Water Resources Data
Ohio
Water Year 1991

Volume 2. St. Lawrence River Basin Statewide Project Data

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH–91–2
Prepared in cooperation with the State of Ohio
and with other agencies

CALENDAR FOR WATER YEAR 1991

1990

OCTOBER

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1991

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SEPTEMBER

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U.S. DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR, Secretary

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For additional information on the water program in Ohio write to
District Chief, Water Resources Division
U.S. Geological Survey
975 West Third Avenue
Columbus, OH 43212

1992

PREFACE

This volume of the annual hydrologic data report of Ohio is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and 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 two 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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Prepared in cooperation with the State of Ohio and with other agencies.

16. Abstract (Limit: 200 words)

Water-resources data for the 1991 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 131 gaging stations, 378 wells, and 74 partial-record sites; and water levels at 431 observation wells. Also included are data from 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.

17. Document Analysis a. Descriptors

*Ohio, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rates, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperature, Sampling sites, Water levels, Water analyses, Streamflow, Water wells.

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ILLUSTRATIONS

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letter after station name designates type of data: (c) miscellaneous chemical measurements, (C) daily chemical data, (d) discharge, (e) contents and (or) elevation, (HBM) hydrologic bench mark, (M) water-quality monitor, (m) microbiological, (NASQAN) National stream-quality accounting network, (r) radio-chemical, (s) miscellaneous sediment measurements, (S) daily suspended-sediment data, (t) temperature.)

ST. LAWRENCE RIVER BASIN

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Ohio have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with loess than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

[Letters after station name designate type of data collected: (d) discharge,

ST. LAWRENCE RIVER BASIN

Station name	Station number	Drainage area (mi^2)	Period of record
ST JOSEPH R NR BLAKESLEE (d)	04177500	394	1926-32
ST MARYS R NR WILLSHIRE (d)	04181000	354	1925-32
MAUMEE R AT ANTWERP (d)	04183500	2,129	1939-82
MAUMEE R NR SHERWOOD (d)	04184000	2,275	1903-06
BEAN C AT POWERS (d)	04184500	206	1940-81
TIFFIN R NR BRUNERSBURG (d)	04185500	736	1928-35
MIAMI & ERIE CA AT DELPHOS (d)	04186000	--	1928-33
OTTAWA R AT ALLENTOWN (d)	04187500	160	1923-35
			1943-82
OTTAWA R AT KALIDA (d)	04188000	309	1930-35
EAGLE CR NR FINDLAY (d)	04188500	55.0	1947-57
BLANCHARD R AT GLANDORF (d)	04189500	644	1921-28
			1947-51
BLANCHARD R AT DUPONT (d)	04190000	756	1928-35
ROLLER CR AT OHIO CITY (d)	04190500	5.14	1946-48
TOWN CR NR VAN WERT (d)	04191000	21.2	1945-53
MIAMI & ERIE CA NR DEFIANCE (d)	04192000	--	1924-29
			1952-69
MIAMI & ERIE CA AT WATERVILLE (d)	04193000	--	1921-29
SWAN C AT TOLEDO (d)	04194000	199	1940-48
PORTAGE R NR PEMBERVILLE (d)	04194500	337	1930-35
N B PORTAGE R NR BOWLING GREEN (d)	04195000	45.1	1923-32
SANDUSKY R NR BUCYRUS (d)	04196000	88.8	1925-35
			1938-51
			1964-81
BROKEN SWORD C AT NEVADA (d)	04196200	83.8	1976-81
SANDUSKY R NR UPPER SANDUSKY (d)	04196500	298	1921-35
			1938-81
SANDUSKY RIVER NR MEXICO (d)	04197000	774	1928-35
			1938-82
WOLF C AT BETTSVILLE (d)	04197300	66.2	1976-81
E B WOLF C NR BETTSVILLE (d)	04197450	82.4	1976-81
HAVENS C AT HAVENS (d)	04197500	4.28	1946-49
VERMILION R NR VERMILION	04199500	262	1950-81
E B BLACK R AT ELYRIA (d)	04200000	217	1922-35
W B BLACK R AB LAKE ST AT ELYRIA (d)	04200430	174	1980-84
CUYAHOGA RIVER NR KENT (d)	04202500	210	1933-35
BREAKNECK C NR KENT (d)	04203000	77.6	1927-35
L CUYAHOGA R AT MOGADORE (d)	04204000	14.3	1945-78
L CUYAHOGA R AT MASSILLON RD AKRON (d)	04204500	31.6	1945-74
SPRINGFIELD LAKE OUTLET AT AKRON (d)	04205000	9.72	1945-74
L CUYAHOGA R AT AKRON (d)	04205500	44.4	1920
			1927-34
L CUYAHOGA R BL OHIO CA AT AKRON (d)	04205700	59.2	1973-79
CUYAHOGA R AT IRA (d)	04206250	478	1973-79
OHIO CANAL FEEDER AT BRECKSVILLE (d)	04207000	--	1923-24

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
ST. LAWRENCE RIVER BASIN			
OHIO CA AT INDEPENDENCE (d)	04207500	--	1921-23
			1927-35
			1940-41
			1948-81
BIG C AT CLEVELAND (d)	04208502	35.3	1972-86
EUCLID C NR EUCLID (d)	04208690	22.6	1977-80
			1984-85
GRAND R NR NORTH BRISTOL (d)	04209500	85.4	1942-47
PHELPS C NR WINDSOR (d)	04210000	25.6	1942-59
GRAND RIVER NR ROME (d)	04210500	251	1942-47
ROCK C NR ROCK CREEK (d)	04211000	69.2	1948-66
MILL C NR JEFFERSON (d)	04211500	82.0	1942-74
GRAND R NR MADISON (d)	04212000	581	1922-35
			1938-74
ASHTABULA R NR ASHTABULA (d)	04212500	111	1924-35
			1950-80

-- not determined for canals.

The following stations were discontinued as continous-record surface-water-quality stations prior to the 1991 water year. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the record shown for each station.

Discontinued continous-record surface-water-quality stations

ST. LAWRENCE RIVER BASIN

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record
MAUMEE R AT ANTWERP	04183500	2,129	Temp.	1939-82
MAUMEE R AT DEFIANCE	04184100	2,316	Temp., S.C., D.O.	1966-78
			pH	1973-78
TIFFIN R AT EVANSPORT	04185500	736	Temp., S.C.,	1968-78
			D.O.	1971-78
			pH	1968-78
OTTAWA R AT ALLENTOWN	04187500	160	Temp., S.C.	1969-82
			D.O., pH.	1977-82
AUGLAIZE R AT CLOVERDALE	04188200	713	Temp., S.C., D.O., pH	1967-78
AUGLAIZE R NR DEFIANCE	04191500	2,318	Temp., S.C., D.O., pH	1966-76
			Sed.	1936
KEITZ RUN AT WATERVILLE	04192900	1.06	Precip.	1981-86
MIAMI RIVER AT WATERVILLE	04193500	6,329	Temp., S.C., D.O., PH	1974-77
MAUMEE R AT MOUTH AT TOLEDO	04194023	6,608	Temp., S.C., D.O., pH.	1967-75
M B PORTAGE R NR PORTAGE	04194310	217	Temp., S.C.	1969-75
PORTAGE R ATRR BRIDGE AT WOODVILLE	04195600	428	Temp., S.C., pH	1968-80
PORTAGE R AT ELMORE	04195800	432	Temp.	1950-52
			D.O.	1970-80
			Sed.	1950-53
SANUDSKY R NR UPPER SANDUSKY	04196500	298	Temp., D.O., pH	1969-79
TYMOCHTEE C AT CRAWFORD	04196800	229	Temp., S.C., D.O., pH.	1968-75
SANDUSKY R AT ST JOHNS BRIDGE NR MEXICO	04196990	711	Temp., S.C., D.O.	1969-76
SANDUKY RIVER AT FREMONT	04198001	1,259	Temp., S.C., D.O.	1966-80
			pH	1966-67
			pH	1969-75
W B HURON R NR WILLARD	04198018	86.0	Temp., S.C.	1968-75
SANDHILL C NR MONROEVILLE	04198019	1.76	Precip	1981-86
HURON RIVER BL MILAN	04199100	385	Temp., S.C., D.O., pH	1968-78
VERMILION R NR VERMILION	04199500	262	Temp., S.C., D.O., pH	1969-80
E B BLACK R AT GRAFTON	04199900	170	Temp., S.C.	1969-75
W B BLACK R NR ELYRIA	04200400	170	Temp.,	1970-75
			S.C.	1969-70
W B BLACK R AB LAKE ST AT ELYRIA	04200430	174	Sed.	1980-81
BLACK R AT ELYRIA	04200500	396	Temp.	1962-70
			S.C.	1964-70
			Sed.	1980-81
BLACK R BL ELYRIA	04200550	412	Temp.	1966-70
			S.C.	1964-70
			D.O.	1967-82
			pH	1976-82
CUYAHOGA R AT OLD PORTAGE	04205700	59.2	Temp., S.C., D.O., pH	1970-84
			Sed.	1972-81
CUYAHOGA R AT BATZUM	04206200	443	Temp.	1947-49
TINKERS C AT BEDFORD	04207200	83.9	Sed.	1972-79
BIG C AT CLEVELAND	04208502	35.3	Sed.	1978
CUYAHOGA R AT DUPONT INTAKE IN CLEVELAND	04208505	794	S.C.	1964-75
CUYAHOGA R AT SUPR ST BRIDGE IN CLEVELAND	04208510	808	Temp., S.C., D.O., pH	1964-66
CHAGRIN R AT WILLOUGHBY	04209000	246	Temp.	1950
			Sed.	1969-74
GRAND RIVER AT PAINESVILLE	04212200	701	Temp., S.C., D.O., pH	1966-82
ASHTABULA R AT ASHTABULA	04212700	136	Temp., S.C., D.O., pH	1968-79

VOLUME 2: ST. LAWRENCE RIVER BASIN
STATEWIDE PROJECT DATA

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of 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 interested parties outside the USGS, the data are published annually in this report series entitled "Water Resources Data--Ohio."

This report (in two volumes) includes records on surface water and ground water in the State. Specifically, it contains: (1) Discharge records for 131 streamflow-gaging stations, 95 miscellaneous sites; (2) stage and content records for 5 streams, lakes, and reservoirs; (3) water-quality data for 40 streamflow-gaging stations, 378 wells, and 74 partial-record sites; and (4) water levels for 431 observation wells. Locations of lake- and streamflow-gaging stations, water-quality stations, and observation wells for which data are presented in this volume are shown in figure 9.

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 can be consulted in the libraries of the principal cities of the United States, and can be purchased from the Books and Open-File Reports Section, U.S. Geological Survey, Box 24525, Federal Center, Denver, CO 80225.

Publications similar to this report are published annually by the USGS for all States. These official USGS reports are identified by means of a 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-91-2." 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 data since 1898. Organizations that assist in collecting data in this report are: Ohio Department of Natural Resources, Frances Buchholzer, Director; Ohio Environmental Protection Agency, D. R. Schregardus, Director; Ohio Department of Transportation, Jerry H. Wray, Director; Miami Conservancy District, J. L. Rozelle, General Manager and Chief Engineer; City of Columbus Department of Public Service, J. R. Doutt, Administrator; City of Canton Water Department, J. D. Williams, Superintendent; Ross County, James Kennard, Adminstrative Assistant; Seneca Soil and Water Conservation District, Norman Daniel, Board Chairman; University of Toledo, R. Gallagher; Cuyahoga River Community Planning Organization, John Beeker; Northeast Regional Sewer District, E. J. Odeal, Executive Director; Ohio Water Development Authority, Warren Tyler, Chairman; City of Fremont, Warren Curtis, City Engineer; City of Akron, Linda Sowa, Administrator; City of Lima, A. Godsey, City Sanitary Engineer; Eastgate Development and Transportation Agency, J. Wells, Environment Project Manager; University of Cincinnati, J. Maynard, Department Head; U.S. Air Force, Air Force Logistics Command, A. F. Sculimbrene, Office of Environmental Management; Toledo Metropolitan Area Council of Governments, K. Erickson, Director of Regional Planning; and Ohio State University, Ohio Agricultural Research and Development Center (OARDC), Professor Warren Dick; U.S. Department of Energy, Ronald O. Hultgren, Deputy Assistant Manager for Enriching Operations. Funds or services were provided by the U.S. Army Corps of Engineers in collecting data 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 data.

SUMMARY OF HYDROLOGIC CONDITIONS

Ohio is part of three physiographic provinces, each with its own distinctive hydrologic characteristics. The topography of the Till Plains section of the Central Lowlands physiographic province (fig. 1) consists of gently rolling ground moraine, bands of terminal moraine, and outwash-filled valleys. Glaciation altered the courses of most streams in this area. The Eastern Lake Plains section (fig. 1) consists of wide expanses of level or nearly level land interrupted only by the sporadic sandy ridges that are the last visible remnants of glacial-lake beaches. Much of the area was swamp prior to development, and marshes are still present along Lake Erie near Toledo. The Lexington Plains section of the Interior Low Plateau province (fig. 1) is characterized by rolling terrain and a few isolated large hills and ridges. The "barbed" drainage pattern formed when small streams were captured as their headwaters cut back into the hills over time. Streams have carved the Kanawha section of the Appalachian Plateaus province (fig. 1) into an intricate series of hollows and steep-sided ridges. Only the large streams in the section have any appreciable flood plain. In the southern New York section (fig. 1), successive waves of glaciation have subdued the relief, buried many preglacial valleys, and rerouted many streams.

Precipitation

The average annual precipitation in Ohio is about 38 inches. The annual precipitation decreases from around 42 inches on the southern border to about 32 inches in the northwest. An anomalous area of high precipitation (as much as 44 inches) in northeastern Ohio results from air masses that pick up moisture and heat from Lake Erie and subsequently release precipitation over a range of hills stretching northeastward from Cleveland.

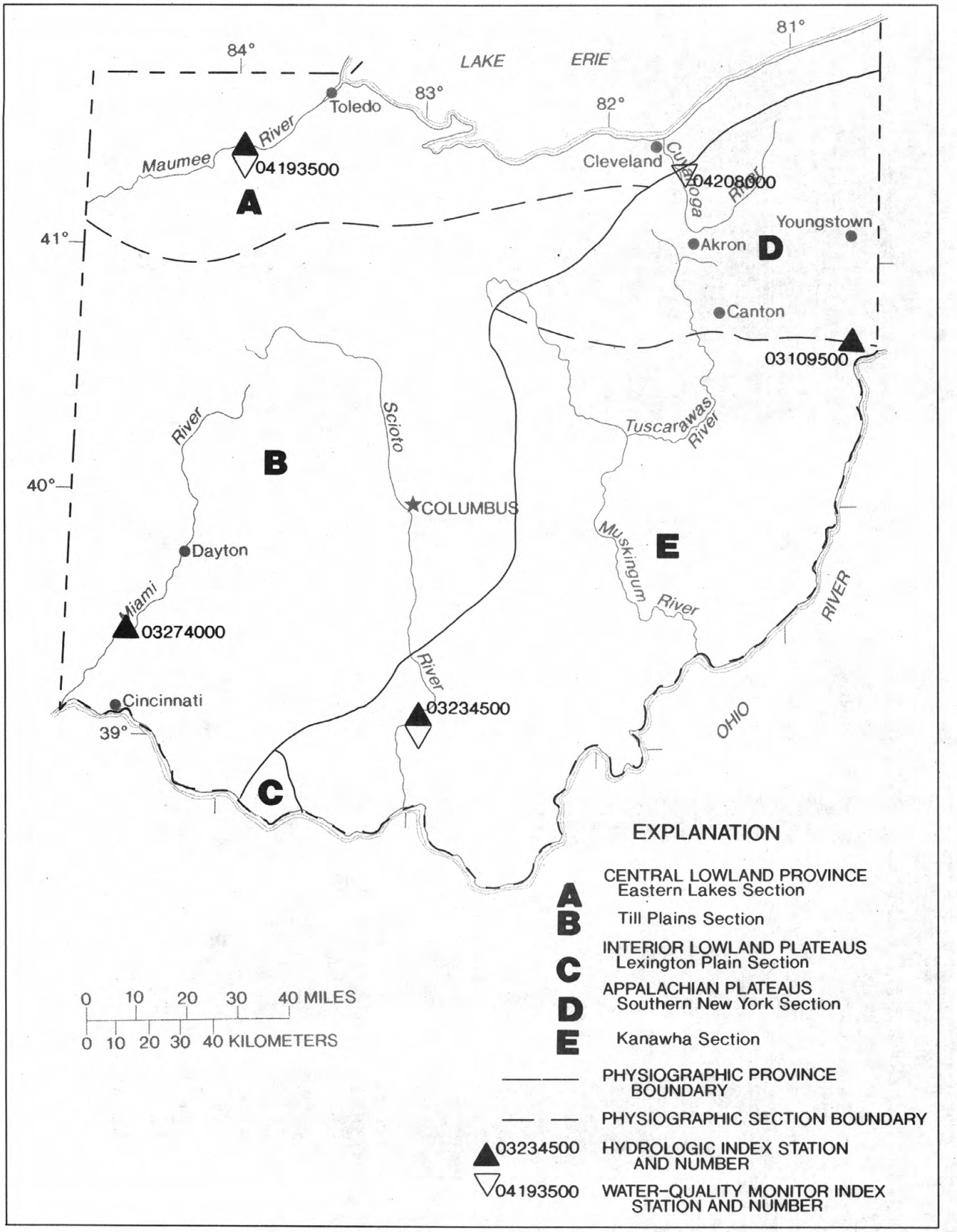

Figure 1.--Physiographic divisions and location of Hydrologic Index Stations.

Precipitation--Continued

Monthly precipitation typically is greatest from May through July and least in October, December, and February. Of the approximate 38 inches of average annual precipitation, about 10 inches runs off immediately, 2 inches is retained at or near the surface and evaporates and transpires, and 26 inches enters the ground. Of the 26 inches that enters the ground, 20 inches is retained in the unsaturated zone and is later lost by evapotranspiration. The remaining 6 inches reaches the water table. Of this 6 inches, 2 inches eventually discharges to streams, and the rest is lost by evapotranspiration and consumptive use. Average runoff ranges from about 15 to 18 inches along the southern border to about 8 to 12 inches along most of the northern border, except in the northeast, where runoff is as much as 20 inches. The pattern of streamflow differs from the pattern of precipitation because of the contributions of snowmelt to streamflow in the early spring and the reduction in flows by evapotranspiration from June through September.

Surface Water

Streamflow

Streamflow-data-collection stations are distributed irregularly throughout the State, and tend to be concentrated on the main river systems. The stations are used to sample a wide variety of conditions. The drainage areas range from 12 to 7,420 square miles and represent a wide diversity of topography, and other physical characteristics. Streamflow ranges from unreglated to highly regulated.

Statewide streamflow, water year 1990

At the beginning of the 1991 water year, streamflow was above normal[1] statewide following 3 months of above-normal streamflow at the end of 1990. Precipitation for calendar year 1990 was the highest on record (almost 14 inches above the statewide average), and the excessive flows continued through January. In late December, warm temperatures, snowmelt, and 2 to 3 inches of rain caused small-stream and urban flooding throughout much of the State; flooding was most serious in northern Ohio, where flows were in the 25-year-recurrence-interval range. Portage River at Woodville had a peak discharge corresponding to the 100-year recurrence interval.

Streamflow gradually declined into the normal range during the period from February through April in response to a decrease in precipitation. Below-average precipitation prevailed statewide for the remainder of water year 1991, causing streamflow to decline into the below-normal range throughout the State by July. Drought conditions worsened in areas of northeastern and central Ohio, where streamflow remained in the below-normal range for the rest of the year. The remainder of the State was either normal or below normal for the period August through September.

Water Quality

The U.S. Geological Survey collects long-term water-quality data in Ohio at 10 fixed stations (fig. X1). Nine NASQAN (National Stream Quality Accounting Network) stations are in major river basins in Ohio, and one Hydrologic Benchmark station is in a small, relatively pristine basin in southern Ohio.

Samples are collected quarterly at six stations, bimonthly at three stations, and monthly at the Benchmark station. Because of the fixed schedule, samples are collected at a variety of streamflows (fig. X2). Samples are analyzed for major anions and cations, nutrients, trace elements, suspended sediment, selected physical properties, and fecal coliform and fecal streptococci. Despite unusual streamflow conditions in this water year, samples were collected over a wide range of discharge at each site.

Box plots of selected constituents measured from 1981 through 1990 are shown in figure X2. Results of analysis of samples collected in water year 1991 are superimposed on the box plots. Chloride concentration, commonly correlated with the presence of municipal or industrial point sources of discharge, was generally less than 100 mg/L. Samples collected, however, were much higher (710 and 760 mg/L). Salt mining and processing in the lower Grand River basin as well as runoff from abandoned chemical-industry properties most likely contribute to the much higher chloride concentrations there. At all sites, the concentration of chloride increased as streamflow decreased.

Nitrate concentration is of concern for public water supplies--the maximum contaminant level is 10 milligrams per liter (as N) for finished drinking water. In Ohio streams, fertilizers are a major source of nitrate. Highest concentrations of nitrate in water year 1991 were found in the same rivers that highest 10-year median concentrations were found--Maumee River and Sandusky River. Two Cuyahoga River samples collected in water year 1991 exceeded the nitrate concentration for the previous 10-year period.

Agricultural runoff and municipal and industrial point discharges are the major sources of phosphorus. Total phosphorus concentrations were greatest and generally most variable in Scioto, Little Miami, and Great Miami Rivers. The basins drained by these rivers contain a mix of agricultural and urban land uses that contribute runoff of agricultural chemicals and municipal and industrial point sources.

At all sites, total dissolved-solids concentrations and fecal coliform bacteria counts for water year 1991 generally followed the distribution for the previous 10-year period. The range of total dissolved-solids concentrations for Grand River near Painesville is much greater than for the other sites.

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[1]Normal is defined as streamflow between the 25th and 75th percentiles as measured during the base period water years 1951 through 1980.

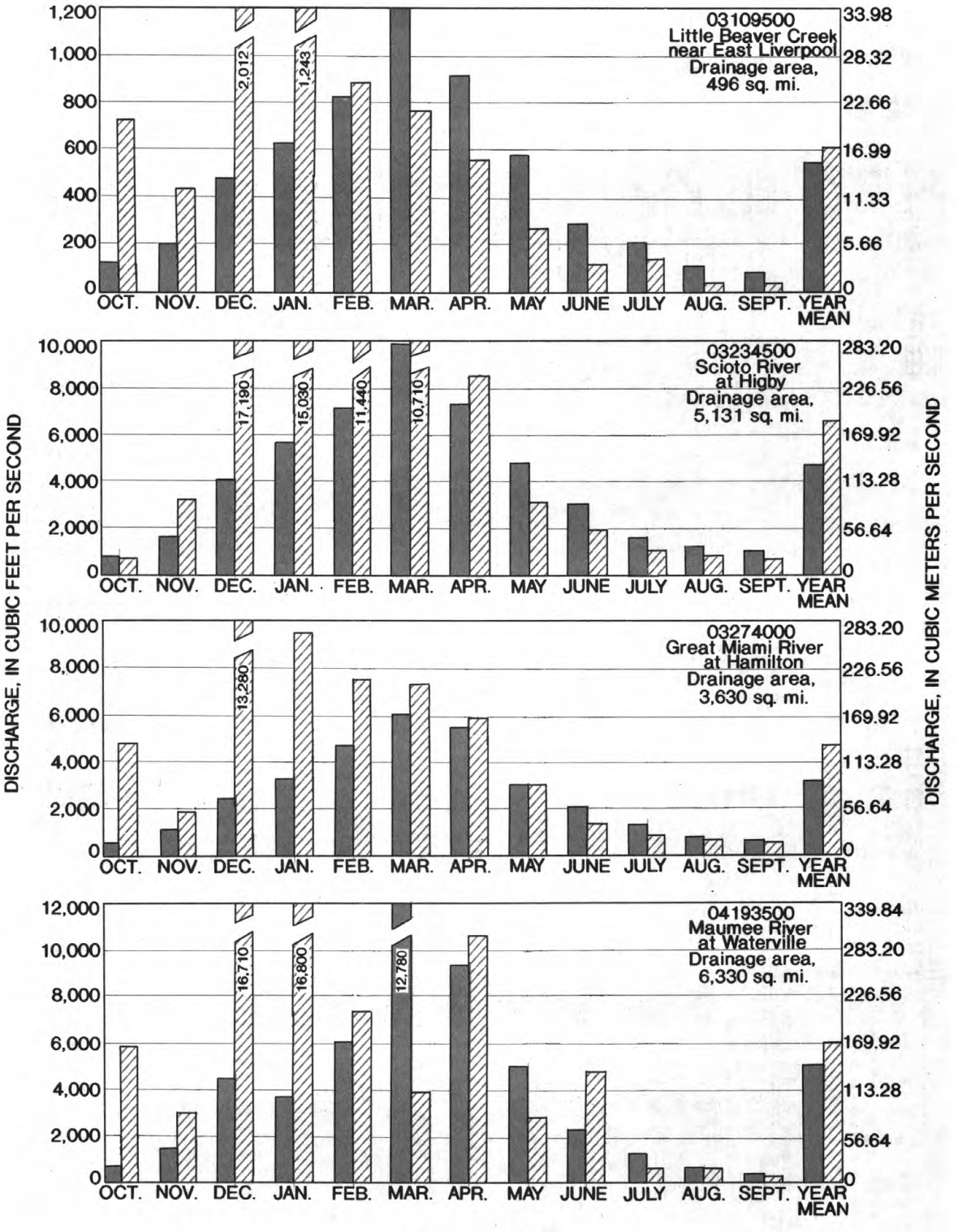

Figure 2.--Runoff during 1991 water year compared with median runoff for period 1951-1980 for four representative gaging stations.

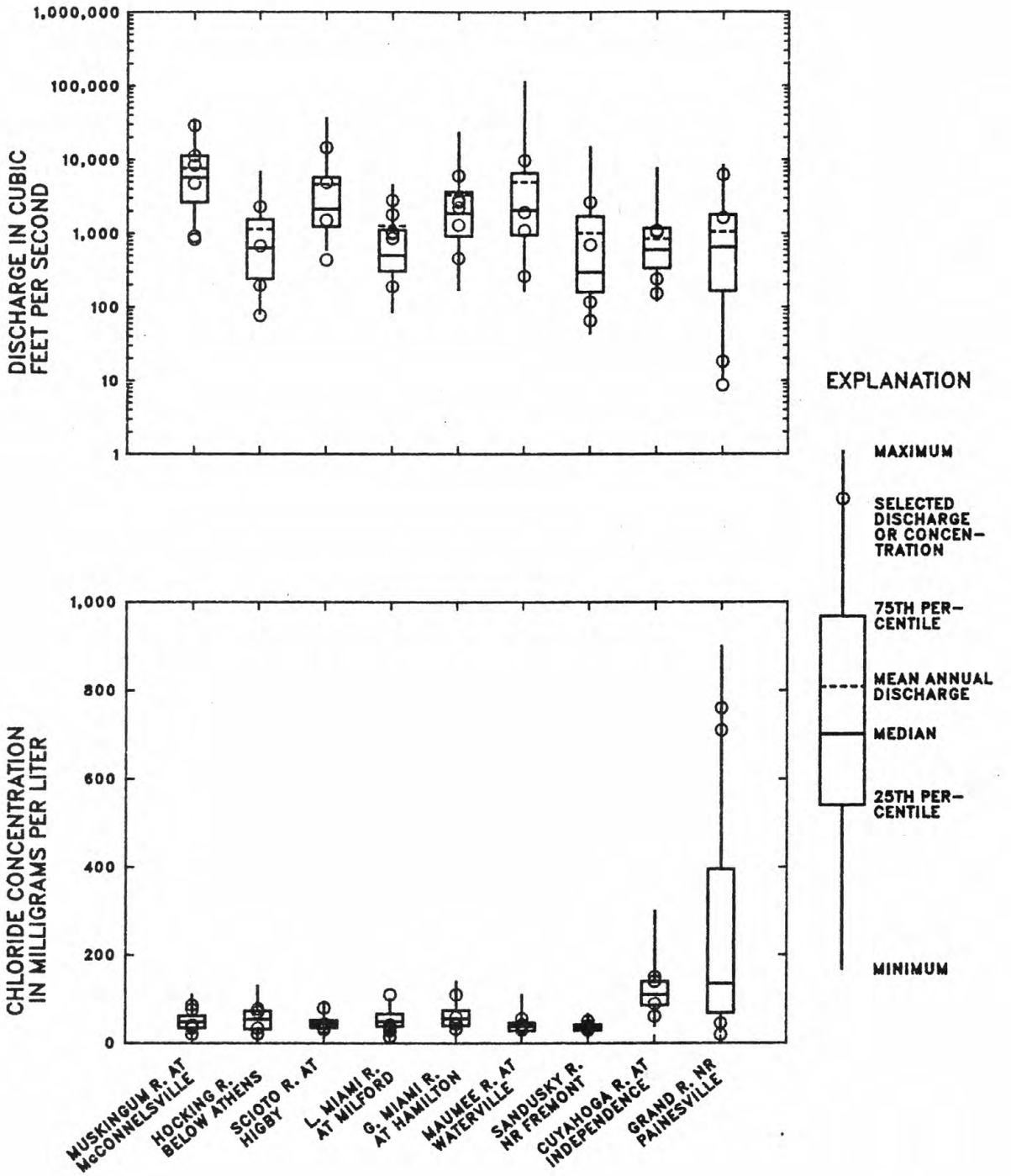

Figure 3.--Discharge and chemical concentrations measured in water year 1991 and the distribution of those constituents from measurements made during water years 1981–90 at NASQAN stations.

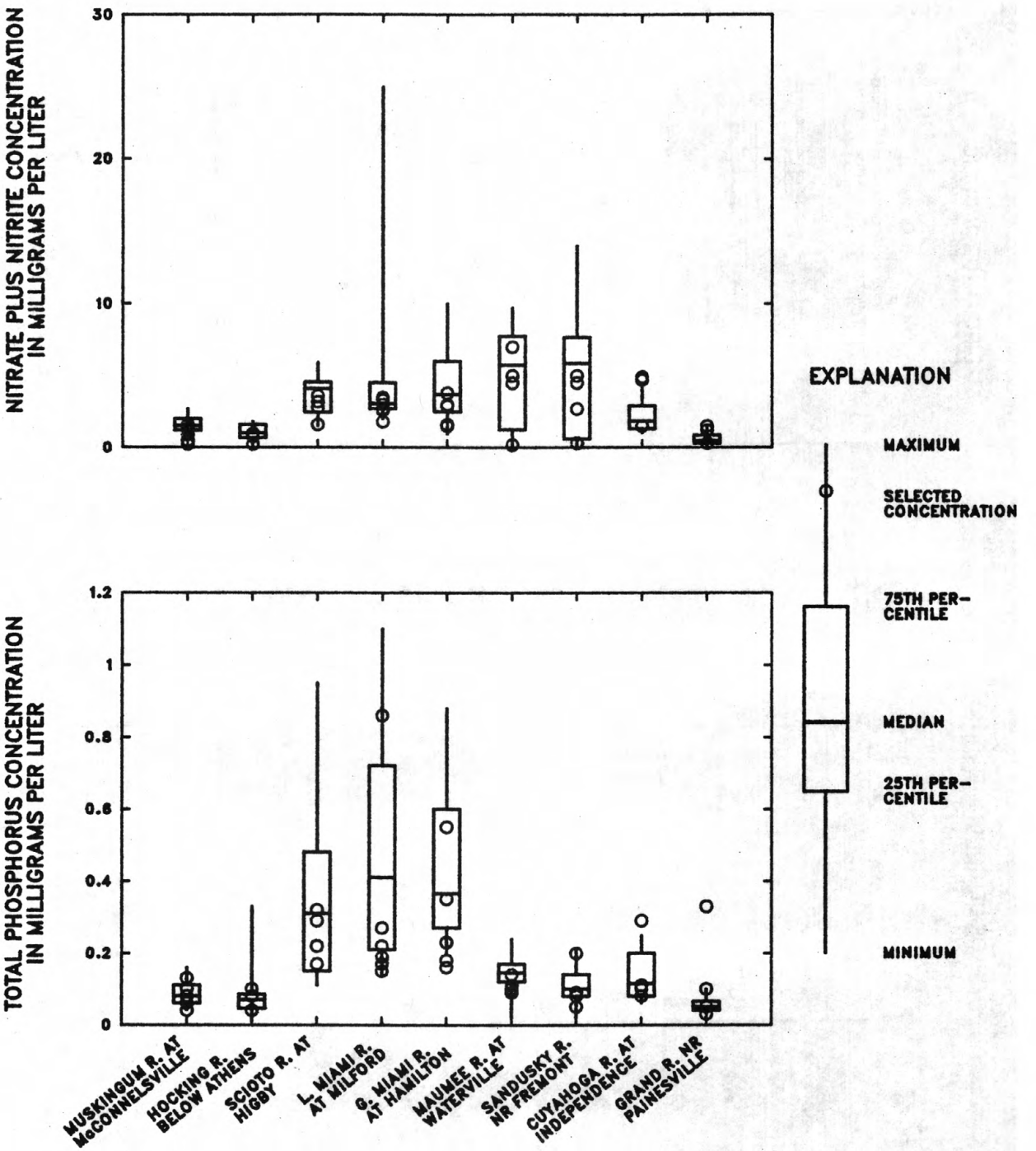

Figure 3.--Discharge and chemical concentrations measured in water year 1991 and the distribution of those constituents from measurements made during water years 1981–90 at NASQAN stations--Continued.

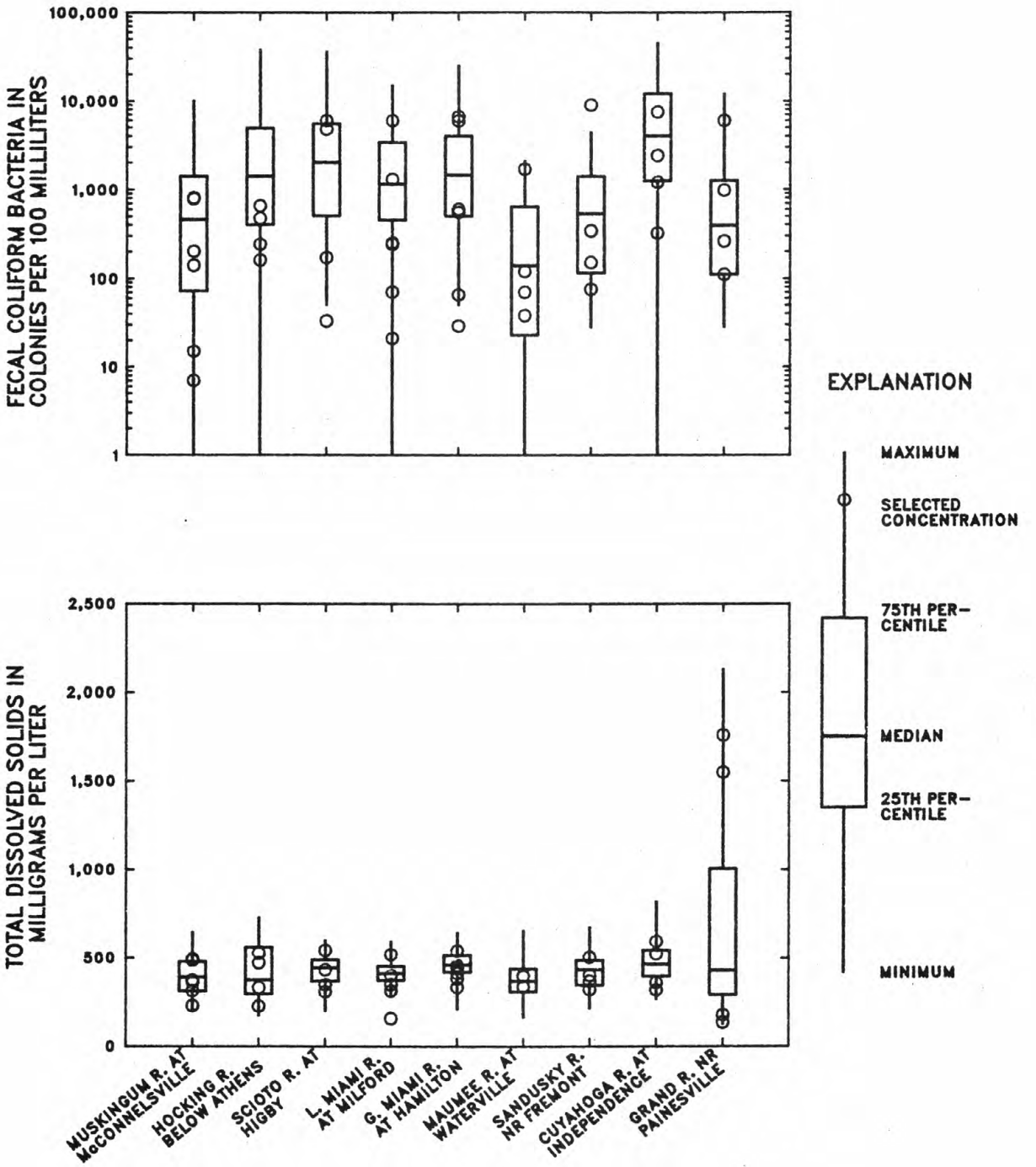

Figure 3.--Discharge and chemical concentrations measured in water year 1991 and the distribution of those constituents from measurements made during water years 1981-90 at NASQAN stations--Continued.

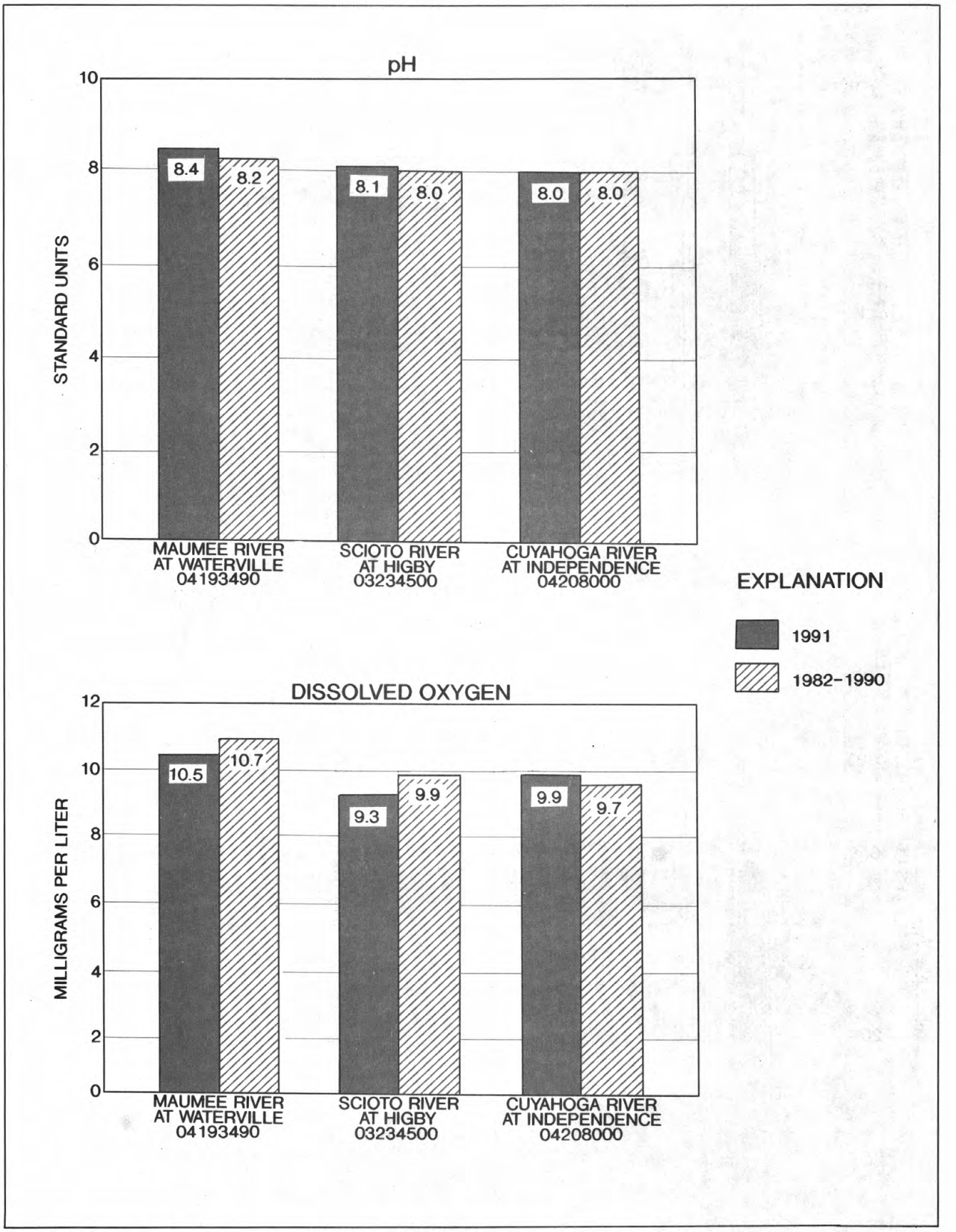

Figure 4.--Comparison of 1991 mean values of pH, dissolved oxygen, temperature, and specific conductance with the average of annual mean values for 1982-1990 for three water-quality-monitor index stations in Ohio.

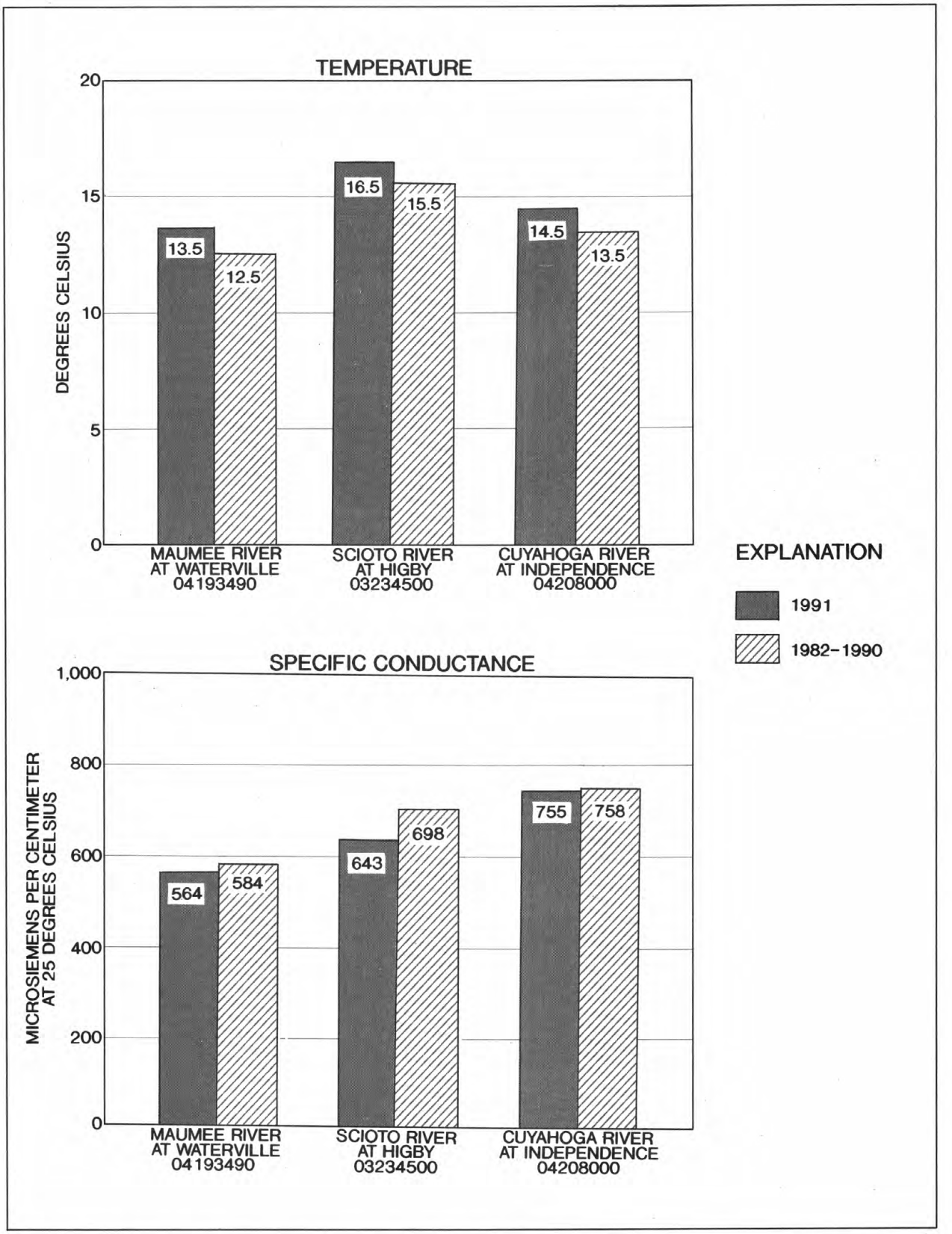

Figure 4.--Comparison of 1991 mean values of pH, dissolved oxygen, temperature, and specific conductance with the average of annual mean values for 1982-1990 for three water-quality-monitor index stations in Ohio--Continued.

Ground Water

Ground water serves the needs of 42 percent of Ohio's population. An estimated 740 million gallons of ground water per day is withdrawn for domestic, industrial, and agricultural purposes. Many people in Ohio depend on ground water as the only practical source of supply.

Ohio's unconsolidated aquifers are composed of either coarse- or fine-grained sediments. Both types are composed mainly of materials of glacial origin. The coarse-grained unconsolidated aquifers generally consist of highly permeable sand and gravel. Much of the sand and gravel is alluvium derived from glaciofluvial outwash along the courses of some modern streams; thus, these aquifers sometimes are referred to as "watercourse" aquifers. Coarse-grained unconsolidated aquifers in the northwestern corner of the State (fig. 5) underlie glacial till, are locally confined under artesian pressure, and are highly productive. Extensive kame-terrace deposits of water-bearing gravel and sand are widely used ground water sources in northeastern Ohio. The fine-grained unconsolidated aquifers are similar to the coarse-grained unconsolidated aquifers in form and origin but are less permeable because of higher percentages of mixed fine sand, silt, and clay. Included in the fine-grained unconsolidated aquifers are tills that contain thin or localized stratified lenses of sand and gravel.

Ground-water supply for much of the unglaciated upland area of southeastern Ohio is from bedrock aquifers composed of shaly sandstone and thin limestone. These strata, which range from Mississippian to Permian in age, are dominated by low-yielding shales and shaly sandstones that include numerous coal-bearing strata. In some places, small water supplies are available from fractured coal beds. Several sandstone aquifers in northeastern Ohio are of regional extent and are major ground-water sources for individual and small public supplies. These include the Berea and Black Hand Sandstones of Mississippian age and several sandstone members of the Pottsville and Allegheny Formations of Pennsylvanian age. The Lake Erie coastline of northeastern Ohio is underlain by shale of Devonian and Mississippian age (fig. 5) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 5) of much of western Ohio. Glacial cover is uneven and consists of valley fill and terminal moraine in some places. The northeastern part of western Ohio contains an area of high-yielding wells that tap a preferentially weathered zone, which developed when carbonate section was periodically exposed as land mass during the Paleozoic Era. The southwestern corner of Ohio near Cincinnati is underlain by shale and a thin limestone aquifer of Ordovician age. Away from the watercourse (coarse unconsolidated) aquifers that traverse the area, the rocks that form the uplands yield only very small amounts of ground water.

Ground-Water Levels

Most of the ground-water observation wells in Ohio tap unconsolidated sand and gravel aquifers in buried valleys of watercourse systems associated with the State's principal streams. Sample 1-year and 5-year hydrographs of a well completed in an unconfined unconsolidated sand-and-gravel aquifer are shown in figure 6. The observation-well network also includes some bedrock wells in areas where consolidated aquifers are heavily used water supplies, such as the carbonate-rock region of northwestern Ohio and various sandstone units of eastern Ohio. Sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer are shown in figure 7. The yearly low for most wells occurs during the winter months, especially in cold, dry years or near the end of the growing season. Highs for the year usually occur from March through June, which is the peak of the recharge season. The yearly water-level fluctuation due to climatic conditions in water-table and confined-aquifer wells is commonly 3 to 5 ft.

Ground water levels at the beginning of the 1991 water year were above normal[2] throughout the State in response to the record high precipitation of 1990. Generally, ground-water levels rose and remained in the above-normal range throughout the period October through January. Record highs were established at several observation wells during these months. In February, above-normal levels continued, despite below-normal precipitation, although there were some declines in shallow, unconsolidated aquifers. In April and May, ground-water levels began to trend downward, although levels generally were close to normal. The decline accelerated in response to well-below-normal precipitation for much of the remainder of the year, primarily in northeastern and central Ohio where extreme drought prevailed. Ground-water levels were generally below normal statewide for the months of July through September, and record lows were established at several observation wells during this period.

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[2]For ground-water levels, "normal" is defined as being between the 25th and 75th percentiles of the range of values recorded during the reference period 1960-75.

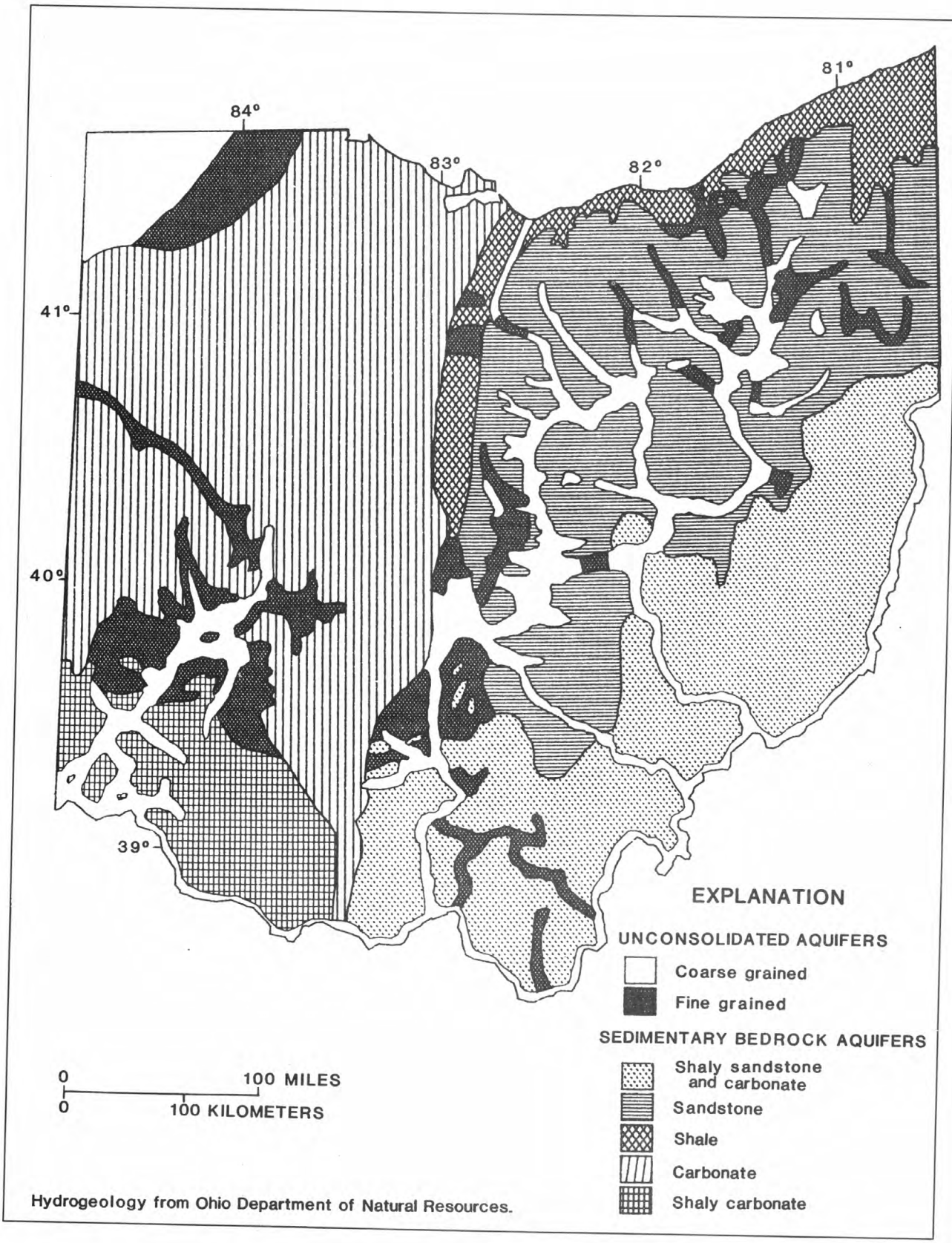
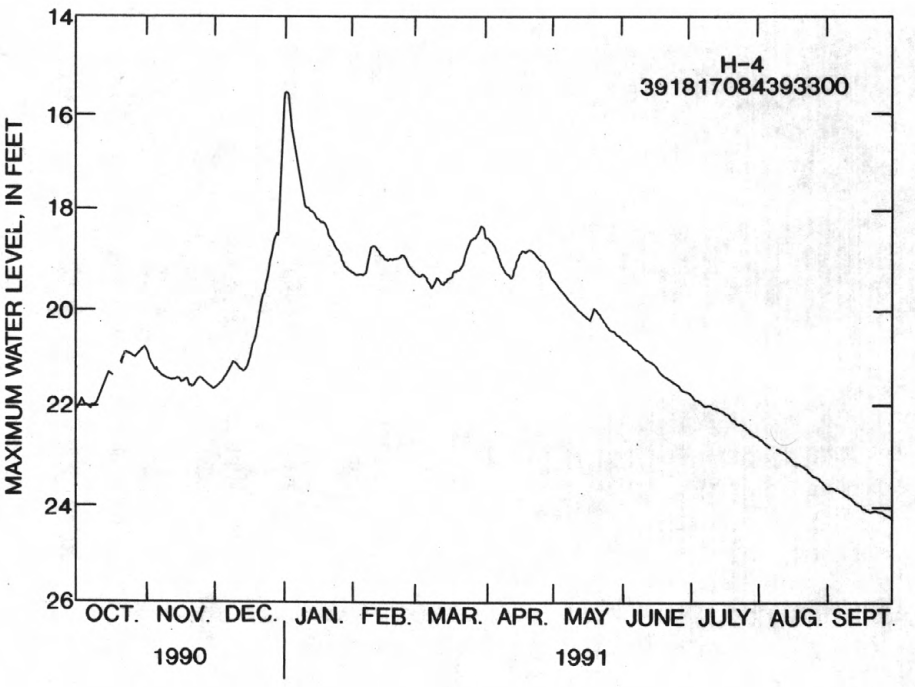


Figure 5.--Geographic distribution of principal aquifers in Ohio.



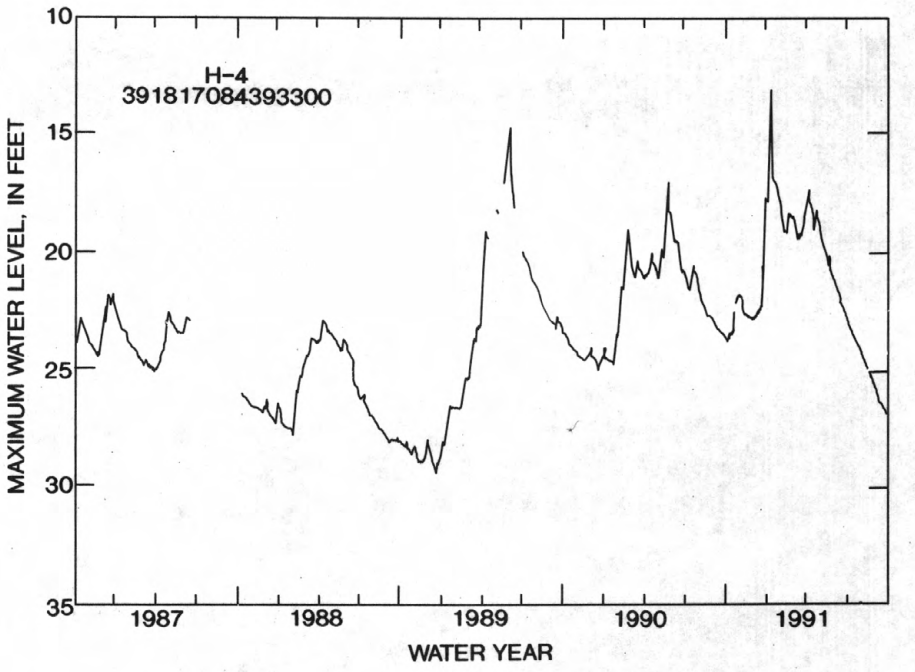


Figure 6.--Sample 1-year and 5-year hydrographs of a well completed in an unconfined unconsolidated aquifer.

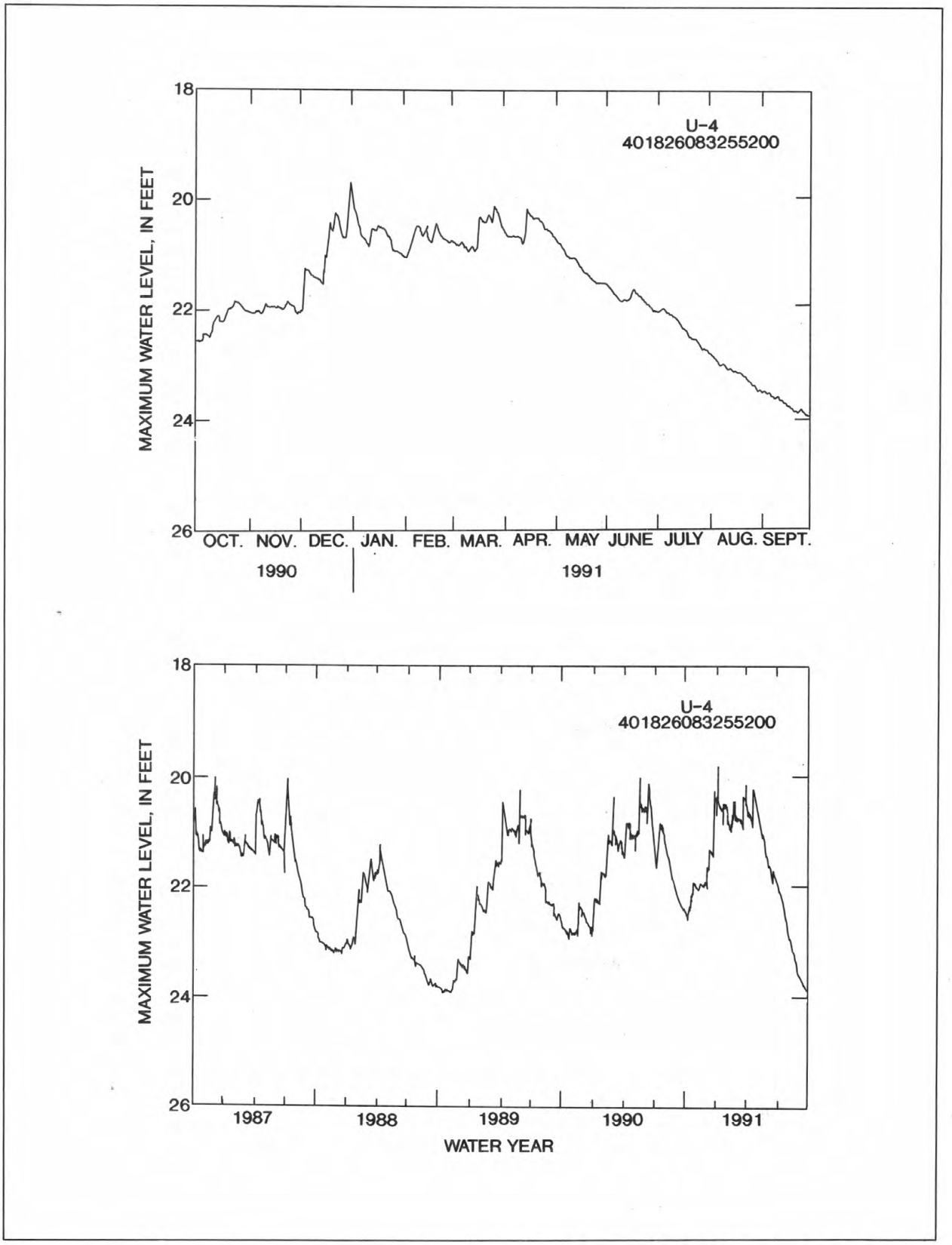


Figure 7.--Sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer.

SPECIAL NETWORKS AND PROGRAM

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the coun-try 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 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 1987 water year that began October 1, 1986 and ended September 30, 1987. 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 indention in a "List of Stations" in the front of the report. Each indention represents one rank. This downstream order and system of indention 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 stations 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 indentification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 8.)

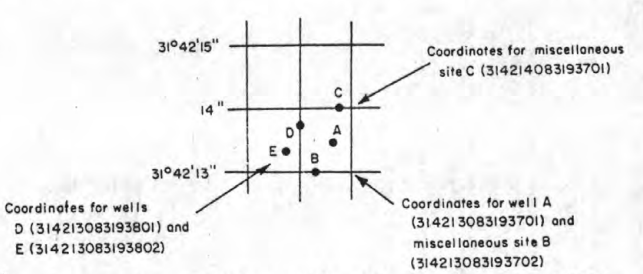


Figure 8.--System for numbering wells and miscellaneous sites (latitude and longitude)

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 sta- tions for which data are given in this volume are shown in figure 9.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a con tinuous 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 that trace continuous graphs of stage, or with digital recorders that 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 sur-veys, 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 regulalation. 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 con- tinuous-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 per- cent; 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^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures for more than 1,000 ft^3/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 that office upon request.

Information used in preparing 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 analylzed statistically. Information on availability of the unpublished information or on resu[Blts 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. Freuency 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 figure 9.

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 is 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. 21-22 of this report. Also, detailed information on col-lecting, 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 differ ent 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 laboraories 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.

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of monograms per liter (ng/L). Present data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in the near future.

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 maxi- mums 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 data 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)
M	Presence of material verified but not quantified
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 Nation's most important aquifers. Locations of the observation wells in this network in Ohio are shown in figure 9. 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, which 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 lows of the water year are shown on a line below the table. Because only daily lows are published for wells with recorders, the extreme instantaneaous 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 p. 21-22. 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 + 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 + 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 + 1.0°C on KF-streptoccus 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^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

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^3/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 that 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.

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

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 ($CaCO_3$).

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 Index Stations, in this report, refers to four continuous record gaging stations that have been selected as representative of streamflow patterns for their respective regions of Ohio. Station locations are shown in figure 1.

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

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

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

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 (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:

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

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 [mg C/(m^2/time)] for periphyton and macrophytes and [mg C/(m^3/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 [mg O_2/(m^2/time)] for periphyto and macrophytes and (mg O_2/(m^3/time)] for phytoplankton are the units for expressing primary productivity. They difine 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 drain-age 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, 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 occurences 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 ($7Q_{10}$) 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 of 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 microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-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 emersed 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 filled with clean streamsize rocks) and multiplate samplers (made of hardboard) for benthicorganism 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 planimetered. All areas shown are those for the stage when the planimetered 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 hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata

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 repre- sents 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.

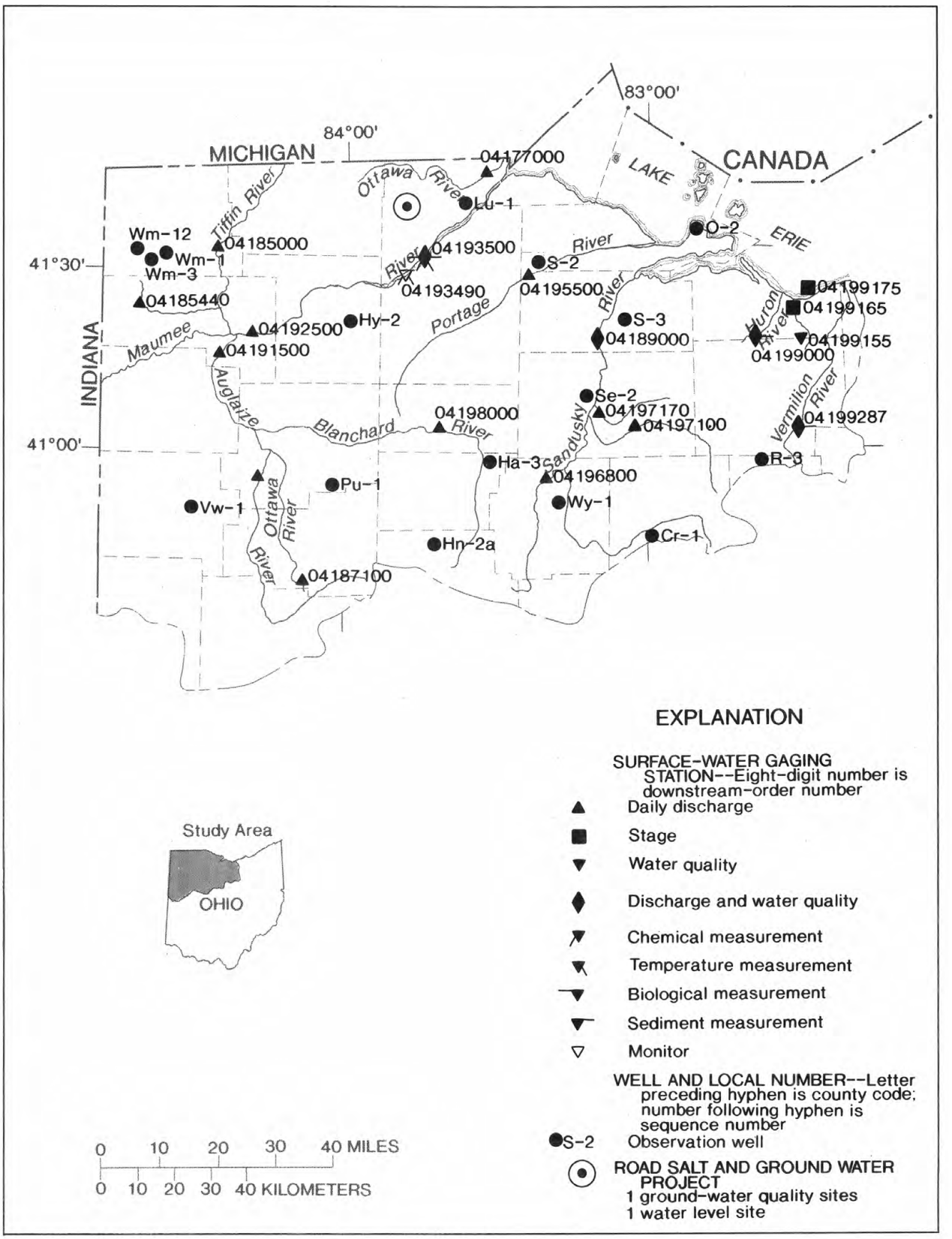


Figure 9a.--Location of data-collection stations.

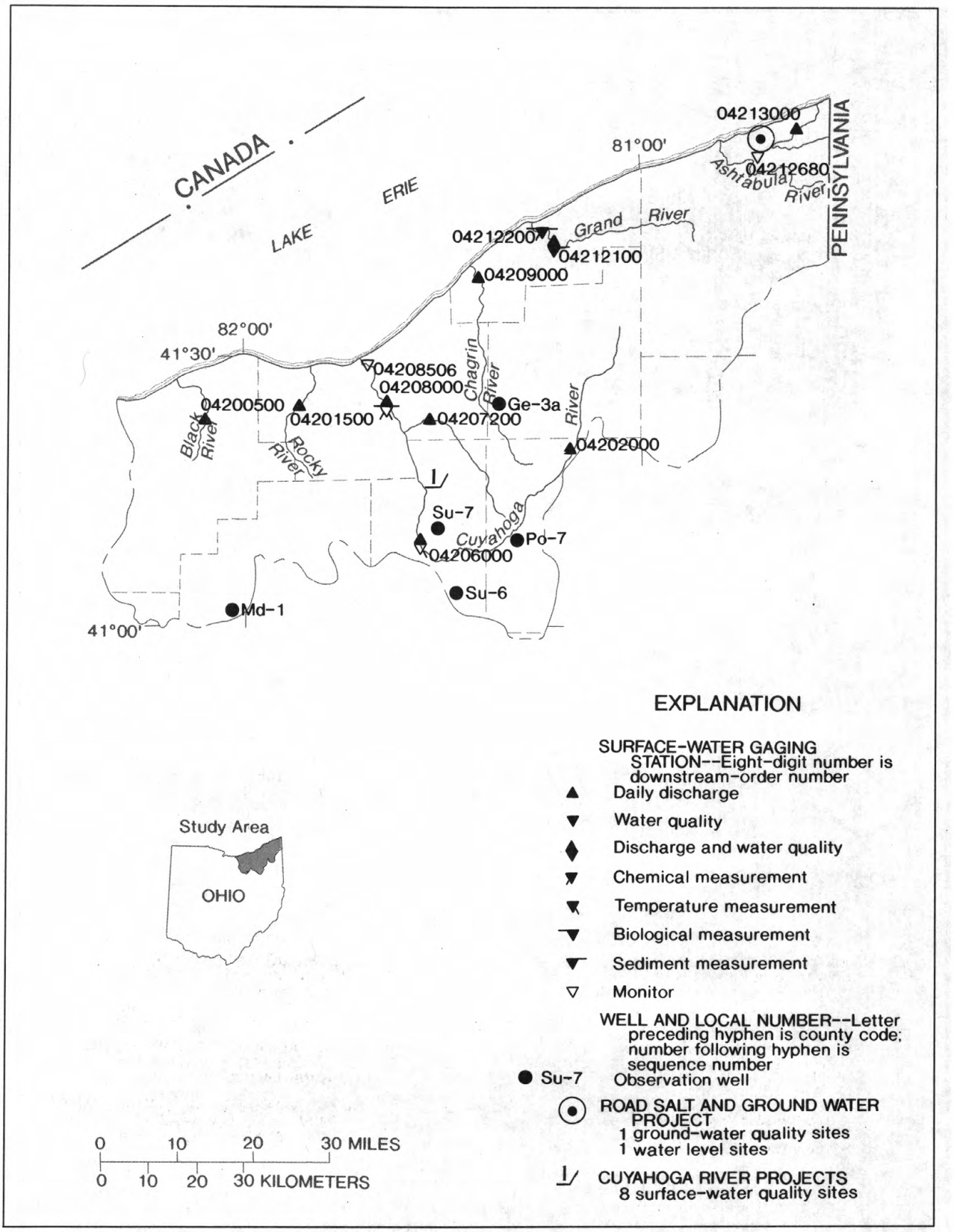


Figure 9b.--Location of data-collection stations.

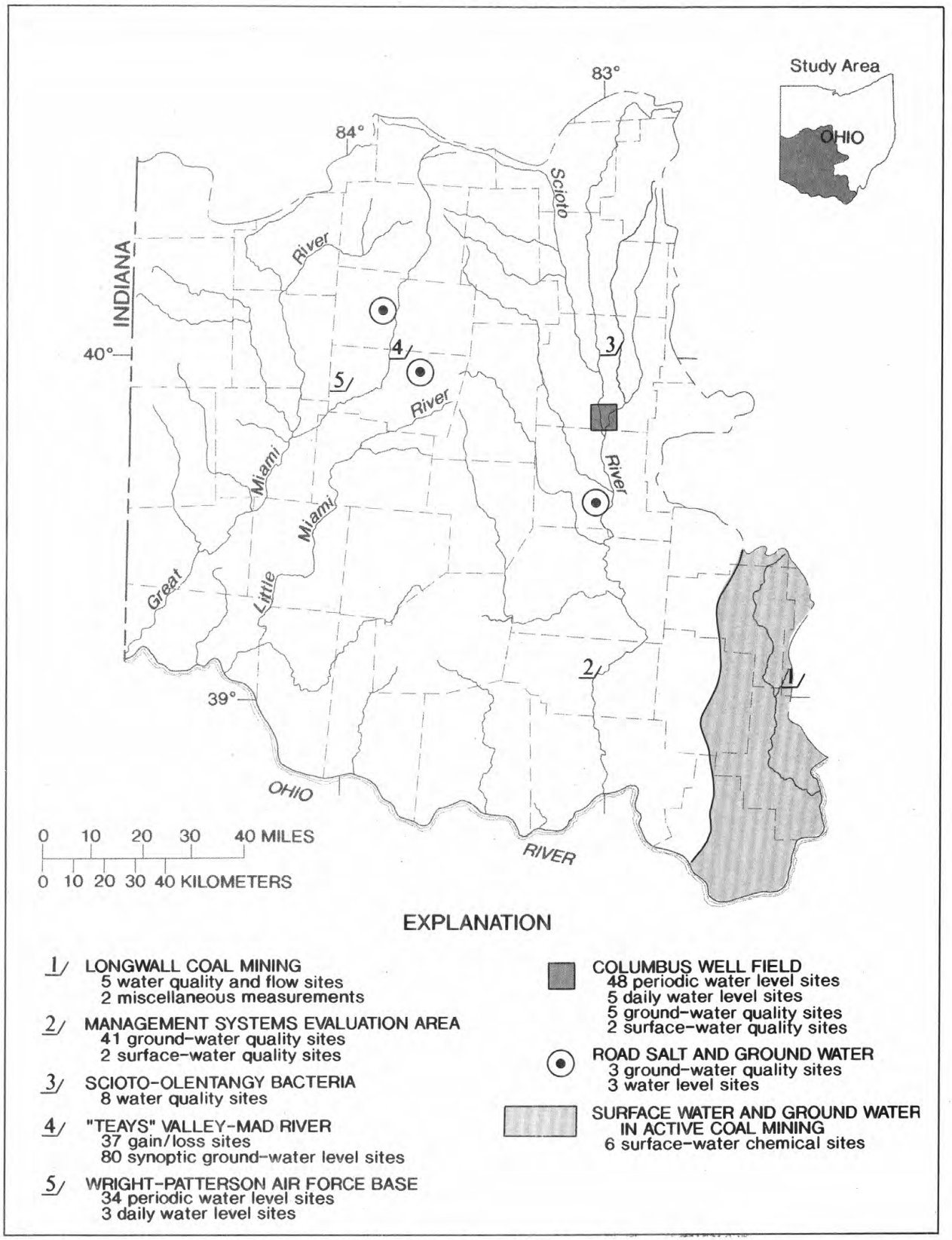


Figure 9c.--Location of data-collection stations for projects, Ohio River basin.

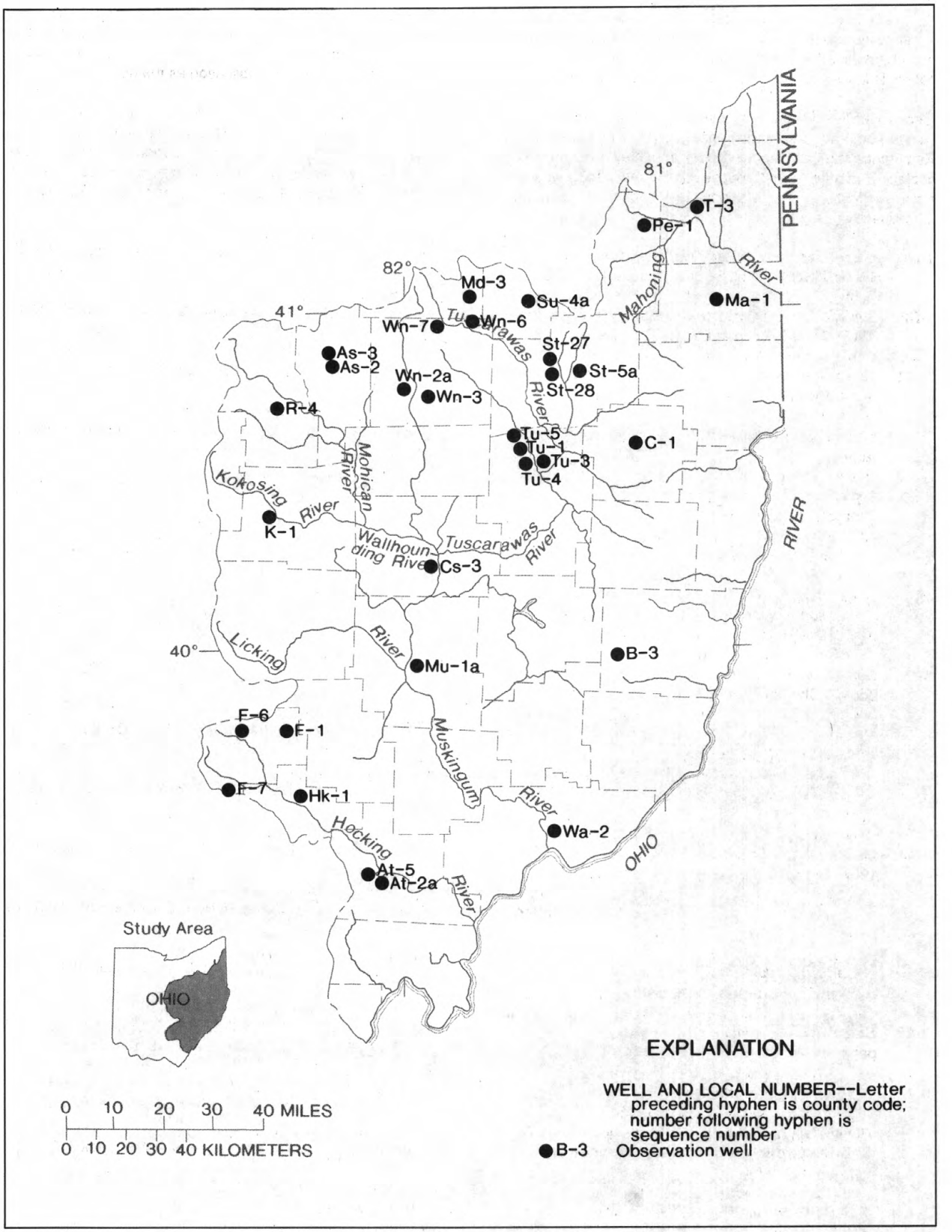


Figure 9d.--Location of wells.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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^2. Area at site used prior to Sept. 30, 1948, 150 mi^2, 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: Dec. 31-Jan. 2, Jan. 20-Feb. 3, June 2-Aug. 2. Records fair except estimated daily discharges which are poor. Water-quality data collected at this site 1977.

AVERAGE DISCHARGE.--18 years (1946-48, 1977-90) 126 ft^3/s, 11.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,950 ft^3/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^3/s. Flood of Apr. 25, 1950 reached a stage of 15.0 ft present datum, from floodmark, discharge, 3,300 ft^3/s.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 30	1430	*2,360	*12.11	May 27	1130	1,410	9.88
Apr. 21	0500	1,620	10.49				

Minimum daily discharge, 0.58 ft^3/s Aug. 29-31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	11	33	860	31	85	65	115	363	56	19	.65
2	12	10	29	600	29	168	54	89	260	58	21	.68
3	12	9.9	340	378	35	292	44	69	200	30	16	.68
4	41	11	740	222	61	205	45	57	160	47	6.5	.68
5	15	112	552	178	105	136	67	135	135	61	2.6	.68
6	6.5	156	233	139	131	119	58	390	110	40	1.9	.68
7	5.9	154	137	101	119	112	55	282	92	28	2.5	.68
8	11	60	92	74	103	77	115	146	80	23	17	.68
9	48	40	72	79	99	65	216	106	70	20	28	6.7
10	97	31	61	70	98	63	232	83	61	18	18	6.6
11	56	26	55	120	82	54	135	69	55	17	14	2.5
12	40	23	50	209	55	48	87	62	50	16	10	2.1
13	25	18	49	170	75	48	77	217	62	19	8.0	2.4
14	18	16	43	119	90	49	179	349	81	17	7.8	1.9
15	15	14	72	139	65	44	484	130	69	15	8.0	1.3
16	12	14	64	421	68	39	381	98	61	14	8.1	.88
17	10	13	73	722	45	37	216	112	52	13	8.1	.88
18	67	14	104	424	46	65	139	74	47	13	8.1	.99
19	33	15	200	244	221	62	250	62	41	12	66	5.9
20	36	12	184	190	728	54	1150	53	37	12	54	13
21	22	12	214	140	505	48	1560	46	34	13	6.3	13
22	18	41	514	110	425	47	831	43	31	14	3.4	12
23	13	22	492	89	308	69	403	40	28	9.0	3.1	25
24	11	19	294	73	192	63	416	44	27	7.3	2.6	7.7
25	9.7	18	212	63	136	52	331	74	25	6.3	2.1	4.6
26	10	17	157	55	99	44	232	843	23	6.2	2.0	11
27	11	30	156	49	77	50	177	1340	22	6.1	1.7	9.0
28	12	51	100	44	82	254	145	661	21	6.1	.75	6.8
29	15	41	623	39	---	285	117	279	20	6.0	.58	7.4
30	15	44	2130	36	---	127	99	233	41	6.0	.58	12
31	12	---	1500	33	---	79	---	535	---	14	.58	---
TOTAL	717.6	1054.9	9575	6190	4110	2940	8360	6836	2358	623.0	348.29	159.06
MEAN	23.1	35.2	309	200	147	94.8	279	221	78.6	20.1	11.2	5.30
MAX	97	156	2130	860	728	292	1560	1340	363	61	66	25
MIN	5.9	9.9	29	33	29	37	44	40	20	6.0	.58	.65
CFSM	.15	.23	2.06	1.33	.98	.63	1.86	1.47	.52	.13	.07	.04
IN.	.18	.26	2.37	1.54	1.02	.73	2.07	1.70	.58	.15	.09	.04

CAL YR 1990 TOTAL 53450.1 MEAN 146 MAX 2540 MIN 3.0 CFSM .98 IN. 13.26
WTR YR 1991 TOTAL 43271.85 MEAN 119 MAX 2130 MIN .58 CFSM .79 IN. 10.73

04185000 TIFFIN RIVER AT STRYKER, OH

LOCATION.--Lat 41°30'16", long 84°25'47", in SE 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^2.

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.--No estimated daily discharges. Records good. Small diversion 12.5 mi upstream from gage for municipal supply of Archbold. Diversion averaged 2.35 ft^3/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.--58 years, 329 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,800 ft^3/s Mar. 15, 1982, gage height, 18.36 ft; minimum daily discharge, 2.5 ft^3/s July 18, 1988.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 31	1600	*5,280	*16.10	Apr. 22	1000	2,830	13.27

Minimum daily discharge, 9.6 ft^3/s Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	116	275	4640	207	351	332	526	320	77	11	13
2	40	115	230	4000	211	524	290	443	317	84	10	11
3	37	113	403	3150	253	865	264	385	300	53	13	10
4	58	112	908	2460	369	1010	244	339	281	92	16	13
5	90	232	990	2020	501	1060	256	300	232	102	16	15
6	99	800	1060	1540	585	927	294	312	182	55	13	15
7	127	941	908	1120	596	713	309	349	145	35	10	13
8	130	1090	594	782	503	576	288	360	119	28	11	9.6
9	200	1140	392	562	453	470	266	318	103	25	14	9.8
10	708	985	333	496	440	395	298	284	91	21	18	11
11	1040	660	293	432	407	348	335	255	81	21	20	13
12	1090	402	270	464	325	315	302	228	76	21	19	15
13	1130	291	251	506	296	289	253	207	90	28	15	16
14	1150	246	225	480	340	267	326	245	121	26	12	16
15	1050	219	238	481	337	248	740	211	116	25	12	14
16	754	201	316	766	273	232	1010	179	95	21	15	13
17	441	187	323	1080	252	222	1260	199	83	18	16	12
18	357	171	348	1260	294	235	1330	211	76	16	18	11
19	395	158	521	1310	815	274	1280	188	73	15	26	10
20	376	148	521	1140	1250	297	2100	155	71	15	126	9.7
21	306	141	499	944	1480	290	2480	135	65	16	146	9.7
22	254	141	868	788	1610	280	2770	122	59	16	90	9.7
23	216	146	929	649	1480	269	2470	113	54	16	49	10
24	191	151	921	593	1260	272	2200	105	49	14	32	11
25	171	152	676	501	957	285	1860	103	47	13	25	11
26	155	142	518	401	644	287	1600	128	42	12	22	11
27	144	139	406	337	455	322	1350	238	37	12	18	11
28	136	169	387	304	373	551	1080	260	31	11	16	11
29	130	270	1080	292	---	608	814	233	29	9.9	14	11
30	125	312	3720	269	---	523	636	182	29	9.9	13	12
31	122	---	5010	238	---	403	---	184	---	10	12	---
TOTAL	11261	10090	24413	34005	16966	13708	29037	7497	3414	917.8	848	357.5
MEAN	363	336	788	1097	606	442	968	242	114	29.6	27.4	11.9
MAX	1150	1140	5010	4640	1610	1060	2770	526	320	102	146	16
MIN	37	112	225	238	207	222	244	103	29	9.9	10	9.6

CAL YR 1990 TOTAL 188587 MEAN 517 MAX 5010 MIN 29
WTR YR 1991 TOTAL 152514.3 MEAN 418 MAX 5010 MIN 9.6

04185440 UNNAMED TRIBUTARY TO LOST CREEK NR FARMER, OH

LOCATION.--Lat 41°21'42", long 84°41'28", Defiance County, Hydrologic Unit 04100006, on right bank 400 ft above bridge on Rosedale Rd., 0.5 mi above mouth and 2.0 mi from Farmer.

DRAINAGE AREA.--4.23 mi^2.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 760 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--No estimated discharges. Records fair.

AVERAGE DISCHARGE.--6 years, 4.78 ft^3/s, 15.35 in./yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 757 ft^3/s Oct. 3, 1987, gage height, 5.74 ft; minimum discharge 0.00 ft^3/s many days in 1987, 1988, 1989, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft^3/s and maximum (*).

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 10	1000	338	4.45	Dec. 29	1815	465	4.98
Nov. 05	1845	136	3.35	Apr. 15	1315	147	3.43
Dec. 03	1415	196	3.74	Apr. 19	2115	*495	*5.08
Dec. 21	2000	136	3.35	Apr. 24	0030	146	3.42

Minimum daily discharge, 0.00 ft^3/s July 27-29, Aug. 2, Aug. 5-17, Aug. 30-Sept. 03, Sept. 6-11, Sept. 15-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.31	.83	14	.64	3.6	1.6	2.3	12	.26	.01	.00
2	.26	.31	.65	11	.82	38	1.3	2.1	4.1	1.3	.00	.00
3	.25	.29	73	9.0	6.1	14	1.1	1.5	4.0	.37	.21	.00
4	3.7	.29	25	7.2	6.6	4.8	1.1	1.3	1.6	.28	.05	.02
5	1.2	42	4.9	6.6	8.4	3.5	11	1.9	.92	.37	.02	.01
6	.58	21	4.1	5.6	6.5	3.9	4.2	12	.68	.20	.02	.00
7	.42	3.9	3.3	4.4	5.8	3.2	2.3	2.7	.55	.17	.02	.00
8	.50	1.9	2.4	2.8	4.6	2.1	2.7	1.6	.49	.14	.12	.00
9	64	1.3	2.2	2.5	4.8	1.9	7.2	1.4	.43	.14	.16	.00
10	147	1.1	2.1	2.2	4.2	1.7	3.8	1.1	.41	.14	.08	.00
11	22	.89	1.8	3.2	2.6	1.5	2.3	1.0	.63	.09	.03	.00
12	7.7	.78	1.6	6.6	1.6	1.4	1.6	.91	2.4	.28	.02	.02
13	4.9	.68	1.5	3.5	1.5	1.3	1.5	.89	.69	.63	.01	.03
14	3.1	.62	1.2	4.5	1.9	1.1	21	.81	.44	.21	.01	.01
15	1.9	.58	25	12	1.3	1.0	49	.73	.37	.11	.00	.00
16	1.2	.56	11	47	.91	.98	13	.77	1.5	.08	.00	.00
17	.92	.51	3.0	15	.86	1.1	51	.81	.68	.06	.00	.00
18	16	.47	19	5.7	4.0	3.5	11	1.1	.43	.05	.02	.00
19	4.0	.44	14	4.0	52	2.8	78	1.1	.34	.05	.21	.00
20	1.7	.41	3.7	6.5	14	2.0	59	.76	.28	.03	1.9	.00
21	1.2	.39	41	6.3	11	1.7	14	.63	.25	.03	.24	.00
22	.89	.47	27	3.2	10	1.5	9.1	.57	.20	.04	.12	.00
23	.75	.51	6.8	2.3	4.6	3.9	13	.52	.22	.03	.09	.00
24	.62	.46	4.5	1.7	3.1	3.1	37	.52	.18	.01	.05	.00
25	.53	.42	3.3	1.3	2.5	2.1	7.4	.67	.18	.02	.04	.00
26	.48	.41	2.2	1.2	1.8	4.0	5.1	1.1	.17	.01	.04	.00
27	.44	.49	1.7	1.1	1.5	6.6	4.1	.79	.17	.00	.03	.00
28	.38	9.8	5.2	1.0	1.5	9.9	3.2	.57	.18	.00	.03	.00
29	.35	2.2	233	.83	---	3.1	3.0	.50	.19	.00	.01	.00
30	.35	1.1	184	.81	---	1.9	2.6	.50	.20	.03	.00	.00
31	.33	---	32	.70	---	1.5	---	20	---	.01	.00	---
TOTAL	287.91	94.59	740.98	193.74	165.13	132.68	422.2	63.15	34.88	5.14	3.54	0.09
MEAN	9.29	3.15	23.9	6.25	5.90	4.28	14.1	2.04	1.16	.17	.11	.003
MAX	147	42	233	47	52	38	78	20	12	1.3	1.9	.03
MIN	.25	.29	.65	.70	.64	.98	1.1	.50	.17	.00	.00	.00
CFSM	2.20	.75	5.65	1.48	1.39	1.01	3.33	.48	.27	.04	.03	.00
IN.	2.53	.83	6.52	1.70	1.45	1.17	3.71	.56	.31	.05	.03	.00

CAL YR 1990 TOTAL 3167.65 MEAN 8.68 MAX 244 MIN .06 CFSM 2.05 IN. 27.86
WTR YR 1991 TOTAL 2144.03 MEAN 5.87 MAX 233 MIN .00 CFSM 1.39 IN. 18.86

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^2.

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. 24-29, Jan. 27-Feb. 3. Records good except for estimated discharges, 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 3,173 mil gal, equivalent to a mean withdrawal of 13.4 ft^3/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. National Weather Service gage height Handar telemeter at station.

AVERAGE DISCHARGE.--65 years, 285 ft^3/s, 11.66 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft^3/s Jan. 23, 1959; maximum gage height, 20.30 ft Jan. 23, 1959, from floodmark (ice jam); minimum daily discharge, .82 ft^3/s Sept. 3, 1991.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 23	1830	3,220	11.94	Apr. 20	2100	3,000	11.54
Dec. 31	0700	*9,980	*18.18				

Minimum daily discharge, .82 ft^3/s Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	98	170	8110	130	180	142	142	776	19	3.3	1.5
2	63	93	128	3150	125	185	125	125	420	29	2.5	1.6
3	62	89	528	850	175	191	107	110	595	80	2.2	.82
4	124	87	2140	563	365	178	95	98	215	143	2.4	2.6
5	355	92	1800	453	1340	156	106	93	170	69	2.6	21
6	287	180	647	386	1530	145	127	121	94	51	2.4	36
7	149	197	365	299	1320	138	134	141	64	44	2.2	18
8	96	141	271	270	1130	141	132	111	59	35	2.2	10
9	151	113	230	254	606	135	157	92	60	28	12	5.5
10	1170	105	204	230	407	123	146	84	54	25	13	3.2
11	2250	109	177	230	307	116	118	80	51	20	12	3.1
12	1840	124	160	850	246	111	100	78	48	17	6.6	3.3
13	776	115	147	962	210	109	90	77	52	16	4.2	6.2
14	425	96	130	514	209	110	112	76	74	14	3.6	6.0
15	273	88	243	432	210	129	347	119	59	12	3.0	6.0
16	188	82	1030	1130	222	194	293	169	51	11	3.6	8.6
17	143	82	734	1960	220	256	191	99	46	10	3.1	7.3
18	312	79	592	1140	246	280	139	84	43	9.0	30	5.2
19	1080	76	1970	577	1130	376	274	85	39	7.8	26	3.7
20	865	72	2120	445	2330	307	2480	85	35	7.2	31	2.8
21	401	71	1080	583	1650	224	2080	75	33	6.7	26	2.1
22	265	83	2340	400	707	199	784	68	31	6.0	16	1.9
23	393	140	3140	310	477	342	454	62	30	5.5	9.9	1.5
24	404	191	1450	260	352	722	361	61	29	5.1	6.6	1.5
25	262	160	660	230	285	388	358	58	27	4.4	5.5	1.9
26	211	118	370	200	239	260	281	68	28	4.5	4.8	2.4
27	150	107	250	180	207	725	206	130	27	3.9	3.8	2.4
28	123	273	240	165	189	806	170	118	29	3.8	2.9	2.5
29	104	537	800	155	---	437	151	99	26	3.7	2.5	2.5
30	95	296	5950	145	---	242	150	74	21	3.6	2.7	2.4
31	103	---	9720	135	---	174	---	648	---	3.5	2.6	---
TOTAL	13184	4094	39786	25568	16564	8079	10410	3530	3286	697.7	251.2	173.52
MEAN	425	136	1283	825	592	261	347	114	110	22.5	8.10	5.78
MAX	2250	537	9720	8110	2330	806	2480	648	776	143	31	36
MIN	62	71	128	135	125	109	90	58	21	3.5	2.2	.82
CFSM	1.28	.41	3.87	2.48	1.78	.78	1.05	.34	.33	.07	.02	.02
IN.	1.48	.46	4.46	2.86	1.86	.91	1.17	.40	.37	.08	.03	.02

CAL YR 1990 TOTAL 188571 MEAN 517 MAX 9720 MIN 51 CFSM 1.56 IN. 21.13
WTR YR 1991 TOTAL 125623.42 MEAN 344 MAX 9720 MIN .82 CFSM 1.04 IN. 14.08

04187100 OTTAWA RIVER AT LIMA, OH

LOCATION.--Lat 40°43'29", long 84°07'35", Allen County, Hydrologic Unit 04100007, on right bank, 70 ft downstream of Erie Lockawanna RR bridge, 300 ft upstream of bridge to Lima STP, 0.7 mi downstream from Collett Street at Lima, Ohio.

DRAINAGE AREA.--128 mi^2.

PERIOD OF RECORD.--June 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 820.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Water diverted upstream of gage for City of Lima and Sohio Chemical Co. Water is returned to stream below gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,590 ft^3/s Dec. 30, 1990; maximum gage height, 18.63 ft; minimum daily discharge, 0.18 ft^3/s June 12, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 11	0900	1,330	13.06	Dec. 30	1830	*4,590	*18.63
Dec. 22	0100	1,780	13.73				

Minimum daily discharge, 3.2 ft^3/s July 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	42	53	1040	37	51	31	44	29	6.4	5.9	6.5
2	32	40	46	573	38	64	34	40	11	14	5.1	6.1
3	31	37	729	262	47	68	29	37	31	21	6.2	9.4
4	71	37	1010	134	173	51	27	37	11	14	6.8	133
5	99	48	317	97	769	43	37	47	9.6	13	6.3	18
6	73	59	91	85	702	39	40	33	9.1	8.8	9.9	7.9
7	53	53	60	65	638	48	35	27	6.3	6.0	9.7	7.4
8	45	44	83	57	315	43	29	22	5.2	6.6	52	6.1
9	99	42	69	53	162	32	19	22	8.7	6.5	13	8.4
10	906	48	58	50	116	30	18	19	12	7.6	8.3	6.1
11	1190	67	50	263	90	29	15	23	11	7.7	8.8	5.5
12	546	58	47	601	68	28	11	24	16	7.2	7.4	12
13	214	50	47	224	66	28	11	34	7.8	6.6	6.7	8.8
14	125	41	43	119	74	30	24	69	7.3	6.4	4.4	6.5
15	93	38	290	114	63	37	96	29	8.8	7.0	4.9	4.4
16	76	37	350	709	43	38	62	18	12	8.2	5.7	4.5
17	62	37	137	769	50	34	23	8.1	8.9	8.9	55	4.8
18	479	36	553	275	113	79	11	13	7.9	6.8	26	4.3
19	598	34	977	120	951	87	250	7.4	7.8	5.9	21	4.8
20	180	33	442	112	895	65	760	7.8	8.8	5.3	11	4.5
21	97	36	713	174	346	46	430	5.6	8.5	5.2	8.2	4.3
22	125	54	1550	110	142	67	194	4.9	10	6.2	6.7	4.5
23	207	79	1280	84	104	220	123	4.8	10	8.4	6.3	5.7
24	123	69	823	71	79	153	142	5.2	9.3	10	7.8	5.3
25	87	54	264	59	64	68	144	7.4	7.4	6.5	7.2	4.4
26	68	45	131	55	51	135	94	18	7.6	7.1	6.6	4.8
27	57	42	85	53	48	176	77	12	8.0	6.7	6.2	4.5
28	50	83	90	52	45	105	70	6.5	8.1	4.9	7.0	4.3
29	46	85	1030	46	---	63	60	10	7.2	3.7	5.6	4.4
30	42	66	3860	43	---	45	54	7.4	6.3	3.2	5.4	4.6
31	40	---	2890	40	---	33	---	49	---	7.7	8.0	---
TOTAL	5946	1494	18168	6509	6289	2035	2950	692.1	311.6	243.5	349.1	315.8
MEAN	192	49.8	586	210	225	65.6	98.3	22.3	10.4	7.85	11.3	10.5
MAX	1190	85	3860	1040	951	220	760	69	31	21	55	133
MIN	31	33	43	40	37	28	11	4.8	5.2	3.2	4.4	4.3

CAL YR 1990 TOTAL 70589 MEAN 193 MAX 3860 MIN 14
WTR YR 1991 TOTAL 45303.1 MEAN 124 MAX 3860 MIN 3.2

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^2.

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.--No estimated daily discharges. Records good except period June 17-26, which is 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.--63 years, 254 ft^3/s, 9.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft^3/s June 14, 1981, gage height, 17.43 ft from measurement made on peak; minimum daily, 0.4 ft^3/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^3/s, from rating curve extended above 10,000 ft^3/s.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 23	2300	4,310	10.36	Dec. 31	1000	*9,670	*14.85

Minimum daily discharge, 7.1 ft^3/s Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	97	118	5380	86	159	115	141	582	27	18	14
2	62	90	100	1600	91	223	87	119	329	46	16	13
3	54	83	890	644	101	279	74	109	171	30	19	16
4	96	79	2260	480	206	221	71	101	116	30	12	24
5	215	110	1590	344	1040	153	78	102	90	53	13	26
6	222	111	629	302	1540	150	94	101	74	39	14	39
7	123	97	400	256	1400	335	100	79	67	26	19	25
8	94	96	312	220	1090	322	95	79	57	23	25	18
9	133	91	251	213	637	222	96	75	51	21	26	16
10	1420	104	217	197	443	180	82	69	46	20	20	12
11	2390	162	186	320	344	147	72	69	44	19	19	12
12	1720	160	171	1160	247	110	59	66	44	19	17	12
13	742	117	156	892	224	106	73	72	44	35	15	11
14	409	98	133	478	258	102	118	85	40	20	15	18
15	288	88	435	393	200	89	211	70	43	19	15	13
16	210	85	939	1310	111	97	264	62	66	18	15	12
17	162	82	615	1990	152	99	191	72	45	17	35	11
18	700	76	956	1210	171	132	124	56	35	20	55	9.7
19	1290	74	2380	539	1170	129	190	48	30	17	68	8.9
20	729	71	1900	439	2180	151	934	47	30	15	37	8.3
21	347	67	1390	574	1670	121	1080	47	31	14	27	7.8
22	359	103	3270	451	782	130	664	45	30	16	21	7.1
23	737	116	3790	316	472	253	383	43	28	22	20	9.8
24	521	160	3460	242	333	447	392	43	24	20	18	9.8
25	309	135	1660	199	263	250	440	44	22	17	14	9.2
26	224	107	617	184	199	179	336	80	23	16	14	8.3
27	173	100	404	160	163	339	283	70	20	15	15	8.5
28	145	139	362	162	151	449	234	87	19	14	17	8.2
29	123	160	1310	126	---	221	198	87	18	16	17	7.4
30	110	144	6000	102	---	172	171	65	23	40	16	7.4
31	104	---	9050	80	---	139	---	415	---	23	16	---
TOTAL	14282	3202	45951	20963	15724	6106	7309	2648	2242	727	668	402.4
MEAN	461	107	1482	676	562	197	244	85.4	74.7	23.5	21.5	13.4
MAX	2390	162	9050	5380	2180	449	1080	415	582	53	68	39
MIN	54	67	100	80	86	89	59	43	18	14	12	7.1
CFSM	1.33	.31	4.28	1.95	1.62	.57	.70	.25	.22	.07	.06	.04
IN.	1.54	.34	4.94	2.25	1.69	.66	.79	.28	.24	.08	.07	.04

CAL YR 1990 TOTAL 173014 MEAN 474 MAX 9050 MIN 35 CFSM 1.37 IN. 18.60
WTR YR 1991 TOTAL 120224.4 MEAN 329 MAX 9050 MIN 7.1 CFSM .95 IN. 12.93

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^2.

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, May 16, Sept. 25-30. Records good. Flow regulated by dam at powerplant at station; reservoir capacity, 9,800 acre-ft. Plant shut down except for occassional gate operation, Jan. 10, 1963 to Sept. 7, 1985. Some deversion 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.--76 years, 1,748 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,500 ft^3/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^3/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^3/s, from rating curve extended above 51,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,400 ft^3/s Jan. 1 gage height 25.64; minimum daily, 60 ft^3/s Aug. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	459	2000	43500	683	1270	836	968	14100	76	62	72
2	64	560	1130	32300	511	1050	836	876	12200	586	60	69
3	247	519	3540	17600	544	928	835	844	9040	444	64	71
4	367	414	13500	8500	1160	1190	689	722	5860	394	64	72
5	976	514	11500	4230	3580	1020	732	624	3370	441	64	260
6	919	1040	8540	2390	7770	1170	743	862	2160	238	64	163
7	821	1540	5560	1760	7320	600	695	952	704	194	62	163
8	667	1420	3130	1150	7280	844	895	890	548	205	62	77
9	758	962	2050	1350	5390	814	1990	800	410	134	62	175
10	2610	971	1520	1000	3710	569	1440	491	375	137	168	79
11	9240	590	1210	1580	2560	826	1360	652	338	126	149	75
12	9820	623	1420	1490	1910	723	747	497	333	88	76	143
13	7330	500	1230	4510	1340	304	689	551	256	95	75	75
14	4780	791	1010	3940	1380	647	858	539	318	87	76	76
15	2670	725	965	3110	1050	458	1920	852	284	84	76	138
16	1500	640	3910	7530	1040	633	2050	760	250	83	73	81
17	1410	497	4880	12500	963	636	2140	513	238	83	72	103
18	1180	398	4490	10700	955	1230	1730	361	240	80	70	68
19	2940	384	9470	7390	2520	1130	2870	447	215	80	574	67
20	4690	385	10900	4840	9870	1380	15500	437	218	75	481	67
21	3490	397	10300	4160	9110	1180	16300	339	108	70	381	67
22	2150	407	14400	3790	7210	917	9180	334	175	80	281	67
23	1670	801	15600	2730	4640	1370	5920	324	136	70	150	69
24	1960	1060	14800	1830	2810	2160	4300	232	169	68	147	69
25	1900	981	11000	1900	1900	2420	3500	237	154	68	80	70
26	1670	778	7350	1340	1460	2010	2790	1040	155	67	84	80
27	1070	748	5410	702	1040	2450	2320	706	111	66	86	71
28	588	1450	3190	1270	1140	3490	1690	610	80	63	84	70
29	930	3220	6560	771	---	3460	1430	373	80	63	83	70
30	506	2810	29100	917	---	2370	1190	303	75	64	78	72
31	602	---	43000	921	---	1510	---	4690	---	64	75	---
TOTAL	69847	26584	252665	191701	90846	40759	88175	22826	52700	4473	3983	2799
MEAN	2253	886	8150	6184	3244	1315	2939	736	1757	144	128	93.3
MAX	9820	3220	43000	43500	9870	3490	16300	4690	14100	586	574	260
MIN	64	384	965	702	511	304	689	232	75	63	60	67

CAL YR 1990 TOTAL 1162270 MEAN 3184 MAX 43000 MIN 64
WTR YR 1991 TOTAL 847358 MEAN 2322 MAX 43500 MIN 60

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^2.

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. 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.--59 years, 4,276 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 104,000 ft^3/s Mar. 15, 1982, gage height, 15.87 ft; minimum discharge, 2 ft^3/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^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 12	0100	24,400	5.90	Jan. 17	1200	23,500	5.78
Dec. 4	1700	27,000	6.24	Apr. 21	0400	37,100	7.34
Dec. 23	0300	27,900	6.35	June 1	0400	29,800	6.52
Jan. 1	0100	*83,700	*13.28				

Minimum daily discharge, 166 ft^3/s Aug. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	316	810	4910	80300	2060	3510	3650	4060	29000	235	176	242
2	208	807	3210	64500	1630	4080	3100	3620	27300	963	166	231
3	452	781	7870	44700	1920	5350	2710	3170	20200	1590	281	275
4	341	653	24000	31400	2870	6050	2230	2680	13700	1700	235	359
5	762	791	22300	24500	6300	5170	2180	2340	9370	1270	193	588
6	1710	4120	16200	19400	12600	4880	3080	2630	5740	1080	176	715
7	1890	7120	11100	12500	13600	3970	3310	3000	3000	863	173	436
8	1220	6660	7700	7890	12700	3570	3150	2780	2140	780	206	378
9	1560	4700	5620	6160	10900	3330	4640	2430	1720	560	274	381
10	8190	4360	4490	4520	8970	2660	5100	1990	1380	562	405	322
11	21600	3540	3450	4530	7210	2600	4250	2060	1140	499	520	303
12	23100	2970	3000	4450	5630	2380	3180	1840	1140	412	404	362
13	18300	2210	2560	7570	4440	1820	2730	1710	1070	466	342	354
14	13000	1930	2160	7620	3790	1960	2960	1760	981	394	297	751
15	9320	1560	2410	6780	3270	1770	6190	2130	882	367	272	736
16	6960	1280	6230	13800	2370	1900	11700	2000	853	337	225	498
17	5650	1230	8260	22600	2460	1970	13200	1770	843	305	243	386
18	5350	934	8170	20700	2400	2800	11900	1690	822	293	279	311
19	7060	923	13700	15500	6230	3560	11900	1740	785	254	882	331
20	7970	859	16500	11900	17600	4310	31000	1580	714	234	1490	321
21	6190	821	16300	10700	18700	3680	35100	1300	635	216	2030	261
22	4100	789	24600	9800	15600	2900	25300	1320	621	336	1460	247
23	3400	995	26600	7980	12400	3360	18400	1220	544	272	1240	231
24	3010	1380	23700	5120	9900	4580	15600	1020	533	228	929	212
25	2920	1360	18100	4240	7850	5450	15000	1090	520	209	681	218
26	2780	1160	12700	3260	6000	4620	12900	2940	645	239	654	226
27	1930	1140	8700	2430	4490	5100	9980	2770	530	288	477	215
28	923	2570	6580	2690	3700	7440	7690	2890	404	260	398	214
29	1420	5690	12600	2600	---	7960	6090	2100	375	251	330	219
30	1120	6500	50800	2610	---	6690	5040	1670	286	247	293	224
31	975	---	76900	2380	---	5050	---	15900	---	193	262	---
TOTAL	163727	70643	451420	465130	207590	124470	283260	81200	127873	15903	15993	10547
MEAN	5282	2355	14560	15000	7414	4015	9442	2619	4262	513	516	352
MAX	23100	7120	76900	80300	18700	7960	35100	15900	29000	1700	2030	751
MIN	208	653	2160	2380	1630	1770	2180	1020	286	193	166	212

CAL YR 1990 TOTAL 2572978 MEAN 7049 MAX 76900 MIN 208
WTR YR 1991 TOTAL 2017756 MEAN 5528 MAX 80300 MIN 166

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^2.

PERIOD OF RECORD.--Water years 1950 to 1976 (published as Maumee River at Waterville) 1976 to September 1991 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1963 to September 1991 (discontinued).
pH: May 1963 to September 1991 (discontinued).
WATER TEMPERATURES: March 1950 to September 1991 (discontinued).
DISSOLVED OXYGEN: March 1963 to September 1991 (discontinued).

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. Digital recorder set for one-hour-interval punches since July 1972.

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, July 20, 1973.
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 winters.
DISSOLVED OXYGEN: Maximum, >20.0 mg/L several days in water years 1980 thru 1990; minimum, 0.3 mg/L Nov. 10, 1965.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 744 microsiemens Nov. 29; minimum, 200 microsiemens, Jan. 2.
PH: Maximum, 9.3 units on several days; minimum, 7.6 units on several days.
WATER TEMPERATURES: Maximum, 30.5°C July 23; minimum, 0.0°C on many days during winter.
DISSOLVED OXYGEN: Maximum, 19.0 mg/L, July 15; minimum, 3.8 mg/L July 24.

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	562	560	561	660	640	650	716	700	705	220	204	212
2	576	560	564	664	646	659	704	640	671	224	200	208
3	576	562	566	662	640	655	646	482	569	260	206	238
4	578	560	570	660	642	654	486	422	459	286	242	268
5	586	564	578	660	642	655	442	400	420	306	280	296
6	686	580	617	696	642	671	464	440	448	326	306	319
7	686	640	660	676	660	665	486	440	468	366	326	348
8	676	646	659	684	582	631	516	480	495	422	364	396
9	666	640	650	626	600	620	544	496	528	466	404	447
10	686	620	659	626	600	611	564	536	550	498	460	479
11	636	480	571	606	560	587	578	560	567	536	500	508
12	500	416	460	566	558	563	600	562	585	544	520	533
13	426	400	419	580	560	571	602	562	582	566	520	535
14	426	400	414	566	560	563	606	600	603	622	560	602
15	442	420	430	580	560	565	646	606	625	666	624	647
16	458	440	447	584	560	569	646	640	643	624	460	523
17	466	444	460	586	560	572	666	644	655	464	402	434
18	522	460	485	606	598	602	686	626	656	426	400	408
19	526	500	513	606	600	603	626	562	587	424	400	412
20	538	520	527	622	600	618	566	520	541	446	422	436
21	586	520	550	646	600	626	536	500	519	466	446	461
22	616	598	605	666	640	655	496	400	451	498	440	470
23	606	560	582	684	644	670	436	400	414	526	480	501
24	584	560	574	704	680	687	424	400	414	560	306	529
25	578	536	556	698	680	686	420	400	409	564	538	559
26	562	526	545	706	686	700	442	400	425	602	566	581
27	580	560	569	724	680	707	462	440	446	618	598	604
28	584	576	580	740	706	724	486	440	463	622	598	609
29	606	576	588	744	702	725	518	386	464	638	620	626
30	636	600	616	736	716	723	386	236	312	638	622	627
31	658	638	645	---	---	---	236	202	216	646	640	643
MONTH	686	400	555	744	558	640	716	202	513	666	200	466
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	666	646	659	562	520	542	586	562	576	546	520	538
2	686	660	675	586	560	572	580	566	573	560	540	548
3	702	682	692	606	562	582	586	562	580	566	560	564
4	700	662	684	626	602	614	584	562	576	582	560	574
5	664	622	635	626	586	605	586	560	574	586	562	577
6	644	620	630	626	596	604	586	560	570	606	560	583
7	664	564	620	658	624	644	602	564	588	600	564	579
8	564	520	536	646	620	633	640	600	604	616	596	603
9	524	480	498	626	600	611	644	598	616	626	602	617
10	504	486	497	642	620	631	626	598	611	626	576	615
11	518	500	508	626	604	619	626	578	612	616	566	596
12	526	498	513	644	600	609	646	600	625	606	576	592
13	538	520	524	666	640	653	656	640	645	586	560	570
14	546	538	541	666	644	658	646	622	640	580	536	563
15	576	520	544	666	640	657	664	640	653	576	544	561
16	600	560	571	666	640	651	646	600	624	566	536	558
17	600	564	585	680	640	666	586	546	572	564	542	555
18	622	600	606	680	658	666	542	496	515	586	538	563
19	626	504	563	682	660	674	486	406	469	602	580	593
20	584	520	540	698	680	687	404	360	373	606	602	604
21	596	520	543	718	680	699	356	320	336	618	600	606
22	526	458	491	738	720	731	384	358	365	626	602	618
23	466	440	448	742	720	730	406	376	391	636	602	619
24	466	442	450	742	722	730	446	416	430	626	600	613
25	486	462	476	726	680	703	446	440	442	616	546	604
26	504	458	489	700	678	686	466	440	454	564	486	525
27	516	480	490	704	680	697	476	460	466	566	524	548
28	538	482	509	686	644	672	504	456	487	576	558	562
29	---	---	---	664	638	647	526	500	516	626	560	600
30	---	---	---	640	620	629	540	520	526	636	616	626
31	---	---	---	626	596	612	---	---	---	640	600	617
MONTH	702	440	554	742	520	649	664	320	534	640	486	584

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	622	400	489	544	520	533	566	560	565	646	618	641
2	382	358	365	524	480	501	566	560	563	626	600	620
3	376	360	364	544	484	512	582	560	572	622	582	604
4	416	362	394	586	526	565	582	560	575	586	562	578
5	426	400	411	606	578	597	596	562	581	578	560	564
6	426	402	419	606	560	589	604	566	594	566	538	557
7	420	406	415	578	526	558	604	600	602	606	560	583
8	426	404	419	546	484	531	606	600	602	606	582	599
9	446	418	428	562	486	532	622	600	616	600	560	582
10	458	440	447	566	526	546	622	600	612	584	560	572
11	464	440	455	584	520	560	626	600	615	582	576	578
12	466	440	461	606	560	579	636	602	619	584	560	574
13	498	456	479	606	596	603	640	606	627	584	560	574
14	506	480	497	626	600	615	638	618	631	586	560	577
15	526	484	516	606	562	588	640	616	636	586	560	578
16	544	520	531	596	522	571	640	618	632	606	576	594
17	556	520	538	564	520	548	640	616	635	606	600	602
18	560	526	544	544	520	534	636	606	622	622	600	612
19	566	538	559	540	498	527	626	606	620	626	600	613
20	566	520	553	526	496	518	618	600	604	640	602	623
21	564	520	538	526	498	522	660	600	621	646	640	643
22	540	482	509	524	518	520	658	640	646	646	640	644
23	506	480	494	526	516	521	664	644	654	656	646	650
24	526	480	503	526	520	523	664	640	651	662	640	655
25	546	520	526	538	520	530	676	640	658	664	640	653
26	566	556	563	540	522	530	664	640	653	678	642	661
27	566	562	564	542	520	535	660	640	646	676	646	666
28	576	562	564	544	522	536	666	640	657	680	656	668
29	576	526	557	546	520	532	678	644	665	684	680	682
30	556	520	534	556	520	539	678	640	654	686	684	685
31	---	---	---	564	526	554	660	640	646	---	---	---
MONTH	622	358	488	626	480	547	678	560	622	686	538	614
YEAR	744	200	564									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	16.5	17.0	12.0	10.0	11.5	6.0	5.0	5.5	2.0	2.0	2.0
2	17.0	15.5	16.0	12.5	11.0	12.0	5.5	5.0	5.5	2.0	1.0	1.5
3	17.0	16.0	16.5	12.5	12.0	12.5	6.0	4.0	5.0	1.5	.0	1.0
4	18.0	17.0	17.5	13.0	12.0	12.5	6.0	3.5	4.5	.5	.0	.0
5	18.0	17.0	17.5	12.0	10.0	11.0	3.5	3.0	3.5	.0	.0	.0
6	18.5	17.0	17.5	10.5	9.0	9.5	3.5	3.0	3.5	.5	.0	.0
7	18.0	17.5	17.5	9.0	8.5	9.0	3.5	3.0	3.0	.0	.0	.0
8	17.5	16.0	16.5	8.5	7.0	8.0	3.0	2.5	3.0	.0	.0	.0
9	16.0	15.0	15.5	8.0	7.5	7.5	3.5	2.0	3.0	.5	.0	.0
10	15.0	14.0	14.5	8.0	7.0	7.5	3.5	2.5	3.0	.0	.0	.0
11	14.5	13.0	13.5	7.5	6.0	6.5	3.5	2.5	3.0	.5	.0	.0
12	13.0	12.0	12.5	6.5	5.5	6.0	4.5	3.0	3.5	.5	.0	.5
13	13.0	12.0	12.5	6.0	5.0	5.5	5.0	3.0	4.0	.5	.0	.5
14	13.0	12.0	12.5	6.0	5.0	5.5	3.0	2.0	2.5	1.0	.0	.5
15	13.0	12.0	12.5	7.5	6.0	6.5	4.0	2.5	3.0	2.5	.5	1.5
16	13.0	12.0	12.5	8.0	7.0	7.5	4.0	4.0	4.0	3.0	2.5	3.0
17	14.5	12.5	13.5	7.5	6.0	7.0	4.0	4.0	4.0	3.0	2.0	2.5
18	14.0	11.5	13.0	6.5	6.0	6.5	4.5	4.0	4.5	2.0	1.5	2.0
19	12.0	11.0	11.5	6.5	5.5	6.0	4.5	4.0	4.5	2.0	1.0	1.5
20	12.0	10.5	11.5	7.0	5.5	6.5	4.0	3.5	4.0	2.5	1.5	2.0
21	12.5	11.0	11.5	7.5	6.0	6.5	6.0	4.0	5.0	1.5	.0	1.0
22	12.5	11.5	12.0	8.5	7.5	8.0	6.0	6.0	6.0	3.0	.0	.5
23	12.0	10.5	11.5	8.0	6.0	7.0	5.5	4.5	5.0	3.0	.0	.0
24	12.5	11.0	11.5	6.5	5.0	5.5	4.5	2.0	3.0	.5	.0	.0
25	11.0	10.0	10.5	6.0	5.0	5.5	2.0	.5	1.5	.0	.0	.0
26	10.5	9.0	10.0	7.0	5.5	6.0	.5	.0	.0	.0	.0	.0
27	10.5	9.0	10.0	10.0	7.0	9.0	.0	.0	.0	.0	.0	.0
28	10.0	9.5	9.5	11.0	8.0	10.0	.0	.0	.0	.0	.0	.0
29	9.5	8.5	9.0	8.0	6.5	7.0	3.0	.0	1.0	.0	.0	.0
30	10.5	8.0	9.0	6.5	5.5	6.0	3.5	3.0	3.0	.0	.0	.0
31	11.5	10.0	10.5	---	---	---	3.0	2.5	3.0	.0	.0	.0
MONTH	18.5	8.0	13.0	13.0	5.0	8.0	6.0	.0	3.5	3.0	.0	.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	4.0	2.0	3.0	9.0	8.0	8.5	16.5	15.0	16.0
2	.0	.0	.0	6.0	4.0	5.0	9.5	6.0	8.0	16.0	14.0	15.0
3	.5	.0	.0	5.0	3.0	4.0	10.0	7.5	9.0	17.0	14.0	15.5
4	.5	.0	.0	4.5	2.5	3.5	10.0	8.0	9.0	16.5	14.5	15.5
5	.5	.0	.5	5.0	3.0	4.0	12.5	10.0	11.0	15.5	14.0	14.5
6	.5	.0	.5	5.5	5.0	5.0	14.5	11.0	12.5	14.5	12.0	13.5
7	.5	.0	.5	5.0	4.0	4.5	15.5	13.0	14.0	14.5	11.5	12.5
8	2.0	.0	1.0	5.0	3.0	4.0	15.5	15.0	15.0	15.0	13.5	14.0
9	2.5	1.5	2.0	5.0	4.0	4.5	16.0	14.0	15.0	17.5	14.0	15.5
10	3.0	2.0	2.5	4.5	4.0	4.0	14.5	11.5	12.5	19.0	16.0	17.5
11	2.0	1.0	1.5	4.0	3.0	3.5	12.5	10.0	11.5	20.0	18.0	19.0
12	1.5	.0	1.0	3.5	2.0	3.0	12.0	10.0	11.0	22.5	20.0	21.0
13	1.5	1.0	1.0	2.5	2.0	2.5	11.0	10.5	10.5	24.0	22.0	23.0
14	1.0	.5	1.0	3.5	1.0	2.5	12.0	10.0	11.0	25.0	23.0	24.0
15	1.0	.0	.0	4.5	2.5	3.5	13.0	12.0	12.5	25.0	21.5	24.0
16	.0	.0	.0	5.5	3.0	4.5	14.0	11.5	12.5	25.0	23.0	24.5
17	.0	.0	.0	5.0	4.0	4.5	14.0	12.0	13.0	25.5	24.0	25.0
18	.0	.0	.0	5.0	4.5	5.0	13.0	12.0	12.5	24.5	19.0	21.5
19	.5	.0	.5	7.0	4.0	5.5	12.0	10.0	11.5	20.0	17.0	18.5
20	2.0	.0	1.0	8.0	5.5	6.5	9.5	8.5	9.0	21.5	19.0	20.0
21	2.5	1.0	2.0	10.0	7.0	8.5	8.5	7.5	8.0	22.0	20.0	21.0
22	3.5	2.5	3.0	10.5	9.5	10.0	9.5	7.0	8.5	23.5	22.0	22.5
23	3.0	2.0	2.5	11.5	9.0	10.0	9.5	8.0	9.0	24.5	23.0	24.0
24	3.5	2.0	2.5	10.5	8.5	9.5	9.5	9.0	9.5	26.0	24.0	25.0
25	3.0	2.0	2.5	11.0	8.5	10.0	11.0	9.0	10.0	26.0	24.0	25.5
26	2.5	1.0	2.0	10.5	9.5	10.0	13.0	10.5	11.5	24.0	21.0	22.5
27	1.5	1.0	1.5	13.5	10.5	11.5	14.5	12.5	13.5	23.5	21.0	22.0
28	2.5	1.0	1.5	12.5	10.0	11.0	15.5	14.0	14.5	25.0	21.0	23.0
29	---	---	---	11.0	9.5	10.5	16.5	14.5	15.5	26.5	24.0	25.0
30	---	---	---	10.5	8.0	9.5	17.0	15.0	16.0	27.0	25.5	26.5
31	---	---	---	9.5	8.5	9.0	---	---	---	27.0	25.0	26.0
MONTH	3.5	.0	1.0	13.5	1.0	6.0	17.0	6.0	11.5	27.0	11.5	20.5

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	23.5	24.5	28.0	26.0	26.5	27.0	24.0	25.5	26.0	24.5	25.0
2	24.0	23.0	23.5	27.5	26.0	26.5	28.0	25.0	26.5	24.5	23.0	23.5
3	24.5	23.0	24.0	28.5	26.0	27.0	27.5	26.0	26.5	25.0	23.5	24.0
4	23.5	22.0	23.0	28.0	26.5	27.5	27.5	25.0	26.0	24.0	23.0	23.5
5	23.5	21.0	22.5	28.0	26.0	27.5	27.0	25.0	26.0	23.5	23.0	23.0
6	23.5	21.0	22.5	29.5	27.0	28.0	26.5	24.0	25.0	23.5	23.0	23.5
7	24.0	21.5	23.0	29.5	27.5	28.5	25.5	23.5	24.5	25.0	23.0	24.0
8	24.5	22.0	23.5	29.0	27.5	28.0	25.0	24.0	24.5	25.5	24.0	24.5
9	25.5	23.5	24.5	28.5	26.0	27.5	24.0	23.0	23.5	25.0	24.0	24.5
10	25.0	24.0	24.5	28.0	26.0	26.5	25.5	22.0	23.5	25.5	24.0	24.5
11	24.5	23.0	24.0	28.0	26.0	26.5	25.0	23.0	24.0	24.5	23.5	24.0
12	25.0	23.0	24.0	27.0	25.5	26.5	24.5	23.5	24.0	24.0	23.0	23.5
13	25.0	23.0	24.0	26.5	25.0	25.5	25.0	24.0	24.5	25.0	22.0	23.0
14	25.0	23.0	24.0	25.5	24.0	25.0	26.0	24.0	25.0	24.5	23.0	23.5
15	27.5	24.5	25.5	28.0	25.0	26.0	26.0	24.0	25.0	25.5	23.0	24.0
16	26.5	25.0	26.0	28.0	25.0	26.0	26.0	24.0	25.0	25.5	25.0	25.0
17	26.0	24.5	25.0	28.5	25.5	27.0	25.0	24.0	24.5	25.5	24.0	24.5
18	26.0	25.0	25.5	29.0	26.0	27.5	25.5	23.5	24.0	24.0	22.0	23.0
19	26.5	25.0	25.5	29.5	27.0	28.5	25.0	23.5	24.5	21.5	19.0	20.5
20	27.0	26.0	26.5	30.0	27.0	28.5	23.0	22.0	22.5	19.0	17.5	18.5
21	27.5	26.0	27.0	30.0	28.[illegible]	28.5	24.0	21.0	22.5	18.5	16.0	17.5
22	27.0	25.0	26.5	29.5	28.5	29.0	25.0	23.5	24.0	17.5	16.0	16.5
23	24.5	23.0	23.5	30.5	28.0	29.0	25.5	24.0	24.5	18.5	16.0	17.0
24	23.0	22.0	22.5	29.0	27.0	28.0	25.5	24.0	24.5	17.0	16.0	16.5
25	25.0	23.0	23.5	30.0	26.0	27.5	24.5	23.0	24.0	16.5	15.0	15.5
26	27.0	24.0	25.5	27.0	25.5	26.0	27.0	24.0	25.5	16.5	15.0	16.0
27	27.5	25.5	26.5	26.0	25.0	25.0	28.0	25.0	26.5	16.0	14.0	15.0
28	28.0	26.5	27.0	25.0	24.0	24.5	27.0	26.0	26.5	15.0	13.0	14.0
29	29.0	26.5	27.5	26.0	23.5	24.5	27.5	27.0	27.0	15.0	14.0	14.5
30	29.0	27.0	27.5	26.5	24.0	25.0	29.0	27.0	28.0	16.5	14.5	15.5
31	---	---	---	26.5	24.0	25.0	28.5	26.5	27.5	---	---	---
MONTH	29.0	21.0	24.5	30.5	23.5	27.0	29.0	21.0	25.0	26.0	13.0	21.0
YEAR	30.5	.0	13.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.6	9.5	10.5	11.0	10.0	10.6	10.7	10.2	10.5	11.8	11.6	11.8
2	15.0	9.6	11.8	11.2	10.0	10.6	10.9	10.4	10.6	12.2	11.6	12.0
3	15.6	11.6	13.5	11.3	9.7	10.4	11.0	10.3	10.7	12.7	12.0	12.4
4	13.4	11.2	12.5	11.2	9.6	10.4	10.8	10.2	10.4	13.7	12.8	13.0
5	12.9	11.4	12.1	11.0	9.4	9.8	10.9	10.6	10.8	13.3	12.9	13.1
6	12.9	9.0	11.3	9.8	9.2	9.6	11.4	10.8	11.1	14.0	13.0	13.3
7	12.2	9.2	10.8	10.0	9.6	9.8	12.9	11.2	12.1	14.4	13.2	13.7
8	10.8	9.2	10.0	10.0	9.6	9.7	13.1	12.8	12.9	13.7	13.4	13.6
9	10.2	8.9	9.7	10.1	9.6	9.8	13.2	12.8	13.0	13.6	13.4	13.5
10	9.6	8.1	8.8	10.8	9.8	10.3	13.1	12.8	12.9	13.8	13.6	13.7
11	8.2	7.6	8.0	11.2	10.4	10.7	13.2	12.8	12.9	13.9	13.6	13.8
12	8.2	7.6	7.8	12.2	10.8	11.4	13.0	12.6	12.8	13.5	13.2	13.3
13	8.5	8.0	8.3	12.6	11.2	11.9	12.7	12.4	12.5	13.4	13.2	13.3
14	8.8	8.4	8.6	12.8	11.9	12.2	13.3	12.6	12.9	13.5	13.2	13.4
15	9.3	8.8	9.1	12.8	11.6	12.1	13.1	12.6	12.9	13.5	12.8	13.3
16	9.4	9.2	9.3	12.3	11.3	11.7	12.6	12.4	12.5	12.8	12.0	12.3
17	9.4	9.0	9.2	12.5	11.2	11.5	12.7	12.4	12.5	12.4	12.0	12.3
18	9.2	9.0	9.1	12.8	11.4	11.9	12.6	12.0	12.3	12.8	12.4	12.5
19	9.6	9.0	9.3	12.8	11.3	11.9	12.3	12.0	12.1	13.0	12.6	12.7
20	9.7	9.4	9.6	13.2	11.2	12.0	12.8	12.2	12.5	13.0	12.8	12.8
21	9.7	9.4	9.5	13.4	11.6	12.3	12.7	11.8	12.4	13.2	12.8	13.0
22	9.8	9.5	9.6	13.2	11.4	12.0	11.8	11.2	11.6	13.5	11.6	13.1
23	9.8	9.4	9.6	12.7	10.4	11.5	11.7	11.2	11.5	13.5	12.2	13.3
24	9.7	9.2	9.5	12.2	10.5	11.3	12.5	11.8	12.1	14.4	12.9	13.7
25	9.7	9.2	9.5	12.8	10.8	11.6	13.2	12.4	12.8	14.0	12.0	13.6
26	10.1	9.6	9.8	14.0	11.2	12.1	14.1	12.8	13.5	14.0	11.4	13.8
27	10.4	9.8	10.0	13.6	11.2	11.9	14.4	14.0	14.3	14.0	13.7	13.9
28	10.7	10.1	10.3	11.6	9.6	10.3	14.3	13.9	14.0	13.8	13.6	13.7
29	11.5	10.2	10.6	10.5	9.8	10.2	13.9	11.8	13.1	13.7	13.6	13.6
30	11.6	10.8	11.0	10.9	10.4	10.6	12.1	11.8	12.0	13.7	13.5	13.6
31	11.0	10.2	10.6	---	---	---	12.1	11.8	11.9	13.7	13.6	13.6
MONTH	15.6	7.6	10.0	14.0	9.2	11.1	14.4	10.2	12.3	14.4	11.4	13.2

04193490 MAUMEE RIVER NEAR WATERVILLE, OH--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.6	13.4	13.5	12.9	12.4	12.7	11.7	10.8	11.2	9.7	9.0	9.3
2	13.4	13.2	13.3	12.4	11.6	12.1	13.3	11.2	12.1	10.3	9.4	9.8
3	13.3	13.2	13.2	12.3	11.6	12.0	14.0	11.6	12.6	11.0	9.6	10.1
4	13.2	12.8	13.1	12.8	12.2	12.4	13.2	11.6	12.3	11.2	9.6	10.3
5	13.0	12.8	12.8	12.7	12.0	12.4	13.2	11.2	11.9	10.7	9.8	10.2
6	13.2	12.9	13.1	12.2	12.0	12.0	13.2	10.8	11.8	10.3	9.6	9.9
7	13.2	12.8	13.1	12.7	12.0	12.3	13.0	10.0	11.3	10.9	10.0	10.4
8	13.2	12.8	13.1	13.1	12.2	12.6	11.7	9.6	10.6	11.6	10.0	10.6
9	13.1	12.8	13.0	12.7	12.2	12.4	11.0	9.4	10.1	13.2	9.8	11.1
10	13.0	12.8	12.9	12.8	12.2	12.5	10.7	9.8	10.2	16.0	10.4	12.7
11	13.2	12.8	13.0	13.3	12.6	12.8	11.6	10.2	10.9	16.0	11.2	13.4
12	13.4	12.8	13.1	13.6	12.5	12.9	12.4	10.2	11.1	15.3	11.0	13.3
13	13.1	12.8	13.0	13.4	12.8	13.0	11.2	10.6	10.9	15.8	11.4	13.9
14	13.0	12.8	12.9	14.1	12.8	13.3	11.3	10.6	10.9	15.4	10.6	13.3
15	13.4	12.8	13.1	14.8	13.0	13.7	11.0	10.0	10.5	16.0	10.5	13.5
16	13.7	13.2	13.4	15.2	13.2	14.2	11.1	10.2	10.6	15.4	11.0	13.4
17	13.4	13.2	13.3	15.4	13.6	14.5	10.2	9.4	9.8	13.6	9.0	11.1
18	13.3	13.2	13.2	14.4	13.2	13.7	9.9	9.4	9.7	10.8	7.7	8.6
19	13.2	12.4	12.8	16.7	12.8	14.5	10.6	9.9	10.2	9.8	8.2	9.0
20	12.7	12.0	12.5	17.0	12.8	15.0	10.4	10.0	10.2	9.6	7.6	8.8
21	12.5	12.0	12.3	17.2	12.4	14.9	10.6	10.2	10.4	9.8	7.6	8.6
22	12.5	11.6	12.2	16.4	12.6	14.5	10.8	10.4	10.6	10.4	7.4	8.8
23	12.6	12.2	12.4	14.4	11.6	12.9	10.7	10.4	10.6	10.6	7.6	9.2
24	12.6	12.0	12.4	13.6	10.8	12.0	10.8	10.6	10.7	12.2	7.2	9.3
25	12.5	12.3	12.4	13.9	11.0	12.3	10.8	10.4	10.7	9.3	6.2	7.6
26	12.8	12.2	12.5	11.8	11.0	11.4	10.5	10.0	10.3	7.0	6.0	6.5
27	12.9	12.4	12.6	12.0	7.8	11.0	9.9	9.4	9.8	6.6	6.4	6.5
28	13.1	12.4	12.7	11.4	10.2	10.7	9.5	9.2	9.4	6.8	6.0	6.5
29	---	---	---	11.3	10.4	10.8	9.4	9.2	9.3	7.0	6.0	6.4
30	---	---	---	11.8	10.8	11.2	9.6	9.2	9.3	7.4	6.2	6.7
31	---	---	---	11.6	10.8	11.1	---	---	---	7.2	6.4	6.9
MONTH	13.7	11.6	12.9	17.2	7.8	12.7	14.0	9.2	10.7	16.0	6.0	9.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.6	5.8	6.2	9.3	5.4	7.5	10.4	6.2	7.9	7.4	5.2	6.3
2	6.1	5.7	6.0	10.4	7.4	8.8	11.0	5.0	7.7	7.4	6.2	6.7
3	6.6	6.0	6.2	8.8	6.8	7.9	8.0	4.2	6.3	12.0	6.0	8.9
4	7.4	6.6	7.0	10.0	7.0	8.0	10.8	3.9	7.2	9.2	7.6	8.3
5	7.6	7.4	7.5	14.0	7.2	9.9	10.6	5.1	7.6	10.5	7.0	9.1
6	7.9	7.6	7.8	15.4	8.2	11.2	9.6	4.4	6.3	11.2	7.0	8.9
7	8.0	7.6	7.8	14.8	7.6	11.0	8.3	5.5	6.4	12.4	8.0	9.9
8	7.9	7.6	7.7	16.4	7.0	10.2	7.4	4.8	6.3	12.1	8.0	10.1
9	7.8	7.6	7.6	16.0	6.8	10.1	6.9	5.0	5.7	10.9	7.2	8.7
10	8.0	7.2	7.7	14.8	6.4	10.2	11.6	5.4	8.7	11.4	6.0	8.2
11	8.2	7.6	7.8	14.8	4.8	9.0	11.7	6.2	9.2	10.0	7.2	8.1
12	8.6	7.8	8.0	11.7	4.0	7.7	8.6	5.0	6.7	10.2	6.8	8.9
13	9.0	7.6	8.1	15.5	4.8	9.5	8.7	4.3	6.7	13.1	6.4	8.8
14	9.8	8.0	8.9	11.3	8.4	9.7	8.4	6.3	7.4	11.7	5.2	8.8
15	9.6	6.4	8.5	19.0	9.2	13.1	8.2	5.0	6.7	10.6	7.4	9.0
16	10.4	7.7	8.6	16.2	7.0	11.2	8.3	6.0	7.0	10.0	7.8	8.8
17	9.8	7.6	8.5	14.0	8.7	11.1	7.2	5.6	6.5	11.4	7.2	8.8
18	10.1	8.4	9.1	13.8	8.0	10.4	9.1	5.2	6.0	9.0	6.4	7.7
19	11.4	8.1	9.2	12.7	7.8	9.8	9.0	4.6	7.0	10.8	6.4	8.2
20	12.4	8.6	10.1	12.0	6.6	8.7	9.0	6.4	7.8	10.6	7.6	8.5
21	12.8	6.4	9.8	10.0	5.0	6.8	10.3	7.6	9.0	12.0	8.4	9.8
22	10.6	6.6	8.7	9.0	4.8	6.9	12.6	8.0	9.8	9.8	7.8	9.0
23	12.2	8.4	10.2	10.6	4.4	6.3	11.7	8.0	9.8	11.2	8.4	9.7
24	14.0	9.4	11.3	9.6	3.8	6.2	11.6	8.2	10.2	9.7	8.0	8.8
25	12.1	9.2	10.9	12.4	5.2	8.0	10.9	8.0	8.9	9.7	8.0	8.7
26	11.8	8.8	10.0	9.4	6.6	7.8	14.8	8.4	10.8	11.4	8.0	9.2
27	11.7	8.6	9.7	8.0	5.2	6.5	13.2	8.4	10.3	11.4	8.8	10.0
28	12.7	9.8	11.2	8.2	5.0	6.4	8.9	5.2	7.1	10.2	8.4	9.3
29	17.2	10.0	12.5	12.4	4.6	8.0	8.0	4.0	6.0	10.4	9.2	9.6
30	14.3	7.4	11.4	11.9	6.2	8.7	9.0	4.1	6.5	10.8	8.8	9.7
31	---	---	---	10.4	6.0	7.9	6.4	5.3	5.9	---	---	---
MONTH	17.2	5.7	8.8	19.0	3.8	8.9	14.8	3.9	7.6	13.1	5.2	8.8
YEAR	19.0	3.8	10.5									

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^2.

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 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: Dec. 26-28, Jan. 21, 27, 29, Mar. 27-Apr. 3. Records fair except for estimated daily discharges which are poor. Satellite telemeter at station.

AVERAGE DISCHARGE.--66 years (1921-35, 1939-91), 4,963 ft^3/s, 10.65 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^3/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, 17 ft^3/s June 30, 1988, probably as a result of heavy upstream withdrawals.

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^3/s, from rating curve extended above 94,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90,700 ft^3/s Jan. 1 gage height, 15.31 ft; minimum daily, 113 ft^3/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	1560	6780	86700	2690	3500	4340	4240	32100	303	243	188
2	566	1420	4970	73400	2240	3980	3170	3830	31900	477	184	256
3	566	1430	6790	53900	2200	5530	2860	2990	25400	1490	342	277
4	1030	1310	25900	35100	2380	5720	2540	2750	16500	2000	385	388
5	844	1380	28500	26800	4700	5510	2300	2550	11100	1700	281	394
6	1840	3760	20400	21400	9990	4740	2550	3180	7160	1280	224	765
7	2100	7520	14600	15500	13600	4450	3260	3310	4340	1270	202	692
8	2210	8040	10400	9160	12500	3440	3220	2810	2640	840	226	490
9	1800	6260	7730	6860	11000	3550	5610	2620	2220	744	317	410
10	5050	5550	6270	5130	9140	2760	6510	2250	1790	634	357	476
11	19900	4630	5100	4970	7300	2370	4800	2050	1510	606	494	293
12	24200	3940	4360	5740	5720	2390	3820	1980	1350	472	568	263
13	20400	3290	3900	6210	4740	2140	3240	1750	1230	566	472	370
14	15000	2650	3200	8080	4000	1950	3150	1740	1250	456	403	379
15	10800	2530	3470	7130	3570	2130	5390	1730	1220	424	394	811
16	8160	2110	5760	12100	2410	1840	9750	1950	997	403	286	734
17	6610	1870	9280	24200	2770	1930	14400	1850	882	402	270	455
18	6380	1730	9630	23800	2310	2380	13800	1470	869	320	321	381
19	7710	1540	14200	17700	5180	3070	11800	1790	864	321	512	299
20	8490	1540	18900	13500	16000	3810	37000	1780	822	316	1380	278
21	7950	1480	18200	11500	19800	3990	44200	1520	660	309	2070	272
22	5750	1630	28100	10600	17000	3110	31500	1370	498	350	1910	247
23	4410	1740	31400	9150	13000	3440	21100	1390	546	414	1450	318
24	3880	1980	27400	6060	10300	3660	16800	1230	527	348	1220	174
25	3730	2290	22100	5890	7980	4850	15900	1220	513	227	959	132
26	3540	2030	15000	4560	6180	4810	13900	7900	551	217	768	295
27	3100	2100	10000	3650	4900	4590	10800	7540	708	230	678	209
28	2140	2980	7000	2940	3580	6150	8210	4680	563	296	519	113
29	1530	5930	12100	3450	---	7590	6370	3380	407	325	423	131
30	2050	7690	54700	2850	---	6970	5600	2430	390	342	374	204
31	1590	---	82000	2820	---	5520	---	8640	---	282	292	---
TOTAL	183904	93910	518140	520850	207180	121870	317890	89920	151507	18364	18524	10694
MEAN	5932	3130	16710	16800	7399	3931	10600	2901	5050	592	598	356
MAX	24200	8040	82000	86700	19800	7590	44200	8640	32100	2000	2070	811
MIN	566	1310	3200	2820	2200	1840	2300	1220	390	217	184	113
CFSM	.94	.49	2.64	2.65	1.17	.62	1.67	.46	.80	.09	.09	.06
IN.	1.08	.55	3.04	3.06	1.22	.72	1.87	.53	.89	.11	.11	.06

CAL YR 1990 TOTAL 2917753 MEAN 7994 MAX 82000 MIN 400 CFSM 1.26 IN. 17.15
WTR YR 1991 TOTAL 2252753 MEAN 6172 MAX 86700 MIN 113 CFSM .98 IN. 13.24

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
CHLORIDE: October 1987 to current year.
NITROGEN, NITRITE + NITRATE: October 1987 to current year.
NITROGEN, AMMONIA + ORGANIC: October 1987 to current year.
PHOSPHORUS: October 1987 to current year.
SUSPENDED SEDIMENT DISCHARGE: April 1950 to September 1984. October 1987 to current year.

INSTRUMENTATION.--Refrigerated water-quality pumping sampler since 1987. Sampler located at station 04193490.

REMARKS.--Water-quality samples were collected by pumping sampler three times daily. Sediment samples were collected by a local observer on an approximate once daily basis. Chemical loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was sub-divided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations. Concentrations reported as below the limit of detection (for example, <.100) were assumed to have a value of half of the detection limit for the purpose of load calculation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 110 mg/L, July 31-Aug. 6, 1988; minimum daily mean, <10 mg/L, July 24-26, 1990.
DISSOLVED CHLORIDE LOADS: Maximum daily, 3,490 tons, May 27, 1989; minimum daily, 10.5 tons, June 28, 1988.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 24.1 mg/L, May 13, 1990; minimum daily mean, <.100 mg/L on many days during 1988 and 1991 water years.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 1,300 tons, April 5, 1989; minimum daily, .01 ton, many days during 1988 water year.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 6.6 mg/L Feb. 23, 1990; minimum daily mean, .33 mg/L, Feb. 26, 1989.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 1,030 tons, Feb. 23, 1990; minimum daily, .25 ton, June 28, 30, July 1, 1988.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 1.95 mg/L Feb. 4, 1990; minimum daily mean, .072 mg/L Oct. 26, 1987.
TOTAL PHOSPHORUS LOADS: Maximum daily, 362 tons, Jan. 1, 1991; minimum daily, .039 ton, Sept. 28, 1991.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,240 mg/L, March 26, 1954; minimum daily mean, 1 mg/L, on many days during 1953, 1955, 1963.
SEDIMENT LOADS: Maximum daily, 300,000 tons, Feb. 24, 1990; minimum daily, 0.26 ton, Sept. 18, 1955.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 73 mg/L, Aug. 27-29; minimum daily mean, 10 mg/L, Dec. 31, Jan. 1.
DISSOLVED CHLORIDE LOADS: Maximum daily, 2,370 tons, Jan. 1; minimum daily, 20.5 tons, Sept. 28.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 10.1 mg/L, May 28; minimum daily mean, <.100 mg/L, on many days during the year.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 1,000 tons, Dec. 30; minimum daily, .02 ton, on several days during the year.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 3.9 mg/L, Jan. 1; minimum daily mean, .75 mg/L, Mar. 26.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 916 tons, Jan. 1; minimum daily, .38 ton, Sept. 28.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 1.54 mg/L, Jan. 1; minimum daily mean, .090 mg/L, Aug. 27.
TOTAL PHOSPHORUS LOADS: Maximum daily, 362 tons, Jan. 1; minimum daily, .039 ton, Sept. 28.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,150 mg/L, June 1; minimum daily mean, 12 mg/L, Aug. 30.
SEDIMENT LOADS: Maximum daily, 111,000 tons, Jan. 1; minimum daily, 6.8 tons, Sept. 1.

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
18...	1245	9750	445	8.3	0.0	1.0	6.0	11.7	86	1700	2000
MAR											
13...	1345	1910	700	8.5	2.5	2.5	29	13.2	99	K70	K29
JUN											
19...	1030	1080	602	8.9	27.0	27.0	25	10.8	137	120	8200
SEP											
11...	1400	260	581	9.0	25.0	26.5	5.0	11.0	138	K38	430

DATE	HARD-NESS TOTAL (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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
18...	310	84	23	17	3.3	235	0	193	69	37	0.20
MAR											
13...	300	83	22	22	3.3	227	7	195	76	42	0.20
JUN											
19...	260	74	18	15	4.8	190	5	165	48	30	0.30
SEP											
11...	200	44	22	44	5.3	107	6	99	110	56	0.50

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	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 TOTAL (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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
DEC											
18...	7.8	397	0.020	5.00	0.120	0.110	0.90	0.140	0.090	0.060	70
MAR											
13...	5.7	401	0.050	4.50	0.090	0.070	1.0	0.090	0.040	0.040	20
JUN											
19...	8.1	340	0.030	7.00	<0.010	<0.010	1.8	0.100	0.050	0.050	<10
SEP											
11...	0.46	336	0.020	0.180	0.020	0.030	1.4	0.110	0.020	<0.010	30

DATE	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)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
DEC										
18...	<1	40	<0.5	<1.0	<1	<3	3	69	<1	8
MAR										
13...	<1	41	<0.5	<1.0	<1	<3	2	97	<1	7
JUN										
19...	<1	43	<0.5	3.0	10	<3	5	6	<1	5
SEP										
11...	1	45	<0.5	<1.0	<1	<3	2	7	<1	10

DATE	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)	SEDI-MENT, SUS-PENDED (MG/L)
DEC										
18...	9	<0.1	<10	1	<1	<1.0	840	<6	4	88
MAR										
13...	16	<0.1	<10	1	<1	<1.0	750	<6	3	41
JUN										
19...	<1	<0.1	<10	5	<1	<1.0	590	<6	<3	41
SEP										
11...	3	<0.1	20	3	<1	<1.0	1200	<6	4	18

K Based on colony count outside the acceptable range.

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

REVISIONS.--The alachlor concentrations for water year 1988 have been revised, as shown in the following table. They supersede figures published in the report for 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 05	1500	<.1	June 04	--	.3	July 29	--	<.1
Oct. 19	--	.5	June 06	1420	.2	Aug. 01	1420	<.1
Nov. 02	1505	<.1	June 10	--	<.1	Aug. 05	--	<.1
Nov. 16	1445	<.1	June 13	1350	<.1	Aug. 12	--	<.1
Nov. 30	1510	.1	June 17	--	<.1	Aug. 15	1430	<.1
Dec. 14	1405	<.1	June 20	1445	<.1	Aug. 19	--	<.1
Jan. 11	1450	<.1	June 24	--	<.1	Aug. 22	1340	<.1
Feb. 22	1445	<.1	June 27	1340	<.1	Aug. 26	--	.3
Mar. 07	1445	<.1	July 01	--	<.1	Aug. 29	1430	<.1
Apr. 11	1450	.1	July 05	1335	<.1	Sept. 02	--	<.1
May 02	1430	.4	July 09	--	<.1	Sept. 05	1145	<.1
May 09	1400	.5	July 11	1410	<.1	Sept. 09	--	<.1
May 13	--	.2	July 14	--	<.1	Sept. 12	1330	<.1
May 16	1400	.2	July 18	--	<.1	Sept. 19	1445	<.1
May 23	1415	.1	July 22	--	<.1			
May 31	1340	.5	July 25	1450	<.1			

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 03	1430	<.1	May 26	2000	1.9	June 09	2000	2.1
Oct. 17	1440	<.1	May 27	0400	2.2	June 10	2000	2.0
Nov. 07	1425	<.1	May 27	1200	2.7	June 11	2000	1.9
Nov. 21	1400	<.1	May 27	2000	5.0	June 12	1351	1.6
Dec. 05	1400	<.1	May 28	0400	4.6	June 19	1340	1.2
Dec. 19	1445	<.1	May 28	1200	4.6	June 23	2000	.9
Jan. 03	1415	<.1	May 28	2000	4.0	June 26	1405	1.2
Jan. 16	1425	<.1	May 29	0400	3.1	June 30	2000	2.2
Feb. 20	1520	<.1	May 29	1200	3.6	July 03	1320	1.3
Mar. 27	1410	<.1	May 29	2000	3.0	July 04	2000	1.3
Apr. 03	1445	<.1	May 30	0400	2.7	July 05	2000	1.4
Apr. 17	1430	<.1	May 30	1320	3.3	July 07	--	1.2
May 01	1525	.4	May 31	2000	3.1	July 10	1400	1.0
May 05	--	<.1	June 01	2000	2.8	July 17	1430	.9
May 08	1520	<.1	June 02	2000	2.7	July 24	1400	.6
May 12	--	<.1	June 03	2000	4.1	July 31	1400	.6
May 15	1400	.1	June 04	2000	3.0	Aug. 07	1320	<.1
May 19	--	.3	June 05	1200	3.1	Aug. 14	1430	<.1
May 22	1350	.3	June 05	1430	3.9	Aug. 22	1300	<.1
May 25	2000	.5	June 06	2000	2.5	Sept. 04	1430	<.1
May 26	0400	1.4	June 07	2000	2.9	Sept. 18	1400	<.1
May 26	1200	1.6	June 08	2000	1.8			

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 02	1415	<.1	May 13	2000	2.6	June 22	--	1.0
Oct. 16	1400	<.1	May 14	0400	2.0	June 25	1436	1.9
Oct. 30	1500	<.1	May 14	1400	2.0	July 02	1430	.9
Nov. 13	1430	<.1	May 15	2000	.7	July 06	--	1.0
Nov. 27	1405	<.1	May 16	0400	.9	July 09	1410	.8
Dec. 11	1525	<.1	May 16	1200	.9	July 11	--	1.1
Dec. 18	0925	<.1	May 16	2000	2.0	July 12	--	1.2
Dec. 19	1415	<.1	May 17	0400	3.4	July 13	--	1.9
Jan. 02	1500	<.1	May 17	1200	2.7	July 14	--	1.6
Jan. 15	1140	<.1	May 17	2000	2.6	July 15	--	.9
Jan. 30	1040	<.1	May 18	0400	3.3	July 16	1430	.7
Feb. 14	1055	<.1	May 18	1200	1.9	July 18	--	1.6
Feb. 26	1100	<.1	May 18	2000	2.2	July 20	--	1.4
Mar. 12	1400	<.1	May 19	2000	2.9	July 22	--	1.3
Mar. 26	1425	<.1	May 20	2000	3.0	July 23	1355	1.0
Apr. 09	1430	<.1	May 21	1430	2.3	July 24	--	.3
Apr. 23	1400	<.1	May 25	--	3.8	July 26	--	.3
Apr. 27	--	.1	May 28	1200	2.1	July 28	--	.3
Apr. 30	1450	<.1	June 01	--	2.9	July 30	1355	.3
May 05	2000	1.0	June 04	1415	4.1	Aug. 03	--	.2
May 06	0400	1.0	June 09	2000	5.8	Aug. 06	1352	<.1
May 06	1200	.8	June 10	0400	6.1	Aug. 10	--	<.1
May 06	2000	<.1	June 10	1200	6.1	Aug. 13	1416	<.1
May 07	0400	1.1	June 11	0400	4.5	Aug. 17	0400	<.1
May 07	1200	1.8	June 11	1415	4.8	Aug. 20	1410	<.1
May 07	1435	2.7	June 12	0400	4.3	Aug. 24	--	<.1
May 08	2000	2.7	June 12	2000	5.1	Aug. 27	1500	<.1
May 10	2000	3.2	June 13	1200	4.8	Sept. 03	1250	<.1
May 12	2000	3.1	June 14	2000	3.8	Sept. 10	1400	<.1
May 13	0400	3.2	June 17	0400	3.6	Sept. 17	1330	<.1
May 13	1200	1.6	June 18	1415	3.5	Sept. 24	1535	<.1

Alachlor concentrations without times (--) were determined from compositions of three water samples obtained throughout a day.

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 01	1430	.1	May 27	1250	14.7	July 05	--	.6
Oct. 15	1350	.1	May 29	2000	4.3	July 08	1440	.3
Oct. 29	1405	<.1	May 30	2000	5.6	July 12	--	.3
Nov. 12	1410	.1	May 31	2000	9.5	July 15	1355	<.1
Nov. 26	1400	<.1	June 01	0400	5.4	July 19	--	.3
Dec. 10	1405	.1	June 01	1200	5.8	July 22	1435	<.1
Jan. 28	1355	<.1	June 01	2000	5.4	July 26	--	.1
Feb. 11	1350	<.1	June 02	0400	7.8	July 29	1400	<.1
Feb. 25	1420	<.1	June 02	1200	8.3	Aug. 02	--	.2
Mar. 11	1410	<.1	June 02	2000	9.0	Aug. 05	1220	.1
Mar. 25	1300	<.1	June 03	0400	7.6	Aug. 09	--	.1
Apr. 08	1440	<.1	June 03	1400	6.1	Aug. 12	1435	.3
Apr. 15	1410	.4	June 04	--	5.6	Aug. 17	--	<.1
Apr. 22	1420	.6	June 05	--	5.0	Aug. 19	1340	<.1
Apr. 26	--	.4	June 06	--	4.5	Aug. 20	--	<.1
Apr. 29	1450	.2	June 07	--	4.0	Aug. 21	--	<.1
May 06	1430	.2	June 08	--	4.1	Aug. 22	--	<.1
May 10	--	.3	June 09	--	4.0	Aug. 23	--	<.1
May 13	1055	.2	June 10	1545	4.0	Aug. 26	1405	<.1
May 20	1400	.3	June 14	--	3.3	Aug. 30	--	<.1
May 25	2000	.6	June 17	1400	2.5	Sept. 02	1515	<.1
May 26	0400	2.6	June 21	--	1.7	Sept. 16	1430	<.1
May 26	1200	10.1	June 24	1405	1.2	Sept. 30	1440	<.1
May 26	2000	8.6	June 28	--	1.0			
May 27	0400	10.3	July 02	1445	1.0			

Alachlor concentrations without times (--) were determined from compositions of three water samples obtained throughout a day.

