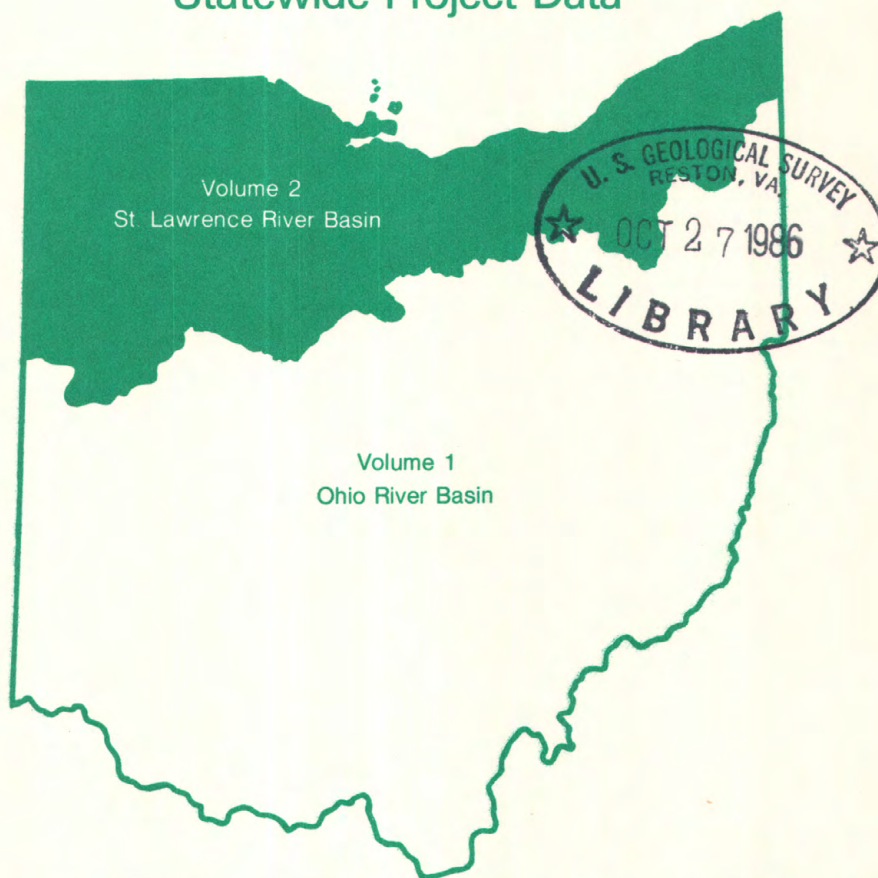


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# Water Resources Data Ohio Water Year 1985

Volume 2. St. Lawrence River Basin  
Statewide Project Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-85-2  
Prepared in cooperation with the State of Ohio  
and with other agencies



# CALENDAR FOR WATER YEAR 1985

1984

## OCTOBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## NOVEMBER

S	M	T	W	T	F	S
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## DECEMBER

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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

1985

## JANUARY

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20	21	22	23	24	25	26
27	28	29	30	31		

## FEBRUARY

S	M	T	W	T	F	S
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24	25	26	27	28		

## MARCH

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31						

## APRIL

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## MAY

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19	20	21	22	23	24	25
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## JUNE

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## JULY

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28	29	30	31			

## AUGUST

S	M	T	W	T	F	S
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18	19	20	21	22	23	24
25	26	27	28	29	30	31

## SEPTEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					





# Water Resources Data Ohio

## Water Year 1985

### Volume 2. St. Lawrence River Basin Statewide Project Data

by H.L. Shindel, J.H. Klingler, J.P. Mangus, and L.E. Trimble



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-85-2  
Prepared in cooperation with the State of Ohio  
and with other agencies



**UNITED STATES DEPARTMENT OF THE INTERIOR**

**DONALD PAUL HODEL, Secretary**

**GEOLOGICAL SURVEY**

**Dallas L. Peck, Director**

**For information on the water program in Ohio write to**

**District Chief, Water Resources Division  
U.S. Geological Survey  
975 West Third Avenue  
Columbus, Ohio 43212**

**1986**



## PREFACE

This volume of the annual hydrologic data report of Ohio is one of the series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provides 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 Ohio are contained in 2 volumes:

Volume 1. Ohio River Basin

Volume 2. St. Lawrence River Basin - Statewide Project 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. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Ohio and with other agencies under the general supervision of S.M. Hindall District Chief, Ohio.



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<b>16. Abstract (Limit: 200 words)</b>  Water resources data for the 1985 water year for Ohio consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This report in two volumes contains records for water discharge at 136 gaging stations; stage and contents at 4 lakes and reservoirs; water quality at 32 gaging stations, 87 wells, and 5 partial record sites; and water levels at 460 observation wells. Also included are data from 61 crest-stage partial-record stations and 19 miscellaneous sites. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. 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 Ohio.				
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ST. LAWRENCE RIVER BASIN

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## GROUND-WATER STATIONS FOR WHICH RECORDS ARE PUBLISHED VII

(Letter after station location designates type of data: (c) chemical, (l) water level.

Well number	Local number	Location	Page
CRAWFORD COUNTY			
404838082563100	CR-1	Bucyrus (l) .....	113
GEAUGA COUNTY			
412518081221500	GE-3A	Southeast of Chagrin Falls (l) .....	114
HARDIN COUNTY			
404648083412600	HN-2A	Southeast of Dola (l) .....	115
HENRY COUNTY			
412123083574000	HY-2	Southwest of McClure (l) .....	116
LUCAS COUNTY			
413704083362200	LU-1	Toledo (l) .....	117
MEDINA COUNTY			
410142082005900	MD-1	Lodi (l) .....	118
PORTAGE COUNTY			
410540081213600	PO-7	Near Brimfield (l) .....	119
410920081192000	PO-6	East of Kent (l) .....	120
PUTNAM COUNTY			
405505084032900	PU-1	Columbus Grove (l) .....	121
RICHLAND COUNTY			
405753082360800	R-3	Shiloh (l) .....	122
SANDUSKY COUNTY			
411914083045300	S-3	Fremont (l) .....	123
412703083213600	S-2	Woodville (l) .....	124
SENECA COUNTY			
410802083093900	SE-2	Tiffin (l) .....	125
SUMMIT COUNTY			
410330081282000	SU-6	Akron (l) .....	126
410846081271600	SU-7	Cuyahoga Falls (l) .....	127
VAN WERT COUNTY			
405215084335400	VW-1	Van Wert (l) .....	128
WILLIAMS COUNTY			
412821084313600	WM- 1	Bryan (l) .....	129
412930084320900	WM- 3	Bryan (l) .....	130
413108084415300	WM-12	East of Blakeslee (l) .....	131
WYANDOT COUNTY			
405009083172600	WY-1	Upper Sandusky (l) .....	132



VOLUME 2: ST. LAWRENCE RIVER BASIN AND  
STATEWIDE PROJECT DATA

## 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 in Ohio each water year. These data, accumulated during many 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 the interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data--Ohio."

This report (in two volumes) includes records on both surface and ground water in the State. Specifically, it contains: (1) Discharge records for 136 streamflow-gaging stations, 19 miscellaneous sites, and peak flow information for 61 crest-stage partial-record stations; (2) stage and content records for 4 lakes and reservoirs; (3) water-quality data for 32 streamflow-gaging stations, 87 wells, and 5 partial record sites; and (4) water levels for 460 observation wells. Locations of lake- and streamflow-gaging stations, water-quality stations, and observation wells in the St. Lawrence River basin are shown in figures 3a and 3b. Locations at partial-record stations are shown in figure 3c.

This series of annual reports for Ohio began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to present, in two to three volumes, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several years concurrent with it, water-resources data for Ohio were published in a series of 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, Parts 3 and 4." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on the 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 ground-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 Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

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 OH-84-2." For archiving and general distribution, the reports for 1971-74 water years are also identified as water-data reports. These water-data reports can be purchased in paper copy or in microfiche from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information for ordering specific reports, including current prices, may be obtained by writing the District Chief at the address given on the back of title page or by telephoning (614) 469-5553.

## COOPERATION

The U.S. Geological Survey and agencies of the State of Ohio have had cooperative agreements for the collection of water-resource records since 1898. Organizations that assist in collecting data in this report are: Ohio Department of Natural Resources, J. J. Sommer, Director; Ohio Environmental Protection Agency, R. H. Maynard, Director; Ohio Department of Transportation, W. J. Smith, Director; Miami Conservancy District, L. B. Coy, General Manager and Secretary; City of Columbus Department of Public Service, R. C. Parkinson, Director; City of Canton Water Department, J. D. Williams, Superintendent; Northeast Ohio Areawide Coordinating Agency, S. A. Jones, Director; Seneca County Soil and Water District, Gene Baltes, Chief, Water Quality Laboratory. Funds or services were provided by the U.S. Army Corps of Engineers in collecting records for 72 hydrologic-data stations in this report. The Miami Conservancy District, U.S. Army Corps of Engineers, and Ohio Department of Natural Resources aided in collecting records.

## SUMMARY OF HYDROLOGIC CONDITIONS

## Streamflow

Streamflow was normal throughout the State at the beginning of the 1985 water year.

Above-normal precipitation during October and November resulted in excessive streamflow statewide by the end of November, except in northwestern Ohio, where flows remained normal. Streamflow returned to the normal range during December and remained normal throughout January, except for northwestern Ohio, where January's streamflow became excessive in response to heavy rain in late December.



Rain and snowmelt in late February resulted in excessive streamflow in the western part of Ohio and some major flooding in the northern part of the State; streamflow remained normal in the remainder of the State. Streamflow conditions returned to normal in the west during March and remained normal statewide through April.

Below-normal precipitation starting in April caused streamflow to fall into the below-normal range for May with the exception of southwestern and south-central Ohio, where conditions remained normal. Despite below-normal precipitation in June, streamflow returned to the normal range statewide and was above normal in northeastern Ohio.

Streamflow continued to be normal for July and August except for the northwest, where it was deficient in July in response to below-normal precipitation. September's streamflow remained normal except for northwestern Ohio, where above-normal precipitation produced higher flows.

Figure 2 compares the 1985 mean discharges at four selected long-term stations with median discharges for the base period 1951-85.

#### Water Quality

Water-quality data collected from major streams and from a limited number of wells indicate that surface and ground water throughout the State generally are suitable for public supply and most industrial uses when properly treated.

Trace-element analyses of samples collected at the National Stream Quality Accounting Network (NASQAN) sites indicated that all concentrations of arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were considerably less than U.S. Environmental Protection Agency recommended limits for domestic water supply.

Data from the southeastern coal fields show effects of acid mine drainage at many sites. Elevated concentrations of dissolved solids, sulfate, iron ( $>2,500$  mg/L), and suspended sediment ( $>250$  mg/L), are typical of most sites affected by surface mining.

Maumee River at Waterville, and Scioto River at Higby, two of the three major basins that have U.S. Geological Survey Monitors at NASQAN sites, showed improvement in specific conductance and pH during this water year compared to last water year. Dissolved oxygen concentration declined, probably because of low flow and warmer water conditions compared to previous years. Specific conductance at Cuyahoga River at Independence increased probably because of extremely dry weather.

#### Ground-Water Levels

Most of the observation wells in Ohio tap sand and gravel aquifers in buried-valley or water-course systems associated with the State's principal streams. The observation network also includes some bedrock wells in areas where deeper aquifers are important water supplies, such as the carbonate-rock region of northwestern Ohio and various sandstone units of eastern Ohio. The yearly low for most wells occurs during the winter months--especially in colder, drier years--or near the end of the growing season. Highs for the year usually occur from March through June, when recharge from snowmelt and springtime storms is greatest. The normal yearly water-level fluctuation in water-table and confined-aquifer wells is 3 to 5 feet.

Ground-water levels at the start of the 1985 water year were normal except in southeastern Ohio, where deficient precipitation resulted in below-normal levels. During November and December, ground-water levels rose in response to above-normal precipitation. By the end of January, ground-water levels were generally above normal except in eastern Ohio, where they fell to below normal as a result of cold temperatures.

Ground-water levels generally fell in February and rose in March in response to the late February thaw. A decrease in precipitation for April resulted in below-normal ground-water levels for much of the State. Ground-water levels returned to the normal range in May following above-normal precipitation throughout most of the State.

Typical seasonal declines characterized ground-water conditions for the months of June and July, but by August, levels were below normal throughout the State. Ground-water levels continued to decline during September and remained in the below-normal range because of continued deficient precipitation.

#### SPECIAL NETWORKS AND PROGRAM

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activity.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in general or regional water-quality planning and management. The approximately 500 sites in NASQAN are generally located at the downstream ends of hydrologic accounting

units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the U.S. Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for; (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

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

#### EXPLANATION OF THE RECORDS

The records in this report are for the 1985 water year that began October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

#### Station Identification Numbers

Each data station, whether streamsite or wellsite, is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic locations. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Ohio, for surface-water stations where only miscellaneous measurements are made.

#### Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record station and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 04041000, which appears just to the left of the station name, includes the two-digit part number "04" plus the six-digit downstream order number "041000". The part number designates the major river basin; for example, part "03" is the Ohio River Basin, and part "04" is the St. Lawrence River Basin.

#### Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 1.)

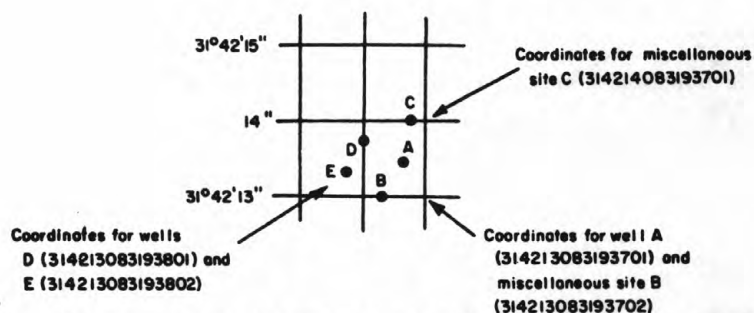


Figure 1 System for numbering wells and miscellaneous sites (latitude and longitude)

#### Records of Stage and Water Discharge

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

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of a partial record is indicated by table titles such as "crest-stage partial records," or "low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage stations in the St. Lawrence River basin for which data are given in this report are shown in figure 3.

#### Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consists of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

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

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



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

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

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

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information.

#### Data Presentation

The records published for each gaging station consist of two parts--the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

**LOCATION.**--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**--Drainage areas are measured using the most accurate maps available. Because the type maps available varies from one drainage basin to another, the accuracy of the drainage areas likewise varies. Drainage areas are updated as better maps become available.

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

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

**GAGE.**--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

**AVERAGE DISCHARGE.**--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at the station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

**EXTREMES FOR PERIOD OF RECORD.**--Extremes may include maximum and minimum stages and maximum and minimum discharges or contents. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

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

**EXTREMES FOR CURRENT YEAR.**--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, including the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

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

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

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

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

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



### Identifying Estimated Daily Discharge

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

### Accuracy of the Records

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

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

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

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

### Other Records Available

Records of discharge, ground-water, reservoir contents, and water-quality not published by the Geological Survey are collected in Ohio at several sites by State and other Federal agencies. The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Ohio District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

### Records of Surface-Water Quality

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

### Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recording; however, because of cost, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this volume are shown in figures 3a and 3b. Locations of partial-record stations are shown in figure 3c.



### Arrangement of Records

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

### On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the sample to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations" (TWRI), Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on p. 19 of this report. Also detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for each day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey District Office, whose address is given on the back of the title page of this report.

### Water Temperatures

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

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

### Sediment

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

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

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

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

#### Laboratory Measurements

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

#### Data Presentation

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

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

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

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

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

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

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

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

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

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

## Remark Codes

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

## PRINTED OUTPUT

## REMARK

E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organisms may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

## Records of Ground-Water Levels

Water-level data from a network of observation wells (as well as project wells) are given in this report. The network well data are intended to provide a sampling and historical record of water-level changes in the Nations most important aquifers. Locations of the observation wells in this network in the St. Lawrence River basin are shown in figures 3a, and 3b. Water-level data for specific projects are reported under those projects.

## 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 a 15-digit number that is based on latitude and longitude. The secondary identification number is the local well number, that is provided for local needs.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above National Geodetic Vertical Datum of 1929 is given in each well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

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

## Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. 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); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

**AQUIFER.**--This entry describes the aquifer by age and composition.

**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.



**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 (LSD) is described in feet above (or below) 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 are also water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

**PERIOD OF PUBLISHED 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 or cooperating agency, and the words "to current year" if the records are to be continued to the following year. Periods for which water-level records are available, but not published by the Survey, may be noted.

**EXTREMES FOR PERIOD OF PUBLISHED RECORD.**--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum (LSD), 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 (or above) land-surface datum. All periodic measurements of water levels for wells are listed. For wells equipped with recorders, daily water-level lows are published. The highest and lowest daily water levels of the water year are shown on a line below the table. Because only daily lows are published for wells with recorders, the extreme instantaneous high may be a value that is 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 differ from other types of records in that for most sampling sites, they consist of only one set of measurements. The quality of ground water ordinarily changes slowly, so that frequent measuring of the same parameter is not necessary unless one is concerned with a particular problem such as monitoring for trends of a particular constituent.

#### Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality 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.

Most methods for collecting and analyzing water samples are described in the TWRI manuals listed on page \_\_\_\_\_. The data presented in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and the material comprising the casings.

#### Data Presentation

The records of ground-water quality are published intermixed with the ground-water-level data for network wells and with the specific project for project wells.

#### ACCESS TO WATSTORE DATA

The National WATER Data STORAGE and RETrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, VA.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices. (See address given on the back of the title page.)

General inquiries about WATSTORE may be directed to:

Chief Hydrologist  
U.S. Geological Survey  
437 National Center  
Reston, VA 22092

## DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot, and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

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

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield reasonable 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, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35°C. In the laboratory, these bacteria are defined as the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C  $\pm$  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  $\pm$  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 intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C  $\pm$  1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

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

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

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

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

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.

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

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

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

Cubic foot per second (cfs, ft<sup>3</sup>/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

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

Dissolved: That material in a representative water sample which passes through a 0.45-micrometer 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 totalling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.



Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ( $\text{CaCO}_3$ ).

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

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

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.

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

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G,  $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Microgram per kilogram (UG/KG,  $\mu\text{g/kg}$ ) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of bottom material.

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

Milligrams per liter (MG/L,  $\text{mg/L}$ ) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in  $\text{mg/L}$ , 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.

National Stream-Quality Accounting Network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meters ( $\text{m}^2$ ), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

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



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

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

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

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

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

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

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

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

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

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

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

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

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

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

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

Milligrams of carbon per area or volume per unit time [ $\text{mg C}/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg C}/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [ $\text{mg O}_2/(\text{m}^2 \cdot \text{time})$ ] for periphyton and macrophytes and [ $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$ ] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material.--The amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

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

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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

7-day 10-year low flow ( $7 Q_{10}$ ) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks 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 micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). 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.

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

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

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lives.

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

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

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

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Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata
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Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

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 determines all of the constituent in the sample.)

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

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

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published after 1975.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (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."

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- 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.
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- 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 and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 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.
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- 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.
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- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
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- 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.
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- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
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- 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.
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- 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.
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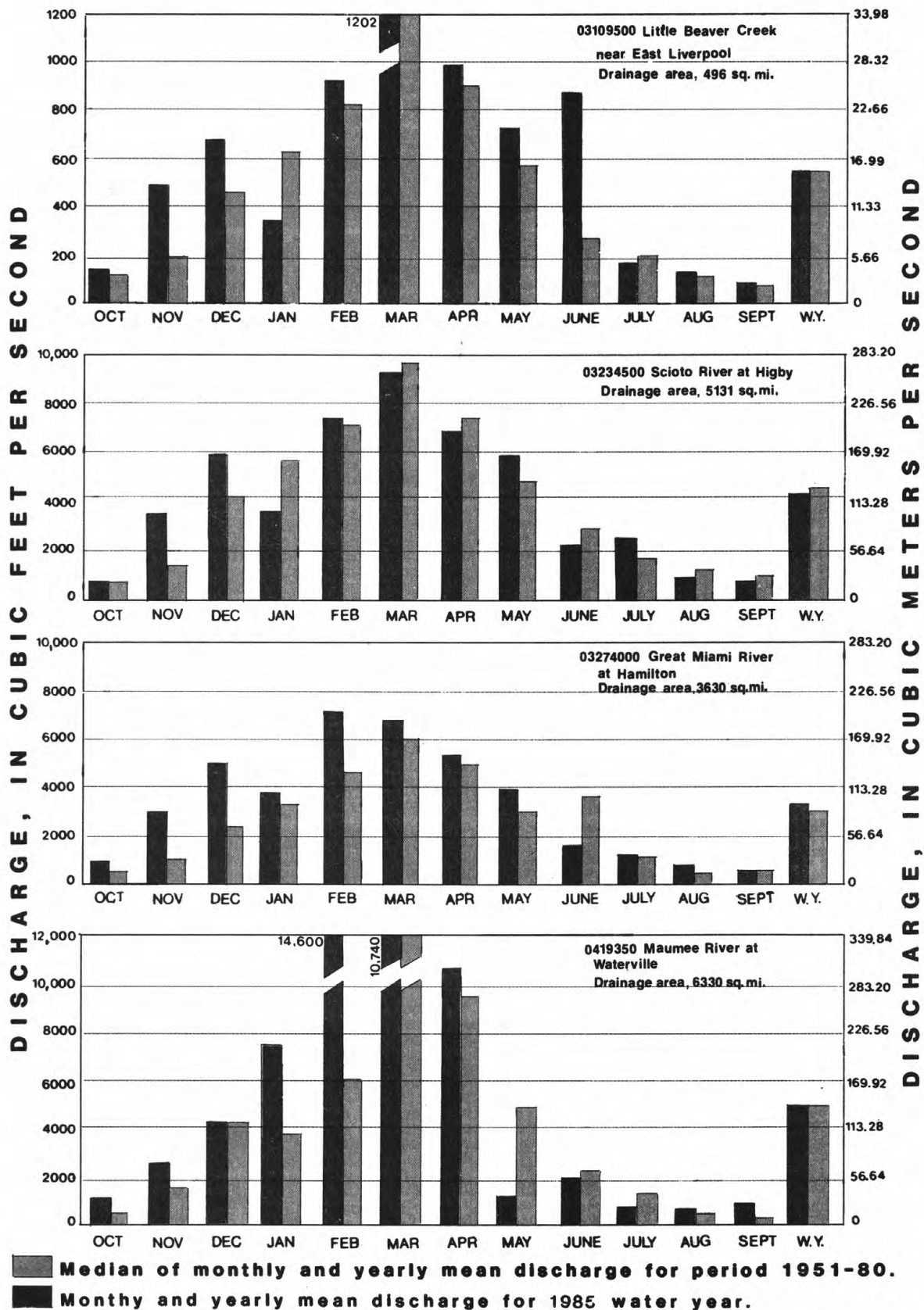


Figure 2.--Runoff during 1985 water year compared with median runoff for period 1951-80 for four representative gaging stations.

## WATER RESOURCES DATA FOR OHIO, 1985

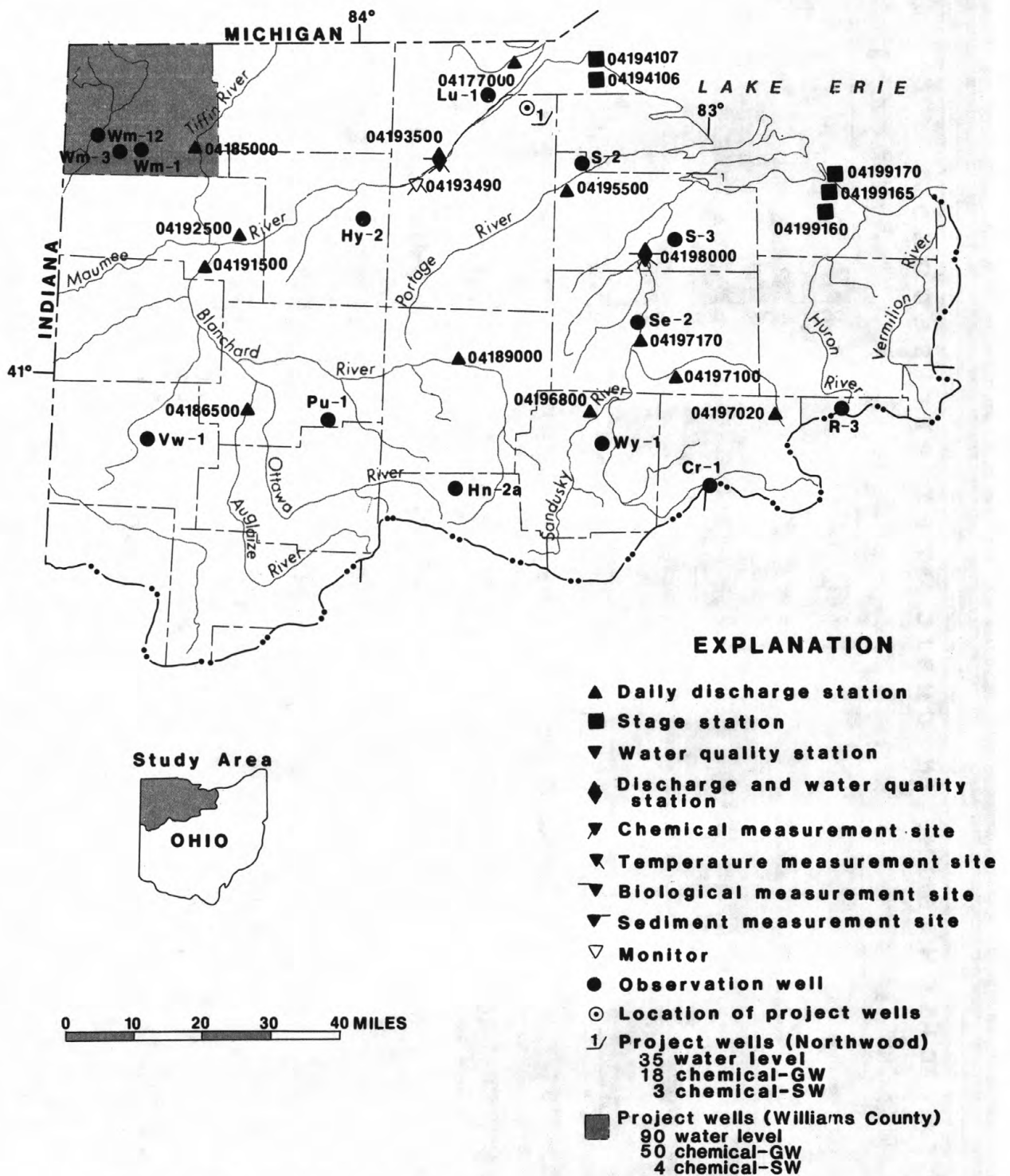


Figure 3a.--Location of data-collection stations excluding crest-stage and low-flow partial record sites.

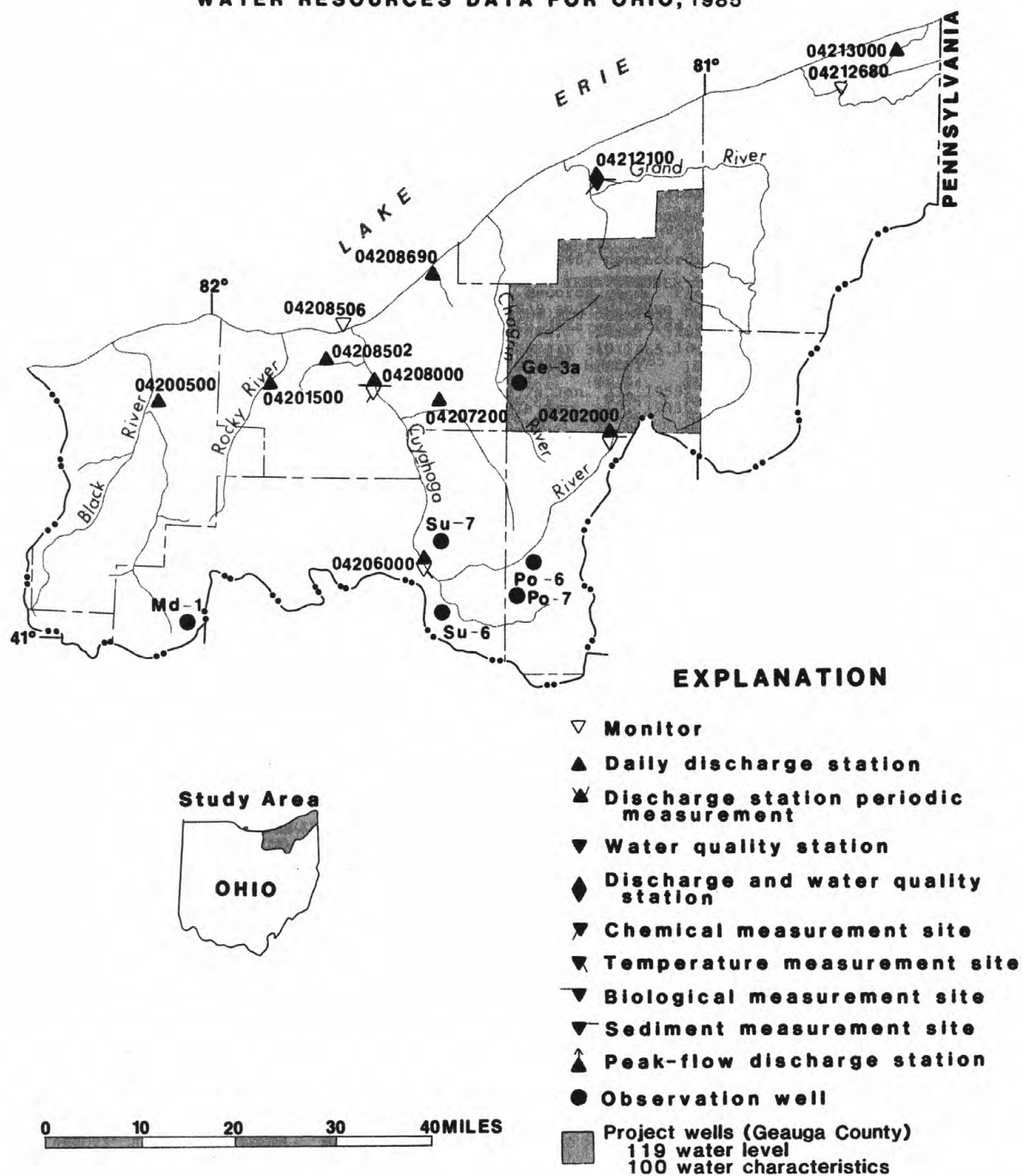


Figure 3b.--Location of data-collection stations including crest-stage and low-flow partial record sites.



## WATER RESOURCES DATA FOR OHIO, 1985

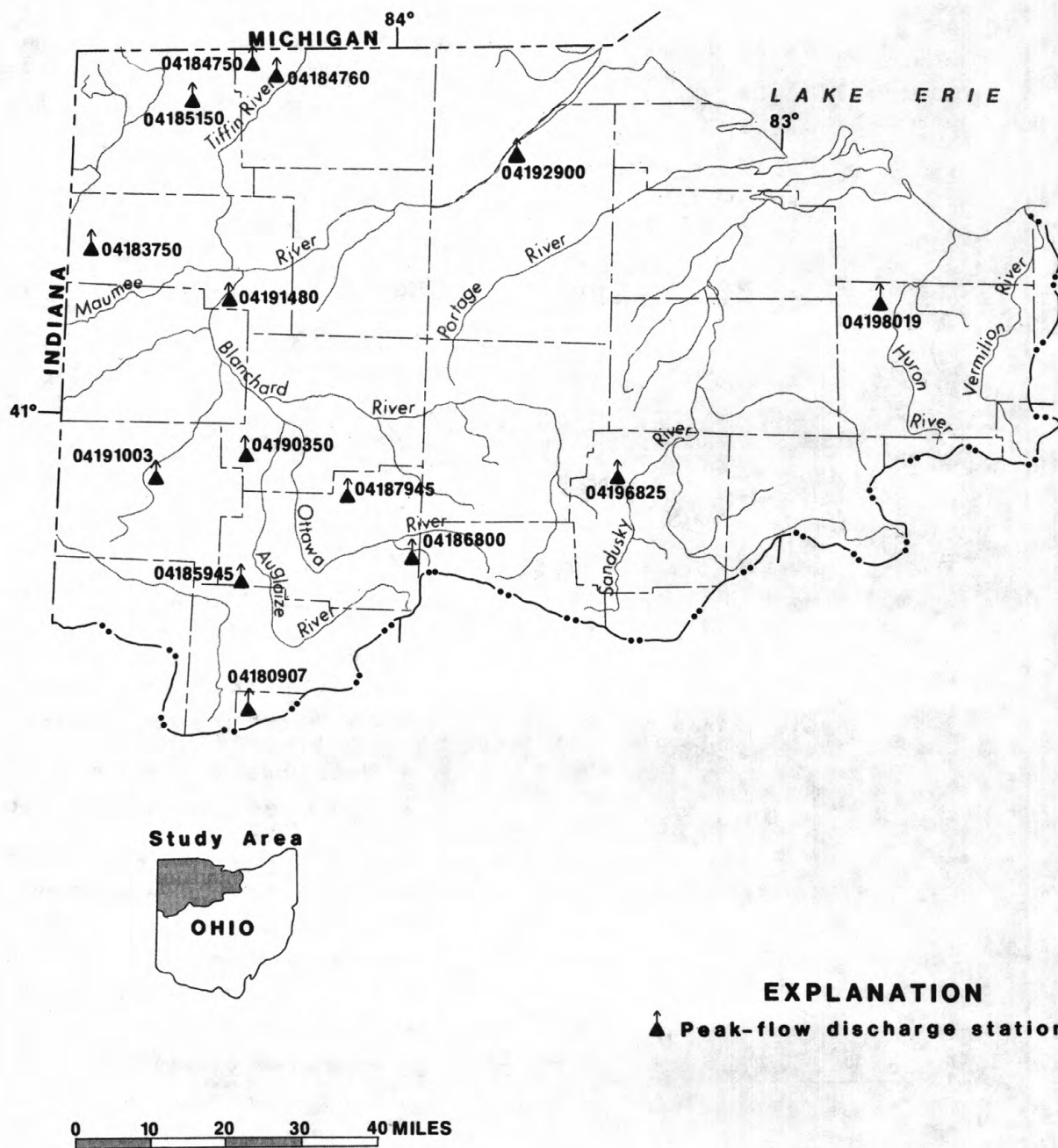


Figure 3c.--Location of crest-stage and low-flow partial record sites.

## 04177000 OTTAWA RIVER AT TOLEDO UNIVERSITY, TOLEDO, OH

LOCATION.--Lat 41°39'36", long 83°36'44", in NE 1/4 sec. 32, T.9 S., R.7 E., Lucas County, Hydrologic Unit 04100001, on left bank at auto bridge at Toledo University, Toledo, Ohio., 0.4 mi downstream from Deline Ditch, 5.6 mi upstream from Sibley Creek, and 10.9 mi upstream from mouth.

DRAINAGE AREA.--150 mi<sup>2</sup>. Area at site used prior to Sept. 30, 1948, 150 mi<sup>2</sup>, revised.

PERIOD OF RECORD.--March 1945 to September 1948 (published as "Tenmile Creek at Toledo"), August 1976 to current year.

REVISED RECORDS.--WSP 1307: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 576.28 ft above National Geodetic Vertical Datum of 1929. (From Aug. 1976 to July, 1979 at site 500 ft downstream. Prior to Sept. 30, 1948 water-stage recorder at site 2,500 ft upstream at datum 3.72 ft higher.

REMARKS.--Estimated daily discharges: Oct. 25 to Dec. 15, Dec. 25-29, Jan. 9 to Feb. 24, May 1-4, and Aug. 5-8. Records poor. Water-quality data collected at this site 1977.

COOPERATION.--Gage height record, Dec. 16 to June 6, supplied by Toledo University.

AVERAGE DISCHARGE.--12 years(1946-48, 1977-85) 127 ft<sup>3</sup>/s, 11.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft<sup>3</sup>/s Mar. 14, 1982, gage height, 14.54 ft; minimum, no flow Aug. 24 to Sept. 19, 1945, July 7-15, Aug. 12-15, Sept. 1-9, 16-22; Oct. 5-10, 1946.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1943 reached a stage of 15.1 ft present datum, from floodmark, Lucas County Sanitary Engineers, discharge, 3,400 ft<sup>3</sup>/s. Flood of Apr. 25, 1950 reached a stage of 15.0 ft present datum, from floodmark, discharge, 3,300 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1150 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 2	1600	1,740	10.81	Mar. 30	0600	1,860	11.12
Feb. 25	0300	*2,740	*12.81	Apr. 1	0400	1,840	11.09
Mar. 5	1900	1,640	10.51	Apr. 6	2200	1,190	8.98

Minimum daily discharge, 3.1 ft<sup>3</sup>/s Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	3.8	80	90	1050	18	520	1770	25	18	4.6	4.0	8.0	
2	4.7	150	80	1700	18	395	1150	24	16	7.5	4.0	7.3	
3	8.6	100	66	1280	18	342	650	23	58	6.3	4.0	7.0	
4	7.3	80	56	460	18	511	451	23	16	5.3	3.6	5.9	
5	3.6	70	50	269	18	1460	438	23	14	13	3.5	15	
6	3.1	64	42	180	18	1310	1220	25	13	16	3.6	13	
7	9.9	62	40	150	18	588	1080	24	13	12	3.7	8.5	
8	20	60	45	128	18	421	442	21	12	8.9	4.0	12	
9	12	60	50	110	18	467	285	20	17	7.6	4.9	30	
10	6.9	110	70	86	18	340	212	20	12	124	6.4	17	
11	15	300	150	60	18	302	169	20	36	23	6.4	12	
12	9.9	600	250	50	19	398	129	20	33	19	6.8	8.9	
13	8.6	450	300	45	21	300	106	20	20	13	14	6.4	
14	14	250	350	40	25	209	97	20	17	48	41	5.1	
15	20	190	200	37	24	158	89	41	17	142	66	4.4	
16	43	150	150	34	23	120	77	18	17	143	16	3.9	
17	55	130	109	32	23	101	62	25	22	112	7.8	3.8	
18	35	110	91	30	23	82	56	18	19	43	6.2	3.9	
19	20	100	91	28	23	70	54	16	25	25	5.8	4.0	
20	12	88	87	27	23	66	49	26	23	17	6.2	3.9	
21	30	80	161	26	23	57	45	27	16	14	4.6	4.5	
22	15	74	419	24	100	52	43	18	14	12	5.7	4.8	
23	25	68	387	23	700	59	42	18	13	9.9	5.2	9.7	
24	19	64	180	22	2000	67	42	16	11	7.5	34	28	
25	20	62	130	21	2620	58	42	17	10	7.3	18	6.4	
26	30	60	90	20	1800	49	39	18	9.0	6.8	138	7.5	
27	50	60	72	20	1180	47	35	68	6.5	6.8	44	5.5	
28	66	70	70	19	815	352	31	66	5.7	5.4	22	5.1	
29	60	100	120	19	---	1570	29	30	5.1	4.4	16	5.1	
30	54	130	200	19	---	1760	27	29	4.9	4.3	15	8.3	
31	50	---	345	18	---	1680	---	23	---	4.0	9.7	---	
TOTAL	731.4	3972	4541	6027	9640	13911	8961	782	513.2	872.6	530.1	264.9	
MEAN	23.6	132	146	194	344	449	299	25.2	17.1	28.1	17.1	8.83	
MAX	66	600	419	1700	2620	1760	1770	68	58	143	138	30	
MIN	3.1	60	40	18	18	47	27	16	4.9	4.0	3.5	3.8	
CFSM	.16	.88	.97	1.29	2.29	2.99	1.99	.17	.11	.19	.11	.06	
IN.	.18	.99	1.13	1.49	2.39	3.45	2.22	.19	.13	.22	.13	.07	
CAL YR 1984	TOTAL	44820.73		MEAN	122	MAX	1410	MIN	.88	CFSM	.81	IN.	11.05
WTR YR 1985	TOTAL	50746.2		MEAN	139	MAX	2620	MIN	3.1	CFSM	.93	IN.	12.59

## STREAMS TRIBUTARY TO LAKE ERIE

04185000 TIFFIN RIVER AT STRYKER, OH

LOCATION.--Lat 41°30'16", long 84°25'47", in SW 1/4 sec. 5, T.6 N., R.4 E., Williams County, Hydrologic Unit 04100006, on left bank 0.5 mi downstream from bridge on State Highway 191 at west edge of Stryker, 0.6 mi upstream from Penn Central bridge, and 1.6 mi downstream from Leatherwood Creek.

DRAINAGE AREA.--410 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1921 to September 1928 (published as "near Stryker"), October 1940 to current year.

REVISED RECORDS.--WSP 1144: 1922-28. WSP 1387: 1925. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 685.1 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1928, nonrecording gage at site 3.5 mi downstream at different datum. Oct. 13, 1940, to Jan. 17, 1941, nonrecording gage and Jan. 18, 1941, to Sept. 30, 1953, water-stage recorder, at site 0.5 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 1-10, Dec. 6-12, Jan. 11 to Feb. 21. Records poor. Small diversion 12.5 mi upstream from gage for municipal supply of Archbold. Diversion averaged 2.07 ft<sup>3</sup>/s is returned as sewage to Brush Creek which flows into Tiffin River about 15 mi downstream from station. Water-quality data collected at this site 1965 to 1977. Sediment data collected 1969 to 1974.

AVERAGE DISCHARGE.--52 years, 325 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,800 ft<sup>3</sup>/s Mar. 15, 1982, gage height, 18.36 ft; minimum daily discharge, 3.9 ft<sup>3</sup>/s Aug. 30, 31, Sept. 1, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 16.0 ft, from floodmarks, discharge, 7,600 ft<sup>3</sup>/s. Flood in 1937 reached a stage of 15.0 ft, from information by local resident, discharge, 6,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,850 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 3	1500	3,180	13.76	Mar. 31	1700	3,530	14.59
Feb. 25	2400	*6,260	*16.47	Apr. 8	1100	2,070	12.77
Mar. 5	0700	2,070	12.77				

Minimum daily discharge, 17 ft<sup>3</sup>/s Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	174	299	2210	62	2740	3160	165	151	34	26	20
2	47	341	260	2980	61	2180	3050	159	125	34	25	19
3	46	379	242	3090	60	1790	2020	151	105	36	24	20
4	36	322	243	2910	60	1590	1670	142	87	36	22	19
5	36	283	231	2410	59	2010	1440	136	78	115	24	19
6	38	255	190	1920	59	1920	1700	131	68	277	29	19
7	52	228	200	1470	58	1840	1900	128	62	155	36	22
8	85	207	150	1020	58	1610	2000	121	56	89	51	25
9	140	195	155	632	58	1390	1750	114	55	62	55	27
10	155	275	175	479	58	1300	1490	112	211	82	44	79
11	144	837	195	410	61	1300	1220	109	165	98	35	134
12	122	1290	185	260	65	1340	929	105	127	73	30	103
13	107	1490	287	180	72	1250	683	103	137	58	28	69
14	99	1550	675	135	80	1140	527	98	120	51	37	49
15	100	1300	905	120	78	933	447	92	97	111	58	38
16	188	819	925	110	76	706	392	96	89	352	267	31
17	327	500	773	105	74	537	342	96	99	284	217	24
18	291	384	544	99	73	436	303	98	149	168	120	21
19	224	332	407	95	72	367	280	97	202	124	75	19
20	189	290	407	90	71	327	257	96	145	94	55	18
21	350	251	399	86	70	295	242	93	106	72	44	17
22	652	226	724	83	488	271	227	89	86	58	37	18
23	722	211	893	80	2160	260	218	88	72	49	34	19
24	521	200	899	78	3660	256	211	83	61	39	31	25
25	327	191	637	75	5790	254	219	78	53	32	30	42
26	257	182	354	73	5380	244	232	72	47	29	31	36
27	229	176	321	70	4670	243	221	72	43	30	28	34
28	214	196	445	67	3630	394	200	127	41	30	31	32
29	202	280	847	66	---	1580	181	270	39	31	26	30
30	185	330	1200	64	---	2940	171	273	36	28	24	28
31	170	---	1380	63	---	3360	---	188	---	26	22	---
TOTAL	6308	13694	15547	21530	27163	36803	27682	3782	2912	2757	1596	1056
MEAN	203	456	502	695	970	1187	923	122	97.1	88.9	51.5	35.2
MAX	722	1550	1380	3090	5790	3360	3160	273	211	352	267	134
MIN	36	174	150	63	58	243	171	72	36	26	22	17
CAL YR 1984	TOTAL	145294	MEAN	397	MAX	3920	MIN	34				
WTR YR 1985	TOTAL	160830	MEAN	441	MAX	5790	MIN	17				



## STREAMS TRIBUTARY TO LAKE ERIE

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## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OH

LOCATION.--Lat 40°56'55", long 84°15'58", in SE 1/4 sec. 15, T.1 S., R.5 E., Putnam County, Hydrologic Unit 04100007, on left bank 200 ft upstream from bridge on U. S. Highway 224, 3.5 mi northeast of Fort Jennings, 6 mi upstream from Ottawa River, and 7.3 mi downstream from Jennings Creek.

DRAINAGE AREA.--332 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1921 to December 1935. October 1940 to current year.

REVISED RECORDS.--WSP 744: 1932. WSP 974: 1930(M). WSP 1307: 1922-24(M), 1926-27(M), 1929(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 713.6 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 6-13, Jan. 11 to Feb. 20. Records good except those for estimated record, which are fair. Beginning Jan. 4, 1971, water was diverted at a point 24.3 mi upstream from station into Lake Bresler. Storage in Lake Bresler is available for low-flow augmentation and water supply of city of Lima, in Ottawa River basin. Net withdrawal totaled 3,339 mil gal, equivalent to a mean withdrawal of 14.2 ft<sup>3</sup>/s. No releases have been made for low-flow augmentation. Some diversion from Grand Lake to Auglaize River basin through Miami and Erie Canal into Jennings Creek at a point 9.2 mi upstream from station. Annual figures of runoff are considered to be within 10 percent of natural yield. Sediment data collected at this site 1970 to 1974. Water-quality data collected at this site 1968 to 1978.

AVERAGE DISCHARGE.--59 years, 285 ft<sup>3</sup>/s, 11.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft<sup>3</sup>/s Jan. 23, 1959; maximum gage height, 20.30 ft Jan. 23, 1959, from floodmark (ice jam); minimum daily discharge, 1.9 ft<sup>3</sup>/s Sept 22, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 24	1300	*8,490	*17.20	Apr. 1	1600	3,430	11.90

Minimum daily discharge, 1.9 ft<sup>3</sup>/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	18	13	70	2210	20	583	3260	57	101	30	15	39	
2	14	32	75	1390	20	447	2240	72	66	32	15	36	
3	12	41	68	527	20	374	759	103	115	33	14	35	
4	12	58	59	295	20	413	450	210	82	34	12	28	
5	11	57	53	182	20	1370	337	146	74	42	12	21	
6	8.7	55	40	126	20	986	684	110	90	46	18	20	
7	7.7	48	30	117	20	459	694	90	82	41	22	17	
8	21	42	25	105	20	335	420	79	64	43	23	14	
9	22	36	26	96	20	322	293	71	55	40	16	17	
10	21	34	27	76	21	276	229	65	51	40	16	16	
11	19	39	29	89	23	236	195	60	51	38	27	12	
12	16	49	31	76	27	556	168	57	131	28	21	12	
13	18	57	43	68	42	706	144	55	320	29	12	16	
14	16	89	64	62	56	401	134	54	220	29	11	11	
15	14	85	210	56	73	270	139	52	138	27	15	8.9	
16	14	71	218	50	84	214	132	68	129	26	33	9.7	
17	11	60	116	45	80	186	129	63	179	22	27	6.7	
18	8.1	53	77	39	78	155	115	57	192	20	21	4.9	
19	7.5	47	59	34	76	128	104	62	129	17	21	4.3	
20	8.7	44	52	31	74	116	96	66	89	16	18	3.4	
21	15	41	58	29	74	141	91	75	62	20	20	2.5	
22	21	40	67	28	513	173	85	81	51	17	16	1.9	
23	18	37	125	26	3430	149	80	86	42	14	12	2.0	
24	16	36	110	25	7930	155	77	88	39	13	20	6.7	
25	14	36	66	24	7250	192	76	51	50	11	49	7.8	
26	17	35	54	23	4860	164	74	57	46	12	53	5.8	
27	16	36	41	23	1730	129	76	57	43	20	56	4.7	
28	14	44	63	22	898	134	69	203	39	16	62	3.6	
29	13	53	238	22	---	278	63	440	35	11	45	3.8	
30	11	59	923	21	---	253	59	240	32	9.6	46	2.2	
31	11	---	1300	21	---	1180	---	165	---	11	38	---	
TOTAL	445.7	1427	4417	5938	27499	11481	11472	3140	2797	787.6	786	372.9	
MEAN	14.4	47.6	142	192	982	370	382	101	93.2	25.4	25.4	12.4	
MAX	22	89	1300	2210	7930	1370	3260	440	320	46	62	39	
MIN	7.5	13	25	21	20	116	59	51	32	9.6	11	1.9	
CFSM	.04	.14	.43	.58	2.96	1.11	1.15	.30	.28	.08	.08	.04	
IN.	.05	.16	.49	.67	3.08	1.29	1.29	.35	.31	.09	.09	.04	
CAL YR 1984	TOTAL	117521.2		MEAN	321	MAX	4680	MIN	6.5	CFSM	.97	IN.	13.13
WTR YR 1985	TOTAL	70563.2		MEAN	193	MAX	7930	MIN	1.9	CFSM	.58	IN.	7.91

## STREAMS TRIBUTARY TO LAKE ERIE

04189000 BLANCHARD RIVER NEAR FINDLAY, OH

LOCATION.--Lat 41°03'21", long 83°41'17", on east line of sec. 10, T.1 N., R.10 E., Hancock County, Hydrologic Unit 04100008, on left bank at upstream side of county road bridge, 2 mi west of Findlay, 3 mi downstream from Eagle Creek, and 3 mi upstream from Aurand Run.

DRAINAGE AREA.--346 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1923 to December 1935, October 1940 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 974: 1942. WSP 1054: 1927-30, 1933(M), 1945. WSP 1387: 1926, 1928(M), 1930(M), 1952. WSP 1912: Drainage area. WRD-OH-81-2: 1959, 1975 (M).

GAGE.--Water-stage recorder. Datum of gage is 754.55 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1930, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 14 to Feb. 9 and Feb. 16-21. Records good except for periods of estimated record, which are fair. Water is diverted upstream from station into Findlay Reservoir. Storage in Findlay Reservoir used for water supply of city of Findlay, and is available for low-flow augmentation. All water returns to stream upstream from station. No releases have been made for low-flow augmentation. Sediment data collected at this site 1970-74. Water-quality data collected at this site 1968 to 1980.

AVERAGE DISCHARGE.--57 years, 255 ft<sup>3</sup>/s, 10.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft<sup>3</sup>/s June 14, 1981, gage height, 17.43 ft from measurement made on peak; minimum daily, 0.4 ft<sup>3</sup>/s Aug. 27, Sept. 3, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 18.5 ft; discharge, 22,000 ft<sup>3</sup>/s, from rating curve extended above 10,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 24	1030	*6,380	*12.40	Mar. 31	2200	2,900	8.16

Minimum daily discharge, 15 ft<sup>3</sup>/s Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	37	61	1880	38	531	2280	73	62	44	40	46
2	17	40	46	1850	37	447	1090	102	46	147	25	44
3	16	32	53	868	36	378	607	80	155	102	21	37
4	17	46	42	427	35	606	430	147	98	66	18	29
5	16	50	39	288	34	1870	385	104	113	53	20	27
6	15	43	42	208	34	820	774	85	133	49	23	32
7	18	36	32	172	34	435	643	74	98	43	22	31
8	29	32	31	144	34	389	414	48	65	50	21	129
9	21	31	27	92	34	363	317	42	386	47	20	380
10	22	30	40	90	40	288	258	55	611	87	18	92
11	21	126	46	87	54	280	224	55	334	54	16	53
12	22	76	71	70	80	499	188	52	542	51	17	40
13	20	53	134	58	71	500	163	51	491	41	30	32
14	20	54	270	57	65	332	150	51	292	49	54	27
15	53	55	320	49	62	246	143	58	175	103	44	24
16	43	42	265	45	62	194	128	196	149	56	30	24
17	23	31	157	43	65	167	107	237	463	38	23	23
18	22	26	107	44	68	141	94	199	682	33	20	22
19	20	24	84	40	70	119	86	157	422	30	21	22
20	20	22	67	39	72	113	78	107	225	27	21	22
21	30	21	68	42	80	97	70	90	128	26	23	22
22	25	18	141	47	627	91	67	62	87	28	23	21
23	22	17	174	53	4100	100	63	52	71	27	21	22
24	22	17	144	60	6310	101	60	49	59	25	29	30
25	22	16	89	64	5480	92	59	43	47	24	29	25
26	21	16	55	59	3000	77	52	48	42	40	49	24
27	21	16	66	52	1230	73	47	63	40	28	39	23
28	22	55	108	47	725	120	53	117	53	24	38	21
29	23	49	318	44	---	1160	64	144	49	22	31	20
30	22	47	1270	41	---	631	61	165	45	21	226	22
31	21	---	1060	39	---	1990	---	110	---	105	67	---
TOTAL	703	1158	5427	7099	22577	13250	9155	2916	6163	1540	1079	1366
MEAN	22.7	38.6	175	229	806	427	305	94.1	205	49.7	34.8	45.5
MAX	53	126	1270	1880	6310	1990	2280	237	682	147	226	380
MIN	15	16	27	39	34	73	47	42	40	21	16	20
CFSM	.07	.11	.51	.66	2.33	1.23	.88	.27	.59	.14	.10	.13
IN.	.08	.12	.58	.76	2.43	1.42	.98	.31	.66	.17	.12	.15
CAL YR 1984	TOTAL	122678	MEAN	335	MAX	6000	MIN	15	CFSM	.97	IN.	13.15
WTR YR 1985	TOTAL	72433	MEAN	198	MAX	6310	MIN	15	CFSM	.57	IN.	7.79

## STREAMS TRIBUTARY TO LAKE ERIE

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## 04191500 AUGLAIZE RIVER NEAR DEFIANCE, OH

LOCATION.--Lat 41°14'14", long 84°23'59", in NE 1/4 sec. 9, T.3 N. R.4 E., Defiance County, Hydrologic Unit 04100007, on right bank 125 ft downstream from hydroelectric dam of Hydro-Corporation, 0.2 mi upstream from Jackson ditch, and 3 mi south of Defiance.

DRAINAGE AREA.--2,318 mi<sup>2</sup>.

PERIOD OF RECORD.--May to August 1903 (gage heights only), April 1915 to current year. Monthly discharges only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 954: 1941. WSP 1912: Drainage area. WRD OH-72-1: 1966 (M).

GAGE.--Water-stage recorder. Datum of gage is 659.70 ft above National Geodetic Vertical Datum of 1929. May 20 to Aug. 8, 1903, non-recording gage at site 1.8 mi downstream at different datum. April 13, 1915, to Dec. 6, 1933, nonrecording gage near right bank on downstream side of dam at datum 6.00 ft higher, and auxiliary tailwater staff gage near right bank on downstream side of dam at present datum. Oct. 1982 to Nov. 1984 at dam 125 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: Jan. 12 to Feb. 20, Feb. 24-26 and Sept. 18-30. Records good except those for periods of estimated record and after April 3 which are poor. Flow regulated by dam at powerplant at station; reservoir capacity, 9,800 acre-ft. Plant shut down except for occasional gate operation, Jan. 10, 1963 to Sept. 7, 1985. Some diversion by Miami and Erie Canal from Grand Lake into Jennings Creek, tributary to Auglaize River 70 mi upstream from station. Water-quality data collected at this site 1966 to 1977.

AVERAGE DISCHARGE.--70 years, 1,734 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,500 ft<sup>3</sup>/s Feb. 16, 1950, Feb. 12, 1959, gage height, 26.4 ft, from graph based on hourly powerplant tailwater-gage readings, and gage readings respectively; maximum gage height 27.65 ft Feb. 13, 1959, from flood mark (ice jam). Minimum daily discharge, 0.5 ft<sup>3</sup>/s Oct. 13, 14, 1952 during repair to powerplant dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of 38.8 ft, from reading on powerplant tailwater gage at present datum; discharge, 120,000 ft<sup>3</sup>/s, from rating curve extended above 51,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47,300 ft<sup>3</sup>/s Feb. 25, gage height 25.94 ft from floodmark in gage house; minimum daily, 59 ft<sup>3</sup>/s Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	111	350	11700	130	8770	16700	339	971	68	71	635
2	95	87	346	15400	130	6430	16300	357	725	69	65	502
3	84	180	356	13000	130	4370	10300	454	669	63	93	368
4	60	226	281	6920	130	4610	5020	580	1160	78	110	260
5	60	200	249	4020	130	10100	4100	661	1100	107	100	202
6	59	211	247	2790	130	11000	7120	572	723	100	101	160
7	75	202	206	1800	130	7010	7030	503	504	93	126	294
8	103	195	194	1240	130	4440	4990	381	393	98	172	225
9	101	206	200	845	130	2860	3480	401	278	94	133	141
10	138	224	210	612	140	3130	1960	347	194	242	103	1280
11	120	488	218	540	160	2140	2040	315	230	226	77	1750
12	110	1080	245	500	190	2760	1930	290	540	221	78	1030
13	101	931	354	450	250	3550	1630	258	1620	210	85	468
14	102	811	979	410	340	2840	1360	262	2000	165	109	238
15	120	717	1920	380	370	2000	1110	284	1330	149	375	190
16	212	546	2060	340	400	1100	1150	262	868	118	566	138
17	202	422	1910	290	400	1380	1040	261	1770	152	532	106
18	181	344	1380	250	400	1540	883	352	3640	160	431	92
19	187	280	899	220	420	776	721	467	2600	143	324	84
20	123	233	637	200	450	870	678	549	1570	120	248	80
21	134	207	565	190	496	820	627	533	930	101	202	78
22	109	172	1090	180	1820	765	571	508	596	94	164	98
23	131	155	974	170	5590	802	538	474	364	83	135	120
24	124	144	1130	170	20000	809	509	438	247	91	132	98
25	123	134	984	160	44000	835	489	389	186	134	197	100
26	128	132	619	160	40000	807	481	344	141	90	268	130
27	117	132	534	150	27500	711	446	270	109	84	278	110
28	100	182	738	150	15700	1970	397	347	90	89	274	96
29	85	262	1200	140	---	3600	397	1620	78	84	301	87
30	92	346	5280	140	---	3670	367	1610	66	79	424	96
31	83	---	7000	140	---	10300	---	1390	---	78	604	---
TOTAL	3544	9560	33355	63657	159796	106765	94364	15818	25692	3683	6878	9256
MEAN	114	319	1076	2053	5707	3444	3145	510	856	119	222	309
MAX	212	1080	7000	15400	44000	11000	16700	1620	3640	242	604	1750
MIN	59	87	194	140	130	711	367	258	66	63	65	78

CAL YR 1984	TOTAL	861610	MEAN	2354	MAX	10170	MIN	59
WTR YR 1985	TOTAL	532368	MEAN	1459	MAX	44000	MIN	59



## STREAMS TRIBUTARY TO LAKE ERIE

04192500 MAUMEE RIVER NEAR DEFIANCE, OH

LOCATION.--Lat 41°17'30", long 84°16'52", in NW 1/4 sec. 22, T.4 N., R.5 E., Defiance County, Hydrologic Unit 04100009, on left bank 40 ft. upstream from Independence Dam, 4 mi downstream from mouth of Auglaize River, and 4.5 mi east of Defiance.

DRAINAGE AREA.--5,545 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1924 to December 1935, March 1939 to September 1974, October 1978 to current year.

REVISED RECORDS.--WSP 974: 1926-27, 1930. WSP 1387: 1925-28, 1946. WRD Ohio, 1970: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is 658.56 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 13, 1924, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good except for winter periods which are fair. Flow affected by regulation of Auglaize River at hydroelectric plant of the Hydro-Corporation, 7 mi upstream. Operation of hydroelectric plant there was discontinued Jan. 10, 1963 to Sept. 7, 1985. Low flow slightly regulated by powerplant at Ft. Wayne, Indiana. Slight diversion 275 ft upstream into Miami and Erie Canal through a 24 inch conduit which bypasses station.

AVERAGE DISCHARGE.--53 years, 4,231 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft<sup>3</sup>/s Mar. 15, 1982, gage height, 15.87 ft; minimum discharge, 2 ft<sup>3</sup>/s Sept. 3, 1925; minimum gage height, 1.09 ft Sept. 26, 1928.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 2	1800	34,900	7.09	Apr. 2	0200	41,100	7.78
Feb. 25	1700	*93,500	*14.19	Apr. 6	2300	24,700	5.92
Mar. 6	1100	29,800	6.52				

Minimum daily discharge, 287 ft<sup>3</sup>/s Aug. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	680	673	1800	25300	884	37800	39700	1370	2310	462	287	1130
2	520	709	1790	34100	845	31300	39300	1320	1900	420	287	898
3	500	1140	1790	32100	874	24500	31700	1410	1630	415	322	729
4	525	1320	1840	24100	803	20200	23000	1600	1930	429	326	571
5	333	1540	1390	17200	747	27100	17400	1580	1990	490	338	484
6	327	1380	1440	13400	700	28500	23300	1480	1660	516	345	492
7	374	1260	1110	10800	722	22300	23800	1380	1420	812	370	508
8	449	1130	822	8690	763	16500	20000	1300	1180	793	540	577
9	685	1070	864	6440	753	13300	15600	1280	1120	629	927	876
10	986	1110	1140	4230	742	11800	12000	1190	982	907	716	1810
11	868	2940	1160	2990	786	10900	9890	1090	954	890	482	2920
12	1070	7670	1100	2230	884	13100	8640	1010	1370	770	414	3420
13	924	9200	1550	1720	1030	13800	7060	907	2160	666	412	2140
14	741	7730	3520	1570	1270	11700	5720	814	2750	567	449	1510
15	703	6350	7190	1540	1390	9450	4790	815	2820	527	800	1260
16	933	5430	8050	1550	1420	7110	4080	800	2250	464	2270	795
17	1050	4530	7010	1450	1430	5980	3660	774	3190	571	2430	635
18	1130	3530	5450	1490	1450	5880	3290	807	6630	734	1980	611
19	1000	2600	4190	1480	1480	3950	2660	901	6080	607	1350	510
20	778	2000	3520	1280	1510	3430	2550	1000	4390	771	1070	455
21	852	1620	3180	1340	1530	3300	2240	989	2720	860	793	406
22	2010	1430	5960	1310	4590	2940	2120	966	1760	598	627	396
23	2160	1270	6750	1250	25100	2650	1940	960	1530	442	524	467
24	2320	1140	5830	1230	54300	2690	1830	725	1230	404	471	520
25	1850	1150	4600	1130	87100	2530	1710	754	935	395	458	424
26	1510	1000	3650	1090	81600	2460	1740	796	769	357	475	598
27	1200	929	2760	1150	62700	2280	1670	736	649	315	490	419
28	991	988	3070	1080	48100	3620	1520	761	573	372	613	376
29	822	1310	5960	1010	---	19900	1520	2050	552	362	671	384
30	761	1620	11600	946	---	20900	1470	3480	513	293	747	427
31	687	---	15500	896	---	29000	---	2840	---	319	922	---
TOTAL	29739	75769	125586	206092	365503	410870	315900	37885	59947	17157	22906	26748
MEAN	959	2526	4051	6648	13770	13250	10530	1222	1998	553	739	892
MAX	2320	9200	15500	34100	87100	37600	39700	3480	6630	907	2430	3420
MIN	327	673	822	896	700	2280	1470	725	513	293	287	376
CAL YR 1984	TOTAL	1861036		MEAN	5085	MAX	43200	MIN	254			
WTR YR 1985	TOTAL	1714102		MEAN	4696	MAX	87100	MIN	287			

## STREAMS TRIBUTARY TO LAKE ERIE

04193490 MAUMEE RIVER NEAR WATERVILLE, OH

LOCATION.--Lat 41°28'34", long 83°44'20", Lucas County, Hydrologic Unit 04100009, in Bowling Green water-treatment plant, 2.0 mi upstream from discharge station at Waterville.

DRAINAGE AREA.--6,313 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1950 to 1976 (published as Maumee River at Waterville). 1976 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1963 to current year.

pH: May 1963 to current year.

WATER TEMPERATURES: March 1950 to current year.

DISSOLVED OXYGEN: May 1963 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1963. Prior to June 1974 water-quality monitor located in water-treatment plant 2,500 ft upstream from discharge station. Prior to May 1963 alcohol-actuated thermograph located at discharge station.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Prior to October 1976, records published as 04193500, Maumee River at Waterville, Ohio. See records of daily discharge for gaging station at Waterville (04193500).

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,260 microsiemens Feb. 16, 1977; minimum, 156 microsiemens Mar. 14, 1982.

pH: Maximum, 11.4 units Jan. 16, 1965; minimum, 5.0 units Nov. 24, 1968.

WATER TEMPERATURES: Maximum, 34.0°C July 1, 1963; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L Nov. 18-21, 1980, Mar. 27-29, 1981; minimum, 0.3 mg/L Nov. 10, 1965.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 954 microsiemens Aug. 14; minimum, 225 microsiemens Feb. 26.

pH: Maximum recorded, 9.5 units Sept. 28; minimum recorded, 6.9 units on Mar. 30, 31.

WATER TEMPERATURES: Maximum, 31.5°C July 27; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum recorded, 19.9 mg/L June 29; minimum recorded, 4.1 mg/L July 30.

## STREAMS TRIBUTARY TO LAKE ERIE

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	702	684	696	642	621	634	663	630	646	603	477	518
2	699	684	693	660	633	651	687	660	672	471	375	408
3	702	681	693	663	645	655	687	663	675	393	354	383
4	702	678	688	663	645	652	717	684	702	393	378	386
5	693	369	653	687	648	664	723	702	709	408	387	398
6	684	666	672	699	678	687	714	696	703	432	399	416
7	684	663	671	705	678	691	738	711	720	447	420	436
8	681	663	673	696	675	684	750	723	735	465	447	457
9	693	669	682	696	672	681	744	723	732	501	459	474
10	696	681	685	702	669	687	735	717	724	507	441	490
11	705	687	697	729	681	703	750	723	736	531	501	517
12	708	702	705	759	711	740	765	741	756	549	528	538
13	729	702	717	786	636	733	768	741	759	567	537	549
14	738	720	731	603	546	571	783	726	754	570	522	563
15	741	735	738	597	561	579	774	723	742	579	567	574
16	738	723	729	591	543	561	750	672	718	591	567	578
17	738	717	728	555	540	543	699	657	674	603	582	593
18	756	738	746	564	546	559	702	678	686	621	594	610
19	750	729	738	564	555	558	675	636	658	633	612	627
20	750	729	739	567	552	556	639	618	629	660	630	649
21	747	723	732	573	552	561	639	621	627	693	660	684
22	750	732	743	582	561	573	663	627	643	696	693	694
23	756	738	747	588	570	579	669	648	656	---	---	---
24	753	714	732	594	576	585	666	558	631	---	---	---
25	738	708	721	603	585	589	597	519	569	---	---	---
26	747	720	730	612	591	598	609	597	602	---	---	---
27	765	732	750	618	600	609	633	606	620	---	---	---
28	729	681	709	621	603	614	663	630	641	870	759	774
29	699	615	658	630	606	620	654	639	644	792	765	778
30	627	603	611	642	618	634	645	579	620	801	780	792
31	633	603	621	---	---	---	609	349	578	807	789	802
MONTH	765	369	704	786	540	625	783	349	676	870	354	565
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	813	804	808	330	297	318	459	432	443	549	528	540
2	825	804	815	348	327	338	462	300	389	585	549	573
3	840	813	826	384	342	360	354	336	345	603	567	588
4	852	825	838	435	375	407	369	351	361	591	537	570
5	864	843	852	432	396	416	396	369	383	579	531	553
6	873	858	863	417	390	403	420	381	408	564	531	549
7	873	858	866	420	405	411	393	375	381	570	540	553
8	873	861	865	444	405	430	393	375	386	681	531	571
9	885	864	870	462	432	447	402	393	396	552	522	536
10	882	864	870	495	459	475	438	402	417	537	519	528
11	882	864	869	516	477	494	462	426	445	528	513	523
12	882	858	867	540	516	527	462	450	455	546	525	534
13	861	855	859	534	510	523	483	453	471	549	543	546
14	876	861	871	549	510	530	495	477	488	570	543	554
15	897	876	887	552	528	544	507	495	501	612	564	583
16	906	882	892	561	537	555	519	498	510	654	600	626
17	909	900	907	558	543	553	537	510	526	714	654	703
18	915	903	906	567	549	562	540	519	530	714	696	706
19	927	906	915	573	552	563	540	525	532	711	624	683
20	939	918	924	585	558	574	543	519	529	642	600	628
21	927	903	915	597	576	584	528	519	524	714	633	676
22	921	657	785	600	588	599	525	519	524	714	633	670
23	642	372	472	612	597	602	534	513	526	717	630	677
24	450	240	309	627	612	620	537	513	526	651	594	631
25	240	231	233	645	600	632	573	534	552	609	555	585
26	249	225	239	648	633	641	543	489	518	573	546	557
27	282	249	266	651	639	647	522	489	512	561	528	546
28	330	297	318	660	543	636	558	510	526	696	570	643
29	---	---	---	642	513	562	552	513	536	768	645	693
30	---	---	---	528	489	501	555	525	539	687	657	678
31	---	---	---	534	465	494	---	---	---	684	666	674
MONTH	939	225	747	660	297	514	573	300	473	768	513	602



## STREAMS TRIBUTARY TO LAKE ERIE

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04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	711	666	693	510	486	496	540	468	507	534	447	490
2	696	669	686	516	480	500	561	477	517	504	453	484
3	729	690	714	525	477	505	549	438	496	483	444	465
4	762	720	745	513	486	494	504	426	463	450	438	443
5	771	684	731	495	471	483	474	438	459	444	429	436
6	717	636	673	501	462	483	492	456	474	450	435	443
7	675	630	652	501	444	473	492	447	468	462	447	453
8	645	600	630	462	447	457	504	438	469	467	453	477
9	618	579	601	471	444	459	489	438	457	510	471	489
10	603	546	572	477	444	461	468	435	444	633	513	562
11	636	546	580	474	447	463	474	447	462	753	642	704
12	726	633	690	483	459	474	489	441	464	837	729	820
13	741	717	732	480	459	474	459	438	447	828	780	797
14	678	648	667	495	474	483	954	447	555	798	774	786
15	666	630	647	504	495	500	513	471	491	789	765	779
16	672	633	657	516	465	497	525	468	495	813	717	782
17	660	639	652	489	456	480	528	492	507	801	687	753
18	711	651	683	483	462	472	549	522	537	693	600	653
19	678	639	657	468	459	463	606	555	582	636	555	598
20	660	621	640	477	462	466	642	591	617	612	537	576
21	633	588	613	480	462	473	747	561	629	579	549	563
22	588	558	575	507	471	489	633	558	598	591	507	548
23	576	555	564	519	480	503	624	540	584	540	495	515
24	570	561	566	507	465	489	630	531	573	657	546	633
25	579	561	568	483	468	475	615	504	558	651	636	647
26	564	552	561	510	471	485	603	510	570	654	639	646
27	558	546	553	525	447	482	687	486	571	648	636	642
28	564	504	536	486	441	461	591	486	513	645	576	627
29	534	453	500	486	438	460	519	480	498	636	552	609
30	519	480	501	480	447	459	507	480	495	630	549	596
31	---	---	---	510	465	482	540	480	510	---	---	---
MONTH	771	453	628	525	438	479	954	426	516	867	429	601
YEAR	954	225	593									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.8	8.7	8.7	8.1	7.9	8.0	8.4	8.2	8.3	7.7	7.2	7.3
2	8.8	8.7	8.7	8.3	8.0	8.1	8.5	8.3	8.4	7.4	7.2	7.3
3	8.9	8.7	8.8	8.5	8.2	8.3	8.8	8.3	8.5	7.6	7.4	7.5
4	8.8	8.7	8.7	8.5	8.2	8.3	---	---	---	8.0	7.6	7.8
5	8.7	8.6	8.6	8.4	8.1	8.2	---	---	---	8.1	8.0	8.0
6	8.6	8.6	8.6	8.5	8.1	8.3	---	---	---	8.3	8.1	8.2
7	8.6	8.4	8.5	8.4	8.1	8.2	---	---	---	8.4	8.3	8.4
8	8.6	8.4	8.5	8.4	8.1	8.2	---	---	---	---	---	---
9	8.6	8.4	8.5	8.3	8.1	8.2	---	---	---	---	---	---
10	8.7	8.4	8.5	8.4	8.2	8.3	---	---	---	---	---	---
11	8.7	8.5	8.6	8.6	8.4	8.5	---	---	---	---	---	---
12	8.7	8.6	8.6	8.5	8.4	8.4	---	---	---	---	---	---
13	8.7	8.5	8.6	8.6	8.3	8.4	8.7	8.5	8.6	---	---	---
14	8.6	8.5	8.6	8.3	8.2	8.2	8.7	8.5	8.6	7.9	7.4	7.5
15	8.5	8.5	8.5	8.4	8.1	8.2	8.5	8.2	8.3	7.5	7.2	7.4
16	8.6	8.5	8.6	8.5	8.4	8.4	8.2	7.7	8.0	7.6	7.2	7.4
17	8.8	8.5	8.6	8.5	8.4	8.5	7.8	7.5	7.7	7.5	7.3	7.4
18	8.8	8.3	8.6	8.5	8.3	8.4	7.9	7.5	7.7	7.6	7.4	7.5
19	8.8	8.3	8.6	8.6	8.4	8.5	7.9	7.8	7.9	7.6	7.6	7.6
20	8.7	8.5	8.6	8.7	8.1	8.5	8.2	7.9	8.1	---	---	---
21	8.7	8.3	8.5	8.1	7.8	8.0	8.2	7.9	8.1	---	---	---
22	8.5	8.3	8.4	8.4	8.1	8.2	8.3	7.9	8.1	---	---	---
23	8.5	8.1	8.2	8.5	8.0	8.4	8.4	8.3	8.3	---	---	---
24	8.1	7.9	8.0	8.4	8.2	8.3	8.5	8.2	8.4	---	---	---
25	8.1	7.9	8.0	8.4	8.2	8.3	9.1	8.5	8.8	---	---	---
26	7.9	7.4	7.6	8.5	8.2	8.1	9.2	9.0	9.1	---	---	---
27	7.6	7.2	7.5	8.1	7.9	8.0	9.1	8.8	8.9	---	---	---
28	8.2	7.7	7.9	8.1	7.7	7.9	8.9	7.7	8.3	---	---	---
29	8.2	8.0	8.1	8.5	8.1	8.2	7.7	7.5	7.6	---	---	---
30	8.1	7.9	7.9	8.4	8.2	8.3	7.6	7.5	7.5	---	---	---
31	8.3	8.1	8.2	---	---	---	7.7	7.5	7.6	---	---	---
MONTH	8.9	7.2	8.4	8.7	7.7	8.3	9.2	7.5	8.2	8.4	7.2	7.6

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	7.6	7.5	7.5	7.7	7.4	7.5	8.2	7.9	8.0
2	---	---	---	7.9	7.5	7.6	7.7	7.5	7.6	8.2	7.6	7.9
3	---	---	---	7.6	7.5	7.5	7.7	7.5	7.6	8.3	8.0	8.1
4	---	---	---	8.0	7.5	7.7	7.5	7.2	7.4	8.4	8.0	8.2
5	---	---	---	7.8	7.4	7.6	7.5	7.2	7.3	8.4	8.1	8.3
6	---	---	---	7.7	7.5	7.7	7.6	7.3	7.5	8.5	8.0	8.2
7	---	---	---	7.7	7.5	7.6	7.6	7.4	7.5	8.4	8.2	8.3
8	---	---	---	7.6	7.4	7.5	7.7	7.5	7.6	8.6	7.9	8.2
9	---	---	---	7.5	7.4	7.4	7.8	7.6	7.7	8.1	7.7	7.8
10	---	---	---	7.6	7.3	7.5	7.9	7.8	7.8	8.3	7.8	8.0
11	---	---	---	7.4	7.2	7.4	7.9	7.7	7.8	8.3	7.7	7.9
12	---	---	---	7.6	7.3	7.5	7.7	7.2	7.5	8.3	8.0	8.1
13	---	---	---	7.5	7.4	7.4	7.4	7.2	7.3	8.3	8.0	8.2
14	---	---	---	7.8	7.4	7.6	7.5	7.3	7.4	8.4	8.1	8.2
15	---	---	---	7.8	7.6	7.7	7.6	7.5	7.5	8.5	8.1	8.3
16	---	---	---	7.8	7.5	7.7	7.7	7.6	7.6	8.4	7.9	8.1
17	---	---	---	7.7	7.5	7.6	7.8	7.7	7.8	8.3	7.9	8.1
18	---	---	---	7.7	7.5	7.6	7.9	7.8	7.8	8.5	8.0	8.3
19	---	---	---	7.7	7.5	7.6	8.0	7.8	7.9	8.6	8.3	8.4
20	---	---	---	7.8	7.6	7.7	8.2	7.9	8.0	8.4	8.2	8.3
21	---	---	---	7.9	7.6	7.7	8.3	8.1	8.2	8.6	8.2	8.3
22	7.8	7.6	7.7	7.8	7.7	7.7	8.3	7.9	8.2	8.7	8.1	8.4
23	8.0	7.7	7.8	7.7	7.7	7.7	8.5	8.3	8.3	8.7	8.5	8.6
24	8.3	7.8	8.1	7.7	7.7	7.7	8.5	8.3	8.4	8.6	8.4	8.5
25	8.3	7.3	7.9	7.8	7.7	7.8	8.6	8.4	8.5	8.7	8.4	8.6
26	8.0	7.8	7.9	7.9	7.8	7.9	8.6	8.2	8.4	8.8	8.5	8.6
27	7.9	7.3	7.5	8.1	7.7	7.8	8.5	8.0	8.2	8.7	8.3	8.5
28	7.5	7.4	7.5	7.9	7.4	7.6	8.5	8.1	8.3	8.5	8.1	8.3
29	---	---	---	7.5	7.0	7.2	8.3	8.2	8.3	8.4	8.0	8.2
30	---	---	---	7.5	6.9	7.1	8.3	8.1	8.2	8.0	7.8	8.0
31	---	---	---	7.5	6.9	7.1	---	---	---	8.2	7.2	7.8
MONTH	8.3	7.3	7.8	8.1	6.9	7.6	8.6	7.2	7.8	8.8	7.2	8.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	8.5	8.0	8.2	8.5	8.2	8.3	8.6	7.8	8.3	9.1	8.7	8.9
2	8.4	8.2	8.3	8.9	8.0	8.5	9.2	8.4	8.8	8.8	8.4	8.6
3	8.5	8.1	8.3	8.8	8.3	8.6	9.4	8.6	9.0	9.1	8.5	8.8
4	8.6	8.3	8.5	8.9	8.0	8.6	9.2	8.8	9.1	9.3	8.7	9.0
5	8.6	8.3	8.4	8.6	8.1	8.4	9.0	8.5	8.7	9.1	8.8	9.0
6	8.5	8.4	8.4	8.9	8.2	8.6	8.6	8.2	8.3	9.0	8.7	8.9
7	8.5	8.3	8.4	8.8	8.3	8.6	9.0	8.2	8.6	9.1	8.1	8.6
8	8.6	8.2	8.4	8.8	8.3	8.5	9.2	8.6	8.8	9.3	8.4	8.8
9	8.6	8.3	8.4	8.8	8.1	8.4	8.9	8.2	8.7	8.8	7.4	7.9
10	8.3	7.9	8.0	8.6	7.7	8.1	8.8	8.2	8.6	8.6	7.4	8.1
11	8.2	8.0	8.1	8.8	8.1	8.4	8.8	8.4	8.5	9.0	8.4	8.6
12	8.5	8.1	8.2	8.4	8.2	8.3	8.9	8.2	8.6	9.4	8.6	9.1
13	8.4	8.0	8.2	8.9	8.0	8.4	8.8	8.2	8.6	9.4	8.9	9.2
14	8.3	8.1	8.2	8.5	8.1	8.3	8.8	8.3	8.4	9.2	9.0	9.1
15	8.3	8.1	8.2	8.6	8.1	8.3	8.4	8.0	8.1	9.0	8.9	9.0
16	8.5	8.1	8.3	8.8	8.2	8.3	8.8	8.0	8.5	9.1	8.6	8.9
17	8.4	7.7	8.0	8.5	8.0	8.3	8.8	8.6	8.7	9.1	8.8	8.9
18	8.3	7.7	8.1	8.5	8.1	8.2	8.7	8.4	8.5	9.1	8.7	8.8
19	8.2	8.0	8.1	8.9	8.1	8.6	8.8	8.4	8.5	9.1	8.6	8.8
20	8.0	8.0	8.0	8.7	8.1	8.4	8.9	8.3	8.6	9.0	8.5	8.7
21	8.0	7.9	8.0	8.5	8.0	8.2	8.8	8.5	8.6	8.8	8.5	8.6
22	8.0	7.8	7.9	8.8	8.3	8.5	8.7	8.3	8.5	9.1	8.4	8.8
23	8.0	7.9	7.9	8.5	8.0	8.2	8.5	8.2	8.4	9.1	8.6	8.8
24	8.0	7.9	7.9	8.6	8.0	8.3	8.2	7.8	8.0	9.2	8.6	8.9
25	8.2	7.9	8.0	8.7	8.1	8.3	8.6	7.7	8.1	9.1	8.9	9.0
26	8.6	8.2	8.3	8.9	8.1	8.5	8.8	7.9	8.3	9.2	8.9	9.1
27	8.7	8.4	8.6	8.8	8.2	8.6	8.9	8.4	8.6	9.4	9.0	9.1
28	8.8	8.6	8.7	8.8	8.2	8.5	9.0	8.4	8.7	9.5	9.0	9.2
29	8.9	8.3	8.5	8.9	8.1	8.6	9.0	8.5	8.8	9.4	9.1	9.2
30	8.8	8.1	8.5	8.6	7.7	8.2	9.1	8.6	8.8	9.1	8.1	8.9
31	---	---	---	8.5	8.1	8.4	9.1	8.6	8.8	---	---	---
MONTH	8.9	7.7	8.2	8.9	7.7	8.4	9.4	7.7	8.6	9.5	7.4	8.8
YEAR	9.5	6.9	8.2									

## STREAMS TRIBUTARY TO LAKE ERIE

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04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	15.0	15.5	14.5	14.0	14.5	6.5	6.0	6.5	6.0	5.0	5.5
2	16.0	15.0	15.5	13.5	12.0	13.0	6.5	5.5	6.0	5.5	4.5	5.0
3	16.5	14.5	15.5	12.0	10.5	11.5	6.5	4.0	6.0	6.0	3.5	4.5
4	15.5	15.0	15.0	12.0	11.0	11.5	5.0	3.0	3.5	3.5	2.5	2.5
5	16.0	15.0	15.5	12.5	11.5	12.0	3.0	2.5	3.0	2.5	1.5	2.0
6	16.0	15.5	15.5	11.5	10.5	11.0	3.0	2.5	2.5	2.0	1.5	1.5
7	16.5	16.0	16.0	10.5	9.5	10.0	2.5	2.0	2.5	1.5	1.0	1.0
8	17.0	16.5	16.5	10.5	10.0	10.0	3.0	2.0	3.0	1.0	.0	.5
9	17.5	17.0	17.0	11.0	10.5	11.0	5.5	3.0	4.5	.0	.0	.0
10	18.5	17.5	18.0	11.5	11.0	11.5	6.5	5.5	6.0	.0	.0	.0
11	18.5	18.0	18.5	11.5	9.0	10.5	---	---	---	.0	.0	.0
12	17.5	17.0	17.5	9.5	8.5	9.0	---	---	---	.0	.0	.0
13	17.5	17.0	17.5	9.0	8.0	8.5	4.0	3.5	3.5	.0	.0	.0
14	17.5	17.0	17.5	8.5	7.0	8.0	3.0	2.5	3.0	.0	.0	.0
15	17.5	17.0	17.5	9.0	8.0	8.5	4.0	3.0	3.5	.5	.0	.0
16	18.0	17.5	18.0	8.0	6.5	7.5	6.0	4.0	5.0	.5	.0	.0
17	19.0	18.5	18.5	7.0	6.0	6.5	6.0	5.5	6.0	.0	.0	.0
18	18.5	17.0	17.5	7.0	6.5	7.0	6.0	5.0	5.5	.0	.0	.0
19	18.0	17.0	17.5	7.0	6.0	6.0	5.0	4.0	4.5	.0	.0	.0
20	17.5	16.0	16.5	5.5	5.0	5.0	4.0	3.5	3.5	.5	.0	.0
21	16.5	16.0	16.0	5.5	5.0	5.0	4.0	3.0	3.5	.5	.0	.0
22	16.0	15.5	16.0	5.0	4.0	4.5	4.5	3.0	3.5	.5	.0	.0
23	16.0	14.5	15.0	5.0	4.0	4.5	3.0	2.5	2.5	---	---	---
24	15.5	14.5	15.0	5.5	5.0	5.0	3.0	2.0	2.5	---	---	---
25	15.0	14.5	14.5	5.5	4.0	4.5	2.0	.0	1.0	---	---	---
26	16.0	14.5	15.5	6.5	6.0	6.0	.0	.0	.0	---	---	---
27	23.5	16.0	18.5	8.0	7.0	7.5	1.0	.0	.5	---	---	---
28	23.5	17.5	20.5	8.5	7.0	8.0	5.5	1.0	3.0	.0	.0	.0
29	17.5	16.0	17.0	7.0	6.0	6.5	6.5	5.5	6.0	.0	.0	.0
30	16.5	15.0	15.5	7.0	6.0	6.5	6.5	5.5	6.0	.0	.0	.0
31	15.0	14.5	15.0	---	---	---	5.5	5.0	5.5	.0	.0	.0
MONTH	23.5	14.5	16.5	14.5	4.0	8.5	6.5	.0	4.0	6.0	.0	1.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	.0	.0	.0				---	---	---	19.5	17.5	18.5
2	.0	.0	.0				6.0	6.0	6.0	17.0	15.0	15.5
3	.0	.0	.0				7.0	5.5	6.5	16.5	14.0	15.0
4	.0	.0	.0				8.0	6.5	7.0	18.0	16.0	17.0
5	.0	.0	.0				9.5	8.0	9.0	18.5	16.5	17.5
6	.0	.0	.0				9.0	8.0	8.5	19.5	18.0	18.5
7	.0	.0	.0				9.0	8.0	8.5	19.0	17.0	18.0
8	.0	.0	.0				8.5	7.5	8.0	18.5	17.5	18.0
9	.0	.0	.0				7.5	6.5	7.0	20.0	17.5	19.0
10	.0	.0	.0				7.5	6.0	7.0	21.0	18.5	19.5
11	.0	.0	.0				8.0	7.0	7.5	22.0	20.5	21.0
12	.0	.0	.0				9.5	7.5	8.5	22.5	21.5	22.0
13	.0	.0	.0				10.5	8.5	9.5	23.0	22.0	22.5
14	.0	.0	.0				12.0	9.5	11.0	23.5	22.0	22.5
15	.0	.0	.0				13.5	11.0	12.0	23.0	21.5	22.5
16	.0	.0	.0				15.5	12.5	13.5	21.5	19.5	21.0
17	.0	.0	.0				14.5	12.0	13.5	19.5	17.5	18.5
18	.0	.0	.0				16.5	13.0	14.5	19.0	16.5	17.5
19	.0	.0	.0				19.0	16.0	17.5	18.5	16.0	17.5
20	.0	.0	.0				20.0	18.0	18.5	19.0	18.5	18.5
21	.0	.0	.0				20.5	19.0	19.5	20.0	18.5	19.0
22	.0	.0	.0				20.5	20.0	20.5	19.5	18.0	19.0
23	.0	.0	.0				21.5	20.0	20.5	18.5	17.5	18.0
24	---	---	---				21.5	19.5	20.5	20.0	18.0	19.0
25	---	---	---				20.0	17.5	19.0	22.0	20.0	21.0
26	---	---	---				21.0	18.5	20.0	22.0	21.0	21.5
27	---	---	---				20.5	18.5	19.0	25.0	21.5	22.5
28	---	---	---				19.0	17.0	18.0	21.5	19.5	20.5
29	---	---	---				19.0	17.0	18.0	20.5	18.5	19.5
30	---	---	---				19.5	17.0	18.5	21.0	19.0	20.0
31	---	---	---				---	---	---	22.5	20.5	21.5
MONTH	.0	.0	.0				21.5	5.5	13.5	25.0	14.0	19.5



## STREAMS TRIBUTARY TO LAKE ERIE

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.5	20.0	21.5	24.0	23.0	23.5	24.5	23.0	24.0	24.0	22.5	23.0
2	22.5	21.5	22.0	24.5	22.5	23.0	24.0	22.5	23.5	24.0	23.5	23.5
3	22.5	21.5	22.0	27.5	23.0	24.5	28.5	22.5	24.5	25.0	23.5	24.0
4	22.0	20.0	21.0	26.0	24.0	25.0	27.0	23.5	25.0	26.0	24.5	25.0
5	20.0	19.5	19.5	25.5	24.5	25.0	26.0	24.0	25.0	26.0	25.0	25.5
6	22.0	20.0	21.0	25.5	24.0	24.5	24.0	23.5	24.0	25.5	25.0	25.0
7	22.0	20.5	21.5	25.5	23.5	24.5	26.0	23.0	24.5	27.0	24.5	25.5
8	25.0	21.5	23.0	26.5	24.0	25.5	28.5	24.5	25.5	28.5	26.5	27.5
9	25.0	23.5	24.0	29.5	26.0	27.0	27.0	25.0	25.5	27.0	25.0	26.0
10	23.5	22.0	22.5	27.5	25.0	26.0	26.5	25.5	26.0	25.0	23.0	24.0
11	24.0	19.0	22.0	26.5	25.0	25.5	26.5	25.0	25.5	23.0	21.5	22.0
12	19.0	17.0	17.5	26.5	24.5	25.0	29.5	25.0	26.0	22.0	20.5	21.0
13	18.0	16.0	17.0	27.0	25.5	26.5	27.5	25.0	26.0	20.5	19.0	20.0
14	19.5	17.5	18.5	27.0	26.5	27.0	27.0	25.5	26.5	20.0	18.5	19.0
15	19.5	18.0	19.0	28.0	26.0	27.0	26.5	25.0	25.5	20.0	18.5	19.5
16	20.0	17.5	19.0	28.0	25.5	26.5	25.5	24.0	24.5	21.0	18.5	19.5
17	21.0	19.0	20.0	26.5	25.0	25.5	26.0	24.5	25.0	20.0	19.5	19.5
18	20.5	19.0	19.5	26.5	25.0	25.5	26.5	25.0	25.5	21.5	20.0	20.5
19	21.0	18.5	19.5	27.0	25.5	26.0	25.5	24.0	24.5	22.5	20.5	21.5
20	21.0	18.5	20.0	27.5	26.5	27.0	24.0	22.5	23.0	23.0	21.5	22.0
21	22.0	19.5	20.5	27.5	26.5	27.0	24.0	22.5	23.0	22.5	21.5	22.0
22	22.0	20.5	21.5	28.0	25.5	26.5	25.5	22.5	23.5	22.0	21.0	21.5
23	22.5	20.5	21.5	26.5	24.5	25.0	24.5	23.0	23.5	22.5	21.5	22.0
24	23.0	21.5	22.0	27.5	24.0	25.5	23.5	23.0	23.0	21.0	18.5	20.0
25	24.5	22.0	23.0	27.5	25.5	26.5	24.0	22.0	23.0	18.5	17.5	18.0
26	23.5	22.5	23.0	28.5	27.0	27.5	24.0	22.5	23.0	17.5	16.5	17.0
27	23.5	22.5	23.0	31.5	26.0	28.5	24.5	22.5	23.5	16.5	15.5	16.0
28	24.0	22.0	22.5	29.0	26.5	28.0	24.5	23.0	24.0	17.0	15.0	16.0
29	28.5	22.0	24.0	29.5	26.5	27.5	25.0	23.5	24.5	18.0	16.0	16.5
30	24.5	22.5	23.5	28.0	26.5	26.5	25.0	23.5	24.5	17.5	17.0	17.0
31	---	---	---	26.0	24.5	25.5	24.0	22.5	23.5	---	---	---
MONTH	28.5	16.0	21.0	31.5	22.5	26.0	29.5	22.0	24.5	28.5	15.0	21.5
YEAR	31.5	.0	14.5									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	9.1	6.6	7.9	10.8	10.0	10.3	11.4	9.8	10.4
2	---	---	---	9.5	8.6	8.9	11.2	10.2	10.7	12.4	8.5	10.6
3	---	---	---	10.5	8.8	9.7	11.1	10.2	10.6	12.2	7.8	9.8
4	---	---	---	10.7	9.6	10.0	12.0	10.6	11.2	12.6	10.8	12.2
5	---	---	---	9.8	8.9	9.4	12.2	11.2	11.7	12.5	12.3	12.4
6	---	---	---	10.6	9.1	9.8	12.2	11.3	11.9	12.9	12.4	12.7
7	---	---	---	16.8	9.9	10.6	12.6	11.5	12.0	13.0	12.8	12.9
8	---	---	---	10.9	8.0	8.9	13.0	12.4	12.7	13.3	12.9	13.0
9	---	---	---	10.7	7.9	9.4	13.1	12.3	12.7	13.4	12.9	13.2
10	---	---	---	10.5	9.8	10.0	12.7	12.2	12.4	13.3	13.1	13.2
11	---	---	---	10.7	9.9	10.2	12.7	12.0	12.3	13.2	13.1	13.1
12	---	---	---	10.7	10.0	10.3	14.0	11.5	12.1	13.2	13.0	13.1
13	---	---	---	10.7	10.2	10.4	14.5	12.8	13.7	13.2	13.0	13.1
14	---	---	---	10.3	10.0	10.2	13.6	12.6	13.1	14.3	12.9	13.6
15	---	---	---	10.4	9.9	10.1	12.8	12.2	12.5	14.2	13.9	14.0
16	---	---	---	10.7	10.4	10.6	12.2	11.5	11.8	14.2	14.0	14.1
17	---	---	---	10.8	10.6	10.7	11.9	11.4	11.6	14.2	14.0	14.1
18	10.9	10.4	10.7	10.7	10.5	10.6	11.8	11.3	11.6	14.1	13.9	14.0
19	10.7	8.8	9.9	10.7	10.4	10.6	11.4	11.2	11.3	14.0	13.8	13.9
20	10.3	8.5	9.3	11.0	10.6	10.8	11.7	11.4	11.6	14.2	13.9	14.1
21	10.3	9.1	9.7	10.9	9.7	10.7	11.6	11.3	11.5	14.3	13.9	14.1
22	10.6	8.8	9.5	11.0	10.6	10.8	11.7	11.5	11.6	14.2	13.9	14.1
23	10.1	8.6	9.3	11.1	10.8	10.9	11.8	11.6	11.7	---	---	---
24	9.9	8.3	9.1	11.1	10.6	10.8	11.8	11.5	11.6	---	---	---
25	9.5	8.5	8.8	11.1	10.5	10.8	12.4	11.9	12.2	---	---	---
26	8.7	8.1	8.4	11.1	10.4	10.6	12.3	12.0	12.1	---	---	---
27	8.9	7.8	8.3	11.0	10.1	10.5	12.3	12.0	12.1	---	---	---
28	8.8	7.5	8.4	10.5	9.8	10.0	12.0	11.4	11.6	13.6	13.4	13.4
29	8.0	7.1	7.5	10.6	9.9	10.1	11.5	10.9	11.1	13.6	13.3	13.4
30	9.2	7.7	7.9	11.0	10.2	10.6	10.9	10.6	10.7	13.6	13.2	13.4
31	8.3	7.6	8.0	---	---	---	10.9	10.4	10.7	13.5	13.1	13.3
MONTH	10.9	7.1	8.9	16.8	6.6	10.2	14.5	10.0	11.8	14.3	7.8	13.1

