 HIGH -4.49 OCT 22 LOW -1.86 AUG 5



MORRIS COUNTY

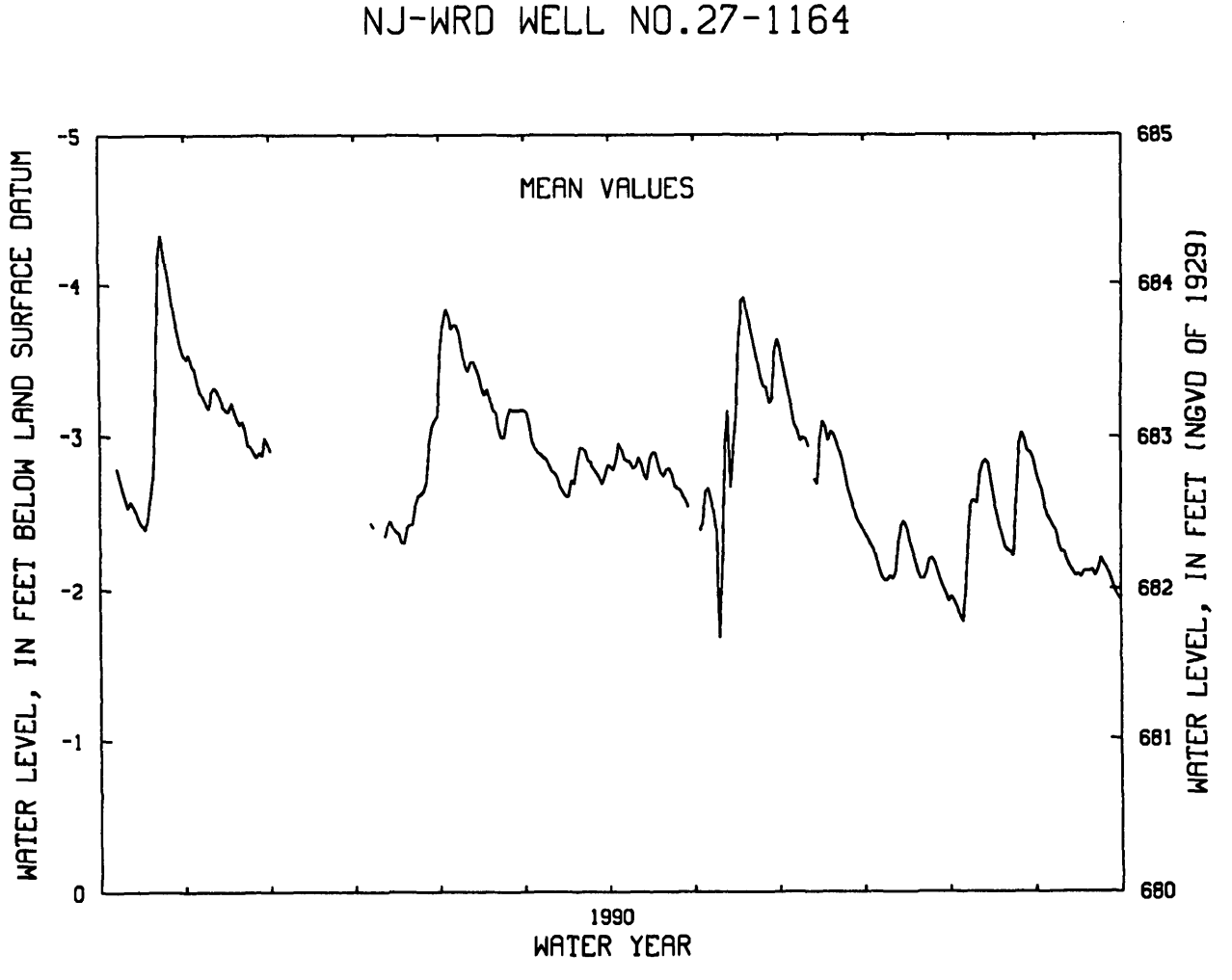
404809074415502. Local I.D., Black River 5 Obs. NJ-WRD Well Number, 27-1164.
LOCATION.--Lat 40°48'09", long 74°41'55", Hydrologic Unit 02030105, in the Black River Wildlife Management Area off Pleasant Hill Rd., Chester Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified Drift of Pleistocene 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.--October 1989 to current year.
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 BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	-3.28	---	-2.44	-3.72	-2.93	-2.92	-2.65	-3.16	-2.22	-1.78	-2.46
10	-2.54	-3.31	---	-2.35	-3.48	-2.82	-2.81	-1.68	-2.99	-2.09	-2.57	-2.25
15	-2.43	-3.15	---	-2.37	-3.26	-2.65	-2.86	-2.93	-2.99	-2.45	-2.72	-2.10
20	-3.24	-3.09	---	-2.43	-3.05	-2.83	-2.75	-3.81	-3.02	-2.12	-2.28	-2.13
25	-3.99	-2.87	---	-2.71	-3.16	-2.84	-2.67	-3.38	-2.67	-2.21	-2.95	-2.14
EOM	-3.50	-2.91	---	-3.74	-3.16	-2.82	---	-3.63	-2.41	-1.92	-2.77	-1.93
MEAN	-3.15	-3.14	---	-2.66	-3.36	-2.83	-2.79	-3.09	-2.94	-2.18	-2.50	-2.22

WTR YR 1990 MEAN -2.79 HIGH -4.34 OCT 22 LOW 0.56 MAY 10



MORRIS COUNTY

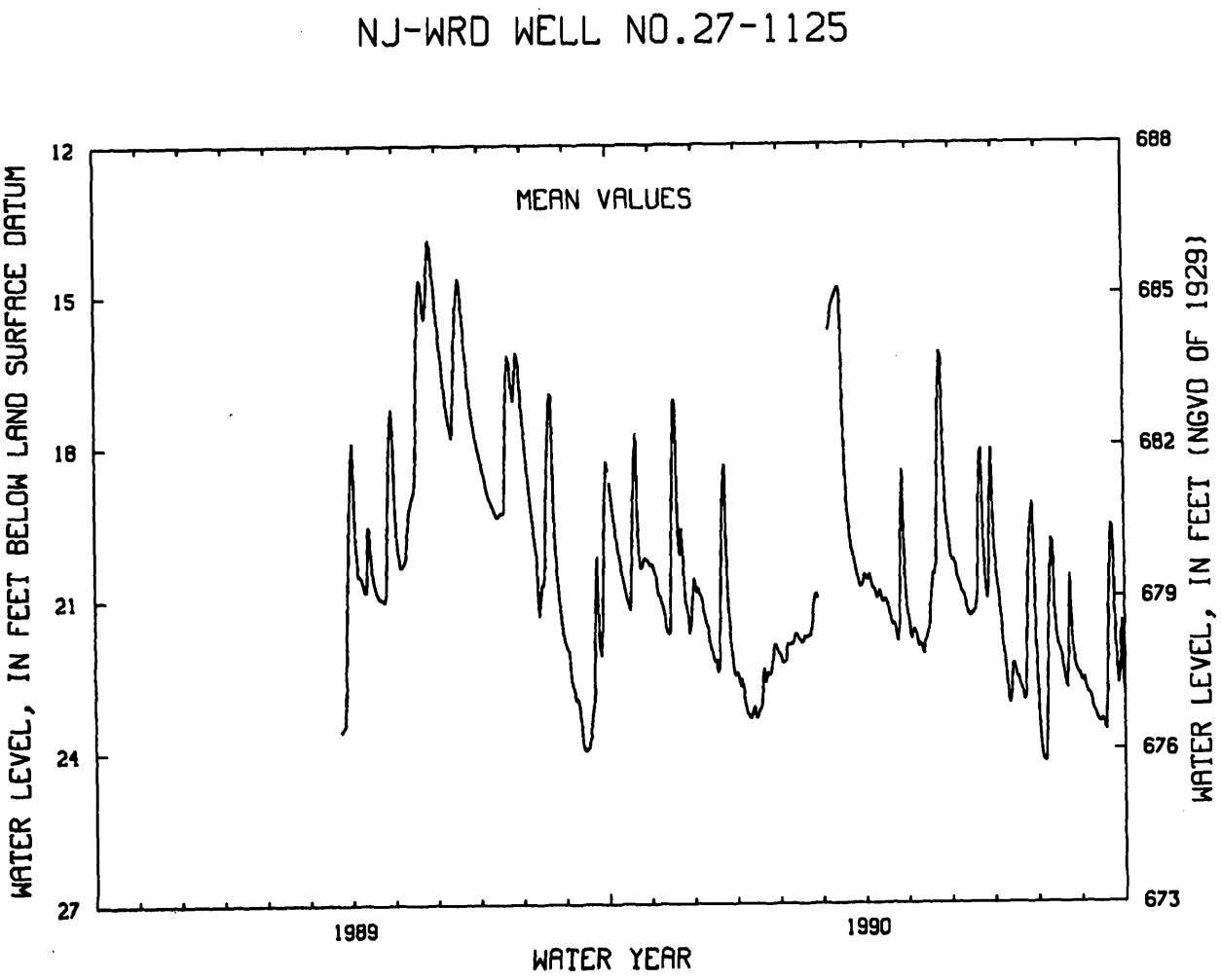
404934074385901. Local I.D., Black River 3 Obs. NJ-WRD Well Number, 27-1125.
LOCATION.--Lat 40°49'34", long 74°38'59", Hydrologic Unit 02030105, in the Black River Wildlife Management Area off Ironia Rd., Chester Township.
Owner: U.S. Geological Survey.
AQUIFER.--Leithsville Formation of Cambrian age.
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.--March 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, 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.62	20.95	20.95	23.03	21.90	---	20.72	21.62	20.60	21.15	24.22	22.91
10	20.52	21.55	21.57	23.31	21.72	15.09	20.94	21.91	20.98	22.66	19.86	23.30
15	21.13	18.11	22.24	23.21	21.88	15.24	21.02	21.74	21.32	22.31	21.95	23.41
20	17.74	20.13	19.28	22.66	21.74	19.47	21.55	20.56	19.16	22.80	22.65	20.11
25	20.24	21.18	21.38	22.14	20.92	20.42	21.47	16.27	20.76	20.15	21.96	22.39
EOM	20.30	20.60	22.46	22.20	---	20.55	21.11	20.12	19.22	22.44	22.64	22.93
MEAN	19.97	20.45	21.33	22.72	21.73	18.04	20.89	20.47	20.37	21.71	22.25	22.48

WTR YR 1990 MEAN 21.07 HIGH 14.84 MAR 13,15 LOW 24.28 AUG 6



MORRIS COUNTY

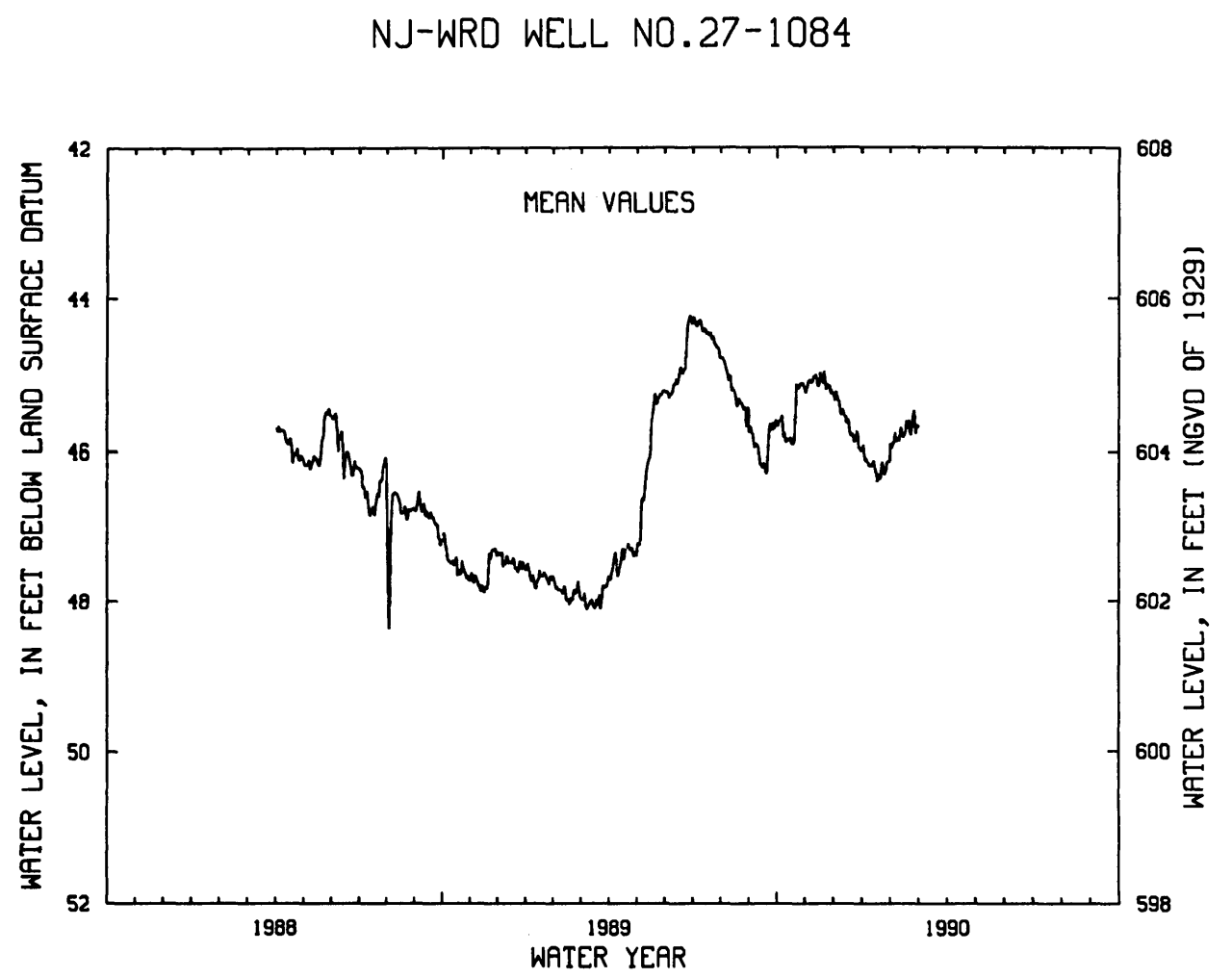
404954074412201. Local I.D., MCMUA Test Well 2 Obs. NJ-WRD Well Number, 27-1084.
LOCATION.--Lat 40°49'54", long 74°41'22", Hydrologic Unit 02030105, at Flanders Municipal Golf Course, Mount Olive Township.
Owner: Morris County Municipal Utilities Authority.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 211 ft, open hole 170 to 211 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 650 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 aquifer test in August 1988.
PERIOD OF RECORD.--April 1988 to March 1990 (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, 44.16 ft below land-surface datum, June 28, 1989; lowest, 48.49 ft below land-surface datum, Aug. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.54	45.08	45.34	46.14	45.85	---	---	---	---	---	---	---
10	45.86	45.05	45.47	46.17	45.69	---	---	---	---	---	---	---
15	45.82	45.10	45.61	46.29	45.74	---	---	---	---	---	---	---
20	45.48	44.97	45.76	46.23	45.74	---	---	---	---	---	---	---
25	45.14	45.16	45.74	46.25	45.59	---	---	---	---	---	---	---
EOM	45.25	45.24	45.96	45.94	45.66	---	---	---	---	---	---	---
MEAN	45.54	45.11	45.64	46.17	45.73	---	---	---	---	---	---	---

WTR YR 1990 HIGH 44.88 NOV 20 LOW 46.47 JAN 16



MORRIS COUNTY

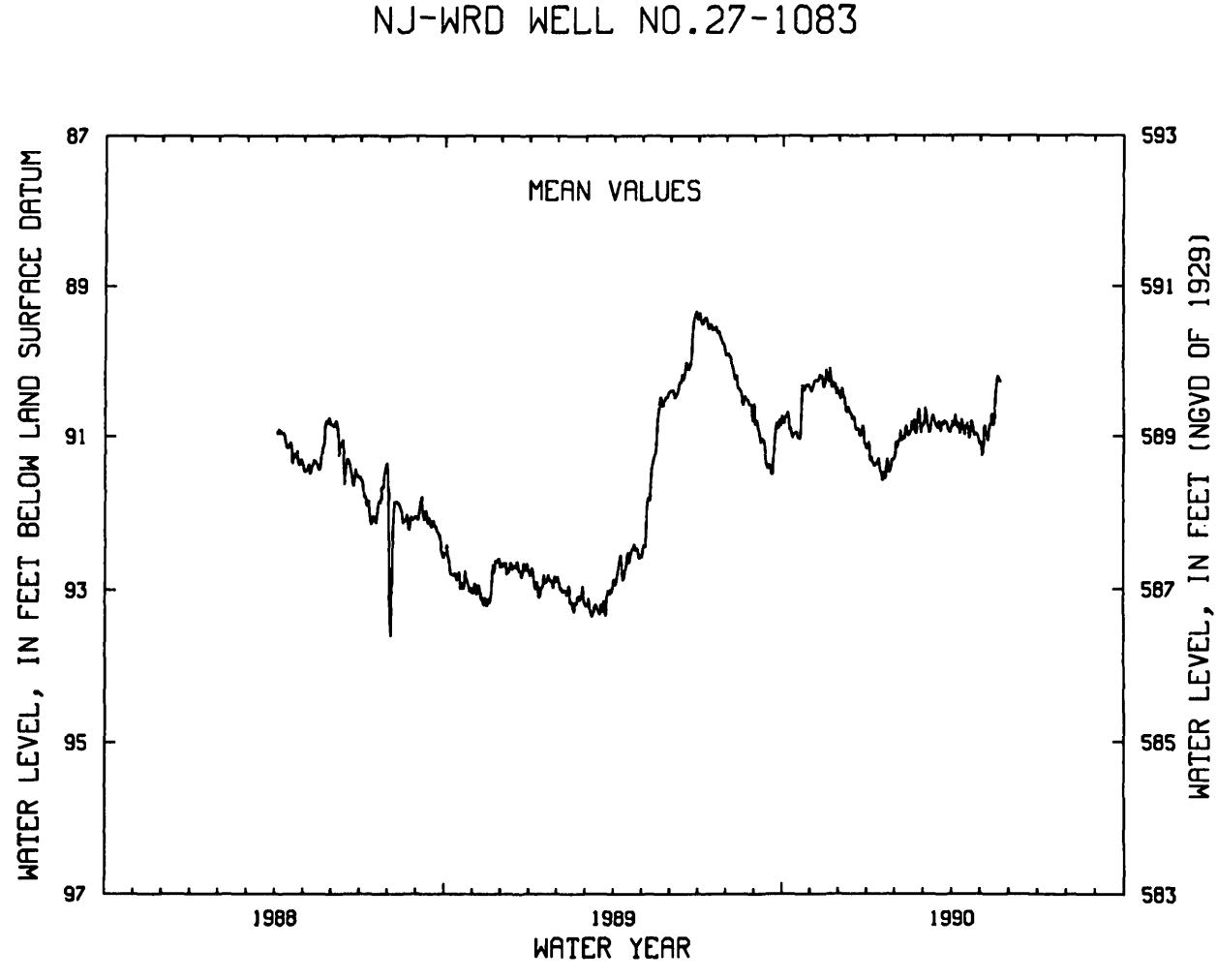
405005074410101. Local I.D., MCMUA Test Well 1 Obs. NJ-WRD Well Number, 27-1083.
LOCATION.--Lat 40°50'05", long 74°41'01", Hydrologic Unit 02030105, on Flanders Municipal Golf Course, Reger Road, Roxbury Township.
Owner: Morris County Municipal Utilities Authority.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 250 ft, open hole 170 to 240 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, 2.80 ft above land-surface datum.
REMARKS.--Water level affected by aquifer test in August 1988.
PERIOD OF RECORD.--April 1988 to May 1990 (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, 89.27 ft below land-surface datum, July 2, 1989; lowest, 93.75 ft below land-surface datum, Aug. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	90.67	90.25	90.48	91.34	91.05	90.83	90.80	90.86	---	---	---	---
10	91.01	90.21	90.61	91.34	90.85	90.75	90.86	90.90	---	---	---	---
15	90.95	90.25	90.75	91.48	90.92	90.87	90.86	90.85	---	---	---	---
20	90.63	90.08	90.89	91.41	90.93	90.84	90.94	90.19	---	---	---	---
25	90.32	90.31	90.85	91.42	90.77	90.80	90.98	---	---	---	---	---
EOM	90.40	90.39	91.11	91.15	90.83	90.86	91.10	---	---	---	---	---
MEAN	90.69	90.27	90.78	91.36	90.91	90.83	90.89	90.74	---	---	---	---

WTR YR 1990 HIGH 89.98 NOV 20 LOW 91.65 JAN 16

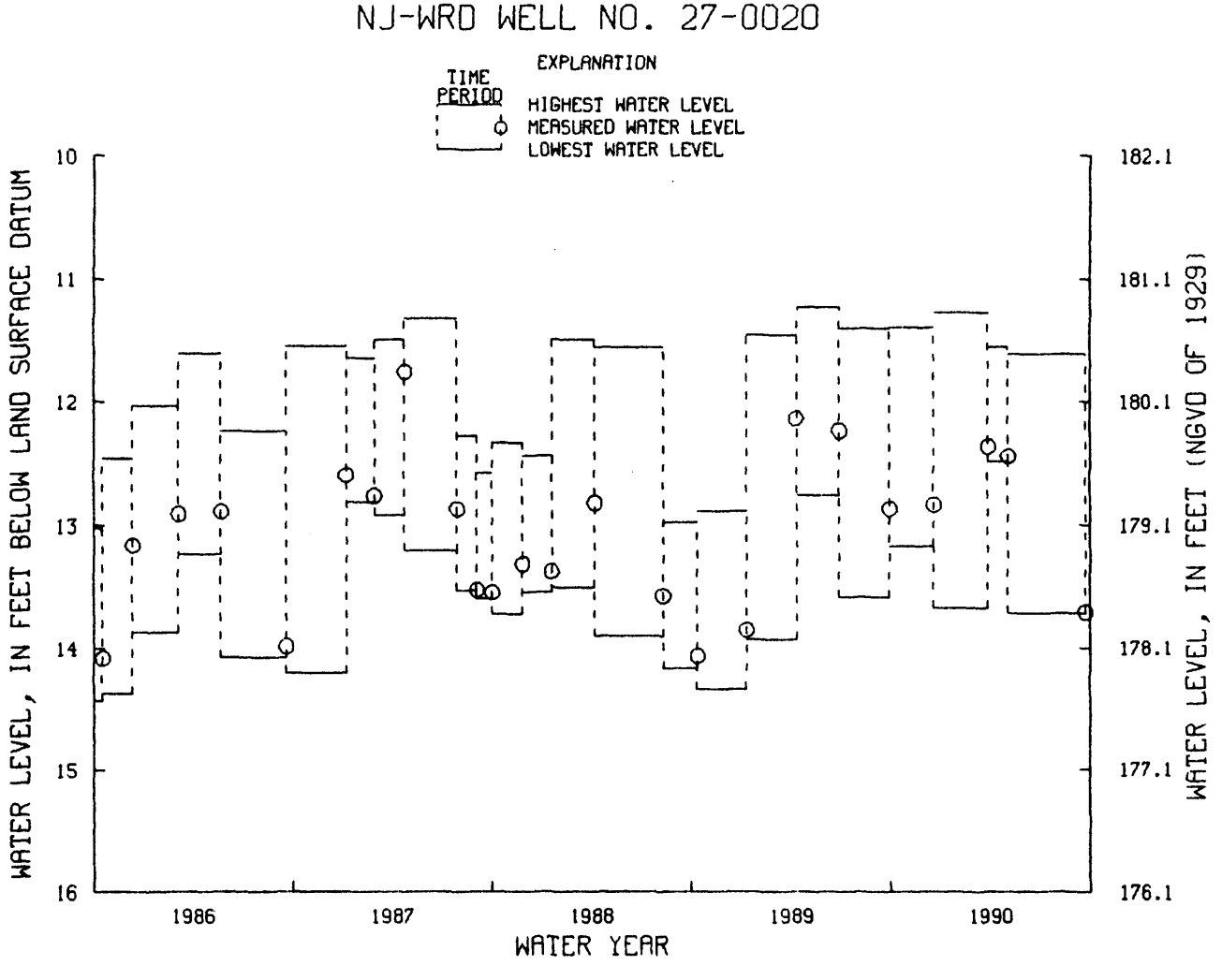


MORRIS COUNTY

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 Road, 0.8 mi north of intersection with troy Road, 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, April 1977 to current year. Water-level recorder, December 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.--December 1965 to July 1970, April 1977 to current year. Periodic manual measurements, December 1970 to February 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 28, 1989 TO DEC. 18, 1989	11.39 / 13.17	DEC. 18, 1989	12.83
DEC. 18, 1989 TO MAR. 27, 1990	11.27 / 13.67	MAR. 27, 1990	12.35
MAR. 27, 1990 TO MAY 3, 1990	11.55 / 12.47	MAY 3, 1990	12.43
MAY 3, 1990 TO SEPT. 21, 1990	11.61 / 13.72	SEPT. 21, 1990	13.71



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 Avenue, 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 700 ft above National Geodetic Vertical Datum of 1929, from topographic map.
REMARKS.--Water level affected by nearby pumping.
Measuring point: Top edge of recorder shelf, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--November 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.17 ft below land-surface datum, March 15, 1990; lowest, 39.16 ft below land-surface datum, Aug. 2, 1990.

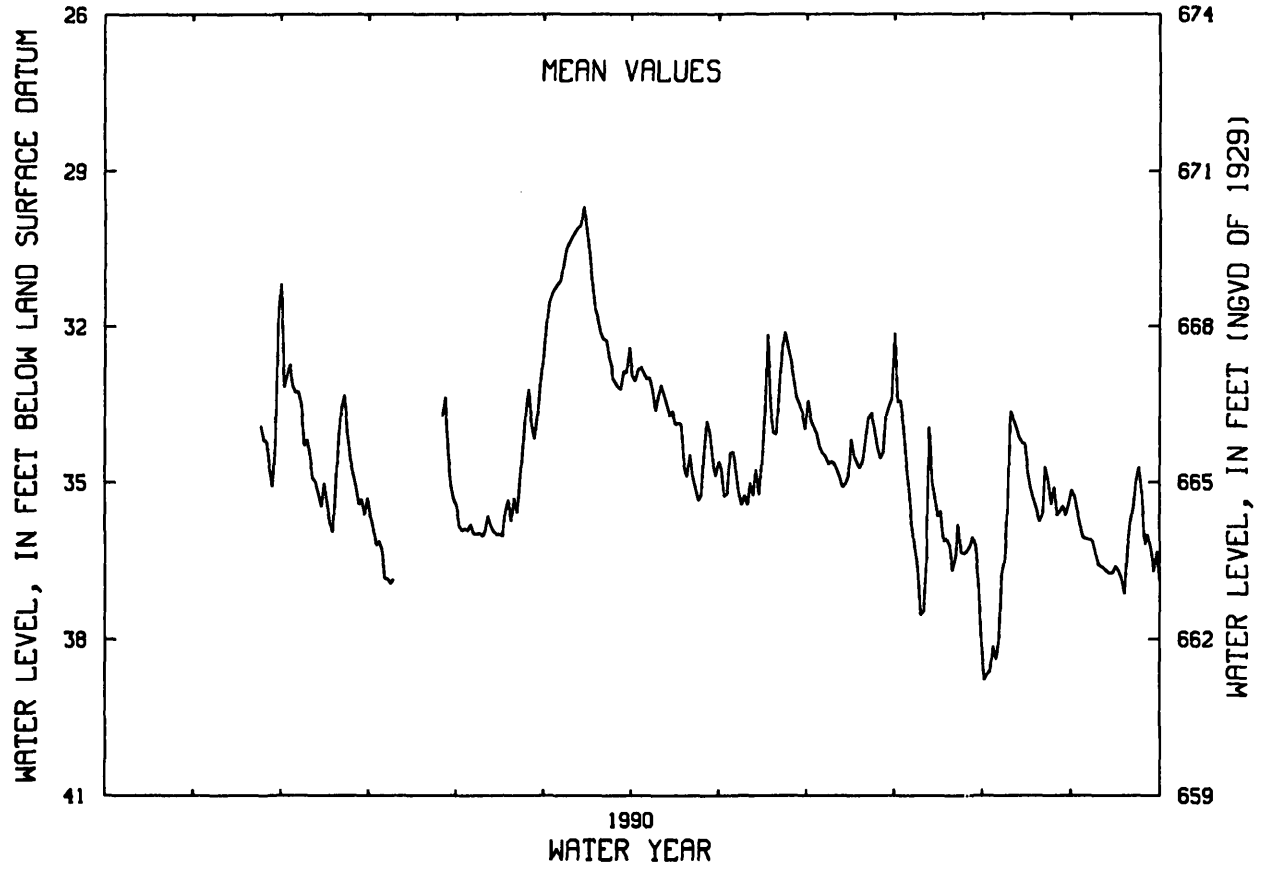
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	33.28	36.84	35.99	31.28	32.90	34.44	34.33	34.58	38.39	36.08
10	---	---	34.48	---	35.65	30.38	33.36	35.26	34.64	37.54	33.65	36.61
15	---	---	35.02	---	36.03	29.69	33.65	35.25	34.91	35.33	34.27	36.61
20	---	---	34.13	---	35.59	31.85	34.90	34.06	34.57	36.21	35.76	35.79
25	---	34.22	34.82	33.74	33.88	32.82	35.25	32.40	34.32	36.37	35.10	36.18
EOM	---	31.19	35.62	35.83	33.13	32.41	34.88	33.99	33.40	38.05	35.15	36.87
MEAN	---	---	34.51	---	35.27	31.55	33.87	34.12	34.31	35.75	35.77	36.19

WTR YR 1990 MEAN 34.61 HIGH 29.17 MAR 15 LOW 39.16 AUG 2

NJ-WRD WELL NO.27-1191



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, screened 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.--March 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, 56.83 ft below land-surface datum, May 19, 1989; lowest, 62.33 ft below land-surface datum, March 23, 1989.