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	578	34	53.9	1560	35	146	6780	43	786
2	566	36	55.1	1420	34	130	4970	39	525
3	566	36	55.0	1430	34	130	6790	31	531
4	1030	36	99.9	1310	33	118	25900	22	1520
5	844	37	85.5	1380	33	124	28500	22	1710
6	1840	41	207	3760	33	335	20400	24	1300
7	2100	43	244	7520	34	682	14600	24	948
8	2210	46	271	8040	31	682	10400	25	712
9	1800	46	222	6260	32	538	7730	27	555
10	5050	45	606	5550	32	475	6270	27	463
11	19900	33	1740	4630	30	372	5100	29	400
12	24200	25	1640	3940	29	312	4360	30	352
13	20400	20	1110	3290	30	266	3900	31	322
14	15000	19	784	2650	29	210	3200	31	266
15	10800	19	568	2530	29	198	3470	32	298
16	8160	20	433	2110	30	169	5760	32	496
17	6610	20	357	1870	29	148	9280	32	805
18	6380	21	367	1730	30	139	9630	32	845
19	7710	21	444	1540	30	127	14200	29	1120
20	8490	22	498	1540	31	127	18900	27	1370
21	7950	24	514	1480	33	132	18200	28	1360
22	5750	29	454	1630	35	153	28100	23	1740
23	4410	31	369	1740	36	171	31400	21	1820
24	3880	30	314	1980	36	191	27400	23	1680
25	3730	29	289	2290	34	212	22100	24	1430
26	3540	28	268	2030	37	201	15000	26	1030
27	3100	29	240	2100	38	215	10000	27	732
28	2140	29	167	2980	38	306	7000	29	544
29	1530	30	124	5930	39	620	12100	25	771
30	2050	31	173	7690	42	863	54700	15	2090
31	1590	33	143	---	---	---	82000	10	2290
TOTAL	183904	---	12895.4	93910	---	8492	518140	---	30811
		JANUARY			FEBRUARY			MARCH	
1	86700	10	2370	2690	36	264	3500	29	271
2	73400	11	2100	2240	39	233	3980	30	326
3	53900	11	1610	2200	40	237	5530	32	473
4	35100	13	1210	2380	38	247	5720	33	512
5	26800	14	995	4700	35	440	5510	32	483
6	21400	15	852	9990	30	798	4740	34	431
7	15500	16	656	13600	28	1040	4450	36	435
8	9160	18	443	12500	32	1070	3440	37	339
9	6860	20	372	11000	32	966	3550	36	348
10	5130	22	299	9140	32	782	2760	36	269
11	4970	24	325	7300	31	610	2370	35	224
12	5740	26	404	5720	30	463	2390	35	228
13	6210	27	448	4740	28	355	2140	39	224
14	8080	31	683	4000	29	316	1950	40	210
15	7130	38	729	3570	31	302	2130	39	224
16	12100	32	988	2410	34	220	1840	38	188
17	24200	21	1390	2770	34	257	1930	38	197
18	23800	22	1420	2310	36	228	2380	36	233
19	17700	23	1080	5180	33	442	3070	38	314
20	13500	22	807	16000	31	1380	3810	41	422
21	11500	22	691	19800	39	2090	3990	42	448
22	10600	24	674	17000	33	1550	3110	40	337
23	9150	25	621	13000	28	987	3440	39	359
24	6060	27	438	10300	27	745	3660	37	369
25	5890	29	458	7980	25	548	4850	36	475
26	4560	31	375	6180	26	436	4810	43	553
27	3650	32	311	4900	27	354	4590	46	573
28	2940	32	256	3580	28	267	6150	44	736
29	3450	33	303	---	---	---	7590	40	828
30	2850	34	259	---	---	---	6970	37	701
31	2820	35	266	---	---	---	5520	36	530
TOTAL	520850	---	23833	207180	---	17627	121870	---	12260

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	4340	33	382	4240	24	280	32100	22	1860
2	3170	32	271	3830	25	256	31900	13	1090
3	2860	32	247	2990	25	205	25400	13	860
4	2540	32	222	2750	27	199	16500	18	802
5	2300	33	202	2550	28	190	11100	18	550
6	2550	33	227	3180	27	236	7160	19	371
7	3260	33	293	3310	26	229	4340	19	221
8	3220	34	293	2810	26	197	2640	19	136
9	5610	34	518	2620	28	196	2220	20	119
10	6510	33	587	2250	29	179	1790	20	96.3
11	4800	34	435	2050	30	167	1510	20	82.1
12	3820	35	360	1980	31	165	1350	21	75.7
13	3240	36	315	1750	31	148	1230	22	71.9
14	3150	35	297	1740	31	147	1250	23	77.4
15	5390	34	502	1730	32	147	1220	24	79.3
16	9750	33	870	1950	32	167	997	26	69.4
17	14400	29	1120	1850	32	159	882	27	64.6
18	13800	23	879	1470	32	127	869	28	65.6
19	11800	20	632	1790	32	155	864	28	66.1
20	37000	15	1450	1780	32	155	822	29	64.4
21	44200	11	1370	1520	32	133	660	29	51.8
22	31500	13	1080	1370	33	121	498	29	39.0
23	21100	15	826	1390	33	123	546	29	42.2
24	16800	16	727	1230	33	109	527	31	43.8
25	15900	17	725	1220	33	106	513	31	43.0
26	13900	18	667	7900	26	532	551	32	47.2
27	10800	18	533	7540	27	536	708	33	63.1
28	8210	19	425	4680	27	339	563	34	52.5
29	6370	21	368	3380	28	257	407	36	39.6
30	5600	24	365	2430	33	213	390	37	39.1
31	---	---	---	8640	35	785	---	---	---
TOTAL	317890	---	17188	89920	---	6958	151507	---	7283.1
		JULY			AUGUST			SEPTEMBER	
1	303	38	31.0	243	51	33.5	188	67	33.9
2	477	41	52.7	184	52	25.7	256	66	45.5
3	1490	42	169	342	52	47.7	277	63	47.0
4	2000	44	238	385	52	54.1	388	60	62.6
5	1700	46	211	281	52	39.6	394	57	60.9
6	1280	46	159	224	52	31.7	765	57	119
7	1270	47	160	202	53	28.7	692	58	108
8	840	47	106	226	52	32.1	490	55	73.4
9	744	48	97.3	317	53	45.6	410	57	62.5
10	634	50	85.5	357	54	52.2	476	56	71.6
11	606	51	83.1	494	55	72.8	293	55	43.7
12	472	51	64.9	568	55	84.7	263	55	39.1
13	566	51	77.8	472	57	73.3	370	54	54.0
14	456	51	62.5	403	59	64.0	379	56	57.3
15	424	50	57.7	394	60	63.3	811	57	124
16	403	50	54.8	286	59	45.8	734	59	117
17	402	49	53.2	270	58	42.6	455	61	74.6
18	320	48	41.7	321	59	50.9	381	60	61.8
19	321	48	41.7	512	57	79.1	299	60	48.8
20	316	47	40.3	1380	60	223	278	60	45.4
21	309	47	38.8	2070	63	350	272	61	45.0
22	350	47	43.9	1910	67	345	247	62	41.4
23	414	47	52.8	1450	69	271	318	64	55.0
24	348	48	45.1	1220	72	235	174	66	30.9
25	227	49	29.9	959	72	187	132	66	23.4
26	217	49	28.5	768	72	150	295	66	52.3
27	230	49	30.6	678	73	133	209	66	37.4
28	296	49	39.4	519	73	102	113	67	20.5
29	325	51	44.6	423	73	83.1	131	68	23.9
30	342	51	47.5	374	71	71.7	204	69	37.9
31	282	51	38.8	292	68	53.7	---	---	---
TOTAL	18364	---	2327.1	18524	---	3171.9	10694	---	1717.8
YEAR	2252753		144564.3						

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	578	1.86	2.9	1560	4.30	18	6780	4.68	86
2	566	1.73	2.7	1420	4.10	16	4970	4.93	66
3	566	1.57	2.4	1430	4.00	15	6790	5.85	110
4	1030	1.50	4.2	1310	3.80	13	25900	6.66	460
5	844	1.50	3.4	1380	3.78	14	28500	6.69	510
6	1840	1.43	7.1	3760	5.19	55	20400	6.74	370
7	2100	1.40	7.9	7520	5.59	110	14600	6.90	270
8	2210	1.40	8.3	8040	4.73	100	10400	7.13	200
9	1800	1.22	5.9	6260	4.52	76	7730	7.20	150
10	5050	3.11	51	5550	4.20	63	6270	7.11	120
11	19900	5.24	280	4630	4.13	52	5100	6.84	94
12	24200	5.31	350	3940	4.20	45	4360	6.58	77
13	20400	5.42	300	3290	4.20	37	3900	6.29	66
14	15000	5.22	210	2650	4.20	30	3200	5.95	51
15	10800	5.25	150	2530	4.13	28	3470	5.75	54
16	8160	5.26	120	2110	4.03	23	5760	6.40	100
17	6610	4.94	88	1870	3.93	20	9280	6.17	150
18	6380	5.06	87	1730	3.83	18	9630	6.03	160
19	7710	5.44	110	1540	3.72	15	14200	6.48	250
20	8490	4.87	110	1540	3.64	15	18900	6.77	350
21	7950	4.63	99	1480	3.67	15	18200	7.02	340
22	5750	4.81	75	1630	3.70	16	28100	7.68	580
23	4410	4.77	57	1740	3.70	17	31400	7.10	600
24	3880	4.57	48	1980	3.64	19	27400	7.28	540
25	3730	4.50	45	2290	3.67	23	22100	7.42	440
26	3540	4.37	42	2030	3.63	20	15000	7.07	290
27	3100	4.30	36	2100	3.50	20	10000	6.65	180
28	2140	4.29	25	2980	4.46	37	7000	6.26	120
29	1530	4.19	17	5930	5.29	85	12100	6.49	220
30	2050	4.33	24	7690	4.97	100	54700	7.10	1000
31	1590	4.30	19	---	---	---	82000	4.18	920
TOTAL	183904	---	2387.8	93910	---	1115	518140	---	8924
		JANUARY			FEBRUARY			MARCH	
1	86700	2.69	630	2690	5.45	39	3500	5.38	51
2	73400	2.78	550	2240	5.42	33	3980	5.33	57
3	53900	2.91	420	2200	5.42	32	5530	5.26	79
4	35100	3.07	290	2380	5.54	36	5720	5.38	83
5	26800	3.11	220	4700	6.55	83	5510	5.01	75
6	21400	3.15	180	9990	6.85	180	4740	4.84	62
7	15500	3.26	140	13600	5.46	200	4450	4.66	56
8	9160	3.48	86	12500	5.45	180	3440	4.60	43
9	6860	3.80	70	11000	5.59	170	3550	4.62	44
10	5130	3.91	54	9140	5.58	140	2760	4.69	35
11	4970	3.96	53	7300	5.56	110	2370	4.64	30
12	5740	4.19	65	5720	5.56	86	2390	4.50	29
13	6210	4.20	70	4740	5.35	68	2140	4.55	26
14	8080	4.31	94	4000	5.27	57	1950	4.48	24
15	7130	4.66	90	3570	5.23	50	2130	4.39	25
16	12100	5.06	170	2410	5.34	35	1840	4.21	21
17	24200	5.29	340	2770	5.15	39	1930	4.01	21
18	23800	5.19	330	2310	5.04	31	2380	3.77	24
19	17700	5.32	250	5180	5.92	85	3070	3.67	30
20	13500	5.56	200	16000	6.40	270	3810	3.32	34
21	11500	5.76	180	19800	5.62	300	3990	3.09	33
22	10600	5.92	170	17000	5.53	250	3110	2.97	25
23	9150	5.82	140	13000	5.59	200	3440	2.85	26
24	6060	5.74	94	10300	5.66	160	3660	2.73	27
25	5890	5.77	92	7980	5.61	120	4850	2.63	34
26	4560	5.73	71	6180	5.45	91	4810	3.10	40
27	3650	5.54	55	4900	5.42	72	4590	3.52	44
28	2940	5.69	45	3580	5.43	53	6150	3.79	63
29	3450	5.75	54	---	---	---	7590	3.97	81
30	2850	5.71	44	---	---	---	6970	4.08	77
31	2820	5.60	43	---	---	---	5520	4.20	63
TOTAL	520850	---	5290	207180	---	3170	121870	---	1362

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	4340	4.34	51	4240	4.45	51	32100	6.61	570
2	3170	4.27	37	3830	4.21	44	31900	7.94	680
3	2860	3.94	30	2990	3.92	32	25400	8.34	570
4	2540	3.63	25	2750	3.76	28	16500	9.45	420
5	2300	3.35	21	2550	3.49	24	11100	8.71	260
6	2550	3.18	22	3180	4.19	36	7160	7.88	150
7	3260	3.26	29	3310	4.77	43	4340	7.27	85
8	3220	3.41	30	2810	4.41	33	2640	7.38	53
9	5610	4.27	65	2620	3.86	27	2220	7.74	46
10	6510	4.84	85	2250	3.38	21	1790	7.75	38
11	4800	4.65	60	2050	2.82	16	1510	7.61	31
12	3820	4.05	42	1980	2.53	14	1350	7.62	28
13	3240	3.86	34	1750	2.55	12	1230	7.47	25
14	3150	4.15	36	1740	2.53	12	1250	7.22	24
15	5390	5.01	73	1730	2.50	12	1220	6.87	23
16	9750	4.21	110	1950	2.48	13	997	6.55	18
17	14400	5.15	200	1850	2.45	12	882	6.42	15
18	13800	6.00	220	1470	2.43	9.6	869	6.43	15
19	11800	5.39	170	1790	2.40	12	864	6.27	15
20	37000	5.88	590	1780	2.38	11	822	5.90	13
21	44200	6.07	720	1520	2.35	9.7	660	5.52	9.8
22	31500	6.36	540	1370	2.33	8.6	498	4.94	6.7
23	21100	6.39	360	1390	2.30	8.6	546	4.48	6.6
24	16800	6.16	280	1230	2.28	7.5	527	4.39	6.2
25	15900	5.86	250	1220	2.44	8.3	513	4.31	6.0
26	13900	5.46	200	7900	7.22	170	551	4.19	6.2
27	10800	4.97	150	7540	9.48	190	708	4.04	7.7
28	8210	4.77	110	4680	10.1	130	563	3.71	5.6
29	6370	4.80	82	3380	8.77	81	407	3.26	3.6
30	5600	4.74	72	2430	6.70	44	390	2.82	3.0
31	---	---	---	8640	5.90	140	---	---	---
TOTAL	317890	---	4694	89920	---	1260.3	151507	---	3140.4
		JULY			AUGUST			SEPTEMBER	
1	303	2.55	2.1	243	<.100	.03	188	<.100	.02
2	477	2.26	2.9	184	<.100	.02	256	<.100	.03
3	1490	1.89	7.6	342	<.100	.04	277	<.100	.04
4	2000	1.74	9.4	385	<.100	.05	388	<.100	.05
5	1700	1.48	6.8	281	<.100	.03	394	<.100	.10
6	1280	.887	3.1	224	<.100	.03	765	.174	.37
7	1270	.409	1.4	202	<.100	.02	692	.213	.40
8	840	.286	.65	226	<.100	.03	490	.214	.28
9	744	.375	.75	317	<.100	.04	410	.220	.24
10	634	.411	.70	357	<.100	.04	476	.125	.16
11	606	.408	.67	494	<.100	.06	293	.114	.09
12	472	.414	.53	568	<.100	.07	263	<.100	.04
13	566	.427	.65	472	<.100	.06	370	<.100	.09
14	456	.489	.60	403	<.100	.05	379	<.100	.06
15	424	.403	.47	394	<.100	.05	811	<.100	.11
16	403	.203	.22	286	<.100	.03	734	<.100	.18
17	402	.170	.18	270	<.100	.03	455	.133	.16
18	320	.138	.12	321	<.100	.04	381	.130	.13
19	321	.114	.10	512	<.100	.08	299	.130	.10
20	316	.120	.10	1380	.140	.52	278	.130	.10
21	309	.126	.11	2070	.162	.91	272	.130	.10
22	350	.123	.12	1910	.215	1.1	247	.130	.09
23	414	.117	.13	1450	.219	.86	318	.120	.10
24	348	.112	.11	1220	.187	.62	174	<.100	.03
25	227	.140	.09	959	.189	.49	132	<.100	.02
26	217	.112	.07	768	<.100	.20	295	<.100	.04
27	230	<.100	.06	678	<.100	.08	209	<.100	.03
28	296	<.100	.04	519	<.100	.06	113	<.100	.02
29	325	<.100	.04	423	<.100	.05	131	<.100	.02
30	342	<.100	.04	374	<.100	.05	204	<.100	.03
31	282	<.100	.03	292	<.100	.04	---	---	---
TOTAL	18364	---	39.88	18524	---	5.78	10694	---	3.23
YEAR	2252753		31392.39						

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	578	1.5	2.34	1560	1.0	4.40	6780	.83	15.2
2	566	1.7	2.54	1420	1.1	4.05	4970	.91	12.1
3	566	1.5	2.22	1430	1.0	3.91	6790	1.5	33.2
4	1030	1.5	4.08	1310	1.1	3.80	25900	3.1	221
5	844	1.5	3.37	1380	1.2	4.24	28500	3.1	241
6	1840	1.4	7.12	3760	1.0	10.4	20400	2.4	135
7	2100	1.4	8.10	7520	1.0	21.0	14600	2.0	77.6
8	2210	1.5	8.92	8040	1.2	25.9	10400	1.6	46.0
9	1800	1.5	7.21	6260	1.2	20.3	7730	1.5	31.7
10	5050	1.6	21.6	5550	1.1	16.8	6270	1.4	23.1
11	19900	2.0	110	4630	1.2	15.0	5100	1.3	17.8
12	24200	2.5	164	3940	1.5	15.6	4360	1.3	15.4
13	20400	2.1	117	3290	1.2	10.7	3900	1.4	14.4
14	15000	1.9	76.5	2650	1.2	8.56	3200	1.3	11.3
15	10800	1.8	51.9	2530	1.2	7.92	3470	1.4	13.6
16	8160	1.5	33.4	2110	1.1	6.43	5760	1.4	21.5
17	6610	1.4	24.5	1870	1.1	5.42	9280	1.0	24.9
18	6380	1.4	24.3	1730	1.0	4.71	9630	.91	23.8
19	7710	1.5	30.4	1540	1.0	4.19	14200	1.1	43.5
20	8490	1.3	29.5	1540	1.1	4.41	18900	1.4	72.8
21	7950	1.2	25.2	1480	1.0	4.13	18200	1.4	69.5
22	5750	1.1	17.1	1630	.95	4.18	28100	2.0	151
23	4410	1.2	14.7	1740	.87	4.06	31400	2.1	180
24	3880	1.2	12.3	1980	.87	4.70	27400	1.9	141
25	3730	1.2	12.4	2290	.89	5.48	22100	1.7	101
26	3540	1.4	13.0	2030	.80	4.41	15000	1.4	56.5
27	3100	1.3	11.1	2100	.79	4.46	10000	1.1	30.7
28	2140	1.1	6.68	2980	.98	7.98	7000	.93	17.6
29	1530	1.0	4.30	5930	1.1	17.3	12100	1.1	41.9
30	2050	1.1	6.30	7690	.94	19.5	54700	2.6	404
31	1590	1.1	4.75	---	---	---	82000	3.7	813
TOTAL	183904	---	856.83	93910	---	273.94	518140	---	3101.1
		JANUARY			FEBRUARY			MARCH	
1	86700	3.9	916	2690	1.1	7.92	3500	.92	8.66
2	73400	3.3	663	2240	1.1	6.44	3980	.87	9.29
3	53900	2.5	368	2200	1.1	6.33	5530	.80	11.9
4	35100	2.3	220	2380	.90	5.74	5720	.80	12.4
5	26800	1.7	127	4700	1.2	15.1	5510	.95	14.0
6	21400	1.6	92.2	9990	1.8	50.4	4740	1.0	13.3
7	15500	1.5	62.0	13600	2.3	83.4	4450	1.0	12.2
8	9160	1.5	36.3	12500	2.0	67.5	3440	1.0	9.68
9	6860	1.3	23.3	11000	1.7	52.2	3550	1.1	10.3
10	5130	1.3	17.5	9140	1.5	37.8	2760	.99	7.42
11	4970	1.2	16.5	7300	1.3	26.4	2370	.93	5.98
12	5740	1.2	18.2	5720	1.2	18.5	2390	.99	6.35
13	6210	1.3	21.2	4740	1.1	14.0	2140	.98	5.70
14	8080	1.1	24.0	4000	1.1	11.8	1950	.93	4.88
15	7130	.99	19.1	3570	1.0	9.82	2130	.83	4.82
16	12100	2.8	95.7	2410	.91	5.89	1840	.85	4.23
17	24200	2.2	139	2770	.88	6.57	1930	.96	4.97
18	23800	1.9	120	2310	.85	5.33	2380	.98	6.30
19	17700	1.9	92.0	5180	1.2	17.1	3070	1.0	8.66
20	13500	1.7	61.8	16000	1.4	58.8	3810	1.1	10.9
21	11500	1.4	42.9	19800	1.7	88.7	3990	1.0	11.2
22	10600	1.3	38.4	17000	1.5	70.4	3110	.97	8.13
23	9150	1.2	30.7	13000	1.3	45.6	3440	.90	8.34
24	6060	1.1	17.3	10300	1.2	33.2	3660	.84	8.25
25	5890	1.0	15.9	7980	1.1	24.3	4850	.78	10.2
26	4560	1.1	13.4	6180	1.0	16.9	4810	.75	9.70
27	3650	1.1	10.4	4900	1.1	14.1	4590	1.1	13.9
28	2940	.90	7.14	3580	.95	9.26	6150	1.3	21.0
29	3450	.99	9.22	---	---	---	7590	.93	19.0
30	2850	1.3	9.56	---	---	---	6970	.97	18.3
31	2820	1.0	8.11	---	---	---	5520	1.0	14.9
TOTAL	520850	---	3335.83	207180	---	809.50	121870	---	314.86

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	4340	.91	10.7	4240	.93	10.7	32100	3.1	271
2	3170	.96	8.20	3830	.91	9.40	31900	2.8	244
3	2860	.95	7.35	2990	.87	6.98	25400	2.1	146
4	2540	.95	6.50	2750	.89	6.60	16500	1.9	85.5
5	2300	.94	5.82	2550	1.1	7.40	11100	1.6	47.7
6	2550	.93	6.43	3180	1.1	9.02	7160	1.2	24.4
7	3260	.93	8.15	3310	1.1	9.72	4340	1.2	14.2
8	3220	.92	8.03	2810	.98	7.45	2640	1.2	8.25
9	5610	1.1	16.6	2620	1.1	7.85	2220	1.3	7.87
10	6510	1.2	21.4	2250	1.2	7.19	1790	1.3	6.25
11	4800	1.1	14.4	2050	1.2	6.44	1510	1.3	5.35
12	3820	.95	9.82	1980	1.4	7.27	1350	1.3	4.84
13	3240	.90	7.84	1750	1.3	6.22	1230	1.3	4.20
14	3150	.96	8.21	1740	1.3	6.08	1250	1.2	4.10
15	5390	1.2	18.2	1730	1.3	6.00	1220	1.3	4.23
16	9750	1.1	29.9	1950	1.3	6.69	997	1.4	3.68
17	14400	1.4	52.5	1850	1.3	6.32	882	1.2	2.78
18	13800	1.8	66.3	1470	1.3	4.96	869	1.2	2.89
19	11800	1.7	54.7	1790	1.2	5.98	864	1.2	2.77
20	37000	2.7	270	1780	1.2	5.89	822	1.3	2.77
21	44200	2.5	305	1520	1.2	5.01	660	1.3	2.38
22	31500	2.0	175	1370	1.2	4.46	498	1.4	1.89
23	21100	1.7	95.9	1390	1.2	4.47	546	1.6	2.38
24	16800	1.5	69.2	1230	1.2	3.91	527	1.6	2.27
25	15900	1.5	64.0	1220	1.2	4.04	513	1.3	1.78
26	13900	1.5	56.5	7900	2.1	48.7	551	1.2	1.76
27	10800	1.4	41.3	7540	2.0	42.4	708	1.1	2.19
28	8210	1.3	27.9	4680	1.9	24.0	563	1.2	1.80
29	6370	1.1	18.4	3380	1.7	15.6	407	1.2	1.32
30	5600	1.1	16.3	2430	1.4	9.18	390	1.2	1.26
31	---	---	---	8640	1.5	37.7	---	---	---
TOTAL	317890	---	1500.55	89920	---	343.63	151507	---	911.81
		JULY			AUGUST			SEPTEMBER	
1	303	1.3	1.09	243	1.3	.86	188	1.3	.64
2	477	1.4	1.85	184	1.2	.61	256	1.2	.84
3	1490	1.3	5.33	342	1.2	1.16	277	1.2	.88
4	2000	1.2	6.73	385	1.2	1.30	388	1.2	1.22
5	1700	1.3	5.75	281	1.2	.91	394	1.2	1.23
6	1280	1.3	4.49	224	1.2	.73	765	1.1	2.34
7	1270	1.6	5.38	202	1.2	.66	692	1.3	2.45
8	840	1.6	3.59	226	1.2	.71	490	1.4	1.82
9	744	1.5	3.05	317	1.1	.93	410	1.2	1.33
10	634	1.5	2.51	357	1.1	1.02	476	1.2	1.49
11	606	1.6	2.57	494	1.1	1.46	293	1.3	.996
12	472	1.6	2.06	568	1.1	1.73	263	1.2	.89
13	566	1.6	2.38	472	1.2	1.48	370	1.2	1.25
14	456	1.4	1.67	403	1.1	1.23	379	1.3	1.29
15	424	1.4	1.55	394	1.1	1.22	811	1.3	2.85
16	403	1.6	1.79	286	1.0	.81	734	1.3	2.61
17	402	1.6	1.74	270	1.0	.75	455	1.2	1.50
18	320	1.6	1.36	321	1.1	.99	381	1.3	1.33
19	321	1.7	1.46	512	1.2	1.67	299	1.2	.95
20	316	1.7	1.41	1380	1.2	4.50	278	1.1	.84
21	309	1.6	1.33	2070	1.2	6.89	272	1.1	.83
22	350	1.7	1.58	1910	1.4	7.33	247	1.2	.79
23	414	1.6	1.83	1450	1.4	5.59	318	1.2	1.07
24	348	1.6	1.51	1220	1.5	4.90	174	1.2	.55
25	227	1.4	.87	959	1.4	3.61	132	1.2	.41
26	217	1.3	.78	768	1.4	2.91	295	1.1	.88
27	230	1.4	.85	678	1.5	2.76	209	1.2	.64
28	296	1.4	1.13	519	1.4	1.96	113	1.2	.38
29	325	1.3	1.15	423	1.2	1.38	131	1.3	.44
30	342	1.4	1.26	374	1.1	1.12	204	1.2	.68
31	282	1.4	1.08	292	1.2	.92	---	---	---
TOTAL	18364	---	71.13	18524	---	64.10	10694	---	35.416
YEAR	2252753		11618.700						

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	578	.258	.40	1560	.197	.83	6780	.180	3.30
2	566	.242	.37	1420	.188	.72	4970	.193	2.59
3	566	.217	.33	1430	.193	.74	6790	.342	7.68
4	1030	.211	.59	1310	.187	.66	25900	.717	51.2
5	844	.215	.49	1380	.182	.69	28500	.852	66.1
6	1840	.209	1.03	3760	.192	1.93	20400	.650	36.0
7	2100	.214	1.21	7520	.200	4.08	14600	.518	20.5
8	2210	.209	1.25	8040	.271	5.87	10400	.412	11.7
9	1800	.195	.95	6260	.271	4.60	7730	.343	7.19
10	5050	.230	3.29	5550	.237	3.55	6270	.273	4.64
11	19900	.460	25.8	4630	.236	2.95	5100	.242	3.33
12	24200	.680	44.6	3940	.229	2.43	4360	.246	2.89
13	20400	.533	29.5	3290	.217	1.93	3900	.232	2.46
14	15000	.426	17.4	2650	.206	1.47	3200	.208	1.80
15	10800	.377	11.0	2530	.201	1.37	3470	.201	1.90
16	8160	.318	7.04	2110	.200	1.14	5760	.230	3.59
17	6610	.286	5.11	1870	.195	.99	9280	.198	4.95
18	6380	.297	5.11	1730	.181	.85	9630	.191	4.98
19	7710	.303	6.31	1540	.156	.65	14200	.246	9.61
20	8490	.272	6.22	1540	.145	.60	18900	.330	16.9
21	7950	.246	5.29	1480	.142	.57	18200	.335	16.5
22	5750	.223	3.46	1630	.146	.64	28100	.493	37.7
23	4410	.234	2.78	1740	.133	.62	31400	.561	47.6
24	3880	.247	2.59	1980	.132	.71	27400	.465	34.4
25	3730	.261	2.63	2290	.127	.79	22100	.378	22.7
26	3540	.251	2.40	2030	.120	.66	15000	.298	12.1
27	3100	.243	2.03	2100	.138	.78	10000	.232	6.26
28	2140	.230	1.33	2980	.175	1.44	7000	.181	3.41
29	1530	.213	.88	5930	.215	3.46	12100	.237	9.17
30	2050	.196	1.08	7690	.197	4.08	54700	.748	118
31	1590	.198	.85	---	---	---	82000	1.36	302
TOTAL	183904	---	193.32	93910	---	51.80	518140	---	873.15
		JANUARY			FEBRUARY			MARCH	
1	86700	1.54	362	2690	.125	.91	3500	.146	1.38
2	73400	1.15	229	2240	.123	.75	3980	.142	1.52
3	53900	.838	123	2200	.120	.71	5530	.134	2.00
4	35100	.869	82.5	2380	.124	.80	5720	.117	1.81
5	26800	.620	44.9	4700	.188	2.46	5510	.124	1.84
6	21400	.541	31.4	9990	.324	9.01	4740	.141	1.81
7	15500	.455	19.3	13600	.424	15.6	4450	.143	1.72
8	9160	.364	9.03	12500	.369	12.5	3440	.138	1.28
9	6860	.299	5.57	11000	.320	9.53	3550	.144	1.38
10	5130	.258	3.59	9140	.277	6.84	2760	.141	1.05
11	4970	.222	2.97	7300	.239	4.73	2370	.133	.85
12	5740	.211	3.28	5720	.207	3.21	2390	.134	.86
13	6210	.204	3.42	4740	.192	2.46	2140	.125	.73
14	8080	.169	3.69	4000	.167	1.80	1950	.112	.59
15	7130	.162	3.12	3570	.154	1.48	2130	.116	.66
16	12100	.551	19.0	2410	.148	.96	1840	.117	.58
17	24200	.500	32.5	2770	.137	1.03	1930	.119	.62
18	23800	.451	29.0	2310	.143	.90	2380	.102	.66
19	17700	.404	19.4	5180	.226	3.29	3070	.106	.87
20	13500	.355	12.9	16000	.274	11.8	3810	.104	1.07
21	11500	.294	9.12	19800	.310	16.6	3990	.112	1.21
22	10600	.246	7.02	17000	.311	14.3	3110	.116	.97
23	9150	.229	5.65	13000	.269	9.50	3440	.119	1.11
24	6060	.201	3.29	10300	.231	6.42	3660	.123	1.21
25	5890	.173	2.76	7980	.200	4.34	4850	.126	1.66
26	4560	.172	2.11	6180	.167	2.79	4810	.120	1.56
27	3650	.163	1.61	4900	.192	2.53	4590	.134	1.66
28	2940	.140	1.11	3580	.168	1.63	6150	.153	2.55
29	3450	.133	1.24	---	---	---	7590	.174	3.56
30	2850	.124	.95	---	---	---	6970	.179	3.38
31	2820	.124	.95	---	---	---	5520	.179	2.66
TOTAL	520850	---	1075.38	207180	---	148.88	121870	---	44.81

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	4340	.180	2.10	4240	.251	2.87	32100	.954	84.0
2	3170	.171	1.46	3830	.214	2.21	31900	.950	82.3
3	2860	.170	1.31	2990	.200	1.62	25400	.698	48.3
4	2540	.168	1.16	2750	.190	1.41	16500	.547	24.5
5	2300	.167	1.03	2550	.243	1.67	11100	.418	12.7
6	2550	.165	1.14	3180	.235	2.01	7160	.353	6.85
7	3260	.164	1.44	3310	.235	2.10	4340	.332	3.91
8	3220	.163	1.42	2810	.208	1.58	2640	.315	2.25
9	5610	.186	2.85	2620	.289	2.04	2220	.354	2.12
10	6510	.223	3.90	2250	.261	1.61	1790	.297	1.44
11	4800	.199	2.59	2050	.192	1.07	1510	.253	1.03
12	3820	.168	1.74	1980	.205	1.09	1350	.237	.87
13	3240	.155	1.36	1750	.214	1.01	1230	.225	.75
14	3150	.171	1.47	1740	.212	.995	1250	.218	.74
15	5390	.229	3.37	1730	.211	.99	1220	.204	.67
16	9750	.199	5.36	1950	.210	1.10	997	.186	.50
17	14400	.381	15.1	1850	.209	1.05	882	.181	.43
18	13800	.437	16.4	1470	.208	.83	869	.197	.46
19	11800	.424	13.9	1790	.207	.999	864	.198	.46
20	37000	.746	75.6	1780	.206	.99	822	.186	.41
21	44200	.741	88.6	1520	.205	.84	660	.162	.29
22	31500	.561	48.0	1370	.203	.75	498	.160	.21
23	21100	.483	27.6	1390	.202	.76	546	.165	.24
24	16800	.405	18.4	1230	.201	.67	527	.153	.22
25	15900	.390	16.7	1220	.210	.70	513	.124	.17
26	13900	.372	14.0	7900	.445	10.3	551	.111	.16
27	10800	.333	9.78	7540	.427	8.96	708	.115	.22
28	8210	.267	5.96	4680	.313	3.98	563	.131	.20
29	6370	.233	4.00	3380	.248	2.28	407	.119	.13
30	5600	.296	4.47	2430	.207	1.37	390	.111	.12
31	---	---	---	8640	.290	8.44	---	---	---
TOTAL	317890	---	392.21	89920	---	68.294	151507	---	276.65
		JULY			AUGUST			SEPTEMBER	
1	303	.120	.098	243	.144	.095	188	.114	.058
2	477	.094	.12	184	.127	.064	256	.119	.083
3	1490	.102	.42	342	.135	.13	277	.133	.099
4	2000	.115	.62	385	.131	.14	388	.127	.13
5	1700	.137	.63	281	.127	.096	394	.129	.14
6	1280	.139	.48	224	.144	.086	765	.128	.26
7	1270	.151	.52	202	.151	.082	692	.124	.23
8	840	.158	.36	226	.146	.089	490	.110	.15
9	744	.172	.35	317	.135	.12	410	.097	.11
10	634	.191	.33	357	.117	.11	476	.101	.13
11	606	.176	.29	494	.118	.16	293	.117	.092
12	472	.170	.22	568	.140	.21	263	.097	.069
13	566	.171	.26	472	.149	.19	370	.106	.11
14	456	.161	.20	403	.146	.16	379	.099	.10
15	424	.126	.14	394	.157	.17	811	.112	.25
16	403	.116	.13	286	.152	.12	734	.124	.25
17	402	.138	.15	270	.139	.10	455	.136	.17
18	320	.132	.11	321	.139	.12	381	.138	.14
19	321	.136	.12	512	.156	.22	299	.133	.11
20	316	.131	.11	1380	.178	.66	278	.135	.10
21	309	.140	.12	2070	.186	1.04	272	.129	.094
22	350	.139	.13	1910	.201	1.03	247	.129	.086
23	414	.128	.14	1450	.197	.77	318	.128	.11
24	348	.130	.12	1220	.189	.62	174	.121	.057
25	227	.117	.072	959	.175	.46	132	.123	.044
26	217	.122	.071	768	.121	.25	295	.127	.10
27	230	.139	.087	678	.090	.16	209	.124	.071
28	296	.140	.11	519	.091	.13	113	.126	.039
29	325	.135	.12	423	.093	.11	131	.125	.044
30	342	.135	.12	374	.101	.10	204	.115	.063
31	282	.148	.11	292	.113	.089	---	---	---
TOTAL	18364	---	6.858	18524	---	7.881	10694	---	3.489
YEAR	2252753		3142.728						

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	578	58	92	1560	33	140	6780	52	938
2	566	77	117	1420	41	159	4970	52	699
3	566	76	116	1430	37	143	6790	46	978
4	1030	75	208	1310	31	108	25900	311	23500
5	844	74	167	1380	30	113	28500	583	45300
6	1840	53	256	3760	39	409	20400	358	20000
7	2100	48	270	7520	42	859	14600	247	9820
8	2210	48	287	8040	56	1210	10400	189	5380
9	1800	50	242	6260	61	1040	7730	128	2680
10	5050	309	4760	5550	41	618	6270	88	1490
11	19900	384	20600	4630	35	440	5100	65	900
12	24200	383	25100	3940	26	277	4360	60	705
13	20400	353	19600	3290	22	199	3900	54	575
14	15000	191	7900	2650	23	168	3200	36	314
15	10800	151	4400	2530	26	174	3470	35	326
16	8160	151	3330	2110	27	152	5760	44	689
17	6610	142	2530	1870	25	124	9280	54	1350
18	6380	78	1330	1730	22	102	9630	77	2000
19	7710	73	1520	1540	20	84	14200	194	7690
20	8490	73	1680	1540	18	77	18900	237	12100
21	7950	74	1590	1480	18	72	18200	249	12200
22	5750	59	929	1630	19	83	28100	272	20600
23	4410	49	584	1740	19	89	31400	288	24400
24	3880	45	477	1980	20	105	27400	288	21400
25	3730	46	460	2290	18	113	22100	253	15200
26	3540	46	439	2030	16	87	15000	221	8960
27	3100	45	378	2100	18	103	10000	193	5210
28	2140	39	226	2980	29	240	7000	168	3170
29	1530	37	155	5930	36	573	12100	316	12200
30	2050	36	202	7690	40	828	54700	474	70300
31	1590	35	152	---	---	---	82000	490	108000
TOTAL	183904	---	100097	93910	---	8889	518140	---	439074
		JANUARY			FEBRUARY			MARCH	
1	86700	473	111000	2690	32	234	3500	40	378
2	73400	390	77700	2240	30	184	3980	37	393
3	53900	320	46900	2200	20	121	5530	37	554
4	35100	269	25600	2380	16	104	5720	33	504
5	26800	261	18900	4700	24	314	5510	50	736
6	21400	201	11700	9990	37	1020	4740	84	1070
7	15500	143	6070	13600	99	3620	4450	55	676
8	9160	103	2560	12500	127	4270	3440	46	431
9	6860	90	1670	11000	119	3560	3550	46	444
10	5130	61	853	9140	95	2350	2760	39	293
11	4970	52	697	7300	70	1390	2370	37	235
12	5740	34	526	5720	60	923	2390	39	252
13	6210	33	554	4740	52	665	2140	38	223
14	8080	32	694	4000	43	464	1950	30	159
15	7130	32	625	3570	34	329	2130	31	178
16	12100	57	2050	2410	27	174	1840	53	266
17	24200	172	11400	2770	29	215	1930	39	201
18	23800	198	12700	2310	27	168	2380	40	261
19	17700	191	9140	5180	26	382	3070	31	254
20	13500	170	6220	16000	123	5750	3810	40	415
21	11500	140	4340	19800	236	12600	3990	66	704
22	10600	113	3230	17000	149	6950	3110	46	390
23	9150	91	2260	13000	114	4000	3440	36	332
24	6060	74	1210	10300	85	2380	3660	41	411
25	5890	60	956	7980	79	1690	4850	40	517
26	4560	48	601	6180	63	1050	4810	35	451
27	3650	39	388	4900	55	724	4590	38	465
28	2940	33	266	3580	49	472	6150	72	1200
29	3450	32	295	---	---	---	7590	68	1400
30	2850	30	238	---	---	---	6970	62	1170
31	2820	28	220	---	---	---	5520	61	906
TOTAL	520850	---	361563	207180	---	56103	121870	---	15869

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	4340	64	751	4240	70	800	32100	1150	99500
2	3170	58	493	3830	56	574	31900	755	65400
3	2860	45	348	2990	50	402	25400	484	33600
4	2540	38	264	2750	45	332	16500	340	15200
5	2300	42	261	2550	43	295	11100	198	6090
6	2550	43	299	3180	46	397	7160	157	3040
7	3260	38	333	3310	51	455	4340	137	1620
8	3220	40	348	2810	43	328	2640	131	937
9	5610	46	708	2620	40	284	2220	106	638
10	6510	59	1030	2250	47	283	1790	92	447
11	4800	67	864	2050	43	236	1510	75	303
12	3820	60	624	1980	27	146	1350	68	249
13	3240	60	525	1750	19	92	1230	65	215
14	3150	59	501	1740	25	117	1250	63	213
15	5390	73	1080	1730	27	124	1220	64	210
16	9750	92	2450	1950	22	116	997	52	141
17	14400	182	7270	1850	22	109	882	46	110
18	13800	305	11300	1470	23	91	869	45	105
19	11800	603	19500	1790	25	121	864	45	106
20	37000	826	83000	1780	24	115	822	40	88
21	44200	751	90100	1520	24	97	660	40	71
22	31500	439	38100	1370	22	82	498	52	69
23	21100	295	16900	1390	25	96	546	62	93
24	16800	231	10500	1230	29	97	527	60	86
25	15900	210	8980	1220	57	211	513	53	73
26	13900	194	7270	7900	127	2740	551	57	85
27	10800	163	4780	7540	132	2680	708	73	140
28	8210	104	2330	4680	114	1450	563	59	90
29	6370	80	1380	3380	88	807	407	43	48
30	5600	71	1080	2430	69	453	390	42	45
31	---	---	---	8640	627	26100	---	---	---
TOTAL	317890	---	313369	89920	---	40230	151507	---	229012
		JULY			AUGUST			SEPTEMBER	
1	303	31	26	243	22	14	188	13	6.8
2	477	29	39	184	19	9.6	256	14	9.6
3	1490	34	139	342	31	31	277	19	14
4	2000	41	224	385	26	27	388	22	23
5	1700	60	274	281	22	17	394	21	23
6	1280	58	201	224	21	12	765	22	44
7	1270	47	162	202	21	11	692	20	38
8	840	38	87	226	23	14	490	19	25
9	744	30	59	317	33	28	410	18	20
10	634	32	54	357	27	26	476	23	30
11	606	29	48	494	30	41	293	22	17
12	472	33	42	568	38	58	263	21	15
13	566	32	49	472	34	44	370	21	21
14	456	39	47	403	26	28	379	21	22
15	424	28	32	394	22	23	811	47	106
16	403	18	20	286	21	16	734	42	84
17	402	22	24	270	23	17	455	31	39
18	320	18	15	321	28	24	381	27	28
19	321	18	16	512	35	50	299	23	18
20	316	21	18	1380	57	212	278	21	16
21	309	24	20	2070	48	263	272	22	16
22	350	26	24	1910	45	230	247	19	13
23	414	28	31	1450	40	155	318	23	20
24	348	26	26	1220	39	128	174	31	14
25	227	23	14	959	33	85	132	39	14
26	217	24	14	768	32	65	295	37	29
27	230	24	15	678	30	54	209	31	18
28	296	25	20	519	24	33	113	25	7.7
29	325	26	23	423	18	20	131	20	7.1
30	342	24	22	374	12	13	204	20	11
31	282	24	18	292	14	11	---	---	---
TOTAL	18364	---	1803	18524	---	1759.6	10694	---	749.2
YEAR	2252753		1568517.8						

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^2.

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.--No estimated daily discharges. Records good. 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).--59 years, 326 ft^3/s, 10.34 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s Feb. 15, 1950, gage height, 14.51 ft; minimum daily (prior to diversion) 0.4 ft^3/s Aug. 26, 1931; (subsequent to diversion) 1.8 ft^3/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^3/s, from rating curve extended above 11,500 ft^3/s.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 11	2100	3,950	8.78	Dec. 31	1200	*10,400	*13.67
Dec. 4	2200	4,400	9.22	Apr. 21	0430	5,080	9.83
Dec. 23	0430	4,280	9.10				

Minimum daily discharge, 5.1 ft^3/s Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	92	304	8070	130	210	139	190	1390	29	8.6	15
2	34	84	227	3480	104	296	126	169	810	51	9.2	11
3	31	80	1020	1100	121	376	107	147	395	38	9.7	11
4	38	76	3990	611	297	306	96	123	212	27	13	22
5	145	87	3110	429	863	240	99	112	133	26	30	33
6	162	448	1190	353	1010	207	113	220	97	22	22	25
7	105	484	826	276	830	214	110	360	76	19	15	16
8	75	287	635	228	643	185	119	215	64	16	12	12
9	99	198	479	232	488	150	198	155	56	13	14	11
10	1670	174	397	221	385	138	179	135	49	12	16	10
11	3700	181	337	241	306	125	142	114	45	11	20	10
12	2940	161	284	1320	214	111	107	102	48	16	15	9.1
13	1280	133	251	1040	202	109	91	98	54	24	12	9.1
14	773	112	204	552	239	112	105	99	47	36	10	8.4
15	479	100	250	528	212	106	279	90	39	39	9.0	7.8
16	327	97	961	1880	136	93	327	81	40	26	8.1	6.7
17	237	95	661	3080	152	82	598	76	43	18	8.0	6.1
18	530	91	768	1710	128	95	809	71	44	14	7.6	6.1
19	1820	81	2590	737	1210	135	779	78	35	13	12	5.7
20	992	76	1880	554	2870	134	4100	68	29	11	24	5.1
21	508	73	1220	808	1740	121	4510	57	24	10	40	6.0
22	349	84	3560	600	978	121	1910	52	21	9.6	29	6.5
23	415	258	4070	425	619	136	978	49	19	11	22	7.1
24	412	294	3020	326	408	425	709	48	18	10	15	7.0
25	292	223	1280	252	321	292	688	70	17	14	13	7.4
26	222	164	677	233	250	202	503	480	17	17	11	7.1
27	174	140	448	219	197	210	385	528	16	12	10	6.7
28	143	293	406	216	186	276	314	341	14	10	9.2	6.1
29	125	798	1350	194	---	530	261	183	13	8.9	8.7	6.1
30	106	478	6790	140	---	269	226	119	13	8.5	10	6.0
31	97	---	10200	139	---	176	---	148	---	8.3	12	---
TOTAL	18315	5942	53385	30194	15239	6182	19107	4778	3878	580.3	455.1	306.1
MEAN	591	198	1722	974	544	199	637	154	129	18.7	14.7	10.2
MAX	3700	798	10200	8070	2870	530	4510	528	1390	51	40	33
MIN	31	73	204	139	104	82	91	48	13	8.3	7.6	5.1
CFSM	1.38	.46	4.02	2.28	1.27	.47	1.49	.36	.30	.04	.03	.02
IN.	1.59	.52	4.64	2.62	1.32	.54	1.66	.42	.34	.05	.04	.03

CAL YR 1990 TOTAL 198501 MEAN 544 MAX 10200 MIN 15 CFSM 1.27 IN. 17.25
WTR YR 1991 TOTAL 158361.5 MEAN 434 MAX 10200 MIN 5.1 CFSM 1.01 IN. 13.76

(+)	6.4	6.1	5.6	5.6	6.1	5.9	6.2	6.2	6.6	6.5	6.5	7.1
MEAN≠	585	192	1716	968	538	193	631	148	122	12.2	8.2	3.1
CFSM≠	1.37	.45	4.01	2.26	1.26	.45	1.47	.35	.29	.03	.02	.01
IN≠	1.58	.50	4.62	2.60	1.31	.52	1.64	.40	.32	.03	.02	.01

(+) Diversion in cubic ft per second, from Maumee R basin for municipal supply; furnished by City of Bowling Green
≠ Adjusted for diversion.

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^2.

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. 24-Feb. 3, June 8-15, June 17-July 3. Records fair except estimated daily discharges, which are poor. Beginning Mar. 9, 1972 water is diverted at a point 29.4 mi upstream from station into Killdeer Reservoir. Storage is available for low-flow augmentation. During the year, withdrawals totaled 15.3 m gal, equivalent to a mean annual withdrawal of 0.06 ft^3/s, short term releases totaling 407.2 m gal, equivalent to a mean annual release of 17.3 ft^3/s. Water-quality data collected at this site 1968 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--27 years, 181 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,390 ft^3/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^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 5	1830	2,020	6.17	Dec. 23	2030	3,270	7.38
Dec. 20	1930	2,050	6.21	Dec. 31	1530	*6,700	*9.77

Minimum daily discharge, 0.17 ft^3/s Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	42	76	4710	50	87	79	92	120	5.2	.44	.32
2	6.8	37	59	1980	49	87	66	78	49	7.4	.44	.24
3	5.8	32	344	728	62	96	59	68	32	6.2	.61	.23
4	15	27	1160	408	248	92	51	61	22	2.9	.93	8.8
5	19	27	1700	285	924	77	48	58	15	3.1	.55	4.0
6	89	31	1430	232	1360	119	45	57	12	2.2	.40	3.1
7	79	46	471	192	1370	340	47	51	12	2.2	.34	3.4
8	43	80	285	160	1250	453	48	50	7.4	3.5	.47	3.4
9	39	64	207	134	689	222	45	48	5.8	3.7	1.6	2.4
10	307	62	153	124	368	145	44	43	5.4	3.1	1.5	2.6
11	903	107	120	147	260	111	66	40	5.7	2.8	1.0	1.4
12	1050	160	102	454	182	91	63	40	5.2	2.9	.90	.78
13	634	103	91	728	130	81	47	40	6.2	2.3	.85	.35
14	332	72	79	422	126	72	59	39	7.3	2.4	.84	.25
15	226	57	172	270	133	65	472	37	9.5	2.5	.79	.23
16	154	51	677	600	120	54	615	39	13	2.7	.60	.22
17	109	44	802	1090	107	51	389	36	7.2	2.1	.73	.23
18	142	41	634	1030	106	60	194	31	5.7	1.5	1.6	.24
19	329	41	1290	448	736	108	138	29	5.2	1.1	1.8	.22
20	397	38	1860	275	1500	171	348	31	5.3	.77	1.0	.19
21	205	34	1580	284	1600	122	585	29	6.0	.65	.67	.18
22	173	42	1620	292	773	96	465	26	5.8	.77	.59	.17
23	426	76	2760	220	348	183	326	27	4.9	.78	.46	.53
24	485	163	2760	165	241	390	285	38	3.5	.71	.40	.81
25	251	149	1980	130	177	261	368	40	2.5	.47	1.2	.44
26	156	95	1100	105	138	159	299	38	3.3	.39	1.6	.44
27	110	69	420	86	115	199	196	36	5.3	.35	1.0	.33
28	84	59	250	70	97	324	151	19	5.6	.33	.85	.30
29	69	71	472	77	---	264	124	15	4.7	.36	.65	.27
30	56	82	3300	55	---	179	105	15	4.2	.43	.52	.21
31	49	---	6280	51	---	112	---	149	---	.41	.40	---
TOTAL	6951.3	2002	34234	15952	13259	4871	5827	1400	396.7	66.22	25.73	36.28
MEAN	224	66.7	1104	515	474	157	194	45.2	13.2	2.14	.83	1.21
MAX	1050	163	6280	4710	1600	453	615	149	120	7.4	1.8	8.8
MIN	5.8	27	59	51	49	51	44	15	2.5	.33	.34	.17

CAL YR 1990 TOTAL 129188.4 MEAN 354 MAX 6280 MIN 3.7
WTR YR 1991 TOTAL 85021.23 MEAN 233 MAX 6280 MIN .17

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^2.

WATER-DISCHARGE RECORDS

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: Dec. 19-Mar. 20. Records good except those for estimated daily discharges which are poor. Water-quality data collected at this site 1976 to 1977, 1988 to 1989.

AVERAGE DISCHARGE.--15 years, 129 ft^3/s, 11.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft^3/s June 13, 1981, gage height, 11.00 ft; minimum daily discharge .07 ft^3/s Sept. 28, 29, 1988.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 30	Unknown	*4,290	*10.89	No other peaks greater than base discharge.			

Minimum daily discharge .18 ft^3/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	35	49	1250	43	73	44	48	328	2.6	.69	.26
2	21	31	41	790	37	94	39	41	199	2.2	.75	.18
3	16	30	540	450	42	105	37	35	131	2.1	.92	.58
4	86	29	756	280	154	86	34	32	91	4.0	1.0	15
5	172	29	572	209	645	76	35	31	48	3.5	.91	36
6	110	67	493	160	729	212	35	31	30	2.5	.84	37
7	68	101	288	127	498	446	34	29	21	2.0	.63	14
8	46	70	202	153	328	294	33	25	16	1.6	.68	6.6
9	55	53	146	88	209	154	33	21	13	1.2	.87	3.4
10	467	68	112	78	151	116	33	19	11	.98	.75	2.3
11	724	99	93	95	116	93	31	17	9.6	.78	.75	1.3
12	498	79	83	218	88	80	27	17	9.6	.70	.72	.77
13	366	57	69	300	75	72	24	14	18	.72	.82	.67
14	276	45	59	158	82	64	32	15	16	.74	2.2	.88
15	170	38	191	124	74	53	55	13	10	.62	2.0	1.5
16	111	35	337	228	77	48	98	12	9.3	.50	.96	1.6
17	84	33	224	450	64	46	77	11	21	.45	1.2	1.8
18	196	33	296	270	59	55	64	10	29	.44	2.3	1.3
19	439	30	800	204	735	84	63	10	16	.41	2.8	.99
20	315	26	312	178	1420	92	238	9.3	10	.41	7.6	.79
21	157	24	537	201	906	77	166	8.2	7.8	.46	8.3	.64
22	187	32	1100	177	416	69	211	7.4	5.9	.58	5.9	.57
23	373	100	341	122	231	138	177	7.1	4.4	1.4	3.3	.68
24	276	108	296	106	154	143	168	8.8	3.6	1.2	1.6	.65
25	152	73	289	159	117	97	142	40	2.9	.86	.79	.56
26	103	54	285	98	93	75	105	36	2.8	.96	.61	.50
27	79	44	240	68	76	74	88	52	2.6	.79	.45	.46
28	64	55	173	53	68	75	76	54	2.3	.74	.39	.50
29	53	74	468	43	---	82	68	35	2.1	.70	.39	.50
30	43	62	4000	46	---	68	57	23	2.4	.75	.38	.41
31	39	---	2000	50	---	53	---	131	---	.73	.34	---
TOTAL	5778	1614	15392	6933	7687	3294	2324	842.8	1073.3	37.62	51.84	132.39
MEAN	186	53.8	497	224	275	106	77.5	27.2	35.8	1.21	1.67	4.41
MAX	724	108	4000	1250	1420	446	238	131	328	4.0	8.3	37
MIN	16	24	41	43	37	46	24	7.1	2.1	.41	.34	.18
CFSM	1.25	.36	3.33	1.50	1.84	.71	.52	.18	.24	.01	.01	.03
IN.	1.44	.40	3.84	1.73	1.92	.82	.58	.21	.27	.01	.01	.03

CAL YR 1990 TOTAL 73124.7 MEAN 200 MAX 4000 MIN 3.1 CFSM 1.34 IN. 18.26
WTR YR 1991 TOTAL 45159.95 MEAN 124 MAX 4000 MIN .18 CFSM .83 IN. 11.27

04197100 HONEY CREEK AT MELMORE, OH--Continued

WATER-QUALITY RECORDS

REVISIONS.--The alachlor concentrations for water year 1988 have been revised, as shown in the following table. They supersede figures published in the report for 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 05	0930	<.1	June 10	--	<.1	Aug. 02	0400	2.5
Oct. 19	--	<.1	June 13	0905	<.1	Aug. 02	1200	4.2
Nov. 02	0925	.1	June 17	--	<.1	Aug. 02	2000	5.0
Nov. 30	0925	.2	June 20	0920	<.1	Aug. 03	1200	2.9
Dec. 14	1530	.4	June 24	--	<.1	Aug. 05	--	.8
Jan. 11	0920	<.1	June 27	0910	<.1	Aug. 09	0925	<.1
Jan. 25	0925	.3	July 01	--	<.1	Aug. 12	--	<.1
Feb. 08	0940	<.1	July 05	0900	<.1	Aug. 15	0915	<.1
Feb. 22	0930	<.1	July 09	--	<.1	Aug. 19	--	<.1
Mar. 07	0930	<.1	July 11	0900	<.1	Aug. 22	0905	3.3
Apr. 11	0935	<.1	July 15	--	<.1	Aug. 28	1200	.4
May 02	0930	.5	July 18	0900	<.1	Aug. 29	0915	.4
May 09	0905	.3	July 22	--	<.1	Sept. 02	--	.2
May 16	0900	.6	July 25	0900	<.1	Sept. 09	--	.4
May 23	0900	1.2	July 29	--	<.1	Sept. 12	1010	<.1
May 31	0900	.1	Aug. 01	0900	<.1	Sept. 19	0915	<.1
June 04	--	<.1	Aug. 01	1200	.6			
June 06	0915	<.1	Aug. 01	2000	2.0			

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBR 1989

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 03	0920	<.1	May 28	2000	3.9	June 26	0910	<.1
Oct. 16	0925	<.1	May 29	2000	4.4	June 27	1200	<.1
Nov. 07	0915	<.1	May 30	0843	3.5	June 27	2000	2.0
Nov. 21	0915	.2	May 31	1200	4.3	June 28	0400	4.5
Dec. 05	0910	.1	June 01	1200	3.4	June 28	1200	15.9
Dec. 19	0915	<.1	June 02	1200	2.5	June 28	2000	20.3
Jan. 03	0915	.1	June 03	0400	3.5	June 29	0400	20.8
Jan. 16	0930	.2	June 03	1200	3.4	June 29	1200	23.6
Feb. 20	1000	<.1	June 03	2000	8.2	June 29	2000	14.5
Feb. 27	0930	<.1	June 04	0400	3.5	June 30	1200	10.5
Mar. 13	0915	<.1	June 04	1200	3.9	July 01	1200	6.9
Mar. 27	0905	<.1	June 04	2000	3.2	July 02	1200	5.5
Apr. 03	0920	<.1	June 05	0400	3.9	July 03	0835	3.2
Apr. 17	0930	.4	June 05	0910	4.7	July 06	--	1.2
May 01	0940	<.1	June 05	2000	2.4	July 10	0910	.7
May 05	--	<.1	June 06	1200	1.6	July 14	--	.4
May 08	0925	.3	June 07	1200	1.5	July 17	0920	<.1
May 12	--	1.1	June 08	1200	1.0	July 20	1200	<.1
May 14	--	.9	June 10	1200	<.1	July 20	2000	<.1
May 15	0930	.6	June 12	0900	.5	July 21	0400	.8
May 19	--	.4	June 13	1200	.9	July 21	1200	<.1
May 22	0920	.2	June 13	2000	6.1	July 21	2000	<.1
May 23	2000	1.6	June 14	0400	3.6	July 24	0945	2.5
May 24	0400	5.1	June 14	1200	9.2	July 27	0400	1.5
May 24	1200	3.6	June 14	2000	5.7	July 27	1200	1.1
May 24	2000	4.6	June 15	1200	5.5	July 27	2000	1.6
May 25	0400	4.5	June 16	0400	5.1	July 28	0400	1.9
May 25	1200	4.3	June 16	1200	4.8	July 28	1200	1.9
May 25	2000	3.3	June 16	2000	4.6	July 29	1200	1.9
May 26	0400	8.3	June 17	0400	6.0	July 31	0920	1.0
May 26	1200	3.6	June 17	1200	4.2	Aug. 07	0910	.8
May 26	2000	4.9	June 18	1200	1.6	Aug. 14	0910	.3
May 27	1200	6.8	June 19	0400	.9	Aug. 21	0915	<.1
May 27	2000	6.2	June 19	0850	2.5	Sept. 04	0905	<.1
May 28	0400	5.0	June 23	1200	<.1	Sept. 18	0900	.7

Alachlor concentrations without times (--) were determined from compositions of three water samples obtained throughout a day.

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^2.

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: Oct. 15-Nov. 8, June 13-July 24. Records good except those for estimated record, which are poor.

AVERAGE DISCHARGE.--8 years (1984-1991), 29.3 ft^3/s, 11.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft^3/s Dec. 30, 1990, gage height, 8.05 ft; minimum daily discharge 0.32 ft^3/s July 29, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,850 ft^3/s Dec. 30, gage height 8.05 ft; minimum daily discharge, 0.67 ft^3/s Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.6	11	70	11	16	6.6	7.3	11	1.6	.98	.74
2	6.8	6.0	9.5	39	8.7	26	6.3	6.3	6.6	1.4	.93	.67
3	5.4	5.6	268	27	10	25	6.1	5.5	10	1.3	1.5	2.0
4	71	5.2	408	20	45	17	6.0	5.1	12	1.8	1.1	2.9
5	85	5.0	61	16	231	17	6.3	6.1	5.4	1.7	.99	1.5
6	19	11	31	15	121	129	6.4	7.0	3.6	1.5	.98	1.1
7	10	20	30	14	81	137	6.3	5.4	2.9	1.4	1.0	1.0
8	8.0	13	23	13	44	32	6.1	4.6	2.7	1.3	1.4	.95
9	19	9.1	16	12	29	20	6.2	4.3	2.5	1.3	1.4	1.4
10	235	17	14	12	22	16	5.8	4.6	2.3	1.2	1.2	1.0
11	202	19	13	28	16	14	5.4	3.9	2.7	1.1	1.0	.94
12	52	12	11	101	13	13	5.1	3.8	2.4	1.2	.87	.94
13	93	9.5	11	34	13	12	5.4	3.8	2.1	1.3	.83	1.0
14	42	8.5	9.6	21	17	11	6.7	3.6	2.0	1.2	.89	.91
15	25	8.0	110	19	16	9.8	10	3.4	2.1	1.1	.93	.80
16	20	8.0	103	222	23	8.5	12	3.4	2.3	1.0	.86	.74
17	17	7.9	30	202	12	8.7	11	3.7	2.1	.98	3.2	.72
18	60	7.5	197	56	13	12	12	3.1	2.0	.92	2.1	.75
19	150	7.5	323	26	452	15	13	3.1	1.9	.84	6.9	.74
20	64	7.3	62	28	403	13	231	2.9	1.9	.80	2.2	.76
21	35	7.0	181	57	80	11	144	2.8	1.8	.98	1.4	.81
22	64	11	487	47	43	11	85	2.8	1.7	1.2	1.1	.84
23	120	41	441	36	27	47	34	2.8	1.7	1.4	1.2	.99
24	50	21	158	39	19	31	38	4.4	1.6	1.2	1.1	.86
25	26	13	67	50	16	15	30	13	1.6	1.1	1.0	.85
26	18	10	32	21	14	12	16	6.0	1.5	1.0	.92	.92
27	14	9.5	33	10	13	14	12	7.4	1.5	.94	.88	.87
28	12	14	15	8.2	13	12	10	4.8	1.5	1.1	.89	.89
29	9.6	27	175	8.2	---	9.9	8.9	3.5	1.6	1.5	.90	.87
30	8.2	15	1440	9.7	---	8.2	8.1	3.9	1.7	1.3	.91	.97
31	7.4	---	553	12	---	7.1	---	18	---	1.0	.87	---
TOTAL	1558.4	362.2	5323.1	1273.1	1805.7	730.2	759.7	160.3	96.7	37.66	42.43	30.43
MEAN	50.3	12.1	172	41.1	64.5	23.6	25.3	5.17	3.22	1.21	1.37	1.01
MAX	235	41	1440	222	452	137	231	18	12	1.8	6.9	2.9
MIN	5.4	5.0	9.5	8.2	8.7	7.1	5.1	2.8	1.5	.80	.83	.67
CFSM	1.45	.35	4.96	1.19	1.86	.68	.73	.15	.09	.04	.04	.03
IN.	1.68	.39	5.72	1.37	1.94	.79	.82	.17	.10	.04	.05	.03

CAL YR 1990 TOTAL 17708.0 MEAN 48.5 MAX 1440 MIN 1.7 CFSM 1.40 IN. 19.04
WTR YR 1991 TOTAL 12179.92 MEAN 33.4 MAX 1440 MIN .67 CFSM .96 IN. 13.10

STREAMS TRIBUTARY TO LAKE ERIE

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^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to March 1901 (gage height and discharge measurements only, published as "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. 24-Feb. 3, June 10-July 3, and Sept. 27-30. Records good except for and periods of estimated daily discharge which are poor.

AVERAGE DISCHARGE.--65 years (1923-35, 1938-91), 1,006 ft^3/s, 10.93 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,500 ft^3/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^3/s Feb. 29, 1964 (result of freezeup); minimum gage height, 0.77 ft July 8-19, 1988.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 24	0230	14,000	7.31	Dec. 31	0500	*24,000	*10.34

Minimum daily discharge, 23 ft^3/s Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	382	528	20300	430	708	571	585	3000	54	40	26
2	231	354	468	19000	410	762	492	514	2330	62	36	24
3	193	330	1520	11100	400	867	443	453	1530	58	35	27
4	231	313	8490	3510	719	813	416	409	811	50	36	42
5	832	313	7790	1960	3290	717	412	396	500	67	36	59
6	851	381	6790	1510	5600	896	409	455	360	74	36	436
7	835	460	4290	1230	5220	2540	397	418	285	71	34	401
8	548	526	2030	1030	4430	2930	396	381	234	58	33	216
9	460	512	1450	898	3260	2030	415	360	208	49	38	119
10	2520	493	1130	810	2080	1240	405	348	200	43	41	88
11	5600	575	920	844	1490	933	397	335	190	40	39	66
12	4720	633	794	2500	1120	784	415	324	200	41	40	54
13	3450	647	697	3120	916	693	449	314	180	48	39	46
14	2310	523	613	2490	903	638	446	303	160	52	38	42
15	1650	434	886	1660	869	584	549	311	140	47	37	39
16	1140	386	2710	2980	743	520	1090	288	150	41	34	36
17	830	361	3010	6200	894	479	1610	351	130	38	35	36
18	875	343	3150	5120	722	506	1270	281	115	37	48	37
19	2220	329	8170	3190	3790	605	976	234	100	33	85	35
20	2520	317	7360	1900	9140	728	2890	197	90	30	185	30
21	1680	303	6490	1850	7530	799	3670	174	80	34	111	28
22	1230	316	11000	1550	5010	725	3140	159	75	35	112	27
23	2000	519	12300	1180	2660	824	2210	145	80	34	106	29
24	2310	736	13000	860	1650	1300	1690	248	77	36	85	30
25	1720	816	10700	700	1240	1300	1610	361	72	40	67	28
26	1100	692	7740	580	990	1000	1440	327	68	39	54	26
27	799	550	3310	520	828	834	1190	635	64	37	46	24
28	629	497	1760	490	733	964	932	514	60	35	40	23
29	529	589	2460	540	---	989	776	446	57	50	35	24
30	463	606	15900	500	---	873	684	340	55	49	36	26
31	416	---	22900	490	---	714	---	1150	---	47	32	---
TOTAL	45172	14236	170356	100612	67067	30295	31790	11756	11601	1429	1669	2124
MEAN	1457	475	5495	3246	2395	977	1060	379	387	46.1	53.8	70.8
MAX	5600	816	22900	20300	9140	2930	3670	1150	3000	74	185	436
MIN	193	303	468	490	400	479	396	145	55	30	32	23
CFSM	1.16	.38	4.39	2.59	1.91	.78	.85	.30	.31	.04	.04	.06
IN.	1.34	.42	5.07	2.99	1.99	.90	.95	.35	.34	.04	.05	.06

CAL YR 1990 TOTAL 702166 MEAN 1924 MAX 22900 MIN 123 CFSM 1.54 IN. 20.88
WTR YR 1991 TOTAL 488107 MEAN 1337 MAX 22900 MIN 23 CFSM 1.07 IN. 14.51

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
CHLORIDE: February 1988 to current year.
NITROGEN, NITRITE + NITRATE: February 1988 to current year.
NITROGEN, AMMONIA + ORGANIC: February 1988 to current year.
PHOSPHORUS: February 1988 to current year.
SUSPENDED SEDIMENT DISCHARGE: Water years 1951-1956, 1978 to current year.

INSTRUMENTATION.--Refrigerated water-quality pumping sampler since February 1988.

REMARKS.--Water-quality samples were collected by pumping samples three times a day. Sediment samples were collected by a local observer on an approximate once daily basis. Chemical loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was sub-divided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations. Concentrations reported as below the limit of detection (for example, <.100) were assumed to have a value of half of the detection limit for the purpose of load calculation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 99 mg/L, Sept. 13, 1988; minimum daily mean, <10 mg/L, Dec. 30, 31, 1990, Jan. 1-3, 1991.
DISSOLVED CHLORIDE LOADS: Maximum daily, 1,280 tons, Jan. 1,2, 1990; minimum daily, 1.11 tons, July 9, 15-18, 1988.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 15.5 mg/L, June 2, 1991; minimum daily mean, <.100 mg/L, on many days during 1988, 1989, 1990 and 1991 water years.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 330 tons, July 15, 1990; minimum daily, .00 ton, many days during 1988, 1989 and 1991 water years.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 7.6 mg/L, June 1, 1991; minimum daily mean, .30 mg/L, Sept. 14, 1989.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 184 tons, May 27, 1989; minimum daily, .011 ton, Oct. 10-11, 1988.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 2.19 mg/L, June 1, 1991; minimum daily mean, <.010 mg/L, May 17-22, 1988.
TOTAL PHOSPHORUS LOADS: Maximum daily 66.0 tons, Dec. 31, 1990; minimum daily, .001 ton, Oct. 9-12, 1988.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L, June 9, 1981; minimum daily mean, 1 mg/L on many days during 1951-56, 1980, 1981, 1988.
SEDIMENT LOADS: Maximum daily, 124,000 tons, June 14, 1981; minimum daily, less than 0.05 ton on several days during 1952, 1954, 1989.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 90 mg/L, July 16; minimum daily mean, <10 mg/L Dec. 30, 31, Jan. 1-3.
DISSOLVED CHLORIDE LOADS: Maximum daily, 624 tons, Dec. 23; minimum daily, 4.09 tons, Sept. 1.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 15.5 mg/L, June 2; minimum daily mean, <.100 mg/L, on many days during the year.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 120 tons, Dec. 4; minimum daily, .00 ton, on several days during the year.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 7.6 mg/L, June 1; minimum daily mean, .39 mg/l, May 23.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 166 tons Dec. 31; minimum daily, .050 ton, Sept. 28.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 2.19 mg/L, June 1; minimum daily mean, .020 mg/L, Mar. 20.
TOTAL PHOSPHORUS LOADS: Maximum daily, 66.0 tons, Dec. 31; minimum daily, .002 ton, Sept. 28-30.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 633 mg/L, June 1; minimum daily mean, 4 mg/L, Nov. 20.
SEDIMENT LOADS: Maximum daily, 31,900 tons, Dec. 31; minimum daily, 0.47 ton, Sept. 26.

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
18...	0930	2620	567	8.2	3.0	2.0	150	12.1	92	9000	7100
MAR											
13...	1045	694	660	8.3	2.5	2.5	43	13.0	98	340	90
JUN											
18...	1030	116	725	8.6	33.5	26.0	15	12.8	160	150	4600
SEP											
11...	1045	65	801	8.6	23.5	22.5	4.0	10.4	121	75	540

DATE	HARD-NESS TOTAL (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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
18...	250	68	19	9.6	3.7	171	0	140	58	29	0.20
MAR											
13...	300	81	23	13	2.7	214	0	176	100	34	0.30
JUN											
18...	310	76	29	18	4.6	173	2	144	130	40	0.30
SEP											
11...	350	85	33	33	5.6	145	7	130	220	50	0.60

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	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 TOTAL (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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
DEC											
18...	7.8	322	0.020	5.00	0.090	0.090	1.1	0.200	0.080	0.060	190
MAR											
13...	6.2	370	0.020	4.50	0.130	0.080	0.90	0.080	0.040	0.030	20
JUN											
18...	6.1	402	0.030	2.70	<0.010	0.010	1.5	0.050	<0.010	<0.010	<10
SEP											
11...	0.77	504	0.010	0.320	<0.010	<0.010	0.90	0.090	0.010	<0.010	10

DATE	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)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
DEC										
18...	<1	39	<0.5	<1.0	<1	<3	3	270	2	5
MAR										
13...	<1	41	<0.5	<1.0	<1	<3	2	23	<1	8
JUN										
18...	<1	57	<0.5	<1.0	<1	<3	4	130	1	11
SEP										
11...	<1	70	<0.5	<1.0	<1	<3	1	7	<1	16

DATE	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)	SEDI-MENT, SUS-PENDED (MG/L)
DEC										
18...	8	<0.1	<10	2	<1	<1.0	960	<6	23	199
MAR										
13...	15	0.2	<10	2	<1	<1.0	1500	<6	7	46
JUN										
18...	4	<0.1	<10	3	<1	<1.0	2700	<6	<3	44
SEP										
11...	8	<0.1	10	3	<1	<1.0	4400	<6	<3	17

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

REVISIONS.--The alachlor concentrations for water year 1988 have been revised, as shown in the following table. They supersede figures published in the report for 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Feb. 08	1600	<.1	June 20	1610	<.1	Aug. 19	--	<.1
Feb. 22	1550	<.1	June 24	--	<.1	Aug. 22	1450	<.1
Mar. 07	1524	<.1	June 27	1400	<.1	Aug. 26	--	<.1
Apr. 11	1635	<.1	July 05	1345	<.1	Aug. 29	1450	<.1
May 02	1710	.1	July 11	1545	<.1	Sept. 02	--	<.1
May 09	1630	.2	July 25	1600	<.1	Sept. 05	1250	<.1
May 13	--	.3	July 29	--	<.1	Sept. 09	--	<.1
May 16	1530	.3	Aug. 01	1610	<.1	Sept. 12	1500	<.1
May 23	1605	.1	Aug. 08	1530	<.1	Sept. 19	1650	<.1
June 13	1530	<.1	Aug. 12	--	<.1			
June 17	--	<.1	Aug. 15	1530	<.1			

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 03	1545	<.1	May 28	0400	6.3	June 23	2000	.5
Oct. 17	1600	<.1	May 28	1200	4.8	June 26	1545	<.1
Nov. 07	1600	<.1	May 28	2000	3.5	June 28	0400	.4
Nov. 21	1535	.2	May 29	0400	4.0	June 28	1200	.5
Dec. 05	1540	<.1	May 29	1200	2.9	June 28	2000	1.5
Dec. 19	1640	<.1	May 30	0400	2.9	June 29	0400	8.6
Jan. 16	1600	.1	May 30	1240	2.6	June 29	1200	10.9
Feb. 06	1630	<.1	May 31	2000	2.8	June 29	2000	16.2
Feb. 20	1700	.3	June 01	2000	1.7	June 30	0400	14.1
Mar. 13	1600	<.1	June 02	2000	1.7	June 30	1200	13.1
Mar. 27	1555	<.1	June 03	1200	1.8	June 30	2000	11.1
Apr. 03	1625	<.1	June 03	2000	2.0	July 01	0400	10.7
Apr. 17	1615	<.1	June 04	0400	4.0	July 01	2000	9.3
May 01	1705	<.1	June 04	1200	4.6	July 03	1025	7.7
May 05	--	<.1	June 04	2000	3.3	July 04	1200	6.5
May 08	1710	.2	June 05	0400	3.2	July 06	1200	3.7
May 12	--	.3	June 05	1200	3.0	July 09	1200	2.0
May 14	--	.3	June 05	1610	4.5	July 10	1550	1.3
May 15	1550	.2	June 06	2000	2.1	July 17	1630	.4
May 19	--	<.1	June 08	2000	1.0	July 21	--	1.2
May 22	1600	.2	June 10	2000	.7	July 22	--	.9
May 24	2000	.8	June 12	1540	.5	July 24	1030	<.1
May 25	1200	1.9	June 13	2000	1.9	July 31	1615	.8
May 25	2000	2.1	June 14	2000	1.3	Aug. 07	1530	.3
May 26	1200	6.4	June 15	2000	5.0	Aug. 14	1630	<.1
May 26	2000	3.3	June 16	2000	5.6	Aug. 22	1515	<.1
May 27	0400	5.4	June 17	2000	4.0	Sept. 04	1610	<.1
May 27	1200	6.8	June 18	2000	3.3	Sept. 18	1540	<.1
May 27	2000	6.3	June 19	1545	3.3			

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 02	1600	<.1	May 14	1200	.4	June 25	1630	.7
Oct. 16	1700	<.1	May 14	1607	2.9	July 02	1626	.2
Oct. 30	1640	<.1	May 15	0400	7.9	July 06	--	.2
Nov. 13	1650	<.1	May 15	1200	4.3	July 09	1556	<.1
Nov. 27	1550	<.1	May 15	2000	3.6	July 11	--	.2
Dec. 11	1710	<.1	May 16	0400	3.3	July 12	--	.8
Dec. 18	1600	<.1	May 16	2000	3.0	July 13	--	1.4
Jan. 02	1650	.1	May 17	0400	1.8	July 14	--	1.4
Jan. 15	0950	<.1	May 17	1200	2.6	July 15	--	1.3
Jan. 30	0900	<.1	May 17	2000	4.1	July 16	1505	1.2
Feb. 12	1000	<.1	May 18	2000	4.2	July 18	--	1.0
Feb. 26	1605	<.1	May 19	2000	2.4	July 20	--	.7
Mar. 12	1545	<.1	May 20	2000	1.2	July 22	--	.4
Mar. 26	1600	<.1	May 21	1630	1.1	July 23	1600	.6
Apr. 09	1610	<.1	May 27	1200	2.9	July 24	--	.3
Apr. 23	1600	<.1	May 27	2000	8.1	July 26	--	.2
Apr. 24	--	<.1	May 28	1730	7.1	July 30	1545	<.1
Apr. 27	--	<.1	June 01	--	1.9	Aug. 03	--	<.1
Apr. 30	1640	.3	June 04	1607	13.0	Aug. 06	1540	<.1
May 05	0400	1.1	June 07	2000	2.2	Aug. 10	--	<.1
May 05	1200	4.0	June 08	1200	1.6	Aug. 12	--	<.1
May 05	2000	4.6	June 09	0400	6.4	Aug. 13	1614	3.1
May 06	0400	3.5	June 09	2000	8.3	Aug. 17	0400	<.1
May 06	1200	3.8	June 10	1200	9.0	Aug. 20	1600	<.1
May 06	2000	3.4	June 11	0400	6.1	Aug. 24	--	<.1
May 07	0400	3.8	June 11	1605	5.8	Aug. 27	1650	<.1
May 07	1200	2.7	June 12	0400	4.8	Aug. 28	--	<.1
May 07	1625	1.3	June 12	2000	4.0	Sept. 03	1535	<.1
May 08	2000	2.2	June 13	1200	3.3	Sept. 10	1535	.1
May 10	2000	.5	June 14	2000	2.4	Sept. 17	1710	.1
May 12	2000	.6	June 16	2000	1.8	Sept. 24	1600	.1
June 18	1630	1.5	June 22	--	3.0			

Alachlor concentrations without times (--) were determined from compositions of three water samples obtained throughout a day.

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 10	1615	<.1	May 25	1200	21.8	June 15	--	.6
Oct. 15	1530	<.1	May 25	2000	15.0	June 17	1545	.5
Oct. 29	1555	<.1	May 26	0400	13.2	June 21	--	.2
Nov. 12	1605	<.1	May 26	2000	8.9	June 23	--	.2
Nov. 26	1545	<.1	May 27	1450	8.6	July 05	--	.1
Dec. 10	1550	<.1	May 27	2000	10.8	July 08	1600	<.1
Jan. 02	0900	<.1	May 28	2000	5.3	July 12	--	<.1
Jan. 14	1605	<.1	May 29	2000	4.0	July 15	1535	.2
Jan. 28	1330	.1	May 30	2000	2.7	July 19	--	.4
Feb. 11	1520	<.1	May 31	1200	2.5	July 22	1610	.3
Feb. 25	1550	<.1	May 31	2000	2.3	July 26	--	<.1
Mar. 11	1555	<.1	June 01	0400	4.0	July 29	1605	<.1
Mar. 25	1630	.2	June 01	1200	3.4	Aug. 02	--	.1
Apr. 08	1600	<.1	June 01	2000	5.2	Aug. 05	0955	<.1
Apr. 15	1600	<.1	June 02	0400	7.0	Aug. 08	--	<.1
Apr. 22	1630	.6	June 02	1200	7.0	Aug. 16	--	<.1
Apr. 26	--	.4	June 02	2000	6.8	Aug. 19	1100	<.1
Apr. 29	1640	.1	June 03	0400	6.2	Aug. 21	--	<.1
May 03	--	<.1	June 03	1200	6.5	Aug. 22	--	<.1
May 06	1630	.1	June 03	1610	8.4	Aug. 23	--	<.1
May 10	--	.2	June 04	--	3.8	Aug. 26	1600	<.1
May 13	1305	.2	June 05	--	3.3	Aug. 30	--	<.1
May 17	--	.2	June 06	--	3.0	Sept. 02	1645	<.1
May 20	1545	.3	June 07	--	2.9	Sept. 16	1620	<.1
May 23	--	.4	June 08	--	2.3	Sept. 30	1605	<.1
May 24	2000	1.0	June 09	--	2.0			
May 25	0400	36.6	June 10	1030	3.6			

Alachlor concentrations without times (--) were determined from compositions of three water samples obtained throughout a day.

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	280	36	27.2	382	32	33.0	528	38	54.6
2	231	38	23.5	354	33	31.3	468	38	48.0
3	193	37	19.5	330	36	31.8	1520	36	135
4	231	37	22.8	313	38	31.8	8490	25	578
5	832	27	60.8	313	39	33.3	7790	23	491
6	851	27	61.9	381	37	37.7	6790	22	399
7	835	28	63.0	460	35	43.5	4290	23	264
8	548	34	49.8	526	36	50.7	2030	26	142
9	460	37	46.0	512	36	49.8	1450	28	110
10	2520	28	181	493	37	48.7	1130	31	93.4
11	5600	21	318	575	36	56.2	920	32	80.2
12	4720	20	255	633	36	62.1	794	34	73.1
13	3450	21	192	647	36	63.5	697	35	65.3
14	2310	22	135	523	37	51.7	613	35	57.7
15	1650	24	106	434	36	42.6	886	36	86.4
16	1140	26	78.6	386	37	38.2	2710	30	216
17	830	27	59.4	361	36	35.5	3010	28	226
18	875	29	68.6	343	37	34.6	3150	28	235
19	2220	23	139	329	38	33.7	8170	22	471
20	2520	22	153	317	37	31.9	7360	22	429
21	1680	23	106	303	37	30.3	6490	23	404
22	1230	26	85.9	316	40	33.8	11000	19	570
23	2000	24	129	519	40	56.4	12300	19	624
24	2310	23	144	736	40	79.3	13000	18	617
25	1720	24	111	816	37	81.6	10700	19	547
26	1100	25	73.1	692	38	70.3	7740	21	439
27	799	26	56.6	550	40	58.9	3310	25	225
28	629	28	47.0	497	40	53.7	1760	31	145
29	529	29	41.6	589	39	62.6	2460	26	156
30	463	31	39.1	606	39	63.8	15900	<10	386
31	416	32	35.9	---	---	---	22900	<10	312
TOTAL	45172	---	2929.3	14236	---	1432.3	170356	---	8679.7
		JANUARY			FEBRUARY			MARCH	
1	20300	<10	274	430	37	42.9	708	37	70.5
2	19000	<10	256	410	40	44.4	762	36	73.4
3	11100	<10	190	400	41	44.2	867	35	81.1
4	3510	14	133	719	42	81.8	813	35	76.2
5	1960	18	93.4	3290	35	304	717	36	69.8
6	1510	21	83.9	5600	23	344	896	36	86.3
7	1230	22	72.0	5220	19	270	2540	32	217
8	1030	23	63.2	4430	20	240	2930	29	229
9	898	25	60.2	3260	20	180	2030	29	161
10	810	26	57.1	2080	22	123	1240	28	93.9
11	844	29	68.2	1490	25	101	933	27	69.2
12	2500	28	187	1120	29	88.7	784	28	59.3
13	3120	24	198	916	32	79.7	693	29	55.1
14	2490	24	164	903	36	88.5	638	30	52.3
15	1660	24	109	869	39	90.7	584	32	50.0
16	2980	24	196	743	38	75.3	520	32	44.7
17	6200	22	368	894	38	91.6	479	32	41.4
18	5120	21	294	722	44	85.4	506	34	47.0
19	3190	22	187	3790	37	332	605	34	55.1
20	1900	24	125	9140	21	526	728	34	66.4
21	1850	27	137	7530	20	410	799	36	77.7
22	1550	29	121	5010	20	276	725	39	76.1
23	1180	30	96.0	2660	22	160	824	39	86.4
24	860	31	72.1	1650	25	111	1300	33	117
25	700	32	60.7	1240	26	88.1	1300	32	113
26	580	33	51.1	990	26	70.6	1000	32	87.3
27	520	33	46.6	828	28	63.3	834	32	71.5
28	490	34	45.5	733	31	61.3	964	31	80.1
29	540	34	49.4	---	---	---	989	30	81.2
30	500	36	48.9	---	---	---	873	31	72.3
31	490	36	47.6	---	---	---	714	31	60.6
TOTAL	100612	---	3954.9	67067	---	4473.5	30295	---	2621.9

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	571	32	48.9	585	34	53.4	3000	24	199
2	492	31	41.5	514	34	47.6	2330	25	157
3	443	31	37.4	453	34	41.5	1530	27	113
4	416	32	36.1	409	36	39.5	811	29	62.8
5	412	33	36.9	396	39	42.0	500	31	41.1
6	409	34	37.6	455	39	47.8	360	32	31.0
7	397	34	36.9	418	37	42.2	285	32	24.7
8	396	36	38.5	381	37	38.6	234	33	20.9
9	415	36	40.7	360	38	37.1	208	33	18.5
10	405	37	40.3	348	39	36.7	200	34	18.4
11	397	37	39.5	335	39	35.6	190	35	18.2
12	415	36	40.8	324	40	34.7	200	36	19.2
13	449	37	45.0	314	40	33.8	180	36	17.4
14	446	39	47.6	303	40	32.6	160	36	15.6
15	549	43	63.2	311	40	33.6	140	38	14.4
16	1090	37	104	288	40	31.0	150	38	15.6
17	1610	31	134	351	38	35.9	130	39	13.5
18	1270	33	113	281	40	30.0	115	39	12.1
19	976	34	90.0	234	41	25.6	100	40	10.7
20	2890	26	197	197	42	22.2	90	39	9.56
21	3670	23	231	174	43	20.1	80	40	8.57
22	3140	26	221	159	44	18.8	75	40	8.08
23	2210	27	162	145	45	17.6	80	41	8.87
24	1690	28	128	248	41	26.3	77	43	8.94
25	1610	29	124	361	39	37.6	72	45	8.75
26	1440	29	112	327	39	34.2	68	47	8.65
27	1190	29	94.1	635	32	55.5	64	49	8.53
28	932	30	76.0	514	35	48.5	60	52	8.37
29	776	32	66.3	446	34	41.2	57	54	8.32
30	684	34	63.3	340	34	31.0	55	57	8.41
31	---	---	---	1150	34	95.2	---	---	---
TOTAL	31790	---	2546.6	11756	---	1167.4	11601	---	918.15
		JULY			AUGUST			SEPTEMBER	
1	54	59	8.65	40	57	6.09	26	58	4.09
2	62	62	10.4	36	55	5.33	24	64	4.13
3	58	65	10.2	35	54	5.12	27	64	4.70
4	50	62	8.29	36	54	5.22	42	69	7.80
5	67	62	11.3	36	54	5.26	59	76	12.0
6	74	62	12.4	36	54	5.20	436	58	66.0
7	71	59	11.3	34	53	4.92	401	48	52.2
8	58	58	9.04	33	52	4.71	216	47	27.6
9	49	59	7.70	38	51	5.29	119	46	14.9
10	43	62	7.15	41	52	5.86	88	47	11.1
11	40	65	6.95	39	54	5.74	66	47	8.40
12	41	72	7.91	40	56	5.99	54	44	6.44
13	48	81	10.4	39	56	5.91	46	46	5.81
14	52	84	11.7	38	57	5.83	42	48	5.50
15	47	85	10.6	37	57	5.75	39	49	5.22
16	41	90	9.90	34	58	5.32	36	51	4.95
17	38	89	9.12	35	57	5.32	36	55	5.24
18	37	85	8.45	48	55	7.14	37	58	5.84
19	33	77	6.80	85	56	12.9	35	63	5.87
20	30	70	5.75	185	58	28.8	30	66	5.42
21	34	65	5.97	111	56	16.9	28	70	5.36
22	35	61	5.73	112	44	13.4	27	70	5.11
23	34	64	5.76	106	39	11.2	29	69	5.39
24	36	64	6.20	85	45	10.2	30	68	5.50
25	40	65	6.99	67	50	8.92	28	68	5.19
26	39	66	7.04	54	54	7.88	26	68	4.87
27	37	66	6.58	46	59	7.32	24	69	4.46
28	35	64	6.05	40	61	6.50	23	69	4.29
29	50	62	8.32	35	63	5.97	24	69	4.50
30	49	60	7.89	36	62	5.98	26	70	4.90
31	47	59	7.53	32	55	4.74	---	---	---
TOTAL	1429	---	258.07	1669	---	240.71	2124	---	312.78
YEAR	488107		29535.31						

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	280	2.00	1.5	382	3.97	4.1	528	3.23	4.6
2	231	1.77	1.1	354	3.77	3.6	468	3.13	4.0
3	193	1.70	.89	330	3.76	3.4	1520	4.02	18
4	231	1.79	1.1	313	3.62	3.1	8490	5.20	120
5	832	2.57	5.8	313	3.45	2.9	7790	5.20	110
6	851	2.69	6.2	381	3.26	3.4	6790	4.85	89
7	835	2.70	6.1	460	3.00	3.7	4290	5.15	59
8	548	2.55	3.8	526	2.90	4.1	2030	5.53	30
9	460	2.53	3.2	512	2.77	3.8	1450	5.53	22
10	2520	4.30	31	493	2.70	3.6	1130	5.45	17
11	5600	5.14	78	575	2.79	4.3	920	5.40	13
12	4720	5.11	65	633	2.89	4.9	794	5.31	11
13	3450	5.06	47	647	2.90	5.1	697	5.16	9.7
14	2310	4.80	30	523	2.97	4.2	613	4.96	8.2
15	1650	4.77	21	434	3.07	3.6	886	4.89	12
16	1140	4.83	15	386	3.10	3.2	2710	4.69	34
17	830	4.53	10	361	3.16	3.1	3010	5.02	41
18	875	4.69	11	343	3.13	2.9	3150	5.06	43
19	2220	4.40	26	329	3.00	2.7	8170	4.22	93
20	2520	4.20	29	317	3.03	2.6	7360	4.02	80
21	1680	4.20	19	303	2.93	2.4	6490	3.53	62
22	1230	4.44	15	316	2.91	2.5	11000	2.99	89
23	2000	4.60	25	519	3.16	4.5	12300	3.07	100
24	2310	4.54	28	736	3.19	6.3	13000	3.04	110
25	1720	4.63	21	816	2.94	6.5	10700	3.13	90
26	1100	4.63	14	692	3.06	5.7	7740	3.13	66
27	799	4.60	9.9	550	3.11	4.6	3310	2.92	26
28	629	4.60	7.8	497	3.42	4.6	1760	2.71	13
29	529	4.57	6.5	589	3.47	5.5	2460	2.50	16
30	463	4.56	5.7	606	3.33	5.5	15900	2.07	87
31	416	4.27	4.8	---	---	---	22900	1.85	110
TOTAL	45172	---	549.39	14236	---	120.4	170356	---	1587.5
		JANUARY			FEBRUARY			MARCH	
1	20300	1.96	110	430	5.07	5.9	708	4.87	9.3
2	19000	2.08	110	410	4.84	5.4	762	4.76	9.8
3	11100	2.45	71	400	4.71	5.1	867	4.58	11
4	3510	3.21	30	719	4.66	9.0	813	4.37	9.6
5	1960	3.69	19	3290	3.96	34	717	4.08	7.9
6	1510	3.93	16	5600	4.05	61	896	4.00	9.7
7	1230	4.01	13	5220	4.58	65	2540	3.85	26
8	1030	4.03	11	4430	4.82	58	2930	4.36	35
9	898	4.13	10	3260	4.94	43	2030	4.42	24
10	810	4.18	9.1	2080	4.82	27	1240	4.50	15
11	844	4.16	9.5	1490	4.71	19	933	4.57	12
12	2500	3.60	24	1120	4.77	14	784	4.62	9.8
13	3120	3.27	28	916	4.74	12	693	4.55	8.5
14	2490	3.52	23	903	4.67	11	638	4.39	7.6
15	1660	4.22	19	869	4.55	11	584	4.20	6.6
16	2980	4.52	37	743	4.45	8.9	520	3.95	5.5
17	6200	4.82	81	894	4.36	11	479	3.70	4.8
18	5120	4.95	68	722	4.32	8.4	506	3.58	4.9
19	3190	4.98	43	3790	4.60	46	605	3.43	5.6
20	1900	5.06	26	9140	4.55	110	728	2.90	5.7
21	1850	5.29	26	7530	4.73	96	799	2.74	5.9
22	1550	5.55	23	5010	4.73	64	725	2.71	5.3
23	1180	5.74	18	2660	4.86	35	824	2.75	6.1
24	860	5.55	13	1650	4.94	22	1300	3.02	11
25	700	5.49	10	1240	4.92	16	1300	3.51	12
26	580	5.50	8.6	990	4.97	13	1000	3.58	9.7
27	520	5.47	7.7	828	5.00	11	834	3.50	7.9
28	490	5.47	7.2	733	4.99	9.9	964	4.10	11
29	540	5.26	7.7	---	---	---	989	4.20	11
30	500	5.19	7.0	---	---	---	873	3.80	9.0
31	490	5.14	6.8	---	---	---	714	3.35	6.5
TOTAL	100612	---	892.6	67067	---	831.6	30295	---	323.7

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	571	3.11	4.8	585	3.43	5.4	3000	12.4	98
2	492	3.10	4.1	514	3.16	4.4	2330	15.5	97
3	443	2.91	3.5	453	2.87	3.5	1530	14.5	60
4	416	2.83	3.2	409	2.64	2.9	811	15.0	33
5	412	2.65	2.9	396	2.50	2.7	500	14.7	20
6	409	2.47	2.7	455	2.47	3.0	360	13.4	13
7	397	2.24	2.4	418	2.45	2.8	285	12.7	9.8
8	396	2.01	2.2	381	2.23	2.3	234	12.3	7.8
9	415	1.88	2.1	360	2.04	2.0	208	11.4	6.4
10	405	1.80	2.0	348	1.91	1.8	200	10.1	5.5
11	397	1.70	1.8	335	1.70	1.5	190	9.00	4.6
12	415	1.59	1.8	324	1.52	1.3	200	7.62	4.1
13	449	1.57	1.9	314	1.52	1.3	180	6.26	3.0
14	446	1.54	1.9	303	1.52	1.2	160	5.29	2.3
15	549	1.75	2.6	311	1.51	1.3	140	4.38	1.7
16	1090	2.12	6.2	288	1.53	1.2	150	3.65	1.5
17	1610	1.95	8.5	351	1.72	1.6	130	3.07	1.1
18	1270	2.55	8.7	281	1.73	1.3	115	2.40	.75
19	976	3.58	9.6	234	1.60	1.0	100	1.73	.47
20	2890	5.16	40	197	1.47	.78	90	1.18	.29
21	3670	6.31	62	174	1.36	.64	80	.864	.19
22	3140	8.56	72	159	1.26	.54	75	.620	.13
23	2210	7.64	46	145	1.16	.45	80	.515	.11
24	1690	6.75	31	248	4.33	4.6	77	.465	.10
25	1610	6.14	27	361	11.2	11	72	.420	.08
26	1440	5.52	22	327	8.77	7.8	68	.380	.07
27	1190	5.20	17	635	8.63	15	64	.343	.06
28	932	4.90	12	514	8.61	12	60	.310	.05
29	776	4.37	9.2	446	6.25	7.6	57	.280	.04
30	684	3.84	7.1	340	6.05	5.6	55	.253	.04
31	---	---	---	1150	9.13	31	---	---	---
TOTAL	31790	---	418.2	11756	---	139.51	11601	---	371.18
		JULY			AUGUST			SEPTEMBER	
1	54	.228	.03	40	<.100	.01	26	<.100	.00
2	62	.206	.03	36	<.100	.00	24	<.100	.00
3	58	.186	.03	35	<.100	.00	27	.158	.01
4	50	.171	.02	36	<.100	.00	42	.142	.02
5	67	<.100	.01	36	<.100	.00	59	.108	.02
6	74	<.100	.01	36	<.100	.00	436	.185	.23
7	71	<.100	.01	34	<.100	.00	401	.161	.18
8	58	<.100	.01	33	<.100	.00	216	.299	.17
9	49	<.100	.01	38	<.100	.01	119	.416	.14
10	43	<.100	.01	41	<.100	.01	88	.209	.05
11	40	<.100	.01	39	<.100	.01	66	.102	.02
12	41	<.100	.01	40	<.100	.01	54	<.100	.01
13	48	<.100	.01	39	<.100	.01	46	.103	.01
14	52	.122	.02	38	<.100	.01	42	<.100	.01
15	47	<.100	.01	37	<.100	.01	39	<.100	.01
16	41	.110	.01	34	<.100	.00	36	.127	.01
17	38	.110	.01	35	<.100	.00	36	.151	.01
18	37	.110	.01	48	<.100	.01	37	.160	.02
19	33	.110	.01	85	.190	.05	35	.169	.02
20	30	.109	.01	185	.317	.16	30	.193	.02
21	34	<.100	.01	111	.239	.07	28	.186	.01
22	35	<.100	.01	112	.240	.07	27	.146	.01
23	34	<.100	.00	106	.299	.09	29	.144	.01
24	36	<.100	.00	85	.256	.06	30	.152	.01
25	40	<.100	.01	67	.189	.03	28	.148	.01
26	39	<.100	.01	54	.179	.03	26	.147	.01
27	37	<.100	.01	46	.132	.02	24	.145	.01
28	35	<.100	.00	40	.102	.01	23	.144	.01
29	50	<.100	.01	35	<.100	.01	24	.142	.01
30	49	<.100	.01	36	<.100	.00	26	.141	.01
31	47	<.100	.01	32	<.100	.01	---	---	---
TOTAL	1429	---	0.36	1669	---	0.70	2124	---	1.06
YEAR	488107		5236.20						

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	280	.83	.62	382	.65	.67	528	.45	.64
2	231	.79	.49	354	.65	.62	468	.40	.51
3	193	.74	.39	330	.63	.56	1520	.97	5.76
4	231	.77	.49	313	.61	.51	8490	2.6	59.9
5	832	1.2	2.77	313	.59	.50	7790	2.7	57.0
6	851	1.3	2.95	381	.56	.58	6790	2.4	44.8
7	835	1.3	2.94	460	.66	.82	4290	1.9	22.3
8	548	1.0	1.51	526	.65	.92	2030	1.4	7.75
9	460	.92	1.16	512	.56	.77	1450	1.1	4.26
10	2520	1.6	12.1	493	.64	.85	1130	.76	2.32
11	5600	2.1	31.1	575	.58	.90	920	.71	1.75
12	4720	2.0	25.4	633	.60	1.02	794	.82	1.76
13	3450	1.5	14.1	647	.61	1.06	697	.69	1.30
14	2310	1.4	8.76	523	.60	.85	613	.55	.92
15	1650	1.3	5.99	434	.60	.70	886	.60	1.58
16	1140	.86	2.69	386	.60	.62	2710	1.4	10.5
17	830	.82	1.85	361	.57	.55	3010	1.7	13.5
18	875	.88	2.17	343	.56	.52	3150	1.7	14.6
19	2220	1.4	8.50	329	.53	.47	8170	2.7	59.3
20	2520	1.5	10.0	317	.52	.45	7360	2.5	50.3
21	1680	1.3	5.88	303	.53	.43	6490	2.2	37.8
22	1230	.93	3.09	316	.58	.49	11000	3.0	88.6
23	2000	1.2	6.67	519	.65	.92	12300	3.2	108
24	2310	1.4	8.89	736	.65	1.29	13000	3.3	117
25	1720	1.2	5.63	816	.57	1.25	10700	2.9	85.3
26	1100	1.1	3.22	692	.61	1.13	7740	2.5	52.8
27	799	.93	2.02	550	.60	.89	3310	1.9	17.4
28	629	.79	1.35	497	.57	.76	1760	1.5	6.96
29	529	.66	.94	589	.49	.78	2460	1.4	9.75
30	463	.72	.90	606	.50	.81	15900	2.1	95.5
31	416	.71	.80	---	---	---	22900	2.7	166
TOTAL	45172	---	175.37	14236	---	22.69	170356	---	1145.86
		JANUARY			FEBRUARY			MARCH	
1	20300	2.4	133	430	.57	.66	708	.48	.93
2	19000	2.2	112	410	.54	.60	762	.58	1.21
3	11100	1.9	57.9	400	.54	.58	867	.60	1.40
4	3510	1.6	15.1	719	.49	.96	813	.49	1.07
5	1960	1.2	6.38	3290	.85	8.16	717	.56	1.07
6	1510	1.0	4.12	5600	1.5	22.3	896	.65	1.61
7	1230	1.1	3.61	5220	1.4	19.4	2540	1.7	11.6
8	1030	.98	2.72	4430	1.3	15.1	2930	2.0	16.0
9	898	.88	2.14	3260	1.1	10.0	2030	1.8	9.58
10	810	.82	1.79	2080	.80	4.58	1240	1.6	5.48
11	844	.79	1.81	1490	.72	2.91	933	1.2	3.04
12	2500	1.1	7.84	1120	.69	2.11	784	1.0	2.13
13	3120	1.3	10.7	916	.72	1.78	693	.84	1.58
14	2490	1.2	8.15	903	.74	1.81	638	.77	1.33
15	1660	.94	4.22	869	.69	1.61	584	.68	1.08
16	2980	1.2	10.4	743	.61	1.22	520	.53	.75
17	6200	1.6	26.9	894	.59	1.43	479	.41	.54
18	5120	1.5	20.8	722	.56	1.09	506	.44	.60
19	3190	1.3	11.2	3790	1.0	12.9	605	.49	.79
20	1900	1.0	5.38	9140	1.5	38.0	728	.45	.88
21	1850	.87	4.37	7530	1.5	30.8	799	.62	1.33
22	1550	.64	2.67	5010	1.4	19.1	725	.71	1.39
23	1180	.75	2.39	2660	.96	7.08	824	.75	1.67
24	860	.76	1.77	1650	.84	3.76	1300	1.0	3.52
25	700	.74	1.39	1240	.74	2.51	1300	1.0	3.57
26	580	.69	1.08	990	.66	1.75	1000	.93	2.51
27	520	.57	.81	828	.62	1.39	834	.85	1.91
28	490	.60	.79	733	.51	1.01	964	1.3	3.26
29	540	.59	.86	---	---	---	989	1.0	2.78
30	500	.60	.81	---	---	---	873	.77	1.82
31	490	.56	.74	---	---	---	714	.56	1.08
TOTAL	100612	---	463.84	67067	---	214.60	30295	---	87.51

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	571	.65	1.00	585	.84	1.32	3000	7.6	61.7
2	492	.62	.82	514	.78	1.08	2330	5.2	33.1
3	443	.61	.73	453	.73	.89	1530	2.0	8.98
4	416	.62	.69	409	.73	.81	811	1.6	3.38
5	412	.58	.64	396	.82	.88	500	1.6	2.16
6	409	.78	.86	455	.84	1.03	360	1.4	1.37
7	397	.89	.95	418	.82	.93	285	1.3	1.00
8	396	.87	.93	381	.75	.77	234	1.3	.84
9	415	.82	.92	360	.78	.76	208	1.4	.79
10	405	.80	.88	348	.82	.77	200	1.2	.66
11	397	.85	.91	335	.66	.59	190	1.2	.62
12	415	.88	.99	324	.87	.76	200	1.3	.70
13	449	.91	1.10	314	.91	.77	180	1.3	.64
14	446	.89	1.07	303	.86	.71	160	1.3	.57
15	549	.95	1.41	311	.86	.72	140	1.4	.53
16	1090	1.3	4.00	288	.86	.67	150	1.3	.54
17	1610	1.6	7.12	351	1.0	.95	130	1.7	.61
18	1270	1.3	4.57	281	.83	.63	115	1.5	.47
19	976	.99	2.64	234	.72	.45	100	1.7	.46
20	2890	1.9	15.6	197	.61	.33	90	1.5	.37
21	3670	2.2	22.3	174	.53	.25	80	1.3	.29
22	3140	1.9	16.0	159	.45	.19	75	1.3	.25
23	2210	1.5	8.79	145	.39	.15	80	1.2	.26
24	1690	1.2	5.41	248	.68	.60	77	1.2	.25
25	1610	1.1	4.62	361	1.1	1.11	72	1.1	.22
26	1440	.96	3.73	327	1.0	.93	68	1.1	.20
27	1190	.93	2.97	635	1.8	3.11	64	1.1	.19
28	932	.94	2.37	514	2.1	2.86	60	1.0	.17
29	776	.78	1.64	446	2.8	3.35	57	1.0	.15
30	684	.86	1.58	340	3.1	2.80	55	.97	.14
31	---	---	---	1150	5.8	22.3	---	---	---
TOTAL	31790	---	117.24	11756	---	53.47	11601	---	121.61
		JULY			AUGUST			SEPTEMBER	
1	54	.94	.14	40	.87	.093	26	.82	.058
2	62	.91	.15	36	.87	.084	24	.79	.051
3	58	.88	.14	35	.93	.088	27	.87	.065
4	50	.91	.12	36	.88	.086	42	.96	.11
5	67	.82	.15	36	.82	.079	59	.92	.15
6	74	.94	.19	36	.83	.080	436	1.5	1.85
7	71	.95	.18	34	.82	.076	401	1.3	1.39
8	58	.96	.15	33	.78	.070	216	.88	.52
9	49	.87	.11	38	.70	.073	119	.83	.27
10	43	.87	.10	41	.76	.084	88	.82	.19
11	40	.90	.096	39	.82	.087	66	.80	.14
12	41	.91	.10	40	.89	.096	54	.75	.11
13	48	.88	.11	39	.91	.096	46	.74	.092
14	52	.82	.11	38	.82	.085	42	.78	.089
15	47	.96	.12	37	.79	.079	39	.81	.086
16	41	1.1	.12	34	.80	.074	36	.83	.080
17	38	1.0	.11	35	.80	.074	36	.87	.083
18	37	1.0	.10	48	.81	.10	37	.76	.077
19	33	.91	.081	85	.81	.19	35	.72	.068
20	30	.95	.077	185	.92	.46	30	.71	.058
21	34	.94	.085	111	.93	.28	28	.73	.056
22	35	.86	.081	112	.84	.26	27	.81	.059
23	34	.84	.076	106	.86	.24	29	.87	.068
24	36	.83	.080	85	.97	.22	30	.83	.067
25	40	1.4	.15	67	.94	.17	28	.82	.062
26	39	1.2	.12	54	.84	.12	26	.81	.058
27	37	.86	.086	46	.82	.10	24	.81	.053
28	35	.86	.082	40	.92	.099	23	.81	.050
29	50	.89	.12	35	.92	.088	24	.80	.052
30	49	.90	.12	36	.82	.079	26	.80	.056
31	47	.92	.12	32	.79	.068	---	---	---
TOTAL	1429	---	3.574	1669	---	3.878	2124	---	6.118
YEAR	488107		2415.760						

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	280	.139	.11	382	.113	.12	528	.066	.093
2	231	.113	.071	354	.105	.10	468	.062	.079
3	193	.094	.049	330	.102	.091	1520	.253	1.51
4	231	.097	.063	313	.095	.081	8490	.763	17.9
5	832	.190	.43	313	.088	.075	7790	.835	17.6
6	851	.213	.50	381	.080	.082	6790	.718	13.2
7	835	.238	.54	460	.083	.10	4290	.528	6.28
8	548	.196	.29	526	.079	.11	2030	.353	1.97
9	460	.198	.25	512	.083	.11	1450	.251	.99
10	2520	.368	2.71	493	.083	.11	1130	.182	.56
11	5600	.493	7.50	575	.073	.11	920	.143	.36
12	4720	.498	6.38	633	.067	.11	794	.120	.26
13	3450	.374	3.50	647	.079	.14	697	.105	.20
14	2310	.290	1.83	523	.089	.13	613	.089	.15
15	1650	.245	1.10	434	.081	.095	886	.100	.27
16	1140	.208	.64	386	.071	.075	2710	.336	2.51
17	830	.178	.40	361	.056	.055	3010	.464	3.78
18	875	.214	.53	343	.056	.052	3150	.460	4.04
19	2220	.340	2.05	329	.044	.039	8170	.817	18.3
20	2520	.360	2.45	317	.032	.027	7360	.760	15.2
21	1680	.323	1.47	303	.029	.023	6490	.611	10.7
22	1230	.241	.80	316	.032	.028	11000	.788	23.6
23	2000	.276	1.49	519	.061	.087	12300	.829	27.6
24	2310	.286	1.79	736	.069	.14	13000	.820	28.9
25	1720	.259	1.21	816	.069	.15	10700	.694	20.1
26	1100	.226	.67	692	.083	.16	7740	.559	11.9
27	799	.196	.42	550	.078	.12	3310	.400	3.67
28	629	.169	.29	497	.083	.11	1760	.286	1.37
29	529	.140	.20	589	.083	.13	2460	.300	2.20
30	463	.124	.15	606	.070	.12	15900	.682	31.4
31	416	.115	.13	---	---	---	22900	1.07	66.0
TOTAL	45172	---	40.013	14236	---	2.880	170356	---	332.692
		JANUARY			FEBRUARY			MARCH	
1	20300	.962	52.8	430	.060	.069	708	.081	.15
2	19000	.860	44.1	410	.061	.067	762	.076	.16
3	11100	.698	21.4	400	.064	.069	867	.074	.17
4	3510	.500	4.84	719	.073	.14	813	.074	.16
5	1960	.387	2.06	3290	.167	1.65	717	.076	.15
6	1510	.315	1.29	5600	.336	5.09	896	.091	.23
7	1230	.260	.86	5220	.308	4.35	2540	.303	2.12
8	1030	.216	.60	4430	.273	3.27	2930	.336	2.66
9	898	.189	.46	3260	.250	2.21	2030	.320	1.76
10	810	.161	.35	2080	.216	1.22	1240	.333	1.12
11	844	.153	.36	1490	.167	.68	933	.256	.65
12	2500	.328	2.32	1120	.134	.41	784	.180	.38
13	3120	.370	3.12	916	.111	.28	693	.135	.25
14	2490	.321	2.18	903	.099	.24	638	.110	.19
15	1660	.237	1.07	869	.090	.21	584	.100	.16
16	2980	.297	2.54	743	.082	.16	520	.094	.13
17	6200	.380	6.36	894	.075	.18	479	.085	.11
18	5120	.351	4.87	722	.087	.17	506	.039	.053
19	3190	.298	2.59	3790	.212	2.73	605	.042	.066
20	1900	.224	1.16	9140	.383	9.45	728	.020	.040
21	1850	.172	.86	7530	.366	7.47	799	.029	.062
22	1550	.153	.64	5010	.294	4.03	725	.036	.071
23	1180	.144	.46	2660	.226	1.65	824	.055	.13
24	860	.127	.29	1650	.184	.83	1300	.122	.43
25	700	.112	.21	1240	.143	.48	1300	.174	.61
26	580	.099	.15	990	.117	.31	1000	.166	.45
27	520	.088	.12	828	.098	.22	834	.144	.32
28	490	.086	.11	733	.085	.17	964	.266	.69
29	540	.076	.11	---	---	---	989	.209	.56
30	500	.068	.091	---	---	---	873	.122	.29
31	490	.064	.085	---	---	---	714	.092	.18
TOTAL	100612	---	158.456	67067	---	47.805	30295	---	14.502

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	571	.069	.11	585	.123	.20	3000	2.19	17.9
2	492	.044	.059	514	.110	.15	2330	1.34	8.50
3	443	.042	.050	453	.096	.12	1530	.631	2.73
4	416	.041	.046	409	.088	.097	811	.412	.91
5	412	.041	.046	396	.093	.10	500	.349	.47
6	409	.054	.059	455	.095	.12	360	.305	.30
7	397	.064	.068	418	.080	.090	285	.279	.21
8	396	.064	.068	381	.069	.071	234	.281	.18
9	415	.076	.085	360	.076	.074	208	.304	.17
10	405	.082	.089	348	.081	.076	200	.217	.12
11	397	.076	.081	335	.077	.070	190	.166	.085
12	415	.078	.088	324	.091	.079	200	.161	.087
13	449	.095	.12	314	.111	.094	180	.154	.075
14	446	.097	.12	303	.114	.093	160	.150	.065
15	549	.114	.17	311	.113	.095	140	.144	.054
16	1090	.217	.69	288	.114	.089	150	.184	.074
17	1610	.314	1.37	351	.140	.13	130	.247	.087
18	1270	.234	.82	281	.119	.090	115	.178	.055
19	976	.171	.46	234	.110	.070	100	.232	.063
20	2890	.332	2.77	197	.103	.055	90	.171	.041
21	3670	.389	3.87	174	.095	.045	80	.148	.032
22	3140	.308	2.62	159	.089	.038	75	.142	.029
23	2210	.215	1.30	145	.082	.032	80	.140	.030
24	1690	.170	.78	248	.246	.22	77	.138	.029
25	1610	.153	.67	361	.371	.37	72	.136	.026
26	1440	.148	.58	327	.332	.30	68	.134	.025
27	1190	.143	.46	635	.555	.96	64	.132	.023
28	932	.132	.33	514	.475	.65	60	.130	.021
29	776	.116	.24	446	.737	.89	57	.129	.020
30	684	.128	.24	340	.819	.75	55	.127	.019
31	---	---	---	1150	1.63	6.30	---	---	---
TOTAL	31790	---	18.459	11756	---	12.518	11601	---	32.430
		JULY			AUGUST			SEPTEMBER	
1	54	.125	.018	40	.108	.012	26	.436	.031
2	62	.123	.021	36	.107	.010	24	.263	.017
3	58	.122	.019	35	.098	.009	27	.107	.008
4	50	.128	.017	36	.091	.009	42	.126	.014
5	67	.127	.023	36	.081	.008	59	.119	.019
6	74	.150	.030	36	.081	.008	436	.292	.38
7	71	.153	.029	34	.076	.007	401	.224	.25
8	58	.134	.021	33	.077	.007	216	.133	.079
9	49	.119	.016	38	.079	.008	119	.099	.032
10	43	.117	.013	41	.085	.009	88	.078	.019
11	40	.111	.012	39	.091	.010	66	.065	.012
12	41	.114	.013	40	.097	.011	54	.073	.011
13	48	.114	.015	39	.099	.010	46	.074	.009
14	52	.114	.016	38	.088	.009	42	.076	.009
15	47	.127	.016	37	.078	.008	39	.089	.009
16	41	.143	.016	34	.072	.007	36	.093	.009
17	38	.138	.014	35	.074	.007	36	.090	.009
18	37	.125	.012	48	.082	.011	37	.085	.009
19	33	.114	.010	85	.134	.035	35	.080	.007
20	30	.134	.011	185	.183	.094	30	.074	.006
21	34	.137	.012	111	.113	.034	28	.074	.006
22	35	.121	.011	112	.108	.033	27	.075	.005
23	34	.107	.010	106	.096	.027	29	.070	.006
24	36	.104	.010	85	.098	.023	30	.046	.004
25	40	.109	.012	67	.110	.020	28	.043	.003
26	39	.113	.012	54	.268	.038	26	.041	.003
27	37	.110	.011	46	.371	.046	24	.039	.003
28	35	.116	.011	40	.395	.042	23	.037	.002
29	50	.111	.015	35	.560	.053	24	.036	.002
30	49	.102	.013	36	.574	.055	26	.034	.002
31	47	.112	.014	32	.502	.043	---	---	---
TOTAL	1429	---	0.473	1669	---	0.703	2124	---	0.975
YEAR	488107		661.906						

STREAMS TRIBUTARY TO LAKE ERIE

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	280	15	11	382	24	25	528	9	13
2	231	17	11	354	23	22	468	9	11
3	193	20	10	330	21	19	1520	73	544
4	231	20	14	313	20	17	8490	405	9640
5	832	126	293	313	17	14	7790	477	10100
6	851	69	160	381	30	31	6790	358	6600
7	835	58	133	460	52	65	4290	206	2480
8	548	42	63	526	26	37	2030	122	683
9	460	40	50	512	17	23	1450	76	299
10	2520	143	1200	493	14	19	1130	47	144
11	5600	266	4000	575	11	17	920	32	81
12	4720	226	2890	633	14	24	794	26	56
13	3450	148	1400	647	10	18	697	24	44
14	2310	99	624	523	7	9.6	613	25	42
15	1650	77	344	434	8	9.7	886	33	86
16	1140	61	188	386	11	12	2710	153	1160
17	830	48	109	361	14	14	3010	239	1940
18	875	71	193	343	9	8.6	3150	232	1990
19	2220	298	1800	329	6	5.6	8170	329	7340
20	2520	160	1100	317	4	3.8	7360	315	6280
21	1680	105	482	303	6	4.8	6490	213	3760
22	1230	70	232	316	13	11	11000	279	8350
23	2000	78	425	519	19	26	12300	257	8500
24	2310	78	488	736	17	33	13000	202	7140
25	1720	68	318	816	16	35	10700	151	4400
26	1100	50	150	692	14	26	7740	114	2410
27	799	37	80	550	15	23	3310	85	777
28	629	29	49	497	19	26	1760	64	305
29	529	24	35	589	19	31	2460	94	779
30	463	21	26	606	11	19	15900	483	22200
31	416	22	24	---	---	---	22900	516	31900
TOTAL	45172	---	16902	14236	---	629.1	170356	---	140054
		JANUARY			FEBRUARY			MARCH	
1	20300	530	29100	430	14	16	708	15	28
2	19000	412	21200	410	14	15	762	16	33
3	11100	280	8650	400	12	13	867	18	41
4	3510	204	1980	719	17	36	813	18	40
5	1960	148	787	3290	110	1160	717	18	35
6	1510	104	429	5600	213	3220	896	75	260
7	1230	83	275	5220	168	2370	2540	390	2640
8	1030	69	193	4430	134	1610	2930	332	2630
9	898	55	134	3260	105	933	2030	274	1520
10	810	45	98	2080	81	460	1240	200	678
11	844	41	95	1490	55	226	933	143	361
12	2500	142	1040	1120	38	115	784	101	214
13	3120	180	1510	916	26	65	693	72	136
14	2490	132	903	903	20	49	638	73	126
15	1660	100	454	869	16	38	584	83	131
16	2980	221	2100	743	13	26	520	103	144
17	6200	315	5200	894	10	25	479	100	129
18	5120	175	2440	722	8	16	506	86	117
19	3190	127	1120	3790	151	2260	605	72	117
20	1900	82	426	9140	315	7790	728	55	107
21	1850	56	279	7530	277	5670	799	57	122
22	1550	44	186	5010	173	2400	725	68	133
23	1180	37	118	2660	109	806	824	76	168
24	860	31	71	1650	72	325	1300	76	267
25	700	25	48	1240	45	154	1300	83	291
26	580	21	33	990	29	78	1000	74	202
27	520	18	25	828	21	47	834	74	168
28	490	15	20	733	15	29	964	173	452
29	540	15	22	---	---	---	989	137	367
30	500	14	18	---	---	---	873	79	188
31	490	13	18	---	---	---	714	68	131
TOTAL	100612	---	78972	67067	---	29952	30295	---	11976

04198000 SANDUSKY RIVER NEAR FREMONT, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	571	69	107	585	121	190	3000	633	5160
2	492	67	89	514	115	160	2330	556	3510
3	443	63	75	453	101	124	1530	310	1340
4	416	62	69	409	90	99	811	190	424
5	412	44	49	396	89	95	500	144	196
6	409	63	69	455	93	114	360	118	115
7	397	55	59	418	89	100	285	99	76
8	396	71	76	381	95	98	234	82	52
9	415	96	108	360	91	88	208	77	43
10	405	86	94	348	99	93	200	70	38
11	397	92	99	335	82	75	190	55	28
12	415	100	112	324	64	56	200	40	22
13	449	103	125	314	63	53	180	30	14
14	446	113	136	303	74	61	160	25	11
15	549	135	202	311	85	72	140	29	11
16	1090	163	482	288	91	71	150	34	14
17	1610	115	499	351	109	104	130	34	12
18	1270	91	312	281	103	79	115	37	12
19	976	88	234	234	91	57	100	39	11
20	2890	161	1320	197	99	52	90	42	10
21	3670	140	1400	174	96	45	80	42	9.0
22	3140	101	863	159	96	41	75	36	7.4
23	2210	84	503	145	92	36	80	29	6.2
24	1690	72	329	248	209	211	77	31	6.4
25	1610	67	291	361	490	484	72	44	8.5
26	1440	94	365	327	276	238	68	42	7.6
27	1190	97	311	635	238	409	64	38	6.6
28	932	105	264	514	163	230	60	35	5.7
29	776	108	226	446	118	142	57	32	4.9
30	684	104	192	340	93	86	55	29	4.4
31	---	---	---	1150	293	1270	---	---	---
TOTAL	31790	---	9060	11756	---	5033	11601	---	11165.7
		JULY			AUGUST			SEPTEMBER	
1	54	27	3.9	40	9	1.0	26	11	.75
2	62	25	4.1	36	9	.85	24	9	.58
3	58	23	3.6	35	13	1.3	27	10	.74
4	50	25	3.4	36	10	1.0	42	13	1.5
5	67	23	4.2	36	10	.93	59	12	2.1
6	74	19	3.8	36	6	.61	436	170	217
7	71	20	3.9	34	9	.79	401	80	91
8	58	22	3.4	33	10	.87	216	35	21
9	49	17	2.2	38	8	.81	119	19	6.2
10	43	13	1.5	41	7	.73	88	14	3.4
11	40	13	1.4	39	9	.97	66	12	2.2
12	41	14	1.5	40	10	1.1	54	11	1.5
13	48	15	2.0	39	8	.88	46	11	1.3
14	52	17	2.4	38	9	.90	42	12	1.3
15	47	17	2.2	37	8	.83	39	9	.97
16	41	18	2.0	34	7	.67	36	10	.93
17	38	19	1.9	35	8	.71	36	12	1.2
18	37	18	1.8	48	9	1.1	37	14	1.4
19	33	17	1.5	85	20	7.3	35	13	1.2
20	30	14	1.1	185	58	31	30	11	.90
21	34	12	1.1	111	18	5.6	28	10	.73
22	35	11	1.1	112	14	4.3	27	8	.61
23	34	11	1.0	106	13	3.8	29	8	.62
24	36	11	1.1	85	10	2.3	30	6	.53
25	40	10	1.1	67	7	1.3	28	7	.56
26	39	9	.90	54	7	1.1	26	7	.47
27	37	10	1.0	46	11	1.4	24	9	.57
28	35	14	1.4	40	11	1.2	23	9	.57
29	50	17	2.3	35	11	1.0	24	8	.53
30	49	20	2.6	36	10	1.0	26	7	.51
31	47	15	1.9	32	13	1.1	---	---	---
TOTAL	1429	---	67.30	1669	---	78.45	2124	---	362.87
YEAR	488107		304252.42						

04199000 HURON RIVER AT MILAN, OH

LOCATION.--Lat 41°18'04", long 82°36'36, in SW 1/4 sec. 4, T.5 N., R.22 W., Erie County, Hydrologic Unit 04100012, on right bank on upstream side of bridge on U.S. Highway 250, 0.2 mi northwest of Milan and 2.0 mi downstream from confluence of East and West Branches.

DRAINAGE AREA.--371 mi^2.

PERIOD OF RECORD.--March 1950 to September 1980, October 1987 to current year.

REVISED RECORDS.--WSP 1912: Drainage area. WRD OH-89-2: 1988.

GAGE.--Water-stage recorder. Datum of gage is 573.26 ft above National Geodetic Vertical Datum of 1929. July 29, 1953 to Oct. 5, 1979, water-stage recorder at site of former highway bridge 500 ft downstream at same datum. July 29, 1953, nonrecording gage at site of former highway 450 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 30-31, Jan. 22-Feb. 25, Mar. 11-13, 25-28. Records fair except for periods of estimated daily discharges which are poor. Water-quality data collected at this site 1969 to 1974, 1978 to 1980, 1988 to 1991. Sediment data collected 1970 to 1974, 1988 to 1991.

AVERAGE DISCHARGE.--35 years, (1951-81, 1988-91) 301 ft^3/s, 11.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,900 ft^3/s July 5, 1969, gage height, 31.1 ft (from floodmark), from rating curve extended above 11,000 ft^3/s on basis of contracted-opening measurement of peak flow; minimum 2.2 ft^3/S Sept. 10, 15, 19, 20, 21, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 4	0330	7,540	16.94	Dec. 30	Unknown	*14,500	Unknown
Dec. 22	0630	5,560	15.10	Feb. 20	Unknown	6,800	Unknown
Dec. 23	1500	7,800	17.17				

Minimum daily discharge, 7.7 ft^3/s Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	129	155	1890	250	222	124	144	443	25	8.4	7.7
2	84	133	146	1050	200	284	109	127	275	22	8.3	8.4
3	82	148	2100	726	450	289	101	110	934	22	9.6	8.3
4	179	145	5730	502	1100	244	94	91	367	27	9.4	28
5	461	154	1740	400	2500	267	97	89	162	33	9.5	165
6	230	346	843	346	1500	892	94	113	106	27	11	73
7	144	282	682	303	935	1720	89	83	72	25	10	37
8	111	200	523	260	665	721	84	68	58	22	11	19
9	139	166	416	240	462	415	83	61	47	15	13	17
10	1520	245	358	205	360	333	85	61	40	16	11	15
11	1230	284	336	279	288	300	80	62	41	14	14	15
12	592	206	282	1060	250	260	75	60	58	13	15	17
13	745	170	256	647	210	220	83	108	69	16	13	15
14	493	155	221	431	692	183	94	334	55	16	11	12
15	324	152	591	379	520	156	128	140	42	17	9.5	11
16	219	155	1010	2040	400	143	210	77	38	16	9.1	7.9
17	171	154	531	2350	420	139	389	69	55	14	10	10
18	615	149	1390	1000	400	170	310	69	64	12	11	8.5
19	859	145	3170	580	4240	289	436	60	46	11	47	9.5
20	456	143	1050	543	6000	314	3140	56	34	9.6	41	12
21	347	139	1280	696	1230	228	2180	54	29	8.9	32	9.0
22	572	164	4420	500	823	208	1140	51	26	13	24	8.0
23	1000	413	5800	430	522	359	630	44	28	26	18	11
24	515	330	3500	380	394	394	543	41	36	32	22	9.5
25	325	231	1050	320	331	242	456	41	38	23	24	12
26	226	184	682	280	273	230	330	67	27	19	21	12
27	174	166	582	250	207	220	272	121	24	15	14	12
28	141	165	667	220	193	210	228	116	21	12	9.0	11
29	132	184	1430	190	---	278	204	72	24	11	8.5	9.5
30	130	168	10300	170	---	176	177	58	26	10	11	9.3
31	126	---	7930	210	---	136	---	255	---	9.4	9.5	---
TOTAL	12447	5805	59171	18877	25815	10242	12065	2902	3285	551.9	474.8	599.6
MEAN	402	193	1909	609	922	330	402	93.6	109	17.8	15.3	20.0
MAX	1520	413	10300	2350	6000	1720	3140	334	934	33	47	165
MIN	82	129	146	170	193	136	75	41	21	8.9	8.3	7.7
CFSM	1.08	.52	5.14	1.64	2.49	.89	1.08	.25	.30	.05	.04	.05
IN.	1.25	.58	5.93	1.89	2.59	1.03	1.21	.29	.33	.06	.05	.06

CAL YR 1990 TOTAL 196618 MEAN 539 MAX 10300 MIN 23 CFSM 1.45 IN. 19.71
WTR YR 1991 TOTAL 152235.3 MEAN 417 MAX 10300 MIN 7.7 CFSM 1.12 IN. 15.26

04199000 HURON RIVER AT MILAN, OH--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1980, February 1988 to September 1991 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1978 to September 1980.
pH: October 1978 to September 1980.
WATER TEMPERATURES: October 1978 to September 1980.
DISSOLVED OXYGEN: October 1978 to September 1980.
CHLORIDE: February 1988 to September 1991 (discontinued).
NITROGEN, NITRITE + NITRATE: February 1988 to September 1991 (discontinued).
NITROGEN, AMMONIA + ORGANIC: February 1988 to September 1991 (discontinued).
PHOSPHORUS: February 1988 to September 1991 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: October 1987 to September 1991 (discontinued).

INSTRUMENTATION.--Water-quality monitor from October 1978 to September 1980. Refrigerated water-quality pumping sampler controlled by data logger since February 1988.

REMARKS.--Water-quality samples were collected by pumping sampler once-daily and more often during storm events. Sediment samples were collected by a local observer on an approximate once daily basis. Chemical loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was sub-divided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations. Concentrations reported as below the limit of detection (for example, <.20) were assumed to have a value of half of the detection limit for the purpose of load calculation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,410 microsiemens, Jan. 14, 1979; minimum, 186 microsiemens, Mar. 3, 1979.
pH: Maximum, 9.1 units June 21, 1980; minimum, 6.9 units Apr. 14, 1979.
WATER TEMPERATURES: Maximum, 31.5°C July 16, 31, 1979, July 20, 1980; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Oct. 18, 1979; minimum, 3.5 mg/L, Sept. 23, 1980.
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 79 mg/L, Dec. 12, 1989; minimum daily mean, <10 mg/L, June 4, July 28, 1989 and Aug. 20, 1990.
DISSOLVED CHLORIDE LOADS: Maximum daily, 531, tons Feb. 16, 1990; minimum daily, .65 ton, July 10, 1988.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 21.1 mg/L, July 14, 1990; minimum daily mean, .351 mg/L, July 24, 1991.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 160 tons, Feb. 16, 1990; minimum daily, .03 ton on several days during period of record.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 10 mg/L, Aug. 5, 1990; minimum daily mean, <.20 mg/L, on several days during 1989.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily 162 tons, Dec. 30, 1990; minimum daily, .009 ton, Sept. 9, 1989.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean 2.33 mg/L, July 23, 1988; minimum daily mean .011 mg/L, April 21, 1988.
TOTAL PHOSPHORUS LOADS: Maximum daily 46.0 tons Dec. 30, 1990; minimum daily, .001 ton, Nov. 14, 1989.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,280 mg/L June 4, 1989; minimum daily mean, 1 mg/L on several days during period of record.
SEDIMENT LOADS: Maximum daily, 33,300 tons, Dec. 30, 1990; minimum daily, .06 ton Dec. 13, 14 1989.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 62 mg/L, July, 19; minimum daily mean, 14, Dec. 31.
DISSOLVED CHLORIDE LOADS: Maximum daily, 415 tons, Dec. 30; minimum daily, .84 ton, Sept. 16.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 13.9 mg/L, June 4; minimum daily mean, .351 mg/L, July 24.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 84 tons, Dec. 30; minimum daily, .03 ton, July 22, 24, Sept. 16, 18.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 5.8 mg/L, Dec. 30; minimum daily mean, .24 mg/L, June 30.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 162 tons, Dec. 30; minimum daily, .017 ton, June 30, Sept. 21, 22, 30.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 1.65 mg/L, Dec. 30; minimum daily mean, .024 mg/L, Dec. 2.
TOTAL PHOSPHORUS LOADS: Maximum daily, 46.0 tons, Dec. 30; minimum daily, .002 ton, Aug. 28-31, Sept. 1.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,200 mg/L, Dec. 30; minimum daily mean, 3 mg/L on several days during the year.
SEDIMENT LOADS: Maximum daily, 33,300 tons, Dec. 30; minimum daily, .11 ton, Sept. 28, 29.

04199000 HURON RIVER AT MILAN, OH--Continued

REVISIONS.--The alachlor concentrations for water year 1988 have been revised, as shown in the following table. They supersede figures published in the report for 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
May 25	0530	<.1	July 10	0700	17.0	Aug. 01	0330	.4
May 30	1730	.1	July 11	0500	.7	Aug. 02	0130	.5
June 02	1130	<.1	July 24	2300	.3	Aug. 06	1130	<.1
June 11	1530	.1	July 25	2100	.6	Aug. 13	1930	.2
June 21	0100	<.1	July 26	1900	.7	Aug. 16	1330	.3
June 27	1100	<.1	July 27	1700	.5	Aug. 17	1130	.3
July 04	1900	<.1	July 30	1100	.2	Aug. 18	0930	.2
July 09	0900	<.1	July 31	0530	.4	Sept. 15	0915	<.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 04	0920	<.1	May 26	0430	5.5	June 15	0700	1.4
Oct. 25	0940	.3	May 26	0530	7.7	June 15	0830	2.0
Nov. 08	1005	<.1	May 26	0630	7.9	June 17	2030	1.3
Nov. 22	0910	<.1	May 26	0730	6.8	June 17	2200	2.5
Dec. 06	0900	<.1	May 26	0900	4.9	June 21	1900	.4
Jan. 03	1115	<.1	May 26	1200	3.0	June 27	0700	.3
Jan. 17	0850	<.1	May 27	0700	1.8	June 27	2100	1.6
Feb. 07	0915	<.1	May 27	1100	1.3	June 27	2200	8.1
Feb. 21	1005	<.1	May 27	1430	1.3	June 28	2330	11.2
Mar. 14	0950	<.1	May 27	1700	1.1	June 29	2300	7.7
Mar. 28	1257	<.1	May 27	2130	1.0	July 06	0900	.6
Apr. 04	1030	<.1	May 28	1000	.8	July 12	1900	.4
Apr. 09	0830	<.1	May 30	0200	.4	July 19	0900	.2
Apr. 15	0830	<.1	June 03	1930	<.1	July 25	1500	.8
Apr. 22	0430	<.1	June 03	2100	<.1	July 27	1630	.8
Apr. 28	0230	<.1	June 03	2230	<.1	July 27	1730	1.3
May 04	1030	14.3	June 03	2330	<.1	July 27	2000	2.1
May 08	0230	.3	June 04	0200	4.6	July 27	2200	2.8
May 10	2030	.2	June 04	0430	3.0	July 28	0830	4.0
May 11	0200	.2	June 04	1630	2.0	July 28	1600	2.0
May 13	0400	.2	June 04	2030	1.2	July 29	1430	1.8
May 14	0200	.2	June 04	2330	1.0	Aug. 05	0030	.5
May 18	0200	.2	June 05	0600	1.0	Aug. 11	1030	<.1
May 24	2300	1.0	June 05	2000	.7	Sept. 05	0915	<.1
May 25	0730	.8	June 13	0430	.8	Sept. 19	0915	<.1
May 26	0330	10.4	June 13	1630	.8			

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 03	0915	<.1	May 02	1830	<.1	July 15	0800	2.3
Oct. 17	0950	<.1	May 04	2030	.7	July 15	1430	1.7
Oct. 30	--	<.1	May 05	0200	2.8	July 16	0030	1.5
Nov. 14	0935	<.1	May 05	0400	2.5	July 16	2100	1.2
Nov. 28	0930	<.1	May 05	0500	4.5	July 19	2200	.2
Dec. 12	0950	<.1	May 06	0600	5.4	July 22	1530	.2
Dec. 18	1000	<.1	May 07	0700	3.0	July 22	2000	<.1
Jan. 02	1035	<.1	May 13	0030	.4	July 22	2130	.2
Jan. 22	1500	<.1	May 13	1130	1.8	July 23	0030	<.1
Jan. 30	1430	<.1	May 13	1630	3.0	July 23	0600	.3
Feb. 26	1500	<.1	May 15	1300	2.8	July 23	1800	.3
Mar. 12	1016	<.1	May 16	0930	6.4	July 24	0630	<.1
Mar. 27	0900	<.1	May 16	1130	8.1	July 25	1300	.3
Mar. 30	0600	<.1	May 16	1300	10.0	July 31	2300	<.1
Apr. 01	1930	<.1	May 16	1530	10.1	Aug. 05	1700	.4
Apr. 02	0700	<.1	May 17	0600	8.7	Aug. 06	1800	<.1
Apr. 08	1700	<.1	May 17	1130	5.2	Aug. 08	0400	<.1
Apr. 10	1245	<.1	May 18	0700	3.7	Aug. 10	0830	<.1
Apr. 10	1300	<.1	May 19	1730	2.0	Aug. 13	1330	<.1
Apr. 10	1900	.2	May 26	0330	1.1	Aug. 13	1730	<.1
Apr. 10	2030	.4	June 01	2000	.6	Aug. 13	2330	<.1
Apr. 10	2130	.4	June 08	0600	.4	Aug. 14	2330	<.1
Apr. 10	2300	.2	June 08	1900	2.6	Aug. 19	2330	<.1
Apr. 11	0030	.2	June 10	0730	6.4	Aug. 20	0100	<.1
Apr. 11	0230	.2	June 12	2130	1.8	Aug. 20	0230	<.1
Apr. 11	1900	.2	June 19	0730	.3	Aug. 20	0430	<.1
Apr. 11	2330	.1	June 25	1730	.3	Aug. 20	0800	<.1
Apr. 12	0630	<.1	July 02	0330	.3	Aug. 20	1330	.3
Apr. 12	2100	<.1	July 08	0530	<.1	Aug. 20	1730	<.1
Apr. 15	1900	<.1	July 12	0130	1.2	Aug. 28	0930	<.1
Apr. 21	0700	.5	July 12	1530	6.7	Sept. 04	0910	<.1
Apr. 21	1000	.2	July 12	2000	3.1	Sept. 11	0940	.2
Apr. 21	1800	<.1	July 14	1200	3.9	Sept. 18	0935	.3
Apr. 22	1800	<.1	July 14	1330	5.3	Sept. 25	0930	.1
Apr. 24	1830	<.1	July 14	1630	5.5			
May 01	0430	<.1	July 14	2200	4.5			

04199000 HURON RIVER AT MILAN, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 02	0930	.1	Apr. 20	0030	.1	June 02	0400	8.5
Oct. 16	0920	<.1	Apr. 20	0300	.2	June 03	0800	6.6
Oct. 30	0935	<.1	Apr. 20	0800	.2	June 05	0130	2.8
Nov. 13	0925	<.1	Apr. 21	1000	.4	June 11	1130	.4
Nov. 27	0922	<.1	Apr. 22	0330	.3	June 17	2130	.3
Dec. 11	0950	<.1	Apr. 22	1300	.3	June 24	0730	.3
Jan. 28	1700	<.1	Apr. 23	0700	.2	June 30	1730	.2
Feb. 12	0900	<.1	Apr. 28	2100	<.1	July 06	0530	.2
Feb. 26	0910	<.1	May 05	0700	<.1	July 12	1530	<.1
Mar. 12	0855	<.1	May 11	1700	<.1	July 19	0130	.2
Mar. 25	1515	<.1	May 13	2230	<.1	July 25	1130	.1
Apr. 09	0905	<.1	May 15	1900	3.6	July 31	2130	<.1
Apr. 15	2000	.1	May 22	0500	.5	Aug. 07	0730	<.1
Apr. 19	1930	.2	May 28	1500	1.9	Aug. 13	1730	<.1
Apr. 19	2200	.2	May 31	1430	2.2	Aug. 26	1330	<.1

04199000 HURON RIVER AT MILAN, OH--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	105	31	8.81	129	36	12.6	155	35	14.9
2	84	31	7.12	133	36	12.9	146	35	13.8
3	82	31	6.95	148	34	13.7	2100	28	124
4	179	34	16.3	145	34	13.5	5730	18	276
5	461	29	36.0	154	32	13.4	1740	23	103
6	230	26	16.4	346	31	29.3	843	26	59.7
7	144	29	11.3	282	31	23.8	682	28	51.3
8	111	30	8.97	200	32	17.5	523	29	41.0
9	139	30	11.4	166	34	15.0	416	29	32.1
10	1520	21	83.2	245	33	21.6	358	30	28.7
11	1230	23	74.5	284	31	24.1	336	30	27.0
12	592	25	39.7	206	32	17.7	282	32	24.4
13	745	26	52.4	170	33	15.0	256	32	22.3
14	493	27	36.1	155	33	13.9	221	32	19.2
15	324	29	25.2	152	34	13.9	591	36	53.1
16	219	30	17.6	155	34	14.4	1010	25	66.3
17	171	30	13.8	154	35	14.5	531	28	39.6
18	615	29	41.3	149	35	14.0	1390	36	122
19	859	23	52.1	145	35	13.5	3170	21	181
20	456	25	31.2	143	35	13.3	1050	24	68.3
21	347	28	25.8	139	36	13.3	1280	33	118
22	572	28	42.7	164	34	14.9	4420	21	249
23	1000	22	59.9	413	32	35.7	5800	21	312
24	515	24	33.3	330	31	27.2	3500	21	189
25	325	27	23.9	231	32	19.8	1050	25	72.0
26	226	30	18.1	184	32	16.0	682	27	49.3
27	174	30	14.2	166	33	14.9	582	27	42.5
28	141	32	12.1	165	35	15.5	667	27	47.3
29	132	34	12.1	184	34	17.0	1430	35	136
30	130	34	12.0	168	35	16.1	10300	15	415
31	126	35	12.0	---	---	---	7930	14	292
TOTAL	12447	---	856.45	5805	---	518.0	59171	---	3289.8
		JANUARY			FEBRUARY			MARCH	
1	1890	17	83.4	250	39	26.5	222	48	28.9
2	1050	19	53.1	200	40	21.4	284	36	27.9
3	726	21	41.4	450	45	55.3	289	35	27.5
4	502	24	32.0	1100	41	122	244	40	26.7
5	400	26	28.1	2500	23	156	267	49	35.5
6	346	32	29.6	1500	24	98.2	892	48	96.2
7	303	27	22.4	935	25	63.9	1720	24	109
8	260	27	19.0	665	27	47.8	721	26	49.3
9	240	28	17.9	462	28	35.2	415	29	32.2
10	205	29	16.1	360	29	28.2	333	30	27.4
11	279	33	26.5	288	30	23.7	300	31	25.2
12	1060	33	88.7	250	32	21.5	260	31	22.0
13	647	26	45.5	210	35	19.6	220	31	18.6
14	431	26	30.0	692	44	81.8	183	32	15.8
15	379	27	27.4	520	47	66.3	156	32	13.6
16	2040	25	121	400	45	49.0	143	31	12.0
17	2350	18	115	420	42	48.1	139	32	12.0
18	1000	22	57.8	400	46	50.1	170	34	15.8
19	580	24	37.9	4240	34	394	289	33	25.6
20	543	26	38.4	6000	17	273	314	34	28.9
21	696	30	55.0	1230	20	67.7	228	36	22.1
22	500	39	52.7	823	25	54.8	208	34	19.2
23	430	32	37.5	522	28	39.3	359	33	32.0
24	380	33	33.4	394	30	31.7	394	32	34.3
25	320	35	30.5	331	30	27.2	242	33	21.4
26	280	34	26.1	273	32	23.3	230	32	20.0
27	250	36	24.5	207	33	18.3	220	32	19.2
28	220	37	22.0	193	39	20.7	210	31	17.8
29	190	41	20.8	---	---	---	278	30	22.3
30	170	38	17.3	---	---	---	176	30	14.1
31	210	39	21.9	---	---	---	136	31	11.4
TOTAL	18877	---	1272.9	25815	---	1964.6	10242	---	883.9

04199000 HURON RIVER AT MILAN, OH--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	124	32	10.8	144	33	12.9	443	28	32.0
2	109	33	9.84	127	33	11.4	275	32	24.0
3	101	34	9.18	110	33	9.88	934	29	74.1
4	94	34	8.62	91	34	8.29	367	30	29.7
5	97	33	8.70	89	36	8.56	162	34	15.0
6	94	34	8.52	113	36	10.8	106	38	10.7
7	89	33	7.99	83	36	8.08	72	40	7.77
8	84	33	7.61	68	36	6.67	58	41	6.38
9	83	36	8.03	61	37	6.01	47	41	5.22
10	85	36	8.31	61	38	6.21	40	39	4.15
11	80	36	7.84	62	37	6.18	41	38	4.24
12	75	37	7.46	60	36	5.88	58	36	5.62
13	83	38	8.54	108	36	9.30	69	32	5.89
14	94	39	9.73	334	27	23.9	55	32	4.77
15	128	39	13.5	140	30	11.4	42	34	3.92
16	210	39	22.0	77	33	6.83	38	35	3.61
17	389	39	41.6	69	33	6.17	55	35	5.09
18	310	35	29.6	69	34	6.30	64	34	5.88
19	436	35	40.1	60	34	5.46	46	35	4.32
20	3140	26	221	56	34	5.16	34	36	3.33
21	2180	26	155	54	34	5.03	29	35	2.72
22	1140	27	84.2	51	35	4.76	26	37	2.64
23	630	29	49.0	44	35	4.13	28	39	2.91
24	543	30	44.0	41	35	3.91	36	39	3.75
25	456	30	36.9	41	35	3.94	38	40	4.13
26	330	31	27.6	67	36	6.46	27	40	2.94
27	272	32	23.3	121	35	10.9	24	41	2.69
28	228	32	19.9	116	33	10.3	21	43	2.45
29	204	33	17.9	72	34	6.64	24	44	2.87
30	177	33	15.8	58	36	5.75	26	42	2.87
31	---	---	---	255	38	21.7	---	---	---
TOTAL	12065	---	962.57	2902	---	258.90	3285	---	285.66
		JULY			AUGUST			SEPTEMBER	
1	25	48	3.18	8.4	51	1.15	7.7	56	1.15
2	22	47	2.74	8.3	49	1.09	8.4	56	1.28
3	22	46	2.68	9.6	57	1.49	8.3	54	1.22
4	27	48	3.52	9.4	46	1.16	28	43	3.11
5	33	48	4.32	9.5	46	1.17	165	33	14.6
6	27	45	3.36	11	48	1.46	73	33	6.59
7	25	45	2.98	10	48	1.34	37	32	3.21
8	22	49	2.92	11	53	1.54	19	36	1.89
9	15	48	2.01	13	51	1.82	17	40	1.82
10	16	48	2.02	11	45	1.37	15	43	1.79
11	14	48	1.78	14	45	1.68	15	43	1.74
12	13	47	1.71	15	44	1.75	17	43	2.00
13	16	47	2.09	13	41	1.47	15	45	1.82
14	16	47	1.97	11	45	1.30	12	41	1.35
15	17	46	2.19	9.5	48	1.24	11	38	1.08
16	16	46	2.04	9.1	54	1.33	7.9	39	.84
17	14	47	1.80	10	55	1.48	10	39	1.08
18	12	55	1.84	11	52	1.48	8.5	44	1.00
19	11	62	1.81	47	49	5.01	9.5	53	1.36
20	9.6	56	1.45	41	49	5.36	12	47	1.49
21	8.9	55	1.31	32	48	4.17	9.0	50	1.21
22	13	47	1.65	24	41	2.67	8.0	50	1.08
23	26	39	2.46	18	47	2.24	11	50	1.47
24	32	32	2.68	22	44	2.57	9.5	48	1.23
25	23	36	2.27	24	45	2.96	12	52	1.65
26	19	39	2.00	21	48	2.77	12	45	1.48
27	15	42	1.71	14	54	2.10	12	44	1.47
28	12	46	1.52	9.0	55	1.33	11	45	1.36
29	11	50	1.45	8.5	57	1.30	9.5	46	1.17
30	10	52	1.46	11	56	1.64	9.3	50	1.26
31	9.4	54	1.37	9.5	53	1.37	---	---	---
TOTAL	551.9	---	68.29	474.8	---	60.81	599.6	---	63.80
YEAR	152235.3		10485.68						

04199000 HURON RIVER AT MILAN, OH--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	105	1.35	.38	129	2.99	1.0	155	1.81	.76
2	84	1.78	.40	133	2.45	.88	146	1.84	.72
3	82	1.85	.41	148	1.74	.69	2100	2.51	19
4	179	1.91	1.1	145	1.35	.53	5730	3.89	58
5	461	3.43	4.2	154	1.36	.58	1740	5.01	23
6	230	3.32	2.1	346	2.31	2.1	843	5.03	11
7	144	3.00	1.2	282	2.30	1.7	682	4.68	8.6
8	111	2.96	.89	200	2.45	1.3	523	4.30	6.1
9	139	2.92	1.1	166	2.51	1.1	416	4.28	4.8
10	1520	3.91	16	245	2.69	1.8	358	4.19	4.1
11	1230	4.89	16	284	2.56	2.0	336	3.88	3.5
12	592	5.11	8.1	206	2.92	1.6	282	3.78	2.9
13	745	4.68	9.3	170	2.90	1.3	256	3.66	2.5
14	493	4.63	6.2	155	2.74	1.1	221	3.44	2.1
15	324	4.52	4.0	152	2.75	1.1	591	3.24	5.1
16	219	4.24	2.5	155	2.59	1.1	1010	3.01	8.0
17	171	4.18	1.9	154	2.38	.99	531	3.74	5.3
18	615	3.92	5.9	149	1.99	.80	1390	4.20	17
19	859	3.26	7.5	145	1.80	.71	3170	5.20	43
20	456	3.56	4.4	143	1.80	.69	1050	5.12	15
21	347	3.44	3.2	139	1.74	.65	1280	4.16	16
22	572	3.30	5.2	164	1.81	.82	4420	4.83	57
23	1000	3.39	9.1	413	2.29	2.5	5800	4.55	68
24	515	3.84	5.3	330	2.39	2.1	3500	5.12	47
25	325	3.83	3.4	231	2.66	1.7	1050	4.80	14
26	226	3.89	2.4	184	2.66	1.3	682	3.50	6.5
27	174	3.92	1.8	166	2.49	1.1	582	2.48	3.8
28	141	4.00	1.5	165	2.34	1.0	667	1.74	3.1
29	132	3.82	1.4	184	2.05	1.0	1430	2.40	11
30	130	3.43	1.2	168	1.76	.80	10300	3.01	84
31	126	3.24	1.1	---	---	---	7930	3.44	74
TOTAL	12447	---	129.18	5805	---	36.04	59171	---	624.88
		JANUARY			FEBRUARY			MARCH	
1	1890	3.82	19	250	3.23	2.2	222	3.49	2.1
2	1050	3.85	11	200	3.09	1.7	284	3.26	2.5
3	726	3.87	7.6	450	3.06	3.7	289	2.95	2.3
4	502	4.00	5.4	1100	3.29	9.8	244	2.95	1.9
5	400	3.81	4.1	2500	3.55	24	267	2.78	2.0
6	346	3.57	3.3	1500	4.06	16	892	2.82	7.2
7	303	3.43	2.8	935	4.40	11	1720	3.37	15
8	260	3.30	2.3	665	4.43	8.0	721	3.84	7.5
9	240	3.28	2.1	462	4.36	5.4	415	3.92	4.4
10	205	3.23	1.8	360	4.19	4.1	333	3.85	3.5
11	279	3.18	2.4	288	4.08	3.2	300	3.59	2.9
12	1060	2.57	7.2	250	3.95	2.7	260	3.35	2.3
13	647	2.92	5.1	210	3.81	2.2	220	3.19	1.9
14	431	3.29	3.8	692	3.56	6.6	183	3.07	1.5
15	379	3.47	3.5	520	3.21	4.5	156	2.84	1.2
16	2040	3.58	19	400	3.32	3.6	143	2.56	.99
17	2350	4.05	25	420	3.09	3.5	139	2.42	.91
18	1000	4.41	12	400	2.96	3.2	170	2.47	1.1
19	580	4.41	6.9	4240	3.54	41	289	1.87	1.4
20	543	4.38	6.4	6000	3.89	63	314	2.04	1.7
21	696	3.87	7.3	1230	4.42	15	228	2.19	1.4
22	500	4.37	5.9	823	4.47	9.9	208	2.02	1.1
23	430	4.63	5.4	522	4.35	6.1	359	2.00	1.9
24	380	4.60	4.7	394	4.11	4.4	394	2.21	2.3
25	320	4.76	4.1	331	3.87	3.5	242	2.09	1.4
26	280	4.63	3.5	273	3.78	2.8	230	1.80	1.1
27	250	4.60	3.1	207	3.73	2.1	220	1.69	1.0
28	220	4.31	2.6	193	3.63	1.9	210	1.53	.86
29	190	3.92	2.0	---	---	---	278	1.44	1.1
30	170	3.64	1.7	---	---	---	176	1.93	.92
31	210	3.40	1.9	---	---	---	136	1.97	.72
TOTAL	18877	---	192.9	25815	---	265.1	10242	---	78.10

04199000 HURON RIVER AT MILAN, OH--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	124	2.01	.67	144	2.22	.86	443	10.7	13
2	109	1.95	.58	127	2.20	.75	275	10.9	8.1
3	101	1.68	.46	110	2.17	.65	934	12.4	31
4	94	1.60	.41	91	2.06	.50	367	13.9	14
5	97	1.40	.37	89	2.06	.48	162	13.5	6.0
6	94	1.22	.31	113	1.70	.51	106	11.4	3.3
7	89	1.11	.26	83	1.85	.42	72	9.38	1.8
8	84	1.09	.25	68	1.71	.32	58	7.90	1.2
9	83	1.06	.24	61	1.66	.27	47	7.00	.89
10	85	1.11	.26	61	1.57	.26	40	5.88	.63
11	80	1.12	.24	62	1.49	.25	41	4.77	.53
12	75	1.06	.21	60	1.37	.22	58	3.33	.52
13	83	1.26	.29	108	1.70	.70	69	2.47	.46
14	94	1.24	.31	334	3.65	3.2	55	1.96	.30
15	128	.958	.33	140	3.98	1.5	42	1.63	.19
16	210	.988	.56	77	4.05	.84	38	1.64	.17
17	389	3.36	3.8	69	3.89	.72	55	1.92	.29
18	310	3.54	3.0	69	3.74	.70	64	1.98	.34
19	436	2.94	4.4	60	3.60	.58	46	1.84	.23
20	3140	7.01	60	56	3.46	.52	34	1.60	.15
21	2180	7.80	46	54	3.32	.49	29	1.75	.13
22	1140	7.17	22	51	3.19	.44	26	2.03	.15
23	630	6.33	11	44	3.07	.36	28	1.97	.15
24	543	5.38	7.9	41	2.95	.33	36	2.01	.20
25	456	4.88	6.0	41	2.75	.30	38	2.24	.23
26	330	4.15	3.7	67	2.43	.44	27	2.07	.15
27	272	3.41	2.5	121	2.44	.77	24	1.63	.11
28	228	2.80	1.7	116	2.26	.69	21	1.72	.10
29	204	2.47	1.4	72	3.46	.66	24	1.80	.12
30	177	2.29	1.1	58	5.24	.83	26	1.12	.08
31	---	---	---	255	6.53	6.3	---	---	---
TOTAL	12065	---	180.25	2902	---	25.86	3285	---	84.52
		JULY			AUGUST			SEPTEMBER	
1	25	2.38	.15	8.4	2.93	.07	7.7	3.24	.07
2	22	2.07	.12	8.3	2.72	.06	8.4	2.75	.06
3	22	2.08	.12	9.6	3.39	.09	8.3	2.33	.05
4	27	2.45	.18	9.4	1.93	.05	28	.710	.05
5	33	1.91	.17	9.5	2.85	.07	165	.690	.31
6	27	1.72	.13	11	3.34	.10	73	.822	.16
7	25	1.84	.12	10	3.12	.09	37	1.31	.13
8	22	2.29	.14	11	4.39	.13	19	1.71	.09
9	15	2.22	.09	13	3.22	.12	17	2.01	.09
10	16	2.20	.09	11	2.46	.07	15	1.98	.08
11	14	2.18	.08	14	2.27	.08	15	1.37	.06
12	13	2.16	.08	15	2.36	.09	17	1.69	.08
13	16	2.14	.09	13	2.07	.07	15	2.21	.09
14	16	2.11	.09	11	2.36	.07	12	2.19	.07
15	17	2.09	.10	9.5	3.00	.08	11	1.55	.04
16	16	2.07	.09	9.1	3.48	.09	7.9	1.59	.03
17	14	2.45	.09	10	3.11	.08	10	1.33	.04
18	12	3.67	.12	11	2.61	.07	8.5	1.45	.03
19	11	4.38	.13	47	1.82	.15	9.5	2.39	.06
20	9.6	3.67	.10	41	1.30	.14	12	1.88	.06
21	8.9	2.53	.06	32	.887	.08	9.0	2.29	.06
22	13	.911	.03	24	.826	.05	8.0	2.80	.06
23	26	1.11	.07	18	1.64	.08	11	2.41	.07
24	32	.351	.03	22	1.27	.07	9.5	2.47	.06
25	23	.778	.05	24	1.33	.09	12	2.57	.08
26	19	1.14	.06	21	2.01	.12	12	1.60	.05
27	15	1.30	.05	14	2.49	.10	12	1.34	.05
28	12	1.92	.06	9.0	2.16	.05	11	1.66	.05
29	11	2.95	.09	8.5	2.79	.06	9.5	2.92	.07
30	10	4.06	.11	11	2.98	.09	9.3	2.28	.06
31	9.4	4.08	.10	9.5	2.76	.07	---	---	---
TOTAL	551.9	---	2.99	474.8	---	2.63	599.6	---	2.26
YEAR	152235.3		1624.71						

04199000 HURON RIVER AT MILAN, OH--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	105	.70	.20	129	.66	.23	155	.59	.25
2	84	.70	.16	133	.62	.22	146	.59	.23
3	82	.73	.16	148	.71	.28	2100	2.7	25.4
4	179	1.0	.57	145	.79	.31	5730	4.5	71.5
5	461	1.6	2.04	154	1.1	.48	1740	2.3	11.9
6	230	1.1	.67	346	2.0	1.88	843	1.6	3.60
7	144	.92	.36	282	1.1	.86	682	1.2	2.25
8	111	.81	.24	200	.79	.43	523	.99	1.40
9	139	.90	.39	166	.72	.32	416	.83	.93
10	1520	2.5	10.5	245	.74	.49	358	.80	.78
11	1230	2.3	7.72	284	.67	.52	336	.79	.72
12	592	1.6	2.62	206	.58	.32	282	.77	.59
13	745	1.3	2.59	170	.63	.29	256	.72	.49
14	493	1.1	1.47	155	.64	.27	221	.72	.43
15	324	.94	.82	152	.51	.21	591	1.3	2.82
16	219	.90	.53	155	.56	.23	1010	2.4	6.67
17	171	.77	.36	154	.60	.25	531	1.4	2.03
18	615	1.4	3.31	149	.52	.21	1390	2.0	9.34
19	859	1.9	4.60	145	.48	.19	3170	2.9	26.9
20	456	1.1	1.39	143	.61	.23	1050	1.6	4.74
21	347	1.0	.94	139	.62	.23	1280	1.5	6.56
22	572	1.2	2.03	164	.80	.38	4420	3.3	41.4
23	1000	2.0	5.67	413	1.6	1.77	5800	3.5	59.6
24	515	1.4	2.00	330	1.0	.91	3500	2.3	24.3
25	325	1.0	.91	231	.87	.54	1050	1.4	3.96
26	226	.95	.58	184	.83	.41	682	1.1	2.03
27	174	.74	.35	166	.78	.35	582	1.0	1.60
28	141	.74	.28	165	.83	.37	667	1.2	2.17
29	132	.73	.26	184	.76	.37	1430	1.7	8.79
30	130	.77	.27	168	.61	.28	10300	5.8	162
31	126	.72	.24	---	---	---	7930	5.2	112
TOTAL	12447	---	54.23	5805	---	13.83	59171	---	597.38
		JANUARY			FEBRUARY			MARCH	
1	1890	3.8	19.8	250	.56	.38	222	.55	.33
2	1050	2.8	7.97	200	.60	.32	284	.58	.45
3	726	1.6	3.19	450	.59	.72	289	.57	.45
4	502	1.1	1.48	1100	.83	2.48	244	.56	.37
5	400	.99	1.07	2500	2.2	15.0	267	.58	.42
6	346	1.0	.97	1500	1.9	7.68	892	1.3	4.44
7	303	1.0	.85	935	1.1	2.90	1720	2.8	13.5
8	260	1.1	.74	665	.94	1.69	721	1.4	2.87
9	240	.79	.52	462	.82	1.02	415	.92	1.04
10	205	.66	.37	360	.87	.84	333	.69	.62
11	279	.68	.52	288	.87	.67	300	.68	.55
12	1060	1.5	4.35	250	.84	.57	260	.59	.41
13	647	1.4	2.45	210	.84	.47	220	.56	.33
14	431	1.1	1.25	692	.84	1.58	183	.66	.33
15	379	.73	.75	520	.78	1.10	156	.59	.25
16	2040	2.2	15.0	400	.86	.93	143	.58	.23
17	2350	2.5	16.8	420	.84	.96	139	.74	.28
18	1000	1.4	3.79	400	1.0	1.10	170	.62	.28
19	580	.96	1.52	4240	2.7	31.2	289	.64	.50
20	543	.75	1.11	6000	2.5	40.1	314	.68	.57
21	696	1.0	1.89	1230	2.0	6.63	228	.64	.39
22	500	.90	1.21	823	1.2	2.71	208	.67	.38
23	430	.82	.95	522	.94	1.33	359	.85	.86
24	380	.86	.88	394	.84	.89	394	1.0	1.09
25	320	.73	.63	331	.70	.63	242	.89	.58
26	280	.70	.53	273	.63	.46	230	.75	.47
27	250	.68	.46	207	.63	.35	220	.55	.33
28	220	.61	.36	193	.60	.31	210	.54	.31
29	190	.58	.30	---	---	---	278	.65	.48
30	170	.64	.29	---	---	---	176	.64	.30
31	210	.62	.35	---	---	---	136	.54	.20
TOTAL	18877	---	92.35	25815	---	125.02	10242	---	33.61

04199000 HURON RIVER AT MILAN, OH--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	124	.45	.15	144	.80	.31	443	3.0	3.93
2	109	.48	.14	127	.72	.25	275	2.2	1.73
3	101	.53	.14	110	.72	.21	934	4.2	11.0
4	94	.49	.12	91	.72	.18	367	2.8	2.91
5	97	.51	.13	89	1.0	.27	162	1.6	.71
6	94	.57	.14	113	1.4	.44	106	1.3	.38
7	89	.58	.14	83	.90	.20	72	1.0	.20
8	84	.63	.14	68	.83	.15	58	1.0	.16
9	83	.67	.15	61	.83	.14	47	.99	.13
10	85	.65	.15	61	.82	.14	40	1.1	.11
11	80	.56	.12	62	.92	.16	41	1.1	.13
12	75	.58	.12	60	1.1	.18	58	1.4	.21
13	83	.58	.13	108	1.4	.63	69	1.7	.33
14	94	.57	.14	334	2.8	2.59	55	1.2	.18
15	128	.60	.21	140	1.8	.70	42	1.1	.12
16	210	.84	.48	77	1.3	.27	38	.97	.099
17	389	1.9	2.08	69	1.2	.23	55	1.0	.15
18	310	1.2	1.07	69	1.2	.22	64	1.1	.19
19	436	1.5	2.99	60	1.1	.18	46	.84	.11
20	3140	5.0	42.3	56	1.0	.16	34	.85	.079
21	2180	3.2	19.8	54	.99	.15	29	.82	.063
22	1140	2.2	6.87	51	.95	.13	26	.93	.066
23	630	1.4	2.37	44	.90	.11	28	.95	.071
24	543	1.1	1.68	41	.85	.095	36	.97	.094
25	456	1.0	1.29	41	.84	.094	38	.91	.094
26	330	.83	.74	67	.99	.18	27	.94	.069
27	272	.80	.59	121	1.3	.45	24	.95	.063
28	228	.81	.50	116	1.3	.43	21	.91	.052
29	204	.68	.37	72	1.1	.22	24	.89	.057
30	177	.82	.39	58	1.2	.19	26	.24	.017
31	---	---	---	255	2.3	2.42	---	---	---
TOTAL	12065	---	85.64	2902	---	12.079	3285	---	23.504
		JULY			AUGUST			SEPTEMBER	
1	25	.79	.050	8.4	1.2	.028	7.7	1.4	.028
2	22	1.1	.065	8.3	1.4	.031	8.4	1.2	.027
3	22	.99	.058	9.6	1.3	.034	8.3	1.2	.029
4	27	1.0	.075	9.4	1.4	.034	28	1.4	.11
5	33	.95	.085	9.5	1.3	.034	165	1.5	.67
6	27	1.1	.079	11	1.2	.036	73	1.3	.26
7	25	1.1	.076	10	1.1	.030	37	1.1	.11
8	22	1.2	.069	11	1.4	.042	19	.99	.051
9	15	1.1	.047	13	1.3	.047	17	.99	.045
10	16	1.1	.048	11	.96	.029	15	1.1	.044
11	14	1.1	.042	14	1.0	.038	15	1.0	.043
12	13	1.1	.041	15	.89	.035	17	1.0	.046
13	16	1.1	.051	13	.88	.031	15	.90	.037
14	16	1.2	.049	11	.77	.022	12	.90	.029
15	17	1.2	.055	9.5	.85	.022	11	.89	.025
16	16	1.2	.052	9.1	.93	.023	7.9	.85	.018
17	14	1.2	.046	10	1.0	.027	10	.91	.025
18	12	1.3	.043	11	1.1	.031	8.5	.83	.019
19	11	1.3	.037	47	2.0	.49	9.5	.93	.024
20	9.6	1.2	.030	41	2.2	.27	12	.74	.023
21	8.9	1.1	.026	32	1.2	.10	9.0	.71	.017
22	13	1.1	.037	24	.93	.061	8.0	.79	.017
23	26	1.6	.14	18	.86	.041	11	.98	.028
24	32	1.3	.12	22	.96	.057	9.5	.95	.024
25	23	.96	.060	24	.96	.063	12	.80	.025
26	19	1.0	.053	21	1.0	.059	12	.73	.024
27	15	1.0	.041	14	1.1	.041	12	.68	.023
28	12	.99	.033	9.0	1.1	.026	11	.68	.020
29	11	1.1	.031	8.5	1.3	.029	9.5	.75	.019
30	10	1.6	.045	11	1.5	.044	9.3	.68	.017
31	9.4	1.5	.039	9.5	1.3	.035	---	---	---
TOTAL	551.9	---	1.723	474.8	---	1.890	599.6	---	1.877
YEAR	152235.3		1043.133						

04199000 HURON RIVER AT MILAN, OH--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	105	.048	.014	129	.049	.017	155	.031	.013
2	84	.038	.009	133	.052	.019	146	.024	.010
3	82	.030	.007	148	.067	.027	2100	.580	6.05
4	179	.117	.083	145	.096	.038	5730	1.07	17.5
5	461	.244	.31	154	.298	.14	1740	.482	2.50
6	230	.131	.084	346	.301	.26	843	.283	.65
7	144	.065	.025	282	.120	.095	682	.200	.37
8	111	.060	.018	200	.073	.040	523	.149	.21
9	139	.101	.061	166	.089	.040	416	.116	.13
10	1520	.543	2.30	245	.108	.067	358	.104	.10
11	1230	.390	1.34	284	.054	.042	336	.093	.084
12	592	.205	.33	206	.046	.025	282	.089	.068
13	745	.172	.35	170	.051	.023	256	.079	.055
14	493	.124	.17	155	.038	.016	221	.059	.035
15	324	.088	.077	152	.036	.015	591	.247	.63
16	219	.085	.050	155	.052	.022	1010	.611	1.75
17	171	.071	.033	154	.044	.019	531	.273	.40
18	615	.278	.70	149	.027	.011	1390	.401	2.13
19	859	.358	.90	145	.025	.010	3170	.819	7.58
20	456	.130	.16	143	.048	.018	1050	.395	1.15
21	347	.107	.10	139	.056	.021	1280	.368	1.65
22	572	.148	.28	164	.154	.083	4420	.916	11.4
23	1000	.353	.99	413	.233	.24	5800	.979	17.0
24	515	.193	.27	330	.101	.092	3500	.610	6.46
25	325	.117	.10	231	.068	.042	1050	.370	1.06
26	226	.082	.050	184	.060	.030	682	.265	.49
27	174	.064	.030	166	.065	.029	582	.237	.38
28	141	.056	.021	165	.081	.036	667	.312	.57
29	132	.051	.018	184	.061	.030	1430	.454	2.33
30	130	.060	.021	168	.034	.015	10300	1.65	46.0
31	126	.055	.019	---	---	---	7930	1.50	32.2
TOTAL	12447	---	8.920	5805	---	1.562	59171	---	160.955
		JANUARY			FEBRUARY			MARCH	
1	1890	1.11	5.78	250	.048	.032	222	.069	.041
2	1050	.821	2.34	200	.049	.027	284	.068	.052
3	726	.382	.77	450	.049	.059	289	.059	.046
4	502	.262	.36	1100	.101	.30	244	.054	.035
5	400	.206	.22	2500	.572	3.86	267	.053	.038
6	346	.176	.17	1500	.423	1.71	892	.321	1.29
7	303	.161	.13	935	.213	.54	1720	.786	3.84
8	260	.141	.099	665	.165	.30	721	.300	.62
9	240	.105	.068	462	.139	.17	415	.140	.16
10	205	.091	.051	360	.111	.11	333	.085	.077
11	279	.151	.13	288	.092	.071	300	.064	.052
12	1060	.410	1.22	250	.088	.059	260	.066	.046
13	647	.281	.51	210	.089	.050	220	.077	.046
14	431	.169	.20	692	.092	.17	183	.077	.038
15	379	.103	.11	520	.085	.12	156	.079	.033
16	2040	.447	3.02	400	.094	.10	143	.075	.029
17	2350	.476	3.17	420	.078	.088	139	.074	.028
18	1000	.250	.69	400	.124	.13	170	.084	.039
19	580	.170	.27	4240	.437	5.00	289	.073	.056
20	543	.134	.20	6000	.374	6.05	314	.055	.047
21	696	.155	.29	1230	.410	1.36	228	.041	.025
22	500	.149	.20	823	.213	.47	208	.041	.023
23	430	.132	.15	522	.146	.21	359	.076	.082
24	380	.112	.11	394	.112	.12	394	.119	.13
25	320	.103	.089	331	.087	.078	242	.155	.10
26	280	.092	.070	273	.075	.055	230	.110	.068
27	250	.081	.055	207	.063	.035	220	.079	.047
28	220	.070	.041	193	.065	.034	210	.078	.044
29	190	.055	.028	---	---	---	278	.090	.066
30	170	.052	.024	---	---	---	176	.108	.052
31	210	.049	.028	---	---	---	136	.069	.026
TOTAL	18877	---	20.593	25815	---	21.308	10242	---	7.276

04199000 HURON RIVER AT MILAN, OH--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	124	.041	.014	144	.060	.023	443	.631	.85
2	109	.030	.009	127	.057	.019	275	.446	.36
3	101	.032	.009	110	.057	.017	934	1.04	2.72
4	94	.031	.008	91	.059	.014	367	.628	.66
5	97	.037	.010	89	.220	.069	162	.302	.13
6	94	.045	.011	113	.446	.14	106	.201	.059
7	89	.048	.012	83	.150	.034	72	.161	.031
8	84	.056	.013	68	.114	.021	58	.169	.026
9	83	.062	.014	61	.114	.019	47	.151	.019
10	85	.053	.012	61	.107	.018	40	.109	.012
11	80	.035	.008	62	.145	.024	41	.112	.013
12	75	.035	.007	60	.165	.027	58	.199	.031
13	83	.049	.011	108	.240	.14	69	.207	.039
14	94	.056	.014	334	.638	.60	55	.088	.013
15	128	.053	.019	140	.327	.13	42	.103	.012
16	210	.061	.034	77	.201	.042	38	.110	.011
17	389	.290	.33	69	.192	.036	55	.130	.021
18	310	.141	.12	69	.187	.035	64	.130	.023
19	436	.231	.49	60	.181	.029	46	.067	.008
20	3140	.698	5.88	56	.176	.027	34	.070	.006
21	2180	.380	2.42	54	.171	.025	29	.084	.007
22	1140	.243	.76	51	.166	.023	26	.092	.007
23	630	.159	.27	44	.161	.019	28	.108	.008
24	543	.158	.23	41	.156	.017	36	.110	.011
25	456	.114	.14	41	.163	.019	38	.123	.013
26	330	.076	.069	67	.294	.056	27	.141	.010
27	272	.062	.045	121	.523	.19	24	.174	.011
28	228	.065	.040	116	.352	.12	21	.183	.010
29	204	.048	.026	72	.181	.035	24	.161	.010
30	177	.058	.028	58	.169	.027	26	.146	.010
31	---	---	---	255	.522	.57	---	---	---
TOTAL	12065	---	11.053	2902	---	2.565	3285	---	5.141
		JULY			AUGUST			SEPTEMBER	
1	25	.257	.017	8.4	.208	.005	7.7	.084	.002
2	22	.219	.013	8.3	.194	.004	8.4	.160	.004
3	22	.174	.010	9.6	.285	.007	8.3	.312	.007
4	27	.308	.023	9.4	.336	.008	28	.470	.035
5	33	.326	.029	9.5	.272	.007	165	.345	.16
6	27	.250	.018	11	.218	.007	73	.251	.051
7	25	.215	.014	10	.237	.007	37	.207	.021
8	22	.238	.014	11	.428	.014	19	.201	.010
9	15	.248	.010	13	.429	.015	17	.191	.009
10	16	.242	.010	11	.282	.009	15	.201	.008
11	14	.236	.009	14	.306	.012	15	.188	.008
12	13	.231	.008	15	.195	.008	17	.181	.008
13	16	.225	.010	13	.186	.007	15	.179	.007
14	16	.220	.009	11	.194	.006	12	.156	.005
15	17	.215	.010	9.5	.286	.007	11	.162	.005
16	16	.210	.009	9.1	.215	.005	7.9	.151	.003
17	14	.211	.008	10	.248	.007	10	.168	.005
18	12	.227	.008	11	.281	.008	8.5	.170	.004
19	11	.236	.007	47	.664	.20	9.5	.242	.006
20	9.6	.195	.005	41	.828	.10	12	.147	.005
21	8.9	.156	.004	32	.322	.028	9.0	.151	.004
22	13	.182	.006	24	.202	.013	8.0	.195	.004
23	26	.423	.041	18	.186	.009	11	.187	.005
24	32	.336	.031	22	.210	.013	9.5	.172	.004
25	23	.196	.012	24	.275	.018	12	.179	.006
26	19	.243	.013	21	.248	.014	12	.145	.005
27	15	.230	.009	14	.095	.004	12	.134	.005
28	12	.219	.007	9.0	.081	.002	11	.142	.004
29	11	.236	.007	8.5	.090	.002	9.5	.134	.003
30	10	.258	.007	11	.083	.002	9.3	.150	.004
31	9.4	.252	.006	9.5	.084	.002	---	---	---
TOTAL	551.9	---	0.384	474.8	---	0.550	599.6	---	0.407
YEAR	152235.3		240.714						

04199000 HURON RIVER AT MILAN, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	105	6	1.7	129	11	3.8	155	3	1.3
2	84	5	1.1	133	11	4.0	146	3	1.2
3	82	4	.91	148	10	4.1	2100	461	5940
4	179	36	26	145	3	1.1	5730	1130	19400
5	461	76	105	154	4	1.5	1740	214	1210
6	230	18	12	346	35	35	843	77	179
7	144	9	3.5	282	20	16	682	49	91
8	111	5	1.6	200	11	5.7	523	32	45
9	139	7	4.5	166	9	3.9	416	22	25
10	1520	192	848	245	15	10	358	16	15
11	1230	102	346	284	12	9.2	336	13	12
12	592	50	83	206	6	3.2	282	12	9.2
13	745	53	107	170	4	1.9	256	11	7.4
14	493	32	43	155	4	1.7	221	8	4.9
15	324	17	15	152	5	2.0	591	83	232
16	219	10	5.8	155	6	2.5	1010	189	537
17	171	6	2.8	154	6	2.5	531	86	126
18	615	99	300	149	6	2.2	1390	174	1090
19	859	122	314	145	5	2.0	3170	430	4110
20	456	39	50	143	5	2.0	1050	160	482
21	347	18	17	139	6	2.2	1280	142	803
22	572	40	98	164	10	5.1	4420	658	8210
23	1000	135	408	413	32	36	5800	774	13400
24	515	30	43	330	17	15	3500	475	5050
25	325	13	12	231	12	7.7	1050	212	615
26	226	7	4.2	184	9	4.6	682	120	225
27	174	4	2.0	166	7	3.1	582	91	146
28	141	3	1.3	165	5	2.4	667	77	147
29	132	3	1.2	184	4	2.0	1430	205	1270
30	130	6	2.2	168	3	1.4	10300	1200	33300
31	126	10	3.5	---	---	---	7930	672	14400
TOTAL	12447	---	2863.31	5805	---	193.8	59171	---	111084.0
		JANUARY			FEBRUARY			MARCH	
1	1890	331	1770	250	9	6.0	222	18	10
2	1050	169	487	200	12	6.3	284	13	10
3	726	104	206	450	36	44	289	13	10
4	502	80	110	1100	114	339	244	9	6.2
5	400	59	64	2500	253	1700	267	10	7.2
6	346	50	47	1500	164	664	892	305	1440
7	303	47	39	935	85	215	1720	559	2770
8	260	47	33	665	60	108	721	182	383
9	240	36	24	462	35	43	415	58	66
10	205	25	14	360	23	23	333	32	29
11	279	32	28	288	17	13	300	20	16
12	1060	207	625	250	13	8.8	260	23	16
13	647	101	185	210	11	6.2	220	30	18
14	431	56	66	692	16	30	183	38	19
15	379	35	36	520	15	21	156	35	15
16	2040	377	2540	400	13	14	143	27	10
17	2350	268	1780	420	12	14	139	8	2.9
18	1000	111	318	400	36	39	170	5	2.2
19	580	53	84	4240	710	8130	289	12	10
20	543	42	61	6000	496	8040	314	14	13
21	696	86	162	1230	214	712	228	7	4.2
22	500	70	95	823	76	169	208	8	4.5
23	430	53	61	522	42	59	359	40	54
24	380	40	41	394	24	25	394	85	96
25	320	30	26	331	16	14	242	27	18
26	280	23	17	273	13	9.5	230	14	8.4
27	250	17	12	207	13	7.2	220	8	4.8
28	220	13	7.8	193	17	8.7	210	8	4.3
29	190	10	5.1	---	---	---	278	10	7.2
30	170	8	3.6	---	---	---	176	25	12
31	210	8	4.6	---	---	---	136	14	5.3
TOTAL	18877	---	8952.1	25815	---	20468.7	10242	---	5072.2

04199000 HURON RIVER AT MILAN, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	124	6	2.2	144	13	5.2	443	371	479
2	109	3	.97	127	34	11	275	237	219
3	101	7	1.9	110	37	11	934	999	2670
4	94	7	1.7	91	31	7.6	367	392	427
5	97	7	1.8	89	33	8.7	162	124	57
6	94	7	1.8	113	39	12	106	61	18
7	89	8	1.9	83	36	8.0	72	35	6.9
8	84	9	2.0	68	42	7.8	58	21	3.2
9	83	9	2.1	61	40	6.5	47	13	1.6
10	85	10	2.4	61	54	9.0	40	10	1.1
11	80	14	3.0	62	62	10	41	13	1.6
12	75	13	2.6	60	59	9.6	58	21	3.2
13	83	8	1.7	108	107	82	69	26	4.9
14	94	12	2.9	334	364	352	55	29	4.5
15	128	14	5.2	140	153	61	42	18	2.0
16	210	27	15	77	76	16	38	14	1.4
17	389	104	121	69	55	10	55	17	3.0
18	310	42	37	69	55	10	64	19	3.4
19	436	35	70	60	61	9.8	46	11	1.4
20	3140	380	3340	56	63	9.5	34	9	.83
21	2180	176	1110	54	50	7.4	29	10	.74
22	1140	81	257	51	29	3.9	26	9	.62
23	630	43	75	44	31	3.7	28	8	.57
24	543	34	50	41	18	2.0	36	8	.73
25	456	29	36	41	28	3.3	38	9	.89
26	330	12	11	67	68	13	27	11	.79
27	272	8	5.9	121	101	41	24	12	.78
28	228	10	6.4	116	73	25	21	9	.54
29	204	14	7.6	72	35	6.8	24	11	.70
30	177	13	6.2	58	31	4.9	26	12	.84
31	---	---	---	255	142	214	---	---	---
TOTAL	12065	---	5182.27	2902	---	981.7	3285	---	3916.23
		JULY			AUGUST			SEPTEMBER	
1	25	13	.87	8.4	14	.32	7.7	9	.18
2	22	11	.67	8.3	17	.37	8.4	7	.17
3	22	11	.65	9.6	18	.46	8.3	8	.18
4	27	13	.95	9.4	20	.51	28	31	2.4
5	33	14	1.3	9.5	22	.57	165	157	74
6	27	12	.86	11	18	.54	73	79	17
7	25	12	.82	10	14	.40	37	40	4.1
8	22	13	.79	11	20	.64	19	24	1.3
9	15	12	.51	13	27	.95	17	22	.98
10	16	11	.47	11	22	.68	15	20	.83
11	14	10	.39	14	22	.81	15	19	.77
12	13	13	.45	15	21	.83	17	18	.83
13	16	11	.47	13	18	.65	15	17	.70
14	16	12	.51	11	16	.47	12	15	.50
15	17	14	.67	9.5	15	.39	11	14	.40
16	16	13	.60	9.1	16	.39	7.9	18	.38
17	14	12	.46	10	15	.41	10	18	.51
18	12	10	.34	11	14	.41	8.5	17	.39
19	11	10	.30	47	105	39	9.5	13	.34
20	9.6	15	.38	41	68	9.8	12	13	.41
21	8.9	14	.34	32	38	3.3	9.0	6	.15
22	13	16	.55	24	33	2.2	8.0	8	.18
23	26	36	3.5	18	25	1.2	11	12	.36
24	32	39	3.4	22	24	1.4	9.5	12	.31
25	23	30	1.9	24	22	1.4	12	11	.35
26	19	21	1.1	21	20	1.2	12	8	.27
27	15	18	.72	14	19	.76	12	4	.14
28	12	17	.58	9.0	17	.41	11	4	.11
29	11	17	.50	8.5	14	.33	9.5	4	.11
30	10	17	.46	11	12	.35	9.3	5	.12
31	9.4	16	.40	9.5	10	.26	---	---	---
TOTAL	551.9	---	25.91	474.8	---	71.41	599.6	---	108.47
YEAR	152235.3		158920.10						

04199155 OLD WOMAN'S CREEK AT BERLIN ROAD NR HURON, OH

LOCATION.--Lat 41°20'54", long 82°22'50", Erie County, Hydrologic Unit 04100012, on left downstream side of Berlin Road Bridge, 3.8 mi southeast of Huron.

DRAINAGE AREA.--22.1 mi^2.

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 21 to Feb. 3. Records fair except for periods of estimated record and those greater than 25 ft^3/s which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 881 ft^3/s May 26, 1989, gage height 11.16 ft; minimum daily discharge, no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 400 ft^3/s and maximum (*),

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 03	2330	560	9.62	Dec. 30	1000	*794	*10.64
Dec. 18	2230	410	8.06	Feb. 19	1545	690	9.98
Dec. 21	2315	517	8.82	Apr. 20	2315	519	8.79
Dec. 23	1630	736	10.28				

Minimum daily discharge, no flow July 9 to Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.2	3.3	51	7.0	19	7.2	8.4	46	.06	.00	.00
2	1.9	1.9	2.7	33	8.0	22	6.5	7.2	19	.07	.00	.00
3	1.5	1.8	198	24	13	19	5.8	6.2	18	.06	.00	.00
4	14	1.8	225	18	106	17	5.8	5.6	7.0	.05	.00	.00
5	15	5.8	39	16	123	23	6.9	6.8	4.2	.03	.00	.00
6	3.4	25	24	16	51	154	6.6	9.0	3.0	.02	.00	.00
7	1.8	9.0	20	15	40	96	5.9	6.2	2.4	.01	.00	.00
8	1.5	5.2	16	13	28	30	5.5	4.9	2.0	.02	.00	.00
9	14	4.5	13	13	22	23	5.9	4.6	1.7	.00	.00	.00
10	69	13	12	12	18	20	5.1	4.2	1.4	.00	.00	.00
11	38	9.6	10	28	13	17	4.1	3.8	1.3	.00	.00	.00
12	25	5.7	9.9	68	13	15	3.7	3.6	1.3	.00	.00	.00
13	44	4.1	9.1	28	14	14	5.9	40	1.2	.00	.00	.00
14	25	3.2	7.4	22	56	12	7.9	111	.92	.00	.00	.00
15	13	2.9	52	23	26	10	16	17	.82	.00	.00	.00
16	6.6	2.9	38	179	27	9.4	15	8.6	.97	.00	.00	.00
17	4.7	3.0	20	93	21	9.6	83	6.2	.87	.00	.00	.00
18	22	2.8	157	36	25	17	25	4.5	.66	.00	.00	.00
19	25	2.6	143	24	495	22	117	4.0	.53	.00	.00	.00
20	11	2.3	36	28	299	16	392	3.5	.51	.00	.00	.00
21	6.5	2.1	138	25	71	14	308	3.0	.42	.00	.00	.00
22	31	10	200	20	46	13	121	2.7	.34	.00	.00	.00
23	32	29	432	15	28	28	42	2.3	.29	.00	.00	.00
24	18	15	92	11	23	20	36	2.0	.25	.00	.00	.00
25	9.0	8.4	39	10	20	15	24	2.2	.22	.00	.00	.00
26	6.1	5.6	24	8.8	16	13	19	2.8	.22	.00	.00	.00
27	4.5	5.2	22	8.2	14	14	16	3.1	.14	.00	.00	.00
28	3.6	5.7	19	7.8	14	11	13	2.3	.10	.00	.00	.00
29	2.8	5.0	168	7.6	---	9.1	13	1.9	.09	.00	.00	.00
30	2.6	3.7	677	7.2	---	7.7	11	6.1	.07	.00	.00	.00
31	2.4	---	198	7.0	---	7.0	---	17	---	.00	.00	---
TOTAL	457.4	199.0	3044.4	867.6	1637.0	716.8	1333.8	310.7	115.92	0.32	0.00	0.00
MEAN	14.8	6.63	98.2	28.0	58.5	23.1	44.5	10.0	3.86	.010	.000	.000
MAX	69	29	677	179	495	154	392	111	46	.07	.00	.00
MIN	1.5	1.8	2.7	7.0	7.0	7.0	3.7	1.9	.07	.00	.00	.00
CFSM	.67	.30	4.44	1.27	2.65	1.05	2.01	.45	.17	.00	.00	.00
IN.	.77	.33	5.12	1.46	2.76	1.21	2.25	.52	.20	.00	.00	.00

CAL YR 1990 TOTAL 9669.81 MEAN 26.5 MAX 677 MIN .00 CFSM 1.20 IN. 16.28
WTR YR 1991 TOTAL 8682.94 MEAN 23.8 MAX 677 MIN .00 CFSM 1.08 IN. 14.62

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^2.

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. Oct. 1982 to Sept. 1985 at same site at datum 0.10 ft lower.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 22.20 ft Feb. 5, 1988 due to ice jam; minimum recorded gage height, 9.95 ft Dec. 16, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 15.46 ft June 1; minimum recorded gage height, 11.01 ft Dec, 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.74	13.75	11.61	12.96	12.78	12.94	13.11	13.48	14.41	13.74	13.28	12.99
2	12.64	13.80	12.50	13.05	12.74	12.97	13.29	13.47	13.73	13.73	13.26	12.98
3	12.67	13.84	13.63	13.02	12.77	13.61	13.32	13.65	13.76	13.72	13.25	12.98
4	12.59	13.86	12.09	12.86	12.85	13.34	13.29	13.84	14.40	13.71	13.22	13.00
5	12.49	13.94	11.98	13.10	13.10	13.10	13.13	13.96	14.03	13.70	13.21	12.99
6	12.26	14.20	12.00	13.26	13.11	13.09	13.11	14.20	13.79	13.68	13.20	12.98
7	12.55	14.41	12.24	13.76	13.04	12.93	13.07	14.15	13.73	13.66	13.18	12.97
8	12.99	14.51	12.17	14.00	12.79	13.23	13.14	13.73	13.70	13.64	13.17	12.96
9	13.46	14.54	12.11	13.13	12.72	13.13	13.15	13.66	13.65	13.62	13.21	12.94
10	13.37	12.64	12.32	13.58	12.91	13.22	12.76	13.61	13.63	13.60	13.21	12.94
11	12.68	11.97	12.57	14.28	12.98	13.33	13.22	13.62	13.61	13.58	13.20	12.92
12	13.10	12.59	12.22	13.44	12.89	13.44	13.80	13.57	13.60	13.57	13.18	12.92
13	13.16	12.54	12.21	13.17	13.18	14.29	13.95	13.54	13.71	13.57	13.17	12.90
14	12.78	12.41	12.56	12.79	13.16	13.97	13.91	13.95	13.72	13.55	13.15	12.89
15	12.50	12.16	12.37	13.17	12.85	13.30	13.52	13.61	13.73	13.54	13.14	12.91
16	12.79	12.12	12.18	13.52	12.35	13.18	13.45	13.51	13.71	13.52	13.13	12.89
17	12.62	12.80	12.48	13.12	12.62	13.31	13.53	13.50	13.69	13.50	13.12	12.86
18	12.24	12.70	12.30	12.50	13.13	13.24	13.61	14.61	13.69	13.49	13.11	12.85
19	12.62	12.54	12.51	12.81	13.48	13.15	14.18	14.76	13.68	13.47	13.09	12.83
20	12.83	12.44	12.73	13.18	12.98	13.28	14.70	14.80	13.68	13.45	13.10	12.83
21	12.58	12.45	12.64	13.80	12.84	13.30	14.25	14.83	13.67	13.44	13.14	12.83
22	12.89	12.36	12.68	13.22	12.92	13.75	13.51	14.85	13.78	13.46	13.12	12.85
23	13.39	12.16	13.25	12.18	13.33	13.74	13.43	14.87	13.88	13.44	13.12	12.86
24	12.95	12.17	12.03	12.72	13.01	13.03	13.51	14.88	13.88	13.42	13.12	12.85
25	13.05	12.18	11.84	12.94	13.02	13.19	13.58	14.90	13.86	13.40	13.09	12.85
26	13.25	12.74	12.40	12.72	12.97	13.32	13.60	14.93	13.84	13.38	13.08	12.85
27	13.40	12.31	12.86	12.43	12.70	13.08	13.65	14.97	13.82	13.36	13.07	12.84
28	13.48	12.00	12.74	12.68	12.92	12.65	13.65	14.99	13.80	13.35	13.05	12.82
29	13.55	12.17	12.54	13.02	---	13.45	13.71	15.00	13.77	13.33	13.04	12.81
30	13.63	12.00	13.42	13.15	---	13.54	13.43	15.01	13.75	13.31	13.03	12.81
31	13.69	---	12.89	12.27	---	13.09	---	15.16	---	13.30	13.00	---
MEAN	12.93	12.88	12.45	13.09	12.93	13.30	13.52	14.25	13.79	13.52	13.14	12.90
MAX	13.69	14.54	13.63	14.28	13.48	14.29	14.70	15.16	14.41	13.74	13.28	13.00
MIN	12.24	11.97	11.61	12.18	12.35	12.65	12.76	13.47	13.60	13.30	13.00	12.81

WTR YR 1991 MEAN 13.23 MAX 15.16 MIN 11.61

04199175 LAKE ERIE AT RUGGLES BEACH, OH

LOCATION.--Lat 41°22'59", long 82°28'22", Erie County, Hydrologic Unit 04100012, on left bank, at mouth of Cranberry Creek, at Ruggles Beach, 4.5 mi east of Huron.