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	13.4	13.0	13.2	12.8	12.7	12.8	13.1	10.2	11.7	9.5	7.4	8.2
2	13.3	13.0	13.2	12.8	12.6	12.7	13.2	9.8	11.4	10.1	7.5	8.7
3	13.4	13.0	13.2	13.0	12.6	12.8	10.0	9.7	9.9	11.4	8.7	10.0
4	13.6	13.0	13.3	13.1	12.6	12.9	9.7	9.4	9.6	12.6	9.3	11.3
5	13.5	12.9	13.2	12.9	12.6	12.8	9.5	9.1	9.3	12.1	9.5	10.8
6	13.3	12.6	13.0	13.1	12.9	13.0	9.5	9.0	9.2	11.5	8.7	10.0
7	13.0	12.5	12.8	13.3	13.2	13.2	10.3	9.1	10.1	12.1	8.6	10.0
8	13.0	12.6	12.8	13.3	13.0	13.2	10.4	9.5	9.8	11.8	8.7	10.4
9	13.2	12.5	12.9	13.2	13.0	13.1	11.2	9.9	10.6	12.9	9.3	11.1
10	13.3	12.5	12.9	13.1	12.7	12.9	11.5	9.9	10.6	11.8	8.7	10.5
11	13.1	12.5	12.8	12.8	12.4	12.6	11.5	10.0	10.3	10.9	8.3	9.6
12	13.0	12.3	12.7	12.7	12.4	12.5	11.8	9.9	10.9	10.1	8.0	8.6
13	12.9	12.1	12.5	12.6	12.4	12.5	11.7	9.8	10.9	9.9	7.5	8.6
14	12.8	12.1	12.4	12.5	12.3	12.4	11.6	9.8	11.0	9.9	6.6	8.2
15	12.9	12.1	12.5	12.6	12.3	12.5	11.2	9.6	10.8	9.5	6.8	8.1
16	12.9	12.2	12.5	12.5	12.3	12.4	11.0	9.5	10.5	8.5	6.7	7.5
17	12.8	12.2	12.5	12.8	12.2	12.5	11.1	10.3	10.8	10.0	7.2	8.3
18	12.9	12.2	12.6	13.0	12.6	12.8	11.1	10.1	10.7	12.7	7.9	9.8
19	12.9	12.2	12.6	12.9	12.6	12.7	11.7	6.8	9.9	12.9	9.3	11.1
20	13.1	12.3	12.7	12.8	12.4	12.6	11.9	10.1	10.7	11.4	9.8	10.5
21	13.2	13.4	12.9	13.0	12.3	12.6	11.1	9.0	10.3	14.0	8.2	10.4
22	13.0	12.5	12.8	13.1	12.6	12.8	10.5	9.1	9.8	13.6	10.6	12.3
23	12.8	12.4	12.6	12.8	12.6	12.7	13.7	10.3	11.6	13.2	10.7	12.1
24	12.4	12.1	12.3	13.2	12.5	12.8	12.5	9.3	10.3	14.3	10.7	12.5
25	12.3	12.0	12.2	13.4	5.2	10.5	14.3	8.9	11.5	15.2	11.3	13.2
26	12.3	12.2	12.3	12.5	7.9	10.0	17.8	10.7	14.1	13.2	11.0	11.9
27	12.6	12.2	12.5	13.6	12.0	12.8	15.5	10.8	13.7	11.9	7.8	10.0
28	12.8	12.6	12.7	13.2	11.8	12.3	14.2	10.9	12.8	10.4	7.4	8.5
29	---	---	---	11.6	10.2	10.9	13.0	9.5	11.0	10.0	7.6	8.8
30	---	---	---	10.7	10.2	10.4	11.0	8.2	9.4	8.6	7.3	7.9
31	---	---	---	11.1	10.6	10.8	---	---	---	9.1	6.4	7.7
MONTH	13.6	12.0	12.7	13.6	5.2	12.4	17.8	6.8	10.8	15.2	6.4	9.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	11.7	6.6	8.9	12.8	8.5	10.9	9.9	5.2	7.6	12.8	8.6	10.6
2	9.9	7.4	8.5	15.4	7.6	11.4	12.2	7.6	9.7	11.2	7.2	9.1
3	11.7	7.1	9.2	18.4	10.6	13.5	19.6	9.4	12.8	12.2	8.6	10.5
4	11.1	8.1	9.9	16.1	11.7	13.4	16.3	12.2	14.6	11.9	9.6	10.7
5	12.1	7.8	9.9	11.7	8.5	10.7	12.8	7.7	10.0	11.1	8.4	10.1
6	11.1	8.2	9.9	12.5	7.5	10.4	9.4	6.0	7.4	9.2	7.2	8.1
7	10.7	7.7	9.5	13.8	8.7	11.5	14.3	7.1	10.5	11.5	6.0	8.5
8	12.5	8.0	10.2	15.2	10.3	12.4	15.6	8.9	11.1	10.5	7.5	8.8
9	11.6	7.9	9.6	15.7	10.2	13.0	12.4	5.8	9.3	---	---	---
10	8.6	6.5	7.4	12.6	6.7	9.0	11.1	4.6	8.7	---	---	---
11	7.7	6.8	7.2	14.0	8.0	10.8	10.1	6.4	8.0	---	---	---
12	8.7	7.1	7.9	12.5	7.6	9.3	12.7	5.0	9.3	---	---	---
13	9.7	7.7	8.6	12.0	7.9	10.2	10.5	5.2	8.6	---	---	---
14	10.3	8.1	9.1	9.9	6.8	8.3	10.3	5.7	7.7	---	---	---
15	9.3	8.0	8.7	10.5	6.9	8.3	6.9	5.2	6.0	---	---	---
16	11.3	8.1	9.6	16.7	7.5	10.6	10.6	4.5	7.4	---	---	---
17	10.8	8.4	9.6	14.5	6.2	10.2	11.1	7.5	9.0	---	---	---
18	9.6	8.0	8.8	12.5	8.0	10.3	10.5	7.4	8.9	---	---	---
19	9.2	7.9	8.5	12.7	8.9	10.7	11.6	7.4	9.1	---	---	---
20	8.8	7.7	8.2	11.7	7.4	9.1	9.7	7.5	8.4	13.7	12.1	12.9
21	8.6	7.6	8.0	10.6	6.5	7.8	---	---	---	12.0	9.2	10.7
22	8.0	7.2	7.6	14.1	6.3	8.9	---	---	---	13.9	7.9	10.7
23	8.3	7.2	7.7	11.6	7.0	8.2	---	---	---	13.7	9.3	11.3
24	8.3	7.3	7.7	15.5	7.7	11.6	---	---	---	10.9	7.3	9.2
25	9.3	7.3	8.3	12.5	10.0	11.1	---	---	---	11.7	8.8	9.9
26	9.7	7.6	8.5	12.7	9.8	11.0	---	---	---	12.0	8.7	10.3
27	11.4	8.7	10.1	14.4	7.5	11.6	---	---	---	12.7	8.9	10.1
28	14.5	9.8	11.5	14.0	9.5	12.0	13.3	10.4	12.1	12.7	9.0	11.0
29	19.9	9.3	13.9	14.5	7.1	10.4	12.2	10.4	11.2	13.6	10.5	11.7
30	14.9	10.0	11.8	10.3	4.1	6.9	11.8	7.7	9.8	11.8	9.2	10.8
31	---	---	---	8.4	5.7	6.9	11.3	7.7	9.5	---	---	---
MONTH	19.9	6.5	9.1	18.4	4.1	10.3	19.6	4.5	9.5	13.9	6.0	10.3
YEAR	19.9	4.1	10.8									

## STREAMS TRIBUTARY TO LAKE ERIE

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued  
 SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	636	647	501	810	315	441	540	699	495	510	498
2	696	654	672	390	813	339	387	576	690	502	512	485
3	695	657	675	387	825	357	345	594	714	510	506	470
4	684	648	702	387	838	408	362	573	744	491	467	441
5	677	662	708	399	852	414	384	554	742	480	459	435
6	669	683	702	416	860	402	411	549	675	486	474	443
7	669	690	717	441	867	411	381	552	651	476	467	453
8	669	681	735	456	864	429	390	551	635	456	468	459
9	684	678	732	476	870	444	396	537	608	459	450	489
10	681	686	723	489	870	473	417	528	566	462	440	555
11	699	701	735	519	867	492	444	525	579	465	462	695
12	705	743	756	540	866	525	453	531	723	477	462	831
13	722	747	758	548	858	522	471	546	734	474	447	794
14	734	567	753	567	872	530	489	555	671	485	462	785
15	738	582	737	573	887	546	501	581	648	501	492	780
16	729	558	723	576	891	555	512	626	659	501	492	798
17	729	543	674	594	909	555	528	708	651	483	504	789
18	744	561	683	612	906	561	531	708	686	471	537	663
19	737	558	661	627	915	561	531	705	656	462	579	606
20	735	555	630	652	924	576	530	629	642	465	618	578
21	729	557	624	687	916	579	525	663	617	473	615	561
22	747	576	642	693	783	600	526	654	576	489	600	555
23	750	582	658	---	459	600	528	663	564	501	578	510
24	731	585	642	---	279	621	527	635	567	495	563	645
25	723	588	560	---	234	629	554	594	567	474	557	648
26	723	597	600	---	237	639	525	555	561	480	579	645
27	748	609	620	---	267	645	513	546	552	482	566	642
28	711	615	641	765	285	651	525	633	536	458	504	639
29	654	621	645	777	---	551	539	684	510	458	497	633
30	608	639	626	792	---	497	539	681	501	455	498	620
31	626	---	580	802	---	486	---	675	---	479	509	---
MEAN	705	625	676	564	744	513	474	602	631	479	512	605

WTR YR 1985      MEAN      593      MAX      924      MIN      234  
 PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	8.0	8.3	7.3	---	7.5	7.6	8.0	8.2	8.4	8.2	8.9
2	8.7	8.2	8.4	7.3	---	7.6	7.6	7.9	8.3	8.5	8.9	8.6
3	8.8	8.3	8.5	7.5	---	7.5	7.6	8.1	8.3	8.6	8.9	8.8
4	8.7	8.2	---	7.8	---	7.7	7.4	8.3	8.5	8.6	9.1	9.0
5	8.6	8.2	---	8.0	---	7.6	7.3	8.3	8.4	8.5	8.7	9.0
6	8.6	8.4	---	8.2	---	7.7	7.5	8.2	8.4	8.7	8.3	8.9
7	8.5	8.2	---	8.4	---	7.6	7.5	8.4	8.4	8.6	8.9	8.6
8	8.5	8.2	---	---	---	7.5	7.6	8.2	8.4	8.5	8.9	8.8
9	8.5	8.2	---	---	---	7.4	7.7	7.8	8.4	8.4	8.7	7.7
10	8.5	8.3	---	---	---	7.5	7.8	8.0	8.0	8.1	8.7	8.2
11	8.6	8.5	---	---	---	7.4	7.8	7.9	8.1	8.4	8.5	8.6
12	8.6	8.4	---	---	---	7.5	7.7	8.1	8.2	8.3	8.6	9.2
13	8.6	8.4	8.6	---	---	7.4	7.3	8.2	8.2	8.5	8.6	9.2
14	8.6	8.2	8.6	7.5	---	7.7	7.4	8.2	8.2	8.3	8.4	9.0
15	8.5	8.2	8.3	7.4	---	7.7	7.5	8.3	8.2	8.3	8.2	9.0
16	8.6	8.4	8.0	7.4	---	7.7	7.7	8.2	8.3	8.4	8.6	9.0
17	8.6	8.5	7.7	7.4	---	7.6	7.8	8.2	8.0	8.3	8.7	8.9
18	8.7	8.4	7.7	7.5	---	7.6	7.8	8.3	8.2	8.2	8.5	8.8
19	8.7	8.5	7.9	7.6	---	7.6	7.9	8.4	8.1	8.7	8.5	8.8
20	8.6	8.5	8.1	---	---	7.7	8.0	8.3	8.0	8.4	8.6	8.7
21	8.6	8.0	8.1	---	---	7.7	8.2	8.3	8.0	8.2	8.6	8.6
22	8.4	8.2	8.1	---	7.7	7.7	8.2	8.4	7.9	8.4	8.5	8.8
23	8.2	8.4	8.3	---	7.8	7.7	8.3	8.6	7.9	8.2	8.4	8.8
24	8.0	8.3	8.4	---	8.1	7.7	8.4	8.5	7.9	8.3	8.0	8.9
25	8.0	8.3	8.8	---	7.9	7.8	8.5	8.6	8.0	8.3	8.1	9.0
26	7.6	8.1	9.1	---	7.9	7.9	8.4	8.6	8.3	8.6	8.3	9.1
27	7.5	8.0	8.9	---	7.5	7.8	8.3	8.5	8.6	8.6	8.6	9.1
28	7.8	7.9	8.3	---	7.5	7.5	8.3	8.3	8.7	8.5	8.7	9.3
29	8.1	8.2	7.6	---	---	7.2	8.3	8.1	8.5	8.5	8.8	9.2
30	8.1	8.3	7.5	---	---	7.1	8.2	8.0	8.5	8.3	8.7	9.0
31	8.2	---	7.6	---	---	7.1	---	7.8	---	8.4	8.8	---
MEAN	8.4	8.3	8.2	7.6	7.8	7.6	7.9	8.2	8.2	8.4	8.6	8.9

WTR YR 1985      MEAN      8.2      MAX      9.3      MIN      7.1



## STREAMS TRIBUTARY TO LAKE ERIE

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04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued  
 TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	14.5	6.5	5.5	.0		---	18.5	21.0	23.5	24.0	22.5
2	15.0	13.0	6.0	5.0	.0		6.0	15.5	22.0	22.5	23.5	23.5
3	15.0	11.5	6.0	4.5	.0		6.5	15.0	22.0	24.0	23.5	24.0
4	15.0	11.5	3.5	2.0	.0		7.0	16.5	20.5	25.5	25.0	25.0
5	15.5	12.0	3.0	2.0	.0		9.0	17.5	19.5	25.0	25.0	25.5
6	15.5	10.5	2.5	1.5	.0		8.5	18.5	21.0	24.5	24.0	25.0
7	16.0	10.0	2.5	1.0	.0		8.5	18.0	21.5	24.5	24.0	25.0
8	16.5	10.5	3.0	.0	.0		8.0	18.5	22.0	25.0	25.5	27.0
9	17.0	11.0	4.5	.0	.0		7.0	18.5	24.0	27.0	25.5	26.0
10	18.0	11.5	6.0	.0	.0		7.0	19.5	22.5	26.0	26.0	24.0
11	18.0	10.5	---	.0	.0		7.5	21.0	22.0	25.5	25.5	22.0
12	17.5	9.0	---	.0	.0		8.0	22.0	17.0	25.0	25.0	21.0
13	17.0	8.5	3.5	.0	.0		9.5	22.5	17.0	26.5	25.5	20.0
14	17.5	8.0	3.0	.0	.0		10.5	22.5	18.0	27.0	26.5	19.0
15	17.5	8.5	3.5	.0	.0		12.0	22.0	19.0	26.5	25.5	19.5
16	18.0	7.5	5.0	.0	.0		13.0	21.0	18.5	26.5	24.5	19.5
17	18.5	6.5	6.0	.0	.0		13.5	18.5	20.0	25.5	25.0	19.5
18	17.5	7.0	5.5	.0	.0		13.5	17.0	20.0	25.5	25.5	20.0
19	17.5	6.0	4.5	.0	.0		17.0	17.0	19.5	26.0	24.5	21.5
20	16.5	5.0	3.5	.0	.0		18.5	18.5	20.0	26.5	23.0	22.0
21	16.0	5.0	3.5	.0	.0		19.5	19.0	20.5	27.0	23.0	21.5
22	16.0	4.5	3.5	.0	.0		20.5	19.0	21.5	26.0	23.0	21.5
23	15.5	4.5	2.5	---	.0		20.5	18.0	21.5	25.0	24.0	22.0
24	15.0	5.0	2.5	---	---		20.0	18.5	22.0	25.0	23.0	20.0
25	14.5	4.5	.5	---	---		19.0	21.0	23.0	26.5	22.5	18.0
26	15.5	6.0	.0	---	---		20.0	21.5	23.0	27.0	23.0	17.0
27	16.0	7.5	.5	---	---		19.0	22.0	23.0	28.5	23.0	16.0
28	22.0	8.0	3.0	.0	---		18.5	20.5	22.5	28.0	23.5	16.0
29	16.5	6.5	6.0	.0	---		18.0	19.5	23.0	27.5	24.0	16.5
30	15.5	6.5	6.0	.0	---		18.5	20.0	23.5	26.5	24.5	17.0
31	15.0	---	5.5	.0	---		---	21.0	---	25.5	23.5	---
MEAN	16.5	8.5	4.0	1.0	.0		13.0	19.5	21.0	26.0	24.5	21.0

WTR YR 1985 MEAN 14.5 MAX 28.5 MIN .0  
 OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.0	10.3	10.3	13.2	12.8	11.0	8.1	8.2	10.9	7.4	10.4
2	---	8.9	10.7	10.5	13.2	12.7	11.3	8.5	8.4	11.5	9.6	9.0
3	---	9.7	10.7	10.1	13.2	12.8	9.9	10.1	8.5	12.5	10.4	10.3
4	---	9.8	11.1	12.3	13.3	12.9	9.6	11.7	10.2	13.3	14.9	10.8
5	---	9.4	11.8	12.4	13.2	12.8	9.3	11.1	10.7	11.1	10.0	10.2
6	---	9.8	11.9	12.7	13.0	13.0	9.2	10.1	10.2	10.9	7.3	7.9
7	---	10.4	12.0	12.9	12.8	13.2	10.2	9.6	9.7	11.7	10.8	8.5
8	---	8.6	12.7	13.0	12.8	13.2	9.7	10.5	10.3	12.0	10.7	8.6
9	---	10.2	12.6	13.2	12.9	13.1	10.8	11.3	9.5	13.2	9.2	---
10	---	10.0	12.4	13.2	12.9	13.0	10.4	10.6	7.4	8.7	9.5	---
11	---	10.2	12.2	13.1	12.8	12.6	10.2	9.8	7.2	11.0	7.8	---
12	---	10.3	12.0	13.1	12.7	12.5	11.3	8.5	7.8	9.3	9.5	---
13	---	10.4	13.7	13.1	12.5	12.5	11.5	8.5	8.5	10.6	8.7	---
14	---	10.3	13.1	13.6	12.4	12.4	11.1	7.9	9.0	8.2	7.8	---
15	---	10.1	12.5	14.0	12.5	12.5	11.0	8.4	8.8	8.1	5.9	---
16	---	10.6	11.8	14.1	12.5	12.4	10.6	7.7	9.3	9.5	7.6	---
17	---	10.7	11.6	14.1	12.5	12.6	10.7	8.0	9.6	10.4	9.0	---
18	10.5	10.6	11.6	14.0	12.6	12.8	10.9	9.9	8.9	9.7	8.9	---
19	10.1	10.6	11.3	13.9	12.6	12.8	10.1	11.0	8.6	10.4	9.1	---
20	9.4	10.8	11.6	14.1	12.7	12.6	10.5	10.5	8.3	9.0	8.1	12.9
21	9.7	10.8	11.5	14.1	12.9	12.6	10.6	10.0	8.0	7.6	---	11.1
22	9.2	10.8	11.6	14.1	12.8	12.8	9.7	12.6	7.6	8.3	---	10.7
23	9.5	10.9	11.7	---	12.6	12.7	11.7	12.1	7.7	8.5	---	11.3
24	9.1	10.8	11.6	---	12.3	12.8	10.0	12.7	7.6	11.8	---	9.1
25	8.8	10.7	12.2	---	12.2	12.5	11.2	13.4	8.3	11.1	---	9.8
26	8.5	10.6	12.1	---	12.3	9.6	13.6	11.9	8.5	10.8	---	10.1
27	8.3	10.5	12.1	---	12.5	12.7	14.7	10.2	9.9	12.4	---	9.8
28	8.6	10.0	11.6	13.4	12.7	12.2	13.2	8.1	11.1	12.5	11.9	11.1
29	7.6	10.0	11.1	13.4	---	11.0	11.0	8.8	13.1	9.6	11.2	11.6
30	7.8	10.6	10.7	13.4	---	10.4	9.3	7.9	11.3	7.3	9.6	11.0
31	8.0	---	10.7	13.3	---	10.8	---	7.6	---	6.9	9.7	---
MEAN	8.9	10.2	11.8	13.1	12.7	12.4	10.8	9.9	9.1	10.3	9.4	10.2
WTR YR 1985	MEAN	10.8	MAX	14.9	MIN	5.9						

## STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OH

(National stream quality accounting network station)

LOCATION.--Lat 41°30'00", long 83°42'46", Lucas County, Hydrologic Unit 04100009, on downstream side of first pier from left end of bridge on State Highway 64 at Waterville, 3 mi downstream from Tontogany Creek, and 20.7 mi upstream from mouth.

DRAINAGE AREA.--6,330 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to December 1901, August 1921 to December 1935, March 1939 to current year.

REVISED RECORDS.--WSP 894 1930(M). WSP 1084: 1946. WSP 1387: 1900(M), 1922-23, 1933. WDR OH-68-1: 1967. WDR OH-70-1: Drainage area. WRD-OH-82-2: 1981.

GAGE.--Water-stage recorder with auxilliary crest-stage gage. Datum of gage is 595.71 ft above National Geodetic Vertical Datum of 1929. Nov. 19, 1898, to Dec. 31, 1901, Aug. 26, 1921 to July 31, 1930, nonrecording gage Aug. 1, 1930 to Dec. 31, 1935, water-stage recorder, Mar. 14, 1939 to Mar. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 24. Records good except those after June 5 which are fair, and those for periods of estimated record which are poor. Low flow slightly regulated by powerplants upstream from station. Small diversion upstream from gage into Portage River basin (see station 04195500).

AVERAGE DISCHARGE.--60 years (1921-35, 1939-85) 4,952 ft<sup>3</sup>/s, 10.62 in/yr includes flow in Miami and Erie Canal at Waterville 1922-29; canal was abandoned in 1929 and was filled in prior to March 1939.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 121,000 ft<sup>3</sup>/s Mar. 14, 1982, gage height, 14.96 ft recorder-manometer; 17.18 ft from floodmark. Practically no flow at times prior to June 30, 1929, when entire river flow was being diverted by canal; minimum daily since canal was abandoned, 26 ft<sup>3</sup>/s Oct. 24, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.9 ft, from information by local resident, estimated discharge, 180,000 ft<sup>3</sup>/s, from rating curve extended above 94,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100,000 ft<sup>3</sup>/s Feb. 26, gage height, 15.21 ft; minimum daily, 308 ft<sup>3</sup>/s Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	678	836	1930	25700	770	42100	46600	1330	2280	607	347	1110	
2	714	749	1910	43200	740	33200	42700	1360	2010	537	333	1070	
3	590	760	2170	34800	720	25900	33800	1390	1800	505	308	948	
4	402	1330	1870	29500	720	20800	24400	1560	1780	475	341	617	
5	444	1450	1780	20600	700	29500	16500	1600	2090	527	371	509	
6	317	1500	1740	15200	680	29400	22800	1520	1800	707	427	453	
7	419	1290	1600	12000	680	23200	23800	1280	1640	599	376	500	
8	599	1220	1340	10000	700	17000	19900	1230	1480	1020	375	670	
9	616	1160	1160	7200	740	13400	15200	1370	1830	810	537	866	
10	963	1240	1190	4500	800	9970	11400	1220	2140	1070	798	1470	
11	1110	1850	1390	3200	900	9800	8410	1040	1410	1250	554	2380	
12	1140	5760	1350	2500	1000	11500	7410	1040	1860	1110	363	2880	
13	1230	8160	1430	2100	1100	12200	6290	885	2200	939	339	2500	
14	1040	7290	2710	1700	1300	10600	5290	799	2680	847	349	1700	
15	906	6440	6220	1600	1400	8500	4340	917	2870	791	416	1380	
16	1090	5380	7560	1500	1450	6830	3810	787	2790	669	1010	1090	
17	1340	4550	6960	1400	1500	5210	3170	808	2500	629	1910	713	
18	1280	3760	5690	1300	1500	4900	3160	873	4800	858	1910	628	
19	1440	3050	4570	1200	1500	4230	2570	874	6210	909	1340	574	
20	1010	2360	3670	1150	1600	3130	2370	1020	4820	769	1010	490	
21	1070	1930	3290	1100	2600	2850	2240	935	3170	1100	806	380	
22	1280	1700	5040	1100	6000	2710	2060	937	2370	1010	597	407	
23	2160	1560	6740	1000	20000	2590	2020	1050	1590	775	551	385	
24	2180	1410	6070	1000	48000	2460	1930	977	1430	695	557	691	
25	1970	1360	4860	950	86200	2340	1910	788	1200	670	652	434	
26	1730	1320	3900	930	91100	2300	1770	828	904	621	682	538	
27	1390	1180	3230	890	73800	2230	1640	761	652	523	694	525	
28	1200	1370	3100	860	56600	2750	1650	1130	649	441	654	446	
29	894	1290	5720	840	---	21800	1530	1800	613	465	725	384	
30	853	1730	9870	820	---	25000	1580	3430	529	375	848	429	
31	653	---	15400	800	---	31500	---	2990	---	380	804	---	
TOTAL	32708	74985	125460	230640	404800	419900	322250	38529	64097	22683	20984	27167	
MEAN	1055	2500	4047	7440	14460	13550	10740	1243	2137	732	677	906	
MAX	2180	8160	15400	43200	91100	42100	46600	3430	6210	1250	1910	2880	
MIN	317	749	1160	800	680	2230	1530	761	529	375	308	380	
CFSM	.17	.39	.64	1.18	2.28	2.14	1.70	.20	.34	.12	.11	.14	
IN.	.19	.44	.74	1.36	2.38	2.47	1.89	.23	.38	.13	.12	.16	
CAL YR 1984	TOTAL	1935288		MEAN	5288	MAX	51300	MIN	225	CFSM	.84	IN.	11.34
WTR YR 1985	TOTAL	1784203		MEAN	4888	MAX	91100	MIN	308	CFSM	.77	IN.	10.49

## STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1950 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: April 1950 to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,240 mg/L Mar. 26, 1954; minimum daily mean, 1 mg/L on many days during 1953, 1955, and 1963.

SEDIMENT LOADS: Maximum daily, 208,000 tons Feb. 12, 1959; minimum daily, 0.26 ton Sept. 18, 1955.

## WATER QUALITY DATA

									OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	
NOV 1984									
15...	14:00	6340	580	7.9	8.5	7.0	80	10.8	92
MAR 1985									
13...	15:00	11900	495	8.1	3.5	6.0	85	11.4	93
MAY									
15...	13:00	902	590	8.7	21.0	23.0	1.5	9.4	113
SEP									
12...	13:00	2840	755	8.4	17.0	21.5	17	9.3	107
DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 1984									
15...	1300	920	64	18	20	5.0	144	66	37
MAR 1985									
13...	1200	270	63	15	11	2.6	136	55	24
MAY									
15...	33	K12	60	25	24	3.3	161	89	41
SEP									
12...	70	1400	64	23	50	7.6	172	120	71
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1984									
15...	0.3	6.7	351	6.50	0.26	1.8	0.27	0.12	0.08
MAR 1985									
13...	0.2	6.3	307	6.20	0.13	1.5	0.22	0.10	0.07
MAY									
15...	0.3	0.2	454	5.00	0.23	1.1	0.10	0.01	<0.01
SEP									
12...	0.6	1.9	468	0.63	0.19	1.4	0.18	0.06	0.03



DATE	TIME	STREAM FLOW, INSTAN- TANEOUS (CFS)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 1984											
15...	14:00	6340	40	1	48	<0.5	<1	2	<3	30	36
MAR 1985											
13...	15:00	11900	20	<1	36	0.7	<1	5	<3	18	19
MAY											
15...	13:00	902	10	<1	35	<0.5	<1	2	<3	10	20
SEP											
12...	13:00	2840	10	2	66	0.9	<1	1	<3	13	5

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 1984											
15...	4	<4	3	0.4	<10	2	<1	<1	760	<6	8
MAR 1985											
13...	3	9	6	0.1	<10	<1	1	<1	380	<6	5
MAY											
15...	6	13	3	<0.1	<10	3	<1	<1	900	<6	65
SEP											
12...	3	18	1	0.2	10	2	<1	<1	1400	<6	9

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 1984					
15...	14:00	6340	7.0	75	1280
MAR 1985					
13...	15:00	11900	6.0	202	6490
MAY					
15...	13:00	902	23.0	34	83
SEP					
12...	13:00	2840	21.5	48	368

STREAMS TRIBUTARY TO LAKE ERIE

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04194107 LAKE ERIE AT RENO BEACH, OH

LOCATION.-- Lat 41°40'29", long 83°17'32", Lucas County, Hydrologic Unit 04100010, on right bank at mouth of Reno side cut (Coulee Canal) which is Cedar Creek drainage.

PERIOD OF RECORD.-- November 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft International Great Lakes Datum.

REMARKS.--Interruptions in record are due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 16.02 ft Mar. 4, 1985; minimum recorded gage height 8.21 ft Nov. 12, 1982

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 16.02 ft Mar. 4, minimum recorded gage height, 8.56 ft Dec. 3.

DAY	GAGE HEIGHT (FEET)			WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
	OCT	NOV	DEC	MEAN	VALUES							
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.44	11.49	10.80		---	13.09	12.26	---	13.43	13.58	13.69	12.87
2	11.98	11.38	11.94		---	13.25	13.54	---	13.56	13.35	13.51	12.82
3	11.07	12.08	10.42		---	14.05	13.46	---	13.85	13.23	13.18	12.77
4	12.02	11.69	10.49		---	14.32	13.91	---	13.89	13.27	13.13	12.53
5	12.43	11.44	11.74		---	12.00	---	---	13.64	13.18	13.03	12.64
6	12.58	11.65	10.86		---	13.74	---	---	13.71	13.04	12.90	12.54
7	12.06	11.86	10.47		12.24	13.62	---	---	13.68	13.24	12.84	12.75
8	12.05	11.74	10.73		12.18	13.29	---	---	13.56	13.02	12.98	12.88
9	12.02	11.58	11.62		12.33	13.48	---	13.54	13.37	13.20	13.10	12.87
10	12.09	11.67	11.64		12.48	13.51	---	13.51	13.63	13.38	12.98	12.98
11	12.19	11.31	11.57		12.66	13.59	---	13.64	14.42	13.33	13.40	13.25
12	12.10	11.34	11.52		12.94	11.99	---	13.49	13.55	13.32	13.37	13.17
13	12.03	11.67	11.73		12.06	13.46	---	13.58	13.45	13.31	12.90	13.25
14	12.15	11.85	12.38		11.80	13.30	---	13.84	13.81	13.02	13.02	12.92
15	12.30	10.94	11.76		12.24	13.53	---	13.49	13.71	13.31	13.01	12.86
16	12.14	9.87	11.62		12.42	13.51	---	13.63	13.52	13.46	13.23	12.87
17	12.05	11.22	11.55		12.14	13.51	---	13.87	13.59	13.67	13.24	12.68
18	12.26	11.67	11.53		12.48	13.81	---	13.74	13.21	13.60	12.88	12.58
19	11.85	11.92	11.23		12.18	13.65	---	13.43	13.44	13.29	12.69	12.62
20	11.86	11.68	10.46		12.59	13.70	---	13.63	13.64	13.38	12.84	12.54
21	11.89	11.80	---		12.58	14.05	---	13.84	13.81	13.37	12.94	13.18
22	11.95	11.49	---		12.56	14.02	---	13.94	13.46	13.38	12.92	13.18
23	11.92	11.19	---		12.79	13.81	---	13.94	13.67	13.73	12.86	12.98
24	11.93	11.59	---		12.75	13.82	---	13.68	13.78	13.41	12.84	12.31
25	12.09	11.69	---		13.04	13.65	---	13.61	13.71	13.19	12.85	13.13
26	11.69	11.74	---		13.07	13.61	---	13.53	14.01	13.22	12.86	12.55
27	11.99	11.86	---		12.96	13.37	---	13.69	14.01	13.27	12.71	12.87
28	11.80	10.97	---		13.00	13.48	---	13.94	13.85	13.19	12.68	12.73
29	12.12	11.58	---		---	13.52	---	13.86	13.54	13.11	12.77	12.85
30	11.92	11.55	---		---	13.78	---	13.61	13.85	13.57	12.76	12.71
31	12.45	---	---		---	13.54	---	13.20	---	13.60	13.29	---
MEAN	12.05	11.52	---		---	13.52	---	---	13.68	13.33	13.01	12.83
MAX	12.58	12.08	---		---	14.32	---	---	14.42	13.73	13.69	13.25
MIN	11.07	9.87	---		---	11.99	---	---	13.21	13.02	12.68	12.31

## STREAMS TRIBUTARY TO LAKE ERIE

04195500 PORTAGE RIVER AT WOODVILLE, OH

LOCATION.--Lat 41°26'58", long 83°21'41", in sec. 28, T.6 N., R.13 E., Sandusky County, Hydrologic Unit 04100010, on left bank at upstream side of bridge on U.S. Highway 20 in Woodville, 600 ft downstream from unnamed right bank tributary, and 10.3 mi upstream from Sugar Creek.

DRAINAGE AREA.--428 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1928 to December 1935, October 1939 to current year.

REVISED RECORDS.--WSP 894: 1929-30. WSP 1207: 1933. WSP 1387: 1931, 1933. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 614.75 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 8, 1933, nonrecording gage, Oct. 9, 1933 to Dec. 30, 1935 water-stage recorder, Oct. 17 to Nov. 29, 1939, nonrecording gage, all at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 18-30, Jan. 10 to Feb. 21, and May 17 to June 5. Records good except for periods of estimated record, which are fair. Flow supplemented by water imported from Maumee River basin for municipal supply for city of Bowling Green 16 mi upstream. The importation of this water began Sept. 1, 1951. Sediment data collected at this site 1950 to 1956. Water-quality data collected at this site 800 ft downstream 1968 to 1980. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE (adjusted for diversion).--53 years, 326 ft<sup>3</sup>/s, 10.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft<sup>3</sup>/s Feb. 15, 1950, gage height, 14.51 ft; minimum daily (prior to diversion) 0.4 ft<sup>3</sup>/s Aug. 26, 1931; (subsequent to diversion) 1.8 ft<sup>3</sup>/s Sept. 22, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17 ft, from information by local residents, discharge, 17,000 ft<sup>3</sup>/s, from rating curve extended above 11,500 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan. 2	1700	4,100	8.93	Apr. 1	1830	6,460	10.97
Feb. 25	0200	*8,640	*12.54				

Minimum daily discharge, 9.3 ft<sup>3</sup>/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	15	20	79	2270	32	1130	5890	57	170	29	25	191		
2	12	21	61	3910	32	880	4310	60	110	27	45	84		
3	12	24	54	2250	32	734	1570	68	140	27	37	48		
4	10	33	49	900	32	802	980	67	180	30	29	33		
5	9.8	33	56	535	32	2830	674	62	125	36	20	23		
6	11	36	64	358	33	2090	1380	56	85	32	17	18		
7	14	46	54	285	33	883	1360	51	75	25	21	16		
8	17	42	69	241	34	639	787	48	61	21	23	25		
9	21	37	46	155	34	619	562	42	77	19	19	193		
10	25	33	44	105	35	497	498	34	1320	39	13	807		
11	37	43	47	81	38	422	425	70	634	98	11	316		
12	32	322	69	70	43	637	341	130	810	77	9.5	151		
13	29	283	118	63	50	627	288	122	1120	50	10	84		
14	23	138	371	54	59	448	262	252	596	39	9.9	53		
15	23	90	1090	46	63	345	245	410	339	40	23	36		
16	23	79	629	40	60	266	224	126	239	378	45	26		
17	43	99	388	36	59	232	186	99	231	141	51	21		
18	52	80	258	32	58	201	151	85	486	70	33	17		
19	34	61	181	30	57	164	138	69	441	45	22	15		
20	23	51	152	28	57	150	127	58	230	35	16	13		
21	26	43	134	26	100	134	112	52	145	29	13	12		
22	32	35	166	25	425	113	103	54	106	29	11	11		
23	40	32	323	25	2810	117	98	64	86	40	9.9	10		
24	30	28	230	27	7020	145	93	54	74	30	13	12		
25	27	24	154	28	8220	159	91	48	62	21	25	14		
26	25	23	121	30	6100	135	84	80	53	18	69	12		
27	24	22	132	31	2950	121	76	155	45	15	47	13		
28	23	28	148	32	1760	208	69	295	40	20	34	10		
29	26	36	406	32	---	2160	63	540	35	15	26	9.7		
30	29	91	1880	32	---	2690	60	360	32	12	24	9.3		
31	20	---	2100	32	---	3170	---	245	---	13	148	---		
TOTAL	767.8	1933	9673	11809	30258	23748	21247	3913	8147	1500	899.3	2283.0		
MEAN	24.8	64.4	312	381	1081	766	708	126	272	48.4	29.0	76.1		
MAX	52	322	2100	3910	8220	3170	5890	540	1320	378	148	807		
MIN	9.8	20	44	25	32	113	60	34	32	12	9.5	9.3		
+	5.2	4.8	4.4	4.5	4.8	4.4	5.0	4.8	4.5	5.0	4.9	5.5		
MEAN +	19.6	59.6	308	377	1076	762	703	121	268	43.4	24.1	70.6		
CFSM +	.05	.14	.72	.88	2.51	1.78	1.64	.28	.63	.10	.06	.16		
IN. +	.05	.16	.83	1.02	2.62	2.05	1.83	.33	.70	.12	.06	.18		
CAL YR 1984	TOTAL	157129.8	MEAN	429	MAX	7340	MIN	9.8	(+)	4.8	MEAN +	424	CFSM + .99	IN. + 13.45
WTR YR 1985	TOTAL	116178.1	MEAN	318	MAX	8220	MIN	9.3	(+)	4.8	MEAN +	313	CFSM + .73	IN. + 9.93



STREAMS TRIBUTARY TO LAKE ERIE

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04196800 TYMOCHTEE CREEK AT CRAWFORD, OH

LOCATION.--Lat 40°55'22", long 83°20'56", in SE 1/4 sec. 27, T.1 S., R.13 E., Wyandot County, Hydrologic Unit 04100011, on right bank at downstream side of bridge on State Highway 199 (formerly U.S. Highway 23), 0.4 mi northwest of Crawford, 1.5 mi downstream from Lick Run, 2.7 mi upstream from Little Tymochtee Creek, and 3 mi southeast of Carey.

DRAINAGE AREA.--229 mi<sup>2</sup>.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum, water years 1961-64, June 1964 to current year.

REVISED RECORDS.--WRD Ohio 1969: 1964(P), 1966(M), 1967(P).

GAGE.--Water-stage recorder. Datum of gage is 785.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 21, June 13-27. Records good except those for estimated daily discharges, which are fair. Beginning Mar. 9, 1972 water was diverted at a point 29.4 mi upstream from station into Killdeer Reservoir. Storage is available for low-flow augmentation. During the year, no withdrawals from Tymochtee Creek were made. Short term releases this year totaled 53.8 million gallons. Water-quality data collected at this site 1968 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--21 years, 179 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft<sup>3</sup>/s Mar. 17, 1978, gage height, 9.94 ft; maximum gage height, 11.21 ft Mar. 6, 1963 (backwater from ice); no flow Aug. 10, Sept. 13-18, Oct. 23 to Nov. 4, 1964, Aug. 23-26, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1959 reached a stage of 12.9 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 25	0230	*4,390	*8.26	No other peak greater than base discharge.			

Minimum daily discharge, 0.08 ft<sup>3</sup>/s Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	32	47	1100	16	386	874	16	54	15	4.0	116
2	.84	32	38	1000	16	293	982	18	39	19	2.7	65
3	.52	24	36	875	16	245	477	182	32	70	2.4	32
4	2.1	23	29	383	15	266	271	382	23	44	2.4	16
5	2.4	30	21	217	15	520	194	193	27	37	2.6	10
6	2.4	29	20	155	15	523	297	112	52	54	2.6	7.3
7	3.5	35	23	113	15	294	513	76	35	111	1.9	6.3
8	5.6	28	18	90	15	214	375	56	22	95	1.8	5.4
9	6.5	23	14	70	15	206	231	42	276	56	3.0	4.8
10	6.4	23	14	59	15	184	200	33	979	75	2.7	3.6
11	5.9	27	19	46	20	146	166	24	687	73	2.5	1.8
12	5.0	56	41	39	35	210	141	21	453	35	1.8	1.4
13	4.9	62	127	34	48	304	114	21	716	19	2.9	1.2
14	4.3	44	204	30	60	244	93	18	440	14	3.8	.92
15	5.1	31	329	26	66	169	84	18	250	12	4.6	.53
16	5.7	21	315	24	64	133	77	75	150	11	7.6	.33
17	5.3	18	188	23	62	123	68	97	79	8.0	38	1.1
18	5.0	14	123	22	56	114	56	259	180	5.4	84	.74
19	5.0	13	86	21	53	97	48	233	470	4.8	68	.25
20	5.2	11	66	20	50	79	45	179	320	5.0	55	.47
21	7.3	9.6	59	19	49	59	40	118	220	5.0	20	.59
22	9.3	9.0	106	19	488	59	38	179	150	4.5	11	.24
23	9.0	7.9	171	18	1420	60	35	231	100	3.0	7.7	.08
24	8.0	7.1	166	18	3310	59	33	127	72	2.9	7.7	.47
25	7.6	7.1	106	18	4000	57	36	77	48	3.7	18	.40
26	11	7.1	68	17	2440	53	31	53	33	4.8	59	.29
27	12	6.5	56	17	1320	45	27	41	23	2.9	87	.22
28	16	11	56	17	637	41	22	96	19	7.9	57	.27
29	28	15	99	17	---	62	21	210	18	9.9	29	.32
30	32	21	615	16	---	65	19	147	17	6.7	21	.37
31	32	---	874	16	---	367	---	88	---	5.6	104	---
TOTAL	254.70	677.3	4134	4539	14331	5677	5608	3422	5984	820.1	715.7	278.39
MEAN	8.22	22.6	133	146	512	183	187	110	199	26.5	23.1	9.28
MAX	32	62	874	1100	4000	523	982	382	979	111	104	116
MIN	.52	6.5	14	16	15	41	19	16	17	2.9	1.8	.08
CAL YR 1984	TOTAL	75843.24		MEAN	207	MAX	2940	MIN	.32			
WTR YR 1985	TOTAL	46441.19		MEAN	127	MAX	4000	MIN	.08			

## STREAMS TRIBUTARY TO LAKE ERIE

04197020 HONEY CREEK NEAR NEW WASHINGTON, OH

LOCATION.--Lat 40°57'37", long 82°47'19", in SE 1/4, sec. 7, T.22 N., R.20 W., Crawford County, Hydrologic Unit 04100011, on left bank 250 ft downstream from State Route 103 bridge and 3.4 mi east of New Washington.

DRAINAGE AREA.--17 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 21. Records poor.

AVERAGE DISCHARGE.--6 years(1980-1985), 17.2 ft<sup>3</sup>/s, 13.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft<sup>3</sup>/s June 13, 1981, gage height, 20.13 ft, from rating curve extended above 325 ft<sup>3</sup>/s on basis of step backwater analysis; minimum, no flow Oct. 17, 1981, July 26, 29-31, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s "revised" and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 30	0245	354	14.39	Feb. 23	1630	*924	*17.28

Minimum discharge, no flow, July 26, July 29-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	.33	.60	4.4	128	1.5	37	96	1.7	4.3	.82	.59	1.0	
2	.46	1.4	3.0	62	1.4	33	51	1.6	3.1	8.7	.32	.76	
3	.54	1.5	2.9	31	1.4	28	48	1.9	2.8	6.7	.29	.42	
4	.46	6.0	2.3	21	1.4	54	31	1.8	1.9	3.9	.26	.28	
5	.37	18	1.8	15	1.4	92	24	1.5	1.8	2.5	.23	.28	
6	.35	6.7	2.1	12	1.4	33	92	1.4	1.8	1.8	.28	.28	
7	.32	3.2	2.0	11	1.4	24	42	2.2	1.3	1.6	.20	.29	
8	.32	2.0	1.9	8.6	1.4	24	25	2.3	1.1	1.3	.39	.29	
9	.38	1.7	1.9	7.5	1.4	21	20	2.1	1.5	1.2	.26	.29	
10	.42	8.3	4.6	5.6	1.5	17	19	2.2	1.3	9.5	.10	.25	
11	.42	23	22	4.5	1.7	16	17	2.1	.87	5.9	.09	.22	
12	.42	17	20	3.8	2.0	26	14	2.0	15	3.0	.07	.22	
13	.42	11	28	3.3	2.2	20	12	1.8	15	1.7	.10	.22	
14	.37	6.8	53	2.9	2.5	17	11	1.6	9.3	1.4	.10	.22	
15	.37	5.5	36	2.7	2.4	13	10	1.7	5.7	1.3	.41	.24	
16	.40	4.5	18	2.5	2.2	11	9.2	1.8	9.3	1.1	2.0	.25	
17	.42	3.5	13	2.3	2.1	11	7.7	7.6	15	.89	1.3	.25	
18	.42	3.0	9.4	2.2	2.1	8.9	6.8	12	45	.75	.91	.19	
19	.42	2.6	7.4	2.0	2.0	7.8	6.4	8.8	19	.99	.61	.06	
20	.42	2.0	7.1	2.0	1.9	7.2	5.5	5.3	8.5	1.2	.36	.03	
21	.53	1.7	7.9	1.9	3.5	6.3	4.8	4.7	5.0	.73	.22	.01	
22	.66	1.2	38	1.8	330	6.0	4.4	4.5	3.7	.44	.22	.01	
23	.66	1.1	15	1.8	815	5.9	4.0	3.3	2.9	.85	.22	.01	
24	.66	1.1	10	1.7	315	5.9	4.0	2.3	2.3	.40	.32	.03	
25	.66	1.1	7.1	1.6	140	5.5	3.7	1.7	2.1	.25	1.5	.04	
26	.66	1.1	8.0	1.6	87	4.3	2.7	1.4	1.6	.06	1.2	.04	
27	.66	1.0	5.6	1.6	67	4.1	2.4	1.1	1.4	.08	.61	.04	
28	.63	2.2	19	1.5	46	5.7	2.4	46	1.3	.11	.38	.08	
29	.60	6.6	63	1.5	---	84	2.4	27	1.2	.07	.42	.10	
30	.60	5.2	214	1.5	---	69	2.0	11	1.2	.01	.80	.10	
31	.60	---	76	1.5	---	157	---	6.6	---	.37	1.4	---	
TOTAL	14.95	150.60	704.4	347.9	1838.8	854.6	580.4	173.0	186.27	59.62	16.16	6.50	
MEAN	.48	5.02	22.7	11.2	65.7	27.6	19.3	5.58	6.21	1.92	.52	.22	
MAX	.66	23	214	128	815	157	96	46	45	9.5	2.0	1.0	
MIN	.32	.60	1.8	1.5	1.4	4.1	2.0	1.1	.87	.01	.07	.01	
CFSM	.03	.30	1.34	.66	3.86	1.62	1.14	.33	.37	.11	.03	.01	
IN.	.03	.33	1.54	.76	4.02	1.87	1.27	.38	.41	.13	.04	.01	
CAL YR 1984	TOTAL	5810.3		MEAN	15.9	MAX	421	MIN	.19	CFSM	.94	IN.	12.70
WTR YR 1985	TOTAL	4933.20		MEAN	13.5	MAX	815	MIN	.01	CFSM	.79	IN.	10.80

## STREAMS TRIBUTARY TO LAKE ERIE

04197100 HONEY CREEK AT MELMORE, OH

LOCATION.--Lat 41°01'20", long 83°06'35", Seneca County, Hydrologic Unit 04100011, at bridge on State Highways 67 and 100 at Melmore, 1.5 mi upstream from Buckeye Creek.

DRAINAGE AREA.--149 mi<sup>2</sup>.

PERIOD OF RECORD.--Annual maximum, water years 1961-75, February 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 818 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 21. Records good except those for estimated daily discharges which are fair. Water-quality data collected at this site 1976 to 1977.

AVERAGE DISCHARGE.--9 years, 139 ft<sup>3</sup>/s, 12.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft<sup>3</sup>/s June 13, 1981, gage height, 11.00 ft; minimum discharge 0.58 ft<sup>3</sup>/s Sept. 11, 28, 29, 30, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 24	0830	*3,780	*10.36	No other peak greater than base discharge.			
Minimum daily discharge 1.1 ft <sup>3</sup> /s Sept. 22.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	2.1	15	30	1110	13	398	1240	15	46	5.2	5.5	75	
2	2.1	17	30	1020	13	320	748	16	31	6.4	12	36	
3	2.8	18	29	570	13	255	364	16	30	10	6.8	20	
4	1.7	21	26	249	13	384	264	17	31	18	3.8	13	
5	1.9	40	21	153	13	885	177	17	24	15	2.6	9.7	
6	2.1	69	18	108	13	594	661	16	19	11	2.3	7.4	
7	2.9	47	17	86	13	259	678	14	17	8.6	8.8	6.7	
8	6.8	31	16	73	13	200	292	14	14	6.7	23	7.5	
9	7.9	21	16	52	13	178	165	13	16	5.0	13	31	
10	8.0	17	16	44	14	139	135	12	19	16	9.5	26	
11	9.4	43	40	38	15	115	120	11	19	39	5.4	15	
12	11	110	110	33	17	232	97	10	17	36	2.9	9.5	
13	10	87	164	29	19	231	82	9.4	21	22	2.4	6.0	
14	9.2	56	242	26	21	141	74	9.0	32	22	20	4.0	
15	11	39	319	24	22	107	68	10	29	46	119	3.3	
16	12	31	219	22	21	82	62	18	22	53	106	2.8	
17	12	29	120	21	20	70	50	28	25	27	57	2.2	
18	12	24	84	19	19	60	42	56	73	16	31	2.0	
19	12	20	64	18	19	52	39	66	169	9.9	21	1.7	
20	12	17	58	17	18	47	36	59	94	7.2	13	1.3	
21	12	15	54	17	18	42	32	42	51	5.4	8.6	1.3	
22	12	13	150	16	296	38	29	32	32	4.2	6.3	1.1	
23	12	12	175	15	2010	36	28	27	24	3.2	4.9	1.4	
24	12	12	96	15	3620	36	26	22	20	2.5	5.5	2.9	
25	12	11	64	14	2830	36	24	19	15	2.4	13	3.5	
26	12	11	49	14	1600	35	23	16	11	2.6	21	5.7	
27	12	10	44	14	907	31	20	12	10	2.3	16	4.8	
28	12	11	69	14	585	32	18	208	8.4	1.8	23	4.7	
29	12	14	280	13	---	89	17	346	6.9	1.5	21	4.2	
30	12	23	879	13	---	246	15	168	5.5	1.5	84	4.2	
31	11	---	962	13	---	820	---	76	---	2.6	148	---	
TOTAL	279.9	884	4461	3870	12188	6190	5626	1394.4	931.8	410.0	816.3	313.9	
MEAN	9.03	29.5	144	125	435	200	188	45.0	31.1	13.2	26.3	10.5	
MAX	12	110	962	1110	3620	885	1240	346	169	53	148	75	
MIN	1.7	10	16	13	13	31	15	9.0	5.5	1.5	2.3	1.1	
CFSM	.06	.20	.97	.84	2.92	1.34	1.26	.30	.21	.09	.18	.07	
IN.	.07	.22	1.11	.97	3.04	1.55	1.40	.35	.23	.10	.20	.08	
CAL YR 1984	TOTAL	49417.6		MEAN	135	MAX	2640	MIN	.47	CFSM	.91	IN.	12.34
WTR YR 1985	TOTAL	37365.3		MEAN	102	MAX	3620	MIN	1.1	CFSM	.68	IN.	9.33

## STREAMS TRIBUTARY TO LAKE ERIE

04197170 ROCK CREEK AT TIFFIN, OH

LOCATION.--Lat 41°06'49", long 83°10'06", Seneca County, Hydrologic Unit 04100011, on left bank 0.05 mi downstream from bridge on Rebecca Street, at Heidelberg College, Tiffin, Ohio.

DRAINAGE AREA.--34.6 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 21 and May 15 to July 5. Records fair except those for estimated record, which are poor.

COOPERATION.--Gage-height record furnished by Heidelberg College; 6 discharge measurements were made, rating developed, and daily discharge computed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1640 ft<sup>3</sup>/s Feb. 23, 1985, gage height, 7.78 ft; minimum daily discharge 0.74 ft<sup>3</sup>/s Oct. 4, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1640 ft<sup>3</sup>/s Feb. 23, gage height 7.78 ft; minimum daily discharge, 1.2 ft<sup>3</sup>/s Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	5.8	6.5	279	3.6	24	318	4.5	8.8	2.3	2.6	20
2	1.9	5.1	7.3	159	3.6	21	50	4.7	7.4	2.2	2.1	7.7
3	2.1	4.4	7.7	32	3.5	18	33	4.4	7.2	2.2	1.3	5.1
4	2.1	5.4	6.9	16	3.5	61	30	4.4	7.0	5.4	1.2	3.8
5	2.2	7.3	6.5	12	3.5	346	20	4.4	5.8	4.2	1.3	3.1
6	2.4	5.1	6.5	10	3.5	50	129	4.1	5.0	2.7	1.4	2.8
7	2.8	4.4	5.4	9.0	3.5	23	54	3.6	3.7	2.4	1.3	2.6
8	3.8	3.8	5.4	8.1	3.5	22	25	3.6	3.2	2.2	1.2	3.6
9	2.4	3.8	5.4	7.3	3.5	20	18	3.3	7.0	2.1	3.6	98
10	2.2	4.4	6.5	6.5	3.5	16	15	3.3	11	16	4.4	88
11	2.6	5.4	9.5	6.0	3.9	15	14	3.3	7.0	6.5	2.2	13
12	3.8	6.5	13	5.6	4.4	29	12	3.3	5.4	3.8	1.6	6.2
13	2.4	5.1	19	5.4	5.0	26	11	3.3	6.0	3.3	1.3	4.1
14	2.8	4.7	31	5.2	5.6	17	10	2.8	10	3.1	2.5	3.6
15	3.1	5.4	44	5.0	6.2	13	9.5	2.9	8.2	15	32	3.1
16	3.3	4.7	23	4.8	6.0	12	8.6	5.0	6.2	6.2	34	2.6
17	3.6	5.1	13	4.7	5.8	10	7.3	15	6.0	3.3	9.0	2.4
18	3.3	4.7	8.6	4.7	5.6	9.5	7.3	19	50	2.6	4.7	2.2
19	4.4	4.7	7.3	4.6	5.4	9.5	7.3	10	30	2.4	2.8	2.2
20	5.1	4.4	6.5	4.5	5.2	9.0	6.9	9.6	15	2.2	2.2	2.1
21	6.5	4.4	6.9	4.5	5.0	8.1	6.5	9.0	10	2.1	2.2	2.1
22	5.4	4.4	18	4.5	144	8.1	6.2	7.8	8.0	2.1	1.7	2.1
23	5.1	4.4	19	4.5	1120	8.6	6.2	6.8	5.6	1.9	1.7	2.2
24	5.1	4.4	11	4.4	1180	9.5	5.8	6.0	5.2	1.9	3.3	1.7
25	5.1	4.7	7.7	4.3	382	10	5.4	5.4	5.0	1.9	2.8	1.7
26	5.4	4.7	6.9	4.2	93	9.0	5.4	5.0	4.4	2.2	2.2	2.1
27	5.4	5.1	6.9	4.0	50	8.6	5.1	4.5	3.8	1.9	1.7	2.1
28	5.8	6.5	9.0	3.9	32	9.0	4.7	100	3.3	1.9	1.3	2.2
29	5.4	6.5	31	3.8	---	19	4.4	70	2.6	1.7	1.2	2.2
30	5.4	6.5	312	3.8	---	24	4.4	40	2.4	1.6	13	2.1
31	5.4	---	92	3.7	---	360	---	15	---	2.8	85	---
TOTAL	118.4	151.8	759.4	635.0	3094.3	1224.9	840.0	384.0	260.2	112.1	228.8	296.7
MEAN	3.82	5.06	24.5	20.5	111	39.5	28.0	12.4	8.67	3.62	7.38	9.89
MAX	6.5	7.3	312	279	1180	360	318	100	50	16	85	98
MIN	1.9	3.8	5.4	3.7	3.5	8.1	4.4	2.8	2.4	1.6	1.2	1.7
CFSM	.11	.15	.71	.59	3.21	1.14	.81	.36	.25	.10	.21	.29
IN.	.13	.16	.82	.68	3.33	1.32	.90	.41	.28	.12	.25	.32
CAL YR 1984	TOTAL	13005.51	MEAN	35.5	MAX	1130	MIN	.97	CFSM	1.03	IN.	13.9
WTR YR 1985	TOTAL	8105.6	MEAN	22.2	MAX	1180	MIN	1.2	CFSM	.64	IN.	8.71



## STREAMS TRIBUTARY TO LAKE ERIE

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04198000 SANDUSKY RIVER NEAR FREMONT, OH  
(National stream quality accounting network station)

LOCATION.--Lat 41°18'28", long 83°09'32", in sec. 17, T.4 N., R.15 E., Sandusky County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 2.3 mi upstream from Ballville diversion dam, 2.5 mi downstream from Wolf Creek, and 3.5 mi southwest of Fremont.

DRAINAGE AREA.--1,251 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to March 1901 (gage height and discharge measurements only, published at "at Fremont"), October 1923 to December 1935, July 1938 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 744: 1931-32. WSP 874: 1938. WSP 1144: 1924-30. WSP 1387: 1925, 1928-29, 1931-35. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 626.3 ft above National Geodetic Vertical Datum of 1929. Nov. 18, 1898, to Mar. 10, 1901, nonrecording gage at site 4 mi downstream at different datum. Nov. 8, 1923, to Sept. 5, 1930, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 9 to Feb. 23. Records good except for estimated record, which is poor.

AVERAGE DISCHARGE.--59 years (1923-35, 1938-85), 998 ft<sup>3</sup>/s, 10.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,500 ft<sup>3</sup>/s Mar. 16, 1978 gage height, 13.57 ft; maximum gage height, 16.14 ft Feb. 24, 1979, (ice jam); minimum discharge, 4.4 ft<sup>3</sup>/s Feb. 29, 1964 (result of freezeup); minimum gage height, 0.78 ft Oct. 20, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 23	0400	ice jam	*12.08	Apr. 1	0430	10,900	6.27
Feb. 24	0100	*26,700	11.08				

Minimum daily discharge, 25 ft<sup>3</sup>/s Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	88	306	7370	170	3030	9620	253	518	136	114	710
2	55	168	318	7940	170	2100	6460	265	376	143	95	517
3	54	187	295	5280	160	1720	3980	286	366	393	86	334
4	48	210	271	2990	160	1780	2400	470	412	541	80	222
5	48	335	262	1620	155	5370	1710	708	310	388	65	159
6	48	678	230	1060	150	4090	2330	505	263	288	72	122
7	50	1020	936	780	150	2550	3970	362	306	275	75	103
8	59	527	1390	633	150	1610	3190	291	320	336	70	97
9	87	343	583	480	150	1380	1880	248	285	267	85	160
10	84	258	208	400	150	1210	1360	219	2510	334	90	404
11	71	312	199	350	150	1060	1140	195	2600	649	108	249
12	64	918	361	310	170	1190	969	173	1640	641	90	153
13	60	1100	811	280	210	1650	809	161	1960	401	78	107
14	58	717	1240	260	260	1570	702	155	2290	277	73	90
15	58	489	2000	240	300	1120	637	156	1590	575	161	80
16	62	377	1990	210	290	835	589	186	898	600	367	73
17	62	301	1350	200	280	691	527	468	656	410	266	68
18	55	257	849	190	260	602	468	898	1180	322	314	61
19	52	223	612	180	250	544	424	1030	2080	250	358	56
20	58	195	486	200	240	493	392	865	1730	176	265	38
21	56	168	427	250	240	447	369	646	917	134	224	33
22	60	150	516	240	1500	400	346	484	560	150	162	42
23	66	135	1040	240	4500	392	330	470	414	121	118	45
24	64	124	1130	230	20700	405	320	537	331	97	101	56
25	68	115	740	220	17600	396	316	406	288	80	150	51
26	73	107	509	210	16600	373	309	305	249	82	178	33
27	77	99	398	210	13000	351	302	252	212	81	293	25
28	74	113	408	200	6340	366	288	366	182	80	266	46
29	73	135	754	190	---	1360	274	1410	159	98	223	34
30	76	212	4220	180	---	2870	260	1520	143	93	283	38
31	77	---	5730	180	---	6300	---	852	---	106	765	---
TOTAL	1954	10061	30569	33323	84455	48255	46671	15142	25745	8524	5675	4206
MEAN	63.0	335	986	1075	3016	1557	1556	488	858	275	183	140
MAX	87	1100	5730	7940	20700	6300	9620	1520	2600	649	765	710
MIN	48	88	199	180	150	351	260	155	143	80	65	25
CFSM	.05	.27	.79	.86	2.41	1.24	1.24	.39	.69	.22	.15	.11
IN.	.06	.30	.91	.99	2.51	1.43	1.39	.45	.77	.25	.17	.13
CAL YR 1984	TOTAL	610892	MEAN	1669	MAX	27200	MIN	48	CFSM	1.33	IN.	18.12
WTR YR 1985	TOTAL	314580	MEAN	862	MAX	20700	MIN	25	CFSM	.69	IN.	9.35

## STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

## WATER-QUALITY ANALYSES

PERIOD OF RECORD.--Water years 1951-56, 1978 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: Water years 1951-1956, 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L June 9, 1981; minimum daily mean, 1 mg/L on many days during 1952-1956, 1980, 1981.

SEDIMENT LOADS: Maximum daily, 124,000 tons June 14, 1981; minimum daily, less than 0.05 ton on several days during 1952 and 1954.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,960 mg/L June 11; minimum daily mean, 7 mg/L Oct. 23, Nov. 23, 26.

SEDIMENT LOADS: Maximum daily, 19,700 tons Feb. 24; minimum daily, 1.0 ton Sept. 27.

## WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
NOV 1984									
15...	10:00	494	580	8.1	4.0	6.5	45	11.4	96
MAR 1985									
13...	11:00	1680	630	8.1	2.5	5.5	25	12.2	99
MAY									
15...	10:00	158	680	8.2	21.0	20.5	1.1	8.2	94
SEP									
12...	09:30	163	425	7.8	15.0	19.0	100	6.3	69
DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 1984									
15...	630	220	67	19	15	4.7	139	75	35
MAR 1985									
13...	4400	420	79	23	14	2.5	162	98	30
MAY									
15...	550	1200	71	28	19	3.4	151	120	40
SEP									
12...	470	480	49	15	11	6.8	127	59	19
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1984									
15...	0.3	8.3	361	7.00	0.01	1.1	0.21	0.04	0.04
MAR 1985									
13...	0.3	7.1	411	5.70	0.13	1.2	0.16	0.09	0.07
MAY									
15...	0.3	1.2	486	7.90	0.08	1.6	0.05	0.02	<0.01
SEP									
12...	<0.1	7.1	287	1.40	0.20	1.6	0.17	0.09	0.08

STREAMS TRIBUTARY TO LAKE ERIE  
04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 1984 15...	10:00	494	40	1	48	<0.5	<1	2	<3	20	38
MAR 1985 13...	11:00	1680	10	<1	48	0.5	<1	4	<3	4	10
MAY 15...	10:00	158	<10	<1	62	<0.5	<1	<1	<3	17	13
SEP 12...	09:30	163	<10	2	46	<0.5	<1	1	<3	15	21

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 1984 15...	3	<4	5	0.2	<10	1	<1	<1	1500	<6	10
MAR 1985 13...	2	<4	11	0.1	<10	<1	1	<1	1300	<6	6
MAY 15...	10	12	2	<0.1	<10	6	<1	<1	2900	<6	4
SEP 12...	6	6	<1	<0.1	<10	2	<1	<1	1600	<6	<3

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 1984 15...	10:00	494	6.5	48	64
MAR 1985 13...	11:00	1680	5.5	48	218
MAY 15...	10:00	158	20.5	29	12
SEP 12...	09:30	163	19.0	110	48

## STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	57	10	1.5	88	20	4.8	306	10	8.3
2	55	10	1.5	168	24	11	318	8	6.9
3	54	12	1.7	187	27	14	295	11	8.8
4	48	12	1.6	210	35	20	271	9	6.6
5	48	14	1.8	335	42	38	262	10	7.1
6	48	14	1.8	678	78	143	230	10	6.2
7	50	16	2.2	1020	78	215	936	10	25
8	59	16	2.5	527	39	55	1390	15	56
9	87	17	4.0	343	41	38	583	15	24
10	84	15	3.4	258	43	30	208	15	8.4
11	71	9	1.7	312	45	38	199	20	11
12	64	11	1.9	918	81	201	361	20	19
13	60	16	2.6	1100	61	181	811	25	55
14	58	11	1.7	717	47	91	1240	30	100
15	58	13	2.0	489	53	70	2000	72	389
16	62	13	2.2	377	46	47	1990	70	376
17	62	13	2.2	301	32	26	1350	71	259
18	55	10	1.5	257	30	21	849	56	128
19	52	14	2.0	223	23	14	612	43	71
20	58	12	1.9	195	16	8.4	486	30	39
21	56	9	1.4	168	16	7.3	427	26	30
22	60	19	3.1	150	10	4.1	516	24	33
23	66	7	1.2	135	7	2.6	1040	34	95
24	64	16	2.8	124	11	3.7	1130	44	134
25	68	13	2.4	115	9	2.8	740	40	80
26	73	14	2.8	107	7	2.0	509	35	48
27	77	18	3.7	99	8	2.1	398	31	33
28	74	11	2.2	113	12	3.7	408	35	39
29	73	10	2.0	135	15	5.5	754	44	90
30	76	21	4.3	212	17	9.7	4220	328	4310
31	77	9	1.9	---	---	---	5730	328	5070
TOTAL	1954	---	69.5	10061	---	1309.7	30569	---	11566.3
JANUARY			FEBRUARY			MARCH			
1	7370	232	4620	170	38	17	3030	75	614
2	7940	200	4290	170	38	17	2100	50	283
3	5280	150	2140	160	38	16	1720	41	190
4	2990	129	1040	160	38	16	1780	47	265
5	1620	59	258	155	38	16	5370	317	4600
6	1060	62	177	150	36	15	4090	218	2410
7	780	60	126	150	36	15	2550	117	806
8	633	60	103	150	36	15	1610	84	365
9	480	60	78	150	36	15	1380	50	186
10	400	55	59	150	36	15	1210	36	118
11	350	55	52	150	36	15	1060	36	103
12	310	55	46	170	36	17	1190	33	106
13	280	55	42	210	35	20	1650	56	249
14	260	50	35	260	35	25	1570	100	424
15	240	50	32	300	35	28	1120	58	175
16	210	50	28	290	35	27	835	44	99
17	200	50	27	280	35	26	691	40	75
18	190	50	26	260	35	25	602	32	52
19	180	45	22	250	35	24	544	26	38
20	200	45	24	240	35	23	493	23	31
21	250	45	30	240	35	23	447	20	24
22	240	45	29	1500	35	142	400	15	16
23	240	45	29	4500	320	3890	392	16	17
24	230	45	28	20700	352	19700	405	16	17
25	220	45	27	17600	248	11800	396	17	18
26	210	40	23	16600	200	8960	373	14	14
27	210	40	23	13000	126	4420	351	12	11
28	200	40	22	6340	104	1780	366	28	28
29	190	40	21	---	---	---	1360	157	823
30	180	40	19	---	---	---	2870	565	4380
31	180	40	19	---	---	---	6300	720	12200
TOTAL	33323	---	13495	84455	---	51102	48255	---	28737



## STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	9620	360	9350	253	30	20	518	77	108
2	6460	220	3840	265	35	25	376	70	71
3	3980	116	1250	286	22	17	366	146	144
4	2400	78	505	470	108	137	412	85	95
5	1710	78	360	708	68	130	310	100	84
6	2330	100	629	505	70	95	263	47	33
7	3970	496	5320	362	68	66	306	54	45
8	3190	440	3790	291	38	30	320	80	69
9	1880	178	904	248	44	29	285	64	49
10	1360	86	316	219	48	28	2510	680	5780
11	1140	54	166	195	50	26	2600	1960	13800
12	969	32	84	173	18	8.4	1640	930	4120
13	809	38	83	161	26	11	1960	570	3020
14	702	37	70	155	30	13	2290	372	2300
15	637	35	60	156	34	14	1590	172	738
16	589	24	38	186	35	18	898	257	623
17	527	24	34	468	127	160	656	139	246
18	468	25	32	898	73	177	1180	134	483
19	424	21	24	1030	63	175	2080	323	1810
20	392	24	25	865	70	163	1730	352	1640
21	369	33	33	646	73	127	917	230	569
22	346	30	28	484	73	95	560	126	191
23	330	48	43	470	218	277	414	123	137
24	320	32	28	537	73	106	331	101	90
25	316	34	29	406	65	71	288	100	78
26	309	36	30	305	81	67	249	95	64
27	302	25	20	252	70	48	212	90	52
28	288	31	24	366	61	60	182	85	42
29	274	40	30	1410	112	426	159	80	34
30	260	30	21	1520	185	759	143	70	27
31	---	---	---	852	120	276	---	---	---
TOTAL	46671	---	27166	15142	---	3654.4	25745	---	36542
JULY			AUGUST			SEPTEMBER			
1	136	75	28	114	56	17	710	150	288
2	143	70	27	95	40	10	517	102	142
3	393	60	64	86	34	7.9	334	94	85
4	541	65	95	80	27	5.8	222	70	42
5	388	65	68	65	27	4.7	159	50	21
6	288	70	54	72	34	6.6	122	36	12
7	275	60	45	75	44	8.9	103	28	7.8
8	336	55	50	70	33	6.2	97	24	6.3
9	267	50	36	85	35	8.0	160	32	14
10	334	60	54	90	29	7.0	404	104	113
11	649	75	131	108	44	13	249	126	85
12	641	70	121	90	44	11	153	100	41
13	401	65	70	78	30	6.3	107	92	27
14	277	65	49	73	27	5.3	90	75	18
15	575	60	93	161	58	25	80	50	11
16	600	60	97	367	110	109	73	47	9.3
17	410	50	55	266	76	55	68	39	7.2
18	322	55	48	314	123	104	61	32	5.3
19	250	60	40	358	121	117	56	26	3.9
20	176	65	31	265	83	59	38	19	1.9
21	134	70	25	224	68	41	33	22	2.0
22	150	70	28	162	68	30	42	19	2.2
23	121	73	24	118	59	19	45	22	2.7
24	97	70	18	101	58	16	56	26	3.9
25	80	65	14	150	74	30	51	26	3.6
26	82	65	14	178	59	28	33	26	2.3
27	81	60	13	293	104	82	25	15	1.0
28	80	55	12	266	76	55	46	18	2.2
29	98	50	13	223	65	39	34	18	1.7
30	93	49	12	283	135	103	38	16	1.6
31	106	61	17	765	147	304	---	---	---
TOTAL	8524	---	1446	5675	---	1333.7	4206	---	963.9
YEAR	314580		177385.5						

## STREAMS TRIBUTARY TO LAKE ERIE

04199160 OLD WOMAN'S CREEK ABOVE U.S. 6 AT HURON, OH

LOCATION.--Lat 41°22'37", long 82°30'37", Erie County, Hydrologic Unit 04100012, about 0.5 mi south of bridge on U.S. Highway 6 and State Highway 2, 0.75 mi east of Huron.

DRAINAGE AREA.--26.3 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.-- Water-stage recorder. Datum of gage is 560.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Interruptions in record are due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 17.56 ft April 6, 1982; minimum recorded gage height, 12.02 ft Jan. 7, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 16.84 ft Mar. 29; minimum recorded gage height 12.25 ft, Dec. 8.

GAGE HEIGHT (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
	MEAN			VALUES								
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.35	14.66	15.95		---	13.75	14.12	15.25	14.78	---	15.45	15.90
2	14.52	14.72	15.98		---	13.99	14.76	15.58	14.83	---	15.46	15.91
3	14.54	14.73	16.01		---	14.62	14.66	15.24	14.99	---	15.45	15.91
4	14.54	14.80	14.60		---	14.85	15.06	14.90	15.12	---	15.43	15.89
5	14.54	14.96	13.22		---	13.63	14.89	14.74	15.14	---	15.42	15.88
6	14.53	15.08	13.25		---	14.45	13.94	14.85	15.15	---	15.41	15.86
7	14.55	15.16	12.69		---	14.22	15.03	14.99	15.16	---	15.47	15.84
8	14.57	15.19	12.49		---	14.08	15.09	15.14	15.16	---	15.59	15.83
9	14.63	15.25	12.95		---	14.25	15.22	14.93	15.21	---	15.65	15.84
10	14.66	15.31	13.05		---	14.24	14.73	14.77	15.22	---	15.65	15.83
11	14.76	15.36	13.11		---	14.31	14.93	14.83	15.30	15.52	15.64	15.81
12	14.97	15.41	12.86		---	13.80	15.22	14.82	15.60	15.51	15.62	15.79
13	14.79	15.46	---		---	14.31	15.28	14.78	15.70	15.49	15.60	15.77
14	14.69	15.53	---		---	14.28	15.22	14.98	15.75	15.49	15.60	15.75
15	14.65	15.57	---		---	14.42	15.17	15.13	15.77	15.51	15.69	15.73
16	14.61	15.64	---		---	14.35	15.19	14.94	15.81	15.52	15.74	15.72
17	14.61	15.62	---		---	14.61	15.42	15.56	15.81	15.51	15.74	15.70
18	14.60	15.62	---		---	14.76	15.01	15.46	15.80	15.50	15.75	15.69
19	14.58	15.63	---		---	14.26	15.00	14.87	---	15.47	15.73	15.67
20	14.59	15.64	---		13.32	14.53	15.07	14.68	---	15.46	15.70	15.65
21	14.60	15.65	---		13.29	15.00	15.06	15.06	---	15.45	15.69	15.64
22	14.63	15.66	---		13.90	15.31	15.06	15.11	---	15.43	15.67	15.63
23	14.61	15.65	---		15.57	15.44	15.07	15.38	---	15.41	15.65	15.60
24	14.61	15.65	---		13.92	15.62	15.04	15.01	---	15.37	15.64	15.62
25	14.59	15.65	---		13.77	15.82	14.98	14.79	---	15.35	15.65	15.59
26	14.58	15.65	---		13.77	15.91	15.03	14.74	---	15.38	15.68	15.58
27	14.61	15.67	---		13.84	15.98	15.28	14.78	---	15.37	15.67	15.56
28	14.68	15.72	---		13.70	16.08	15.08	15.50	---	15.36	15.66	15.55
29	14.63	15.80	---		---	15.27	15.17	15.34	---	15.34	15.64	15.53
30	14.66	15.90	---		---	15.35	15.02	15.05	---	15.30	15.68	15.52
31	14.65	---	---		---	15.71	---	14.84	---	15.36	15.85	---
MEAN	14.62	15.41	---		---	14.75	14.99	15.03	---	---	15.62	15.73
MAX	14.97	15.90	---		---	16.08	15.42	15.58	---	---	15.85	15.91
MIN	14.35	14.66	---		---	13.63	13.94	14.68	---	---	15.41	15.52

STREAMS TRIBUTARY TO LAKE ERIE

55

04199165 OLD WOMAN'S CREEK AT U.S. 6 AT HURON, OH

LOCATION.--Lat 41°22'51", long 82°30'53", Erie County, Hydrologic Unit 04100012, on left bank at U.S. Highway 6 and State Highway 2 bridge, 0.75 mi east of Huron.

DRAINAGE AREA.--26.5 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Interruptions in record are due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 16.85 ft Mar. 29, 1985; minimum recorded gage height, 10.88 ft Jan. 10, 11, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 16.85 ft Mar. 29; minimum recorded gage height, 11.38 ft Dec. 8.

DAY	GAGE HEIGHT (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985							
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.34	14.62	15.67	13.72	13.17	13.78	14.10	15.50	---	15.15	15.47	15.94
2	14.52	14.66	15.69	13.53	13.18	13.99	14.77	15.53	---	15.25	15.49	15.95
3	14.54	14.68	15.46	13.57	13.06	14.62	14.67	15.12	---	15.33	15.49	15.95
4	14.54	14.75	12.49	13.54	13.14	14.84	15.08	14.90	---	15.38	15.48	15.93
5	14.53	14.84	13.01	13.63	13.36	13.58	14.89	14.79	---	15.58	15.46	15.91
6	14.52	14.94	12.82	13.00	13.13	14.42	13.93	14.99	---	15.57	15.45	15.89
7	14.52	15.12	12.18	13.03	12.91	14.24	15.04	15.05	---	15.52	15.51	15.88
8	14.55	15.18	12.26	13.54	13.03	14.11	15.12	15.16	---	15.52	15.62	15.86
9	14.59	15.20	12.92	13.60	13.11	14.29	15.22	---	---	15.51	15.68	15.86
10	14.60	15.24	12.99	13.53	13.22	14.28	14.77	---	---	15.52	15.69	15.86
11	14.60	15.28	12.94	13.57	13.39	14.35	14.98	---	---	15.54	15.67	15.84
12	14.60	15.36	12.78	13.38	13.79	13.70	15.25	---	---	15.53	15.66	15.82
13	14.60	15.44	13.17	12.48	13.16	14.31	15.31	---	15.69	15.51	15.64	15.79
14	14.60	15.49	13.87	12.47	12.71	14.29	15.26	---	15.76	15.50	15.64	15.78
15	14.60	15.56	13.15	12.82	12.99	14.42	15.19	---	15.77	15.52	15.72	15.77
16	14.59	15.57	12.94	12.87	13.08	14.34	15.21	---	15.80	15.52	15.77	15.76
17	14.58	15.57	12.92	13.13	12.93	14.61	15.45	---	15.80	15.51	15.78	---
18	14.58	15.57	12.96	13.04	13.16	14.76	15.06	---	15.81	15.50	15.78	---
19	14.58	15.57	12.84	12.58	13.06	14.29	15.03	---	15.78	15.49	15.77	---
20	14.56	15.57	12.61	12.09	13.31	14.55	15.14	---	15.65	15.47	15.75	---
21	14.59	15.57	13.22	11.93	13.28	15.01	15.11	---	15.64	15.46	15.73	---
22	14.59	15.57	12.37	12.40	13.74	15.33	15.11	---	15.75	15.44	15.72	---
23	14.59	15.57	12.64	12.36	15.12	15.47	15.11	---	15.72	15.42	15.70	---
24	14.58	15.57	12.90	12.68	13.72	15.64	15.04	---	15.48	15.40	15.68	---
25	14.58	15.57	12.63	12.87	13.75	15.78	15.04	---	15.31	15.39	15.68	---
26	14.58	15.57	12.79	13.05	13.78	15.82	15.22	---	15.31	15.41	15.71	---
27	14.58	15.59	13.09	12.69	13.80	15.90	15.21	---	15.20	15.41	15.71	---
28	14.58	15.62	12.87	13.03	13.68	16.11	15.17	---	15.30	15.38	15.71	---
29	14.58	15.64	12.89	13.17	---	15.18	15.14	---	15.34	15.37	15.69	---
30	14.58	15.65	13.59	13.20	---	15.35	15.08	---	15.20	15.34	15.71	---
31	14.58	---	13.56	13.24	---	15.66	---	---	---	15.38	15.87	---
MEAN	14.57	15.34	13.17	13.02	13.35	14.74	15.02	---	---	15.45	15.66	---
MAX	14.60	15.65	15.69	13.72	15.12	16.11	15.45	---	---	15.58	15.87	---
MIN	14.34	14.62	12.18	11.93	12.71	13.58	13.93	---	---	15.15	15.45	---

## STREAMS TRIBUTARY TO LAKE ERIE

04199170 LAKE ERIE AT HURON, OH

LOCATION.--Lat 41°23'09", long 82°30'49", Erie County, Hydrologic Unit 04100012, about 600 ft off shore of mouth of Old Woman's Creek, 0.75 mi east of Huron.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 560.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Interruptions in record are due to malfunctions of the instruments. Records for 1985 are considered unreliable.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 18.03 ft July 29, 1981; minimum recorded gage height, 4.80 ft Jan. 17, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 18.37 ft Sept. 26 (unreliable); minimum recorded gage height, 11.65 ft Jan. 21 (unreliable).

DAY	GAGE HEIGHT (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985							
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	14.65	14.11	14.86	14.80	16.05	15.66	16.65	16.48	16.97
2			---	14.04	14.15	15.07	15.67	16.13	15.75	15.56	16.55	16.74
3			---	14.38	14.05	15.63	15.61	15.83	15.97	15.52	16.51	14.94
4			---	14.50	14.05	15.54	15.98	15.85	16.35	15.57	16.04	14.72
5			---	14.50	14.30	14.52	15.76	15.67	16.40	15.48	16.04	14.85
6			---	14.19	14.10	15.28	14.57	15.82	16.39	15.67	16.03	14.74
7			---	14.19	13.80	15.11	15.93	15.75	16.37	15.76	15.67	14.93
8			---	14.00	13.98	14.93	16.02	15.83	16.30	15.58	15.68	16.24
9			---	14.49	14.05	15.08	16.06	15.73	16.10	15.80	15.60	15.41
10			---	14.55	14.16	15.06	15.68	15.71	16.28	15.87	16.02	16.11
11			---	14.99	14.32	15.14	15.87	15.75	16.61	16.02	16.21	17.09
12			13.66	14.21	14.76	14.37	16.08	15.70	16.38	16.09	16.36	17.36
13			14.00	13.14	13.96	15.14	16.12	15.65	16.34	16.03	15.84	17.47
14			14.43	13.30	13.37	15.19	16.00	15.76	16.45	15.90	15.11	17.59
15			14.03	13.92	13.87	15.18	16.03	15.75	16.34	15.81	15.57	15.11
16			13.86	14.19	13.91	15.13	16.02	15.75	16.41	16.27	16.55	14.98
17			13.89	14.11	13.79	15.27	16.10	15.95	16.44	16.41	16.61	14.89
18			13.91	13.88	14.03	15.49	15.78	15.76	16.29	16.47	16.35	14.82
19			13.93	13.76	13.94	15.20	15.92	15.69	16.42	16.17	16.58	14.90
20			13.71	12.67	14.27	15.36	15.96	15.55	16.29	16.00	16.82	14.83
21			13.57	12.03	14.21	15.56	15.95	15.81	16.56	16.05	16.70	16.28
22			14.08	12.90	14.13	15.64	15.96	15.83	16.41	16.22	16.13	17.49
23			13.10	13.22	14.40	15.57	15.96	15.83	16.45	16.40	15.21	14.93
24			13.57	13.44	14.41	15.63	15.94	15.76	16.31	16.30	14.90	16.00
25			13.81	13.69	14.74	15.78	15.90	15.71	16.63	15.63	15.23	15.60
26			13.21	14.08	14.80	15.51	15.95	15.65	16.84	15.99	16.64	17.12
27			14.01	13.55	14.85	15.22	15.96	15.69	16.89	16.30	15.91	17.67
28			13.96	13.91	14.80	15.34	15.88	16.17	17.10	15.88	14.89	15.27
29			13.63	14.07	---	15.51	15.90	16.22	17.02	15.54	14.96	14.67
30			13.95	14.12	---	15.99	15.91	16.18	16.75	16.18	15.97	14.56
31			14.30	14.21	---	16.07	---	16.00	---	16.48	16.77	---
MEAN			---	13.90	14.19	15.30	15.84	15.82	16.42	15.99	16.00	15.81
MAX			---	14.99	14.85	16.07	16.12	16.22	17.10	16.65	16.82	17.67
MIN			---	12.03	13.37	14.37	14.57	15.55	15.66	15.48	14.89	14.56



## STREAMS TRIBUTARY TO LAKE ERIE

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04200500 BLACK RIVER AT ELYRIA, OH

LOCATION.--Lat 41°22'49", long 82°06'17", in T.6 N., R.17 W., Lorain County, Hydrologic Unit 04110001, on left bank in Cascade Park at Elyria, 0.8 mi downstream from confluence of East and West Branches.

DRAINAGE AREA.--396 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1944 to current year. Records for May 1903 to July 1906 (published as "near Elyria") published in WSP 97, 129, and 205, are unreliable and should not be used.

REVISED RECORDS.--WSP 1912: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 620.83 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 5 to Feb. 22, Feb. 26 to Mar. 13, and Mar. 31 to May 8. Records good except for periods of estimated record, which are poor. Some regulation at low flow for industrial use. Water-quality data collected at this site 1969 to 1974. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--41 years, 331 ft<sup>3</sup>/s, 11.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,700 ft<sup>3</sup>/s July 6, 1969, gage height, 26.4 ft, (from flood mark), from rating curve extended above 13,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow for part of Oct. 10, 1956 (result of temporary storage at dam upstream).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 24	1530	*13,500	*16.97	Mar. 29	2130	3,340	8.40
Mar. 5	----	4,500	unknown	Mar. 31	----	3,800	unknown

Minimum daily discharge, 6.9 ft<sup>3</sup>/s Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	9.3	68	205	2050	58	600	2500	31	147	27	194	343	
2	11	62	156	2160	58	450	1500	31	127	46	133	161	
3	11	45	122	947	58	350	1100	70	93	46	64	86	
4	13	152	97	475	58	1000	960	60	67	80	37	54	
5	11	251	77	280	58	2000	600	52	71	82	28	38	
6	9.4	532	69	220	58	1500	450	50	70	49	25	30	
7	9.9	309	62	190	56	700	420	70	60	33	49	25	
8	17	175	61	150	56	800	400	50	50	27	33	21	
9	21	122	57	130	56	500	600	38	43	24	31	21	
10	17	109	100	110	56	350	780	35	40	123	22	30	
11	21	399	391	100	56	310	600	32	44	216	21	17	
12	17	508	634	92	56	300	450	33	65	135	20	17	
13	13	347	530	86	84	800	350	30	326	67	22	15	
14	10	248	563	82	200	427	300	27	292	60	22	14	
15	11	186	858	80	250	301	270	51	188	58	31	12	
16	14	141	623	78	230	235	230	104	142	61	81	12	
17	15	118	359	76	200	193	200	119	110	35	206	11	
18	16	95	248	74	170	165	180	152	327	26	136	10	
19	22	78	192	72	160	145	160	112	186	23	71	9.3	
20	14	67	156	70	150	130	130	74	202	20	45	9.7	
21	18	57	152	68	150	117	120	67	109	17	32	8.6	
22	17	51	331	66	800	109	100	65	84	16	26	8.5	
23	18	45	553	64	6830	106	88	70	63	18	21	9.7	
24	19	41	341	64	12800	128	76	56	51	15	21	14	
25	18	39	206	62	8380	139	66	41	38	14	25	9.2	
26	24	38	123	62	2000	124	60	34	32	24	23	9.4	
27	19	35	161	60	1200	109	52	51	27	16	24	10	
28	31	61	355	60	820	247	45	1190	23	13	20	9.0	
29	28	106	644	60	---	2280	40	1570	20	14	24	6.9	
30	24	180	2600	60	---	2250	35	508	18	12	146	9.8	
31	55	---	2300	60	---	3000	---	238	---	209	659	---	
TOTAL	553.6	4665	13326	8208	35108	19865	12862	5111	3115	1606	2292	1031.1	
MEAN	17.9	156	430	265	1254	641	429	165	104	51.8	73.9	34.4	
MAX	55	532	2600	2160	12800	3000	2500	1570	327	216	659	343	
MIN	9.3	35	57	60	56	106	35	27	18	12	20	6.9	
CFSM	.05	.39	1.09	.67	3.17	1.62	1.08	.42	.26	.13	.19	.09	
IN.	.05	.44	1.25	.77	3.30	1.87	1.21	.48	.29	.15	.22	.10	
CAL YR 1984	TOTAL	158894.9		MEAN	434	MAX	11300	MIN	7.1	CFSM	1.10	IN.	14.89
WTR YR 1985	TOTAL	107742.7		MEAN	295	MAX	12800	MIN	6.9	CFSM	.74	IN.	10.12

## STREAMS TRIBUTARY TO LAKE ERIE

04201500 ROCKY RIVER NEAR BERE, OH

LOCATION.--Lat 41°24'24", long 81°53'14", in T.6 N., R.15 W., Cuyahoga County, Hydrologic Unit 04110001, on right bank at downstream side of Cedar Point Road Bridge in Rocky River Reservation, just downstream from confluence of East and West Branches, and 3.0 mi northwest of Berea.

DRAINAGE AREA.--267 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1923 to September 1935, September 1943 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.--WSP 1437: 1924, 1925(M), 1926, 1927(M), 1928-29, 1930-35(M), 1945. WSP 1912: Drainage area. WRD-OH-2-1983: 1978-1982(M).

GAGE.--Water-stage recorder. Datum of gage is 649.90 ft above National Geodetic Vertical Datum of 1929 (Cuyahoga County bench mark). Prior to Sept. 30, 1935, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 7 to Feb. 22. Records good except for period of estimated record, which is fair. Some regulation at low flow by small reservoirs on East Branch. Some inter-basin transfer of water from Lake Erie for municipal water supply by Cleveland Metro Water District. Water-quality data collected at this site 1964 to 1977.

AVERAGE DISCHARGE.--54 years, 270 ft<sup>3</sup>/s, 13.74 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft<sup>3</sup>/s Jan. 22, 1959, gage height, 14.10 ft, from rating curve extended above 11,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; maximum gage height, 18.6 ft June 29, 1924 (backwater caused by tornado); minimum daily discharge, 0.2 ft<sup>3</sup>/s Sept. 2, 1932, Aug. 22, 27, 30, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 20.9 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 4,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 29	2230	5,070	5.12	Mar. 29	0830	5,770	5.43
Feb. 23	1530	*8,130	*6.40	Mar. 31	2300	4,670	4.93

Minimum daily discharge, 26 ft<sup>3</sup>/s July 25, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	96	282	1850	105	392	2970	63	164	43	168	223
2	47	307	218	819	105	347	900	90	109	81	68	111
3	43	194	175	437	105	300	1120	109	93	96	47	81
4	37	494	150	318	100	864	925	87	99	75	34	66
5	31	1090	116	270	100	1840	514	72	87	52	31	57
6	28	454	107	229	100	656	668	64	76	39	53	50
7	27	261	113	200	100	395	581	97	60	33	142	45
8	38	152	143	170	100	581	543	86	51	30	331	59
9	36	115	122	150	100	471	756	66	46	28	94	103
10	40	635	399	140	100	319	807	50	44	405	56	107
11	34	608	964	135	160	296	727	37	49	280	42	60
12	34	429	659	130	280	1060	470	43	174	90	36	43
13	33	358	523	130	500	713	351	50	657	58	41	39
14	31	327	723	130	1000	433	314	49	353	68	103	37
15	31	254	716	125	900	335	281	74	142	90	170	36
16	31	222	388	125	780	254	225	113	156	82	519	36
17	33	176	278	120	680	222	182	155	132	57	179	36
18	36	127	209	120	600	203	152	175	368	45	79	35
19	39	107	186	120	510	183	143	131	152	38	53	34
20	37	106	183	115	480	171	134	80	91	30	46	34
21	48	104	235	115	450	152	118	199	69	29	39	33
22	44	100	745	110	2000	137	109	215	55	31	34	33
23	51	101	373	110	7470	166	99	98	50	31	33	39
24	54	105	233	110	6140	276	91	73	46	28	32	58
25	42	104	192	110	2340	303	103	57	43	26	56	47
26	53	96	150	110	883	201	89	51	39	41	68	44
27	44	88	357	110	639	174	74	81	34	40	64	49
28	60	273	709	110	498	541	69	2010	30	31	47	46
29	316	533	2590	105	---	4600	68	725	30	28	39	46
30	158	273	2720	105	---	1610	62	232	29	26	791	45
31	73	---	928	105	---	2780	---	149	---	256	956	---
TOTAL	1665	8289	15886	7033	27325	20975	13645	5581	3528	2287	4451	1732
MEAN	53.7	276	512	227	976	677	455	180	118	73.8	144	57.7
MAX	316	1090	2720	1850	7470	4600	2970	2010	657	405	956	223
MIN	27	88	107	105	100	137	62	37	29	26	31	33
CFSM	.20	1.03	1.92	.85	3.66	2.54	1.70	.67	.44	.28	.54	.22
IN.	.23	1.15	2.21	.98	3.81	2.92	1.90	.78	.49	.32	.62	.24
CAL YR 1984	TOTAL	147635	MEAN	403	MAX	8300	MIN	23	CFSM	1.51	IN.	20.50
WTR YR 1985	TOTAL	112397	MEAN	308	MAX	7470	MIN	26	CFSM	1.15	IN.	15.66

## STREAMS TRIBUTARY TO LAKE ERIE

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## 04202000 CUYAHOGA RIVER AT HIRAM RAPIDS, OH

LOCATION.--Lat 41°20'26", long 81°10'01", in T.5 N., R.7 W., Portage County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on Winchell Road at Hiram Rapids, 0.6 mi downstream from Black Brook.

DRAINAGE AREA.--151 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1927 to December 1935 (published as "near Hiram"), October 1944 to current year.

REVISED RECORDS.--WSP 1054: 1945. WSP 1437: 1931. WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,087.46 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 26, 1927, nonrecording gage and Aug. 26, 1927, to Dec. 31, 1935, water-stage recorder, at site 2.8 mi downstream at different datum. Oct. 20, 1944, to Oct. 22, 1946, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 12 to Feb. 12. Records good. Flow regulated by East Branch Reservoir. Usable capacity, 4,140 acre-ft, 14.6 mi upstream since 1939 and by LaDue Reservoir, usable capacity, 18,110 acre-ft, 9.8 mi upstream since 1961. Water-quality data collected at this site 1965 to 1977.

AVERAGE DISCHARGE.--49 years, 208 ft<sup>3</sup>/s, 18.71 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,670 ft<sup>3</sup>/s Jan. 23, 1959, gage height, 8.11 ft, from rating curve extended above 2,600 ft<sup>3</sup>/s; minimum daily, 6.6 ft<sup>3</sup>/s Sept. 10, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,870 ft<sup>3</sup>/s Feb. 25, gage height, 6.94 ft; minimum daily, 19 ft<sup>3</sup>/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	38	238	176	1110	130	1140	1640	53	140	21	63	49	
2	62	242	181	1030	130	873	1740	43	132	21	63	43	
3	93	239	182	911	130	699	1550	40	107	47	62	39	
4	112	244	183	764	120	582	1280	39	79	61	58	36	
5	114	318	175	621	120	598	1040	39	59	69	56	33	
6	117	374	166	491	120	743	864	50	46	77	55	31	
7	120	389	157	388	120	862	721	46	37	76	71	30	
8	125	391	175	305	120	805	586	40	31	71	107	31	
9	129	359	172	232	120	709	502	34	30	70	82	36	
10	129	345	162	216	120	632	440	32	34	75	58	52	
11	138	346	196	176	120	553	413	34	27	79	46	83	
12	178	361	252	170	120	556	372	33	56	76	39	77	
13	184	384	327	160	138	609	332	38	127	71	35	60	
14	175	411	400	150	153	678	297	28	156	72	32	49	
15	133	441	456	150	169	658	264	24	167	85	33	42	
16	59	520	459	140	217	571	232	30	174	98	55	38	
17	36	554	445	140	193	479	201	58	180	96	60	35	
18	29	561	395	140	200	386	179	74	186	87	48	32	
19	28	523	334	140	203	308	173	74	190	78	41	30	
20	33	444	287	170	205	254	162	77	188	71	39	29	
21	32	370	252	200	203	207	149	100	166	65	36	28	
22	36	302	305	180	227	173	139	96	131	65	34	27	
23	40	246	342	160	546	154	131	83	108	63	33	27	
24	41	206	377	140	1390	150	125	73	93	61	33	29	
25	39	175	367	130	2590	165	129	64	63	59	36	32	
26	45	155	332	130	2740	176	128	59	44	58	38	33	
27	105	141	273	130	2220	189	123	59	35	59	36	28	
28	132	142	305	130	1620	207	120	117	29	60	33	24	
29	206	156	418	130	---	585	117	142	25	58	31	21	
30	243	163	735	130	---	1060	83	117	22	57	37	19	
31	251	---	1010	130	---	1420	---	112	---	59	50	---	
TOTAL	3202	9740	9996	9194	14484	17181	14232	1908	2862	2065	1500	1123	
MEAN	103	325	322	297	517	554	474	61.5	95.4	66.6	48.4	37.4	
MAX	251	561	1010	1110	2740	1420	1740	142	190	98	107	83	
MIN	28	141	157	130	120	150	83	24	22	21	31	19	
CFSM	.68	2.15	2.13	1.97	3.42	3.67	3.14	.41	.63	.44	.32	.25	
IN.	.77	2.44	2.41	2.23	3.88	4.15	3.55	.46	.72	.50	.36	.28	
CAL YR 1984	TOTAL	93470		MEAN	255	MAX	1780	MIN	25	CFSM	1.69	IN.	22.94
WTR YR 1985	TOTAL	87487		MEAN	240	MAX	2740	MIN	19	CFSM	1.59	IN.	21.59

## STREAMS TRIBUTARY TO LAKE ERIE

04202000 CUYAHOGA RIVER AT HIRAM RAPIDS, OHIO--Continued

## SEDIMENT ANALYSIS

PERIOD OF RECORD.--February to September, 1985.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: February to September, 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 49 mg/L Mar. 29; minimum daily mean, 4 mg/L Mar. 3, Apr. 10, Sept. 28.