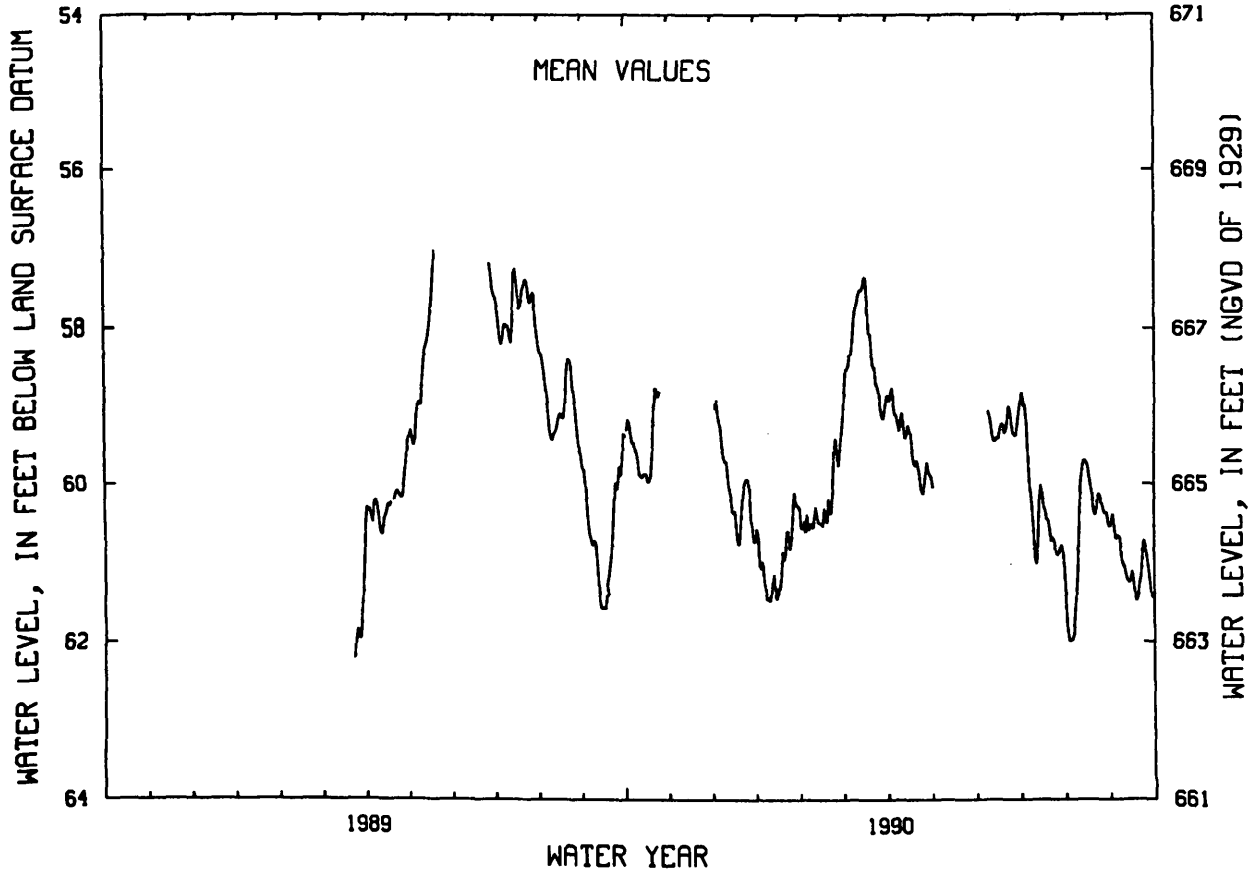
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.47	---	59.21	61.19	60.58	58.46	58.98	---	---	59.16	61.97	60.66
10	59.87	---	59.71	61.37	60.29	57.77	59.17	---	59.12	60.59	60.59	61.06
15	59.87	---	60.37	61.32	60.53	57.50	59.25	---	59.40	60.02	59.72	61.11
20	59.05	---	60.48	60.87	60.37	58.07	59.76	---	59.35	60.46	60.34	61.26
25	---	---	59.94	60.46	59.57	58.74	60.12	---	59.23	60.83	60.24	60.91
EOM	---	---	60.57	60.56	59.37	58.86	59.88	---	59.07	61.07	60.55	61.44
MEAN	59.46	---	60.04	60.93	60.24	58.29	59.44	---	59.26	60.28	60.61	61.03

WTR YR 1990 MEAN 59.98 HIGH 57.31 MAR 17 LOW 62.11 AUG 3

NJ-WRD WELL NO.27-1123



MORRIS COUNTY

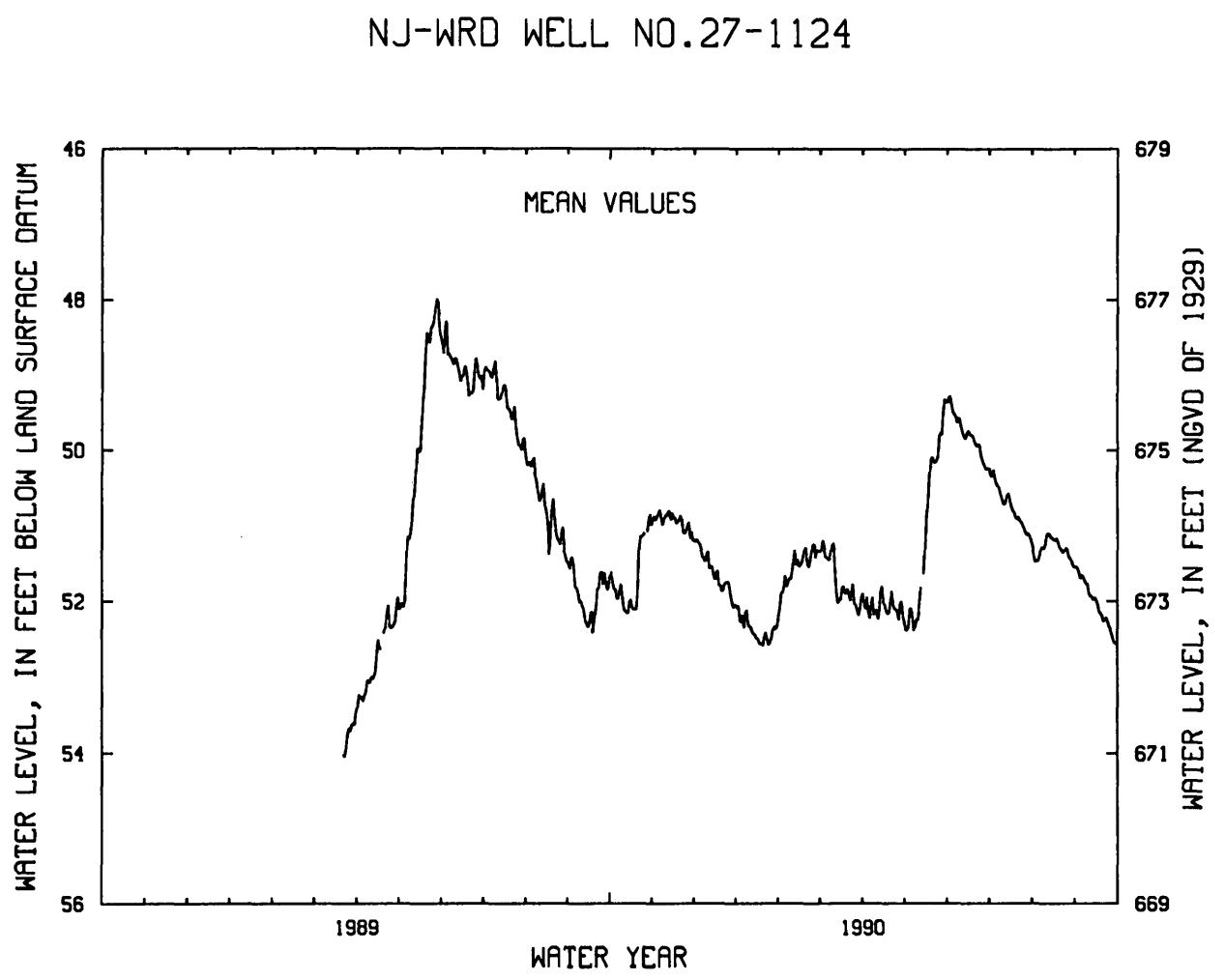
405330074363802. Local I.D., Kenvil Newcrete 2 Obs. NJ-WRD Well Number, 27-1124.
LOCATION.--Lat 40°53'30", long 74°36'38", Hydrologic Unit 02030105, at Kenvil Newcrete on Dell Ave., Roxbury Township.
Owner: U.S. Geological Survey.
AQUIFER.--Stratified Drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 175 ft, screened 165 to 175 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, 3.10 ft above land-surface datum.
REMARKS.--Water level affected by nearby pumping.
PERIOD OF RECORD.--March 1989 to September 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, 47.98 ft below land-surface datum, May 27,28, 1989; lowest, 54.65 ft below land-surface datum, March 22, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.97	50.80	51.32	52.35	51.81	51.41	52.13	52.10	49.48	50.35	51.47	51.66
10	52.10	50.88	51.35	52.35	51.47	51.26	52.13	52.23	49.58	50.63	51.25	51.90
15	51.98	50.91	51.71	52.48	51.53	51.99	51.81	51.64	49.77	50.58	51.17	51.98
20	51.88	50.88	51.87	52.46	51.51	51.90	52.14	50.14	49.86	50.90	51.29	52.26
25	51.11	51.01	51.75	52.49	51.27	51.78	52.10	50.09	50.06	51.00	51.30	52.36
EOM	50.92	51.20	52.09	52.08	51.35	51.95	52.19	49.35	50.25	51.20	51.56	52.57
MEAN	51.67	50.96	51.65	52.37	51.53	51.72	52.07	51.07	49.77	50.74	51.32	52.05

WTR YR 1990 MEAN 51.41 HIGH 49.26 MAY 30 LOW 53.44 JAN 23



MORRIS COUNTY

405330074363803. Local I.D., Kenvil Newcrete 7 Obs. NJ-WRD Well Number, 27-1183.
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.--Stratified Drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in, depth 63 ft, screened 53 to 63 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, 3.80 ft above land-surface datum.
PERIOD OF RECORD.--October 1989 to September 1990 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.95 ft below land-surface datum, Nov. 16,21, 1989; lowest, 47.71 ft below land-surface datum, Jan. 25-31, 1990.

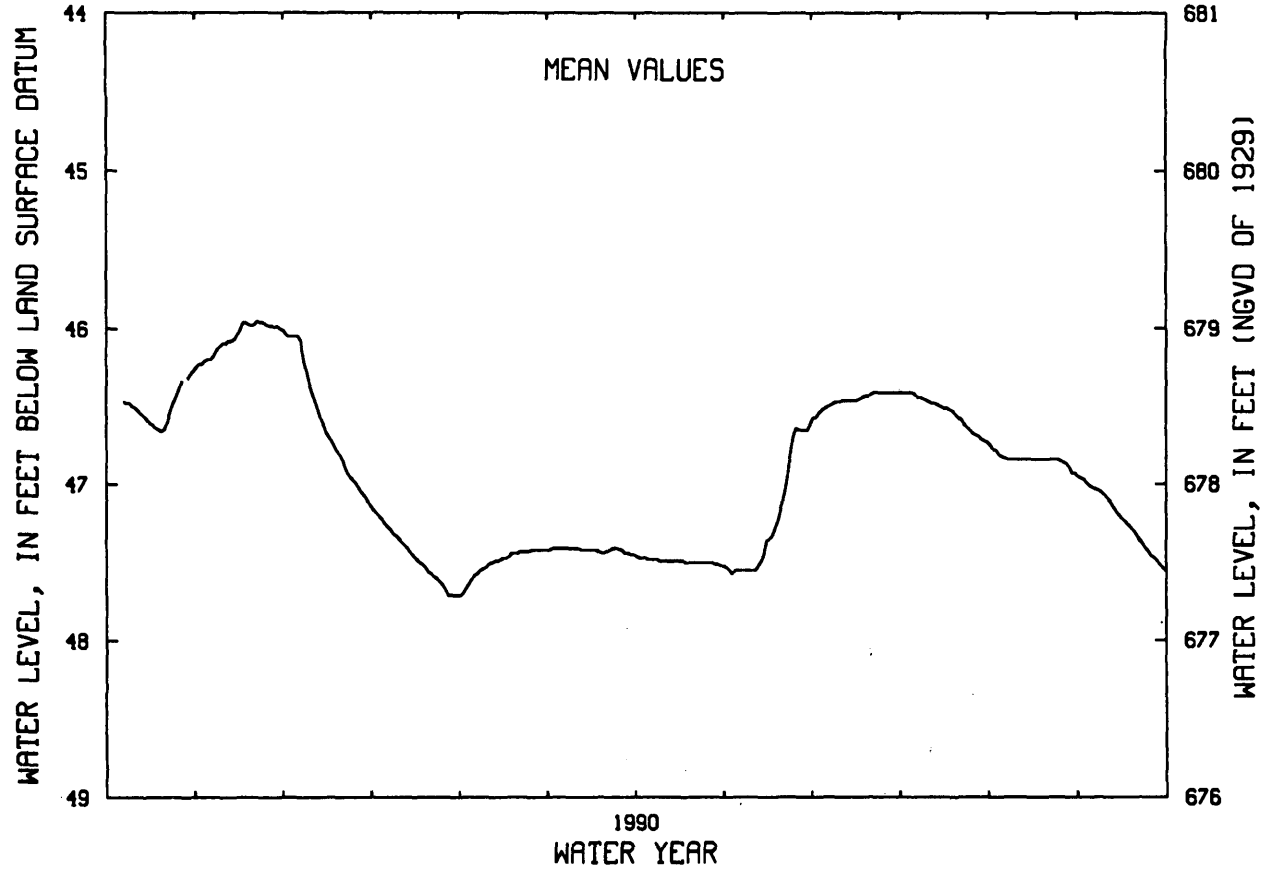
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	46.20	46.05	47.27	47.57	47.41	47.48	47.55	46.51	46.41	46.82	47.02
10	46.51	46.10	46.41	47.37	47.50	47.41	47.49	47.55	46.47	46.46	46.84	47.09
15	46.61	46.01	46.67	47.48	47.47	47.42	47.49	47.45	46.46	46.50	46.84	47.22
20	46.65	45.97	46.83	47.57	47.43	47.44	47.50	47.22	46.43	46.55	46.84	47.33
25	46.39	45.98	46.99	47.67	47.42	47.41	47.50	46.70	46.41	46.65	46.85	47.46
EOM	46.25	46.01	47.16	47.70	47.42	47.45	47.52	46.61	46.41	46.73	46.95	47.56
MEAN	46.50	46.05	46.63	47.48	47.49	47.42	47.49	47.23	46.46	46.53	46.84	47.24

WTR YR 1990 MEAN 46.95 HIGH 45.95 NOV 16,21 LOW 47.71 JAN 25-31

NJ-WRD WELL NO.27-1183



MORRIS COUNTY

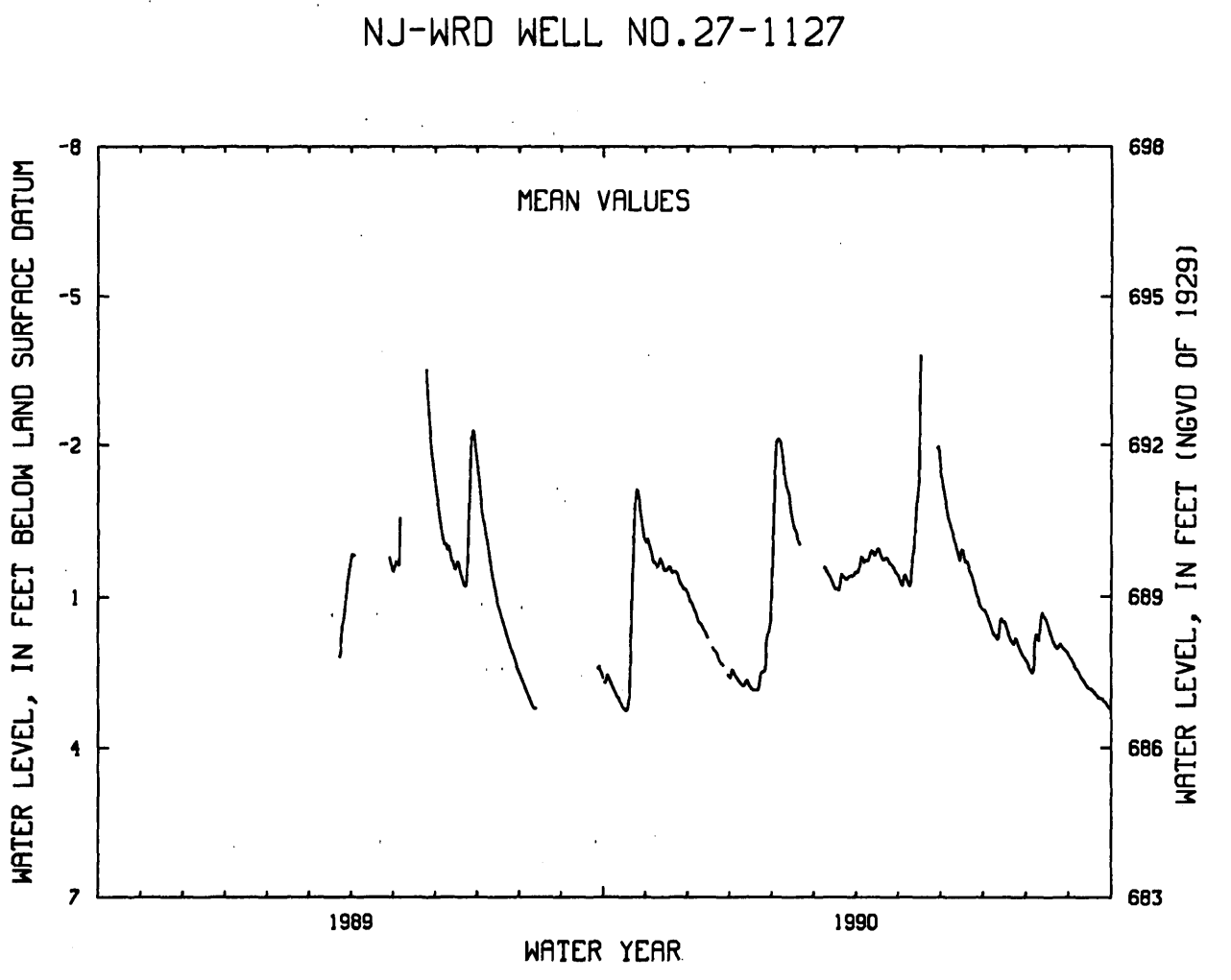
405458074345501. Local I.D., Picatinny SB1-1 Obs. NJ-WRD Well Number, 27-1127.
LOCATION.--Lat 40°54'58", long 74°34'55", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Precambrian Erathem.
WELL CHARACTERISTICS.--Drilled observation well, 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.--March 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, 5.90 ft above land-surface datum, May 17, 1990; lowest, 3.27 ft below land-surface datum, Oct. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.65	.28	1.25	2.61	-2.07	---	.24	.59	-.67	1.46	2.51	2.42
10	2.97	.24	1.55	2.75	-1.10	.47	.21	.72	-.15	1.77	1.87	2.64
15	3.20	.47	1.81	2.80	-.33	.75	.11	-1.05	.08	1.50	1.47	2.81
20	1.92	.50	2.06	2.83	---	.75	.29	---	.37	1.80	1.88	2.95
25	-1.07	.75	2.33	2.43	---	.66	.36	---	.82	1.84	1.93	3.06
EOM	-.06	.93	2.60	-.43	---	.51	.55	-1.66	1.24	2.24	2.16	3.23
MEAN	1.69	.46	1.81	2.36	-1.10	.63	.28	-.52	.13	1.72	1.92	2.78

WTR YR 1990 MEAN 1.14 HIGH -5.90 MAY 17 LOW 3.27 OCT 17



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.--March 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, 1.14 ft above land-surface datum, May 19, 1989, May 19, 1990; lowest, 4.99 ft below land-surface datum, Sept. 19, 1989.

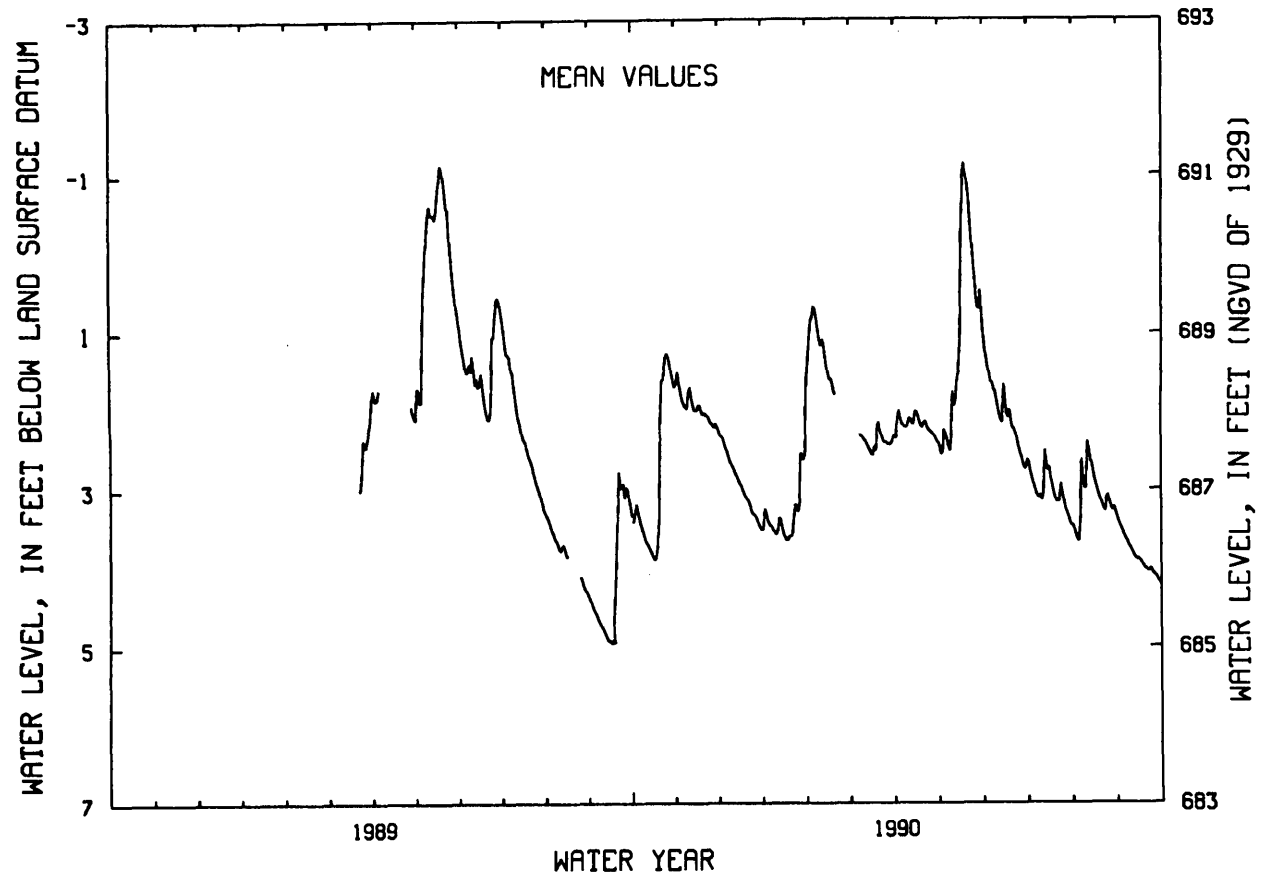
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.35	1.88	2.47	3.46	.74	---	2.09	2.24	1.54	2.91	3.66	3.59
10	3.66	1.69	2.71	3.52	1.09	2.34	2.18	2.29	1.84	3.08	2.98	3.77
15	3.84	1.98	2.92	3.60	1.60	2.51	2.02	1.50	1.67	2.76	2.78	3.88
20	2.19	2.01	3.12	3.59	---	2.23	2.21	-.99	2.11	3.11	3.14	4.01
25	1.27	2.15	3.32	3.16	---	2.40	2.25	.05	2.46	3.05	3.08	4.07
EOM	1.64	2.23	3.51	1.44	---	2.32	2.39	.83	2.74	3.46	3.35	4.21
MEAN	2.79	1.95	2.94	3.20	1.22	2.39	2.18	1.03	2.00	3.01	3.10	3.87

WTR YR 1990 MEAN 2.52 HIGH -1.14 MAY 19 LOW 4.23 SEP 30

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.--April 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, 2.03 ft above land-surface datum, May 18,19, 1990; lowest, 5.09 ft below land-surface datum, Sept. 19, 1989.

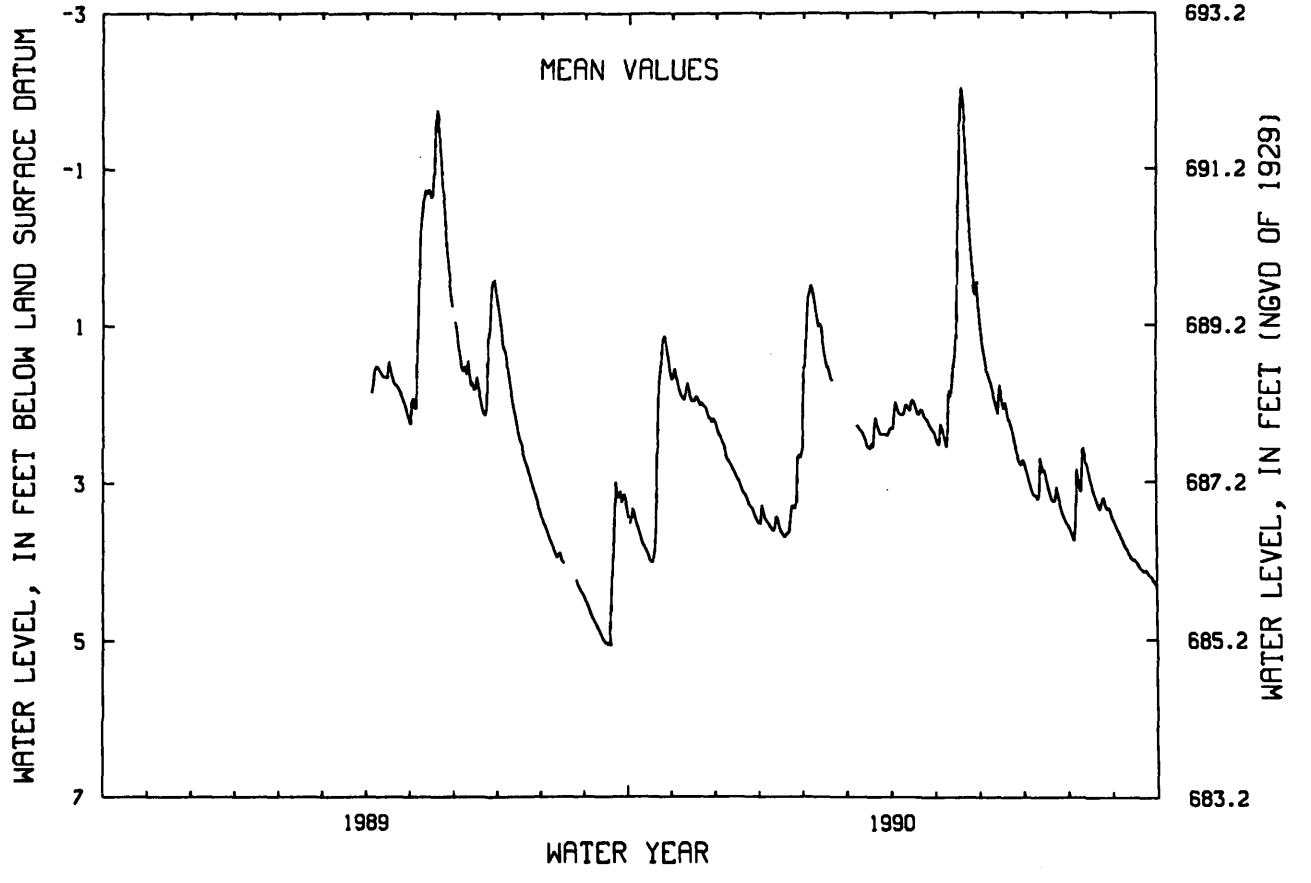
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.47	1.86	2.51	3.50	.53	---	2.05	2.27	1.48	2.97	3.75	3.66
10	3.77	1.73	2.75	3.57	.98	2.33	2.11	2.36	1.82	3.17	3.12	3.86
15	3.97	1.96	2.95	3.64	1.53	2.52	1.98	1.38	1.77	2.88	2.88	3.98
20	2.41	1.98	3.14	3.64	---	2.32	2.15	-1.85	2.11	3.19	3.23	4.11
25	1.15	2.17	3.31	3.25	---	2.39	2.20	-.20	2.49	3.16	3.20	4.19
EOM	1.65	2.26	3.52	1.37	---	2.32	2.36	.75	2.79	3.53	3.45	4.31
MEAN	2.86	1.95	2.97	3.26	1.08	2.39	2.14	.84	1.99	3.10	3.21	3.97

WTR YR 1990 MEAN 2.53 HIGH -2.03 MAY 18,19 LOW 4.33 SEP 30

NJ-WRD WELL NO.27-1129



MORRIS COUNTY

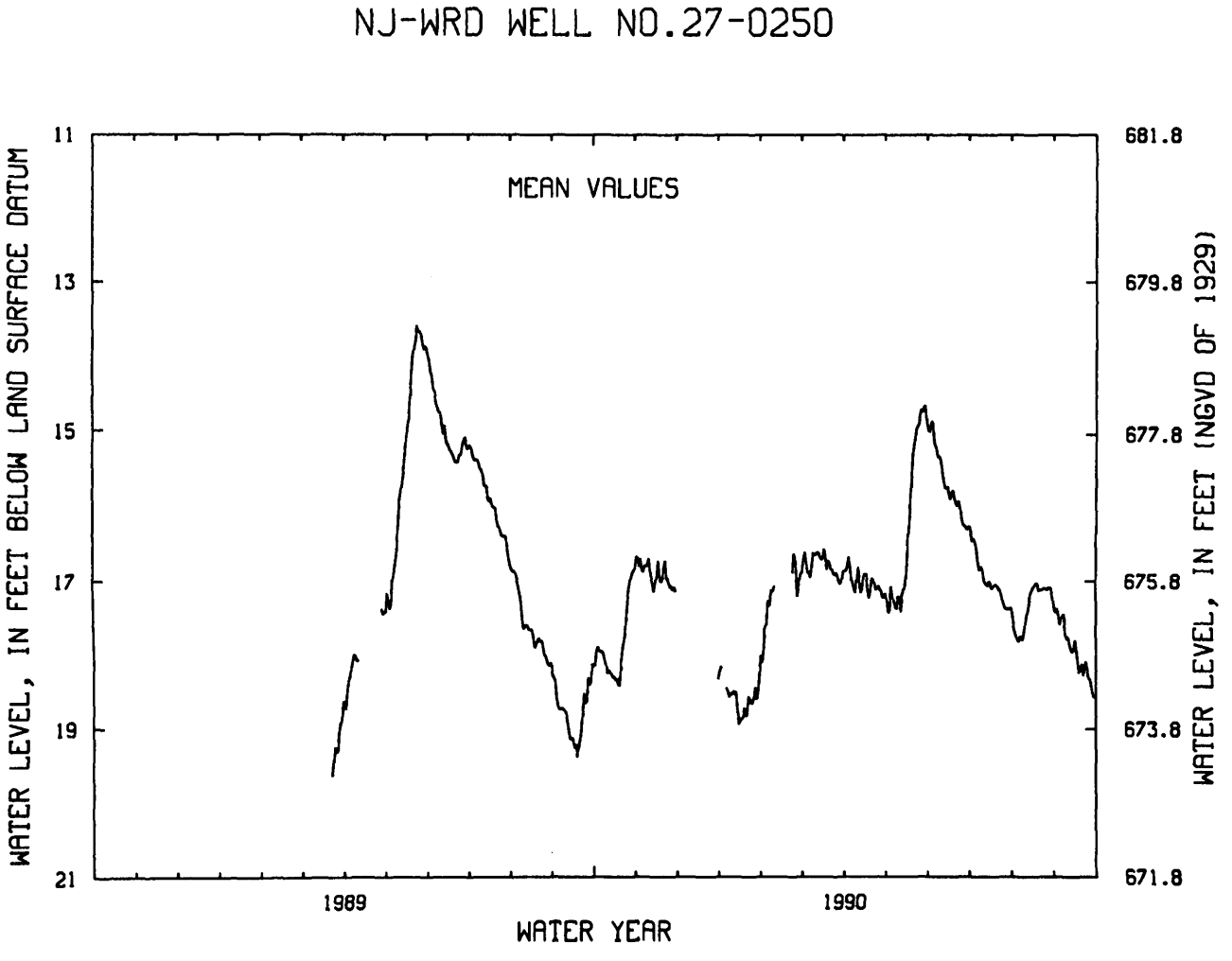
405509074350401. Local I.D., Picatinny LF 1 Obs. NJ-WRD Well Number, 27-0250.
LOCATION.--Lat 40°55'09", long 74°35'04", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Leithsville Formation of Cambrian age.
WELL CHARACTERISTICS.--Drilled observation 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.--April 1983 to May 1984, March 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.96	16.87	---	18.44	17.33	16.87	16.80	17.07	15.07	16.47	17.82	17.50
10	18.24	16.84	---	18.49	---	16.64	16.97	17.20	15.35	16.83	17.63	17.75
15	18.29	16.93	---	18.89	---	16.69	16.89	17.09	15.72	17.00	17.13	17.80
20	18.09	16.82	---	18.78	---	16.71	17.13	15.60	15.88	17.04	17.13	18.13
25	17.21	17.08	---	18.57	16.96	16.91	17.09	14.89	16.16	17.27	17.10	18.33
EOM	16.67	---	18.19	18.10	16.88	16.85	17.20	14.88	16.27	17.36	17.38	18.55
MEAN	17.82	16.91	---	18.56	17.15	16.78	17.00	16.24	15.66	16.97	17.34	17.97

WTR YR 1990 MEAN 17.12 HIGH 14.53 MAY 29,30 LOW 18.93 JAN 14,15



MORRIS COUNTY

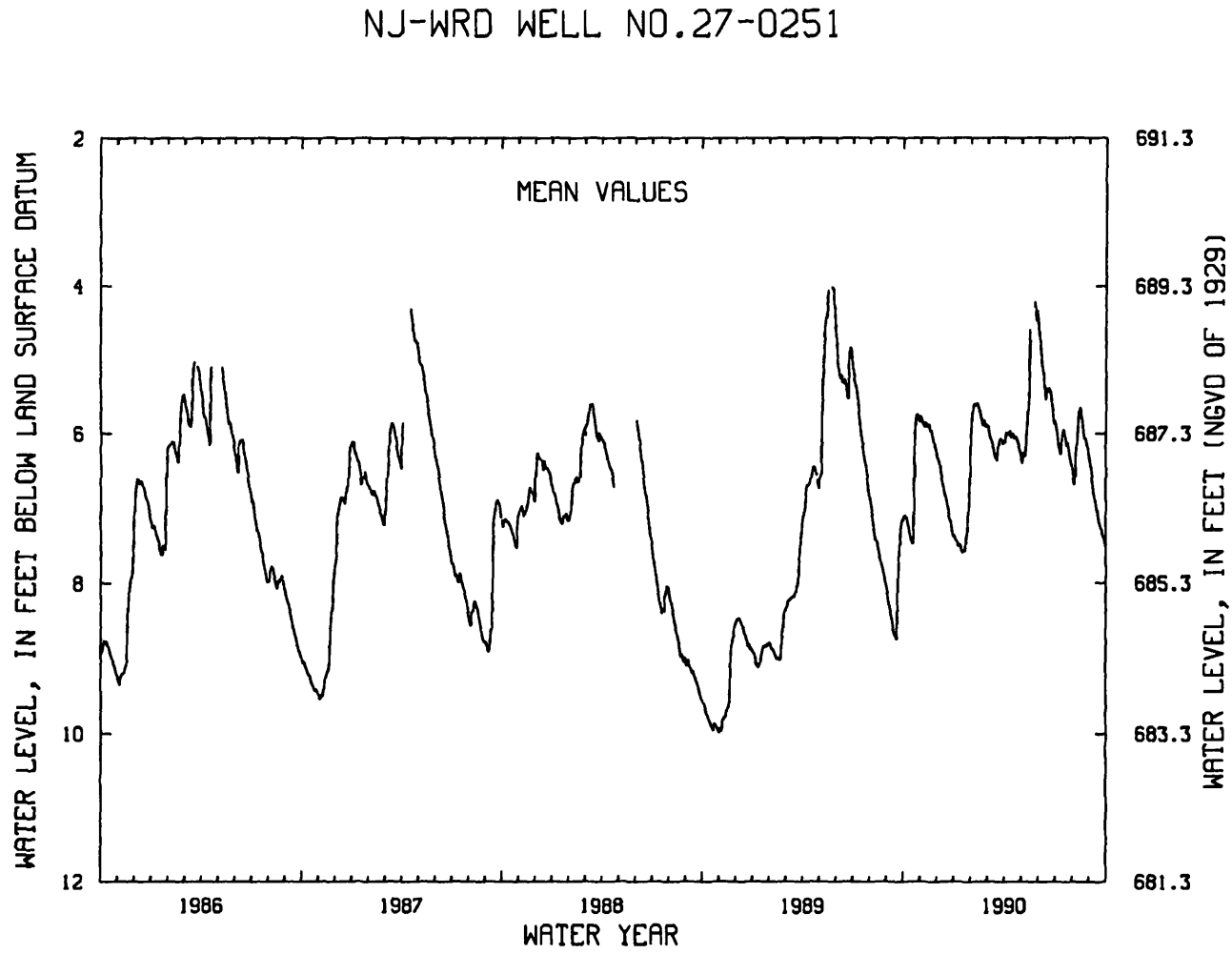
405509074350402. Local I.D., Picatinny LF 2 Obs. NJ-WRD Well Number, 27-0251.
LOCATION.--Lat 40°55'09", long 74°35'04", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation 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.--April 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, April 20, 1983; lowest, 9.98 ft below land-surface datum, Oct. 31, Nov. 1, 1988

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.11	5.85	6.40	7.43	5.60	5.99	5.99	6.27	4.81	5.99	6.69	6.58
10	7.24	5.84	6.62	7.50	5.59	6.12	6.00	6.22	5.18	6.21	6.14	6.86
15	7.43	5.91	6.81	7.58	5.70	6.29	6.01	5.55	5.38	5.99	5.66	7.04
20	6.93	5.96	6.99	7.57	5.84	6.29	6.07	---	5.38	6.08	5.92	7.22
25	5.75	6.13	7.16	7.28	5.86	6.08	6.11	---	5.59	6.16	6.07	7.37
EOM	5.83	6.24	7.37	6.05	5.88	6.12	6.25	4.41	5.86	6.43	6.29	7.51
MEAN	6.75	5.96	6.84	7.32	5.74	6.13	6.06	5.56	5.28	6.12	6.11	7.02

WTR YR 1990 MEAN 6.26 HIGH 4.18 MAY 26 LOW 7.60 JAN 17



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.--April 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, 8.31 ft below land-surface datum, May 24, 1989; lowest, 13.62 ft below land-surface datum, Jan. 15, 1990.