PERIOD OF RECORD.--Oct. 29, 1986 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, 17.98 ft Jan. 19, 1987; minimum recorded gage height, 10.98 ft Oct. 18, Nov. 6, 11 and Dec. 4, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 14.94 ft May 17, minimum recorded gage height, 10.98 ft Oct. 18, Nov. 6, 11, and Dec. 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.91	12.87	11.90	13.27	13.22	13.28	13.44	13.79	14.05	13.94	13.30	13.65
2	---	12.72	12.76	13.46	13.07	13.33	13.51	13.78	14.03	13.79	13.42	13.23
3	---	12.73	13.29	13.34	13.13	13.76	13.62	13.88	14.09	13.84	13.41	13.04
4	---	12.95	11.80	13.23	13.16	13.49	13.52	14.04	14.25	13.77	13.42	13.17
5	---	12.90	12.33	13.47	13.24	13.44	13.44	14.10	14.06	13.63	13.42	13.18
6	---	12.32	12.38	13.61	13.39	13.35	13.42	13.45	14.04	13.76	13.47	13.17
7	12.90	12.81	12.61	13.91	13.34	13.13	13.42	13.50	14.05	13.63	13.40	13.11
8	13.20	12.95	12.53	13.79	13.08	13.52	13.47	13.89	13.99	13.72	13.51	13.08
9	13.44	12.80	12.45	13.41	13.04	13.47	13.43	13.92	13.99	13.80	13.48	13.06
10	13.15	12.87	12.66	13.82	13.24	13.53	12.96	13.93	13.91	13.75	13.34	12.93
11	13.02	12.16	12.85	14.02	13.23	13.61	13.55	13.89	13.88	13.73	13.21	13.14
12	13.32	12.78	12.59	13.47	13.22	13.66	13.90	13.82	13.97	13.77	13.38	13.13
13	13.26	12.78	12.54	13.46	13.49	14.18	13.76	13.85	14.04	13.82	13.31	13.09
14	13.06	12.67	12.84	13.10	13.27	13.80	13.72	13.85	13.97	13.77	13.18	13.08
15	12.71	12.54	12.74	13.51	13.12	13.53	13.15	13.92	13.83	13.71	13.19	12.90
16	13.13	12.47	12.46	13.58	12.55	13.53	13.49	13.85	13.89	13.67	13.12	12.85
17	12.91	12.95	12.85	13.13	12.99	13.62	13.60	13.90	14.03	13.57	12.90	12.91
18	11.99	12.87	12.62	12.59	13.44	13.42	13.66	14.31	14.07	13.57	13.22	12.75
19	12.90	12.79	12.81	13.09	13.20	13.38	14.08	14.12	13.97	13.56	13.50	12.94
20	13.11	12.79	13.02	13.58	13.13	13.60	14.29	13.88	13.97	13.52	13.86	12.93
21	12.90	12.75	12.97	13.79	13.15	13.60	14.04	13.86	14.01	13.51	13.31	12.88
22	13.16	12.66	12.96	13.34	13.24	13.86	13.71	13.85	14.41	13.53	13.25	12.65
23	13.18	12.25	13.30	12.36	13.58	13.51	13.80	13.85	14.18	13.48	13.38	12.32
24	13.08	12.35	12.33	13.10	13.34	13.19	13.83	13.78	13.97	13.48	13.56	13.03
25	13.30	12.49	12.20	13.24	13.34	13.50	13.95	13.83	13.89	13.51	13.40	12.76
26	13.08	12.97	12.77	13.01	13.32	13.64	13.96	13.89	13.85	13.58	13.26	12.38
27	12.59	12.55	13.22	12.80	13.03	13.25	14.00	13.88	13.76	13.55	13.23	12.58
28	12.70	12.19	13.07	13.02	13.29	12.72	14.00	13.92	13.72	13.57	13.26	12.68
29	12.93	12.42	12.79	13.40	---	13.73	13.99	13.92	13.76	13.50	13.28	12.70
30	12.70	12.22	13.43	13.46	---	13.61	13.70	13.88	13.81	13.39	13.21	12.57
31	12.99	---	13.17	12.41	---	13.43	---	13.87	---	13.45	13.48	---
MEAN	---	12.65	12.72	13.32	13.21	13.51	13.68	13.88	13.98	13.64	13.34	12.93
MAX	---	12.97	13.43	14.02	13.58	14.18	14.29	14.31	14.41	13.94	13.86	13.65
MIN	---	12.16	11.80	12.36	12.55	12.72	12.96	13.45	13.72	13.39	12.90	12.32

04199287 VERMILION RIVER NEAR FITCHVILLE, OH

LOCATION.--Lat 41°07'52", long 82°28'13, Huron County, Hydrologic Unit 04100012, on left bank upstream side of Prospect Road Bridge, 2.6 mi north of Fitchville.

DRAINAGE AREA.--112 mi^2.

PERIOD OF RECORD.--May 1987 to September 1989 and October 1990 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 903 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 21 to Feb. 4 and Apr. 8-10. Records fair. Sediment data collected at this site 1957 to 1989

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,900 ft^3/s July 2, 1987, gage height, 14.80 ft; (from flood mark), from drainage area adjustment of slope-area estimate of flow at Fitchville; minimum daily no flow July 8-10, 13-18, 1988, Aug. 2, 6-8, Sept. 2, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 4,720 ft^3/s Dec. 30, gage height 13.08 ft; minimum daily discharge no flow Aug. 2, 6-8, Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	24	28	426	45	70	45	47	148	1.5	.01	.02
2	1.6	22	25	236	50	84	40	39	80	2.1	.00	.00
3	1.7	20	709	166	70	89	37	33	181	2.5	.01	.02
4	40	18	2490	117	200	78	36	29	76	2.1	.03	132
5	265	20	470	105	677	86	35	27	38	1.8	.02	33
6	81	59	214	93	310	521	38	37	25	1.6	.00	8.1
7	41	55	191	84	279	1070	37	43	18	1.4	.00	3.5
8	27	35	142	75	191	251	42	29	14	1.1	.00	1.9
9	39	28	102	70	135	149	50	24	12	.92	.04	1.7
10	724	43	86	64	106	116	70	22	9.4	.60	.08	1.9
11	339	72	70	85	85	92	60	20	12	.35	.09	6.1
12	186	48	59	389	61	78	40	18	188	.27	.08	4.9
13	330	36	51	190	62	71	36	22	84	1.6	.07	2.3
14	220	29	41	126	95	65	48	162	37	1.8	5.0	1.3
15	123	26	170	112	96	56	127	62	22	1.2	2.8	.83
16	78	26	319	449	84	49	161	32	17	.80	1.1	.97
17	57	26	136	564	76	46	102	23	34	.48	.66	1.6
18	109	31	585	228	71	77	98	18	17	.33	1.4	1.0
19	203	30	1290	139	963	175	113	15	11	.26	4.5	.69
20	92	26	310	135	1170	134	671	14	8.0	.16	3.9	.46
21	63	24	336	130	307	91	407	12	6.0	.10	3.3	.39
22	195	38	1090	100	197	76	299	11	5.0	.15	2.1	.33
23	329	192	1840	78	133	102	176	9.8	4.0	.83	1.3	.64
24	133	112	1140	68	99	108	151	11	3.3	1.0	.54	.70
25	84	72	251	47	84	80	139	11	2.8	.45	.39	.61
26	61	54	169	43	70	68	103	51	2.4	.31	.30	.49
27	47	46	102	41	57	74	85	117	2.3	.19	.17	.49
28	37	42	104	40	55	130	72	57	2.1	.11	.10	.49
29	31	38	491	39	---	86	64	31	2.0	.08	.07	.41
30	27	32	3380	39	---	62	60	21	1.8	.05	.05	.40
31	25	---	2700	40	---	50	---	266	---	.03	.05	---
TOTAL	3991.5	1324	19091	4518	5828	4284	3442	1313.8	1063.1	26.17	28.16	207.24
MEAN	129	44.1	616	146	208	138	115	42.4	35.4	.84	.91	6.91
MAX	724	192	3380	564	1170	1070	671	266	188	2.5	5.0	132
MIN	1.6	18	25	39	45	46	35	9.8	1.8	.03	.00	.00

WTR YR 1991 TOTAL 45116.97 MEAN 124 MAX 3380 MIN .00

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^2.

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. 27-Feb. 2, Feb. 17. Records good except for discharges greater than 1,000 ft^3/s and for periods of estimated record, which are fair. 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.--47 years, 333 ft←/s, 11.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,700 ft^3/s July 6, 1969, gage height, 26.4 ft, (from flood mark), from rating curve extended above 13,000 ft^3/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^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 4	1330	4,230	9.49	Dec. 31	0900	*13,600	*17.03
Dec, 19	1530	3,700	8.85	Feb. 20	0900	6,190	11.58
Dec, 23	1800	6,260	11.65	Mar. 7	0330	4,480	9.79

Minimum daily discharge, 3.5 ft^3/s Aug. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	71	87	4380	110	204	129	114	134	6.9	5.3	6.0
2	31	65	79	796	130	275	109	92	170	6.1	4.8	5.1
3	24	59	946	485	181	292	93	74	105	6.1	4.5	4.4
4	194	59	4010	313	665	293	86	65	66	13	7.6	37
5	560	74	2450	253	2360	361	85	76	57	8.4	5.6	33
6	398	88	725	244	1800	2530	81	213	44	8.3	4.1	21
7	172	103	476	203	964	4340	84	306	32	7.0	3.5	13
8	99	124	369	185	818	2110	81	153	25	10	4.2	13
9	194	111	292	185	512	626	88	99	21	14	9.8	10
10	1290	110	238	170	360	423	110	75	18	7.9	5.3	10
11	1270	138	200	212	280	336	131	62	26	6.2	4.1	9.5
12	844	166	172	872	209	273	124	54	21	5.0	3.8	7.7
13	1570	131	154	863	215	234	99	98	63	6.6	3.6	6.3
14	1180	102	131	437	954	206	105	403	66	6.4	3.6	6.2
15	533	83	306	323	688	172	279	906	37	4.4	4.6	5.2
16	294	74	885	896	393	151	730	269	32	5.0	5.3	4.6
17	186	88	637	1930	340	135	780	139	21	5.6	8.9	8.7
18	271	120	1070	1150	385	147	662	87	16	6.1	9.7	8.2
19	456	144	3480	508	2540	208	552	68	14	5.7	6.8	6.8
20	374	123	2080	372	5680	374	1770	54	13	5.4	50	57
21	218	100	839	425	2240	292	1530	45	12	5.6	34	12
22	412	160	2730	336	878	210	1380	39	11	21	18	7.9
23	1030	605	5300	304	547	292	828	33	10	6.3	11	14
24	627	536	5640	267	365	338	490	37	9.4	6.9	8.5	7.1
25	328	321	1680	200	284	282	476	35	9.1	5.7	7.6	9.1
26	215	208	536	160	237	225	342	79	8.5	9.4	7.2	7.1
27	157	159	384	140	195	193	239	83	7.8	7.7	6.5	5.4
28	121	135	344	120	169	471	189	97	6.7	6.7	6.1	5.1
29	100	117	921	110	---	368	158	81	6.2	5.7	5.8	4.5
30	87	99	8560	100	---	215	136	81	6.0	5.3	4.8	4.2
31	79	---	12700	90	---	157	---	131	---	5.7	5.4	---
TOTAL	13350	4473	58421	17029	24499	16733	11946	4148	1067.7	230.1	270.0	349.1
MEAN	431	149	1885	549	875	540	398	134	35.6	7.42	8.71	11.6
MAX	1570	605	12700	4380	5680	4340	1770	906	170	21	50	57
MIN	24	59	79	90	110	135	81	33	6.0	4.4	3.5	4.2
CFSM	1.09	.38	4.76	1.39	2.21	1.36	1.01	.34	.09	.02	.02	.03
IN.	1.25	.42	5.49	1.60	2.30	1.57	1.12	.39	.10	.02	.03	.03

CAL YR 1990 TOTAL 196435.3 MEAN 538 MAX 12700 MIN 8.0 CFSM 1.36 IN. 18.45
WTR YR 1991 TOTAL 152515.9 MEAN 418 MAX 12700 MIN 3.5 CFSM 1.06 IN. 14.33

04201500 ROCKY RIVER NEAR BEREA, 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^2.

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. 22 to Feb. 4. Records good except those for periods of estimated record which are fair. Some regulation at low flow by small reservoirs on East Branch. Some interbasin 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.--60 years, 276 ft^3/s, 14.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft^3/s Jan. 22, 1959, gage height, 14.10 ft, from rating curve extended above 11,000 ft^3/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^3/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^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 4	0100	4,080	4.64	Dec. 30	1930	*14,500	*8.94
Dec. 19	0030	5,270	5.21	Feb. 20	0200	5,980	5.52
Dec. 23	1130	8,540	6.57	Mar. 6	2400	5,940	5.50

Minimum daily discharge, 13 ft^3/s Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	100	102	965	150	319	154	143	202	28	16	35
2	89	98	93	521	190	371	146	122	121	25	15	25
3	71	93	1180	379	250	352	126	109	105	24	13	21
4	725	90	2520	267	900	591	112	98	66	30	24	281
5	814	110	582	238	1830	689	146	194	51	24	30	207
6	231	335	346	259	925	3550	202	573	42	22	20	66
7	136	231	307	245	685	3680	161	233	39	17	17	36
8	110	153	248	202	481	775	141	133	36	33	18	28
9	244	132	191	198	336	445	236	109	37	40	48	24
10	1620	291	165	188	261	378	642	101	34	40	33	29
11	939	288	152	291	215	338	326	88	67	28	25	32
12	844	193	139	1160	160	271	194	79	115	24	23	34
13	1840	160	131	559	250	240	199	124	89	34	20	26
14	612	130	120	351	1180	215	389	415	52	46	18	22
15	314	115	473	303	611	192	1400	162	40	38	17	22
16	202	111	697	1160	334	170	815	93	42	29	16	20
17	154	283	299	1520	356	159	1170	78	37	23	19	32
18	230	356	1910	646	341	250	676	63	32	18	72	26
19	408	195	3300	369	3480	600	504	53	31	17	87	25
20	219	151	659	349	3720	415	1080	48	30	16	78	44
21	156	129	951	427	1020	260	1190	44	28	15	145	28
22	576	337	2700	250	752	241	1160	46	26	34	97	22
23	753	891	6210	200	492	557	554	43	25	49	44	57
24	336	375	2190	170	344	614	559	61	24	76	29	39
25	481	234	586	150	287	406	556	83	24	59	24	37
26	256	179	436	140	247	274	316	96	25	31	21	39
27	185	158	376	130	211	254	247	169	24	22	19	29
28	149	147	347	125	217	478	207	130	23	19	18	24
29	129	131	1410	120	---	252	184	81	22	18	17	21
30	116	112	11700	120	---	186	172	77	21	17	36	21
31	107	---	7020	130	---	157	---	410	---	16	92	---
TOTAL	13173	6308	47540	12132	20225	17679	13964	4258	1510	912	1151	1352
MEAN	425	210	1534	391	722	570	465	137	50.3	29.4	37.1	45.1
MAX	1840	891	11700	1520	3720	3680	1400	573	202	76	145	281
MIN	71	90	93	120	150	157	112	43	21	15	13	20
CFSM	1.59	.79	5.74	1.47	2.71	2.14	1.74	.51	.19	.11	.14	.17
IN.	1.84	.88	6.62	1.69	2.82	2.46	1.95	.59	.21	.13	.16	.19

CAL YR 1990 TOTAL 177137 MEAN 485 MAX 11700 MIN 29 CFSM 1.82 IN. 24.68
WTR YR 1991 TOTAL 140204 MEAN 384 MAX 11700 MIN 13 CFSM 1.44 IN. 19.53

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^2.

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.--No estimated daily discharges. 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.--55 years, 211 ft^3/s, 18.98 in/yr, unadjusted.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft^3/s Dec. 31, gage height, 6.52 ft; minimum daily, 17 ft^3/s Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	203	194	2360	344	141	204	237	62	78	55	23
2	70	198	182	1840	281	165	190	222	64	79	44	22
3	58	192	214	1350	292	204	179	197	55	79	38	27
4	85	188	381	994	326	257	167	157	47	79	35	31
5	142	187	488	732	385	265	160	138	41	81	22	32
6	153	205	548	599	445	335	174	156	34	64	32	32
7	151	227	502	513	493	650	191	116	30	34	35	61
8	132	262	427	438	487	881	192	92	27	36	36	73
9	143	292	355	402	453	826	208	93	24	51	37	73
10	399	327	299	369	412	620	353	112	23	47	39	76
11	447	344	254	357	363	454	454	101	22	65	39	85
12	523	353	221	394	321	334	501	66	29	75	37	80
13	652	351	203	413	286	247	461	51	37	75	35	73
14	689	306	188	413	280	192	407	61	32	55	35	69
15	673	323	188	402	299	173	384	65	27	40	35	66
16	579	308	205	454	280	173	419	53	25	33	34	65
17	480	323	225	578	282	167	507	47	28	31	33	65
18	434	327	340	649	284	166	522	42	29	30	76	63
19	421	327	520	615	320	185	474	38	27	30	113	63
20	391	297	631	547	494	209	479	36	24	29	128	62
21	366	240	648	492	604	223	547	34	23	28	141	61
22	353	209	648	450	607	233	630	33	22	30	145	59
23	341	212	765	398	515	251	618	31	21	33	145	62
24	323	220	930	364	416	298	557	31	21	40	102	63
25	305	232	910	341	323	359	480	59	20	42	54	63
26	283	240	740	351	243	409	414	74	19	40	40	38
27	257	239	572	308	188	396	356	86	38	39	38	25
28	229	226	482	281	152	348	312	93	59	38	32	22
29	209	212	505	275	---	304	280	76	70	37	28	19
30	201	205	1350	285	---	264	256	59	75	38	26	17
31	203	---	2350	293	---	226	---	60	---	43	25	---
TOTAL	9776	7775	16465	18257	10175	9955	11076	2716	1055	1499	1714	1570
MEAN	315	259	531	589	363	321	369	87.6	35.2	48.4	55.3	52.3
MAX	689	353	2350	2360	607	881	630	237	75	81	145	85
MIN	58	187	182	275	152	141	160	31	19	28	22	17
CFSM	2.09	1.72	3.52	3.90	2.41	2.13	2.45	.58	.23	.32	.37	.35
IN.	2.41	1.92	4.06	4.50	2.51	2.45	2.73	.67	.26	.37	.42	.39

CAL YR 1990 TOTAL 107481 MEAN 294 MAX 2350 MIN 29 CFSM 1.95 IN. 26.48
WTR YR 1991 TOTAL 92033 MEAN 252 MAX 2360 MIN 17 CFSM 1.67 IN. 22.67

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^2.

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 71 ft^3/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 03117000 in volume 1 of this report). Sediment data collected at this site 1972-1981.

AVERAGE DISCHARGE.--66 years, 433 ft^3/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,300 ft^3/s Dec. 30, gage height, 10.28 ft; minimum daily, 61 ft^3/s Sept. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	389	470	407	3820	636	545	442	484	159	76	66	70
2	379	429	411	3660	638	541	420	456	145	74	65	64
3	367	458	827	3030	673	655	388	419	127	80	67	83
4	736	410	1290	2340	748	957	378	389	119	80	82	355
5	598	466	1210	1780	883	959	446	379	110	96	67	114
6	539	571	933	1540	965	1450	415	452	103	75	65	80
7	529	536	942	1280	1070	2010	399	384	90	130	66	70
8	483	515	907	1090	1070	1780	414	327	88	740	76	67
9	657	529	777	1010	1020	1680	548	263	83	180	135	136
10	1570	604	652	918	925	1600	595	240	81	131	76	141
11	1800	662	644	994	822	1290	635	243	98	99	69	81
12	1900	645	543	1200	700	988	724	233	105	90	66	71
13	2050	627	490	1140	645	788	823	221	89	89	77	67
14	1790	612	419	1050	803	632	848	275	85	86	122	66
15	1430	589	632	1030	778	538	1070	279	83	82	81	66
16	1300	580	604	1220	639	484	1070	263	83	80	76	66
17	1220	641	577	1470	592	467	1180	206	91	81	263	68
18	1520	631	1280	1380	643	492	1150	172	94	80	227	65
19	1260	597	1750	1340	1290	531	1140	155	91	78	109	67
20	996	573	1530	1310	1720	534	1160	142	88	75	127	62
21	838	546	1450	1230	1590	515	1130	139	85	75	159	62
22	966	595	1580	1010	1480	524	1140	129	73	87	115	61
23	981	567	2230	845	1370	717	1110	125	72	144	116	86
24	809	586	2120	806	1120	759	1130	124	74	115	82	69
25	745	549	1810	701	916	737	1020	125	73	82	69	83
26	717	482	1620	644	757	731	876	124	76	71	69	72
27	715	448	1290	600	618	757	754	120	83	69	68	70
28	616	495	1070	648	565	708	650	154	81	65	69	69
29	555	471	1220	631	---	626	593	141	71	66	67	68
30	485	430	3590	825	---	547	520	193	76	66	66	69
31	434	---	4050	756	---	479	---	267	---	66	97	---
TOTAL	29374	16314	38855	41298	25676	26021	23168	7623	2776	3408	2959	2568
MEAN	948	544	1253	1332	917	839	772	246	92.5	110	95.5	85.6
MAX	2050	662	4050	3820	1720	2010	1180	484	159	740	263	355
MIN	367	410	407	600	565	467	378	120	71	65	65	61

CAL YR 1990 TOTAL 253712 MEAN 695 MAX 4050 MIN 98
WTR YR 1991 TOTAL 220040 MEAN 603 MAX 4050 MIN 61

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^2.

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. 24 to Dec. 18, Dec. 26-28, Jan. 23-30. Records fair except for estimated daily discharges, which are poor. Water-quality data collected at this site 1965 to 1977. Sediment data collected at this site 1974 to 1979.

AVERAGE DISCHARGE.--28 years (1963-91), 132 ft^3/s, 21.37 in/yr.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 12	1730	1,540	6.09	Feb. 19	1700	1,560	6.11
Dec. 18	1600	1,790	6.33	Mar. 6	1930	2,230	6.71
Dec. 23	0630	2,540	6.95	May 13	2230	1,530	6.08
Dec. 30	0430	*4,030	*8.05				

Minimum daily discharge, 15 ft^3/s June 9 and Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	66	62	924	114	182	78	85	57	31	21	17
2	58	62	60	315	112	204	80	68	25	27	21	15
3	41	60	350	186	181	175	72	57	23	24	19	19
4	330	56	800	144	275	279	67	50	21	21	18	197
5	267	100	440	132	342	368	107	86	20	22	18	58
6	125	230	190	150	241	1150	95	122	19	31	21	31
7	71	110	160	132	211	937	75	74	18	21	21	22
8	60	88	130	116	168	518	86	54	17	109	23	19
9	265	80	110	116	133	186	280	48	15	49	61	19
10	649	190	100	114	116	159	673	50	16	28	27	86
11	947	150	90	182	103	143	216	42	97	24	19	43
12	914	130	80	312	88	124	119	37	59	23	20	30
13	902	110	72	196	136	115	129	187	26	22	21	23
14	606	96	68	141	244	107	239	197	19	29	55	24
15	227	88	250	141	153	97	419	43	17	26	32	20
16	131	84	220	473	146	89	183	32	66	23	25	21
17	112	250	110	444	136	79	392	33	26	22	76	36
18	239	180	1400	236	123	132	197	25	24	21	89	23
19	325	130	891	152	1040	323	350	21	24	21	37	27
20	197	100	550	161	899	145	443	22	23	21	291	37
21	122	88	500	152	546	115	310	23	22	19	128	21
22	326	170	585	130	295	154	259	21	20	28	46	19
23	229	240	1270	120	181	354	157	20	19	84	37	58
24	130	120	685	110	133	286	200	81	22	82	25	32
25	170	90	417	100	121	168	152	48	21	36	21	42
26	130	82	300	96	115	122	122	120	21	25	21	49
27	110	76	200	88	109	118	106	70	21	21	22	30
28	90	72	170	82	116	123	250	175	21	18	21	22
29	84	68	575	76	---	98	264	46	19	20	21	19
30	78	64	2920	90	---	83	101	66	66	22	24	20
31	72	---	1920	120	---	72	---	78	---	22	35	---
TOTAL	8087	3430	15675	5931	6577	7205	6221	2081	864	972	1316	1079
MEAN	261	114	506	191	235	232	207	67.1	28.8	31.4	42.5	36.0
MAX	947	250	2920	924	1040	1150	673	197	97	109	291	197
MIN	41	56	60	76	88	72	67	20	15	18	18	15
CFSM	.03	.01	.06	.02	.03	.03	.02	.01	.00	.00	.01	.00
IN.	.04	.02	.07	.03	.03	.03	.03	.01	.00	.00	.01	.00

CAL YR 1990 TOTAL 74702 MEAN 205 MAX 2920 MIN 11 CFSM .02 IN. .33
WTR YR 1991 TOTAL 59438 MEAN 163 MAX 2920 MIN 15 CFSM .02 IN. .27

STREAMS TRIBUTARY TO LAKE ERIE

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^2.

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., 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: Jan. 9-10, 13-17, Feb. 5-12, Apr. 24-29, Aug. 9-28. Records fair except for periods of estimated daily discharge, which are poor. 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^3/s, when channels merge.

AVERAGE DISCHARGE.--60 years (1921-22, 1927-35, 1940-91), 844 ft^3/s, not including flow in Ohio Canal.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,000 ft^3/s Dec. 30, gage height, 21.77 ft; minimum daily, 84 ft^3/s June 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	641	695	638	6580	943	1140	685	783	368	173	154	228
2	578	691	628	5540	947	1190	663	755	249	135	150	155
3	535	644	2550	3760	1240	1110	617	687	222	97	148	152
4	1740	649	3740	2840	1550	1850	589	629	193	98	157	992
5	1450	697	2400	2140	2000	1950	748	616	173	112	173	442
6	958	1430	1680	2030	2300	4380	725	922	169	107	150	264
7	798	966	1480	1750	1800	5610	646	687	149	92	148	212
8	752	857	1410	1420	1600	2990	657	561	139	1030	155	185
9	1090	816	1230	1300	1300	2160	1060	478	133	481	400	176
10	4110	1290	1090	1200	1200	2040	2570	434	129	278	280	454
11	3810	1130	1040	1340	1000	1770	1170	401	248	219	220	307
12	3590	1140	929	2380	900	1390	1010	393	315	185	190	221
13	4870	999	845	2000	1020	1170	1330	600	151	185	230	190
14	3270	931	753	1600	1710	1010	1940	979	123	202	330	181
15	2270	892	1390	1300	1360	876	3920	471	112	177	250	178
16	1820	855	1390	3000	1070	777	1780	427	145	189	210	172
17	1670	1580	1070	3500	1020	733	3420	390	119	186	700	214
18	2280	1190	3820	2040	1030	960	1870	303	121	185	600	187
19	2320	1020	5030	1760	3860	1480	2430	267	118	183	350	189
20	1680	912	3040	1780	4490	1050	4120	245	114	180	300	197
21	1300	875	2970	1730	2950	894	3410	227	111	178	430	174
22	2010	1220	3870	1360	2330	967	2670	219	104	214	320	165
23	1830	1640	6830	1150	1940	1620	1660	207	97	343	270	261
24	1410	1080	4270	1060	1600	1570	2000	307	84	501	220	246
25	1450	976	2920	941	1330	1260	1800	260	105	257	200	255
26	1260	863	2320	868	1140	1080	1600	400	161	188	190	254
27	1130	740	1940	833	995	1080	1300	374	154	163	180	231
28	991	770	1690	870	921	1100	1100	464	164	151	180	198
29	888	744	2800	939	---	944	970	331	148	145	170	186
30	802	691	12200	1140	---	829	882	288	193	145	184	190
31	730	---	10400	1170	---	739	---	577	---	154	231	---
TOTAL	54033	28983	88363	61321	45546	47719	49342	14682	4811	6933	7870	7456
MEAN	1743	966	2850	1978	1627	1539	1645	474	160	224	254	249
MAX	4870	1640	12200	6580	4490	5610	4120	979	368	1030	700	992
MIN	535	644	628	833	900	733	589	207	84	92	148	152

CAL YR 1990 TOTAL 510225 MEAN 1398 MAX 12200 MIN 125
WTR YR 1991 TOTAL 417059 MEAN 1143 MAX 12200 MIN 84

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 September 1991 (discontinued).
pH: February 1973 to September 1991 (discontinued).
WATER TEMPERATURES: October 1948 to September 1949, October 1952 to September 1991 (discontinued).
DISSOLVED OXYGEN: July 1965 to September 1991 (discontinued).
CHLORIDE: October 1987 to current year.
NITROGEN, NITRITE + NITRATE: October 1987 to current year.
NITROGEN, AMMONIA + ORGANIC: October 1987 to current year.
PHOSPHORUS: October 1987 to current year.
SUSPENDED SEDIMENT DISCHARGE: Water years 1950-74, December 1976 to September 1984, October 1987 to current year.

INSTRUMENTATION.--Alcohol-actuated thermograph October 1956 to June 1965, water-quality monitor since July 1965 and and a refrigerated water-quality pumping sampler since October 1987. Digital recorder set for one-hour-interval punches since August 1967.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Sediment samples were collected by a local observer on an approximate once daily basis. Chemical loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was sub-divided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations. Concentrations reported as below the limit of detection (for example, <.20) were assumed to have a value of half of the detection limit for the purpose of load calculation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens Feb. 12, 1977; minimum, 149 microsiemens Nov. 23, 1974.
pH: Maximum, 9.1 units July 8, 9, 10, 1988; 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.
DISSOLVED OXYGEN: Maximum, 17.5 mg/L Mar. 27, 1990; minimum, 0.0 mg/L Oct. 23, 1965, Feb. 10-12, June 23, July 26, 1966.
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 310 mg/L Jan. 7, 1989, Jan. 31, 1990; minimum daily mean, 21 mg/L Aug. 25, 1989.
DISSOLVED CHLORIDE LOADS: Maximum daily, 2,290 tons Feb. 19, 1991; minimum daily, 10.2 tons, Aug. 27, 1989.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 9.81 mg/L July 11, 1988; minimum daily mean, .311 mg/L Jan. 21, 1988.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 28 tons Sept. 7, 1990; minimum daily, .21 ton Aug. 27, 1989.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 4.7 mg/L Sept. 7, 1990; minimum daily mean, <.20 mg/L Feb. 23, 24, 1989, May 2, 3, 1990.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily 130 tons Sept. 7, 1990; minimum daily, .12 ton Aug. 27, 1989.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean 2.27 mg/L July 11, 1988; minimum daily mean .026 mg/L Aug. 27, 1989.
TOTAL PHOSPHORUS LOADS: Maximum daily 54.4 tons Sept. 7, 1990; minimum daily, .012 ton Aug. 27, 1989.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,630 mg/L Sept. 7, 1990; minimum daily mean, 1 mg/L Feb. 12, 13, 1989.
SEDIMENT LOADS: Maximum daily, 45,800 tons May 26, 1989; minimum daily, 1.2 tons Feb. 13, 1989.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 2,370 microsiemens Aug. 4; minimum, 270 microsiemens Jan. 4.
pH: Maximum, 8.9 units June 20, July 20, 21; minimum, 7.4 units Jan. 3, 4.
WATER TEMPERATURES: Maximum, 29.0°C July 7; minimum, 0.5°C Jan. 26.
DISSOLVED OXYGEN: Maximum, 16.0 mg/L June 20; minimum, 4.7 mg/L June 26.
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 260 mg/L Feb. 18, 19; minimum daily mean, 32 mg/L Oct. 13.
DISSOLVED CHLORIDE LOADS: Maximum daily, 2,290 tons Feb. 19; minimum daily, 31.2 tons June 24.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 5.38 mg/L Sept. 24; minimum daily mean, .546 mg/L Dec. 30.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 17 tons Dec. 30, 31; minimum daily, .85 ton July 7.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 3.2 mg/L Apr. 10; minimum daily mean, .42 mg/L Feb. 12.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 73.6 tons Dec. 30; minimum daily, .16 ton June 24.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, .882 mg/L Dec. 30; minimum daily mean, .054 mg/L Apr. 2.
TOTAL PHOSPHORUS LOADS: Maximum daily, 28.0 tons Dec. 30; minimum daily, .045 ton Sept. 16.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 771 mg/L Apr. 10; minimum daily mean, 3 mg/L Dec. 2.
SEDIMENT LOADS: Maximum daily, 18,400 tons Dec. 30; minimum daily, 4.2 tons July 3, Sept. 22.

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
11...	1015	1030	562	8.0	2.0	1.5	6.9	12.7	92	K2400	440
MAR											
27...	1130	1080	660	8.0	18.0	13.0	6.6	10.5	103	7500	1700
JUN											
26...	1030	151	991	8.6	26.5	24.0	4.4	8.2	99	320	150
SEP											
17...	1400	238	920	8.4	29.5	25.5	0.50	8.6	107	1200	150

DATE	HARD-NESS TOTAL (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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
11...	190	56	13	41	3.9	147	0	121	49	61	0.30
MAR											
27...	190	56	13	55	3.6	147	0	121	56	89	0.30
JUN											
26...	280	81	19	92	6.5	188	2	161	110	150	0.60
SEP											
17...	260	74	18	88	7.5	180	2	154	120	140	0.70

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	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 TOTAL (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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
DEC											
11...	7.3	319	0.020	1.50	0.220	0.200	1.0	0.100	0.030	0.020	10
MAR											
27...	4.6	362	0.050	1.50	0.150	0.130	0.90	0.080	0.040	<0.010	<10
JUN											
26...	3.2	594	0.030	4.70	0.030	0.010	1.5	0.290	0.200	0.160	<10
SEP											
17...	6.4	524	0.030	4.90	0.030	0.020	1.3	0.110	0.090	0.070	10

DATE	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)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
DEC										
11...	1	37	<0.5	<1.0	<1	<3	2	120	<1	8
MAR										
27...	<1	37	<0.5	<1.0	<1	<3	1	29	<1	8
JUN										
26...	2	45	0.5	<1.0	<1	<3	4	100	<1	15
SEP										
17...	1	42	<0.5	<1.0	<1	<3	3	10	<1	18

DATE	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)	SEDI-MENT, SUS-PENDED (MG/L)
DEC										
11...	67	<0.1	<10	3	<1	<1.0	150	<6	12	24
MAR										
27...	54	<0.1	<10	2	<1	<1.0	160	<6	16	25
JUN										
26...	34	<0.1	10	3	<1	<1.0	220	<6	15	83
SEP										
17...	22	<0.1	<10	3	<1	<1.0	210	<6	10	28

K Results based on colony count outside the acceptable range.

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

REVISIONS.--The alachlor concentrations for water year 1988 have been revised, as shown in the following table. They supersede figures published in the report for 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Nov. 02	1615	<.1	Apr. 05	--	<.1	July 27	--	<.1
Nov. 10	1330	<.1	May 09	--	<.1	Aug. 07	--	<.1
Dec. 08	1230	<.1	May 16	--	<.1	Aug. 15	--	<.1
Dec. 30	--	<.1	May 23	--	<.1	Aug. 29	--	<.1
Jan. 11	1330	<.1	June 01	--	<.1	Sept. 06	--	<.1
Feb. 01	--	<.1	June 07	--	<.1	Sept. 12	--	<.1
Feb. 29	--	<.1	June 13	--	<.1	Sept. 20	--	<.1
Mar. 14	--	<.1	June 21	--	<.1	Sept. 26	--	<.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Jan. 13	2120	<.1	June 13	0915	<.1	Aug. 14	--	<.1
Apr. 03	1605	<.1	June 26	1535	<.1	Aug. 17	0900	<.1
Apr. 04	0800	<.1	July 09	1220	<.1	Aug. 20	0830	<.1
May 18	0915	<.1	July 15	--	<.1	Aug. 28	1710	<.1
May 21	--	<.1	July 23	--	<.1	Sept. 10	1730	<.1
June 04	--	<.1	Aug. 03	--	<.1			
June 12	--	<.1	Aug. 07	1300	<.1			

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 02	1645	<.1	Jan. 16	1630	<.1	May 30	2000	<.1
Oct. 23	1630	<.1	Jan. 23	1640	<.1	July 30	0900	<.1
Nov. 06	1630	<.1	Feb. 05	1645	<.1	Aug. 07	--	<.1
Nov. 13	1600	<.1	Mar. 12	1455	<.1	Aug. 14	--	<.1
Dec. 02	--	<.1	May 01	1704	<.1	Sept. 15	0900	<.1
Dec. 09	--	<.1	May 09	1630	<.1			

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	693	657	676	849	750	789	660	645	649	339	330	333
2	714	657	690	1010	774	897	660	636	649	336	312	322
3	720	693	708	1050	882	960	663	375	537	336	321	325
4	714	447	600	906	768	858	441	366	395	375	270	346
5	540	444	507	759	672	735	660	444	505	453	375	394
6	585	546	567	681	573	620	759	645	708	744	468	651
7	621	585	606	639	576	616	645	570	606	681	501	591
8	627	597	615	654	627	645	570	525	544	---	---	---
9	657	495	627	642	621	636	546	531	538	---	---	---
10	471	363	390	636	567	610	561	543	555	588	564	580
11	447	384	416	591	561	575	576	540	561	1140	570	692
12	426	354	403	609	573	592	588	549	576	1100	738	903
13	396	342	366	594	573	585	621	579	603	744	657	682
14	414	396	400	615	585	600	645	597	627	690	630	664
15	444	417	427	615	597	605	711	606	651	654	609	631
16	459	435	445	621	594	610	606	576	593	786	642	689
17	465	447	456	618	528	569	624	591	609	651	609	625
18	522	408	475	561	531	547	621	348	516	603	546	566
19	459	411	439	591	558	579	402	345	382	552	528	541
20	480	453	462	600	576	592	429	390	403	564	534	545
21	507	489	501	615	591	605	456	381	435	786	570	647
22	537	456	500	618	498	591	414	390	403	972	798	905
23	504	474	485	543	492	511	408	279	328	870	804	827
24	516	498	503	585	516	555	582	360	473	798	699	735
25	537	495	524	606	561	591	585	471	521	714	654	678
26	567	540	556	606	591	599	471	438	451	678	654	667
27	570	549	561	657	600	629	---	---	---	759	657	702
28	591	561	581	648	636	641	---	---	---	885	729	780
29	603	579	596	654	636	648	---	---	---	1120	888	1030
30	663	594	636	660	636	649	558	324	367	1190	960	1050
31	777	645	726	---	---	---	339	324	331	1470	1170	1340
MONTH	777	342	530	1050	492	641	759	279	518	1470	270	670
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1150	957	1050	---	---	---	702	663	684	672	630	655
2	1020	888	933	---	---	---	711	690	704	687	657	675
3	1120	984	1020	---	---	---	717	702	711	690	660	678
4	1060	825	913	---	---	---	735	705	721	702	681	692
5	807	720	750	---	---	---	777	720	748	732	684	699
6	723	684	704	---	---	---	777	723	744	723	651	688
7	759	711	732	---	---	---	747	732	740	714	648	679
8	714	654	683	---	---	---	765	732	744	732	705	718
9	660	612	640	---	---	---	783	666	752	762	717	736
10	636	603	622	---	---	---	618	456	518	786	756	772
11	672	603	638	---	---	---	654	555	614	807	780	794
12	630	609	621	618	587	601	663	627	650	816	792	805
13	693	621	640	633	618	627	633	615	625	828	441	773
14	873	726	790	660	636	650	630	462	594	804	480	684
15	921	831	871	672	657	666	567	441	529	801	768	780
16	1130	909	1030	702	663	687	576	546	559	828	789	806
17	1260	1060	1120	708	687	699	579	498	533	849	816	832
18	1410	1180	1230	864	699	781	537	519	527	861	831	845
19	---	---	---	870	744	794	573	513	541	873	858	866
20	---	---	---	744	729	738	528	510	520	888	867	875
21	---	---	---	765	723	739	549	525	534	909	885	895
22	---	---	---	762	702	730	567	549	557	921	906	914
23	---	---	---	744	624	683	564	552	559	939	921	927
24	---	---	---	672	627	653	576	543	560	951	648	889
25	---	---	---	663	642	654	549	531	538	942	786	884
26	---	---	---	660	642	655	573	546	562	957	642	872
27	---	---	---	666	636	656	591	567	583	873	726	811
28	1270	825	915	678	633	657	651	579	602	888	600	797
29	---	---	---	654	636	647	594	405	538	900	774	863
30	---	---	---	666	648	659	645	591	626	921	879	898
31	---	---	---	678	648	665	---	---	---	918	822	869
MONTH	1410	603	837	870	587	682	783	405	614	957	441	796

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	846	759	791	1010	897	976	1010	990	998	990	900	958
2	891	852	873	1030	1020	1020	1010	990	998	969	882	933
3	921	894	907	1030	1010	1020	2050	997	1060	960	873	918
4	936	924	929	1030	999	1020	2370	1080	1590	939	603	760
5	954	939	945	1040	1010	1030	1200	1130	1170	732	567	634
6	966	954	960	1050	1000	1040	1160	1030	1100	864	729	797
7	972	957	967	1000	975	989	1200	1040	1110	954	864	900
8	978	957	971	---	---	---	1160	1080	1110	960	903	932
9	978	972	976	822	750	768	1150	1060	1110	975	930	955
10	984	972	978	891	813	839	1130	894	1050	969	795	915
11	984	765	944	903	882	891	959	867	902	801	648	732
12	915	729	859	912	891	904	1070	971	1020	819	750	780
13	945	879	919	924	906	913	1130	1060	1090	942	825	888
14	942	876	905	924	909	917	1130	970	1070	978	915	946
15	981	945	966	933	915	927	1080	911	1030	978	939	960
16	987	915	953	933	915	924	1020	837	907	999	948	974
17	975	876	944	945	930	938	1040	687	988	990	936	962
18	987	972	981	963	942	955	972	564	716	972	924	949
19	990	972	980	963	948	954	---	---	---	927	888	912
20	1030	990	1010	990	951	968	---	---	---	924	867	897
21	1040	1020	1030	993	972	980	---	---	---	921	888	905
22	1040	1010	1020	1010	939	972	---	---	---	948	900	921
23	1060	1030	1040	978	735	884	---	---	---	924	858	889
24	1030	1020	1030	894	795	834	---	---	---	894	846	869
25	1020	999	1010	867	771	831	---	---	---	849	783	815
26	1030	1020	1030	918	861	891	993	936	966	846	774	799
27	1070	1030	1040	969	912	930	1020	942	982	810	765	778
28	1060	1040	1050	987	963	974	1030	981	997	882	795	837
29	1060	1050	1050	1000	975	989	1040	969	997	903	831	864
30	1070	939	1050	1020	987	997	1040	909	990	912	855	873
31	---	---	---	1000	981	992	999	930	973	---	---	---
MONTH	1070	729	970	1050	735	942	2370	564	1040	999	567	875
YEAR	2370	270	755									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.0	15.5	16.5	13.5	11.5	12.5	7.5	6.5	7.0	2.5	2.0	2.5
2	17.0	15.0	16.0	13.0	12.0	12.5	8.0	7.0	7.5	3.0	2.5	2.5
3	16.5	15.0	16.0	14.0	12.5	13.5	7.0	5.5	6.5	3.0	2.5	3.0
4	17.5	16.5	17.0	14.0	13.0	13.5	7.0	5.0	6.5	2.5	2.0	2.0
5	17.0	15.5	16.5	13.0	12.5	13.0	5.0	4.0	4.5	2.5	1.5	2.0
6	18.5	16.5	17.5	12.0	10.5	11.0	5.0	4.0	4.5	3.0	2.5	3.0
7	18.0	17.0	17.5	10.5	10.0	10.0	5.5	5.0	5.0	---	---	---
8	18.0	17.5	18.0	10.0	9.0	9.5	5.0	4.0	4.5	---	---	---
9	18.0	17.0	17.5	9.5	9.0	9.0	4.5	4.0	4.5	---	---	---
10	17.0	16.5	17.0	10.0	9.0	9.5	5.0	4.5	4.5	3.5	3.0	3.5
11	17.0	15.0	15.5	9.0	8.0	8.5	5.5	4.5	5.0	3.5	3.0	3.0
12	14.5	14.0	14.5	8.0	7.0	7.5	6.0	4.5	5.0	3.5	2.5	3.0
13	14.5	14.0	14.5	7.5	7.0	7.0	7.0	6.0	6.5	3.0	2.5	2.5
14	15.5	14.5	15.0	7.5	6.0	7.0	6.5	5.5	5.5	3.0	2.5	3.0
15	15.5	14.5	15.0	9.0	7.0	8.0	6.0	5.0	5.5	3.5	2.5	3.0
16	14.5	13.5	14.0	10.0	8.5	9.5	5.5	5.5	5.5	4.5	3.5	4.0
17	15.5	14.0	14.5	10.0	8.0	9.0	5.5	5.0	5.5	4.5	3.0	4.0
18	15.5	14.0	15.0	8.0	7.0	7.5	7.5	6.0	7.0	3.0	3.0	3.0
19	13.5	12.0	13.0	7.0	6.5	7.0	6.5	5.5	6.0	3.5	2.5	3.0
20	12.5	11.0	12.0	7.5	6.0	7.0	5.5	4.5	5.0	4.0	3.5	4.0
21	13.0	11.5	12.5	8.0	6.5	7.0	7.0	5.0	6.0	3.5	2.0	2.5
22	13.5	13.0	13.0	10.0	8.0	9.0	8.0	7.0	7.5	1.5	1.0	1.5
23	13.5	13.0	13.5	9.5	8.0	8.5	7.5	5.0	6.0	2.5	1.0	1.5
24	13.0	12.0	12.5	8.0	7.0	7.5	5.0	2.5	4.0	2.0	1.5	1.5
25	12.5	11.5	12.0	8.0	7.0	7.5	2.5	2.0	2.0	1.5	1.0	1.0
26	11.5	10.5	11.0	8.0	7.0	7.5	2.0	1.5	2.0	1.5	.5	1.0
27	11.0	9.5	10.5	11.5	8.0	10.0	---	---	---	1.5	1.0	1.5
28	11.0	10.0	10.5	12.0	10.5	11.5	---	---	---	3.0	1.5	2.0
29	10.5	9.5	10.0	10.5	8.0	9.0	---	---	---	3.0	2.0	2.5
30	11.0	9.5	10.5	8.0	7.0	7.5	---	---	---	3.5	2.5	3.0
31	13.0	11.0	12.0	---	---	---	---	---	---	2.5	2.0	2.5
MONTH	18.5	9.5	14.0	14.0	6.0	9.0	8.0	1.5	5.5	4.5	.5	2.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	1.0	1.5	---	---	---	9.5	8.5	9.0	19.0	17.5	18.0
2	3.5	2.0	3.0	---	---	---	9.5	7.5	8.5	17.0	16.0	16.5
3	4.0	3.0	3.0	---	---	---	11.0	7.5	9.0	16.5	14.5	15.5
4	3.5	2.5	3.0	---	---	---	12.5	9.5	11.0	17.0	15.0	16.0
5	4.5	3.5	4.0	---	---	---	14.0	12.0	13.0	18.0	15.5	17.0
6	4.5	4.5	4.5	---	---	---	15.5	12.5	14.0	17.5	15.5	17.0
7	4.5	4.0	4.5	---	---	---	17.0	14.0	15.5	16.5	14.5	15.5
8	4.5	4.0	4.5	---	---	---	17.0	16.0	16.5	17.5	15.0	16.5
9	4.0	3.5	4.0	---	---	---	18.0	16.0	17.0	18.5	16.5	17.5
10	4.5	4.0	4.0	---	---	---	17.0	11.5	14.0	20.0	16.5	18.5
11	4.0	3.0	3.5	---	---	---	12.5	10.5	11.5	21.0	18.5	20.0
12	3.5	2.5	3.0	5.0	3.5	4.0	12.5	10.5	11.5	22.0	19.5	21.0
13	3.5	3.0	3.5	4.5	4.0	4.5	12.5	11.5	12.0	23.5	20.5	22.0
14	3.5	3.0	3.5	6.5	4.5	5.5	11.5	11.0	11.5	23.5	20.5	22.0
15	3.5	1.5	2.5	6.5	5.0	6.0	13.0	11.0	12.0	24.0	21.5	23.0
16	2.0	1.0	1.5	7.0	5.5	6.5	13.5	11.5	12.5	24.5	21.5	23.0
17	2.0	1.0	1.5	7.0	6.0	6.5	14.0	11.5	13.0	24.5	23.0	23.5
18	2.5	2.0	2.5	8.0	7.0	7.5	14.0	12.0	13.0	23.0	19.5	21.0
19	3.0	2.5	3.0	7.5	6.0	7.0	13.5	12.0	12.5	26.5	18.5	21.0
20	---	---	---	9.0	7.0	8.0	12.0	11.0	11.5	21.5	18.5	20.0
21	---	---	---	10.5	8.5	9.5	11.0	10.0	10.5	22.5	19.5	21.0
22	---	---	---	11.0	10.5	10.5	12.0	9.5	10.5	24.0	20.5	22.5
23	---	---	---	13.0	10.5	12.0	12.5	10.5	11.5	24.5	21.5	23.0
24	---	---	---	12.0	9.5	10.5	12.5	11.0	12.0	24.0	22.5	23.5
25	---	---	---	11.0	9.0	10.0	14.0	11.0	12.5	25.0	22.5	23.5
26	---	---	---	10.0	9.0	9.5	13.5	12.5	13.0	24.5	23.0	23.5
27	---	---	---	12.0	9.5	10.5	16.0	13.0	14.5	23.5	22.5	23.0
28	4.0	3.0	3.5	12.5	11.0	11.5	17.5	15.5	16.0	24.0	21.5	23.0
29	---	---	---	11.5	8.5	10.0	18.0	17.0	17.5	26.0	23.0	24.5
30	---	---	---	8.5	7.5	8.0	19.5	17.5	18.5	26.5	24.5	25.5
31	---	---	---	9.0	6.5	8.0	---	---	---	26.0	24.0	25.0
MONTH	4.5	1.0	3.0	13.0	3.5	8.5	19.5	7.5	13.0	26.5	14.5	20.5

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	25.0	25.5	27.0	23.5	25.5	24.5	22.0	23.5	24.5	22.0	23.0
2	25.5	23.0	24.0	27.0	24.5	26.0	25.0	22.5	24.0	22.5	20.5	22.0
3	24.5	21.5	23.5	27.5	25.5	26.5	25.0	23.5	24.5	23.5	21.0	22.0
4	24.0	22.0	23.0	27.0	25.5	26.5	25.0	23.5	24.5	23.0	21.5	22.0
5	22.5	20.5	21.5	27.0	25.5	26.0	24.0	22.5	23.5	21.5	20.0	21.0
6	22.5	19.5	21.0	27.0	24.5	26.0	23.0	21.0	22.0	22.0	19.5	20.5
7	22.5	19.5	21.0	29.0	26.0	27.5	23.5	20.5	22.0	22.0	19.0	21.0
8	23.5	19.5	21.5	---	---	---	22.5	21.0	21.5	23.0	20.0	21.5
9	24.0	20.5	22.5	24.5	24.0	24.5	21.5	20.0	21.0	23.0	21.0	22.5
10	24.5	21.5	23.0	25.0	22.5	23.5	23.0	20.0	21.5	23.5	22.0	23.0
11	24.0	22.5	23.5	25.0	22.5	24.0	23.5	20.5	22.0	24.0	22.5	23.0
12	24.5	21.5	23.0	24.0	22.0	22.5	23.5	21.0	22.5	22.5	21.0	21.5
13	24.5	21.5	23.0	23.0	21.5	22.5	23.5	21.5	23.0	22.5	20.5	21.5
14	24.5	20.5	22.5	24.5	21.5	23.0	23.0	21.5	22.5	23.0	21.5	22.5
15	26.5	22.5	24.5	24.5	21.5	23.0	23.5	21.0	22.5	25.0	22.0	23.5
16	26.0	24.0	25.0	25.0	21.0	23.0	24.5	21.5	23.0	25.5	23.5	24.5
17	26.0	23.5	25.0	25.5	22.0	24.0	24.0	22.0	23.5	25.0	23.0	24.0
18	25.5	23.5	24.5	26.0	23.5	25.0	23.5	21.5	22.5	23.0	21.0	22.0
19	26.5	23.5	25.0	27.0	24.0	25.5	---	---	---	21.0	19.0	20.0
20	26.5	24.0	25.5	27.5	25.0	26.5	---	---	---	19.0	16.5	17.5
21	27.0	24.0	25.5	27.5	26.0	27.0	---	---	---	17.0	15.0	16.0
22	26.0	24.0	25.0	27.5	25.5	26.5	---	---	---	16.5	14.0	15.5
23	23.5	22.0	23.0	27.0	25.0	26.0	---	---	---	18.0	16.0	17.0
24	24.0	20.5	22.5	25.0	23.0	24.0	---	---	---	17.5	16.0	17.0
25	24.0	22.0	23.0	26.0	23.0	24.5	---	---	---	17.5	16.0	16.5
26	25.5	22.5	24.0	25.0	23.0	24.5	25.5	23.0	24.0	17.0	15.0	16.0
27	26.5	23.0	24.5	24.0	21.5	23.0	25.5	23.0	24.5	15.5	13.5	14.5
28	26.0	24.0	25.5	23.0	21.0	22.0	26.0	23.5	25.0	14.5	12.5	14.0
29	26.5	24.5	25.5	22.5	21.5	22.0	26.5	24.0	25.5	15.5	13.0	14.0
30	27.0	25.0	26.0	23.5	22.0	22.5	26.0	24.5	25.0	15.5	13.5	14.5
31	---	---	---	24.0	21.0	22.5	25.5	24.0	25.0	---	---	---
MONTH	27.0	19.5	23.5	29.0	21.0	24.5	26.5	20.0	23.5	25.5	12.5	20.0
YEAR	29.0	.5	14.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.7	8.4	9.0	10.3	9.8	10.0	12.0	10.9	11.3	---	---	---
2	9.8	8.6	9.1	10.2	9.5	9.9	12.2	10.8	11.4	13.3	13.1	13.3
3	9.9	8.5	9.0	9.7	8.9	9.3	11.4	10.7	11.0	13.5	13.1	13.3
4	8.4	7.3	7.9	9.1	8.5	8.8	12.1	11.0	11.4	13.8	13.5	13.6
5	8.7	7.7	8.4	8.5	8.2	8.3	12.5	12.1	12.4	13.7	13.4	13.5
6	8.7	8.2	8.5	9.8	8.6	9.1	12.5	12.4	12.5	13.4	13.0	13.1
7	8.7	8.1	8.4	10.1	9.8	9.9	12.5	12.3	12.4	---	---	---
8	8.5	8.1	8.2	10.7	10.0	10.3	12.7	12.4	12.6	---	---	---
9	8.3	8.0	8.1	10.6	10.0	10.2	12.9	12.5	12.7	---	---	---
10	8.3	7.5	8.0	10.0	9.6	9.9	12.9	12.4	12.6	---	---	---
11	8.9	8.2	8.7	10.8	10.0	10.4	12.7	12.3	12.4	13.5	13.3	13.4
12	9.4	8.9	9.1	11.2	10.4	10.8	12.7	12.1	12.3	13.2	12.9	13.1
13	9.0	8.8	8.9	11.1	10.6	10.8	12.0	11.6	11.8	13.4	13.2	13.3
14	9.0	8.9	8.9	11.5	10.7	11.0	12.7	11.8	12.2	13.3	13.2	13.3
15	9.1	8.9	9.0	11.3	10.4	10.8	12.3	11.6	12.0	13.3	13.1	13.2
16	9.2	9.0	9.2	11.0	10.0	10.4	12.2	11.7	12.0	13.0	12.6	12.8
17	9.3	9.0	9.2	10.4	9.8	10.1	12.4	12.1	12.3	12.8	12.5	12.7
18	9.0	8.0	8.7	11.5	10.5	11.0	12.0	11.2	11.5	13.0	12.7	12.9
19	9.6	8.6	9.2	11.7	10.9	11.2	12.2	11.4	11.8	13.0	12.7	12.9
20	9.9	9.6	9.8	12.0	11.0	11.4	12.6	12.2	12.5	12.7	12.5	12.6
21	9.8	9.4	9.6	11.8	10.9	11.3	12.4	11.8	12.2	13.1	12.6	12.9
22	9.4	8.9	9.3	10.8	10.1	10.4	11.7	11.5	11.6	13.3	13.1	13.2
23	9.3	8.6	9.0	10.8	10.0	10.5	12.1	11.5	11.9	13.3	13.1	13.2
24	9.5	9.1	9.4	11.4	10.8	11.0	13.0	12.1	12.5	13.4	13.2	13.3
25	9.6	9.3	9.5	11.4	10.8	11.1	13.3	13.0	13.2	13.5	13.3	13.4
26	10.0	9.6	9.8	12.0	10.9	11.3	13.5	13.3	13.4	13.5	13.2	13.4
27	10.2	9.8	10.0	11.1	10.0	10.6	---	---	---	13.3	13.1	13.2
28	10.1	9.7	9.9	10.1	9.6	9.8	---	---	---	13.1	12.9	13.0
29	10.3	10.0	10.2	11.2	9.8	10.5	---	---	---	13.2	12.9	13.0
30	10.4	10.0	10.2	12.0	10.6	11.2	---	---	---	12.8	12.2	12.6
31	10.3	9.9	10.1	---	---	---	---	---	---	13.3	12.7	13.0
MONTH	10.4	7.3	9.1	12.0	8.2	10.4	13.5	10.7	12.1	13.8	12.2	13.1

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.6	13.3	13.4	---	---	---	13.2	11.1	12.2	10.1	8.5	9.3
2	13.3	12.9	13.1	---	---	---	14.3	11.4	12.6	11.1	8.7	9.7
3	13.2	12.9	13.0	---	---	---	14.4	11.3	12.7	11.8	9.3	10.4
4	13.2	13.0	13.1	---	---	---	14.1	10.7	12.3	11.8	9.3	10.4
5	13.0	12.6	12.8	---	---	---	12.9	9.9	11.1	11.7	9.0	10.2
6	12.6	12.5	12.5	---	---	---	14.2	9.5	11.5	8.9	8.4	8.7
7	12.6	12.3	12.5	---	---	---	14.7	9.3	11.7	11.4	8.8	10.0
8	12.8	12.6	12.7	---	---	---	12.8	8.8	10.7	11.9	9.0	10.2
9	12.8	12.5	12.6	---	---	---	12.0	8.6	10.0	11.1	8.8	9.7
10	12.8	12.5	12.6	---	---	---	10.4	8.3	9.3	11.8	8.4	9.9
11	13.1	12.5	12.8	---	---	---	11.8	10.5	11.1	11.2	8.3	9.5
12	13.2	12.8	13.0	13.4	12.9	13.1	12.9	10.5	11.5	10.9	8.0	9.2
13	12.8	12.5	12.7	12.9	12.7	12.8	11.2	10.2	10.7	10.6	6.7	8.8
14	12.5	12.1	12.3	12.8	12.4	12.6	11.1	10.3	10.6	8.9	7.3	7.9
15	13.0	12.3	12.6	13.0	12.3	12.6	10.7	9.7	10.3	9.5	7.3	8.2
16	13.5	13.0	13.2	13.0	12.3	12.6	10.8	9.7	10.3	9.2	7.1	8.0
17	13.5	13.1	13.3	13.1	12.1	12.5	10.5	9.6	10.1	7.9	6.6	7.2
18	13.2	12.9	13.1	12.1	11.6	11.7	10.8	9.8	10.4	9.0	6.4	7.2
19	---	---	---	12.3	11.7	12.0	10.4	9.9	10.2	8.9	6.9	7.7
20	---	---	---	12.8	11.8	12.2	10.6	10.1	10.3	7.2	6.4	6.8
21	---	---	---	12.5	11.2	11.8	10.9	10.5	10.8	6.9	5.9	6.3
22	---	---	---	11.5	10.6	11.0	11.1	10.6	10.9	6.2	5.5	5.8
23	---	---	---	10.9	10.2	10.5	11.2	10.4	10.8	7.9	5.0	6.7
24	---	---	---	11.2	9.9	10.7	10.8	10.1	10.4	7.4	5.6	6.5
25	---	---	---	12.2	11.1	11.6	11.3	10.3	10.8	7.3	5.9	6.5
26	---	---	---	12.1	11.0	11.5	11.1	10.0	10.5	6.5	5.9	6.2
27	13.4	13.3	13.4	11.9	10.7	11.2	11.2	9.8	10.4	6.6	6.2	6.4
28	13.6	12.9	13.2	12.1	10.2	11.0	10.9	8.9	9.9	6.7	6.3	6.4
29	---	---	---	12.3	10.5	11.3	9.8	8.7	9.2	6.6	6.1	6.3
30	---	---	---	13.4	11.3	12.2	10.7	8.7	9.5	6.4	5.7	6.1
31	---	---	---	13.9	11.7	12.7	---	---	---	6.4	5.6	6.1
MONTH	13.6	12.1	12.9	13.9	9.9	11.9	14.7	8.3	10.8	11.9	5.0	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.8	5.3	6.1	15.1	5.4	8.8	9.9	7.2	8.5	9.0	7.1	8.0
2	6.8	6.0	6.4	11.1	5.4	8.0	9.9	7.0	8.4	9.0	7.3	8.1
3	7.3	6.3	6.8	11.9	5.8	8.6	9.4	6.8	8.1	8.5	7.0	7.7
4	7.4	6.2	6.8	11.5	5.5	8.2	9.9	6.8	8.2	7.7	6.6	7.2
5	8.4	6.3	7.5	10.2	5.7	7.9	10.7	7.0	8.8	9.3	7.5	8.4
6	9.1	7.1	8.0	10.8	5.4	7.8	11.9	7.6	9.6	9.9	8.6	9.1
7	9.4	6.9	8.1	12.1	5.6	8.5	11.5	7.8	9.6	10.2	8.6	9.4
8	12.9	6.8	8.5	---	---	---	9.3	7.6	8.6	10.1	8.6	9.3
9	13.9	6.6	8.9	9.8	6.9	7.8	9.6	7.4	8.4	10.3	8.5	9.3
10	14.3	6.3	8.9	10.9	7.1	8.8	12.2	7.6	9.5	9.2	8.5	8.9
11	8.8	5.6	7.1	11.0	6.8	8.7	13.1	7.7	10.1	9.4	8.1	8.5
12	8.1	5.9	6.7	8.1	6.4	7.4	11.9	7.8	9.7	9.7	7.6	8.6
13	10.2	5.5	7.5	7.3	6.1	6.7	10.4	7.5	8.9	9.9	8.1	8.9
14	13.5	6.0	8.2	8.3	6.1	7.1	9.5	7.3	8.3	9.5	7.6	8.6
15	14.2	5.9	9.1	8.4	6.1	7.2	9.9	7.3	8.4	8.7	7.1	7.9
16	7.5	5.2	6.5	8.9	6.1	7.4	10.7	6.8	8.6	7.9	6.6	7.3
17	13.4	5.3	7.9	9.3	5.9	7.5	9.9	6.4	8.1	7.6	6.3	6.9
18	14.0	5.3	8.4	9.8	5.8	7.7	---	---	---	7.2	6.4	6.8
19	14.8	5.3	9.1	10.6	5.6	8.0	---	---	---	7.4	6.4	6.9
20	16.0	5.2	9.1	10.7	5.5	8.1	---	---	---	7.5	6.6	7.0
21	15.9	5.2	9.0	10.8	5.4	8.0	---	---	---	9.3	6.9	8.1
22	12.0	5.0	6.8	11.0	5.2	7.8	---	---	---	9.5	8.4	8.9
23	8.8	5.1	6.5	8.0	6.2	6.9	---	---	---	9.2	8.3	8.8
24	13.5	5.5	8.3	7.1	6.4	6.7	---	---	---	9.2	8.3	8.7
25	9.2	5.3	7.0	8.6	6.3	7.3	---	---	---	9.0	7.6	8.5
26	9.6	4.7	6.9	9.0	5.9	7.6	9.3	6.9	7.8	10.0	8.1	9.0
27	12.2	5.3	8.5	10.3	7.0	8.4	10.1	6.9	8.4	11.2	8.6	9.7
28	11.3	5.9	8.5	9.9	7.4	8.6	10.1	6.7	8.4	10.8	8.6	9.5
29	11.3	5.7	8.3	9.7	7.4	8.6	10.2	7.1	8.5	8.9	6.9	7.9
30	11.0	5.5	7.8	10.0	7.3	8.6	8.6	7.1	7.9	7.2	5.6	6.4
31	---	---	---	10.2	7.4	8.7	8.7	7.0	7.7	---	---	---
MONTH	16.0	4.7	7.8	15.1	5.2	7.9	13.1	6.4	8.6	11.2	5.6	8.3
YEAR	16.0	4.7	9.9									

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	641	71	122	695	120	219	638	69	119
2	578	72	113	691	140	262	628	70	118
3	535	74	107	644	160	271	2550	57	341
4	1740	61	262	649	130	232	3740	37	372
5	1450	60	235	697	100	185	2400	63	403
6	958	64	166	1430	75	295	1680	94	422
7	798	66	143	966	66	172	1480	83	332
8	752	68	139	857	68	158	1410	66	252
9	1090	61	157	816	68	149	1230	61	202
10	4110	34	371	1290	58	200	1090	62	183
11	3810	35	357	1130	59	179	1040	62	174
12	3590	37	354	1140	61	189	929	65	164
13	4870	32	415	999	61	166	845	70	159
14	3270	35	309	931	63	158	753	74	149
15	2270	40	246	892	64	155	1390	78	294
16	1820	43	212	855	62	144	1390	77	291
17	1670	46	207	1580	54	228	1070	78	225
18	2280	46	280	1190	55	178	3820	51	458
19	2320	44	278	1020	60	164	5030	42	558
20	1680	47	214	912	64	157	3040	51	419
21	1300	51	180	875	65	154	2970	52	401
22	2010	50	273	1220	61	193	3870	44	462
23	1830	49	244	1640	55	241	6830	33	595
24	1410	47	179	1080	55	160	4270	65	719
25	1450	48	187	976	61	160	2920	74	589
26	1260	59	200	863	63	148	2320	57	359
27	1130	57	176	740	67	133	1940	50	264
28	991	58	156	770	67	139	1690	47	215
29	888	63	152	744	67	135	2800	56	449
30	802	73	158	691	70	130	12200	60	1880
31	730	95	188	---	---	---	10400	43	1200
TOTAL	54033	---	6780	28983	---	5454	88363	---	12768
		JANUARY			FEBRUARY			MARCH	
1	6580	39	691	943	210	536	1140	100	309
2	5540	36	534	947	170	440	1190	93	300
3	3760	36	364	1240	190	638	1110	97	288
4	2840	38	291	1550	180	764	1850	74	370
5	2140	45	257	2000	120	636	1950	72	367
6	2030	96	522	2300	110	681	4380	52	593
7	1750	100	490	1800	110	519	5610	47	697
8	1420	86	329	1600	100	436	2990	59	473
9	1300	81	285	1300	90	315	2160	69	401
10	1200	77	249	1200	88	286	2040	74	406
11	1340	92	358	1000	92	247	1770	78	373
12	2380	170	1120	900	88	214	1390	83	311
13	2000	110	611	1020	89	248	1170	86	272
14	1600	100	450	1710	140	655	1010	87	237
15	1300	97	339	1360	170	627	876	89	211
16	3000	97	787	1070	210	612	777	90	188
17	3500	97	913	1020	230	629	733	91	181
18	2040	83	457	1030	260	724	960	98	253
19	1760	73	347	3860	260	2290	1480	110	427
20	1780	70	337	4490	79	936	1050	110	307
21	1730	100	463	2950	94	747	894	110	264
22	1360	170	601	2330	98	615	967	110	280
23	1150	160	497	1940	93	487	1620	96	418
24	1060	120	339	1600	87	375	1570	92	391
25	941	99	251	1330	91	324	1260	89	305
26	868	93	218	1140	100	308	1080	86	251
27	833	100	232	995	110	304	1080	85	247
28	870	120	291	921	150	370	1100	87	259
29	939	150	389	---	---	---	944	86	219
30	1140	200	635	---	---	---	829	85	189
31	1170	250	774	---	---	---	739	86	171
TOTAL	61321	---	14421	45546	---	15963	47719	---	9958

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	685	88	163	783	76	161	368	98	97.1
2	663	91	163	755	77	158	249	110	73.5
3	617	92	153	687	78	145	222	110	63.8
4	589	94	150	629	80	136	193	110	55.1
5	748	98	198	616	82	137	173	100	47.6
6	725	100	203	922	87	215	169	110	48.8
7	646	100	180	687	88	164	149	110	44.3
8	657	100	179	561	90	137	139	110	42.2
9	1060	96	264	478	92	119	133	110	40.3
10	2570	64	432	434	94	110	129	120	43.2
11	1170	78	244	401	96	103	248	120	77.3
12	1010	79	216	393	97	103	315	110	90.8
13	1330	77	275	600	94	131	151	110	45.6
14	1940	73	374	979	81	194	123	120	38.1
15	3920	61	638	471	97	124	112	120	36.6
16	1780	69	330	427	100	115	145	120	46.7
17	3420	64	581	390	100	108	119	120	37.3
18	1870	63	320	303	110	86.6	121	120	39.1
19	2430	63	414	267	110	78.6	118	120	37.7
20	4120	63	703	245	110	71.4	114	120	37.4
21	3410	65	602	227	110	67.0	111	120	37.2
22	2670	71	512	219	110	65.4	104	130	36.4
23	1660	70	316	207	110	62.3	97	130	35.4
24	2000	68	368	307	100	80.3	84	140	31.2
25	1800	67	323	260	110	74.4	105	140	38.9
26	1600	68	293	400	110	108	161	140	59.4
27	1300	69	243	374	100	101	154	140	57.1
28	1100	71	211	464	100	119	164	140	62.3
29	970	59	153	331	100	92.2	148	140	56.7
30	882	72	170	288	110	85.5	193	140	72.8
31	---	---	---	577	93	144	---	---	---
TOTAL	49342	---	9371	14682	---	3595.7	4811	---	1529.9
		JULY			AUGUST			SEPTEMBER	
1	173	130	59.7	154	120	48.4	228	110	64.9
2	135	130	48.1	150	110	46.4	155	110	45.3
3	97	130	34.3	148	110	45.4	152	110	46.1
4	98	130	34.7	157	110	48.7	992	89	218
5	112	130	40.2	173	120	54.6	442	91	113
6	107	130	37.8	150	110	45.9	264	81	57.4
7	92	130	31.6	148	110	43.3	212	97	55.4
8	1030	75	172	155	110	45.8	185	110	54.5
9	481	93	117	400	100	113	176	110	51.0
10	278	110	80.5	280	110	81.4	454	87	102
11	219	110	63.9	220	110	64.1	307	86	70.7
12	185	110	54.5	190	120	60.0	221	97	57.8
13	185	110	53.9	230	120	76.0	190	100	51.7
14	202	110	60.0	330	120	109	181	99	48.4
15	177	110	54.0	250	110	76.6	178	110	53.7
16	189	110	57.9	210	110	64.9	172	120	48.3
17	186	110	57.1	700	120	219	214	120	69.0
18	185	110	55.5	600	87	141	187	120	60.2
19	183	110	56.0	350	92	86.9	189	120	59.8
20	180	120	55.8	300	98	79.1	197	120	61.3
21	178	120	57.3	430	92	107	174	120	56.4
22	214	120	69.9	320	94	81.5	165	120	54.7
23	343	110	98.3	270	99	72.1	261	110	74.9
24	501	100	139	220	100	61.6	246	110	70.1
25	257	100	69.7	200	110	58.7	255	110	75.7
26	188	110	55.2	190	110	57.3	254	110	74.2
27	163	110	49.8	180	110	52.2	231	100	64.6
28	151	120	47.5	180	110	53.0	198	110	58.7
29	145	120	48.4	170	110	50.7	186	110	57.6
30	145	120	47.3	184	110	55.4	190	110	57.3
31	154	120	49.8	231	110	65.9	---	---	---
TOTAL	6933	---	1956.7	7870	---	2264.9	7456	---	2032.7
YEAR	417059		86094.9						

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	641	1.73	3.0	695	2.49	4.7	638	2.04	3.5
2	578	1.79	2.8	691	2.53	4.7	628	2.20	3.7
3	535	1.86	2.7	644	2.43	4.2	2550	1.79	10
4	1740	1.45	6.0	649	2.20	3.9	3740	.966	9.7
5	1450	1.46	5.7	697	2.19	4.1	2400	.992	6.4
6	958	1.74	4.5	1430	1.38	5.5	1680	1.07	4.9
7	798	1.86	4.0	966	1.26	3.3	1480	1.15	4.6
8	752	1.93	3.9	857	1.56	3.6	1410	1.21	4.6
9	1090	1.66	4.0	816	1.51	3.3	1230	1.34	4.4
10	4110	.642	7.0	1290	1.32	4.6	1090	1.62	4.8
11	3810	.650	6.6	1130	1.26	3.8	1040	1.66	4.7
12	3590	.647	6.2	1140	1.30	4.0	929	1.74	4.4
13	4870	.614	7.9	999	1.36	3.7	845	1.84	4.2
14	3270	.769	6.8	931	1.37	3.4	753	1.96	4.0
15	2270	.962	5.9	892	1.50	3.6	1390	1.78	6.3
16	1820	1.16	5.7	855	1.50	3.5	1390	1.48	5.6
17	1670	1.20	5.4	1580	1.15	4.8	1070	1.64	4.7
18	2280	1.06	6.3	1190	1.19	3.8	3820	1.15	10
19	2320	.938	5.9	1020	1.30	3.6	5030	1.01	13
20	1680	1.07	4.8	912	1.53	3.8	3040	1.23	10
21	1300	1.15	4.0	875	1.60	3.8	2970	1.20	9.1
22	2010	1.03	5.6	1220	1.47	4.6	3870	.993	10
23	1830	.999	4.9	1640	1.12	5.0	6830	.803	15
24	1410	.933	3.6	1080	1.13	3.3	4270	.825	9.5
25	1450	1.04	4.0	976	1.59	4.2	2920	.907	7.1
26	1260	1.36	4.6	863	1.80	4.2	2320	1.02	6.4
27	1130	1.33	4.1	740	1.80	3.6	1940	1.18	6.1
28	991	1.24	3.3	770	1.74	3.6	1690	1.35	6.2
29	888	1.46	3.5	744	1.89	3.8	2800	1.18	8.3
30	802	1.92	4.1	691	2.06	3.8	12200	.546	17
31	730	2.23	4.4	---	---	---	10400	.621	17
TOTAL	54033	---	151.2	28983	---	119.8	88363	---	235.2
		JANUARY			FEBRUARY			MARCH	
1	6580	.826	15	943	1.93	4.9	1140	1.43	4.4
2	5540	.899	13	947	1.87	4.8	1190	1.43	4.6
3	3760	.969	9.8	1240	1.83	6.1	1110	1.60	4.8
4	2840	1.02	7.8	1550	1.55	6.5	1850	1.33	6.7
5	2140	1.06	6.1	2000	1.31	7.1	1950	1.33	6.8
6	2030	1.11	6.1	2300	1.36	8.4	4380	.949	11
7	1750	1.21	5.7	1800	1.49	7.3	5610	.823	12
8	1420	1.31	5.0	1600	1.45	6.3	2990	1.02	8.2
9	1300	1.39	4.9	1300	1.46	5.1	2160	1.18	6.9
10	1200	1.47	4.8	1200	1.63	5.3	2040	1.24	6.8
11	1340	1.44	5.1	1000	1.83	4.9	1770	1.27	6.1
12	2380	1.19	7.7	900	1.97	4.8	1390	1.31	4.9
13	2000	1.17	6.3	1020	2.05	5.6	1170	1.33	4.2
14	1600	1.46	6.3	1710	1.68	7.7	1010	1.40	3.8
15	1300	1.54	5.4	1360	1.63	6.0	876	1.66	3.9
16	3000	1.36	11	1070	1.71	4.9	777	1.63	3.4
17	3500	1.07	10	1020	1.79	4.9	733	1.54	3.0
18	2040	1.14	6.2	1030	2.03	5.6	960	1.76	4.6
19	1760	1.30	6.2	3860	1.68	16	1480	1.39	5.5
20	1780	1.35	6.5	4490	1.17	14	1050	1.41	4.0
21	1730	1.44	6.7	2950	1.22	9.7	894	1.42	3.4
22	1360	1.57	5.7	2330	1.25	7.9	967	1.34	3.5
23	1150	1.72	5.4	1940	1.28	6.7	1620	1.05	4.5
24	1060	1.86	5.3	1600	1.30	5.6	1570	1.10	4.6
25	941	1.97	5.0	1330	1.34	4.8	1260	1.28	4.3
26	868	2.05	4.8	1140	1.38	4.2	1080	1.39	4.1
27	833	2.12	4.8	995	1.44	3.9	1080	1.45	4.2
28	870	2.00	4.7	921	1.54	3.8	1100	1.42	4.2
29	939	2.05	5.2	---	---	---	944	1.40	3.6
30	1140	2.06	6.3	---	---	---	829	1.50	3.4
31	1170	1.97	6.2	---	---	---	739	1.66	3.3
TOTAL	61321	---	209.0	45546	---	182.8	47719	---	158.7

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	685	1.63	3.0	783	1.42	3.0	368	2.39	2.4
2	663	1.74	3.1	755	1.48	3.0	249	2.57	1.7
3	617	1.69	2.8	687	1.55	2.9	222	2.65	1.6
4	589	1.70	2.7	629	1.67	2.8	193	3.22	1.7
5	748	1.79	3.6	616	1.74	2.9	173	3.40	1.6
6	725	1.64	3.2	922	1.59	3.9	169	3.28	1.5
7	646	1.56	2.7	687	1.68	3.1	149	3.41	1.4
8	657	1.61	2.8	561	1.79	2.7	139	3.71	1.4
9	1060	1.55	4.3	478	1.91	2.5	133	3.76	1.4
10	2570	1.05	7.3	434	2.03	2.4	129	3.63	1.3
11	1170	1.18	3.7	401	2.16	2.3	248	3.49	2.3
12	1010	1.36	3.7	393	2.30	2.4	315	3.32	2.8
13	1330	1.36	4.8	600	2.33	3.3	151	3.00	1.2
14	1940	1.14	5.9	979	1.93	4.6	123	3.15	1.0
15	3920	1.01	11	471	2.37	3.0	112	3.41	1.0
16	1780	.975	4.7	427	2.47	2.8	145	2.60	1.0
17	3420	1.04	9.6	390	2.57	2.7	119	3.18	1.0
18	1870	.955	4.8	303	2.67	2.2	121	3.51	1.1
19	2430	.951	6.3	267	2.78	2.0	118	3.50	1.1
20	4120	.913	10	245	2.86	1.9	114	3.61	1.1
21	3410	.998	9.2	227	3.26	2.0	111	3.53	1.1
22	2670	1.08	7.8	219	3.30	2.0	104	3.56	1.0
23	1660	1.05	4.7	207	3.25	1.8	97	3.45	.90
24	2000	.998	5.4	307	3.17	2.6	84	4.10	.93
25	1800	.999	4.9	260	2.49	1.7	105	4.42	1.3
26	1600	1.03	4.4	400	2.43	2.4	161	4.60	2.0
27	1300	1.10	3.9	374	2.35	2.3	154	4.30	1.8
28	1100	1.18	3.5	464	2.35	2.7	164	4.28	1.9
29	970	1.22	3.2	331	2.89	2.6	148	4.23	1.7
30	882	1.31	3.1	288	3.05	2.4	193	4.17	2.2
31	---	---	---	577	2.30	3.6	---	---	---
TOTAL	49342	---	150.1	14682	---	82.5	4811	---	44.43
		JULY			AUGUST			SEPTEMBER	
1	173	3.71	1.7	154	5.01	2.1	228	3.57	2.2
2	135	3.98	1.4	150	4.66	1.9	155	3.45	1.4
3	97	4.25	1.1	148	4.41	1.8	152	3.86	1.6
4	98	4.11	1.1	157	4.23	1.8	992	2.91	6.8
5	112	3.84	1.2	173	4.18	2.0	442	2.57	3.0
6	107	3.72	1.1	150	3.76	1.5	264	2.76	2.0
7	92	3.44	.85	148	4.32	1.7	212	3.59	2.0
8	1030	2.55	6.7	155	4.67	2.0	185	4.09	2.0
9	481	2.20	2.8	400	4.65	5.0	176	4.41	2.1
10	278	2.51	1.9	280	3.25	2.5	454	3.05	3.4
11	219	2.93	1.7	220	2.68	1.6	307	2.70	2.2
12	185	3.35	1.7	190	3.41	1.7	221	3.16	1.9
13	185	3.66	1.8	230	4.24	2.6	190	3.71	1.9
14	202	3.89	2.1	330	4.33	3.9	181	3.88	1.9
15	177	3.93	1.9	250	3.37	2.3	178	4.52	2.2
16	189	3.97	2.0	210	2.92	1.7	172	4.50	1.8
17	186	4.39	2.2	700	3.17	6.0	214	4.34	2.5
18	185	4.19	2.1	600	1.94	3.1	187	4.29	2.2
19	183	3.81	1.9	350	2.24	2.1	189	4.24	2.2
20	180	3.58	1.7	300	2.76	2.2	197	4.45	2.4
21	178	3.21	1.5	430	2.15	2.5	174	4.71	2.2
22	214	3.24	1.9	320	2.33	2.0	165	5.24	2.3
23	343	3.17	2.9	270	2.72	2.0	261	5.12	3.6
24	501	2.89	4.0	220	3.16	1.9	246	5.38	3.6
25	257	2.47	1.7	200	3.68	2.0	255	4.70	3.2
26	188	3.00	1.5	190	4.28	2.2	254	4.66	3.2
27	163	3.61	1.6	180	4.81	2.3	231	4.50	2.8
28	151	3.77	1.5	180	4.87	2.4	198	4.64	2.5
29	145	4.28	1.7	170	4.71	2.2	186	5.19	2.6
30	145	4.66	1.8	184	4.55	2.3	190	5.29	2.7
31	154	5.05	2.1	231	3.97	2.4	---	---	---
TOTAL	6933	---	61.15	7870	---	73.7	7456	---	76.4
YEAR	417059		1544.98						

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	641	1.3	2.32	695	.77	1.45	638	.59	1.02
2	578	1.3	2.07	691	.73	1.37	628	.60	1.01
3	535	1.3	1.89	644	.66	1.16	2550	1.4	13.7
4	1740	1.9	9.83	649	.71	1.24	3740	1.2	13.2
5	1450	1.6	6.26	697	.71	1.37	2400	.79	5.13
6	958	1.3	3.45	1430	1.0	4.15	1680	.67	3.06
7	798	1.2	2.51	966	.77	2.01	1480	.63	2.49
8	752	1.0	2.09	857	.78	1.80	1410	.59	2.27
9	1090	1.1	3.60	816	.83	1.84	1230	.61	2.03
10	4110	1.7	18.9	1290	.75	2.62	1090	.62	1.84
11	3810	1.5	15.9	1130	.72	2.20	1040	.67	1.87
12	3590	1.3	12.3	1140	.76	2.33	929	.60	1.52
13	4870	1.3	17.3	999	.61	1.65	845	.62	1.42
14	3270	.99	8.73	931	.63	1.58	753	.69	1.41
15	2270	1.0	6.19	892	.56	1.34	1390	.87	3.45
16	1820	.94	4.66	855	.56	1.29	1390	.77	2.95
17	1670	1.1	4.82	1580	.58	2.48	1070	.63	1.83
18	2280	1.4	9.08	1190	.56	1.81	3820	1.8	23.4
19	2320	1.2	7.29	1020	.58	1.59	5030	2.0	28.2
20	1680	.91	4.14	912	.61	1.51	3040	1.4	11.5
21	1300	.76	2.68	875	.64	1.50	2970	1.2	9.57
22	2010	.80	4.55	1220	.78	2.90	3870	1.0	11.0
23	1830	.69	3.42	1640	.91	4.13	6830	1.3	25.1
24	1410	.67	2.56	1080	.65	1.92	4270	.84	9.80
25	1450	.69	2.70	976	.63	1.67	2920	.71	5.61
26	1260	.72	2.44	863	.57	1.34	2320	.66	4.13
27	1130	.65	1.99	740	.59	1.18	1940	.63	3.29
28	991	.62	1.67	770	.69	1.44	1690	.59	2.71
29	888	.60	1.44	744	.67	1.34	2800	1.1	9.27
30	802	.68	1.47	691	.62	1.15	12200	2.3	73.6
31	730	.71	1.40	---	---	---	10400	1.2	33.0
TOTAL	54033	---	169.65	28983	---	55.36	88363	---	310.38
		JANUARY			FEBRUARY			MARCH	
1	6580	.90	16.0	943	.61	1.56	1140	1.1	3.34
2	5540	.88	13.2	947	.65	1.67	1190	.96	3.08
3	3760	.86	8.76	1240	.73	2.41	1110	.75	2.24
4	2840	.74	5.69	1550	.68	2.85	1850	.87	4.40
5	2140	.66	3.80	2000	.65	3.50	1950	.90	5.19
6	2030	.68	3.75	2300	.52	3.22	4380	1.9	25.3
7	1750	.63	2.99	1800	.51	2.48	5610	2.4	39.3
8	1420	.62	2.37	1600	.49	2.10	2990	1.4	11.2
9	1300	.66	2.33	1300	.46	1.63	2160	.99	5.77
10	1200	.70	2.26	1200	.47	1.54	2040	.86	4.72
11	1340	.75	2.84	1000	.44	1.19	1770	.77	3.70
12	2380	1.0	6.59	900	.42	1.02	1390	.70	2.64
13	2000	.65	3.53	1020	.44	1.23	1170	.73	2.30
14	1600	.55	2.37	1710	.78	3.61	1010	.80	2.19
15	1300	.59	2.09	1360	.63	2.33	876	.69	1.63
16	3000	.69	5.62	1070	.63	1.83	777	.92	1.92
17	3500	.73	6.91	1020	.56	1.55	733	.90	1.80
18	2040	.68	3.80	1030	.54	1.50	960	.74	1.94
19	1760	.50	2.40	3860	1.8	22.9	1480	.82	3.34
20	1780	.52	2.51	4490	1.9	23.8	1050	.63	1.80
21	1730	.45	2.09	2950	1.1	8.98	894	.64	1.55
22	1360	.56	2.02	2330	.82	5.22	967	.72	1.89
23	1150	.59	1.83	1940	.73	3.83	1620	1.2	5.47
24	1060	.53	1.52	1600	.66	2.87	1570	.85	3.59
25	941	.51	1.29	1330	.64	2.27	1260	.64	2.18
26	868	.57	1.34	1140	.62	1.91	1080	.65	1.91
27	833	.69	1.54	995	.61	1.64	1080	.61	1.77
28	870	.59	1.39	921	.70	1.77	1100	.63	1.87
29	939	.58	1.47	---	---	---	944	.63	1.61
30	1140	.78	2.48	---	---	---	829	.62	1.39
31	1170	.75	2.37	---	---	---	739	.66	1.32
TOTAL	61321	---	119.15	45546	---	112.41	47719	---	152.35

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	685	.64	1.19	783	1.0	2.18	368	.97	.98
2	663	.60	1.07	755	.90	1.85	249	.82	.55
3	617	.69	1.15	687	.80	1.49	222	.75	.45
4	589	.68	1.08	629	.80	1.35	193	.73	.38
5	748	.79	1.64	616	.81	1.36	173	.69	.32
6	725	.77	1.51	922	.88	2.21	169	.73	.33
7	646	.75	1.30	687	.78	1.45	149	.76	.30
8	657	.83	1.49	561	.76	1.16	139	.73	.28
9	1060	1.3	4.69	478	.74	.96	133	.73	.26
10	2570	3.2	26.2	434	.73	.85	129	.68	.24
11	1170	1.0	3.30	401	.71	.77	248	.84	.72
12	1010	.88	2.38	393	.69	.73	315	1.0	.92
13	1330	.89	3.26	600	.78	1.77	151	.96	.39
14	1940	1.0	6.48	979	1.2	3.60	123	.92	.31
15	3920	2.0	23.3	471	.96	1.22	112	.88	.27
16	1780	.98	4.80	427	.91	1.05	145	.85	.33
17	3420	1.3	12.8	390	.86	.91	119	.94	.30
18	1870	.94	4.82	303	.82	.67	121	.97	.31
19	2430	.84	6.18	267	.77	.56	118	1.0	.33
20	4120	1.1	12.5	245	.75	.50	114	.87	.27
21	3410	.87	8.02	227	.77	.47	111	.81	.24
22	2670	.89	6.42	219	.80	.48	104	.83	.23
23	1660	.80	3.62	207	.50	.28	97	.82	.21
24	2000	.84	4.54	307	1.1	1.34	84	.70	.16
25	1800	.89	4.31	260	.82	.60	105	.68	.19
26	1600	.79	3.40	400	.84	1.25	161	.69	.30
27	1300	.80	2.80	374	1.3	1.36	154	.71	.30
28	1100	.89	2.64	464	1.2	1.77	164	.74	.33
29	970	2.4	6.22	331	1.0	.91	148	.76	.30
30	882	1.0	2.42	288	.90	.70	193	.75	.41
31	---	---	---	577	1.2	1.84	---	---	---
TOTAL	49342	---	165.53	14682	---	37.64	4811	---	10.91
		JULY			AUGUST			SEPTEMBER	
1	173	.98	.46	154	.85	.35	228	.72	.45
2	135	.79	.29	150	.79	.32	155	.62	.26
3	97	.89	.23	148	.79	.31	152	.64	.26
4	98	1.0	.27	157	.87	.37	992	1.6	5.07
5	112	.93	.28	173	.90	.42	442	.95	1.23
6	107	.86	.25	150	.99	.40	264	.71	.51
7	92	1.2	.29	148	.90	.36	212	.68	.39
8	1030	2.9	10.4	155	.87	.37	185	.72	.36
9	481	1.2	1.65	400	1.0	1.08	176	.68	.33
10	278	.95	.71	280	1.1	.86	454	.72	.89
11	219	.92	.55	220	1.0	.61	307	.75	.63
12	185	.90	.45	190	.89	.46	221	.74	.44
13	185	.78	.39	230	.83	.52	190	.95	.48
14	202	.72	.40	330	.84	.75	181	1.2	.58
15	177	.73	.35	250	.94	.63	178	.80	.39
16	189	.70	.36	210	.94	.53	172	.70	.28
17	186	.70	.35	700	1.1	2.12	214	.70	.41
18	185	.69	.34	600	2.7	4.35	187	.71	.36
19	183	.69	.34	350	2.2	2.03	189	.80	.41
20	180	.76	.37	300	1.6	1.32	197	.78	.41
21	178	.87	.42	430	1.9	2.18	174	.71	.33
22	214	1.2	.67	320	1.6	1.37	165	.70	.31
23	343	1.5	1.48	270	1.3	.91	261	.75	.53
24	501	1.5	2.07	220	.99	.59	246	.71	.47
25	257	1.3	.91	200	.78	.42	255	.72	.50
26	188	1.1	.54	190	.62	.32	254	.69	.48
27	163	.98	.43	180	.59	.29	231	.62	.39
28	151	1.0	.41	180	.65	.32	198	.58	.31
29	145	.96	.38	170	.70	.32	186	.64	.32
30	145	.91	.36	184	.76	.38	190	.68	.34
31	154	.90	.38	231	.75	.47	---	---	---
TOTAL	6933	---	26.78	7870	---	25.73	7456	---	18.12
YEAR	417059		1204.01						

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	641	.299	.52	695	.111	.21	638	.253	.44
2	578	.257	.40	691	.111	.21	628	.061	.10
3	535	.221	.32	644	.124	.22	2550	.362	3.83
4	1740	.495	2.96	649	.156	.27	3740	.351	3.76
5	1450	.347	1.40	697	.144	.28	2400	.202	1.32
6	958	.207	.54	1430	.245	.99	1680	.148	.67
7	798	.157	.34	966	.148	.39	1480	.113	.45
8	752	.126	.26	857	.112	.26	1410	.103	.39
9	1090	.165	.71	816	.104	.23	1230	.094	.31
10	4110	.505	5.80	1290	.152	.54	1090	.085	.25
11	3810	.391	4.10	1130	.121	.37	1040	.089	.25
12	3590	.314	3.17	1140	.100	.31	929	.084	.21
13	4870	.377	5.18	999	.088	.24	845	.080	.18
14	3270	.238	2.11	931	.082	.21	753	.072	.15
15	2270	.220	1.35	892	.087	.21	1390	.157	.72
16	1820	.179	.89	855	.087	.20	1390	.139	.54
17	1670	.184	.83	1580	.151	.67	1070	.103	.30
18	2280	.348	2.47	1190	.106	.34	3820	.568	8.18
19	2320	.260	1.65	1020	.080	.22	5030	.584	8.98
20	1680	.216	.97	912	.078	.19	3040	.193	1.62
21	1300	.192	.68	875	.078	.18	2970	.148	1.34
22	2010	.209	1.21	1220	.132	.57	3870	.201	2.11
23	1830	.175	.87	1640	.217	1.01	6830	.420	8.10
24	1410	.141	.54	1080	.108	.32	4270	.244	2.87
25	1450	.160	.63	976	.082	.22	2920	.177	1.40
26	1260	.129	.44	863	.070	.16	2320	.149	.94
27	1130	.117	.36	740	.070	.14	1940	.137	.72
28	991	.107	.29	770	.073	.15	1690	.127	.58
29	888	.100	.24	744	.071	.14	2800	.299	2.76
30	802	.120	.26	691	.598	1.10	12200	.882	28.0
31	730	.119	.24	---	---	---	10400	.398	11.6
TOTAL	54033	---	41.73	28983	---	10.55	88363	---	93.07
		JANUARY			FEBRUARY			MARCH	
1	6580	.280	4.97	943	.083	.21	1140	.102	.32
2	5540	.266	3.98	947	.073	.19	1190	.100	.32
3	3760	.232	2.36	1240	.100	.35	1110	.096	.29
4	2840	.188	1.45	1550	.166	.70	1850	.158	.80
5	2140	.169	.97	2000	.144	.78	1950	.160	.92
6	2030	.148	.82	2300	.102	.63	4380	.299	4.00
7	1750	.102	.49	1800	.097	.47	5610	.388	6.34
8	1420	.084	.32	1600	.094	.40	2990	.211	1.72
9	1300	.082	.29	1300	.082	.29	2160	.146	.86
10	1200	.080	.26	1200	.087	.28	2040	.120	.66
11	1340	.102	.40	1000	.095	.26	1770	.103	.49
12	2380	.190	1.23	900	.100	.24	1390	.088	.33
13	2000	.103	.56	1020	.108	.30	1170	.078	.25
14	1600	.086	.37	1710	.177	.82	1010	.074	.20
15	1300	.093	.32	1360	.122	.45	876	.069	.16
16	3000	.124	1.00	1070	.100	.29	777	.160	.33
17	3500	.149	1.41	1020	.086	.24	733	.120	.24
18	2040	.121	.67	1030	.074	.21	960	.115	.30
19	1760	.094	.45	3860	.297	3.84	1480	.154	.63
20	1780	.089	.43	4490	.353	4.54	1050	.094	.27
21	1730	.088	.41	2950	.206	1.66	894	.068	.16
22	1360	.094	.34	2330	.155	.98	967	.079	.21
23	1150	.090	.28	1940	.126	.66	1620	.231	1.11
24	1060	.085	.24	1600	.103	.45	1570	.160	.68
25	941	.098	.25	1330	.091	.33	1260	.097	.33
26	868	.096	.22	1140	.085	.26	1080	.079	.23
27	833	.093	.21	995	.080	.22	1080	.077	.23
28	870	.079	.19	921	.084	.21	1100	.082	.24
29	939	.075	.19	---	---	---	944	.076	.19
30	1140	.138	.45	---	---	---	829	.067	.15
31	1170	.139	.44	---	---	---	739	.061	.12
TOTAL	61321	---	25.97	45546	---	20.26	47719	---	23.08

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	685	.060	.11	783	.156	.33	368	.210	.21
2	663	.054	.097	755	.158	.32	249	.189	.13
3	617	.058	.096	687	.136	.25	222	.189	.11
4	589	.056	.089	629	.122	.21	193	.217	.11
5	748	.084	.18	616	.116	.19	173	.206	.096
6	725	.083	.16	922	.115	.29	169	.164	.075
7	646	.068	.12	687	.114	.21	149	.134	.054
8	657	.073	.13	561	.113	.17	139	.133	.050
9	1060	.200	.80	478	.113	.15	133	.196	.070
10	2570	.719	5.89	434	.112	.13	129	.226	.079
11	1170	.161	.52	401	.111	.12	248	.303	.26
12	1010	.089	.24	393	.111	.12	315	.366	.34
13	1330	.101	.40	600	.165	.54	151	.201	.084
14	1940	.206	1.36	979	.313	1.09	123	.165	.054
15	3920	.461	5.67	471	.190	.24	112	.154	.047
16	1780	.176	.87	427	.178	.21	145	.171	.067
17	3420	.287	2.90	390	.167	.18	119	.267	.085
18	1870	.187	.98	303	.157	.13	121	.288	.094
19	2430	.163	1.27	267	.148	.11	118	.272	.087
20	4120	.255	2.87	245	.162	.11	114	.242	.075
21	3410	.176	1.63	227	.186	.11	111	.209	.063
22	2670	.171	1.25	219	.186	.11	104	.209	.058
23	1660	.141	.63	207	.183	.10	97	.241	.063
24	2000	.165	.89	307	.437	.52	84	.290	.066
25	1800	.188	.91	260	.327	.24	105	.314	.089
26	1600	.148	.64	400	.338	.46	161	.319	.14
27	1300	.137	.48	374	.366	.39	154	.274	.11
28	1100	.155	.46	464	.421	.60	164	.303	.13
29	970	.514	1.35	331	.312	.28	148	.346	.14
30	882	.133	.32	288	.253	.20	193	.299	.15
31	---	---	---	577	.329	.52	---	---	---
TOTAL	49342	---	33.312	14682	---	8.63	4811	---	3.186
		JULY			AUGUST			SEPTEMBER	
1	173	.274	.13	154	.286	.12	228	.147	.098
2	135	.260	.095	150	.203	.082	155	.118	.049
3	97	.255	.067	148	.167	.066	152	.182	.075
4	98	.267	.071	157	.187	.079	992	.637	1.98
5	112	.266	.081	173	.304	.14	442	.260	.35
6	107	.254	.073	150	.299	.12	264	.152	.11
7	92	.255	.063	148	.349	.14	212	.117	.067
8	1030	.789	2.80	155	.266	.11	185	.134	.067
9	481	.366	.50	400	.247	.27	176	.116	.055
10	278	.243	.18	280	.182	.14	454	.162	.21
11	219	.213	.13	220	.181	.11	307	.138	.12
12	185	.219	.11	190	.200	.10	221	.124	.074
13	185	.239	.12	230	.319	.20	190	.129	.066
14	202	.239	.13	330	.422	.38	181	.123	.060
15	177	.247	.12	250	.270	.18	178	.123	.059
16	189	.280	.14	210	.192	.11	172	.114	.045
17	186	.251	.13	700	.255	.48	214	.123	.071
18	185	.178	.089	600	.682	1.10	187	.136	.069
19	183	.163	.080	350	.409	.39	189	.133	.068
20	180	.189	.092	300	.236	.19	197	.132	.070
21	178	.208	.10	430	.323	.38	174	.114	.053
22	214	.203	.12	320	.310	.27	165	.111	.049
23	343	.389	.39	270	.275	.20	261	.167	.12
24	501	.393	.56	220	.243	.14	246	.248	.16
25	257	.221	.15	200	.215	.12	255	.242	.17
26	188	.187	.095	190	.199	.10	254	.188	.13
27	163	.179	.079	180	.238	.12	231	.166	.10
28	151	.199	.081	180	.250	.12	198	.179	.095
29	145	.263	.10	170	.198	.091	186	.196	.099
30	145	.314	.12	184	.152	.075	190	.210	.11
31	154	.356	.15	231	.177	.11	---	---	---
TOTAL	6933	---	7.146	7870	---	6.233	7456	---	4.849
YEAR	417059		278.016						

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	641	10	17	695	21	38	638	4	7.2
2	578	15	24	691	20	37	628	3	4.7
3	535	15	21	644	18	31	2550	566	6210
4	1740	602	4250	649	16	29	3740	363	4020
5	1450	164	694	697	20	43	2400	121	798
6	958	48	128	1430	69	287	1680	61	281
7	798	34	73	966	28	73	1480	45	179
8	752	30	61	857	16	37	1410	35	135
9	1090	71	452	816	15	34	1230	28	92
10	4110	592	6860	1290	54	192	1090	24	70
11	3810	336	3530	1130	25	77	1040	20	55
12	3590	290	3130	1140	18	55	929	18	45
13	4870	410	5680	999	13	36	845	17	39
14	3270	218	1950	931	12	30	753	16	32
15	2270	134	831	892	12	28	1390	126	641
16	1820	90	446	855	16	37	1390	102	404
17	1670	77	349	1580	89	408	1070	24	70
18	2280	239	1810	1190	31	103	3820	470	7560
19	2320	171	1100	1020	13	36	5030	487	7400
20	1680	70	326	912	11	28	3040	167	1400
21	1300	48	170	875	8	20	2970	149	1380
22	2010	113	689	1220	55	306	3870	193	2040
23	1830	72	360	1640	97	467	6830	601	11700
24	1410	46	175	1080	21	63	4270	273	3230
25	1450	80	322	976	14	36	2920	175	1390
26	1260	34	115	863	10	24	2320	121	759
27	1130	29	89	740	11	22	1940	99	520
28	991	24	64	770	14	28	1690	88	400
29	888	21	50	744	10	20	2800	181	1540
30	802	22	48	691	6	12	12200	541	18400
31	730	19	37	---	---	---	10400	414	11700
TOTAL	54033	---	33851	28983	---	2637	88363	---	82501.9
		JANUARY			FEBRUARY			MARCH	
1	6580	402	7140	943	31	79	1140	60	187
2	5540	306	4630	947	35	91	1190	64	206
3	3760	261	2650	1240	65	234	1110	55	168
4	2840	287	2200	1550	120	505	1850	200	1030
5	2140	211	1220	2000	79	427	1950	141	903
6	2030	170	936	2300	82	509	4380	516	7610
7	1750	107	509	1800	78	378	5610	676	11600
8	1420	86	330	1600	61	262	2990	220	1810
9	1300	70	245	1300	43	152	2160	126	740
10	1200	59	190	1200	36	116	2040	84	464
11	1340	87	364	1000	32	87	1770	72	344
12	2380	196	1270	900	34	83	1390	61	229
13	2000	80	434	1020	26	75	1170	45	144
14	1600	53	230	1710	96	442	1010	35	94
15	1300	63	221	1360	51	190	876	31	73
16	3000	342	2770	1070	31	90	777	34	71
17	3500	204	1930	1020	24	66	733	20	40
18	2040	97	537	1030	21	59	960	58	168
19	1760	58	276	3860	666	8850	1480	121	508
20	1780	46	221	4490	502	6480	1050	38	110
21	1730	44	207	2950	206	1680	894	23	54
22	1360	46	168	2330	126	798	967	36	98
23	1150	35	110	1940	91	479	1620	189	921
24	1060	36	104	1600	69	297	1570	117	499
25	941	41	105	1330	55	197	1260	48	166
26	868	39	91	1140	31	96	1080	33	98
27	833	35	79	995	29	78	1080	35	103
28	870	39	92	921	36	90	1100	36	108
29	939	31	80	---	---	---	944	29	74
30	1140	58	189	---	---	---	829	16	37
31	1170	65	207	---	---	---	739	14	29
TOTAL	61321	---	29735	45546	---	22890	47719	---	28686

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OH--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	685	13	25	783	33	69	368	82	84
2	663	11	19	755	26	54	249	61	42
3	617	11	19	687	20	37	222	51	31
4	589	10	15	629	18	31	193	41	21
5	748	22	49	616	20	36	173	35	17
6	725	15	31	922	63	164	169	27	12
7	646	9	16	687	20	38	149	20	8.2
8	657	16	29	561	18	27	139	19	7.0
9	1060	69	350	478	15	20	133	14	5.1
10	2570	771	6220	434	13	16	129	14	5.0
11	1170	125	417	401	13	14	248	55	66
12	1010	37	101	393	12	13	315	83	81
13	1330	52	213	600	299	1750	151	28	12
14	1940	104	761	979	358	1810	123	20	6.6
15	3920	416	4950	471	28	35	112	18	5.5
16	1780	132	691	427	27	32	145	32	13
17	3420	282	3060	390	32	33	119	32	10
18	1870	113	594	303	29	24	121	19	6.1
19	2430	148	1280	267	31	22	118	23	7.3
20	4120	207	2350	245	46	30	114	25	7.6
21	3410	114	1070	227	43	26	111	27	8.1
22	2670	78	566	219	35	21	104	23	6.5
23	1660	60	270	207	28	16	97	20	5.1
24	2000	84	452	307	64	74	84	19	4.3
25	1800	62	304	260	44	33	105	20	5.6
26	1600	51	218	400	67	104	161	25	11
27	1300	41	146	374	53	60	154	24	9.8
28	1100	39	115	464	99	165	164	20	8.8
29	970	48	125	331	92	83	148	20	7.9
30	882	34	81	288	92	72	193	26	15
31	---	---	---	577	199	319	---	---	---
TOTAL	49342	---	24537	14682	---	5228	4811	---	529.5
		JULY			AUGUST			SEPTEMBER	
1	173	28	14	154	24	9.9	228	42	27
2	135	17	6.4	150	21	8.7	155	31	13
3	97	16	4.2	148	20	7.8	152	28	12
4	98	19	5.1	157	21	8.8	992	499	1730
5	112	21	6.4	173	27	13	442	117	172
6	107	19	5.5	150	22	9.0	264	37	27
7	92	23	5.7	148	17	6.7	212	25	14
8	1030	72	238	155	17	7.0	185	23	12
9	481	55	72	400	40	43	176	23	11
10	278	42	32	280	26	19	454	72	102
11	219	35	21	220	19	12	307	42	38
12	185	28	14	190	19	9.6	221	27	16
13	185	26	13	230	28	17	190	28	14
14	202	22	12	330	25	22	181	27	13
15	177	20	9.8	250	20	13	178	26	13
16	189	20	10	210	18	10	172	25	9.8
17	186	14	7.2	700	107	203	214	16	9.4
18	185	10	4.9	600	141	228	187	15	7.7
19	183	10	4.9	350	65	62	189	14	7.3
20	180	10	5.0	300	70	57	197	14	7.2
21	178	11	5.1	430	181	210	174	13	5.9
22	214	18	11	320	74	64	165	10	4.2
23	343	561	741	270	45	33	261	33	26
24	501	639	1020	220	29	17	246	20	14
25	257	70	52	200	31	17	255	15	11
26	188	37	19	190	26	13	254	18	12
27	163	29	13	180	25	12	231	12	7.7
28	151	24	9.9	180	24	12	198	8	4.5
29	145	26	10	170	24	11	186	9	4.5
30	145	23	9.0	184	28	14	190	10	5.1
31	154	24	10	231	52	34	---	---	---
TOTAL	6933	---	2391.1	7870	---	1203.5	7456	---	2350.3
YEAR	417059		236540.3						

04209000 CHAGRIN RIVER AT WILLOUGHBY, OH

LOCATION.--Lat 41°37'51", long 81°24'13", in T.9 N., R.10 W., Lake County, Hydrologic Unit 04110003, on left bank, 150 ft downstream from city waterworks dam, 800 ft downstream from East Branch, 1.0 mi southeast of Willoughby, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--246 mi^2.

PERIOD OF RECORD.--July 1925 to November 1935, October 1939 to 1984, March 25, 1988 to current year. [July 1925 to September 1932 monthly run-off in inches, adjusted for diversion, published in WSP 1307; previously published run-off was unadjusted and should not be used].

REVISED RECORDS.--WSP 1084: 1929(M), 1931(M). WSP 1307: 1926-28(M), 1930(M), 1932-35(M), 1942(M). WSP 1912: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 594.57 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1939, nonrecording gage at site 150 ft upstream at datum 7 ft higher.

REMARKS.--Estimated daily discharges: Jan. 23-30. Records good except for periods of estimated record and Oct. 1-24 which are fair. Water diverted 200 ft upstream from station for municipal supply of city of Willoughby until 1988 when water treatment plant was relocated downstream of gaging station. Water-quality data collected at this site 1965 to 1977. Sediment data collected at this site 1969 to 1981.

AVERAGE DISCHARGE.--58 years, 339 ft^3/s, 18.72 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s Mar. 22, 1948, gage height, 17.95 ft (from high-water mark in well), from rating curve extended above 14,000 ft^3/s on basis of contracted-opening measurements of peak flow; minimum daily, 3.0 ft^3/s July 25, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 10.3 ft. from floodmark, former site and datum discharge, 24,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 18	1830	5,240	7.81	Feb. 19	2330	5,410	7.96
Dec. 23	0800	8,230	10.24	Mar. 6	2130	8,660	10.55
Dec. 30	0700	*11,600	*12.47				

Minimum daily discharge, 23 ft^3/s Aug. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	141	114	1330	241	450	229	216	443	60	27	34
2	90	133	119	820	237	771	203	198	154	61	26	30
3	80	128	1180	642	339	533	189	173	108	108	26	27
4	660	122	2160	500	866	706	164	153	89	90	26	92
5	514	134	652	421	1580	613	238	159	76	76	25	68
6	197	616	385	457	893	3820	289	329	69	74	24	43
7	121	318	308	393	732	3420	204	197	66	75	24	35
8	104	478	261	321	522	1020	283	148	63	230	23	31
9	192	271	224	314	398	595	415	129	61	74	138	30
10	1290	557	207	294	351	477	1710	123	61	55	64	31
11	1110	362	174	368	265	390	510	119	59	49	52	64
12	1100	356	152	926	211	311	276	109	73	46	49	43
13	1970	262	146	596	281	274	231	103	81	45	47	35
14	670	216	129	438	1310	244	309	261	75	44	245	33
15	344	189	475	389	602	224	1590	275	71	42	75	32
16	204	186	617	1470	329	198	855	116	154	41	53	31
17	150	775	299	1390	382	182	685	101	103	40	48	34
18	390	410	2830	698	367	213	461	93	82	39	46	35
19	647	253	2360	501	2690	699	576	86	94	38	46	35
20	327	202	717	590	3030	417	1790	80	94	37	196	57
21	208	181	950	544	1170	262	1190	78	77	36	205	45
22	500	607	2010	359	998	342	964	77	72	36	71	36
23	475	865	4640	290	651	706	540	76	69	34	53	68
24	279	371	1450	250	445	992	518	76	66	34	50	72
25	351	420	673	230	372	597	410	126	64	34	48	68
26	290	258	483	210	294	329	310	360	63	33	83	103
27	222	200	303	200	255	275	269	228	61	32	62	96
28	201	182	346	190	258	907	252	223	60	31	39	60
29	183	149	1680	180	---	395	393	179	58	30	28	50
30	158	124	9870	170	---	286	281	115	58	29	27	45
31	148	---	3880	239	---	237	---	111	---	28	28	---
TOTAL	13298	9466	39794	15720	20069	20885	16334	4817	2724	1681	1954	1463
MEAN	429	316	1284	507	717	674	544	155	90.8	54.2	63.0	48.8
MAX	1970	865	9870	1470	3030	3820	1790	360	443	230	245	103
MIN	80	122	114	170	211	182	164	76	58	28	23	27
CFSM	1.74	1.28	5.22	2.06	2.91	2.74	2.21	.63	.37	.22	.26	.20
IN.	2.01	1.43	6.02	2.38	3.03	3.16	2.47	.73	.41	.25	.30	.22

CAL YR 1990 TOTAL 191965 MEAN 526 MAX 9870 MIN 30 CFSM 2.14 IN. 29.03
WTR YR 1991 TOTAL 148205 MEAN 406 MAX 9870 MIN 23 CFSM 1.65 IN. 22.41

STREAMS TRIBUTARY TO LAKE ERIE

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^2.

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. 23 to Feb. 2. Records fair except periods of estimated record, which are poor.

AVERAGE DISCHARGE.--17 years, 1,062 ft^3/s, 21.05 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,700 ft^3/s June 11, 1986, gage height, 13.07 ft; maximum gage height, 13.16 ft Dec. 25, 1979; minimum, 5.1 ft^3/s Aug. 4-7, 1991.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 12	2130	6,700	7.23	Dec. 30	0700	*13,900	*10.93
Dec. 4	2330	6,900	7.36	Feb. 20	0200	6,670	7.21
Dec. 19	1600	6,800	7.30	Mar. 6	2300	11,500	9.81
Dec. 23	1000	12,200	10.15				

Minimum daily discharge, 5.1 ft^3/s Aug. 4-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376	492	626	9000	430	1050	590	504	238	20	6.3	10
2	454	455	558	6550	400	2100	549	456	170	20	6.2	9.0
3	388	424	1230	4910	905	2290	528	367	129	17	5.2	8.6
4	601	397	6160	2810	1690	2660	497	297	101	18	5.1	42
5	1840	385	6060	1430	3610	2840	493	258	85	23	5.1	23
6	1770	879	3690	890	3900	6260	547	237	72	24	5.1	35
7	1260	1200	2860	727	2930	8550	557	235	58	21	5.1	51
8	1060	1560	2390	569	2310	5920	534	259	49	71	5.2	34
9	797	1320	1720	524	1730	3520	597	264	42	38	21	21
10	2060	1370	1370	543	1420	2610	3000	235	37	136	22	16
11	5170	1390	1150	575	1150	1870	2460	198	34	147	18	13
12	5310	1540	938	1140	894	1290	1420	172	32	86	15	12
13	6310	1450	767	1600	699	967	1010	162	28	56	14	11
14	5330	1220	658	1550	1660	774	755	137	26	41	12	10
15	3800	960	843	1460	2320	664	1870	117	26	31	11	9.6
16	2710	727	1850	2330	1530	584	2400	99	53	23	11	8.7
17	1850	994	2030	4480	1320	548	1810	102	41	18	10	8.6
18	1460	1140	3830	3330	1270	526	1530	99	34	16	9.8	8.6
19	2130	1040	6610	2340	3200	802	1650	76	32	14	11	8.6
20	1780	871	4700	2250	6440	1020	4600	62	29	13	64	21
21	1430	699	3180	1880	4550	1020	4460	55	26	12	88	21
22	1320	768	5100	1430	3200	999	3930	48	23	12	28	15
23	1570	1410	9040	900	2540	1170	2560	41	22	12	21	17
24	1540	1940	7150	680	1900	2380	1640	36	20	12	25	19
25	1370	2160	4430	540	1380	2550	1170	81	19	12	20	17
26	1210	1790	2890	460	1070	1650	847	331	18	10	18	28
27	1020	1370	2000	410	891	1270	599	328	18	9.4	16	30
28	709	1160	1460	370	814	2170	533	250	16	8.8	14	19
29	583	1000	2540	350	---	1470	441	195	16	8.1	13	16
30	546	781	12700	410	---	1030	480	148	16	8.1	12	14
31	524	---	13300	500	---	717	---	138	---	7.8	11	---
TOTAL	58278	32892	113830	56938	56153	63271	44057	5987	1510	945.2	528.1	556.7
MEAN	1880	1096	3672	1837	2005	2041	1469	193	50.3	30.5	17.0	18.6
MAX	6310	2160	13300	9000	6440	8550	4600	504	238	147	88	51
MIN	376	385	558	350	400	526	441	36	16	7.8	5.1	8.6
CFSM	2.74	1.60	5.36	2.68	2.93	2.98	2.14	.28	.07	.04	.02	.03
IN.	3.16	1.79	6.18	3.09	3.05	3.44	2.39	.33	.08	.05	.03	.03

CAL YR 1990 TOTAL 572620 MEAN 1569 MAX 13300 MIN 24 CFSM 2.29 IN. 31.10
WTR YR 1991 TOTAL 434946.0 MEAN 1192 MAX 13300 MIN 5.1 CFSM 1.74 IN. 23.62

04212100 GRAND RIVER NEAR PAINESVILLE, OH

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1978 to September 1991 (discontinued).

PERIOD OF DAILY RECORD.--
CHLORIDE: February 1988 to September 1991 (discontinued).
NITROGEN, NITRITE + NITRATE: February 1988 to September 1991 (discontinued).
NITROGEN, AMMONIA + ORGANIC: February 1988 to September 1991 (discontinued).
PHOSPHORUS: February 1988 to September 1991 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: November 1978 to September 1991 (discontinued).

INSTRUMENTATION.--Refrigerated water-quality pumping sampler; controlled by data logger since February 1988.

REMARKS.--Water-quality samples were collected by pumping sampler once daily and more often during storm events. Sediment samples were collected by a local observer on an approximate once daily basis. Chemical loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water Resources Investigations, Book 3, Chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was sub-divided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations. Concentrations reported as below the limit of detection (for example, <.100) were assumed to have a value of half of the detection limit for the purpose of load calculation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 79 mg/L, Feb. 14, 1989; minimum daily mean, <10 mg/L, on many days during the period of record.
DISSOLVED CHLORIDE LOADS: Maximum daily, 712 tons, Mar. 6, 1991; minimum daily, .27 ton, Aug. 7, 1991.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 3.40 mg/L, July 18, 1990; minimum daily mean, <.100 mg/L, on many days during the period of record.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 21 tons, May 26, 1989; minimum daily, .00 ton, many days during the period of record.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 12.0 mg/L, April 11, 1990; minimum daily mean, <.20 mg/L, April 1, 1991 and July 5-8, 1991.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 345 tons, May 26, 1989; minimum daily, .006 ton, July 5-7, 1991.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 2.66 mg/L, April 11, 1990; minimum daily mean, .012 mg/L, April 29, 1988.
TOTAL PHOSPHORUS LOADS: Maximum daily, 93 tons May 26, 1989; minimum daily, .001 ton, on many days during the period of record.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,360 mg/L, May 26, 1989; minimum daily mean, 1 mg/L, Nov. 18, 1981, Oct. 26, 27, 1982.
SEDIMENT LOADS: Maximum daily, 53,900 tons, May 26, 1989; minimum daily, 0.09 ton, Oct. 26, 27, 1982.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED CHLORIDE CONCENTRATIONS: Maximum daily mean, 70 mg/L, Sept. 25, 31; minimum daily mean, <10 mg/L, several days during the year.
DISSOLVED CHLORIDE LOADS: Maximum daily, 712 tons, Mar. 6; minimum daily, .27 ton, Aug. 7.
DISSOLVED NITROGEN, NITRITE + NITRATE CONCENTRATIONS: Maximum daily mean, 1.18 mg/L, May 27; minimum daily mean, <.100 mg/L, many days during the year.
DISSOLVED NITROGEN, NITRITE + NITRATE LOADS: Maximum daily, 18 tons, Feb. 20; minimum daily, .00 ton, several days during the year.
TOTAL NITROGEN, AMMONIA + ORGANIC CONCENTRATIONS: Maximum daily mean, 2.2 mg/L, April 20; minimum daily mean, <.20 mg/L, Apr. 1, July 5-8.
TOTAL NITROGEN, AMMONIA + ORGANIC LOADS: Maximum daily, 64.1 tons, Dec. 30; minimum daily, .006 ton, July 5-7.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum daily mean, 1.02 mg/L, Dec. 30; minimum daily mean, .016 mg/L, Mar. 18, Apr. 5.
TOTAL PHOSPHORUS LOADS: Maximum daily, 35.9 tons, Dec. 30; minimum daily, .001 ton, Sept. 22, 23, 25, 29, 30.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 579 mg/L, Dec. 30; minimum daily mean, 4 mg/L, Dec. 2, Jan. 31, Sept. 28, 29.
SEDIMENT LOADS: Maximum daily, 20,000 tons, Dec. 30; minimum daily, 0.11 ton, Aug. 4, 5, 7.

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

REVISIONS.--The alachlor concentrations for water year 1988 have been revised, as shown in the following table. They supersede figures published in the report for 1989.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
May 12	0945	<.1	July 13	1730	<.1	Aug. 22	1600	<.1
June 13	1130	<.1						

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Jan. 11	1520	<.1	Apr. 03	1600	<.1	July 19	1745	<.1
Feb. 06	--	<.1	May 17	1400	<.1	Aug. 16	1600	<.1
Mar. 08	1130	<.1	June 12	1530	<.1	Sept. 13	1545	<.1

WATER QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)	DATE	TIME	ALACHLOR TOT RECV (UG/L)
Oct. 11	1630	<.1	Feb. 15	1135	<.1	June 19	1440	<.1
Nov. 13	1200	<.1	Mar. 14	1345	<.1	July 18	1545	.1
Jan. 23	0800	<.1	Apr. 23	1530	<.1			

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	376	20	20.3	492	17	22.1	626	16	27.0
2	454	20	24.5	455	17	20.9	558	16	24.8
3	388	20	21.0	424	17	19.5	1230	16	51.4
4	601	22	36.4	397	17	18.3	6160	<10	160
5	1840	17	80.8	385	18	18.8	6060	<10	93.3
6	1770	12	57.7	879	20	47.1	3690	12	116
7	1260	14	48.8	1200	15	49.7	2860	13	104
8	1060	17	47.5	1560	15	61.8	2390	14	87.9
9	797	17	36.2	1320	15	52.6	1720	15	68.1
10	2060	17	87.4	1370	16	59.3	1370	16	58.4
11	5170	10	139	1390	15	57.8	1150	16	49.7
12	5310	<10	75.3	1540	14	60.1	938	17	42.1
13	6310	<10	85.1	1450	18	69.0	767	17	35.5
14	5330	<10	71.9	1220	25	82.6	658	18	31.3
15	3800	<10	51.4	960	17	44.8	843	21	51.2
16	2710	<10	52.7	727	15	29.4	1850	19	93.8
17	1850	11	52.7	994	17	45.1	2030	15	80.0
18	1460	12	47.3	1140	15	47.5	3830	17	169
19	2130	<10	47.1	1040	16	44.8	6610	10	187
20	1780	11	50.6	871	16	38.5	4700	<10	75.1
21	1430	12	44.9	699	17	32.9	3180	<10	64.7
22	1320	14	52.1	768	19	41.4	5100	<10	126
23	1570	14	59.2	1410	18	69.5	9040	<10	144
24	1540	12	51.2	1940	15	79.8	7150	<10	96.5
25	1370	13	48.3	2160	14	78.9	4430	<10	76.0
26	1210	15	47.5	1790	14	66.4	2890	11	82.8
27	1020	14	38.8	1370	13	49.2	2000	18	93.2
28	709	15	27.8	1160	14	44.0	1460	21	82.6
29	583	16	24.5	1000	15	40.4	2540	14	81.1
30	546	15	22.1	781	15	32.2	12700	<10	175
31	524	16	22.0	---	---	---	13300	<10	187
TOTAL	58278	---	1572.1	32892	---	1424.4	113830	---	2814.5
		JANUARY			FEBRUARY			MARCH	
1	9000	<10	174	430	28	33.1	1050	35	96.9
2	6550	10	184	400	29	31.5	2100	34	195
3	4910	15	197	905	25	61.7	2290	40	250
4	2810	19	144	1690	22	99.0	2660	38	275
5	1430	21	81.6	3610	19	185	2840	50	386
6	890	24	56.9	3900	19	196	6260	45	712
7	727	25	50.0	2930	20	157	8550	23	533
8	569	26	40.6	2310	21	132	5920	17	268
9	524	27	38.2	1730	23	106	3520	21	197
10	543	27	39.6	1420	24	92.8	2610	24	172
11	575	27	41.6	1150	26	80.0	1870	18	91.7
12	1140	24	73.1	894	28	66.3	1290	22	76.5
13	1600	21	88.9	699	29	55.0	967	24	63.2
14	1550	21	88.1	1660	24	107	774	26	54.1
15	1460	22	87.3	2320	21	132	664	26	47.2
16	2330	21	133	1530	25	101	584	26	41.3
17	4480	18	214	1320	26	92.1	548	27	39.9
18	3330	18	163	1270	27	91.4	526	31	43.3
19	2340	20	124	3200	21	172	802	37	80.9
20	2250	21	126	6440	17	289	1020	29	81.1
21	1880	22	111	4550	20	244	1020	28	75.8
22	1430	23	89.1	3200	24	207	999	30	79.8
23	900	24	59.2	2540	28	189	1170	31	98.9
24	680	26	47.2	1900	32	162	2380	23	141
25	540	27	39.5	1380	37	136	2550	21	142
26	460	29	35.5	1070	42	122	1650	22	96.7
27	410	30	33.3	891	49	118	1270	23	77.2
28	370	32	31.7	814	55	121	2170	20	115
29	350	32	30.4	---	---	---	1470	19	77.5
30	410	30	32.7	---	---	---	1030	20	56.4
31	500	27	37.1	---	---	---	717	22	42.5
TOTAL	56938	---	2691.6	56153	---	3578.9	63271	---	4706.9

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

CHLORIDE DISSOLVED (MG/L AS CL), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	590	23	37.0	504	20	26.7	238	34	21.8
2	549	24	36.0	456	20	24.2	170	32	14.7
3	528	25	35.9	367	20	20.1	129	30	10.5
4	497	25	33.5	297	21	17.0	101	30	8.27
5	493	29	38.9	258	22	15.5	85	29	6.66
6	547	27	40.5	237	25	16.3	72	31	6.00
7	557	26	39.7	235	26	16.3	58	33	5.26
8	534	26	37.8	259	25	17.7	49	35	4.60
9	597	30	48.4	264	25	18.1	42	36	4.07
10	3000	20	157	235	26	16.7	37	33	3.28
11	2460	15	96.7	198	28	14.7	34	29	2.64
12	1420	18	67.9	172	28	13.0	32	42	3.55
13	1010	19	52.0	162	28	12.4	28	42	3.23
14	755	21	42.7	137	29	10.7	26	42	2.91
15	1870	20	97.6	117	30	9.32	26	41	2.88
16	2400	15	98.2	99	30	8.03	53	43	6.14
17	1810	17	80.7	102	31	8.40	41	45	5.07
18	1530	17	68.9	99	31	8.25	34	44	4.03
19	1650	17	77.0	76	31	6.47	32	45	3.85
20	4600	13	161	62	32	5.33	29	44	3.48
21	4460	13	155	55	32	4.83	26	44	3.12
22	3930	13	136	48	33	4.27	23	44	2.78
23	2560	16	112	41	34	3.75	22	45	2.59
24	1640	19	82.4	36	35	3.32	20	46	2.49
25	1170	16	52.4	81	33	7.15	19	48	2.47
26	847	19	42.6	331	26	22.2	18	50	2.46
27	599	15	25.1	328	26	22.5	18	51	2.41
28	533	18	25.4	250	29	19.3	16	52	2.26
29	441	20	23.3	195	30	15.7	16	52	2.25
30	480	20	25.6	148	31	12.4	16	55	2.39
31	---	---	---	138	33	12.1	---	---	---
TOTAL	44057	---	2027.2	5987	---	412.72	1510	---	148.14
		JULY			AUGUST			SEPTEMBER	
1	20	56	2.95	6.3	60	1.03	10	52	1.39
2	20	54	2.86	6.2	61	1.01	9.0	51	1.24
3	17	53	2.48	5.2	63	.89	8.6	49	1.14
4	18	55	2.71	5.1	64	.89	42	56	6.66
5	23	57	3.60	5.1	66	.92	23	53	3.39
6	24	54	3.50	5.1	34	.48	35	41	3.45
7	21	52	2.94	5.1	20	.27	51	34	4.64
8	71	51	9.28	5.2	63	.89	34	37	3.31
9	38	48	5.01	21	61	3.41	21	41	2.34
10	136	35	12.2	22	67	4.03	16	45	1.95
11	147	32	12.5	18	58	2.87	13	51	1.84
12	86	33	7.68	15	51	2.04	12	54	1.74
13	56	35	5.38	14	52	1.97	11	56	1.64
14	41	36	3.98	12	51	1.68	10	56	1.57
15	31	36	2.97	11	55	1.69	9.6	56	1.45
16	23	42	2.56	11	52	1.55	8.7	59	1.39
17	18	45	2.24	10	52	1.44	8.6	61	1.41
18	16	46	1.94	9.8	55	1.46	8.6	64	1.50
19	14	48	1.80	11	59	1.71	8.6	64	1.49
20	13	49	1.65	64	50	8.46	21	63	3.58
21	12	41	1.35	88	52	11.7	21	61	3.52
22	12	49	1.55	28	55	4.22	15	61	2.44
23	12	53	1.68	21	53	2.95	17	66	3.07
24	12	52	1.67	25	45	3.05	19	69	3.62
25	12	53	1.66	20	47	2.57	17	70	3.19
26	10	54	1.53	18	47	2.25	28	66	4.83
27	9.4	55	1.41	16	45	2.00	30	64	5.20
28	8.8	56	1.33	14	46	1.72	19	68	3.53
29	8.1	56	1.22	13	47	1.63	16	69	3.01
30	8.1	59	1.28	12	49	1.52	14	70	2.70
31	7.8	61	1.27	11	51	1.49	---	---	---
TOTAL	945.2	---	106.18	528.1	---	73.79	556.7	---	82.23
YEAR	434946.0		19638.66						

04212100 GRAND RIVER NEAR PAINESVILLE, OH

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	376	.400	.41	492	.235	.31	626	.200	.34
2	454	.400	.49	455	.200	.25	558	.200	.30
3	388	.340	.36	424	.200	.23	1230	.236	.88
4	601	.341	.59	397	.200	.21	6160	.377	6.3
5	1840	.398	2.0	385	.201	.21	6060	.377	6.2
6	1770	.316	1.5	879	.260	.62	3690	.397	4.0
7	1260	.300	1.0	1200	.205	.66	2860	.368	2.8
8	1060	.270	.78	1560	.200	.84	2390	.336	2.2
9	797	.209	.45	1320	.200	.71	1720	.330	1.5
10	2060	.298	1.7	1370	.200	.74	1370	.330	1.2
11	5170	.300	4.2	1390	.200	.75	1150	.330	1.0
12	5310	.299	4.3	1540	.201	.84	938	.326	.83
13	6310	.208	3.6	1450	.272	1.1	767	.325	.67
14	5330	.200	2.9	1220	.420	1.4	658	.330	.59
15	3800	.200	2.1	960	.242	.64	843	.341	.78
16	2710	.196	1.4	727	.200	.39	1850	.345	1.7
17	1850	.136	.69	994	.200	.54	2030	.323	1.8
18	1460	.122	.49	1140	.200	.62	3830	.360	3.9
19	2130	.200	1.2	1040	.200	.56	6610	.348	6.2
20	1780	.200	.96	871	.157	.37	4700	.358	4.5
21	1430	.200	.77	699	.100	.19	3180	.340	2.9
22	1320	.200	.71	768	.123	.28	5100	.315	4.3
23	1570	.200	.85	1410	.200	.76	9040	.326	8.1
24	1540	.207	.86	1940	.200	1.0	7150	.290	5.6
25	1370	.282	1.0	2160	.200	1.2	4430	.277	3.3
26	1210	.282	.92	1790	.200	.97	2890	.254	2.0
27	1020	.207	.57	1370	.200	.74	2000	.232	1.3
28	709	.228	.43	1160	.200	.62	1460	.212	.84
29	583	.257	.41	1000	.200	.54	2540	.256	1.9
30	546	.200	.30	781	.200	.42	12700	.405	14
31	524	.251	.35	---	---	---	13300	.394	14
TOTAL	58278	---	38.29	32892	---	18.71	113830	---	105.93
		JANUARY			FEBRUARY			MARCH	
1	9000	.342	8.4	430	.125	.15	1050	.538	1.5
2	6550	.308	5.5	400	.123	.13	2100	.500	2.8
3	4910	.277	3.7	905	.157	.40	2290	.484	3.0
4	2810	.243	1.9	1690	.238	1.1	2660	.459	3.3
5	1430	.212	.82	3610	.303	3.0	2840	.427	3.3
6	890	.185	.45	3900	.300	3.2	6260	.420	7.3
7	727	.162	.32	2930	.280	2.2	8550	.362	8.5
8	569	.142	.22	2310	.261	1.6	5920	.360	5.7
9	524	.130	.18	1730	.244	1.1	3520	.344	3.3
10	543	.130	.19	1420	.227	.87	2610	.336	2.4
11	575	.131	.20	1150	.212	.66	1870	.360	1.8
12	1140	.149	.46	894	.198	.48	1290	.350	1.2
13	1600	.174	.75	699	.185	.35	967	.373	.97
14	1550	.171	.72	1660	.229	1.0	774	.380	.79
15	1460	.163	.64	2320	.280	1.8	664	.369	.66
16	2330	.194	1.3	1530	.236	.98	584	.353	.56
17	4480	.277	3.4	1320	.222	.79	548	.322	.48
18	3330	.263	2.4	1270	.214	.73	526	.310	.44
19	2340	.229	1.4	3200	.509	5.3	802	.412	.92
20	2250	.214	1.3	6440	1.04	18	1020	.351	.97
21	1880	.204	1.0	4550	.869	11	1020	.247	.68
22	1430	.188	.73	3200	.763	6.6	999	.208	.56
23	900	.174	.42	2540	.708	4.9	1170	.213	.67
24	680	.161	.29	1900	.656	3.4	2380	.232	1.5
25	540	.148	.22	1380	.609	2.3	2550	.247	1.7
26	460	.137	.17	1070	.564	1.6	1650	.236	1.1
27	410	.127	.14	891	.527	1.3	1270	.221	.76
28	370	.117	.12	814	.524	1.2	2170	.268	1.6
29	350	.113	.11	---	---	---	1470	.241	.96
30	410	.121	.13	---	---	---	1030	.221	.61
31	500	.128	.17	---	---	---	717	.172	.34
TOTAL	56938	---	37.75	56153	---	76.14	63271	---	60.37

04212100 GRAND RIVER NEAR PAINESVILLE, OH

NITROGEN NITRITE PLUS NITRATE DISSOLVED (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	590	.145	.23	504	<.100	.07	238	.741	.48
2	549	.163	.24	456	<.100	.09	170	.628	.29
3	528	.173	.25	367	<.100	.06	129	.465	.16
4	497	.103	.14	297	<.100	.04	101	.353	.10
5	493	.165	.22	258	<.100	.04	85	1.07	.24
6	547	.144	.21	237	<.100	.06	72	.481	.10
7	557	.138	.21	235	.100	.06	58	.241	.04
8	534	.112	.16	259	.100	.07	49	.272	.04
9	597	<.100	.12	264	.100	.07	42	.300	.03
10	3000	.270	2.2	235	.100	.06	37	.632	.06
11	2460	.294	2.0	198	.100	.05	34	.870	.08
12	1420	.234	.91	172	.100	.05	32	.132	.01
13	1010	.209	.57	162	.100	.04	28	.130	.01
14	755	.197	.40	137	.100	.04	26	.120	.01
15	1870	.246	1.3	117	.100	.03	26	.111	.01
16	2400	.227	1.5	99	.100	.03	53	.151	.02
17	1810	.223	1.1	102	.100	.03	41	.139	.02
18	1530	.230	.95	99	.100	.03	34	.195	.02
19	1650	.212	.99	76	.100	.02	32	.181	.02
20	4600	.323	4.0	62	.100	.02	29	.144	.01
21	4460	.273	3.3	55	.100	.01	26	.126	.01
22	3930	.290	3.1	48	.100	.01	23	.142	.01
23	2560	.216	1.5	41	.100	.01	22	.160	.01
24	1640	.141	.63	36	.100	.01	20	.180	.01
25	1170	.210	.66	81	.523	.13	19	.142	.01
26	847	<.100	.22	331	1.14	1.1	18	<.100	.00
27	599	.217	.34	328	1.18	1.1	18	<.100	.00
28	533	.212	.31	250	1.02	.69	16	<.100	.00
29	441	<.100	.06	195	.987	.52	16	<.100	.00
30	480	<.100	.06	148	.955	.38	16	.127	.01
31	---	---	---	138	.779	.29	---	---	---
TOTAL	44057	---	27.88	5987	---	5.21	1510	---	1.81
		JULY			AUGUST			SEPTEMBER	
1	20	<.100	.00	6.3	.478	.01	10	.347	.01
2	20	<.100	.00	6.2	.382	.01	9.0	.453	.01
3	17	.173	.01	5.2	.475	.01	8.6	.327	.01
4	18	.183	.01	5.1	.527	.01	42	.258	.03
5	23	.157	.01	5.1	.582	.01	23	.160	.01
6	24	.140	.01	5.1	.377	.01	35	.100	.01
7	21	.163	.01	5.1	.247	.00	51	<.100	.01
8	71	.965	.25	5.2	.404	.01	34	<.100	.00
9	38	.347	.04	21	.535	.03	21	<.100	.00
10	136	.134	.05	22	.561	.03	16	.123	.01
11	147	.113	.04	18	.305	.02	13	.257	.01
12	86	.119	.03	15	.214	.01	12	.278	.01
13	56	.120	.02	14	<.100	.00	11	.319	.01
14	41	.123	.01	12	<.100	.00	10	.370	.01
15	31	.136	.01	11	<.100	.00	9.6	.222	.01
16	23	.137	.01	11	<.100	.00	8.7	.225	.01
17	18	.125	.01	10	<.100	.00	8.6	.254	.01
18	16	<.100	.00	9.8	<.100	.00	8.6	.356	.01
19	14	.119	.00	11	<.100	.00	8.6	.380	.01
20	13	.182	.01	64	.535	.11	21	.365	.02
21	12	.161	.01	88	.686	.20	21	.300	.02
22	12	.188	.01	28	.247	.02	15	.297	.01
23	12	.172	.01	21	.188	.01	17	.323	.01
24	12	.165	.01	25	.127	.01	19	.327	.02
25	12	.214	.01	20	.102	.01	17	.323	.01
26	10	.345	.01	18	.102	.00	28	.318	.02
27	9.4	.355	.01	16	.129	.01	30	.314	.03
28	8.8	.295	.01	14	.207	.01	19	.310	.02
29	8.1	.369	.01	13	.262	.01	16	.306	.01
30	8.1	.553	.01	12	.275	.01	14	.302	.01
31	7.8	.572	.01	11	.315	.01	---	---	---
TOTAL	945.2	---	0.64	528.1	---	0.57	556.7	---	0.37
YEAR	434946.0		373.67						

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	376	.70	.72	492	.59	.78	626	.53	.89
2	454	.75	.92	455	.61	.75	558	.54	.81
3	388	.66	.69	424	.49	.56	1230	.63	2.31
4	601	.87	1.64	397	.56	.60	6160	1.2	20.2
5	1840	1.3	6.49	385	.56	.59	6060	1.6	26.4
6	1770	1.5	7.13	879	.76	1.85	3690	1.1	11.3
7	1260	1.3	4.34	1200	.96	3.10	2860	.76	5.87
8	1060	.99	2.83	1560	1.0	4.25	2390	.66	4.31
9	797	.80	1.72	1320	.92	3.28	1720	.60	2.80
10	2060	1.3	7.87	1370	.86	3.18	1370	.52	1.92
11	5170	1.7	24.5	1390	.78	2.92	1150	.54	1.66
12	5310	1.6	22.3	1540	.75	3.12	938	.59	1.51
13	6310	1.6	26.6	1450	.66	2.58	767	.45	.94
14	5330	1.5	22.5	1220	.63	2.07	658	.45	.80
15	3800	1.0	10.7	960	.52	1.36	843	.52	1.22
16	2710	.93	6.83	727	.47	.91	1850	.70	3.52
17	1850	.91	4.54	994	.46	1.25	2030	.66	3.67
18	1460	.82	3.22	1140	.48	1.47	3830	.99	12.2
19	2130	.92	5.34	1040	.48	1.34	6610	1.5	26.8
20	1780	.94	4.49	871	.52	1.22	4700	1.6	21.1
21	1430	.87	3.35	699	.57	1.07	3180	.85	7.49
22	1320	.65	2.30	768	.69	1.56	5100	.90	12.3
23	1570	.66	2.78	1410	.73	2.78	9040	1.9	50.9
24	1540	.69	2.88	1940	.81	4.26	7150	1.3	26.0
25	1370	.66	2.43	2160	.83	4.84	4430	.77	9.27
26	1210	.68	2.23	1790	.74	3.60	2890	.64	5.06
27	1020	.72	1.98	1370	.82	3.03	2000	.54	2.92
28	709	.67	1.27	1160	.84	2.62	1460	.45	1.78
29	583	.68	1.07	1000	.71	1.92	2540	.67	5.55
30	546	.65	.96	781	.59	1.24	12700	1.8	64.1
31	524	.57	.80	---	---	---	13300	1.8	63.3
TOTAL	58278	---	187.42	32892	---	64.10	113830	---	398.90
		JANUARY			FEBRUARY			MARCH	
1	9000	1.4	33.8	430	.42	.49	1050	.51	1.54
2	6550	1.1	18.8	400	.41	.45	2100	.84	4.78
3	4910	.91	12.1	905	.51	1.28	2290	.72	4.45
4	2810	.80	6.16	1690	.70	3.30	2660	.83	5.98
5	1430	.71	2.77	3610	1.1	10.7	2840	.81	6.25
6	890	.63	1.53	3900	1.1	11.4	6260	1.2	24.2
7	727	.57	1.13	2930	.96	7.58	8550	1.5	34.4
8	569	.53	.81	2310	.85	5.32	5920	1.0	16.9
9	524	.51	.72	1730	.75	3.54	3520	.84	8.01
10	543	.53	.77	1420	.67	2.58	2610	.76	5.33
11	575	.55	.85	1150	.59	1.85	1870	.76	3.84
12	1140	.61	1.89	894	.53	1.28	1290	.56	1.95
13	1600	.68	2.94	699	.47	.89	967	.39	1.03
14	1550	.66	2.78	1660	.66	3.04	774	.40	.83
15	1460	.63	2.47	2320	.90	5.66	664	.39	.71
16	2330	.68	4.39	1530	.68	2.81	584	.34	.53
17	4480	.93	11.2	1320	.63	2.25	548	.31	.46
18	3330	.86	7.80	1270	.61	2.09	526	.28	.40
19	2340	.73	4.63	3200	1.1	10.4	802	.39	.87
20	2250	.67	4.06	6440	1.7	29.1	1020	.40	1.11
21	1880	.63	3.21	4550	1.1	14.2	1020	.44	1.20
22	1430	.60	2.30	3200	.85	7.38	999	.37	.99
23	900	.56	1.36	2540	.78	5.35	1170	.49	1.58
24	680	.53	.97	1900	.71	3.65	2380	.86	5.89
25	540	.50	.73	1380	.65	2.42	2550	.93	6.46
26	460	.47	.58	1070	.60	1.72	1650	.71	3.20
27	410	.44	.49	891	.52	1.26	1270	.61	2.08
28	370	.42	.42	814	.36	.79	2170	1.4	8.43
29	350	.41	.38	---	---	---	1470	.98	3.97
30	410	.43	.47	---	---	---	1030	.72	2.00
31	500	.44	.60	---	---	---	717	.53	1.04
TOTAL	56938	---	133.11	56153	---	142.78	63271	---	160.41

04212100 GRAND RIVER NEAR PAINESVILLE, OH

NITROGEN AMMONIA PLUS ORGANIC TOTAL (MG/L AS N), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	590	<.20	.30	504	.59	.80	238	1.1	.74
2	549	.46	.68	456	.65	.80	170	.83	.39
3	528	.44	.62	367	.61	.61	129	.87	.30
4	497	.42	.57	297	.54	.43	101	.88	.24
5	493	.55	.73	258	.59	.41	85	.77	.18
6	547	.50	.74	237	.64	.41	72	.75	.15
7	557	.55	.82	235	.65	.41	58	.75	.12
8	534	.57	.82	259	.67	.47	49	.66	.086
9	597	.68	1.13	264	.68	.49	42	.68	.076
10	3000	1.7	14.1	235	.62	.40	37	.68	.068
11	2460	1.9	12.5	198	.57	.30	34	.68	.062
12	1420	1.1	4.50	172	.52	.24	32	.74	.063
13	1010	.74	2.02	162	.49	.22	28	.71	.054
14	755	.73	1.49	137	.48	.18	26	.70	.049
15	1870	1.5	7.94	117	.48	.15	26	.70	.049
16	2400	1.3	8.33	99	.47	.12	53	.72	.10
17	1810	.95	4.67	102	.46	.13	41	.74	.083
18	1530	.87	3.58	99	.45	.12	34	.72	.066
19	1650	1.0	5.02	76	.44	.091	32	.78	.066
20	4600	2.2	26.9	62	.43	.073	29	.62	.049
21	4460	1.4	17.5	55	.43	.063	26	.59	.042
22	3930	1.1	12.1	48	.42	.054	23	.82	.051
23	2560	.78	5.49	41	.41	.046	22	1.1	.065
24	1640	.70	3.12	36	.40	.039	20	.57	.031
25	1170	.73	2.29	81	.48	.11	19	.52	.027
26	847	.64	1.46	331	.85	.85	18	.46	.023
27	599	.94	1.51	328	.90	.80	18	.48	.023
28	533	.95	1.38	250	.78	.53	16	.50	.022
29	441	.56	.67	195	.73	.38	16	.55	.024
30	480	.55	.72	148	.86	.34	16	.63	.027
31	---	---	---	138	.90	.33	---	---	---
TOTAL	44057	---	143.70	5987	---	10.396	1510	---	3.326
		JULY			AUGUST			SEPTEMBER	
1	20	.50	.027	6.3	.65	.011	10	.68	.018
2	20	.59	.031	6.2	.75	.012	9.0	.67	.016
3	17	.74	.035	5.2	.84	.012	8.6	.68	.016
4	18	.45	.022	5.1	.82	.011	42	1.2	.16
5	23	<.20	.006	5.1	.84	.012	23	1.3	.079
6	24	<.20	.006	5.1	.78	.011	35	.70	.063
7	21	<.20	.006	5.1	.85	.012	51	.62	.085
8	71	<.20	.020	5.2	.94	.013	34	.62	.057
9	38	.54	.053	21	.98	.054	21	.65	.037
10	136	.91	.34	22	.89	.054	16	.73	.032
11	147	.99	.39	18	.96	.047	13	.73	.027
12	86	.93	.22	15	1.1	.044	12	.70	.022
13	56	.87	.13	14	1.3	.050	11	.64	.019
14	41	1.0	.11	12	1.1	.038	10	.66	.018
15	31	.97	.080	11	.76	.023	9.6	.63	.017
16	23	.82	.050	11	.77	.023	8.7	.56	.013
17	18	.60	.030	10	.77	.021	8.6	.55	.013
18	16	.57	.024	9.8	.78	.021	8.6	.60	.014
19	14	.60	.022	11	.70	.021	8.6	.56	.013
20	13	.56	.019	64	1.2	.22	21	.64	.038
21	12	.64	.021	88	1.4	.36	21	.64	.037
22	12	.70	.022	28	.82	.063	15	.58	.023
23	12	1.2	.037	21	.74	.041	17	.58	.027
24	12	.83	.027	25	.76	.052	19	.59	.031
25	12	.98	.031	20	.77	.042	17	.54	.025
26	10	.89	.025	18	.81	.039	28	.62	.050
27	9.4	.94	.024	16	.68	.030	30	.73	.060
28	8.8	.78	.018	14	.85	.032	19	.59	.031
29	8.1	.76	.017	13	1.0	.035	16	.53	.023
30	8.1	.64	.014	12	.69	.021	14	.50	.019
31	7.8	.70	.015	11	.69	.020	---	---	---
TOTAL	945.2	---	1.872	528.1	---	1.445	556.7	---	1.083
YEAR	434946.0		1248.542						

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	376	.053	.054	492	.062	.083	626	.038	.064
2	454	.055	.068	455	.062	.076	558	.036	.054
3	388	.046	.048	424	.060	.069	1230	.052	.22
4	601	.120	.27	397	.056	.060	6160	.247	4.23
5	1840	.221	1.15	385	.052	.055	6060	.333	5.53
6	1770	.218	1.07	879	.074	.18	3690	.176	1.79
7	1260	.137	.47	1200	.100	.33	2860	.130	1.00
8	1060	.107	.31	1560	.118	.50	2390	.112	.73
9	797	.090	.20	1320	.086	.31	1720	.083	.39
10	2060	.184	1.20	1370	.070	.26	1370	.059	.22
11	5170	.348	4.88	1390	.066	.25	1150	.046	.14
12	5310	.331	4.75	1540	.067	.28	938	.039	.098
13	6310	.345	5.87	1450	.061	.24	767	.035	.072
14	5330	.312	4.57	1220	.056	.18	658	.031	.056
15	3800	.186	1.92	960	.051	.13	843	.039	.097
16	2710	.113	.84	727	.046	.091	1850	.069	.35
17	1850	.101	.51	994	.046	.12	2030	.084	.46
18	1460	.103	.41	1140	.046	.14	3830	.217	2.93
19	2130	.167	.97	1040	.044	.12	6610	.391	6.98
20	1780	.140	.67	871	.042	.099	4700	.423	5.53
21	1430	.109	.42	699	.039	.073	3180	.170	1.50
22	1320	.095	.34	768	.062	.16	5100	.194	2.67
23	1570	.090	.38	1410	.104	.40	9040	.635	16.8
24	1540	.088	.37	1940	.122	.64	7150	.344	6.80
25	1370	.074	.27	2160	.128	.75	4430	.138	1.67
26	1210	.068	.22	1790	.089	.44	2890	.105	.82
27	1020	.067	.19	1370	.069	.26	2000	.079	.43
28	709	.062	.12	1160	.062	.19	1460	.060	.24
29	583	.053	.084	1000	.056	.15	2540	.177	1.72
30	546	.054	.079	781	.046	.098	12700	1.02	35.9
31	524	.063	.089	---	---	---	13300	.888	31.9
TOTAL	58278	---	32.792	32892	---	6.734	113830	---	131.391
		JANUARY			FEBRUARY			MARCH	
1	9000	.621	15.3	430	.041	.048	1050	.065	.20
2	6550	.426	7.60	400	.042	.046	2100	.119	.69
3	4910	.293	3.93	905	.065	.17	2290	.129	.79
4	2810	.201	1.56	1690	.121	.58	2660	.146	1.05
5	1430	.138	.54	3610	.254	2.52	2840	.136	1.05
6	890	.095	.23	3900	.249	2.64	6260	.221	4.32
7	727	.065	.13	2930	.203	1.61	8550	.388	8.98
8	569	.045	.069	2310	.165	1.04	5920	.199	3.32
9	524	.034	.049	1730	.134	.63	3520	.125	1.20
10	543	.032	.047	1420	.109	.42	2610	.122	.86
11	575	.031	.048	1150	.089	.28	1870	.126	.64
12	1140	.040	.13	894	.072	.18	1290	.075	.27
13	1600	.056	.24	699	.060	.11	967	.046	.12
14	1550	.051	.22	1660	.089	.41	774	.037	.077
15	1460	.043	.17	2320	.127	.81	664	.032	.057
16	2330	.062	.44	1530	.079	.33	584	.028	.044
17	4480	.200	2.43	1320	.066	.24	548	.022	.032
18	3330	.202	1.83	1270	.062	.21	526	.016	.023
19	2340	.160	1.01	3200	.180	1.94	802	.033	.077
20	2250	.135	.82	6440	.389	6.78	1020	.041	.11
21	1880	.117	.60	4550	.248	3.13	1020	.034	.094
22	1430	.102	.39	3200	.176	1.53	999	.033	.089
23	900	.088	.21	2540	.144	.99	1170	.047	.15
24	680	.077	.14	1900	.117	.60	2380	.202	1.43
25	540	.067	.097	1380	.095	.36	2550	.217	1.51
26	460	.058	.072	1070	.078	.22	1650	.131	.59
27	410	.050	.055	891	.062	.15	1270	.080	.27
28	370	.043	.043	814	.047	.10	2170	.258	1.61
29	350	.040	.037	---	---	---	1470	.176	.72
30	410	.041	.045	---	---	---	1030	.094	.27
31	500	.042	.056	---	---	---	717	.060	.12
TOTAL	56938	---	38.538	56153	---	28.074	63271	---	30.763

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

PHOSPHORUS TOTAL (MG/L AS P), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL			MAY			JUNE	
1	590	.043	.069	504	.057	.078	238	.138	.092
2	549	.031	.046	456	.061	.075	170	.100	.046
3	528	.023	.033	367	.058	.057	129	.066	.023
4	497	.020	.027	297	.049	.039	101	.049	.013
5	493	.016	.022	258	.048	.033	85	.042	.010
6	547	.019	.028	237	.049	.031	72	.039	.008
7	557	.021	.031	235	.049	.031	58	.045	.007
8	534	.020	.030	259	.050	.035	49	.045	.006
9	597	.036	.066	264	.048	.034	42	.050	.006
10	3000	.327	2.70	235	.042	.027	37	.046	.005
11	2460	.371	2.48	198	.037	.020	34	.052	.005
12	1420	.161	.64	172	.032	.015	32	.074	.006
13	1010	.083	.23	162	.030	.013	28	.081	.006
14	755	.051	.10	137	.030	.011	26	.072	.005
15	1870	.281	1.57	117	.030	.009	26	.071	.005
16	2400	.253	1.65	99	.030	.008	53	.106	.015
17	1810	.159	.78	102	.030	.008	41	.096	.011
18	1530	.140	.58	99	.030	.008	34	.075	.007
19	1650	.175	.88	76	.030	.006	32	.078	.007
20	4600	.512	6.38	62	.030	.005	29	.058	.005
21	4460	.337	4.09	55	.030	.004	26	.043	.003
22	3930	.227	2.43	48	.030	.004	23	.052	.003
23	2560	.114	.81	41	.030	.003	22	.052	.003
24	1640	.076	.34	36	.030	.003	20	.060	.003
25	1170	.087	.27	81	.046	.011	19	.064	.003
26	847	.053	.12	331	.120	.13	18	.059	.003
27	599	.131	.21	328	.106	.096	18	.063	.003
28	533	.116	.17	250	.069	.047	16	.067	.003
29	441	.050	.060	195	.050	.026	16	.080	.003
30	480	.047	.062	148	.055	.022	16	.110	.005
31	---	---	---	138	.063	.023	---	---	---
TOTAL	44057	---	26.904	5987	---	0.912	1510	---	0.320
		JULY			AUGUST			SEPTEMBER	
1	20	.069	.004	6.3	.120	.002	10	.102	.003
2	20	.061	.003	6.2	.114	.002	9.0	.115	.003
3	17	.072	.003	5.2	.129	.002	8.6	.100	.002
4	18	.068	.003	5.1	.118	.002	42	.144	.019
5	23	.069	.004	5.1	.144	.002	23	.079	.005
6	24	.074	.005	5.1	.147	.002	35	.048	.004
7	21	.077	.004	5.1	.144	.002	51	.035	.005
8	71	.418	.11	5.2	.111	.002	34	.043	.004
9	38	.122	.013	21	.104	.006	21	.050	.003
10	136	.101	.042	22	.093	.006	16	.066	.003
11	147	.129	.052	18	.088	.004	13	.082	.003
12	86	.096	.022	15	.141	.006	12	.089	.003
13	56	.082	.013	14	.220	.008	11	.097	.003
14	41	.084	.009	12	.189	.006	10	.118	.003
15	31	.085	.007	11	.090	.003	9.6	.098	.003
16	23	.087	.005	11	.088	.003	8.7	.088	.002
17	18	.086	.004	10	.103	.003	8.6	.080	.002
18	16	.082	.003	9.8	.104	.003	8.6	.073	.002
19	14	.085	.003	11	.085	.003	8.6	.069	.002
20	13	.103	.004	64	.213	.041	21	.066	.004
21	12	.142	.005	88	.233	.065	21	.039	.002
22	12	.115	.004	28	.106	.008	15	.031	.001
23	12	.092	.003	21	.098	.006	17	.032	.001
24	12	.096	.003	25	.098	.007	19	.033	.002
25	12	.150	.005	20	.067	.004	17	.031	.001
26	10	.119	.003	18	.067	.003	28	.037	.003
27	9.4	.113	.003	16	.071	.003	30	.040	.003
28	8.8	.412	.010	14	.096	.004	19	.035	.002
29	8.1	.370	.008	13	.117	.004	16	.033	.001
30	8.1	.127	.003	12	.090	.003	14	.031	.001
31	7.8	.126	.003	11	.099	.003	---	---	---
TOTAL	945.2	---	0.363	528.1	---	0.218	556.7	---	0.095
YEAR	434946.0		297.104						

04212100 GRAND RIVER NEAR PAINESVILLE, OH

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	376	39	39	492	12	16	626	7	12
2	454	23	28	455	6	7.4	558	4	6.6
3	388	14	15	424	12	14	1230	61	321
4	601	93	223	397	8	8.8	6160	163	2720
5	1840	116	578	385	7	7.7	6060	98	1640
6	1770	75	368	879	30	74	3690	52	527
7	1260	48	165	1200	36	116	2860	37	285
8	1060	59	171	1560	36	152	2390	30	198
9	797	30	64	1320	29	104	1720	21	99
10	2060	50	330	1370	21	77	1370	16	58
11	5170	145	2050	1390	17	64	1150	12	37
12	5310	151	2150	1540	16	66	938	9	23
13	6310	107	1820	1450	14	57	767	7	14
14	5330	75	1090	1220	14	44	658	6	11
15	3800	51	528	960	16	42	843	16	41
16	2710	41	305	727	12	23	1850	32	160
17	1850	41	203	994	16	43	2030	32	174
18	1460	45	178	1140	18	55	3830	93	1400
19	2130	56	323	1040	10	27	6610	155	2770
20	1780	41	198	871	10	25	4700	100	1310
21	1430	33	126	699	7	13	3180	62	553
22	1320	27	98	768	16	39	5100	81	1110
23	1570	30	127	1410	23	90	9040	449	12000
24	1540	31	130	1940	45	235	7150	160	3190
25	1370	26	98	2160	42	247	4430	67	818
26	1210	32	104	1790	23	113	2890	49	382
27	1020	22	62	1370	19	69	2000	36	198
28	709	15	29	1160	18	58	1460	30	117
29	583	11	18	1000	13	35	2540	144	1320
30	546	13	19	781	9	19	12700	579	20000
31	524	10	13	---	---	---	13300	318	11500
TOTAL	58278	---	11650	32892	---	1940.9	113830	---	62994.6
		JANUARY			FEBRUARY			MARCH	
1	9000	174	4330	430	5	5.7	1050	23	74
2	6550	117	2080	400	7	7.9	2100	53	306
3	4910	86	1150	905	11	27	2290	53	326
4	2810	60	467	1690	49	251	2660	75	543
5	1430	42	165	3610	189	1900	2840	76	585
6	890	26	62	3900	143	1540	6260	304	7120
7	727	19	37	2930	69	555	8550	368	8810
8	569	18	27	2310	46	291	5920	136	2260
9	524	15	22	1730	33	156	3520	93	895
10	543	13	19	1420	24	93	2610	66	468
11	575	13	20	1150	18	56	1870	53	269
12	1140	29	93	894	15	36	1290	39	137
13	1600	37	160	699	14	26	967	29	77
14	1550	29	120	1660	54	268	774	23	48
15	1460	29	116	2320	54	347	664	16	28
16	2330	220	1810	1530	36	151	584	18	29
17	4480	266	3130	1320	25	89	548	16	24
18	3330	81	746	1270	21	72	526	11	16
19	2340	49	308	3200	397	4840	802	22	50
20	2250	35	215	6440	497	8710	1020	15	41
21	1880	25	130	4550	129	1660	1020	13	35
22	1430	22	85	3200	78	680	999	16	43
23	900	15	37	2540	58	399	1170	30	98
24	680	11	20	1900	40	209	2380	101	715
25	540	13	19	1380	26	99	2550	83	585
26	460	11	13	1070	19	56	1650	54	241
27	410	8	9.2	891	18	43	1270	37	126
28	370	7	6.5	814	16	34	2170	256	1690
29	350	7	7.0	---	---	---	1470	114	472
30	410	6	7.0	---	---	---	1030	44	124
31	500	4	6.0	---	---	---	717	30	58
TOTAL	56938	---	15416.7	56153	---	22601.6	63271	---	26293

STREAMS TRIBUTARY TO LAKE ERIE

04212100 GRAND RIVER NEAR PAINESVILLE, OH

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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	590	15	24	504	10	13	238	147	104
2	549	11	16	456	14	17	170	45	21
3	528	12	18	367	11	11	129	23	8.2
4	497	11	14	297	8	6.8	101	22	6.1
5	493	10	14	258	13	9.2	85	23	5.4
6	547	11	17	237	11	6.8	72	17	3.3
7	557	11	17	235	9	6.0	58	15	2.4
8	534	9	13	259	13	8.8	49	13	1.7
9	597	19	39	264	15	11	42	12	1.3
10	3000	481	3920	235	18	11	37	8	.85
11	2460	125	875	198	34	18	34	12	1.1
12	1420	100	383	172	39	18	32	10	.84
13	1010	46	130	162	26	11	28	12	.90
14	755	22	45	137	14	5.1	26	15	1.0
15	1870	144	903	117	12	3.8	26	26	1.8
16	2400	105	688	99	10	2.7	53	32	4.6
17	1810	73	356	102	12	3.4	41	14	1.6
18	1530	60	250	99	12	3.3	34	12	1.1
19	1650	82	451	76	7	1.5	32	11	.92
20	4600	380	4800	62	7	1.2	29	10	.81
21	4460	123	1500	55	9	1.4	26	9	.64
22	3930	95	1010	48	8	1.1	23	17	1.0
23	2560	74	521	41	7	.82	22	22	1.3
24	1640	41	183	36	11	1.1	20	11	.59
25	1170	25	78	81	42	9.7	19	10	.50
26	847	26	60	331	124	149	18	23	1.1
27	599	30	48	328	50	45	18	30	1.4
28	533	21	30	250	43	29	16	34	1.5
29	441	13	15	195	24	13	16	26	1.1
30	480	11	15	148	18	7.0	16	24	1.1
31	---	---	---	138	16	6.0	---	---	---
TOTAL	44057	---	16433	5987	---	431.72	1510	---	179.15
		JULY			AUGUST			SEPTEMBER	
1	20	16	.84	6.3	9	.16	10	24	.66
2	20	17	.93	6.2	23	.38	9.0	14	.34
3	17	32	1.5	5.2	12	.17	8.6	12	.28
4	18	26	1.3	5.1	8	.11	42	154	29
5	23	25	1.6	5.1	8	.11	23	28	1.9
6	24	32	2.1	5.1	10	.14	35	21	1.9
7	21	26	1.5	5.1	8	.11	51	19	2.7
8	71	201	59	5.2	9	.13	34	11	1.1
9	38	47	5.0	21	13	.71	21	12	.70
10	136	142	63	22	13	.79	16	14	.58
11	147	36	14	18	11	.54	13	14	.50
12	86	27	6.3	15	18	.71	12	23	.72
13	56	31	4.6	14	13	.48	11	16	.46
14	41	21	2.3	12	11	.35	10	15	.41
15	31	22	1.8	11	11	.34	9.6	16	.41
16	23	22	1.3	11	9	.28	8.7	11	.25
17	18	27	1.4	10	9	.25	8.6	11	.26
18	16	21	.91	9.8	11	.28	8.6	10	.23
19	14	15	.56	11	20	.85	8.6	16	.38
20	13	20	.67	64	193	40	21	25	1.4
21	12	17	.57	88	64	23	21	12	.73
22	12	14	.44	28	29	2.2	15	8	.33
23	12	25	.79	21	16	.89	17	8	.39
24	12	15	.49	25	12	.79	19	7	.35
25	12	13	.41	20	12	.65	17	8	.39
26	10	12	.35	18	12	.59	28	12	.97
27	9.4	33	.85	16	10	.44	30	9	.78
28	8.8	14	.33	14	9	.35	19	4	.21
29	8.1	8	.18	13	11	.39	16	4	.17
30	8.1	15	.32	12	15	.45	14	7	.27
31	7.8	12	.26	11	22	.64	---	---	---
TOTAL	945.2	---	175.60	528.1	---	77.28	556.7	---	48.77
YEAR	434946.0		158242.32						

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

LOCATION.--Lat 41°44'09", long 81°15'59", 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.--701 mi².

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, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC											
04...	1200	6250	204	7.8	-0.5	0.0	65	13.0	91	>6000	>6000
MAR											
26...	1150	1620	335	7.5	13.0	8.5	35	11.2	97	260	3700
JUN											
25...	1145	18	1930	8.4	25.0	25.0	5.0	7.8	96	110	68
SEP											
17...	1100	8.6	2700	8.2	23.0	25.0	5.5	8.5	105	970	500

DATE	HARD-NESS TOTAL (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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC											
04...	75	21	5.4	9.9	3.1	63	0	54	25	19	<0.10
MAR											
26...	95	29	5.5	21	2.2	61	0	50	22	45	0.10
JUN											
25...	780	290	13	230	6.3	115	7	104	78	760	0.30
SEP											
17...	740	270	15	220	6.4	122	0	101	89	710	0.50

DATE	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 TOTAL (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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
DEC										
04...	4.7	136	0.340	0.150	0.050	0.80	0.330	0.150	0.040	50
MAR										
26...	3.4	179	0.320	0.070	0.040	0.90	0.100	0.020	<0.010	70
JUN										
25...	2.8	1760	1.20	0.060	0.040	1.0	0.050	0.020	<0.010	20
SEP										
17...	1.9	1550	1.50	0.070	0.060	1.0	0.030	0.020	<0.010	20

DATE	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)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
DEC										
04...	<1	17	<0.5	<1.0	<1	<3	2	270	1	<4
MAR										
26...	<1	19	<0.5	<1.0	3	<3	1	170	<1	<4
JUN										
25...	1	110	<2	<3.0	10	<9	5	12	<1	32
SEP										
17...	1	<100	<10	<1.0	4	<1	3	<10	<1	20

DATE	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)	SEDI-MENT, SUS-PENDED (MG/L)
DEC										
04...	43	<0.1	<10	1	<1	<1.0	74	<6	18	247
MAR										
26...	20	<0.1	<10	2	<1	<1.0	88	<6	10	71
JUN										
25...	44	<0.1	<30	3	<1	<1.0	760	<18	<9	75
SEP										
17...	40	<0.1	9	2	<1	<1.0	750	13	<10	16

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^2.

PERIOD OF RECORD.--April 1983 to September 1991 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1983 to September 1991 (discontinued).
pH: April 1983 to September 1991 (discontinued).
WATER TEMPERATURES: April 1983 to September 1991 (discontinued).
DISSOLVED OXYGEN: April 1983 to September 1991 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1983. Digital recorder set for one-hour-interval punches.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 20,600 microsiemens May 4, 1986; minimum, 180 microsiemens Nov. 11, 1990.
pH: Maximum, > 10.0 units Jan. 3, 4, 17; minimum, 2.7 units Oct. 28, 1984.
WATER TEMPERATURES: Maximum, 34.0°C July 23, 1987, Aug. 4, 12, 13, 1988; minimum, 1.5° Dec. 24, 25, 1983, Jan. 20, 21, 1985.
DISSOLVED OXYGEN: Maximum, 15.1 mg/L Feb. 2, 1990; minimum, 1.4 mg/L Aug. 10, 1986.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 15,500 microsiemens Nov. 7; minimum, 180 microsiemens Nov. 11.
pH: maximum, 9.1 units Dec. 1; minimum, 6.3 units on July 4.
WATER TEMPERATURES: Maximum, 30.5°C on July 20; minimum, 3.5°C Dec. 25, Feb. 19-20.
DISSOLVED OXYGEN: Maximum, 13.3 mg/L Dec. 25, 26; minimum, 6.0 mg/L July 21, 22.