SEDIMENT LOADS: Maximum daily, 100 tons Mar.30; minimum daily, 0.26 ton Sept. 28

## SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JANUARY			FEBRUARY			MARCH			
1	1110		130	---	---	1140	8		25
2	1030		130	---	---	873	7		16
3	911		130	---	---	699	4		7.5
4	764		120	---	---	582	6		9.4
5	621		120	---	---	598	10		16
6	491		120	---	---	743	11		22
7	388		120	---	---	862	9		21
8	305		120	---	---	805	8		17
9	232		120	---	---	709	7		13
10	216		120	---	---	632	6		10
11	176		120	---	---	553	7		10
12	170		120	---	---	556	8		12
13	160		138	---	---	609	8		13
14	150		153	---	---	678	8		15
15	150		169	---	---	658	7		12
16	140		217	---	---	571	7		11
17	140		193	---	---	479	5		6.5
18	140		200	---	---	386	5		5.2
19	140		203	---	---	308	5		4.2
20	170		205	---	---	254	5		3.4
21	200		203	---	---	207	8		4.5
22	180		227	---	---	173	8		3.7
23	160		546	---	---	154	9		3.7
24	140		1390	---	---	150	8		3.2
25	130		2590	---	---	165	9		4.0
26	130		2740	10	74	176	12		5.7
27	130		2220	8	48	189	12		6.1
28	130		1620	7	31	207	16		9.3
29	130		---	---	---	585	49		73
30	130		---	---	---	1060	36		100
31	130		---	---	---	1420	20		77
TOTAL	9194		14484	---	---	153	17181	---	539.4



04202000 CUYAHOGA RIVER AT HIRAM RAPIDS, OH

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	1640	14	62	53	19	2.7	140	24	9.1
2	1740	13	61	43	20	2.3	132	24	8.6
3	1550	12	50	40	22	2.4	107	27	7.8
4	1280	9	31	39	21	2.2	79	27	5.8
5	1040	7	20	39	17	1.8	59	26	4.1
6	864	8	19	50	23	3.1	46	24	3.0
7	721	6	12	46	25	3.1	37	25	2.5
8	586	6	9.5	40	20	2.2	31	26	2.2
9	502	5	6.8	34	21	1.9	30	28	2.3
10	440	4	4.8	32	20	1.7	34	32	2.9
11	413	5	5.6	34	19	1.7	27	33	2.4
12	372	5	5.0	33	24	2.1	56	33	5.0
13	332	6	5.4	38	21	2.2	127	29	9.9
14	297	9	7.2	28	14	1.1	156	24	10
15	264	13	9.3	24	14	.91	167	19	8.6
16	232	16	10	30	18	1.5	174	21	9.9
17	201	18	9.8	58	28	4.4	180	26	13
18	179	17	8.2	74	29	5.8	186	22	11
19	173	18	8.4	74	26	5.2	190	20	10
20	162	17	7.4	77	30	6.2	188	18	9.1
21	149	18	7.2	100	33	8.9	166	17	7.6
22	139	17	6.4	96	33	8.6	131	20	7.1
23	131	31	11	83	35	7.8	108	22	6.4
24	125	24	8.1	73	37	7.3	93	21	5.3
25	129	23	8.0	64	35	6.0	63	21	3.6
26	128	23	7.9	59	28	4.5	44	21	2.5
27	123	23	7.6	59	32	5.1	35	17	1.6
28	120	23	7.5	117	34	11	29	10	.78
29	117	23	7.3	142	32	12	25	9	.61
30	83	22	4.9	117	33	10	22	12	.71
31	---	---	---	112	31	9.4	---	---	---
TOTAL	14232	---	428.3	1908	---	145.11	2862	---	173.40
JULY			AUGUST			SEPTEMBER			
1	21	15	.85	63	29	4.9	49	20	2.6
2	21	20	1.1	63	26	4.4	43	15	1.7
3	47	24	3.0	62	29	4.9	39	14	1.5
4	61	23	3.8	58	28	4.4	36	11	1.1
5	69	24	4.5	56	24	3.6	33	19	1.7
6	77	25	5.2	55	27	4.0	31	11	.92
7	76	32	6.6	71	24	4.6	30	24	1.9
8	71	27	5.2	107	29	8.4	31	15	1.3
9	70	18	3.4	82	25	5.5	36	10	.97
10	75	22	4.5	58	23	3.6	52	12	1.7
11	79	23	4.9	46	20	2.5	83	16	3.6
12	76	19	3.9	39	20	2.1	77	16	3.3
13	71	24	4.6	35	19	1.8	60	13	2.1
14	72	25	4.9	32	16	1.4	49	10	1.3
15	85	26	6.0	33	14	1.2	42	10	1.1
16	98	27	7.1	55	15	2.2	38	15	1.5
17	96	27	7.0	60	15	2.4	35	18	1.7
18	87	24	5.6	48	16	2.1	32	21	1.8
19	78	27	5.7	41	17	1.9	30	23	1.9
20	71	26	5.0	39	19	2.0	29	23	1.8
21	65	29	5.1	36	21	2.0	28	8	.60
22	65	31	5.4	34	20	1.8	27	14	1.0
23	63	33	5.6	33	12	1.1	27	13	.95
24	61	32	5.3	33	17	1.5	29	13	1.0
25	59	24	3.8	36	19	1.8	32	12	1.0
26	58	24	3.8	38	20	2.1	33	10	.89
27	59	27	4.3	36	23	2.2	28	13	.98
28	60	27	4.4	33	16	1.4	24	4	.26
29	58	33	5.2	31	13	1.1	21	6	.34
30	57	34	5.2	37	17	1.7	19	11	.56
31	59	33	5.3	50	25	3.4	---	---	---
TOTAL	2065	---	146.25	1500	---	88.0	1123	---	43.07
YEAR	87487		1716.53						

## STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH

LOCATION.--Lat 41°08'08", long 81°32'50", Summit County, Hydrologic Unit 04110002, on right bank 230 ft upstream from North Portage Path bridge at Old Portage, 1.2 mi downstream from Little Cuyahoga River, and 4 mi northwest of Akron City Hall.

DRAINAGE AREA.--404 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to December 1935, March 1939 to current year.

REVISED RECORDS.--WSP 1307: 1924(M). WSP 1912: Drainage area. WRD OH-79-2: 1974 (M), 1976 (M).

GAGE.--Water-stage recorder. Datum of gage is 740.11 ft above National Geodetic Vertical Datum of 1929, unadjusted. Prior to Dec. 21, 1923, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by diversions, storage reservoirs and power plants. At Lake Rockwell, 17.7 mi upstream from gage, an average of 70 ft<sup>3</sup>/s was diverted for municipal supply of city of Akron. Sewage from city enters river 2.9 mi downstream from station. Some diversion from the Tuscarawas River basin drainage into this basin at Portage Lakes (see REMARKS for station 03116000 in volume 1 of this report). Sediment data collected at this site 1972-1981.

AVERAGE DISCHARGE.--60 years, 428 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft<sup>3</sup>/s Jan. 21, 1959, gage height, 11.54 ft, from rating curve extended above 3,900 ft<sup>3</sup>/s on basis of contracted-opening estimate at gage height 11.54 ft, at site with drainage area of 488 mi adjusted to gaging station by drainage-area relation; maximum gage height, 13.29 ft Sept. 14, 1979; minimum daily, 26 ft<sup>3</sup>/s Sept. 2, 1945, July 5, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,550 ft<sup>3</sup>/s Feb. 27, gage height, 9.27 ft; minimum daily, 64 ft<sup>3</sup>/s Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	415	262	1490	257	2140	2770	357	615	124	147	194
2	156	478	255	1580	226	1760	2590	325	513	215	116	214
3	153	391	250	1430	229	1330	2640	314	436	148	113	168
4	150	600	384	1220	237	1170	2460	186	432	140	110	115
5	161	662	250	1060	229	1270	2020	181	375	222	64	113
6	174	576	218	864	248	1150	1730	178	275	155	85	111
7	175	563	204	769	250	1110	1430	209	198	144	148	90
8	206	530	217	633	231	1330	1270	168	164	202	141	97
9	199	528	218	511	218	1290	1150	134	177	159	117	165
10	190	721	296	376	216	1100	1000	161	212	512	106	104
11	185	708	340	376	248	973	919	122	310	258	111	84
12	183	659	428	362	363	1200	840	121	620	186	124	104
13	210	643	496	294	347	1260	777	166	564	170	123	78
14	258	635	576	291	325	1140	713	142	563	305	126	80
15	299	644	638	294	325	1140	640	170	497	420	500	79
16	376	647	631	234	316	1080	537	230	505	307	489	80
17	327	633	611	242	331	924	448	273	509	138	235	86
18	302	612	604	288	394	779	395	238	460	244	161	69
19	277	620	518	256	377	660	388	118	385	186	136	78
20	231	566	446	248	357	561	363	211	423	129	126	98
21	245	505	412	191	370	507	340	293	346	133	107	97
22	258	429	521	248	700	450	299	205	384	224	109	94
23	152	357	537	245	1670	410	364	161	340	112	105	71
24	118	312	559	297	2480	420	317	146	266	133	127	127
25	114	258	498	228	3000	450	281	133	231	139	120	125
26	111	249	427	250	3430	411	326	130	192	160	133	123
27	105	220	446	248	3440	428	314	455	155	129	113	86
28	275	235	449	253	2880	496	272	1080	140	87	106	70
29	321	219	653	273	---	1750	232	742	112	128	106	72
30	339	224	1340	248	---	1990	238	585	113	103	689	93
31	394	---	1360	253	---	2290	---	805	---	242	282	---
TOTAL	6910	14839	15044	15552	23694	32969	28063	8739	10512	5954	5275	3165
MEAN	223	495	485	502	846	1064	935	282	350	192	170	106
MAX	394	721	1360	1580	3440	2290	2770	1080	620	512	689	214
MIN	105	219	204	191	216	410	232	118	112	87	64	69
CAL YR 1984	TOTAL	192764		MEAN	527	MAX	2260	MIN	84			
WTR YR 1985	TOTAL	170716		MEAN	468	MAX	3440	MIN	64			

## STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to 1967, 1969 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1970 to current year.

pH: October 1970 to current year.

WATER TEMPERATURES: October 1970 to current year.

DISSOLVED OXYGEN: October 1970 to current year.

SUSPENDED SEDIMENT DISCHARGE: March 1972 to September 1981.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens Aug. 4, 1977; minimum, 120 microsiemens July 20, 1973.

pH: Maximum, 11.4 units Nov. 8, 1974; minimum, 6.2 units July 3, 1973.

WATER TEMPERATURES: Maximum, 34.5°C July 18, 1977; minimum, 0.0°C on several days during winter periods.

DISSOLVED OXYGEN: Maximum, 19.1 mg/L Mar. 5, 1983; minimum, 0.0 mg/L July 24, 29, 31, Aug. 1, 3-6, 1977.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,060 mg/L July 14, 1978; minimum daily mean, 1 mg/L

Sept. 10, 1973, July 31, Aug. 1, 2, 1978.

SEDIMENT LOADS: Maximum daily, 9,340 tons Sept. 14, 1979; minimum daily, 0.15 ton Sept. 10, 1973.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 981 microsiemens Sept. 30; minimum, 177 microsiemens Aug. 15.

PH: Maximum, 9.3 units Mar. 21; minimum, 7.2 units May 5, 6, 15, July 26, Aug. 14, 15.

WATER TEMPERATURES: Maximum, 30.0°C Aug. 15, Sept. 9; minimum, 0.0°C, Jan. 20-27.

DISSOLVED OXYGEN: Maximum, 16.8 mg/L Mar. 16; minimum, 2.8 mg/L, May 15.

## STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	753	570	671	591	501	557	531	522	527	372	327	344
2	792	717	749	531	498	510	525	519	522	351	321	333
3	777	729	751	525	504	513	561	504	529	330	318	325
4	738	723	730	516	390	467	543	471	500	324	297	312
5	738	726	734	483	450	473	516	465	487	354	309	328
6	741	723	731	489	480	484	522	465	495	351	333	341
7	735	729	732	498	477	485	576	513	541	426	348	388
8	732	690	709	498	489	495	855	543	627	432	390	406
9	687	645	672	492	426	470	756	639	692	522	423	459
10	657	639	650	429	405	420	855	639	732	582	489	533
11	648	615	635	441	426	434	717	636	678	648	528	582
12	633	624	630	441	426	436	639	576	609	669	606	645
13	630	588	615	453	429	439	576	471	526	642	600	618
14	684	606	643	426	417	422	477	441	463	594	522	562
15	678	615	656	426	417	421	474	465	468	579	546	561
16	636	540	595	420	408	415	465	447	454	597	567	582
17	606	540	589	405	381	394	456	405	433	675	552	599
18	606	546	590	384	375	380	432	411	421	756	615	665
19	603	534	571	393	366	380	447	429	437	732	702	721
20	615	573	599	435	384	410	450	420	436	699	657	687
21	666	561	614	426	402	411	483	414	437	645	540	574
22	639	591	613	408	396	399	462	420	439	540	513	524
23	690	645	669	411	399	406	438	420	430	510	480	498
24	672	654	664	423	411	415	423	405	414	---	---	---
25	687	666	675	438	426	432	420	414	416	---	---	---
26	690	669	680	450	423	437	417	408	412	---	---	---
27	714	687	695	540	450	463	594	417	505	---	---	---
28	717	249	607	531	468	497	567	534	549	750	690	707
29	675	438	588	519	492	502	534	381	485	741	663	692
30	672	657	662	534	477	501	414	348	377	657	636	646
31	657	561	614	---	---	---	351	330	344	783	624	699
MONTH	792	249	656	591	366	449	855	330	496	783	297	531
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	801	729	780	315	285	298	345	288	313	711	624	655
2	753	723	739	339	315	328	288	276	282	729	588	665
3	720	690	698	366	342	353	336	279	302	729	678	706
4	---	---	---	417	366	387	282	273	279	714	693	700
5	---	---	---	402	375	387	315	279	288	801	651	734
6	---	---	---	372	357	364	312	294	301	906	597	760
7	---	---	---	405	360	369	318	303	311	903	738	813
8	---	---	---	390	378	384	453	315	363	813	789	804
9	---	---	---	378	357	366	474	408	441	798	786	790
10	---	---	---	372	363	367	408	390	398	849	738	787
11	---	---	---	417	369	382	396	390	392	861	837	844
12	---	---	---	414	384	400	390	384	387	852	837	839
13	---	---	---	396	366	376	447	375	397	840	762	815
14	---	---	---	378	366	372	411	402	407	861	816	831
15	---	---	---	369	357	364	429	405	418	822	483	778
16	---	---	---	372	357	366	462	423	442	840	507	721
17	---	---	---	390	372	380	474	450	467	756	540	708
18	---	---	---	420	390	407	489	456	474	768	708	750
19	729	690	708	459	411	431	516	462	496	780	726	750
20	738	684	711	459	444	452	528	495	517	801	711	760
21	780	702	736	609	456	511	573	510	543	756	462	637
22	918	789	874	633	561	586	648	522	610	741	699	719
23	852	543	709	615	582	603	792	549	639	762	741	749
24	531	441	469	615	585	601	750	603	671	765	708	748
25	447	375	417	675	564	621	687	630	651	777	762	767
26	372	306	329	621	582	606	642	630	638	783	771	778
27	312	285	297	615	558	596	675	642	651	786	228	604
28	288	276	282	645	408	591	684	630	666	570	372	494
29	---	---	---	474	336	398	675	636	652	576	498	526
30	---	---	---	390	342	370	681	588	652	495	471	486
31	---	---	---	402	348	371	---	---	---	501	300	446
MONTH	918	276	596	675	285	432	792	273	468	906	228	715



## 04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	504	480	494	771	717	739	780	738	760	660	588	606
2	519	492	505	741	222	617	801	780	792	597	540	570
3	588	498	519	771	594	712	804	783	796	684	579	629
4	549	513	524	783	762	770	792	768	782	810	672	712
5	549	522	536	789	306	629	825	768	782	804	693	741
6	603	540	572	744	696	728	846	831	839	885	744	808
7	663	585	604	756	729	744	852	684	807	834	819	828
8	618	594	603	771	756	764	843	828	837	834	780	828
9	642	609	622	783	771	775	861	843	851	804	624	754
10	648	609	635	777	189	557	858	837	849	879	804	839
11	705	201	601	726	687	712	855	810	832	866	852	856
12	591	363	522	705	666	685	852	810	838	873	813	843
13	594	516	559	687	663	674	852	825	835	876	840	867
14	555	516	527	672	447	595	867	471	804	897	882	888
15	537	519	525	651	561	601	825	177	647	906	888	898
16	534	507	525	630	546	584	633	531	594	900	870	889
17	555	498	529	732	609	650	606	582	593	894	852	878
18	564	480	523	624	570	599	639	582	618	891	867	874
19	675	525	560	699	612	657	729	639	661	930	882	901
20	576	540	552	708	555	684	696	666	678	975	918	943
21	636	540	563	705	609	692	762	699	727	972	945	959
22	552	516	536	693	621	660	780	714	753	969	939	959
23	558	528	549	714	675	696	798	753	776	966	837	949
24	594	558	579	741	705	722	780	630	751	942	657	819
25	621	594	601	756	738	747	804	615	739	957	924	947
26	666	618	631	747	522	682	825	774	801	954	831	917
27	678	657	666	765	741	755	831	804	817	918	831	900
28	714	669	684	768	744	754	858	831	845	906	876	891
29	726	708	718	759	729	747	882	843	860	930	912	922
30	747	726	734	780	753	761	879	249	609	981	930	949
31	---	---	---	786	444	659	663	603	636	---	---	---
MONTH	747	201	577	789	189	689	882	177	758	981	540	845
YEAR	981	177	602									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.8	7.9	8.2	7.9	8.0	8.3	8.0	8.1	8.1	8.1	8.1
2	8.1	7.8	7.9	8.2	7.9	8.1	8.4	8.1	8.2	8.2	8.1	8.1
3	8.4	7.8	8.0	8.3	8.0	8.1	8.3	8.1	8.2	8.2	8.1	8.2
4	8.4	8.0	8.1	8.1	7.9	8.0	8.3	8.1	8.2	8.1	8.1	8.1
5	8.4	8.0	8.1	8.1	8.0	8.0	8.3	8.1	8.2	8.2	8.1	8.1
6	8.4	8.0	8.1	8.2	8.0	8.1	8.4	8.1	8.2	8.2	8.1	8.1
7	8.1	7.9	8.0	8.1	8.0	8.1	8.4	8.1	8.3	8.2	8.1	8.1
8	8.1	7.9	8.0	8.2	8.0	8.1	8.4	8.1	8.2	8.3	8.1	8.2
9	8.3	7.9	8.0	8.2	8.1	8.1	8.5	8.1	8.3	8.3	8.1	8.2
10	8.4	7.9	8.1	8.1	8.0	8.0	8.5	8.1	8.2	8.3	8.2	8.2
11	8.2	7.9	8.0	8.1	8.0	8.1	8.3	8.1	8.2	8.3	8.2	8.2
12	8.4	7.9	8.1	8.2	8.1	8.1	8.3	8.2	8.2	8.3	8.2	8.2
13	8.4	7.9	8.1	8.2	8.1	8.1	8.2	8.1	8.2	8.4	8.2	8.3
14	8.5	7.9	8.1	8.2	8.0	8.1	8.2	8.1	8.1	8.3	8.2	8.2
15	8.5	8.0	8.2	8.2	8.1	8.1	8.3	8.1	8.2	8.3	7.5	8.2
16	8.4	7.9	8.1	8.3	8.1	8.2	8.3	8.1	8.2	8.3	8.1	8.2
17	8.2	8.0	8.0	8.2	8.1	8.1	8.3	8.1	8.2	8.3	8.1	8.2
18	8.4	8.0	8.1	8.2	8.1	8.1	8.4	8.1	8.2	8.4	8.2	8.2
19	8.3	8.0	8.1	8.2	8.1	8.1	8.3	8.1	8.1	8.5	8.2	8.3
20	8.4	7.9	8.1	8.3	8.1	8.2	8.5	8.1	8.2	8.4	8.2	8.3
21	8.3	7.8	8.0	8.3	8.1	8.2	8.2	8.0	8.1	8.4	8.2	8.3
22	8.1	7.8	8.0	8.3	8.1	8.2	8.3	8.1	8.2	8.2	8.0	8.1
23	8.2	7.9	8.0	8.3	8.1	8.2	8.4	8.2	8.2	8.0	8.0	8.0
24	8.4	7.8	8.0	8.3	8.1	8.2	8.3	8.2	8.2	---	---	---
25	8.2	7.8	7.9	8.3	8.0	8.1	8.4	8.2	8.3	---	---	---
26	7.9	7.7	7.8	8.3	8.0	8.1	8.4	8.2	8.3	---	---	---
27	8.3	7.7	7.9	8.3	8.0	8.1	8.3	8.1	8.2	---	---	---
28	8.9	7.7	7.8	8.1	8.0	8.0	8.3	8.1	8.1	8.3	8.1	8.2
29	8.1	7.8	7.9	8.3	8.0	8.1	8.7	7.9	8.1	8.4	8.1	8.2
30	8.1	7.9	8.0	8.2	8.0	8.0	8.1	8.0	8.1	8.5	8.1	8.2
31	8.2	8.0	8.1	---	---	---	8.2	8.1	8.1	8.3	8.1	8.2
MONTH	8.9	7.7	8.0	8.3	7.9	8.1	8.7	7.9	8.2	8.5	7.5	8.2

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	8.5	8.1	8.2	7.7	7.6	7.6	7.8	7.6	7.7	7.8	7.5	7.6
2	8.5	8.1	8.2	7.7	7.6	7.7	7.8	7.6	7.6	7.9	7.5	7.7
3	8.2	8.1	8.1	7.8	7.7	7.7	7.9	7.6	7.6	7.9	7.6	7.7
4	---	---	---	7.7	7.7	7.7	7.7	7.6	7.6	8.0	7.5	7.7
5	---	---	---	8.2	7.7	7.8	8.1	7.5	7.6	7.6	7.2	7.4
6	---	---	---	7.8	7.7	7.8	7.7	7.6	7.6	7.8	7.2	7.6
7	---	---	---	7.8	7.7	7.7	7.7	7.6	7.6	7.9	7.5	7.6
8	---	---	---	7.8	7.7	7.7	7.8	7.6	7.7	7.7	7.6	7.6
9	---	---	---	7.8	7.7	7.7	8.0	7.6	7.8	7.8	7.6	7.8
10	---	---	---	7.8	7.7	7.7	7.9	7.7	7.8	7.9	7.5	7.7
11	---	---	---	7.8	7.6	7.7	7.8	7.6	7.7	7.8	7.5	7.6
12	---	---	---	7.9	7.6	7.7	8.0	7.6	7.8	7.9	7.4	7.6
13	---	---	---	8.0	7.7	7.8	8.0	7.6	7.7	8.0	7.4	7.7
14	---	---	---	8.0	7.7	7.8	8.0	7.6	7.8	8.0	7.4	7.7
15	---	---	---	7.9	7.7	7.8	8.2	7.5	7.8	8.6	7.2	7.5
16	---	---	---	7.9	7.7	7.8	8.4	7.6	8.0	8.1	7.3	7.5
17	---	---	---	7.9	7.7	7.8	8.5	7.5	8.0	7.8	7.4	7.6
18	---	---	---	8.0	7.7	7.8	8.5	7.5	8.0	7.8	7.6	7.7
19	8.1	7.9	8.1	8.1	7.7	7.8	8.6	7.5	8.0	7.7	7.5	7.6
20	8.6	7.8	8.1	8.1	7.7	7.8	8.5	7.5	7.9	7.8	7.4	7.6
21	8.6	7.9	8.1	9.3	7.7	8.0	8.6	7.4	7.8	7.8	7.4	7.6
22	8.0	7.8	7.9	8.2	7.7	7.9	8.4	7.4	7.8	8.1	7.6	7.8
23	7.9	7.8	7.9	8.0	7.7	7.8	8.3	7.4	7.7	8.1	7.6	7.8
24	7.7	7.7	7.7	8.3	7.7	7.9	8.3	7.4	7.7	8.0	7.6	7.8
25	7.7	7.7	7.7	8.4	7.7	8.0	8.3	7.5	7.8	8.2	7.6	7.8
26	7.6	7.5	7.6	8.6	7.7	8.3	8.3	7.5	7.9	8.3	7.5	7.8
27	7.6	7.5	7.6	8.4	7.7	8.0	8.3	7.5	7.8	7.9	7.4	7.6
28	7.6	7.6	7.6	8.2	7.6	7.9	8.3	7.6	7.9	7.8	7.5	7.7
29	---	---	---	7.8	7.6	7.7	8.3	7.5	7.9	7.8	7.7	7.8
30	---	---	---	7.8	7.7	7.7	8.0	7.5	7.7	7.8	7.7	7.7
31	---	---	---	7.7	7.6	7.7	---	---	---	7.7	7.5	7.7
MONTH	8.6	7.5	7.9	9.3	7.6	7.8	8.6	7.4	7.8	8.6	7.2	7.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.9	7.7	7.8	8.0	7.6	7.8	8.0	7.7	7.8	7.8	7.7	7.7
2	7.8	7.7	7.7	8.6	7.4	7.7	8.0	7.6	7.8	7.8	7.6	7.7
3	7.7	7.6	7.7	8.0	7.5	7.7	8.1	7.6	7.8	7.8	7.6	7.7
4	7.9	7.7	7.8	7.9	7.6	7.8	8.2	7.6	7.9	7.9	7.5	7.6
5	7.9	7.7	7.8	8.2	7.4	7.6	7.9	7.6	7.7	7.9	7.5	7.6
6	8.1	7.7	7.8	7.8	7.6	7.7	8.0	7.5	7.7	7.8	7.5	7.6
7	8.1	7.7	7.8	8.0	7.6	7.8	7.9	7.6	7.7	7.9	7.5	7.6
8	8.1	7.6	7.8	8.1	7.6	7.8	8.1	7.6	7.8	8.0	7.3	7.7
9	8.1	7.5	7.8	7.9	7.6	7.8	8.2	7.7	7.9	7.8	7.3	7.6
10	8.2	7.7	7.9	8.0	7.5	7.7	8.3	7.6	7.9	7.7	7.5	7.6
11	7.9	7.6	7.7	8.1	7.8	7.9	8.3	7.6	7.9	7.8	7.6	7.7
12	7.8	7.5	7.7	8.0	7.7	7.8	8.3	7.6	7.9	8.0	7.7	7.8
13	7.8	7.7	7.8	8.1	7.7	7.8	8.2	7.6	7.8	8.0	7.7	7.8
14	7.9	7.8	7.8	7.8	7.3	7.7	8.2	7.2	7.7	8.0	7.7	7.8
15	7.9	7.7	7.8	7.8	7.6	7.7	8.8	7.2	7.6	8.1	7.7	7.8
16	7.9	7.8	7.8	7.9	7.6	7.8	7.8	7.7	7.7	8.1	7.6	7.8
17	7.9	7.8	7.8	7.8	7.6	7.7	7.8	7.6	7.7	8.1	7.6	7.8
18	7.9	7.6	7.8	8.0	7.6	7.8	7.8	7.6	7.7	8.1	7.6	7.8
19	7.9	7.8	7.8	8.0	7.7	7.9	7.8	7.6	7.7	8.2	7.6	7.8
20	8.0	7.8	7.9	8.0	7.3	7.7	7.9	7.6	7.7	8.4	7.6	7.8
21	8.0	7.8	7.9	8.0	7.3	7.7	7.9	7.6	7.7	8.3	7.7	7.9
22	8.0	7.8	7.9	8.0	7.6	7.8	8.1	7.6	7.8	8.3	7.6	7.9
23	8.1	7.8	7.9	8.1	7.6	7.8	8.1	7.6	7.8	8.2	7.6	7.8
24	8.2	7.8	8.0	8.2	7.6	7.9	7.9	7.3	7.6	8.1	7.3	7.7
25	8.2	7.8	8.0	8.1	7.6	7.8	8.0	7.5	7.7	8.6	7.7	8.1
26	8.3	7.8	8.0	7.8	7.2	7.5	8.1	7.6	7.8	8.2	8.0	8.1
27	8.3	7.7	8.0	7.9	7.5	7.7	8.2	7.6	7.8	8.2	8.0	8.1
28	8.3	7.7	7.9	7.8	7.4	7.6	8.1	7.6	7.8	8.4	7.9	8.1
29	8.2	7.6	7.9	8.1	7.5	7.7	8.1	7.6	7.8	8.5	8.0	8.2
30	8.3	7.6	7.9	8.0	7.5	7.7	8.7	7.4	7.7	8.6	8.0	8.2
31	---	---	---	7.8	7.3	7.6	7.8	7.7	7.8	---	---	---
MONTH	8.3	7.5	7.8	8.6	7.2	7.7	8.8	7.2	7.8	8.6	7.3	7.8
YEAR	9.3	7.2	7.9									

## STREAMS TRIBUTARY TO LAKE ERIE

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04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	18.0	15.5	16.5	17.0	15.5	16.5	9.0	7.0	8.0	7.5	5.5	6.5
2	19.0	16.5	17.5	16.0	13.5	14.5	7.5	6.5	7.0	7.0	5.5	6.5
3	19.5	16.5	17.5	14.0	11.5	13.0	7.0	6.0	6.5	5.5	5.0	5.0
4	19.0	15.5	17.0	12.0	11.5	11.5	7.0	6.0	6.5	5.0	4.5	4.5
5	19.0	16.0	17.5	13.0	11.5	12.0	6.0	4.5	5.5	5.0	4.0	4.5
6	20.0	16.5	18.0	13.0	11.5	12.0	5.5	4.5	5.0	4.0	3.5	4.0
7	18.0	17.5	17.5	12.0	10.5	11.0	4.5	3.5	4.0	4.5	3.5	4.0
8	18.0	17.0	17.5	11.5	10.0	11.0	5.0	3.5	4.0	4.0	3.0	3.5
9	19.5	18.0	18.5	11.5	10.0	10.5	5.5	3.5	4.5	3.0	2.0	2.5
10	20.0	18.5	19.5	11.5	10.5	11.0	5.5	3.5	4.5	2.5	1.5	2.0
11	20.0	19.0	19.5	12.0	10.5	11.0	6.0	5.0	5.5	3.0	2.0	2.5
12	21.0	19.5	20.0	10.5	9.0	9.5	6.5	6.0	6.0	2.5	1.0	2.0
13	21.5	20.0	20.5	9.5	8.0	8.5	6.0	5.5	5.5	2.0	1.0	1.5
14	20.0	19.0	19.5	9.0	7.5	8.0	6.5	5.5	6.5	2.5	1.0	2.0
15	20.5	18.5	19.5	9.0	7.5	8.5	7.0	6.0	6.5	2.5	1.5	2.0
16	21.0	19.0	19.5	8.0	6.5	7.0	6.5	5.5	6.0	2.5	1.5	2.0
17	20.0	18.5	19.0	6.5	5.5	6.0	8.0	6.0	7.0	3.5	2.5	3.0
18	19.5	16.5	18.0	6.0	6.0	6.0	7.5	6.5	7.0	3.5	3.0	3.0
19	20.5	17.5	19.0	6.5	5.5	6.0	7.0	6.5	6.5	3.0	1.0	2.5
20	20.0	17.5	18.5	6.5	5.5	6.0	6.5	5.5	6.0	1.0	.0	.5
21	19.5	18.5	19.0	6.5	5.5	6.0	7.5	6.0	6.5	.0	.0	.0
22	18.5	16.5	17.5	6.5	5.0	5.5	7.5	5.0	6.0	.0	.0	.0
23	16.5	16.0	16.0	6.0	5.0	5.5	5.0	4.0	4.5	.5	.0	.0
24	17.0	15.0	16.0	6.5	5.0	5.5	4.5	4.0	4.0	.0	.0	.0
25	16.5	14.0	15.5	6.5	5.0	5.5	4.0	2.5	3.0	.0	.0	.0
26	19.0	17.0	18.0	8.0	4.5	6.0	3.0	2.0	2.5	.0	.0	.0
27	20.5	18.0	19.0	9.5	7.0	8.0	4.5	3.0	3.5	.0	.0	.0
28	20.0	18.0	19.0	9.5	9.0	9.0	7.0	4.5	5.5	3.0	.0	1.5
29	18.0	17.0	17.5	10.0	8.5	9.0	10.0	7.0	8.0	3.5	2.5	3.0
30	18.0	16.0	17.0	9.5	8.5	9.0	8.5	6.5	7.5	3.5	2.0	2.5
31	17.5	16.0	17.0	---	---	---	6.5	5.0	5.5	4.0	3.0	3.5
MONTH	21.5	14.0	18.0	17.0	4.5	9.0	10.0	2.0	5.5	7.5	.0	2.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	1.5	3.0	3.0	2.0	2.0	9.0	8.0	8.5	20.5	17.5	19.0
2	1.5	1.0	1.5	3.5	2.5	3.0	7.5	6.5	7.5	21.5	16.5	18.5
3	1.0	.5	2.0	3.5	3.0	3.0	7.5	6.5	7.0	21.0	15.5	18.0
4	---	---	---	5.5	3.5	4.5	7.5	6.5	7.0	22.0	17.0	19.0
5	---	---	---	5.5	4.5	5.0	10.0	7.5	9.0	20.0	18.0	19.0
6	---	---	---	4.5	3.0	4.0	9.5	8.5	9.0	21.5	16.0	18.5
7	---	---	---	4.5	3.5	4.0	8.5	8.0	8.5	22.5	17.0	19.0
8	---	---	---	6.0	4.5	5.0	9.0	7.5	8.0	17.5	15.0	16.0
9	---	---	---	6.0	5.0	5.5	8.0	6.5	7.5	22.0	19.0	21.0
10	---	---	---	6.5	5.0	5.5	8.5	7.0	8.0	24.0	17.5	20.5
11	---	---	---	7.5	5.5	6.5	9.5	8.0	9.0	24.5	19.0	21.5
12	---	---	---	7.5	6.5	7.0	11.5	9.0	10.0	24.5	20.5	22.5
13	---	---	---	6.5	5.5	6.0	11.5	10.0	11.0	25.0	20.0	22.0
14	---	---	---	7.0	6.0	6.5	13.0	12.0	12.5	25.5	19.5	22.0
15	---	---	---	7.0	6.0	6.5	15.0	13.0	14.0	25.0	21.5	23.0
16	---	---	---	7.0	6.0	6.5	16.0	13.0	14.0	25.5	19.5	22.0
17	---	---	---	6.5	5.5	6.5	16.0	13.5	14.5	22.5	19.5	20.5
18	---	---	---	7.0	5.0	6.0	18.0	15.5	16.5	19.5	16.5	18.5
19	3.0	1.5	2.5	7.5	6.0	6.5	20.5	17.5	18.0	20.5	14.0	17.0
20	4.5	1.0	2.5	8.5	6.5	7.5	22.0	19.0	20.0	22.0	16.5	19.0
21	6.0	3.5	4.5	9.5	7.0	8.0	22.5	20.0	20.5	22.0	18.0	19.5
22	5.5	4.0	4.5	10.0	8.0	8.5	22.5	19.0	20.5	21.0	17.5	19.0
23	4.0	3.0	3.0	9.5	8.5	9.0	22.5	19.5	21.0	23.0	18.0	20.0
24	3.5	3.0	3.0	10.5	8.5	9.5	22.5	19.5	20.5	24.0	19.0	21.0
25	3.5	2.0	2.5	11.0	8.0	9.0	23.0	19.0	20.5	25.5	19.0	21.5
26	2.0	1.5	2.0	12.0	8.0	10.5	22.5	19.5	21.0	25.0	20.5	22.5
27	2.0	1.5	2.0	11.5	9.5	10.5	21.5	18.5	20.0	24.0	19.5	21.0
28	2.5	1.0	1.5	12.0	11.0	11.5	21.5	16.0	18.0	20.0	18.5	19.5
29	---	---	---	12.0	11.0	11.5	23.0	17.5	19.5	20.0	18.0	19.0
30	---	---	---	10.5	9.5	10.0	21.5	19.5	20.5	21.0	18.0	19.5
31	---	---	---	9.5	9.0	9.5	---	---	---	21.5	19.0	20.0
MONTH	6.0	.5	2.5	12.0	2.0	7.0	23.0	6.5	14.0	25.5	14.0	20.0

## STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	19.5	20.5	23.0	21.0	22.0	26.5	23.5	25.5	23.0	19.0	20.5
2	21.5	20.0	20.5	22.5	21.5	21.5	29.0	21.0	24.0	22.0	20.0	21.0
3	20.5	20.0	20.0	24.5	20.5	22.5	27.5	22.5	24.5	25.0	20.5	22.5
4	22.5	20.0	21.0	25.5	20.5	23.0	26.5	22.5	24.5	26.5	23.0	24.5
5	22.0	19.5	20.5	24.0	21.0	22.5	24.0	21.0	21.5	28.5	24.0	26.0
6	23.5	19.0	20.5	24.5	21.0	22.5	23.5	21.0	22.0	28.0	24.0	26.0
7	23.0	19.0	20.5	25.5	20.5	22.5	24.0	21.5	22.5	29.0	24.5	26.5
8	24.0	19.5	21.5	26.0	21.5	23.5	27.0	23.0	24.5	29.0	25.5	27.0
9	24.0	21.0	22.0	27.5	24.0	25.5	27.0	22.0	24.5	30.0	25.0	27.5
10	25.0	19.5	22.0	25.5	20.0	23.0	28.0	22.5	25.0	28.5	23.5	26.0
11	22.0	16.5	21.0	26.0	22.5	24.5	28.0	24.5	25.5	23.0	20.5	22.0
12	20.5	17.5	19.5	26.5	23.0	24.5	28.5	22.0	25.0	24.0	18.5	21.0
13	19.5	17.0	18.0	27.0	22.5	24.5	28.5	24.5	26.0	20.5	17.0	18.5
14	18.5	16.5	17.5	25.0	23.5	24.0	28.0	25.0	26.0	21.5	16.5	18.5
15	19.5	18.5	19.0	25.5	23.5	24.5	30.0	23.0	26.5	22.0	17.5	19.5
16	20.0	18.5	19.5	25.5	23.0	24.0	26.5	24.5	25.5	22.0	17.5	19.5
17	20.5	18.0	19.5	26.0	21.0	23.5	25.5	23.0	24.0	22.0	17.0	19.5
18	21.0	19.5	20.5	27.0	21.5	24.0	26.5	22.0	24.0	22.0	17.5	19.5
19	21.5	19.5	20.0	27.5	23.5	25.0	25.0	22.0	23.5	22.5	18.0	20.0
20	22.0	20.0	21.0	26.5	24.0	25.0	24.5	21.5	22.5	23.5	19.5	21.0
21	23.5	19.5	21.5	26.0	23.5	25.0	22.0	20.5	21.0	24.0	20.0	21.5
22	21.5	20.0	21.0	26.5	23.5	25.0	24.0	19.5	21.5	23.5	20.0	21.5
23	23.0	19.5	21.0	26.5	21.0	23.5	23.5	19.5	21.5	23.0	19.5	21.0
24	23.5	20.5	21.5	27.5	21.5	24.0	21.5	20.5	21.0	21.5	18.5	20.0
25	23.5	19.0	21.0	28.5	24.5	26.5	23.5	20.5	22.0	21.0	17.0	18.5
26	24.0	19.5	21.5	27.0	23.5	25.5	24.0	21.0	22.5	18.5	18.0	18.5
27	24.0	18.5	21.0	27.5	22.5	25.0	24.0	20.0	22.0	18.0	17.0	17.5
28	25.0	19.5	22.0	29.0	22.5	25.5	25.5	21.0	22.5	19.0	15.0	17.0
29	24.5	20.0	21.5	29.0	22.5	26.0	26.0	22.5	24.0	19.0	14.5	16.5
30	25.5	20.0	22.5	29.0	25.5	27.0	24.5	21.5	23.5	19.5	15.0	17.5
31	---	---	---	27.5	21.5	25.0	23.0	20.5	22.0	---	---	---
MONTH	25.5	16.5	20.5	29.0	20.0	24.0	30.0	19.5	23.5	30.0	14.5	21.0
YEAR	30.0	.0	14.5									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.3	6.0	7.5	8.7	6.7	7.7	11.2	9.9	10.5	11.7	11.0	11.4
2	7.7	5.9	6.7	8.9	7.4	8.2	12.1	10.5	11.0	11.7	11.3	11.5
3	9.0	5.9	7.0	9.2	8.1	8.5	11.5	10.5	10.8	12.1	11.7	11.9
4	9.0	6.6	7.5	9.1	8.6	8.9	11.9	10.6	11.1	11.9	11.5	11.8
5	8.7	6.3	7.2	9.9	9.0	9.5	11.8	10.5	11.1	12.1	11.6	11.9
6	8.3	6.2	7.0	10.1	9.3	9.7	11.7	10.6	11.0	12.3	11.9	12.1
7	7.2	6.1	6.5	10.8	9.8	10.3	12.4	10.9	11.4	12.0	11.6	11.8
8	7.4	6.4	6.8	11.1	10.3	10.7	12.3	10.9	11.3	12.4	11.7	12.0
9	9.4	7.4	7.4	---	---	---	12.6	11.0	11.5	12.7	12.0	12.3
10	9.6	7.1	8.0	---	---	---	11.3	10.9	11.1	12.6	11.9	12.2
11	8.4	7.1	7.6	---	---	---	11.5	10.9	11.1	12.5	11.8	12.1
12	9.5	6.8	7.8	---	---	---	11.4	10.8	11.0	12.7	11.9	12.3
13	9.4	6.8	7.7	---	---	---	11.5	11.0	11.2	12.7	12.0	12.3
14	9.4	7.0	7.7	---	---	---	11.5	11.0	11.2	12.3	11.4	11.9
15	9.5	6.9	7.8	---	---	---	11.8	11.0	11.3	12.6	11.5	11.9
16	8.5	6.3	7.3	---	---	---	11.9	11.0	11.4	12.6	11.5	11.9
17	7.6	6.6	6.9	---	---	---	11.7	10.4	11.1	11.8	11.1	11.3
18	8.8	6.7	7.4	---	---	---	11.9	10.8	11.2	12.0	11.1	11.4
19	8.3	6.4	7.1	---	---	---	11.2	10.8	11.0	12.4	11.2	11.7
20	8.9	6.3	7.2	12.1	11.3	11.6	12.1	10.8	11.3	12.7	11.6	12.0
21	7.9	6.0	6.7	11.9	11.3	11.5	11.3	9.9	10.8	---	---	---
22	7.8	6.4	7.0	12.1	11.4	11.7	11.6	10.1	11.1	---	---	---
23	8.5	6.5	7.3	12.1	11.2	11.6	12.0	11.1	11.5	---	---	---
24	8.7	6.4	7.2	11.9	11.2	11.5	12.0	11.4	11.6	---	---	---
25	8.5	5.8	7.0	11.8	11.2	11.4	12.8	11.5	12.1	---	---	---
26	7.2	5.5	6.2	11.9	10.7	11.2	13.1	12.1	12.4	---	---	---
27	8.4	5.0	6.5	11.7	10.1	10.7	12.4	11.5	12.0	---	---	---
28	8.0	4.9	6.4	10.1	9.7	9.9	11.8	10.7	11.3	14.0	12.0	12.7
29	8.2	7.0	7.5	10.9	9.6	10.1	11.1	9.5	10.6	13.0	11.3	12.4
30	8.2	7.1	7.5	10.3	9.6	9.9	11.4	10.5	11.0	13.1	11.1	11.8
31	8.4	7.3	7.7	---	---	---	11.8	11.5	11.7	12.6	10.9	11.4
MONTH	9.6	4.9	7.2	12.1	6.7	10.2	13.1	9.5	11.3	14.0	10.9	11.9



OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	13.2	11.0	11.7	13.3	10.5	12.1	13.0	11.2	12.2	9.3	6.8	7.8
2	12.9	11.3	11.9	12.7	12.5	12.6	13.1	12.7	12.9	9.4	6.7	8.7
3	11.4	11.3	11.3	13.0	12.5	12.7	12.9	12.6	12.8	9.8	7.4	8.6
4	---	---	---	12.7	11.9	12.4	13.0	12.5	12.7	10.1	7.2	8.4
5	---	---	---	12.6	12.0	12.4	12.5	11.4	12.1	10.1	7.2	6.5
6	---	---	---	13.4	12.6	13.0	12.0	11.7	11.9	8.9	4.1	7.5
7	---	---	---	13.1	12.5	12.8	12.1	11.7	11.9	10.2	4.8	8.2
8	---	---	---	12.7	12.3	12.5	12.2	11.4	11.7	9.5	8.2	8.7
9	---	---	---	12.8	12.2	12.5	11.9	11.1	11.5	10.8	7.7	9.3
10	---	---	---	13.1	12.2	12.6	11.8	10.8	11.2	9.4	6.0	7.9
11	---	---	---	12.4	11.2	11.8	12.6	11.0	12.0	7.5	5.6	6.4
12	---	---	---	11.7	11.0	11.4	12.8	11.3	11.9	9.0	5.7	7.2
13	---	---	---	12.2	11.5	11.8	12.5	10.7	11.3	8.8	6.0	7.1
14	---	---	---	12.9	11.5	12.2	11.8	9.9	10.7	10.3	5.1	7.6
15	---	---	---	13.4	12.7	12.9	11.8	9.1	10.2	9.3	2.8	7.2
16	---	---	---	16.8	12.3	13.4	12.2	9.0	10.3	8.6	4.1	6.7
17	---	---	---	12.9	12.3	12.5	12.6	8.5	10.1	7.7	6.5	7.2
18	---	---	---	13.1	11.9	12.5	12.7	7.8	9.8	8.8	7.7	8.3
19	---	---	---	12.5	11.4	12.0	12.7	7.5	9.4	9.7	7.5	8.5
20	14.4	10.7	12.5	12.6	11.0	11.7	12.5	7.1	9.4	9.6	7.1	8.4
21	13.0	9.9	11.2	12.8	10.7	11.4	12.5	7.0	9.0	9.0	7.0	8.2
22	10.5	9.8	10.1	12.5	9.9	11.1	12.3	6.8	8.7	9.6	7.4	8.5
23	10.6	10.2	10.5	11.3	9.5	10.2	11.1	6.7	8.4	9.9	7.1	8.3
24	11.0	10.5	10.7	11.9	9.3	10.2	11.9	6.4	7.8	9.7	6.8	8.0
25	11.3	10.8	11.1	12.8	9.4	10.6	14.0	5.9	9.2	10.2	6.5	8.0
26	11.5	11.1	11.3	15.1	9.9	13.1	12.5	7.6	9.5	10.4	6.2	8.0
27	11.7	11.2	11.4	14.0	10.4	11.6	12.2	7.6	9.3	9.1	3.2	6.7
28	12.7	11.1	11.7	12.4	8.7	10.8	12.2	7.6	9.3	8.7	7.9	8.5
29	---	---	---	10.4	9.6	10.2	12.3	7.4	9.5	9.1	8.4	8.8
30	---	---	---	10.7	10.2	10.4	11.6	7.0	8.8	9.1	8.4	8.7
31	---	---	---	11.3	10.7	11.1	---	---	---	8.7	7.6	8.4
MONTH	14.4	9.8	11.3	16.8	8.7	11.9	14.0	5.9	10.5	10.8	2.8	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	9.1	8.2	8.6	9.9	6.0	7.8	8.5	6.0	7.1	7.8	7.0	7.4
2	8.9	8.0	8.4	8.3	3.8	6.3	9.0	5.7	6.9	8.0	7.2	7.5
3	8.2	8.1	8.2	8.9	6.3	7.3	9.1	5.7	7.2	8.1	7.1	7.5
4	9.2	7.9	8.5	8.8	6.4	7.4	9.3	5.8	7.3	8.1	7.3	7.6
5	9.2	7.9	8.5	7.5	5.8	6.5	8.1	5.3	6.6	7.8	6.8	7.2
6	9.5	7.8	8.6	8.5	6.6	7.4	8.9	5.5	6.9	7.2	6.5	6.9
7	9.7	7.4	8.5	9.2	6.6	7.7	7.8	6.0	6.8	7.6	5.6	6.7
8	9.8	7.2	8.3	9.8	6.5	7.7	9.2	6.1	7.3	7.4	5.9	6.7
9	9.7	7.0	8.1	9.4	5.9	7.6	9.5	6.0	7.5	6.8	5.3	6.2
10	10.6	7.0	8.3	7.9	5.2	7.1	9.9	5.8	7.6	5.9	5.1	5.4
11	8.9	6.8	7.8	8.8	6.9	7.7	9.7	5.5	7.2	6.6	5.2	5.8
12	8.5	7.9	8.2	8.8	6.8	7.6	9.7	5.8	7.3	6.8	5.5	6.0
13	8.9	8.4	8.7	9.3	6.9	7.8	9.0	5.7	7.1	7.2	5.6	6.3
14	9.4	8.7	9.0	7.8	5.6	6.9	9.1	3.5	6.3	7.4	5.9	6.5
15	9.0	8.3	8.7	8.1	6.2	7.5	7.8	3.8	5.9	7.7	5.9	6.6
16	9.0	8.4	8.7	8.4	6.6	7.5	7.4	6.8	7.0	7.9	5.8	6.6
17	8.9	8.2	8.6	8.3	6.6	7.3	7.5	6.8	7.1	7.9	5.8	6.7
18	8.7	7.2	8.3	8.9	6.5	7.6	7.8	6.6	7.2	8.0	6.2	6.9
19	8.7	8.1	8.4	9.4	6.5	8.0	7.9	6.6	7.1	7.9	6.5	7.0
20	9.1	8.0	8.5	9.5	4.4	7.1	8.0	6.5	7.2	7.8	6.5	6.9
21	9.5	8.0	8.6	9.0	4.1	7.1	8.0	6.7	7.2	7.6	6.1	6.8
22	9.3	7.9	8.4	9.0	6.1	7.4	8.4	6.5	7.3	7.6	6.1	6.7
23	10.2	8.0	8.9	9.7	5.9	7.6	8.7	6.4	7.3	7.5	6.2	6.7
24	10.6	7.6	8.9	10.2	6.0	7.7	8.1	4.0	6.6	7.2	6.3	6.7
25	10.6	7.6	8.8	9.7	5.5	7.4	8.5	5.8	7.0	9.8	6.1	7.5
26	11.1	7.2	8.8	7.6	3.3	5.7	9.0	5.8	7.3	7.3	5.9	6.5
27	11.2	7.0	8.7	8.5	5.3	6.7	9.2	6.5	7.6	8.1	6.3	7.0
28	11.4	6.8	8.6	8.6	4.7	6.3	9.0	6.4	7.5	9.2	5.6	7.1
29	11.7	6.3	8.4	9.6	4.5	6.8	8.7	6.1	7.1	9.6	5.7	7.3
30	12.2	6.2	8.6	9.8	5.3	7.2	7.2	4.3	6.7	9.5	5.6	7.1
31	---	---	---	7.2	4.3	6.1	7.5	6.9	7.2	---	---	---
MONTH	12.2	6.2	8.5	10.2	3.3	7.2	9.9	3.5	7.1	9.8	5.1	6.8
YEAR	16.8	2.8	9.1									

## STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued  
 SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	678	561	528	344	786	294	308	645	495	740	762	594
2	749	510	522	330	741	330	282	687	501	726	795	570
3	747	513	521	324	694	354	302	708	516	752	798	626
4	732	479	507	309	---	384	279	699	516	768	783	699
5	735	474	477	320	---	387	288	717	537	666	777	750
6	732	483	498	339	---	365	300	744	579	726	840	812
7	732	483	534	407	---	365	312	789	594	744	816	828
8	714	495	555	402	---	384	360	784	603	765	837	831
9	684	468	689	438	---	363	441	798	621	774	849	771
10	651	423	735	525	---	366	396	797	645	654	851	830
11	639	437	680	579	---	374	392	840	656	716	831	855
12	630	437	612	647	---	399	387	837	545	687	842	836
13	620	435	534	615	---	372	399	816	558	674	834	867
14	633	420	465	554	---	372	408	828	522	602	858	888
15	656	420	468	560	---	366	422	809	525	597	770	898
16	599	414	452	581	---	366	443	771	528	594	596	889
17	594	392	438	572	---	380	468	747	531	624	591	886
18	597	378	420	635	---	408	476	756	525	599	626	873
19	570	378	435	723	702	426	504	747	543	672	660	900
20	599	407	444	690	711	452	521	773	549	702	674	942
21	615	410	428	563	726	474	546	651	564	696	717	959
22	612	399	438	521	876	579	638	717	540	660	765	961
23	668	408	431	498	717	603	617	749	552	696	776	963
24	666	414	414	---	458	600	657	755	582	723	773	829
25	675	432	417	---	417	615	651	765	597	744	756	948
26	681	437	411	---	326	602	638	780	626	719	804	921
27	690	453	494	---	300	602	647	708	666	759	816	907
28	710	498	546	697	282	611	678	524	684	750	846	891
29	600	501	494	686	---	399	653	522	719	749	857	924
30	660	498	375	647	---	371	669	489	732	759	627	939
31	614	---	345	681	---	372	---	474	---	716	627	---
MEAN	661	449	494	525	595	430	469	723	578	702	766	846

WTR YR 1985 MEAN 605 MAX 963 MIN 279  
 PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	8.0	8.1	8.1	8.1	7.6	7.7	7.6	7.8	7.8	7.8	7.7
2	7.9	8.1	8.1	8.1	8.2	7.7	7.6	7.7	7.7	7.6	7.7	7.7
3	7.9	8.0	8.1	8.2	8.1	7.7	7.6	7.7	7.7	7.7	7.8	7.6
4	8.0	8.0	8.2	8.1	---	7.7	7.6	7.6	7.8	7.8	7.8	7.6
5	8.0	8.0	8.2	8.1	---	7.7	7.6	7.4	7.8	7.6	7.7	7.6
6	8.0	8.1	8.2	8.1	---	7.8	7.6	7.6	7.8	7.7	7.6	7.6
7	7.9	8.1	8.2	8.1	---	7.7	7.7	7.6	7.8	7.8	7.7	7.6
8	7.9	8.1	8.2	8.2	---	7.7	7.7	7.7	7.8	7.8	7.7	7.5
9	8.0	8.1	8.2	8.2	---	7.7	7.7	7.7	7.7	7.8	7.8	7.6
10	8.0	8.0	8.1	8.2	---	7.7	7.8	7.6	7.8	7.6	7.8	7.6
11	8.0	8.1	8.2	8.2	---	7.7	7.7	7.6	7.7	7.8	7.8	7.7
12	8.0	8.1	8.2	8.2	---	7.7	7.8	7.6	7.8	7.8	7.8	7.8
13	8.0	8.1	8.2	8.3	---	7.7	7.6	7.7	7.8	7.8	7.8	7.8
14	8.1	8.1	8.1	8.2	---	7.8	7.7	7.6	7.8	7.7	7.6	7.8
15	8.1	8.1	8.2	8.2	---	7.8	7.7	7.5	7.8	7.7	7.5	7.8
16	8.0	8.2	8.2	8.2	---	7.7	7.9	7.5	7.8	7.7	7.7	7.8
17	8.0	8.1	8.2	8.2	---	7.8	7.9	7.6	7.8	7.7	7.7	7.8
18	8.1	8.1	8.1	8.2	---	7.8	8.0	7.7	7.8	7.8	7.7	7.8
19	8.0	8.2	8.1	8.3	8.1	7.8	7.8	7.6	7.8	7.8	7.7	7.8
20	8.0	8.2	8.2	8.3	8.0	7.8	7.9	7.7	7.9	7.7	7.7	7.8
21	7.9	8.2	8.1	8.3	8.0	7.8	7.7	7.6	7.9	7.7	7.7	7.9
22	7.9	8.1	8.2	8.1	7.9	7.8	7.8	7.8	7.8	7.8	7.8	7.9
23	8.0	8.1	8.2	8.0	7.9	7.7	7.6	7.8	7.9	7.8	7.8	7.8
24	7.9	8.1	8.2	---	7.7	7.8	7.6	7.8	7.9	7.8	7.6	7.7
25	7.9	8.1	8.2	---	7.7	7.9	7.7	7.7	7.9	7.8	7.7	8.1
26	7.8	8.1	8.2	---	7.6	8.0	7.7	7.8	8.0	7.5	7.8	8.1
27	7.8	8.1	8.2	---	7.6	7.9	7.7	7.6	7.9	7.6	7.8	8.1
28	7.8	8.0	8.1	8.2	7.6	7.9	7.8	7.7	7.9	7.6	7.8	8.1
29	7.9	8.0	8.1	8.2	---	7.7	7.9	7.8	7.8	7.7	7.8	8.2
30	8.0	8.0	8.1	8.2	---	7.7	7.8	7.7	7.8	7.8	7.7	8.2
31	8.0	---	8.1	8.1	---	7.7	---	7.7	---	7.7	7.8	---
MEAN	8.0	8.1	8.2	8.2	7.9	7.8	7.7	7.7	7.8	7.7	7.7	7.8

WTR YR 1985 MEAN 7.9 MAX 8.3 MIN 7.4

## STREAMS TRIBUTARY TO LAKE ERIE

71

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OH--Continued  
 TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	16.5	7.5	6.5	3.0	2.0	8.5	18.5	20.5	22.0	25.5	20.5
2	17.0	14.0	7.0	6.5	1.5	3.0	7.5	18.0	20.5	21.5	23.0	21.0
3	17.0	13.0	6.5	5.0	1.0	3.0	7.0	17.5	20.0	22.0	24.5	22.0
4	17.0	12.0	6.5	4.5	---	4.5	7.5	18.5	21.0	22.5	24.5	24.0
5	17.0	12.0	5.5	4.0	---	5.0	9.0	19.0	20.5	22.5	21.5	26.0
6	17.5	12.0	5.0	4.0	---	4.0	9.0	18.5	20.0	22.0	21.5	25.5
7	17.5	11.0	4.5	4.0	---	4.0	8.5	18.0	20.0	22.0	22.5	25.5
8	17.0	11.0	4.0	3.5	---	5.0	8.0	16.0	21.5	23.0	23.5	26.5
9	18.0	10.5	4.0	2.5	---	5.5	7.5	21.0	21.5	25.0	24.0	28.0
10	19.0	11.0	4.0	2.0	---	5.5	8.0	21.0	22.0	23.5	25.0	26.5
11	19.5	11.0	5.5	2.5	---	6.5	9.0	21.0	21.5	24.0	25.5	22.0
12	19.5	9.5	6.0	2.0	---	7.0	10.0	22.0	19.5	24.0	24.0	21.0
13	20.5	8.5	5.5	1.0	---	6.0	10.5	22.0	18.0	24.0	26.0	18.5
14	19.5	8.5	6.5	2.0	---	6.5	12.5	21.5	18.0	24.0	26.0	18.5
15	19.5	8.5	6.5	2.0	---	6.5	14.0	22.5	19.0	24.0	26.0	19.5
16	19.5	7.0	6.0	2.0	---	6.5	13.5	21.0	19.0	24.0	25.5	19.5
17	19.0	6.0	6.5	3.5	---	6.5	14.0	20.5	19.0	22.5	24.0	19.5
18	18.0	6.0	7.0	3.0	---	6.0	16.5	18.5	20.5	24.5	23.5	19.5
19	19.0	6.0	6.5	2.5	2.5	6.5	17.5	16.0	20.0	24.5	23.5	20.0
20	18.5	6.0	6.5	1.0	3.0	7.5	19.5	19.0	21.0	24.5	22.0	21.0
21	19.0	6.0	6.5	.0	5.0	8.0	20.0	19.0	21.0	25.0	21.0	21.5
22	17.5	6.0	6.0	.0	4.5	9.0	20.5	19.0	21.0	24.5	21.0	21.5
23	16.0	5.5	5.0	.0	3.0	9.0	21.0	20.0	20.5	23.0	21.0	21.0
24	15.5	5.5	4.0	.0	3.0	9.5	20.5	20.5	21.0	23.5	21.0	20.0
25	15.0	5.0	3.5	.0	2.5	9.0	20.0	21.0	20.5	26.0	21.0	18.5
26	18.0	6.0	2.5	.0	2.0	9.5	20.5	22.0	20.5	25.5	22.0	18.5
27	19.0	8.0	3.0	.0	2.0	11.0	19.5	21.0	20.5	24.5	21.5	17.5
28	19.0	9.0	5.5	1.5	1.5	11.5	17.5	19.5	21.5	24.5	22.0	17.0
29	17.0	9.0	7.5	3.0	---	11.5	19.0	19.0	21.5	26.0	23.5	16.5
30	17.0	9.0	7.5	2.5	---	10.0	20.5	19.5	22.0	26.5	23.5	17.5
31	17.0	---	5.5	3.5	---	9.5	---	20.0	---	25.5	22.0	---
MEAN	18.0	9.0	5.5	2.5	2.5	7.0	14.0	19.5	20.5	24.0	23.5	21.0

WTR YR 1985 MEAN 14.5 MAX 28.0 MIN .0  
 OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	7.7	10.6	11.4	11.3	12.7	12.7	7.5	8.6	7.5	6.9	7.2
2	6.4	8.1	10.8	11.5	11.5	12.6	12.9	8.5	8.3	6.6	6.6	7.4
3	6.9	8.3	10.6	11.9	11.3	12.7	12.8	8.3	8.2	7.0	6.9	7.6
4	7.2	8.9	11.2	11.8	---	12.5	12.8	8.3	8.4	7.2	7.1	7.5
5	6.9	9.6	11.2	12.0	---	12.5	12.2	8.0	8.4	6.5	6.4	7.2
6	6.7	9.7	10.9	12.1	---	13.0	11.9	7.7	8.5	7.3	6.6	6.8
7	6.3	10.2	11.1	11.9	---	12.8	11.9	8.4	8.5	7.4	6.9	6.7
8	6.7	10.7	11.1	12.0	---	12.6	11.7	8.7	8.1	7.3	6.8	6.7
9	7.5	---	11.2	12.2	---	12.4	11.5	9.1	7.7	7.3	7.2	6.2
10	7.5	---	11.2	12.3	---	12.5	11.1	7.6	8.1	7.4	7.1	5.4
11	7.3	---	11.0	12.1	---	12.0	12.0	6.4	8.0	7.5	6.6	5.8
12	7.3	---	11.0	12.2	---	11.4	11.6	7.0	8.2	7.4	7.1	6.0
13	7.2	---	11.2	12.2	---	11.8	10.9	6.8	8.7	7.5	6.7	6.3
14	7.3	---	11.2	11.9	---	12.6	10.4	7.0	9.0	6.9	5.5	6.4
15	7.3	---	11.2	11.7	---	12.9	9.8	7.1	8.7	7.5	6.4	6.4
16	7.0	---	11.3	11.9	---	12.9	9.8	6.7	8.7	7.3	7.0	6.4
17	6.9	---	11.2	11.3	---	12.4	9.5	7.1	8.7	7.3	7.0	6.7
18	7.0	---	11.1	11.2	---	12.4	9.3	8.4	8.3	7.6	7.0	7.0
19	6.8	---	10.9	11.6	---	11.9	8.6	8.5	8.4	7.7	7.0	6.9
20	6.7	11.6	11.0	11.8	12.8	11.5	8.8	8.4	8.4	6.7	7.1	6.8
21	6.4	11.5	10.9	---	10.8	11.1	8.1	8.1	8.5	7.1	7.1	6.7
22	6.9	11.6	11.2	---	10.1	10.7	8.9	8.3	8.3	7.4	7.1	6.6
23	7.0	11.6	11.5	---	10.5	10.1	7.5	8.0	8.6	7.3	7.1	6.7
24	6.8	11.3	11.5	---	10.7	9.8	7.0	7.8	8.5	7.2	6.5	6.6
25	6.7	11.3	12.1	---	11.1	10.1	9.0	7.6	8.5	6.8	6.6	6.6
26	5.9	11.3	12.3	---	11.3	11.0	8.5	7.6	8.4	5.6	7.2	6.3
27	6.0	10.6	12.0	---	11.4	11.1	8.4	6.6	8.1	6.3	7.3	6.8
28	6.4	9.9	11.4	12.5	11.7	10.5	9.1	8.6	8.2	5.8	7.2	6.8
29	7.5	9.9	10.7	12.4	---	10.2	8.9	8.8	7.8	6.4	6.9	6.9
30	7.4	9.8	11.1	11.5	---	10.4	7.8	8.7	7.9	7.0	7.1	6.4
31	7.6	---	11.8	11.1	---	11.1	---	8.5	---	6.2	7.1	---
MEAN	6.9	10.2	11.2	11.9	11.2	11.8	10.2	7.9	8.4	7.0	6.9	6.7
WTR YR 1985	MEAN	9.0	MAX	13.0	MIN	5.4						

## STREAMS TRIBUTARY TO LAKE ERIE

04207200 TINKERS CREEK AT BEDFORD, OH

LOCATION.--Lat 41°23'04", long 81°31'39", in T.6 N., R.11 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on State Highway 14 in Bedford, 5.5 mi upstream from mouth.

DRAINAGE AREA.--83.9 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1962 to current year.

REVISED RECORDS.--WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 876.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 4-7, 11-20, Jan. 10 to Feb. 21, Aug. 3-5, 12, 20-23, 29, Sept. 6-8, 15-17, 23, 29, 30. Records good except for estimated daily discharges, which are fair. Water-quality data collected at this site 1965 to 1977. Sediment data collected at this site 1974 to 1979.

AVERAGE DISCHARGE.--22 years (1963-85), 130 ft<sup>3</sup>/s, 21.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,220 ft<sup>3</sup>/s July 20, 1969, gage height, 10.10 ft, from rating curve extended above 3,400 ft<sup>3</sup>/s on the basis of contracted-opening measurement of peak flow; minimum, 5.2 ft<sup>3</sup>/s Aug. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*).

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Feb. 24	1930	1,510	6.06	Mar. 29	0130	*2,520	*6.93

Minimum daily discharge, 20 ft<sup>3</sup>/s Aug. 4, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	73	129	115	554	70	164	900	58	113	39	33	61	
2	56	264	84	356	70	150	648	69	72	29	26	34	
3	35	126	84	216	70	119	575	66	48	27	22	30	
4	28	470	76	146	70	389	449	57	40	27	20	28	
5	26	428	60	117	70	481	286	55	40	32	24	27	
6	28	429	59	98	70	290	330	70	33	64	28	24	
7	30	221	61	93	70	176	306	78	28	59	135	24	
8	35	135	74	84	70	260	356	61	26	53	81	40	
9	32	144	70	73	70	203	373	52	27	51	37	44	
10	31	373	242	70	70	135	327	48	26	211	26	206	
11	28	325	372	70	70	162	307	45	55	99	23	52	
12	28	272	320	65	100	455	244	49	162	59	22	37	
13	28	345	276	65	150	371	194	45	330	54	24	32	
14	28	312	297	65	130	211	172	45	187	118	25	29	
15	28	327	239	65	110	152	144	67	85	131	168	26	
16	30	263	159	65	100	129	140	97	139	99	153	24	
17	30	161	122	65	95	105	109	109	119	82	65	22	
18	28	115	98	65	95	86	98	79	214	74	32	39	
19	32	96	111	65	95	83	92	61	102	69	27	51	
20	38	84	99	65	90	83	86	59	73	67	24	49	
21	54	76	145	65	90	71	79	207	61	65	22	43	
22	50	67	378	65	774	62	78	122	56	63	20	32	
23	50	62	251	65	1330	70	80	69	52	61	20	26	
24	42	59	131	65	1460	145	117	56	49	60	39	84	
25	37	55	99	65	1070	104	116	47	48	58	107	35	
26	47	53	72	70	608	75	76	43	46	66	62	65	
27	38	51	185	70	311	77	62	101	45	52	34	49	
28	185	114	326	70	196	387	74	435	44	46	25	36	
29	360	90	494	70	---	1460	58	184	44	43	22	24	
30	155	73	680	70	---	1070	57	66	43	40	245	22	
31	80	---	542	70	---	1100	---	61	---	122	176	---	
TOTAL	1770	5719	6321	3207	7574	8825	6933	2661	2407	2120	1767	1295	
MEAN	57.1	191	204	103	271	285	231	85.8	80.2	68.4	57.0	43.2	
MAX	360	470	680	554	1460	1460	900	435	330	211	245	206	
MIN	26	51	59	65	70	62	57	43	26	27	20	22	
CFSM	.68	2.28	2.43	1.23	3.23	3.40	2.75	1.02	.96	.82	.68	.51	
IN.	.78	2.54	2.80	1.42	3.36	3.91	3.07	1.18	1.07	.94	.78	.57	
CAL YR 1984	TOTAL	55285		MEAN	151	MAX	1170	MIN	25	CFSM	1.80	IN.	24.45
WTR YR 1985	TOTAL	50599		MEAN	139	MAX	1460	MIN	20	CFSM	1.66	IN.	22.43



## STREAMS TRIBUTARY TO LAKE ERIE

73

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH  
(National stream quality accounting network station)

LOCATION.--Lat 41°23'43", long 81°37'48, in T.6 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank 240 ft downstream from bridge on Old Rockside Road, 0.8 mi northeast of Independence, and 3.0 mi downstream from Tinkers Creek.

DRAINAGE AREA.--707 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to December 1905 (fragmentary), January to July 1906 (gage heights and discharge measurements only), September 1921 to May 1923, September 1927 to December 1935, March 1940 to current year.

REVISED RECORDS.--WSP 1307: 1922-23(M), 1928-30(M), 1933(M), 1940(M), 1947(M), 1950(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 583.57 ft above National Geodetic Vertical Datum of 1929.

Sept. 21, 1903 to July 21, 1906, nonrecording gage at bridge 240 ft upstream at present datum. Sept. 28, 1921 to May 30, 1923, nonrecording gage at bridge 240 ft upstream at datum 2.42 ft higher. Sept. 5, to Oct. 8, 1927, nonrecording gage, and Oct. 9, 1927, to Dec. 31, 1935, Mar. 5, 1940, to June 19, 1969, water-stage recorder, at site 100 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Feb. 4-5, Mar. 7-13, Apr. 16-22, 28-30, Sept. 16-17. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by diversion, storage reservoirs and power plants. Some diversion from the Tuscarawas River basin drainage into this basin at Portage Lakes (see REMARKS for station 03117000). Water diverted into Ohio Canal at Brecksville, 6 mi upstream from station, bypasses station. These records do not include flow in canal except above about 15,000 ft /s, when channels merge.

AVERAGE DISCHARGE.--54 years (1921-22, 1927-35, 1940-85), 827 ft<sup>3</sup>/s, not including flow in Ohio Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,800 ft<sup>3</sup>/s Jan. 22, 1959, gage height, 22.41 ft, from rating curve extended above 17,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; minimum daily, 21 ft<sup>3</sup>/s Aug. 28, 1933; minimum combined daily discharge of river and canal, 55 ft<sup>3</sup>/s Aug. 28, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,080 ft<sup>3</sup>/s Mar. 29, gage height, 16.20 ft; minimum daily, 181 ft<sup>3</sup>/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	707	777	733	3380	597	3190	5990	540	1260	273	493	578
2	523	1460	651	2700	567	2570	4240	657	932	380	259	434
3	408	852	683	2230	551	2030	4340	595	837	525	255	455
4	375	1860	634	1910	550	2560	3840	482	775	345	235	344
5	357	2350	674	1680	550	3240	3020	408	686	423	225	286
6	369	1750	535	1440	554	2300	2900	414	607	524	228	272
7	371	1230	544	1280	549	1900	2440	529	476	400	774	274
8	420	1040	507	1140	520	3500	2360	467	374	358	678	305
9	417	971	574	913	518	3000	2410	363	375	483	417	358
10	407	2110	1040	796	488	2400	2090	355	410	1060	313	732
11	382	1680	1680	729	534	2000	1950	345	448	723	283	271
12	380	1570	1360	722	859	2500	1670	322	1460	458	266	247
13	383	1620	1450	667	1230	3300	1440	337	1900	399	274	247
14	404	1530	1590	622	971	2060	1390	354	1320	546	314	202
15	484	1480	1570	611	910	1830	1190	386	967	915	529	201
16	588	1390	1280	569	851	1700	1100	472	1140	638	1810	220
17	538	1190	1190	551	859	1550	980	773	1010	416	668	198
18	521	1070	1080	608	864	1340	880	668	1280	333	453	196
19	518	1030	1040	604	931	1190	780	503	831	449	350	206
20	476	1000	928	490	846	1060	690	423	793	269	310	215
21	458	900	888	488	905	931	630	1150	670	301	289	237
22	522	808	1870	534	3600	877	580	715	642	341	241	213
23	480	709	1340	747	7370	814	940	493	665	284	250	204
24	332	653	1090	649	8020	1040	589	425	556	249	277	347
25	310	570	1040	648	6390	918	858	366	490	296	564	294
26	309	546	829	538	4940	826	452	349	449	386	466	282
27	294	525	1030	560	4690	743	471	448	383	324	350	366
28	571	731	1610	582	4040	1380	440	3470	359	247	279	199
29	1730	719	2100	589	---	7560	400	1750	304	204	261	187
30	779	578	4810	572	---	4500	460	1050	285	297	1770	181
31	701	---	2800	580	---	5360	---	1290	---	671	1500	---
TOTAL	15514	34699	39150	30129	54254	70169	51520	20899	22684	13517	15381	8751
MEAN	500	1157	1263	972	1938	2264	1717	674	756	436	496	292
MAX	1730	2350	4810	3380	8020	7560	5990	3470	1900	1060	1810	732
MIN	294	525	507	488	488	743	400	322	285	204	225	181
CAL YR 1984	TOTAL	410678	MEAN	1122	MAX	7920	MIN	230				
WTR YR 1985	TOTAL	376667	MEAN	1032	MAX	8020	MIN	181				

## STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1948 to September 1949, October 1950 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1965 to current year.

pH: February 1973 to current year.

WATER TEMPERATURES: October 1948 to September 1949, October 1952 to current year.

DISSOLVED OXYGEN: July 1965 to current year.

SUSPENDED SEDIMENT DISCHARGE: Water years 1950-74, December 1976 to September 1984.

INSTRUMENTATION.--Alcohol-actuated thermograph October 1956 to June 1965, water-quality monitor since July 1965.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens Feb. 12, 1977; minimum, 149 microsiemens Nov. 23, 1974.

pH: Maximum, 8.9 units Aug. 27, 28, 1976; minimum, 5.9 units Jan. 26, 1976.

WATER TEMPERATURES: Maximum, 31.0°C Aug. 18, 1949, July 21, 1980; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 17.0 mg/L Feb. 22, 1985; minimum, 0.0 mg/L Oct. 23, 1965, Feb. 10-12, June 23, July 26, 1966.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,800 mg/L Aug. 21, 1960; minimum daily mean, 1 mg/L Sept. 4, 10, 1955.

SEDIMENT LOADS: Maximum daily, 97,000 tons Sept. 14, 1979; minimum daily, 0.25 ton Sept. 4, 1955.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 2,380 microsiemens Feb. 12; minimum, 345 microsiemens Feb. 28.

pH: Maximum, 8.7 Apr. 28, 29; minimum, 7.3 units May 28, Aug. 16.

WATER TEMPERATURES: Maximum, 27.5°C Sept. 8; minimum, 0.5°C on several days during winter period.

DISSOLVED OXYGEN: Maximum recorded, 17.0 mg/L Feb. 22; minimum, 3.4 mg/L Oct. 17.

## WATER QUALITY DATA

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
NOV 1984	14...	15:00	1400	615	7.9	8.5	8.0	7.6	9.7	83
MAR 1985	12...	15:00	3070	590	7.7	2.0	7.0	80	11.2	95
MAY	14...	11:30	335	900	8.0	24.0	21.0	3.9	8.1	--
SEP	11...	16:30	279	825	8.0	20.0	22.5	6.0	9.4	111
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 1984	14...	15000	1600	52	12	45	4.5	107	63	78
MAR 1985	12...	19000	4800	41	8.9	59	2.6	79	55	94
MAY	14...	1600	91	77	18	68	5.1	157	97	130
SEP	11...	970	160	67	16	72	7.3	142	96	110
DATE		FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1984	14...	0.2	8.5	352	1.70	0.28	1.3	0.27	0.12	0.09
MAR 1985	12...	0.2	6.2	378	1.60	1.60	2.3	0.15	0.08	0.07
MAY	14...	0.3	6.3	588	5.80	27.0	2.0	0.30	0.19	0.02
SEP	11...	0.3	8.8	527	2.50	0.36	1.2	0.41	0.38	0.36

## STREAMS TRIBUTARY TO LAKE ERIE

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04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

## WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 1984											
14...	15:00	1400	30	1	42	<0.5	<1	2	<3	22	32
MAR 1985											
12...	15:00	3070	120	<1	33	<0.5	<1	3	<3	30	230
MAY											
14...	11:30	335	30	1	56	<0.5	<1	2	<3	9	220
SEP											
11...	16:30	279	40	5	51	<0.5	<1	<1	<3	11	18

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 1984											
14...	3	4	51	0.6	<10	2	<1	<1	170	<6	34
MAR 1985											
12...	4	6	47	0.2	<10	2	<1	<1	140	<6	10
MAY											
14...	10	13	120	<0.1	<10	5	<1	<1	230	<6	57
SEP											
11...	4	18	38	0.2	<10	3	<1	<1	210	<6	11

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 1984					
14...	15:00	1400	8.0	30	113
MAR 1985					
12...	15:00	3070	7.0	723	5990
MAY					
14...	11:30	335	21.0	18	16
SEP					
11...	16:30	279	22.5	20	15

## STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	918	825	881	732	621	702	711	675	693	498	447	465
2	858	684	726	624	576	594	684	669	676	462	435	444
3	840	741	791	630	591	612	696	669	684	456	438	446
4	867	834	848	642	429	554	696	669	683	459	447	455
5	903	843	868	516	438	480	663	600	627	489	459	472
6	867	831	848	561	486	527	774	648	701	588	495	550
7	849	828	836	582	564	575	903	780	820	561	528	551
8	852	825	841	606	576	595	948	876	911	684	555	639
9	858	816	837	624	579	613	1060	891	948	882	666	778
10	825	804	815	609	489	523	1300	987	1150	978	867	918
11	822	789	806	531	504	524	987	780	876	1020	948	974
12	813	777	795	762	531	632	771	711	739	1160	969	1030
13	804	780	793	765	627	710	726	672	697	1150	1030	1070
14	810	777	798	621	573	596	678	615	654	1030	921	968
15	807	756	785	588	546	569	627	585	599	921	876	901
16	798	744	782	561	540	553	621	597	610	921	885	901
17	744	705	726	549	534	546	606	594	602	954	882	925
18	756	717	734	555	534	547	609	564	586	1050	927	971
19	744	720	729	543	525	538	615	570	596	1280	1050	1160
20	753	729	738	558	528	548	633	606	623	1250	1150	1170
21	795	738	759	678	552	628	657	609	627	1150	1020	1090
22	795	756	773	627	594	615	663	543	580	1010	939	968
23	753	729	736	624	585	606	564	549	556	960	831	893
24	795	747	769	618	588	607	597	567	586	987	894	935
25	831	801	823	651	600	601	585	561	576	1280	1010	1120
26	849	831	840	660	633	648	603	576	589	1420	1280	1350
27	903	849	874	669	630	647	1230	594	888	1420	1220	1280
28	864	522	829	666	651	657	1100	777	882	1210	1100	1130
29	597	423	513	711	690	701	777	471	705	1140	1070	1090
30	702	552	624	702	681	692	459	438	451	1210	1100	1150
31	729	699	717	---	---	---	474	444	454	1150	1070	1100
MONTH	918	423	782	765	429	598	1300	438	689	1420	435	900
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1400	1120	1200	387	357	366	396	381	389	831	---	815
2	1400	1300	1350	528	390	444	444	387	411	810	---	784
3	1360	1170	1230	531	501	512	531	426	467	828	660	780
4	1160	1050	1100	783	522	658	438	390	404	846	747	781
5	1110	1060	1080	672	549	578	423	390	402	864	804	845
6	1090	1060	1080	549	528	537	465	426	445	867	840	852
7	1130	1060	1090	573	534	546	474	444	454	885	843	866
8	1130	1040	1060	636	567	596	621	453	522	1050	807	886
9	1050	975	1010	591	555	575	681	540	580	1170	1060	1130
10	1030	948	983	570	534	553	708	597	638	1140	954	1020
11	1530	990	1120	636	549	572	594	558	575	948	897	920
12	2380	1470	1890	672	552	594	564	540	553	948	897	923
13	2220	1790	2020	558	531	541	567	552	557	954	918	936
14	1770	1500	1630	552	528	544	603	567	583	918	879	901
15	1490	1330	1410	552	522	538	588	567	579	924	882	908
16	1320	1220	1260	537	519	527	615	573	596	930	888	910
17	1200	1120	1150	552	531	543	---	---	---	882	705	805
18	1290	1130	1200	570	540	558	---	---	---	834	711	788
19	1290	1220	1260	624	576	603	666	660	662	864	813	837
20	1330	1260	1300	684	624	654	675	657	668	888	864	872
21	1560	1310	1390	672	651	662	708	675	691	882	681	768
22	1760	939	1380	729	648	692	723	696	712	747	648	693
23	912	606	729	765	708	746	786	708	736	825	750	789
24	600	513	549	846	756	786	807	678	735	855	828	843
25	519	510	514	774	747	762	816	738	774	882	855	865
26	---	---	---	774	729	748	822	756	783	894	876	883
27	---	---	---	768	738	755	789	762	773	906	810	886
28	366	345	354	756	456	715	804	762	780	768	423	514
29	---	---	---	420	360	386	822	786	799	609	531	582
30	---	---	---	435	420	425	828	804	814	663	609	640
31	---	---	---	474	381	427	---	---	---	630	498	589
MONTH	2380	345	1170	846	357	585	828	381	610	1170	423	826



## STREAMS TRIBUTARY TO LAKE ERIE

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04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	606	567	590	888	867	878	819	612	687	708	591	649
2	615	594	610	891	864	879	825	759	793	735	696	713
3	663	612	639	876	702	809	882	831	870	735	705	718
4	687	648	663	807	633	710	900	879	889	771	708	729
5	711	642	679	882	816	846	924	897	911	816	774	802
6	729	678	696	885	645	737	1030	903	974	849	822	838
7	780	693	731	783	699	749	1040	582	882	888	834	866
8	819	756	776	807	789	798	720	603	658	891	678	844
9	825	789	806	834	807	824	828	726	777	891	678	830
10	813	792	801	822	432	668	876	831	854	795	537	695
11	807	747	789	732	489	613	906	879	898	837	777	808
12	765	441	601	852	744	802	927	897	914	951	846	906
13	660	570	596	849	804	818	918	882	900	903	885	896
14	633	588	619	804	741	781	897	855	879	903	870	885
15	648	615	632	765	579	661	891	636	841	903	888	897
16	687	627	657	738	639	686	696	396	541	906	885	897
17	648	630	641	741	687	710	693	618	653	903	879	891
18	672	570	631	819	750	787	735	696	713	918	891	908
19	663	624	647	867	729	781	840	741	793	924	888	907
20	768	663	691	801	732	750	840	807	824	927	858	895
21	717	681	698	858	813	845	894	819	850	876	852	867
22	747	690	708	855	771	801	849	822	837	900	867	888
23	714	678	694	819	747	786	876	825	860	912	891	904
24	711	681	695	831	753	803	861	816	843	888	762	845
25	768	714	736	855	837	850	855	615	805	882	753	841
26	789	756	769	873	831	853	747	561	664	885	753	829
27	828	789	801	870	750	826	855	765	818	894	834	873
28	849	825	838	819	726	777	864	825	850	858	813	830
29	855	834	845	861	822	849	885	855	874	894	825	869
30	873	858	864	888	861	876	888	402	653	930	888	910
31	---	---	---	912	651	794	588	507	550	---	---	---
MONTH	873	441	705	912	432	785	1040	396	802	951	537	841
YEAR	2380	345	771									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.7	7.9	7.8	7.7	7.7	7.8	7.8	7.8	7.8	7.7	7.8
2	8.0	7.6	7.8	7.8	7.6	7.7	7.9	7.8	7.8	7.8	7.7	7.8
3	8.0	7.8	7.9	7.9	7.8	7.9	7.9	7.8	7.9	7.8	7.7	7.8
4	8.1	7.8	8.0	7.9	7.6	7.8	7.9	7.9	7.9	7.8	7.8	7.8
5	8.1	7.9	8.0	7.8	7.6	7.7	7.9	7.9	7.9	7.8	7.8	7.8
6	8.1	7.9	8.0	7.9	7.8	7.8	8.0	7.9	7.9	7.8	7.8	7.8
7	8.1	7.8	7.9	7.9	7.9	7.9	8.0	7.9	7.9	7.8	7.8	7.8
8	8.0	7.8	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8
9	7.9	7.8	7.8	7.9	7.8	7.8	7.9	7.9	7.9	7.9	7.8	7.8
10	7.9	7.8	7.8	7.9	7.7	7.8	7.9	7.8	7.9	7.9	7.8	7.8
11	7.9	7.7	7.8	7.8	7.8	7.8	7.9	7.8	7.8	7.9	7.8	7.9
12	8.0	7.7	7.8	7.9	7.8	7.9	7.9	7.9	7.9	7.9	7.9	7.9
13	8.0	7.7	7.8	7.9	7.8	7.9	7.9	7.9	7.9	7.9	7.9	7.9
14	8.0	7.8	7.9	7.9	7.8	7.9	7.9	7.7	7.9	8.0	7.9	7.9
15	7.9	7.7	7.8	7.9	7.8	7.9	7.9	7.7	7.8	8.0	7.9	8.0
16	7.9	7.8	7.8	7.9	7.8	7.9	7.9	7.8	7.9	8.0	7.9	7.9
17	7.8	7.6	7.7	7.9	7.9	7.9	7.9	7.9	7.9	8.0	7.9	7.9
18	7.8	7.7	7.8	7.9	7.8	7.8	7.9	7.8	7.8	8.0	7.9	7.9
19	7.9	7.7	7.8	7.9	7.8	7.8	7.9	7.8	7.9	8.0	7.9	8.0
20	7.9	7.7	7.8	7.9	7.8	7.9	7.9	7.8	7.9	8.0	7.9	7.9
21	7.9	7.8	7.8	7.9	7.8	7.8	7.9	7.8	7.9	7.9	7.8	7.9
22	7.8	7.7	7.8	7.8	7.8	7.8	7.9	7.7	7.8	7.8	7.8	7.8
23	7.8	7.7	7.7	7.8	7.8	7.8	7.9	7.8	7.9	7.8	7.8	7.8
24	7.9	7.7	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9	7.8	7.8
25	7.9	7.7	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9	7.8	7.9
26	7.9	7.7	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9	7.9	7.9
27	7.9	7.7	7.7	7.8	7.8	7.8	7.9	7.9	7.9	8.0	7.9	7.9
28	7.9	7.5	7.7	7.8	7.7	7.8	7.9	7.8	7.9	8.0	7.9	7.9
29	7.7	7.4	7.5	7.9	7.8	7.8	7.9	7.7	7.8	8.0	7.9	8.0
30	7.8	7.7	7.7	7.8	7.8	7.8	7.7	7.6	7.6	8.0	7.9	7.9
31	7.8	7.7	7.8	---	---	---	7.8	7.7	7.7	8.0	7.9	7.9
MONTH	8.1	7.4	7.8	7.9	7.6	7.8	8.0	7.6	7.9	8.0	7.7	7.9

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	8.0	7.9	7.9	7.6	7.5	7.6	7.7	7.6	7.7	8.4	8.0	8.2
2	8.0	8.0	8.0	7.7	7.6	7.6	7.7	7.7	7.7	7.9	7.7	7.8
3	8.0	8.0	8.0	7.7	7.7	7.7	7.7	7.6	7.7	8.0	7.6	7.8
4	8.0	7.9	7.9	7.8	7.7	7.8	7.7	7.6	7.6	8.0	7.7	7.9
5	7.9	7.9	7.9	7.8	7.7	7.7	7.6	7.6	7.6	8.0	7.8	7.9
6	7.9	7.9	7.9	7.7	7.7	7.7	7.7	7.6	7.6	8.0	7.7	7.8
7	8.0	7.9	8.0	7.8	7.7	7.7	7.7	7.6	7.6	7.9	7.7	7.8
8	8.0	7.9	8.0	7.8	7.7	7.7	7.8	7.7	7.7	7.9	7.6	7.7
9	8.0	7.9	8.0	7.7	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.8
10	8.0	7.9	8.0	7.7	7.7	7.7	7.8	7.7	7.7	7.8	7.7	7.8
11	8.0	7.9	7.9	7.8	7.7	7.7	7.8	7.7	7.7	7.9	7.6	7.8
12	8.0	7.9	7.9	7.8	7.7	7.7	7.8	7.7	7.7	7.9	7.7	7.8
13	7.9	7.8	7.9	7.8	7.7	7.7	7.8	7.7	7.7	8.0	7.7	7.9
14	8.0	7.9	7.9	7.8	7.7	7.8	7.9	7.7	7.8	8.0	7.8	7.9
15	8.0	8.0	8.0	7.8	7.7	7.8	8.0	7.7	7.8	7.9	7.7	7.8
16	8.0	7.9	8.0	7.8	7.7	7.8	8.1	7.5	7.8	7.8	7.6	7.7
17	8.0	7.9	7.9	7.8	7.7	7.8	---	---	---	7.6	7.4	7.5
18	8.0	7.9	7.9	7.8	7.8	7.8	---	---	---	7.7	7.6	7.6
19	8.0	7.9	7.9	7.9	7.8	7.8	8.0	7.5	7.8	7.8	7.7	7.8
20	8.0	7.9	7.9	7.9	7.7	7.8	8.2	7.7	7.9	7.8	7.6	7.7
21	8.0	7.9	7.9	7.9	7.7	7.8	8.2	7.7	8.0	7.7	7.4	7.6
22	7.9	7.7	7.8	8.1	7.8	7.9	8.2	7.7	7.9	7.9	7.5	7.7
23	7.8	7.7	7.7	8.0	7.8	7.9	8.2	7.7	8.0	8.0	7.8	7.9
24	7.7	7.7	7.7	8.0	7.8	7.9	8.2	7.7	8.0	7.9	7.8	7.8
25	7.7	7.6	7.6	8.2	7.8	8.0	8.3	7.7	8.0	7.9	7.6	7.7
26	---	---	---	8.1	7.9	8.0	8.5	7.9	8.1	7.9	7.6	7.7
27	---	---	---	8.2	7.8	8.0	8.6	7.9	8.3	7.9	7.7	7.8
28	7.5	7.5	7.5	8.1	7.7	7.9	8.7	7.9	8.3	7.7	7.3	7.4
29	---	---	---	7.8	7.6	7.7	8.7	8.0	8.3	7.7	7.5	7.6
30	---	---	---	7.7	7.6	7.6	8.6	8.1	8.4	7.6	7.6	7.6
31	---	---	---	7.7	7.7	7.7	---	---	---	7.6	7.4	7.5
MONTH	8.0	7.5	7.9	8.2	7.5	7.8	8.7	7.5	7.9	8.4	7.3	7.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	7.8	7.5	7.6	8.2	7.9	8.1	7.9	7.5	7.6	7.9	7.8	7.8
2	7.7	7.6	7.7	8.3	7.8	8.0	8.2	7.7	7.9	8.0	7.8	7.9
3	7.7	7.6	7.6	8.1	7.7	7.9	8.2	7.8	8.0	8.0	7.8	7.9
4	7.7	7.6	7.7	8.1	7.6	7.8	8.3	7.9	8.1	8.0	7.8	7.9
5	7.9	7.7	7.8	8.2	7.8	8.0	8.2	7.9	8.0	8.1	7.8	7.9
6	7.9	7.7	7.8	8.1	7.6	7.9	8.2	7.8	8.0	8.0	7.8	7.9
7	8.0	7.8	7.9	8.3	7.8	8.0	8.1	7.6	7.8	8.1	7.8	8.0
8	8.0	7.8	7.9	8.3	7.9	8.1	7.8	7.5	7.7	8.2	7.8	8.0
9	8.1	7.8	7.9	8.5	8.0	8.2	7.9	7.8	7.8	8.1	7.8	7.9
10	8.2	7.8	8.0	8.3	7.4	7.7	8.0	7.8	7.9	7.9	7.7	7.8
11	8.1	7.8	7.9	8.0	7.4	7.7	8.1	7.8	8.0	8.0	7.7	7.9
12	7.9	7.4	7.6	8.2	7.8	8.0	8.2	7.9	8.0	8.0	7.8	7.9
13	7.7	7.6	7.7	8.3	7.8	8.0	8.2	7.9	8.0	8.0	7.9	8.0
14	7.8	7.7	7.7	8.1	7.8	7.9	8.1	7.8	8.0	8.1	7.9	8.0
15	7.8	7.6	7.7	7.7	7.5	7.6	8.0	7.7	7.9	8.2	8.0	8.1
16	7.8	7.6	7.7	7.9	7.7	7.8	7.7	7.3	7.5	8.3	8.0	8.2
17	7.8	7.8	7.8	8.0	7.8	7.9	7.8	7.6	7.7	8.4	8.0	8.2
18	7.8	7.6	7.7	8.0	7.8	7.9	7.9	7.7	7.8	8.4	8.1	8.3
19	7.8	7.7	7.8	8.1	7.7	7.9	8.0	7.8	7.9	8.5	8.0	8.3
20	7.9	7.7	7.8	8.2	7.8	8.0	8.0	7.8	7.9	8.5	8.0	8.3
21	8.0	7.8	7.9	8.1	7.7	7.9	8.0	7.8	7.9	8.5	8.0	8.3
22	8.0	7.8	7.9	8.1	7.7	7.9	8.1	7.8	8.0	8.6	8.0	8.4
23	8.0	7.8	7.9	8.2	7.9	8.1	8.1	7.9	8.0	8.6	8.1	8.5
24	8.4	7.8	8.1	8.3	7.9	8.2	8.1	7.8	7.9	8.5	7.9	8.2
25	8.3	7.8	8.1	8.3	7.9	8.2	8.1	7.7	7.9	8.2	7.9	8.0
26	8.2	7.8	8.0	8.3	7.9	8.1	8.1	7.6	7.8	8.2	7.9	8.0
27	8.3	7.9	8.1	8.1	7.8	7.9	8.2	7.9	8.1	8.3	8.1	8.2
28	8.2	7.9	8.1	8.3	7.8	8.0	8.3	7.9	8.1	8.5	8.0	8.2
29	8.3	7.9	8.1	8.4	7.9	8.1	8.3	8.0	8.2	8.5	8.2	8.4
30	8.4	7.9	8.2	8.4	8.0	8.2	8.3	7.5	7.8	8.5	8.2	8.4
31	---	---	---	8.3	7.7	7.9	7.8	7.5	7.7	---	---	---
MONTH	8.4	7.4	7.9	8.5	7.4	8.0	8.3	7.3	7.9	8.6	7.7	8.1
YEAR	8.7	7.3	7.9									

