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# Water Resources Data
# Ohio
# Water Year 1997

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

U.S. GEOLOGICAL SURVEY
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Prepared in cooperation with the State of Ohio
and with other agencies

# CALENDAR FOR WATER YEAR 1997

## 1996

### OCTOBER

| S | M | T | W | T | F | S |
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### NOVEMBER

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### DECEMBER

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## 1997

### JANUARY

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### FEBRUARY

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### MARCH

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### APRIL

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### MAY

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### JUNE

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### JULY

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### AUGUST

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| 31 | | | | | | |

### SEPTEMBER

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| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

# Water Resources Data
# Ohio
# Water Year 1997

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

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

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-97-2
Prepared in cooperation with the State of Ohio
and with other agencies

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY
Thomas J. Casadevall, Acting Director

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U.S. Geological Survey
975 West Third Avenue
Columbus, OH 43212-3192

1998

# 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 Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Ohio are contained in two volumes:

Volume 1. Ohio River Basin Excluding Project Data
Volume 2. St. Lawrence River Basin and 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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IV

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Water-resources data for the 1997 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 122 gaging stations and 57 partial-record sites; water levels at 279 observation wells and 23 crest stage gages; and water quality at 19 gaging stations, 333 observation wells, and 57 partial record sites. Also included are data from miscellaneous and synoptic 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 Information System collected by the U.S. Geological Survey and cooperating Federal, State, and local agencies in Ohio.

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## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (d) discharge, (e) contents and (or) elevation, (HBM) hydrologic bench mark, (M) water-quality monitor, (m) microbiological, (NAWQA) National Water-Quality Assessment Program, (r) radiochemical, (S) daily suspended-sediment data, (s) miscellaneous sediment measurements, (t) temperature]


| | Station Number | Page |
|---|---|---|
| Lake Erie Basin | | |
| Ottawa River Basin | | |
| Ottawa River at University of Toledo, Toledo (d) | 04177000 | 45 |
| Maumee River Basin | | |
| Tiffin River at Stryker (d) | 04185000 | 46 |
| Unnamed tributary to Lost Creek near Farmer (d) | 04185440 | 47 |
| Auglaize River near Fort Jennings (cdmst) (NAWQA) | 04186500 | 48 |
| Ottawa River at Lima (d) | 04187100 | 55 |
| Blanchard River near Findlay (d) | 04189000 | 56 |
| Auglaize River near Defiance (d) | 04191500 | 57 |
| Maumee River near Defiance (dSst) | 04192500 | 58 |
| Maumee River at Waterville (cdmtSs) (NAWQA) | 04193500 | 62 |
| Portage River Basin | | |
| Portage River at Woodville (d) | 04195500 | 71 |
| Sandusky River Basin | | |
| Sandusky River near Bucyrus (d) | 04196000 | 72 |
| Tymochtee Creek at Crawford (d) | 04196800 | 73 |
| Honey Creek at Melmore (d) | 04197100 | 74 |
| Rock Creek at Tiffin (d) | 04197170 | 75 |
| Sandusky River near Fremont (cdSst) | 04198000 | 76 |
| Huron River Basin | | |
| Huron River at Milan (d) | 04199000 | 81 |
| Old Woman's Creek Basin | | |
| Old Womans's Creek at Berlin Road near Huron (d) | 04199155 | 82 |
| Black River Basin | | |
| Black River at Elyria (d) | 04200500 | 83 |
| Rocky River Basin | | |
| Rocky River near Berea (d) | 04201500 | 84 |
| Cuyahoga River Basin | | |
| Cuyahoga River at Hiram Rapids (d) | 04202000 | 85 |
| Cuyahoga River at Old Portage (d) | 04206000 | 86 |
| Yellow Creek at Ghent (d) | 04206208 | 87 |
| North Fork at Bath (d) | 04206210 | 88 |
| Park Creek at Bath Center (d) | 04206211 | 89 |
| North Fork at Bath Center (d) | 04206212 | 90 |
| Bath Creek at Bath Center (d) | 04206215 | 91 |
| Yellow Creek at Botzum (d) | 04206220 | 92 |
| Tinkers Creek at Bedford (d) | 04207200 | 93 |
| Cuyahoga River at Independence (cdSst) | 04208000 | 94 |
| Cuyahoga River at LTV Steel at Cleveland (cdmst) (NAWQA) | 04208500 | 98 |
| Chagrin River Basin | | |
| Chagrin River at Willoughby (d) | 04209000 | 103 |

## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (d) discharge, (e) contents and (or) elevation, (HBM) hydrologic bench mark, (M) water-quality monitor, (m) microbiological, (NAWQA) National Water-Quality Assessment Program, (r) radiochemical, (S) daily suspended-sediment data, (s) miscellaneous sediment measurements, (t) temperature]


| | Station Number | Page |
|---|---|---|
| Grand River Basin | | |
| Grand River at Harpersfield (cdmst) (NAWQA) | 04211820 | 104 |
| Grand River near Painesville (d) | 04212100 | 109 |
| Conneaut Creek Basin | | |
| Conneaut Creek at Conneaut (d) | 04213000 | 110 |

## GROUND-WATER STATIONS FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (l) water level]


| | Local Number | Well Number | Page |
|---|---|---|---|
| CRAWFORD COUNTY | | | |
| Bucyrus (cl) | CR-1 | 404838082563100 | 114 |
| GEAUGA COUNTY | | | |
| Southeast of Chagrin Falls (l) | GE-3A | 412518081221500 | 116 |
| HANCOCK COUNTY | | | |
| South of Vanlue (l) | HA-3 | 405940083275500 | 117 |
| HARDIN COUNTY | | | |
| Southeast of Dola (l) | HN-2A | 404648083412600 | 118 |
| HENRY COUNTY | | | |
| Southwest of McClure (l) | HY-2 | 412123083574000 | 119 |
| LUCAS COUNTY | | | |
| Toledo (l) | LU-1 | 413704083362200 | 120 |
| MEDINA COUNTY | | | |
| Lodi (l) | MD-1 | 410142082005900 | 121 |
| OTTAWA COUNTY | | | |
| Catawba Island (cl) | O-2 | 413434082494000 | 122 |
| PORTAGE COUNTY | | | |
| East of Kent (cl) | PO-123 | 410931081192900 | 124 |
| PUTNAM COUNTY | | | |
| Columbus Grove (l) | PU-1 | 405505084032900 | 126 |
| SANDUSKY COUNTY | | | |
| Fremont (l) | S-3 | 411914083045300 | 127 |
| Woodville (cl) | S-2 | 412703083213600 | 128 |
| SENECA COUNTY | | | |
| Tiffin (l) | SE-2 | 410802083093900 | 130 |
| SUMMIT COUNTY | | | |
| Akron (l) | SU-6 | 410330081282000 | 131 |
| Cuyahoga Falls (cl) | SU-7 | 410846081271600 | 132 |
| VAN WERT COUNTY | | | |
| Van Wert (l) | VW-1 | 405215084335400 | 134 |
| WILLIAMS COUNTY | | | |
| Bryan (l) | WM-1 | 412821084313600 | 135 |
| Bryan (cl) | WM-3 | 412930084320900 | 136 |
| East of Blakeslee (l) | WM-12 | 413108084415300 | 138 |
| WYANDOT COUNTY | | | |
| Upper Sandusky (l) | WY-1 | 405009083172600 | 139 |

## DISCONTINUED SURFACE-WATER DISCHARGE 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 less 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.

| Station Name | Station Number | Drainage Area ($mi^2$) | Period of Record |
|---|---|---|---|
| St. Joseph River near Blakeslee | 04177500 | 394 | 1926-32 |
| St. Marys River near Willshire | 04181000 | 354 | 1926-32 |
| Maumee River at Antwerp | 04183500 | 2,129 | 1922-35 |
| | | | 1939-82 |
| Maumee River near Sherwood | 04184000 | 2,275 | 1903-06 |
| Bean Creek at Powers | 04184500 | 206 | 1941-81 |
| Tiffin River near Brunersburg | 04185500 | 736 | 1928-36 |
| Miami and Erie Canal at Delphos | 04186000 | -- | 1928-33 |
| Ottawa River at Allentown | 04187500 | 160 | 1924-36 |
| | | | 1943-82 |
| Ottawa Rver at Kalida | 04188000 | 309 | 1930-36 |
| Eagle Creek near Findlay | 04188500 | 55.0 | 1947-57 |
| Blanchard River at Glandorf | 04189500 | 644 | 1921-28 |
| | | | 1947-52 |
| Blanchard River at Dupont | 04190000 | 756 | 1928-35 |
| Roller Creek at Ohio City | 04190500 | 5.14 | 1946-48 |
| Town Creek near Van Wert | 04191000 | 21.2 | 1945-53 |
| Miami and Erie Canal near Defiance | 04192000 | -- | 1925-29 |
| | | | 1953-69 |
| Miami and Erie Canal at Waterville | 04193000 | -- | 1921-29 |
| Swan Creek at Toledo | 04194000 | 199 | 1945-48 |
| Portage River near Pemberville | 04194500 | 337 | 1930-35 |
| North Branch Portage River near Bowling Green | 04195000 | 45.1 | 1924-32 |
| Lacarpe Creek near Oak Harbor | 04195825 | 2.95 | 1988-92 |
| Bayou Ditch near Oak Harbor | 04195830 | 2.82 | 1988-92 |
| | | | 1964-82 |
| Broken Sword Creek at Nevada | 04196200 | 83.8 | 1976-82 |
| Sandusky River near Upper Sandusky | 04196500 | 298 | 1922-35 |
| | | | 1938-82 |
| Tymochtee Creek near Marseilles | 04196600 | 137 | 1970-74 |
| Sandusky River near Mexico | 04197000 | 774 | 1923-36 |
| | | | 1938-83 |
| Honey Creek near New Washington | 04197020 | 17 | 1976-90 |
| Wolf Creek at Bettsville | 04197300 | 66.2 | 1976-82 |
| East Branch Wolf Creek near Bettsville | 04197450 | 82.4 | 1976-82 |
| Havens Creek at Havens | 04197500 | 4.28 | 1946-49 |
| East Branch Huron River near Norwalk | 04198500 | 85.5 | 1924-35 |
| Old Woman's Creek at U.S. Highway 6 at Huron | 04199165 | 26.5 | 1980-94 |
| Lake Erie at Ruggles Beach | 04199175 | | 1987-94 |
| Vermilion River near Fitchville | 04199287 | 112 | 1978-89 |
| | | | 1991-93 |
| Vermilion River near Vermilion | 04199500 | 262 | 1950-81 |

## DISCONTINUED SURFACE-WATER DISCHARGE 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 less 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.

| Station Name | Station Number | Drainage Area ($mi^2$) | Period of Record |
|---|---|---|---|
| East Branch Black River at Elyria | 04200000 | 217 | 1922-36 |
| West Branch Black River above Lake Street at Elyria | 04200430 | 174 | 1980-85 |
| Cuyahoga River near Kent | 04202500 | 210 | 1934-35 |
| Breakneck Creek near Kent | 04203000 | 77.6 | 1927-35 |
| Little Cuyahoga River at Mogadore | 04204000 | 14.3 | 1946-79 |
| Cuyahoga River at Massillon Road at Akron | 04204500 | 31.6 | 1946-74 |
| Springfield Lake Outlet at Akron | 04205000 | 9.72 | 1946-49 |
| | | | 1961-74 |
| Little Cuyahoga River at Akron | 04205500 | 44.4 | 1920 |
| | | | 1928-34 |
| Little Cuyahoga River Below Ohio Canal at Akron | 04205700 | 59.2 | 1974-80 |
| Cuyahoga River at Ira | 04206250 | 478 | 1973-80 |
| Ohio Canal Feeder at Brecksville | 04207000 | -- | 1923-24 |
| Ohio Canal at Independence | 04207500 | -- | 1922-23 |
| | | | 1927-36 |
| | | | 1941 |
| | | | 1949-81 |
| Big Creek at Cleveland | 04208502 | 35.3 | 1973-86 |
| Euclid Creek near Euclid | 04208690 | 22.6 | 1977-80 |
| | | | 1983-86 |
| Grand River near North Bristol | 04209500 | 85.4 | 1942-47 |
| Phelps Creek near Windsor | 04210000 | 25.6 | 1942-59 |
| Grand River near Rome | 04210500 | 251 | 1942-47 |
| Rock Creek near Rock Creek | 04211000 | 69.2 | 1942-66 |
| Mill Creek near Jefferson | 04211500 | 82.0 | 1942-75 |
| Grand River near Madison | 04212000 | 581 | 1923-35 |
| | | | 1938-74 |
| Ashtabula River near Ashtabula | 04212500 | 111 | 1924-36 |
| | | | 1939-48 |
| | | | 1950-80 |

-- not determined for canals.

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following continuous-record surface-water-quality stations in Ohio have been discontinued. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment 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. 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.

[Letter designates type of record: (do) dissolved oxygen, (pH) pH, (s) sediment, (sc) specific conductance, (t) temperature]

| Station Name | Station Number | Drainage Area ($mi^2$) | Type of Record | Period of Record |
|---|---|---|---|---|
| Maumee River at Antwerp | 04183500 | 2,129 | t. | 1939-82 |
| Maumee River at Defiance | 04184100 | 2,316 | do, sc, t | 1966-70 |
| | | | pH | 1973-78 |
| Tiffin River at Evansport | 04185300 | 541 | do, pH, sc, t | 1968-78 |
| Auglaize River near Ft. Jennings | 04186500 | 332 | do, pH, sc, t | 1969-78 |
| Ottawa River at Allentown | 04187500 | 160 | sc, t | 1969-82 |
| | | | do, pH. | 1977-82 |
| Auglaize River at Cloverdale | 04188200 | 713 | do, pH, sc, t | 1967-78 |
| Blanchard River near Findlay | 04189000 | 346 | do, pH, sc, t | 1968-80 |
| Auglaize River near Defiance | 04191500 | 2,318 | do, pH, sc, t | 1966-76 |
| | | | s | 1936 |
| Maumee River near Waterville | 04193490 | 6,313 | do, pH, sc, t | 1977-91 |
| Miami River at Waterville | 04193500 | 6,329 | do, pH, sc, t | 1963-77 |
| Maumee River at Mouth at Toledo | 04194023 | 6,608 | do, pH, sc, t | 1967-75 |
| Middle Branch Portage River near Portage | 04194310 | 217 | sc, t | 1969-75 |
| Portage River at Railroad Bridge at Woodville | 04195600 | 428 | do, pH, sc, t | 1968-80 |
| Portage River at Elmore | 04195800 | 432 | t | 1950-52 |
| | | | do | 1970-80 |
| | | | s | 1950-53 |
| Sandusky River near Upper Sandusky | 04196500 | 298 | do, sc, t | 1969-79 |
| | | | pH | 1977-79 |
| Tymochtee Creek at Crawford | 04196800 | 229 | do, pH, sc, t | 1968-75 |
| Sandusky River at St. Johns Bridge near Mexico | 04196990 | 711 | do, sc, t | 1969-76 |
| Honey Creek at Melmore | 04197100 | 141 | s | 1988-89 |
| Sandusky River Below Fremont | 04198005 | 1,264 | do, pH, sc, t | 1966-80 |
| West Branch Huron River near Willard | 04198018 | 86.0 | sc, t | 1968-75 |
| Huron River at Milan | 04199000 | 371 | s | 1970-74 |
| | | | | 1988-91 |
| Huron River Below Milan | 04199100 | 385 | do, pH, sc, t | 1968-78 |
| Vermilion River near Fitchville | 04199287 | 112 | s | 1987-89 |
| Vermilion River near Vermilion | 04199500 | 262 | sc, t | 1969-76 |
| | | | do, pH | 1976-80 |
| East Branch Black River at Grafton | 04199900 | 170 | sc, t | 1969-75 |
| West Branch Black River near Elyria | 04200400 | 170 | sc, t | 1969-75 |
| West Branch Black River above Lake Street at Elyria | 04200430 | 174 | s | 1980-81 |
| Black River at Elyria | 04200500 | 396 | t | 1962-70 |
| | | | sc | 1964-70 |
| | | | s | 1980-81 |
| Black River Below Elyria | 04200550 | 412 | do, sc, t | 1966-82 |
| | | | pH | 1976-82 |

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following continuous-record surface-water-quality stations in Ohio have been discontinued. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment 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. 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.

[Letter designates type of record: (do) dissolved oxygen, (pH) pH, (s) sediment, (sc) specific conductance, (t) temperature]

| Station Name | Station Number | Drainage Area ($mi^2$) | Type of Record | Period of Record |
|---|---|---|---|---|
| Cuyahoga River at Old Portage | 04205700 | 59.2 | do, pH, sc, t | 1970-84 |
| | | | s | 1972-81 |
| Cuyahoga River at Botzum | 04206200 | 443 | t | 1947-49 |
| Tinkers Creek at Bedford | 04207200 | 83.9 | s | 1972-79 |
| Cuyahoga River at Independence | 04208000 | | do, sc, t | 1965-72 |
| | | | do, pH, sc, t | 1972-91 |
| Big Creek at Cleveland | 04208502 | 35.3 | s | 1978 |
| Cuyahoga River at Dupont Intake in Cleveland | 04208505 | 794 | sc | 1964-75 |
| Cuyahoga River at West Third Street Bridge | 04208506 | 798 | do, pH, sc, t | 1966-87 |
| Cuyahoga River at Superior Street Bridge in Cleveland | 04208510 | 808 | do, pH, sc, t | 1964-66 |
| Chagrin River at Willoughby | 04209000 | 246 | t | 1950 |
| | | | s | 1969-74 |
| Grand River at Painesville | 04212200 | 701 | do, pH, sc, t | 1966-82 |
| Fields Brook at Ashtabula | 04212680 | 3.63 | do, pH, sc, t | 1983-91 |
| Ashtabula River at Ashtabula | 04212700 | 136 | do, pH, sc, t | 1968-79 |

# INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with state agencies, obtains a large amount of data each water year (a water year is the 12-month period from October 1 through September 30 and is identified by the calendar year in which it ends) pertaining to the water resources of Ohio. 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, they 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 streamflow-gaging stations, miscellaneous sites, and crest-stage stations, (2) stage and content records for streams, lakes, and reservoirs, (3) water-quality data for streamflow-gaging stations, wells, synoptic sites, and partial-record sites, and (4) water-level data for 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 figures 9a through 9d. The data in this report represent that part of the National Water Data System collected by the USGS and cooperating State and Federal agencies in Ohio.

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 the introduction of this series, and for several years concurrent with it, water-resources data for Ohio were published in a series of USGS 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 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 found in libraries of the principal cities of the United States and can be purchased from the U.S. Geological Survey, Information Services, Box 25286, 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-97-2." 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, 5285 Port Royal Road, Springfield, VA 22161.

USGS water data can be accessed on the World Wide Web at http://water.usgs.gov. Data at this Web site include historical daily values and peaks, real-time water data, and spatial data. (The USGS Ohio District's Web site can be accessed at http://www-oh.er.usgs.gov.)

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 USGS has had cooperative agreements for the collection of water-resources data since 1898. The following organizations assisted in collecting data in this report:

City of Akron, Joseph P. Kidder, Director of Public Service, and David L. Crandell, Manager
City of Canton, Michael L. Miller, Director of Public Service
City of Columbus, Water Division, John R. Doutt, Administrator
City of Cortland, Mark E. Dunsmoor, Director of Public Services
City of Fremont, Terry M. Overmyer, Mayor
City of Lima, David J. Berger, Mayor, and Alice Godsey, City Sanitary Engineer
City of North Olmsted, Ralph Bohlmann, Service Director, and Paul Deichmann, City Engineer
City of Warren, Manuel Michelakis, Director, and Henry J. Angelo, Mayor
Cuyahoga County, Sanitary Engineering Division, Richard G. Hunsinger, Chief Engineer
Cuyahoga County, Board of Health, B. J. Meder, Director
Cuyahoga River Community Planning Organization, Theodore J. Esbom, President
Eastgate Development and Transportation Agency, John R. Getchey, Director, and
James T. Wells, Manager, Transportation Program
Erie County Engineer, John D. Farschman, County Engineer, and
Kenneth E. Fortney, Drainage Superintendent
Federal Emergency Management Agency, Region V, Hazardous Branch,
Frederick Sharrocks, Jr. , Chief
Geauga County, David C. Dietrich, Planning Director
Madison County Board of Commissioners, Robert Edwards, President
Miami Conservancy District, P. Michael Robinette, General Manager, and
Douglas N. Johnson, Chief Engineer
Northeast Ohio Regional Sewer District, Erwin J. Odeal, Executive Director
Ohio Biological Survey, Brian J. Armitage, Director
Ohio Department of Agriculture, Larry Berger, Environmental Specialist
Ohio Department of Natural Resources, Donald C. Anderson, Director
Division of Mines and Reclamation, Lisa J. Morris, Chief
Division of Oil and gas, Donald L. Mason, Chief
Division of Real Estate and Land Management, Wayne R. Warren, Chief
Division of Water, Michele Willis, Chief
Ohio Department of Transportation, Jerry H. Wray, Director
Ohio State University Research Foundation, James F. Ball, Associate Director
Ross County, James L. Kennard, Administrative Assistant
State of Ohio, Adjutant General's Department, Major, Joseph Knott
Summit County, Jeffrey Lintern, Director, and Gene Esser, Chief Deputy Engineer
U.S. Air Force, Air Force Materiel Command, Aeronautical Systems Center,
Environmental Management Directorate, Restoration Branch, David Lawrence, Chief
U.S. Army Corps of Engineers,
Buffalo District, Commander
Huntington District, Commander
Louisville District, Commander
Pittsburgh District, Commander

U.S. Environmental Protection Agency
Drinking Water Standards Division, Charles A. Job, Project Officer
Great Lakes National Project Office, Kent Fuller, Project Officer
NERL-MICROBIAL and Chemical Exposure Assesment Research Division, Gerard N. Stelma, Project Officer
Superfund Division, Region V, Luanne Vanderpool, Project Officer
U.S. Forest Service, Wayne National Forest, Eurial Turner, Supervisor
University of Toledo, Ronald Gallagher
Vermilion Township Trustees, Janet Knittle, Trustee, and William Balogh, Clerk
Wright-Patterson Air Force Base, Captain, Dan Block
Washington County Board of Commissioners, Sandra Matthews, Commissioner

## SUMMARY OF HYDROLOGIC CONDITIONS

Ohio is part of three physiographic provinces. Each province has 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.

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.

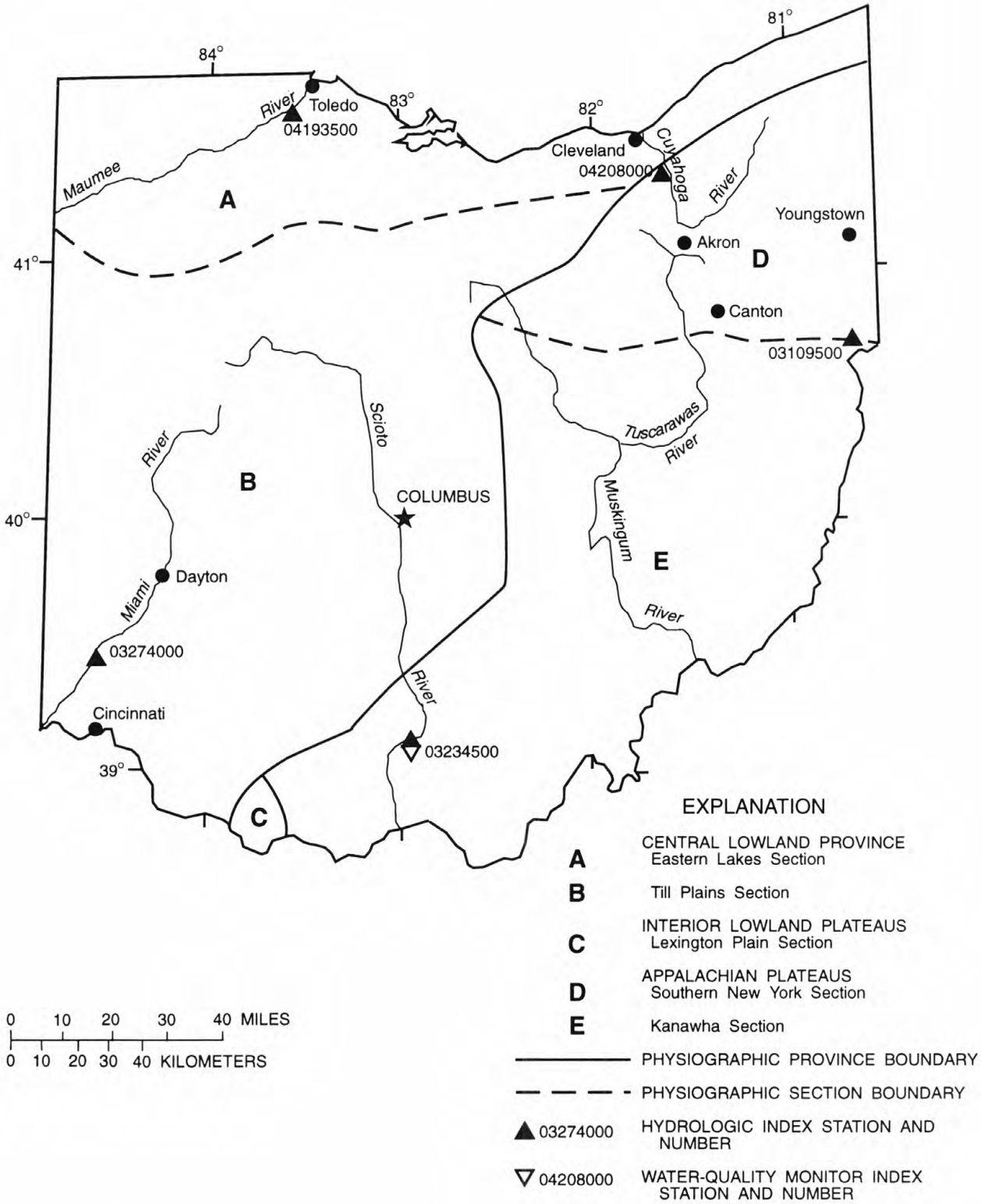


**Figure 1.** Physiographic divisions and location of Hydrologic Index Stations.

# 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 unregulated to highly regulated.

### Statewide Streamflow, Water Year 1997

At the beginning of water year 1997, streamflow was in the above-normal[1] range throughout much of Ohio as a result of above-normal precipitation at the end of the last water year. Flows generally were above normal during October but declined into the normal range for most of the State by November in response to below-normal precipitation. Excessive flows prevailed throughout the State in December because of above-normal precipitation.

Flows returned to the normal range for much of Ohio during January and February except for parts of northern Ohio, where flows remained excessive.

In March, streamflow was above normal throughout the State. In parts of southern Ohio, major flooding occurred early in the month. Stage and streamflow were the highest on record at two streamflow-gaging stations; the peak streamflow at these two locations exceeded the estimate of the 100-year recurrence interval. Eighteen counties were declared Federal and State disaster areas, and five lives were lost as a result of the flood.

Streamflow fell into the deficient range statewide in April in response to below-normal precipitation. Flows returned to the above-normal range in June, and significant flooding occurred in central and southern Ohio. For the remainder of the water year, streamflow remained excessive in northwestern and central Ohio and in the normal range elsewhere.

A comparison of streamflows for 1997 with long-term median flows at four representative stations is shown in figure 2.

## Water Quality

Water-quality data in Ohio are collected on a short-term basis in conjunction with local or regional studies. On a long-term basis, water-quality data in Ohio are collected at fixed stations. With the redesign of the National Stream Quality Accounting Network (NASQAN) in 1996 to concentrate on evaluation of large river basins, collection of water-quality data at fixed stations for NASQAN was discontinued in Ohio. Collection of water-quality data at another fixed station, the Hydrologic Benchmark station, located in a small, relatively pristine basin in southern Ohio, was discontinued in 1997. The only active long-term monitoring program in Ohio is the National Water-Quality Assessment (NAWQA) Program, a program designed to assess the status and trends in the quality of ground- and surface-water resources in major hydrologic systems (study units) of the United States. Sampling in NAWQA began in 1991 in the Nation and in March 1996 at some sites in Ohio as part of the Lake Erie-Lake St. Clair (LERI) study unit. One of the LERI fixed stations, the Maumee River at Waterville, was also a fixed station in NASQAN. Whereas water-quality sampling in the NASQAN program was done quarterly, sampling in the NAWQA program is done much more frequently. For example, during 1997 (a high-intensity sampling year for the LERI) 24 samples were

[1]For streamflow, "normal" is defined as being between the 25th and 75th percentiles as measured during the base period, water years 1961-90.

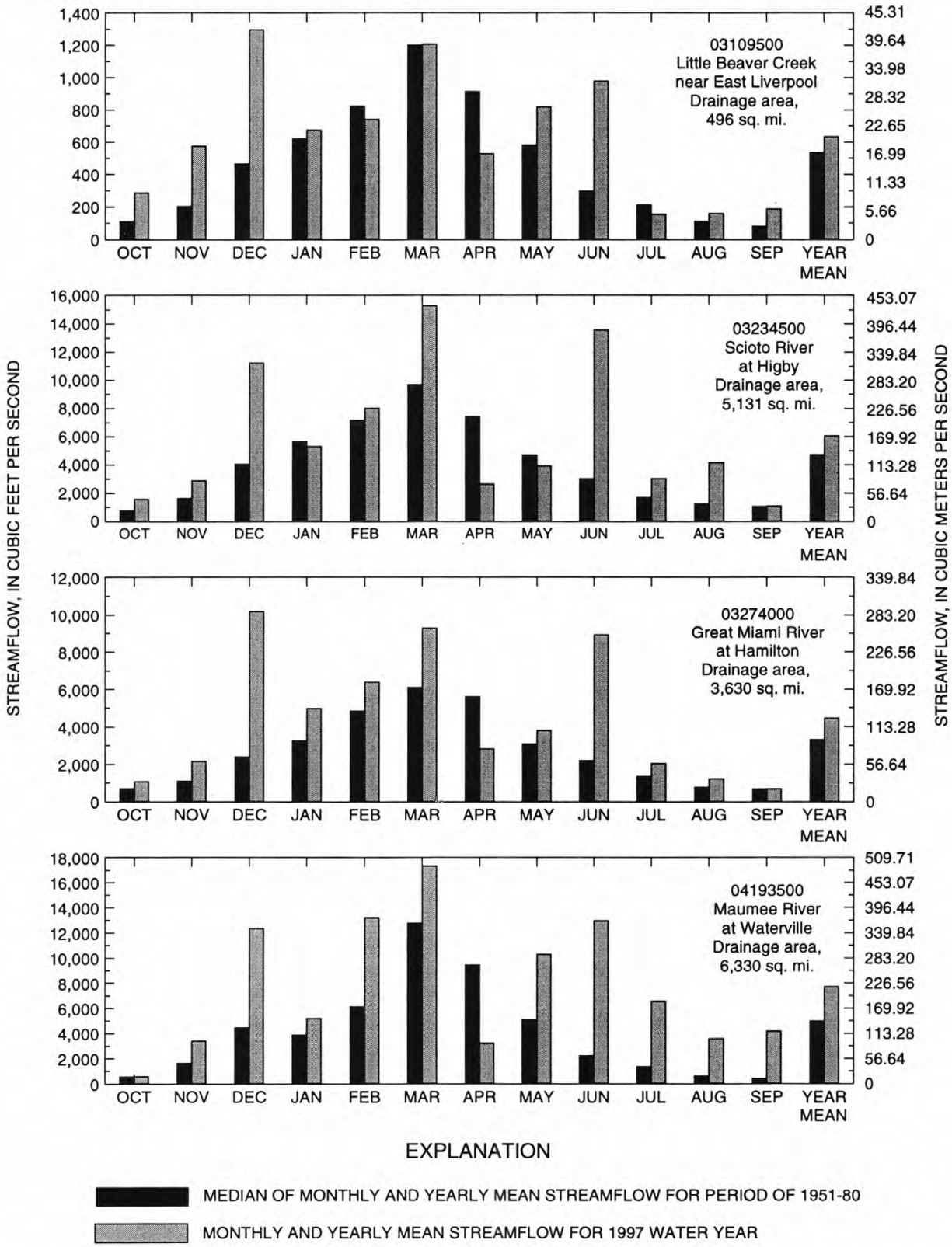


**Figure 2.** Streamflow during 1997 water year compared with median streamflow for period 1951-80 for four representative gaging stations.

collected at the Maumee River at Waterville. Sampling time was monthly to weekly during 1997, depending on the season, so that samples were collected over a range of streamflows. Samples from this site are analyzed for major anions and cations, nutrients, trace elements, suspended sediment, selected physical properties, and fecal-coliform and *Escherchia coli* bacteria.

Box plots of streamflow and concentrations of selected constituents measured during the previous 10-year period (1987-95 as part of NASQAN and 1996 as part of NAWQA) are shown in figures 3 and 4 for the Maumee River at Waterville. Land use in the basin is mixed and consists of row-crop agriculture upstream and urban and industrial areas downstream. Results of analysis of samples collected in water year 1997 as part of the NAWQA program are superimposed on the box plots and are represented by solid circles.

Because NAWQA puts a greater emphasis on collection of high-flow samples than NASQAN did, 17 of the 24 samples collected during 1997 (71 percent) were above the median instantaneous streamflow for the previous 10-year period for the Maumee River. Ten samples were collected at high flow; these values were above the 75th percentile of data collected during the previous 10-year period, with streamflows ranging from 11,100 to 65,200 cubic feet per second.

Only five samples collected at the Maumee River at Waterville were analyzed for concentrations of fecal-coliform bacteria during 1997. The LERI replaced monitoring for fecal coliforms with another bacterial indicator, *Escherichia coli* (*E. coli*), in February 1997. Of the five samples collected for fecal coliforms, three were above the 75th percentile of samples collected during the previous 10-year period. These three samples exceeded the single-sample primary-contact standard of 1,000 colonies per 100 milliliters and were collected during high flow.

Twenty of the 24 samples collected during 1997 (83 percent) were at or below the median chloride concentration for the previous 10-year period. This is because chloride, commonly associated with municipal or industrial point sources of wastewater, is diluted during high flow. Similarly, dissolved-solids concentrations in 1997 were lower than those concentrations found in previous years.

During 1997, none of nitrate plus nitrite concentrations measured exceeded the U.S. Environmental Protection Agency maximum contaminant level for finished drinking water (10 milligrams per liter, as N). In Ohio, fertilizers are a major source of nitrate. Concentrations in the Maumee River in 1997 were distributed evenly among the distribution of concentrations found during the previous 10-year period and were highly variable, ranging from 0.27 to 9.3 milligrams per liter.

Agricultural runoff and municipal and industrial point sources are the principal sources of phosphorus in Ohio. Increased phosphorus concentrations may lead to a high rate of production of plant materials in water and eutrophication of the receiving water. During 1997, total phosphorus concentrations ranged from 0.07 to 1.5 milligrams per liter, and 20 of the 24 samples collected were above the median total phosphorus concentration for the previous 10-year period.

## Ground Water

Ground water serves the needs of 46 percent of Ohio's population. An estimated 800 million gallons of ground water per day is withdrawn for public-supply, 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

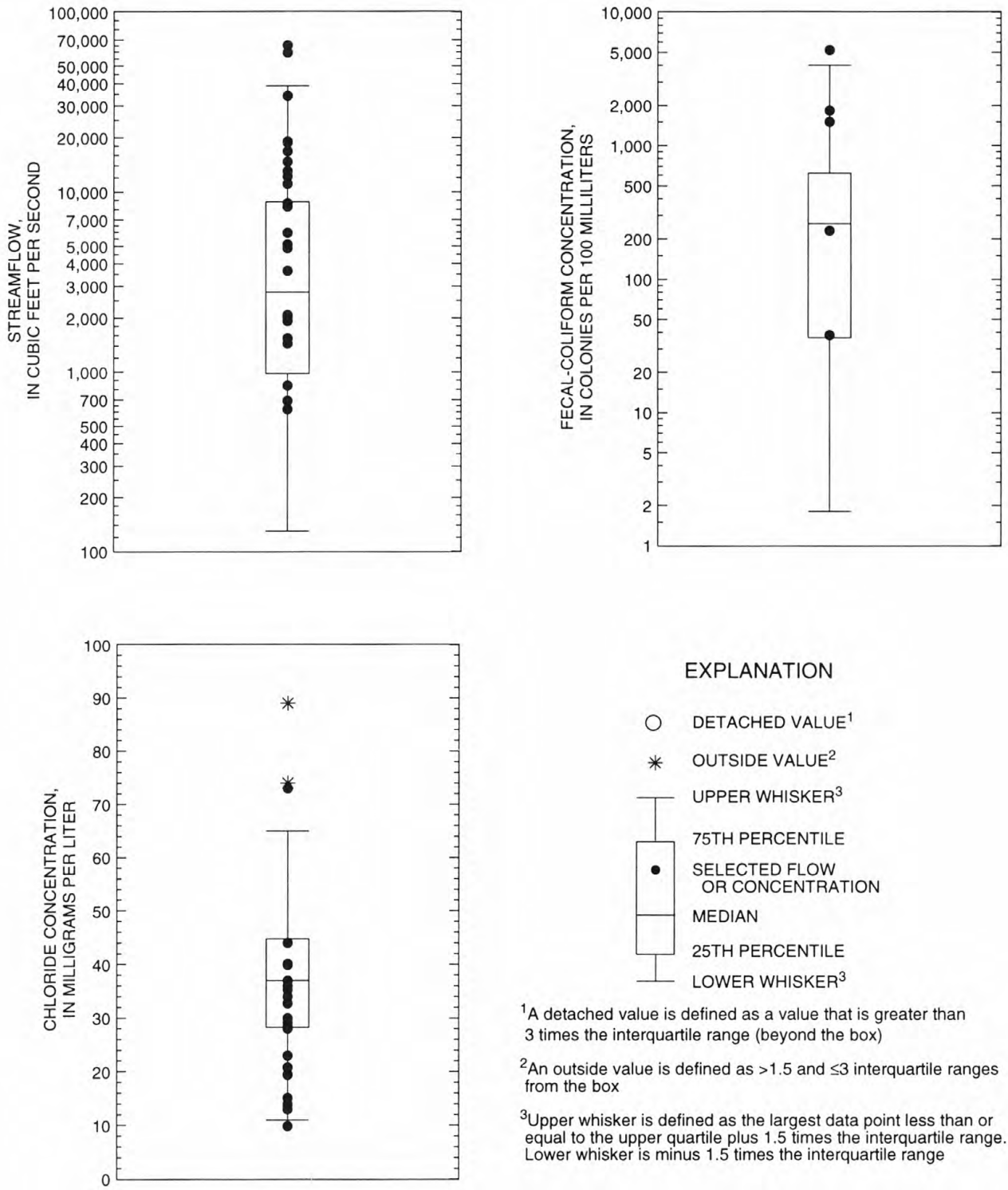


**Figure 3.** Streamflow and concentrations of fecal-coliform bacteria and chloride measured in water year 1997 and the distribution of those characteristics from measurements made during the water years 1987-96 for the Maumee River at Waterville.

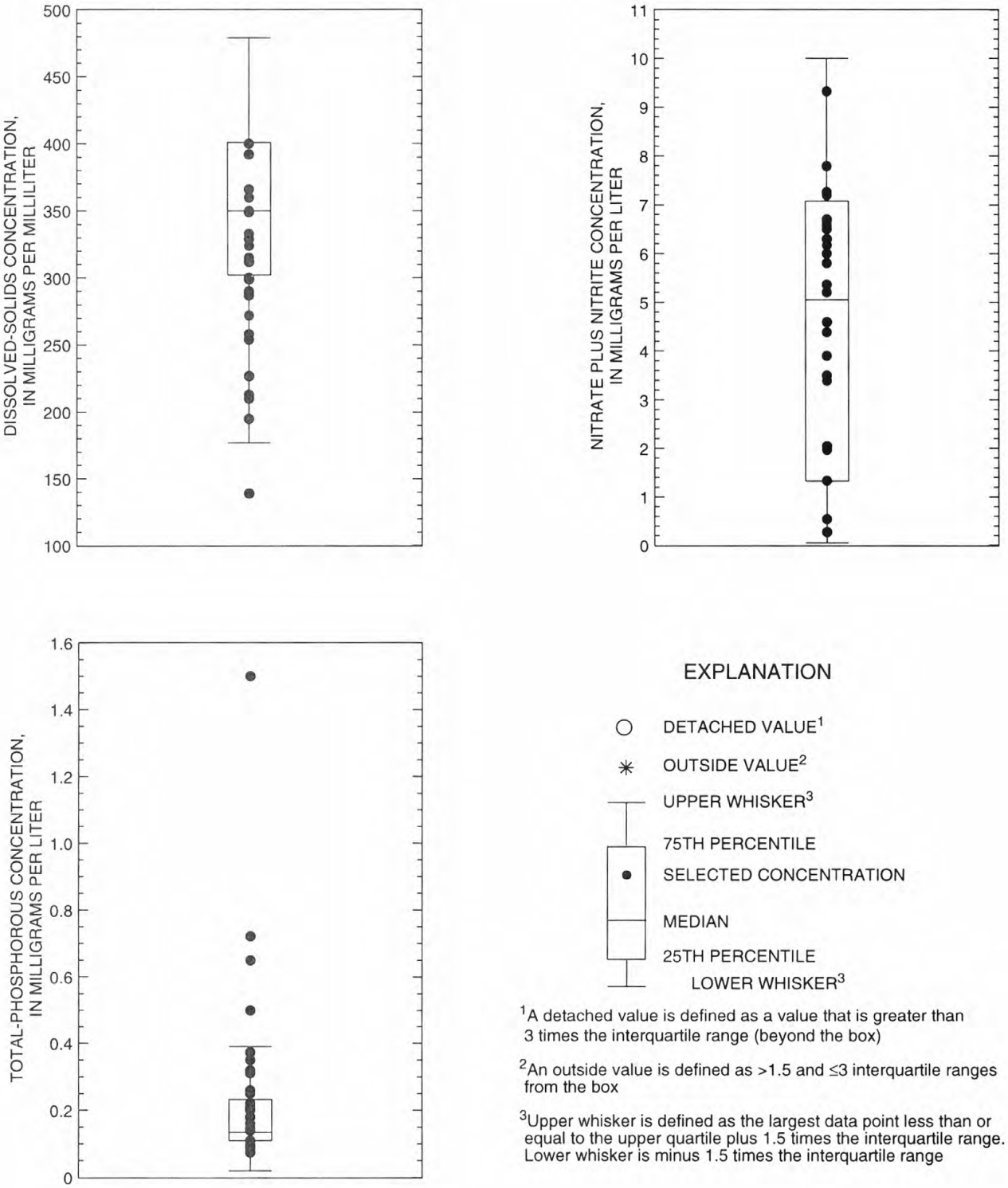


**Figure 4.** Dissolved-solids, nitrate plus nitrite, and total-phosphorus concentrations measured in the water year 1997 in the distribution of those constituents from measurements made during water years 1987-96 for the Maumee River at Waterville.

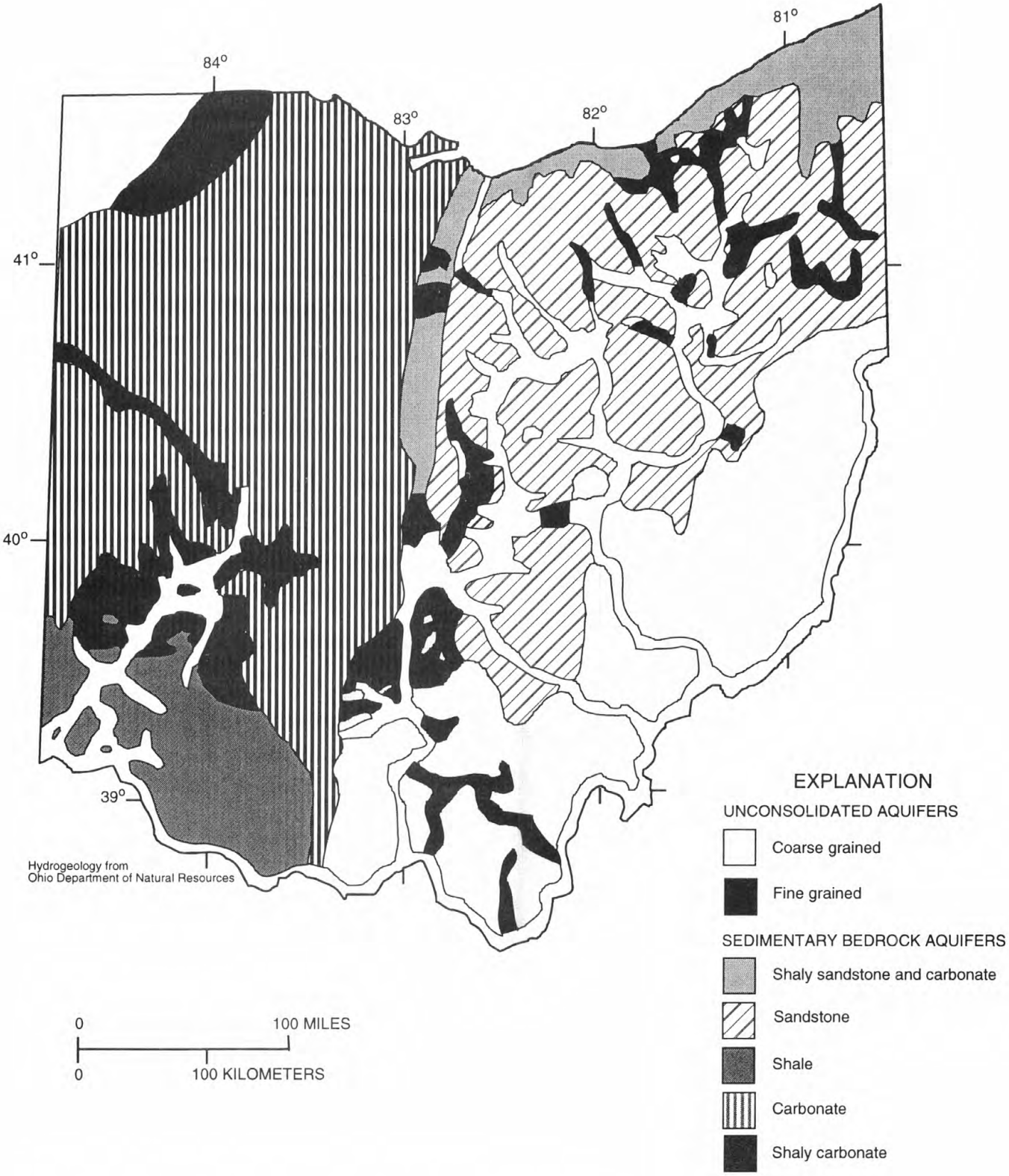


**Figure 5.** Geographic distribution of principal aquifers in Ohio.

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 ground-water observation wells in Ohio tap unconsolidated sand and gravel aquifers 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 for water supply, such as in the carbonate-rock region of northwestern 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 feet but can be as much as 10 feet.

At the beginning of water year 1997, ground-water levels were generally above normal[2] throughout the State except for areas of eastern Ohio, where they were normal and below normal. Levels declined during October and, by month's end, ground-water levels ranged from slightly above to slightly below normal across the State.

Water levels were generally stable until late November, when levels began to rise in response to above-normal precipitation. This upward trend continued, and ground-water levels were at or above normal statewide through March.

In April, below-normal precipitation caused water levels to stabilize or decline. Declines continued into May for most aquifers. Ground-water levels rose into the normal and above-normal range throughout the State in response to above-normal precipitation in May and June.

The remainder of the water year was characterized by seasonal declines in ground-water levels. In most of the State, levels remained above normal except for parts of eastern Ohio, where levels were below normal.

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

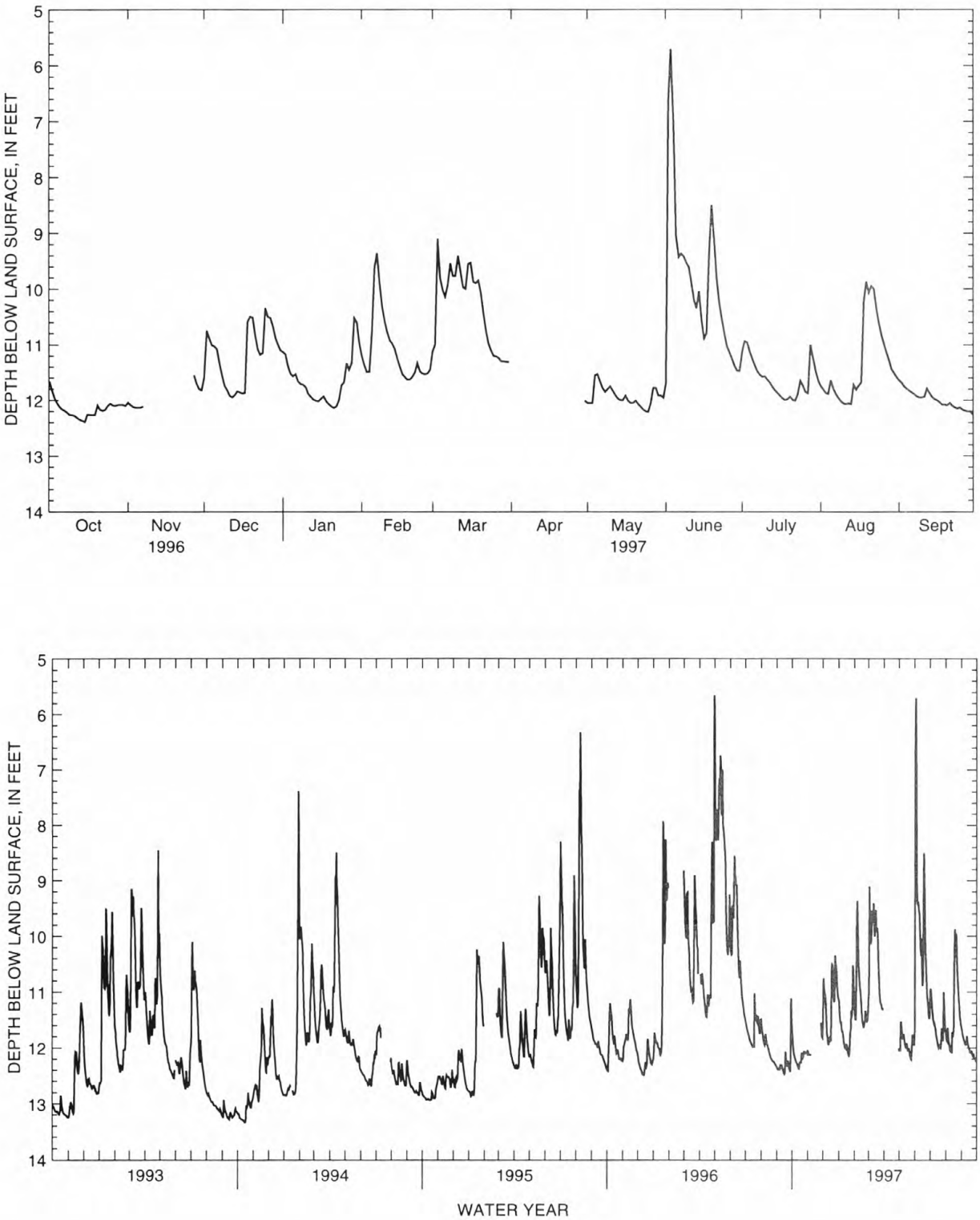
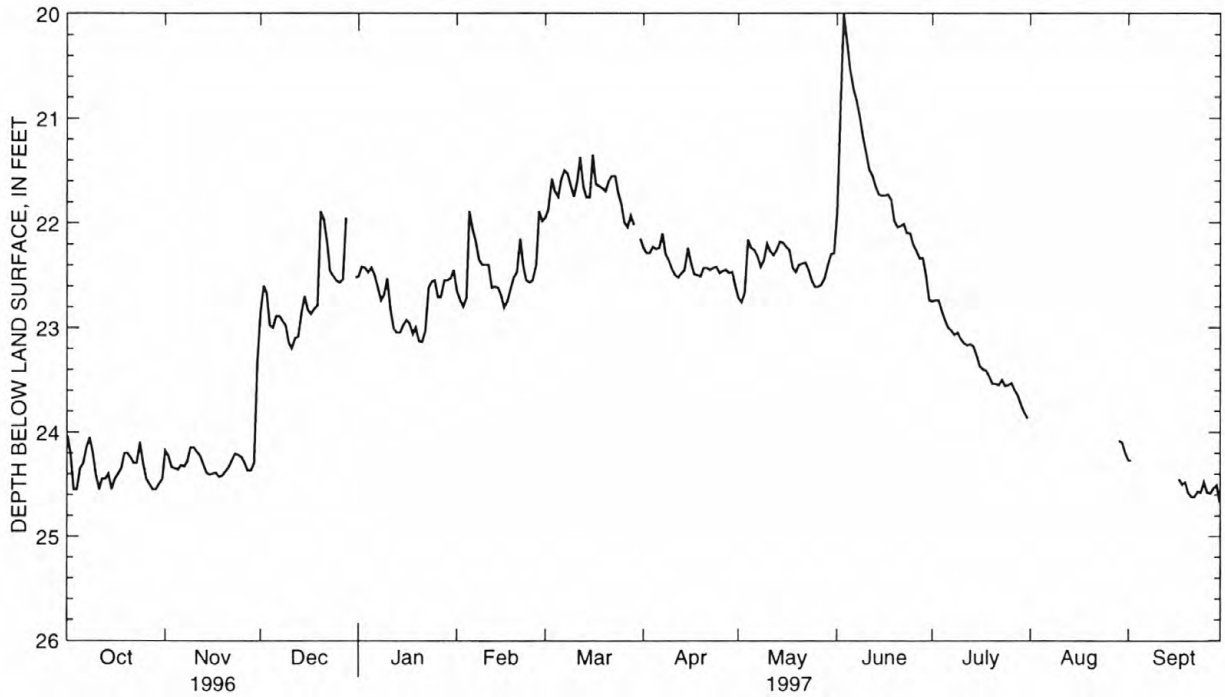



**Figure 6.** Sample 1-year and 5-year hydrographs of well FR-3 (395118082573300), completed in an unconfined unconsolidated aquifer.



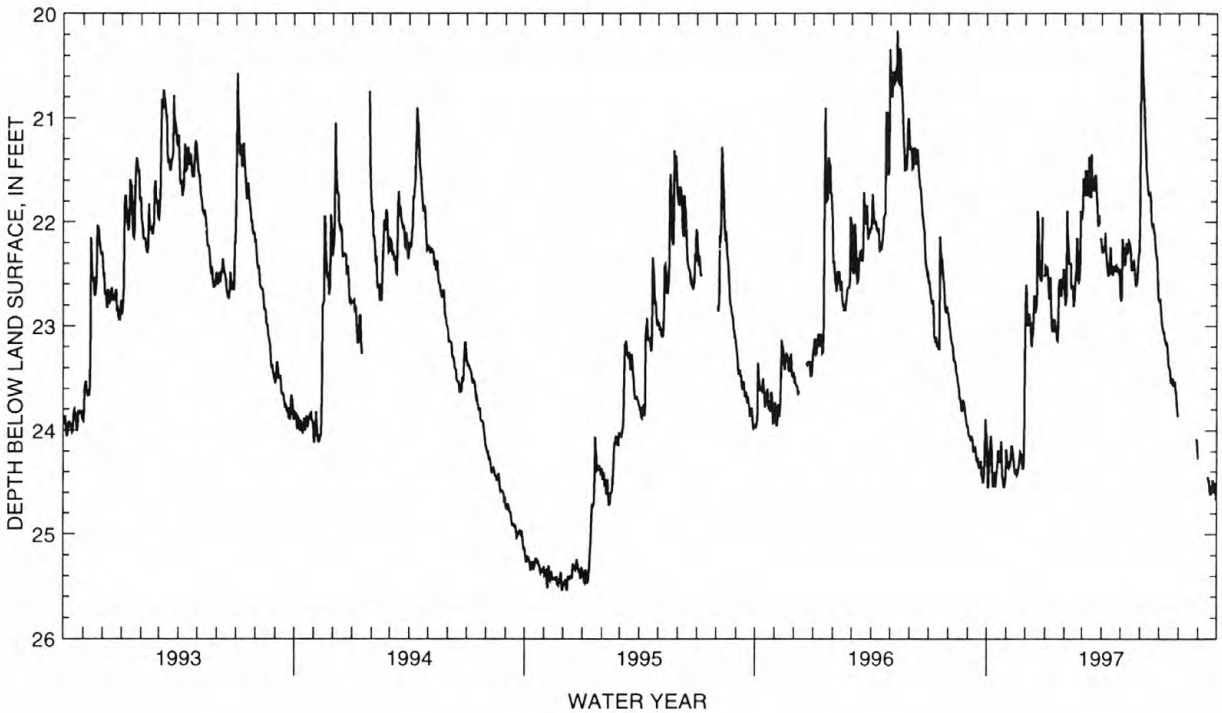




**Figure 7.** Sample 1-year and 5-year hydrographs of well U-4 (401826083255200), completed in an confined carbonate-rock aquifer.

## SPECIAL NETWORKS AND PROGRAM

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including 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 activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins—the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents, (2) to test findings of the National Water-Quality Assessment Program (NAWQA), (3) to characterize processes unique to large-river systems, such as storage and remobilization of sediments and associated contaminants, and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to accomplish the following objectives: (1) provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation-chemistry monitoring sites, (2) provide the mechanism to evaluate the effectiveness of the significant reduction in $SO_2$ emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred, and (3) provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for $SO_2$ and $NO_x$ scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the World Wide Web at

http://nadp.nrel.colostate.edu/NADP

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, state, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, state, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the World Wide Web at

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

# EXPLANATION OF THE RECORDS

The records in this report are for the 1997 water year that began October 1, 1996, and ended September 30, 1997. 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 onstream or at a well, is assigned a unique identification number. The number is generally assigned when a station is first established and is retained for that station indefinitely. The systems used by the USGS 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 infrequent measurements are made.

### Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in USGS 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 the above-mentioned 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 identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 8.)

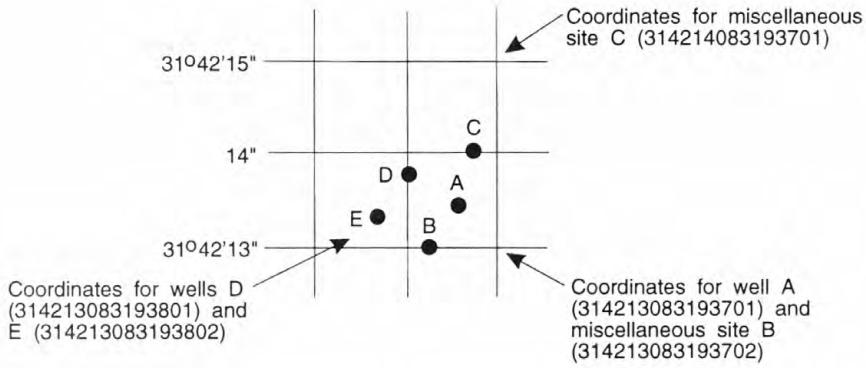



**Figure 8.** System for numbering wells and miscellaneous sites (latitude and longitude).

## 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 daily mean 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 often without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of a partial record is indicated by table titles such as CREST-STAGE PARTIAL RECORDS or LOW-FLOW PARTIAL RECORDS. Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage stations for which data are given in this volume are shown in figures 9a through 9d.

### Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relations 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 consist of a record of stage and of notations regarding factors that may affect the relations 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 solid-state storage media at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the USGS as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in USGS 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 stages (gage heights) to the stage discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curve or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relation that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

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

In computing records of lake or reservoir contents, it is necessary to have available from surveys or curves, tables defining the relation 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 relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. 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 relation 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.

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross-section area. Discharge is computed by multiplying path velocity by the appropriate stage-related coefficient and area.

### 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.

**Station Manuscript**

The manuscript provides, under various headings, descriptive information such as station location, period of record, historical extremes outside the period of record, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.—Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileage, given for only a few stations, was 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 types of maps available vary 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 sea level, 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 be flagged in the daily discharge table. (See the 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, and to conditions that affect natural flow at the station, in addition, 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 USGS by a cooperating organization are identified here.

EXTREMES FOR PERIOD OF RECORD.—In some headings "Extremes for Period of Record" is presented as a paragraph separate from summary statistics. 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, from 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 USGS.

PEAK DISCHARGES ABOVE BASE FOR CURRENT YEAR—Presented as a separate table. 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. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (*). Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial regulation or at locations where the instantaneous peak discharge does not exceed the mean daily discharge by 10 percent. 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.

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 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.

#### Data Table of Daily Mean Values

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.

#### Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (line headed MAX), and minimum (line headed MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as FOR WATER YEARS ____- ____. BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

**Summary Statistics**

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS _____ - _____, will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below), except for the ANNUAL SEVEN-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in the footnotes. When the maximum or minimum statistic occurred outside the designated period, that statistic is listed in the EXTREMES FOR PERIOD OF RECORD paragraph in the manuscript. Selected streamflow-duration-curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.—The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.—The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.—The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.—The minimum daily mean discharge for the year or for the designated period.

ANNUAL SEVEN-DAY MINIMUM.—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.—The maximum instantaneous stage occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are given in the table "Peak Discharges and Stages at Continuous-Record Surface Discharge Stations."

INSTANTANEOUS PEAK STAGE.—The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the "Remarks" paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.—The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-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.

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 for the area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.—The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.—The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.—The discharge that has been exceeded 90 percent of the time for the designated period.

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

### Identifying Estimated Daily Discharge

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

### Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredths of a cubic foot per second for values less than 1 $ft^3/s$; 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

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 analyzed statistically. Information on availability of the unpublished information or on results of statistical analyses of the published records may be obtained from the District office.

## Records of Surface-Water Quality

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

### Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape or recorded electronically. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recording; however, because of cost, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this volume are shown in figures 9a and 9b.

### 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."

### Onsite Measurement 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 ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To ensure 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 onsite 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, and USGS Open-File Report 93-125 "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments." The TWRI references are listed in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office.

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly readings beginning at 0100 hours and ending at 2400 hours for each day of record. More detailed records (hourly values) may be obtained from the USGS 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 frequently taken at the 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 was 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 microbiological analyses, and samples for specific conductance, pH, and dissolved oxygen are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo. or by a USGS-approved outside laboratory. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the USGS laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, and USGS Open-File Report 93-125 "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments." Methods used by the USGS laboratory for microbiological analyses are given in TWRI, Book 5, Chap. A4.

Historical and current (1997) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

### 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 USGS by a cooperating organization are identified here.

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

REVISIONS.—If errors in published water-quality records are discovered after publication, appropriate updates are made in the USGS computerized data system, the National Water Information System (NWIS). Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of USGS water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure 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 (organism may be observed rather than counted) |
| D | Biological organism count equal to or greater than 15 percent (dominant) |
| & | Biological organism estimated as dominant |
| V | Analyte was detected in both the environmental sample and the associated blanks. |

### Dissolved Trace-Element Concentrations

NOTE.—To confidently produce dissolved trace-element data with insignificant contamination, the USGS began using a new trace-element protocol at some stations in water year 1994 to collect trace-element data at the microgram per liter (µg/L) level (refer to USGS Open-File Report 94-539 "U.S. Geological Survey Protocol for the Collection and Processing of Surface-Water Samples for the Subsequent Determination of Inorganic Constituents in Filtered Water"). This protocol was used in water year 1995 at all stations. Therefore, the trace-element data for samples collected before and after implementation of new protocols are not directly comparable.

### Change in National Trends Network Procedures

NOTE.—Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

## Records of Ground-Water Levels

Water-level data from a network of observation wells (in addition to 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 figures 9a and 9b. 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. 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 sea level 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 is described in feet above (or below) sea level; 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-USGS) 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 USGS 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 USGS, 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, 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 instantaneous high may be a value that is not listed in the table. Missing records are indicated by dashes in place of the water level.

## Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements. The quality of ground water ordinarily changes slowly, so that frequent measuring of the same parameter is not necessary unless one is concerned with a particular problem such as monitoring for trends of a particular constituent.

### Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties, but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the TWRI manuals listed in this report. 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 essure 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 USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be acessed at:

http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3 1/2-inch floppy disk. Information abouth the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices. (See address on the back of the title page.)

## 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, but 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°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-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

- Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been 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 are 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 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 saltwater.

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 human-induced changes in other basins that 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.

Microgram per kilogram (UG/KG, µg/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 gram (UG/G, µg/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.

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

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

National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the USGS 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.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of 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's data system, the National Water Information System (NWIS), to uniquely identify a specific constituent. The codes used in NWIS are the same as those used in the U.S. Environmental Protection Agency's data system, STORET.

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.

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

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

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

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

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

- Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.
  - Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.
  - Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.
  - Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per millimeter (cells/mm) of sample.
- Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movement within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

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

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

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

Recoverable from bottom material is 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 occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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 use, 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 (ton/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 (ton/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.

Seven-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 or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in 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", because 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 that 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 benthic organism collection, and plexiglas 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 or a digitizer in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimeteredor digitized. 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 a 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 concentration of the constituent (in milligrams per liter), times the factor 0.0027, times the number of days.

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

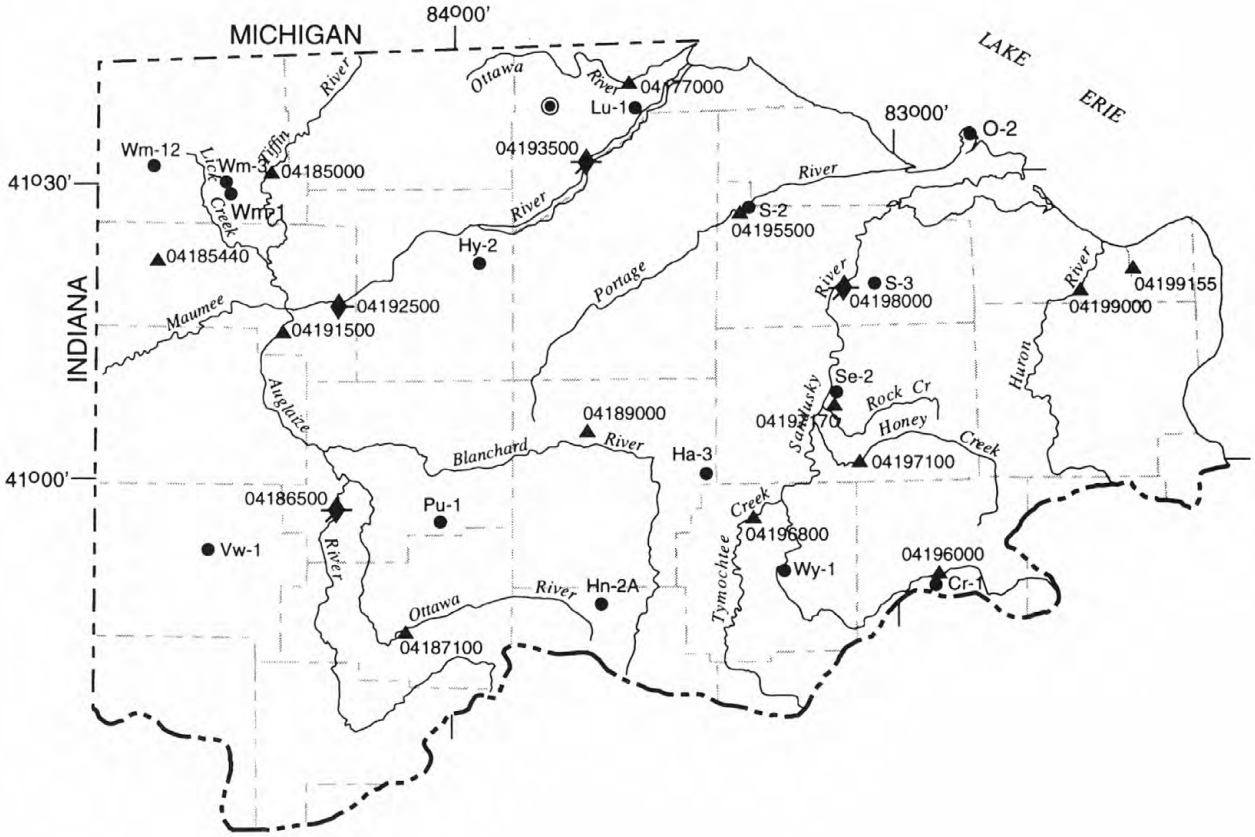
Water year in USGS reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the 1980 water year.

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.




EXPLANATION

SURFACE-WATER GAGING STATIONS--Eight-digit number is downstream-order number

- ▲ Daily discharge
- ▼ Water quality
- Chemical measurement
- Biological measurement
- Sediment measurement

WELL AND LOCAL NUMBER--Letter preceding hyphen is county code; number following hyphen is sequence number

- ● Observation well
- ◉ HIGHWAY DEICING CHEMICALS PROJECT
  1 ground-water quality site
  1 water-level site

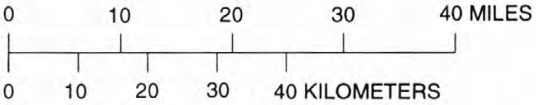



**Figure 9a.** Location of data-collection stations.

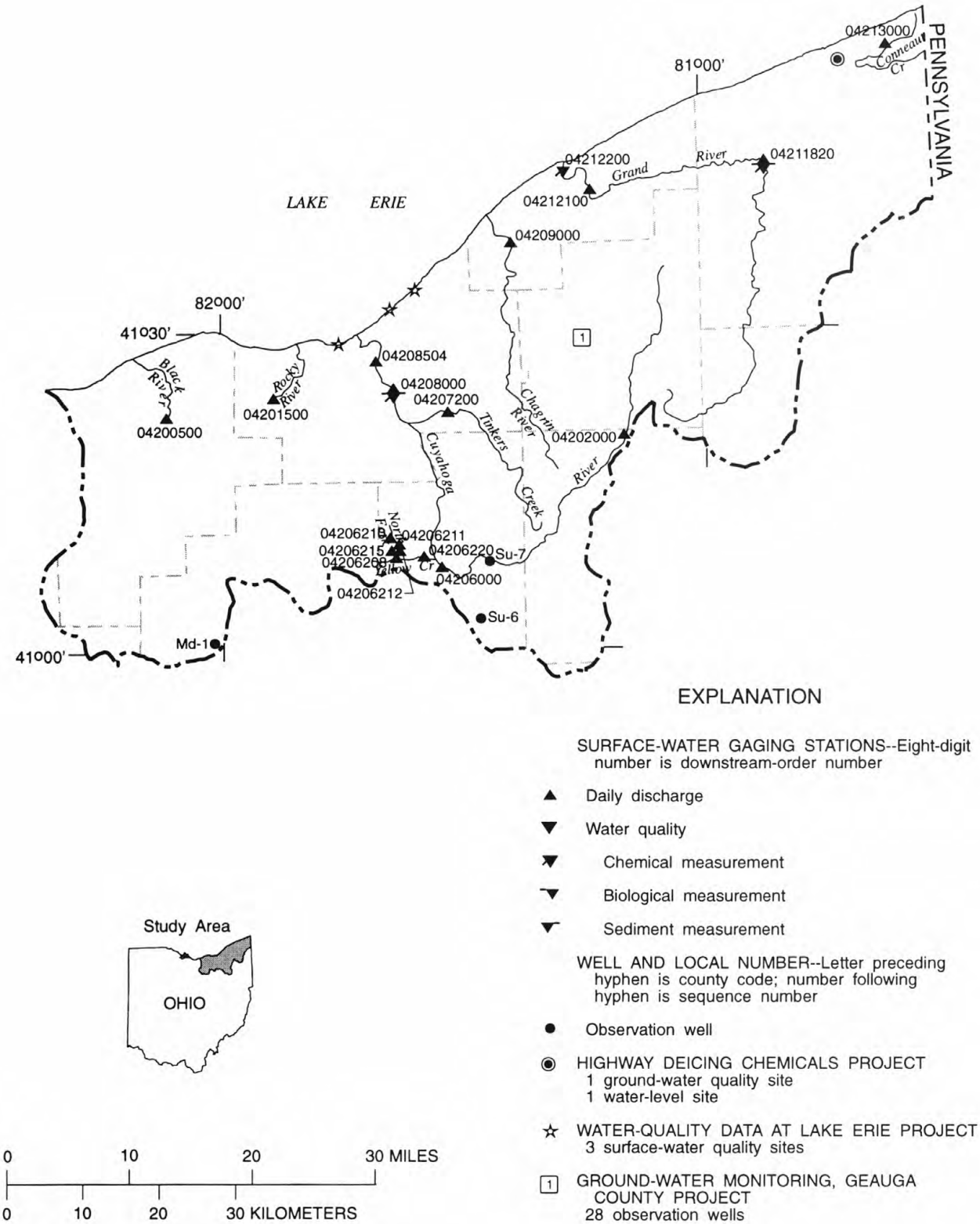



**Figure 9b.** Location of data-collection stations.

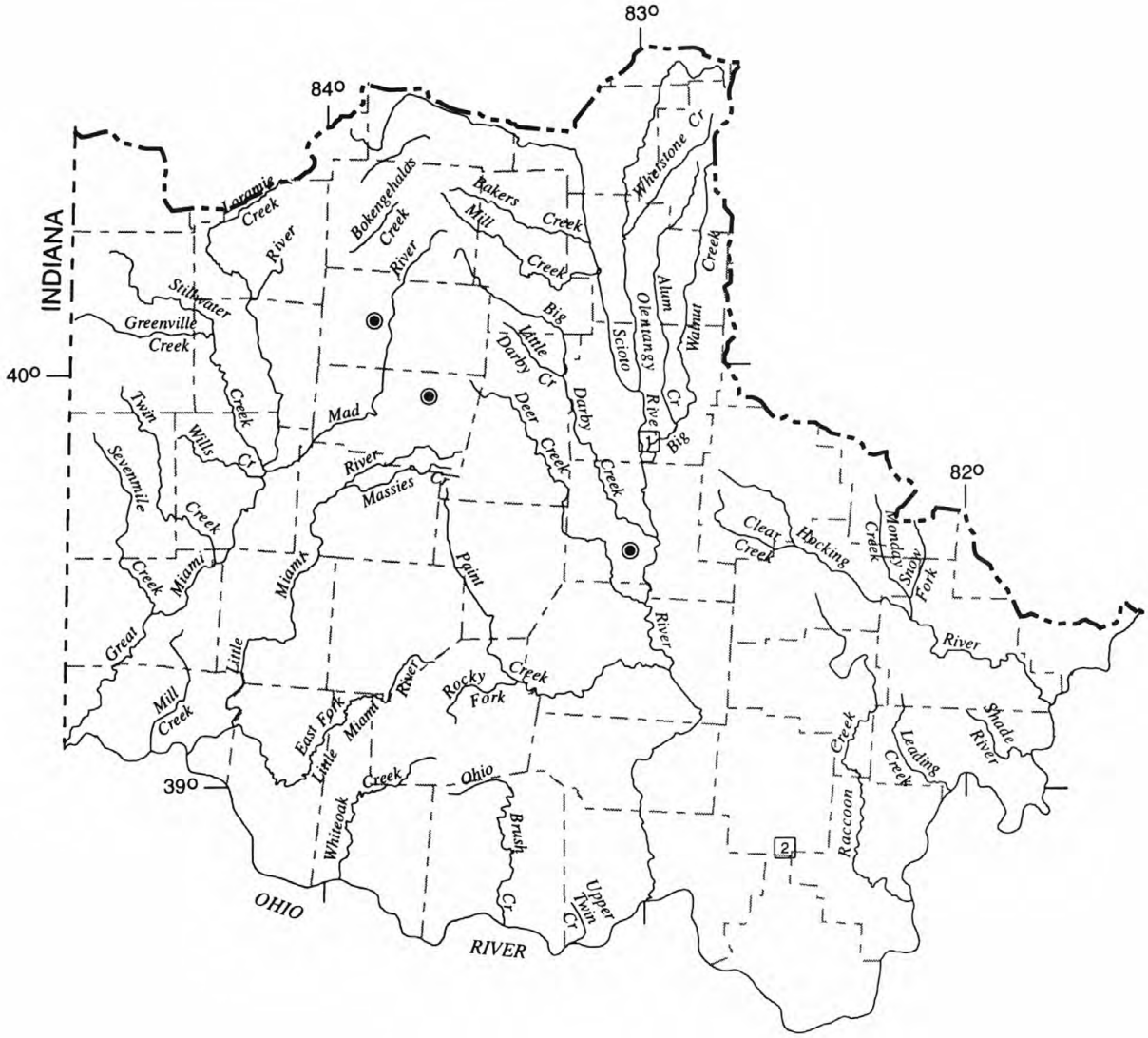



**Figure 9c.** Location of data-collection stations for projects, Ohio River Basin.

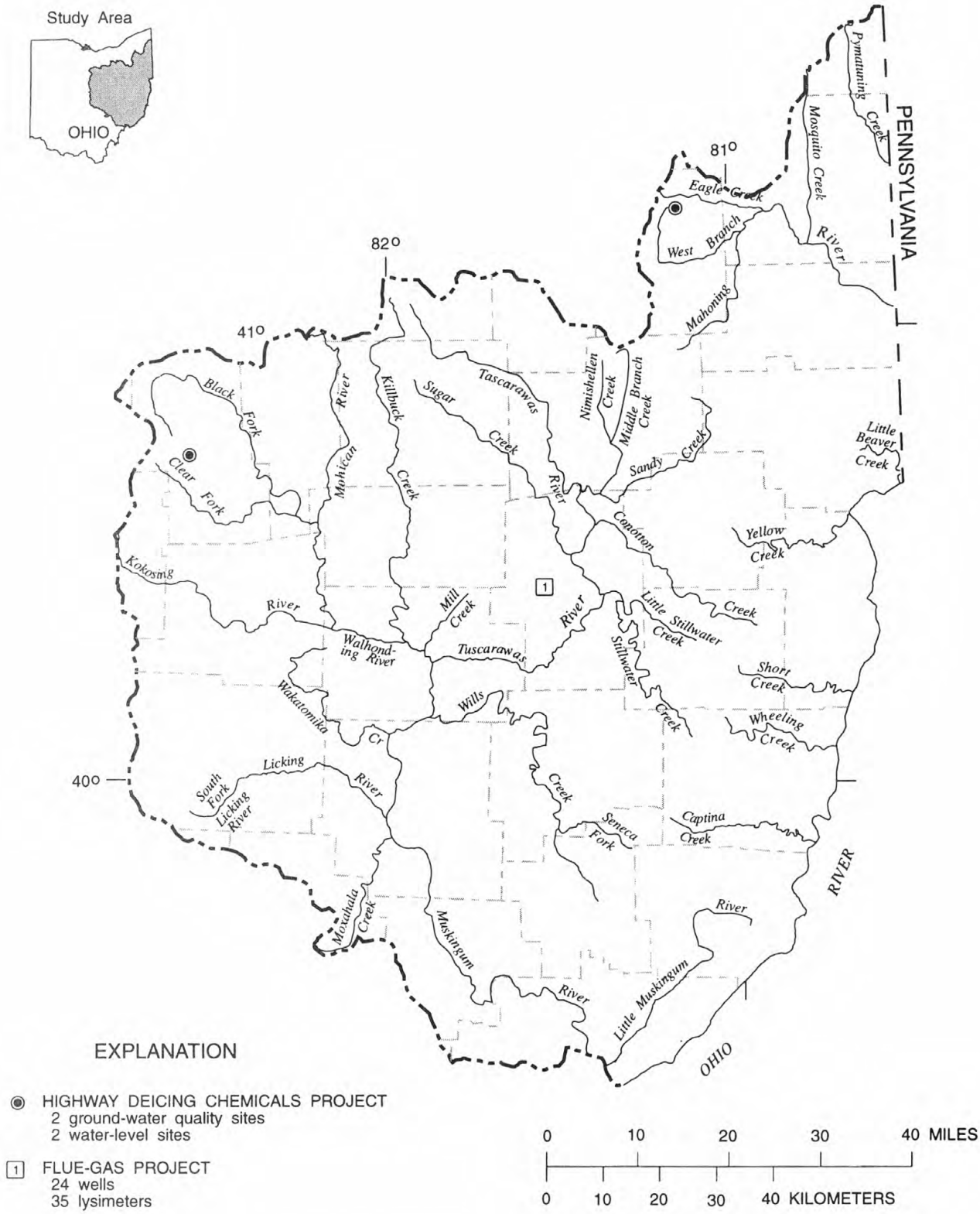



**Figure 9d.** Location of data-collection stations for projects, Ohio River Basin.

## 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, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. 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.

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

2-E2. *Borehole geophysics applied to ground-water investigations,* by W. S. 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 W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

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

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

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

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

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

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

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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.

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3-A11. *Measurement of discharge by the 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*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 pages.

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

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

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3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.

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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.

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5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L. C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
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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.
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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.
6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages
6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.
6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.
6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by E. D. Swain and E. J. Wexler. 1995. 125 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. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

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

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

## 04177000 OTTAWA RIVER AT UNIVERSITY OF TOLEDO, TOLEDO, OHIO

LOCATION.--Lat 41°39'29", long 83°37'19", in NE 1/4 sec. 32, T.9 S., R.7 E., Lucas County, Hydrologic Unit 04100001, on left bank at auto bridge at University of Toledo, 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 mi². Area at site used prior to Sept 30, 1948, 150 mi², 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 sea level. (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.--Records fair except for periods of estimated record, which are poor. Water-quality data collected at this site.
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 ft³/s. Flood of Apr. 25, 1950, reached a stage of 15.0 ft present datum, from floodmark; discharge, 3,300 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.6 | 4.7 | 20 | 86 | e62 | 1260 | 99 | 54 | 912 | 597 | 9.2 | 13 |
| 2 | 3.7 | 3.8 | 23 | 81 | e56 | 823 | 81 | 37 | 1920 | 437 | 9.1 | 12 |
| 3 | 2.4 | 3.5 | 23 | 87 | e54 | 527 | 74 | 225 | 2330 | 190 | 11 | 12 |
| 4 | 2.2 | 3.5 | 20 | 83 | 262 | 366 | 80 | 636 | 1930 | 95 | 46 | 9.4 |
| 5 | 2.7 | 4.2 | 15 | 313 | 665 | 291 | 151 | 473 | 1130 | 56 | 17 | 8.7 |
| 6 | 3.0 | 4.4 | 20 | 438 | 857 | 282 | 186 | 385 | 541 | 40 | 15 | 9.4 |
| 7 | 3.5 | 141 | 15 | e120 | 450 | 243 | 173 | 292 | 352 | 38 | 10 | 8.5 |
| 8 | 3.2 | 84 | 13 | e80 | 260 | 208 | 111 | 198 | 240 | 32 | 9.3 | 8.3 |
| 9 | 8.5 | 37 | 12 | e60 | e150 | 187 | 79 | 160 | 172 | 35 | 9.1 | 11 |
| 10 | 7.6 | 23 | 12 | e47 | e110 | 224 | 64 | 121 | 122 | 24 | 7.7 | 39 |
| 11 | 6.3 | 16 | 44 | e36 | e80 | 230 | 58 | 90 | 91 | 22 | 13 | 14 |
| 12 | 9.9 | 11 | 53 | e33 | e60 | 162 | 98 | 99 | 78 | 19 | 23 | 16 |
| 13 | 12 | 7.9 | 102 | 30 | e52 | 128 | 85 | 78 | 69 | 18 | 40 | 14 |
| 14 | 16 | 6.1 | 97 | 29 | e45 | 1010 | 78 | 70 | 53 | 40 | 22 | 12 |
| 15 | 18 | 5.0 | 50 | 30 | e41 | 1760 | 64 | 82 | 42 | 65 | 29 | 11 |
| 16 | 22 | 5.5 | 37 | 35 | e38 | 1540 | 62 | 64 | 67 | 17 | 125 | 10 |
| 17 | 27 | 8.4 | 152 | 29 | e37 | 646 | 59 | 58 | 50 | 15 | 306 | 99 |
| 18 | 64 | 9.5 | e100 | e26 | e48 | 433 | 57 | 56 | 40 | 14 | 285 | 26 |
| 19 | 14 | 5.6 | e50 | e24 | e100 | 330 | 52 | 137 | 36 | 12 | 124 | 76 |
| 20 | 4.7 | 5.0 | e35 | e23 | 495 | 262 | 48 | 135 | 32 | 12 | 65 | 820 |
| 21 | 6.5 | 4.5 | e30 | e22 | 1150 | 206 | 46 | 110 | 100 | 83 | 43 | 864 |
| 22 | 6.6 | 4.3 | e23 | 324 | 1800 | 175 | 43 | 77 | 169 | 33 | 30 | 399 |
| 23 | 52 | 4.1 | 67 | 566 | 1560 | 127 | 40 | 63 | 106 | 25 | 21 | 153 |
| 24 | 20 | 5.7 | 394 | 494 | 766 | 103 | 41 | 57 | 64 | 22 | 80 | 78 |
| 25 | 6.0 | 17 | 677 | e200 | 409 | 123 | 39 | 268 | 107 | 18 | 56 | 47 |
| 26 | 4.8 | 15 | 255 | e150 | 324 | 125 | 36 | 480 | 389 | 16 | 64 | 35 |
| 27 | 5.7 | 9.2 | 134 | e110 | 1270 | 108 | 33 | 302 | 443 | 15 | 39 | 27 |
| 28 | 4.9 | 7.2 | 89 | e90 | 1670 | 100 | 41 | 162 | 187 | 14 | 26 | 21 |
| 29 | 15 | 6.9 | 97 | e80 | --- | 116 | 38 | 304 | 91 | 12 | 20 | 19 |
| 30 | 71 | 27 | 122 | e70 | --- | 122 | 38 | 597 | 142 | 11 | 16 | 19 |
| 31 | 8.1 | --- | 104 | e66 | --- | 118 | --- | 607 | --- | 9.6 | 19 | --- |
| TOTAL | 434.9 | 490.0 | 2885 | 3862 | 12871 | 12335 | 2154 | 6477 | 12005 | 2036.6 | 1589.4 | 2891.3 |
| MEAN | 14.0 | 16.3 | 93.1 | 125 | 460 | 398 | 71.8 | 209 | 400 | 65.7 | 51.3 | 96.4 |
| MAX | 71 | 141 | 677 | 566 | 1800 | 1760 | 186 | 636 | 2330 | 597 | 306 | 864 |
| MIN | 2.2 | 3.5 | 12 | 22 | 37 | 100 | 33 | 37 | 32 | 9.6 | 7.7 | 8.3 |
| CFSM | .09 | .11 | .62 | .83 | 3.06 | 2.65 | .48 | 1.39 | 2.67 | .44 | .34 | .64 |
| IN. | .11 | .12 | .72 | .96 | 3.19 | 3.06 | .53 | 1.61 | 2.98 | .51 | .39 | .72 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 63.7 | 103 | 136 | 114 | 165 | 294 | 242 | 137 | 136 | 53.0 | 29.3 | 43.3 |
| MAX | 407 | 449 | 380 | 561 | 467 | 729 | 438 | 358 | 437 | 264 | 143 | 406 |
| (WY) | 1987 | 1993 | 1978 | 1993 | 1990 | 1978 | 1977 | 1945 | 1989 | 1992 | 1980 | 1981 |
| MIN | .85 | 3.04 | 6.14 | 4.92 | 30.4 | 56.0 | 20.4 | 21.4 | 7.36 | 8.46 | .82 | .13 |
| (WY) | 1947 | 1947 | 1947 | 1977 | 1978 | 1989 | 1946 | 1988 | 1988 | 1984 | 1946 | 1946 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1945 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 36243.0 | | 60031.2 | | | |
| ANNUAL MEAN | 99.0 | | 164 | | 126 | |
| HIGHEST ANNUAL MEAN | | | | | 215 | 1993 |
| LOWEST ANNUAL MEAN | | | | | 65.5 | 1995 |
| HIGHEST DAILY MEAN | 1520 | Jun 20 | 2330 | Jun 3 | 3500 | Mar 14 1982 |
| LOWEST DAILY MEAN | 1.6 | Sep 20 | 2.2 | Oct 4 | .00 | Aug 24 1945 |
| ANNUAL SEVEN-DAY MINIMUM | 2.8 | Aug 24 | 3.0 | Oct 2 | .00 | Aug 24 1945 |
| INSTANTANEOUS PEAK FLOW | | | 2710 | Jun 2 a | 3950 | Mar 14 1982 |
| INSTANTANEOUS PEAK STAGE | | | 12.75 | Jun 2 | 14.54 | Mar 14 1982 |
| INSTANTANEOUS LOW FLOW | | | 2.2 | Oct 4 | .00 | Sep 19 1945 |
| ANNUAL RUNOFF (CFSM) | .66 | | 1.10 | | .84 | |
| ANNUAL RUNOFF (INCHES) | 8.99 | | 14.89 | | 11.43 | |
| 10 PERCENT EXCEEDS | 264 | | 437 | | 315 | |
| 50 PERCENT EXCEEDS | 25 | | 54 | | 40 | |
| 90 PERCENT EXCEEDS | 3.8 | | 8.0 | | 7.0 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04185000 TIFFIN RIVER AT STRYKER, OHIO

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 mi².
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 sea level. 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.--Records fair except for periods of estimated record, which are poor. Small diversion 12.5 mi upstream from gage for municipal supply of Archbold. Diversion averaged 2.80 ft³/s; returned as sewage to Brush Creek, which flows into Tiffin River about 15 mi downstream from station. Water-quality and sediment data collected at this site.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 16.0 ft, from floodmarks; discharge, 7,600 ft³/s. Flood in 1937 reached a stage of 15.0 ft, from information by local resident; discharge, 6,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 131 | 535 | 498 | e230 | 2970 | 582 | 148 | 619 | 351 | 16 | 52 |
| 2 | 28 | 116 | 769 | 434 | e210 | 2780 | 465 | 149 | 1200 | 306 | 16 | 45 |
| 3 | 22 | 103 | 654 | 436 | 272 | 2370 | 402 | 302 | 1410 | 189 | 20 | 40 |
| 4 | 19 | 90 | 390 | 430 | 446 | 1990 | 367 | 845 | 1490 | 134 | 28 | 36 |
| 5 | 16 | 84 | 282 | 708 | 1210 | 1650 | 376 | 922 | 1500 | 109 | 37 | 36 |
| 6 | 17 | 80 | 247 | 957 | 1350 | 1320 | 569 | 805 | 1300 | 93 | 26 | 34 |
| 7 | 20 | 133 | 223 | 909 | 1510 | 997 | 694 | 565 | 849 | 85 | 21 | 33 |
| 8 | 19 | 565 | 212 | 491 | 1450 | 748 | 584 | 403 | 488 | 81 | 16 | 31 |
| 9 | 18 | 720 | 205 | e350 | 1060 | 600 | 426 | 352 | 348 | 159 | 13 | 29 |
| 10 | 22 | 494 | 188 | e320 | 644 | 660 | 348 | 323 | 280 | 154 | 11 | 60 |
| 11 | 24 | 316 | 345 | e280 | e370 | 718 | 308 | 282 | 241 | 100 | 13 | 84 |
| 12 | 25 | 230 | 1020 | e260 | e320 | 625 | 304 | 259 | 217 | 77 | 26 | 81 |
| 13 | 28 | 182 | 1290 | e240 | e270 | 492 | 321 | 247 | 200 | 68 | 44 | 75 |
| 14 | 32 | 157 | 1360 | e230 | e250 | 1770 | 317 | 236 | 185 | 59 | 38 | 65 |
| 15 | 38 | 138 | 1220 | e260 | e220 | 2870 | 294 | 227 | 167 | 47 | 30 | 53 |
| 16 | 41 | 131 | e500 | e230 | e210 | 3310 | 268 | 224 | 155 | 46 | 56 | 40 |
| 17 | 45 | 124 | e400 | e200 | e200 | 2830 | 254 | 220 | 182 | 38 | 205 | 141 |
| 18 | 53 | 121 | e330 | e190 | 267 | 2210 | 236 | 205 | 199 | 34 | 333 | 301 |
| 19 | 66 | 116 | e280 | e190 | 708 | 1790 | 225 | 359 | 186 | 32 | 243 | 244 |
| 20 | 65 | 115 | e250 | 193 | 1110 | 1460 | 214 | 527 | 164 | 28 | 159 | 1320 |
| 21 | 63 | 111 | e240 | 188 | 2110 | 1120 | 200 | 378 | 400 | 33 | 102 | 1950 |
| 22 | 67 | 104 | e300 | 438 | 2870 | 809 | 188 | 279 | 1130 | 56 | 83 | 1920 |
| 23 | 74 | 100 | e400 | 1010 | 3340 | 592 | 179 | 229 | 1290 | 73 | 76 | 1610 |
| 24 | 86 | 98 | 1460 | 1080 | 3080 | 469 | 172 | 204 | 1360 | 67 | 88 | 882 |
| 25 | 88 | 102 | 1740 | e1100 | 2520 | 419 | 164 | 543 | 1010 | 57 | 283 | 351 |
| 26 | 86 | 101 | 2100 | e800 | 2040 | 419 | 157 | 1040 | 878 | 44 | 302 | 222 |
| 27 | 85 | 100 | 2100 | e500 | 2460 | 419 | 152 | 856 | 832 | 38 | 190 | 158 |
| 28 | 89 | 92 | 1540 | e390 | 2710 | 400 | 154 | 462 | 453 | 36 | 115 | 115 |
| 29 | 91 | 96 | 929 | e320 | --- | 408 | 152 | 432 | 282 | 27 | 80 | 90 |
| 30 | 101 | 183 | 697 | e280 | --- | 571 | 149 | 780 | 220 | 23 | 63 | 79 |
| 31 | 133 | --- | 607 | e250 | --- | 660 | --- | 717 | --- | 19 | 55 | --- |
| TOTAL | 1601 | 5233 | 22813 | 14162 | 33437 | 40446 | 9221 | 13520 | 19235 | 2663 | 2788 | 10177 |
| MEAN | 51.6 | 174 | 736 | 457 | 1194 | 1305 | 307 | 436 | 641 | 85.9 | 89.9 | 339 |
| MAX | 133 | 720 | 2100 | 1100 | 3340 | 3310 | 694 | 1040 | 1500 | 351 | 333 | 1950 |
| MIN | 16 | 80 | 188 | 188 | 200 | 400 | 149 | 148 | 155 | 19 | 11 | 29 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 108 | 229 | 372 | 387 | 538 | 796 | 656 | 382 | 252 | 154 | 65.3 | 68.9 |
| MAX | 887 | 1339 | 1785 | 1687 | 1569 | 2563 | 1990 | 2112 | 1422 | 761 | 389 | 460 |
| (WY) | 1987 | 1993 | 1928 | 1993 | 1976 | 1982 | 1950 | 1943 | 1989 | 1943 | 1980 | 1981 |
| MIN | 10.2 | 14.6 | 18.4 | 20.2 | 21.9 | 135 | 106 | 74.4 | 24.1 | 13.7 | 9.76 | 7.40 |
| (WY) | 1964 | 1954 | 1964 | 1963 | 1963 | 1964 | 1946 | 1925 | 1988 | 1988 | 1941 | 1953 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1922 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 144884 | | 175296 | | | |
| ANNUAL MEAN | 396 | | 480 | | 333 | |
| HIGHEST ANNUAL MEAN | | | | | 671 | 1950 |
| LOWEST ANNUAL MEAN | | | | | 59.6 | 1964 |
| HIGHEST DAILY MEAN | 4200 | Jun 20 | 3340 | Feb 23 | 7640 | Mar 15 1982 |
| LOWEST DAILY MEAN | 12 | Sep 26 | 11 | Aug 10 | 2.5 | Jul 18 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 14 | Aug 31 | 18 | Aug 6 | 3.6 | Jul 7 1988 |
| INSTANTANEOUS PEAK FLOW | | | 3400 | Feb 23 a | 7800 | Mar 15 1982 |
| INSTANTANEOUS PEAK STAGE | | | 14.04 | Feb 23 | 18.36 | Mar 15 1982 |
| INSTANTANEOUS LOW FLOW | | | 11 | Aug 10 | 2.5 | Jul 18 1988 |
| 10 PERCENT EXCEEDS | 1120 | | 1330 | | 922 | |
| 50 PERCENT EXCEEDS | 161 | | 236 | | 124 | |
| 90 PERCENT EXCEEDS | 19 | | 35 | | 23 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04185440 UNNAMED TRIBUTARY TO LOST CREEK NEAR FARMER, OHIO

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 mi².
PERIOD OF RECORD.--October 1985 to current year.
GAGE.--Water-stage recorder. Elevation of gage is 760 ft above sea level from topographic map.
REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .09 | .53 | 27 | e2.4 | e.70 | 13 | 3.0 | .64 | 15 | .71 | .19 | .21 |
| 2 | .08 | .37 | 7.4 | e2.2 | 1.0 | 9.5 | 2.3 | .58 | 63 | .62 | .18 | .27 |
| 3 | .10 | .28 | 3.5 | e2.0 | 3.5 | 5.0 | 2.0 | 23 | 15 | .54 | .17 | .35 |
| 4 | .10 | .24 | 2.6 | e3.0 | 35 | 3.7 | 1.8 | 7.7 | 5.7 | .48 | .17 | .21 |
| 5 | .09 | .21 | 2.1 | 43 | 21 | 3.2 | 19 | 5.7 | 3.1 | .45 | .13 | .18 |
| 6 | .08 | .20 | 1.7 | 5.7 | 5.8 | 4.4 | 7.7 | 9.4 | 2.1 | .43 | .11 | .16 |
| 7 | .08 | 39 | 2.0 | 2.5 | 3.3 | 2.7 | 3.0 | 2.7 | 2.3 | .55 | .11 | .13 |
| 8 | .07 | 26 | 2.6 | e1.5 | 2.5 | 2.8 | 2.0 | 2.1 | 1.5 | 4.1 | .10 | .13 |
| 9 | .10 | 5.6 | 1.7 | e1.0 | e2.0 | 6.0 | 1.5 | 1.7 | 1.2 | 68 | .10 | .55 |
| 10 | .09 | 2.7 | 1.8 | e.80 | e1.3 | 8.9 | 1.3 | 1.3 | .94 | 6.0 | .12 | 57 |
| 11 | .06 | 1.9 | 60 | e.70 | e1.1 | 3.6 | 1.2 | 1.1 | .82 | 2.5 | .17 | 7.2 |
| 12 | .06 | 1.4 | e20 | e.58 | e.90 | 2.4 | 1.7 | 1.0 | .77 | 1.5 | .24 | 3.2 |
| 13 | .07 | 1.1 | e9.0 | e.50 | e.80 | 2.1 | 1.9 | .88 | .70 | 1.1 | .26 | 1.6 |
| 14 | .08 | .84 | e4.5 | e.60 | e.70 | 172 | 1.4 | .81 | .58 | .85 | .16 | 1.1 |
| 15 | .10 | .65 | e3.2 | e.50 | e.66 | 15 | 1.2 | .87 | .51 | .62 | .15 | .90 |
| 16 | .10 | .57 | e2.5 | e.45 | e.63 | 7.5 | 1.1 | .77 | .69 | .46 | 2.0 | .72 |
| 17 | .11 | .57 | e2.0 | e.40 | e.60 | 6.1 | 1.0 | .73 | 1.1 | .36 | 60 | 48 |
| 18 | .24 | .58 | e1.8 | e.37 | 10 | 4.9 | .94 | .67 | .77 | .31 | 6.2 | 9.7 |
| 19 | .24 | .56 | e1.5 | e.35 | 14 | 3.4 | .88 | 11 | .60 | .28 | 2.9 | 3.1 |
| 20 | .18 | .48 | e1.3 | e.40 | 65 | 3.0 | .80 | 3.8 | .52 | .26 | 1.6 | 22 |
| 21 | .13 | .43 | e1.2 | .47 | 85 | 2.4 | .79 | 1.8 | 3.5 | .59 | 1.1 | 4.1 |
| 22 | .11 | .39 | 1.3 | 52 | e10 | 2.0 | .74 | 1.2 | 6.0 | 3.2 | .84 | 2.1 |
| 23 | .19 | .37 | 58 | 16 | e5.0 | 1.8 | .72 | .97 | 1.6 | 1.6 | .63 | 1.6 |
| 24 | 1.1 | .38 | 76 | 5.3 | e3.5 | 1.6 | .69 | .84 | .94 | .81 | 5.2 | 1.3 |
| 25 | .44 | 1.1 | e5.6 | e2.0 | e3.0 | 4.8 | .63 | 38 | 2.6 | .55 | 3.2 | 1.1 |
| 26 | .25 | 2.5 | e3.0 | e1.4 | 5.5 | 5.3 | .60 | 9.8 | 13 | .46 | 1.3 | .75 |
| 27 | .26 | 2.0 | e2.5 | e1.0 | 152 | 3.0 | .62 | 3.4 | 1.9 | .39 | .84 | .61 |
| 28 | .23 | 1.4 | e2.0 | e.90 | 17 | 2.3 | .68 | 2.1 | 1.1 | .35 | .50 | .54 |
| 29 | .20 | 1.1 | e3.7 | e.80 | --- | 27 | .61 | 3.3 | .80 | .27 | .36 | .47 |
| 30 | 2.6 | 28 | e3.5 | e.70 | --- | 8.8 | .61 | 4.1 | .72 | .23 | .29 | .37 |
| 31 | 1.2 | --- | e2.8 | e.60 | --- | 5.1 | --- | 3.2 | --- | .19 | .25 | --- |
| TOTAL | 8.83 | 121.45 | 317.8 | 150.12 | 451.49 | 343.3 | 62.41 | 145.16 | 149.06 | 98.76 | 89.57 | 169.65 |
| MEAN | .28 | 4.05 | 10.3 | 4.84 | 16.1 | 11.1 | 2.08 | 4.68 | 4.97 | 3.19 | 2.89 | 5.65 |
| MAX | 2.6 | 39 | 76 | 52 | 152 | 172 | 19 | 38 | 63 | 68 | 60 | 57 |
| MIN | .06 | .20 | 1.2 | .35 | .60 | 1.6 | .60 | .58 | .51 | .19 | .10 | .13 |
| CFSM | .07 | .96 | 2.42 | 1.14 | 3.81 | 2.62 | .49 | 1.11 | 1.17 | .75 | .68 | 1.34 |
| IN. | .08 | 1.07 | 2.79 | 1.32 | 3.97 | 3.02 | .55 | 1.28 | 1.31 | .87 | .79 | 1.49 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 3.09 | 5.04 | 6.93 | 5.20 | 7.25 | 7.13 | 6.91 | 3.53 | 2.96 | 1.96 | 1.05 | .98 |
| MAX | 12.6 | 15.6 | 23.9 | 13.9 | 21.2 | 13.9 | 14.1 | 10.9 | 9.09 | 7.75 | 8.47 | 5.66 |
| (WY) | 1987 | 1993 | 1991 | 1993 | 1990 | 1986 | 1991 | 1990 | 1996 | 1986 | 1990 | 1997 |
| MIN | .031 | .051 | .11 | 1.68 | .46 | 3.13 | 1.92 | .26 | .046 | .011 | .015 | .003 |
| (WY) | 1995 | 1995 | 1990 | 1988 | 1995 | 1996 | 1987 | 1988 | 1988 | 1988 | 1989 | 1991 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1986 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1494.76 | | 2107.60 | | | |
| ANNUAL MEAN | 4.08 | | 5.77 | | 4.32 | |
| HIGHEST ANNUAL MEAN | | | | | 5.87 | 1991 |
| LOWEST ANNUAL MEAN | | | | | 1.96 | 1995 |
| HIGHEST DAILY MEAN | 82 | May 17 | 172 | Mar 14 | 244 | Feb 22 1990 |
| LOWEST DAILY MEAN | .01 | Sep 14 | .06 | Oct 11 | .00 | Aug 3 1987 |
| ANNUAL SEVEN-DAY MINIMUM | .03 | Aug 31 | .08 | Oct 7 | .00 | Aug 3 1987 |
| INSTANTANEOUS PEAK FLOW | | | 525 | Mar 14 a | 757 | Oct 3 1987 |
| INSTANTANEOUS PEAK STAGE | | | 5.09 | Mar 14 | 5.74 | Oct 3 1987 |
| INSTANTANEOUS LOW FLOW | | | .06 | Oct 11 | .00 | Jul 27 1991 |
| ANNUAL RUNOFF (CFSM) | .97 | | 1.37 | | 1.02 | |
| ANNUAL RUNOFF (INCHES) | 13.15 | | 18.53 | | 13.87 | |
| 10 PERCENT EXCEEDS | 7.3 | | 10 | | 9.1 | |
| 50 PERCENT EXCEEDS | .70 | | 1.1 | | .67 | |
| 90 PERCENT EXCEEDS | .08 | | .19 | | .05 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO

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 mi².

### WATER-DISCHARGE RECORDS

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 sea level. Prior to Oct. 6, 1930, nonrecording gage at same site and datum.
REMARKS.--Records fair except for periods of estimated record, which are poor. 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 4,031.11 mil gal, equivalent to a mean withdrawal of 17.1 ft³/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. National Weather Service gage height Handar telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 40 | 27 | 853 | e280 | e240 | 4120 | 335 | 79 | 3390 | 1430 | 33 | 43 |
| 2 | 27 | 37 | 1370 | e220 | e220 | 1830 | 238 | 75 | 6660 | 1300 | 31 | 39 |
| 3 | 18 | 112 | 694 | e200 | 298 | 1870 | 186 | 143 | 6770 | 988 | 30 | 38 |
| 4 | 10 | 357 | 333 | e300 | 564 | 876 | 160 | 408 | 4000 | 734 | 40 | 34 |
| 5 | 23 | 178 | 211 | e660 | 2940 | 551 | 155 | 373 | 996 | 332 | 39 | 33 |
| 6 | 23 | 89 | 165 | e860 | 2940 | 1190 | 217 | 260 | 534 | 194 | 30 | 31 |
| 7 | 21 | 94 | 147 | e500 | 821 | 1200 | 242 | 196 | 375 | 137 | 30 | 27 |
| 8 | e19 | 448 | 136 | 408 | 411 | 639 | 193 | 159 | 282 | 100 | 27 | 28 |
| 9 | e17 | 384 | 106 | 146 | 287 | 481 | 151 | 122 | 219 | 621 | 27 | 30 |
| 10 | e18 | 159 | 92 | 109 | 223 | 957 | 128 | 105 | 174 | 411 | 25 | 75 |
| 11 | e22 | 189 | 156 | e90 | 209 | 940 | 119 | 99 | 142 | 197 | 25 | 86 |
| 12 | 28 | 1420 | 1480 | e80 | 157 | 522 | 161 | 85 | 113 | 107 | 25 | 59 |
| 13 | 28 | 1150 | 2180 | e70 | 137 | 365 | 476 | 76 | 96 | 66 | 131 | 46 |
| 14 | 21 | 420 | 1480 | e64 | e130 | 1470 | 440 | 84 | 84 | 53 | 190 | 38 |
| 15 | 15 | 243 | 614 | e130 | e120 | 2350 | 256 | 69 | 73 | 43 | 96 | 34 |
| 16 | 15 | 163 | 383 | e100 | e110 | 902 | 191 | 62 | 64 | 51 | 67 | 31 |
| 17 | 25 | 113 | 981 | e80 | e110 | 469 | 159 | 48 | 57 | 49 | 752 | 30 |
| 18 | 28 | 135 | e2500 | e50 | e110 | 365 | 132 | 53 | 57 | 46 | 1340 | 28 |
| 19 | 27 | e150 | e1700 | e35 | 283 | 319 | 113 | 227 | 308 | 76 | 1010 | 29 |
| 20 | 23 | 59 | e1000 | e60 | 411 | 300 | 100 | 454 | 380 | 63 | 401 | 89 |
| 21 | 19 | 53 | e700 | e140 | 656 | 278 | 89 | 380 | 198 | 51 | 206 | 157 |
| 22 | 11 | 55 | e580 | 404 | 1370 | 247 | 82 | 186 | 147 | 204 | 116 | 72 |
| 23 | 6.8 | 49 | e700 | 1820 | 946 | 211 | 77 | 107 | 111 | 190 | 124 | 45 |
| 24 | 6.0 | 52 | e800 | e1700 | 476 | 169 | 77 | 81 | 104 | 103 | 144 | 36 |
| 25 | 8.2 | 71 | e600 | e1000 | 338 | 153 | 72 | 641 | 86 | 119 | 226 | 30 |
| 26 | e15 | 960 | e400 | e760 | 285 | 162 | 67 | 2100 | 91 | 53 | 166 | 29 |
| 27 | 25 | 1170 | e350 | e500 | 3130 | 165 | 62 | 1290 | 129 | 52 | 101 | 28 |
| 28 | 26 | 463 | e300 | e400 | 5910 | 161 | 60 | 448 | 147 | 61 | 63 | 24 |
| 29 | 22 | 235 | e260 | e330 | --- | 179 | 59 | 419 | 111 | 47 | 59 | 22 |
| 30 | 24 | 237 | e300 | e290 | --- | 390 | 61 | 615 | 111 | 37 | 52 | 21 |
| 31 | 28 | --- | e360 | e270 | --- | 392 | --- | 805 | --- | 36 | 47 | --- |
| TOTAL | 639.0 | 9272 | 21931 | 12056 | 23832 | 24223 | 4858 | 10249 | 26009 | 7951 | 5653 | 1312 |
| MEAN | 20.6 | 309 | 707 | 389 | 851 | 781 | 162 | 331 | 867 | 256 | 182 | 43.7 |
| MAX | 40 | 1420 | 2500 | 1820 | 5910 | 4120 | 476 | 2100 | 6770 | 1430 | 1340 | 157 |
| MIN | 6.0 | 27 | 92 | 35 | 110 | 153 | 59 | 48 | 57 | 36 | 25 | 21 |
| CFSM | .06 | .93 | 2.13 | 1.17 | 2.56 | 2.35 | .49 | 1.00 | 2.61 | .77 | .55 | .13 |
| IN. | .07 | 1.04 | 2.46 | 1.35 | 2.67 | 2.71 | .54 | 1.15 | 2.91 | .89 | .63 | .15 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 76.2 | 180 | 307 | 437 | 474 | 605 | 507 | 293 | 251 | 176 | 75.4 | 86.6 |
| MAX | 782 | 1286 | 1283 | 2184 | 1555 | 2112 | 1874 | 1237 | 1142 | 1652 | 477 | 1091 |
| (WY) | 1927 | 1973 | 1991 | 1950 | 1950 | 1978 | 1957 | 1943 | 1981 | 1992 | 1979 | 1926 |
| MIN | 5.44 | 13.4 | 11.9 | 8.23 | 23.6 | 81.3 | 51.3 | 28.7 | 13.6 | 20.4 | 8.10 | 5.78 |
| (WY) | 1989 | 1957 | 1977 | 1977 | 1964 | 1981 | 1971 | 1934 | 1988 | 1965 | 1991 | 1991 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1921 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 157648.0 | | 147985.0 | | | |
| ANNUAL MEAN | 431 | | 405 | | 289 | |
| HIGHEST ANNUAL MEAN | | | | | 537 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 65.3 | 1931 |
| HIGHEST DAILY MEAN | 8100 | Jan 19 | 6770 | Jun 3 | 12000 | Jul 15 1992 |
| LOWEST DAILY MEAN | 6.0 | Oct 24 | 6.0 | Oct 24 | .50 | Oct 20 1994 |
| ANNUAL SEVEN-DAY MINIMUM | 13 | Oct 20 | 13 | Oct 20 | 1.2 | Oct 4 1991 |
| INSTANTANEOUS PEAK FLOW | | | 7380 | Jun 3 a | 12800 | Jul 15 1992 |
| INSTANTANEOUS PEAK STAGE | | | 16.90 | Dec 23 | 20.30 | Jan 23 1959 |
| INSTANTANEOUS LOW FLOW | | | 6.0 | Oct 24 | .71 | Oct 7 1991 |
| ANNUAL RUNOFF (CFSM) | 1.30 | | 1.22 | | .87 | |
| ANNUAL RUNOFF (INCHES) | 17.66 | | 16.58 | | 11.81 | |
| 10 PERCENT EXCEEDS | 1190 | | 991 | | 694 | |
| 50 PERCENT EXCEEDS | 120 | | 146 | | 74 | |
| 90 PERCENT EXCEEDS | 23 | | 28 | | 18 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

### WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 60 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (04211820). Three sites are reported in the 1997 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1997 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1997 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at

http//www-oh.er.usgs.gov/nawqa.index.html.