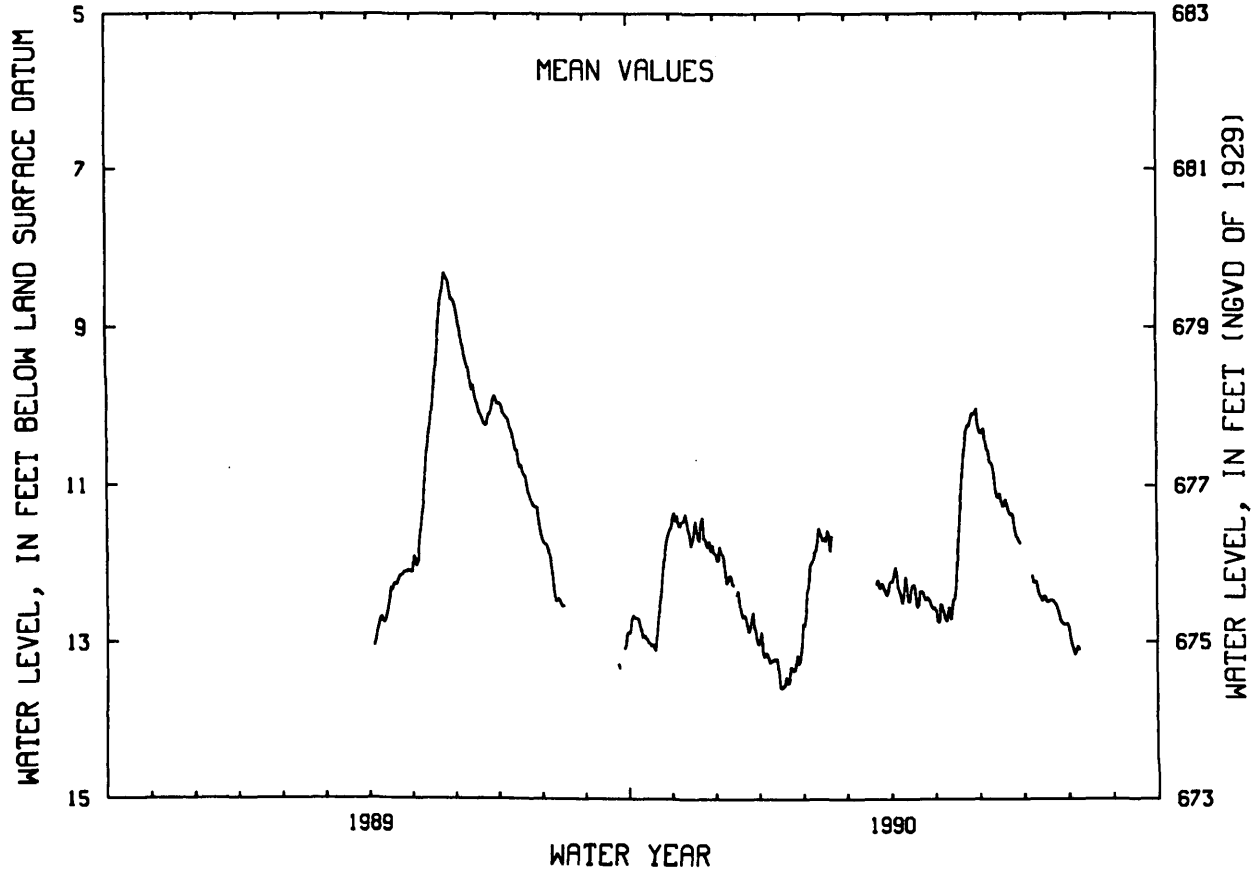
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.69	11.52	11.89	13.15	11.99	---	12.14	12.51	10.43	---	13.16	---
10	12.94	11.44	12.15	13.21	11.54	---	12.38	12.61	10.75	12.23	---	---
15	13.01	11.63	12.40	13.59	11.71	---	12.30	12.44	11.09	12.42	---	---
20	12.87	11.46	12.65	13.52	---	---	12.52	10.91	11.25	12.46	---	---
25	11.96	11.79	12.70	13.30	---	12.29	12.46	10.23	11.54	12.63	---	---
EOM	11.40	11.87	12.96	12.79	---	12.24	12.58	10.21	---	12.76	---	---
MEAN	12.55	11.59	12.44	13.27	11.85	---	12.36	11.59	11.03	12.49	---	---

WTR YR 1990 MEAN 12.17 HIGH 9.97 MAY 29,30 LOW 13.62 JAN 15

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.--March 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, 0.79 ft below land-surface datum, May 17, 1990; lowest, 4.99 ft below land-surface datum, Sept. 14, 1989.

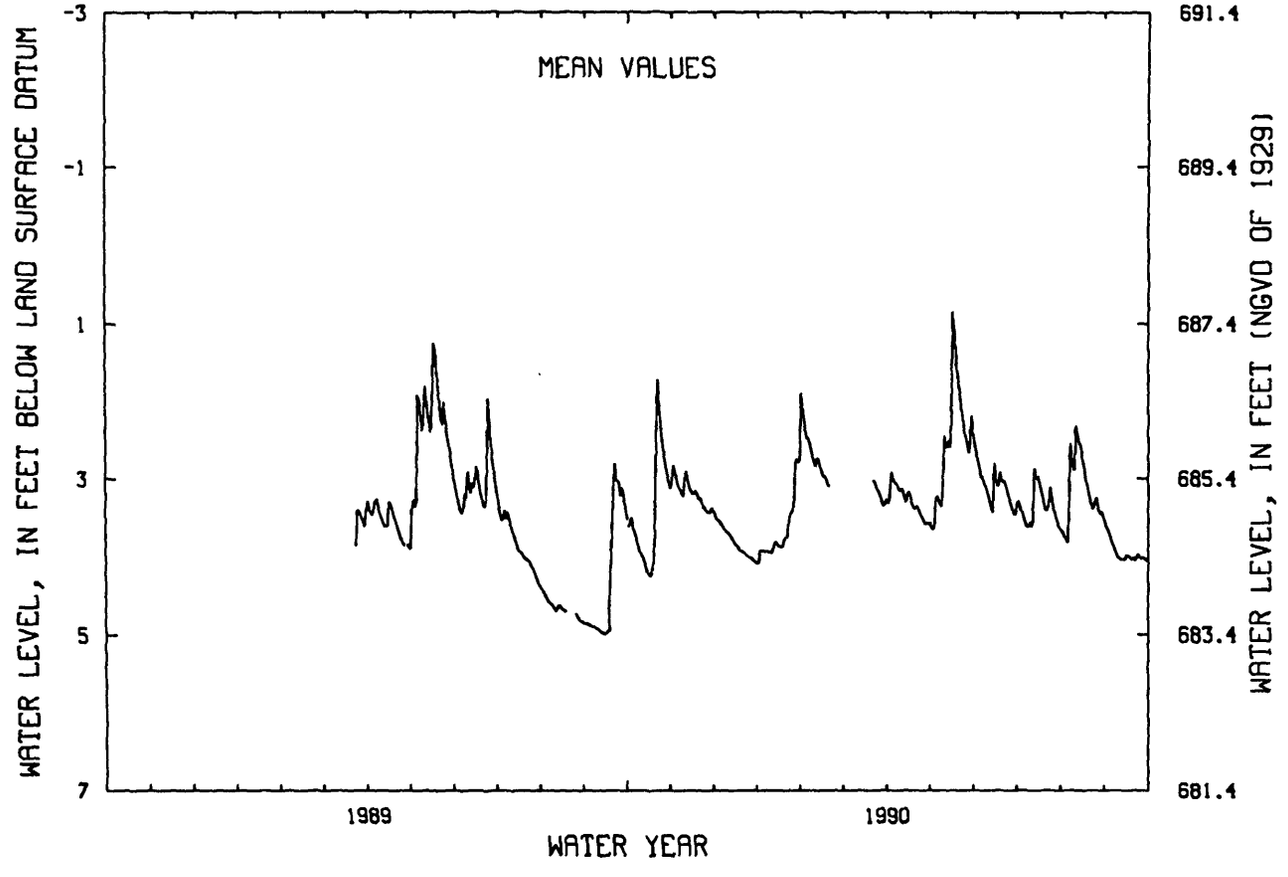
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.70	3.12	3.59	3.94	2.54	---	3.00	3.26	2.90	3.45	3.82	3.83
10	3.99	2.90	3.72	3.94	2.76	---	3.15	3.06	3.16	3.57	2.88	4.02
15	4.23	3.20	3.85	3.87	2.97	---	3.19	2.60	2.80	3.00	2.68	3.99
20	2.45	3.26	3.94	3.76	---	---	3.39	1.59	2.99	3.34	3.20	4.02
25	2.64	3.43	4.02	3.31	---	3.14	3.49	2.36	3.23	3.24	3.24	4.03
EOM	3.06	3.43	4.08	2.07	---	3.27	3.58	2.40	3.45	3.64	3.56	4.07
MEAN	3.42	3.20	3.84	3.55	2.75	---	3.28	2.55	3.09	3.36	3.16	3.96

WTR YR 1990 MEAN 3.30 HIGH .79 MAY 17 LOW 4.28 OCT 17

NJ-WRD WELL NO.27-1131



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.--March 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, 9.73 ft below land-surface datum, May 24, 1989; lowest, 15.62 ft below land-surface datum, Sept. 19, 1989.

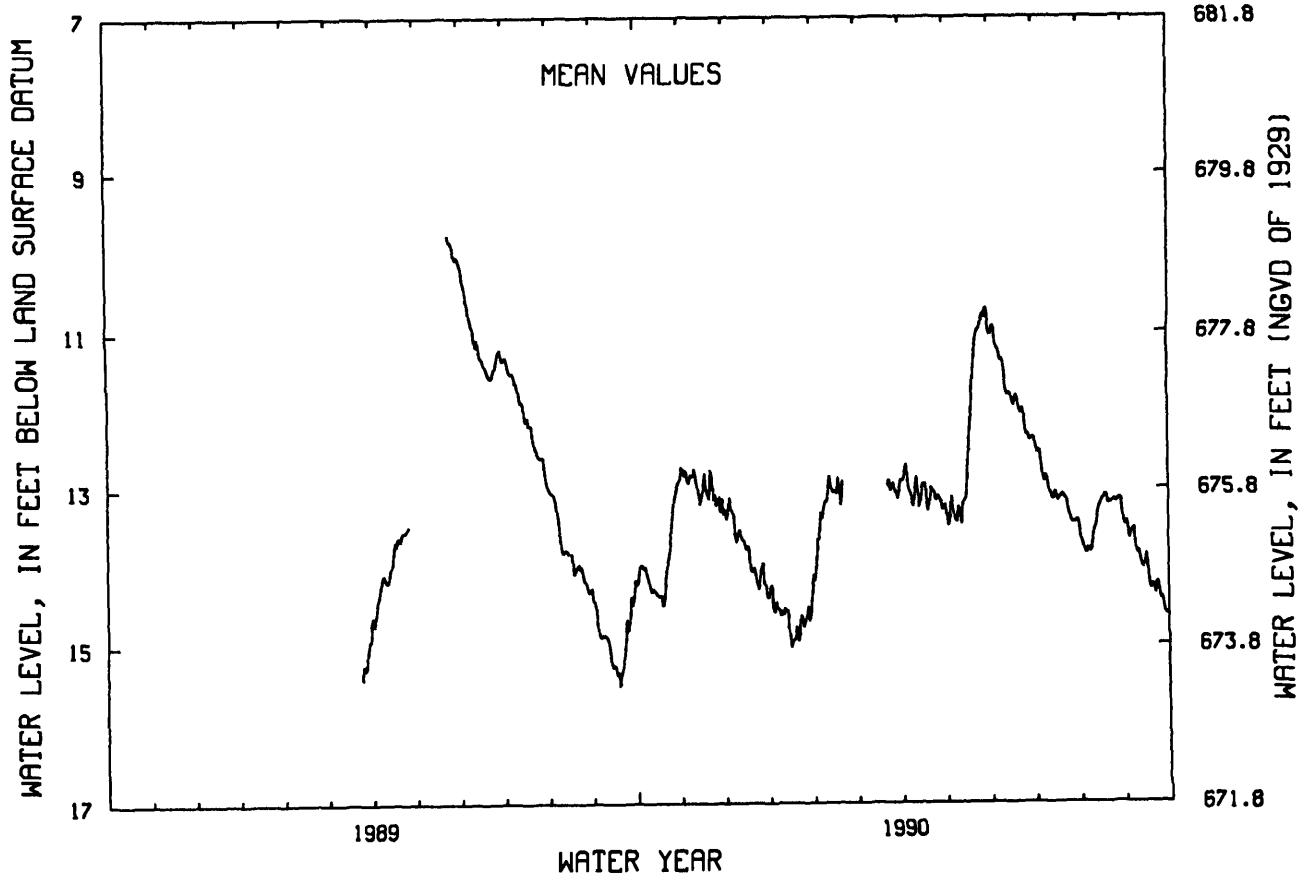
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.02	12.92	13.28	14.54	13.37	---	12.90	13.10	11.15	12.54	13.85	13.56
10	14.31	12.88	13.52	14.53	12.83	---	12.99	13.23	11.40	12.89	13.66	13.81
15	14.36	12.98	13.78	14.94	13.06	---	12.94	13.12	11.78	13.04	13.20	13.85
20	14.15	12.74	14.01	14.83	---	---	13.17	11.64	11.93	13.07	13.19	14.24
25	13.28	13.16	13.99	14.62	---	12.96	13.12	10.95	12.24	13.33	13.17	14.43
EOM	12.71	13.25	14.25	14.17	---	12.89	13.24	10.95	12.35	13.41	13.45	14.61
MEAN	13.88	12.99	13.82	14.62	13.18	---	13.05	12.29	11.73	13.03	13.39	14.04

WTR YR 1990 MEAN 13.27 HIGH 10.61 MAY 29,30 LOW 15.05 JAN 14,15

NJ-WRD WELL NO.27-1133



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.--March 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, 17.10 ft below land-surface datum, May 28,29, 1989; lowest, 23.70 ft below land-surface datum, March 30, 1989

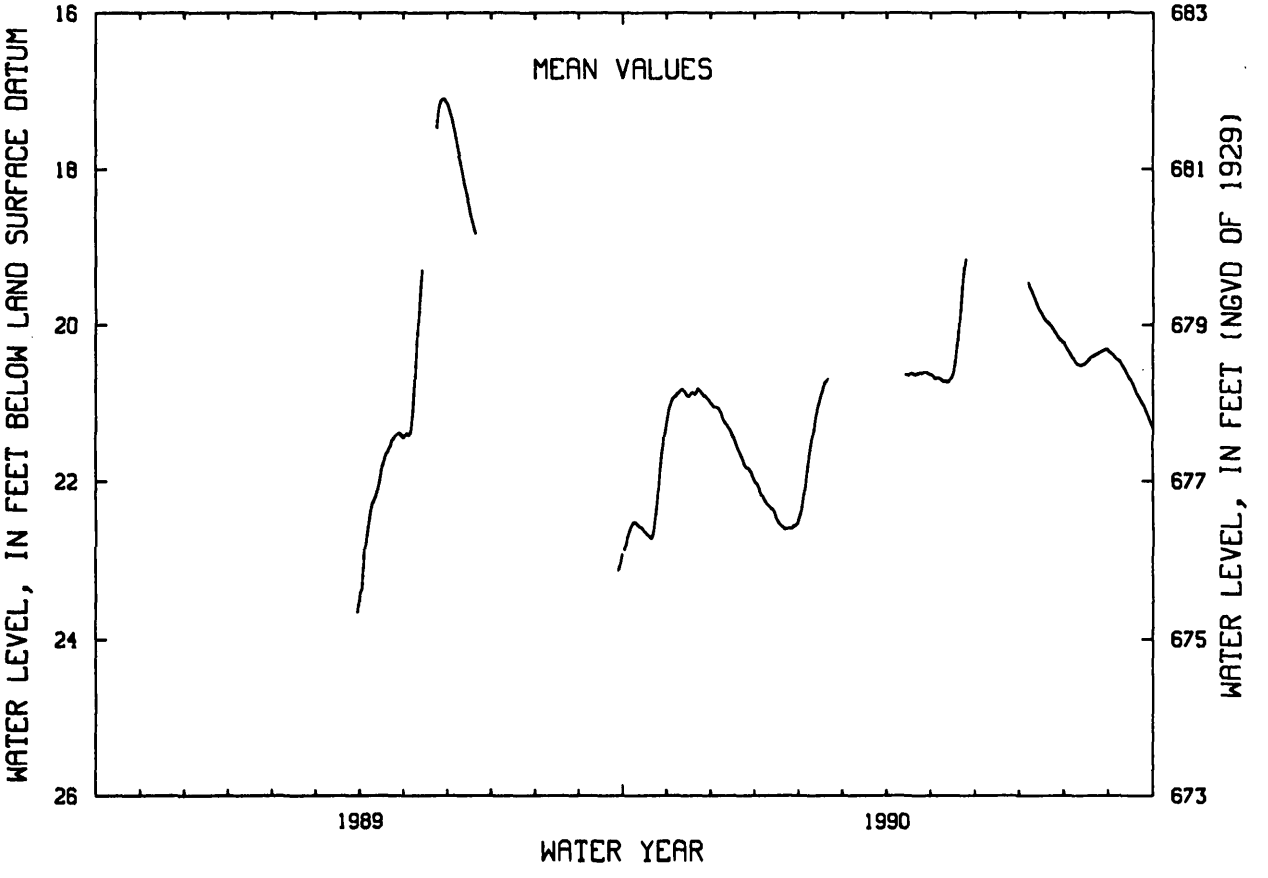
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.60	20.92	21.06	22.19	21.84	---	---	20.68	---	---	20.37	20.43
10	22.55	20.82	21.26	22.33	21.23	---	---	20.72	---	19.59	20.50	20.54
15	22.64	20.91	21.42	22.50	20.86	---	20.64	20.68	---	19.82	20.49	20.70
20	22.72	20.87	21.63	22.61	---	---	20.64	20.12	---	19.96	20.40	20.90
25	22.04	20.91	21.83	22.60	---	---	20.61	19.15	---	20.08	20.35	21.09
EOM	21.16	21.00	22.02	22.41	---	---	20.62	---	---	20.22	20.33	21.32
MEAN	22.37	20.90	21.48	22.42	21.35	---	20.62	20.40	---	19.90	20.40	20.76

WTR YR 1990 MEAN 21.11 HIGH 19.12 MAY 25 LOW 22.89 OCT 1

NJ-WRD WELL NO.27-1132



MORRIS COUNTY

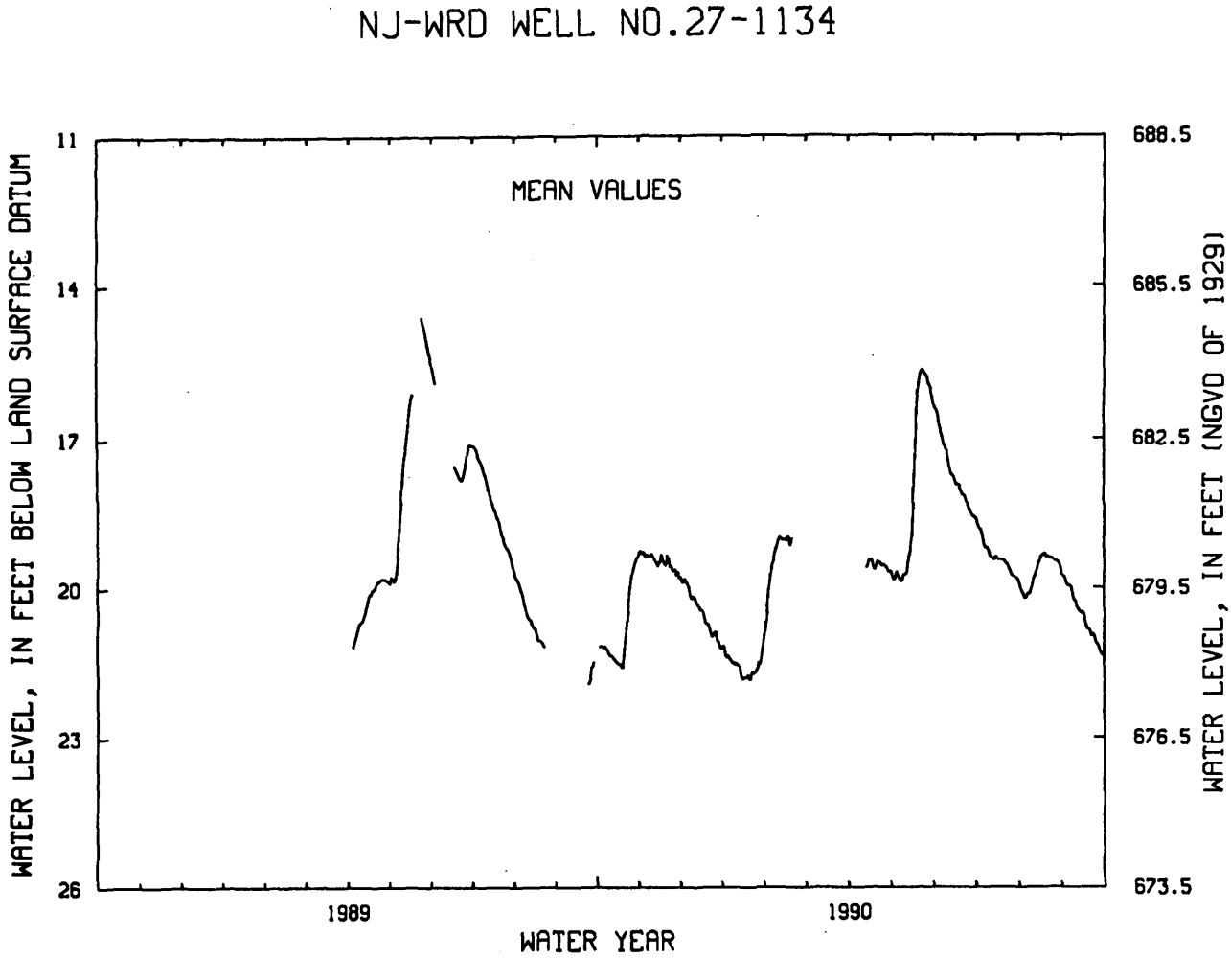
405517074351502. Local I.D., Picatinny SB3-2 Obs. NJ-WRD Well Number, 27-1134.
LOCATION.--Lat 40°55'17", long 74°35'15", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation 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.--April 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, 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.18	19.38	19.91	21.42	19.47	---	---	19.67	16.77	18.89	20.22	19.95
10	21.36	19.38	20.18	21.51	18.95	---	---	19.75	17.27	19.26	19.96	20.27
15	21.49	19.43	20.45	21.79	19.05	---	19.43	19.25	17.76	19.37	19.45	20.49
20	21.27	19.33	20.71	21.79	---	---	19.57	16.36	18.03	19.44	19.38	20.86
25	19.79	19.65	20.88	21.61	---	---	19.54	15.78	18.35	19.66	19.43	21.13
EOM	19.25	19.77	21.17	20.76	---	---	19.67	16.30	18.59	19.84	19.73	21.38
MEAN	20.79	19.47	20.52	21.52	19.28	---	19.54	18.02	17.66	19.36	19.68	20.59

WTR YR 1990 MEAN 19.70 HIGH 15.66 MAY 24 LOW 21.87 JAN 19



MORRIS COUNTY

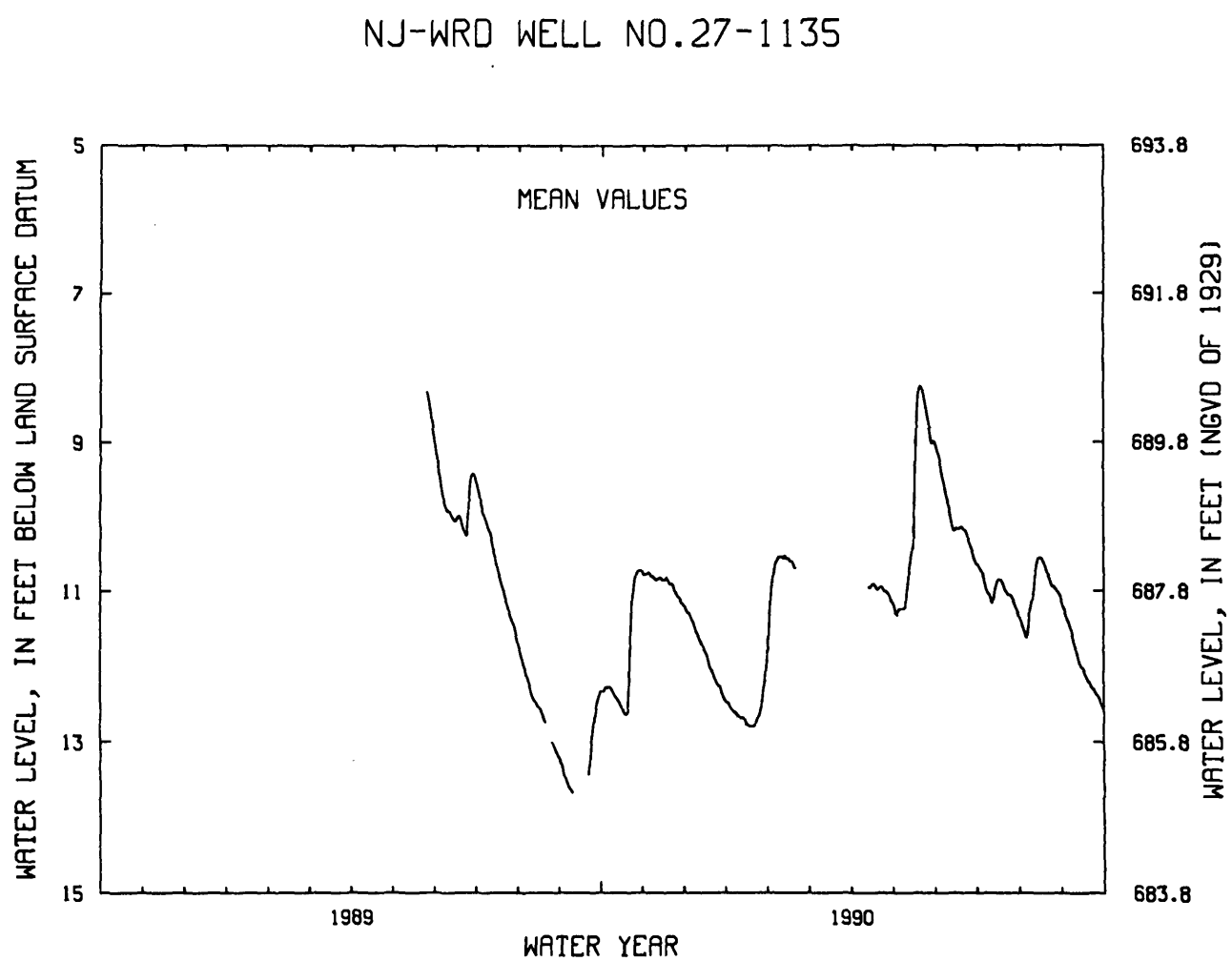
405517074351503. Local I.D., Picatinny SB3-3 Obs. NJ-WRD Well Number, 27-1135.
LOCATION.--Lat 40°55'17", long 74°35'15", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation 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 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, 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.26	10.79	11.38	12.60	10.59	---	---	11.26	9.37	10.76	11.59	11.43
10	12.39	10.82	11.61	12.68	10.52	---	---	11.22	9.80	11.05	11.11	11.76
15	12.56	10.84	11.81	12.77	10.59	---	10.93	10.45	10.18	10.90	10.54	12.02
20	12.26	10.89	12.06	12.79	---	---	10.98	8.27	10.14	10.92	10.72	12.21
25	10.75	11.08	12.25	12.54	---	---	11.01	8.59	10.32	11.05	10.93	12.37
EOM	10.78	11.21	12.48	11.23	---	---	11.14	8.99	10.61	11.32	11.16	12.57
MEAN	11.86	10.91	11.87	12.52	10.61	---	10.98	9.88	9.96	10.97	11.00	11.97

WTR YR 1990 MEAN 11.17 HIGH 8.25 MAY 20,21 LOW 12.79 JAN 16-20



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 Geodedic 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.--April 1985 to current year. Periodic manual measurements November 1981 to March 1985.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.25 ft below land-surface datum, May 18, 1989; lowest, 13.29 ft below land-surface datum, Oct. 20,21, 1988.