## STREAMS TRIBUTARY TO LAKE ERIE

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04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	14.5	14.5	16.5	15.0	16.0	7.5	7.5	7.5	8.5	6.5	7.5
2	15.0	14.0	14.5	16.0	12.0	14.0	7.0	6.5	7.0	7.5	6.0	7.0
3	16.0	14.0	15.0	11.5	10.0	11.0	7.0	6.0	7.0	6.0	5.0	5.5
4	16.0	14.5	15.5	11.5	11.0	11.0	6.0	5.0	5.0	5.0	4.5	4.5
5	16.0	14.5	15.0	12.0	11.0	11.5	5.0	4.0	5.0	5.0	4.5	5.0
6	16.5	14.5	15.5	11.0	10.0	10.5	4.0	3.5	3.5	5.0	4.5	4.5
7	16.5	16.0	16.0	10.5	9.0	10.0	3.5	2.5	3.0	4.5	4.0	4.5
8	17.5	16.5	17.0	10.5	9.5	10.0	3.5	2.5	3.0	4.0	3.0	3.5
9	18.0	17.0	17.5	11.5	10.5	11.0	4.5	3.0	3.5	3.0	2.5	3.0
10	19.0	18.0	18.5	11.5	11.0	11.0	4.5	4.0	4.0	3.0	2.0	2.5
11	18.5	18.0	18.5	11.5	10.0	11.0	5.0	4.5	4.5	2.5	2.0	2.5
12	18.5	17.5	18.0	9.5	7.5	8.0	7.0	5.0	5.5	3.0	2.0	2.5
13	19.0	18.0	18.5	8.5	7.5	8.0	7.5	7.0	7.5	2.5	2.0	2.0
14	19.0	18.0	18.5	8.0	6.5	7.5	8.0	6.5	7.0	2.0	1.5	2.0
15	19.5	18.5	19.0	8.5	7.5	8.0	8.5	7.5	8.0	1.5	1.0	1.0
16	20.5	18.5	19.5	8.5	6.0	7.5	8.5	7.0	8.0	1.5	1.0	1.0
17	19.5	18.5	19.0	6.5	5.5	6.0	8.5	8.0	8.5	2.0	1.0	1.5
18	18.5	17.0	18.0	7.0	6.5	7.0	8.0	7.0	8.0	2.5	2.0	2.5
19	18.0	17.0	17.5	6.5	6.0	6.5	7.0	6.5	6.5	2.5	1.0	2.0
20	17.5	16.0	17.0	6.0	5.5	6.0	6.5	6.0	6.0	.5	.5	.5
21	17.5	16.5	17.0	6.0	6.0	6.0	7.0	5.5	6.0	.5	.5	.5
22	17.5	16.5	17.0	6.5	6.0	6.0	7.5	5.5	7.0	.5	.5	.5
23	16.5	15.0	16.0	6.5	5.5	6.0	5.5	4.5	5.0	.5	.5	.5
24	15.5	14.0	14.5	6.5	5.0	6.0	5.5	4.5	5.0	.5	.5	.5
25	14.0	13.0	13.5	7.0	5.5	6.0	5.0	3.5	4.0	2.0	.5	1.5
26	16.0	14.0	15.0	7.0	5.5	6.5	4.0	3.0	3.5	2.0	1.0	1.5
27	18.5	16.0	17.0	9.0	6.0	7.5	4.0	3.0	3.5	2.5	1.0	1.5
28	19.0	18.0	18.5	9.5	9.0	9.5	8.0	4.0	5.5	3.0	2.0	2.5
29	17.5	16.0	17.0	8.0	7.0	7.5	11.5	8.0	9.5	3.0	2.0	2.5
30	15.5	14.0	15.0	7.5	6.5	7.0	11.0	7.5	9.0	3.0	2.0	2.5
31	16.5	15.0	15.5	---	---	---	7.5	6.0	6.5	3.0	2.5	3.0
MONTH	20.5	13.0	16.5	16.5	5.0	8.5	11.5	2.5	6.0	8.5	.5	2.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	2.0	2.5	3.5	2.5	3.0	9.0	7.5	8.5	18.5	18.0	18.0
2	2.0	1.0	1.5	5.0	3.5	4.5	7.5	7.0	7.5	17.5	16.0	17.0
3	1.0	.5	1.0	5.0	3.5	4.0	8.0	6.5	7.5	18.0	15.0	16.5
4	1.0	.5	.5	6.5	4.0	4.5	8.5	7.0	8.0	18.5	15.5	17.0
5	.5	.5	.5	6.5	4.5	5.5	11.0	8.5	10.0	19.0	17.0	18.0
6	2.5	.5	1.5	5.0	4.0	4.5	11.0	9.5	10.0	20.0	18.5	19.0
7	2.5	1.5	2.0	5.0	3.5	4.5	9.5	8.5	9.0	19.0	17.0	18.0
8	2.0	.5	1.0	7.5	5.0	6.5	9.0	7.5	8.5	19.0	16.5	18.0
9	1.5	.5	1.0	7.5	5.5	6.5	7.5	6.5	7.0	19.0	16.0	17.5
10	2.0	.5	1.0	8.0	5.5	7.0	8.5	6.0	7.5	21.0	17.5	19.0
11	3.5	1.5	2.5	7.5	6.5	7.0	9.5	8.0	8.5	22.5	20.0	21.0
12	3.0	2.5	3.0	8.0	6.5	7.0	12.0	9.0	10.0	23.5	21.0	22.5
13	2.5	1.5	2.5	6.5	6.0	6.5	13.0	11.0	12.0	24.0	21.5	23.0
14	2.0	1.0	1.5	7.5	6.0	7.0	15.0	12.0	13.5	22.5	20.5	22.0
15	2.0	1.0	1.5	7.5	6.0	7.0	15.5	14.0	14.5	22.5	21.5	22.0
16	2.0	1.0	1.5	8.0	5.5	7.0	16.5	14.5	15.0	21.5	19.5	20.5
17	3.5	2.0	2.5	7.5	5.5	6.5	---	---	---	19.5	16.5	18.5
18	3.5	2.0	3.0	6.0	4.5	5.5	---	---	---	16.5	15.5	16.0
19	3.5	2.5	3.0	7.0	5.0	5.5	18.5	16.0	17.5	18.5	14.5	16.5
20	3.5	2.0	3.0	9.0	7.0	8.0	20.0	17.5	18.5	20.5	17.5	19.0
21	4.0	2.5	3.0	8.0	6.5	7.5	21.0	18.0	19.5	20.0	18.0	19.0
22	4.0	2.5	3.0	9.0	7.0	8.0	20.5	19.0	19.5	19.0	17.0	18.0
23	3.0	2.0	2.5	9.0	8.5	8.5	21.5	18.5	20.0	20.0	17.0	18.5
24	5.0	3.0	4.0	10.5	8.5	9.5	21.0	19.5	20.5	21.0	18.0	19.5
25	4.5	4.0	4.0	10.0	8.5	9.5	21.0	18.0	19.5	22.0	19.0	20.5
26	---	---	---	10.0	7.5	9.0	21.0	18.5	20.0	22.5	20.0	21.5
27	---	---	---	11.0	9.0	10.0	20.0	18.5	19.5	23.0	21.0	22.0
28	3.0	2.5	3.0	11.5	11.0	11.0	20.0	18.0	19.0	21.0	18.0	19.0
29	---	---	---	12.0	11.0	11.5	18.5	16.5	17.5	20.5	17.5	19.0
30	---	---	---	12.0	10.0	10.5	19.0	16.0	18.0	20.0	18.5	19.5
31	---	---	---	9.5	8.5	9.0	---	---	---	22.0	20.0	20.5
MONTH	5.0	.5	2.0	12.0	2.5	7.0	21.5	6.0	14.0	24.0	14.5	19.0

## STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.0	19.5	21.0	24.0	22.0	22.5	24.5	21.5	23.0	22.0	20.0	21.0
2	21.5	20.5	21.0	22.5	21.0	21.5	24.5	22.0	23.5	23.0	21.5	22.0
3	21.5	20.0	21.0	23.0	20.5	21.5	24.5	21.5	23.0	24.5	22.0	23.0
4	20.5	19.0	20.0	23.5	21.0	22.5	24.5	22.0	23.5	24.5	23.5	24.0
5	21.0	19.0	20.0	24.5	22.5	23.5	24.0	22.5	23.0	25.5	23.5	24.5
6	21.5	19.0	20.5	24.0	22.0	23.0	23.0	21.0	22.0	25.5	24.5	25.0
7	21.5	19.0	20.5	24.5	22.0	23.0	23.0	21.0	22.0	27.0	24.5	25.5
8	22.5	20.0	21.5	25.5	23.0	24.0	24.5	21.0	22.5	27.5	25.5	26.0
9	22.5	21.5	22.0	26.5	24.5	25.5	24.5	22.0	23.5	26.0	24.5	25.5
10	24.0	22.0	23.0	25.5	22.0	22.5	25.0	22.5	24.0	24.5	22.5	23.5
11	24.0	21.5	22.5	24.0	21.0	22.5	25.5	23.5	24.5	22.5	21.0	22.0
12	21.5	17.5	19.5	25.5	23.0	24.0	26.5	24.0	25.0	21.0	19.0	19.5
13	17.0	15.5	16.5	26.0	23.5	24.5	25.5	23.0	24.5	19.0	17.5	18.0
14	17.5	15.5	16.5	25.5	24.5	25.0	25.5	23.5	24.5	18.5	16.0	17.5
15	19.5	17.5	18.5	25.0	23.0	24.0	25.5	24.0	25.0	18.0	16.0	17.0
16	18.5	18.0	18.0	25.0	23.0	24.0	25.5	23.5	24.5	19.0	16.0	17.5
17	20.0	18.5	19.5	25.0	22.0	23.5	25.5	23.0	24.5	19.5	17.0	18.0
18	19.5	18.5	19.0	25.0	22.5	23.5	25.0	22.5	24.0	20.5	18.0	19.5
19	20.0	18.5	19.5	26.0	23.0	24.5	25.5	23.5	24.5	21.5	19.0	20.5
20	20.5	19.0	20.0	26.5	24.5	25.5	25.0	23.0	24.0	22.0	20.0	21.0
21	21.5	19.5	20.5	26.0	24.5	25.0	24.0	21.5	22.5	22.0	20.0	21.0
22	22.0	21.0	21.5	25.5	23.5	24.5	22.5	20.5	21.5	22.5	20.0	21.0
23	22.5	20.5	21.5	24.5	22.0	23.5	22.5	20.0	21.5	22.5	20.0	21.5
24	23.5	22.0	22.5	25.0	21.5	23.5	21.5	20.0	21.0	22.0	20.0	21.0
25	24.0	20.5	22.0	26.5	23.5	25.0	22.0	20.0	21.0	20.0	17.5	18.5
26	22.5	20.5	21.5	26.0	24.0	25.0	23.5	21.5	22.0	18.5	17.0	18.0
27	23.0	20.5	21.5	25.0	22.0	23.5	23.5	21.5	22.5	17.5	17.0	17.0
28	22.5	20.5	21.5	25.5	22.0	24.0	23.5	21.5	22.5	18.0	16.0	17.0
29	22.5	20.5	21.5	26.0	22.5	24.5	24.0	22.0	23.0	18.0	15.5	17.0
30	24.0	20.5	22.0	26.0	24.0	25.0	23.5	21.0	22.0	18.5	16.0	17.5
31	---	---	---	25.5	22.5	23.5	22.5	21.0	21.5	---	---	---
MONTH	24.0	15.5	20.5	26.5	20.5	24.0	26.5	20.0	23.0	27.5	15.5	20.5
YEAR	27.5	.5	14.0									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.5	7.6	8.5	8.2	6.2	7.1	11.0	10.9	11.0	11.5	10.6	11.1
2	9.9	6.7	8.3	8.6	7.4	7.9	11.7	11.1	11.4	11.5	10.7	11.2
3	9.9	7.9	8.7	9.4	8.7	9.1	11.3	11.1	11.2	11.8	11.5	11.7
4	9.9	7.4	8.5	9.0	8.4	8.8	12.2	11.4	11.8	11.9	11.7	11.8
5	9.7	7.4	8.4	8.9	7.9	8.4	12.3	11.8	12.1	11.8	11.4	11.6
6	9.6	7.0	8.2	9.2	8.9	9.1	12.4	12.1	12.2	11.9	11.8	11.8
7	7.7	6.6	7.0	9.1	8.6	8.9	12.7	12.2	12.4	11.8	11.7	11.7
8	7.2	5.9	6.4	9.0	8.6	8.8	12.8	12.4	12.6	12.1	11.7	11.9
9	6.5	5.4	5.9	8.5	8.0	8.2	12.6	12.4	12.5	12.4	12.1	12.3
10	6.1	4.9	5.4	8.2	7.7	8.0	12.5	12.1	12.3	12.6	12.3	12.5
11	5.3	4.4	4.9	8.4	7.8	8.0	12.5	11.9	12.3	12.7	12.6	12.6
12	5.4	4.2	4.8	9.2	8.4	8.9	12.3	11.6	12.0	12.7	12.5	12.6
13	5.2	3.9	4.6	9.4	9.2	9.3	11.6	11.3	11.4	12.8	12.6	12.7
14	5.0	3.9	4.4	9.7	9.3	9.5	11.8	11.0	11.6	12.7	12.6	12.7
15	4.9	3.6	4.2	10.3	9.0	9.8	11.4	11.0	11.3	12.9	12.5	12.7
16	4.6	3.7	4.1	11.1	10.2	10.5	11.7	11.2	11.5	13.3	12.8	13.0
17	6.0	3.4	4.6	11.3	11.0	11.1	11.4	11.0	11.1	12.9	12.5	12.7
18	6.3	5.1	5.6	11.0	10.7	10.8	11.4	11.0	11.2	12.5	12.3	12.4
19	6.1	5.1	5.5	11.1	10.6	10.8	11.4	11.2	11.3	12.6	12.3	12.4
20	6.3	5.1	5.6	11.4	10.8	11.2	11.7	10.9	11.3	13.3	12.6	13.0
21	5.9	5.1	5.4	11.5	11.3	11.3	11.6	10.9	11.3	13.3	12.9	13.1
22	5.6	5.1	5.4	11.5	11.0	11.2	11.4	9.8	10.6	12.8	12.5	12.6
23	6.1	5.3	5.7	11.3	11.0	11.2	11.9	11.4	11.7	12.5	11.8	12.1
24	6.2	5.6	5.9	11.4	10.7	11.1	11.8	11.4	11.6	11.8	11.5	11.7
25	6.1	5.6	5.9	11.3	10.7	11.0	12.1	11.4	11.8	11.9	11.4	11.6
26	5.6	5.0	5.3	11.2	10.5	11.0	12.5	12.0	12.2	12.5	11.9	12.2
27	4.9	4.5	4.7	10.9	10.0	10.6	12.6	11.7	12.3	12.2	11.8	12.0
28	4.5	3.8	4.1	10.0	9.6	9.8	12.4	10.9	11.8	11.8	11.2	11.5
29	6.4	4.5	5.4	11.1	10.8	10.9	10.8	9.0	10.1	11.1	10.8	11.0
30	7.1	6.5	6.7	11.1	10.7	10.9	10.8	8.7	9.8	10.8	10.5	10.7
31	6.9	6.3	6.6	---	---	---	11.6	10.6	11.3	12.6	10.2	12.5
MONTH	9.9	3.4	6.0	11.5	6.2	9.8	12.8	8.7	11.6	13.3	10.2	12.1



OXYGEN, DISSOLVED (DO), MG/L. WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	12.7	12.4	12.5	13.1	12.6	12.9	11.4	10.8	11.1	10.9	6.3	8.1
2	13.0	12.6	12.8	12.6	12.3	12.4	11.7	11.3	11.6	8.3	6.9	7.5
3	13.3	13.0	13.2	12.6	12.3	12.4	11.7	11.3	11.6	8.6	7.0	7.6
4	13.4	13.1	13.3	12.4	11.6	12.1	11.7	11.3	11.5	8.5	6.6	7.4
5	13.3	12.4	12.9	12.2	11.5	11.8	11.3	10.5	11.0	7.7	6.2	6.8
6	12.5	12.2	12.3	12.6	12.2	12.4	10.9	10.4	10.6	8.0	5.3	6.8
7	12.7	12.2	12.5	12.4	12.1	12.3	11.3	11.0	11.2	7.2	6.1	6.6
8	13.0	12.5	12.8	12.1	11.6	11.8	11.7	11.1	11.4	8.5	5.0	6.5
9	13.1	12.9	13.0	12.0	11.5	11.7	11.9	11.2	11.6	8.7	6.9	7.8
10	13.1	12.8	12.9	12.0	11.3	11.7	12.0	11.3	11.7	8.4	7.1	7.7
11	12.8	12.1	12.6	11.6	11.2	11.4	11.5	11.1	11.3	8.4	6.0	7.1
12	12.2	11.8	12.1	11.5	10.8	11.1	11.2	10.5	11.0	7.9	6.0	6.9
13	12.7	11.2	12.0	11.8	11.5	11.7	10.6	10.1	10.4	7.7	5.8	6.7
14	12.9	12.7	12.8	11.7	11.4	11.6	10.2	9.6	10.0	10.1	5.8	7.9
15	13.0	12.7	12.8	11.9	11.4	11.6	10.4	9.4	9.8	8.8	7.0	7.8
16	13.1	12.7	12.9	12.0	11.3	11.7	10.3	9.0	9.8	8.3	6.8	7.5
17	12.7	12.3	12.6	11.8	11.3	11.6	---	---	---	7.3	5.1	6.2
18	12.8	12.4	12.6	12.3	11.8	12.0	---	---	---	8.3	7.6	8.0
19	12.7	12.2	12.5	12.1	11.5	11.9	10.5	8.7	9.6	9.3	8.1	8.8
20	12.9	12.4	12.7	11.4	10.4	11.2	10.7	8.3	9.3	8.8	7.0	7.9
21	12.7	12.3	12.5	11.8	10.5	11.3	10.7	8.0	9.2	7.9	6.1	7.2
22	17.0	12.1	13.8	11.7	10.9	11.3	10.7	7.9	9.1	9.3	6.9	8.5
23	15.7	15.0	15.4	11.3	10.7	10.9	10.4	8.0	9.0	9.9	8.3	9.0
24	15.0	14.3	14.7	11.4	10.5	10.9	9.6	6.9	8.0	9.8	7.9	8.7
25	14.4	13.2	13.7	11.9	10.5	11.2	10.0	6.7	8.1	9.5	7.1	8.2
26	---	---	---	12.1	10.8	11.4	10.5	7.0	8.5	9.3	6.6	8.0
27	---	---	---	11.6	10.2	10.9	11.2	6.6	8.6	9.3	7.1	8.0
28	13.6	13.1	13.3	10.9	9.9	10.3	11.5	6.5	8.7	7.7	4.4	7.0
29	---	---	---	10.2	9.8	10.0	11.9	6.9	9.2	8.4	7.8	8.2
30	---	---	---	10.9	10.1	10.6	11.5	7.0	9.0	8.2	8.0	8.1
31	---	---	---	11.4	10.8	11.0	---	---	---	7.9	6.6	7.4
MONTH	17.0	11.2	13.0	13.1	9.8	11.5	12.0	6.5	10.1	10.9	4.4	7.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	8.2	7.4	7.8	9.4	7.0	8.3	7.2	5.0	6.0	10.0	9.2	9.6
2	8.1	7.7	7.9	10.9	7.1	8.7	8.3	5.5	6.8	10.0	9.0	9.4
3	8.1	7.7	7.9	9.7	6.9	8.1	8.4	5.7	7.1	9.8	8.7	9.1
4	8.5	7.5	8.1	9.5	6.1	7.8	8.7	5.7	7.2	9.7	8.4	9.0
5	9.1	8.1	8.6	9.4	6.4	7.7	7.2	5.5	6.4	9.5	8.1	8.9
6	9.3	7.6	8.6	8.3	6.2	7.1	7.9	5.6	6.6	9.5	8.0	8.7
7	9.6	8.0	8.8	9.8	6.6	8.1	6.4	5.4	5.7	10.0	8.2	9.0
8	9.8	7.6	8.6	9.9	6.3	8.1	8.9	5.5	7.3	10.2	7.7	8.8
9	10.0	7.4	8.6	10.7	6.3	8.2	9.2	7.8	8.5	9.8	7.8	8.7
10	10.3	7.3	8.7	7.8	6.8	6.1	10.2	7.5	9.0	8.6	8.1	8.4
11	9.2	7.5	8.3	8.3	5.7	6.9	11.2	8.2	9.6	9.9	8.4	9.1
12	8.3	7.1	7.7	9.5	6.5	7.8	11.6	8.5	10.0	9.6	8.7	9.2
13	8.8	8.4	8.6	9.5	6.4	7.7	11.3	8.5	9.9	10.2	9.3	9.7
14	8.9	8.5	8.7	7.5	6.1	6.7	10.4	8.2	9.4	10.6	9.5	10.0
15	8.5	7.9	8.3	6.6	5.9	6.2	10.3	7.9	8.9	10.7	9.3	10.0
16	8.6	7.9	8.3	7.5	6.5	6.9	8.5	4.6	7.1	10.8	9.2	10.0
17	8.8	8.2	8.5	8.2	6.6	7.3	9.6	8.2	9.0	10.9	8.8	10.0
18	8.5	7.6	8.1	8.1	6.5	7.2	9.9	8.5	9.1	10.9	8.8	10.0
19	8.4	7.9	8.3	8.5	5.6	7.0	10.1	8.2	9.1	11.3	8.5	10.0
20	8.5	8.0	8.3	9.0	5.9	7.3	10.5	8.6	9.6	11.3	7.9	9.8
21	9.5	8.1	8.7	7.9	5.5	6.8	10.8	8.8	9.7	11.3	8.0	9.8
22	9.3	7.8	8.5	8.2	5.6	6.8	11.3	9.2	10.2	11.8	8.0	10.0
23	9.6	8.0	8.8	8.8	6.0	7.3	11.1	9.3	10.2	11.7	8.0	10.1
24	11.5	7.5	9.2	9.4	6.1	7.7	10.7	9.1	10.0	10.5	7.4	9.1
25	11.1	7.7	9.2	9.2	5.9	7.5	11.3	8.5	9.9	10.5	8.3	9.2
26	11.0	7.6	9.1	7.9	5.7	6.6	10.7	8.5	9.4	9.3	8.0	8.4
27	11.4	7.5	9.3	8.6	5.9	7.1	11.5	9.1	10.2	8.8	7.9	8.3
28	11.2	7.4	9.2	9.1	5.8	7.3	11.4	8.9	10.2	9.5	7.6	8.4
29	11.6	7.3	9.3	9.6	5.7	7.5	11.6	8.7	10.2	9.2	7.7	8.4
30	12.1	7.3	9.6	9.6	5.6	7.4	10.3	7.9	8.8	9.1	7.5	8.3
31	---	---	---	7.0	5.6	6.0	9.2	8.5	9.0	---	---	---
MONTH	12.1	7.1	8.6	10.9	5.5	7.3	11.6	4.6	8.7	11.8	7.4	9.3
YEAR	17.0	3.4	9.6									

## STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued  
 SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	884	717	695	455	1150	363	392	813	591	879	692	648
2	711	591	678	441	1340	420	407	801	612	881	795	711
3	794	611	687	444	1210	507	465	780	644	819	876	717
4	846	605	684	456	1100	677	399	771	659	704	888	717
5	863	486	629	471	1070	570	399	846	675	846	911	798
6	840	527	710	551	1080	537	441	852	693	702	986	837
7	837	573	801	554	1080	546	450	867	717	755	884	875
8	845	597	912	657	1050	593	509	864	768	798	666	873
9	831	615	930	785	1000	576	552	1120	807	827	770	839
10	816	498	1110	905	981	552	630	997	798	724	855	708
11	807	528	863	971	1040	558	575	918	798	599	900	807
12	792	624	738	998	1780	578	554	929	564	806	914	906
13	794	707	701	1070	2050	539	557	936	588	807	899	897
14	803	599	662	966	1620	546	584	903	624	783	885	884
15	785	573	600	903	1410	542	584	909	636	645	873	897
16	783	555	609	897	1250	528	594	909	660	675	567	899
17	729	549	603	935	1150	542	---	815	642	713	651	890
18	732	552	587	962	1180	561	---	803	636	788	707	911
19	729	540	594	1130	1260	606	662	833	653	767	788	906
20	737	552	624	1160	1290	651	672	872	681	746	825	900
21	747	632	627	1090	1360	663	690	756	696	848	846	867
22	771	615	567	965	1360	702	716	689	705	792	837	891
23	735	606	555	908	719	761	732	791	693	798	863	906
24	768	611	590	935	543	780	738	843	698	822	849	855
25	824	632	578	1090	513	761	774	864	735	852	845	849
26	842	650	588	1370	---	746	780	882	768	855	696	824
27	869	642	849	1250	---	761	774	896	800	843	822	879
28	861	654	875	1120	351	740	783	458	840	789	852	828
29	518	705	741	1090	---	381	797	581	845	855	876	872
30	618	690	453	1140	---	426	813	638	861	875	647	910
31	723	---	455	---	---	432	---	614	---	812	564	---
MEAN	782	601	687	889	1150	585	608	824	703	787	807	843
WTR YR 1985	MEAN	769		MAX	2050		MIN	351				

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	7.8	7.8	7.8	7.9	7.6	7.7	8.2	7.6	8.1	7.6	7.8
2	7.8	7.7	7.8	7.8	8.0	7.6	7.7	7.8	7.7	8.0	7.9	7.9
3	7.9	7.9	7.9	7.8	8.0	7.7	7.7	7.7	7.6	7.9	8.1	7.9
4	8.0	7.8	7.9	7.8	7.9	7.8	7.6	7.9	7.7	7.9	8.2	7.9
5	8.0	7.7	7.9	7.8	7.9	7.7	7.6	7.9	7.8	8.0	8.0	7.9
6	8.0	7.8	7.9	7.8	7.9	7.7	7.6	7.9	7.8	7.8	8.0	7.9
7	7.9	7.9	7.9	7.8	8.0	7.7	7.7	7.8	7.9	8.0	7.7	8.0
8	7.8	7.9	7.9	7.8	8.0	7.7	7.7	7.7	7.9	8.2	7.6	8.1
9	7.8	7.8	7.9	7.8	8.0	7.7	7.7	7.8	7.9	8.2	7.8	8.0
10	7.8	7.8	7.9	7.8	8.0	7.7	7.7	7.8	8.0	7.7	7.9	7.7
11	7.8	7.8	7.8	7.9	7.9	7.7	7.7	7.8	7.9	7.6	8.0	7.9
12	7.8	7.9	7.9	7.9	7.9	7.7	7.7	7.8	7.5	7.9	8.1	7.9
13	7.9	7.9	7.9	7.9	7.9	7.7	7.7	7.8	7.7	8.0	8.1	8.0
14	7.9	7.9	7.9	7.9	7.9	7.8	7.7	7.8	7.7	7.9	8.0	8.0
15	7.9	7.9	7.8	8.0	8.0	7.8	7.8	7.8	7.7	7.6	7.9	8.1
16	7.8	7.9	7.9	7.9	8.0	7.8	7.7	7.7	7.8	7.8	7.5	8.2
17	7.8	7.9	7.9	7.9	7.9	7.8	---	7.5	7.8	7.8	7.8	8.3
18	7.8	7.8	7.8	7.9	7.9	7.8	---	7.6	7.7	7.9	7.8	8.4
19	7.8	7.8	7.9	8.0	7.9	7.8	8.0	7.8	7.8	7.8	7.8	8.4
20	7.8	7.9	7.9	7.9	7.9	7.8	7.9	7.7	7.8	8.0	7.9	8.4
21	7.8	7.8	7.9	7.9	7.9	7.8	8.0	7.6	7.9	7.9	7.9	8.4
22	7.8	7.8	7.8	7.8	7.8	7.9	7.9	7.7	7.9	7.9	8.0	8.4
23	7.7	7.8	7.9	7.8	7.7	7.9	8.0	7.8	7.9	8.1	8.0	8.5
24	7.8	7.8	7.9	7.8	7.7	7.9	8.0	7.8	8.1	8.2	8.0	8.2
25	7.8	7.8	7.9	7.9	7.6	8.0	7.9	7.7	8.1	8.2	7.9	8.1
26	7.8	7.8	7.9	7.9	---	8.0	8.1	7.8	8.0	8.0	7.8	8.0
27	7.7	7.8	7.9	7.9	---	7.9	8.3	7.8	8.1	7.9	8.1	8.2
28	7.7	7.8	7.9	7.9	7.5	7.9	8.3	7.4	8.1	8.0	8.2	8.2
29	7.5	7.8	7.8	8.0	---	7.7	8.3	7.6	8.1	8.2	8.2	8.4
30	7.7	7.8	7.6	7.9	---	7.6	8.4	7.6	8.2	8.3	7.8	8.4
31	7.8	---	7.7	---	---	7.7	---	7.5	---	7.8	7.7	---
MEAN	7.8	7.8	7.9	7.9	7.9	7.8	7.9	7.8	7.9	8.0	7.9	8.1
WTR YR 1985	MEAN	7.9		MAX	8.5		MIN	7.4				

## STREAMS TRIBUTARY TO LAKE ERIE

83

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	16.0	7.5	7.5	2.5	3.0	8.0	18.0	21.0	22.5	22.5	21.0
2	14.5	13.5	7.0	6.5	1.5	4.5	7.5	17.0	21.0	21.5	23.5	21.5
3	14.5	11.0	7.0	5.5	.5	4.0	7.5	16.5	20.5	21.5	23.0	22.5
4	15.5	11.0	5.0	4.5	.5	4.5	8.0	17.5	20.0	22.5	23.5	24.0
5	15.0	11.5	5.0	5.0	.5	5.5	10.0	18.0	20.0	23.0	23.0	24.5
6	15.5	10.5	3.5	4.5	2.0	4.5	10.0	19.0	20.5	23.0	22.0	25.0
7	16.0	10.0	3.0	4.5	2.0	4.0	9.0	18.0	20.5	22.5	22.0	25.5
8	17.0	10.0	3.0	3.5	1.0	6.5	8.5	18.0	21.5	24.0	22.0	26.0
9	17.5	11.0	3.5	3.0	1.0	6.5	7.0	17.5	22.0	25.0	23.5	25.0
10	18.5	11.5	4.0	2.5	1.0	6.5	7.5	19.0	22.5	23.0	23.5	23.0
11	18.0	11.0	4.5	2.5	3.0	7.0	8.5	20.5	22.5	22.0	24.5	22.0
12	18.0	8.0	5.5	2.5	3.0	7.0	9.5	22.5	19.5	23.5	25.0	19.5
13	18.0	7.5	7.5	2.0	2.5	6.5	12.0	22.5	17.0	24.5	24.5	18.0
14	18.5	7.5	7.0	2.0	1.5	7.0	13.5	22.0	17.0	24.5	24.5	17.5
15	19.0	8.0	8.0	1.5	1.5	7.0	14.5	22.0	18.5	24.0	25.0	17.5
16	19.5	7.5	7.5	1.0	1.5	6.5	15.0	20.5	18.5	24.0	24.5	17.5
17	19.0	6.0	8.5	2.0	3.0	6.5	---	18.5	19.5	23.5	24.5	18.5
18	18.0	7.0	8.0	2.5	3.0	5.5	---	16.0	19.0	23.5	24.0	19.0
19	17.5	6.5	6.5	2.5	3.0	5.5	17.5	16.0	19.5	24.0	24.5	20.0
20	17.0	6.0	6.0	.5	3.0	8.0	18.5	19.0	19.5	25.5	24.0	21.0
21	17.0	6.0	6.0	.5	3.5	7.5	19.5	19.0	20.5	25.0	23.0	21.5
22	17.0	6.0	7.0	.5	3.0	8.0	19.5	18.0	21.5	24.0	21.5	21.0
23	16.0	6.0	5.0	.5	2.5	8.5	20.5	18.0	21.5	23.5	21.5	21.5
24	15.0	6.0	5.0	.5	4.0	9.5	20.5	19.0	22.5	23.5	21.0	20.5
25	13.5	6.0	4.0	2.0	4.0	9.5	19.5	20.0	22.0	24.5	21.0	18.5
26	15.5	6.5	3.5	1.5	---	9.0	19.5	21.5	21.5	24.5	22.0	18.0
27	17.5	7.5	3.5	1.5	---	10.5	19.0	21.5	21.5	23.0	22.5	17.0
28	18.5	9.5	5.5	2.5	3.0	---	18.5	19.0	21.5	23.5	22.5	17.0
29	17.0	7.5	9.5	2.5	---	11.5	17.5	18.5	21.5	24.5	23.0	17.0
30	15.0	7.0	9.0	2.5	---	10.5	17.5	19.0	22.0	25.5	22.0	17.5
31	16.0	---	6.0	3.0	---	9.0	---	20.5	---	23.0	21.5	---
MEAN	16.5	8.5	6.0	2.5	2.0	7.0	13.5	19.0	20.5	23.5	23.0	20.5

WTR YR 1985 MEAN 14.0 MAX 26.0 MIN .5  
OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	7.4	11.0	11.0	12.5	12.9	11.1	7.7	7.8	8.5	6.2	9.5
2	8.6	7.8	11.4	11.3	12.8	12.4	11.6	7.4	7.9	8.6	6.7	9.4
3	8.6	9.1	11.3	11.7	13.2	12.4	11.6	7.2	7.9	7.9	7.2	9.1
4	8.6	8.8	11.9	11.8	13.3	12.2	11.5	7.3	8.2	8.0	7.3	9.0
5	8.5	8.3	12.2	11.7	12.9	11.8	11.1	6.8	8.6	7.6	6.6	8.9
6	8.2	9.0	12.2	11.9	12.3	12.4	10.6	6.9	8.7	7.0	6.6	8.8
7	7.0	8.9	12.5	11.7	12.5	12.4	11.2	6.5	8.8	7.9	5.6	9.0
8	6.4	8.8	12.6	11.8	12.9	11.7	11.5	6.1	8.6	8.2	7.4	8.6
9	5.9	8.2	12.5	12.3	13.0	11.7	11.7	8.1	8.5	8.0	8.5	8.7
10	5.5	8.0	12.3	12.5	12.9	11.7	11.8	7.8	8.7	6.3	9.2	8.4
11	4.9	7.9	12.4	12.6	12.6	11.5	11.2	7.2	8.4	6.8	9.5	9.2
12	4.9	9.1	12.1	12.6	12.1	11.1	11.0	6.9	7.6	7.6	10.1	9.3
13	4.6	9.3	11.4	12.7	12.1	11.7	10.3	6.6	8.7	7.6	10.0	9.8
14	4.4	9.5	11.7	12.7	12.8	11.6	10.0	8.5	8.7	6.8	9.6	9.9
15	4.2	10.1	11.4	12.7	12.8	11.6	9.7	7.9	8.3	6.3	8.8	10.1
16	4.0	10.5	11.5	13.0	12.8	11.7	9.9	7.5	8.4	6.8	7.5	10.1
17	4.3	11.2	11.1	12.7	12.7	11.7	---	6.5	8.6	7.4	9.0	10.3
18	5.6	10.8	11.1	12.4	12.6	12.0	---	8.1	8.2	7.2	9.1	10.3
19	5.5	10.8	11.3	12.4	12.5	11.9	9.6	8.7	8.3	6.8	9.1	10.1
20	5.7	11.2	11.3	13.0	12.7	11.3	9.1	7.9	8.3	7.1	9.5	10.0
21	5.4	11.3	11.4	13.2	12.5	11.4	9.0	7.3	8.6	7.0	9.7	10.2
22	5.4	11.3	10.6	12.6	12.6	11.3	9.1	8.7	8.6	6.7	10.3	10.2
23	5.8	11.2	11.7	12.1	15.4	10.9	8.8	8.9	8.8	7.3	10.3	10.4
24	6.0	11.2	11.6	11.7	14.8	10.8	7.7	8.5	9.1	7.6	10.1	9.3
25	5.9	11.1	12.0	11.5	13.7	11.2	7.9	8.0	9.0	7.6	9.5	9.3
26	5.3	11.0	12.2	12.2	---	11.4	8.3	8.0	9.0	6.6	9.3	8.3
27	4.7	10.6	12.5	12.1	---	10.8	8.4	7.9	9.3	6.9	10.4	8.2
28	4.1	9.8	12.0	11.5	13.3	10.2	8.5	7.3	9.2	7.1	10.4	8.5
29	5.3	10.9	10.2	11.1	---	10.0	9.1	8.2	9.1	7.4	10.4	8.5
30	6.7	10.9	9.8	10.7	---	10.7	8.7	8.0	9.4	7.4	8.8	8.3
31	6.6	---	11.5	---	---	11.0	---	7.5	---	5.9	9.1	---
MEAN	6.0	9.8	11.6	12.1	12.9	11.5	10.0	7.6	8.6	7.3	8.8	9.3

WTR YR 1985 MEAN 9.6 MAX 15.4 MIN 4.0

## STREAMS TRIBUTARY TO LAKE ERIE

04208502 BIG CREEK AT CLEVELAND, OH

LOCATION.--Lat 41°27'01", long 81°43'18", Cuyahoga County, Hydrologic Unit 04110002, on right bank 8 ft downstream from footbridge in Brookside Park, 0.2 mi upstream from bridge on Fulton Road and 2.5 mi upstream from mouth.

DRAINAGE AREA.--35.3 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.-- WRD OH-82-2: 1973-81.

GAGE.--Water-stage recorder. Datum of gage is 620.7 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 21. Records poor. Flow slightly regulated by industry upstream from station. Water-quality data collected at this site 1972 to 1977.

AVERAGE DISCHARGE.--13 years, 57.0 ft<sup>3</sup>/s, 21.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft<sup>3</sup>/s Aug. 24, 1975, gage height, 16.20 ft (from floodmarks), from rating curve extended above 500 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow; minimum daily, 2.3 ft<sup>3</sup>/s Sept. 16-17, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,700 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar. 28	2130	*4,170	*11.19	Sept. 8	1745	*3,330	9.65
July 31	0645	2,970	8.93	Sept. 10	0130	3,690	10.34

Minimum daily discharge, 4.7 ft<sup>3</sup>/s Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	118	67	170	21	47	125	21	17	61	48	14
2	21	111	26	89	21	46	84	27	15	30	35	9.5
3	18	26	35	48	21	37	140	20	27	29	34	9.1
4	17	302	25	36	21	163	59	20	16	22	32	8.3
5	17	137	21	38	21	153	49	17	29	23	59	8.1
6	18	130	27	33	21	79	123	20	19	24	52	8.2
7	19	39	25	35	21	78	82	20	18	22	194	7.7
8	36	28	30	30	21	96	133	17	18	24	38	327
9	19	45	34	27	21	58	111	15	21	24	31	69
10	19	91	209	25	21	44	69	16	19	85	32	366
11	18	86	94	24	50	86	68	18	43	37	28	21
12	18	103	48	23	120	152	41	19	74	27	29	10
13	19	82	69	22	80	53	36	19	115	28	41	11
14	16	46	112	22	45	43	32	18	32	78	46	7.1
15	19	53	43	22	36	35	29	50	44	44	156	6.1
16	33	34	32	21	35	32	27	58	43	31	81	5.6
17	35	28	29	21	34	30	25	65	27	26	17	5.5
18	21	26	26	20	34	27	25	27	94	26	13	5.3
19	27	25	40	20	33	38	25	19	31	27	11	5.6
20	18	27	28	20	50	32	25	33	29	28	8.0	5.6
21	27	28	71	20	90	26	23	58	27	27	7.2	7.1
22	22	25	70	20	323	27	24	17	29	27	13	6.0
23	21	24	30	20	252	59	21	16	27	27	6.8	12
24	22	25	26	20	279	98	38	16	28	27	34	54
25	23	24	25	20	141	38	30	15	28	26	50	7.6
26	35	23	23	20	101	28	21	15	27	61	34	15
27	19	21	105	20	102	35	20	56	28	24	15	9.6
28	104	143	111	20	61	640	29	131	28	21	8.8	7.6
29	65	34	246	20	---	693	20	25	29	22	7.1	4.7
30	25	58	193	20	---	114	19	20	29	23	319	4.7
31	23	---	79	21	---	71	---	20	---	429	44	---
TOTAL	874	1942	1999	967	2076	3158	1553	908	1011	1410	1523.9	1038.0
MEAN	28.2	64.7	64.5	31.2	74.1	102	51.8	29.3	33.7	45.5	49.2	34.6
MAX	104	302	246	170	323	693	140	131	115	429	319	366
MIN	16	21	21	20	21	26	19	15	15	21	6.8	4.7
CFSM	0.80	1.83	1.83	0.88	2.10	2.89	1.47	0.83	0.95	1.29	1.39	0.98
IN.	0.90	2.07	2.07	1.00	2.38	3.27	1.66	0.94	1.08	1.46	1.58	1.11
CAL YR 1984	TOTAL	23547	MEAN	64.3	MAX	1000	MIN	13	CFSM	1.82	IN.	24.74
WTR YR 1985	TOTAL	18459.9	MEAN	50.6	MAX	693	MIN	4.7	CFSM	1.43	IN.	19.47



STREAMS TRIBUTARY TO LAKE ERIE

85

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH

LOCATION.--Lat 41°29'17", long 81°41'07", in T.7 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank just upstream from bridge on West Third Street in Cleveland, 3.0 mi upstream from mouth, and 1.2 mi downstream from turning basin.

DRAINAGE AREA.--798 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1966 to current year.

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: November 1966 to current year.

pH: November 1966 to current year.

WATER TEMPERATURES: November 1966 to current year.

DISSOLVED OXYGEN: November 1966 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. No discharge records available.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,480 microsiemens Feb. 12, 13, 1985; minimum, 192 microsiemens May 22, 1984.

pH: Maximum, 9.3 units Sept. 14, 1969; minimum, 4.3 units May 16, 1969.

WATER TEMPERATURES: Maximum, 35.0°C July 24, 1967; minimum, 1.0°C Jan. 1, 1969.

DISSOLVED OXYGEN: Maximum, 15.7 mg/L Mar. 31, 1984; minimum, 0.0 mg/L on many days during 1967, 1968, 1971 to 1974, 1977 to 1984.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 3,480 microsiemens Feb. 12, 13; minimum, 432 microsiemens Nov. 5.

pH: Maximum, 8.4 units May 31; minimum, 6.9 units Oct. 28.

WATER TEMPERATURES: Maximum, 29.0°C Sept. 8; minimum, 4.0°C Feb. 28.

DISSOLVED OXYGEN: Maximum, 12.3 mg/L Feb. 28; minimum, 0.1 mg/L May 14.

## STREAMS TRIBUTARY TO LAKE ERIE

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1090	903	1060	825	771	794	828	780	811	606	519	557
2	1070	930	1010	789	609	659	825	783	798	537	516	526
3	963	909	936	663	612	638	816	780	806	555	531	542
4	930	843	903	699	462	629	825	792	817	576	549	561
5	969	876	927	513	432	471	867	825	845	615	567	584
6	1020	954	991	594	525	558	852	780	831	759	624	697
7	1050	990	1020	645	552	600	1040	831	900	825	660	751
8	1040	990	1030	687	645	672	1210	1080	1130	789	690	731
9	1030	951	988	717	660	697	1360	1220	1270	966	720	898
10	990	930	968	738	552	664	1720	1350	1440	1130	888	996
11	969	960	963	573	531	550	1640	1020	1230	1260	1110	1160
12	969	960	964	666	573	599	1040	882	957	1580	1280	1430
13	966	957	961	975	675	879	912	870	894	1710	1560	1610
14	969	963	965	930	705	794	867	780	833	1700	1510	1590
15	963	951	957	708	660	689	786	717	736	1530	1320	1420
16	948	903	931	702	645	670	732	723	728	1360	1270	1310
17	906	888	895	663	642	652	750	690	718	1330	1290	1310
18	894	861	877	681	645	664	750	690	711	1340	1290	1320
19	879	855	871	666	645	653	741	705	723	---	---	---
20	903	843	883	669	636	651	780	708	744	---	---	---
21	906	882	895	699	642	673	792	738	771	---	---	---
22	891	864	880	801	687	746	798	723	776	---	---	---
23	867	837	862	798	750	768	666	618	645	---	---	---
24	873	861	867	762	720	740	693	618	666	---	---	---
25	894	873	882	762	723	746	741	690	715	---	---	---
26	954	894	922	---	---	---	822	720	739	---	---	---
27	966	948	955	---	---	---	1330	729	911	---	---	---
28	978	864	950	---	---	---	1930	1130	1530	---	---	---
29	870	480	625	---	---	---	1130	759	1000	---	---	---
30	606	540	565	825	789	811	660	450	527	1720	1650	1680
31	753	609	666	---	---	---	549	531	539	1750	1710	1730
MONTH	1090	480	909	975	432	680	1930	450	863	1750	516	1070
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	1750	1690	1720	594	510	544	---	---	---	1010	855	986
2	1870	1740	1780	624	549	589	---	---	---	1010	990	1000
3	1960	1880	1930	675	627	651	---	---	---	996	930	970
4	1940	1760	1850	1090	642	827	---	---	---	1030	930	965
5	1750	1590	1680	903	660	751	---	---	---	1080	930	968
6	1620	1530	1570	702	660	685	---	---	---	1020	981	997
7	1660	1550	1590	756	690	709	---	---	---	1020	987	1010
8	1700	1650	1680	816	690	759	---	---	---	1030	990	1010
9	1680	1550	1620	771	690	727	738	675	703	1040	990	1010
10	1550	1430	1500	903	693	725	852	747	792	1080	990	1030
11	1440	1380	1410	735	660	701	777	690	729	1270	1110	1190
12	3480	1420	2200	846	660	754	723	690	710	1220	1160	1190
13	3480	2810	3240	702	630	661	---	---	---	1170	1110	1140
14	2770	2370	2620	681	630	662	---	---	---	1140	1080	1100
15	2350	2030	2210	729	660	695	732	690	716	1140	1050	1070
16	2020	1800	1930	720	630	680	756	690	732	1080	1020	1040
17	1780	1600	1710	693	663	675	792	732	768	1070	939	1000
18	1770	1550	1640	729	660	692	831	780	806	933	873	897
19	1960	1760	1860	732	681	703	861	819	839	891	855	866
20	1850	1790	1820	828	720	774	876	855	865	957	867	914
21	1900	1770	1830	882	792	828	894	861	869	990	900	948
22	2330	1330	1880	855	813	830	879	861	870	888	810	852
23	1230	780	966	921	810	851	909	873	884	852	807	820
24	771	660	701	954	909	933	918	831	877	918	810	863
25	648	594	618	999	915	950	942	903	921	1030	912	959
26	624	558	599	960	909	932	987	930	946	1100	990	1040
27	588	534	551	963	915	931	951	930	943	1090	1050	1060
28	564	510	524	939	936	938	972	930	946	1030	465	671
29	---	---	---	---	---	---	978	960	971	624	483	545
30	---	---	---	---	---	---	1070	960	975	732	630	686
31	---	---	---	---	---	---	---	---	---	1170	726	788
MONTH	3480	510	1620	1090	510	756	1070	675	843	1270	465	954

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	747	630	696	1020	987	1000	705	630	672	687	576	632
2	747	657	696	1040	990	1010	831	690	791	771	687	732
3	750	690	720	1010	960	988	861	819	838	840	765	808
4	750	720	728	1010	960	989	906	843	879	882	840	862
5	813	750	782	990	927	969	969	894	946	900	879	892
6	795	630	702	966	915	929	975	894	937	936	900	912
7	633	624	629	972	912	933	1020	918	983	981	930	964
8	648	636	642	969	894	923	918	849	884	1010	867	971
9	693	648	673	909	885	898	876	750	803	855	630	733
10	696	672	688	930	756	884	837	777	806	708	522	589
11	720	690	708	798	720	750	912	849	871	729	567	664
12	822	780	801	720	630	662	981	915	954	849	690	781
13	795	561	620	876	690	759	1040	963	1010	993	846	949
14	696	624	647	909	837	871	1030	960	992	1060	990	1030
15	729	660	715	876	720	802	1020	990	1010	1110	1050	1080
16	765	720	745	816	738	766	981	567	721	1100	1080	1090
17	756	720	742	777	720	752	636	510	578	---	---	---
18	735	621	674	849	750	807	798	636	705	---	---	---
19	735	639	693	900	843	871	807	750	781	---	---	---
20	822	720	763	936	897	916	837	792	813	---	---	---
21	870	780	818	969	933	959	921	834	867	---	---	---
22	861	837	854	969	960	963	972	909	931	---	---	---
23	858	843	850	966	963	964	1010	960	982	---	---	---
24	858	810	841	966	957	970	1010	990	1000	---	---	---
25	852	810	834	981	936	974	1010	798	988	---	---	---
26	909	837	855	987	960	974	843	738	801	---	---	---
27	945	861	888	975	930	964	762	690	715	930	910	924
28	972	909	935	969	930	952	840	717	785	920	900	912
29	1000	930	964	996	957	972	963	810	891	950	920	934
30	999	960	984	1010	957	967	996	579	852	950	930	940
31	---	---	---	999	693	859	573	477	529	---	---	---
MONTH	1000	561	763	1040	630	903	1040	477	849	1110	522	870
YEAR	3480	432	922									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.5	7.0	7.4	7.4	7.2	7.3	7.3	7.2	7.2	7.4	7.3	7.4
2	7.5	7.2	7.4	7.6	7.3	7.4	7.3	7.2	7.3	7.4	7.3	7.4
3	7.5	7.4	7.5	7.6	7.4	7.5	7.5	7.2	7.4	7.4	7.3	7.4
4	7.5	7.2	7.5	7.5	7.4	7.5	7.5	7.4	7.5	7.4	7.3	7.3
5	7.5	7.2	7.4	7.5	7.4	7.5	7.6	7.3	7.5	7.4	7.3	7.3
6	7.4	7.3	7.4	7.6	7.4	7.5	7.7	7.0	7.5	7.4	7.1	7.3
7	7.4	7.2	7.3	7.6	7.3	7.4	7.2	7.0	7.0	7.5	7.1	7.2
8	7.4	7.2	7.3	7.5	7.4	7.5	7.3	7.0	7.1	7.3	7.1	7.1
9	7.3	7.0	7.2	7.5	7.3	7.3	7.0	7.0	7.0	7.6	7.0	7.2
10	7.2	7.1	7.1	7.3	7.2	7.2	7.2	7.0	7.0	7.2	7.1	7.2
11	7.3	7.2	7.2	7.3	7.1	7.2	7.2	7.0	7.1	7.3	7.1	7.2
12	7.3	7.2	7.3	7.5	7.3	7.4	7.3	7.1	7.2	7.3	7.1	7.2
13	7.3	7.2	7.3	7.4	7.3	7.4	7.3	7.2	7.2	7.6	7.1	7.2
14	7.3	7.2	7.3	7.5	7.3	7.4	7.3	7.2	7.2	7.2	7.1	7.2
15	7.3	7.1	7.2	7.5	7.3	7.3	7.3	7.2	7.3	7.2	7.1	7.1
16	7.2	7.1	7.2	7.5	7.3	7.4	7.3	7.1	7.2	7.2	7.1	7.2
17	7.4	7.2	7.2	7.5	7.3	7.4	7.3	7.1	7.1	7.3	7.1	7.2
18	7.5	7.2	7.3	7.4	7.2	7.3	7.3	7.1	7.1	7.2	7.1	7.1
19	7.5	7.2	7.3	7.3	7.2	7.3	7.3	7.1	7.2	---	---	---
20	7.5	7.2	7.4	7.4	7.2	7.3	7.3	7.2	7.2	---	---	---
21	7.4	7.3	7.3	7.3	7.3	7.3	7.3	7.1	7.2	---	---	---
22	7.5	7.3	7.4	7.3	7.2	7.3	7.3	7.1	7.2	---	---	---
23	7.6	7.4	7.5	7.3	7.2	7.3	7.3	7.0	7.1	---	---	---
24	7.6	7.5	7.6	7.3	7.2	7.2	7.3	7.1	7.3	---	---	---
25	7.6	7.5	7.5	7.2	7.1	7.2	7.3	7.1	7.3	---	---	---
26	7.5	7.4	7.5	---	---	---	7.5	7.1	7.3	---	---	---
27	7.4	7.1	7.3	---	---	---	7.4	7.2	7.3	---	---	---
28	7.1	6.9	7.0	---	---	---	7.4	7.1	7.3	---	---	---
29	7.4	7.1	7.2	---	---	---	7.4	7.3	7.3	---	---	---
30	7.4	7.2	7.3	7.2	7.1	7.1	7.5	7.2	7.3	7.7	7.4	7.5
31	7.4	7.3	7.4	---	---	---	7.4	7.3	7.3	7.8	7.2	7.6
MONTH	7.6	6.9	7.3	7.6	7.1	7.3	7.7	7.0	7.2	7.8	7.0	7.3

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985



## STREAMS TRIBUTARY TO LAKE ERIE

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04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.5	20.0	20.5	19.0	18.5	19.0	11.5	11.0	11.5	9.5	8.0	8.5
2	20.5	18.5	19.5	18.5	16.0	17.5	11.5	11.0	11.0	9.5	8.0	9.0
3	20.0	18.5	19.0	16.0	15.0	15.5	11.0	11.0	11.0	8.5	7.0	7.5
4	19.5	19.0	19.0	15.0	13.5	14.0	11.0	10.5	11.0	7.5	6.5	7.0
5	20.5	19.5	20.0	13.5	13.0	13.5	10.5	7.5	9.0	7.5	6.5	7.0
6	21.0	20.0	20.5	13.5	12.5	13.0	8.0	7.5	7.5	7.5	7.0	7.0
7	21.0	20.5	20.5	13.0	12.5	12.5	7.5	7.0	7.0	7.5	6.5	7.0
8	21.5	20.5	21.0	13.0	12.0	12.5	7.0	7.0	7.0	7.0	5.5	6.5
9	21.5	21.0	21.0	13.5	12.0	13.0	7.5	7.0	6.5	6.5	7.0	6.0
10	22.0	21.0	21.5	14.5	13.0	13.5	8.0	7.0	7.5	6.0	5.5	6.0
11	22.5	21.5	22.0	13.5	13.0	13.5	7.5	6.0	6.5	6.0	5.5	5.5
12	23.0	22.5	22.5	13.0	11.0	12.0	7.5	6.5	7.0	6.0	5.0	5.5
13	23.0	22.5	23.0	11.0	10.5	10.5	9.5	7.5	8.5	6.0	5.0	5.5
14	23.0	22.5	23.0	11.0	10.0	10.5	9.5	8.5	9.0	5.5	4.5	5.5
15	23.0	22.5	22.5	11.0	10.0	10.5	9.5	9.0	9.0	5.5	5.5	5.5
16	22.5	22.5	22.5	11.5	10.5	11.0	10.0	9.0	10.0	5.5	4.5	5.0
17	23.0	22.5	22.5	10.5	9.5	10.0	10.5	10.0	10.0	5.5	4.5	5.0
18	23.0	22.0	22.5	10.0	9.5	10.0	10.5	9.5	10.0	5.5	5.5	5.5
19	22.0	21.0	22.0	10.5	10.0	10.5	10.0	9.0	9.5	---	---	---
20	22.0	21.0	21.5	10.0	9.5	10.0	9.5	9.0	9.0	---	---	---
21	21.5	21.0	21.0	9.5	9.0	9.5	9.0	8.0	8.5	---	---	---
22	21.5	21.0	21.0	10.0	9.5	9.5	9.5	8.0	8.5	---	---	---
23	21.0	20.5	20.5	10.5	9.5	10.0	8.5	7.0	7.5	---	---	---
24	20.5	20.0	20.0	10.5	10.0	10.5	7.5	7.0	7.0	---	---	---
25	20.0	19.5	20.0	10.5	10.0	10.5	7.5	6.5	7.0	---	---	---
26	20.0	20.0	20.0	---	---	---	7.0	5.5	6.0	---	---	---
27	21.0	20.0	20.5	---	---	---	6.5	5.0	5.5	---	---	---
28	22.5	21.0	21.5	---	---	---	8.0	6.5	7.5	---	---	---
29	21.5	19.0	19.5	---	---	---	12.5	8.0	10.0	---	---	---
30	19.5	19.0	19.5	12.0	11.5	11.5	12.0	9.5	10.5	7.0	6.5	7.0
31	19.5	18.0	18.5	---	---	---	9.5	7.5	8.5	7.0	6.5	7.0
MONTH	23.0	18.0	21.0	19.0	9.0	12.0	12.5	5.0	8.5	9.5	4.5	6.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.0	6.5	6.5	6.0	5.0	5.0	---	---	---	20.5	19.5	19.5
2	7.0	6.5	6.5	6.5	5.5	6.0	---	---	---	20.0	18.5	19.5
3	6.5	5.5	6.0	7.0	6.0	6.5	---	---	---	19.0	18.0	18.5
4	6.0	5.5	5.5	7.0	6.0	6.5	---	---	---	18.5	17.5	18.0
5	6.5	5.5	5.5	8.5	6.5	7.5	---	---	---	20.0	18.0	19.0
6	6.5	5.5	6.0	7.0	6.0	6.5	---	---	---	20.0	19.0	19.5
7	6.5	5.5	6.0	7.5	6.5	7.0	---	---	---	20.0	19.0	19.5
8	7.0	6.0	6.0	9.0	6.5	7.5	---	---	---	20.0	19.5	20.0
9	6.5	5.5	6.0	9.5	8.0	8.5	8.0	7.5	8.0	20.5	19.5	20.0
10	6.5	6.0	6.0	10.0	8.5	9.0	8.5	7.5	8.0	21.0	20.0	20.5
11	7.0	6.0	6.5	10.0	8.5	9.5	10.0	8.5	9.5	22.5	20.5	21.5
12	7.5	6.5	7.0	10.0	8.5	9.0	10.5	10.0	10.0	23.5	21.5	22.5
13	7.0	5.0	6.0	8.5	7.5	8.0	---	---	---	23.0	22.5	23.0
14	5.5	5.0	5.0	8.5	7.5	8.0	---	---	---	25.0	23.0	23.5
15	5.5	5.0	5.0	9.0	8.0	8.5	16.0	15.5	15.5	24.0	24.0	24.0
16	5.5	4.5	5.0	9.0	8.5	9.0	17.0	15.5	16.0	24.0	22.5	23.5
17	6.0	5.0	5.5	9.5	8.5	9.0	16.5	15.5	16.0	23.0	20.0	21.5
18	7.0	5.5	6.5	9.0	7.5	8.0	16.0	15.0	15.5	19.5	18.0	19.0
19	7.0	6.0	6.5	8.0	7.0	7.5	17.5	15.5	16.0	18.5	17.0	18.0
20	7.0	6.0	6.5	9.0	7.5	8.5	19.5	17.0	18.5	19.0	18.0	18.5
21	7.0	6.5	6.5	11.0	9.5	10.0	20.0	19.0	19.5	20.5	19.5	20.0
22	8.0	5.0	6.0	10.5	9.5	10.0	20.5	20.0	20.5	20.0	19.0	19.5
23	5.0	4.5	4.5	11.0	10.5	10.5	21.0	20.0	20.5	20.5	19.5	19.5
24	6.5	5.0	5.5	11.5	10.5	11.0	21.5	19.5	20.5	21.0	19.5	20.0
25	6.5	5.5	6.0	12.0	10.5	11.0	21.0	20.0	20.5	21.5	20.5	21.0
26	6.0	5.0	5.0	12.0	11.0	11.5	21.0	20.0	20.5	24.0	21.5	22.5
27	5.0	4.5	5.0	12.5	10.5	11.5	21.0	20.0	20.5	23.5	22.5	23.0
28	5.0	4.0	4.5	12.5	12.0	12.5	21.0	19.5	20.0	23.0	18.0	20.0
29	---	---	---	---	---	---	20.5	19.5	20.0	19.5	18.0	18.5
30	---	---	---	---	---	---	20.5	19.5	20.0	21.5	18.5	20.0
31	---	---	---	---	---	---	---	---	---	21.5	20.5	21.0
MONTH	8.0	4.0	6.0	12.5	5.0	8.5	21.5	7.5	17.0	25.0	17.0	20.5

## STREAMS TRIBUTARY TO LAKE ERIE

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.0	21.0	21.5	25.5	24.0	24.5	24.0	22.5	23.0	23.0	21.0	22.0
2	23.0	21.0	22.0	25.5	24.5	25.0	25.0	23.0	24.0	23.5	22.5	23.0
3	22.5	21.5	22.0	24.5	23.5	24.0	25.5	24.0	25.0	25.0	23.0	24.0
4	22.0	21.0	21.5	24.5	23.0	24.0	26.0	25.0	25.5	25.5	24.5	25.5
5	22.0	21.0	21.5	25.0	24.5	24.5	26.5	25.5	26.0	26.5	25.5	26.0
6	21.0	18.5	19.5	25.5	24.0	24.5	26.0	25.0	25.5	27.0	26.0	26.5
7	18.5	18.0	18.0	25.0	24.0	24.5	25.5	24.5	25.0	28.0	26.5	27.5
8	19.0	18.0	18.5	25.0	24.5	24.5	24.5	23.0	23.5	29.0	27.5	28.0
9	20.0	17.5	19.0	26.0	25.0	25.5	25.0	23.0	23.5	27.5	25.0	26.0
10	18.0	17.0	17.5	26.5	23.5	25.5	26.0	24.0	25.0	26.0	23.0	24.0
11	19.0	17.5	18.5	23.5	23.0	23.5	26.0	25.5	26.0	23.5	22.5	23.0
12	20.0	18.5	19.0	24.5	23.0	23.5	27.0	25.5	26.5	23.5	22.5	23.0
13	18.5	16.0	16.5	27.0	24.0	25.0	28.0	26.5	27.5	23.5	23.0	23.0
14	18.5	16.5	17.0	26.0	25.0	25.5	27.5	26.5	27.0	23.0	22.0	22.5
15	20.0	17.5	19.0	26.0	24.5	25.0	28.0	26.5	27.0	22.5	22.0	22.0
16	19.5	19.0	19.5	25.0	24.5	24.5	26.5	23.5	24.5	22.5	21.5	22.0
17	20.5	19.0	20.0	25.5	24.5	25.0	25.0	23.5	24.5	23.0	22.0	22.5
18	20.5	19.0	19.5	26.0	24.5	25.5	26.5	24.5	25.5	24.0	22.5	23.0
19	20.0	19.0	19.5	26.5	25.5	26.0	26.0	25.0	25.5	24.5	23.0	23.5
20	21.5	20.0	20.5	26.5	26.0	26.0	26.0	25.5	25.5	25.0	23.5	24.0
21	22.0	20.5	21.5	27.0	26.5	26.5	26.0	25.0	25.5	25.5	24.0	25.0
22	23.0	21.5	22.5	28.0	26.5	27.0	25.5	25.0	25.0	26.0	24.5	25.0
23	24.0	22.0	22.5	27.0	24.5	26.0	25.5	24.5	25.0	26.0	25.0	25.5
24	23.5	22.5	23.0	27.5	26.5	27.0	25.5	25.0	25.0	25.5	24.0	24.5
25	24.0	22.5	23.5	27.5	27.0	27.0	25.0	23.0	24.5	24.0	23.0	23.5
26	24.0	23.0	23.5	27.0	26.0	26.5	23.5	23.0	23.0	23.0	22.0	22.5
27	24.0	23.0	23.5	27.0	26.0	26.5	24.0	23.0	23.5	23.0	22.0	22.5
28	24.0	23.0	23.5	27.0	25.5	26.5	24.5	23.5	24.0	23.0	22.0	22.5
29	24.5	23.0	24.0	27.5	26.0	27.0	25.5	24.5	25.0	23.5	22.5	23.0
30	24.5	23.5	24.0	27.5	26.5	27.0	25.5	21.0	24.0	23.0	22.5	23.0
31	---	---	---	27.5	23.5	26.0	21.5	20.5	21.0	---	---	---
MONTH	24.5	16.0	20.5	28.0	23.0	25.5	28.0	20.5	25.0	29.0	21.0	24.0
YEAR	29.0	4.0	16.5									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	4.1	2.4	3.2	5.4	4.8	5.1	8.7	7.6	8.0	9.1	8.8	8.9
2	4.4	2.6	3.3	6.5	4.9	5.7	8.9	7.1	8.2	8.9	8.8	8.8
3	4.9	4.1	4.6	6.5	5.9	6.2	8.8	8.0	8.3	8.7	6.6	8.4
4	4.5	2.4	4.0	7.9	6.3	7.1	9.8	8.2	9.0	8.3	6.7	8.1
5	4.7	3.7	4.2	7.8	7.0	7.5	9.6	9.3	9.4	8.0	6.2	7.8
6	5.3	3.6	4.5	8.6	7.3	8.0	9.4	8.8	9.1	7.9	7.4	7.6
7	5.1	3.4	4.4	8.5	7.9	8.2	9.5	9.0	9.2	8.0	7.7	7.8
8	4.9	3.8	4.5	8.4	7.7	8.1	9.8	9.2	9.6	7.9	7.5	7.7
9	4.5	3.3	4.0	8.1	7.4	7.8	9.7	9.1	9.6	7.8	6.9	7.5
10	4.2	3.2	3.6	7.4	6.8	7.1	9.6	9.2	9.4	8.1	6.9	7.7
11	3.7	2.7	3.4	6.8	5.8	6.4	9.5	9.0	9.3	8.3	6.6	7.8
12	3.7	2.5	3.3	7.4	6.3	6.8	9.5	8.8	9.3	8.4	6.0	7.7
13	3.6	1.5	3.0	8.8	7.2	8.3	9.3	9.0	9.1	8.5	7.1	7.9
14	3.7	2.3	3.0	9.4	8.5	8.8	9.1	8.4	8.8	8.3	7.5	8.0
15	3.5	2.0	3.0	9.5	8.0	8.8	8.4	7.7	8.2	7.6	6.6	7.2
16	4.0	2.3	3.3	8.2	7.8	8.0	8.8	7.9	8.4	8.4	6.6	7.6
17	5.0	3.3	4.1	8.2	7.8	7.9	9.1	8.6	8.9	9.5	7.7	8.0
18	4.5	2.4	4.0	8.0	7.1	7.7	9.1	9.0	9.0	7.5	7.2	7.3
19	4.5	2.8	3.9	7.1	5.5	6.4	9.3	9.0	9.1	---	---	---
20	4.4	3.4	3.9	6.2	5.1	5.6	9.3	9.0	9.1	---	---	---
21	4.5	2.8	3.9	7.6	6.0	6.9	9.1	8.8	9.0	---	---	---
22	4.7	3.6	4.3	6.8	6.2	6.5	9.7	8.8	9.2	---	---	---
23	5.1	4.0	4.8	7.0	5.1	6.1	9.6	8.5	9.5	---	---	---
24	5.1	3.9	4.7	6.7	5.6	6.2	9.6	7.6	9.4	---	---	---
25	5.1	4.1	4.6	7.0	5.2	5.8	9.5	8.4	9.3	---	---	---
26	4.5	4.0	4.3	---	---	---	9.5	7.9	9.3	---	---	---
27	4.6	3.3	4.0	---	---	---	9.4	7.6	9.1	---	---	---
28	4.1	2.6	3.4	---	---	---	9.2	8.5	9.0	---	---	---
29	4.9	2.3	4.1	---	---	---	8.9	8.4	8.7	---	---	---
30	5.1	4.2	4.6	7.7	5.9	6.6	8.8	6.0	8.4	9.9	9.5	9.7
31	5.8	4.9	5.4	---	---	---	8.9	6.6	8.4	10.0	9.3	9.7
MONTH	5.8	1.5	4.0	9.5	4.8	7.1	9.8	6.0	9.0	10.0	6.0	8.1

OXYGEN, DISSOLVED (DO), MG/L. WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	10.0	9.7	9.8	12.1	11.6	11.9	---	---	---	4.8	3.9	4.3
2	9.9	9.5	9.7	11.9	11.2	11.4	---	---	---	4.3	3.7	4.0
3	10.1	9.6	9.8	11.5	10.9	11.2	---	---	---	3.9	2.7	3.3
4	10.6	9.7	10.2	11.6	10.9	11.1	---	---	---	3.3	2.4	2.7
5	10.4	10.0	10.3	11.0	10.5	10.8	---	---	---	3.4	2.1	2.5
6	10.3	9.9	10.1	11.6	10.8	11.2	---	---	---	3.1	1.2	2.0
7	9.9	9.5	9.7	11.5	11.0	11.2	---	---	---	1.6	.6	1.0
8	10.1	9.5	9.7	11.4	10.4	10.8	---	---	---	2.6	.5	1.1
9	10.0	9.5	9.8	10.5	10.2	10.4	10.3	10.1	10.2	3.1	2.3	2.7
10	9.9	9.5	9.7	10.4	10.0	10.2	10.5	10.1	10.3	2.6	1.1	1.5
11	9.9	9.3	9.6	10.2	9.4	9.8	10.5	9.4	9.9	2.7	.4	1.0
12	9.7	9.0	9.4	10.2	9.3	9.7	9.9	9.2	9.5	1.7	.5	1.2
13	10.6	9.6	10.1	10.5	10.0	10.3	10.3	9.1	9.9	.9	.2	.4
14	10.9	9.9	10.5	10.4	10.1	10.3	10.2	8.8	9.5	.6	.1	.3
15	11.1	10.8	10.9	10.3	9.7	10.0	10.3	7.0	8.9	.6	.2	.3
16	11.0	10.4	10.7	10.3	9.8	10.1	7.6	6.7	7.1	.9	.2	.3
17	11.1	10.4	10.6	10.3	9.4	9.8	6.8	5.5	6.1	.5	.3	.4
18	10.6	10.0	10.3	10.4	9.7	9.9	6.4	5.7	6.1	1.2	.4	.8
19	10.8	10.2	10.5	10.5	10.0	10.3	6.9	5.8	6.4	4.3	1.0	3.0
20	10.9	10.2	10.6	10.2	8.8	9.7	6.0	5.0	5.6	4.0	3.4	3.6
21	10.7	10.2	10.4	9.3	8.3	8.9	6.4	5.3	5.8	3.8	2.5	3.1
22	11.4	10.2	11.0	8.7	8.2	8.5	6.2	3.9	5.4	4.2	3.2	3.7
23	11.8	11.4	11.7	8.7	8.0	8.4	5.6	3.8	4.6	3.5	2.8	3.2
24	11.6	11.0	11.4	8.2	7.7	8.1	5.7	2.6	4.2	3.5	3.0	3.2
25	11.5	11.1	11.3	8.6	7.9	8.2	3.9	2.3	3.2	3.1	2.5	2.7
26	12.2	11.4	11.7	8.6	8.0	8.3	4.8	3.2	3.8	3.9	1.7	2.4
27	12.2	11.6	11.8	8.6	8.0	8.3	4.7	2.5	3.4	2.4	.6	1.3
28	12.3	12.0	12.2	7.7	7.4	7.6	5.2	2.7	4.0	5.2	2.0	3.9
29	---	---	---	---	---	---	4.9	3.1	4.1	5.3	4.8	5.0
30	---	---	---	---	---	---	5.4	4.1	4.7	5.2	4.5	4.8
31	---	---	---	---	---	---	---	---	---	6.0	4.3	4.7
MONTH	12.3	9.0	10.5	12.1	7.4	9.9	10.5	2.3	6.5	6.0	.1	2.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	5.0	3.5	4.3	3.1	.9	1.9	3.6	2.2	2.9	4.7	3.8	4.3
2	4.7	3.6	4.4	1.3	.6	.9	3.5	1.8	2.5	4.6	3.8	4.1
3	5.2	3.7	4.5	1.7	.4	.8	2.3	.9	1.6	4.2	3.6	3.9
4	4.3	3.9	4.1	2.3	1.2	1.8	2.1	.7	1.3	4.2	2.8	3.3
5	4.3	3.8	4.0	3.1	1.5	2.2	3.2	.6	2.3	3.5	2.2	2.6
6	4.4	3.5	3.9	2.3	1.0	1.4	2.7	.7	1.5	2.5	.8	1.4
7	5.0	4.0	4.3	2.6	1.4	1.9	2.2	.9	1.4	1.8	.9	1.3
8	5.0	4.2	4.6	2.2	1.4	1.9	3.9	2.1	3.3	2.5	1.0	1.7
9	5.0	3.3	4.2	2.7	1.1	1.9	4.7	3.0	3.6	2.7	1.4	2.0
10	4.3	3.2	3.8	2.6	1.5	2.2	2.8	1.8	2.3	4.2	2.7	3.7
11	4.1	2.6	3.0	3.3	.3	2.8	2.9	1.2	2.0	4.3	3.1	3.7
12	5.4	4.2	4.4	3.0	2.2	2.6	3.7	1.7	2.8	3.4	2.0	2.8
13	7.3	5.0	6.4	3.6	2.2	3.0	4.9	2.3	3.7	2.4	1.1	2.0
14	6.9	6.1	6.5	3.4	1.3	2.0	4.1	1.3	2.4	1.7	1.2	1.5
15	6.5	5.1	6.0	2.3	1.3	1.8	3.4	1.3	2.1	2.2	1.3	1.7
16	5.5	4.8	5.2	4.4	2.6	3.3	4.3	2.2	3.5	1.9	1.1	1.5
17	6.1	5.2	5.6	4.1	2.1	3.0	3.8	2.6	3.3	2.4	1.1	1.8
18	6.1	4.9	5.4	2.7	1.7	2.0	4.8	2.6	3.6	3.1	1.4	2.2
19	5.7	4.5	5.2	1.9	.7	1.1	4.3	2.2	3.1	3.4	1.6	2.7
20	5.0	4.1	4.6	2.0	.8	1.2	4.1	1.6	2.8	3.1	2.2	2.6
21	5.1	4.0	4.7	3.7	1.9	3.2	5.1	2.1	3.2	3.3	1.5	2.5
22	5.8	3.4	5.1	4.1	2.1	3.0	4.1	2.2	3.0	3.1	1.7	2.3
23	5.3	3.1	4.2	2.2	1.4	1.8	3.2	2.1	2.6	3.6	1.9	2.8
24	5.5	3.2	4.5	2.7	1.1	1.9	2.4	1.9	2.1	2.0	1.2	1.7
25	4.4	2.8	3.7	3.4	1.8	2.5	2.8	2.0	2.3	2.7	1.2	1.7
26	5.5	1.8	3.4	2.2	1.3	1.7	3.7	2.7	3.3	2.4	1.4	2.0
27	4.6	3.0	3.7	2.8	1.0	1.7	3.3	2.1	2.7	3.2	2.0	2.5
28	3.8	1.7	2.5	3.5	.7	1.8	3.4	2.1	2.7	---	---	---
29	2.6	1.5	1.9	3.0	1.3	2.4	2.3	1.1	1.8	---	---	---
30	2.6	1.0	1.5	4.0	1.0	2.2	5.5	.8	3.0	---	---	---
31	---	---	---	2.9	.8	2.0	5.5	4.6	5.0	---	---	---
MONTH	7.3	1.0	4.3	4.4	.3	2.1	5.5	.6	2.7	4.7	.8	2.5
YEAR	12.3	.1	5.6									

## STREAMS TRIBUTARY TO LAKE ERIE

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued  
 SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	792	813	564	1730	542	---	992	713	999	675	636
2	1000	629	791	528	1770	588	---	1000	695	1020	813	740
3	933	642	813	540	1940	653	---	974	722	987	839	813
4	902	674	822	558	1850	740	---	969	748	993	879	861
5	929	462	851	578	1680	702	---	959	785	975	959	894
6	996	558	836	701	1570	687	---	993	694	926	930	911
7	1030	596	870	750	1580	707	---	1010	630	930	989	968
8	1030	678	1120	732	1680	762	---	1010	642	918	885	989
9	989	692	1270	898	1650	720	696	1010	675	900	792	725
10	968	683	1400	966	1510	720	801	1030	690	905	806	570
11	963	543	1200	1140	1420	699	729	1190	708	749	873	681
12	963	591	951	1440	1870	764	710	1190	756	650	960	809
13	960	929	894	1590	3240	660	---	1140	603	746	1020	960
14	966	780	837	1580	2670	660	---	1100	644	870	992	1040
15	957	689	731	1420	2240	696	717	1060	720	800	1010	1080
16	938	663	726	1300	1940	680	732	1040	749	767	672	1090
17	897	651	722	1300	1710	675	782	1000	747	759	584	---
18	876	668	705	1320	1640	692	810	893	663	815	701	---
19	870	654	722	---	1880	701	837	864	696	870	780	---
20	888	651	756	---	1820	786	864	924	765	914	818	---
21	894	677	770	---	1840	830	867	957	813	963	869	---
22	882	752	786	---	1870	831	870	852	855	963	932	---
23	863	765	645	---	929	839	879	819	849	963	984	---
24	867	737	680	---	689	936	876	861	843	960	999	---
25	885	741	720	---	620	948	921	950	837	974	999	---
26	924	---	740	---	602	930	947	1030	852	972	798	---
27	954	---	873	---	549	932	945	1060	888	966	717	920
28	966	---	1540	---	522	939	951	460	933	954	785	910
29	582	---	1020	---	---	---	972	533	968	969	902	930
30	557	811	515	1670	---	---	969	689	990	963	923	940
31	648	---	537	1730	---	---	---	725	---	896	537	---
MEAN	908	681	860	1070	1610	751	844	945	762	904	852	873

WTR YR 1985 MEAN 920 MAX 3240 MIN 460  
 PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	7.3	7.2	7.4	7.2	7.3	---	7.4	7.2	7.4	7.3	7.6
2	7.4	7.4	7.3	7.4	7.2	7.4	---	7.5	7.3	7.4	7.4	7.7
3	7.5	7.5	7.4	7.4	7.2	7.3	---	7.5	7.3	7.3	7.4	7.6
4	7.5	7.5	7.5	7.3	7.2	7.4	---	7.6	7.3	7.4	7.5	7.5
5	7.4	7.5	7.5	7.3	7.2	7.4	---	7.4	7.4	7.3	7.5	7.5
6	7.4	7.5	7.6	7.3	7.2	7.4	---	7.2	7.4	7.3	7.5	7.4
7	7.3	7.5	7.0	7.1	7.2	7.4	---	7.2	7.5	7.3	7.4	7.5
8	7.3	7.5	7.0	7.1	7.2	7.3	---	7.2	7.5	7.4	7.4	7.4
9	7.2	7.3	7.0	7.1	7.2	7.3	7.3	7.3	7.5	7.3	7.5	7.4
10	7.1	7.2	7.0	7.2	7.2	7.3	7.4	7.2	7.4	7.3	7.4	7.7
11	7.2	7.2	7.1	7.2	7.3	7.3	7.3	7.2	7.4	7.4	7.4	7.6
12	7.3	7.4	7.2	7.2	7.2	7.5	7.3	7.2	7.4	7.4	7.5	7.5
13	7.3	7.4	7.2	7.2	7.3	7.4	---	7.1	7.5	7.4	7.6	7.6
14	7.3	7.4	7.2	7.2	7.3	7.3	---	7.1	7.4	7.3	7.5	7.7
15	7.2	7.3	7.3	7.1	7.2	7.4	7.5	7.2	7.3	7.3	7.4	7.8
16	7.2	7.4	7.2	7.2	7.4	7.4	7.4	7.2	7.3	7.4	7.5	7.7
17	7.2	7.4	7.1	7.2	7.3	7.3	7.2	7.2	7.3	7.4	7.5	7.8
18	7.3	7.3	7.2	7.1	7.3	7.4	7.2	7.3	7.3	7.4	7.5	7.8
19	7.3	7.3	7.2	---	7.3	7.4	7.2	7.3	7.3	7.4	7.5	7.8
20	7.4	7.3	7.2	---	7.3	7.4	7.2	7.1	7.3	7.4	7.5	7.7
21	7.3	7.3	7.2	---	7.3	7.3	7.2	7.1	7.3	7.4	7.6	7.7
22	7.4	7.3	7.2	---	7.4	7.4	7.2	7.3	7.3	7.4	7.6	7.7
23	7.5	7.3	7.2	---	7.4	7.3	7.2	7.3	7.3	7.4	7.5	7.7
24	7.6	7.2	7.3	---	7.4	7.4	7.2	7.3	7.3	7.4	7.6	7.6
25	7.5	7.2	7.3	---	7.3	7.4	7.2	7.2	7.3	7.4	7.6	7.6
26	7.5	---	7.3	---	7.3	7.5	7.3	7.2	7.4	7.4	7.7	7.6
27	7.3	---	7.3	---	7.3	7.4	7.3	7.1	7.5	7.3	7.6	7.4
28	7.0	---	7.3	---	7.4	7.4	7.3	7.2	7.4	7.3	7.6	7.4
29	7.2	---	7.3	---	---	---	7.3	7.3	7.4	7.4	7.6	7.5
30	7.3	7.1	7.3	7.5	---	---	7.5	7.3	7.4	7.5	7.6	7.4
31	7.4	---	7.3	7.6	---	---	---	7.3	---	7.3	7.7	---
MEAN	7.3	7.4	7.2	7.3	7.3	7.4	7.3	7.3	7.4	7.4	7.5	7.6

WTR YR 1985 MEAN 7.4 MAX 7.8 MIN 7.0



## STREAMS TRIBUTARY TO LAKE ERIE

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04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OH--Continued  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	19.0	11.5	9.0	6.5	5.0	---	19.5	21.5	24.5	23.5	22.5
2	19.5	17.5	11.0	9.0	6.5	6.0	---	19.0	22.0	24.5	24.0	23.0
3	19.0	15.5	11.0	7.5	6.0	6.5	---	18.5	22.0	24.0	25.0	24.0
4	19.0	14.0	11.0	7.0	5.5	6.5	---	18.0	21.5	23.5	25.5	25.5
5	20.0	13.5	8.0	7.0	5.5	7.0	---	18.5	21.5	24.5	26.0	26.0
6	20.5	13.0	7.5	7.0	6.0	6.5	---	19.5	19.5	24.5	25.5	26.5
7	20.5	12.5	7.0	7.0	6.0	7.0	---	19.5	18.0	24.5	25.5	27.5
8	21.0	12.5	6.5	6.5	6.0	8.0	---	20.0	18.5	24.5	23.5	28.0
9	21.0	13.0	6.5	6.0	6.0	9.0	8.0	20.0	19.0	25.5	23.5	26.0
10	21.5	13.5	7.5	5.5	6.0	9.0	8.0	20.5	17.5	25.5	25.0	23.5
11	22.0	13.5	6.5	5.5	6.5	9.5	10.0	21.0	18.5	23.5	26.0	23.0
12	22.5	12.0	7.0	5.5	7.0	9.0	10.0	22.5	19.0	23.5	26.5	23.0
13	23.0	10.5	9.0	5.5	6.0	8.0	---	23.0	16.5	24.5	27.5	23.0
14	23.0	11.0	9.0	5.5	5.0	8.0	---	24.0	17.5	25.5	27.0	22.5
15	22.5	10.5	9.5	5.5	5.0	8.5	15.5	24.0	19.5	25.0	26.5	22.0
16	22.5	11.0	10.0	5.0	5.5	9.0	16.0	23.5	19.5	24.5	24.0	22.0
17	22.5	10.0	10.0	5.0	5.5	9.0	16.0	21.5	20.5	25.0	24.5	22.5
18	22.5	10.0	10.5	5.5	6.5	8.0	15.5	18.5	19.5	25.5	25.0	23.0
19	22.0	10.5	9.5	---	6.5	7.5	16.0	17.5	19.5	26.0	25.5	23.5
20	21.5	10.0	9.0	---	6.5	8.5	18.5	18.5	20.5	26.0	25.5	24.0
21	21.0	9.5	8.5	---	7.0	10.0	20.0	20.0	21.0	27.0	25.5	25.0
22	21.0	9.5	8.5	---	5.5	10.0	20.5	19.5	22.5	27.0	25.0	25.0
23	20.5	10.0	7.5	---	4.5	10.5	20.0	19.5	22.5	26.0	25.0	25.5
24	20.0	10.5	7.5	---	5.5	11.0	20.5	20.0	23.0	27.0	25.0	25.0
5	20.0	10.5	7.0	---	6.0	11.5	20.5	21.0	23.5	27.0	24.5	23.5
26	20.0	---	6.0	---	5.0	12.0	20.5	22.0	23.5	26.5	23.0	22.5
27	20.5	---	5.5	---	4.5	11.5	20.5	23.0	23.5	26.5	23.5	22.5
28	21.5	---	7.5	---	4.5	12.5	20.0	19.0	23.5	26.0	24.0	22.5
29	19.0	---	10.5	---	---	---	20.0	18.5	24.0	27.0	25.0	23.0
30	19.5	11.5	10.0	7.0	---	---	20.0	20.0	24.0	27.0	25.0	23.0
31	19.0	---	8.5	7.0	---	---	---	21.0	---	26.5	21.0	---
MEAN	21.0	12.0	8.5	6.5	6.0	8.5	17.0	20.5	21.0	25.5	25.0	24.0

WTR YR 1985 MEAN 16.5 MAX 28.0 MIN 4.5  
OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	5.1	8.0	9.0	9.8	11.9	---	4.4	4.3	1.7	2.9	4.3
2	3.2	5.6	8.4	8.8	9.7	11.4	---	4.1	4.4	.9	2.6	4.0
3	4.6	6.2	8.3	8.5	9.7	11.2	---	3.3	4.6	.6	1.6	3.9
4	4.1	7.1	9.2	8.1	10.3	11.1	---	2.7	4.1	1.8	1.3	3.1
5	4.1	7.5	9.4	7.9	10.2	10.8	---	2.5	4.0	2.3	2.6	2.5
6	4.5	8.1	9.1	7.6	10.1	11.2	---	2.0	3.9	1.3	1.3	1.2
7	4.5	8.2	9.2	7.8	9.7	11.1	---	.9	4.3	2.0	1.4	1.3
8	4.6	8.1	9.6	7.7	9.7	10.8	---	.7	4.6	1.9	3.4	1.7
9	4.2	7.7	9.6	7.5	9.7	10.4	10.2	2.7	4.2	1.9	3.5	2.0
10	3.6	7.1	9.4	7.9	9.7	10.2	10.2	1.4	3.8	2.2	2.3	3.6
11	3.5	6.5	9.3	8.0	9.6	9.7	9.9	.9	3.0	2.9	2.0	3.7
12	3.4	6.8	9.3	8.1	9.4	9.8	9.5	1.3	4.1	2.5	2.9	2.7
13	3.2	8.6	9.1	8.1	10.1	10.3	9.9	.4	6.8	3.0	3.8	2.1
14	3.0	8.7	8.8	8.1	10.5	10.3	9.6	.4	6.4	1.7	2.1	1.4
15	3.0	8.8	8.2	7.5	10.8	10.0	9.1	.2	6.1	1.8	2.0	1.7
16	3.2	8.0	8.5	7.7	10.8	10.1	7.0	.3	5.2	3.3	3.3	1.5
17	4.1	7.9	8.9	7.9	10.6	9.8	5.9	.3	5.6	2.9	3.4	1.8
18	4.0	7.8	9.1	7.3	10.3	9.9	6.2	.9	5.4	1.9	3.4	2.2
19	3.9	6.3	9.1	---	10.5	10.3	6.3	3.3	5.2	1.0	2.9	2.7
20	4.0	5.7	9.1	---	10.6	9.9	5.6	3.6	4.6	1.1	2.6	2.6
21	3.7	7.0	9.0	---	10.4	9.0	5.8	3.1	4.8	3.3	3.1	2.5
22	4.3	6.5	9.2	---	11.0	8.6	5.5	3.8	5.3	2.8	3.2	2.2
23	4.9	6.1	9.5	---	11.7	8.5	4.6	3.3	4.2	1.9	2.7	2.8
24	4.8	6.2	9.5	---	11.4	8.1	4.2	3.2	4.7	1.9	2.2	1.7
25	4.5	5.8	9.3	---	11.3	8.3	3.2	2.7	3.9	2.4	2.2	1.6
26	4.3	---	9.4	---	11.8	8.3	3.8	2.2	3.2	1.7	3.5	2.0
27	4.0	---	9.3	---	11.8	8.4	3.3	1.2	3.6	1.6	2.7	2.5
28	3.4	---	9.1	---	12.2	7.6	3.9	3.7	2.3	1.3	2.7	---
29	4.4	---	8.8	---	---	---	4.2	5.0	1.9	2.5	1.8	---
30	4.7	6.4	8.6	9.7	---	---	4.6	4.9	1.4	1.9	3.3	---
31	5.3	---	8.4	9.7	---	---	---	4.5	---	2.0	4.9	---
MEAN	4.0	7.1	9.0	8.2	10.5	9.9	6.5	2.4	4.3	2.0	2.7	2.4
WTR YR 1985	MEAN	5.6	MAX	12.2	MIN	.2						

## STREAMS TRIBUTARY TO LAKE ERIE

04208690 EUCLID CREEK NEAR EUCLID, OH

LOCATION.--Lat 41°34'28", long 81°32'51", Cuyahoga County, Hydrologic Unit 04110003, on right bank 150 ft upstream from St. Clair Avenue bridge, 0.3 mi downstream from city of Cleveland waterworks, 1.6 mi upstream from mouth.

DRAINAGE AREA.--22.6 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1977 to September 1980, October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.26 ft above National Geodetic Vertical Datum of 1929, city of Cleveland bench mark.

REMARKS.--Estimated daily discharges: Jan. 11 to Mar. 13. Records poor. Diurnal fluctuation caused by water plant upstream from gage. Sediment data collected July 1977 to September 1978.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,670 ft<sup>3</sup>/s Mar. 28, 1985, gage height, 9.31 ft from rating curve extended above 1,500 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow and a slope area measurement at a lower stage; minimum daily, 2.0 ft<sup>3</sup>/s Oct. 2, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 31, 1975 reached a stage of 15.06 ft, from floodmark, discharge, 7,440 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 29	1900	1,930	6.19	Mar. 31	1930	1,890	6.30
Feb. 22	unknown	1,600	unknown	Sept. 10	0145	1,810	5.97
Mar. 28	2230	*3,670	*9.31				

Minimum daily discharge, 2.2 ft<sup>3</sup>/s Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	23	82	63	322	14	25	182	14	12	8.4	7.1	3.5	
2	11	124	23	52	14	22	58	15	9.0	6.6	6.0	2.7	
3	8.0	14	28	39	14	20	145	14	15	5.6	5.9	2.2	
4	8.1	345	21	29	14	170	45	15	8.9	6.2	5.9	3.0	
5	11	81	16	25	14	130	33	15	9.3	7.2	4.6	2.6	
6	8.0	56	15	25	14	50	84	17	6.7	7.0	7.2	2.4	
7	5.6	26	16	21	14	44	39	15	6.8	6.1	16	7.0	
8	11	17	19	18	14	70	62	10	6.6	5.6	5.9	43	
9	7.8	21	23	17	14	35	60	12	8.4	7.9	6.3	18	
10	6.7	53	227	15	14	25	47	14	6.9	46	5.5	282	
11	6.2	53	126	14	14	70	39	12	23	9.1	6.2	22	
12	7.5	74	51	14	120	160	28	22	50	6.6	4.7	15	
13	6.8	81	47	13	50	34	33	15	134	5.8	7.0	9.6	
14	6.7	44	99	13	25	30	47	13	13	59	5.2	7.8	
15	5.6	42	40	13	22	24	28	26	16	14	17	7.7	
16	9.4	28	29	13	21	20	23	35	29	7.0	16	8.9	
17	7.5	20	24	13	20	20	21	36	9.6	5.8	6.1	8.2	
18	8.2	18	19	13	19	16	20	18	42	6.0	7.6	8.6	
19	7.9	14	34	13	19	17	19	11	8.8	6.3	15	6.0	
20	11	14	25	13	19	19	17	54	8.1	7.4	7.9	7.9	
21	9.3	14	55	13	60	15	16	86	7.0	5.4	7.1	7.5	
22	11	13	75	13	400	14	15	11	15	7.0	6.9	5.4	
23	9.2	14	25	13	200	26	14	11	12	5.5	6.5	9.5	
24	8.4	14	22	13	250	69	44	7.7	8.0	6.6	11	30	
25	6.0	14	18	13	100	30	42	7.7	7.2	8.2	21	9.1	
26	12	14	28	13	60	20	26	8.9	6.9	12	13	9.4	
27	8.1	15	255	14	70	27	16	39	9.0	7.0	9.8	10	
28	87	44	381	14	50	674	31	154	8.0	5.1	4.3	10	
29	34	25	520	14	---	632	19	13	8.2	6.3	2.3	5.8	
30	9.4	23	314	14	---	66	16	9.7	9.3	6.4	44	6.1	
31	9.1	---	64	14	---	593	---	144	---	117	6.6	---	
TOTAL	380.5	1397	2702	843	1659	3167	1269	875.0	513.7	420.1	295.6	570.9	
MEAN	12.3	46.6	87.2	27.2	59.3	102	42.3	28.2	17.1	13.6	9.54	19.0	
MAX	87	345	520	322	400	674	182	154	134	117	44	282	
MIN	5.6	13	15	13	14	14	14	7.7	6.6	5.1	2.3	2.2	
CFSM	.54	2.06	3.86	1.20	2.62	4.51	1.87	1.25	.76	.60	.42	.84	
IN.	.63	2.30	4.45	1.39	2.73	5.21	2.09	1.44	.85	.69	.49	.94	
CAL YR 1984	TOTAL	20559.2		MEAN	56.2	MAX	1160	MIN	4.9	CFSM	2.49	IN.	33.78
WTR YR 1985	TOTAL	14092.8		MEAN	38.6	MAX	674	MIN	2.2	CFSM	1.71	IN.	23.20

STREAMS TRIBUTARY TO LAKE ERIE

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04212100 GRAND RIVER NEAR PAINESVILLE, OH

LOCATION.--Lat 41°43'08", long 81°13'41", Lake County, Hydrologic Unit 04110004, on downstream left abutment of bridge on State Highway 84 (Walnut Avenue), 0.9 mi downstream from Big Creek in Painesville.

DRAINAGE AREA.--685 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 596.37 ft above National Geodetic Vertical Datum of 1929. Previously published, in error, as 620.37 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 12 to Feb. 23. Records fair except period of estimated record, which is poor.

AVERAGE DISCHARGE.--11 years, 1,030 ft<sup>3</sup>/s, 20.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft<sup>3</sup>/s Dec. 25, 1979, gage height, 13.16 ft; minimum, 11 ft<sup>3</sup>/s Sept. 14, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 6,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 29	2300	8,240	8.18	Mar. 30	0130	8,500	8.32
Feb. 24	2130	*16,500	*12.11	Apr. 1	0100	10,600	9.39
Mar. 5	0130	8,520	8.33				

Minimum discharge, 16 ft<sup>3</sup>/s Sept. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	65	559	725	4830	420	3320	9730	200	292	37	50	96	
2	102	703	1030	4610	420	2030	7010	193	426	33	32	84	
3	95	512	919	3170	420	1280	5300	138	444	89	29	79	
4	110	1040	802	2290	420	2050	4540	155	268	44	25	61	
5	115	2270	694	1540	420	7060	3370	150	171	35	22	45	
6	90	2990	546	1030	420	4850	2470	143	118	33	22	36	
7	70	2670	459	786	420	2670	1620	148	91	37	115	30	
8	73	1670	444	653	420	2800	1010	126	74	36	123	29	
9	107	1040	497	548	420	2810	833	118	65	38	318	28	
10	102	1590	778	506	420	1910	793	101	56	51	512	36	
11	71	2150	1760	423	420	1450	878	92	46	55	284	44	
12	55	2650	3100	450	800	2500	892	86	149	53	145	43	
13	51	2890	3990	440	1700	3340	818	72	481	47	87	73	
14	51	3260	3280	430	1400	2770	735	55	565	331	61	94	
15	47	3230	2860	420	1000	2340	695	47	572	1030	47	76	
16	43	3400	2220	420	800	1880	572	82	674	864	44	55	
17	42	2650	1620	410	700	1260	448	65	615	452	42	41	
18	42	1670	1260	410	650	866	371	78	504	265	85	34	
19	40	1050	1030	410	600	697	312	60	405	166	221	29	
20	45	720	863	400	580	623	264	55	375	105	203	26	
21	57	566	830	400	550	560	242	165	288	76	141	23	
22	59	468	1780	490	2300	514	216	106	218	74	101	21	
23	61	401	2350	400	8000	473	198	94	175	47	72	19	
24	63	383	1740	400	14800	678	183	80	136	38	52	16	
25	58	366	1260	400	13400	1080	201	80	136	32	50	17	
26	57	345	990	400	9280	960	271	75	114	28	46	17	
27	62	312	902	400	7130	767	300	64	84	25	43	21	
28	70	341	3570	410	5070	887	339	144	60	22	37	22	
29	660	478	5870	410	---	7380	290	109	47	20	36	19	
30	1470	501	6280	410	---	7170	266	105	42	18	86	18	
31	826	---	4780	420	---	6640	---	266	---	60	99	---	
TOTAL	4859	42875	59229	28626	73380	75615	45167	3452	7691	4241	3230	1232	
MEAN	157	1429	1911	923	2621	2439	1506	111	256	137	104	41.1	
MAX	1470	3400	6280	4830	14800	7380	9730	266	674	1030	512	96	
MIN	40	312	444	400	420	473	183	47	42	18	22	16	
CFSM	.23	2.09	2.79	1.35	3.83	3.56	2.20	.16	.37	.20	.15	.06	
IN.	.26	2.33	3.22	1.55	3.99	4.11	2.45	.19	.42	.23	.18	.07	
CAL YR 1984	TOTAL	403911		MEAN	1104	MAX	8720	MIN	22	CFSM	1.61	IN.	21.88
WTR YR 1985	TOTAL	349597		MEAN	958	MAX	14800	MIN	16	CFSM	1.40	IN.	18.99

## STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OHIO--Continued

## SEDIMENT ANALYSIS

PERIOD OF RECORD.--November 1978 to current year.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,350 mg/L Jan. 1, 1979; minimum daily mean, 1 mg/L Nov. 18, 1981, Oct. 26, 27, 1982.