---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | BARO-METRIC PRES-SURE (MM OF HG) (00025) | OXYGEN, DIS-SOLVED (MG/L) (00300) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625) | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 22... | 1415 | 11 | 1140 | 7.9 | 23.0 | 14.0 | 738 | 6.8 | 68 | 140 | 100 | -- |
| NOV | | | | | | | | | | | | |
| 19... | 1340 | 247 | 975 | 8.0 | 4.0 | 4.0 | 740 | 11.6 | 91 | K60 | K46 | -- |
| DEC | | | | | | | | | | | | |
| 03... | 1400 | 595 | 457 | 7.8 | 1.0 | 4.5 | 738 | 11.7 | 92 | 2800 | K2500 | -- |
| 17... | 1200 | 711 | 520 | 7.8 | -2.5 | 3.5 | 735 | 11.7 | 91 | 1800 | 1500 | -- |
| JAN | | | | | | | | | | | | |
| 14... | 1330 | 173 | 911 | 7.9 | -8.0 | 0.0 | 750 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 04... | 1300 | 399 | 542 | 7.6 | 4.5 | 0.0 | 741 | 11.8 | 82 | 1000 | 900 | -- |
| 25... | 1415 | 305 | 554 | 8.3 | 2.5 | 2.0 | 750 | 12.8 | 94 | -- | K100 | -- |
| MAR | | | | | | | | | | | | |
| 11... | 1230 | 943 | 494 | 8.1 | 9.0 | 5.5 | 744 | 11.6 | 95 | -- | K1700 | -- |
| 18... | 0930 | 338 | 574 | 8.0 | 1.0 | 5.0 | 750 | 11.8 | 93 | -- | 420 | -- |
| 25... | 1330 | 107 | 712 | 8.4 | 11.5 | 7.5 | 736 | 11.6 | 100 | -- | 450 | -- |
| APR | | | | | | | | | | | | |
| 08... | 1415 | 153 | 669 | 8.6 | 4.0 | 8.5 | 746 | 13.1 | 115 | -- | -- | -- |
| 15... | 1200 | 248 | 636 | 8.1 | 14.0 | 9.0 | 749 | 11.3 | 106 | -- | K38 | -- |
| 22... | 1345 | 83 | 717 | 8.4 | 10.0 | 13.0 | 736 | 10.5 | 103 | -- | K60 | -- |
| MAY | | | | | | | | | | | | |
| 08... | 0900 | 161 | 681 | 8.2 | 10.0 | 14.0 | 742 | 9.0 | 89 | -- | 240 | -- |
| 15... | 0930 | 70 | 754 | 8.4 | 10.5 | 12.5 | 736 | 9.5 | 92 | -- | 170 | -- |
| 19... | 1230 | 250 | 676 | 7.7 | 21.0 | 17.5 | 736 | 7.0 | 76 | -- | 1400 | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | 1630 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | 1830 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | 2115 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 26-26 | 0200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | 1245 | 1290 | 463 | 7.5 | 14.5 | 14.0 | 750 | 7.8 | 78 | -- | 3500 | -- |
| JUN | | | | | | | | | | | | |
| 02... | 1330 | 7060 | 279 | 7.4 | 16.0 | 14.0 | 740 | 7.7 | 74 | -- | 4000 | 3700 |
| 10... | 1330 | 170 | 668 | 7.9 | 23.5 | 20.0 | 750 | 7.9 | 89 | -- | 67 | -- |
| 18... | 1200 | 57 | 723 | 8.1 | 16.5 | 20.5 | 737 | 7.5 | 87 | -- | 150 | -- |
| JUL | | | | | | | | | | | | |
| 01... | 0600 | 1020 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | 0700 | 1210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | 0815 | 1400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | 1000 | 1610 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | 1230 | 1820 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 0330 | 1440 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 2200 | 1110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | 2230 | 1090 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 1230 | 136 | 575 | 7.8 | 24.0 | 22.0 | 748 | 6.8 | 79 | -- | 1100 | -- |
| 23... | 1300 | 173 | 561 | 7.5 | 24.0 | 21.5 | 744 | 7.0 | 81 | -- | 2600 | -- |
| 28... | 1300 | 62 | 797 | 8.0 | 26.0 | 27.0 | 742 | 7.0 | 90 | -- | 330 | -- |
| AUG | | | | | | | | | | | | |
| 11... | 1200 | 25 | 944 | 7.9 | 26.0 | 23.0 | 747 | 6.5 | 77 | -- | -- | -- |
| 27... | 1330 | 96 | 698 | 8.0 | 24.0 | 21.5 | 741 | 8.3 | 98 | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 11... | 0930 | 92 | 703 | 7.6 | 17.0 | 18.5 | 740 | 6.6 | 73 | -- | 5000 | -- |
| 22... | 1415 | 64 | 625 | 7.8 | 13.0 | 17.5 | 748 | 9.2 | 98 | -- | 670 | -- |

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | MAGNESIUM, DISSOLVED (MG/L AS MG) (00925) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | POTASSIUM, DISSOLVED (MG/L AS K) (00935) | BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452) | ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | 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, NITRITE DISSOLVED (MG/L AS N) (00613) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 22... | 35 | 90 | 9.7 | 264 | -- | 216 | 150 | 130 | 0.8 | 2.1 | 683 | 0.02 |
| NOV | | | | | | | | | | | | |
| 19... | 31 | 61 | 5.4 | 271 | -- | 222 | 120 | 100 | 0.7 | 5.7 | 602 | 0.04 |
| DEC | | | | | | | | | | | | |
| 03... | 17 | 9.7 | 4.6 | 149 | -- | 122 | 45 | 26 | 0.3 | 7.6 | 293 | 0.05 |
| 17... | 18 | 13 | 2.4 | 168 | -- | 138 | 54 | 30 | 0.3 | 7.3 | 312 | 0.03 |
| JAN | | | | | | | | | | | | |
| 14... | 38 | 37 | 0.90 | 334 | -- | 274 | 97 | 55 | 0.2 | 11 | 472 | 0.05 |
| FEB | | | | | | | | | | | | |
| 04... | 18 | 17 | 2.7 | 178 | -- | 146 | 61 | 34 | 0.3 | 5.8 | 321 | 0.05 |
| 25... | 21 | 14 | 2.3 | 185 | -- | 160 | 62 | 34 | 0.3 | 7.2 | 348 | 0.03 |
| MAR | | | | | | | | | | | | |
| 11... | 17 | 9.3 | 2.6 | 161 | -- | 132 | 50 | 23 | 0.3 | 6.2 | 300 | 0.02 |
| 18... | 20 | 12 | 2.3 | 220 | -- | 180 | 60 | 28 | 0.3 | 6.6 | 349 | 0.02 |
| 25... | 27 | 21 | 2.0 | 168 | -- | 218 | 85 | 44 | 0.3 | 3.7 | 439 | 0.04 |
| APR | | | | | | | | | | | | |
| 08... | 25 | 23 | 2.4 | 168 | 9 | 142 | 80 | 45 | 0.4 | 0.5 | 399 | 0.03 |
| 15... | 24 | 17 | 2.3 | 195 | -- | 180 | 70 | 36 | 0.3 | 2.3 | 377 | 0.03 |
| 22... | 29 | 28 | 2.3 | 222 | -- | 182 | 97 | 52 | 0.4 | 0.1 | 434 | 0.03 |
| MAY | | | | | | | | | | | | |
| 08... | 26 | 20 | 2.6 | 244 | -- | 200 | 75 | 42 | 0.4 | 2.1 | 394 | 0.05 |
| 15... | 29 | 30 | 2.8 | 242 | -- | 198 | 97 | 57 | 0.4 | 0.1 | 453 | 0.02 |
| 19... | 25 | 29 | 3.2 | 234 | -- | 192 | 84 | 52 | 0.4 | 2.1 | 380 | 0.04 |
| MAY | | | | | | | | | | | | |
| 25-25 | 15 | 14 | 3.5 | -- | -- | -- | 45 | 28 | 0.3 | 6.2 | 338 | 0.09 |
| MAY | | | | | | | | | | | | |
| 25-25 | 15 | 12 | 3.5 | -- | -- | -- | 43 | 25 | 0.3 | 6.3 | 330 | 0.10 |
| MAY | | | | | | | | | | | | |
| 25-25 | 16 | 12 | 3.4 | -- | -- | -- | 44 | 25 | 0.3 | 6.2 | 303 | 0.11 |
| MAY | | | | | | | | | | | | |
| 26-26 | 17 | 13 | 3.2 | -- | -- | -- | 45 | 26 | 0.3 | 6.0 | 338 | 0.11 |
| 27... | 15 | 7.6 | 4.7 | 120 | -- | 98 | 33 | 20 | 0.3 | 7.9 | 289 | 0.16 |
| JUN | | | | | | | | | | | | |
| 02... | 8.3 | 3.4 | 4.7 | 75 | -- | 61 | 16 | 8.8 | 0.2 | 7.0 | 191 | 0.08 |
| 10... | 25 | 17 | 2.9 | 244 | -- | 200 | 67 | 32 | 0.3 | 7.5 | 414 | 0.03 |
| 18... | 29 | 33 | 3.2 | 225 | -- | 184 | 94 | 55 | 0.4 | 0.04 | 384 | 0.03 |
| JUL | | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.12 |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.12 |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.08 |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.09 |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.07 |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.08 |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.08 |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.07 |
| 07... | 20 | 14 | 3.2 | 195 | -- | 160 | 53 | 27 | 0.28 | 8.6 | 359 | 0.04 |
| 23... | 17 | 17 | 3.2 | 203 | -- | 166 | 54 | 32 | 0.32 | 6.5 | 343 | 0.02 |
| 28... | 26 | 42 | 4.2 | 259 | -- | 212 | 83 | 73 | 0.52 | 5.2 | 475 | 0.02 |
| AUG | | | | | | | | | | | | |
| 11... | 34 | 57 | 5.0 | 334 | -- | 274 | 130 | 89 | 0.63 | 2.9 | 583 | <0.01 |
| 27... | 25 | 26 | 3.8 | 244 | -- | 200 | 70 | 43 | 0.39 | 9.2 | 426 | 0.01 |
| SEP | | | | | | | | | | | | |
| 11... | 22 | 33 | 4.5 | 212 | -- | 174 | 87 | 58 | 0.45 | 5.7 | 425 | 0.03 |
| 22... | 22 | 26 | 4.6 | 200 | -- | 164 | 71 | 49 | 0.43 | 6.8 | | |

| DATE | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623) | PHOSPHORUS TOTAL (MG/L AS P) (00665) | PHOSPHORUS DISSOLVED (MG/L AS P) (00666) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671) | IRON, DISSOLVED (UG/L AS FE) (01046) | MANGANESE, DISSOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681) | CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689) | SEDIMENT, SUSPENDED (MG/L) (80154) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 22... | 0.05 | 0.030 | 0.70 | 0.50 | 0.140 | 0.090 | 0.080 | 23 | 26 | 6.6 | 1.4 | 19 |
| NOV | | | | | | | | | | | | |
| 19... | 3.5 | 0.030 | 0.40 | 0.40 | 0.130 | 0.110 | 0.110 | 18 | 7.0 | 4.9 | 0.40 | 7 |
| DEC | | | | | | | | | | | | |
| 03... | 7.3 | 0.060 | 1.6 | 0.90 | 0.430 | 0.180 | 0.160 | 120 | 4.0 | 7.7 | 5.4 | 179 |
| 17... | 6.4 | 0.093 | 1.1 | 0.62 | 0.268 | 0.090 | 0.087 | 43 | 7.0 | 5.0 | 2.5 | 72 |
| JAN | | | | | | | | | | | | |
| 14... | 6.1 | 0.170 | 0.60 | 0.60 | 0.080 | 0.060 | 0.070 | <3.0 | <1.0 | 3.7 | 0.40 | 89 |
| FEB | | | | | | | | | | | | |
| 04... | 3.6 | 0.290 | 1.1 | 0.80 | 0.290 | 0.150 | 0.150 | 14 | 9.0 | 4.4 | 1.5 | 77 |
| 25... | 7.9 | 0.100 | 0.80 | 0.60 | 0.090 | 0.080 | 0.060 | 13 | 6.0 | 4.4 | 0.80 | 41 |
| MAR | | | | | | | | | | | | |
| 11... | 5.9 | 0.070 | 1.3 | 0.50 | 0.300 | 0.040 | 0.080 | 20 | 4.0 | 5.0 | 1.3 | 150 |
| 18... | 6.1 | 0.065 | 0.79 | 0.43 | 0.109 | 0.042 | 0.061 | 7.0 | 6.0 | 4.0 | 0.80 | 53 |
| 25... | 4.5 | <0.015 | 0.30 | 0.40 | 0.060 | 0.040 | 0.030 | 3.0 | 6.0 | 4.9 | 0.70 | 23 |

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631) | NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625) | NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623) | PHOSPHORUS TOTAL (MG/L AS P) (00665) | PHOSPHORUS DISSOLVED (MG/L AS P) (00666) | PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671) | IRON, DISSOLVED (UG/L AS FE) (01046) | MANGANESE, DISSOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681) | CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689) | SEDIMENT, SUSPENDED (MG/L) (80154) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APR | | | | | | | | | | | | |
| 08... | 3.8 | <0.02 | 0.5 | 0.4 | 0.04 | <0.01 | 0.01 | 8.4 | 4.6 | 4.5 | 0.5 | 18 |
| 15... | 5.2 | 0.03 | 0.6 | 0.4 | 0.06 | 0.02 | 0.02 | 16 | 6.5 | 4.8 | 0.7 | 26 |
| 22... | 3.4 | <0.02 | 0.5 | 0.4 | 0.06 | <0.01 | <0.01 | 11 | 6.3 | 3.8 | 0.6 | 24 |
| MAY | | | | | | | | | | | | |
| 08... | 5.6 | <0.02 | 0.6 | 0.4 | 0.07 | 0.04 | 0.02 | 8.9 | 5.9 | 5.4 | 0.6 | 29 |
| 15... | 2.6 | <0.02 | 0.6 | 0.3 | 0.07 | <0.01 | 0.02 | 13 | 9.3 | 4.0 | 0.7 | 29 |
| 19... | 5.8 | 0.10 | 1.4 | 0.7 | 0.31 | 0.10 | 0.09 | 9.0 | 5.9 | 6.3 | 3.0 | 130 |
| MAY | | | | | | | | | | | | |
| 25-25 | 10.7 | 0.26 | 2.4 | 1.2 | 0.66 | 0.17 | 0.16 | 26 | 1.9 | -- | -- | 305 |
| MAY | | | | | | | | | | | | |
| 25-25 | 11.7 | 0.28 | 2.7 | 1.2 | 0.66 | 0.16 | 0.16 | 23 | 2.1 | -- | -- | 293 |
| MAY | | | | | | | | | | | | |
| 25-25 | 11.9 | 0.25 | 2.5 | 0.9 | 0.58 | 0.12 | 0.13 | 19 | 1.4 | -- | -- | 275 |
| MAY | | | | | | | | | | | | |
| 26-26 | 12.3 | 0.23 | 2.3 | 0.9 | 0.46 | 0.13 | 0.11 | 21 | 1.7 | -- | -- | 258 |
| 27... | 14.4 | 0.46 | 2.2 | 1.6 | 0.62 | 0.11 | 0.11 | 33 | 3.7 | 9.2 | 1.1 | 212 |
| JUN | | | | | | | | | | | | |
| 02... | 10.5 | 0.20 | 2.3 | 1.3 | 0.50 | 0.22 | 0.17 | 48 | 4.4 | 7.7 | 4.0 | 221 |
| 10... | 5.4 | <0.02 | 0.7 | 0.3 | 0.13 | 0.08 | 0.07 | <3.0 | 7.0 | 10 | 0.5 | -- |
| 18... | 2.7 | <0.02 | 1.1 | 0.4 | 0.13 | <0.01 | <0.01 | 7.7 | 4.7 | 5.0 | 3.4 | 232 |
| JUL | | | | | | | | | | | | |
| 01... | 6.8 | 0.31 | 3.7 | 0.9 | 1.08 | 0.08 | 0.09 | -- | -- | -- | -- | 793 |
| 01... | 6.7 | 0.33 | 2.7 | 0.9 | 0.83 | 0.08 | 0.09 | -- | -- | -- | -- | 871 |
| 01... | 5.9 | 0.25 | 1.4 | 0.8 | 0.36 | 0.07 | 0.08 | -- | -- | -- | -- | 687 |
| 01... | 6.0 | 0.26 | 3.4 | 0.7 | 0.99 | 0.08 | 0.08 | -- | -- | -- | -- | 690 |
| 01... | 5.4 | 0.16 | 2.6 | 0.5 | 0.81 | 0.07 | 0.08 | -- | -- | -- | -- | 570 |
| 02... | 5.5 | 0.18 | 2.8 | 0.6 | 0.86 | 0.08 | 0.08 | -- | -- | -- | -- | 572 |
| 02... | 5.3 | 0.06 | 0.9 | 0.4 | 0.24 | 0.06 | 0.07 | -- | -- | -- | -- | 622 |
| 02... | 5.3 | 0.10 | 2.6 | 0.4 | 0.83 | 0.08 | 0.08 | -- | -- | -- | -- | 638 |
| 07... | 6.9 | <0.02 | 1.0 | 0.5 | 0.25 | 0.10 | 0.10 | <3.0 | 5.7 | 5.4 | 1.9 | 109 |
| 23... | 3.2 | 0.02 | 1.2 | 0.6 | 0.24 | 0.07 | 0.07 | 19 | 11 | 6.2 | 2.8 | 100 |
| 28... | 1.3 | <0.02 | 1.0 | 0.3 | 0.18 | 0.08 | 0.08 | <3.0 | 7.3 | 5.6 | 2.9 | 72 |
| AUG | | | | | | | | | | | | |
| 11... | 0.11 | <0.02 | 1.1 | 0.5 | 0.24 | 0.08 | 0.09 | 4.6 | 29 | 5.4 | 2.1 | 57 |
| 27... | 1.9 | <0.02 | 0.8 | 0.4 | 0.20 | 0.10 | 0.09 | 5.2 | 4.0 | 5.0 | 2.5 | 68 |
| SEP | | | | | | | | | | | | |
| 11... | 1.5 | 0.09 | 1.1 | 0.6 | 0.26 | 0.09 | 0.08 | 27 | 3.9 | 5.4 | | |
| 22... | 2.9 | <0.02 | 1.2 | 0.7 | 0.31 | 0.10 | 0.09 | 23 | 7.0 | 7.1 | 2.9 | 104 |

| DATE | ACETOCHLOR, WATER FLTRD REC (UG/L) (49260) | ALACHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRAZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040) | METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYLATE, WATER, DISS, REC (UG/L) (04028) | CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLORPYRIFOS DISSOLVED (UG/L) (38933) | CYANAZINE, WATER, DISS, REC (UG/L) (04041) | DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 22... | <0.002 | 0.021 | 0.172 | E0.016 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.106 | <0.002 |
| NOV | | | | | | | | | | | | |
| 19... | 0.011 | 0.013 | 0.107 | E0.020 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.056 | <0.002 |
| DEC | | | | | | | | | | | | |
| 03... | 0.031 | 0.024 | 0.216 | E0.088 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.023 | <0.002 |
| 17... | 0.012 | 0.016 | 0.150 | E0.076 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.005 | 0.019 | <0.002 |
| JAN | | | | | | | | | | | | |
| 14... | <0.002 | 0.006 | 0.086 | E0.043 | <0.001 | <0.002 | <0.002 | E0.003 | E0.006 | <0.004 | 0.009 | <0.002 |
| FEB | | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | 0.006 | 0.007 | 0.108 | E0.069 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.010 | <0.002 |
| MAR | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | E0.004 | 0.007 | 0.078 | E0.030 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.011 | <0.002 |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | 0.013 | 0.013 | 0.134 | E0.024 | <0.001 | <0.002 | <0.002 | <0.003 | E0.007 | 0.021 | 0.019 | E0.002 |
| 22... | 0.101 | 0.011 | 0.256 | E0.015 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.009 | 0.021 | <0.002 |
| MAY | | | | | | | | | | | | |
| 08... | 0.762 | 0.182 | 5.00 | E0.091 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | E0.011 | 0.784 | -- |
| 15... | 0.518 | 0.044 | 1.33 | E0.065 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.300 | <0.002 |
| 19... | 5.06 | 2.31 | 10.2 | E0.316 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | -- | 1.03 | E0.001 |
| MAY | | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260) | ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRA-ZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040) | METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYL-ATE, WATER, DISS, REC (UG/L) (04028) | CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933) | CYANA-ZINE, WATER, DISS, REC (UG/L) (04041) | DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | | |
| 26-26 | 3.70 | 4.59 | E28.6 | E0.681 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 3.87 | <0.002 |
| 27... | 5.13 | 1.44 | E85.2 | E0.970 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 3.23 | <0.002 |
| JUN | | | | | | | | | | | | |
| 02... | 3.29 | 2.38 | E31.4 | E1.51 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 7.00 | <0.002 |
| 10... | 0.544 | 0.107 | 7.27 | E0.220 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.681 | <0.002 |
| 18... | 0.131 | 0.049 | 3.24 | E0.248 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.502 | <0.002 |
| JUL | | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 0.134 | 0.045 | 5.17 | E0.453 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.250 | <0.002 |
| 23... | 0.092 | 0.093 | 0.903 | E0.218 | <0.001 | <0.002 | <0.002 | E0.021 | <0.003 | 0.004 | 0.122 | <0.002 |
| 28... | 0.016 | 0.022 | 0.636 | E0.075 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.007 | 0.113 | E0.001 |
| AUG | | | | | | | | | | | | |
| 11... | <0.002 | 0.006 | 0.608 | E0.061 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.110 | <0.002 |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 11... | 0.013 | 0.016 | 0.301 | E0.089 | <0.060 | <0.002 | <0.002 | E0.024 | <0.003 | 0.024 | 0.067 | <0.002 |
| 22... | 0.017 | 0.018 | 0.303 | E0.050 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.005 | 0.025 | <0.002 |

| DATE | P,P' DDE DISSOLV (UG/L) (34653) | DI-AZINON, DIS-SOLVED (UG/L) (39572) | DI-ELDRIN DIS-SOLVED (UG/L) (39381) | 2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) | DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) | EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668) | ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) | ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) | FONOFOS WATER DISS REC (UG/L) (04095) | ALPHA BHC DIS-SOLVED (UG/L) (34253) | LINDANE DIS-SOLVED (UG/L) (39341) | LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 22... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| NOV | | | | | | | | | | | | |
| 19... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| DEC | | | | | | | | | | | | |
| 03... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 17... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| JAN | | | | | | | | | | | | |
| 14... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| FEB | | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| MAR | | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | <0.006 | E0.003 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.015 |
| 22... | <0.006 | 0.004 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| MAY | | | | | | | | | | | | |
| 08... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 15... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 19... | <0.006 | <0.002 | 0.004 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| MAY | | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 26-26 | <0.006 | 0.037 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 27... | <0.006 | 0.048 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| JUN | | | | | | | | | | | | |
| 02... | <0.006 | 0.015 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 10... | <0.006 | 0.005 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 18... | <0.006 | E0.004 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| JUL | | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | P,P' DDE DISSOLV (UG/L) (34653) | DI-AZINON, DIS-SOLVED (UG/L) (39572) | DI-ELDRIN DIS-SOLVED (UG/L) (39381) | 2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) | DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) | EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668) | ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) | ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) | FONOFOS WATER DISS REC (UG/L) (04095) | ALPHA BHC DIS-SOLVED (UG/L) (34253) | LINDANE DIS-SOLVED (UG/L) (39341) | LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JUL | | | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 23... | <0.006 | 0.029 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 28... | <0.006 | 0.019 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| AUG | | | | | | | | | | | | |
| 11... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | | |
| 11... | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 22... | <0.006 | 0.012 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |

| DATE | MALA-THION, DIS-SOLVED (UG/L) (39532) | METO-LACHLOR WATER DISSOLV (UG/L) (39415) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630) | MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671) | NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684) | PARA-THION, DIS-SOLVED (UG/L) (39542) | METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667) | PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669) | PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683) | PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687) | PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 22... | <0.005 | 0.318 | 0.040 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| NOV | | | | | | | | | | | |
| 19... | <0.005 | 0.548 | 0.016 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| DEC | | | | | | | | | | | |
| 03... | <0.005 | 0.478 | 0.037 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 17... | <0.005 | 0.270 | 0.020 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| JAN | | | | | | | | | | | |
| 14... | <0.005 | 0.105 | 0.007 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| FEB | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | <0.005 | 0.130 | 0.010 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| MAR | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | <0.005 | 0.147 | 0.008 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | | |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | <0.005 | 0.567 | 0.207 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 22... | <0.005 | 0.301 | 0.024 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| MAY | | | | | | | | | | | |
| 08... | <0.005 | 5.75 | 0.215 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 15... | <0.005 | 1.66 | 0.073 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 19... | <0.005 | 6.31 | 1.39 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| MAY | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 26-26 | <0.005 | 19.0 | 3.31 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | 0.022 | <0.005 | <0.002 |
| 27... | <0.005 | E77.6 | 1.82 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | E0.113 | <0.005 | <0.002 |
| JUN | | | | | | | | | | | |
| 02... | <0.005 | E29.5 | 2.07 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.040 | <0.005 | <0.002 |
| 10... | <0.005 | 5.21 | 0.129 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 18... | <0.005 | 2.37 | 0.064 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| JUL | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | <0.005 | 2.33 | 0.101 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 23... | <0.005 | 0.796 | 0.114 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 28... | <0.005 | 0.427 | 0.028 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| AUG | | | | | | | | | | | |
| 11... | <0.005 | 0.324 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 11... | <0.005 | 0.212 | 0.022 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 22... | <0.005 | 0.366 | 0.014 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |

## 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | PRO-METON, WATER, DISS, REC (UG/L) (04037) | PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) | PROP-CHLOR, WATER, DISS, REC (UG/L) (04024) | PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) | PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) | SI-MAZINE, WATER, DISS, REC (UG/L) (04035) | TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) | TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) | TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) | THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) | TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 22... | 0.174 | <0.003 | <0.007 | <0.004 | <0.013 | 0.018 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| NOV | | | | | | | | | | | |
| 19... | 0.046 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| DEC | | | | | | | | | | | |
| 03... | E0.015 | <0.003 | <0.007 | <0.004 | <0.013 | 0.024 | E0.009 | <0.007 | <0.013 | <0.002 | <0.001 |
| 17... | E0.010 | <0.003 | <0.007 | <0.004 | <0.013 | 0.015 | E0.005 | <0.007 | <0.013 | <0.002 | <0.001 |
| JAN | | | | | | | | | | | |
| 14... | E0.013 | <0.003 | <0.007 | <0.004 | <0.013 | 0.012 | E0.006 | <0.007 | <0.013 | <0.002 | <0.001 |
| FEB | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 25... | E0.009 | <0.003 | <0.007 | <0.004 | <0.013 | 0.014 | E0.007 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAR | | | | | | | | | | | |
| 11... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 18... | E0.006 | <0.003 | <0.007 | <0.004 | <0.013 | 0.012 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 25... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 15... | E0.013 | <0.003 | <0.007 | <0.004 | <0.013 | 0.036 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 22... | E0.012 | <0.003 | <0.007 | <0.004 | <0.013 | 0.020 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAY | | | | | | | | | | | |
| 08... | E0.015 | <0.003 | <0.007 | <0.004 | <0.013 | 0.711 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 15... | 0.027 | <0.003 | <0.007 | <0.004 | <0.013 | 0.394 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 19... | E0.018 | <0.003 | <0.007 | <0.004 | <0.013 | 0.167 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAY | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 25-25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 26-26 | 0.120 | <0.003 | <0.007 | <0.004 | <0.013 | 1.23 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 27... | 0.063 | <0.003 | <0.007 | <0.004 | <0.013 | 2.49 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUN | | | | | | | | | | | |
| 02... | <0.040 | <0.003 | <0.007 | <0.004 | <0.013 | 3.05 | 0.012 | <0.007 | <0.013 | <0.002 | <0.001 |
| 10... | 0.026 | <0.003 | <0.007 | <0.004 | <0.013 | 0.353 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 18... | 0.034 | <0.003 | <0.007 | <0.004 | <0.013 | 0.208 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUL | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 07... | 0.039 | <0.003 | <0.007 | <0.004 | <0.013 | 0.215 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 23... | 0.106 | <0.003 | <0.007 | <0.004 | <0.013 | 0.053 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 28... | 0.149 | <0.003 | <0.007 | <0.004 | <0.013 | 0.066 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| AUG | | | | | | | | | | | |
| 11... | 0.118 | <0.003 | <0.007 | <0.004 | <0.013 | 0.251 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 11... | 0.052 | <0.003 | <0.007 | <0.004 | <0.013 | 0.024 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 22... | 0.059 | <0.003 | <0.007 | <0.004 | <0.013 | 0.029 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |

## 04187100 OTTAWA RIVER AT LIMA, OHIO

LOCATION.--Lat 40°43'29", long 84°07'35", Allen County, Hydrologic Unit 04100007, on right bank, 70 ft downstream from Erie Lackawanna RR bridge, 300 ft upstream from bridge to Lima STP, 0.7 mi downstream from Collett Street at Lima, Ohio.
DRAINAGE AREA.--128 mi².
PERIOD OF RECORD.--June 1988 to current year.
GAGE.--Water-stage recorder. Datum of gage is 820.00 ft above sea level.
REMARKS.--Records fair except for periods of estimated record, which are poor. Water diverted upstream of gage for City of Lima. Water is returned to stream below gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.6 | 4.5 | 438 | 77 | 61 | 934 | 42 | 13 | 3650 | 615 | 14 | 11 |
| 2 | 4.5 | 5.1 | 298 | 75 | 56 | 1130 | e35 | 15 | 3290 | 218 | 12 | 11 |
| 3 | 4.1 | 2.4 | 76 | 76 | 70 | 781 | e31 | 43 | 1290 | 94 | 8.8 | 13 |
| 4 | 3.7 | 2.3 | 43 | 72 | 594 | 303 | e30 | 62 | 776 | 30 | 151 | 14 |
| 5 | 5.8 | 2.3 | 27 | 206 | 1270 | 243 | 34 | 58 | 397 | 40 | 82 | 12 |
| 6 | 8.3 | 2.4 | 22 | 131 | 539 | 690 | 63 | 45 | 197 | 32 | 23 | 10 |
| 7 | 7.7 | 22 | 17 | 65 | 130 | 438 | 24 | 34 | 122 | 25 | 20 | 8.0 |
| 8 | 4.0 | 13 | 15 | e50 | 77 | 208 | e17 | 29 | 82 | 22 | 14 | 8.4 |
| 9 | 4.8 | 12 | 20 | e39 | 61 | 199 | e30 | 30 | 50 | 777 | 9.9 | 10 |
| 10 | 5.6 | 14 | 30 | e34 | 58 | 671 | e35 | 28 | 35 | 686 | 7.1 | 14 |
| 11 | 4.5 | 6.5 | 440 | e31 | 51 | 328 | e50 | 19 | 30 | 132 | 6.7 | 16 |
| 12 | 4.1 | 6.1 | 1030 | e28 | 48 | 173 | 114 | 16 | 25 | 51 | 26 | 11 |
| 13 | 3.6 | 6.4 | 1090 | e27 | 41 | 122 | 194 | 20 | 24 | 25 | 354 | 7.5 |
| 14 | 6.4 | 5.8 | 722 | 26 | 35 | 877 | 61 | 18 | 23 | 37 | 84 | 9.4 |
| 15 | 3.2 | 5.4 | 233 | 25 | 35 | 784 | e30 | 19 | 17 | 32 | 16 | 9.1 |
| 16 | 2.1 | 5.3 | 129 | 29 | 28 | 236 | e20 | 14 | 18 | 26 | 31 | 5.1 |
| 17 | 2.0 | 6.5 | 1470 | 40 | 25 | e129 | 8.0 | 10 | 22 | 24 | 1120 | 7.3 |
| 18 | 5.8 | 7.0 | 1430 | 60 | 59 | e114 | 12 | 34 | 98 | 24 | 1230 | 7.7 |
| 19 | 3.8 | 6.3 | 466 | 48 | 187 | e100 | 8.2 | 601 | 154 | 46 | 647 | 5.7 |
| 20 | 5.4 | 6.4 | 155 | 30 | 174 | 87 | e7.0 | 513 | 87 | 28 | 164 | 49 |
| 21 | 7.4 | 6.9 | 101 | 27 | 414 | 84 | e6.0 | 111 | 49 | 21 | 75 | 16 |
| 22 | 6.6 | 6.8 | 84 | e600 | 763 | 74 | e5.6 | 51 | 47 | 37 | 56 | 12 |
| 23 | 8.5 | 6.2 | 100 | 851 | 271 | 58 | e7.0 | 20 | 52 | 147 | 48 | 7.2 |
| 24 | 4.4 | 6.9 | 757 | 345 | 146 | e51 | 7.7 | 25 | 30 | 43 | 43 | 9.5 |
| 25 | 5.1 | 66 | 473 | 151 | 111 | e48 | 21 | 2160 | 46 | 22 | 61 | 11 |
| 26 | 8.5 | 174 | 122 | 71 | 223 | e51 | 16 | 2620 | 184 | 22 | 61 | 9.1 |
| 27 | 8.3 | 58 | 63 | 172 | 3470 | e64 | 14 | 885 | 240 | 17 | 32 | 7.7 |
| 28 | 4.2 | 15 | 77 | 440 | 2110 | e83 | 15 | 318 | 72 | 44 | 26 | 7.3 |
| 29 | 2.7 | 16 | 97 | 97 | --- | 144 | 18 | 157 | 56 | 24 | 22 | 8.2 |
| 30 | 4.2 | 48 | 107 | 59 | --- | 185 | 15 | 159 | 102 | 28 | 17 | 6.4 |
| 31 | 2.9 | --- | 66 | 63 | --- | 148 | --- | 1150 | --- | 18 | 11 | --- |
| TOTAL | 157.8 | 545.5 | 10198 | 4045 | 11107 | 9537 | 970.5 | 9277 | 11265 | 3387 | 4472.5 | 333.6 |
| MEAN | 5.09 | 18.2 | 329 | 130 | 397 | 308 | 32.3 | 299 | 376 | 109 | 144 | 11.1 |
| MAX | 8.5 | 174 | 1470 | 851 | 3470 | 1130 | 194 | 2620 | 3650 | 777 | 1230 | 49 |
| MIN | 2.0 | 2.3 | 15 | 25 | 25 | 48 | 5.6 | 10 | 17 | 17 | 6.7 | 5.1 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 35.4 | 80.3 | 131 | 151 | 170 | 147 | 188 | 136 | 100 | 111 | 45.3 | 51.9 |
| MAX | 192 | 434 | 586 | 327 | 425 | 422 | 291 | 342 | 376 | 444 | 144 | 346 |
| (WY) | 1991 | 1993 | 1991 | 1993 | 1990 | 1993 | 1995 | 1996 | 1997 | 1992 | 1997 | 1992 |
| MIN | 2.90 | 5.56 | 5.01 | 12.2 | 18.9 | 42.5 | 32.3 | 15.5 | 7.44 | 7.85 | 6.58 | 4.49 |
| (WY) | 1995 | 1992 | 1992 | 1992 | 1989 | 1992 | 1997 | 1994 | 1988 | 1991 | 1993 | 1994 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1988 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 54094.2 | | 65295.9 | | | |
| ANNUAL MEAN | 148 | | 179 | | 115 | |
| HIGHEST ANNUAL MEAN | | | | | 179 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 56.5 | 1989 |
| HIGHEST DAILY MEAN | 2710 | Jan 18 | 3650 | Jun 1 | 3860 | Dec 30 1990 |
| LOWEST DAILY MEAN | 2.0 | Oct 17 | 2.0 | Oct 17 | .00 | Oct 30 1993 |
| ANNUAL SEVEN-DAY MINIMUM | 3.1 | Oct 31 | 3.1 | Oct 31 | .15 | Sep 17 1994 |
| INSTANTANEOUS PEAK FLOW | | | 4310 | Jun 1 a | 4590 | Dec 30 1990 |
| INSTANTANEOUS PEAK STAGE | | | 18.14 | Jun 1 | 18.63 | Dec 30 1990 |
| INSTANTANEOUS LOW FLOW | | | 2.0 | Oct 17 | .00 | Oct 30 1993 |
| 10 PERCENT EXCEEDS | 411 | | 523 | | 236 | |
| 50 PERCENT EXCEEDS | 28 | | 34 | | 25 | |
| 90 PERCENT EXCEEDS | 4.7 | | 6.1 | | 4.8 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04189000 BLANCHARD RIVER NEAR FINDLAY, OHIO

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 mi².
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 sea level. Prior to July 24, 1930, nonrecording gage at same site and datum.
REMARKS.--Records good except for periods of estimated record and Oct.1-Nov.1, which are poor. 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. Water-quality and sediment data collected at this site.
REVISIONS.--The maximum discharge for water year 1996 has been revised to 6,090 ft³/s, Jan. 20, 1996, gage height, 12.31 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 53 | 14 | 267 | 365 | 298 | 2870 | 299 | 68 | 6220 | 450 | 69 | 50 |
| 2 | 41 | 9.4 | 732 | 337 | 283 | 2400 | 220 | 70 | 8970 | 626 | 64 | 66 |
| 3 | 30 | 8.7 | 373 | 323 | 360 | 1970 | 188 | 268 | 5320 | 261 | 55 | 65 |
| 4 | 26 | 8.9 | 176 | 306 | 1110 | 817 | 169 | 338 | 2040 | 176 | 70 | 50 |
| 5 | 25 | 8.4 | 125 | 671 | 3470 | 585 | 218 | 293 | 709 | 135 | 66 | 49 |
| 6 | 23 | 8.2 | 109 | 615 | 2620 | 1250 | 288 | 282 | 464 | 108 | 93 | 52 |
| 7 | 27 | 26 | 91 | 350 | 693 | 1120 | 236 | 206 | 343 | 102 | 77 | 38 |
| 8 | 27 | 30 | 79 | e230 | 346 | 627 | 157 | 173 | 266 | 91 | 58 | 39 |
| 9 | 31 | 17 | 75 | e190 | 233 | 495 | 121 | 170 | 219 | 4550 | 55 | 45 |
| 10 | 32 | 15 | 63 | e160 | 199 | 1060 | 100 | 187 | 188 | 6140 | 53 | 92 |
| 11 | 25 | 17 | 274 | e150 | 170 | 806 | 91 | 159 | 167 | 1610 | 55 | 92 |
| 12 | 22 | 21 | 1960 | e130 | 155 | 428 | 340 | 127 | 164 | 451 | 80 | 67 |
| 13 | 20 | 26 | 3390 | e120 | 113 | 321 | 673 | 97 | 245 | 279 | 605 | 52 |
| 14 | 22 | 26 | 2620 | e110 | 118 | 1920 | 395 | 81 | 192 | 203 | 358 | 45 |
| 15 | 28 | 23 | 889 | e100 | 128 | 1990 | 260 | 70 | 140 | 213 | 181 | 41 |
| 16 | 27 | 21 | 458 | e130 | 104 | 660 | 215 | 58 | 120 | 156 | 207 | 41 |
| 17 | 28 | 22 | 2680 | 131 | 91 | 407 | 188 | 69 | 109 | 119 | 2040 | 49 |
| 18 | 51 | 23 | 3630 | 125 | 183 | 337 | 160 | 79 | 168 | 96 | 2130 | 37 |
| 19 | 29 | 21 | 2480 | 116 | 778 | 293 | 138 | 745 | 326 | 88 | 1360 | 39 |
| 20 | 20 | 20 | 610 | 117 | 660 | 268 | 119 | 949 | 244 | 88 | 425 | 334 |
| 21 | 22 | 20 | 371 | 129 | 1160 | 242 | 106 | 371 | 166 | 85 | 236 | 280 |
| 22 | 22 | 21 | 358 | 610 | 1780 | 219 | 95 | 203 | 387 | 184 | 165 | 127 |
| 23 | 35 | 20 | 349 | 1410 | 771 | 182 | 84 | 144 | 235 | 222 | 142 | 79 |
| 24 | 29 | 20 | 1080 | 910 | 432 | 156 | 78 | 136 | 157 | 203 | 163 | 62 |
| 25 | 23 | 72 | 1410 | 580 | 320 | 181 | 69 | 3960 | 158 | 138 | 403 | 57 |
| 26 | 19 | 179 | 566 | 317 | 305 | 214 | 88 | 6860 | 1750 | 106 | 245 | 52 |
| 27 | 18 | 473 | 386 | 392 | 5150 | 195 | 90 | 3250 | 1540 | 103 | 160 | 49 |
| 28 | 19 | 194 | 318 | e640 | 5950 | 178 | 89 | 813 | 434 | 135 | 111 | 47 |
| 29 | 21 | 102 | 397 | e450 | --- | 296 | 71 | 501 | 247 | 137 | 79 | 41 |
| 30 | 56 | 106 | 515 | e350 | --- | 546 | 68 | 482 | 217 | 106 | 60 | 44 |
| 31 | 19 | --- | 433 | 322 | --- | 419 | --- | 1620 | --- | 82 | 53 | --- |
| TOTAL | 870 | 1572.6 | 27264 | 10886 | 27980 | 23452 | 5413 | 22829 | 31905 | 17443 | 9918 | 2181 |
| MEAN | 28.1 | 52.4 | 879 | 351 | 999 | 757 | 180 | 736 | 1064 | 563 | 320 | 72.7 |
| MAX | 56 | 473 | 3630 | 1410 | 5950 | 2870 | 673 | 6860 | 8970 | 6140 | 2130 | 334 |
| MIN | 18 | 8.2 | 63 | 100 | 91 | 156 | 68 | 58 | 109 | 82 | 53 | 37 |
| CFSM | .08 | .15 | 2.54 | 1.01 | 2.89 | 2.19 | .52 | 2.13 | 3.07 | 1.63 | .92 | .21 |
| IN. | .09 | .17 | 2.93 | 1.17 | 3.01 | 2.52 | .58 | 2.45 | 3.43 | 1.88 | 1.07 | .23 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 63.4 | 159 | 289 | 369 | 425 | 561 | 459 | 276 | 229 | 133 | 59.4 | 88.5 |
| MAX | 623 | 1435 | 1482 | 1800 | 1402 | 1814 | 1588 | 865 | 1612 | 1075 | 474 | 944 |
| (WY) | 1927 | 1973 | 1991 | 1930 | 1959 | 1978 | 1957 | 1969 | 1981 | 1992 | 1979 | 1926 |
| MIN | 2.43 | 3.67 | 4.28 | 6.54 | 9.86 | 60.1 | 33.3 | 22.1 | 18.3 | 4.27 | 1.24 | 1.62 |
| (WY) | 1935 | 1935 | 1935 | 1945 | 1964 | 1941 | 1925 | 1925 | 1988 | 1934 | 1934 | 1934 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1924 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 118616.6 | | 181713.6 | | | |
| ANNUAL MEAN | 324 | | 498 | | 259 | |
| HIGHEST ANNUAL MEAN | | | | | 571 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 57.5 | 1931 |
| HIGHEST DAILY MEAN | 4700 | Jan 19 | 8970 | Jun 2 | 12000 | Jun 14 1981 |
| LOWEST DAILY MEAN | 8.2 | Nov 6 | 8.2 | Nov 6 | .40 | Aug 27 1934 |
| ANNUAL SEVEN-DAY MINIMUM | 11 | Oct 31 | 11 | Oct 31 | .56 | Aug 25 1934 |
| INSTANTANEOUS PEAK FLOW | | | 9630 | Jun 2 a | 13000 | Jun 14 1981 |
| INSTANTANEOUS PEAK STAGE | | | 15.42 | Jun 2 | 17.43 | Jun 14 1981 |
| INSTANTANEOUS LOW FLOW | | | 8.2 | Nov 6 | .40 | Aug 27 1934 |
| ANNUAL RUNOFF (CFSM) | .94 | | 1.44 | | .75 | |
| ANNUAL RUNOFF (INCHES) | 12.75 | | 19.54 | | 10.17 | |
| 10 PERCENT EXCEEDS | 1000 | | 1140 | | 619 | |
| 50 PERCENT EXCEEDS | 70 | | 165 | | 58 | |
| 90 PERCENT EXCEEDS | 16 | | 26 | | 9.2 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04191500 AUGLAIZE RIVER NEAR DEFIANCE, OHIO

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 Greco's Hydro-Corporation, 0.2 mi upstream from Jackson Ditch, and 3 mi south of Defiance.
DRAINAGE AREA.--2,318 mi².
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 sea level. 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.--Records good except for periods of estimated record, which are poor. Flow regulated by dam at powerplant at station; reservoir capacity, 9,800 acre-ft. Plant shut down except for occasional gate operation, Jan. 10, 1963 to Sept. 7, 1985. Some diversion by Miami and Erie Canal from Grand Lake into Jennings Creek, tributary to Auglaize River 70 mi upstream from station. Water-quality data collected at this site.
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 ft³/s, from rating curve extended above 51,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 184 | 66 | 3400 | 1940 | e1300 | 33300 | 2590 | 417 | 15900 | 4780 | e250 | 350 |
| 2 | 244 | 66 | 5470 | 1690 | 1180 | 24500 | 1900 | 355 | 29100 | 9590 | e230 | 376 |
| 3 | 499 | 66 | 4450 | 1580 | 1990 | 15600 | 1130 | 979 | 35200 | 4620 | e220 | 344 |
| 4 | 123 | 65 | 2940 | 1070 | 3400 | 11000 | 1250 | 3530 | 31000 | 3800 | e290 | 446 |
| 5 | 122 | 65 | 1860 | 3280 | 11800 | 6570 | 1350 | 3760 | 19700 | 2050 | e280 | 319 |
| 6 | 118 | 65 | 931 | 5620 | 16000 | 5030 | 1330 | 3270 | 9170 | e1400 | e240 | 160 |
| 7 | 111 | 67 | 1240 | 3700 | 13300 | 6430 | 1980 | 2540 | 4490 | e1100 | e210 | 181 |
| 8 | 110 | 1330 | 1070 | 2280 | 8230 | 5460 | 1770 | 1800 | 2530 | e800 | e200 | 355 |
| 9 | 110 | 2450 | 1280 | 1150 | 4210 | 4080 | 848 | 991 | 1340 | e2000 | e190 | 432 |
| 10 | 108 | 2090 | 881 | e700 | 1920 | 4880 | 1260 | 918 | 1070 | e3500 | e190 | 1760 |
| 11 | 107 | 2240 | 1390 | e540 | 1360 | 6000 | 703 | 1240 | 989 | e1500 | e180 | 2900 |
| 12 | 104 | 1930 | 9100 | e450 | 869 | 4710 | 313 | 671 | 766 | e900 | e180 | 1180 |
| 13 | 103 | 873 | 12800 | e350 | 959 | 3150 | 2220 | 821 | 752 | e450 | e300 | 932 |
| 14 | 99 | 206 | 10900 | e300 | 912 | 10400 | 3550 | 624 | 1020 | e350 | e1200 | 796 |
| 15 | 96 | 770 | 8640 | e450 | 835 | 18400 | 2660 | 548 | 1270 | e300 | e840 | 421 |
| 16 | 94 | 180 | 5360 | e320 | 715 | 12400 | 1760 | 512 | 759 | e350 | e500 | 324 |
| 17 | 91 | 183 | 4560 | e220 | 592 | 8360 | 909 | 336 | 468 | e340 | e2000 | 483 |
| 18 | 87 | 185 | 10600 | e170 | 528 | 4520 | 1240 | 319 | 596 | e320 | e8000 | 668 |
| 19 | 86 | 462 | 11700 | e140 | 1890 | 2910 | 756 | 1800 | 598 | e500 | e9000 | 419 |
| 20 | 86 | 345 | 7160 | e160 | 4730 | 2280 | 780 | 6470 | 1060 | e450 | e5000 | 4100 |
| 21 | 86 | 179 | 4230 | e380 | 8450 | 1870 | 762 | 4770 | 828 | e380 | e3200 | 5830 |
| 22 | 87 | 181 | 3120 | 1060 | 11500 | 1570 | 643 | 3290 | 1300 | e1000 | 1390 | 3490 |
| 23 | 230 | 187 | 2620 | 7140 | 10600 | 1450 | 615 | 1420 | 649 | e1600 | 811 | 2270 |
| 24 | 97 | 365 | 9930 | e9000 | 6510 | 745 | 584 | 953 | 1320 | e1000 | 847 | 1660 |
| 25 | 92 | 467 | 11500 | e4500 | 4090 | 1330 | 501 | 11200 | 555 | e700 | 1500 | 565 |
| 26 | 94 | 2640 | 5780 | e3500 | 2650 | 1140 | 303 | 24500 | 968 | e500 | 2010 | 435 |
| 27 | 93 | 4960 | 4370 | e2700 | 17200 | 1660 | 597 | 24700 | 1710 | e370 | 1550 | 408 |
| 28 | 89 | 3270 | 2730 | e2300 | 32200 | 1660 | 405 | 18200 | 3190 | e430 | 517 | 382 |
| 29 | 421 | 2280 | 1870 | e1900 | --- | 1700 | 496 | 11800 | 2720 | e360 | 532 | 408 |
| 30 | 799 | 1800 | 1560 | e1600 | --- | 1810 | 531 | 9300 | 1040 | e300 | 587 | 158 |
| 31 | 326 | --- | 2300 | e1500 | --- | 2590 | --- | 6500 | --- | e260 | 268 | --- |
| TOTAL | 5096 | 30033 | 155742 | 61690 | 169920 | 207505 | 35736 | 148534 | 172058 | 46000 | 42712 | 32552 |
| MEAN | 164 | 1001 | 5024 | 1990 | 6069 | 6694 | 1191 | 4791 | 5735 | 1484 | 1378 | 1085 |
| MAX | 799 | 4960 | 12800 | 9000 | 32200 | 33300 | 3550 | 24700 | 35200 | 9590 | 9000 | 5830 |
| MIN | 86 | 65 | 881 | 140 | 528 | 745 | 303 | 319 | 468 | 260 | 180 | 158 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 485 | 1030 | 1828 | 2525 | 2983 | 4176 | 3442 | 1967 | 1438 | 831 | 325 | 433 |
| MAX | 3445 | 7856 | 8510 | 13350 | 10170 | 13090 | 11210 | 10490 | 6733 | 5762 | 1988 | 5571 |
| (WY) | 1955 | 1973 | 1967 | 1950 | 1976 | 1982 | 1957 | 1943 | 1947 | 1992 | 1979 | 1992 |
| MIN | 23.6 | 7.28 | 9.34 | 48.5 | 111 | 382 | 242 | 69.8 | 101 | 42.0 | 27.1 | 28.9 |
| (WY) | 1953 | 1953 | 1977 | 1977 | 1964 | 1941 | 1946 | 1934 | 1988 | 1930 | 1932 | 1963 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1916 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 891001 | | 1107578 | | | |
| ANNUAL MEAN | 2434 | | 3034 | | 1774 | |
| HIGHEST ANNUAL MEAN | | | | | 3337 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 342 | 1931 |
| HIGHEST DAILY MEAN | 28300 | Jan 20 | 35200 | Jun 3 | 52300 | Mar 14 1982 |
| LOWEST DAILY MEAN | 65 | Nov 4 | 65 | Nov 4 | .50 | Oct 13 1952 |
| ANNUAL SEVEN-DAY MINIMUM | 66 | Nov 1 | 66 | Nov 1 | 1.1 | Oct 12 1952 |
| INSTANTANEOUS PEAK FLOW | | | 35900 | Jun 3 | 52500 | Feb 16 1950 |
| INSTANTANEOUS PEAK STAGE | | | 22.39 | Jun 3 | 27.65 | Feb 13 1959 |
| INSTANTANEOUS LOW FLOW | | | 65 | Nov 4 | .50 | Oct 13 1952 |
| 10 PERCENT EXCEEDS | 7920 | | 8780 | | 4930 | |
| 50 PERCENT EXCEEDS | 578 | | 1070 | | 438 | |
| 90 PERCENT EXCEEDS | 106 | | 175 | | 38 | |

e Estimated.

## 04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO

LOCATION.--Lat 41°17'31", 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 mi².

### WATER-DISCHARGE RECORDS

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 sea level. Prior to Nov. 13, 1924, nonrecording gage at same site and datum.
REMARKS.--Records fair except for periods estimated record, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 930 | 347 | 10600 | 5940 | e3500 | 58800 | e7000 | 1480 | 21600 | 5850 | 1160 | 1020 |
| 2 | 682 | 367 | 14300 | 4960 | e3400 | 47800 | 5570 | 1310 | 43900 | 11500 | 908 | e1100 |
| 3 | 1340 | 341 | 12100 | 4720 | 4520 | 34800 | 4440 | 2490 | 53400 | 7020 | 738 | e1400 |
| 4 | 1020 | 381 | 8710 | 4240 | 7090 | 27000 | 4200 | 7590 | 48400 | 5440 | 652 | e1700 |
| 5 | 630 | 562 | 6230 | 8700 | 17200 | 19900 | 4150 | 9490 | 33500 | 4150 | 682 | e1300 |
| 6 | 476 | 497 | 4670 | 12800 | 23300 | 14700 | e5800 | 8740 | 19800 | 2380 | 1010 | e840 |
| 7 | 402 | 916 | 4040 | 10500 | 20600 | 13700 | 5780 | 7000 | 13600 | 2700 | 703 | e700 |
| 8 | 416 | 7020 | 3820 | 6990 | 14700 | 11600 | 5240 | 5430 | 9550 | 2380 | 700 | e760 |
| 9 | 417 | 12200 | 3470 | 4550 | 10100 | 9230 | 3820 | 4060 | 6050 | 19900 | 643 | e1000 |
| 10 | 370 | 9990 | 3360 | 3180 | 7440 | 10000 | 3690 | 3310 | 4120 | 20800 | 589 | e4000 |
| 11 | 348 | 8090 | 4750 | 2000 | 5800 | 11700 | 3230 | 3360 | 3090 | 17300 | 558 | 9510 |
| 12 | 339 | 6500 | 17900 | 1470 | 4460 | 10200 | 2360 | 2870 | 2570 | 12300 | e560 | 5640 |
| 13 | 275 | 4260 | 26300 | 1170 | 3530 | 7480 | 3940 | 2390 | 2390 | 8780 | e900 | 3300 |
| 14 | 248 | 2190 | 22900 | 1130 | e2800 | 22000 | 6080 | 2190 | 2750 | 4640 | 1570 | 2480 |
| 15 | 233 | 2380 | 17400 | 1640 | e2500 | 40300 | 5120 | 2040 | 3050 | 2110 | 2500 | e2000 |
| 16 | 226 | 1610 | 11900 | 1810 | e2100 | 32800 | 3990 | 1890 | 2280 | 1300 | 1750 | e1700 |
| 17 | 201 | 1260 | 9970 | 1680 | e1900 | 24500 | 3050 | 1730 | 1790 | 1380 | 12400 | e2300 |
| 18 | 248 | 1130 | 14200 | 1510 | e1800 | 16900 | 3090 | 1570 | 1850 | 1220 | 17400 | e4000 |
| 19 | 269 | 1290 | 10000 | 1240 | e4500 | 12500 | 2530 | 4000 | 1980 | 1090 | 13800 | e7000 |
| 20 | 456 | 1310 | e8000 | 1340 | 10200 | 10100 | 2430 | 13100 | 2010 | 1200 | 9890 | e20000 |
| 21 | 405 | 1080 | 6380 | 1450 | 23400 | 8420 | 2320 | 10700 | 3430 | 1100 | e7000 | e18000 |
| 22 | 403 | 1040 | 5280 | 3200 | 29200 | 6860 | 2090 | 7130 | 6920 | 1950 | e4000 | e14000 |
| 23 | 956 | 936 | 5950 | 11100 | 27000 | 5710 | 1900 | 4550 | 6150 | 11800 | 2770 | e10000 |
| 24 | 438 | 1050 | 22200 | 16300 | 20500 | 4450 | 1870 | 3180 | 5740 | 10300 | 2630 | e7600 |
| 25 | 497 | 1260 | 27400 | e10000 | 15300 | 4350 | 1740 | 15100 | 4320 | 7340 | 3160 | e5000 |
| 26 | 668 | 3650 | 18700 | e8000 | 12400 | 5010 | 1430 | 40000 | 4800 | 5400 | 4760 | e3500 |
| 27 | 624 | 9550 | 13600 | e6000 | 33900 | 5210 | 1600 | 39800 | 5590 | 3810 | 3980 | e2900 |
| 28 | 535 | 8630 | 9900 | e5600 | 55600 | 4860 | 1420 | 26200 | 5930 | 3390 | 2140 | e2500 |
| 29 | 679 | 6220 | 8610 | e5000 | --- | 5130 | 1260 | 17800 | 4790 | 2130 | 1570 | e2000 |
| 30 | 1240 | 6170 | 7640 | e4300 | --- | 7630 | 1330 | 15400 | 3220 | 1770 | 1630 | e1600 |
| 31 | 738 | --- | 7060 | e3900 | --- | e8600 | --- | 12200 | --- | 1200 | 1100 | --- |
| TOTAL | 16709 | 102227 | 347340 | 156420 | 368740 | 502240 | 102470 | 278100 | 328570 | 183630 | 103853 | 138850 |
| MEAN | 539 | 3408 | 11200 | 5046 | 13170 | 16200 | 3416 | 8971 | 10950 | 5924 | 3350 | 4628 |
| MAX | 1340 | 12200 | 27400 | 16300 | 55600 | 58800 | 7000 | 40000 | 53400 | 20800 | 17400 | 20000 |
| MIN | 201 | 341 | 3360 | 1130 | 1800 | 4350 | 1260 | 1310 | 1790 | 1090 | 558 | 700 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1330 | 2779 | 4581 | 5961 | 6902 | 9527 | 8478 | 5171 | 3593 | 2074 | 957 | 1109 |
| MAX | 8314 | 16410 | 18040 | 30150 | 22460 | 33940 | 23210 | 27270 | 20370 | 10700 | 4739 | 11470 |
| (WY) | 1955 | 1973 | 1967 | 1950 | 1959 | 1982 | 1957 | 1943 | 1981 | 1992 | 1958 | 1926 |
| MIN | 63.9 | 110 | 158 | 219 | 363 | 1455 | 789 | 359 | 214 | 211 | 111 | 88.1 |
| (WY) | 1929 | 1954 | 1964 | 1945 | 1964 | 1941 | 1925 | 1925 | 1988 | 1930 | 1932 | 1955 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1925 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2067417 | | 2629149 | | | |
| ANNUAL MEAN | 5649 | | 7203 | | 4355 | |
| HIGHEST ANNUAL MEAN | | | | | 8286 | 1950 |
| LOWEST ANNUAL MEAN | | | | | 849 | 1931 |
| HIGHEST DAILY MEAN | 41400 | Jan 20 | 58800 | Mar 1 | 98800 | Mar 15 1982 |
| LOWEST DAILY MEAN | 201 | Oct 17 | 201 | Oct 17 | 3.0 | Sep 4 1925 |
| ANNUAL SEVEN-DAY MINIMUM | 243 | Oct 13 | 243 | Oct 13 | 27 | Aug 31 1925 |
| INSTANTANEOUS PEAK FLOW | | | 61300 | Mar 1 | 104000 | Mar 15 1982 |
| INSTANTANEOUS PEAK STAGE | | | 10.37 | Mar 1 | 15.87 | Mar 15 1982 |
| INSTANTANEOUS LOW FLOW | | | 201 | Oct 17 | 2.0 | Sep 3 1925 |
| 10 PERCENT EXCEEDS | 15600 | | 17800 | | 12400 | |
| 50 PERCENT EXCEEDS | 2320 | | 4000 | | 1390 | |
| 90 PERCENT EXCEEDS | 381 | | 682 | | 221 | |

e Estimated.

## 04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to September 1997.
PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: January to September 1997.
INSTRUMENTATION.--Sampler located downstream from streamflow-gaging station, at Florida, Ohio.
REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis beginning January 8, 1997. Sediment 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 subdivided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,340 mg/L, Feb. 28, 1997; minimum daily mean, 15 mg/L, Feb. 18, 1997.
SEDIMENT LOADS: Maximum daily, 201,000 tons, Feb. 28, 1997; minimum daily, 24 tons, Aug. 11, 1997.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,340 mg/L, Feb. 28; minimum daily mean, 15 mg/L, Feb. 18.
SEDIMENT LOADS: Maximum daily, 201,000 tons, Feb. 28; minimum daily, 24 tons, Aug. 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | SAMPLING METHOD, CODES* (82398) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | TEMPERATURE AIR (DEG C) (00020) | TEMPERATURE WATER (DEG C) (00010) | SEDIMENT, SUSPENDED (MG/L) (80154) | SEDIMENT PARTICLE SIZE <.0625MM SILTCLAY (PERCENT) (80250) |
|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | |
| 22... | 1425 | 10 | 6820 | 518 | 19.0 | 15.5 | 130 | 99.6 |
| JUL | | | | | | | | |
| 17... | 1005 | 10 | 1390 | 478 | 26.0 | 25.5 | 82 | -- |
| SEP | | | | | | | | |
| 16... | 1440 | 10 | 1700# | 430 | 31.0 | 22.0 | 74 | -- |

* 10 - Stream cross-section sample obtained by equal-width-increment (EWI) sampling method.
\# Estimated daily discharge, instantaneous discharge is not available.

## 04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JANUARY | | | FEBRUARY | | | MARCH | |
| 1 | --- | --- | --- | e3500 | 48 | 454 | 58800 | 933 | 148000 |
| 2 | --- | --- | --- | e3400 | 45 | 409 | 47800 | 637 | 82400 |
| 3 | --- | --- | --- | 4520 | 41 | 509 | 34800 | 459 | 43100 |
| 4 | --- | --- | --- | 7090 | 56 | 1200 | 27000 | 352 | 25600 |
| 5 | --- | --- | --- | 17200 | 255 | 12900 | 19900 | 262 | 14100 |
| 6 | --- | --- | --- | 23300 | 553 | 34900 | 14700 | 192 | 7640 |
| 7 | --- | --- | --- | 20600 | 403 | 22400 | 13700 | 146 | 5400 |
| 8 | 6990 | 288 | 5450 | 14700 | 310 | 12400 | 11600 | 123 | 3850 |
| 9 | 4550 | 216 | 2660 | 10100 | 219 | 5980 | 9230 | 114 | 2820 |
| 10 | 3180 | 171 | 1470 | 7440 | 163 | 3270 | 10000 | 117 | 3200 |
| 11 | 2000 | 136 | 735 | 5800 | 142 | 2210 | 11700 | 138 | 4360 |
| 12 | 1470 | 108 | 429 | 4460 | 105 | 1270 | 10200 | 149 | 4070 |
| 13 | 1170 | 86 | 273 | 3530 | 72 | 688 | 7480 | 144 | 2890 |
| 14 | 1130 | 78 | 240 | e2800 | 51 | 385 | 22000 | 343 | 25000 |
| 15 | 1640 | 75 | 336 | e2500 | 37 | 247 | 40300 | 711 | 77300 |
| 16 | 1810 | 73 | 356 | e2100 | 29 | 162 | 32800 | 449 | 40000 |
| 17 | 1680 | 70 | 320 | e1900 | 22 | 113 | 24500 | 319 | 21200 |
| 18 | 1510 | 68 | 277 | e1800 | 15 | 74 | 16900 | 221 | 10100 |
| 19 | 1240 | 66 | 220 | n4500 | 34 | 481 | 12500 | 164 | 5510 |
| 20 | 1340 | 64 | 232 | 10200 | 185 | 5820 | 10100 | 116 | 3170 |
| 21 | 1450 | 61 | 239 | 23400 | 746 | 48000 | 8420 | 90 | 2030 |
| 22 | 3200 | 95 | 1020 | 29200 | 585 | 46100 | 6860 | 82 | 1520 |
| 23 | 11100 | 283 | 9060 | 27000 | 421 | 30800 | 5710 | 72 | 1110 |
| 24 | 16300 | 279 | 12200 | 20500 | 280 | 15600 | 4450 | 65 | 785 |
| 25 | e10000 | 169 | 4550 | 15300 | 209 | 8630 | 4350 | 54 | 645 |
| 26 | e8000 | 115 | 2480 | 12400 | 165 | 5490 | 5010 | 64 | 864 |
| 27 | e6000 | 88 | 1420 | 33900 | 1060 | 116000 | 5210 | 68 | 956 |
| 28 | e5600 | 66 | 1010 | 55600 | 1340 | 201000 | 4860 | 54 | 713 |
| 29 | e5000 | 60 | 811 | --- | --- | --- | 5130 | 66 | 945 |
| 30 | e4300 | 56 | 647 | --- | --- | --- | 7630 | 183 | 3830 |
| 31 | e3900 | 52 | 545 | --- | --- | --- | e8600 | 171 | 3970 |
| TOTAL | 104560 | --- | 46980 | 368740 | --- | 577492 | 502240 | --- | 547078 |

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | e7000 | 116 | 2200 | 1480 | 46 | 181 | 21600 | 262 | 15900 |
| 2 | 5570 | 86 | 1290 | 1310 | 38 | 136 | 43900 | 430 | 52100 |
| 3 | 4440 | 65 | 778 | 2490 | 42 | 309 | 53400 | 423 | 60900 |
| 4 | 4200 | 52 | 584 | 7590 | 94 | 2060 | 48400 | 316 | 41400 |
| 5 | 4150 | 51 | 590 | 9490 | 233 | 5940 | 33500 | 225 | 20400 |
| 6 | e5800 | 79 | 1230 | 8740 | 188 | 4460 | 19800 | 167 | 8930 |
| 7 | 5780 | 100 | 1570 | 7000 | 122 | 2320 | 13600 | 136 | 4950 |
| 8 | 5240 | 69 | 979 | 5430 | 85 | 1260 | 9550 | 120 | 3100 |
| 9 | 3820 | 50 | 518 | 4060 | 61 | 672 | 6050 | 83 | 1380 |
| 10 | 3690 | 39 | 388 | 3310 | 52 | 463 | 4120 | 50 | 562 |
| 11 | 3230 | 35 | 304 | 3360 | 50 | 453 | 3090 | 41 | 344 |
| 12 | 2360 | 33 | 213 | 2870 | 51 | 393 | 2570 | 34 | 236 |
| 13 | 3940 | 32 | 345 | 2390 | 50 | 321 | 2390 | 32 | 204 |
| 14 | 6080 | 38 | 632 | 2190 | 40 | 237 | 2750 | 29 | 218 |
| 15 | 5120 | 45 | 614 | 2040 | 42 | 231 | 3050 | 31 | 253 |
| 16 | 3990 | 43 | 462 | 1890 | 48 | 247 | 2280 | 28 | 169 |
| 17 | 3050 | 49 | 398 | 1730 | 53 | 244 | 1790 | 28 | 133 |
| 18 | 3090 | 44 | 365 | 1570 | 49 | 208 | 1850 | 32 | 161 |
| 19 | 2530 | 41 | 282 | 4000 | 75 | 996 | 1980 | 31 | 163 |
| 20 | 2430 | 39 | 257 | 13100 | 385 | 14300 | 2010 | 31 | 170 |
| 21 | 2320 | 38 | 240 | 10700 | 274 | 8040 | 3430 | 64 | 643 |
| 22 | 2090 | 36 | 204 | 7130 | 139 | 2710 | 6920 | 460 | 8980 |
| 23 | 1900 | 37 | 187 | 4550 | 85 | 1050 | 6150 | 391 | 6600 |
| 24 | 1870 | 38 | 193 | 3180 | 69 | 595 | 5740 | 188 | 2910 |
| 25 | 1740 | 39 | 185 | 15100 | 162 | 9980 | 4320 | 157 | 1820 |
| 26 | 1430 | 38 | 146 | 40000 | 739 | 80300 | 4800 | 158 | 2070 |
| 27 | 1600 | 38 | 163 | 39800 | 457 | 49100 | 5590 | 165 | 2490 |
| 28 | 1420 | 37 | 142 | 26200 | 355 | 25200 | 5930 | 139 | 2220 |
| 29 | 1260 | 33 | 111 | 17800 | 248 | 11900 | 4790 | 133 | 1690 |
| 30 | 1330 | 34 | 122 | 15400 | 244 | 10100 | 3220 | 156 | 1370 |
| 31 | --- | --- | --- | 12200 | 191 | 6360 | --- | --- | --- |
| TOTAL | 102470 | --- | 15692 | 278100 | --- | 240766 | 328570 | --- | 242466 |

e Estimated

## 04192500 MAUMEE RIVER NEAR DEFIANCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 5850 | 218 | 3870 | 1160 | 38 | 117 | 1020 | 54 | 148 |
| 2 | 11500 | 388 | 12100 | 908 | 47 | 116 | e1100 | 46 | 137 |
| 3 | 7020 | 216 | 4130 | 738 | 48 | 95 | e1400 | 37 | 141 |
| 4 | 5440 | 161 | 2360 | 652 | 36 | 63 | e1700 | 45 | 205 |
| 5 | 4150 | 166 | 1840 | 682 | 36 | 66 | e1300 | 60 | 210 |
| 6 | 2380 | 164 | 1050 | 1010 | 37 | 99.7 | e840 | 51 | 116 |
| 7 | 2700 | 162 | 1180 | 703 | 28 | 53 | e700 | 44 | 83 |
| 8 | 2380 | 169 | 1230 | 700 | 29 | 55 | e760 | 34 | 69 |
| 9 | 19900 | 1200 | 69500 | 643 | 25 | 44 | e1000 | 35 | 94 |
| 10 | 20800 | 953 | 53800 | 589 | 17 | 27 | e4000 | 58 | 626 |
| 11 | 17300 | 536 | 25100 | 558 | 16 | 24 | 9510 | 170 | 4390 |
| 12 | 12300 | 423 | 14100 | e560 | 22 | 33 | 5640 | 126 | 1960 |
| 13 | 8780 | 290 | 7090 | e900 | 26 | 64 | 3300 | 79 | 698 |
| 14 | 4640 | 161 | 2030 | 1570 | 39 | 177 | 2480 | 76 | 503 |
| 15 | 2110 | 108 | 628 | 2500 | 49 | 328 | e2000 | 76 | 413 |
| 16 | 1300 | 82 | 288 | 1750 | 38 | 180 | e1700 | 72 | 329 |
| 17 | 1380 | 77 | 287 | 12400 | 284 | 11800 | e2300 | 69 | 426 |
| 18 | 1220 | 70 | 230 | 17400 | 440 | 20700 | e4000 | 82 | 886 |
| 19 | 1090 | 62 | 182 | 13800 | 318 | 11900 | e7000 | 95 | 1790 |
| 20 | 1200 | 53 | 171 | 9890 | 177 | 4800 | e20000 | 125 | 6750 |
| 21 | 1100 | 43 | 126 | e7000 | 98 | 1860 | e18000 | 383 | 18600 |
| 22 | 1950 | 67 | 417 | e4000 | 68 | 740 | e14000 | 272 | 10300 |
| 23 | 11800 | 172 | 5860 | 2770 | 63 | 467 | e10000 | 158 | 4270 |
| 24 | 10300 | 222 | 6330 | 2630 | 59 | 418 | e7600 | 113 | 2320 |
| 25 | 7340 | 103 | 2050 | 3160 | 61 | 531 | e5000 | 84 | 1130 |
| 26 | 5400 | 80 | 1160 | 4760 | 70 | 898 | e3500 | 75 | 704 |
| 27 | 3810 | 86 | 879 | 3980 | 72 | 769 | e2900 | 70 | 546 |
| 28 | 3390 | 84 | 770 | 2140 | 64 | 365 | e2500 | 74 | 497 |
| 29 | 2130 | 74 | 426 | 1570 | 61 | 262 | e2000 | 75 | 405 |
| 30 | 1770 | 57 | 273 | 1630 | 61 | 268 | e1600 | 74 | 322 |
| 31 | 1200 | 48 | 156 | 1100 | 57 | 170 | --- | --- | --- |
| TOTAL | 183630 | --- | 219613 | 103853 | --- | 57489.7 | 138850 | --- | 59068 |
| YEAR | 2111013 | | 2006644.7 | | | | | | |

e Estimated

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO

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 mi².