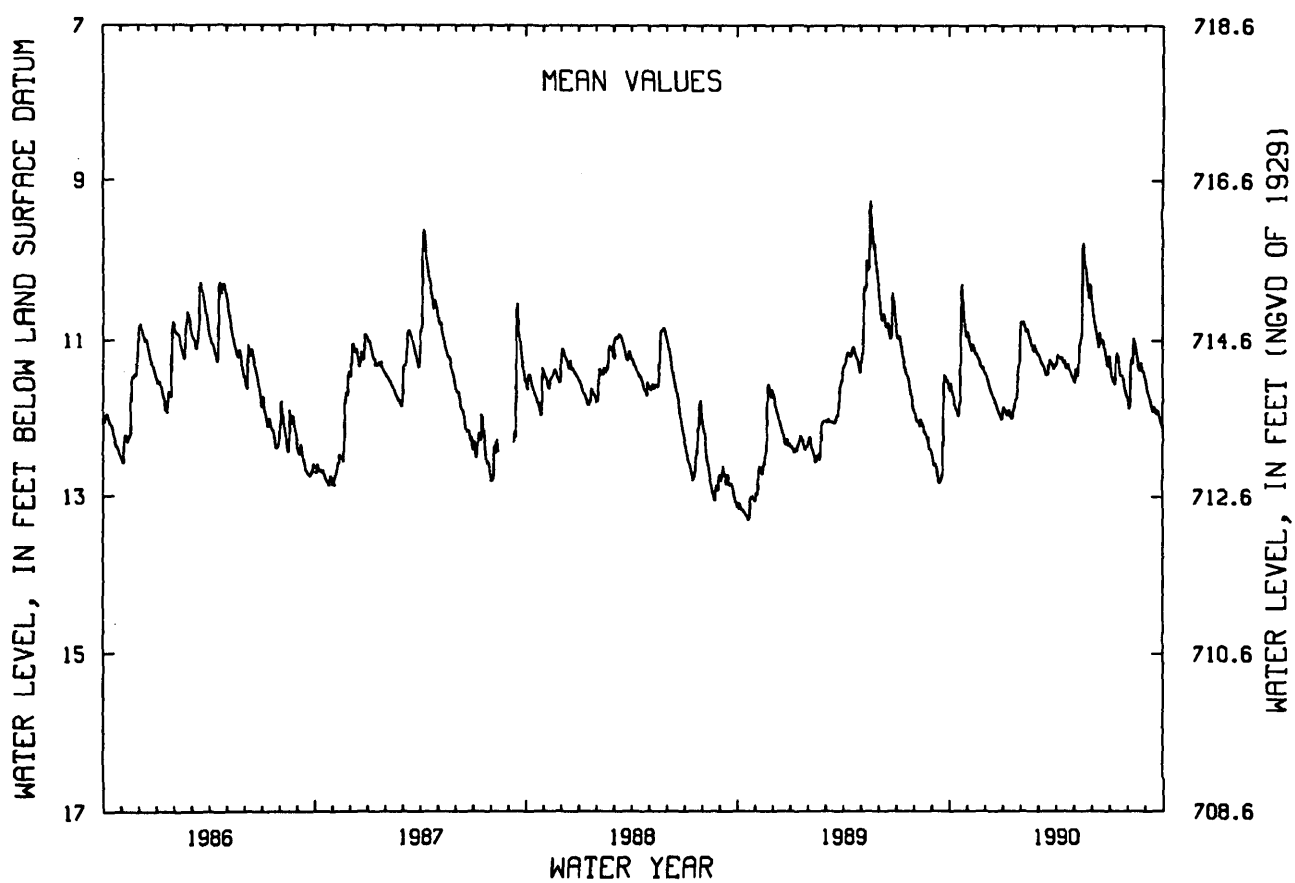
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.65	11.04	11.50	11.90	10.75	11.24	11.20	11.37	10.71	11.40	11.88	11.67
10	11.84	11.04	11.63	11.94	10.86	11.30	11.23	11.35	10.91	11.52	11.30	11.81
15	11.93	11.17	11.74	11.99	10.96	11.41	11.25	10.96	10.88	11.17	11.07	11.85
20	11.23	11.22	11.82	11.88	11.10	11.34	11.36	9.95	10.98	11.41	11.33	11.92
25	10.63	11.34	11.93	11.68	11.09	11.29	11.37	10.29	11.19	11.49	11.29	11.98
EOM	10.95	11.39	11.99	10.78	11.16	11.30	11.47	10.35	11.33	11.70	11.47	12.13
MEAN	11.37	11.17	11.74	11.75	10.94	11.31	11.30	10.74	10.97	11.42	11.37	11.85

WTR YR 1990 MEAN 11.33 HIGH 9.77 MAY 17,18 LOW 12.13 SEP 30

NJ-WRD WELL NO.27-0027



MORRIS COUNTY

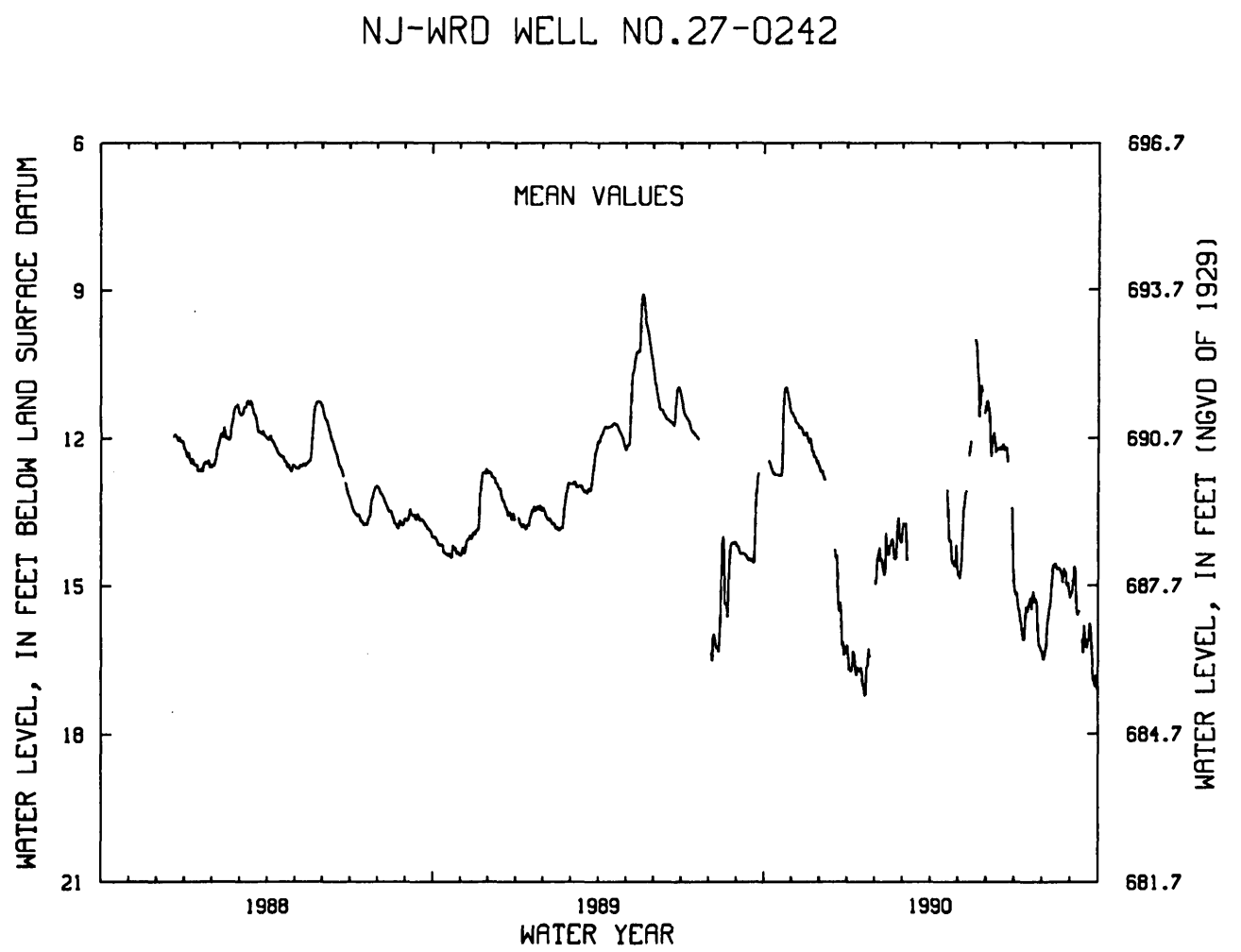
405623074341301. Local I.D., Picatinny Caf 1 Obs. NJ-WRD Well Number, 27-0242.
LOCATION.--Lat 40°56'23", long 74°34'13", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Hardyston Quartzite of Lower Cambrian age.
WELL CHARACTERISTICS.--Drilled 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.--January 1983 to May 1984, December 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, April 18, 1983; lowest, 17.76 ft below land-surface datum, Sept. 12,13, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.46	11.69	12.82	16.71	14.50	13.74	---	14.43	12.07	15.32	16.25	14.61
10	12.71	11.79	---	16.82	14.69	---	---	13.08	12.05	15.99	15.29	15.54
15	12.75	11.93	---	16.66	14.18	---	---	12.06	12.21	15.55	14.55	15.81
20	12.54	12.00	14.88	17.20	14.43	---	13.40	10.01	12.22	15.48	14.68	16.13
25	11.00	12.39	16.22	---	13.63	---	14.55	11.20	---	15.27	14.77	16.91
EOM	11.47	12.58	16.22	14.97	14.12	---	14.61	11.40	14.65	16.34	15.25	17.13
MEAN	12.08	12.01	14.77	16.64	14.28	---	---	12.34	12.20	15.58	15.16	15.96

WTR YR 1990 MEAN 14.12 HIGH 9.96 MAY 19 LOW 17.34 JAN 19,20



MORRIS COUNTY

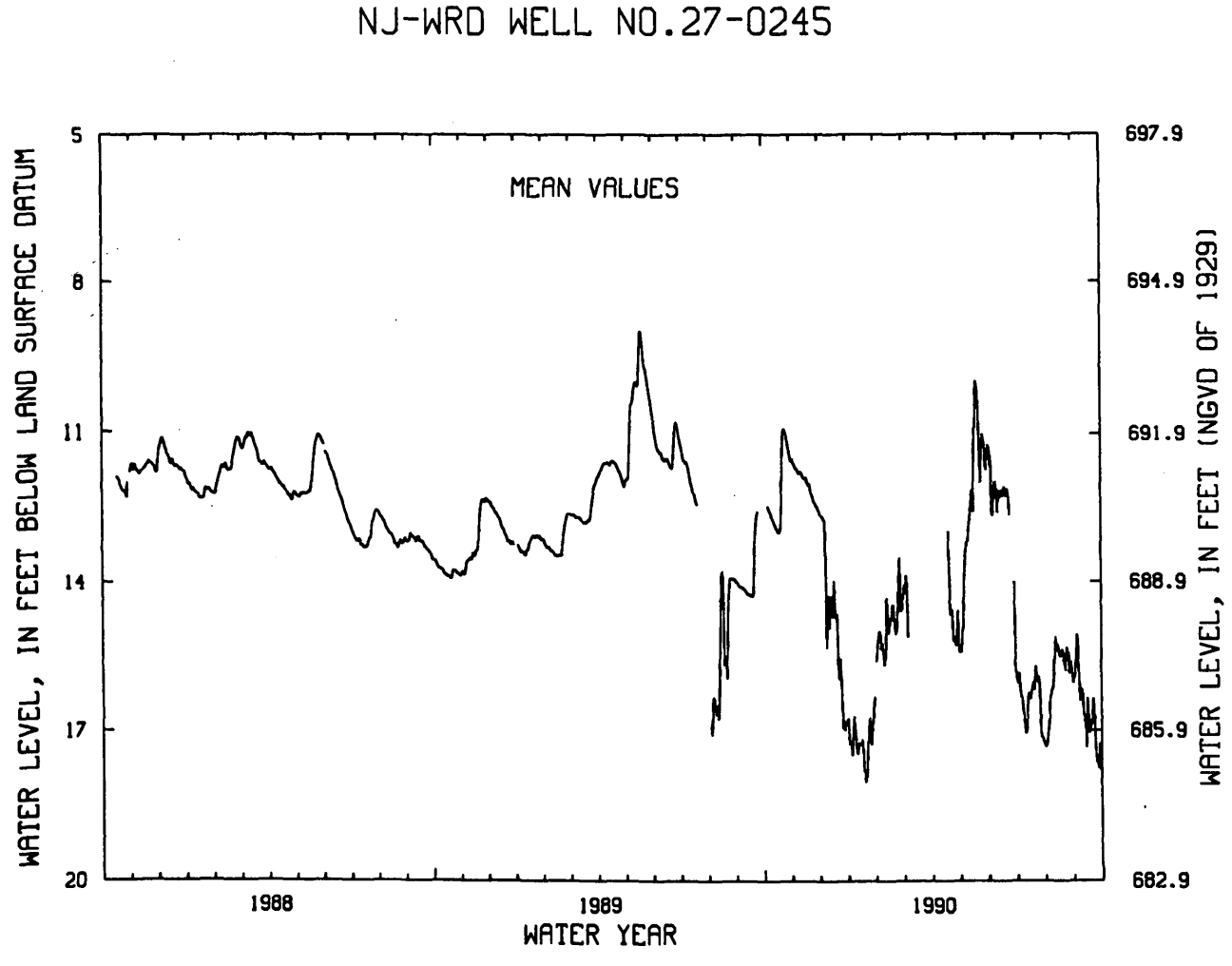
405623074341304. Local I.D., Picatinny Caf 4 Obs. NJ-WRD Well Number, 27-0245.
LOCATION.--Lat 40°56'23", long 74°34'13", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation 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.--February 1983 to August 1984, October 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, April 18, 1983; lowest, 18.96 ft below land-surface datum, Sept. 13, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.46	11.71	12.74	17.10	15.36	14.11	---	14.90	12.61	16.15	16.87	15.24
10	12.72	11.77	14.27	17.46	15.40	---	---	13.18	12.10	16.93	15.96	16.29
15	12.93	11.91	14.71	17.17	14.74	---	---	12.14	12.15	16.36	15.35	16.35
20	12.36	12.00	15.39	17.87	14.91	---	13.84	10.08	12.26	16.19	15.42	16.88
25	10.99	12.39	16.95	17.29	13.51	---	15.20	11.20	---	15.92	15.55	17.63
EOM	11.56	12.56	16.76	15.61	14.54	---	15.28	11.37	15.61	17.24	16.05	17.75
MEAN	12.12	12.00	14.91	17.16	14.84	---	---	12.39	12.32	16.40	15.91	16.67

WTR YR 1990 MEAN 14.53 HIGH 9.96 MAY 19 LOW 18.22 JAN 19



MORRIS COUNTY

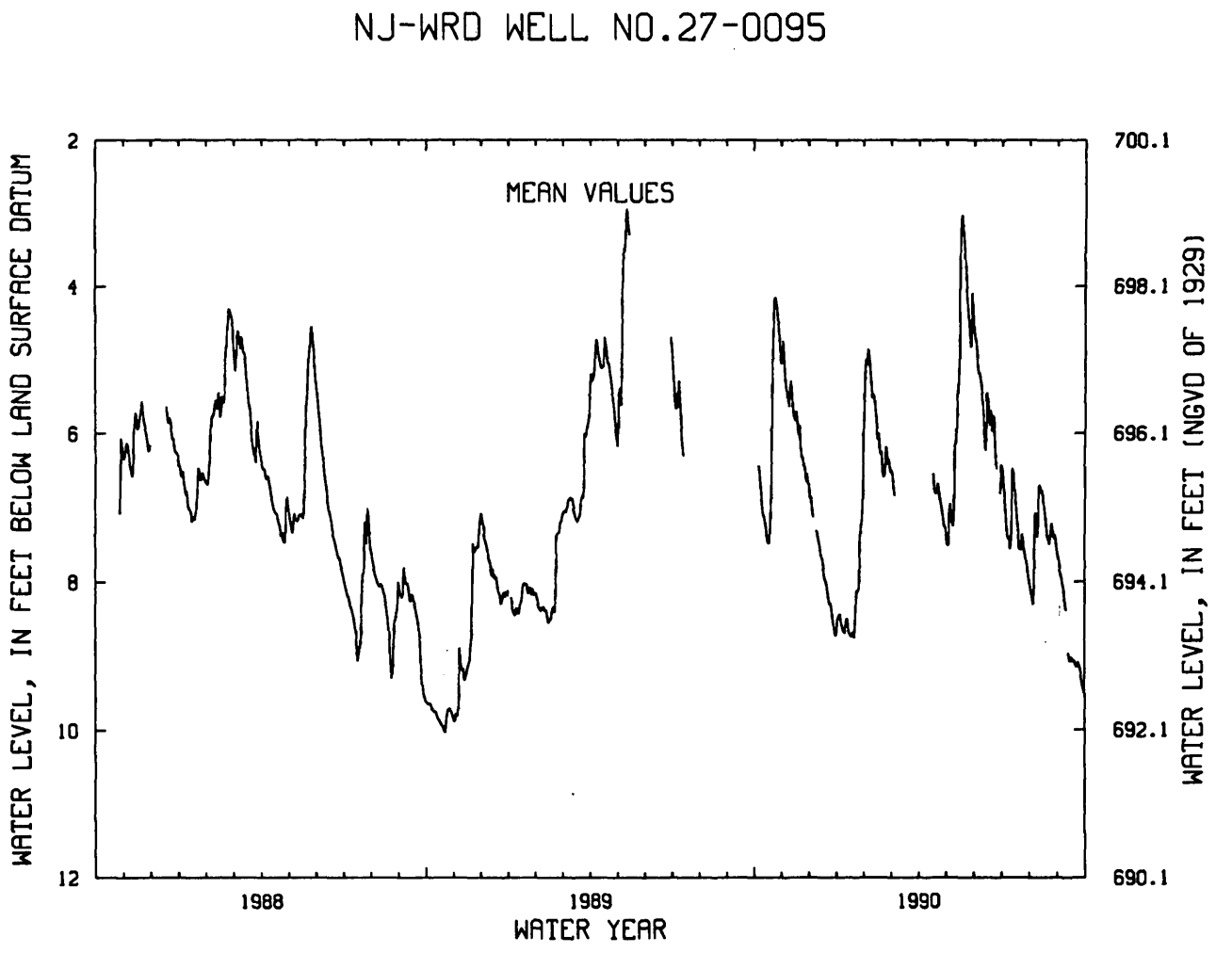
405628074341801. Local I.D., Picatinny 9C Obs. NJ-WRD Well Number, 27-0095.
LOCATION.--Lat 40°56'28", long 74°34'18", Hydrologic Unit 02030103, Picatinny Arsenal, Rockaway Township.
Owner: US Army - Picatinny Arsenal.
AQUIFER.--Stratified drift of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation 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.
PERIOD OF RECORD.--October 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, 10.03 ft below land-surface datum, Oct. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.44	5.42	7.13	8.55	4.96	6.84	---	7.04	5.11	6.95	8.30	7.95
10	7.10	5.29	7.37	8.59	5.50	---	---	7.03	5.51	7.40	7.40	8.38
15	7.43	5.83	7.70	8.69	6.09	---	---	5.30	5.45	6.74	6.84	9.02
20	5.70	5.90	8.06	8.66	6.53	---	6.81	3.27	5.78	7.38	7.36	9.11
25	4.22	6.44	8.32	8.07	6.30	---	6.90	4.25	6.33	7.42	7.22	9.16
EOM	5.04	6.69	8.66	5.59	6.47	---	7.26	4.35	6.79	7.94	7.57	9.50
MEAN	6.01	5.85	7.84	8.17	5.83	---	---	5.33	5.67	7.23	7.38	8.76

WTR YR 1990 MEAN 6.82 HIGH 3.02 MAY 18 LOW 9.56 SEP 30



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.
PERIOD OF RECORD.--June to September 1984, October 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, 13.46 ft below land-surface datum, Sept. 30, 1990.

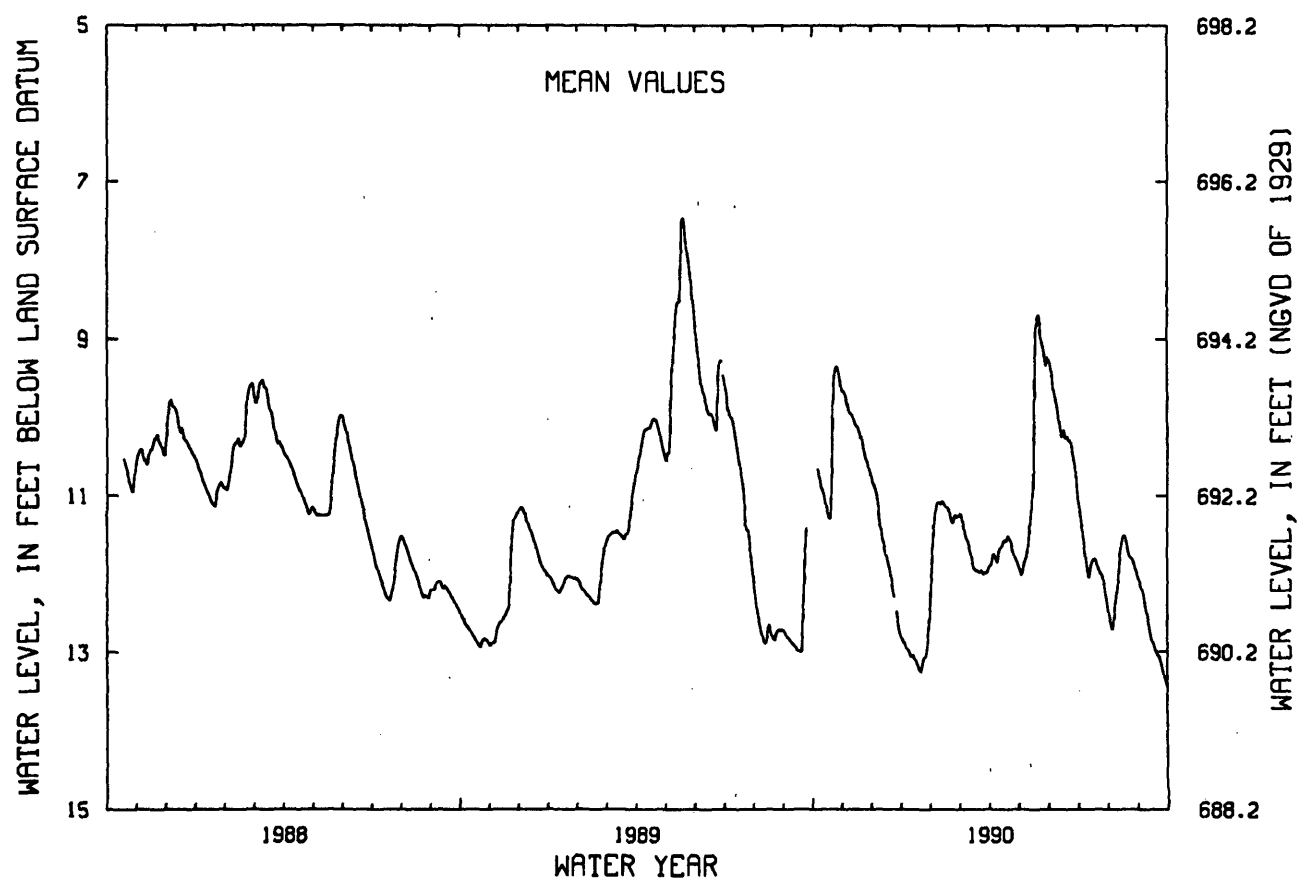
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.65	9.82	10.94	12.95	11.14	11.34	11.76	11.98	9.57	11.39	12.71	12.22
10	10.91	9.95	11.39	13.06	11.10	11.59	11.78	11.74	9.89	11.89	12.22	12.56
15	11.15	10.11	11.75	13.10	11.14	11.89	11.60	11.05	10.20	11.85	11.56	12.87
20	10.96	10.24	11.99	13.26	11.27	11.95	11.51	8.74	10.25	11.87	11.63	13.05
25	9.35	10.54	---	13.07	11.24	11.98	11.70	9.06	10.45	12.00	11.80	13.20
EOM	9.67	10.74	12.80	12.10	11.26	11.93	11.86	9.26	10.93	12.40	12.05	13.44
MEAN	10.40	10.17	11.75	12.98	11.22	11.75	11.71	10.41	10.09	11.83	12.01	12.80

WTR YR 1990 MEAN 11.44 HIGH 8.69 MAY 21 LOW 13.46 SEP 30

NJ-WRD WELL NO.27-0304



MORRIS COUNTY

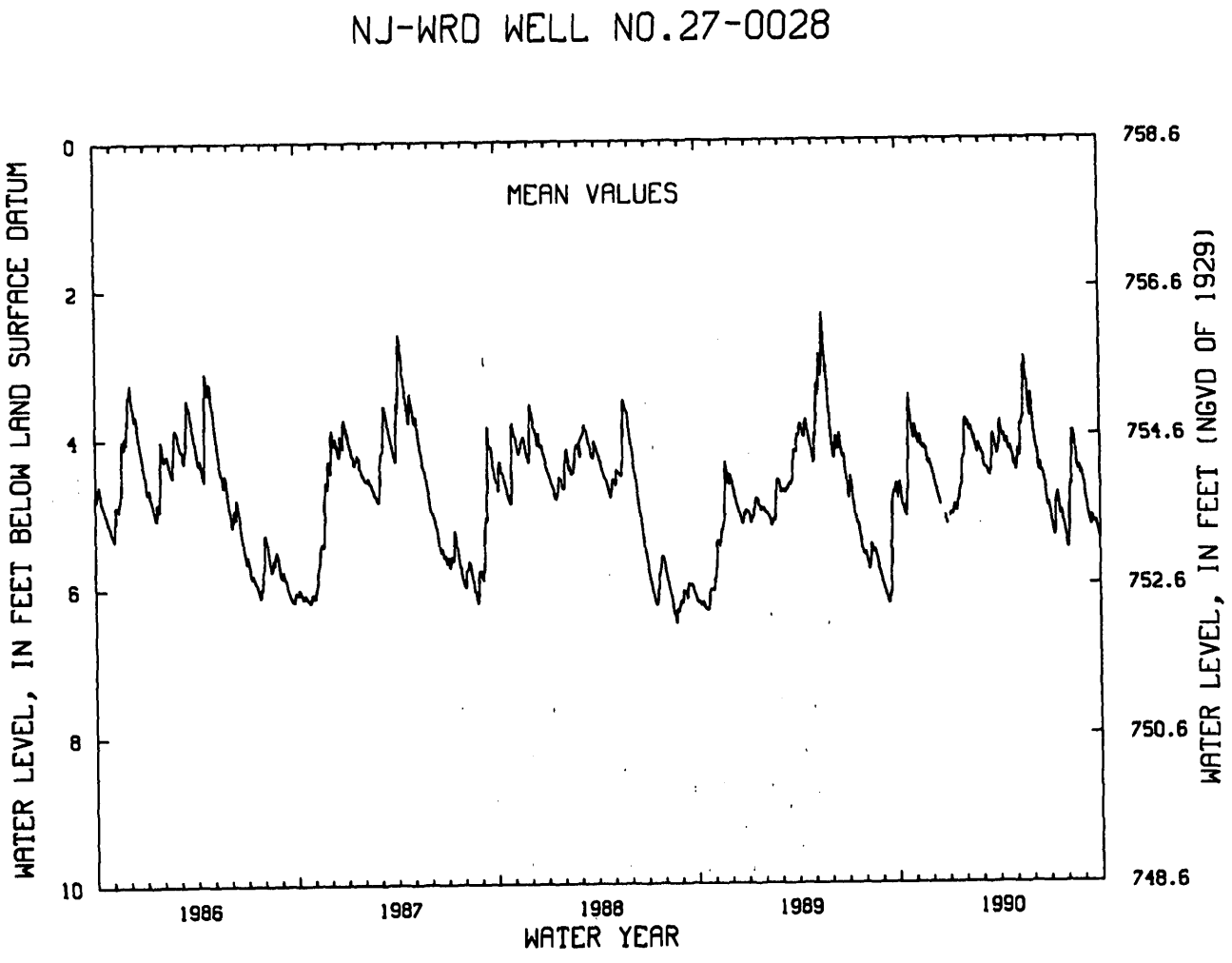
410207074270001. Local I.D., Green Pond 5 Obs. NJ-WRD Well Number, 27-0028.
LOCATION.--Lat 41°02'07", long 74°27'00", Hydrologic Unit 02030103, about 500 ft east of Route 513 and 1.1 mi south of the intersection with Route 23, Rockaway Township.
Owner: State of New Jersey.
AQUIFER.--Stratified drift 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.--November 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.35 ft below land-surface datum, Apr. 5, 1984; lowest, 6.49 ft below land-surface datum, Aug. 23, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.70	4.05	4.56	5.05	3.82	4.36	3.86	4.24	4.04	5.09	5.53	4.86
10	4.94	4.00	4.72	5.03	3.91	4.44	4.02	4.21	4.26	5.31	4.67	5.07
15	5.05	4.18	4.86	5.01	4.06	4.52	4.07	3.78	4.38	4.83	4.02	5.10
20	3.85	4.16	---	4.87	4.19	4.26	4.21	3.17	4.49	4.99	4.38	5.15
25	3.81	4.37	---	4.58	4.15	4.10	4.26	3.52	4.76	5.07	4.42	5.24
EOM	3.99	4.39	---	3.78	4.21	4.18	4.38	3.58	4.96	5.32	4.60	5.39
MEAN	4.46	4.16	4.79	4.77	4.02	4.31	4.12	3.76	4.41	5.08	4.58	5.09

WTR YR 1990 MEAN 4.46 HIGH 2.91 MAY 17 LOW 5.53 AUG 5,6

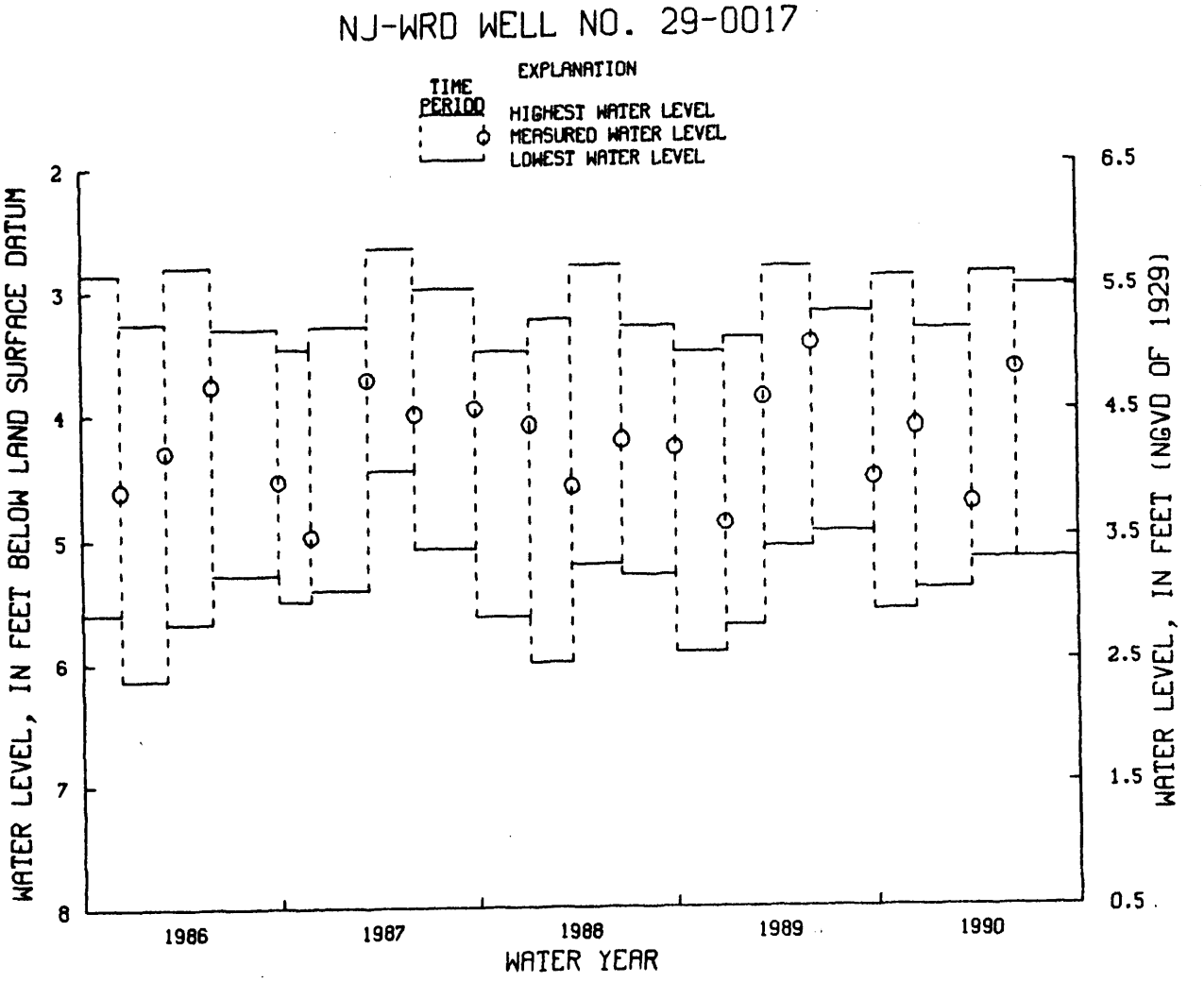


OCEAN COUNTY

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 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, February 1977 to current year. Water-level recorder, July 1962 to March 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 March 1975, February 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, 6.14 ft below land-surface datum, between Dec. 13, 1978 and Jan. 10, 1979 and between Dec. 11, 1985 and Mar. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

	WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 12, 1989	2.91	5.59	DEC. 12, 1989	4.12
DEC. 12, 1989 TO MAR. 22, 1990	3.34	5.42	MAR. 22, 1990	4.73
MAR. 22, 1990 TO JUNE 11, 1990	2.89	5.18	JUNE 11, 1990	3.66
JUNE 11, 1990 TO OCT. 1, 1990	2.99	5.18	OCT. 1, 1990	5.05