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3800	3160	3550	3660	2460	3080	3940	2700	3240	2160	1820	2010
2	4320	3880	4140	2340	1980	2110	4200	3880	4050	2400	2140	2270
3	4380	4040	4170	3420	2120	2840	3960	220	2900	2760	2440	2580
4	4200	2780	3480	3700	3300	3420	2000	1360	1610	2900	2760	2830
5	2780	2400	2510	3460	2660	3130	2580	2020	2360	3300	2840	3040
6	4500	2420	2790	3380	2360	2770	2880	2560	2760	3160	2880	3010
7	3120	2660	2830	15500	1780	3250	2880	2460	2610	3160	2960	3050
8	3280	2700	2970	3000	2100	2510	3220	2800	3080	3220	2800	3020
9	3680	2780	3230	3300	2760	3010	3500	3180	3370	3000	2660	2860
10	3560	3140	3450	3420	2680	2970	3480	3080	3250	2860	2320	2650
11	3540	2320	2930	3580	180	3190	3620	3300	3490	2320	1660	1930
12	3480	2180	3000	3720	2760	3330	3780	3400	3590	2080	1720	1870
13	2520	1900	2140	3420	2860	3250	3840	3200	3590	2880	2100	2550
14	2820	2220	2590	3640	3320	3450	3200	2560	2860	3680	2860	3190
15	3460	2160	2880	3480	2940	3270	3760	3240	3480	3840	3240	3530
16	3680	1560	2680	2900	2380	2580	3300	2740	2940	3360	1940	2380
17	3760	1360	2050	4120	2580	3560	2940	2740	2840	2300	1880	2020
18	3100	1800	2470	4280	4100	4200	2800	1220	1940	2560	2260	2420
19	2300	1700	1920	4580	4160	4310	2140	1220	1660	2660	2240	2400
20	2920	2280	2500	4560	4060	4380	2760	2180	2490	3200	2740	2950
21	3080	2560	2870	4700	4200	4420	3200	1980	2790	3380	2820	3160
22	3060	2200	2650	4440	3020	3830	2260	1580	1810	3420	3040	3140
23	2740	2300	2500	6160	3000	3310	1660	720	1020	4360	3200	3440
24	3280	2620	3030	3920	3300	3550	2020	1240	1620	4480	2660	3290
25	3580	3120	3350	4120	3820	3930	2080	1800	1970	3860	2500	3040
26	4440	3540	3920	4020	2760	3310	2620	2100	2380	4460	3820	4130
27	4460	4100	4210	4540	2980	3410	2840	2560	2720	4060	3700	3890
28	4320	4140	4250	4000	3100	3490	3060	2380	2700	3760	3260	3540
29	4420	3920	4230	3600	2120	2950	2800	1060	1880	3740	3360	3540
30	4500	4260	4370	2860	2560	2720	980	700	769	3400	3220	3320
31	4340	3660	3910	---	---	---	1800	880	1250	3620	3280	3420
MONTH	4500	1360	3150	15500	180	3320	4200	220	2550	4480	1660	2920
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3380	3100	3290	4200	3620	3920	4080	3680	3880	4860	4180	4530
2	3540	3340	3430	3760	3380	3510	4000	3560	3840	4180	3800	4060
3	3460	2580	3180	3840	340	3520	3940	3620	3860	4460	4160	4320
4	2820	1480	2300	3860	260	2920	4360	3860	4080	4580	4240	4380
5	1500	1180	1340	3480	1860	2920	4360	3860	4150	4560	4220	4390
6	2180	1380	1780	2020	1000	1730	3900	3800	3860	4480	4220	4370
7	2720	2020	2200	2160	980	1530	4160	3920	4040	4400	4000	4190
8	2960	2500	2780	2940	2360	2660	4600	3740	4020	4280	3920	4080
9	3100	2920	3050	3380	2980	3200	4120	1060	3290	4300	3080	3770
10	3280	2980	3050	3740	3360	3550	1540	940	1190	---	---	---
11	5480	3100	3440	3960	3720	3830	2380	1540	1910	---	---	---
12	3520	3320	3440	4600	3420	3690	3060	2400	2730	---	---	---
13	3540	3260	3400	3820	3280	3500	3240	3020	3110	---	---	---
14	3240	2600	2960	4040	3640	3850	3740	3260	3520	---	---	---
15	3080	2520	2760	4360	3660	4200	3260	2480	2970	---	---	---
16	3320	3080	3240	4200	4000	4060	3600	2740	3100	---	---	---
17	3340	3200	3270	4500	4080	4300	3620	2800	3240	---	---	---
18	3500	3280	3380	5400	4000	4240	2760	2120	2500	---	---	---
19	3100	1120	1770	3980	3580	3690	3060	1280	2460	---	---	---
20	1680	1140	1420	3920	3460	3670	1800	1060	1470	---	---	---
21	1960	1500	1700	4100	3840	3980	2460	1760	2180	---	---	---
22	1720	1580	1640	4320	4040	4200	2720	1840	2180	4320	4000	4150
23	2080	1600	1890	4220	2880	3660	3260	2760	2970	4060	3320	3780
24	3160	2040	2430	3240	2300	2680	3480	2940	3220	5240	2640	3400
25	3860	3280	3570	3020	2520	2780	3380	2780	3070	3340	1880	2900
26	3560	3360	3440	5260	2480	2900	2860	2400	2580	3860	3060	3470
27	3940	3540	3730	4540	2720	3060	3920	2880	3290	3540	3380	3470
28	4460	3980	4240	2720	1420	1750	4220	3820	4030	3940	3540	3730
29	---	---	---	3240	2020	2840	6780	3820	4260	6200	3220	3820
30	---	---	---	3900	3280	3610	4820	4120	4520	4460	3900	4140
31	---	---	---	4080	3840	3950	---	---	---	6880	3880	4270
MONTH	5480	1120	2790	5400	260	3350	6780	940	3180	6880	1880	3960

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4540	3800	4110	3880	2860	3480	3680	2920	3170	3980	3380	3680
2	4720	4320	4570	3060	2340	2650	3720	2840	3240	3960	3680	3860
3	4860	4600	4740	3940	3140	3610	3180	2760	3020	3700	2780	3420
4	4740	4220	4450	4540	3540	4220	3560	2960	3230	3320	2820	3030
5	4540	3820	4200	4200	3460	3940	3880	3200	3490	2860	2540	2660
6	4380	3400	3930	3820	3320	3540	3320	2100	2650	3240	2780	3000
7	4500	3340	3650	4140	3820	3960	2700	2340	2510	3580	3280	3430
8	4840	4560	4680	3880	2880	3380	3320	2600	2940	3520	3320	3380
9	4940	4820	4870	2980	2440	2600	3480	2780	3260	3720	3060	3370
10	5000	4760	4900	3740	3080	3470	3480	3140	3270	3520	3020	3210
11	4980	4760	4860	3760	3640	3680	3780	3020	3350	3300	3060	3160
12	4960	4480	4790	3900	3600	3720	3100	2800	2970	3160	1880	2600
13	4820	4280	4710	3600	3080	3370	3340	2940	3110	4680	2580	2920
14	4800	4260	4670	3520	3060	3280	3180	2480	2750	3260	2700	2930
15	4840	4100	4500	3200	2580	2880	2960	2460	2670	3900	3240	3540
16	4580	4360	4470	3200	2580	2850	3060	2700	2840	3760	3160	3450
17	4500	4300	4370	3080	2480	2770	3240	2960	3080	3800	3020	3440
18	10700	3800	4680	2880	2620	2760	3340	3040	3120	3880	3340	3550
19	4740	3660	3900	2800	2580	2690	3400	3060	3230	3860	3600	3720
20	3720	2280	2970	2820	2600	2670	3360	1980	3030	3740	3320	3530
21	2840	2060	2190	3040	2540	2840	2860	2220	2520	4100	3340	3740
22	2220	1000	2030	3040	2640	2790	3040	2760	2920	3800	3700	3740
23	2660	2060	2450	2860	2500	2690	2920	2660	2820	3820	3280	3480
24	3860	2480	3210	7640	2260	2830	3160	2860	2980	3680	3000	3460
25	4120	2780	3390	3720	2340	2960	3040	2640	2910	3000	2580	2730
26	3620	2720	3370	3280	2860	3070	3140	2940	3030	3000	1840	2420
27	3920	3580	3710	3560	3040	3270	3060	2620	2820	3120	2900	2990
28	4060	3600	3840	3680	3400	3510	2660	2080	2330	3420	3040	3200
29	4860	3760	3880	3480	2980	3230	2980	2040	2620	3540	3020	3370
30	10500	3880	4560	3160	2760	3030	3360	2840	3010	3820	3360	3520
31	---	---	---	13800	2860	3710	3520	2860	3130	---	---	---
MONTH	10700	1000	4020	13800	2260	3210	3880	1980	2970	4680	1840	3280
YEAR	15500	180	3200									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	7.4	8.0	8.0	7.7	7.9	8.0	7.8	7.8	7.7	7.6	7.6
2	8.0	7.5	7.9	8.0	7.9	7.9	8.0	7.8	7.8	7.8	7.6	7.7
3	8.0	7.4	7.9	7.9	7.6	7.7	9.1	7.3	7.8	7.8	7.5	7.7
4	8.0	7.7	7.9	8.0	7.7	7.8	7.5	7.3	7.4	7.8	7.8	7.8
5	8.1	7.7	8.0	7.9	7.7	7.8	7.7	7.5	7.6	7.8	7.8	7.8
6	8.1	8.0	8.0	7.8	7.7	7.7	7.8	7.6	7.7	7.9	7.8	7.8
7	8.1	8.0	8.0	7.8	7.6	7.7	7.9	7.8	7.8	7.9	7.8	7.8
8	8.0	7.9	7.9	7.8	7.6	7.7	7.9	7.8	7.8	7.9	7.8	7.8
9	7.9	7.5	7.8	7.9	7.7	7.8	7.9	7.8	7.8	7.9	7.7	7.8
10	7.9	7.8	7.8	7.9	7.8	7.8	7.9	7.8	7.8	7.9	7.5	7.8
11	7.8	7.7	7.8	8.9	7.7	7.9	7.9	7.7	7.8	8.1	7.4	7.9
12	7.8	7.6	7.8	7.8	7.4	7.7	8.3	7.8	7.9	7.7	7.7	7.7
13	7.8	7.7	7.8	8.0	7.8	7.9	7.9	7.6	7.8	7.8	7.7	7.8
14	8.0	7.8	7.9	8.1	7.9	7.9	7.9	7.6	7.8	7.9	7.7	7.8
15	8.1	7.7	7.9	8.1	7.3	7.9	7.7	7.7	7.7	7.9	7.8	7.8
16	8.2	7.9	8.0	8.2	7.8	8.0	7.8	7.7	7.7	7.8	7.5	7.6
17	8.3	8.0	8.2	8.0	7.8	7.9	7.9	7.2	7.8	7.7	7.4	7.6
18	8.0	7.3	7.9	7.9	7.8	7.8	7.8	7.4	7.6	7.8	7.6	7.7
19	7.9	7.7	7.8	8.0	7.7	7.8	7.6	7.4	7.5	7.8	7.7	7.8
20	8.0	7.8	7.9	8.0	7.7	7.8	7.8	7.6	7.7	7.8	7.7	7.8
21	8.0	7.9	8.0	7.9	7.7	7.8	7.8	6.5	7.7	7.8	7.7	7.8
22	7.9	7.0	7.8	7.8	7.7	7.7	7.7	7.5	7.6	7.8	7.7	7.8
23	7.9	7.8	7.9	7.8	7.7	7.7	7.6	7.1	7.3	7.9	7.8	7.8
24	7.8	7.6	7.7	7.8	7.7	7.7	7.7	7.3	7.6	8.0	7.6	7.8
25	7.9	7.6	7.8	7.8	7.7	7.7	7.7	7.7	7.7	7.9	7.7	7.8
26	7.9	7.8	7.8	7.7	7.6	7.7	7.8	7.7	7.8	7.8	7.7	7.8
27	7.9	7.8	7.8	8.0	7.3	7.8	7.9	7.8	7.8	7.9	7.8	7.8
28	7.8	7.8	7.8	7.9	7.7	7.8	7.8	7.2	7.7	7.9	7.6	7.9
29	7.9	7.7	7.8	8.0	7.8	7.9	7.7	7.3	7.6	8.0	7.8	7.9
30	7.8	7.7	7.8	8.1	7.8	7.9	7.5	7.3	7.3	7.9	7.7	7.8
31	7.9	7.7	7.8	---	---	---	7.6	7.3	7.4	7.8	7.7	7.8
MONTH	8.3	7.0	7.9	8.9	7.3	7.8	9.1	6.5	7.7	8.1	7.4	7.8

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	7.7	7.8	7.9	7.8	7.9	8.1	7.8	7.9	8.4	7.7	8.0
2	7.9	7.8	7.8	8.0	7.8	7.9	8.4	7.8	8.0	8.4	7.8	8.0
3	7.9	7.7	7.8	9.0	7.8	7.9	8.4	7.8	8.0	8.3	7.7	7.9
4	7.8	7.6	7.7	8.7	7.6	7.8	8.5	7.6	8.0	8.4	7.7	8.0
5	7.7	7.5	7.6	7.9	7.5	7.7	8.4	7.8	8.0	8.4	7.7	8.0
6	7.8	7.7	7.8	7.6	7.4	7.5	8.7	7.8	8.2	8.3	7.5	7.8
7	7.8	7.7	7.8	7.7	7.3	7.5	8.8	7.8	8.2	8.2	7.5	7.8
8	7.9	7.6	7.8	7.9	7.7	7.8	8.5	7.8	8.1	8.1	7.5	7.7
9	7.9	7.7	7.8	7.9	7.7	7.8	8.5	7.5	8.0	8.1	7.5	7.7
10	7.9	7.8	7.8	7.9	7.8	7.8	7.6	7.4	7.5	---	---	---
11	7.9	7.7	7.8	7.9	7.8	7.8	7.9	7.5	7.6	---	---	---
12	7.9	7.7	7.8	7.9	7.7	7.8	8.1	7.5	7.7	---	---	---
13	7.8	7.7	7.8	8.1	7.8	7.9	7.8	7.6	7.7	---	---	---
14	7.8	7.3	7.8	8.1	7.8	7.9	7.9	7.6	7.7	---	---	---
15	7.8	7.7	7.8	8.0	7.7	7.9	7.8	7.5	7.6	---	---	---
16	7.9	7.7	7.8	8.1	7.8	7.9	7.8	7.5	7.6	---	---	---
17	7.9	7.8	7.8	8.1	7.7	7.9	8.1	7.5	7.8	---	---	---
18	7.9	7.8	7.8	8.0	7.8	7.9	8.3	7.6	7.8	---	---	---
19	7.8	7.3	7.5	8.2	7.9	8.0	7.8	7.2	7.6	---	---	---
20	7.7	7.3	7.5	8.2	7.8	8.0	7.4	7.1	7.3	---	---	---
21	7.9	7.7	7.8	8.3	7.8	8.0	7.5	7.3	7.4	---	---	---
22	7.8	7.3	7.8	8.2	7.9	8.0	7.7	6.9	7.4	7.9	7.6	7.8
23	7.9	7.7	7.8	8.1	7.9	8.0	7.9	7.5	7.6	7.9	7.5	7.7
24	7.9	7.7	7.8	7.9	7.8	7.8	8.0	7.5	7.7	8.0	7.6	7.8
25	7.9	7.7	7.8	8.1	7.8	7.9	8.0	7.4	7.7	8.1	7.6	7.8
26	7.9	7.7	7.8	8.1	7.8	8.0	8.3	7.6	7.9	7.7	7.6	7.6
27	7.9	7.7	7.8	8.4	7.9	8.1	8.3	7.7	7.9	7.9	7.6	7.7
28	7.8	7.7	7.7	8.0	7.7	7.8	8.3	7.6	7.9	8.0	7.6	7.8
29	---	---	---	8.0	7.8	7.9	8.3	7.6	7.9	8.1	7.5	7.8
30	---	---	---	8.1	7.8	7.9	8.4	7.7	7.9	8.0	7.3	7.7
31	---	---	---	8.2	7.7	7.9	---	---	---	8.1	7.6	7.8
MONTH	7.9	7.3	7.8	9.0	7.3	7.9	8.8	6.9	7.8	8.4	7.3	7.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.1	7.7	7.8	7.8	7.5	7.6	8.0	7.7	7.8	7.8	7.5	7.7
2	7.9	7.6	7.7	7.8	7.6	7.7	7.9	7.7	7.8	7.8	7.5	7.6
3	7.9	7.5	7.7	7.7	7.5	7.6	7.9	7.6	7.7	7.9	7.6	7.7
4	7.9	7.5	7.7	7.6	6.3	7.4	7.9	7.6	7.7	7.9	7.6	7.7
5	7.9	7.5	7.7	7.7	7.5	7.6	8.1	7.6	7.8	7.9	7.7	7.8
6	8.0	7.5	7.7	7.8	7.6	7.7	8.1	7.7	7.9	7.9	7.6	7.7
7	8.1	7.5	7.8	7.7	7.5	7.6	8.1	7.7	7.9	7.8	7.5	7.6
8	8.0	7.5	7.7	7.8	7.5	7.7	8.0	7.6	7.8	7.9	7.6	7.7
9	8.0	7.4	7.7	7.9	7.7	7.8	7.8	7.6	7.7	7.9	7.7	7.8
10	8.0	7.5	7.7	7.9	7.6	7.7	7.9	7.6	7.7	7.9	7.7	7.8
11	7.9	7.5	7.6	7.9	7.7	7.8	8.0	7.6	7.8	7.9	7.7	7.8
12	8.0	7.5	7.7	7.9	7.7	7.7	8.0	7.7	7.8	8.0	7.7	7.8
13	7.9	7.5	7.6	7.8	7.7	7.7	8.1	7.7	7.8	7.8	7.7	7.8
14	8.0	7.4	7.7	7.9	7.7	7.8	8.1	7.6	7.8	7.8	7.7	7.7
15	8.0	7.5	7.7	8.0	7.7	7.8	8.1	7.7	7.9	7.8	7.6	7.7
16	7.9	7.4	7.6	8.0	7.7	7.9	8.3	7.8	7.9	7.8	7.6	7.7
17	8.0	7.5	7.7	8.1	7.7	7.9	8.2	7.7	7.9	7.8	7.6	7.7
18	7.9	7.5	7.7	8.1	7.7	7.9	8.2	7.7	7.9	7.8	7.6	7.7
19	8.0	7.6	7.7	8.1	7.7	7.9	8.2	7.7	7.9	7.8	7.6	7.7
20	8.1	7.6	7.8	8.2	7.7	7.9	7.8	7.5	7.7	7.9	7.6	7.7
21	8.2	7.7	7.9	8.1	7.7	7.9	7.8	7.2	7.6	7.7	7.6	7.6
22	8.7	7.7	7.9	8.1	7.7	7.9	7.9	7.6	7.7	7.8	7.6	7.7
23	8.0	7.6	7.8	8.1	7.8	7.9	7.9	7.7	7.8	7.7	7.6	7.7
24	7.9	7.5	7.7	8.1	7.8	8.0	7.9	7.7	7.8	7.8	7.6	7.7
25	7.9	7.5	7.7	8.0	7.8	7.9	8.0	7.7	7.8	7.9	7.7	7.8
26	7.9	7.5	7.7	8.1	7.8	7.9	8.0	7.6	7.8	7.7	7.3	7.6
27	7.8	7.5	7.6	8.0	7.7	7.9	8.1	7.6	7.8	7.8	7.5	7.6
28	7.8	7.5	7.6	8.0	7.7	7.8	8.2	7.7	7.9	7.8	7.6	7.7
29	7.8	7.5	7.6	8.0	7.7	7.8	8.1	7.7	7.9	7.8	7.6	7.7
30	7.7	7.5	7.6	8.0	7.8	7.9	8.1	7.7	7.8	7.8	7.6	7.7
31	---	---	---	8.0	7.6	7.8	8.0	7.7	7.8	---	---	---
MONTH	8.7	7.4	7.7	8.2	6.3	7.8	8.3	7.2	7.8	8.0	7.3	7.7
YEAR	9.1	6.3	7.8									

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	20.5	21.0	20.0	17.5	18.5	12.0	10.0	11.0	6.5	4.5	5.5
2	21.5	19.5	20.5	19.0	17.5	18.5	12.5	12.0	12.0	7.5	6.0	7.0
3	22.5	20.0	21.0	20.0	18.0	19.0	12.0	7.5	9.5	7.5	7.0	7.5
4	21.5	19.5	20.5	20.0	18.5	19.0	8.0	6.0	7.0	8.0	7.0	7.5
5	21.5	19.0	20.0	18.5	15.0	17.5	7.0	5.5	6.5	8.5	7.0	8.0
6	22.5	20.5	21.5	14.5	13.5	14.0	8.5	6.5	7.5	8.5	8.5	8.5
7	22.5	21.0	22.0	15.0	10.0	13.0	9.5	8.5	9.0	8.5	7.0	8.0
8	22.5	21.5	22.0	11.5	10.0	11.0	10.0	8.5	9.5	8.0	6.5	7.0
9	22.0	19.0	21.0	13.0	11.5	12.5	11.0	9.5	10.0	9.0	8.0	8.5
10	22.0	19.0	20.5	13.0	12.0	12.5	11.0	10.0	10.5	8.5	7.0	8.0
11	21.0	17.5	18.5	13.0	9.5	12.0	11.5	10.0	10.5	7.0	5.5	7.0
12	18.5	16.5	18.0	10.5	9.0	10.0	12.0	10.5	11.0	5.5	5.5	5.5
13	17.5	16.0	17.0	11.0	10.0	10.5	12.5	10.0	11.5	7.0	5.5	6.5
14	19.5	17.5	18.5	13.0	11.0	12.0	10.0	9.5	9.5	7.5	6.5	7.0
15	19.5	18.5	19.0	15.0	12.5	13.5	9.5	9.0	9.5	9.5	7.5	8.5
16	19.0	18.0	18.5	15.5	13.5	14.5	9.5	9.0	9.0	8.5	6.0	7.0
17	20.0	17.5	19.0	13.5	12.5	13.0	10.5	9.5	10.0	6.5	5.5	6.0
18	20.0	14.0	18.0	13.5	12.5	13.0	10.0	7.0	9.0	6.5	5.5	6.0
19	14.0	13.0	13.5	14.0	12.5	13.0	8.5	7.0	7.5	8.0	6.5	7.5
20	16.5	13.5	15.0	14.0	12.5	13.5	9.5	8.0	8.5	8.5	6.5	8.0
21	18.5	16.0	17.0	14.5	13.0	13.5	10.5	9.0	10.0	7.0	6.0	6.0
22	18.5	16.5	17.5	15.0	13.0	14.0	11.5	10.0	11.0	7.5	6.0	6.5
23	17.0	17.0	17.0	13.0	12.5	12.5	10.5	5.5	7.0	7.0	6.5	6.5
24	18.0	16.5	17.5	12.5	11.5	12.0	5.5	4.0	4.5	6.5	5.5	6.0
25	18.0	16.5	17.5	13.5	12.5	13.0	4.5	3.5	4.0	6.5	5.5	6.0
26	16.5	15.5	16.0	14.0	12.5	13.0	5.5	5.0	5.5	7.5	6.0	6.5
27	17.0	15.0	16.0	16.5	14.5	15.5	6.5	5.5	6.0	7.5	6.0	7.0
28	16.5	15.0	15.5	16.0	13.0	15.0	7.5	6.0	7.0	8.5	6.5	7.5
29	16.0	15.0	15.5	13.0	11.5	12.5	8.5	5.0	6.5	9.5	7.0	8.0
30	18.0	15.5	17.0	12.0	11.0	11.5	9.0	6.0	8.0	9.0	8.0	8.5
31	19.0	17.5	18.0	---	---	---	6.0	4.5	5.0	8.0	6.0	7.0
MONTH	22.5	13.0	18.5	20.0	9.0	14.0	12.5	3.5	8.5	9.5	4.5	7.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	6.0	7.0	10.5	8.5	9.5	11.5	10.0	11.0	20.0	17.5	18.5
2	9.5	7.5	8.0	13.5	10.5	12.0	12.5	9.5	10.5	17.5	16.0	16.5
3	9.0	6.0	7.5	12.0	6.5	10.0	14.0	9.5	11.5	17.5	15.5	16.0
4	8.0	5.5	6.5	6.0	4.5	5.0	15.5	10.5	13.0	19.5	15.5	17.0
5	7.0	5.5	6.5	8.0	5.0	6.0	15.0	14.0	14.5	20.0	16.0	17.5
6	8.0	7.0	7.5	6.0	5.5	6.0	17.0	13.5	15.0	20.0	17.0	18.5
7	8.5	7.5	8.0	6.5	4.5	5.5	19.5	14.5	17.0	19.5	16.0	17.5
8	10.0	8.5	9.0	9.0	6.5	7.0	18.5	17.0	17.5	20.5	16.5	18.0
9	9.0	8.5	9.0	9.0	7.0	8.0	19.5	15.0	17.5	19.5	18.0	18.5
10	10.0	8.5	9.0	9.5	8.0	8.5	15.5	11.0	13.0	---	---	---
11	8.0	7.0	7.5	10.0	7.0	8.0	14.5	10.0	12.0	---	---	---
12	9.0	7.5	8.0	10.0	7.0	8.5	15.0	11.5	13.0	---	---	---
13	9.0	8.5	9.0	11.0	8.0	9.0	14.0	12.5	13.0	---	---	---
14	8.0	7.0	8.0	11.0	8.0	9.0	14.0	13.0	13.5	---	---	---
15	7.0	4.5	6.0	12.5	9.0	10.5	14.5	12.5	13.5	---	---	---
16	7.0	4.5	5.5	12.5	9.0	10.5	14.0	13.5	13.5	---	---	---
17	8.0	5.5	7.0	12.5	9.0	10.5	16.5	13.5	15.0	---	---	---
18	9.0	7.5	8.0	11.5	10.0	11.0	17.0	12.5	14.5	---	---	---
19	7.5	3.5	4.5	11.0	9.0	10.0	14.5	10.5	13.5	---	---	---
20	6.0	3.5	5.0	12.5	9.0	10.5	11.5	10.5	11.0	---	---	---
21	9.5	6.0	7.5	14.5	11.0	12.5	10.5	9.5	10.5	---	---	---
22	8.5	6.5	8.0	12.5	11.0	12.0	12.5	9.0	10.5	24.0	21.5	23.5
23	7.5	5.5	6.0	14.0	10.5	12.0	15.0	11.0	13.0	24.5	20.5	22.0
24	8.5	6.0	7.0	12.5	9.5	10.5	16.0	13.5	14.5	24.0	21.5	22.5
25	9.0	8.0	8.5	12.0	9.0	10.0	18.5	13.5	15.5	25.0	22.0	23.0
26	9.5	7.5	8.0	12.0	9.5	10.5	18.0	14.5	16.0	24.5	23.0	23.5
27	9.5	7.5	8.0	15.5	12.0	13.5	20.5	16.0	18.0	25.0	23.5	24.0
28	9.0	7.5	8.0	14.5	11.0	12.0	20.0	18.0	18.5	27.0	24.0	25.5
29	---	---	---	11.5	9.5	10.5	20.5	17.5	19.0	27.0	24.5	26.0
30	---	---	---	11.0	8.5	10.0	21.5	18.5	20.0	28.5	26.0	27.0
31	---	---	---	13.0	8.5	10.5	---	---	---	28.5	26.0	27.0
MONTH	10.0	3.5	7.5	15.5	4.5	9.5	21.5	9.0	14.5	28.5	15.5	21.0

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.0	26.0	27.0	27.5	24.5	26.0	29.5	26.0	27.5	26.0	23.5	25.0
2	26.0	24.0	25.5	26.0	24.0	25.0	29.0	26.0	27.5	25.0	22.0	23.5
3	26.5	23.5	24.5	26.5	23.0	24.5	28.0	26.5	27.5	25.5	22.5	24.0
4	25.0	22.5	23.5	25.5	23.0	24.5	28.5	26.0	27.0	25.0	23.0	24.0
5	24.0	21.0	22.5	26.5	23.5	24.5	27.5	25.5	26.5	24.5	21.5	23.0
6	24.0	20.5	22.0	28.5	24.5	26.5	27.0	24.0	25.5	25.0	21.5	23.0
7	24.0	20.0	22.0	30.0	27.0	28.0	27.5	23.5	25.5	25.5	22.0	24.0
8	23.5	20.0	22.0	29.0	26.5	28.0	26.0	24.5	25.5	26.0	23.5	24.5
9	24.5	20.5	22.5	28.0	25.5	26.5	26.0	23.5	25.0	26.0	24.5	25.0
10	26.0	22.5	24.5	27.5	25.0	26.0	27.5	24.5	26.0	27.0	25.0	26.0
11	26.5	25.0	25.5	28.5	25.0	26.5	28.0	25.0	26.0	25.5	24.0	25.0
12	27.0	24.5	25.5	28.0	25.0	26.5	28.5	25.0	26.5	25.0	23.0	24.0
13	26.0	23.0	24.5	27.0	25.5	26.5	29.0	25.5	27.0	25.0	23.0	24.0
14	26.5	22.5	24.5	27.5	24.5	26.0	27.5	25.0	26.5	26.0	24.0	25.0
15	28.5	24.5	26.0	28.0	24.5	26.0	27.0	25.0	26.0	28.0	25.0	26.5
16	28.0	25.5	26.5	28.5	24.5	26.0	28.5	25.5	27.0	28.0	26.5	27.0
17	28.5	26.0	27.0	28.5	25.5	27.0	28.0	26.0	27.0	26.5	24.5	26.0
18	27.5	26.0	26.5	29.0	26.5	27.5	28.0	25.5	26.5	25.0	23.5	24.5
19	28.5	25.5	27.0	30.0	27.5	28.5	28.0	25.0	26.5	23.5	22.0	23.0
20	28.5	25.5	27.0	30.5	27.5	29.0	26.0	21.0	24.5	22.0	20.5	21.0
21	28.0	25.0	26.5	29.5	28.0	29.0	25.5	21.0	23.5	21.5	20.0	20.5
22	25.5	23.0	24.5	30.0	28.0	29.0	26.5	23.5	25.0	22.0	19.0	20.5
23	24.0	21.5	22.5	29.5	28.0	29.0	27.5	25.0	26.0	22.0	20.5	21.0
24	23.5	19.5	21.5	29.5	27.0	28.0	27.0	24.5	25.5	21.5	20.0	20.5
25	24.0	20.5	22.0	29.5	26.5	28.0	27.0	24.0	25.5	21.5	20.0	20.5
26	24.5	21.0	23.0	28.5	26.5	27.5	27.5	25.0	26.0	20.0	16.5	18.0
27	25.5	22.5	24.0	28.0	25.5	26.5	27.5	24.5	26.0	18.0	17.0	17.5
28	26.0	23.5	24.5	28.0	25.0	26.5	28.5	25.5	27.0	19.0	17.0	18.0
29	27.5	24.5	26.0	27.5	26.0	26.5	29.0	25.5	27.0	19.5	17.0	18.0
30	27.0	25.5	26.5	28.5	26.5	27.0	29.0	26.0	27.5	21.0	17.5	19.0
31	---	---	---	28.5	25.5	27.0	28.5	26.0	27.5	---	---	---
MONTH	28.5	19.5	24.5	30.5	23.0	27.0	29.5	21.0	26.0	28.0	16.5	22.5
YEAR	30.5	3.5	16.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.1	7.8	8.0	8.5	7.7	8.0	10.5	9.4	9.9	12.7	12.0	12.3
2	8.2	7.8	8.0	8.5	7.8	8.1	10.2	9.4	9.6	12.0	11.5	11.7
3	7.9	7.2	7.6	8.4	7.6	7.9	10.5	8.6	9.8	11.6	11.2	11.4
4	7.7	7.1	7.4	8.4	7.6	7.9	---	---	---	11.9	11.6	11.8
5	7.9	7.6	7.8	8.4	7.7	8.0	---	---	---	12.0	11.7	11.9
6	7.7	7.2	7.5	9.1	8.5	8.8	---	---	---	11.9	11.7	11.8
7	7.7	7.3	7.5	9.7	8.6	9.1	---	---	---	12.0	11.7	11.9
8	7.5	7.3	7.4	10.0	9.5	9.8	---	---	---	11.9	11.4	11.7
9	7.8	7.3	7.5	9.5	9.1	9.3	---	---	---	11.4	11.1	11.3
10	8.2	7.6	7.9	9.4	8.9	9.1	---	---	---	11.7	11.1	11.4
11	8.7	8.1	8.5	10.0	8.7	9.3	---	---	---	11.7	11.5	11.6
12	8.8	8.6	8.7	10.9	9.8	10.2	---	---	---	11.6	11.1	11.4
13	8.8	8.7	8.7	11.2	10.9	11.1	---	---	---	11.2	10.8	10.9
14	8.7	8.4	8.6	10.9	9.5	10.4	---	---	---	10.9	10.7	10.8
15	8.7	8.4	8.5	10.6	9.8	10.2	---	---	---	10.9	10.7	10.8
16	8.7	8.5	8.6	10.6	9.7	10.1	---	---	---	11.5	10.9	11.1
17	8.9	8.4	8.7	11.1	10.0	10.4	---	---	---	11.4	11.1	11.3
18	9.3	8.3	8.6	11.5	10.6	11.0	---	---	---	11.4	11.2	11.3
19	9.9	9.3	9.6	11.8	10.5	11.1	10.8	10.7	---	11.3	10.8	11.0
20	9.7	9.0	9.4	12.0	10.4	11.0	11.2	10.7	10.9	11.0	10.6	10.7
21	9.2	8.5	8.9	10.9	9.7	10.4	10.8	10.5	10.7	11.3	11.0	11.2
22	9.0	8.4	8.6	10.0	8.7	9.4	10.6	10.3	10.5	11.3	11.0	11.2
23	8.6	8.4	8.5	10.4	9.7	9.9	12.1	10.7	11.6	11.1	10.9	11.0
24	8.6	8.2	8.4	12.0	10.3	11.2	13.0	12.1	12.6	11.4	11.0	11.2
25	8.7	8.2	8.4	11.1	10.4	11.0	13.3	13.1	13.2	11.5	11.2	11.4
26	8.9	8.6	8.7	11.1	9.4	10.0	13.3	13.0	13.1	11.3	11.0	11.1
27	9.1	8.5	8.7	---	---	---	13.2	12.9	13.1	11.1	10.7	11.0
28	8.9	8.5	8.7	---	---	---	12.9	12.0	12.5	11.1	10.7	10.8
29	9.1	8.3	8.7	10.2	10.1	10.2	12.6	11.9	12.2	10.9	10.3	10.7
30	8.5	7.6	8.1	10.6	9.7	10.1	12.5	11.7	12.0	10.5	10.0	10.3
31	8.3	7.6	7.8	---	---	---	12.9	12.5	12.7	10.7	10.0	10.5
MONTH	9.9	7.1	8.3	12.0	7.6	9.7	13.3	8.6	11.6	12.7	10.0	11.2

04212680 FIELDS BROOK AT ASHTABULA, OH--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.7	10.0	10.4	10.0	9.4	9.8	10.8	9.7	10.1	10.6	8.9	9.6
2	10.0	9.8	9.9	9.3	8.7	9.0	11.2	9.8	10.4	11.2	9.2	10.0
3	10.7	9.9	10.2	10.5	8.2	9.5	11.4	9.6	10.4	10.9	9.2	10.0
4	11.0	10.5	10.6	11.0	9.1	10.7	11.5	9.1	10.1	10.6	8.9	9.6
5	11.0	10.6	10.8	10.8	10.4	10.7	10.9	9.1	9.5	10.0	8.3	9.1
6	10.6	10.2	10.5	10.7	10.2	10.5	11.1	8.7	9.7	10.5	8.2	8.7
7	10.4	10.0	10.2	10.9	10.2	10.6	10.9	8.4	9.4	9.6	8.0	8.7
8	10.0	9.4	9.7	10.5	10.0	10.3	10.2	8.3	9.0	9.0	7.4	8.2
9	9.9	9.5	9.7	10.3	9.8	10.1	9.9	8.3	8.9	8.4	7.3	7.7
10	10.0	9.6	9.8	10.0	9.7	9.8	9.6	8.5	9.2	---	---	---
11	10.3	9.7	10.0	10.3	9.8	10.0	10.4	9.4	9.9	---	---	---
12	10.2	9.5	9.9	10.5	9.7	10.1	10.7	9.4	10.0	---	---	---
13	9.6	9.4	9.5	10.0	9.4	9.7	10.0	9.4	9.6	---	---	---
14	9.7	9.3	9.5	10.2	9.3	9.7	10.2	9.1	9.6	---	---	---
15	10.6	9.6	10.1	9.9	9.1	9.5	10.1	8.9	9.3	---	---	---
16	10.7	10.3	10.5	10.0	9.0	9.5	9.8	8.9	9.3	---	---	---
17	10.4	9.9	10.2	10.0	8.7	9.4	10.0	8.8	9.3	---	---	---
18	10.1	9.9	10.0	9.4	8.8	9.0	10.4	8.8	9.5	---	---	---
19	11.4	10.2	11.1	10.1	9.3	9.7	9.6	8.9	9.3	---	---	---
20	11.4	11.0	11.2	10.2	9.2	9.7	9.9	9.5	9.7	---	---	---
21	10.9	10.2	10.6	9.9	8.8	9.4	9.9	9.7	9.8	---	---	---
22	10.7	10.3	10.4	10.2	8.9	9.4	10.0	9.4	9.8	7.8	7.2	7.6
23	11.1	10.7	10.9	9.7	8.8	9.2	9.8	9.1	9.4	7.6	6.9	7.3
24	10.7	10.2	10.5	9.9	8.8	9.5	9.9	8.5	9.1	7.7	6.8	7.2
25	10.3	10.0	10.1	10.2	9.7	9.9	9.8	8.4	9.0	7.7	6.7	7.1
26	10.2	9.8	10.0	10.2	9.3	9.9	10.1	8.4	9.0	7.4	6.7	7.0
27	10.1	9.8	9.9	9.8	8.7	9.3	10.3	8.2	9.0	7.5	7.0	7.2
28	10.1	9.8	9.9	9.7	8.8	9.4	10.4	8.3	9.1	7.7	6.8	7.2
29	---	---	---	10.4	9.7	10.0	10.6	8.4	9.2	7.5	6.7	7.1
30	---	---	---	10.6	10.0	10.3	10.5	8.6	9.3	7.6	6.6	6.9
31	---	---	---	10.9	9.7	10.3	---	---	---	7.7	6.6	7.0
MONTH	11.4	9.3	10.2	11.0	8.2	9.8	11.5	8.2	9.5	11.2	6.6	8.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	6.8	7.1	7.5	7.0	7.2	9.0	8.0	8.4	8.8	7.9	8.4
2	7.8	6.9	7.3	7.8	7.1	7.4	8.9	7.6	8.3	9.0	8.3	8.6
3	7.9	7.2	7.4	7.9	7.3	7.6	8.1	6.7	7.5	8.9	7.9	8.4
4	8.5	7.3	7.9	7.5	7.2	7.4	7.7	6.6	7.2	8.7	8.0	8.3
5	9.0	8.1	8.4	8.0	7.4	7.7	7.6	6.8	7.1	8.8	8.1	8.4
6	9.1	8.3	8.6	7.8	7.0	7.5	7.2	6.6	6.9	8.7	7.9	8.3
7	9.4	8.3	8.7	7.4	6.9	7.1	7.3	6.7	6.9	8.4	7.7	8.1
8	9.6	8.4	8.9	9.6	6.9	7.8	7.2	6.7	7.0	8.1	7.5	7.8
9	9.6	8.2	8.9	8.6	8.2	8.4	7.4	6.9	7.1	7.9	7.3	7.6
10	9.4	7.9	8.6	8.7	7.9	8.4	7.8	7.0	7.4	7.4	7.0	7.2
11	9.0	7.8	8.2	8.6	6.6	8.0	7.9	7.4	7.6	7.5	7.0	7.2
12	9.1	7.9	8.3	8.2	7.3	7.7	7.9	7.5	7.6	7.4	7.0	7.1
13	9.3	8.0	8.5	7.7	6.5	7.4	8.0	7.6	7.8	7.4	6.8	7.1
14	9.3	7.8	8.5	8.2	7.3	7.8	8.2	7.7	7.9	7.2	6.7	6.9
15	9.0	7.5	8.2	7.7	7.2	7.5	8.3	6.7	7.6	6.9	6.4	6.7
16	8.6	7.6	8.0	7.7	7.0	7.4	7.5	6.6	7.0	6.8	6.4	6.5
17	8.5	7.6	8.0	7.5	6.7	7.1	7.7	6.7	7.0	7.0	6.5	6.8
18	8.7	7.6	8.0	7.5	6.5	7.0	7.8	6.8	7.2	7.2	6.9	7.0
19	8.5	7.5	7.9	7.3	6.3	6.7	7.9	7.0	7.3	7.7	7.0	7.3
20	8.4	7.5	7.9	7.3	6.1	6.7	8.0	7.2	7.6	7.8	7.3	7.6
21	8.5	7.6	7.9	7.0	6.0	6.4	8.2	7.8	8.0	8.0	7.6	7.8
22	8.7	7.7	8.2	7.5	6.0	6.6	8.3	7.6	8.0	8.0	7.3	7.7
23	8.9	8.1	8.3	8.0	6.8	7.4	8.2	7.6	7.8	7.7	7.3	7.5
24	8.7	7.9	8.3	8.5	7.6	8.0	8.4	7.7	8.0	7.7	7.4	7.5
25	8.4	7.8	8.1	9.0	8.0	8.3	8.6	7.8	8.1	8.2	7.4	7.6
26	8.6	7.6	8.0	9.4	8.3	8.7	8.9	7.8	8.2	8.5	7.8	8.1
27	8.5	7.6	7.9	9.5	8.5	8.9	9.0	7.7	8.3	8.6	8.2	8.3
28	8.3	7.5	7.9	9.6	8.6	9.0	8.9	7.7	8.1	8.5	8.0	8.2
29	8.0	7.1	7.5	9.6	8.5	8.9	8.8	7.6	8.1	8.3	7.8	8.1
30	7.5	6.9	7.1	9.0	8.2	8.6	8.7	7.4	8.0	8.2	7.4	7.9
31	---	---	---	9.1	8.2	8.6	8.4	7.5	7.9	---	---	---
MONTH	9.6	6.8	8.1	9.6	6.0	7.7	9.0	6.6	7.6	9.0	6.4	7.7
YEAR	13.3	6.0	9.0									

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^2.

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. 23 to Feb. 2, May 16-17, 21-26, May 29 to Aug. 20, Aug. 22 to Sept. 30. Records good except for estimated records, which are poor. Water-quality data collected at this site 1965 to 1977. Sediment data collected 1970 to 1974.

AVERAGE DISCHARGE.--54 years, 273 ft^3/s, 21.19 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/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^3/s July 31, Aug. 1, 1933, Aug. 1, 2, 1934.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 20	0100	2,990	6.00	Feb. 5	1000	6,680	8.50
Dec. 31	1100	*8,490	*9.40	Mar. 8	0100	3,380	6.21

Minimum daily discharge, 2.7 ft^3/s Aug. 7-8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	122	152	1750	100	170	162	123	37	5.2	3.2	3.7
2	247	113	135	531	90	446	184	111	32	5.2	3.1	3.2
3	152	105	230	363	544	847	189	108	28	4.7	3.0	3.0
4	236	99	1570	277	1130	1080	160	97	25	5.2	2.9	6.0
5	1260	97	1810	217	3150	966	155	87	22	5.7	2.8	4.5
6	606	240	565	204	1560	1510	171	92	20	5.8	2.8	8.0
7	254	461	390	219	979	2670	178	97	18	7.0	2.7	10
8	163	522	346	189	783	1770	155	95	16	12	2.7	7.8
9	160	449	297	171	450	461	186	80	15	9.0	4.5	6.0
10	1130	323	272	155	305	323	753	70	13	25	9.0	5.2
11	1880	464	275	159	230	270	748	64	12	26	8.0	4.6
12	1200	408	220	232	174	210	316	59	11	21	6.6	4.3
13	1810	367	193	345	143	171	196	54	11	17	5.6	3.9
14	1140	285	196	270	187	158	164	52	10	13	4.8	3.6
15	463	218	209	211	470	148	350	47	10	10	4.2	3.3
16	300	190	657	517	238	135	657	37	12	8.4	3.9	3.1
17	216	302	742	1720	1020	123	397	34	11	7.5	3.6	3.0
18	284	563	994	886	1570	126	229	48	10	6.5	3.2	2.8
19	586	319	2450	426	911	207	207	47	9.2	6.0	3.0	3.5
20	511	214	1640	414	2240	363	919	46	8.4	5.6	10	5.6
21	292	173	491	561	1420	275	1120	32	8.0	5.3	44	5.5
22	248	176	1010	342	578	191	1210	24	7.2	5.0	35	4.5
23	433	557	1960	190	418	221	948	18	6.8	4.7	13	4.8
24	411	626	2360	150	260	777	394	15	6.4	4.5	15	5.1
25	290	554	800	120	206	1030	282	24	5.9	4.3	11	4.2
26	220	460	424	100	182	472	215	35	5.6	4.1	8.8	6.8
27	178	292	303	92	160	286	175	52	5.3	3.9	7.3	7.2
28	156	265	268	84	150	576	157	46	5.0	3.7	6.3	6.1
29	153	234	524	76	---	437	144	34	4.8	3.6	5.5	5.3
30	152	183	3190	96	---	237	133	30	4.7	3.5	4.8	4.9
31	134	---	7000	130	---	176	---	27	---	3.3	4.1	---
TOTAL	15550	9381	31673	11197	19648	16832	11254	1785	390.3	251.7	244.4	149.5
MEAN	502	313	1022	361	702	543	375	57.6	13.0	8.12	7.88	4.98
MAX	1880	626	7000	1750	3150	2670	1210	123	37	26	44	10
MIN	134	97	135	76	90	123	133	15	4.7	3.3	2.7	2.8
CFSM	2.87	1.79	5.84	2.06	4.01	3.10	2.14	.33	.07	.05	.05	.03
IN.	3.31	1.99	6.73	2.38	4.18	3.58	2.39	.38	.08	.05	.05	.03

CAL YR 1990 TOTAL 181101.0 MEAN 496 MAX 7000 MIN 9.0 CFSM 2.84 IN. 38.50
WTR YR 1991 TOTAL 118355.9 MEAN 324 MAX 7000 MIN 2.7 CFSM 1.85 IN. 25.16

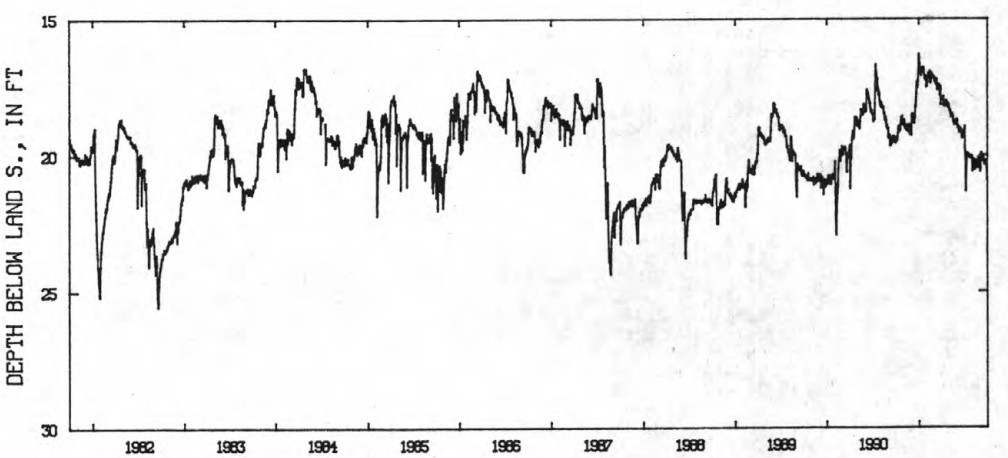
CRAWFORD COUNTY

404838082563100. 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, 16.29 ft below land-surface datum, Jan. 1, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.48	18.75	19.18	16.29	17.50	17.17	17.91	18.25	18.69	19.12	20.10	20.40
2	19.57	18.80	19.27	16.41	17.46	17.12	17.98	18.30	18.70	18.95	20.60	20.61
3	19.35	18.85	19.09	16.57	17.45	17.20	17.98	18.38	18.94	19.74	20.17	20.45
4	19.33	18.77	18.54	16.64	17.33	17.25	17.91	18.37	18.91	19.90	20.19	20.12
5	19.36	18.70	18.57	16.63	17.21	17.31	17.87	18.36	18.95	20.03	20.24	19.91
6	19.37	18.95	18.48	16.81	17.13	17.17	17.87	18.43	19.00	20.82	20.29	19.96
7	19.40	18.97	18.50	16.88	17.07	17.30	17.88	18.52	19.00	21.32	20.29	20.00
8	19.47	19.03	18.57	16.86	17.05	17.36	17.85	18.61	18.97	20.70	20.23	19.99
9	19.38	18.87	18.58	17.03	16.97	17.31	17.86	18.48	19.01	20.52	20.15	20.04
10	19.18	18.88	18.63	17.08	17.02	17.42	18.11	18.55	19.16	20.16	20.24	19.98
11	19.16	18.97	18.63	16.90	17.13	17.43	18.20	18.55	19.01	20.03	20.28	20.03
12	19.02	19.04	18.53	16.85	17.16	17.37	18.21	18.49	19.03	19.93	20.54	20.23
13	18.94	19.09	18.81	16.91	16.90	17.19	18.02	18.48	19.08	19.95	20.30	20.06
14	18.96	19.09	18.83	16.91	16.90	17.45	18.00	18.53	19.07	20.04	20.18	20.09
15	19.11	19.05	18.61	16.96	17.28	17.58	17.99	18.58	19.02	20.06	20.27	20.12
16	19.15	19.00	18.66	16.77	17.36	17.62	18.05	18.60	19.08	20.07	20.30	20.12
17	19.04	19.10	18.60	16.89	17.36	17.53	18.09	18.69	19.13	20.00	20.24	20.20
18	18.98	19.10	18.20	16.89	17.35	17.39	18.11	18.76	19.16	19.97	20.22	20.23
19	19.05	19.08	18.25	16.85	17.25	17.50	18.01	18.74	19.19	20.04	20.19	20.32
20	19.09	19.16	18.20	16.77	17.10	17.53	18.08	18.89	19.20	20.07	20.20	20.35
21	18.84	19.13	18.02	16.98	16.97	17.46	18.03	18.80	19.37	20.07	20.23	20.36
22	18.86	18.88	17.76	17.04	17.07	17.55	18.03	18.80	19.10	20.07	20.23	20.31
23	18.74	18.86	17.49	17.04	17.11	17.41	18.05	18.80	19.19	20.10	20.48	20.35
24	18.62	18.89	17.32	17.18	17.06	17.62	18.24	18.80	19.23	20.05	20.27	20.36
25	18.73	19.04	17.31	17.24	17.08	17.82	18.25	18.76	19.27	20.02	20.07	20.18
26	18.85	19.09	17.52	17.14	17.08	17.67	18.18	18.74	19.31	20.10	20.26	20.34
27	18.57	19.03	17.51	17.08	17.16	17.46	18.13	18.77	19.35	20.12	20.15	20.43
28	18.81	19.22	17.39	17.24	17.17	17.59	18.18	18.82	19.33	20.10	20.21	20.49
29	18.86	19.26	17.27	17.26	---	18.16	18.15	18.87	19.35	20.02	20.23	20.94
30	18.90	19.25	16.98	17.25	---	17.94	18.23	18.84	19.15	20.10	20.20	20.85
31	18.69	---	16.36	17.51	---	17.91	---	18.76	---	20.14	20.35	---
MAX	19.57	19.26	19.27	17.51	17.50	18.16	18.25	18.89	19.37	21.32	20.60	20.94

CAL YR 1990 LOW 22.92
WTR YR 1991 LOW 21.32



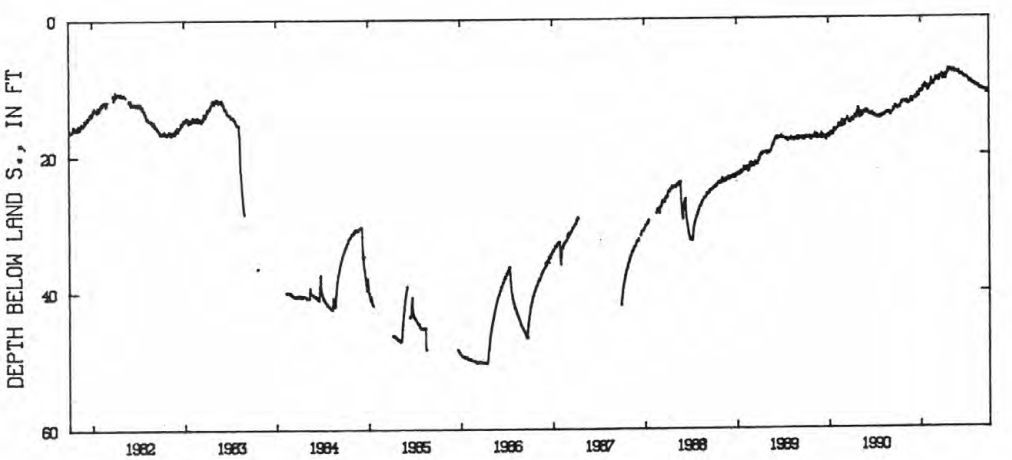
404838082563100 CR-1
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

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, 7.57 ft below land-surface datum, Apr. 22, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.29	12.39	12.20	11.05	10.73	9.35	8.82	7.63	7.97	8.84	9.78	10.72
2	13.39	12.37	12.41	10.79	10.58	8.85	9.07	7.68	7.98	8.77	9.78	10.70
3	13.42	12.42	12.25	10.86	10.57	8.97	9.13	7.84	7.92	8.82	9.72	10.63
4	13.18	12.34	11.86	10.91	10.47	8.85	9.01	7.82	8.17	8.86	9.87	10.49
5	13.23	12.18	11.99	10.83	10.39	8.99	8.77	7.80	8.34	8.89	10.04	10.60
6	13.19	12.45	11.77	10.81	10.39	8.80	8.71	7.74	8.47	8.93	10.12	10.74
7	13.27	12.50	11.79	10.91	10.23	8.99	8.59	7.95	8.53	8.97	10.13	10.82
8	13.34	12.66	11.82	10.84	10.22	9.17	8.52	8.12	8.45	9.06	10.10	10.79
9	13.23	12.55	11.83	10.79	9.97	9.17	8.34	8.03	8.49	9.15	9.83	10.74
10	13.15	12.22	11.80	10.92	9.88	9.21	8.77	8.07	8.44	9.13	10.02	10.59
11	13.29	12.39	11.80	10.65	10.04	9.25	9.05	8.07	8.34	9.23	10.15	10.67
12	13.23	12.51	11.51	10.19	10.07	9.16	9.13	7.88	8.38	9.23	10.20	10.69
13	12.90	12.74	11.87	10.34	9.66	8.84	8.75	7.73	8.53	9.16	10.16	10.62
14	12.73	12.77	11.99	10.26	8.99	8.95	8.58	7.67	8.52	9.42	10.07	10.63
15	12.79	12.64	11.62	10.34	9.68	9.28	8.33	7.79	8.36	9.56	10.08	10.65
16	12.89	12.49	11.76	10.03	9.93	9.38	8.34	7.80	8.37	9.64	10.18	10.65
17	12.67	12.50	11.73	10.21	9.96	9.29	8.32	7.89	8.53	9.51	10.08	10.73
18	12.33	12.56	11.14	10.22	9.96	8.64	8.33	8.08	8.58	9.38	10.02	10.73
19	12.64	12.40	11.78	10.17	9.77	8.76	8.10	8.14	8.65	9.44	10.01	10.94
20	12.68	12.49	11.78	9.77	9.88	8.88	7.91	8.14	8.69	9.52	10.15	11.03
21	12.49	12.48	11.51	10.10	9.80	8.74	7.88	8.14	8.62	9.54	10.24	11.11
22	12.39	12.17	11.18	10.23	9.79	8.77	7.57	8.10	8.61	9.54	10.27	11.03
23	12.27	11.94	11.11	10.03	9.91	8.60	7.64	8.11	8.82	9.39	10.50	10.99
24	12.21	11.77	11.32	10.34	9.58	8.66	8.01	8.05	8.89	9.47	10.62	10.99
25	12.24	11.99	11.31	10.47	9.56	8.84	8.11	7.99	8.90	9.63	10.62	10.66
26	12.31	12.14	11.58	10.36	9.48	8.84	7.97	8.00	8.93	9.79	10.59	10.72
27	12.35	11.95	11.58	10.08	9.40	8.43	7.81	8.08	9.01	9.86	10.56	10.99
28	12.43	12.18	11.14	10.18	9.43	8.31	7.76	8.19	8.98	9.85	10.56	11.18
29	12.53	12.35	10.87	10.24	---	8.43	7.71	8.16	8.89	9.70	10.53	11.27
30	12.45	12.40	10.71	10.03	---	8.86	7.68	7.96	8.80	9.69	10.43	11.27
31	12.37	---	11.09	10.60	---	8.87	---	7.91	---	---	10.56	---
MAX	13.42	12.77	12.41	11.05	10.73	9.38	9.13	8.19	9.01	9.86	10.62	11.27

CAL YR 1990 LOW 17.49
WTR YR 1991 LOW 13.42



412518081221500 GE-3A CHAGRIN FALLS W DPT NR CHAGRIN FALLS OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

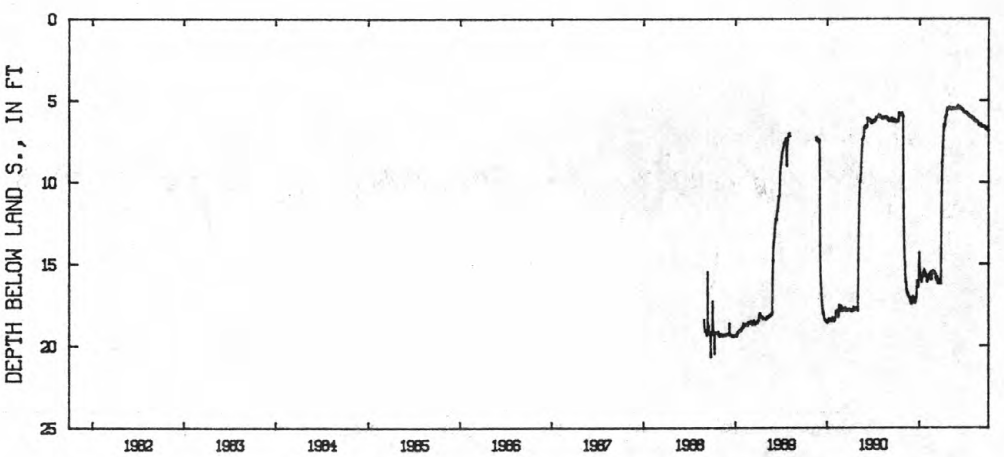
HANCOCK COUNTY

405940083275500. Local number, HA-3.
LOCATION.--Lat 40°59'40", long 83°27'55", Hydrologic Unit 0410008, 2 miles south of Vanlue.
Owner: City of Findlay.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 10 in., diameter 6 in. below 55 ft., depth 240 ft, cased to 55 ft.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 815 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 1.40 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--May 1947 to October 1972 and August 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 20.67 ft below land-surface datum, Sept. 22, 1988; minimum daily low, 4.06 ft below land-surface datum, June 8, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.28	13.51	17.36	14.59	16.10	15.49	9.04	5.43	5.34	5.72	6.09	6.60
2	6.32	14.14	17.43	15.04	16.03	15.47	8.72	5.46	5.31	5.73	6.10	6.57
3	6.28	14.58	17.31	15.37	16.03	15.55	8.38	5.50	5.32	5.74	6.11	6.52
4	6.26	14.91	17.01	15.49	15.95	15.58	7.92	5.46	5.39	5.76	6.19	6.51
5	6.26	15.14	17.01	15.52	15.87	15.65	7.46	5.45	5.41	5.76	6.24	6.56
6	6.24	15.68	16.96	15.77	15.85	15.61	7.18	5.49	5.45	5.77	6.26	6.63
7	6.25	15.95	16.97	15.88	15.74	15.82	6.86	5.53	5.45	5.79	6.26	6.63
8	6.29	16.11	17.06	15.85	15.71	15.89	6.66	5.56	5.41	5.83	6.21	6.60
9	6.21	16.13	17.08	16.06	15.59	15.83	6.46	5.49	5.45	5.86	6.18	6.57
10	6.10	16.32	17.18	16.10	15.61	16.00	6.55	5.51	5.42	5.82	6.27	6.57
11	5.92	16.52	17.16	15.89	15.73	16.00	6.58	5.49	5.39	5.87	6.31	6.61
12	5.80	16.65	17.11	15.72	15.74	15.94	6.47	5.42	5.48	5.85	6.31	6.62
13	5.76	16.75	17.39	15.77	15.50	15.77	6.17	5.40	5.52	5.88	6.27	6.57
14	5.77	16.76	17.40	15.77	15.47	16.03	6.05	5.43	5.49	5.93	6.26	6.60
15	5.92	16.76	17.23	15.79	15.90	16.15	5.91	5.46	5.44	5.97	6.31	6.62
16	5.94	16.81	17.32	15.55	15.96	16.19	5.96	5.44	5.49	5.95	6.32	6.62
17	5.86	16.91	17.29	15.56	15.93	16.10	5.90	5.50	5.53	5.90	6.28	6.69
18	5.86	16.94	17.02	15.52	15.92	15.95	5.86	5.54	5.56	5.90	6.30	6.70
19	5.90	16.98	17.08	15.44	15.77	16.04	5.70	5.51	5.57	5.94	6.30	6.78
20	5.85	17.06	17.04	15.32	15.59	16.10	5.62	5.49	5.58	5.98	6.39	6.80
21	5.81	17.03	16.83	15.50	15.41	16.00	5.56	5.48	5.56	5.98	6.41	6.77
22	5.83	17.00	16.36	15.52	15.43	16.09	5.43	5.47	5.61	5.99	6.39	6.69
23	5.77	17.02	16.17	15.52	15.47	15.97	5.45	5.49	5.66	5.98	6.47	6.76
24	5.79	17.08	16.00	15.71	15.39	16.17	5.57	5.47	5.68	6.01	6.51	6.76
25	5.85	17.22	16.10	15.76	15.40	16.19	5.57	5.47	5.68	6.06	6.48	6.60
26	5.87	17.27	16.39	15.67	15.40	16.19	5.46	5.46	5.70	6.10	6.45	6.74
27	5.88	17.24	16.39	15.58	15.51	16.03	5.40	5.48	5.76	6.11	6.44	6.83
28	6.00	17.42	16.35	15.76	15.50	14.58	5.43	5.51	5.76	6.09	6.46	6.89
29	9.60	17.44	16.24	15.76	---	11.85	5.39	5.48	5.72	6.03	6.46	6.86
30	11.56	17.41	15.31	15.81	---	10.65	5.45	5.40	5.72	6.09	6.42	6.85
31	12.73	---	14.28	16.08	---	9.87	---	5.41	---	6.11	6.56	---
MAX	12.73	17.44	17.43	16.10	16.10	16.19	9.04	5.56	5.76	6.11	6.56	6.89

CAL YR 1990 LOW 18.59
WTR YR 1991 LOW 17.44



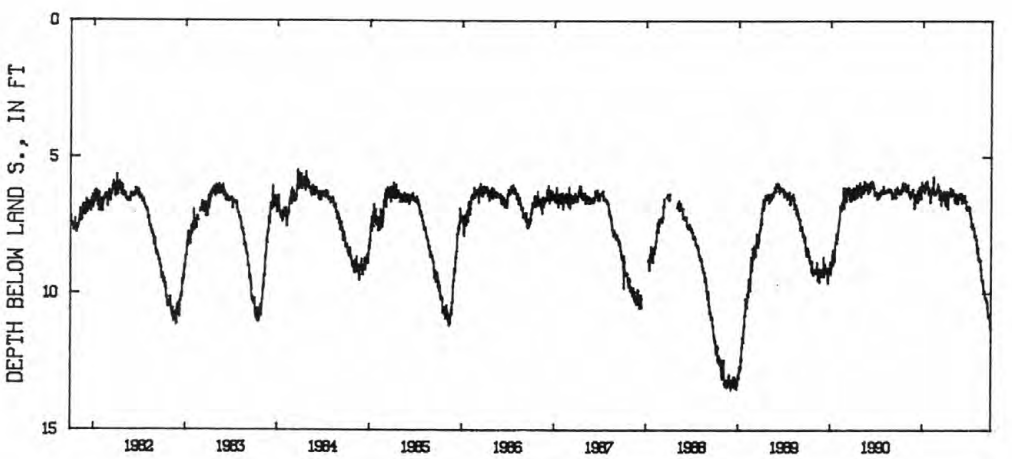
405940083275500 HA-3 CTY OF FINDLAY NR VANLUE OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DEPTH TO WATER BL. LSD

404648083412600. Local number, HN-2A.
LOCATION.--Lat 40°46'48", long 83°41'26", Hydrologic Unit 04100007, at southeast edge of Dola.
Owner: Kevin Eikenbary.
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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.32	6.17	6.68	6.13	6.65	6.15	6.65	6.25	6.34	6.82	7.99	9.93
2	6.35	6.17	6.84	6.01	6.48	5.96	6.77	6.28	6.32	6.80	8.01	9.96
3	6.32	6.21	6.60	6.13	6.48	6.13	6.77	6.36	6.34	6.80	8.02	9.96
4	6.24	6.14	6.49	6.15	6.35	6.14	6.65	6.33	6.50	6.81	8.19	9.90
5	6.27	6.00	6.53	6.08	6.31	6.21	6.39	6.33	6.56	6.85	8.35	9.98
6	6.25	6.30	6.35	6.16	6.29	6.05	6.38	6.35	6.67	6.88	8.47	10.12
7	6.28	6.35	6.37	6.22	6.26	6.38	6.32	6.54	6.67	6.93	8.50	10.18
8	6.34	6.38	6.40	6.20	6.25	6.52	6.29	6.65	6.57	7.05	8.50	10.18
9	6.23	6.29	6.43	6.26	6.07	6.50	6.24	6.55	6.56	7.13	8.31	10.17
10	6.15	6.25	6.41	6.30	6.10	6.53	6.68	6.59	6.50	7.12	8.55	10.17
11	6.25	6.33	6.41	6.10	6.23	6.53	6.87	6.59	6.39	7.20	8.67	10.23
12	6.16	6.45	6.22	5.94	6.23	6.49	6.88	6.46	6.41	7.20	8.74	10.30
13	5.97	6.50	6.60	6.01	5.89	6.20	6.60	6.33	6.53	7.22	8.74	10.23
14	5.93	6.50	6.64	5.98	5.71	6.41	6.43	6.35	6.52	7.40	8.71	10.27
15	6.18	6.38	6.36	6.02	6.30	6.68	6.32	6.40	6.40	7.53	8.77	10.32
16	6.23	6.28	6.50	5.87	6.38	6.76	6.40	6.40	6.40	7.57	8.82	10.34
17	6.11	6.39	6.48	6.10	6.32	6.65	6.39	6.56	6.51	7.52	8.81	10.49
18	6.06	6.39	6.10	6.11	6.32	6.28	6.40	6.70	6.58	7.44	8.80	10.55
19	6.18	6.33	6.51	6.10	6.26	6.36	6.28	6.70	6.63	7.50	8.81	10.80
20	6.17	6.42	6.52	5.85	6.34	6.43	6.30	6.67	6.64	7.60	9.03	10.86
21	6.01	6.41	6.28	6.14	6.26	6.34	6.29	6.63	6.60	7.62	9.11	10.87
22	6.06	6.22	6.08	6.18	6.32	6.38	6.12	6.56	6.62	7.64	9.15	10.82
23	5.95	6.18	6.10	6.10	6.37	6.30	6.15	6.55	6.80	7.60	9.35	10.88
24	5.95	6.16	6.26	6.32	6.25	6.49	6.41	6.51	6.85	7.64	9.49	10.90
25	6.08	6.36	6.27	6.37	6.25	6.55	6.43	6.40	6.85	7.72	9.50	10.75
26	6.12	6.45	6.52	6.31	6.22	6.54	6.33	6.35	6.87	7.85	9.50	10.81
27	6.10	6.35	6.50	6.11	6.22	6.24	6.22	6.40	6.93	7.92	9.51	10.95
28	6.20	6.70	6.14	6.20	6.28	6.29	6.22	6.49	6.93	7.92	9.56	11.24
29	6.26	6.87	5.90	6.24	---	6.30	6.17	6.46	6.89	7.85	9.61	11.30
30	6.20	6.87	5.93	6.23	---	6.60	6.25	6.31	6.83	7.87	9.61	11.31
31	6.15	---	6.16	6.65	---	6.67	---	6.33	---	8.00	9.83	---
MAX	6.35	6.87	6.84	6.65	6.65	6.76	6.88	6.70	6.93	8.00	9.83	11.31

CAL YR 1990 LOW 9.30
WTR YR 1991 LOW 11.31



404648083412600 HN-2A
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

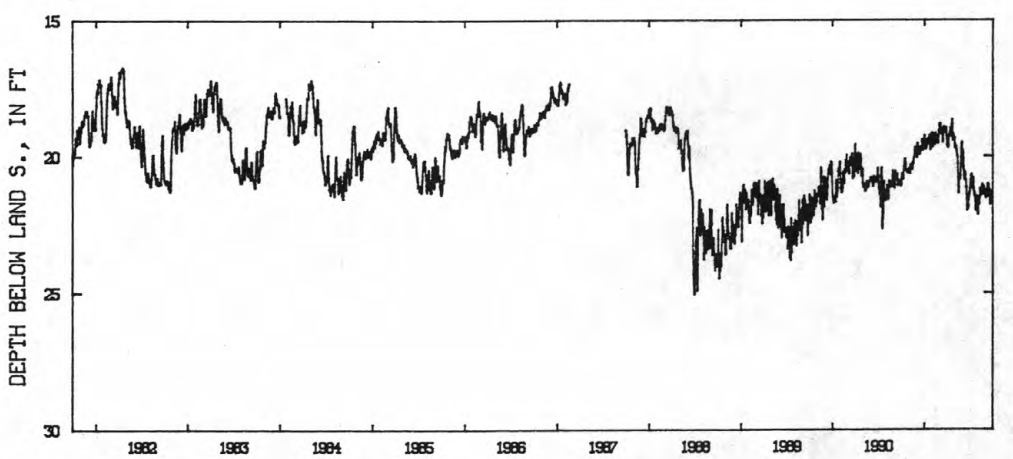
HENRY COUNTY

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 unused artesian well, diameter 12 in., depth drilled 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, 25.04 ft below land-surface datum, June 28, 1988; minimum daily low, 14.55 ft below land-surface datum, Mar. 22, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.04	20.57	19.96	19.35	19.49	19.03	19.36	19.33	19.80	21.31	21.94	21.48
2	20.86	20.60	20.05	19.24	19.62	18.80	19.59	19.56	19.88	21.18	22.03	21.47
3	20.82	20.62	20.04	19.45	19.67	18.93	19.61	19.70	19.79	21.12	22.15	21.53
4	20.64	20.54	19.52	19.66	19.53	18.90	19.65	19.65	19.82	21.00	21.82	21.53
5	20.65	20.43	19.55	19.69	19.25	18.88	19.56	19.62	19.92	20.83	21.50	21.37
6	20.68	20.31	19.63	19.76	19.17	18.81	19.53	19.65	20.10	20.93	21.59	21.43
7	20.74	20.40	19.71	19.75	19.34	19.12	19.69	19.64	20.46	20.73	21.66	21.51
8	20.84	20.46	19.83	19.59	19.33	19.19	19.63	19.75	20.54	20.67	21.77	21.51
9	20.73	20.42	19.90	19.63	19.34	19.14	19.28	19.75	20.66	20.91	21.54	21.22
10	20.47	20.39	19.93	19.66	19.58	19.10	19.20	19.83	20.87	20.97	21.44	21.02
11	20.37	20.43	19.93	19.59	19.59	19.09	19.27	19.94	20.76	21.19	21.22	21.16
12	20.35	20.45	19.75	19.39	19.56	18.99	19.29	20.00	20.59	21.19	21.18	21.20
13	20.24	20.47	19.87	19.48	19.39	18.99	19.15	19.98	20.71	21.00	21.27	21.03
14	20.20	20.47	19.93	19.54	19.13	19.25	19.14	20.06	20.91	20.80	21.45	21.25
15	20.11	20.34	19.80	19.55	19.26	19.46	19.00	20.29	20.87	20.78	21.46	21.29
16	20.26	20.21	19.78	19.46	19.26	19.50	18.97	20.79	20.92	20.96	21.41	21.21
17	20.26	20.27	19.78	19.35	19.39	19.41	18.94	21.07	21.13	21.20	21.33	21.32
18	20.28	20.27	19.64	19.38	19.40	18.99	19.03	21.36	21.14	21.29	21.23	21.31
19	20.47	20.06	19.75	19.32	19.23	18.91	19.03	21.16	21.43	21.44	21.10	21.61
20	20.52	20.05	19.77	19.24	19.38	18.99	18.86	20.71	21.58	21.33	21.03	21.78
21	20.54	20.05	19.69	19.35	19.39	18.96	18.80	20.73	21.83	21.43	21.12	21.78
22	20.54	19.95	19.46	19.36	19.45	19.02	18.64	20.83	21.99	21.48	21.17	21.53
23	20.53	19.78	19.38	19.22	19.52	19.01	18.85	20.84	21.91	21.67	21.40	21.31
24	20.52	19.67	19.44	19.60	19.54	19.07	19.27	20.77	21.93	21.97	21.34	21.34
25	20.59	19.82	19.68	19.76	19.53	19.15	19.41	20.70	21.83	21.91	21.11	21.29
26	20.62	19.83	19.78	19.76	19.30	19.15	19.36	20.42	21.62	22.01	21.19	21.29
27	20.53	19.72	19.73	19.66	19.08	18.94	19.18	20.05	21.57	21.89	21.22	21.39
28	20.51	19.75	19.53	19.39	19.08	18.96	19.27	19.84	21.51	21.59	21.37	21.58
29	20.51	19.96	19.44	19.33	---	19.07	19.35	19.74	21.46	21.46	21.39	21.57
30	20.46	19.96	19.41	19.14	---	19.28	19.41	19.55	21.35	21.50	21.24	21.51
31	20.52	---	19.35	19.40	---	19.35	---	19.48	---	21.74	21.40	---
MAX	21.04	20.62	20.05	19.76	19.67	19.50	19.69	21.36	21.99	22.01	22.15	21.78

CAL YR 1990 LOW 22.66
WTR YR 1991 LOW 22.15



412123083574000 HY-2
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

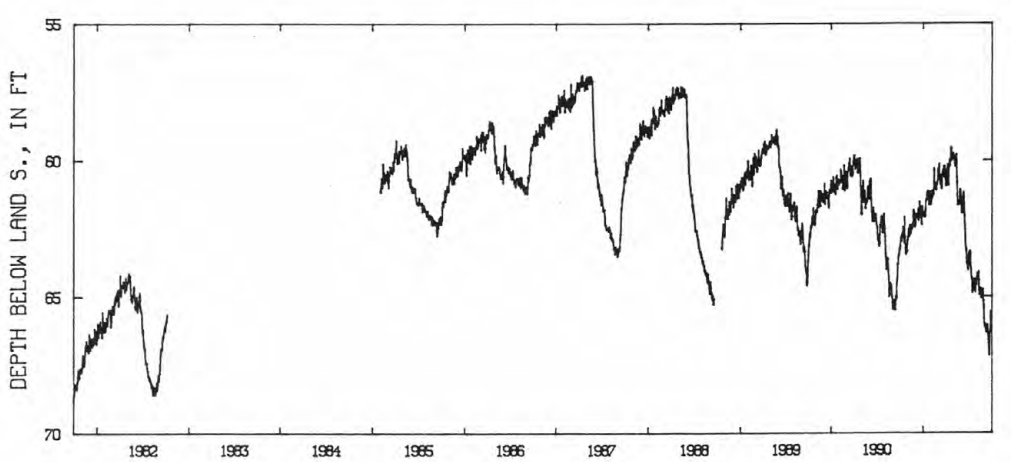
LUCAS COUNTY

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 Departmnet 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, 56.87 ft below land-surface datum, Apr. 16, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.29	62.94	62.24	62.02	61.66	60.62	60.75	59.78	61.56	63.46	64.37	66.04
2	63.24	62.82	62.44	61.91	61.51	60.34	60.92	59.85	61.70	63.41	64.36	66.13
3	63.17	62.82	62.24	62.02	61.50	60.47	60.96	60.01	61.90	63.56	64.23	66.12
4	62.88	62.65	62.05	62.05	61.35	60.31	60.83	59.99	61.96	63.57	64.15	66.01
5	62.90	62.52	62.14	61.96	61.38	60.39	60.57	59.99	61.96	63.37	64.16	66.08
6	62.81	62.63	61.98	62.02	61.39	60.12	60.52	59.85	61.94	63.35	64.34	66.23
7	62.90	62.71	62.01	62.10	61.38	60.60	60.39	60.12	61.83	63.50	64.32	66.31
8	63.00	62.82	62.07	62.02	61.34	60.72	60.31	60.24	61.65	63.79	64.25	66.33
9	62.80	62.57	62.07	62.03	61.11	60.66	60.15	60.12	61.54	64.01	64.10	66.32
10	62.69	62.38	62.12	62.09	61.10	60.90	60.60	60.17	61.36	64.06	64.43	66.21
11	62.85	62.52	62.11	61.81	61.27	60.92	60.89	60.18	61.19	64.31	64.77	66.23
12	62.78	62.61	61.77	61.48	61.27	60.86	60.93	59.96	61.59	64.30	64.95	66.17
13	62.60	62.72	62.18	61.51	60.82	60.53	60.44	59.80	61.90	64.39	64.89	66.03
14	62.46	62.70	62.22	61.40	60.30	60.73	60.30	60.08	62.05	64.66	64.70	66.20
15	62.69	62.57	61.91	61.45	60.93	60.98	59.99	60.59	62.32	64.80	64.77	66.38
16	62.75	62.41	62.01	61.19	61.04	61.06	60.15	60.81	62.55	64.88	64.83	66.51
17	62.53	62.54	61.99	61.38	61.03	60.95	60.20	61.38	62.87	64.62	64.70	66.77
18	62.84	62.52	61.51	61.41	61.02	60.43	60.22	61.67	63.09	64.55	64.92	66.91
19	63.07	62.34	62.09	61.34	60.87	60.53	60.08	61.64	63.19	64.74	65.05	67.17
20	62.08	62.49	62.11	61.12	60.95	60.60	59.96	61.51	63.25	64.76	65.07	67.16
21	62.84	62.39	61.86	61.38	60.84	60.37	59.89	61.52	63.29	64.57	65.03	66.90
22	62.83	62.06	61.70	61.43	61.07	60.50	59.61	61.65	63.61	64.36	64.82	66.57
23	63.11	61.94	61.77	61.28	61.11	60.23	59.55	61.65	63.78	64.37	64.98	66.31
24	63.37	61.84	62.01	61.62	60.93	60.51	59.95	61.60	63.85	64.54	65.03	66.31
25	63.46	62.03	61.98	61.66	60.93	60.64	60.04	61.57	63.77	64.58	64.93	65.82
26	63.46	62.12	62.36	61.53	60.88	60.62	59.92	61.36	63.78	64.79	64.74	65.53
27	63.32	61.89	62.36	61.24	60.80	60.21	59.82	61.12	63.92	64.84	64.89	65.72
28	63.33	62.28	61.94	61.28	60.82	60.23	59.83	61.08	64.04	64.71	65.17	65.86
29	63.37	62.46	61.69	61.30	---	60.39	59.78	61.20	63.89	64.42	65.30	65.81
30	63.13	62.45	61.76	61.15	---	60.68	59.76	61.35	63.57	64.52	65.37	65.75
31	62.99	---	62.03	61.59	---	60.69	---	61.39	---	64.57	65.82	---
MAX	63.46	62.94	62.44	62.10	61.66	61.06	60.96	61.67	64.04	64.88	65.82	67.17

CAL YR 1990 LOW 65.50
WTR YR 1991 LOW 67.17



413704083362200 LU-1 STATE OF OHIO STATE HOSPITAL TOLEDO OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

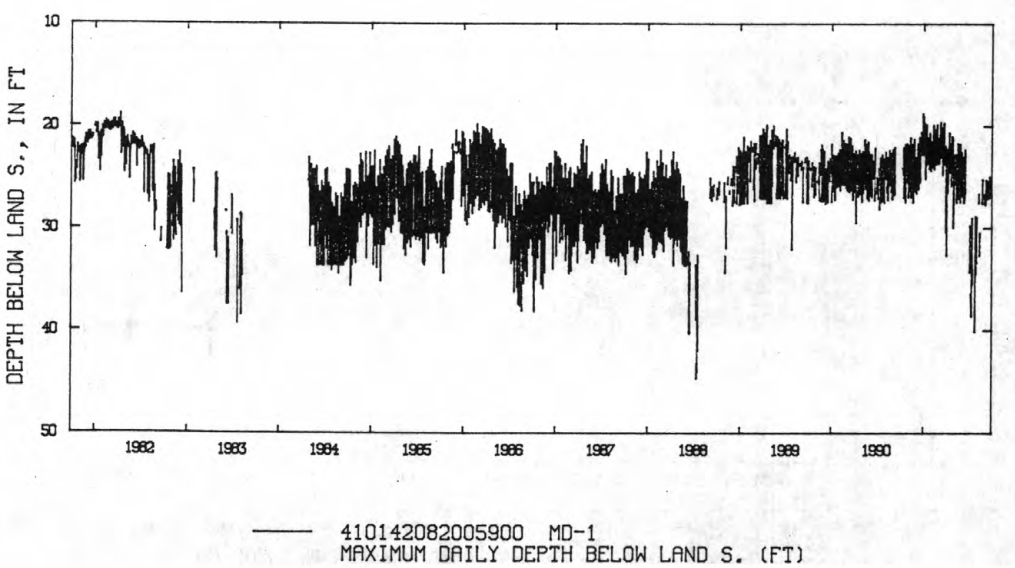
MEDINA COUNTY

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, 45.21 ft below land-surface datum, July 8, 1988; minimum daily low, 7.60 ft below land-surface datum, July 6, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23.46	25.33	19.04	21.57	22.87	30.42	29.99	23.88	---	33.39	26.76
2	---	27.05	23.01	22.77	21.97	21.17	25.41	27.49	22.52	---	28.92	27.68
3	---	22.51	26.12	21.26	21.50	23.12	---	26.71	25.52	---	---	---
4	---	21.83	26.59	20.75	23.80	23.11	32.66	24.23	25.83	---	---	---
5	---	26.41	24.35	20.45	23.52	23.67	24.47	22.79	26.86	34.31	30.06	---
6	---	24.15	24.91	19.64	24.02	23.35	22.41	---	26.90	29.74	---	27.70
7	---	22.43	24.37	22.15	21.67	20.85	22.22	25.69	26.53	---	---	26.63
8	---	22.45	23.97	22.62	21.32	21.50	26.58	24.11	24.08	---	---	25.29
9	---	22.99	21.70	25.17	21.01	20.61	24.78	24.08	23.02	---	---	---
10	---	21.78	26.12	21.46	19.90	19.59	25.63	24.65	---	36.42	27.53	---
11	24.10	21.13	25.77	21.70	23.02	22.38	24.43	24.48	27.49	37.74	26.64	---
12	24.74	23.67	26.18	20.28	23.66	23.06	22.86	22.73	26.08	38.68	---	---
13	24.78	27.02	24.77	19.81	24.23	22.06	21.96	27.14	27.22	33.12	32.66	---
14	22.02	24.56	24.03	23.84	21.15	20.70	20.64	27.49	26.79	28.98	30.49	27.09
15	27.02	26.02	22.19	23.36	22.20	21.31	23.08	26.02	24.26	35.53	---	25.38
16	---	23.10	21.04	23.61	20.58	21.57	24.55	27.11	22.27	33.99	---	---
17	---	22.44	25.16	21.36	20.32	20.11	21.84	26.47	26.59	---	---	---
18	26.10	21.73	25.51	21.40	23.79	23.00	22.05	23.51	---	---	26.52	---
19	23.42	25.45	25.05	23.35	23.14	24.79	22.20	21.68	---	---	---	---
20	22.68	23.91	22.23	21.08	23.07	24.31	22.11	26.41	---	---	---	---
21	21.75	27.49	22.02	22.54	21.27	21.76	21.71	27.14	---	---	---	27.03
22	27.49	22.27	21.60	22.81	22.87	21.08	25.91	---	---	---	---	24.94
23	23.74	22.60	20.51	22.59	20.91	21.08	23.51	---	---	---	27.63	---
24	24.17	21.95	22.44	24.21	19.83	19.68	24.02	25.63	---	---	26.82	---
25	24.35	21.23	21.68	23.19	23.23	23.37	21.87	24.02	---	40.11	25.23	---
26	24.48	22.27	22.41	20.65	22.93	23.50	20.97	23.43	---	38.52	---	---
27	23.14	26.39	22.78	21.13	23.70	23.76	21.36	21.76	---	34.28	---	---
28	21.65	25.82	21.31	23.18	22.00	22.27	21.13	27.49	---	28.83	---	25.30
29	25.52	24.75	21.07	24.15	---	23.28	23.32	---	---	34.49	32.58	26.85
30	23.66	25.44	18.75	24.38	---	21.92	24.38	26.07	---	28.91	---	---
31	25.17	---	21.47	22.49	---	22.58	---	25.81	---	---	---	---
MAX	27.49	27.49	26.59	25.17	24.23	24.79	32.66	29.99	27.49	40.11	33.39	27.70

CAL YR 1990 LOW 29.47
WTR YR 1991 LOW 40.11



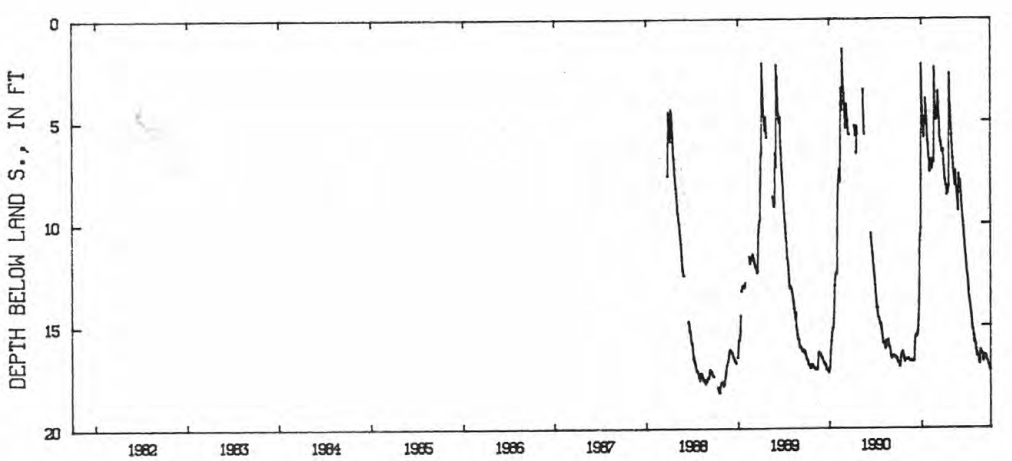
OTTAWA COUNTY

413434082494000. Local number, O-2.
LOCATION.--Lat 41°34'34", long 82°49'40", Hydrologic Unit 04100010. Catawba Island near Port Clinton.
Owner: William Williams.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled water table well, diameter 6 in., depth 62 ft, cased to 26 ft.
INSTRUMENTATION.--Type F continuous recorder.
DATUM.--Elevation of land-surface datum is 591 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 1.60 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 18.27 ft below land-surface datum, Sept. 17, 1989; minimum daily low, 1.45 ft below land-surface datum, Feb. 23, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.79	16.62	16.69	2.62	7.38	4.94	7.43	6.01	8.09	12.53	15.87	16.69
2	16.80	16.64	16.72	3.18	7.43	4.62	7.64	6.25	8.21	12.60	15.91	16.75
3	16.82	16.65	16.69	3.67	7.48	4.57	7.82	6.58	7.91	12.76	15.99	16.72
4	16.82	16.64	16.13	4.04	7.39	4.48	7.88	6.82	8.09	13.00	16.15	16.58
5	16.84	16.64	15.83	4.34	7.14	4.43	7.91	6.84	8.33	13.12	16.19	16.52
6	16.90	16.62	15.64	4.81	6.97	4.25	8.05	7.09	8.52	13.30	16.27	16.41
7	16.99	16.62	15.58	5.12	6.87	3.54	8.12	7.34	8.69	13.55	16.49	16.51
8	16.98	16.64	15.51	5.23	6.88	3.91	8.17	7.51	8.92	13.64	16.37	16.53
9	16.93	16.62	15.49	5.62	6.87	4.19	8.15	7.59	9.10	13.72	16.34	16.50
10	16.79	16.59	15.54	5.80	7.04	4.57	8.37	7.79	9.24	13.81	16.45	16.45
11	16.58	16.62	15.46	5.77	7.25	4.78	8.60	7.89	9.38	13.95	16.52	16.45
12	16.48	16.64	15.41	5.03	7.33	4.87	8.52	8.06	9.67	13.96	16.50	16.48
13	16.41	16.67	15.48	4.79	7.21	5.09	8.53	8.14	9.79	14.08	16.51	16.54
14	16.38	16.71	15.50	5.05	6.95	5.48	8.50	7.41	9.95	14.19	16.54	16.63
15	16.34	16.69	15.43	5.21	6.97	5.84	8.40	7.48	10.14	14.28	16.60	16.67
16	16.32	16.68	15.39	5.07	7.03	5.97	8.28	7.64	10.18	14.40	16.75	16.70
17	16.29	16.71	15.35	3.88	7.02	6.04	8.28	7.93	10.37	14.51	16.82	16.68
18	16.25	16.73	15.24	4.14	7.02	5.96	8.23	8.22	10.52	14.62	16.87	16.71
19	16.26	16.74	15.03	4.25	6.61	6.09	8.17	8.33	10.71	14.83	16.85	16.74
20	16.30	16.75	14.76	4.55	2.35	6.20	4.09	8.48	10.92	14.96	16.73	16.78
21	16.37	16.75	14.48	4.83	2.70	6.27	2.66	8.61	11.00	15.05	16.28	16.89
22	16.43	16.75	13.87	4.95	3.34	6.48	3.12	8.78	11.23	15.17	16.18	16.95
23	16.47	16.71	13.06	5.24	3.61	6.38	3.58	8.95	11.40	15.17	16.22	16.95
24	16.54	16.68	11.38	5.63	4.04	6.42	4.12	9.18	11.48	15.26	16.32	16.97
25	16.60	16.72	10.88	5.96	4.31	6.53	4.32	9.39	11.60	15.40	16.34	17.01
26	16.65	16.72	10.59	5.95	4.53	6.52	4.56	8.49	11.84	15.46	16.34	17.07
27	16.70	16.71	10.51	6.09	4.87	6.39	4.90	7.58	11.94	15.50	16.32	17.12
28	16.77	16.72	10.31	6.48	4.94	6.67	5.18	7.74	12.10	15.80	16.35	17.20
29	16.71	16.75	10.22	6.62	---	6.91	5.33	7.88	12.39	15.69	16.37	17.23
30	16.64	16.72	7.68	6.81	---	7.16	5.68	8.08	12.43	15.75	16.42	17.17
31	16.62	---	2.18	7.21	---	7.22	---	8.28	---	15.80	16.60	---
MAX	16.99	16.75	16.72	7.21	7.48	7.22	8.60	9.39	12.43	15.80	16.87	17.23

CAL YR 1990 LOW 17.14
WTR YR 1991 LOW 17.23



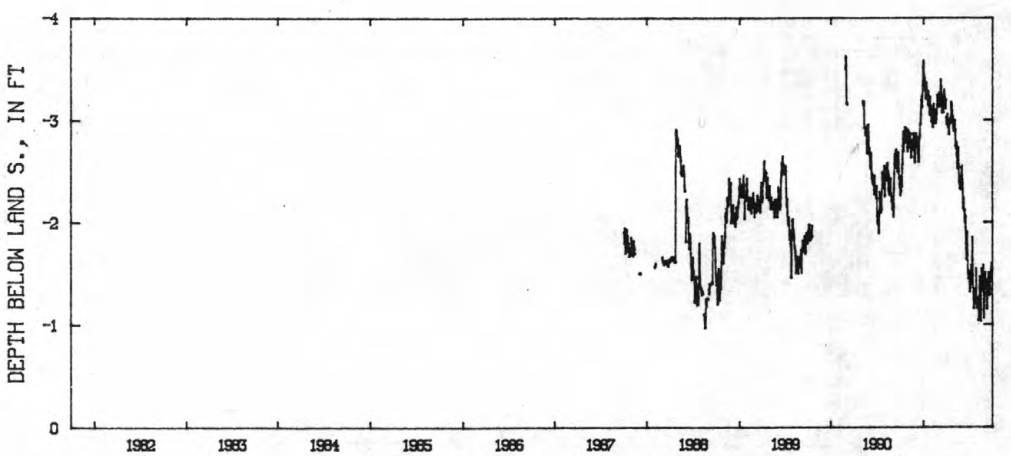
413434082494000 O-2 W WILLIAMS NR PORT CLINTON OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DEPTH TO WATER BL. LSD

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, 0.97 ft above land-surface datum, Aug. 17-18, 1988; minimum daily low, 3.94 ft above land-surface datum, Mar. 15-16, 1986.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-2.34	-2.70	-2.77	-3.58	-2.98	-3.13	---	-2.89	-2.45	-1.52	-1.16	-1.50
2	-2.45	-2.72	-2.77	-3.46	-3.03	-3.21	-3.03	-2.90	-2.55	-1.41	-1.17	-1.51
3	-2.26	-2.80	-2.82	-3.42	-3.11	-3.27	-2.95	-2.91	-2.42	-1.32	-1.16	-1.43
4	-2.29	-2.90	-2.87	-3.33	-3.02	-3.13	-2.97	-2.92	-2.42	-1.32	-1.25	-1.41
5	-2.32	-2.75	-2.83	-3.34	-3.02	-3.13	-2.98	-3.00	-2.38	-1.35	-1.25	-1.44
6	-2.30	-2.73	-2.83	-3.42	-2.94	-3.14	-3.06	-2.89	-2.31	-1.35	-1.19	-1.42
7	-2.45	-2.82	-2.77	-3.30	-2.94	-3.25	-3.06	-2.91	-2.13	-1.40	-1.04	-1.42
8	-2.37	-2.85	-2.74	-3.29	-2.93	-3.25	-2.97	-2.75	-2.13	-1.44	-1.04	-1.40
9	-2.35	-2.80	-2.79	-3.21	-3.05	-3.35	-2.97	-2.74	-2.25	-1.58	-1.25	-1.15
10	-2.53	-2.82	-2.67	-3.21	-3.16	-3.40	-2.92	-2.72	-2.12	-1.47	-1.35	-1.15
11	-2.57	-2.87	-2.72	-3.24	-3.06	-3.32	-2.95	-2.73	-2.11	-1.51	-1.47	-1.35
12	-2.74	-2.75	-2.63	-3.37	-2.97	-3.32	-2.86	-2.78	-2.12	-1.57	-1.29	-1.39
13	-2.81	-2.68	-2.59	-3.37	-3.05	-3.24	-2.86	-2.67	-2.03	-1.63	-1.18	-1.45
14	-2.89	-2.63	-2.59	-3.30	-3.11	-3.23	-3.00	-2.65	-2.00	-1.85	-1.09	-1.42
15	-2.69	-2.64	-2.73	-3.29	-2.97	-3.07	-3.01	-2.58	-2.00	-1.52	-1.05	-1.51
16	-2.70	-2.69	-2.81	-3.29	-2.97	-3.12	-2.96	-2.52	-2.06	-1.48	-1.03	-1.42
17	-2.77	-2.73	-2.82	-3.21	-3.06	-3.21	-2.98	-2.57	-1.94	-1.30	-1.14	-1.33
18	-2.80	-2.80	-2.85	-3.14	-2.97	-3.12	-2.97	-2.68	-1.79	-1.25	-1.55	-1.35
19	-2.77	-2.80	-2.96	-3.23	-2.97	-3.12	-3.01	-2.73	-1.75	-1.16	-1.42	-1.28
20	-2.83	-2.76	-2.96	-3.28	-3.01	-3.07	-3.03	-2.53	-1.68	-1.16	-1.34	-1.33
21	-2.93	-2.75	-2.97	-3.24	-3.01	-3.07	-3.18	-2.56	-1.63	-1.30	-1.36	-1.29
22	-2.87	-2.87	-3.05	-3.14	-3.06	-3.14	-3.16	-2.40	-1.64	-1.21	-1.41	-1.51
23	-2.88	-2.87	-3.20	-3.14	-3.15	-3.25	-3.14	-2.38	-1.91	-1.20	-1.33	-1.49
24	-2.87	-2.87	-3.12	-3.07	-3.25	-3.30	-3.10	-2.37	-1.76	-1.35	-1.45	-1.50
25	-2.84	-2.82	-3.24	-3.05	-3.20	-3.22	-3.09	-2.32	-1.67	-1.27	-1.58	-1.53
26	-2.78	-2.71	-3.12	-3.15	-3.15	-3.23	-3.00	-2.40	-1.51	-1.20	-1.38	-1.55
27	-2.82	-2.63	-3.18	-3.23	-3.15	-3.21	-3.00	-2.43	-1.49	-1.26	-1.24	-1.58
28	-2.92	-2.58	-3.25	-3.14	-3.17	-3.20	-3.04	-2.39	-1.45	-1.55	-1.06	-1.60
29	-2.73	-2.60	-3.34	-3.12	---	-3.12	-2.95	-2.32	-1.45	-1.42	-1.18	-1.57
30	-2.74	-2.65	-3.52	-3.14	---	-3.11	-2.92	-2.34	-1.48	-1.26	-1.25	-1.55
31	-2.69	---	-3.54	-3.10	---	-3.20	---	-2.35	---	-1.16	-1.30	---
MAX	-2.26	-2.58	-2.59	-3.05	-2.93	-3.07	-2.86	-2.32	-1.45	-1.16	-1.03	-1.15

CAL YR 1990 LOW -1.89
WTR YR 1991 LOW -1.03



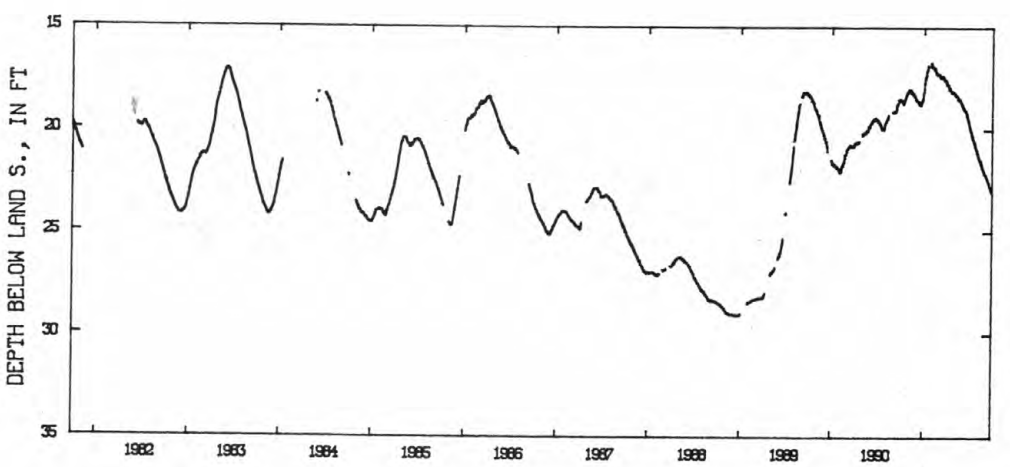
410540081213600 PO-7 CITY OF TALMIDGE NR BRIMFIELD OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DEPTH TO WATER BL. LSD

410920081192000. Local number, PO-6.
LOCATION.--Lat 41°09'20", long 81°19'20", Hydrologic Unit 04110002, State Rt 59, east of Kent.
Owner: Testa Bros.
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 Vetical 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.
PERIOD OF RECORD.--April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 29.06 ft below land-surface datum, Dec. 23-26, 28-29, 1988; minimum daily low, 14.28 ft below-land surface datum, May 5, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.52	18.05	18.47	18.11	16.90	17.30	17.67	18.15	18.72	19.71	21.09	22.13
2	18.50	18.02	18.51	17.95	16.87	17.25	17.75	18.16	18.75	19.80	21.11	22.13
3	18.50	18.01	18.51	17.73	16.86	17.30	17.75	18.20	18.78	19.85	21.15	22.17
4	18.50	18.00	18.52	17.65	16.86	17.34	17.75	18.20	18.83	19.90	21.20	22.18
5	18.53	17.99	18.56	17.51	16.90	17.37	17.75	18.20	18.86	19.95	21.25	22.23
6	18.56	18.09	18.56	17.50	16.90	17.36	17.75	18.25	18.87	20.00	21.28	22.27
7	18.60	18.09	18.56	17.44	16.92	17.42	17.79	18.29	18.90	20.04	21.30	22.30
8	18.64	18.10	18.59	17.37	16.92	17.43	17.79	18.31	18.92	20.08	21.31	22.31
9	18.65	18.09	18.60	17.35	16.94	17.43	17.82	18.30	18.94	20.11	21.35	22.36
10	18.66	18.02	18.64	17.27	16.97	17.42	17.89	18.32	18.94	20.16	21.41	22.39
11	18.72	18.08	18.64	17.12	17.01	17.42	18.00	18.32	18.95	20.21	21.42	22.43
12	18.72	18.10	18.60	17.08	17.03	17.42	18.01	18.32	18.99	20.23	21.46	22.45
13	18.64	18.15	18.70	17.04	17.00	17.33	17.99	18.32	19.02	20.30	21.50	22.48
14	18.60	18.17	18.72	16.98	16.91	17.35	17.99	18.33	19.02	20.35	21.51	22.53
15	18.55	18.17	18.70	16.96	17.06	17.42	18.01	18.37	19.03	20.39	21.56	22.55
16	18.55	18.15	18.73	16.86	17.12	17.43	18.04	18.38	19.07	20.44	21.59	22.58
17	18.50	18.18	18.73	16.87	17.18	17.43	18.06	18.42	19.10	20.44	21.62	22.64
18	18.38	18.19	18.65	16.86	17.20	17.32	18.07	18.48	19.13	20.48	21.65	22.68
19	18.39	18.19	18.78	16.85	17.19	17.37	18.07	18.48	19.16	20.53	21.69	22.73
20	18.38	18.27	18.78	---	17.20	17.43	18.07	18.48	19.21	20.57	21.73	22.77
21	18.30	18.28	18.73	---	17.20	17.43	18.07	18.49	19.25	20.58	21.77	22.78
22	18.27	18.28	18.63	---	17.20	17.48	18.07	18.51	19.29	20.59	21.80	22.79
23	18.25	18.26	18.62	---	17.29	17.48	18.08	18.52	19.36	20.67	21.87	22.86
24	18.22	18.27	18.56	---	17.27	17.54	18.12	18.53	19.41	20.73	21.90	22.87
25	18.20	18.34	18.56	---	17.24	17.56	18.16	18.55	19.44	20.78	21.92	22.90
26	18.18	18.37	18.51	---	17.24	17.57	18.16	18.59	19.50	20.84	21.94	22.96
27	18.17	18.37	18.51	---	17.23	17.53	18.13	18.60	19.55	20.86	21.99	23.00
28	18.10	18.37	18.48	16.71	17.28	17.56	18.13	18.65	19.59	20.89	22.00	23.02
29	18.10	18.45	18.32	16.75	---	17.58	18.13	18.66	19.63	20.91	22.03	23.05
30	18.09	18.47	18.18	16.70	---	17.63	18.15	18.66	19.65	20.97	22.04	23.05
31	18.05	---	18.16	16.90	---	17.67	---	18.71	---	21.01	22.11	---
MAX	18.72	18.47	18.78	18.11	17.29	17.67	18.16	18.71	19.65	21.01	22.11	23.05

CAL YR 1990 LOW 22.05
WTR YR 1991 LOW 23.05



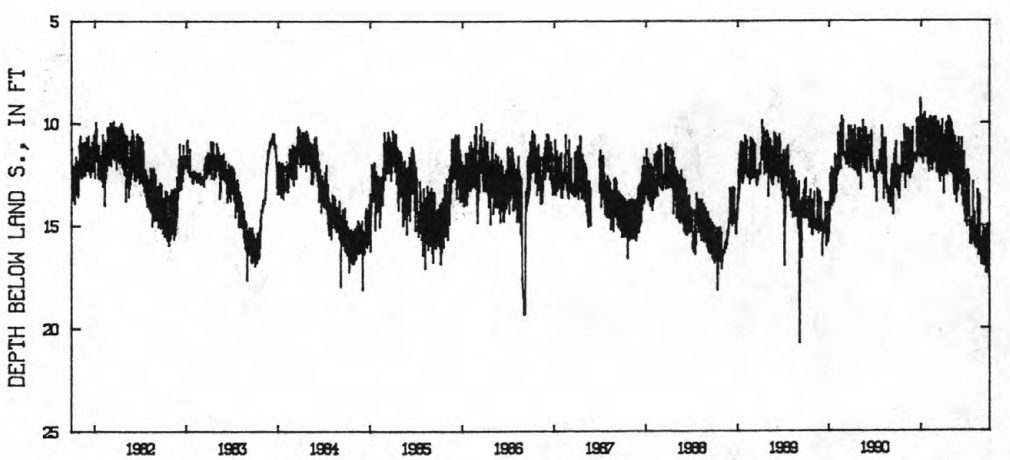
410920081192000 PO-6
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

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, 8.80 ft below land-surface datum, Dec. 30, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.12	12.53	12.12	9.01	11.96	11.83	11.90	12.44	10.72	12.36	15.77	16.85
2	13.28	12.21	11.98	11.25	9.94	9.70	12.15	10.33	12.93	14.34	15.97	16.87
3	12.06	12.57	11.68	9.99	12.39	12.05	13.47	12.21	12.90	15.08	14.39	16.89
4	13.19	10.25	11.81	11.41	10.56	12.17	10.61	10.02	12.67	13.68	15.52	15.35
5	13.43	11.84	11.58	11.19	12.08	12.27	11.99	12.44	11.19	13.68	15.56	16.79
6	13.51	12.20	11.69	11.78	9.98	12.45	12.55	10.35	12.80	13.32	16.09	15.10
7	12.96	12.18	11.53	9.64	11.91	12.05	12.35	12.46	12.81	14.13	16.12	16.97
8	13.69	12.23	11.59	11.70	9.70	10.58	12.33	10.46	12.95	12.30	15.70	16.83
9	13.31	11.94	11.75	9.85	12.04	12.28	12.45	12.58	12.95	13.98	15.45	16.80
10	12.64	12.19	11.50	11.99	9.68	9.93	10.39	10.53	12.93	14.40	15.50	16.94
11	12.70	12.12	11.65	9.62	12.02	12.33	12.07	12.92	11.51	14.61	15.06	16.85
12	12.42	10.27	11.82	11.61	10.25	9.95	10.02	11.10	13.08	12.60	15.92	16.58
13	12.18	12.51	11.72	9.59	11.68	12.48	12.28	13.29	10.72	14.62	15.34	16.88
14	12.27	10.35	11.92	11.55	11.80	10.34	12.08	11.43	13.55	14.83	15.64	15.17
15	12.14	12.38	9.89	9.55	12.29	12.53	11.91	13.53	11.59	15.07	13.28	17.28
16	12.25	10.33	9.81	11.56	9.96	10.16	9.95	11.50	12.96	15.92	16.19	17.23
17	10.96	12.61	11.71	9.47	12.33	12.71	12.55	13.17	13.58	15.56	16.43	17.31
18	11.91	10.39	10.14	11.38	9.90	10.39	10.66	10.68	13.53	15.60	16.45	17.00
19	12.02	12.72	11.64	11.54	12.04	12.90	12.28	12.81	14.07	15.78	16.11	17.20
20	12.46	10.88	11.43	11.59	9.74	10.56	11.16	13.41	13.64	15.75	15.62	16.95
21	11.74	12.55	11.44	11.67	11.91	12.39	11.72	13.27	13.92	15.93	16.11	17.31
22	11.96	11.91	9.72	11.39	9.71	10.36	9.69	12.10	14.10	14.96	16.10	14.94
23	11.99	12.48	11.41	11.64	11.94	12.43	12.12	13.91	11.41	15.17	13.52	17.28
24	11.74	11.34	10.95	9.82	9.73	10.19	9.82	12.40	14.47	14.66	16.41	15.37
25	11.51	12.30	11.28	10.66	11.78	12.63	11.78	13.44	14.25	15.19	15.98	17.22
26	12.07	10.41	11.17	11.63	9.74	10.25	9.74	11.01	14.29	15.00	16.52	16.97
27	10.10	12.43	11.45	11.43	11.82	12.04	12.25	13.23	14.80	15.42	15.60	17.38
28	12.13	10.60	11.30	12.00	9.75	9.83	9.86	12.85	14.86	12.88	16.67	17.07
29	12.09	12.20	11.69	9.82	---	12.19	12.43	13.35	14.83	15.56	16.92	17.58
30	12.30	10.20	8.80	11.68	---	12.05	9.90	12.96	14.68	15.50	16.79	17.55
31	13.20	---	11.01	12.16	---	12.29	---	13.29	---	15.70	16.36	---
MAX	13.69	12.72	12.12	12.16	12.39	12.90	13.47	13.91	14.86	15.93	16.92	17.58

CAL YR 1990 LOW 15.36
WTR YR 1991 LOW 17.58



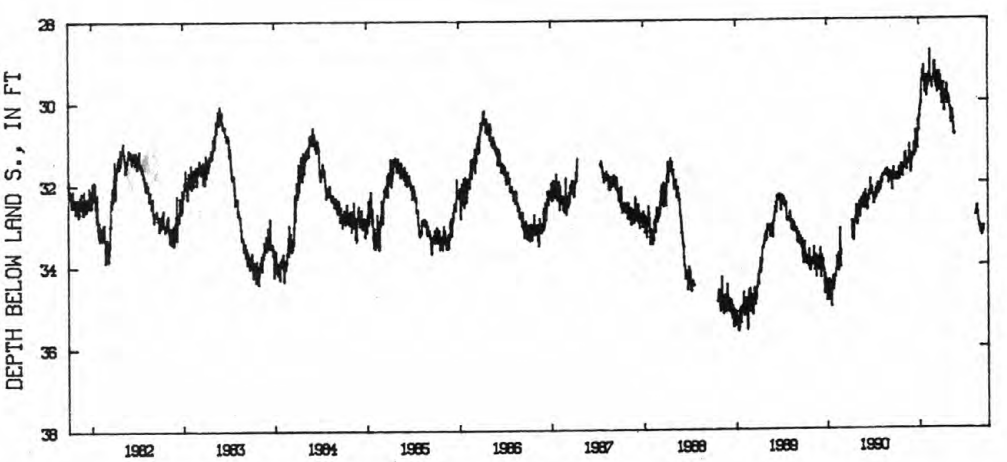
405505084032900 PU-1
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

405753082360800. Local number, R-3.
LOCATION.--Lat 40°57'53", long 82°36'08", Hydrologic Unit 04100012, Voisard plant in Shiloh.
Owner: Voisard Corp.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 150 ft, cased.
INSTRUMENTATION.--Digital recorder --60-minute punch.
DATUM.--Elevation of land-surface datum is 1080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Floor of instrument shelter 3.17 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--April 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 35.90 ft below land-surface datum, Feb. 12, 1981; minimum daily low, 23.68 ft below land-surface datum, June 15, 23, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.88	31.64	31.51	30.70	29.88	29.37	29.91	29.97	---	---	---	33.24
2	31.94	31.54	31.66	30.36	29.73	29.05	30.07	30.05	---	---	---	33.22
3	31.94	31.56	31.48	30.42	29.73	29.11	30.08	30.18	---	---	---	33.20
4	31.78	31.45	31.38	30.41	29.62	29.18	29.97	30.16	---	---	---	33.07
5	31.83	31.28	31.45	30.24	29.63	29.26	29.76	30.16	---	---	---	33.17
6	31.85	31.51	31.28	30.14	29.65	29.05	29.75	30.28	---	---	---	33.30
7	31.87	31.59	31.30	30.16	29.61	29.42	29.68	30.47	---	---	---	33.28
8	31.93	31.64	31.31	30.10	29.60	29.58	29.67	30.54	---	---	---	33.24
9	31.79	31.49	31.31	30.04	29.39	29.53	29.56	30.42	---	---	---	33.25
10	31.80	31.26	31.31	30.07	29.33	29.65	30.02	30.47	---	---	---	33.15
11	31.94	31.45	31.31	29.76	29.50	29.68	30.25	30.42	---	---	---	33.16
12	31.86	31.55	31.02	29.49	29.52	29.60	30.25	30.32	---	---	---	33.20
13	31.66	31.69	31.31	29.54	29.15	29.30	29.98	30.23	---	---	32.80	33.08
14	31.62	31.67	31.36	29.50	28.76	29.52	29.84	30.31	---	---	32.74	33.07
15	31.87	31.56	31.04	29.50	29.38	29.78	29.76	30.44	---	---	32.72	---
16	31.92	31.42	31.15	29.27	29.54	29.80	29.85	30.44	---	---	32.77	---
17	31.75	31.51	31.12	29.52	29.51	29.72	29.93	30.57	---	---	32.64	---
18	31.65	31.48	30.72	29.52	29.51	29.38	29.93	30.65	---	---	32.60	---
19	31.84	31.44	31.27	29.50	29.45	29.48	29.78	30.80	---	---	32.57	---
20	31.85	31.53	31.27	29.14	29.57	29.56	29.81	30.80	---	---	32.73	---
21	31.68	31.51	31.00	29.50	29.51	29.45	29.76	30.81	---	---	32.74	---
22	31.67	31.26	30.74	29.54	29.64	29.50	29.61	30.84	---	---	32.73	---
23	31.55	31.12	30.73	29.46	29.68	29.30	29.65	---	---	---	32.91	---
24	31.55	31.07	30.96	29.70	29.49	29.58	30.06	---	---	---	32.97	---
25	31.66	31.30	30.96	29.79	29.51	29.74	30.08	---	---	---	32.97	---
26	31.69	31.39	31.17	29.65	29.50	29.74	29.98	---	---	---	33.01	---
27	31.68	31.27	31.16	29.41	29.45	29.40	29.86	---	---	---	33.05	---
28	31.79	31.62	30.72	29.51	29.47	29.44	29.91	---	---	---	33.09	---
29	31.85	31.74	30.52	29.52	---	29.54	29.90	---	---	---	33.12	---
30	31.72	31.75	30.46	29.38	---	29.87	29.98	---	---	---	33.04	---
31	31.64	---	30.75	29.85	---	29.90	---	---	---	---	33.15	---
MAX	31.94	31.75	31.66	30.70	29.88	29.90	30.25	30.84	---	---	33.15	33.30

CAL YR 1990 LOW 35.01
WTR YR 1991 LOW 33.30



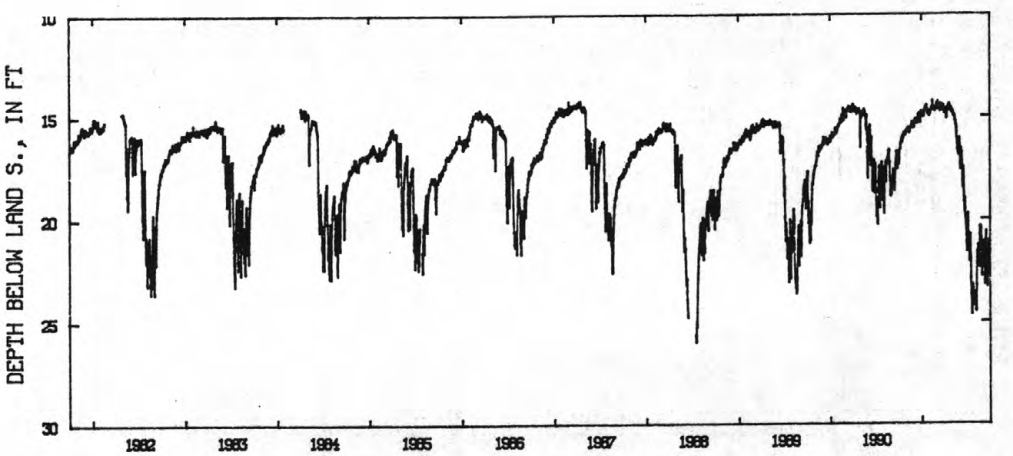
405753082360800 R-3
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

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, 25.97 ft below land-surface datum, July 17, 1988; minimum daily low, 14.02 ft below land-surface datum, Mar. 24, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.71	15.72	15.46	15.00	15.00	14.52	14.76	14.66	16.18	21.58	23.81	22.35
2	17.11	15.70	15.50	14.93	14.89	14.38	14.88	14.81	16.07	20.77	23.87	21.62
3	17.35	15.70	15.44	15.00	14.92	14.50	14.87	14.80	16.41	20.00	23.95	22.35
4	17.11	15.67	15.20	15.04	14.84	14.39	14.76	14.81	16.90	20.18	23.64	21.87
5	16.86	15.59	15.27	14.97	14.80	14.46	14.68	14.76	17.60	19.72	24.11	21.07
6	16.65	15.65	15.17	14.98	14.76	14.27	14.62	14.78	17.41	20.68	24.45	21.57
7	16.62	15.69	15.21	15.04	14.75	14.53	14.66	14.89	16.79	21.21	24.51	21.96
8	16.61	15.76	15.23	14.97	14.70	14.57	14.61	14.99	16.57	20.72	23.26	22.19
9	16.43	15.64	15.23	14.99	14.58	14.56	14.61	14.92	17.56	20.79	22.19	22.87
10	16.26	15.55	15.30	15.00	14.62	14.68	14.95	14.97	17.29	21.22	21.64	23.22
11	16.35	15.65	15.26	14.84	14.71	14.67	15.10	14.97	16.76	22.08	21.54	22.78
12	16.27	15.76	15.12	14.70	14.69	14.60	15.09	14.95	17.44	21.74	21.96	21.71
13	16.14	15.82	15.36	14.69	14.47	14.47	14.85	15.01	18.17	20.79	21.26	21.12
14	16.09	15.80	15.36	14.67	14.24	14.58	14.71	15.09	18.49	20.77	21.27	20.85
15	16.19	15.72	15.18	14.67	14.58	14.69	14.57	15.20	18.42	21.37	21.79	20.60
16	16.26	15.60	15.25	14.53	14.68	14.77	14.71	15.21	18.18	21.95	21.67	21.60
17	16.12	15.61	15.23	14.63	14.62	14.67	14.72	15.25	17.48	22.89	22.09	22.04
18	15.96	15.62	14.91	14.64	14.62	14.40	14.70	15.42	18.03	23.61	22.08	22.03
19	16.06	15.52	15.22	14.61	14.53	14.49	14.56	15.42	18.79	23.74	22.37	22.95
20	16.07	15.56	15.25	14.46	14.62	14.57	14.48	15.49	19.10	24.33	21.35	23.32
21	16.01	15.56	15.09	14.68	14.55	14.47	14.44	15.63	19.21	24.67	20.80	22.53
22	15.95	15.40	14.89	14.68	14.72	14.55	14.39	16.06	19.65	24.15	20.42	22.66
23	15.86	15.30	14.85	14.65	14.76	14.43	14.45	16.29	18.98	24.19	20.35	21.78
24	15.81	15.27	15.05	14.87	14.69	14.66	14.65	16.44	19.49	23.20	21.04	21.39
25	15.82	15.40	15.04	14.89	14.66	14.73	14.71	16.63	19.98	23.39	20.47	21.67
26	15.86	15.47	15.33	14.81	14.62	14.67	14.64	16.70	20.02	24.13	21.43	21.06
27	15.79	15.33	15.28	14.71	14.61	14.46	14.58	16.83	20.25	24.25	20.93	21.15
28	15.87	15.52	15.07	14.78	14.61	14.51	14.63	16.89	20.45	23.85	22.10	21.02
29	15.93	15.60	14.96	14.77	---	14.59	14.59	16.59	21.08	23.78	22.67	21.78
30	15.79	15.57	14.74	14.76	---	14.78	14.67	16.33	21.20	23.56	22.82	21.53
31	15.75	---	15.00	14.97	---	14.76	---	16.22	---	23.76	21.78	---
MAX	17.35	15.82	15.50	15.04	15.00	14.78	15.10	16.89	21.20	24.67	24.51	23.32

CAL YR 1990 LOW 20.25
WTR YR 1991 LOW 24.67



411914083045300 S-3 H KEISER COLE RD SE OF FREMONT OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

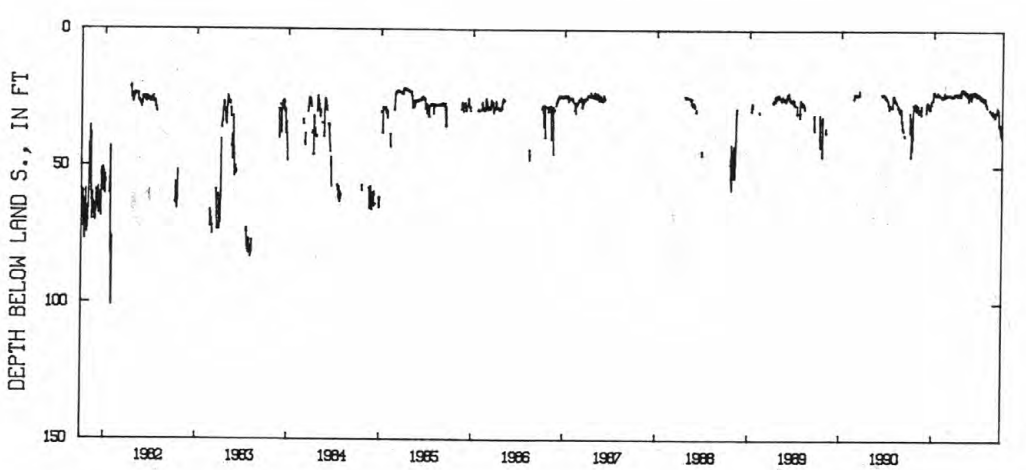
SANDUSKY COUNTY--Continued

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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.59	28.65	27.59	22.36	23.94	23.36	23.43	22.40	24.29	23.35	---	31.53
2	32.72	29.33	---	22.11	24.20	23.36	23.22	21.57	22.98	23.46	---	30.06
3	---	29.91	29.81	22.38	24.29	23.58	22.92	21.79	23.71	23.51	---	31.22
4	46.01	30.18	28.10	22.47	24.47	23.63	23.11	22.69	22.52	23.65	---	---
5	42.84	29.38	27.02	22.59	24.47	23.62	23.62	22.55	22.29	24.63	---	29.57
6	38.16	29.95	26.53	22.97	24.14	23.30	23.59	22.98	22.89	24.50	---	29.89
7	31.72	28.63	26.26	23.21	24.05	23.75	23.91	22.06	22.09	24.84	---	29.92
8	42.54	29.61	26.12	23.15	23.85	23.79	23.66	22.99	23.02	24.03	---	29.97
9	43.59	29.56	26.32	23.33	24.02	23.46	23.30	23.17	22.24	24.36	---	29.75
10	38.00	29.53	26.65	23.47	24.11	23.95	22.84	22.16	23.05	24.12	---	28.17
11	39.58	30.26	26.58	23.19	24.28	24.03	22.99	23.12	22.15	25.13	29.06	28.07
12	29.85	29.23	26.70	23.42	23.98	23.84	23.38	23.42	22.02	24.10	28.79	28.67
13	28.67	30.65	27.13	23.39	22.65	23.64	22.49	23.40	23.43	25.04	---	29.38
14	27.79	27.37	27.80	23.50	23.53	23.84	23.78	22.31	22.35	24.97	---	29.27
15	27.15	---	27.96	23.55	23.95	24.01	22.96	22.34	23.21	24.40	29.53	29.04
16	26.91	30.24	28.74	23.56	23.80	24.11	23.97	22.71	22.40	24.45	---	30.07
17	26.95	---	28.26	23.46	24.03	23.85	23.97	23.66	22.61	25.19	29.57	35.07
18	27.15	30.14	27.96	22.37	24.01	23.86	23.43	22.95	23.50	25.65	30.20	---
19	27.22	---	28.69	22.99	23.98	23.87	23.16	24.04	22.62	24.49	29.81	33.48
20	26.81	---	27.08	23.10	23.71	23.97	22.46	25.64	22.83	25.63	29.38	---
21	26.60	---	27.01	23.30	23.29	23.98	22.04	24.16	23.75	24.54	29.83	34.99
22	26.84	---	26.85	23.29	23.36	24.02	21.16	22.95	23.82	24.56	29.43	34.22
23	28.38	---	26.14	23.08	23.47	22.79	21.66	22.64	23.76	25.61	29.42	36.77
24	29.28	27.58	25.79	23.58	23.54	23.21	21.28	23.62	22.77	24.93	30.95	38.01
25	28.12	---	25.32	23.54	23.51	23.05	21.31	23.63	23.93	24.94	29.53	34.12
26	27.41	---	25.53	23.50	23.44	22.77	22.01	23.07	23.14	26.22	---	36.45
27	26.98	---	25.28	23.49	23.57	22.72	22.43	22.66	24.01	26.65	---	37.20
28	27.27	---	25.32	23.95	23.48	22.92	22.40	22.37	23.13	26.69	30.00	38.37
29	27.48	---	25.30	23.86	---	22.83	21.37	23.10	23.22	26.86	29.69	39.00
30	27.41	---	24.30	23.78	---	23.05	21.60	25.14	24.01	27.00	30.50	37.32
31	27.94	---	23.29	24.03	---	22.77	---	23.32	---	27.91	---	---
MAX	46.01	30.65	29.81	24.03	24.47	24.11	23.97	25.64	24.29	27.91	30.95	39.00

CAL YR 1990 LOW 46.01
WTR YR 1991 LOW 46.01



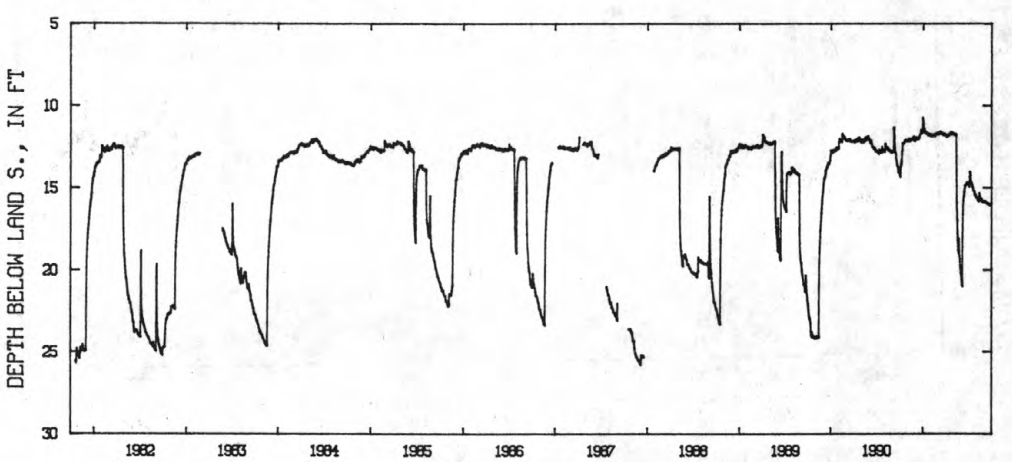
412703083213600 S-2
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

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, 10.73 ft below land-surface datum, Dec. 31, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.15	12.17	12.09	10.86	11.87	11.77	11.81	11.73	20.20	14.76	15.55	15.84
2	14.26	12.17	12.07	11.05	11.87	11.72	11.86	11.75	20.31	14.85	15.61	15.80
3	14.30	12.14	12.01	11.24	11.81	11.72	11.89	11.78	20.45	14.93	15.64	15.81
4	14.34	12.09	11.91	11.40	11.79	11.71	11.90	11.77	20.58	14.93	15.64	15.81
5	13.86	12.00	11.96	11.42	11.85	11.75	11.87	11.72	20.73	14.33	15.61	15.83
6	13.69	12.12	12.00	11.41	11.86	11.70	11.84	11.69	20.91	14.03	15.66	15.89
7	13.58	12.13	12.02	11.51	11.84	11.61	11.81	11.76	20.99	14.05	15.69	15.91
8	13.46	12.17	12.02	11.54	11.83	11.62	11.80	11.80	17.99	14.17	15.73	15.90
9	13.37	12.12	11.98	11.63	11.77	11.60	11.81	11.79	16.66	14.40	15.78	15.87
10	12.96	12.07	11.97	11.67	11.74	11.56	11.82	11.81	16.06	14.56	15.83	15.91
11	12.75	12.04	11.98	11.66	11.80	11.61	11.86	11.79	15.75	14.67	15.83	15.94
12	12.71	12.04	11.96	11.61	11.82	11.63	11.87	11.74	15.52	14.71	15.79	15.98
13	12.31	12.12	12.04	11.61	11.76	11.60	11.82	11.73	15.36	14.73	15.31	15.99
14	12.28	12.13	12.04	11.64	11.74	11.69	11.77	11.77	15.23	14.74	15.54	15.99
15	12.27	12.11	11.97	11.65	11.84	11.73	11.68	14.03	15.19	14.82	15.69	15.98
16	12.29	12.07	11.92	11.68	11.84	11.73	11.71	15.94	15.05	14.90	15.74	15.92
17	12.30	12.07	11.90	11.75	11.87	11.68	11.71	16.56	14.92	14.98	15.74	15.98
18	12.28	12.03	11.85	11.77	11.80	11.65	11.72	16.97	14.86	15.04	15.64	16.01
19	12.21	11.97	11.75	11.74	11.80	11.72	11.69	17.73	14.85	15.10	15.62	16.02
20	12.22	12.04	11.78	11.67	11.69	11.76	11.66	18.16	14.82	15.16	15.67	16.03
21	12.18	12.04	11.77	11.74	11.69	11.78	11.63	18.53	14.77	15.17	15.73	16.05
22	12.11	11.99	11.67	11.76	11.72	11.82	11.62	18.81	14.76	15.19	15.76	16.05
23	12.09	11.90	11.63	11.78	11.72	11.75	11.66	18.97	14.74	15.25	15.81	15.98
24	12.09	11.87	11.46	11.78	11.64	11.68	11.74	18.07	14.66	15.29	15.85	15.98
25	12.09	11.89	11.47	11.83	11.67	11.73	11.76	18.81	14.70	15.35	15.85	15.99
26	12.11	11.95	11.58	11.81	11.68	11.73	11.74	19.13	14.74	15.42	15.83	16.07
27	12.10	11.95	11.63	11.73	11.75	11.69	11.71	19.29	14.74	15.44	15.86	16.08
28	12.07	12.07	11.68	11.75	11.76	11.74	11.66	19.49	14.73	15.44	15.88	16.04
29	12.07	12.12	11.65	11.77	---	11.80	11.65	19.72	14.74	15.43	15.89	15.98
30	12.11	12.14	11.52	11.73	---	11.81	11.71	19.90	14.74	15.49	15.89	15.92
31	12.14	---	10.73	11.85	---	11.78	---	20.05	---	15.53	15.89	---
MAX	14.34	12.17	12.09	11.85	11.87	11.82	11.90	20.05	20.99	15.53	15.89	16.08

CAL YR 1990 LOW 14.34
WTR YR 1991 LOW 20.99



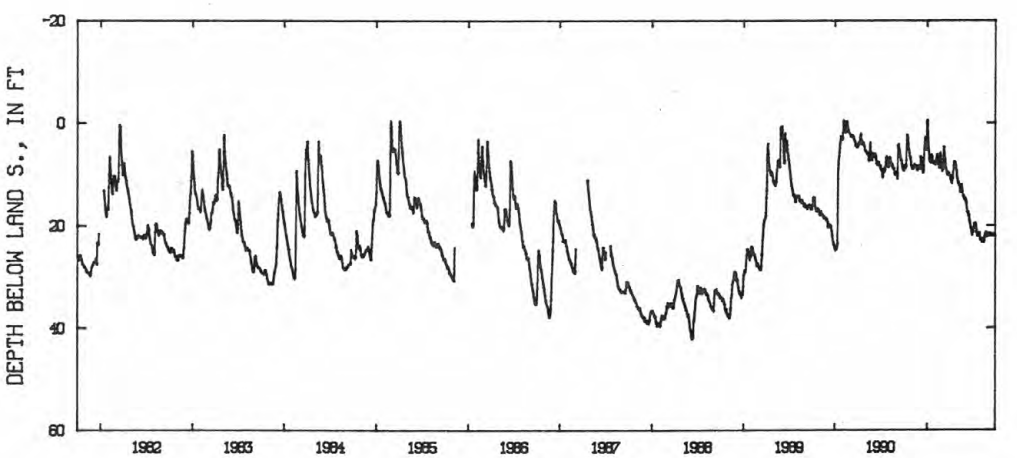
410330081282000 SU-6
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

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, 0.48 ft above land-surface datum, Feb. 5, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.33	8.73	8.73	-.43	7.83	8.94	10.26	10.91	15.09	21.89	22.58	22.01
2	9.26	8.83	8.95	-.40	7.76	9.41	10.63	10.98	14.88	21.23	22.81	22.00
3	9.19	8.98	9.03	.52	8.07	9.37	10.91	11.57	14.81	21.19	22.54	22.01
4	8.85	8.95	8.79	1.51	8.19	9.11	10.91	11.64	14.90	21.19	22.63	21.61
5	8.48	8.93	7.23	2.70	8.18	9.23	10.51	11.64	15.12	21.07	22.91	21.44
6	8.30	8.86	6.84	3.59	7.52	9.10	11.17	11.76	15.53	20.65	22.61	21.51
7	8.21	8.78	6.58	4.64	6.96	8.36	11.39	11.82	15.56	20.47	22.89	21.98
8	8.22	8.99	6.59	5.61	6.73	5.35	11.46	12.19	16.00	20.37	23.25	21.59
9	8.75	8.61	6.91	6.26	6.22	4.69	11.47	12.06	16.57	19.84	23.05	21.81
10	8.47	8.66	7.53	7.06	6.15	4.81	11.88	12.25	17.01	19.57	22.83	21.70
11	7.32	8.57	7.78	7.56	6.54	5.58	11.28	12.41	17.29	19.60	23.01	21.99
12	5.21	8.12	8.27	6.87	7.10	6.23	10.87	12.83	17.27	19.60	22.62	21.46
13	3.26	8.13	8.82	7.10	7.23	6.86	10.29	13.46	17.46	19.51	22.81	21.95
14	2.60	8.38	9.31	7.81	7.45	7.29	9.88	13.57	17.53	19.80	23.30	21.86
15	2.36	8.47	9.40	7.34	8.02	7.96	9.49	13.07	17.83	19.88	23.29	21.95
16	2.73	8.23	9.71	6.98	8.40	8.76	9.05	12.48	18.09	19.91	23.10	22.00
17	3.11	8.47	9.59	6.97	8.67	8.98	8.41	12.48	18.02	20.48	23.08	22.03
18	3.42	8.62	9.09	6.32	8.90	8.91	7.62	12.44	18.07	20.90	22.59	22.04
19	3.64	8.64	8.46	6.21	8.91	9.00	7.59	11.99	18.57	21.42	22.31	22.02
20	4.19	8.95	6.32	6.53	8.38	9.70	7.60	12.46	18.99	21.68	22.33	21.88
21	5.23	9.20	5.06	6.58	6.84	9.93	7.84	13.00	19.30	21.73	21.64	21.78
22	5.29	9.15	4.62	6.98	5.83	9.98	7.87	13.37	19.56	22.09	22.03	21.64
23	5.30	8.92	3.78	7.62	5.98	10.18	7.84	13.94	19.56	22.00	21.58	21.83
24	5.97	9.28	2.99	7.87	6.48	9.87	7.83	14.34	20.04	21.54	21.65	21.76
25	6.54	8.60	2.78	7.46	7.11	9.71	8.11	14.48	20.48	21.51	21.62	21.69
26	6.76	8.76	2.89	7.53	7.31	9.84	8.19	14.45	20.37	21.43	21.28	21.67
27	6.68	8.93	4.21	7.75	8.13	9.69	8.79	14.23	20.76	21.43	21.79	21.61
28	6.89	8.47	5.08	8.03	8.55	10.23	9.26	14.37	21.13	21.53	22.01	21.77
29	7.35	8.26	5.34	7.99	---	9.81	9.48	14.79	21.30	21.86	22.13	21.79
30	7.75	8.34	5.24	7.99	---	10.03	10.24	14.91	21.88	21.43	22.16	22.23
31	8.35	---	-.06	7.59	---	10.03	---	14.87	---	21.68	21.99	---
MAX	9.33	9.28	9.71	8.03	8.91	10.23	11.88	14.91	21.88	22.09	23.30	22.23

CAL YR 1990 LOW 24.79
WTR YR 1991 LOW 23.30



410846081271600 SU-7
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

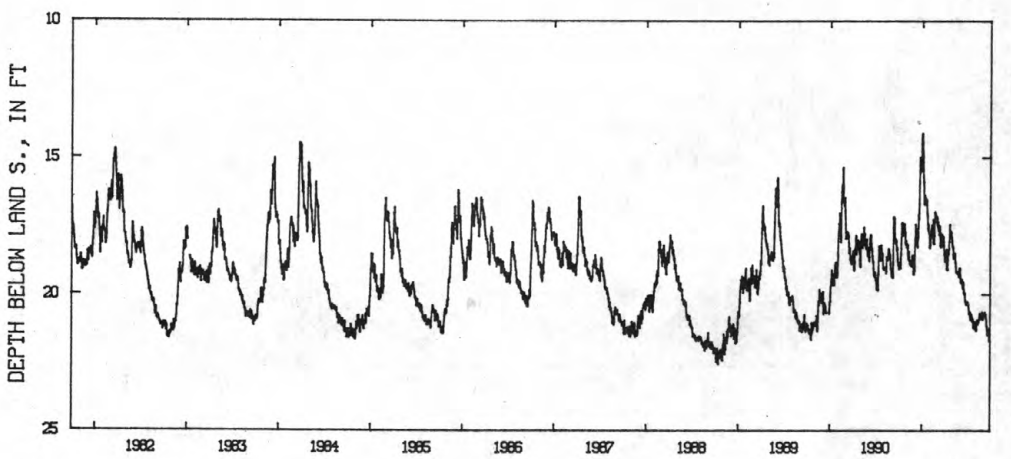
SENECA COUNTY

410802083093900. 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, 14.11 ft below land-surface datum, Jan. 2, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.92	18.16	19.04	14.16	18.31	17.28	18.59	17.93	19.07	20.28	21.08	20.94
2	19.06	18.28	19.12	14.11	18.20	17.17	18.80	18.08	19.02	20.29	21.10	20.91
3	19.04	18.29	18.99	14.46	18.21	17.36	18.78	18.26	19.08	20.31	21.08	20.82
4	18.83	18.27	17.96	14.75	18.07	17.45	18.62	18.25	19.30	20.36	21.17	20.75
5	18.84	18.19	17.94	14.91	17.92	17.57	18.49	18.24	19.42	20.38	21.31	20.76
6	18.87	18.55	17.41	15.41	17.82	17.32	18.45	18.31	19.55	20.44	21.34	20.80
7	18.93	18.64	17.46	15.89	17.66	17.61	18.42	18.55	19.57	20.49	21.29	20.81
8	19.04	18.73	17.67	15.87	17.62	17.67	18.40	18.69	19.52	20.59	21.12	20.74
9	18.87	18.51	17.72	16.53	17.45	17.57	18.35	18.55	19.59	20.72	20.95	20.70
10	18.52	18.43	17.89	16.71	17.63	17.82	18.90	18.63	19.55	20.64	21.03	20.65
11	18.15	18.65	17.86	16.53	17.88	17.82	19.09	18.64	19.46	20.74	21.11	20.73
12	17.80	18.77	17.61	16.36	17.88	17.76	19.09	18.50	19.57	20.66	21.10	20.76
13	17.40	18.90	18.25	16.44	17.51	17.48	18.79	18.52	19.77	20.67	21.02	20.73
14	17.36	18.87	18.28	16.60	17.24	17.93	18.64	18.60	19.66	20.85	20.94	20.84
15	17.76	18.79	17.99	16.70	17.99	18.21	18.39	18.84	19.53	20.94	20.94	20.91
16	17.85	18.76	17.92	16.50	18.14	18.28	18.56	18.84	19.66	20.92	21.02	20.97
17	17.68	18.92	17.90	16.64	18.15	18.16	18.49	18.99	19.82	20.80	20.91	21.16
18	17.60	18.92	17.08	16.65	18.15	17.76	18.48	19.21	19.87	20.73	20.93	21.20
19	17.81	18.88	17.25	16.62	17.85	17.90	18.32	19.16	19.94	20.81	20.85	21.40
20	17.83	18.97	17.25	16.53	17.35	18.01	18.06	19.16	19.99	20.96	20.78	21.50
21	17.69	18.96	16.70	16.95	16.98	17.87	17.92	19.16	19.95	21.00	20.84	21.48
22	17.72	18.75	15.90	17.05	16.97	18.07	17.47	19.19	20.05	20.98	20.69	21.35
23	17.41	18.58	15.29	17.11	17.07	17.80	17.44	19.23	20.21	20.91	20.82	21.50
24	17.40	18.56	14.98	17.56	17.05	18.16	17.86	19.21	20.29	21.00	20.91	21.52
25	17.59	18.84	14.97	17.64	17.13	18.26	17.92	19.23	20.28	21.05	20.85	21.24
26	17.69	18.93	15.47	17.58	17.12	18.22	17.78	19.22	20.29	21.20	20.75	21.42
27	17.75	18.77	15.51	17.42	17.33	17.87	17.68	19.26	20.38	21.25	20.70	21.63
28	18.06	19.16	15.39	17.78	17.35	18.07	17.79	19.36	20.36	21.17	20.72	21.72
29	18.18	19.26	15.32	17.79	---	18.22	17.72	19.30	20.30	21.00	20.74	21.72
30	18.03	19.23	14.76	17.79	---	18.54	17.90	19.14	20.26	21.07	20.64	21.73
31	18.12	---	14.27	18.28	---	18.55	---	19.15	---	21.14	20.82	---
MAX	19.06	19.26	19.12	18.28	18.31	18.55	19.09	19.36	20.38	21.25	21.34	21.73

CAL YR 1990 LOW 20.28
WTR YR 1991 LOW 21.73



410802083093900 SE-2
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

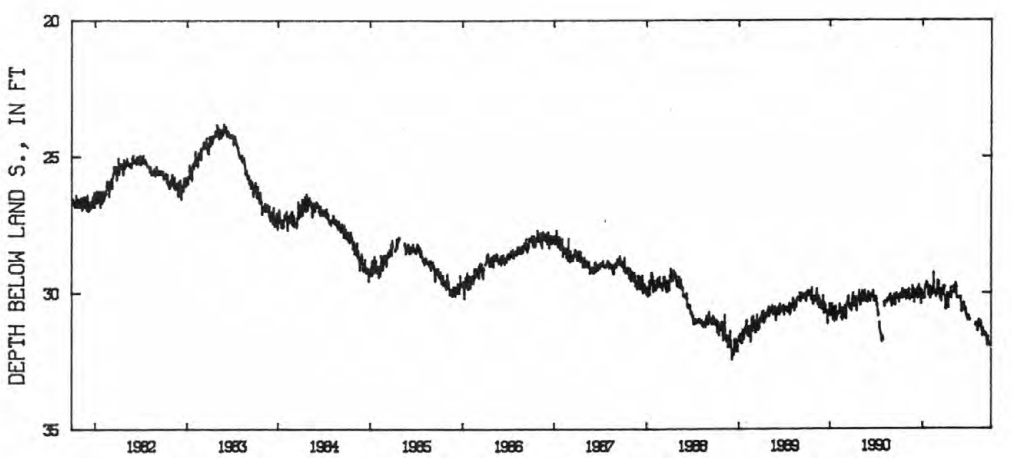
VAN WERT COUNTY

405215084335400. 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.20	---	30.10	30.15	30.20	29.80	30.40	29.95	30.20	30.90	31.10	31.55
2	30.35	30.10	30.20	30.10	30.10	29.55	30.60	---	30.15	30.85	31.10	31.55
3	30.20	30.00	30.10	30.20	30.10	29.70	30.60	29.80	30.30	30.85	31.15	31.50
4	30.05	29.90	29.90	30.20	30.05	29.60	30.50	29.80	30.50	30.90	31.15	31.45
5	30.10	30.05	30.05	30.05	30.00	29.70	30.35	29.75	30.65	31.00	31.10	31.45
6	30.05	30.05	29.90	30.10	30.00	29.60	30.30	29.75	30.70	31.00	31.25	31.55
7	30.10	30.20	30.00	30.20	30.00	29.85	30.15	29.95	30.65	30.95	31.40	31.60
8	30.20	30.10	30.00	30.10	30.05	30.05	30.10	30.00	30.60	31.00	31.40	31.55
9	30.10	29.85	30.05	30.15	29.85	30.00	30.00	29.95	30.55	---	31.35	31.50
10	30.00	30.00	30.10	30.20	29.80	30.20	30.20	30.00	30.45	---	31.25	31.50
11	30.15	30.20	30.10	29.80	29.90	30.20	30.50	29.95	30.45	---	31.10	31.60
12	30.10	30.25	29.80	29.75	30.00	30.10	30.55	29.75	30.55	---	31.00	31.65
13	29.95	30.25	30.20	29.80	29.80	29.95	30.55	29.65	30.50	---	31.20	31.80
14	29.85	30.20	30.20	29.70	29.25	29.85	30.20	29.70	30.35	---	31.25	31.90
15	30.10	30.15	30.00	29.70	29.60	30.25	30.05	29.80	30.45	---	31.25	31.95
16	30.20	30.15	30.05	29.60	30.00	30.30	30.10	29.80	30.50	---	31.20	31.80
17	30.00	30.20	30.05	29.80	29.90	30.30	30.15	30.00	30.55	---	31.10	31.85
18	29.95	30.10	29.70	29.80	29.90	30.10	30.15	30.20	30.65	---	31.10	31.60
19	30.10	30.10	30.10	29.70	29.90	29.90	30.15	30.20	30.65	---	31.10	31.60
20	30.10	30.15	30.15	29.65	30.05	30.00	30.00	30.20	30.65	---	31.10	31.85
21	30.00	30.05	29.95	29.80	30.00	30.00	30.05	30.15	30.60	---	31.05	31.90
22	30.00	29.85	29.85	29.80	30.00	29.85	29.95	30.15	30.55	---	31.15	31.95
23	29.95	29.75	29.85	29.80	30.15	29.90	29.80	30.20	30.75	---	31.30	31.95
24	29.90	29.75	30.10	30.10	30.15	29.75	29.80	---	30.85	---	31.35	---
25	30.00	29.90	30.10	30.10	30.05	30.05	30.15	---	30.80	---	31.50	---
26	30.10	30.00	30.40	29.80	30.05	30.10	30.20	---	30.80	---	31.60	---
27	30.05	29.85	30.40	---	30.00	29.90	30.10	---	30.85	---	31.55	---
28	30.15	30.20	30.10	29.90	30.00	29.75	30.00	---	30.90	---	31.50	---
29	30.25	30.35	29.90	29.90	---	29.80	30.00	---	30.95	---	31.50	---
30	30.05	30.35	29.95	29.75	---	---	30.00	---	31.00	31.20	31.30	31.80
31	30.20	---	30.15	30.20	---	30.15	---	30.20	---	31.15	31.50	---
MAX	30.35	30.35	30.40	30.20	30.20	30.30	30.60	30.20	31.00	31.20	31.60	31.95

CAL YR 1990 LOW 31.80
WTR YR 1991 LOW 31.95



405215084335400 VW-1
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

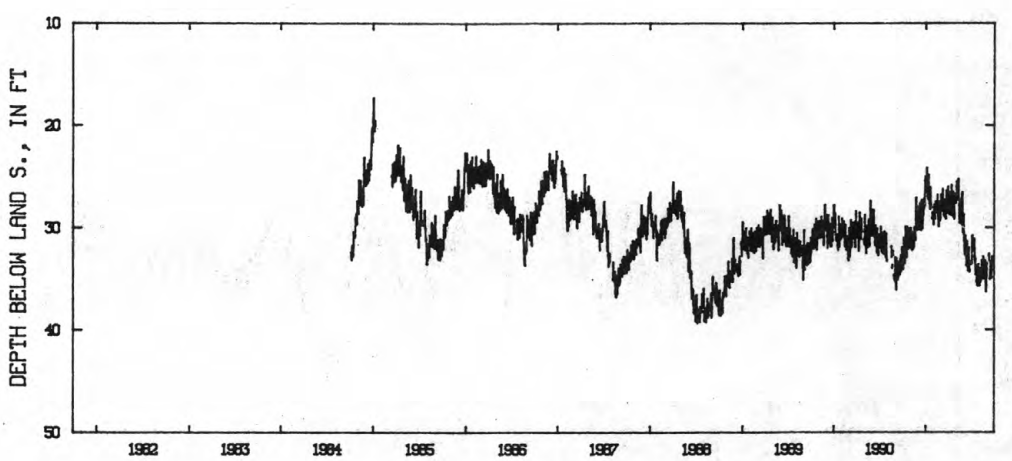
WILLIAMS COUNTY

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, 39.35 ft below land-surface datum, July 7, 1988; minimum daily low, 1.45 ft below land-surface datum, Jan. 27, 1952.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.00	32.00	29.30	25.00	29.60	29.10	26.90	27.40	30.20	33.60	35.05	34.95
2	33.75	31.80	27.95	25.70	29.70	27.60	28.25	27.60	28.70	33.50	35.50	33.45
3	33.70	31.10	28.55	26.40	27.85	26.75	28.65	27.40	30.60	33.55	35.70	33.60
4	33.95	30.00	29.80	26.45	27.70	27.15	28.70	27.40	31.25	33.35	34.00	---
5	34.05	30.65	29.60	25.50	28.90	28.00	28.40	25.50	31.50	30.90	34.80	---
6	32.45	30.90	29.85	24.15	29.10	28.00	28.50	26.10	32.70	---	35.35	---
7	31.00	31.85	30.20	26.10	29.20	28.15	26.50	26.30	30.80	30.80	35.25	---
8	32.60	31.85	28.45	26.45	29.10	28.30	27.20	27.10	31.15	31.90	35.25	---
9	32.90	32.20	27.60	26.90	28.40	28.40	27.25	27.10	30.80	32.10	34.80	32.80
10	33.00	32.00	28.95	27.15	27.40	26.20	28.00	26.90	31.95	---	34.95	32.55
11	33.50	30.40	29.50	27.20	27.90	27.30	28.70	26.70	32.70	---	34.30	33.30
12	32.60	30.55	29.20	25.70	28.40	28.25	28.80	25.30	32.90	---	33.20	---
13	31.20	31.65	30.15	24.85	28.50	28.25	28.00	26.35	33.55	---	33.90	35.05
14	29.90	31.85	30.25	26.80	28.50	28.85	25.80	27.70	33.75	31.15	34.15	34.75
15	32.00	32.00	29.00	27.35	28.30	28.90	27.10	29.00	33.75	32.15	34.70	33.35
16	31.90	31.80	27.30	27.40	27.70	28.90	28.40	29.30	31.35	32.90	34.80	33.35
17	32.25	31.35	28.75	27.55	26.75	27.25	28.60	29.60	32.15	33.15	35.05	---
18	32.65	29.95	29.45	28.10	28.30	28.20	28.85	28.90	33.15	33.75	32.80	34.45
19	32.90	30.60	30.00	28.20	28.75	28.45	28.95	27.20	34.00	34.65	33.20	34.50
20	31.25	30.90	30.10	26.05	29.10	28.80	27.50	27.50	34.25	34.15	33.70	34.95
21	29.90	31.20	29.20	27.60	29.20	29.05	26.50	28.45	34.30	34.25	33.85	33.30
22	30.50	31.20	28.75	27.65	29.90	29.15	26.60	29.55	---	34.20	33.95	32.85
23	31.50	28.40	28.80	28.05	29.00	28.20	28.10	29.70	32.00	35.35	34.55	---
24	32.00	27.55	28.15	28.05	27.40	26.40	28.65	29.45	33.35	35.30	35.05	33.30
25	32.10	27.05	27.10	---	28.50	27.50	29.20	28.30	34.20	35.20	34.40	33.45
26	32.00	29.05	28.10	---	28.45	28.35	28.70	27.00	34.35	35.60	33.20	33.40
27	31.50	29.30	27.60	29.10	29.00	28.60	29.05	26.55	---	35.70	34.10	33.40
28	30.05	30.00	27.85	28.50	29.30	28.50	26.95	27.70	---	33.75	35.30	33.50
29	31.35	30.25	26.95	28.55	---	27.80	26.70	29.45	---	33.60	36.30	---
30	31.80	30.10	25.30	28.75	---	26.30	27.30	30.55	---	34.40	35.70	---
31	31.90	---	25.40	29.20	---	26.00	---	29.55	---	34.75	34.45	---
MAX	34.05	32.20	30.25	29.20	29.90	29.15	29.20	30.55	34.35	35.70	36.30	35.05

CAL YR 1990 LOW 36.10
WTR YR 1991 LOW 36.30



412821084313600 WM-1 CITY OF BRYAN AT BRYAN OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DEPTH TO WATER BL. LSD

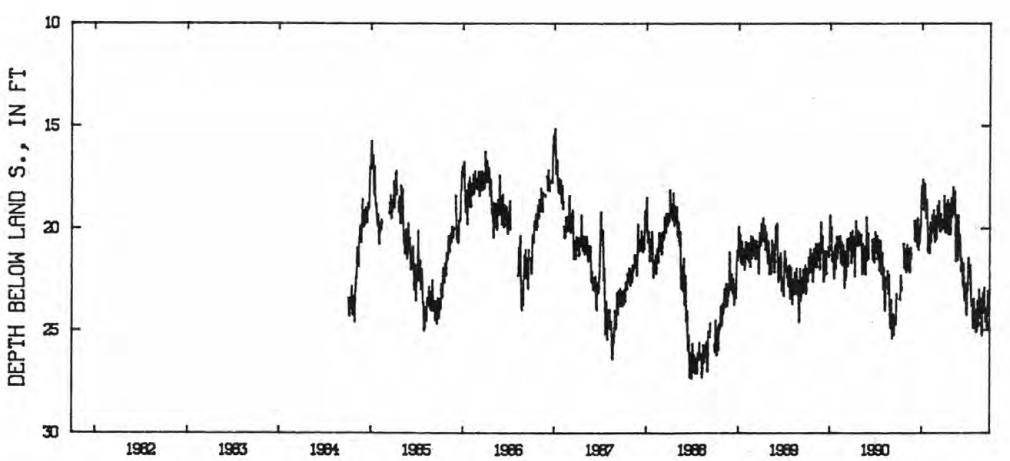
WILLIAMS COUNTY--Continued

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, 27.35 ft below land-surface datum, June 30 - July 1, 1988; minimum daily low, 15.15 ft below land-surface datum, Jan. 4, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	22.15	---	17.90	21.20	20.40	18.70	19.45	21.05	23.20	24.40	24.95
2	---	22.05	---	18.00	21.10	20.00	19.55	19.45	20.30	23.05	24.80	23.35
3	---	21.80	19.65	18.40	20.10	19.10	20.15	19.30	20.70	23.05	24.85	23.15
4	---	21.10	20.55	18.65	19.70	18.90	20.20	19.10	21.05	22.75	24.00	23.70
5	---	20.80	20.50	18.40	20.45	19.40	20.10	18.35	21.35	21.90	24.20	23.95
6	---	21.15	20.60	17.60	20.70	19.70	20.00	18.00	22.00	21.65	24.90	24.15
7	---	21.60	20.60	18.25	20.70	19.90	19.10	18.75	22.10	21.45	24.95	23.85
8	23.50	21.70	20.35	18.60	20.60	19.65	18.80	19.10	22.00	21.80	25.10	23.25
9	23.50	21.90	19.60	19.00	20.25	19.40	19.30	19.15	21.45	22.15	25.00	22.90
10	22.65	21.80	19.70	19.10	19.50	18.65	19.95	19.05	21.50	22.40	24.95	23.65
11	22.30	21.05	20.30	19.05	19.35	19.05	20.20	19.00	21.80	22.40	24.30	24.00
12	22.65	21.00	20.45	18.60	19.85	19.45	20.20	18.20	22.30	22.40	23.55	24.40
13	22.90	21.65	20.70	17.80	19.95	19.90	20.00	18.25	22.65	22.00	24.00	24.55
14	23.05	22.00	20.90	18.45	20.05	20.10	18.85	19.15	22.80	21.80	24.15	24.60
15	22.90	22.15	20.65	18.90	20.15	20.15	18.60	20.30	22.85	22.10	24.75	24.05
16	---	22.15	19.50	19.15	20.10	20.15	19.80	21.10	22.20	22.70	24.80	23.95
17	---	22.00	19.60	19.15	19.10	19.35	20.10	21.60	21.70	23.10	24.70	24.45
18	---	21.05	20.50	19.50	19.40	19.30	20.30	21.60	22.50	23.55	23.65	24.60
19	---	20.95	21.00	19.50	19.95	19.60	20.15	20.30	23.00	23.75	23.00	24.80
20	---	21.50	21.05	18.60	20.40	19.85	19.70	19.35	23.30	23.80	23.45	24.90
21	---	21.25	20.75	18.85	20.50	20.00	18.90	19.90	23.45	23.70	23.65	24.75
22	20.75	---	20.70	19.10	20.65	20.05	18.80	21.05	23.55	23.55	23.95	23.90
23	21.20	---	20.70	19.70	20.50	19.95	19.60	21.55	22.95	24.35	24.35	23.05
24	21.90	---	20.65	20.00	19.60	19.90	20.25	21.55	22.70	24.45	24.40	23.60
25	21.90	---	20.30	21.10	19.40	19.90	20.30	20.95	23.25	24.80	23.95	23.80
26	21.95	---	20.15	21.15	20.00	19.60	20.25	20.15	23.30	24.85	23.45	24.05
27	21.95	---	19.95	21.10	20.35	19.70	20.15	19.35	23.90	24.90	23.90	24.25
28	21.00	---	19.90	20.35	20.55	20.00	19.10	19.75	24.15	24.10	24.70	24.20
29	21.15	---	19.75	20.30	---	19.90	18.50	20.50	24.25	23.45	25.10	23.35
30	21.80	---	18.75	20.75	---	19.00	19.05	21.05	23.90	23.65	25.25	23.20
31	22.10	---	18.20	21.10	---	18.40	---	21.05	---	24.10	25.15	---
MAX	23.50	22.15	21.05	21.15	21.20	20.40	20.30	21.60	24.25	24.90	25.25	24.95

CAL YR 1990 LOW 25.40
WTR YR 1991 LOW 25.25



412930084320900 WM-3 CITY OF BRYAN AT BRYAN OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DEPTH TO WATER BL.LSD

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.--Periodic measurement with chalked tape by ODNR personnel.
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 January 1985 to November 1986, periodic thereafter.
EXTREMES FOR PERIOD OF RECORD.--Maximum measured low, 10.59 ft below land-surface datum, Oct. 25, 1989; minimum daily low, 3.83 ft below land-surface datum, Mar. 17, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

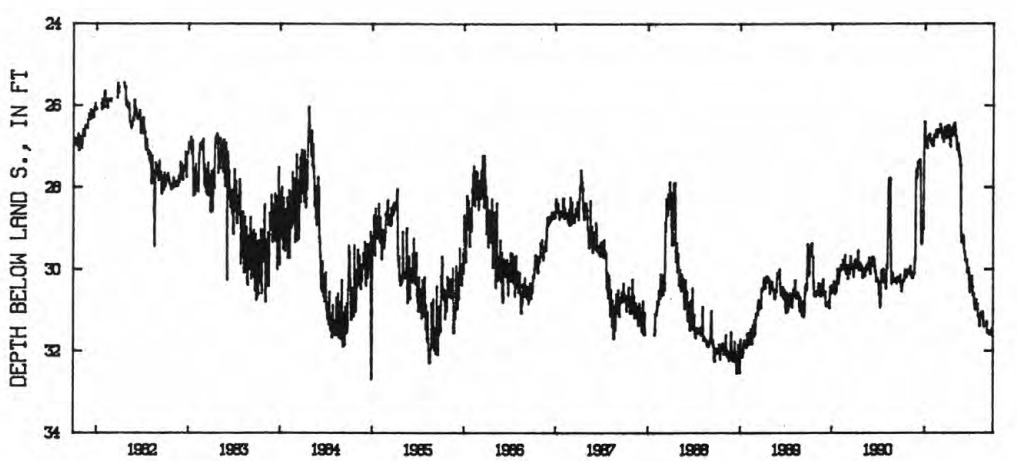
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 11, 1990	7.96	Oct. 16, 1990	7.62	Apr. 10, 1991	7.94

405009083172600. 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.29	30.01	27.77	26.42	26.99	26.63	26.49	26.49	29.20	30.35	31.13	31.38
2	30.35	29.98	27.73	26.42	26.99	26.57	26.69	26.59	29.20	30.28	31.16	31.38
3	30.54	30.07	27.70	26.65	26.98	26.46	26.78	26.73	29.18	30.27	31.16	31.36
4	30.46	30.08	27.39	26.80	26.93	26.52	26.79	26.76	29.27	30.20	31.15	31.36
5	30.37	30.01	27.43	26.82	26.86	26.59	26.73	26.76	29.36	30.18	31.12	31.29
6	30.36	29.92	27.41	26.80	26.76	26.58	26.68	26.78	29.43	30.19	31.10	31.28
7	30.32	30.01	27.38	26.88	26.70	26.55	26.58	26.91	29.56	30.16	31.29	31.50
8	30.30	30.15	27.40	26.92	26.72	26.62	26.50	27.03	29.60	30.24	31.39	31.57
9	30.30	30.15	27.39	26.90	26.73	26.69	26.53	27.06	29.60	30.43	31.39	31.57
10	30.28	30.13	27.35	27.04	26.74	26.77	26.73	27.10	29.59	30.43	31.20	31.52
11	30.24	30.07	27.37	27.04	26.74	26.80	26.94	27.10	29.79	30.62	31.18	31.52
12	30.24	30.11	27.35	26.85	26.78	26.78	27.01	27.04	29.79	30.64	31.18	31.52
13	30.22	30.19	27.32	26.80	26.73	26.71	26.88	26.93	29.78	30.64	31.11	31.52
14	30.15	30.21	27.43	26.79	26.61	26.69	26.73	26.97	29.78	30.59	31.06	31.55
15	30.01	30.21	27.50	26.79	26.62	26.83	26.61	27.07	29.76	30.64	31.05	31.60
16	30.06	30.17	27.67	26.73	26.76	26.89	26.56	27.18	29.76	30.73	31.11	31.60
17	30.06	30.12	29.00	26.72	26.77	26.79	26.69	27.20	29.78	30.80	31.18	31.59
18	30.01	30.12	29.12	26.77	26.78	26.63	26.74	27.25	29.88	30.89	31.18	31.59
19	30.10	30.07	29.30	26.77	26.58	26.64	26.74	27.25	30.00	30.94	31.18	31.59
20	30.19	30.10	29.39	26.70	26.63	26.68	26.73	27.25	30.07	30.99	31.05	31.59
21	30.19	30.11	29.37	26.71	26.64	26.54	26.69	27.33	30.07	30.99	31.09	31.59
22	30.17	30.09	29.30	26.81	26.60	26.52	26.64	27.45	30.04	30.99	31.14	31.57
23	30.12	29.83	29.12	26.81	26.68	26.53	26.48	27.52	30.02	30.83	31.26	31.53
24	30.05	29.75	28.88	26.85	26.68	26.67	26.53	28.41	29.97	30.76	31.37	31.51
25	30.01	29.74	28.84	26.91	26.67	26.79	26.64	29.15	30.05	30.75	31.41	31.50
26	30.07	28.91	28.92	26.93	26.66	26.80	26.57	29.35	30.11	30.85	31.41	31.46
27	30.10	27.78	29.02	26.92	26.66	26.71	26.45	29.31	30.26	30.94	31.37	31.52
28	30.04	27.55	28.28	26.90	26.65	26.60	26.44	29.17	30.43	30.94	31.36	31.65
29	30.06	27.72	27.21	26.88	---	26.65	26.44	29.17	30.56	30.89	31.37	31.65
30	30.07	27.77	26.74	26.83	---	26.57	26.44	29.18	30.53	30.86	31.36	31.66
31	30.02	---	26.39	26.90	---	26.51	---	29.18	---	31.00	31.37	---
MAX	30.54	30.21	29.39	27.04	26.99	26.89	27.01	29.35	30.56	31.00	31.41	31.66

CAL YR 1990 LOW 30.93
WTR YR 1991 LOW 31.66



405009083172600 WY-1
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

QUALITY AND QUANTITY OF SURFACE WATER NEAR AN ACTIVE LONGWALL COAL MINE

The following data were collected as part of a 5-year study of the effects of underground longwall coal mining in Meigs, Gallia, and Vinton Counties. The study is being done in cooperation with the Ohio Department of Natural Resources.

Water-Quality and Stream-discharge data were collected at five sites. Discharge measurements wre taken at nine panel sites. Continuous stream-discharge data were collected at two of the sites and are presented in volume one of this report.

MISCELLANEOUS STATION ANALYSES

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
03160007	LEADING CR BL CARPENTER OH (LAT 39 09 44N LONG 082 13 12W)							
JUN 1991 10...	1400	--	0.17	623	7.8	20.5	7.3	186
03201947	STRONGS RN NR EWINGTON OH (LAT 39 01 35N LONG 082 20 16W)							
JUN 1991 11...	1045	0.81	0.03	224	7.4	17.0	8.2	67
390248082204100	FLATLICK RN NR WILKESVILLE OH (LAT 39 02 48N LONG 082 20 41W)							
JUN 1991 11...	1230	--	0.09	146	7.1	18.5	5.6	36

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	DRAIN-AGE AREA (SQ. MI.) (81024)
03160007	LEADING CR BL CARPENTER OH (LAT 39 09 44N LONG 082 13 12W)							
JUN 1991 10...	130	140	20	790	60	690	600	13.3
03201947	STRONGS RN NR EWINGTON OH (LAT 39 01 35N LONG 082 20 16W)							
JUN 1991 11...	17	90	<10	1400	630	1700	1600	15.8
390248082204100	FLATLICK RN NR WILKESVILLE OH (LAT 39 02 48N LONG 082 20 41W)							
JUN 1991 11...	14	210	<10	2400	650	970	830	7.00

INSTANTEOUS DISCHARGE AT MISCELLANEOUS SITES

Site number	Name	Drainage area (mi^2)	Date	Discharge (ft^3/s)
390248082204100	Flatlich Run near Wilksville, Ohio	7.00	11/15/90	0.764
			04/10/91	4.54
			05/31/91	.013
			06/11/91	Dry
			07/31/91	Dry
			08/28/91	Dry
			10/08/91	Dry (1992 WY)
03160007	Leading Creek below Carpenter, Ohio	13.3	10/21/90	3.17
			11/15/90	3.22
			04/11/91	5.98
			05/31/91	.325
			06/10/91	.173
			07/31/91	.031
			08/28/91	.010
			10/08/91	.025 (1992 WY)
390413082180900	Strongs Run near Wilksville, Ohio	5.60	11/15/90	1.65
			04/11/91	7.10
			05/31/91	.266
			06/11/91	.091
			07/31/91	Dry
			08/28/91	.030
			10/08/91	.060 (1992 WY)

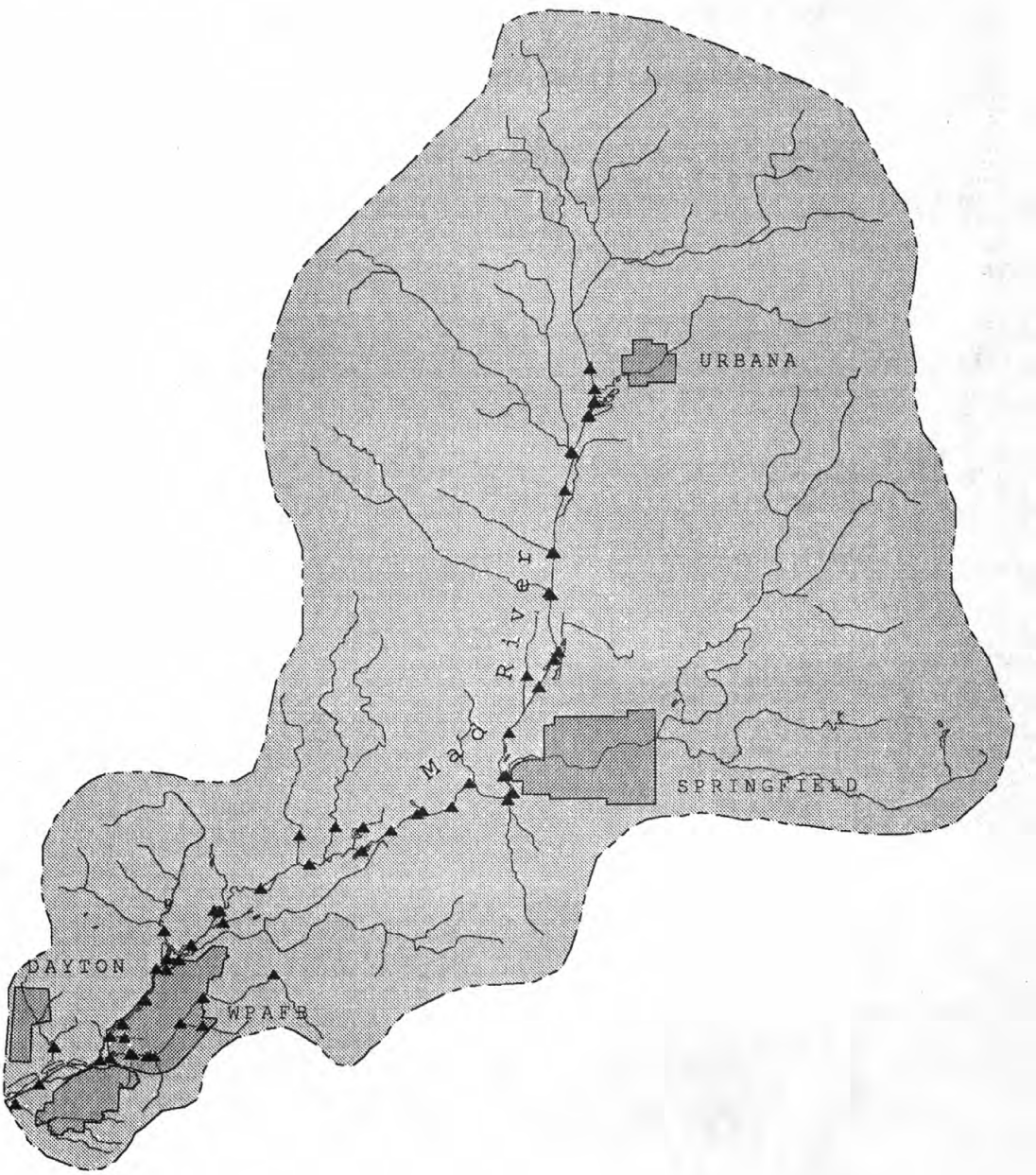
INSTANTEOUS DISCHARGE AT PANEL SITES

Site number	Name	Date	Discharge (ft^3/s)
390451082175400	Strongs Run at County Road 48 (Site 1)	11/14/91	.732
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992 WY)
390501082175300	Tributary to Strongs Run above County Road 48 (Site 2)	11/14/90	.048
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390504082180200	Strongs Run between Panel 1 & 2 (Site 3)	11/14/90	.525
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390511082180500	Strongs Run at County Road 45 (Site 4)	11/14/90	.692
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390530082181700	Strongs Run near Township Road 15 (Site 5)	11/14/90	.854
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390530082181701	Tributary to Strongs Run near Township Road 15 (Site 6)	11/14/90	.014
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390545082182300	Strongs Run above Bucks Run (Site 7)	11/14/90	.156
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390544082182500	Bucks Run at Strongs Run (Site 8)	11/14/90	.455
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)
390549082183400	Bucks Run above Township Road 15 (Site 9)	11/14/90	---
		06/11/91	Dry
		07/31/91	Dry
		08/28/91	Dry
		10/08/91	Dry (1992WY)

GAIN/LOSS STUDY OF THE MAD RIVER AND TRIBUTARIES FROM URBANA TO DAYTON, OHIO

Base flow discharges were measured on July 23, 1991 on the Mad River, its tributaries, and other inflows, from Urbana to Dayton, Ohio. These data were collected as part of a cooperative study with Air Force Logistics Command, 2750 Air Base Wing/Environmental Management, Wright Patterson Air Force Base (WPAFB), and the Ohio-Indiana Regional Aquifer Systems Analysis (U.S. Geological Survey). These data were collected for the purpose of studying the relationships between dry-weather streamflow and the ground-water conditions in the Mad River basin.

The following tables contain the discharge measurements and associated field water quality measurements (specific conductance and temperature). The reported water quality measurements are averages from left bank, middle, and right bank measurements. The measurements on each stream are listed in order proceeding downstream and each measured tributary or outflow is inserted in the order in which it enters the main stream. Locations of the measurement sites are shown in the accompanying figure.



Station number	Station name	Discharge in ft^3/s	Specific Conductance in microsiemens per centimeter	Temperature (°C)
03267000	Mad River near Urbana	95.3	740	19.5
4005530834749	Dugan's Run	6.97	760	18.0
4005340834750	Outflow 1	1.00	850	24.4
4005320834751	Outflow 2	.33	635	28.4
4005110834802	Outflow 3	.17	655	26.0
4005090834805	Mad River at Old Troy Pike	108	760	20.4
4004140834840	Nettle Creek at Mad River	6.71	540	14.5
4004110834836	Mad River at Nettle Creek	118	700	20.5
4003100834854	Mad River at Dallas Road	132	710	20.0
4001290834922	Storm's Creek at Mad River	0	--	---
4001290834918	Mad River near Storm's Creek	135	735	---
4000210834924	Mad River near Chapman Creek	143	730	---
4000250834929	Chapman Creek at Mad River	.45	540	---
3958490834909	Moore Run at Mad River	14.6	760	19.5
3958360834919	Mad River at Eagle City Road	148	760	20.0
03267900	Mad River at St. Paris Pike	136	750	21.5
3958110835017	Pondy Creek at Eagle City	0	--	---
3956390835056	Mad River at S.R. 41	147	725	21.7
3955290835108	Mad River near U.S. 40	134	688	21.7
3955300835102	Buck Creek at Mad River	35.1	596	26.8
3955020835048	Springfiel STP outflow	28.0	---	---
3954510835059	Mill Creek at Mad River	4.47	702	22.7
03269500	Mad River near Springfield	227	780	22.5
3954400835258	Mad River near Limestone City	211	712	22.1
3954330835400	Unnamed Tributary 1	.10	---	---
3954280835412	Mad River at Cold Springs Station	216	717	23.0
3954020835507	Mad River near Snyderville	222	---	---
3953290835609	Mad River at Enon Station	213	735	24.5
3954070835606	Minich Ditch near Mad River	.15	---	---
3954080835705	Donnell's Creek at Mad River	0	---	---
3953070835801	Mad River at Donnelsville Road	206	710	25.1
3953540835821	Jackson Creek near Mad River	.10	---	---
3952290835944	Mad River at I-675 (1)	213	710	25.8
3952290835944	Mad River at I-675 (2)	208	707	23.7
3951520840110	Mad River at I-70 (east fork)	214	733	22.0
3951530840123	Mad River at I-70 (west fork)	0	---	---
3951330840104	Smith Ditch near Mad River	6.10	760	23.5
3950580840212	Mad River at Medway Road	223	747	22.5
3951210840309	Mud Creek at Lower Valley Pike	4.40	745	20.5
3950350840303	Mad River at SR 235	224	717	24.5
3950340840238	Mud Run at SR 235	2.50	585	25.0
3950200840325	Water Treatment Plant	7.60	---	---
3950180840304	Unnamed Tributary 2	0	---	---
3949280840348	Unnamed Tributary 3	0	---	---
3948490840436	Unnamed Tributary 4	0	---	---
3948280840432	Trout Creek at Prairie Road	4.86	874	18.2
3948300840504	Trout Creek at Mad River	4.55	878	19.0
3950100835917	Hebble Creek at Black Lane	2.78	790	18.3
3949320840147	Hebble Creek at Xenia Avenue	2.16	805	23.6
3948460840148	Unnamed Tributary 1 on Hebble Creek	0	---	---
3948500840235	Hebble Creek at Officers Club	2.30	771	23.6
3947570840330	Unnamed Tributary 2 on Hebble Creek	0	---	---
3947580840337	Hebble Creek at Site 16	2.14	835	---
3947570840346	Unnamed Tributary 3 on Hebble Creek	0	---	---
3947600840416	Unnamed Tributary 4 on Hebble Creek	.01	1030	---
3948010840422	Hebble Creek at Site 19	1.76	920	---
3947550840504	Hebble Creek at Mad River	1.58	940	---
03269990	Huffman Retarding Basin near Dayton	256	730	25.5
3948130840701	Unnamed Tributary 5 at Union Station	0	---	---
3947130840733	Mad River below Harshman Road	176	718	26.3
3946410840822	Unnamed Tributary 6 at Springfield Street	0	---	---

GROUND-WATER RECORDS FOR THE OHIO DISTRICT SUBPROJECT OF THE OHIO-INDIANA REGIONAL AQUIFER SYSTEM ANALYSIS

The following table contains ground-water-level measurements from a network of domestic, water-supply, and monitoring wells in Champaign, Clark, and Greene Counties, Ohio. The data was collected as part of a cooperative study with the Ohio-Indiana Regional Aquifer Systems Analysis (U.S. Geological Survey), for the purpose of characterizing ground-water flow directions and ground- and surface-water interactions.