SEDIMENT LOADS: Maximum daily, 38,800 tons Dec. 25, 1979; minimum daily, 0.09 ton Oct. 26, 27, 1982

## EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 477 mg/L Mar. 16; minimum daily mean, 2 mg/L Oct. 10, 21, 22, 31.

SEDIMENT LOADS: Maximum daily, 10,400 tons Feb. 14; minimum daily, 0.26 ton Oct. 22.



## STREAMS TRIBUTARY TO LAKE ERIE

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04212100 GRAND RIVER NEAR PAINESVILLE. OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	65	9	1.6	559	31	47	725	19	37
2	102	12	3.3	703	61	116	1030	17	47
3	95	10	2.6	512	15	21	919	14	35
4	110	12	3.6	1040	57	325	802	13	28
5	115	10	3.1	2270	123	754	694	13	24
6	90	10	2.4	2990	110	888	546	20	29
7	70	9	1.7	2670	64	461	459	17	21
8	73	10	2.0	1670	33	149	444	12	14
9	107	15	4.3	1040	64	180	497	21	28
10	102	12	3.3	1590	58	249	778	22	46
11	71	10	1.9	2150	53	308	1760	72	342
12	55	10	1.5	2650	44	315	3100	78	653
13	51	10	1.4	2890	37	289	3990	87	937
14	51	14	1.9	3260	57	502	3280	43	381
15	47	10	1.3	3230	33	288	2860	31	239
16	43	10	1.2	3400	40	367	2220	26	156
17	42	10	1.1	2650	32	229	1620	25	109
18	42	10	1.1	1670	23	104	1260	20	68
19	40	10	1.1	1050	17	48	1030	15	42
20	45	15	1.8	720	14	27	863	12	28
21	57	14	2.2	566	11	17	830	10	22
22	59	11	1.8	468	9	11	1780	68	327
23	61	10	1.6	401	8	8.7	2350	67	425
24	63	10	1.7	383	6	6.2	1740	36	169
25	58	5	.78	366	7	6.9	1260	29	99
26	57	8	1.2	345	8	7.5	990	24	64
27	62	12	2.0	312	7	5.9	902	24	58
28	70	13	2.5	341	9	8.3	3570	361	3970
29	660	85	166	478	10	13	5870	273	4330
30	1470	118	468	501	11	15	6280	126	2140
31	826	50	112	---	---	---	4780	83	1070
TOTAL	4859	---	801.98	42875	---	5766.5	59229	---	15938
JANUARY				FEBRUARY			MARCH		
1	4830	108	1410	420	5	5.7	3320	64	574
2	4610	72	896	420	5	5.7	2030	43	236
3	3170	41	351	420	5	5.7	1280	34	118
4	2290	33	204	420	5	5.7	2050	360	2900
5	1540	28	116	420	4	4.5	7060	690	13200
6	1030	20	56	420	4	4.5	4850	130	1700
7	786	17	36	420	5	5.7	2670	75	541
8	653	12	21	420	6	6.8	2800	62	469
9	548	10	15	420	7	7.9	2810	53	402
10	506	10	14	420	9	10	1910	44	227
11	423	13	15	420	8	9.1	1450	37	145
12	450	13	16	800	15	32	2500	81	547
13	440	9	11	1700	16	73	3340	94	848
14	430	5	5.8	1400	15	57	2770	58	434
15	420	5	5.7	1000	15	40	2340	53	335
16	420	5	5.7	800	15	32	1880	43	218
17	410	5	5.5	700	15	28	1260	35	119
18	410	5	5.5	650	16	28	866	28	65
19	410	5	5.5	600	16	26	697	24	45
20	400	5	5.4	580	14	22	623	19	32
21	400	5	5.4	550	17	25	560	18	27
22	400	5	5.4	2300	248	1540	514	17	24
23	400	5	5.4	8000	750	16200	473	18	23
24	400	5	5.4	14800	368	14700	678	23	42
25	400	9	9.7	13400	210	7600	1080	38	111
26	400	9	9.7	9280	165	4130	960	38	98
27	400	6	6.5	7130	105	2020	767	25	52
28	410	6	6.6	5070	88	1200	887	36	126
29	410	7	7.7	---	---	---	7380	594	12000
30	410	10	11	---	---	---	7170	215	4160
31	420	6	6.8	---	---	---	6640	257	5190
TOTAL	28626	---	3279.7	73380	---	47824.3	75615	---	45008

## STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	9730	280	7360	200	6	3.2	292	55	43
2	7010	112	2120	193	6	3.1	426	34	39
3	5300	87	1240	138	4	1.5	444	30	36
4	4540	74	907	155	4	1.7	268	20	14
5	3370	80	728	150	6	2.4	171	13	6.0
6	2470	65	433	143	12	4.6	118	12	3.8
7	1620	47	206	148	8	3.2	91	9	2.2
8	1010	34	93	126	8	2.7	74	10	2.0
9	833	26	58	118	7	2.2	65	7	1.2
10	793	23	49	101	8	2.2	56	10	1.5
11	878	19	45	92	5	1.2	46	12	1.5
12	892	20	48	86	4	.93	149	26	10
13	818	22	49	72	5	.97	481	49	64
14	735	19	38	55	8	1.2	565	37	56
15	695	18	34	47	10	1.3	572	36	56
16	572	15	23	82	22	4.9	674	53	96
17	448	15	18	65	10	1.8	615	29	48
18	371	14	14	78	11	2.3	504	24	33
19	312	12	10	60	9	1.5	405	36	39
20	264	10	7.1	55	12	1.8	375	19	19
21	242	10	6.5	165	55	25	288	9	7.0
22	216	10	5.8	106	16	4.6	218	9	5.3
23	198	10	5.3	94	11	2.8	175	8	3.8
24	183	9	4.4	80	7	1.5	136	6	2.2
25	201	8	4.3	80	6	1.3	136	9	3.3
26	271	13	9.5	75	6	1.2	114	9	2.8
27	300	8	6.5	64	9	1.6	84	13	2.9
28	339	5	4.6	144	30	12	60	13	2.1
29	290	7	5.5	109	15	4.4	47	14	1.8
30	266	5	3.6	105	12	3.4	42	10	1.1
31	---	---	---	266	102	73	---	---	---
TOTAL	45167	---	13536.1	3452	---	175.50	7691	---	603.5
JULY			AUGUST			SEPTEMBER			
1	37	7	.70	50	23	3.1	96	24	6.2
2	33	8	.71	32	13	1.1	84	20	4.5
3	89	27	6.5	29	10	.78	79	22	4.7
4	44	10	1.2	25	8	.54	61	20	3.3
5	35	9	.85	22	11	.65	45	23	2.8
6	33	7	.62	22	10	.59	36	20	1.9
7	37	6	.60	115	38	12	30	17	1.4
8	36	6	.58	123	40	13	29	13	1.0
9	38	7	.72	318	119	136	28	15	1.1
10	51	8	1.1	512	73	101	36	25	2.4
11	55	8	1.2	284	34	26	44	24	2.9
12	53	10	1.4	145	23	9.0	43	12	1.4
13	47	9	1.1	87	22	5.2	73	17	3.4
14	331	131	195	61	18	3.0	94	15	3.8
15	1030	184	512	47	16	2.0	76	9	1.8
16	864	87	203	44	23	2.7	55	10	1.5
17	452	52	63	42	20	2.3	41	13	1.4
18	265	33	24	85	24	5.5	34	12	1.1
19	166	27	12	221	46	27	29	13	1.0
20	105	20	5.7	203	35	19	26	15	1.1
21	76	14	2.9	141	30	11	23	11	.68
22	74	38	7.6	101	24	6.5	21	7	.40
23	47	20	2.5	72	21	4.1	19	13	.67
24	38	15	1.5	52	21	2.9	16	13	.56
25	32	12	1.0	50	15	2.0	17	12	.55
26	28	11	.83	46	16	2.0	17	10	.46
27	25	13	.88	43	17	2.0	21	12	.68
28	22	13	.77	37	13	1.3	22	7	.42
29	20	14	.76	36	17	1.7	19	6	.31
30	18	13	.63	86	70	16	18	8	.39
31	60	52	8.4	99	45	12	---	---	---
TOTAL	4241	---	1059.75	3230	---	431.96	1232	---	53.82
YEAR	349597		134479.11						

STREAMS TRIBUTARY TO LAKE ERIE

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04212200 GRAND RIVER AT PAINESVILLE, OH  
(National stream-quality accounting network station)

LOCATION.--Lat 41, 5'59", in T.11 N., R.8 W., Lake County, Hydrologic Unit 04110004, at bridge on State Highway 535 in Painesville, 2.2 mi upstream from mouth, and 8.0 mi downstream from Kellogg Creek.

DRAINAGE AREA.--701 mi.

PERIOD OF RECORD.--March 1950 to February 1952, October 1962 to current year.

REMARKS.--Water temperatures available for Mar. 1950 to February 1952, October 1962 to December 1966. Four parameter (Specific Conductance, pH, Water Temperature, and Dissolved Oxygen) Water quality monitor at site from December 1966 to September 1981.

WATER QUALITY DATA

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
NOV 1984									
14...	11:00	3310	310	7.4	3.0	5.0	30	12.2	97
MAR 1985									
12...	11:00	2460	395	7.6	2.0	6.0	55	12.0	99
MAY									
14...	14:30	54	2560	8.0	26.0	23.0	3.0	8.3	100
SEP									
11...	13:30	45	2900	7.7	17.0	24.5	10	6.3	78
DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 1984									
14...	930	740	28	6.6	16	3.5	44	36	37
MAR 1985									
12...	1300	1700	31	6.2	30	2.2	43	37	64
MAY									
14...	120	K25	250	12	210	4.3	105	64	760
SEP									
11...	12000	610	270	11	260	8.4	98	59	900
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 1984									
14...	0.1	6.2	169	1.00	0.20	0.8	0.10	0.04	0.03
MAR 1985									
12...	0.2	4.9	257	0.56	0.08	1.4	0.13	0.11	0.03
MAY									
14...	0.2	0.8	2130	0.38	0.23	0.6	0.03	0.02	<0.01
SEP									
11...	0.3	2.2	2010	0.48	0.55	1.4	0.13	0.03	<0.01

## STREAMS TRIBUTARY TO LAKE ERIE

04212200 GRAND RIVER AT PAINESVILLE, OH--Continued

## WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 1984											
14...	11:00	3310	40	1	31	<0.5	<1	2	<3	4	85
MAR 1985											
12...	11:00	2460	20	<1	28	0.5	<1	10	<3	17	47
MAY											
14...	14:30	54	<10	<1	100	<0.5	<1	20	<3	13	18
SEP											
11...	13:30	45	20	2	130	<0.5	<1	<1	1	12	22

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 1984											
14...	2	<4	25	0.3	<10	1	<1	<1	91	<6	15
MAR 1985											
12...	1	<4	28	0.1	<10	<1	<1	<1	95	<6	11
MAY											
14...	8	19	53	0.2	<10	6	<1	<1	480	<6	6
SEP											
11...	3	33	130	0.1	3	1	<1	<1	530	1	38

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 1984					
14...	11:00	3310	5.0	75	670
MAR 1985					
12...	11:00	2460	6.0	175	1160
MAY					
14...	14:30	54	23.0	22	3.2
SEP					
11...	13:30	45	24.5	22	2.7



## STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH

LOCATION.--Lat 41°53'36", long 80°47'44", Ashtabula County, Hydrologic Unit 04110003, on left upstream side of bridge at E. 15 th Street in Ashtabula, 1,750 ft upstream from mouth.

DRAINAGE AREA.--3.63 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1983 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1983 to current year.

pH: April 1983 to current year.

WATER TEMPERATURES: April 1983 to current year.

DISSOLVED OXYGEN: April 1983 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 15,800 microsiemens Feb. 15, 1985; minimum, 600 microsiemens Mar. 5, 1985.

pH: Maximum, 9.6 units Feb. 24, 1984; minimum, 2.7 units Oct. 28, 1984.

WATER TEMPERATURES: Maximum, 32.5°C July 20,21, 1983; minimum, 1.5°C Dec. 24, 25, 1983, Jan. 20, 21, 1985.

DISSOLVED OXYGEN: Maximum, 13.3 mg/L Mar. 5, 1985; minimum, 1.7 mg/L Aug. 24, 1983.

## EXTREMES FOR CURRENT YEAR. --

SPECIFIC CONDUCTANCE: Maximum, 15,800 microsiemens Feb. 15; minimum, 600 microsiemens Mar. 5.

pH: Maximum recorded, 8.6 units July 23, Aug. 23; minimum recorded, 6.2 units on Apr. 9.

WATER TEMPERATURES: Maximum, 30.5°C on several days during summer periods.; minimum, 1.5°C Jan. 20, 21.

DISSOLVED OXYGEN: Maximum recorded, 13.3 mg/L Mar. 5; minimum recorded, 2.4 mg/L July 16.

## STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	4060	3700	3810	4540	2940	3370	3720	3280	3430	2080	1040	1300
2	3840	3020	3520	3040	2500	2850	7520	3500	3850	4060	1480	1910
3	4080	3220	3480	3680	2720	3050	4400	2800	3350	2440	1920	2240
4	3720	3160	3610	3740	2240	3180	3300	2480	2780	2700	2380	2510
5	4300	2980	3360	3000	2320	2660	3480	2660	2880	3280	2520	2980
6	3740	2720	3250	2860	2420	2640	6280	2740	3520	3320	2760	3010
7	4460	3500	3880	3180	2160	2850	4240	3020	3570	6900	2580	3430
8	4520	3900	4070	4060	2980	3350	3940	3000	3330	3680	2820	3130
9	4500	2600	3480	3980	3080	3560	3080	2880	2990	3260	2740	2930
10	4060	3000	3530	3380	2940	3140	3000	2140	2620	4940	2960	3320
11	4440	3220	3790	---	---	---	2160	1940	2060	3380	2680	3040
12	4500	3740	4010	---	---	---	2580	2120	2320	3500	3320	3430
13	4360	3600	3990	---	---	---	2460	2060	2240	3440	3040	3260
14	4200	4000	4110	---	---	---	2320	2000	2160	4260	3000	3300
15	4760	3920	4280	---	---	---	2680	2280	2540	3520	3300	3380
16	5720	3820	4280	---	---	---	10300	2620	4840	4140	3080	3290
17	3780	2920	3360	---	---	---	3180	2780	2990	9280	3060	3400
18	3820	3060	3420	---	---	---	3640	2900	3130	15700	2800	3960
19	10900	2820	4330	3600	3280	3400	10800	2820	3610	2980	2720	2800
20	3960	2940	3540	3600	2280	2970	3220	2960	3080	5620	2560	2920
21	3680	2740	3200	3620	2260	2660	8140	2640	3300	14600	2360	4100
22	3160	1340	2400	3860	2560	3260	2960	2640	2770	3180	2600	2820
23	3360	1600	2380	3540	2860	3260	3340	2740	2880	6060	3160	3550
24	6300	1380	2080	3300	2720	3030	3620	2820	3160	4240	3300	3730
25	2540	1780	2070	3480	2700	2960	3660	2780	3130	4040	3200	3580
26	3740	2200	2700	3560	2600	3200	3180	2740	2930	3960	3400	3640
27	3220	2600	2990	4840	3480	4100	3260	2400	2950	8240	3460	3950
28	4060	3040	3520	4360	3140	3750	2340	660	1240	10500	3320	4790
29	3540	2700	3090	3580	3220	3410	1460	840	1160	4040	3420	3720
30	3340	2360	2970	3920	3280	3480	1660	1100	1340	12200	3680	5110
31	3580	2420	2910	---	---	---	2380	1680	1920	5080	3480	3830
MONTH	10900	1340	3400	4840	2160	3190	10800	660	2840	15700	1040	3300
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3660	2880	3170	---	---	---	1720	820	1210	3600	3180	3350
2	2980	2380	2620	---	---	---	2280	1760	2050	4900	3260	3500
3	3780	2980	3370	---	---	---	2520	1840	2110	3900	2900	3420
4	4080	3220	3450	1460	640	1000	3080	2120	2320	3140	2620	2930
5	7540	3260	3730	1320	600	927	2980	2520	2660	3340	2640	3050
6	5420	3080	3320	2860	1360	2030	3140	2760	2890	3740	2980	3260
7	3380	2780	3070	3000	2040	2410	3280	2980	3130	3520	3000	3220
8	3620	2800	3160	2540	2080	2220	3100	2900	3030	3640	3280	3480
9	3700	3220	3460	3100	2540	2720	3400	2740	3120	3680	2740	3110
10	3980	3480	3630	3820	2860	3160	3460	3060	3190	3260	2340	2670
11	3660	3220	3460	3240	2640	2810	3600	2860	3210	3320	2920	3150
12	4020	3200	3540	2500	1680	1920	2860	2300	2650	3440	2880	3220
13	8980	2500	3690	2540	2040	2300	5520	2720	3030	3620	2880	3430
14	2820	2220	2480	4680	2400	2640	2960	2640	2830	4340	3540	3870
15	15800	1920	3340	2860	2400	2660	3040	2600	2730	4220	3220	3780
16	3260	2840	3060	3220	2860	3010	3060	2620	2860	4400	3300	3650
17	3420	2740	3130	3300	3080	3200	3040	2620	2870	3620	3160	3300
18	3420	2820	3020	3860	3120	3380	2940	2500	2700	3520	3280	3400
19	11500	3080	3730	3840	3300	3600	2700	2240	2590	5400	3400	3670
20	3880	2900	3270	3540	3040	3320	2900	2580	2740	3600	3140	3380
21	3760	2600	3340	3460	3160	3300	2860	2760	2790	3720	3200	3470
22	2480	960	1480	3560	3140	3370	2880	2500	2750	3740	3120	3350
23	---	---	---	4000	2980	3310	2940	2500	2730	3640	2920	3350
24	---	---	---	3120	2700	2940	3180	2300	2620	3320	2640	2820
25	---	---	---	3620	2520	2870	3460	1860	2290	3340	2980	3080
26	---	---	---	3000	2740	2870	2120	1660	1870	3400	2980	3130
27	---	---	---	3260	2840	2980	2120	1840	1940	3300	2880	3060
28	---	---	---	3380	1400	2590	2800	2080	2380	3260	2680	3000
29	---	---	---	1560	740	1010	3020	2560	2770	3220	2940	3050
30	---	---	---	3300	1660	2250	3520	2780	3050	3340	2300	2830
31	---	---	---	3240	780	1710	---	---	---	5540	2720	3100
MONTH	15800	960	3210	4680	600	2590	5520	820	2640	5540	2300	3260

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	2920	2720	2840	4520	4100	4360	4880	4360	4590	5120	4700	4860
2	3220	2660	2920	4120	3580	3840	4900	4580	4750	5560	4300	4700
3	3820	2520	3220	4060	3460	3740	5040	4320	4680	5120	4200	4380
4	3560	2880	3220	5080	3940	4290	5400	4420	4840	4280	3800	3990
5	3520	3160	3360	4480	3620	3910	4720	3840	4240	5740	3700	4280
6	3440	3020	3240	4480	4100	4250	4240	3480	3800	3840	3300	3530
7	3940	3080	3480	4200	3900	4000	9740	2420	4100	4860	3820	4290
8	4020	3780	3920	4680	3540	4160	5420	4000	4320	4900	2080	4200
9	4800	3660	4070	4600	4060	4330	4940	4120	4400	4580	2180	3620
10	4260	3800	4010	4600	3620	4280	5200	4200	4500	3840	3060	3430
11	4600	2540	3950	6560	4240	4680	4400	3800	4110	4520	3520	3960
12	4500	3080	3730	4880	4300	4660	4060	3300	3760	4740	3220	3920
13	4040	3440	3610	5340	4220	4770	4420	3440	3710	4280	3280	3630
14	3920	3440	3570	4940	2020	3480	3820	3380	3620	4300	3560	3980
15	7460	3320	4140	3840	1960	2950	3860	3400	3590	4700	3860	4200
16	3680	2440	3170	4620	3260	3890	4580	3940	4280	4080	3720	3870
17	4000	2660	3210	5160	4420	4670	5000	4360	4630	4140	3860	3990
18	8040	3280	3900	5080	4480	4820	4780	2900	4200	4240	3300	3940
19	4160	3660	3840	5340	4300	4630	4820	3820	4470	4760	3640	4090
20	4400	3740	4040	6180	5080	5490	4980	4260	4580	4200	3560	3900
21	3860	3460	3670	5940	4620	5330	4960	4020	4460	4380	3740	4080
22	4760	3720	4080	5000	4600	4810	4220	3500	3830	5220	3440	3820
23	4420	3740	4050	5440	4960	5120	3980	3400	3680	5360	3820	4530
24	5520	4100	4560	5000	4740	4860	4780	3560	4110	5800	4320	4980
25	5060	4540	4730	5220	4720	4970	4540	3780	4140	6020	4480	5200
26	6040	4360	4860	5140	4600	4840	4440	3840	4210	4760	3860	4270
27	5120	4400	4790	5040	4560	4800	4600	4300	4460	4860	4340	4560
28	5080	4820	4950	4960	4620	4840	4980	3960	4290	4800	4160	4530
29	4940	4560	4780	4820	4540	4700	4380	3860	4110	4360	4020	4160
30	5200	4480	4740	5100	4700	4890	4980	3820	4280	4740	3520	4140
31	---	---	---	5380	3620	4610	4800	4460	4660	---	---	---
MONTH	8040	2440	3890	6560	1960	4480	9740	2420	4240	6020	2080	4170
YEAR	15800	600	3450									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.8	7.9	8.3	7.9	8.1	8.1	8.0	8.1	7.7	7.3	7.5
2	8.1	7.9	8.0	8.1	8.0	8.0	8.2	8.1	8.1	8.0	7.5	7.7
3	8.1	7.8	8.0	8.2	7.9	8.1	8.1	7.9	8.0	8.1	7.9	8.0
4	8.2	7.7	8.0	8.1	7.9	8.0	8.1	8.0	8.1	8.0	7.5	8.0
5	8.2	7.9	8.0	7.8	7.6	7.8	8.2	8.0	8.1	8.1	7.8	8.0
6	8.3	7.8	8.0	7.9	7.7	7.8	8.1	7.6	8.0	8.2	7.9	8.0
7	8.0	7.8	7.9	8.1	7.6	7.9	8.1	7.7	8.0	8.0	7.5	7.8
8	8.1	7.9	7.9	8.0	7.8	7.9	8.2	7.8	8.0	8.2	7.2	8.0
9	8.1	7.8	7.9	8.4	7.9	8.0	8.3	8.1	8.2	8.0	7.8	7.9
10	8.0	7.8	7.9	8.0	7.8	7.9	8.1	7.7	7.9	8.0	7.7	7.9
11	8.0	7.8	7.9	---	---	---	7.9	7.4	7.8	8.0	7.6	7.9
12	8.2	7.5	7.8	---	---	---	7.9	7.7	7.8	8.1	7.6	8.0
13	8.0	7.8	7.9	---	---	---	8.0	7.4	7.8	8.2	8.1	8.2
14	8.2	7.9	8.0	---	---	---	8.0	7.5	7.8	8.1	7.5	7.9
15	8.0	7.8	7.9	---	---	---	7.9	7.6	7.8	8.1	7.6	7.9
16	8.0	7.7	7.8	---	---	---	8.0	7.8	7.9	7.9	7.4	7.7
17	8.0	7.7	7.9	---	---	---	8.0	7.8	7.9	7.6	7.4	7.5
18	8.1	7.9	7.9	---	---	---	8.0	7.9	7.9	7.5	7.0	7.3
19	8.1	7.9	8.0	8.3	8.2	8.2	8.3	7.9	8.0	7.6	7.1	7.4
20	8.2	7.9	8.1	8.3	8.2	8.2	8.1	8.0	8.1	8.4	7.6	7.7
21	8.3	8.1	8.1	8.3	8.2	8.3	8.1	7.7	7.9	8.1	7.4	7.6
22	8.3	8.0	8.1	8.3	8.2	8.3	7.9	7.4	7.8	7.6	7.2	7.5
23	8.5	8.0	8.2	8.3	8.2	8.3	8.1	7.9	8.0	7.9	7.1	7.5
24	8.4	8.1	8.3	8.4	8.3	8.3	8.1	7.7	8.0	7.5	7.0	7.4
25	8.3	8.1	8.2	8.3	8.2	8.2	8.1	8.0	8.0	7.5	7.2	7.4
26	8.2	8.0	8.1	8.3	8.0	8.2	8.4	7.4	8.1	7.6	7.3	7.5
27	8.3	8.0	8.1	8.3	8.1	8.2	8.3	7.6	8.1	7.7	7.3	7.4
28	8.2	8.0	8.1	8.2	7.9	8.1	8.0	7.2	7.5	7.5	7.1	7.4
29	8.2	8.0	8.1	8.2	8.0	8.1	7.5	7.3	7.4	7.5	7.2	7.4
30	8.2	8.0	8.1	8.2	7.5	8.0	7.7	7.4	7.5	7.8	7.3	7.5
31	8.3	7.8	8.1	---	---	---	7.8	7.3	7.7	7.6	7.4	7.5
MONTH	8.5	7.5	8.0	8.4	7.5	8.1	8.4	7.2	7.9	8.4	7.0	7.7

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	7.9	7.6	7.7	---	---	---	7.5	7.3	7.4	8.1	7.8	7.9
2	7.8	7.4	7.6	---	---	---	7.7	7.4	7.6	8.1	7.9	8.0
3	7.6	7.4	7.5	---	---	---	7.7	7.2	7.5	8.1	7.9	8.0
4	7.4	6.9	7.1	7.5	7.2	7.3	7.6	7.4	7.5	8.2	8.0	8.0
5	7.6	7.0	7.3	7.5	7.0	7.2	7.6	7.5	7.5	8.0	7.8	7.9
6	7.8	7.0	7.4	8.2	7.4	7.7	8.0	7.6	7.7	7.9	7.7	7.8
7	7.8	7.6	7.7	8.0	7.6	7.8	7.9	7.7	7.8	8.0	7.8	7.9
8	7.8	7.1	7.6	8.3	7.3	7.5	8.0	7.8	7.9	7.9	7.8	7.9
9	8.0	7.0	7.8	8.0	6.8	7.7	8.0	6.2	7.8	8.3	7.9	8.1
10	7.9	7.7	7.8	8.0	7.8	7.9	8.1	7.7	7.9	8.3	7.7	8.1
11	7.7	7.3	7.6	7.9	7.3	7.7	8.1	7.4	7.8	8.2	8.0	8.1
12	8.2	7.0	7.6	7.6	7.2	7.5	8.2	7.6	7.9	8.3	8.0	8.1
13	7.5	7.1	7.3	7.7	7.4	7.6	8.2	7.5	7.8	8.4	8.1	8.2
14	7.4	6.8	7.3	7.9	7.5	7.7	8.2	6.9	7.6	8.4	7.5	8.2
15	7.5	6.8	7.3	7.9	7.8	7.8	8.0	7.4	7.8	8.3	8.0	8.2
16	7.7	7.3	7.5	7.8	7.7	7.8	8.2	7.4	7.8	8.5	7.9	8.2
17	7.7	7.6	7.6	7.9	7.7	7.8	8.3	7.3	7.9	8.2	8.0	8.1
18	7.6	7.5	7.6	7.9	7.4	7.8	8.2	7.6	7.8	8.3	8.0	8.2
19	7.8	7.4	7.6	7.9	7.7	7.8	7.9	7.5	7.7	8.3	8.1	8.2
20	7.6	7.4	7.5	7.9	7.4	7.8	8.1	7.5	7.8	8.3	8.1	8.2
21	7.6	7.1	7.5	8.0	7.9	7.9	8.1	7.5	7.8	8.3	7.9	8.1
22	7.3	7.0	7.1	8.0	7.8	7.9	8.0	7.5	7.8	8.4	8.0	8.2
23	---	---	---	7.8	7.5	7.7	8.2	7.7	7.9	8.4	8.0	8.1
24	---	---	---	7.8	7.7	7.7	8.2	7.4	7.9	8.5	8.1	8.2
25	---	---	---	8.1	7.7	7.9	8.3	7.8	8.0	8.5	7.9	8.2
26	---	---	---	8.1	7.8	7.9	8.3	7.8	8.1	8.5	8.0	8.2
27	---	---	---	8.1	7.4	7.8	8.3	8.0	8.1	8.5	8.0	8.2
28	---	---	---	7.9	7.3	7.7	8.3	8.0	8.1	8.4	7.7	8.1
29	---	---	---	7.5	7.1	7.4	8.1	7.9	8.0	8.5	8.0	8.2
30	---	---	---	7.9	7.5	7.7	8.1	7.8	7.9	8.4	7.4	8.1
31	---	---	---	7.8	7.3	7.6	---	---	---	8.4	7.3	8.0
MONTH	8.2	6.8	7.5	8.3	6.8	7.7	8.3	6.2	7.8	8.5	7.3	8.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	8.5	8.0	8.2	8.2	7.9	8.0	8.4	8.0	8.1	8.5	8.0	8.2
2	8.5	7.9	8.1	8.4	7.9	8.0	8.2	7.9	8.0	8.4	8.0	8.1
3	8.3	7.5	7.9	8.0	7.9	8.0	8.3	8.0	8.1	8.3	8.0	8.1
4	8.5	7.6	8.1	8.0	7.8	7.9	8.3	8.0	8.1	8.3	7.9	8.1
5	8.5	7.8	8.0	8.1	7.9	8.0	8.3	8.0	8.2	8.3	7.9	8.1



## STREAMS TRIBUTARY TO LAKE ERIE

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04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	21.5	20.0	20.5	21.5	19.0	20.0	11.0	10.0	10.0	10.0	7.0	8.5
2	22.5	20.0	21.0	18.5	15.5	16.5	11.5	10.0	11.0	8.5	7.5	8.0
3	22.5	20.5	21.5	16.5	15.0	15.5	11.0	9.5	10.0	9.5	7.5	8.5
4	22.5	20.5	21.0	15.5	12.5	14.0	9.5	8.5	9.0	10.5	8.5	9.5
5	22.5	20.5	21.0	15.0	13.5	14.5	9.5	9.0	9.0	10.0	9.0	9.5
6	22.5	20.0	21.0	14.5	13.0	13.5	9.5	8.0	8.5	11.5	9.5	10.0
7	22.0	21.0	21.5	15.0	12.5	14.5	8.0	6.5	7.0	10.5	8.5	10.0
8	23.0	21.5	22.0	15.5	13.5	14.5	8.5	6.5	7.5	8.5	7.5	8.0
9	24.0	22.0	22.5	16.0	14.5	15.5	9.0	7.5	8.5	8.5	7.5	8.0
10	23.5	22.5	23.0	15.0	14.0	14.5	9.0	7.0	8.0	9.0	7.5	8.0
11	22.5	21.0	22.0	15.0	15.0	15.0	8.0	7.0	7.5	9.5	7.0	8.5
12	22.5	21.0	21.5	---	---	---	10.5	8.0	9.5	8.5	7.0	8.0
13	22.5	21.0	22.0	---	---	---	11.0	10.0	11.0	8.5	6.5	7.5
14	23.0	22.0	22.0	---	---	---	10.0	8.5	9.5	9.0	7.5	8.5
15	23.0	21.5	22.0	---	---	---	11.0	10.0	10.5	7.5	6.5	7.0
16	23.5	21.0	22.5	---	---	---	13.0	10.5	12.0	9.0	6.5	8.0
17	24.0	22.0	22.5	---	---	---	13.5	12.0	13.0	9.0	7.5	8.5
18	23.5	21.5	22.0	---	---	---	12.5	11.5	12.0	9.5	8.5	9.0
19	23.5	21.5	22.5	11.0	10.5	10.5	11.5	9.5	10.5	8.5	5.0	7.5
20	22.5	20.5	21.5	11.0	10.0	10.5	10.5	9.0	9.5	4.5	1.5	2.5
21	22.0	20.5	21.0	10.5	10.0	10.0	10.5	9.0	10.0	4.0	1.5	3.0
22	20.5	20.0	20.0	11.5	10.5	11.0	9.5	8.0	8.5	6.0	4.0	5.5
23	20.5	18.5	19.5	11.5	10.5	11.0	9.5	7.5	8.5	6.5	5.5	6.0
24	20.0	18.0	19.0	12.0	10.0	11.0	10.0	8.5	9.0	7.5	5.5	7.0
25	20.0	18.0	19.0	12.5	10.5	11.5	8.5	7.0	7.5	8.5	6.5	7.5
26	21.5	20.0	21.0	13.5	11.0	12.0	9.0	7.0	8.0	7.5	6.0	7.0
27	23.5	21.5	22.0	14.0	12.0	13.0	9.0	7.0	8.5	8.5	7.0	7.5
28	23.5	21.5	22.5	14.5	11.5	13.5	10.0	5.5	7.0	9.5	7.5	8.5
29	22.0	20.0	21.0	12.0	11.5	11.5	12.5	10.0	11.5	9.5	8.5	9.0
30	21.5	19.5	20.5	11.5	11.0	11.5	10.5	8.0	9.0	10.0	7.0	8.5
31	21.0	19.5	20.5	---	---	---	9.0	7.5	8.5	9.5	8.5	9.0
MONTH	24.0	18.0	21.5	21.5	10.0	13.5	13.5	5.5	9.5	11.5	1.5	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	9.0	6.5	8.0	---	---	---	8.0	6.5	7.0	19.0	17.0	18.0
2	6.5	5.0	6.0	---	---	---	9.0	6.5	7.5	18.0	16.5	17.0
3	7.0	4.5	5.5	---	---	---	9.5	6.5	8.0	20.0	16.0	17.5
4	8.5	5.5	7.0	3.0	2.5	2.5	11.5	8.0	10.0	20.0	15.5	17.5
5	9.0	7.0	8.0	3.0	2.0	2.5	16.5	11.0	13.5	20.5	17.0	19.0
6	9.5	8.5	9.0	6.5	3.0	4.5	14.5	10.0	12.0	21.0	18.5	19.5
7	9.0	7.5	8.5	7.5	5.0	6.5	13.0	10.0	11.5	21.5	17.5	19.0
8	8.0	6.5	7.5	9.5	6.0	7.5	14.0	10.5	11.5	19.0	17.5	18.0
9	8.0	6.0	7.0	10.0	7.0	8.0	12.0	9.5	10.5	22.0	16.5	19.0
10	9.0	6.5	7.5	11.5	7.5	9.5	13.5	9.0	11.0	23.0	18.5	20.5
11	9.5	7.5	8.5	10.5	9.5	10.0	14.5	11.5	12.5	23.5	20.0	21.5
12	9.0	5.5	7.0	10.0	6.5	7.5	15.0	11.5	13.0	24.5	21.0	22.0
13	6.0	5.0	5.5	9.0	6.0	7.5	15.0	12.5	13.5	24.0	20.5	22.0
14	6.0	5.0	5.0	11.0	8.0	9.0	17.5	13.5	15.5	25.0	20.0	22.5
15	5.5	4.0	4.5	10.5	8.0	9.0	19.0	15.0	16.5	24.0	21.5	22.5
16	5.5	3.5	4.5	12.0	8.0	10.0	19.5	14.5	16.5	23.0	20.5	21.5
17	7.0	5.0	5.5	10.0	7.0	9.0	14.5	13.0	14.0	21.5	19.5	21.0
18	8.0	5.5	6.0	10.0	6.0	8.0	18.5	13.5	16.0	21.5	18.5	19.5
19	7.5	5.0	6.0	9.5	7.5	8.5	19.0	17.0	18.0	23.0	18.0	20.0
20	8.5	5.5	6.5	12.0	9.0	10.0	21.0	17.0	18.5	24.0	20.0	21.5
21	9.0	6.0	7.0	12.5	8.5	10.0	22.0	17.0	19.0	24.0	20.5	22.0
22	5.5	2.5	3.5	13.0	9.0	11.0	22.5	17.5	19.5	23.0	20.5	21.5
23	---	---	---	11.5	10.5	11.0	22.5	18.5	20.5	24.0	21.0	22.0
24	---	---	---	11.0	9.0	10.5	22.0	18.0	19.5	24.5	20.0	22.0
25	---	---	---	12.5	8.0	10.0	20.0	17.0	18.5	25.0	20.5	22.5
26	---	---	---	14.0	9.0	11.5	21.0	16.5	18.5	23.5	21.0	22.5
27	---	---	---	15.0	11.0	13.0	19.5	16.0	17.5	25.0	21.5	23.0
28	---	---	---	13.5	11.5	13.0	20.5	16.5	18.0	23.0	21.0	21.5
29	---	---	---	13.5	10.5	12.0	20.5	16.0	18.0	23.5	20.0	21.5
30	---	---	---	12.0	9.5	10.5	21.5	16.5	18.5	24.0	20.0	22.0
31	---	---	---	9.5	7.0	8.0	---	---	---	24.5	21.0	22.5
MONTH	9.5	2.5	6.5	15.0	2.0	9.0	22.5	6.5	15.0	25.0	15.5	20.5

## STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.0	20.0	21.5	25.5	24.5	25.0	28.5	24.5	26.0	27.5	23.5	25.0
2	23.5	21.0	22.0	25.5	23.0	24.5	29.0	24.0	26.0	28.0	25.5	26.5
3	23.5	19.0	22.0	27.0	23.5	25.0	28.5	23.5	26.0	29.0	25.5	27.5
4	25.0	21.0	22.5	28.5	23.5	25.5	28.5	24.5	26.5	29.0	27.0	28.0
5	25.5	22.5	23.5	28.5	25.0	26.0	27.0	25.0	25.5	29.5	27.5	28.5
6	26.0	22.0	23.5	27.5	24.5	25.5	27.5	24.0	25.5	29.0	27.5	28.0
7	26.0	22.0	23.5	26.0	24.5	25.0	26.5	23.5	25.0	30.5	28.0	29.0
8	25.5	22.5	23.5	29.0	24.0	26.5	29.5	25.5	27.0	30.5	24.0	28.5
9	26.5	23.0	24.0	30.5	26.5	28.0	30.0	25.0	27.5	29.5	24.5	27.5
10	26.5	22.0	24.0	30.0	25.5	27.5	30.0	26.5	28.0	28.5	26.5	27.5
11	23.5	16.5	22.0	28.5	25.5	26.5	29.0	26.0	27.5	27.0	24.5	25.5
12	21.0	17.0	19.0	30.0	26.0	27.5	30.0	26.0	27.5	24.5	23.0	24.0
13	22.5	19.0	20.0	30.0	25.5	27.5	30.0	26.5	28.5	25.0	22.5	23.5
14	25.0	20.0	22.0	27.0	22.5	25.0	30.5	27.5	29.0	24.5	22.0	23.0
15	24.5	20.5	22.5	25.5	23.0	25.0	30.0	27.5	28.5	23.5	20.5	22.0
16	23.5	18.0	21.0	29.0	24.5	26.5	29.5	26.5	28.0	24.5	20.5	22.5
17	24.5	21.5	22.5	30.0	25.0	27.0	29.5	25.5	27.0	24.5	21.5	23.0
18	25.5	22.0	23.5	30.5	26.0	28.0	29.5	24.5	27.0	25.5	22.0	24.0
19	25.5	22.0	23.5	30.5	26.5	28.5	28.0	24.5	26.0	27.0	24.0	25.5
20	26.5	22.5	24.0	30.5	28.0	29.0	28.5	25.5	26.5	27.0	24.5	25.5
21	27.0	22.0	24.0	29.5	27.5	28.5	28.5	26.0	27.0	25.5	24.0	25.0
22	26.0	23.0	24.0	29.5	26.5	27.5	29.0	25.5	27.0	27.0	23.5	25.0
23	27.5	22.5	24.5	29.0	25.5	27.0	28.0	25.0	26.5	26.5	24.5	25.5
24	27.5	23.5	25.0	30.0	25.0	27.0	26.5	25.5	26.0	25.0	22.0	23.5
25	28.0	23.5	25.5	30.5	26.5	28.0	28.0	25.0	26.5	25.0	22.0	23.5
26	27.5	23.5	25.0	28.5	26.5	27.5	28.5	26.0	27.0	24.0	23.0	23.5
27	28.0	23.5	25.5	29.5	25.5	27.0	28.5	25.5	27.0	23.5	22.5	23.0
28	28.5	24.0	26.0	30.0	25.5	27.5	29.0	27.0	27.0	24.0	22.0	23.0
29	28.0	25.0	26.0	30.5	26.0	28.0	27.5	26.0	27.0	24.5	21.5	23.0
30	28.0	24.0	25.5	29.5	27.0	28.0	27.0	25.0	26.0	25.0	22.5	23.5
31	---	---	---	27.5	24.5	26.0	26.5	24.5	25.0	---	---	---
MONTH	28.5	16.5	23.5	30.5	22.5	27.0	30.5	23.5	27.0	30.5	20.5	25.0
YEAR	30.5	1.5	17.5									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.7	7.2	7.4	8.3	7.8	8.1	9.2	8.7	9.0	10.9	10.0	10.4
2	7.6	7.2	7.4	9.1	8.3	8.9	9.3	8.4	8.9	11.6	11.3	9.4
3	7.4	7.0	7.3	9.2	8.7	8.9	9.0	8.4	8.7	11.3	10.7	10.9
4	7.3	7.0	7.2	9.5	8.7	9.0	9.5	9.0	9.1	10.7	9.9	10.3
5	7.4	7.1	7.3	8.9	8.5	8.7	9.5	9.0	9.1	10.4	10.0	10.2
6	7.3	6.8	7.0	9.1	8.7	9.0	10.7	10.2	10.4	10.1	9.8	10.0
7	7.0	6.5	6.8	9.9	8.9	9.2	11.0	10.7	10.9	10.1	9.6	9.8
8	6.8	6.4	6.6	9.6	8.5	9.0	10.9	10.4	10.7	10.7	10.1	10.5
9	6.6	6.2	6.4	8.7	8.3	8.5	10.5	9.7	10.1	10.7	10.4	10.6
10	7.6	6.2	6.8	9.0	8.4	8.7	10.2	9.6	9.9	10.7	10.1	10.4
11	7.5	6.9	7.2	---	---	---	10.2	9.8	10.0	10.6	10.0	10.3
12	8.0	6.8	7.2	---	---	---	9.8	9.2	9.6	10.5	10.0	10.3
13	7.4	6.8	7.0	---	---	---	9.5	9.1	9.3	10.6	10.1	10.4
14	8.4	6.9	7.4	---	---	---	9.8	9.3	9.6	10.1	9.6	9.9
15	8.2	6.8	7.3	---	---	---	9.4	9.2	9.3	10.5	10.0	10.3
16	7.7	5.1	6.8	---	---	---	9.2	8.4	8.8	10.5	9.9	10.3
17	7.7	6.9	7.4	---	---	---	8.8	8.3	8.5	10.5	10.1	10.3
18	8.1	7.6	7.8	---	---	---	8.9	8.4	8.6	10.3	10.0	10.2
19	7.8	7.4	7.7	9.8	9.7	9.7	9.8	8.6	9.3	11.1	10.3	10.5
20	8.2	7.8	8.0	10.1	9.7	9.9	10.1	9.8	9.9	12.0	11.2	11.7
21	8.1	7.7	7.9	10.3	9.8	10.1	9.8	9.5	9.7	11.9	11.2	11.6
22	8.3	8.1	8.2	10.2	9.7	9.9	10.2	9.7	9.9	11.3	10.9	11.0
23	8.6	8.3	8.4	9.9	9.7	9.8	10.4	9.9	10.1	11.1	10.9	11.0
24	8.7	8.3	8.5	10.0	9.5	9.8	10.2	9.6	9.9	10.9	10.4	10.6
25	8.7	8.0	8.4	10.0	9.4	9.7	10.8	9.9	10.4	10.6	10.1	10.3
26	8.1	7.6	7.8	9.9	9.2	9.5	10.6	10.1	10.3	10.7	10.4	10.5
27	7.7	7.4	7.6	9.6	8.6	9.2	10.4	9.9	10.1	10.4	10.1	10.3
28	7.6	7.4	7.5	8.9	8.2	8.6	10.8	9.1	10.1	10.2	9.8	10.0
29	8.1	7.7	7.9	9.2	8.7	8.9	10.1	9.7	9.8	9.9	9.8	9.9
30	8.3	7.7	8.0	8.9	8.6	8.7	10.6	9.8	10.4	10.2	9.7	9.9
31	8.5	7.7	8.1	---	---	---	10.6	9.7	10.2	9.8	9.6	9.7
MONTH	8.7	5.1	7.5	10.3	7.8	9.2	11.0	8.3	9.7	12.0	9.6	10.4



## STREAMS TRIBUTARY TO LAKE ERIE

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued  
 SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3780	3340	3400	1200	2990	---	1130	3340	2820	4390	4570	4830
2	3510	2870	3600	1720	2590	---	2040	3430	2840	3850	4740	4760
3	3500	3000	3320	2300	3410	---	2120	3420	3300	3720	4800	4330
4	3640	3490	2740	2490	3430	900	2290	2940	3200	4130	4810	3970
5	3300	2740	2780	3030	3530	920	2640	3120	3370	3900	4200	4260
6	3210	2620	3370	3020	3640	1930	2880	3250	3220	4220	3790	3530
7	3720	2670	3310	2840	3100	2140	3130	3220	3370	4000	3920	4310
8	4020	3270	3220	3100	3110	2180	3070	3420	3910	4170	4190	4300
9	3200	3510	3000	2880	3470	2650	3100	3010	4010	4290	4360	3510
10	3430	3130	2660	3200	3540	3080	3150	2550	3980	4330	4460	3400
11	3910	---	2060	3100	3480	2750	3150	3160	4050	4580	4120	3950
12	3960	---	2280	3450	3520	1870	2680	3270	3640	4680	3770	3960
13	4100	---	2200	3300	3160	2380	2930	3440	3600	4720	3700	3640
14	4120	---	2160	3300	2460	2560	2850	3840	3520	3280	3640	3980
15	4180	---	2600	3370	2170	2660	2690	3780	4040	2830	3560	4220
16	4190	---	2860	3300	3100	3020	2880	3610	3230	3840	4290	3860
17	3430	---	2990	3120	3070	3210	2860	3220	3360	4650	4610	3990
18	3470	---	3060	2940	3000	3350	2680	3410	3690	4800	4350	4030
19	3550	3390	3160	2770	3440	3580	2580	3590	3820	4560	4420	3970
20	3560	2790	3090	2650	3260	3360	2730	3380	4010	5390	4600	3970
21	3180	2410	3080	2920	3390	3280	2780	3480	3640	5370	4490	4080
22	2380	3200	2760	2790	1420	3380	2780	3290	4080	4820	3770	3710
23	2220	3270	2860	3410	---	3250	2750	3350	4070	5140	3610	4250
24	2000	3030	3110	3810	---	2930	2590	2830	4580	4860	4040	5050
25	2060	2900	3100	3520	---	2890	2260	3040	4750	4940	4110	4930
26	2800	3250	2920	3630	---	2880	1850	3110	4850	4800	4280	4270
27	3020	4130	2970	3710	---	2950	1940	3080	4820	4830	4460	4510
28	3460	3850	900	3780	---	2430	2270	3020	4940	4860	4320	4570
29	3100	3420	1160	3680	---	920	2750	3010	4770	4700	4110	4160
30	3120	3460	1320	4020	---	2160	2990	2760	4700	4900	4130	4130
31	2700	---	1890	3700	---	1330	---	2940	---	---	4670	---
MEAN	3350	3170	2710	3100	3100	2530	2620	3240	3870	4450	4220	4150

WTR YR 1985 MEAN 3390 MAX 5390 MIN 900  
 PH (STANDARD UNITS), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	8.0	8.1	7.5	7.7	---	7.4	7.9	8.1	8.0	8.1	8.1
2	7.9	8.0	8.1	7.7	7.6	---	7.6	8.0	8.0	8.0	8.0	8.1
3	8.0	8.1	8.0	8.0	7.5	---	7.5	8.0	7.9	8.0	8.0	8.0
4	8.0	8.0	8.1	8.0	7.1	7.3	7.5	8.0	7.9	7.9	8.1	8.0
5	7.9	7.8	8.1	8.0	7.3	7.2	7.5	7.9	7.9	8.0	8.2	8.0
6	8.0	7.8	8.0	8.0	7.4	7.6	7.7	7.8	8.0	8.1	8.0	8.1
7	7.9	7.9	8.0	7.9	7.7	7.7	7.8	7.9	8.0	8.1	7.9	8.0
8	7.9	7.9	8.1	8.0	7.6	7.5	7.8	8.0	8.0	7.9	7.9	8.1
9	7.9	7.9	8.1	7.9	7.8	7.7	7.9	8.1	8.0	8.0	7.6	7.9
10	7.9	7.9	7.9	7.9	7.8	7.9	7.9	8.1	7.9	8.0	7.4	8.0
11	7.9	---	7.8	7.9	7.7	7.7	7.7	8.1	7.9	8.1	7.7	8.1
12	7.9	---	7.8	8.0	7.6	7.5	7.8	8.1	7.9	8.1	7.6	8.0
13	7.9	---	7.8	8.2	7.4	7.6	7.8	8.2	7.9	8.0	7.9	8.1
14	7.9	---	7.8	8.0	7.4	7.7	7.7	8.2	7.9	7.7	7.9	8.2
15	7.9	---	7.9	7.9	7.4	7.8	7.7	8.2	8.0	7.8	8.0	8.2
16	7.8	---	7.9	7.8	7.6	7.8	7.8	8.1	7.9	7.9	8.0	8.2
17	7.9	---	7.9	7.5	7.6	7.8	7.9	8.1	7.9	8.0	8.1	8.0
18	7.9	---	7.9	7.3	7.6	7.8	7.7	8.2	7.9	8.0	8.2	8.0
19	8.0	8.2	8.0	7.4	7.6	7.8	7.7	8.2	7.9	8.0	8.0	7.9
20	8.1	8.2	8.1	7.7	7.5	7.8	7.8	8.2	8.0	8.0	8.2	7.9
21	8.1	8.3	8.0	7.6	7.5	7.9	7.7	8.2	8.0	8.0	8.1	7.9
22	8.1	8.3	7.8	7.5	7.1	7.9	7.7	8.2	7.9	8.1	8.2	8.0
23	8.2	8.3	8.0	7.6	---	7.7	7.9	8.1	8.0	8.3	8.3	8.0
24	8.3	8.3	8.0	7.4	---	7.7	7.9	8.2	7.9	8.3	8.2	8.1
25	8.2	8.2	8.0	7.4	---	7.9	8.0	8.1	7.9	8.1	8.1	8.2
26	8.1	8.2	8.1	7.5	---	7.9	8.0	8.2	7.9	8.0	8.0	8.1
27	8.1	8.2	8.1	7.3	---	7.8	8.1	8.1	7.9	8.0	8.1	8.1
28	8.1	8.1	7.5	7.3	---	7.7	8.1	8.1	7.9	8.0	8.1	8.1
29	8.1	8.1	7.4	7.4	---	7.4	8.0	8.1	8.0	8.0	8.1	8.1
30	8.0	8.1	7.5	7.5	---	7.7	7.9	8.0	8.0	8.1	8.1	7.9
31	8.0	---	7.7	7.5	---	7.5	---	8.0	---	---	8.1	---
MEAN	8.0	8.1	7.9	7.7	7.5	7.7	7.8	8.1	7.9	8.0	8.0	8.1

WTR YR 1985 MEAN 7.9 MAX 8.3 MIN 7.1



## STREAMS TRIBUTARY TO LAKE ERIE

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04212680 FIELDS BROOK AT ASHTABULA, OH--Continued  
 TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	19.5	10.0	9.0	8.0	---	7.0	18.0	21.5	25.0	25.5	25.5
2	21.0	16.0	11.0	8.0	6.0	---	7.5	17.0	22.0	24.5	25.5	26.0
3	21.0	15.5	10.0	8.5	5.5	---	8.0	17.0	22.0	24.5	25.5	27.5
4	21.0	15.0	9.0	9.5	7.0	2.5	10.5	18.0	22.5	25.5	26.0	28.0
5	21.0	14.5	9.0	9.5	8.5	2.5	14.5	19.0	23.0	26.0	25.5	28.0
6	21.0	13.0	8.5	10.0	9.0	4.5	11.5	19.5	23.5	25.5	25.5	28.0
7	21.5	14.5	7.0	10.0	8.5	6.5	11.5	19.0	23.5	25.0	25.0	29.0
8	22.0	15.0	7.5	8.0	7.5	8.0	11.5	18.0	23.5	26.0	26.5	28.5
9	22.5	15.5	8.5	8.5	7.0	8.0	10.0	19.0	23.5	28.0	27.0	28.5
10	22.5	15.0	7.5	8.5	7.5	9.5	11.5	21.0	24.0	27.0	28.0	27.5
11	22.0	15.0	7.5	8.5	9.0	10.0	12.0	21.5	23.0	26.5	27.0	25.5
12	21.0	---	9.5	8.5	7.0	7.0	13.0	22.0	19.5	27.0	27.5	24.0
13	22.0	---	11.0	7.5	5.5	8.0	14.0	21.5	19.5	27.0	28.5	23.0
14	22.0	---	9.5	8.5	5.0	9.0	16.0	22.5	22.5	25.0	28.5	22.5
15	22.0	---	10.5	7.0	4.5	9.0	16.5	22.5	22.0	25.5	28.0	22.0
16	22.5	---	12.5	8.0	4.5	10.0	16.0	21.5	21.5	26.5	27.5	22.5
17	22.5	---	13.0	8.5	5.5	9.0	14.0	21.0	23.0	27.0	27.0	23.0
18	22.0	---	12.5	9.0	6.0	8.0	17.0	19.0	23.0	27.5	26.5	24.5
19	22.5	10.5	10.5	8.0	6.0	8.5	17.5	20.5	23.5	28.5	26.5	25.0
20	21.5	10.0	9.5	2.5	6.5	9.5	18.5	21.0	23.5	28.5	26.5	25.0
21	21.0	10.0	10.0	3.5	6.5	9.5	19.0	21.5	24.5	28.5	26.5	24.5
22	20.0	11.0	9.0	6.0	3.5	11.5	19.5	21.5	24.0	27.5	26.5	25.5
23	19.5	10.5	8.5	5.5	---	11.0	20.0	21.5	25.0	26.5	26.5	25.0
24	18.5	11.0	9.0	7.0	---	10.5	19.5	22.0	24.5	27.0	26.0	23.5
25	19.0	11.5	7.0	7.5	---	10.0	18.0	22.0	25.0	27.5	26.5	23.5
26	21.0	12.5	8.0	7.0	---	11.5	18.0	22.5	25.0	27.5	26.5	23.0
27	22.0	13.5	8.5	8.0	---	13.5	17.0	22.5	25.5	27.0	27.0	23.0
28	22.0	14.0	6.5	8.5	---	13.0	17.0	21.5	26.0	27.0	27.0	22.5
29	21.0	11.5	11.5	8.5	---	11.5	18.0	21.5	26.0	27.5	26.5	23.0
30	21.0	11.5	9.0	8.5	---	10.5	18.5	22.0	25.5	27.5	26.0	23.5
31	20.0	---	8.5	9.0	---	8.5	---	22.0	---	---	24.5	---
MEAN	21.5	13.5	9.5	8.0	6.5	9.0	15.0	20.5	23.5	26.5	26.5	25.0

WTR YR 1985 MEAN 17.5 MAX 29.0 MIN 2.5  
 OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
 MEDIAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	8.2	9.0	11.2	10.1	---	11.1	---	6.9	5.6	6.4	7.0
2	7.5	8.9	8.9	11.4	10.8	---	10.8	---	6.6	5.8	6.0	6.8
3	7.3	8.9	8.8	10.9	10.9	---	10.3	---	6.7	5.3	5.4	6.7
4	7.2	9.0	9.1	10.3	10.6	13.1	9.6	---	6.4	5.1	---	6.4
5	7.3	8.7	9.4	10.2	10.2	13.2	8.6	---	6.0	5.1	---	6.2
6	7.1	9.1	10.4	10.0	10.0	12.8	9.0	---	6.1	5.4	---	6.4
7	6.8	9.2	10.9	9.7	10.8	11.9	9.1	---	6.1	5.6	---	6.3
8	6.6	9.0	10.7	10.5	11.0	11.2	9.2	7.8	6.0	5.2	---	6.3
9	6.4	8.4	10.2	10.6	11.1	10.8	9.4	7.8	5.7	4.6	---	5.6
10	6.7	8.7	10.1	10.5	11.0	10.3	9.1	7.4	5.7	4.5	---	4.5
11	7.2	---	10.1	10.2	10.5	10.0	9.8	7.2	6.2	4.7	---	4.6
12	7.2	---	9.7	10.3	10.5	10.6	9.7	7.1	7.1	4.4	---	4.5
13	6.9	---	9.3	10.5	10.7	10.5	9.5	7.1	6.6	4.3	5.9	4.5
14	7.2	---	9.5	9.9	10.8	10.2	8.8	7.2	6.2	3.4	5.5	4.5
15	7.2	---	9.3	10.4	11.0	10.2	8.4	6.9	6.1	2.9	5.6	4.6
16	6.8	---	9.0	10.4	11.0	9.8	8.4	7.0	6.7	2.7	6.2	4.4
17	7.5	---	8.4	10.2	10.8	10.0	9.1	6.8	6.4	6.2	6.3	3.9
18	7.9	---	8.5	10.2	10.8	10.4	8.7	7.3	5.9	6.0	6.5	6.0
19	7.7	9.8	9.6	10.5	10.8	10.3	7.6	7.5	6.0	5.8	6.4	6.0
20	8.0	9.9	9.8	11.8	11.0	9.9	7.9	7.1	6.3	5.5	6.7	4.8
21	7.9	10.2	9.7	11.5	11.1	10.2	7.6	7.2	6.3	5.6	6.7	4.4
22	8.2	9.8	9.9	11.0	11.7	10.1	8.0	7.2	5.9	4.9	6.4	4.4
23	8.4	9.8	10.2	10.9	---	9.2	7.9	6.8	5.8	5.4	6.5	---
24	8.6	9.8	9.9	10.5	---	10.4	8.0	7.1	5.7	5.3	6.2	---
25	8.5	9.7	10.4	10.3	---	11.3	8.2	6.9	5.8	3.8	5.7	---
26	7.8	9.6	10.4	10.5	---	11.1	8.2	6.9	5.7	3.2	4.9	---
27	7.6	9.3	10.1	10.3	---	10.3	8.3	6.8	5.9	3.4	4.4	---
28	7.5	8.6	10.1	9.9	---	9.7	8.0	6.8	5.7	3.2	5.4	---
29	7.9	8.9	9.8	9.9	---	10.1	7.2	7.1	5.5	3.1	6.2	---
30	8.1	8.7	10.5	9.9	---	10.9	---	6.8	5.6	2.9	6.4	---
31	8.1	---	10.4	9.8	---	11.1	---	6.5	---	---	7.0	---
MEAN	7.5	9.2	9.8	10.5	10.8	10.7	8.8	7.1	6.1	4.6	6.0	5.4

WTR YR 1985 MEAN 8.1 MAX 13.2 MIN 2.7

## STREAMS TRIBUTARY TO LAKE ERIE

04213000 CONNEAUT CREEK AT CONNEAUT, OH

LOCATION.--Lat 41°55'37", long 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, and 6.4 mi upstream from mouth.

DRAINAGE AREA.--175 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1922 to December 1935, March 1950 to September 1961 (published as "at Amboy"), October 1961 to current year.

REVISED RECORDS.--WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.30 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 6 to Feb. 22. Records good except for periods with estimated record, which are poor. Water-quality data collected at this site 1965 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--48 years, 269 ft<sup>3</sup>/s, 20.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft<sup>3</sup>/s Jan. 22, 1959, gage height, 11.70 ft; maximum gage height, 12.94 ft Mar. 4, 1934 (backwater from ice); minimum discharge, 0.2 ft<sup>3</sup>/s July 31, Aug. 1, 1933, Aug. 1, 2, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 29	2300	4,250	6.98	Mar. 6	0200	6,170	7.98
Feb. 24	1800	*9,840	*9.55	Mar. 30	0800	3,020	6.19
Mar. 5	0100	2,900	6.11	Apr. 1	2100	3,610	6.59

minimum daily discharge, 13 ft<sup>3</sup>/s Sept. 7, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	120	146	906	130	365	2930	56	106	23	24	30
2	44	190	348	1350	130	324	1620	49	147	23	27	29
3	69	389	260	879	130	304	636	45	90	22	25	23
4	53	256	340	556	130	571	1060	42	65	22	21	21
5	39	1110	248	419	130	3270	615	41	49	22	18	16
6	32	1750	173	240	130	3110	367	41	38	23	16	15
7	28	2210	139	180	130	505	272	41	32	36	19	13
8	27	537	124	140	130	729	221	47	29	75	21	19
9	25	266	176	120	130	1010	262	46	29	97	41	178
10	24	553	183	120	130	455	305	39	27	90	29	330
11	25	1220	304	110	130	302	291	34	27	75	24	210
12	24	1390	630	110	250	665	339	32	227	66	18	136
13	22	984	1130	110	450	1260	281	29	291	43	17	73
14	22	863	901	110	600	605	300	29	405	79	18	42
15	22	619	627	110	540	438	219	27	201	1390	17	31
16	22	1150	412	110	300	287	171	28	190	2010	17	26
17	21	832	271	110	240	215	139	31	326	415	17	22
18	20	365	210	110	200	187	115	34	177	147	31	19
19	22	251	168	110	190	163	107	34	106	79	26	18
20	26	187	166	110	180	169	113	34	83	52	22	15
21	23	142	188	120	170	195	106	41	56	42	34	15
22	22	118	329	120	520	149	93	49	46	41	27	14
23	25	104	630	120	3530	138	80	58	41	52	22	13
24	22	97	284	120	8210	223	73	39	69	36	18	16
25	26	91	197	120	6180	451	137	33	56	30	20	15
26	30	85	136	120	1650	292	245	30	40	28	18	17
27	28	73	146	130	598	184	164	28	34	26	19	17
28	38	75	865	130	445	194	101	33	29	23	19	16
29	566	94	3310	130	---	1260	75	30	27	21	17	21
30	772	134	2930	130	---	2200	64	43	25	19	16	19
31	219	---	1700	130	---	1150	---	43	---	25	16	---
TOTAL	2378	16255	17671	7380	25683	21370	11501	1186	3068	5132	674	1429
MEAN	76.7	542	570	238	917	689	383	38.3	102	166	21.7	47.6
MAX	772	2210	3310	1350	8210	3270	2930	58	405	2010	41	330
MIN	20	73	124	110	130	138	64	27	25	19	16	13
CFSM	.44	3.10	3.26	1.36	5.24	3.94	2.19	.22	.58	.95	.12	.27
IN.	.51	3.46	3.76	1.57	5.46	4.54	2.44	.25	.65	1.09	.14	.30
CAL YR 1984	TOTAL	119913	MEAN	328	MAX	3420	MIN	14	CFSM	1.87	IN.	25.46
WTR YR 1985	TOTAL	113727	MEAN	312	MAX	8210	MIN	13	CFSM	1.78	IN.	24.18

## CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1985

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)
Streams tributary to Lake Erie							
04180907 (d)	Carter Creek near New Bremen, OH	Lat 40°26'16", long 84°19'34", Shelby County, Hydrologic Unit 04100004, at culvert on State Route 274, .58 mi west of State Route 29, .82 mi upstream of an unnamed tributary and 2.27 mi east of New Bremen	1.16	1982-85	3-31-85	11.35	29
04183750 (d)	Racetrack Run at Hicksville, OH	Lat 41°18'58", long 84°46'00", Defiance County, Hydrologic Unit 04100005, at culvert on Hicksville-Edgerton Road, 0.2 mi south of Middle Fork Gordon Creek, 0.9 mi north of Hicksville.	0.34	1978-85	3-28-85	14.88	86
04184750	Spring Creek at Fayette, OH	Lat 41°40'32", long 84°19'47", Fulton County, Hydrologic Unit 04100006, at culvert on Gorham Street, 800 ft north of U.S. Highway 20 in Fayette.	2.58	1978-85	3-28-85	97.57	303
04184760	Bean Creek tributary near Fayette, OH	Lat 41°39'08", long 84°17'34", Fulton County, Hydrologic Unit 04100006, at culvert on Fulton County Highway N, 1.5 mi south of U.S. Highway 20, and 2.3 mi southeast of Fayette.	0.56	1978-85	3-28-85	15.57	91
04185150	Beaver Creek tributary near Montpelier, OH	Lat 41°34'19", long 84°31'03", Williams County, Hydrologic Unit 04100006 on Williams County Road K, 2.0 mi east of State Highway 15, and 4.7 mi east of Montpelier.	0.40	1978-85	3-28-85	18.64	68
04185945	Auglaize River tributary near Spencerville, OH	Lat 40°42'27", long 84°19'06", Allen County, Hydrologic Unit 04100007, at culvert on State Highway 117, 1.8 mi east of Spencerville.	0.51	1978-85	2-22-85	98.70	37
04186800 (d)	King Run near Harrod, OH	Lat 40°43'57", long 83°53'47", Allen County, Hydrologic Unit 04100007, at culvert on State Route 309, 0.9 mi west of Allen-Hardin County line, 2.2 mi (3.5 km) northeast of Harrod.	0.53	1966-85	3-31-85	18.86	23
04187945	Rattlesnake Creek near Cairo, OH	Lat 40°49'20", long 84°04'16", Allen County, Hydrologic Unit 04100007, at culvert on Stewart Road, 1.2 mi southeast of Cairo.	1.45	1978-85	2-22-85	23.53	165
04190350	Little Auglaize River tributary at Ottoville, OH	Lat 40°55'05", long 84°20'47", Putnam County, Hydrologic Unit 04100007, at culvert on State Highway 66, 1.0 mi south of Ottoville.	1.04	1978-85	2-22-85	15.23	36
04191003 (d)	Stripe Creek near Van Wert, OH	Lat 40°54'29", long 84°33'43", Van Wert County, Hydrologic Unit 04100007, at culvert on State Route 224, .76 mi northeast of State Route 127, 700 ft upstream of Town Creek and 1.87 mi north of Van Wert.	1.26	1982-85	3-31-85	12.31	37

## CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Dis- charge (ft <sup>3</sup> /s)
Streams tributary to Lake Erie--Continued							
04191480	Beetree Run near Junction, OH	Lat 41°13'26", long 84°24'33, Defiance County, Hydrologic Unit 04100007, at culvert on private drive from Bowman Road 12, near Sponseller Road 158, 3.2 mi northeast of Junction.	1.66	1978-85	3-30-85	101.99	182
04192900	Reitz Run at Waterville, OH	Lat 41°29'50", long 83°42'35", Wood County, Hydrologic Unit 04100012, at culvert on State Highways 64 and 65, 0.1 mi upstream from mouth, 0.5 mi southeast of Waterville.	0.98	1966-85	3-28-85	18.25	28
04196825 (d)	Browns Run near Crawford, OH	Lat 40°53'13", long 83°20'15", Wyandot County, Hydrologic Unit 04100011, at culvert on U.S. Highway 23, 5.9 mi north of U.S. Highway 30N, 1.29 mi upstream of Little Tymochtee Creek and 2.3 mi south of Crawford.	2.00	1982-85	6- 9-85	13.11	71
04198019 (d)	Sandhill Creek near Monroeville, OH	Lat 41°12'13", long 82°42'56", Huron County, Hydrologic Unit 04100012, at culvert on State Route 99, 1,200 ft upstream of Slate Runm 1.1 mi north of Pontiac, and 2.4 mi south of Monroeville.	1.76	1982-85	3-28-85	13.18	100
04201302 (d)	Delwood Run at Valley City, OH	Lat 41°14'15", long 81°55'18", Medina County, Hydrologic Unit 04110001, at culvert on State Route 303, 250 ft east of State Route 252, 400 ft up- stream of West Branch Rocky River, and about .5 mi east of Valley City.	0.45	1982-85	8-30-85	11.66	19
04201895 (d)	Fire Run at Auburn Corners, OH	Lat 41°23'36", long 81°12'56", Geauga County, Hydrologic Unit 04110002, at culvert on State Route 44, .6 mi up- stream of LaDue Reservoir, and .4 mi north of U.S. Highway 422 in Auburn Corners.	0.24	1982-85	3-28-85	11.45	21
04210100	Hoskins Creek at Harts Grove, OH	Lat 41°36'00", long 80°57'12", Ashtabula County, Hydrologic Unit 04110004, at culvert on State Route 534, 0.4 mi south of Harts Grove.	5.42	1982-85	3-31-85	7.80	178

\* Revised

c Operated as an urban hydrology site where additional data may be available.

d Operated as a rural flood volume site where additional data may be available.



## GROUND-WATER RECORDS

113

## CRAWFORD COUNTY

4048380 82563100. Local number, CR-1.

LOCATION.--Lat 40°48'38", long 82°56'31", Hydrologic Unit 04100011, Timken Roller Bearing Co., U.S. 30 in Bucyrus.

Owner: Timken Roller Bearing Co.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in., depth 54 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1039.13 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of water.

PERIOD OF RECORD.--April 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.64 ft below land-surface datum, Dec. 11, 1962; minimum daily low, 16.78 ft below land-surface datum, Apr. 24-25, 1984.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.34	20.25	19.78	18.68	19.38	18.46	18.25	18.95	19.21	18.95	19.39	19.45
2	20.17	20.38	19.79	18.65	19.46	18.90	18.17	18.89	19.21	18.88	19.34	19.47
3	20.02	20.30	19.82	18.60	19.54	18.83	18.09	18.95	19.27	18.82	19.24	19.45
4	20.12	20.09	19.90	18.33	19.51	18.50	18.09	18.92	19.22	18.82	19.14	19.47
5	20.20	19.97	19.90	18.49	20.15	18.77	17.95	18.79	20.34	18.84	19.10	19.41
6	20.21	20.04	19.80	18.48	21.77	18.83	17.96	18.85	21.13	18.90	19.11	19.29
7	20.19	20.10	19.82	18.38	22.19	18.62	17.95	18.92	20.23	18.96	19.20	19.26
8	20.12	20.03	19.97	18.70	21.63	18.53	17.90	18.99	19.62	18.90	19.26	19.20
9	20.20	19.92	19.69	18.94	21.09	18.54	17.97	18.99	19.42	18.96	20.62	19.19
10	20.15	19.73	19.58	18.87	20.81	18.52	17.93	18.96	19.39	18.93	20.35	19.15
11	20.30	19.68	19.61	18.75	20.57	18.41	17.91	20.42	19.28	19.00	19.54	20.14
12	20.22	19.66	19.38	18.76	20.46	18.52	17.97	21.23	19.06	19.02	19.40	19.73
13	20.13	19.69	19.62	18.63	20.38	18.49	17.95	20.73	18.87	19.04	20.08	19.42
14	20.09	19.67	19.58	18.62	20.35	18.46	17.90	20.12	18.85	19.01	20.54	19.30
15	20.10	19.51	19.48	19.06	20.33	18.58	17.75	19.87	18.81	19.09	20.01	20.72
16	20.23	19.67	19.32	19.03	20.26	19.25	18.03	19.69	18.80	19.18	19.77	21.13
17	20.30	19.90	19.30	18.64	20.39	18.70	18.10	19.37	18.82	19.20	19.42	20.33
18	20.32	19.71	19.40	18.64	20.47	18.59	17.95	19.33	18.63	19.19	20.24	20.93
19	20.27	19.79	19.32	18.82	20.30	19.45	17.99	19.32	18.61	19.20	20.87	21.34
20	20.34	19.90	19.37	19.25	20.17	19.42	18.06	19.28	18.67	19.20	20.04	20.97
21	20.34	19.95	19.30	19.34	20.14	19.02	18.10	19.32	18.70	19.16	19.65	20.44
22	20.38	19.91	19.36	19.16	19.99	18.79	19.14	19.32	18.72	19.26	19.52	20.20
23	20.44	19.74	19.34	19.11	19.61	20.35	19.08	19.21	18.74	19.30	19.37	20.08
24	20.42	19.88	19.27	18.96	18.78	20.95	18.42	19.23	18.80	19.32	19.18	20.09
25	20.42	19.77	19.49	19.21	18.66	20.29	18.44	19.20	18.83	19.14	19.17	20.03
26	20.33	19.60	19.47	19.30	18.54	19.92	20.34	19.18	18.81	19.08	19.38	19.95
27	20.43	19.61	19.28	19.10	18.63	19.56	20.04	19.18	18.82	19.20	19.47	20.91
28	19.99	19.63	19.20	19.55	18.62	19.38	19.25	19.21	18.82	19.23	19.50	20.83
29	20.22	19.63	19.13	19.48	---	19.21	19.20	19.23	18.87	19.26	19.46	20.34
30	20.29	19.55	19.13	19.33	---	19.03	19.04	19.11	18.93	19.30	19.38	21.04
31	20.38	---	18.87	19.33	---	18.71	---	19.12	---	19.27	19.41	---
MAX	20.44	20.38	19.97	19.55	22.19	20.95	20.34	21.23	21.13	19.32	20.87	21.34
WTR YR 1985	MEAN	19.43		HIGH	17.75	APR 15	LOW	22.19	FEB 7			

## GROUND-WATER RECORDS

## GEAUGA COUNTY

412518081221500. Local number, GE-3A.

LOCATION.--Lat 41°25'18", long 81°22'15", Hydrologic Unit 04110003, 1.2 mi southeast of Chagrin Falls.

Owner: City of Chagrin Falls.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth drilled 120 ft, present depth 89 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1951 to current year.

REMARKS.--Water level affected by pumping wells nearby for Chagrin Falls municipal supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 52.85 ft below land-surface datum, Oct. 2, 1965; minimum daily low, 8.70 ft below land-surface datum, May 17, 1973.

## WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.31	31.06	30.48	39.69			---	46.88	39.48	43.56	45.26	
2	33.30	31.26	30.49	40.00			---	46.92	39.27	43.60	45.29	
3	33.09	31.19	30.39	40.02			---	46.97	39.10	43.71	45.27	
4	33.15	30.80	30.50	39.98			---	46.97	39.02	43.74	45.29	
5	33.06	30.89	30.46	40.39			---	46.97	---	43.80	45.28	
6	33.02	31.00	30.25	40.49			---	47.01	---	43.88	45.23	
7	32.84	31.08	31.63	40.63			---	47.06	---	43.94	45.16	
8	32.64	30.96	33.03	41.03			46.19	47.11	---	43.94	45.17	
9	32.65	30.75	33.49	41.12			46.27	47.10	---	44.02	45.19	
10	32.62	30.56	34.21	41.10			46.27	47.10	---	44.15	45.12	
11	32.53	30.79	34.51	40.45			46.30	46.81	---	44.25	45.14	
12	32.36	30.82	34.89	40.83			46.34	46.23	---	44.31	45.14	
13	32.21	30.88	35.83	40.92			46.33	45.76	43.50	44.34	45.12	
14	32.05	30.86	36.00	41.29			46.30	45.33	43.59	44.36	45.13	
15	31.96	30.60	36.39	41.61			46.30	44.88	43.62	44.38	45.15	
16	32.01	30.70	36.56	41.63			46.49	44.49	43.60	44.51	47.99	
17	31.94	30.74	36.99	41.56			46.54	43.93	43.19	44.53	48.32	
18	31.94	30.60	37.48	41.64			46.49	43.58	43.40	44.56	48.36	
19	31.73	30.69	37.68	41.79			46.52	43.25	42.46	44.58	48.30	
20	31.82	30.79	38.06	41.79			46.56	42.88	41.74	44.66	---	
21	31.68	30.85	38.06	---			46.60	42.54	41.32	44.70	---	
22	31.69	30.78	38.69	---			46.62	42.26	40.90	44.88	---	
23	31.66	30.46	38.69	---			46.63	41.79	40.58	44.97	---	
24	31.55	30.43	39.10	---			46.65	41.50	42.12	44.99	---	
25	31.54	30.46	39.48	---			46.72	41.15	42.57	45.01	---	
26	31.32	30.44	39.59	---			46.78	40.83	42.90	45.10	---	
27	31.30	30.42	39.60	---			46.80	40.54	43.07	45.14	---	
28	31.21	30.35	39.60	---			46.86	40.30	43.22	45.15	---	
29	31.30	30.35	37.81	---			46.89	40.21	43.37	45.17	---	
30	31.26	30.23	38.83	---			46.86	39.87	43.51	45.21	---	
31	31.35	---	39.09	---			---	39.56	---	45.20	---	
MAX	33.31	31.26	39.60	---			---	47.11	---	45.21	---	

WTR YR 1985 MEAN 39.73 HIGH 30.23 NOV 30 LOW 48.36 AUG 18

## GROUND-WATER RECORDS

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## HARDIN COUNTY

4046480 83412600. Local number, HN-2A.

LOCATION.--Lat 40°46'48", long 83°41'26", Hydrologic Unit 04100007, at southeast edge of Dola.

Owner: Ohio Power Company

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 51 ft cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 945 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 2.88 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--December 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 15.86 ft below land-surface datum, Jan. 20, 21, 1965; minimum daily low, 5.46 ft below land-surface datum, Mar. 21, 1984.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.26	9.06	9.08	7.98	7.39	6.32	6.27	6.45	6.58	6.64	7.53	8.61
2	8.30	9.25	9.09	8.09	7.45	6.53	6.27	6.45	6.57	6.59	7.65	8.68
3	8.18	9.21	9.15	8.09	7.69	6.56	6.13	6.57	6.68	6.53	7.66	8.67
4	8.32	8.76	9.31	7.61	7.69	6.19	6.13	6.54	6.73	6.52	7.66	8.62
5	8.46	8.84	9.32	7.55	7.55	6.70	5.94	6.36	6.64	6.44	7.63	8.61
6	8.49	9.07	9.03	7.54	7.22	6.83	6.39	6.44	6.69	6.56	7.59	8.72
7	8.48	9.19	9.06	7.17	7.50	6.57	6.42	6.53	6.64	6.71	7.58	8.83
8	8.38	9.14	8.95	7.63	7.63	6.38	6.44	6.65	6.42	6.69	7.67	8.85
9	8.53	8.97	8.98	7.72	7.65	6.38	6.52	6.64	6.43	6.58	7.74	8.82
10	8.63	8.64	8.95	7.54	7.63	6.37	6.52	6.53	6.61	6.58	7.74	8.90
11	8.63	8.95	8.99	7.44	7.37	6.12	6.37	6.44	6.58	6.78	7.90	9.11
12	8.62	9.11	8.69	7.43	6.91	6.34	6.42	6.42	6.41	6.78	7.93	9.27
13	8.52	9.22	9.08	7.19	7.01	6.33	6.36	6.57	6.51	6.85	7.94	9.43
14	8.37	9.21	9.06	7.02	7.12	6.36	6.21	6.54	6.54	6.79	7.95	9.48
15	8.33	8.93	9.14	7.40	7.21	6.49	6.02	6.52	6.54	6.76	7.94	9.41
16	8.49	9.07	8.97	7.41	7.21	6.33	6.32	6.45	6.44	6.98	8.03	9.28
17	8.67	9.15	8.79	6.79	7.35	6.33	6.51	6.32	6.46	7.09	8.05	9.16
18	8.73	9.06	8.93	6.75	7.58	6.39	6.30	6.42	6.32	7.07	8.06	9.30
19	8.62	9.16	8.71	7.05	7.46	6.25	6.24	6.48	6.39	7.04	8.19	9.39
20	8.73	9.39	8.66	7.25	7.42	6.48	6.32	6.52	6.48	7.04	8.28	9.32
21	8.76	9.51	8.58	7.13	7.38	6.49	6.35	6.64	6.52	7.00	8.33	9.25
22	8.90	9.50	8.65	7.17	7.22	6.23	6.34	6.66	6.47	7.01	8.36	9.24
23	9.02	9.18	8.65	7.11	7.08	6.10	6.27	6.53	6.51	7.17	8.37	9.23
24	9.02	9.04	8.55	6.91	6.60	6.45	6.24	6.51	6.60	7.17	8.27	9.40
25	9.02	9.00	8.91	7.32	6.64	6.64	6.37	6.49	6.62	7.14	8.32	9.49
26	8.87	8.96	8.90	7.48	6.57	6.63	6.36	6.42	6.53	7.16	8.55	9.30
27	8.85	8.93	8.55	7.18	6.66	6.18	6.41	6.40	6.54	7.33	8.65	9.56
28	8.83	8.86	8.35	7.28	6.65	6.08	6.47	6.58	6.53	7.33	8.68	9.77
29	9.00	8.86	8.23	7.36	---	6.38	6.65	6.60	6.50	7.34	8.62	9.79
30	9.07	8.73	8.40	7.34	---	6.50	6.55	6.49	6.60	7.45	8.46	9.67
31	9.22	---	8.33	7.26	---	6.42	---	6.37	---	7.42	8.55	---
MAX	9.22	9.51	9.32	8.09	7.69	6.83	6.65	6.66	6.73	7.45	8.68	9.79
WTR YR 1985	MEAN	7.59		HIGH	5.94	APR 5	LOW	9.79	SEP 29			

## GROUND-WATER RECORDS

## HENRY COUNTY

412123083574000. Local number, HY-2.

LOCATION.--Lat 41°21'23", long 83°57'40", Hydrologic Unit 04100009, 1.4 mi southwest of McClure.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 300 ft, cased to 43 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 22.76 ft below land-surface datum, May 30, 1977; minimum daily low, 14.55 ft below land-surface datum, Mar. 22, 1978.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.92	20.30	19.92	19.61	19.41	18.28	18.18	19.57	20.12	21.11	21.04	21.11
2	20.99	20.27	19.92	19.77	19.48	18.43	18.17	19.58	20.11	21.07	21.20	21.15
3	20.85	20.26	19.93	19.77	19.51	18.41	18.34	19.67	20.14	21.11	21.26	21.02
4	20.59	19.99	20.03	19.61	19.51	18.18	18.42	19.67	20.18	21.13	21.31	20.60
5	20.44	19.97	20.03	19.55	19.44	18.58	18.49	19.55	20.14	21.11	21.24	20.29
6	20.67	20.08	19.90	19.55	19.39	18.75	18.85	19.55	20.21	21.27	21.17	20.00
7	20.75	20.10	19.90	19.39	19.50	18.75	18.98	19.68	20.15	21.20	20.89	20.12
8	20.74	20.11	19.83	19.63	19.54	18.78	19.10	19.79	20.06	21.06	20.72	20.38
9	20.50	20.01	19.84	19.67	19.57	18.88	19.27	19.77	20.23	21.14	20.63	20.47
10	20.22	19.82	19.85	19.61	19.54	18.85	19.24	19.73	20.36	21.14	20.59	20.73
11	20.00	19.94	19.88	19.51	19.36	18.75	19.30	19.72	20.28	21.24	20.55	20.88
12	19.76	20.02	19.70	19.51	19.09	18.79	19.39	19.68	20.08	21.26	20.47	20.83
13	19.53	20.17	19.87	19.39	19.12	18.78	19.36	19.80	20.11	21.32	20.69	20.74
14	19.30	20.29	19.90	19.24	19.20	18.85	19.30	19.82	20.15	21.27	20.85	20.65
15	19.08	20.42	20.00	19.47	19.23	19.01	19.19	19.82	20.12	21.14	20.94	20.49
16	19.03	20.71	19.89	19.47	19.22	19.16	19.40	19.79	19.99	20.96	21.18	20.32
17	19.03	20.82	19.82	19.23	19.38	19.52	19.47	19.75	19.98	20.84	21.21	20.50
18	19.06	20.79	19.91	19.14	19.38	19.72	19.36	19.78	19.88	20.68	21.18	20.72
19	18.86	20.74	19.84	19.24	19.35	19.78	19.37	19.85	19.93	20.51	21.27	20.86
20	18.93	20.72	19.86	19.24	19.33	20.08	19.43	19.87	20.00	20.42	21.33	20.87
21	18.86	20.70	19.85	19.21	19.31	20.14	19.44	20.02	20.15	20.33	21.29	20.84
22	19.08	20.59	19.83	19.15	19.17	20.09	19.44	20.03	20.28	20.18	21.07	20.75
23	19.31	20.33	19.84	19.15	19.05	19.97	19.40	20.01	20.38	20.19	20.83	20.67
24	19.48	20.19	19.78	19.05	18.60	19.99	19.35	20.02	20.53	20.18	20.60	21.03
25	19.55	20.13	19.95	19.19	18.54	20.04	19.45	20.02	20.60	20.14	20.37	21.12
26	19.91	20.05	20.05	19.37	18.48	19.90	19.43	20.05	20.72	20.19	20.35	21.10
27	20.07	20.00	19.92	19.27	18.50	19.40	19.49	20.01	20.79	20.42	20.47	21.22
28	20.38	19.87	19.77	19.28	18.47	18.98	19.59	20.09	20.87	20.35	20.69	21.38
29	20.63	19.87	19.67	19.34	---	18.66	19.61	20.10	20.93	20.36	20.79	21.39
30	20.62	19.78	19.79	19.32	---	18.63	19.57	20.03	21.05	20.67	20.89	21.36
31	20.50	---	19.76	19.35	---	18.50	---	19.95	---	20.81	21.03	---
MAX	20.99	20.82	20.05	19.77	19.57	20.14	19.61	20.10	21.05	21.32	21.33	21.39
WTR YR 1985	MEAN	19.97		HIGH	18.17	APR 2	LOW	21.39	SEP 29			



## GROUND-WATER RECORDS

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## LUCAS COUNTY

413704083362200. Local number, LU-1.

LOCATION.--Lat 41°37'04", long 83°36'22", Hydrologic Unit 04100001, at Toledo State Hospital.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth drilled 525 ft, present depth 523.0 ft, cased to 93 ft.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 624 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 2.98 ft above land-surface datum (Revised from 1978 and 1979).

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to Aug. 23, 1978, measuring point was 3.10 ft above land-surface datum. Reported in 1979 as 3.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1946 to September 1982 continuous, October 1983 to January 1985 periodic, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 117.25 ft below land-surface datum, Sept. 18, 1957; minimum daily low, 59.26 ft below land-surface datum, Apr. 5, 1985.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---				---	60.35	59.70	59.72	60.88	61.61	61.94	62.25
2	---				61.03	60.73	59.70	59.73	60.90	61.58	62.03	62.33
3	---				61.14	60.80	59.56	59.84	61.06	61.57	62.02	62.25
4	---				61.16	60.45	59.56	59.78	61.09	61.56	61.98	62.20
5	---				60.93	60.82	59.26	59.53	61.04	61.37	61.90	62.21
6	---				60.65	61.00	59.70	59.56	61.17	61.56	61.83	62.25
7	---				60.95	60.70	59.80	59.67	61.11	61.60	61.89	62.35
8	---				60.97	60.51	59.92	59.84	60.96	61.59	62.02	62.38
9	---				61.00	60.52	60.10	59.80	61.01	61.55	62.07	62.26
10	---				60.94	60.39	60.08	59.63	61.10	61.57	62.00	62.40
11	---				60.63	60.21	60.01	59.53	61.08	61.62	62.15	62.56
12	---				60.11	60.24	60.08	59.39	61.02	61.59	62.14	62.64
13	---				60.23	60.23	60.04	59.55	61.10	61.64	62.02	62.77
14	---				60.40	60.24	59.85	59.56	61.17	61.55	62.04	62.68
15	---				60.44	60.44	59.62	59.60	61.16	61.56	61.99	62.58
16	---				60.43	60.38	59.92	59.60	61.08	61.77	62.08	62.42
17	62.42				60.78	60.30	60.07	59.71	61.08	61.89	62.07	62.24
18	---				60.83	60.37	59.76	59.87	61.01	61.85	62.00	62.38
19	---				60.81	60.28	59.63	59.97	61.19	61.73	62.10	62.47
20	---				60.78	60.44	59.70	60.18	61.34	61.71	62.17	62.29
21	---				60.73	60.49	59.73	60.46	61.37	61.63	62.29	62.25
22	---				60.56	60.29	59.68	60.57	61.36	61.72	62.35	62.16
23	---				60.53	60.03	59.59	60.70	61.47	61.81	62.28	62.11
24	---				60.50	60.05	59.45	60.72	61.57	61.76	62.06	62.28
25	---				60.62	60.37	59.60	60.69	61.60	61.70	62.07	62.33
26	---				60.49	60.36	59.66	60.66	61.57	61.75	62.22	62.03
27	---				60.71	60.00	59.74	60.69	61.58	61.87	62.36	62.17
28	---				60.70	59.71	59.88	60.90	61.55	61.88	62.37	62.32
29	---				---	59.88	59.95	60.95	61.52	61.84	62.28	62.34
30	---				---	60.03	59.83	60.83	61.62	61.91	62.15	62.17
31	---				---	59.86	---	60.69	---	61.85	62.23	---
MAX	---				---	61.00	60.10	60.95	61.62	61.91	62.37	62.77
WTR YR 1985	MEAN	61.04		HIGH	59.26	APR 5	LOW	62.77	SEP 13			

**MEDINA COUNTY**

410142082005900. Local number, MD-1.

LOCATION.--Lat 41°01'42", long 82°00'59", Hydrologic Unit 04110001. Waterworks plant at Lodi.

Owner: Lodi Water Dept.

**AQUIFER.**--Sand and gravel of Pleistocene Age.

**WELL CHARACTERISTICS.**--Drilled unused water-table well, diameter 6 in., depth 65 ft, cased.

**INSTRUMENTATION.**--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 910 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 1.90 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--September 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 39.33 ft below land-surface datum, July 21, 1983; minimum daily low, 7.60 ft below land-surface datum, July 6, 1969.

WATER LEVEL (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.95	33.42	27.25	23.98	25.54	23.68	22.19	24.89	27.86	26.80	28.23	24.48
2	32.77	28.57	25.88	29.01	25.20	23.48	21.94	30.61	23.44	23.67	26.95	24.50
3	25.33	26.54	27.91	24.53	23.33	22.35	28.70	24.24	26.03	30.84	25.43	25.92
4	32.16	25.77	25.54	27.01	25.25	22.74	22.41	23.92	28.05	23.48	24.35	24.83
5	25.85	29.71	28.55	24.88	26.52	29.92	22.23	25.08	31.92	23.49	24.91	30.48
6	25.31	26.69	26.95	23.92	25.73	23.39	21.35	25.22	25.12	22.91	28.98	25.77
7	24.31	28.52	25.71	26.84	35.23	23.28	21.07	25.61	24.93	22.02	30.46	25.72
8	25.19	31.40	24.85	24.53	28.91	23.27	22.06	27.83	24.53	23.41	25.32	24.72
9	28.11	26.44	22.53	33.66	27.03	22.78	22.09	32.09	23.71	30.11	25.22	27.54
10	27.85	26.10	26.60	27.22	24.74	22.00	22.01	30.51	28.63	31.21	24.84	25.40
11	35.66	27.05	27.10	25.03	26.04	22.71	27.13	28.47	28.28	28.05	24.09	26.36
12	29.16	26.41	27.27	25.04	26.87	24.30	22.69	25.97	30.85	26.55	27.02	31.10
13	35.01	23.88	32.98	22.40	25.30	29.98	22.48	28.55	24.49	25.69	29.14	27.07
14	27.46	24.59	27.81	26.22	31.69	24.88	21.54	29.85	24.47	24.64	32.07	25.94
15	29.28	29.43	24.96	25.89	26.99	24.55	22.52	30.00	23.85	25.88	24.92	25.54
16	29.36	29.14	25.87	31.76	26.21	24.51	26.94	32.71	22.86	25.87	24.66	26.88
17	29.32	26.38	26.49	26.97	24.02	23.31	26.91	25.79	23.47	30.96	24.01	27.48
18	33.65	22.70	27.63	26.04	27.64	24.47	29.41	24.84	23.50	26.50	23.30	27.48
19	29.98	26.74	27.54	26.22	27.08	24.41	27.52	24.23	23.48	28.98	24.99	31.47
20	28.70	24.26	29.83	26.11	27.36	30.46	23.12	24.82	30.77	25.83	23.70	27.23
21	25.85	29.96	25.30	28.42	31.65	24.99	21.89	24.53	24.26	24.52	30.53	27.38
22	28.60	25.92	24.80	28.86	25.97	24.29	23.61	24.45	23.83	27.34	24.02	26.09
23	27.48	23.41	25.72	33.93	24.48	23.73	23.29	31.49	22.89	31.34	23.82	28.54
24	26.95	25.68	26.47	27.95	22.96	22.94	23.36	24.94	23.68	33.38	23.33	27.91
25	33.01	25.02	22.62	25.51	26.86	24.23	23.40	24.78	23.83	31.51	22.33	30.43
26	28.90	26.65	28.63	24.94	28.97	24.66	30.52	23.95	31.16	27.93	24.74	26.18
27	30.20	23.56	24.90	25.02	30.20	29.68	23.85	23.65	28.19	28.39	25.99	27.65
28	25.56	28.77	26.79	27.42	23.90	24.24	22.86	24.02	27.74	30.13	30.55	25.49
29	29.66	28.25	26.57	27.60	---	23.40	28.24	31.14	24.23	33.62	25.82	25.35
30	29.05	25.70	25.20	31.62	---	22.60	26.58	24.51	23.68	31.48	24.71	26.95
31	31.55	---	24.65	26.46	---	21.32	---	28.70	---	33.24	24.56	---
MAX	35.66	33.42	32.98	33.93	35.23	30.46	30.52	32.71	31.92	33.62	32.07	31.47
WTR YR 1985	MEAN	26.48		HIGH	21.07	APR 7	LOW	35.66	OCT 11			

## GROUND-WATER RECORDS

119

## PORTAGE COUNTY

410540081213600. Local number, PO-7.

LOCATION.--Lat 41°05'40", long 81°21'36", Hydrologic Unit 04110002, Sunnybrook golf course near Brimfield.

Owner: City of Talmidge.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 101 ft cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1065 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 7.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 2.48 ft above land-surface datum, July 24, 1985; minimum daily low, 3.78 ft above land-surface datum, Apr. 12-16, 1985.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	-3.68	-3.57	-3.63	-3.28	-3.06	-2.97
2						---	-3.73	-3.57	-3.62	-3.30	-3.04	-2.97
3						---	-3.75	-3.55	-3.58	-3.28	-3.03	-2.98
4						---	-3.28	-3.53	-3.58	-3.27	-3.03	-2.97
5						---	-3.38	-3.53	-3.58	-3.28	-3.02	-2.95
6						---	-3.72	-3.53	-3.54	-3.28	-3.02	-2.93
7						---	-3.73	-3.51	-3.54	-3.24	-3.02	-2.93
8						-3.54	-3.74	-3.49	-3.54	-3.24	-3.01	-2.89
9						---	-3.75	-3.49	-3.52	-3.21	-3.00	-2.89
10						---	-3.69	-3.49	-3.47	-3.27	-2.98	-2.90
11						---	-3.76	-3.47	-3.45	-3.25	-2.96	-2.89
12						---	-3.78	-3.45	-3.47	-3.23	-2.93	-2.88
13						---	-3.78	-3.43	-3.54	-3.19	-2.93	-2.88
14						---	-3.78	-3.39	-3.58	-3.22	-2.92	-2.85
15						---	-3.78	-3.37	-3.58	-3.23	-2.92	-2.86
16						---	-3.78	-3.39	-3.58	-3.19	-2.96	-2.86
17						---	-3.75	-3.41	-3.57	-3.19	-2.98	-2.87
18						---	-3.69	-3.44	-3.57	-3.18	-2.98	-2.88
19						---	-3.69	-3.45	-3.54	-3.17	-2.95	-2.85
20						---	-3.66	-3.43	-3.53	-3.16	-2.94	-2.84
21						---	-3.64	-3.40	-3.49	-3.16	-2.94	-2.83
22						---	-3.65	-3.41	-3.47	-3.14	-2.91	-2.82
23						---	-3.65	-3.41	-3.48	-3.11	-2.90	-2.81
24						---	-3.64	-3.41	-3.47	-2.48	-2.90	-2.79
25						---	-3.64	-3.39	-3.44	-2.57	-2.92	-2.79
26						---	-3.64	-3.37	-3.43	-2.91	-2.89	-2.80
27						---	-3.65	-3.36	-3.42	-3.04	-2.88	-2.80
28						-3.56	-3.64	-3.37	-3.40	-3.06	-2.88	-2.80
29						-3.51	-3.60	-3.49	-3.38	-3.04	-2.87	-2.82
30						-3.58	-3.56	-3.60	-3.34	-3.03	-2.87	-2.74
31						-3.64	---	-3.64	---	-3.03	-2.96	---
MAX						---	-3.28	-3.36	-3.34	-2.48	-2.87	-2.74
WTR YR 1985	MEAN	-3.27		HIGH	-3.78	APR 12 AND OTHERS		LOW	-2.48	OCT 0		

## PORTAGE COUNTY

LOCATION.--Lat 41°09'20", long 81°19'20", Hydrologic Unit 04110002, State Rt 59, east of Kent.

Owner: Brown Derby Restaurant.