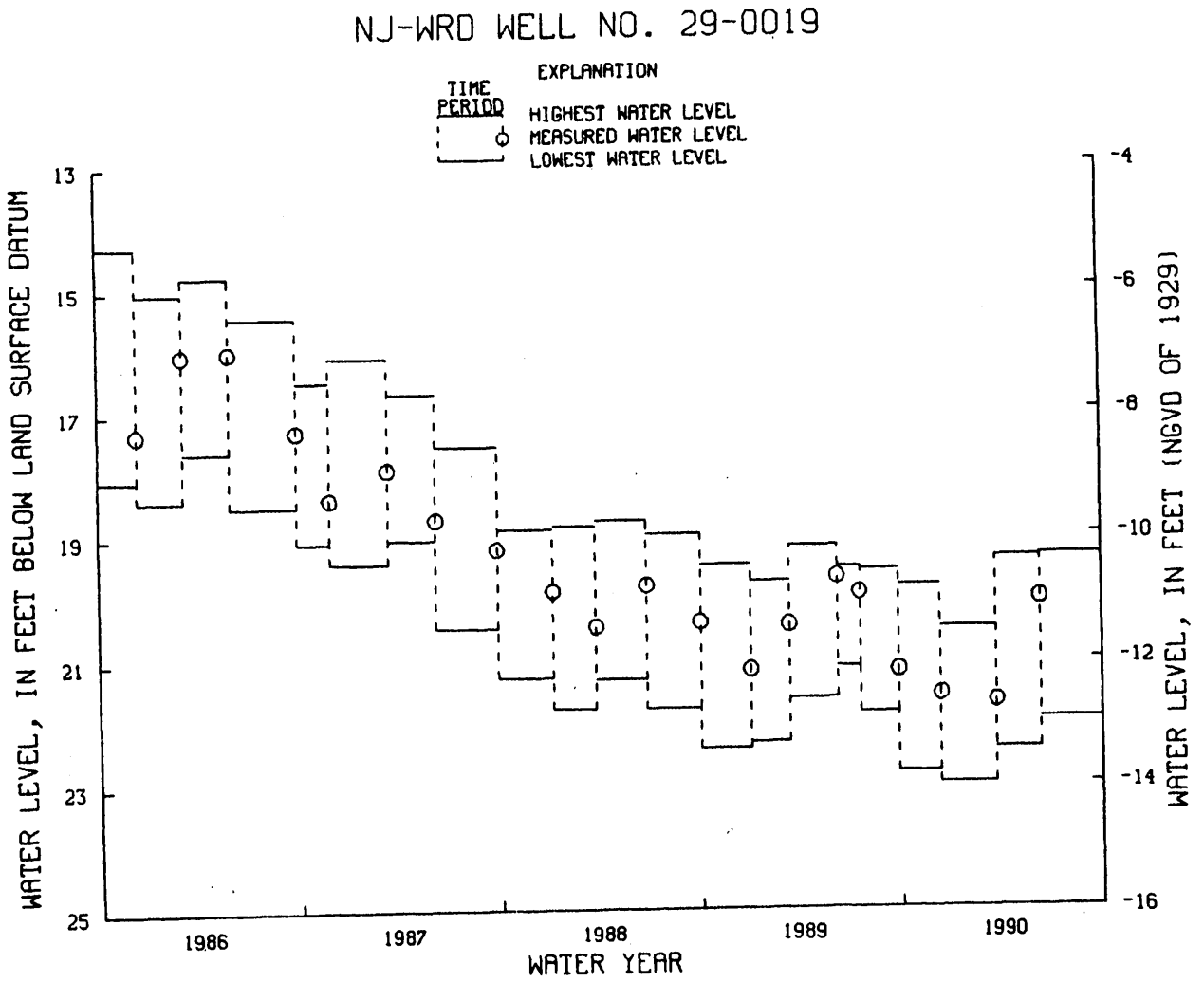


OCEAN COUNTY

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 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 8 in, depth 2,756 ft, screened 2,736 to 2,756 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, November 1968 to March 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.--November 1968 to March 1975, February 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 and March 22, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES		MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL / LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 12, 1989	19.80 / 22.81	DEC. 12, 1989	21.57
DEC. 12, 1989 TO MAR. 22, 1990	20.49 / 23.00	MAR. 22, 1990	21.69
MAR. 22, 1990 TO JUNE 11, 1990	19.37 / 22.45	JUNE 11, 1990	20.03
JUNE 11, 1990 TO OCT. 1, 1990	19.34 / 21.96	OCT. 1, 1990	21.74



OCEAN COUNTY

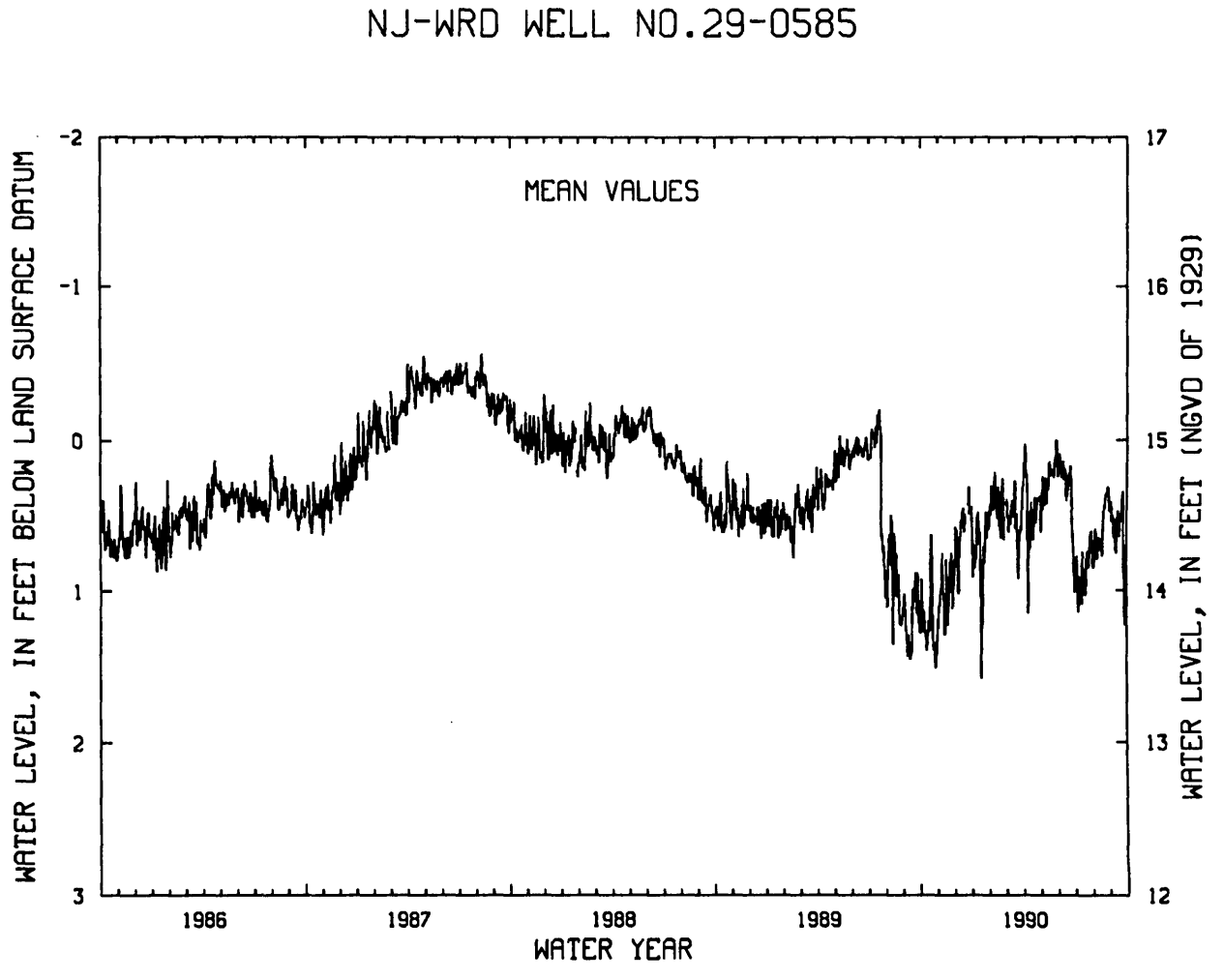
395028074104401. Local I.D., DOE-Forked River Obs. NJ-WRD Well Number, 29-0585.
LOCATION.--Lat 39°50'28", long 74°10'44", Hydrologic Unit 02040301, at the Forked River Game Farm, Forked River, Lacey Township.
Owner: State of New Jersey.
AQUIFER.--Piney Point aquifer of Oligocene-Eocene age.
WELL CHARACTERISTICS.--Drilled 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 Geodedic 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.--April 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft above land-surface datum, June 1, 1984; lowest, 1.82 ft below land-surface datum, Jan. 17, 1990.

WATER LEVEL, IN FEET ABOVE (-) OR BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.25	1.02	.60	.84	.43	.52	.16	.24	.22	.77	.74	.51
10	1.29	.97	.68	.50	.21	.56	1.15	.25	.14	.95	.79	.53
15	1.20	1.14	.49	.61	.52	.45	.41	.33	.29	.74	.73	.47
20	.64	.91	.49	.98	.51	.55	.56	.23	.24	1.02	.59	.49
25	1.37	.75	.43	.58	.46	.71	.45	.25	.36	.79	.37	.68
EOM	1.29	.89	.45	.59	---	.32	.37	.16	.87	.61	.47	.88
MEAN	1.21	1.01	.60	.75	.43	.52	.45	.26	.31	.88	.60	.64

WTR YR 1990 MEAN .64 HIGH -.14 MAY 29 LOW 1.82 JAN 17

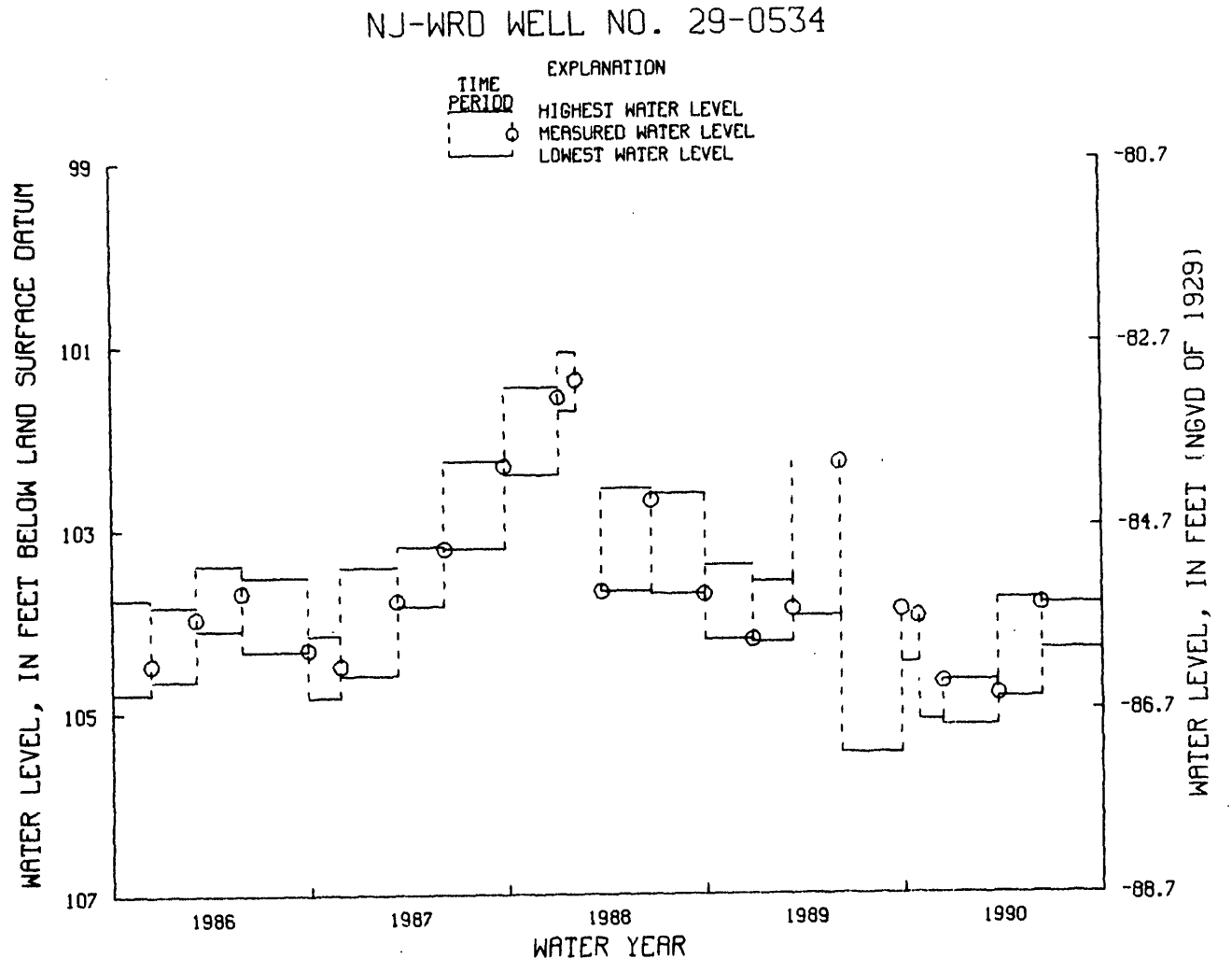


OCEAN COUNTY

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 Road 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 8 in, depth 1,146 ft, screened 1,080 to 1,146 ft.
INSTRUMENTATION.--Water-level extremes recorder, February 1977 to current year. Water-level recorder, December 1965 to March 1975.
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 February 5, 1988. After pumping, the water level did not recover to its previous level. The screen may have been partially clogged.
PERIOD OF RECORD.--December 1965 to March 1975, February 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, 105.46 ft below land-surface datum, between June 6 and Sept. 26, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
OCT. 27, 1989 TO DEC. 12, 1989	---	105.11	DEC. 12, 1989	104.69
DEC. 12, 1989 TO MAR. 22, 1990	104.68	105.17	MAR. 22, 1990	104.83
MAR. 22, 1990 TO JUNE 11, 1990	103.79	104.87	JUNE 11, 1990	103.85
JUNE 11, 1990 TO OCT. 1, 1990	103.85	104.34	OCT. 1, 1990	104.34



OCEAN COUNTY

395714074223401. Local I.D., Crammer Obs. NJ-WRD Well Number, 29-0486.
LOCATION.--Lat 39°57'14", long 74°22'34", Hydrologic Unit 02040301, about 800 ft east of Central Railroad of New Jersey, Whiting, Manchester Township.
Owner: Whiting Bible Church.
AQUIFER.--Kirkwood-Cohansey aquifer system of Miocene age.
WELL CHARACTERISTICS.--Water-table observation well, diameter 8 in, depth 69 ft, slotted steel casing, gravel packed.
INSTRUMENTATION.--Digital water-level recorder--60-minute punch.
DATUM.--Land-surface datum is 179.05 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 8-inch coupling, 0.90 ft above land-surface datum.
REMARKS.--Originally a dug well in which slotted casing was installed on March 31, 1966, and the well deepened from 60 to 69 ft. Recorder removed Sept. 20, 1990 due to construction.
PERIOD OF RECORD.--May 1952 to current year. Records for 1952 to 1962 are unpublished and are available in files of New Jersey District office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.80 ft below land-surface datum, June 9-14, 20-29, 1973; lowest, 58.02 ft below land surface datum, Nov. 21,22,29,30, Dec. 1-8, 1985 and Mar. 25,26, 1989. Well was dry, November 1957 to February 1958, December 1965, before deepening.

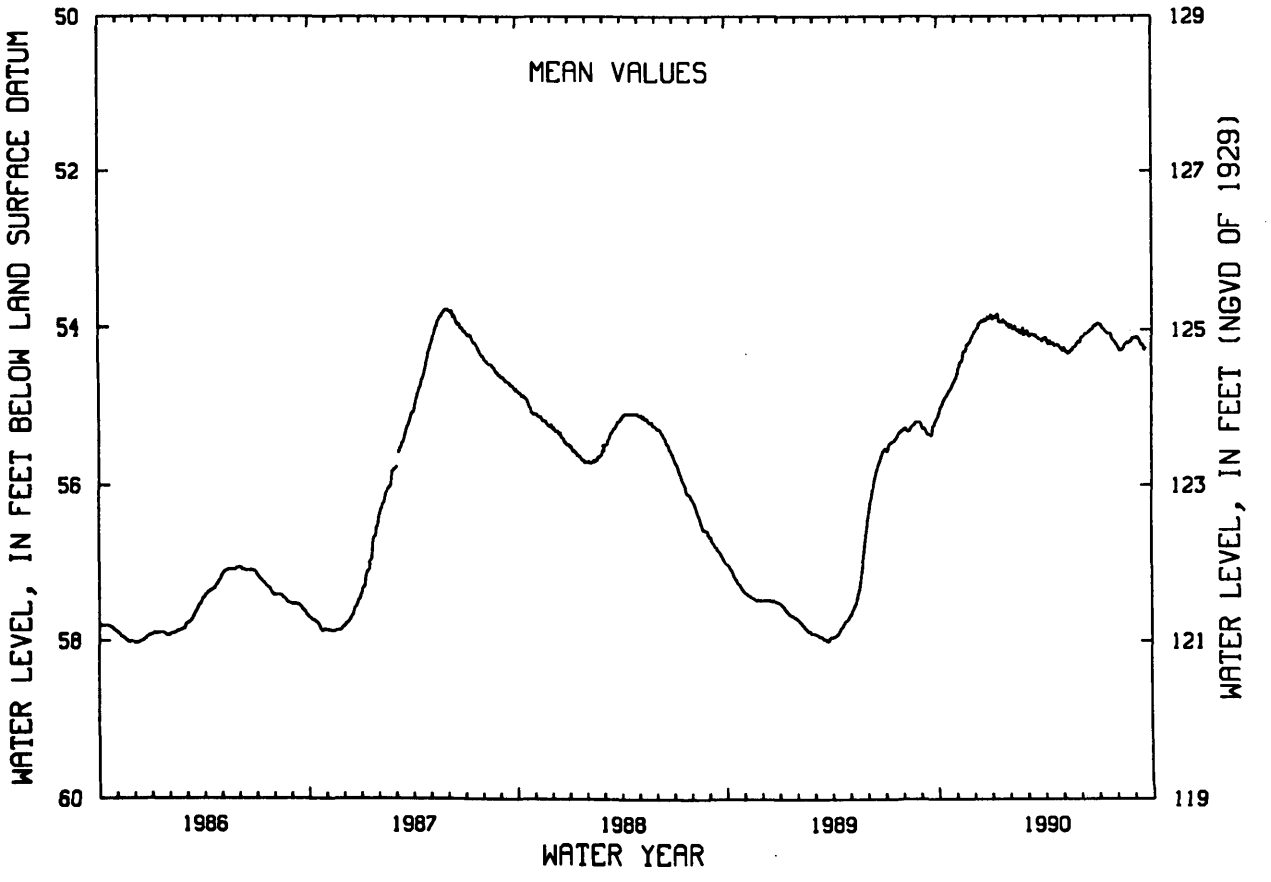
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	55.02	54.52	54.01	53.84	53.97	54.05	54.11	54.23	54.10	53.93	54.23	54.11
10	54.94	54.42	53.93	53.82	53.94	54.06	54.18	54.28	54.05	53.98	54.27	54.14
15	54.86	54.30	53.89	53.89	54.02	54.07	54.18	54.30	54.03	54.03	54.22	54.19
20	54.79	54.22	53.87	53.90	54.03	54.09	54.21	54.26	53.99	54.05	54.17	54.23
25	54.74	54.17	53.85	53.90	54.03	54.12	54.20	54.22	53.95	54.10	54.16	---
EOM	54.63	54.10	53.83	53.96	54.04	54.12	54.24	54.17	53.92	54.17	54.11	---
MEAN	54.86	54.33	53.91	53.88	54.00	54.08	54.18	54.25	54.02	54.03	54.20	54.16

WTR YR 1990 MEAN 54.16 HIGH 53.80 DEC 31,JAN 1 LOW 55.13 OCT 1

NJ-WRD WELL NO.29-0486



OCEAN COUNTY

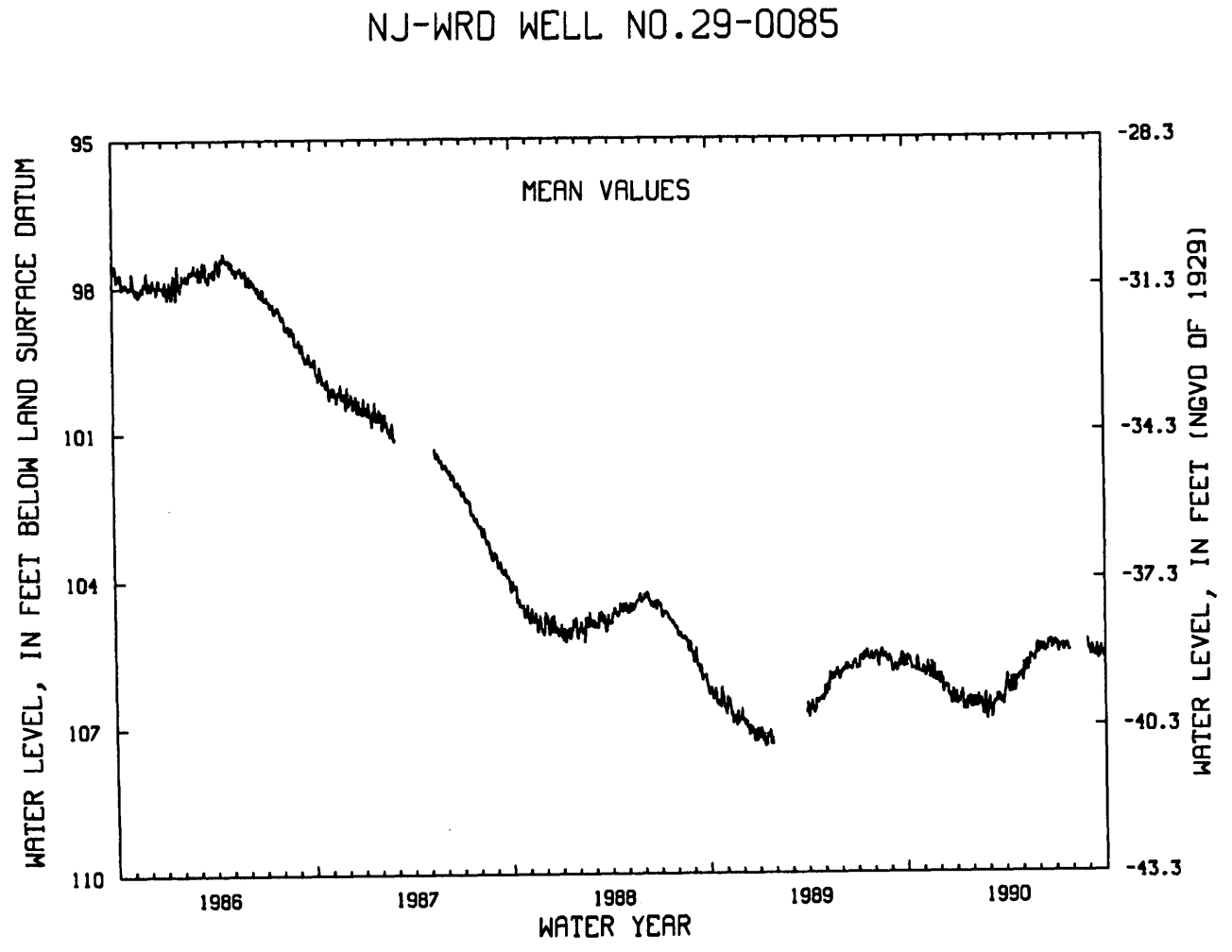
395930074142101. Local I.D., Toms River Chem 84 Obs. NJ-WRD Well Number, 29-0085.
LOCATION.--Lat 39°59'29", long 74°14'20", Hydrologic Unit 02040301, at Toms River Plant, Ciba-Geigy Corporation, Dover Township.
Owner: Ciba-Geigy Corporation.
AQUIFER.--Potomac-Raritan-Magothy aquifer system, undifferentiated, 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, March 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	105.64	105.99	106.03	106.49	106.61	106.70	106.08	105.73	105.46	105.31	---	105.50
10	105.85	105.78	106.18	106.32	106.37	106.60	106.18	105.71	105.35	105.37	---	105.52
15	105.83	105.89	106.21	106.65	106.61	106.54	106.08	105.79	105.41	105.34	---	105.38
20	105.60	105.75	106.34	106.62	106.72	106.36	106.24	105.64	105.32	105.39	---	105.56
25	105.88	106.06	106.37	106.49	106.63	106.50	106.03	105.70	105.41	105.42	---	105.54
EOM	105.78	106.05	106.41	106.64	106.68	106.32	105.98	105.50	105.32	---	---	105.58
MEAN	105.78	105.92	106.29	106.52	106.59	106.53	106.12	105.71	105.40	105.40	---	105.53

WTR YR 1990 MEAN 105.98 HIGH 105.21 MAY 29 LOW 106.93 FEB 26



OCEAN COUNTY

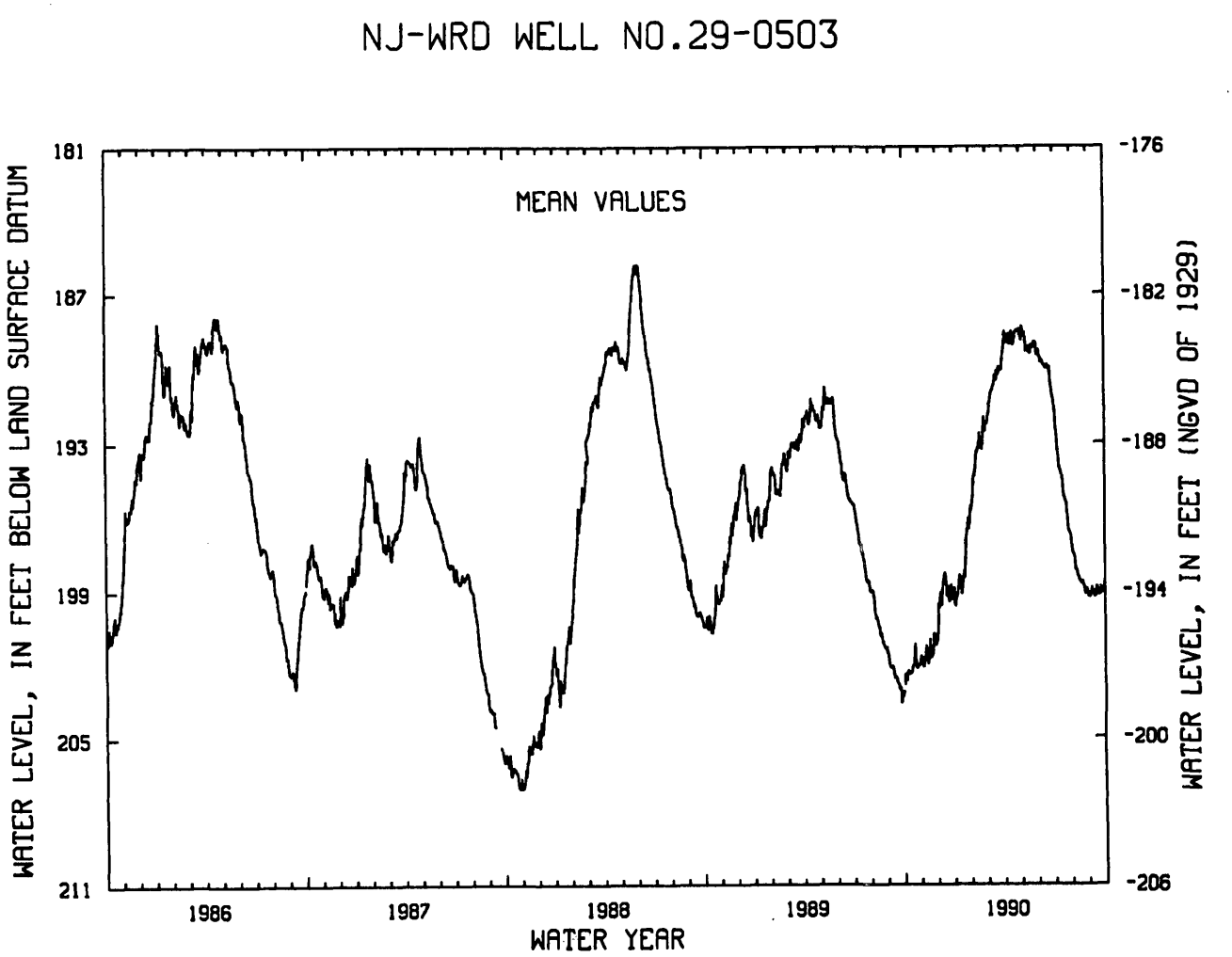
400210074031001. Local I.D., Mantoloking 6 Obs. NJ-WRD Well Number, 29-0503.
LOCATION.--Lat 40°02'10", long 74°03'10", Hydrologic Unit 02040301, at the Bay Avenue water treatment plant, Mantoloking.
Owner: New Jersey - American Water Company.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL 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 Geodedic 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, 185.32 ft below land-surface datum, Jun. 3,4, 1988; lowest, 207.49 ft below land-surface datum, Oct. 31, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	202.66	202.10	199.31	199.25	194.34	191.75	188.75	188.38	189.60	192.62	197.54	199.08
10	202.42	201.31	198.74	198.34	193.34	190.98	188.78	188.59	189.73	193.80	198.17	199.03
15	202.13	201.47	198.42	198.79	193.01	190.67	188.62	189.38	189.94	194.30	198.56	198.83
20	201.14	201.23	198.81	198.11	193.28	190.15	189.00	189.47	189.98	195.26	198.65	199.10
25	202.09	201.08	198.74	196.28	192.22	190.02	188.55	189.25	190.51	196.02	199.01	199.09
EOM	201.62	200.80	198.85	195.75	192.22	189.43	188.48	189.43	191.30	196.70	199.12	198.52
MEAN	202.14	201.46	199.09	197.91	193.39	190.74	188.78	189.02	190.04	194.52	198.38	199.04

WTR YR 1990 MEAN 195.40 HIGH 187.89 APR 25 LOW 203.26 OCT 1



OCEAN COUNTY

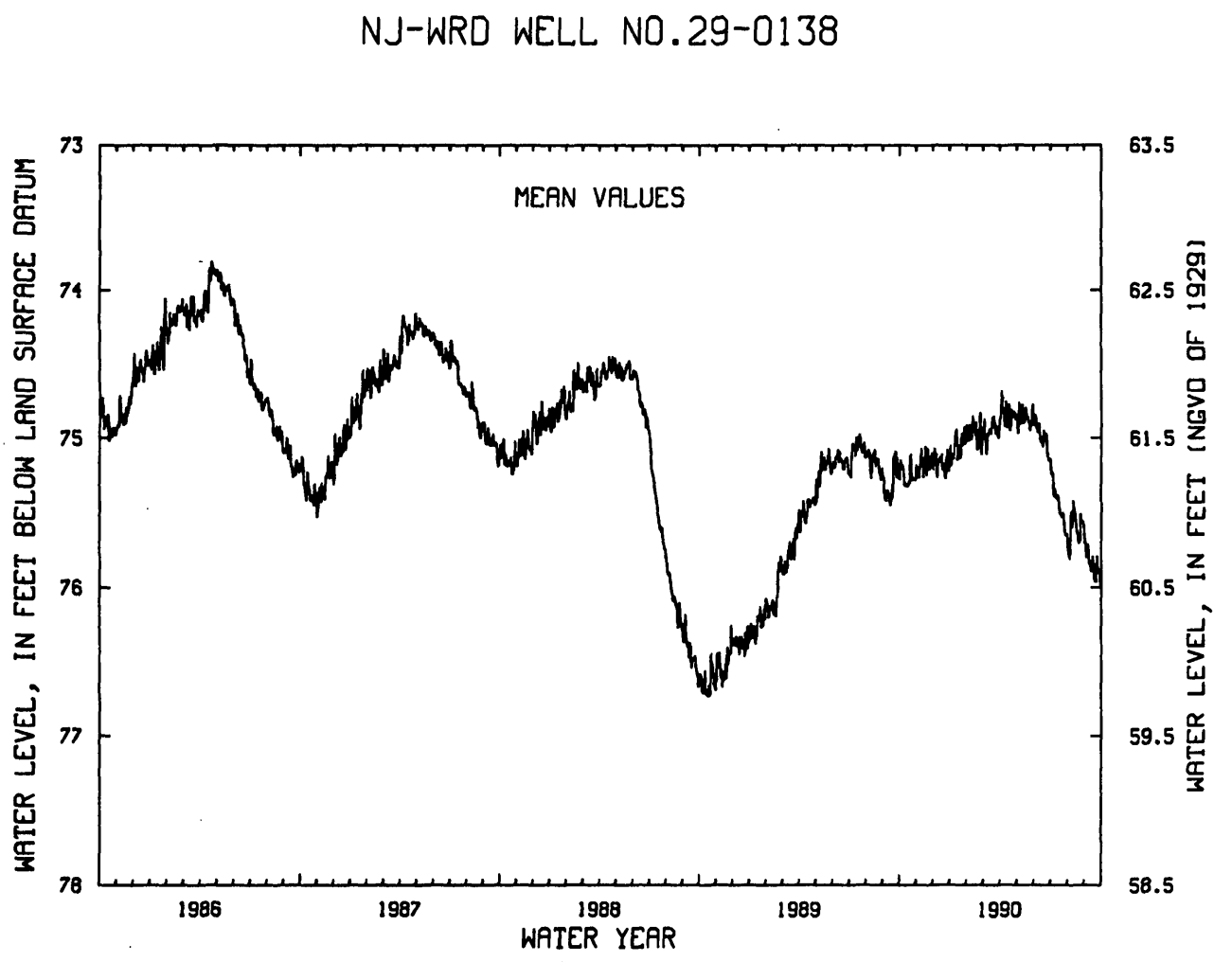
400416074270101. Local I.D., Colliers Mills 1 Obs. NJ-WRD Well Number, 29-0138.
LOCATION.--Lat 40°04'14", long 74°27'02", Hydrologic Unit 02040301, along western shore of Colliers Mills Pond, Jackson Township.
Owner: U.S. Geological Survey.
AQUIFER.--Englishtown aquifer system of Cretaceous age.
WELL 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.--February 1964 to July 1975, March 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, 76.76 ft below land-surface datum, Oct. 20, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	75.20	75.26	75.11	75.13	75.00	75.02	74.76	74.76	74.92	75.23	75.81	75.77
10	75.32	75.11	75.15	74.96	74.85	74.98	74.83	74.80	74.90	75.34	75.56	75.82
15	75.32	75.17	75.14	75.12	74.98	74.97	74.78	74.89	74.99	75.38	75.54	75.79
20	75.12	75.07	75.17	75.08	75.04	74.85	74.91	74.87	74.97	75.51	75.69	75.91
25	75.27	75.18	75.14	74.97	74.98	74.94	74.85	74.95	75.09	75.55	75.55	75.89
EOM	75.18	75.15	75.12	75.02	75.00	74.87	74.86	74.88	75.14	75.64	75.67	75.96
MEAN	75.25	75.17	75.17	75.05	74.97	74.95	74.84	74.86	74.99	75.44	75.61	75.85