[Local Well Number prefixes-- CH-Champaign, CL-Clark, GR-Greene]

GROUND-WATER LEVELS

SITE	Local Well Number	AQUIFER* CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
400439083323900	CH-28	351BILD	03-15-91	18.9	1060
400925083535000	CH-33	355LCKP	03-11-91	114.0	1200
400829083585500	CH-34	350SLRN	03-11-91	103.6	1235
401404083422800	CH-50	351BILD	03-14-91	49.5	1200
400402083503200	CH-54	355LCKP	03-12-91	83.1	1095
400405083593800	CH-55	355LCKP	03-11-91	25.1	1085
401523083524700	CH-60	355LCKP	03-11-91	86.9	1100
400403083570400	CH-61	355LCKP	03-11-91	51.9	1190
400651083512500	CH-62	355LCKP	03-12-91	102.0	1110
401059083575800	CH-63	355LCKP	03-11-91	67.6	1145
401256083573900	CH-64	355LCKP	03-11-91	40.5	1140
401415083474400	CH-65	350SLRN	03-12-91	68.5	1130
401139083474500	CH-66	350SLRN	03-12-91	.4	1045
400904083413700	CH-67	350SLRN	03-14-91	35.9	1145
401052083381100	CH-68	350SLRN	03-15-91	72.3	1245
400308083530000	CH-69	355LCKP	03-12-91	15.5	1105
401112083430100	CH-70	350SLRN	03-14-91	42.9	1140
401326083400900	CH-71	340DVNN	03-14-91	55.1	1230
400949083510800	CH-72	355LCKP	03-11-91	31.1	1085
401327083313600	CH-73	350SLRN	03-15-91	3.3	1035
400938083361300	CH-74	350SLRN	03-14-91	52.2	1230
400956083393600	CH-75	350SLRN	03-14-91	45.8	1250
401111083394800	CH-76	350SLRN	03-14-91	54.5	1260
400624083465600	CH-77	355LCKP	03-14-91	31.1	1035
400809083431800	CH-78	350SLRN	03-14-91	74.1	1135
400139083340800	CH-79	355LCKP	03-15-91	110.0	1200
400203083360600	CH-80	355LCKP	03-15-91	124.0	1230
400716083434900	CH-81	355LCKP	03-14-91	31.2	1095
401111083311400	CH-82	350SLRN	03-15-91	8.8	1040
401226083342200	CH-83	350SLRN	03-15-91	49.1	1160
395105084011800	CL-101	361RCMD	03-07-91	6.2	835
395126083590600	CL-104	361RCMD	03-07-91	63.7	910
394946083393300	CL-122	354CDVL	03-08-91	10.7	1085
394941083472900	CL-181	355LCKP	03-07-91	4.0	1020
400111084010400	CL-200	355LCKP	03-08-91	29.2	1095
395620083594300	CL-201	350SLRN	03-08-91	3.6	960
395633083590200	CL-202	357BFLD	03-08-91	19.5	1030
395830083552200	CL-203	355LCKP	03-08-91	11.4	1080
395707083545800	CL-204	355LCKP	03-08-91	18.3	1060
395756083572600	CL-205	355LCKP	03-08-91	22.4	1040
395226083525300	CL-206	355LCKP	03-08-91	12.7	1000
395221083550500	CL-207	357BFLD	03-07-91	50.0	970
395034083532400	CL-208	355LCKP	03-07-91	4.0	1010
395312083550100	CL-209	355LCKP	03-07-91	34.7	985
395943083545600	CL-210	355LCKP	03-08-91	26.9	1120
395908084002500	CL-211	357BFLD	03-08-91	17.1	1030
400056083503500	CL-212	355LCKP	03-08-91	62.0	1030
394836083490600	CL-213	355LCKP	03-17-91	26.9	1050
395347083420700	CL-214	355LCKP	03-08-91	62.3	1120
395127083502700	CL-215	355LCKP	03-07-91	11.2	1030

GROUND-WATER RECORDS FOR THE OHIO DISTRICT SUBPROJECT OF THE OHIO-INDIANA REGIONAL AQUIFER SYSTEM ANALYSIS--Continued

GROUND-WATER LEVELS--Continued

SITE	Local Well Number	AQUIFER* CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
395100083453400	CL-216	355LCKP	03-07-91	41.9	1090
394902083450100	CL-217	355LCKP	03-07-91	19.4	1070
394736083434300	CL-218	355LCKP	03-07-91	60.7	1125
395748083365600	CL-219	355LCKP	03-08-91	137.0	1255
395706083334300	CL-220	355LCKP	03-08-91	111.0	1215
395521083531700	CL-221	355LCKP	03-11-91	29.9	1030
395302083433400	CL-222	355LCKP	03-11-91	16.3	1080
395237083434100	CL-223	355LCKP	03-11-91	33.8	1090
395338083455400	CL-224	355LCKP	03-11-91	12.4	1030
395339083485200	CL-225	355LCKP	03-11-91	3.5	1010
395319083503200	CL-226	355LCKP	03-11-91	18.5	1000
395402083512100	CL-227	355LCKP	03-11-91	20.0	995
395425083503800	CL-228	355LCKP	03-11-91	27.5	965
395623083510100	CL-229	355LCKP	03-11-91	6.8	900
400023083432400	CL-230	355LCKP	03-11-91	6.4	1060
395855083474100	CL-231	355LCKP	03-11-91	63.6	1040
395809083481300	CL-232	355LCKP	03-11-91	22.1	980
395911083451700	CL-233	355LCKP	03-11-91	45.4	1090
395059083414800	CL-234	355LCKP	03-08-91	16.4	1080
395014083342000	CL-235	355LCKP	03-08-91	60.2	1150
395038083565300	GR-146	357BFLD	03-07-91	36.7	1005
394942084033500	GR-303	360ODVC	03-15-91	7.1	800
394855084033900	GR-304	360ODVC	03-15-91	1.1	800
394831084042700	GR-305	360ODVC	03-15-91	4.2	795
394750084043800	GR-308	360ODVC	03-15-91	3.8	800
394929084015000	GR-314	360ODVC	03-15-91	17.4	820
395032084023100	GR-315	360ODVC	03-15-91	159.6	810
394911083555300	GR-510	355LCKP	03-07-91	14.4	1005
394747083553000	GR-525	357BFLD	03-07-91	44.9	1020
394733083483100	GR-526	355LCKP	03-07-91	11.7	1010
394915083523000	GR-527	355LCKP	03-07-91	15.2	1020
394927083571600	GR-528	355LCKP	03-07-91	52.7	1020
394800083565600	GR-529	355LCKP	03-07-91	25.4	1025
394708083585900	GR-530	361RCMD	03-07-91	25.6	905
394610083430800	GR-531	355LCKP	03-07-91	17.8	1075
394509083501000	GR-532	355LCKP	03-07-91	19.9	1070
394640083455100	GR-533	355LCKP	03-07-91	33.9	1080

*Aquifer Code

340DVNN - Devonian System
350SLRN - Silurian System
351BILD - Bass Islands Dolomite, Upper Silurian
354CDVL - Cedarville Dolomite, Middle Silurian
355LCKP - Lockport Group, Middle Silurian
357BFLD - Brassfield Limestone, Lower Silurian
361RCMD - Richmond Group, Upper Ordovician

The following tables contain ground-water-level measurements from a network of water-supply and monitoring wells near Wright-Patterson Air Force Base, Ohio. The data was collected as part of a cooperative study with Air Force Logistics Command, 2750 Air Base Wing/Environmental Management. The purpose of the study is to evaluate ground-water resources near Wright-Patterson Air Force Base, Ohio.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

SITE	Local well number	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
394942084033500	GR-303	360ODVC	10-12-90	7.43	801.0
			11-13-90	8.17	
			12-17-90	7.52	
			01-11-91	6.79	
			02-21-91	6.64	
			03-15-91	7.12	
			04-24-91	7.28	
			05-21-91	7.77	
			06-24-91	8.27	
			07-18-91	8.47	
			08-24-91	8.80	
			09-27-91	8.87	
394855084033900	GR-304	360ODVC	10-12-90	1.33	798.1
			11-13-90	1.29	
			12-17-90	1.33	
			01-08-91	.99	
			02-21-91	1.04	
			03-15-91	1.09	
			04-18-91	1.03	
			05-21-91	1.14	
			06-19-91	1.42	
			07-18-91	1.57	
			08-29-91	1.81	
			09-27-91	1.89	
394831084042700	GR-305	360ODVC	10-12-90	4.65	796.4
			11-13-90	4.92	
			12-17-90	4.49	
			01-08-91	3.64	
			02-21-91	4.23	
			03-15-91	4.22	
			04-18-91	4.24	
			05-21-91	4.60	
			06-20-91	5.11	
			07-18-91	5.18	
			08-29-91	5.36	
			09-27-91	5.43	
394815084020700	GR-306	360ODVC	10-12-90	27.43	839.2
			11-13-90	27.35	
			12-17-90	27.53	
			01-08-91	27.25	
			02-21-91	26.91	
			03-25-91	26.67	
			04-16-91	25.51	
			05-21-91	26.41	
			06-27-91	168.97	
			07-18-91	124.08	
			08-29-91	75.56	
			09-27-91	58.82	
394743084024300	GR-307	360ODVC	10-12-90	31.3	838.1
			11-13-90	31.36	
			12-17-90	31.48	
			01-08-91	31.26	
			02-21-91	31.24	
			03-25-91	26.84	
			04-24-91	31.22	
			05-21-91	31.19	
			07-18-91	118.02	
			08-29-91	91.84	
			09-27-91	80.63	
394750084043800	GR-308	360ODVC	10-12-90	4.80	799.9
			11-13-90	4.36	
			12-17-90	3.69	
			01-11-91	2.54	
			02-21-91	3.57	
			03-15-91	3.83	
			04-24-91	2.99	
			05-21-91	3.80	
			06-24-91	5.50	
			07-18-91	5.90	
			08-29-91	6.71	
			09-27-91	7.10	

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM--Continued

SITE	Local well number	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
394706084045800	GR-309	357BFLD	10-12-90	25.17	976.6
			11-13-90	25.27	
			12-17-90	24.69	
			01-08-91	24.08	
			02-21-91	24.04	
			03-25-91	24.05	
			04-24-91	24.20	
			05-21-91	24.78	
			07-18-91	30.83	
			08-29-91	26.57	
			09-27-91	26.63	
394633084045300	GR310	357BFLD	10-12-90	24.36	974.0
			11-13-90	24.27	
			12-17-90	23.84	
			01-08-91	22.91	
			02-21-91	23.01	
			03-25-91	22.36	
			04-24-91	22.71	
			05-21-91	24.19	
			07-01-91	25.14	
			08-29-91	27.10	
			09-27-91	27.21	
394852084023100	GR311	360DVC	10-12-90	71.12	815
			11-13-90	66.74	
			12-17-90	62.71	
			01-11-91	59.57	
			02-21-91	55.19	
			03-25-91	52.09	
			04-24-91	49.45	
			05-21-91	47.24	
			06-26-91	44.66	
			07-18-91	42.99	
			08-29-91	40.34	
			09-27-91	38.65	
394706084045801	GR-312		10-12-90	21.54	976.3
			11-13-90	21.63	
			12-17-90	22.03	
			01-08-91	21.91	
			02-21-91	22.05	
			03-25-91	22.10	
			04-24-91	22.27	
			05-21-91	22.35	
			07-01-91	22.95	
			07-18-91	103.66	
			08-29-91	103.10	
			09-27-91	101.05	
394645084055200	GR-313	600DVC	10-12-90	32.22	806.5
			11-13-90	33.75	
			12-17-90	33.29	
			01-08-91	32.14	
			02-21-91	30.98	
			03-25-91	30.94	
			04-24-91	30.56	
			05-21-91	30.68	
			06-27-91	31.53	
			07-18-91	31.83	
			08-29-91	32.58	
			09-27-91	32.98	
394929084015000	GR-314	360ODVC	10-12-90	17.78	821.6
			11-13-90	17.95	
			12-17-90	19.93	
			01-11-91	17.23	
			02-21-91	17.34	
			03-15-91	17.42	
			04-24-91	17.33	
			05-21-91	17.52	
			06-21-91	17.87	
			07-18-91	18.55	
			08-29-91	18.80	
			09-27-91	19.00	
395032084023100	GR-315	360ODVC	10-12-90	174.23	812.2
			11-13-90	170.17	
			12-17-90	167.89	
			01-11-91	165.03	
			02-21-91	161.62	
			03-15-91	159.63	

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM--Continued

SITE	Local well number	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
			04-24-91	156.11	
			05-21-91	155.61	
			06-18-91	150.92	
			07-18-91	150.82	
			08-29-91	145.41	
			09-27-91	143.24	
395032084023101	GR-316	112OTSH	10-12-90	6.87	812.2
			11-13-90	4.23	
			12-17-90	6.49	
			01-11-91	4.54	
			02-21-91	5.33	
			03-15-91	6.08	
			04-24-91	5.88	
			05-21-91	6.48	
			06-18-91	6.85	
			07-18-91	7.68	
			08-29-91	7.96	
			09-27-91	8.23	
395032084023102	GR-317	112OTSH	10-12-90	4.43	812.2
			11-13-90	3.23	
			12-17-90	3.72	
			01-11-91	1.78	
			02-21-91	2.49	
			03-15-91	3.60	
			04-24-91	3.41	
			05-21-91	4.02	
			06-18-91	4.24	
			07-18-91	5.41	
			08-29-91	6.78	
			09-27-91	5.74	
394929084015001	GR-318	112OTSH	10-12-90	14.16	821.6
			11-13-90	14.73	
			12-17-90	15.00	
			01-11-91	12.53	
			02-21-91	12.91	
			03-15-91	13.31	
			04-24-91	12.91	
			05-21-91	13.35	
			06-21-91	14.43	
			07-18-91	15.15	
			08-29-91	16.11	
			09-27-91	16.67	
394929084015002	GR-319	112OTSH	10-12-90	17.01	821.6
			12-17-90	18.13	
			01-11-91	16.42	
			02-21-91	16.93	
			03-15-91	17.35	
			04-24-91	17.12	
			05-21-91	17.57	
			06-21-91	17.98	
			07-18-91	18.87	
			08-29-91	19.47	
			09-27-91	19.79	
394942084033501	GR-320	112OTSH	10-12-90	8.30	801.0
			11-13-90	8.92	
			12-17-90	8.26	
			01-11-91	7.49	
			02-21-91	7.37	
			03-15-91	7.80	
			04-24-91	8.10	
			05-21-91	8.67	
			06-24-91	9.32	
			07-18-91	9.31	
			08-29-91	9.50	
			09-27-91	9.57	
394855084033901	GR-321	112OTSH	10-12-90	3.05	798.1
			11-13-90	3.49	
			12-17-90	3.03	
			01-08-91	2.41	
			02-21-91	2.60	
			03-15-91	2.49	
			04-18-91	2.63	
			05-21-91	3.08	
			06-19-91	3.68	
			07-18-91	3.74	
			08-29-91	3.95	

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM--Continued

SITE	Local well number	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
394855084033902	GR-322	112OTSH	09-27-91	3.94	798.1
			10-12-90	2.04	
			11-13-90	2.38	
			12-17-90	1.99	
			01-08-91	1.15	
			02-21-91	1.47	
			03-15-91	1.41	
			04-18-91	1.47	
			05-21-91	1.85	
			06-19-91	2.51	
			07-18-91	2.65	
			08-29-91	2.91	
			09-27-91	3.05	
394831084042701	GR-323	112OTSH	10-12-90	6.54	796.4
			11-13-90	6.79	
			12-17-90	6.49	
			01-08-91	6.27	
			02-21-91	6.46	
			03-15-91	6.30	
			04-18-91	6.16	
			05-21-91	6.71	
			06-20-91	7.19	
			07-18-91	7.15	
			08-29-91	7.22	
			09-27-91	6.21	
394831084042702	GR-324	112OTSH	10-12-90	5.75	796.4
			10-12-90	5.75	
			11-13-90	6.03	
			12-17-90	5.54	
			01-08-91	4.97	
			02-21-91	5.38	
			03-15-91	5.26	
			04-18-91	5.41	
			05-21-91	5.71	
			06-20-91	6.13	
			07-18-91	6.38	
			08-29-91	6.53	
			09-27-91	5.57	
394743084024301	GR-326	112OTSH	10-12-90	26.16	838.1
			11-13-90	26.94	
			12-17-90	27.32	
			01-08-91	25.18	
			02-21-91	25.17	
			03-25-91	25.15	
			04-24-91	25.88	
			05-21-91	25.13	
			06-25-91	26.24	
			07-18-91	27.71	
			08-29-91	27.80	
			09-27-91	28.43	
394743084024302	GR-327	112OTSH	10-12-90	26.12	838.1
			11-13-90	26.56	
			12-17-90	26.98	
			01-08-91	24.99	
			02-21-91	24.95	
			03-25-91	24.92	
			04-24-91	24.66	
			05-21-91	24.95	
			06-25-91	25.90	
			07-18-91	27.10	
			08-29-91	27.35	
			09-27-91	27.89	
3947430842024303	GR328	112OTSH	10-12-90	30.43	838.1
			11-13-90	30.75	
			12-17-90	31.00	
			01-08-91	29.32	
			02-21-91	29.49	
			03-25-91	29.56	
			04-24-91	29.29	
			05-21-91	29.56	
			06-25-91	30.25	
			07-18-91	30.65	
			08-29-91	31.42	
			09-27-91	31.90	

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM--Continued

SITE	Local well number	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
394645084055201	GR-329	112OTSH	10-12-90	31.02	806.5
			11-13-90	31.53	
			12-17-90	32.20	
			01-08-91	31.33	
			02-21-91	29.83	
			03-25-91	29.76	
			04-24-91	27.63	
			05-21-91	29.58	
			06-27-91	30.23	
			07-18-91	30.71	
			08-29-91	31.48	
			09-27-91	31.88	
394815084020701	GR-330	112OTSH	10-12-90	28.94	839.2
			11-13-90	29.32	
			12-17-90	30.00	
			01-08-91	28.66	
			02-21-91	28.38	
			03-25-91	28.42	
			04-16-91	28.25	
			05-21-91	28.30	
			06-27-91	--	
			07-17-91	29.18	
			08-29-91	30.07	
			09-27-92	30.54	
394815084020702	GR-331	112OTSH	10-12-90	28.81	839.2
			11-13-90	29.18	
			12-17-90	29.86	
			01-08-91	28.52	
			02-21-91	28.28	
			03-25-91	28.31	
			04-16-91	28.12	
			05-21-91	28.19	
			06-27-91	28.98	
			07-18-91	29.08	
			08-29-91	29.91	
			09-27-91	30.14	
394815084020703	GR-332	112OTSH	10-12-90	26.45	839.2
			11-13-90	26.89	
			12-17-90	27.45	
			01-08-91	26.23	
			02-21-91	25.85	
			03-25-91	25.85	
			04-10-91	25.69	
			05-21-91	25.69	
			06-27-91	26.20	
			07-17-91	26.57	
			08-29-91	27.46	
			09-27-91	27.98	
394852084023101	GR-333	112OTSH	10-12-90	12.17	812.1
			11-13-90	13.38	
			12-17-90	13.38	
			01-11-91	11.05	
			02-21-91	11.43	
			03-25-91	11.35	
			04-24-91	11.48	
			05-21-91	11.84	
			06-26-91	12.56	
			07-18-91	12.86	
			08-29-91	13.33	
			09-27-91	13.41	
394852084023102	GR-334	112OTSH	10-12-90	12.03	812.1
			11-13-90	12.18	
			12-17-90	12.50	
			01-11-91	10.92	
			02-21-91	11.29	
			03-25-91	11.20	
			04-24-91	11.31	
			05-21-91	11.71	
			06-26-91	12.38	
			07-18-91	12.71	
			08-29-91	13.18	
			09-27-91	13.38	

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM--Continued

SITE	Local well number	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
394852084023103	GR-335	112OTSH	10-12-90	11.97	812.1
			11-13-90	12.18	
			12-17-90	12.43	
			01-11-91	10.84	
			02-21-91	11.23	
			03-25-91	11.16	
			04-24-91	11.25	
			05-21-91	11.63	
			06-26-91	12.33	
			07-18-91	12.65	
			08-29-91	13.12	
			09-27-91	13.32	
394623084064400	MT-133	360ODVC	10-12-90	28.85	791.4
			11-13-90	28.67	
			12-17-90	28.67	
			01-08-91	27.90	
			02-21-91	27.61	
			03-25-91	27.39	
			04-24-91	27.27	
			05-21-91	27.36	
			06-28-91	28.04	
			07-18-91	29.46	
			08-30-91	28.26	
			09-27-91	28.05	
394623084064401	MT-152	112OTSH	10-12-90	21.27	791.4
			11-13-90	21.47	
			12-17-90	21.65	
			01-08-91	19.32	
			02-21-91	19.67	
			03-25-91	19.85	
			04-24-91	19.42	
			05-21-91	19.55	
			06-28-91	20.69	
			07-18-91	21.12	
			08-30-91	21.34	
			09-27-91	21.59	
394623084064402	MT-153	112OTSH	10-12B-90	21.26	791.4
			11-13-90	22.02	
			12-17-90	22.26	
			01-08-91	19.32	
			02-21-91	19.67	
			03-25-91	19.84	
			04-24-91	19.44	
			05-21-91	19.69	
			06-28-91	20.16	
			07-18-91	21.11	
			08-30-91	21.34	
			09-27-91	21.70	

Aquifer Code

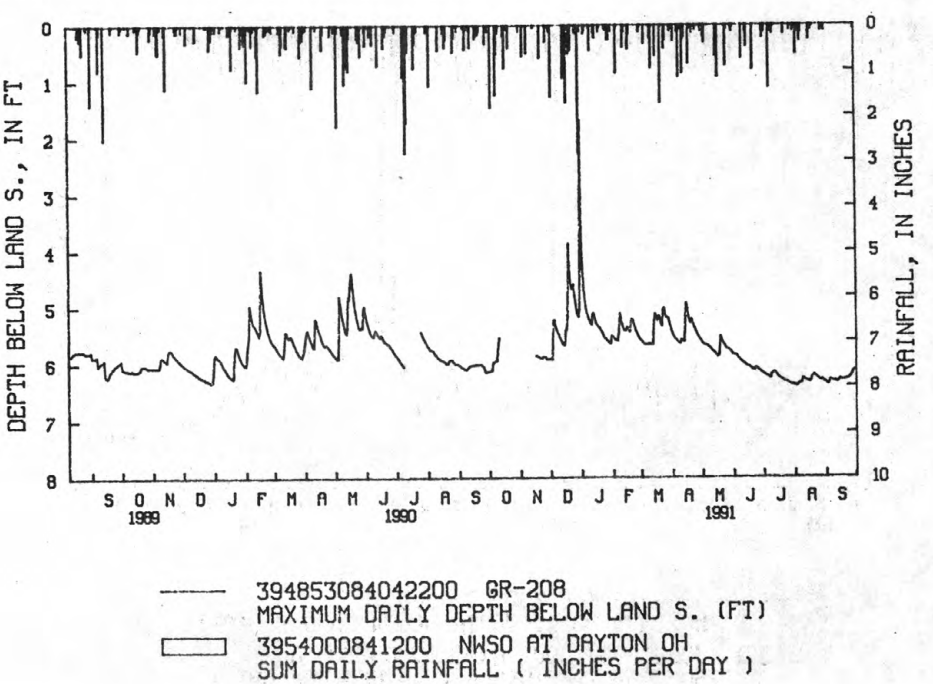
112OTSH - Outwash, Pleistocene Epoch
112TILL - Glacial Till
357BFLD - Brassfield Limestone, Lower Silurian
361RCMD - Richmond Group, Upper Ordovician
111ALVM - Holocene Alluvium
360ODVC - Ordovician System
361WTTR - Whitewater Formation

394853084042200. Local number, GR-208.
LOCATION.--Lat 39°48'53" Long 84°04'22", Hydrologic Unit 05080001, at Wright-Patterson Air Force Base, Ohio.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in. depth 19.5 ft. Cased with stainless steel to 4.50 ft; .010 in screen from 4.5 to 19.5 ft, bentonite seal.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Altitude of land-surface datum is 796.29 Measuring point: Shelter floor 3.01 ft above land-surface datum.
PERIOD OF RECORD.--August 10, 1989 to present.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 6.40 ft below land-surface datum, August 2, 3, 1991; minimum daily-low, 1.68 ft below land-surface datum, December 31, 1990.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.13	---	5.91	3.62	5.52	5.59	5.46	5.64	5.84	6.18	6.39	6.35
2	6.12	---	5.92	4.27	5.55	5.61	5.51	5.65	5.85	6.20	6.40	6.37
3	6.12	---	5.92	4.61	5.57	5.63	5.54	5.67	5.85	6.21	6.40	6.37
4	6.11	---	5.24	4.83	5.59	5.65	5.57	5.67	5.86	6.22	6.39	6.34
5	5.97	---	5.23	4.99	5.59	5.66	5.58	5.68	5.89	6.23	6.36	6.29
6	5.97	---	5.34	5.09	5.59	5.66	5.60	5.69	5.91	6.24	6.35	6.30
7	5.95	---	5.40	5.15	5.45	5.66	5.62	5.70	5.93	6.26	6.35	6.31
8	5.95	---	5.45	5.21	5.11	5.66	5.64	5.72	5.95	6.26	6.35	6.32
9	5.94	---	5.48	5.26	5.21	5.65	5.64	5.73	5.97	6.19	6.27	6.32
10	5.64	---	5.54	5.31	5.29	5.65	5.58	5.76	5.98	6.18	6.27	6.31
11	5.54	---	5.57	5.31	5.36	5.66	5.59	5.78	6.00	6.16	6.29	6.33
12	---	---	5.60	5.12	5.41	5.66	5.61	5.79	6.00	6.16	6.31	6.33
13	---	---	5.65	5.10	5.42	5.66	5.61	5.81	6.02	6.18	6.31	6.32
14	---	---	5.67	5.19	5.42	5.25	5.22	5.83	6.04	6.20	6.31	6.30
15	---	---	5.67	5.27	5.35	5.12	4.92	5.86	6.05	6.23	6.33	6.28
16	---	---	5.42	5.31	5.37	5.17	5.04	5.88	6.05	6.25	6.33	6.29
17	---	5.86	5.40	5.33	5.43	5.24	5.16	5.86	6.06	6.26	6.31	6.30
18	---	5.87	5.18	5.36	5.44	5.19	5.26	5.86	6.08	6.28	6.25	6.30
19	---	5.88	3.87	5.37	5.28	5.15	5.29	5.52	6.09	6.28	6.23	6.29
20	---	5.89	4.39	5.41	5.21	5.24	5.21	5.57	6.11	6.29	6.21	6.29
21	---	5.90	4.61	5.44	5.24	5.33	5.25	5.62	6.12	6.31	6.22	6.28
22	---	5.90	4.68	5.47	5.31	5.34	5.32	5.65	6.12	6.32	6.24	6.28
23	---	5.90	4.68	5.52	5.37	5.05	5.37	5.68	6.08	6.32	6.26	6.28
24	---	5.88	4.59	5.55	5.43	5.02	5.41	5.71	6.08	6.33	6.27	6.26
25	---	5.88	4.78	5.56	5.47	5.14	5.45	5.74	6.10	6.34	6.29	6.24
26	---	5.88	4.94	5.59	5.51	5.19	5.49	5.74	6.12	6.35	6.30	6.22
27	---	5.92	5.05	5.60	5.55	5.18	5.53	5.75	6.13	6.36	6.30	6.18
28	---	5.92	5.15	5.63	5.57	5.20	5.56	5.77	6.14	6.37	6.29	6.14
29	---	5.92	5.17	5.64	---	5.27	5.58	5.78	6.16	6.38	6.31	6.13
30	---	5.92	5.04	5.64	---	5.35	5.61	5.81	6.17	6.38	6.33	6.12
31	---	---	1.68	5.51	---	5.41	---	5.84	---	6.38	6.33	---
MAX	6.13	5.92	5.92	5.64	5.59	5.66	5.64	5.88	6.17	6.38	6.40	6.37

CAL YR 1990 LOW 6.25
WTR YR 1991 LOW 6.40

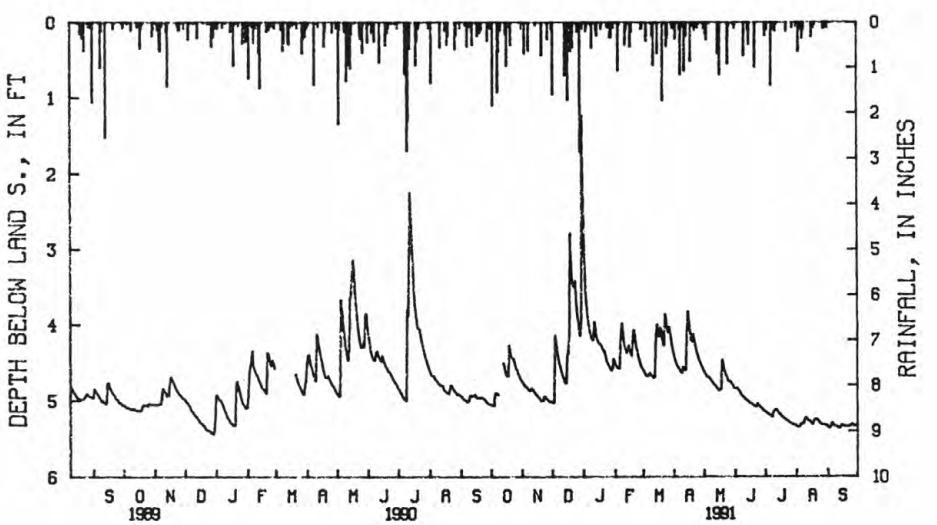


394851084042300. Local number, GR-210.
LOCATION.--Lat 39°48'51" Long 84°04'23" Hydrologic Unit 05080001, at Wright-Patterson Air Force Base, Ohio.
AQUIFER.--Sand of Pleistocene Age.
WELL CHARACTERISTICS.--Observation well installed by hollow stem auger, diameter 4.0 in. depth 38.0 ft. Cased with stainless steel to 33.0 ft; .010 in screen from 33.0 to 38.0 ft, bentonite seal.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Altitude of land-surface datum is 796.07. Measuring point: Floor of shelter 2.97 ft above land-surface datum.
PERIOD OF RECORD.--August 10, 1989 to present.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 5.44 ft below land-surface datum, December 28, 29, 1989. minimum daily low, 1.23 ft below land-surface datum, December 31, 1990.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.05	4.75	5.02	2.15	4.48	4.59	4.41	4.62	4.84	5.15	5.34	5.35
2	5.06	4.77	5.03	2.94	4.53	4.62	4.46	4.65	4.84	5.16	5.35	5.36
3	5.06	4.79	5.01	3.39	4.55	4.64	4.50	4.67	4.84	5.17	5.35	5.36
4	5.06	4.81	4.14	3.69	4.57	4.67	4.54	4.69	4.86	5.18	5.34	5.33
5	4.90	4.82	4.23	3.87	4.58	4.68	4.56	4.69	4.88	5.19	5.31	5.30
6	4.90	4.83	4.35	3.99	4.58	4.68	4.58	4.70	4.90	5.20	5.31	5.31
7	4.91	4.85	4.44	4.07	4.20	4.65	4.61	4.72	4.92	5.21	5.30	5.33
8	4.92	4.86	4.51	4.14	3.98	4.64	4.63	4.74	4.94	5.21	5.30	5.34
9	---	4.87	4.56	4.18	4.09	4.66	4.64	4.76	4.95	5.15	5.24	5.34
10	---	4.84	4.62	4.20	4.20	4.68	4.56	4.78	4.96	5.13	5.23	5.34
11	---	4.84	4.67	4.20	4.29	4.69	4.58	4.79	4.98	5.12	5.24	5.36
12	---	4.86	4.70	3.96	4.34	4.70	4.60	4.80	4.99	5.12	5.26	5.36
13	4.51	4.88	4.75	4.06	4.37	4.69	4.60	4.82	5.00	5.14	5.27	5.36
14	4.55	4.90	4.77	4.17	4.34	4.13	4.06	4.84	5.01	5.16	5.28	5.33
15	4.62	4.92	4.77	4.20	4.27	3.99	3.82	4.86	5.03	5.18	5.29	5.32
16	4.66	4.93	4.39	4.24	4.33	4.10	3.96	4.87	5.03	5.19	5.31	5.33
17	4.68	4.95	4.38	4.25	4.39	4.16	4.09	4.85	5.04	5.21	5.31	5.34
18	4.68	4.96	4.11	4.27	4.41	4.04	4.21	4.85	5.05	5.22	5.27	5.34
19	4.27	4.98	2.78	4.28	4.15	4.07	4.22	4.47	5.06	5.23	5.25	5.34
20	4.36	5.00	3.20	4.32	4.07	4.17	4.12	4.53	5.07	5.24	5.25	5.34
21	4.43	5.00	3.43	4.34	4.15	4.26	4.18	4.59	5.08	5.25	5.25	5.34
22	4.44	5.00	3.49	4.36	4.25	4.27	4.25	4.64	5.08	5.26	5.26	5.34
23	4.45	4.94	3.49	4.41	4.32	3.85	4.32	4.68	5.04	5.27	5.28	5.33
24	4.49	4.94	3.42	4.48	4.39	3.93	4.38	4.71	5.06	5.28	5.30	5.32
25	4.54	4.97	3.68	4.51	4.45	4.06	4.42	4.75	5.07	5.29	5.31	5.31
26	4.58	4.98	3.87	4.54	4.49	4.11	4.46	4.75	5.09	5.30	5.32	5.33
27	4.61	4.99	3.99	4.56	4.54	4.03	4.50	4.75	5.10	5.31	5.32	5.33
28	4.65	5.01	4.13	4.59	4.57	4.10	4.54	4.77	5.11	5.31	5.32	5.33
29	4.67	5.01	4.14	4.60	---	4.19	4.56	4.79	5.13	5.32	5.32	5.33
30	4.71	5.01	3.89	4.59	---	4.28	4.59	4.81	5.14	5.32	5.33	5.33
31	4.73	---	1.23	4.45	---	4.34	---	4.84	---	5.33	5.33	---
MAX	5.06	5.01	5.03	4.60	4.58	4.70	4.64	4.87	5.14	5.33	5.35	5.36

CAL YR 1990 LOW 5.33
WTR YR 1991 LOW 5.36



394851084042300 GR-210
MAXIMUM DAILY DEPTH BELOW LAND S. (FT)

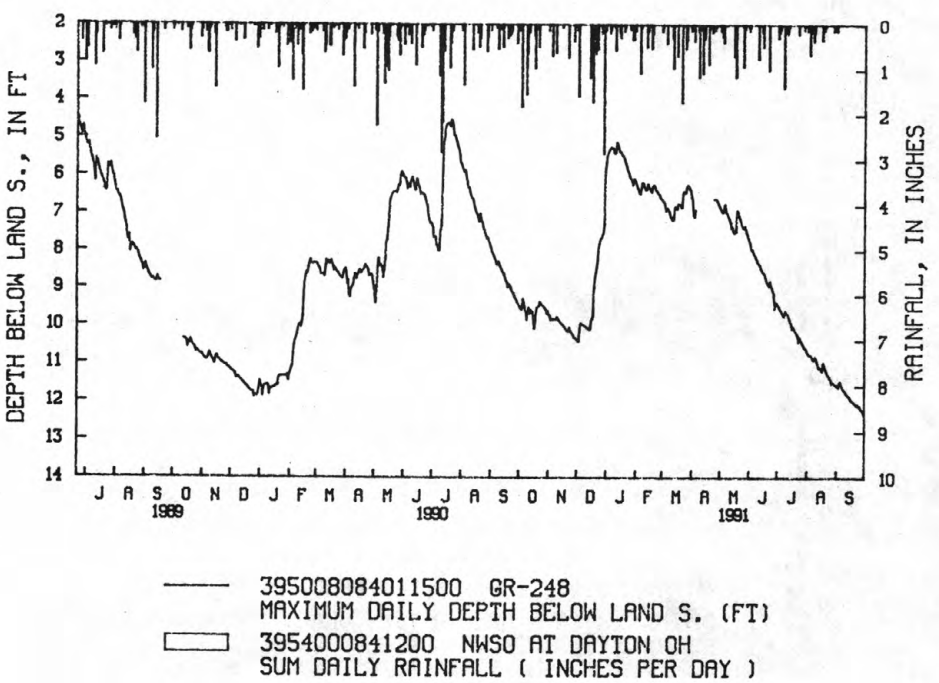
3954000841200 NWSO AT DAYTON OH
SUM DAILY RAINFALL (INCHES PER DAY)

395008084011500. Local number, GR-248.
LOCATION.--Lat 39°50'08" Long 84°01'15", Hydrologic Unit 05080001, at Wright-Patterson Air Force Base, Ohio.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Observation well drilled by cable tool, diameter 4.0 in. depth 31.0 ft. Cased with stainless steel to 21.0 ft; .010 in screen from 21.0 to 31.0 ft, bentonite seal.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Altitude of land-surface datum is 825.43 Measuring point: Shelter floor 2.32 ft above land-surface datum.
PERIOD OF RECORD.--June 23, 1989 to present.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 12.36 ft below land-surface datum, September 30, 1991; minimum daily low, 4.34 below land-surface datum, June 23, 1989.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.49	9.73	10.40	5.70	6.16	6.64	6.58	6.85	7.74	9.44	10.71	11.57
2	9.55	9.72	10.43	5.48	6.25	6.68	6.66	6.89	7.79	9.49	10.74	11.61
3	9.58	9.86	10.43	5.40	6.32	6.70	7.05	6.96	7.98	9.55	10.79	11.64
4	9.59	9.84	10.01	5.34	6.40	6.79	7.10	6.97	7.96	9.59	10.79	11.50
5	9.30	9.83	9.96	5.29	6.46	6.95	6.91	6.96	8.02	9.64	10.79	11.49
6	9.41	9.86	9.97	5.26	6.48	6.86	---	6.77	8.08	9.69	10.84	11.58
7	9.52	9.84	9.99	5.27	6.33	6.87	---	6.88	8.13	9.74	10.89	11.64
8	9.68	9.85	10.01	5.27	6.19	6.94	---	6.98	8.19	9.76	10.92	11.68
9	9.86	9.85	10.02	5.39	6.20	7.02	---	7.04	8.24	9.62	10.84	11.71
10	9.65	9.79	10.04	5.41	6.28	7.10	---	7.12	8.31	9.66	10.86	11.74
11	9.54	9.84	10.07	5.38	6.36	7.16	---	7.17	8.35	9.69	10.94	11.79
12	9.70	9.88	10.08	5.13	6.39	7.18	---	7.23	8.38	9.74	11.00	11.82
13	9.59	9.92	10.11	5.18	6.36	7.17	---	7.40	8.46	9.82	11.13	11.85
14	9.62	9.95	10.12	5.27	6.22	6.85	---	7.37	8.51	9.90	11.10	11.87
15	9.64	9.97	10.11	5.37	6.30	6.82	---	7.48	8.57	9.94	11.14	11.90
16	9.84	10.00	9.87	5.36	6.35	6.88	---	7.52	8.59	10.10	11.18	11.97
17	10.09	10.03	9.85	5.42	6.41	6.89	---	7.46	8.64	10.04	11.21	11.97
18	9.91	10.06	9.74	5.47	6.43	6.74	---	7.49	8.72	10.08	11.00	12.00
19	9.63	10.10	9.10	5.48	6.28	6.75	---	6.93	8.79	10.13	11.06	12.02
20	9.53	10.14	8.75	5.56	6.26	6.77	---	6.98	8.87	10.18	11.14	12.05
21	9.51	10.16	8.60	5.67	6.27	6.84	---	7.07	8.91	10.23	11.21	12.07
22	9.50	10.17	8.45	5.72	6.37	6.84	---	7.15	8.96	10.27	11.26	12.10
23	9.38	10.07	8.28	5.81	6.40	6.49	---	7.23	8.82	10.44	11.31	12.08
24	9.42	10.15	7.91	5.91	6.44	6.41	---	7.31	8.94	10.32	11.35	12.14
25	9.46	10.20	7.77	5.98	6.48	6.45	6.62	7.38	9.01	10.38	11.39	12.12
26	9.49	10.24	7.69	6.04	6.51	6.46	6.64	7.40	9.08	10.44	11.43	12.17
27	9.50	10.27	7.66	6.08	6.58	6.29	6.63	7.34	9.15	10.49	11.54	12.21
28	9.55	10.33	7.58	6.13	6.61	6.26	6.67	7.42	9.56	10.53	11.50	12.23
29	9.57	10.34	7.53	6.25	---	6.28	6.73	7.50	9.38	10.58	11.53	12.28
30	9.69	10.37	7.35	6.09	---	6.36	6.79	7.59	9.40	10.61	11.55	12.36
31	9.62	---	5.94	6.09	---	6.38	---	7.66	---	10.66	11.58	---
MAX	10.09	10.37	10.43	6.25	6.61	7.18	7.10	7.66	9.56	10.66	11.58	12.36

CAL YR 1990 LOW 11.87
WTR YR 1991 LOW 12.36



The following tables list the results of chemical analysis of samples collected from 21 drainage basins in eastern Ohio during the period October 1, 1990 through September 30, 1991. All basins are in Ohio's coal region. The first table lists surface-water quality data and the second table lists ground-water quality data. These data will be used by the Ohio Department of Natural Resources, Division of Reclamation as base-line information for surface mining permit application and compliance. An asterisk denotes an active gaging station. Refer to report OH-91-1 for detailed flow records.

SURFACE-WATER QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
03109100	M F L BEAVER C NR ROGERS OH (LAT 40 43 22N LONG 080 38 03W)						
JUN 1991							
07...	1210	35	735	8.4	18.5	--	150
AUG							
27...	1100	14	860	8.3	22.0	--	145
03109500*	L BEAVER C NR EAST LIVERPOOL OH (LAT 40 40 33N LONG 080 32 27W)						
JUN 1991							
07...	1715	106	720	8.9	23.0	--	133
AUG							
27...	0945	40	840	8.3	23.5	--	114
03110000*	YELLOW C NR HAMMONDSVILLE OH (LAT 40 32 16N LONG 080 43 31W)						
JUN 1991							
07...	1325	22	540	8.4	20.5	--	93
AUG							
27...	1215	5.5	650	7.9	23.5	--	82
03110600	N F YELLOW C AT HAMMONDSVILLE OH (LAT 40 33 27N LONG 080 42 20W)						
JUN 1991							
07...	1445	7.2	510	8.2	20.0	--	66
03111500*	SHORT C NR DILLONVALE OH (LAT 40 11 36N LONG 080 44 04W)						
JUN 1991							
17...	1445	52	2120	8.0	26.0	--	166
AUG							
28...	0930	18	2100	8.0	22.0	--	179
03111548*	WHEELING C BL BLAINE OH (LAT 40 04 01N LONG 080 48 31W)						
JUN 1991							
18...	0830	48	2080	7.8	20.5	--	196
AUG							
28...	0745	20	2600	7.8	22.0	--	176
03113550	MCMAHON C AT BELLAIRE OH (LAT 40 00 39N LONG 080 45 45W)						
JUN 1991							
18...	1015	39	795	7.9	23.0	--	126
AUG							
26...	1600	4.6	1200	8.1	26.5	--	134
03114000*	CAPTINA C AT ARMSTRONGS MILLS OH (LAT 39 54 31N LONG 080 55 27W)						
JUN 1991							
18...	1145	29	430	8.2	25.0	--	124
AUG							
26...	1415	2.2	710	8.5	29.5	--	133
03114250	SUNFISH C AT CAMERON OH (LAT 39 46 00N LONG 080 56 09W)						
JUN 1991							
18...	1330	6.5	380	8.6	27.0	--	128
AUG							
26...	1245	1.1	410	8.2	27.5	--	126
03116950	NEWMAN C NR MASSILLON OH (LAT 40 49 22N LONG 081 33 06W)						
JUN 1991							
11...	0840	5.4	735	7.9	21.5	--	218
AUG							
27...	1430	1.2	680	8.7	25.5	--	182

SURFACE-WATER QUALITY DATA--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)
03109100 M F L BEAVER C NR ROGERS OH (LAT 40 43 22N LONG 080 38 03W)							
JUN 1991 07...	170	160	30	430	160	110	70
AUG 27...	170	260	30	610	20	110	50
03109500* L BEAVER C NR EAST LIVERPOOL OH (LAT 40 40 33N LONG 080 32 27W)							
JUN 1991 07...	220	110	20	240	10	50	20
AUG 27...	240	270	100	610	130	90	50
03110000* YELLOW C NR HAMMONDSVILLE OH (LAT 40 32 16N LONG 080 43 31W)							
JUN 1991 07...	180	220	40	660	20	40	10
AUG 27...	200	140	20	510	20	60	30
03110600 N F YELLOW C AT HAMMONDSVILLE OH (LAT 40 33 27N LONG 080 42 20W)							
JUN 1991 07...	160	120	50	450	120	70	60
03111500* SHORT C NR DILLONVALE OH (LAT 40 11 36N LONG 080 44 04W)							
JUN 1991 17...	1200	540	230	1400	140	60	50
AUG 28...	1200	230	170	620	130	40	30
03111548* WHEELING C BL BLAINE OH (LAT 40 04 01N LONG 080 48 31W)							
JUN 1991 18...	1100	2000	140	6900	130	230	160
AUG 28...	610	2100	190	9300	<10	220	170
03113550 MCMAHON C AT BELLAIRE OH (LAT 40 00 39N LONG 080 45 45W)							
JUN 1991 18...	250	1800	100	3100	10	100	20
AUG 26...	480	480	120	1000	250	70	50
03114000* CAPTINA C AT ARMSTRONGS MILLS OH (LAT 39 54 31N LONG 080 55 27W)							
JUN 1991 18...	73	700	20	710	100	40	10
AUG 26...	170	140	20	230	20	30	20
03114250 SUNFISH C AT CAMERON OH (LAT 39 46 00N LONG 080 56 09W)							
JUN 1991 18...	44	220	30	340	110	30	10
AUG 26...	42	300	20	650	100	50	10
03116950 NEWMAN C NR MASSILLON OH (LAT 40 49 22N LONG 081 33 06W)							
JUN 1991 11...	100	1200	20	2100	20	360	300
AUG 27...	130	140	40	390	110	240	210

SURFACE-WATER QUALITY DATA--Continued

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
03117500* SANDY C AT WAYNESBURG OH (LAT 40 40 21N LONG 081 15 36W)							
JUN 1991							
07...	1910	70	625	8.1	20.5	--	139
AUG							
27...	1250	28	725	7.8	21.0	--	163
03123000 SUGAR C AB BEACH CITY DAM AT BEACH CITY OH (LAT 40 39 24N LONG 081 34 37W)							
JUN 1991							
11...	1040	26	660	7.5	21.5	--	195
AUG							
27...	1550	5.3	810	9.1	25.0	--	224
03127500* STILLWATER C AT UHRICHSVILLE OH (LAT 40 23 10N LONG 081 20 50W)							
JUN 1991							
11...	1230	30	1010	7.6	22.0	--	136
AUG							
27...	1725	21	860	8.7	25.0	--	104
03129100 WHITE EYES C NR FRESNO OH (LAT 40 18 17N LONG 081 45 01W)							
JUN 1991							
11...	1530	4.4	420	7.5	23.0	--	119
AUG							
26...	1620	0.37	380	8.1	28.0	--	57
03140000* MILL C NR COSHOCTON OH (LAT 40 21 46N LONG 081 51 45W)							
JUN 1991							
06...	2040	2.5	380	7.8	19.0	--	101
AUG							
26...	1500	0.19	390	7.8	23.0	--	108
03148400 MOXAHALA C AT ROBERTS OH (LAT 39 51 17N LONG 082 03 23W)							
JUN 1991							
12...	0830	37	1700	3.4	20.5	181	--
AUG							
27...	1100	11	1900	3.4	21.0	111	--
03149500 SALT C NR CHANDLERSVILLE OH (LAT 39 54 31N LONG 081 51 38W)							
JUN 1991							
11...	1330	4.7	500	8.0	23.5	--	110
AUG							
27...	0815	0.62	565	8.0	19.5	--	24
03150250 MEIGS C NR BEVERLY OH (LAT 39 36 00N LONG 081 42 42W)							
JUN 1991							
11...	0930	4.3	1600	8.2	21.5	--	166
AUG							
26...	1630	3.5	1300	8.3	25.5	--	35
03156700 RUSH C NR SUGAR GROVE OH (LAT 39 38 18N LONG 082 30 42W)							
JUN 1991							
10...	1200	37	680	7.8	24.0	--	97
AUG							
26...	1040	14	599	7.6	24.5	--	92
03157000* CLEAR C NR ROCKBRIDGE OH (LAT 39 35 18N LONG 082 34 43W)							
JUN 1991							
10...	1030	27	440	8.4	19.5	--	171
AUG							
26...	1315	14	332	8.3	23.5	--	153

SURFACE-WATER QUALITY DATA--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)
03117500* SANDY C AT WAYNESBURG OH (LAT 40 40 21N LONG 081 15 36W)							
JUN 1991 07...	160	250	30	980	20	490	440
AUG 27...	48	80	<10	610	<10	350	290
03123000 SUGAR C AB BEACH CITY DAM AT BEACH CITY OH (LAT 40 39 24N LONG 081 34 37W)							
JUN 1991 11...	62	1700	20	2800	80	370	310
AUG 27...	61	1100	20	2300	20	350	210
03127500* STILLWATER C AT UHRICHSVILLE OH (LAT 40 23 10N LONG 081 20 50W)							
JUN 1991 11...	450	290	30	440	100	610	450
AUG 27...	170	90	20	170	130	620	530
03129100 WHITE EYES C NR FRESNO OH (LAT 40 18 17N LONG 081 45 01W)							
JUN 1991 11...	70	230	20	1800	160	500	540
AUG 26...	63	80	20	1500	20	460	410
03140000* MILL C NR COSHOCTON OH (LAT 40 21 46N LONG 081 51 45W)							
JUN 1991 06...	56	160	10	1300	130	220	220
AUG 26...	38	230	10	1800	230	570	520
03148400 MOXAHALA C AT ROBERTS OH (LAT 39 51 17N LONG 082 03 23W)							
JUN 1991 12...	950	8700	8800	3400	2900	9000	8500
AUG 27...	1100	10000	11000	3600	3700	12000	14000
03149500 SALT C NR CHANDLERSVILLE OH (LAT 39 54 31N LONG 081 51 38W)							
JUN 1991 11...	100	160	50	590	100	390	400
AUG 27...	86	280	<10	930	110	530	390
03150250 MEIGS C NR BEVERLY OH (LAT 39 36 00N LONG 081 42 42W)							
JUN 1991 11...	360	320	40	540	110	100	30
AUG 26...	920	250	20	220	<10	90	20
03156700 RUSH C NR SUGAR GROVE OH (LAT 39 38 18N LONG 082 30 42W)							
JUN 1991 10...	180	230	50	700	110	410	360
AUG 26...	180	260	40	580	120	560	420
03157000* CLEAR C NR ROCKBRIDGE OH (LAT 39 35 18N LONG 082 34 43W)							
JUN 1991 10...	33	290	30	540	50	60	30
AUG 26...	20	240	<10	400	20	50	30

SURFACE-WATER QUALITY DATA--Continued

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
03158200 MONDAY C AT DOANVILLE OH (LAT 39 26 07N LONG 082 11 30W)							
JUN 1991							
10...	1400	19	1100	3.4	20.5	118	--
AUG							
27...	1630	10	1900	3.7	24.0	78	--
03160050 LEADING C NR MIDDLEPORT OH (LAT 39 00 31N LONG 082 05 07W)							
JUN 1991							
13...	0955	2.4	1410	7.7	19.5	--	112
AUG							
27...	1000	2.8	3100	7.2	22.5	--	77
03160105 CAMPAIGN C NR GALLIPOLIS OH (LAT 38 53 51N LONG 082 11 31W)							
JUN 1991							
12...	1605	0.21	648	7.4	26.0	--	85
AUG							
27...	1450	0.07	720	7.1	29.0	--	46
03201988 L RACCOON C NR VINTON OH (LAT 38 57 11N LONG 082 21 56W)							
JUN 1991							
12...	1410	13	569	7.0	21.0	--	245
AUG							
27...	1240	9.1	620	6.7	23.5	--	10
382715082242400 INDIAN GUYAN C NR BRADRICK OH (LAT 38 27 15N LONG 082 24 24W)							
JUN 1991							
13...	1455	2.0	710	7.5	23.0	--	75
AUG							
28...	0900	0.89	560	7.2	24.5	--	86
383005082280600 SYMMES C NR GETAWAY OH (LAT 38 30 05N LONG 082 28 06W)							
JUN 1991							
13...	1710	8.5	490	7.2	24.0	--	65
AUG							
28...	1000	12	320	7.2	24.5	--	52
385826082201800 RACCOON C AT VINTON OH (LAT 38 58 26N LONG 082 20 18W)							
JUN 1991							
12...	1215	34	431	6.5	21.5	--	68
AUG							
27...	1140	10	690	6.8	24.0	--	14
390941082212200 ELK F NR RADCLIFF OH (LAT 39 09 41N LONG 082 21 22W)							
JUN 1991							
12...	0945	2.4	439	7.0	19.5	--	43
AUG							
26...	1535	1.0	559	7.1	24.0	--	43
392342082072000 SUNDAY C AT CHAUNCEY OH (LAT 39 23 42N LONG 082 07 20W)							
JUN 1991							
10...	1515	15	1600	3.4	21.0	148	--
AUG							
27...	1445	12	1400	3.3	23.0	122	--
395214082054700 JONATHAN C AT WHITE COTTAGE OH(LAT 39 52 14N LONG 082 0547W)							
JUN 1991							
12...	1000	31	1100	8.1	22.5	--	110
AUG							
27...	1300	4.7	1800	8.2	25.5	--	72

SURFACE-WATER QUALITY DATA--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)
03158200 MONDAY C AT DOANVILLE OH (LAT 39 26 07N LONG 082 11 30W)							
JUN 1991 10...	620	13000	13000	4600	3900	3300	3200
AUG 27...	360	9200	9200	1800	1800	2600	3100
03160050 LEADING C NR MIDDLEPORT OH (LAT 39 00 31N LONG 082 05 07W)							
JUN 1991 13...	390	90	30	150	90	410	420
AUG 27...	1100	60	20	190	100	950	930
03160105 CAMPAIGN C NR GALLIPOLIS OH (LAT 38 53 51N LONG 082 11 31W)							
JUN 1991 12...	170	500	20	1100	150	1300	840
AUG 27...	300	190	<10	420	<10	2000	1900
03201988 L RACCOON C NR VINTON OH (LAT 38 57 11N LONG 082 21 56W)							
JUN 1991 12...	230	70	10	520	210	2100	2100
AUG 27...	210	90	10	250	40	2000	2100
382715082242400 INDIAN GUYAN C NR BRADRICK OH (LAT 38 27 15N LONG 082 24 24W)							
JUN 1991 13...	240	60	<10	510	30	570	570
AUG 28...	200	90	10	430	130	800	780
383005082280600 SYMMES C NR GETAWAY OH (LAT 38 30 05N LONG 082 28 06W)							
JUN 1991 13...	96	120	<10	930	70	570	590
AUG 28...	72	220	20	760	250	390	390
385826082201800 RACCOON C AT VINTON OH (LAT 38 58 26N LONG 082 20 18W)							
JUN 1991 12...	170	120	10	470	70	2300	2400
AUG 27...	320	100	10	360	110	780	760
390941082212200 ELK F NR RADCLIFF OH (LAT 39 09 41N LONG 082 21 22W)							
JUN 1991 12...	140	120	20	810	130	720	780
AUG 26...	320	80	10	450	170	370	370
392342082072000 SUNDAY C AT CHAUNCEY OH (LAT 39 23 42N LONG 082 07 20W)							
JUN 1991 10...	820	720	670	54000	49000	2800	2800
AUG 27...	630	660	660	29000	28000	2100	2200
395214082054700 JONATHAN C AT WHITE COTTAGE OH (LAT 39 52 14N LONG 082 05 47W)							
JUN 1991 12...	360	550	190	550	250	2500	2400
AUG 27...	830	270	200	270	10	2200	2200

SURFACE-WATER QUALITY DATA--Continued

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
395337082011100 MOXAHALA C NR DARLINGTON OH (LAT 39 53 37N LONG 082 01 11W)							
JUN 1991							
11...	1130	46	1200	6.7	23.0	--	31
AUG							
27...	0930	18	1600	5.9	21.0	6.0	4
395417081323000 WILLS C AT PLEASANT CITY OH (LAT 39 54 17N LONG 081 32 30W)							
JUN 1991							
11...	1500	9.9	2900	8.2	22.5	--	269
AUG							
26...	1430	7.2	2950	8.2	23.5	--	305
400117081362600 CROOKED C NR CAMBRIDGE OH (LAT 40 01 17N LONG 081 36 26W)							
JUN 1991							
17...	1220	1.1	690	7.5	23.5	--	151
AUG							
26...	1300	0.46	710	8.0	22.5	--	116
400458081571400 SYMMES C NR DRESDEN OH (LAT 40 04 58N LONG 081 57 14W)							
JUN 1991							
06...	1015	4.4	965	8.1	17.0	--	107
400710082081000 WAKATOMIKA C NR FRAZEYSBURG OH (LAT 41 06 16N LONG 082 07 55W)							
JUN 1991							
06...	1710	22	330	8.2	21.5	--	82
AUG							
26...	1100	5.8	365	7.7	23.0	--	97
400912082014700 LITTLE WAKATOMIKA C NR TRINWAY OH (LAT 40 09 12N LONG 082 01 47W)							
JUN 1991							
06...	1140	12	1550	7.9	18.5	--	78
AUG							
26...	1200	2.5	1980	8.0	23.5	--	64
400920081432900 WHITE EYES C NR PLAINFIELD OH (LAT 40 09 20N LONG 081 43 29W)							
JUN 1991							
17...	1030	4.1	1130	7.5	23.5	--	98
AUG							
26...	1115	1.2	1100	8.1	21.5	--	82
400951082013300 MILL F NR TRINWAY OH (LAT 40 09 51N LONG 082 01 33W)							
JUN 1991							
06...	1315	7.4	1780	7.7	17.0	--	60
401059082015100 SAND F NR WAKATOMIKA OH (LAT 40 10 59N LONG 082 01 51W)							
JUN 1991							
06...	1425	1.8	1390	8.0	19.0	--	104
01302082103100 WINDING F WAKATOMIKA C NR W CARLISLE OH (LAT 40 13 02N LONG 082 10 31W)							
JUN 1991							
06...	1855	2.8	300	7.8	19.5	--	66
401305082034900 DICKINSON RN AT COOPERDALE OH (LAT 40 13 05N LONG 082 03 49W)							
JUN 1991							
06...	1530	0.29	530	8.0	18.0	--	106

SURFACE-WATER QUALITY DATA--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)
95337082011100 MOXAHALA C NR DARLINGTON OH (LAT 39 53 37N LONG 082 01 11W)							
JUN 1991							
11...	630	350	50	370	180	6000	5900
AUG							
27...	810	1800	190	190	90	6300	6700
395417081323000 WILLS C AT PLEASANT CITY OH (LAT 39 54 17N LONG 081 32 30W)							
JUN 1991							
11...	1800	620	20	830	20	230	130
AUG							
26...	1600	770	20	1200	80	240	100
400117081362600 CROOKED C NR CAMBRIDGE OH (LAT 40 01 17N LONG 081 36 26W)							
JUN 1991							
17...	190	660	<10	1300	260	820	670
AUG							
26...	140	400	10	870	180	670	580
400458081571400 SYMMES C NR DRESDEN OH (LAT 40 04 58N LONG 081 57 14W)							
JUN 1991							
06...	490	100	<10	350	10	160	160
400710082081000 WAKATOMIKA C NR FRAZEYSBURG OH (LAT 41 06 16N LONG 082 07 55W)							
JUN 1991							
06...	17	170	20	580	130	110	100
AUG							
26...	15	210	30	990	40	310	230
400912082014700 LITTLE WAKATOMIKA C NR TRINWAY OH (LAT 40 09 12N LONG 082 01 47W)							
JUN 1991							
06...	900	140	<10	600	<10	1200	1200
AUG							
26...	1300	60	10	310	100	850	820
400920081432900 WHITE EYES C NR PLAINFIELD OH (LAT 40 09 20N LONG 081 43 29W)							
JUN 1991							
17...	520	420	20	1200	30	720	770
AUG							
26...	600	240	20	940	20	900	700
400951082013300 MILL F NR TRINWAY OH (LAT 40 09 51N LONG 082 01 33W)							
JUN 1991							
06...	1400	290	10	760	90	2300	2100
401059082015100 SAND F NR WAKATOMIKA OH (LAT 40 10 59N LONG 082 01 51W)							
JUN 1991							
06...	770	100	<10	1300	20	510	470
01302082103100 WINDING F WAKATOMIKA C NR W CARLISLE OH(LAT 40 13 02N LONG 082 10 31W)							
JUN 1991							
06...	20	120	10	1500	390	190	190
401305082034900 DICKINSON RN AT COOPERDALE OH (LAT 40 13 05N LONG 082 03 49W)							
JUN 1991							
06...	170	110	<10	270	30	90	90

SURFACE-WATER QUALITY DATA--Continued

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
401624081363400 BUCKHORN C AT NEWCOMERSTOWN OH (LAT 40 16 24N LONG 081 36 34W)							
JUN 1991							
11...	1430	1.4	480	7.6	22.0	--	85
AUG							
26...	1720	0.11	575	8.1	24.5	--	100
01716080451300 MCINTYRE C NR SMITHFIELD OH (LAT 40 17 16N LONG 080 45 13W)							
JUN 1991							
17...	1550	7.9	2100	7.9	26.5	--	204
AUG							
28...	1050	2.6	1600	8.2	23.0	--	187
01857080391700 CROSS C NR MINGO JUNCTION OH (LAT 40 18 57N LONG 080 39 17W)							
JUN 1991							
17...	1645	35	1550	8.0	26.0	--	117
AUG							
27...	1500	11	1600	8.4	24.5	--	122
401936082001400 SIMMONS RN NR WARSAW OH (LAT 40 19 36N LONG 082 00 14W)							
JUN 1991							
10...	1400	1.1	1290	7.6	21.5	--	100
AUG							
26...	1325	0.09	1820	7.4	22.5	--	87
401955081561800 BUCKLEW RN NR WARSAW OH (LAT 40 19 55N LONG 081 56 18W)							
JUN 1991							
10...	1620	1.1	825	7.8	23.0	--	76
402006082000100 BEAVER RN AT WARSAW OH (LAT 40 20 06N LONG 082 00 01W)							
JUN 1991							
10...	1510	3.6	225	7.9	21.5	--	63
402500081563200 DOUGHTY C NR CLARK OH (LAT 40 25 00N LONG 081 56 32W)							
JUN 1991							
10...	1740	11	400	8.0	24.5	--	117
402610080375700 ISLAND C NR TORONOTO OH (LAT 40 26 10N LONG 080 37 57W)							
JUN 1991							
12...	1210	18	1020	8.1	22.0	--	139
402843082012600 WOLF C NR KILLBUCK OH (LAT 40 28 43N LONG 082 01 26W)							
JUN 1991							
10...	1845	5.8	250	7.8	21.0	--	86
402852080361800 CROXTON RN AT TORONTO OH (LAT 40 28 52N LONG 080 36 18W)							
JUN 1991							
12...	1045	4.0	1030	7.9	19.0	--	136
403257080430600 BRUSH C AT HAMMONDSVILLE OH (LAT 40 32 57N LONG 080 43 06W)							
JUN 1991							
07...	1405	2.3	365	7.5	19.5	--	51
403339080400900 HOLLOW ROCK RN NR HMDSVL OH (LAT 40 33 39N LONG 080 40 09W)							
JUN 1991							
07...	1525	3.3	1200	8.3	21.5	--	139

SURFACE-WATER QUALITY DATA--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)
401624081363400 BUCKHORN C AT NEWCOMERSTOWN OH (LAT 40 16 24N LONG 081 36 34W)							
JUN 1991							
11...	110	160	20	530	200	300	290
AUG							
26...	150	90	20	410	50	220	150
01716080451300 MCINTYRE C NR SMITHFIELD OH (LAT 40 17 16N LONG 080 45 13W)							
JUN 1991							
17...	1200	120	60	170	100	40	30
AUG							
28...	1100	50	50	260	20	40	50
01857080391700 CROSS C NR MINGO JUNCTION OH (LAT 40 18 57N LONG 080 39 17W)							
JUN 1991							
17...	850	560	140	450	140	200	180
AUG							
27...	910	330	80	280	<10	150	140
401936082001400 SIMMONS RN NR WARSAW OH (LAT 40 19 36N LONG 082 00 14W)							
JUN 1991							
10...	700	120	10	420	110	230	190
AUG							
26...	1000	390	20	880	100	810	720
401955081561800 BUCKLEW RN NR WARSAW OH (LAT 40 19 55N LONG 081 56 18W)							
JUN 1991							
10...	380	140	20	280	110	220	240
402006082000100 BEAVER RN AT WARSAW OH (LAT 40 20 06N LONG 082 00 01W)							
JUN 1991							
10...	18	240	20	630	190	40	40
402500081563200 DOUGHTY C NR CLARK OH (LAT 40 25 00N LONG 081 56 32W)							
JUN 1991							
10...	48	110	20	570	60	100	100
402610080375700 ISLAND C NR TORONOTO OH (LAT 40 26 10N LONG 080 37 57W)							
JUN 1991							
12...	180	660	70	770	120	40	30
402843082012600 WOLF C NR KILLBUCK OH (LAT 40 28 43N LONG 082 01 26W)							
JUN 1991							
10...	24	110	20	570	180	50	70
402852080361800 CROXTON RN AT TORONTO OH (LAT 40 28 52N LONG 080 36 18W)							
JUN 1991							
12...	410	350	40	1100	30	80	60
403257080430600 BRUSH C AT HAMMONDSVILLE OH (LAT 40 32 57N LONG 080 43 06W)							
JUN 1991							
07...	120	40	10	80	240	30	40
403339080400900 HOLLOW ROCK RN NR HMDSVL OH (LAT 40 33 39N LONG 080 40 09W)							
JUN 1991							
07...	590	200	120	220	<10	30	30

SURFACE-WATER QUALITY DATA--Continued

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS CACO3)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
403426081211900 CONOTTON C NR SOMERDALE OH (LAT 40 34 26N LONG 081 21 19W)							
JUN 1991							
07...	0840	52	440	7.5	16.5	--	82
AUG							
27...	1000	14	540	7.1	21.5	--	95
403655081550200 MARTINS C NR HOLMESVILLE OH (LAT 40 36 55N LONG 081 55 02W)							
JUN 1991							
10...	1955	2.8	500	7.9	22.0	--	180
403823081213700 NIMISHILLEN CR AT SANDYVILLE OH (LAT 40 38 23N LONG 081 21 37W)							
JUN 1991							
07...	0945	99	1360	8.1	17.0	--	292
AUG							
27...	1130	53	1550	8.3	21.5	--	222

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)
403426081211900 CONOTTON C NR SOMERDALE OH (LAT 40 34 26N LONG 081 21 19W)							
JUN 1991							
07...	140	380	20	1700	50	1200	1100
AUG							
27...	27	560	30	1700	10	1500	1400
403655081550200 MARTINS C NR HOLMESVILLE OH (LAT 40 36 55N LONG 081 55 02W)							
JUN 1991							
10...	55	80	<10	130	130	10	20
403823081213700 NIMISHILLEN CR AT SANDYVILLE OH (LAT 40 38 23N LONG 081 21 37W)							
JUN 1991							
07...	190	230	20	790	40	140	110
AUG							
27...	170	150	10	450	90	120	80

GROUND-WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
392338082075000 AT 68 WTR DPT AT CHAUNCEY OH (LAT 39 23 38N LONG 082 07 50W)												
SEP 1991 25...	1500	875	7.3	13.0	3.4	440	200	130	29	23	2.5	244
392604082113100 AT 69 J LEHMAN AT DOANVILLE OH (LAT 39 26 04N LONG 082 11 31W)												
SEP 1991 25...	1740	760	7.3	17.0	6.8	350	130	89	30	29	2.4	218
392608082125000 AT 70 F NORTH NR NELSONVILLE OH (LAT 39 26 08N LONG 082 12 50W)												
SEP 1991 25...	1915	1230	7.3	14.5	3.3	730	610	190	61	12	2.6	115
392739082184600 HK 54 BUCKEYE PIPELINE CO NR HAYDENVILLE OH (LAT 39 27 39N LONG 082 18 46W)												
SEP 1991 25...	1145	970	7.5	14.0	0.6	230	0	60	20	120	3.8	352
394825081533000 MU 56 J SWARTZ AT GAYSPORT OH (LAT 39 48 25N LONG 081 53 30W)												
SEP 1991 24...	1800	740	7.1	15.0	3.4	280	51	82	18	42	3.1	220
394909081532800 MU 55 F THORNTON NR GAYSPORT OH (LAT 39 49 09N LONG 081 53 28W)												
SEP 1991 24...	1620	430	7.5	16.0	3.2	220	37	63	15	5.9	0.70	182
395225081551600 MU 53 CJ SAUNDERS AT DUNCAN FALLS OH (LAT 39 52 25N LONG 081 55 16W)												
SEP 1991 24...	1230	830	7.3	15.5	3.1	410	160	120	26	19	1.6	250
395226081555600 MU 54 STATE OF OH NR DUNCAN FALLS OH (LAT 39 52 26N LONG 081 55 56W)												
SEP 1991 24...	1425	480	7.2	12.5	0.9	230	42	69	14	10	1.4	188

GROUND-WATER QUALITY DATA--Continued

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	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)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
392338082075000 AT 68 WTR DPT AT CHAUNCEY OH (LAT 39 23 38N LONG 082 07 50W)												
SEP 1991 25...	250	15	13	615	612	40	10	2500	2500	370	390	0.8
392604082113100 AT 69 J LEHMAN AT DOANVILLE OH (LAT 39 26 04N LONG 082 11 31W)												
SEP 1991 25...	160	24	12	487	477	<10	10	840	34	50	42	0.6
392608082125000 AT 70 F NORTH NR NELSONVILLE OH (LAT 39 26 08N LONG 082 12 50W)												
SEP 1991 25...	470	8.3	6.7	986	822	<10	<10	2000	1600	680	730	0.8
392739082184600 HK 54 BUCKEYE PIPELINE CO NR HAYDENVILLE OH (LAT 39 27 39N LONG 082 18 46W)												
SEP 1991 25...	130	83	10	562	639	60	<10	1100	1200	130	130	0.8
394825081533000 MU 56 J SWARTZ AT GAYSPORT OH (LAT 39 48 25N LONG 081 53 30W)												
SEP 1991 24...	43	87	9.4	418	416	<10	10	90	<3	70	60	0.8
394909081532800 MU 55 F THORNTON NR GAYSPORT OH (LAT 39 49 09N LONG 081 53 28W)												
SEP 1991 24...	43	4.8	10	245	252	10	20	110	24	10	10	0.6
395225081551600 MU 53 CJ SAUNDERS AT DUNCAN FALLS OH (LAT 39 52 25N LONG 081 55 16W)												
SEP 1991 24...	66	55	13	484	451	<10	<10	910	<3	10	3	0.6
395226081555600 MU 54 STATE OF OH NR DUNCAN FALLS OH (LAT 39 52 26N LONG 081 55 56W)												
SEP 1991 24...	48	15	12	273	282	20	20	50	<3	<10	<1	0.6

The following tables contain ground water-level measurements and 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 present estimates of ground-water traveltimes and flow paths under transient flow to determine the zone of contribution to the City of Columbus' South Well Field. The five digit parameter codes (in parentheses) in the water-quality reports are defined in WATSTORE.

394957083002900. SCIOTO RIVER AT ROUTE 665 AT SHADEVILLE.
LOCATION.--Lat 39°49'57", long 83°00'29", Hydrologic Unit 05060001, north side of Rt. 665 bridge over the Scioto River, 0.1 mi west of Shadeville.
PERIOD OF RECORD.--Aug. 1987 intermittantly to current year.
REMARKS.--This site is used for chemical-quality sampling only as part of a cooperative study with the City of Columbus. A "K" associated with bacteriologic data indicates non-ideal colony counts.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HYDRO-GEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)
MAR										
19...	3780	645	7.7	7.0	9.1	<0.5	3100	1700	9000	<0.1
SEP										
03...	1040	1040	7.8	25.5	8.2	<0.5	700	K100	K33	0.2

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
MAR										
19...	73	23	24	2.9	217	0	178	80	39	0.30
SEP										
03...	92	27	67	8.4	155	0	127	260	84	1.0

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
MAR										
19...	5.0	389	2.80	0.17	0.90	0.11	42	<0.5	<1	<3
SEP										
03...	5.2	627	7.20	0.08	0.90	2.40	33	<0.5	<1	<3

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
MAR										
19...	10	44	<10	8	15	<10	1500	<6	14	4.9
SEP										
03...	<10	19	<10	22	13	30	2400	<6	35	6.3

395000082593400. BIG WALNUT CREEK NEAR FR-126 NEAR SHADEVILLE.
LOCATION.--Lat 39°50'00", long 82°59'34", Hydrologic Unit 05060001, 0.15 mi north of Rt. 665 bridge over Big Walnut Creek, 0.5 mi east-northeast of Shadeville.
PERIOD OF RECORD.--June 1984 intermittantly to current year.
REMARKS.--This site is used for chemical-quality sampling only as part of a cooperative study with the City of Columbus. A "K" associated with bacteriological data indicates non-ideal colony counts.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HYDRO-GEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)
MAR										
21...	914	398	7.7	7.5	9.5	<0.5	3700	K600	K200	<10
SEP										
03...	28	760	8.0	26.0	8.5	<0.5	460	K64	K100	0.1

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
MAR										
21...	44	13	12	3.1	117	0	96	41	22	0.10
SEP										
03...	71	25	36	3.6	294	0	241	90	70	0.40

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
MAR										
21...	4.6	227	1.20	0.06	0.80	0.05	41	<0.5	1	<3
SEP										
03...	6.1	412	0.12	0.01	0.30	0.01	110	<0.5	<1	<3

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
MAR										
21...	<10	120	<10	<4	18	<10	260	<6	5	5.3
SEP										
03...	<10	7	<10	8	9	20	510	<6	<3	4.3

395134083010000. Local number FR-100.
LOCATION.--Lat 39°51'34", long 83°01'00", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 56.8 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 688 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.47 ft above land-surface datum.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.72 ft below land-surface datum, Mar. 31, 1980; lowest measured, 31.78 ft below land-surface datum, Sep. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	13.15	MAR 20	13.01	JUN 20	21.50	SEP 11	31.78

395115083010300. Local number, FR-101 TH40
LOCATION.--Lat 39°51'15", long 83°01'03", Hydrologic Unit 05060001.
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 80 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.19 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.61 ft below land-surface datum, June 26, 1990; lowest measured, 28.08 ft below land-surface datum, June 20, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	19.42	MAR 19	23.01	JUN 20	28.08

395114083010500. Local number, FR-101 TH41.
LOCATION.--Lat 39°51'14", long 83°01'05", Hydrologic Unit 05060001.
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 82 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685.6 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.33 ft above land-surface datum
PERIOD OF RECORD.--Dec. 1989 to current year
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.82 ft below land-surface datum, June 26, 1990; lowest measured, 34.50 ft below land-surface datum, Sep. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	18.95	MAR 19	18.35	JUN 20	26.52	SEP 11	34.50

395116083010400. Local number, FR-101 TH42.
LOCATION.--Lat 39°51'16", long 83°01'04", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 81 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 687.3 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.10 ft above land-surface datum
PERIOD OF RECORD.--Dec. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.13 ft below land-surface datum, Mar. 19, 1991; lowest measured, 26.63 ft below land-surface datum, Apr. 16, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	22.76	MAR 19	20.13	JUN 20	20.69	SEP 11	23.84

395114083010201. Local number, FR-101 TH46.
LOCATION.--Lat 39°51'14", long 83°01'02", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 80 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 687.5 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.5 ft above land-surface datum.
PERIOD OF RECORD.--May 1981 to current year
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.19 ft below land-surface datum, May 19, 1981; lowest measured, 45.48 ft below land-surface datum, Sep. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	20.13	MAR 19	20.44	JUN 20	28.80	SEP 11	45.48

395045083003100. Local number, FR-103, TH11.
LOCATION.--Lat 39°50'45", long 83°00'31", Hydrologic Unit 05060001, near Columbus.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 93 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 699 feet 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.--Aug. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.00 ft below land-surface datum, May 9, 1983; lowest measured, 74.70 ft below land-surface datum, Jan. 25, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	52.36	MAR 19	46.27	JUN 20	62.50	SEP 11	61.71

395021083002900. Local number, FR-104 TH18
LOCATION.--Lat 39°50'21", long 83°00'29", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 76 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 691 feet 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.--Sept. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.17 ft below land-surface datum, Mar. 26, 1984; lowest measured, 54.45 ft below land-surface datum, Dec. 23, 1989.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	35.68	MAR 19	31.67	JUN 20	43.41	SEP 10	51.73

395020083003300. Local number, FR-104 TH72
LOCATION.--Lat 39°50'20", long 83°00'34", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 100 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 680 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 6.17 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft below land-surface datum, Mar. 26, 1984; lowest measured, 55.37 ft below land-surface datum, Dec. 20, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	29.00	MAR 19	25.22	JUN 20	36.98	SEP 10	49.76

395019083003300. Local number, FR-104 TH-A
LOCATION.--Lat 39°50'19", long 83°00'33", Hydrologic Unit 05060001.
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 79.3 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.89 ft above land-surface datum
PERIOD OF RECORD.--Dec. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.28 ft below land-surface datum, June 26, 1990; lowest measured, 51.22 ft below land-surface datum, Dec. 20, 1989.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	29.00	MAR 19	25.01	JUN 20	36.81	SEP 10	47.72

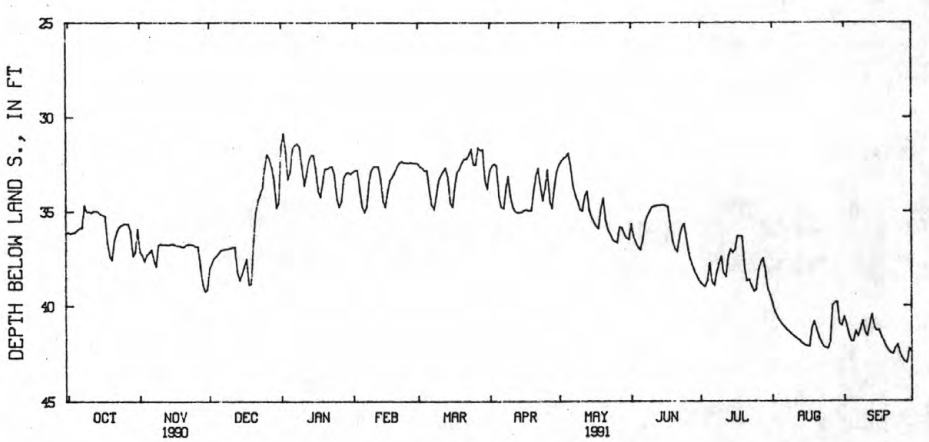
395039082585800. Local number, FR-115 TH67.
LOCATION.--Lat 39°50'39", long 82°58'58", Hydrologic Unit 05060001, near Hamilton Meadows.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 116 ft.
INSTRUMENTATION - Data logger -- 60 minute record.
DATUM.--Elevation of land-surface datum is 721 feet above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.21 ft below land-surface datum, May 3, 1984; lowest measured, 43.00 ft below land-surface datum, Sep. 28, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.11	37.13	38.08	31.56	32.91	32.44	32.89	32.53	35.66	38.78	39.89	40.58
2	36.18	37.31	37.77	30.86	32.81	32.63	32.59	32.34	36.33	38.91	40.30	41.00
3	36.13	37.66	37.49	31.84	32.81	32.68	32.45	32.17	36.66	38.99	40.57	41.51
4	36.11	37.29	37.36	33.31	33.85	32.85	32.57	32.10	36.93	38.67	40.78	41.89
5	35.97	37.19	37.22	32.87	34.73	32.82	34.20	31.90	37.05	37.75	40.96	41.87
6	35.88	37.01	37.04	31.67	35.04	33.95	34.78	32.55	36.49	38.76	41.10	41.32
7	35.87	37.57	37.02	31.48	34.75	34.65	34.85	33.64	35.63	38.93	41.24	41.64
8	34.67	37.92	36.99	31.41	33.48	34.89	33.81	34.11	35.23	38.26	41.35	41.22
9	35.00	36.77	36.99	31.60	32.86	34.15	33.12	34.46	35.02	37.77	41.48	40.79
10	35.00	36.72	36.93	32.55	32.61	33.37	34.18	34.88	34.76	37.41	41.59	41.42
11	35.06	36.76	36.91	33.63	32.61	33.09	34.75	34.98	34.72	38.28	41.68	41.61
12	34.98	36.75	36.88	33.11	32.61	32.87	34.98	34.21	34.68	38.48	41.78	40.96
13	34.96	36.76	38.17	32.34	33.25	32.66	35.06	33.92	34.67	37.42	41.88	40.45
14	35.01	36.76	38.67	32.03	34.43	33.23	35.05	34.92	34.65	37.02	42.00	41.13
15	35.15	36.72	38.34	32.02	34.78	34.53	35.02	35.34	34.65	37.19	42.08	41.32
16	35.18	36.76	37.93	32.73	33.97	34.77	34.92	35.58	34.69	37.03	42.13	41.28
17	35.25	36.81	37.52	33.93	33.36	33.66	34.90	35.81	34.75	36.31	42.16	41.63
18	36.65	36.82	38.89	34.23	33.17	32.92	34.94	35.92	35.79	36.32	41.24	41.90
19	37.40	36.88	38.84	33.45	32.97	32.75	34.94	34.85	36.57	36.34	40.83	42.16
20	37.56	36.89	36.58	32.73	32.66	32.43	33.96	34.29	37.00	37.95	41.21	42.35
21	36.55	36.77	35.11	32.73	32.44	32.22	33.17	35.47	37.16	38.72	41.65	42.49
22	36.12	36.74	34.44	32.64	32.34	32.22	32.70	35.98	36.39	38.61	41.91	42.55
23	35.84	36.75	34.10	32.60	32.39	32.03	33.71	36.21	35.86	38.95	42.14	42.23
24	35.73	36.78	33.72	33.02	32.41	31.67	34.42	36.51	35.66	39.24	42.22	42.05
25	35.66	36.86	32.71	34.29	32.43	32.51	33.74	36.61	36.49	39.17	42.26	42.51
26	35.66	36.88	31.97	34.77	32.40	32.53	32.77	36.68	37.25	38.15	41.87	42.77
27	35.67	37.81	32.20	34.47	32.43	31.61	34.45	35.82	37.69	37.72	39.98	42.94
28	36.04	38.82	32.65	33.29	32.43	31.76	34.84	35.86	38.04	37.48	39.82	43.00
29	37.37	39.25	33.32	32.97	---	31.71	33.74	36.21	38.34	38.15	39.81	42.24
30	37.16	39.13	34.82	32.92	---	33.33	32.94	36.43	38.59	39.12	40.94	42.43
31	35.92	---	34.53	33.01	---	33.81	---	36.49	---	39.44	41.05	---
MAX	37.56	39.25	38.89	34.77	35.04	34.89	35.06	36.68	38.59	39.44	42.26	43.00

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 18	38.62	MAR 18	32.71	JUN 20	36.95	SEP 12	40.49



—— 395039082585800 FR-115 TH 67
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DATA LOGGER

395016083010300. Local number, FR-116, M1.
LOCATION.--Lat 39°50'06", long 83°01'36", Hydrologic Unit 05060001.
Owner.--Jackson Township.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 62 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 725 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic pipe, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.48 ft below land-surface datum, Mar. 26, 1984; lowest measured, 26.50 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	22.98	MAR 18	23.20	JUN 21	24.67	SEP 12	26.50

395016083010300. Local number, FR-117, M2.
LOCATION.--Lat 39°50'16", long 83°01'03", Hydrologic Unit 05060001.
Owner.--Jackson Township.
AQUIFER.--Clay, sand, and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 45 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 700 feet 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.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.02 ft below land-surface datum, June 17, 1981; lowest measured, 22.03 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	18.12	MAR 18	15.89	JUN 21	18.70	SEP 12	22.03

395059083000900. Local number, FR-122, M8.
LOCATION.--Lat 39°50'59", long 82°00'09", Hydrologic Unit 05060002, near Shadeville.
Owner.--Franklin County.
AQUIFER.--Clay, sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 104 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 730 feet 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.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.15 ft below land-surface datum, May 19, 1981; lowest measured, 94.64 ft below land-surface datum, Mar. 2, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	40.53	MAR 19	40.27	JUN 20	38.97	SEP 11	40.22

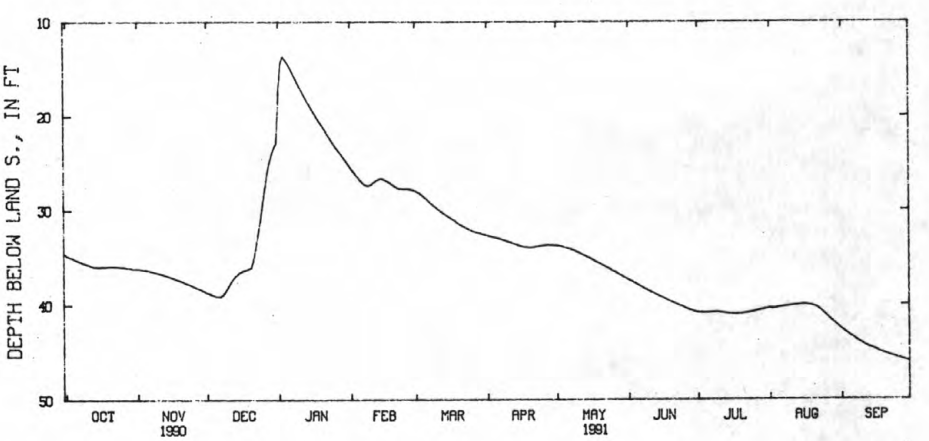
395058083002400. Local number, FR-119, M5
LOCATION.--Lat 39°50'58", long 83°00'24", Hydrologic Unit 05060001.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--drilled observation water well, diameter 2 in., depth 85 ft.
INSTRUMENTATION - Data logger -- 60 minute record.
DATUM.--Elevation of land-surface datum is 700 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of PVC casing, 2.48 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.10 ft below land-surface datum, June 17, 1981; lowest measured, 45.98 ft below land-surface datum, Sep. 30, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.74	36.19	38.67	17.57	25.51	27.98	32.66	33.74	37.37	40.78	40.32	42.59
2	34.85	36.21	38.78	14.41	25.84	28.11	32.73	33.78	37.50	40.80	40.38	42.79
3	34.96	36.24	38.89	13.68	26.16	28.27	32.80	33.84	37.64	40.82	40.36	42.97
4	35.07	36.27	38.99	14.03	26.47	28.46	32.86	33.90	37.77	40.82	40.32	43.15
5	35.20	36.32	39.08	14.41	26.76	28.67	32.92	33.98	37.91	40.82	40.28	43.33
6	35.30	36.38	39.09	14.86	27.03	28.88	32.99	34.06	38.05	40.81	40.24	43.49
7	35.40	36.44	39.08	15.36	27.28	29.11	33.07	34.14	38.18	40.78	40.20	43.65
8	35.50	36.51	38.90	15.85	27.38	29.34	33.15	34.23	38.31	40.77	40.17	43.81
9	35.60	36.56	38.54	16.37	27.38	29.56	33.23	34.33	38.44	40.76	40.14	43.97
10	35.68	36.63	38.14	16.89	27.28	29.77	33.32	34.45	38.57	40.78	40.10	44.11
11	35.77	36.70	37.70	17.33	27.05	29.97	33.41	34.57	38.69	40.81	40.07	44.25
12	35.85	36.77	37.32	17.78	26.86	30.15	33.50	34.69	38.82	40.86	40.04	44.37
13	35.92	36.86	37.01	18.25	26.73	30.32	33.59	34.81	38.94	40.90	40.02	44.48
14	35.94	36.95	36.76	18.69	26.64	30.48	33.68	34.93	39.05	40.93	40.00	44.58
15	35.95	37.03	36.58	19.11	26.69	30.66	33.76	35.06	39.17	40.95	39.97	44.68
16	35.95	37.12	36.43	19.51	26.82	30.84	33.85	35.18	39.29	40.96	39.96	44.78
17	35.95	37.22	36.33	19.94	26.95	30.99	33.91	35.33	39.40	40.96	39.97	44.93
18	35.94	37.30	36.25	20.36	27.11	31.14	33.94	35.46	39.52	40.96	40.02	45.02
19	35.92	37.41	36.19	20.73	27.28	31.36	33.94	35.59	39.62	40.95	40.08	45.10
20	35.90	37.50	36.04	21.09	27.47	31.51	33.94	35.72	39.75	40.92	40.16	45.19
21	35.90	37.61	35.32	21.48	27.63	31.64	33.93	35.85	39.84	40.89	40.25	45.28
22	35.91	37.71	34.08	21.91	27.71	31.77	33.88	35.99	39.95	40.85	40.41	45.36
23	35.93	37.80	32.67	22.32	27.75	31.90	33.82	36.12	40.06	40.81	40.59	45.44
24	35.96	37.91	31.15	22.72	27.75	32.02	33.77	36.26	40.16	40.76	40.82	45.52
25	35.98	38.02	29.46	23.10	27.75	32.13	33.73	36.40	40.27	40.71	41.06	45.60
26	36.01	38.12	27.70	23.44	27.76	32.24	33.70	36.54	40.38	40.66	41.29	45.66
27	36.04	38.23	26.16	23.76	27.81	32.32	33.69	36.68	40.48	40.60	41.52	45.75
28	36.08	38.33	24.94	24.09	27.88	32.40	33.69	36.82	40.58	40.54	41.75	45.82
29	36.12	38.45	24.04	24.43	---	32.46	33.69	36.96	40.66	40.49	41.97	45.91
30	36.17	38.56	23.39	24.77	---	32.54	33.71	37.10	40.73	40.43	42.18	45.98
31	36.19	---	22.86	25.14	---	32.60	---	37.23	---	40.37	42.39	---
MAX	36.19	38.56	39.09	25.14	27.88	32.60	33.94	37.23	40.73	40.96	42.39	45.98

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 24	30.38	MAR 19	31.28	JUN 20	39.75	SEP 17	44.93



—— 395058083002400 FR-119
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DATA LOGGER

395117083011600. Local number, FR-120, M6
LCATION.--Lat 39°51'17", long 83°01'16", Hydrologic Unit 05060001, near Columbus.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 72 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685 feet above National Geodetic Vertical Datum of 1929. Measuring point: Floor of instrument shelter, 7.14 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.36 ft below land-surface datum, Mar. 21, 1984; lowest measured, 29.80 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	11.60	MAR 18	11.3	SEP 12	29.80

395123083003300. Local number, FR-121
LOCATION.--Lat 39°51'23", long 83°00'33", Hydrologic Unit 05060001.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 45 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 690 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of coupling, 2.6 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.01 ft below land-surface datum, Mar. 24, 1984; lowest measured, 33.61 ft below land-surface datum, Sep. 11, 1991.
REMARKS.--A "K" associated with bacteriological data indicates non-ideal colony counts.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	18.96	MAR 19	19.02	JUN 20	26.59	SEP 11	33.61

WATER QUALITY DATA, WATER YEAR OCTOBER 1190 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
MAR 21...	1150	7.0	16.5	3.0	<0.5	K2	<1	K15	1.0	190

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
MAR 21...	59	8.6	1.8	544	0	446	310	31	0.20	14

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAR 21...	896	0.28	0.05	0.20	<0.01	28	<0.5	11	<3	<10

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
MAR 21...	27000	<10	14	340	<10	290	7	530	1.8

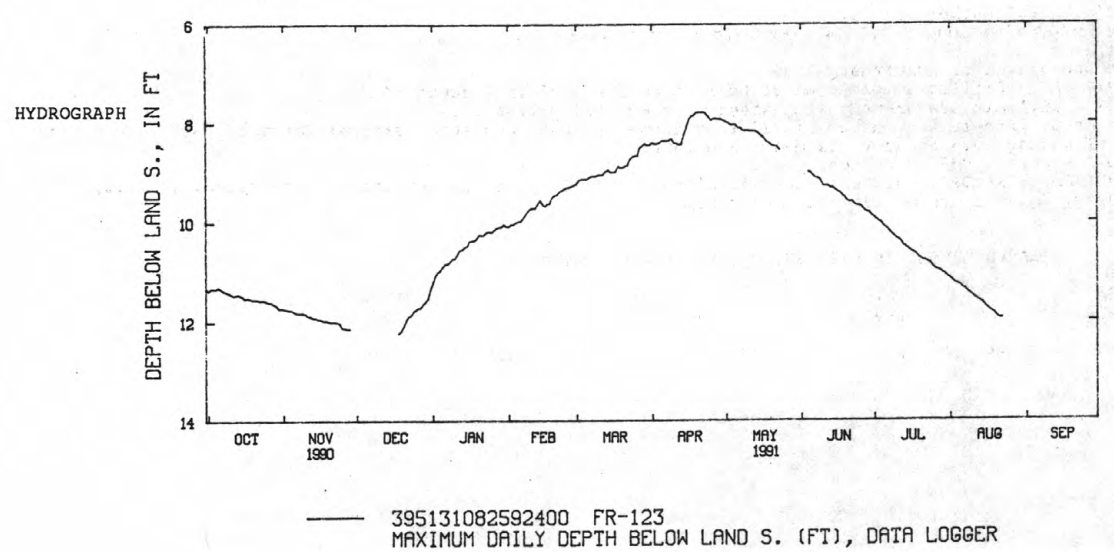
395131082592400. Local number, FR-123, M9.
LOCATION.--Lat 39°51'31", long 82°59'24", Hydrologic Unit 05060001, near Hamilton Meadows.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 36.5 ft.
INSTRUMENTATION - Data logger -- 60 minute record.
DATUM.--Elevation of land-surface datum is 710 feet above National Geodetic Vertical Datum of 1929. Measuring point: Floor of shelter, 2.25 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.87 ft below land-surface datum, Apr. 01, 1980; lowest measured, 15.17 ft below land-surface datum, Aug. 17, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.36	11.73	---	11.22	10.08	9.22	8.40	7.98	---	9.91	11.14	---
2	11.32	11.74	---	11.07	10.04	9.15	8.42	8.00	---	9.95	11.19	---
3	11.32	11.76	---	11.00	10.03	9.13	8.42	8.04	---	9.99	11.24	---
4	11.32	11.76	---	10.96	10.00	9.13	8.40	8.04	8.99	10.02	11.25	---
5	11.29	11.78	---	10.89	9.98	9.13	8.36	8.04	9.01	10.09	11.29	---
6	11.32	11.81	---	10.83	9.97	9.10	8.36	8.10	9.07	10.12	11.33	---
7	11.36	11.82	---	10.83	9.91	9.07	8.36	8.11	9.11	10.17	11.35	---
8	11.38	11.82	---	10.79	9.84	9.07	8.35	8.16	9.12	10.23	11.41	---
9	11.40	11.82	---	10.73	9.77	9.07	8.32	8.16	9.16	10.27	11.45	---
10	11.42	11.84	---	10.72	9.72	9.04	8.40	8.16	9.27	10.32	11.49	---
11	11.45	11.88	---	10.64	9.71	9.04	8.42	8.17	9.27	10.35	11.54	---
12	11.45	11.89	---	10.55	9.71	9.03	8.44	8.17	9.27	10.39	11.57	---
13	11.44	11.92	---	10.54	9.63	8.97	8.43	8.17	9.31	10.47	11.61	---
14	11.45	11.92	---	10.49	9.55	8.94	8.24	8.20	9.31	10.50	11.63	---
15	11.48	11.94	---	10.47	9.63	8.99	8.10	8.24	9.35	10.54	11.70	---
16	11.52	11.95	---	10.37	9.67	8.99	7.95	8.28	9.39	10.58	11.74	---
17	11.51	11.97	---	10.36	9.63	8.99	7.87	8.34	9.41	10.61	11.79	---
18	11.52	11.97	12.23	10.36	9.61	8.87	7.85	8.39	9.47	10.64	11.82	---
19	11.54	11.98	12.19	10.32	9.50	8.90	7.79	8.42	9.51	10.70	11.86	---
20	11.54	12.00	12.09	10.24	9.45	8.90	7.79	8.46	9.58	10.74	11.92	---
21	11.54	12.00	11.98	10.25	9.44	8.87	7.79	8.47	9.59	10.77	11.95	---
22	11.56	12.00	11.89	10.24	9.38	8.85	7.79	8.48	9.59	10.78	11.95	---
23	11.56	12.01	11.87	10.19	9.36	8.73	7.82	8.54	9.65	10.81	---	---
24	11.56	12.03	11.79	10.18	9.32	8.68	7.88	---	9.67	10.83	---	---
25	11.58	12.12	11.76	10.19	9.30	8.66	7.95	---	9.67	10.90	---	---
26	11.60	12.13	11.72	10.16	9.29	8.66	7.92	---	9.71	10.95	---	---
27	11.60	12.14	11.71	10.11	9.27	8.50	7.92	---	9.77	10.97	---	---
28	11.64	12.14	11.64	10.09	9.25	8.46	7.93	---	9.80	10.99	---	---
29	11.66	---	11.59	10.09	---	8.42	7.93	---	9.81	11.03	---	---
30	11.72	---	11.53	10.03	---	8.45	7.96	---	9.87	11.06	---	---
31	11.72	---	11.36	10.07	---	8.45	---	---	---	11.11	---	---
MAX	11.72	---	---	11.22	10.08	9.22	8.44	---	---	11.11	---	---

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 18	12.18	MAR 18	8.85	JUN 20	9.56	SEP 12	12.95



395008082593100. Local number, FR-126 M13
LOCATION.--Lat 39°50'08", long 82°59'31", Hydrologic Unit 05060001, near Shadeville.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 122 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surfa ce datum is 703 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of PVC casing, 4.2 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.96 ft below land-surface datum, June 17, 1981; lowest measured, 51.42 ft below land-surface datum, Nov. 09, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	15.68	MAR 18	8.93	JUN 20	14.24	SEP 11	17.42

395126083014000. Local number, FR-131 M18.
LOCATION.--Lat 39°51'26", long 83°01'40", Hydrologic Unit 05060001, near Columbus.
Owner.--Franklin County.
AQUIFER.--Clay, sand, and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 53 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 728 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of plastic coupling, 2.4 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.77 ft below land-surface datum, July 1, 1981; lowest measured, 50.56 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	47.79	MAR 18	44.38	JUN 21	46.39	SEP 12	50.56

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 78 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 feet 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.--Apr. 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.05 ft below land-surface datum, Apr. 1, 1981; lowest measured, 79.36 ft below land-surface datum, June 22, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	59.46	MAR 18	58.21	JUN 21	59.12	SEP 12	70.03

395020083014400. Local number, FR-141
LOCATION.--Lat 39°50'20", long 83°01'44", Hydrologic Unit 05060001.
Owner.--John Lako.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4.25 in., depth 64 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 720 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.6 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.13 ft below land-surface datum, June 26, 1990; lowest measured, 30.38 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	26.85	MAR 18	27.42	JUN 21	28.52	SEP 12	30.38

395108083010600. Local number FR-147.
LOCATION.--Lat 39°51'08", long 83°01'06", Hydrologic Unit 05060001, near Columbus.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 75 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.84 ft above land-surface datum.
PERIOD OF RECORD.--May 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.54 ft below land-surface datum, May 19, 1981; lowest measured, 38.85 ft below land-surface datum, Sep. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	17.18	MAR 19	17.49	JUN 20	26.06	SEP 11	38.85

395114083010200. Local number, FR-148
LOCATION.--Lat 39°51'14", long 83°01'02", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 12 in., depth 140 ft., 12 in. casing to 85 ft; 8 in. casing to 97.5.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 687 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--June 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.74 ft below land-surface datum, June 26,1990; lowest measured, 45.15 ft below land-surface datum, Sep. 11, 1991.
REMARKS.--A "K" associated with bacteriological data indicates a non-ideal colony count.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	21.48	MAR 19	17.18	JUN 20	29.02	SEP 11	45.15

WATER QALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./100 ML) (31504)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
MAR 25...	1300	7.5	14.5	21	K4	<1	<1	0.6	130	85

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)
MAR 25...	46	5.3	245	0	201	560	77	1.0	4.9	1020

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAR 25...	<0.05	1.10	1.3	<0.01	17	<0.5	<1	<3	<10

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
MAR 25...	460	<10	55	450	<10	7800	<6	51	2.6

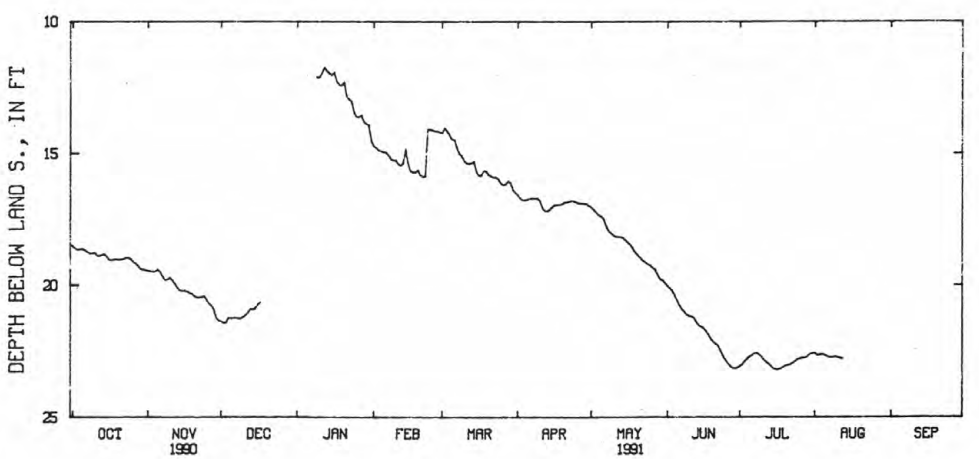
395024083003000. Local number, FR-149
LOCATION.--Lat 39°50'24", long 83°00'30", Hydrologic Unit 05060001, at Hartman Farms.
Owner.--City of Columbus.
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, depth 144 ft.
INSTRUMENTATION - Data logger -- 60 minute record. Continuous recording discontinued Aug. 13, 1991.
DATUM.--Elevation of land-surface datum is 683 feet above National Geodetic Vertical Datum of 1929. Measuring point: Floor of shelter 2.83 ft above land-surface datum.
PERIOD OF RECORD.--June 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.33 ft below land-surface datum, June 20, 1990; lowest measured, 25.99 ft below land-surface datum, Sep. 10, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.52	19.46	21.38	---	14.72	14.22	16.57	17.05	20.03	23.07	22.57	---
2	18.61	19.47	21.44	---	14.78	14.03	16.70	17.14	20.12	23.00	22.66	---
3	18.65	19.49	21.43	---	14.87	14.15	16.77	17.25	20.21	22.88	22.64	---
4	18.63	19.48	21.23	---	14.91	14.30	16.77	17.35	20.39	22.79	22.62	---
5	18.63	19.40	21.26	---	14.95	14.48	16.75	17.39	20.60	22.71	22.65	---
6	18.68	19.51	21.24	---	14.96	14.48	16.71	17.48	20.78	22.65	22.70	---
7	18.74	19.68	21.24	---	15.07	14.77	16.71	17.74	20.92	22.59	22.74	---
8	18.79	19.80	21.26	---	15.22	15.01	16.71	17.94	21.02	22.57	22.74	---
9	18.79	19.79	21.26	12.11	15.26	15.09	16.70	18.02	21.12	22.64	22.72	---
10	18.77	19.72	21.20	12.11	15.26	15.28	16.80	18.11	21.17	22.72	22.73	---
11	18.88	19.82	21.13	11.95	15.41	15.37	17.07	18.16	21.19	22.85	22.77	---
12	18.88	19.95	21.03	11.74	15.46	15.40	17.19	18.17	21.25	22.93	22.79	---
13	18.84	20.09	20.90	11.86	15.38	15.37	17.19	18.17	21.41	23.00	---	---
14	18.82	20.20	20.92	11.97	14.82	15.30	17.13	18.21	21.52	23.10	---	---
15	18.90	20.22	20.88	12.03	15.38	15.68	17.05	18.31	21.57	23.18	---	---
16	19.04	20.21	20.72	11.93	15.67	15.84	16.96	18.39	21.62	23.21	---	---
17	19.05	20.25	20.66	12.28	15.71	15.84	16.95	18.48	21.74	23.20	---	---
18	19.01	20.30	---	12.40	15.72	15.66	16.95	18.64	21.87	23.16	---	---
19	19.01	20.33	---	12.42	15.62	15.68	16.93	18.77	22.03	23.10	---	---
20	19.03	20.43	---	12.30	15.82	15.82	16.86	18.87	22.15	23.06	---	---
21	19.01	20.47	---	12.83	15.88	15.86	16.85	18.97	22.22	23.03	---	---
22	18.99	20.47	---	12.95	15.87	15.92	16.83	19.06	22.29	23.00	---	---
23	18.95	20.45	---	13.03	14.09	15.91	16.79	19.14	22.47	22.94	---	---
24	18.96	20.42	---	13.44	14.09	15.98	16.81	19.20	22.67	22.87	---	---
25	19.01	20.55	---	13.61	14.11	16.14	16.87	19.26	22.83	22.80	---	---
26	19.13	20.71	---	13.62	14.16	16.20	16.89	19.34	22.95	22.77	---	---
27	19.18	20.78	---	13.54	14.17	16.17	16.90	19.41	23.07	22.76	---	---
28	19.28	20.93	---	13.79	14.20	16.05	16.91	19.63	23.15	22.75	---	---
29	19.39	21.25	---	13.88	---	16.11	16.92	19.77	23.15	22.70	---	---
30	19.41	21.35	---	13.93	---	16.39	16.99	19.81	23.14	22.61	---	---
31	19.43	---	---	14.53	---	16.49	---	19.92	---	22.58	---	---
MAX	19.43	21.35	---	---	15.88	16.49	17.19	19.92	23.15	23.21	---	---

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 18	20.44	MAR 19	15.61	JUN 20	21.86	SEP 10	25.99



—— 395024083003000 FR-149 HARTMAN FARMS AT CW-104 NR COLUMBUS OH
MAXIMUM DAILY DEPTH BELOW LAND S. (FT), DATA LOGGER

395024083003000 - Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HYDRO-GEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)
SEP 10...	--	545	6.9	13.0	0.2	32	--	--	--	1.0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
SEP 10...	44	26	22	4.6	309	0	253	84	41	0.60

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
SEP 10...	4.8	315	<0.05	0.96	1.3	0.07	8300	<0.5	<1.0	<3

Date	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS PB) (01049)	MOLYB-DENUM, DIS-SOLVED (UG/L AS LI) (01130)	STRON-TIUM, DIS-SOLVED (UG/L AS MN) (01056)	VANA-DIUM, DIS-SOLVED (UG/L AS MO) (01060)	DIS-SOLVED (UG/L AS SR) (01080)	CARBON, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ORGANIC DIS-SOLVED (MG/L AS C) (00681)
SEP 10...	<10	14000	<10	29	190	<10	2400	<6	10	2.5

395027082592500. Local number, FR-151
LOCATION.--Lat 39°50'27", long 82°59'25", Hydrologic Unit 05060001, near Shadeville.
Owner.---City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 60 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 718 feet 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 measured, 23.00 ft below land-surface datum, Mar. 26, 1986; lowest measured, 33.23 ft below land-surface datum, Aug. 5, 1988.
REMARKS.--A "K" associated with bacteriological data indicates non-ideal colony counts.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL	MS		WATER LEVEL	MS		WATER LEVEL	MS		WATER LEVEL	MS
DEC 11	30.23	S	MAR 18	25.52	S	JUN 20	28.46	S	SEP 09	32.89	T

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HYDRO-GEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)
MAR										
20...	--	970	7.1	13.5	0.8	<0.5	<1	<1	<1	0.4
SEP										
10...	--	958	7.0	16.0	0.2	<0.5	25	<1	<1	0.7

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY, CARBON-ATE IT-FLD (MG/L - CACO3) (99430)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
MAR										
20...	140	42	4.5	1.5	423	0	347	160	21	0.20
SEP										
10...	140	41	3.9	1.3	513	0	420	130	19	0.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
MAR										
20...	12	605	<0.05	0.02	<0.20	<0.01	54	<0.5	2.0	<3
SEP										
10...	13	520	<0.05	<0.01	<0.20	<0.01	60	<0.5	<1.0	<3

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
MAR										
20...	<10	1700	<10	9	50	<10	230	<6	8	0.9
SEP										
10...	<10	1900	<10	10	60	<10	260	<6	12	0.9

394956083002700. Local number, FR-18
LOCATION.--Lat 39°49'56", long 83°00'27", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 74.75 ft, 6 in. casing.
INSTRUMENTATION - Continuous recorder.
DATUM.--Elevation of land-sur[Bface datum is 695 feet above National Geodetic Vertical Datum of 1929. Measuring point: Floor of shelter, 4.05 ft above land-surface datum.
PERIOD OF RECORD.--June 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.22 ft below land-surface datum, June 25, 1990; lowest measured, 27.37 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL MS		WATER LEVEL MS		WATER LEVEL MS		WATER LEVEL MS
DEC 10	19.85 B	MAR 18	17.27 R	JUN 21	21.96 B	SEP 12	27.37 B

395314083021900. Local number, FR-202
LOCATION.--Lat 39°53'14", long 83°02'19", Hydrologic Unit 05060001.
Owner.--Mr. Daniel Himes
AQUIFER.--Devonian limestone
WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4 in., depth 220 ft., cased to 175 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 752 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.17 ft above land-surface datum.
PERIOD OF RECORD.--June 1979 to present.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.17 ft below land-surface datum, June 25, 1979; lowest measured, 96.50 ft below land-surface datum, July 19, 1984.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	90.82	MAR 18	88.79	JUN 21	89.19	SEP 12	90.20

395206083014501. Local number, FR-209
LOCATION.--Lat 39°2'06", long 83°01'45", Hydrologic Unit 05060001.
Owner.--Mr. Martin Davis
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled domestic water well, diameter 4 in.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 704 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.72 ft above land-surface datum
PERIOD OF RECORD.--June 1979 to present
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.51 ft below land-surface datum, May 23, 1984; lowest measured, 16.13 ft below land-surface datum, Nov. 16, 1982

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	15.13	MAR 18	12.79	JUN 21	14.87

395315083020002. Local number, FR-213
LOCATION.--Lat 39°53'15", long 83°02'00", Hydrologic Unit 05060001.
Owner.--Tom Cannon Co.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled commercial 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 730 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.80 ft above land-surface datum
PERIOD OF RECORD.--June 1982 to present
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.38 ft below land-surface datum, June 08, 1982; lowest measured, 82.42 ft below land-surface datum, Sep, 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	81.38	MAR 18	80.31	JUN 21	81.27	SEP 12	82.42

395351083013700. Local number, FR-244
LOCATION.--Lat 39°53'35" long 83°01'37", Hydrologic Unit 05060001.
Owner.--Model Landfill
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 75 ft., cased to 51.4 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.63 ft above land-surface datum
PERIOD OF RECORD.--Aug. 1979 to present.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.89 ft below land-surface datum, Oct. 18. 1979; lowest measured, 70.03 ft below land-surface datum, Dec. 19, 1989.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	69.13	MAR 18	67.04	JUN 21	68.77	SEP 12	69.92

395331083013900. Local number, FR-246
LOCATION.--Lat 39°53'31", long 83°01'39", Hydrologic Unit 05060001.
Owner.--Model Landfill
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 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 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.63 ft above land-surface datum
PERIOD OF RECORD.--Oct. 1979 to present.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 104.40 ft below land-surface datum, Oct. 18, 1979; lowest measured, 123.95 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	122.90	MAR 18	117.73	JUN 21	122.12	SEP 12	123.95

395323083014000. Local number, FR-269
LOCATION.--Lat 39°53'23", long 83°01'40", Hydrologic Unit 05060001, at Ron's Trucking.
Owner.--Ron's Trucking.
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled commercial water well, depth 90 ft.; 75 ft of 6 in casing.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 705 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.5 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.04 ft below land-surface datum, Apr. 18, 1990; lowest measured, 71.79 ft below land-surface datum, Dec. 10, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	71.79	MAR 18	68.25	JUN 21	68.21	SEP 12	69.23

395055082592400. Local number, FR-271
LOCATION.--Lat 39°50'55", long 82°59'24", Hydrologic Unit 05060001, at Parsons Ave WTP
Owner.--Franklin County
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 91.8 ft.; 76 ft of 2 in casing.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.46 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.92 ft below land-surface datum, Mar. 18, 1991; lowest measured, 19.12 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	17.80	MAR 18	13.92	JUN 21	14.86	SEP 12	19.12

395055082592401. Local number FR-272.
LOCATION.--Lat 39°50'55", long 82°59'24", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 45.95; 2 in. PVC.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of PVC, 2.5, ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.53 ft below land-surface datum, Mar. 18, 1991; lowest measured, 19.78 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	18.30	MAR 18	14.53	JUN 21	15.39	SEP 12	19.78

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
MAR 25...	1000	7.2	12.5	0.5	<0.5	<1	<1	<1	0.3	150
SEP 09...	1050	7.1	14.5	0.3	<0.5	<1	<1	<1	0.4	140

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
MAR 25...	45	15	1.8	421	0	345	220	44	0.20	13
SEP 09...	43	15	1.7	436	0	357	200	30	0.20	13

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAR 25...	696	<0.05	0.03	0.30	<0.01	46	<0.5	<1	<3	<10
SEP 09...	647	<0.05	0.02	<0.20	<0.01	46	<0.5	<1	<3	<10

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
MAR 25...	3200	<10	10	65	<10	130	<6	7	1.5
SEP 09...	3100	<10	12	76	<10	130	<6	5	1.1

395224083000000. Local number, FR-273
LOCATION.--Lat 39°52'24", long 82°30'00", Hydrologic Unit 05060001, at County Water-Treatment Plant.
Owner.--Franklin County
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 91.5 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.15 ft above land-surface datum.
PERIOD OF RECORD.--May 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.5 ft below land-surface datum, June 27, 1990; lowest measured, 17.82 ft below land-surface datum, Sep. 09, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	15.98	MAR 18	14.43	JUN 20	15.51	SEP 09	17.82

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	ACIDITY (MG/L AS H) (71825)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)
SEP 09...	580	7.4	16.0	6.2	<0.5	<0.1	76	22	8.2	1.6	325	0

DATE	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)
SEP 09...	266	29	7.7	0.30	11	292	0.95	0.05	0.40	<0.01	120	<0.5

DATE	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
SEP 09...	3	<3	<10	83	<10	7	190	10	240	<6	28	2.6

395224083000001. Local number, FR-274
LOCATION.--Lat 39°52'24", long 83°00'00", Hydrologic Unit 05060001, at County Water-Treatment Plant.
Owner.--Franklin County
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 25 ft.; 4 in. casing.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of PVC casing, 2.44 ft above land-surface datum.
PERIOD OF RECORD.--May 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.63 ft below land-surface datum, Mar. 18, 1991; lowest measured, 15.05 ft below land-surface datum, Sep. 09, 1991.
REMARKS.--A "K" associated with bacteriological data indicates non-ideal colony counts.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	13.78	MAR 18	12.63	JUN 20	13.40	SEP 09	15.05

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HYDROGEN SULFIDE TOTAL (MG/L AS H2S) (71875)	COLIFORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML) (31504)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ACIDITY (MG/L AS H) (71825)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
MAR 20...	900	7.1	12.5	1.0	<0.5	K7	<1	<1	0.4	140
SEP 09...	939	7.1	15.0	0.4	<0.5	K2	<1	<1	0.5	110

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY, CARBONATE IT-FLD (MG/L - CAC03) (99430)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
MAR 20...	35	32	2.1	381	0	312	130	75	0.30	14
SEP 09...	33	41	1.8	433	0	355	100	58	0.30	14

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)
MAR 20...	636	<0.05	0.09	0.30	<0.01	48	<0.5	1	<3	<10
SEP 09...	552	0.08	0.10	0.40	<0.01	44	<0.5	<1	<3	<10

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
MAR 20...	2200	<10	12	58	<10	190	<6	26	1.5
SEP 09...	2300	<10	12	63	10	170	<6	9	1.5

394941083004400. Local number, FR-275.
LOCATION.--Lat 39°49'41", long 83°00'44", Hydrologic Unit 05060001, near Shadeville.
Owner.--Franklin County
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 35 ft.; 2 in. casing.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 680 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel protective casing, 5.00 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.48 ft below land-surface datum, Mar. 20, 1991; lowest measured, 13.12 ft below land-surface datum, Apr. 18, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL
DEC 11	7.10	MAR 20	5.48

395239083021400. Local number, FR-276
LOCATION.--Lat 39°52'39", long 83°02'14", Hydrologic Unit 05060001
Owner.-Stanley and Betty Wray.
AQUIFER.--Devonian limestone
WELL CHARACTERISTICS.--Drilled domestic water well, depth 155 ft.
INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 755 ft. above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.25 ft above land-surface datum.
PERIOD OF RECORD.--June 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.46 ft below land-surface datum, Mar. 18, 1991; lowest measured, 74.04 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	72.77	MAR 18	71.46	JUN 21	72.56	SEP 12	74.04

394930083013100. Local number, FR-277
LOCATION.--Lat 39°49'30", long 83°01'31", Hydrologic unit 05060001
Owner.--Mr. and Mrs. Steve Doersam
AQUIFER.--Sand and gravel of Quaternary Age
WELL CHARACTERISTICS.--Drilled domestic water well, depth 52 ft.
INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 713 ft. above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.-- Highest water level measured, 16.84 ft below land-surface datum, June 21, 1990; lowest measured, 21.09 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	17.17	MAR 18	17.70	JUN 21	18.52	SEP 12	21.09

395115083022600. Local number, FR-278
LOCATION.--Lat 39°51'15", long 83°02'26", Hydrologic Unit 05060001
Owner.--Mr. Mark Boster
AQUIFER.--Quaternary sand and gravel-primary; Devonian limestone-secondary
WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in, depth 114 ft, 10 ft screen.
INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 735 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, .95 ft above land-surface datum.
PERIOD OF RECORD.-- July 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.24 ft below land-surface datum, Mar. 18, 1991; lowest measured, 33.56 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL
MAR 18	29.24	JUN 21	31.67	SEP 12	33.56

394932083022700. Local number, FR-279
LOCATION.--Lat 39°49'32", long 83°02'27", Hydrologic unit 05060001
Owner.--Mr. Gerald Boggs
AQUIFER.--Devonian limestone
WELL CHARACTERISTICS.--Drilled domestic water well, diameter 5 in, depth 145 ft, cased to 102 ft.
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: Top of casing, 1.35 ft above land-surface datum.
PERIOD OF RECORD.-- Sept. 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.85 ft below land-surface datum, Mar. 18, 1991; lowest measured, 23.54 ft below land-surface datum, Sep. 12, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 10	10.67	MAR 18	7.85	JUN 21	15.62	SEP 12	23.54

395118082573300. Local number, FR-3.
LOCATION.--Lat 39°51'18", long 82°57'33", Hydrologic Unit 05060001.
Owner.-R. Hann.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 60 ft.; 12 in. casing.
INSTRUMENTATION - Continuous recorder operated by the Ohio Department of Natural Resources, Division of Water.
DATUM.--Elevation of land-surface datum is 713.0 feet above National Geodetic Vertical Datum of 1929. Measuring point: Floor of shelter, 3.43 ft. above land-surface datum
PERIOD OF RECORD.--Oct. 1965 to current year
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.33 ft below land-surface datum, Mar. 30, 1984 and Nov 29, 1985; lowest measured, 16.48 feet below land-surface datum, Dec. 20, 1989.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	12.42	MAR 18	10.50	JUN 21	12.77	SEP 12	13.21

395037082581900. Local number, FR-36
LOCATION.--Lat 39°50'37", long 82°58'19", Hydrologic Unit 05060001.
Owner.--J.P. Sand and Gravel
AQUIFER.--Sand and gravel of Quaternary Age.
WE[BLL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 31 ft.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 715 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.3 ft above land-surface datum
PERIOD OF RECORD.--Oct. 1974 to present year
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.03 ft below land-surface datum, Oct. 17, 1979; lowest measured, 19.22 ft below land-surface datum, Sep. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC[B 11	17.55	MAR 18	12.42	JUN 21	14.98	SEP 11	19.22

394927082595800. Local number, FR-70.
LOCATION.--Lat 39°49'27", long 82°59'58", Hydrologic Unit 05060001.
Owner.-St. Joseph Cemetary.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 59 ft.; 4 in. casing.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 705 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of concrete base, 0.4 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.24 ft below land-surface datum, Mar. 18, 1991; lowest measured, 22.40 ft below land-surface datum, Dec. 28, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	19.81	MAR 18	13.24	JUN 21	16.39	SEP 12	21.38

395217083002300. Local number FR-72.
LOCATION.--Lat 39°52'17", long 83°00'23", Hydrologic Unit 05060001.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 34.6 ft, 3 in. casing.
INSTRUMENTATION - Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 715 feet above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing inside pit, 3.5 ft below land-surface datum.
PERIOD OF RECORD.--May 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.01 ft below land-surface datum, June 27, 1990; lowest measured, 34.89 ft below land-surface datum, Sep. 17, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	29.83	MAR 19	30.68	JUN 21	31.35	SEP 17	34.89

395027082585600. Local number TH-83 M15
LOCATION.--Lat 39°50'27", long 82°58'56", Hydrologic Unit 05060001
Owner.--J.P. Sand and Gravel
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 64 feet deep.
INSTRUMENTATION.--Periodic measurement with steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 707 feet above national Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.68 ft above land-surface datum
PERIOD OF RECORD.--Oct. 1977 to present
EXTREMES FOR PERIOD OF RECORD.--highest water level measured, 11.71 ft below land-surface datum, June 17, 1981; lowest measured, 32.01 ft below land-surface datum, Sep. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
DEC 11	25.00	MAR 18	20.79	JUN 21	26.82	SEP 11	32.01

The following tables list the results of chemical analysis of ground-water samples collected from eight sites throughout Ohio, established to monitor the ground-water quality in areas near state highways where road deicing is practiced. Some wells, with station ID's ending in "00" were pumped and sampled by conventional means. The rest of the wells, with station ID's ending in "01" through "06" represent the multiports within the same well ending in "00". Level "01" is the deepest port and level "06" is the shallowest port. These ports were sampled using dialysis tubing filled with distilled water, set at each level and allowed to come to equilibrium in thirty days.

This project began in 1988 and will continue through 1997. Water-quality sampling will be done 1991-1996. This data is presented to the Ohio Department of Transportation for their use in reviewing salting practices and to accumulate base-line data.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 THROUGH SEPTEMBER 1991

PICKAWAY COUNTY SITE # 6 (SR 104)

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
393541083000801 PK-50 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 08W)						
JAN 1991						
16...	654	78	9.1	18	0.070	--
APR						
03...	647	79	6.5	14	0.040	--
25...	679	79	6.8	15	0.050	--
MAY						
20...	695	88	6.0	19	0.040	--
JUN						
17...	723	89	9.2	22	0.050	--
JUL						
17...	678	71	29	24	0.040	--
AUG						
12...	702	87	6.8	18	0.040	--
SEP						
16...	722	94	3.6	19	0.040	--
393541083000802 PK-50 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 08W)						
APR 1991						
03...	675	74	6.0	14	0.040	--
25...	708	84	6.9	16	0.050	--
MAY						
20...	717	91	8.5	24	0.040	--
JUN						
17...	443	84	7.9	23	0.040	--
JUL						
17...	692	75	12	24	0.040	--
AUG						
12...	539	84	13	15	0.030	--
SEP						
16...	667	85	8.3	20	0.040	--
393541083000803 PK-50 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 08W)						
MAY 1991						
20...	700	87	9.0	24	0.040	--
JUN						
17...	668	70	8.1	19	0.050	--
JUL						
17...	663	78	13	23	0.040	--
SEP						
16...	598	73	8.2	21	0.030	--
393541083000804 PK-50 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 08W)						
JUN 1991						
17...	642	79	11	19	0.050	--
JUL						
17...	700	87	16	24	0.040	<0.01
AUG						
12...	657	85	10	18	0.040	--
SEP						
16...	673	86	7.8	20	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
393541083000805 PK-50 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 08W)						
APR 1991						
25...	709	89	8.8	22	0.060	--
MAY						
20...	741	90	14	26	0.040	--
JUN						
17...	724	73	14	24	0.050	--
JUL						
17...	714	82	18	26	0.040	--
AUG						
12...	574	85	15	16	0.030	--
393541083000806 PK-50 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 08W)						
APR 1991						
25...	827	93	24	27	0.060	--
MAY						
20...	804	95	25	38	0.050	--
JUN						
17...	772	84	23	31	0.050	--
393541083000901 PK-49 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 09W)						
JAN 1991						
16...	449	--	--	12	0.030	--
APR						
25...	610	87	13	31	0.040	--
MAY						
20...	479	88	5.3	17	0.040	--
JUN						
17...	605	83	7.8	20	0.040	--
JUL						
17...	570	75	7.2	24	0.040	--
AUG						
12...	553	73	5.6	17	0.030	--
393541083000902 PK-49 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 09W)						
JAN 1991						
16...	408	87	2.7	12	0.040	--
APR						
25...	597	84	14	29	0.040	--
MAY						
20...	498	83	4.4	20	0.050	--
JUN						
17...	621	88	7.0	20	0.040	--
JUL						
17...	544	84	6.4	22	0.060	--
AUG						
12...	--	71	5.5	16	0.020	--
393541083000903 PK-49 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 09W)						
JAN 1991						
16...	448	--	--	13	0.040	--
APR						
25...	614	87	12	29	0.040	--
MAY						
20...	501	83	4.1	20	0.040	--
JUN						
17...	477	83	7.8	22	0.040	--
JUL						
17...	535	85	7.3	22	0.060	--
AUG						
12...	545	81	5.8	17	0.030	--
393541083000904 PK-49 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 09W)						
APR 1991						
25...	553	79	6.5	21	0.050	--
MAY						
20...	493	85	4.1	20	0.050	--
JUN						
17...	554	81	7.0	19	0.040	--
JUL						
17...	566	73	7.3	24	0.030	--
AUG						
12...	--	--	--	16	0.030	--
SEP						
16...	364	76	4.4	20	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE, DIS-SOLVED (MG/L AS BR)	CYANIDE, DIS-SOLVED (MG/L AS CN)
393541083000905 PK-49 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 09W)						
APR 1991						
25...	571	82	11	28	0.040	--
MAY						
20...	495	80	3.8	18	0.040	--
JUN						
17...	556	69	5.7	18	0.040	--
JUL						
17...	536	--	--	19	0.030	--
AUG						
12...	--	81	4.6	16	0.030	--
SEP						
16...	512	72	5.4	16	0.030	--
393541083000906 PK-49 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 09W)						
APR						
25...	536	84	6.5	20	0.040	--
MAY						
20...	515	88	9.6	28	0.030	--
JUN						
17...	495	78	3.9	18	0.030	--
JUL						
17...	532	63	6.9	21	0.030	--
AUG						
12...	504	76	9.5	20	0.030	--
SEP						
16...	513	--	--	22	0.030	--
393541083001000 PK-47 NR CIRCLEVILLE OH (LAT 39 35 41N LONG 083 00 10W)						
APR 1991						
03...	740	100	4.5	16	0.040	--
393541083001001 PK-47 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 10W)						
JAN 1991						
16...	329	170	3.8	11	<0.010	--
APR						
25...	460	62	7.8	18	0.020	--
MAY						
20...	485	84	3.3	19	0.030	--
JUN						
17...	498	84	5.5	22	0.020	--
JUL						
17...	528	73	5.3	18	0.020	--
AUG						
12...	512	85	3.8	13	0.030	--
SEP						
16...	337	82	4.4	17	0.020	--
393541083001002 PK-47 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 10W)						
APR 1991						
25...	529	83	3.5	18	0.040	--
MAY						
20...	516	82	3.4	16	0.030	--
JUN						
17...	578	85	5.3	21	0.030	--
JUL						
17...	531	76	4.3	17	0.020	--
AUG						
12...	481	86	3.9	12	0.020	--
SEP						
16...	502	89	4.2	12	0.020	--
393541083001003 PK-47 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 10W)						
JAN 1991						
16...	437	120	3.6	15	0.040	--
APR						
25...	516	86	3.4	20	0.030	--
MAY						
20...	505	89	3.3	16	0.030	--
JUN						
17...	530	84	5.1	21	0.030	--
JUL						
17...	521	81	4.2	17	0.020	--
AUG						
12...	463	81	3.4	13	0.020	--
SEP						
16...	528	77	4.2	17	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
393541083001004 PK-47 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 10W)						
JAN 1991 16...	483	130	2.8	14	0.030	--
APR 25...	456	81	3.5	20	0.030	--
MAY 20...	500	--	--	14	--	--
JUN 17...	509	73	5.2	20	0.030	--
JUL 17...	513	85	4.4	17	0.070	--
AUG 12...	512	74	3.4	13	0.020	--
SEP 16...	343	79	4.2	18	0.020	--
393541083001005 PK-47 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 10W)						
JAN 1991 16...	439	91	3.4	13	0.040	--
APR 25...	500	79	3.5	19	0.040	--
MAY 20...	479	90	3.8	17	0.030	--
JUN 17...	571	75	4.2	17	0.030	--
JUL 17...	553	75	4.5	16	0.040	--
AUG 12...	501	80	4.0	12	0.030	--
SEP 16...	338	85	4.1	17	0.020	--
393541083001006 PK-47 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 10W)						
JAN 1991 16...	492	86	8.9	16	0.050	--
FEB 21...	572	--	--	--	--	--
APR 25...	538	86	3.7	20	0.030	--
MAY 20...	502	79	2.9	20	0.020	--
JUN 17...	582	81	4.6	21	0.030	--
JUL 17...	511	67	3.6	17	0.020	--
AUG 12...	--	--	--	14	0.040	--
SEP 16...	346	68	9.7	16	0.020	--
393541083001201 PK-53 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 12W)						
JAN 1991 16...	537	110	5.2	12	0.030	--
FEB 21...	651	100	3.9	12	0.030	--
APR 25...	474	79	2.1	14	0.020	--
MAY 20...	510	92	2.6	17	0.030	--
JUN 17...	--	77	1.8	14	0.020	--
JUL 17...	--	77	2.7	15	0.020	--
AUG 12...	549	100	5.0	10	0.040	--
SEP 16...	387	90	5.1	19	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
393541083001202 PK-53 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 12W)						
JAN 1991 16...	546	120	3.5	14	0.030	--
FEB 21...	573	89	2.0	18	0.050	--
APR 25...	473	83	2.1	16	0.030	--
MAY 20...	476	90	2.0	16	0.020	--
JUN 17...	550	84	1.9	15	0.030	--
JUL 17...	468	78	2.1	14	0.020	--
AUG 12...	555	92	3.1	15	0.030	--
SEP 16...	589	97	4.2	20	0.030	--
393541083001203 PK-53 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 12W)						
JAN 1991 16...	455	120	1.9	27	0.040	--
FEB 21...	572	90	2.3	17	0.050	--
APR 25...	477	84	2.1	13	0.020	--
MAY 20...	492	89	1.9	16	0.030	--
JUN 17...	522	85	1.8	16	0.020	--
JUL 17...	--	78	2.6	14	0.020	--
AUG 12...	472	86	2.9	--	0.020	--
SEP 16...	540	83	2.6	17	0.030	--
393541083001204 PK-53 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 12W)						
JAN 1991 16...	559	100	1.9	25	0.050	--
FEB 21...	549	87	2.2	16	0.050	--
APR 25...	504	82	2.1	15	0.030	--
MAY 20...	459	90	1.9	16	0.020	--
JUN 17...	542	87	1.9	16	0.030	--
JUL 17...	551	75	2.0	14	0.020	--
AUG 12...	--	74	2.3	11	0.020	--
SEP 16...	507	80	2.6	17	0.020	--
393541083001205 PK-53 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 12W)						
JAN 1991 16...	523	99	1.8	26	0.040	--
FEB 21...	545	89	2.1	15	0.060	--
APR 25...	513	80	2.2	6.6	0.030	--
MAY 20...	390	91	1.9	17	0.030	--
JUN 17...	527	87	1.9	15	0.030	--
JUL 17...	546	79	2.0	15	0.020	--
AUG 12...	492	86	2.5	9.0	0.020	--
SEP 16...	349	76	2.1	1.1	0.070	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
393541083001206 PK-53 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 12W)						
JAN 1991						
16...	525	96	1.8	25	0.040	--
FEB						
21...	545	86	2.1	15	0.050	--
APR						
25...	503	81	2.1	10	0.020	--
MAY						
20...	483	84	2.0	17	0.020	--
JUN						
17...	543	90	2.2	14	0.030	--
JUL						
17...	557	91	2.2	14	0.020	--
AUG						
12...	523	80	2.7	8.5	0.020	--
SEP						
16...	505	--	--	10	0.020	--
393542083000501 PK-52 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 42N LONG 083 00 05W)						
SEP 1991						
16...	594	94	5.4	20	0.040	--
393542083000502 PK-52 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 42N LONG 083 00 05W)						
SEP 1991						
16...	467	88	4.9	20	0.030	--
393542083000503 PK-52 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 42N LONG 083 00 05W)						
SEP 1991						
16...	304	88	4.1	20	0.040	--
393542083000504 PK-52 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 42N LONG 083 00 05W)						
SEP 1991						
16...	562	95	5.4	19	0.040	--
393542083000505 PK-52 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 42N LONG 083 00 05W)						
SEP 1991						
16...	536	84	5.4	21	0.030	--
393542083000506 PK-52 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 42N LONG 083 00 05W)						
JAN 1991						
16...	557	--	--	17	0.010	--
APR						
25...	643	97	16	39	0.040	--
MAY						
20...	607	100	16	35	0.040	--
JUN						
17...	643	85	14	28	0.040	--
JUL						
17...	631	88	15	22	0.040	--
AUG						
12...	--	81	15	22	0.040	--
SEP						
16...	571	87	6.1	20	0.040	--
393542083000701 PK-51 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 42N LONG 083 00 07W)						
SEP 1991						
16...	352	83	11	20	0.040	--
393542083000702 PK-51 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 42N LONG 083 00 07W)						
SEP 1991						
16...	509	84	11	21	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
393542083000703 PK-51 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 42N LONG 083 00 07W)						
APR 25...	493	82	3.3	19	0.040	--
MAY 20...	496	87	2.7	17	0.040	--
JUN 17...	568	81	3.0	16	0.050	--
JUL 17...	528	88	3.5	18	0.060	--
AUG 12...	537	83	7.1	18	0.040	--
SEP 16...	535	80	10	21	0.040	--
393542083000704 PK-51 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 42N LONG 083 00 07W)						
JAN 1991 16...	453	110	3.7	16	0.050	--
APR 25...	516	82	3.1	18	0.040	--
MAY 20...	508	91	2.5	14	0.050	--
JUN 17...	573	84	2.6	16	0.050	--
JUL 17...	606	80	3.4	19	0.040	--
AUG 12...	--	78	5.3	15	0.040	--
SEP 16...	549	79	11	21	0.040	--
393542083000705 PK-51 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 42N LONG 083 00 07W)						
JAN 1991 16...	413	--	--	18	0.050	--
APR 25...	486	79	5.2	20	0.030	--
MAY 20...	464	78	3.4	18	0.030	--
JUN 17...	502	74	3.2	16	0.050	--
JUL 17...	555	79	5.6	20	0.040	--
AUG 12...	--	--	--	12	0.030	--
SEP 16...	559	--	--	21	0.040	--
393542083000706 PK-51 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 42N LONG 083 00 07W)						
JAN 1991 16...	404	--	--	18	0.13	--
APR 25...	517	86	5.4	21	0.030	--
MAY 20...	420	80	3.7	17	0.030	--
JUN 17...	579	67	3.3	15	0.030	--
JUL 17...	588	75	5.9	21	0.040	--
AUG 12...	--	83	7.0	17	0.030	--
SEP 16...	388	82	11	22	0.040	--

GROUND-WATER QUALITY DATA--Continued

CLARK COUNTY SITE # 8 (SR 4)