**AQUIFER.**--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 72 ft, cased.

**INSTRUMENTATION.**--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of platform 4.50 ft below land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

REMARKS.--Station operated by Ohio Department  
PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.37 ft below land-surface datum, Feb. 22, 1977; minimum daily low, 14.28 ft below-land surface datum, May 5, 1980.

WATER LEVEL (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.29	23.59	24.24	24.56	23.94	24.04	22.59	20.48	20.87	20.54	21.37	22.44
2	---	23.61	24.24	24.56	23.95	23.99	22.53	20.46	20.87	20.54	21.40	22.46
3	---	23.63	24.25	24.55	23.95	23.96	22.48	20.46	20.86	20.54	21.42	22.46
4	---	23.67	24.27	24.48	23.96	23.89	22.37	20.45	20.86	20.57	21.46	22.50
5	---	23.71	24.27	24.43	23.95	23.83	22.31	20.43	20.83	20.59	21.49	22.52
6	---	23.76	24.29	24.42	23.96	23.83	22.23	20.41	20.83	20.61	21.53	22.57
7	---	23.79	24.31	24.38	23.99	23.80	22.16	20.43	20.82	20.65	21.56	22.61
8	---	23.80	24.32	24.33	24.00	23.72	22.12	20.44	20.74	20.66	21.61	22.64
9	---	23.84	24.32	24.32	24.00	23.70	22.05	20.44	20.71	20.67	21.65	22.66
10	---	23.87	24.33	24.30	24.02	23.66	21.97	20.43	20.72	20.70	21.68	22.67
11	---	23.92	24.35	24.29	24.03	23.63	21.88	20.44	20.71	20.73	21.73	22.71
12	---	23.95	24.38	24.25	24.01	23.56	21.78	20.44	20.65	20.75	21.75	22.79
13	---	23.97	24.42	24.19	24.06	23.53	21.71	20.47	20.66	20.78	21.80	22.84
14	---	23.98	24.42	24.18	24.08	23.49	21.60	20.51	20.66	20.81	21.83	22.87
15	---	23.98	24.45	24.14	24.09	23.45	21.51	20.52	20.65	20.82	21.88	22.89
16	---	24.02	24.45	24.13	24.09	23.42	21.41	20.52	20.59	20.87	21.91	22.90
17	---	24.02	24.46	24.08	24.18	23.33	21.33	20.52	20.59	20.88	21.95	22.94
18	---	24.02	24.50	24.01	24.19	23.29	21.28	20.60	20.56	20.89	21.98	23.00
19	---	24.07	24.50	24.01	24.20	23.26	21.16	20.65	20.55	20.91	22.02	23.02
20	---	24.10	24.51	24.00	24.22	23.23	21.10	20.68	20.55	20.95	22.06	23.04
21	---	24.11	24.51	24.00	24.24	23.18	21.03	20.71	20.55	20.96	22.09	23.08
22	---	24.11	24.54	24.00	24.26	23.11	20.96	20.73	20.54	21.01	22.14	23.12
23	---	24.12	24.54	23.99	24.26	23.08	20.88	20.73	20.51	21.05	22.16	23.14
24	---	24.13	24.55	23.97	24.28	23.00	20.83	20.75	20.51	21.07	22.19	23.20
25	---	24.14	24.56	23.95	24.28	22.96	20.75	20.76	20.51	21.09	22.21	23.24
26	---	24.16	24.56	23.95	24.24	22.93	20.71	20.79	20.51	21.13	22.28	23.27
27	---	24.16	24.56	23.94	24.15	22.88	20.67	20.81	20.51	21.15	22.29	23.34
28	---	24.18	24.56	23.93	24.13	22.84	20.64	20.84	20.51	21.18	22.33	23.38
29	---	24.19	24.56	23.93	---	22.78	20.60	20.88	20.52	21.23	22.36	23.39
30	---	24.21	24.56	23.93	---	22.75	20.59	20.88	20.53	21.25	22.38	23.44
31	23.55	---	24.55	23.94	---	22.66	---	20.86	---	21.33	22.42	---



## GROUND-WATER RECORDS

121

## PUTNAM COUNTY

405505084032900. Local number, PU-1.

LOCATION.--Lat 40°55'05", long 84°03'29", Hydrologic Unit 04100007, Center and Broadway Streets, Columbus Grove.

Owner: Columbus Grove Water Department.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 110 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resource, Division of Water.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.30 ft below land-surface datum, Aug. 24, 1962; minimum daily low, 9.50 ft below land-surface datum, Jan. 5, 1950.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.22	16.64	16.25	13.40	12.59	12.16	10.32	12.06	14.43	14.13	13.15	13.13
2	16.39	15.08	18.10	15.18	14.21	12.72	10.67	13.22	12.25	12.11	14.02	13.85
3	15.71	16.35	15.20	16.21	12.53	10.88	11.79	11.37	12.29	12.54	15.91	15.73
4	16.28	16.62	16.21	14.52	12.95	12.46	11.98	11.96	13.80	14.25	14.63	16.29
5	16.33	16.11	16.24	14.31	14.09	11.02	10.48	13.44	11.61	13.58	13.87	14.94
6	15.03	16.39	15.91	14.03	13.74	10.89	12.01	11.56	12.33	12.67	15.48	15.64
7	15.15	16.54	16.32	11.97	12.95	12.13	10.66	12.31	13.70	13.75	17.05	16.74
8	16.69	14.95	16.34	12.46	14.09	12.01	10.72	14.34	14.74	15.25	14.33	14.31
9	15.18	16.09	16.31	13.76	15.04	10.83	12.35	11.86	12.36	14.30	15.78	15.80
10	17.22	16.14	16.23	12.48	13.15	12.43	10.47	13.00	14.24	14.68	13.58	13.32
11	16.98	15.65	15.94	12.46	14.62	11.97	10.87	14.99	11.95	14.98	13.90	14.13
12	16.67	15.07	14.53	13.79	13.92	10.67	12.33	12.60	12.10	15.50	15.84	15.57
13	16.65	15.91	14.57	12.67	12.60	12.30	10.51	13.40	13.30	15.00	14.54	13.40
14	16.23	14.73	14.59	12.24	13.75	10.39	11.11	14.95	11.38	14.46	14.03	14.22
15	15.62	15.86	14.25	13.55	13.87	10.86	12.94	12.45	12.02	15.14	15.34	15.53
16	16.57	16.34	15.81	12.41	12.69	12.38	12.07	12.91	13.41	15.05	13.01	15.50
17	15.15	16.19	14.12	12.14	13.78	10.60	11.35	14.05	11.13	12.82	13.95	16.09
18	16.52	14.82	14.56	13.41	13.73	10.95	12.79	11.79	11.70	13.78	15.22	15.82
19	15.14	16.26	15.55	11.88	12.52	12.35	11.14	12.71	13.18	15.32	16.15	16.06
20	16.57	15.75	16.04	12.72	13.96	10.69	12.06	14.63	11.25	13.23	13.83	14.24
21	16.71	15.04	15.47	14.43	12.09	11.13	13.40	12.16	11.95	13.40	13.83	15.90
22	16.47	15.09	15.49	15.17	12.46	12.41	13.86	13.03	13.32	15.17	15.65	15.36
23	16.81	16.28	14.34	13.54	13.24	12.29	12.40	14.65	11.42	15.08	13.32	14.36
24	16.54	16.03	15.69	14.38	12.37	11.06	14.24	12.27	12.18	15.64	13.82	15.92
25	15.25	16.14	15.73	12.32	10.91	12.76	13.36	13.38	14.21	15.62	15.15	14.36
26	16.52	15.30	14.34	12.81	12.27	10.90	13.41	14.43	11.82	15.04	15.94	14.14
27	15.25	14.93	15.88	14.06	10.40	11.21	11.29	15.38	12.81	13.83	14.57	15.62
28	16.50	15.86	13.90	14.28	10.71	12.36	12.08	12.85	14.23	15.20	15.65	15.56
29	16.12	16.13	14.07	12.82	---	11.67	13.59	14.25	15.21	16.42	13.32	14.39
30	16.80	14.73	15.27	14.08	---	11.44	13.42	12.10	12.77	14.84	13.78	15.74
31	15.24	---	14.99	13.52	---	12.03	---	12.65	---	15.10	15.45	---
MAX	17.22	16.64	18.10	16.21	15.04	12.76	14.24	15.38	15.21	16.42	17.05	16.74
WTR YR 1985	MEAN	13.96		HIGH	10.32	APR 1	LOW	18.10	DEC 2			

WTR YR 1985	MEAN	32.58	HIGH	31.32	APR 24	LOW	33.67	SEP 13
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## GROUND-WATER RECORDS

123

## SANDUSKY COUNTY

411914083045300. Local number, S-3.

LOCATION.--Lat 41°19'14", long 83°04'53", Hydrologic Unit 04100011, 2.6 mi southeast of Fremont Post Office.

Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 121 ft, cased to 93 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 627 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.18 ft below land-surface datum, Aug. 2, 1975; minimum daily low, 14.02 ft below land-surface datum, Mar. 24, 1975.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.36	17.31	17.00	16.70	16.84	16.49	15.62	16.95	17.01	22.33	21.16	18.14
2	18.30	17.40	17.07	16.84	16.90	16.61	15.64	16.63	19.02	21.35	20.69	18.15
3	18.03	17.32	16.94	16.82	17.01	16.61	15.55	16.51	20.13	20.20	20.37	18.06
4	18.16	17.01	16.98	16.65	17.01	16.47	15.56	16.42	20.43	19.63	20.11	17.98
5	18.16	17.13	16.90	16.61	16.90	16.59	15.52	16.26	19.16	19.96	21.20	17.95
6	18.16	17.21	16.84	16.60	16.69	16.72	15.67	16.19	18.44	19.74	21.59	17.91
7	18.06	17.28	16.98	16.49	16.82	16.60	15.82	16.32	18.13	21.34	20.55	17.99
8	17.94	17.19	---	16.73	16.90	16.38	15.89	18.55	19.74	21.94	19.97	17.97
9	17.93	17.07	---	16.78	16.94	16.44	15.96	19.21	20.08	21.92	19.70	17.97
10	17.97	17.03	---	16.74	16.90	16.40	15.90	19.80	19.84	21.46	19.40	17.96
11	17.95	17.37	---	16.61	16.69	16.25	15.92	20.36	20.35	20.36	19.30	18.09
12	17.88	17.52	---	16.57	16.41	16.22	15.97	19.62	19.17	21.22	19.19	18.13
13	17.79	17.54	---	16.46	16.56	16.22	15.92	19.48	18.60	22.19	18.99	18.19
14	17.64	17.35	16.94	16.39	16.67	16.20	15.87	20.33	18.32	22.41	18.92	18.18
15	17.55	17.24	17.01	16.71	16.70	16.26	15.75	20.65	18.11	21.10	18.72	18.10
16	17.62	17.35	16.88	16.70	16.69	16.20	15.87	19.92	17.77	21.45	18.69	17.98
17	17.63	17.30	16.87	16.39	16.93	16.12	15.97	18.82	17.69	22.12	20.14	17.90
18	17.72	17.29	16.98	16.30	17.00	16.19	15.76	18.34	17.50	21.13	20.54	17.98
19	17.48	17.52	16.86	16.41	16.94	16.12	15.77	18.08	17.50	20.84	19.72	18.43
20	17.61	17.56	16.82	16.51	16.92	16.12	17.06	17.94	17.51	21.00	19.28	18.89
21	17.49	17.34	16.80	16.51	16.89	16.16	17.79	17.76	17.47	20.35	19.01	18.74
22	17.60	17.25	16.84	16.59	16.76	16.00	16.97	17.65	17.38	---	18.80	19.59
23	17.66	17.20	16.87	16.62	16.70	15.87	16.52	17.41	17.39	---	18.65	18.86
24	17.58	17.15	16.82	16.50	16.57	15.88	16.24	17.30	18.82	---	18.55	18.52
25	17.58	17.15	17.07	16.62	16.74	16.10	16.15	17.19	20.19	---	18.39	18.38
26	17.37	16.94	17.11	16.82	16.64	16.05	17.54	17.13	21.08	---	18.40	18.06
27	17.32	17.01	16.96	16.68	16.75	15.80	18.25	17.12	21.45	---	18.49	18.03
28	17.27	16.90	16.81	16.74	16.69	15.63	17.39	17.09	20.53	---	18.44	18.18
29	17.42	17.03	16.72	16.78	---	15.68	17.01	17.12	20.88	21.53	18.36	18.15
30	17.40	17.04	16.89	16.78	---	15.80	16.76	16.95	21.90	22.55	18.16	18.04
31	17.51	---	16.81	16.82	---	15.74	---	16.80	---	22.51	18.18	---
MAX	18.36	17.56	---	16.84	17.01	16.72	18.25	20.65	21.90	---	21.59	19.59
WTR YR 1985 MEAN	17.76		HIGH		15.52	APR 5	LOW	22.55	JUL 30			

GROUND-WATER RECORDS  
SANDUSKY COUNTY--Continued

412703083213600. Local number, S-2.

LOCATION.--Lat 41°27'03", long 83°21'36", Hydrologic Unit 04100010, at water works in Woodville.

Owner: Woodville Water department.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 198 ft cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 635 ft above National Geodetic Vertical Datum of 1929 from topographic map. Measuring point: Top of casing at land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 100.97 ft below land-surface datum, Jan. 29, 1982; minimum daily low, 18.60 ft below land-surface datum, May 6, 1977.

WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	39.38	22.82	21.92	23.92	25.55	30.80	27.84	26.91
2	---	---	---	---	---	23.26	21.39	24.42	25.47	27.68	27.93	27.02
3	---	---	64.68	30.58	42.17	23.19	21.73	24.16	25.57	28.94	27.82	27.07
4	---	---	60.00	29.90	---	22.77	21.63	25.54	25.63	27.74	27.83	27.33
5	---	---	59.29	30.58	39.21	22.82	21.72	26.30	25.62	30.82	27.92	28.23
6	---	---	60.77	---	---	22.41	21.99	28.37	25.61	31.20	27.80	---
7	---	---	---	37.96	38.46	22.45	22.16	28.82	25.55	28.24	27.56	31.14
8	---	---	---	28.48	42.56	22.58	22.14	26.86	25.60	32.00	27.82	---
9	---	---	63.93	28.51	43.17	22.90	22.26	26.80	25.62	32.05	27.85	28.35
10	---	---	64.09	28.88	---	22.70	21.83	26.42	25.96	28.49	27.77	27.50
11	---	---	---	28.89	---	22.58	21.87	26.13	25.61	28.11	27.87	27.01
12	---	---	60.06	29.00	42.06	22.62	22.43	28.30	25.16	28.01	27.80	29.46
13	---	---	---	28.81	---	22.50	22.20	27.05	24.83	27.89	27.74	30.93
14	---	---	---	28.69	---	22.79	22.38	28.32	24.64	27.79	27.74	35.60
15	---	57.94	---	28.71	---	22.75	22.41	26.96	24.62	27.77	27.81	35.05
16	---	58.29	---	28.93	---	22.88	22.61	26.52	25.03	27.74	27.69	28.22
17	57.20	64.67	---	28.78	---	22.77	22.22	26.35	24.93	27.44	27.56	35.36
18	59.18	65.53	---	28.71	---	22.99	22.56	26.48	25.22	27.36	27.57	---
19	---	63.25	---	28.52	---	22.91	22.41	26.22	25.15	27.31	27.73	---
20	---	62.88	---	29.07	39.48	23.18	22.72	26.20	25.14	27.32	27.74	---
21	---	58.70	---	30.68	---	23.51	22.72	26.47	25.13	27.28	27.84	---
22	---	57.54	---	29.70	---	23.14	22.84	26.27	25.66	27.35	27.75	42.36
23	---	60.17	---	29.70	29.64	23.16	22.79	26.10	25.50	27.45	27.76	---
24	61.46	62.08	61.68	29.85	28.29	23.09	22.89	26.21	25.98	27.45	27.74	---
25	---	---	65.28	30.68	26.07	23.45	22.73	26.13	29.23	27.46	27.72	---
26	---	65.94	62.11	32.67	24.15	23.19	22.70	26.08	28.22	27.66	27.75	---
27	---	59.69	61.44	30.31	23.85	23.20	22.96	26.19	27.07	27.74	27.72	---
28	---	63.26	---	---	22.84	23.79	23.05	26.16	28.06	30.95	27.55	---
29	---	---	61.76	---	---	23.23	23.16	25.83	27.28	28.11	27.47	---
30	---	---	---	---	---	22.61	22.80	25.57	28.16	28.02	27.29	---
31	---	---	---	---	---	21.97	---	25.83	---	27.84	27.29	---
MAX	---	---	---	---	---	23.79	23.16	28.82	29.23	32.05	27.93	---
WTR YR 1985	MEAN	30.54		HIGH	21.39	APR 2	LOW	65.94	NOV 26			



## 125

410 80 20 83093900. Local number, SE-2.

LOCATION.--Lat 41°08'02", long 83°09'39", Hydrologic Unit 04100011, Tiffin State Hospital, Tiffin.

Owner: State of Ohio,

**AQUIFER.**--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 250 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 0.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--July 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 23.76 ft below land-surface datum, Nov. 22, 1964; minimum daily low, 14.48 ft below land-surface datum, Mar. 22, 1984.

WATER LEVEL (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.37	21.35	21.16	19.11	19.99	16.50	17.43	19.12	19.87	20.44	20.92	20.64
2	21.42	21.59	21.16	19.09	20.09	17.16	17.33	19.18	19.91	20.31	21.01	20.61
3	21.28	21.47	21.18	19.02	20.20	17.27	17.03	19.35	20.06	20.27	20.94	20.52
4	21.48	21.00	21.28	18.53	20.21	17.00	17.03	19.30	20.07	20.20	20.89	20.43
5	21.58	21.14	21.28	18.68	19.98	17.24	16.82	19.07	19.96	20.18	20.85	20.42
6	21.60	21.25	20.99	18.68	19.81	17.35	17.40	19.24	20.06	20.37	20.79	20.53
7	21.52	21.29	21.06	18.55	20.09	17.10	17.43	19.42	19.93	20.46	20.79	20.64
8	21.41	21.23	21.02	19.14	20.17	16.99	17.50	19.60	19.73	20.35	20.90	20.69
9	21.51	21.05	21.04	19.22	20.14	17.12	17.73	19.55	19.90	20.36	20.98	20.60
10	21.55	20.78	21.02	19.13	20.07	17.17	17.66	19.48	20.00	20.40	20.93	20.58
11	21.52	21.13	21.09	19.07	19.82	17.05	17.71	19.45	19.81	20.51	21.11	20.76
12	21.41	21.15	20.72	19.09	19.28	17.36	17.81	19.49	19.67	20.42	21.13	20.84
13	21.28	21.17	21.07	18.93	19.50	17.38	17.73	19.69	19.77	20.47	21.06	20.99
14	21.13	21.15	21.06	18.91	19.65	17.55	17.62	19.73	19.79	20.42	21.13	20.94
15	21.11	20.79	20.99	19.43	19.69	17.80	17.59	19.72	19.76	20.36	20.99	20.79
16	21.26	21.03	20.70	19.41	19.67	17.76	18.16	19.65	19.68	20.57	21.07	20.66
17	21.41	21.11	20.56	18.98	19.97	17.86	18.31	19.49	19.70	20.63	21.01	20.61
18	21.49	20.94	20.71	18.96	19.97	17.98	18.03	19.51	19.57	20.54	20.93	20.72
19	21.28	21.18	20.55	19.37	19.84	17.95	18.15	19.62	19.68	20.49	21.02	20.81
20	21.46	21.39	20.61	19.55	19.79	18.30	18.30	19.61	19.78	20.49	21.06	20.76
21	21.45	21.41	20.59	19.55	19.73	18.34	18.42	19.82	19.83	20.42	21.10	20.73
22	21.53	21.39	20.71	19.41	19.27	18.15	18.44	19.78	19.87	20.54	21.11	20.75
23	21.60	21.05	20.72	19.41	18.45	18.02	18.44	19.67	19.93	20.67	21.12	20.74
24	21.56	20.98	20.49	19.32	17.24	18.32	18.45	19.68	20.09	20.66	20.97	20.95
25	21.58	21.00	20.81	19.73	17.26	18.71	18.65	19.64	20.14	20.66	20.99	21.01
26	21.31	20.96	20.80	19.94	16.79	18.70	18.73	19.63	20.10	20.72	21.11	20.81
27	21.33	20.98	20.49	19.72	16.81	18.33	18.85	19.70	20.18	20.86	21.24	21.04
28	21.33	20.94	20.29	19.77	16.75	18.16	19.10	19.90	20.17	20.87	21.19	21.21
29	21.47	20.95	20.10	19.87	---	18.46	19.20	19.91	20.23	20.85	21.05	21.19
30	21.49	20.79	20.08	19.84	---	18.55	19.08	19.65	20.41	20.94	20.84	21.02
31	21.66	---	19.80	19.87	---	18.25	---	19.60	---	20.82	20.67	---
MAX	21.66	21.59	21.28	19.94	20.21	18.71	19.20	19.91	20.41	20.94	21.24	21.21
WTR YR 1985	MEAN	19.96		HIGH	16.50	MAR 1	LOW	21.66	OCT 31			

## GROUND-WATER RECORDS

## SUMMIT COUNTY

410330081282000. Local number, SU-6.

LOCATION.--Lat 41°03'30", long 81°28'20", Hydrologic Unit 04110002, Seiberling St, Akron.

Owner: Goodyear Tire and Rubber Co.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 in., depth 89 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 1000 ft above National Geodetic Vertical Datum of 1929 from topographic map. Measuring point: Floor of instrument shelter 2.63 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 1944 to current year. Records for May 14-Sept. 30, 1980, published in USGS-WRD-OH-80-1, are unreliable and should not be used.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 59.47 ft below land-surface datum, Oct. 18, 1947; minimum daily low, 11.95 ft below land-surface datum, April 9, 1980.

## WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.40	13.43	13.10	12.43	12.75	12.31	12.20	12.35	12.34	14.19	13.85	18.91
2	13.41	13.40	13.08	12.50	12.75	12.36	12.24	12.35	12.34	14.12	13.92	18.95
3	13.44	13.40	13.00	12.50	12.75	12.36	12.25	12.39	12.49	14.01	13.92	19.05
4	13.48	13.33	13.05	12.53	12.69	12.30	12.23	12.39	12.53	13.96	13.84	19.16
5	13.50	13.23	13.06	12.56	12.66	12.42	12.26	12.31	12.58	13.90	13.86	19.24
6	13.50	13.30	13.01	12.51	12.69	12.48	12.33	12.31	12.64	13.89	13.87	19.35
7	13.46	13.36	13.02	12.49	12.79	12.46	12.32	12.36	12.65	13.81	15.99	19.41
8	13.43	13.36	12.98	12.63	12.82	12.46	12.28	12.41	12.67	13.80	16.59	19.43
9	13.47	13.36	12.96	12.66	12.84	12.46	12.33	12.41	12.69	13.80	16.94	19.52
10	13.54	13.29	12.89	12.66	12.84	12.39	12.31	12.47	12.76	13.78	17.11	19.59
11	13.54	13.20	12.89	12.63	12.73	12.30	12.30	12.48	12.74	13.61	17.23	19.69
12	13.54	13.26	12.85	12.60	12.62	12.30	12.30	12.46	12.60	13.68	17.39	19.78
13	13.44	13.34	12.88	12.55	12.71	12.32	12.28	12.56	12.65	13.68	17.56	19.87
14	13.41	13.35	12.87	12.50	12.70	12.36	12.12	12.60	12.73	13.60	17.69	19.91
15	13.46	13.37	12.83	12.60	12.71	12.39	12.11	12.60	12.76	13.59	17.81	19.92
16	13.57	13.42	12.79	12.60	12.71	12.38	12.24	12.62	12.71	13.61	17.90	20.00
17	13.59	13.42	12.73	12.53	12.70	12.30	12.26	12.64	12.77	13.63	17.92	20.10
18	13.59	13.36	12.77	12.53	12.67	12.35	12.27	12.65	12.79	13.65	17.93	20.19
19	13.61	13.33	12.78	12.53	12.70	12.39	12.27	12.64	15.76	13.65	17.99	20.25
20	13.63	13.37	12.81	12.53	12.74	12.47	12.27	12.70	16.70	13.65	18.01	20.32
21	13.61	13.37	12.81	12.53	12.74	12.47	12.19	12.74	17.21	13.58	16.03	20.35
22	13.60	13.33	12.69	12.56	12.67	12.45	12.19	12.80	17.50	13.67	15.45	20.35
23	13.62	13.19	12.68	12.58	12.47	12.45	12.23	12.83	17.67	13.79	17.27	20.40
24	13.61	13.11	12.61	12.59	12.09	12.43	12.24	12.83	17.89	13.82	17.89	20.44
25	13.57	13.05	12.68	12.64	12.13	12.50	12.26	12.83	18.07	13.84	18.12	20.53
26	13.58	13.05	12.66	12.66	12.20	12.50	12.26	12.80	18.24	13.85	18.37	20.60
27	13.58	13.06	12.65	12.61	12.28	12.51	12.24	12.75	18.32	13.85	18.58	20.65
28	13.49	13.12	12.64	12.60	12.30	12.50	12.20	12.13	15.47	13.80	18.73	20.70
29	13.35	13.11	12.61	12.62	---	12.48	12.24	12.16	14.73	13.84	18.84	20.71
30	13.42	13.06	12.50	12.63	---	12.47	12.29	12.26	14.40	13.84	18.86	20.77
31	13.45	---	12.43	12.70	---	12.34	---	12.28	---	13.83	18.89	---
MAX	13.63	13.43	13.10	12.70	12.84	12.51	12.33	12.83	18.32	14.19	18.89	20.77

WTR YR 1985 MEAN 13.91 HIGH 12.09 FEB 24 LOW 20.77 SEP 30

## GROUND-WATER RECORDS

127

## SUMMIT COUNTY--Continued

410846081271600. Local number, SU-7.

LOCATION.--Lat 41°08'46", long 81°27'16", Hydrologic Unit 04110002, Monroe Falls Road, Cuyahoga Falls.

Owner: Cuyahoga Falls Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table, diameter 6 in., depth 100 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 994 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 44.19 ft below land-surface datum, Sept. 7, 1971; minimum daily low, 0.45 ft above land-surface datum, Feb. 27, 1985.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.94	25.54	24.45	13.47	15.25	.73	.88	13.47	14.43	17.86	22.17	23.73
2	26.06	25.70	24.68	10.88	15.38	1.57	-0.24	13.77	14.56	18.18	22.09	23.73
3	26.08	25.78	24.90	8.67	15.55	3.28	-0.31	14.11	14.91	18.42	22.47	23.46
4	26.19	25.90	25.31	7.55	15.78	4.42	-0.37	14.45	14.61	18.63	22.41	23.72
5	26.20	26.17	25.61	7.26	15.98	5.15	.31	14.46	15.00	18.70	22.66	23.84
6	26.22	25.98	25.75	7.42	16.16	5.27	.87	14.55	14.95	18.60	23.16	23.94
7	26.27	25.99	26.01	8.06	16.62	5.62	1.80	14.57	15.57	18.50	22.86	24.05
8	26.31	25.98	26.19	8.59	16.80	5.62	2.37	15.20	15.65	18.51	23.38	24.20
9	26.46	25.98	26.35	9.10	17.11	4.86	2.99	15.13	15.67	18.88	23.41	24.15
10	26.15	25.90	26.54	9.62	17.33	4.92	3.71	15.15	16.11	19.26	23.42	24.37
11	26.09	25.75	26.61	10.29	17.50	5.18	4.67	15.75	16.55	19.36	23.41	24.59
12	24.78	25.52	26.18	10.40	17.44	5.35	4.68	15.77	16.42	19.18	23.61	24.27
13	22.78	25.65	24.94	10.79	17.44	5.20	5.41	15.86	16.04	19.25	23.80	24.56
14	20.97	25.83	23.78	11.37	17.59	5.16	5.82	16.44	15.18	19.08	23.90	24.73
15	21.56	25.75	22.59	11.76	17.69	5.14	6.56	16.63	14.81	19.20	23.98	24.74
16	21.96	25.14	21.26	12.01	17.80	5.07	7.15	16.61	14.59	19.16	23.78	25.06
17	22.11	25.07	19.86	12.35	17.89	5.35	7.86	16.28	14.70	18.96	23.45	25.20
18	22.62	24.98	19.27	12.60	17.87	6.18	8.28	16.47	14.79	19.19	23.17	25.47
19	23.14	24.90	19.17	12.84	17.90	6.59	8.80	16.75	15.24	19.37	23.23	25.60
20	23.75	24.94	18.81	13.04	18.03	7.39	9.32	16.42	15.30	19.27	23.39	25.92
21	24.25	24.92	18.45	13.24	18.07	7.99	9.83	16.50	15.29	19.49	23.51	26.02
22	24.33	24.91	17.77	13.50	18.13	8.37	10.48	16.29	15.63	19.64	23.52	26.06
23	24.50	24.78	17.27	13.69	17.89	8.42	10.48	16.69	15.66	20.29	23.88	26.42
24	24.06	24.64	16.95	13.86	15.79	9.14	10.69	16.94	15.73	20.57	23.77	26.57
25	24.03	24.53	16.77	14.12	5.97	9.56	10.84	17.00	15.92	20.92	24.02	26.64
26	23.87	24.46	16.54	14.31	.85	9.57	10.93	16.87	16.29	21.20	23.99	26.32
27	24.23	24.24	16.46	14.49	-0.45	9.72	11.21	17.53	16.51	21.16	24.06	26.66
28	24.48	24.12	16.35	14.72	.07	9.85	11.51	17.27	16.89	21.16	24.00	26.47
29	24.88	24.08	16.14	14.89	---	9.69	11.86	16.54	17.21	21.20	24.12	26.76
30	24.92	24.14	15.52	14.95	---	5.88	12.93	15.23	17.91	21.61	24.17	26.65
31	25.41	---	14.52	15.09	---	2.66	---	14.67	---	21.97	23.87	---
MAX	26.46	26.17	26.61	15.09	18.13	9.85	12.93	17.53	17.91	21.97	24.17	26.76
WTR YR 1985 MEAN	17.49											
HIGH												
LOW												

WTR YR 1985 MEAN 17.49 HIGH -0.45 FEB 27 LOW 26.76 SEP 29

VAN WERT COUNTY

40 52150 8433 5400. Local number, VW-1.

LOCATION.--Lat 40°52'15", long 84°33'54", Hydrologic Unit 04100007, Ridge Road near Van Wert.

Owner: Marsh Foundation.

**AQUIFER.--**Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 340 ft, cased.

**INSTRUMENTATION.**--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 790.37 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter 6.15 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low 32.81 ft below land-surface datum, Mar. 2, 1977; minimum daily low, 18.85 ft below land-surface datum, Mar. 6, 1959.

WATER LEVEL (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
MAXIMUM VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.95	28.40	28.90	29.10	29.15	28.70	---	---	28.35	28.55	28.85	28.95
2	27.95	28.55	28.90	29.30	29.30	28.80	---	---	28.40	28.45	28.95	29.00
3	27.75	28.55	29.05	29.35	29.40	28.85	---	---	28.50	28.40	28.90	28.95
4	27.95	28.20	29.20	29.10	29.40	28.60	---	---	28.55	28.35	28.85	28.90
5	28.00	28.20	29.15	29.00	29.20	28.90	---	---	28.50	28.20	28.80	28.85
6	28.10	28.50	29.10	29.05	29.00	29.00	---	---	28.55	28.35	28.70	28.95
7	28.00	28.60	29.05	28.80	29.20	28.90	---	---	28.50	28.40	28.70	29.05
8	27.90	28.55	29.00	29.15	29.30	28.65	---	---	28.30	28.35	28.75	29.05
9	28.00	28.45	29.00	29.35	29.35	28.70	28.45	---	28.30	28.25	28.80	29.00
10	28.15	28.15	29.05	29.25	29.25	28.65	28.40	---	28.45	28.30	28.75	29.10
11	28.15	28.35	29.05	29.20	29.00	28.50	28.35	---	28.45	28.45	28.90	29.30
12	28.10	28.60	28.75	29.25	28.60	28.55	28.40	---	28.30	28.45	28.90	29.35
13	28.00	28.65	29.15	29.15	28.65	28.55	28.35	---	28.40	28.50	---	29.55
14	27.85	28.70	29.15	28.75	28.80	28.50	28.25	---	28.50	28.40	---	29.55
15	27.75	28.45	29.25	29.20	28.85	28.65	28.00	---	28.45	28.35	---	29.45
16	27.90	28.70	29.10	29.25	28.85	28.65	28.20	28.25	28.30	28.55	28.90	29.30
17	28.05	28.75	29.05	28.75	29.00	28.40	28.35	28.15	28.35	28.65	28.90	29.15
18	28.10	28.65	29.25	28.65	29.15	28.55	28.15	28.25	28.20	28.60	28.85	29.25
19	27.95	28.80	29.10	28.95	29.10	28.50	28.05	28.30	28.30	28.55	28.95	29.30
20	28.10	29.05	29.10	29.05	29.05	28.50	28.10	28.35	28.35	28.55	29.00	29.20
21	28.00	29.15	29.10	29.00	29.00	28.60	28.15	28.55	28.35	28.50	29.00	29.15
22	28.20	29.15	29.20	29.00	28.85	28.45	28.05	28.55	28.35	28.45	29.00	29.10
23	28.35	28.95	29.25	29.00	28.85	28.25	28.00	28.45	28.40	28.65	29.00	29.10
24	28.35	28.80	29.15	28.80	28.60	28.20	27.95	28.40	28.45	28.65	28.90	29.25
25	28.40	28.80	29.50	29.00	28.80	28.60	28.00	28.35	28.50	28.65	28.80	29.30
26	28.25	28.70	29.55	29.25	28.75	28.60	---	28.30	28.45	28.65	28.95	29.10
27	28.20	28.70	29.35	29.05	28.85	28.40	---	28.25	28.45	28.80	29.10	29.25
28	28.10	28.55	29.20	29.05	28.90	28.05	---	28.35	28.40	28.80	29.15	29.40
29	28.30	28.65	29.15	29.15	---	28.15	---	28.45	28.40	28.75	29.05	29.40
30	28.35	28.65	29.30	29.10	---	28.30	---	28.35	28.50	28.85	28.85	29.25
31	28.55	---	29.25	29.00	---	28.25	---	28.20	---	28.85	28.95	---
MAX	28.55	29.15	29.55	29.35	29.40	29.00	---	---	28.55	28.85	---	29.55
WTR YR 1985	MEAN	28.70		HIGH	27.75	OCT	3 AND OTHERS	LOW	29.55	DEC 26	AND OTHERS	



## GROUND-WATER RECORDS

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## WILLIAMS COUNTY

412821084313600. Local number, WM-1.

LOCATION.--Lat 41°28'21", long 84°31'36", Hydrologic Unit 04100006, Bryan Water Treatment Plant, Bryan.

Owner: City of Bryan.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused production well, diameter 8 in., depth 118 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 747 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.30 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--May 1951 to May 1957, discontinued June 1957 to September 1984, reactivated October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 34.85 ft below land-surface datum, Sept. 30, 1985; minimum daily low, 1.45 ft below land-surface datum, Jan. 27, 1952.

## WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	28.17	25.75	17.31		---	23.60	27.35	27.15	30.00	32.70	29.35
2	---	28.59	24.34	19.95		---	24.25	26.10	26.05	30.65	33.15	28.80
3	32.42	27.45	24.68	19.45		---	24.65	25.90	26.85	30.75	32.30	30.30
4	32.73	25.35	25.55	20.03		---	24.85	25.95	27.75	30.00	31.60	30.70
5	33.16	26.73	25.40	20.56		---	24.40	25.20	27.90	28.60	31.80	32.85
6	32.80	27.21	25.45	19.50		---	22.15	25.30	28.90	27.60	31.70	33.75
7	31.90	27.65	25.62	20.03		---	21.95	27.40	29.20	26.40	32.35	33.85
8	31.75	27.75	25.60	---		---	21.95	27.70	28.50	28.55	32.45	33.40
9	32.01	27.60	23.75	---		---	23.30	28.15	26.90	29.60	32.85	33.00
10	32.73	26.75	24.25	---		---	22.75	28.35	28.95	29.70	31.40	33.75
11	32.77	25.39	24.80	---		---	24.60	27.70	28.45	29.30	30.70	34.00
12	32.68	26.60	24.84	---		---	24.85	25.75	28.40	29.75	31.25	34.25
13	31.75	26.58	25.24	---		25.00	23.65	27.75	28.30	---	31.45	34.80
14	30.40	26.51	25.35	---		24.85	22.30	28.35	28.60	---	31.55	34.75
15	30.50	26.94	24.75	---		25.00	22.20	28.45	27.20	---	31.80	32.85
16	30.78	27.91	23.35	---		25.95	24.10	28.20	26.25	---	31.65	33.10
17	30.90	27.49	23.78	---		23.70	24.50	28.15	27.55	---	31.00	33.70
18	30.93	26.18	24.12	---		24.40	24.75	26.75	27.45	---	29.50	34.00
19	30.63	27.02	24.12	---		24.65	25.50	25.40	29.40	29.70	30.45	34.65
20	30.66	27.65	24.25	---		25.30	25.10	26.45	30.60	29.80	30.90	34.85
21	29.00	27.75	23.85	---		25.55	24.00	27.10	31.00	28.55	31.30	34.30
22	29.00	27.00	22.88	---		25.40	23.95	27.20	31.00	28.30	31.40	32.75
23	29.00	24.90	21.90	---		25.00	25.10	27.70	28.40	29.20	31.90	32.90
24	28.60	23.78	20.72	---		23.50	25.30	28.45	29.40	30.10	30.65	33.70
25	29.27	23.12	20.45	---		24.85	25.95	27.40	30.00	30.15	29.75	33.80
26	29.65	24.46	20.25	---		24.60	26.25	26.60	30.60	31.15	30.45	34.15
27	29.57	25.02	20.56	---		24.35	25.60	24.85	31.05	31.35	31.50	34.40
28	27.33	25.38	21.58	---		25.35	23.00	25.40	31.90	31.05	31.90	33.75
29	28.01	25.85	19.75	---		25.45	24.25	27.15	30.30	32.50	32.00	33.00
30	27.92	25.85	19.22	---		24.95	24.90	27.35	29.40	33.50	31.60	32.90
31	28.08	---	18.69	---		22.85	---	28.15	---	33.55	30.50	---
MAX	---	28.59	25.75	---		---	26.25	28.45	31.90	---	33.15	34.85
WTR YR 1985 MEAN		27.85		HIGH	17.31	JAN 1	LOW	34.85	SEP 20			

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412930084320900. Local number, WM-3.

LOCATION.--Lat 41°29'30", long 84°32'09", Hydrologic Unit 04100006, Union Street, Bryan.

Owner: City of Bryan.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused test well, diameter 8 in., depth 174 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.00 ft below land-surface datum, July 31, 1985; minimum daily low, 15.74 ft below land-surface datum, Jan. 1, 1985.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.41			15.74	20.74	---	18.20	19.60	21.00	22.45	24.70	23.25
2	23.76			16.20	20.75	---	18.45	19.65	20.50	22.40	24.85	22.55
3	23.91			16.73	20.00	---	18.80	19.45	20.45	22.60	24.85	22.95
4	24.08			16.97	19.76	---	19.00	19.15	20.75	22.50	24.30	23.40
5	24.29			16.93	19.83	---	18.55	18.40	21.15	21.80	23.85	23.65
6	24.21			16.82	20.15	---	17.75	18.10	21.65	21.40	23.95	24.05
7	23.90			16.44	---	---	17.30	18.95	22.00	20.10	24.25	24.05
8	23.39			17.10	---	---	17.30	19.75	22.00	21.35	24.30	23.90
9	23.53			17.49	---	---	17.40	20.25	21.30	22.15	24.55	23.55
10	23.84			17.95	20.04	---	17.20	20.65	21.75	22.40	24.50	24.05
11	23.89			18.34	19.56	---	17.95	20.75	21.75	22.35	23.75	24.35
12	23.93			18.30	19.68	---	18.35	20.15	21.95	22.60	23.40	24.40
13	23.84			17.33	19.77	19.20	18.10	20.55	21.95	22.50	23.65	24.50
14	23.25			16.97	---	19.30	---	21.00	22.00	21.90	23.70	24.50
15	22.82			17.92	---	18.75	---	21.20	21.80	21.55	23.75	23.90
16	23.53			18.44	---	---	---	21.15	20.90	22.00	23.80	23.55
17	23.94			18.67	---	---	---	21.25	20.90	22.30	23.80	23.90
18	24.02			18.92	---	18.40	18.70	21.00	21.45	22.75	23.20	24.15
19	24.26			18.86	---	18.75	19.15	21.20	22.05	22.95	22.85	24.45
20	24.08			18.80	---	19.15	19.20	20.05	22.80	23.00	23.20	24.65
21	23.55			18.91	---	19.50	18.70	20.60	23.00	22.35	23.50	24.65
22	23.43			19.21	---	19.50	18.45	20.75	23.00	22.00	23.70	23.90
23	23.34			19.45	---	19.40	18.70	21.10	22.15	22.40	23.95	23.40
24	23.62			19.53	---	18.80	19.10	21.50	21.75	22.90	23.85	23.80
25	24.10			19.83	---	19.15	19.45	21.35	22.20	23.15	23.30	24.00
26	24.57			19.87	---	19.15	19.75	20.70	22.60	23.65	23.10	24.10
27	24.57			19.58	---	18.80	19.75	21.00	23.00	23.70	23.65	24.40
28	23.50			19.33	---	18.60	18.55	19.75	23.55	23.65	24.00	24.35
29	23.07			19.76	---	18.80	17.90	20.20	23.20	24.20	24.05	24.00
30	22.97			20.18	---	18.65	18.50	20.70	22.75	24.95	24.00	23.45
31	22.74			20.57	---	17.70	---	21.10	---	25.00	24.00	---
MAX	24.57			20.57	---	---	---	21.50	23.55	25.00	24.85	24.65
WTR YR 1985	MEAN	21.46		HIGH	15.74	JAN 1	LOW	25.00	JUL 31			

## GROUND-WATER RECORDS

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## WILLIAMS COUNTY

413108084415300. Local number, WM-12.

LOCATION.--Lat 41°31'08", long 84°41'53", Hydrologic Unit 04100003, 1.7 mi east of Blakeslee.

Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 10 in., depth 115 ft, cased to 115 ft, screened 85 ft to 115 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 830 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 1.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--1974 to September 1982 continuous, periodic October 1983 to December 1984, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 10.56 ft below land-surface datum, Feb. 6-7, 1977; minimum daily low, 3.83 ft below land-surface datum, Mar. 17, 1982.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	8.92	5.39	5.02	8.31	8.98	9.78	10.00	10.04
2				---	8.99	5.78	5.09	8.38	9.06	9.72	10.04	10.10
3				---	9.05	5.91	5.33	8.46	9.18	9.72	10.03	10.06
4				---	9.05	5.84	5.42	8.47	9.20	9.71	10.04	10.04
5				---	8.95	5.97	5.54	8.44	9.23	9.68	10.03	10.04
6				---	8.95	6.10	5.52	8.56	9.28	9.58	10.00	10.08
7				---	9.10	5.98	5.53	8.64	9.26	9.55	9.97	10.10
8				7.22	9.12	5.97	5.47	8.73	9.24	9.56	10.00	10.10
9				7.42	9.12	6.08	5.68	8.72	9.35	9.62	10.02	9.94
10				7.50	9.08	6.11	5.79	8.74	9.41	9.63	10.04	9.74
11				7.71	8.96	6.07	6.16	8.76	9.40	9.66	10.10	9.79
12				7.76	8.79	6.15	6.40	8.83	9.37	9.67	10.11	9.87
13				7.73	8.85	6.21	6.55	8.91	9.41	9.72	10.05	9.94
14				7.91	8.91	6.46	6.64	8.92	9.45	9.70	9.99	9.96
15				8.16	8.93	6.66	6.80	8.92	9.45	9.69	9.86	9.92
16				8.16	8.92	6.77	7.14	8.91	9.41	9.62	9.65	9.88
17				8.02	9.09	7.02	7.25	8.95	9.41	9.53	9.63	9.92
18				8.10	9.09	7.12	7.31	8.99	9.25	9.45	9.71	9.98
19				8.33	9.08	7.22	7.43	9.01	9.26	9.52	9.79	10.01
20				8.45	9.05	7.52	7.56	9.06	9.34	9.57	9.84	9.98
21				8.45	9.03	7.59	7.63	9.13	9.37	9.56	9.88	10.00
22				8.54	8.90	7.57	7.70	9.13	9.44	9.69	9.90	10.01
23				8.54	8.34	7.60	7.76	9.10	9.48	9.75	9.92	10.01
24				8.49	6.87	7.79	7.85	9.16	9.57	9.76	9.88	10.06
25				8.75	5.68	7.96	7.94	9.16	9.57	9.78	9.96	10.08
26				8.83	4.52	7.97	7.98	9.16	9.57	9.87	10.01	10.02
27				8.76	5.04	7.87	8.06	9.22	9.62	9.92	10.05	10.08
28				8.80	5.19	7.83	8.21	8.96	9.62	9.90	10.04	10.16
29				8.85	---	6.82	8.27	8.89	9.70	9.94	10.02	10.14
30				8.84	---	5.91	8.25	8.81	9.76	9.98	10.00	10.04
31				8.87	---	5.13	---	8.87	---	9.95	10.03	---
MAX				---	9.12	7.97	8.27	9.22	9.76	9.98	10.11	10.16
WTR YR 1985 MEAN		8.67										
HIGH					4.52	FEB 26		LOW	10.16	SEP 28		

## GROUND-WATER RECORDS

## WYANDOT COUNTY

4050090 83172600. Local number, WY-1.

LOCATION.--Lat 40°50'09", long 83°17'26", Hydrologic Unit 04100011, State Rt 199, Upper Sandusky.

Owner: Karg Supply Co.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in, depth 90 ft, cased.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--September 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 40.90 ft below land-surface datum, July 12, 15, 17, 21, Aug. 26, 1961; minimum daily low, 25.75 ft below land-surface datum, Apr. 16, 1980.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.71	30.41	29.90	29.79	29.34	28.60	28.50	30.30	30.72	30.82	31.04	31.05
2	29.56	30.41	29.32	29.17	29.34	28.56	28.50	29.70	30.17	30.77	31.48	30.73
3	29.59	30.43	29.74	29.17	28.72	28.37	28.45	29.08	30.28	31.03	31.48	31.68
4	29.90	29.77	29.88	29.47	29.27	28.33	28.44	29.50	30.13	31.00	30.87	31.86
5	30.30	29.52	30.13	29.49	29.29	28.31	28.46	29.81	29.98	30.46	31.18	31.75
6	30.22	29.70	30.20	28.84	29.30	28.92	28.44	29.99	30.05	30.37	31.26	31.98
7	30.35	30.28	30.40	28.68	29.37	28.90	28.43	30.09	30.23	30.19	31.68	31.98
8	30.83	30.34	30.33	28.94	29.69	28.73	28.33	30.22	30.23	30.84	31.69	31.43
9	31.10	29.97	29.60	29.47	29.75	28.74	28.21	30.22	29.96	30.82	31.77	31.89
10	31.23	29.98	29.39	29.59	29.26	28.79	28.14	30.19	30.32	30.88	31.76	31.89
11	31.23	29.65	30.15	29.63	29.04	28.68	28.04	30.20	30.33	30.83	31.04	32.05
12	31.18	29.78	30.18	29.66	29.03	28.67	29.08	30.19	29.62	31.05	31.69	32.07
13	31.18	29.99	30.09	29.15	29.18	28.82	29.47	30.16	29.83	30.98	31.71	32.07
14	30.45	30.23	30.19	28.51	29.22	28.79	29.67	30.18	30.26	30.47	31.96	31.63
15	30.77	30.22	30.21	28.75	29.41	28.92	29.81	30.14	30.28	30.62	32.17	30.40
16	31.03	30.40	29.87	29.01	29.48	28.93	29.82	30.10	29.24	30.84	32.28	31.00
17	31.03	30.47	29.38	29.08	29.22	28.49	29.96	29.98	30.01	31.21	32.29	31.18
18	30.88	29.91	29.71	29.07	29.43	28.86	29.67	29.12	29.97	31.08	32.29	31.91
19	31.16	29.89	30.01	29.10	29.36	28.87	30.09	29.00	30.10	30.95	32.27	32.02
20	31.15	29.96	30.01	28.70	29.24	28.66	30.28	30.13	30.01	30.82	32.08	32.10
21	30.22	30.29	30.01	29.12	29.27	28.69	30.13	30.44	30.37	30.26	31.94	32.10
22	29.41	30.27	29.90	29.26	29.10	28.63	30.25	30.83	30.34	30.72	31.94	31.34
23	30.05	29.92	29.62	29.24	29.09	28.63	30.26	30.80	29.60	30.89	31.96	31.62
24	30.05	29.98	29.33	29.24	28.65	28.43	30.39	30.31	29.91	31.16	31.67	31.61
25	30.01	29.95	29.07	29.10	28.69	28.67	30.38	30.65	29.91	31.07	30.82	31.31
26	30.74	29.59	30.40	28.90	28.61	28.61	30.33	30.68	29.58	30.93	31.47	30.90
27	31.01	29.66	31.57	28.40	28.78	28.38	30.33	30.65	29.91	30.55	31.54	31.20
28	31.04	29.97	32.20	28.95	28.78	28.52	30.23	30.07	30.67	30.26	31.78	30.91
29	30.85	29.92	32.69	29.04	---	28.60	30.33	29.67	30.65	30.19	31.75	30.91
30	30.74	29.94	32.67	29.30	---	28.55	30.30	30.47	30.39	30.68	31.89	31.53
31	30.39	---	31.68	29.31	---	28.37	---	30.72	---	30.93	31.77	---
MAX	31.23	30.47	32.69	29.79	29.75	28.93	30.39	30.83	30.72	31.21	32.29	32.10
WTR YR 1985 MEAN	30.13											
HIGH				28.04	APR 11							
LOW							32.69	DEC 29				



## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

The following tables contain ground water-level measurements, chemical analyses from a network of wells and two surface-water sites in Southern Franklin County. The data were collected as part of a cooperative study with the city of Columbus. The objective of the study is to evaluate the effects of several landfills on the chemical quality of the ground-water and surface-water systems and to evaluate the effects of infiltration induced by the city of Columbus' collector-well system.

395006083013600. Local number, FR-116, M1.

LOCATION.--Lat 39°50'06", long 83°01'36", Hydrologic Unit 05060001, near Shadeville.

Owner: Jackson Township.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 62 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 725 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic pipe, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.48 ft below land-surface datum, Mar. 26, 1984; lowest, 25.61 ft below land-surface datum, Nov. 3, 1982.

HIGHEST WATER LEVEL 22.49 FEET BELOW LAND SURFACE DATUM MAR 28, 1985.

LOWEST WATER LEVEL 24.88 FEET BELOW LAND SURFACE DATUM NOV 13, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	24.88	MAR 28, 1985	22.49	JUL 25, 1985	22.74	SEP 06, 1985	23.40
JAN 30, 1985	23.55	MAY 30	22.59				

395016083010300. Local number, FR-117, M2.

LOCATION.--Lat 39°50'16", long 83°01'03", Hydrologic Unit 05060001, near Shadeville.

Owner: Jackson Township.

AQUIFER.--Glacial clay, sand, and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 45 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 705 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2-inch steel pipe, 3.08 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.02 ft below land-surface datum, June 17, 1981; lowest, 17.08 ft below land-surface datum, Jan. 30, 1985.

HIGHEST WATER LEVEL 14.69 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 17.08 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	16.36	MAR 28, 1985	15.49	JUL 25, 1985	15.15	SEP 06, 1985	15.53
JAN 30, 1985	17.08	MAY 30	14.69				

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395045083003100. Local number, FR 103, TH 11.

LOCATION.--Lat 39°50'45", long 83°00'31", Hydrologic Unit 05060001, near Columbus.

Owner: City of Columbus.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 93 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 699 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.70 ft above land-surface datum.

PERIOD OF RECORD.--August 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.00 ft below land-surface datum, May 9, 1983; lowest, 74.70 ft below land-surface datum, Jan. 25, 1984.

HIGHEST WATER LEVEL 26.24 FEET BELOW LAND SURFACE DATUM NOV 13, 1984.

LOWEST WATER LEVEL 41.40 FEET BELOW LAND SURFACE DATUM SEP 06, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	26.24	MAR 27, 1985	27.69	JUL 25, 1985	35.54	SEP 06, 1985	41.40
JAN 30, 1985	31.37	MAY 30	32.46				

395059083000900. Local number, FR-122, M8.

LOCATION.--Lat 39°50'59", long 83°00'09", Hydrologic Unit 05060002, near Shadeville.

Owner: Franklin County.

AQUIFER.--Glacial clay and sand of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 104 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 3-inch aluminum casing, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.15 ft below land-surface datum, May 19, 1981; lowest, 94.64 ft below land-surface datum, Mar. 2, 1982.

HIGHEST WATER LEVEL 37.98 FEET BELOW LAND SURFACE DATUM NOV 13, 1984.

LOWEST WATER LEVEL 39.11 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	37.98	MAR 27, 1985	39.11	JUL 24, 1985	38.71	SEP 06, 1985	38.50
JAN 31, 1985	38.69	MAY 30	39.02				

## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

395008082593100. Local number, FR-126, M13.

LOCATION.--Lat 39°50'08", long 82°59'31", Hydrological Unit 05060001, near Shadeville.

Owner: Franklin County.

AQUIFER.--Glacial clay and sand of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 122 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 703 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic pipe, 2.39 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.96 ft below land-surface datum, June 17, 1981; lowest, 20.43 ft below land-surface datum, June 9, 1982.

HIGHEST WATER LEVEL 15.72 FEET BELOW LAND SURFACE DATUM JUL 25, 1985.

LOWEST WATER LEVEL 17.86 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	16.46	MAR 28, 1985	16.58	JUL 25, 1985	15.72	SEP 06, 1985	17.52
JAN 31, 1985	17.86	MAY 30	16.41				

395114082592600. Local number, FR-46.

LOCATION.--Lat 39°51'14", long 82°59'26", Hydrologic Unit 05060001, near Hamilton Meadows.

Owner: Hartman Farms.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 in., depth 38 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 718 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.0 ft below land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.77 ft below land-surface datum, July 1, 1981; lowest, 27.03 ft below land-surface datum, Jan. 31, 1985.

HIGHEST WATER LEVEL 23.62 FEET BELOW LAND SURFACE DATUM JUL 25, 1985.

LOWEST WATER LEVEL 27.03 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	25.97	MAR 27, 1985	26.10	JUL 25, 1985	23.62	SEP 06, 1985	24.03
JAN 31, 1985	27.03	MAY 30	24.68				

395131082592400. Local number, FR-123, M9.

LOCATION.--LAT 39°51'31", long 82°59'24", Hydrologic Unit 05060001, near Hamilton Meadows.

Owner: Franklin County.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 36.5 ft.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic pipe, 2.25 ft above land-surface datum.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.06 ft below land-surface datum, June 9, 1982; lowest, 11.48 ft below land-surface datum, Jan. 31, 1985.

HIGHEST WATER LEVEL 8.30 FEET BELOW LAND SURFACE DATUM JUL 15, 1985.

LOWEST WATER LEVEL 11.48 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	10.71	MAR 27, 1985	10.76	JUL 15, 1985	8.30	SEP 06, 1985	9.04
JAN 31, 1985	11.48	MAY 30	9.43	25	8.52		

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395108083010600. Local number, FR 147.

LOCATION.--Lat 39°51'08", long 83°01'06", Hydrologic Unit 05060001, near Columbus.

Owner: City of Columbus.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 75 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 685 ft above National Geodetic Vertical Datum of 1929, from topographic map.

PERIOD OF RECORD.--May 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.54 ft below land-surface datum, May 19, 1981; lowest, 22.19 ft below land-surface datum, Nov. 15, 1984.

HIGHEST WATER LEVEL 9.46 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 22.19 FEET BELOW LAND SURFACE DATUM NOV 15, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 1984	22.19	MAR 27, 1985	9.46	JUL 25, 1985	14.35	SEP 06, 1985	18.00
JAN 30, 1985	12.58	MAY 30	13.62				

395126083014000. Local number, FR-131, M18.

LOCATION.--Lat 39°51'26", long 83°01'40", Hydrologic Unit 05060001, near Columbus.

Owner: Franklin County.

AQUIFER.--Glacial Clay, sand, and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 53 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 727 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic coupling, 2.4 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.77 ft below land-surface datum, July 1, 1981; lowest, 45.22 ft below land-surface datum, Jan. 30, 1985.

HIGHEST WATER LEVEL 43.57 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 45.22 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	45.14	MAR 28, 1985	44.06	JUL 25, 1985	44.40	SEP 06, 1985	44.77
JAN 30, 1985	45.22	MAY 30	43.57				

395218083023900. Local number, FR-133.

LOCATION.--Lat 39°52'18", long 83°02'39", Hydrologic Unit 05060001, on White Road near Grove City, Ohio

Owner: Franklin County.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 82 ft, cased to 82 ft finish: 4.0 ft of 0.80 in well screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 765 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level 49.05 ft below land surface datum, April 1, 1980; lowest, 57.96 ft below land-surface datum, Jan. 30, 1985.

HIGHEST WATER LEVEL 57.07 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 57.96 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	57.89	MAR 27, 1985	57.11	JUL 25, 1985	57.39	SEP 06, 1985	57.75
JAN 30, 1985	57.96	MAY 30	57.07				



## FRANKLIN COUNTY

395324083001500. Local number, FR-263.

LOCATION.--Lat 39°53'24", long 83°00'15", Hydrologic Unit 05060001, 500 ft E of Scioto River and 1.0 mi N of I-270 near Columbus, Ohio.

Owner: American Aggregates Corp.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 50 ft, cased to 40 ft, finish is 5 ft of 0.010 in well screen from 40 ft to 45 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 691.2 ft above National Geodetic Vertical Datum of 1929. Measuring point: base of instrument shelter 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to July 1985.

REMARKS.--Well destroyed by expansion of gravel quarry.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.38 ft below land surface datum, Mar. 25-31, 1984; lowest, 16.52 ft below land surface datum, Sept. 26, 1982.

HIGHEST WATER LEVEL 10.47 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 13.58 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 1984	11.97	MAR 27, 1985	10.47	MAY 30, 1985	11.70	JUL 25, 1985	13.28
JAN 30, 1985	13.58						

395321083005700. Local number, FR-268.

LOCATION.--Lat 39°53'21", long 83°00'57", Hydrologic Unit 05060001, at American Aggregates Quarry near Columbus, Ohio.

Owner: American Aggregates Corporation.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2.0 in., depth 64 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 680.2 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.3 ft above land-surface datum.

PERIOD OF RECORD.--June 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.20 ft below land-surface datum, May 6, 1983; lowest, 30.81 ft below land-surface datum, Sept. 6, 1985.

HIGHEST WATER LEVEL 26.21 FEET BELOW LAND SURFACE DATUM MAR 21, 1985.

LOWEST WATER LEVEL 30.81 FEET BELOW LAND SURFACE DATUM SEP 06, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 30, 1985	26.84	MAY 30, 1985	28.04	JUL 25, 1985	28.73	SEP 06, 1985	30.81
MAR 21	26.21						

395254083010700. Local number, FR-253.

LOCATION.--Lat 39°52'54", long 83°01'07", Hydrologic Unit 05060001, at Scioto River and I-270 E near Columbus, Ohio.

Owner: American Aggregates Corp.

AQUIFER.--Sand and Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 50 ft, cased to 40 ft finish is 10 ft 0.010 in slot screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 688 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.05 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.51 ft below land-surface datum, Mar. 30, 1984; lowest, 31.73 ft below land-surface datum, Sept. 6, 1985.

HIGHEST WATER LEVEL 27.18 FEET BELOW LAND SURFACE DATUM MAR 26, 1985.

LOWEST WATER LEVEL 31.73 FEET BELOW LAND SURFACE DATUM SEP 06, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	29.38	MAR 26, 1985	27.18	JUL 25, 1985	29.50	SEP 06, 1985	31.73
JAN 30, 1985	28.39	MAY 30	29.34				

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395250083014101. Local number, FR-236.

LOCATION--Lat 39°52'50", long 83°01'41", Hydrologic Unit 05060001, on S.R. 104 near Grove City, Ohio.

Owner: S.B. Riegler.

AQUIFER--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS--Drilled domestic water well, diameter 4.25 in., depth 95 ft, cased to 95 ft.

INSTRUMENTATION--Periodic measurement with steel tape by USGS personnel.

DATUM--Elevation of land-surface datum is 718 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.05 ft above land-surface datum.

PERIOD OF RECORD--July 1979 to current year.

EXTREMES FOR PERIOD OF RECORD--Highest water level, 53.99 ft below land-surface datum, Mar. 21, 1984; lowest, 61.18 ft below land-surface datum, Nov. 26, 1984.

HIGHEST WATER LEVEL 57.70 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 61.18 FEET BELOW LAND SURFACE DATUM NOV 26, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	61.18	MAR 27, 1985	57.70	JUL 25, 1985	59.13	SEP 05, 1985	60.27
JAN 31, 1985	60.17	MAY 30	58.49				

395314083021900. Local number, FR-202.

LOCATION--Lat 39°53'14", long 83°02'19", Hydrologic Unit 05060001, on Thrailkill Road near Columbus, Ohio.

Owner: D.W. Himes.

AQUIFER--Limestone of Silurian age.

WELL CHARACTERISTICS--Drilled domestic water well, diameter 5 in., depth 220 ft, cased to 139 ft.

INSTRUMENTATION--Periodic measurement with steel tape by USGS personnel.

DATUM--Elevation of land-surface datum is 752 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.17 ft above land-surface datum.

PERIOD OF RECORD--June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD--Highest water level, 66.17 ft below land-surface datum, June 25, 1979; lowest, 96.50 ft below land-surface datum, July 19, 1984.

HIGHEST WATER LEVEL 80.24 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 84.58 FEET BELOW LAND SURFACE DATUM SEP 05, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	80.61	MAR 27, 1985	80.24	JUL 25, 1985	82.06	SEP 05, 1985	84.58
JAN 31, 1985	80.85	MAY 30	81.46				

0395350083030001. Local number, FR-230.

LOCATION--Lat 39°53'50", long 83°03'00", Hydrologic Unit 05060001, on Marlane Drive near Grove City, Ohio.

Owner: J. Kendrick.

AQUIFER--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS--Drilled domestic water well, diameter 6.0 in., depth unknown.

INSTRUMENTATION--Periodic measurement with steel tape by USGS personnel.

DATUM--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.2 ft above land-surface datum.

PERIOD OF RECORD--July 1979 to current year.

EXTREMES FOR PERIOD OF RECORD--Highest water level, 69.50 ft below land-surface datum, July 11, 1979; lowest, 83.75 ft below land-surface datum, Jan. 31, 1985.

HIGHEST WATER LEVEL 80.97 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 83.75 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	81.20	MAR 27, 1985	80.97	JUL 25, 1985	81.75	SEP 05, 1985	82.35
JAN 31, 1985	83.75	MAY 30	81.28				

## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

395319083014100. Local number, FR-242.

LOCATION.--Lat 39°53'19", long 83°01'41", Hydrologic Unit 05060001, at Model Landfill near Columbus, Ohio.

Owner: Model Landfill Inc.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 6.0 in., depth 68 ft, cased to 68 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 705 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.94 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 53.44 ft below land-surface datum, April 13, 1982; lowest, 58.01 ft below land-surface datum, Nov. 23, 1984.

HIGHEST WATER LEVEL 56.95 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 58.01 FEET BELOW LAND SURFACE DATUM NOV 23, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	58.01	MAR 27, 1985	57.07	JUL 25, 1985	57.35	SEP 05, 1985	57.74
JAN 31, 1985	57.92	MAY 30	56.95				

395351083013700. Local number, FR-244.

LOCATION.--Lat 39°53'51", long 83°01'37", Hydrologic Unit 05060001, at Model Landfill near Columbus, Ohio.

Owner: Model Landfill Inc.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4.5 in., depth 75 ft, cased to 55 ft, finish is 20.0 ft of slotted screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.63 ft above land-surface datum.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 41.89 ft below land surface datum, Oct. 18, 1979; lowest, 65.97 ft below land surface datum, Nov. 23, 1984.

HIGHEST WATER LEVEL 63.82 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 65.97 FEET BELOW LAND SURFACE DATUM NOV 23, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	65.97	MAR 27, 1985	63.82	JUL 25, 1985	64.20	SEP 05, 1985	65.46
JAN 31, 1985	65.82	MAY 30	63.94				

395409083015001. Local number, FR-224.

LOCATION.--Lat 39°54'09", long 83°01'50", Hydrologic Unit 05060001, on Dyer Road near Columbus, Ohio.

Owner: H. Barnes.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.5 in., depth 78 ft, cased to 78 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 721 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.69 ft above land-surface datum.

PERIOD OF RECORD.--July 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.72 ft below land-surface datum, July 11, 1979; lowest, 75.20 ft below land-surface datum, Nov. 26, 1984.

HIGHEST WATER LEVEL 72.07 FEET BELOW LAND SURFACE DATUM SEP 06, 1985.

LOWEST WATER LEVEL 75.20 FEET BELOW LAND SURFACE DATUM NOV 26, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	75.20	MAR 31, 1985	74.01	JUL 25, 1985	73.13	SEP 06, 1985	72.07
MAR 27, 1985	73.08	MAY 30	72.53				

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395417083005000. Local number, FR-259.

LOCATION.--Lat 39°54'17", long 83°00'50", Hydrologic Unit 05060001, in Columbus Landfill near Columbus, Ohio.

Owner: City of Columbus.

AQUIFER.--Sand and Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 50 ft, cased to 45 ft finish is 5 ft of 0.010 in well screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface is 725 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.21 ft below land-surface datum, May 1, 1983; lowest, 46.72 ft below land-surface datum, Aug. 13, 1982.

HIGHEST WATER LEVEL 42.33 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 43.79 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	43.44	MAR 27, 1985	42.48	JUL 25, 1985	43.61	SEP 06, 1985	43.34
JAN 30, 1985	43.79	MAY 30	42.33				

395426083010200. Local number, FR-261.

LOCATION.--Lat 39°54'26", long 83°01'02", Hydrologic Unit 05060001, in Columbus Landfill near Columbus, Ohio.

Owner: City of Columbus.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 45 ft, cased to 40 ft finish is 5 ft of 0.010 in well screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

REMARKS.--Well no longer useable because of ruptured casing and bridging.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.51 ft below land-surface datum, Mar. 27, 1984; lowest, 41.88 ft below land-surface datum, July 2, 1982.

HIGHEST WATER LEVEL 31.51 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL WELL DRY SEP 06, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	33.99	MAR 27, 1985	31.51	JUL 25, 1985	33.31	SEP 06, 1985	DRY
JAN 30, 1985	31.72	MAY 30	33.88				

395448083004200. Local number, FR-258.

LOCATION.--Lat 39°54'48", long 83°00'42", Hydrologic Unit 05060001, on Scioto River levee behind Inland Products near Columbus, Ohio.

Owner: City of Columbus.

AQUIFER.--Gravel and cobbles of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 50 ft, cased to 40 ft, finish is 5 ft of 0.010 in well screen from 40 ft to 45 ft.

INSTRUMENTATION.--Periodic measurements with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 713 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.87 ft below land-surface datum, Mar. 20, 1984; lowest, 30.85 ft below land-surface datum, Jan. 30, 1985.

HIGHEST WATER LEVEL 28.44 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 30.85 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	30.48	MAR 27, 1985	28.44	JUL 25, 1985	29.51	SEP 06, 1985	29.75
JAN 30, 1985	30.85	MAY 30	28.65				



## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

395458083011600. Local number, FR-248.

LOCATION.--Lat 39°54'58", long 83°01'16", Hydrologic unit 05060001, on Frank Road near Columbus, Ohio.

Owner: Agg-Rok Inc.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 4.25 in., depth 63 ft, cased to 63 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 698 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.21 ft below land-surface datum.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.23 ft below land-surface datum, Aug. 21, 1979; lowest, 43.08 ft below land-surface datum, Jan. 31, 1985.

HIGHEST WATER LEVEL 39.25 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 43.08 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20, 1984	42.83	MAR 27, 1985	39.76	JUL 25, 1985	39.82	SEP 05, 1985	41.39
JAN 31, 1985	43.08	MAY 30	39.25				

395509083003700. Local number, FR-257.

LOCATION.--Lat 39°55'09", long 83°00'37", Hydrologic Unit 05060001, on Scioto River levee 700 ft north of Frank Road near Columbus, Ohio.

Owner: City of Columbus.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 40 ft, cased to 35 ft finish is 5 ft of 0.010 in well screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.63 ft below land-surface datum, Mar. 20, 1984; lowest, 25.93 ft below land-surface datum, Nov. 16, 1982..

HIGHEST WATER LEVEL 23.92 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 25.79 FEET BELOW LAND SURFACE DATUM NOV 23, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	25.79	MAR 27, 1985	23.92	JUL 25, 1985	24.73	SEP 04, 1985	25.52
JAN 30, 1985	25.77	MAY 30	24.11				

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395058083002400. Local number, Fr-119, M5.

LOCATION.--Lat 39°50'58", long 83°00'24", Hydrologic Unit 05060001, near Shadeville.

Owner: Franklin County.

AQUIFER.--Glacial clay, sand, and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 85 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 2-inch coupling, 210 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.10 ft below land-surface datum, June 17, 1981; lowest, 38.19 ft below land-surface datum, Jan. 27, 1984.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.54	22.51	22.40	22.80	23.83	---	20.78	23.86	22.88	25.66	26.51	27.72
2	21.53	22.56	22.39	22.49	23.83	---	20.55	24.03	22.94	25.78	26.63	27.72
3	21.48	22.56	22.26	22.22	23.82	---	20.16	24.03	22.99	25.89	26.75	27.71
4	21.46	22.54	22.25	21.69	23.66	---	19.92	23.96	23.16	25.99	26.85	27.63
5	21.49	22.57	22.21	21.41	23.57	---	19.73	23.70	23.47	26.05	26.91	27.76
6	21.50	22.58	22.25	21.32	23.44	---	19.68	23.53	23.60	26.08	26.99	27.98
7	21.52	22.58	22.46	21.37	23.38	---	19.66	23.42	23.60	26.13	27.06	28.08
8	21.52	22.56	22.53	21.49	23.28	---	19.56	23.49	23.39	26.15	27.13	28.09
9	21.56	22.52	22.59	21.56	23.25	---	19.53	23.50	23.36	26.16	27.21	28.06
10	21.60	22.47	22.86	21.56	23.43	---	19.55	23.26	23.43	26.17	27.34	28.00
11	21.63	22.46	23.55	21.40	23.60	---	19.64	23.36	23.43	26.23	27.41	28.03
12	21.65	22.46	24.15	21.43	23.76	---	19.77	23.54	23.41	26.31	27.41	28.23
13	21.67	22.59	24.23	21.54	23.93	---	19.86	23.63	23.38	26.37	27.44	28.28
14	21.70	22.58	24.23	21.73	24.07	---	19.97	23.63	23.21	26.46	27.45	28.25
15	21.78	22.49	24.14	21.91	24.14	---	19.97	23.63	23.26	26.47	27.43	28.00
16	21.86	22.47	23.92	21.99	24.19	---	19.96	23.54	23.43	---	27.43	27.80
17	21.93	22.49	23.67	22.11	24.29	18.51	20.11	23.35	23.58	---	27.55	27.77
18	21.95	22.49	23.52	22.22	24.33	18.92	20.22	23.24	23.74	---	27.62	27.79
19	21.99	22.49	23.45	22.39	24.36	19.39	20.57	23.13	23.95	---	27.66	27.79
20	22.04	22.55	23.35	22.39	24.39	19.79	21.03	23.00	24.13	---	27.77	27.75
21	22.10	22.56	23.34	22.39	24.39	20.05	21.43	22.92	24.30	---	27.93	27.69
22	22.16	22.57	23.30	22.25	24.39	20.09	21.79	22.86	24.45	---	28.08	27.55
23	22.19	22.57	23.30	22.84	24.39	20.34	22.11	22.78	24.56	---	28.22	27.30
24	22.22	22.57	23.28	23.03	24.00	20.72	22.35	22.71	24.69	25.75	28.25	27.04
25	22.26	22.57	23.23	23.17	22.31	20.99	22.56	22.66	24.82	25.84	28.23	26.95
26	22.29	22.57	22.74	23.25	20.29	21.26	22.74	22.65	24.99	25.88	28.02	27.03
27	22.33	22.57	22.59	23.27	18.83	21.28	22.97	22.65	25.15	25.97	27.80	27.14
28	22.38	22.53	22.67	23.40	18.17	21.14	23.24	22.69	25.25	26.08	27.64	27.19
29	22.44	22.51	22.75	23.56	---	21.06	23.41	22.72	25.41	26.15	27.52	27.17
30	22.47	22.46	22.88	23.65	---	21.06	23.65	22.74	25.54	26.24	27.42	26.94
31	22.51	---	22.88	23.74	---	21.03	---	22.82	---	26.36	27.61	---
MAX	22.51	22.59	24.23	23.74	24.39	---	23.65	24.03	25.54	---	28.25	28.28
WTR YR 1985	MEAN	23.66		HIGH	18.17	FEB 28	LOW	28.28	SEP 13			

WATER LEVEL (FEET)				WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985								
DAY	MAXIMUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.60	33.24	34.84	33.43	34.18	31.23	31.73	31.65	31.39	29.28	28.41	30.33
2	34.73	33.28	34.89	34.47	34.14	31.44	31.41	31.46	31.39	29.18	30.12	29.40
3	35.03	33.13	35.09	34.55	34.14	31.24	31.28	31.40	31.43	29.13	31.40	29.84
4	34.05	33.01	35.12	34.60	33.98	32.58	31.13	31.33	31.45	29.08	29.46	29.11
5	33.12	32.12	35.99	34.90	33.86	32.02	31.20	31.29	31.49	29.08	28.60	30.35
6	32.64	31.64	35.70	34.89	33.93	31.87	31.24	31.30	31.52	29.03	31.02	29.33
7	32.34	31.48	35.50	34.98	33.94	31.69	31.21	30.32	31.49	28.96	29.22	28.95
8	32.11	31.32	34.36	35.18	33.87	31.72	31.16	29.70	31.53	28.92	28.52	31.52
9	32.00	31.17	34.94	35.17	33.83	31.59	31.26	30.69	31.47	28.86	28.28	31.88
10	33.13	31.04	35.19	36.08	33.71	31.60	31.11	29.66	31.60	28.93	28.11	30.16
11	32.34	30.79	35.07	35.49	33.64	31.44	31.13	30.79	31.52	28.97	29.91	31.89
12	31.99	30.72	35.14	34.72	33.58	31.66	31.18	30.85	31.48	28.95	29.71	30.27
13	32.74	30.66	35.33	34.29	33.77	31.19	31.15	31.03	31.53	28.97	28.57	31.94
14	32.02	30.63	35.21	34.74	33.70	31.37	31.12	31.20	30.51	28.95	31.20	32.14
15	31.83	31.90	35.19	36.15	33.60	31.49	30.11	31.13	29.88	28.94	29.36	30.44
16	31.80	33.45	35.99	35.95	33.55	31.35	31.04	32.12	29.52	27.36	28.58	29.64
17	31.73	33.65	36.46	35.05	33.67	31.48	31.23	31.22	29.42	27.33	28.36	31.85
18	33.06	33.87	35.87	35.21	33.56	31.54	31.10	31.20	29.21	27.24	28.26	30.25
19	33.30	34.22	35.63	35.87	33.55	31.60	31.22	31.12	29.16	27.22	28.23	31.95
20	32.51	34.41	35.56	35.98	33.52	31.71	31.29	31.05	29.12	28.96	30.95	30.33
21	33.31	34.53	35.41	35.60	33.42	31.73	31.32	31.11	29.11	27.75	29.21	30.88
22	33.47	34.58	35.53	36.50	33.35	31.11	31.49	31.09	29.07	27.42	31.27	32.15
23	33.46	34.64	34.26	36.35	32.64	31.56	32.25	30.03	29.08	29.10	29.50	32.30
24	33.50	34.71	34.85	36.52	32.32	31.61	31.50	30.92	29.07	27.92	28.75	32.60
25	32.66	34.74	33.87	36.62	32.03	31.69	31.47	31.04	29.08	29.78	31.03	32.66
26	32.10	34.30	33.75	35.70	31.81	31.75	31.42	31.15	29.07	28.20	31.68	31.04
27	32.69	34.64	33.64	34.40	32.04	30.70	31.54	31.07	29.07	27.85	29.89	32.45
28	32.93	34.79	33.58	34.47	30.82	32.27	31.60	31.22	30.68	29.37	31.58	32.73
29	32.62	34.52	34.58	34.46	---	32.89	31.65	31.24	29.68	29.41	29.86	32.82
30	32.97	34.69	34.84	34.31	---	32.91	31.59	31.22	29.34</			

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395027082585600. Local number, TH-83, M15.

LOCATION.--Lat 39°50'27", long 82°58'56", Hydrologic Unit 05060001, near Hamilton Meadows.

Owner: JP Sand and Gravel Co.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in., depth 64 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 707 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing 1.70 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.50 ft below land-surface datum, June 15, 1981; lowest, 31.87 ft below land-surface datum, Mar. 17, 1984.

## WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.22	20.25	22.40	---	21.19	17.99	18.86	18.72	18.42	15.58	14.91	17.18
2	22.59	20.35	22.56	---	21.15	17.89	18.49	18.62	18.43	15.48	18.64	15.95
3	23.01	20.26	22.79	---	21.16	18.05	18.27	18.50	18.47	15.42	19.26	16.55
4	21.57	20.03	23.14	---	21.04	20.03	---	18.42	18.48	15.34	16.25	15.54
5	20.36	19.03	24.42	---	20.98	18.89	18.23	18.38	18.54	15.32	15.06	17.41
6	19.54	18.15	23.62	---	20.93	18.75	18.08	18.38	18.57	15.32	18.69	15.83
7	19.10	17.89	23.39	---	20.89	18.62	18.18	16.96	18.58	15.19	15.88	15.34
8	18.80	17.70	21.88	---	20.86	18.64	18.17	16.12	18.62	15.16	14.94	18.97
9	18.61	17.54	22.31	---	20.84	18.44	18.24	17.47	18.48	15.09	14.63	19.40
10	20.07	17.36	22.79	---	20.73	18.23	18.17	16.12	18.67	15.13	14.45	17.15
11	19.29	17.04	22.63	---	20.68	18.47	18.06	17.70	18.72	15.19	17.17	19.37
12	18.62	17.00	22.81	---	20.59	18.58	18.17	17.73	18.46	15.18	16.77	17.22
13	19.54	16.87	22.94	---	20.70	17.85	18.15	17.96	18.59	15.20	15.00	19.37
14	18.77	16.85	22.95	---	20.68	18.30	18.15	18.20	17.31	15.18	18.94	19.59
15	18.40	18.57	23.07	---	20.59	18.27	16.79	18.19	16.40	15.18	15.93	17.43
16	18.29	20.73	24.37	---	20.58	18.35	17.95	19.64	15.94	14.26	14.99	16.23
17	18.23	21.00	24.99	---	20.60	18.41	18.22	18.36	15.75	14.26	14.71	19.33
18	20.10	21.35	23.87	---	20.57	18.47	18.04	18.26	15.51	14.26	14.56	17.17
19	20.42	21.72	23.48	---	20.54	17.79	18.19	18.20	15.41	14.27	14.49	19.43
20	19.52	21.99	23.34	---	20.49	17.69	18.30	18.10	15.35	15.78	18.62	17.29
21	20.34	22.19	23.15	---	20.43	18.76	18.34	18.13	15.32	14.27	15.68	17.91
22	20.59	22.27	23.19	---	20.36	17.74	18.55	18.20	15.29	14.26	18.87	19.68
23	20.58	22.29	21.73	---	19.72	18.51	19.51	16.69	15.31	16.04	16.10	19.87
24	20.69	22.35	22.34	---	19.20	18.21	18.57	17.88	15.29	14.27	15.17	20.21
25	19.80	22.34	21.07	---	18.83	18.49	18.48	18.05	15.31	16.67	18.55	20.36
26	18.84	21.51	---	---	18.51	17.86	18.46	18.19	15.30	14.62	19.40	18.35
27	19.38	22.24	---	---	18.82	17.08	18.60	18.02	15.33	14.14	16.60	19.99
28	19.93	22.35	---	---	17.62	18.49	18.63	18.23	17.59	16.49	19.28	20.33
29	19.34	21.97	---	---	---	19.87	18.71	18.29	16.22	16.49	16.58	20.49
30	20.09	22.29	---	21.39	---	20.45	18.68	18.27	15.70	14.79	19.40	18.63
31	20.33	---	---	21.29	---	20.26	---	18.32	---	16.60	19.92	---
MAX	23.01	22.35	---	---	21.19	20.45	---	19.64	18.72	16.67	19.92	20.49
WTR YR 1985	MEAN	18.59		HIGH	14.14	JUL 27	LOW	24.99	DEC 17			



## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

395329083013100. Local number, FR-264.

LOCATION.--Lat 39°53'29", long 83°01'31", Hydrologic Unit 05060001, at American Aggregates Quarry near Columbus, Columbus, Ohio.

Owner: American Aggregates Corp.

AQUIFER.--Limestone of Silurian and Devonian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 5 in., depth 140.52 ft, cased to 15.0 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel. After March 26, 1985: Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 659 ft above National Geodetic Vertical Datum of 1929. Measuring point: base of instrument shelter 0.0 ft above land-surface datum.

PERIOD OF RECORD.--July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 56.28 ft below land-surface datum, Jan. 10, 1984; lowest, 64.45 ft below land-surface datum, Sept. 19, 1985.

HIGHEST WATER LEVEL 59.06 FEET BELOW LAND SURFACE DATUM MAR 20, 1985.

LOWEST WATER LEVEL 64.21 FEET BELOW LAND SURFACE DATUM NOV 26, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	64.21	JAN 31, 1985	63.22	MAR 20, 1985	59.06

## WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	58.88	60.60	61.29	---	62.02	63.20
2						---	58.90	59.47	61.38	---	62.18	63.23
3						---	58.90	59.24	61.40	---	62.19	63.31
4						---	58.90	59.24	61.45	---	62.25	63.49
5						---	58.94	59.24	61.45	---	62.27	63.60
6						---	58.95	59.24	61.54	---	62.38	63.67
7						---	58.97	59.44	61.60	---	62.44	63.67
8						---	58.99	59.66	61.70	---	62.49	63.60
9						---	59.02	59.77	61.79	---	62.52	63.66
10						---	59.03	59.87	61.92	---	62.56	63.81
11						---	59.06	59.99	61.92	---	62.62	63.89
12						---	59.08	60.11	61.84	---	62.64	63.94
13						---	59.09	60.42	---	---	62.69	63.92
14						---	59.14	60.51	---	---	62.75	63.92
15						---	59.16	60.50	---	---	62.63	63.91
16						---	59.21	59.35	---	---	62.55	64.09
17						---	59.27	59.43	---	---	62.64	64.13
18						---	59.36	59.66	---	---	62.71	64.35
19						---	59.41	59.38	---	---	62.80	64.45
20						---	59.57	59.77	---	---	62.83	64.26
21						---	59.65	59.83	---	---	62.88	64.17
22						---	59.75	59.93	---	---	62.99	64.21
23						---	59.89	60.24	---	---	63.05	64.42
24						---	59.94	60.50	---	60.80	63.07	64.25
25						---	60.06	60.64	---	60.98	62.62	64.32
26						59.58	60.19	60.81	---	61.06	60.81	64.36
27						59.64	60.24	60.94	---	61.29	62.22	64.42
28						59.79	60.41	60.95	---	61.53	62.47	64.43
29						59.82	60.58	61.05	---	61.65	62.65	64.38
30						59.02	60.60	61.14	---	61.79	62.80	64.44
31						58.77	---	61.15	---	61.81	63.09	---
MAX						---	60.60	61.15	---	---	63.09	64.45
WTR YR 1985	MEAN	61.42		HIGH	58.77	MAR 31	LOW	64.45	SEP 19			

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395255083003000. Local number, FR-262.

LOCATION.--Lat 39°52'55", long 83°00'30", Hydrologic Unit 05060001, 0.4 mi of I-270, 0.4 mi W. of US 23S, near Columbus, Ohio.

Owner: American Aggregates Corp.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 50 ft, cased to 45 ft, finish is 5 ft of 0.010 in well screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel. After May 3, 1985: Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 691.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level 9.12 ft below land-surface datum May 10, 1983; lowest, 22.99 ft below land-surface datum, Sept. 30, 1985.

HIGHEST WATER LEVEL 14.88 FEET BELOW LAND SURFACE DATUM MAR 17, 1985.

LOWEST WATER LEVEL 21.53 FEET BELOW LAND SURFACE DATUM DEC 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 1984	21.02	JAN 30, 1985	19.67	MAR 17, 1985	14.88	MAY 03, 1985	16.38
DEC 12	21.53						

WATER LEVEL (FEET)

WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	17.48	19.65	19.56	21.45
2								---	17.58	19.74	19.67	21.52
3								16.38	17.70	19.83	19.77	21.57
4								16.32	17.79	19.90	19.87	21.62
5								16.19	17.89	19.98	19.97	21.67
6								16.18	17.99	19.99	20.07	21.72
7								16.25	18.08	20.00	20.16	21.76
8								16.31	18.17	20.01	20.26	21.81
9								16.36	18.26	20.06	20.36	21.85
10								16.41	18.36	20.10	20.46	21.90
11								16.46	18.45	20.17	20.56	21.95
12								16.54	18.51	20.24	20.65	22.01
13								16.62	18.53	20.30	20.74	22.06
14								16.70	18.53	20.36	20.82	22.13
15								16.76	18.53	20.39	20.90	22.18
16								16.68	18.57	19.39	20.99	22.26
17								16.42	18.61	18.68	21.05	22.31
18								16.33	18.67	18.44	21.12	22.36
19								16.31	18.74	18.40	21.21	22.41
20								16.28	18.80	18.43	21.29	22.48
21								16.36	18.87	18.52	21.36	22.54
22								16.42	18.92	18.62	21.42	22.59
23								16.53	18.99	18.71	21.50	22.64
24								16.64	19.04	18.78	21.55	22.69
25								16.74	19.11	18.86	21.57	22.75
26								16.85	19.20	18.95	21.58	22.81
27								16.97	19.29	19.05	21.47	22.85
28								17.08	19.37	19.13	21.38	22.89
29								17.18	19.46	19.24	21.35	22.95
30								17.26	19.56	19.35	21.36	22.99
31								17.37	---	19.45	21.40	---
MAX								---	19.56	20.39	21.58	22.99
WTR YR 1985	MEAN	19.56		HIGH	16.18	MAY 6	LOW	22.99	SEP 30			

## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

395255083003000. Local number, FR-262, (continued).

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
DEC 1984									
12...	14:30	830	7.1	11.5	1.8	<1	450	110	120
APR 1985									
01...	13:15	810	7.2	11.0	6.5	<1	410	93	110

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984									
12...	37	9.9	1.3	338	52	<0.1	100	34	0.2
APR 1985									
01...	34	7.6	1.2	322	39	<0.1	98	28	0.2

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984									
12...	11	520	<0.10	<0.01	<100	580	190	2.0	1
APR 1985									
01...	11	480	<0.10	<0.01	<100	470	170	1.7	<1

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395117083011600. Local number, FR-120, M6.

LOCATION.--Lat 39°51'17", long 83°01'16", Hydrologic Unit 05060001, near Columbus.

Owner: Franklin County.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 72 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 685 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter, 7.14 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.36 ft above land-surface datum, Mar. 21, 1984; lowest, 15.58 ft below land-surface datum, Nov. 15, 1984.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	5.49	9.04	-0.19	6.06	8.19	8.31	11.28	11.41	12.20
2		---	---	5.86	9.05	-0.14	5.56	7.21	8.36	11.33	11.49	12.25
3		---	---	5.26	9.19	-0.04	5.84	5.47	8.43	11.22	11.56	12.25
4		---	---	5.16	9.11	-0.36	6.12	5.26	8.13	11.05	11.69	12.23
5		---	---	5.95	9.05	2.16	6.63	5.33	6.84	11.08	11.52	11.07
6		---	---	6.29	9.21	2.50	6.50	5.57	9.56	10.95	11.62	12.10
7		---	---	6.50	9.34	2.67	6.45	5.98	10.07	10.95	11.69	12.19
8		---	---	6.99	9.33	3.07	6.37	6.40	10.36	10.87	11.68	12.25
9		---	---	7.17	9.39	3.38	6.80	8.20	10.45	10.85	11.83	12.32
10		---	---	7.30	9.32	3.69	7.09	7.14	10.44	11.03	11.91	12.38
11		---	---	7.55	9.22	4.13	7.43	7.24	9.93	11.21	11.99	12.38
12		---	---	7.73	9.07	5.27	7.79	7.29	9.35	11.30	12.00	12.45
13		15.52	9.38	7.64	9.19	5.18	8.06	8.38	9.02	11.39	12.00	12.48
14		15.52	9.38	7.76	9.17	5.47	8.26	9.13	8.72	11.51	12.11	12.53
15		15.58	8.17	8.09	9.09	6.07	5.71	8.89	8.73	9.17	11.93	12.59
16		10.69	7.80	8.03	8.97	6.39	8.19	8.68	9.11	9.19	11.89	12.62
17		9.27	7.73	8.03	9.11	6.77	8.61	8.50	9.35	9.66	12.09	12.65
18		9.26	8.03	8.11	9.03	7.17	8.62	8.48	9.62	9.97	11.88	12.70
19		9.26	8.09	8.34	9.03	7.46	8.90	8.19	9.85	10.21	12.04	12.70
20		9.26	8.21	7.99	8.95	7.79	9.10	8.06	10.04	10.50	12.06	12.72
21		9.26	8.14	6.91	8.85	7.88	9.25	8.42	10.17	10.63	12.17	12.76
22		9.26	8.04	8.41	8.43	7.25	9.24	8.59	10.28	10.52	12.22	12.79
23		9.26	---	8.94	6.38	8.02	8.88	8.42	10.36	10.79	12.28	12.72
24		9.22	---	8.70	-0.04	8.15	7.89	8.64	10.52	10.94	11.98	12.80
25		9.22	---	8.79	-1.07	8.28	7.82	8.90	10.68	11.06	11.70	12.79
26		9.22	---	8.88	-0.36	8.62	7.87	9.14	10.77	10.92	11.82	12.84
27		9.20	---	8.80	-0.50	5.98	7.97	9.14	10.90	11.12	12.01	12.80
28		9.19	---	8.89	-0.52	8.23	8.08	9.39	10.98	11.21	12.01	12.89
29		---	---	8.94	---	8.68	8.09	9.58	11.10	11.09	12.08	12.90
30		---	---	8.95	---	7.60	8.13	8.38	11.19	11.30	12.13	12.92
31		---	7.09	8.99	---	6.42	---	8.21	---	11.37	12.17	---
MAX		---	---	8.99	9.39	8.68	9.25	9.58	11.19	11.51	12.28	12.92

WTR YR 1985 MEAN 12.02 HIGH -1.07 FEB 25 LOW 15.58 NOV 15

## WATER QUALITY DATA

					COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)		HARD-NESS, NONCARBONATE (MG/L AS CaCO3)		HARD-NESS, NONCARBONATE (MG/L AS CaCO3)		CALCIUM DIS-SOLVED (MG/L AS Ca)
DATE		TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)					
DEC 1984 12...		11:30	685	6.7	11.0	3.9	<1	370	39	94	
JUL 1985 05...		11:45	700	7.3	12.0	5.2	<1	370	45	94	
DATE		TIME	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC 1984 12...		32	4.8	1.4	328	127	<0.1	64	14	0.4	
JUL 1985 05...		32	3.8	1.7	322	31	<0.1	61	16	0.4	
DATE		TIME	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CON-STI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984 12...		13	420	<0.10	<0.01	<100	2100	44	2.7	3	
JUL 1985 05...		13	420	<0.10	<0.01	<100	2300	45	3.8	3	



## GROUND-WATER RECORDS

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## FRANKLIN COUNTY

395020083003700. Local number, FR 104, TH 73.

LOCATION.--Lat 39°50'20", long 83°00'37", Hydrological Unit 05060001, near Shadeville.

Owner: City of Columbus.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 68 ft.

INSTRUMENTATION.--Digital recorder -- 60-minute punch.

DATUM.--Elevation of land-surface datum is 685 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.66 ft below land-surface datum, May 4, 1983; lowest, 19.26 ft below land-surface datum, Sept. 16, 1985.

## WATER LEVEL (FEET)

## WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

## MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.94	10.55	10.92	9.13	16.34	---	10.57	13.89	16.14	11.37	16.74	17.60
2	17.19	10.38	10.77	8.40	18.03	---	9.78	13.12	16.38	11.82	12.78	18.15
3	17.46	10.39	10.60	7.57	18.04	---	9.89	13.30	16.55	11.28	12.33	18.31
4	15.61	12.09	10.53	7.16	16.87	---	10.11	11.81	16.59	11.27	15.68	18.39
5	15.04	10.24	10.48	7.64	17.68	---	10.40	11.82	16.79	11.11	16.86	18.55
6	12.87	10.23	10.39	7.87	17.85	---	10.14	11.73	16.98	10.88	13.01	16.59
7	12.37	9.92	10.40	8.10	17.97	---	9.86	14.60	17.13	10.88	17.08	18.74
8	12.02	9.88	10.45	8.36	18.04	---	9.80	15.16	14.95	10.78	17.16	16.80
9	11.75	9.89	10.45	9.82	---	---	10.09	15.53	14.75	10.88	17.44	16.71
10	11.59	9.79	10.45	11.07	---	---	10.42	15.83	14.57	11.02	17.80	18.79
11	11.45	9.64	10.42	11.39	16.24	---	10.73	13.85	13.91	11.15	18.04	15.00
12	11.34	9.63	10.45	11.92	15.85	---	11.02	13.77	11.53	11.27	18.16	18.68
13	13.30	9.60	10.45	12.58	16.05	---	11.20	13.84	10.28	11.38	18.29	18.94
14	11.27	9.28	10.13	12.85	16.42	---	11.43	13.85	9.73	11.46	18.53	19.07
15	11.14	10.75	9.60	10.32	15.83	---	9.20	13.44	9.34	11.44	18.33	19.19
16	11.05	14.26	9.20	13.04	15.59	---	11.38	11.09	9.57	8.75	18.28	19.26
17	10.96	14.68	9.05	12.86	15.53	---	11.66	12.85	9.66	9.05	18.55	15.49
18	10.91	14.93	9.28	13.43	15.41	---	11.77	12.81	9.83	11.72	18.12	18.92
19	10.85	15.25	9.37	13.31	15.28	---	9.63	12.55	9.96	12.17	18.45	16.58
20	10.83	15.65	9.47	13.89	15.17	13.80	9.49	14.09	10.08	10.09	14.74	18.87
21	10.80	15.98	9.47	14.40	15.04	14.12	9.53	12.67	10.24	12.77	18.45	19.08
22	10.73	16.08	9.43	14.16	14.62	13.23	9.62	12.70	10.37	12.77	14.63	19.18
23	10.64	16.33	9.43	14.42	11.86	14.59	9.68	14.76	10.48	10.70	18.45	19.10
24	10.65	16.39	9.16	14.34	4.47	14.75	12.18	12.80	10.61	13.15	18.12	16.96
25	10.66	16.53	9.16	14.35	1.84	15.11	12.49	12.89	10.74	11.06	14.03	16.79
26	10.65	16.13	11.91	16.63	---	15.41	12.76	13.08	10.85	13.30	13.44	18.82
27	10.64	12.42	12.89	16.92	---	11.08	13.01	13.09	10.96	13.66	17.75	15.00
28	10.64	11.80	13.42	16.77	---	15.09	13.22	13.20	11.07	13.89	13.81	18.42
29	10.62	11.38	11.19	15.27	---	15.68	13.56	13.32	11.18	13.99	17.78	18.80
30	10.53	11.14	10.67	15.44	---	14.83	13.75	15.74	11.29	14.20	13.88	18.96
31	10.56	---	9.92	16.08	---	13.78	---	15.96	---	14.36	13.31	---
MAX	17.46	16.53	13.42	16.92	---	---	13.75	15.96	17.13	14.36	18.55	19.26

WTR YR 1985 MEAN 13.18 HIGH 1.84 FEB 25 LOW 19.26 SEP 16

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
SEP 1985 03...	15:45	730	6.9	11.5	2.1	<1	400	92	99
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
SEP 1985 03...	37	5.3	1.3	308	75	<0.1	78	15	0.4
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
SEP 1985 03...	15	440	0.18	0.05	100	1200	65	2.5	9

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395037082581900. Local number, FR-36.