WTR YR 1990 MEAN 75.18 HIGH 74.67 APR 4 LOW 75.99 SEP 28,29

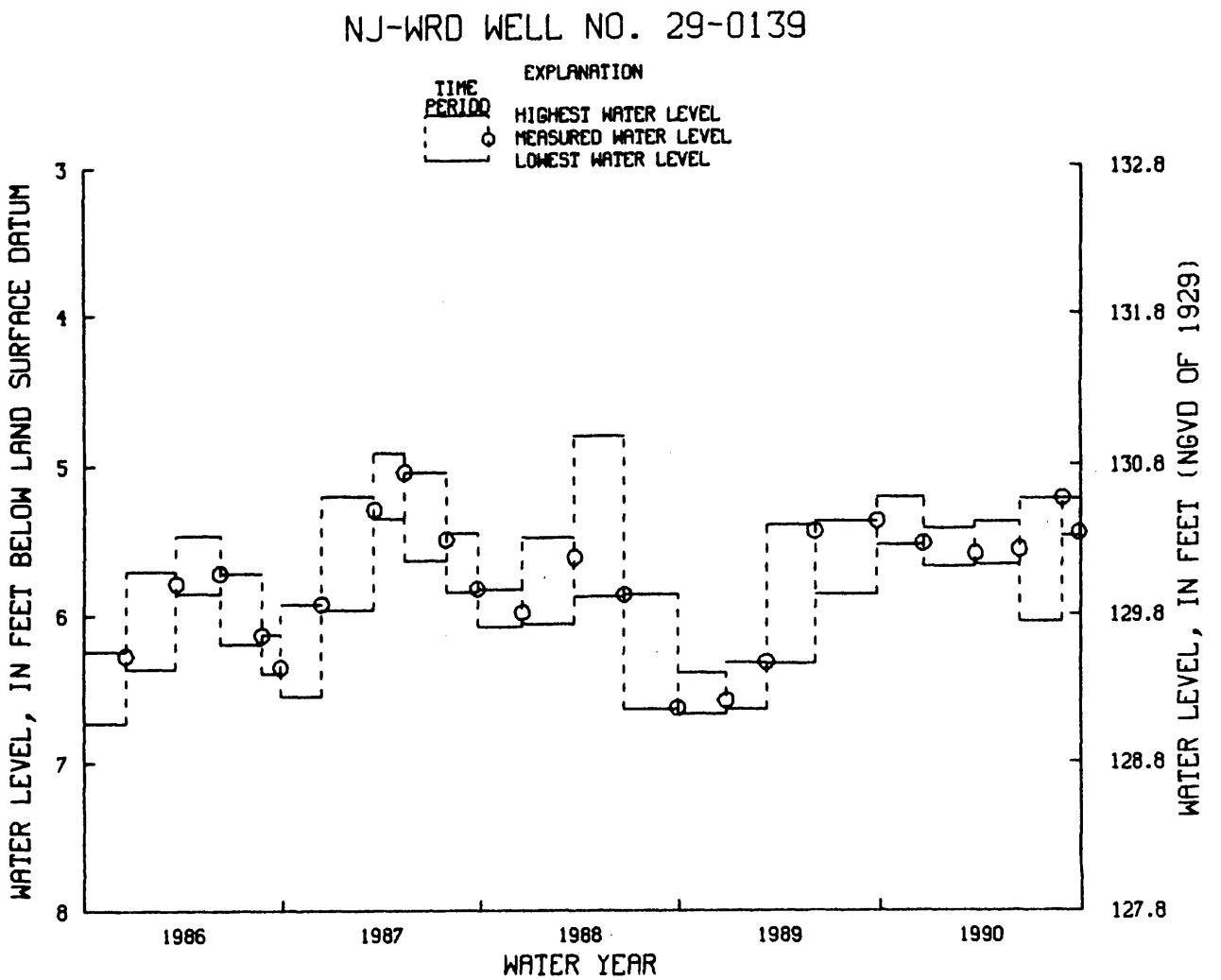


OCEAN COUNTY

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, October 1976 to current year. Water-level recorder, January 1964 to August 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.--January 1964 to August 1975, October 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 19, 1989	5.21	5.53	DEC. 19, 1989	5.52
DEC. 19, 1989 TO MAR. 22, 1990	5.42	5.67	MAR. 22, 1990	5.59
MAR. 22, 1990 TO JUNE 11, 1990	5.38	5.66	JUNE 11, 1990	5.56
JUNE 11, 1990 TO AUG. 27, 1990	5.22	6.05	AUG. 27, 1990	5.22
AUG. 27, 1990 TO SEPT. 27, 1990	5.22	5.47	SEPT. 27, 1990	5.45

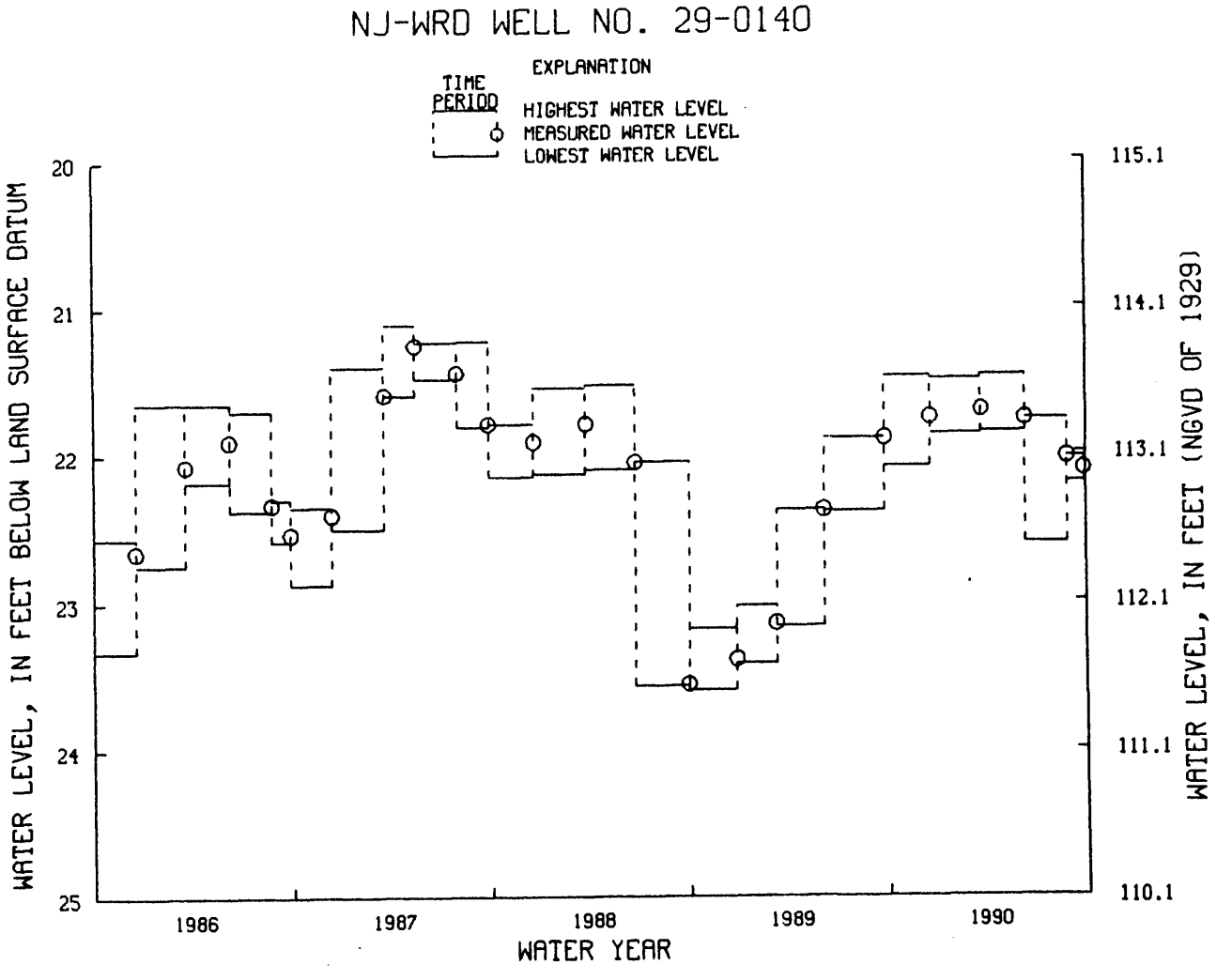


OCEAN COUNTY

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, October 1976 to current year. Water-level recorder, January 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.--January 1964 to July 1975, October 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, 23.59 ft below land-surface datum, between Sept. 29 and Dec. 27, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 19, 1989	21.48	22.09	DEC. 19, 1989	21.76
DEC. 19, 1989 TO MAR. 22, 1990	21.50	21.87	MAR. 22, 1990	21.71
MAR. 22, 1990 TO JUNE 11, 1990	21.47	21.86	JUNE 11, 1990	21.77
JUNE 11, 1990 TO AUG. 27, 1990	21.77	22.61	AUG. 27, 1990	22.03
AUG. 27, 1990 TO SEPT. 27, 1990	22.03	22.20	SEPT. 27, 1990	22.11

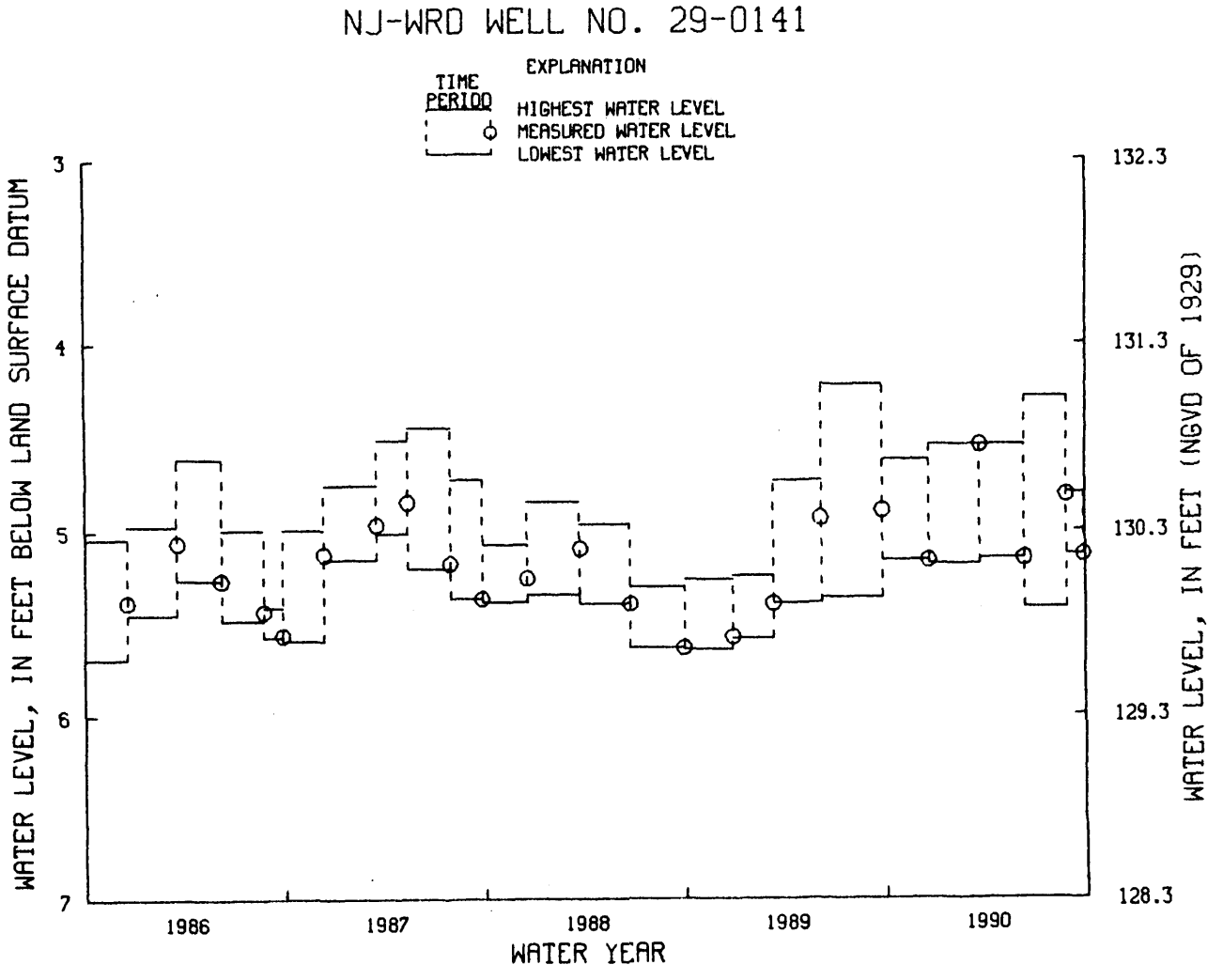


OCEAN COUNTY

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, October 1976 to current year. Water-level recorder, March 1964 to April 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.--March 1964 to April 1975, October 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 26, 1989 TO DEC. 19, 1989	4.62	5.16	DEC. 19, 1989	5.16
DEC. 19, 1989 TO MAR. 22, 1990	4.54	5.18	MAR. 22, 1990	4.54
MAR. 22, 1990 TO JUNE 11, 1990	4.54	5.15	JUNE 11, 1990	5.15
JUNE 11, 1990 TO AUG. 27, 1990	4.28	5.42	AUG. 27, 1990	4.81
AUG. 27, 1990 TO SEPT. 27, 1990	4.80	5.13	SEPT. 27, 1990	5.13

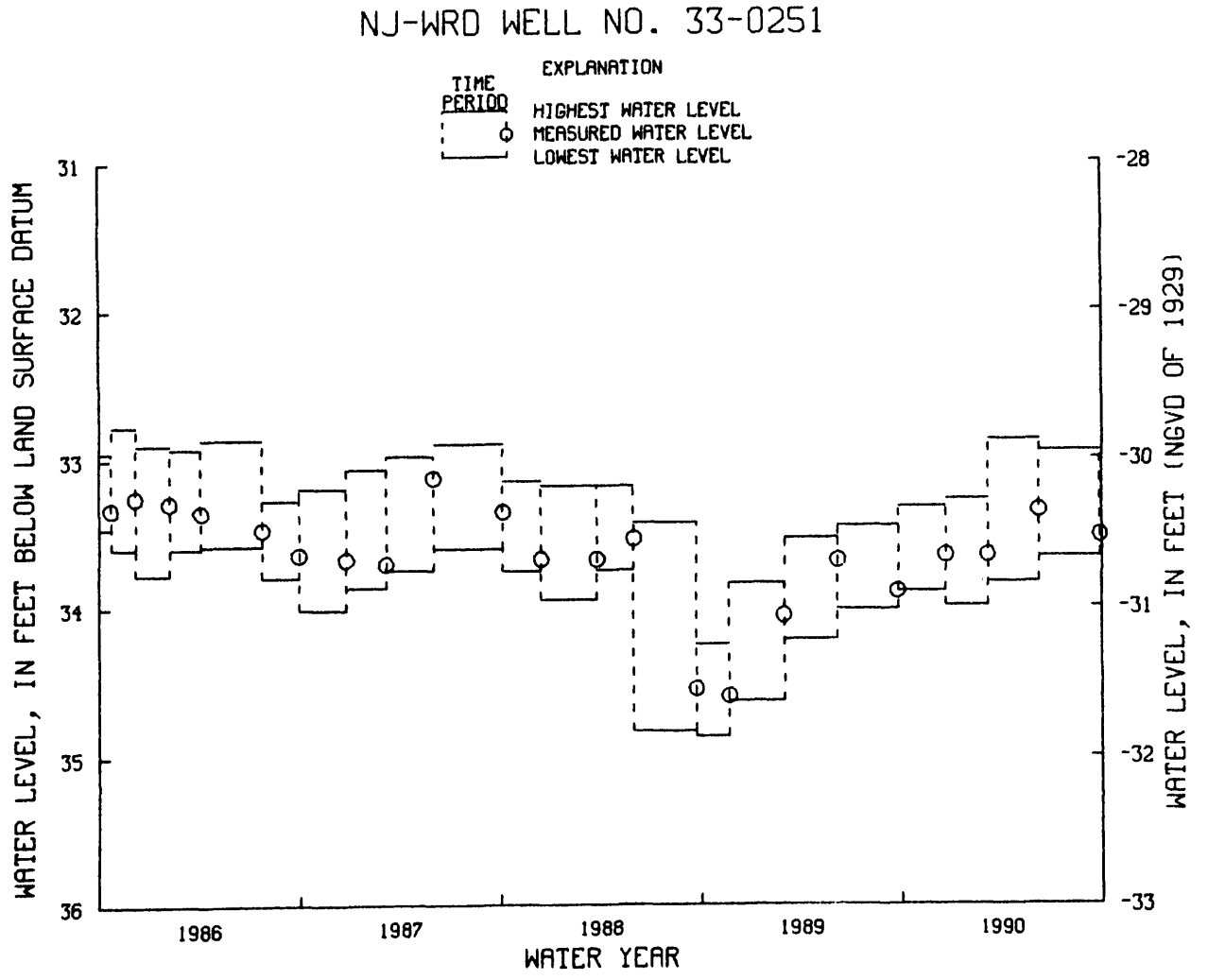


SALEM COUNTY

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 4 in, depth 709 ft, screened 699 to 709 ft.
INSTRUMENTATION.--Water-level extremes recorder, May 1977 to current year. Water-level recorder, December 1965 to August 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.--December 1965 to August 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1989 TO DEC. 21, 1989	33.32	33.89	DEC. 21, 1989	33.65
DEC. 21, 1989 TO MAR. 6, 1990	33.27	33.99	MAR. 6, 1990	33.65
MAR. 6, 1990 TO JUNE 8, 1990	32.87	33.83	JUNE 8, 1990	33.35
JUNE 8, 1990 TO SEPT. 26, 1990	32.95	33.66	SEPT. 26, 1990	33.52

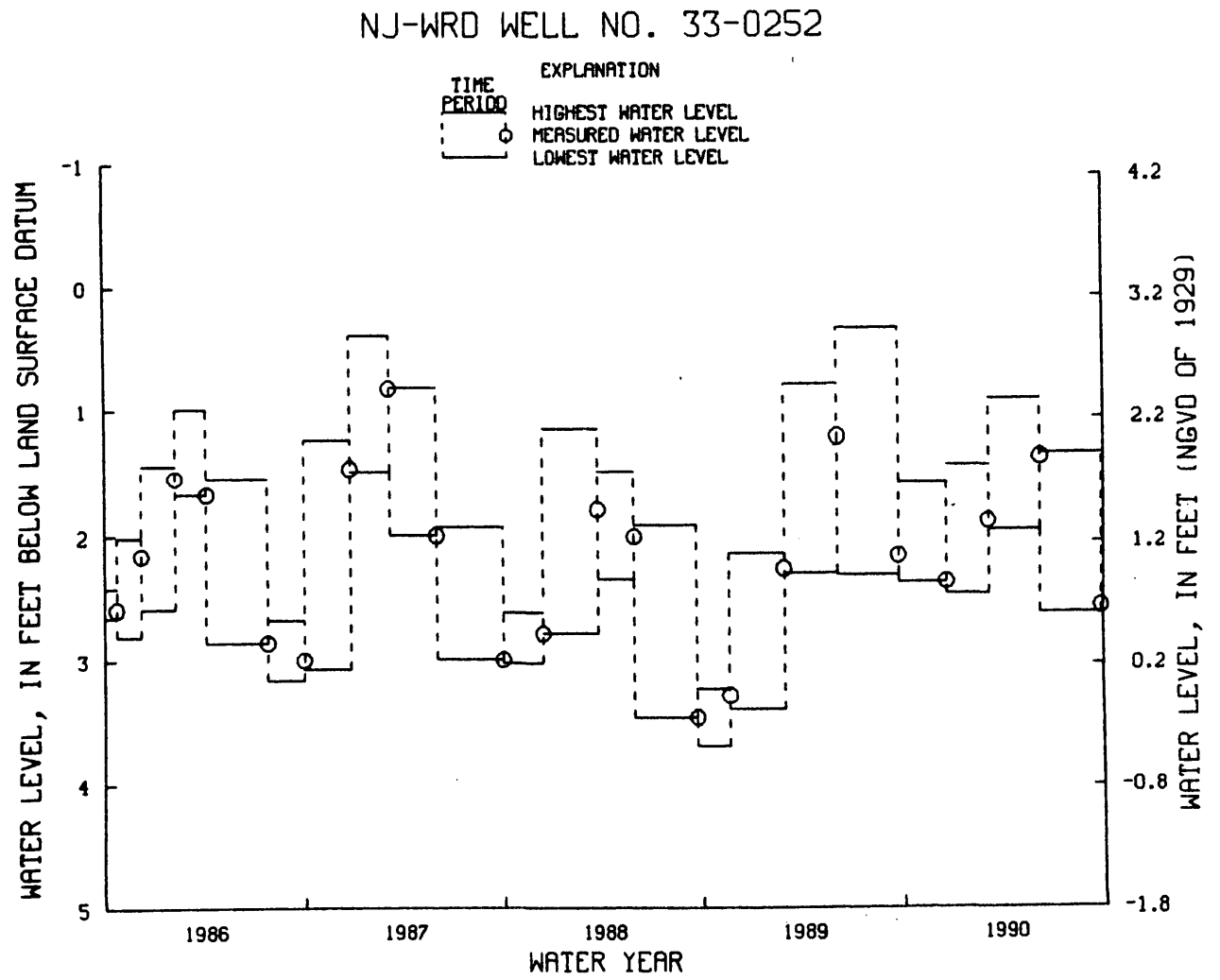


SALEM COUNTY

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, November 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.--November 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1989 TO DEC. 21, 1989	1.57	2.37	DEC. 21, 1989	2.37
DEC. 21, 1989 TO MAR. 6, 1990	1.43	2.47	MAR. 6, 1990	1.88
MAR. 6, 1990 TO JUNE 8, 1990	0.92	1.95	JUNE 8, 1990	1.36
JUNE 8, 1990 TO SEPT. 26, 1990	1.33	2.62	SEPT. 26, 1990	2.57

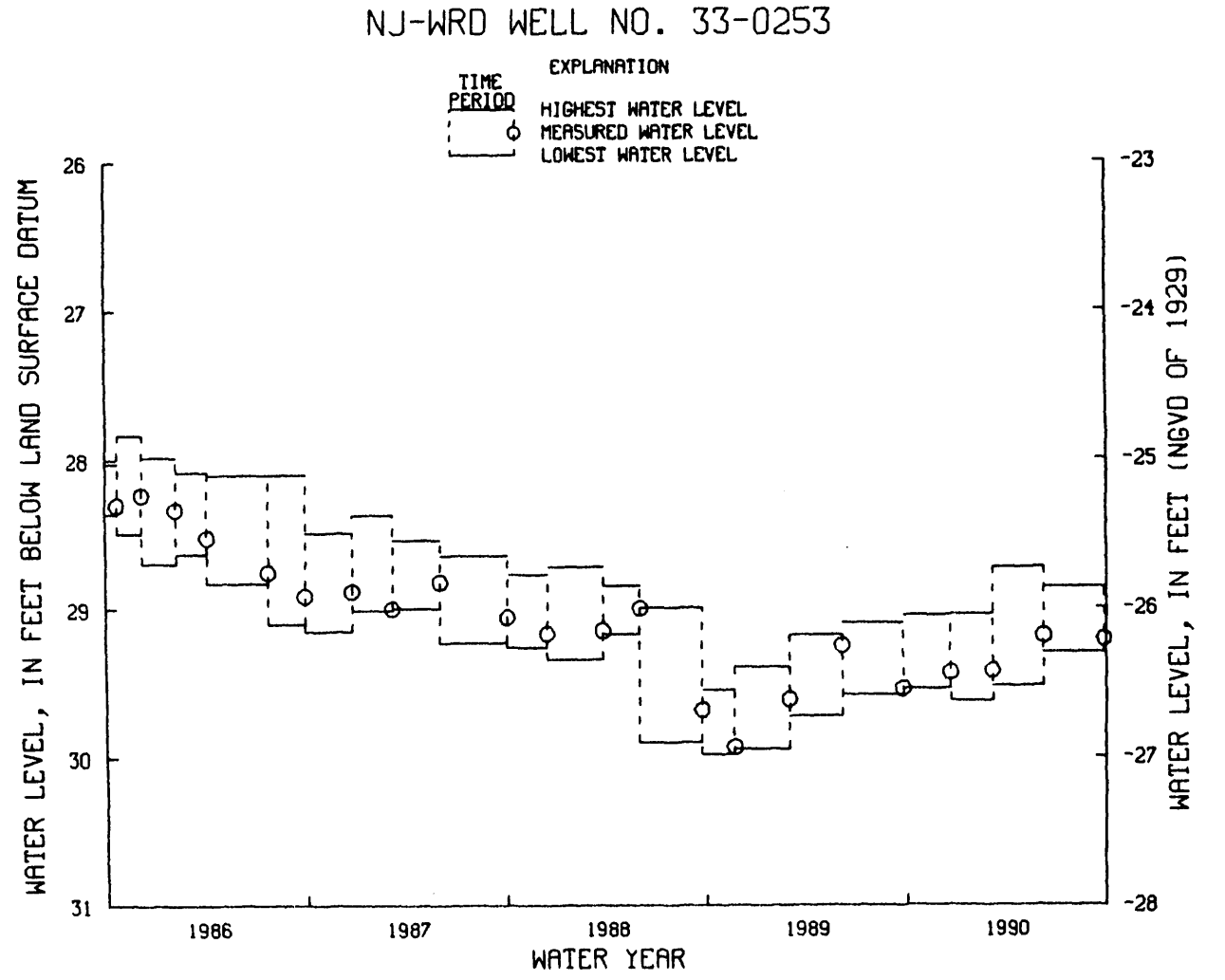


SALEM COUNTY

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, November 1965 to August 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.--November 1965 to August 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 1989 TO SEPTEMBER 1990

WATER-LEVEL EXTREMES			MEASURED WATER LEVEL	
PERIOD	HIGHEST WATER LEVEL	LOWEST WATER LEVEL	DATE	WATER LEVEL
SEPT. 25, 1989 TO DEC. 21, 1989	29.05	29.54	DEC. 21, 1989	29.43
DEC. 21, 1989 TO MAR. 6, 1990	29.04	29.62	MAR. 6, 1990	29.42
MAR. 6, 1990 TO JUNE 8, 1990	28.73	29.52	JUNE 8, 1990	29.19
JUNE 8, 1990 TO SEPT. 26, 1990	28.86	29.30	SEPT. 26, 1990	29.21



SALEM COUNTY

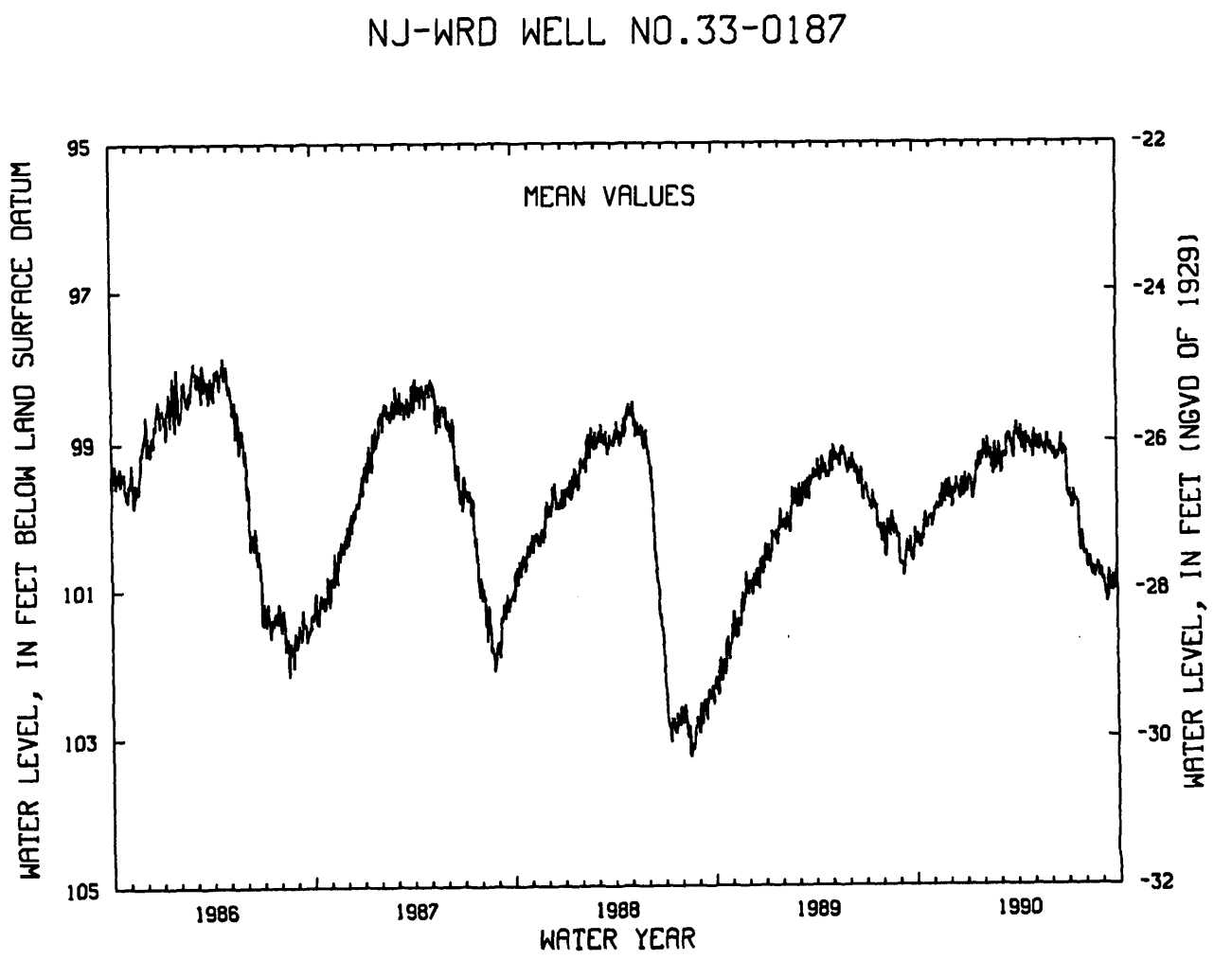
394037075191501. Local I.D., Point Airy Obs. NJ-WRD Well Number, 33-0187.
LOCATION.--Lat 39°40'37", long 75°19'14", Hydrologic Unit 02040206, at intersection of Point Airy and Woodstown-Swedesboro Roads, 1 mi. north of Woodstown Borough boundary, Pilesgrove Township.
Owner: U.S. Geological Survey.
AQUIFER.--Lower aquifer, Potomac-Raritan-Magothy aquifer system of Cretaceous age.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 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.--February 1959 to August 1975, March 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 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	100.38	100.02	99.63	99.68	99.19	99.24	98.85	98.85	99.13	99.75	100.54	100.88
10	100.40	99.91	99.63	99.50	98.95	99.17	98.88	98.96	99.10	99.80	100.69	101.05
15	100.27	99.88	99.61	99.74	99.25	99.23	98.91	99.13	99.16	99.67	100.74	100.76
20	99.97	99.59	99.64	99.45	99.40	98.89	99.08	99.08	99.15	99.81	100.78	100.97
25	100.16	99.75	99.55	99.19	99.19	98.99	99.01	99.20	99.20	100.25	100.75	100.98
EOM	100.00	99.64	99.49	99.23	99.28	98.91	99.06	99.08	99.11	100.34	100.84	100.68
MEAN	100.21	99.84	99.66	99.47	99.19	99.12	98.95	99.05	99.13	99.88	100.68	100.91

WTR YR 1990 MEAN 99.68 HIGH 98.70 APR 4 LOW 101.21 SEP 12



SUSSEX COUNTY

410914074540401. Local I.D., Taylor Obs. NJ-WRD Well Number, 37-0202.
LOCATION.--Lat 41°09'14", long 74°54'04", 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.
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, 23.55 ft below land-surface datum, Oct. 21,22, 1988.