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
395859083440201 CL-141 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 02W)						
JAN 1991 15...	555	150	7.7	15	0.020	--
FEB 25...	754	120	8.7	19	0.020	--
MAR 19...	728	120	7.8	18	0.030	--
APR 26...	667	--	--	22	0.030	--
MAY 21...	699	110	13	25	0.030	--
JUN 20...	--	100	9.1	16	0.030	--
JUL 15...	--	110	7.5	14	0.030	--
AUG 14...	742	130	6.3	12	0.050	--
SEP 12...	686	110	5.6	13	0.030	--
395859083440202 CL-141 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 02W)						
FEB 1991 25...	848	130	10	14	0.020	--
MAR 19...	764	110	7.9	17	0.020	--
APR 26...	736	100	8.1	23	0.030	--
MAY 21...	710	120	10	20	0.030	--
JUN 20...	--	110	8.3	12	0.030	--
JUL 15...	692	120	6.5	14	0.020	--
AUG 14...	736	--	--	14	0.030	--
SEP 12...	661	120	6.3	14	0.030	--
395859083440203 CL-141 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 02W)						
FEB 1991 25...	876	--	--	--	--	--
MAR 19...	872	110	8.6	19	0.030	--
APR 26...	712	120	9.2	26	0.030	--
MAY 21...	545	120	13	32	0.030	--
JUN 20...	704	100	8.7	22	0.030	--
JUL 15...	--	110	8.4	16	0.030	--
AUG 14...	758	130	6.6	15	0.040	--
SEP 12...	716	110	7.1	16	0.030	--
395859083440204 CL-141 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 02W)						
FEB 1991 25...	736	120	14	26	0.030	--
MAR 19...	797	110	9.5	19	0.030	--
APR 26...	743	110	9.8	25	0.030	--
MAY 21...	746	120	15	37	0.030	--
JUN 20...	820	110	15	35	0.030	--
JUL 15...	658	110	16	26	0.030	--
AUG 14...	782	130	8.7	19	0.050	--
SEP 12...	651	120	9.6	20	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
395859083440205 CL-141 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 02W)						
JAN 1991 15...	580	--	--	18	0.030	--
FEB 25...	652	--	--	--	--	--
MAR 19...	638	110	14	21	0.020	--
APR 26...	--	120	11	23	0.020	--
MAY 21...	625	130	12	32	0.030	--
JUN 20...	885	120	23	24	0.050	--
JUL 15...	717	110	29	41	0.030	--
AUG 14...	792	130	19	34	0.050	--
SEP 12...	780	100	14	29	0.030	--
395859083440301 CL-143 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 03W)						
JAN 1991 15...	695	--	--	30	0.030	--
FEB 25...	739	130	14	26	0.030	--
MAR 20...	766	120	12	27	0.030	--
APR 26...	730	120	13	27	0.030	--
MAY 21...	704	120	13	24	0.020	--
JUN 20...	831	120	14	12	0.030	--
JUL 15...	749	120	14	27	0.030	--
AUG 14...	709	140	14	25	0.040	--
SEP 12...	761	120	12	25	0.040	--
395859083440302 CL-143 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 03W)						
JAN 1991 15...	599	96	9.9	16	0.030	--
FEB 25...	621	110	10	17	0.020	--
MAR 20...	727	120	9.6	19	0.020	--
APR 26...	620	91	8.9	18	0.020	--
MAY 21...	--	140	14	--	0.030	--
JUN 20...	696	99	8.7	16	0.030	--
JUL 15...	715	130	12	24	0.030	--
AUG 14...	575	120	12	22	0.040	--
SEP 12...	717	120	12	23	0.040	--
395859083440303 CL-143 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 03W)						
JAN 1991 15...	583	95	9.3	15	0.020	--
FEB 25...	603	--	--	13	0.020	--
MAR 20...	643	98	8.3	16	0.020	--
APR 26...	606	100	7.9	17	0.020	--
JUN 20...	731	88	7.9	14	0.030	--
JUL 15...	630	100	9.0	16	0.030	--
AUG 14...	633	110	9.3	17	0.030	--
SEP 12...	615	110	8.8	16	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
395859083440304 CL-143 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 03W)						
JAN 1991 15...	501	100	6.4	10	0.020	--
FEB 25...	579	--	--	--	--	--
MAR 20...	574	89	4.6	5.7	0.010	--
APR 26...	532	75	4.1	8.0	<0.010	--
MAY 21...	481	100	5.7	8.3	0.020	--
JUN 20...	631	78	4.7	7.5	0.010	--
JUL 15...	--	100	4.8	8.8	0.020	--
AUG 14...	584	94	4.6	9.5	0.030	--
SEP 12...	577	80	4.3	8.3	0.020	--
395859083440305 CL-143 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 03W)						
JAN 1991 15...	580	87	5.4	11	0.040	--
FEB 25...	572	--	--	5.4	0.020	--
MAR 20...	603	69	3.3	4.2	0.010	--
APR 26...	427	72	3.0	4.2	<0.010	--
MAY 21...	356	90	3.2	--	<0.010	--
JUN 20...	463	81	3.3	4.5	<0.010	--
JUL 15...	558	93	3.4	7.4	0.020	--
AUG 14...	--	93	3.6	7.1	0.040	--
SEP 12...	506	93	3.4	6.5	0.010	--
395859083440401 CL-142 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 04W)						
JAN 1991 15...	683	100	14	18	0.020	--
FEB 25...	749	120	12	27	0.030	--
MAR 20...	861	110	15	27	0.020	--
APR 26...	663	120	19	29	0.030	--
MAY 21...	593	--	--	--	--	--
JUN 20...	786	97	18	35	0.030	--
JUL 15...	727	97	19	39	0.030	--
AUG 14...	--	120	13	25	0.050	--
SEP 12...	737	120	15	26	0.040	--
395859083440402 CL-142 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 04W)						
JAN 1991 15...	682	100	14	18	0.030	--
FEB 25...	731	110	14	27	0.020	--
MAR 20...	849	110	15	30	0.030	--
APR 26...	641	95	21	28	0.030	--
MAY 21...	665	--	--	--	--	--
JUN 20...	880	110	20	23	0.040	--
JUL 15...	793	110	23	47	0.030	--
AUG 14...	804	120	19	35	0.050	--
SEP 12...	568	140	17	33	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
395859083440403 CL-142 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 04W)						
JAN 1991						
15...	709	110	17	19	0.030	--
FEB						
25...	688	110	15	31	0.030	--
MAR						
20...	848	110	17	31	0.020	--
APR						
26...	725	110	20	25	0.030	--
MAY						
21...	568	110	18	32	0.020	--
JUN						
20...	754	97	20	13	0.030	--
JUL						
15...	842	120	22	54	0.040	--
AUG						
14...	853	120	24	48	0.060	--
SEP						
12...	768	--	--	46	0.050	--
395859083440404 CL-142 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 04W)						
JAN 1991						
15...	695	110	19	27	0.040	--
FEB						
25...	685	110	15	22	0.030	--
MAR						
20...	799	110	15	26	0.020	--
APR						
26...	646	100	18	22	0.020	--
MAY						
21...	457	100	12	16	0.020	--
JUN						
20...	690	96	13	17	0.020	--
JUL						
15...	583	96	11	13	0.020	--
AUG						
14...	683	94	11	20	0.040	--
SEP						
12...	627	120	11	33	0.030	--
395859083440501 CL-140 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 05W)						
AUG 1991						
14...	878	120	5.3	12	0.060	--
SEP						
12...	866	130	5.1	13	0.040	--
395859083440502 CL-140 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 05W)						
MAR 1991						
19...	816	110	5.6	15	0.030	--
JUN						
20...	873	110	7.4	13	0.030	--
JUL						
15...	671	110	5.6	9.6	0.040	--
AUG						
14...	861	120	5.3	12	0.050	--
SEP						
12...	858	120	5.1	13	0.040	--
395859083440503 CL-140 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 05W)						
MAR 1991						
19...	532	120	8.0	18	0.040	--
JUN						
20...	861	110	11	15	0.020	--
JUL						
15...	758	110	6.9	15	0.030	--
AUG						
14...	880	110	6.0	15	0.050	--
SEP						
12...	870	120	6.2	16	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
395859083440504 CL-140 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 05W)						
MAR 1991						
19...	759	110	16	19	0.030	--
JUN						
20...	933	110	13	39	0.040	--
JUL						
15...	955	110	23	46	0.040	<0.01
AUG						
14...	912	120	26	36	0.050	--
SEP						
12...	900	120	17	30	0.050	--
395859083440505 CL-140 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 05W)						
JUL 1991						
15...	773	120	18	50	0.040	--
AUG						
14...	924	120	22	35	0.060	--
SEP						
12...	907	120	18	30	0.040	--
395859083440600 CL-137 NR SPRINGFIELD OH (LAT 39 58 59N LONG 083 44 06W)						
MAR 1991						
19...	868	120	8.4	15	0.030	--
395859083440601 CL-137 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 06W)						
JAN 1991						
15...	636	120	6.1	12	0.020	--
FEB						
25...	748	120	6.5	16	0.030	--
MAR						
19...	828	110	6.2	14	0.020	--
APR						
26...	772	120	7.1	14	0.020	--
MAY						
21...	769	130	6.4	14	0.020	--
JUN						
20...	807	120	7.7	15	0.030	--
JUL						
15...	733	120	7.1	13	0.030	--
AUG						
14...	--	120	7.2	12	0.040	--
SEP						
12...	625	--	--	12	0.040	--
395859083440602 CL-137 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 06W)						
JAN 1991						
15...	535	140	4.6	6.2	0.020	--
FEB						
25...	716	140	9.5	18	0.020	--
MAR						
19...	776	110	6.8	15	0.020	--
APR						
26...	712	130	13	24	0.030	--
MAY						
21...	683	110	16	26	0.020	--
JUN						
20...	750	120	12	19	0.020	--
JUL						
15...	--	110	8.6	13	0.020	--
AUG						
14...	--	110	9.1	14	0.040	--
SEP						
12...	--	120	8.0	16	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
395859083440603 CL-137 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 06W)						
JAN 1991 15...	755	110	21	43	0.040	--
FEB 25...	703	120	8.8	14	0.030	--
MAR 19...	779	120	9.1	16	0.020	--
APR 26...	628	120	11	24	0.020	--
MAY 21...	605	110	17	23	0.020	--
JUN 20...	749	120	9.7	16	0.030	--
JUL 15...	426	120	7.9	14	0.020	--
AUG 14...	--	120	7.8	14	0.040	--
SEP 12...	723	110	7.9	15	0.030	--
395859083440604 CL-137 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 06W)						
JAN 1991 15...	680	120	12	27	0.030	--
FEB 25...	690	110	15	20	0.020	--
MAR 19...	663	110	10	17	0.010	--
APR 26...	688	98	15	24	0.030	--
MAY 21...	545	110	18	26	0.020	--
JUN 20...	714	98	15	18	0.030	--
JUL 15...	670	120	9.7	16	0.020	--
AUG 14...	--	130	8.8	14	0.040	--
SEP 12...	720	110	8.4	15	0.030	--
395859083440605 CL-137 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 06W)						
APR 1991 26...	610	100	12	12	0.010	--
MAY 21...	551	110	11	13	0.010	--
JUN 20...	752	98	21	21	0.030	--
JUL 15...	721	110	21	23	0.020	--
AUG 14...	646	110	19	18	0.050	--
SEP 12...	671	100	17	18	0.040	--
395901083440701 CL-136 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 59 01N LONG 083 44 07W)						
JAN 1991 15...	516	89	4.5	3.7	0.020	--
FEB 25...	539	81	4.0	6.1	<0.010	--
MAR 20...	601	68	4.0	7.9	0.010	--
APR 26...	509	70	4.3	6.7	0.040	--
MAY 21...	606	92	6.4	14	0.040	--
JUN 20...	762	110	4.7	20	0.030	--
JUL 15...	645	120	4.3	9.5	0.020	--
AUG 14...	670	130	5.1	9.2	0.040	--
SEP 12...	688	130	5.2	11	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPE-CIFIC CON-DUCT-ANCE, LAB (US/CM)	CALCIUM, DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE, DIS-SOLVED (MG/L AS BR)	CYANIDE, DIS-SOLVED (MG/L AS CN)
395901083440702 CL-136 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 59 01N LONG 083 44 07W)						
JAN 1991 15...	593	130	4.9	2.3	0.020	--
FEB 25...	635	95	5.0	7.4	0.020	--
MAR 20...	582	94	4.6	7.0	0.020	--
APR 26...	578	76	4.4	7.3	0.030	--
MAY 21...	529	110	7.1	13	0.050	--
JUN 20...	750	96	4.	45	0.030	--
JUL 15...	692	130	4.5	9.2	0.030	--
AUG 14...	719	130	5.1	9.5	0.040	--
SEP 12...	670	130	5.8	9.9	0.030	--
395901083440703 CL-136 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 59 01N LONG 083 44 07W)						
JAN 1991 15...	529	91	4.0	8.5	0.020	--
FEB 25...	632	120	8.4	12	0.040	--
MAR 20...	642	96	6.3	12	0.040	--
APR 26...	669	95	4.5	9.1	0.020	--
MAY 21...	639	110	6.9	12	0.040	--
JUN 20...	--	120	5.2	17	0.020	--
JUL 15...	699	99	4.5	8.3	0.020	--
AUG 14...	772	--	--	10	0.030	--
SEP 12...	730	110	5.3	10	0.030	--
395901083440704 CL-136 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 59 01N LONG 083 44 07W)						
JAN 1991 15...	575	110	7.1	11	0.030	--
FEB 25...	621	110	8.3	12	0.040	--
MAR 20...	724	--	--	--	--	--
APR 26...	675	100	4.5	8.0	0.020	--
395901083440705 CL-136 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 59 01N LONG 083 44 07W)						
JAN 1991 15...	605	--	--	12	0.040	--
CHAMPAIGN COUNTY SITE # 7 (SR 29)						
400947083480001 CH-44 NR URBANA OH-LEVEL 1 (LAT 40 09 47N LONG 083 48 00W)						
MAR 1991 21...	717	--	--	--	--	--
APR 22...	755	--	--	--	--	--
JUN 18...	716	98	16	31	0.030	--
JUL 18...	879	99	15	48	0.030	<0.01
AUG 13...	844	110	20	51	0.030	--
SEP 17...	969	--	20	72	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400947083480002 CH-44 NR URBANA OH-LEVEL 2 (LAT 40 09 47N LONG 083 48 00W)						
MAR 1991						
21...	828	--	--	--	--	--
APR						
22...	825	--	--	--	--	--
MAY						
22...	865	110	37	54	0.040	--
JUN						
18...	922	100	31	46	0.030	--
JUL						
18...	881	100	25	50	0.030	--
AUG						
13...	862	78	14	49	0.030	--
SEP						
17...	973	--	20	65	0.050	--
400947083480003 CH-44 NR URBANA OH-LEVEL 3 (LAT 40 09 47N LONG 083 48 00W)						
JAN 1991						
14...	892	83	18	52	0.15	--
MAR						
21...	886	85	25	43	0.070	--
APR						
22...	898	91	29	58	0.070	--
MAY						
22...	912	82	31	54	0.060	--
JUN						
18...	936	110	30	53	0.040	--
JUL						
18...	774	95	25	46	0.030	--
AUG						
13...	835	110	28	49	0.030	--
SEP						
17...	472	--	23	42	0.020	--
400947083480004 CH-44 NR URBANA OH-LEVEL 4 (LAT 40 09 47N LONG 083 48 00W)						
APR 1991						
22...	845	91	31	62	0.090	--
MAY						
22...	897	90	30	59	0.080	--
JUN						
18...	932	96	44	55	0.050	--
JUL						
18...	928	90	47	54	0.050	--
AUG						
13...	812	100	34	52	0.040	--
SEP						
17...	924	--	33	53	0.050	--
400948083475800 CH-46 NR URBANA OH (LAT 40 09 48N LONG 083 47 58W)						
OCT 1990						
04...	996	120	23	63	0.040	--
400948083475801 CH-46 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 47 58W)						
JAN 1991						
14...	775	150	22	42	0.030	--
FEB						
26...	809	120	27	45	0.030	--
MAR						
21...	753	98	28	43	0.030	--
APR						
22...	730	97	30	49	0.030	--
MAY						
22...	750	110	31	49	0.040	--
JUN						
18...	919	110	25	50	0.040	--
JUL						
18...	910	120	30	70	0.040	--
AUG						
13...	917	110	38	83	0.040	--
SEP						
17...	602	--	26	54	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400948083475802 CH-46 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 47 58W)						
JAN 1991 14...	695	110	22	39	0.030	--
FEB 26...	813	110	28	45	0.030	--
MAR 21...	792	110	28	42	0.030	--
APR 22...	699	96	30	48	0.030	--
MAY 22...	728	110	30	48	0.040	--
JUN 18...	922	110	26	51	0.030	--
JUL 18...	856	110	27	63	0.030	--
AUG 13...	941	130	36	77	0.040	--
SEP 17...	839	--	--	53	--	--
400948083475803 CH-46 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 47 58W)						
JAN 1991 14...	764	110	22	39	0.030	--
FEB 26...	817	110	27	45	0.030	--
MAR 21...	857	110	27	45	0.030	--
APR 22...	727	98	30	49	0.040	--
MAY 22...	805	110	30	48	0.040	--
JUN 18...	922	110	26	50	0.030	--
JUL 18...	806	120	25	57	0.030	--
AUG 13...	888	130	33	72	0.030	--
SEP 17...	856	--	25	52	0.030	--
400948083475804 CH-46 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 47 58W)						
JAN 1991 14...	1210	110	20	40	0.030	--
FEB 26...	798	110	27	45	0.030	--
MAR 21...	781	110	27	42	0.030	--
APR 22...	750	100	29	49	0.030	--
MAY 22...	747	110	28	50	0.030	--
JUN 18...	916	110	28	46	0.020	--
JUL 18...	829	100	21	48	0.030	--
AUG 13...	861	130	28	63	0.030	--
SEP 17...	786	--	29	54	0.040	--
400948083475805 CH-46 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 47 58W)						
JAN 1991 14...	713	100	32	35	0.030	--
FEB 26...	793	110	24	43	0.030	--
MAR 21...	794	110	26	42	0.030	--
APR 22...	716	110	27	46	0.030	--
MAY 22...	778	97	26	49	0.030	--
JUN 18...	869	98	27	42	0.020	--
JUL 18...	700	100	23	41	0.020	--
AUG 13...	--	130	21	37	0.020	--
SEP 17...	878	--	32	62	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400948083475806 CH-46 NR URBANA OH-LEVEL 6 (LAT 40 09 48N LONG 083 47 58W)						
JAN 1991						
14...	676	83	22	35	0.030	--
FEB						
26...	741	110	22	37	0.020	--
MAR						
21...	727	96	21	37	0.020	--
APR						
22...	655	84	22	47	0.030	--
MAY						
22...	709	100	23	48	0.030	--
JUN						
18...	668	43	12	41	0.010	--
JUL						
18...	--	57	12	18	--	--
AUG						
13...	--	35	6.6	11	<0.010	--
400948083480000 CH-45 NR URBANA OH (LAT 40 09 48N LONG 083 48 00W)						
OCT 1990						
02...	935	120	20	51	0.040	--
400948083480001 CH-45 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 48 00W)						
JAN 1991						
14...	749	120	20	38	0.020	--
FEB						
26...	837	110	35	49	0.020	--
MAR						
21...	788	--	--	50	0.030	--
APR						
22...	821	100	38	55	0.020	--
400948083480002 CH-45 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 48 00W)						
JAN 1991						
14...	800	110	21	38	0.020	--
FEB						
26...	815	110	36	50	0.030	--
MAR						
21...	615	110	7.5	50	0.030	--
APR						
22...	821	110	39	53	0.010	--
MAY						
22...	693	110	44	55	0.030	--
JUN						
18...	867	110	20	35	0.030	--
JUL						
18...	762	120	12	36	0.030	--
AUG						
13...	752	110	12	36	0.020	--
SEP						
17...	754	--	16	38	0.040	--
400948083480003 CH-45 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 48 00W)						
JAN 1991						
14...	654	120	21	38	0.030	--
FEB						
26...	834	110	33	48	0.020	--
MAR						
21...	789	110	35	49	0.030	--
APR						
22...	847	110	38	56	0.020	--
MAY						
22...	--	110	39	53	0.020	--
JUN						
18...	883	100	26	37	0.030	--
JUL						
18...	780	120	14	42	0.030	--
AUG						
13...	717	130	13	39	0.030	--
SEP						
17...	555	--	17	46	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVEL (MG/L AS CN)
400948083480004 CH-45 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 48 00W)						
JAN 1991 14...	776	110	22	39	0.020	--
FEB 26...	868	110	36	49	0.030	--
MAR 21...	855	100	31	49	0.030	--
APR 22...	793	100	34	54	0.030	--
MAY 22...	785	110	36	55	0.030	--
JUN 18...	980	98	55	43	0.020	--
JUL 18...	816	94	19	38	0.030	--
AUG 13...	--	120	21	54	0.030	--
SEP 17...	934	--	39	71	0.040	--
400948083480005 CH-45 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 48 00W)						
JAN 1991 14...	734	120	11	23	0.020	--
FEB 26...	758	110	16	29	0.020	--
MAR 21...	624	120	15	31	0.020	--
APR 22...	768	110	24	39	0.020	--
MAY 22...	708	100	16	32	0.030	--
JUN 18...	888	130	15	35	<0.010	--
JUL 18...	792	110	18	37	0.030	--
AUG 13...	977	120	33	80	0.030	--
SEP 17...	931	--	38	65	0.040	--
400948083480006 CH-45 NR URBANA OH-LEVEL 6 (LAT 40 09 48N LONG 083 48 00W)						
JAN 1991 14...	785	110	16	37	0.020	--
FEB 26...	726	120	13	26	0.020	--
MAR 21...	524	100	12	20	<0.010	--
APR 22...	645	96	12	29	0.020	--
MAY 22...	528	71	14	29	0.020	--
400948083480100 CH-43 NR URBANA OH (LAT 40 09 48N LONG 083 48 01W)						
OCT 1990 01...	871	110	26	51	0.050	--
400948083480101 CH-43 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 48 01W)						
JAN 1991 14...	739	120	31	53	0.040	--
FEB 26...	882	110	41	58	0.030	--
MAR 21...	760	110	39	56	0.030	--
APR 22...	827	96	42	56	0.020	--
MAY 22...	786	110	39	54	0.030	--
JUN 18...	817	110	12	32	0.030	--
JUL 18...	779	110	15	47	0.020	--
AUG 13...	--	110	16	47	0.020	--
SEP 17...	882	--	19	73	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400948083480102 CH-43 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 48 01W)						
JAN 1991 14...	841	120	29	51	0.040	--
FEB 26...	927	110	38	58	0.030	--
MAR 21...	816	110	40	57	0.030	--
APR 22...	839	100	41	57	0.030	--
MAY 22...	794	110	35	52	0.030	--
JUN 18...	832	110	14	36	0.030	--
JUL 18...	771	100	22	49	0.020	--
AUG 13...	783	110	20	48	0.030	--
SEP 17...	678	--	20	72	0.030	--
400948083480103 CH-43 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 48 01W)						
JAN 1991 14...	831	120	29	51	0.040	--
FEB 26...	889	100	35	55	0.030	--
MAR 21...	858	110	41	59	0.030	--
APR 22...	867	100	43	61	0.050	--
MAY 22...	797	110	39	55	0.030	--
JUN 18...	929	100	36	56	0.020	--
JUL 18...	--	120	24	46	0.020	--
AUG 13...	--	100	23	44	0.030	--
SEP 17...	886	--	19	67	0.040	--
400948083480104 CH-43 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 48 01W)						
JAN 1991 14...	870	110	26	46	0.050--	
FEB 26...	881	110	29	46	0.030	--
MAR 21...	959	110	31	51	0.030	--
APR 22...	862	100	33	50	0.030	--
MAY 22...	670	100	41	56	0.030	--
JUN 18...	964	100	39	58	0.020	--
JUL 18...	868	100	65	47	0.030	--
AUG 13...	812	110	38	43	0.030	--
SEP 17...	788	--	25	44	0.020	--
400948083480105 CH-43 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 48 01W)						
JAN 1991 14...	840	120	15	37	0.040	--
FEB 26...	913	110	19	34	0.030	--
MAR 21...	821	120	14	36	0.030	--
APR 22...	793	100	19	38	0.030	--
MAY 22...	798	110	18	42	0.030	--
JUN 18...	951	110	35	54	0.030	--
JUL 18...	821	120	37	50	0.020	--
AUG 13...	--	110	37	41	0.030	--
SEP 17...	845	--	35	45	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400948083480106 CH-43 NR URBANA OH-LEVEL 6 (LAT 40 09 48N LONG 083 48 01W)						
JAN 1991						
14...	904	110	13	31	0.020	--
400948083480200 CH-41 NR URBANA OH (LAT 40 09 48N LONG 083 48 02W)						
MAR 1991						
21...	850	110	20	39	0.030	--
400948083480201 CH-41 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 48 02W)						
JAN 1991						
14...	697	110	11	30	0.030	--
FEB						
26...	721	110	8.8	27	0.020	--
MAR						
21...	670	110	8.8	30	0.030	--
APR						
22...	675	95	7.2	27	0.040	--
MAY						
22...	640	110	7.8	27	0.030	--
JUN						
18...	790	110	6.8	30	0.030	--
JUL						
18...	--	110	8.5	37	0.020	--
AUG						
13...	--	120	11	38	0.020	--
SEP						
17...	739	--	14	34	0.030	--
400948083480202 CH-41 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 48 02W)						
JAN 1991						
14...	686	110	10	29	0.020	--
FEB						
26...	719	100	7.2	28	0.030	--
MAR						
21...	637	110	8.1	28	0.030	--
APR						
22...	689	91	7.1	27	0.040	--
MAY						
22...	654	110	6.8	26	0.020	--
JUN						
18...	771	100	5.8	27	0.030	--
JUL						
18...	759	110	8.4	35	0.020	--
AUG						
13...	761	110	13	41	0.030	--
SEP						
17...	802	--	13	40	0.030	--
400948083480203 CH-41 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 48 02W)						
JAN 1991						
14...	638	100	11	30	0.020	--
FEB						
26...	701	110	7.8	29	0.030	--
MAR						
21...	707	96	8.0	28	0.040	--
APR						
22...	739	90	7.0	27	0.030	--
MAY						
22...	571	110	6.8	26	0.030	--
JUN						
18...	769	110	6.9	26	0.030	--
JUL						
18...	745	110	8.8	36	0.020	--
AUG						
13...	751	110	14	42	0.020	--
SEP						
17...	796	--	13	39	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400948083480204 CH-41 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 48 02W)						
JAN 1991						
14...	710	110	31	46	0.020	--
FEB						
26...	709	100	7.6	27	0.030	--
MAR						
21...	649	110	7.3	27	0.030	--
APR						
22...	651	92	7.3	27	0.020	--
MAY						
22...	651	110	8.2	26	0.020	--
JUN						
18...	--	100	8.2	28	0.030	--
JUL						
18...	756	100	12	38	0.030	--
AUG						
13...	--	--	--	52	0.040	--
SEP						
17...	807	--	15	42	0.040	--
400948083480205 CH-41 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 48 02W)						
JAN 1991						
14...	765	110	42	65	0.020	--
FEB						
26...	889	110	29	61	0.030	--
MAR						
21...	744	110	21	46	0.030	--
APR						
22...	739	91	21	45	0.030	--
MAY						
22...	725	110	27	50	0.030	--
JUN						
18...	851	110	18	45	0.030	--
JUL						
18...	826	96	36	46	0.030	--
AUG						
13...	1030	100	120	54	0.040	--
SEP						
17...	810	--	35	43	0.030	--
400948083480206 CH-41 NR URBANA OH-LEVEL 6 (LAT 40 09 48N LONG 083 48 02W)						
JAN 1991						
14...	771	110	40	59	0.030	--
FEB						
26...	896	110	34	63	0.030	--
MAR						
21...	809	110	29	56	0.030	--
APR						
22...	758	90	28	54	0.030	--
MAY						
22...	698	100	32	57	0.030	--
JUN						
18...	852	100	21	47	0.030	--
JUL						
18...	833	93	35	45	0.030	--
AUG						
13...	866	99	55	50	0.030	--
SEP						
17...	738	--	100	110	0.040	--
400952083480801 CH-40 NR URBANA OH-LEVEL 1 (LAT 40 09 52N LONG 083 48 08W)						
JAN 1991						
14...	661	100	6.4	28	0.030	--
FEB						
26...	709	120	6.8	26	0.020	--
MAR						
20...	618	96	6.2	27	0.030	--
APR						
22...	606	93	6.3	28	0.060	--
MAY						
22...	515	40	6.4	17	<0.010	--
JUN						
18...	696	110	6.5	27	0.030	--
JUL						
18...	735	120	7.0	28	0.030	--
AUG						
13...	--	--	--	27	0.030	--
SEP						
17...	718	--	7.3	27	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400952083480802 CH-40 NR URBANA OH-LEVEL 2 (LAT 40 09 52N LONG 083 48 08W)						
JAN 1991 14...	597	100	6.4	27	0.030	--
FEB 26...	694	110	6.4	28	0.030	--
MAR 20...	590	110	6.0	28	0.030	--
APR 22...	668	100	6.0	28	0.060	--
MAY 22...	665	99	6.2	27	0.030	--
JUN 18...	782	96	6.4	28	0.030	--
JUL 18...	--	110	7.0	27	0.020	--
AUG 13...	--	110	6.8	28	0.020	--
SEP 17...	638	--	7.3	28	0.030	--
400952083480803 CH-40 NR URBANA OH-LEVEL 3 (LAT 40 09 52N LONG 083 48 08W)						
JAN 1991 14...	673	100	6.4	27	0.030	--
FEB 26...	702	100	6.2	28	0.040	--
MAR 20...	693	100	6.3	27	0.030	--
APR 22...	645	100	6.2	28	0.030	--
MAY 22...	664	92	6.2	27	0.040	--
JUN 18...	787	98	6.4	29	0.030	--
JUL 18...	660	110	6.6	28	0.030	--
AUG 13...	--	130	7.3	29	0.020	--
SEP 17...	672	--	7.6	27	0.020	--
400952083480804 CH-40 NR URBANA OH-LEVEL 4 (LAT 40 09 52N LONG 083 48 08W)						
JAN 1991 14...	618	100	6.5	27	0.030	--
FEB 26...	709	110	6.3	28	0.030	--
MAR 20...	660	100	6.1	28	0.030	--
APR 22...	672	--	--	31	0.030	--
MAY 22...	646	110	6.4	28	0.030	--
JUN 18...	782	100	7.0	28	0.030	--
JUL 18...	732	120	7.1	29	0.030	--
AUG 13...	691	110	7.6	28	0.020	--
SEP 17...	722	--	7.5	27	0.040	--
400952083480805 CH-40 NR URBANA OH-LEVEL 5 (LAT 40 09 52N LONG 083 48 08W)						
JAN 1991 14...	597	91	12	15	0.010	--
FEB 26...	683	95	9.1	25	0.030	--
MAR 20...	547	--	--	16	0.010	--
APR 22...	595	69	8.8	14	0.010	--
MAY 22...	648	100	6.5	28	0.040	--
JUN 18...	768	110	6.4	29	0.030	--
JUL 18...	620	110	6.8	27	0.020	--
AUG 13...	717	110	7.0	29	0.020	--
SEP 17...	716	--	7.4	29	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
400952083480806 CH-40 NR URBANA OH-LEVEL 6 (LAT 40 09 52N LONG 083 48 08W)						
JAN 1991 14...	586	94	9.4	14	0.010	--
FEB 26...	570	83	13	11	<0.010	--
MAR 20...	597	78	9.8	11	<0.010	--
APR 22...	523	74	9.5	6.8	<0.010	--
MAY 22...	520	84	7.6	11	<0.010	--
JUN 18...	782	110	6.1	29	0.030	--
JUL 18...	702	120	7.4	28	0.030	--
AUG 13...	--	130	7.3	28	0.020	--
SEP 17...	715	--	7.6	26	0.040	--
ASHLAND COUNTY SITE # 3 (SR 3)						
403635082152101 AS-48 NR LOUDONVILLE OH-LEVEL 1 (LAT 40 36 35N LONG 082 15 21W)						
MAR 1991 11...	445	56	11	16	0.010	--
APR 15...	443	66	14	16	0.020	--
MAY 13...	346	69	16	21	0.030	--
JUL 08...	530	--	--	20	0.020	--
AUG 05...	519	--	--	19	0.030	--
SEP 03...	488	62	19	16	0.020	--
403635082152102 AS-48 NR LOUDONVILLE OH-LEVEL 2 (LAT 40 36 35N LONG 082 15 21W)						
MAR 1991 11...	482	66	15	16	0.020	--
APR 15...	463	71	14	18	0.020	--
MAY 13...	390	73	17	25	0.020	--
JUL 08...	552	62	18	22	0.050	--
AUG 05...	543	--	--	22	0.040	--
SEP 03...	388	68	20	20	0.030	--
403635082152103 AS-48 NR LOUDONVILLE OH-LEVEL 3 (LAT 40 36 35N LONG 082 15 21W)						
JAN 1991 09...	664	--	--	25	--	--
FEB 19...	590	78	15	16	0.020	--
MAR 11...	526	67	15	17	0.020	--
APR 15...	467	70	16	17	0.030	--
MAY 13...	430	76	18	27	0.030	--
JUL 08...	611	73	22	35	0.040	--
AUG 05...	370	69	22	28	0.040	--
SEP 03...	573	73	23	28	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403635082152104 AS-48 NR LOUDONVILLE OH-LEVEL 4 (LAT 40 36 35N LONG 082 15 21W)						
JAN 1991 09...	544	--	--	14	0.020	--
FEB 19...	595	81	15	17	0.020	--
MAR 11...	521	67	14	21	0.020	--
APR 15...	487	72	14	22	0.020	--
MAY 13...	421	76	19	33	0.030	--
JUL 08...	609	71	24	35	0.050	--
AUG 05...	--	71	24	34	0.040	--
SEP 03...	610	--	--	38	0.050	--
403635082152105 AS-48 NR LOUDONVILLE OH-LEVEL 5 (LAT 40 36 35N LONG 082 15 21W)						
JAN 1991 09...	538	--	--	11	0.020	--
FEB 19...	516	76	8.6	9.2	0.020	--
MAR 11...	536	79	9.5	24	0.030	--
APR 15...	511	87	18	44	0.040	--
MAY 13...	505	91	13	37	0.040	--
JUL 08...	676	77	28	47	0.040	--
AUG 05...	424	74	25	34	0.050	--
SEP 03...	568	67	24	32	0.040	--
403635082152106 AS-48 NR LOUDONVILLE OH-LEVEL 6 (LAT 40 36 35N LONG 082 15 21W)						
JAN 1991 09...	543	91	8.6	9.8	<0.010	--
FEB 19...	495	78	5.2	8.2	0.020	--
MAR 11...	496	75	9.5	17	0.030	--
APR 15...	499	87	12	31	0.030	--
MAY 13...	331	88	12	31	0.030	--
JUL 08...	478	68	23	44	0.070	--
403635082152201 AS-47 NR LOUDONVILLE OH-LEVEL 1 (LAT 40 36 35N LONG 082 15 22W)						
JAN 1991 09...	806	89	50	67	0.080	--
FEB 19...	759	81	46	69	0.050	--
MAR 11...	722	82	48	75	0.060	--
APR 15...	642	82	50	72	0.050	--
MAY 13...	702	91	55	83	0.060	--
JUL 08...	815	84	56	81	0.070	--
AUG 05...	543	87	52	75	0.050	--
SEP 03...	572	82	51	77	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403635082152202 AS-47 NR LOUDONVILLE OH-LEVEL 2 (LAT 40 36 35N LONG 082 15 22W)						
JAN 1991 09...	797	90	49	63	0.060	--
FEB 19...	807	91	48	77	0.070	--
MAR 11...	775	86	51	81	0.070	--
APR 15...	727	87	56	77	0.060	--
MAY 13...	548	94	57	72	0.060	--
JUL 08...	855	87	56	75	0.070	--
AUG 05...	--	--	--	74	0.050	--
SEP 03...	711	78	46	74	0.040	--
403635082152203 AS-47 NR LOUDONVILLE OH-LEVEL 3 (LAT 40 36 35N LONG 082 15 22W)						
JAN 1991 09...	721	84	41	52	0.050	--
FEB 19...	821	91	50	81	0.070	--
MAR 11...	787	84	54	81	0.070	--
APR 15...	743	88	59	95	0.070	--
MAY 13...	681	94	60	79	0.070	--
JUL 08...	572	54	39	55	--	--
403635082152204 AS-47 NR LOUDONVILLE OH-LEVEL 4 (LAT 40 36 35N LONG 082 15 22W)						
JAN 1991 09...	692	81	39	53	0.040	--
FEB 19...	793	89	51	83	0.070	--
MAR 11...	792	85	54	90	0.070	--
APR 15...	725	88	61	91	0.070	--
MAY 13...	633	90	56	82	0.070	--
403635082152205 AS-47 NR LOUDONVILLE OH-LEVEL 5 (LAT 40 36 35N LONG 082 15 22W)						
JAN 1991 09...	646	76	44	49	0.040	--
FEB 19...	645	78	45	68	0.050	--
MAR 11...	702	53	58	75	0.050	--
403635082152206 AS-47 NR LOUDONVILLE OH-LEVEL 6 (LAT 40 36 35N LONG 082 15 22W)						
JAN 1991 09...	593	70	40	48	0.040	--
403635082152401 AS-46 NR LOUDONVILLE OH-LEVEL 1 (LAT 40 36 35N LONG 082 15 24W)						
MAR 1991 11...	658	77	32	50	0.030	--
APR 15...	658	89	36	53	0.040	--
MAY 13...	632	92	38	53	0.050	--
JUL 08...	654	80	41	53	0.040	--
AUG 05...	766	90	43	52	0.080	--
SEP 03...	793	99	43	58	0.070	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403635082152402 AS-46 NR LOUDONVILLE OH-LEVEL 2 (LAT 40 36 35N LONG 082 15 24W)						
MAR 1991 11...	650	80	38	51	0.030	--
APR 15...	645	87	38	55	0.040	--
MAY 13...	667	98	41	53	0.050	--
JUL 08...	832	85	47	59	0.070	--
AUG 05...	534	98	48	55	0.070	--
SEP 03...	719	91	47	--	0.040	--
403635082152403 AS-46 NR LOUDONVILLE OH-LEVEL 3 (LAT 40 36 35N LONG 082 15 24W)						
JAN 1991 09...	738	--	--	30	<0.010	--
MAR 11...	690	80	37	53	0.040	--
APR 15...	619	86	37	54	0.040	--
MAY 13...	683	90	43	56	0.050	--
JUL 08...	837	91	49	50	0.050	--
AUG 05...	823	--	--	53	0.060	--
403635082152404 AS-46 NR LOUDONVILLE OH-LEVEL 4 (LAT 40 36 35N LONG 082 15 24W)						
JAN 1991 09...	668	--	--	31	0.030	--
FEB 19...	740	84	40	64	0.060	--
MAR 11...	653	85	39	54	0.050	--
APR 15...	626	83	47	58	0.050	--
MAY 13...	501	86	53	61	0.060	--
403635082152405 AS-46 NR LOUDONVILLE OH-LEVEL 5 (LAT 40 36 35N LONG 082 15 24W)						
JAN 1991 09...	654	85	27	30	--	--
FEB 19...	722	82	41	64	0.060	--
MAR 11...	711	82	37	52	0.050	--
APR 15...	560	86	46	60	0.050	--
MAY 13...	--	88	38	43	0.040	--
403635082152406 AS-46 NR LOUDONVILLE OH-LEVEL 6 (LAT 40 36 35N LONG 082 15 24W)						
JAN 1991 09...	674	83	33	33	0.030	--
FEB 19...	584	80	31	36	0.040	--
MAR 11...	528	65	31	40	0.030	--
403635082152500 AS-44 NR LOUDENVILLE OH (LAT 40 36 35N LONG 082 15 25W)						
FEB 1991 19...	637	67	41	37	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE, DIS-SOLVED (MG/L AS BR)	CYANIDE, DIS-SOLVED (MG/L AS CN)
403635082152502 AS-44 NR LOUDONVILLE OH-LEVEL 2 (LAT 40 36 35N LONG 082 15 25W)						
MAR 1991						
11...	595	70	50	40	0.030	--
APR						
15...	618	76	48	53	0.030	--
MAY						
13...	607	79	45	52	0.030	--
JUL						
08...	--	78	68	71	--	--
AUG						
05...	562	82	67	65	0.040	--
SEP						
03...	696	83	55	49	0.060	--
403635082152503 AS-44 NR LOUDONVILLE OH-LEVEL 3 (LAT 40 36 35N LONG 082 15 25W)						
MAR 1991						
11...	675	75	51	38	0.030	--
APR						
15...	594	75	45	46	0.030	--
MAY						
13...	602	80	52	62	0.030	--
JUL						
08...	886	74	75	85	0.050	--
AUG						
05...	545	79	66	61	0.050	--
SEP						
03...	595	82	50	44	0.050	--
403635082152504 AS-44 NR LOUDONVILLE OH-LEVEL 4 (LAT 40 36 35N LONG 082 15 25W)						
MAR 1991						
11...	681	71	51	39	0.030	--
APR						
15...	601	77	46	50	0.030	--
MAY						
13...	605	84	51	60	0.040	--
JUL						
08...	882	78	77	85	0.060	--
AUG						
05...	547	85	70	59	0.080	--
SEP						
03...	566	80	48	44	0.040	--
403635082152505 AS-44 NR LOUDONVILLE OH-LEVEL 5 (LAT 40 36 35N LONG 082 15 25W)						
APR						
15...	576	77	42	44	0.030	--
MAY						
13...	--	86	47	50	0.030	--
JUL						
08...	529	85	9.9	9.4	<0.010	--
AUG						
05...	517	63	59	61	0.050	--
403635082152506 AS-44 NR LOUDONVILLE OH-LEVEL 6 (LAT 40 36 35N LONG 082 15 25W)						
JAN 1991						
09...	873	92	73	62	0.070	--
FEB						
19...	835	--	--	51	0.060	--
MAR						
11...	643	75	47	32	0.030	--
APR						
15...	559	81	22	21	0.020	--
MAY						
13...	--	86	31	23	0.020	--
403635082152603 AS-49 NR LOUDONVILLE OH-LEVEL 3 (LAT 40 36 35N LONG 082 15 26W)						
AUG 1991						
05...	844	79	51	87	0.050	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403635082152604 AS-49 NR LOUDONVILLE OH-LEVEL 4 (LAT 40 36 35N LONG 082 15 26W)						
JAN 1991 09...	728	85	42	55	0.050	--
MAR 11...	810	81	50	60	0.060	--
APR 15...	755	82	51	54	0.060	--
MAY 13...	738	82	48	49	0.070	--
403635082152605 AS-49 NR LOUDONVILLE OH-LEVEL 5 (LAT 40 36 35N LONG 082 15 26W)						
JAN 1991 09...	723	84	42	57	0.050	--
MAR 11...	775	81	47	56	0.060	--
APR 15...	721	79	48	52	0.060	--
403635082152606 AS-49 NR LOUDONVILLE OH-LEVEL 6 (LAT 40 36 35N LONG 082 15 26W)						
JAN 1991 09...	840	66	100	33	0.030	--
MAR 11...	918	62	90	39	0.030	--
APR 15...	846	89	53	43	0.040	--
403635082152702 AS-43 NR LOUDONVILLE OH-LEVEL 2 (LAT 40 36 35N LONG 082 15 27W)						
MAR 1991 11...	626	--	--	14	0.030	--
APR 15...	445	--	--	9.6	0.040	--
MAY 13...	546	100	15	17	0.090	--
JUL 08...	678	--	--	15	0.41	--
AUG 05...	327	100	16	11	<0.010	--
SEP 03...	703	110	16	11	0.010	--
403635082152703 AS-43 NR LOUDONVILLE OH-LEVEL 3 (LAT 40 36 35N LONG 082 15 27W)						
MAR 1991 11...	601	100	14	15	0.040	--
APR 15...	557	93	14	10	0.040	--
MAY 13...	564	94	16	18	0.060	--
JUL 08...	687	96	15	16	--	--
AUG 05...	297	88	14	13	<0.010	--
SEP 03...	709	110	14	9.0	0.010	--
403635082152704 AS-43 NR LOUDONVILLE OH-LEVEL 4 (LAT 40 36 35N LONG 082 15 27W)						
MAR 1991 11...	690	100	15	16	0.040	--
APR 15...	498	110	15	21	0.080	--
MAY 13...	450	100	14	13	0.040	--
JUL 08...	687	96	15	15	--	--
AUG 05...	318	87	15	13	<0.010	--
SEP 03...	533	130	14	7.7	0.20	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403635082152705 AS-43 NR LOUDONVILLE OH-LEVEL 5 (LAT 40 36 35N LONG 082 15 27W)						
MAR 1991						
11...	653	100	15	12	0.050	--
APR						
15...	635	--	--	22	0.090	--
MAY						
13...	481	100	14	7.9	0.030	--
JUL						
08...	684	--	--	12	0.050	--
SEP						
03...	279	--	--	3.6	<0.010	--
403635082152706 AS-43 NR LOUDONVILLE OH-LEVEL 6 (LAT 40 36 35N LONG 082 15 27W)						
FEB 1991						
19...	276	72	13	7.4	0.030	--
MAR						
11...	223	41	6.9	3.8	0.020	--
APR						
15...	577	110	15	20	0.040	--
RICHLAND COUNTY SITE # 4 (SR 97)						
403922082325901 R-19 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 22N LONG 082 32 59W)						
APR 1991						
18...	422	50	7.6	33	0.030	--
MAY						
16...	494	63	10	37	0.020	--
JUN						
13...	--	67	7.6	32	0.040	--
JUL						
11...	555	--	--	33	0.050	--
AUG						
08...	564	75	9.3	34	0.030	--
SEP						
09...	557	71	9.0	35	0.030	--
403922082325902 R-19 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 22N LONG 082 32 59W)						
APR 1991						
18...	414	56	7.1	33	0.030	--
MAY						
16...	436	65	8.1	33	0.010	--
JUN						
13...	517	73	8.2	32	0.030	--
JUL						
11...	567	65	11	33	0.030	--
AUG						
08...	387	84	9.5	32	0.030	--
SEP						
09...	556	73	8.8	34	0.020	--
403922082325903 R-19 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 22N LONG 082 32 59W)						
APR 1991						
18...	395	--	--	33	0.030	--
MAY						
16...	414	66	7.9	33	0.020	--
JUN						
13...	513	76	8.2	33	0.030	--
JUL						
11...	577	77	11	33	0.030	--
AUG						
08...	572	80	9.2	31	0.020	--
SEP						
09...	552	78	9.5	34	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403922082325904 R-19 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 22N LONG 082 32 59W)						
APR 1991						
18...	455	--	--	--	--	--
MAY						
16...	439	65	8.3	23	0.020	--
JUN						
13...	585	82	29	30	0.030	--
JUL						
11...	585	79	10	31	0.030	--
AUG						
08...	586	85	9.8	32	0.030	--
SEP						
09...	566	77	8.9	34	0.040	--
403922082325905 R-19 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 22N LONG 082 32 59W)						
JAN 1991						
18...	609	--	--	51	0.020	--
APR						
18...	463	--	--	--	--	--
JUN						
13...	600	75	10	29	0.030	--
JUL						
11...	595	69	12	32	0.030	--
AUG						
08...	593	80	9.6	33	0.020	--
SEP						
09...	580	77	9.5	34	0.040	--
403922082325906 R-19 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 22N LONG 082 32 59W)						
JAN 1991						
18...	609	80	17	52	0.020	--
APR						
18...	419	42	9.4	23	0.020	--
MAY						
16...	433	--	--	28	0.020	--
403922082330001 R-20 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 22N LONG 082 33 00W)						
FEB 1991						
20...	562	--	--	27	0.060	--
MAR						
14...	449	54	5.6	22	0.010	--
APR						
18...	523	90	4.4	20	0.040	--
MAY						
16...	472	62	7.5	23	0.010	--
JUN						
13...	493	64	7.1	19	0.020	--
JUL						
11...	498	60	9.2	20	0.020	--
AUG						
08...	499	65	7.2	22	0.020	--
SEP						
09...	442	--	--	29	0.020	--
403922082330002 R-20 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 22N LONG 082 33 00W)						
FEB 1991						
20...	559	82	13	25	0.030	--
MAR						
14...	508	64	9.0	24	0.010	--
APR						
18...	457	--	--	--	--	--
MAY						
16...	484	64	7.4	21	0.020	--
JUN						
13...	535	73	7.2	20	0.020	--
JUL						
11...	551	74	8.4	21	0.030	--
AUG						
08...	408	77	8.3	22	0.020	--
SEP						
09...	554	77	8.6	25	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403922082330003 R-20 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 22N LONG 082 33 00W)						
FEB 1991 20...	553	74	11	25	0.020	--
MAR 14...	489	67	8.4	22	<0.010	--
MAY 16...	374	68	7.7	23	0.020	--
JUN 13...	521	71	7.5	16	0.020	--
JUL 11...	543	72	9.3	22	0.020	--
AUG 08...	570	75	8.6	22	0.020	--
SEP 09...	569	75	9.1	29	0.030	--
403922082330004 R-20 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 22N LONG 082 33 00W)						
FEB 1991 20...	523	72	8.7	25	0.030	--
MAR 14...	476	63	8.7	21	0.020	--
MAY 16...	485	70	7.9	21	0.020	--
JUN 13...	524	71	8.6	19	0.020	--
JUL 11...	554	74	10	22	0.020	--
AUG 08...	402	85	8.5	23	0.020	--
SEP 09...	550	81	9.3	26	0.030	--
403922082330005 R-20 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 22N LONG 082 33 00W)						
FEB 1991 20...	510	--	--	--	--	--
MAR 14...	484	73	8.6	22	0.020	--
MAY 16...	446	69	7.7	17	0.010	--
JUN 13...	517	71	7.2	19	0.010	--
JUL 11...	559	75	8.5	22	0.020	--
AUG 08...	--	67	8.8	22	0.020	--
SEP 09...	593	--	--	31	0.080	--
403922082330006 R-20 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 22N LONG 082 33 00W)						
FEB 1991 20...	544	73	8.4	27	0.10	--
MAR 14...	538	70	8.6	26	0.010	--
APR 18...	493	75	9.1	27	0.030	--
MAY 16...	500	73	8.4	25	0.020	--
JUN 13...	515	62	7.6	20	0.020	--
JUL 11...	535	--	--	22	0.040	--
AUG 08...	552	76	8.7	21	0.020	--
SEP 09...	564	70	8.7	26	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403923082325401 R-21 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 54W)						
JAN 1991 18...	248	--	--	3.4	0.020	--
FEB 20...	249	34	2.1	3.3	0.020	--
MAR 14...	228	36	1.9	3.2	0.020	--
APR 18...	226	29	1.8	3.8	0.020	--
MAY 16...	242	37	2.0	14	0.040	--
JUN 13...	229	32	2.1	3.7	0.030	--
JUL 11...	213	27	3.6	4.7	0.25	--
AUG 08...	185	27	2.1	3.0	0.030	--
SEP 09...	191	24	2.6	3.3	0.030	--
403923082325402 R-21 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 54W)						
JAN 1991 18...	244	--	--	<0.10	--	--
FEB 20...	244	36	2.0	3.3	0.030	--
MAR 14...	213	31	1.8	2.2	0.010	--
APR 18...	218	29	1.8	3.3	0.020	--
MAY 16...	231	38	1.9	1.4	0.020	--
JUN 13...	222	31	2.0	3.5	0.030	--
JUL 11...	200	28	3.1	4.2	0.020	--
AUG 08...	183	23	2.3	2.7	0.030	--
SEP 09...	178	25	2.7	3.0	0.020	--
403923082325403 R-21 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 54W)						
JAN 1991 18...	242	34	2.0	3.4	0.020	--
FEB 20...	238	33	2.1	3.1	0.020	--
MAR 14...	215	30	1.8	2.2	0.010	--
APR 18...	213	27	1.8	2.7	0.020	--
MAY 16...	229	33	1.8	1.3	0.020	--
JUN 13...	231	32	1.9	3.8	0.020	--
JUL 11...	205	27	3.3	3.8	0.030	--
AUG 08...	185	24	2.1	1.3	0.030	--
SEP 09...	212	--	--	3.4	0.020	--
403923082325404 R-21 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 54W)						
JAN 1991 18...	248	36	2.0	4.2	0.010	--
FEB 20...	266	40	2.0	3.8	0.010	--
MAR 14...	215	31	1.8	2.1	0.010	--
APR 18...	237	33	1.9	3.6	0.020	--
MAY 16...	236	35	1.8	1.5	<0.010	--
JUN 13...	--	39	2.1	4.4	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE, DIS-SOLVED (MG/L AS BR)	CYANIDE, DIS-SOLVED (MG/L AS CN)
403923082325405 R-21 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 54W)						
JAN 1991						
18...	237	37	2.0	--	0.020	--
FEB						
20...	251	40	2.0	2.8	<0.010	--
MAR						
14...	208	29	1.9	2.3	0.010	--
APR						
18...	220	30	1.6	3.2	0.010	--
MAY						
16...	268	42	1.8	1.2	0.020	--
403923082325406 R-21 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 54W)						
JAN 1991						
18...	238	33	<0.10	4.2	0.020	--
FEB						
20...	153	3.5	0.80	1.4	<0.010	--
MAR						
14...	171	27	1.8	2.4	0.010	--
403923082325600 R-15 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 56W)						
MAR 1991						
15...	338	30	22	28	0.020	--
403923082325601 R-15 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 56W)						
MAR 1991						
14...	390	--	--	--	--	--
MAY						
16...	249	25	11	14	0.020	--
JUN						
13...	372	38	14	12	0.030	--
JUL						
11...	453	47	19	18	0.040	--
AUG						
08...	461	--	--	15	0.12	--
SEP						
09...	459	50	19	17	0.020	--
403923082325602 R-15 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 56W)						
APR 1991						
18...	320	25	19	27	0.020	--
MAY						
16...	245	24	12	14	0.020	--
JUN						
13...	377	43	14	17	0.020	--
JUL						
11...	463	48	21	19	0.030	--
AUG						
08...	469	49	19	17	0.030	--
SEP						
09...	459	--	--	20	0.040	--
403923082325603 R-15 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 56W)						
MAR 1991						
14...	390	--	--	--	--	--
APR						
18...	311	28	17	33	0.020	--
MAY						
16...	231	23	11	17	0.020	--
JUN						
13...	--	40	14	16	0.12	--
JUL						
11...	453	47	19	19	0.030	--
AUG						
08...	563	41	16	15	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403923082325604 R-15 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 56W)						
MAR 1991						
14...	379	--	--	--	--	--
APR						
18...	321	--	--	36	0.020	--
MAY						
16...	235	23	11	13	0.010	--
JUN						
13...	--	27	2.7	13	0.020	--
403923082325605 R-15 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 56W)						
JAN 1991						
18...	276	21	25	29	0.020	--
MAR						
14...	365	26	25	33	0.010	--
403923082325701 R-18 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 57W)						
JUN 1991						
13...	406	41	8.0	37	0.040	--
JUL						
11...	444	53	8.6	42	0.040	<0.01
AUG						
08...	424	42	6.6	63	0.030	--
SEP						
09...	453	54	4.9	49	0.040	--
403923082325702 R-18 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 57W)						
JAN 1991						
18...	626	76	19	59	0.040	--
MAY						
16...	377	42	11	39	0.030	--
JUN						
13...	381	50	8.7	35	0.030	--
AUG						
08...	463	62	6.6	44	0.040	--
SEP						
09...	483	55	4.8	46	0.040	--
403923082325703 R-18 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 57W)						
JUN 1991						
13...	428	62	19	31	0.020	--
403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W)						
JAN 1991						
18...	679	80	20	42	<0.010	--
MAY						
16...	641	72	28	41	0.030	--
JUN						
13...	635	74	11	41	0.030	--
JUL						
11...	618	75	30	37	0.030	--
AUG						
08...	614	--	--	33	0.040	--
SEP						
09...	649	--	--	38	0.040	--
403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W)						
JAN 1991						
18...	735	100	33	62	0.040	--
APR						
18...	549	60	28	31	0.020	--
MAY						
16...	568	69	28	34	0.030	--
403923082325707 R-18 NR LEXINGTON OH-LEVEL 7 (LAT 40 39 23N LONG 082 32 57W)						
JAN 1991						
18...	762	93	37	59	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
403923082325901 R-17 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 59W)						
MAR 1991						
14...	452	--	--	33	0.030	--
APR						
18...	432	--	--	35	0.020	--
MAY						
16...	440	57	13	27	0.030	--
JUN						
13...	451	57	12	31	0.080	--
JUL						
11...	497	57	16	42	0.070	--
AUG						
08...	503	64	8.1	42	0.040	--
SEP						
09...	495	68	8.2	43	--	--
403923082325902 R-17 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 59W)						
JAN 1991						
18...	547	--	--	73	0.030	--
MAR						
14...	419	52	18	31	0.030	--
APR						
18...	373	45	14	28	0.030	--
MAY						
16...	390	49	12	32	0.030	--
JUN						
13...	429	57	10	33	0.030	--
JUL						
11...	473	61	9.0	42	0.030	--
AUG						
08...	499	71	7.3	45	0.040	--
SEP						
09...	506	66	6.7	45	0.040	--
403923082325903 R-17 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 59W)						
JAN 1991						
18...	558	--	--	72	0.030	--
FEB						
20...	421	49	25	31	0.040	--
MAR						
14...	428	48	19	30	0.040	--
APR						
18...	398	40	14	32	0.020	---
MAY						
16...	409	46	12	26	0.030	--
JUN						
13...	422	53	11	35	0.030	--
JUL						
11...	470	60	9.8	42	0.040	--
AUG						
08...	502	61	7.2	45	0.040	--
SEP						
09...	506	65	5.7	46	0.050	--
403923082325904 R-17 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 59W)						
JAN 1991						
18...	569	58	28	75	0.030	--
MAR						
14...	428	50	20	30	0.030	--
APR						
18...	377	40	14	22	0.030	--
MAY						
16...	397	48	13	34	0.030	--
403923082325905 R-17 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 59W)						
JAN 1991						
18...	566	61	28	80	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
PORTAGE COUNTY SITE # 5 (SR 14)						
411136081172501 PO-119 NR RAVENNA OH-LEVEL 1 (LAT 41 11 36N LONG 081 17 25W)						
MAR 1991 13...	558	--	--	12	<0.010	--
APR 17...	539	82	16	17	<0.010	--
MAY 15...	516	84	15	17	<0.010	--
JUN 12...	578	83	16	25	<0.010	--
JUL 10...	655	96	18	24	1.6	--
AUG 07...	544	110	21	29	<0.010	--
SEP 11...	923	140	27	27	<0.010	--
411136081172502 PO-119 NR RAVENNA OH-LEVEL 2 (LAT 41 11 36N LONG 081 17 25W)						
JAN 1991 10...	629	92	14	13	<0.010	--
MAR 13...	507	75	16	8.8	<0.010	--
APR 17...	501	74	15	13	<0.010	--
MAY 15...	514	80	14	15	<0.010	--
JUN 12...	573	73	15	21	<0.010	--
JUL 10...	708	100	19	24	<0.010	--
AUG 07...	601	120	21	28	--	--
SEP 11...	855	140	27	26	<0.010	--
411136081172503 PO-119 NR RAVENNA OH-LEVEL 3 (LAT 41 11 36N LONG 081 17 25W)						
JAN 1991 10...	551	80	25	3.9	0.010	--
FEB 14...	518	75	19	6.9	<0.010	--
MAR 13...	462	70	14	5.9	<0.010	--
APR 17...	510	75	14	7.9	<0.010	--
MAY 15...	400	78	12	10	<0.010	--
JUN 12...	538	70	13	18	<0.010	--
JUL 10...	739	120	21	23	<0.010	--
AUG 07...	576	120	19	27	<0.010	--
SEP 11...	992	150	28	23	<0.010	--
411136081172504 PO-119 NR RAVENNA OH-LEVEL 4 (LAT 41 11 36N LONG 081 17 25W)						
JAN 1991 10...	541	79	33	4.4	<0.010	--
FEB 14...	466	68	17	4.9	<0.010	--
MAR 13...	438	68	11	3.9	<0.010	--
APR 17...	452	72	12	5.4	<0.010	--
MAY 15...	475	80	11	8.6	<0.010	--
JUN 12...	566	87	13	19	<0.010	--
JUL 10...	692	--	--	26	0.14	--
AUG 07...	407	--	--	17	<0.010	--
SEP 11...	597	--	--	--	<0.010	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
411136081172505 PO-119 NR RAVENNA OH-LEVEL 5 (LAT 41 11 36N LONG 081 17 25W)						
JAN 1991 10...	519	69	33	4.6	<0.010	--
FEB 14...	410	67	13	4.5	<0.010	--
MAR 13...	410	68	11	2.6	0.070	--
APR 17...	395	63	7.8	5.1	<0.010	--
MAY 15...	421	82	8.0	--	<0.010	--
411136081172506 PO-119 NR RAVENNA OH-LEVEL 6 (LAT 41 11 36N LONG 081 17 25W)						
JAN 1991 10...	289	49	9.4	5.2	0.020	--
411136081172601 PO-120 NR RAVENNA OH-LEVEL 1 (LAT 41 11 36N LONG 081 17 26W)						
JAN 1991 10...	287	50	4.9	0.60	<0.010	--
MAR 13...	294	59	5.0	1.7	<0.010	--
APR 17...	263	44	4.1	2.5	<0.010	--
MAY 15...	284	44	9.3	4.5	<0.010	--
JUN 12...	312	47	7.8	5.1	<0.010	--
JUL 10...	325	56	8.7	5.9	<0.010	--
AUG 07...	375	48	7.9	12	<0.010	--
SEP 11...	385	67	9.3	14	<0.010	--
411136081172602 PO-120 NR RAVENNA OH-LEVEL 2 (LAT 41 11 36N LONG 081 17 26W)						
JAN 1991 10...	234	35	7.8	0.50	<0.010	--
MAR 13...	238	39	3.9	0.20	0.020	--
APR 17...	252	41	5.6	1.6	<0.010	--
MAY 15...	272	42	13	1.1	<0.010	--
JUN 12...	344	54	6.7	5.1	<0.010	--
JUL 10...	361	50	8.9	7.4	0.010	--
AUG 07...	405	58	8.9	10	<0.010	--
SEP 11...	471	72	9.7	16	0.060	--
411136081172603 PO-120 NR RAVENNA OH-LEVEL 3 (LAT 41 11 36N LONG 081 17 26W)						
JAN 1991 10...	227	35	8.6	1.3	<0.010	--
MAR 13...	222	--	--	0.40	<0.010	--
APR 17...	266	42	11	1.2	<0.010	--
MAY 15...	286	41	11	0.90	<0.010	--
JUN 12...	359	59	6.3	4.4	<0.010	--
JUL 10...	381	59	7.6	6.1	--	--
AUG 07...	408	68	9.0	9.4	<0.010	--
SEP 11...	479	76	11	18	0.010	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
411136081172604 PO-120 NR RAVENNA OH-LEVEL 4 (LAT 41 11 36N LONG 081 17 26W)						
JAN 1991 10...	225	35	8.2	0.20	<0.010	--
FEB 14...	218	35	2.3	1.2	0.010	--
MAR 13...	186	36	3.3	0.50	<0.010	--
APR 17...	255	39	5.6	0.60	<0.010	--
MAY 15...	284	47	8.2	0.30	<0.010	--
JUN 12...	370	65	6.2	4.0	<0.010	--
JUL 10...	383	--	--	7.0	0.020	--
AUG 07...	290	--	--	8.3	0.030	--
SEP 11...	472	--	--	--	0.040	--
411136081172605 PO-120 NR RAVENNA OH-LEVEL 5 (LAT 41 11 36N LONG 081 17 26W)						
JAN 1991 10...	217	33	5.5	0.40	<0.010	--
FEB 14...	211	31	2.1	1.2	<0.010	--
MAR 13...	156	29	2.8	0.50	0.020	--
APR 17...	238	36	7.2	0.30	--	--
MAY 15...	296	48	6.5	0.80	<0.010	--
411137081172101 PO-114 NR RAVENNA OH-LEVEL 1 (LAT 41 11 37N LONG 081 17 21W)						
JAN 1991 10...	543	84	29	0.50	0.020	--
FEB 14...	488	83	19	4.8	0.010	--
MAR 13...	467	80	17	3.5	0.020	--
APR 17...	436	76	17	5.4	0.010	--
MAY 15...	385	76	20	4.7	0.060	--
JUN 12...	587	96	20	6.8	0.020	--
JUL 10...	580	82	20	8.3	0.050	--
AUG 07...	894	150	19	7.6	0.010	--
SEP 11...	1160	220	21	6.5	0.020	--
411137081172102 PO-114 NR RAVENNA OH-LEVEL 2 (LAT 41 11 37N LONG 081 17 21W)						
JAN 1991 10...	549	82	31	4.8	0.020	--
FEB 14...	498	82	18	4.7	0.010	--
MAR 13...	463	73	16	3.6	0.020	--
APR 17...	463	73	17	5.3	0.010	--
MAY 15...	406	77	20	--	0.010	--
JUN 12...	578	84	19	6.7	0.020	--
JUL 10...	612	100	20	7.8	0.020	--
AUG 07...	970	180	20	7.9	0.010	--
SEP 11...	1260	250	21	5.9	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
411137081172103 PO-114 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 21W)						
JAN 1991 10...	544	81	30	4.1	0.010	--
FEB 14...	486	86	19	4.8	<0.010	--
MAR 13...	455	68	19	3.4	<0.010	--
APR 17...	478	76	15	3.8	0.020	--
MAY 15...	402	81	26	3.9	0.020	--
JUN 12...	641	92	21	5.8	0.020	--
JUL 10...	890	150	20	5.4	0.030	--
AUG 07...	945	170	20	6.3	0.020	--
SEP 11...	1430	310	22	5.8	0.020	--
411137081172104 PO-114 NR RAVENNA OH-LEVEL 4 (LAT 41 11 37N LONG 081 17 21W)						
JAN 1991 10...	537	81	27	4.2	0.020	--
FEB 14...	484	81	18	4.7	0.010	--
MAR 13...	446	69	19	3.7	0.020	--
APR 17...	477	80	15	5.2	0.020	--
MAY 15...	--	82	24	--	0.020	--
JUN 12...	648	110	21	6.9	0.020	--
JUL 10...	985	190	22	5.5	0.020	--
AUG 07...	--	230	21	5.7	0.020	--
SEP 11...	1450	300	22	5.6	0.020	--
411137081172105 PO-114 NR RAVENNA OH-LEVEL 5 (LAT 41 11 37N LONG 081 17 21W)						
JAN 1991 10...	520	88	24	4.3	0.020	--
FEB 14...	469	81	19	4.4	--	--
MAR 13...	440	68	19	3.6	0.040	--
APR 17...	480	79	15	5.0	0.010	--
MAY 15...	431	82	24	4.4	0.020	--
JUN 12...	639	110	20	6.5	0.020	--
JUL 10...	979	160	22	5.0	0.020	--
AUG 07...	754	170	21	5.1	0.020	--
SEP 11...	1020	--	--	11	0.020	--
411137081172106 PO-114 NR RAVENNA OH-LEVEL 6 (LAT 41 11 37N LONG 081 17 21W)						
JAN 1991 10...	509	91	21	3.9	0.020	--
FEB 14...	494	83	19	2.7	0.020	--
MAR 13...	453	72	18	2.8	0.020	--
APR 17...	443	84	14	5.3	0.020	--
MAY 15...	340	79	26	23	0.020	--
JUN 12...	630	110	21	5.7	0.020	--
JUL 10...	455	--	--	5.6	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
411137081172301 PO-118 NR RAVENNA OH-LEVEL 1 (LAT 41 11 37N LONG 081 17 23W)						
MAR 1991						
13...	807	--	--	--	--	--
APR						
17...	3180	150	480	970	0.15	--
MAY						
15...	1830	94	240	460	0.090	--
JUN						
12...	3630	130	590	1100	0.18	--
JUL						
10...	3720	150	640	1200	0.90	--
AUG						
07...	--	--	--	1100	0.18	--
SEP						
11...	3640	140	590	1000	0.20	--
411137081172302 PO-118 NR RAVENNA OH-LEVEL 2 (LAT 41 11 37N LONG 081 17 23W)						
JAN 1991						
10...	418	28	56	49	0.020	--
APR						
17...	3030	140	450	910	--	--
MAY						
15...	1700	91	240	350	0.080	--
JUN						
12...	3730	150	600	1200	0.18	--
JUL						
10...	3870	160	630	1200	0.19	--
AUG						
07...	3510	150	590	970	0.19	--
SEP						
11...	3650	140	590	530	0.19	--
411137081172303 PO-118 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 23W)						
MAR 1991						
13...	776	40	100	170	0.050	--
APR						
17...	3140	140	470	950	<0.010	--
MAY						
15...	1730	91	230	440	0.080	--
JUN						
12...	3720	140	600	1100	0.18	--
JUL						
10...	3820	140	630	1200	0.19	--
AUG						
07...	3460	130	590	1000	0.18	--
SEP						
11...	3620	130	580	470	0.20	--
411137081172304 PO-118 NR RAVENNA OH-LEVEL 4 (LAT 41 11 37N LONG 081 17 23W)						
FEB 1991						
14...	862	--	--	--	--	--
MAR						
13...	449	37	71	86	0.26	--
APR						
17...	3410	150	540	1000	0.060	--
MAY						
15...	1810	90	220	530	0.080	--
JUN						
12...	--	140	570	960	0.16	--
JUL						
10...	3710	140	630	1200	0.19	--
AUG						
07...	3500	140	590	1000	0.18	--
SEP						
11...	3610	120	570	490	0.19	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
411137081172305 PO-118 NR RAVENNA OH-LEVEL 5 (LAT 41 11 37N LONG 081 17 23W)						
JAN 1991						
10...	314	28	28	18	0.010	--
FEB						
14...	505	--	--	--	--	--
MAR						
13...	440	29	39	62	<0.010	--
APR						
17...	3340	130	500	1000	0.18	--
MAY						
15...	1110	70	130	300	0.060	--
JUN						
12...	2310	110	310	620	0.11	--
JUL						
10...	3800	160	600	1200	0.19	--
AUG						
07...	3590	170	600	1000	0.19	--
SEP						
11...	3620	--	--	1100	0.19	--
411137081172306 PO-118 NR RAVENNA OH-LEVEL 6 (LAT 41 11 37N LONG 081 17 23W)						
JAN 1991						
10...	340	24	31	29	0.020	--
FEB						
14...	432	27	35	37	0.010	--
MAR						
13...	357	40	67	110	0.040	--
APR						
17...	3210	130	490	--	0.16	--
MAY						
15...	957	61	100	230	0.040	--
JUN						
12...	1270	79	150	290	0.060	--
JUL						
10...	865	--	--	210	0.060	--
411137081172403 PO-117 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 24W)						
SEP 1991						
11...	1330	110	170	210	0.040	--
411137081172406 PO-117 NR RAVENNA OH-LEVEL 6 (LAT 41 11 37N LONG 081 17 24W)						
JAN 1991						
10...	817	74	75	120	0.030	--
FEB						
14...	860	73	80	120	0.020	--
MAR						
13...	920	75	89	140	<0.010	--
APR						
17...	966	81	93	140	0.030	--
MAY						
15...	969	74	91	150	0.030	--
JUN						
12...	1010	86	84	140	0.020	--
411138081172400 PO-115 NR RAVENNA OH (LAT 41 11 38N LONG 081 17 24W)						
MAR 1991						
13...	2000	110	290	600	0.10	--
411138081172401 PO-115 NR RAVENNA OH-LEVEL 1 (LAT 41 11 38N LONG 081 17 24W)						
APR 1991						
17...	3460	150	520	1000	0.16	--
MAY						
15...	2490	110	370	700	0.11	--
JUN						
12...	2740	80	460	300	0.13	--
JUL						
10...	3020	58	560	940	0.14	--
AUG						
07...	2630	67	480	740	0.13	--
SEP						
11...	2410	55	430	530	0.12	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
411138081172402 PO-115 NR RAVENNA OH-LEVEL 2 (LAT 41 11 38N LONG 081 17 24W)						
APR 1991						
17...	3510	140	520	1100	0.16	--
MAY						
15...	2290	100	340	680	0.14	--
JUN						
12...	2750	82	460	800	0.12	--
JUL						
10...	3060	68	560	950	0.14	--
AUG						
07...	2650	66	480	700	0.13	--
SEP						
11...	2360	56	410	590	0.11	--
411138081172403 PO-115 NR RAVENNA OH-LEVEL 3 (LAT 41 11 38N LONG 081 17 24W)						
MAR 1991						
13...	1680	--	--	440	0.070	--
APR						
17...	3250	130	490	1000	0.16	--
MAY						
15...	2160	100	330	620	0.090	--
JUN						
12...	2610	83	450	700	0.13	--
JUL						
10...	3010	65	550	930	0.14	--
AUG						
07...	2580	55	460	720	0.12	--
SEP						
11...	2320	54	410	290	0.11	--
411138081172404 PO-115 NR RAVENNA OH-LEVEL 4 (LAT 41 11 38N LONG 081 17 24W)						
MAR 1991						
13...	1500	94	220	390	0.010	--
APR						
17...	3350	140	500	1100	<0.010	--
MAY						
15...	2190	97	300	630	0.090	--
JUN						
12...	2590	84	430	680	0.12	--
JUL						
10...	2950	--	--	780	0.13	--
AUG						
07...	2550	54	460	680	0.12	--
SEP						
11...	2190	52	390	270	0.11	--
411138081172405 PO-115 NR RAVENNA OH-LEVEL 5 (LAT 41 11 38N LONG 081 17 24W)						
MAR 1991						
13...	1230	--	--	280	0.040	--
APR						
17...	3030	140	460	950	--	--
MAY						
15...	1980	110	250	550	0.080	--
JUN						
12...	2370	86	370	630	0.10	--
JUL						
10...	3000	60	560	920	0.14	--
AUG						
07...	2430	47	90	630	0.090	--
SEP						
11...	2150	42	380	250	0.10	--
411138081172406 PO-115 NR RAVENNA OH-LEVEL 6 (LAT 41 11 38N LONG 081 17 24W)						
FEB 1991						
14...	470	--	--	26	0.010	--
MAR						
13...	510	71	35	42	0.040	--
APR						
17...	1160	98	13	280	0.040	--
MAY						
15...	1060	96	110	260	0.030	--
JUN						
12...	1390	99	160	320	0.050	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
LUCAS COUNTY SITE # 2 (SR 2)						
413546083480901 LU-28 NR HOLLAND OH-LEVEL 1 (LAT 41 35 46N LONG 083 48 09W)						
JAN 1991 23...	451	77	12	31	0.14	--
FEB 27...	432	73	12	15	0.010	--
MAR 25...	423	69	12	14	<0.010	--
APR 24...	455	73	11	21	--	--
MAY 23...	423	61	9.8	13	0.010	--
JUN 19...	469	74	13	17	0.020	--
JUL 16...	443	63	11	14	0.010	--
AUG 15...	446	79	9.8	13	0.020	--
SEP 18...	434	77	10	15	0.010	--
413546083480902 LU-28 NR HOLLAND OH-LEVEL 2 (LAT 41 35 46N LONG 083 48 09W)						
JAN 1991 23...	520	--	--	11	0.030	--
FEB 27...	465	74	11	34	0.020	--
MAR 25...	472	72	11	29	0.020	--
APR 24...	605	97	5.9	77	--	--
MAY 23...	458	75	12	27	0.020	--
JUN 19...	483	67	12	32	0.020	--
JUL 16...	482	63	12	34	0.030	--
AUG 15...	--	74	15	37	0.020	--
SEP 18...	499	82	9.5	36	0.020	--
413546083480903 LU-28 NR HOLLAND OH-LEVEL 3 (LAT 41 35 46N LONG 083 48 09W)						
JAN 1991 23...	685	75	53	130	0.040	--
FEB 27...	534	47	60	56	0.010	--
MAR 25...	453	50	34	33	0.020	--
APR 24...	391	63	12	44	0.020	--
MAY 23...	630	84	20	100	0.020	--
JUN 19...	687	85	21	110	0.030	--
JUL 16...	532	61	17	59	0.010	--
AUG 15...	475	63	21	38	0.030	--
SEP 18...	923	110	22	47	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
413546083480904 LU-28 NR HOLLAND OH-LEVEL 4 (LAT 41 35 46N LONG 083 48 09W)						
JAN 1991 23...	878	38	170	150	0.050	--
FEB 27...	669	40	89	85	0.020	--
MAR 25...	865	30	150	140	0.040	--
APR 24...	998	48	160	220	0.030	--
MAY 23...	748	25	130	120	0.030	--
JUN 19...	--	57	68	120	0.030	--
JUL 16...	695	29	120	120	0.070	--
AUG 15...	674	25	100	100	0.040	--
SEP 18...	1040	40	150	240	0.050	--
413546083480905 LU-28 NR HOLLAND OH-LEVEL 5 (LAT 41 35 46N LONG 083 48 09W)						
JAN 1991 23...	306	42	16	11	0.010	--
FEB 27...	286	40	13	11	0.030	--
MAR 25...	263	36	12	6.2	<0.010	--
APR 24...	582	73	7.9	7.7	0.030	--
MAY 23...	304	42	7.9	6.8	<0.010	--
JUN 19...	342	49	8.4	8.3	0.010	--
JUL 16...	349	54	7.1	11	<0.010	--
AUG 15...	459	45	26	33	0.030	--
SEP 18...	513	46	40	46	0.020	--
413547083481001 LU-26 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 10W)						
JAN 1991 23...	442	73	7.0	23	0.020	--
FEB 27...	440	69	9.5	24	0.020	--
MAR 25...	445	68	9.4	23	0.020	--
APR 23...	450	68	11	28	0.020	--
MAY 23...	457	69	11	28	0.020	--
JUN 19...	463	67	9.3	32	0.020	--
JUL 16...	453	63	7.6	26	0.010	--
AUG 15...	448	74	6.9	20	0.040	--
SEP 18...	445	72	7.2	19	0.020	--
413547083481002 LU-26 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 10W)						
JAN 1991 23...	420	67	7.5	30	0.020	--
FEB 27...	453	66	10	27	0.020	--
MAR 25...	456	66	9.6	27	0.020	--
APR 23...	464	69	11	33	0.020	--
MAY 23...	474	61	11	35	0.020	--
JUN 19...	514	74	11	49	0.020	--
JUL 16...	475	73	8.6	34	0.020	<0.01
AUG 15...	482	77	8.1	36	0.030	--
SEP 18...	499	79	8.6	42	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
413547083481003 LU-26 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 10W)						
JAN 1991 23...	435	61	16	37	0.020	--
FEB 27...	480	66	11	35	0.020	--
MAR 25...	473	60	11	30	0.020	--
APR 23...	485	66	13	40	0.020	--
MAY 23...	493	69	11	48	0.020	--
JUN 19...	659	84	17	100	0.020	--
JUL 16...	449	50	14	40	0.020	--
AUG 15...	656	76	27	120	0.030	--
SEP 18...	886	68	82	190	0.040	--
413547083481004 LU-26 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 10W)						
JAN 1991 23...	443	44	38	32	0.020	--
FEB 27...	417	44	30	31	0.020	--
MAR 25...	521	48	45	69	0.020	--
APR 23...	592	55	50	100	0.030	--
MAY 23...	613	65	33	100	0.020	--
JUN 19...	625	74	21	110	0.020	--
JUL 16...	764	63	50	160	0.030	--
AUG 15...	466	56	23	53	0.020	--
SEP 18...	871	78	76	190	0.040	--
413547083481005 LU-26 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 10W)						
JAN 1991 23...	615	18	110	91	0.020	--
FEB 27...	1210	54	180	220	0.050	--
MAR 25...	656	23	100	100	0.030	--
APR 23...	915	34	140	190	0.040	--
MAY 23...	656	19	100	130	0.020	--
JUN 19...	695	25	110	140	0.030	--
JUL 16...	916	32	140	210	0.060	--
AUG 15...	739	38	100	110	0.090	--
SEP 18...	1010	67	130	170	0.090	--
413547083481006 LU-26 NR HOLLAND OH-LEVEL 6 (LAT 41 35 47N LONG 083 48 10W)						
JAN 1991 23...	387	56	11	26	0.020	--
FEB 27...	377	44	9.1	20	<0.010	--
MAR 25...	366	47	12	21	0.020	--
APR 23...	355	44	11	27	0.020	--
MAY 23...	351	48	13	28	0.020	--
JUN 19...	227	21	11	24	0.020	--
JUL 16...	251	25	32	28	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
413547083481101 LU-27 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 11W)						
FEB 1991						
27...	437	72	8.5	15	0.010	--
MAR						
25...	424	71	9.4	14	<0.010	--
APR						
24...	414	73	10	14	<0.010	--
MAY						
23...	449	81	9.3	15	0.020	--
JUN						
19...	--	75	9.2	17	0.020	--
JUL						
16...	--	79	8.7	17	0.010	--
AUG						
15...	486	82	12	28	0.020	--
SEP						
18...	463	79	11	20	0.010	--
413547083481102 LU-27 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 11W)						
FEB 1991						
27...	494	83	5.0	36	0.020	--
MAR						
25...	488	77	6.4	38	0.020	--
APR						
24...	464	70	9.7	27	0.020	--
MAY						
23...	--	110	5.7	93	0.040	--
JUN						
19...	766	110	9.7	130	0.030	--
JUL						
16...	771	97	13	140	0.030	--
AUG						
15...	--	110	36	170	0.050	--
SEP						
18...	582	79	18	71	0.030	--
413547083481103 LU-27 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 11W)						
JAN 1991						
23...	452	--	--	58	0.030	--
FEB						
27...	446	59	17	44	0.020	--
MAR						
25...	575	53	42	81	0.030	--
APR						
24...	510	64	23	54	0.050	--
MAY						
23...	749	97	18	110	0.030	--
JUN						
19...	1180	100	28	300	0.050	--
JUL						
16...	1300	140	51	340	0.060	--
AUG						
15...	--	130	84	310	0.060	--
SEP						
18...	887	72	87	170	0.030	--
413547083481104 LU-27 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 11W)						
FEB 1991						
27...	667	--	--	120	0.030	--
MAR						
25...	956	41	140	220	0.060	--
APR						
24...	362	34	65	29	0.010	--
MAY						
23...	707	47	69	42	0.050	--
JUN						
19...	1000	79	92	120	0.050	--
JUL						
16...	930	69	73	120	0.050	--
AUG						
15...	--	58	130	170	0.060	--
SEP						
18...	--	110	33	38	0.030	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE, DIS-SOLVED (MG/L AS BR)	CYANIDE, DIS-SOLVED (MG/L AS CN)
413547083481105 LU-27 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 11W)						
JAN 1991 23...	570	86	16	8.2	0.090	--
MAR 25...	419	45	5.1	11	0.050	--
APR 24...	311	39	19	9.4	<0.010	--
MAY 23...	693	82	5.2	4.8	0.090	--
JUN 19...	1180	160	19	37	0.050	--
JUL 16...	835	110	4.3	7.2	0.070	--
AUG 15...	784	110	6.0	5.3	0.060	--
SEP 18...	668	82	7.7	8.7	0.020	--
413547083481201 LU-25 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 12W)						
JAN 1991 23...	510	81	20	43	0.020	--
FEB 27...	447	74	15	16	<0.010	--
MAR 25...	456	69	15	16	0.010	--
APR 23...	442	70	13	19	0.070	--
MAY 23...	469	--	--	--	--	--
JUN 19...	--	85	10	20	0.030	--
JUL 16...	492	78	11	19	0.010	--
AUG 15...	455	74	9.9	19	0.020	--
SEP 18...	449	79	9.5	17	0.010	--
413547083481202 LU-25 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 12W)						
JAN 1991 23...	481	84	9.4	35	0.020	--
FEB 27...	473	82	8.8	33	0.020	--
MAR 25...	475	75	10	33	0.030	--
APR 23...	493	74	8.0	35	0.020	--
MAY 23...	489	89	7.0	36	0.020	--
JUN 19...	--	89	6.9	39	0.030	--
JUL 16...	492	75	7.9	38	0.030	--
AUG 15...	--	76	6.6	32	0.040	--
SEP 18...	457	76	6.4	31	0.010	--
413547083481203 LU-25 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 12W)						
JAN 1991 23...	454	--	--	38	0.040	--
FEB 27...	490	56	23	43	0.030	--
MAR 25...	555	76	10	61	0.030	--
APR 23...	519	73	9.4	48	<0.010	--
MAY 23...	522	79	8.4	52	0.030	--
JUN 19...	549	68	9.6	49	0.070	--
JUL 16...	523	73	8.6	57	0.020	--
AUG 15...	435	58	8.8	34	0.010	--
SEP 18...	883	110	18	190	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
413547083481204 LU-25 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 12W)						
FEB 1991 27...	455	32	60	43	0.020	--
MAR 25...	458	31	55	41	0.020	--
APR 23...	705	56	63	140	0.030	--
MAY 23...	796	83	45	170	0.030	--
JUN 19...	568	52	23	100	0.020	--
JUL 16...	635	55	51	120	0.030	--
AUG 15...	735	79	31	150	0.030	--
SEP 18...	555	53	37	90	0.020	--
413547083481205 LU-25 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 12W)						
MAR 1991 25...	618	23	93	94	0.020	--
APR 23...	558	22	86	90	--	--
MAY 23...	591	28	92	120	0.040	--
JUL 16...	983	49	130	210	0.050	--
AUG 15...	859	45	110	190	0.060	--
SEP 18...	923	53	110	220	0.060	--
413547083481300 LU-22 NR HOLLAND OH (LAT 41 35 47N LONG 083 48 13W)						
MAR 1991 26...	744	61	64	130	0.050	--
413547083481301 LU-22 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 13W)						
MAR 1991 26...	443	71	7.3	22	0.020	--
MAY 23...	--	83	8.9	27	0.020	--
JUN 19...	499	84	9.2	28	0.030	--
JUL 16...	486	74	8.7	33	0.020	--
AUG 15...	481	84	8.8	35	0.020	--
SEP 18...	497	85	10	38	0.020	--
413547083481302 LU-22 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 13W)						
FEB 1991 27...	529	--	--	44	0.030	--
MAR 26...	552	84	7.1	54	0.030	--
APR 23...	540	81	8.4	55	--	--
MAY 23...	555	94	7.0	57	0.030	--
JUN 19...	566	85	6.1	55	0.040	--
JUL 16...	--	80	9.3	53	0.040	--
AUG 15...	543	85	5.7	52	0.030	--
SEP 18...	26	85	11	54	0.020	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
413547083481303 LU-22 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 13W)						
FEB 1991						
27...	560	92	6.2	60	0.040	--
MAR						
26...	492	72	8.0	42	0.020	--
APR						
23...	467	69	12	40	0.020	--
MAY						
23...	446	68	12	33	0.010	--
JUN						
19...	--	78	14	48	0.040	--
JUL						
16...	471	59	17	39	0.010	--
AUG						
15...	--	61	15	34	<0.010	--
SEP						
18...	633	81	19	98	0.020	--
413547083481304 LU-22 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 13W)						
FEB 1991						
27...	456	56	19	64	0.010	--
MAR						
26...	726	72	42	160	0.030	--
APR						
23...	1160	--	--	290	0.060	--
MAY						
23...	981	54	110	220	0.050	--
JUN						
19...	871	57	80	190	0.040	--
JUL						
16...	712	43	85	140	0.030	--
AUG						
15...	1040	84	76	260	0.040	--
SEP						
18...	1570	110	210	500	0.070	--
413547083481305 LU-22 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 13W)						
FEB 1991						
27...	913	46	100	220	0.040	--
MAR						
26...	947	48	140	200	0.070	--
APR						
23...	887	36	100	170	0.060	--
MAY						
23...	794	38	120	150	0.050	--
JUN						
19...	--	62	170	290	0.070	--
JUL						
16...	1130	43	170	260	0.050	--
AUG						
15...	1110	50	150	260	0.040	--
SEP						
18...	1330	56	180	330	0.050	--
413547083481306 LU-22 NR HOLLAND OH-LEVEL 6 (LAT 41 35 47N LONG 083 48 13W)						
JAN 1991						
23...	700	38	93	130	0.040	--
413549083481501 LU-21 NR HOLLAND OH-LEVEL 1 (LAT 41 35 49N LONG 083 48 15W)						
JAN 1991						
23...	531	--	--	50	0.030	--
FEB						
27...	824	140	6.9	130	0.090	--
MAR						
25...	787	130	6.8	120	0.090	--
APR						
23...	748	120	7.4	110	0.080	--
MAY						
23...	803	120	7.1	130	0.080	--
JUN						
19...	807	140	6.9	120	0.090	--
JUL						
16...	796	140	7.5	120	0.080	--
AUG						
15...	778	130	7.9	120	0.090	--
SEP						
18...	831	140	8.0	130	0.090	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
413549083481502 LU-21 NR HOLLAND OH-LEVEL 2 (LAT 41 35 49N LONG 083 48 15W)						
JAN 1991 23...	--	120	6.2	56	0.040	--
FEB 27...	451	89	4.9	43	0.020	--
MAR 25...	433	79	4.8	39	0.030	--
APR 23...	388	55	3.9	29	0.020	--
MAY 23...	339	60	3.3	17	<0.010	--
JUN 19...	379	49	2.8	23	0.030	--
JUL 16...	--	54	4.0	33	0.020	--
AUG 15...	503	79	4.2	50	0.040	--
SEP 18...	496	77	3.9	49	0.030	--
413549083481503 LU-21 NR HOLLAND OH-LEVEL 3 (LAT 41 35 49N LONG 083 48 15W)						
JAN 1991 23...	229	41	2.7	--	0.010	--
FEB 27...	242	40	2.4	5.6	<0.010	--
MAR 25...	238	44	2.6	12	<0.010	--
APR 23...	240	38	2.4	7.3	<0.010	--
MAY 23...	205	28	2.5	5.1	<0.010	--
JUN 19...	225	31	2.5	5.7	<0.010	--
JUL 16...	241	34	2.9	7.7	<0.010	--
AUG 15...	275	39	3.0	10	0.010	--
SEP 18...	289	41	2.9	15	<0.010	--
413549083481504 LU-21 NR HOLLAND OH-LEVEL 4 (LAT 41 35 49N LONG 083 48 15W)						
FEB 1991 27...	145	25	3.0	2.9	<0.010	--
MAR 25...	186	28	2.5	4.0	<0.010	--
APR 23...	123	18	3.0	4.8	<0.010	--
MAY 23...	110	13	2.9	4.9	<0.010	--
JUN 19...	162	16	2.7	5.5	<0.010	--
JUL 16...	168	23	3.0	5.3	<0.010	--
AUG 15...	175	23	2.8	5.1	<0.010	--
SEP 18...	212	30	2.4	3.3	<0.010	--
413549083481505 LU-21 NR HOLLAND OH-LEVEL 5 (LAT 41 35 49N LONG 083 48 15W)						
FEB 1991 27...	117	15	4.0	3.7	<0.010	--
MAR 25...	124	19	2.8	4.5	<0.010	--
APR 23...	120	16	3.1	4.9	<0.010	--
MAY 23...	107	10	3.1	5.4	<0.010	--
JUN 19...	134	11	2.7	5.5	<0.010	--
JUL 16...	167	20	3.0	3.1	<0.010	--
AUG 15...	166	22	2.7	5.3	<0.010	--
SEP 18...	150	20	2.6	3.3	<0.010	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
ASHTABULA COUNTY SITE # 1 (SR 84)						
415305080414201 AB-139 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 05N LONG 080 41 42W)						
MAR 1991 12...	408	--	--	4.4	<0.010	--
APR 16...	495	74	5.5	3.9	<0.010	--
MAY 14...	389	70	4.9	2.8	0.010	--
JUL 09...	878	75	79	87	0.060	--
AUG 06...	522	78	18	11	<0.010	--
SEP 10...	544	81	16	10	0.010	--
415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W)						
MAR 1991 12...	412	--	--	4.0	<0.010	--
APR 16...	490	63	5.0	3.4	<0.010	--
MAY 14...	375	64	5.0	3.6	0.010	--
JUL 09...	548	78	9.4	5.3	0.010	--
AUG 06...	498	66	11	8.9	<0.010	--
SEP 10...	--	72	12	7.8	<0.010	--
415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W)						
MAR 1991 12...	537	--	--	4.4	<0.010	--
APR 16...	444	61	4.4	2.2	<0.010	--
MAY 14...	445	79	5.3	1.3	<0.010	--
JUL 09...	564	84	9.8	7.2	<0.010	--
AUG 06...	492	68	11	9.2	0.010	--
SEP 10...	525	85	10	8.5	0.020	--
415305080414204 AB-139 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 05N LONG 080 41 42W)						
MAR 1991 12...	670	--	--	4.7	<0.010	--
APR 16...	439	58	4.2	3.4	<0.010	--
MAY 14...	441	80	5.0	2.4	<0.010	--
JUL 09...	563	79	9.1	7.1	<0.010	--
AUG 06...	489	66	11	9.0	<0.010	--
SEP 10...	1020	73	10	8.4	0.010	--
415305080414205 AB-139 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 05N LONG 080 41 42W)						
FEB 1991 13...	723	--	--	5.7	<0.010	--
MAR 12...	655	100	7.6	4.4	<0.010	--
APR 16...	389	48	4.1	3.2	<0.010	--
MAY 14...	422	76	5.2	2.7	<0.010	--
JUL 09...	483	--	--	10	0.15	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
415305080414206 AB-139 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 05N LONG 080 41 42W)						
JAN 1991						
17...	697	120	13	8.9	<0.010	--
FEB						
13...	666	85	9.6	6.8	<0.010	--
MAR						
12...	675	110	8.6	5.1	<0.010	--
APR						
16...	494	70	5.2	4.2	<0.010	--
MAY						
14...	409	73	5.2	3.1	0.010	--
415307080414201 AB-133 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 07N LONG 080 41 42W)						
JUN 1991						
11...	1920	68	300	450	0.090	--
JUL						
09...	1910	73	300	440	0.080	--
AUG						
06...	1910	84	330	530	0.10	--
SEP						
10...	3570	160	560	430	0.22	--
415307080414202 AB-133 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 07N LONG 080 41 42W)						
JUL 1991						
09...	1970	64	310	440	0.090	--
AUG						
06...	1870	70	330	480	0.090	--
SEP						
10...	3590	160	580	520	0.21	--
415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W)						
JUL 1991						
09...	1940	75	300	440	0.080	--
AUG						
06...	1870	65	330	120	0.13	--
SEP						
10...	1220	120	330	620	0.14	--
415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W)						
JUL 1991						
09...	1950	74	310	460	0.090	--
AUG						
06...	1860	59	340	470	0.090	--
SEP						
10...	2300	130	330	300	0.13	--
415307080414205 AB-133 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 07N LONG 080 41 42W)						
JUN 1991						
11...	1870	57	310	450	0.090	--
JUL						
09...	1950	58	320	470	0.090	--
AUG						
06...	1780	62	320	460	0.080	--
SEP						
10...	778	110	290	530	0.12	--
415308080414300 AB-135 NR KINGSVILLE OH (LAT 41 53 08N LONG 080 41 43W)						
MAR 1991						
12...	892	90	53	170	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
415308080414302 AB-135 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 08N LONG 080 41 43W)						
JAN 1991 17...	854	100	54	150	0.050	--
FEB 13...	857	86	52	140	0.050	--
MAR 12...	897	91	56	170	0.040	--
APR 16...	883	91	54	140	0.050	--
MAY 14...	845	97	50	160	0.050	--
JUL 09...	833	76	49	150	0.040	--
AUG 06...	775	86	59	170	0.040	--
SEP 10...	1100	100	91	230	0.060	--
415308080414303 AB-135 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 08N LONG 080 41 43W)						
JAN 1991 17...	833	99	53	160	0.050	--
FEB 13...	853	83	50	150	0.040	--
MAR 12...	880	92	57	160	0.040	--
APR 16...	881	85	54	160	0.050	--
MAY 14...	846	95	49	150	0.050	--
JUL 09...	829	77	50	140	--	--
AUG 06...	--	86	57	170	0.040	--
SEP 10...	1140	--	--	260	0.060	--
415308080414304 AB-135 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 08N LONG 080 41 43W)						
JAN 1991 17...	850	94	50	140	0.040	--
FEB 13...	853	86	51	150	0.040	--
MAR 12...	862	88	55	160	0.040	--
APR 16...	896	92	52	150	0.050	--
MAY 14...	840	95	51	150	0.050	--
JUL 09...	828	78	49	150	0.030	--
AUG 06...	746	85	55	160	0.040	--
SEP 10...	778	94	63	190	0.050	--
415308080414305 AB-135 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 08N LONG 080 41 43W)						
JAN 1991 17...	819	--	--	150	0.050	--
FEB 13...	833	84	48	140	0.030	--
MAR 12...	838	88	54	150	0.040	--
APR 16...	919	86	61	170	0.050	--
MAY 14...	788	85	54	180	0.050	--
JUL 09...	575	64	32	62	0.030	--
AUG 06...	664	83	44	140	0.040	--
SEP 10...	864	80	54	150	0.050	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
415308080414306 AB-135 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 08N LONG 080 41 43W)						
JAN 1991 17...	816	94	53	150	0.050	--
FEB 13...	841	83	48	140	0.030	--
MAR 12...	812	85	49	150	0.030	--
APR 16...	1030	98	75	190	0.050	--
MAY 14...	901	87	53	180	0.050	--
JUN 11...	863	90	49	150	0.040	--
JUL 09...	832	88	45	140	0.040	--
AUG 06...	678	81	44	120	0.040	--
SEP 10...	830	80	51	140	0.040	--
415309080414301 AB-136 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 09N LONG 080 41 43W)						
JAN 1991 17...	1290	75	170	290	0.060	--
FEB 13...	1260	69	180	280	0.050	--
MAR 12...	1290	69	190	290	0.060	--
APR 16...	1210	64	160	260	0.060	--
MAY 14...	1080	63	150	180	0.050	--
JUL 09...	1440	69	190	310	0.060	--
AUG 06...	1350	65	200	330	0.060	--
SEP 10...	1460	85	200	--	0.070	--
415309080414302 AB-136 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 09N LONG 080 41 43W)						
JAN 1991 17...	1180	75	170	280	0.060	--
FEB 13...	1250	66	170	270	0.050	--
MAR 12...	1310	70	190	280	0.13	--
APR 16...	1190	70	170	230	0.060	--
MAY 14...	1100	65	150	220	0.050	--
JUL 09...	1450	72	200	320	0.060	--
AUG 06...	1500	80	210	330	0.10	--
SEP 10...	1450	78	190	320	0.070	--
415309080414303 AB-136 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 09N LONG 080 41 43W)						
JAN 1991 17...	1180	74	170	260	0.060	--
FEB 13...	990	61	130	190	0.040	--
MAR 12...	1240	70	190	280	0.060	--
APR 16...	1070	65	170	210	0.050	--
MAY 14...	989	62	140	--	0.050	--
JUL 09...	1450	81	200	320	0.070	--
AUG 06...	1500	80	200	340	0.070	--
SEP 10...	1190	80	140	250	0.070	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
415309080414304 AB-136 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 09N LONG 080 41 43W)						
JAN 1991						
17...	1470	77	210	330	0.070	--
FEB						
13...	1450	72	220	330	0.060	--
MAR						
12...	1400	72	200	310	0.070	--
APR						
16...	1260	68	180	270	0.060	--
MAY						
14...	1280	71	190	300	0.050	--
JUL						
09...	1440	74	210	320	0.060	--
AUG						
06...	1470	70	200	330	0.070	--
SEP						
10...	1620	81	220	360	0.070	--
415309080414305 AB-136 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 09N LONG 080 41 43W)						
JAN 1991						
17...	1450	76	210	320	0.070	--
FEB						
13...	1480	67	210	320	0.070	--
MAR						
12...	1420	67	210	300	0.070	--
APR						
16...	1290	69	200	280	0.060	--
MAY						
14...	1290	66	190	280	0.060	--
JUL						
09...	1440	73	210	320	0.060	--
AUG						
06...	1380	73	200	330	0.070	--
SEP						
10...	1600	83	220	350	0.070	--
415309080414306 AB-136 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 09N LONG 080 41 43W)						
JAN 1991						
17...	1250	51	180	250	0.060	--
FEB						
13...	1180	67	160	240	0.050	--
MAR						
12...	1160	60	180	260	0.050	--
APR						
16...	1200	48	170	240	0.050	--
MAY						
14...	1190	60	170	280	0.050	--
JUL						
09...	1140	63	150	230	0.040	--
AUG						
06...	1320	73	170	170	0.060	--
SEP						
10...	1240	75	170	290	0.060	--
415309080414401 AB-138 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 09N LONG 080 41 44W)						
FEB 1991						
13...	627	53	44	78	0.030	--
MAR						
12...	739	52	69	130	0.010	--
APR						
16...	597	56	42	85	0.030	--
MAY						
14...	629	53	52	94	0.030	--
JUL						
09...	641	62	46	68	0.030	--
AUG						
06...	720	64	60	110	0.030	--
SEP						
10...	801	85	46	130	0.050	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DIS-SOLVED (MG/L AS CA)	SODIUM, DIS-SOLVED (MG/L AS NA)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE, DIS-SOLVED (MG/L AS BR)	CYANIDE, DIS-SOLVED (MG/L AS CN)
415309080414402 AB-138 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 09N LONG 080 41 44W)						
FEB 1991						
13...	605	51	40	75	0.030	--
MAR						
12...	657	53	51	94	0.030	--
APR						
16...	575	55	37	74	0.030	--
MAY						
14...	611	53	42	82	0.030	--
JUL						
09...	837	86	46	140	0.040	--
AUG						
06...	618	61	34	74	0.030	--
SEP						
10...	761	87	35	120	0.040	--
415309080414403 AB-138 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 09N LONG 080 41 44W)						
JAN 1991						
17...	666	80	38	97	0.030	--
FEB						
13...	596	52	37	74	0.030	--
MAR						
12...	621	53	40	79	<0.010	--
APR						
16...	559	57	32	67	0.030	--
MAY						
14...	549	55	32	67	0.030	--
JUL						
09...	538	63	24	54	0.030	<0.01
AUG						
06...	561	63	21	56	0.020	--
SEP						
10...	778	83	37	120	0.050	--
415309080414404 AB-138 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 09N LONG 080 41 44W)						
FEB 1991						
13...	647	47	57	92	0.030	--
MAR						
12...	656	50	66	110	0.030	--
MAY						
14...	569	49	51	83	0.030	--
SEP						
10...	751	77	35	110	0.040	--
415309080414405 AB-138 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 09N LONG 080 41 44W)						
JAN 1991						
17...	668	--	--	95	0.030	--
415309080414406 AB-138 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 09N LONG 080 41 44W)						
JAN 1991						
17...	665	78	36	97	0.030	--
FEB						
13...	922	56	110	170	0.040	--
MAR						
12...	908	53	100	180	0.040	--
APR						
16...	852	54	100	150	0.040	--
MAY						
14...	776	44	86	110	0.030	--
JUL						
09...	864	58	110	160	0.040	--
AUG						
06...	859	58	95	150	0.040	--
SEP						
10...	848	62	100	160	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
415310080414401 AB-137 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 10N LONG 080 41 44W)						
JAN 1991 17...	608	60	39	84	0.030	--
FEB 13...	704	79	35	97	0.030	--
MAR 12...	658	75	35	100	0.030	--
APR 16...	675	75	36	100	0.030	--
MAY 14...	627	75	34	95	0.030	--
JUN 11...	774	86	38	120	0.030	--
JUL 09...	764	83	39	110	0.040	--
AUG 06...	807	88	44	120	0.040	--
SEP 10...	773	87	46	120	0.040	--
415310080414402 AB-137 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 10N LONG 080 41 44W)						
JAN 1991 17...	606	--	--	--	--	--
FEB 13...	704	73	36	97	0.030	--
MAR 12...	663	76	36	100	0.030	--
APR 16...	662	77	36	97	0.030	--
MAY 14...	637	76	35	100	0.030	--
JUL 09...	780	84	41	110	0.040	--
AUG 06...	812	81	44	120	0.040	--
SEP 10...	652	87	44	130	0.050	--
415310080414403 AB-137 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 10N LONG 080 41 44W)						
FEB 1991 13...	692	76	35	100	0.030	--
MAR 12...	664	78	36	100	0.020	--
APR 16...	679	73	37	100	0.030	--
MAY 14...	654	78	34	81	0.030	--
JUL 09...	777	80	45	120	0.040	--
AUG 06...	810	86	45	280	0.040	--
SEP 10...	715	88	45	120	0.040	--
415310080414404 AB-137 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 10N LONG 080 41 44W)						
FEB 1991 13...	678	74	35	93	0.030	--
MAR 12...	618	76	35	100	0.030	--
APR 16...	673	74	36	96	0.030	--
MAY 14...	639	75	37	100	0.030	--
JUL 09...	782	85	42	110	0.20	--
AUG 06...	811	88	43	110	0.040	--
SEP 10...	785	87	46	120	0.040	--

GROUND-WATER QUALITY DATA--Continued

DATE	SPECIFIC CONDUCTANCE, LAB (US/CM)	CALCIUM, DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE, DISSOLVED (MG/L AS BR)	CYANIDE, DISSOLVED (MG/L AS CN)
415310080414405 AB-137 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 10N LONG 080 41 44W)						
FEB 1991 13...	694	74	34	95	0.030	--
MAR 12...	677	75	34	100	0.030	--
APR 16...	653	76	34	91	0.030	--
MAY 14...	648	70	37	100	0.020	--
JUL 09...	745	86	39	110	0.15	--
AUG 06...	813	85	41	120	0.040	--
SEP 10...	783	89	45	120	0.060	--
415310080414406 AB-137 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 10N LONG 080 41 44W)						
FEB 1991 13...	713	75	34	98	0.030	--
MAR 12...	683	74	34	110	0.030	--
APR 16...	684	77	35	92	0.030	--
MAY 14...	611	78	37	92	0.030	--
JUN 11...	770	84	38	100	0.030	--
JUL 09...	728	87	42	110	0.040	--
AUG 06...	812	89	41	110	0.040	--
SEP 10...	790	88	45	120	0.040	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 THROUGH SEPTEMBER 1991

ASHLAND COUNTY SITE #3 (SR 3)

403635082152500 - AS-44 NR LOUDONVILLE OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HYDRO-GEN SULFIDE TOTAL (MG/L AS H2S)	COLI-FORM, TOTAL, IMMED. MEM.FIL (COLS./ 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
FEB 19...	3.50	620	637	7.2	7.3	8.0	5.1	0	K31	<1

DATE	ACIDITY (MG/L AS H)	ACIDITY (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)	BICAR-BONATE WATER WH FET FIELD MG/L AS HCO3	BICAR-BONATE IT-FLD (MG/L AS HCO3)	CAR-BONATE WATER WH FET FIELD MG/L AS CO3	CAR-BONATE IT-FLD (MG/L AS CO3)
FEB 19...	0.3	15	67	18	41	1.0	300	301	0	0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)
FEB 19...	253	37	37	0.10	0.040	8.4	350	<0.010	0.100	0.070

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
FEB 19...	0.020	0.010	<1	65	<0.5	40	1.0	<1	<3

DATE	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB 19...	190	<10	6	1300	<0.1	<10	160	<6	4

GROUND-WATER QUALITY DATA--Continued

ASHTABULA COUNTY SITE #1 (SR 84)

415308080414300 - AB-135 NR KINGSVILLE OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 12...	6.09	900	892	7.4	7.7	10.5	0.6	30	90	21

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
MAR 12...	1.4	195	155	69	170	0.20	0.040	12	524	<0.010

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
MAR 12...	0.020	0.60	0.040	0.020	<1	46	0.5	20	<1.0	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 12...	<10	240	<10	14	110	<0.1	<10	140	<6	38

EFFECTS OF HIGHWAY DEICING CHEMCIALS ON SHALLOW UNCONSOLIDATED AQUIFERS IN OHIO

GROUND-WATER QUALITY DATA--Continued

PORTAGE COUNTY SITE #5 (SR 14)

411138081172400 - PO-115 NR RAVENNA OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 13...	5.90	1800	2000	7.2	7.1	6.0	1.1	55	110	13

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
MAR 13...	3.8	176	132	41	600	0.20	0.10	4.2	1180	<0.010

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
MAR 13...	0.040	0.40	0.020	<0.010	<1	74	0.5	50	<1.0	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 13...	<10	11	<10	4	2	<0.1	<10	420	<6	4

GROUND-WATER QUALITY DATA--Continued

CLARK COUNTY SITE #8 (SR 4)

395859083440600 - CL-137 NR SPRINGFIELD OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 19...	21.00	850	868	7.2	7.3	10.5	0.4	20	120	44

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
MAR 19...	2.2	500	413	30	15	0.20	0.030	12	509	<0.010

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
MAR 19...	<0.010	0.40	<0.010	<0.010	<1	130	<0.5	20	<1.0	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 19...	<10	6	<10	6	2	<0.1	<10	230	<6	5

EFFECTS OF HIGHWAY DEICING CHEMCIALS ON SHALLOW UNCONSOLIDATED AQUIFERS IN OHIO

GROUND-WATER QUALITY DATA--Continued

RICHLAND COUNTY SITE #4 (SR 97)

403923082325600 - R-15 NR LEXINGTON OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAR 15...	11.12	345	338	7.5	7.6	9.0	<0.1	30	9.3	22

DATE	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)
MAR 15...	107	90	30	28	0.10	0.020	7.8	203	<0.010	2.00

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
MAR 15...	0.30	0.020	0.010	<1	18	0.5	20	<1.0	<1	<3

DATE	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 15...	200	<10	<4	8	<0.1	<10	54	<6	22

GROUND-WATER QUALITY DATA--Continued

CHAMPAIGN COUNTY SITE #7 (SR 29)

400948083480200 - CH-41 NR URBANA OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 21...	8.60	800	850	7.3	7.3	11.0	1.0	50	110	39

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
MAR 21...	3.6	386	323	84	39	0.20	0.030	8.6	520	0.020

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
MAR 21...	<0.010	<0.20	<0.010	<0.010	<1	76	<0.5	30	<1.0	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 21...	<10	210	<10	8	130	<0.1	<10	410	<6	3

GROUND-WATER QUALITY DATA--Continued

LUCAS COUNTY SITE #2 (SR 2)

413547083481300 - LU-22 NR HOLLAND OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 26...	5.20	745	744	7.9	8.0	9.0	0.2	9.9	61	11

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
MAR 26...	3.4	100	86	53	130	0.10	0.050	6.6	0.020	1.20

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)
MAR 26...	0.30	0.030	<0.010	<1	34	<0.5	20	<1.0	<1	<3

DATE	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR 26...	22	<10	<4	76	<0.1	<10	310	<6	4

GROUND-WATER QUALITY DATA--Continued

PICKAWAY COUNTY SITE #6 (SR 104)

393541083001000 - PK-47 NR CIRCLEVILLE OH

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH (STAND-ARD UNITS)	PH LAB (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	ACIDITY (MG/L AS H)	ACIDITY (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 03...	7.13	700	740	7.5	7.5	12.0	0.4	20	100	35

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE IT-FLD (MG/L AS HCO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
APR 03...	1.9	393	316	78	16	0.20	0.040	9.0	435	0.020

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
APR 03...	0.020	<0.20	<0.010	<0.010	2	140	<0.5	40	<1.0	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR 03...	<10	160	<10	6	430	<0.1	<10	160	<6	10

EFFECTS OF HIGHWAY DEICING CHEMICALS ON SHALLOW UNCONSOLIDATED AQUIFERS IN OHIO

This table lists the construction data for wells drilled for the "Effects of Highway Deicing Chemicals" study.

GROUND-WATER WELL CONSTRUCTION DATA

SITE-ID	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	DATE WELL CONSTRUCTED	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	DIAMETER OF CASING (IN)	WATER LEVEL (FEET)	HEIGHT OF THIS MEAS POINT (FEET)
			ASHLAND COUNTY						
403636082152600	AS-5 NR LOUDONVILLE OH	930	05-22-89	111ALVM	12.7	7.7	2.0	1.82	2.29
403631082152200	AS-6 NR LOUDONVILLE OH	930	06-05-89	111ALVM	19.9	14.9	2.0	3.01	2.01
403634082152300	AS-7 NR LOUDONVILLE OH	930	06-06-89	111ALVM	23.1	18.1	2.0	3.22	1.94
403635082152800	AS-8 NR LOUDONVILLE OH	935	07-25-89	111ALVM	16.2	11.2	2.0	5.02	1.74
403631082152100	AS-9 NR LOUDONVILLE OH	930	07-25-89	111ALVM	12.3	7.35	2.0	5.77	1.94
403633082152400	AS-10 NR LOUDONVILLE OH	930	07-26-89	111ALVM	12.7	7.7	2.0	6.53	1.88
403636082152300	AS-41 NR LOUDONVILLE OH	930	03-07-90	111ALVM	11.8	1.8	3.0	4.34	3.20
403636082152200	AS-42 NR LOUDONVILLE OH	930	03-08-90	111ALVM	16.5	--	2.0	4.00	2.69
403635082152300	AS-45 NR LOUDONVILLE OH	930	06-12-90	111ALVM	15.7	5.7	4.0	3.00	2.10
403635082152700	AS-43 NR LOUDONVILLE OH	935	06-06-90	111ALVM	16.2	1.2	3.0	2.80	1.54
403635082152500	AS-44 NR LOUDONVILLE OH	930	06-11-90	111ALVM	18.0	3.0	3.0	3.01	2.00
403635082152400	AS-46 NR LOUDONVILLE OH	930	06-12-90	111ALVM	11.6	1.6	3.0	2.83	3.50
403635082152200	AS-47 NR LOUDONVILLE OH	930	06-13-90	111ALVM	11.2	1.2	3.0	3.60	2.40
403635082152100	AS-48 NR LOUDONVILLE OH	930	06-13-90	111ALVM	16.0	6.0	3.0	3.80	2.40
403635082152600	AS-49 NR LOUDONVILLE OH	930	06-13-90	111ALVM	11.0	--	2.0	4.50	2.07
			ASHTABULA COUNTY						
415307080414900	AB-128	770	01-04-89	111TRRC	29.0	24.0	2.0	22.50	1.62
415307080414300	AB-129	770	01-10-89	111TRRC	18.0	13.0	2.0	6.20	1.282
415307080414400	AB-130	765	01-10-89	111TRRC	10.0	5.0	2.0	5.10	1.491
415308080414400	AB-131	760	01-10-89	111TRRC	21.0	16.0	2.0	4.40	1.619
415305080414300	AB-132 NR KINGSVILLE OH	775	01-11-89	111TRRC	14.5	9.5	2.0	8.60	1.205
441530708041420	AB-133 NR KINGSVILLE OH	770	08-20-90	111TRRC	20.0	7.0	3.0	7.00	2.90
415307080414500	AB-134 NR KINGSVILLE OH	770	08-20-90	111TRRC	17.4	7.5	4.0	7.00	2.70
415309080414300	AB-136 NR KINGSVILLE OH	760	08-21-90	111TRRC	20.1	10.5	3.0	5.80	1.10
415308080414300	AB-135 NR KINGSVILLE OH	765	08-21-90	111TRRC	19.5	13.1	3.0	7.30	1.60
415310080414400	AB-137 NR KINGSVILLE OH	755	08-21-90	111TRRC	19.5	9.75	3.0	4.60	2.50
415309080414400	AB-138 NR KINGSVILLE OH	760	08-21-90	111TRRC	19.5	--	2.0	--	2.44
415305080414200	AB-139 NR KINGSVILLE OH	775	09-18-90	111TRRC	20.2	--	3.0	4.80	1.87
			CHAMPAIGN COUNTY						
400954083475900	CH-36 NR URBANA OH	1030	12-19-89	112OTSH	24.3	19.3	2.0	10.60	0.71
400952083475400	CH-37 NR URBANA OH	1030	12-19-89	112OTSH	24.0	19.0	2.0	10.20	0.97
400950083480600	CH-38 NR URBANA OH	1025	12-19-89	112OTSH	19.2	14.2	2.0	8.70	1.80
400952083480900	CH-39 NR URBANA OH	1030	12-19-89	112OTSH	24.4	19.4	2.0	10.20	0.62
400952083480800	CH-40 NR URBANA OH	1030	09-26-90	112OTSH	34.7	10.7	3.0	9.80	2.40
400948083480200	CH-41 NR URBANA OH	1030	09-27-90	112OTSH	34.3	10.2	3.0	9.88	2.20
400949083480100	CH-42 NR URBANA OH	1030	09-28-90	112OTSH	28.7	13.7	4.0	9.97	1.30
400948083480100	CH-43 NR URBANA OH	1030	10-01-90	112OTSH	32.2	7.95	3.0	9.75	2.00
400948083480000	CH-45 NR URBANA OH	1030	10-01-90	112OTSH	34.4	10.3	3.0	9.65	2.00
400947083480000	CH-44 NR URBANA OH	1030	10-05-90	112OTSH	31.0	--	2.0	--	1.92
400948083475800	CH-46 NR URBANA OH	1030	10-03-90	112OTSH	34.8	10.8	3.0	8.78	2.30
			CLARK COUNTY						
395854083440500	CL-132 NR SPRINGFIELD OH	1020	02-13-90	112OTSH	27.3	22.3	2.0	13.00	2.70
395858083440100	CL-133 NR SPRINGFIELD OH	1025	02-13-90	112OTSH	22.3	7.3	3.0	13.80	2.70
395902083440600	CL-134 NR SPRINGFIELD OH	1030	02-20-90	112OTSH	23.0	18.0	2.0	7.60	2.08
395901083440600	CL-135 NR SPRINGFIELD OH	1030	08-17-90	112OTSH	37.2	17.7	3.0	18.10	1.95
395901083440700	CL-136 NR SPRINGFIELD OH	1030	08-22-90	112OTSH	37.5	18.1	3.0	18.40	1.30
395859083440600	CL-137 NR SPRINGFIELD OH	1030	08-10-90	112OTSH	38.0	18.0	3.0	19.10	2.00
395859083440700	CL-138 NR SPRINGFIELD OH	1030	08-13-90	112OTSH	28.5	18.5	4.0	22.00	1.50
395859083440800	CL-139 NR SPRINGFIELD OH	1030	08-13-90	112OTSH	36.9	16.9	3.0	21.30	2.25
395859083440500	CL-140 NR SPRINGFIELD OH	1030	08-16-90	112OTSH	36.7	--	2.0	--	2.25
395859083440200	CL-141 NR SPRINGFIELD OH	1030	08-16-90	112OTSH	37.5	18.5	3.0	18.50	1.70
395859083440400	CL-142 NR SPRINGFIELD OH	1030	08-16-90	112OTSH	35.9	16.4	3.0	17.20	2.40
395859083440300	CL-143 NR SPRINGFIELD OH	1030	08-15-90	112OTSH	40.0	20.0	3.0	17.20	3.00
			COLUMBIANA COUNTY						
405335080390200	CO-24	1095	01-19-89	112OTSH	27.0	22.0	2.0	7.80	3.189
405334080390100	CO-25	1095	01-19-89	112OTSH	25.0	20.0	2.0	10.10	1.44
405334080390500	CO-26	1095	01-19-89	112OTSH	20.0	15.0	2.0	7.20	1.419
			HAMILTON COUNTY						
391733084402800	H-12	533	03-27-89	112OTSH	23.0	18.0	2.0	14.70	0.06
391729084402500	H-13	534	03-28-89	112OTSH	30.0	25.0	2.0	16.20	0.15
391730084403300	H-14	531	03-28-89	112OTSH	25.0	20.0	2.0	13.10	0.23

GROUND-WATER WELL CONSTRUCTIOON DATA--Continued

SITE-ID	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	DATE WELL CONSTRUCTED	AQUIFER CODE	DEPTH OF WELL (FEET)	TOP OF OPEN INTERVAL (FEET)	DIAMETER OF CASING (IN)	WATER LEVEL (FEET)	HEIGHT OF THIS MEAS POINT (FEET)
			LUCAS COUNTY						
135530834806000	LU-18 NR HOLLAND OH	675	03-14-89	112LAKE	29.0	24.0	2.0	3.60	2.275
413553083480900	LU-19 NR HOLLAND OH	675	03-15-89	112LAKE	31.3	26.3	2.0	3.70	2.053
413548083480400	LU-17 NR HOLLAND OH	675	03-14-89	112LAKE	29.2	24.2	2.0	5.60	1.793
413551083481200	LU-20 NR HOLLAND OH	675	08-28-90	112LAKE	31.0	6.0	4.0	4.70	1.056
413549083481500	LU-21 NR HOLLAND OH	675	08-28-90	112LAKE	29.1	4.9	3.0	5.50	0.902
413547083481300	LU-22 NR HOLLAND OH	675	08-29-90	112LAKE	28.3	3.9	3.0	5.80	0.80
413547083481400	LU-23 NR HOLLAND OH	675	08-29-90	112LAKE	29.4	4.4	4.0	5.75	0.55
413547083481500	LU-24 NR HOLLAND OH	675	08-29-90	112LAKE	18.7	8.7	4.0	6.32	0.90
413547083481200	LU-25 NR HOLLAND OH	675	08-29-90	112LAKE	29.4	5.0	3.0	5.79	0.80
413547083481000	LU-26 NR HOLLAND OH	675	08-29-90	112LAKE	29.6	--	2.0	6.70	0.60
413547083481100	LU-27 NR HOLLAND OH	675	08-30-90	112LAKE	28.4	4.1	3.0	5.52	0.60
413546083480900	LU-28 NR HOLLAND OH	675	08-30-90	112LAKE	28.2	3.9	3.0	5.97	0.80
			PICKAWAY COUNTY						
393541083000700	PK-44 NR CIRCLEVILLE OH	680	04-05-89	112OTSH	38.0	28.0	2.0	12.50	2.20
393542083000900	PK-45 NR CIRCLEVILLE OH	680	04-05-89	112OTSH	30.0	25.0	2.0	11.10	1.12
393540083001200	PK-46 NR CIRCLEVILLE OH	680	04-10-89	112OTSH	34.6	29.6	2.0	10.30	1.43
393541083001000	PK-47 NR CIRCLEVILLE OH	680	07-23-90	112OTSH	36.1	11.1	3.0	7.94	2.00
393541083001100	PK-48 NR CIRCLEVILLE OH	680	07-23-90	112OTSH	28.0	8.0	4.0	8.05	2.20
393541083000900	PK-49 NR CIRCLEVILLE OH	680	07-24-90	112OTSH	35.6	15.6	3.0	10.90	2.23
393541083000800	PK-50 NR CIRCLEVILLE OH	680	07-30-90	112OTSH	34.3	--	2.0	11.00	2.63
393542083000700	PK-51 NR CIRCLEVILLE OH	680	07-25-90	112OTSH	35.5	15.5	3.0	10.90	2.70
393542083000500	PK-52 NR CIRCLEVILLE OH	680	07-26-90	112OTSH	36.2	16.2	3.0	10.90	2.70
393541083001200	PK-53 NR CIRCLEVILLE OH	680	07-31-90	112OTSH	35.6	15.6	3.0	9.14	1.50
			PORTAGE COUNTY						
411138081172100	PO-111 NR RAVENNA OH	1065	05-02-89	112OTSH	10.0	5.0	2.0	2.30	-0.25
411137081172500	PO-112 NR RAVENNA OH	1065	05-02-89	112OTSH	8.5	3.5	2.0	3.00	1.39
411135081172600	PO-113 NR RAVENNA OH	1060	05-03-89	112OTSH	9.2	4.2	2.0	0.50	1.23
411137081172100	PO-114 NR RAVENNA OH	1065	05-15-90	112OTSH	12.3	2.3	3.0	1.40	2.39
411138081172400	PO-115 NR RAVENNA OH	1070	05-16-90	112OTSH	17.5	7.3	3.0	6.70	2.20
411138081172500	PO-116 NR RAVENNA OH	1070	05-16-90	112OTSH	17.5	5.2	4.0	6.40	1.15
411137081172400	PO-117 NR RAVENNA OH	1065	05-17-90	112OTSH	18.5	--	2.0	--	1.94
411137081172300	PO-118 NR RAVENNA OH	1065	05-17-90	112OTSH	19.0	4.0	3.0	5.60	1.00
411136081172500	PO-119 NR RAVENNA OH	1065	05-18-90	112OTSH	11.0	1.05	3.0	3.10	2.30
411136081172600	PO-120 NR RAVENNA OH	1065	05-18-90	112OTSH	10.4	0.4	3.0	4.20	2.20
			RICHLAND COUNTY						
403922082325700	R-11 NR LEXINGTON OH	1170	01-24-89	112OTSH	22.5	17.5	2.0	15.80	2.39
403923082325800	R-12 NR LEXINGTON OH	1170	01-24-89	112OTSH	22.0	17.0	2.0	14.30	3.07
403923082330000	R-13	1160	01-24-89	112OTSH	30.0	25.0	2.0	11.10	3.06
403925082325600	R-14 NR LEXINGTON OH	1185	01-24-89	112OTSH	30.0	25.0	2.0	19.20	2.47
403923082325600	R-15 NR LEXINGTON OH	1170	07-09-90	112OTSH	23.0	8.0	3.0	11.30	2.00
403923082325500	R-16 NR LEXINGTON OH	1170	07-10-90	112OTSH	18.9	8.9	4.0	15.00	1.10
403923082325900	R-17 NR LEXINGTON OH	1160	07-10-90	112OTSH	23.2	8.2	3.0	13.60	2.10
403923082325700	R-18 NR LEXINGTON OH	1160	07-17-90	112OTSH	23.0	--	2.0	--	3.09
403922082325900	R-19 NR LEXINGTON OH	1160	07-10-90	112OTSH	30.0	7.2	3.0	12.30	2.80
403922082330000	R-20 NR LEXINGTON OH	1155	07-17-90	112OTSH	34.2	19.2	3.0	9.01	2.80
403923082325400	R-21 NR LEXINGTON OH	1180	07-16-90	112OTSH	25.0	10.0	3.0	15.90	3.23
			STARK COUNTY						
405407081275800	ST-29	1100	02-13-89	112OTSH	37.5	32.5	2.0	25.90	2.10
405408081275700	ST-30	1105	02-13-89	112OTSH	42.5	37.5	2.0	2.60	2.70
405408081280100	ST-31	1090	02-13-89	112OTSH	33.0	28.0	2.0	20.90	2.31
405408081275900	ST-32	1095	02-13-89	112OTSH	30.0	25.0	2.0	22.90	2.14

AQUIFER CODE (Geologic Unit)

112OTSH - Outwash, Pleistocene Epoch
111TRRC - Terrace Deposits, Holocene Epoch
112LAKE - Lake Deposits, Pleistocene Epoch
111ALVM - Alluvium, Holocene Epoch

The following table lists ground-water-level measurements from wells located throughout the eight sites of the "Effects of Highway Deicing Chemicals" study area. The water level in these wells is measured periodically, however, they are not part of the routine water-quality network.

GROUND-WATER LEVELS

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
403923082330000	R-13	30	112OTSH	02-20-91	8.84	1160
				03-14-91	8.70	
				04-18-91	8.97	
				05-16-91	9.79	
				06-13-91	10.37	
				07-11-91	10.97	
				08-08-91	11.33	
				09-09-91	11.52	
403922082325700	R-11 NR LEXINGTON OH	22.5	112OTSH	02-20-91	14.40	1170
				03-14-91	14.14	
				04-18-91	14.45	
				05-16-91	15.30	
				06-13-91	15.93	
				07-11-91	16.51	
				08-08-91	16.88	
				09-09-91	17.10	
403923082325800	R-12 NR LEXINGTON OH	22.0	112OTSH	02-20-91	12.80	1170
				03-14-91	12.45	
				04-18-91	12.80	
				05-16-91	13.75	
				06-13-91	14.52	
				07-11-91	15.18	
				08-08-91	15.59	
				09-09-91	15.80	
403923082325600	R-15 NR LEXINGTON OH	23.0	112OTSH	11-16-90	15.55	1170
				02-20-91	11.02	
				03-14-91	11.05	
				04-12-91	13.84	
				05-16-91	12.51	
				06-13-91	15.39	
				07-11-91	16.36	
				08-08-91	16.87	
				09-09-91	17.09	
403923082325500	R-16 NR LEXINGTON OH	18.9	112OTSH	02-20-91	12.02	1170
				03-14-91	11.87	
				04-18-91	11.85	
				05-16-91	12.14	
				06-13-91	15.82	
				07-11-91	16.42	
				08-08-91	16.79	
403923082325500	R-16 NR LEXINGTON OH	18.9	112OTSH	09-09-91	17.05	1170
403923082325900	R-17 NR LEXINGTON OH	23.2	112OTSH	11-16-90	14.33	1160
				01-18-91	11.50	
403923082325700	R-18 NR LEXINGTON OH	23.0	112OTSH	02-20-91	12.70	1160
				03-14-91	12.41	
				04-18-91	12.66	
				05-16-91	13.57	
				06-13-91	14.34	
				07-11-91	14.99	
				08-08-91	15.41	
				09-09-91	15.63	
403922082325900	R-19 NR LEXINGTON OH	30.0	112OTSH	11-16-90	12.71	1160
				11-19-90	12.77	
				02-20-91	10.99	
				03-14-91	10.59	
				04-18-91	11.00	
				05-16-91	11.83	
				06-13-91	12.50	
				07-11-91	13.15	
				08-08-91	13.54	
				09-09-91	13.78	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
403922082330000	R-20 NR LEXINGTON OH	34.2	112OTSH	11-16-90	9.43	1155
				02-20-91	7.59	
				03-14-91	7.25	
				04-18-91	7.95	
				05-16-91	8.53	
				06-13-91	9.20	
				07-11-91	9.83	
				08-08-91	10.25	
				09-09-91	10.43	
403923082325400	R-21 NR LEXINGTON OH	25.0	112OTSH	11-16-90	16.39	1180
				02-20-91	13.11	
				03-14-91	10.91	
				04-18-91	10.31	
				05-16-91	15.12	
				06-13-91	16.62	
				07-11-91	17.14	
				08-08-91	17.79	
				09-09-91	19.08	
415307080414400	AB-130	10.0	111TRRC	04-16-91	5.63	765
415307080414400	AB-130	10.0	111TRRC	05-14-91	6.61	765
				06-11-91	7.91	
				07-09-91	8.96	
				08-06-91	9.46	
				09-10-91	9.74	
415308080414400	AB-131	21	111TRRC	04-16-91	4.41	760
				05-14-91	5.45	
				06-11-91	6.41	
				07-09-91	6.99	
				08-06-91	7.52	
				09-10-91	7.55	
415307080414300	AB-129	18.0	111TRRC	04-16-91	6.05	770
				05-14-91	7.47	
				06-10-91	8.84	
				07-09-91	9.44	
				08-06-91	9.96	
				09-10-91	9.99	
415305080414300	AB-132 NR KINGSVILLE OH	14.5	111TRRC	04-16-91	7.97	775
				05-14-91	10.95	
				06-11-91	12.16	
				07-09-91	12.69	
				08-06-91	13.19	
				09-10-91	13.22	
415307080414200	AB-133 NR KINGSVILLE OH	20.0	111TRRC	11-02-90	6.56	770
				11-20-90	7.15	
				01-17-91	5.31	
				02-13-91	5.86	
				03-12-91	5.25	
				04-16-91	5.91	
				05-14-91	7.22	
				09-10-91	9.69	
415307080414500	AB-134 NR KINGSVILLE OH	17.4	111TRRC	11-02-90	6.56	770
				02-13-91	5.80	
				03-12-91	5.22	
				04-16-91	5.86	
				05-14-91	7.14	
				06-11-91	8.51	
				07-09-91	9.22	
				08-06-91	9.69	
				09-10-91	9.76	
415309080414300	AB-136 NR KINGSVILLE OH	20.1	111TRRC	11-02-90	5.30	760
				11-20-90	5.69	
				01-17-91	4.76	
				02-13-91	5.11	
				03-12-91	4.54	
				04-16-91	4.94	
				05-14-91	5.76	
				06-11-91	6.80	
				07-09-91	7.54	
				08-06-91	8.19	
				09-10-91	8.33	
415308080414300	AB-135 NR KINGSVILLE OH	19.5	111TRRC	11-02-90	6.59	765
				11-20-90	7.13	
				01-17-91	5.65	
				02-13-91	6.03	
				04-16-91	6.01	
				05-14-91	7.12	
				06-11-91	8.39	
				07-09-91	9.24	
				08-06-91	9.84	
				09-10-91	9.96	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
415310080414400	AB-137 NR KINGSVILLE OH	19.5	111TRRC	11-02-90	3.76	755
				11-20-90	3.99	
				01-17-91	2.56	
				02-13-91	3.51	
				03-12-91	2.92	
				04-16-91	3.14	
				05-14-91	4.18	
				06-11-91	5.21	
				07-09-91	5.78	
				08-06-91	6.36	
				09-10-91	6.36	
415309080414400	AB-138 NR KINGSVILLE OH	19.5	111TRRC	05-14-91	6.01	760
				06-11-91	7.03	
				07-09-91	7.78	
				08-06-91	8.49	
				09-10-91	8.58	
415305080414200	AB-139 NR KINGSVILLE OH	20.2	111TRRC	11-02-90	9.56	775
				11-20-90	9.92	
				01-17-91	7.40	
415305080414200	AB-139 NR KINGSVILLE OH	20.2	111TRRC	02-13-91	8.23	775
				03-12-91	6.81	
				04-16-91	7.34	
				05-14-91	11.31	
				06-11-91	11.24	
				07-09-91	11.78	
				08-06-91	12.23	
				09-10-91	12.31	
393540083001200	PK-46	34.6	112OTSH	02-21-91	7.08	680
				04-25-91	6.85	
				05-20-91	8.09	
				06-17-91	9.06	
				07-17-91	9.90	
				08-12-91	10.56	
				09-16-91	11.26	
393541083000700	PK-44 NR CIRCLEVILLE OH	38	112OTSH	02-21-91	8.94	680
				04-25-91	8.63	
				05-20-91	9.80	
				06-17-91	10.73	
				07-17-91	11.49	
				08-12-91	12.12	
				09-16-91	12.76	
393542083000900	PK-45 NR CIRCLEVILLE OH	30	112OTSH	02-21-91	8.68	680
393541083001000	PK-47 NR CIRCLEVILLE OH	36.1	112OTSH	11-08-90	9.78	680
				02-21-91	6.89	
				04-03-91	6.52	
				04-25-91	6.51	
				05-20-91	7.89	
				06-17-91	8.83	
				07-17-91	9.58	
				08-12-91	10.21	
				09-16-91	10.96	
393541083001100	PK-48 NR CIRCLEVILLE OH	28.0	112OTSH	02-06-91	8.14	680
				02-21-91	7.46	
				04-03-91	7.07	
				04-25-91	7.15	
				05-20-91	8.32	
				06-17-91	9.26	
				07-17-91	10.04	
				08-12-91	10.69	
393541083001100	PK-48 NR CIRCLEVILLE OH	28.0	112OTSH	08-26-91	10.99	680
				09-16-91	11.36	
393541083000900	PK-49 NR CIRCLEVILLE OH	35.6	112OTSH	11-08-90	10.94	680
				02-21-91	8.33	
				04-25-91	7.86	
				05-20-91	9.13	
				06-17-91	10.05	
				07-17-91	10.89	
				08-12-91	11.50	
				09-16-91	12.18	
393541083000800	PK-50 NR CIRCLEVILLE OH	34.3	112OTSH	04-25-91	8.37	680
				05-25-91	9.42	
				06-17-91	10.36	
				07-17-91	11.12	
				08-12-91	11.79	
				09-16-91	12.51	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
393542083000700	PK-51 NR CIRCLEVILLE OH	35.5	112OTSH	11-08-90	10.95	680
				02-21-91	8.37	
				04-25-91	8.13	
				05-20-91	9.36	
				06-17-91	10.29	
				07-17-91	11.08	
				08-12-91	11.72	
				09-16-91	12.39	
393542083000500	PK-52 NR CIRCLEVILLE OH	36.2	112OTSH	11-08-90	10.79	680
				02-21-91	8.50	
				04-25-91	8.25	
				05-20-91	9.48	
				06-17-91	10.42	
				07-17-91	11.30	
				08-12-91	11.80	
				09-16-91	12.56	
393541083001200	PK-53 NR CIRCLEVILLE OH	35.6	112OTSH	11-08-90	9.14	680
				02-21-91	6.38	
				04-25-91	6.22	
				05-20-91	7.44	
				06-17-91	8.42	
				07-17-91	9.26	
				08-12-91	9.87	
				09-16-91	10.62	
413553083480600	LU-18 NR HOLLAND OH	29.0	112LAKE	02-27-91	3.66	675
				03-25-91	4.04	
				04-23-91	3.07	
				05-23-91	4.24	
				06-19-91	4.55	
				07-16-91	5.35	
				08-15-91	6.02	
				09-18-91	6.45	
413553083480900	LU-19 NR HOLLAND OH	31.3	112LAKE	02-27-91	3.02	675
				03-25-91	3.42	
				04-23-91	2.45	
				05-23-91	3.66	
				06-19-91	3.98	
				07-16-91	4.76	
				08-15-91	5.40	
				09-18-91	5.86	
413548083480400	LU-17 NR HOLLAND OH	29.2	112LAKE	02-27-91	5.02	675
				04-23-91	4.65	
				05-23-91	5.38	
				06-19-91	5.60	
				07-16-91	6.43	
				08-15-91	7.21	
				09-18-91	7.75	
413551083481200	LU-20 NR HOLLAND OH	31.0	112LAKE	02-27-91	2.39	675
				03-25-91	3.86	
				04-23-91	2.98	
				05-23-91	3.96	
				06-19-91	4.23	
				07-16-91	5.06	
				08-15-91	5.74	
				09-18-91	6.27	
413549083481500	LU-21 NR HOLLAND OH	29.1	112LAKE	11-27-90	6.18	675
				01-23-91	4.03	
				02-27-91	4.73	
				03-25-91	4.69	
				04-23-91	3.79	
				05-23-91	4.65	
				06-19-91	4.90	
				07-16-91	5.73	
				08-15-91	6.45	
413549083481500	LU-21 NR HOLLAND OH	29.1	112LAKE	09-18-91	7.02	675
413547083481300	LU-22 NR HOLLAND OH	28.3	112LAKE	11-27-90	6.70	675
				02-27-91	4.74	
				03-26-91	5.22	
				04-23-91	4.33	
				05-23-91	5.00	
				06-19-91	5.30	
				07-16-91	6.16	
				08-15-91	6.97	
				09-18-91	7.55	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
413547083481400	LU-23 NR HOLLAND OH	29.4	112LAKE	02-27-91	4.63	675
				03-25-91	5.13	
				04-23-91	4.30	
				05-23-91	5.01	
				06-19-91	5.22	
				07-16-91	6.05	
				08-15-91	6.86	
				09-18-91	7.45	
413547083481500	LU-24 NR HOLLAND OH	18.7	112LAKE	02-27-91	3.79	675
				03-25-91	5.37	
				04-23-91	4.55	
				05-23-91	5.25	
				06-19-91	5.46	
				07-16-91	6.30	
				08-15-91	7.10	
				09-18-91	7.68	
413547083481200	LU-25 NR HOLLAND OH	29.4	112LAKE	11-27-90	6.42	675
				02-27-91	4.41	
				03-25-91	4.91	
				04-23-91	4.07	
				05-23-91	4.80	
				06-19-91	4.99	
				07-16-91	5.81	
				08-15-91	6.63	
				09-18-91	7.22	
413547083481000	LU-26 NR HOLLAND OH	29.6	112LAKE	03-25-91	4.97	675
				04-23-91	4.12	
				05-23-91	4.86	
				06-19-91	5.01	
				07-16-91	5.89	
413547083481000	LU-26 NR HOLLAND OH	29.6	112LAKE	08-15-91	6.69	675
				09-18-91	7.29	
413547083481100	LU-27 NR HOLLAND OH	28.4	112LAKE	11-27-90	6.39	675
				01-23-91	4.21	
				02-27-91	4.37	
				03-25-91	4.87	
				04-24-91	4.56	
				05-23-91	4.70	
				06-19-91	4.87	
				07-16-91	5.68	
				08-15-91	6.52	
				09-18-91	7.07	
413546083480900	LU-28 NR HOLLAND OH	28.2	112LAKE	11-27-90	7.05	675
				01-23-91	4.81	
				02-27-91	5.00	
				03-25-91	5.51	
				04-24-91	4.07	
				05-23-91	5.36	
				06-19-91	5.58	
				07-16-91	6.43	
				09-18-91	7.80	
400954083475900	CH-36 NR URBANA OH	24.3	112OTSH	10-03-90	9.47	1030
				02-26-91	8.04	
				07-30-91	9.64	
400952083475400	CH-37 NR URBANA OH	24.0	112OTSH	10-03-90	8.36	1030
				02-26-91	6.96	
				07-30-91	8.55	
400950083480600	CH-38 NR URBANA OH	19.2	112OTSH	10-03-90	7.33	1025
				02-26-91	5.61	
				03-20-91	5.97	
				06-18-91	7.04	
				07-18-91	7.40	
				07-30-91	7.53	
				08-13-91	7.64	
				09-17-91	7.83	
400952083480900	CH-39 NR URBANA OH	24.4	112OTSH	10-03-91	9.77	1030
400952083480800	CH-40 NR URBANA OH	34.7	112OTSH	10-03-90	8.02	1030
				11-26-90	7.69	
				02-26-91	6.37	
				03-20-91	6.70	
400952083480800	CH-40 NR URBANA OH	34.7	112OTSH	04-22-91	5.97	1030
				05-22-91	7.32	
				06-18-91	7.72	
				07-18-91	8.02	
				08-13-91	8.26	
				09-17-91	8.54	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
400948083480200	CH-41 NR URBANA OH	34.3	112OTSH	10-03-90	10.06	1030
				11-26-90	9.73	
				02-26-91	8.42	
				03-21-91	8.74	
				04-22-91	8.05	
				05-22-91	9.38	
				06-18-91	9.75	
				07-18-91	10.11	
				08-13-91	10.31	
				09-17-91	10.48	
400949083480100	CH-42 NR URBANA OH	28.7	112OTSH	10-03-90	9.90	1030
				01-03-91	5.81	
				02-25-91	8.32	
				02-26-91	8.38	
				03-20-91	8.72	
				05-22-91	9.33	
				06-18-91	9.70	
				07-18-91	10.06	
				08-13-91	10.26	
				09-17-91	10.42	
400948083480100	CH-43 NR URBANA OH	32.2	112OTSH	10-03-90	9.63	1030
				11-26-90	9.29	
				02-26-91	7.99	
				03-21-91	8.33	
				03-22-91	7.65	
				05-22-91	8.95	
				06-18-91	9.31	
				07-18-91	9.45	
				08-13-91	9.70	
				09-17-91	10.02	
400948083480000	CH-45 NR URBANA OH	34.4	112OTSH	10-03-90	9.34	1030
				11-26-90	9.01	
				02-26-91	7.74	
				03-21-91	8.07	
400948083480000	CH-45 NR URBANA OH	34.4	112OTSH	04-22-91	7.41	1030
				05-22-91	8.70	
				06-18-91	9.05	
				07-18-91	9.39	
				08-13-91	9.61	
				09-17-91	9.77	
400947083480000	CH-44 NR URBANA OH	31.0	112OTSH	05-22-91	9.14	1030
				06-18-91	9.50	
				07-18-91	9.89	
				08-13-91	10.05	
				09-17-91	10.23	
400948083475800	CH-46 NR URBANA OH	34.8	112OTSH	10-03-90	8.64	1030
				11-26-90	8.39	
				02-26-91	7.14	
				03-21-91	7.44	
				04-22-91	6.79	
				05-22-91	8.08	
				06-18-91	8.43	
				07-18-91	8.75	
				08-13-91	8.97	
				09-17-91	9.13	
411138081172100	PO-111 NR RAVENNA OH	10.0	112OTSH	02-14-91	.66	1065
				03-13-91	.52	
				04-17-91	.89	
				05-15-91	1.85	
				06-12-91	2.93	
				07-10-91	3.75	
				08-07-91	4.44	
				09-11-91	4.72	
411137081172500	PO-112 NR RAVENNA OH	8.5	112OTSH	01-10-91	2.13	1065
				02-14-91	2.50	
				03-13-91	2.24	
				04-17-91	2.56	
				05-15-91	3.31	
				06-12-91	4.17	
				07-10-91	4.70	
				08-07-91	5.34	
				09-11-91	5.49	
411135081172600	PO-113 NR RAVENNA OH	9.2	112OTSH	01-10-91	.44	1060
				02-14-91	.34	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
411135081172600	PO-113 NR RAVENNA OH	9.2	112OTSH	03-13-91	.48	1060
				04-17-91	.32	
				05-15-91	.99	
				06-12-91	1.76	
				07-10-91	2.02	
				08-07-91	2.79	
				09-11-91	2.74	
411137081172100	PO-114 NR RAVENNA OH	12.3	112OTSH	11-21-90	1.90	1065
				03-13-91	.98	
				04-17-91	1.26	
				05-15-91	2.30	
				06-12-91	4.12	
				09-11-91	5.79	
411138081172400	PO-115 NR RAVENNA OH	17.5	112OTSH	11-21-90	7.17	1070
				03-13-91	6.21	
				04-17-91	6.80	
				05-15-91	7.41	
				06-12-91	8.29	
411138081172500	PO-116 NR RAVENNA OH	17.5	112OTSH	01-10-91	5.88	1070
				02-14-91	6.45	
				03-13-91	6.00	
				04-17-91	6.62	
				05-15-91	7.21	
				06-12-91	8.08	
				07-10-91	8.59	
				07-11-91	8.61	
				08-07-91	9.22	
				09-11-91	9.34	
411137081172400	PO-117 NR RAVENNA OH	18.5	112OTSH	06-12-91	6.56	1065
				07-10-91	7.30	
				08-07-91	7.74	
				09-11-91	7.86	
411137081172300	PO-118 NR RAVENNA OH	19.0	112OTSH	11-20-90	5.71	1065
				03-13-91	4.81	
				04-16-91	5.34	
411136081172500	PO-119 NR RAVENNA OH	11.0	112OTSH	11-21-90	3.50	1065
				06-21-91	5.43	
411136081172600	PO-120 NR RAVENNA OH	10.4	112OTSH	11-21-90	2.59	1065
				06-12-91	3.79	
395854083440500	CL-132 NR SPRINGFIELD OH	27.3	112OTSH	03-20-91	12.28	1020
395854083440500	CL-132 NR SPRINGFIELD OH	27.3	112OTSH	07-15-91	10.76	1020
				08-14-91	10.74	
				09-12-91	11.09	
395858083440100	CL-133 NR SPRINGFIELD OH	22.3	112OTSH	03-20-91	13.81	1025
				07-15-91	12.33	
				08-14-91	12.33	
				09-12-91	12.65	
395859083440600	CL-137 NR SPRINGFIELD OH	38.0	112OTSH	10-29-90	19.96	1030
				11-13-90	21.20	
				02-25-91	21.32	
				03-19-91	20.96	
				04-26-91	18.92	
				05-21-91	19.09	
				06-20-91	19.32	
				07-15-91	19.41	
				08-14-91	19.43	
				09-12-91	19.76	
395859083440700	CL-138 NR SPRINGFIELD OH	28.5	112OTSH	10-29-90	18.74	1030
				02-11-91	21.48	
				02-25-91	21.59	
				03-19-91	21.21	
				04-26-91	19.19	
				05-21-91	19.34	
				06-20-91	19.56	
				07-15-91	19.65	
				08-14-91	19.66	
				09-12-91	19.99	
395859083440800	CL-139 NR SPRINGFIELD OH	36.9	112OTSH	10-29-90	19.65	1030
				02-25-91	20.79	
				04-26-91	18.89	
				05-21-91	19.04	
				07-15-91	19.42	
				08-14-91	19.38	
				09-12-91	19.72	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
395859083440500	CL-140 NR SPRINGFIELD OH	36.7	112OTSH	04-26-91	18.12	1030
				05-21-91	18.29	
				06-20-91	18.46	
				07-15-91	18.59	
				08-14-91	18.62	
				09-12-91	18.94	
395859083440200	CL-141 NR SPRINGFIELD OH	37.5	112OTSH	10-29-90	19.42	1030
				11-13-90	20.56	
				02-25-91	20.71	
				03-19-91	20.33	
				04-26-91	18.29	
				05-21-91	18.46	
				06-20-91	18.70	
				07-15-91	18.77	
				08-14-91	18.79	
				09-12-91	19.11	
395859083440400	CL-142 NR SPRINGFIELD OH	35.9	112OTSH	10-29-90	18.73	1030
				11-13-90	19.89	
				02-25-91	20.01	
				03-20-91	19.59	
				04-26-91	17.59	
				05-21-91	17.79	
				06-20-91	18.00	
				07-15-91	18.08	
				08-14-91	18.09	
				09-12-91	18.41	
395859083440300	CL-143 NR SPRINGFIELD OH	40.0	112OTSH	10-29-90	17.43	1030
				11-13-90	18.45	
				02-25-91	19.49	
				03-20-91	19.06	
				04-26-91	17.06	
				05-21-91	17.24	
				06-20-91	17.47	
				07-15-91	17.54	
				08-14-91	17.54	
				09-12-91	17.89	
395901083440700	CL-136 NR SPRINGFIELD OH	37.5	112OTSH	10-29-90	18.86	1030
				11-13-90	19.37	
				01-15-91	18.69	
				02-25-91	18.79	
				03-20-91	18.80	
				04-26-91	17.91	
				05-21-91	18.21	
				07-15-91	18.70	
				08-14-91	18.75	
				09-12-91	18.99	
395901083440600	CL-135 NR SPRINGFIELD OH	37.2	112OTSH	10-29-90	18.30	1030
				02-11-91	18.59	
				02-25-91	18.54	
				04-26-91	17.66	
				05-21-91	17.95	
				07-15-91	18.42	
				08-14-91	18.49	
				09-12-91	18.74	
403636082152600	AS-5 NR LOUDONVILLE OH	12.7	111ALVM	02-19-91	.97	930
				03-11-91	.99	
				04-15-91	.85	
				06-10-91	3.46	
				07-08-91	4.62	
				08-05-91	5.28	
				09-03-91	5.44	
403631082152200	AS-6 NR LOUDONVILLE OH	19.9	111ALVM	08-05-91	6.85	930
				09-03-91	6.96	
403634082152300	AS-7 NR LOUDONVILLE OH	23.1	111ALVM	07-08-91	6.59	930
				08-05-91	7.09	
				09-03-91	7.30	
403635082152800	AS-8 NR LOUDONVILLE OH	16.2	111ALVM	02-19-91	2.36	935
				03-11-91	2.59	
				04-15-91	2.00	
				05-13-91	3.21	
				06-10-91	4.59	
				07-08-91	5.61	
				08-05-91	6.10	
				09-03-91	6.09	

GROUND-WATER LEVELS--Continued

SITE-ID	LOCAL WELL NUMBER	DEPTH OF WELL (FEET)	AQUIFER CODE	WATER-LEVEL DATE	WATER LEVEL (FEET)	ALTITUDE OF LAND SURFACE (FEET)
403631082152100	AS-9 NR LOUDONVILLE OH	12.3	111ALVM	02-19-91	3.79	930
				03-11-91	3.21	
				04-15-91	3.75	
				06-10-91	5.68	
				07-08-91	6.58	
				08-05-91	7.14	
				09-03-91	7.37	
403633082152400	AS-10 NR LOUDONVILLE OH	12.7	111ALVM	02-19-91	3.69	930
				03-11-91	3.21	
				04-15-91	3.48	
				06-10-91	5.76	
				07-08-91	6.70	
403633082152400	AS-10 NR LOUDONVILLE OH	12.7	111ALVM	08-05-91	7.24	930
				09-03-91	7.44	
403636082152300	AS-41 NR LOUDONVILLE OH	11.8	111ALVM	02-19-91	3.18	930
				03-11-91	2.82	
				05-13-91	4.73	
				06-10-91	5.52	
				07-08-91	6.48	
				08-05-91	6.96	
				09-03-91	7.19	
403636082152200	AS-42 NR LOUDONVILLE OH	16.5	111ALVM	05-13-91	4.86	930
				07-08-91	6.61	
				08-05-91	7.13	
				09-03-91	7.33	
403635082152300	AS-45 NR LOUDONVILLE OH	15.7	111ALVM	02-19-91	3.62	930
				03-11-91	2.89	
				04-15-91	3.75	
				05-13-91	4.72	
				06-10-91	5.52	
				07-08-91	6.39	
				08-05-91	6.94	
				08-21-91	6.91	
403635082152700	AS-43 NR LOUDONVILLE OH	16.2	111ALVM	11-19-90	3.88	935
				04-15-91	1.89	
				05-13-91	3.28	
403635082152500	AS-44 NR LOUDONVILLE OH	18.0	111ALVM	11-19-90	4.72	930
				04-15-91	2.74	
				05-13-91	4.46	
				09-03-91	7.05	
403635082152400	AS-46 NR LOUDONVILLE OH	11.6	111ALVM	11-19-90	3.86	930
				06-10-91	5.34	
				09-03-91	8.26	
403635082152200	AS-47 NR LOUDONVILLE OH	11.2	111ALVM	11-19-90	5.11	930
403635082152100	AS-48 NR LOUDONVILLE OH	16.0	111ALVM	11-19-90	5.23	930
				05-13-91	5.07	
				09-03-91	7.55	
403635082152600	AS-49 NR LOUDONVILLE OH	11.0	111ALVM	05-13-91	3.65	930
				07-08-91	4.55	
				09-03-91	7.45	

AQUIFER CODE (Geologic Unit)

112OTSH - Outwash, Pleistocene Epoch
111TRCC - Terrace Deposits, Holocene Epoch
112LAKE - Lake Deposits, Pleistocene Epoch
111ALVM - Alluvium, Holocene Epoch.

GROUND-WATER RECORDS

393541083001100. Local number, PK-48.

LOCATION.--Lat 39°35'41" Long 83°00'11", Hydrologic Unit 05060002, along State Route 104 near Circleville, OH.
Owner.--USGS-Stacy Thomas.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 28 ft. Cased with Sch 40 PVC to 8 ft; .010 in. screen from 8 to 28 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at 16.0 feet below land surface.

DATUM.--Elevation of land-surface datum is 678.50 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 3.36 ft above land-surface datum.

REMARKS.--

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
WATER TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 11.59 ft. below land-surface datum, September 30, 1991; minimum daily low, 6.68 ft. below land-surface datum, March 27, 1991.

SPECIFIC CONDUCTANCE: Maximum, 717 microsiemens March 31, 1991; minimum, 586 microsiemens September 16, 1991.

AIR TEMPERATURE: Maximum, 37.0°C June 29 and August 1, 1991; minimum, <0.0°C many days in 1991.

WATER TEMPERATURE: Maximum, 14.5°C many days in 1991; minimum, 11.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 32.5°C September 16, 1991; minimum, 1.0°C February 16-19, 1991.

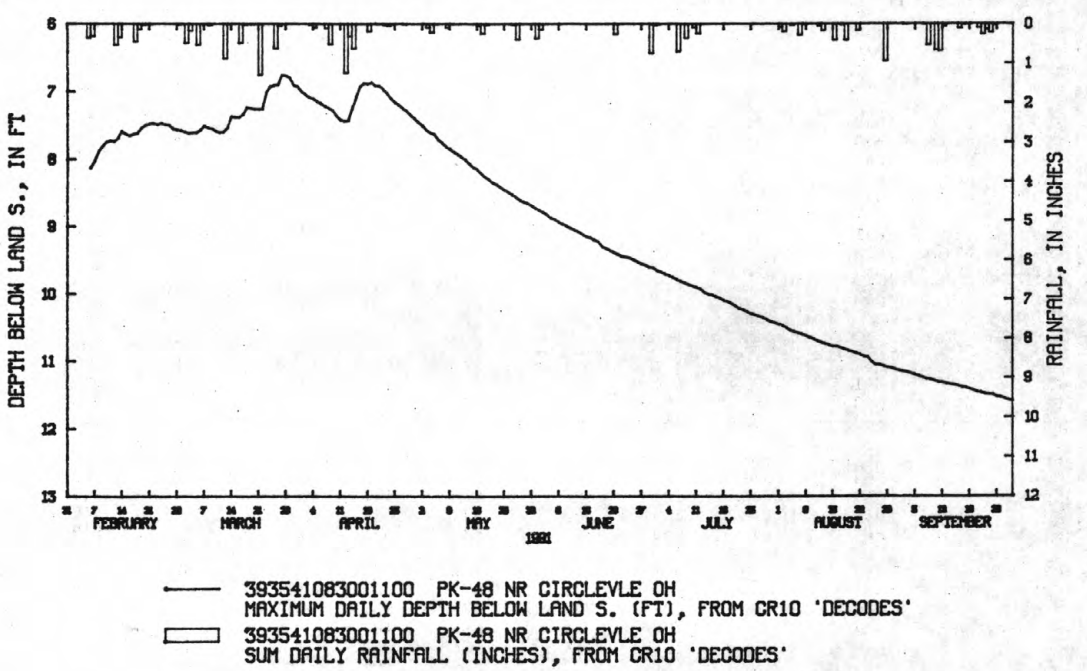
EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 11.59 ft. below land-surface datum, September 30, 1991; minimum daily low, 6.68 ft. below land-surface datum, March 27, 1991.

SPECIFIC CONDUCTANCE: Maximum, 717 microsiemens March 31, 1991; minimum, 586 microsiemens September 16, 1991.

AIR TEMPERATURE: Maximum, 37.0°C June 29 and August 1, 1991; minimum, <0.0°C many days in 1991.

WATER TEMPERATURE: Maximum, 14.5°C many days in 1991; minimum, 11.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 32.5°C September 16, 1991; minimum, 1.0°C February 16-19, 1991.



393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	7.58	7.00	7.46	8.76	9.66	10.46	11.15
2	---	---	---	---	---	7.60	7.05	7.50	8.79	9.68	10.48	11.16
3	---	---	---	---	---	7.62	7.09	7.57	8.83	9.71	10.51	11.17
4	---	---	---	---	---	7.61	7.11	7.61	8.88	9.73	10.55	11.19
5	---	---	---	---	---	7.61	7.15	7.63	8.90	9.76	10.57	11.21
6	---	---	---	---	8.13	7.57	7.18	7.71	8.94	9.79	10.59	11.23
7	---	---	---	---	8.03	7.51	7.22	7.76	8.97	9.82	10.61	11.25
8	---	---	---	---	7.89	7.54	7.25	7.81	9.00	9.84	10.63	11.27
9	---	---	---	---	7.81	7.55	7.28	7.85	9.03	9.87	10.66	11.28
10	---	---	---	---	7.75	7.59	7.36	7.89	9.06	9.89	10.68	11.30
11	---	---	---	---	7.73	7.61	7.42	7.93	9.08	9.91	10.71	11.32
12	---	---	---	---	7.74	7.60	7.44	7.97	9.12	9.93	10.73	11.32
13	---	---	---	---	7.69	7.54	7.43	8.01	9.15	9.98	10.75	11.34
14	---	---	---	---	7.59	7.37	7.25	8.07	9.17	10.01	10.77	11.35
15	---	---	---	---	7.63	7.38	7.09	8.12	9.20	10.02	10.79	11.36
16	---	---	---	---	7.66	7.38	6.93	8.15	9.23	10.05	10.79	11.37
17	---	---	---	---	7.63	7.34	6.88	8.21	9.30	10.07	10.81	11.39
18	---	---	---	---	7.62	7.24	6.89	8.26	9.33	10.10	10.83	11.40
19	---	---	---	---	7.54	7.25	6.87	8.30	9.36	10.12	10.85	11.42
20	---	---	---	---	7.50	7.26	6.92	8.35	9.39	10.15	10.87	11.44
21	---	---	---	---	7.48	7.26	6.92	8.38	9.42	10.18	10.89	11.46
22	---	---	---	---	7.47	7.26	6.97	8.42	9.45	10.22	10.91	11.47
23	---	---	---	---	7.49	7.02	7.03	8.46	9.46	10.24	10.94	11.49
24	---	---	---	---	7.47	6.93	9.97	8.49	9.47	10.27	10.95	11.50
25	---	---	---	---	7.49	6.91	7.16	8.53	9.50	10.30	11.02	11.50
26	---	---	---	---	7.50	6.90	7.20	8.57	9.53	10.32	11.06	11.53
27	---	---	---	---	7.55	6.76	7.25	8.61	9.56	10.34	11.06	11.54
28	---	---	---	---	7.57	6.77	7.29	8.64	9.58	10.36	11.08	11.56
29	---	---	---	---	---	6.80	7.35	8.66	9.61	10.39	11.10	11.58
30	---	---	---	---	---	6.91	7.40	8.69	9.62	10.42	11.11	11.59
31	---	---	---	---	---	6.93	---	8.73	---	10.44	11.13	---
MAX	---	---	---	---	8.13	7.62	9.97	8.73	9.62	10.44	11.13	11.59

WTR YR 1991 LOW 11.59

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	668	665	667	715	711	712	667	666	666
2	---	---	---	667	664	666	713	709	711	666	664	665
3	---	---	---	667	665	666	712	705	708	665	663	664
4	---	---	---	668	663	666	707	701	704	664	662	663
5	---	---	---	667	662	664	702	698	700	663	660	662
6	655	651	654	665	662	663	699	695	697	661	660	661
7	653	646	650	665	662	663	695	691	694	661	659	660
8	652	646	649	666	661	664	693	689	691	660	658	659
9	652	647	649	666	661	664	690	687	688	659	658	659
10	653	647	651	666	663	665	688	685	686	659	658	659
11	655	648	651	666	662	664	687	681	684	661	658	659
12	658	651	653	668	661	665	683	679	681	660	658	658
13	658	652	655	668	663	665	680	676	678	660	657	658
14	659	650	656	669	663	666	676	673	675	660	657	658
15	663	652	657	671	663	668	674	673	673	660	657	658
16	664	657	661	674	666	671	676	671	674	659	657	658
17	663	659	662	675	670	673	677	672	674	659	657	658
18	662	659	661	677	673	675	678	674	675	658	657	657
19	664	659	660	681	675	678	678	674	676	657	654	656
20	665	659	661	685	680	682	679	675	676	655	652	654
21	666	659	662	688	683	685	679	672	676	653	651	652
22	666	661	664	688	685	686	676	673	675	652	650	651
23	669	663	667	690	684	686	675	672	674	652	650	650
24	670	665	668	694	689	692	674	607	643	652	649	650
25	671	667	669	697	693	695	674	671	672	652	649	650
26	671	667	669	699	697	698	672	670	671	650	645	649
27	671	667	669	703	699	701	671	669	670	650	645	648
28	670	665	668	707	702	705	670	669	669	650	645	648
29	---	---	---	712	708	710	669	667	669	651	645	648
30	---	---	---	715	712	714	668	667	668	649	645	646
31	---	---	---	717	712	714	---	---	---	648	645	646
MONTH	671	646	659	717	661	679	715	607	681	667	645	656

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	648	645	646	611	607	608	611	607	609	589	587	588
2	649	646	647	609	603	606	614	607	611	588	587	588
3	649	646	647	605	603	604	611	607	609	588	587	588
4	647	646	646	606	603	604	611	605	608	588	587	588
5	648	645	646	606	604	605	609	605	608	590	588	589
6	648	643	647	614	604	610	608	606	607	591	588	590
7	649	643	646	611	605	608	609	607	608	591	589	590
8	647	642	644	606	602	605	612	606	608	593	591	592
9	646	642	644	607	602	605	611	608	610	591	590	591
10	644	640	642	607	603	604	610	608	609	593	589	591
11	642	638	641	605	603	604	615	608	610	593	589	592
12	643	639	640	605	604	604	615	610	612	594	589	593
13	642	638	641	606	604	605	617	611	614	595	590	593
14	642	638	640	606	604	605	617	610	612	595	591	593
15	640	637	638	609	605	607	615	611	614	592	592	592
16	639	634	638	608	606	607	614	608	611	589	586	587
17	638	625	634	611	606	608	611	606	608	591	588	590
18	633	623	628	610	605	607	609	607	608	592	590	591
19	631	622	628	610	606	608	611	607	608	592	591	591
20	625	620	623	610	607	608	611	608	610	593	591	592
21	624	619	621	610	607	608	610	608	609	594	591	593
22	621	617	619	610	605	609	610	607	608	594	592	593
23	623	616	620	610	605	609	608	606	607	593	592	592
24	621	608	613	610	604	607	609	602	607	594	592	593
25	610	608	609	606	604	605	606	599	603	593	592	593
26	610	608	609	610	604	606	598	592	597	594	593	593
27	609	607	608	605	604	605	596	591	593	599	593	595
28	608	606	607	610	604	606	593	588	590	595	593	594
29	609	605	607	612	607	610	592	588	590	595	592	594
30	611	606	608	614	605	610	590	587	589	594	592	593
31	---	---	---	614	609	612	588	587	588	---	---	---
MONTH	649	605	631	614	602	607	617	587	606	599	586	591
YEAR	717	586	638									

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	18.0	3.0	11.0	11.0	.5	5.5	21.0	9.0	15.0
2	---	---	---	20.0	8.0	14.0	10.0	<.0	---	21.5	4.5	14.0
3	---	---	---	6.5	<.0	---	19.0	1.5	9.0	20.0	6.0	13.5
4	---	---	---	6.5	<.0	---	22.5	3.5	12.5	19.0	9.5	14.0
5	---	---	---	12.5	.5	6.0	21.0	7.5	14.0	22.5	11.5	17.0
6	10.5	5.0	8.5	10.5	2.5	7.5	25.0	5.0	15.5	17.5	8.0	11.5
7	4.5	1.0	2.5	4.0	<.0	---	27.0	9.0	18.5	20.0	6.5	13.0
8	3.0	<.0	---	5.5	<.0	---	22.0	14.5	18.0	23.0	6.5	15.5
9	2.5	<.0	---	10.0	<.0	---	25.5	9.0	17.5	22.0	13.0	16.5
10	9.5	<.0	---	4.5	.5	2.0	8.5	.5	6.0	25.0	14.0	19.0
11	6.0	<.0	---	6.5	<.0	---	13.5	<.0	---	28.0	11.0	20.0
12	9.5	1.0	5.0	5.0	.5	2.5	16.0	3.5	9.5	30.0	14.0	21.5
13	6.5	<.0	---	1.0	<.0	---	17.5	8.5	12.5	29.5	14.5	22.0
14	5.5	<.0	---	7.5	<.0	---	21.5	14.0	17.0	31.5	17.0	23.0
15	13.5	5.0	8.5	9.0	.5	4.0	18.5	9.0	15.0	32.5	12.5	22.5
16	15.5	1.5	8.0	13.5	.5	5.5	22.5	6.0	15.0	30.5	14.5	23.0
17	2.5	<.0	---	17.5	.5	8.0	20.5	7.5	14.0	30.5	18.5	23.5
18	9.0	.5	4.5	10.5	3.5	7.0	17.5	2.5	11.0	21.5	13.0	17.5
19	13.0	3.0	9.0	11.0	.5	6.0	16.0	8.5	12.0	24.5	11.5	18.0
20	8.5	<.0	---	16.5	<.0	---	8.0	3.5	6.0	24.0	12.0	17.5
21	12.5	<.0	---	22.5	8.5	15.0	5.0	3.0	4.0	28.0	11.5	19.5
22	8.0	.5	4.5	20.5	12.5	15.5	13.5	4.0	8.0	30.0	13.5	21.5
23	5.0	.5	3.0	19.5	11.5	16.0	17.0	1.0	9.5	31.5	14.0	22.0
24	11.5	1.5	5.0	11.5	4.5	7.0	33.0	2.5	17.0	33.5	17.5	24.5
25	4.5	<.0	---	17.0	2.0	9.0	19.0	<.0	---	32.5	18.5	24.5
26	6.5	<.0	---	13.0	5.0	9.5	25.5	10.5	16.5	28.5	19.0	24.0
27	4.0	<.0	---	21.5	11.0	17.0	23.0	10.0	17.5	24.5	18.0	21.0
28	14.5	1.0	7.0	14.5	4.0	9.5	24.0	11.5	18.5	33.0	17.5	24.5
29	---	---	---	7.5	<.0	---	27.0	15.5	20.5	33.5	18.5	25.5
30	---	---	---	4.5	<.0	---	24.0	14.0	18.5	33.5	20.0	26.0
31	---	---	---	10.5	.5	5.5	---	---	---	36.5	18.0	26.5
MONTH	15.5	.0	6.0	22.5	.0	8.9	33.0	.0	13.3	36.5	4.5	19.9

<.0 values mean that the actual value is known to be less than zero, but by an undetermined amount.

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	32.0	18.5	24.0	33.0	19.5	26.0	37.0	15.0	26.0	30.0	8.0	19.0
2	34.5	16.5	23.5	32.0	19.0	24.0	33.0	16.5	24.0	28.0	17.0	22.5
3	29.0	15.0	21.5	29.0	19.0	22.5	30.0	15.5	23.0	25.0	19.0	21.0
4	24.5	12.5	18.5	32.5	17.5	24.5	27.0	12.0	19.5	26.5	13.5	19.5
5	24.0	8.0	16.5	31.5	17.0	25.0	20.0	14.5	17.5	29.0	11.0	19.0
6	27.0	7.5	17.5	35.0	21.0	28.0	31.0	14.0	22.5	29.5	9.0	19.0
7	27.5	7.5	18.0	25.0	18.0	21.5	32.5	14.0	22.0	32.0	8.5	19.5
8	28.0	8.0	19.0	27.0	17.5	21.5	21.5	16.5	19.5	28.0	12.5	20.5
9	31.5	8.0	20.5	25.0	18.0	21.0	28.0	12.0	20.0	30.5	19.5	23.0
10	32.5	11.5	22.0	29.5	17.0	23.0	29.5	10.0	19.5	27.5	14.5	21.0
11	31.5	15.5	23.0	29.0	18.5	23.0	30.0	12.0	21.0	25.5	12.5	17.5
12	33.0	16.5	24.0	31.5	18.5	24.0	26.0	13.5	18.5	33.5	16.5	23.0
13	31.5	11.5	22.0	27.5	16.5	21.5	27.5	15.5	20.5	31.5	17.0	23.0
14	34.0	11.0	23.5	28.5	12.5	21.0	29.5	14.5	21.0	33.5	19.0	24.5
15	33.5	17.5	25.0	32.0	9.5	21.0	31.0	12.5	21.5	23.5	19.0	22.0
16	31.0	19.0	25.0	23.0	14.0	19.5	28.0	16.5	21.5	32.5	23.5	28.0
17	32.5	17.0	25.0	34.5	13.5	24.0	30.0	18.0	22.0	27.0	15.0	21.5
18	33.0	16.5	25.0	34.5	17.0	24.5	25.0	15.0	18.0	25.0	13.0	18.5
19	34.5	17.5	25.5	35.0	18.5	26.5	25.0	14.0	18.0	17.5	8.0	13.0
20	34.0	15.0	25.0	35.0	18.5	27.0	26.0	10.5	19.0	15.5	4.0	9.0
21	24.5	18.0	21.0	36.5	20.5	28.0	31.0	13.0	21.5	18.5	.0	8.5
22	28.0	13.5	20.0	34.5	18.0	25.5	32.0	15.5	22.5	21.5	2.0	12.5
23	31.5	13.0	22.5	30.0	13.0	22.0	31.5	15.5	23.0	21.5	5.0	14.5
24	31.5	15.5	23.0	29.0	17.0	23.0	32.5	15.5	23.5	15.0	3.0	8.5
25	31.5	16.0	23.0	29.5	15.5	22.5	32.0	14.5	22.5	19.0	8.5	12.0
26	32.0	13.0	23.0	28.5	13.0	21.0	32.5	15.5	22.5	18.0	2.0	11.5
27	33.5	16.5	25.5	27.0	9.5	19.5	32.0	17.0	24.0	18.0	.0	8.5
28	33.0	18.0	25.0	28.0	17.0	22.0	34.5	18.0	25.5	19.0	2.0	10.5
29	37.0	18.0	28.0	27.5	13.0	21.5	33.0	18.5	24.0	23.5	6.0	13.5
30	36.5	20.0	25.5	30.5	8.0	20.0	29.0	18.0	22.5	27.5	6.0	16.0
31	---	---	---	34.5	12.0	23.5	27.0	12.5	19.5	---	---	---
MONTH	37.0	7.5	22.7	36.5	8.0	23.1	37.0	10.0	21.5	33.5	.0	17.3
YEAR	37.0	.0	18.0									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0
2	---	---	---	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0
3	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0
4	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0
5	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0
6	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0
7	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	12.0	12.0	12.0	12.0
8	12.5	12.5	12.5	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0
9	12.5	12.5	12.5	12.0	11.5	12.0	12.0	11.5	11.5	12.0	12.0	12.0
10	12.5	12.5	12.5	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0
11	12.5	12.5	12.5	12.0	11.5	12.0	12.0	11.5	11.5	12.0	12.0	12.0
12	12.5	12.0	12.5	12.0	11.5	12.0	11.5	11.5	11.5	12.0	12.0	12.0
13	12.5	12.0	12.5	12.0	11.5	12.0	11.5	11.5	11.5	12.0	12.0	12.0
14	12.5	12.0	12.0	12.0	11.5	12.0	12.0	11.5	11.5	12.0	12.0	12.0
15	12.5	12.0	12.5	12.0	11.5	12.0	12.0	11.5	11.5	12.0	12.0	12.0
16	12.5	12.0	12.0	12.0	11.5	12.0	12.0	11.5	12.0	12.0	12.0	12.0
17	12.5	12.0	12.0	12.0	11.5	12.0	12.0	11.5	12.0	12.0	12.0	12.0
18	12.0	12.0	12.0	11.5	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
19	12.0	12.0	12.0	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
20	12.0	12.0	12.0	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
21	12.0	12.0	12.0	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
22	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
23	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
24	12.0	12.0	12.0	11.5	11.5	11.5	13.0	12.0	12.5	12.0	12.0	12.0
25	12.0	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
26	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
27	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
28	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0
29	---	---	---	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0
30	---	---	---	11.5	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
31	---	---	---	12.0	11.5	11.5	---	---	---	12.0	12.0	12.0
MONTH	12.5	12.0	12.2	12.0	11.5	11.8	13.0	11.5	11.8	12.5	12.0	12.0

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	12.0	12.0	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.5	14.5
2	12.0	12.0	12.0	13.0	12.5	13.0	13.5	13.5	13.5	14.5	14.5	14.5
3	12.0	12.0	12.0	13.0	13.0	13.0	13.5	13.5	13.5	14.5	14.5	14.5
4	12.0	12.0	12.0	13.0	13.0	13.0	14.0	13.5	13.5	14.5	14.5	14.5
5	12.0	12.0	12.0	13.0	13.0	13.0	14.0	13.5	13.5	14.5	14.5	14.5
6	12.5	12.0	12.0	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
7	12.5	12.0	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
8	12.5	12.0	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
9	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
10	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
11	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
12	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
13	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
14	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
15	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
16	12.5	12.5	12.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
17	12.5	12.5	12.5	13.5	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
18	12.5	12.5	12.5	13.5	13.0	13.5	14.0	14.0	14.0	14.5	14.5	14.5
19	12.5	12.5	12.5	13.5	13.0	13.5	14.0	14.0	14.0	14.5	14.5	14.5
20	12.5	12.5	12.5	13.5	13.5	13.5	14.0	14.0	14.0	14.5	14.5	14.5
21	12.5	12.5	12.5	13.5	13.5	13.5	14.0	14.0	14.0	14.5	14.5	14.5
22	12.5	12.5	12.5	13.5	13.5	13.5	14.0	14.0	14.0	14.5	14.5	14.5
23	12.5	12.5	12.5	13.5	13.5	13.5	14.0	14.0	14.0	14.5	14.5	14.5
24	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.0	14.5	14.5	14.5
25	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.0	14.5	14.5	14.5
26	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.0	14.5	14.5	14.5
27	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5	14.5	14.5	14.5
28	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5	14.5	14.5	14.5
29	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.5	14.5	14.5	14.5	14.5
30	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.5	14.5	14.5	14.5	14.5
31	---	---	---	13.5	13.5	13.5	14.5	14.5	14.5	---	---	---
MONTH	12.5	12.0	12.4	13.5	12.5	13.2	14.5	13.5	14.0	14.5	14.5	14.5
YEAR	14.5	11.5	12.7									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.5	2.5	3.5	8.0	7.0	7.5	17.0	15.5	16.0
2	---	---	---	7.5	5.5	6.5	8.5	6.0	7.0	16.5	15.0	15.5
3	---	---	---	7.5	4.5	6.5	9.5	6.0	7.5	16.5	15.0	16.0
4	---	---	---	4.5	3.0	4.0	10.5	8.0	9.0	16.5	15.5	16.0
5	---	---	---	4.5	2.5	3.5	12.5	10.5	11.0	17.0	16.0	16.5
6	10.5	3.5	7.0	6.0	4.5	5.0	13.0	10.5	11.5	17.0	15.5	16.5
7	5.0	4.0	4.5	5.5	4.5	5.0	14.5	11.5	13.0	16.0	14.5	15.0
8	4.0	3.5	3.5	4.5	3.0	3.5	15.0	14.0	14.5	17.0	15.0	15.5
9	3.0	2.5	3.0	4.0	3.0	3.5	16.0	14.5	15.0	17.5	16.5	17.0
10	4.0	3.0	3.5	4.0	3.0	3.5	15.0	11.5	13.0	18.5	17.0	17.5
11	3.0	2.0	2.5	4.5	3.0	3.5	11.0	9.5	10.5	19.5	17.5	18.5
12	2.0	1.5	1.5	4.0	3.0	3.0	11.5	9.5	10.5	20.5	18.5	19.0
13	1.5	1.5	1.5	3.0	2.5	2.5	12.5	11.0	11.5	21.0	19.0	20.0
14	1.5	1.5	1.5	4.0	2.5	3.0	14.5	12.5	13.5	21.5	20.0	20.5
15	1.5	1.5	1.5	4.0	2.5	3.5	15.0	14.0	14.5	22.0	20.5	21.0
16	1.5	1.0	1.0	5.0	3.0	3.5	14.5	13.0	14.0	22.0	20.5	21.5
17	1.0	1.0	1.0	6.5	3.5	4.5	15.0	13.5	14.0	23.0	21.5	22.0
18	1.0	1.0	1.0	7.0	6.5	6.5	14.5	12.5	13.5	22.5	21.0	21.5
19	3.0	1.0	1.5	7.0	5.5	6.0	14.0	13.0	13.5	21.5	20.0	21.0
20	3.5	2.5	3.0	7.5	5.0	6.0	14.0	11.5	12.5	21.5	20.5	21.0
21	4.0	2.0	3.0	10.0	7.5	8.5	11.5	10.0	10.5	22.0	20.5	21.0
22	4.5	3.0	4.0	13.0	9.5	10.5	11.0	9.5	10.0	22.5	21.0	21.5
23	3.5	2.5	3.0	12.5	12.0	12.0	11.5	10.0	11.0	23.0	21.5	22.0
24	3.0	2.0	2.5	12.0	9.5	10.5	26.5	11.0	17.5	24.0	22.5	23.0
25	3.0	2.5	3.0	10.5	8.5	9.5	12.5	10.0	11.0	24.5	23.0	23.5
26	2.5	2.0	2.0	10.0	9.0	9.5	14.5	12.0	13.0	24.0	23.5	24.0
27	2.0	1.5	2.0	12.0	9.5	10.5	15.5	13.5	14.5	24.0	23.5	23.5
28	3.0	1.5	2.0	12.0	10.0	11.0	16.5	15.0	15.5	25.0	23.0	23.5
29	---	---	---	10.5	8.5	9.5	17.0	16.0	16.5	25.0	24.0	24.5
30	---	---	---	8.0	6.5	7.5	17.0	16.5	17.0	25.5	24.5	25.0
31	---	---	---	8.5	5.5	7.0	---	---	---	26.0	24.5	25.0
MONTH	10.5	1.0	2.6	13.0	2.5	6.2	26.5	6.0	12.4	26.0	14.5	20.1

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	25.0	25.5	28.5	27.0	28.0	29.0	26.5	27.5	29.5	27.5	28.5
2	26.0	25.0	25.5	28.0	26.5	27.5	28.5	27.0	28.0	30.0	28.5	29.0
3	25.5	24.0	25.0	27.5	26.5	27.0	27.5	27.0	27.5	30.0	30.0	30.0
4	25.0	23.5	24.5	27.5	25.5	26.5	27.0	25.5	26.0	30.0	29.0	29.5
5	24.5	22.5	23.5	28.0	26.0	27.0	26.5	25.0	25.5	29.5	28.5	29.0
6	23.5	22.0	23.0	29.0	27.0	27.5	26.5	24.5	25.0	29.5	28.0	29.0
7	23.5	22.0	23.0	28.5	26.5	27.5	27.0	25.0	26.0	30.0	28.0	29.0
8	24.0	22.0	23.0	26.5	25.5	26.0	26.5	25.5	26.0	30.0	29.0	29.5
9	24.5	22.0	23.5	26.5	25.5	26.0	25.5	24.5	25.0	31.0	30.0	30.5
10	24.5	23.0	23.5	26.5	25.0	25.5	25.5	24.0	25.0	31.0	30.0	30.5
11	25.0	23.5	24.0	26.5	25.5	26.0	26.0	24.0	25.0	30.0	29.0	29.5
12	25.5	24.0	24.5	27.0	26.0	26.5	26.0	24.5	25.5	31.0	29.5	30.0
13	26.0	23.5	24.5	26.5	25.5	26.0	26.0	24.5	25.0	31.5	30.5	31.0
14	26.0	24.0	25.0	26.0	24.5	25.5	26.5	25.0	25.5	32.0	31.0	31.5
15	26.0	25.0	25.5	26.0	24.0	25.0	27.0	25.0	26.0	32.0	31.5	31.5
16	26.5	25.5	26.0	26.5	24.5	25.5	27.5	26.0	26.5	32.5	31.5	31.5
17	27.0	25.5	26.0	27.0	25.0	26.0	28.5	26.5	27.5	32.0	31.5	32.0
18	27.5	25.5	26.5	27.5	26.0	26.5	28.0	27.0	27.5	31.5	30.5	31.0
19	28.0	26.0	27.0	28.5	26.5	27.0	27.0	26.0	26.5	30.5	28.5	29.5
20	27.5	26.0	27.0	29.0	27.0	28.0	27.0	25.5	26.0	28.5	27.0	27.5
21	27.5	26.0	26.5	29.5	27.5	28.5	27.5	26.0	26.5	26.5	25.5	26.0
22	26.0	24.5	25.0	29.0	28.0	29.0	28.0	27.0	27.5	26.5	25.0	25.5
23	26.0	24.0	25.0	28.5	27.0	28.0	29.0	27.5	28.0	27.0	26.5	26.5
24	26.0	24.5	25.5	28.5	27.0	27.5	29.5	27.5	28.5	26.5	25.0	25.5
25	26.5	25.0	25.5	28.0	26.5	27.5	29.5	28.0	28.5	25.5	25.0	25.0
26	27.0	25.0	26.0	27.5	26.0	27.0	30.0	28.5	29.0	25.5	24.5	25.0
27	27.5	25.5	26.5	27.5	25.5	26.5	30.5	29.0	30.0	24.5	23.0	23.5
28	27.5	26.0	26.5	27.0	26.0	26.5	31.5	30.0	30.5	24.0	23.0	23.5
29	28.5	26.5	27.0	27.5	26.5	27.0	31.5	30.5	31.0	24.5	23.5	24.0
30	28.5	27.0	28.0	27.5	25.5	26.5	31.0	30.5	31.0	25.5	24.0	24.5
31	---	---	---	28.0	25.5	26.5	31.0	29.0	30.0	---	---	---
MONTH	28.5	22.0	25.2	29.5	24.0	26.8	31.5	24.0	27.2	32.5	23.0	28.3
YEAR	32.5	1.0	19.1									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.02	.00	.00	.37	.04	.00	.00
2	---	---	---	---	---	.01	.00	.00	.15	.02	.09	.00
3	---	---	---	---	---	.49	.00	.00	.00	.00	.20	.02
4	---	---	---	---	---	.18	.03	.10	.00	.00	.00	.00
5	---	---	---	---	---	.00	.10	.22	.00	.00	.04	.00
6	---	---	---	---	.37	.54	.00	.01	.00	.00	.00	.00
7	---	---	---	---	.32	.00	.00	.00	.00	.71	.29	.00
8	---	---	---	---	.00	.00	.12	.00	.00	.00	.02	.02
9	---	---	---	---	.00	.04	.52	.10	.00	.37	.00	.54
10	---	---	---	---	.00	.00	.00	.01	.00	.00	.00	.00
11	---	---	---	---	.00	.00	.00	.00	.00	.10	.00	.67
12	---	---	---	---	.00	.00	.00	.00	.00	.25	.07	.69
13	---	---	---	---	.54	.89	1.25	.00	.00	.00	.18	.07
14	---	---	---	---	.35	.02	.32	.00	.00	.00	.00	.00
15	---	---	---	---	.00	.00	.63	.00	.00	.00	.00	.00
16	---	---	---	---	.00	.00	.00	.00	.00	.00	.42	.00
17	---	---	---	---	.00	.49	.00	.07	.00	.00	.01	.12
18	---	---	---	---	.46	.03	.00	.25	.00	.00	.04	.02
19	---	---	---	---	.14	.00	.20	.03	.00	.00	.42	.00
20	---	---	---	---	.03	.02	.00	.00	.00	.00	.00	.00
21	---	---	---	---	.02	.01	.01	.00	.27	.00	.00	.00
22	---	---	---	---	.01	1.30	.00	.00	.00	.00	.18	.11
23	---	---	---	---	.00	.00	.04	.00	.00	.00	.00	.27
24	---	---	---	---	.00	.00	.06	.00	.00	.00	.00	.15
25	---	---	---	---	.00	.00	.00	.00	.00	.00	.00	.23
26	---	---	---	---	.00	.63	.00	.03	.00	.00	.00	.04
27	---	---	---	---	.00	.06	.00	.40	.00	.00	.00	.00
28	---	---	---	---	.00	.00	.02	.01	.00	.00	.00	.00
29	---	---	---	---	---	.00	.00	.00	.00	.00	.95	.00
30	---	---	---	---	---	.00	.00	.00	.75	.00	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	2.24	4.73	3.30	1.23	1.54	1.49	2.91	2.95

WTR YR 1991 TOTAL 20.39

GROUND-WATER RECORDS

395901083440600. Local number, CL-135.

LOCATION.--Lat 39°59'01" Long 83°44'06", Hydrologic Unit 05080001, along State Route 4 near Springfield, OH.
Owner.--USGS-Ron Galluzzo.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 3.0 in., depth 37.2 ft. Cased with Sch 40 PVC to 17.7 ft; .020 in. screen from 17.7 to 37.2 ft.

INSTRUMENTATION - Data logger--60 minute record. At this well there are 4 conductivity/water temperature probes at increasing depths within the well to better document vertical movement of high conductivity water on an hourly basis. Conductivity/water temperature probes are set at 19.0 (level 4), 23.5 (level 3), 29.0 (level 2), and 35.0 (level 1) feet below land surface.

DATUM.--Elevation of land-surface datum is 1031.89 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 3.26 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (FOUR LEVELS): February 1991 to current year.
WATER TEMPERATURE (FOUR LEVELS): February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 839 microsiemens May 7, 9, and 10, 1991; minimum, 749 microsiemens August 14, 1991.
LEVEL 2- Maximum, 848 microsiemens May 9, 1991; minimum, 751 microsiemens August 14, 1991.
LEVEL 3- Maximum, 841 microsiemens May 4, 1991; minimum, 741 microsiemens August 31, 1991.
LEVEL 4- Maximum, 865 microsiemens May 7 and 9, 1991; minimum, 330 microsiemens September 26, 1991.

WATER TEMPERATURE: LEVEL 1- Maximum, 11.5°C many days in 1991; minimum, 11.0°C many days in 1991.
LEVEL 2- Maximum, 12.5°C many days in 1991; minimum, 10.5°C many days in 1991.
LEVEL 3- Maximum, 13.5°C September 17, 1991; minimum, 10.5°C many days in 1991.
LEVEL 4- Maximum, 14.0°C many days in 1991; minimum, 10.0°C many days in 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 839 microsiemens May 7, 9, and 10, 1991; minimum, 749 microsiemens August 14, 1991.
LEVEL 2- Maximum, 848 microsiemens May 9, 1991; minimum, 751 microsiemens August 14, 1991.
LEVEL 3- Maximum, 841 microsiemens May 4, 1991; minimum, 741 microsiemens August 31, 1991.
LEVEL 4- Maximum, 865 microsiemens May 7 and 9, 1991; minimum, 330 microsiemens September 26, 1991.

WATER TEMPERATURE: LEVEL 1- Maximum, 11.5°C many days in 1991; minimum, 11.0°C many days in 1991.
LEVEL 2- Maximum, 12.5°C many days in 1991; minimum, 10.5°C many days in 1991.
LEVEL 3- Maximum, 13.5°C September 17, 1991; minimum, 10.5°C many days in 1991.
LEVEL 4- Maximum, 14.0°C many days in 1991; minimum, 10.0°C many days in 1991.

395901083440600 CL-135 NR SPRINGFIELD OH--Continued

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	814	809	812	814	813	814	832	826	830
2	---	---	---	816	811	815	815	809	813	833	827	831
3	---	---	---	813	811	812	815	810	814	834	828	832
4	---	---	---	818	812	814	816	810	815	834	829	833
5	---	---	---	819	813	816	817	811	815	835	833	834
6	---	---	---	819	815	819	818	813	817	836	834	835
7	---	---	---	820	815	817	822	814	818	839	831	835
8	---	---	---	824	816	818	820	814	819	836	833	835
9	---	---	---	821	816	818	821	819	820	839	830	835
10	---	---	---	821	816	819	823	821	822	839	831	835
11	---	---	---	824	816	819	826	822	823	836	833	834
12	---	---	---	821	816	818	826	822	823	838	831	833
13	---	---	---	821	816	820	827	822	823	838	830	833
14	---	---	---	824	819	820	828	823	825	836	830	832
15	---	---	---	823	818	820	828	823	825	834	828	831
16	---	---	---	822	815	819	828	822	824	834	828	830
17	---	---	---	822	817	819	828	822	824	833	826	830
18	---	---	---	821	816	817	828	822	824	832	826	828
19	---	---	---	820	814	816	828	823	825	830	824	826
20	---	---	---	818	813	815	824	823	824	830	822	826
21	---	---	---	818	812	815	824	823	824	828	821	824
22	---	---	---	817	812	817	828	823	825	827	819	823
23	---	---	---	817	811	815	829	823	826	825	818	821
24	---	---	---	817	812	816	829	824	827	823	816	820
25	806	803	805	817	810	813	830	824	827	821	814	817
26	807	805	806	816	815	815	831	819	827	819	813	815
27	808	807	807	815	810	814	828	822	826	818	811	814
28	813	808	810	814	809	813	829	823	827	817	810	814
29	---	---	---	814	814	814	830	825	828	815	808	811
30	---	---	---	814	810	813	831	825	829	814	806	809
31	---	---	---	814	809	813	---	---	---	812	804	808
MONTH	813	803	807	824	809	816	831	809	822	839	804	826

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	810	803	807	785	776	780	759	754	757	760	755	759
2	808	802	806	783	775	778	759	753	757	760	756	759
3	807	800	804	778	772	776	758	753	754	761	755	759
4	806	799	804	779	771	775	759	753	756	761	756	758
5	804	798	801	776	769	774	758	752	756	761	755	759
6	804	797	800	775	769	773	758	754	757	762	756	760
7	803	797	799	772	768	770	758	752	755	762	757	760
8	802	795	799	772	767	770	758	752	755	763	757	761
9	801	795	797	772	766	770	758	754	757	762	757	760
10	801	794	797	771	766	769	758	752	755	763	757	759
11	798	792	795	771	764	769	758	752	754	763	758	761
12	799	793	796	769	764	767	758	752	754	764	759	762
13	798	790	794	769	763	767	758	752	755	764	758	761
14	797	791	793	768	763	767	758	749	755	764	758	761
15	797	791	793	768	763	767	757	751	753	764	758	761
16	798	793	794	768	762	767	758	752	754	764	759	760
17	797	790	793	768	762	766	759	753	756	765	759	762
18	797	791	794	767	761	765	759	754	756	766	760	764
19	798	792	794	766	760	764	760	752	756	766	761	765
20	799	793	795	765	760	763	760	755	756	767	761	764
21	799	790	795	764	759	762	757	755	756	768	762	764
22	799	790	795	764	760	762	761	755	756	768	762	765
23	797	789	793	764	759	761	757	753	756	768	762	765
24	795	790	793	765	759	763	761	754	757	768	763	765
25	793	788	789	764	759	762	759	754	757	768	763	765
26	794	786	789	764	758	762	759	754	757	769	763	766
27	790	782	788	764	757	761	759	754	757	769	763	766
28	787	782	786	763	755	759	758	754	757	770	765	767
29	785	780	782	760	755	758	759	754	757	770	765	767
30	785	778	782	760	754	756	760	754	757	770	764	766
31	---	---	---	759	753	757	760	755	757	---	---	---
MONTH	810	778	795	785	753	766	761	749	756	770	755	762
YEAR	839	749	792									

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LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	820	813	817	841	834	840
2	---	---	---	---	---	---	821	814	817	842	835	839
3	---	---	---	---	---	---	823	817	819	844	836	841
4	---	---	---	---	---	---	824	817	820	844	840	843
5	---	---	---	---	---	---	824	818	820	845	842	843
6	---	---	---	---	---	---	825	819	822	845	842	844
7	---	---	---	---	---	---	826	820	823	846	838	843
8	---	---	---	---	---	---	828	821	826	846	839	843
9	---	---	---	---	---	---	828	823	827	848	839	844
10	---	---	---	---	---	---	829	824	827	846	838	843
11	---	---	---	---	---	---	830	824	827	845	839	843
12	---	---	---	---	---	---	834	826	829	845	838	842
13	---	---	---	---	---	---	831	827	830	844	837	842
14	---	---	---	---	---	---	835	830	832	843	836	840
15	---	---	---	---	---	---	835	830	831	842	835	839
16	---	---	---	---	---	---	834	829	831	841	833	838
17	---	---	---	---	---	---	834	829	831	839	832	837
18	---	---	---	---	---	---	835	829	832	838	832	837
19	---	---	---	823	818	821	835	830	831	838	831	836
20	---	---	---	822	816	819	832	830	831	836	829	834
21	---	---	---	822	816	819	832	830	831	835	826	832
22	---	---	---	822	815	821	836	830	833	834	825	830
23	---	---	---	822	815	819	836	830	833	831	824	829
24	---	---	---	821	816	819	837	832	834	830	822	827
25	---	---	---	820	814	817	838	831	834	827	820	825
26	---	---	---	820	816	819	838	829	834	825	819	822
27	---	---	---	819	816	818	838	831	835	824	818	822
28	---	---	---	820	812	817	840	832	836	824	816	820
29	---	---	---	819	816	817	840	833	837	822	814	818
30	---	---	---	820	813	816	841	834	837	819	812	816
31	---	---	---	818	812	816	---	---	---	819	810	815
MONTH	---	---	---	823	812	818	841	813	829	848	810	834

LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	816	810	814	781	772	777	761	755	757	763	758	761
2	815	808	812	781	771	776	761	755	757	764	758	760
3	814	806	811	782	774	780	761	756	757	764	759	760
4	813	805	810	782	772	778	757	753	756	764	757	760
5	812	805	809	780	773	778	758	753	757	765	760	761
6	812	803	808	779	771	776	758	753	757	762	760	761
7	811	803	807	776	769	773	758	753	757	762	758	761
8	811	801	807	775	767	771	758	753	757	763	758	762
9	809	799	805	775	766	770	759	754	758	763	758	760
10	809	797	804	772	766	770	759	753	757	763	758	761
11	805	798	802	772	765	769	758	753	756	765	759	762
12	806	798	803	770	765	769	759	753	757	765	760	764
13	806	796	801	770	764	768	759	753	757	765	760	764
14	804	796	800	770	763	767	759	751	757	766	760	762
15	804	796	799	769	764	766	759	753	756	766	761	763
16	803	797	800	769	762	765	760	754	757	766	761	762
17	804	795	799	766	762	764	760	755	758	768	762	765
18	803	796	799	768	762	764	761	755	758	768	763	767
19	804	798	800	764	762	763	761	756	759	768	763	764
20	804	797	800	763	760	762	762	756	760	769	763	765
21	805	797	801	761	757	759	762	757	759	769	764	765
22	805	785	795	760	755	758	763	757	760	766	761	765
23	800	792	798	760	755	757	763	757	759	766	762	765
24	796	780	784	760	755	758	763	758	759	767	762	766
25	795	790	794	760	754	758	763	758	759	768	762	766
26	798	776	786	759	754	757	760	756	760	768	762	766
27	788	780	784	760	754	757	761	756	760	768	762	767
28	783	775	778	760	755	758	761	756	760	769	768	768
29	787	778	785	760	754	757	761	757	760	768	763	767
30	788	773	779	760	754	757	762	757	760	769	763	767
31	---	---	---	761	755	757	763	758	761	---	---	---
MONTH	816	773	799	782	754	766	763	751	758	769	757	764
YEAR	848	751	793									

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LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	817	815	816	836	830	834
2	---	---	---	---	---	---	820	812	816	837	831	835
3	---	---	---	---	---	---	819	815	817	840	830	836
4	---	---	---	---	---	---	822	816	818	841	836	837
5	---	---	---	---	---	---	823	817	819	839	836	838
6	---	---	---	---	---	---	824	818	820	840	837	839
7	---	---	---	---	---	---	825	819	821	840	834	838
8	---	---	---	---	---	---	826	820	824	840	833	839
9	---	---	---	---	---	---	827	820	825	840	834	839
10	---	---	---	---	---	---	828	822	824	840	837	839
11	---	---	---	---	---	---	829	822	826	840	833	838
12	---	---	---	---	---	---	830	824	827	839	833	837
13	---	---	---	---	---	---	830	828	829	838	831	836
14	---	---	---	---	---	---	830	828	829	837	830	835
15	---	---	---	---	---	---	830	828	829	836	830	835
16	---	---	---	---	---	---	830	823	827	836	828	833
17	---	---	---	---	---	---	831	823	827	834	827	832
18	---	---	---	---	---	---	830	824	828	834	827	831
19	---	---	---	822	818	818	830	828	829	833	825	830
20	---	---	---	822	814	818	830	828	829	832	825	829
21	---	---	---	821	815	817	830	828	829	830	822	827
22	---	---	---	821	815	818	831	828	829	828	821	825
23	---	---	---	821	814	818	831	828	830	827	819	823
24	---	---	---	820	815	816	831	829	830	825	817	821
25	---	---	---	819	813	816	832	826	830	823	816	819
26	---	---	---	819	815	817	832	822	830	822	814	818
27	---	---	---	818	812	817	832	826	830	820	814	817
28	---	---	---	818	811	817	833	827	831	820	812	816
29	---	---	---	818	812	816	837	827	832	817	811	814
30	---	---	---	817	812	814	835	829	833	816	809	812
31	---	---	---	817	811	814	---	---	---	815	807	810
MONTH	---	---	---	822	811	817	837	812	826	841	807	829

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	814	806	810	760	754	758	752	747	751	750	744	746
2	812	805	808	760	755	758	752	748	751	747	742	746
3	811	804	807	760	754	757	752	746	748	748	743	747
4	810	803	807	761	755	758	752	746	750	749	743	746
5	807	802	804	761	752	757	753	747	750	749	744	748
6	806	800	803	757	755	756	753	749	752	750	744	747
7	804	798	802	756	751	755	754	747	750	751	745	746
8	806	787	796	757	751	753	753	748	751	751	745	747
9	806	774	788	757	752	754	754	753	753	747	743	747
10	797	779	783	757	752	755	754	748	751	748	743	746
11	799	774	790	758	752	755	754	748	750	750	745	748
12	785	776	779	758	753	756	753	748	749	751	746	750
13	796	782	789	758	752	755	750	748	749	752	747	750
14	778	771	774	759	752	756	749	745	748	752	747	750
15	779	772	776	759	753	755	750	744	748	753	747	751
16	780	767	772	758	752	753	750	744	748	754	748	750
17	773	764	770	753	749	752	750	744	747	754	748	752
18	770	765	768	754	750	753	750	744	747	755	750	754
19	771	763	767	755	749	753	750	745	747	756	750	754
20	769	764	766	754	748	751	747	746	747	758	751	755
21	770	763	766	754	749	751	748	743	746	758	752	756
22	768	763	766	754	746	749	748	743	746	758	753	756
23	764	760	763	751	745	748	748	743	746	759	753	756
24	765	759	763	752	747	750	748	743	747	759	754	756
25	764	758	762	752	747	751	748	743	746	760	754	756
26	764	759	762	753	747	750	748	742	745	759	755	756
27	764	759	762	753	747	751	748	743	745	760	755	756
28	764	755	760	754	749	751	748	743	745	757	756	757
29	760	756	759	755	749	750	748	743	745	761	756	757
30	760	755	759	754	749	750	749	743	746	762	756	758
31	---	---	---	751	747	750	749	741	745	---	---	---
MONTH	814	755	779	761	745	753	754	741	748	762	742	751
YEAR	841	741	784									

395901083440600 CL-135 NR SPRINGFIELD OH--Continued

LEVEL 4
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	847	842	846	860	856	857
2	---	---	---	---	---	---	848	843	846	862	856	858
3	---	---	---	---	---	---	848	842	847	862	856	858
4	---	---	---	---	---	---	849	847	848	863	858	859
5	---	---	---	---	---	---	849	843	847	864	859	860
6	---	---	---	---	---	---	849	844	848	861	859	860
7	---	---	---	---	---	---	850	844	849	865	859	860
8	---	---	---	---	---	---	851	849	850	864	859	860
9	---	---	---	---	---	---	855	850	851	865	856	860
10	---	---	---	---	---	---	853	851	852	864	858	860
11	---	---	---	---	---	---	856	852	853	860	854	859
12	---	---	---	---	---	---	856	852	853	862	854	858
13	---	---	---	---	---	---	857	852	853	858	855	857
14	---	---	---	---	---	---	857	852	856	857	851	855
15	---	---	---	---	---	---	856	851	855	856	849	855
16	---	---	---	---	---	---	856	849	854	855	849	853
17	---	---	---	---	---	---	856	849	854	854	848	852
18	---	---	---	---	---	---	855	849	853	853	847	852
19	---	---	---	850	845	846	855	854	854	853	845	850
20	---	---	---	849	833	844	855	854	854	851	844	848
21	---	---	---	839	832	835	855	854	854	849	843	847
22	---	---	---	847	836	839	855	853	854	848	840	845
23	---	---	---	851	845	848	855	854	855	846	839	843
24	---	---	---	846	842	845	856	855	855	844	837	841
25	---	---	---	848	843	845	860	854	856	843	835	838
26	---	---	---	850	843	846	861	840	854	840	834	837
27	---	---	---	849	848	848	858	851	854	840	834	837
28	---	---	---	849	842	846	858	852	854	839	811	827
29	---	---	---	848	843	846	859	853	855	835	809	825
30	---	---	---	848	843	845	856	854	855	834	802	821
31	---	---	---	847	842	845	---	---	---	828	801	813
MONTH	---	---	---	851	832	844	861	840	852	865	801	849

LEVEL 4
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	820	796	805	771	766	768	772	766	768	762	757	760
2	821	793	807	772	766	769	769	764	768	762	757	761
3	821	789	805	772	767	769	769	763	765	762	757	760
4	801	791	797	769	764	767	769	764	767	764	759	762
5	795	787	790	769	764	768	769	764	766	765	758	762
6	791	784	786	769	764	767	766	761	765	763	756	758
7	788	783	785	769	763	766	767	761	765	758	753	755
8	788	781	783	770	765	767	766	761	765	753	748	752
9	786	781	782	771	766	768	767	766	766	750	738	746
10	783	777	781	772	766	769	768	760	764	745	700	735
11	782	777	780	772	766	768	766	761	763	705	342	608
12	782	775	779	769	764	767	766	761	762	732	343	515
13	781	775	778	769	764	768	763	762	762	733	612	695
14	781	774	777	770	764	768	764	756	762	721	644	677
15	780	774	776	773	766	767	765	759	763	725	539	638
16	780	774	777	767	762	766	764	758	762	721	539	643
17	780	775	777	768	762	766	765	759	763	589	343	409
18	780	771	776	767	762	766	765	760	762	683	345	553
19	776	771	775	768	762	765	762	756	761	348	343	345
20	777	771	774	768	763	765	762	757	761	349	343	346
21	777	771	775	769	763	765	763	757	761	350	344	347
22	776	771	774	770	761	765	763	757	760	357	344	350
23	777	772	774	766	761	764	762	757	760	387	347	372
24	774	769	773	768	762	765	763	757	761	391	344	365
25	774	769	772	768	762	766	764	758	761	389	346	368
26	774	768	772	769	763	766	765	759	761	387	330	369
27	774	769	772	770	763	767	765	759	762	---	---	---
28	774	766	771	770	765	768	765	759	762	---	---	---
29	771	765	769	771	765	768	766	760	762	---	---	---
30	771	766	769	771	766	769	766	756	761	---	---	---
31	---	---	---	768	767	767	761	756	759	---	---	---
MONTH	821	765	780	773	761	767	772	756	763	765	330	583
YEAR	865	330	775									

395901083440600 CL-135 NR SPRINGFIELD OH--Continued

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0
2	---	---	---	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0
3	---	---	---	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0
4	---	---	---	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0
5	---	---	---	---	---	---	11.5	11.5	11.5	11.0	11.0	11.0
6	---	---	---	---	---	---	11.5	11.5	11.5	11.0	11.0	11.0
7	---	---	---	---	---	---	11.5	11.0	11.5	11.5	11.0	11.0
8	---	---	---	---	---	---	11.5	11.5	11.5	11.0	11.0	11.0
9	---	---	---	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0
10	---	---	---	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0
11	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
12	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
13	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
14	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
15	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
16	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
17	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
18	---	---	---	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0
19	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
20	---	---	---	11.5	11.5	11.5	11.5	11.5	11.5	11.0	11.0	11.0
21	---	---	---	11.5	11.5	11.5	11.5	11.5	11.5	11.0	11.0	11.0
22	---	---	---	11.5	11.5	11.5	11.5	11.0	11.5	11.0	11.0	11.0
23	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
24	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
25	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
26	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
27	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
28	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
29	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
30	---	---	---	11.5	11.5	11.5	11.5	11.0	11.0	11.0	11.0	11.0
31	---	---	---	11.5	11.5	11.5	---	---	---	11.0	11.0	11.0
MONTH	---	---	---	11.5	11.5	11.5	11.5	11.0	11.3	11.5	11.0	11.0

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5
2	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
3	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
4	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
5	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
6	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5
7	11.0	11.0	11.0	11.5	11.0	11.5	11.5	11.0	11.5	11.5	11.5	11.5
8	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
9	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5
10	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
11	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
12	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
13	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
14	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
15	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
16	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
17	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
18	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
19	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
20	11.0	11.0	11.0	11.5	11.0	11.5	11.5	11.0	11.5	11.5	11.5	11.5
21	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5
22	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.0	11.5	11.5	11.5	11.5
23	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5
24	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
25	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
26	11.5	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
27	11.5	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
28	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5
29	11.5	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
30	11.5	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5
31	---	---	---	11.5	11.0	11.0	11.5	11.5	11.5	---	---	---
MONTH	11.5	11.0	11.0	11.5	11.0	11.1	11.5	11.0	11.5	11.5	11.5	11.5
YEAR	11.5	11.0	11.3									

395901083440600 CL-135 NR SPRINGFIELD OH--Continued

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.5	11.0	11.0	11.0	10.5	10.5
2	---	---	---	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0
3	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0
4	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5
5	---	---	---	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
6	---	---	---	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
7	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0
8	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0
9	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5
10	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0
11	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0
12	---	---	---	---	---	---	11.0	10.5	11.0	11.0	10.5	11.0
13	---	---	---	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0
14	---	---	---	---	---	---	11.0	10.5	11.0	11.0	10.5	11.0
15	---	---	---	---	---	---	11.0	10.5	11.0	11.0	10.5	11.0
16	---	---	---	---	---	---	11.0	10.5	11.0	11.0	10.5	11.0
17	---	---	---	---	---	---	11.0	10.5	11.0	11.0	10.5	11.0
18	---	---	---	---	---	---	11.0	10.5	11.0	11.0	10.5	10.5
19	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
20	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0	11.0	10.5	11.0
21	---	---	---	11.5	11.0	11.5	11.0	11.0	11.0	11.0	10.5	11.0
22	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
23	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
24	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
25	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
26	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
27	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
28	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
29	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
30	---	---	---	11.5	11.0	11.0	11.0	10.5	11.0	11.0	10.5	11.0
31	---	---	---	11.5	11.0	11.0	---	---	---	11.0	10.5	11.0
MONTH	---	---	---	11.5	11.0	11.1	11.5	10.5	11.0	11.0	10.5	10.9

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	10.5	11.0	11.0	10.5	11.0	11.5	11.0	11.5	12.0	11.5	11.5
2	11.0	10.5	11.0	11.0	10.5	11.0	11.5	11.0	11.5	12.0	11.5	12.0
3	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.0	11.5	12.0	11.5	12.0
4	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	11.5	12.0
5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	11.5	12.0
6	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
7	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
8	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
9	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
10	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
11	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
12	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
13	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
14	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
15	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
16	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
17	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
18	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
19	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
20	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
21	11.0	10.5	11.0	11.5	11.0	11.0	11.5	11.5	11.5	12.0	12.0	12.0
22	11.0	10.5	11.0	11.5	11.0	11.5	11.5	11.5	11.5	12.5	12.0	12.0
23	11.0	10.5	11.0	11.5	11.0	11.5	11.5	11.5	11.5	12.5	12.0	12.0
24	11.0	10.5	11.0	11.5	11.0	11.0	11.5	11.5	11.5	12.5	12.0	12.0
25	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5	12.5	12.0	12.0
26	11.0	10.5	11.0	11.5	11.0	11.0	12.0	11.5	11.5	12.5	12.0	12.0
27	11.0	10.5	11.0	11.5	11.0	11.0	12.0	11.5	11.5	12.5	12.0	12.0
28	11.0	10.5	11.0	11.5	11.0	11.5	12.0	11.5	11.5	12.0	12.0	12.0
29	11.0	10.5	11.0	11.5	11.0	11.5	12.0	11.5	11.5	12.5	12.0	12.0
30	11.0	10.5	11.0	11.5	11.0	11.5	12.0	11.5	11.5	12.5	12.0	12.0
31	---	---	---	11.5	11.0	11.5	12.0	11.5	11.5	---	---	---
MONTH	11.0	10.5	11.0	11.5	10.5	11.1	12.0	11.0	11.5	12.5	11.5	12.0
YEAR	12.5	10.5	11.2									

395901083440600 CL-135 NR SPRINGFIELD OH--Continued

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
2	---	---	---	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5
3	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
4	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
5	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
6	---	---	---	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5
7	---	---	---	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5
8	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
9	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
10	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
11	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
12	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
13	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
14	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
15	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
16	---	---	---	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5
17	---	---	---	---	---	---	10.5	10.5	10.5	11.0	10.5	10.5
18	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
19	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
20	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
21	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
22	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
23	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
24	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
25	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
26	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
27	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
28	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	11.0	10.5	10.5
29	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	11.0	10.5	10.5
30	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	11.0	10.5	10.5
31	---	---	---	11.0	10.5	10.5	---	---	---	11.0	10.5	10.5
MONTH	---	---	---	11.0	10.5	10.8	11.0	10.5	10.5	11.0	10.5	10.5

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	10.5	10.5	11.5	11.0	11.5	12.5	12.0	12.0	13.0	12.5	12.5
2	11.0	10.5	10.5	11.5	11.0	11.0	12.5	12.0	12.0	13.0	12.5	13.0
3	11.0	10.5	10.5	11.5	11.0	11.5	12.5	12.0	12.5	13.0	12.5	13.0
4	11.0	10.5	10.5	11.5	11.0	11.5	12.5	12.0	12.0	13.0	12.5	13.0
5	11.0	10.5	10.5	11.5	11.0	11.5	12.5	12.0	12.0	13.0	12.5	13.0
6	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.0	13.0	12.5	13.0
7	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.0	13.0	12.5	13.0
8	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.0	13.0	12.5	13.0
9	11.0	10.5	10.5	11.5	11.5	11.5	12.0	12.0	12.0	13.0	13.0	13.0
10	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.0	13.0	13.0	13.0
11	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.0	13.0	13.0	13.0
12	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.5	13.0	13.0	13.0
13	11.0	10.5	11.0	11.5	11.5	11.5	12.5	12.0	12.5	13.0	13.0	13.0
14	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.5	13.0	13.0	13.0
15	11.0	10.5	11.0	11.5	11.5	11.5	12.5	12.0	12.5	13.0	13.0	13.0
16	11.0	10.5	11.0	11.5	11.5	11.5	12.5	12.0	12.5	13.0	13.0	13.0
17	11.0	10.5	11.0	12.0	11.5	11.5	12.5	12.5	12.5	13.5	13.0	13.0
18	11.0	10.5	11.0	12.0	11.5	11.5	12.5	12.5	12.5	13.0	13.0	13.0
19	11.0	10.5	11.0	12.0	11.5	11.5	12.5	12.0	12.5	13.0	13.0	13.0
20	11.0	10.5	11.0	12.0	11.5	11.5	12.5	12.5	12.5	13.0	13.0	13.0
21	11.0	10.5	11.0	12.0	11.5	12.0	12.5	12.5	12.5	13.0	13.0	13.0
22	11.0	10.5	11.0	12.0	11.5	12.0	13.0	12.5	12.5	13.0	13.0	13.0
23	11.0	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
24	11.0	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
25	11.0	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
26	11.0	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
27	11.0	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
28	11.5	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
29	11.5	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
30	11.5	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
31	---	---	---	12.5	12.0	12.0	13.0	12.5	12.5	---	---	---
MONTH	11.5	10.5	10.8	12.5	11.0	11.7	13.0	12.0	12.3	13.5	12.5	13.0
YEAR	13.5	10.5	11.4									

395901083440600 CL-135 NR SPRINGFIELD OH--Continued

LEVEL 4
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.0
2	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
3	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
4	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
5	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.0
6	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
7	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
8	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
9	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
10	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
11	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
12	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5
13	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
14	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
15	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
16	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
17	---	---	---	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5
18	---	---	---	---	---	---	10.5	10.0	10.5	10.5	10.5	10.5
19	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
20	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5	10.5	10.5	10.5
21	---	---	---	10.5	10.5	10.5	10.0	10.0	10.0	10.5	10.5	10.5
22	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5	10.5	10.5	10.5
23	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5	10.5	10.5	10.5
24	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5	10.5	10.5	10.5
25	---	---	---	10.5	10.5	10.5	10.5	10.0	10.0	10.5	10.5	10.5
26	---	---	---	10.5	10.5	10.5	10.5	10.0	10.5	10.5	10.5	10.5
27	---	---	---	10.5	10.5	10.5	10.5	10.0	10.0	10.5	10.5	10.5
28	---	---	---	10.5	10.5	10.5	10.5	10.0	10.0	10.5	10.5	10.5
29	---	---	---	10.5	10.5	10.5	10.5	10.0	10.0	10.5	10.5	10.5
30	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
31	---	---	---	10.5	10.5	10.5	---	---	---	10.5	10.5	10.5
MONTH	---	---	---	10.5	10.5	10.5	10.5	10.0	10.4	10.5	10.0	10.5

LEVEL 4
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.5	10.5	11.5	11.0	11.5	12.5	12.0	12.5	13.5	13.0	13.0
2	10.5	10.5	10.5	11.5	11.0	11.5	12.5	12.0	12.5	13.5	13.0	13.5
3	10.5	10.5	10.5	11.5	11.0	11.5	12.5	12.5	12.5	13.5	13.0	13.5
4	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.0	13.5
5	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.5	13.5	13.0	13.5
6	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.0	13.5
7	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.0	13.5
8	10.5	10.5	10.5	11.5	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5
9	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.5	13.5
10	10.5	10.5	10.5	11.5	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5
11	11.0	10.5	10.5	11.5	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5
12	11.0	10.5	10.5	12.0	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5
13	11.0	10.5	10.5	12.0	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5
14	11.0	10.5	10.5	12.0	11.5	11.5	13.0	12.5	13.0	13.5	13.5	13.5
15	11.0	10.5	10.5	12.0	11.5	12.0	13.0	12.5	13.0	13.5	13.5	13.5
16	11.0	10.5	10.5	12.0	12.0	12.0	13.0	12.5	13.0	14.0	13.5	13.5
17	11.0	10.5	10.5	12.0	12.0	12.0	13.0	12.5	13.0	14.0	13.5	13.5
18	11.0	10.5	10.5	12.0	12.0	12.0	13.0	12.5	13.0	14.0	13.5	13.5
19	11.0	10.5	11.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	13.5	13.5
20	11.0	10.5	11.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	13.5	13.5
21	11.0	10.5	11.0	12.0	12.0	12.0	13.0	13.0	13.0	14.0	13.5	13.5
22	11.0	10.5	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	13.5
23	11.0	10.5	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
24	11.0	11.0	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
25	11.0	11.0	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
26	11.0	11.0	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
27	11.0	11.0	11.0	12.5	12.0	12.0	13.0	13.0	13.0	14.0	13.5	14.0
28	11.5	11.0	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
29	11.5	11.0	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
30	11.5	11.0	11.0	12.5	12.0	12.0	13.5	13.0	13.0	14.0	13.5	14.0
31	---	---	---	12.5	12.0	12.5	13.5	13.0	13.5	---	---	---
MONTH	11.5	10.5	10.7	12.5	11.0	11.8	13.5	12.0	12.8	14.0	13.0	13.6
YEAR	14.0	10.0	11.6									

GROUND-WATER RECORDS

395859083440700. Local number, CL-138.

LOCATION.--Lat 39°58'59" Long 83°44'07", Hydrologic Unit 05080001, along State Route 4 near Springfield, OH.
Owner.--USGS-U.S. Corps of Engineers.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 28.5 ft. Cased with Sch 40 PVC to 18.5 ft; .020 in. screen from 18.5 to 28.5 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature and soil temperature.