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1898 to December 1901, August 1921 to December 1935, March 1939 to current year. Miami and Erie Canal flow included at Waterville prior to 1930 when the canal was abandoned.
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 auxiliary crest-stage gage. Datum of gage is 595.71 ft above sea level. 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.--Records fair except for estimated record, which are poor. Satellite telemeter at station.
EXTREMES FOR PERIOD OF RECORD.--Practically no flow at times prior to June 30, 1929, when entire river flow was being diverted by canal.
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 ft³/s, from rating curve extended above 94,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1180 | 798 | 8760 | 6870 | e3300 | 63800 | 7450 | 1410 | 24500 | 4570 | 961 | 1100 |
| 2 | 1050 | 658 | 13700 | 5280 | e2900 | 53300 | 6030 | 746 | 50100 | 10600 | 911 | 1140 |
| 3 | 696 | 728 | 14200 | 4910 | e2700 | 38600 | 4660 | 1690 | 61600 | 10100 | 688 | 1030 |
| 4 | 907 | 629 | 10600 | 4670 | 5470 | 29200 | 3810 | 7330 | 57200 | 6010 | 643 | 1440 |
| 5 | 745 | 558 | 7580 | 7150 | 18000 | 21900 | 3670 | 11400 | 42500 | 4910 | 465 | 1580 |
| 6 | 620 | 589 | 5990 | 13900 | 25700 | 16300 | 5510 | 11700 | 25800 | 3200 | 552 | 1020 |
| 7 | 473 | 784 | 4330 | 12100 | 23000 | 14100 | 5340 | 9460 | 17000 | 2220 | 759 | 611 |
| 8 | 373 | 3110 | 4900 | 8380 | e15000 | 12500 | 5210 | 6930 | 12000 | 2700 | 507 | 597 |
| 9 | 416 | 11200 | 3550 | e4500 | e10000 | 10000 | 4150 | 5380 | 8260 | 16300 | 459 | 740 |
| 10 | 394 | 11200 | 4160 | e2000 | e7400 | 9450 | 2910 | 3700 | 5240 | 28500 | 425 | 1240 |
| 11 | 363 | 8830 | 3490 | e1300 | e5200 | 11500 | 3280 | 3290 | 3540 | 22500 | 385 | 7760 |
| 12 | 353 | 7060 | 14300 | e1150 | e3700 | 10900 | 2270 | 3590 | 3050 | 15700 | 404 | 8230 |
| 13 | 350 | 5580 | 28400 | e1000 | e3000 | 8070 | 2760 | 2050 | 2480 | 11300 | 588 | 4260 |
| 14 | 282 | 2970 | 26700 | e960 | e2500 | 19700 | 5190 | 2230 | 2380 | 6260 | 817 | 3070 |
| 15 | 244 | 1910 | 20700 | e900 | e2100 | 43800 | 5390 | 2090 | 3000 | 3600 | 2180 | 2120 |
| 16 | 349 | 2300 | 14900 | e1400 | e1800 | 38200 | 4260 | 1640 | 2810 | 1360 | 2210 | 1420 |
| 17 | 273 | 1550 | 11900 | e1300 | e1500 | 26900 | 3230 | 1550 | 2070 | 1280 | 7100 | 1550 |
| 18 | 389 | 1300 | 15300 | e1200 | e1300 | 19500 | 2440 | 1300 | 1850 | 1190 | 19800 | 3520 |
| 19 | 317 | 1200 | e16000 | e1100 | 2900 | 13900 | 2540 | 3120 | 1950 | 954 | 17100 | 4680 |
| 20 | 315 | 1420 | e12000 | e1000 | 7740 | 10800 | 2040 | 12100 | 1950 | 959 | 12600 | 7840 |
| 21 | 432 | 1220 | e6200 | e1200 | 25100 | 8830 | 1930 | 14600 | 3210 | 1090 | 8260 | 18400 |
| 22 | 434 | 1180 | e5600 | e1500 | 33300 | 7070 | 1830 | 8980 | 7790 | 922 | 5180 | 14600 |
| 23 | 654 | 1100 | e5400 | 9980 | 30200 | 5620 | 1540 | 5900 | 9060 | 6970 | 3450 | 9860 |
| 24 | 856 | 988 | 19700 | 17600 | 22700 | 4640 | 1660 | 3450 | 6670 | 12700 | 2850 | 7980 |
| 25 | 392 | 1290 | 30500 | e14000 | 16500 | 3650 | 1490 | 9050 | 5960 | 8290 | 3120 | 5750 |
| 26 | 506 | 1720 | 22700 | e10000 | e13000 | 5320 | 1220 | 43800 | 4720 | 6380 | 4790 | 3940 |
| 27 | 702 | 7330 | 15900 | e7000 | e28000 | 5140 | 1080 | 47800 | 5940 | 4100 | 4750 | 2920 |
| 28 | 629 | 9350 | 11500 | e5600 | e56000 | 5020 | 1370 | 33800 | 6320 | 3450 | 3450 | 2670 |
| 29 | 458 | 7180 | 9230 | e4800 | --- | 4750 | 999 | 22000 | 5730 | 2670 | 1730 | 2180 |
| 30 | 1340 | 5740 | 8340 | e4200 | --- | 7000 | 1010 | 21800 | 4200 | 1410 | 1720 | 1660 |
| 31 | 1120 | --- | 7060 | e3700 | --- | 8240 | --- | 15300 | --- | 1440 | 1470 | --- |
| TOTAL | 17612 | 101472 | 383590 | 160650 | 370010 | 537700 | 96269 | 319186 | 388880 | 203635 | 110324 | 124908 |
| MEAN | 568 | 3382 | 12370 | 5182 | 13210 | 17350 | 3209 | 10300 | 12960 | 6569 | 3559 | 4164 |
| MAX | 1340 | 11200 | 30500 | 17600 | 56000 | 63800 | 7450 | 47800 | 61600 | 28500 | 19800 | 18400 |
| MIN | 244 | 558 | 3490 | 900 | 1300 | 3650 | 999 | 746 | 1850 | 922 | 385 | 597 |
| CFSM | .09 | .53 | 1.95 | .82 | 2.09 | 2.74 | .51 | 1.63 | 2.05 | 1.04 | .56 | .66 |
| IN. | .10 | .60 | 2.25 | .94 | 2.17 | 3.16 | .57 | 1.88 | 2.29 | 1.20 | .65 | .73 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1442 | 3101 | 5410 | 6862 | 7880 | 11000 | 9639 | 6035 | 4227 | 2442 | 1095 | 1127 |
| MAX | 9041 | 19010 | 23830 | 34010 | 30000 | 38210 | 25890 | 29540 | 24030 | 11200 | 6185 | 10320 |
| (WY) | 1955 | 1993 | 1967 | 1950 | 1976 | 1982 | 1957 | 1943 | 1981 | 1992 | 1958 | 1992 |
| MIN | 95.5 | 196 | 177 | 235 | 424 | 1759 | 914 | 587 | 231 | 207 | 146 | 127 |
| (WY) | 1964 | 1965 | 1964 | 1945 | 1934 | 1941 | 1946 | 1934 | 1988 | 1930 | 1941 | 1963 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1930 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2434873 | | 2814236 | | | |
| ANNUAL MEAN | 6653 | | 7710 | | 5004 | |
| HIGHEST ANNUAL MEAN | | | | | 9370 | 1950 |
| LOWEST ANNUAL MEAN | | | | | 938 | 1931 |
| HIGHEST DAILY MEAN | 54000 | Jan 20 | 63800 | Mar 1 | 113000 | Mar 14 1982 |
| LOWEST DAILY MEAN | 230 | Sep 24 | 244 | Oct 15 | 17 | Jun 30 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 301 | Sep 20 | 310 | Oct 14 | 47 | Jun 27 1988 |
| INSTANTANEOUS PEAK FLOW | | | 67300 | Mar 1 | 121000 | Mar 14 1982 |
| INSTANTANEOUS PEAK STAGE | | | 13.79 | Mar 1 | 17.18 | Mar 14 1982 |
| INSTANTANEOUS LOW FLOW | | | 244 | Oct 15 | 17 | Jun 30 1988 |
| ANNUAL RUNOFF (CFSM) | 1.05 | | 1.22 | | .79 | |
| ANNUAL RUNOFF (INCHES) | 14.31 | | 16.54 | | 10.74 | |
| 10 PERCENT EXCEEDS | 19700 | | 19700 | | 13900 | |
| 50 PERCENT EXCEEDS | 2700 | | 3940 | | 1640 | |
| 90 PERCENT EXCEEDS | 393 | | 656 | | 257 | |

e Estimated.

## 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 September 1994.
NITROGEN, NITRITE + NITRATE: October 1987 to September 1994.
NITROGEN, AMMONIA + ORGANIC: October 1987 to September 1994.
PHOSPHORUS: October 1987 to September 1994.
SUSPENDED SEDIMENT DISCHARGE: April 1950 to September 1984. October 1987 to current year.
INSTRUMENTATION.--Refrigerated water-quality pumping sampler, operated by Heidelberg College Water Quality Laboratory, from October 1987 to September 1994. Sampler located at station 04193490.
REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Those suspended-sediment samples are considered to be unreliable and were not used. Samples collected by Heidelberg College Water Quality Laboratory that were analyzed for concentration using methods for suspended solids were used instead. The laboratory operates a pumping sampler located upstream at the Bowling Green Water Treatment Plant. The sampler collects a sample every eight hours. Sediment 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 subdivided into hourly intervals and the daily load was calculated by summation of hourly loads. This required interpolation between measured and estimated concentrations.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,240 mg/L, Mar. 26, 1954; minimum daily mean, 1 mg/L, on many days during 1953, 1955, 1963.
SEDIMENT LOADS: Maximum daily, 300,000 tons, Feb. 24, 1990; minimum daily, 0.26 ton, Sep. 18, 1955.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,350 mg/L, Feb. 28; minimum daily mean, 7 mg/L, June 15.
SEDIMENT LOADS: Maximum daily, 204,000 tons, Feb. 28; minimum daily, 13 tons, Oct. 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | SAMPLING METHOD, CODES* (82398) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | TEMPERATURE AIR (DEG C) (00020) | TEMPERATURE WATER (DEG C) (00010) |
|---|---|---|---|---|---|---|---|
| OCT | | | | | | | |
| 10... | 1325 | 10 | 391 | 756 | 8.5 | 12.5 | 13.5 |
| 10... | 1445 | 50 | 396 | -- | -- | -- | -- |
| MAY | | | | | | | |
| 02... | 0945 | 10 | 694 | 573 | 8.4 | 14.0 | 12.0 |
| 02... | 1110 | 50 | 720 | -- | -- | -- | -- |
| 08... | 0955 | 10 | 6830 | 580 | 7.8 | 9.0 | 12.0 |
| AUG | | | | | | | |
| 28... | 0945 | 10 | 3600 | 442 | 7.9 | 19.0 | 21.0 |
| 28... | 1100 | 50 | 3470 | -- | -- | -- | -- |

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOSPHORUS TOTAL (MG/L AS P) (00665) | SEDIMENT, SUSPENDED (MG/L) (80154) | SEDIMENT PARTICLE SIZE <.0625MM SILTCLAY (PERCENT) (80250) |
|---|---|---|---|---|---|---|
| OCT | | | | | | |
| 10... | 73 | 0.05 | 1.3 | 0.11 | 19 | -- |
| 10... | 77 | 0.10 | 1.5 | 0.13 | -- | -- |
| MAY | | | | | | |
| 02... | 42 | 3.6 | 1.0 | 0.09 | 19 | 94.7 |
| 02... | 43 | 3.9 | 1.2 | 0.08 | -- | -- |
| 08... | -- | -- | -- | -- | 84 | -- |
| AUG | | | | | | |
| 28... | 22 | 1.8 | 1.0 | 0.19 | 70 | -- |
| 28... | 23 | 1.8 | 0.9 | 0.20 | -- | -- |

*10 - Stream cross-section sample using equal-width-increment (EWI) sampling method.
*50 - Point sample obtained from flow tank.

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | 1180 | 32 | 100 | 798 | 13 | 28 | 8760 | 120 | 2910 |
| 2 | 1050 | 33 | 93 | 658 | 8 | 15 | 13700 | 183 | 6960 |
| 3 | 696 | 28 | 53 | 728 | 8 | 16 | 14200 | 263 | 10100 |
| 4 | 907 | 25 | 62 | 629 | 9 | 15 | 10600 | 222 | 6430 |
| 5 | 745 | 25 | 50 | 558 | 9 | 14 | 7580 | 118 | 2430 |
| 6 | 620 | 21 | 35 | 589 | 11 | 18 | 5990 | 87 | 1410 |
| 7 | 473 | 20 | 25 | 784 | 17 | 36 | 4330 | 79 | 921 |
| 8 | 373 | 28 | 28 | 3110 | 26 | 258 | 4900 | 55 | 729 |
| 9 | 416 | 25 | 28 | 11200 | 84 | 2610 | 3550 | 46 | 437 |
| 10 | 394 | 20 | 22 | 11200 | 168 | 5120 | 4160 | 43 | 479 |
| 11 | 363 | 20 | 19 | 8830 | 127 | 3010 | 3490 | 37 | 377 |
| 12 | 353 | 23 | 22 | 7060 | 115 | 2200 | 14300 | 119 | 5480 |
| 13 | 350 | 24 | 23 | 5580 | 77 | 1160 | 28400 | 674 | 52500 |
| 14 | 282 | 22 | 16 | 2970 | 47 | 383 | 26700 | 622 | 45100 |
| 15 | 244 | 19 | 13 | 1910 | 34 | 175 | 20700 | 400 | 22500 |
| 16 | 349 | 23 | 21 | 2300 | 29 | 180 | 14900 | 263 | 10600 |
| 17 | 273 | 23 | 17 | 1550 | 32 | 134 | 11900 | 240 | 7710 |
| 18 | 389 | 21 | 22 | 1300 | 25 | 87 | 15300 | 193 | 7880 |
| 19 | 317 | 21 | 18 | 1200 | 18 | 59 | e16000 | 154 | 6640 |
| 20 | 315 | 21 | 18 | 1420 | 15 | 57 | e12000 | 204 | 6600 |
| 21 | 432 | 18 | 21 | 1220 | 11 | 37 | e6200 | 150 | 2500 |
| 22 | 434 | 18 | 21 | 1180 | 9 | 27 | e5600 | 97 | 1470 |
| 23 | 654 | 25 | 45 | 1100 | 9 | 27 | e5400 | 77 | 1130 |
| 24 | 856 | 20 | 47 | 988 | 11 | 28 | 19700 | 152 | 9300 |
| 25 | 392 | 14 | 15 | 1290 | 14 | 49 | 30500 | 413 | 34100 |
| 26 | 506 | 19 | 26 | 1720 | 13 | 58 | 22700 | 277 | 17000 |
| 27 | 702 | 21 | 39 | 7330 | 20 | 433 | 15900 | 206 | 8870 |
| 28 | 629 | 19 | 33 | 9350 | 41 | 1010 | 11500 | 164 | 5090 |
| 29 | 458 | 19 | 23 | 7180 | 70 | 1340 | 9230 | 136 | 3400 |
| 30 | 1340 | 32 | 127 | 5740 | 79 | 1220 | 8340 | 116 | 2600 |
| 31 | 1120 | 22 | 64 | --- | --- | --- | 7060 | 108 | 2050 |
| TOTAL | 17612 | --- | 1146 | 101472 | --- | 19804 | 383590 | --- | 285703 |

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JANUARY | | | FEBRUARY | | | MARCH | |
| 1 | 6870 | 94 | 1750 | e3300 | 19 | 173 | 63800 | 1110 | 192000 |
| 2 | 5280 | 80 | 1130 | e2900 | 23 | 182 | 53300 | 629 | 91200 |
| 3 | 4910 | 67 | 890 | e2700 | 29 | 211 | 38600 | 302 | 31500 |
| 4 | 4670 | 57 | 713 | 5470 | 79 | 1420 | 29200 | 263 | 20400 |
| 5 | 7150 | 74 | 1620 | 18000 | 233 | 11600 | 21900 | 242 | 14300 |
| 6 | 13900 | 242 | 9150 | 25700 | 282 | 19600 | 16300 | 149 | 6600 |
| 7 | 12100 | 296 | 9740 | 23000 | 392 | 24300 | 14100 | 115 | 4350 |
| 8 | 8380 | 193 | 4400 | e15000 | 352 | 14300 | 12500 | 86 | 2910 |
| 9 | e4500 | 109 | 1320 | e10000 | 251 | 6780 | 10000 | 73 | 1960 |
| 10 | e2000 | 113 | 612 | e7400 | 179 | 3580 | 9450 | 56 | 1430 |
| 11 | e1300 | 59 | 208 | e5200 | 117 | 1640 | 11500 | 88 | 2750 |
| 12 | e1150 | 48 | 148 | e3700 | 75 | 748 | 10900 | 108 | 3150 |
| 13 | e1000 | 34 | 90 | e3000 | 52 | 422 | 8070 | 112 | 2440 |
| 14 | e960 | 26 | 68 | e2500 | 41 | 278 | 19700 | 222 | 13400 |
| 15 | e900 | 19 | 47 | e2100 | 35 | 196 | 43800 | 371 | 44300 |
| 16 | e1400 | 20 | 76 | e1800 | 27 | 133 | 38200 | 261 | 26100 |
| 17 | e1300 | 18 | 62 | e1500 | 24 | 95 | 26900 | 308 | 22400 |
| 18 | e1200 | 14 | 45 | e1300 | 25 | 88 | 19500 | 235 | 12400 |
| 19 | e1100 | 11 | 32 | 2900 | 70 | 616 | 13900 | 180 | 6750 |
| 20 | e1000 | 10 | 26 | 7740 | 161 | 3500 | 10800 | 137 | 4000 |
| 21 | e1200 | 9 | 28 | 25100 | 365 | 26400 | 8830 | 105 | 2500 |
| 22 | e1500 | 34 | 136 | 33300 | 469 | 42100 | 7070 | 80 | 1530 |
| 23 | 9980 | 92 | 2720 | 30200 | 344 | 28000 | 5620 | 61 | 930 |
| 24 | 17600 | 204 | 9690 | 22700 | 265 | 16200 | 4640 | 56 | 686 |
| 25 | e14000 | 145 | 5490 | 16500 | 199 | 8890 | 3650 | 98 | 962 |
| 26 | e10000 | 101 | 2720 | e13000 | 161 | 5650 | 5320 | 62 | 882 |
| 27 | e7000 | 66 | 1250 | e28000 | 742 | 56100 | 5140 | 60 | 836 |
| 28 | e5600 | 44 | 672 | e56000 | 1350 | 204000 | 5020 | 48 | 656 |
| 29 | e4800 | 35 | 447 | --- | --- | --- | 4750 | 52 | 666 |
| 30 | e4200 | 26 | 292 | --- | --- | --- | 7000 | 63 | 1220 |
| 31 | e3700 | 19 | 189 | --- | --- | --- | 8240 | 79 | 1760 |
| TOTAL | 160650 | --- | 55761 | 370010 | --- | 477202 | 537700 | --- | 516968 |

e Estimated

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | 7450 | 79 | 1580 | 1410 | 38 | 147 | 24500 | 132 | 8930 |
| 2 | 6030 | 60 | 978 | 746 | 23 | 46 | 50100 | 301 | 42800 |
| 3 | 4660 | 49 | 609 | 1690 | 31 | 161 | 61600 | 215 | 35800 |
| 4 | 3810 | 41 | 423 | 7330 | 85 | 1800 | 57200 | 261 | 40100 |
| 5 | 3670 | 34 | 343 | 11400 | 105 | 3240 | 42500 | 212 | 23900 |
| 6 | 5510 | 54 | 823 | 11700 | 139 | 4380 | 25800 | 178 | 12500 |
| 7 | 5340 | 70 | 1010 | 9460 | 114 | 2930 | 17000 | 149 | 6810 |
| 8 | 5210 | 60 | 841 | 6930 | 82 | 1540 | 12000 | 135 | 4360 |
| 9 | 4150 | 50 | 557 | 5380 | 70 | 1010 | 8260 | 87 | 1920 |
| 10 | 2910 | 31 | 241 | 3700 | 54 | 539 | 5240 | 66 | 942 |
| 11 | 3280 | 31 | 273 | 3290 | 87 | 768 | 3540 | 58 | 548 |
| 12 | 2270 | 32 | 196 | 3590 | 59 | 564 | 3050 | 39 | 325 |
| 13 | 2760 | 30 | 235 | 2050 | 48 | 267 | 2480 | 32 | 212 |
| 14 | 5190 | 47 | 662 | 2230 | 42 | 254 | 2380 | 15 | 93 |
| 15 | 5390 | 36 | 520 | 2090 | 41 | 229 | 3000 | 7 | 57 |
| 16 | 4260 | 35 | 407 | 1640 | 41 | 181 | 2810 | 27 | 203 |
| 17 | 3230 | 29 | 249 | 1550 | 42 | 177 | 2070 | 20 | 110 |
| 18 | 2440 | 26 | 173 | 1300 | 40 | 142 | 1850 | 19 | 95 |
| 19 | 2540 | 27 | 182 | 3120 | 55 | 530 | 1950 | 19 | 102 |
| 20 | 2040 | 31 | 169 | 12100 | 94 | 3240 | 1950 | 17 | 91 |
| 21 | 1930 | 37 | 191 | 14600 | 193 | 7410 | 3210 | 21 | 201 |
| 22 | 1830 | 37 | 183 | 8980 | 139 | 3410 | 7790 | 82 | 1950 |
| 23 | 1540 | 47 | 193 | 5900 | 80 | 1280 | 9060 | 155 | 3790 |
| 24 | 1660 | 49 | 219 | 3450 | 58 | 536 | 6670 | 212 | 3800 |
| 25 | 1490 | 43 | 173 | 9050 | 192 | 7380 | 5960 | 244 | 3910 |
| 26 | 1220 | 60 | 198 | 43800 | 471 | 57200 | 4720 | 185 | 2340 |
| 27 | 1080 | 36 | 105 | 47800 | 358 | 45800 | 5940 | 151 | 2430 |
| 28 | 1370 | 28 | 103 | 33800 | 392 | 34600 | 6320 | 154 | 2630 |
| 29 | 999 | 26 | 71 | 22000 | 352 | 20900 | 5730 | 133 | 2050 |
| 30 | 1010 | 29 | 79 | 21800 | 232 | 13600 | 4200 | 90 | 1030 |
| 31 | --- | --- | --- | 15300 | 206 | 8590 | --- | --- | --- |
| TOTAL | 96269 | --- | 11986 | 319186 | --- | 222851 | 388880 | --- | 204029 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 4570 | 91 | 1200 | 961 | 42 | 109 | 1100 | 40 | 120 |
| 2 | 10600 | 181 | 5390 | 911 | 38 | 93 | 1140 | 42 | 130 |
| 3 | 10100 | 339 | 9020 | 688 | 32 | 59 | 1030 | 44 | 120 |
| 4 | 6010 | 216 | 3520 | 643 | 28 | 48 | 1440 | 34 | 134 |
| 5 | 4910 | 155 | 2050 | 465 | 29 | 36 | 1580 | 29 | 123 |
| 6 | 3200 | 106 | 924 | 552 | 32 | 48 | 1020 | 31 | 83 |
| 7 | 2220 | 78 | 468 | 759 | 28 | 57 | 611 | 32 | 52 |
| 8 | 2700 | 78 | 566 | 507 | 21 | 29 | 597 | 30 | 49 |
| 9 | 16300 | 347 | 21400 | 459 | 19 | 24 | 740 | 31 | 62 |
| 10 | 28500 | 643 | 49500 | 425 | 25 | 29 | 1240 | 31 | 108 |
| 11 | 22500 | 482 | 28300 | 385 | 26 | 26 | 7760 | 89 | 2080 |
| 12 | 15700 | 514 | 21800 | 404 | 27 | 30 | 8230 | 89 | 2000 |
| 13 | 11300 | 391 | 11800 | 588 | 23 | 36 | 4260 | 60 | 691 |
| 14 | 6260 | 237 | 4040 | 817 | 26 | 59 | 3070 | 58 | 476 |
| 15 | 3600 | 140 | 1380 | 2180 | 40 | 247 | 2120 | 57 | 321 |
| 16 | 1360 | 84 | 307 | 2210 | 49 | 290 | 1420 | 55 | 209 |
| 17 | 1280 | 73 | 253 | 7100 | 113 | 3440 | 1550 | 61 | 259 |
| 18 | 1190 | 73 | 233 | 19800 | 343 | 18400 | 3520 | 72 | 697 |
| 19 | 954 | 73 | 187 | 17100 | 292 | 13800 | 4680 | 81 | 1030 |
| 20 | 959 | 70 | 181 | 12600 | 177 | 6030 | 7840 | 138 | 3130 |
| 21 | 1090 | 67 | 197 | 8260 | 110 | 2450 | 18400 | 237 | 11900 |
| 22 | 922 | 74 | 183 | 5180 | 77 | 1090 | 14600 | 252 | 9890 |
| 23 | 6970 | 135 | 3120 | 3450 | 58 | 543 | 9860 | 186 | 4970 |
| 24 | 12700 | 206 | 7150 | 2850 | 52 | 399 | 7980 | 133 | 2870 |
| 25 | 8290 | 124 | 2780 | 3120 | 52 | 442 | 5750 | 101 | 1570 |
| 26 | 6380 | 94 | 1620 | 4790 | 70 | 916 | 3940 | 75 | 804 |
| 27 | 4100 | 78 | 864 | 4750 | 66 | 841 | 2920 | 63 | 493 |
| 28 | 3450 | 72 | 665 | 3450 | 60 | 557 | 2670 | 55 | 397 |
| 29 | 2670 | 62 | 445 | 1730 | 49 | 227 | 2180 | 51 | 300 |
| 30 | 1410 | 52 | 199 | 1720 | 48 | 225 | 1660 | 45 | 199 |
| 31 | 1440 | 50 | 194 | 1470 | 43 | 173 | --- | --- | --- |
| TOTAL | 203635 | --- | 179936 | 110324 | --- | 50753 | 124908 | --- | 45267 |
| YEAR | 2814236 | | 2071406 | | | | | | |

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

### WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 60 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (04211820). Three sites are reported in the 1997 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1997 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1997 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at

http//www-oh.er.usgs.gov/nawqa.index.html.

---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | BARO-METRIC PRES-SURE (MM OF HG) (00025) | OXYGEN, DIS-SOLVED (MG/L) (00300) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625) | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 23... | 0830 | 620 | 725 | 8.4 | 8.5 | 12.0 | 736 | 9.2 | 90 | 230 | 210 |
| NOV | | | | | | | | | | | |
| 20... | 0830 | 1440 | 512 | 7.6 | 0.0 | 2.5 | 746 | 12.1 | 91 | K38 | K20 |
| DEC | | | | | | | | | | | |
| 04... | 0815 | 11100 | 512 | 7.9 | 2.0 | 3.5 | 740 | 12.2 | 96 | 1800 | 970 |
| 19... | 0915 | 19000 | -- | 8.0 | -5.0 | 2.0 | 740 | -- | -- | 5200 | 2100 |
| JAN | | | | | | | | | | | |
| 15... | 0920 | 2080 | 510 | 8.2 | 1.0 | 0.0 | 748 | -- | -- | -- | -- |
| FEB | | | | | | | | | | | |
| 05... | 0915 | 18800 | 390 | 7.5 | 1.0 | 0.0 | 751 | 11.7 | 82 | 1500 | 1300 |
| 26... | 0900 | 14700 | 405 | 7.8 | 4.0 | 2.0 | 744 | 11.6 | 86 | -- | K380 |
| MAR | | | | | | | | | | | |
| 01... | 1030 | 65200 | 242 | 7.8 | 16.0 | 3.5 | 741 | 11.9 | 93 | -- | 1800 |
| 12... | 0930 | 12200 | 514 | 8.2 | 6.0 | 4.0 | 754 | 12.1 | 92 | -- | -- |
| 26... | 0900 | 5940 | 556 | 8.1 | 4.5 | 5.5 | 747 | 11.5 | 92 | -- | K160 |
| APR | | | | | | | | | | | |
| 09... | 0830 | 4880 | 583 | 8.2 | -4.0 | 6.0 | 754 | 10.8 | 88 | -- | -- |
| 17... | 1030 | 3650 | 639 | 8.6 | -- | 8.5 | 744 | 11.8 | 103 | -- | K40 |
| 23... | 0845 | 2010 | 587 | 8.7 | 6.5 | 10.5 | 738 | 12.7 | 119 | -- | K18 |
| MAY | | | | | | | | | | | |
| 06... | 1400 | 13100 | 595 | 8.1 | 12.0 | 12.0 | 748 | 9.2 | 86 | -- | 240 |
| 21... | 0830 | 16800 | 573 | 8.1 | 7.0 | 14.5 | 751 | 8.2 | 81 | -- | K730 |
| 28... | 1300 | 34200 | 333 | 7.7 | 15.5 | 14.5 | 752 | 9.8 | 97 | -- | 1100 |
| JUN | | | | | | | | | | | |
| 04... | 0830 | 59600 | 297 | 7.5 | 13.5 | 14.0 | 748 | 8.3 | 81 | -- | 870 |
| 19... | 1030 | 1920 | 619 | 8.5 | 23.5 | 22.5 | 747 | 10.8 | 127 | -- | K28 |
| JUL | | | | | | | | | | | |
| 09... | 0900 | 8660 | 452 | 7.8 | 16.0 | 21.5 | 747 | 8.4 | 97 | -- | -- |
| 30... | 0830 | 1540 | 418 | 8.1 | 20.0 | 23.5 | 754 | 7.8 | 92 | -- | 83 |
| AUG | | | | | | | | | | | |
| 13... | 0815 | 690 | 490 | 8.3 | 21.0 | 23.0 | 745 | 7.9 | 93 | -- | K58 |
| 26... | 1300 | 5110 | 438 | 7.9 | 21.5 | 21.0 | 748 | 8.3 | 96 | -- | 1000 |
| SEP | | | | | | | | | | | |
| 09... | 1330 | 840 | 432 | 8.7 | 16.0 | 22.0 | 744 | 10.5 | 123 | -- | K120 |
| 24... | 0900 | 8280 | 327 | 7.6 | 12.0 | 17.0 | 751 | 7.7 | 81 | -- | 320 |

| DATE | COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | E. COLI WTR UNFLTRD MF MOD . MTEC (COLS./ 100 ML) (90902) | COLI-FORM, TOTAL, WTR UNF MF, MI (COLS./ 100 ML) (90900) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915) | 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 WATER DIS IT FIELD MG/L AS HCO3 (00453) | CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | 21 | 51 | 6.2 | 205 | -- | 169 |
| NOV | | | | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | 16 | 16 | 6.0 | 161 | -- | 132 |
| DEC | | | | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | 15 | 15 | 4.0 | 159 | -- | 130 |
| 19... | -- | -- | -- | -- | -- | 15 | 11 | 3.5 | 144 | -- | 118 |

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | E. COLI WTR UNFLTRD MF MOD . MTEC (COLS./ 100 ML) (90902) | COLI-FORM, TOTAL, WTR UNF MF, MI (COLS./ 100 ML) (90900) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915) | 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 WATER DIS IT FIELD MG/L AS HCO3 (00453) | CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 15... | -- | -- | -- | -- | -- | 17 | 15 | 3.6 | 176 | -- | 144 |
| FEB | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | 14 | 22 | 3.4 | 288 | -- | 236 |
| 26... | -- | -- | -- | -- | -- | 11 | 8.8 | 3.4 | 120 | -- | 98 |
| MAR | | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | 6.1 | 5.4 | 2.9 | 76 | -- | 62 |
| 12... | -- | -- | -- | -- | -- | 16 | 12 | 2.7 | 156 | -- | 128 |
| 26... | -- | -- | -- | -- | -- | 17 | 12 | 2.4 | 195 | -- | 160 |
| APR | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | 18 | 15 | 2.8 | 146 | 31 | 172 |
| 17... | -- | -- | -- | -- | -- | 22 | 21 | 3.0 | 151 | -- | 184 |
| 23... | -- | K8 | -- | -- | -- | 20 | 18 | 2.9 | 183 | 5 | 158 |
| MAY | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | 20 | 20 | 3.0 | 156 | -- | 128 |
| 21... | -- | 730 | -- | -- | -- | 19 | 19 | 3.2 | 181 | -- | 148 |
| 28... | -- | 970 | -- | -- | -- | 9.8 | 5.3 | 4.0 | 120 | -- | 98 |
| JUN | | | | | | | | | | | |
| 04... | 1000 | 1400 | -- | -- | -- | 8.0 | 4.3 | 3.8 | 98 | -- | 80 |
| 19... | -- | -- | -- | -- | -- | 22 | 17 | 3.5 | 205 | -- | 168 |
| JUL | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | 68 | 14 | 11 | 3.2 | 161 | -- | 132 |
| 30... | -- | 63 | 18000 | 40 | 53 | 13 | 12 | 3.6 | 154 | -- | 126 |
| AUG | | | | | | | | | | | |
| 13... | 130 | K34 | 4500 | K43 | 18 | 16 | 17 | 3.9 | 193 | -- | 158 |
| 26... | -- | -- | -- | -- | -- | 12 | 11 | 4.6 | 151 | -- | 124 |
| SEP | | | | | | | | | | | |
| 09... | K700 | K130 | K1600 | K110 | -- | 16 | 17 | 4.7 | 122 | 8 | 113 |
| 24... | 2000 | 320 | K11000 | 330 | 21 | 9.8 | 8.4 | 5.0 | 151 | -- | 124 |

| DATE | 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613) | 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 TOTAL (MG/L AS N) (00625) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 23... | 95 | 73 | 0.6 | 0.09 | 400 | 0.02 | 0.5 | 0.04 | 1.1 | 0.5 | 0.11 |
| NOV | | | | | | | | | | | |
| 20... | 58 | 36 | 0.4 | 7.0 | 329 | 0.04 | 6.6 | 0.08 | 1.1 | 0.8 | 0.21 |
| DEC | | | | | | | | | | | |
| 04... | 52 | 36 | 0.3 | 6.7 | 315 | 0.05 | 6.7 | 0.13 | 2.0 | 0.9 | 0.50 |
| 19... | 53 | 28 | 0.2 | 6.9 | 299 | 0.04 | 5.8 | 0.09 | 1.5 | 0.6 | 0.35 |
| JAN | | | | | | | | | | | |
| 15... | 56 | 34 | 0.2 | 7.5 | 324 | 0.06 | 6.5 | 0.13 | 1.0 | 0.8 | 0.25 |
| FEB | | | | | | | | | | | |
| 05... | 51 | 44 | 0.2 | 5.3 | 300 | 0.05 | 3.9 | 0.34 | 1.3 | 0.8 | 0.26 |
| 26... | 33 | 23 | 0.2 | 5.8 | 227 | 0.03 | 6.3 | 0.15 | 1.8 | 1.1 | 0.32 |
| MAR | | | | | | | | | | | |
| 01... | 18 | 13 | 0.2 | 4.0 | 139 | 0.02 | 3.5 | 0.16 | 4.6 | 0.7 | 1.5 |
| 12... | 56 | 28 | 0.3 | 6.2 | 312 | 0.03 | 6.6 | 0.12 | 1.1 | 0.6 | 0.20 |
| 26... | 60 | 30 | 0.2 | 5.5 | 333 | 0.03 | 6.0 | 0.06 | 0.60 | 0.4 | 0.14 |
| APR | | | | | | | | | | | |
| 09... | 62 | 33 | 0.3 | 5.0 | 350 | 0.04 | 5.2 | 0.05 | 1.1 | 0.7 | 0.16 |
| 17... | 82 | 40 | 0.3 | 2.2 | 400 | 0.02 | 4.6 | 0.02 | 0.79 | 0.4 | 0.07 |
| 23... | 69 | 37 | 0.3 | 0.28 | 392 | 0.03 | 4.4 | <0.02 | 1.1 | 0.5 | 0.10 |
| MAY | | | | | | | | | | | |
| 06... | 75 | 40 | 0.3 | 3.1 | 349 | 0.05 | 7.3 | 0.22 | 1.4 | 1.0 | 0.21 |
| 21... | 66 | 35 | 0.3 | 2.1 | 360 | 0.05 | 6.2 | 0.10 | 1.9 | 0.7 | 0.37 |
| 28... | 22 | 14 | 0.2 | 6.3 | 210 | 0.11 | 9.3 | 0.21 | 2.5 | 0.9 | 0.72 |
| JUN | | | | | | | | | | | |
| 04... | 19 | 9.8 | 0.2 | 6.4 | 195 | 0.07 | 7.2 | 0.09 | 2.1 | 0.8 | 0.65 |
| 19... | 65 | 33 | 0.3 | 2.8 | 366 | 0.03 | 5.4 | <0.02 | 1.1 | 0.6 | 0.09 |
| JUL | | | | | | | | | | | |
| 09... | 39 | 21 | 0.2 | 7.1 | 290 | 0.07 | 7.8 | 0.02 | 1.4 | 0.6 | 0.31 |
| 30... | 35 | 19 | 0.3 | 7.6 | 272 | 0.02 | 3.4 | <0.02 | 1.1 | 0.7 | 0.18 |
| AUG | | | | | | | | | | | |
| 13... | 56 | 28 | 0.3 | 4.4 | 287 | 0.02 | 1.3 | <0.02 | 1.6 | 0.6 | 0.09 |
| 26... | 38 | 19 | 0.3 | 7.3 | 258 | 0.03 | 2.0 | 0.03 | 1.1 | 0.6 | 0.22 |
| SEP | | | | | | | | | | | |
| 09... | 51 | 29 | 0.3 | 2.4 | 254 | <0.01 | 0.3 | <0.02 | 1.7 | 0.5 | 0.14 |
| 24... | 25 | 15 | 0.3 | 6.9 | 213 | 0.03 | 2.0 | 0.05 | 1.2 | 0.8 | 0.37 |

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666) | PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671) | IRON, DIS-SOLVED (UG/L AS FE) (01046) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681) | CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260) | ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRA-ZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 23... | 0.02 | <0.01 | 7 | 1.0 | 5.2 | 3.1 | 31 | <0.002 | <0.002 | 0.312 | E0.041 |
| NOV | | | | | | | | | | | |
| 20... | 0.13 | 0.13 | 47 | 4.0 | 8.5 | 1.5 | 40 | 0.022 | 0.049 | 0.310 | E0.135 |
| DEC | | | | | | | | | | | |
| 04... | 0.12 | 0.12 | 69 | 2.0 | 7.8 | 6.2 | 269 | 0.031 | 0.031 | 0.196 | E0.037 |
| 19... | 0.09 | 0.09 | 37 | 3.0 | 6.7 | 3.2 | 176 | 0.025 | 0.022 | 0.187 | E0.053 |
| JAN | | | | | | | | | | | |
| 15... | 0.11 | 0.12 | 29 | 5.0 | 7.1 | 1.3 | 75 | 0.010 | 0.023 | 0.198 | E0.084 |
| FEB | | | | | | | | | | | |
| 05... | 0.12 | 0.12 | 33 | 10 | 5.2 | 3.8 | 95 | -- | -- | -- | -- |
| 26... | 0.10 | 0.10 | 69 | 5.0 | 6.6 | 2.7 | 183 | 0.013 | 0.022 | 0.172 | E0.056 |
| MAR | | | | | | | | | | | |
| 01... | 0.07 | 0.10 | 240 | 9.0 | 6.2 | 10 | 1100 | 0.010 | 0.020 | 0.163 | E0.056 |
| 12... | 0.04 | 0.06 | 10 | 4.0 | 5.5 | 1.7 | 134 | -- | -- | -- | -- |
| 26... | 0.05 | 0.05 | 12 | 6.0 | 4.5 | 1.1 | 53 | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 09... | 0.04 | 0.04 | 14 | 1.1 | 5.9 | 1.4 | 68 | -- | -- | -- | -- |
| 17... | 0.01 | <0.01 | 8 | <1.0 | 5.4 | 1.8 | 32 | 0.029 | 0.112 | 0.174 | E0.061 |
| 23... | 0.02 | <0.01 | 9 | <1.0 | 6.7 | 0.7 | 35 | 0.031 | 0.067 | 0.176 | E0.050 |
| MAY | | | | | | | | | | | |
| 06... | 0.05 | 0.04 | 10 | 2.0 | 7.6 | 2.1 | 133 | 10.6 | 6.70 | 20.2 | E0.194 |
| 21... | <0.01 | 0.02 | 10 | <1.0 | 6.8 | 3.5 | 270 | 1.80 | 1.59 | 9.96 | E0.406 |
| 28... | 0.11 | 0.12 | 39 | 2.5 | 7.9 | 6.1 | 409 | 6.68 | 3.33 | E22.2 | E1.02 |
| JUN | | | | | | | | | | | |
| 04... | 0.12 | 0.12 | 50 | 2.7 | 7.1 | 4.0 | 390 | 2.70 | 1.28 | 17.6 | E0.653 |
| 19... | <0.01 | <0.01 | 4 | <1.0 | 6.6 | 2.4 | 14 | 0.394 | 0.222 | 6.96 | E0.557 |
| JUL | | | | | | | | | | | |
| 09... | 0.10 | 0.09 | 4 | 1.3 | 6.0 | 3.2 | 169 | 0.194 | 0.183 | 5.60 | E0.594 |
| 30... | 0.08 | 0.08 | 17 | <1.0 | 7.3 | 1.0 | 65 | 0.048 | 0.069 | 1.05 | E0.188 |
| AUG | | | | | | | | | | | |
| 13... | <0.01 | 0.01 | 7 | 3.0 | 6.4 | 3.3 | 29 | 0.023 | 0.030 | 1.08 | E0.217 |
| 26... | 0.10 | 0.10 | 24 | 4.2 | 7.5 | 2.0 | 75 | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 09... | 0.05 | <0.01 | 7 | 1.2 | 6.8 | 3.4 | 32 | 0.030 | 0.020 | 0.519 | E0.120 |
| 24... | 0.17 | 0.15 | 65 | 3.5 | 7.9 | 2.1 | 138 | 0.026 | 0.030 | 0.337 | E0.064 |

| DATE | METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYL-ATE, WATER, DISS, REC (UG/L) (04028) | CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933) | CYANA-ZINE, WATER, DISS, REC (UG/L) (04041) | DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682) | P,P' DDE DISSOLV (UG/L) (34653) | DI-AZINON, DIS-SOLVED (UG/L) (39572) | DI-ELDRIN DIS-SOLVED (UG/L) (39381) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 23... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.017 | 0.086 | <0.002 | <0.006 | 0.009 | <0.001 |
| NOV | | | | | | | | | | | |
| 20... | <0.001 | <0.002 | <0.002 | E0.008 | <0.003 | 0.022 | 0.121 | <0.002 | <0.006 | <0.002 | <0.001 |
| DEC | | | | | | | | | | | |
| 04... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.030 | 0.047 | <0.002 | <0.006 | 0.014 | <0.001 |
| 19... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.005 | 0.042 | <0.002 | <0.006 | <0.002 | <0.001 |
| JAN | | | | | | | | | | | |
| 15... | <0.001 | <0.002 | <0.002 | <0.003 | E0.004 | 0.005 | 0.057 | <0.002 | <0.006 | <0.007 | <0.001 |
| FEB | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | E0.004 | 0.040 | <0.002 | <0.006 | <0.002 | <0.001 |
| MAR | | | | | | | | | | | |
| 01... | <0.020 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.049 | <0.002 | <0.006 | 0.005 | <0.001 |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | E0.004 | 0.031 | E0.001 | <0.006 | <0.002 | <0.001 |
| 23... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.058 | <0.002 | <0.006 | E0.003 | <0.001 |
| MAY | | | | | | | | | | | |
| 06... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 9.97 | <0.002 | <0.006 | 0.009 | <0.001 |
| 21... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | -- | 4.20 | E0.001 | <0.006 | 0.006 | <0.001 |
| 28... | <0.001 | E0.002 | 0.005 | <0.003 | <0.003 | <0.004 | 9.90 | E0.001 | <0.006 | 0.022 | <0.001 |
| JUN | | | | | | | | | | | |
| 04... | <0.001 | <0.002 | E0.001 | E0.005 | <0.003 | <0.004 | 4.46 | E0.003 | <0.006 | 0.017 | <0.001 |
| 19... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 1.52 | <0.002 | <0.006 | E0.003 | <0.001 |
| JUL | | | | | | | | | | | |
| 09... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.030 | 0.757 | <0.002 | <0.006 | 0.006 | <0.001 |
| 30... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.025 | 0.178 | E0.001 | <0.006 | 0.022 | <0.001 |
| AUG | | | | | | | | | | | |
| 13... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.169 | <0.002 | <0.006 | 0.006 | <0.001 |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 09... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.096 | <0.002 | <0.006 | E0.004 | <0.001 |
| 24... | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.008 | 0.040 | <0.002 | <0.006 | 0.014 | <0.001 |

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued
National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | 2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) | DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) | EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668) | ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) | ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) | FONOFOS WATER DISS REC (UG/L) (04095) | ALPHA BHC DIS-SOLVED (UG/L) (34253) | LINDANE DIS-SOLVED (UG/L) (39341) | LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) | MALA-THION, DIS-SOLVED (UG/L) (39532) | METO-LACHLOR WATER DISSOLV (UG/L) (39415) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 23... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.182 |
| NOV | | | | | | | | | | | |
| 20... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.332 |
| DEC | | | | | | | | | | | |
| 04... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.327 |
| 19... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.286 |
| JAN | | | | | | | | | | | |
| 15... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.205 |
| FEB | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.169 |
| MAR | | | | | | | | | | | |
| 01... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.197 |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.207 |
| 23... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.485 |
| MAY | | | | | | | | | | | |
| 06... | E0.002 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | 0.055 | <0.005 | 11.4 |
| 21... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 4.98 |
| 28... | <0.003 | <0.017 | E0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | 0.054 | <0.005 | 19.7 |
| JUN | | | | | | | | | | | |
| 04... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | 0.037 | <0.005 | 15.8 |
| 19... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | 0.009 | <0.005 | 4.62 |
| JUL | | | | | | | | | | | |
| 09... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 4.51 |
| 30... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | 0.007 | <0.005 | 0.887 |
| AUG | | | | | | | | | | | |
| 13... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.707 |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | | |
| 09... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.287 |
| 24... | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 | <0.005 | 0.372 |

| DATE | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630) | MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671) | NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684) | PARA-THION, DIS-SOLVED (UG/L) (39542) | METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667) | PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669) | PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683) | PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687) | PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664) | PRO-METON, WATER, DISS, REC (UG/L) (04037) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 23... | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.114 |
| NOV | | | | | | | | | | |
| 20... | 0.056 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.029 |
| DEC | | | | | | | | | | |
| 04... | 0.052 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.018 |
| 19... | 0.038 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | E0.010 |
| JAN | | | | | | | | | | |
| 15... | 0.028 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | E0.015 |
| FEB | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 0.030 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | E0.008 |
| MAR | | | | | | | | | | |
| 01... | 0.030 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | <0.018 |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | 0.174 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | E0.010 |
| 23... | 0.170 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | E0.016 |
| MAY | | | | | | | | | | |
| 06... | 4.92 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | <0.018 |
| 21... | 3.50 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.022 |
| 28... | 2.57 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | 0.064 | <0.005 | <0.002 | <0.018 |
| JUN | | | | | | | | | | |
| 04... | 1.30 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.035 | <0.005 | <0.002 | 0.032 |
| 19... | 0.176 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | <0.020 |
| JUL | | | | | | | | | | |
| 09... | 0.282 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | 0.017 | <0.005 | <0.002 | 0.058 |
| 30... | 0.077 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.100 |
| AUG | | | | | | | | | | |
| 13... | 0.029 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.072 |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | |
| 09... | 0.014 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.069 |
| 24... | 0.017 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 | 0.037 |

## 04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) | PROP-CHLOR, WATER, DISS, REC (UG/L) (04024) | PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) | PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) | SI-MAZINE, WATER, DISS, REC (UG/L) (04035) | TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) | TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) | TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) | THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) | TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 23... | <0.003 | <0.007 | <0.004 | <0.013 | 0.058 | 0.015 | <0.007 | <0.013 | <0.002 | <0.001 |
| NOV | | | | | | | | | | |
| 20... | <0.003 | <0.007 | <0.004 | <0.013 | 0.024 | E0.023 | <0.007 | <0.013 | <0.002 | <0.001 |
| DEC | | | | | | | | | | |
| 04... | <0.003 | <0.007 | <0.004 | <0.013 | 0.016 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 19... | <0.003 | <0.007 | <0.004 | <0.013 | 0.016 | 0.011 | <0.007 | <0.013 | <0.002 | <0.001 |
| JAN | | | | | | | | | | |
| 15... | <0.003 | <0.007 | <0.004 | <0.013 | 0.016 | E0.016 | <0.007 | <0.013 | <0.002 | <0.001 |
| FEB | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAR | | | | | | | | | | |
| 01... | <0.003 | <0.007 | <0.004 | <0.013 | 0.019 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 17... | <0.003 | <0.007 | <0.004 | <0.013 | 0.018 | E0.024 | <0.007 | <0.013 | <0.002 | <0.001 |
| 23... | <0.003 | <0.007 | <0.004 | <0.013 | 0.026 | 0.011 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAY | | | | | | | | | | |
| 06... | <0.003 | <0.007 | <0.004 | <0.013 | 1.65 | 0.024 | <0.007 | <0.013 | <0.002 | <0.001 |
| 21... | <0.003 | <0.007 | <0.004 | <0.013 | 1.78 | 0.090 | <0.007 | <0.013 | <0.002 | <0.001 |
| 28... | <0.003 | 0.008 | <0.004 | <0.013 | 1.99 | 0.023 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUN | | | | | | | | | | |
| 04... | <0.003 | <0.007 | <0.004 | <0.013 | 1.29 | 0.020 | <0.007 | <0.013 | <0.002 | <0.001 |
| 19... | <0.003 | <0.007 | <0.004 | <0.013 | 0.654 | 0.020 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUL | | | | | | | | | | |
| 09... | <0.003 | <0.007 | <0.004 | <0.013 | 0.265 | 0.037 | <0.007 | <0.013 | <0.002 | <0.001 |
| 30... | <0.003 | <0.007 | <0.004 | <0.013 | 0.077 | E0.066 | <0.007 | <0.013 | <0.002 | <0.001 |
| AUG | | | | | | | | | | |
| 13... | <0.003 | <0.007 | <0.004 | <0.013 | 0.069 | 0.030 | <0.007 | <0.013 | <0.002 | <0.001 |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | | | | |
| 09... | <0.003 | <0.007 | <0.004 | <0.013 | 0.047 | 0.018 | <0.007 | <0.013 | <0.002 | <0.001 |
| 24... | <0.003 | <0.007 | <0.004 | <0.013 | 0.023 | 0.014 | <0.007 | <0.013 | <0.002 | <0.001 |

## 04195500 PORTAGE RIVER AT WOODVILLE, OHIO

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 mi².
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 sea level. 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.--Records good except for periods of estimated record, which are poor. 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. Water-quality data collected at this site 800 ft downstream. Sediment data collected at this site. National Weather Service gage height telemeter at station.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 17 ft, from information by local residents; discharge, 17,000 ft³/s, from rating curve extended above 11,500 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 48 | 44 | 128 | 273 | e160 | 5920 | 667 | 108 | 3370 | 384 | 17 | 38 |
| 2 | 33 | 43 | 350 | 241 | e150 | 2340 | 444 | 115 | 8000 | 377 | 15 | 31 |
| 3 | 20 | 39 | 253 | 244 | e230 | 1880 | 355 | 145 | 9010 | 213 | 19 | 32 |
| 4 | 16 | 35 | 143 | 250 | e700 | 969 | 308 | 1010 | 4550 | 124 | 35 | 47 |
| 5 | 13 | 30 | 98 | 255 | e2500 | 628 | 299 | 885 | 1640 | 84 | 40 | 39 |
| 6 | 14 | 26 | 79 | 539 | 3620 | 665 | 558 | 895 | 873 | 63 | 52 | 29 |
| 7 | 13 | 28 | 73 | 473 | 1220 | 887 | 500 | 839 | 504 | 56 | 45 | 20 |
| 8 | 12 | 44 | 69 | e160 | 626 | 696 | 318 | 508 | 345 | 60 | 32 | 17 |
| 9 | 13 | 82 | 64 | e120 | e350 | 632 | 225 | 408 | 255 | 956 | 21 | 16 |
| 10 | 13 | 72 | 58 | e94 | e250 | 830 | 184 | 330 | 202 | 2770 | 17 | 15 |
| 11 | 13 | 58 | 64 | e84 | e180 | 866 | 161 | 252 | 168 | 959 | 16 | 22 |
| 12 | 14 | 46 | 578 | e76 | e150 | 537 | 203 | 218 | 151 | 385 | 17 | 40 |
| 13 | 16 | 38 | 1290 | e70 | e123 | 387 | 988 | 209 | 145 | 212 | 27 | 44 |
| 14 | 14 | 32 | 1060 | e64 | e100 | 2280 | 697 | 184 | 134 | 138 | 72 | 34 |
| 15 | 12 | 29 | 485 | e60 | e90 | 4710 | 430 | 174 | 110 | 103 | 77 | 27 |
| 16 | 12 | 28 | 306 | e56 | e80 | 1810 | 335 | 175 | 94 | 127 | 63 | 21 |
| 17 | 14 | 24 | 864 | e54 | e74 | 812 | 288 | 152 | 87 | 88 | 894 | 18 |
| 18 | 13 | 24 | 3240 | e50 | e70 | 602 | 240 | 147 | 91 | 64 | 1340 | 16 |
| 19 | 15 | 26 | 2120 | e49 | 718 | 522 | 201 | 950 | 98 | 49 | 484 | 17 |
| 20 | 27 | 28 | 670 | e47 | 1170 | 447 | 173 | 2330 | 110 | 38 | 236 | 159 |
| 21 | 38 | 28 | e280 | e45 | 1640 | 378 | 146 | 1030 | 92 | 30 | 134 | 352 |
| 22 | 29 | 25 | e220 | e80 | 2890 | 320 | 132 | 515 | 222 | 29 | 90 | 179 |
| 23 | 25 | 23 | e170 | e400 | 1780 | 250 | 123 | 334 | 304 | 33 | 66 | 101 |
| 24 | 20 | 22 | 522 | e1400 | 811 | 199 | 113 | 249 | 195 | 82 | 60 | 69 |
| 25 | 21 | 26 | 1350 | e850 | 516 | 228 | 106 | 1340 | 136 | 93 | 153 | 48 |
| 26 | 26 | 43 | 496 | e500 | 409 | 851 | 94 | 5630 | 148 | 57 | 268 | 39 |
| 27 | 30 | 135 | e300 | e280 | 3690 | 826 | 87 | 5550 | 370 | 43 | 160 | 31 |
| 28 | 27 | 120 | e200 | e250 | 8380 | 542 | 93 | 1460 | 299 | 35 | 101 | 25 |
| 29 | 24 | e90 | e180 | e220 | --- | 458 | 110 | 745 | 146 | 28 | 71 | 22 |
| 30 | 30 | 68 | 229 | e200 | --- | 752 | 110 | 881 | 138 | 25 | 54 | 18 |
| 31 | 29 | --- | 272 | e180 | --- | 860 | --- | 788 | --- | 21 | 45 | --- |
| TOTAL | 644 | 1356 | 16211 | 7664 | 32677 | 34084 | 8688 | 28556 | 31987 | 7726 | 4721 | 1566 |
| MEAN | 20.8 | 45.2 | 523 | 247 | 1167 | 1099 | 290 | 921 | 1066 | 249 | 152 | 52.2 |
| MAX | 48 | 135 | 3240 | 1400 | 8380 | 5920 | 988 | 5630 | 9010 | 2770 | 1340 | 352 |
| MIN | 12 | 22 | 58 | 45 | 70 | 199 | 87 | 108 | 87 | 21 | 15 | 15 |
| CFSM | .05 | .11 | 1.22 | .58 | 2.73 | 2.57 | .68 | 2.15 | 2.49 | .58 | .36 | .12 |
| IN. | .06 | .12 | 1.41 | .67 | 2.84 | 2.96 | .76 | 2.48 | 2.78 | .67 | .41 | .14 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 85.2 | 201 | 352 | 452 | 514 | 766 | 638 | 405 | 288 | 155 | 60.3 | 87.8 |
| MAX | 722 | 1595 | 1722 | 2129 | 1793 | 2542 | 1965 | 1685 | 1875 | 821 | 635 | 1088 |
| (WY) | 1951 | 1973 | 1991 | 1952 | 1976 | 1982 | 1957 | 1943 | 1981 | 1958 | 1979 | 1981 |
| MIN | 2.96 | 3.61 | 4.37 | 2.24 | 2.00 | 118 | 41.7 | 25.4 | 9.29 | 2.81 | 3.09 | 3.67 |
| (WY) | 1935 | 1935 | 1935 | 1945 | 1934 | 1941 | 1946 | 1934 | 1988 | 1930 | 1933 | 1944 |
| (+) | 7.1 | 7.0 | 6.5 | 6.5 | 6.7 | 6.4 | 6.4 | 6.2 | 6.8 | 6.9 | 6.9 | 7.0 |
| MEAN≠ | 13.7 | 38.2 | 516 | 240 | 1160 | 1093 | 284 | 915 | 1059 | 242 | 145 | 45.2 |
| CFSM≠ | .03 | .09 | 1.21 | .56 | 2.71 | 2.55 | .66 | 2.14 | 2.47 | .57 | .34 | .11 |
| IN≠ | .04 | .10 | 1.39 | .65 | 2.82 | 2.94 | .74 | 2.46 | 2.76 | .65 | .39 | .12 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1928 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 124032.7 | | 175880 | | | |
| ANNUAL MEAN | 339 | | 482 (≠475) | | ≠331 | |
| HIGHEST ANNUAL MEAN | | | | | 628 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 81.4 | 1931 |
| HIGHEST DAILY MEAN | 5070 | Jan 19 | 9010 | Jun 3 | 11000 | Feb 15 1950 |
| LOWEST DAILY MEAN | 6.9 | Sep 6 | 12 | Oct 8 | .40 | Aug 26 1931 |
| ANNUAL SEVEN-DAY MINIMUM | 7.9 | Aug 14 | 13 | Oct 5 | .93 | Oct 12 1934 |
| INSTANTANEOUS PEAK FLOW | | | 9810 | Jun 3 a | 11500 | Feb 15 1950 |
| INSTANTANEOUS PEAK STAGE | | | 13.30 | Jun 3 | 14.51 | Feb 15 1950 |
| INSTANTANEOUS LOW FLOW | | | 12 | Oct 8 | .40 | Aug 16 1931 |
| ANNUAL RUNOFF (CFSM) | .79 | | 1.13 | | .78 | |
| ANNUAL RUNOFF (INCHES) | 10.78 | | 15.29 (≠15.06) | | ≠10.50 | |
| 10 PERCENT EXCEEDS | 936 | | 977 | | 841 | |
| 50 PERCENT EXCEEDS | 74 | | 138 | | 68 | |
| 90 PERCENT EXCEEDS | 11 | | 22 | | 8.0 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.
(+) Diversion in cubic feet per second, from Maumee River Basin for municipal supply; furnished by City of Bowling Green.
≠ Adjusted for diversion.