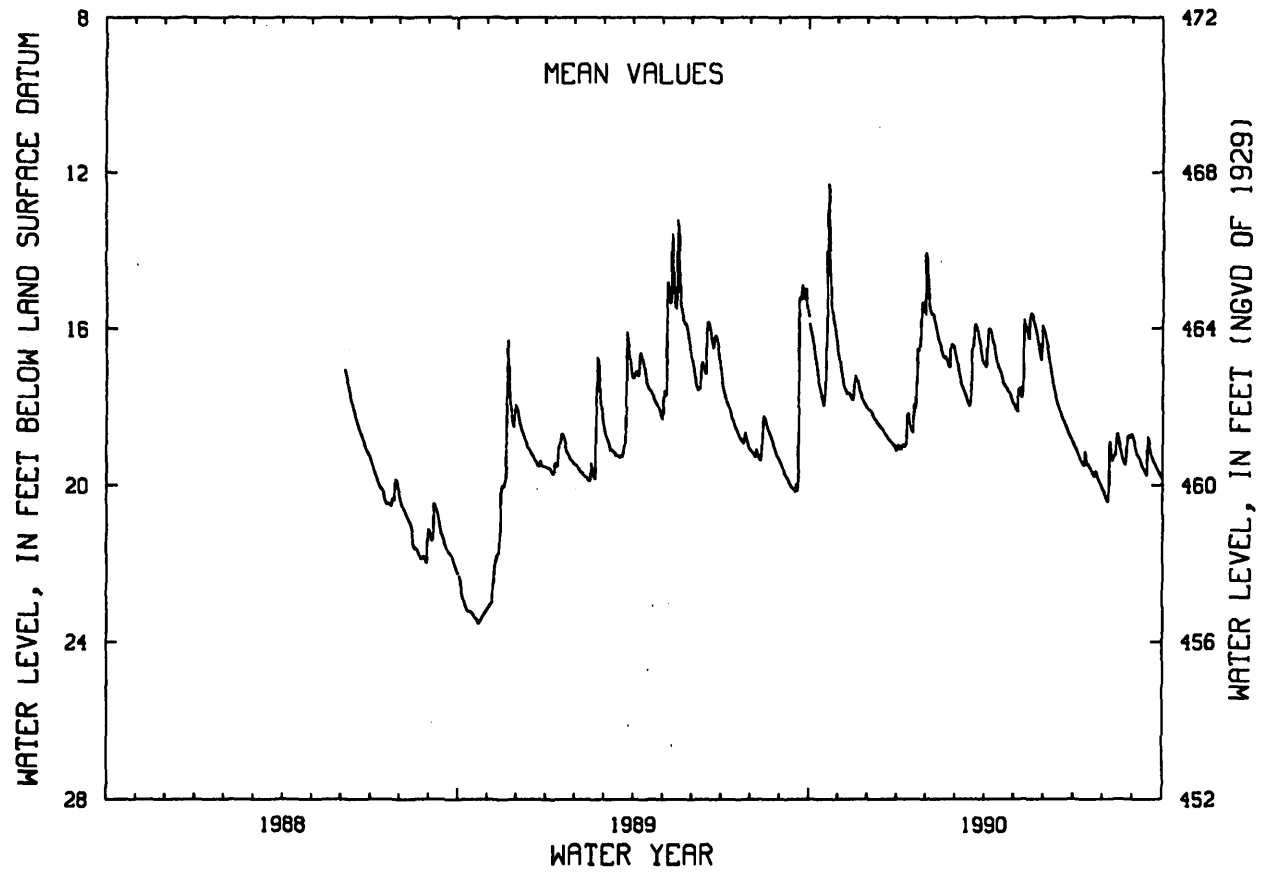
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.40	17.40	18.17	18.93	15.64	17.18	15.99	17.52	16.59	19.14	20.42	19.23
10	17.35	17.64	18.37	18.16	16.09	17.58	16.42	17.24	17.41	19.43	19.37	19.54
15	17.87	17.81	18.54	18.59	16.57	17.90	17.00	16.20	17.92	19.45	18.66	18.74
20	13.53	17.33	18.73	17.24	16.77	16.27	17.39	15.73	18.29	19.66	19.27	19.31
25	15.69	17.78	18.89	15.59	16.39	16.21	17.59	16.28	18.61	19.74	18.77	19.60
EOM	16.67	18.01	18.97	14.16	16.48	16.90	17.88	16.00	18.89	20.11	18.77	19.85
MEAN	16.30	17.55	18.57	17.49	16.25	16.95	17.00	16.60	17.77	19.51	19.26	19.38

WTR YR 1990 MEAN 17.73 HIGH 11.28 OCT 20 LOW 20.44 AUG 5,6

NJ-WRD WELL NO.37-0202



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, diameter 6 in, 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, August 1976 to April 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.

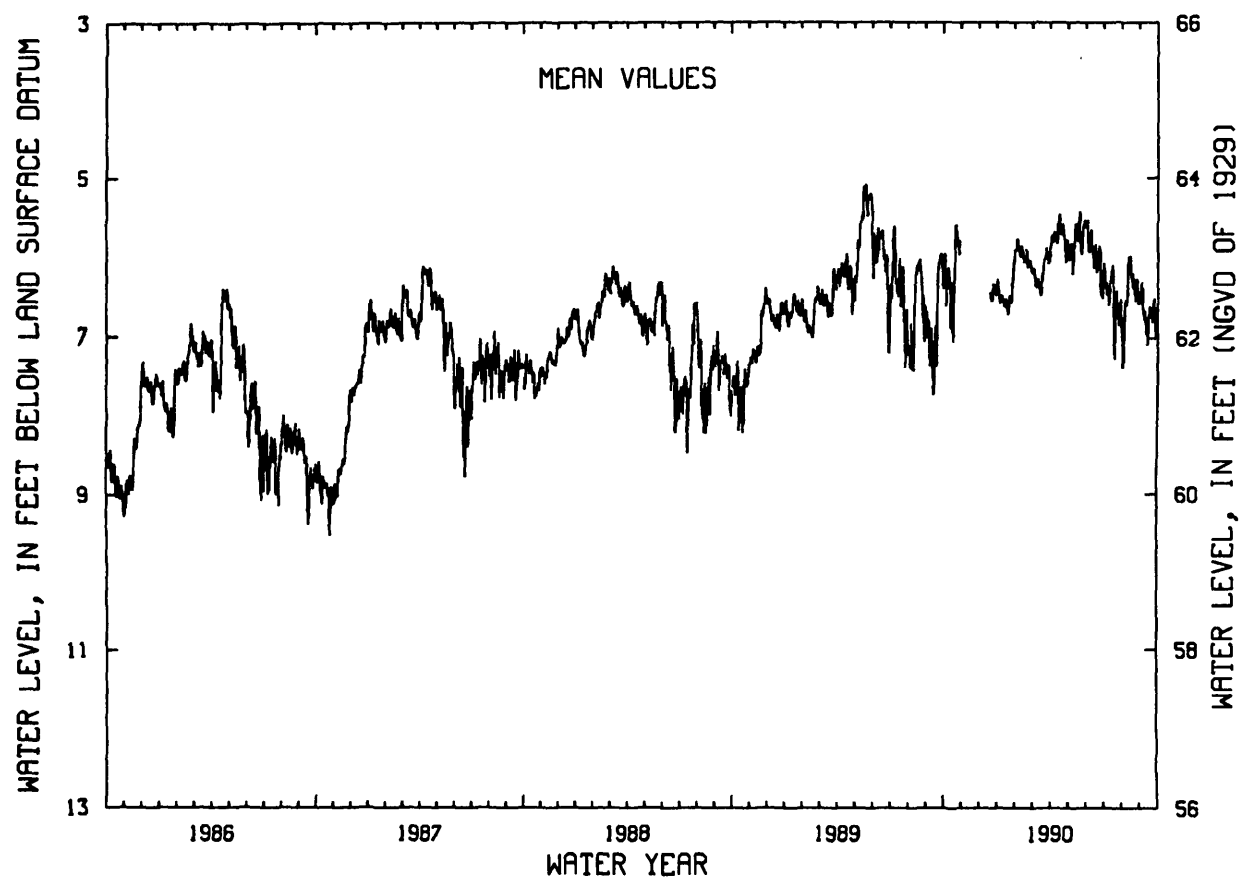
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.64	---	---	6.60	5.80	6.19	5.78	5.91	5.94	6.49	6.83	6.65
10	6.26	---	---	6.56	5.94	6.39	5.74	6.08	5.67	6.62	6.42	6.82
15	6.34	---	---	6.55	6.08	6.48	5.53	5.66	5.95	6.15	6.09	6.77
20	6.08	---	6.51	6.69	6.01	6.17	5.72	5.47	5.95	6.89	6.42	6.76
25	5.76	---	6.38	6.55	6.06	5.93	5.77	5.93	6.46	6.61	6.33	6.65
EOM	---	---	6.41	5.93	6.18	6.00	5.79	5.64	6.19	6.87	6.59	6.72
MEAN	6.19	---	---	6.48	6.00	6.21	5.75	5.80	5.99	6.52	6.49	6.73

WTR YR 1990 MEAN 6.23 HIGH 5.40 MAY 21 LOW 7.73 AUG 3

NJ-WRD WELL NO.39-0119



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.*)
01-702	US GEOLOGICAL SURVEY	BURKE AVE TW	392032	743008	122KRKDL	1985-P	5	740-750	10- 5-89	101.84
									4-11-90	84.53
									8-22-90	106.39
01-775	ATLANTIC CITY MUA	FAA INTERMED.	392639	743232	121CKKD	1985-P	38.1	132-182	10- 5-89	32.25
									12- 6-89	34.00
									2- 8-90	29.04
									4-11-90	27.60
									6-20-90	28.11
									8-22-90	24.41
01-776	ATLANTIC CITY MUA	FAA SHALLOW	392639	743232	121CKKD	1985-P	38.1	73- 93	10- 5-89	18.33
									12- 6-89	17.92
									2- 8-90	18.02
									4-11-90	18.10
									6-20-90	18.12
									8-22-90	18.16
05-063	WILLINGBORO MUA	WILLINGBORO 1 OBS	400213	745108	211MRPAM	1966-P	45.45	284-294	3-23-90	64.36
									9- 7-90	67.52
05-259	US GEOLOGICAL SURVEY	MEDFORD 2 OBS	395524	745025	211EGLS	1963-P	72.92	253-263	10-25-89	47.65
									12-21-89	47.53
									2-23-90	47.18
									4-18-90	47.53
									6-19-90	48.16
									9- 7-90	48.66
									9-18-90	48.71
05-274	CAMPBELL SOUP	CAMPBELL 1	395841	745905	211MRPAM	1972-P	40	241-262	4- 9-90	67.80
									9-11-90	66.12
05-407	US GEOLOGICAL SURVEY	ATSION 1	394422	744309	124PNPN	1963-P	46.76	240-260	4-11-90	-5.21
									9- 7-90	-4.92
05-408	US GEOLOGICAL SURVEY	ATSION 2	394422	744309	121CKKD	1963-P	47.52	63- 65	10- 5-89	3.16
									4-11-90	3.20
									6-27-90	3.70
									8- 2-90	4.93
									9- 7-90	3.91
05-409	US GEOLOGICAL SURVEY	ATSION 3	394422	744309	121CKKD	1963-P	47.13	14- 17	10- 5-89	5.74
									4-11-90	5.66
									6-27-90	6.00
									8- 2-90	6.96
									9- 7-90	6.30
05-570	US GEOLOGICAL SURVEY	MOUNT WELL	394106	743623	121CKKD	1955-P	63.24	25**	11-27-89	9.89
									9- 7-90	12.06
05-628	US GEOLOGICAL SURVEY	PENN SF SHALLOW	394452	742819	121CKKD	1936-P	78.78	12**	4-17-90	1.14
									6-27-90	1.93
									8-21-90	1.92
05-630	US GEOLOGICAL SURVEY	PENN SF DEEP	394513	742806	121CKKD	1963-P	104.30	41**	4-17-90	26.17
									6-27-90	25.36
									8-21-90	26.44
05-676	US GEOLOGICAL SURVEY	COYLE AIRPORT	394914	742546	124PNPN	1962-P	199.19	530-540	4-17-90	78.60
									9- 7-90	78.70
07-118	NJ-AMERICAN WATER CO	HUTTON HILL 2	395229	745712	211MLRW	1967-P	157.53	137-147	10- 4-89	88.01
									3-12-90	87.84
									7-20-90	88.48
									9-18-90	89.14
07-283	NJ-AMERICAN WATER CO	EGBERT	395246	750434	211MRPAL	1963-P	23.66	445-455	4-18-90	82.29
									9-13-90	88.18
07-354	GENERAL FOODS	PETTY IS OBS	395811	750556	211MRPAL	1950-P	11.55	78**	4-18-90	9.95
									9-13-90	9.02

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

* - below land surface datum. Water levels above land surface datum are listed as negative values.
** - total depth of well.

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.*)
09-020	US GEOLOGICAL SURVEY	TRAFFIC CIRCLE	385616	745800	112HLBC	1967-P	9.12	15- 20	4-30-90	4.53
									9-28-90	5.29
09-048	US GEOLOGICAL SURVEY	CANAL 5	385748	745533	121CNSY	1957-P	17.48	242-252	4-30-90	32.21
									9-28-90	42.63
09-060	US GEOLOGICAL SURVEY	AIRPORT T7	390056	745426	121CNSY	1963-P	13.11	242-257	4-30-90	26.75
									9-28-90	33.78
09-080	US GEOLOGICAL SURVEY	CAPE MAY 42CC	390213	745056	121CNSY	1957-P	13.67	242-252	4-30-90	16.40
									9-28-90	20.82
09-081	US GEOLOGICAL SURVEY	CAPE MAY 23HB	390211	745055	112HLBC	1957-P	14.90	23- 26	4-30-90	7.44
									9-28-90	10.00
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	390337	744623	112HLBC	1988-P	5	80- 90	12-07-89	6.31
									2- 9-90	5.93
									4-18-90	6.38
									5-31-90	5.48
									8- 1-90	4.93
									9- 7-90	4.97
11-043	CUMBERLAND COUNTY	VOCAT SCH 1	392732	750929	121CKKD	1972-P	82.14	133-138	11-22-89	3.50
									1-22-90	3.92
									4- 9-90	4.04
									6- 8-90	4.09
									7-31-90	5.03
11-044	CUMBERLAND COUNTY	VOCAT SCH 3	392732	750929	124PNPN	1972-P	81.95	361-376	11-22-89	75.68
									1-22-90	75.89
									4- 9-90	76.42
									6- 8-90	76.60
									7-31-90	77.01
11-073	CUMBERLAND COUNTY	SHEPPARDS 2	392508	751846	121CKKD	1973-P	37.35	35- 40	4- 9-90	4.48
									9-13-90	4.83
11-097	CUMBERLAND COUNTY	JONES ISLAND 1	391829	751208	121CKKD	1972-P	10.10	166-171	11-22-89	8.76
									1-22-90	8.59
									4- 9-90	8.56
									9-13-90	9.44
11-118	CUMBERLAND COUNTY	HEISLERVILLE 1	391350	750018	112CKKD	1972-P	6.22	36- 41	4-30-90	3.13
11-119	CUMBERLAND COUNTY	HEISLERVILLE 2	391350	750018	121CKKD	1972-P	5.98	125-135	4-30-90	2.19
11-163	CUMBERLAND COUNTY	FAIR GROUNDS 3	392526	750643	124PNPN	1973-P	80	463-473	4- 9-90	73.49
									9-13-90	74.50
11-237	CUMBERLAND COUNTY	NATURAL AREA 1	392920	745700	121CKKD	1972-P	88	76- 81	10- 5-89	7.99
									5- 9-90	8.92
									9-10-90	10.19
									9-28-90	10.23
13-013	NJ-AMERICAN WATER CO	CANOE BROOK 30	404452	742116	112SFDF	1950-P	170	130**	5- 7-90	76.78
									9-19-90	78.85
13-014	EAST ORANGE WD	NEUTRAL ZONE	404454	742021	112SFDF	1926-P	179.37	64**	5- 7-90	52.70
									9-19-90	51.03
13-017	WALSH BROS	BALLENTINE 8	404401	740834	227BRCKS	1949-P	12.79	95-875	3- 9-90	21.13
									9-17-90	18.52
15-297	HUNTSMAN CORP	SHELL OBS 6	394942	751317	211MRPAU	1970-P	20.50	113-118	11- 9-89	30.22
									5-18-90	31.43
15-727	US GEOLOGICAL SURVEY	STEFKA 3	394808	751724	211MRPAM	1987-P	5.06	195-205	2-23-90	10.71
									4-18-90	10.66
									6- 8-90	10.78
									9-26-90	12.41
21-028	STATE OF NJ	CIVIL DEFENSE	401553	745012	231SCKN	1964-P	122.99	33-300	5- 9-90	17.08
									9-26-90	19.30
21-088	US GEOLOGICAL SURVEY	HONEYBRANCH 10	402128	744613	227BRCKS	1968-P	179.50	20-150	4-25-90	25.53
									9-18-90	27.68

Aquifer unit:

112HLBC - Holly Beach water-bearing zone
112SFDF - Stratified drift
121CKKD - Cohansey-Kirkwood aquifer system
121CNSY - Cohansey Sand
124PNPN - Piney Point aquifer
211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
231SCKN - Stockton Formation
227BRCKS - Brunswick Group

* - below land surface datum.
** - total depth of well.

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.*)
23-194	PERTH AMBOY WD	RUNYON 1	402536	742018	211FRNG	1934-P	18.30	201-281	4-10-90	62.37
									9-12-90	73.36
23-273	NJ WATER POLICY	PLAINSBORO POND	401932	743529	211MRPAM	1970-P	76.00	70- 75	4-10-90	27.91
23-291	MONROE TWP MUA	OBS 1-1961	402109	743013	211FRNG	1965-P	106.79	192-203	3-14-90	38.10
									9-12-90	38.28
23-292	MONROE TWP MUA	OBS 2-1961	402109	743012	2110DBG	1961-P	106.89	93-104	3-14-90	31.78
									9-12-90	31.66
23-344	SAYREVILLE WD	SWD 2	402558	742013	2110DBG	1968-P	22.19	31- 37	4-10-90	4.69
23-351	SAYREVILLE WD	SWD 1	402605	741959	2110DBG	1968-P	35.27	76- 82	4-10-90	13.76
									9-12-90	12.60
23-365	DUHERNAL WC	DUH SAY 4	402633	742120	211FRNG	1932-P	5.70	148-160	4-10-90	39.62
									9-12-90	50.17
23-439	SOUTH RIVER WD	SRWD 2R	402633	742200	211FRNG	1968-P	20.69	121-126	4-10-90	43.48
23-482	AMER CYANAMID CO	TEST 1	403242	741617	211FRNG	1950-P	11.00	44- 76	3- 9-90	1.87
									9-17-90	1.33
25-250	GORDONS CRNR WC	VILLAGE 215	401918	741529	211EGLS	1971-P	138.60	185-215	4- 5-90	37.52
									9-11-90	41.48
27-001	US GEOLOGICAL SURVEY	RECREATION FLD	404432	742252	112SFDF	1967-P	218.80	140-150	5- 7-90	78.54
									9-19-90	82.90
27-002	US GEOLOGICAL SURVEY	W B DRIVER 1	404738	742406	112SFDF	1966-P	182.00	60- 70	5- 7-90	27.08
									9-19-90	33.50
27-003	US GEOLOGICAL SURVEY	W B DRIVER 2	404748	742419	112SFDF	1966-P	178.26	102-112	5- 7-90	24.95
									9-19-90	31.90
27-004	US GEOLOGICAL SURVEY	CLEMENS	404816	742359	112SFDF	1966-P	174.91	100-110	5- 7-90	20.80
									9-19-90	25.12
27-005	US GEOLOGICAL SURVEY	SANDOZ CHEM CO	404826	742347	112SFDF	1966-P	188.25	113-123	5- 7-90	33.82
									9-19-90	36.76
27-006	US GEOLOGICAL SURVEY	GREEN ACRES	404937	742200	112SFDF	1967-P	181.00	94-104	5- 3-90	11.35
									9-19-90	11.42
27-014	US GEOLOGICAL SURVEY	ESSO SIX INCH	404705	742452	112SFDF	1967-P	176.00	110-120	5- 7-90	13.61
									9-19-90	16.30
27-015	MORRISTOWN ARPT	T2	404743	742522	112SFDF	1960-P	180.60	51- 62	5- 7-90	2.98
									9-19-90	4.52
27-017	MADISON BORO WD	MBWD 4	404508	742402	112SFDF	1958-P	194.90	100**	5- 7-90	29.16
27-022	INT PIPE	INT PIPE OBS	405209	742638	112SFDF	1963-P	353.05	146-155	5- 8-90	71.90
									9-18-90	75.30
27-023	RANDOLPH TWP WD	RWD MT FR 2	404921	743356	400PCMB	1964-P	800.00	11-218	5- 8-90	0.18
									9-18-90	0.95
29-018	US GEOLOGICAL SURVEY	IS BEACH 2	394829	740535	124PNPN	1962-P	8.50	468-474	3-22-90	9.04
29-020	US GEOLOGICAL SURVEY	IS BEACH 4	394829	740535	121CKKD	1962-P	8.19	9- 12	3-22-90	3.84
29-425	US GEOLOGICAL SURVEY	WEBBS MILLS 2	395322	742252	124PNPN	1962-P	128.27	348**	4-17-90	8.74
									9- 7-90	9.04
29-513	US GEOLOGICAL SURVEY	GARDEN ST PKY 1	394744	741418	121CKKD	1962-P	44.25	18- 21	4-17-90	5.77
									9- 7-90	7.27
29-514	US GEOLOGICAL SURVEY	GARDEN ST PKY 2	394744	741418	121CKKD	1962-P	43.82	306-316	4-17-90	6.95
									9- 7-90	7.65
29-530	PT PLEASANT WD	PPWD 6	400454	740413	211EGLS	1988-P	20.00	730-790	5-15-90	214.65
									8-16-90	245.35
33-020	HORNER,EPHRAIM	HORNER	393534	751752	211MLRW	1959-P	76.75	283**	7-31-90	44.03
33-348	NJ WATER POLICY	PENNS GROVE 14	394317	752619	211MRPAU	1959-P	25.40	18**	4- 9-90	3.59
									9-13-90	6.54
39-058	SCHWEITZER, P J	SCHWEITZER	404113	741216	227BRCKS	1956-P	28.23	660**	3- 9-90	14.00
									9-17-90	14.40
39-102	WHITE LABS INC	LAB 3	404027	741644	227BRCKS	1952-P	85.22	49-251	5- 8-90	22.62
									9-19-90	24.72
39-115	WHITE LABS INC	LAB 4	404043	741618	227BRCKS	1952-P	96.20	47-251	5- 8-90	61.60
									9-19-90	60.88

Aquifer unit:

112SFDF - Stratified drift
121CKKD - Cohansey-Kirkwood aquifer system
124PNPN - Piney Point aquifer
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
211MRPAU - Upper aquifer, Potomac-Raritan-Magothy aquifer system
211MRPAM - Middle aquifer, Potomac-Raritan-Magothy aquifer system
227BRCKS - Brunswick Group
400PCMB - Precambriam Erathem

* - below land surface datum.
** - total depth of well.

FOR WHICH 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	2110DBG	1939-86
23-180	DUHERNAL WC	DUHERNAL OBS 1	402438	742129	2110DBG	1938-86
23-181	PERTH AMBOY WD	RUNYON 123	402442	742136	2110DBG	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	NJ WATER POLICY	SO RIVER 4	402555	742133	2110DBG	1968-86
23-516	NOVAK	HULSART	402123	741849	211EGLS	1936-84
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
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	NJ WATER POLICY	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
2110DBG - 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
400PCMB - Precambriam Erathem

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
ATLANTIC COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
01-367	LONGPORT WD	LONGPORT 2	391859	743122	10	750 - 800	122KRKDL
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
01-596	VENTNOR CITY WD	VCWD 4	392029	742853	8	760 - 810	122KRKDL
01-682	RESORTS INTERNATIONAL	1-1980	392134	742521	8	840*	122KRKDL
01-549	NJ/AMERICAN WATER CO	SHORE-MILL RD	392157	743317	25	117 - 152	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 OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
01-367	LONGPORT WD	LONGPORT 2	8-16-90	19.5	160	7.3	25	8.4
01-589	NJ/AMERICAN WATER CO	NJWC 9	8-30-90	14.0	620	4.4	78	190
01-370	MARGATE CITY WD	MCWD 6	8-16-90	19.5	173	7.4	24	9.2
01-353	NJ/AMERICAN WATER CO	SHORE-KIRKLIN	8-30-90	14.0	128	5.2	15	22
01-596	VENTNOR CITY WD	VCWD 4	8-16-90	19.0	170	7.5	24	7.6
01-682	RESORTS INTERNATIONAL	1-1980	8-16-90	19.0	170	7.5	28	9.1
01-549	NJ/AMERICAN WATER CO	SHORE-MILL RD	8-30-90	16.0	175	6.4	32	19
01-041	BRIGANTINE WD	BRIG WD 1	8-16-90	19.0	120	7.5	20	4.1
01-013	NJ/AMERICAN WATER CO	SHORE-ABSECON1	8-30-90	13.5	56	5.1	3.8	7.2

* - Total depth of well.

Aquifer unit:

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

BURLINGTON COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
05-454	STATE OF NJ	MULLICA 3D OBS	394812	0744031	67	137 - 142	121CKKD
05-455	STATE OF NJ	MULLICA 53S OBS	394812	0744031	67	46 - 51	121CKKD
05-608	STATE OF NJ	MULLICA 4D OBS	394300	0743830	63	155 - 160	121CKKD
05-609	STATE OF NJ	MULLICA 54S OBS	394300	0743830	63	35 - 45	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)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE IT-FLD (MG/L AS HCO3)
05-454	09-20-90	13.0	52	6.4	10	3.5	0.35	4.0	2.2	22
05-455	09-20-90	12.0	44	4.6	6	0.79	1.0	3.0	0.7	2
05-608	09-21-90	12.5	20	4.9	1	0.15	0.20	1.6	0.2	2
05-609	09-21-90	12.0	36	5.0	8	1.3	1.2	1.9	0.4	2

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)
05-454	09-20-90	15	4.5	2.2	<0.1	32	60	<0.01
05-455	09-20-90	1	3.6	5.8	<0.1	6.2	25	<0.01
05-608	09-21-90	1	<1.0	3.0	<0.1	4.3	12	<0.01
05-609	09-21-90	1	7.2	3.2	<0.1	3.8	20	<0.01

NJ-WRD WELL NUMBER	DATE	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)
05-454	09-20-90	<0.10	0.02	<0.20	0.12	0.09	<10	<1.0
05-455	09-20-90	0.70	<0.01	0.50	<0.01	<0.01	100	<1.0
05-608	09-21-90	<0.10	<0.01	0.40	<0.01	<0.01	20	<1.0
05-609	09-21-90	<0.10	0.02	<0.20	0.02	<0.01	30	<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)
05-454	09-20-90	<5	<10	2000	<10	45	7	0.5
05-455	09-20-90	<5	<10	5	<10	17	11	0.6
05-608	09-21-90	<5	<10	4	<10	1	5	0.4
05-609	09-21-90	<5	30	<3	<10	34	3	0.7

Aquifer Unit:
121CKKD - Kirkwood-Cohansey aquifer system

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
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
09-302	US GEOLOGICAL SURVEY	COAST GUARD 800 OBS	385709	745128	5	883 - 893	122KRKDL
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 - 303	121CNSY
09-304	US GEOLOGICAL SURVEY	AIRPORT RIO GRANDE OBS	390002	745410	25	495 - 520	122KRKDU
09-304	US GEOLOGICAL SURVEY	AIRPORT RIO GRANDE OBS	390002	745410	25	495 - 520	122KRKDU
09-067	WILDWOOD WD	RIO GRANDE 38	390135	745352	10	461 - 590	122KRKDU
09-070	WILDWOOD WD	RIO GRANDE 36	390137	745352	10	48 - 63	112CPMY
09-072	WILDWOOD WD	RIO GRANDE 31	390138	745350	10	108 - 135	112ESRNS
09-074	WILDWOOD WD	RIO GRANDE 29	390139	745349	8	191 - 231	121CNSY
09-079	HALLER, LEE	NUMMY IS 2 OBS	390210	744730	1	833 - 876	122KRKDL
09-079	HALLER, LEE	NUMMY IS 2 OBS	390210	744730	1	833 - 876	122KRKDL
09-132	STONE HARBOR WD	SHWD 4	390301	744545	10	830 - 880	122KRKDL
09-292	US GEOLOGICAL SURVEY	WETLANDS 1 OBS	390337	744623	5	251 - 261	121CNSY
09-293	US GEOLOGICAL SURVEY	WETLANDS 2 OBS	390337	744623	5	155 - 165	121CNSY
09-294	US GEOLOGICAL SURVEY	WETLANDS 3 OBS	390337	744623	5	105 - 115	112ESRNS
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	390337	744623	5	80 - 90	112HLBC
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	390337	744623	5	80 - 90	112HLBC

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µS/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	8-20-90	16.0	560	7.6	74	100
09-017	US COAST GUARD	USCG 1	8- 7-90	16.5	920	7.7	---	200
09-018	US COAST GUARD	USCG 2	8- 7-90	16.0	364	7.8	---	43
09-209	COLD SPRING PACKING CO.	COLD SPRING PACKING 1	8-20-90	16.5	955	7.3	41	300
09-036	CAPE MAY CITY WD	CMCWD 2/CMCWD 4 (NEW)	8-20-90	15.5	730	7.4	110	150
09-302	US GEOLOGICAL SURVEY	COAST GUARD 800 OBS	9- 6-90	19.5	3,000	8.1	390	570
09-043	CAPE MAY CITY WD	CMCWD 5	8-20-90	15.5	280	8.2	31	17
09-052	LOWER TWP MUA	LTMUA 1	8-20-90	15.5	252	8.0	33	12
09-054	LOWER TWP MUA	LTMUA 2	8-20-90	15.0	248	8.0	26	14
09-057	LOWER TWP MUA	LTMUA 3	8-20-90	15.5	190	8.0	18	9.6
09-304	US GEOLOGICAL SURVEY	AIRPORT RIO GRANDE OBS	11- 2-89	17.0	629	8.3	130	81
09-304	US GEOLOGICAL SURVEY	AIRPORT RIO GRANDE OBS	9- 5-90	16.5	620	8.2	120	84
09-067	WILDWOOD WD	RIO GRANDE 38	8- 7-90	16.5	509	7.9	75	74
09-070	WILDWOOD WD	RIO GRANDE 36	8- 7-90	14.0	228	5.8	---	26
09-072	WILDWOOD WD	RIO GRANDE 31	8- 7-90	14.0	191	7.5	---	16
09-074	WILDWOOD WD	RIO GRANDE 29	8- 7-90	14.5	238	7.3	---	35
09-079	HALLER, LEE	NUMMY IS 2 OBS	11- 2-89	18.0	201	9.0	95	56
09-079	HALLER, LEE	NUMMY IS 2 OBS	8- 8-90	19.0	438	9.0	81	48
09-132	STONE HARBOR WD	SHWD 4	8- 8-90	20.5	350	8.5	68	34
09-292	US GEOLOGICAL SURVEY	WETLANDS 1 OBS	9- 7-90	14.5	3,990	7.1	440	1,300
09-293	US GEOLOGICAL SURVEY	WETLANDS 2 OBS	9- 7-90	15.0	51,000	6.6	13,000	24,000
09-294	US GEOLOGICAL SURVEY	WETLANDS 3 OBS	9- 7-90	15.0	52,000	6.8	12,000	24,000
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	10-18-89	---	---	---	13,000	24,000
09-295	US GEOLOGICAL SURVEY	WETLANDS 4 OBS	9- 7-90	14.5	48,000	6.9	11,000	21,000

* - Total depth of well.

Aquifer unit:

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

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
CAPE MAY COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
09-166	STONE HARBOR WD	SHWD 5	390351	744504	7	820 - 860	122KRKDL
09-002	AVALON WD	AVALON WD 2R-71/NEW 7	390420	744435	5	821 - 861	122KRKDL
09-306	US GEOLOGICAL SURVEY	OYSTER 800 OBS	390422	745447	6	656 - 666	122KRKDL
09-306	US GEOLOGICAL SURVEY	OYSTER 800 OBS	390422	745447	6	656 - 666	122KRKDL
09-192	RUTGERS UNIVERSITY	RUTGERS OYSTER LAB	390425	745446	7	64 - 71	112ESRNS
09-089	US GEOLOGICAL SURVEY	OYSTER LAB 4 OBS	390425	745446	7	195 - 210	121CNSY
09-008	AVALON WD	AVALON WD 3	390621	744248	10	845 - 925	122KRKDL
09-161	E SHORE CONVALESCENT	1	390704	744750	16	639 - 654	122KRKDL
09-161	E SHORE CONVALESCENT	1	390704	744750	16	639 - 654	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
09-207	US GEOLOGICAL SURVEY	JAKES LANDING-1	391121	745114	10	80 - 90	121CNSY
09-207	US GEOLOGICAL SURVEY	JAKES LANDING-1	391121	745114	10	80 - 90	121CNSY
09-108	NJ/AMERICAN WATER CO	SHORE DIV 14	391500	743645	7	774 - 840	122KRKDL
09-307	ALL SEASONS MARINA	ALL SEASONS MARINA	391518	743747	5	95 - 120	121CKKD
09-307	ALL SEASONS MARINA	ALL SEASONS MARINA	391518	743747	5	95 - 120	121CKKD
09-185	US GEOLOGICAL SURVEY	MACNAMARA W A	391621	744355	15	640 - 650	122KRKDL
09-185	US GEOLOGICAL SURVEY	MACNAMARA W A	391621	744355	15	640 - 650	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 OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
09-166	STONE HARBOR WD	SHWD 5	8- 8-90	21.5	347	8.3	65	34
09-002	AVALON WD	AVALON WD 2R-71/NEW 7	8-27-90	20.5	250	8.7	44	14
09-306	US GEOLOGICAL SURVEY	OYSTER 800 OBS	1-23-90	17.0	472	7.9	71	49
09-306	US GEOLOGICAL SURVEY	OYSTER 800 OBS	9- 6-90	18.5	425	8.1	64	48
09-192	RUTGERS UNIVERSITY	RUTGERS OYSTER LAB	8-20-90	17.0	850	8.3	110	210
09-089	US GEOLOGICAL SURVEY	OYSTER LAB 4 OBS	9- 6-90	15.5	163	8.0	7.4	9.0
09-008	AVALON WD	AVALON WD 3	8-27-90	19.5	315	8.4	50	36
09-161	E SHORE CONVALESCENT	1	12-13-89	15.0	351	8.2	35	34
09-161	E SHORE CONVALESCENT	1	8- 9-90	17.0	526	---	54	59
09-126	SEA ISLE CITY WD	SICWD 5	8-27-90	19.5	237	8.5	30	14
09-129	SEA ISLE CITY WD	SICWD 2	8-27-90	19.5	232	8.4	32	13
09-207	US GEOLOGICAL SURVEY	JAKES LANDING-1	1-24-90	12.5	50	4.7	3.9	6.8
09-207	US GEOLOGICAL SURVEY	JAKES LANDING-1	8-21-90	13.5	47	4.9	4.1	8.7
09-108	NJ/AMERICAN WATER CO	SHORE DIV 14	8-30-90	19.5	202	7.9	31	12
09-307	ALL SEASONS MARINA	ALL SEASONS MARINA	12-14-89	12.0	63	5.4	7.1	10
09-307	ALL SEASONS MARINA	ALL SEASONS MARINA	9- 5-90	15.0	92	5.6	7.7	15
09-185	US GEOLOGICAL SURVEY	MACNAMARA W A	12-12-89	15.5	189	9.3	20	4.0
09-185	US GEOLOGICAL SURVEY	MACNAMARA W A	9- 5-90	16.5	197	9.2	19	4.9
09-124	NJ/AMERICAN WATER CO	SHORE DIV 13	8-30-90	19.5	199	7.7	29	11

Aquifer unit:

121CKKD - Kirkwood-Cohansey aquifer system
121CNSY - Cohansey Sand
122KRKDL - Atlantic City 800-foot sand of the Kirkwood Formation

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
CUMBERLAND COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACEE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
11-365	US GEOLOGICAL SURVEY	MOORES BEACH-1	391116	745705	4	80 - 90	121CNSY
11-326	STANGER, GEORGE	1	391617	751355	5	440*	124PNPN
11-054	GANDYS BEACH WC	GANDYS BEACH	391618	751354	5	378 - 402	124PNPN
11-327	MYERS, H	1	391619	751357	5	399 - 409	124PNPN
11-343	NEIL, A	1	391619	751405	5	459*	124PNPN
11-337	COVE RD WATER ASSOC	1	391622	751414	5	373 - 393	124PNPN
11-056	MONEY IS MARINA	POLLINO 1	391704	751415	4	350 - 370	124PNPN

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
11-365	US GEOLOGICAL SURVEY	MOORES BEACH-1	9- 7-90	15.0	3,450	7.0	550	950
11-326	STANGER, GEORGE	1	8-24-90	---	1,220	8.1	77	300
11-054	GANDYS BEACH WC	GANDYS BEACH	8-24-90	15.0	3,500	7.5	170	1,000
11-327	MYERS, H	1	8-24-90	17.0	1,030	8.3	110	220
11-343	NEIL, A	1	8-24-90	---	570	8.5	98	57
11-337	COVE RD WATER ASSOC	1	8-24-90	---	600	7.6	100	63
11-056	MONEY IS MARINA	POLLINO 1	8-24-90	---	725	8.8	140	98

* - Total depth of well.