DATUM.--Elevation of land-surface datum is 1031.61 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 3.31 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 21.69 ft. below land-surface datum, February 28 and March 1, 1991; minimum daily low, 19.20 ft. below land-surface datum, April 26, 1991.

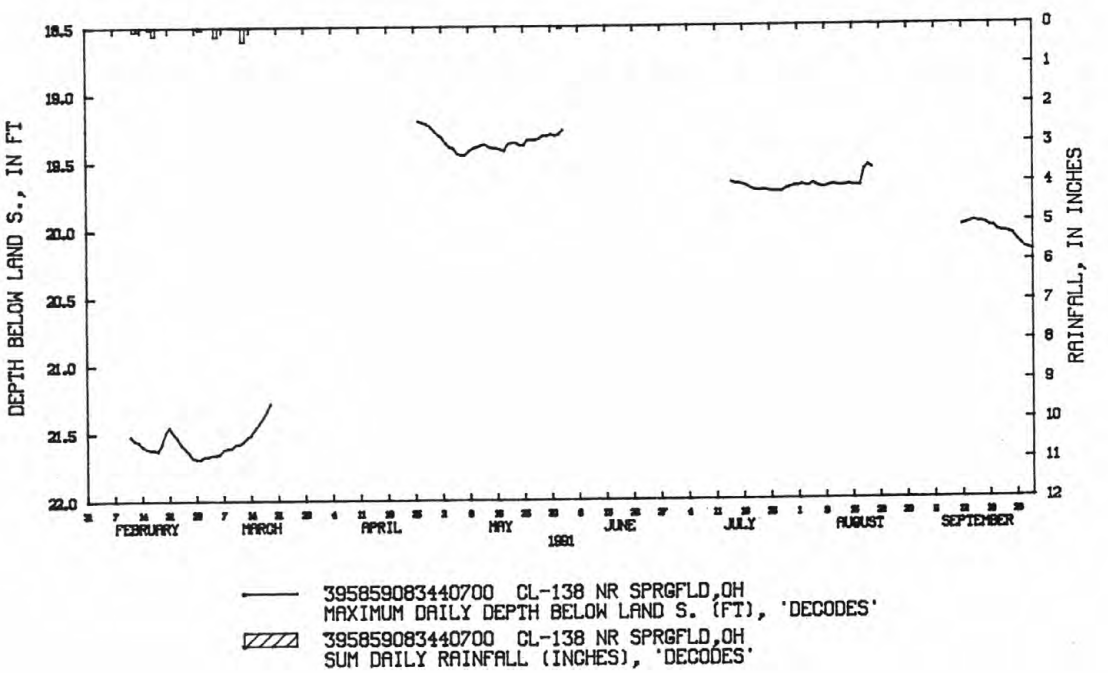
AIR TEMPERATURE: Maximum, 37.5°C July 22, 1991; minimum, <.0°C many days in 1991.

SOIL TEMPERATURE: Maximum, 39.5°C July 22 and August 2, 1991; minimum, <.0°C several days in 1991.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 21.69 ft. below land-surface datum, February 28 and March 1, 1991; minimum daily low, 19.20 ft. below land-surface datum, April 26, 1991.

AIR TEMPERATURE: Maximum, 37.5°C July 22, 1991; minimum, <.0°C many days in 1991.

SOIL TEMPERATURE: Maximum, 39.5°C July 22 and August 2, 1991; minimum, <.0°C several days in 1991.



395859083440700 CL-138 NR SPRINGFIELD OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	21.69	---	19.30	19.30	---	19.69	---
2	---	---	---	---	---	21.67	---	19.32	19.27	---	19.68	---
3	---	---	---	---	---	21.67	---	19.36	---	---	19.69	---
4	---	---	---	---	---	21.66	---	19.39	---	---	19.69	---
5	---	---	---	---	---	21.66	---	19.40	---	---	19.67	---
6	---	---	---	---	---	21.65	---	19.44	---	---	19.69	---
7	---	---	---	---	---	21.62	---	19.45	---	---	19.70	---
8	---	---	---	---	---	21.61	---	19.45	---	---	19.70	---
9	---	---	---	---	---	21.61	---	19.42	---	---	19.69	---
10	---	---	---	---	---	21.58	---	19.40	---	---	19.68	---
11	---	---	---	---	21.52	21.58	---	19.39	---	---	19.69	---
12	---	---	---	---	21.55	21.56	---	19.38	---	---	19.69	19.99
13	---	---	---	---	21.56	21.53	---	19.37	---	---	19.69	19.98
14	---	---	---	---	21.59	21.51	---	19.39	---	---	19.68	19.97
15	---	---	---	---	21.61	21.47	---	19.40	---	19.66	19.69	19.96
16	---	---	---	---	21.62	21.43	---	19.40	---	19.67	19.69	19.97
17	---	---	---	---	21.62	21.39	---	19.41	---	19.67	19.69	19.97
18	---	---	---	---	21.63	21.34	---	19.42	---	19.68	19.57	19.98
19	---	---	---	---	21.58	21.28	---	19.37	---	19.69	19.54	20.00
20	---	---	---	---	21.49	---	---	19.36	---	19.71	19.56	20.00
21	---	---	---	---	21.45	---	---	19.36	---	19.72	---	20.03
22	---	---	---	---	21.50	---	---	19.38	---	19.72	---	20.04
23	---	---	---	---	21.53	---	---	19.38	---	19.72	---	20.04
24	---	---	---	---	21.58	---	---	19.34	---	19.72	---	20.05
25	---	---	---	---	21.61	---	---	19.34	---	19.73	---	20.06
26	---	---	---	---	21.64	---	19.20	19.34	---	19.73	---	20.10
27	---	---	---	---	21.68	---	19.21	19.33	---	19.73	---	20.13
28	---	---	---	---	21.69	---	19.22	19.31	---	19.73	---	20.16
29	---	---	---	---	---	---	19.24	19.31	---	19.71	---	20.17
30	---	---	---	---	---	---	19.27	19.30	---	19.70	---	20.18
31	---	---	---	---	---	---	---	19.31	---	19.69	---	---
MAX	---	---	---	---	21.69	21.69	19.27	19.45	19.30	19.73	19.70	20.18

WTR YR 1991 LOW 21.69

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	15.5	3.0	10.0	---	---	---	19.5	11.5	15.0
2	---	---	---	15.0	4.0	12.0	---	---	---	22.0	5.5	14.5
3	---	---	---	3.5	<.0	---	---	---	---	19.0	5.5	13.0
4	---	---	---	8.5	.5	3.5	---	---	---	19.0	9.0	13.5
5	---	---	---	12.5	1.0	6.5	---	---	---	21.0	12.0	16.5
6	---	---	---	11.0	1.5	7.0	---	---	---	17.5	8.0	10.5
7	---	---	---	4.0	<.0	---	---	---	---	20.5	7.5	13.5
8	---	---	---	6.5	<.0	---	---	---	---	24.0	8.5	16.5
9	---	---	---	11.0	<.0	---	---	---	---	21.0	14.0	17.0
10	---	---	---	4.0	<.0	---	---	---	---	26.0	14.5	19.5
11	---	---	---	8.0	<.0	---	---	---	---	29.5	13.5	21.0
12	---	---	---	4.5	<.0	---	---	---	---	28.5	14.5	22.0
13	---	---	---	1.0	<.0	---	---	---	---	30.0	15.5	23.0
14	---	---	---	5.0	<.0	---	---	---	---	31.5	16.5	23.5
15	---	---	---	8.5	<.0	---	---	---	---	31.0	15.0	23.0
16	---	---	---	12.0	.5	5.0	---	---	---	30.5	16.5	22.5
17	---	---	---	14.0	<.0	---	---	---	---	30.5	17.0	23.5
18	---	---	---	9.5	3.5	6.5	---	---	---	20.0	12.0	15.0
19	---	---	---	6.5	2.5	5.5	---	---	---	24.0	10.5	17.5
20	---	---	---	---	---	---	---	---	---	25.5	14.0	19.5
21	---	---	---	---	---	---	---	---	---	24.0	14.0	20.5
22	---	---	---	---	---	---	---	---	---	30.5	19.0	28.0
23	---	---	---	---	---	---	16.0	4.5	10.0	28.0	16.5	21.5
24	---	---	---	---	---	---	15.0	1.5	7.5	29.5	19.5	24.0
25	7.0	<.0	---	---	---	---	17.5	11.0	13.5	30.0	20.5	25.5
26	7.5	.5	4.0	---	---	---	23.0	13.5	17.5	26.5	21.5	23.5
27	5.0	<.0	---	---	---	---	22.0	12.0	17.5	27.0	20.0	22.5
28	15.0	<.0	---	---	---	---	23.0	13.0	18.0	31.0	19.0	25.0
29	---	---	---	---	---	---	24.5	17.0	20.0	31.5	20.0	25.0
30	---	---	---	---	---	---	23.5	12.0	18.5	31.0	22.0	26.0
31	---	---	---	---	---	---	---	---	---	32.0	19.0	24.5
MONTH	15.0	<.0	4.0	15.5	<.0	7.0	24.5	1.5	15.3	32.0	5.5	20.2

<.0 value means that the actual value is known to be less than zero, but by an undetermined amount.

395859083440700 CL-138 NR SPRINGFIELD OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	32.5	18.0	25.0	---	---	---	36.0	15.0	25.5	28.5	14.0	20.5
2	32.5	19.0	23.5	---	---	---	37.0	17.0	27.0	31.0	10.5	20.5
3	---	---	---	---	---	---	30.5	21.5	26.0	31.0	15.5	21.5
4	---	---	---	---	---	---	30.0	16.5	23.0	24.0	18.0	21.0
5	---	---	---	---	---	---	27.5	14.0	20.5	26.5	13.0	19.5
6	---	---	---	---	---	---	22.0	16.5	18.5	29.0	12.0	20.0
7	---	---	---	---	---	---	30.5	15.5	22.5	30.5	12.5	21.0
8	---	---	---	---	---	---	30.0	15.5	21.5	30.5	13.5	22.0
9	---	---	---	---	---	---	20.0	16.0	19.0	26.5	17.0	22.0
10	---	---	---	---	---	---	28.5	13.5	20.5	31.5	19.5	25.5
11	---	---	---	---	---	---	29.0	11.5	20.5	28.5	16.0	21.5
12	---	---	---	---	---	---	30.5	13.5	22.0	23.5	14.0	18.0
13	---	---	---	---	---	---	27.5	15.5	20.5	34.0	18.5	24.0
14	---	---	---	---	---	---	28.5	16.0	20.5	30.5	19.5	24.0
15	---	---	---	29.5	16.0	27.0	30.5	14.5	22.0	33.0	19.5	25.5
16	---	---	---	32.0	13.0	22.5	31.0	15.0	23.0	33.0	22.0	26.5
17	---	---	---	34.0	14.0	24.0	28.5	19.5	22.0	27.0	17.0	21.0
18	---	---	---	34.0	16.0	25.0	30.0	18.0	23.0	23.0	12.0	18.0
19	---	---	---	32.0	17.0	25.0	24.5	15.5	19.0	18.5	7.5	12.5
20	---	---	---	35.0	20.5	27.0	23.5	14.5	18.5	16.5	2.5	9.5
21	---	---	---	34.0	21.5	28.5	27.5	10.5	19.5	20.0	2.0	10.0
22	---	---	---	37.5	22.0	29.0	31.0	16.5	23.0	23.0	6.5	14.5
23	---	---	---	33.5	18.5	27.5	32.5	17.5	24.5	21.5	7.0	15.0
24	---	---	---	30.0	14.5	22.5	32.5	16.5	24.0	19.5	6.0	12.0
25	---	---	---	31.0	18.0	23.5	32.5	17.0	24.5	20.0	5.0	13.0
26	---	---	---	30.0	14.5	22.0	30.5	18.0	24.0	17.5	2.0	11.5
27	---	---	---	29.0	14.0	21.5	30.5	18.0	23.5	19.0	1.5	10.0
28	---	---	---	28.0	13.5	19.5	32.5	19.5	25.0	17.0	4.5	10.5
29	---	---	---	31.5	16.0	23.5	34.0	19.5	26.0	23.5	9.0	15.5
30	---	---	---	28.0	14.0	21.0	31.0	20.5	25.0	29.0	9.5	18.0
31	---	---	---	31.5	11.0	21.0	31.0	18.5	23.5	---	---	---
MONTH	32.5	18.0	24.2	37.5	11.0	24.1	37.0	10.5	22.5	34.0	1.5	18.1
YEAR	37.5	<.0	19.6									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	6.0	3.0	4.5	---	---	---	17.0	14.5	16.0
2	---	---	---	8.0	6.0	7.0	---	---	---	17.5	13.0	15.5
3	---	---	---	7.5	4.0	5.5	---	---	---	18.0	13.5	16.0
4	---	---	---	5.5	2.5	4.0	---	---	---	16.5	14.5	15.5
5	---	---	---	6.0	3.0	4.5	---	---	---	16.5	14.5	15.5
6	---	---	---	6.5	5.5	6.0	---	---	---	16.0	13.5	15.0
7	---	---	---	6.0	4.0	5.0	---	---	---	17.0	12.0	14.0
8	---	---	---	5.5	2.5	4.0	---	---	---	18.5	13.5	16.0
9	---	---	---	5.0	3.0	4.0	---	---	---	18.5	16.0	17.0
10	---	---	---	4.5	3.0	4.0	---	---	---	20.5	16.0	18.0
11	16.5	2.5	10.0	5.5	2.5	4.0	---	---	---	21.5	17.0	19.5
12	15.5	.5	9.5	4.5	2.5	3.0	---	---	---	22.5	18.0	20.5
13	7.5	.5	4.5	2.5	2.0	2.5	---	---	---	24.0	19.0	21.5
14	6.5	<.0	---	3.0	2.0	2.5	---	---	---	24.5	20.0	22.0
15	16.0	1.0	8.0	4.5	2.0	3.0	---	---	---	24.5	20.0	22.0
16	19.0	2.0	10.0	6.0	2.5	4.0	---	---	---	24.0	20.5	22.0
17	8.0	<.0	---	6.0	3.0	4.5	---	---	---	24.0	21.0	22.0
18	7.0	.5	3.5	6.5	5.5	6.5	---	---	---	22.5	19.0	20.5
19	12.0	1.5	7.0	5.5	4.5	5.0	---	---	---	20.5	17.5	19.0
20	20.5	<.0	---	---	---	---	---	---	---	22.0	19.0	20.5
21	27.0	<.0	---	---	---	---	---	---	---	21.0	19.0	19.5
22	22.5	1.0	8.5	---	---	---	---	---	---	23.5	22.5	22.5
23	18.5	1.5	8.0	---	---	---	12.0	8.5	10.5	22.5	20.5	21.5
24	27.5	.5	9.0	---	---	---	11.5	8.5	10.0	23.5	20.5	22.0
25	6.5	1.5	3.0	---	---	---	14.0	8.5	12.0	24.5	21.5	23.0
26	2.5	1.5	2.0	---	---	---	15.5	12.0	13.0	23.5	22.0	23.0
27	2.0	1.5	1.5	---	---	---	16.0	13.0	14.5	23.0	21.5	22.5
28	4.0	1.5	2.5	---	---	---	17.0	14.0	15.5	24.5	21.0	23.0
29	---	---	---	---	---	---	17.5	15.5	16.5	25.0	22.5	23.5
30	---	---	---	---	---	---	19.0	15.5	17.0	25.0	23.0	24.0
31	---	---	---	---	---	---	---	---	---	25.5	23.0	24.0
MONTH	27.5	<.0	6.2	8.0	2.0	4.4	19.0	8.5	13.6	25.5	12.0	19.9

<.0 value means that the actual value is known to be less than zero, but by an undetermined amount.

395859083440700 CL-138 NR SPRINGFIELD OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	23.0	24.0	---	---	---	39.0	32.5	35.5	34.0	30.0	32.0
2	25.5	23.0	24.5	---	---	---	39.5	33.5	36.5	33.5	29.0	31.0
3	---	---	---	---	---	---	37.0	35.0	36.0	33.5	30.5	32.0
4	---	---	---	---	---	---	36.5	33.0	35.0	32.0	31.0	31.5
5	---	---	---	---	---	---	34.5	32.0	33.5	31.5	29.0	30.5
6	---	---	---	---	---	---	33.5	31.5	32.0	32.0	28.5	30.0
7	---	---	---	---	---	---	35.0	30.0	32.0	32.0	28.5	30.5
8	---	---	---	---	---	---	34.5	31.5	33.0	32.5	29.0	30.5
9	---	---	---	---	---	---	32.5	31.0	31.5	31.5	30.0	31.0
10	---	---	---	---	---	---	33.5	29.0	31.5	34.0	31.0	32.0
11	---	---	---	---	---	---	34.0	29.5	32.0	34.0	31.0	32.0
12	---	---	---	---	---	---	35.0	30.5	32.5	32.5	30.0	31.0
13	---	---	---	---	---	---	33.5	31.0	32.5	33.5	29.5	31.0
14	---	---	---	---	---	---	33.0	30.5	32.0	33.5	31.0	32.0
15	---	---	---	37.0	31.5	33.0	35.0	30.5	32.5	34.0	31.0	32.5
16	---	---	---	36.5	30.0	33.0	35.0	31.0	33.0	34.5	32.0	33.0
17	---	---	---	37.0	31.0	34.0	34.0	32.5	33.0	33.5	31.5	32.5
18	---	---	---	38.5	32.5	35.0	34.0	31.5	32.5	32.0	30.0	31.0
19	---	---	---	36.5	33.0	35.0	33.0	31.0	32.0	30.0	27.5	28.5
20	---	---	---	38.0	33.5	35.5	32.0	30.5	31.5	28.0	25.0	26.5
21	---	---	---	38.5	34.0	36.5	33.0	29.0	31.0	27.5	24.0	25.5
22	---	---	---	39.5	35.0	37.0	34.0	30.0	32.0	28.0	24.5	26.0
23	---	---	---	39.0	35.5	37.5	35.0	31.0	33.0	28.5	26.0	27.0
24	---	---	---	39.0	33.5	36.5	35.0	31.0	33.0	26.5	24.0	25.5
25	---	---	---	38.5	34.5	36.5	34.5	31.5	33.0	26.5	24.0	25.0
26	---	---	---	38.0	33.5	35.5	34.5	31.0	33.0	26.0	24.0	25.0
27	---	---	---	38.5	32.5	35.5	34.0	31.0	32.5	25.5	22.0	23.5
28	---	---	---	36.0	32.5	34.0	35.0	31.5	33.0	24.5	23.0	23.5
29	---	---	---	37.5	32.0	34.5	35.5	32.0	33.5	26.0	22.5	24.0
30	---	---	---	36.5	33.5	35.0	35.0	32.5	34.0	28.0	23.5	25.5
31	---	---	---	37.5	31.0	34.0	34.5	32.0	33.5	---	---	---
MONTH	25.5	23.0	24.2	39.5	30.0	35.2	39.5	29.0	33.0	34.5	22.0	29.0
YEAR	39.5	<.0	22.6									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.02	---	.00	.00	---	.00	.00
2	---	---	---	---	---	.06	---	.00	.06	---	.00	.00
3	---	---	---	---	---	.00	---	.00	---	---	.00	.00
4	---	---	---	---	---	.00	---	.00	---	---	.00	.00
5	---	---	---	---	---	.00	---	.00	---	---	.00	.00
6	---	---	---	---	---	.23	---	.00	---	---	.00	.00
7	---	---	---	---	---	.00	---	.00	---	---	.00	.00
8	---	---	---	---	---	.00	---	.00	---	---	.00	.00
9	---	---	---	---	---	.00	---	.00	---	---	.00	.00
10	---	---	---	---	---	.01	---	.00	---	---	.00	.00
11	---	---	---	---	.00	.00	---	.00	---	---	.00	.00
12	---	---	---	---	.00	.02	---	.00	---	---	.00	.00
13	---	---	---	---	.10	.36	---	.00	---	---	.00	.00
14	---	---	---	---	.09	.00	---	.00	---	---	.00	.00
15	---	---	---	---	.00	.01	---	.00	---	.00	.00	.00
16	---	---	---	---	.00	.00	---	.00	---	.00	.00	.00
17	---	---	---	---	.05	.00	---	.00	---	.00	.00	.00
18	---	---	---	---	.21	.00	---	.00	---	.00	.00	.00
19	---	---	---	---	.02	.00	---	.00	---	.00	.00	.00
20	---	---	---	---	.00	---	---	.00	---	.00	.00	.00
21	---	---	---	---	.00	---	---	.00	---	.00	.01	.00
22	---	---	---	---	.00	---	---	.00	---	.00	.00	.00
23	---	---	---	.00	.00	---	.00	.00	---	.00	.00	.00
24	---	---	---	.00	.00	---	.00	.00	---	.00	.00	.00
25	---	---	---	.00	.00	---	.00	.00	---	.00	.00	.00
26	---	---	---	---	.00	---	.00	.00	---	.00	.00	.00
27	---	---	---	---	.00	---	.00	.00	---	.00	.00	.00
28	---	---	---	---	.00	---	.00	.00	---	.00	.00	.00
29	---	---	---	---	---	---	.00	.00	---	.00	.00	.00
30	---	---	---	---	---	---	.00	.00	---	.00	.00	.00
31	---	---	---	---	---	---	---	.01	---	.00	.00	---
TOTAL	---	---	---	0.00	0.47	0.71	0.00	0.01	0.06	0.00	0.01	0.00

WTR YR 1991 TOTAL 1.26

GROUND-WATER RECORDS

395859083440800. Local number, CL-139.

LOCATION.--Lat 39°58'59" Long 83°44'08", Hydrologic Unit 05080001, along State Route 4 near Springfield, OH.
Owner.--USGS-U.S. Corps of Engineers.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 3.0 in., depth 36.9 ft. Cased with Sch 40 PVC to 16.9 ft; .020 in. screen from 16.9 to 36.9 ft.

INSTRUMENTATION - Data logger--60 minute record. At this well there are 4 conductivity/water temperature probes at increasing depths within the well to better document vertical movement of high conductivity water on an hourly basis. Conductance/water temperature probes are set at 23.0 (level 4), 27.0 (level 3), 31.0 (level 2), and 35.0 (level 1) feet below land surface.

DATUM.--Elevation of land-surface datum is 1031.33 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 2.61 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (FOUR LEVELS): February 1991 to current year.
WATER TEMPERATURE (FOUR LEVELS): February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 879 microsiemens March 18-19, 1991; minimum, 831 microsiemens February 12, 1991.
LEVEL 2- Maximum, 860 microsiemens February 26, 1991; minimum, 809 microsiemens July 15, August 9, and September 13, 1991.
LEVEL 3- Maximum, 878 microsiemens September 17, 1991; minimum, 792 microsiemens April 23, 1991.
LEVEL 4- Probe out of water.

WATER TEMPERATURE: LEVEL 1- Maximum, 12.5°C many days in 1991; minimum, 10.5°C many days in 1991.
LEVEL 2- Maximum, 12.5°C many days in 1991; minimum, 10.0°C May 29 and June 1-2, 1991.
LEVEL 3- Maximum, 13.0°C many days in 1991; minimum, 10.0°C many days in 1991.
LEVEL 4- Probe out of water.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 879 microsiemens March 18-19, 1991; minimum, 831 microsiemens February 12, 1991.
LEVEL 2- Maximum, 860 microsiemens February 26, 1991; minimum, 809 microsiemens July 15, August 9, and September 13, 1991.
LEVEL 3- Maximum, 878 microsiemens September 17, 1991; minimum, 792 microsiemens April 23, 1991.
LEVEL 4- Probe out of water.

WATER TEMPERATURE: LEVEL 1- Maximum, 12.5°C many days in 1991; minimum, 10.5°C many days in 1991.
LEVEL 2- Maximum, 12.5°C many days in 1991; minimum, 10.0°C May 29 and June 1-2, 1991.
LEVEL 3- Maximum, 13.0°C many days in 1991; minimum, 10.0°C many days in 1991.
LEVEL 4- Probe out of water.

395859083440800 CL-139 NR SPRINGFIELD OH--Continued

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	867	862	866	---	---	---	861	859	860
2	---	---	---	867	866	866	---	---	---	863	858	860
3	---	---	---	867	866	867	---	---	---	862	856	859
4	---	---	---	867	865	866	---	---	---	862	857	859
5	---	---	---	866	865	866	---	---	---	862	857	860
6	---	---	---	866	865	866	---	---	---	862	855	859
7	---	---	---	866	865	866	---	---	---	861	856	859
8	---	---	---	870	865	867	---	---	---	862	858	861
9	---	---	---	871	865	868	---	---	---	862	860	861
10	---	---	---	871	865	869	---	---	---	861	859	860
11	863	844	850	871	865	869	---	---	---	861	858	860
12	842	831	837	870	865	869	---	---	---	860	857	858
13	840	836	838	871	869	870	---	---	---	859	856	858
14	838	837	837	871	870	871	---	---	---	860	856	857
15	838	837	837	877	870	873	---	---	---	860	855	856
16	838	836	837	878	871	874	---	---	---	856	854	855
17	836	834	835	877	872	876	---	---	---	858	854	855
18	837	835	836	879	875	877	---	---	---	858	852	854
19	839	837	838	879	876	878	---	---	---	858	852	855
20	844	838	840	---	---	---	---	---	---	857	850	853
21	843	835	838	---	---	---	---	---	---	852	850	851
22	837	834	836	---	---	---	---	---	---	854	849	853
23	837	834	836	---	---	---	862	859	861	853	848	851
24	837	836	837	---	---	---	862	859	860	854	849	852
25	871	836	850	---	---	---	864	858	862	853	848	851
26	864	863	864	---	---	---	862	858	861	851	847	850
27	864	863	863	---	---	---	861	856	860	852	846	850
28	868	862	865	---	---	---	861	858	859	852	847	850
29	---	---	---	---	---	---	861	859	860	850	848	849
30	---	---	---	---	---	---	863	858	860	850	848	849
31	---	---	---	---	---	---	---	---	---	849	846	848
MONTH	871	831	843	879	862	870	864	856	860	863	846	855

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	849	846	847	---	---	---	847	842	845	---	---	---
2	848	844	847	---	---	---	847	843	845	---	---	---
3	---	---	---	---	---	---	847	841	844	---	---	---
4	---	---	---	---	---	---	847	841	843	---	---	---
5	---	---	---	---	---	---	849	844	845	---	---	---
6	---	---	---	---	---	---	845	843	844	---	---	---
7	---	---	---	---	---	---	847	844	845	---	---	---
8	---	---	---	---	---	---	846	844	845	---	---	---
9	---	---	---	---	---	---	845	841	842	---	---	---
10	---	---	---	---	---	---	846	842	843	---	---	---
11	---	---	---	---	---	---	847	842	844	---	---	---
12	---	---	---	---	---	---	849	842	845	846	841	844
13	---	---	---	---	---	---	847	843	844	847	841	845
14	---	---	---	---	---	---	844	840	844	849	842	845
15	---	---	---	843	839	840	---	---	---	848	843	845
16	---	---	---	846	841	842	---	---	---	849	843	845
17	---	---	---	845	841	843	---	---	---	845	844	844
18	---	---	---	843	842	843	---	---	---	846	845	845
19	---	---	---	844	843	843	---	---	---	847	845	846
20	---	---	---	845	843	844	---	---	---	848	842	846
21	---	---	---	847	840	844	---	---	---	849	843	846
22	---	---	---	847	841	845	---	---	---	849	843	846
23	---	---	---	847	840	845	---	---	---	848	843	846
24	---	---	---	846	840	842	---	---	---	845	844	845
25	---	---	---	846	841	842	---	---	---	848	844	845
26	---	---	---	846	841	843	---	---	---	846	845	846
27	---	---	---	845	841	842	---	---	---	847	842	846
28	---	---	---	845	840	844	---	---	---	848	842	846
29	---	---	---	846	841	845	---	---	---	848	842	846
30	---	---	---	847	841	845	---	---	---	848	842	845
31	---	---	---	847	842	845	---	---	---	---	---	---
MONTH	849	844	847	847	839	843	849	840	844	849	841	845
YEAR	879	831	852									

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LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	857	855	856	---	---	---	838	832	836
2	---	---	---	856	855	855	---	---	---	837	832	835
3	---	---	---	856	854	854	---	---	---	836	833	835
4	---	---	---	858	852	854	---	---	---	835	831	834
5	---	---	---	857	852	854	---	---	---	834	832	833
6	---	---	---	855	851	854	---	---	---	834	832	833
7	---	---	---	854	852	853	---	---	---	833	831	832
8	---	---	---	854	848	852	---	---	---	837	832	833
9	---	---	---	853	849	850	---	---	---	834	832	833
10	---	---	---	851	848	849	---	---	---	836	832	834
11	---	---	---	853	846	850	---	---	---	836	831	833
12	---	---	---	853	846	849	---	---	---	835	830	833
13	---	---	---	851	847	850	---	---	---	835	829	832
14	---	---	---	851	849	850	---	---	---	834	828	832
15	---	---	---	851	849	850	---	---	---	833	828	831
16	---	---	---	851	848	850	---	---	---	833	830	831
17	---	---	---	854	849	850	---	---	---	832	829	830
18	---	---	---	855	849	850	---	---	---	831	826	829
19	---	---	---	856	849	854	---	---	---	832	828	830
20	---	---	---	---	---	---	---	---	---	829	826	827
21	---	---	---	---	---	---	---	---	---	828	825	826
22	---	---	---	---	---	---	---	---	---	825	823	823
23	---	---	---	---	---	---	839	833	836	825	821	823
24	---	---	---	---	---	---	840	833	836	825	822	824
25	859	849	855	---	---	---	838	832	836	825	821	823
26	860	853	857	---	---	---	836	834	835	823	820	821
27	858	853	856	---	---	---	837	833	834	822	820	821
28	858	856	857	---	---	---	837	831	833	822	820	821
29	---	---	---	---	---	---	838	832	835	823	819	820
30	---	---	---	---	---	---	837	832	835	820	818	819
31	---	---	---	---	---	---	---	---	---	820	815	817
MONTH	860	849	856	858	846	852	840	831	835	838	815	829

LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	822	816	818	---	---	---	818	811	814	---	---	---
2	821	811	817	---	---	---	817	811	814	---	---	---
3	---	---	---	---	---	---	813	810	812	---	---	---
4	---	---	---	---	---	---	814	811	813	---	---	---
5	---	---	---	---	---	---	815	812	814	---	---	---
6	---	---	---	---	---	---	815	812	814	---	---	---
7	---	---	---	---	---	---	816	810	814	---	---	---
8	---	---	---	---	---	---	816	814	815	---	---	---
9	---	---	---	---	---	---	815	809	813	---	---	---
10	---	---	---	---	---	---	816	811	813	---	---	---
11	---	---	---	---	---	---	817	812	814	---	---	---
12	---	---	---	---	---	---	818	812	814	811	810	810
13	---	---	---	---	---	---	817	813	814	812	809	810
14	---	---	---	---	---	---	815	813	814	813	811	812
15	---	---	---	817	809	811	---	---	---	814	812	813
16	---	---	---	818	814	815	---	---	---	816	813	814
17	---	---	---	818	814	816	---	---	---	816	810	813
18	---	---	---	816	815	815	---	---	---	812	810	811
19	---	---	---	817	815	816	---	---	---	812	811	812
20	---	---	---	818	815	816	---	---	---	814	812	813
21	---	---	---	820	816	817	---	---	---	814	812	813
22	---	---	---	821	813	818	---	---	---	815	813	814
23	---	---	---	819	813	818	---	---	---	815	813	814
24	---	---	---	819	813	815	---	---	---	817	815	816
25	---	---	---	819	814	816	---	---	---	818	814	816
26	---	---	---	819	814	815	---	---	---	819	813	816
27	---	---	---	818	814	816	---	---	---	818	813	815
28	---	---	---	817	812	815	---	---	---	816	813	814
29	---	---	---	817	811	815	---	---	---	818	813	815
30	---	---	---	816	810	814	---	---	---	819	814	815
31	---	---	---	816	810	813	---	---	---	---	---	---
MONTH	822	811	817	821	809	815	818	809	814	819	809	813
YEAR	860	809	827									

395859083440800 CL-139 NR SPRINGFIELD OH--Continued

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	829	822	826	---	---	---	803	799	801
2	---	---	---	829	828	829	---	---	---	803	799	802
3	---	---	---	831	829	830	---	---	---	803	802	802
4	---	---	---	833	831	832	---	---	---	803	802	803
5	---	---	---	835	833	834	---	---	---	805	803	804
6	---	---	---	835	833	834	---	---	---	807	805	806
7	---	---	---	837	825	830	---	---	---	816	807	810
8	---	---	---	828	822	826	---	---	---	827	815	822
9	---	---	---	826	819	823	---	---	---	828	818	822
10	---	---	---	819	814	817	---	---	---	828	820	822
11	---	---	---	814	811	813	---	---	---	826	822	824
12	---	---	---	812	810	811	---	---	---	832	823	826
13	---	---	---	811	810	811	---	---	---	835	824	828
14	---	---	---	813	809	811	---	---	---	833	825	828
15	---	---	---	814	811	813	---	---	---	839	828	834
16	---	---	---	815	810	812	---	---	---	841	835	837
17	---	---	---	816	810	813	---	---	---	842	836	838
18	---	---	---	820	816	818	---	---	---	847	836	841
19	---	---	---	822	820	822	---	---	---	848	840	844
20	---	---	---	---	---	---	---	---	---	842	838	840
21	---	---	---	---	---	---	---	---	---	840	838	839
22	---	---	---	---	---	---	---	---	---	842	839	840
23	---	---	---	---	---	---	800	792	798	856	839	843
24	---	---	---	---	---	---	802	797	799	853	842	848
25	863	798	846	---	---	---	803	798	802	843	841	842
26	828	818	820	---	---	---	803	798	801	848	841	843
27	820	818	819	---	---	---	803	795	799	850	843	847
28	826	820	822	---	---	---	799	794	796	850	843	847
29	---	---	---	---	---	---	800	795	796	851	844	847
30	---	---	---	---	---	---	803	796	800	851	845	847
31	---	---	---	---	---	---	---	---	---	850	845	847
MONTH	863	798	827	837	809	821	803	792	799	856	799	830

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	860	845	853	---	---	---	861	859	860	---	---	---
2	851	845	847	---	---	---	861	859	860	---	---	---
3	---	---	---	---	---	---	861	856	859	---	---	---
4	---	---	---	---	---	---	864	857	862	---	---	---
5	---	---	---	---	---	---	862	855	859	---	---	---
6	---	---	---	---	---	---	856	855	856	---	---	---
7	---	---	---	---	---	---	858	855	857	---	---	---
8	---	---	---	---	---	---	858	857	857	---	---	---
9	---	---	---	---	---	---	860	855	859	---	---	---
10	---	---	---	---	---	---	860	855	858	---	---	---
11	---	---	---	---	---	---	861	856	858	---	---	---
12	---	---	---	---	---	---	862	856	858	873	871	872
13	---	---	---	---	---	---	858	856	857	874	873	873
14	---	---	---	---	---	---	859	857	859	876	873	875
15	---	---	---	861	857	860	---	---	---	877	875	876
16	---	---	---	861	856	858	---	---	---	877	872	876
17	---	---	---	860	857	858	---	---	---	878	872	875
18	---	---	---	859	858	858	---	---	---	874	873	873
19	---	---	---	860	858	859	---	---	---	875	870	874
20	---	---	---	862	859	860	---	---	---	876	870	873
21	---	---	---	863	860	861	---	---	---	876	871	873
22	---	---	---	865	857	862	---	---	---	873	871	872
23	---	---	---	871	857	862	---	---	---	874	872	873
24	---	---	---	863	857	859	---	---	---	875	873	874
25	---	---	---	860	859	859	---	---	---	876	873	875
26	---	---	---	862	856	860	---	---	---	876	870	875
27	---	---	---	862	856	859	---	---	---	876	871	874
28	---	---	---	862	856	858	---	---	---	877	871	872
29	---	---	---	863	856	858	---	---	---	877	871	873
30	---	---	---	859	857	858	---	---	---	877	871	873
31	---	---	---	860	858	859	---	---	---	---	---	---
MONTH	860	845	850	871	856	859	864	855	858	878	870	874
YEAR	878	792	842									

LEVEL 4 PROBE WAS OUT OF WATER.

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LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.5	12.0	12.0	---	---	---	11.0	11.0	11.0
2	---	---	---	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5
3	---	---	---	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5
4	---	---	---	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5
5	---	---	---	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5
6	---	---	---	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5
7	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
8	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
9	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
10	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
11	12.5	12.5	12.5	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
12	12.5	12.5	12.5	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
13	12.5	12.5	12.5	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
14	12.5	12.5	12.5	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
15	12.5	12.0	12.5	12.0	11.5	12.0	---	---	---	10.5	10.5	10.5
16	12.5	12.0	12.0	12.0	11.5	11.5	---	---	---	10.5	10.5	10.5
17	12.5	12.5	12.5	12.0	11.5	11.5	---	---	---	10.5	10.5	10.5
18	12.5	12.5	12.5	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
19	12.5	12.5	12.5	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
20	12.5	12.0	12.0	---	---	---	---	---	---	10.5	10.5	10.5
21	12.5	12.0	12.0	---	---	---	---	---	---	10.5	10.5	10.5
22	12.0	12.0	12.0	---	---	---	---	---	---	10.5	10.5	10.5
23	12.0	12.0	12.0	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
24	12.0	12.0	12.0	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
25	12.5	12.0	12.0	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
26	12.5	12.0	12.5	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
27	12.5	12.5	12.5	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
28	12.5	12.0	12.0	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
29	---	---	---	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
30	---	---	---	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5
31	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
MONTH	12.5	12.0	12.3	12.5	11.5	11.9	11.0	10.5	11.0	11.0	10.5	10.5

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.5	10.5	---	---	---	11.0	11.0	11.0	---	---	---
2	10.5	10.5	10.5	---	---	---	11.0	11.0	11.0	---	---	---
3	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
4	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
5	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
6	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
7	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
8	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
9	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
10	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
11	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
12	---	---	---	---	---	---	11.0	11.0	11.0	11.5	11.5	11.5
13	---	---	---	---	---	---	11.0	11.0	11.0	11.5	11.5	11.5
14	---	---	---	---	---	---	11.0	11.0	11.0	11.5	11.5	11.5
15	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5
16	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5
17	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5
18	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5
19	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5
20	---	---	---	10.5	10.5	10.5	---	---	---	12.0	11.5	11.5
21	---	---	---	11.0	10.5	10.5	---	---	---	12.0	11.5	11.5
22	---	---	---	11.0	10.5	10.5	---	---	---	12.0	11.5	12.0
23	---	---	---	11.0	10.5	10.5	---	---	---	12.0	11.5	11.5
24	---	---	---	11.0	10.5	10.5	---	---	---	12.0	12.0	12.0
25	---	---	---	11.0	10.5	10.5	---	---	---	12.0	11.5	12.0
26	---	---	---	11.0	10.5	11.0	---	---	---	12.0	12.0	12.0
27	---	---	---	11.0	10.5	11.0	---	---	---	12.0	12.0	12.0
28	---	---	---	11.0	11.0	11.0	---	---	---	12.0	12.0	12.0
29	---	---	---	11.0	11.0	11.0	---	---	---	12.0	12.0	12.0
30	---	---	---	11.0	11.0	11.0	---	---	---	12.0	12.0	12.0
31	---	---	---	11.0	11.0	11.0	---	---	---	---	---	---
MONTH	10.5	10.5	10.5	11.0	10.5	10.7	11.0	11.0	11.0	12.0	11.5	11.7
YEAR	12.5	10.5	11.2									

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LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5
2	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
3	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
4	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
5	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
6	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
7	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
8	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
9	---	---	---	12.0	11.5	12.0	---	---	---	10.5	10.5	10.5
10	---	---	---	12.0	12.0	12.0	---	---	---	10.5	10.5	10.5
11	---	---	---	12.0	11.5	11.5	---	---	---	10.5	10.5	10.5
12	---	---	---	12.0	11.5	11.5	---	---	---	10.5	10.5	10.5
13	---	---	---	12.0	11.5	11.5	---	---	---	10.5	10.5	10.5
14	---	---	---	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
15	---	---	---	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
16	---	---	---	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
17	---	---	---	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
18	---	---	---	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
19	---	---	---	11.5	11.5	11.5	---	---	---	10.5	10.5	10.5
20	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
21	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
22	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
23	---	---	---	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
24	---	---	---	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5
25	12.5	12.0	12.0	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5
26	12.5	12.0	12.0	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5
27	12.5	12.0	12.0	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5
28	12.0	12.0	12.0	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5
29	---	---	---	---	---	---	11.0	10.5	10.5	10.5	10.0	10.5
30	---	---	---	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5
31	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
MONTH	12.5	12.0	12.0	12.0	11.5	11.8	11.0	10.5	10.8	11.0	10.0	10.5

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.0	10.5	---	---	---	11.0	11.0	11.0	---	---	---
2	10.5	10.0	10.5	---	---	---	11.0	11.0	11.0	---	---	---
3	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
4	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
5	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
6	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
7	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
8	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
9	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
10	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
11	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
12	---	---	---	---	---	---	11.5	11.0	11.0	12.0	12.0	12.0
13	---	---	---	---	---	---	11.0	11.0	11.0	12.0	12.0	12.0
14	---	---	---	---	---	---	11.0	11.0	11.0	12.0	12.0	12.0
15	---	---	---	10.5	10.5	10.5	---	---	---	12.0	12.0	12.0
16	---	---	---	10.5	10.5	10.5	---	---	---	12.0	12.0	12.0
17	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.0	12.0
18	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
19	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
20	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
21	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
22	---	---	---	11.0	10.5	10.5	---	---	---	12.5	12.5	12.5
23	---	---	---	11.0	10.5	10.5	---	---	---	12.5	12.5	12.5
24	---	---	---	11.0	10.5	10.5	---	---	---	12.5	12.5	12.5
25	---	---	---	11.0	10.5	10.5	---	---	---	12.5	12.5	12.5
26	---	---	---	11.0	10.5	11.0	---	---	---	12.5	12.5	12.5
27	---	---	---	11.0	10.5	11.0	---	---	---	12.5	12.5	12.5
28	---	---	---	11.0	11.0	11.0	---	---	---	12.5	12.5	12.5
29	---	---	---	11.0	11.0	11.0	---	---	---	12.5	12.5	12.5
30	---	---	---	11.0	11.0	11.0	---	---	---	12.5	12.5	12.5
31	---	---	---	11.0	11.0	11.0	---	---	---	---	---	---
MONTH	10.5	10.0	10.5	11.0	10.5	10.7	11.5	11.0	11.0	12.5	12.0	12.3
YEAR	12.5	10.0	11.2									

395859083440800 CL-139 NR SPRINGFIELD OH--Continued

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.0	11.5	11.5	---	---	---	10.0	10.0	10.0
2	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
3	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
4	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
5	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
6	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
7	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
8	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
9	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
10	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
11	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
12	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
13	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
14	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
15	---	---	---	11.5	11.5	11.5	---	---	---	10.0	10.0	10.0
16	---	---	---	11.5	11.0	11.5	---	---	---	10.0	10.0	10.0
17	---	---	---	11.5	11.0	11.5	---	---	---	10.0	10.0	10.0
18	---	---	---	11.0	11.0	11.0	---	---	---	10.0	10.0	10.0
19	---	---	---	11.0	11.0	11.0	---	---	---	10.0	10.0	10.0
20	---	---	---	---	---	---	---	---	---	10.0	10.0	10.0
21	---	---	---	---	---	---	---	---	---	10.0	10.0	10.0
22	---	---	---	---	---	---	---	---	---	10.0	10.0	10.0
23	---	---	---	---	---	---	10.5	10.0	10.0	10.0	10.0	10.0
24	---	---	---	---	---	---	10.5	10.0	10.0	10.0	10.0	10.0
25	12.0	11.0	12.0	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0
26	12.0	12.0	12.0	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0
27	12.0	12.0	12.0	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0
28	12.0	11.5	12.0	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0
29	---	---	---	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0
30	---	---	---	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0
31	---	---	---	---	---	---	---	---	---	10.0	10.0	10.0
MONTH	12.0	11.0	12.0	12.0	11.0	11.4	10.5	10.0	10.0	10.0	10.0	10.0

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.0	10.0	10.0	---	---	---	11.0	11.0	11.0	---	---	---
2	10.0	10.0	10.0	---	---	---	11.0	11.0	11.0	---	---	---
3	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
4	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
5	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
6	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
7	---	---	---	---	---	---	11.5	11.0	11.0	---	---	---
8	---	---	---	---	---	---	11.0	11.0	11.0	---	---	---
9	---	---	---	---	---	---	11.5	11.0	11.0	---	---	---
10	---	---	---	---	---	---	11.5	11.0	11.5	---	---	---
11	---	---	---	---	---	---	11.5	11.0	11.5	---	---	---
12	---	---	---	---	---	---	11.5	11.0	11.5	12.5	12.5	12.5
13	---	---	---	---	---	---	11.5	11.5	11.5	12.5	12.5	12.5
14	---	---	---	---	---	---	11.5	11.5	11.5	12.5	12.5	12.5
15	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
16	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
17	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
18	---	---	---	10.5	10.5	10.5	---	---	---	12.5	12.5	12.5
19	---	---	---	10.5	10.5	10.5	---	---	---	13.0	12.5	12.5
20	---	---	---	10.5	10.5	10.5	---	---	---	13.0	12.5	12.5
21	---	---	---	10.5	10.5	10.5	---	---	---	13.0	12.5	12.5
22	---	---	---	11.0	10.5	10.5	---	---	---	13.0	12.5	13.0
23	---	---	---	11.0	10.5	10.5	---	---	---	13.0	13.0	13.0
24	---	---	---	11.0	10.5	11.0	---	---	---	13.0	12.5	13.0
25	---	---	---	11.0	11.0	11.0	---	---	---	13.0	12.5	13.0
26	---	---	---	11.0	11.0	11.0	---	---	---	13.0	13.0	13.0
27	---	---	---	11.0	11.0	11.0	---	---	---	13.0	12.5	13.0
28	---	---	---	11.0	11.0	11.0	---	---	---	13.0	13.0	13.0
29	---	---	---	11.0	11.0	11.0	---	---	---	13.0	13.0	13.0
30	---	---	---	11.0	11.0	11.0	---	---	---	13.0	13.0	13.0
31	---	---	---	11.0	11.0	11.0	---	---	---	---	---	---
MONTH	10.0	10.0	10.0	11.0	10.5	10.7	11.5	11.0	11.2	13.0	12.5	12.7
YEAR	13.0	10.0	11.0									

LEVEL 4 PROBE WAS OUT OF WATER.

GROUND-WATER RECORDS

400949083480100. Local number, CH-42.

LOCATION.--Lat 40°09'49" Long 83°48'01", Hydrologic Unit 05080001, along State Route 29 near Urbana, OH.
Owner.--USGS-Jack Sommers.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 28.7 ft. Cased with Sch 40 PVC to 13.7 ft; .020 in. screen from 13.7 to 28.7 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data was collected with a propane-heated, tipping-bucket rain gauge. Also collected: air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at feet below land surface.

DATUM.--Elevation of land-surface datum is 1029.89 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 2.32 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
WATER TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 9.75 ft. below land-surface datum, June 22, 1991; minimum daily low, 8.22 ft. below land-surface datum, February 21 and 22, 1991.

SPECIFIC CONDUCTANCE: Maximum, 1620 microsiemens many days in 1991; minimum, 1420 microsiemens many days in 1991.

AIR TEMPERATURE: Maximum, 37.0°C August 1, 1991; minimum, <0.0°C many days in 1991.

WATER TEMPERATURE: Maximum, 12.0°C August 6-8, 1991; minimum, 10.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 30.5°C August 2, 1991; minimum, <0.0°C many days in 1991.

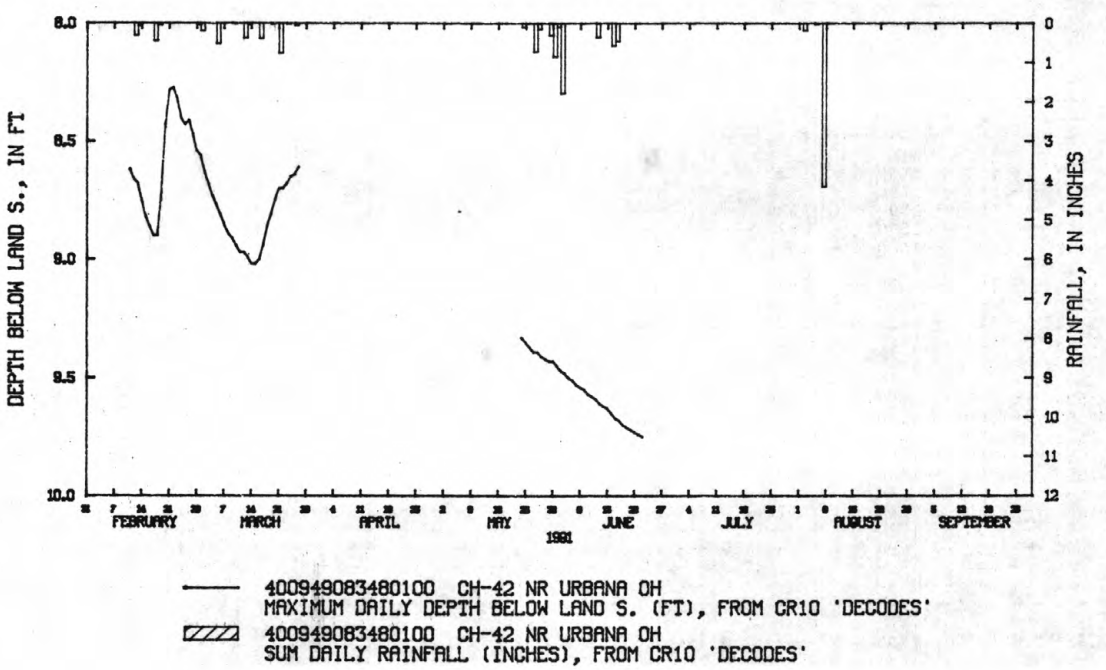
EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 9.75 ft. below land-surface datum, June 22, 1991; minimum daily low, 8.22 ft. below land-surface datum, February 21 and 22, 1991.

SPECIFIC CONDUCTANCE: Maximum, 1620 microsiemens many days in 1991; minimum, 1420 microsiemens many days in 1991.

AIR TEMPERATURE: Maximum, 37.0°C August 1, 1991; minimum, <0.0°C many days in 1991.

WATER TEMPERATURE: Maximum, 12.0°C August 6-8, 1991; minimum, 10.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 30.5°C August 2, 1991; minimum, <0.0°C many days in 1991.



400949083480100 CH-42 NR URBANA OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	8.56	---	---	9.47	---	---	---
2	---	---	---	---	---	8.63	---	---	9.48	---	---	---
3	---	---	---	---	---	8.68	---	---	9.50	---	---	---
4	---	---	---	---	---	8.73	---	---	9.51	---	---	---
5	---	---	---	---	---	8.77	---	---	9.53	---	---	---
6	---	---	---	---	---	8.81	---	---	9.54	---	---	---
7	---	---	---	---	---	8.85	---	---	9.55	---	---	---
8	---	---	---	---	---	8.89	---	---	9.57	---	---	---
9	---	---	---	---	---	8.91	---	---	9.58	---	---	---
10	---	---	---	---	---	8.94	---	---	9.59	---	---	---
11	---	---	---	---	8.62	8.97	---	---	9.61	---	---	---
12	---	---	---	---	8.66	8.97	---	---	9.62	---	---	---
13	---	---	---	---	8.68	8.99	---	---	9.63	---	---	---
14	---	---	---	---	8.75	9.02	---	---	9.65	---	---	---
15	---	---	---	---	8.82	9.02	---	---	9.67	---	---	---
16	---	---	---	---	8.86	9.00	---	---	9.68	---	---	---
17	---	---	---	---	8.90	8.94	---	---	9.70	---	---	---
18	---	---	---	---	8.90	8.86	---	---	9.71	---	---	---
19	---	---	---	---	8.72	8.81	---	---	9.72	---	---	---
20	---	---	---	---	8.43	8.75	---	---	9.73	---	---	---
21	---	---	---	---	8.28	8.70	---	---	9.74	---	---	---
22	---	---	---	---	8.27	8.70	---	9.33	9.75	---	---	---
23	---	---	---	---	8.32	8.68	---	9.35	---	---	---	---
24	---	---	---	---	8.40	8.65	---	9.37	---	---	---	---
25	---	---	---	---	8.43	8.64	---	9.39	---	---	---	---
26	---	---	---	---	8.41	8.61	---	9.39	---	---	---	---
27	---	---	---	---	8.47	---	---	9.41	---	---	---	---
28	---	---	---	---	8.54	---	---	9.42	---	---	---	---
29	---	---	---	---	---	---	---	9.43	---	---	---	---
30	---	---	---	---	---	---	---	9.43	---	---	---	---
31	---	---	---	---	---	---	---	9.45	---	---	---	---
MAX	---	---	---	---	8.90	9.02	---	9.45	9.75	---	---	---

WTR YR 1991 LOW 9.75

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	1600	1590	1590	---	---	---	---	---	---
2	---	---	---	1600	1590	1590	---	---	---	---	---	---
3	---	---	---	1600	1590	1600	---	---	---	---	---	---
4	---	---	---	1600	1590	1600	---	---	---	---	---	---
5	---	---	---	1610	1590	1600	---	---	---	---	---	---
6	---	---	---	1610	1600	1600	---	---	---	---	---	---
7	---	---	---	1610	1600	1600	---	---	---	---	---	---
8	---	---	---	1610	1600	1610	---	---	---	---	---	---
9	---	---	---	1610	1600	1610	---	---	---	---	---	---
10	---	---	---	1620	1600	1610	---	---	---	---	---	---
11	1600	1600	1600	1620	1610	1610	---	---	---	---	---	---
12	1600	1590	1600	1620	1610	1620	---	---	---	---	---	---
13	1600	1590	1590	1620	1610	1620	---	---	---	---	---	---
14	1590	1590	1590	1620	1610	1620	---	---	---	---	---	---
15	1600	1590	1600	1620	1610	1620	---	---	---	---	---	---
16	1600	1590	1590	1620	1610	1620	---	---	---	---	---	---
17	1590	1590	1590	1620	1610	1620	---	---	---	---	---	---
18	1590	1580	1590	1620	1610	1620	---	---	---	---	---	---
19	1590	1580	1580	1620	1610	1620	---	---	---	---	---	---
20	1590	1580	1590	1620	1610	1620	---	---	---	---	---	---
21	1590	1580	1590	1620	1610	1620	---	---	---	---	---	---
22	1590	1580	1590	1620	1610	1620	---	---	---	1550	1550	1550
23	1590	1580	1590	1620	1610	1620	---	---	---	1550	1550	1550
24	1590	1580	1590	1620	1610	1620	---	---	---	1550	1540	1550
25	1590	1590	1590	1620	1610	1620	---	---	---	1550	1540	1550
26	1590	1580	1590	1620	1610	1610	---	---	---	1540	1540	1540
27	1590	1590	1590	---	---	---	---	---	---	1540	1540	1540
28	1590	1590	1590	---	---	---	---	---	---	1540	1530	1540
29	---	---	---	---	---	---	---	---	---	1540	1530	1530
30	---	---	---	---	---	---	---	---	---	1530	1530	1530
31	---	---	---	---	---	---	---	---	---	1530	1530	1530
MONTH	1600	1580	1590	1620	1590	1610	---	---	---	1550	1530	1540

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SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1530	1520	1530	---	---	---	1430	1420	1420	---	---	---
2	1520	1520	1520	---	---	---	1430	1420	1420	---	---	---
3	1520	1520	1520	---	---	---	1420	1420	1420	---	---	---
4	1520	1510	1520	---	---	---	1430	1420	1420	---	---	---
5	1510	1510	1510	---	---	---	1430	1420	1420	---	---	---
6	1510	1510	1510	---	---	---	1420	1420	1420	---	---	---
7	1510	1500	1510	---	---	---	1430	1420	1420	---	---	---
8	1510	1500	1500	---	---	---	1430	1420	1420	---	---	---
9	1500	1500	1500	---	---	---	---	---	---	---	---	---
10	1500	1490	1500	---	---	---	---	---	---	---	---	---
11	1500	1490	1490	---	---	---	---	---	---	---	---	---
12	1490	1490	1490	---	---	---	---	---	---	---	---	---
13	1490	1480	1490	---	---	---	---	---	---	---	---	---
14	1490	1480	1480	---	---	---	---	---	---	---	---	---
15	1480	1480	1480	---	---	---	---	---	---	---	---	---
16	1480	1480	1480	---	---	---	---	---	---	---	---	---
17	1480	1480	1480	---	---	---	---	---	---	---	---	---
18	1480	1470	1470	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	1430	1420	1420	---	---	---	---	---	---
MONTH	1530	1470	1500	1430	1420	1420	1430	1420	1420	---	---	---
YEAR	1620	1420	1550									

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	16.0	5.0	11.0	---	---	---	---	---	---
2	---	---	---	15.5	2.5	11.0	---	---	---	---	---	---
3	---	---	---	4.0	.5	2.0	---	---	---	---	---	---
4	---	---	---	7.5	<.0	---	---	---	---	---	---	---
5	---	---	---	12.5	.5	7.0	---	---	---	---	---	---
6	---	---	---	11.5	<.0	---	---	---	---	---	---	---
7	---	---	---	4.5	<.0	---	---	---	---	---	---	---
8	---	---	---	6.0	.5	3.5	---	---	---	---	---	---
9	---	---	---	8.5	<.0	---	---	---	---	---	---	---
10	---	---	---	3.5	<.0	---	---	---	---	---	---	---
11	---	---	---	8.5	<.0	---	---	---	---	---	---	---
12	10.5	<.0	---	4.5	<.0	---	---	---	---	---	---	---
13	6.5	<.0	---	1.5	<.0	---	---	---	---	---	---	---
14	8.0	<.0	---	5.0	<.0	---	---	---	---	---	---	---
15	15.5	8.0	11.0	9.5	<.0	---	---	---	---	---	---	---
16	17.0	2.5	9.0	10.0	<.0	---	---	---	---	---	---	---
17	2.5	<.0	---	12.0	<.0	---	---	---	---	---	---	---
18	---	---	---	9.0	3.0	5.5	---	---	---	---	---	---
19	11.0	.5	6.5	11.0	<.0	---	---	---	---	---	---	---
20	5.0	<.0	---	---	<.0	---	---	---	---	---	---	---
21	14.5	1.0	7.0	23.0	9.5	15.5	---	---	---	---	---	---
22	9.0	<.0	---	19.5	12.0	15.0	---	---	---	---	---	---
23	7.0	<.0	---	18.5	11.5	15.0	---	---	---	27.5	16.0	21.5
24	10.0	<.0	---	8.5	3.0	5.0	---	---	---	30.0	19.5	24.5
25	---	---	---	16.5	1.0	9.0	---	---	---	31.5	21.0	26.0
26	8.0	2.0	4.5	---	---	---	---	---	---	26.0	20.5	23.0
27	6.5	.5	2.5	---	---	---	---	---	---	26.5	20.0	22.5
28	14.0	.5	6.0	---	---	---	---	---	---	31.0	18.0	25.0
29	---	---	---	---	---	---	---	---	---	31.5	19.0	25.0
30	---	---	---	---	---	---	---	---	---	31.0	21.5	26.0
31	---	---	---	---	---	---	---	---	---	30.5	18.5	24.5
MONTH	17.0	.0	6.6	23.0	.0	9.0	---	---	---	31.5	16.0	24.2

<.0 value means that the actual value is known to be less than zero, but by an undetermined amount.

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TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	31.5	19.0	24.5	---	---	---	37.0	14.5	24.5	---	---	---
2	31.5	19.0	23.5	---	---	---	35.5	14.5	25.5	---	---	---
3	29.0	18.0	22.5	---	---	---	29.0	19.0	24.0	---	---	---
4	23.0	13.5	18.0	---	---	---	32.0	13.0	21.0	---	---	---
5	23.0	11.5	17.0	---	---	---	27.5	15.5	20.5	---	---	---
6	26.0	9.5	17.5	---	---	---	21.5	13.0	17.0	---	---	---
7	27.0	10.0	18.5	---	---	---	33.0	13.5	22.0	---	---	---
8	29.5	11.0	19.5	---	---	---	---	---	---	---	---	---
9	29.5	11.0	21.0	---	---	---	---	---	---	---	---	---
10	28.0	13.5	22.0	---	---	---	---	---	---	---	---	---
11	27.5	19.0	22.5	---	---	---	---	---	---	---	---	---
12	30.0	17.5	23.0	---	---	---	---	---	---	---	---	---
13	31.5	14.0	21.5	---	---	---	---	---	---	---	---	---
14	31.0	15.5	24.0	---	---	---	---	---	---	---	---	---
15	32.0	20.5	26.0	---	---	---	---	---	---	---	---	---
16	28.0	18.5	22.5	---	---	---	---	---	---	---	---	---
17	29.5	16.0	22.0	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	32.0	9.5	21.5	---	---	---	37.0	13.0	22.1	---	---	---
YEAR	37.0	.0	17.3									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	11.5	11.0	11.5	---	---	---	---	---	---
2	---	---	---	11.5	11.0	11.5	---	---	---	---	---	---
3	---	---	---	11.5	11.5	11.5	---	---	---	---	---	---
4	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
5	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
6	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
7	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
8	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
9	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
10	---	---	---	11.5	11.0	11.0	---	---	---	---	---	---
11	11.5	11.5	11.5	11.5	11.0	11.0	---	---	---	---	---	---
12	11.5	11.5	11.5	11.5	11.0	11.0	---	---	---	---	---	---
13	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
14	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
15	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
16	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
17	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
18	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
19	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
20	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
21	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	---	---	---
22	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	10.5	10.5	10.5
23	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	10.5	10.5	10.5
24	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	10.5	10.5	10.5
25	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	10.5	10.5	10.5
26	11.5	11.5	11.5	11.0	11.0	11.0	---	---	---	10.5	10.5	10.5
27	11.5	11.5	11.5	---	---	---	---	---	---	10.5	10.5	10.5
28	11.5	11.5	11.5	---	---	---	---	---	---	11.0	10.5	10.5
29	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
30	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
31	---	---	---	---	---	---	---	---	---	10.5	10.5	10.5
MONTH	11.5	11.5	11.5	11.5	11.0	11.1	---	---	---	11.0	10.5	10.5

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WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	10.5	10.5	---	---	---	11.5	11.5	11.5	---	---	---
2	11.0	10.5	10.5	---	---	---	11.5	11.5	11.5	---	---	---
3	11.0	10.5	10.5	---	---	---	11.5	11.5	11.5	---	---	---
4	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5	---	---	---
5	10.5	10.5	10.5	---	---	---	11.5	11.5	11.5	---	---	---
6	10.5	10.5	10.5	---	---	---	12.0	11.5	11.5	---	---	---
7	10.5	10.5	10.5	---	---	---	12.0	11.5	11.5	---	---	---
8	11.0	10.5	10.5	---	---	---	12.0	11.5	11.5	---	---	---
9	11.0	10.5	10.5	---	---	---	---	---	---	---	---	---
10	10.5	10.5	10.5	---	---	---	---	---	---	---	---	---
11	10.5	10.5	10.5	---	---	---	---	---	---	---	---	---
12	11.0	10.5	10.5	---	---	---	---	---	---	---	---	---
13	11.0	10.5	10.5	---	---	---	---	---	---	---	---	---
14	11.0	10.5	10.5	---	---	---	---	---	---	---	---	---
15	10.5	10.5	10.5	---	---	---	---	---	---	---	---	---
16	10.5	10.5	10.5	---	---	---	---	---	---	---	---	---
17	11.0	10.5	10.5	---	---	---	---	---	---	---	---	---
18	11.0	10.5	11.0	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	11.5	11.5	11.5	---	---	---	---	---	---
MONTH	11.0	10.5	10.5	11.5	11.5	11.5	12.0	11.5	11.5	---	---	---
YEAR	12.0	10.5	11.0									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	20.0	4.5	11.5	---	---	---	---	---	---
2	---	---	---	16.0	2.5	11.5	---	---	---	---	---	---
3	---	---	---	3.5	<.0	---	---	---	---	---	---	---
4	---	---	---	15.5	.5	6.0	---	---	---	---	---	---
5	---	---	---	18.5	.5	9.0	---	---	---	---	---	---
6	---	---	---	11.5	<.0	---	---	---	---	---	---	---
7	---	---	---	10.5	<.0	---	---	---	---	---	---	---
8	---	---	---	15.5	.5	7.0	---	---	---	---	---	---
9	---	---	---	13.0	.5	4.0	---	---	---	---	---	---
10	---	---	---	6.0	.5	2.5	---	---	---	---	---	---
11	---	---	---	15.5	<.0	---	---	---	---	---	---	---
12	12.5	1.4	7.5	4.5	<.0	---	---	---	---	---	---	---
13	7.0	.5	3.5	2.5	<.0	---	---	---	---	---	---	---
14	7.5	<.0	---	15.5	<.0	---	---	---	---	---	---	---
15	16.0	2.5	9.5	19.0	.5	8.0	---	---	---	---	---	---
16	17.5	.5	7.5	16.5	<.0	---	---	---	---	---	---	---
17	6.5	<.0	---	15.5	<.0	---	---	---	---	---	---	---
18	---	.5	---	9.0	3.0	6.0	---	---	---	---	---	---
19	11.5	.5	6.5	17.5	.5	7.0	---	---	---	---	---	---
20	12.0	<.0	---	---	.5	---	---	---	---	---	---	---
21	21.0	<.0	---	27.5	9.0	16.5	---	---	---	---	---	---
22	19.5	.5	7.0	22.0	12.0	15.5	---	---	---	---	---	---
23	11.5	<.0	---	22.0	11.5	16.0	---	---	---	23.5	18.5	21.0
24	20.5	.5	6.5	8.5	3.5	5.5	---	---	---	26.5	20.0	22.0
25	---	.5	---	23.0	.5	11.5	---	---	---	28.0	21.0	23.5
26	9.0	<.0	---	---	---	---	---	---	---	23.5	21.5	22.5
27	7.0	<.0	---	---	---	---	---	---	---	24.0	21.0	22.0
28	17.0	.5	6.5	---	---	---	---	---	---	28.5	20.5	23.5
29	---	---	---	---	---	---	---	---	---	27.5	21.5	24.0
30	---	---	---	---	---	---	---	---	---	27.5	22.5	24.5
31	---	---	---	---	---	---	---	---	---	29.5	22.0	25.0
MONTH	21.0	.0	6.8	27.5	.0	9.2	---	---	---	29.5	18.5	23.1

<.0 values mean that the actual value is known to be less than zero, but by an undetermined amount.

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TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.0	22.0	25.5	---	---	---	30.0	22.0	25.5	---	---	---
2	29.5	23.0	25.0	---	---	---	30.5	23.0	26.5	---	---	---
3	29.5	22.0	24.5	---	---	---	26.5	23.5	25.5	---	---	---
4	28.5	20.5	23.5	---	---	---	28.0	22.0	25.0	---	---	---
5	25.0	18.5	21.5	---	---	---	25.5	21.5	23.5	---	---	---
6	26.5	17.5	21.5	---	---	---	22.0	20.0	21.0	---	---	---
7	26.0	18.0	21.5	---	---	---	26.5	19.5	23.0	---	---	---
8	27.5	18.5	22.0	---	---	---	---	---	---	---	---	---
9	28.5	18.5	22.5	---	---	---	---	---	---	---	---	---
10	26.0	19.5	22.5	---	---	---	---	---	---	---	---	---
11	24.5	21.0	22.5	---	---	---	---	---	---	---	---	---
12	27.5	20.5	23.0	---	---	---	---	---	---	---	---	---
13	28.5	20.0	23.0	---	---	---	---	---	---	---	---	---
14	29.0	20.5	23.5	---	---	---	---	---	---	---	---	---
15	29.0	22.0	25.0	---	---	---	---	---	---	---	---	---
16	25.0	22.5	23.5	---	---	---	---	---	---	---	---	---
17	28.0	20.5	23.5	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	30.0	17.5	23.2	---	---	---	30.5	19.5	24.3	---	---	---
YEAR	30.5	.0	17.2									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.05	---	---	.10	---	.00	---
2	---	---	---	---	---	.20	---	---	1.78	---	.00	---
3	---	---	---	---	---	.00	---	---	.00	---	.19	---
4	---	---	---	---	---	.00	---	---	.00	---	.00	---
5	---	---	---	---	---	.00	---	---	.00	---	.00	---
6	---	---	---	---	---	.52	---	---	.00	---	.03	---
7	---	---	---	---	---	.00	---	---	.00	---	.00	---
8	---	---	---	---	---	.00	---	---	.00	---	4.16	---
9	---	---	---	---	---	.00	---	---	.00	---	---	---
10	---	---	---	---	---	.01	---	---	.00	---	---	---
11	---	---	---	---	.00	.00	---	---	.36	---	---	---
12	---	---	---	---	.00	.00	---	---	.00	---	---	---
13	---	---	---	---	.32	.38	---	---	.00	---	---	---
14	---	---	---	---	.07	.05	---	---	.00	---	---	---
15	---	---	---	---	.00	.00	---	---	.57	---	---	---
16	---	---	---	---	.00	.00	---	---	.46	---	---	---
17	---	---	---	---	.00	.39	---	---	.00	---	---	---
18	---	---	---	---	.45	.00	---	---	.00	---	---	---
19	---	---	---	---	.05	.00	---	---	---	---	---	---
20	---	---	---	---	.00	.02	---	---	---	---	---	---
21	---	---	---	---	.00	.00	---	---	---	---	---	---
22	---	---	---	---	.00	.76	---	.00	---	---	---	---
23	---	---	---	---	.00	.00	---	.10	---	---	---	---
24	---	---	---	---	.00	.02	---	.00	---	---	---	---
25	---	---	---	---	.00	.00	---	.00	---	---	---	---
26	---	---	---	---	.00	.06	---	.72	---	---	---	---
27	---	---	---	---	.00	---	---	.15	---	---	---	---
28	---	---	---	---	.00	---	---	.00	---	---	---	---
29	---	---	---	---	---	---	---	.00	---	---	---	---
30	---	---	---	---	---	---	---	.31	---	---	---	---
31	---	---	---	---	---	---	---	.85	---	.00	---	---
TOTAL	---	---	---	---	0.89	2.46	---	2.13	3.27	0.00	4.38	---

WTR YR 1991 TOTAL 13.13

GROUND-WATER RECORDS

403635082152300. Local number, AS-45.

LOCATION.--Lat 40°36'35" Long 82°15'23", Hydrologic Unit 05040002, along State Route 3 near Loudonville, OH.
Owner.--USGS-State of Ohio (Mohican State Park).

AQUIFER.--Sand and Gravel of Quaternary age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 15.7 ft. Cased with Sch 40 PVC to 5.7 ft; .010 in. screen from 5.7 to 15.7 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature and specific conductance. Conductivity/water temperature probe set at 6.9 feet below land surface.

DATUM.--Elevation of land-surface datum is 931.74 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 3.08 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
WATER TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 7.15 ft. below land-surface datum, September 30, 1991; minimum daily low, 4.72 ft. below land-surface datum, May 13, 1991.

SPECIFIC CONDUCTANCE: Maximum, 843 microsiemens June 29, 1991; minimum, 811 microsiemens September 30, 1991.

AIR TEMPERATURE: Maximum, 35.5°C July 3, 1991; minimum, -2.5°C September 27, 1991.

WATER TEMPERATURE: Maximum, 16.0°C September 27, 1991; minimum, 10.5°C May 13, 1991.

SOIL TEMPERATURE: Maximum, 35.5°C July 3, 1991; minimum, 16.0°C September 28, 1991.

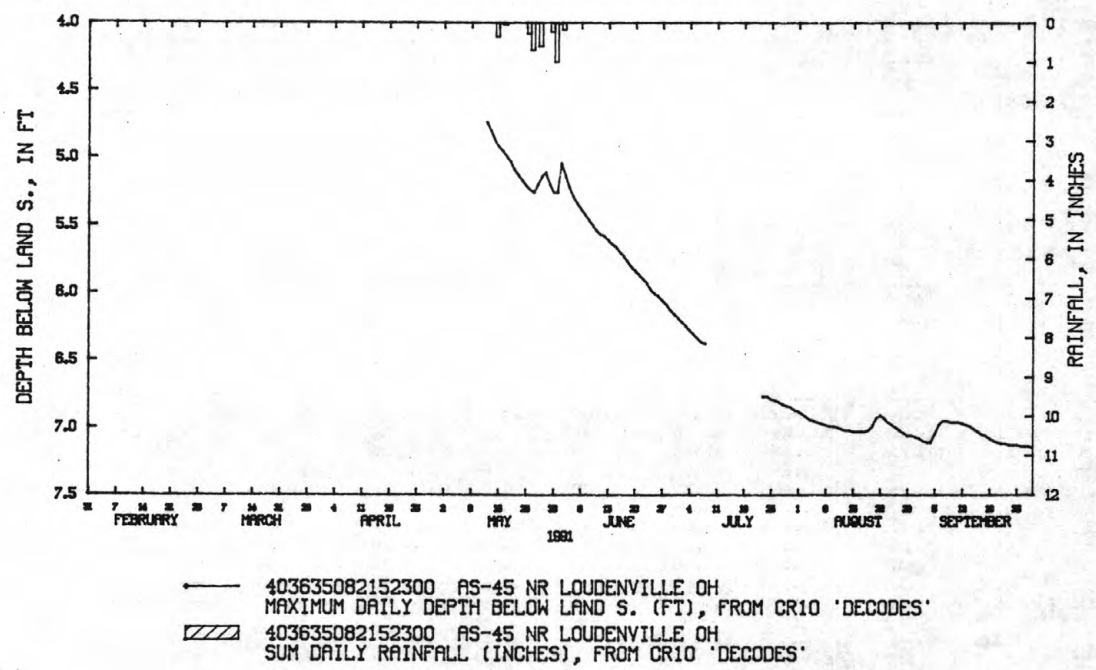
EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 7.15 ft. below land-surface datum, September 30, 1991; minimum daily low, 4.72 ft. below land-surface datum, May 13, 1991.

SPECIFIC CONDUCTANCE: Maximum, 843 microsiemens June 29, 1991; minimum, 811 microsiemens September 30, 1991.

AIR TEMPERATURE: Maximum, 35.5°C July 3, 1991; minimum, -2.5°C September 27, 1991.

WATER TEMPERATURE: Maximum, 16.0°C September 27, 1991; minimum, 10.5°C May 13, 1991.

SOIL TEMPERATURE: Maximum, 35.5°C July 3, 1991; minimum, 16.0°C September 28, 1991.



403635082152300 AS-45 NR LOUDONVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	5.04	6.19	6.88	7.08
2	---	---	---	---	---	---	---	---	5.13	6.22	6.90	7.10
3	---	---	---	---	---	---	---	---	5.22	6.25	6.92	7.11
4	---	---	---	---	---	---	---	---	5.29	6.28	6.94	7.11
5	---	---	---	---	---	---	---	---	5.34	6.31	6.95	7.05
6	---	---	---	---	---	---	---	---	5.38	6.34	6.96	6.98
7	---	---	---	---	---	---	---	---	5.42	6.37	6.97	6.95
8	---	---	---	---	---	---	---	---	5.46	6.38	6.98	6.95
9	---	---	---	---	---	---	---	---	5.50	---	6.99	6.96
10	---	---	---	---	---	---	---	---	5.54	---	6.99	6.96
11	---	---	---	---	---	---	---	---	5.57	---	7.00	6.96
12	---	---	---	---	---	---	---	---	5.58	---	7.01	6.97
13	---	---	---	---	---	---	---	4.74	5.61	---	7.02	6.98
14	---	---	---	---	---	---	---	4.80	5.64	---	7.02	6.99
15	---	---	---	---	---	---	---	4.87	5.66	---	7.03	7.01
16	---	---	---	---	---	---	---	4.92	5.70	---	7.03	7.03
17	---	---	---	---	---	---	---	4.95	5.73	---	7.03	7.05
18	---	---	---	---	---	---	---	4.99	5.77	---	7.03	7.06
19	---	---	---	---	---	---	---	5.03	5.81	---	7.02	7.08
20	---	---	---	---	---	---	---	5.09	5.84	---	6.99	7.10
21	---	---	---	---	---	---	---	5.13	5.87	---	6.93	7.11
22	---	---	---	---	---	---	---	5.17	5.90	---	6.91	7.12
23	---	---	---	---	---	---	---	5.21	5.93	6.77	6.93	7.12
24	---	---	---	---	---	---	---	5.24	5.98	6.77	6.96	7.13
25	---	---	---	---	---	---	---	5.26	6.01	6.79	6.98	7.13
26	---	---	---	---	---	---	---	5.20	6.03	6.80	7.00	7.13
27	---	---	---	---	---	---	---	5.14	6.06	6.81	7.02	7.14
28	---	---	---	---	---	---	---	5.11	6.09	6.83	7.04	7.14
29	---	---	---	---	---	---	---	5.20	6.13	6.84	7.06	7.14
30	---	---	---	---	---	---	---	5.26	6.16	6.85	7.06	7.15
31	---	---	---	---	---	---	---	5.26	---	6.87	7.07	---
MAX	---	---	---	---	---	---	---	5.26	6.16	6.87	7.07	7.15

WTR YR 1991 LOW 7.15

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	831	825	830
14	---	---	---	---	---	---	---	---	---	829	823	827
15	---	---	---	---	---	---	---	---	---	831	824	826
16	---	---	---	---	---	---	---	---	---	829	824	827
17	---	---	---	---	---	---	---	---	---	828	824	826
18	---	---	---	---	---	---	---	---	---	828	824	825
19	---	---	---	---	---	---	---	---	---	829	827	828
20	---	---	---	---	---	---	---	---	---	832	826	829
21	---	---	---	---	---	---	---	---	---	830	828	829
22	---	---	---	---	---	---	---	---	---	833	826	829
23	---	---	---	---	---	---	---	---	---	830	825	829
24	---	---	---	---	---	---	---	---	---	832	826	827
25	---	---	---	---	---	---	---	---	---	830	828	829
26	---	---	---	---	---	---	---	---	---	832	827	830
27	---	---	---	---	---	---	---	---	---	830	827	829
28	---	---	---	---	---	---	---	---	---	832	830	831
29	---	---	---	---	---	---	---	---	---	835	828	833
30	---	---	---	---	---	---	---	---	---	836	829	831
31	---	---	---	---	---	---	---	---	---	833	827	832
MONTH	---	---	---	---	---	---	---	---	---	836	823	829

403635082152300 AS-45 NR LOUDONVILLE OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	835	828	830	840	833	837	---	---	---	825	821	823
2	833	828	832	841	834	836	---	---	---	823	819	822
3	836	829	831	837	834	836	---	---	---	821	818	820
4	835	832	833	837	835	836	---	---	---	821	819	820
5	837	831	835	838	836	837	---	---	---	822	820	821
6	839	833	836	839	832	837	---	---	---	822	816	820
7	836	831	835	839	832	836	---	---	---	823	815	819
8	837	831	835	835	833	834	---	---	---	823	816	820
9	839	832	835	---	---	---	---	---	---	822	816	819
10	839	833	835	---	---	---	---	---	---	824	817	820
11	836	834	835	---	---	---	---	---	---	824	818	820
12	836	835	836	---	---	---	---	---	---	820	818	819
13	838	832	836	---	---	---	---	---	---	823	817	819
14	839	833	836	---	---	---	---	---	---	820	818	819
15	840	833	836	---	---	---	---	---	---	820	818	819
16	841	834	835	---	---	---	---	---	---	819	817	818
17	837	835	836	---	---	---	---	---	---	819	813	818
18	839	832	835	---	---	---	---	---	---	821	814	819
19	840	833	835	---	---	---	---	---	---	822	816	819
20	837	834	835	---	---	---	---	---	---	822	817	818
21	839	835	837	---	---	---	823	821	822	821	816	818
22	839	834	838	---	---	---	828	821	827	821	814	817
23	841	834	837	---	---	---	831	828	830	820	814	816
24	837	836	837	---	---	---	832	823	829	817	815	816
25	839	837	838	---	---	---	828	821	826	817	816	817
26	840	834	838	---	---	---	828	821	826	818	816	817
27	842	835	838	---	---	---	829	823	826	820	815	817
28	842	836	837	---	---	---	830	823	827	818	812	815
29	843	836	838	---	---	---	831	823	827	818	812	815
30	839	833	838	---	---	---	831	824	826	818	811	815
31	---	---	---	---	---	---	829	823	824	---	---	---
MONTH	843	828	836	841	832	836	832	821	826	825	811	818
YEAR	843	811	828									

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	22.5	19.5	11.0
14	---	---	---	---	---	---	---	---	---	24.0	14.5	11.0
15	---	---	---	---	---	---	---	---	---	24.0	11.5	11.0
16	---	---	---	---	---	---	---	---	---	24.0	12.5	11.0
17	---	---	---	---	---	---	---	---	---	23.5	14.5	11.5
18	---	---	---	---	---	---	---	---	---	21.5	11.0	11.5
19	---	---	---	---	---	---	---	---	---	19.5	7.5	11.5
20	---	---	---	---	---	---	---	---	---	20.5	13.0	11.5
21	---	---	---	---	---	---	---	---	---	21.5	10.0	12.0
22	---	---	---	---	---	---	---	---	---	22.0	11.0	12.0
23	---	---	---	---	---	---	---	---	---	22.0	11.5	12.0
24	---	---	---	---	---	---	---	---	---	22.0	15.5	12.0
25	---	---	---	---	---	---	---	---	---	22.0	16.5	12.0
26	---	---	---	---	---	---	---	---	---	22.0	18.5	12.5
27	---	---	---	---	---	---	---	---	---	22.0	17.5	12.5
28	---	---	---	---	---	---	---	---	---	23.5	15.5	12.5
29	---	---	---	---	---	---	---	---	---	24.0	16.5	12.5
30	---	---	---	---	---	---	---	---	---	24.5	19.0	12.5
31	---	---	---	---	---	---	---	---	---	25.5	18.0	12.5
MONTH	---	---	---	---	---	---	---	---	---	25.5	7.5	11.8

403635082152300 AS-45 NR LOUDONVILLE OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	16.5	13.0	35.0	17.0	15.0	33.0	10.0	15.5	30.0	7.0	15.0
2	25.0	15.5	13.0	34.5	20.0	15.0	33.5	10.0	15.5	29.5	5.5	15.0
3	25.5	13.5	13.0	35.5	18.5	15.0	32.0	18.5	15.5	29.5	9.5	15.0
4	25.0	9.5	13.0	34.0	18.0	15.0	33.0	10.5	15.5	29.0	9.5	15.0
5	24.5	6.5	13.0	34.5	15.5	15.0	31.0	9.5	15.5	28.5	8.0	15.0
6	25.0	5.5	13.5	34.5	14.5	15.0	30.0	6.5	15.5	28.5	8.5	15.0
7	26.0	5.5	13.5	35.0	22.0	15.0	31.0	8.5	15.5	28.0	6.5	15.5
8	26.5	4.0	13.5	34.0	20.0	15.0	30.0	8.5	15.5	28.5	9.5	15.5
9	27.5	7.5	13.5	---	---	---	29.5	12.0	15.5	28.5	11.5	15.5
10	27.5	9.5	13.5	---	---	---	30.5	9.0	15.5	30.0	17.5	15.5
11	27.0	16.5	13.5	---	---	---	30.0	7.0	15.5	29.0	12.0	15.5
12	29.5	13.5	13.5	---	---	---	30.0	8.0	15.5	27.0	12.5	15.5
13	30.0	9.0	13.5	---	---	---	29.0	9.5	15.5	29.0	14.0	15.5
14	30.5	5.5	13.5	---	---	---	30.0	13.5	15.5	29.5	17.0	15.5
15	30.5	14.0	14.0	---	---	---	30.5	10.5	15.5	30.0	15.5	15.5
16	30.5	17.0	14.0	---	---	---	31.0	10.5	15.5	33.5	17.5	24.5
17	32.5	13.0	14.0	---	---	---	31.0	13.5	15.5	27.0	14.5	20.0
18	33.0	12.5	14.0	---	---	---	31.5	16.0	15.5	26.0	12.0	17.5
19	32.5	14.5	14.0	---	---	---	31.0	13.5	15.5	19.0	5.0	12.5
20	34.0	13.0	14.0	---	---	---	30.5	14.0	15.5	15.5	1.0	7.5
21	34.5	11.5	14.0	---	---	---	30.5	11.5	15.0	19.0	-1.0	7.5
22	31.5	16.0	14.0	---	---	---	31.0	11.0	15.0	24.0	-1.0	12.0
23	32.0	13.0	14.5	28.5	13.5	15.5	32.0	14.0	15.0	20.5	5.0	14.5
24	33.5	11.0	14.5	33.5	15.0	15.5	31.5	12.5	15.0	19.0	1.0	9.0
25	32.5	10.0	14.5	33.5	11.5	15.5	31.5	12.5	15.0	21.0	8.5	12.5
26	33.5	11.0	14.5	32.0	9.5	15.5	32.0	13.0	15.0	15.5	.0	9.5
27	34.0	10.0	14.5	31.5	5.5	15.5	31.5	13.0	15.0	17.0	-2.5	6.0
28	33.5	13.5	14.5	30.5	7.0	15.5	32.5	15.5	15.0	19.5	-1.5	8.5
29	34.5	15.5	14.5	31.0	14.0	15.5	32.5	16.5	15.0	22.0	2.0	10.5
30	35.0	15.5	14.5	32.0	8.0	15.5	32.5	16.5	15.0	25.5	1.5	11.5
31	---	---	---	32.0	8.0	15.5	31.5	14.5	15.0	---	---	---
MONTH	35.0	4.0	13.8	35.5	5.5	15.3	33.5	6.5	15.3	33.5	-2.5	13.8
YEAR	35.5	-2.5	14.1									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	11.0	10.5	11.0
14	---	---	---	---	---	---	---	---	---	11.0	11.0	11.0
15	---	---	---	---	---	---	---	---	---	11.0	11.0	11.0
16	---	---	---	---	---	---	---	---	---	11.5	11.0	11.0
17	---	---	---	---	---	---	---	---	---	11.5	11.5	11.5
18	---	---	---	---	---	---	---	---	---	11.5	11.5	11.5
19	---	---	---	---	---	---	---	---	---	11.5	11.5	11.5
20	---	---	---	---	---	---	---	---	---	12.0	11.5	11.5
21	---	---	---	---	---	---	---	---	---	12.0	11.5	12.0
22	---	---	---	---	---	---	---	---	---	12.0	12.0	12.0
23	---	---	---	---	---	---	---	---	---	12.0	12.0	12.0
24	---	---	---	---	---	---	---	---	---	12.5	12.0	12.0
25	---	---	---	---	---	---	---	---	---	12.0	12.0	12.0
26	---	---	---	---	---	---	---	---	---	12.5	12.0	12.5
27	---	---	---	---	---	---	---	---	---	12.5	12.5	12.5
28	---	---	---	---	---	---	---	---	---	12.5	12.5	12.5
29	---	---	---	---	---	---	---	---	---	12.5	12.5	12.5
30	---	---	---	---	---	---	---	---	---	12.5	12.5	12.5
31	---	---	---	---	---	---	---	---	---	13.0	12.5	12.5
MONTH	---	---	---	---	---	---	---	---	---	13.0	10.5	11.8

403635082152300 AS-45 NR LOUDONVILLE OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.0	12.5	13.0	15.0	14.5	15.0	15.5	15.5	15.5	15.0	15.0	15.0
2	13.0	13.0	13.0	15.0	14.5	15.0	15.5	15.5	15.5	15.0	15.0	15.0
3	13.0	13.0	13.0	15.0	15.0	15.0	15.5	15.5	15.5	15.0	15.0	15.0
4	13.0	13.0	13.0	15.0	15.0	15.0	15.5	15.5	15.5	15.0	15.0	15.0
5	13.5	13.0	13.0	15.0	15.0	15.0	15.5	15.5	15.5	15.0	15.0	15.0
6	13.5	13.0	13.5	15.0	15.0	15.0	15.5	15.5	15.5	15.5	15.0	15.0
7	13.5	13.5	13.5	15.0	15.0	15.0	15.5	15.5	15.5	15.5	15.0	15.5
8	13.5	13.5	13.5	15.0	15.0	15.0	15.5	15.5	15.5	15.5	15.0	15.5
9	13.5	13.5	13.5	---	---	---	15.5	15.5	15.5	15.5	15.0	15.5
10	13.5	13.5	13.5	---	---	---	15.5	15.5	15.5	15.5	15.0	15.5
11	13.5	13.5	13.5	---	---	---	15.5	15.5	15.5	15.5	15.0	15.5
12	13.5	13.5	13.5	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
13	14.0	13.5	13.5	---	---	---	15.5	15.5	15.5	15.5	15.0	15.5
14	14.0	13.5	13.5	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
15	14.0	13.5	14.0	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
16	14.0	13.5	14.0	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
17	14.0	14.0	14.0	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
18	14.0	14.0	14.0	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
19	14.0	14.0	14.0	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
20	14.0	14.0	14.0	---	---	---	15.5	15.5	15.5	15.5	15.5	15.5
21	14.0	14.0	14.0	---	---	---	15.5	15.0	15.0	15.5	15.5	15.5
22	14.5	14.0	14.0	---	---	---	15.0	15.0	15.0	15.5	15.5	15.5
23	14.5	14.0	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
24	14.5	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
25	14.5	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
26	14.5	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
27	14.5	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	16.0	15.5	15.5
28	14.5	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
29	14.5	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
30	15.0	14.5	14.5	15.5	15.5	15.5	15.0	15.0	15.0	15.5	15.5	15.5
31	---	---	---	15.5	15.5	15.5	15.0	15.0	15.0	---	---	---
MONTH	15.0	12.5	13.8	15.5	14.5	15.3	15.5	15.0	15.3	16.0	15.0	15.4
YEAR	16.0	10.5	14.5									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	22.5	21.0	21.0
14	---	---	---	---	---	---	---	---	---	24.0	19.0	21.5
15	---	---	---	---	---	---	---	---	---	24.0	19.0	21.5
16	---	---	---	---	---	---	---	---	---	24.0	19.5	21.5
17	---	---	---	---	---	---	---	---	---	23.5	20.5	21.5
18	---	---	---	---	---	---	---	---	---	21.5	18.5	19.5
19	---	---	---	---	---	---	---	---	---	19.5	16.5	18.0
20	---	---	---	---	---	---	---	---	---	20.5	17.5	19.0
21	---	---	---	---	---	---	---	---	---	21.5	17.5	19.5
22	---	---	---	---	---	---	---	---	---	22.0	18.0	20.0
23	---	---	---	---	---	---	---	---	---	22.0	18.5	20.0
24	---	---	---	---	---	---	---	---	---	22.0	19.5	20.5
25	---	---	---	---	---	---	---	---	---	22.0	19.5	21.0
26	---	---	---	---	---	---	---	---	---	22.0	20.5	21.5
27	---	---	---	---	---	---	---	---	---	22.0	20.5	21.0
28	---	---	---	---	---	---	---	---	---	23.5	20.0	21.5
29	---	---	---	---	---	---	---	---	---	24.0	21.5	22.5
30	---	---	---	---	---	---	---	---	---	24.5	22.5	23.5
31	---	---	---	---	---	---	---	---	---	25.5	23.0	24.0
MONTH	---	---	---	---	---	---	---	---	---	25.5	16.5	21.0

403635082152300 AS-45 NR LOUDONVILLE OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.5	23.5	24.5	35.0	31.0	33.0	33.0	29.0	31.0	30.0	27.0	28.5
2	25.0	23.5	24.5	34.5	32.0	33.0	33.5	29.0	31.5	29.5	25.0	27.5
3	25.5	23.0	24.0	35.5	32.0	33.5	32.0	30.5	31.5	29.5	26.0	28.0
4	25.0	22.5	23.5	34.0	32.0	33.0	33.0	29.5	31.5	29.0	28.0	28.5
5	24.5	21.0	22.5	34.5	31.0	33.0	31.0	29.5	30.0	28.5	26.0	27.0
6	25.0	20.0	22.5	34.5	31.0	32.5	30.0	27.5	28.5	28.5	25.0	27.0
7	26.0	20.0	23.0	35.0	32.0	33.5	31.0	27.0	29.0	28.0	24.5	26.5
8	26.5	20.0	23.0	34.0	32.5	33.0	30.0	28.0	29.0	28.5	25.0	27.0
9	27.5	21.0	24.0	---	---	---	29.5	28.5	29.0	28.5	25.5	27.5
10	27.5	22.5	25.0	---	---	---	30.5	27.0	29.0	30.0	28.0	28.5
11	27.0	24.5	25.5	---	---	---	30.0	26.5	28.5	29.0	27.0	28.0
12	29.5	24.5	26.5	---	---	---	30.0	26.5	28.5	27.0	25.5	26.5
13	30.0	24.0	26.5	---	---	---	29.0	26.5	28.0	29.0	25.5	27.0
14	30.5	23.0	26.5	---	---	---	30.0	27.5	28.5	29.5	27.0	28.0
15	30.5	25.5	28.0	---	---	---	30.5	27.0	28.5	30.0	26.5	28.5
16	30.5	27.0	28.5	---	---	---	31.0	27.5	29.0	30.0	27.5	28.5
17	32.5	26.5	29.5	---	---	---	31.0	28.5	29.5	29.0	27.5	28.5
18	33.0	27.0	30.0	---	---	---	31.5	29.5	30.5	27.5	25.5	26.5
19	32.5	28.0	30.0	---	---	---	31.0	29.0	29.5	26.0	24.0	25.0
20	34.0	28.0	30.5	---	---	---	30.5	28.5	29.5	24.0	21.0	22.5
21	34.5	28.0	31.0	---	---	---	30.5	28.0	29.5	22.5	19.0	20.5
22	31.5	29.5	30.5	---	---	---	31.0	27.5	29.0	22.5	18.5	20.5
23	32.0	28.5	30.0	34.0	32.0	33.5	32.0	29.0	30.5	24.0	21.5	22.5
24	33.5	28.0	30.5	33.5	31.0	32.5	31.5	28.5	30.0	22.0	19.0	20.5
25	32.5	28.5	30.5	33.5	30.5	32.0	31.5	28.5	30.0	22.0	20.0	21.0
26	33.5	28.5	31.0	32.0	29.5	30.5	32.0	28.5	30.5	21.0	19.5	20.5
27	34.0	29.0	31.5	31.5	28.0	30.0	31.5	28.5	30.0	20.0	16.5	18.0
28	33.5	29.5	31.5	30.5	27.5	29.0	32.5	29.5	31.0	20.0	16.0	18.0
29	34.5	30.5	32.5	31.0	29.0	30.0	32.5	29.5	31.0	21.0	17.0	19.0
30	35.0	31.0	33.0	32.0	29.0	31.0	32.5	30.0	31.0	21.0	17.0	18.5
31	---	---	---	32.0	28.5	30.5	31.5	29.5	30.5	---	---	---
MONTH	35.0	20.0	27.7	35.5	27.5	32.0	33.5	26.5	29.8	30.0	16.0	24.8
YEAR	35.5	16.0	27.1									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.03	.00	.00	.00
2	---	---	---	---	---	---	---	---	.18	.00	.00	.00
3	---	---	---	---	---	---	---	---	.00	.00	.00	.00
4	---	---	---	---	---	---	---	---	.00	.00	.00	.00
5	---	---	---	---	---	---	---	---	.00	.00	.00	.00
6	---	---	---	---	---	---	---	---	.00	.00	.00	.00
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	---	.00	.00
10	---	---	---	---	---	---	---	---	.00	---	.00	.00
11	---	---	---	---	---	---	---	---	.00	---	.00	.00
12	---	---	---	---	---	---	---	---	.00	---	.00	.00
13	---	---	---	---	---	---	---	.00	.00	---	.00	.00
14	---	---	---	---	---	---	---	.00	.00	---	.00	.00
15	---	---	---	---	---	---	---	.00	.00	---	.00	.00
16	---	---	---	---	---	---	---	.36	.00	---	.00	.00
17	---	---	---	---	---	---	---	.01	.00	---	.00	.00
18	---	---	---	---	---	---	---	.05	.00	---	.00	.00
19	---	---	---	---	---	---	---	.00	.00	---	.00	.00
20	---	---	---	---	---	---	---	.00	.00	---	.00	.00
21	---	---	---	---	---	---	---	.00	.00	---	.00	.00
22	---	---	---	---	---	---	---	.00	.00	---	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.28	.00	.00	.00	.00
25	---	---	---	---	---	---	---	.70	.00	.00	.00	.00
26	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
27	---	---	---	---	---	---	---	.60	.00	.00	.00	.00
28	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
29	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
30	---	---	---	---	---	---	---	.23	.00	.00	.00	.00
31	---	---	---	---	---	---	---	1.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	3.24	0.21	0.00	0.00	0.00

WTR YR 1991 TOTAL 3.45

GROUND-WATER RECORDS

403923082325500. Local number, R-16.

LOCATION.--Lat 40°39'23" Long 82°32'55", Hydrologic Unit 05040002, along State Route 97 near Lexington, OH.
Owner.--USGS-Sam McBride.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 18.9 ft. Cased with Sch 40 PVC to 8.9 ft; .010 in. screen from 8.9 to 18.9 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at 18.6 feet below land surface.

DATUM.--Elevation of land-surface datum is 1168.37 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 2.36 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
WATER TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 17.25 ft. below land-surface datum, September 28-30, 1991; minimum daily low, 11.73 ft. below land-surface datum, March 9-11, 1991.

SPECIFIC CONDUCTANCE: Maximum, 436 microsiemens September 29 and 30, 1991; minimum, 157 microsiemens March 6, 1991.

AIR TEMPERATURE: Maximum, 36.0°C August 1, 1991; minimum, -9.5°C February 26 and March 12, 1991.

WATER TEMPERATURE: Maximum, 12.0°C many days in 1991; minimum, 8.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 28.5°C July 17, 19, and 20, 1991; minimum, 1.0°C February 27 & 28, 1991.

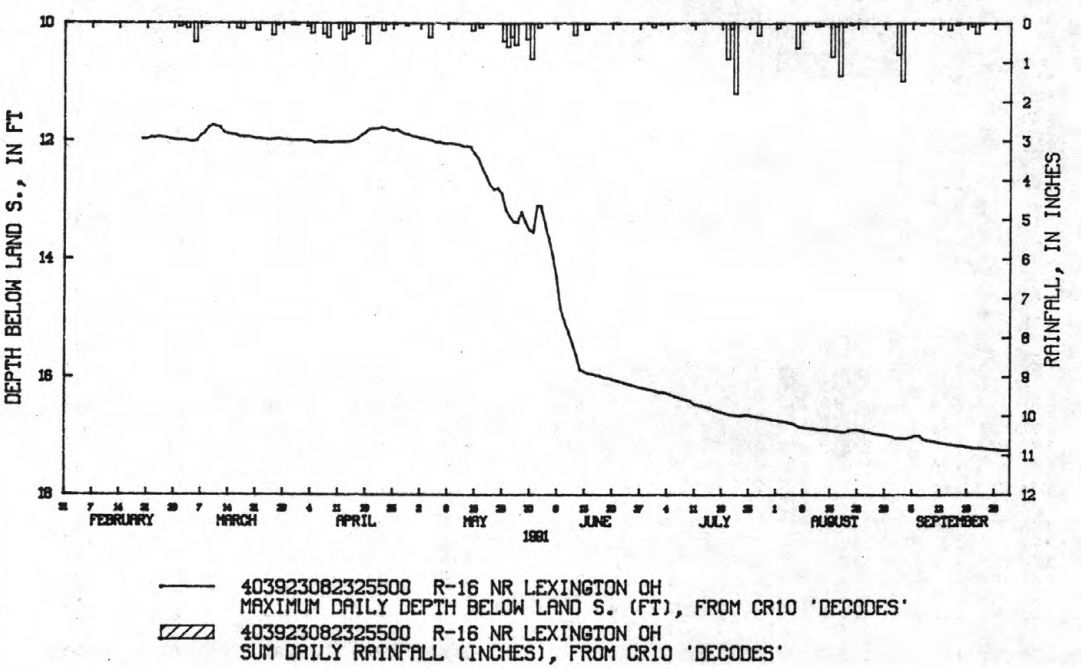
EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 17.25 ft below land-surface datum, September 28-30, 1991; minimum daily low, 11.73 ft below land-surface datum, March 9-11, 1991.

SPECIFIC CONDUCTANCE: Maximum, 436 microsiemens September 29 and 30, 1991; minimum, 157 microsiemens March 6, 1991.

AIR TEMPERATURE: Maximum, 36.0°C August 1, 1991; minimum, -9.5°C February 26 and March 12, 1991.

WATER TEMPERATURE: Maximum, 12.0°C many days in 1991; minimum, 8.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 28.5°C July 17, 19, and 20, 1991; minimum, 1.0°C February 27 & 28, 1991.



403923082325500 R-16 NR LEXINGTON OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	11.99	11.99	11.93	13.09	16.24	16.74	17.04
2	---	---	---	---	---	11.99	11.99	11.95	13.10	16.26	16.75	17.04
3	---	---	---	---	---	11.99	11.99	11.96	13.40	16.26	16.76	17.05
4	---	---	---	---	---	12.01	12.00	11.98	13.65	16.28	16.77	17.04
5	---	---	---	---	---	12.01	12.03	11.99	13.96	16.30	16.79	17.02
6	---	---	---	---	---	12.00	12.02	12.02	14.32	16.33	16.81	17.00
7	---	---	---	---	---	11.91	12.02	12.02	14.83	16.35	16.85	17.00
8	---	---	---	---	---	11.87	12.02	12.04	15.06	16.37	16.86	17.06
9	---	---	---	---	---	11.77	12.03	12.04	15.23	16.39	16.87	17.08
10	---	---	---	---	---	11.73	12.02	12.04	15.42	16.41	16.88	17.09
11	---	---	---	---	---	11.75	12.02	12.05	15.63	16.46	16.88	17.10
12	---	---	---	---	---	11.77	12.02	12.06	15.88	16.48	16.90	17.12
13	---	---	---	---	---	11.86	12.02	12.09	15.91	16.49	16.90	17.13
14	---	---	---	---	---	11.88	12.01	12.09	15.94	16.51	16.90	17.14
15	---	---	---	---	---	11.89	11.99	12.10	15.95	16.53	16.91	17.15
16	---	---	---	---	---	11.90	11.96	12.21	15.97	16.56	16.92	17.16
17	---	---	---	---	---	11.93	11.90	12.29	15.98	16.58	16.93	17.17
18	---	---	---	---	---	11.93	11.86	12.46	16.01	16.60	16.94	17.17
19	---	---	---	---	---	11.93	11.80	12.60	16.02	16.62	16.94	17.19
20	---	---	---	---	11.97	11.94	11.79	12.74	16.04	16.64	16.91	17.20
21	---	---	---	---	11.97	11.96	11.79	12.82	16.06	16.65	16.90	17.21
22	---	---	---	---	11.94	11.96	11.77	12.80	16.08	16.66	16.90	17.21
23	---	---	---	---	11.95	11.97	11.78	12.89	16.10	16.66	16.91	17.21
24	---	---	---	---	11.93	11.98	11.81	13.16	16.12	16.65	16.93	17.22
25	---	---	---	---	11.94	11.98	11.82	13.28	16.14	16.65	16.94	17.23
26	---	---	---	---	11.95	11.97	11.81	13.37	16.16	16.67	16.96	17.23
27	---	---	---	---	11.97	11.96	11.85	13.38	16.18	16.68	16.97	17.24
28	---	---	---	---	11.98	11.98	11.88	13.20	16.19	16.69	16.98	17.25
29	---	---	---	---	---	11.98	11.89	13.37	16.21	16.70	16.99	17.25
30	---	---	---	---	---	11.99	11.92	13.51	16.22	16.71	17.00	17.25
31	---	---	---	---	---	11.99	---	13.55	---	16.73	17.02	---
MAX	---	---	---	---	11.98	12.01	12.03	13.55	16.22	16.73	17.02	17.25

WTR YR 1991 LOW 17.25

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	166	164	165	271	268	269	303	296	300
2	---	---	---	165	163	164	269	264	267	296	287	291
3	---	---	---	163	160	161	265	259	262	287	278	283
4	---	---	---	161	159	160	261	255	258	278	270	275
5	---	---	---	159	158	158	256	253	255	272	265	268
6	---	---	---	162	157	158	254	252	253	265	261	263
7	---	---	---	188	162	175	253	249	251	261	253	257
8	---	---	---	206	188	198	250	247	249	254	247	250
9	---	---	---	214	207	211	248	246	247	247	242	245
10	---	---	---	214	212	214	249	247	248	242	238	241
11	---	---	---	212	208	211	252	249	250	239	234	237
12	---	---	---	208	205	207	253	250	252	236	232	234
13	---	---	---	336	203	276	252	251	252	234	231	233
14	---	---	---	336	204	298	259	252	254	232	229	231
15	---	---	---	325	204	292	280	260	268	230	226	228
16	---	---	---	318	307	312	306	281	293	227	223	225
17	---	---	---	308	298	303	330	308	320	224	220	222
18	---	---	---	298	294	296	341	331	336	220	215	218
19	---	---	---	293	288	291	345	341	343	217	213	215
20	170	169	169	289	284	286	347	345	346	214	211	213
21	175	170	172	285	281	283	347	346	346	214	210	212
22	178	174	176	281	277	279	346	343	345	212	209	210
23	179	177	178	278	274	276	344	340	342	210	208	209
24	179	178	178	276	273	274	340	336	338	213	209	211
25	178	175	177	273	268	271	336	330	334	213	211	212
26	176	172	174	271	268	269	332	326	329	216	212	213
27	172	168	170	271	267	269	328	322	325	219	214	216
28	168	165	166	273	269	271	324	317	321	221	218	220
29	---	---	---	273	271	271	318	311	315	223	220	221
30	---	---	---	273	271	272	312	303	308	224	222	223
31	---	---	---	272	269	271	---	---	---	228	223	225
MONTH	179	165	173	336	157	243	347	246	293	303	208	236

403923082325500 R-16 NR LEXINGTON OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	239	230	235	---	---	---	372	368	370	411	407	409
2	242	238	239	---	---	---	372	370	371	411	408	410
3	239	234	237	---	---	---	374	371	372	413	410	412
4	237	233	236	---	---	---	375	372	374	414	411	413
5	235	231	233	---	---	---	377	374	376	416	412	414
6	233	228	231	---	---	---	378	375	377	417	413	415
7	232	229	231	---	---	---	380	377	379	418	415	416
8	235	232	233	---	---	---	382	378	380	420	416	417
9	236	232	234	---	---	---	382	378	380	421	417	419
10	234	221	230	---	---	---	383	380	382	422	419	420
11	---	---	---	336	334	335	385	382	383	424	420	423
12	---	---	---	338	334	336	387	384	385	424	421	422
13	---	---	---	338	335	337	389	386	387	425	422	423
14	---	---	---	339	337	338	390	388	389	424	422	424
15	---	---	---	341	337	340	391	388	389	427	422	424
16	---	---	---	345	342	344	393	389	391	426	423	425
17	---	---	---	346	343	345	393	390	392	427	424	426
18	---	---	---	348	344	346	394	390	392	428	425	427
19	---	---	---	348	346	347	395	393	394	430	427	429
20	---	---	---	349	347	348	397	394	395	431	427	429
21	---	---	---	351	348	350	398	395	396	432	429	430
22	---	---	---	355	351	352	399	396	398	432	427	430
23	---	---	---	357	353	355	401	398	399	431	428	431
24	---	---	---	358	355	356	402	399	400	432	429	431
25	---	---	---	360	357	358	403	401	402	433	432	432
26	---	---	---	362	360	360	405	400	403	434	430	433
27	---	---	---	364	361	363	405	403	404	435	431	434
28	---	---	---	366	362	364	406	402	405	435	431	434
29	---	---	---	367	364	365	407	403	405	436	432	435
30	---	---	---	368	364	367	408	405	406	436	433	435
31	---	---	---	370	367	369	409	406	407	---	---	---
MONTH	242	221	234	370	334	351	409	368	390	436	407	424
YEAR	436	157	309									

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	16.5	6.0	11.5	8.5	-4.5	1.5	20.0	11.0	14.5
2	---	---	---	17.0	7.0	13.0	17.0	-7.0	5.0	18.5	6.0	12.5
3	---	---	---	5.0	-3.5	-1.5	21.0	.0	11.5	18.0	2.5	10.0
4	---	---	---	4.0	-4.5	-2.0	19.0	6.0	13.0	20.5	7.0	12.5
5	---	---	---	9.0	-4.0	3.0	24.0	4.5	15.5	24.0	8.0	16.0
6	---	---	---	10.0	1.0	6.5	27.0	8.0	19.0	16.5	6.5	11.0
7	---	---	---	1.5	-4.0	-1.0	27.0	8.0	19.0	18.0	4.5	10.5
8	---	---	---	3.5	-8.0	-2.5	22.5	17.0	19.0	22.0	4.5	13.5
9	---	---	---	7.0	-4.0	.5	8.0	-1.0	4.5	23.0	10.0	16.5
10	---	---	---	.5	-3.5	-1.0	12.0	-4.0	3.5	26.5	7.0	17.0
11	---	---	---	2.5	-7.0	-2.5	14.5	.0	7.5	28.0	8.5	18.0
12	---	---	---	3.5	-9.5	-2.5	11.5	8.5	10.5	30.0	11.0	20.5
13	---	---	---	7.5	-1.5	2.0	19.0	10.0	13.5	30.0	13.5	21.5
14	---	---	---	8.5	-6.0	1.0	16.5	11.0	14.5	32.5	15.0	22.5
15	---	---	---	13.0	-7.5	1.5	21.0	9.0	15.0	31.5	12.0	21.5
16	---	---	---	15.5	-5.5	5.5	17.0	5.5	11.5	30.0	14.0	21.0
17	---	---	---	9.0	3.0	6.0	17.0	.5	8.5	28.5	12.5	22.0
18	---	---	---	10.0	1.5	5.0	16.0	.5	8.5	20.5	10.5	13.5
19	---	---	---	17.0	-2.0	8.0	13.0	7.0	10.5	24.5	7.5	16.0
20	3.5	1.0	1.5	22.0	9.0	14.5	9.0	3.5	5.5	24.5	13.5	18.5
21	14.5	.0	7.0	17.5	12.0	15.0	4.5	3.0	3.5	28.0	11.5	19.5
22	7.0	-3.0	4.0	19.5	11.5	15.5	13.5	2.5	7.0	30.5	11.5	20.5
23	1.5	-7.5	-3.0	7.5	3.0	5.0	15.0	.5	9.0	31.0	13.0	22.0
24	10.5	-4.0	2.0	15.0	1.5	7.5	11.0	2.5	7.0	28.5	16.5	21.5
25	-1.5	-6.0	-3.0	12.5	1.0	8.5	19.5	1.5	10.0	27.5	17.0	22.5
26	-.5	-9.5	-5.0	22.0	12.0	17.5	23.0	8.5	15.0	25.0	20.0	22.5
27	1.0	-7.0	-3.5	11.5	3.5	7.5	24.0	7.0	16.5	24.5	17.5	21.5
28	9.5	-2.5	3.0	9.0	-2.5	2.0	24.0	12.5	18.5	32.5	16.0	23.5
29	---	---	---	4.5	-6.0	-1.5	25.0	16.0	20.5	32.5	17.5	24.5
30	---	---	---	9.5	-8.0	1.0	22.5	14.5	18.5	31.5	19.5	24.5
31	---	---	---	5.0	-1.5	2.5	---	---	---	30.5	18.0	23.5
MONTH	14.5	-9.5	.3	22.0	-9.5	4.7	27.0	-7.0	11.4	32.5	2.5	18.5

403923082325500 R-16 NR LEXINGTON OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	30.0	17.0	23.0	31.0	19.5	23.5	36.0	12.0	23.5	28.5	7.0	17.0
2	28.5	15.5	21.0	32.0	18.5	24.0	27.5	19.5	23.5	30.0	10.0	19.0
3	28.5	14.5	20.5	31.0	19.5	24.0	28.5	14.0	21.5	24.0	10.0	19.0
4	22.5	10.0	16.5	32.0	17.0	23.0	27.0	11.0	18.5	25.0	8.0	16.0
5	20.5	8.5	15.0	32.5	16.5	25.5	24.5	8.5	16.5	27.0	8.5	17.5
6	23.5	6.5	15.0	34.0	23.0	27.5	32.0	11.0	20.0	29.5	8.5	18.0
7	25.0	6.5	15.5	31.5	17.0	24.0	25.0	11.0	17.0	30.0	11.5	20.0
8	28.0	5.0	16.0	27.0	14.5	20.5	20.5	14.0	18.0	29.5	14.0	21.0
9	29.5	8.5	19.0	29.0	12.5	20.5	28.0	12.0	18.5	29.5	19.0	23.5
10	29.0	11.0	20.0	33.5	11.5	21.0	29.5	9.5	18.5	25.5	14.0	19.0
11	26.5	18.0	21.0	27.0	13.5	20.0	29.5	10.0	19.0	20.0	13.0	16.5
12	28.0	11.0	20.5	31.5	17.0	23.0	28.0	12.0	18.5	31.0	15.0	22.0
13	30.0	7.0	20.0	31.5	13.0	21.5	28.0	15.0	19.5	29.5	16.0	22.5
14	30.0	19.0	24.5	32.0	9.0	20.0	31.0	12.5	20.0	32.5	17.5	25.0
15	26.5	17.5	22.0	32.5	8.5	20.5	30.5	13.0	22.0	33.0	21.5	26.5
16	28.5	15.5	21.0	34.0	10.0	21.5	28.0	17.0	22.0	24.5	13.5	19.5
17	30.5	14.5	22.0	34.0	14.0	23.5	28.0	17.0	22.0	24.5	12.5	17.0
18	29.5	16.0	22.5	34.0	15.0	25.0	22.0	13.5	17.5	17.0	5.5	11.5
19	32.5	13.5	22.5	34.5	17.5	26.5	23.0	13.5	17.0	14.5	1.0	7.5
20	33.5	13.5	23.0	34.5	20.0	26.5	25.5	12.0	18.0	18.0	.0	8.0
21	27.0	16.0	20.5	34.0	20.5	26.5	30.5	13.0	21.5	23.0	.0	12.0
22	24.5	14.0	19.0	30.5	16.5	25.0	30.5	16.0	22.0	19.5	5.0	14.0
23	28.0	12.5	19.5	29.5	14.5	20.5	30.0	14.0	21.5	17.5	2.0	9.5
24	28.5	12.5	19.5	31.0	15.5	21.5	32.5	14.5	22.5	18.0	10.0	13.0
25	30.0	14.0	21.0	26.5	12.5	19.0	30.5	14.5	22.0	15.0	1.0	10.5
26	30.0	12.0	21.5	26.0	10.0	17.5	31.5	14.0	22.0	15.5	.0	7.0
27	31.0	15.5	23.5	25.5	8.5	17.5	32.5	17.0	24.5	19.0	.5	9.0
28	33.0	17.0	24.5	24.0	14.5	19.5	33.5	18.0	25.0	23.5	4.5	13.0
29	34.0	17.0	24.5	26.5	12.5	19.5	33.5	17.5	24.5	26.5	5.0	14.5
30	32.5	16.5	23.5	30.5	9.5	18.5	29.5	16.0	21.5	27.0	12.0	19.0
31	---	---	---	34.5	13.0	22.0	25.5	11.0	17.5	---	---	---
MONTH	34.0	5.0	20.6	34.5	8.5	22.2	36.0	8.5	20.5	33.0	.0	16.2
YEAR	36.0	-9.5	15.7									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
2	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
3	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
4	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
5	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
6	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
7	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	8.5
8	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	9.0
9	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	9.0
10	---	---	---	9.0	9.0	9.0	8.5	8.5	8.5	9.0	8.5	9.0
11	---	---	---	9.0	8.5	9.0	8.5	8.5	8.5	9.0	9.0	9.0
12	---	---	---	9.0	8.5	8.5	8.5	8.5	8.5	9.0	9.0	9.0
13	---	---	---	9.0	8.5	8.5	8.5	8.5	8.5	9.0	9.0	9.0
14	---	---	---	9.0	8.5	8.5	8.5	8.5	8.5	9.0	9.0	9.0
15	---	---	---	9.0	8.5	8.5	8.5	8.5	8.5	9.0	9.0	9.0
16	---	---	---	9.0	8.5	8.5	8.5	8.5	8.5	9.0	9.0	9.0
17	---	---	---	9.0	8.5	8.5	10.0	8.5	9.0	9.0	9.0	9.0
18	---	---	---	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.0
19	---	---	---	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.0
20	9.5	9.0	9.5	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.0
21	9.5	9.0	9.5	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.0
22	9.5	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.0
23	9.5	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.0
24	9.5	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.5
25	9.0	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.5
26	9.0	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.5	9.5
27	9.0	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.5	9.5
28	9.0	9.0	9.0	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.0	9.5
29	---	---	---	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.5	9.5
30	---	---	---	8.5	8.5	8.5	8.5	8.5	8.5	9.5	9.5	9.5
31	---	---	---	8.5	8.5	8.5	---	---	---	9.5	9.5	9.5
MONTH	9.5	9.0	9.1	9.0	8.5	8.7	10.0	8.5	8.5	9.5	8.5	9.0

403923082325500 R-16 NR LEXINGTON OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.5	9.0	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.5
2	9.5	9.0	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.5
3	9.5	9.5	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0
4	9.5	9.5	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0
5	9.5	9.5	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0
6	9.5	9.5	9.5	10.5	10.5	10.5	11.0	10.5	10.5	11.5	11.0	11.0
7	9.5	9.5	9.5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0
8	9.5	9.5	9.5	10.5	10.5	10.5	11.0	10.5	10.5	11.5	11.0	11.5
9	9.5	9.5	9.5	10.5	10.5	10.5	11.0	10.5	10.5	11.5	11.0	11.5
10	10.0	9.5	9.5	10.5	10.0	10.5	11.0	10.5	10.5	11.5	11.0	11.0
11	10.0	9.5	9.5	10.5	10.0	10.0	11.0	10.5	11.0	11.5	11.0	11.0
12	10.0	9.5	9.5	10.5	10.0	10.0	11.0	10.5	11.0	11.5	11.0	11.5
13	10.0	9.5	10.0	10.5	10.0	10.5	11.0	10.5	11.0	11.5	11.0	11.5
14	10.0	9.5	10.0	10.5	10.0	10.5	11.0	10.5	11.0	11.5	11.5	11.5
15	10.0	10.0	10.0	10.5	10.0	10.5	11.0	10.5	11.0	11.5	11.0	11.5
16	10.0	10.0	10.0	10.5	10.0	10.5	11.0	10.5	11.0	11.5	11.5	11.5
17	10.0	10.0	10.0	10.5	10.5	10.5	11.0	10.5	11.0	11.5	11.5	11.5
18	10.0	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
19	10.0	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
20	10.0	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
21	10.5	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
22	10.5	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5
23	10.5	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5
24	10.5	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5
25	10.5	10.0	10.0	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
26	10.5	10.0	10.0	10.5	10.0	10.5	11.5	11.0	11.0	12.0	11.5	11.5
27	10.5	10.5	10.5	10.5	10.0	10.5	11.0	11.0	11.0	12.0	11.5	11.5
28	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0	12.0	11.5	11.5
29	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.0	12.0	11.5	11.5
30	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.0	11.5	12.0	11.5	11.5
31	---	---	---	10.5	10.5	10.5	11.5	11.0	11.5	---	---	---
MONTH	10.5	9.0	9.9	10.5	10.0	10.5	11.5	10.5	10.9	12.0	11.0	11.4
YEAR	12.0	8.5	9.8									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.0	1.5	3.0	8.0	3.5	5.5	16.0	14.0	15.0
2	---	---	---	7.5	5.0	6.5	9.0	4.0	6.5	16.5	12.5	14.5
3	---	---	---	7.5	3.5	5.5	10.0	6.0	8.0	17.0	12.0	14.5
4	---	---	---	3.5	2.0	3.0	12.5	9.5	10.5	16.0	13.0	14.5
5	---	---	---	3.0	1.5	2.0	13.5	9.0	11.0	16.5	13.5	15.0
6	---	---	---	5.0	3.0	4.0	15.0	10.5	13.0	16.0	13.0	14.5
7	---	---	---	4.5	3.0	3.5	15.0	10.5	13.0	16.0	11.0	13.0
8	---	---	---	3.5	2.0	2.5	15.0	13.5	14.0	17.0	12.0	14.5
9	---	---	---	3.0	2.0	2.5	14.5	9.5	11.5	18.5	14.5	16.0
10	---	---	---	2.5	2.0	2.0	11.5	7.0	9.0	19.5	14.0	16.5
11	---	---	---	3.0	1.5	2.0	11.0	7.5	9.5	20.5	15.0	17.5
12	---	---	---	2.5	1.5	1.5	10.5	9.5	10.0	21.5	16.0	18.5
13	---	---	---	4.5	1.5	2.5	12.0	10.0	11.0	22.5	17.5	20.0
14	---	---	---	5.0	2.0	3.5	13.0	12.0	12.5	23.5	18.5	21.0
15	---	---	---	5.5	2.0	3.5	14.5	10.5	12.5	23.5	18.5	21.0
16	---	---	---	5.5	2.5	4.0	15.0	12.0	13.5	23.0	19.0	21.0
17	---	---	---	6.0	5.0	5.5	15.0	10.5	13.0	22.5	20.0	21.0
18	---	---	---	6.5	4.5	5.0	14.0	10.5	12.5	21.0	18.0	19.5
19	---	---	---	8.0	4.0	6.0	12.5	11.0	12.0	20.0	16.5	18.0
20	4.0	3.0	3.0	10.5	6.5	8.0	12.0	9.0	10.5	20.5	17.5	19.0
21	5.0	2.0	3.5	10.5	9.0	9.5	9.0	7.5	8.0	22.0	17.5	19.5
22	4.5	3.5	4.0	12.0	10.5	11.0	10.5	7.0	8.5	22.0	18.0	20.0
23	3.5	2.0	3.0	10.0	7.0	8.5	11.0	7.5	9.0	22.5	18.5	20.5
24	4.0	2.0	3.0	10.5	6.0	8.0	10.5	8.5	9.5	22.0	19.5	21.0
25	3.5	2.0	2.5	8.5	7.0	8.0	13.5	8.0	10.5	22.5	19.5	21.0
26	2.0	1.5	1.5	11.5	8.5	10.0	15.0	11.0	13.0	22.0	20.5	21.5
27	1.5	1.0	1.0	11.5	9.0	10.0	16.0	12.0	14.0	21.5	20.5	21.0
28	1.5	1.0	1.0	9.0	6.0	7.5	17.0	14.0	15.5	23.5	19.5	21.5
29	---	---	---	7.0	4.5	5.5	17.5	15.5	16.5	24.5	21.0	22.5
30	---	---	---	6.5	3.5	5.0	18.0	15.5	16.5	25.0	22.0	23.0
31	---	---	---	6.5	5.0	5.5	---	---	---	25.0	21.5	23.0
MONTH	5.0	1.0	2.5	12.0	1.5	5.3	18.0	3.5	11.3	25.0	11.0	18.7

403923082325500 R-16 NR LEXINGTON OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.0	22.0	23.5	26.0	23.0	24.5	26.5	21.5	23.5	26.0	21.5	23.5
2	23.5	21.5	22.5	27.0	22.5	24.5	25.0	23.0	24.0	25.0	22.0	23.5
3	24.0	20.5	22.0	26.5	23.5	25.0	26.0	22.5	24.0	24.0	22.5	23.0
4	22.5	20.0	21.5	27.0	23.0	25.0	24.0	21.5	23.0	23.0	20.0	21.5
5	20.5	18.0	19.5	27.5	23.0	25.0	22.5	20.0	21.0	23.0	19.5	21.5
6	20.0	17.0	18.5	27.5	24.5	26.0	25.0	19.5	22.0	23.0	19.5	21.5
7	20.0	16.5	18.5	26.5	24.5	25.5	23.5	21.0	21.5	23.5	20.0	22.0
8	21.0	16.5	18.5	25.0	23.0	24.0	21.0	20.5	20.5	23.0	21.0	22.0
9	22.0	17.0	19.5	25.0	22.0	23.5	22.5	19.0	20.5	24.0	22.0	23.0
10	22.0	18.5	20.0	25.5	21.5	23.5	23.5	19.0	21.0	23.5	21.5	22.5
11	21.5	20.0	20.5	24.0	22.0	23.0	24.0	19.5	21.5	22.0	20.5	21.0
12	22.5	19.5	21.0	25.5	22.0	23.5	22.5	20.5	22.0	23.5	20.0	21.5
13	23.0	18.0	20.5	26.0	22.5	24.0	23.0	20.5	21.5	24.0	22.0	23.0
14	24.5	20.5	22.5	26.5	21.0	23.5	24.0	20.0	22.0	25.0	22.0	23.5
15	23.5	21.5	22.5	27.0	21.5	24.0	24.5	21.0	22.5	26.0	23.0	24.5
16	24.0	20.5	22.0	27.5	22.0	24.5	23.5	22.0	23.0	25.0	23.0	24.0
17	24.5	20.5	22.5	28.5	23.0	25.5	24.5	21.5	23.0	23.0	21.0	22.0
18	24.5	21.0	23.0	28.0	24.0	26.0	23.5	20.0	21.5	21.0	19.0	20.0
19	25.5	21.0	23.0	28.5	24.5	26.5	22.0	20.0	21.0	19.0	16.5	17.5
20	26.0	21.0	23.5	28.5	25.0	26.5	23.0	20.0	21.5	19.0	15.0	17.0
21	24.5	22.0	23.0	28.0	24.5	26.0	23.5	20.0	21.5	19.0	15.5	17.0
22	22.5	20.5	21.5	27.0	24.5	26.0	25.0	21.5	23.0	20.0	17.5	18.5
23	24.0	19.5	21.5	26.0	22.5	24.5	25.0	21.5	23.0	18.0	15.5	16.5
24	23.5	20.5	22.0	26.5	23.0	24.5	25.5	22.0	23.5	18.0	16.0	17.0
25	24.5	20.5	22.5	25.0	22.0	23.5	26.0	22.5	24.0	17.0	15.5	16.5
26	25.0	20.5	23.0	24.5	20.5	22.5	25.5	22.5	24.0	16.5	13.0	15.0
27	24.5	21.5	23.0	23.5	20.0	22.0	27.0	23.0	25.0	16.5	13.0	15.0
28	25.5	22.0	23.5	22.5	21.0	21.5	27.5	24.0	25.5	18.5	14.5	16.0
29	26.0	22.5	24.5	23.5	21.0	22.0	27.5	24.5	26.0	18.5	15.0	16.5
30	26.0	22.5	24.5	24.5	19.5	22.0	27.0	24.5	25.5	20.0	17.0	18.0
31	---	---	---	26.0	20.5	23.0	26.5	22.5	24.5	---	---	---
MONTH	26.0	16.5	21.8	28.5	19.5	24.2	27.5	19.0	22.8	26.0	13.0	20.1
YEAR	28.5	1.0	17.1									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.01	.05	.01	.00	.10	.00	.00
2	---	---	---	---	---	.09	.00	.00	.11	.00	.12	.80
3	---	---	---	---	---	.05	.00	.00	.00	.03	.01	1.47
4	---	---	---	---	---	.14	.08	.00	.00	.00	.00	.00
5	---	---	---	---	---	.00	.26	.36	.00	.01	.00	.00
6	---	---	---	---	---	.49	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	.00	.00	.00	.00	.00	.63	.00
8	---	---	---	---	---	.00	.28	.00	.00	.00	.02	.04
9	---	---	---	---	---	.03	.37	.00	.00	.00	.00	.00
10	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	.00	.00	.00	.30	.04	.00	.00
12	---	---	---	---	---	.00	.00	.00	.01	.02	.08	.00
13	---	---	---	---	---	.00	.42	.00	.00	.00	.07	.00
14	---	---	---	---	---	.00	.27	.00	.16	.00	.00	.00
15	---	---	---	---	---	.00	.22	.00	.01	.00	.00	.17
16	---	---	---	---	---	.00	.00	.19	.00	.00	.85	.00
17	---	---	---	---	---	.14	.00	.01	.00	.00	.08	.04
18	---	---	---	---	---	.15	.00	.11	.00	.00	1.34	.01
19	---	---	---	---	---	.01	.52	.00	.00	.00	.09	.00
20	---	---	---	---	.00	.00	.03	.00	.00	.91	.00	.00
21	---	---	---	---	.00	.00	.02	.00	.00	.14	.04	.08
22	---	---	---	---	.00	.19	.01	.00	.02	1.79	.00	.26
23	---	---	---	---	.00	.01	.19	.00	.00	.00	.00	.04
24	---	---	---	---	.00	.02	.03	.46	.00	.00	.00	.01
25	---	---	---	---	.00	.00	.00	.60	.00	.00	.00	.00
26	---	---	---	---	.00	.31	.03	.35	.00	.00	.00	.00
27	---	---	---	---	.00	.05	.00	.55	.00	.00	.00	.00
28	---	---	---	---	.01	.00	.00	.00	.00	.31	.00	.00
29	---	---	---	---	---	.00	.06	.00	.00	.00	.00	.00
30	---	---	---	---	---	.00	.00	.41	.01	.00	.00	.00
31	---	---	---	---	---	.05	---	.91	---	.00	.00	---
TOTAL	---	---	---	---	0.01	1.74	2.84	3.96	0.62	3.35	3.33	2.92

WTR YR 1991 TOTAL 18.77

GROUND-WATER RECORDS

411138081172500. Local number, PO-116.

LOCATION.--Lat 41°11'38" Long 81°17'25", Hydrologic Unit 04110002, along State Route 14 near Ravenna, OH.
Owner.--USGS-City of Akron, OH.

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 17.5 ft. Cased with Sch 40 PVC to 5.2 ft; .010 in. screen from 5.2 to 17.5 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air tempertature, soil tempterature, water temperature and specific conductance. Conductivity/water temperature probe set at 10.8 feet below land surface.

DATUM.--Elevation of land-surface datum is 1068.39 feet above National Geodetic Vertical Datum of 1929. Measuring point: shelter floor 2.20 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD:
WATER LEVEL: Maximum daily low, 9.34 ft. below land-surface datum, September 11, 1991; minimum daily low, 5.64 ft. below land-surface datum, March 7, 1991.

SPECIFIC CONDUCTANCE: Maximum, 2080 microsiemens September 29 and 30, 1991; minimum, 329 microsiemens March 15 and 16, 1991.

AIR TEMPERATURE: Maximum, 36.0°C August 2, 1991; minimum, -15.5°C February 16, 1991.

WATER TEMPERATURE: Maximum, 14.5°C many days in 1991; minimum, 6.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 51.0°C June 21 and July 7, 1991; minimum, -16.0°C February 16, 1991.

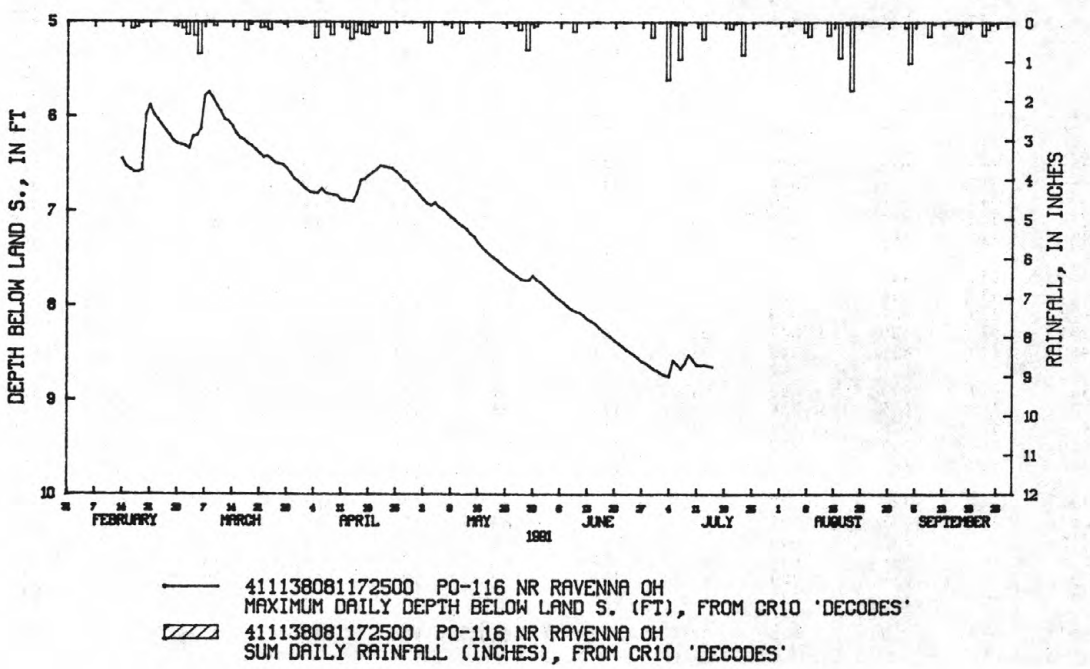
EXTREMES FOR CURRENT YEAR:
WATER LEVEL: Maximum daily low, 9.34 ft. below land-surface datum, September 11, 1991; minimum daily low, 5.64 ft. below land-surface datum, March 7, 1991.

SPECIFIC CONDUCTANCE: Maximum, 2080 microsiemens September 29 and 30, 1991; minimum, 329 microsiemens March 15 and 16, 1991.

AIR TEMPERATURE: Maximum, 36.0°C August 2, 1991; minimum, -15.5°C February 16, 1991.

WATER TEMPERATURE: Maximum, 14.5°C many days in 1991; minimum, 6.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 51.0°C June 21 and July 7, 1991; minimum, -16.0°C February 16, 1991.



411138081172500 PO-116 NR RAVENNA OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	6.30	6.73	6.83	7.75	8.69	---	---
2	---	---	---	---	---	6.31	6.77	6.88	7.79	8.72	---	---
3	---	---	---	---	---	6.34	6.80	6.92	7.83	8.74	---	---
4	---	---	---	---	---	6.21	6.81	6.94	7.87	8.75	---	---
5	---	---	---	---	---	6.20	6.81	6.91	7.91	8.58	---	---
6	---	---	---	---	---	6.13	6.76	6.96	7.94	8.62	---	---
7	---	---	---	---	---	5.78	6.81	6.98	7.97	8.67	9.22	---
8	---	---	---	---	---	5.74	6.82	7.02	8.01	8.61	---	---
9	---	---	---	---	---	5.80	6.83	7.06	8.04	8.52	---	---
10	---	---	---	---	---	5.88	6.84	7.09	8.06	8.57	---	---
11	---	---	---	---	---	5.94	6.88	7.13	8.07	8.63	---	9.34
12	---	---	---	---	---	6.03	6.89	7.16	8.10	8.63	---	---
13	---	---	---	---	---	6.05	6.89	7.19	8.14	8.63	---	---
14	---	---	---	---	6.45	6.10	6.90	7.24	8.16	8.64	---	---
15	---	---	---	---	6.53	6.18	6.81	7.27	8.19	8.65	---	---
16	---	---	---	---	6.56	6.23	6.67	7.33	8.23	---	---	---
17	---	---	---	---	6.59	6.25	6.66	7.38	8.27	---	---	---
18	---	---	---	---	6.59	6.29	6.62	7.42	8.30	---	---	---
19	---	---	---	---	6.57	6.31	6.59	7.46	8.33	---	---	---
20	---	---	---	---	5.99	6.35	6.56	7.49	8.37	---	---	---
21	---	---	---	---	5.88	6.39	6.52	7.52	8.40	---	---	---
22	---	---	---	---	5.98	6.43	6.53	7.56	8.43	---	---	---
23	---	---	---	---	6.03	6.42	6.54	7.60	8.47	---	---	---
24	---	---	---	---	6.09	6.45	6.55	7.63	8.49	---	---	---
25	---	---	---	---	6.15	6.49	6.58	7.66	8.52	---	---	---
26	---	---	---	---	6.20	6.50	6.62	7.69	8.55	---	---	---
27	---	---	---	---	6.26	6.51	6.67	7.72	8.59	---	---	---
28	---	---	---	---	6.29	6.55	6.69	7.73	8.61	---	---	---
29	---	---	---	---	---	6.60	6.74	7.73	8.64	---	---	---
30	---	---	---	---	---	6.66	6.78	7.68	8.67	---	---	---
31	---	---	---	---	---	6.69	---	7.73	---	---	---	---
MAX	---	---	---	---	6.59	6.69	6.90	7.73	8.67	8.75	9.22	9.34

WTR YR 1991 LOW 9.34

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	373	371	372	443	434	439	588	583	587
2	---	---	---	372	369	371	451	444	447	587	579	585
3	---	---	---	374	369	371	458	450	454	581	576	579
4	---	---	---	380	374	378	464	457	461	584	578	581
5	---	---	---	376	366	370	469	462	466	596	581	588
6	---	---	---	375	363	367	477	468	473	600	593	598
7	---	---	---	377	359	369	486	476	481	602	596	599
8	---	---	---	360	351	355	492	484	488	607	599	603
9	---	---	---	352	348	351	499	491	495	613	605	609
10	---	---	---	351	346	348	504	496	499	621	612	616
11	---	---	---	347	343	345	513	502	507	629	618	623
12	---	---	---	344	335	339	519	511	516	635	626	630
13	---	---	---	338	334	336	525	519	522	642	634	637
14	444	440	442	337	330	334	527	524	526	644	638	640
15	444	439	441	333	329	331	531	524	527	653	644	647
16	439	436	438	335	329	332	540	532	536	658	653	655
17	437	431	434	336	333	334	553	539	547	664	655	660
18	433	428	431	339	336	337	558	553	555	670	661	666
19	456	431	439	342	337	340	565	559	562	678	667	673
20	460	447	455	343	339	341	572	565	568	683	675	679
21	447	424	434	340	337	339	579	569	575	689	680	685
22	423	415	419	338	336	337	586	577	582	695	686	691
23	415	407	412	343	337	341	592	585	588	703	695	699
24	409	399	403	352	344	347	600	592	596	711	704	706
25	400	390	395	361	351	355	605	599	602	718	712	715
26	390	381	385	373	362	367	610	603	606	725	716	719
27	381	374	378	391	374	382	609	605	608	729	722	725
28	376	370	373	405	391	397	607	579	598	738	729	732
29	---	---	---	420	405	412	587	573	578	745	735	739
30	---	---	---	428	420	423	593	581	588	750	743	747
31	---	---	---	435	428	431	---	---	---	752	746	748
MONTH	460	370	419	435	329	360	610	434	533	752	576	657

411138081172500 PO-116 NR RAVENNA OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	755	748	752	997	983	991	1590	1570	1580	1950	1930	1930
2	759	752	755	1010	997	1000	1610	1580	1590	1950	1930	1940
3	766	758	761	1020	1000	1010	1620	1600	1610	1950	1930	1940
4	774	764	769	1030	1020	1020	1630	1610	1620	1950	1940	1940
5	783	772	777	1060	1030	1040	1640	1630	1630	1960	1940	1960
6	790	778	784	1080	1060	1070	1650	1640	1650	1970	1960	1970
7	798	786	791	1100	1080	1090	1660	1650	1660	1980	1960	1970
8	805	793	799	1120	1090	1110	1670	1660	1670	1980	1960	1970
9	814	801	806	1130	1110	1120	1680	1670	1680	1980	1960	1970
10	819	811	814	1150	1130	1140	1690	1670	1680	1980	1970	1980
11	822	819	821	1180	1150	1160	1700	1690	1690	1990	1970	1980
12	822	815	817	1200	1180	1190	1700	1690	1700	1990	1980	1990
13	831	819	824	1220	1200	1210	1710	1700	1700	2000	1980	1990
14	839	829	834	1230	1210	1220	1720	1700	1710	2000	1990	1990
15	842	836	839	1260	1240	1250	1720	1710	1710	2000	1990	1990
16	854	842	847	1270	1260	1260	1720	1710	1720	2010	1990	2000
17	860	850	854	1290	1270	1280	1730	1710	1720	2010	2000	2000
18	869	858	862	1300	1280	1290	1740	1720	1730	2020	2000	2010
19	876	868	871	1310	1300	1300	1750	1730	1750	2020	2010	2010
20	887	876	880	1320	1310	1320	1790	1750	1760	2040	2020	2020
21	897	887	891	1340	1320	1330	1830	1790	1810	2040	2020	2030
22	906	893	901	1350	1340	1350	1860	1830	1850	2040	2020	2030
23	915	905	909	1380	1350	1360	1880	1860	1870	2040	2020	2030
24	921	913	917	1410	1380	1400	1890	1880	1890	2050	2030	2040
25	931	917	924	1440	1410	1420	1900	1890	1900	2040	2040	2040
26	942	926	933	1460	1440	1440	1920	1900	1910	2050	2040	2050
27	953	939	945	1490	1450	1470	1920	1900	1910	2070	2040	2050
28	966	952	958	1510	1490	1500	1930	1910	1920	2070	2050	2060
29	977	962	968	1530	1510	1520	1940	1920	1930	2080	2050	2060
30	987	974	979	1560	1530	1540	1940	1920	1930	2080	2050	2070
31	---	---	---	1580	1560	1560	1940	1930	1930	---	---	---
MONTH	987	748	853	1580	983	1260	1940	1570	1760	2080	1930	2000
YEAR	2080	329	1020									

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	17.0	6.0	11.5	6.0	.5	3.0	15.0	7.0	11.5
2	---	---	---	19.5	8.5	14.5	7.0	-5.5	1.5	15.5	4.5	9.5
3	---	---	---	4.5	-1.5	.0	18.0	-7.5	4.0	20.5	4.0	11.5
4	---	---	---	-.5	-6.5	-2.5	23.0	-1.5	12.0	26.5	6.5	16.5
5	---	---	---	9.0	-8.0	1.0	18.5	6.5	13.0	17.0	7.0	13.5
6	---	---	---	9.5	2.0	7.0	24.0	4.5	15.5	18.0	5.0	11.0
7	---	---	---	1.5	-2.5	-1.0	27.5	13.0	20.5	21.5	2.5	11.5
8	---	---	---	2.0	-7.0	-2.0	24.0	14.5	19.5	23.5	10.0	16.0
9	---	---	---	6.0	-7.0	.0	24.5	13.0	19.0	26.0	7.5	17.0
10	---	---	---	1.0	-3.0	-.5	10.5	.0	6.0	27.5	7.5	17.5
11	---	---	---	2.0	-9.0	-2.5	11.0	-2.5	3.5	29.5	11.0	20.5
12	---	---	---	4.0	-10.5	-3.5	14.5	-1.5	7.0	29.5	15.0	21.5
13	---	---	---	3.5	-2.5	.0	10.5	7.0	9.0	30.5	15.5	21.5
14	3.5	.5	1.0	9.5	-1.5	2.5	11.0	6.5	8.5	31.0	11.5	21.5
15	-4.0	-12.5	-9.5	8.5	-5.0	1.0	17.0	9.0	12.5	31.0	13.0	22.0
16	-6.5	-15.5	-10.5	12.5	-7.5	1.5	19.5	9.0	13.5	27.5	14.0	22.0
17	2.5	-6.5	-2.5	16.0	-6.0	5.5	15.5	6.0	10.5	19.5	8.5	13.5
18	7.0	-5.5	.5	9.5	2.5	6.0	12.0	6.5	9.5	23.5	11.0	16.5
19	11.5	2.5	8.5	10.0	2.0	5.5	10.0	6.0	8.0	23.5	7.5	15.5
20	3.0	-.5	1.0	15.5	-3.0	6.5	6.5	3.5	5.0	29.0	11.0	20.0
21	14.0	1.5	6.5	21.5	7.0	13.5	14.0	3.5	8.5	32.0	12.5	21.0
22	8.0	-4.0	4.0	15.5	8.5	13.0	16.0	5.0	10.5	32.5	11.0	21.5
23	.5	-7.0	-4.0	20.5	11.5	16.0	13.5	3.5	7.5	29.5	15.0	21.5
24	10.0	-4.0	2.0	9.0	3.0	6.0	19.0	1.0	10.5	30.0	19.0	23.5
25	.0	-4.0	-2.0	12.0	.0	6.5	21.0	7.5	13.5	28.0	19.0	23.5
26	-1.0	-8.0	-4.5	12.0	-.5	7.0	26.5	6.5	17.0	25.5	17.0	21.0
27	-.5	-7.5	-4.0	22.0	12.0	17.5	25.0	13.5	19.5	33.0	15.0	23.0
28	9.0	-7.0	.5	16.0	5.0	9.0	24.5	17.5	20.5	34.0	17.5	25.0
29	---	---	---	9.0	-2.0	2.0	23.0	15.5	19.5	32.0	19.5	24.5
30	---	---	---	2.5	-6.5	-1.5	22.0	9.0	15.0	31.5	19.0	24.0
31	---	---	---	9.5	-8.5	1.5	---	---	---	29.5	14.5	22.5
MONTH	14.0	-15.5	-.9	22.0	-10.5	4.5	27.5	-7.5	11.4	34.0	2.5	18.7

411138081172500 PO-116 NR RAVENNA OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	11.5	19.0	30.5	12.5	21.5	33.0	12.0	22.0	25.5	10.0	17.0
2	29.0	10.5	20.0	30.5	18.0	23.5	36.0	11.5	23.0	29.5	8.0	18.0
3	23.0	9.5	16.5	35.0	18.0	25.0	30.5	16.5	23.5	31.0	14.0	22.0
4	24.0	6.5	15.0	33.0	18.5	23.0	27.5	14.0	20.5	23.5	10.0	18.5
5	24.0	5.5	15.5	32.0	17.0	23.5	25.5	10.0	17.5	26.0	7.5	16.0
6	27.5	6.5	16.5	34.5	16.0	24.5	28.0	7.0	17.5	28.0	8.0	16.5
7	29.0	7.5	17.5	35.5	19.0	28.5	31.5	10.0	20.0	29.0	7.5	18.0
8	30.5	8.0	19.5	30.0	16.0	23.5	24.5	11.5	17.5	30.5	13.0	20.5
9	29.5	11.0	21.0	27.0	13.5	19.5	24.0	14.0	19.0	31.0	14.0	21.5
10	29.5	17.5	21.5	29.0	13.0	20.0	27.0	11.5	18.5	29.5	18.5	23.0
11	25.0	18.0	22.5	30.0	11.0	20.0	29.5	10.5	19.5	23.5	12.5	18.0
12	28.5	12.5	24.5	27.0	12.0	19.5	29.5	10.0	19.5	22.5	12.5	17.0
13	26.5	8.0	16.5	28.5	16.5	22.0	30.5	12.0	21.0	28.5	14.5	20.5
14	31.5	5.0	19.0	27.0	11.0	19.5	28.0	15.5	20.0	28.5	16.5	22.0
15	33.5	14.0	24.5	28.5	8.0	18.0	30.0	13.0	21.0	33.5	18.5	25.5
16	28.0	17.5	23.0	31.5	8.5	20.5	31.5	14.0	22.5	33.5	20.5	27.0
17	31.0	14.5	22.0	33.5	11.5	22.5	30.5	18.5	22.0	25.0	13.0	20.0
18	30.0	14.5	22.5	33.5	14.5	24.0	28.5	16.0	21.0	25.0	12.5	17.5
19	32.0	16.0	23.5	34.0	17.0	25.5	27.0	13.0	19.0	16.0	6.5	12.0
20	34.0	12.5	22.5	35.0	17.5	26.0	22.0	15.5	17.5	14.0	2.0	9.5
21	34.5	13.0	23.5	33.0	18.5	25.5	25.5	11.0	18.0	17.5	2.0	9.0
22	23.0	15.5	18.5	33.5	19.0	26.5	29.0	11.0	20.5	23.0	.0	12.5
23	23.5	12.0	17.5	29.0	15.0	25.0	29.5	14.5	21.5	20.0	5.0	14.5
24	29.5	8.0	19.0	28.5	13.5	20.5	29.5	13.5	20.5	19.0	2.0	10.0
25	31.0	10.5	20.5	29.5	15.0	22.0	32.0	15.0	23.0	19.5	10.0	13.0
26	32.0	12.0	22.0	26.0	12.5	19.0	31.0	15.5	22.5	15.5	5.5	11.5
27	33.5	12.0	23.0	26.0	10.0	17.5	31.5	14.0	22.5	14.0	1.5	7.5
28	33.5	14.5	24.0	27.0	8.5	18.0	32.5	16.5	24.0	17.5	.0	7.5
29	32.5	19.0	25.5	25.0	13.5	20.0	34.5	17.0	25.0	20.0	3.5	10.5
30	31.5	17.0	24.0	26.5	12.5	21.0	34.0	17.0	24.5	25.5	2.0	13.5
31	---	---	---	30.0	10.5	20.0	29.0	15.5	23.0	---	---	---
MONTH	34.5	5.0	20.7	35.5	8.0	22.1	36.0	7.0	20.9	33.5	.0	16.3
YEAR	36.0	-15.5	15.3									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.5	7.0	7.0	7.0	6.5	7.0	8.0	8.0	8.0
2	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0
3	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0
4	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0
5	---	---	---	7.0	7.0	7.0	7.0	7.0	7.0	8.0	8.0	8.0
6	---	---	---	7.0	6.5	7.0	7.0	7.0	7.0	8.5	8.0	8.0
7	---	---	---	7.0	6.5	7.0	7.0	7.0	7.0	8.5	8.0	8.0
8	---	---	---	7.0	6.5	6.5	7.0	7.0	7.0	8.5	8.0	8.5
9	---	---	---	7.0	6.5	7.0	7.0	7.0	7.0	8.5	8.0	8.5
10	---	---	---	7.0	6.5	6.5	7.0	7.0	7.0	8.5	8.5	8.5
11	---	---	---	7.0	6.5	7.0	7.0	7.0	7.0	8.5	8.5	8.5
12	---	---	---	7.0	6.5	6.5	7.0	7.0	7.0	8.5	8.5	8.5
13	---	---	---	7.0	6.5	6.5	7.5	7.0	7.5	9.0	8.5	8.5
14	7.5	7.5	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	8.5	8.5
15	7.5	7.5	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	8.5	8.5
16	7.5	7.5	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	8.5	8.5
17	7.5	7.5	7.5	7.0	6.5	6.5	7.5	7.5	7.5	8.5	8.5	8.5
18	7.5	7.5	7.5	7.0	6.5	7.0	7.5	7.5	7.5	9.0	8.5	9.0
19	7.5	7.5	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	8.5	9.0
20	7.5	7.0	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	9.0	9.0
21	7.5	7.0	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	9.0	9.0
22	7.5	7.0	7.5	7.0	6.5	6.5	7.5	7.5	7.5	9.0	9.0	9.0
23	7.5	7.0	7.0	6.5	6.5	6.5	8.0	7.5	7.5	9.5	9.0	9.0
24	7.5	7.0	7.5	7.0	6.5	6.5	8.0	7.5	7.5	9.5	9.0	9.0
25	7.0	7.0	7.0	7.0	6.5	6.5	8.0	7.5	8.0	9.5	9.0	9.0
26	7.5	7.0	7.0	7.0	6.5	6.5	8.0	7.5	8.0	9.5	9.0	9.5
27	7.5	7.0	7.0	7.0	6.5	6.5	8.0	7.5	8.0	9.5	9.5	9.5
28	7.5	7.0	7.0	7.0	6.5	7.0	8.0	8.0	8.0	9.5	9.5	9.5
29	---	---	---	7.0	6.5	7.0	8.0	8.0	8.0	9.5	9.5	9.5
30	---	---	---	7.0	6.5	6.5	8.0	7.5	8.0	10.0	9.5	9.5
31	---	---	---	7.0	7.0	7.0	---	---	---	10.0	9.5	9.5
MONTH	7.5	7.0	7.3	7.5	6.5	6.7	8.0	6.5	7.4	10.0	8.0	8.7

411138081172500 PO-116 NR RAVENNA OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.0	9.5	9.5	12.0	11.5	11.5	13.5	13.0	13.5	14.5	14.0	14.0
2	10.0	9.5	10.0	12.0	11.5	11.5	13.5	13.0	13.5	14.5	14.0	14.0
3	10.0	10.0	10.0	12.0	11.5	12.0	13.5	13.5	13.5	14.5	14.0	14.0
4	10.0	10.0	10.0	12.0	12.0	12.0	13.5	13.0	13.5	14.0	14.0	14.0
5	10.0	10.0	10.0	12.0	12.0	12.0	14.0	13.5	13.5	14.5	14.0	14.5
6	10.5	10.0	10.0	12.0	12.0	12.0	14.0	13.5	13.5	14.5	14.0	14.5
7	10.5	10.0	10.5	12.0	12.0	12.0	14.0	13.5	13.5	14.5	14.0	14.5
8	10.5	10.0	10.5	12.5	12.0	12.0	13.5	13.5	13.5	14.5	14.0	14.5
9	10.5	10.5	10.5	12.5	12.0	12.0	13.5	13.5	13.5	14.5	14.0	14.5
10	10.5	10.5	10.5	12.5	12.0	12.5	14.0	13.5	13.5	14.5	14.0	14.5
11	10.5	10.5	10.5	12.5	12.5	12.5	14.0	13.5	13.5	14.5	14.0	14.5
12	11.0	10.5	10.5	12.5	12.5	12.5	14.0	13.5	13.5	14.5	14.0	14.5
13	11.0	10.5	10.5	12.5	12.5	12.5	14.0	13.5	13.5	14.5	14.0	14.5
14	11.0	10.5	10.5	12.5	12.5	12.5	14.0	13.5	13.5	14.5	14.0	14.5
15	11.0	10.5	11.0	13.0	12.5	12.5	14.0	13.5	13.5	14.5	14.0	14.5
16	11.0	10.5	11.0	13.0	12.5	12.5	14.0	13.5	14.0	14.5	14.0	14.5
17	11.0	10.5	11.0	13.0	12.5	12.5	14.0	13.5	14.0	14.5	14.0	14.5
18	11.0	11.0	11.0	13.0	12.5	12.5	14.0	13.5	14.0	14.5	14.0	14.5
19	11.0	11.0	11.0	13.0	12.5	12.5	14.0	13.5	14.0	14.5	14.5	14.5
20	11.0	11.0	11.0	13.0	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5
21	11.0	11.0	11.0	13.0	12.5	13.0	14.0	13.5	14.0	14.5	14.0	14.5
22	11.0	11.0	11.0	13.0	13.0	13.0	14.0	13.5	14.0	14.5	14.0	14.5
23	11.0	11.0	11.0	13.0	13.0	13.0	14.0	13.5	14.0	14.5	14.5	14.5
24	11.5	11.0	11.0	13.0	13.0	13.0	14.0	13.5	14.0	14.5	14.0	14.5
25	11.5	11.0	11.5	13.0	13.0	13.0	14.0	14.0	14.0	14.5	14.5	14.5
26	11.5	11.0	11.5	13.5	13.0	13.0	14.0	13.5	14.0	14.5	14.5	14.5
27	11.5	11.0	11.5	13.5	13.0	13.0	14.0	14.0	14.0	14.5	14.0	14.5
28	11.5	11.5	11.5	13.5	13.0	13.0	14.5	14.0	14.0	14.5	14.0	14.5
29	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.0	14.0	14.5	14.0	14.5
30	12.0	11.5	11.5	13.5	13.0	13.0	14.5	14.0	14.0	14.5	14.0	14.5
31	---	---	---	13.5	13.0	13.5	14.5	14.0	14.0	---	---	---
MONTH	12.0	9.5	10.7	13.5	11.5	12.5	14.5	13.0	13.7	14.5	14.0	14.4
YEAR	14.5	6.5	10.4									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	24.5	4.0	11.5	12.5	-1.0	4.0	23.0	5.5	13.5
2	---	---	---	26.0	9.5	15.5	19.0	-7.0	4.5	28.5	3.0	13.0
3	---	---	---	6.0	-1.5	1.0	31.0	-9.5	7.5	36.0	2.0	15.5
4	---	---	---	1.5	-8.5	-2.5	33.0	-3.0	13.5	36.5	5.5	19.0
5	---	---	---	20.5	-9.5	3.5	27.5	5.5	15.0	24.5	7.0	15.0
6	---	---	---	9.0	1.0	6.5	33.0	3.0	17.0	28.5	4.0	14.0
7	---	---	---	6.5	-3.0	.5	37.5	11.0	22.5	35.5	1.0	15.5
8	---	---	---	13.5	-9.0	.5	30.5	13.5	20.5	36.5	9.5	19.0
9	---	---	---	10.0	-9.0	1.0	32.5	12.5	20.5	40.0	6.5	21.0
10	---	---	---	3.5	-4.5	.0	11.0	-1.0	6.5	42.0	6.0	22.0
11	---	---	---	13.0	-11.0	-.5	22.0	-4.5	6.5	42.5	10.5	24.0
12	---	---	---	18.0	-13.0	-.5	26.0	-4.0	9.5	42.5	14.0	25.0
13	---	---	---	7.0	-3.5	.5	12.0	7.0	9.5	43.0	14.5	25.5
14	3.5	.0	1.0	20.5	-4.0	5.0	12.0	6.5	9.0	46.5	10.5	26.0
15	-3.0	-12.5	-7.5	18.5	-7.0	3.0	21.5	8.5	13.0	43.0	12.0	26.0
16	5.0	-16.0	-7.0	25.0	-9.5	4.0	27.5	9.5	15.0	38.0	14.5	25.0
17	8.0	-6.5	-1.5	24.5	-8.0	6.5	29.0	4.5	14.0	27.0	8.5	16.5
18	6.0	-7.0	.5	12.0	2.5	6.5	14.5	4.5	9.5	37.5	9.5	20.5
19	11.5	2.5	8.5	19.0	1.5	7.5	10.0	6.0	8.5	36.5	6.5	18.5
20	9.0	-1.5	2.0	27.0	-4.5	9.5	7.5	3.5	5.5	44.0	10.0	24.5
21	21.5	.0	7.5	28.0	5.0	15.0	25.0	3.5	11.0	47.0	12.0	26.0
22	12.0	-3.5	4.5	18.5	6.5	12.5	22.0	2.5	12.0	47.5	10.0	26.0
23	15.0	-7.5	-.5	26.0	9.5	16.5	23.0	2.5	10.0	41.0	14.5	24.5
24	19.5	-4.5	4.0	9.0	3.0	6.0	31.5	.0	14.0	41.0	18.5	26.5
25	3.0	-5.0	-1.0	23.5	-1.5	9.0	30.0	7.0	14.5	36.0	18.5	25.0
26	10.0	-8.5	-3.0	11.5	-2.0	6.5	37.0	5.0	19.5	32.0	16.5	22.5
27	5.0	-9.5	-3.0	26.0	10.5	17.5	32.0	13.0	21.5	46.5	14.0	27.0
28	17.0	-8.0	1.5	21.5	4.0	11.5	30.0	17.0	22.0	45.5	17.0	29.0
29	---	---	---	10.5	-2.5	4.0	32.0	14.0	22.0	44.0	19.5	28.0
30	---	---	---	13.5	-8.5	1.5	27.5	8.0	16.5	46.5	18.5	28.0
31	---	---	---	19.5	-11.0	3.5	---	---	---	39.5	14.0	26.0
MONTH	21.5	-16.0	.4	28.0	-13.0	5.9	37.5	-9.5	13.1	47.5	1.0	22.2

411138081172500 PO-116 NR RAVENNA OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	37.0	11.5	21.5	47.0	11.5	27.0	47.5	11.5	26.0	42.5	8.5	21.0
2	42.0	10.5	24.5	46.5	18.0	27.0	50.0	10.5	27.0	43.5	6.0	21.5
3	35.5	8.0	21.0	48.5	18.0	30.0	40.0	16.0	25.5	45.0	12.5	25.5
4	37.0	5.0	18.5	46.0	18.5	26.0	39.5	13.0	24.5	37.5	9.0	21.5
5	38.5	4.5	18.5	43.5	17.0	27.5	39.5	9.0	21.0	43.5	6.5	20.5
6	45.0	5.0	21.5	47.0	15.5	28.0	46.0	6.0	21.5	44.5	7.0	20.5
7	44.5	6.0	22.0	51.0	20.0	33.5	45.5	9.5	24.0	45.0	6.0	22.5
8	46.5	7.0	24.5	44.5	15.5	27.5	31.5	10.0	18.5	47.5	12.0	25.5
9	40.5	10.0	25.0	39.0	12.5	23.0	34.5	14.0	22.0	44.5	13.5	24.5
10	37.5	17.0	23.5	46.5	12.5	24.5	40.5	10.0	22.5	41.0	18.0	25.0
11	33.0	17.5	27.0	44.5	10.0	25.0	44.0	9.5	23.5	39.0	11.5	21.5
12	39.5	12.0	29.0	35.0	11.0	21.0	43.5	8.5	23.5	34.0	12.0	20.0
13	44.0	7.0	21.5	38.5	16.5	25.0	44.0	11.0	24.0	43.0	14.5	24.0
14	48.0	4.0	23.0	41.5	10.5	23.0	42.5	14.5	24.0	42.0	15.5	25.0
15	45.5	13.5	28.0	45.5	6.5	22.5	42.0	12.5	24.5	45.5	18.0	29.0
16	36.0	17.5	26.0	48.5	7.5	25.0	43.5	13.0	26.0	46.0	20.5	30.0
17	46.5	14.0	26.5	48.0	10.5	26.0	39.0	17.5	23.5	40.5	13.0	24.0
18	45.5	13.5	26.5	48.5	14.0	28.5	43.0	15.5	25.5	32.0	11.5	19.0
19	46.0	15.5	28.5	48.5	16.5	30.0	36.5	12.0	20.5	28.0	5.5	15.5
20	48.5	11.5	27.0	48.0	17.0	30.0	27.0	15.5	18.5	24.5	1.0	11.5
21	51.0	12.0	28.5	45.5	18.0	29.5	39.5	10.5	21.5	32.0	.5	13.0
22	27.0	15.0	19.5	46.0	18.5	30.0	41.0	10.0	23.5	35.5	.0	15.5
23	33.5	11.5	21.0	42.0	14.5	27.5	45.5	13.5	26.0	34.0	4.0	18.0
24	44.0	7.0	24.0	44.5	12.5	24.5	47.0	12.5	25.5	34.0	.5	12.0
25	43.5	9.5	25.0	44.0	14.5	26.5	47.0	14.0	27.0	32.0	9.5	16.0
26	46.0	12.0	26.5	41.0	11.5	23.0	46.5	15.0	27.0	25.5	4.5	13.0
27	47.0	11.0	27.5	42.0	8.5	21.5	46.5	13.0	27.0	27.0	.0	10.5
28	45.5	14.0	27.5	43.0	7.5	22.0	49.0	16.0	29.0	33.5	.5	12.5
29	45.5	18.5	29.0	29.0	13.0	21.0	50.0	16.0	29.5	34.5	3.0	14.0
30	42.5	16.5	27.0	40.5	12.0	25.0	48.5	16.5	28.0	37.5	1.0	15.5
31	---	---	---	47.0	10.0	24.5	42.5	14.0	26.5	---	---	---
MONTH	51.0	4.0	24.6	51.0	6.5	26.0	50.0	6.0	24.4	47.5	.0	19.6
YEAR	51.0	-16.0	18.2									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.02	.05	.00	.01	.00	.00	.00
2	---	---	---	---	---	.17	.03	.00	.00	.01	.00	.00
3	---	---	---	---	---	.33	.00	.00	.00	.00	.00	.14
4	---	---	---	---	---	.00	.01	.52	.00	1.47	.08	1.04
5	---	---	---	---	---	.36	.41	.00	.00	.01	.00	.00
6	---	---	---	---	---	.82	.00	.00	.00	.07	.00	.00
7	---	---	---	---	---	.00	.00	.00	.00	.95	.00	.00
8	---	---	---	---	---	.00	.13	.06	.00	.06	.25	.00
9	---	---	---	---	---	.02	.33	.00	.00	.00	.36	.36
10	---	---	---	---	---	.10	.00	.00	.24	.00	.00	.04
11	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
12	---	---	---	---	---	.00	.00	.28	.00	.03	.00	.00
13	---	---	---	---	---	.00	.17	.01	.00	.43	.00	.00
14	---	---	---	---	.01	.00	.43	.00	.00	.00	.33	.00
15	---	---	---	---	.00	.00	.26	.00	.00	.00	.00	.00
16	---	---	---	---	.00	.00	.07	.02	.01	.00	.00	.04
17	---	---	---	---	.18	.00	.29	.00	.00	.00	.91	.27
18	---	---	---	---	.14	.22	.32	.00	.00	.00	.00	.09
19	---	---	---	---	.04	.07	.10	.00	.00	.00	.05	.05
20	---	---	---	---	.01	.00	.14	.00	.00	.17	1.74	.00
21	---	---	---	---	.00	.00	.02	.00	.00	.04	.01	.00
22	---	---	---	---	.00	.15	.00	.00	.00	.01	.02	.00
23	---	---	---	---	.00	.14	.28	.03	.01	.83	.02	.33
24	---	---	---	---	.00	.20	.00	.00	.00	.00	.00	.18
25	---	---	---	---	.00	.00	.00	.01	.00	.00	.00	.06
26	---	---	---	---	.00	.02	.00	.08	.00	.00	.00	.00
27	---	---	---	---	.00	.02	.00	.20	.00	.00	.00	.00
28	---	---	---	---	.11	.07	.01	.02	.00	.00	.00	.00
29	---	---	---	---	---	.00	.00	.71	.00	.00	.00	.00
30	---	---	---	---	---	.00	.01	.04	.39	.00	.00	.00
31	---	---	---	---	---	.01	---	.10	---	.00	.00	---
TOTAL	---	---	---	---	0.49	2.72	3.06	2.08	0.66	4.08	3.77	2.60

WTR YR 1991 TOTAL 19.46

GROUND-WATER RECORDS

413551083481200. Local number, LU-20.

LOCATION.--Lat 41°35'51" Long 83°48'12", Hydrologic Unit 04100009, along State Route 2 near Holland, OH.
Owner.--USGS-Toledo Express Airport.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 31 ft. Cased with Sch 40 PVC to 6.0 ft; .010 in. screen from 6.0 to 31 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: air temperature, soil temperature, water temperature, and specific conductance. At this well there are 4 conductivity/water temperature probes at increasing depths within the well to better document vertical movement of high conductivity water on an hourly basis. Conductivity/water temperature probes set at 8.6 (level 4), 13.6 (level 3), 21.6 (level 2), and 26.6 (level 1) feet below land surface.

DATUM.--Elevation of land-surface datum is 676.13 feet above National Geodetic Vertical Datum of 1929. Measuring point: shelter floor 2.38 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (FOUR LEVELS): February 1991 to current year.
AIR TEMPERATURE: February 1991 to current year.
WATER TEMPERATURE (FOUR LEVELS): February 1991 to current year.
SOIL TEMPERATURE: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 1260 microsiemens August 13, 1991; minimum, 514 microsiemens March 4, 1991.
LEVEL 2- Maximum, 953 microsiemens July 1, 1991; minimum, 466 microsiemens March 4, 1991.
LEVEL 3- Maximum, 785 microsiemens April 25, 1991; minimum, 245 microsiemens May 6, 1991.
LEVEL 4- Maximum, 544 microsiemens April 9, 1991; minimum, 110 microsiemens September 26-30, 1991.

AIR TEMPERATURE: Maximum, 34.5°C July 20, 1991; minimum, <0.0°C many days in 1991.

WATER TEMPERATURE: LEVEL 1- Maximum, 12.0°C many days in 1991; minimum, 10.5°C many days in 1991.
LEVEL 2- Maximum, 13.0°C September 28-30, 1991; minimum, 10.0°C many days in 1991.
LEVEL 3- Maximum, 15.0°C many days in 1991; minimum, 8.5°C many days in 1991.
LEVEL 4- Maximum, 17.5°C many days in 1991; minimum, 7.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 30.0°C July 20, 1991; minimum, 0.5°C February 28, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 1260 microsiemens August 13, 1991; minimum, 514 microsiemens March 4, 1991.
LEVEL 2- Maximum, 953 microsiemens July 1, 1991; minimum, 466 microsiemens March 4, 1991.
LEVEL 3- Maximum, 785 microsiemens April 25, 1991; minimum, 245 microsiemens May 6, 1991.
LEVEL 4- Maximum, 544 microsiemens April 9, 1991; minimum, 110 microsiemens September 26-30, 1991.

AIR TEMPERATURE: Maximum, 34.5°C July 20, 1991; minimum, <0.0°C many days in 1991.

WATER TEMPERATURE: LEVEL 1- Maximum, 12.0°C many days in 1991; minimum, 10.5°C many days in 1991.
LEVEL 2- Maximum, 13.0°C September 28-30, 1991; minimum, 10.0°C many days in 1991.
LEVEL 3- Maximum, 15.0°C many days in 1991; minimum, 8.5°C many days in 1991.
LEVEL 4- Maximum, 17.5°C many days in 1991; minimum, 7.5°C many days in 1991.

SOIL TEMPERATURE: Maximum, 30.0°C July 20, 1991; minimum, 0.5°C February 28, 1991.