LOCATION.--Lat 39°50'37", long 82°58'19", Hydrologic Unit 05060001, near Hamilton Meadows.

Owner: JP Sand and Gravel Co.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 31 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 717 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.3 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.63 ft below land-surface datum, Oct. 17, 1979; lowest, 15.64 ft below land-surface datum, Dec. 12, 1984.

HIGHEST WATER LEVEL 12.32 FEET BELOW LAND SURFACE DATUM APR 02, 1985.

LOWEST WATER LEVEL 15.64 FEET BELOW LAND SURFACE DATUM DEC 12, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1984	15.44	JAN 31, 1985	14.75	MAY 30, 1985	13.92	SEP 06, 1985	13.88
NOV 13	15.04	MAR 28	13.08	JUL 15	12.70		
DEC 12	15.64	APR 02	12.32	26	13.47		

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
DEC 1984										
12...	11:50	940	6.8	12.0	3.0	<1	530	150	140	
APR 1985										
02...	13:00	980	7.1	12.0	6.6	<1	530	150	140	
DATE	TIME	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
DEC 1984										
12...	44	4.5	1.7	384	118	<0.1	150	30	0.2	
APR 1985										
02...	44	4.7	1.6	381	59	<0.1	140	32	0.2	
DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3, DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS Al)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984										
12...	11		610	<0.10	<0.01	<100	3100	94	2.9	1
APR 1985										
02...	11		600	<0.10	<0.01	<100	2800	93	1.7	<1

## GROUND-WATER RECORDS

151

## FRANKLIN COUNTY

395027082592500. Local number, FR 151.

LOCATION.--Lat 39°50'27", long 82°59'25", Hydrologic Unit 05060001, near Shadeville.

Owner: City of Columbus.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 60 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic pipe, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.54 ft below land-surface datum, July 25, 1985; lowest, 30.85 ft below land-surface datum, Mar. 15, 1984.

HIGHEST WATER LEVEL 23.54 FEET BELOW LAND SURFACE DATUM JUL 25, 1985.

LOWEST WATER LEVEL 28.68 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	26.29	MAR 28, 1985	26.08	MAY 30, 1985	25.41	JUL 25, 1985	23.54
DEC 12	27.98	APR 02	26.03	JUL 05	25.13	SEP 04	25.03
JAN 31, 1985	28.68						

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
DEC 1984										
12...	10:30	765	6.7	11.5	4.6	<1	410	100	110	
APR 1985										
02...	11:00	770	6.7	11.5	6.5	<1	380	84	100	
JUL										
05...	09:30	750	7.3	12.5	3.9	<1	390	94	100	
SEP										
04...	09:30	730	7.2	14.0	1.7	<1	390	88	100	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984										
12...	34	9.0	1.3	312	121	<0.1	99	30	0.2	
APR 1985										
02...	32	8.0	1.4	297	115	<0.1	88	32	0.2	
JUL										
05...	33	7.2	1.6	292	28	<0.1	79	35	0.2	
SEP										
04...	33	7.7	1.3	298	36	<0.1	79	32	0.1	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984										
12...	10	480	<0.10	<0.01	<100	990	38	2.4	1	
APR 1985										
02...	10	450	<0.10	<0.01	<100	970	36	1.5	<1	
JUL										
05...	10	440	<0.10	<0.01	<100	970	37	0.1	5	
SEP										
04...	10	440	<0.10	0.05	100	970	37	1.2	12	

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395132083001200. Local number, FR-73.

LOCATION.--Lat 39°51'32", long 83°00'12", Hydrological Unit 05060001, near Columbus.

Owner: Hartman Farms.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled water-supply well, diameter 12 in., depth unknown.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 735 ft above National Geodetic Vertical Datum of 1929. Measuring point: Base of pump housing, 6.14 ft below land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 39.38 ft below land-surface datum, July 1, 1981; lowest, 45.01 ft below land-surface datum, Jan. 31, 1985.

HIGHEST WATER LEVEL 43.24 FEET BELOW LAND SURFACE DATUM JUL 25, 1985.

LOWEST WATER LEVEL 45.01 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	44.13	MAR 27, 1985	44.58	JUL 25, 1985	43.24	SEP 06, 1985	43.44
JAN 31, 1985	45.01	MAY 30	43.47				

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
JUN 1985 21...	13:00	685	7.2	12.5	7.2	< 1	370	37	94	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
JUN 1985 21...	32	2.8	1.3	330	40	< 0.1	58	4.9	0.4	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
JUN 1985 21...	14	410	< 0.10	< 0.01	100	9	34	1.8	8	



## GROUND-WATER RECORDS

153

## FRANKLIN COUNTY

395021083002900. Local number, FR 104, TH 18.

LOCATION.--Lat 39°50'21", long 83°00'29", Hydrologic Unit 05060001, near Columbus.

Owner: City of Columbus.

AQUIFER.--Glacial sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 12 in., depth 76 ft.

INSTRUMENTATION.--Periodic measurements with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 691 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing 3.00 ft above land-surface datum.

PERIOD OF RECORD.--September 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.17 ft below land-surface datum, Mar. 26, 1984; lowest, 26.33 ft below land-surface datum, Jan. 20, 1984.

HIGHEST WATER LEVEL 17.37 FEET BELOW LAND SURFACE DATUM NOV 13, 1984.

LOWEST WATER LEVEL 25.95 FEET BELOW LAND SURFACE DATUM SEP 06, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	17.37	MAR 27, 1985	19.73	JUL 25, 1985	19.81	SEP 06, 1985	25.95
JAN 30, 1985	24.39	MAY 30	23.55				

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
SEP 1985 03...	17:00	815	7.1	13.5	2.5	K1	440	97	110
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
SEP 1985 03...	39	12	1.4	338	52	<0.1	72	31	0.4
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
SEP 1985 03...	14	490	0.10	0.03	100	2600	95	1.1	5

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395123083003300. Local number, FR-121, M7.

LOCATION.--Lat 39°51'23", long 83°00'33", Hydrologic Unit 05060001, near Columbus.

Owner: Franklin County.

AQUIFER.--Glacial clay, sand, and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 45 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 690 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.6 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.01 ft below land-surface datum, Mar. 24, 1984; lowest, 19.16 ft below land-surface datum, Sep. 6, 1985.

HIGHEST WATER LEVEL 11.91 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 19.20 FEET BELOW LAND SURFACE DATUM NOV 15, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 1984	19.20	MAY 30, 1985	14.46	JUL 25, 1985	16.22	SEP 06, 1985	19.16
MAR 27, 1985	11.91						

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
SEP 1985										
03...	12:30	795	7.2	14.5	1.8	<1	470	80	120	
		MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS CaCO3	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)	
SEP 1985										
03...	42	5.1	1.3	393	48	<0.1	77	27	0.3	
		SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
SEP 1985										
03...	15	530	<0.10	0.03	<100	3800	65	1.7	4	

## GROUND-WATER RECORDS

155

## FRANKLIN COUNTY

395206083014501. Local number, FR-209.

LOCATION.--Lat 39°52'06", long 83°01'45", Hydrologic Unit 05060001, on White Road near Grove City, Ohio.

Owner: M. Davis.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth unknown.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.72 ft above land-surface datum.

PERIOD OF RECORD.--June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.-- Highest water level, 12.51 ft below land-surface datum, May 23, 1984; lowest, 16.13 ft below land-surface datum, Nov. 16, 1982.

HIGHEST WATER LEVEL 13.84 FEET BELOW LAND SURFACE DATUM NOV 26, 1984.

LOWEST WATER LEVEL 15.49 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	13.84	MAR 27, 1985	14.05	JUL 25, 1985	14.60	SEP 06, 1985	15.29
JAN 31, 1985	15.49	MAY 30	13.86				

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
DEC 1984										
14...	11:30	805	7.2	12.0	2.4	<1	410	47	100	
JUN 1985										
21...	11:45	850	7.3	12.5	5.8	<1	390	35	95	
DATE	TIME	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984										
14...	40	15	1.6	367	45	<0.1	99	16	1.1	
JUN 1985										
21...	38	14	1.8	359	35	<0.1	93	20	1.3	
DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984										
14...	16	510	0.35	<0.01	200	3200	35	2.5	1	
JUN 1985										
21...	15	500	<0.10	<0.01	100	2900	31	1.7	<1	

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395315083020002. Local number, FR-213.

LOCATION.--Lat 39°53'15", long 83°02'00", Hydrologic Unit 05060001, on Thrailkill Road near Columbus, Ohio.

Owner: Tom Cannon Co.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in., depth 97 ft, cased to 97 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 731 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.8 ft above land-surface datum.

PERIOD OF RECORD.--June 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.38 ft below land-surface datum, June 8, 1982; lowest, 77.89 ft below land-surface datum, Sept. 3, 1985.

HIGHEST WATER LEVEL 77.12 FEET BELOW LAND SURFACE DATUM MAY 30, 1985.

LOWEST WATER LEVEL 77.89 FEET BELOW LAND SURFACE DATUM SEP 03, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	77.27	MAR 27, 1985	77.16	JUL 25, 1985	77.50	SEP 03, 1985	77.89
JAN 31, 1985	77.65	MAY 30	77.12				

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
SEP 1985	04...	13:15	910	7.3	13.5	1.9	<1	450	97	110
DATE		MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
SEP 1985	04...	42	22	2.1	351	34	0.1	150	15	1.8
DATE		SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
SEP 1985	04...	16	570	0.12	<0.01	100	2300	36	1.0	3



## GROUND-WATER RECORDS

157

## FRANKLIN COUNTY

395331083013900. Local number, Fr-246.

LOCATION.--Lat 39°53'31", long 83°01'39", Hydrologic Unit 05060001, at Model Landfill, near Columbus, Ohio.

Owner: Model Landfill, Inc.

AQUIFER.--Limestone of Devonian Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 4.0 in., depth 142 ft, cased to 89 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel

DATUM.--Elevation of land-surface datum is 722 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.0 ft above land-surface datum.

PERIOD OF RECORD.--October 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.40 ft below land-surface datum, Oct. 18, 1979; lowest, 120.95 ft below land-surface datum, Jan. 30, 1985.

HIGHEST WATER LEVEL 115.91 FEET BELOW LAND SURFACE DATUM SEP 04, 1985.

LOWEST WATER LEVEL 120.95 FEET BELOW LAND SURFACE DATUM JAN 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 26, 1984	120.83	APR 01, 1985	118.66	JUL 25, 1985	118.53	SEP 04, 1985	115.91
JAN 30, 1985	120.95	MAY 30	118.58				

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CA CO3)	HARD- NESS, NONCAR- BONATE (MG/L CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
DEC 1984										
12...	16:00	1200	6.7	11.5	2.5	1	600	58	160	
APR 1985										
01...	11:45	1100	6.9	11.5	6.3	<1	580	100	150	
SEP										
04...	12:30	1180	6.6	16.5	1.7	<1	620	98	170	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CA CO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984										
12...	49	35	2.6	543	210	<0.1	150	43	0.9	
APR 1985										
01...	50	37	2.8	478	117	<0.1	150	47	0.9	
SEP										
04...	47	29	2.5	520	253	<0.1	140	45	1.1	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984										
12...	18	790	<0.10	<0.01	<100	4500	480	5.7	1	
APR 1985										
01...	18	750	<0.10	<0.01	<100	4000	340	3.1	1	
SEP										
04...	18	770	0.11	0.01	100	7600	550	1.6	6	

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395409083013201. Local number, FR-217.

LOCATION.--Lat 39°54'09", long 83°01'32", Hydrologic Unit 05060001, on Dyer Road near Columbus, Ohio.

Owner: J. Strawser.

AQUIFER.--Sand and Gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 93 ft, cased to 93 ft.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface is 712 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.12 ft above land-surface datum.

PERIOD OF RECORD.--July 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.38 ft below land-surface datum, July 1, 1979; lowest, 66.23 ft below land-surface datum, Jan. 31, 1985.

HIGHEST WATER LEVEL 63.67 FEET BELOW LAND SURFACE DATUM JUL 25, 1985.

LOWEST WATER LEVEL 66.23 FEET BELOW LAND SURFACE DATUM JAN 31, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	65.97	MAR 27, 1985	64.33	JUL 25, 1985	63.67	SEP 04, 1985	65.77
JAN 31, 1985	66.23	MAY 30	63.69				

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
DEC 1984										
14...	12:30	1510	7.0	13.0	2.3	<1	760	530	200	
APR 1985										
01...	14:30	1450	7.0	12.0	7.1	<1	760	540	200	
JUN										
21...	09:30	1390	7.2	13.0	4.0	<1	740	520	190	
SEP										
04...	14:00	1550	7.1	15.5	2.6	<1	770	550	200	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984										
14...	64	43	3.6	231	45	<0.1	520	78	0.4	
APR 1985										
01...	63	42	3.2	222	43	<0.1	560	78	0.4	
JUN										
21...	64	43	4.0	219	27	<0.1	460	80	0.3	
SEP										
04...	65	44	3.7	214	33	<0.1	540	76	0.3	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984										
14...	11	1100	<0.10	<0.01	<100	690	130	2.9	1	
APR 1985										
01...	11	1100	<0.10	<0.01	<100	1100	120	2.2	1	
JUN										
21...	11	980	0.16	<0.01	100	1000	150	3.1	<1	
SEP										
04...	11	1100	<0.10	<0.01	<100	930	150	1.2	2	

## GROUND-WATER RECORDS

159

## FRANKLIN COUNTY

395413083002900. Local number, FR-260.

LOCATION.--Lat 39°54'13", long 83°00'29", Hydrologic Unit 05060001, on Scioto River levee 600 ft North of Columbus Corporate boundary near Columbus, Ohio.

Owner: City of Columbus.

AQUIFER.--Gravel of Quaternary Age.

WELL CHARACTERISTICS.-- Drilled observation water well, diameter 2 in., depth 60 ft, cased to 55 ft finish is 5 ft of 0.010 in well screen.

INSTRUMENTATION.--Periodic measurements with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 713 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.82 ft below land-surface datum, May 10, 1983; lowest, 43.35 ft below land-surface datum, July 14, 1982.

HIGHEST WATER LEVEL 30.65 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 33.09 FEET BELOW LAND SURFACE DATUM SEP 06, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	32.85	MAR 27, 1985	30.65	JUL 24, 1985	32.55	SEP 06, 1985	33.09
JAN 30, 1985	32.86	MAY 30	31.15				

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
APR 1985										
02...	09:40	770	7.2	13.0	4.2	<1	250	18	64	
JUL										
03...	16:00	830	7.2	15.0	5.1	<1	250	14	65	
		MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	CARBON DIOXIDE, DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	FLUORIDE, DIS-SOLVED (MG/L AS F)
APR 1985										
02...	22	37	6.8	232	28	<0.1	75	56	0.8	
JUL										
03...	22	38	7.2	239	29	<0.1	74	60	1.0	
		SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3, DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
APR 1985										
02...	15	420	<0.10	<0.01	200	1200	17	4.1	2	
JUL										
03...	15	430	0.39	0.05	<100	1100	17	3.8	<1	

## GROUND-WATER RECORDS

## FRANKLIN COUNTY

395523083003100. Local number, FR-256.

LOCATION.--Lat 39°55'23", long 83°00'31", Hydrologic Unit 05060001, on Scioto River levee 0.6 mi north of Frank Road near Columbus, Ohio.

Owner: City of Columbus.

AQUIFER.--Sand of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 40 ft, cased to 30 ft finish is 10 ft of 0.010 in well screen.

INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.66 ft below land-surface datum, Mar. 20, 1984: lowest, 24.97 ft below land-surface datum, Sept. 16, 1982.

HIGHEST WATER LEVEL 22.85 FEET BELOW LAND SURFACE DATUM MAR 27, 1985.

LOWEST WATER LEVEL 24.61 FEET BELOW LAND SURFACE DATUM NOV 23, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 23, 1984	24.61	JAN 30, 1985	24.57	MAY 30, 1985	23.28	SEP 04, 1985	24.50
DEC 13	24.41	MAR 27	22.85	JUL 25	23.92		

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)
DEC 1984									
13...	09:15	1520	6.9	15.5	4.2	<1	600	--	110
APR 1985									
01...	10:40	1420	7.0	14.0	3.7	<1	580	7	110
JUL									
03...	14:40	1290	7.0	15.5	5.4	<1	590	--	110
SEP									
04...	11:15	1400	6.8	16.5	1.8	<1	620	10	120

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
DEC 1984									
13...	79	79	16	628	153	0.3	98	120	0.3
APR 1985									
01...	75	64	15	577	112	<0.1	130	97	0.3
JUL									
03...	77	56	17	605	117	<0.1	130	91	0.3
SEP									
04...	78	58	15	611	188	0.8	110	89	0.3

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984									
13...	25	910	<0.10	<0.01	<100	9900	36	17	5
APR 1985									
01...	24	870	<0.10	<0.01	<100	7100	44	9.5	5
JUL									
03...	25	880	<0.10	<0.01	<100	10000	36	10	2
SEP									
04...	25	870	0.28	0.03	100	11000	39	10	14



## GROUND-WATER RECORDS

161

## FRANKLIN COUNTY

395017083010700. Local number, FR-145.

LOCATION.--Lat 39°50'17", long 83°01'07", Hydrologic Unit 05060001, near Columbus.

Owner: C. D. Clay.

AQUIFER.--Glacial clay, sand, and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 in., depth unknown.

INSTRUMENTATION.--None.

DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical datum of 1929, from topographic map.

PERIOD OF RECORD.--October 1979 to September 1980, June 1984 to current year.

## WATER QUALITY DATA

		SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
APR 1985										
02...	14:00	710	7.3	12.0	6.0	<1	370	91	95	
JUN										
21...	15:30	675	7.4	13.0	5.7	<1	370	88	94	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
APR 1985										
02...	32	2.1	1.4	278	27	<0.1	99	15	0.2	
JUN										
21...	32	2.1	1.7	279	21	<0.1	88	16	0.2	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
APR 1985										
02...	11	420	<0.10	<0.01	200	1700	44	1.3	<1	
JUN										
21...	11	410	<0.10	0.02	100	2400	48	<0.1	4	

## GROUND-WATER RECORDS IN FRANKLIN COUNTY--Continued

## SURFACE-WATER RECORDS

395317083013300 SCIOTO BIG RUN ABOVE LANDFILL TRIBUTARY AT COLUMBUS, OH

LOCATION.--Lat 39°53'17", long 83°01'33", Franklin County, Hydrologic Unit 05060001, right bank, 0.78 mi downstream from Marsh Run and 0.73 mi upstream from confluence with Scioto River at Columbus.

PERIOD OF RECORD.--October 1983 to current year.

REMARKS.--This site is used for chemical quality sampling only as part of a cooperative study with the city of Columbus.

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	
DEC 1984										
13...	14:45	955	7.2	7.5	11.6	3000	350	120	92	
APR 1985										
03...	09:20	800	7.7	8.5	8.9	7400	320	100	82	
JUN										
29...	11:30	1100	7.8	21.0	9.0	760	500	200	130	
SEP										
03...	19:30	1050	7.9	25.5	3.7	87	460	190	120	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984										
13...	29	60	3.5	233	28	<0.1	130	110		0.3
APR 1985										
03...	28	39	2.5	218	8.4	<0.1	100	68		0.3
JUN										
29...	43	50	6.5	302	9.2	--	220	93		0.2
SEP										
03...	38	42	5.8	270	6.6	--	170	66		0.2
DATE		SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984										
13...	9.2	570	2.60	0.03	<100	38	46	6.0		6
APR 1985										
03...	7.7	460	2.90	0.07	<100	41	46	5.2		13
JUN										
29...	9.6	730	0.95	<0.01	<100	84	20	4.0		<1
SEP										
03...	8.1	610	1.00	0.04	200	36	48	3.8		4

## GROUND-WATER RECORDS IN FRANKLIN COUNTY--Continued

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## SURFACE-WATER RECORDS

395317083013400 LANDFILL TRIBUTARY AT SCIOTO BIG RUN, COLUMBUS, OH

LOCATION.--Lat 39°53'17", long 83°01'34", Franklin County, Hydrologic Unit 05060001, 300 ft upstream from confluence with Scioto Big Run at Columbus.

PERIOD OF RECORD.--October 1983 to current year.

REMARKS.--This site is used for chemical quality sampling only as part of a cooperative study with the city of Columbus.

## WATER QUALITY DATA

		SPE- CIFIC CON- DUCT- ANCE (US/CM)		PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
DEC 1984	13...	13:50	735	7.8	8.5	12.1	1800	260	86	67
APR 1985	03...	09:00	720	7.8	7.5	9.6	1100	300	88	74
JUN	24...	10:15	1350	8.7	20.5	8.9	4100	330	99	79
SEP	03...	20:15	1550	8.8	25.0	3.9	830	390	120	97
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
DEC 1984	13...	23	44	2.4	176	5.4	<0.1	65	89	0.3
APR 1985	03...	27	34	1.6	208	6.4	--	66	65	0.3
JUN	24...	32	150	4.2	230	0.9	--	100	250	0.6
SEP	03...	36	160	5.5	270	0.8	--	130	260	0.5
DATE		SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PHENOLS TOTAL (UG/L)
DEC 1984	13...	7.8	400	5.70	0.04	<100	41	17	6.9	3
APR 1985	03...	7.6	400	5.00	0.08	<100	10	33	4.4	1
JUN	24...	3.3	760	1.40	0.86	<100	68	43	6.3	4
SEP	03...	4.9	860	6.40	1.40	100	7	6	5.9	3

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

The following tables contain water-level measurements and results of a seepage investigation in Wayne County. The data was collected for the Northeast Buried Valley Aquifer (RASA) project. Objectives of the study include investigation of the hydraulic properties of stream-bed materials and of the nature of ground-water flow from streams to pumping wells.

404801081583500. Local number, WN-T1.

LOCATION.--Lat 40°48'01", long 81°58'35", Hydrologic Unit 05040003, at Wooster Water Plant near Wooster.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 71 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 856 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.98 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.10 ft below land-surface datum, Apr. 17, 1985; lowest, 27.50 ft below land-surface datum, Oct. 25, 1984.

HIGHEST WATER LEVEL 21.10 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 27.50 FEET BELOW LAND SURFACE DATUM OCT 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	27.09	DEC 12, 1984	27.40	MAR 05, 1985	21.80	JUN 05, 1985	23.11
25	27.50	JAN 03, 1985	26.52	07	22.02	27	24.00
NOV 07	26.95	17	26.90	19	21.75	AUG 28	26.46
28	26.92	30	27.40	APR 17	21.10	SEP 23	27.40



## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404802081583102. Local number, WN-T2.

LOCATION.--Lat 40°48'02", long 81°58'31", Hydrologic Unit 05040003, at Wooster Water Plant near Wooster. Doublet with WN-T3.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 61 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Digital recorder -- 1-hour punch.

DATUM.--Elevation of land-surface datum is 858.66 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter, 2.62 ft above land-surface datum.

REMARKS.--Water levels affected by pumping of nearby wellfield. Data for February 26 is a single measurement with chalked tape by USGS personnel.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.95 ft below land-surface datum, Apr. 5, 1985; lowest, 36.84 ft below land-surface datum, Feb. 22, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.53	35.07	---	33.10	---	---	28.34	---	30.28	---	32.88	---
2	34.73	35.01	---	33.83	---	---	27.70	28.76	28.75	31.79	---	---
3	34.80	34.83	34.38	33.89	---	---	27.58	---	29.61	31.77	---	---
4	34.74	34.01	34.38	34.30	35.43	26.99	27.59	---	29.78	31.23	---	34.47
5	34.62	34.62	34.53	34.31	35.59	27.66	26.98	29.35	29.84	31.20	33.02	34.52
6	34.26	34.80	---	---	35.81	27.88	26.82	29.93	29.91	30.41	33.10	34.72
7	33.60	34.96	34.52	---	36.03	28.33	26.83	29.51	29.90	30.88	33.27	34.73
8	34.48	34.96	34.51	---	36.16	28.33	27.06	29.29	30.04	31.21	33.32	34.55
9	34.82	34.99	34.34	34.41	36.21	28.16	27.21	29.51	30.04	31.77	33.54	34.74
10	34.88	34.63	34.60	34.45	---	27.26	27.25	29.59	30.31	31.92	33.57	35.07
11	34.97	33.86	34.91	34.54	---	27.69	27.59	29.32	30.32	31.93	32.89	35.22
12	34.76	34.62	35.17	34.18	---	28.22	27.42	29.10	30.46	31.80	33.60	35.22
13	34.50	34.84	---	34.22	---	27.97	27.49	29.90	30.46	31.45	34.18	35.02
14	33.65	35.06	---	34.48	36.20	28.12	26.47	30.06	30.46	30.84	34.42	34.63
15	34.53	35.17	---	34.66	36.37	28.42	27.52	30.08	30.04	31.84	34.06	34.18
16	34.63	35.24	---	34.79	36.42	27.74	27.83	29.77	29.19	32.09	34.08	34.84
17	34.73	34.96	---	34.90	35.68	27.72	27.81	30.01	29.77	32.08	33.98	34.94
18	34.77	34.02	---	34.90	35.89	28.44	27.91	29.58	30.39	32.24	33.32	35.24
19	34.86	34.70	35.39	34.61	36.32	28.48	27.91	28.96	30.42	32.61	33.70	35.81
20	34.59	34.85	35.07	35.36	36.55	28.39	27.52	30.35	30.42	32.58	33.97	35.88
21	33.78	34.95	34.96	---	36.75	---	27.55	30.63	30.51	30.91	33.71	35.83
22	34.74	34.50	34.61	---	36.87	---	28.34	30.73	30.69	32.26	---	35.66
23	34.86	33.67	34.20	---	---	---	28.43	30.89	30.29	32.42	34.21	35.13
24	35.08	33.21	33.90	---	---	---	28.52	---	30.45	32.41	34.21	---
25	34.77	33.19	33.50	---	---	28.60	28.56	30.88	30.79	32.76	33.39	---
26	34.88	34.11	34.08	---	29.22	28.88	28.35	29.95	31.03	32.85	33.88	---
27	34.88	34.40	34.52	---	---	28.93	28.19	30.15	31.12	32.37	34.23	---
28	34.53	34.09	34.59	---	---	29.02	27.81	30.39	31.49	31.72	34.35	---
29	34.77	34.08	34.39	---	---	29.23	28.78	30.42	31.52	32.66	---	---
30	35.21	34.26	33.68	35.30	---	29.18	28.47	29.95	---	32.94	---	---
31	35.10	---	33.80	---	---	28.09	---	30.28	---	32.96	---	---
MAX	35.21	35.24	35.39	35.36	36.87	29.23	28.78	30.89	31.52	32.96	34.42	35.88
WTR YR 1985	MEAN	32.30		HIGH	26.47		LOW	36.87				

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404802081583103. Local number, WN-T3.

LOCATION.--Lat 40°48'02", long 81°58'31", Hydrologic Unit 05040003, at Wooster Water Plant near Wooster. Doublet with WN-T2.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 34 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Digital recorder -- 1-hour punch.

DATUM.--Elevation of land-surface datum is 858.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter, 1.58 ft above land-surface datum.

REMARKS.--Well dry during period Oct. 1 to approximately Feb. 24, and during period July 30 to Sept. 30.

Resaturation of aquifer during Feb. 22-28 forced gases from shallow wells. Data for Feb. 26 is a single measurement with chalked tape by USGS personnel. Water levels affected by pumping of nearby wellfield.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.70 ft below land-surface datum, Feb. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985  
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	---	28.25	28.96	30.21	31.39		
2					---	---	27.56	28.81	28.74	31.68		
3					---	---	27.53	29.19	29.52	31.64		
4					---	---	27.50	28.90	29.73	31.49		
5					---	27.42	26.53	28.31	29.82	30.99		
6					---	---	26.81	28.98	29.87	30.94		
7					---	28.19	26.81	29.18	29.98	30.87		
8					---	27.87	27.01	29.24	30.12	31.21		
9					---	27.89	27.15	29.52	30.12	31.74		
10					---	26.88	27.18	29.59	30.36	31.86		
11					---	27.45	27.53	29.29	30.37	31.86		
12					---	27.94	27.35	29.14	30.52	31.81		
13					---	27.72	27.41	29.91	30.51	31.39		
14					---	27.89	26.54	30.08	30.25	31.03		
15					---	28.17	27.44	30.08	29.98	31.78		
16					---	27.49	27.79	29.79	29.22	32.03		
17					---	27.50	27.80	30.02	29.75	32.04		
18					---	28.17	27.86	29.60	30.33	32.18		
19					---	28.19	27.86	29.03	30.43	32.21		
20					---	28.43	27.39	30.34	30.43	32.21		
21					---	28.46	27.42	30.61	30.42	31.16		
22					---	28.46	28.22	30.84	30.59	32.10		
23					---	27.77	28.29	31.07	30.20	32.21		
24					---	27.88	28.42	30.75	30.38	32.20		
25					---	28.60	28.44	30.20	30.75	32.21		
26					24.70	28.88	28.22	29.90	30.97	32.21		
27					---	28.87	28.06	30.07	31.19	32.20		
28					---	28.95	27.82	30.30	31.58	32.06		
29					---	29.15	28.71	30.33	31.59	32.22		
30					---	29.11	28.70	30.00	31.09	---		
31					---	28.03	---	30.21	---	---		
MAX					24.70	29.15	28.71	31.07	31.59	32.22		
WTR YR 1985	MEAN	29.51		HIGH	24.70		LOW	32.22				

## WAYNE COUNTY

404800081584500. Local number, WN-T4.

LOCATION.--Lat 40°48'00", long 81°58'45", Hydrologic Unit 05040003, at intersection of Rt 302 and West Old Lincoln Way near Wooster. Doublet with WN-T5.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 78 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 856 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.26 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.69 ft below land-surface datum, Apr. 11, 1985; lowest, 24.19 ft below land-surface datum, Oct. 25, 1984.

HIGHEST WATER LEVEL 17.69 FEET BELOW LAND SURFACE DATUM APR 11, 1985.

LOWEST WATER LEVEL 24.19 FEET BELOW LAND SURFACE DATUM OCT 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	23.97	JAN 16, 1985	23.35	MAR 20, 1985	18.76	JUN 05, 1985	19.86
25	24.19	17	23.43	APR 11	17.69	27	20.57
NOV 09	24.10	30	23.62	17	18.03	JUL 16	21.37
26	23.43	FEB 25	21.77	29	18.88	AUG 13	22.37
DEC 12	23.94	MAR 05	18.97	MAY 03	19.31	28	23.05
JAN 03, 1985	23.20	07	18.81	30	20.06	SEP 23	24.05

404800081584501. Local number, WN-T5.

LOCATION.--Lat 40°48'00", long 81°58'45", Hydrologic Unit 05040003, at intersection of Rt 302 and West Old Lincoln Way near Wooster. Doublet with WN-T4.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 35 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 855 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.48 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.40 ft below land-surface datum, Apr. 11, 1985; lowest, 23.94 ft below land-surface datum, Oct. 25, 1984.

HIGHEST WATER LEVEL 17.40 FEET BELOW LAND SURFACE DATUM APR 11, 1985.

LOWEST WATER LEVEL 23.94 FEET BELOW LAND SURFACE DATUM OCT 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	20.82	JAN 16, 1985	23.03	APR 11, 1985	17.40	JUN 27, 1985	20.37
25	23.94	30	23.54	17	17.79	JUL 16	21.15
NOV 09	23.74	FEB 25	21.82	29	18.55	AUG 13	22.49
26	23.20	MAR 05	18.71	MAY 03	18.92	28	22.87
DEC 12	23.65	07	18.62	30	19.89	SEP 23	23.85
JAN 03, 1985	22.98	20	18.55	JUN 05	19.68		

## GROUND WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404839081590900. Local number, WN-T6.

LOCATION.--Lat 40°48'39", long 81°59'09", Hydrologic Unit 05040003, on Silver Road, 900 ft east of Route 302 near Wooster. Doublet with WN-T6A.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 61 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.65 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.73 ft below land-surface datum, Feb. 26, 1985; lowest, 5.94 ft below land-surface datum, Sep. 23, 1985.

HIGHEST WATER LEVEL 1.73 FEET BELOW LAND SURFACE DATUM FEB 26, 1985.

LOWEST WATER LEVEL 5.94 FEET BELOW LAND SURFACE DATUM SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	5.87	JAN 15, 1985	5.20	MAR 05, 1985	3.56	JUN 20, 1985	4.06
25	5.78	30	5.44	07	3.66	27	4.40
NOV 07	4.61	FEB 13	5.67	21	4.07	JUL 16	4.73
26	5.44	21	5.73	APR 17	3.71	AUG 28	5.13
DEC 12	5.11	22	5.49	MAY 01	4.23	SEP 23	5.94
JAN 03, 1985	3.98	26	1.73	JUN 06	3.99		

404839081590901. Local number, WN-T6A.

LOCATION.--Lat 40°48'39", long 81°59'09", Hydrologic Unit 05040003, on Silver Road, 900 ft east of Route 302 near Wooster. Doublet with WN-T6.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 11.7 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--May 1985 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.46 ft below land-surface datum, June 6, 1985; lowest, 5.13 ft below land-surface datum, Sep. 23, 1985.

HIGHEST WATER LEVEL 2.46 FEET BELOW LAND SURFACE DATUM JUN 06, 1985.

LOWEST WATER LEVEL 5.13 FEET BELOW LAND SURFACE DATUM SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 03, 1985	3.90	JUL 16, 1985	3.58	AUG 28, 1985	4.04	SEP 23, 1985	5.13
JUN 06	2.46						



## WAYNE COUNTY

404807081582000. Local number, WN-T7.

LOCATION.--Lat 40°48'07", long 81°58'20", Hydrologic Unit 05040003, along Old Mansfield Road, 980 ft east of Killbuck Creek near Wooster.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 23 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.15 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.58 ft below land-surface datum, Apr. 17, 1985; lowest, well dry.

HIGHEST WATER LEVEL 16.58 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL WELL DRY OCT 15, 1984; OCT 25, 1984; NOV 07, 1984; NOV 26, 1984; DEC 12, 1984; JAN 03, 1985; JAN 16, 1985; FEB 26, 1985; SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	DRY	JAN 03, 1985	DRY	MAR 20, 1985	18.69	AUG 28, 1985	20.97
25	DRY	16	DRY	APR 17	16.58	SEP 23	DRY
NOV 07	DRY	FEB 26	DRY	MAY 01	16.87		
26	DRY	MAR 05	20.08	JUN 06	17.82		
DEC 12	DRY	07	20.34	27	18.24		

404744081582100. Local number, WN-T12.

LOCATION.--Lat 40°47'44", long 81°58'21", Hydrologic Unit 05040003, on levee for Cashey Creek, 1440 ft south of West Old Lincoln Way near Wooster.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 59 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.04 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.86 ft below land-surface datum, Mar. 5, 1985; lowest, 29.21 ft below land-surface datum, Feb. 21, 1985.

HIGHEST WATER LEVEL 19.86 FEET BELOW LAND SURFACE DATUM MAR 05, 1985.

LOWEST WATER LEVEL 29.21 FEET BELOW LAND SURFACE DATUM FEB 21, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	28.06	JAN 03, 1985	27.35	MAR 21, 1985	21.15	AUG 28, 1985	27.55
25	28.43	30	28.31	APR 17	21.09	SEP 23	28.60
NOV 09	28.38	FEB 21	29.21	MAY 02	22.41		
27	27.83	MAR 05	19.86	JUN 07	23.42		
DEC 12	28.34	07	20.44	27	24.33		

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404805081582600. Local number, WN-T8.

LOCATION.--Lat 40°48'05", long 81°58'26", Hydrologic Unit 05040003, along Old Mansfield Road, 100 ft east of Killbuck Creek near Wooster. Doublet with WN-T9.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 33 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.58 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.42 ft below land-surface datum, Apr. 17, 1985; lowest, 27.67 ft below land-surface datum, Feb. 22, 1985.

HIGHEST WATER LEVEL 20.42 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 27.67 FEET BELOW LAND SURFACE DATUM FEB 22, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	26.72	DEC 12, 1984	26.59	MAR 05, 1985	23.79	JUN 27, 1985	22.36
25	26.36	JAN 03, 1985	26.42	07	23.14	JUL 16	23.05
NOV 05	26.50	15	26.36	19	21.64	AUG 28	25.13
07	26.49	30	26.65	APR 17	20.42	SEP 23	26.61
08	26.59	FEB 22	27.67	30	20.81		
26	26.28	26	25.06	JUN 05	21.99		

404805081582601. Local number, WN-T9.

LOCATION.--Lat 40°48'05", long 81°58'26", Hydrologic Unit 05040003, along Old Mansfield Road, 100 ft east of Killbuck Creek near Wooster. Doublet with WN-T8.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 61 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.46 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.03 ft below land-surface datum, Apr. 17, 1985; lowest, 33.98 ft below land-surface datum, Feb. 22, 1985.

HIGHEST WATER LEVEL 25.03 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 33.98 FEET BELOW LAND SURFACE DATUM FEB 22, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	31.53	DEC 12, 1984	32.46	MAR 05, 1985	25.04	JUN 27, 1985	28.25
25	32.06	JAN 03, 1985	31.19	07	25.56	JUL 17	28.78
NOV 05	31.89	15	31.84	19	25.73	AUG 28	31.22
07	31.94	30	32.38	APR 17	25.03	SEP 23	32.34
08	32.10	FEB 22	33.98	30	25.90		
26	30.77	26	26.55	JUN 05	27.00		

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404752081583400. Local number, WN-T10.

LOCATION.--Lat 40°47'52", long 81°58'34", Hydrologic Unit 05040003, on levee for Cashey Creek, 600 ft south of West Old Lincoln Way near Wooster. Doublet with WN-T11.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 61 ft, finish is 5 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.97 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.42 ft below land-surface datum, Mar. 5, 1985; lowest, 33.96 ft below land-surface datum, Feb. 21, 1985.

HIGHEST WATER LEVEL 24.42 FEET BELOW LAND SURFACE DATUM MAR 05, 1985.

LOWEST WATER LEVEL 33.96 FEET BELOW LAND SURFACE DATUM FEB 21, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	32.00	JAN 03, 1985	31.67	MAR 21, 1985	25.73	JUL 02, 1985	29.17
25	32.66	30	33.33	APR 17	25.04	28	29.46
NOV 09	32.59	FEB 21	33.96	MAY 02	26.23	AUG 14	31.69
27	31.68	MAR 05	24.42	JUN 07	27.47	28	31.75
DEC 12	32.81	07	25.07	27	28.56	SEP 23	33.95

404752081583401. Local number, WN-T11.

LOCATION.--Lat 40°47'52", long 81°58'34", Hydrologic Unit 05040003, on a levee for Cashey Creek 600 ft south of West Old Lincoln Way near Wooster. Doublet with WN-T10.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 31 ft, finish is 2 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.02 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.65 ft below land-surface datum, Mar. 5, 1985; lowest, well dry.

HIGHEST WATER LEVEL 22.65 FEET BELOW LAND SURFACE DATUM MAR 05, 1985.

LOWEST WATER LEVEL WELL DRY OCT 15, 1984; OCT 25, 1984; NOV 09, 1984; NOV 27, 1984; JAN 30, 1985; FEB 21, 1985; SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	DRY	JAN 03, 1985	29.88	MAR 21, 1985	24.16	JUL 02, 1985	27.17
25	DRY	30	DRY	APR 17	23.32	28	28.08
NOV 09	DRY	FEB 21	DRY	MAY 02	24.55	AUG 14	29.64
27	DRY	MAR 05	22.65	JUN 07	25.82	28	30.01
DEC 12	30.56	07	23.22	27	26.65	SEP 23	DRY

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404806081590200. Local number, WN-T13.

LOCATION.--Lat 40°48'06", long 81°59'02", Hydrologic Unit 05040003, 2403 West Old Lincoln Way, 480 ft north of highway at edge of log yard near Wooster.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 23 ft, finish is 10 ft of 0.010 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 857 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.38 ft above land-surface datum.

PERIOD OF RECORD.--July 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.34 ft below land-surface datum, Feb. 26, 1985; lowest, 9.69 ft below land-surface datum, Oct. 15, 1984.

HIGHEST WATER LEVEL 5.34 FEET BELOW LAND SURFACE DATUM FEB 26, 1985.

LOWEST WATER LEVEL 9.69 FEET BELOW LAND SURFACE DATUM OCT 15, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1984	9.69	DEC 13, 1984	7.97	MAR 05, 1985	5.93	JUN 27, 1985	6.76
25	9.66	JAN 03, 1985	7.03	07	6.09	AUG 28	7.92
NOV 09	8.33	30	7.79	21	6.17	SEP 23	8.86
28	7.79	FEB 26	5.34	APR 17	5.82		



## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404810081583400. Local number, WN-C1.

LOCATION.--Lat 40°48'10", long 81°58'34", Hydrologic Unit 05040003, in Clear Creek channel 190 ft above confluence with Killbuck Creek near Wooster.

AQUIFER.--Glacial outwash sand of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 8.6 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.79 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD June 1985 to September 1985.--Well dry during entire period.

HIGHEST WATER LEVEL CANNOT BE DETERMINED BECAUSE OF SITE STATUS.

LOWEST WATER LEVEL WELL DRY JUN 20, 1985; JUL 01, 1985; JUL 17, 1985; AUG 27, 1985; SEP 23, 1985; SEP 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 20, 1985	DRY	JUL 17, 1985	DRY	SEP 23, 1985	DRY	SEP 30, 1985	DRY
JUL 01	DRY	AUG 27	DRY				

404806081583300. Local number, WN-K1.

LOCATION.--Lat 40°48'06", long 81°58'33", Hydrologic Unit 05040003, in Killbuck Creek channel, 240 ft upstream of Old Mansfield Road bridge near Wooster.

AQUIFER.--Glacial sand and clay of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 11.4 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 848 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Well dry during entire period.

HIGHEST WATER LEVEL CANNOT BE DETERMINED BECAUSE OF SITE STATUS.

LOWEST WATER LEVEL WELL DRY JUN 20, 1985; AUG 01, 1985; AUG 27, 1985; SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 20, 1985	DRY	AUG 01, 1985	DRY	AUG 27, 1985	DRY	SEP 23, 1985	DRY

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404839081585201. Local number, WN-K2.

LOCATION.--Lat 40°48'39", long 81°58'52", Hydrologic Unit 05040003, in Killbuck Creek channel, 115 ft upstream of Silver Road bridge near Wooster. Doublet with WN-K9.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 6.1 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 851 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.20 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Highest water level, +0.57 ft above land-surface datum, June 20, 1985; lowest, +0.16 ft above land-surface datum, July 1, 1985.

HIGHEST WATER LEVEL 0.57 FEET ABOVE LAND SURFACE DATUM JUL 16, 1985.

LOWEST WATER LEVEL 0.16 FEET ABOVE LAND SURFACE DATUM JUL 01, 1985.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 20, 1985	0.57	JUL 01, 1985	0.16	JUL 16, 1985	0.18

404825081584901. Local number, WN-K3.

LOCATION.--Lat 40°48'25", long 81°58'49", Hydrologic Unit 05040003, in Killbuck Creek channel, 1500 ft downstream of Silver Road bridge near Wooster. Doublet with WN-K4.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 6.3 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 848 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.03 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Highest water level, 0.47 ft below land-surface datum, June 20, 1985; lowest, 2.20 ft below land-surface datum, September 30, 1985.

HIGHEST WATER LEVEL 0.47 FEET BELOW LAND SURFACE DATUM JUN 20, 1985.

LOWEST WATER LEVEL 2.20 FEET BELOW LAND SURFACE DATUM SEP 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 20, 1985	0.47	JUL 01, 1985	0.86	AUG 27, 1985	1.60	SEP 30, 1985	2.20
24	0.70	17	1.05	SEP 23	2.10		

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404825081584902. Local number, WN-K4.

LOCATION.--Lat 40°48'25", long 81°58'49", Hydrologic Unit 05040003, in Killbuck Creek channel, 1500 ft downstream of Silver Road bridge near Wooster. Doublet with WN-K3.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 10.5 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 848 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.69 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Highest water level, 0.56 ft below land-surface datum, June 20, 1985; lowest, 2.48 ft below land-surface datum, September 30, 1985.

HIGHEST WATER LEVEL 0.56 FEET BELOW LAND SURFACE DATUM JUN 20, 1985.

LOWEST WATER LEVEL 2.48 FEET BELOW LAND SURFACE DATUM SEP 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 20, 1985	0.56	JUL 01, 1985	1.00	AUG 27, 1985	1.80	SEP 30, 1985	2.48
24	0.81	17	1.21	SEP 23	2.36		

404818081584401. Local number, WN-K5.

LOCATION.--Lat 40°48'18", long 81°58'44", Hydrologic Unit 05040003, in Killbuck Creek channel, 1680 ft upstream of Old Mansfield Road bridge near Wooster. Doublet with WN-K6.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 8.9 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 846 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.77 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Highest water level, 1.51 ft below land-surface datum, June 24, 1985; lowest, 5.44 ft below land-surface datum, September 30, 1985.

HIGHEST WATER LEVEL 1.51 FEET BELOW LAND SURFACE DATUM JUN 24, 1985.

LOWEST WATER LEVEL 5.44 FEET BELOW LAND SURFACE DATUM SEP 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 24, 1985	1.51	JUL 17, 1985	2.58	SEP 23, 1985	5.28	SEP 30, 1985	5.44
JUL 01	1.97	AUG 27	4.02				

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404818081584402. Local number, WN-K6.

LOCATION.--Lat 40°48'18", long 81°58'44", Hydrologic Unit 05040003, in Killbuck Creek channel, 1680 ft upstream of Old Mansfield Road bridge near Wooster. Doublet with WN-K5.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 6.3 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 846 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.12 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Highest water level, 1.44 ft below land-surface datum, June 24, 1985; lowest, 5.48 ft below land-surface datum, September 30, 1985.

HIGHEST WATER LEVEL 1.44 FEET BELOW LAND SURFACE DATUM JUN 24, 1985.

LOWEST WATER LEVEL 5.48 FEET BELOW LAND SURFACE DATUM SEP 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 24, 1985	1.44	JUL 17, 1985	2.54	SEP 23, 1985	5.01	SEP 30, 1985	5.48
JUL 01	1.91	AUG 27	3.94				

404813081584100. Local number, WN-K7.

LOCATION.--Lat 40°48'13", long 81°58'41", Hydrologic Unit 05040003, in Killbuck Creek channel, 1200 ft upstream of Old Mansfield Road bridge near Wooster.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 7.5 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 847 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--June 1985 to September 1985.

EXTREMES FOR PERIOD JUNE 1985 TO SEPTEMBER 1985.--Highest water level, 3.57 ft below land-surface datum, June 24, 1985; lowest, 6.40 ft below land-surface datum, September 23, 1985.

HIGHEST WATER LEVEL 3.57 FEET BELOW LAND SURFACE DATUM JUN 24, 1985.

LOWEST WATER LEVEL 6.40 FEET BELOW LAND SURFACE DATUM SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 24, 1985	3.57	JUL 17, 1985	4.55	SEP 23, 1985	6.40	SEP 30, 1985	6.30
JUL 01	3.98	AUG 27	6.28				



## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404759081582800. Local number, WN-K8.

LOCATION.--Lat 40°47'59", long 81°58'28", Hydrologic Unit 05040003, in Killbuck Creek channel, 130 ft upstream of West Old Lincoln Way bridge near Wooster.

AQUIFER.--Glacial sand of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 8.6 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 846 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1985 to September 1985.

EXTREMES FOR PERIOD JULY 1985 TO SEPTEMBER 1985.--Well dry for entire period.

HIGHEST WATER LEVEL CANNOT BE DETERMINED BECAUSE OF SITE STATUS.

LOWEST WATER LEVEL WELL DRY JUL 01, 1985; JUL 02, 1985; AUG 14, 1985; AUG 27, 1985; SEP 23, 1985; SEP 30, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 01, 1985	DRY	AUG 14, 1985	DRY	SEP 23, 1985	DRY	SEP 30, 1985	DRY
JUL 02	DRY	AUG 27	DRY				

404839081585202. Local number, WN-K9.

LOCATION.--Lat 40°48'39", long 81°58'52", Hydrologic Unit 05040003, in Killbuck Creek channel 115 ft upstream of Silver Road bridge near Wooster. Doublet with WN-K2.

AQUIFER.--Glacial outwash sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 13.0 ft, finish is 0.5 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 851 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--July 1985 to September 1985.

EXTREMES FOR PERIOD JULY 1985 TO SEPTEMBER 1985.--Highest water level, 0.4 ft above land-surface datum, August 28, 1985; lowest, 0.15 ft below land-surface datum, September 23, 1985.

HIGHEST WATER LEVEL 0.40 FEET ABOVE LAND SURFACE DATUM AUG 28, 1985.

LOWEST WATER LEVEL 0.15 FEET BELOW LAND SURFACE DATUM SEP 23, 1985.

WATER LEVELS IN FEET ABOVE OR BELOW (-) LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 02, 1985	0.18	AUG 28, 1985	0.40	SEP 23, 1985	-0.15	SEP 30, 1985	-0.11
JUL 16	0.13						

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404735081580300. Local number, WN-K10.

LOCATION.--Lat 40°47'35", long 81°58'03", Hydrologic Unit 05040003, in Killbuck Creek channel at Route 30 bridge near Wooster.

AQUIFER.--Glacial outwash sand of Quaternary Age.

WELL CHARACTERISTICS.--Driven observation point, diameter 1.25 in., depth 11.9 ft, finish is 3.0 ft of 0.0165 in. wellscreen.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 846 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--July 1985 to September 1985.

EXTREMES FOR PERIOD JULY 1985 TO SEPTEMBER 1985.--Highest water level, 9.36 ft below land-surface datum, July 3, 1985; lowest, well dry.

HIGHEST WATER LEVEL 9.36 FEET BELOW LAND SURFACE DATUM JUL 03, 1985.

LOWEST WATER LEVEL WELL DRY AUG 28, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03, 1985	9.36	JUL 28, 1985	10.55	AUG 28, 1985	DRY

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404758081585900. Local number, WN-14.

LOCATION.--Lat 40°47'58", long 81°58'59", Hydrologic Unit 05040003, 2403 West Old Lincoln Way near Wooster.  
Owner: Philip Boreman Log Yard.

AQUIFER.--Shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5 in., depth 85 ft. Cased to 53 ft

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 866 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to December 1984.

EXTREMES FOR PERIOD NOVEMBER 1984 TO DECEMBER 1984.--Highest water level, 25.17 ft below land-surface datum, November 28, 1984; lowest, 25.40 ft below land-surface datum, November 9, 1984.

HIGHEST WATER LEVEL 25.17 FEET BELOW LAND SURFACE DATUM NOV 28, 1984.

LOWEST WATER LEVEL 25.40 FEET BELOW LAND SURFACE DATUM NOV 09, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 09, 1984	25.40	NOV 28, 1984	25.17	DEC 13, 1984	25.32

404736081585500. Local number, WN-15.

LOCATION.--Lat 40°47'36", long 81°58'55", Hydrologic Unit 05040003, northeast corner Fry Road and Route 30 near Wooster.

Owner: Church of The Savior.

AQUIFER.--Sandstone and shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5 in., depth 150 ft. Cased to 43 ft.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 910 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to August 1985.

EXTREMES FOR PERIOD NOVEMBER 1984 TO AUGUST 1985.--Highest water level, 25.02 ft below land-surface datum, March 5, 1985; lowest, 26.54 ft below land-surface datum, August 28, 1985.

HIGHEST WATER LEVEL 25.02 FEET BELOW LAND SURFACE DATUM MAR 05, 1985.

LOWEST WATER LEVEL 26.54 FEET BELOW LAND SURFACE DATUM AUG 28, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 29, 1984	25.54	MAR 05, 1985	25.02	MAR 21, 1985	25.10	AUG 28, 1985	26.54
JAN 18, 1985	25.22						

## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

## WAYNE COUNTY

404809082000000. Local number, WN-16.

LOCATION.--Lat 40°48'09", long 82°00'00", Hydrologic Unit 05040003, 3151 West Old Lincoln Way near Wooster.

Owner: Columbia Gas Transmission Corp.

AQUIFER.--Sandstone and shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 6 in., depth 180 ft. Cased to 73 ft.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1055 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.85 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to March 1985.

EXTREMES FOR PERIOD NOVEMBER 1984 TO MARCH 1985.--Highest water level, 63.74 ft below land-surface datum, March 5, 1985; lowest, 65.85 ft below land-surface datum, November 29, 1984.

HIGHEST WATER LEVEL 63.74 FEET BELOW LAND SURFACE DATUM MAR 05, 1985.

LOWEST WATER LEVEL 65.85 FEET BELOW LAND SURFACE DATUM NOV 29, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 29, 1984	65.85	MAR 05, 1985	63.74	MAR 21, 1985	64.36

404759081590800. Local number, WN-18.

LOCATION.--Lat 40°47'59", long 81°59'08", Hydrologic Unit 05040003, 2471 West Old Lincoln Way near Wooster.

Owner: D. Miller.

AQUIFER.--Sandstone and shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 7 in., depth 115 ft. Cased to unknown depth.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 911 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.70 ft above land-surface datum.

PERIOD OF RECORD.--July 1985 to September 1985.

EXTREMES FOR PERIOD JULY 1985 TO SEPTEMBER 1985.--Highest water level, 53.36 ft below land-surface datum, July 3, 1985; lowest, 55.75 ft below land-surface datum, September 23, 1985.

HIGHEST WATER LEVEL 53.36 FEET BELOW LAND SURFACE DATUM JUL 03, 1985.

LOWEST WATER LEVEL 55.75 FEET BELOW LAND SURFACE DATUM SEP 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUL 03, 1985	53.36	JUL 18, 1985	54.45	AUG 28, 1985	55.03	SEP 23, 1985	55.75



## GROUND-WATER RECORDS FOR THE NORTHEAST BURIED VALLEY AQUIFER PROJECT

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## WAYNE COUNTY

404837081592900. Local number, WN-19.

LOCATION.--Lat 40°48'37", long 81°59'29", Hydrologic Unit 05040003, southwest corner Route 302 and Silver Road near Wooster.

Owner: Russell Gowins.

AQUIFER.--Sandstone and shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.5 in., depth 75 ft. Cased to unknown depth.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 889 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.10 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to September 1985.

EXTREMES FOR PERIOD NOVEMBER 1984 TO SEPTEMBER 1985.--Highest water level, 34.56 ft below land-surface datum, July 2, 1985; lowest, 35.95 ft below land-surface datum, November 29, 1984.

HIGHEST WATER LEVEL 34.56 FEET BELOW LAND SURFACE DATUM JUL 02, 1985.

LOWEST WATER LEVEL 35.95 FEET BELOW LAND SURFACE DATUM NOV 29, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 29, 1984	35.95	JUL 02, 1985	34.56	AUG 13, 1985	35.20	SEP 13, 1985	39.01
MAR 21, 1985	34.87						

404802081594100. Local number, WN-20.

LOCATION.--Lat 40°48'02", long 81°59'41", Hydrologic Unit 05040003, 3004 West Old Lincoln Way near Wooster.

Owner: Thomas Linn.

AQUIFER.--Sandstone and shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5.5 in., depth 91 ft. Cased to unknown depth.

INSTRUMENTATION.--Water level measurements with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1010 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.3 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to May 1985.

EXTREMES FOR PERIOD NOVEMBER 1984 TO MAY 1985.--Highest water level, 26.69 ft below land-surface datum, March 21, 1985; lowest, 29.32 ft below land-surface datum, November 29, 1984.

HIGHEST WATER LEVEL 26.69 FEET BELOW LAND SURFACE DATUM MAR 21, 1985.

LOWEST WATER LEVEL 29.32 FEET BELOW LAND SURFACE DATUM NOV 29, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 29, 1984	29.32	MAR 21, 1985	26.69	MAY 05, 1985	27.39

MISCELLANEOUS LOW FLOW MEASUREMENTS FOR THE NORTHEAST  
BURIED VALLEY AQUIFER PROJECT  
WAYNE COUNTY

The following discharge measurements were made September 9, 1985 to study stream Gain/Loss relationships in the Killbuck Valley near Wooster. Base-flow conditions were good, 0.05 in. of precipitation was recorded in the 10-day period prior to the measurements.

Site Number	Station	Discharge (cfs)
404906081595600	Little Killbuck(2) C 2000 ft upstream of Rt 302 bridge	1.90
404901081593000	Little Killbuck(2) C 50 ft downstream of Rt 302 bridge	0.41
404903081590400	Little Killbuck(2) C 600 ft upstream of confluence with with Killbuck C	0.10
404857081585400	Killbuck C 200 ft downstream of Little Killbuck(2) C	11.90
404839081585200	Killbuck C 150 ft upstream of Silver Rd bridge	11.85
-----	Field Tile Drain Inflow to Killbuck C at Silver Rd	0.10
404825081584900	Killbuck C 1500 ft downstream of Silver Rd bridge	13.60
404819081582100	Clear C 1600 ft upstream of confluence with Killbuck C	1.05
404810081583400	Clear C 200 ft upstream of confluence with Killbuck C	0.51
404803081583000	Killbuck C at Old Mansfield Rd	10.70
404757081582500	Killbuck C at West Old Lincoln Way	12.35
404744081582100	Cashey C 1500 ft south of West Old Lincoln Way	0.87
404735081580200	Killbuck C at SR 30	12.25

## GROUND-WATER RECORDS

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## WOOD COUNTY

The following tables contain ground water-level measurements, chemical analyses from a network of wells, and miscellaneous chemical analyses of surface water in Northern Wood County. The data was collected as part of a cooperative study with the city of Northwood. The objective of the study is to evaluate the chemical quality and interaction of the carbonate aquifer and surface-water systems near Northwood, Ohio.

Analyses for selected purgeable organic compounds were performed on ground water from wells WO-102, WO-104, WO-107MW5, WO-111MW10, WO-112MW11, WO-113, WO-115, WO-119, and WO-123. The detection level for purgeable organic compounds is 3 µg/L. The analyses are capable of identifying the purgeable organic compounds listed below. The chemical quality records for the individual sites include only those organic compounds found to be above analytical detection levels.

Purgeable organic compounds, total recoverable. Analysis by gas chromatograph with mass specific detector.

Benzene	1,2-Dichloropropane
Bromoform	1,3-Dichloropropene
Carbon tetrachloride	Ethylbenzene
Chlorobenzene	Methylbromide
Chloroethane	Methylene chloride
2-Chloroethyl vinyl ether	1,1,2,2-Tetrachloroethane
Chloroform	Tetrachloroethylene
Dibromochloromethane	Toluene
Dichlorobromomethane	1,1,1-Trichloroethane
1,1-Dichloroethane	1,1,2-Trichloroethane
1,2-Dichloroethane	Trichloroethylene
1,1-Dichloroethylene	Vinyl chloride
1,2-trans-Dichloroethylene	

## GROUND-WATER RECORDS

## WOOD COUNTY

## SURFACE-WATER RECORDS

413630083302500. Otter Creek Tributary at Northwood, Ohio.

LOCATION.--Lat 41°36'30", long 83°30'25", Hydrologic Unit 04100010, 15 ft upstream of culvert on Wales Road north of Evergreen Landfill at Northwood, Ohio.

PERIOD OF RECORD.--April 1984 to September 1985.

REMARKS.--This site is used for chemical quality sampling as part of a cooperative study with the city of Northwood. An automatic sampler is also used for chemical quality sampling, precipitation gauge, digital recorder -- 1-hour punch.

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 1984											
09...	16:45	465	7.8	--	--	--	--	--	--	--	--
09...	19:25	500	7.8	--	--	--	--	--	--	--	--
11...	04:05	744	7.8	--	--	--	--	--	--	--	--
11...	09:30	620	7.9	--	--	--	--	--	--	--	--
DEC											
14...	06:35	--	--	--	--	--	--	370	180	99	30
14...	07:30	--	--	--	--	--	--	350	--	95	28
14...	11:30	--	--	--	--	--	--	370	230	99	29
MAR 1985											
28...	08:10	480	7.9	15.0	12.0	745	--	180	100	46	15
28...	08:40	520	7.9	15.0	12.0	745	--	200	120	53	17
28...	09:40	550	7.9	15.0	12.0	745	--	190	110	52	15
JUL											
09...	16:00	499	8.0	30.5	27.0	--	45	210	80	57	17

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 1984											
09...	--	--	--	210	6.4	--	--	--	--	--	--
09...	--	--	--	110	3.4	--	--	--	--	--	--
11...	--	--	--	339	10	--	--	--	--	--	--
11...	--	--	--	110	2.7	--	--	--	--	--	--
DEC											
14...	23	12	6.4	--	--	--	210	50	--	4.6	--
14...	23	12	6.1	--	--	--	240	51	--	4.7	--
14...	20	--	--	--	--	--	220	47	--	5.8	--
MAR 1985											
28...	33	29	2.7	77	1.9	--	120	34	0.3	8.8	--
28...	15	14	3.2	81	2.0	<0.5	130	26	0.2	2.5	331
28...	20	18	3.3	80	1.9	--	120	38	0.4	2.8	--
JUL											
09...	20	17	4.1	134	2.6	0.4	73	37	0.7	6.6	315



## GROUND-WATER RECORDS

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## WOOD COUNTY

## SURFACE-WATER RECORDS

413630083302500. Otter Creek Tributary at Northwood, Ohio, (continued).

## WATER QUALITY DATA

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)
NOV 1984											
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	540	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
MAR 1985											
28...	310	--	--	--	--	--	--	--	--	--	--
28...	300	0.06	1.20	0.28	0.36	0.72	1.0	40	2	110	<1
28...	300	--	--	--	--	--	--	--	--	--	--
JUL											
09...	300	0.03	0.14	0.30	0.39	0.7	1.0	--	--	--	--
DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
NOV 1984											
09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
DEC											
14...	--	10	--	--	30	--	--	--	--	--	--
14...	--	10	--	--	20	--	--	--	--	--	--
14...	--	10	--	--	30	--	--	--	--	--	--
MAR 1985											
28...	--	13	--	--	41	--	--	--	--	--	--
28...	10	15	2	<4	--	<1	1900	5.9	--	--	0.09
28...	--	14	--	--	44	--	--	--	--	--	--
JUL											
09...	--	6	--	--	170	--	1800	10	<0.01	4	0.09

## GROUND-WATER RECORDS

## WOOD COUNTY

## SURFACE-WATER RECORDS

413513083304500. Dry Creek near Walbridge, Ohio.

LOCATION.--Lat 41°35'13", long 83°30'45", Hydrologic Unit 04100010, 30 ft upstream of bridge at East Broadway near Walbridge, Ohio.

PERIOD OF RECORD.--April 1984 to September 1985.

REMARKS.--This site is used for chemical quality sampling as part of a cooperative study with the city of Northwood.

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
JUL 1985 09...	18:30	744	7.9	29.0	24.5	6.1	19	340	160	67	39	21
DATE	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 1985 09...	12	7.6	181	4.4	<0.1	150	45	0.9	9.4	508	460	0.02
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JUL 1985 09...	0.78	0.08	0.1	0.32	0.4	22	58	10000	4.2	<0.01	4	0.07

## GROUND-WATER RECORDS

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## WOOD COUNTY

## SURFACE-WATER RECORDS

413617083304800. Otter Creek Tributary at Northwood, Ohio.

LOCATION.--Lat 41°36'17", long 83°30'48", Hydrologic Unit 04100010, 30 ft upstream of culvert directly west of East Broadway and east of Whitmire Railyard at Northwood, Ohio.

PERIOD OF RECORD.--April 1984 to September 1985.

REMARKS.--This site is used for chemical quality sampling as part of a cooperative study with the city of Northwood.

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
JUL 1985 09...	17:15	365	9.3	29.0	29.5	7.3	37	170	56	47	12	13
DATE	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
JUL 1985 09...	14	3.5	112	0.1	0.3	47	26	0.7	7.6	242	230	0.03
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JUL 1985 09...	0.29	0.06	0.08	0.64	0.7	55	12	1100	8.9	<0.01	7	0.08

## GROUND-WATER RECORDS

## WOOD COUNTY

413512083320900. Local number, WO-100.

LOCATION.--Lat 41°35'12", long 83°32'09", Hydrologic Unit 04100010, on Walbridge Road near Walbridge, OH.

Owner: C. Binicker.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 139 ft. Cased to 58 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 620 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.78 ft below land-surface datum, Aug. 7, 1985; lowest, 54.69 ft below-land surface datum, June 20, 1985.

HIGHEST WATER LEVEL 52.78 FEET BELOW LAND SURFACE DATUM AUG 07, 1985.

LOWEST WATER LEVEL 55.90 FEET BELOW LAND SURFACE DATUM MAY 21, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	53.87	MAR 12, 1985	53.13	MAY 21, 1985	55.90	AUG 07, 1985	52.78
FEB 27, 1985	53.78	APR 02	52.95	JUN 20	54.69		

413631083314200. Local number, WO-101.

LOCATION.--Lat 41°36'31", long 83°31'42", Hydrologic Unit 04100010, 2500 Tracy Road at Northwood, OH.

Owner: Jerry Stanford.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6.0 in., depth 125.21 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 617 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 3.80 ft below land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.43 ft below land-surface datum, Mar. 12, 1985; lowest, 67.79 ft below land-surface datum, May 22, 1984.

HIGHEST WATER LEVEL 59.71 FEET BELOW LAND SURFACE DATUM AUG 07, 1985.

LOWEST WATER LEVEL 61.79 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	61.79	MAR 12, 1985	60.43	JUN 20, 1985	60.66	AUG 07, 1985	59.71
FEB 27, 1985	61.73						

413551083293900. Local number, WO-103.

LOCATION.--Lat 41°35'51", long 83°29'39", Hydrologic Unit 04100010, 30733 Droulliard Road near Walbridge, OH.

Owner: C. Adkins.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 5.0 in., depth 250 ft. Cased to 74.33 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.70 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 63.37 ft below land-surface datum, June 20, 1985; lowest, 67.84 ft below land-surface datum, Nov. 17, 1983.

HIGHEST WATER LEVEL 63.37 FEET BELOW LAND SURFACE DATUM JUN 20, 1985.

LOWEST WATER LEVEL 65.92 FEET BELOW LAND SURFACE DATUM DEC 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	65.92	MAR 12, 1985	64.37	MAY 21, 1985	63.60	AUG 07, 1985	64.13
FEB 27, 1985	65.10	28	63.70	JUN 20	63.37		



## GROUND-WATER RECORDS

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## WOOD COUNTY

413635083293400. Local number, WO-102.

LOCATION.--Lat 41°36'35", long 83°29'34", Hydrologic Unit 04100010, 2187 Droulliard Road at Northwood, OH.

Owner: R. Conley.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6.0 in., depth 149 ft. Cased to 76 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 613.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.77 ft below land-surface datum, Feb. 27, 1985; lowest, 69.82 ft below land-surface datum, May 22, 1984.

HIGHEST WATER LEVEL 61.11 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

LOWEST WATER LEVEL 71.04 FEET BELOW LAND SURFACE DATUM MAY 02, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	63.89	MAR 12, 1985	62.39	JUN 20, 1985	63.34	AUG 07, 1985	64.39
FEB 27, 1985	60.77	MAY 02	71.04	JUL 10	61.11		

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER DUCT- LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)
JUL 1985 10...	11:00	61.10	985	7.6	20.0	12.5	743	0.7	12	420

DATE	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 1985 10...	320	96	39	61	25	2.4	105	5.1	0.6	400

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
JUL 1985 10...	18	2.0	8.6	743	710	<0.01	<0.10	0.34	0.44

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS Fe)	MANGA- NESE, DIS- SOLVED (UG/L AS Mn)	STRON- TIUM, DIS- SOLVED (UG/L AS Sr)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JUL 1985 10...	0.16	0.5	17	<1	20000	0.8	<0.01	<1	0.01

## GROUND-WATER RECORDS

## WOOD COUNTY

413620083304100. Local number, WO-104.

LOCATION.--Lat 41°36'20", long 83°30'41", Hydrologic Unit 04100010, 2625 East Broadway at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 7.0 in., depth 155 ft. Cased to 74 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 617.33 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.84 ft below land-surface datum, Feb. 27, 1985; lowest, 64.55 ft below land-surface datum, Nov. 16, 1983.

HIGHEST WATER LEVEL 58.84 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 72.65 FEET BELOW LAND SURFACE DATUM MAY 22, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	62.72	MAR 12, 1985	60.99	MAY 22, 1985	72.65	JUL 10, 1985	62.08
FEB 27, 1985	58.84	APR 03	59.58	JUN 21	60.74	AUG 07	60.94

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)
JUL 1985 10...	09:45	64.60	950	7.7	20.0	12.5	743	0	<10	440

DATE	TIME	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 1985 10...	350	98	41	59	24	2.1	89	3.4	0.2	450	

DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)
JUL 1985 10...	10	1.9	7.4	767	740	<0.01	<0.10	0.38	0.49	

DATE	TIME	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	IRON, DIS- SOLVED (UG/L AS Fe)	MANGA- NESE, DIS- SOLVED (UG/L AS Mn)	STRON- TIUM, DIS- SOLVED (UG/L AS Sr)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
JUL 1985 10...	0.02	0.4	11	3	19000	0.7	<0.01	5	0.02	

## GROUND-WATER RECORDS

191

## WOOD COUNTY

413532083295800. Local number, WO-105; MW1.

LOCATION.--Lat 41°35'32", long 83°29'58", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 100 ft. Cased to 66.7 ft, finish is 33.3 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 618.42 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.20 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 62.27 ft below land-surface datum, June 21, 1985; lowest, 64.36 ft below land-surface datum, Nov. 15, 1983.

HIGHEST WATER LEVEL 62.19 FEET BELOW LAND SURFACE DATUM APR 03, 1985.

LOWEST WATER LEVEL 63.50 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	63.50	MAR 13, 1985	63.01	MAY 22, 1985	62.65	AUG 18, 1985	63.42
FEB 28, 1985	63.38	APR 03	62.19	JUN 21	62.27		

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE (DEG C)	BAROMETRIC PRESURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
APR 1985	04...	15:50	860	7.9	12.0	11.5	740	2.8	10	370	270	83
DATE		MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	
APR 1985	04...	33	64	29	2.0	99	2.4	<0.5	360	14	2.1	7.4
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)
APR 1985	04...	656	650	<0.01	<0.10	0.47	0.61	0.53	1.0	<10	<1	380
DATE		CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	
APR 1985	04...	<1	<10	71	<1	27	5	<1	20000	1.1	0.04	

## GROUND-WATER RECORDS

## WOOD COUNTY

413604083300100. Local number, WO-106; MW2.

LOCATION.--Lat 41°36'04", long 83°30'01", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 94 ft. Cased to 75.0 ft, finish is 19.0 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615.53 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of steel casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.12 ft below land-surface datum, Apr. 3, 1985; lowest, 63.81 ft below land-surface datum, Sept. 25, 1984.

HIGHEST WATER LEVEL 62.19 FEET BELOW LAND SURFACE DATUM APR 03, 1985.

LOWEST WATER LEVEL 63.50 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	63.50	MAR 13, 1985	63.01	MAY 22, 1985	62.65	AUG 18, 1985	63.42
FEB 28, 1985	63.38	APR 03	62.19	JUN 21	62.27		

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
APR 1985	04...	13:00	950	8.9	10.0	11.0	740	2.4	14	340	260	80
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	
APR 1985	04...	29	89	38	2.6	85	0.2	<0.5	400	9.9	1.9	8.7
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	
APR 1985	04...	702	690	<0.01	<0.10	0.49	0.63	0.31	0.8	10	<1	
DATE		BORON, DIS- SOLVED (UG/L AS B)	CADMIUM, DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
APR 1985	04...	480	<1	10	10	<1	30	<1	20000	1.0	0.04	



## GROUND-WATER RECORDS

133

## WOOD COUNTY

413626083302900. Local number, WO-107; MW5.

LOCATION.--Lat 41°36'26", long 83°30'29", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 123 ft. Cased to 85.0 ft, finish is 38.0 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 618.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.45 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR OF RECORD.--Highest water level, 52.22 ft below land-surface datum, Feb. 27, 1985; lowest, 67.99 ft below land-surface datum, Nov. 15, 1983.

HIGHEST WATER LEVEL 52.22 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 66.52 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	66.52	MAR 13, 1985	64.23	MAY 22, 1985	64.31	JUL 10, 1985	64.70
FEB 27, 1985	52.22	APR 03	55.76	JUN 21	64.29	AUG 07	64.81

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE OF (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
APR 1985												
03...	13:20	--	1190	7.5	10.0	12.0	735	1.2	34	550	370	140
JUL												
10...	11:45	64.70	1130	7.6	25.0	12.0	743	1.5	11	430	270	98
		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR 1985												
03...	44	81	25	3.1	181	11	<0.5	480	13	1.4	10	940
JUL												
10...	38	81	30	2.5	157	7.6	<0.1	420	12	1.9	9.0	806
		SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	
APR 1985												
03...	900	<0.01	0.16	0.50	0.64	0.4	0.9	10	<1	650	16	
JUL												
10...	780	<0.01	<0.10	0.44	0.57	0.16	0.6	--	--	--	--	
		CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
APR 1985												
03...	<10	190	3	36	16	<1	21000	1.0	--	--	0.05	
JUL												
10...	--	230	--	--	11	--	22000	0.8	<0.01	4	0.02	

## GROUND-WATER RECORDS

## WOOD COUNTY

413625083303500. Local number, WO-108; MW6.

LOCATION.--Lat 41°36'25", long 83°30'35", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 100 ft. Cased to 74.2 ft, finish is 25.8 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 610.30 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.30 ft above land-surface datum. Prior to April 3, 1985 measuring point was 4.30 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.36 ft below land-surface datum, Mar. 13, 1985; lowest, 59.33 ft below land-surface datum, Nov. 15, 1983.

HIGHEST WATER LEVEL 55.36 FEET BELOW LAND SURFACE DATUM MAR 13, 1985.

LOWEST WATER LEVEL 58.19 FEET BELOW LAND SURFACE DATUM AUG 07, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	57.82	MAY 22, 1985	57.80	JUN 21, 1985	57.76	AUG 07, 1985	58.19
MAR 13, 1985	55.36						

413616083302300. Local number, WO-109; MW8.

LOCATION.--Lat 41°36'16", long 83°30'23", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 109 ft. Cased to 76.0 ft, finish is 33.0 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 619.21 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.24 ft below land-surface datum, Apr. 3, 1985; lowest, 67.72 ft below land-surface datum, Nov. 16, 1983.

HIGHEST WATER LEVEL 61.24 FEET BELOW LAND SURFACE DATUM APR 03, 1985.

LOWEST WATER LEVEL 67.07 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	67.07	MAR 13, 1985	64.22	MAY 22, 1985	64.29	AUG 08, 1985	64.77
FEB 27, 1985	61.40	APR 03	61.24	JUN 21	64.27		

413630083301200. Local number, WO-116.

LOCATION.--Lat 41°36'30", long 83°30'12", Hydrologic Unit 04100010, on Wales Road at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2.0 in., depth 90.0 ft. Cased to 85.0 ft, finish is 5 ft 0.010 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615.36 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic casing, 1.85 ft above land-surface datum.

PERIOD OF RECORD.--January 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 51.13 ft below land-surface datum, Feb. 27, 1985; lowest, 64.24 ft below land-surface datum, Jan. 5, 1984.

HIGHEST WATER LEVEL 49.57 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 60.44 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	60.44	MAR 12, 1985	57.77	MAY 21, 1985	58.12	JUL 09, 1985	58.34
JAN 30, 1985	59.80	28	58.07	JUN 20	58.14	AUG 07	58.73
FEB 27	49.57						

## GROUND-WATER RECORDS

195

## WOOD COUNTY

413608083303400. Local number, WO-110; MW9.

LOCATION.--Lat 41°36'08", long 83°30'34", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 120 ft. Cased to 87.1 ft, finish is 32.9 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 618.09 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.85 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.59 ft below land-surface datum, Apr. 3, 1985; lowest, 65.18 ft below land-surface datum, Nov. 15, 1983.

HIGHEST WATER LEVEL 60.59 FEET BELOW LAND SURFACE DATUM APR 03, 1985.

LOWEST WATER LEVEL 63.61 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	63.61	MAR 13, 1985	62.04	MAY 22, 1985	63.02	AUG 08, 1985	62.08
FEB 27, 1985	63.61	APR 03	60.59	JUN 21	61.80		

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
APR 1985 04...	11:00	825	9.1	8.0	10.5	740	3.6	14	330	290	83
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
APR 1985 04...	25	58	29	3.4	38	-----	<0.5	390	9.9	1.4	4.8
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
APR 1985 04...	632	610	<0.01	<0.10	0.31	0.4	0.39	0.7	<10	<1	240
DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
APR 1985 04...	<1	<10	12	<1	29	4	<1	15000	0.9	0.05	

WOOD COUNTY

413614083302300. Local number, WO-111; MW10.

LOCATION.--Lat 41°36'14", long 83°30'23", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 110 ft. Cased to 76.7 ft, finish is 33.3 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 617.02 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.86 ft below land-surface datum, Apr. 3, 1985; lowest, 65.16 ft below land-surface datum, Nov. 16, 1983.

HIGHEST WATER LEVEL 59.86 FEET BELOW LAND SURFACE DATUM APR 03, 1985.

LOWEST WATER LEVEL 63.88 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	63.88	MAR 13, 1985	62.04	MAY 22, 1985	61.92	JUL 11, 1985	62.11
FEB 27, 1985	60.26	APR 03	59.86	JUN 21	61.88	AUG 08	62.36

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L Ca)
APR 1985												
03...	14:05	--	1400	7.9	12.0	11.0	740	<0.1	10	580	500	140
JUL												
11...	09:20	62.10	1500	7.9	--	11.5	749	2.2	15	580	510	140

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR 1985												
03...	52	130	33	2.5	79	1.9	<0.5	710	10	1.4	9.9	1230
JUL												
11...	53	130	33	2.6	72	1.7	<0.1	740	9.2	1.4	9.2	1250

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)
APR 1985											
03...	1100	<0.01	<0.10	0.44	0.57	0.26	0.7	20	<1	830	<1
JUL											
11...	1100	<0.01	<0.10	0.40	0.52	0.1	0.5	--	--	--	--

DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
APR 1985											
03...	<10	120	<1	27	13	<1	14000	1.1	--	--	0.02
JUL											
11...	--	76	--	--	11	--	14000	1.1	<0.01	4	0.01



## 197

413618083302300. Local number, WO-112; MW11.

LOCATION.--Lat 41°36'18", long 83°30'23", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.0 in., depth 109 ft. Cased to 75.7 ft, finish is 33.3 ft of 0.020 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 613.24 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 48.50 ft below land-surface datum, Feb. 27, 1984; lowest, 61.76 ft below land-surface datum, Nov. 16, 1983.

HIGHEST WATER LEVEL 48.50 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 60.86 FEET BELOW LAND SURFACE DATUM JUL 11, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	59.84	MAR 13, 1985	58.20	MAY 22, 1985	60.60	AUG 08, 1985	60.55
FEB 27, 1985	48.50	APR 03	50.94	JUL 11	60.86		

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
APR 1985												
03...	13:00	--	1320	6.8	10.0	11.0	735	<0.1	18	620	300	150
JUL												
11...	11:30	60.90	1440	6.8	25.0	11.5	743	0	15	700	290	170

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR 1985												
03...	55	89	24	2.8	324	99	<0.5	440	13	1.1	18	1010
JUL												
11...	63	79	20	2.9	410	126	0.4	430	13	1.0	20	1110

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITRO- GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	ALUM- INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
APR 1985											
03...	980	<0.01	<0.10	0.47	0.61	0.33	0.8	10	<1	790	<1
JUL											
11...	1000	<0.01	<0.10	0.51	0.66	0.19	0.7	--	--	--	--

DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
APR 1985											
03...	<10	1500	<1	32	260	<1	18000	2.0	--	--	0.03
JUL											
11...	--	2400	--	--	330	--	18000	2.7	<0.01	<1	0.03

## WOOD COUNTY

413603083301000. Local number, WO-113.

LOCATION.--Lat 41°36'03", long 83°30'10", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Glacial Till of Wisconsinian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 1.25 in., depth 49 ft. Cased to 44 ft, finish is 3.0 ft of .010 slotted screen from 44 ft to 47 ft.

INSTRUMENTATION.--Digital water-level recorder -- 1-hour punch.

DATUM.--Elevation of land-surface datum is 615.53 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.96 ft above land-surface datum, Mar. 15, 1985; lowest, 11.10 ft below land-surface datum, Aug. 8, 1985.

HIGHEST WATER LEVEL 0.16 FEET ABOVE LAND SURFACE DATUM FEB 27, 1985; APR 03, 1985.

LOWEST WATER LEVEL 5.14 FEET BELOW LAND SURFACE DATUM AUG 08, 1985.

WATER LEVELS IN FEET ABOVE OR BELOW(-) LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 03, 1985	-0.12	JAN 29, 1985	-2.50	MAR 29, 1985	0.12	JUN 21, 1985	-2.69
17	-1.24	FEB 27	0.16	APR 03	0.16	JUL 10	-2.38
18	-1.22	MAR 13	0.03	MAY 22	-2.45	AUG 08	-5.14

## WATER QUALITY DATA

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	
APR 1985	04...	12:00	--	1620	7.3	10.0	6.5	740	10.4	42	1100	800	300
JUL	11...	13:00	2.40	1800	7.1	27.0	16.5	743	0.8	48	1100	760	310
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR 1985	04...	76	14	3	4.2	266	26	<0.5	740	26	0.2	9.9	1420
JUL	11...	79	34	6	4.5	340	52	0.8	840	35	0.3	16	1550
DATE		SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. DIS. (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	
APR 1985	04...	1300	<0.01	<0.10	0.13	0.17	0.57	0.7	20	<1	120	<1	
JUL	11...	1500	<0.01	<0.10	0.19	0.24	0.51	0.7	--	--	--	--	
DATE		CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
APR 1985	04...	<10	15	<1	28	45	<1	650	12	--	--	0.16	
JUL	11...	--	1400	--	--	260	--	2200	14	<0.01	5	0.12	

## GROUND-WATER RECORDS

199

## WOOD COUNTY

413605083302300. Local number, WO-114.

LOCATION.--Lat 41°36'05", long 83°30'23", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 4.25 in., depth 200 ft. Cased to 80.0 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 616.75 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1983 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.61 ft below land-surface datum, April 3, 1985; lowest, 64.76 ft below land-surface datum, Nov. 15, 1983.

HIGHEST WATER LEVEL 61.49 FEET BELOW LAND SURFACE DATUM JUN 21, 1985.

LOWEST WATER LEVEL 63.60 FEET BELOW LAND SURFACE DATUM JAN 03, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	63.29	JAN 30, 1985	62.99	MAR 12, 1985	62.27	JUN 21, 1985	61.49
JAN 03, 1985	63.60	FEB 27	62.79	MAY 22	61.53	AUG 08	61.84

## WATER QUALITY DATA

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
APR 1985 04...	09:30	925	7.8	8.0	11.0	740	1.0	19	440	350	100
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
APR 1985 04...	41	46	19	2.1	96	2.9	0.5	390	15	2.0	8.0
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
APR 1985 04...	695	690	<0.05	<0.10	0.38	0.49	0.42	0.8	20	<1	250
DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
APR 1985 04...	<1	<10	51	<1	30	5	<1	23000	1.1	0.02	

## GROUND-WATER RECORDS

## WOOD COUNTY

413630083302300. Local number, WO-115.

LOCATION.--Lat 41°36'30", long 83°30'23", Hydrologic Unit 04100010, on Wales Road at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled observation water well, diameter 2.0 in., depth 83 ft. Cased to 77.5 ft, finish is 5 ft of 0.010 in wellscreen.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 612.7 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic casing, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--January 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.57 ft below land-surface datum, Feb. 27, 1985; lowest, 61.50 ft below land-surface datum, Jan. 8, 1984.

HIGHEST WATER LEVEL 49.57 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 60.44 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	60.44	MAR 12, 1985	57.77	MAY 21, 1985	58.12	JUL 09, 1985	58.34
JAN 30, 1985	59.80	28	58.07	JUN 20	58.14	AUG 07	58.73
FEB 27	49.57						

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)
MAR 1985												
28...	15:25	--	950	7.9	15.0	12.0	745	0	17	270	160	58
JUL												
09...	11:45	58.30	940	8.1	32.0	16.0	--	0.6	<10	280	170	61

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
MAR 1985											
28...	24	110	49	2.4	106	2.6	<0.5	380	8.7	1.9	7.7
JUL											
09...	25	110	48	2.9	106	1.6	0.5	380	8.1	1.9	8.3

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)
MAR 1985											
28...	680	0.05	0.10	0.30	0.39	0.3	0.6	40	1	720	2
JUL											
09...	680	0.01	0.10	0.49	0.63	0.11	0.6	--	--	--	--

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
MAR 1985											
28...	10	91	<1	16	--	<1	19000	1.7	--	--	0.01
JUL											
09...	--	8	--	--	2	--	19000	1.0	<0.01	1	0.07



## GROUND-WATER RECORDS

201

## WOOD COUNTY

413635083313900. Local number, WO-117.

LOCATION.--Lat 41°36'35", long 83°31'39", Hydrologic Unit 04100010, 30840 Tracy Road near Northwood, OH.

Owner: Calvin Reuthinger.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.5 in., depth 200 ft. Cased to 45.0 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 618 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.10 ft below land-surface datum.

PERIOD OF RECORD.--July 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.94 ft below land-surface datum, Aug. 7, 1985; lowest, 62.99 ft below land-surface datum, July 31, 1984.

HIGHEST WATER LEVEL 58.94 FEET BELOW LAND SURFACE DATUM AUG 07, 1985.

LOWEST WATER LEVEL 61.09 FEET BELOW LAND SURFACE DATUM DEC 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	61.09	MAR 12, 1985	59.43	MAY 21, 1985	59.59	AUG 07, 1985	58.94
FEB 27, 1985	60.01	APR 02	59.79	JUN 20	59.04		

413629083304400. Local number, WO-121.

LOCATION.--Lat 41°36'29", long 83°30'44", Hydrologic Unit 04100010, 6585 Wales Road at Northwood, OH.

OWNER: Waste Management Inc.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6.0 in., depth 188.51 ft, cased to 62 ft.

INSTRUMENTATION.--Digital water-level recorder -- 1-hour punch.

DATUM.--Elevation of land-surface datum is 607.67 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.40 ft below land-surface datum.

PERIOD OF RECORD.--August 1984 to September 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.81 ft below land-surface datum, Feb. 27, 1985; lowest, 63.46 ft below land-surface datum, Nov. 21, 1984.

HIGHEST WATER LEVEL 55.54 FEET BELOW LAND SURFACE DATUM MAR 12, 1985.

LOWEST WATER LEVEL 62.28 FEET BELOW LAND SURFACE DATUM DEC 17, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 17, 1984	62.28	FEB 27, 1985	58.81	MAY 21, 1985	60.30	AUG 07, 1985	60.52
JAN 13, 1985	61.57	MAR 12	55.54	JUN 20	60.11		

413631083315800. Local number, WO-122.

LOCATION.--Lat 41°36'31", long 83°31'58", Hydrologic Unit 04100010, on Wales Road at Northwood, OH.

OWNER: J. Sobecki.

AQUIFER.--Lockport Dolomite of Niagran Age.

WELL CHARACTERISTICS.--Drilled commercial water well, diameter 8.0 in., depth 330 ft, cased to unknown depth.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 619.0 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing vent plug, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--August 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.97 ft below land-surface datum, June 21, 1985; lowest, 62.86 ft below land-surface datum, Aug. 23, 1984.

HIGHEST WATER LEVEL 59.97 FEET BELOW LAND SURFACE DATUM JUN 21, 1985.

LOWEST WATER LEVEL 61.97 FEET BELOW LAND SURFACE DATUM DEC 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	61.97	MAY 21, 1985	60.47	JUN 21, 1985	59.97	AUG 07, 1985	60.23

## GROUND-WATER RECORDS

## WOOD COUNTY

413515083304300. Local number, WO-118.

LOCATION.--Lat 41°35'15", long 83°30'43", Hydrologic Unit 04100010, 5949 Walbridge Road near Walbridge, OH.

OWNER: R. Elvy.

AQUIFER.--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 6.0 in., depth 160.0 ft. Cased to 65.8 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 618 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.8 ft above land-surface datum.

PERIOD OF RECORD.--January 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.09 ft below land-surface datum, May 22, 1984; lowest, 59.28 ft below land-surface datum, Sept. 24, 1984.

HIGHEST WATER LEVEL 58.13 FEET BELOW LAND SURFACE DATUM APR 02, 1985.

LOWEST WATER LEVEL 58.82 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	58.68	MAR 12, 1985	58.49	MAY 21, 1985	58.20	AUG 07, 1985	58.46
FEB 27, 1985	58.82	APR 02	58.13	JUN 20	58.33		

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE (DEG C)	BAROMETRIC PRESSURE (MM HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
APR 1985	02...	15:00	1230	7.4	10.0	11.0	745	<0.1	14	620	480	130
DATE		MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	
APR 1985	02...	63	58	18	2.4	133	10	<0.5	570	9.6	1.8	8.3
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)
APR 1985	02...	961	950	<0.01	<0.10	0.39	0.5	0.61	1.0	10	<1	430
DATE		CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	
APR 1985	02...	<1	<10	110	<1	34	4	<1	28000	0.9	0.04	

## 203

413515083313700. Local number, WO-119.

LOCATION.--Lat 41°35'15", long 83°31'37", Hydrologic Unit 04100010, 6787 Walbridge Road near Walbridge, OH.

OWNER: R. Siewert.

**AQUIFER.**--Greenfield Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.5 in., depth 132.0 ft. Cased to 55.0 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 621 ft above National Geodetic Vertical Datum of 1929. Measuring

point: Top of casing, 0.75 ft above land-surface datum.

PERIOD OF RECORD.--January 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.64 ft below land-surface datum, Feb. 27, 1985; lowest, 55.48 ft below land-surface datum, July 31, 1984.

HIGHEST WATER LEVEL 52.64 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 55.23 FEET BELOW LAND SURFACE DATUM DEC 18, 1984.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	55.23	MAR 12, 1985	55.19	MAY 21, 1985	54.39	AUG 07, 1985	54.01
FEB 27, 1985	52.64	APR 02	54.34	JUN 20	54.44		

## WATER QUALITY DATA

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	
APR 1985	02...	12:50	--	1050	7.4	8.0	11.0	745	0.4	15	610	440	130
JUL 10...	15:15	54.00	1080	7.4	25.0	13.0	743	0.2	<10	570	380	120	
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	
APR 1985	64	32	11	2.6	174	13	<0.5	440	4.4	1.6	12	846	
JUL 10...	60	30	11	2.6	186	14	0.2	430	4.3	1.6	11	834	
DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)		
APR 1985	810	<0.01	<0.10	0.46	0.59	0.14	0.6	20	<1	400	1		
JUL 10...	790	<0.01	<0.10	0.45	0.58	0.15	0.6	--	--	--	--		
DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)		
APR 1985	<10	71	<1	44	5	<1	21000	0.8	--	--	0.04		
JUL 10...	--	90	--	--	2	--	20000	0.8	<0.01	<1	0.02		

## GROUND-WATER RECORDS

## WOOD COUNTY

413633083304700. Local number, WO-120.

LOCATION.--Lat 41°36'33", long 83°30'47", Hydrologic Unit 04100010, on East Broadway near Northwood, OH.

OWNER: J. Hirzel.

AQUIFER.--Unknown.

WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.0 in, depth unknown, cased to unknown depth.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 616.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 4.50 ft below land-surface datum.

PERIOD OF RECORD.--July 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.79 ft below land-surface datum, Mar. 12, 1985; lowest, 62.86 ft below land-surface datum, July 31, 1984.

HIGHEST WATER LEVEL 58.79 FEET BELOW LAND SURFACE DATUM MAR 12, 1985.

LOWEST WATER LEVEL 65.54 FEET BELOW LAND SURFACE DATUM MAY 21, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 17, 1985	60.28	MAR 12, 1985	58.79	MAR 17, 1985	61.79	MAY 21, 1985	65.54
FEB 27	61.05						

## WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE (DEG C)	BARO METRIC PRESSURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	
MAR 1985	27...	15:30	975	7.7	11.0	11.0	740	0.8	14	440	330	97
DATE		MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	
MAR 1985	27...	43	48	20	3.4	114	4.4	<0.5	380	11	1.8	7.4
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	
MAR 1985	27...	709	680	0.04	<0.10	0.30	0.39	0.3	0.6	30	1	
DATE		BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	
MAR 1985	27...	310	<1	10	460	<1	21	<1	18000	1.9	0.02	



## GROUND-WATER RECORDS

205

## WOOD COUNTY

413611083302200. Local number, WO-123.

LOCATION.--Lat 41°36'11", long 83°30'22", Hydrologic Unit 04100010, Evergreen Landfill at Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Glacial till of Wisconsin Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2.0 in., depth 56.90 ft. Cased to 54.15, with 2.75 ft of .010 in. slotted screen from 54.15 to 56.90.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615.55 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 30 ft above land-surface datum.

PERIOD OF RECORD.--January 1985 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.99 ft below land-surface datum, Jan. 3, 1985; lowest, 38.81 ft below land-surface datum, Aug. 8, 1985.

HIGHEST WATER LEVEL 29.99 FEET BELOW LAND SURFACE DATUM JAN 03, 1985.

LOWEST WATER LEVEL 41.81 FEET BELOW LAND SURFACE DATUM AUG 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 03, 1985	29.99	FEB 27, 1985	40.65	APR 03, 1985	40.43	AUG 08, 1985	41.81
18	39.04	MAR 13	40.48	MAY 22	41.48		
30	39.25	27	40.63	JUN 21	41.50		
31	39.72	29	40.57	JUL 10	41.55		

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	BAROMETRIC PRESSURE (MM HG)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)
APR 1985												
04...	15:00	--	1850	7.7	14.0	--	740	54	580	390	130	59
JUL 11...	09:30	41.60	1980	7.7	22.0	15.0	--	89	600	460	140	59

DATE	SODIUM, DIS-SOLVED (MG/L AS Na)	PERCENT SODIUM	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 1985											
04...	220	45	7.8	188	7.2	<0.5	910	23	0.6	10	1550
JUL 11...	250	47	7.4	140	5.4	0.2	890	19	0.6	10	1590

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS CD)
APR 1985											
04...	1500	0.01	0.97	0.30	0.39	0.6	0.9	80	1	400	<1
JUL 11...	1500	<0.01	<0.10	0.63	0.81	0.37	1.0	--	--	--	--

DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	PHENOLS TOTAL (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
APR 1985											
04...	<10	150	<1	70	250	1	8800	7.1	--	--	0.06
JUL 11...	--	60	--	--	390	--	8600	9.8	<0.01	2	0.19

## GROUND-WATER RECORDS

## WOOD COUNTY

413655083305800. Local number, WO-124.

LOCATION.--Lat 41°36'55", long 83°30'58", Hydrologic Unit 04100010, on Andrus Road near Northwood, OH.

Owner: Zeltner.

AQUIFER.--Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 5.5 in., depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 616 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.25 ft above land-surface datum.

PERIOD OF RECORD.--September 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.87 ft below land-surface datum, May 21, 1985; lowest, 64.16 ft below land-surface datum, Sept. 24, 1984.

HIGHEST WATER LEVEL 60.87 FEET BELOW LAND SURFACE DATUM MAY 21, 1985.

LOWEST WATER LEVEL 63.75 FEET BELOW LAND SURFACE DATUM DEC 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	63.75	MAR 12, 1985	61.01	JUN 20, 1985	61.17	AUG 07, 1985	61.34
FEB 27, 1985	61.97	MAY 21	60.87				

413644083304600. Local number, WO-125.

LOCATION.--Lat 41°36'44", long 83°30'46", Hydrologic Unit 04100010, on East Broadway near Northwood, OH.

Owner: Alfred Peralis.

AQUIFER.--Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 5.5 in., depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 616 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of air tube, 0.90 ft below land-surface datum.

PERIOD OF RECORD.--September 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 60.46 ft below land-surface datum, Mar. 12, 1985; lowest, 63.61 ft below land-surface datum, Sept. 24, 1984.

HIGHEST WATER LEVEL 60.46 FEET BELOW LAND SURFACE DATUM MAR 12, 1985.

LOWEST WATER LEVEL 63.46 FEET BELOW LAND SURFACE DATUM DEC 18, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1984	63.46	MAR 12, 1985	60.46	JUN 20, 1985	60.53	AUG 07, 1985	61.40
FEB 27, 1985	60.97	MAY 21	60.66				

413515083310900. Local number, WO-126.

LOCATION.--Lat 41°35'15", long 83°31'09", Hydrologic Unit 04100010, on Walbridge Road near Walbridge, OH.