Aquifer unit:

121CNSY - Cohansey Sand
124PNPN - Piney Point aquifer

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
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
15-1060	GLASSBORO WD	GWD 6	394100	750553	136	335 - 386	211MLRW
15-063	GLASSBORO WD	GWD 4	394308	750702	150	549 - 599	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	8	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
15-284	HUNTSMAN POLYPROPYLENE CO	SHELL 4	394919	751256	30	127 - 157	211MRPAU
15-210	PAULSBORO WD	6-1973	394921	751417	15	185 - 227	211MRPAM

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
15-001	CLAYTON WD	CWD 3	8-24-90	20.5	1,090	8.3	230	130
15-1060	GLASSBORO WD	GWD 6	8-24-90	16.5	211	8.0	9.8	2.5
15-063	GLASSBORO WD	GWD 4	8-24-90	18.0	593	8.3	130	37
15-385	PITMAN WD	PWD P4	8-24-90	17.0	620	8.2	130	45
15-130	SOUTH JERSEY WC	SJWC 3	8-23-90	15.0	1,090	8.2	210	160
15-236	SWEDESBORO WD	SBWD 3	8-23-90	14.5	380	7.2	42	41
15-137	PURELAND WATER CO	PURE 2(3-1973)	8-23-90	14.0	252	6.6	23	21
15-144	PURELAND WATER CO	1-1973	8-23-90	13.5	191	5.4	27	38
15-191	MANTUA TWP MUA	MTMUA 2	8-22-90	15.5	459	8.0	84	31
15-192	MANTUA TWP MUA	MTMUA 5	8-22-90	15.5	569	8.1	100	52
15-194	MANTUA TWP MUA	MTMUA 4	8-22-90	15.0	474	8.1	84	38
15-283	HUNTSMAN POLYPROPYLENE CO	SHELL 3	8-22-90	15.5	798	7.8	150	140
15-284	HUNTSMAN POLYPROPYLENE CO	SHELL 4	8-22-90	15.0	382	7.3	26	12
15-210	PAULSBORO WD	6-1973	8-22-90	14.5	269	5.6	23	29

* - Total depth of well.

Aquifer unit:

211MLRW - Wenonah-Mount Laurel aquifer
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 1989 TO SEPTEMBER 1990

HUNTERDON COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN INTERVAL (FT.)	AQUIFER UNIT
19-272	HUNTERDON COUNTY - BD OF REC	TOWER HILL PK RES HOUSE	404003	0750008	830	51 - 275	400PCMB
19-273	GLEN GARDNER WATER CO	GGWC 4	404157	0745538	600	50 - 300	400PCMB
19-274	STATE OF NJ - GEOLOGICAL SURVEY	VOORHEES STATEPARK 1 OBS	404153	0745324	680	102 - 200	400PCMB
19-275	HUNTERDON HILLS NURSING HOME	HUNTERDON HILLS	404244	0745417	880	60 - 275	400PCMB

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)
19-272	08-27-90	12.0	174	6.2	56	13	5.8	7.5	0.9	23
19-273	09-06-90	10.5	154	6.2	49	12	4.5	10	1.0	30
19-274	09-25-90	10.5	202	6.1	77	21	6.0	8.6	0.8	62
19-275	09-14-90	12.0	185	5.1	42	10	4.1	14	1.4	12

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)
19-272	08-27-90	21	25	3.9	<0.1	23	116	<0.01	5.70
19-273	09-06-90	25	13	17	<0.1	22	96	<0.01	0.30
19-274	09-25-90	51	15	20	<0.1	34	140	<0.01	0.90
19-275	09-14-90	10	20	26	<0.1	15	111	<0.01	3.30

NJ-WRD WELL NUMBER	DATE	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)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
19-272	08-27-90	0.03	0.6	0.02	<0.01	<10	<1	<1.0	<1
19-273	09-06-90	0.02	0.2	<0.01	0.01	<10	<1	<1.0	<1
19-274	09-25-90	<0.01	<0.2	0.03	0.02	<10	<1	<1.0	<1
19-275	09-14-90	<0.01	0.6	<0.01	<0.01	20	<1	<1.0	<1

NJ-WRD WELL NUMBER	DATE	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)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
19-272	08-27-90	10	6	<1	3	<0.1	9	0.4	<1
19-273	09-06-90	5	6	4	<1	<0.1	8	0.5	12
19-274	09-25-90	2	150	<1	7	<0.1	<3	0.4	<1
19-275	09-14-90	76	16	3	5	<0.1	12	0.3	<1

NJ-WRD WELL NUMBER	DATE	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)
19-273	09-06-90	2.7	1.9	2.3
19-274	09-25-90	1.6	1.4	1.3
19-275	09-14-90	2.7	1.8	2.3

Aquifer Unit:
400PCMB - Precambrian Erathem

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
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	2110DBG
23-571	PERTH AMBOY WD	PERTH AMBOY 7	402531	741932	15	67 - 82	2110DBG
23-195	PERTH AMBOY WD	PERTH AMBOY 5	402537	742001	15	50 - 80	2110DBG
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	2110DBG
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	20	132 - 182	211FRNG
23-355	SAYREVILLE WD	SWD A	402614	741950	30	72 - 82	2110DBG
23-368	SAYREVILLE WD	I	402626	741936	58	83 - 94	2110DBG
23-371	HERCULES POWDER	HERCULES 5	402638	742022	48	182 - 228	211FRNG
23-376	HERCULES POWDER	HERCULES 3	402649	742025	41	180 - 220	211FRNG
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	402700	741454	60	193 - 213	2110DBG
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	402700	741454	60	360 - 395	211FRNG
23-384	HERCULES POWDER	HERCULES 1REBT	402705	742023	54	170 - 225	211FRNG
23-403	SAYREVILLE WD	SWD Q-1973	402745	741631	40	78 - 136	2110DBG
23-554	SAYREVILLE WD	SWD S	402745	741645	100	213 - 286	211FRNG
23-411	SOUTH AMBOY WD	SAWD 8	402822	741630	10	209 - 234	211FRNG
23-414	SOUTH AMBOY WD	SAWD 10	402825	741632	10	38 - 48	2110DBG

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
23-735	PERTH AMBOY WD	RUNYON 8R	8-31-90	13.0	315	3.9	24	49
23-571	PERTH AMBOY WD	PERTH AMBOY 7	8-31-90	13.0	230	4.0	13	22
23-195	PERTH AMBOY WD	PERTH AMBOY 5	8-31-90	13.5	360	4.7	29	73
23-196	PERTH AMBOY WD	PERTH AMBOY 1A	8-31-90	13.0	1,130	5.7	120	310
23-570	PERTH AMBOY WD	PERTH AMBOY 6	8-31-90	13.0	310	4.0	20	41
23-551	SOUTH RIVER WD	SRWD 6	9-11-90	14.0	92	6.1	4.4	9.9
23-434	SOUTH RIVER WD	SRWD 2	9-11-90	13.5	99	5.7	5.1	13
23-438	SOUTH RIVER WD	SRWD 5	9-11-90	12.5	126	5.6	7.0	20
23-355	SAYREVILLE WD	SWD A	9- 4-90	14.0	252	4.9	24	47
23-368	SAYREVILLE WD	I	9- 4-90	13.0	395	4.0	8.5	12
23-371	HERCULES POWDER	HERCULES 5	9-10-90	12.5	8,300	5.5	1,300	1,600
23-376	HERCULES POWDER	HERCULES 3	9-10-90	12.5	7,000	5.4	1,100	2,100
23-205	OLD BRIDGE MUA	LAWRENCE HAR 8	9-12-90	13.0	85	5.0	4.6	14
23-206	OLD BRIDGE MUA	LAWRENCE HAR 9	9-12-90	14.0	65	6.1	2.4	2.1
23-384	HERCULES POWDER	HERCULES 1REBT	9-10-90	13.5	1,780	6.0	190	480
23-403	SAYREVILLE WD	SWD Q-1973	8-30-90	13.0	225	4.2	18	31
23-554	SAYREVILLE WD	SWD S	8-30-90	12.5	60	6.4	2.4	2.5
23-411	SOUTH AMBOY WD	SAWD 8	9- 7-90	13.5	97	5.9	2.9	12
23-414	SOUTH AMBOY WD	SAWD 10	9- 7-90	13.0	345	4.0	24	51

Aquifer unit:

2110DBG - Old Bridge aquifer, Potomac-Raritan-Magothy aquifer system
211FRNG - Farrington aquifer, Potomac-Raritan-Magothy aquifer system

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
MONMOUTH COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
25-234	MANASQUAN WD	MWD 3	400712	740328	15	118*	121CKKD
25-235	MANASQUAN WD	MWD 2R	400712	740328	21	132*	121CKKD
25-552	MANASQUAN WD	MWD 7	400712	740328	20	94 - 112	121CKKD
25-237	MANASQUAN WD	MWD 5	400714	740329	15	97 - 117	121CKKD
25-387	SPRING LK HT WD	SPRING LK HGT1	400857	740309	60	570 - 600	211MLRW
25-391	SPRING LK HT WD	SPRING LK HGT4	400928	740211	20	485 - 561	211MLRW
25-026	BELMAR BORO WD	BWD 4 ELEC(11)	401102	740045	15	601 - 671	211EGLS
25-014	AVON WD	AWD 1	401138	740125	28	424 - 504	211MLRW
25-001	ALLENHURST WD	AWD 4	401401	740025	17	525 - 565	211EGLS
25-117	HIGHLANDS WD	HWD 4	402401	735920	20	630 - 680	2110DBG
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
25-197	KEYPORT BORO WD	KEYPORT 7	402535	741214	35	304 - 354	2110DBG
25-316	STATE OF NJ	SANDY HOOK SP1	402536	735905	11	371 - 397	2110DBG
25-112	SHORELANDS WC INC	W KEANSBURG 2	402537	740933	44	312 - 352	2110DBG
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 OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
25-234	MANASQUAN WD	MWD 3	9-19-90	13.5	80	4.6	7.0	13
25-235	MANASQUAN WD	MWD 2R	9-19-90	13.5	106	4.7	9.1	16
25-552	MANASQUAN WD	MWD 7	9-19-90	13.0	74	4.9	6.2	10
25-237	MANASQUAN WD	MWD 5	9-19-90	13.0	68	5.0	6.5	11
25-387	SPRING LK HT WD	SPRING LK HGT1	9-19-90	17.5	192	7.9	4.3	1.6
25-391	SPRING LK HT WD	SPRING LK HGT4	9-19-90	21.5	197	7.8	7.6	8.3
25-026	BELMAR BORO WD	BWD 4 ELEC(11)	9-17-90	19.5	182	7.6	2.9	1.5
25-014	AVON WD	AWD 1	9-18-90	17.0	251	7.9	3.4	1.0
25-001	ALLENHURST WD	AWD 4	9-19-90	17.5	206	7.5	3.0	2.0
25-117	HIGHLANDS WD	HWD 4	9-12-90	20.0	106	6.5	1.7	1.5
25-006	ATLAN HIGH WD	AHWD 1	9-13-90	17.0	102	6.4	1.4	1.8
25-496	ATLAN HIGH WD	AHWD 4	9-13-90	17.0	103	6.4	1.5	1.8
25-282	BAYSHORE SEW AU	BAYSHORE 1	9-18-90	13.0	95	6.0	1.9	2.6
25-111	SHORELANDS WC INC	W KEANSBURG 1	9-14-90	13.5	68	6.1	1.4	1.9
25-197	KEYPORT BORO WD	KEYPORT 7	9-14-90	14.0	136	6.0	8.6	20
25-316	STATE OF NJ	SANDY HOOK SP1	4-24-90	---	360	6.6	35	56
25-112	SHORELANDS WC INC	W KEANSBURG 2	9-14-90	14.0	72	6.1	1.4	1.9
25-191	KEANSBURG MUA	KWD 6	9-14-90	14.0	415	6.1	19	100
25-195	KEANSBURG MUA	KWD 5A	9-14-90	14.0	83	6.2	1.8	2.8
25-196	KEANSBURG MUA	KWD 3	9-14-90	14.0	250	6.2	7.7	53
25-453	UNION BEACH WD	UBWD 3 1977	9-17-90	14.0	82	6.4	2.6	2.4
25-420	UNION BEACH WD	UBWD 2 1969	9-18-90	13.5	7,400	5.8	1,100	2,900
25-514	INT FLAVOR FRAG	IFF-2R	9-13-90	14.0	59	6.0	1.5	2.0
25-320	NATIONAL PARK SERVICE	FT HANCOCK 5A	9-12-90	19.5	118	6.7	4.6	5.4

* - Total depth of well.

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 1989 TO SEPTEMBER 1990

MORRIS COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN OR SCREEN INTERVAL (FT.)	AQUIFER UNIT
27- 159	SOUTHEASTERN MORRIS COUNTY MUA	SHONGUM WELL	404941	0743006	410	50 - 155	400PCMB
27-1190	STATE OF NJ	BLACK RIVER 10 OBS	404934	0744005	820	87 - 200	400PCMB
27-1193	MORRIS AREA GIRL SCOUT COUNCIL	JOCKEY HOLLOW CAMP 1673	404544	0743305	480	55 - 96	400PCMB
27-1194	WEST MORRIS MENDHAM HIGH SCHOOL	MENDHAM H SCH	404628	0743430	540	50 - 400	400PCMB
27-1196	WATCHUNG COUNTY BOY SCOUTS	WATCHUNG BOY SCOUTS DOM	405918	0742651	930	50 - 275	400PCMB
27-1305	MORRIS COUNTY MUA	MCMUA TW WHITEHEAD RD	404731	0743147	340	120 - 222	400FRKL
27-1306	MORRIS COUNTY MUA	MCMUA TW WASHINGTON V RD	404816	0743120	330	85 - 543	400PCMB
27-1307	MORRIS COUNTY MUA	MCMUA TW SUSSEX TURNPIKE	404846	0743046	330	92 - 293	400PCMB
27-1318	MORRIS COUNTY MUA	MCMUA TW 14 TINGLEY RD	404724	0743306	360	28 - 247	400PCMB
27-1319	MENDHAM BORO WATER CO	MENDHAM 2-COMBS HOL RES	404717	0743602	530	50 - 400	400PCMB

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)
27- 159	09-12-90	11.5	331	6.4	120	31	9.3	17	1.9	50
27-1190	09-28-90	11.0	136	6.7	45	14	2.4	5.7	1.5	62
27-1193	09-04-90	10.0	169	6.1	54	12	5.9	6.2	0.5	50
27-1194	09-05-90	12.0	276	7.2	110	32	7.5	10	1.0	104
27-1196	09-18-90	10.0	167	7.8	65	14	7.4	5.1	0.6	87
27-1305	09-19-90	10.5	590	7.3	270	80	17	14	1.1	218
27-1306	09-24-90	11.0	233	7.7	110	26	10	7.7	0.7	99
27-1307	09-27-90	11.0	303	8.1	79	23	5.2	32	0.7	94
27-1318	09-26-90	11.0	311	6.5	140	36	11	8.0	0.8	104
27-1319	09-27-90	12.0	346	7.2	160	40	14	8.7	1.1	172

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)
27- 159	09-12-90	43	26	41	0.4	29	199	<0.01	4.20
27-1190	09-28-90	51	10	2.7	0.4	20	90	<0.01	0.50
27-1193	09-04-90	41	14	10	<0.1	32	107	<0.01	0.40
27-1194	09-05-90	85	42	6.9	0.3	31	184	<0.01	0.40
27-1196	09-18-90	73	11	2.8	<0.1	22	106	<0.01	<0.10
27-1305	09-19-90	176	27	65	0.2	37	356	<0.01	1.80
27-1306	09-24-90	83	26	7.2	0.1	31	161	<0.01	0.80
27-1307	09-27-90	79	38	20	2.3	29	199	<0.01	0.60
27-1318	09-26-90	84	15	36	<0.1	26	189	<0.01	1.10
27-1319	09-27-90	141	20	19	0.2	28	223	<0.01	1.60

NJ-WRD WELL NUMBER	DATE	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)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
27- 159	09-12-90	<0.01	0.5	0.02	0.01	<10	<1	<1.0	<1
27-1190	09-28-90	<0.01	<0.2	0.04	0.03	20	<1	<1.0	<1
27-1193	09-04-90	<0.01	<0.2	0.04	0.03	<10	<1	<1.0	1
27-1194	09-05-90	<0.01	<0.2	0.01	<0.01	<10	<1	<1.0	1
27-1196	09-18-90	<0.01	<0.2	0.02	<0.01	<10	<1	<1.0	<1
27-1305	09-19-90	<0.01	<0.2	--	--	<10	<1	<1.0	1
27-1306	09-24-90	<0.01	0.2	0.06	0.06	<10	<1	<1.0	<1
27-1307	09-27-90	<0.01	<0.2	0.07	0.06	<10	<1	<1.0	<1
27-1318	09-26-90	<0.01	<0.2	<0.01	<0.01	20	<1	<1.0	1
27-1319	09-27-90	0.01	<0.2	0.09	0.08	<10	<1	<1.0	<1

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

MORRIS COUNTY--Continued

NJ-WRD WELL NUMBER	DATE	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)	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)
27- 159	09-12-90	2	9	1	<1	<0.1	<3	0.1	7
27-1190	09-28-90	1	6	<1	<1	<0.1	<3	0.4	1
27-1193	09-04-90	15	11	<1	<1	<0.1	16	0.4	<1
27-1194	09-05-90	3	6	1	25	0.1	310	0.4	3
27-1196	09-18-90	3	<3	<1	<1	<0.1	9	0.3	<1
27-1305	09-19-90	1	19	<1	2	<0.1	9	0.3	4
27-1306	09-24-90	<1	<3	<1	2	<0.1	4	0.3	<1
27-1307	09-27-90	1	9	<1	4	<0.1	<3	0.4	<1
27-1318	09-26-90	<1	14	1	2	<0.1	6	0.5	7
27-1319	09-27-90	7	5	1	<1	<0.1	28	0.4	<1

NJ-WRD WELL NUMBER	DATE	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)
27- 159	09-12-90	2.9	2.1	2.2
27-1190	09-28-90	1.6	<0.4	1.4
27-1193	09-04-90	2.1	3.0	1.7
27-1194	09-05-90	1.6	<0.4	1.2
27-1196	09-18-90	1.6	0.7	1.3
27-1305	09-19-90	1.5	1.9	1.2
27-1306	09-24-90	2.3	2.5	1.8
27-1307	09-27-90	2.0	1.8	1.5
27-1318	09-26-90	1.8	2.0	1.4
27-1319	09-27-90	1.3	1.4	1.0

Aquifer Code:
400PCMB - Precambrian Erathem
400FRKL - Franklin Limestone

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
OCEAN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	SCREEN INTERVAL (FT.)	AQUIFER UNIT
29-590	BEACH HAVEN WD	BHWD 9	393342	741431	5	552 - 630	122KRKDL
29-009	BEACH HAVEN WD	BHWD 8	393346	741430	5	572 - 656	122KRKDL
29-111	HARVEY CDRS WD	HCWD 4	394134	740832	9	465 - 500	122KRKDL
29-004	BARNEGAT LT WD	BLWD 2	394524	740632	7	593 - 646	124PNPN
29-613	BERKELEY WC	PINEWALL	395248	741011	45	200*	121CKKD
29-023	SHORE WATER CO.	SWC 2	395423	740458	7	490 - 527	124PNPN
29-935	SEASIDE PARK BORO	EAST-REP (8)	395450	740455	10	474 - 514	124PNPN
29-612	BERKELEY WC	BAYVILLE	395454	740906	20	90*	121CKKD
29-809	OCEAN GATE BORO WD	OGBWD 4	395527	740826	10	330 - 370	124PNPN
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
29-115	ISL HGHTS WD	IHWD 8	395639	740854	12	115 - 292	124PNPN
29-617	SEASIDE HGTS WD	SHWD 5	395652	740442	5	175*	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 - 1,870	211MRPA
29-453	LAVALLETTE WD	LWD 4	395808	740416	5	1,358 - 1,515	211MRPA
29-454	LAVALLETTE WD	LWD 2	395808	740421	5	1,009 - 1,136	211EGLS
29-070	NJ/AMERICAN WATER CO	MONTEREY 1	395905	740359	5	1,375 - 1,495	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
29-523	PT PLEASANT BCH WD	PPBWD 10	400551	740243	5	87 - 130	121CKKD

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	DATE OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (µs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
29-590	BEACH HAVEN WD	BHWD 9	8-15-90	17.5	73	6.3	5.0	3.9
29-009	BEACH HAVEN WD	BHWD 8	8-15-90	17.5	76	6.3	4.2	4.5
29-111	HARVEY CDRS WD	HCWD 4	8-20-90	16.5	80	6.5	3.8	3.2
29-004	BARNEGAT LT WD	BLWD 2	8-15-90	18.0	378	8.4	68	4.0
29-613	BERKELEY WC	PINEWALL	8-21-90	12.5	65	5.1	3.7	5.7
29-023	SHORE WATER CO	SWC 2	8-14-90	17.0	291	8.8	61	2.4
29-935	SEASIDE PARK BORO	EAST-REP (8)	8-14-90	17.0	247	8.4	48	2.5
29-612	BERKELEY WC	BAYVILLE	8-21-90	---	114	---	4.0	8.8
29-809	OCEAN GATE BORO WD	OGBWD 4	8-21-90	14.0	180	7.5	13	3.9
29-515	PINE BEACH WU	PBWU 1	8-21-90	12.5	77	4.3	4.1	8.2
29-537	SEASIDE HGTS WD	SHWD 2	8-14-90	15.0	226	8.6	43	4.2
29-538	SEASIDE HGTS WD	SHWD 1R	8-14-90	14.5	1,240	6.5	150	350
29-115	ISL HGHTS WD	IHWD 8	8-20-90	13.5	93	6.3	11	5.7
29-617	SEASIDE HGTS WD	SHWD 5	8-14-90	14.5	90	7.2	11	10
29-058	TOMS RIVER WC	TRWC 21	8-21-90	13.5	240	5.8	24	48
29-626	TOMS RIVER WC	TRWC 30	8-21-90	26.0	137	7.4	3.2	1.4
29-453	LAVALLETTE WD	LWD 4	8-17-90	23.5	211	7.6	26	1.8
29-454	LAVALLETTE WD	LWD 2	8-17-90	19.5	497	8.4	100	4.5
29-070	NJ/AMERICAN WATER CO	MONTEREY 1	8-17-90	24.0	188	7.4	17	1.8
29-504	NJ/AMERICAN WATER CO	MANTOLOKING 7	8-17-90	24.5	171	7.3	9.3	1.7
29-006	NJ/AMERICAN WATER CO	BAY HEAD 6	8-17-90	20.5	218	8.1	13	0.2
29-531	PT PLEASANT WD	PPWD 5	8-16-90	25.0	154	7.0	3.4	1.6
29-532	PT PLEASANT WD	PPWD 3	8-16-90	20.5	209	8.0	6.2	0.4
29-579	PT PLEASANT BCH WD	PPBWD 11	8-16-90	14.0	1,260	6.5	79	350
29-807	PT PLEASANT BCH WD	PPBWD 12	8-16-90	14.0	1,620	6.6	74	480
29-523	PT PLEASANT BCH WD	PPBWD 10	8-16-90	14.5	1,350	6.5	89	390

* - Total depth of well.

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 1989 TO SEPTEMBER 1990

PASSAIC COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN OR SCREEN INTERVAL (FT.)	AQUIFER UNIT
31-058	RINGWOOD BOARD OF EDUCATION	RINGWOOD BD ED 1	410537	0741556	420	25 - 413	400PCMB
31-060	WEST MILFORD MUA	WEST MILFORD MUA 4	410933	0741945	660	55 - 300	400PCMB

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)
31-058	09-11-90	18.0	274	7.0	130	39	7.7	5.6	1.0	126
31-060	09-12-90	12.5	176	7.3	61	15	5.6	7.8	0.6	74

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)
31-058	09-11-90	102	24	13	0.2	18	176	<0.01	0.90
31-060	09-12-90	62	12	9.9	1.3	20	109	<0.01	<0.10

NJ-WRD WELL NUMBER	DATE	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)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
31-058	09-11-90	<0.01	0.5	0.02	<0.01	10	<1	2.0	<1
31-060	09-12-90	<0.01	<0.2	<0.01	<0.01	<10	<1	<1.0	<1

NJ-WRD WELL NUMBER	DATE	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)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
31-058	09-11-90	10	9	1	6	<0.1	1800	0.2	<1
31-060	09-12-90	1	290	1	84	<0.1	52	<0.1	8

NJ-WRD WELL NUMBER	DATE	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)
31-058	09-11-90	1.4	1.1	1.1
31-060	09-12-90	2.5	2.8	2.0

Aquifer Code:
400PCMB - Precambrian Erathem

QUALITY OF GROUND WATER - SALTWATER MONITORING NETWORK
WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
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
33-035	PUBLIC SERV E-G	PW 2	392744	753206	9	230 - 281	211MLRW
33-457	PUBLIC SERV E-G	PSEG 6	392751	753207	20	1,115 - 1,135	211MRPAM
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
33-453	PENNSVILLE TWP WD	PTWD 6	393957	753017	10	99 - 114	211MRPAU
33-118	PENNSVILLE TWP WD	PTWD 1	393958	753045	8	213 - 238	211MRPAM
33-122	ATL CITY ELEC	DEEPWATER 3R	394045	753018	10	165 - 235	211MRPAM
33-125	ATL CITY ELEC	DEEPWATER 5	394051	753030	10	149 - 219	211MRPAM
33-141	E I DUPONT	CHAMBERS OB3-3	394131	753009	5	197 - 207	211MRPAM
33-083	B F GOODRICH CO	#9 (PW-1)	394547	752535	10	93 - 133	211MRPAM
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 OF SAMPLE	WATER TEMPER-ATURE (DEG C)	SPE-CIFIC CONDUCT-ANCE (μs/cm)	PH (UNITS)	SODIUM DIS-SOLVED (MG/L AS NA)	CHLORIDE DIS-SOLVED (MG/L AS CL)
33-032	PUBLIC SERV E-G	PW 3	8-23-90	20.0	390	8.1	86	27
33-364	PUBLIC SERV E-G	PW5	8-23-90	20.0	385	7.8	85	26
33-035	PUBLIC SERV E-G	PW 2	8-23-90	15.5	1,500	6.8	100	460
33-457	PUBLIC SERV E-G	PSEG 6	8-23-90	19.5	815	7.9	170	190
33-108	US ARMY	FINNS POINT	8-22-90	---	352	---	120	110
33-112	PENNSVILLE TWP WD	PTWD 4	8-22-90	15.0	153	6.8	9.2	13
33-354	WOODSTOWN WD	WWD 2	8-22-90	17.0	950	8.0	210	180
33-362	WOODSTOWN WD	WWD 3	8-23-90	17.5	800	8.2	180	140
33-459	RICHMAN ICE CRM	1A	8-22-90	14.5	380	8.0	87	18
33-453	PENNSVILLE TWP WD	PTWD 6	8-22-90	14.0	250	---	14	36
33-118	PENNSVILLE TWP WD	PTWD 1	8-22-90	14.5	400	7.0	74	65
33-122	ATL CITY ELEC	DEEPWATER 3R	8-23-90	14.0	423	6.8	74	70
33-125	ATL CITY ELEC	DEEPWATER 5	8-23-90	17.0	410	---	61	78
33-141	E I DUPONT	CHAMBERS OB3-3	8-23-90	15.5	700	7.0	140	140
33-083	B F GOODRICH CO	#9 (PW-1)	8-22-90	14.0	327	6.5	24	43
33-085	B F GOODRICH CO	#6 (PW-2)	8-22-90	14.5	255	5.8	19	38
33-086	B F GOODRICH CO	#4 (PW-3)	8-22-90	14.0	1,100	6.9	210	280

Aquifer unit:

211MLRW - Wenonah-Mount Laurel aquifer
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 1989 TO SEPTEMBER 1990*

SUSSEX COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN OR SCREEN INTERVAL (FT.)	AQUIFER UNIT
37-212	SUSSEX COUNTY WATER CO	ASPEN WOODS TEST	411119	0743007	720	70 - 400	400PCMB
37-213	VERNON TWP FIRE DEPT	VERNON FIRE DEPT 1	411155	0742905	570	23 - 100	400PCMB

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)
37-212	09-12-90	10.5	444	7.4	250	66	20	4.4	1.9	272
37-213	10-02-90	12.0	419	7.7	180	47	16	5.6	1.9	148

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)
37-212	09-12-90	221	18	4.2	1.9	15	266	<0.01	<0.10
37-213	10-02-90	121	20	43	0.6	14	225	<0.01	0.80

NJ-WRD WELL NUMBER	DATE	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)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
37-212	09-12-90	<0.01	<0.2	<0.01	<0.01	<10	<1	<1.0	<1
37-213	10-02-90	0.01	<0.2	<0.01	0.01	<10	<1	<1.0	<1

NJ-WRD WELL NUMBER	DATE	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)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
37-212	09-12-90	1	44	3	57	<0.1	560	0.2	12
37-213	10-02-90	1	4	1	<1	<0.1	120	0.5	<1

NJ-WRD WELL NUMBER	DATE	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)
37-212	09-12-90	11	27	8.1
37-213	10-02-90	26	40	19

* Data from 1991 water year being published.

Aquifer Code:
400PCMB - Precambrian Erathem

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

WARREN COUNTY

NJ-WRD WELL NUMBER	SITE OWNER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	ALTITUDE OF LAND SURFACE (FT.)	OPEN INTERVAL (FT.)	AQUIFER UNIT
41-252	TOWN OF HACKETTSTOWN	HACKETTSTOWN 6/SNOOKS 2	405207	0744940	700	34 - 136	400PCMB
41-253	HACKETTSTOWN SEVENTH DAY ADVENTIST CHURCH	HACKETTSTOWN 7TH DAY CH	405230	0744925	800	80 - 123	400PCMB

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)
41-252	09-11-90	10.0	192	6.7	80	16	9.8	5.1	0.80	79
41-253	09-28-90	12.0	599	7.6	310	66	36	2.8	0.70	343

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)
41-252	09-11-90	65	18	6.2	<0.10	23	118	<0.010	0.100
41-253	09-28-90	281	25	20	0.10	13	336	<0.010	0.800

NJ-WRD WELL NUMBER	DATE	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)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)
41-252	09-11-90	<0.010	<0.20	0.020	<0.010	30	<1	2.0	1
41-253	09-28-90	<0.010	<0.20	<0.010	0.010	<10	<1	<1.0	<1

NJ-WRD WELL NUMBER	DATE	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)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	PHENOLS TOTAL (UG/L)
41-252	09-11-90	1	3	1	<1	<0.1	5	0.2	<1
41-253	09-28-90	1	<3	<1	<1	<0.1	<3	0.5	<1

NJ-WRD WELL NUMBER	DATE	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)
41-252	09-11-90	1.5	1.0	1.2
41-253	09-28-90	4.5	7.1	3.3

Aquifer Code:
400PCMB - Precambrian Erathem

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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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