## 04196000 SANDUSKY RIVER NEAR BUCYRUS, OHIO

LOCATION.--Lat 40°48'13", long 83°00'21", in NE 1/4 sec. 10, T.3 S., R.16 E., Crawford County, Hydrologic Unit 04100011, on right bank at downstream side of bridge on township road, 1 mi upstream from unnamed left bank tributary, 1.5 mi west of Bucyrus, and 12 mi downstream from Loss Creek.
DRAINAGE AREA.--88.8 mi².
PERIOD OF RECORD.--August 1925 to November 1935, July 1938 to December 1951, December 1963 to September 1981, October 1995 to current year.
REVISED RECORDS.--WSP 744: 1925-32. WSP 874: 1938. WSP 1307: 1926(M), 1928(M), 1931, 1932(M), 1934-35(M), 1939, 1940(M), 1946(M). WSP 1912: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 955.04 ft above sea level. Prior to May 11, 1940, nonrecording gage, and May 12, 1940, to December 31, 1951, water-stage records are poor. Low flow slightly affected by operation of reservoirs 5.3 mi to 6.0 mi upstream from station for municipal supply of Bucyrus. Water-quality and sediment data collected at this site.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 23, 1913 reached a stage of 14.5 ft, from floodmarks. Flood of January 22, 1959, reached a stage of 11.9 ft, from floodmarks; discharge, 13,500 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 35 | 38 | 993 | 57 | e70 | 196 | 65 | 25 | 2630 | 15 | 8.9 | 5.4 |
| 2 | 22 | 28 | 652 | 55 | e50 | 1040 | 50 | 38 | 2060 | 14 | 9.5 | 5.5 |
| 3 | 17 | 22 | 167 | 54 | e130 | 354 | 44 | 282 | 412 | 12 | 7.7 | 5.2 |
| 4 | 14 | 17 | 116 | 52 | e400 | 173 | 42 | 372 | 197 | 10 | 9.2 | 4.6 |
| 5 | 12 | 15 | 99 | 231 | e1200 | 337 | 47 | 131 | 116 | 9.4 | 7.0 | 4.3 |
| 6 | 11 | 14 | 84 | 153 | e750 | 983 | 53 | 189 | 83 | 8.7 | 6.3 | 3.9 |
| 7 | 11 | 18 | 76 | e50 | e400 | 281 | 44 | 112 | 63 | 8.2 | 6.4 | 3.8 |
| 8 | 9.8 | 21 | 66 | e30 | e200 | 163 | 35 | 93 | 51 | 8.2 | 6.2 | 4.7 |
| 9 | 13 | 46 | 56 | e22 | e120 | 138 | 31 | 203 | 44 | 155 | 5.8 | 5.2 |
| 10 | 11 | 49 | 48 | e17 | e80 | 650 | 29 | 110 | 37 | 71 | 5.2 | 54 |
| 11 | 13 | 73 | 490 | e14 | e60 | 216 | 26 | 78 | 32 | 28 | 5.5 | 54 |
| 12 | 11 | 52 | 2100 | e12 | e47 | 109 | 115 | 63 | 40 | 18 | 5.7 | 21 |
| 13 | 9.4 | 37 | 738 | e10 | 38 | 80 | 328 | 52 | 57 | 14 | 14 | 12 |
| 14 | 8.5 | 30 | 275 | e9.0 | 48 | 561 | 126 | 44 | 41 | 12 | 8.9 | 10 |
| 15 | 8.3 | 25 | 154 | e11 | e35 | 339 | 85 | 43 | 28 | 11 | 11 | 8.3 |
| 16 | 8.2 | 23 | 167 | e22 | e26 | 123 | 69 | 41 | 24 | 9.8 | 16 | 6.6 |
| 17 | 7.0 | 24 | 1460 | e25 | e30 | 86 | 65 | 33 | 22 | 8.6 | 63 | 6.0 |
| 18 | 25 | 25 | 1130 | e16 | 54 | 69 | 70 | 49 | 27 | 15 | 57 | 5.7 |
| 19 | 35 | 30 | 220 | e11 | 219 | 62 | 62 | 720 | 28 | 9.9 | 31 | 5.1 |
| 20 | 40 | 29 | e80 | e10 | 212 | 55 | 49 | 375 | 23 | 6.9 | 18 | 25 |
| 21 | 23 | 24 | e68 | e11 | 323 | 49 | 41 | 116 | 19 | 7.1 | 14 | 14 |
| 22 | 21 | 21 | e62 | 115 | 269 | 47 | 38 | 74 | 16 | 20 | 13 | 12 |
| 23 | 23 | 18 | 100 | 355 | 121 | 38 | 35 | 57 | 15 | 24 | 11 | 10 |
| 24 | 23 | 18 | 1550 | 115 | 80 | 32 | 26 | 48 | 13 | 33 | 12 | 7.6 |
| 25 | 29 | 93 | 461 | 176 | 67 | 34 | 16 | 710 | 17 | 19 | 12 | 6.4 |
| 26 | 24 | 1420 | e120 | 92 | 80 | 40 | 14 | 1320 | 25 | 17 | 11 | 5.4 |
| 27 | 19 | 572 | e80 | 99 | 1270 | 40 | 13 | 232 | 20 | 49 | 11 | 4.9 |
| 28 | 17 | 151 | 94 | 567 | 573 | 34 | 20 | 109 | 17 | 36 | 9.1 | 4.6 |
| 29 | 16 | 93 | 157 | e350 | --- | 51 | 21 | 81 | 31 | 19 | 7.2 | 5.1 |
| 30 | 53 | 200 | 96 | e200 | --- | 51 | 16 | 79 | 24 | 13 | 6.3 | 4.6 |
| 31 | 86 | --- | 71 | e120 | --- | 68 | --- | 529 | --- | 10 | 5.6 | --- |
| TOTAL | 655.2 | 3226 | 12030 | 3061.0 | 6952 | 6499 | 1675 | 6408 | 6212 | 691.8 | 414.5 | 324.9 |
| MEAN | 21.1 | 108 | 388 | 98.7 | 248 | 210 | 55.8 | 207 | 207 | 22.3 | 13.4 | 10.8 |
| MAX | 86 | 1420 | 2100 | 567 | 1270 | 1040 | 328 | 1320 | 2630 | 155 | 63 | 54 |
| MIN | 7.0 | 14 | 48 | 9.0 | 26 | 32 | 13 | 25 | 13 | 6.9 | 5.2 | 3.8 |
| CFSM | .24 | 1.21 | 4.37 | 1.11 | 2.80 | 2.36 | .63 | 2.33 | 2.33 | .25 | .15 | .12 |
| IN. | .27 | 1.35 | 5.04 | 1.28 | 2.91 | 2.72 | .70 | 2.68 | 2.60 | .29 | .17 | .14 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 23.9 | 58.5 | 113 | 142 | 145 | 190 | 147 | 94.1 | 76.4 | 36.0 | 24.9 | 22.4 |
| MAX | 278 | 271 | 405 | 635 | 339 | 471 | 408 | 252 | 428 | 184 | 212 | 116 |
| (WY) | 1927 | 1973 | 1928 | 1950 | 1976 | 1978 | 1964 | 1969 | 1947 | 1966 | 1979 | 1926 |
| MIN | 1.28 | 1.34 | 1.39 | 3.93 | 2.29 | 32.9 | 9.64 | 4.44 | 1.93 | .84 | 1.34 | .38 |
| (WY) | 1935 | 1935 | 1935 | 1977 | 1934 | 1981 | 1935 | 1934 | 1934 | 1995 | 1995 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1925 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 56747.9 | | 48149.4 | | | |
| ANNUAL MEAN | 155 | | 132 | | 88.9 | |
| HIGHEST ANNUAL MEAN | | | | | 145 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 20.4 | 1934 |
| HIGHEST DAILY MEAN | 3700 | Jan 18 | 2630 | Jun 1 | 4600 | Dec 14 1927 |
| LOWEST DAILY MEAN | 4.2 | Sep 6 | 3.8 | Sep 7 | .34 | Sep 30 1995 |
| ANNUAL SEVEN-DAY MINIMUM | 4.6 | Aug 31 | 4.5 | Sep 3 | .36 | Sep 24 1995 |
| INSTANTANEOUS PEAK FLOW | | | 3240 | Jun 1 a | 5800 | Dec 14 1927 |
| INSTANTANEOUS PEAK STAGE | | | 8.45 | Jun 1 | 9.83 | Dec 14 1977 |
| INSTANTANEOUS LOW FLOW | | | 3.8 | Sep 7 | .60 | Sep 28 1947 |
| ANNUAL RUNOFF (CFSM) | 1.75 | | 1.49 | | 1.00 | |
| ANNUAL RUNOFF (INCHES) | 23.77 | | 20.17 | | 13.60 | |
| 10 PERCENT EXCEEDS | 354 | | 332 | | 195 | |
| 50 PERCENT EXCEEDS | 42 | | 37 | | 21 | |
| 90 PERCENT EXCEEDS | 9.2 | | 8.2 | | 2.9 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04196800 TYMOCHTEE CREEK AT CRAWFORD, OHIO

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 mi².
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 sea level.
REMARKS.--Records good except for periods of estimated record, 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, releases totaled 818.6 mil gal, equivalent to a mean annual realease of 3.47 ft³s. There were no withdrawals. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 89 | 14 | 503 | 214 | 144 | 1870 | 229 | 44 | 2460 | 43 | 26 | 15 |
| 2 | 36 | 17 | 1010 | 168 | 120 | 1210 | 163 | 41 | 4750 | 45 | 15 | 11 |
| 3 | 16 | 19 | 1220 | 153 | 135 | 1160 | 118 | 55 | 3990 | 65 | 11 | 9.2 |
| 4 | 10 | 19 | 642 | 140 | 451 | 1130 | 96 | 415 | 2180 | 42 | 8.2 | 7.9 |
| 5 | 7.9 | 18 | 247 | 169 | 1350 | 519 | 87 | 491 | 878 | 37 | 27 | 8.3 |
| 6 | 6.6 | 17 | 162 | 369 | 2240 | 898 | 107 | 275 | 355 | 28 | 95 | 8.3 |
| 7 | 5.9 | 18 | 119 | 286 | 1380 | 1350 | 120 | 203 | 239 | 18 | 41 | 7.2 |
| 8 | 5.1 | 20 | 104 | 125 | 386 | 967 | 102 | 158 | 167 | 13 | 20 | 6.4 |
| 9 | 4.3 | 20 | 91 | 71 | 232 | 419 | 71 | 143 | 113 | 945 | 12 | 5.9 |
| 10 | 4.2 | 24 | e70 | e60 | 160 | 578 | 53 | 188 | 93 | 459 | 8.6 | 5.7 |
| 11 | 3.8 | 47 | e300 | e45 | 127 | 757 | 45 | 156 | 76 | 239 | 6.6 | 5.7 |
| 12 | 3.1 | 43 | e2000 | e39 | 107 | 438 | 102 | 111 | 104 | 95 | 5.9 | 6.0 |
| 13 | 1.3 | 30 | e800 | e33 | 92 | 262 | 285 | 86 | 111 | 47 | 27 | 17 |
| 14 | .88 | 22 | e350 | e30 | 75 | 563 | 275 | 72 | 67 | 35 | 11 | 23 |
| 15 | 1.2 | 19 | e190 | e26 | 66 | 965 | 171 | 58 | 48 | 24 | 7.3 | 15 |
| 16 | 1.9 | 17 | e250 | e25 | 59 | 870 | 117 | 48 | 37 | 19 | 22 | 11 |
| 17 | 2.4 | 14 | e800 | e24 | 84 | 329 | 92 | 36 | 26 | 16 | 463 | 8.3 |
| 18 | 3.9 | 12 | e1700 | e23 | 70 | 226 | 80 | 31 | 29 | 15 | 948 | 6.5 |
| 19 | 3.2 | 13 | e1000 | e28 | 193 | 185 | 68 | 135 | 55 | 11 | 1060 | 5.7 |
| 20 | 3.0 | 16 | e200 | e37 | 312 | 164 | 58 | 524 | 49 | 8.9 | 571 | 13 |
| 21 | 3.2 | 14 | e96 | e45 | 552 | 160 | 51 | 382 | 41 | 20 | 195 | 11 |
| 22 | 19 | 13 | e84 | 186 | 852 | 151 | 45 | 169 | 31 | 18 | 147 | 8.0 |
| 23 | 19 | 13 | e110 | 471 | 678 | 111 | 42 | 105 | 27 | 16 | 125 | 7.8 |
| 24 | 15 | 12 | e800 | 565 | 319 | 80 | 40 | 95 | 21 | 32 | 102 | 6.2 |
| 25 | 13 | 14 | e1800 | 438 | 199 | 68 | 38 | 964 | 18 | 35 | 74 | 5.2 |
| 26 | 12 | 325 | e400 | 274 | 166 | 65 | 35 | 1060 | 112 | 20 | 48 | 4.9 |
| 27 | 11 | 821 | e190 | 192 | 1500 | 63 | 33 | 920 | 70 | 16 | 54 | 5.0 |
| 28 | 11 | 965 | e110 | 392 | 1820 | 62 | 33 | 405 | 32 | 38 | 47 | 11 |
| 29 | 9.0 | 382 | e100 | 730 | --- | 215 | 33 | 213 | 19 | 164 | 31 | 10 |
| 30 | 7.8 | 182 | e140 | 613 | --- | 456 | 39 | 186 | 16 | 122 | 23 | 5.3 |
| 31 | 10 | --- | e170 | 238 | --- | 338 | --- | 706 | --- | 59 | 18 | --- |
| TOTAL | 339.68 | 3160 | 15758 | 6209 | 13869 | 16629 | 2828 | 8475 | 16214 | 2744.9 | 4249.6 | 270.5 |
| MEAN | 11.0 | 105 | 508 | 200 | 495 | 536 | 94.3 | 273 | 540 | 88.5 | 137 | 9.02 |
| MAX | 89 | 965 | 2000 | 730 | 2240 | 1870 | 285 | 1060 | 4750 | 945 | 1060 | 23 |
| MIN | .88 | 12 | 70 | 23 | 59 | 62 | 33 | 31 | 16 | 8.9 | 5.9 | 4.9 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 32.5 | 150 | 234 | 232 | 312 | 418 | 330 | 215 | 147 | 117 | 35.3 | 33.4 |
| MAX | 278 | 844 | 1104 | 777 | 823 | 1392 | 946 | 686 | 780 | 741 | 201 | 370 |
| (WY) | 1987 | 1993 | 1991 | 1974 | 1975 | 1978 | 1972 | 1996 | 1981 | 1992 | 1992 | 1981 |
| MIN | .084 | .86 | 1.78 | 1.66 | 37.2 | 35.1 | 32.8 | 11.7 | 1.78 | 1.04 | .48 | .27 |
| (WY) | 1965 | 1992 | 1992 | 1977 | 1972 | 1983 | 1971 | 1988 | 1988 | 1965 | 1965 | 1964 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1964 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 103998.29 | | 90746.68 | | | |
| ANNUAL MEAN | 284 | | 249 | | 188 | |
| HIGHEST ANNUAL MEAN | | | | | 330 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 72.2 | 1988 |
| HIGHEST DAILY MEAN | 4600 | Jan 20 | 4750 | Jun 2 | 6280 | Dec 31 1990 |
| LOWEST DAILY MEAN | .68 | Sep 11 | .88 | Oct 14 | .00 | Aug 10 1964 |
| ANNUAL SEVEN-DAY MINIMUM | .96 | Sep 6 | 2.1 | Oct 11 | .00 | Oct 23 1964 |
| INSTANTANEOUS PEAK FLOW | | | 5070 | Jun 3 a | 6700 | Dec 31 1990 |
| INSTANTANEOUS PEAK STAGE | | | 8.74 | Jun 3 | 11.21 | Mar 6 1963 |
| INSTANTANEOUS LOW FLOW | | | .88 | Oct 14 | .00 | Aug 10 1964 |
| 10 PERCENT EXCEEDS | 900 | | 800 | | 519 | |
| 50 PERCENT EXCEEDS | 73 | | 67 | | 34 | |
| 90 PERCENT EXCEEDS | 3.4 | | 8.0 | | 1.5 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04197100 HONEY CREEK AT MELMORE, OHIO

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 mi².
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 sea level from topographic map.
REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 5.5 | 141 | 99 | e33 | 951 | 173 | 28 | 2680 | 203 | 7.4 | 14 |
| 2 | 3.9 | 14 | 312 | 84 | e30 | 1080 | 115 | 28 | 2970 | 108 | 7.1 | 12 |
| 3 | 1.3 | 12 | 207 | 89 | e40 | 911 | 87 | 73 | 1630 | 64 | 7.2 | 11 |
| 4 | .63 | 8.5 | 96 | 90 | e100 | 481 | 76 | 414 | 870 | 45 | 36 | 9.3 |
| 5 | .51 | 6.5 | 66 | 214 | e1200 | 306 | 75 | 270 | 506 | 38 | 40 | 8.5 |
| 6 | .39 | 5.4 | 54 | 291 | e800 | 394 | 84 | 195 | 321 | 32 | 27 | 7.8 |
| 7 | .37 | 5.7 | 45 | 156 | 328 | 453 | 75 | 158 | 218 | 28 | 19 | 7.4 |
| 8 | .42 | 7.5 | 39 | e90 | 176 | 316 | 59 | 102 | 145 | 25 | 14 | 6.4 |
| 9 | .63 | 7.1 | 34 | e60 | 113 | 243 | 48 | 93 | 105 | 1010 | 9.3 | 6.2 |
| 10 | .72 | 9.0 | 29 | e50 | 86 | 333 | 42 | 86 | 80 | 1140 | 6.9 | 9.1 |
| 11 | .66 | 8.9 | 109 | e40 | 71 | 336 | 38 | 72 | 72 | 657 | 5.9 | 221 |
| 12 | .70 | 10 | 841 | e34 | 61 | 199 | 199 | 61 | 71 | 203 | 5.6 | 286 |
| 13 | .70 | 11 | 1190 | e29 | e45 | 132 | 464 | 53 | 148 | 99 | 162 | 94 |
| 14 | .71 | 12 | 722 | e25 | e43 | 582 | 297 | 46 | 79 | 61 | 140 | 49 |
| 15 | .77 | 10 | 354 | e22 | e38 | 784 | 160 | 40 | 59 | 43 | 54 | 30 |
| 16 | .89 | 8.1 | 216 | e28 | e35 | 383 | 111 | 34 | 49 | 33 | 100 | 22 |
| 17 | .89 | 6.7 | 1010 | e30 | e40 | 198 | 138 | 31 | 44 | 26 | 584 | 18 |
| 18 | 4.1 | 6.0 | 1410 | e25 | 69 | 141 | 163 | 28 | 47 | 21 | 637 | 13 |
| 19 | 5.4 | 5.5 | e760 | e22 | 337 | 111 | 116 | 89 | 55 | 18 | 374 | e12 |
| 20 | 4.6 | 4.5 | e280 | e20 | 366 | 95 | 88 | 196 | 50 | 15 | 128 | e12 |
| 21 | 8.5 | 4.5 | e140 | e22 | 495 | 84 | 70 | 137 | 46 | 13 | 72 | e11 |
| 22 | 8.0 | 4.2 | e100 | e500 | 582 | 75 | 60 | 77 | 50 | 15 | 48 | e11 |
| 23 | 6.7 | 4.0 | e80 | e700 | 336 | 65 | 52 | 54 | 39 | 14 | 36 | e10 |
| 24 | 5.6 | 3.7 | 741 | e130 | 174 | 56 | 46 | 44 | 33 | 14 | 30 | e10 |
| 25 | 4.1 | 6.4 | 833 | e160 | 117 | 57 | 40 | 1420 | 30 | 14 | 36 | e9.5 |
| 26 | 3.4 | 101 | e350 | e280 | 105 | 128 | 35 | 2840 | 30 | 12 | 39 | e9.0 |
| 27 | 3.4 | 209 | e160 | e100 | 2540 | 119 | 31 | 1680 | 43 | 10 | 35 | e8.5 |
| 28 | 4.0 | 124 | e110 | e660 | 2160 | 91 | 31 | 810 | 39 | 10 | 29 | e8.0 |
| 29 | 4.1 | 58 | 197 | e500 | --- | 199 | 31 | 456 | 41 | 12 | 23 | e7.5 |
| 30 | 5.6 | 41 | 201 | e130 | --- | 220 | 31 | 294 | 186 | 11 | 18 | e7.0 |
| 31 | 5.5 | --- | 134 | e40 | --- | 240 | --- | 619 | --- | 8.8 | 16 | --- |
| TOTAL | 103.19 | 719.7 | 10961 | 4720 | 10520 | 9763 | 3035 | 10528 | 10736 | 4002.8 | 2746.4 | 940.2 |
| MEAN | 3.33 | 24.0 | 354 | 152 | 376 | 315 | 101 | 340 | 358 | 129 | 88.6 | 31.3 |
| MAX | 16 | 209 | 1410 | 700 | 2540 | 1080 | 464 | 2840 | 2970 | 1140 | 637 | 286 |
| MIN | .37 | 3.7 | 29 | 20 | 30 | 56 | 31 | 28 | 30 | 8.8 | 5.6 | 6.2 |
| CFSM | .02 | .16 | 2.37 | 1.02 | 2.52 | 2.11 | .68 | 2.28 | 2.40 | .87 | .59 | .21 |
| IN. | .03 | .18 | 2.74 | 1.18 | 2.63 | 2.44 | .76 | 2.63 | 2.68 | 1.00 | .69 | .23 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 31.4 | 112 | 170 | 145 | 229 | 285 | 248 | 123 | 119 | 73.6 | 33.2 | 36.6 |
| MAX | 186 | 550 | 518 | 465 | 528 | 765 | 540 | 340 | 740 | 373 | 125 | 242 |
| (WY) | 1991 | 1993 | 1978 | 1993 | 1990 | 1978 | 1979 | 1997 | 1981 | 1992 | 1990 | 1981 |
| MIN | .71 | 2.51 | 1.99 | 1.31 | 65.6 | 40.4 | 77.5 | 8.69 | 1.05 | .46 | 1.52 | .84 |
| (WY) | 1989 | 1995 | 1977 | 1977 | 1993 | 1981 | 1991 | 1988 | 1988 | 1988 | 1993 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1977 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 60355.12 | | 68775.29 | | | |
| ANNUAL MEAN | 165 | | 188 | | 133 | |
| HIGHEST ANNUAL MEAN | | | | | 189 | 1993 |
| LOWEST ANNUAL MEAN | | | | | 48.1 | 1988 |
| HIGHEST DAILY MEAN | 2830 | Jan 19 | 2970 | Jun 2 | 4000 | Dec 30 1990 |
| LOWEST DAILY MEAN | .37 | Oct 7 | .37 | Oct 7 | .07 | Sep 28 1988 |
| ANNUAL SEVEN-DAY MINIMUM | .52 | Oct 4 | .52 | Oct 4 | .09 | Sep 24 1988 |
| INSTANTANEOUS PEAK FLOW | | | 3580 | Jun 1 a | 4440 | Jun 13 1981 |
| INSTANTANEOUS PEAK STAGE | | | 10.14 | Jun 1 | 11.00 | Jun 13 1981 |
| INSTANTANEOUS LOW FLOW | | | .37 | Oct 7 | .07 | Sep 28 1988 |
| ANNUAL RUNOFF (CFSM) | 1.11 | | 1.26 | | .89 | |
| ANNUAL RUNOFF (INCHES) | 15.07 | | 17.17 | | 12.15 | |
| 10 PERCENT EXCEEDS | 528 | | 500 | | 356 | |
| 50 PERCENT EXCEEDS | 39 | | 50 | | 31 | |
| 90 PERCENT EXCEEDS | 1.8 | | 5.7 | | 1.9 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04197170 ROCK CREEK AT TIFFIN, OHIO

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 mi².
PERIOD OF RECORD.--June 1983 to current year.
GAGE.--Water-stage recorder. Elevation of gage is 740 ft above sea level, from topographic map.
REMARKS.--Records fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.1 | 2.5 | 45 | 11 | e7.6 | 75 | 38 | 9.6 | 1410 | 34 | 2.8 | 2.8 |
| 2 | .94 | 2.1 | 56 | 10 | e7.0 | 372 | 21 | 9.6 | 666 | 13 | 3.6 | 2.6 |
| 3 | .93 | 2.0 | 17 | 11 | 17 | 97 | 16 | 21 | 107 | 8.6 | 2.8 | 2.6 |
| 4 | 1.0 | 1.9 | 9.2 | 12 | 250 | 42 | 16 | 58 | 60 | 7.0 | 8.8 | 2.4 |
| 5 | 1.1 | 1.9 | 7.2 | 52 | 518 | 32 | 24 | 26 | 34 | 6.0 | 7.5 | 2.4 |
| 6 | 1.0 | 1.9 | 6.4 | 48 | 65 | 85 | 35 | 40 | 24 | 5.4 | 3.9 | 2.4 |
| 7 | 1.1 | 3.2 | 5.8 | 13 | 26 | 68 | 17 | 26 | 19 | 5.2 | 3.2 | 2.3 |
| 8 | 1.1 | 3.1 | 5.5 | e7.0 | 16 | 44 | 13 | 16 | 15 | 6.2 | 2.8 | 2.2 |
| 9 | 1.5 | 3.6 | 5.1 | e6.0 | 12 | 35 | 11 | 18 | 14 | 336 | 2.6 | 2.3 |
| 10 | 1.4 | 4.0 | 4.8 | e5.4 | 10 | 94 | 10 | 15 | 12 | 87 | 2.6 | 3.6 |
| 11 | 1.2 | 3.3 | 55 | e5.0 | 9.4 | 43 | 9.9 | 13 | 12 | 20 | 2.4 | 2.5 |
| 12 | 1.4 | 2.7 | 246 | e4.5 | 8.8 | 22 | 123 | 11 | 12 | 9.9 | 2.7 | 3.0 |
| 13 | 1.2 | 2.3 | 222 | e4.3 | 9.0 | 16 | 154 | 10 | 13 | 7.4 | 3.7 | 3.0 |
| 14 | 1.2 | 2.2 | 54 | e4.0 | 7.5 | 261 | 44 | 9.4 | 11 | 6.2 | 4.3 | 2.4 |
| 15 | 1.1 | 1.9 | 21 | e4.5 | 7.2 | 121 | 24 | 9.3 | 10 | 5.9 | 3.4 | 2.1 |
| 16 | 1.3 | 2.0 | 15 | e5.0 | 6.8 | 32 | 26 | 8.9 | 9.3 | 5.1 | 7.6 | 2.0 |
| 17 | 1.4 | 2.2 | 501 | e5.6 | 6.3 | 21 | 200 | 8.4 | 8.4 | 4.7 | 95 | 2.0 |
| 18 | 3.6 | 2.2 | 272 | e5.0 | 24 | 18 | 105 | 8.9 | 9.3 | 4.4 | 67 | 1.9 |
| 19 | 2.2 | 2.2 | 46 | e4.2 | 119 | 15 | 38 | 120 | 8.7 | 4.1 | 22 | 2.2 |
| 20 | 1.9 | 2.1 | e15 | e3.8 | 71 | 14 | 21 | 83 | 8.3 | 3.8 | 8.8 | 16 |
| 21 | 1.9 | 2.1 | e9.0 | e4.1 | 125 | 13 | 16 | 22 | 9.5 | 3.6 | 5.7 | 43 |
| 22 | 1.5 | 1.9 | e8.0 | e100 | 123 | 12 | 14 | 13 | 13 | 4.2 | 4.4 | 9.7 |
| 23 | 2.3 | 1.8 | e9.0 | e140 | 41 | 11 | 12 | 10 | 11 | 4.3 | 3.4 | 4.9 |
| 24 | 2.2 | 2.0 | 268 | e30 | 20 | 10 | 11 | 9.2 | 7.6 | 3.9 | 4.3 | 3.3 |
| 25 | 2.0 | 4.4 | 82 | e35 | 14 | 11 | 10 | 914 | 10 | 3.8 | 6.1 | 2.6 |
| 26 | 1.9 | e20 | e25 | e56 | 14 | 65 | 9.5 | 563 | 32 | 3.6 | 5.7 | 2.2 |
| 27 | 1.9 | e11 | e11 | e13 | 1440 | 35 | 9.4 | 72 | 19 | 3.4 | 4.4 | 2.0 |
| 28 | 2.0 | e6.0 | e10 | e120 | 370 | 18 | 10 | 30 | 9.5 | 3.3 | 3.5 | 2.1 |
| 29 | 2.0 | 3.7 | 22 | e80 | --- | 240 | 9.9 | 22 | 24 | 3.1 | 2.9 | 1.7 |
| 30 | 3.3 | 3.8 | 19 | e20 | --- | 100 | 9.5 | 31 | 124 | 2.9 | 2.8 | 1.5 |
| 31 | 2.5 | --- | 13 | e9.0 | --- | 88 | --- | 508 | --- | 2.9 | 2.9 | --- |
| TOTAL | 51.17 | 106.0 | 2085.0 | 828.4 | 3344.6 | 2110 | 1057.2 | 2715.3 | 2722.6 | 618.9 | 303.6 | 135.7 |
| MEAN | 1.65 | 3.53 | 67.3 | 26.7 | 119 | 68.1 | 35.2 | 87.6 | 90.8 | 20.0 | 9.79 | 4.52 |
| MAX | 3.6 | 20 | 501 | 140 | 1440 | 372 | 200 | 914 | 1410 | 336 | 95 | 43 |
| MIN | .93 | 1.8 | 4.8 | 3.8 | 6.3 | 10 | 9.4 | 8.4 | 7.6 | 2.9 | 2.4 | 1.5 |
| CFSM | .05 | .10 | 1.94 | .77 | 3.45 | 1.97 | 1.02 | 2.53 | 2.62 | .58 | .28 | .13 |
| IN. | .06 | .11 | 2.24 | .89 | 3.60 | 2.27 | 1.14 | 2.92 | 2.93 | .67 | .33 | .15 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 10.8 | 34.2 | 40.1 | 37.0 | 61.8 | 51.5 | 54.7 | 31.2 | 20.4 | 14.6 | 6.19 | 12.1 |
| MAX | 50.3 | 145 | 172 | 98.5 | 122 | 138 | 92.7 | 87.6 | 90.8 | 82.0 | 28.1 | 99.5 |
| (WY) | 1991 | 1993 | 1991 | 1993 | 1990 | 1984 | 1994 | 1997 | 1997 | 1992 | 1990 | 1992 |
| MIN | 1.28 | 2.09 | 2.09 | 10.2 | 13.0 | 13.6 | 17.9 | 2.29 | 1.12 | .55 | 1.37 | .83 |
| (WY) | 1989 | 1995 | 1992 | 1992 | 1993 | 1989 | 1988 | 1988 | 1988 | 1988 | 1991 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1984 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 14370.44 | | 16078.47 | | | |
| ANNUAL MEAN | 39.3 | | 44.1 | | 31.0 | |
| HIGHEST ANNUAL MEAN | | | | | 48.2 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 11.6 | 1988 |
| HIGHEST DAILY MEAN | 961 | Jan 18 | 1440 | Feb 27 | 1440 | Dec 30 1990 |
| LOWEST DAILY MEAN | .74 | Aug 27 | .93 | Oct 3 | .32 | Jul 29 1988 |
| ANNUAL SEVEN-DAY MINIMUM | 1.0 | Oct 1 | 1.0 | Oct 1 | .38 | Jul 12 1988 |
| INSTANTANEOUS PEAK FLOW | | | 2230 | Feb 27 | 2230 | Feb 27 1997 |
| INSTANTANEOUS PEAK STAGE | | | 8.51 | Feb 27 | 8.51 | Feb 27 1997 |
| INSTANTANEOUS LOW FLOW | | | .93 | Oct 3 | .32 | Jul 29 1988 |
| ANNUAL RUNOFF (CFSM) | 1.13 | | 1.27 | | .90 | |
| ANNUAL RUNOFF (INCHES) | 15.45 | | 17.29 | | 12.17 | |
| 10 PERCENT EXCEEDS | 71 | | 90 | | 61 | |
| 50 PERCENT EXCEEDS | 5.9 | | 9.3 | | 6.5 | |
| 90 PERCENT EXCEEDS | 1.4 | | 2.0 | | 1.4 | |

e Estimated.

## 04198000 SANDUSKY RIVER NEAR FREMONT, OHIO

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 mi².

### 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 sea level. 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.--Records good except for periods of estimated record, which are poor, and July 8-18, which are fair. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 693 | 90 | 933 | 1170 | e1000 | 9640 | 1550 | 391 | 14400 | e967 | e140 | 152 |
| 2 | 382 | 98 | 3670 | 925 | e700 | 8950 | 1110 | 395 | 23700 | e826 | e209 | 137 |
| 3 | 234 | 176 | 3930 | 832 | e620 | 7710 | 874 | 522 | 18400 | 571 | e180 | 128 |
| 4 | 146 | 143 | 2640 | 814 | e1500 | 5570 | 729 | 1500 | 15500 | 410 | e160 | 114 |
| 5 | 100 | 115 | 1450 | 959 | e10000 | 3450 | 682 | 2750 | 8820 | 339 | e250 | 104 |
| 6 | 81 | 101 | 844 | 1720 | e6600 | 3470 | 836 | 2360 | 3540 | 279 | e350 | 97 |
| 7 | 76 | 99 | 656 | 1760 | e4000 | 5090 | 783 | 1660 | 1760 | 255 | e260 | 90 |
| 8 | 64 | 113 | 550 | 1130 | e2300 | 4260 | 658 | 1340 | 1250 | 227 | e209 | 88 |
| 9 | 60 | 109 | 485 | 720 | e1200 | 2910 | 559 | 1080 | 944 | 4370 | e160 | 86 |
| 10 | 63 | 135 | 431 | e500 | e880 | 2790 | 471 | 1020 | 738 | 8510 | e125 | 94 |
| 11 | 57 | 138 | 462 | e400 | e700 | 3510 | 413 | 1080 | 613 | 4010 | e103 | 111 |
| 12 | 51 | 174 | 4540 | e350 | e580 | 2860 | 580 | 894 | 541 | 1940 | e85 | 301 |
| 13 | 50 | 225 | 8360 | e320 | e522 | 1720 | 2600 | 723 | 708 | 1070 | 149 | 470 |
| 14 | 47 | 234 | e7400 | e300 | e470 | 3560 | 2260 | 616 | 767 | 758 | 640 | 309 |
| 15 | 45 | 207 | 6260 | e370 | e410 | 6140 | 1640 | 556 | 557 | 613 | 408 | 228 |
| 16 | 45 | 167 | 3310 | e480 | e360 | 4310 | 1100 | 490 | 458 | 551 | 269 | 178 |
| 17 | 46 | 141 | 5360 | e400 | e320 | 2550 | 1030 | 449 | 390 | 410 | 1580 | 140 |
| 18 | 55 | 131 | 10200 | e370 | e400 | 1510 | 1040 | 476 | 386 | 292 | 3600 | 114 |
| 19 | 79 | 123 | e7000 | e320 | 1760 | 1160 | 797 | 1720 | 468 | 236 | 3050 | 99 |
| 20 | 73 | 120 | e4200 | e290 | 2310 | 989 | 662 | 2770 | 507 | 216 | 2010 | 292 |
| 21 | 85 | 111 | e1700 | e260 | 3330 | 875 | 576 | 2960 | 435 | 228 | 1160 | 399 |
| 22 | 108 | 116 | e1200 | e1000 | 5070 | 795 | 513 | 1670 | e1160 | 213 | 598 | 483 |
| 23 | 116 | 120 | e930 | e5000 | 3870 | 709 | 466 | 984 | e679 | 240 | 447 | 304 |
| 24 | 116 | 114 | 2790 | e4000 | 2280 | 610 | 429 | 710 | e420 | 259 | 378 | 216 |
| 25 | 99 | 123 | 5610 | e3000 | 1370 | 620 | 404 | 5720 | e260 | e262 | 391 | 169 |
| 26 | 90 | 300 | e4500 | e2500 | 1010 | 884 | 379 | 17800 | e560 | e245 | 429 | 138 |
| 27 | 81 | 2410 | 2960 | e2200 | 11000 | 863 | 351 | 11300 | e680 | e227 | 345 | 117 |
| 28 | 79 | 3140 | 1450 | e3000 | 16100 | 711 | 358 | 6270 | e280 | e204 | 272 | 104 |
| 29 | 81 | 2040 | 1130 | e5500 | --- | 1140 | 369 | 2740 | e250 | e190 | 242 | 92 |
| 30 | 106 | 1050 | 1590 | e3500 | --- | 1960 | 378 | 1830 | e2100 | e170 | 214 | 82 |
| 31 | 110 | --- | 1580 | e2000 | --- | 1990 | --- | 2670 | --- | e155 | 178 | --- |
| TOTAL | 3518 | 12363 | 98121 | 46090 | 80662 | 93306 | 24597 | 77446 | 101271 | 29243 | 18591 | 5436 |
| MEAN | 113 | 412 | 3165 | 1487 | 2881 | 3010 | 820 | 2498 | 3376 | 943 | 600 | 181 |
| MAX | 693 | 3140 | 10200 | 5500 | 16100 | 9640 | 2600 | 17800 | 23700 | 8510 | 3600 | 483 |
| MIN | 45 | 90 | 431 | 260 | 320 | 610 | 351 | 391 | 250 | 155 | 85 | 82 |
| CFSM | .09 | .33 | 2.53 | 1.19 | 2.30 | 2.41 | .66 | 2.00 | 2.70 | .75 | .48 | .14 |
| IN. | .10 | .37 | 2.92 | 1.37 | 2.40 | 2.77 | .73 | 2.30 | 3.01 | .87 | .55 | .16 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 225 | 593 | 1101 | 1554 | 1930 | 2341 | 1826 | 1072 | 814 | 460 | 216 | 257 |
| MAX | 2521 | 4413 | 5495 | 7659 | 7504 | 8261 | 5524 | 3654 | 6091 | 3479 | 1660 | 3713 |
| (WY) | 1927 | 1993 | 1991 | 1930 | 1984 | 1978 | 1957 | 1969 | 1981 | 1992 | 1958 | 1981 |
| MIN | 9.94 | 25.4 | 32.6 | 53.5 | 60.3 | 319 | 144 | 100 | 43.4 | 30.9 | 22.4 | 13.5 |
| (WY) | 1964 | 1954 | 1964 | 1961 | 1964 | 1941 | 1946 | 1941 | 1988 | 1934 | 1952 | 1953 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1924 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 550943 | | 590644 | | | |
| ANNUAL MEAN | 1505 | | 1618 | | 1027 | |
| HIGHEST ANNUAL MEAN | | | | | 2167 | 1984 |
| LOWEST ANNUAL MEAN | | | | | 275 | 1934 |
| HIGHEST DAILY MEAN | 15700 | Jan 19 | 23700 | Jun 2 | 36000 | Mar 15 1978 |
| LOWEST DAILY MEAN | 36 | Sep 5 | 45 | Oct 15 | 5.0 | Oct 20 1963 |
| ANNUAL SEVEN-DAY MINIMUM | 38 | Sep 3 | 48 | Oct 12 | 6.3 | Jul 9 1988 |
| INSTANTANEOUS PEAK FLOW | | | 24800 | Jun 2 a | 36500 | Mar 16 1978 |
| INSTANTANEOUS PEAK STAGE | | | 10.59 | Jun 2 | 16.14 | Feb 24 1979 |
| INSTANTANEOUS LOW FLOW | | | 45 | Oct 15 | 4.4 | Feb 29 1964 |
| ANNUAL RUNOFF (CFSM) | 1.20 | | 1.29 | | .82 | |
| ANNUAL RUNOFF (INCHES) | 16.38 | | 17.56 | | 11.16 | |
| 10 PERCENT EXCEEDS | 4510 | | 4090 | | 2750 | |
| 50 PERCENT EXCEEDS | 475 | | 557 | | 275 | |
| 90 PERCENT EXCEEDS | 54 | | 104 | | 39 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-56, 1978 to current year.
PERIOD OF DAILY RECORD.--
CHLORIDE: February 1988 to September 1994.
NITROGEN, NITRITE + NITRATE: February 1988 to September 1994.
NITROGEN, AMMONIA + ORGANIC: February 1988 to September 1994.
PHOSPHORUS: February 1988 to September 1994.
SUSPENDED SEDIMENT DISCHARGE: Water years 1951-1956, 1978 to current year.
INSTRUMENTATION.--Refrigerated water-quality pumping sampler, operated by Heidelberg College Water Quality Laboratory, from February 1988 to September 1994.
REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Sediment 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 subdivided into half-hour intervals and the daily load was calculated by summing the loads for these half-hour intervals. This required interpolation between measured and estimated concentrations.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L, Jun. 9, 1981; minimum daily mean, 1 mg/L, on many days during 1951-56, 1980, 1981, 1988, 1992.
SEDIMENT LOADS: Maximum daily, 124,000 tons, Jun. 14, 1981; minimum daily, less than 0.05 ton, on several days during 1952, 1954, 1989.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 892 mg/L, July 10; minimum daily mean, 6 mg/L, Oct. 29-Nov. 1.
SEDIMENT LOADS: Maximum daily, 38,300 tons, May 26; minimum daily, 1.0 ton, Oct. 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | SAMPLING METHOD, CODES* (82398) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | TEMPERATURE AIR (DEG C) (00020) | TEMPERATURE WATER (DEG C) (00010) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOSPHORUS TOTAL (MG/L AS P) (00665) | BROMACIL WATER WHLREC (UG/L) (30234) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 10... | 0940 | 10 | 65 | 621 | 7.9 | 8.0 | 10.0 | 39 | 3.2 | 0.6 | 0.05 | -- |
| 10... | 1050 | 50 | 65 | -- | -- | -- | -- | 37 | 3.1 | 1.0 | 0.06 | -- |
| MAY | | | | | | | | | | | | |
| 02... | 1400 | 10 | 395 | 671 | 8.4 | 17.0 | 14.5 | 41 | 1.9 | 0.8 | 0.05 | -- |
| 02... | 1510 | 50 | 395 | -- | -- | -- | -- | 43 | 2.1 | 0.8 | 0.04 | -- |
| 09... | 1235 | 10 | 1070 | 590 | 8.0 | 13.5 | 12.0 | -- | -- | -- | -- | <0.2 |
| 09... | 1325 | 50 | 1060 | -- | -- | -- | -- | -- | -- | -- | -- | <0.2 |
| AUG | | | | | | | | | | | | |
| 27... | 1415 | 10 | 333 | 566 | 8.2 | 31.0 | 23.5 | 27 | 2.2 | 0.7 | 0.10 | -- |
| 27... | 1530 | 50 | 330 | -- | -- | -- | -- | 28 | 2.1 | 0.7 | 0.12 | -- |

| DATE | BUTACHLOR WATER WHLREC (UG/L) (30235) | BUTYLATE WATER WHLREC (UG/L) (30236) | CARBOXIN WATER WHOLE RECOVERABLE (UG/L) (30245) | CYCLOATE WATER WHOLE RECOVERABLE (UG/L) (30254) | DIPHENAMID WATER WHOLE RECOVERABLE (UG/L) (30255) | HEXAZINONE WATER WHOLE RECOVERABLE (UG/L) (30264) | PROPACHLOR WATER WHOLE RECOV. (UG/L) (30295) | TERBACIL WATER WHOLE RECOV. (UG/L) (30311) | VERNOLATE WATER WHOLE RECOV. (UG/L) (30324) | PROPAZINE TOTAL (UG/L) (39024) | TRIFLURALIN TOTAL RECOVER (UG/L) (39030) | SIMETRYNE TOTAL (UG/L) (39054) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | <0.1 | <0.1 | <0.2 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.1 | 0.1 | <0.1 | <0.1 |
| 09... | <0.1 | <0.1 | <0.2 | <0.1 | <0.1 | <0.2 | <0.1 | <0.2 | <0.1 | 0.1 | <0.1 | <0.1 |
| AUG | | | | | | | | | | | | |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

*10 - Stream cross-section sample using equal-width-increment (EWI) sampling method.
*50 - Point sample obtained from flow tank.

## 04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | SIMA-ZINE TOTAL (UG/L) (39055) | PROME-TONE TOTAL (UG/L) (39056) | PROME-TRYNE TOTAL (UG/L) (39057) | ATRA-ZINE WATER UNFLTRD REC (UG/L) (39630) | DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L) (75980) | DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L) (75981) | ALA-CHLOR TOTAL RECOVER (UG/L) (77825) | CYAN-AZINE TOTAL (UG/L) (81757) | AME-TRYNE TOTAL (UG/L) (82184) | METRI-BUZIN WATER WHOLE TOT.REC (UG/L) (82611) | METOLA-CHLOR WATER WHOLE TOT.REC (UG/L) (82612) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 02... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 09... | 1.1 | <0.2 | <0.1 | 10 | <0.2 | 0.36 | 0.4 | 2.6 | <0.1 | 0.7 | 6.5 |
| 09... | 0.6 | <0.2 | <0.1 | 5.4 | <0.2 | 0.27 | 0.2 | 1.6 | <0.1 | 0.4 | 3.6 |
| AUG | | | | | | | | | | | |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

| DATE | SEDI-MENT, SUS-PENDED (MG/L) (80154) | SEDIMENT PARTICLE SIZE <.0625MM SILTCLAY (PERCENT) (80250) |
|---|---|---|
| OCT | | |
| 10... | 12 | -- |
| 10... | -- | -- |
| MAY | | |
| 02... | 28 | 92.8 |
| 02... | -- | -- |
| 09... | 50 | -- |
| 09... | -- | -- |
| AUG | | |
| 27... | 62 | -- |
| 27... | -- | -- |

## 04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | 693 | 100 | 190 | 90 | 6 | 1.4 | 933 | 197 | 538 |
| 2 | 382 | 71 | 74 | 98 | 7 | 1.8 | 3670 | 439 | 4440 |
| 3 | 234 | 51 | 32 | 176 | 14 | 6.5 | 3930 | 364 | 3870 |
| 4 | 146 | 36 | 14 | 143 | 10 | 3.8 | 2640 | 291 | 2080 |
| 5 | 100 | 25 | 6.8 | 115 | 12 | 3.7 | 1450 | 236 | 930 |
| 6 | 81 | 16 | 3.6 | 101 | 16 | 4.3 | 844 | 188 | 430 |
| 7 | 76 | 13 | 2.7 | 99 | 16 | 4.3 | 656 | 131 | 233 |
| 8 | 64 | 12 | 2.1 | 113 | 15 | 4.6 | 550 | 89 | 133 |
| 9 | 60 | 12 | 1.9 | 109 | 14 | 4.2 | 485 | 61 | 80 |
| 10 | 63 | 11 | 1.9 | 135 | 13 | 4.8 | 431 | 45 | 52 |
| 11 | 57 | 10 | 1.6 | 138 | 12 | 4.6 | 462 | 47 | 67 |
| 12 | 51 | 9 | 1.3 | 174 | 16 | 7.5 | 4540 | 423 | 6280 |
| 13 | 50 | 9 | 1.2 | 225 | 25 | 15 | 8360 | 510 | 11500 |
| 14 | 47 | 8 | 1.0 | 234 | 20 | 13 | e7400 | 410 | 8190 |
| 15 | 45 | 9 | 1.2 | 207 | 17 | 9.4 | 6260 | 327 | 5550 |
| 16 | 45 | 10 | 1.2 | 167 | 14 | 6.5 | 3310 | 244 | 2210 |
| 17 | 46 | 10 | 1.2 | 141 | 13 | 4.8 | 5360 | 271 | 4380 |
| 18 | 55 | 10 | 1.5 | 131 | 11 | 3.9 | 10200 | 305 | 8450 |
| 19 | 79 | 10 | 2.1 | 123 | 9 | 3.1 | e7000 | 249 | 4700 |
| 20 | 73 | 10 | 2.0 | 120 | 8 | 2.7 | e4200 | 203 | 2300 |
| 21 | 85 | 10 | 2.3 | 111 | 10 | 3.0 | e1700 | 165 | 758 |
| 22 | 108 | 9 | 2.7 | 116 | 8 | 2.4 | e1200 | 135 | 436 |
| 23 | 116 | 8 | 2.6 | 120 | 8 | 2.6 | e930 | 110 | 275 |
| 24 | 116 | 9 | 2.7 | 114 | 9 | 2.9 | 2790 | 251 | 2610 |
| 25 | 99 | 9 | 2.3 | 123 | 12 | 3.9 | 5610 | 412 | 6250 |
| 26 | 90 | 8 | 2.0 | 300 | 27 | 28 | e4500 | 304 | 3690 |
| 27 | 81 | 8 | 1.7 | 2410 | 354 | 2570 | 2960 | 182 | 1490 |
| 28 | 79 | 7 | 1.5 | 3140 | 364 | 3100 | 1450 | 100 | 402 |
| 29 | 81 | 6 | 1.4 | 2040 | 267 | 1480 | 1130 | 59 | 181 |
| 30 | 106 | 6 | 1.7 | 1050 | 197 | 563 | 1590 | 69 | 300 |
| 31 | 110 | 6 | 1.8 | --- | --- | --- | 1580 | 72 | 308 |
| TOTAL | 3518 | --- | 366.0 | 12363 | --- | 7865.7 | 98121 | --- | 83113 |

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JANUARY | | | FEBRUARY | | | MARCH | |
| 1 | 1170 | 71 | 223 | e1000 | 126 | 339 | 9640 | 523 | 13800 |
| 2 | 925 | 69 | 172 | e700 | 80 | 151 | 8950 | 503 | 12300 |
| 3 | 832 | 68 | 152 | e620 | 66 | 110 | 7710 | 498 | 10400 |
| 4 | 814 | 74 | 163 | e1500 | 186 | 755 | 5570 | 417 | 6290 |
| 5 | 959 | 93 | 250 | e10000 | 791 | 21400 | 3450 | 345 | 3220 |
| 6 | 1720 | 129 | 600 | e6600 | 768 | 13700 | 3470 | 347 | 3350 |
| 7 | 1760 | 122 | 581 | e4000 | 509 | 5500 | 5090 | 365 | 5010 |
| 8 | 1130 | 104 | 317 | e2300 | 338 | 2100 | 4260 | 202 | 2350 |
| 9 | 720 | 89 | 173 | e1200 | 224 | 725 | 2910 | 117 | 934 |
| 10 | e500 | 76 | 102 | e880 | 150 | 356 | 2790 | 101 | 778 |
| 11 | e400 | 64 | 70 | e700 | 110 | 208 | 3510 | 169 | 1610 |
| 12 | e350 | 55 | 52 | e580 | 83 | 130 | 2860 | 203 | 1560 |
| 13 | e320 | 47 | 40 | e522 | 63 | 89 | 1720 | 143 | 675 |
| 14 | e300 | 40 | 32 | e470 | 52 | 65 | 3560 | 292 | 3490 |
| 15 | e370 | 37 | 37 | e410 | 43 | 48 | 6140 | 584 | 9770 |
| 16 | e480 | 53 | 68 | e360 | 36 | 35 | 4310 | 384 | 4530 |
| 17 | e400 | 50 | 54 | e320 | 31 | 26 | 2550 | 251 | 1760 |
| 18 | e370 | 44 | 44 | e400 | 30 | 33 | 1510 | 156 | 642 |
| 19 | e320 | 38 | 33 | 1760 | 130 | 686 | 1160 | 96 | 303 |
| 20 | e290 | 34 | 26 | 2310 | 142 | 886 | 989 | 73 | 196 |
| 21 | e260 | 30 | 21 | 3330 | 180 | 1720 | 875 | 60 | 142 |
| 22 | e1000 | 42 | 113 | 5070 | 297 | 4060 | 795 | 49 | 105 |
| 23 | e5000 | 304 | 4110 | 3870 | 192 | 2030 | 709 | 40 | 77 |
| 24 | e4000 | 341 | 3680 | 2280 | 120 | 753 | 610 | 33 | 54 |
| 25 | e3000 | 291 | 2350 | 1370 | 76 | 285 | 620 | 34 | 58 |
| 26 | e2500 | 248 | 1670 | 1010 | 62 | 169 | 884 | 65 | 156 |
| 27 | e2200 | 211 | 1250 | 11000 | 731 | 28600 | 863 | 51 | 119 |
| 28 | e3000 | 212 | 1720 | 16100 | 828 | 36400 | 711 | 36 | 70 |
| 29 | e5500 | 420 | 6240 | --- | --- | --- | 1140 | 83 | 343 |
| 30 | e3500 | 316 | 2990 | --- | --- | --- | 1960 | 158 | 837 |
| 31 | e2000 | 199 | 1080 | --- | --- | --- | 1990 | 154 | 826 |
| TOTAL | 46090 | --- | 28413 | 80662 | --- | 121359 | 93306 | --- | 85755 |

e Estimated

## 04198000 SANDUSKY RIVER NEAR FREMONT, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | 1550 | 134 | 562 | 391 | 30 | 32 | 14400 | 444 | 18400 |
| 2 | 1110 | 102 | 307 | 395 | 29 | 31 | 23700 | 495 | 31800 |
| 3 | 874 | 77 | 183 | 522 | 38 | 57 | 18400 | 341 | 17000 |
| 4 | 729 | 59 | 116 | 1500 | 102 | 451 | 15500 | 245 | 10300 |
| 5 | 682 | 46 | 85 | 2750 | 171 | 1270 | 8820 | 173 | 4180 |
| 6 | 836 | 50 | 112 | 2360 | 110 | 711 | 3540 | 129 | 1250 |
| 7 | 783 | 37 | 78 | 1660 | 84 | 377 | 1760 | 98 | 464 |
| 8 | 658 | 26 | 46 | 1340 | 65 | 237 | 1250 | 77 | 260 |
| 9 | 559 | 18 | 28 | 1080 | 47 | 139 | 944 | 62 | 158 |
| 10 | 471 | 17 | 21 | 1020 | 37 | 101 | 738 | 50 | 99 |
| 11 | 413 | 16 | 17 | 1080 | 35 | 103 | 613 | 47 | 78 |
| 12 | 580 | 23 | 48 | 894 | 26 | 63 | 541 | 52 | 76 |
| 13 | 2600 | 154 | 1120 | 723 | 20 | 39 | 708 | 63 | 123 |
| 14 | 2260 | 135 | 827 | 616 | 18 | 30 | 767 | 55 | 114 |
| 15 | 1640 | 80 | 359 | 556 | 18 | 26 | 557 | 48 | 73 |
| 16 | 1100 | 54 | 163 | 490 | 17 | 23 | 458 | 55 | 67 |
| 17 | 1030 | 56 | 158 | 449 | 17 | 20 | 390 | 53 | 55 |
| 18 | 1040 | 106 | 298 | 476 | 18 | 25 | 386 | 47 | 49 |
| 19 | 797 | 70 | 151 | 1720 | 129 | 703 | 468 | 46 | 58 |
| 20 | 662 | 48 | 85 | 2770 | 178 | 1330 | 507 | 45 | 62 |
| 21 | 576 | 32 | 51 | 2960 | 223 | 1790 | 435 | 43 | 50 |
| 22 | 513 | 22 | 31 | 1670 | 164 | 745 | e1160 | 254 | 796 |
| 23 | 466 | 16 | 21 | 984 | 116 | 311 | e679 | 406 | 745 |
| 24 | 429 | 17 | 20 | 710 | 95 | 182 | e420 | 218 | 247 |
| 25 | 404 | 20 | 21 | 5720 | 535 | 14600 | e260 | 145 | 101 |
| 26 | 379 | 22 | 22 | 17800 | 794 | 38300 | e560 | 188 | 284 |
| 27 | 351 | 24 | 22 | 11300 | 410 | 12800 | e680 | 252 | 463 |
| 28 | 358 | 27 | 26 | 6270 | 263 | 4520 | e280 | 197 | 149 |
| 29 | 369 | 29 | 29 | 2740 | 182 | 1360 | e250 | 185 | 125 |
| 30 | 378 | 32 | 33 | 1830 | 147 | 728 | e2100 | 553 | 3140 |
| 31 | --- | --- | --- | 2670 | 233 | 1910 | --- | --- | --- |
| TOTAL | 24597 | --- | 5040 | 77446 | --- | 83014 | 101271 | --- | 90766 |