Owner: Bischoff.

AQUIFER.--Dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 5.5 in., depth 130 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 622 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.40 ft below land-surface datum.

PERIOD OF RECORD.--September 1984 to June 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 57.19 ft below land-surface datum, Sept. 24, 1984; lowest, 60.71 ft below land-surface datum, Mar. 12, 1985.

HIGHEST WATER LEVEL 55.37 FEET BELOW LAND SURFACE DATUM FEB 28, 1985.

LOWEST WATER LEVEL 60.71 FEET BELOW LAND SURFACE DATUM MAR 12, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 08, 1984	56.01	FEB 27, 1985	58.90	MAR 12, 1985	60.71	JUN 20, 1985	59.50
18	59.26	28	55.37	MAY 21	58.43		

## GROUND-WATER RECORDS

207

## WOOD COUNTY

413606083332100. Local number, WO-128.

LOCATION.--Lat 41°36'06", long 83°33'21", Hydrologic Unit 04100010, on Wales Road near Northwood, OH.

Owner: Victor Reed.

AQUIFER.--Greenfield dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6.00 in., depth 132 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.37 ft above land-surface datum.

PERIOD OF RECORD.--October 1984 to May 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.31 ft below land-surface datum, May 22, 1984; lowest, 56.01 ft below land-surface datum, Dec. 18, 1984.

WATER LEVELS WERE NOT MEASURED IN THIS WELL BETWEEN 10/01/1984 AND 09/30/1985

413556083332400. Local number, WO-129.

LOCATION.--Lat 41°35'56", long 83°33'24", Hydrologic Unit 04100010, on Glenwood Road near Rossford, OH.

Owner: William Brun.

AQUIFER.--Greenfield dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6.25 in., depth 149 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--October 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.40 ft below land-surface datum, May 22, 1985; lowest, 45.91 ft below land-surface datum, Oct. 3, 1984.

HIGHEST WATER LEVEL 43.40 FEET BELOW LAND SURFACE DATUM MAY 22, 1985.

LOWEST WATER LEVEL 45.91 FEET BELOW LAND SURFACE DATUM OCT 03, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1984	45.91	FEB 28, 1985	45.08	MAY 22, 1985	43.40	AUG 07, 1985	44.35
DEC 18	45.12	MAR 12	43.63	JUN 20	43.50		

413556083332401. Local number, WO-130.

LOCATION.--Lat 41°35'56", long 83°33'24", Hydrologic Unit 04100010, on Glenwood, OH.

Owner: William Brun.

AQUIFER.--Greenfield dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 4.5 in., depth 90 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.55 ft above land-surface datum.

PERIOD OF RECORD.--October 1984 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.72 ft below land-surface datum, May 22, 1985; lowest, 46.32 ft below land-surface datum, Oct. 3, 1984.

HIGHEST WATER LEVEL 43.72 FEET BELOW LAND SURFACE DATUM MAY 22, 1985.

LOWEST WATER LEVEL 46.32 FEET BELOW LAND SURFACE DATUM OCT 03, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1984	46.32	FEB 28, 1985	44.50	MAY 22, 1985	43.72	AUG 07, 1985	46.04
DEC 18	45.38	MAR 12	43.88	JUN 20	43.84		

## GROUND-WATER RECORDS

## WOOD COUNTY

413629083292200. Local number, WO-132.

LOCATION.--Lat 41°36'29", long 83°39'22", Hydrologic Unit 04100010, on Wales Road near Northwood, OH.

Owner: Progressive Industries.

AQUIFER.--Greenfield dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled industrial well, diameter 6 in., depth 208 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 613 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1985 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 64.19 ft below land-surface datum, May 21, 1985; lowest, 68.79 ft below land-surface datum, Aug. 7, 1985.

HIGHEST WATER LEVEL 64.19 FEET BELOW LAND SURFACE DATUM MAY 21, 1985.

LOWEST WATER LEVEL 68.79 FEET BELOW LAND SURFACE DATUM AUG 07, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 17, 1985	66.18	MAY 21, 1985	64.19	JUN 20, 1985	64.33	AUG 07, 1985	68.79
MAR 12	64.68						

413629083295400. Local number, WO-133.

LOCATION.--Lat 41°36'29", long 83°29'54", Hydrologic Unit 04100010, on Wales Road near Northwood, OH.

Owner: Albert Shope.

AQUIFER.--Greenfield dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 4.0 in., depth 145 ft, cased to 80 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft below land-surface datum.

PERIOD OF RECORD.--March 1985 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.16 ft below land-surface datum, Mar. 22, 1985; lowest, 62.10 ft below land-surface datum, May 21, 1985.

HIGHEST WATER LEVEL 61.16 FEET BELOW LAND SURFACE DATUM MAR 22, 1985.

LOWEST WATER LEVEL 62.10 FEET BELOW LAND SURFACE DATUM MAY 21, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 22, 1985	61.16	MAY 21, 1985	62.10	JUN 20, 1985	61.21	AUG 07, 1985	61.84

413629083293700. Local number, WO-134.

LOCATION.--Lat 41°36'29", long 83°29'37", Hydrologic Unit 04100010, on Drouillard Road near Northwood, OH.

Owner: J. Reinbolt.

AQUIFER.--Greenfield dolomite of Upper Silurian Age.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 in., depth 109 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 615 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft below land-surface datum.

PERIOD OF RECORD.--March 1985 to August 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.62 ft below land-surface datum, Mar. 28, 1985; lowest, 61.49 ft below land-surface datum, Aug. 7, 1985.

HIGHEST WATER LEVEL 60.49 FEET BELOW LAND SURFACE DATUM AUG 07, 1985.

LOWEST WATER LEVEL 60.91 FEET BELOW LAND SURFACE DATUM JUN 20, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 28, 1985	60.62	MAY 21, 1985	60.77	JUN 20, 1985	60.91	AUG 07, 1985	60.49



## GROUND-WATER RECORDS

209

## WOOD COUNTY

413623083303002. Local number, WO-152/LM2.

LOCATION.--Lat 41°36'23", long 83°30'30", Hydrologic Unit 04100010, at Evergreen Landfill nr Northwood, OH.

Owner: Waste Management Inc.

AQUIFER.--Domestic refuse.

WELL CHARACTERISTICS.--Drilled leachate observation/methane vent well, diameter 8.0 in., depth 44.56 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 655.4 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 6.1 ft above land-surface datum.

PERIOD OF RECORD.--January 1985 to March 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.19 ft below land-surface datum, Apr. 3, 1985; lowest, 40.73 ft below land-surface datum, Jan. 29, 1985.

## WATER QUALITY DATA

		DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	
JAN 1985												
29...	14:15	39.30	4950	6.8	-4.0	12.0	750	--	--	--	--	
APR												
03...	16:30	--	5850	6.7	15.0	19.0	735	2.6	390	2500	650	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
JAN 1985												
29...	--	--	--	--	--	--	1630	500	--	--	--	--
APR												
03...	460	310	400	26	44		1800	695	1.7	17	1100	0.2
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
JAN 1985												
29...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
03...	28		3170	3500	<0.01	<0.10	33.0	43	5.8	50	3	1900
DATE		CADMIUM DIS- SOLVED (UG/L AS CD)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGANESE, DIS- SOLVED (UG/L AS MN)	SELENIUM, DIS- SOLVED (UG/L AS SE)	STRONTIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)	
JAN 1985												
29...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
03...	5	10	13000	5	60	560	<1	25000	120	0.45		

## GROUND-WATER RECORDS

## WOOD COUNTY

413623083303004. Local number, WO-154/LM4.

LOCATION.--Lat 41°36'23", long 83°30'30", Hydrologic Unit 04100010, at Evergreen Landfill nr Northwood, OH.

Owner: Waste Management.

AQUIFER.--Domestic refuse.

WELL CHARACTERISTICS.--Drilled leachate observation/methane vent well, diameter 8.0 in., depth 49.23 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 654.6 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 10.6 ft above land-surface datum.

PERIOD OF RECORD.--January 1985 to March 1985.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.48 ft below land-surface datum, Apr. 3, 1985; lowest, 44.23 ft below land-surface datum, Jan. 29, 1985.

## WATER QUALITY DATA

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CaCO3)
JAN 1985 29...	14:45	44.80	28000	5.8	-4.0	17.0	750	--	--	--	--
APR 03...	15:45	--	27800	5.8	12.0	18.0	735	0.8	41000	12000	6100
DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD (MG/L AS CaCO3)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2)	SULFIDE TOTAL (MG/L AS S)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	
JAN 1985 29...	--	--	--	--	--	7190	22100	--	--	--	
APR 03...	3100	1100	3300	34	1500	6200	19000	130	0.4	22	
DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	
JAN 1985 29...	--	--	--	--	--	--	--	--	--	--	
APR 03...	26300	0.01	0.36	720	930	230	950	1500	2	480000	
DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	
JAN 1985 29...	--	--	--	--	--	--	--	--	--	--	
APR 03...	5	150	82000	65	1900	290	<1	38000	>790	2.6	

The following table contains water-level, specific conductance, and pH measurements from a network of wells in Geauga County. The data was collected as part of a cooperative study with the Geauga County Planning Commission for evaluating ground-water resources.

Geologic Unit Codes: 112OTSH, Pleistocene outwash; 324PSVL Pennsylvanian Pottsville Formation; 330CYHG Mississippian Cuyahoga Group; 330BERE Mississippian Berea Sandstone; 330BDFD Mississippian Bedford Shale.

Remarks: GE-32 and GE-62 water levels affected by pumping of well.

Period of Record: Water-level and chemical quality data was collected for select wells from October 1, 1979 to September 30, 1981 as part of a cooperative study with the Geauga County Sanitary Engineering Department.

Site No.	Local No.	Geologic Unit	Date	Water Level	Specific Conductance ( $\mu S/cm$ )	pH (Units)
412517081221100	GE-3A	----	Aug. 16, 1985	45.22	----	---
412313081231500	GE-17	112OTSH 330BDFD	Aug. 28, 1985	26.62	----	---
412512081221500	GE-18	----	Aug. 16, 1985	38.79	----	---
412339081192500	GE-20	112OTSH	Aug. 16, 1985	3.28	----	---
412331081123000	GE-22	324PSVL	AUG. 16, 1985	12.94	----	---
412309081202400	GE-23	324PSVL	Aug. 15, 1985	12.76	1322	7.0
412927081202400	GE-25	----	Aug. 13, 1985	flowing	357	7.2
412449081232700	GE-29	330BERE	Aug. 28, 1985	41.33	----	---
412532081211900	GE-30	----	Aug. 14, 1985	flowing	----	---
412655081205600	GE-31	----	Aug. 13, 1985	0.98	----	---
412803081210000	GE-32	----	Aug. 28, 1985	2.01	466	7.5
413207081192000	GE-33	330CYHG 330BERE 330BDFD	Aug. 7, 1985	100.75	----	---
412439081183000	GE-36	324PSVL	Aug. 27, 1985	72.23	870	7.0
413336081202000	GE-37	----	Aug. 7, 1985	94.80	869	7.3
412440081201500	GE-38	----	Aug. 15, 1985	23.21	630	6.2
412514081202200	GE-39	----	Aug. 15, 1985	40.32	1070	6.7
412425081162700	GE-40	----	Aug. 16, 1985	15.86	368	7.4
412905081045500	GE-42	112OTSH	Aug. 8, 1985	43.32	----	---
412905081045501	GE-42A	----	Aug. 8, 1985	----	468	7.6
414220081045500	GE-43	330BDFD	Aug. 5, 1985	9.87	360	---
414124081010100	GE-44	330BERE 330BDFD	Aug. 5, 1985	3.97	460	8.8
414026081024400	GE-45	324PSVL	Aug. 5, 1985	44.71	----	---
413640081030100	GE-46	----	Aug. 6, 1985	17.01	2700	7.2
413640081030101	GE-46A	----	Sep. 17, 1985	14.48	632	7.2
413627081025700	GE-47	----	Aug. 6, 1985	20.22	510	7.1
413202081015700	GE-48	330CYHG	Aug. 8, 1985	5.05	417	7.7
412620081032400	GE-49	----	Aug. 15, 1985	16.28	555	6.5
413449081121600	GE-52	----	Aug. 6, 1985	37.20	----	---
413346081122300	GE-53	112OTSH	Aug. 6, 1985	26.33	----	---
413346081122301	GE-53A	----	Aug. 17, 1985	----	220	8.1
413343081132800	GE-54	----	Aug. 6, 1985	54.67	----	---
413258081100900	GE-55	330CYHG	Aug. 8, 1985	1.96	553	8.7
413156081065600	GE-56	324PSVL 330CYHG	Aug. 8, 1985	27.09	611	7.2
412051081165700	GE-60	324PSVL	Aug. 16, 1985	58.41	480	7.2
413243081215000	GE-61	324PSVL 330CYHG	Aug. 7, 1985	22.40	309	6.7
412857081172300	GE-62	324PSVL 330CYHG	Aug. 14, 1985	17.33	664	7.4
412751081171900	GE-63	----	Aug. 14, 1985	80.16	379	7.2
412749081145200	GE-64	324PSVL	Aug. 14, 1985	28.94	1325	7.2
412622081162500	GE-65	----	Aug. 14, 1985	7.36	576	7.2
412645081182400	GE-66	----	Aug. 14, 1985	25.74	475	6.5
412522081092800	GE-67	330CYHG	Aug. 9, 1985	2.54	410	7.0
412949081104600	GE-68	324PSVL	Aug. 15, 1985	21.71	130	6.8
413151081125800	GE-69	324PSVL	Aug. 8, 1985	28.58	5550	6.9
413201081110900	GE-70	330CYHG	Aug. 8, 1985	0.34	335	7.8
413433081075500	GE-72	324PSVL	Aug. 6, 1985	15.05	321	5.5
413629081082800	GE-73	324PSVL	Aug. 6, 1985	45.29	549	7.0
413857081051000	GE-75	----	Aug. 5, 1985	9.61	390	7.6
413138081152000	GE-76	122OTSH	Aug. 7, 1985	22.59	626	7.3
413028081221000	GE-77	330CYHG	Aug. 7, 1985	41.45	833	13.0
413656081153600	GE-80	----	Aug. 17, 1985	47.54	278	6.9
413532081161702	GE-81A	----	Aug. 6, 1985	34.08	568	7.0
413735081131200	GE-82	----	Aug. 6, 1985	64.86	----	---
413735081131201	GE-82A	----	Aug. 6, 1985	----	630	7.2
412627081075400	GE-83	324PSVL	Aug. 14, 1985	27.59	447	6.6
412745081202400	GE-84	----	Aug. 13, 1985	59.38	----	---
412716081125400	GE-85	----	Aug. 14, 1985	49.61	409	8.1
412749081171500	GE-89	324PSVL	Aug. 14, 1985	84.30	977	7.4
412748081143900	GE-91	324PSVL	Aug. 14, 1985	42.75	1075	7.2
412713081123200	GE-92	324PSVL	Aug. 14, 1985	34.13	675	7.3
412354081010400	GE-93	----	Aug. 15, 1985	16.64	750	6.4
412547081211500	GE-94	330CYHG	Aug. 14, 1985	15.62	----	---
412547081211501	GE-94A	330CYHG 330BERE	Aug. 14, 1985	48.26	520	7.2

## GROUND-WATER RECORDS FOR GEAUGA COUNTY PROJECT

412212081043000	GE-95	-----	Aug. 15, 1985	flowing	375	6.7
412559081095200	GE-96	324PSVL	Aug. 9, 1985	15.66	-----	---
412559081095201	GE-96A	-----	Aug. 9, 1985	26.16	263	7.0
412718081102400	GE-98	-----	Aug. 9, 1985	9.53	-----	---
412225081035600	GE-99	-----	Aug. 15, 1985	30.55	-----	---
412225081035601	GE-99A	-----	Aug. 15, 1985	-----	99	5.7
413757081122300	GE-101	112OTSH	Aug. 6, 1985	23.50	665	7.4
413450081173000	GE-102	330BERE	Aug. 27, 1985	39.84	560	6.2
413755081101200	GE-103	330BERE	Aug. 6, 1985	80.67	548	8.3
413606081102100	GE-104	330BERE	Aug. 6, 1985	92.10	-----	---
413544081060500	GE-105	330CYHG	Aug. 6, 1985	44.10	1150	8.3
413456081035600	GE-106	330CYHG	Aug. 6, 1985	32.19	765	7.2
413249081173800	GE-107	112OTSH	Aug. 7, 1985	59.93	572	---
413117081171900	GE-108	112OTSH	Aug. 7, 1985	50.42	312	8.0
413005081130000	GE-109	324PSVL	Aug. 7, 1985	74.05	492	7.4
413049081090900	GE-110	324PSVL	Aug. 8, 1985	39.41	168	5.9
413346081064000	GE-111	324PSVL	Aug. 8, 1985	26.99	335	7.0
413207081044400	GE-112	324PSVL	Aug. 8, 1985	45.09	658	6.8
413633081051800	GE-113	330CYHG	Aug. 6, 1985	20.85	455	7.1
412901081070200	GE-114	324PSVL	Aug. 8, 1985	52.05	365	9.8
412737081063300	GE-115	324PSVL	Aug. 14, 1985	24.15	342	7.3
412926081144300	GE-116	112OTSH	Aug. 14, 1985	42.87	514	7.2
412600081145800	GE-117	324PSVL	Aug. 14, 1985	17.70	500	11.8
412915081045900	GE-118	330CYHG	Aug. 8, 1985	27.22	---	---
412657081040500	GE-119	324PSVL	Aug. 15, 1985	10.02	443	6.4
413230081190200	GE-120	330BERE	Aug. 7, 1985	91.40	480	7.2
412746081202000	GE-121	330CYHG	Aug. 13, 1985	73.41	429	7.2
		330BERE				
412410081223900	GE-122	330BERE	Aug. 27, 1985	61.53	1572	7.2
412703081181600	GE-123	330CYHG	Aug. 14, 1985	100.67	745	7.2
		330BERE				
413052081153100	GE-124	330CYHG	Aug. 7, 1985	24.22	595	8.6
		330BERE				
		330BDFD				
413100081105500	GE-125	330CYHG	Aug. 8, 1985	81.71	---	---
		330BERE				
413100081105501	GE-125A	324PSVL	Aug. 8, 1985	35.65	---	---
		330CYHG				
412212081230100	GE-126	330BERE	Aug. 15, 1985	90.10	685	7.3
412638081031100	GE-127	330CYHG	Aug. 28, 1985	160.70	2070	8.0
		330BERE				
		330BDFD				
413821081060500	GE-129	330CYHG	Aug. 6, 1985	103.40	870	7.1
		330BERE				
413623081101000	GE-130	330BERE	Aug. 6, 1985	85.34	545	7.7
414215081034600	GE-132	330BERE	Aug. 5, 1985	35.01	430	7.1
		330BDFD				
413945081041201	GE-133	324PSVL	Aug. 5, 1985	15.85	480	7.5
		330CYHG				
413945081041201	GE-133A	-----	Aug. 5, 1985	18.21	-----	---
413926081012300	GE-134	330CYHG	Aug. 5, 1985	55.66	428	8.8
		330BERE				
412959081030700	GE-135	112OTSH	Aug. 8, 1985	15.20	555	7.8
412841081023200	GE-136	330CYHG	Aug. 8, 1985	17.12	1637	9.0
413318081004100	GE-137	330CYHG	Aug. 8, 1985	20.88	652	7.8
413318081004300	GE-137A	330BERE	Aug. 8, 1985	35.20	1023	8.7
412159081104100	GE-138	324PSVL	Aug. 14, 1985	45.86	405	6.6
412138081072000	GE-139	324PSVL	Aug. 15, 1985	35.74	162	6.2
412318081073700	GE-140	324PSVL	Aug. 15, 1985	47.50	550	7.2
412224081084300	GE-141	112OTSH	Aug. 15, 1985	9.78	460	7.1
412315081160100	GE-142	324PSVL	Aug. 16, 1985	21.67	367	7.3
		330CYHG				
412529081132000	GE-143	324PSVL	Aug. 16, 1985	8.67	350	6.7
412211081183400	GE-144	324PSVL	Aug. 28, 1985	36.88	640	6.9
413729081024700	GE-145	330CYHG	Sep. 18, 1985	41.21	490	7.6
413625081025300	GE-146	330CYHG	Sep. 18, 1985	17.91	569	7.6
		330BERE				
		330BDFD				
412845081030100	GE-147	330CYHG	Sep. 18, 1985	2.61	792	7.5
414158081050000	GE-148	330BDFD	Aug. 5, 1985	8.62	275	7.5
413104081104700	GE-149	324PSVL	Sep. 18, 1985	-----	373	6.5
412319081135000	GE-151	324PSVL	Sep. 19, 1985	83.74	450	7.3
413246081144000	GE-152	324PSVL	Sep. 17, 1985	32.70	150	5.9
413415081160900	GE-153	112OTSH	Sep. 17, 1985	63.97	737	7.2
413508081153000	GE-154	330CYHG	Sep. 17, 1985	40.39	618	7.3
		330BERE				
412441081061400	GE-155	-----	Sep. 18, 1985	29.21	386	6.3
413628081060500	GE-157	112OTSH	Sep. 19, 1985	6.59	491	7.5

1/ Depth of water level below land surface, in feet.



## GROUND-WATER LEVELS

The following table contains water-level measurements in the vicinity of Richwood Ohio in northeast Union County. The data was collected as part of the Northeast Union County project.

Site No.	Local No.	Location	Date	Water-Level
402313083163300	U-35	Lat 402313 long 831633	9/16/85	930.3
402303083180500	U-36	Lat 402303 long 831805	9/17/85	936.9
402330083192900	U-37	Lat 402330 long 831929	9/18/85	948.7
402411083204000	U-38	Lat 402411 long 832040	9/16/85	941.6
402402083182800	U-39	Lat 402402 long 831828	9/23/85	935.1
402405083170100	U-40	Lat 402405 long 831701	9/23/85	926.9
402401083155700	U-41	Lat 402401 long 831557	9/25/85	924.8
402429083194900	U-42	Lat 402429 long 831949	9/25/85	944.5
402452083172900	U-43	Lat 402452 long 831729	9/23/85	929.9
402507083161900	U-44	Lat 402507 long 831619	9/25/85	926.2
402516083151100	U-45	Lat 402516 long 831511	9/16/85	921.3
402529083164100	U-46	Lat 402529 long 831641	9/24/85	930.9
402536083173300	U-47	Lat 402536 long 831733	9/17/85	936.6
402522083180900	U-48	Lat 402522 long 831809	9/18/85	935.0
402529083190000	U-49	Lat 402529 long 831900	9/17/85	940.6
402505083202600	U-50	Lat 402505 long 832026	9/24/85	952.2
402535083205600	U-51	Lat 402535 long 832056	9/17/85	953.8
402547083180300	U-52	Lat 402547 long 831803	9/24/85	937.0
402554083164400	U-53	Lat 402554 long 831644	9/17/85	934.4
402602083195600	U-54	Lat 402602 long 831956	9/20/85	950.0
402616083172200	U-55	Lat 402616 long 831722	9/17/85	934.3
402607083170900	U-56	Lat 402607 long 831709	9/20/85	931.4
402631083160300	U-57	Lat 402631 long 831603	9/16/85	931.4
402654083152700	U-58	Lat 402654 long 831527	9/25/85	927.8
402629083174700	U-59	Lat 402629 long 831747	9/18/85	936.6
402638083190100	U-60	Lat 402638 long 831901	9/17/85	938.2
402635083220800	U-61	Lat 402635 long 832208	9/24/85	965.7
402703083223000	U-62	Lat 402703 long 832230	9/24/85	966.8
402737083203100	U-63	Lat 402737 long 832031	9/20/85	948.9
402726083181500	U-64	Lat 402726 long 831815	9/16/85	937.2

The following tables contain ground-water levels and water quality analyses from a network of wells and streams in Williams County in northwestern Ohio. The data were collected as part of a cooperative study with the City of Bryan. The object of the study is a county wide assessment of ground-water.

Samples from ten locations (Tiffin R at Stryker, St Joseph R nr Edgerton, Beaver C nr Stryker, Wm-77-B4, Wm-95A-D14, Wm-96A-D14, Wm-72-F21, Wm-71-F13, Wm-81-K11 and Wm-100-P1) were analyzed for the following Priority Toxic Pollutants and volatile organic compounds. No concentrations greater than the analytical detection levels were found.

#### Base/neutral-extractable compounds

Acenaphthene	di -n- butylphthalate
Acenaphthylene	2,4 Dinitrotoluene
Anthracene	2,6 Dinitrotoluene
Benzo (a) anthracene	Di -n- octylphthalate
Benzo (b) fluoranthene	Fluoranthene
Benzo (g,h,i) perylene	Fluorene
Benzo (a) pyrene	Hexachlorobenzene
4- Bromophenyl phenyl ether	Hexachlorobutadiene
Butyl benzyl phthalate	Hexachlorocyclopentadiene
bis (2- chloroethoxy) methane	Hexachloroethane
bis (2- chloroethyl) ether	Indeno (1,2,3-cd) pyrene
bis (2- chloroisopropyl) ether	Isophorone
2- chloronaphthalene	Naphthalene
4- chlorophenyl phenyl ether	Nitrobenzene
Chrysene	n- Nitrosodimethylamine
Dibenzo (a,h) anthracene	n -Nitrosodi-n-propylamine
1,2- Dichlorobenzene	n- Nitrosodiphenylamine
1,3- Dichlorobenzene	Phenanthrene
1,4- Dichlorobenzene	Pyrene
Diethyl phthalate	1,2,4- Trichlorobenzene
Dimethyl phthalate	

#### Acid-extractable compounds

4- Chloro-3-methylphenol	2- Nitrophenol
2- Chlorophenol	4- Nitrophenol
2,4- Dichlorophenol	Pentachlorophenol
2,4- Dimethylphenol	Phenol
4,6- Dinitro-2-methylphenol	2,4,6- Trichlorophenol
2,4- Dinitrophenol	

#### Volatile organic compounds

Benzene	1,2-Dichloropropane
Bromoform	1,3-Dichloropropene
Carbon tetrachloride	Ethylbenzene
Chlorobenzene	Methylbromide
Chloroethane	Methylene chloride
2-Chloroethyl vinyl ether	1,1,2,2-Tetrachloroethane
Chloroform	Tetrachloroethylene
Dibromochloromethane	Toluene
Dichlorobromomethane	1,1,1-Trichloroethane
1,1-Dichloroethane	1,1,2-Trichloroethane
1,2-Dichloroethane	Trichloroethylene
1,1-Dichloroethylene	Vinyl chloride
1,2-trans-Dichloroethylene	

## GROUND-WATER RECORDS FOR THE WILLIAMS COUNTY PROJECT

Local well no.	Site number	Owner	Depth of well (ft)	Altitude (ft)	Date	Water level (ft)
WM-1-D14	412821084323600	ODNR	118	747	01/09/85 04/25/85 07/11/85	20.00 23.30 27.30
WM-2-B5	4127111084424400	ODNR	119	835	09/09/85 04/15/85 07/10/85	37.43 36.27 38.81
WM-20-D14	412842084321300	City of Bryan		748	11/05/84 04/23/85 07/09/85	28.83 24.20 27.30
WM-21-E15	412930084320900	City of Bryan	174	770	11/05/84 01/09/85 04/24/85 07/09/85	20.60 17.02 16.05 21.20
WM-22-E16	412929084304900	City of Bryan	133	720	11/05/85 01/09/85 04/24/85 06/28/85 07/09/85	-1.96 -3.00 -2.95 -3.00 -3.00
WM-23-C15	412742084313600	City of Bryan		730	11/05/84 01/09/85 04/02/85 07/09/85	3.45 1.05 2.32 4.42
WM-26-C17	412729084295000	N. Martin	104	720	11/06/84 01/09/85 04/15/85 07/11/85	11.35 10.84 10.12 11.42
WM-28-013	412906084341800	R. Katalczak	123	795	11/06/84 01/08/85 04/24/85 07/10/85	24.08 21.65 22.40 19.60
WM-31-E23	412935084222300	W. Natziger	128	715	11/06/84 01/07/85 04/24/85 07/08/85	31.62 31.12 31.20 31.40
WM-34-C14	412740084320700	G. Vincent	115	735	11/06/84 01/09/85 04/24/85 07/11/85	5.10 2.35 4.10 6.40
WM-35-D12	412842084352800	R. Hetz	91	790	11/06/84 01/09/85 04/23/85 07/10/85	17.22 15.78 13.30 17.66
WM-36-B10	412629084371600	S. Davis		815	11/07/84 01/09/85 04/24/85 07/10/85	24.92 23.93 23.30 24.75
WM-38-I15	413240084311400	R. Opdycke	43	795	11/07/84 01/07/85 04/24/85 07/08/85	17.02 16.08 16.37 17.40
WM-41-M17	413604084290100	D. Borton		830	11/07/84 01/07/85 04/24/85 07/08/85	21.95 20.68 20.42 22.08
WM-42-G13	413541084331700	J. Seto	84	890	11/07/84 01/07/85 04/24/85 07/09/85	59.75 57.38 57.40 59.75
WM-43-J14	413418084330300	J. Niday	94	875	11/07/84 01/07/85 04/24/85 07/09/85	64.33 62.22 61.85 64.16
WM-44-E8	412958084394700	M. Smith	143	880	11/07/84 01/08/85 04/24/85 07/10/85	71.39 70.70 69.60 70.53
WM-45-B8	412720084400700	G. McCool	89	860	11/07/84 01/09/85 04/24/85 07/10/85	59.34 58.48 57.10 58.70

1 Feet below land-surface datum. All wells cased and completed in glacial sand and gravel.

## GROUND-WATER RECORDS FOR THE WILLIAMS COUNTY PROJECT--Continued

Local well no.	Site number	Owner	Depth of well (ft)	Altitude (ft)	Date	Water level (ft)
WM-46-E11	412912084361400	R. Pickering	74	820	11/07/84	33.30
					01/08/85	32.18
					04/24/85	31.55
					07/10/85	33.40
WM-47-E12	412957084342900	G. Martin	120	815	11/07/84	27.63
					01/08/85	26.18
					04/24/85	25.89
					07/11/85	27.86
WM-48-D12	412820084342500	T. Ringer	146	790	11/08/84	45.69
					01/08/85	37.18
					04/24/85	33.70
					07/10/85	36.18
WM-50-E19	412952084262100	R. Rosebrook	92	715	11/08/84	11.70
					01/07/85	9.90
					04/18/85	9.90
					07/08/85	12.30
WM-51-B20	412722084261000	Oak Grove Church	103	710	11/08/84	10.80
					01/09/85	10.55
					04/15/85	10.05
					07/11/85	10.60
WM-53-H11	413233084353700	Bethesda Church		8.70	11/13/84	58.30
					01/08/85	79.90
					04/24/85	55.70
					07/09/85	57.95
WM-55-L10	413512084371800	R. Whetro	45	860	11/13/84	17.98
					01/08/85	16.87
					04/24/85	18.90
					07/09/85	21.22
WM-58-J12	413403084342100	P. Ruble	215	870	11/13/84	46.40
					01/08/85	42.40
					04/24/85	42.20
					07/10/85	43.00
WM-59-G12	413122084342300	R. Rigg	85	820	11/13/84	33.16
					01/08/85	31.73
					04/24/85	30.70
					07/10/85	33.00
WM-62-K10	413458084372200	City of Montpelier		850	11/14/84	8.57
					01/08/85	7.49
					04/17/85	18.52
					07/09/85	16.30
WM-64-L5	413604084423800	R. Gilbert	85	910	11/14/84	34.28
					01/08/85	33.26
					04/24/85	32.30
					07/09/85	38.50
WM-69-J2	413325084470700	M. Meyers	63	905	11/14/85	16.22
					01/08/85	26.38
					04/17/85	26.60
					07/10/85	26.60
WM-74-A5	413325084470700	D. Hamman	124	850	11/14/84	16.22
					01/08/85	26.38
					04/17/85	26.60
					07/10/85	26.60
WM-79-M14	413637084331800	Holiday Inn		900	01/07/85	61.42
					04/24/85	62.30
					07/09/85	65.45
WM-80-D14	412907084321800	K. Pettit		755	12/05/84	29.00
					01/07/85	21.00
					04/24/85	29.36
					07/10/85	35.13
WM-84A-H21	413209084242801	E. Graber		725	07/08/85	15.45
WM-90-F7	413048084403900	L. Keesbury	70	855	04/26/85	38.90
					07/10/85	30.90
WM-91-F7	413043084400100	O. Wolf	118	860	07/10/85	36.77
WM-93-C14	412802084321400	City of Bryan	122	735	04/16/85	28.55
					07/09/85	27.20
WM-94-C14	412802084321500	City of Bryan	123	735	07/09/85	35.90



## GROUND-WATER RECORDS FOR THE WILLIAMS COUNTY PROJECT--Continued

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<u>Local well no.</u>	<u>Site number</u>	<u>Owner</u>	<u>Depth of well (ft)</u>	<u>Altitude (ft)</u>	<u>Date</u>	<u>Water level (ft)</u>
WM-95-D14	412851084322000	City of Bryan	137	755	04/16/85	24.75
					07/09/85	26.20
WM-96-D14	412853084322000	City of Bryan	147	755	04/16/85	24.10
					07/09/85	37.80
WM-97-D14	412854084322000	City of Bryan	135	753	04/16/85	21.80
WM-98-G12	413053084343400	Williams County		820	07/10/85	38.30
WM-105-A15	412556084320900	R. Sinder	90	730	04/25/85	5.55
					07/11/85	6.70
WM-107-Q9	413957084380300	Waldron	83	910	04/17/85	6.90
					07/09/85	7.73

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## GROUND-WATER RECORDS

## WILLIAMS COUNTY

## SURFACE-WATER RECORDS

04185000. Tiffin River at Stryker, Ohio.

LOCATION.--Lat 41°30'16, long 84°25'47", Williams County, Hydrologic Unit 04100006, on left bank 0.5 mi downstream from bridge on State Highway 191 at west edge of Stryker.

DRAINAGE AREA.--410 mi.

REMARKS.--This is a continuous record stream discharge station. Discharge records are in section on streams tributary to Lake Erie.

## WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
AUG 1985 12...	15:00	28	23.5	670	8.1	232	0.21	0.01	1.1	1.0	0.27	
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG 1985 12...	0.14	0.09	<0.01	<0.1	280	49	74	23	27	4.4	37	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
AUG 1985 12...	56	0.4	7.8	2	<100	1	10	<1	790	3	110	
DATE		NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)	
AUG 1985 12...	7	<1	1100	40	<1	630	<1	370	0.10	0.1		

## GROUND-WATER RECORDS

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## WILLIAMS COUNTY

## SURFACE-WATER RECORDS

412520084462500. St. Joseph R nr Edgerton, Ohio.

LOCATION.--Lat 41°25'20", long 84°46'25", Hydrologic Unit 04100003, 0.3 mi downstream from Russell Run, on Line Rd at Clarksville Bridge.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)
SEP 1985 03...	14:45	23.0	500	6.6	8.0	238	0.07	0.07	0.4	0.8	0.63	0.12
DATE	TIME	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
SEP 1985 03...	0.08	0.08	6.4	<0.01	<0.1	260	26	69	22	14	2.6	
DATE	TIME	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
SEP 1985 03...	20	41	0.1	7.3	2	<100	<1	10	7	7	2	
DATE	TIME	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)
SEP 1985 03...	31	7	<1	780	20	<1	10	<1	320	0.07	0.4	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

## SURFACE-WATER RECORDS

412623084261000. Beaver Ck at County Road C nr Stryker, Ohio.

LOCATION.--Lat 41°26'23", long 84°26'10", Hydrologic Unit 04100006, 0.25 mi upstream from confluence with Tiffin River.

DRAINAGE AREA.--44.8 mi<sup>2</sup>.

## WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
AUG 1985 12...	15:00	28	23.5	670	8.1	232	0.21	0.01	1.1	1.0	0.27	
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG 1985 12...	0.14	0.09	<0.01	<0.1	280	49	74	23	27	4.4	37	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
AUG 1985 12...	56	0.4	7.8	2	<100	1	10	<1	790	3	110	
DATE		NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)	
AUG 1985 12...	7	<1	1100	40	<1	630	<1	370	0.10	0.1		



## GROUND-WATER RECORDS

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## WILLIAMS COUNTY

## SURFACE-WATER RECORDS

413928084410000. Nettle Ck at County Road P.50 nr Nettle Lake, Ohio.  
 LOCATION.--Lat 41°39'28", long 84°41'00", Hydrologic Unit 04100003, 3.5 mi downstream of Nettle Lake.  
 DRAINAGE AREA.--23.4 mi .

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)
SEP 1985 03...	17:00	28.0	340	9.4	8.6	132	0.11	<0.01	0.4	0.5	0.11	0.05
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
SEP 1985 03...	0.05	0.03	8.5	<0.01	<0.1	180	51	45	17	7.0	2.8	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
SEP 1985 03...	15	41	0.1	1.9	2	100	<1	10	4	16	3	
DATE		MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)
SEP 1985 03...	8	2	<1	280	10	<1	20	<1	210	0.01	<0.1	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412632084312500. Local number, WM-24-B15.

LOCATION.--Lat 41°26'32", long 84°31'25", Hydrologic Unit 04100006, on US 6, East of State Route 15.

Owner: Arthur Rupp.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 108 ft.

INSTRUMENTATION.--Water level measurement with steel tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 730 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 3.50 FEET BELOW LAND SURFACE DATUM APR 22, 1985.

LOWEST WATER LEVEL 4.40 FEET BELOW LAND SURFACE DATUM JUL 11, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	4.23	JAN 09, 1985	3.52	APR 22, 1985	3.50	JUL 11, 1985	4.40

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINIT FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 22...	13:30	11.5	590	0.2	7.7	302	0.42	<0.01	0.8	0.8

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 22...	<0.01	<0.01	<0.01	2.1	<0.1	210	37	28	53	1.7

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 22...	14	0.4	1.1	14	710	8	400	330	<0.01

## GROUND-WATER RECORDS

223

## WILLIAMS COUNTY

412820084274600. Local number, WM-25-D18.

LOCATION.--Lat 41°28'20", long 84°27'46", Hydrologic Unit 04100006, on County Road D, west of County Road 19.

Owner: James Livengood.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 15.30 FEET BELOW LAND SURFACE DATUM APR 15, 1985.

LOWEST WATER LEVEL 18.79 FEET BELOW LAND SURFACE DATUM JAN 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	16.09	JAN 09, 1985	18.79	APR 15, 1985	15.30	JUL 11, 1985	16.30

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CA CO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 15...	14:15	11.0	820	0.1	7.9	334	0.42	<0.01	0.5	0.7

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 15...	<0.01	<0.01	0.02	2.2	<0.1	51	11	5.7	160	2.4

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 15...	87	0.9	1.8	10	160	7	300	480	0.03

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412723084325300. Local number, WM-27-C14.

LOCATION.--Lat 41°27'23", long 84°32'53", Hydrologic Unit 04100006, on County Road C, east of State Route 15.

Owner: Norman McBride.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 138 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 5.39 FEET BELOW LAND SURFACE DATUM JAN 09, 1985.

LOWEST WATER LEVEL 9.25 FEET BELOW LAND SURFACE DATUM JUL 11, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	7.62	JAN 09, 1985	5.39	APR 23, 1985	7.08	JUL 11, 1985	9.25

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
APR 1985											
23...	17:00	12.0	670	0.3	7.6	324	0.41	<0.01	0.8	0.5	
NOV											
20...	09:00	11.0	670	0.2	7.6	320	0.50	<0.01	0.6	0.6	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985											
23...	--	<0.01	0.01	0.01	2.2	0.1	310	57	40	29	
NOV											
20...	<0.10	0.02	0.02	<0.01	0.8	--	300	54	39	29	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985											
23...	2.1	6.9	44	1.1	19	740	11	100	390	<0.01	
NOV											
20...	2.2	7.2	46	1.0	18	750	11	100	390	0.03	

## GROUND-WATER RECORDS

225

## WILLIAMS COUNTY

412913084313800. Local number, WM-29-E15.

LOCATION.--Lat 41°29'13", long 84°31'38", Hydrologic Unit 04100006, in Bona Vista subdivision, Bryan.

Owner: William Timerman.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 71 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 745 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 13.50 FEET BELOW LAND SURFACE DATUM JAN 09, 1985.

LOWEST WATER LEVEL 22.30 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	20.13	JAN 09, 1985	13.50	APR 15, 1985	13.81	JUL 10, 1985	22.30

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CA CO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 15...	13:30	12.0	610	0.2	7.7	305	0.45	<0.01	0.8	0.7

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 15...	<0.01	<0.01	0.01	2.1	<0.1	250	47	33	28	1.9

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 15...	9.6	12	1.2	18	540	7	100	330	0.02



## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412630084241500. Local number, WM-30-B21.

LOCATION.--Lat 41°26'30", long 84°24'15", Hydrologic Unit 04100006, on State Route 191, at US 6.

Owner: Bill Woolace.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 100 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 27.38 FEET BELOW LAND SURFACE DATUM APR 15, 1985.

LOWEST WATER LEVEL 28.16 FEET BELOW LAND SURFACE DATUM JAN 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	27.95	JAN 09, 1985	28.16	APR 15, 1985	27.38	JUL 11, 1985	28.08

## WATER QUALITY DATA

DATE	TIME	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	OXYGEN, DIS-SOLVED (MG/L)	PH (STANDARD UNITS)	ALKALINITY FIELD (MG/L AS CACO3)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
APR 1985											
15...	15:15	11.5	1900	0.2	7.1	447	0.83	<0.01	1.6	1.0	--
NOV 20...	10:00	10.5	1600	0.2	7.3	422	0.61	<0.01	0.7	1.1	<0.10

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARDNESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
APR 1985											
15...	<0.01	<0.01	<0.01	1.8	1.8	<0.1	280	67	27	260	5.6
NOV 20...	0.02	0.01	<0.01	0.1	--	--	290	71	28	290	5.9

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985											
15...	380	0.3	1.2	12	520	1400	56	200	<1	1000	0.02
NOV 20...	430	7.5	1.2	12	--	4000	76	100	--	1100	0.02

## GROUND-WATER RECORDS

227

## WILLIAMS COUNTY

412840084244300. Local number, WM-32-D21.

LOCATION.--Lat 41°28'40", long 84°24'43", Hydrologic Unit 04100006, on State Route 191, north of State Route 34.

Owner: Robin Coy.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 95 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 17.20 FEET BELOW LAND SURFACE DATUM JAN 07, 1985.

LOWEST WATER LEVEL 18.45 FEET BELOW LAND SURFACE DATUM NOV 06, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	18.45	JAN 07, 1985	17.20	APR 19, 1985	17.52	JUL 08, 1985	18.22

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 19...	09:00	11.0	520	0.3	7.5	273	0.44	<0.01	0.5	0.5

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 19...	<0.01	<0.01	0.01	2.1	<0.1	160	30	21	48	1.8

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 19...	9.3	0.2	1.1	12	450	5	200	290	0.02

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412840084310800. Local number, WM-33-D15.

LOCATION.--Lat 41°28'40", long 84°31'08", Hydrologic Unit 04100060, on State Route 34, west of County Road 16.

Owner: Francis Meek.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 117 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 740 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 17.30 FEET BELOW LAND SURFACE DATUM JAN 09, 1985.

LOWEST WATER LEVEL 22.89 FEET BELOW LAND SURFACE DATUM JUL 11, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1984	18.60	JAN 09, 1985	17.30	APR 15, 1985	18.65	JUL 11, 1985	22.89

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985	15...	12:00	12.0	615	0.6	7.5	297	0.40	<0.01	0.5
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985	15...	<0.01	<0.01	<0.01	1.8	<0.1	250	44	33	35
DATE	CHLO- RIDE, DIS SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985	15...	10	23	1.2	17	410	15	200	340	<0.01

## GROUND-WATER RECORDS

229

## WILLIAMS COUNTY

412814084384300. Local number, WM-37-D9.

LOCATION.--Lat 41°28'14", long 84°38'43", Hydrologic Unit 04100006, on County Road D, east of County Road 9.

Owner: Andy Stuble.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 39.48 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 40.50 FEET BELOW LAND SURFACE DATUM NOV 07, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1984	40.50	JAN 09, 1985	40.38	APR 16, 1985	39.48	JUL 10, 1985	40.02

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 16...	16:30	11.5	1100	0.3	7.3	352	0.45	<0.01	1.1	0.7

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	HARD- NESS, NONCAR- BONATE (MG/L CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985 16...	0.01	<0.01	<0.01	2.1	<0.1	540	190	110	64	29

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 16...	2.1	7.6	270	0.9	20	2500	18	100	720	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413208084291300. Local number, WM-39-H17.

LOCATION.--Lat 41°32'08", long 84°29'13", Hydrologic Unit 04100006, on County Road H-50, east of State Route 127.

Owner: Walter Oberlin.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 144 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 765 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 8.65 FEET BELOW LAND SURFACE DATUM JAN 07, 1985.

LOWEST WATER LEVEL 10.70 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1984	9.55	JAN 07, 1985	8.65	APR 22, 1985	9.09	JUL 08, 1985	10.70

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 22...	14:30	11.5	720	0.3	7.2	332	0.27	<0.01	0.3	0.4

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 22...	<0.01	<0.01	<0.01	2.2	<0.1	330	75	34	35	1.9

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 22...	21	38	1.0	19	1400	25	300	430	<0.01



## GROUND-WATER RECORDS

231

## WILLIAMS COUNTY

413417084302600. Local number, WN-40-J16.

LOCATION.--Lat 41°34'17", long 84°30'26", Hydrologic Unit 04100006, on County Road K, east of County Road 16.

Owner: Ronald Miller.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 69 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 815 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 23.45 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

LOWEST WATER LEVEL 26.52 FEET BELOW LAND SURFACE DATUM NOV 07, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07, 1984	26.52	JAN 07, 1985	25.28	APR 22, 1985	25.40	JUL 08, 1985	23.45

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
APR 1985	22...	15:15	11.5	730	0.4	7.8	320	0.19	<0.01	0.5	0.9

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
APR 1985	22...	<0.01	<0.01	<0.01	2.2	<0.1	360	39	86	35	21

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985	22...	1.4	13	64	0.8	20	1900	20	<100	440	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413055084255800. Local number, WM-49-G20.

LOCATION.--Lat 41°30'55", long 84°25'58", Hydrologic Unit 04100006, on County Road G, west of State Route 191.

Owner: Dorothy Clemens.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 120 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 11.93 FEET BELOW LAND SURFACE DATUM JAN 07, 1985.

LOWEST WATER LEVEL 13.45 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 08, 1984	13.37	JAN 07, 1985	11.93	APR 18, 1985	12.68	JUL 08, 1985	13.45

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
APR 1985	18...	10:00	11.5	570	0.3	7.8	270	0.41	<0.01	0.6	0.5
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)		
APR 1985	18...	0.01	<0.01	<0.01	2.7	<0.1	160	31	20	57	
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)		
APR 1985	18...	2.0	28	<0.2	1.3	15	530	7	<100	<0.01	

## GROUND-WATER RECORDS

233

## WILLIAMS COUNTY

412719084211000. Local number, WM-52-B24.

LOCATION.--Lat 41°27'19", long 84°21'10", Hydrologic Unit 04100006, on County Road C, east of County Road 24.

Owner: M. Niese.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth 98 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 715 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 34.82 FEET BELOW LAND SURFACE DATUM APR 15, 1985.

LOWEST WATER LEVEL 35.27 FEET BELOW LAND SURFACE DATUM NOV 08, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 08, 1984	35.27	JAN 07, 1985	34.93	APR 15, 1985	34.82	JUL 08, 1985	35.00

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 15...	16:30	11.0	1250	0.2	7.6	317	0.48	<0.01	0.7	0.7
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	
APR 1985 15...	<0.01	<0.01	<0.01	1.5	<0.1	170	38	18	220	
DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	PHOS- PHORUS, ORTH- TOTAL (MG/L AS P)	
APR 1985 15...	3.0	260	<0.2	1.2	11	700	16	200	<0.01	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413557084342200. Local number, WM-54-L12.

LOCATION.--Lat 41°35'57", long 84°34'22", Hydrologic Unit 04100003, on County Road 13, south of County Road M.

Owner: Vincent Boardner.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 84 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 880 ft above National Geodetic Vertical Datum of 1929, from topographic

map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 39.40 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 42.63 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	41.20	JAN 08, 1985	39.40	APR 22, 1985	40.18	JUL 10, 1985	42.63

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINIT FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 22...	16:15	11.0	700	0.2	8.0	300	0.35	<0.01	0.5	0.7
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 22...	<0.01	<0.01	<0.01	2.3	<0.1	290	73	27	15	1.5
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 22...	22	54	1.2	18	1900	23	200	390	<0.01	

## GROUND-WATER RECORDS

235

## WILLIAMS COUNTY

413556084401600. Local number, WM-56-L7.

LOCATION.--Lat 41°35'56", long 84°40'16", Hydrologic Unit 04100003, on County Road 8, south of County Road M.

Owner: Don Gulick.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 60 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 890 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 17.00 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

LOWEST WATER LEVEL 18.45 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	18.39	JAN 08, 1985	17.20	APR 23, 1985	17.00	JUL 09, 1985	18.45

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 23...	13:15	11.0	740	0.2	7.6	324	0.05	<0.01	0.4	0.3

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 23...	<0.01	<0.01	<0.01	1.9	<0.1	2	0.4	0.2	170	0.6

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 23...	18	43	1.2	18	17	<1	200	450	0.01



## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413417084381400. Local number, WM-57-J9.

LOCATION.--Lat 41°34'17", long 84°38'14", Hydrologic Unit 04100003, on County Road K, west of County Road 10.

Owner: Lenard Zigler.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 62 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 9.98 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 15.40 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13, 1984	11.20	JAN 08, 1985	9.98	APR 23, 1985	11.30	JUL 09, 1985	15.40

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 23...	11:45	11.0	600	0.3	7.7	301	0.32	<0.01	0.6	0.7
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
APR 1985 23...	<0.01	<0.01	<0.01	2.0	260	56	29	28	1.9	
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 23...	13	20	1.3	18	940	10	200	350	0.01	

## GROUND-WATER RECORDS

237

## WILLIAMS COUNTY

413056084344700. Local number, WM-60-F12.

LOCATION.--Lat 41°30'56", long 84°34'47", Hydrologic Unit 04100006, on County Road G, west of County Road 13.

Owner: Smith-Hurley.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 830 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 37.70 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 42.35 FEET BELOW LAND SURFACE DATUM AUG 13, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	41.70	APR 24, 1985	40.28	JUL 10, 1985	41.67	AUG 13, 1985	42.35
JAN 08, 1985	37.70						

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CA CO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
AUG 1985 13...	16:30	16.0	760	0.4	7.6	293	0.32	<0.01	0.6	0.3
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CA CO3)	HARD- NESS, NONCAR- BONATE (MG/L CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
AUG 1985 13...	0.01	0.01	<0.01	<0.1	320	30	60	42	36	2.1
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
AUG 1985 13...	12	93	1.2	17	1500	17	100	440	<0.01	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413056084350400. Local number, WM-61-G12.

LOCATION.--Lat 41°30'56", long 84°35'04", Hydrologic Unit 04100006, on County Road G, west of County Road 13.

Owner: Williams County Landfill.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 42.62 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 45.65 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	44.39	JAN 08, 1985	42.62	APR 23, 1985	45.65	JUL 10, 1985	43.80

## WATER QUALITY DATA

DATE	TIME	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	OXYGEN, DIS-SOLVED (MG/L)	PH (STANDARD UNITS)	ALKALINITY FIELD (MG/L AS CACO3)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
APR 1985												
23...	08:00	12.0	720	0.5	7.6	288	0.38	<0.01	0.9	0.9	--	<0.01
NOV 19...	08:30	11.0	710	0.3	7.3	350	0.48	<0.01	0.6	0.6	<0.10	<0.01
DATE		PHOSPHORUS, DIS-SOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	HARDNESS, CARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
APR 1985												
23...	<0.01	<0.01	2.3	2.3	<0.1	300	16	59	38	33	2.1	
NOV 19...	0.01	<0.01	1.5	--	--	290	--	56	37	32	2.2	
DATE		CHLORIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985												
23...	11	84	1.3	17	120	1000	14	100	<1	420	<0.01	
NOV 19...	11	87	1.2	16	--	1000	16	100	--	450	0.02	

## GROUND-WATER RECORDS

239

## WILLIAMS COUNTY

413525084364200. Local number, WM-63-G10.

LOCATION.--Lat 41°35'25", long 84°36'42", Hydrologic Unit 04100003, on State Route 576, west of St. Joseph River.

Owner: Max DeGroff.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 58 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 17.60 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 21.50 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	18.40	JAN 08, 1985	17.60	APR 23, 1985	19.30	JUL 09, 1985	21.50

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413315084423800. Local number, WM-65-15.

LOCATION.--Lat 41°33'15", long 84°42'38", Hydrologic Unit 04100003, on County Road 6, south of County Road J.

Owner: Melvin Tingley.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth 45 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 865 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 13.20 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 14.33 FEET BELOW LAND SURFACE DATUM NOV 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	14.33	JAN 08, 1985	13.25	APR 17, 1985	13.20	JUL 10, 1985	17.25

## WATER QUALITY DATA

DATE	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR 1985 17...	10.5	625	0.4	7.6	324	0.23	<0.01	0.5	1.0	0.02

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 17...	0.02	<0.01	2.1	<0.1	300	73	29	16	1.5

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 17...	6.8	21	0.9	18	2200	19	<100	360	0.02



## GROUND-WATER RECORDS

241

## WILLIAMS COUNTY

413139084435400. Local number, WM-66-G4.

LOCATION.--Lat 41°31'39", long 84°43'54", Hydrologic Unit 04100003, on County Road H, west of State Route 34.

Owner: Larry Gearhart.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 65 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 875 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 36.85 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 38.09 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	37.48	JAN 08, 1985	36.95	APR 17, 1985	36.85	JUL 10, 1985	38.09

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 17...	12:30	11.0	695	0.2	7.6	341	0.37	<0.01	1.0	1.1

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 17...	0.09	<0.01	<0.01	2.1	<0.1	320	69	36	23	1.8

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTH- TOTAL (MG/L AS P)
APR 1985 17...	7.6	33	1.1	19	1800	27	200	400	0.02

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413526084481300. Local number, WM-67-L1.

LOCATION.--Lat 41°35'26", long 84°48'13", Hydrologic Unit 04100003, on County Road 1, north of County Road L.

Owner: John Hadix.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 76 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 19.00 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

LOWEST WATER LEVEL 21.55 FEET BELOW LAND SURFACE DATUM NOV 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	21.55	JAN 08, 1985	19.83	APR 17, 1985	19.95	JUL 09, 1985	19.00

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 17...	14:20	10.5	590	0.4	7.6	311	0.22	<0.01	0.5	0.7

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 17...	<0.01	<0.01	<0.01	2.1	<0.1	290	70	27	15	1.4

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 17...	5.4	13	0.9	19	1500	20	200	340	<0.01

## GROUND-WATER RECORDS

243

## WILLIAMS COUNTY

413635084453800. Local number, WM-68-M3.

LOCATION.--Lat 41°36'35", long 84°45'38", Hydrologic Unit 04100003, on County Road M.50, east of State Route 49.

Owner: Patterson.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 63 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 38.20 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

LOWEST WATER LEVEL 38.82 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	38.65	JAN 08, 1985	38.82	APR 23, 1985	38.20	JUL 09, 1985	38.40

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR 1985 23...	13:50	11.0	960	0.4	7.1	410	0.02	<0.01	0.6	0.5	<0.01
DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS, NONCAR- BONATE (MG/L AS CAO3)	HARD- NESS, NONCAR- BONATE (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 23...	<0.01	<0.01	2.1	2.1	<0.1	500	88	130	42	14	2.0
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 23...	27	89	0.3	17	170	1800	61	200	<1	570	0.02

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413313084470700. Local number, WM-70-13.

LOCATION.--Lat 41°33'13", long 84°47'07", Hydrologic Unit 04100003, near Woodville and Grove St in Edon.

Owner: Village of Edon.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 8 in., depth 137 ft. Public supply for Village of Edon.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 900 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 14.63 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 15.00 FEET BELOW LAND SURFACE DATUM NOV 14, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14, 1984	60.48	JAN 08, 1985	14.63	APR 17, 1985	15.00	JUL 10, 1985	55.80

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 23...	08:45	11.0	620	0.5	7.0	327	0.29	<0.01	0.5	0.8
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
APR 1985 23...	<0.01	<0.01	<0.01	2.4	300	74	29	18	1.6	
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 23...	7.6	12	1.0	20	1500	22	300	360	<0.01	

## GROUND-WATER RECORDS

245

## WILLIAMS COUNTY

413050084335200. Local number, WM-71-F13.

LOCATION.--Lat 41°30'50", long 84°33'52", Hydrologic Unit 04100006, on County Road G, east of County Road 13.

Owner: George Beucler.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 52 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 810 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 23.18 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

LOWEST WATER LEVEL 25.49 FEET BELOW LAND SURFACE DATUM AUG 13, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15, 1984	23.88	APR 23, 1985	23.18	JUL 10, 1985	24.20	AUG 13, 1985	25.49
JAN 08, 1985	23.80						

## WATER QUALITY DATA

DATE	TIME	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	OXYGEN, DIS-SOLVED (MG/L)	PH (STANDARD UNITS)	ALKALINITY FIELD (MG/L AS CACO3)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1985												
23...	09:15	11.0	1050	--	7.3	352	0.44	<0.01	1.2	1.5	--	<0.01
AUG 13...	15:15	13.5	1000	0.2	7.1	385	0.36	<0.01	0.5	1.1	--	0.01
NOV 19...	09:00	11.0	970	0.2	7.1	390	0.44	<0.01	0.5	0.7	<0.10	<0.01

DATE	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)
APR 1985												
23...	<0.01	<0.01	3.3	3.3	--	<0.1	420	63	120	28	55	5.1
AUG 13...	0.01	<0.01	--	--	<0.01	<0.1	420	32	120	28	57	5.1
NOV 19...	<0.01	<0.01	1.8	--	--	--	390	0	110	28	55	5.4

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SULFATE, DIS-SOLVED (MG/L AS SO4)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
APR 1985											
23...	88	87	0.4	11	--	170	--	--	--	3200	--
AUG 13...	81	88	0.3	11	<1	200	<1	<10	<1	3500	5
NOV 19...	80	91	0.4	11	--	--	--	--	--	3500	--

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)	ANTIMONY, DIS-SOLVED (UG/L AS SB)	ALUMINUM, DIS-SOLVED (UG/L AS AL)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY, DIS-SOLVED (UG/L AS HG)
APR 1985											
23...	350	--	--	--	--	--	100	<1	610	<0.01	--
AUG 13...	350	<1	<1	1600	60	<1	<10	<1	630	<0.01	<0.3
NOV 19...	350	--	--	--	--	--	100	--	620	0.01	--



## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413040084250800. Local number, WM-72-F21.

LOCATION.--Lat 41°30'40", long 84°25'08", Hydrologic Unit 04100006, on north edge of Stryker.

Owner: Village of Stryker.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 8 in. Public supply for Village of Stryker.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 715 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Base of pump, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--January 1985 to present.

HIGHEST WATER LEVEL 14.00 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

LOWEST WATER LEVEL 38.02 FEET BELOW LAND SURFACE DATUM JAN 07, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 07, 1985	38.02	APR 16, 1985	28.70	JUL 08, 1985	14.00	AUG 12, 1985	32.44

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985										
18...	09:00	11.0	700	0.3	7.5	294	0.43	<0.01	0.8	0.7
AUG 12...	13:15	12.0	765	0.2	7.6	297	0.32	<0.01	0.7	0.6

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
APR 1985										
18...	<0.01	<0.01	<0.01	2.2	2.1	--	<0.1	220	40	30
AUG 12...	0.27	0.11	0.05	--	--	<0.01	<0.1	230	40	31

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)
APR 1985										
18...	67	2.4	70	1.7	1.1	15	--	590	--	--
AUG 12...	68	2.4	68	0.2	1.2	16	<1	--	<1	<1

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985										
18...	810	--	4	--	--	--	200	<1	410	0.01
AUG 12...	860	<1	6	<1	<1	30	--	--	410	0.11

## GROUND-WATER RECORDS

247

## WILLIAMS COUNTY

412536084413300. Local number, WM-73-A6.

LOCATION.--Lat 41°25'36", long 84°41'33", Hydrologic Unit 04100006, on County Road A, west of County Road 7.

Owner: Elmer Hahn.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 247 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--December 1984 to present.

HIGHEST WATER LEVEL 50.29 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 52.58 FEET BELOW LAND SURFACE DATUM DEC 04, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1984	52.58	APR 16, 1985	50.29	JUL 10, 1985	52.40

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 16...	13:00	11.5	650	0.2	7.5	324	0.35	<0.01	0.4	0.4

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 16...	0.01	0.01	<0.01	2.2	<0.1	300	61	35	22	1.8

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 16...	5.5	23	1.0	19	1100	8	100	360	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412613084445300. Local number, WM-75-A4.

LOCATION.--Lat 41°26'13", long 84°44'53", Hydrologic Unit 04100003, on State Route 49, at south city limits.

Owner: Lowell Mason.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 74 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 835 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--December 1984 to present.

HIGHEST WATER LEVEL 20.12 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 23.73 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1984	23.20	JAN 09, 1985	21.28	APR 16, 1985	20.12	JUL 10, 1985	23.73

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 1985											
16...	11:50	11.5	720	0.2	7.3	259	0.03	<0.01	0.5	0.8	--
NOV											
19...	10:45	10.5	720	0.5	7.4	300	0.09	<0.01	0.2	<0.2	<0.10

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985										
16...	<0.01	<0.01	<0.01	1.8	<0.1	350	90	100	24	4.9
NOV										
19...	0.01	0.01	<0.01	0.6	--	380	78	110	25	5.1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985										
16...	1.2	17	100	0.1	13	1500	67	<100	420	<0.01
NOV										
19...	1.3	18	60	0.1	13	1600	69	100	410	0.02

## GROUND-WATER RECORDS

249

## WILLIAMS COUNTY

412903084474200. Local number, WM-76-El.

LOCATION.--Lat 41°29'03", long 84°47'42", Hydrologic Unit 04100003, on County County Road E, west of County Road 2.

Owner: Kermit Dietsch.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 76 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--December 1984 to present.

HIGHEST WATER LEVEL 25.63 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 27.70 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1984	27.32	JAN 08, 1985	26.18	APR 16, 1985	25.63	JUL 10, 1985	27.70

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CA CO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 16...	15:00	11.0	650	0.2	7.5	353	0.34	<0.01	0.6	0.6
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 16...	<0.01	0.01	<0.01	2.4	<0.1	320	69	35	20	1.6
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 16...	6.5	18	1.0	19	1600	12	100	380	<0.01	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412944084420700. Local number, WM-77-E6.

LOCATION.--Lat 41°29'44", long 84°42'07", Hydrologic Unit 04100003, on County Road E.75, west of County Road 7.

Owner: John Hug.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 108 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--December 1984 to present.

HIGHEST WATER LEVEL 42.93 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 45.70 FEET BELOW LAND SURFACE DATUM DEC 04, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1984	45.70	JAN 08, 1985	44.44	APR 16, 1985	42.93	JUL 10, 1985	44.72

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 1985											
16...	15:50	10.0	1700	0.3	6.9	435	0.12	<0.01	0.3	0.4	--
NOV											
19...	10:00	11.0	1600	0.3	6.9	435	0.24	<0.01	0.2	0.2	<0.10

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985										
16...	<0.01	<0.01	<0.01	2.9	<0.1	990	550	230	100	25
NOV										
19...	<0.01	0.01	<0.01	1.2	--	960	530	220	100	25

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985										
16...	2.8	11	640	0.6	21	6600	120	200	1300	<0.01
NOV										
19...	3.1	8.7	630	0.5	20	6700	120	<100	1300	0.01



## GROUND-WATER RECORDS

251

## WILLIAMS COUNTY

412707084442600. Local number, WM-78-B4.

LOCATION.--Lat 41°27'07", long 84°44'26", Hydrologic Unit 04100003, at water plant in Edgerton.

Owner: Village of Edgerton.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth unknown.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 835 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Pump base, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--December 1984 to present.

HIGHEST WATER LEVEL 20.33 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 24.34 FEET BELOW LAND SURFACE DATUM DEC 05, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 05, 1984	24.34	APR 16, 1985	20.33	JUL 10, 1985	23.20	AUG 13, 1985	24.05
JAN 09, 1985	22.79						

## WATER QUALITY DATA

DATE	TIME	TEMPERATURE (DEG C)	SPECIFIC CONDUCTANCE (US/CM)	OXYGEN, DIS-SOLVED (MG/L)	PH (STANDARD UNITS)	ALKALINITY FIELD (MG/L AS CACO3)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	
AUG 1985	13...	09:15	11.5	680	0.3	7.5	319	0.10	<0.01	0.4	0.5	0.01
AUG 1985	13...	0.01	<0.01	<0.01	<0.1	310	76	27	18	1.6	16	17
AUG 1985	13...	0.7	18	<1	610	<1	<10	1	2300	2	40	
AUG 1985	13...	<1	<1	6200	16	<1	20	<1	370	<0.01	0.1	
APR 1985	16...	11:00	11.5	650	0.4	7.4	326	0.22	<0.01	0.7	0.7	<0.01
APR 1985	16...	<0.01	<0.01	2.2	2.2	<0.1	300	77	26	18	1.6	16
APR 1985	16...	19	0.7	17	380	2400	46	100	<1	370	<0.01	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413452084363100. Local number, WM-81-K11.

LOCATION.--Lat 41°34'52", long 84°36'31", Hydrologic Unit 04100003, at water plant in Village of Montpelier.

Owner: Village of Montpelier.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth unknown. Public supply for Montpelier.

INSTRUMENTATION.--Air line measurement by USGS personnel.

DATUM.--Elevation of land-surface datum is 875 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Air line, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--November 1984 to present.

HIGHEST WATER LEVEL 67.00 FEET BELOW LAND SURFACE DATUM JAN 08, 1985.

LOWEST WATER LEVEL 73.00 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 08, 1985	67.00	APR 17, 1985	71.00	JUL 09, 1985	73.00

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
APR 1985												
17...	09:00	11.0	700	0.3	7.1	311	0.32	<0.01	0.8	0.9	<0.01	<0.01
AUG												
13...	12:15	11.5	750	0.2	7.5	299	0.23	<0.01	0.4	0.7	0.02	0.01
DATE												
	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
APR 1985												
17...	<0.01	2.2	2.2	--	<0.1	330	17	77	33	22	1.9	
AUG												
13...	0.02	--	--	<0.01	<0.1	340	40	78	34	22	1.9	
DATE												
	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	
APR 1985												
17...	20	54	1.0	18	--	160	--	--	--	2400	--	
AUG												
13...	19	54	1.0	18	6	300	<1	10	3	2500	4	
DATE												
	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)	
APR 1985												
17...	27	--	--	--	--	--	100	<1	420	<0.01	--	
AUG												
13...	27	<1	<1	3800	10	<1	40	<1	410	<0.01	0.5	

## GROUND-WATER RECORDS

253

## WILLIAMS COUNTY

414043084405900. Local number, WM-82-Q7.

LOCATION.--Lat 41°40'43", long 84°40'59", Hydrologic Unit 04100003, on County Road R, east of County Road 7.

Owner: Florence Boyer.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 93 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 955 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--March 1985 to present.

HIGHEST WATER LEVEL 28.90 FEET BELOW LAND SURFACE DATUM MAR 27, 1985; APR 17, 1985.

LOWEST WATER LEVEL 29.47 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 27, 1985	28.90	APR 17, 1985	28.90	JUL 09, 1985	29.47

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 17...	17:00	11.0	600	0.3	7.6	317	0.26	<0.01	0.4	0.5

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- O, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 17...	<0.01	<0.01	<0.01	1.8	<0.1	280	69	27	18	1.6

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTH- O, TOTAL (MG/L AS P)
APR 1985 17...	12	14	1.0	18	1400	13	100	350	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413842084401000. Local number, WM-83-08.

LOCATION.--Lat 41°38'42", long 84°40'10", Hydrologic Unit 04100003, on County Road 8, north US 20.

Owner: Dean St John.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 83 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 915 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 7.00 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

LOWEST WATER LEVEL 7.00 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 23, 1985	7.00

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR 1985 23...	14:45	11.0	650	0.2	7.5	319	0.31	<0.01	0.6	0.9	<0.01

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 23...	<0.01	<0.01	2.1	2.1	<0.1	320	3	76	32	21	1.5

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 23...	10	26	1.0	20	220	1700	15	400	<1	380	<0.01

## GROUND-WATER RECORDS

255

## WILLIAMS COUNTY

413209084242800. Local number, WM-84-H21.

LOCATION.--Lat 41°32'09", long 84°24'28", Hydrologic Unit 04100006, on County Road H.50, east of County Road 21.

Owner: Elwood Graber.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Spring.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 725 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

REMARKS.--Water level measured in adjacent well WM-84A-H21.

PERIOD OF RECORD.--July 1984 to present.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CA CO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	
APR 1985											
18...	10:45	10.5	670	0.2	7.7	324	0.45	<0.01	0.6	0.5	
NOV 20...	08:00	10.5	570	1.0	7.7	328	0.50	<0.01	0.6	0.6	
DATE		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CA CO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985											
18...	--	<0.01	<0.01	<0.01	2.6	<0.1	240	43	32	52	
NOV 20...	<0.10	0.01	0.01	<0.01	0.6	--	230	42	31	50	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985											
18...	2.1	29	<0.2	1.1	15	650	4	200	--	<0.01	
NOV 20...	2.4	29	0.3	1.0	15	760	4	100	370	0.02	



## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413730084255400. Local number, WM-85-N21.

LOCATION.--Lat 41°37'42", long 84°25'54", Hydrologic Unit 04100006, on US 127 at US 20A.

Owner: Walter Grau.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 75 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 815 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 20.00 FEET BELOW LAND SURFACE DATUM APR 01, 1985.

LOWEST WATER LEVEL 21.37 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 01, 1985	20.00	JUL 08, 1985	21.37

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 18...	12:30	11.5	685	0.4	7.7	287	0.42	<0.01	0.6	1.0

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985 18...	<0.10	<0.01	0.01	2.2	<0.1	260	51	33	40

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 18...	2.1	28	48	1.2	17	850	9	390	<0.01

## GROUND-WATER RECORDS

257

## WILLIAMS COUNTY

413936084283500. Local number, WM-86-P17.

LOCATION.--Lat 41°39'36", long 84°28'35", Hydrologic Unit 04100006, on County Road 18, south of US 20.

Owner: Bernadine Clark.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 112 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 905 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 35.50 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

LOWEST WATER LEVEL 42.00 FEET BELOW LAND SURFACE DATUM APR 18, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18, 1985	42.00	JUL 08, 1985	35.50

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 18...	14:15	11.0	650	0.3	7.7	280	0.34	<0.01	0.7	1.0

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- O, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 18...	<0.01	<0.01	<0.01	2.3	<0.1	260	54	30	37	1.8

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTH- O, TOTAL (MG/L AS P)
APR 1985 18...	15	52	1.3	17	1300	13	<100	380	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

414150084331000. Local number, WM-87-S14.

LOCATION.--Lat 41°41'50", long 84°33'10", Hydrologic Unit 04100003, on State Route 15 at Ohio state line.

Owner: Karl Becker.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 82 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 895 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 11.36 FEET BELOW LAND SURFACE DATUM APR 18, 1985.

LOWEST WATER LEVEL 13.05 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18, 1985	11.36	JUL 09, 1985	13.05

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINIT FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 18...	15:15	11.0	600	0.2	7.5	305	0.28	<0.01	0.5	0.5

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 18...	<0.01	<0.01	<0.01	1.9	<0.1	280	71	25	16	1.5

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 18...	8.3	8.2	1.0	18	2100	48	300	330	<0.01

## GROUND-WATER RECORDS

259

## WILLIAMS COUNTY

413746084323800. Local number, WM-88-N14.

LOCATION.--Lat 41°37'46", long 84°32'38", Hydrologic Unit 04100003, on County Road N-50, east of State Route 15.

Owner: Sauder.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 93 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 890 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 51.71 FEET BELOW LAND SURFACE DATUM JUL 09, 1985.

LOWEST WATER LEVEL 51.90 FEET BELOW LAND SURFACE DATUM APR 18, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18, 1985	51.90	JUL 09, 1985	51.71

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985										
18...	16:00	11.0	640	0.2	7.6	311	0.30	<0.01	0.7	0.6
NOV										
19...	13:00	11.0	640	0.2	7.6	303	0.37	<0.01	0.5	0.5

DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- O, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985										
18...	--	<0.01	<0.01	<0.01	1.9	<0.1	290	66	30	24
NOV										
19...	<0.10	0.01	0.01	<0.01	0.4	--	300	69	30	23

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTH- O, TOTAL (MG/L AS P)
APR 1985											
18...	1.8	13	29	1.0	18	1700	16	100	370	<0.01	
NOV											
19...	1.9	13	33	1.0	18	1900	18	100	370	0.04	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413355084403700. Local number, WM-89-J7.

LOCATION.--Lat 41°33'55", long 84°40'37", Hydrologic Unit 04100003, on County Road 7.5, north of County Road J.

Owner: Overberg.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 41 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 865 ft above National Geodetic Vertical Datum of 1929, from topographic

map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--February 1985 to present.

HIGHEST WATER LEVEL 11.31 FEET BELOW LAND SURFACE DATUM FEB 27, 1985.

LOWEST WATER LEVEL 16.70 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 27, 1985	11.31	APR 17, 1985	16.70	JUL 09, 1985	14.85

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 17...	10:00	10.5	680	0.3	7.4	328	0.05	<0.01	0.4	0.9

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 17...	<0.01	<0.01	<0.01	2.2	<0.1	72	15	8.3	130	0.5

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 17...	7.6	41	1.2	18	370	3	100	420	<0.01



## GROUND-WATER RECORDS

261

## WILLIAMS COUNTY

413141084344400. Local number, WM-92-G12.

LOCATION.--Lat 41°31'41", long 84°34'44", Hydrologic Unit 04100006, on County Road H, west of County Road 13.

Owner: Culler.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 78 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 34.45 FEET BELOW LAND SURFACE DATUM APR 23, 1985.

LOWEST WATER LEVEL 36.25 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 23, 1985	34.45	JUL 10, 1985	36.25

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 23...	10:15	11.0	1100	0.3	7.4	342	0.44	<0.01	0.7	0.7

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS (MG/L AS CAO3)	HARD- NESS, NONCAR- BONATE (MG/L CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 23...	<0.01	<0.01	<0.01	2.4	550	210	91	79	40	2.6

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 23...	14	260	1.4	18	2800	27	200	710	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412802084321401. Local number, WM-93A-C14.

LOCATION.--Lat 41°28'02", long 84°32'14", Hydrologic Unit 04100006, in south well field on Perry St., Bryan, Ohio.

Owner: City of Bryan.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, public supply for city of Bryan.

DATUM.--Elevation of land-surface datum is 860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- Water levels measured in adjacent observation well, WM-93-C14.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
APR 1985 16...	08:15	12.0	680	0.3	7.5	353	0.43	<0.01	0.6	0.5	<0.01	
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
APR 1985 16...	<0.01	<0.01		2.8	2.4	<0.1	300	58	37	30	2.2	10
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 16...	19		1.1	19	590	590	7	200	<1	390	<0.01	

## GROUND-WATER RECORDS

263

## WILLIAMS COUNTY

412851084322001. Local number, WM-95A-D14.

LOCATION.--Lat 41°28'51", long 84°32'20", Hydrologic Unit 04100006, in north well field on Edgerton St in Bryan, OH.

Owner: City of Bryan.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, public supply for city of Bryan.

DATUM.--Elevation of land-surface datum is 755 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- Water levels measured in adjacent observation well, WM-95-D14.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR 1985											
16...	09:30	11.0	640	0.4	7.6	312	0.42	<0.01	0.4	0.6	<0.01
AUG											
13...	14:15	11.5	690	0.2	7.5	320	0.34	0.01	0.5	0.6	0.04
DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	HARD- NESS, NONCAR- BONATE (MG/L CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985											
16...	<0.01	0.02	2.2	2.2	<0.1	290	--	55	37	29	1.8
AUG											
13...	0.01	0.01	--	--	0	310	0	58	39	28	2.0
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985											
16...	9.7	23	1.1	19	680	330	8	200	<1	360	0.01
AUG											
13...	9.9	39	1.0	18	--	540	11	--	--	390	0.02

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

412853084322001. Local number, WM-96A-D14.

LOCATION.--Lat 41°28'53", long 84°32'20", Hydrologic Unit 04100006, in North well on Edgerton St. in Bryan.

Owner: City of Bryan.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, public supply for city of Bryan.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 755 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- Water levels measured in adjacent observation well, WM-95-D14.

PERIOD OF RECORD.--November 1984 to present.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
AUG 1985 13...	13:45	12.0	700	0.2	7.5	319	0.33	<0.01	0.4	0.5	0.03
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
AUG 1985 13...	0.02	0.01	1.9	<0.01	<0.1	310	58	39	29	2.0	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
AUG 1985 13...	10	39	1.2	18	<1	500	<1	10	2	590	
DATE		LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)
AUG 1985 13...	3	11	<1	<1	<10	<1	10	390	<0.01	0.3	

## GROUND-WATER RECORDS

265

## WILLIAMS COUNTY

412651084464100. Local number, WM-99-B2.

LOCATION.--Lat 41°26'51", long 84°46'41", Hydrologic Unit 04100003, on County Road 2.5, north of US 6.

Owner: Bill Blaylock.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 177 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 21.88 FEET BELOW LAND SURFACE DATUM APR 16, 1985.

LOWEST WATER LEVEL 24.98 FEET BELOW LAND SURFACE DATUM JUL 10, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 16, 1985	21.88	JUL 10, 1985	24.98

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINIT- FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 16...	14:15	11.0	650	0.2	7.5	348	0.36	<0.01	0.5	0.6

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 16...	<0.01	<0.01	<0.01	2.3	<0.1	300	64	34	23	1.9

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 16...	4.7	19	1.1	18	1100	14	100	380	<0.01



## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413910084473500. Local number, WM-100-P1.

LOCATION.--Lat 41°39'10", long 84°47'39", Hydrologic Unit 04100003, on County Road 1.5, south of County Road P.

Owner: Robert Dunlap.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 76 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 975 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 21.70 FEET BELOW LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 23.52 FEET BELOW LAND SURFACE DATUM AUG 13, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 17, 1985	21.70	JUL 09, 1985	22.12	AUG 13, 1985	23.52

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
APR 1985												
17...	15:15	10.5	590	0.3	7.6	321	0.25	<0.01	0.6	0.7	--	<0.01
AUG												
13...	11:00	11.0	610	0.3	7.5	306	0.25	<0.01	0.5	0.7	--	0.01
NOV												
19...	12:00	10.0	580	0.2	7.4	315	0.30	<0.01	0.4	0.4	<0.10	<0.01

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985												
17...	0.01	<0.01	2.4	2.4	--	<0.1	290	--	61	33	34	1.8
AUG												
13...	0.01	<0.01	--	--	<0.01	<0.1	290	0	72	27	15	1.5
NOV												
19...	0.01	<0.01	1.0	--	--	--	290	--	72	26	15	1.6

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
APR 1985											
17...	6.4	12	0.9	17	--	96	--	--	--	1400	--
AUG											
13...	6.5	12	0.6	18	3	700	<1	<10	<1	1900	3
NOV											
19...	6.7	13	0.9	18	--	--	--	--	--	1900	--

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ALUM- INIUM, DIS- SOLVED (UG/L AS AL)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	MERCURY DIS- SOLVED (UG/L AS HG)
APR 1985											
17...	18	--	--	--	--	--	200	<1	360	<0.01	--
AUG											
13...	24	<1	<1	3000	50	<1	<10	<1	340	<0.01	0.2
NOV											
19...	25	--	--	--	--	--	100	--	340	0.02	--

## GROUND-WATER RECORDS

267

## WILLIAMS COUNTY

414029084433000. Local number, WM-101-Q5.

LOCATION.--Lat 41°40'29", long 84°43'30", Hydrologic Unit 04100003, on Broadway in Nettle Lake.

Owner: Frank Dean.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 203 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 1.50 FEET ABOVE LAND SURFACE DATUM APR 17, 1985.

LOWEST WATER LEVEL 0.75 FEET ABOVE LAND SURFACE DATUM JUL 09, 1985.

WATER LEVELS IN FEET ABOVE LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 17, 1985	1.50	JUL 09, 1985	0.75

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LILITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 17...	16:15	11.0	600	0.4	7.7	304	0.30	< 0.01	0.3	0.5

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 17...	<0.01	<0.01	<0.01	1.8	<0.1	280	67	28	24	1.5

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, DIS- TOTAL (MG/L AS P)
APR 1985 17...	9.6	6.9	1.1	19	3700	33	100	340	<0.01

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413450084251200. Local number, WM-102-K20.

LOCATION.--Lat 41°34'50", long 84°25'12", Hydrologic Unit 04100006, on County Road 21, south of County Road L.

Owner: Phil Bleikamp.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 76 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 780 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 28.68 FEET BELOW LAND SURFACE DATUM APR 18, 1985.

LOWEST WATER LEVEL 30.40 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18, 1985	28.68	JUL 08, 1985	30.40

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 18...	11:30	11.0	660	0.2	7.7	287	0.38	<0.01	0.6	0.5

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 18...	<0.01	<0.01	<0.01	2.7	<0.1	270	58	31	41	1.6

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985 18...	22	37	1.1	18	690	11	100	380	<0.01

## GROUND-WATER RECORDS

269

## WILLIAMS COUNTY

414144084242500. Local number, WM-103-S21.

LOCATION.--Lat 41°41'44", long 84°24'25", Hydrologic Unit 04100006, on County Road S, east of County Road 21.5D.

Owner: Denny Schaffner.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 5 in., depth 71 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.

PERIOD OF RECORD.--April 1985 to present.

HIGHEST WATER LEVEL 20.60 FEET BELOW LAND SURFACE DATUM APR 18, 1985.

LOWEST WATER LEVEL 24.90 FEET BELOW LAND SURFACE DATUM JUL 08, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 18, 1985	20.60	JUL 08, 1985	24.90

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985										
18...	13:30	11.0	590	0.3	7.7	244	0.34	<0.01	0.8	0.7
NOV										
19...	14:00	11.0	560	0.4	7.7	255	0.45	<0.01	0.5	0.8

DATE	TIME	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	HARD- NESS (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
APR 1985											
18...	--	<0.01	<0.01	<0.01	2.6	<0.1	240	52	27	38	
NOV											
19...	<0.10	0.01	0.01	<0.01	1.3	--	230	50	25	36	

DATE	TIME	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)
APR 1985											
18...	1.6	16	31	1.2	18	810	9	200	330	<0.01	
NOV											
19...	1.9	17	34	1.1	17	910	10	100	340	0.02	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

413144084322800. Local number, WM-104-H9.

LOCATION.--Lat 41°31'44", long 84°32'28", Hydrologic Unit 04100003, on County Road H, west of County Road 10.

Owner: Weizs.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 4 in., depth 70 ft.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 875 ft above National Geodetic Vertical Datum of 1929, from topographic map.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 23...	11:00	11.0	730	0.3	7.6	290	0.34	<0.01	0.5	0.5
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 23...	<0.01	<0.01	<0.01	2.3	330	45	68	40	25	1.8
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 23...	8.1	93	1.2	18	1700	15	200	430	<0.01	



## GROUND-WATER RECORDS

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## WILLIAMS COUNTY

412731084342600. Local number, WM-106-C12.

LOCATION.--Lat 41°27'31", long 84°34'26", Hydrologic Unit 04100006, on County Road 13, at State Route 2.

Owner: Richard Struble.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, depth 28 ft.

DATUM.--Elevation of land-surface datum is 745 ft above National Geodetic Vertical Datum of 1929, from topographic map.

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CAO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)
APR 1985 23...	08:30	11.0	800	0.7	7.3	364	0.34	<0.01	0.8	0.6
DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS (MG/L AS CAO3)	HARD- NESS, NONCAR- BONATE (MG/L CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 1985 23...	<0.01	<0.01	<0.01	2.7	370	3	86	37	37	2.7
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	
APR 1985 23...	34	50	1.0	18	5000	61	100	490	<0.01	

## GROUND-WATER RECORDS

## WILLIAMS COUNTY

414044084333500. Local number, WM-108-Q13.

LOCATION.--Lat 41°40'44", long 84°33'35", Hydrologic Unit 04100003, on County Road R, west of State Route 15.

Owner: Village of Pioneer.

AQUIFER.--Glacial sand and gravel of Quarternary Age.

WELL CHARACTERISTICS.--Drilled well, diameter 6 in., depth 120 ft. Public supply for Village of Pioneer.

INSTRUMENTATION.--Water level measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Base of pump, 2.0 ft above land-surface datum.

PERIOD OF RECORD.--August 1985 to present.

HIGHEST WATER LEVEL 16.32 FEET BELOW LAND SURFACE DATUM AUG 14, 1985.

LOWEST WATER LEVEL 16.32 FEET BELOW LAND SURFACE DATUM AUG 14, 1985.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
AUG 14, 1985	16.32

## WATER QUALITY DATA

DATE	TIME	TEMPER- ATURE (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
AUG 1985 14...	09:45	11.0	700	0.2	7.2	397	0.15	<0.01	0.3	0.4

DATE	TIME	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SULFIDE TOTAL (MG/L AS S)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
AUG 1985 14...	0.01	0.01	<0.01	0.1	<0.1		2.1	10	1.0	

DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SIO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	MERCURY DIS- SOLVED (UG/L AS HG)
AUG 1985 14...			400	10			2500	<1	<1	0.1

## WATER QUALITY RECORDS FOR THE WEST BRANCH SHADE RIVER PROJECT

The following table lists the results of chemical analysis of samples collected from streams in the Shade River drainage basin. These tables are for miscellaneous sites. For continuous stream flow, suspended sediment record, and water quality at the following stations in the same basin, refer to Volume 1 of this report: 03159534, 03159555.

All data was collected as part of the West Branch Shade River study. The study investigated the effects of reclamation of abandoned-surface mines on suspended-sediment loads and water quality.

## WATER QUALITY DATA

## 391009082053600 - 051 W B SHADE R (14-1) NR BURLINGHAM OH

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	ACIDITY (MG/L AS H)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	
JAN , 1985										
09...	1500	5.0	460	5.9	<5.5	.5	.1	1	200	
JUN										
03...	1200	.95	485	6.4	24.0	26.5	--	43	240	
		ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, SUS- PENDE D RECOV. (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE D RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DATE	AS AL	AS AL	AS AL	AS FE	AS FE	AS FE	AS FE	AS MN	AS MN	AS MN
JAN , 1985										
09...	3200	--	200	1600	--	280	2800	--	2500	
JUN										
03...	1400	500	900	750	720	30	3900	200	3700	

## 391103082045600 - UNAM TR TO W B SHADE R NR BURLINGHAM OH

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUC- TANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
JAN , 1985									
10...	1155	2.6	250	7.4	<6.0	.5	41	61	300
JUN									
04...	0840	.62	310	7.4	16.0	18.5	83	62	800
		ALUM- INUM, SUS- PENDE D RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, SUS- PENDE D RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, SUS- PENDE D RECOV. (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JAN , 1985									
10...	--	100	440	--	100	340	--	280	
JUN									
04...	300	500	380	340	40	110	30	80	

## WATER QUALITY RECORDS FOR THE RACCOON CREEK BASIN PROJECT

The following table lists the results of chemical analysis of 12 synoptic sites in the Raccoon Creek basin. For continuous stream flow, suspended sediment, and water quality at the five continuous gages refer to Volume 1 of same report. All data was collected as part of the Raccoon Creek Basin Project which studied water quality of a mined basin before reclamation. In order to assess the impact of reclamation a follow-up study is planned.

## WATER QUALITY DATA

384651082162800 - CLEAR F AT NORTHUP OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984								
26...	08:30	17.5	12.0	0.04	720	6.9	192	140
JUN 1985								
18...	10:40	21.5	23.0	0.16	562	7.6	150	140
SEP								
23...	12:15	25.0	27.0	0.01	650	8.2	180	110

DATE	TIME	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984								
26...	550	90	1400	1400	<100	<100	7.19	
JUN 1985								
18...	230	60	320	320	100	100	7.19	
SEP								
23...	490	20	1200	1100	200	100	7.19	

385826082201800 - RACCOON C AT VINTON OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984								
26...	15:00	18.0	--	2.7	410	6.8	39	140
JUN 1985								
18...	14:45	21.0	25.5	54	388	7.1	18	130
SEP								
23...	16:30	22.0	27.0	4.4	580	7.2	26	170
30...	13:00	15.0	23.0	3.9	475	7.1	20	150

DATE	TIME	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984								
26...	720	140	830	830	<100	<100	382	
JUN 1985								
18...	1200	50	1500	1500	400	200	382	
SEP								
23...	620	50	900	890	200	100	382	
30...	480	120	1200	1100	200	200	382	

RACCOON CREEK BASIN

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WATER QUALITY DATA

390342082271900 - L RACCOON C NR BUCKEYE FURNACE ST MEMORIAL OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)
OCT 1984 18...	15:00	19.0	21.0	4.6	950	4.8	--	30
APR 1985 23...	14:15	20.0	--	48	500	5.1	2	30
JUN 18...	15:00	22.0	--	29	587	4.7	2	25
SEP 24...	11:35	19.5	21.0	4.3	770	5.6	7	9.9

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
OCT 1984 18...	380	660	320	6000	6000	2500	2500
APR 1985 23...	210	4900	450	3000	3000	3600	1000
JUN 18...	240	6400	510	3300	3200	3400	2300
SEP 24...	290	380	360	2000	2000	1500	1500

390421082282300 - FLINT RUN NR ROADS OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ACIDITY (MG/L AS CACO3)
APR 1985 23...	13:10	24.0	--	2.4	1650	2.6	596
JUN 18...	16:30	26.0	--	1.3	2490	2.6	646
SEP 24...	10:15	19.0	24.0	4.0	3200	2.7	1290

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
APR 1985 23...	830	66000	64000	7000	5300	31000	31000
JUN 18...	1400	150000	150000	14000	12000	45000	44000
SEP 24...	1800	120000	120000	17000	17000	58000	--



## RACCOON CREEK BASIN

## WATER QUALITY DATA

390509082281900 - L RACCOON C NR ROADS OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)
SEP 1984								
27...	12:45	15.5	14.0	3.6	810	7.2	150	--
OCT								
17...	17:15	18.5	21.0	4.5	840	7.0	115	--
APR 1985								
23...	11:30	20.5	29.5	46	460	6.0	8	9.9
JUN								
18...	14:00	22.0	--	23	535	7.1	39	--
SEP								
24...	09:00	17.5	14.0	4.0	620	8.0	130	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984								
27...	200	1400	80	1700	1600	500	<100	67.5
OCT								
17...	250	1500	470	4400	4400	1300	300	67.5
APR 1985								
23...	190	2100	290	2500	1800	2400	100	67.5
JUN								
18...	190	1500	210	2700	2600	1600	200	67.5
SEP								
24...	140	--	94	--	340	--	--	67.5

390828082224900 - PIERCE RN NR RADCLIFF OH

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984								
27...	11:00	12.0	--	650	6.1	8	9.9	300
JUN 1985								
18...	13:00	22.5	1.0	640	5.6	4	15	260
SEP								
24...	14:15	--	0.0	--	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984							
27...	3100	2700	2800	2800	<100	<100	9.70
JUN 1985							
18...	1000	740	4300	4100	200	200	9.70
SEP							
24...	--	--	--	--	--	--	9.70

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390941082212200 - ELK F NR RADCLIFF OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984								
27...	10:00	21.5	--	0.16	405	7.1	56	100
JUN 1985								
18...	12:00	21.0	--	8.1	370	7.3	27	120
SEP 24...	14:45	20.5	19.0	1.2	460	7.8	62	130

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984							
27...	1800	440	720	560	100	100	59.5
JUN 1985							
18...	1000	120	900	900	<100	100	59.5
SEP							
24...	1200	370	650	630	100	<100	59.5

391830082262300 - BRUSHY C NR CREOLA OH

DATE	TIME	TEMPERATURE (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	ACIDITY (MG/L AS CAO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984							
26...	13:50	20.0	<0.01	905	3.3	119	360
JUN 1985							
18...	17:45	22.0	2.4	850	3.3	--	270
SEP 24...	15:15	--	0.0	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984							
26...	2000	2000	11000	11000	20000	20000	33.7
JUN 1985							
18...	5100	5100	5600	5200	12000	12000	33.7
SEP							
24...	--	--	--	--	--	--	33.7

## RACCOON CREEK BASIN

## WATER QUALITY DATA

391901082210400 - RACCOON C NR ZALESKI OH

DATE	TIME	TEMPER- ATURE (DEG C)	TEMPER- ATURE, AIR (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LITY FIELD (MG/L AS CAO3)	ACIDITY (MG/L AS CAO3)
SEP 1984								
26...	14:30	19.5	--	0.01	610	4.1	--	9.9
JUN 1985								
18...	15:00	20.0	--	11	560	4.5	--	15
SEP								
25...	10:30	16.5	13.0	1.0	485	6.7	11	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984								
26...	220	1400	590	5000	5000	300	300	122
JUN 1985								
18...	200	430	130	5000	4800	2300	2300	122
SEP								
25...	200	1200	200	4900	4700	300	<100	122

391903082164200 - HEWETT F NR ALBANY OH

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ACIDITY (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984							
26...	16:00	20.5	0.03	1110	3.1	109	500
JUN 1985							
18...	16:15	25.0	3.9	830	3.6	55	300
SEP							
24...	17:15	--	0.0	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984							
26...	2700	2700	6700	6700	16000	15000	27.8
JUN 1985							
18...	2100	1800	3500	3200	6200	6200	27.8
SEP							
24...	--	--	--	--	--	--	27.8

## WATER QUALITY DATA

392249082234500 - W B RACCOON C NR NEW PLYMOUTH OH

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	ALKA- LINITY FIELD (MG/L AS CACO3)	ACIDITY (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
JUN 1985								
18...	10:00	19.0	0.84	615	5.8	5	15	190
SEP								
24...	16:45	--	0.0	--	--	--	--	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
JUN 1985							
18...	1300	770	5800	5400	400	200	22.7
SEP							
24...	--	--	--	--	--	--	22.7

392348082220200 - E B RACCOON C NR NEW PLYMOUTH OH

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	ACIDITY (MG/L AS CAO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP 1984							
26...	09:15	15.0	0.16	1630	3.3	263	970
JUN 1985							
18...	13:10	20.0	1.7	1600	3.6	119	720
SEP							
24...	16:50	--	0.0	--	--	--	--

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ALUM- INUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	DRAIN- AGE AREA (SQ. MI.)
SEP 1984							
26...	4000	4000	18000	18000	36000	36000	14.5
JUN 1985							
18...	2300	2000	15000	13000	20000	19000	14.5
SEP							
24...	--	--	--	--	--	--	14.5

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## 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). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	$2.54 \times 10^1$	millimeters (mm)
	$2.54 \times 10^{-2}$	meters (m)
feet (ft)	$3.048 \times 10^{-1}$	meters (m)
miles (mi)	$1.609 \times 10^0$	kilometers (km)
<i>Area</i>		
acres	$4.047 \times 10^3$	square meters (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	square hectometers (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometers (km <sup>2</sup> )
square miles (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometers (km <sup>2</sup> )
<i>Volume</i>		
gallons (gal)	$3.785 \times 10^0$	liters (L)
	$3.785 \times 10^0$	cubic decimeters (dm <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic meters (m <sup>3</sup> )
million gallons	$3.785 \times 10^3$	cubic meters (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
cubic feet (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeters (dm <sup>3</sup> )
	$2.832 \times 10^{-2}$	cubic meters (m <sup>3</sup> )
acre-feet (acre-ft)	$1.233 \times 10^3$	cubic meters (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
	$1.233 \times 10^{-6}$	cubic kilometers (km <sup>3</sup> )
<i>Flow</i>		
cubic feet per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liters per second (L/s)
	$2.832 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$2.832 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
gallons per minute (gal/min)	$6.309 \times 10^{-2}$	liters per second (L/s)
	$6.309 \times 10^{-2}$	cubic decimeters per second (dm <sup>3</sup> /s)
	$6.309 \times 10^{-5}$	cubic meters per second (m <sup>3</sup> /s)
million gallons per day	$4.381 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$4.381 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
<i>Mass</i>		
tons (short)	$9.072 \times 10^{-1}$	megagrams (Mg) or metric tons



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