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	539	535	537	545	536	540	800	782	793
2	---	---	---	536	524	531	551	535	540	812	794	801
3	---	---	---	524	515	519	550	536	539	824	804	815
4	---	---	---	523	514	517	549	537	542	834	818	825
5	---	---	---	529	517	523	554	537	543	847	828	835
6	---	---	---	535	523	527	558	544	549	842	835	837
7	---	---	---	534	526	529	554	543	547	864	842	851
8	---	---	---	536	527	530	593	545	557	867	853	859
9	---	---	---	540	528	533	603	583	589	870	860	865
10	---	---	---	538	529	532	627	583	601	875	866	870
11	---	---	---	539	529	532	658	618	638	879	869	874
12	---	---	---	537	529	532	680	651	665	881	874	878
13	---	---	---	537	529	532	693	670	682	886	878	883
14	---	---	---	537	527	531	711	687	696	891	883	888
15	---	---	---	535	525	528	712	701	704	896	888	893
16	---	---	---	531	521	525	721	706	711	902	896	898
17	---	---	---	530	522	524	725	713	719	907	901	904
18	---	---	---	539	523	529	732	720	724	912	904	909
19	---	---	---	534	525	531	745	725	731	917	908	914
20	---	---	---	531	520	523	755	728	737	922	914	920
21	---	---	---	530	519	523	740	728	733	927	919	924
22	---	---	---	523	515	518	746	732	737	931	926	928
23	---	---	---	530	515	520	748	736	741	938	931	936
24	---	---	---	530	523	525	748	743	745	938	934	937
25	---	---	---	533	524	527	755	743	749	944	938	941
26	---	---	---	538	524	529	762	748	754	949	942	944
27	---	---	---	542	527	532	764	753	759	947	942	946
28	534	529	532	544	532	538	773	763	767	949	945	948
29	---	---	---	545	538	541	780	767	773	954	950	952
30	---	---	---	549	537	541	791	774	782	958	955	956
31	---	---	---	547	537	541	---	---	---	960	958	959
MONTH	534	529	532	549	514	529	791	535	670	960	782	893

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	964	961	962	1090	1090	1090	1200	1190	1200	1180	1170	1170
2	968	964	966	1090	1090	1090	1210	1200	1200	1180	1170	1180
3	971	965	969	1090	1090	1090	1210	1210	1210	1180	1170	1170
4	974	969	973	1090	1080	1090	1220	1210	1220	1180	1170	1170
5	978	971	975	1090	1080	1090	1220	1210	1220	1180	1170	1170
6	980	977	979	1100	1090	1090	1230	1220	1220	1170	1170	1170
7	982	979	981	1110	1090	1100	1230	1220	1230	1170	1170	1170
8	985	981	983	1120	1100	1110	1240	1230	1230	1170	1170	1170
9	988	982	986	1120	1110	1120	1240	1230	1240	1170	1170	1170
10	993	987	990	1130	1120	1130	1250	1240	1240	1170	1170	1170
11	998	993	995	1140	1130	1130	1250	1240	1240	1170	1160	1170
12	1000	995	1000	1140	1130	1140	1250	1240	1250	1170	1160	1160
13	1010	1000	1000	1150	1140	1140	1260	1250	1250	1170	1160	1160
14	1010	1010	1010	1150	1150	1150	1250	1250	1250	1170	1160	1160
15	1020	1010	1010	1150	1150	1150	1260	1210	1250	1170	1160	1160
16	1020	1010	1020	1150	1150	1150	1200	1180	1190	1160	1160	1160
17	1030	1020	1020	1160	1150	1160	1180	1180	1180	1160	1160	1160
18	1030	1020	1030	1160	1160	1160	1180	1170	1180	1160	1160	1160
19	1030	1030	1030	1160	1160	1160	1180	1170	1180	1160	1160	1160
20	1040	1030	1040	1160	1160	1160	1180	1170	1180	1160	1160	1160
21	1050	1040	1040	1170	1160	1170	1180	1170	1180	1160	1160	1160
22	1050	1040	1050	1170	1170	1170	1180	1170	1180	1160	1160	1160
23	1060	1050	1050	1170	1170	1170	1180	1170	1180	1160	1160	1160
24	1060	1060	1060	1170	1170	1170	1180	1170	1170	1160	1160	1160
25	1070	1060	1060	1170	1170	1170	1180	1170	1180	1160	1160	1160
26	1070	1070	1070	1170	1170	1170	1180	1170	1180	1160	1160	1160
27	1080	1070	1070	1180	1170	1170	1180	1170	1180	1160	1160	1160
28	1080	1080	1080	1180	1170	1180	1180	1170	1170	1160	1160	1160
29	1080	1080	1080	1180	1180	1180	1180	1170	1170	1160	1160	1160
30	1090	1080	1090	1190	1180	1190	1170	1170	1170	1160	1160	1160
31	---	---	---	1190	1190	1190	1180	1170	1170	---	---	---
MONTH	1090	961	1020	1190	1080	1140	1260	1170	1200	1180	1160	1160

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	498	487	494	498	486	493	743	731	736
2	---	---	---	495	480	488	496	487	493	753	742	747
3	---	---	---	483	473	478	496	491	493	765	752	758
4	---	---	---	480	466	474	498	488	494	776	763	769
5	---	---	---	485	475	480	502	489	496	785	772	780
6	---	---	---	488	478	484	503	495	501	787	780	783
7	---	---	---	490	482	486	502	490	498	799	787	793
8	---	---	---	489	483	487	528	499	510	806	796	801
9	---	---	---	490	485	488	546	533	541	811	803	808
10	---	---	---	491	486	488	570	541	554	815	808	813
11	---	---	---	491	485	487	602	570	586	822	812	817
12	---	---	---	490	481	487	623	600	613	824	819	821
13	---	---	---	489	480	486	641	624	632	829	823	825
14	---	---	---	489	483	486	652	639	646	833	827	829
15	---	---	---	487	479	482	659	652	656	839	830	835
16	---	---	---	482	471	478	668	659	663	844	838	840
17	---	---	---	482	475	478	674	667	670	847	842	844
18	---	---	---	489	476	483	679	670	676	852	843	849
19	---	---	---	493	479	487	686	677	681	857	849	854
20	---	---	---	483	477	480	690	675	683	862	853	858
21	---	---	---	480	471	477	683	676	680	866	857	862
22	---	---	---	478	469	474	687	682	685	871	863	867
23	---	---	---	482	471	475	693	687	689	878	872	875
24	---	---	---	484	479	482	695	692	694	879	872	876
25	---	---	---	485	481	482	699	694	696	883	877	881
26	---	---	---	487	475	482	704	698	701	885	881	883
27	---	---	---	493	484	488	709	704	707	887	876	882
28	492	481	487	499	488	493	716	707	713	889	882	886
29	---	---	---	500	492	496	722	715	719	894	887	892
30	---	---	---	498	487	493	733	718	727	897	891	896
31	---	---	---	497	489	494	---	---	---	900	895	899
MONTH	492	481	487	500	466	484	733	486	620	900	731	834

LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	902	897	900	953	950	951	903	901	902	914	908	910
2	905	898	902	951	944	948	905	902	904	915	909	912
3	908	902	905	946	940	944	907	904	906	916	911	912
4	910	904	907	941	936	939	910	907	909	913	911	912
5	912	906	909	936	927	932	911	905	908	915	909	913
6	914	908	911	927	920	924	912	907	909	915	909	913
7	915	910	912	921	918	920	914	908	911	915	910	912
8	916	910	913	919	917	918	915	910	912	915	910	913
9	918	912	915	918	912	915	921	914	918	916	911	912
10	920	914	917	917	910	914	923	917	921	913	911	912
11	922	915	917	915	909	911	924	918	921	914	912	913
12	924	918	920	909	906	908	925	918	922	915	913	914
13	926	919	922	907	904	906	926	920	923	916	914	915
14	928	921	924	905	902	904	925	922	923	916	914	915
15	930	923	926	904	901	903	925	894	918	916	915	916
16	928	925	927	902	899	901	894	892	893	917	915	916
17	934	928	929	901	899	900	900	893	897	918	912	916
18	935	929	931	900	898	899	903	900	902	918	913	914
19	933	930	931	899	897	898	908	903	905	915	914	914
20	937	931	933	899	897	898	913	909	911	916	914	915
21	941	933	936	899	897	898	913	908	911	917	915	916
22	940	936	938	899	894	898	911	906	910	917	915	916
23	942	940	941	898	893	896	911	905	909	917	915	916
24	944	941	942	898	892	894	910	905	907	918	916	917
25	945	942	943	894	892	893	911	905	908	919	917	918
26	946	944	945	895	893	894	912	907	908	919	917	918
27	947	944	946	897	892	895	909	907	908	919	917	918
28	949	946	948	900	894	897	910	908	909	920	914	918
29	950	948	949	903	896	899	910	909	910	920	914	918
30	949	948	949	904	898	900	912	910	911	920	914	918
31	---	---	---	906	900	902	913	908	912	---	---	---
MONTH	950	897	926	953	892	910	926	892	910	920	908	915

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	542	530	538	549	534	542	537	532	535
2	---	---	---	538	527	532	543	538	540	533	523	530
3	---	---	---	527	513	521	546	538	542	524	514	518
4	---	---	---	522	512	515	547	540	542	515	504	509
5	---	---	---	524	516	521	551	541	546	504	496	500
6	---	---	---	530	522	526	555	548	551	497	245	330
7	---	---	---	534	526	530	555	547	550	393	277	336
8	---	---	---	534	526	530	584	556	568	478	397	449
9	---	---	---	535	528	531	611	590	605	477	474	476
10	---	---	---	535	529	532	640	610	624	475	473	474
11	---	---	---	535	529	532	677	643	659	474	472	473
12	---	---	---	537	528	532	703	677	690	473	471	472
13	---	---	---	535	526	531	720	700	711	472	471	471
14	---	---	---	535	527	530	737	717	728	471	470	471
15	---	---	---	529	524	527	744	735	740	470	432	464
16	---	---	---	527	518	524	749	740	745	447	382	429
17	---	---	---	529	520	523	757	746	752	386	360	380
18	---	---	---	537	523	528	761	754	757	372	360	366
19	---	---	---	540	529	536	766	757	760	367	348	362
20	---	---	---	532	521	527	771	761	767	349	334	344
21	---	---	---	528	521	524	768	762	765	334	321	331
22	---	---	---	525	517	521	774	766	770	325	312	321
23	---	---	---	527	518	522	777	769	773	327	313	319
24	---	---	---	531	526	528	782	775	779	331	313	321
25	---	---	---	531	526	528	785	775	780	346	323	330
26	---	---	---	534	527	530	776	633	696	676	379	503
27	---	---	---	539	531	535	636	563	602	440	382	402
28	533	527	530	552	535	542	561	532	544	398	381	388
29	---	---	---	550	543	547	534	529	532	413	399	406
30	---	---	---	546	541	544	538	531	535	430	413	421
31	---	---	---	546	541	543	---	---	---	449	419	440
MONTH	533	527	530	552	512	530	785	529	656	676	245	422

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	400	285	326	446	379	431	444	442	443	443	441	442
2	367	282	310	449	446	448	445	442	444	444	441	442
3	367	334	354	450	447	448	445	442	444	445	441	442
4	343	331	336	447	443	446	443	442	443	443	442	443
5	375	343	361	445	433	438	443	442	443	443	443	443
6	403	376	393	431	424	427	443	443	443	445	443	444
7	420	402	412	421	407	413	444	442	444	445	444	444
8	414	398	411	418	398	405	446	442	443	446	444	445
9	395	360	382	419	396	405	446	443	444	446	443	446
10	354	329	344	421	412	418	446	444	444	448	444	446
11	329	322	326	422	409	413	445	443	444	448	445	446
12	339	326	333	436	414	426	445	443	444	447	445	446
13	334	326	331	438	425	432	445	444	444	447	446	447
14	333	325	328	441	427	434	445	444	445	448	447	448
15	325	319	322	443	440	441	445	403	434	449	448	448
16	362	313	333	444	441	442	430	408	417	450	449	450
17	386	363	376	442	441	442	437	431	433	451	450	450
18	389	385	387	442	441	442	439	434	436	452	451	452
19	390	385	388	443	441	442	441	437	438	453	452	452
20	385	363	378	443	442	443	442	438	440	454	451	454
21	361	344	353	444	443	444	443	440	442	455	451	454
22	346	338	342	444	441	443	443	440	442	456	454	455
23	377	347	365	442	441	441	443	440	442	458	454	457
24	387	377	383	442	441	442	443	440	441	459	455	457
25	390	385	387	443	440	442	443	440	441	460	455	458
26	391	385	388	444	440	442	443	440	441	458	458	458
27	387	380	383	443	441	442	442	441	441	461	458	459
28	381	376	379	444	442	443	442	441	441	461	460	460
29	376	371	373	445	443	444	442	441	442	461	460	461
30	372	367	368	445	442	443	443	442	443	463	460	462
31	---	---	---	445	442	444	443	441	443	---	---	---
MONTH	420	282	362	450	379	436	446	403	441	463	441	450

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 4
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	473	464	469	477	468	471	125	122	124
2	---	---	---	466	454	461	470	466	468	125	120	123
3	---	---	---	458	448	452	474	466	470	121	120	120
4	---	---	---	454	445	447	475	468	471	120	119	120
5	---	---	---	457	450	454	481	470	475	138	119	123
6	---	---	---	463	455	458	484	477	480	135	118	122
7	---	---	---	468	458	462	488	475	480	119	118	118
8	---	---	---	467	458	463	507	378	459	119	119	119
9	---	---	---	469	460	464	544	282	457	119	118	118
10	---	---	---	469	461	465	265	207	233	118	117	117
11	---	---	---	468	461	465	205	180	192	118	117	117
12	---	---	---	469	460	463	179	163	171	118	117	117
13	---	---	---	469	460	464	162	152	157	117	116	117
14	---	---	---	466	458	461	156	149	151	117	115	116
15	---	---	---	464	455	459	158	147	154	116	115	115
16	---	---	---	462	452	457	146	136	141	116	115	115
17	---	---	---	459	452	455	136	133	134	116	115	116
18	---	---	---	472	454	461	133	130	132	116	115	116
19	---	---	---	474	462	468	154	129	132	116	116	116
20	---	---	---	468	456	460	452	166	299	116	116	116
21	---	---	---	458	453	455	218	168	186	117	116	116
22	---	---	---	456	448	452	168	153	162	117	116	117
23	---	---	---	460	447	453	152	139	145	117	117	117
24	---	---	---	463	456	459	161	145	155	117	117	117
25	---	---	---	462	455	459	149	136	143	118	116	117
26	---	---	---	465	458	461	136	127	131	371	117	257
27	---	---	---	470	461	466	127	124	126	275	139	177
28	464	458	461	483	467	474	124	123	124	139	132	135
29	---	---	---	484	474	478	123	123	123	131	126	128
30	---	---	---	476	471	473	123	122	122	126	122	124
31	---	---	---	474	469	471	---	---	---	126	122	123
MONTH	464	458	461	484	445	462	544	122	251	371	115	126

LEVEL 4
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	123	121	122	115	113	114	113	113	113	113	112	112
2	121	120	121	115	114	114	113	113	113	113	113	113
3	121	120	121	115	114	114	113	113	113	113	113	113
4	120	119	120	114	113	114	113	113	113	113	112	113
5	120	119	119	114	113	113	113	113	113	113	113	113
6	119	118	119	114	113	113	113	113	111	113	112	113
7	118	118	118	114	113	113	113	112	111	113	112	113
8	119	118	118	114	114	114	113	113	113	113	112	112
9	119	118	118	114	113	114	114	113	113	112	112	112
10	119	118	118	114	114	114	114	112	112	112	112	112
11	119	118	118	114	114	114	113	112	113	112	111	111
12	119	118	118	114	113	114	113	113	113	112	111	111
13	119	118	119	114	113	114	114	113	113	112	111	111
14	118	118	118	114	113	114	114	113	113	112	111	111
15	118	117	118	114	113	113	119	113	115	112	111	111
16	118	117	118	114	113	113	117	116	116	112	111	111
17	118	117	117	114	113	113	116	115	115	111	111	111
18	117	116	117	114	113	113	115	114	114	111	111	111
19	117	116	116	114	113	113	116	114	114	111	111	111
20	116	115	116	114	113	113	117	116	116	111	111	111
21	116	115	115	114	113	114	115	114	114	111	111	111
22	115	115	115	114	113	114	114	113	114	111	111	111
23	115	115	115	114	113	113	115	113	114	111	111	111
24	115	115	115	113	113	113	114	113	114	111	111	111
25	115	114	115	114	113	113	114	113	113	111	111	111
26	115	114	114	114	113	113	114	113	114	111	110	111
27	115	114	114	113	113	113	114	113	113	111	110	110
28	114	113	114	113	112	113	114	113	113	111	110	111
29	114	113	114	113	112	113	114	113	113	111	110	111
30	114	113	114	113	112	113	114	113	113	111	110	110
31	---	---	---	114	113	113	113	112	113	---	---	---
MONTH	123	113	117	115	112	113	119	112	113	113	110	111
YEAR	544	110	186									

413551083481200 LU-20 NR HOLLAND OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	17.0	3.0	9.0	7.5	.5	3.5	16.0	9.5	13.0
2	---	---	---	17.0	9.0	12.5	9.5	.5	4.5	17.0	6.5	11.5
3	---	---	---	5.5	.5	3.5	15.5	<.0	---	18.0	2.5	9.5
4	---	---	---	7.0	<.0	---	20.0	.5	10.0	15.0	8.0	11.0
5	---	---	---	12.0	<.0	---	20.0	12.0	15.0	14.5	10.0	11.5
6	---	---	---	13.0	3.5	8.5	25.5	13.0	19.5	14.5	7.0	9.5
7	---	---	---	2.5	<.0	---	28.5	15.5	21.5	17.5	6.0	11.0
8	---	---	---	9.5	1.0	5.0	21.0	15.5	18.5	18.0	5.0	11.0
9	---	---	---	7.5	<.0	---	23.0	8.0	16.5	24.5	9.5	16.5
10	---	---	---	3.5	<.0	---	9.0	2.0	5.0	25.0	9.5	18.0
11	---	---	---	6.0	<.0	---	9.5	<.0	---	28.5	11.5	21.0
12	---	---	---	8.0	<.0	---	9.0	2.0	5.5	31.0	17.0	24.0
13	---	---	---	2.5	<.0	---	10.0	5.5	7.5	31.0	16.5	22.5
14	---	---	---	7.5	<.0	---	21.5	6.5	13.0	31.5	17.0	24.0
15	---	---	---	10.0	<.0	---	17.5	10.5	14.5	32.0	13.5	22.0
16	---	---	---	11.0	1.5	6.0	18.0	9.0	12.5	33.5	14.0	24.0
17	---	---	---	11.5	.5	4.5	16.5	7.5	11.5	28.0	10.0	21.0
18	---	---	---	6.0	2.5	4.5	12.0	1.5	7.5	15.5	8.5	12.0
19	---	---	---	13.0	2.0	6.0	8.5	6.5	7.5	21.0	10.5	15.5
20	---	---	---	18.0	<.0	---	6.5	3.0	4.0	23.0	11.0	17.0
21	---	---	---	23.0	9.0	14.5	5.0	2.5	4.0	30.0	10.0	20.0
22	---	---	---	16.5	5.0	12.0	16.0	3.5	9.5	32.5	14.5	23.5
23	---	---	---	18.0	4.5	11.5	15.5	6.5	10.0	31.5	17.5	24.0
24	---	---	---	9.5	3.5	6.0	13.0	4.5	8.5	31.5	20.0	24.5
25	---	---	---	17.0	1.0	9.5	18.5	2.0	10.5	29.5	21.0	24.5
26	---	---	---	15.0	5.0	9.0	23.5	10.0	16.0	27.0	20.0	22.5
27	---	---	---	22.5	13.0	17.5	25.5	9.5	18.0	28.5	20.0	23.5
28	8.5	<.0	---	20.0	2.5	8.5	24.0	13.5	19.0	33.0	21.0	26.5
29	---	---	---	8.0	<.0	---	24.5	12.5	18.5	33.0	23.0	27.0
30	---	---	---	5.5	.5	3.0	22.5	14.0	19.0	30.5	20.5	25.5
31	---	---	---	8.0	.5	4.0	---	---	---	30.5	19.5	24.5
MONTH	8.5	.0	---	23.0	.0	8.2	28.5	.0	11.8	33.5	2.5	19.1

<.0 values mean that the actual value is known to be less than zero, but by an undertermined amount.

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.5	18.5	23.5	29.0	18.5	23.0	33.5	20.5	26.5	22.0	11.0	17.0
2	23.5	17.5	20.5	30.0	19.0	23.0	34.5	15.0	25.0	30.5	8.0	18.0
3	28.0	13.5	20.5	29.5	17.5	23.5	31.0	21.0	25.0	30.5	13.5	20.5
4	24.5	10.5	17.5	29.5	19.0	23.0	26.0	18.0	22.0	25.5	16.5	21.0
5	22.0	9.5	16.5	30.5	18.5	24.5	25.5	13.0	19.0	27.0	10.5	18.5
6	25.0	10.0	17.5	33.5	19.0	25.5	26.5	12.0	19.5	29.5	10.5	19.5
7	25.5	9.5	18.5	32.0	24.5	28.5	29.0	12.0	20.5	31.0	12.5	21.0
8	28.0	10.5	19.5	30.5	21.0	26.0	24.0	15.0	18.5	32.5	16.0	23.5
9	29.5	12.5	22.0	26.5	16.0	21.0	26.0	16.0	19.0	27.0	18.0	22.0
10	30.0	14.5	22.0	29.0	13.5	21.0	26.0	14.0	20.0	27.0	23.0	25.0
11	26.5	19.5	22.0	30.5	16.0	23.0	29.0	13.5	20.5	23.0	13.0	18.5
12	28.5	14.5	21.5	26.5	18.0	21.0	29.5	12.5	21.5	20.0	16.0	17.5
13	26.0	11.5	20.0	23.5	20.0	21.5	29.0	13.5	21.0	30.0	15.0	21.0
14	32.5	11.5	21.5	28.5	14.5	21.0	27.5	17.0	21.5	29.0	17.0	22.0
15	34.0	24.0	28.5	29.0	12.0	21.0	31.5	14.5	22.0	34.0	21.5	26.5
16	27.5	20.5	23.5	31.5	13.5	23.0	33.0	18.0	24.5	31.5	24.0	27.0
17	28.0	16.0	22.5	31.5	14.0	23.5	27.5	20.5	23.5	26.0	14.0	20.5
18	29.0	15.5	22.5	33.5	20.5	26.5	29.5	16.5	21.5	20.5	11.0	15.5
19	30.5	16.0	23.5	34.0	21.5	27.5	21.0	15.5	18.0	16.5	4.0	12.0
20	32.5	16.0	24.5	34.5	23.0	29.0	21.5	16.5	18.0	13.5	1.5	8.5
21	34.0	15.0	25.0	32.0	23.0	27.0	26.0	11.5	18.0	19.5	<.0	---
22	28.5	15.5	21.0	34.5	22.5	27.0	30.0	16.5	22.5	21.5	3.5	12.0
23	24.0	13.5	17.5	32.5	24.5	28.0	28.0	16.5	22.0	20.0	11.0	15.5
24	26.5	12.0	19.5	28.0	12.0	21.5	27.0	15.0	21.0	15.5	3.0	9.0
25	31.5	18.5	23.5	27.5	13.0	20.5	32.5	14.5	22.5	19.0	1.5	9.5
26	32.0	19.0	25.5	25.0	14.0	19.5	33.5	19.0	25.0	14.5	7.5	10.5
27	32.5	20.5	26.5	26.0	11.5	19.0	32.0	18.0	25.0	15.0	1.0	8.0
28	32.5	20.0	26.5	27.0	11.0	19.0	34.5	19.5	25.5	17.5	<.0	---
29	33.0	20.0	27.0	29.5	17.0	21.5	34.5	21.0	27.0	21.5	2.5	11.0
30	33.0	22.0	26.5	25.5	15.0	19.5	33.0	21.0	26.5	29.0	9.5	16.5
31	---	---	---	30.5	11.0	20.0	27.5	19.5	23.5	---	---	---
MONTH	34.0	9.5	22.2	34.5	11.0	23.2	34.5	11.5	22.1	34.0	.0	17.4
YEAR	34.5	.0	18.4									

<.0 values mean that the actual value is known to be less than zero, but by an undertermined amount.

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.5	10.5
2	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
3	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
4	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	11.0	10.5	11.0
5	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	11.0	10.5	11.0
6	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	11.0	11.0	11.0
7	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5	11.0	10.5	11.0
8	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	11.0	10.5	11.0
9	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	11.0	10.5	10.5
10	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
11	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
12	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
13	---	---	---	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.5	10.5
14	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
15	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
16	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	10.5	10.5	10.5
17	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	10.5	10.5	10.5
18	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
19	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
20	---	---	---	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.5
21	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	11.0	10.5	10.5
22	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
23	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
24	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
25	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
26	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
27	---	---	---	11.0	10.5	11.0	11.0	10.5	10.5	11.0	10.5	10.5
28	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
29	---	---	---	11.0	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5
30	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5	10.5	10.5	10.5
31	---	---	---	11.0	10.5	11.0	---	---	---	10.5	10.5	10.5
MONTH	11.0	11.0	11.0	11.0	10.5	11.0	11.0	10.5	10.7	11.0	10.5	10.6

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.5	10.5	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
2	10.5	10.5	10.5	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
3	11.0	10.5	10.5	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5
4	11.0	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
5	11.0	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
6	10.5	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
7	10.5	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
8	10.5	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
9	11.0	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
10	10.5	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
11	10.5	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
12	11.0	10.5	10.5	11.0	10.5	11.0	11.0	11.0	11.0	11.5	11.5	11.5
13	10.5	10.5	10.5	11.0	11.0	11.0	11.0	11.0	11.0	11.5	11.5	11.5
14	10.5	10.5	10.5	11.0	11.0	11.0	11.0	11.0	11.0	12.0	11.5	11.5
15	10.5	10.5	10.5	11.0	11.0	11.0	11.0	11.0	11.0	12.0	11.5	11.5
16	10.5	10.5	10.5	11.0	11.0	11.0	11.0	11.0	11.0	12.0	11.5	11.5
17	10.5	10.5	10.5	11.0	11.0	11.0	11.0	11.0	11.0	12.0	11.5	12.0
18	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.0	12.0	11.5	11.5
19	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5
20	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.0	11.5	11.5	11.5
21	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.0	12.0	11.5	11.5
22	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.0	12.0	11.5	11.5
23	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.5	12.0	11.5	11.5
24	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5
25	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.5	12.0	11.5	11.5
26	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.5	11.5	11.5	11.5
27	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.0	11.5	12.0	11.5	12.0
28	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5	12.0	11.5	12.0
29	10.5	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5	12.0	11.5	12.0
30	11.0	10.5	10.5	11.0	11.0	11.0	11.5	11.5	11.5	12.0	11.5	12.0
31	---	---	---	11.0	11.0	11.0	11.5	11.5	11.5	---	---	---
MONTH	11.0	10.5	10.5	11.0	10.5	11.0	11.5	11.0	11.1	12.0	11.5	11.6
YEAR	12.0	10.5	10.9									

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.0	10.5
2	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
3	---	---	---	10.5	10.5	10.5	10.0	10.0	10.0	10.5	10.5	10.5
4	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
5	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
6	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
7	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
8	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
9	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
10	---	---	---	10.5	10.0	10.5	10.0	10.0	10.0	10.5	10.5	10.5
11	---	---	---	10.5	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.5
12	---	---	---	10.5	10.0	10.5	10.5	10.0	10.0	10.5	10.5	10.5
13	---	---	---	10.5	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
14	---	---	---	10.5	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
15	---	---	---	10.5	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
16	---	---	---	10.5	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
17	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
18	---	---	---	10.0	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
19	---	---	---	10.0	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
20	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
21	---	---	---	10.5	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
22	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
23	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
24	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
25	---	---	---	10.0	10.0	10.0	10.0	10.0	10.0	10.5	10.5	10.5
26	---	---	---	10.0	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
27	---	---	---	10.0	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
28	10.5	10.5	10.5	10.0	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
29	---	---	---	10.0	10.0	10.0	10.5	10.0	10.0	10.5	10.5	10.5
30	---	---	---	10.0	10.0	10.0	10.5	10.0	10.5	10.5	10.5	10.5
31	---	---	---	10.0	10.0	10.0	---	---	---	10.5	10.5	10.5
MONTH	10.5	10.5	10.5	10.5	10.0	10.2	10.5	10.0	10.0	10.5	10.0	10.5

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	12.0	12.0	12.0
2	10.5	10.5	10.5	11.0	10.5	10.5	11.5	11.5	11.5	12.0	12.0	12.0
3	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	12.0	12.0	12.0
4	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	12.0	12.0	12.0
5	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.0
6	10.5	10.5	10.5	11.0	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.5
7	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.5
8	10.5	10.5	10.5	10.5	10.5	10.5	11.5	11.5	11.5	12.5	12.0	12.5
9	10.5	10.5	10.5	11.0	10.5	11.0	11.5	11.5	11.5	12.5	12.0	12.5
10	10.5	10.5	10.5	11.0	10.5	11.0	11.5	11.5	11.5	12.5	12.5	12.5
11	10.5	10.5	10.5	11.0	10.5	11.0	11.5	11.5	11.5	12.5	12.5	12.5
12	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5	12.5	12.5	12.5
13	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5	12.5	12.5	12.5
14	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
15	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
16	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
17	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
18	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
19	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5	12.5	12.5	12.5
20	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	11.5	12.5	12.5	12.5
21	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
22	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
23	10.5	10.5	10.5	11.0	11.0	11.0	12.0	11.5	12.0	12.5	12.5	12.5
24	10.5	10.5	10.5	11.0	11.0	11.0	12.0	12.0	12.0	12.5	12.5	12.5
25	10.5	10.5	10.5	11.0	11.0	11.0	12.0	12.0	12.0	12.5	12.5	12.5
26	10.5	10.5	10.5	11.0	11.0	11.0	12.0	12.0	12.0	12.5	12.5	12.5
27	10.5	10.5	10.5	11.5	11.0	11.0	12.0	12.0	12.0	12.5	12.5	12.5
28	10.5	10.5	10.5	11.5	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5
29	10.5	10.5	10.5	11.5	11.0	11.0	12.0	12.0	12.0	13.0	12.5	12.5
30	10.5	10.5	10.5	11.5	11.0	11.5	12.0	12.0	12.0	13.0	12.5	12.5
31	---	---	---	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---
MONTH	10.5	10.5	10.5	11.5	10.5	10.9	12.0	11.5	11.8	13.0	12.0	12.4
YEAR	13.0	10.0	10.9									

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.0	9.0
3	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.5	9.5
4	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.5	9.5
5	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.0	9.5
6	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.0	9.0
7	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
8	---	---	---	9.0	9.0	9.0	9.5	9.0	9.0	9.5	9.0	9.5
9	---	---	---	9.0	9.0	9.0	9.5	9.0	9.5	9.5	9.5	9.5
10	---	---	---	9.0	9.0	9.0	10.0	9.5	9.5	9.5	9.5	9.5
11	---	---	---	9.0	9.0	9.0	10.0	9.5	10.0	9.5	9.5	9.5
12	---	---	---	9.0	9.0	9.0	10.0	10.0	10.0	9.5	9.5	9.5
13	---	---	---	9.0	9.0	9.0	10.0	10.0	10.0	9.5	9.5	9.5
14	---	---	---	9.0	8.5	9.0	10.0	9.5	10.0	9.5	9.5	9.5
15	---	---	---	9.0	9.0	9.0	10.0	9.5	9.5	9.5	9.5	9.5
16	---	---	---	9.0	8.5	9.0	10.0	10.0	10.0	9.5	9.5	9.5
17	---	---	---	9.0	8.5	9.0	10.0	10.0	10.0	9.5	9.5	9.5
18	---	---	---	9.0	9.0	9.0	10.0	10.0	10.0	9.5	9.5	9.5
19	---	---	---	9.0	8.5	9.0	10.0	10.0	10.0	9.5	9.5	9.5
20	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	9.5	9.5	9.5
21	---	---	---	9.0	8.5	9.0	10.0	9.5	9.5	9.5	9.5	9.5
22	---	---	---	9.0	8.5	9.0	10.0	9.5	9.5	9.5	9.5	9.5
23	---	---	---	9.0	9.0	9.0	10.0	10.0	10.0	9.5	9.5	9.5
24	---	---	---	9.0	9.0	9.0	10.0	10.0	10.0	9.5	9.5	9.5
25	---	---	---	9.0	8.5	9.0	10.0	9.5	10.0	9.5	9.5	9.5
26	---	---	---	9.0	9.0	9.0	9.5	9.0	9.5	9.5	9.5	9.5
27	---	---	---	9.0	8.5	9.0	9.5	9.0	9.0	10.0	9.5	9.5
28	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0	9.5	9.5
29	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	10.0	9.5	10.0
30	---	---	---	9.0	9.0	9.0	9.0	9.0	9.0	10.0	10.0	10.0
31	---	---	---	9.0	9.0	9.0	---	---	---	10.0	10.0	10.0
MONTH	9.0	9.0	9.0	9.0	8.5	9.0	10.0	9.0	9.5	10.0	9.0	9.5

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.0	10.0	10.0	12.0	11.5	12.0	13.5	13.5	13.5	14.5	14.5	14.5
2	10.0	10.0	10.0	12.0	11.5	12.0	13.5	13.5	13.5	14.5	14.5	14.5
3	10.0	10.0	10.0	12.0	11.5	12.0	13.5	13.5	13.5	14.5	14.5	14.5
4	10.5	10.0	10.0	12.0	11.5	12.0	13.5	13.5	13.5	14.5	14.5	14.5
5	10.5	10.0	10.0	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5
6	10.5	10.0	10.0	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5
7	10.5	10.0	10.0	12.0	12.0	12.0	14.0	13.5	13.5	14.5	14.5	14.5
8	10.5	10.0	10.5	12.0	12.0	12.0	14.0	13.5	14.0	14.5	14.5	14.5
9	10.5	10.0	10.5	12.0	12.0	12.0	14.0	13.5	14.0	15.0	14.5	14.5
10	10.5	10.5	10.5	12.5	12.0	12.0	14.0	13.5	14.0	15.0	14.5	14.5
11	10.5	10.5	10.5	12.5	12.0	12.5	14.0	14.0	14.0	15.0	14.5	15.0
12	10.5	10.5	10.5	12.5	12.0	12.5	14.0	14.0	14.0	15.0	15.0	15.0
13	10.5	10.5	10.5	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
14	11.0	10.5	10.5	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
15	11.0	10.5	11.0	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
16	11.0	11.0	11.0	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
17	11.0	11.0	11.0	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
18	11.0	11.0	11.0	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
19	11.0	11.0	11.0	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
20	11.0	11.0	11.0	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
21	11.0	11.0	11.0	12.5	12.5	12.5	14.5	14.0	14.0	15.0	15.0	15.0
22	11.5	11.0	11.0	13.0	12.5	13.0	14.5	14.0	14.0	15.0	15.0	15.0
23	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.0	14.5	15.0	15.0	15.0
24	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.0	14.5	15.0	15.0	15.0
25	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.0	14.5	15.0	15.0	15.0
26	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.0	14.5	15.0	15.0	15.0
27	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
28	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
29	12.0	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
30	12.0	11.5	12.0	13.5	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
31	---	---	---	13.5	13.0	13.5	14.5	14.5	14.5	---	---	---
MONTH	12.0	10.0	10.8	13.5	11.5	12.5	14.5	13.5	14.0	15.0	14.5	14.8
YEAR	15.0	8.5	11.4									

413551083481200 LU-20 NR HOLLAND OH--Continued

LEVEL 4
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.0	7.5	7.5	8.5	8.0	8.0	8.5	8.5	8.5
2	---	---	---	8.0	7.5	7.5	8.5	8.0	8.0	9.0	8.5	8.5
3	---	---	---	8.0	7.5	7.5	8.5	8.0	8.0	9.0	8.5	9.0
4	---	---	---	8.0	7.5	7.5	8.5	8.0	8.0	9.0	9.0	9.0
5	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	9.0	9.0	9.0
6	---	---	---	8.0	7.5	7.5	8.5	8.0	8.5	9.0	9.0	9.0
7	---	---	---	8.0	7.5	7.5	8.5	8.0	8.5	9.0	9.0	9.0
8	---	---	---	8.0	7.5	8.0	8.5	8.0	8.5	9.0	9.0	9.0
9	---	---	---	8.0	7.5	7.5	9.0	7.5	8.5	9.5	9.0	9.0
10	---	---	---	8.0	7.5	8.0	7.5	7.5	7.5	9.5	9.0	9.5
11	---	---	---	8.0	7.5	8.0	7.5	7.5	7.5	9.5	9.0	9.5
12	---	---	---	8.0	7.5	8.0	8.0	7.5	7.5	9.5	9.5	9.5
13	---	---	---	8.0	7.5	8.0	8.0	8.0	8.0	9.5	9.5	9.5
14	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	9.5	9.5	9.5
15	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	9.5	9.5	9.5
16	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	9.5	9.5	9.5
17	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	10.0	9.5	10.0
18	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	10.0	10.0	10.0
19	---	---	---	8.0	7.5	7.5	8.0	8.0	8.0	10.0	10.0	10.0
20	---	---	---	8.0	7.5	7.5	8.5	8.0	8.5	10.5	10.0	10.0
21	---	---	---	8.0	7.5	7.5	8.5	8.5	8.5	10.5	10.0	10.0
22	---	---	---	8.0	7.5	7.5	8.5	8.5	8.5	10.5	10.0	10.5
23	---	---	---	8.0	7.5	8.0	8.5	8.5	8.5	10.5	10.5	10.5
24	---	---	---	8.0	7.5	8.0	8.5	8.5	8.5	10.5	10.5	10.5
25	---	---	---	8.0	8.0	8.0	8.5	8.5	8.5	11.0	10.5	10.5
26	---	---	---	8.0	8.0	8.0	8.5	8.5	8.5	11.0	10.0	10.5
27	---	---	---	8.0	8.0	8.0	8.5	8.5	8.5	11.0	11.0	11.0
28	8.0	7.5	7.5	8.0	8.0	8.0	8.5	8.5	8.5	11.0	11.0	11.0
29	---	---	---	8.0	8.0	8.0	8.5	8.5	8.5	11.0	11.0	11.0
30	---	---	---	8.0	8.0	8.0	8.5	8.5	8.5	11.5	11.0	11.0
31	---	---	---	8.0	8.0	8.0	---	---	---	11.5	11.0	11.5
MONTH	8.0	7.5	7.5	8.0	7.5	7.7	9.0	7.5	8.2	11.5	8.5	9.8

LEVEL 4
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	11.5	11.5	14.5	14.5	14.5	16.5	16.5	16.5	17.0	17.0	17.0
2	12.0	11.5	11.5	14.5	14.5	14.5	16.5	16.5	16.5	17.0	17.0	17.0
3	12.0	11.5	12.0	14.5	14.5	14.5	16.5	16.5	16.5	17.0	17.0	17.0
4	12.0	12.0	12.0	15.0	14.5	14.5	16.5	16.5	16.5	17.0	17.0	17.0
5	12.0	12.0	12.0	15.0	14.5	15.0	16.5	16.5	16.5	17.0	17.0	17.0
6	12.5	12.0	12.0	15.0	15.0	15.0	17.0	16.5	16.5	17.5	17.0	17.0
7	12.5	12.0	12.5	15.0	15.0	15.0	17.0	16.5	16.5	17.5	17.0	17.0
8	12.5	12.5	12.5	15.0	15.0	15.0	17.0	16.5	16.5	17.5	17.0	17.0
9	12.5	12.5	12.5	15.0	15.0	15.0	17.0	16.5	16.5	17.5	17.0	17.0
10	12.5	12.5	12.5	15.0	15.0	15.0	17.0	16.5	17.0	17.5	17.0	17.0
11	13.0	12.5	13.0	15.0	15.0	15.0	17.0	17.0	17.0	17.5	17.0	17.5
12	13.0	13.0	13.0	15.5	15.0	15.5	17.0	17.0	17.0	17.5	17.0	17.5
13	13.0	13.0	13.0	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.0	17.5
14	13.0	13.0	13.0	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.0	17.5
15	13.0	13.0	13.0	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.0	17.5
16	13.5	13.0	13.0	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.0	17.5
17	13.5	13.0	13.5	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.0	17.5
18	13.5	13.5	13.5	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.5	17.5
19	13.5	13.5	13.5	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.5	17.5
20	13.5	13.5	13.5	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.5	17.5
21	14.0	13.5	13.5	15.5	15.5	15.5	17.0	17.0	17.0	17.5	17.5	17.5
22	14.0	13.5	14.0	16.0	15.5	16.0	17.0	17.0	17.0	17.5	17.5	17.5
23	14.0	14.0	14.0	16.0	15.5	16.0	17.0	17.0	17.0	17.5	17.5	17.5
24	14.0	14.0	14.0	16.0	16.0	16.0	17.0	17.0	17.0	17.5	17.5	17.5
25	14.0	14.0	14.0	16.0	16.0	16.0	17.0	17.0	17.0	17.5	17.0	17.5
26	14.0	14.0	14.0	16.0	16.0	16.0	17.0	17.0	17.0	17.5	17.0	17.5
27	14.5	14.0	14.0	16.5	16.0	16.0	17.0	17.0	17.0	17.5	17.0	17.0
28	14.5	14.0	14.5	16.5	16.0	16.5	17.0	17.0	17.0	17.5	17.0	17.0
29	14.5	14.5	14.5	16.5	16.0	16.5	17.0	17.0	17.0	17.0	17.0	17.0
30	14.5	14.5	14.5	16.5	16.0	16.5	17.0	17.0	17.0	17.0	17.0	17.0
31	---	---	---	16.5	16.5	16.5	17.0	17.0	17.0	---	---	---
MONTH	14.5	11.5	13.1	16.5	14.5	15.5	17.0	16.5	16.9	17.5	17.0	17.3
YEAR	17.5	7.5	12.6									

413551083481200 LU-20 NR HOLLAND OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.5	.5	2.0	6.5	4.0	5.5	16.0	13.0	14.5
2	---	---	---	9.0	5.5	7.0	9.0	3.0	5.0	15.5	10.5	12.5
3	---	---	---	9.0	3.0	5.0	10.0	3.5	6.0	17.0	10.0	13.5
4	---	---	---	4.0	1.5	2.5	10.0	6.0	8.0	16.5	12.5	14.5
5	---	---	---	5.0	1.5	3.0	13.5	9.5	11.0	14.5	13.0	13.5
6	---	---	---	6.5	4.5	5.5	16.5	10.5	13.5	13.0	10.5	12.0
7	---	---	---	6.0	3.0	4.5	18.0	13.0	15.5	14.5	9.0	11.5
8	---	---	---	4.5	2.0	3.0	16.5	15.0	16.0	16.0	10.5	13.0
9	---	---	---	5.0	2.5	3.5	17.0	14.5	15.5	18.0	12.0	15.0
10	---	---	---	4.5	2.5	3.0	14.0	8.5	11.0	20.0	13.5	16.5
11	---	---	---	3.5	1.5	2.5	11.5	6.0	8.5	21.0	15.0	17.5
12	---	---	---	2.5	1.0	1.5	11.5	7.0	9.5	22.5	16.5	19.5
13	---	---	---	2.5	1.5	1.5	9.5	9.0	9.5	22.0	18.0	20.0
14	---	---	---	5.5	1.5	2.5	12.5	8.5	10.0	22.5	18.0	20.0
15	---	---	---	6.5	2.0	3.5	12.5	11.0	12.0	22.5	17.5	20.0
16	---	---	---	6.5	2.0	4.0	14.0	9.5	11.5	23.0	18.0	20.5
17	---	---	---	6.0	2.5	4.0	15.0	11.0	12.5	22.5	20.0	21.0
18	---	---	---	5.0	4.5	4.5	14.0	9.0	11.5	20.0	17.0	18.0
19	---	---	---	8.0	3.5	5.0	11.5	9.0	10.0	20.5	15.5	17.5
20	---	---	---	9.5	3.5	6.0	9.0	7.0	8.0	21.5	16.0	18.5
21	---	---	---	12.0	7.0	9.0	7.0	6.5	6.5	22.5	16.5	19.5
22	---	---	---	12.0	9.0	10.5	12.0	6.0	8.5	24.0	18.5	21.0
23	---	---	---	12.0	8.5	10.0	11.5	8.0	9.5	24.0	20.5	22.0
24	---	---	---	11.0	7.0	8.5	10.5	8.0	9.0	24.5	20.5	22.0
25	---	---	---	12.0	6.0	9.0	12.5	7.0	10.0	24.0	21.0	22.5
26	---	---	---	11.0	7.5	8.5	16.0	10.0	12.5	23.5	21.0	22.0
27	---	---	---	13.0	9.5	10.5	17.0	12.0	14.5	24.5	20.5	22.0
28	1.0	.5	.5	13.0	8.0	10.5	17.5	14.0	16.0	27.0	21.0	23.5
29	---	---	---	10.0	6.0	8.0	17.5	14.0	15.5	28.0	22.5	25.0
30	---	---	---	9.0	4.0	6.5	18.0	14.5	16.5	27.0	23.0	25.0
31	---	---	---	8.0	3.5	5.5	---	---	---	27.5	22.0	24.5
MONTH	1.0	.5	.5	13.0	.5	5.5	18.0	3.0	10.9	28.0	9.0	18.6

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.0	22.5	24.5	26.5	22.5	24.5	28.5	23.0	25.0	27.0	22.0	24.0
2	26.0	21.5	23.0	27.0	22.5	24.5	28.5	23.0	25.5	25.5	20.0	22.5
3	25.0	19.5	22.0	28.5	22.0	25.0	28.0	24.5	26.0	25.0	21.0	23.0
4	24.5	19.0	22.0	27.5	23.0	25.0	27.5	22.5	24.5	25.0	21.5	23.0
5	23.5	18.5	21.0	28.5	23.0	25.5	27.0	21.0	24.0	25.0	18.5	21.5
6	24.0	18.0	21.0	29.5	23.5	26.0	27.0	20.5	23.5	25.5	19.0	22.0
7	24.0	18.5	21.0	29.0	25.5	27.0	27.5	21.0	24.0	25.5	20.0	22.5
8	24.5	19.0	21.5	28.5	24.5	26.5	27.0	22.0	24.0	26.0	21.0	23.5
9	25.5	19.5	22.0	28.0	23.0	25.0	23.0	19.5	21.0	25.5	22.0	23.5
10	25.0	20.5	22.5	28.0	21.5	24.0	25.5	19.0	21.5	25.0	22.0	23.0
11	24.0	21.0	22.5	27.5	22.5	25.0	27.0	19.5	23.0	25.0	19.5	22.0
12	24.5	19.0	21.5	27.5	22.5	24.5	27.0	21.0	24.0	24.5	20.5	21.5
13	25.0	19.0	22.0	24.0	22.0	23.0	27.0	21.5	24.0	25.5	19.0	21.0
14	25.5	19.5	22.0	27.5	20.0	22.5	26.5	22.5	24.5	25.0	21.0	22.5
15	27.5	22.5	24.0	28.0	20.5	24.0	26.0	21.5	23.5	26.5	22.0	23.5
16	27.0	22.5	24.5	28.5	22.0	25.0	27.0	22.5	24.0	26.5	23.5	24.5
17	27.0	21.0	23.5	28.0	22.5	25.0	26.5	23.0	24.5	25.5	21.5	23.5
18	26.5	21.0	23.5	29.0	23.5	26.0	26.0	21.0	23.0	25.0	20.0	22.0
19	27.0	21.5	24.0	29.0	24.5	27.0	25.5	19.5	22.5	21.0	17.5	19.5
20	28.0	22.0	24.5	30.0	25.5	27.5	22.0	19.5	20.5	20.5	15.5	18.0
21	27.5	22.5	25.0	29.5	25.5	27.0	23.0	17.0	19.5	19.5	14.0	16.5
22	27.0	23.0	24.5	28.0	24.5	26.0	24.5	19.0	21.0	19.5	14.5	17.0
23	24.0	20.0	21.5	29.5	25.5	27.0	26.0	20.5	23.0	19.5	16.5	18.0
24	25.0	20.0	22.0	29.0	23.5	26.0	25.5	21.0	23.5	19.0	13.0	15.5
25	26.5	21.5	23.5	27.5	22.5	25.0	27.0	21.0	23.5	18.0	12.0	14.5
26	27.5	22.5	24.5	27.0	22.5	24.5	27.5	22.5	24.5	17.5	13.5	15.0
27	28.0	23.0	25.5	25.5	21.5	23.5	28.0	23.0	25.0	17.0	11.0	13.5
28	28.0	23.5	25.5	25.5	21.0	23.0	27.5	24.0	25.5	17.0	10.5	13.5
29	28.0	24.0	26.0	26.0	22.0	24.0	28.5	24.0	26.0	18.0	11.5	14.5
30	28.0	24.5	26.0	25.5	22.0	23.5	28.5	24.5	26.5	19.5	14.0	16.0
31	---	---	---	27.0	21.0	23.5	28.0	24.5	26.0	---	---	---
MONTH	28.0	18.0	23.2	30.0	20.0	25.0	28.5	17.0	23.8	27.0	10.5	20.0
YEAR	30.0	.5	18.1									

GROUND-WATER RECORDS

413547083481400. Local number, LU-23.

LOCATION.--Lat 41°35'47" Long 83°48'14", Hydrologic Unit 04100009, along State Route 2 near Holland, OH.
Owner.--USGS-Toledo Express Airport.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 29.4 ft. Cased with Sch 40 PVC to 4.4 ft; .010 in. screen from 4.4 to 29.4 ft.

INSTRUMENTATION - Data logger--60 minute record. At this well there are 4 conductivity/water temperature probes at increasing depths within the well to better document vertical movement of high conductivity water on an hourly basis. Conductivity/water temperature probes are set at 6.9 (level 4), 10.4 (level 3), 16.9 (level 2), and 25.4 (level 1) feet below land surface.

DATUM.--Elevation of land-surface datum is 676.97 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 0.58 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (FOUR LEVELS): February 1991 to current year.
WATER TEMPERATURE (FOUR LEVELS): February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 1630 microsiemens July 16 and 17, 1991; minimum, 466 microsiemens May 27, 1991.
LEVEL 2- Maximum, 1790 microsiemens July 15, 1991; minimum, 462 microsiemens September 11, 1991.
LEVEL 3- Maximum, 1530 microsiemens July 22 and 23, 1991; minimum, 414 microsiemens September 22, 1991.
LEVEL 4- Maximum, 1030 microsiemens August 3 and 4, 1991; minimum, 107 microsiemens August 31, 1991.

WATER TEMPERATURE: LEVEL 1- Maximum, 13.0°C many days in 1991; minimum, 11.5°C many days in 1991.
LEVEL 2- Maximum, 15.0°C September 27-30, 1991; minimum, 10.5°C many days in 1991.
LEVEL 3- Maximum, 17.5°C many days in 1991; minimum, 9.5°C many days in 1991.
LEVEL 4- Maximum, 19.0°C many days in 1991; minimum, 8.5°C many days in 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: LEVEL 1- Maximum, 1630 microsiemens July 16 and 17, 1991; minimum, 466 microsiemens May 27, 1991.
LEVEL 2- Maximum, 1790 microsiemens July 15, 1991; minimum, 462 microsiemens September 11, 1991.
LEVEL 3- Maximum, 1530 microsiemens July 22 and 23, 1991; minimum, 414 microsiemens September 22, 1991.
LEVEL 4- Maximum, 1030 microsiemens August 3 and 4, 1991; minimum, 107 microsiemens August 31, 1991.

WATER TEMPERATURE: LEVEL 1- Maximum, 13.0°C many days in 1991; minimum, 11.5°C many days in 1991.
LEVEL 2- Maximum, 15.0°C September 27-30, 1991; minimum, 10.5°C many days in 1991.
LEVEL 3- Maximum, 17.5°C many days in 1991; minimum, 9.5°C many days in 1991.
LEVEL 4- Maximum, 19.0°C many days in 1991; minimum, 8.5°C many days in 1991.

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	543	533	538	483	482	483	---	---	---
2	---	---	---	534	524	529	483	479	482	---	---	---
3	---	---	---	525	518	521	483	480	482	---	---	---
4	---	---	---	521	517	520	484	480	483	---	---	---
5	---	---	---	520	516	519	484	480	483	---	---	---
6	---	---	---	520	517	520	482	479	481	---	---	---
7	---	---	---	518	515	516	482	479	481	---	---	---
8	---	---	---	517	513	514	482	481	482	---	---	---
9	---	---	---	514	511	512	480	470	475	---	---	---
10	---	---	---	511	507	509	473	471	471	---	---	---
11	---	---	---	509	505	507	482	473	477	---	---	---
12	---	---	---	506	502	504	492	482	486	---	---	---
13	---	---	---	505	500	502	497	491	494	---	---	---
14	---	---	---	503	497	499	499	495	496	---	---	---
15	---	---	---	499	493	496	497	493	495	---	---	---
16	---	---	---	496	492	493	499	494	496	---	---	---
17	---	---	---	494	491	494	502	497	499	---	---	---
18	---	---	---	495	490	492	503	499	501	---	---	---
19	---	---	---	490	487	488	504	500	503	---	---	---
20	---	---	---	488	485	486	505	486	493	---	---	---
21	---	---	---	489	485	486	536	508	526	---	---	---
22	---	---	---	488	484	486	536	531	534	---	---	---
23	---	---	---	488	484	486	533	527	529	561	559	561
24	---	---	---	487	483	485	---	---	---	563	556	559
25	---	---	---	485	481	483	---	---	---	557	545	554
26	---	---	---	487	483	485	---	---	---	542	469	498
27	554	548	552	486	482	483	---	---	---	484	466	473
28	550	542	546	485	478	482	---	---	---	517	485	500
29	---	---	---	481	479	480	---	---	---	536	518	527
30	---	---	---	480	477	479	---	---	---	545	537	542
31	---	---	---	483	478	481	---	---	---	546	515	529
MONTH	554	542	549	543	477	499	536	470	493	563	466	527

LEVEL 1
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	517	510	513	777	762	767	1210	1140	1180	511	500	505
2	532	515	524	822	770	797	1150	1080	1110	503	496	500
3	539	525	533	883	828	853	1070	995	1040	499	493	496
4	547	540	543	951	886	918	991	926	959	496	493	494
5	547	542	546	1020	951	986	919	859	892	497	493	495
6	546	538	543	1100	1020	1060	861	809	834	496	492	494
7	541	534	538	1170	1100	1140	804	764	784	496	490	493
8	537	530	535	1250	1170	1210	766	723	741	496	492	493
9	533	526	530	1330	1250	1300	725	687	710	495	491	493
10	529	526	528	1410	1340	1380	689	652	668	492	491	492
11	530	525	527	1480	1410	1450	654	625	640	495	491	493
12	530	526	528	1530	1490	1510	628	605	616	496	491	493
13	531	526	528	1570	1530	1550	608	589	598	495	490	493
14	537	531	534	1600	1580	1590	591	576	584	498	493	496
15	546	534	540	1620	1600	1620	597	569	581	500	496	498
16	554	544	548	1630	1610	1620	590	580	586	500	497	498
17	573	553	563	1630	1590	1610	580	566	572	501	497	499
18	597	577	587	1600	1580	1590	569	552	561	500	495	497
19	613	595	606	1590	1570	1580	555	538	547	497	493	495
20	616	611	615	1580	1570	1580	541	528	534	497	494	495
21	618	612	615	1570	1560	1570	530	522	525	497	494	494
22	616	611	613	1570	1550	1560	524	518	520	495	494	495
23	624	615	617	1550	1530	1540	528	514	520	496	491	494
24	638	624	631	1540	1510	1520	545	525	535	497	493	495
25	650	640	646	1520	1480	1500	558	547	552	497	494	496
26	666	651	658	1480	1450	1470	561	546	556	498	494	497
27	687	663	675	1450	1410	1440	546	536	541	499	495	497
28	717	688	701	1420	1370	1400	551	536	545	499	496	498
29	755	719	736	1380	1320	1350	535	528	532	499	495	497
30	793	759	776	1330	1270	1300	528	516	523	499	496	498
31	---	---	---	1270	1210	1240	517	508	513	---	---	---
MONTH	793	510	586	1630	762	1350	1210	508	664	511	490	496
YEAR	1630	466	683									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	600	589	594	528	523	526	---	---	---
2	---	---	---	590	578	584	528	523	526	---	---	---
3	---	---	---	578	571	574	529	523	526	---	---	---
4	---	---	---	576	571	573	530	524	527	---	---	---
5	---	---	---	576	570	573	530	522	526	---	---	---
6	---	---	---	576	568	574	527	522	524	---	---	---
7	---	---	---	571	566	569	527	521	523	---	---	---
8	---	---	---	568	563	566	525	521	523	---	---	---
9	---	---	---	567	560	565	523	507	515	---	---	---
10	---	---	---	563	556	560	517	510	514	---	---	---
11	---	---	---	559	555	557	528	516	521	---	---	---
12	---	---	---	556	551	554	539	528	533	---	---	---
13	---	---	---	554	547	552	544	539	541	---	---	---
14	---	---	---	551	544	548	546	538	543	---	---	---
15	---	---	---	546	540	543	543	534	540	---	---	---
16	---	---	---	544	538	541	546	538	542	---	---	---
17	---	---	---	543	538	541	549	544	546	---	---	---
18	---	---	---	543	534	538	552	547	549	---	---	---
19	---	---	---	536	528	533	553	543	551	---	---	---
20	---	---	---	535	529	531	560	529	539	---	---	---
21	---	---	---	534	528	530	587	563	579	---	---	---
22	---	---	---	533	528	531	588	580	585	---	---	---
23	---	---	---	534	527	531	584	578	580	626	619	625
24	---	---	---	532	525	529	---	---	---	625	616	620
25	---	---	---	530	523	527	---	---	---	618	593	612
26	---	---	---	534	526	530	---	---	---	590	506	534
27	611	607	610	529	526	527	---	---	---	537	506	516
28	608	598	604	529	521	525	---	---	---	571	536	554
29	---	---	---	524	519	522	---	---	---	595	571	583
30	---	---	---	525	520	522	---	---	---	606	593	599
31	---	---	---	527	520	524	---	---	---	604	563	581
MONTH	611	598	607	600	519	547	588	507	538	626	506	580

LEVEL 2
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	570	559	564	889	864	874	1310	1240	1280	590	572	583
2	588	568	580	949	890	919	1240	1170	1200	574	554	566
3	604	584	595	1010	954	985	1170	1070	1110	558	536	550
4	611	599	606	1090	1020	1060	1070	1000	1030	537	516	528
5	613	603	609	1170	1090	1130	1000	929	964	520	496	508
6	612	601	606	1260	1170	1220	928	868	897	501	476	486
7	609	597	602	1340	1260	1300	865	814	839	483	468	476
8	606	591	597	1430	1350	1390	817	767	796	471	467	469
9	599	586	592	1520	1440	1480	761	724	739	470	464	466
10	598	583	590	1600	1520	1570	730	710	721	465	463	464
11	593	585	590	1680	1600	1640	718	693	708	466	462	464
12	596	587	591	1720	1680	1710	705	683	693	472	465	467
13	601	584	593	1760	1720	1740	688	670	680	475	472	473
14	608	596	601	1780	1760	1770	682	661	668	480	475	478
15	622	601	611	1790	1760	1780	666	649	656	479	478	479
16	630	613	620	1780	1750	1770	658	636	647	480	479	480
17	659	624	641	1750	1720	1740	639	627	635	480	476	479
18	684	652	672	1740	1720	1730	633	620	626	479	472	477
19	699	677	690	1730	1710	1720	626	600	615	478	474	477
20	700	689	695	1730	1720	1720	609	600	605	481	476	479
21	700	687	694	1720	1700	1710	626	608	616	479	476	478
22	700	684	691	1710	1680	1700	638	626	632	480	475	477
23	709	694	703	1690	1660	1680	645	637	641	479	474	477
24	728	712	719	1660	1630	1650	649	641	645	479	475	477
25	748	723	733	1640	1600	1630	646	636	641	479	475	476
26	761	737	748	1610	1570	1600	642	621	634	477	476	476
27	786	757	770	1580	1540	1560	629	619	626	478	474	477
28	822	788	803	1550	1490	1520	624	615	619	479	475	477
29	871	822	845	1500	1440	1470	617	603	611	479	475	478
30	906	871	890	1440	1380	1410	605	596	600	480	476	479
31	---	---	---	1380	1310	1350	598	584	592	---	---	---
MONTH	906	559	661	1790	864	1500	1310	584	741	590	462	487
YEAR	1790	462	747									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	545	535	540	480	477	478	---	---	---
2	---	---	---	538	525	532	480	476	478	---	---	---
3	---	---	---	526	519	523	481	476	478	---	---	---
4	---	---	---	524	520	522	483	478	480	---	---	---
5	---	---	---	522	519	521	482	476	479	---	---	---
6	---	---	---	523	519	522	479	476	477	---	---	---
7	---	---	---	520	516	518	478	475	477	---	---	---
8	---	---	---	517	513	516	479	473	478	---	---	---
9	---	---	---	515	512	513	473	463	467	---	---	---
10	---	---	---	513	508	510	471	465	467	---	---	---
11	---	---	---	508	505	507	483	471	476	---	---	---
12	---	---	---	506	502	504	493	483	487	---	---	---
13	---	---	---	504	500	502	498	492	496	---	---	---
14	---	---	---	500	496	498	500	494	497	---	---	---
15	---	---	---	497	490	494	498	493	495	---	---	---
16	---	---	---	493	489	492	500	495	497	---	---	---
17	---	---	---	493	489	491	504	499	501	---	---	---
18	---	---	---	493	485	488	505	500	502	---	---	---
19	---	---	---	486	481	484	506	497	504	---	---	---
20	---	---	---	484	481	482	513	482	493	---	---	---
21	---	---	---	484	479	482	534	515	527	---	---	---
22	---	---	---	484	478	482	534	532	533	---	---	---
23	---	---	---	485	479	482	533	530	531	581	574	577
24	---	---	---	483	477	480	---	---	---	576	571	574
25	---	---	---	480	476	478	---	---	---	571	556	568
26	---	---	---	490	478	481	---	---	---	554	470	498
27	552	549	550	482	477	480	---	---	---	492	464	474
28	551	544	547	479	472	475	---	---	---	528	492	511
29	---	---	---	476	472	474	---	---	---	551	526	542
30	---	---	---	477	472	474	---	---	---	560	552	556
31	---	---	---	480	473	477	---	---	---	560	524	541
MONTH	552	544	548	545	472	498	534	463	491	581	464	538

LEVEL 3
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	527	516	522	801	786	793	1220	1170	1190	528	519	524
2	544	527	537	845	785	809	1160	1090	1130	522	518	520
3	560	541	551	889	842	863	1090	994	1050	520	507	513
4	570	558	562	973	892	929	1000	933	969	506	493	500
5	580	564	569	1030	975	997	929	864	900	494	484	490
6	577	560	565	1110	1030	1070	876	799	838	485	474	479
7	574	555	561	1180	1110	1150	805	760	786	476	465	470
8	571	553	560	1270	1190	1230	762	725	742	466	451	458
9	558	545	553	1350	1260	1310	724	672	695	453	445	448
10	557	546	552	1390	1350	1370	681	655	663	445	442	444
11	572	546	555	1410	1390	1400	657	639	650	445	433	438
12	572	553	561	1410	1380	1390	640	623	635	433	427	430
13	566	553	557	1410	1400	1400	644	618	634	429	424	427
14	572	558	564	1410	1390	1400	620	601	612	426	421	424
15	589	568	577	1410	1400	1400	631	598	612	423	420	422
16	589	580	586	1420	1320	1380	610	591	601	423	419	421
17	610	589	599	1430	1350	1400	598	572	583	422	419	420
18	634	608	620	1470	1430	1460	569	556	563	423	417	421
19	662	634	643	1480	1470	1470	555	546	550	425	422	424
20	676	648	658	1500	1480	1490	547	525	536	425	422	424
21	676	655	664	1520	1500	1510	535	523	530	421	417	419
22	669	653	661	1530	1520	1530	540	527	534	422	414	418
23	661	651	656	1530	1500	1520	546	537	542	421	415	418
24	675	661	666	1510	1480	1500	551	544	547	420	416	418
25	695	675	687	1480	1450	1470	553	547	551	419	416	417
26	726	690	702	1460	1430	1450	563	546	552	420	416	418
27	721	710	716	1440	1390	1420	564	541	552	425	416	419
28	745	718	733	1400	1350	1380	548	540	543	430	424	426
29	795	747	767	1360	1320	1340	543	534	538	431	426	428
30	810	789	800	1320	1260	1290	537	528	534	431	427	428
31	---	---	---	1270	1220	1240	532	524	527	---	---	---
MONTH	810	516	617	1530	785	1300	1220	523	674	528	414	444
YEAR	1530	414	672									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 4
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	557	550	554	501	500	501	---	---	---
2	---	---	---	552	543	547	502	498	499	---	---	---
3	---	---	---	543	540	541	503	499	500	---	---	---
4	---	---	---	543	540	541	504	500	502	---	---	---
5	---	---	---	544	540	542	504	499	501	---	---	---
6	---	---	---	544	539	544	502	499	500	---	---	---
7	---	---	---	541	537	539	502	499	500	---	---	---
8	---	---	---	538	534	537	501	496	499	---	---	---
9	---	---	---	537	532	535	495	485	489	---	---	---
10	---	---	---	532	528	530	491	485	487	---	---	---
11	---	---	---	529	525	527	503	491	496	---	---	---
12	---	---	---	527	523	525	513	503	508	---	---	---
13	---	---	---	525	520	523	518	512	515	---	---	---
14	---	---	---	521	516	519	519	514	518	---	---	---
15	---	---	---	516	511	514	517	513	515	---	---	---
16	---	---	---	515	511	512	520	514	516	---	---	---
17	---	---	---	514	511	513	523	518	520	---	---	---
18	---	---	---	514	506	510	526	521	523	---	---	---
19	---	---	---	507	503	505	528	521	527	---	---	---
20	---	---	---	505	501	503	532	503	515	---	---	---
21	---	---	---	505	501	504	510	370	407	---	---	---
22	---	---	---	505	501	503	557	376	473	---	---	---
23	---	---	---	506	499	503	557	551	553	603	597	601
24	---	---	---	502	500	501	---	---	---	599	594	597
25	---	---	---	501	498	499	---	---	---	594	584	592
26	---	---	---	511	499	502	---	---	---	582	485	519
27	555	548	550	501	495	500	---	---	---	485	481	483
28	557	555	556	499	492	495	---	---	---	504	484	490
29	---	---	---	495	492	494	---	---	---	552	504	531
30	---	---	---	497	493	495	---	---	---	576	552	565
31	---	---	---	500	497	498	---	---	---	583	554	568
MONTH	557	548	553	557	492	518	557	370	503	603	481	550

LEVEL 4
SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	554	547	550	836	822	827	725	664	692	---	---	---
2	557	547	551	835	827	832	826	729	774	---	---	---
3	565	559	562	842	835	838	1030	831	940	---	---	---
4	585	567	575	837	813	831	1030	972	999	---	---	---
5	590	585	588	810	713	771	980	922	950	---	---	---
6	591	585	589	708	609	658	919	859	889	---	---	---
7	590	584	586	605	538	569	858	809	833	---	---	---
8	588	580	583	535	496	513	814	770	790	---	---	---
9	583	574	578	498	482	489	770	716	741	---	---	---
10	577	570	573	487	481	485	723	703	716	---	---	---
11	576	569	572	484	480	482	707	688	699	---	---	---
12	577	571	575	490	481	486	691	673	684	---	---	---
13	579	572	575	492	485	487	678	659	673	---	---	---
14	584	578	581	492	487	490	660	645	654	---	---	---
15	595	582	589	499	489	494	649	641	645	---	---	---
16	605	595	599	701	498	580	638	621	627	---	---	---
17	614	602	609	658	605	637	624	596	609	---	---	---
18	634	614	626	602	542	568	599	588	595	---	---	---
19	658	633	648	541	527	533	590	579	586	---	---	---
20	676	656	668	526	514	519	580	563	570	---	---	---
21	679	674	676	514	509	512	568	563	566	---	---	---
22	682	675	679	517	509	512	568	563	566	---	---	---
23	682	676	679	527	514	521	567	560	564	---	---	---
24	683	679	681	533	528	529	563	551	558	---	---	---
25	698	680	689	537	531	533	554	524	544	---	---	---
26	714	696	705	550	537	542	521	397	484	---	---	---
27	728	711	720	557	551	554	380	259	284	---	---	---
28	748	727	738	574	559	566	263	258	261	---	---	---
29	763	748	755	601	575	588	276	262	269	---	---	---
30	825	760	776	623	602	610	262	218	248	---	---	---
31	---	---	---	663	622	640	237	107	205	---	---	---
MONTH	825	547	629	842	480	587	1030	107	620	---	---	---
YEAR	1030	107	573									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.5	12.0	12.5	12.0	12.0	12.0	---	---	---
2	---	---	---	12.5	12.0	12.5	12.0	11.5	12.0	---	---	---
3	---	---	---	12.5	12.0	12.0	12.0	12.0	12.0	---	---	---
4	---	---	---	12.5	12.0	12.0	12.0	12.0	12.0	---	---	---
5	---	---	---	12.5	12.0	12.5	12.0	12.0	12.0	---	---	---
6	---	---	---	12.5	12.0	12.5	12.0	12.0	12.0	---	---	---
7	---	---	---	12.0	12.0	12.0	12.0	12.0	12.0	---	---	---
8	---	---	---	12.0	12.0	12.0	---	---	---	---	---	---
9	---	---	---	12.0	12.0	12.0	12.0	11.5	12.0	---	---	---
10	---	---	---	12.0	12.0	12.0	12.0	12.0	12.0	---	---	---
11	---	---	---	12.0	12.0	12.0	12.0	11.5	12.0	---	---	---
12	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	---	---	---
13	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	---	---	---
14	---	---	---	12.5	12.0	12.0	12.0	11.5	11.5	---	---	---
15	---	---	---	12.5	12.0	12.0	12.0	11.5	11.5	---	---	---
16	---	---	---	12.5	12.0	12.0	12.0	11.5	11.5	---	---	---
17	---	---	---	12.5	12.0	12.0	12.0	11.5	11.5	---	---	---
18	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	---	---	---
19	---	---	---	12.0	12.0	12.0	11.5	11.5	11.5	---	---	---
20	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	---	---	---
21	---	---	---	12.0	12.0	12.0	11.5	11.5	11.5	---	---	---
22	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	---	---	---
23	---	---	---	12.0	12.0	12.0	12.0	11.5	11.5	11.5	11.5	11.5
24	---	---	---	12.0	12.0	12.0	---	---	---	12.0	11.5	11.5
25	---	---	---	12.0	12.0	12.0	---	---	---	11.5	11.5	11.5
26	---	---	---	12.0	12.0	12.0	---	---	---	12.0	11.5	11.5
27	12.5	12.0	12.5	12.0	12.0	12.0	---	---	---	12.0	11.5	11.5
28	12.5	12.0	12.5	12.0	12.0	12.0	---	---	---	12.0	11.5	11.5
29	---	---	---	12.0	12.0	12.0	---	---	---	11.5	11.5	11.5
30	---	---	---	12.0	11.5	12.0	---	---	---	12.0	11.5	11.5
31	---	---	---	12.0	11.5	12.0	---	---	---	12.0	11.5	11.5
MONTH	12.5	12.0	12.5	12.5	11.5	12.1	12.0	11.5	11.7	12.0	11.5	11.5

LEVEL 1
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
2	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
3	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
4	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
5	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
6	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
7	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5
8	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.0	12.5	13.0	12.5	12.5
9	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	12.5
10	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
11	12.0	11.5	12.0	12.0	12.0	12.0	12.5	12.0	12.5	13.0	12.5	12.5
12	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	12.5
13	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
14	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
15	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
16	12.0	11.5	12.0	12.0	12.0	12.0	12.5	12.5	12.5	13.0	13.0	13.0
17	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
18	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
19	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
20	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
21	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	12.5	13.0
22	12.0	11.5	11.5	12.0	12.0	12.0	12.5	12.5	12.5	13.0	13.0	13.0
23	12.0	11.5	12.0	12.0	12.0	12.0	12.5	12.5	12.5	13.0	13.0	13.0
24	12.0	11.5	12.0	12.0	12.0	12.0	12.5	12.5	12.5	13.0	13.0	13.0
25	12.0	11.5	12.0	12.0	12.0	12.0	12.5	12.5	12.5	13.0	13.0	13.0
26	12.0	11.5	12.0	12.5	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
27	12.0	11.5	12.0	12.5	12.0	12.0	12.5	12.5	12.5	13.0	13.0	13.0
28	12.0	11.5	12.0	12.5	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
29	12.0	11.5	12.0	12.5	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
30	12.0	12.0	12.0	12.5	12.0	12.0	13.0	12.5	12.5	13.0	13.0	13.0
31	---	---	---	12.5	12.0	12.0	13.0	12.5	12.5	---	---	---
MONTH	12.0	11.5	11.7	12.5	12.0	12.0	13.0	12.0	12.4	13.0	12.5	12.8
YEAR	13.0	11.5	12.1									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5	---	---	---
2	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5	---	---	---
3	---	---	---	11.0	11.0	11.0	10.5	10.5	10.5	---	---	---
4	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	---	---	---
5	---	---	---	11.0	10.5	11.0	11.0	10.5	10.5	---	---	---
6	---	---	---	11.0	10.5	11.0	11.0	10.5	10.5	---	---	---
7	---	---	---	11.0	10.5	11.0	11.0	10.5	10.5	---	---	---
8	---	---	---	11.0	10.5	11.0	10.5	10.5	10.5	---	---	---
9	---	---	---	11.0	10.5	10.5	11.0	10.5	10.5	---	---	---
10	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
11	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
12	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
13	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
14	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
15	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
16	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
17	---	---	---	10.5	10.5	10.5	11.0	10.5	10.5	---	---	---
18	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5	---	---	---
19	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
20	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
21	---	---	---	11.0	10.5	10.5	10.5	10.5	10.5	---	---	---
22	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5	---	---	---
23	---	---	---	10.5	10.5	10.5	10.5	10.5	10.5	11.0	11.0	11.0
24	---	---	---	10.5	10.5	10.5	---	---	---	11.0	11.0	11.0
25	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
26	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
27	11.0	11.0	11.0	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
28	11.0	11.0	11.0	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
29	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
30	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
31	---	---	---	10.5	10.5	10.5	---	---	---	11.5	11.0	11.5
MONTH	11.0	11.0	11.0	11.0	10.5	10.6	11.0	10.5	10.5	11.5	11.0	11.4

LEVEL 2
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	11.0	11.5	12.5	12.0	12.0	13.5	13.5	13.5	14.5	14.0	14.0
2	11.5	11.0	11.5	12.5	12.0	12.0	13.5	13.0	13.5	14.5	14.0	14.0
3	11.5	11.5	11.5	12.5	12.0	12.0	13.5	13.5	13.5	14.5	14.0	14.0
4	11.5	11.5	11.5	12.5	12.0	12.5	13.5	13.0	13.5	14.5	14.0	14.5
5	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.0	13.5	14.5	14.0	14.0
6	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.0
7	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.0
8	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5
9	11.5	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5
10	11.5	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5	14.5	14.5	14.5
11	11.5	11.5	11.5	13.0	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5
12	11.5	11.5	11.5	12.5	12.5	12.5	13.5	13.5	13.5	14.5	14.0	14.5
13	11.5	11.5	11.5	13.0	12.5	13.0	13.5	13.5	13.5	14.5	14.0	14.5
14	11.5	11.5	11.5	13.0	12.5	13.0	13.5	13.5	13.5	14.5	14.0	14.5
15	11.5	11.5	11.5	13.0	12.5	13.0	13.5	13.5	13.5	14.5	14.5	14.5
16	11.5	11.5	11.5	13.0	12.5	13.0	13.5	13.5	13.5	14.5	14.5	14.5
17	12.0	11.5	11.5	13.0	13.0	13.0	14.0	13.5	13.5	14.5	14.5	14.5
18	12.0	11.5	11.5	13.0	13.0	13.0	14.0	13.5	13.5	14.5	14.5	14.5
19	12.0	11.5	11.5	13.0	13.0	13.0	14.0	13.5	13.5	14.5	14.5	14.5
20	12.0	11.5	11.5	13.5	13.0	13.0	14.0	13.5	14.0	14.5	14.5	14.5
21	12.0	11.5	11.5	13.5	13.0	13.0	14.0	13.5	14.0	14.5	14.5	14.5
22	12.0	11.5	11.5	13.5	13.0	13.0	14.0	13.5	14.0	14.5	14.5	14.5
23	12.0	11.5	12.0	13.5	13.0	13.0	14.0	13.5	14.0	14.5	14.5	14.5
24	12.0	11.5	12.0	13.5	13.0	13.5	14.0	13.5	14.0	14.5	14.5	14.5
25	12.0	11.5	12.0	13.5	13.0	13.5	14.0	14.0	14.0	14.5	14.5	14.5
26	12.0	12.0	12.0	13.5	13.0	13.5	14.0	14.0	14.0	14.5	14.5	14.5
27	12.0	12.0	12.0	13.5	13.0	13.5	14.0	14.0	14.0	15.0	14.5	14.5
28	12.0	12.0	12.0	13.5	13.0	13.5	14.0	14.0	14.0	15.0	14.5	14.5
29	12.0	12.0	12.0	13.5	13.0	13.5	14.0	14.0	14.0	15.0	14.5	14.5
30	12.0	12.0	12.0	13.5	13.0	13.5	14.0	14.0	14.0	15.0	14.5	14.5
31	---	---	---	13.5	13.0	13.5	14.5	14.0	14.0	---	---	---
MONTH	12.0	11.0	11.6	13.5	12.0	12.9	14.5	13.0	13.7	15.0	14.0	14.4
YEAR	15.0	10.5	12.3									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---
2	---	---	---	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---
3	---	---	---	9.5	9.5	9.5	10.0	9.5	9.5	---	---	---
4	---	---	---	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---
5	---	---	---	9.5	9.5	9.5	10.0	9.5	9.5	---	---	---
6	---	---	---	9.5	9.5	9.5	10.0	9.5	9.5	---	---	---
7	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
8	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
9	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
10	---	---	---	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---
11	---	---	---	9.5	9.5	9.5	10.0	9.5	9.5	---	---	---
12	---	---	---	9.5	9.5	9.5	10.0	9.5	9.5	---	---	---
13	---	---	---	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---
14	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
15	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
16	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
17	---	---	---	9.5	9.5	9.5	10.0	9.5	10.0	---	---	---
18	---	---	---	9.5	9.5	9.5	10.0	10.0	10.0	---	---	---
19	---	---	---	9.5	9.5	9.5	10.0	10.0	10.0	---	---	---
20	---	---	---	9.5	9.5	9.5	10.0	10.0	10.0	---	---	---
21	---	---	---	9.5	9.5	9.5	10.0	10.0	10.0	---	---	---
22	---	---	---	9.5	9.5	9.5	10.0	10.0	10.0	---	---	---
23	---	---	---	9.5	9.5	9.5	10.0	10.0	10.0	11.0	11.0	11.0
24	---	---	---	9.5	9.5	9.5	---	---	---	11.0	11.0	11.0
25	---	---	---	9.5	9.5	9.5	---	---	---	11.0	11.0	11.0
26	---	---	---	9.5	9.5	9.5	---	---	---	11.0	11.0	11.0
27	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---	11.0	11.0	11.0
28	9.5	9.5	9.5	9.5	9.5	9.5	---	---	---	11.5	11.0	11.5
29	---	---	---	9.5	9.5	9.5	---	---	---	11.5	11.0	11.5
30	---	---	---	9.5	9.5	9.5	---	---	---	11.5	11.5	11.5
31	---	---	---	9.5	9.5	9.5	---	---	---	11.5	11.5	11.5
MONTH	9.5	9.5	9.5	9.5	9.5	9.5	10.0	9.5	9.8	11.5	11.0	11.2

LEVEL 3
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.5	11.5	11.5	14.0	13.5	14.0	16.5	16.0	16.0	17.0	16.5	16.5
2	11.5	11.5	11.5	14.0	14.0	14.0	16.5	16.0	16.0	17.0	17.0	17.0
3	11.5	11.5	11.5	14.5	14.0	14.5	16.5	16.0	16.0	17.0	17.0	17.0
4	12.0	11.5	11.5	14.5	14.0	14.5	16.5	16.0	16.0	17.0	16.5	17.0
5	12.0	11.5	12.0	14.5	14.0	14.5	16.5	16.0	16.0	17.0	17.0	17.0
6	12.0	12.0	12.0	14.5	14.0	14.5	16.5	16.0	16.0	17.0	17.0	17.0
7	12.0	12.0	12.0	14.5	14.5	14.5	16.5	16.0	16.0	17.0	17.0	17.0
8	12.0	12.0	12.0	15.0	14.5	14.5	16.5	16.0	16.0	17.0	17.0	17.0
9	12.5	12.0	12.0	15.0	14.5	15.0	16.5	16.0	16.0	17.0	17.0	17.0
10	12.5	12.0	12.5	15.0	15.0	15.0	16.5	16.0	16.0	17.0	17.0	17.0
11	12.5	12.5	12.5	15.5	15.0	15.0	16.5	16.0	16.0	17.0	17.0	17.0
12	12.5	12.5	12.5	15.5	15.0	15.0	16.5	16.0	16.5	17.5	17.0	17.0
13	13.0	12.5	12.5	15.5	15.0	15.5	16.5	16.0	16.5	17.5	17.0	17.0
14	13.0	12.5	12.5	15.5	15.0	15.5	16.5	16.0	16.5	17.5	17.0	17.0
15	13.0	12.5	13.0	15.5	15.0	15.5	17.0	16.0	16.5	17.5	17.0	17.5
16	13.0	12.5	13.0	16.0	15.5	15.5	16.5	16.5	16.5	17.5	17.0	17.5
17	13.0	12.5	13.0	16.0	15.5	15.5	16.5	16.5	16.5	17.5	17.0	17.5
18	13.0	12.5	13.0	16.0	15.5	15.5	16.5	16.0	16.5	17.5	17.0	17.0
19	13.0	13.0	13.0	16.0	15.5	16.0	17.0	16.0	16.5	17.5	17.0	17.0
20	13.5	13.0	13.0	16.0	15.5	16.0	16.5	16.0	16.5	17.5	17.0	17.0
21	13.5	13.0	13.5	16.0	15.5	16.0	17.0	16.5	16.5	17.5	17.0	17.5
22	13.5	13.0	13.5	16.0	15.5	16.0	17.0	16.5	16.5	17.5	17.0	17.5
23	13.5	13.0	13.5	16.0	15.5	16.0	17.0	16.5	16.5	17.5	17.0	17.0
24	13.5	13.5	13.5	16.0	15.5	16.0	17.0	16.5	16.5	17.5	17.0	17.5
25	13.5	13.5	13.5	16.0	15.5	16.0	17.0	16.5	16.5	17.5	17.0	17.5
26	13.5	13.5	13.5	16.0	15.5	16.0	17.0	16.5	16.5	17.5	17.0	17.5
27	13.5	13.5	13.5	16.0	15.5	16.0	17.0	16.5	17.0	17.5	17.0	17.5
28	14.0	13.5	14.0	16.0	15.5	16.0	17.0	16.5	17.0	17.5	17.0	17.5
29	14.0	13.5	14.0	16.0	15.5	16.0	17.0	16.5	17.0	17.5	17.0	17.5
30	14.0	14.0	14.0	16.0	15.5	16.0	17.0	16.5	17.0	17.5	17.0	17.5
31	---	---	---	16.0	15.5	16.0	17.0	16.5	17.0	---	---	---
MONTH	14.0	11.5	12.8	16.0	13.5	15.4	17.0	16.0	16.4	17.5	16.5	17.2
YEAR	17.5	9.5	13.5									

413547083481400 LU-23 NR HOLLAND OH--Continued

LEVEL 4
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	9.0	8.5	9.0	9.0	9.0	9.0	---	---	---
2	---	---	---	9.0	9.0	9.0	9.5	9.0	9.0	---	---	---
3	---	---	---	9.0	9.0	9.0	9.5	9.0	9.0	---	---	---
4	---	---	---	9.0	8.5	9.0	9.5	9.0	9.0	---	---	---
5	---	---	---	9.0	8.5	9.0	9.5	9.0	9.5	---	---	---
6	---	---	---	9.0	8.5	8.5	9.5	9.0	9.5	---	---	---
7	---	---	---	9.0	8.5	9.0	9.5	9.0	9.5	---	---	---
8	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
9	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
10	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
11	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
12	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
13	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
14	---	---	---	9.0	8.5	9.0	10.0	9.5	9.5	---	---	---
15	---	---	---	9.0	8.5	9.0	10.0	9.5	10.0	---	---	---
16	---	---	---	9.0	8.5	9.0	10.0	9.5	10.0	---	---	---
17	---	---	---	9.0	8.5	9.0	10.0	9.5	10.0	---	---	---
18	---	---	---	9.0	8.5	9.0	10.0	9.5	9.5	---	---	---
19	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
20	---	---	---	9.0	8.5	9.0	10.0	9.5	10.0	---	---	---
21	---	---	---	9.0	8.5	9.0	9.5	9.5	9.5	---	---	---
22	---	---	---	9.0	8.5	9.0	10.0	9.5	9.5	---	---	---
23	---	---	---	9.0	8.5	9.0	10.0	10.0	10.0	12.5	12.0	12.0
24	---	---	---	9.0	9.0	9.0	---	---	---	12.5	12.0	12.0
25	---	---	---	9.0	9.0	9.0	---	---	---	12.5	12.5	12.5
26	---	---	---	9.0	9.0	9.0	---	---	---	12.5	11.5	12.0
27	9.0	8.5	9.0	9.5	9.0	9.0	---	---	---	13.0	12.5	12.5
28	9.0	9.0	9.0	9.5	9.0	9.0	---	---	---	13.0	12.5	13.0
29	---	---	---	9.5	9.0	9.0	---	---	---	13.0	13.0	13.0
30	---	---	---	9.5	9.0	9.0	---	---	---	13.5	13.0	13.0
31	---	---	---	9.5	9.0	9.0	---	---	---	13.5	12.5	13.0
MONTH	9.0	8.5	9.0	9.5	8.5	9.0	10.0	9.0	9.5	13.5	11.5	12.6

LEVEL 4
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	13.0	13.5	17.0	16.5	16.5	18.5	18.5	18.5	19.0	18.5	18.5
2	13.5	13.5	13.5	17.0	16.5	17.0	18.5	18.0	18.5	19.0	18.5	18.5
3	14.0	13.5	13.5	17.0	16.5	17.0	18.5	18.5	18.5	19.0	18.5	19.0
4	14.0	13.5	14.0	17.0	17.0	17.0	18.5	18.5	18.5	19.0	18.5	19.0
5	14.5	14.0	14.0	17.0	17.0	17.0	18.5	18.5	18.5	19.0	18.5	19.0
6	14.5	14.0	14.0	17.5	17.0	17.0	18.5	18.5	18.5	19.0	18.5	19.0
7	14.5	14.0	14.5	17.5	17.0	17.5	19.0	18.5	18.5	19.0	19.0	19.0
8	14.5	14.0	14.5	17.5	17.5	17.5	19.0	18.5	18.5	19.0	18.5	19.0
9	14.5	14.0	14.5	17.5	17.0	17.5	19.0	18.5	18.5	19.0	19.0	19.0
10	14.5	14.5	14.5	17.5	17.5	17.5	19.0	18.5	18.5	19.0	19.0	19.0
11	15.0	14.5	14.5	17.5	17.5	17.5	19.0	18.5	18.5	19.0	19.0	19.0
12	15.0	14.5	15.0	18.0	17.5	17.5	19.0	18.5	18.5	19.0	19.0	19.0
13	15.0	14.5	15.0	18.0	17.5	18.0	19.0	18.5	18.5	19.0	19.0	19.0
14	15.0	15.0	15.0	18.0	17.5	18.0	19.0	18.5	18.5	19.0	19.0	19.0
15	15.5	15.0	15.0	18.0	17.5	18.0	19.0	18.5	18.5	19.0	19.0	19.0
16	15.0	15.0	15.0	18.0	17.5	18.0	19.0	18.5	18.5	19.0	19.0	19.0
17	15.5	15.0	15.5	18.0	17.5	18.0	19.0	18.5	19.0	19.0	18.5	19.0
18	15.5	15.0	15.5	18.0	17.5	18.0	19.0	18.5	18.5	19.0	18.5	19.0
19	15.5	15.5	15.5	18.0	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
20	16.0	15.5	15.5	18.0	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
21	16.0	15.5	15.5	18.5	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
22	16.0	15.5	15.5	18.5	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
23	16.0	15.5	16.0	18.5	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
24	16.0	15.5	16.0	18.5	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
25	16.5	16.0	16.0	18.5	18.0	18.0	19.0	18.5	18.5	19.0	18.5	18.5
26	16.5	16.0	16.0	18.5	18.0	18.5	19.0	18.5	18.5	19.0	18.5	18.5
27	16.5	16.5	16.5	18.5	18.0	18.5	19.0	18.5	18.5	19.0	18.0	18.5
28	16.5	16.5	16.5	18.5	18.0	18.5	19.0	18.5	18.5	18.5	18.0	18.5
29	16.5	16.5	16.5	18.5	18.5	18.5	19.0	18.5	18.5	18.5	18.0	18.0
30	17.0	16.5	16.5	18.5	18.5	18.5	19.0	18.5	19.0	18.5	18.0	18.0
31	---	---	---	18.5	18.0	18.5	19.0	18.5	19.0	---	---	---
MONTH	17.0	13.0	15.1	18.5	16.5	17.8	19.0	18.0	18.5	19.0	18.0	18.7
YEAR	19.0	8.5	14.8									

GROUND-WATER RECORDS

413547083481500. Local number, LU-24.

LOCATION.--Lat 41°35'47" Long 83°48'15", Hydrologic Unit 04100009, along State Route 2 near Holland, OH.
Owner.--USGS-Toledo Express Airport.

AQUIFER.--Sand of Quaternary age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 18.7 ft. Cased with Sch 40 PVC to 8.7 ft; .010 in. screen from 8.7 to 18.7 ft.

INSTRUMENTATION - Data logger--60 minute record. Water-level data only was collected at this well.

DATUM.--Elevation of land-surface datum is 677.21 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 2.12 ft above land-surface datum.

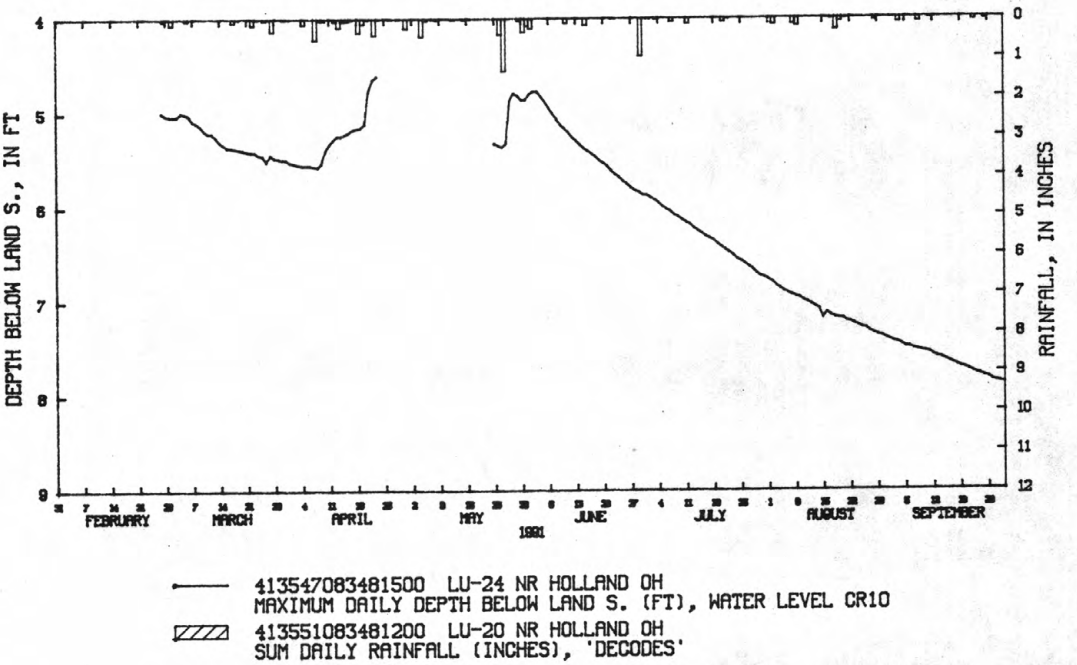
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 7.88 ft. below land-surface datum, September 30, 1991; minimum daily low, 4.61 ft. below land-surface data, April 22 and 23, 1991.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 7.88 ft. below land-surface datum, September 30, 1991; minimum daily low, 4.61 ft. below land-surface data, April 22 and 23, 1991.



GROUND-WATER RECORDS--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	5.03	5.52	---	4.80	5.87	6.77	7.41
2	---	---	---	---	---	5.03	5.53	---	4.77	5.90	6.79	7.43
3	---	---	---	---	---	5.03	5.54	---	4.77	5.92	6.83	7.44
4	---	---	---	---	---	4.99	5.55	---	4.82	5.95	6.86	7.46
5	---	---	---	---	---	5.00	5.55	---	4.88	5.99	6.89	7.49
6	---	---	---	---	---	5.02	5.55	---	4.94	6.02	6.91	7.49
7	---	---	---	---	---	5.08	5.56	---	5.00	6.04	6.93	7.51
8	---	---	---	---	---	5.10	5.57	---	5.06	6.08	6.95	7.52
9	---	---	---	---	---	5.13	5.53	---	5.12	6.10	6.96	7.53
10	---	---	---	---	---	5.18	5.40	---	5.16	6.13	6.99	7.54
11	---	---	---	---	---	5.21	5.33	---	5.20	6.16	7.01	7.55
12	---	---	---	---	---	5.21	5.28	---	5.25	6.18	7.03	7.58
13	---	---	---	---	---	5.25	5.24	---	5.29	6.22	7.06	7.60
14	---	---	---	---	---	5.30	5.24	---	5.33	6.25	7.08	7.61
15	---	---	---	---	---	5.33	5.22	---	5.37	6.28	7.18	7.63
16	---	---	---	---	---	5.36	5.20	---	5.40	6.31	7.12	7.65
17	---	---	---	---	---	5.36	5.17	---	5.43	6.33	7.15	7.67
18	---	---	---	---	---	5.37	5.16	---	5.46	6.35	7.17	7.69
19	---	---	---	---	---	5.38	5.15	---	5.50	6.39	7.18	7.71
20	---	---	---	---	---	5.39	5.11	---	5.53	6.42	7.18	7.72
21	---	---	---	---	---	5.40	4.77	---	5.56	6.45	7.21	7.74
22	---	---	---	---	---	5.41	4.65	---	5.61	6.48	7.22	7.76
23	---	---	---	---	---	5.41	4.61	5.32	5.65	6.51	7.24	7.78
24	---	---	---	---	---	5.44	---	5.34	5.68	6.55	7.26	7.79
25	---	---	---	---	---	5.45	---	5.36	5.72	6.57	7.28	7.81
26	---	---	---	---	---	5.51	---	5.32	5.75	6.60	7.29	7.82
27	---	---	---	---	4.99	5.44	---	4.87	5.79	6.63	7.32	7.85
28	---	---	---	---	5.02	5.47	---	4.79	5.82	6.66	7.34	7.86
29	---	---	---	---	---	5.48	---	4.81	5.84	6.70	7.36	7.87
30	---	---	---	---	---	5.49	---	4.86	5.87	6.73	7.37	7.88
31	---	---	---	---	---	5.49	---	4.86	---	6.74	7.39	---
MAX	---	---	---	---	5.02	5.51	5.57	5.36	5.87	6.74	7.39	7.88

WTR YR 1991 LOW 7.88

GROUND-WATER RECORDS

415307080414500. Local number, AB-134.

LOCATION.--Lat 41°53'07" Long 80°41'45", Hydrologic Unit 04120101, along State Route 84 near Kingsville, OH.
Owner.--USGS-Ohio State University (OARDC).

AQUIFER.--Sand and Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Observation well drilled by hollow stem auger, diameter 4.0 in., depth 17.4 ft. Cased with Sch 40 PVC to 7.5 ft; .010 in. screen from 7.5 to 17.4 ft.

INSTRUMENTATION - Data logger--60 minute record. Precipitation data collected with a propane-heated, tipping-bucket rain gauge. Also collected: water level, air temperature, soil temperature, water temperature, and specific conductance. Conductivity/water temperature probe set at 10.0 feet below land surface.

DATUM.--Elevation of land-surface datum is 772.10 feet above National Geodetic Vertical Datum of 1929.
Measuring point: shelter floor 3.93 ft above land-surface datum.

REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells is available in preceeding tables.

PERIOD OF RECORD.--February 1991 to present.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year
SPECIFIC CONDUCTANCE: February 1991 to current year
AIR TEMPERATURE: February 1991 to current year
WATER TEMPERATURE: February 1991 to current year
SOIL TEMPERATURE: February 1991 to current year
PRECIPITATION: February 1991 to current year

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 9.89 ft. below land-surface datum, September 22-24, 1991; minimum daily low, 4.21 ft. below land-surface datum, March 6, 1991.

SPECIFIC CONDUCTANCE: Maximum, 2560 microsiemens March 27, 1991; minimum, 948 microsiemens August 8, 1991.

AIR TEMPERATURE: Maximum, 33.0°C September 16, 1991; minimum, -12.5°C February 15, 1991.

WATER TEMPERATURE: Maximum, 15.5°C many days in 1991; minimum, 7.0°C March 6 & 8, 1991.

SOIL TEMPERATURE: Maximum, 43.5°C July 6, 1991; minimum, -12.5°C February 15 & 16, 1991.

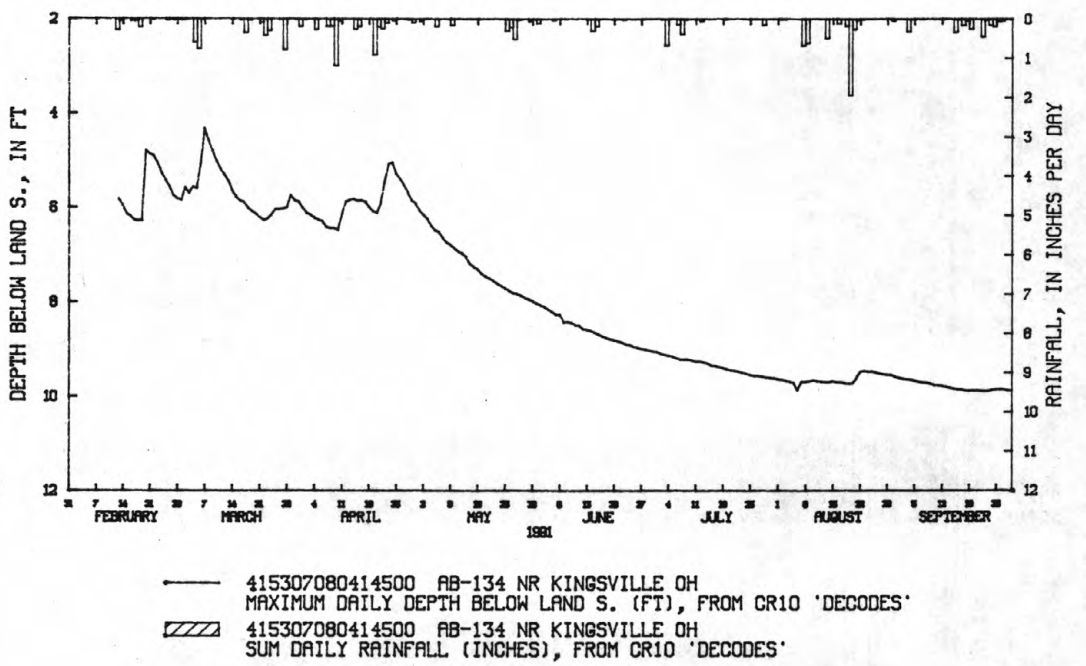
EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 9.89 ft. below land-surface datum, September 22-24, 1991; minimum daily low, 4.21 ft. below land-surface datum, March 6, 1991.

SPECIFIC CONDUCTANCE: Maximum, 2560 microsiemens March 27, 1991; minimum, 948 microsiemens August 8, 1991.

AIR TEMPERATURE: Maximum, 33.0°C September 16, 1991; minimum, -12.5°C February 15, 1991.

WATER TEMPERATURE: Maximum, 15.5°C many days in 1991; minimum, 7.0°C March 6 & 8, 1991.

SOIL TEMPERATURE: Maximum, 43.5°C July 6, 1991; minimum, -12.5°C February 15 & 16, 1991.



413507080414500 AB-134 NR KINGSVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	5.85	6.00	6.06	8.07	9.06	9.64	9.61
2	---	---	---	---	---	5.58	6.12	6.16	8.10	9.10	9.65	9.63
3	---	---	---	---	---	5.70	6.16	6.24	8.16	9.12	9.67	9.64
4	---	---	---	---	---	5.57	6.22	6.38	8.21	9.14	9.69	9.65
5	---	---	---	---	---	5.60	6.26	6.48	8.27	9.16	9.71	9.67
6	---	---	---	---	---	5.06	6.29	6.52	8.27	9.19	9.87	9.69
7	---	---	---	---	---	4.32	6.41	6.64	8.43	9.22	9.69	9.71
8	---	---	---	---	---	4.58	6.44	6.74	8.42	9.22	9.69	9.71
9	---	---	---	---	---	4.80	6.44	6.79	8.44	9.22	9.68	9.73
10	---	---	---	---	---	5.02	6.48	6.86	8.49	9.24	9.66	9.76
11	---	---	---	---	---	5.18	6.15	6.93	8.50	9.26	9.68	9.77
12	---	---	---	---	---	5.31	5.88	6.97	8.57	9.26	9.69	9.78
13	---	---	---	---	5.83	5.43	5.84	7.04	8.59	9.28	9.70	9.80
14	---	---	---	---	5.96	5.64	5.82	7.19	8.61	9.30	9.70	9.82
15	---	---	---	---	6.14	5.77	5.86	7.26	8.65	9.35	9.68	9.84
16	---	---	---	---	6.19	5.86	5.85	7.30	8.69	9.36	9.70	9.86
17	---	---	---	---	6.27	5.89	5.88	7.40	8.73	9.38	9.70	9.86
18	---	---	---	---	6.28	6.01	5.99	7.46	8.76	9.40	9.72	9.88
19	---	---	---	---	6.28	6.08	6.08	7.50	8.79	9.43	9.73	9.88
20	---	---	---	---	4.79	6.13	6.12	7.55	8.81	9.45	9.73	9.88
21	---	---	---	---	4.87	6.21	5.92	7.61	8.83	9.46	9.62	9.88
22	---	---	---	---	4.91	6.27	5.47	7.66	8.86	9.48	9.48	9.89
23	---	---	---	---	5.07	6.25	5.08	7.71	8.90	9.50	9.46	9.89
24	---	---	---	---	5.26	6.16	5.05	7.76	8.91	9.52	9.48	9.89
25	---	---	---	---	5.42	6.04	5.29	7.81	8.95	9.55	9.48	9.87
26	---	---	---	---	5.56	6.04	5.39	7.83	8.97	9.57	9.50	9.86
27	---	---	---	---	5.75	6.03	5.53	7.86	8.99	9.57	9.52	9.86
28	---	---	---	---	5.82	6.00	5.69	7.91	9.01	9.58	9.54	9.86
29	---	---	---	---	---	5.74	5.85	7.94	9.03	9.60	9.55	9.88
30	---	---	---	---	---	5.86	5.92	7.98	9.05	9.61	9.55	9.88
31	---	---	---	---	---	5.88	---	8.03	---	9.62	9.59	---
MAX	---	---	---	---	6.28	6.27	6.48	8.03	9.05	9.62	9.87	9.89

WTR YR 1991 LOW 9.89

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	2200	2070	2110	2490	2460	2470	2320	2300	2320
2	---	---	---	2350	2200	2290	2460	2430	2450	2310	2280	2300
3	---	---	---	2390	2350	2380	2430	2410	2420	2300	2240	2280
4	---	---	---	2440	2400	2420	2410	2370	2390	2290	2200	2240
5	---	---	---	2460	2430	2440	2370	2360	2370	2240	2180	2220
6	---	---	---	2470	2360	2430	2360	2350	2360	2250	2220	2230
7	---	---	---	2360	2240	2300	2350	2310	2330	2250	2210	2230
8	---	---	---	2240	2210	2230	2310	2280	2290	2210	2200	2200
9	---	---	---	2220	2200	2210	2310	2280	2290	2190	2160	2180
10	---	---	---	2200	2180	2190	2280	2270	2280	2160	2150	2150
11	---	---	---	2180	2160	2170	2260	2150	2190	2160	2140	2150
12	---	---	---	2180	2120	2160	2290	2160	2210	2170	2130	2150
13	1920	1910	1920	2170	2160	2170	2380	2290	2340	2150	2130	2140
14	1930	1920	1920	2170	2150	2160	2520	2370	2390	2130	2080	2110
15	1940	1930	1930	2160	2140	2150	2390	2370	2380	2080	2050	2070
16	1940	1900	1920	2220	2140	2150	2390	2360	2370	2060	2050	2060
17	1910	1890	1900	2140	2130	2140	2480	2400	2440	2060	2040	2050
18	1890	1870	1880	2140	2120	2130	2490	2450	2470	---	---	---
19	2080	1870	1970	2130	2110	2120	2550	2440	2450	---	---	---
20	2130	2090	2110	2120	2110	2120	2440	2430	2440	---	---	---
21	2150	2100	2120	2190	2090	2120	2420	2330	2360	---	---	---
22	2230	2150	2200	2110	2090	2100	2330	2310	2320	---	---	---
23	2250	2220	2240	2130	2090	2100	2320	2170	2270	---	---	---
24	2250	2220	2240	2270	2130	2190	2270	2150	2170	---	---	---
25	2240	2200	2220	2490	2290	2400	2290	2200	2250	---	---	---
26	2200	2150	2170	2550	2500	2530	2320	2290	2310	---	---	---
27	2150	2110	2130	2560	2540	2550	2330	2310	2320	---	---	---
28	2110	2070	2080	2550	2330	2440	2340	2320	2320	---	---	---
29	---	---	---	2480	2330	2390	2320	2310	2310	---	---	---
30	---	---	---	2520	2390	2470	2430	2310	2320	---	---	---
31	---	---	---	2490	2480	2480	---	---	---	---	---	---
MONTH	2250	1870	2060	2560	2070	2270	2550	2150	2340	2320	2040	2180

413507080414500 AB-134 NR KINGSVILLE OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	2100	2050	2070	---	---	---
2	---	---	---	---	---	---	2050	2010	2030	---	---	---
3	---	---	---	2040	2020	2030	2020	1950	1940	---	---	---
4	---	---	---	2030	2030	2030	1990	1200	1790	---	---	---
5	---	---	---	2030	2020	2030	955	948	951	---	---	---
6	2050	1950	2010	2040	2010	2020	1000	960	986	---	---	---
7	2060	2030	2040	2020	2010	2020	1110	990	1010	---	---	---
8	2300	2000	2030	2010	2010	2010	1240	1070	1100	---	---	---
9	---	---	---	2030	2010	2020	2070	1150	1930	---	---	---
10	---	---	---	2020	2010	2010	1750	983	1400	---	---	---
11	---	---	---	---	---	---	984	959	970	---	---	---
12	---	---	---	---	---	---	961	956	958	---	---	---
13	---	---	---	---	---	---	1040	961	985	---	---	---
14	---	---	---	---	---	---	1170	954	983	---	---	---
15	---	---	---	---	---	---	1140	953	996	---	---	---
16	---	---	---	---	---	---	1090	951	1010	---	---	---
17	---	---	---	1940	1910	1920	---	---	---	---	---	---
18	---	---	---	2000	1920	1930	---	---	---	---	---	---
19	---	---	---	1940	1930	1930	---	---	---	---	---	---
20	---	---	---	2020	1940	1950	---	---	---	---	---	---
21	---	---	---	2170	1950	1970	---	---	---	---	---	---
22	---	---	---	2000	1970	1980	---	---	---	---	---	---
23	---	---	---	2100	1830	1990	---	---	---	---	---	---
24	---	---	---	2020	1980	2000	---	---	---	---	---	---
25	---	---	---	2020	2000	2010	---	---	---	---	---	---
26	---	---	---	2040	2020	2030	---	---	---	---	---	---
27	---	---	---	2040	2020	2030	---	---	---	---	---	---
28	---	---	---	2040	2020	2030	---	---	---	---	---	---
29	---	---	---	2090	2040	2050	---	---	---	---	---	---
30	---	---	---	2080	2060	2070	---	---	---	---	---	---
31	---	---	---	2110	2040	2070	---	---	---	---	---	---
MONTH	2300	1950	2030	2170	1830	2010	2100	948	1320	---	---	---
YEAR	2560	948	2090									

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	16.0	6.0	11.0	3.5	.5	2.5	22.5	14.5	19.5
2	---	---	---	20.0	3.5	14.0	5.5	.0	1.5	23.5	10.0	13.5
3	---	---	---	2.0	-1.5	-.5	8.5	.0	5.0	11.5	7.0	9.5
4	---	---	---	-1.5	-3.5	-2.0	22.5	4.5	12.0	8.5	2.5	6.0
5	---	---	---	6.5	-6.5	.5	14.5	10.5	12.0	12.5	1.0	7.5
6	---	---	---	8.5	2.0	6.5	24.5	10.5	17.0	18.5	3.0	12.5
7	---	---	---	1.5	-3.0	-1.5	26.0	13.5	20.0	17.0	7.0	13.0
8	---	---	---	-1.0	-6.5	-3.5	24.0	17.0	19.5	14.0	7.0	10.0
9	---	---	---	4.5	-5.5	-.5	24.0	17.0	19.5	14.0	1.5	9.0
10	---	---	---	.5	-2.5	-.5	24.0	11.5	18.5	21.0	9.5	13.5
11	---	---	---	-1.5	-5.5	-3.5	9.5	3.0	5.5	20.0	7.5	14.0
12	---	---	---	-1.0	-9.5	-4.5	6.5	.5	3.0	23.5	7.5	17.0
13	1.5	-2.0	-1.0	2.5	-5.0	-1.0	7.5	.0	4.0	26.5	15.0	20.5
14	1.5	-3.5	-.5	3.0	-2.0	.0	9.5	4.5	8.0	26.0	13.5	20.0
15	-4.0	-12.5	-9.5	6.0	-6.0	.0	9.5	6.0	7.5	27.0	11.0	20.0
16	-6.0	-12.0	-9.0	5.5	-6.5	-1.0	17.0	8.0	11.5	29.5	17.5	23.5
17	-.5	-6.0	-2.5	13.5	-7.0	4.5	12.0	10.0	11.0	24.0	9.0	19.5
18	5.0	-3.5	1.0	8.5	.0	5.0	11.0	3.5	8.0	14.5	7.5	11.0
19	10.5	2.0	7.5	8.0	1.0	4.0	9.5	.5	5.5	20.0	8.5	14.5
20	2.0	-1.0	.5	9.5	-3.0	4.0	10.5	4.5	8.0	21.5	8.0	15.5
21	11.0	1.5	5.5	18.5	2.5	11.0	8.5	5.0	7.0	23.5	14.0	19.5
22	9.5	-5.5	2.5	5.0	1.5	3.0	5.0	4.0	4.5	26.5	10.5	19.5
23	-3.5	-8.0	-6.5	20.0	3.5	13.0	12.0	4.0	7.0	28.5	14.0	21.5
24	7.5	-4.5	.5	6.0	2.5	4.0	15.5	3.5	10.5	28.0	18.5	22.5
25	-.5	-3.5	-2.0	7.0	-2.5	3.5	10.5	6.0	8.0	29.0	19.5	23.0
26	-2.5	-7.0	-5.0	12.5	-2.0	7.0	15.5	3.0	9.5	26.5	20.0	23.0
27	-2.0	-7.5	-4.5	23.0	12.0	17.5	20.5	9.0	14.5	25.5	20.0	22.5
28	5.0	-4.5	-.5	14.0	3.5	7.5	25.0	8.0	17.0	27.0	19.0	23.0
29	---	---	---	6.5	-2.5	.5	21.5	10.5	16.0	28.5	19.5	24.0
30	---	---	---	6.5	-3.0	-.5	24.5	11.0	19.0	28.0	21.0	25.0
31	---	---	---	9.0	1.0	5.0	---	---	---	27.0	19.5	23.0
MONTH	11.0	-12.5	-1.5	23.0	-9.5	3.3	26.0	.0	10.4	29.5	1.0	17.3

413507080414500 AB-134 NR KINGSVILLE OH--Continued

TEMPERATURE, AIR, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.5	15.0	20.0	24.5	10.5	19.0	29.5	17.5	23.5	19.0	11.0	15.5
2	24.0	11.0	18.0	23.5	18.0	21.0	30.0	14.5	23.0	24.5	10.5	17.5
3	25.0	11.5	19.0	29.5	17.0	23.5	27.0	19.0	22.5	30.5	16.0	23.0
4	19.0	11.5	15.5	27.5	18.5	22.5	24.0	18.0	21.0	21.0	12.5	18.5
5	22.0	7.5	15.5	28.5	19.5	23.5	22.5	12.0	19.5	22.5	8.5	15.5
6	23.5	8.5	16.5	31.5	18.5	24.5	23.0	8.5	17.0	23.0	8.0	15.5
7	23.0	8.0	16.5	31.0	19.0	27.0	25.5	9.0	18.5	27.0	11.0	19.0
8	25.0	8.5	17.5	25.5	18.5	21.5	23.0	13.0	18.0	27.5	16.5	21.0
9	27.5	10.5	19.5	22.5	12.0	18.5	23.0	17.0	19.0	29.0	18.5	23.0
10	28.5	16.0	22.5	25.0	10.5	18.0	24.0	15.5	20.0	28.0	19.5	23.0
11	26.5	20.5	24.0	25.5	12.0	19.0	26.0	15.0	21.5	20.5	13.0	17.5
12	24.5	15.0	20.0	29.0	10.5	19.5	25.5	12.5	19.5	22.0	11.5	16.5
13	19.5	6.0	14.0	22.0	14.5	20.5	27.0	14.5	20.5	24.5	11.5	18.5
14	28.0	6.0	19.0	25.5	12.5	19.5	25.5	16.0	19.5	26.0	14.0	20.5
15	32.5	19.5	25.5	24.5	10.0	18.0	26.5	15.5	21.0	32.0	21.0	26.5
16	25.5	19.5	22.0	29.0	9.0	20.0	28.0	19.0	23.5	33.0	21.5	26.0
17	24.0	16.0	20.5	30.0	16.0	23.0	30.5	20.0	23.5	22.0	12.5	18.5
18	24.0	13.5	20.5	30.0	19.0	25.0	23.5	14.5	20.0	24.0	12.5	17.5
19	26.5	16.5	22.0	32.0	20.5	26.5	24.0	13.5	19.0	15.0	8.0	12.5
20	29.0	14.0	21.5	32.5	21.0	27.0	17.5	15.5	16.5	12.0	7.5	10.0
21	29.0	14.0	22.5	31.5	21.5	26.5	22.5	13.5	18.0	15.0	6.5	10.5
22	22.5	15.0	18.5	32.0	20.0	26.5	28.5	13.0	20.5	21.5	5.0	13.5
23	22.5	12.5	17.5	30.0	15.5	25.5	24.5	15.5	20.5	18.5	8.5	14.5
24	24.5	9.5	18.0	26.0	15.0	21.0	23.5	11.5	19.0	16.5	6.0	11.5
25	28.0	15.5	21.5	28.0	16.5	22.0	28.5	14.5	21.5	17.0	10.0	12.5
26	29.5	17.0	23.0	23.0	13.5	19.0	29.5	18.5	23.0	12.0	8.5	11.0
27	30.0	18.0	24.0	22.0	9.5	17.0	29.0	17.5	22.5	11.5	5.0	9.(
28	31.5	19.0	25.0	25.5	9.5	18.5	29.0	18.5	23.5	13.0	2.0	7.5
29	30.0	22.5	26.0	26.0	17.0	22.0	30.5	17.0	23.0	16.0	4.5	10.0
30	26.0	13.5	22.0	24.0	14.5	20.5	31.5	20.0	25.0	24.5	5.5	14.5
31	---	---	---	26.5	13.0	20.0	23.5	16.5	21.5	---	---	---
MONTH	32.5	6.0	20.2	32.5	9.0	21.8	31.5	8.5	20.8	33.0	2.0	16.3
YEAR	33.0	-12.5	14.5									

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.0	8.0	8.0	7.5	7.5	7.5	8.5	8.0	8.5
2	---	---	---	8.0	7.5	7.5	7.5	7.5	7.5	8.5	8.5	8.5
3	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.0	8.5
4	---	---	---	8.0	7.5	7.5	7.5	7.5	7.5	8.5	8.0	8.5
5	---	---	---	8.0	7.5	7.5	7.5	7.5	7.5	8.5	8.0	8.5
6	---	---	---	7.5	7.0	7.5	7.5	7.5	7.5	8.5	8.0	8.5
7	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.5	8.5
8	---	---	---	7.5	7.0	7.5	7.5	7.5	7.5	8.5	8.0	8.5
9	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.0	8.5
10	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.5	8.5
11	---	---	---	7.5	7.5	7.5	8.0	7.5	7.5	8.5	8.5	8.5
12	---	---	---	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.5	8.5
13	8.5	8.0	8.5	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.5	8.5
14	8.5	8.5	8.5	7.5	7.5	7.5	7.5	7.5	7.5	8.5	8.5	8.5
15	9.0	8.5	8.5	7.5	7.5	7.5	7.5	7.5	7.5	9.0	8.5	9.0
16	8.5	8.5	8.5	7.5	7.5	7.5	8.0	7.5	8.0	9.0	9.0	9.0
17	8.5	8.5	8.5	7.5	7.5	7.5	8.0	8.0	8.0	9.0	9.0	9.0
18	8.5	8.0	8.5	7.5	7.5	7.5	8.0	8.0	8.0	9.0	9.0	9.0
19	8.5	8.0	8.5	7.5	7.5	7.5	8.0	8.0	8.0	9.0	9.0	9.0
20	8.0	8.0	8.0	7.5	7.5	7.5	8.0	8.0	8.0	9.0	9.0	9.0
21	8.0	7.5	8.0	7.5	7.5	7.5	8.0	8.0	8.0	9.5	9.0	9.0
22	8.0	7.5	8.0	7.5	7.5	7.5	8.0	8.0	8.0	9.5	9.0	9.5
23	8.0	7.5	8.0	7.5	7.5	7.5	8.0	7.5	8.0	9.5	9.0	9.5
24	8.0	7.5	7.5	7.5	7.5	7.5	8.0	7.5	8.0	9.5	9.5	9.5
25	8.0	7.5	7.5	7.5	7.5	7.5	8.0	8.0	8.0	9.5	9.5	9.5
26	8.0	7.5	8.0	7.5	7.5	7.5	8.5	8.0	8.0	9.5	9.5	9.5
27	8.0	7.5	8.0	7.5	7.5	7.5	8.5	8.0	8.0	9.5	9.5	9.5
28	8.0	7.5	8.0	7.5	7.5	7.5	8.5	8.5	8.5	9.5	9.5	9.5
29	---	---	---	7.5	7.5	7.5	8.5	8.5	8.5	10.0	9.5	10.0
30	---	---	---	7.5	7.5	7.5	8.5	8.5	8.5	10.0	10.0	10.0
31	---	---	---	7.5	7.5	7.5	---	---	---	10.0	10.0	10.0
MONTH	9.0	7.5	8.2	8.0	7.0	7.5	8.5	7.5	7.8	10.0	8.0	9.0

413507080414500 AB-134 NR KINGSVILLE OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.5	10.0	10.0	12.5	12.0	12.5	14.0	14.0	14.0	15.0	14.5	15.0
2	10.5	10.5	10.5	12.5	12.0	12.5	14.0	14.0	14.0	15.0	14.5	15.0
3	10.5	10.5	10.5	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
4	10.5	10.5	10.5	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
5	10.5	10.0	10.5	12.5	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
6	10.5	10.5	10.5	13.0	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
7	11.0	10.5	10.5	13.0	12.5	12.5	14.0	14.0	14.0	15.0	15.0	15.0
8	11.0	10.5	11.0	12.5	12.5	12.5	14.5	14.0	14.5	15.0	15.0	15.0
9	11.0	11.0	11.0	13.0	12.5	13.0	14.5	14.5	14.5	15.0	15.0	15.0
10	11.5	11.0	11.0	13.0	12.5	13.0	14.5	14.5	14.5	15.0	15.0	15.0
11	11.5	11.0	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
12	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
13	11.5	11.0	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
14	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
15	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
16	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.0	15.0	15.0
17	11.5	11.5	11.5	13.0	13.0	13.0	14.5	14.5	14.5	15.5	15.0	15.0
18	11.5	11.5	11.5	13.5	13.0	13.0	14.5	14.5	14.5	15.5	15.0	15.5
19	12.0	11.5	11.5	13.5	13.0	13.5	14.5	14.5	14.5	15.5	15.5	15.5
20	12.0	11.5	11.5	13.5	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
21	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
22	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
23	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
24	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
25	12.0	12.0	12.0	13.5	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
26	12.5	12.0	12.0	14.0	13.5	13.5	14.5	14.5	14.5	15.5	15.5	15.5
27	12.5	12.0	12.0	14.0	13.5	14.0	14.5	14.5	14.5	15.5	15.5	15.5
28	12.5	12.0	12.5	14.0	14.0	14.0	14.5	14.5	14.5	15.5	15.5	15.5
29	12.5	12.5	12.5	14.0	14.0	14.0	14.5	14.5	14.5	15.5	15.5	15.5
30	12.5	12.0	12.5	14.0	14.0	14.0	15.0	14.5	14.5	15.5	15.5	15.5
31	---	---	---	14.0	14.0	14.0	15.0	14.5	15.0	---	---	---
MONTH	12.5	10.0	11.4	14.0	12.0	13.2	15.0	14.0	14.4	15.5	14.5	15.2
YEAR	15.5	7.0	11.0									

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	21.0	5.5	12.0	5.5	.5	3.0	27.5	14.0	22.0
2	---	---	---	24.5	5.5	15.5	9.5	.0	4.0	28.0	10.5	15.5
3	---	---	---	3.5	-1.0	.5	17.5	.0	8.0	15.5	7.0	11.0
4	---	---	---	.5	-5.0	-1.5	30.5	.5	13.5	18.0	2.0	9.0
5	---	---	---	15.0	-7.0	3.5	20.5	10.5	13.0	19.0	1.5	10.0
6	---	---	---	8.5	2.5	7.0	30.0	10.0	18.5	24.0	2.5	14.0
7	---	---	---	3.5	-3.5	-.5	32.0	13.5	22.0	21.0	7.5	14.5
8	---	---	---	5.0	-7.5	-2.0	28.5	17.5	21.0	20.0	6.5	12.5
9	---	---	---	7.5	-6.5	.5	28.5	17.5	21.0	22.5	1.0	12.0
10	---	---	---	6.5	-3.0	.5	28.0	12.5	20.0	30.0	9.5	16.0
11	---	---	---	5.5	-6.5	-1.0	10.0	2.0	6.0	27.5	8.0	17.5
12	---	---	---	6.5	-11.0	-3.0	13.5	.5	5.5	34.0	7.5	21.0
13	2.0	-.5	.5	7.0	-7.5	.0	13.0	.0	6.0	34.0	15.0	23.0
14	1.5	-3.5	.0	8.0	-3.5	1.5	10.5	4.5	8.0	34.5	14.5	24.0
15	-3.5	-12.5	-9.0	16.0	-6.5	2.5	11.0	6.0	8.5	36.0	11.0	24.0
16	1.5	-12.5	-7.0	15.0	-7.5	2.0	20.0	8.0	12.5	40.0	17.5	27.0
17	4.0	-6.0	-1.5	20.0	-7.5	5.5	14.5	10.0	12.0	31.5	9.5	21.5
18	5.5	-4.5	1.0	12.0	.5	5.5	18.0	3.0	11.0	20.5	8.0	13.0
19	11.5	2.5	7.5	12.5	.5	5.0	15.0	.0	7.5	29.0	7.0	17.5
20	4.0	-1.5	1.0	18.0	-3.0	6.5	12.0	4.0	8.5	28.5	7.0	19.0
21	17.5	1.0	7.0	28.0	3.0	13.5	10.0	5.5	7.5	32.5	14.0	23.5
22	8.5	-5.5	3.0	9.5	2.0	4.0	5.5	4.0	4.5	36.5	11.0	24.0
23	3.0	-8.0	-4.5	25.5	3.5	13.5	17.5	4.0	8.5	39.5	14.5	25.5
24	14.0	-5.0	2.5	6.0	2.5	4.5	20.5	2.5	12.0	36.5	19.0	26.0
25	3.5	-3.0	-1.0	13.5	-3.0	5.5	18.5	6.0	10.5	41.0	20.0	26.5
26	4.5	-7.5	-3.5	13.5	-3.5	7.5	23.5	3.0	12.5	33.0	20.0	25.5
27	4.5	-7.5	-2.5	26.0	12.0	18.0	27.5	7.5	16.0	32.0	20.0	24.5
28	7.0	-5.0	.5	14.5	3.0	9.5	34.0	8.0	20.0	38.5	19.0	27.5
29	---	---	---	6.0	-2.5	2.0	30.5	12.0	18.5	39.5	19.5	28.0
30	---	---	---	7.5	-3.5	2.0	28.0	11.5	20.5	36.0	21.5	28.0
31	---	---	---	16.0	.5	7.5	---	---	---	37.0	20.0	27.0
MONTH	17.5	-12.5	-.4	28.0	-11.0	4.8	34.0	.0	12.0	41.0	1.0	20.3

413507080414500 AB-134 NR KINGSVILLE OH--Continued

TEMPERATURE, SOIL DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	32.5	14.0	23.5	31.0	10.5	22.0	36.5	17.0	26.5	24.0	10.5	18.0
2	32.0	10.5	21.5	33.5	18.0	24.5	37.5	14.5	25.5	32.0	10.0	20.0
3	34.5	10.5	22.5	39.0	17.0	27.5	33.0	19.0	24.0	39.0	16.0	26.0
4	26.0	12.5	18.5	36.0	19.0	25.0	31.5	18.0	23.5	28.0	12.5	21.0
5	29.0	7.5	19.0	35.5	19.5	27.0	32.0	12.5	22.5	30.5	8.5	18.5
6	33.0	8.5	21.0	43.5	18.5	29.0	29.5	8.5	19.5	30.5	8.0	18.5
7	30.0	7.5	20.0	38.5	20.0	30.0	31.0	10.0	20.5	36.5	11.0	22.0
8	35.0	8.5	22.0	32.5	18.0	24.5	25.5	13.5	18.5	35.0	17.0	24.0
9	35.5	10.5	23.5	30.0	11.5	22.5	30.5	17.5	21.0	34.5	17.5	25.0
10	36.0	15.5	26.0	34.0	10.5	22.5	31.0	15.5	22.5	34.0	20.0	24.5
11	30.0	21.0	27.0	33.5	12.0	23.5	33.0	16.0	24.5	27.0	13.5	20.0
12	31.0	14.0	23.0	37.5	10.0	22.5	32.5	13.0	22.5	30.0	12.0	19.5
13	26.5	6.0	18.0	28.0	15.0	21.5	33.0	15.0	23.0	33.0	11.5	20.0
14	38.5	5.5	23.0	31.5	12.5	22.5	32.5	16.5	22.5	34.5	15.0	23.5
15	42.5	19.5	29.0	33.0	10.0	22.5	33.0	15.5	23.0	38.0	21.0	28.5
16	33.5	19.5	25.0	36.0	9.0	24.0	35.5	18.5	26.5	38.5	22.0	28.5
17	30.0	15.5	23.5	37.5	15.5	26.0	36.0	20.0	25.5	28.0	12.5	21.5
18	30.5	13.0	23.0	37.5	19.5	28.5	32.5	15.0	24.0	28.5	12.5	18.5
19	36.5	17.0	26.5	38.5	21.0	29.5	29.5	14.0	20.5	21.0	9.0	14.5
20	37.0	14.0	26.5	39.5	21.0	30.0	18.0	16.0	17.0	16.5	8.0	11.0
21	37.5	14.0	26.0	37.5	22.0	29.0	29.0	13.0	20.5	23.0	5.5	12.5
22	28.0	15.5	20.5	38.0	20.5	29.5	35.0	12.5	22.5	26.5	4.5	15.5
23	28.0	12.0	19.5	35.0	16.0	28.0	31.5	16.0	23.5	22.5	9.0	16.5
24	32.5	8.5	22.0	34.5	15.5	24.5	29.5	12.5	21.0	24.0	6.0	13.0
25	38.5	15.0	25.5	35.0	16.5	25.5	38.0	14.0	24.5	22.5	10.0	14.5
26	39.0	16.0	27.5	30.0	13.5	22.5	38.5	18.5	26.5	16.5	9.5	11.5
27	37.5	18.0	28.0	29.0	9.5	20.0	38.5	17.5	26.0	18.0	6.0	10.5
28	38.0	19.0	28.5	32.0	9.5	21.0	38.5	19.0	27.5	20.5	2.5	10.0
29	37.5	22.5	29.0	30.5	17.5	23.0	40.0	17.0	27.0	22.5	3.0	12.0
30	32.5	14.0	24.5	30.5	14.5	23.0	40.5	20.0	28.0	30.5	4.5	16.0
31	---	---	---	33.0	12.5	23.5	30.0	16.0	24.0	---	---	---
MONTH	42.5	5.5	23.8	43.5	9.0	25.0	40.5	8.5	23.4	39.0	2.5	18.5
YEAR	43.5	-12.5	16.9									

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.01	.19	.00	.11	.00	.00	.00
2	---	---	---	---	---	.03	.01	.07	.00	.00	.00	.00
3	---	---	---	---	---	.01	.00	.00	.00	.01	.01	.00
4	---	---	---	---	---	.00	.00	.00	.00	.67	.00	.32
5	---	---	---	---	---	.59	.27	.00	.03	.00	.00	.00
6	---	---	---	---	---	.76	.00	.19	.00	.00	.00	.00
7	---	---	---	---	---	.00	.00	.00	.00	.14	.00	.00
8	---	---	---	---	---	.00	.19	.00	.00	.38	.67	.00
9	---	---	---	---	---	.00	.19	.00	.00	.02	.61	.00
10	---	---	---	---	---	.00	1.19	.16	.00	.00	.00	.00
11	---	---	---	---	---	.00	.06	.00	.00	.00	.00	.00
12	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
13	---	---	---	---	.28	.00	.00	.00	.00	.06	.00	.00
14	---	---	---	---	.06	.00	.00	.00	.00	.00	.49	.00
15	---	---	---	---	.00	.00	.26	.00	.30	.00	.00	.00
16	---	---	---	---	.00	.00	.19	.00	.18	.00	.00	.33
17	---	---	---	---	.06	.02	.00	.00	.00	.00	.12	.01
18	---	---	---	---	.06	.35	.00	.00	.00	.00	.00	.16
19	---	---	---	---	.21	.03	.00	.00	.00	.01	.18	.05
20	---	---	---	---	.00	.00	.91	.00	.00	.00	1.94	.25
21	---	---	---	---	.00	.00	.20	.00	.00	.00	.26	.00
22	---	---	---	---	.02	.09	.25	.00	.00	.00	.03	.00
23	---	---	---	---	.00	.42	.10	.00	.02	.00	.01	.45
24	---	---	---	---	.00	.30	.00	.30	.00	.00	.00	.03
25	---	---	---	---	.00	.00	.05	.21	.00	.00	.00	.16
26	---	---	---	---	.03	.00	.00	.51	.00	.00	.00	.19
27	---	---	---	---	.01	.01	.00	.02	.00	.00	.00	.07
28	---	---	---	---	.03	.78	.00	.00	.00	.00	.00	.05
29	---	---	---	---	---	.00	.02	.00	.00	.15	.00	.00
30	---	---	---	---	---	.00	.09	.06	.00	.00	.00	.00
31	---	---	---	---	---	.01	---	.01	---	.00	.05	---
TOTAL	---	---	---	---	0.76	3.41	4.17	1.53	0.64	1.44	4.37	2.07

WTR YR 1991 TOTAL 18.39

The following tables list bridge-scour measurement sites and instantaneous discharge measurements collected at some of these sites. The data were collected as part of a cooperative study with the Ohio Department of Transportation. The objectives of this study are (1) to collect reliable and sufficient data during flood events to determine whether local scour, constriction scour, and general scour, are occurring at the sites; (2) to compare and evaluate published local scour-prediction equations with observed data; and (3) to compare local scour data collected using geophysical techniques with local scour data defined by physical measurements.

Bridge Scour Measurement Sites

Site Number	Name	Drainage Area (mi^2)
404715081312200	Tuscarawas River at Massillon, Ohio	513
403515081312401	Sugar Creek at Strasburg, Ohio	311
401933081304100	Tuscarawas River near Port Washington, Ohio	2,400
402941081591200	Killbuck Creek at Killbuck, Ohio	462
393549082324700	Clear Creek near Rockbridge, Ohio	91.8
392731082142400	Hocking River at Nelsonville, Ohio	576
402902083112800	Scioto River near Prospect, Ohio	528
394609082544200	Walnut Creek near Ashville, Ohio	216
392031082582700	Scioto River at Chillicothe,Ohio	3,849
391520082461200	Salt Creek near Londonderry, Ohio	286
392424084060400	Little Miami River at Ft. Ancient, Ohio	675
392115084074600	Todd Fork at Morrow, Ohio	262
400627083475701	Mad River near Urbana, Ohio	162
400150084111300	Great Miami River at Troy, Ohio	927
392340084341700	Great Miami at Hamilton, Ohio	3,630
404037084155200	Auglaize River near Wapakoneta, Ohio	200
404257084081500	Ottawa River at Lima, Ohio	130
411536084331400	Maumee River near Sherwood, Ohio	2,276
410120083063501	Honey Creek at Melmore, Ohio	149
414308081134101	Grand River near Painesville, Ohio	685

Location of Bridge-Scour Measurement Sites

Instantaneous Discharge Measurements at Bridge-Scour Sites

Site number	Name	Date	Discharge (ft^3/s)
392731082142400	Hocking River at Nelsonville, Ohio	12-31-90	8,660
392424084060400	Little Miami River at Fort Ancient, Ohio	12-19-90	4,620
404257084081500	Ottawa River at Lima, Ohio	12-30-90	4,400
402902083112800	Scioto River near Prospect, Ohio	12-31-90	7,750
392115084074600	Todd Fork at Morrow, Ohio	12-18-90	10,500

The following tables contain ground-water-level measurements and chemical analyses from a network of wells and two surface-water sites on the Van Meter farm near Piketon. The data were collected as part of an inter-agency study with the United States Department of Agriculture, the USGS, and The Ohio State University. The purpose of the study is to evaluate the effects of different farming practices on ground-water quality. The USGS began its research at the Management Systems Evaluation Area in 1990 and is funded through 1993.

GROUND-WATER DATA

390156083014311. Local number, PI-241-MP1 NR PIKETON OH.
Cooperator number, R8-MP1.
LOCATION.--Lat 39°01'56", long 83°01'43", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 28.56 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.02 ft. above National GVD of 1929. Measuring point: Top of tubing 3.00 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 05...	--	687	7.4	12.5	0.2	81	29	27	3.2	276
JUN 11...	14.92	717	7.6	13.5	0.3	92	32	25	2.9	285

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 05...	53	30	9.5	402	<0.01	1.4	0.02	<0.01	<0.01	70
JUN 11...	56	45	10	415	0.03	1.1	0.01	<0.01	<0.01	20

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)
APR 05...	26	510	520	0.6	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05
JUN 11...	5	370	370	0.7	<0.05	<0.05	<0.05	<0.20	<0.05	<0.05

DATE	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 05...	<0.05	<0.05	<0.05	<0.05	<0.05	0.06
JUN 11...	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083014313. Local number, PI-241-MP3 NR PIKETON OH.
Cooperator number, R8-MP3.
LOCATION.--Lat 39°01'56", long 83°01'43", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 19.52 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.02 ft. above National GVD of 1929. Measuring point: Top of tubing 3.01 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
JUN 11...	14.85	828	7.1	17.0	3.7	100	37	25	2.0	385

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JUN 11...	29	32	12	459	0.02	1.2	<0.01	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
JUN 11...	<3	<10	2	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
JUN 11...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083014314. Local number, PI-241-MP4 NR PIKETON OH. Cooperator number, R8-MP4.
LOCATION.--Lat 39°01'56", long 83°01'43", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 14.70 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.02 ft. above National GVD of 1929. Measuring point: Top of tubing 3.02 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
APR 05...	697	7.3	11.0	7.1	100	30	7.3	1.3	324	44

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
APR 05...	11	11	406	<0.01	0.70	0.01	<0.01	<0.01	70	22

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 05...	90	88	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 05...	<0.20	<0.05	0.11	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083022830. Local number, PI-240-BR NR PIKETON OH. Cooperator number, R7-BR.
LOCATION.--Lat 39°01'56", long 83°02'28", Hydrologic Unit 05060002, at Van Meter Farm, 2.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Devonian shale.
WELL CHARACTERISTICS.--Monitoring well installed by cable tool drilling method, diameter 4.0 in., total depth 81.25 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 544.80 ft. above National GVD of 1929. Measuring point: Top of PVC casing 8.36 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
JUN 19...	18.50	2090	7.9	15.5	0.2	140	38	190	20	191

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JUN 19...	14	550	10	1310	<0.01	0.06	1.7	<0.01	<0.01	150

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
JUN 19...	7	330	360	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
JUN 19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083022811. Local number, PI-238-MP1 NR PIKETON OH. Cooperator number, R7-MP1.
LOCATION.--Lat 39°01'56", long 83°02'28", Hydrologic Unit 05060002, at Van Meter Farm, 2.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 62.14 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 544.74 ft. above National GVD of 1929. Measuring point: Top of tubing 10.72 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 09...	--	760	6.9	14.0	1.5	110	30	11	2.4	323
JUN 18...	18.28	845	7.3	16.0	0.5	120	36	9.8	2.4	378

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 09...	71	26	12	466	<0.01	<0.05	0.05	<0.01	<0.01	5800
JUN 18...	69	23	12	487	<0.01	<0.05	0.06	<0.01	<0.01	5800

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 09...	5300	460	470	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 18...	6100	400	440	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 09...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 18...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083022812. Local number, PI-238-MP2 NR PIKETON OH. Cooperator number, R7-MP2.
LOCATION.--Lat 39°01'56", long 83°02'28", Hydrologic Unit 05060002, at Van Meter Farm, 2.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 41.48 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 544.74 ft. above National GVD of 1929. Measuring point: Top of tubing 10.66 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR										
09...	--	660	7.6	14.5	2.6	89	26	17	2.7	241
JUN										
18...	18.39	699	7.3	14.5	0.2	98	30	16	2.5	288

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
09...	110	25	9.8	389	<0.01	<0.05	0.03	<0.01	<0.01	1800
JUN										
18...	81	27	10	436	<0.01	<0.05	0.04	<0.01	<0.01	1300

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
09...	1700	490	520	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
18...	1300	500	540	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
09...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
18...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083022814. Local number, PI-238-MP4 NR PIKETON OH. Cooperator number, R7-MP4.
LOCATION.--Lat 39°01'56", long 83°02'28", Hydrologic Unit 05060002, at Van Meter Farm, 2.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 22.19 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 544.74 ft. above National GVD of 1929. Measuring point: Top of tubing 10.67 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
JUN 18...	18.27	671	7.5	17.0	3.6	98	25	11	1.6	272

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JUN 18...	49	19	9.1	377	<0.01	4.8	0.02	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
JUN 18...	<3	<10	<1	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
JUN 18...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390156083022816. Local number, PI-238-MP6 NR PIKETON OH. Cooperator number R7-MP6.
LOCATION.--Lat 39°01'56", long 83°02'28", Hydrologic Unit 05060002, at Van Meter Farm, 2.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 12.89 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 544.74 ft. above National GVD of 1929. Measuring point: Top of tubing 10.68 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 09...	11.08	585	7.6	10.0	6.7	82	24	6.3	1.2	230

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 09...	51	11	7.4	321	<0.01	2.3	<0.01	<0.01	<0.01	570

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 09...	4	20	11	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 09...	<0.20	0.11	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390207083024030. Local number, PI-237-BR NR PIKETON OH. Cooperator number, R6-BR.
LOCATION.--Lat 39°02'07", long 83°02'40", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Devonian shale.
WELL CHARACTERISTICS.--Monitoring well installed by cable tool drilling method, diameter 4.0 in., total depth 89.5 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.79 ft. above National GVD of 1929. Measuring point: Top of PVC casing 5.92 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CAC03
APR 04...	17.26	2260	7.7	14.0	0.4	120	33	260	13	226
JUN 19...	22.88	2270	7.4	14.5	0.6	120	33	270	12	250

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 04...	96	620	11	1240	<0.01	<0.05	0.40	<0.01	<0.01	410
JUN 19...	--	600	12	1300	<0.01	<0.05	2.1	<0.01	<0.01	410

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 04...	510	--	85	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 19...	410	80	83	0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 04...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390207083024011. Local number, PI-235-MP1 NR PIKETON OH. Cooperator number, R6-MP1.
LOCATION.--Lat 39°02'07", long 83°02'40", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 60.16 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.68 ft. above National GVD of 1929. Measuring point: Top of tubing 7.31 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CAC03
APR 04...	19.44	758	7.3	13.5	0.2	100	31	16	3.0	306
JUN 18...	--	756	7.1	17.5	1.2	100	32	15	2.9	285

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON TOTAL RECOV-ERABLE (UG/L AS FE)
APR 04...	97	30	10	450	<0.01	0.06	0.01	<0.01	<0.01	1900
JUN 18...	93	31	11	443	<0.01	0.13	0.02	<0.01	<0.01	1800

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE SED. BOT MAT REC (UG/L)
APR 04...	1900	510	530	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 18...	1900	480	530	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 04...	<0.20	<0.05	<0.05	0.09	<0.05	<0.05
JUN 18...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390207083024012. Local number, PI-235-MP2 NR PIKETON OH. Cooperator number, R6-MP2.
LOCATION.--Lat 39°02'07", long 83°02'40", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 41.72 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.68 ft. above National GVD of 1929. Measuring point: Top of tubing 7.28 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CAC03
APR										
04...	19.44	683	7.4	13.5	5.7	95	29	7.3	1.9	302
JUN										
18...	26.90	643	7.4	16.0	4.6	97	30	7.1	1.5	293

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON TOTAL RECOV-ERABLE (UG/L AS FE
APR										
04...	39	13	9.8	384	<0.01	1.2	<0.01	<0.01	<0.01	<10
JUN										
18...	44	16	9.9	387	<0.01	5.2	0.01	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
04...	<3	<10	6	0.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
18...	<3	<10	<1	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
04...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
18...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390207083024015. Local number, PI-235-MP4 NR PIKETON OH. Cooperator number, R6-MP4.
LOCATION.--Lat 39°02'07", long 83°02'40", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 26.25 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.68 ft. above National GVD of 1929. Measuring point: Top of tubing 7.30 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
JUN 19...	23.49	689	7.3	16.0	5.3	99	31	8.1	1.5	323

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JUN 19...	46	16	10	402	<0.01	5.4	<0.01	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
JUN 19...	7	<10	<1	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
JUN 19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390207083024015. Local number, PI-235-MP5 NR PIKETON OH. Cooperator number, R6-MP5.
LOCATION.--Lat 39°02'07", long 83°02'40", Hydrologic Unit 05060002, at Van Meter Farm, 2.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 21.83 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.68 ft. above National GVD of 1929. Measuring point: Top of tubing 7.31 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 04...	19.35	630	7.0	14.0	7.0	94	30	6.1	1.5	297

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 04...	34	12	9.5	385	<0.01	5.1	<0.01	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 04...	5	<10	3	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 04...	<0.20	0.08	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390223083020611. Local number, PI-262-MP1 NR PIKETON OH. Cooperator number, S12-MP1.
LOCATION.--Lat 39°02'23", long 83°02'06", Hydrologic Unit 05060002, at Van Meter Farm, 1.8 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 28.81 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.12 ft. above National GVD of 1929. Measuring point: Top of tubing 2.76 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 03...	--	761	7.4	14.0	1.1	94	28	15	3.3	261
JUN 13...	15.04	718	7.2	14.0	5.3	96	30	14	2.9	287

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 03...	57	37	10	415	<0.01	4.3	<0.01	<0.01	<0.01	<10
JUN 13...	49	34	11	416	<0.01	6.2	0.02	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 03...	7	70	54	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 13...	4	10	7	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 03...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 13...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390223083020613. Local number, PI-262-MP3 NR PIKETON OH. Cooperator number, S12-MP3.
LOCATION.--Lat 39°02'23", long 83°02'06", Hydrologic Unit 05060002, at Van Meter Farm, 1.8 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 19.80 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.12 ft. above National GVD of 1929. Measuring point: Top of tubing 2.75 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CAC03
JUN 13...	14.80	699	7.3	14.0	7.3	94	30	12	2.5	275

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON TOTAL RECOVERABLE (UG/L) AS FE
JUN 13...	44	23	10	408	<0.01	6.8	0.02	<0.01	<0.01	40

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
JUN 13...	<3	10	<1	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
JUN 13...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390223083020614. Local number, PI-262-MP4 NR PIKETON OH. Cooperator number, S12-MP4.
LOCATION.--Lat 39°02'23", long 83°02'06", Hydrologic Unit 05060002, at Van Meter Farm, 1.8 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 14.76 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.12 ft. above National GVD of 1929. Measuring point: Top of tubing 2.76 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FETER FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
APR 03...	647	7.4	12.0	7.3	91	27	9.1	1.7	278	40

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON DISSOLVED (UG/L AS FE)
APR 03...	18	9.6	381	<0.01	1.4	<0.01	<0.01	<0.01	<10	5

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 03...	80	89	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 03...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390224083020111. Local number, PI-265-MP1 NR PIKETON OH. Cooperator number, S14-MP1.
LOCATION.--Lat 39°02'24", long 83°02'01", Hydrologic Unit 05060002, at Van Meter Farm, 1.7 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 61.37 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.75 ft. above National GVD of 1929. Measuring point: Top of tubing 3.66 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR										
02...	11.45	534	7.7	13.0	0.2	77	22	13	0.60	208
JUN										
13...	15.81	587	7.6	15.0	1.0	77	21	12	3.2	271

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON TOTAL RECOVERABLE (UG/L AS FE)
APR										
02...	78	23	10	341	<0.01	<0.05	0.07	<0.01	<0.01	1600
JUN										
13...	85	24	11	329	<0.01	<0.05	0.08	<0.01	<0.01	1900

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR										
02...	1600	430	410	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
13...	2000	300	320	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR						
02...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
13...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390224083020112. Local number, PI-265-MP2 NR PIKETON OH. Cooperator number, S14-MP2.
LOCATION.--Lat 39°02'24", long 83°02'01", Hydrologic Unit 05060002, at Van Meter Farm, 1.7 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 40.83 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.75 ft. above National GVD of 1929. Measuring point: Top of tubing 3.67 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CAC03
APR 02...	11.44	583	7.5	13.0	0.1	82	24	18	3.7	250
JUN 13...	15.79	625	7.3	14.0	0.5	81	24	16	3.7	251

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON TOTAL RECOV-ERABLE (UG/L AS FE)
APR 02...	74	26	9.9	386	0.01	<0.05	0.04	<0.01	<0.01	1000
JUN 13...	72	26	10	333	<0.01	<0.05	0.04	<0.01	<0.01	1000

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 02...	960	370	380	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 13...	1000	270	280	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 02...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 13...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390224083020115. Local number, PI-265-MP5 NR PIKETON OH. Cooperator number, S14-MP5.
LOCATION.--Lat 39°02'24", long 83°02'01", Hydrologic Unit 05060002, at Van Meter Farm, 1.7 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 16.75 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.75 ft. above National GVD of 1929. Measuring point: Top of tubing 3.69 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CAC03
JUN 13...	15.79	696	7.4	16.0	7.1	93	31	14	2.3	276

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JUN 13...	62	26	11	419	<0.01	5.7	0.02	<0.01	<0.01	20

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
JUN 13...	<3	10	<1	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
JUN 13...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390224083020116. Local number, PI-265-MP6 NR PIKETON OH. Cooperator number S14-MP6.
LOCATION.--Lat 39°02'24", long 83°02'01", Hydrologic Unit 05060002, at Van Meter Farm, 1.7 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 11.89 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.75 ft. above National GVD of 1929. Measuring point: Top of tubing 3.69 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR 02...	11.56	643	7.7	10.5	7.7	82	31	5.3	0.50	266

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 02...	29	12	8.6	362	<0.01	2.2	<0.01	<0.01	<0.01	160

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 02...	4	<10	7	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 02...	<0.20	0.08	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390227083013330. Local number, PI-222-BR NR PIKETON OH. Cooperator number, R1-BR.
LOCATION.--Lat 39°02'27", long 83°01'33", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Devonian shale.
WELL CHARACTERISTICS.--Monitoring well installed by cable tool drilling method, diameter 4.0 in., total depth 84.30 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 554.08 ft. above National GVD of 1929. Measuring point: Top of PVC casing 5.27 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
JUN 19...	11.04	1650	7.4	13.5	0.1	93	27	180	9.1	263

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JUN 19...	0.7	350	11	876	<0.01	0.06	1.5	0.01	<0.01	280

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
JUN 19...	290	160	160	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
JUN 19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390227083013311. Local number, PI-220-MP1 NR PIKETON OH. Cooperator number, R1-MP1.
LOCATION.--Lat 39°02'27", long 83°01'33", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 59.94 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 554.18 ft. above National GVD of 1929. Measuring point: Top of tubing 7.03 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR										
08...	7.54	610	7.5	12.0	1.1	76	27	18	3.5	287
JUN										
19...	--	762	7.5	14.5	0.7	89	31	20	3.5	271

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
08...	81	19	8.6	354	<0.01	0.32	<0.01	0.03	<0.01	50
JUN										
19...	68	37	9.1	414	<0.01	0.40	0.01	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
08...	6	<10	4	0.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
19...	<3	<10	<1	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
08...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390227083013312. Local number, PI-220-MP2 NR PIKETON OH. Cooperator number, R1-MP2.
LOCATION.--Lat 39°02'27", long 83°01'33", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 39.34 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 554.18 ft. above National GVD of 1929. Measuring point: Top of tubing 7.02 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR 08...	7.53	660	7.5	14.0	1.5	89	30	9.9	3.4	282
JUN 19...	--	688	7.4	13.0	1.2	98	33	8.4	3.1	308

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 08...	82	8.8	8.9	475	0.01	1.1	<0.01	<0.01	<0.01	<10
JUN 19...	64	12	9.4	400	<0.01	0.37	0.01	<0.01	<0.01	<10

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 08...	3	50	55	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 19...	<3	<10	15	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 08...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390227083013316. Local number, PI-220-MP6 NR PIKETON OH. Cooperator number, R1-MP6.
LOCATION.--Lat 39°02'27", long 83°01'33", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 12.77 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 554.18 ft. above National GVD of 1929. Measuring point: Top of tubing 7.01 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR										
08...	7.44	798	6.5	10.0	3.2	110	42	4.0	3.1	371
JUN										
19...	11.40	637	7.4	17.0	7.3	90	34	3.3	2.3	326

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
08...	41	5.5	8.6	431	<0.01	0.92	<0.01	<0.01	<0.01	10
JUN										
19...	21	5.3	8.3	352	<0.01	2.0	0.01	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
08...	<3	<10	2	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
19...	3	<10	<1	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
08...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
19...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390229083015811. Local number, PI-256-MP1 NR PIKETON OH. Cooperator number, S9-MP1.
LOCATION.--Lat 39°02'29", long 83°01'58", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 28.33 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 555.55 ft. above National GVD of 1929. Measuring point: Top of tubing 3.57 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	13.03	--	--	--	--	<1	<1
30...	13.33	787	7.3	15.0	0.9	<1	<1

390229083015814. Local number, PI-256-MP4 NR PIKETON OH. Cooperator number, S9-MP4.
LOCATION.--Lat 39°02'29", long 83°01'58", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 15.23 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 555.55 ft. above National GVD of 1929. Measuring point: Top of tubing 3.60 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	--	--	--	--	--	<1	<1
30...	13.35	849	7.2	14.0	7.6	<1	<1

GROUND-WATER DATA--Continued

390229083022911. Local number, PI-229-MP1 NR PIKETON OH. Cooperator number, R4-MP1.
LOCATION.--Lat 39°02'29", long 83°02'29", Hydrologic Unit 05060002, at Van Meter Farm, 1.9 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 60.91 ft below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.18 ft. above National GVD of 1929. Measuring point: Top of tubing 6.23 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 09...	9.57	934	7.6	15.0	0.7	100	30	44	5.0	241
JUN 12...	13.87	939	7.4	15.0	0.1	110	30	40	4.5	243

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 09...	63	140	11	550	<0.01	<0.05	0.10	<0.01	<0.01	2600
JUN 12...	65	120	12	500	0.02	<0.05	0.08	<0.01	<0.01	2500

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 09...	2600	440	460	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 12...	2800	440	480	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 09...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 12...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390229083022912. Local number, PI-229-MP2 NR PIKETON OH. Cooperator number, R4-MP2.
LOCATION.--Lat 39°02'29", long 83°02'29", Hydrologic Unit 05060002, at Van Meter Farm, 1.9 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 40.41 ft below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.18 ft. above National GVD of 1929. Measuring point: Top of tubing 6.22 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 09...	--	927	7.0	14.5	5.7	100	33	52	4.8	318
JUN 12...	13.83	889	7.3	14.5	1.4	98	32	49	4.4	362

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 09...	99	77	10	588	<0.01	0.19	0.04	<0.01	<0.01	930
JUN 12...	86	59	11	471	0.01	<0.05	0.01	<0.01	<0.01	840

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 09...	980	470	480	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 12...	930	380	410	0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 09...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 12...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390229083022915. Local number, PI-229-MP5 NR PIKETON OH. Cooperator number, R4-MP5.
LOCATION.--Lat 39°02'29", long 83°02'29", Hydrologic Unit 05060002, at Van Meter Farm, 1.9 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 16.48 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.18 ft. above National GVD of 1929. Measuring point: Top of tubing 6.25 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
JUN 12...	13.80	860	7.2	14.0	6.2	110	37	23	2.2	379

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
JUN 12...	49	34	11	474	0.01	3.4	<0.01	<0.01	<0.01	20

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
JUN 12...	<3	<10	<1	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
JUN 12...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390229083022916. Local number, PI-229- MP6 NR PIKETON OH. Cooperator number, R4-MP6.
LOCATION.--Lat 39°02'29", long 83°02'29", Hydrologic Unit 05060002, at Van Meter Farm, 1.9 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 11.62 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.18 ft. above National GVD of 1929. Measuring point: Top of tubing 6.25 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 09...	9.51	775	7.1	12.0	6.4	110	36	12	1.1	387

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 09...	33	18	10	477	<0.01	1.2	0.03	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 09...	8	10	10	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 09...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390232083020411. Local number, PI-253-MP1 NR PIKETON OH. Cooperator number, S8-MP1.
LOCATION.--Lat 39°02'32", long 83°02'04", Hydrologic Unit 05060002, at Van Meter Farm, 1.6 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 29.44 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.56 ft. above National GVD of 1929. Measuring point: Top of tubing 2.17 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	11.28	--	--	--	--	<1	K1
30...	11.73	1030	7.2	15.0	0.8	<1	<1

K Results based on colony count outside the acceptable range.

390232083020413. Local number, PI-253-MP3 NR PIKETON OH. Cooperator number, S8-MP3.
LOCATION.--Lat 39°02'32", long 83°02'04", Hydrologic Unit 05060002, at Van Meter Farm, 1.6 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 20.37 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.56 ft. above National GVD of 1929. Measuring point: Top of tubing 1.98 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	--	--	--	--	--	<1	<1
30...	11.92	1010	7.2	14.0	4.4	<1	<1

GROUND-WATER DATA--Continued

390233083015511. Local number, PI-259-MP1 NR PIKETON OH. Cooperator number, S10-MP1.
LOCATION.--Lat 39°02'33", long 83°01'55", Hydrologic Unit 05060002, at Van Meter Farm, 1.5 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 60.34 ft below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.66 ft. above National GVD of 1929. Measuring point: Top of tubing 4.43 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR										
10...	11.05	1150	7.6	12.0	1.9	110	30	85	5.4	207
JUN										
10...	--	1170	8.0	15.0	0	88	25	100	5.2	179

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
10...	78	230	9.8	670	0.01	<0.05	0.40	<0.01	<0.01	1300
JUN										
10...	76	220	9.8	653	<0.01	0.05	0.30	<0.01	<0.01	1600

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
10...	1100	850	900	1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
10...	1400	580	580	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
10...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
10...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390233083015512. Local number, PI-259-MP2 NR PIKETON OH. Cooperator number, S10-MP2.
LOCATION.--Lat 39°02'33", long 83°01'55", Hydrologic Unit 05060002, at Van Meter Farm, 1.5 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 40.16 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.66 ft. above National GVD of 1929. Measuring point: Top of tubing 4.38 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
APR											
02...	10.97	711	7.6	13.0	0.4	--	--	95	27	33	7.2
03...	10.97	--	--	--	--	<1	<1	--	--	--	--
30...	11.32	924	7.4	15.5	3.9	<1	<1	--	--	--	--
JUN											
10...	14.67	972	7.5	18.0	0.1	--	--	120	35	37	7.1

DATE	ALKALINITY WAT WH TOT FET FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR											
02...	236	85	65	10	467	0.03	2.7	0.02	<0.01	<0.01	140
03...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	280	72	69	11	575	0.06	10.0	0.02	0.01	<0.01	<10

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR										
02...	160	180	180	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
03...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
JUN										
10...	<3	120	130	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR						
02...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
03...	--	--	--	--	--	--
30...	--	--	--	--	--	--
JUN						
10...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390233083015514. Local number, PI-259-MP4 NR PIKETON OH. Cooperator number, S10-MP4.
LOCATION.--Lat 39°02'33", long 83°01'55", Hydrologic Unit 05060002, at Van Meter Farm, 1.5 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 25.29 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.66 ft. above National GVD of 1929. Measuring point: Top of tubing 4.41 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	--	--	--	--	--	<1	<1
30...	11.34	973	7.3	15.0	0.8	<1	<1

390233083015516. Local number, PI-259-MP6 NR PIKETON OH. Cooperator number, S10-MP6.
LOCATION.--Lat 39°02'33", long 83°01'55", Hydrologic Unit 05060002, at Van Meter Farm, 1.5 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 15.81 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.66 ft. above National GVD of 1929. Measuring point: Top of tubing 4.39 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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)
APR											
02...	10.96	796	7.7	12.0	3.5	--	--	110	46	8.0	1.0
03...	10.96	--	--	--	--	<1	<1	--	--	--	--
30...	11.31	888	7.1	13.5	4.6	<1	<1	--	--	--	--
JUN											
10...	14.70	889	7.4	14.5	2.8	<1	<1	110	42	14	4.1

DATE	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR											
02...	373	47	22	13	498	0.03	2.8	0.03	<0.01	<0.01	<10
03...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	331	45	33	13	484	<0.01	8.8	0.03	<0.01	<0.01	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
02...	8	290	290	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
03...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
JUN										
10...	<3	90	79	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
02...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
03...	--	--	--	--	--	--
30...	--	--	--	--	--	--
JUN						
10...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390234083014611. Local number, PI-247-MP1 NR PIKETON OH. Cooperator number, S6-MP1.
LOCATION.--Lat 39°02'34", long 83°01'46", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 24.57 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.33 ft. above National GVD of 1929. Measuring point: Top of tubing 4.21 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	9.64	--	--	--	--	<1	<1
30...	--	969	7.0	15.0	4.3	<1	<1

390234083014613. Local number, PI-247-MP3 NR PIKETON OH. Cooperator number, S6-MP3.
LOCATION.--Lat 39°02'34", long 83°01'46", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles south of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 15.55 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 553.33 ft. above National GVD of 1929. Measuring point: Top of tubing 4.22 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	--	--	--	--	--	<1	<1
30...	9.88	849	7.2	12.5	9.3	<1	<1

GROUND-WATER DATA--Continued

390236083015011. Local number, PI-250-MP1 NR PIKETON OH. Cooperator number, S7-MP1.
LOCATION.--Lat 39°02'36", long 83°01'50", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 26.57 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 548.27 ft. above National GVD of 1929. Measuring point: Top of tubing 2.94 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	5.06	--	--	--	--	<1	<1
30...	5.30	1110	7.6	14.5	4.7	<1	<1

390236083015013. Local number, PI-250-MP3 NR PIKETON OH. Cooperator number, S7-MP3.
LOCATION.--Lat 39°02'36", long 83°01'50", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 17.49 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 548.27 ft. above National GVD of 1929. Measuring point: Top of tubing 2.95 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR							
03...	--	--	--	--	--	<1	<1
30...	5.30	1540	7.2	13.0	2.0	<1	<1

390238083014100. Local number, PI-219 VANMETER NR PIKETON OH.
LOCATION.--Lat 39°02'38", long 83°01'41", Hydrologic Unit 05060002, at Van Meter Farm, 1.3 miles south of Piketon, Ohio.
Owner: John Vanmeter.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Domestic well constructed in 1956, diameter 8.0 in., total depth 77.53 ft. below ground surface.
DATUM.--Elevation of land-surface datum is 571.18 ft. above National GVD of 1929. Measuring point: Top of access porthole in well plate, 5.53 ft. below land-surface datum (well is in pit).
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3
DEC						
04...	32.84	775	7.4	12.5	1.7	138

GROUND-WATER DATA--Continued

390239083015130. Local number, PI-225-BR NR PIKETON OH. Cooperator number, R2-BR.
LOCATION.--Lat 39°02'39", long 83°01'51", Hydrologic Unit 05060002, at Van Meter Farm, 1.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Devonian shale.
WELL CHARACTERISTICS.--Monitoring well installed by cable tool drilling method, diameter 4.0 in., total depth 90.0 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 552.09 ft. above National GVD of 1929. Measuring point: Top of PVC casing 2.96 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 01...	10.19	6100	7.4	13.5	0.9	410	100	660	35	158
JUN 18...	10.52	5910	7.8	16.5	0.5	370	100	670	33	169

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 01...	7.5	2000	9.7	3410	<0.01	<0.11	3.9	<0.01	<0.01	320
JUN 18...	7.1	2100	9.9	4080	<0.01	0.06	4.9	0.02	<0.01	740

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 01...	14	260	250	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 18...	70	240	280	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 01...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 18...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390239083015111. Local number, PI-223-MP1 NR PIKETON OH. Cooperator number, R2-MP1.
LOCATION.--Lat 39°02'39", long 83°01'51", Hydrologic Unit 05060002, at Van Meter Farm, 1.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 60.83 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 551.22 ft. above National GVD of 1929. Measuring point: Top of tubing 4.01 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR										
01...	7.73	1340	7.9	11.5	0	75	20	150	5.5	193
JUN										
17...	11.69	1370	7.7	14.5	0.1	80	21	160	5.6	187

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR										
01...	72	260	9.2	712	<0.01	<0.05	0.25	<0.01	<0.01	2000
JUN										
17...	68	270	9.8	728	<0.01	<0.05	0.24	<0.01	0.01	1900

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR										
01...	1800	260	250	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
17...	1800	250	270	0.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR						
01...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
17...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390239083015112. Local number, PI-223-MP2 NR PIKETON OH. Cooperator number, R2-MP2.
LOCATION.--Lat 39°02'39", long 83°01'51", Hydrologic Unit 05060002, at Van Meter Farm, 1.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 40.30 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 551.22 ft. above National GVD of 1929. Measuring point: Top of tubing 3.96 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR 01...	7.84	772	7.6	11.5	0	61	16	72	6.0	218
JUN 17...	11.78	712	7.7	14.0	0.2	59	16	65	5.8	234

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 01...	77	77	8.9	441	<0.01	<0.05	0.06	<0.01	<0.01	760
JUN 17...	71	64	9.5	397	<0.01	<0.05	0.08	<0.01	0.01	700

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 01...	740	780	790	0.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 17...	720	370	390	0.9	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 01...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 17...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390239083015115. Local number, PI-223-MP5 NR PIKETON OH. Cooperator number, R2-MP5.
LOCATION.--Lat 39°02'39", long 83°01'51", Hydrologic Unit 05060002, at Van Meter Farm, 1.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 16.49 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 551.22 ft. above National GVD of 1929. Measuring point: Top of tubing 3.94 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
JUN 17...	11.74	1030	7.3	13.0	1.4	99	30	78	3.5	297

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON TOTAL RECOVERABLE (UG/L AS FE)
JUN 17...	76	100	10	590	0.03	8.4	0.03	0.02	0.01	240

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER, DISSOLV REC (UG/L)
JUN 17...	190	940	1000	0.7	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
JUN 17...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390239083015116. Local number, PI-223-MP6 NR PIKETON OH. Cooperator number, R2-MP6.
LOCATION.--Lat 39°02'39", long 83°01'51", Hydrologic Unit 05060002, at Van Meter Farm, 1.3 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 11.65 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 551.22 ft. above National GVD of 1929. Measuring point: Top of tubing 3.89 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR 01...	7.79	586	7.3	11.0	0.5	85	24	6.0	1.4	241

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR 01...	72	4.5	8.7	348	<0.01	0.23	0.02	<0.01	<0.01	280

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR 01...	200	440	430	0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR 01...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390241083020511. Local number, PI-244-MP1 NR PIKETON OH. Cooperator number, S5-MP1.
LOCATION.--Lat 39°02'41", long 83°02'05", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 62.01 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.88 ft. above National GVD of 1929. Measuring point: Top of tubing 4.69 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR										
03...	7.46	1850	7.6	14.5	0.3	220	66	17	4.3	88
JUN										
12...	11.42	1890	7.5	16.0	0.2	220	64	17	3.7	110

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR										
03...	19	560	10	1120	<0.01	<0.05	0.30	<0.01	<0.01	4400
JUN										
12...	28	550	11	1100	0.02	<0.05	0.29	<0.01	<0.01	4400

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR										
03...	4100	1500	1500	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
12...	4900	1200	1200	0.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR						
03...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN						
12...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390241083020512. Local number, PI-244-MP2 NR PIKETON OH. Cooperator number, S5-MP2.
LOCATION.--Lat 39°02'41", long 83°02'05", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 2.5 in., port depth 41.51 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.88 ft. above National GVD of 1929. Measuring point: Top of tubing 4.67 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
APR 03...	--	864	7.7	14.5	0.3	98	26	41	4.0	222
JUN 12...	11.41	944	7.6	16.0	0.0	110	25	43	4.0	236

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 03...	62	130	10	514	<0.01	<0.05	0.07	<0.01	<0.01	2200
JUN 12...	67	130	11	525	0.02	<0.05	0.05	<0.01	<0.01	2400

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
APR 03...	2100	--	510	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 12...	2400	380	400	0.6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 03...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05
JUN 12...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390241083020515. Local number, PI-244-MP5 NR PIKETON OH. Cooperator number, S5-MP5.
LOCATION.--Lat 39°02'41", long 83°02'05", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 15.59 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.88 ft. above National GVD of 1929. Measuring point: Top of tubing 4.69 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3
JUN 12...	11.41	679	7.4	13.5	5.6	76	32	18	7.8	273

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JUN 12...	36	21	9.7	391	0.06	11.0	<0.01	<0.01	<0.01	<10

DATE	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE WATER DISSOLV REC (UG/L)
JUN 12...	<3	<10	6	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYL-ATRAZINE, DISS, (UG/L)	DESISOPROPYL-ATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
JUN 12...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

GROUND-WATER DATA--Continued

390241083020516. Local number, PI-244-MP6 NR PIKETON OH. Cooperator number, S5-MP6.
LOCATION.--Lat 39°02'41", long 83°02'05", Hydrologic Unit 05060002, at Van Meter Farm, 1.4 miles southwest of Piketon, Ohio.
Owner: The Ohio State University.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Multiport monitoring well installed by cable tool drilling method, diameter 3.0 in., port depth 10.86 ft. below land-surface datum.
DATUM.--Elevation of land-surface datum is 549.88 ft. above National GVD of 1929. Measuring point: Top of tubing 4.69 ft. above land-surface datum.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
APR 03...	674	9.1	11.5	4.2	62	27	27	29	209	75

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON DISSOLVED (UG/L AS FE)
APR 03...	21	7.6	427	0.56	9.7	0.11	<0.01	<0.01	<10	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALACHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRAZINE, WATER, DISS, REC (UG/L)	METOLACHLOR WATER DISSOLV (UG/L)	METRIBUZIN (SENCOR) WATER DISSOLV (UG/L)	PROPAZINE, WATER DISSOLV REC (UG/L)
APR 03...	<10	13	1.3	<0.0	<0.05	0.05	<0.0	0.17	<0.05

DATE	CYANAZINE, WATER, DISS, REC, (UG/L)	DESETHYLATRAZINE, DISS, (UG/L)	DESISOPROPYLATRAZINE, DISS, (UG/L)	PROMETON, WATER, DISS, REC, (UG/L)	PROMETRYN, WATER, DISS, REC, (UG/L)	SIMAZINE, WATER, DISS, REC, (UG/L)
APR 03...	<0.20	0.08	<0.05	<0.05	<0.05	<0.05

Surface Water Data

390241083011801. Station name, BIG BEAVER CREEK NR PIKETON OH.
LOCATION.--Lat 39°02'41", long 83°01'18", Hydrologic Unit 05060002, on east side of private road bridge over Big Beaver Creek, 1.4 mi. south of Piketon, 2.9 mi. upstream from Scioto River.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CAC03
APR										
04...	45	231	8.5	14.5	11.0	16	13	8.5	2.0	23
JUN										
11...	0.67	385	7.9	23.5	8.1	30	19	14	3.8	96

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, 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-PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
04...	47	5.0	9.3	158	<0.01	0.72	0.01	<0.01	<0.01	920
JUN										
11...	74	11	6.6	211	<0.01	0.10	0.04	<0.01	<0.01	230

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
04...	160	110	100	2.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
JUN										
11...	18	120	91	4.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
04...	<0.20	.08	<0.05	<0.05	<0.05	<0.05
JUN						
11...	<0.20	<0.05	<0.05	<0.05	<0.05	<0.05

Surface Water Data--Continued

390250083030001. Station name, SCIOTO RIVER NR PIKETON OH.
LOCATION.--Lat 39°02'50", long 83°03'00", Hydrologic Unit 05060002, on north side of state highway 124 bridge over Scioto River, 2.7 mi. southwest of Piketon, 0.1 mi. east of Jasper, 2.5 mi. upstream from Big Darby Creek tributary.
PERIOD OF RECORD.--April 1991 to September 1991.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	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 WAT WH TOT FET FIELD MG/L AS CACO3
APR										
03...	5750	538	8.0	13.5	11.3	64	22	16	2.6	194
JUN										
11...	1780	671	8.7	27.5	10.0	75	26	34	4.3	218

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	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)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
APR										
03...	58	24	7.0	339	0.02	2.8	0.09	0.07	0.06	1600
JUN										
11...	93	25	4.5	417	0.01	2.3	0.05	0.05	0.05	1200

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	ALA-CHLOR (LASSO) WATER DISSOLV (UG/L)	AMETRYN WATER, DISS, REC, (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	METRI-BUZIN (SENCOR) WATER DISSOLV (UG/L)	PROP-AZINE WATER DISSOLV REC (UG/L)
APR										
03...	76	60	25	5.8	<0.05	<0.05	0.17	.12	<0.05	<0.05
JUN										
11...	9	70	5	9.0	0.3	<0.05	2.7	1.8	0.1	<0.05

DATE	CYANA-ZINE, WATER, DISS, REC, (UG/L)	DES-ETHYL-ATRA-ZINE, DISS, (UG/L)	DESISO-PROPYL-ATRA-ZINE, DISS, (UG/L)	PROME-TON, WATER, DISS, REC, (UG/L)	PROME-TRYN, WATER, DISS, REC, (UG/L)	SIMA-ZINE, WATER, DISS, REC, (UG/L)
APR						
03...	<0.20	<0.05	<0.05	<0.05	<0.05	.06
JUN						
11...	<0.20	.13	<0.05	<0.05	<0.05	<0.05

MICROBIAL ECOLOGY DATA FOR THE MANAGEMENT SYSTEMS EVALUATION AREA IN PIKE COUNTY

The following table contains microbial numbers data from sediment samples collected during drilling activities at the MSEA site, January through March, 1991. The objective of this task is to assess the spatial variability of microbial numbers, and to determine which physical and chemical aquifer characteristics control the spatial variability. The "local well name" heading corresponds to the well location where the samples were collected. Microbial numbers are recorded as number of colony-forming units x 1000 per gram of dry sediment.

MICROBIAL NUMBERS DATA

Latitude-longitude	Local well name	Sample ID	Depth (ft)	CFU x 1000/ gram of sed. (dry weight)
390227083013311	PI-220-MP1	R2	40'-42'	50.1
			58'-60'	0.67
			12'-15'	15.2
390239083015111	PI-223-MP1	S14	11'-14'	11.5
			38'-41'	143
			60.5'-62'	28.1
390244083023011	PI-226-MP1	S5	8.5'-10'	7.97
			45'-48'	53.1
390229083022911	PI-229-MP1	R1	12'-14.5'	18.3
			26'-29'	17.4
			38'-41'	90.9
			57'-60'	22.1
390229083025011	PI-232-MP1	R6	17'-18'	87.0
			39'-40.5'	26.0
			59.0'-60.5'	25.4
390207083024011	PI-235-MP1	R7	14'-15'	9.53
			44'-46'	1.20
			59'-60'	24.1
390156083022811	PI-238-MP1	S10	17'-18'	<1
			39'-40.5'	2.93
			59'-60.5'	9.93
390156083014311	PI-241-MP1	S3	17'-19'	<1
390242083015611	PI-268-MP1	S12	12'-15'	2.23
			27'-28.5'	1.13

The following tables list the results of bacteriological, chemical, and physical measurements collected at eight locations in the Cuyahoga River in Summit and Cuyahoga Counties, Ohio. Samples were collected and analyzed as part of a study to characterize the recreational quality of the Cuyahoga River at selected locations in the Cuyahoga Valley National Recreational Area (CVNRA).

CUYAHOGA R AT OLD PORTAGE OH - 04206000
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
04...	0930	3.04	554	--	--	--	41000	82	51
04...	0950	3.07	558	--	--	56000	34000	75	69
04...	1005	3.07	558	--	--	44000	38000	75	83
04...	1400	2.63	385	23.5	790	--	--	120	50

MUD BK AT AKRON-PENINSULA ROAD NR AKRON OH - 04206050
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
04...	1020	1.00	50	--	--	7700	--	46	74
04...	1220	0.90	39	21.5	455	12000	2400	45	123
04...	1325	0.86	36	21.5	440	--	4300	42	140

BRANDYWINE C NR JAITE OH - 04206420
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
04...	1840	6.37	29	21.0	800	8700	8200	100	195
04...	2050	6.30	25	20.5	830	7700	8100	100	142
04...	2140	6.30	25	20.5	850	8000	9000	100	123
04...	2250	6.25	22	20.0	880	6800	10000	110	102
05...	0020	6.20	21	19.5	900	9300	8000	110	101

CUYAHOGA R AT INDEPENDENCE OH - 04208000
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
05...	0115	3.70	760	22.0	646	120000	130000	75	257
05...	0215	3.58	704	22.0	649	110000	83000	76	219
05...	0315	3.46	653	21.0	649	92000	41000	74	181
05...	0615	3.20	533	21.0	656	--	24000	74	109
05...	0810	3.10	486	21.0	675	64000	27000	76	80
05...	1045	3.04	466	21.5	690	37000	15000	78	60
05...	1315	2.97	424	21.5	740	13000	8000	84	57
05...	1645	2.86	372	22.0	798	8300	2400	92	38

SAND RN AT OLD PORTAGE OH - 410817081334700 -
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
04...	1040	10.25	5.1	--	--	3300	K6300	36	127
04...	1200	10.35	5.4	--	--	4400	3800	39	133
04...	1250	10.35	5.4	20.0	500	--	4300	40	153

CUYAHOGA R AT BOTZUM OH - 411011081345100 -
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
04...	0930	7.91	810	23.0	541	320000	200000	72	554
04...	1150	7.60	675	23.0	590	340000	--	77	194
04...	1220	7.50	650	23.0	592	180000	130000	76	205
04...	1300	7.44	615	23.0	638	210000	130000	83	185
04...	1340	7.39	600	23.0	657	57000	15000	89	164
04...	1715	6.80	415	23.5	742	38000	26000	110	109
04...	1850	6.44	330	23.5	806	37000	8700	--	--

CUYAHOGA R AT JAITE OH - 411747081341300 -
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
04...	1915	7.24	738	23.0	580	K320000	140000	75	157
04...	2010	7.13	670	23.5	580	180000	140000	79	182
04...	2020	7.07	660	23.0	600	180000	150000	79	182
04...	2115	6.94	614	23.0	600	160000	140000	80	112
04...	2127	6.92	602	23.0	610	200000	110000	80	143
04...	2155	6.86	578	22.5	610	--	79000	80	142
04...	2250	6.75	529	22.5	620	180000	80000	83	135
05...	0134	6.45	418	22.5	640	51000	--	96	84

TINKERS C AT DUNHAM RD NR INDEPENDENCE OH - 412226081344500 -
WATER QUALITY DATA

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	COLI-FORM, FECAL, 0.45 UM-MF (COL / 100 ML) (31616)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
SEP 1991									
05...	0122	4.26	62	19.5	575	7300	3000	68	73
05...	0255	4.24	61	19.0	575	7700	2700	71	74
05...	0345	4.24	61	19.0	610	4700	4500	73	75
05...	0430	4.24	61	19.0	640	6500	3100	77	77
05...	0720	4.20	56	18.5	690	2800	--	83	70
05...	0930	4.20	56	18.5	705	4500	--	85	61

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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).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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