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | e967 | 428 | 1120 | e140 | 83 | 31 | 152 | 53 | 22 |
| 2 | e826 | 266 | 594 | e209 | 70 | 40 | 137 | 40 | 15 |
| 3 | 571 | 223 | 344 | e180 | 52 | 25 | 128 | 35 | 12 |
| 4 | 410 | 195 | 216 | e160 | 53 | 23 | 114 | 35 | 11 |
| 5 | 339 | 148 | 135 | e250 | 71 | 48 | 104 | 36 | 10 |
| 6 | 279 | 120 | 91 | e350 | 62 | 59 | 97 | 36 | 9.4 |
| 7 | 255 | 115 | 79 | e260 | 57 | 40 | 90 | 34 | 8.3 |
| 8 | 227 | 113 | 69 | e209 | 61 | 34 | 88 | 32 | 7.5 |
| 9 | 4370 | 838 | 16500 | e160 | 50 | 22 | 86 | 31 | 7.2 |
| 10 | 8510 | 892 | 21300 | e125 | 36 | 12 | 94 | 31 | 7.9 |
| 11 | 4010 | 465 | 5150 | e103 | 33 | 9.2 | 111 | 31 | 9.2 |
| 12 | 1940 | 282 | 1510 | e85 | 34 | 7.9 | 301 | 90 | 98 |
| 13 | 1070 | 179 | 523 | 149 | 45 | 19 | 470 | 163 | 208 |
| 14 | 758 | 149 | 303 | 640 | 80 | 139 | 309 | 111 | 93 |
| 15 | 613 | 137 | 226 | 408 | 71 | 78 | 228 | 76 | 47 |
| 16 | 551 | 103 | 153 | 269 | 68 | 50 | 178 | 49 | 24 |
| 17 | 410 | 88 | 97 | 1580 | 187 | 975 | 140 | 36 | 14 |
| 18 | 292 | 85 | 67 | 3600 | 324 | 3190 | 114 | 31 | 9.6 |
| 19 | 236 | 76 | 48 | 3050 | 297 | 2450 | 99 | 27 | 7.2 |
| 20 | 216 | 70 | 41 | 2010 | 230 | 1250 | 292 | 82 | 72 |
| 21 | 228 | 73 | 45 | 1160 | 183 | 575 | 399 | 114 | 132 |
| 22 | 213 | 79 | 46 | 598 | 146 | 236 | 483 | 119 | 158 |
| 23 | 240 | 82 | 53 | 447 | 118 | 142 | 304 | 81 | 66 |
| 24 | 259 | 79 | 55 | 378 | 104 | 106 | 216 | 69 | 41 |
| 25 | e262 | 81 | 57 | 391 | 90 | 95 | 169 | 58 | 26 |
| 26 | e245 | 79 | 52 | 429 | 78 | 90 | 138 | 47 | 17 |
| 27 | e227 | 74 | 45 | 345 | 67 | 62 | 117 | 34 | 11 |
| 28 | e204 | 74 | 41 | 272 | 61 | 44 | 104 | 30 | 8.4 |
| 29 | e190 | 81 | 41 | 242 | 59 | 38 | 92 | 30 | 7.5 |
| 30 | e170 | 89 | 41 | 214 | 57 | 33 | 82 | 30 | 6.7 |
| 31 | e155 | 97 | 41 | 178 | 55 | 26 | --- | --- | --- |
| TOTAL | 29243 | --- | 49083 | 18591 | --- | 9949.1 | 5436 | --- | 1165.9 |
| YEAR | 590644 | | 565889.7 | | | | | | |

e Estimated

## 04199000 HURON RIVER AT MILAN, OHIO

LOCATION.--Lat 41°18'06", long 82°36'25, 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 mi².
PERIOD OF RECORD.--March 1950 to September 1980, October 1987 to current year.
REVISED RECORDS.--WSP 1912: Drainage area. WDR OH-89-2: 1988.
GAGE.--Water-stage recorder. Datum of gage is 573.26 ft above sea level. 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.--Records fair except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 100 | 108 | 1060 | 275 | e1000 | 1450 | 582 | 133 | 9550 | 539 | 30 | 32 |
| 2 | 69 | 78 | 1360 | 266 | e600 | 3260 | 382 | 134 | 7770 | 204 | 28 | 29 |
| 3 | 60 | 68 | 481 | 290 | e440 | 1580 | 293 | 1230 | 2450 | 95 | 27 | 33 |
| 4 | 55 | 62 | 276 | 286 | 2180 | 798 | 248 | 1480 | 1300 | 58 | 40 | 24 |
| 5 | 53 | 59 | 214 | 703 | 5910 | 608 | 237 | 689 | 758 | 53 | 43 | 21 |
| 6 | 51 | 57 | 169 | 692 | 1100 | 1180 | 278 | 1080 | 531 | 35 | 44 | 18 |
| 7 | 48 | 58 | 143 | e300 | 536 | 1130 | 236 | 571 | 373 | 29 | 32 | 16 |
| 8 | 47 | 80 | 127 | e200 | 370 | 777 | 178 | 380 | 307 | 28 | 27 | 15 |
| 9 | 49 | 106 | 113 | e140 | 287 | 631 | 162 | 375 | 234 | 420 | 24 | 14 |
| 10 | 52 | 192 | 102 | e110 | 243 | 993 | 150 | 331 | 175 | 434 | 23 | 296 |
| 11 | 65 | 152 | 862 | e100 | 202 | 749 | 130 | 270 | 153 | 116 | 21 | 621 |
| 12 | 154 | 115 | 4450 | e95 | 190 | 452 | 727 | 244 | 193 | 57 | 22 | 203 |
| 13 | 166 | 89 | 2090 | e90 | e160 | 343 | 1660 | 186 | 364 | 45 | 57 | 93 |
| 14 | 143 | 73 | 855 | e85 | e140 | 2710 | 727 | 159 | 220 | 39 | 136 | 62 |
| 15 | 94 | 68 | 518 | e120 | e120 | 1740 | 451 | 141 | 150 | 35 | 56 | 50 |
| 16 | 67 | 63 | 397 | e150 | e110 | 658 | 338 | 113 | 118 | 28 | 200 | 41 |
| 17 | 59 | 62 | 4320 | e120 | e120 | 463 | 708 | 103 | 85 | 21 | 1140 | 33 |
| 18 | 71 | 62 | 3450 | e110 | 263 | 402 | 745 | 266 | 112 | 19 | 1200 | 26 |
| 19 | 118 | 59 | 934 | e100 | 1250 | 360 | 470 | 1200 | 129 | 19 | 476 | 22 |
| 20 | 149 | 58 | e400 | e90 | 1000 | 322 | 325 | 613 | 103 | 19 | 208 | 1550 |
| 21 | 139 | 58 | e260 | e80 | 1310 | 288 | 248 | 326 | 73 | 16 | 115 | 775 |
| 22 | 123 | 58 | e220 | e350 | 1190 | 251 | 229 | 194 | 165 | 16 | 76 | 259 |
| 23 | 95 | 56 | e500 | e2000 | 580 | 207 | 201 | 145 | 102 | 17 | 52 | 126 |
| 24 | 91 | 57 | 2810 | e1300 | 344 | 186 | 167 | 127 | 57 | 18 | 74 | 86 |
| 25 | 78 | 73 | 1330 | e900 | 269 | 322 | 140 | 3450 | 46 | 17 | 261 | 67 |
| 26 | 76 | 1770 | e450 | e1700 | 262 | 1170 | 121 | 5560 | 165 | 310 | 219 | 55 |
| 27 | 78 | 1070 | e300 | e1100 | 9030 | 607 | 119 | 1250 | 209 | 603 | 90 | 48 |
| 28 | 70 | 390 | e240 | e3000 | 3990 | 391 | 145 | 610 | 84 | 183 | 60 | 43 |
| 29 | 67 | 218 | 529 | e2500 | --- | 487 | 138 | 431 | 73 | 61 | 48 | 40 |
| 30 | 92 | 228 | 463 | e2000 | --- | 618 | 129 | 399 | 604 | 38 | 40 | 37 |
| 31 | 156 | --- | 334 | e1500 | --- | 907 | --- | 2500 | --- | 34 | 35 | --- |
| TOTAL | 2735 | 5647 | 29757 | 20752 | 33196 | 26040 | 10664 | 24690 | 26653 | 3606 | 4904 | 4735 |
| MEAN | 88.2 | 188 | 960 | 669 | 1186 | 840 | 355 | 796 | 888 | 116 | 158 | 158 |
| MAX | 166 | 1770 | 4450 | 3000 | 9030 | 3260 | 1660 | 5560 | 9550 | 603 | 1200 | 1550 |
| MIN | 47 | 56 | 102 | 80 | 110 | 186 | 119 | 103 | 46 | 16 | 21 | 14 |
| CFSM | .24 | .51 | 2.59 | 1.80 | 3.20 | 2.26 | .96 | 2.15 | 2.39 | .31 | .43 | .43 |
| IN. | .27 | .57 | 2.98 | 2.08 | 3.33 | 2.61 | 1.07 | 2.48 | 2.67 | .36 | .49 | .47 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 55.8 | 175 | 351 | 458 | 545 | 698 | 564 | 324 | 230 | 176 | 85.5 | 77.2 |
| MAX | 402 | 1259 | 1909 | 1302 | 1422 | 1697 | 1536 | 929 | 980 | 1821 | 514 | 573 |
| (WY) | 1991 | 1973 | 1991 | 1952 | 1959 | 1978 | 1957 | 1967 | 1981 | 1969 | 1958 | 1972 |
| MIN | 7.86 | 14.0 | 9.23 | 26.8 | 24.0 | 117 | 86.0 | 46.5 | 14.9 | 11.8 | 11.3 | 5.76 |
| (WY) | 1964 | 1964 | 1964 | 1977 | 1964 | 1981 | 1971 | 1962 | 1988 | 1963 | 1952 | 1955 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1951 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 148347.3 | | 193379 | | | |
| ANNUAL MEAN | 405 | | 530 | | 310 | |
| HIGHEST ANNUAL MEAN | | | | | 530 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 145 | 1953 |
| HIGHEST DAILY MEAN | 6530 | Feb 28 | 9550 | Jun 1 | 31400 | Jul 5 1969 |
| LOWEST DAILY MEAN | 8.7 | Sep 6 | 14 | Sep 9 | 3.0 | Sep 10 1955 |
| ANNUAL SEVEN-DAY MINIMUM | 9.0 | Aug 31 | 17 | Jul 19 | 3.4 | Sep 16 1955 |
| INSTANTANEOUS PEAK FLOW | | | 12300 | Feb 27 a | 49600 | Jul 5 1969 |
| INSTANTANEOUS PEAK STAGE | | | 20.68 | Feb 27 | 31.10 | Jul 5 1969 |
| INSTANTANEOUS LOW FLOW | | | 14 | Sep 9 | 2.2 | Sep 10 1955 |
| ANNUAL RUNOFF (CFSM) | 1.09 | | 1.43 | | .84 | |
| ANNUAL RUNOFF (INCHES) | 14.87 | | 19.39 | | 11.37 | |
| 10 PERCENT EXCEEDS | 1050 | | 1250 | | 708 | |
| 50 PERCENT EXCEEDS | 100 | | 169 | | 85 | |
| 90 PERCENT EXCEEDS | 18 | | 35 | | 15 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04199155 OLD WOMAN'S CREEK AT BERLIN ROAD NEAR HURON, OHIO

LOCATION.--Lat 41°20'54", long 82°30'50, Erie County, Hydrologic Unit 04100012, on left downstream side of Berlin Road Bridge, 3.8 mi southeast of Huron.
DRAINAGE AREA.--22.1 mi².
PERIOD OF RECORD.--October 1987 to September 1994, October 1995 to current year.
REVISED RECORDS.--WSP 1912: Drainage area. WDR OH-89-2: 1988.
GAGE.--Water-stage recorder. Datum of gage is 570 ft above sea level. Erie county benchmark.
REMARKS.--Records good except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.6 | 14 | 114 | 17 | 12 | 47 | 25 | 10 | 814 | 17 | .01 | 1.3 |
| 2 | 6.6 | 10 | 53 | 20 | 12 | 240 | 18 | 9.7 | 231 | 12 | .00 | 1.6 |
| 3 | 4.6 | 8.0 | 25 | 20 | 16 | 53 | 15 | 218 | 106 | 5.2 | .00 | 4.1 |
| 4 | 3.4 | 6.9 | 21 | 18 | 257 | 34 | 13 | 108 | 46 | 3.2 | .78 | 1.7 |
| 5 | 2.9 | 6.4 | 19 | 61 | 230 | 30 | 14 | 39 | 27 | 2.2 | 2.7 | 1.0 |
| 6 | 2.6 | 6.0 | 17 | 27 | 41 | 68 | 17 | 101 | 18 | 1.6 | .67 | .70 |
| 7 | 2.2 | 6.9 | 15 | e12 | 25 | 51 | 12 | 34 | 14 | 1.2 | .21 | .55 |
| 8 | 1.9 | 35 | 13 | e10 | e17 | 61 | 9.1 | 24 | 12 | 1.1 | .09 | 1.0 |
| 9 | 2.8 | 76 | 11 | e6.8 | e15 | 37 | 8.1 | 25 | 9.4 | 3.3 | .05 | .58 |
| 10 | 4.9 | 121 | 11 | e5.4 | e13 | 71 | 7.4 | 36 | 7.9 | 2.4 | .09 | 23 |
| 11 | 4.4 | 37 | 244 | e5.0 | e12 | 32 | 7.2 | 27 | 6.6 | 1.4 | .04 | 15 |
| 12 | 3.8 | 21 | 253 | e.80 | e8.6 | 21 | 110 | 19 | 6.2 | .98 | .21 | 5.6 |
| 13 | 2.9 | 15 | 76 | e4.7 | e8.0 | 18 | 65 | 14 | 6.3 | .72 | 4.5 | 3.5 |
| 14 | 2.4 | 13 | 37 | e4.6 | e9.4 | 298 | 31 | 12 | 5.0 | .56 | 1.8 | 2.3 |
| 15 | 2.0 | 11 | 26 | e4.5 | e6.4 | 55 | 20 | 13 | 4.2 | .46 | .90 | 1.8 |
| 16 | 2.0 | 9.6 | 27 | e6.4 | e7.4 | 26 | 16 | 10 | 3.7 | .37 | 82 | 1.3 |
| 17 | 1.9 | 9.2 | 501 | e9.4 | e9.2 | 22 | 25 | 9.3 | 3.7 | .39 | 300 | 1.1 |
| 18 | 45 | 9.7 | 93 | e5.8 | e40 | 22 | 24 | 26 | 6.0 | .33 | 87 | 1.0 |
| 19 | 117 | 9.3 | e20 | e4.3 | 77 | 22 | 16 | 122 | 5.8 | .23 | 20 | 2.3 |
| 20 | 111 | 8.1 | e13 | e3.0 | 50 | 19 | 12 | 36 | 4.1 | .15 | 8.8 | 412 |
| 21 | 69 | 7.3 | e11 | e2.0 | 77 | 17 | 11 | 18 | 3.5 | .13 | 8.2 | 39 |
| 22 | 37 | 6.5 | e10 | e80 | 48 | 16 | 16 | 13 | 32 | .26 | 5.9 | 15 |
| 23 | 35 | 6.1 | e15 | e50 | 22 | 14 | 13 | 10 | 9.4 | .34 | 4.4 | 9.4 |
| 24 | 28 | 6.1 | 225 | e18 | e14 | 13 | 10 | 9.0 | 5.4 | .35 | 8.0 | 6.6 |
| 25 | 16 | 19 | e30 | 66 | e11 | 32 | 8.5 | 106 | 3.8 | .31 | 24 | 5.0 |
| 26 | 12 | 321 | e17 | e15 | e14 | 83 | 7.4 | 55 | 6.7 | 1.2 | 8.3 | 3.7 |
| 27 | 9.7 | 45 | e15 | e25 | 811 | 30 | 7.0 | 20 | 4.8 | 1.2 | 5.1 | 2.7 |
| 28 | 9.0 | 25 | 26 | 169 | 86 | 20 | 15 | 13 | 3.1 | .50 | 3.2 | 2.4 |
| 29 | 8.5 | 19 | 42 | e20 | --- | 24 | 12 | 13 | 2.5 | .24 | 2.1 | 2.1 |
| 30 | 63 | 43 | 26 | e15 | --- | 31 | 9.5 | 15 | 14 | .09 | 1.7 | 1.8 |
| 31 | 25 | --- | 20 | 13 | --- | 62 | --- | 234 | --- | .04 | 1.4 | --- |
| TOTAL | 646.1 | 931.1 | 2026 | 718.70 | 1949.0 | 1569 | 574.2 | 1399.0 | 1422.1 | 59.45 | 582.15 | 569.13 |
| MEAN | 20.8 | 31.0 | 65.4 | 23.2 | 69.6 | 50.6 | 19.1 | 45.1 | 47.4 | 1.92 | 18.8 | 19.0 |
| MAX | 117 | 321 | 501 | 169 | 811 | 298 | 110 | 234 | 814 | 17 | 300 | 412 |
| MIN | 1.9 | 6.0 | 10 | .80 | 6.4 | 13 | 7.0 | 9.0 | 2.5 | .04 | .00 | .55 |
| CFSM | .94 | 1.40 | 2.96 | 1.05 | 3.15 | 2.29 | .87 | 2.04 | 2.14 | .09 | .85 | .86 |
| IN. | 1.09 | 1.57 | 3.41 | 1.21 | 3.28 | 2.64 | .97 | 2.35 | 2.39 | .10 | .98 | .96 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 4.68 | 15.1 | 25.6 | 33.2 | 34.6 | 33.3 | 41.2 | 20.6 | 16.5 | 5.24 | 6.26 | 7.67 |
| MAX | 20.8 | 68.4 | 98.2 | 74.8 | 78.6 | 86.3 | 65.9 | 52.2 | 47.4 | 35.1 | 23.7 | 23.1 |
| (WY) | 1997 | 1993 | 1991 | 1993 | 1990 | 1993 | 1996 | 1989 | 1997 | 1992 | 1992 | 1996 |
| MIN | .001 | .31 | .70 | 8.03 | 10.3 | 12.4 | 18.4 | 2.20 | .17 | .010 | .000 | .000 |
| (WY) | 1995 | 1992 | 1992 | 1988 | 1989 | 1990 | 1988 | 1988 | 1988 | 1991 | 1991 | 1991 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1988 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 11242.37 | | 12445.93 | | | |
| ANNUAL MEAN | 30.7 | | 34.1 | | 20.2 | |
| HIGHEST ANNUAL MEAN | | | | | 34.1 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 8.77 | 1988 |
| HIGHEST DAILY MEAN | 611 | Apr 23 | 814 | Jun 1 | 814 | Jun 1 1997 |
| LOWEST DAILY MEAN | .00 | Aug 11 | .00 | Aug 2 | .00 | Jun 15 1988 |
| ANNUAL SEVEN-DAY MINIMUM | .00 | Aug 19 | .13 | Jul 28 | .00 | Jun 15 1988 |
| INSTANTANEOUS PEAK FLOW | | | 1940 | Feb 27 a | 1940 | Feb 27 1997 |
| INSTANTANEOUS PEAK STAGE | | | 11.81 | Feb 27 | 11.81 | Feb 27 1997 |
| INSTANTANEOUS LOW FLOW | | | .00 | Aug 3 | .00 | Sep 9 1991 |
| ANNUAL RUNOFF (CFSM) | 1.39 | | 1.54 | | .92 | |
| ANNUAL RUNOFF (INCHES) | 18.92 | | 20.95 | | 12.44 | |
| 10 PERCENT EXCEEDS | 64 | | 76 | | 44 | |
| 50 PERCENT EXCEEDS | 9.6 | | 12 | | 4.8 | |
| 90 PERCENT EXCEEDS | .41 | | 1.0 | | .00 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04200500 BLACK RIVER AT ELYRIA, OHIO

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 mi².
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 sea level.
REMARKS.--Records fair except for periods of estimated record and for discharges greater than 1,000 ft³/s, which are poor. Some regulation at low flow for industrial use. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 450 | 574 | 2310 | 312 | 243 | 1130 | 609 | 212 | 6270 | 128 | 9.6 | 21 |
| 2 | 253 | 314 | 3050 | 292 | 215 | 2220 | 353 | 201 | 9590 | 113 | 9.0 | 21 |
| 3 | 161 | 219 | 1190 | 324 | 251 | 1800 | 238 | 296 | 4290 | 55 | 8.5 | 24 |
| 4 | 115 | 170 | 597 | 313 | 745 | 738 | 188 | 1090 | 1400 | 37 | 15 | 17 |
| 5 | 87 | 145 | 460 | 410 | 2650 | 520 | 173 | 756 | 755 | 28 | 17 | 14 |
| 6 | 69 | 129 | 390 | 679 | 1800 | 1310 | 175 | 701 | 414 | 24 | 14 | 13 |
| 7 | 58 | 129 | 358 | 418 | 648 | 1380 | 170 | 495 | 264 | 22 | 12 | 12 |
| 8 | 50 | 176 | 310 | 229 | e300 | 808 | 139 | 322 | 190 | 20 | 11 | 12 |
| 9 | 62 | 935 | 262 | e150 | e240 | 572 | 108 | 286 | 147 | 53 | 10 | 10 |
| 10 | 89 | 2330 | 232 | e120 | e200 | 787 | 91 | 447 | 119 | 37 | 9.4 | 31 |
| 11 | 109 | 1300 | 1040 | e110 | e170 | 930 | 83 | 477 | 96 | 29 | 16 | 31 |
| 12 | 105 | 723 | 5340 | e130 | e150 | 495 | 603 | 317 | 83 | 23 | 12 | 32 |
| 13 | 91 | 435 | 4650 | e160 | e130 | 338 | 2280 | 220 | 197 | 22 | 33 | 24 |
| 14 | 68 | 309 | 1150 | e120 | e120 | 1560 | 960 | 169 | 262 | 19 | 23 | 19 |
| 15 | 55 | 243 | 609 | e100 | e115 | 2110 | 480 | 137 | 163 | 18 | 55 | 17 |
| 16 | 46 | 201 | 463 | e94 | e110 | 760 | 315 | 123 | 104 | 16 | 149 | 15 |
| 17 | 40 | 190 | 2850 | e86 | e140 | 404 | 339 | 117 | 76 | 14 | 787 | 12 |
| 18 | 262 | 247 | 4280 | e80 | e200 | 323 | 414 | 121 | 66 | 14 | 597 | 13 |
| 19 | 2390 | 310 | 1350 | e72 | 1370 | 309 | 352 | 975 | 62 | 13 | 254 | 36 |
| 20 | 2290 | 276 | e350 | e64 | 1440 | 281 | 247 | 517 | 66 | 11 | 116 | 1430 |
| 21 | 1520 | 222 | e270 | e60 | 1030 | 246 | 189 | 322 | 67 | 11 | 84 | 594 |
| 22 | 1290 | 184 | e230 | e58 | 942 | 239 | 168 | 201 | 151 | 12 | 229 | 252 |
| 23 | 809 | 157 | e260 | e66 | 601 | 219 | 153 | 138 | 63 | 11 | 162 | 132 |
| 24 | 693 | 142 | 1970 | e100 | 353 | 181 | 164 | 110 | 48 | 11 | 110 | 80 |
| 25 | 529 | 248 | 2310 | e600 | 253 | 265 | 221 | 1060 | 39 | 11 | 173 | 54 |
| 26 | 355 | 3300 | 653 | e500 | 227 | 1010 | 183 | 4010 | 66 | 20 | 173 | 41 |
| 27 | 246 | 3790 | 439 | e380 | 5610 | 602 | 148 | 2190 | 148 | 16 | 122 | 32 |
| 28 | 198 | 1260 | 350 | e600 | 4810 | 370 | 267 | 523 | 64 | 20 | 68 | 26 |
| 29 | 180 | 557 | 628 | 1000 | --- | 438 | 366 | 324 | 42 | 17 | 46 | 21 |
| 30 | 592 | 668 | 636 | 557 | --- | 791 | 263 | 267 | 33 | 12 | 33 | 17 |
| 31 | 1090 | --- | 419 | 321 | --- | 797 | --- | 735 | --- | 11 | 25 | --- |
| TOTAL | 14352 | 19883 | 39406 | 8505 | 25063 | 23933 | 10439 | 17859 | 25335 | 848 | 3382.5 | 3053 |
| MEAN | 463 | 663 | 1271 | 274 | 895 | 772 | 348 | 576 | 845 | 27.4 | 109 | 102 |
| MAX | 2390 | 3790 | 5340 | 1000 | 5610 | 2220 | 2280 | 4010 | 9590 | 128 | 787 | 1430 |
| MIN | 40 | 129 | 230 | 58 | 110 | 181 | 83 | 110 | 33 | 11 | 8.5 | 10 |
| CFSM | 1.17 | 1.67 | 3.21 | .69 | 2.26 | 1.95 | .88 | 1.45 | 2.13 | .07 | .28 | .26 |
| IN. | 1.35 | 1.87 | 3.70 | .80 | 2.35 | 2.25 | .98 | 1.68 | 2.38 | .08 | .32 | .29 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 64.2 | 233 | 403 | 482 | 606 | 797 | 624 | 363 | 215 | 140 | 69.8 | 79.9 |
| MAX | 463 | 1238 | 1885 | 1825 | 1505 | 1866 | 1728 | 1122 | 1245 | 1472 | 529 | 701 |
| (WY) | 1997 | 1986 | 1991 | 1952 | 1959 | 1978 | 1957 | 1969 | 1947 | 1969 | 1958 | 1972 |
| MIN | 2.34 | 5.78 | 5.82 | 8.48 | 16.6 | 135 | 22.0 | 50.0 | 10.6 | 7.42 | 4.72 | 2.84 |
| (WY) | 1945 | 1945 | 1945 | 1945 | 1964 | 1953 | 1946 | 1963 | 1988 | 1991 | 1952 | 1946 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1945 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 210358.2 | | 192058.5 | | | |
| ANNUAL MEAN | 575 | | 526 | | 338 | |
| HIGHEST ANNUAL MEAN | | | | | 534 | 1973 |
| LOWEST ANNUAL MEAN | | | | | 130 | 1953 |
| HIGHEST DAILY MEAN | 8370 | Jan 19 | 9590 | Jun 2 | 24900 | Jan 22 1959 |
| LOWEST DAILY MEAN | 5.4 | Sep 3 | 8.5 | Aug 3 | .60 | Oct 5 1944 |
| ANNUAL SEVEN-DAY MINIMUM | 5.6 | Aug 31 | 11 | Jul 19 | 1.4 | Oct 1 1944 |
| INSTANTANEOUS PEAK FLOW | | | 10400 | Jun 2 a | 51700 | Jul 6 1969 |
| INSTANTANEOUS PEAK STAGE | | | 15.03 | Jun 2 | 26.40 | Jul 6 1969 |
| INSTANTANEOUS LOW FLOW | | | 8.5 | Aug 3 | .00 | Oct 10 1956 |
| ANNUAL RUNOFF (CFSM) | 1.45 | | 1.33 | | .85 | |
| ANNUAL RUNOFF (INCHES) | 19.76 | | 18.04 | | 11.61 | |
| 10 PERCENT EXCEEDS | 1510 | | 1290 | | 824 | |
| 50 PERCENT EXCEEDS | 202 | | 201 | | 74 | |
| 90 PERCENT EXCEEDS | 14 | | 17 | | 10 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04201500 ROCKY RIVER NEAR BEREA, OHIO

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 mi².
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. WDR-OH-2-1983: 1978-1982(M).
GAGE.--Water-stage recorder. Datum of gage is 649.90 ft above sea level (Cuyahoga County benchmark). Prior to Sept. 30, 1935, nonrecording gage at same site and datum.
REMARKS.--Records good except for periods of estimated record, which are poor. 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 and sediment data collected at this site.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 20.9 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 220 | 339 | 3130 | 209 | e160 | 594 | 457 | 186 | 8030 | 219 | 28 | 37 |
| 2 | 148 | 234 | 1700 | 222 | e140 | 2180 | 284 | 187 | 4890 | 192 | 28 | 30 |
| 3 | 104 | 200 | 568 | 263 | e130 | 946 | 229 | 662 | 1830 | 82 | 28 | 86 |
| 4 | 85 | 174 | 435 | 231 | e500 | 492 | 196 | 1440 | 1120 | 54 | 37 | 41 |
| 5 | 70 | 142 | 355 | 453 | 2480 | 424 | 195 | 474 | 454 | 45 | 41 | 35 |
| 6 | 62 | 124 | 323 | 518 | 660 | 1550 | 237 | 729 | 286 | 36 | 39 | 29 |
| 7 | 55 | 120 | 287 | 253 | 356 | 864 | 188 | 410 | 206 | 34 | 29 | 25 |
| 8 | 55 | 591 | 229 | 168 | e220 | 690 | 143 | 259 | 171 | 32 | 25 | 23 |
| 9 | 91 | 1330 | 217 | 179 | e190 | 484 | 127 | 321 | 140 | 134 | 23 | 61 |
| 10 | 243 | 1930 | 209 | 159 | e160 | 1190 | 117 | 429 | 114 | 103 | 18 | 150 |
| 11 | 248 | 1070 | 1800 | 379 | e150 | 625 | 107 | 534 | 98 | 57 | 23 | 113 |
| 12 | 151 | 580 | 5210 | e210 | e130 | 366 | 1570 | 294 | 95 | 42 | 25 | 78 |
| 13 | 97 | 431 | 1250 | e170 | e120 | 279 | 2260 | 220 | 136 | 33 | 173 | 62 |
| 14 | 72 | 348 | 557 | e150 | e110 | 2100 | 610 | 175 | 166 | 31 | 103 | 50 |
| 15 | 61 | 288 | 366 | e130 | e105 | 1370 | 338 | 183 | 105 | 28 | 89 | 42 |
| 16 | 59 | 260 | 383 | e170 | e100 | 445 | 258 | 222 | 75 | 27 | 506 | 35 |
| 17 | 54 | 402 | 3680 | e140 | e100 | 315 | 431 | 182 | 90 | 26 | 1380 | 32 |
| 18 | 1070 | 1030 | 1660 | e120 | e210 | 281 | 428 | 318 | 80 | 25 | 713 | 34 |
| 19 | 4240 | 558 | 531 | e110 | 1440 | 292 | 312 | 981 | 122 | 24 | 201 | 37 |
| 20 | 2990 | 320 | e250 | e100 | 1130 | 243 | 214 | 639 | 99 | 20 | 100 | 3340 |
| 21 | 1510 | 233 | e180 | e94 | 715 | 216 | 178 | 282 | 73 | 19 | 88 | 718 |
| 22 | 1010 | 189 | e160 | e250 | 575 | 301 | 185 | 183 | 191 | 25 | 736 | 225 |
| 23 | 666 | 161 | e240 | e450 | 320 | 266 | 177 | 145 | 72 | 24 | 276 | 145 |
| 24 | 600 | 142 | 3100 | e800 | 222 | 221 | 274 | 116 | 51 | 23 | 213 | 112 |
| 25 | 359 | 404 | 965 | e500 | 181 | 370 | 259 | 2390 | 50 | 23 | 348 | 83 |
| 26 | 246 | 4630 | 380 | e350 | 183 | 1150 | 171 | 2890 | 408 | 35 | 205 | 63 |
| 27 | 186 | 1350 | 306 | e250 | 6250 | 502 | 137 | 540 | 192 | 45 | 111 | 54 |
| 28 | 167 | 534 | 314 | 1620 | 1690 | 314 | 357 | 285 | 82 | 43 | 75 | 47 |
| 29 | 175 | 372 | 443 | e400 | --- | 423 | 318 | 249 | 56 | 47 | 60 | 40 |
| 30 | 1590 | 748 | 314 | e250 | --- | 513 | 196 | 309 | 42 | 35 | 52 | 48 |
| 31 | 885 | --- | 245 | e180 | --- | 825 | --- | 862 | --- | 29 | 45 | --- |
| TOTAL | 17569 | 19234 | 29787 | 9478 | 18727 | 20831 | 10953 | 17096 | 19524 | 1592 | 5818 | 5875 |
| MEAN | 567 | 641 | 961 | 306 | 669 | 672 | 365 | 551 | 651 | 51.4 | 188 | 196 |
| MAX | 4240 | 4630 | 5210 | 1620 | 6250 | 2180 | 2260 | 2890 | 8030 | 219 | 1380 | 3340 |
| MIN | 54 | 120 | 160 | 94 | 100 | 216 | 107 | 116 | 42 | 19 | 18 | 23 |
| CFSM | 2.12 | 2.40 | 3.60 | 1.15 | 2.50 | 2.52 | 1.37 | 2.07 | 2.44 | .19 | .70 | .73 |
| IN. | 2.45 | 2.68 | 4.15 | 1.32 | 2.61 | 2.90 | 1.53 | 2.38 | 2.72 | .22 | .81 | .82 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 95.2 | 225 | 348 | 410 | 475 | 599 | 501 | 297 | 178 | 115 | 74.7 | 106 |
| MAX | 935 | 1080 | 1534 | 1398 | 1245 | 1253 | 1374 | 845 | 911 | 887 | 553 | 820 |
| (WY) | 1927 | 1986 | 1991 | 1930 | 1959 | 1984 | 1961 | 1984 | 1947 | 1992 | 1935 | 1924 |
| MIN | 1.25 | 9.14 | 8.15 | 32.4 | 17.0 | 141 | 40.9 | 17.6 | 10.1 | 4.25 | .90 | .94 |
| (WY) | 1934 | 1964 | 1964 | 1945 | 1934 | 1969 | 1946 | 1934 | 1933 | 1954 | 1933 | 1933 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1924 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 202512 | | 176484 | | | |
| ANNUAL MEAN | 553 | | 484 | | 284 | |
| HIGHEST ANNUAL MEAN | | | | | 484 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 79.5 | 1934 |
| HIGHEST DAILY MEAN | 6160 | Jan 19 | 8030 | Jun 1 | 14300 | Jan 22 1959 |
| LOWEST DAILY MEAN | 11 | Sep 3 | 18 | Aug 10 | .20 | Sep 2 1932 |
| ANNUAL SEVEN-DAY MINIMUM | 13 | Aug 30 | 23 | Jul 19 | .27 | Aug 21 1933 |
| INSTANTANEOUS PEAK FLOW | | | 9930 | Jun 1 a | 21400 | Jan 22 1959 |
| INSTANTANEOUS PEAK STAGE | | | 7.12 | Jun 1 | 18.60 | Jun 29 1924 |
| INSTANTANEOUS LOW FLOW | | | 18 | Aug 10 | .20 | Sep 2 1932 |
| ANNUAL RUNOFF (CFSM) | 2.07 | | 1.81 | | 1.06 | |
| ANNUAL RUNOFF (INCHES) | 28.22 | | 24.59 | | 14.46 | |
| 10 PERCENT EXCEEDS | 1240 | | 1170 | | 660 | |
| 50 PERCENT EXCEEDS | 242 | | 210 | | 83 | |
| 90 PERCENT EXCEEDS | 33 | | 37 | | 10 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04202000 CUYAHOGA RIVER AT HIRAM RAPIDS, OHIO

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 mi².
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 sea level. 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.--Records good except for periods estimated record, which are poor. 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.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3670 ft³/s Jan. 23, 1959, gage height 8.11 ft; minimum daily, 6.6 ft³/s Sept. 10, 1933.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 349 | 257 | 575 | 367 | 283 | 1380 | 393 | 152 | 464 | 65 | 93 | 44 |
| 2 | 327 | 262 | 657 | 335 | 253 | 1210 | 402 | 144 | 998 | 61 | 93 | 52 |
| 3 | 296 | 241 | 797 | 321 | 247 | 986 | 365 | 165 | 1720 | 63 | 95 | 93 |
| 4 | 267 | 216 | 805 | 319 | 281 | 826 | 318 | 209 | 1780 | 66 | 98 | 112 |
| 5 | 246 | 189 | 681 | 330 | 464 | 684 | 270 | 231 | 1410 | 60 | 98 | 141 |
| 6 | 234 | 166 | 564 | 357 | 556 | 654 | 223 | 306 | 1010 | 54 | 98 | 148 |
| 7 | 224 | 148 | 489 | 365 | 605 | 645 | 182 | 375 | 729 | 51 | 95 | 149 |
| 8 | 214 | 179 | 427 | 352 | 556 | 626 | 151 | 413 | 548 | 48 | 86 | 149 |
| 9 | 208 | 231 | 377 | 319 | 477 | 583 | 132 | 388 | 416 | 54 | 88 | 159 |
| 10 | 220 | 330 | 333 | 262 | 391 | 609 | 123 | 340 | 287 | 51 | 91 | 185 |
| 11 | 228 | 425 | 352 | 152 | 336 | 659 | 117 | 302 | 200 | 51 | 91 | 208 |
| 12 | 233 | 477 | 574 | e105 | 282 | 697 | 201 | 282 | 147 | 72 | 89 | 222 |
| 13 | 231 | 488 | 730 | e98 | 248 | 637 | 384 | 262 | 120 | 84 | 96 | 221 |
| 14 | 224 | 475 | 829 | e92 | 212 | 667 | 469 | 231 | 114 | 86 | 105 | 214 |
| 15 | 214 | 455 | 765 | e86 | 213 | 771 | 481 | 211 | 105 | 84 | 94 | 202 |
| 16 | 188 | 425 | 634 | e120 | 202 | 853 | 423 | 224 | 94 | 84 | e150 | 188 |
| 17 | 141 | 389 | 606 | e110 | 191 | 784 | 357 | 238 | 94 | 83 | e190 | 177 |
| 18 | 116 | 422 | 651 | e100 | 194 | 668 | 299 | 235 | 118 | 86 | e180 | 165 |
| 19 | 202 | 477 | 691 | e92 | 279 | 565 | 255 | 249 | 147 | 104 | e140 | 155 |
| 20 | 360 | 552 | 625 | e86 | 426 | 491 | 218 | 329 | 148 | 122 | 101 | 192 |
| 21 | 538 | 591 | 546 | e84 | 514 | 433 | 182 | 472 | 136 | 124 | 73 | 230 |
| 22 | 652 | 558 | 416 | e110 | 551 | 414 | 167 | 502 | 127 | 126 | 101 | 260 |
| 23 | 641 | 497 | 342 | 261 | 522 | 388 | 179 | 435 | 107 | 131 | 156 | 244 |
| 24 | 568 | 433 | 421 | 310 | 471 | 365 | 185 | 330 | 88 | 133 | 193 | 213 |
| 25 | 492 | 385 | 518 | 381 | 401 | 349 | 196 | 268 | 81 | 126 | 193 | 182 |
| 26 | 423 | 485 | 617 | 422 | 329 | 385 | 200 | 283 | 105 | 109 | 163 | 163 |
| 27 | 342 | 615 | 569 | 380 | 499 | 406 | 177 | 294 | 103 | 104 | 124 | 152 |
| 28 | 272 | 749 | 513 | 418 | 937 | 400 | 179 | 281 | 85 | 100 | 87 | 145 |
| 29 | 225 | 701 | 471 | 405 | --- | 370 | 185 | 240 | 72 | 98 | 63 | 140 |
| 30 | 212 | 585 | 438 | 354 | --- | 336 | 172 | 210 | 67 | 96 | 52 | 140 |
| 31 | 236 | --- | 401 | 307 | --- | 358 | --- | 204 | --- | 95 | 47 | --- |
| TOTAL | 9323 | 12403 | 17414 | 7800 | 10920 | 19199 | 7585 | 8805 | 11620 | 2671 | 3423 | 5045 |
| MEAN | 301 | 413 | 562 | 252 | 390 | 619 | 253 | 284 | 387 | 86.2 | 110 | 168 |
| MAX | 652 | 749 | 829 | 422 | 937 | 1380 | 481 | 502 | 1780 | 133 | 193 | 260 |
| MIN | 116 | 148 | 333 | 84 | 191 | 336 | 117 | 144 | 67 | 48 | 47 | 44 |
| CFSM | 1.99 | 2.74 | 3.72 | 1.67 | 2.58 | 4.10 | 1.67 | 1.88 | 2.57 | .57 | .73 | 1.11 |
| IN. | 2.30 | 3.06 | 4.29 | 1.92 | 2.69 | 4.73 | 1.87 | 2.17 | 2.86 | .66 | .84 | 1.24 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 112 | 207 | 281 | 275 | 358 | 458 | 351 | 206 | 135 | 101 | 95.0 | 112 |
| MAX | 315 | 616 | 816 | 707 | 883 | 835 | 649 | 569 | 542 | 325 | 307 | 374 |
| (WY) | 1991 | 1986 | 1978 | 1993 | 1976 | 1963 | 1961 | 1984 | 1989 | 1969 | 1992 | 1975 |
| MIN | 39.0 | 33.5 | 45.2 | 43.5 | 56.6 | 174 | 134 | 59.8 | 35.2 | 48.4 | 37.1 | 36.6 |
| (WY) | 1984 | 1992 | 1961 | 1961 | 1963 | 1989 | 1986 | 1987 | 1991 | 1991 | 1961 | 1967 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1961 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 114329 | | 116208 | | | |
| ANNUAL MEAN | 312 | | 318 | | 224 | |
| HIGHEST ANNUAL MEAN | | | | | 318 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 131 | 1962 |
| HIGHEST DAILY MEAN | 2140 | Jan 20 | 1780 | Jun 4 | 3250 | Feb 18 1976 |
| LOWEST DAILY MEAN | 56 | Sep 3 | 44 | Sep 1 | 12 | Sep 19 1967 |
| ANNUAL SEVEN-DAY MINIMUM | 61 | Aug 28 | 53 | Jul 5 | 13 | Sep 16 1967 |
| INSTANTANEOUS PEAK FLOW | | | 1860 | Jun 3 | 3320 | Feb 18 1976 |
| INSTANTANEOUS PEAK STAGE | | | 5.84 | Jun 3 | 7.67 | Feb 18 1976 |
| INSTANTANEOUS LOW FLOW | | | 42 | Sep 2 | 12 | Sep 19 1967 |
| ANNUAL RUNOFF (CFSM) | 2.07 | | 2.11 | | 1.48 | |
| ANNUAL RUNOFF (INCHES) | 28.17 | | 28.63 | | 20.12 | |
| 10 PERCENT EXCEEDS | 651 | | 629 | | 524 | |
| 50 PERCENT EXCEEDS | 214 | | 244 | | 129 | |
| 90 PERCENT EXCEEDS | 72 | | 90 | | 44 | |

e Estimated.

## 04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO

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 mi².
PERIOD OF RECORD.--September 1921 to December 1935, March 1939 to current year.
REVISED RECORDS.--WSP 1307: 1924(M). WSP 1912: Drainage area. WDR OH-79-2: 1974 (M), 1976 (M).
GAGE.--Water-stage recorder. Datum of gage is 740.11 ft above sea level, unadjusted. Prior to Dec. 21, 1923, nonrecording gage at same site and datum.
REMARKS.--Records good except for periods of estimated record, which are fair. Natural flow of stream affected by diversions, storage reservoirs, and powerplants. At Lake Rockwell, 17.7 mi upstream from gage, an average of 66 ft³/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. Satellite telemeter at gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 604 | 266 | 1610 | 719 | 625 | 1480 | 592 | 397 | 2110 | 248 | 114 | 136 |
| 2 | 616 | 224 | 1490 | 705 | 561 | 2330 | 571 | 363 | 2510 | 242 | 125 | 131 |
| 3 | 533 | 217 | 1240 | 666 | 531 | 2100 | 552 | 577 | 2370 | 199 | 130 | 139 |
| 4 | 400 | 295 | 1260 | 630 | 817 | 1660 | 516 | 645 | 2590 | 183 | 222 | 133 |
| 5 | 364 | 479 | 1270 | 732 | 1250 | 1560 | 486 | 572 | 2580 | 177 | 143 | 129 |
| 6 | 341 | 826 | 1140 | 729 | 1130 | 1790 | 444 | 590 | 2210 | 172 | 127 | 110 |
| 7 | 387 | 729 | 977 | 676 | 1030 | 1550 | 391 | 571 | 1710 | 158 | 121 | 145 |
| 8 | 330 | 501 | 823 | 637 | 1030 | 1320 | 335 | 616 | 1290 | 149 | 116 | 175 |
| 9 | 318 | 532 | 733 | 591 | 910 | 1290 | 306 | 677 | 921 | 291 | 112 | 176 |
| 10 | 556 | 975 | 642 | 562 | 769 | 1560 | 282 | 652 | 689 | 386 | 108 | 325 |
| 11 | 450 | 948 | 1340 | 466 | 636 | 1400 | 273 | 614 | 558 | 177 | 94 | 313 |
| 12 | 390 | 916 | 2080 | 412 | 593 | 1230 | 680 | 567 | 519 | 149 | 98 | 277 |
| 13 | 353 | 860 | 1880 | e380 | 498 | 1190 | 1060 | 512 | 582 | 147 | 135 | 265 |
| 14 | 341 | 810 | 1710 | e350 | 493 | 1560 | 920 | 477 | 423 | 143 | 111 | 267 |
| 15 | 337 | 737 | 1690 | e320 | 480 | 1570 | 769 | 542 | 353 | 134 | 127 | 252 |
| 16 | 302 | 693 | 1530 | e390 | 437 | 1340 | 798 | 475 | 313 | 136 | 314 | 242 |
| 17 | 286 | 644 | 1830 | e340 | 399 | 1310 | 997 | 461 | 339 | 135 | 572 | 220 |
| 18 | 793 | 765 | 1700 | e320 | 450 | 1250 | 810 | 461 | 483 | 131 | 416 | 220 |
| 19 | 1070 | 795 | 1410 | e300 | 647 | 1060 | 656 | 570 | 436 | 125 | 304 | 215 |
| 20 | 1220 | 741 | 1210 | e290 | 889 | 892 | 543 | 616 | 377 | 121 | 243 | 1040 |
| 21 | 1230 | 777 | 1040 | e280 | 959 | 758 | 503 | 583 | 374 | 105 | 205 | 627 |
| 22 | 1180 | 797 | 949 | e400 | 981 | 732 | 507 | 617 | 341 | 114 | 193 | 393 |
| 23 | 1250 | 769 | 923 | 571 | 947 | 680 | 477 | 656 | 283 | 131 | 195 | 339 |
| 24 | 1210 | 701 | 1410 | 601 | 849 | 604 | 511 | 611 | 260 | 169 | 250 | 314 |
| 25 | 1050 | 854 | 1300 | 805 | 746 | 627 | 485 | 1250 | 205 | 142 | 449 | 272 |
| 26 | 866 | 1520 | 1030 | 773 | 667 | 700 | 432 | 1340 | 305 | 150 | 329 | 234 |
| 27 | 717 | 1350 | 1090 | 863 | 1210 | 662 | 422 | 897 | 272 | 151 | 284 | 220 |
| 28 | 650 | 1140 | 1110 | 1100 | 1390 | 627 | 555 | 696 | 243 | 158 | 233 | 199 |
| 29 | 882 | 1150 | 1000 | 931 | --- | 610 | 500 | 749 | 209 | 142 | 180 | 194 |
| 30 | 1380 | 1180 | 886 | 779 | --- | 596 | 452 | 690 | 198 | 126 | 161 | 182 |
| 31 | 498 | --- | 802 | 680 | --- | 641 | --- | 898 | --- | 214 | 143 | --- |
| TOTAL | 20904 | 23191 | 39105 | 17998 | 21924 | 36679 | 16825 | 19942 | 26053 | 5205 | 6354 | 7884 |
| MEAN | 674 | 773 | 1261 | 581 | 783 | 1183 | 561 | 643 | 868 | 168 | 205 | 263 |
| MAX | 1380 | 1520 | 2080 | 1100 | 1390 | 2330 | 1060 | 1340 | 2590 | 386 | 572 | 1040 |
| MIN | 286 | 217 | 642 | 280 | 399 | 596 | 273 | 363 | 198 | 105 | 94 | 110 |
| CFSM | 1.67 | 1.91 | 3.12 | 1.44 | 1.94 | 2.93 | 1.39 | 1.59 | 2.15 | .42 | .51 | .65 |
| IN. | 1.92 | 2.14 | 3.60 | 1.66 | 2.02 | 3.38 | 1.55 | 1.84 | 2.40 | .48 | .59 | .73 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 218 | 329 | 476 | 571 | 667 | 881 | 737 | 475 | 316 | 232 | 183 | 211 |
| MAX | 1205 | 1307 | 1516 | 1807 | 1592 | 1416 | 1520 | 1253 | 1371 | 676 | 772 | 1150 |
| (WY) | 1927 | 1986 | 1928 | 1952 | 1976 | 1927 | 1940 | 1996 | 1989 | 1976 | 1992 | 1926 |
| MIN | 50.8 | 56.5 | 48.3 | 83.3 | 86.1 | 282 | 166 | 77.0 | 72.4 | 50.4 | 56.9 | 47.1 |
| (WY) | 1934 | 1964 | 1964 | 1961 | 1963 | 1931 | 1935 | 1934 | 1988 | 1954 | 1962 | 1964 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1922 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 267581 | | 242064 | | | |
| ANNUAL MEAN | 731 | | 663 | | 440 | |
| HIGHEST ANNUAL MEAN | | | | | 669 | 1927 |
| LOWEST ANNUAL MEAN | | | | | 181 | 1934 |
| HIGHEST DAILY MEAN | 2820 | Jan 19 | 2590 | Jun 4 | 6040 | Jan 22 1959 |
| LOWEST DAILY MEAN | 99 | Aug 19 | 94 | Aug 11 | 24 | Sep 24 1964 |
| ANNUAL SEVEN-DAY MINIMUM | 117 | Jul 23 | 111 | Aug 8 | 40 | Oct 30 1944 |
| INSTANTANEOUS PEAK FLOW | | | 2790 | Dec 11 | 6500 | Jan 21 1959 |
| INSTANTANEOUS PEAK STAGE | | | 7.75 | Dec 11 | 13.29 | Sep 14 1979 |
| INSTANTANEOUS LOW FLOW | | | 73 | Aug 11 | 26 | Sep 2 1945 |
| ANNUAL RUNOFF (CFSM) | 1.81 | | 1.64 | | 1.09 | |
| ANNUAL RUNOFF (INCHES) | 24.64 | | 22.29 | | 14.81 | |
| 10 PERCENT EXCEEDS | 1650 | | 1330 | | 1040 | |
| 50 PERCENT EXCEEDS | 551 | | 571 | | 268 | |
| 90 PERCENT EXCEEDS | 150 | | 148 | | 77 | |

e Estimated.

## 04206208 YELLOW CREEK AT GHENT, OHIO

LOCATION.--Lat 41°09'29", long 81°38'32", Summit County, Hydrologic Unit 04110002, on left downstream bank at driveway bridge of Creekside Farm at 3680 Granger Road, 150 ft south of Granger Road, 0.25 mi west of Cleveland-Massillon Road, 2.9 mi northwest of Akron corporate boundary.
DRAINAGE AREA.--12.7 mi².
PERIOD OF RECORD.--October 1, 1991 to current year.
GAGE.--Water-stage recorder. Elevation of gage is 908 ft above sea level, from topographic map.
REMARKS.--Records fair except for periods of estimated record and discharges less than 3.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.7 | 13 | 75 | 14 | 12 | 24 | 18 | 12 | 182 | 7.6 | 2.5 | 3.5 |
| 2 | 5.7 | 9.9 | 38 | 15 | 12 | 51 | 16 | 12 | 103 | 7.4 | 2.6 | 3.3 |
| 3 | 4.4 | 8.6 | 20 | 14 | 13 | 29 | 14 | 38 | 53 | 6.7 | 2.4 | 3.3 |
| 4 | 4.3 | 7.9 | 18 | 14 | 45 | 23 | 14 | 31 | 34 | 6.0 | 5.5 | 2.9 |
| 5 | 4.2 | 7.6 | 16 | 21 | 62 | 32 | 15 | 18 | 25 | 5.4 | 4.0 | 2.7 |
| 6 | 3.9 | 7.4 | 16 | 17 | 24 | 51 | 14 | 19 | 21 | 5.2 | 3.0 | 2.5 |
| 7 | 3.8 | 8.0 | 14 | 13 | 18 | 31 | 13 | 16 | 18 | 5.1 | 2.5 | 2.5 |
| 8 | 3.9 | 22 | 13 | 12 | 16 | 28 | 13 | 15 | 17 | 4.9 | 2.5 | 2.4 |
| 9 | 5.5 | 20 | 13 | 12 | 14 | 27 | 12 | 18 | 15 | 10 | 2.6 | 2.6 |
| 10 | 9.8 | 28 | 12 | 12 | 13 | 50 | 12 | 18 | 14 | 7.4 | 2.5 | 13 |
| 11 | 8.0 | 19 | 85 | e12 | 13 | 29 | 12 | 17 | 13 | 5.7 | 2.8 | 6.3 |
| 12 | 6.2 | 15 | 87 | e11 | 13 | 23 | 52 | 15 | 12 | 4.9 | 2.8 | 3.9 |
| 13 | 5.3 | 12 | 34 | e11 | e12 | 20 | 35 | 15 | e18 | 4.6 | 6.4 | 3.4 |
| 14 | 4.7 | 11 | 24 | e10 | 12 | 63 | 21 | 14 | 13 | 4.5 | 4.3 | 3.2 |
| 15 | 4.6 | 9.4 | 21 | e10 | 12 | 37 | 17 | 21 | 12 | 4.2 | 3.4 | 3.1 |
| 16 | 4.4 | 8.8 | 23 | e17 | e12 | 25 | 17 | 16 | 11 | 4.1 | 9.1 | 2.9 |
| 17 | 4.2 | 9.8 | 90 | e13 | e12 | 22 | 19 | 14 | 11 | 4.1 | 21 | 3.1 |
| 18 | 31 | 18 | 41 | e11 | 16 | 22 | 18 | 14 | e22 | 4.1 | 11 | 3.5 |
| 19 | 44 | 14 | 23 | 10 | 35 | 20 | 16 | 19 | 15 | 3.8 | 5.5 | 3.5 |
| 20 | 49 | 12 | e17 | e9.4 | 27 | 19 | 15 | 18 | e11 | 3.5 | 4.4 | 43 |
| 21 | 25 | 10 | e15 | e9.0 | 23 | 18 | 14 | 15 | e10 | 3.5 | 4.5 | 11 |
| 22 | 18 | 9.1 | 14 | 49 | 18 | 19 | 15 | 13 | e9.0 | 4.1 | 4.9 | 6.1 |
| 23 | 16 | 8.4 | 24 | 49 | 14 | 17 | 14 | 13 | 7.9 | 4.0 | 6.5 | 5.0 |
| 24 | 14 | 8.0 | 80 | 34 | 12 | 16 | 15 | 13 | 7.7 | 4.1 | 6.1 | 4.3 |
| 25 | 12 | 23 | 28 | 45 | 11 | 21 | 14 | 96 | 7.5 | 4.0 | 15 | 3.7 |
| 26 | 8.7 | 89 | e20 | 19 | 13 | 27 | 13 | 47 | e12 | 3.7 | 6.9 | 3.5 |
| 27 | 7.7 | 32 | 19 | 23 | 76 | 20 | 13 | 23 | 7.7 | 3.5 | 4.8 | 3.5 |
| 28 | 8.3 | 20 | 19 | 46 | 33 | 17 | 18 | 17 | 7.1 | 3.3 | 4.1 | 3.3 |
| 29 | 9.0 | 16 | 18 | e20 | --- | 17 | 14 | 18 | 6.6 | 3.0 | 3.7 | 3.1 |
| 30 | 41 | 19 | 15 | e15 | --- | 17 | 13 | 18 | 6.8 | 2.7 | 3.6 | 2.8 |
| 31 | 19 | --- | 14 | 12 | --- | 21 | --- | 53 | --- | 2.4 | 3.5 | --- |
| TOTAL | 392.3 | 495.9 | 946 | 579.4 | 593 | 836 | 506 | 686 | 702.3 | 147.5 | 164.4 | 160.9 |
| MEAN | 12.7 | 16.5 | 30.5 | 18.7 | 21.2 | 27.0 | 16.9 | 22.1 | 23.4 | 4.76 | 5.30 | 5.36 |
| MAX | 49 | 89 | 90 | 49 | 76 | 63 | 52 | 96 | 182 | 10 | 21 | 43 |
| MIN | 3.8 | 7.4 | 12 | 9.0 | 11 | 16 | 12 | 12 | 6.6 | 2.4 | 2.4 | 2.4 |
| CFSM | 1.00 | 1.30 | 2.40 | 1.47 | 1.67 | 2.12 | 1.33 | 1.74 | 1.84 | .37 | .42 | .42 |
| IN. | 1.15 | 1.45 | 2.77 | 1.70 | 1.74 | 2.45 | 1.48 | 2.01 | 2.06 | .43 | .48 | .47 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 6.54 | 13.8 | 14.4 | 19.7 | 15.2 | 21.7 | 22.0 | 14.8 | 13.1 | 7.90 | 5.84 | 7.29 |
| MAX | 12.7 | 25.3 | 30.5 | 33.9 | 21.2 | 37.5 | 29.7 | 25.8 | 23.4 | 24.3 | 15.0 | 20.0 |
| (WY) | 1997 | 1993 | 1997 | 1993 | 1997 | 1993 | 1994 | 1996 | 1997 | 1992 | 1992 | 1992 |
| MIN | 3.31 | 4.63 | 6.68 | 7.89 | 9.42 | 12.9 | 13.6 | 9.09 | 5.48 | 3.62 | 2.04 | 2.21 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1995 | 1995 | 1995 | 1995 | 1994 | 1993 | 1993 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1992 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 6246.1 | | 6209.7 | | | |
| ANNUAL MEAN | 17.1 | | 17.0 | | 13.5 | |
| HIGHEST ANNUAL MEAN | | | | | 17.0 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 8.48 | 1995 |
| HIGHEST DAILY MEAN | 144 | Jan 19 | 182 | Jun 1 | 182 | Jun 1 1997 |
| LOWEST DAILY MEAN | 1.5 | Sep 3 | 2.4 | Jul 31 | 1.1 | Aug 31 1993 |
| ANNUAL SEVEN-DAY MINIMUM | 1.6 | Aug 30 | 2.7 | Aug 6 | 1.3 | Aug 26 1993 |
| INSTANTANEOUS PEAK FLOW | | | 207 | Jun 1 a | 243 | Apr 12 1994 |
| INSTANTANEOUS PEAK STAGE | | | 12.76 | Jun 1 | 12.94 | Apr 12 1994 |
| INSTANTANEOUS LOW FLOW | | | 1.9 | Aug 7 | .02 | Aug 31 1993 |
| ANNUAL RUNOFF (CFSM) | 1.34 | | 1.34 | | 1.06 | |
| ANNUAL RUNOFF (INCHES) | 18.30 | | 18.19 | | 14.45 | |
| 10 PERCENT EXCEEDS | 35 | | 34 | | 26 | |
| 50 PERCENT EXCEEDS | 12 | | 13 | | 8.8 | |
| 90 PERCENT EXCEEDS | 3.5 | | 3.5 | | 2.8 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04206210 NORTH FORK AT BATH, OHIO

LOCATION.--Lat 41°11'20", long 81°39'12", Summit County, Hydrologic Unit 04110002, on right upstream bank at triple barrel culvert under Ira Road, 0.9 mi west of Cleveland-Massillon Road, 4.7 mi northwest of Akron corporate boundary.
DRAINAGE AREA.--2.81 mi².
PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage recorder. Elevation of gage is 996 ft above sea level, from topographic map.
REMARKS.--Records fair except for periods of estimated record and discharges less than 6.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .40 | 1.4 | 40 | 3.3 | 3.1 | 5.2 | 2.2 | 1.8 | 92 | .72 | .19 | .34 |
| 2 | .40 | 1.0 | 9.4 | 5.4 | 4.1 | 24 | 1.1 | 1.7 | 39 | .72 | .20 | .32 |
| 3 | .57 | .90 | 4.8 | 4.2 | 5.1 | 7.1 | .76 | 22 | 21 | .53 | .20 | .76 |
| 4 | .55 | .75 | 5.8 | 3.7 | 33 | 4.7 | .63 | 12 | 12 | .47 | .67 | .35 |
| 5 | .54 | .69 | 5.0 | 11 | 24 | 14 | .84 | 6.1 | 8.4 | .44 | .32 | .32 |
| 6 | .56 | .60 | 5.8 | 5.0 | 8.0 | 18 | .71 | 9.8 | 6.6 | .42 | .24 | .31 |
| 7 | .60 | 2.0 | 3.9 | 3.0 | 5.2 | 8.1 | .44 | 5.0 | 5.0 | .40 | .20 | .29 |
| 8 | 1.1 | 13 | 3.3 | 2.7 | 3.6 | 5.8 | .39 | 5.0 | 4.2 | .38 | .19 | .30 |
| 9 | 3.8 | 14 | 3.3 | 2.7 | e3.0 | 4.8 | .38 | 6.3 | 3.6 | 3.2 | .18 | .33 |
| 10 | 3.6 | 13 | 3.2 | 2.6 | e2.5 | 15 | .34 | 7.5 | 3.0 | .63 | .19 | 3.6 |
| 11 | 2.0 | 6.6 | 64 | e1.8 | e2.1 | 4.4 | .32 | 5.1 | 2.6 | .43 | .23 | .51 |
| 12 | .79 | 3.4 | 32 | e1.6 | e1.9 | 2.3 | 31 | 4.1 | 2.6 | .38 | .75 | .40 |
| 13 | .65 | 2.3 | 16 | e1.5 | e1.8 | 1.7 | 13 | 2.7 | 9.2 | .36 | 4.7 | .33 |
| 14 | .68 | 1.7 | 10 | e1.4 | e1.7 | 32 | 6.6 | 2.8 | 4.0 | .35 | .44 | .32 |
| 15 | .69 | 1.2 | 8.3 | e1.3 | e1.6 | 7.9 | 3.8 | 7.1 | 2.5 | .34 | .37 | .32 |
| 16 | .84 | 1.2 | 16 | 5.8 | e1.5 | e2.5 | 3.5 | 4.3 | 2.2 | .32 | 20 | .31 |
| 17 | 1.6 | 3.5 | 48 | 3.6 | e1.5 | e2.1 | 6.6 | 3.2 | 2.1 | .32 | 20 | .30 |
| 18 | 20 | 9.6 | 14 | e2.8 | 9.6 | e2.8 | 5.6 | 2.8 | 5.9 | .33 | 6.3 | .32 |
| 19 | 27 | 2.9 | 7.8 | e2.5 | 35 | 2.3 | 3.0 | 8.5 | 3.3 | .28 | .71 | .63 |
| 20 | 24 | 1.8 | 5.0 | e2.1 | 16 | 1.7 | 2.1 | 5.5 | 2.1 | .27 | .44 | 31 |
| 21 | 8.5 | 1.4 | 4.0 | e2.0 | 12 | 1.4 | 1.6 | 2.6 | 1.6 | .28 | .48 | 1.6 |
| 22 | 5.7 | 1.0 | 4.5 | 23 | 6.8 | 5.9 | 2.1 | 1.5 | 1.3 | .32 | 1.9 | .47 |
| 23 | 4.4 | .85 | 17 | 13 | e3.3 | 2.0 | 1.7 | 1.1 | 1.1 | .34 | 1.4 | .43 |
| 24 | 2.6 | .79 | 39 | 5.2 | e2.5 | 1.2 | 5.8 | .91 | .78 | .32 | 3.4 | .37 |
| 25 | 1.4 | 15 | 8.7 | 24 | e2.1 | 7.6 | 2.2 | 56 | 3.8 | .31 | 4.5 | .32 |
| 26 | .93 | 39 | 5.9 | 5.0 | e3.5 | 11 | 1.2 | 15 | 10 | .31 | .83 | .29 |
| 27 | .74 | 6.5 | 5.8 | 12 | 44 | 3.2 | 1.3 | 7.1 | 1.7 | .33 | .54 | .27 |
| 28 | 1.0 | 3.7 | 7.6 | 24 | 8.9 | 2.0 | 8.0 | 4.7 | .88 | .29 | .46 | .26 |
| 29 | .95 | 3.2 | 6.3 | e3.0 | --- | 2.7 | 2.6 | 7.6 | .65 | .25 | .39 | .27 |
| 30 | 23 | 9.2 | 4.4 | 2.9 | --- | 4.2 | 1.7 | 6.9 | .56 | .19 | .35 | .41 |
| 31 | 3.1 | --- | 3.7 | 2.9 | --- | 6.2 | --- | 30 | --- | .19 | .35 | --- |
| TOTAL | 142.69 | 162.18 | 412.5 | 185.0 | 247.4 | 213.8 | 111.51 | 256.71 | 253.67 | 14.42 | 71.12 | 46.05 |
| MEAN | 4.60 | 5.41 | 13.3 | 5.97 | 8.84 | 6.90 | 3.72 | 8.28 | 8.46 | .47 | 2.29 | 1.53 |
| MAX | 27 | 39 | 64 | 24 | 44 | 32 | 31 | 56 | 92 | 3.2 | 20 | 31 |
| MIN | .40 | .60 | 3.2 | 1.3 | 1.5 | 1.2 | .32 | .91 | .56 | .19 | .18 | .26 |
| CFSM | 1.64 | 1.92 | 4.74 | 2.12 | 3.14 | 2.45 | 1.32 | 2.95 | 3.01 | .17 | .82 | .55 |
| IN. | 1.89 | 2.15 | 5.46 | 2.45 | 3.28 | 2.83 | 1.48 | 3.40 | 3.36 | .19 | .94 | .61 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1.71 | 4.46 | 4.47 | 7.48 | 5.74 | 6.84 | 6.24 | 3.68 | 3.25 | 2.31 | 1.40 | 1.62 |
| MAX | 4.60 | 7.87 | 13.3 | 12.5 | 8.92 | 13.0 | 10.5 | 8.28 | 8.46 | 9.23 | 3.84 | 3.47 |
| (WY) | 1997 | 1994 | 1997 | 1993 | 1996 | 1993 | 1994 | 1997 | 1997 | 1992 | 1992 | 1992 |
| MIN | .34 | .56 | 1.04 | 2.31 | 3.11 | 4.07 | 3.72 | 1.01 | .38 | .40 | .25 | .33 |
| (WY) | 1995 | 1995 | 1996 | 1992 | 1995 | 1992 | 1997 | 1992 | 1992 | 1996 | 1993 | 1994 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1992 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 2099.37 | | 2117.05 | | | |
| ANNUAL MEAN | 5.74 | | 5.80 | | 4.09 | |
| HIGHEST ANNUAL MEAN | | | | | 5.80 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 2.40 | 1995 |
| HIGHEST DAILY MEAN | 90 | Jan 19 | 92 | Jun 1 | 156 | Jan 28 1994 |
| LOWEST DAILY MEAN | .07 | Aug 6 | .18 | Aug 9 | .01 | Jul 4 1992 |
| ANNUAL SEVEN-DAY MINIMUM | .11 | Aug 25 | .22 | Jul 28 | .01 | Jul 3 1992 |
| INSTANTANEOUS PEAK FLOW | | | 219 | Dec 11 a | 635 | Jul 30 1992 |
| INSTANTANEOUS PEAK STAGE | | | 12.70 | Dec 11 | 15.21 | Jul 30 1992 |
| INSTANTANEOUS LOW FLOW | | | .16 | Jul 30 | .01 | Jul 4 1992 |
| ANNUAL RUNOFF (CFSM) | 2.04 | | 2.06 | | 1.46 | |
| ANNUAL RUNOFF (INCHES) | 27.79 | | 28.03 | | 19.78 | |
| 10 PERCENT EXCEEDS | 14 | | 15 | | 9.2 | |
| 50 PERCENT EXCEEDS | 1.8 | | 2.5 | | 1.3 | |
| 90 PERCENT EXCEEDS | .20 | | .32 | | .29 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04206211 PARK CREEK AT BATH CENTER, OHIO

LOCATION.--Lat 41°10'44", long 81°38'09", Summit County, Hydrologic Unit 04110002, on upstream left bank at culvert under the entrance of the Bath Community Center, 200 ft east of Cleveland-Massillon Road, 0.7 mi north of Bath Road, 3.7 mi northwest of Akron corporate boundary.
DRAINAGE AREA.--0.826 mi².
PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage recorder. Elevation of gage is 980 ft above sea level, from topographic map.
REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .28 | 1.2 | 15 | 1.0 | 1.0 | 1.9 | 1.1 | .43 | 38 | .10 | .02 | .07 |
| 2 | .27 | 1.1 | 3.2 | 1.2 | .95 | 6.8 | 1.0 | .61 | 11 | .10 | .02 | .07 |
| 3 | .23 | 1.0 | 2.0 | 1.1 | 1.0 | 2.0 | .98 | 7.1 | 3.6 | .08 | .02 | .07 |
| 4 | .15 | .67 | 1.8 | 1.1 | 12 | 1.8 | .65 | 2.5 | 1.7 | .07 | .02 | .06 |
| 5 | .14 | .65 | 1.6 | 2.4 | 5.9 | 5.9 | .80 | 1.6 | 1.2 | .05 | .02 | .05 |
| 6 | .14 | .47 | 1.6 | 1.3 | 2.2 | 4.5 | .80 | 2.0 | 1.0 | .05 | .02 | .04 |
| 7 | .14 | .98 | 1.4 | e.70 | 1.4 | 2.6 | .59 | 1.4 | 1.0 | .05 | .01 | .03 |
| 8 | .14 | 3.6 | 1.2 | e.45 | 1.3 | 2.0 | .47 | 1.5 | .90 | .05 | .01 | .02 |
| 9 | .56 | 3.4 | 1.3 | e.35 | 1.3 | 2.7 | .40 | 1.6 | .65 | .39 | .01 | .02 |
| 10 | .52 | 3.3 | 1.3 | e.30 | 1.1 | 3.8 | .34 | 1.6 | .65 | .23 | .01 | .35 |
| 11 | .19 | 1.9 | 25 | e.28 | .84 | 1.8 | .34 | 1.3 | .65 | .14 | .01 | .05 |
| 12 | .10 | 1.5 | 6.0 | e.26 | .76 | 1.1 | 13 | 1.2 | .65 | .09 | .01 | .05 |
| 13 | .10 | 1.3 | 2.8 | e.25 | e1.0 | 1.0 | 3.3 | 1.1 | 2.3 | .07 | .17 | .05 |
| 14 | .10 | 1.2 | 1.6 | e.25 | .95 | 11 | 1.6 | 1.3 | .66 | .06 | .12 | .05 |
| 15 | .10 | 1.1 | 1.2 | 1.5 | .47 | 2.8 | 1.2 | 1.8 | .34 | .05 | .09 | .05 |
| 16 | .10 | 1.1 | 3.1 | 7.3 | e.43 | e1.6 | 1.2 | 1.1 | .34 | .05 | 4.8 | .05 |
| 17 | .10 | 1.4 | 15 | .48 | e.41 | 1.4 | 1.5 | 1.0 | .29 | .05 | 3.0 | .05 |
| 18 | 6.7 | 2.1 | 2.4 | .29 | 2.9 | 1.5 | 1.1 | 1.0 | 1.4 | .05 | .72 | .05 |
| 19 | 7.0 | 1.3 | e1.1 | .28 | 6.4 | 1.3 | .89 | 1.6 | .35 | .05 | .21 | .72 |
| 20 | 5.3 | 1.2 | e.92 | .30 | 2.7 | 1.1 | .72 | 1.1 | .29 | .05 | .14 | 8.0 |
| 21 | 2.5 | 1.1 | e.84 | .30 | 1.8 | 1.2 | .65 | .58 | .27 | .05 | .13 | 1.2 |
| 22 | 1.9 | .95 | .82 | 14 | .96 | 1.8 | .85 | .46 | .22 | .05 | .34 | 1.0 |
| 23 | 1.8 | .65 | 4.5 | 2.4 | .65 | 1.1 | .66 | .47 | .19 | .04 | .27 | .87 |
| 24 | 1.4 | .62 | 11 | e1.3 | .50 | .99 | 1.4 | .44 | .13 | .03 | .65 | .32 |
| 25 | 1.2 | 7.8 | 2.3 | 4.9 | e.50 | 2.5 | .77 | 17 | .11 | .03 | 1.4 | .23 |
| 26 | 1.1 | 11 | e1.3 | e1.2 | 1.5 | 2.6 | .49 | 3.1 | .49 | .03 | .78 | .14 |
| 27 | .87 | 2.0 | 1.2 | 6.2 | 15 | 1.2 | .57 | 1.5 | .26 | .03 | .11 | .09 |
| 28 | .89 | 1.5 | 1.7 | e3.0 | 2.4 | 1.1 | 1.6 | 1.2 | .22 | .03 | .08 | .07 |
| 29 | .82 | 1.4 | 1.2 | e1.2 | --- | 1.1 | .62 | 1.7 | .14 | .03 | .07 | .07 |
| 30 | 6.9 | 2.2 | 1.0 | e1.1 | --- | 1.7 | .40 | 1.5 | .10 | .03 | .07 | .07 |
| 31 | 1.5 | --- | 1.0 | 1.0 | --- | 1.6 | --- | 14 | --- | .02 | .07 | --- |
| TOTAL | 43.24 | 59.69 | 116.38 | 57.69 | 68.32 | 75.49 | 39.99 | 74.79 | 69.10 | 2.20 | 13.40 | 13.96 |
| MEAN | 1.39 | 1.99 | 3.75 | 1.86 | 2.44 | 2.44 | 1.33 | 2.41 | 2.30 | .071 | .43 | .47 |
| MAX | 7.0 | 11 | 25 | 14 | 15 | 11 | 13 | 17 | 38 | .39 | 4.8 | 8.0 |
| MIN | .10 | .47 | .82 | .25 | .41 | .99 | .34 | .43 | .10 | .02 | .01 | .02 |
| CFSM | 1.68 | 2.40 | 4.52 | 2.24 | 2.94 | 2.93 | 1.61 | 2.91 | 2.78 | .09 | .52 | .56 |
| IN. | 1.94 | 2.68 | 5.22 | 2.59 | 3.06 | 3.38 | 1.79 | 3.35 | 3.10 | .10 | .60 | .63 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | .37 | 1.27 | 1.51 | 2.21 | 1.24 | 1.84 | 1.79 | 1.11 | .98 | .67 | .39 | .47 |
| MAX | 1.39 | 3.46 | 3.95 | 3.45 | 2.44 | 3.06 | 2.71 | 2.41 | 2.30 | 2.84 | .86 | 1.09 |
| (WY) | 1997 | 1993 | 1993 | 1993 | 1997 | 1993 | 1996 | 1997 | 1997 | 1992 | 1994 | 1992 |
| MIN | .012 | .038 | .21 | 1.20 | .43 | .83 | 1.26 | .31 | .12 | .004 | .000 | .030 |
| (WY) | 1995 | 1995 | 1992 | 1992 | 1993 | 1994 | 1995 | 1993 | 1992 | 1996 | 1993 | 1993 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1992 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 650.19 | | 634.25 | | | |
| ANNUAL MEAN | 1.78 | | 1.74 | | 1.15 | |
| HIGHEST ANNUAL MEAN | | | | | 1.74 | 1997 |
| LOWEST ANNUAL MEAN | | | | | .66 | 1995 |
| HIGHEST DAILY MEAN | 27 | May 11 | 38 | Jun 1 | 38 | Jun 1 1997 |
| LOWEST DAILY MEAN | .00 | Jun 30 | .01 | Aug 7 | .00 | Jul 17 1993 |
| ANNUAL SEVEN-DAY MINIMUM | .00 | Jul 2 | .01 | Aug 6 | .00 | Jul 17 1993 |
| INSTANTANEOUS PEAK FLOW | | | 92 | Dec 11 a | 162 | Dec 30 1992 |
| INSTANTANEOUS PEAK STAGE | | | 13.27 | Dec 11 | 15.18 | Dec 30 1992 |
| INSTANTANEOUS LOW FLOW | | | .01 | Aug 7 | .00 | Aug 21 1993 |
| ANNUAL RUNOFF (CFSM) | 2.14 | | 2.09 | | 1.39 | |
| ANNUAL RUNOFF (INCHES) | 29.14 | | 28.43 | | 18.89 | |
| 10 PERCENT EXCEEDS | 4.0 | | 3.3 | | 2.7 | |
| 50 PERCENT EXCEEDS | .77 | | .95 | | .31 | |
| 90 PERCENT EXCEEDS | .00 | | .05 | | .01 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04206212 NORTH FORK AT BATH CENTER, OHIO

LOCATION.--Lat 41°10'08", long 81°38'04", Summit County, Hydrologic Unit 04110002, on left upstream side of bridge on Bath Road, 750 ft east of Cleveland-Massillon Road at Bath Center, 3.1 mi northwest of Akron corporate boundary.
DRAINAGE AREA.--5.58 mi².
PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage recorder. Elevation of gage is 936 ft above sea level, from topographic map.
REMARKS.--Records fair except for periods of estimated record and discharges of less than 5 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | 4.4 | 65 | 4.7 | 4.7 | 10 | 7.4 | 4.5 | 159 | 1.4 | .39 | .61 |
| 2 | 1.4 | 3.6 | 17 | 7.2 | 5.4 | 34 | 5.7 | 4.6 | 57 | 1.3 | .39 | .58 |
| 3 | .95 | 3.3 | 10 | 5.9 | 6.4 | 12 | 5.0 | 33 | 23 | 1.1 | .39 | 1.2 |
| 4 | .66 | 3.1 | 9.8 | 5.4 | 47 | 9.8 | 4.6 | 17 | 12 | .93 | .99 | .57 |
| 5 | .61 | 2.6 | 8.2 | 13 | 28 | 24 | 5.2 | 9.1 | 8.5 | .75 | .70 | .50 |
| 6 | .61 | 2.2 | 8.9 | 7.3 | 11 | 26 | 4.9 | 12 | 6.4 | .89 | .49 | .50 |
| 7 | .61 | 4.7 | 6.6 | e4.0 | 8.3 | 13 | 3.7 | 8.0 | 4.5 | .86 | .41 | .50 |
| 8 | .61 | 23 | 5.5 | e3.4 | 6.8 | 11 | 3.3 | 7.8 | 4.0 | .79 | .38 | .50 |
| 9 | 2.7 | 22 | 5.8 | e3.1 | 5.6 | 11 | 3.0 | 8.8 | 3.7 | 3.3 | .38 | .51 |
| 10 | 4.3 | 23 | 5.6 | e2.9 | 4.8 | 23 | 3.1 | 9.8 | 3.2 | 1.2 | .38 | 3.9 |
| 11 | 2.4 | 12 | 102 | e2.8 | 4.3 | 10 | 3.2 | 7.8 | 3.2 | .98 | .39 | .90 |
| 12 | 1.2 | 8.6 | 37 | e2.7 | e4.0 | 8.0 | 56 | 6.9 | 3.2 | .80 | .39 | .62 |
| 13 | .88 | 6.6 | 16 | e2.7 | e3.9 | 7.1 | 18 | 5.1 | 11 | .75 | 3.7 | .60 |
| 14 | .67 | 4.9 | 10 | e2.7 | e3.8 | 51 | 10 | 5.2 | 4.3 | .75 | .79 | .51 |
| 15 | .61 | 4.1 | 8.6 | 2.9 | e3.7 | 14 | 7.9 | 9.8 | 3.1 | .66 | .63 | .50 |
| 16 | .61 | 4.0 | 15 | 5.5 | 3.6 | 9.1 | 7.2 | 6.6 | 2.5 | .52 | 23 | .50 |
| 17 | .65 | 6.6 | 66 | e3.4 | 3.9 | 8.4 | 9.9 | 5.4 | 2.4 | .51 | 19 | .50 |
| 18 | 31 | 16 | 16 | e3.1 | 12 | 8.9 | 8.8 | 4.9 | 7.4 | .54 | 6.2 | .49 |
| 19 | 45 | 7.0 | 9.6 | e3.0 | 35 | 7.9 | 6.4 | 10 | 4.0 | .50 | 1.5 | 1.1 |
| 20 | 38 | 4.7 | 6.7 | e2.9 | 16 | 6.4 | 5.0 | 7.4 | 3.1 | .49 | .88 | 36 |
| 21 | 15 | 3.9 | 4.8 | 2.9 | 13 | 6.1 | 4.6 | 4.6 | 2.7 | .45 | 1.1 | 2.7 |
| 22 | 11 | 3.5 | 5.0 | 19 | 8.8 | 11 | 5.1 | 3.8 | 2.2 | .50 | 2.4 | 1.3 |
| 23 | 9.5 | 3.2 | 19 | 11 | 6.6 | 6.7 | 4.3 | 3.5 | 1.7 | .50 | 2.3 | 1.2 |
| 24 | 7.1 | 3.2 | 53 | 6.8 | 5.5 | 5.4 | 8.8 | 3.5 | 1.6 | .50 | 3.6 | 1.4 |
| 25 | 4.2 | 27 | 12 | 23 | 4.8 | 14 | 5.0 | 82 | 2.6 | .50 | 5.6 | .79 |
| 26 | 3.3 | 59 | 8.5 | 7.5 | 7.3 | 17 | 4.1 | 19 | 8.4 | .45 | 1.6 | .53 |
| 27 | 3.0 | 12 | 7.9 | 16 | 66 | 8.5 | 4.3 | 8.9 | 1.8 | .50 | 1.2 | .50 |
| 28 | 3.3 | 8.7 | 9.5 | 24 | 14 | 6.4 | 11 | 5.9 | 1.3 | .51 | .73 | .50 |
| 29 | 3.3 | 7.2 | 8.1 | e5.8 | --- | 7.6 | 5.3 | 8.5 | 1.4 | .50 | .74 | .46 |
| 30 | 37 | 14 | 6.1 | 5.0 | --- | 8.8 | 4.4 | 7.8 | 1.2 | .46 | .63 | .40 |
| 31 | 8.1 | --- | 5.2 | 4.8 | --- | 11 | --- | 50 | --- | .43 | .61 | --- |
| TOTAL | 240.17 | 308.1 | 568.4 | 214.4 | 344.2 | 407.1 | 235.2 | 381.2 | 350.4 | 24.32 | 81.89 | 60.87 |
| MEAN | 7.75 | 10.3 | 18.3 | 6.92 | 12.3 | 13.1 | 7.84 | 12.3 | 11.7 | .78 | 2.64 | 2.03 |
| MAX | 45 | 59 | 102 | 24 | 66 | 51 | 56 | 82 | 159 | 3.3 | 23 | 36 |
| MIN | .61 | 2.2 | 4.8 | 2.7 | 3.6 | 5.4 | 3.0 | 3.5 | 1.2 | .43 | .38 | .40 |
| CFSM | 1.39 | 1.84 | 3.29 | 1.24 | 2.20 | 2.35 | 1.41 | 2.20 | 2.09 | .14 | .47 | .36 |
| IN. | 1.60 | 2.05 | 3.79 | 1.43 | 2.29 | 2.71 | 1.57 | 2.54 | 2.34 | .16 | .55 | .41 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 3.93 | 8.80 | 8.14 | 11.1 | 8.75 | 12.4 | 11.5 | 6.02 | 5.70 | 4.42 | 2.57 | 3.32 |
| MAX | 7.75 | 15.3 | 18.3 | 17.4 | 12.6 | 22.3 | 17.4 | 12.3 | 11.7 | 16.9 | 6.94 | 7.21 |
| (WY) | 1997 | 1993 | 1997 | 1993 | 1996 | 1993 | 1994 | 1997 | 1997 | 1992 | 1992 | 1992 |
| MIN | .66 | 1.14 | 1.97 | 3.76 | 4.16 | 7.16 | 7.84 | 3.05 | 1.57 | .73 | .27 | 1.24 |
| (WY) | 1995 | 1995 | 1992 | 1992 | 1993 | 1995 | 1997 | 1993 | 1992 | 1996 | 1993 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1992 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 3104.18 | | 3216.25 | | | |
| ANNUAL MEAN | 8.48 | | 8.81 | | 7.21 | |
| HIGHEST ANNUAL MEAN | | | | | 8.97 | 1993 |
| LOWEST ANNUAL MEAN | | | | | 4.58 | 1995 |
| HIGHEST DAILY MEAN | 111 | Jan 19 | 159 | Jun 1 | 190 | Jan 28 1994 |
| LOWEST DAILY MEAN | .20 | Aug 31 | .38 | Aug 8 | .07 | Jul 3 1992 |
| ANNUAL SEVEN-DAY MINIMUM | .23 | Aug 30 | .40 | Aug 6 | .10 | Aug 7 1993 |
| INSTANTANEOUS PEAK FLOW | | | 298 | Jun 1 a | 885 | Jul 30 1992 |
| INSTANTANEOUS PEAK STAGE | | | 12.01 | Jun 1 | 12.93 | Jul 30 1992 |
| INSTANTANEOUS LOW FLOW | | | .01 | Jul 27 | .01 | Jul 27 1997 |
| ANNUAL RUNOFF (CFSM) | 1.52 | | 1.58 | | 1.29 | |
| ANNUAL RUNOFF (INCHES) | 20.69 | | 21.44 | | 17.55 | |
| 10 PERCENT EXCEEDS | 21 | | 19 | | 15 | |
| 50 PERCENT EXCEEDS | 3.3 | | 4.7 | | 3.4 | |
| 90 PERCENT EXCEEDS | .52 | | .51 | | .56 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04206215 BATH CREEK AT BATH CENTER, OHIO

LOCATION.--Lat 41°10'09", long 81°38'56", Summit County, Hydrologic Unit 04110002, on upstream left bank at bridge on Bath Road, 0.2 mi downstream from Steriner Pond, 0.6 mi west of Cleveland-Massillon Road, and 3.6 mi northwest of Akron corporate boundary.
DRAINAGE AREA.--3.52 mi².
PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage recorder. Elevation of gage is 961 ft above sea level, from topographic map.
REMARKS.--Records good except for periods of estimated record and discharges less than 6.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .78 | 3.8 | 34 | 2.7 | 3.1 | 5.2 | 3.5 | 2.5 | 91 | .72 | .40 | .60 |
| 2 | .52 | 2.7 | 13 | 3.5 | 3.2 | 18 | 2.7 | 2.2 | 44 | .76 | .42 | .62 |
| 3 | .50 | 2.1 | 6.8 | 3.2 | 3.5 | 6.9 | 2.4 | 16 | 17 | .66 | .48 | .92 |
| 4 | .50 | 1.8 | 6.2 | 2.9 | 22 | 5.0 | 2.2 | 14 | 7.7 | .60 | .68 | .79 |
| 5 | 1.1 | 2.0 | 4.7 | 5.6 | 24 | 11 | 3.2 | 11 | 4.7 | .60 | .64 | .68 |
| 6 | 1.6 | 2.1 | 5.2 | 4.2 | 7.7 | 17 | 4.9 | 7.7 | 3.6 | .60 | .51 | .68 |
| 7 | .61 | 2.3 | 6.0 | 2.7 | 4.5 | 7.6 | 4.6 | 4.1 | 2.7 | .60 | .46 | .70 |
| 8 | .49 | 12 | 6.3 | 2.2 | 3.8 | 6.1 | 1.9 | 3.7 | 2.2 | .60 | .46 | .99 |
| 9 | .63 | 13 | 3.8 | 2.3 | 3.3 | 5.3 | 1.8 | 4.5 | 2.0 | 1.2 | .49 | .87 |
| 10 | 1.3 | 18 | 3.6 | 2.3 | 2.9 | 13 | 1.6 | 4.9 | 1.8 | .71 | .49 | 2.0 |
| 11 | .84 | 8.9 | 45 | e2.0 | 2.6 | 5.7 | 1.6 | 3.9 | 1.6 | .60 | .51 | 1.0 |
| 12 | .63 | 5.3 | 38 | e1.6 | 2.4 | 4.1 | 28 | 3.3 | 1.4 | .57 | .58 | .64 |
| 13 | .59 | 4.0 | 10 | e1.4 | 2.3 | 3.6 | 13 | 2.8 | 4.3 | .50 | 1.2 | .59 |
| 14 | .54 | 3.3 | 5.8 | e1.3 | 2.4 | 27 | 5.5 | 2.5 | 3.1 | .57 | .68 | .53 |
| 15 | .52 | 2.5 | 4.4 | e1.3 | 2.4 | 9.1 | 3.5 | 4.6 | 1.8 | .60 | .60 | .55 |
| 16 | .41 | 2.2 | 6.5 | 2.2 | 2.3 | 5.0 | 3.0 | 3.1 | 1.4 | .57 | 2.2 | .60 |
| 17 | .41 | 5.1 | 38 | e2.8 | 2.3 | 4.3 | 4.6 | 2.7 | 2.2 | .60 | 6.2 | .62 |
| 18 | 7.7 | 8.4 | 11 | e2.6 | 5.6 | 4.3 | 4.2 | 2.3 | 3.6 | .60 | 4.3 | .66 |
| 19 | 23 | 4.1 | 5.6 | e2.4 | 20 | 3.8 | 3.1 | 4.2 | 2.9 | .59 | 1.3 | .77 |
| 20 | 25 | 2.7 | 3.6 | e2.3 | 12 | 3.3 | 2.5 | 3.5 | 2.1 | .48 | .73 | 15 |
| 21 | 12 | 2.2 | 2.7 | e2.3 | 9.2 | 3.0 | 2.2 | 2.3 | 1.7 | .50 | .67 | 3.6 |
| 22 | 6.7 | 2.1 | 2.7 | 7.3 | 5.5 | 4.4 | 2.4 | 1.8 | 1.4 | .60 | .92 | 1.5 |
| 23 | 5.2 | 2.3 | 7.1 | 6.8 | 3.7 | 10 | 2.2 | 1.5 | 1.2 | .60 | 1.3 | 1.0 |
| 24 | 4.4 | 5.3 | 33 | 3.7 | 3.1 | 8.4 | 3.0 | 1.4 | 1.0 | .60 | 1.3 | .67 |
| 25 | 3.1 | 13 | 7.9 | 12 | 2.6 | 5.2 | 2.3 | 47 | .80 | .58 | 3.0 | .51 |
| 26 | 2.5 | 44 | 4.6 | e6.1 | 3.1 | 9.0 | 1.9 | 15 | 1.8 | .59 | 1.5 | .40 |
| 27 | 2.3 | 11 | 4.1 | e8.2 | 35 | 4.3 | 1.9 | 4.5 | .95 | .60 | .80 | .34 |
| 28 | 2.3 | 6.4 | 4.9 | 19 | 8.5 | 3.3 | 5.3 | 2.9 | .78 | .53 | .63 | .35 |
| 29 | 2.2 | 4.1 | 8.2 | e4.8 | --- | 3.4 | 3.2 | 3.4 | .67 | .50 | .60 | .21 |
| 30 | 20 | 6.8 | 10 | e3.4 | --- | 3.9 | 2.1 | 3.5 | .62 | .49 | .60 | .18 |
| 31 | 7.6 | --- | 3.0 | 3.2 | --- | 5.6 | --- | 22 | --- | .43 | .64 | --- |
| TOTAL | 135.97 | 203.5 | 345.7 | 128.3 | 203.0 | 225.8 | 124.3 | 208.8 | 212.02 | 18.75 | 35.29 | 38.57 |
| MEAN | 4.39 | 6.78 | 11.2 | 4.14 | 7.25 | 7.28 | 4.14 | 6.74 | 7.07 | .60 | 1.14 | 1.29 |
| MAX | 25 | 44 | 45 | 19 | 35 | 27 | 28 | 47 | 91 | 1.2 | 6.2 | 15 |
| MIN | .41 | 1.8 | 2.7 | 1.3 | 2.3 | 3.0 | 1.6 | 1.4 | .62 | .43 | .40 | .18 |
| CFSM | 1.25 | 1.93 | 3.17 | 1.18 | 2.06 | 2.07 | 1.18 | 1.91 | 2.01 | .17 | .32 | .37 |
| IN. | 1.44 | 2.15 | 3.65 | 1.36 | 2.15 | 2.39 | 1.31 | 2.21 | 2.24 | .20 | .37 | .41 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 1.39 | 4.79 | 4.57 | 6.69 | 4.38 | 6.25 | 6.99 | 3.64 | 3.33 | 2.19 | 1.18 | 1.40 |
| MAX | 4.39 | 8.75 | 11.2 | 11.2 | 7.25 | 8.45 | 9.42 | 7.45 | 7.07 | 9.25 | 3.33 | 3.80 |
| (WY) | 1997 | 1993 | 1997 | 1993 | 1997 | 1993 | 1994 | 1996 | 1997 | 1992 | 1992 | 1992 |
| MIN | .41 | .45 | .72 | 1.80 | 2.44 | 4.11 | 4.14 | 1.52 | .81 | .54 | .42 | .45 |
| (WY) | 1992 | 1992 | 1992 | 1992 | 1993 | 1995 | 1997 | 1994 | 1992 | 1996 | 1993 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1992 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 1917.52 | | 1880.00 | | | |
| ANNUAL MEAN | 5.24 | | 5.15 | | 3.89 | |
| HIGHEST ANNUAL MEAN | | | | | 5.15 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 2.48 | 1995 |
| HIGHEST DAILY MEAN | 76 | Jan 19 | 91 | Jun 1 | 105 | Dec 31 1992 |
| LOWEST DAILY MEAN | .05 | Aug 18 | .18 | Sep 30 | .00 | Sep 14 1993 |
| ANNUAL SEVEN-DAY MINIMUM | .14 | Aug 26 | .38 | Sep 24 | .14 | Aug 26 1996 |
| INSTANTANEOUS PEAK FLOW | | | 110 | Jun 1 a | 204 | Dec 31 1992 |
| INSTANTANEOUS PEAK STAGE | | | 13.65 | Jun 1 | 14.49 | Dec 31 1992 |
| INSTANTANEOUS LOW FLOW | | | .05 | Sep 30 | .00 | Aug 26 1993 |
| ANNUAL RUNOFF (CFSM) | 1.49 | | 1.46 | | 1.11 | |
| ANNUAL RUNOFF (INCHES) | 20.26 | | 19.87 | | 15.03 | |
| 10 PERCENT EXCEEDS | 12 | | 12 | | 7.8 | |
| 50 PERCENT EXCEEDS | 2.1 | | 2.7 | | 1.6 | |
| 90 PERCENT EXCEEDS | .32 | | .58 | | .40 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04206220 YELLOW CREEK AT BOTZUM, OHIO

LOCATION.--Lat 41°09'47", long 81°35'02", Summit County, Hydrologic Unit 04110002, on right downstream bank near Bath Road truss bridge over Yellow Creek, 0.5 mi upstream from confluence with Cuyahoga River, 0.7 mi west of Akron sewage treatment plant.
DRAINAGE AREA.--30.7 mi².
PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage recorder. Elevation of gage is 743 ft above sea level, from topographic map.
REMARKS.--Records fair except for periods of estimated record, which are poor. (Formerly named Yellow Creek at Bath Road near Botzum, Ohio)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17 | 32 | 286 | 32 | 33 | 60 | 41 | 28 | 756 | 18 | 6.1 | 7.1 |
| 2 | 14 | 25 | 110 | 37 | 32 | 172 | 34 | 27 | 359 | 18 | 6.2 | 6.8 |
| 3 | 12 | 22 | 56 | 36 | 35 | 75 | 31 | 133 | 159 | 15 | 6.1 | 7.6 |
| 4 | 11 | 20 | 48 | 34 | 192 | 58 | 30 | 100 | 89 | 13 | 13 | 6.6 |
| 5 | 10 | 19 | 40 | 60 | 194 | 109 | 32 | 57 | 61 | 12 | 9.7 | 6.2 |
| 6 | 11 | 18 | 42 | 44 | 72 | 162 | 33 | 61 | 48 | 11 | 7.0 | 6.0 |
| 7 | 10 | 20 | 36 | 33 | 49 | 82 | 30 | 43 | 41 | 11 | 6.1 | 5.9 |
| 8 | 9.2 | 83 | 35 | 31 | 43 | 70 | 25 | 40 | 37 | 11 | 5.9 | 6.0 |
| 9 | 15 | 77 | 32 | 30 | 38 | 69 | 22 | 46 | 33 | 28 | 5.8 | 6.0 |
| 10 | 25 | 112 | 30 | 31 | 35 | 151 | 22 | 45 | 29 | 17 | 6.0 | 23 |
| 11 | 19 | 62 | 350 | e23 | 33 | 72 | 22 | 41 | 26 | 14 | 6.6 | 14 |
| 12 | 14 | 41 | 261 | e20 | 32 | 53 | 224 | 36 | 25 | 12 | 6.7 | 8.7 |
| 13 | 12 | 33 | 98 | e19 | e29 | 46 | 108 | 32 | 45 | 11 | 18 | 7.5 |
| 14 | 11 | 28 | 63 | e18 | e31 | 234 | 56 | 30 | 33 | 10 | 11 | 7.4 |
| 15 | 10 | 25 | 50 | e18 | 31 | 97 | 42 | 51 | 25 | 9.7 | 8.5 | 7.2 |
| 16 | 10 | 24 | 67 | 78 | e24 | 60 | 38 | 36 | 23 | 9.0 | 50 | 7.0 |
| 17 | 9.9 | 29 | 322 | e41 | e21 | 50 | 47 | 32 | 24 | 8.7 | 54 | 7.1 |
| 18 | 116 | 64 | 111 | e33 | e49 | 51 | 43 | 29 | 53 | 8.6 | 28 | 7.0 |
| 19 | 188 | 37 | 61 | e29 | 143 | 46 | 36 | 50 | 35 | 7.9 | 15 | 6.8 |
| 20 | 174 | 29 | e40 | e26 | 93 | 43 | 31 | 42 | 26 | 7.5 | 11 | 133 |
| 21 | 82 | 25 | e37 | e25 | 75 | 38 | 28 | 30 | 22 | 7.5 | 11 | 24 |
| 22 | 55 | 23 | e35 | 158 | 53 | 47 | 31 | 25 | 20 | 8.4 | 12 | 15 |
| 23 | 44 | 21 | 72 | 155 | 38 | 43 | 29 | 23 | 18 | 8.7 | 16 | 13 |
| 24 | 37 | 24 | 282 | 106 | 34 | 42 | 42 | 23 | 17 | 8.6 | 15 | 12 |
| 25 | 28 | 107 | 79 | e244 | 31 | 55 | 32 | 387 | 17 | 8.1 | 33 | 9.8 |
| 26 | 22 | 329 | e49 | e122 | 37 | 82 | 27 | 143 | 30 | 8.1 | 17 | 8.2 |
| 27 | 20 | 90 | 46 | e104 | 303 | 46 | 27 | 56 | 19 | 8.3 | 12 | 7.8 |
| 28 | 21 | 53 | 48 | 162 | 90 | 39 | 49 | 39 | 16 | 7.5 | 9.8 | 7.3 |
| 29 | 21 | 41 | 47 | e60 | --- | 41 | 34 | 40 | 15 | 7.1 | 8.4 | 7.5 |
| 30 | 170 | 60 | 45 | e42 | --- | 42 | 28 | 39 | 15 | 6.5 | 7.8 | 7.6 |
| 31 | 52 | --- | 35 | e36 | --- | 54 | --- | 209 | --- | 6.2 | 7.3 | --- |
| TOTAL | 1250.1 | 1573 | 2913 | 1887 | 1870 | 2289 | 1274 | 1973 | 2116 | 337.4 | 430.0 | 399.1 |
| MEAN | 40.3 | 52.4 | 94.0 | 60.9 | 66.8 | 73.8 | 42.5 | 63.6 | 70.5 | 10.9 | 13.9 | 13.3 |
| MAX | 188 | 329 | 350 | 244 | 303 | 234 | 224 | 387 | 756 | 28 | 54 | 133 |
| MIN | 9.2 | 18 | 30 | 18 | 21 | 38 | 22 | 23 | 15 | 6.2 | 5.8 | 5.9 |
| CFSM | 1.31 | 1.71 | 3.06 | 1.98 | 2.18 | 2.41 | 1.38 | 2.07 | 2.30 | .35 | .45 | .43 |
| IN. | 1.51 | 1.91 | 3.53 | 2.29 | 2.27 | 2.77 | 1.54 | 2.39 | 2.56 | .41 | .52 | .48 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 16.8 | 40.7 | 40.0 | 60.3 | 45.6 | 59.9 | 59.1 | 35.2 | 34.8 | 22.6 | 16.2 | 18.4 |
| MAX | 40.3 | 76.2 | 94.0 | 98.2 | 66.8 | 108 | 95.4 | 63.6 | 70.5 | 74.8 | 41.1 | 48.3 |
| (WY) | 1997 | 1993 | 1997 | 1993 | 1997 | 1993 | 1994 | 1997 | 1997 | 1992 | 1992 | 1992 |
| MIN | 6.31 | 9.23 | 12.1 | 17.8 | 25.4 | 31.0 | 35.0 | 20.5 | 15.7 | 10.1 | 5.68 | 4.85 |
| (WY) | 1995 | 1992 | 1992 | 1992 | 1995 | 1995 | 1995 | 1992 | 1992 | 1993 | 1993 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1992 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 17784.6 | | 18311.6 | | | |
| ANNUAL MEAN | 48.6 | | 50.2 | | 37.4 | |
| HIGHEST ANNUAL MEAN | | | | | 50.2 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 22.1 | 1995 |
| HIGHEST DAILY MEAN | 513 | Jan 19 | 756 | Jun 1 | 765 | Jan 28 1994 |
| LOWEST DAILY MEAN | 3.2 | Jan 13 | 5.8 | Aug 9 | 2.4 | Sep 5 1995 |
| ANNUAL SEVEN-DAY MINIMUM | 3.6 | Jan 7 | 6.3 | Aug 6 | 2.6 | Sep 1 1995 |
| INSTANTANEOUS PEAK FLOW | | | 1030 | Jun 1 a | 1470 | Jul 31 1992 |
| INSTANTANEOUS PEAK STAGE | | | 14.59 | Jun 1 | 15.60 | Jul 31 1992 |
| INSTANTANEOUS LOW FLOW | | | 5.4 | Aug 9 | 2.4 | Sep 2 1995 |
| ANNUAL RUNOFF (CFSM) | 1.58 | | 1.63 | | 1.22 | |
| ANNUAL RUNOFF (INCHES) | 21.55 | | 22.19 | | 16.56 | |
| 10 PERCENT EXCEEDS | 110 | | 108 | | 77 | |
| 50 PERCENT EXCEEDS | 27 | | 32 | | 20 | |
| 90 PERCENT EXCEEDS | 7.5 | | 7.7 | | 6.2 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04207200 TINKERS CREEK AT BEDFORD, OHIO

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 mi².
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 sea level.
REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 74 | e430 | e640 | 73 | e66 | 336 | 173 | 77 | e1650 | e60 | 23 | 26 |
| 2 | 56 | e200 | e450 | 108 | e56 | 525 | 118 | 70 | e1550 | 37 | 22 | 30 |
| 3 | 63 | e100 | e250 | 109 | e90 | 335 | 96 | 359 | 1140 | 34 | 23 | e54 |
| 4 | 54 | e76 | e200 | 94 | 490 | 204 | 86 | 347 | 498 | 31 | 28 | 28 |
| 5 | 37 | e66 | e180 | 211 | 670 | 222 | 87 | 183 | 174 | 31 | 26 | 27 |
| 6 | 35 | 55 | e150 | 149 | 423 | 465 | 80 | 356 | 104 | 30 | 23 | 27 |
| 7 | 34 | 117 | e120 | 94 | 183 | 371 | 70 | 155 | 68 | 29 | 23 | 26 |
| 8 | 34 | e200 | e110 | 73 | 130 | 244 | 62 | 122 | 56 | 29 | 22 | 26 |
| 9 | 89 | e250 | e100 | 69 | 109 | 209 | 62 | 129 | 50 | e58 | 22 | 26 |
| 10 | 124 | e480 | e90 | 71 | e86 | 432 | 60 | 234 | 47 | 35 | 22 | e76 |
| 11 | 78 | e330 | e340 | e56 | e68 | 295 | 56 | 129 | 45 | 30 | 23 | 48 |
| 12 | 51 | e230 | 906 | e50 | e52 | 161 | 589 | 100 | e58 | 29 | 28 | 35 |
| 13 | 43 | e180 | 784 | e46 | e46 | 122 | 516 | 78 | e74 | 28 | e90 | 28 |
| 14 | 41 | e150 | 317 | e43 | e41 | 705 | 289 | 69 | 55 | 28 | 40 | 27 |
| 15 | 40 | e130 | 164 | e39 | e38 | 462 | 132 | 145 | 43 | 28 | 32 | 26 |
| 16 | 39 | e120 | 207 | e42 | e36 | 223 | 132 | 217 | 40 | 27 | 55 | 26 |
| 17 | 38 | e170 | 867 | e50 | e34 | 151 | 152 | 140 | 51 | 27 | e140 | 26 |
| 18 | 326 | e560 | 566 | e44 | e52 | 126 | 143 | 200 | e66 | 27 | e120 | 26 |
| 19 | 590 | e300 | 284 | e38 | e120 | 107 | 99 | 334 | e76 | 26 | 54 | 29 |
| 20 | 590 | e160 | 158 | e34 | 362 | 94 | 74 | 238 | 49 | 26 | 34 | e500 |
| 21 | 657 | e130 | e110 | e29 | 309 | 92 | 65 | 118 | 39 | 27 | e70 | e200 |
| 22 | 439 | e110 | e80 | e40 | 231 | 155 | 73 | 79 | e58 | 28 | e130 | e90 |
| 23 | 279 | e100 | e150 | e60 | 135 | 111 | 82 | 65 | 36 | 26 | e110 | 76 |
| 24 | 210 | e90 | 772 | e90 | 104 | 89 | 191 | 58 | 35 | 25 | e80 | 55 |
| 25 | 157 | e140 | 451 | 328 | 88 | 166 | 123 | 503 | 36 | 25 | e100 | 33 |
| 26 | 115 | e800 | 181 | 233 | 112 | 231 | 80 | 566 | e120 | 29 | 49 | 30 |
| 27 | 94 | e400 | 144 | 343 | 1480 | 146 | 67 | 309 | e90 | 26 | 34 | 28 |
| 28 | 92 | e190 | 160 | 440 | 675 | 105 | 164 | 106 | 51 | 25 | 29 | 27 |
| 29 | 86 | e160 | 142 | 333 | --- | 129 | 116 | 151 | 36 | 24 | 27 | 27 |
| 30 | 365 | e220 | 104 | e150 | --- | 213 | 80 | 125 | 33 | 23 | 26 | 54 |
| 31 | e700 | --- | 86 | e86 | --- | 251 | --- | 432 | --- | 23 | 26 | --- |
| TOTAL | 5630 | 6644 | 9263 | 3625 | 6286 | 7477 | 4117 | 6194 | 6428 | 931 | 1531 | 1737 |
| MEAN | 182 | 221 | 299 | 117 | 225 | 241 | 137 | 200 | 214 | 30.0 | 49.4 | 57.9 |
| MAX | 700 | 800 | 906 | 440 | 1480 | 705 | 589 | 566 | 1650 | 60 | 140 | 500 |
| MIN | 34 | 55 | 80 | 29 | 34 | 89 | 56 | 58 | 33 | 23 | 22 | 26 |
| CFSM | .02 | .03 | .04 | .01 | .03 | .03 | .02 | .02 | .03 | .00 | .01 | .01 |
| IN. | .03 | .03 | .04 | .02 | .03 | .03 | .02 | .03 | .03 | .00 | .01 | .01 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 70.6 | 140 | 176 | 151 | 201 | 248 | 189 | 125 | 88.3 | 79.0 | 63.4 | 74.4 |
| MAX | 261 | 402 | 506 | 396 | 463 | 457 | 314 | 339 | 257 | 329 | 255 | 289 |
| (WY) | 1991 | 1986 | 1991 | 1993 | 1976 | 1963 | 1964 | 1989 | 1975 | 1969 | 1992 | 1990 |
| MIN | 8.55 | 13.4 | 16.9 | 33.1 | 39.0 | 81.2 | 54.1 | 33.4 | 16.5 | 13.1 | 11.3 | 8.73 |
| (WY) | 1964 | 1965 | 1964 | 1977 | 1963 | 1990 | 1971 | 1965 | 1964 | 1967 | 1963 | 1964 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1963 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 71566 | | 59863 | | | |
| ANNUAL MEAN | 196 | | 164 | | 135 | |
| HIGHEST ANNUAL MEAN | | | | | 185 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 81.7 | 1964 |
| HIGHEST DAILY MEAN | 1700 | Jan 19 | 1650 | Jun 1 | 2920 | Dec 30 1990 |
| LOWEST DAILY MEAN | 27 | Aug 6 | 22 | Aug 2 | 5.8 | Aug 10 1964 |
| ANNUAL SEVEN-DAY MINIMUM | 30 | Aug 30 | 23 | Aug 5 | 6.5 | Oct 4 1963 |
| INSTANTANEOUS PEAK FLOW | | | 3860 | Jun 1 a | 7220 | Jul 20 1969 |
| INSTANTANEOUS PEAK STAGE | | | 7.92 | Jun 1 | 10.10 | Jul 20 1969 |
| INSTANTANEOUS LOW FLOW | | | 22 | Aug 2 | 5.2 | Aug 19 1963 |
| ANNUAL RUNOFF (CFSM) | .024 | | .020 | | .016 | |
| ANNUAL RUNOFF (INCHES) | .32 | | .27 | | .22 | |
| 10 PERCENT EXCEEDS | 538 | | 431 | | 324 | |
| 50 PERCENT EXCEEDS | 105 | | 90 | | 62 | |
| 90 PERCENT EXCEEDS | 34 | | 27 | | 20 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO

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 mi².

### 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 sea level. 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.--Records good except for periods of estimated record, which are poor. Natural flow of stream affected by diversion, storage reservoirs, and powerplants. 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 ft³/s, when channels merge. Satellite telemeter at gage. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 931 | e800 | 4470 | 1050 | 983 | 2330 | 1240 | 716 | 9400 | 437 | 226 | 234 |
| 2 | 856 | e450 | 3390 | 1090 | 901 | 3850 | 1040 | 654 | 9010 | 469 | 225 | 234 |
| 3 | 792 | e420 | 2380 | 1070 | 915 | 3200 | 954 | 1610 | 5190 | 387 | 226 | 328 |
| 4 | 653 | e700 | 2050 | 998 | 2040 | 2510 | 915 | 2060 | 3760 | 339 | 327 | 246 |
| 5 | 582 | e1600 | 1950 | 1400 | 3720 | e1800 | 908 | 1160 | 3250 | 320 | 331 | 230 |
| 6 | 540 | 922 | 1880 | 1310 | 2280 | e3500 | 944 | 1680 | 2790 | 307 | 252 | 211 |
| 7 | 561 | 1180 | 1610 | 1040 | 1680 | e3000 | 787 | 1070 | 2180 | 303 | 234 | 209 |
| 8 | 555 | 1980 | 1360 | 936 | 1530 | e2400 | 677 | 915 | 1640 | 289 | 227 | 244 |
| 9 | 560 | 2200 | 1240 | 862 | 1370 | e2100 | 627 | 1130 | 1230 | 523 | 219 | 266 |
| 10 | 1080 | 3040 | 1110 | 871 | 1170 | e3200 | 592 | 1290 | 946 | 505 | 212 | 523 |
| 11 | 809 | 2620 | 2920 | 722 | 993 | e2300 | 567 | 1100 | 775 | 431 | 214 | 507 |
| 12 | 632 | 2090 | 5830 | 654 | 898 | e1600 | 2570 | 912 | 757 | 305 | e350 | 427 |
| 13 | 574 | 1780 | 3670 | 615 | 805 | e1300 | 2780 | 805 | 929 | 285 | e1200 | 368 |
| 14 | 537 | 1570 | 2680 | 617 | 776 | e4500 | 1880 | 706 | 762 | 296 | 297 | 361 |
| 15 | 531 | 1370 | 2340 | 665 | 803 | e2500 | 1280 | 976 | 572 | 296 | 257 | 349 |
| 16 | 503 | 1260 | 2280 | 792 | 727 | e1700 | 1140 | 972 | 507 | 293 | 712 | 344 |
| 17 | 455 | 1520 | 4770 | 636 | 683 | e1400 | 1630 | 802 | 566 | 292 | 1490 | 318 |
| 18 | 1660 | 3340 | 3370 | 572 | 852 | e1200 | 1450 | 849 | 759 | 289 | 1300 | 317 |
| 19 | 4390 | 2050 | 2380 | e520 | 2090 | e1100 | 1100 | 1520 | 846 | 276 | 578 | 313 |
| 20 | 3940 | 1500 | 1790 | e480 | 2170 | e1000 | 870 | 1400 | 617 | 259 | 460 | 4350 |
| 21 | 2830 | 1310 | 1480 | e460 | 1940 | e900 | 764 | 915 | 547 | 258 | 445 | 1510 |
| 22 | 2330 | 1260 | 1380 | e800 | 1710 | 1390 | 781 | 800 | 589 | 256 | 1280 | 783 |
| 23 | 1980 | 1170 | 1530 | 1490 | 1430 | 1170 | 784 | 793 | 475 | 276 | 620 | 594 |
| 24 | e1400 | 1090 | 4230 | 1030 | 1250 | 1060 | 1230 | 771 | 426 | 277 | 484 | 550 |
| 25 | e1200 | 1610 | 2530 | 1980 | 1090 | 1200 | 1090 | 3090 | 392 | 324 | 847 | 483 |
| 26 | e1000 | 5440 | 1770 | 1350 | 994 | 1750 | 790 | 3600 | 1210 | 301 | 611 | 419 |
| 27 | e940 | 3040 | 1580 | 1330 | 6670 | 1290 | 700 | 1940 | 642 | 316 | 467 | 388 |
| 28 | e900 | 2110 | 1710 | 2980 | 3040 | 1120 | 1170 | 1130 | 462 | 299 | 385 | 360 |
| 29 | e2000 | 1790 | 1610 | 1720 | --- | 1140 | 972 | 1160 | 433 | 304 | 321 | 349 |
| 30 | e3500 | 2050 | 1350 | 1260 | --- | 1180 | 783 | 1220 | 353 | 248 | 270 | 411 |
| 31 | e2000 | --- | 1190 | 1060 | --- | 1600 | --- | 1650 | --- | 230 | 255 | --- |
| TOTAL | 41221 | 53262 | 73830 | 32360 | 45510 | 60290 | 33015 | 39396 | 52015 | 9990 | 15322 | 16226 |
| MEAN | 1330 | 1775 | 2382 | 1044 | 1625 | 1945 | 1101 | 1271 | 1734 | 322 | 494 | 541 |
| MAX | 4390 | 5440 | 5830 | 2980 | 6670 | 4500 | 2780 | 3600 | 9400 | 523 | 1490 | 4350 |
| MIN | 455 | 420 | 1110 | 460 | 683 | 900 | 567 | 654 | 353 | 230 | 212 | 209 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 378 | 653 | 948 | 1120 | 1312 | 1674 | 1451 | 945 | 631 | 457 | 360 | 374 |
| MAX | 1747 | 2713 | 2889 | 3585 | 3217 | 3008 | 3175 | 2396 | 2450 | 1543 | 1363 | 1866 |
| (WY) | 1955 | 1986 | 1978 | 1952 | 1959 | 1963 | 1957 | 1984 | 1989 | 1992 | 1992 | 1979 |
| MIN | 65.8 | 74.9 | 115 | 191 | 194 | 584 | 244 | 120 | 111 | 82.9 | 62.3 | 61.0 |
| (WY) | 1934 | 1931 | 1964 | 1945 | 1934 | 1931 | 1946 | 1934 | 1934 | 1954 | 1933 | 1933 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1922 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 531122 | | 472437 | | | |
| ANNUAL MEAN | 1451 | | 1294 | | 859 | |
| HIGHEST ANNUAL MEAN | | | | | 1393 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 278 | 1934 |
| HIGHEST DAILY MEAN | 8080 | Jan 19 | 9400 | Jun 1 | 16700 | Jan 22 1959 |
| LOWEST DAILY MEAN | 250 | Aug 19 | 209 | Sep 7 | 21 | Aug 28 1933 |
| ANNUAL SEVEN-DAY MINIMUM | 278 | Aug 31 | 241 | Aug 5 | 37 | Aug 26 1933 |
| INSTANTANEOUS PEAK FLOW | | | 13500 | Jun 1 | 16700 | Jan 22 1959 |
| INSTANTANEOUS PEAK STAGE | | | 20.45 | Jun 1 | 22.41 | Jan 22 1959 |
| INSTANTANEOUS LOW FLOW | | | 181 | Sep 6 | 21 | Aug 28 1933 |
| 10 PERCENT EXCEEDS | 3140 | | 2720 | | 2020 | |
| 50 PERCENT EXCEEDS | 993 | | 972 | | 484 | |
| 90 PERCENT EXCEEDS | 338 | | 298 | | 129 | |

e Estimated.

## 04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

### WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1948 to September 1949, October 1950 to current year.
PERIOD OF DAILY RECORD.--
CHLORIDE: October 1987 to September 1994.
NITROGEN, NITRITE + NITRATE: October 1987 to September 1994.
NITROGEN, AMMONIA + ORGANIC: October 1987 to September 1994.
PHOSPHORUS: October 1987 to September 1994.
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 from July 1965 to September 1991, and a refrigerated water-quality pumping sampler, operated by Heidelberg College Water Quality Laboratory, from October 1987 to September 1994.
REMARKS.--Sediment samples were collected by a local observer on an approximate once daily basis. Sediment 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 subdivided into half-hour intervals and the daily load was calculated by summing the loads for these half-hour intervals. This required interpolation between measured and estimated concentrations.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,400 mg/L, Dec. 31, 1992; minimum daily mean, 1 mg/L, Feb. 12, 13, 1989.
SEDIMENT LOADS: Maximum daily, 82,900 tons, Dec. 31, 1992; minimum daily, 1.2 tons, Feb. 13, 1989.
EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,210 mg/L, June 1; minimum daily mean, 7 mg/L, Sep. 7.
SEDIMENT LOADS: Maximum daily, 49,700 tons, June 1; minimum daily, 3.8 tons, Sep. 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | SAMPLING METHOD, CODES* (82398) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | TEMPERATURE AIR (DEG C) (00020) | TEMPERATURE WATER (DEG C) (00010) |
|---|---|---|---|---|---|---|---|
| OCT | | | | | | | |
| 09... | 1305 | 10 | 488 | 756 | -- | 15.5 | 15.0 |
| MAY | | | | | | | |
| 01... | 1250 | 10 | 700 | 742 | 8.1 | 7.0 | 13.5 |
| 01... | 1400 | 50 | 700 | -- | -- | -- | -- |
| AUG | | | | | | | |
| 28... | 1515 | 10 | 366 | 741 | 8.0 | 24.0 | 22.5 |
| 28... | 1615 | 50 | 363 | -- | -- | -- | -- |

| DATE | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631) | NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625) | PHOSPHORUS TOTAL (MG/L AS P) (00665) | SEDIMENT, SUSPENDED (MG/L) (80154) | SEDIMENT PARTICLE SIZE <.0625MM SILTCLAY (PERCENT) (80250) |
|---|---|---|---|---|---|---|
| OCT | | | | | | |
| 09... | -- | -- | -- | -- | 15 | -- |
| MAY | | | | | | |
| 01... | 110 | 1.7 | 0.7 | 0.12 | 14 | 84.6 |
| 01... | 120 | 1.7 | 0.6 | 0.10 | -- | -- |
| AUG | | | | | | |
| 28... | 99 | 3.1 | 0.6 | 0.14 | 28 | -- |
| 28... | 99 | 3.1 | 0.7 | 0.14 | -- | -- |

*10 - Stream cross-section sample using equal-width-increment (EWI) sampling method.
*50 - Point sample obtained from flow tank.

## 04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | 931 | 68 | 172 | e800 | 58 | 126 | 4470 | 476 | 6500 |
| 2 | 856 | 46 | 106 | e450 | 27 | 33 | 3390 | 264 | 2490 |
| 3 | 792 | 41 | 89 | e420 | 18 | 20 | 2380 | 114 | 745 |
| 4 | 653 | 28 | 50 | e700 | 17 | 33 | 2050 | 72 | 401 |
| 5 | 582 | 19 | 31 | e1600 | 33 | 143 | 1950 | 65 | 341 |
| 6 | 540 | 18 | 26 | 922 | 49 | 122 | 1880 | 62 | 318 |
| 7 | 561 | 18 | 27 | 1180 | 94 | 305 | 1610 | 52 | 225 |
| 8 | 555 | 18 | 27 | 1980 | 243 | 1400 | 1360 | 43 | 157 |
| 9 | 560 | 22 | 39 | 2200 | 161 | 1110 | 1240 | 31 | 105 |
| 10 | 1080 | 100 | 305 | 3040 | 150 | 1230 | 1110 | 30 | 90 |
| 11 | 809 | 30 | 66 | 2620 | 93 | 660 | 2920 | 215 | 3190 |
| 12 | 632 | 16 | 28 | 2090 | 65 | 370 | 5830 | 504 | 8360 |
| 13 | 574 | 16 | 25 | 1780 | 47 | 228 | 3670 | 233 | 2340 |
| 14 | 537 | 14 | 20 | 1570 | 39 | 166 | 2680 | 147 | 1070 |
| 15 | 531 | 13 | 19 | 1370 | 34 | 126 | 2340 | 117 | 736 |
| 16 | 503 | 12 | 17 | 1260 | 34 | 116 | 2280 | 109 | 680 |
| 17 | 455 | 11 | 13 | 1520 | 69 | 377 | 4770 | 510 | 7060 |
| 18 | 1660 | 198 | 1880 | 3340 | 291 | 2750 | 3370 | 206 | 1920 |
| 19 | 4390 | 507 | 6040 | 2050 | 99 | 559 | 2380 | 114 | 740 |
| 20 | 3940 | 273 | 2980 | 1500 | 45 | 186 | 1790 | 80 | 390 |
| 21 | 2830 | 158 | 1210 | 1310 | 32 | 112 | 1480 | 57 | 229 |
| 22 | 2330 | 119 | 750 | 1260 | 29 | 98 | 1380 | 50 | 187 |
| 23 | 1980 | 101 | 540 | 1170 | 27 | 87 | 1530 | 117 | 610 |
| 24 | e1400 | 87 | 328 | 1090 | 28 | 82 | 4230 | 864 | 10500 |
| 25 | e1200 | 72 | 234 | 1610 | 66 | 395 | 2530 | 237 | 1660 |
| 26 | e1000 | 60 | 163 | 5440 | 593 | 9170 | 1770 | 83 | 403 |
| 27 | e940 | 52 | 132 | 3040 | 224 | 1870 | 1580 | 55 | 234 |
| 28 | e900 | 54 | 130 | 2110 | 125 | 719 | 1710 | 52 | 242 |
| 29 | e2000 | 247 | 1340 | 1790 | 80 | 386 | 1610 | 48 | 208 |
| 30 | e3500 | 668 | 6310 | 2050 | 89 | 509 | 1350 | 42 | 152 |
| 31 | e2000 | 212 | 1150 | --- | --- | --- | 1190 | 40 | 128 |
| TOTAL | 41221 | --- | 24247 | 53262 | --- | 23488 | 73830 | --- | 52411 |

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) | MEAN DISCHARGE (CFS) | MEAN CONCEN-TRATION (MG/L) | SEDIMENT DISCHARGE (TONS/DAY) |
|---|---|---|---|---|---|---|---|---|---|
| | | JANUARY | | | FEBRUARY | | | MARCH | |
| 1 | 1050 | 36 | 102 | 983 | 32 | 85 | 2330 | 191 | 1210 |
| 2 | 1090 | 42 | 123 | 901 | 25 | 60 | 3850 | 664 | 7500 |
| 3 | 1070 | 33 | 96 | 915 | 27 | 66 | 3200 | 284 | 2470 |
| 4 | 998 | 33 | 88 | 2040 | 372 | 3640 | 2510 | 190 | 1290 |
| 5 | 1400 | 112 | 480 | 3720 | 620 | 6740 | e1800 | 186 | 902 |
| 6 | 1310 | 58 | 211 | 2280 | 188 | 1190 | e3500 | 267 | 2530 |
| 7 | 1040 | 30 | 84 | 1680 | 91 | 416 | e3000 | 169 | 1370 |
| 8 | 936 | 19 | 48 | 1530 | 63 | 261 | e2400 | 127 | 823 |
| 9 | 862 | 18 | 42 | 1370 | 53 | 196 | e2100 | 122 | 689 |
| 10 | 871 | 20 | 46 | 1170 | 45 | 141 | e3200 | 247 | 2130 |
| 11 | 722 | 20 | 38 | 993 | 34 | 91 | e2300 | 145 | 898 |
| 12 | 654 | 24 | 42 | 898 | 29 | 70 | e1600 | 89 | 384 |
| 13 | 615 | 25 | 41 | 805 | 26 | 56 | e1300 | 88 | 310 |
| 14 | 617 | 23 | 38 | 776 | 22 | 46 | e4500 | 336 | 4080 |
| 15 | 665 | 15 | 27 | 803 | 19 | 41 | e2500 | 251 | 1690 |
| 16 | 792 | 81 | 176 | 727 | 16 | 31 | e1700 | 125 | 572 |
| 17 | 636 | 60 | 104 | 683 | 17 | 31 | e1400 | 87 | 327 |
| 18 | 572 | 30 | 47 | 852 | 60 | 191 | e1200 | 65 | 212 |
| 19 | e520 | 28 | 40 | 2090 | 299 | 1750 | e1100 | 53 | 158 |
| 20 | e480 | 23 | 30 | 2170 | 219 | 1320 | e1000 | 44 | 120 |
| 21 | e460 | 32 | 40 | 1940 | 132 | 694 | e900 | 51 | 124 |
| 22 | e800 | 200 | 432 | 1710 | 79 | 368 | 1390 | 97 | 368 |
| 23 | 1490 | 189 | 810 | 1430 | 47 | 183 | 1170 | 52 | 167 |
| 24 | 1030 | 55 | 154 | 1250 | 37 | 124 | 1060 | 33 | 96 |
| 25 | 1980 | 378 | 2220 | 1090 | 27 | 79 | 1200 | 66 | 255 |
| 26 | 1350 | 95 | 359 | 994 | 35 | 100 | 1750 | 406 | 1940 |
| 27 | 1330 | 87 | 450 | 6670 | 1390 | 29200 | 1290 | 218 | 771 |
| 28 | 2980 | 527 | 4660 | 3040 | 331 | 2750 | 1120 | 45 | 137 |
| 29 | 1720 | 116 | 550 | --- | --- | --- | 1140 | 30 | 92 |
| 30 | 1260 | 58 | 200 | --- | --- | --- | 1180 | 36 | 122 |
| 31 | 1060 | 39 | 112 | --- | --- | --- | 1600 | 53 | 234 |
| TOTAL | 32360 | --- | 11890 | 45510 | --- | 49920 | 60290 | --- | 33971 |

e Estimated

## 04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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 | 1240 | 24 | 79 | 716 | 18 | 34 | 9400 | 2210 | 49700 |
| 2 | 1040 | 19 | 53 | 654 | 13 | 22 | 9010 | 630 | 15500 |
| 3 | 954 | 19 | 49 | 1610 | 192 | 1260 | 5190 | 396 | 5610 |
| 4 | 915 | 19 | 48 | 2060 | 252 | 1570 | 3760 | 296 | 3010 |
| 5 | 908 | 20 | 49 | 1160 | 91 | 291 | 3250 | 250 | 2190 |
| 6 | 944 | 20 | 51 | 1680 | 246 | 1190 | 2790 | 228 | 1710 |
| 7 | 787 | 20 | 43 | 1070 | 48 | 145 | 2180 | 203 | 1200 |
| 8 | 677 | 15 | 27 | 915 | 22 | 54 | 1640 | 160 | 710 |
| 9 | 627 | 13 | 21 | 1130 | 43 | 134 | 1230 | 122 | 405 |
| 10 | 592 | 10 | 16 | 1290 | 61 | 228 | 946 | 92 | 236 |
| 11 | 567 | 9 | 14 | 1100 | 35 | 105 | 775 | 67 | 141 |
| 12 | 2570 | 429 | 5550 | 912 | 24 | 59 | 757 | 91 | 209 |
| 13 | 2780 | 342 | 2750 | 805 | 19 | 42 | 929 | 144 | 368 |
| 14 | 1880 | 154 | 802 | 706 | 17 | 33 | 762 | 79 | 166 |
| 15 | 1280 | 66 | 230 | 976 | 77 | 222 | 572 | 49 | 76 |
| 16 | 1140 | 48 | 154 | 972 | 58 | 160 | 507 | 37 | 50 |
| 17 | 1630 | 141 | 623 | 802 | 23 | 50 | 566 | 53 | 81 |
| 18 | 1450 | 55 | 220 | 849 | 45 | 179 | 759 | 123 | 364 |
| 19 | 1100 | 28 | 83 | 1520 | 184 | 788 | 846 | 116 | 271 |
| 20 | 870 | 19 | 45 | 1400 | 134 | 537 | 617 | 44 | 74 |
| 21 | 764 | 19 | 38 | 915 | 40 | 100 | 547 | 38 | 56 |
| 22 | 781 | 17 | 37 | 800 | 26 | 57 | 589 | 74 | 121 |
| 23 | 784 | 18 | 37 | 793 | 24 | 52 | 475 | 44 | 56 |
| 24 | 1230 | 94 | 347 | 771 | 22 | 47 | 426 | 37 | 42 |
| 25 | 1090 | 81 | 253 | 3090 | 866 | 12400 | 392 | 28 | 29 |
| 26 | 790 | 20 | 44 | 3600 | 527 | 5730 | 1210 | 387 | 1420 |
| 27 | 700 | 16 | 30 | 1940 | 217 | 1170 | 642 | 109 | 199 |
| 28 | 1170 | 60 | 202 | 1130 | 109 | 336 | 462 | 49 | 61 |
| 29 | 972 | 29 | 78 | 1160 | 109 | 371 | 433 | 80 | 96 |
| 30 | 783 | 21 | 44 | 1220 | 93 | 315 | 353 | 44 | 42 |
| 31 | --- | --- | --- | 1650 | 523 | 6140 | --- | --- | --- |
| TOTAL | 33015 | --- | 12017 | 39396 | --- | 33821 | 52015 | --- | 84193 |

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| 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) |
|---|---|---|---|---|---|---|---|---|---|
| | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 437 | 73 | 94 | 226 | 9 | 5.7 | 234 | 12 | 7.3 |
| 2 | 469 | 49 | 63 | 225 | 11 | 6.8 | 234 | 12 | 7.6 |
| 3 | 387 | 31 | 32 | 226 | 10 | 6.1 | 328 | 26 | 24 |
| 4 | 339 | 26 | 24 | 327 | 24 | 23 | 246 | 14 | 9.3 |
| 5 | 320 | 24 | 21 | 331 | 19 | 18 | 230 | 12 | 7.3 |
| 6 | 307 | 18 | 15 | 252 | 12 | 8.2 | 211 | 9 | 5.4 |
| 7 | 303 | 17 | 14 | 234 | 10 | 6.6 | 209 | 7 | 3.8 |
| 8 | 289 | 16 | 12 | 227 | 12 | 7.0 | 244 | 8 | 5.1 |
| 9 | 523 | 78 | 127 | 219 | 12 | 7.1 | 266 | 9 | 6.5 |
| 10 | 505 | 40 | 55 | 212 | 12 | 6.9 | 523 | 43 | 69 |
| 11 | 431 | 29 | 35 | 214 | 12 | 6.9 | 507 | 29 | 40 |
| 12 | 305 | 21 | 17 | e350 | 18 | 17 | 427 | 19 | 22 |
| 13 | 285 | 19 | 14 | e1200 | 222 | 719 | 368 | 15 | 15 |
| 14 | 296 | 14 | 11 | 297 | 46 | 41 | 361 | 16 | 15 |
| 15 | 296 | 16 | 13 | 257 | 17 | 12 | 349 | 12 | 11 |
| 16 | 293 | 15 | 12 | 712 | 738 | 2310 | 344 | 12 | 11 |
| 17 | 292 | 14 | 11 | 1490 | 959 | 4250 | 318 | 13 | 11 |
| 18 | 289 | 16 | 12 | 1300 | 469 | 1980 | 317 | 14 | 12 |
| 19 | 276 | 15 | 11 | 578 | 106 | 168 | 313 | 16 | 13 |
| 20 | 259 | 10 | 7.2 | 460 | 66 | 82 | 4350 | 1030 | 16100 |
| 21 | 258 | 10 | 7.1 | 445 | 67 | 88 | 1510 | 301 | 1260 |
| 22 | 256 | 12 | 8.3 | 1280 | 339 | 1240 | 783 | 124 | 270 |
| 23 | 276 | 13 | 9.9 | 620 | 65 | 118 | 594 | 55 | 89 |
| 24 | 277 | 11 | 7.9 | 484 | 78 | 117 | 550 | 31 | 47 |
| 25 | 324 | 21 | 19 | 847 | 315 | 789 | 483 | 24 | 31 |
| 26 | 301 | 23 | 19 | 611 | 86 | 147 | 419 | 20 | 22 |
| 27 | 316 | 23 | 19 | 467 | 39 | 50 | 388 | 9 | 9.4 |
| 28 | 299 | 17 | 13 | 385 | 28 | 29 | 360 | 8 | 7.6 |
| 29 | 304 | 14 | 12 | 321 | 19 | 16 | 349 | 11 | 10 |
| 30 | 248 | 13 | 8.4 | 270 | 15 | 11 | 411 | 25 | 31 |
| 31 | 230 | 11 | 6.6 | 255 | 12 | 8.5 | --- | --- | --- |
| TOTAL | 9990 | --- | 730.4 | 15322 | --- | 12294.8 | 16226 | --- | 18172.3 |
| YEAR | 472437 | | 357155.5 | | | | | | |

e Estimated

## 04208504 CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OHIO

LOCATION.--Lat 41°27'45", long 81°40'52", Cuyahoga County, Hydrologic Unit 04110002, on left bank, at LTV Steel Company footbridge, 1.2 mi downstream from Big Creek, 5.5 mi upstream from mouth at Cleveland.
DRAINAGE AREA.--788 mi².

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1991, to current year.
GAGE.--Water-stage and acoustic velocity meter recorder. Elevation of gage is 583.57 ft above sea level, from topographic map.
REMARKS.--Estimated daily discharges are marked in table. Records fair except for periods of estimated record, which are poor.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s Aug. 13, 1994; minimum daily discharge, 310 ft³/s Aug. 29, 1993.
EXTREMES FOR CURRENT YEAR.--Maximum discharge estimated, 12,800 ft³/s Sept. 20; minimum daily discharge, 441 ft³/s Aug. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1330 | 1240 | 5540 | 1360 | 1410 | e2600 | e1800 | 1060 | e11000 | 822 | 465 | 578 |
| 2 | 1200 | 944 | 4030 | 1500 | 1250 | e4300 | e1600 | 1100 | e10500 | 757 | 441 | 630 |
| 3 | 1180 | 890 | e3100 | 1430 | 1300 | e3500 | e1400 | 2350 | e6000 | 661 | 510 | 896 |
| 4 | 1020 | 833 | e2500 | 1360 | 2630 | e3000 | e1300 | 2810 | e4500 | 602 | 707 | 594 |
| 5 | 912 | 928 | e2300 | 1870 | 4520 | e2300 | 1280 | 1790 | e3600 | 575 | 669 | 530 |
| 6 | 860 | 1200 | e2200 | 1680 | 2760 | e4000 | 1220 | 2510 | e3200 | 509 | 538 | 498 |
| 7 | 875 | 1510 | e2000 | 1360 | 2110 | e3500 | 1080 | 1640 | e2600 | 580 | 521 | 531 |
| 8 | 880 | 2550 | e1700 | 1270 | 1910 | e2800 | 995 | 1480 | e2000 | 510 | 541 | 595 |
| 9 | 1160 | 3290 | e1500 | 1210 | 1810 | e2500 | 995 | 1660 | e1500 | 1010 | 464 | 579 |
| 10 | 1780 | 3960 | e1400 | 1470 | 1580 | e3700 | 923 | 2020 | e1300 | 823 | 456 | 1230 |
| 11 | 1290 | 3330 | 2900 | 1180 | 1390 | e2800 | 868 | 1690 | e1200 | 742 | 554 | 945 |
| 12 | 1040 | 2710 | 5750 | 929 | 1310 | e2400 | 3750 | 1420 | 1190 | 580 | 565 | 812 |
| 13 | 936 | 2360 | 4220 | 827 | 1180 | e2000 | 3700 | 1290 | 1360 | 529 | 1270 | 709 |
| 14 | 877 | 2120 | 2990 | 692 | 1160 | e5000 | 2450 | 1140 | 1140 | 532 | 636 | 672 |
| 15 | 860 | 1860 | 2580 | 512 | 1170 | e3100 | 1770 | 1450 | 872 | 536 | 687 | 674 |
| 16 | 831 | 1750 | 2610 | 1250 | 1080 | e2500 | 1630 | 1520 | 932 | 503 | 1990 | 676 |
| 17 | 854 | 2320 | 5690 | 1070 | e1050 | e2200 | 2180 | 1320 | 1020 | 490 | 2580 | 653 |
| 18 | 2860 | 4520 | 3940 | 945 | e1400 | e1900 | 1980 | 1450 | 1130 | 510 | 1930 | 626 |
| 19 | 6030 | 2640 | 2690 | 878 | e2400 | e1600 | 1600 | 2490 | 1230 | 584 | 995 | 705 |
| 20 | 5510 | 2000 | 2140 | 937 | e2600 | e1500 | 1350 | 2060 | 936 | 499 | 812 | 5660 |
| 21 | 3660 | 1710 | 1840 | 933 | e2300 | e1400 | 1210 | 1460 | 848 | 528 | 1000 | 2030 |
| 22 | 2910 | 1630 | 1690 | 1890 | e2000 | e2000 | 1380 | 1270 | 1200 | 552 | 3080 | 1120 |
| 23 | 2460 | 1520 | 2010 | 2080 | e1800 | e1600 | 1290 | 1260 | 804 | 510 | 1250 | 823 |
| 24 | 2240 | 1480 | 5220 | 1570 | e1650 | e1500 | 1850 | 1240 | 727 | 575 | 1000 | 903 |
| 25 | 1890 | 2300 | 3150 | 2940 | e1550 | e1800 | 1590 | 4030 | 675 | 580 | 1380 | 831 |
| 26 | 1620 | 7000 | 2170 | 1820 | e1500 | e2400 | 1250 | 4330 | 1650 | 673 | 1050 | 679 |
| 27 | 1400 | 3680 | 1900 | 1960 | e7800 | e1800 | 1140 | 2490 | 1000 | 572 | 819 | 450 |
| 28 | 1330 | 2570 | 2070 | 3840 | e3200 | e1500 | 1880 | 1680 | 748 | 555 | 743 | 759 |
| 29 | 1360 | 2190 | 1960 | 2120 | --- | e1500 | 1460 | 1840 | 690 | 623 | 695 | 780 |
| 30 | 3370 | 2550 | 1660 | 1640 | --- | e1700 | 1210 | 1790 | 615 | 590 | 613 | 756 |
| 31 | 2100 | --- | 1470 | 1490 | --- | e2200 | --- | 2600 | --- | 537 | 579 | --- |
| TOTAL | 56625 | 69585 | 86920 | 46013 | 57820 | 76600 | 48131 | 58240 | 66167 | 18649 | 29540 | 27924 |
| MEAN | 1827 | 2320 | 2804 | 1484 | 2065 | 2471 | 1604 | 1879 | 2206 | 602 | 953 | 931 |
| MAX | 6030 | 7000 | 5750 | 3840 | 7800 | 5000 | 3750 | 4330 | 11000 | 1010 | 3080 | 5660 |
| MIN | 831 | 833 | 1400 | 512 | 1050 | 1400 | 868 | 1060 | 615 | 490 | 441 | 450 |

CAL YR 1996 TOTAL 742971 MEAN 2030 MAX 9000 MIN 373
WTR YR 1997 TOTAL 642214 MEAN 1759 MAX 11000 MIN 441

e Estimated.

## 04208504 CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

### WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quality Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 60 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (04211820). Three sites are reported in the 1997 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1997 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1997 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at

http//www-oh.er.usgs.gov/nawqa.index.html.

---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | SPECIFIC CONDUCTANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | TEMPERATURE AIR (DEG C) (00020) | TEMPERATURE WATER (DEG C) (00010) | BAROMETRIC PRESSURE (MM OF HG) (00025) | OXYGEN, DISSOLVED (MG/L) (00300) | OXYGEN, DISSOLVED (PERCENT SATURATION) (00301) | COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625) | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501) | E. COLI WTR UNFLTRD MF MOD. MTEC (COLS./100 ML) (90902) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | 1445 | 664 | 7.8 | 12.0 | 13.5 | 736 | 9.1 | 90 | K6400 | 2700 | -- | -- |
| NOV | | | | | | | | | | | | |
| 20... | 1345 | 722 | 7.7 | 4.0 | 5.5 | 746 | 10.9 | 89 | 1700 | 1600 | -- | -- |
| DEC | | | | | | | | | | | | |
| 04... | 1430 | 621 | 7.6 | 0.5 | 5.0 | 736 | 12.4 | 99 | 1400 | 970 | -- | -- |
| JAN | | | | | | | | | | | | |
| 17... | 0930 | 1590 | 7.8 | -18.0 | 0.5 | 750 | 11.5 | 81 | -- | -- | -- | -- |
| FEB | | | | | | | | | | | | |
| 05... | 1430 | 796 | 7.5 | 3.0 | 2.5 | 753 | 12.4 | 95 | K17000 | K15000 | -- | -- |
| 26... | 1500 | 876 | 7.8 | 5.0 | 4.5 | 744 | 11.4 | 90 | -- | K430 | -- | -- |
| MAR | | | | | | | | | | | | |
| 12... | 1430 | 703 | 7.8 | 9.0 | 5.5 | 755 | 13.4 | 100 | -- | 12000 | -- | -- |
| 26... | 1415 | 788 | 7.7 | 5.0 | 7.0 | -- | 11.0 | 93 | 1400 | 1900 | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | 1430 | 907 | 7.6 | 1.0 | 8.0 | 755 | 12.0 | 101 | -- | 480 | -- | 620 |
| 23... | 1445 | 904 | 7.8 | 6.5 | 11.5 | 738 | 9.6 | 90 | -- | 3800 | -- | -- |
| MAY | | | | | | | | | | | | |
| 06... | 0845 | 681 | 7.7 | 10.0 | 12.5 | 746 | 9.1 | 87 | -- | K2500 | -- | -- |
| 21... | 1530 | 776 | 7.9 | 12.5 | 16.0 | 753 | 9.7 | 100 | -- | K370 | -- | K250 |
| JUN | | | | | | | | | | | | |
| 04... | 1500 | 507 | 7.6 | 14.5 | 16.0 | 748 | 8.6 | 89 | -- | 1800 | -- | -- |
| JUL | | | | | | | | | | | | |
| 02... | 1350 | 921 | 7.8 | -- | 24.0 | -- | 6.8 | 83 | -- | 2200 | -- | -- |
| 09... | 1430 | 937 | 7.7 | 18.0 | 21.0 | 748 | 7.8 | 92 | -- | 8000 | -- | 6500 |
| 30... | 1415 | 1120 | 8.4 | 18.5 | 24.0 | 755 | 9.0 | 106 | -- | 1600 | 5400 | 2500 |
| AUG | | | | | | | | | | | | |
| 13... | 1345 | 755 | 7.7 | 20.0 | 22.0 | 747 | 6.3 | 73 | -- | 16000 | 21000 | 13000 |
| SEP | | | | | | | | | | | | |
| 09... | 0830 | 1050 | 8.0 | 16.0 | 21.5 | 745 | 7.5 | 86 | -- | K650 | 5600 | K440 |
| 24... | 1500 | 800 | 7.8 | 13.0 | 17.0 | 751 | 8.3 | 87 | -- | K610 | 18300 | 1000 |

| DATE | COLIFORM, TOTAL, WTR UNF MF, MI (COLS./100 ML) (90900) | E. COLI WTR UNFLTRD MF, MI (COLS./100 ML) (90901) | CLOSTRIDIUM PERFRIGENS, MF-MCP, (COL/100 ML) (90915) | MAGNESIUM, DISSOLVED (MG/L AS MG) (00925) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | POTASSIUM, DISSOLVED (MG/L AS K) (00935) | BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | -- | -- | -- | 12 | 58 | 7.0 | 144 | 118 | 66 | 88 | 0.4 | 8.4 |
| NOV | | | | | | | | | | | | |
| 20... | -- | -- | -- | 12 | 64 | 5.7 | 137 | 112 | 65 | 110 | 0.5 | 7.9 |
| DEC | | | | | | | | | | | | |
| 04... | -- | -- | -- | 11 | 53 | 5.2 | 220 | 180 | 57 | 91 | 0.4 | 7.1 |
| JAN | | | | | | | | | | | | |
| 17... | -- | -- | -- | 7.2 | 110 | 4.0 | 120 | 146 | 65 | 290 | 0.6 | 3.4 |
| FEB | | | | | | | | | | | | |
| 05... | -- | -- | -- | 8.6 | 94 | 4.0 | 237 | 194 | 50 | 160 | 0.3 | 5.9 |
| 26... | -- | -- | -- | 12 | 85 | 7.7 | 120 | 98 | 71 | 140 | 0.6 | 5.9 |

## 04208504 CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OHIO--Continued
National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | COLI-FORM, TOTAL, WTR UNF MF, MI (COLS./ 100 ML) (90900) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | CLOS-TRIDIUM PERFRI-GENS, MF-MCP, (COL/ 100 ML) (90915) | 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 WATER DIS IT FIELD MG/L AS HCO3 (00453) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) (00955) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | | | | | |
| 12... | -- | -- | -- | 10 | 65 | 5.6 | 93 | 76 | 58 | 110 | 0.4 | 5.5 |
| 26... | -- | -- | -- | 11 | 79 | 5.2 | 124 | 102 | 65 | 140 | 0.4 | 5.0 |
| APR | | | | | | | | | | | | |
| 09... | -- | -- | -- | 15 | 86 | 8.0 | 123 | 101 | 82 | 150 | 0.5 | 3.2 |
| 23... | -- | -- | -- | 14 | 87 | 8.1 | 155 | 127 | 79 | 150 | 0.6 | 4.0 |
| MAY | | | | | | | | | | | | |
| 06... | -- | -- | -- | 12 | 64 | 5.2 | 271 | 222 | 61 | 110 | 0.4 | 4.4 |
| 21... | -- | -- | -- | 13 | 70 | 7.5 | 155 | 127 | 65 | 110 | 0.6 | 4.1 |
| JUN | | | | | | | | | | | | |
| 04... | -- | -- | -- | 8.6 | 40 | 4.1 | 124 | 102 | 41 | 62 | 0.3 | 5.8 |
| JUL | | | | | | | | | | | | |
| 02... | -- | -- | -- | 15 | 82 | 9.6 | 161 | 132 | 85 | 130 | 0.6 | 6.8 |
| 09... | -- | -- | 4 | 14 | 86 | 12 | 146 | 120 | 86 | 140 | 0.7 | 5.9 |
| 30... | -- | -- | 14 | 17 | 104 | 18 | 146 | 124 | 100 | 180 | 1.3 | 5.4 |
| AUG | | | | | | | | | | | | |
| 13... | 22000 | 8700 | 690 | 11 | 72 | 9.1 | 133 | 109 | 75 | 110 | 0.6 | 5.2 |
| SEP | | | | | | | | | | | | |
| 09... | 6700 | K530 | -- | 16 | 98 | 16 | 150 | 123 | 100 | 180 | 0.8 | 4.7 |
| 24... | 23000 | 730 | K60 | 14 | 68 | 9.7 | 142 | 116 | 78 | 110 | 0.6 | 7.4 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613) | 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 TOTAL (MG/L AS N) (00625) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) | PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666) | PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671) | IRON, DIS-SOLVED (UG/L AS FE) (01046) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | 394 | 0.04 | 2.4 | 0.13 | 1.0 | 0.7 | 0.25 | 0.14 | 0.09 | 69 | 25 | 6.5 |
| NOV | | | | | | | | | | | | |
| 20... | 435 | 0.02 | 2.5 | 0.09 | 0.8 | 0.6 | 0.09 | 0.04 | 0.04 | 94 | 43 | 6.5 |
| DEC | | | | | | | | | | | | |
| 04... | 373 | 0.04 | 2.3 | 0.11 | 0.8 | 0.6 | 0.13 | 0.04 | 0.05 | 91 | 35 | 5.6 |
| JAN | | | | | | | | | | | | |
| 17... | 696 | 0.08 | 4.1 | 0.24 | 1.2 | 1.0 | 0.22 | 0.15 | 0.14 | 26 | 60 | 5.2 |
| FEB | | | | | | | | | | | | |
| 05... | 436 | 0.04 | 1.5 | 0.19 | 1.4 | 0.6 | 0.37 | 0.05 | 0.05 | 63 | 46 | 4.5 |
| 26... | 478 | 0.02 | 3.7 | 0.12 | 0.9 | 0.7 | 0.14 | 0.09 | 0.10 | 72 | 69 | 5.4 |
| MAR | | | | | | | | | | | | |
| 12... | 410 | 0.02 | 2.5 | 0.10 | 0.8 | 0.6 | 0.07 | <0.01 | 0.02 | 59 | 49 | 5.2 |
| 26... | 448 | 0.03 | 2.5 | 0.11 | 0.8 | 0.5 | 0.15 | 0.05 | 0.03 | 57 | 52 | 5.1 |
| APR | | | | | | | | | | | | |
| 09... | 528 | 0.02 | 4.6 | 0.08 | 0.9 | 0.8 | 0.29 | 0.20 | 0.18 | 92 | 88 | 5.8 |
| 23... | 515 | 0.03 | 3.7 | 0.14 | 1.1 | 0.8 | 0.13 | 0.06 | 0.06 | 68 | 77 | 6.1 |
| MAY | | | | | | | | | | | | |
| 06... | 380 | 0.03 | 2.3 | 0.12 | 1.2 | 0.7 | 0.24 | 0.07 | 0.06 | 59 | 31 | 6.0 |
| 21... | 447 | 0.03 | 3.3 | 0.09 | 1.0 | 0.7 | 0.16 | 0.07 | 0.07 | 59 | 29 | 6.6 |
| JUN | | | | | | | | | | | | |
| 04... | 300 | 0.03 | 1.4 | 0.11 | 1.1 | 0.7 | 0.34 | 0.10 | 0.04 | 120 | 24 | 6.9 |
| JUL | | | | | | | | | | | | |
| 02... | 553 | 0.04 | 4.9 | 0.10 | 1.2 | 0.9 | 0.22 | 0.13 | 0.13 | 26 | 45 | 8.1 |
| 09... | 562 | 0.06 | 5.6 | 0.12 | 1.4 | 1.1 | 0.39 | 0.28 | 0.18 | 45 | 39 | 7.2 |
| 30... | 682 | 0.04 | 7.7 | <0.02 | 1.4 | 0.9 | 0.24 | 0.13 | 0.12 | 29 | 48 | 6.8 |
| AUG | | | | | | | | | | | | |
| 13... | 459 | 0.05 | 4.7 | 0.09 | 1.4 | 0.7 | 0.35 | 0.14 | 0.14 | 21 | 16 | 5.9 |
| SEP | | | | | | | | | | | | |
| 09... | 646 | 0.06 | 9.1 | 0.12 | 1.4 | 1.1 | 0.23 | 0.10 | 0.09 | 35 | 45 | 6.5 |
| 24... | 474 | 0.02 | 4.5 | 0.09 | 1.0 | 0.7 | 0.13 | 0.08 | 0.07 | 27 | 35 | 5.9 |

| DATE | CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260) | ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRA-ZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040) | METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYL-ATE, WATER, DISS, REC (UG/L) (04028) | CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | 1.5 | 72 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 20... | 1.0 | 24 | <0.002 | <0.002 | 0.029 | E0.015 | <0.001 | <0.002 | <0.002 | <0.020 | <0.003 | 0.016 |
| DEC | | | | | | | | | | | | |
| 04... | 1.3 | 56 | <0.002 | <0.002 | 0.050 | E0.011 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 |
| JAN | | | | | | | | | | | | |
| 17... | 0.9 | 22 | <0.002 | <0.002 | 0.027 | E0.016 | <0.001 | <0.002 | <0.002 | E0.018 | <0.003 | 0.011 |

## 04208504 CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260) | ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRA-ZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040) | METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYL-ATE, WATER, DISS, REC (UG/L) (04028) | CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 05... | -- | 334 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 0.4 | 14 | <0.002 | <0.002 | 0.023 | E0.014 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 |
| MAR | | | | | | | | | | | | |
| 12... | 0.5 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | 1.3 | 68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | -- | 8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | 0.8 | 12 | 0.024 | 0.005 | 0.052 | E0.006 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 |
| MAY | | | | | | | | | | | | |
| 06... | 1.3 | 175 | 0.122 | 0.016 | 0.126 | E0.024 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 |
| 21... | 0.7 | 33 | 0.033 | 0.007 | 0.124 | E0.038 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.009 |
| JUN | | | | | | | | | | | | |
| 04... | 1.1 | -- | 0.198 | 0.027 | 0.761 | E0.034 | <0.001 | <0.002 | <0.002 | E0.014 | <0.003 | 0.022 |
| JUL | | | | | | | | | | | | |
| 02... | 1.0 | 45 | 0.036 | 0.011 | 0.261 | E0.014 | <0.001 | <0.002 | <0.002 | E0.020 | <0.003 | 0.013 |
| 09... | 1.4 | 42 | <0.002 | <0.002 | 0.155 | E0.016 | <0.001 | <0.002 | <0.002 | E0.019 | <0.003 | <0.004 |
| 30... | 1.1 | 27 | <0.002 | <0.002 | 0.111 | E0.019 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.008 |
| AUG | | | | | | | | | | | | |
| 13... | 3.1 | 116 | <0.002 | <0.010 | 0.062 | E0.011 | <0.001 | <0.002 | <0.002 | E0.083 | <0.003 | <0.004 |
| SEP | | | | | | | | | | | | |
| 09... | 0.6 | 37 | <0.002 | <0.002 | 0.063 | E0.012 | <0.130 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 |
| 24... | 0.9 | 19 | <0.002 | <0.002 | 0.071 | E0.010 | <0.080 | <0.002 | <0.002 | E0.006 | <0.003 | <0.004 |

| DATE | CYANA-ZINE, WATER, DISS, REC (UG/L) (04041) | DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682) | P,P' DDE DISSOLV (UG/L) (34653) | DI-AZINON, DIS-SOLVED (UG/L) (39572) | DI-ELDRIN DIS-SOLVED (UG/L) (39381) | 2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) | DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) | EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668) | ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) | ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) | FONOFOS WATER DISS REC (UG/L) (04095) | ALPHA BHC DIS-SOLVED (UG/L) (34253) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 20... | 0.014 | <0.002 | <0.006 | 0.021 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| DEC | | | | | | | | | | | | |
| 04... | <0.004 | <0.002 | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| JAN | | | | | | | | | | | | |
| 17... | 0.031 | <0.002 | <0.006 | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| FEB | | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | <0.004 | <0.002 | <0.006 | 0.011 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| MAR | | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | <0.004 | <0.002 | <0.006 | 0.020 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| MAY | | | | | | | | | | | | |
| 06... | <0.004 | E0.002 | <0.006 | 0.129 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| 21... | 0.023 | E0.002 | <0.006 | 0.050 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| JUN | | | | | | | | | | | | |
| 04... | 0.126 | E0.002 | <0.006 | 0.036 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| JUL | | | | | | | | | | | | |
| 02... | 0.039 | <0.002 | <0.006 | 0.040 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| 09... | 0.028 | <0.002 | <0.006 | 0.100 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| 30... | <0.004 | <0.002 | <0.006 | 0.046 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| AUG | | | | | | | | | | | | |
| 13... | <0.010 | <0.002 | <0.006 | 0.109 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| SEP | | | | | | | | | | | | |
| 09... | <0.004 | <0.002 | <0.006 | 0.041 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |
| 24... | <0.004 | <0.002 | <0.006 | 0.036 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 |

| DATE | LINDANE DIS-SOLVED (UG/L) (39341) | LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) | MALA-THION, DIS-SOLVED (UG/L) (39532) | METO-LACHLOR WATER DISSOLV (UG/L) (39415) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630) | MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671) | NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684) | PARA-THION, DIS-SOLVED (UG/L) (39542) | METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667) | PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669) | PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683) | PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 20... | <0.004 | <0.002 | <0.005 | 0.015 | <0.004 | <0.004 | <0.003 | <0.030 | <0.006 | <0.004 | <0.004 | <0.005 |
| DEC | | | | | | | | | | | | |
| 04... | <0.004 | <0.002 | <0.005 | 0.012 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |

## 04208504 CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LINDANE DIS-SOLVED (UG/L) (39341) | LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) | MALA-THION, DIS-SOLVED (UG/L) (39532) | METO-LACHLOR WATER DISSOLV (UG/L) (39415) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630) | MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671) | NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684) | PARA-THION, DIS-SOLVED (UG/L) (39542) | METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667) | PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669) | PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683) | PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | | |
| 17... | <0.004 | <0.002 | <0.005 | 0.015 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| FEB | | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | <0.004 | <0.002 | <0.005 | 0.010 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| MAR | | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | <0.004 | <0.002 | <0.005 | 0.042 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | |
| MAY | | | | | | | | | | | | |
| 06... | <0.004 | <0.002 | <0.010 | 0.099 | <0.060 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | 0.021 | <0.005 |
| 21... | <0.004 | <0.002 | <0.005 | 0.059 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| JUN | | | | | | | | | | | | |
| 04... | <0.004 | <0.002 | 0.006 | 0.386 | 0.030 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| JUL | | | | | | | | | | | | |
| 02... | <0.004 | <0.002 | 0.015 | 0.078 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| 09... | <0.004 | <0.002 | <0.005 | 0.062 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| 30... | <0.004 | <0.002 | <0.005 | 0.037 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| AUG | | | | | | | | | | | | |
| 13... | <0.004 | <0.002 | 0.016 | 0.021 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| SEP | | | | | | | | | | | | |
| 09... | <0.004 | <0.002 | <0.005 | 0.022 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |
| 24... | <0.004 | <0.002 | <0.005 | 0.023 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 |

| DATE | PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664) | PRO-METON, WATER, DISS, REC (UG/L) (04037) | PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) | PROP-CHLOR, WATER, DISS, REC (UG/L) (04024) | PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) | PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) | SI-MAZINE, WATER, DISS, REC (UG/L) (04035) | TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) | TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) | TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) | THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) | TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 20... | <0.002 | 0.029 | <0.003 | <0.007 | <0.004 | <0.013 | 0.011 | E0.016 | <0.007 | <0.013 | <0.002 | <0.001 |
| DEC | | | | | | | | | | | | |
| 04... | <0.002 | 0.019 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | E0.006 | <0.007 | <0.013 | <0.002 | <0.001 |
| JAN | | | | | | | | | | | | |
| 17... | <0.002 | 0.023 | <0.003 | <0.007 | <0.004 | <0.013 | 0.010 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| FEB | | | | | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | <0.002 | <0.018 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAR | | | | | | | | | | | | |
| 12... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 23... | <0.002 | 0.019 | <0.003 | <0.007 | <0.004 | <0.013 | 0.021 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAY | | | | | | | | | | | | |
| 06... | <0.002 | 0.044 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 21... | <0.002 | 0.037 | <0.003 | <0.007 | <0.004 | <0.013 | 0.031 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUN | | | | | | | | | | | | |
| 04... | <0.002 | 0.039 | <0.003 | <0.007 | <0.004 | <0.013 | 0.050 | E0.007 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUL | | | | | | | | | | | | |
| 02... | <0.002 | 0.049 | <0.003 | <0.007 | <0.004 | <0.013 | 0.063 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 09... | <0.002 | 0.063 | <0.003 | <0.007 | <0.004 | <0.013 | 0.018 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 30... | <0.002 | 0.048 | <0.003 | <0.007 | <0.004 | <0.013 | 0.021 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| AUG | | | | | | | | | | | | |
| 13... | <0.002 | 0.162 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| SEP | | | | | | | | | | | | |
| 09... | <0.002 | 0.032 | <0.003 | <0.007 | <0.004 | <0.013 | <0.010 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 24... | <0.002 | 0.079 | <0.003 | <0.007 | <0.004 | <0.013 | 0.017 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |

## 04209000 CHAGRIN RIVER AT WILLOUGHBY, OHIO

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 mi².
PERIOD OF RECORD.--July 1925 to November 1935, October 1939 to 1984, March 25, 1988 to September 1994, October 1, 1995, to September, 1996. (July 1925 to September 1932 monthly runoff in inches, adjusted for diversion, published in WSP 1307; previously published runoff 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 sea level. Prior to Dec. 20, 1939, nonrecording gage at site 150 ft upstream at datum 7 ft higher.
REMARKS.--Records fair except for periods of estimated record, which are poor. 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 and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 204 | 235 | 3180 | e250 | e210 | 679 | e500 | 219 | 6190 | 86 | 37 | 74 |
| 2 | 159 | 192 | 1250 | 360 | e190 | 1860 | e350 | 248 | 5330 | 95 | 36 | 89 |
| 3 | 132 | 186 | 532 | 360 | e240 | 779 | e280 | 928 | 2550 | 114 | 39 | 104 |
| 4 | 111 | 189 | 489 | 320 | 609 | 523 | e250 | 1140 | 834 | 81 | 60 | 80 |
| 5 | 101 | 176 | 430 | 400 | 1660 | 478 | e230 | 414 | 497 | 71 | 72 | 78 |
| 6 | 94 | 163 | 430 | e310 | e900 | e1300 | e210 | 1490 | 341 | 66 | 51 | 69 |
| 7 | 84 | 159 | 380 | e260 | e450 | e1000 | e190 | 518 | 268 | 62 | 35 | 58 |
| 8 | 81 | 715 | 337 | e230 | e300 | e680 | e180 | 365 | 232 | 61 | 32 | 54 |
| 9 | 121 | 1030 | 321 | e210 | e250 | e560 | e170 | 418 | 209 | 77 | 31 | 55 |
| 10 | 317 | 1160 | 317 | e190 | e210 | 1460 | e160 | 785 | 193 | 84 | 32 | 105 |
| 11 | 204 | 849 | 1380 | e170 | e190 | 667 | 179 | 550 | 182 | 69 | 42 | 125 |
| 12 | 143 | 671 | 2100 | e160 | e160 | e520 | 1400 | 368 | 365 | 61 | 62 | 108 |
| 13 | 114 | 595 | 661 | e150 | e150 | e400 | 1240 | 296 | 322 | 56 | 138 | 94 |
| 14 | 98 | 545 | 413 | e140 | e130 | e2000 | 507 | 242 | 206 | 56 | 108 | 81 |
| 15 | 85 | 476 | 337 | e130 | e120 | e1300 | 366 | 310 | 170 | 68 | 81 | 74 |
| 16 | 80 | 448 | 337 | e200 | e110 | e640 | 309 | 417 | 170 | 55 | 165 | 71 |
| 17 | 77 | 486 | 1800 | e250 | e110 | e450 | 381 | 323 | 546 | 49 | 333 | 67 |
| 18 | 632 | 2480 | 755 | e160 | 169 | e380 | 383 | 253 | 204 | 47 | 215 | 74 |
| 19 | 2800 | 1610 | e460 | e130 | 660 | e340 | 315 | 1200 | 218 | 57 | 113 | 68 |
| 20 | 2670 | 1070 | e350 | e120 | 757 | 304 | 254 | 809 | 186 | 53 | 79 | 1280 |
| 21 | 1000 | 848 | e280 | e110 | 436 | 275 | 215 | 361 | 148 | 52 | 231 | 420 |
| 22 | 593 | 736 | e250 | e100 | 364 | 386 | 250 | 259 | 149 | 80 | 1130 | 186 |
| 23 | 417 | 678 | 379 | e200 | e270 | e500 | 281 | 208 | 132 | 64 | 728 | 137 |
| 24 | 380 | 685 | 2120 | e450 | e220 | e400 | 343 | 172 | 115 | 57 | 249 | 116 |
| 25 | 292 | 1590 | e1100 | e800 | e180 | 361 | 419 | 637 | 106 | 54 | 240 | 100 |
| 26 | 237 | 3670 | e500 | e640 | 163 | 749 | 278 | 665 | 216 | 55 | 170 | 93 |
| 27 | 200 | 880 | 337 | e900 | 6640 | 438 | 218 | 267 | 149 | 59 | 124 | 81 |
| 28 | 216 | 511 | 397 | e1100 | 1600 | 347 | 372 | 190 | 101 | 57 | 102 | 76 |
| 29 | 185 | e404 | 399 | e800 | --- | 382 | 321 | 232 | 87 | 52 | 89 | 74 |
| 30 | 476 | 619 | 323 | e400 | --- | e580 | 236 | 329 | 82 | 43 | 81 | 112 |
| 31 | 367 | --- | 289 | e260 | --- | e650 | --- | 464 | --- | 38 | 77 | --- |
| TOTAL | 12670 | 24056 | 22633 | 10260 | 17448 | 21388 | 10787 | 15077 | 20498 | 1979 | 4982 | 4203 |
| MEAN | 409 | 802 | 730 | 331 | 623 | 690 | 360 | 486 | 683 | 63.8 | 161 | 140 |
| MAX | 2800 | 3670 | 3180 | 1100 | 6640 | 2000 | 1400 | 1490 | 6190 | 114 | 1130 | 1280 |
| MIN | 77 | 159 | 250 | 100 | 110 | 275 | 160 | 172 | 82 | 38 | 31 | 54 |
| CFSM | 1.66 | 3.26 | 2.97 | 1.35 | 2.53 | 2.80 | 1.46 | 1.98 | 2.78 | .26 | .65 | .57 |
| IN. | 1.92 | 3.64 | 3.42 | 1.55 | 2.64 | 3.23 | 1.63 | 2.28 | 3.10 | .30 | .75 | .64 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 158 | 314 | 423 | 478 | 553 | 693 | 546 | 361 | 218 | 129 | 123 | 129 |
| MAX | 976 | 850 | 1284 | 1312 | 1242 | 1234 | 1409 | 1088 | 781 | 698 | 602 | 641 |
| (WY) | 1927 | 1984 | 1991 | 1952 | 1982 | 1963 | 1957 | 1989 | 1947 | 1969 | 1992 | 1926 |
| MIN | 21.9 | 44.3 | 60.4 | 115 | 48.1 | 179 | 120 | 53.4 | 23.1 | 20.3 | 16.8 | 17.6 |
| (WY) | 1954 | 1965 | 1964 | 1977 | 1934 | 1990 | 1946 | 1934 | 1934 | 1934 | 1930 | 1933 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1925 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 171844 | | 165981 | | | |
| ANNUAL MEAN | 470 | | 455 | | 342 | |
| HIGHEST ANNUAL MEAN | | | | | 465 | 1975 |
| LOWEST ANNUAL MEAN | | | | | 148 | 1934 |
| HIGHEST DAILY MEAN | 5200 | Jan 19 | 6640 | Feb 27 | 12300 | Mar 22 1948 |
| LOWEST DAILY MEAN | 40 | Sep 5 | 31 | Aug 9 | 3.0 | Jul 25 1934 |
| ANNUAL SEVEN-DAY MINIMUM | 43 | Aug 31 | 41 | Aug 6 | 7.0 | Aug 25 1933 |
| INSTANTANEOUS PEAK FLOW | | | 14900 | Feb 27 a | 28000 | Mar 22 1948 |
| INSTANTANEOUS PEAK STAGE | | | 14.22 | Feb 27 | 17.95 | Mar 22 1948 |
| INSTANTANEOUS LOW FLOW | | | 28 | Aug 8 | 3.0 | Jul 25 1934 |
| ANNUAL RUNOFF (CFSM) | 1.91 | | 1.85 | | 1.39 | |
| ANNUAL RUNOFF (INCHES) | 25.99 | | 25.10 | | 18.89 | |
| 10 PERCENT EXCEEDS | 1060 | | 1000 | | 779 | |
| 50 PERCENT EXCEEDS | 279 | | 250 | | 150 | |
| 90 PERCENT EXCEEDS | 66 | | 68 | | 36 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04211820 GRAND RIVER AT HARPERSFIELD, OHIO

LOCATION.--Lat 41°45'19", long 80°56'55", Ashtabula County, Hydrologic Unit 04110004, on left bank, 2000 ft downstream of bridge on State Highway 534, 0.25 mi south of Harpersfield, 4.85 mi upstream of Mill Creek confluence.
DRAINAGE AREA.--552 mi².

### WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1996 to September 1996.
GAGE.--Water-stage recorder. Altitude of gage is 735 ft above sea level.
REMARKS.--Records excellent except for periods of estimated record, which are fair.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s Apr. 24, 1996, gage height, 9.15 ft; minimum daily discharge, 6.9 ft³/s Sept. 6, 1996.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1030 | 1060 | 2540 | e690 | 856 | 4810 | 985 | 376 | 3300 | 92 | 13 | 28 |
| 2 | 547 | 816 | 4040 | 677 | 660 | 4360 | 810 | 288 | 9200 | 101 | 12 | 25 |
| 3 | 266 | 593 | 2540 | 864 | 743 | 3450 | 604 | 320 | e12600 | 79 | 12 | 26 |
| 4 | 166 | 448 | 1860 | 848 | 1260 | 2100 | 442 | 821 | e11100 | 62 | 11 | 27 |
| 5 | 116 | 414 | 1480 | 902 | 4760 | 1560 | 358 | 772 | e5500 | 54 | 9.9 | 28 |
| 6 | 88 | 383 | 1090 | 1510 | 4210 | 2790 | 318 | 1740 | e3500 | 46 | 9.0 | 27 |
| 7 | 69 | 332 | 903 | 1120 | 2420 | 2800 | 279 | 1800 | e1900 | 40 | 8.3 | 27 |
| 8 | 58 | 1010 | 741 | e772 | 1870 | 2350 | 237 | 1190 | e1000 | 35 | 7.9 | 34 |
| 9 | 59 | 3940 | 630 | e565 | e1370 | 2430 | 209 | 1180 | e600 | 32 | 7.5 | 35 |
| 10 | 177 | 5150 | 557 | e492 | 839 | 3750 | 198 | 1190 | e350 | 30 | 7.4 | 38 |
| 11 | 257 | 4150 | 814 | e390 | 565 | 3150 | 197 | 1210 | e200 | 28 | 8.9 | 42 |
| 12 | 235 | 3190 | 3380 | e300 | e427 | 1930 | 589 | 806 | 137 | 28 | 9.3 | 61 |
| 13 | 181 | 2750 | 3400 | e250 | e500 | 1470 | 2960 | 568 | 205 | 27 | 10 | 92 |
| 14 | 132 | 2420 | 2760 | e230 | 382 | 3300 | 2260 | 427 | 565 | 26 | 9.7 | 81 |
| 15 | 102 | 1960 | 2510 | e250 | e339 | 5260 | 1750 | 386 | 352 | 24 | 12 | 58 |
| 16 | 83 | 1560 | 1980 | e270 | e320 | 2960 | 1400 | 549 | 190 | 21 | 16 | 43 |
| 17 | 65 | 1310 | 2460 | e250 | e340 | 2230 | 843 | 692 | 473 | 19 | 27 | 34 |
| 18 | 122 | 3220 | 3460 | e240 | 351 | 1700 | 560 | 584 | 560 | 18 | 58 | 28 |
| 19 | 2540 | 5010 | e2060 | e230 | 1250 | 1040 | 502 | 1480 | 942 | 16 | 98 | 25 |
| 20 | 5650 | 3280 | e1500 | e220 | 3400 | 674 | 432 | 4150 | 657 | 15 | 84 | 34 |
| 21 | 4110 | 1990 | e890 | e215 | 3000 | 501 | 334 | 2230 | 349 | 15 | 65 | 70 |
| 22 | 2810 | 1230 | 654 | 332 | 2490 | 432 | 291 | 1080 | 203 | 14 | 67 | 210 |
| 23 | 2010 | 877 | 472 | e1800 | 1780 | 440 | 412 | 607 | 140 | 14 | 77 | 152 |
| 24 | 1730 | 737 | 2360 | e1900 | 1120 | e500 | 449 | 371 | 107 | 15 | 85 | 88 |
| 25 | 1260 | 1290 | e3240 | 2080 | e618 | 525 | 438 | 311 | 87 | 16 | 108 | 64 |
| 26 | 830 | 5030 | e2040 | e2300 | 492 | 975 | 384 | 803 | 77 | 16 | 81 | 50 |
| 27 | 547 | 4850 | 1600 | e1690 | 6340 | 1150 | 308 | 1080 | 89 | 17 | 61 | 42 |
| 28 | 393 | 2580 | 1340 | e1900 | 9570 | 860 | 292 | 796 | 96 | 17 | 57 | 36 |
| 29 | 311 | 1860 | 1640 | e1800 | --- | 640 | 372 | 505 | 110 | 16 | 49 | 32 |
| 30 | 456 | 1510 | 1320 | e1600 | --- | 548 | 428 | 325 | 89 | 15 | 39 | 31 |
| 31 | 1160 | --- | 955 | 1180 | --- | 864 | --- | 337 | --- | 14 | 32 | --- |
| TOTAL | 27560 | 64950 | 57216 | 27867 | 52272 | 61549 | 19641 | 28974 | 54678 | 962 | 1151.9 | 1568 |
| MEAN | 889 | 2165 | 1846 | 899 | 1867 | 1985 | 655 | 935 | 1823 | 31.0 | 37.2 | 52.3 |
| MAX | 5650 | 5150 | 4040 | 2300 | 9570 | 5260 | 2960 | 4150 | 12600 | 101 | 108 | 210 |
| MIN | 58 | 332 | 472 | 215 | 320 | 432 | 197 | 288 | 77 | 14 | 7.4 | 25 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 889 | 2165 | 1846 | 899 | 1867 | 1744 | 1204 | 1179 | 1321 | 90.4 | 47.0 | 263 |
| MAX | 889 | 2165 | 1846 | 899 | 1867 | 1985 | 1754 | 1424 | 1823 | 150 | 56.9 | 474 |
| (WY) | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1996 | 1996 | 1997 | 1996 | 1996 | 1996 |
| MIN | 889 | 2165 | 1846 | 899 | 1867 | 1503 | 655 | 935 | 820 | 31.0 | 37.2 | 52.3 |
| (WY) | 1997 | 1997 | 1997 | 1997 | 1997 | 1996 | 1997 | 1997 | 1996 | 1997 | 1997 | 1997 |

| SUMMARY STATISTICS | FOR 1997 WATER YEAR | | WATER YEARS 1996 - 1997 | |
|---|---|---|---|---|
| ANNUAL TOTAL | 398388.9 | | | |
| ANNUAL MEAN | 1091 | | 1091 | |
| HIGHEST ANNUAL MEAN | | | 1091 | 1997 |
| LOWEST ANNUAL MEAN | | | 1091 | 1997 |
| HIGHEST DAILY MEAN | 12600 | Jun 3 | 12600 | Jun 3 1997 |
| LOWEST DAILY MEAN | 7.4 | Aug 10 | 6.9 | Sep 6 1996 |
| ANNUAL SEVEN-DAY MINIMUM | 8.3 | Aug 6 | 8.3 | Aug 6 1997 |
| INSTANTANEOUS PEAK FLOW | e16000 | Jun 3 | e16000 | Jun 3 1997 |
| INSTANTANEOUS PEAK STAGE | 11.38 | Jun 3 | 11.38 | Jun 3 1997 |
| INSTANTANEOUS LOW FLOW | 6.9 | Aug 9 | 6.2 | Sep 6 1996 |
| 10 PERCENT EXCEEDS | 2980 | | 2800 | |
| 50 PERCENT EXCEEDS | 492 | | 440 | |
| 90 PERCENT EXCEEDS | 26 | | 27 | |

e Estimated.

## 04211820 GRAND RIVER AT HARPERSFIELD, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

### WATER-QUALITY RECORDS

The data described in the following table were collected and analyzed as part of the NAWQA (National Water-Quaity Assessment Program) project in the Lake Erie-Lake St. Clair Basin. The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. This project is one of 60 river basin and aquifer assessment projects being implemented across the nation. At any one time, 15 to 20 of these projects are actively collecting data. The period of high-intensity data collection for the Lake Erie-Lake St. Clair Basin project is in water years 1996-98.

There are four stream sites in Ohio for which data are being reported in this publication as part of the NAWQA study: Auglaize River near Ft. Jennings (04186500), Maumee River at Waterville (04193500), Cuyahoga River at LTV Steel at Cleveland (04208504), and Grand River at Harpersfield (04211820). Three sites are reported in the 1997 Michigan annual data report: Black River near Jeddo, MI (04159492), Clinton River at Sterling Heights, MI (04161820) and River Raisin near Manchester, MI (04175600). Two Sites are reported in the 1997 Indiana annual data report: St. Joseph River near Newville, IN (04178000), and Maumee River at New Haven, IN (04183000). One site is reported in the 1997 New York annual data report: Cattaraugus Creek at Gowanda, NY (04213500).

These data also can be obtained electronically at

http//www-oh.er.usgs.gov/nawqa.index.html.

---, no data; <, concentration or value reported is less than that indicated; E, estimated value; K, value is estimated from a non-ideal colony count

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | BARO-METRIC PRES-SURE (MM OF HG) (00025) | OXYGEN, DIS-SOLVED (MG/L) (00300) | OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301) | COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625) | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 24... | 1015 | 1770 | 223 | 7.4 | 10.0 | 10.0 | 734 | 9.2 | 85 | 410 | K200 | 5.8 |
| NOV | | | | | | | | | | | | |
| 21... | 0945 | 2050 | 183 | 7.4 | 3.0 | 3.0 | 740 | 12.5 | 95 | 410 | 260 | 4.7 |
| DEC | | | | | | | | | | | | |
| 05... | 0915 | 1540 | 180 | 7.5 | 0.5 | 3.0 | 740 | 12.7 | 96 | 600 | -- | 4.8 |
| JAN | | | | | | | | | | | | |
| 16... | 1000 | 267 | 291 | 7.5 | -9.0 | 0.0 | 735 | 12.0 | 85 | -- | -- | 4.0 |
| FEB | | | | | | | | | | | | |
| 06... | 0930 | 4400 | 167 | 6.8 | 0.0 | 0.0 | 753 | 12.6 | 87 | 900 | 800 | 3.5 |
| 27... | 0930 | 5430 | 190 | 7.3 | 17.0 | 2.5 | 728 | 11.7 | 90 | -- | 1200 | 4.0 |
| MAR | | | | | | | | | | | | |
| 13... | 0900 | 1530 | 182 | 7.4 | -3.0 | 4.0 | 754 | 12.1 | 92 | -- | K160 | 4.5 |
| 27... | 0830 | 1200 | 233 | 7.7 | 11.0 | 5.0 | 739 | 11.9 | 95 | -- | 360 | 5.0 |
| APR | | | | | | | | | | | | |
| 10... | 0845 | 197 | 278 | 8.1 | -3.0 | 6.0 | 752 | 11.9 | 97 | -- | K42 | 7.1 |
| 24... | 0900 | 452 | 257 | 7.8 | 8.5 | 9.0 | 735 | 10.4 | 93 | -- | 170 | 6.0 |
| MAY | | | | | | | | | | | | |
| 05... | 1200 | 766 | 246 | 7.7 | 10.5 | 13.0 | 744 | 10.4 | 101 | -- | 210 | 5.9 |
| 22... | 0900 | 1140 | 206 | 7.7 | 8.5 | 14.5 | 749 | 8.6 | 87 | -- | 220 | 5.0 |
| JUN | | | | | | | | | | | | |
| 05... | 0930 | 5500 | 128 | 7.0 | 16.0 | 15.5 | 743 | 9.8 | 100 | -- | 340 | 3.4 |
| JUL | | | | | | | | | | | | |
| 02... | 0840 | 102 | 278 | 7.7 | 28.5 | 23.5 | 738 | 7.7 | 93 | -- | 5100 | 7.4 |
| 10... | 0915 | 30 | 371 | 8.1 | 18.0 | 21.5 | 749 | 8.5 | 98 | -- | K20 | 9.7 |
| 31... | 0900 | 14 | 384 | 8.0 | 21.5 | 24.0 | 752 | 8.4 | 101 | -- | -- | 11 |
| AUG | | | | | | | | | | | | |
| 14... | 0815 | 9.8 | 414 | 7.8 | 15.0 | 20.5 | 744 | 7.2 | 82 | -- | K17 | 11 |
| SEP | | | | | | | | | | | | |
| 08... | 1230 | 34 | 488 | 8.6 | 18.0 | 22.5 | 742 | 9.8 | 115 | -- | K36 | 12 |
| 25... | 0930 | 62 | 466 | 7.8 | 15.0 | 14.5 | 734 | 9.5 | 94 | -- | K50 | 12 |

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 24... | 11 | 3.9 | 69 | -- | 57 | 25 | 17 | 0.1 | 6.5 | 143 | 0.04 | 0.41 |
| NOV | | | | | | | | | | | | |
| 21... | 9.1 | 2.6 | 51 | -- | 41 | 19 | 15 | 0.2 | 5.7 | 124 | 0.02 | 0.45 |
| DEC | | | | | | | | | | | | |
| 05... | 8.4 | 2.8 | 49 | -- | 40 | 21 | 14 | 0.1 | 5.4 | 122 | 0.02 | 0.29 |
| JAN | | | | | | | | | | | | |
| 16... | 8.4 | 1.5 | 95 | -- | 78 | 22 | 19 | 0.2 | 3.1 | 128 | 0.02 | 0.41 |
| FEB | | | | | | | | | | | | |
| 06... | 10 | 1.9 | 53 | -- | 43 | 15 | 18 | <0.1 | 4.2 | 100 | 0.02 | 0.53 |
| 27... | 13 | 2.0 | 45 | -- | 37 | 18 | 24 | 0.1 | 3.6 | 112 | <0.01 | 0.56 |

## 04211820 GRAND RIVER AT HARPERSFIELD, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAR | | | | | | | | | | | | |
| 13... | 10 | 2.0 | 44 | -- | 36 | 19 | 18 | 0.1 | 3.9 | 112 | <0.01 | 0.37 |
| 27... | 15 | 1.9 | 51 | -- | 42 | 21 | 27 | <0.1 | 3.2 | 140 | <0.01 | 0.32 |
| APR | | | | | | | | | | | | |
| 10... | 15 | 2.0 | 83 | -- | 68 | 28 | 25 | 0.2 | 1.5 | 162 | <0.01 | 0.08 |
| 24... | 15 | 2.0 | 74 | -- | 60 | 25 | 25 | 0.1 | 2.3 | 161 | <0.01 | 0.26 |
| MAY | | | | | | | | | | | | |
| 05... | 15 | 1.8 | 80 | -- | 65 | 20 | 25 | 0.2 | 2.7 | 139 | <0.01 | 0.13 |
| 22... | 9.7 | 2.0 | 70 | -- | 58 | 16 | 15 | 0.2 | 3.0 | 133 | <0.01 | 0.30 |
| JUN | | | | | | | | | | | | |
| 05... | 5.3 | 2.3 | 59 | -- | 48 | 11 | 7.9 | 0.1 | 4.4 | 102 | 0.02 | 0.44 |
| JUL | | | | | | | | | | | | |
| 02... | 12 | 3.1 | 100 | -- | 82 | 21 | 18 | 0.2 | 3.6 | 171 | 0.01 | 0.33 |
| 10... | 17 | 3.0 | 127 | -- | 104 | 30 | 28 | 0.2 | 3.9 | 220 | <0.01 | 0.14 |
| 31... | 19 | 2.9 | 143 | -- | 117 | 27 | 28 | 0.2 | 1.7 | 228 | <0.01 | 0.06 |
| AUG | | | | | | | | | | | | |
| 14... | 20 | 2.9 | 174 | -- | 143 | 30 | 29 | 0.2 | 1.3 | 236 | <0.01 | 0.07 |
| SEP | | | | | | | | | | | | |
| 08... | 26 | 3.7 | 117 | 7 | 108 | 65 | 44 | 0.2 | 2.2 | 292 | 0.01 | 0.20 |
| 25... | 26 | 3.6 | 142 | -- | 116 | 48 | 40 | 0.2 | 3.8 | 275 | <0.01 | 0.32 |

| DATE | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608) | NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625) | NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) | PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666) | PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671) | IRON, DIS-SOLVED (UG/L AS FE) (01046) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681) | CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 24... | 0.04 | 0.8 | 0.6 | 0.09 | 0.02 | 0.02 | 260 | 32 | 10 | 1.3 | 30 | -- |
| NOV | | | | | | | | | | | | |
| 21... | 0.04 | 0.6 | 0.4 | 0.04 | 0.01 | 0.02 | 220 | 26 | 7.3 | 0.7 | 22 | <0.002 |
| DEC | | | | | | | | | | | | |
| 05... | 0.03 | 0.6 | 0.4 | 0.08 | 0.05 | 0.05 | 220 | 23 | 7.2 | 1.3 | 28 | <0.002 |
| JAN | | | | | | | | | | | | |
| 16... | 0.05 | 0.5 | 0.3 | 0.07 | <0.01 | 0.01 | 180 | 33 | 5.7 | 0.6 | 8 | <0.002 |
| FEB | | | | | | | | | | | | |
| 06... | 0.06 | 0.8 | 0.4 | 0.11 | 0.03 | <0.01 | 210 | 38 | 5.2 | 1.3 | 85 | -- |
| 27... | 0.07 | 2.8 | 0.4 | 0.74 | <0.01 | 0.01 | 180 | 45 | 5.1 | 12 | 1040 | <0.002 |
| MAR | | | | | | | | | | | | |
| 13... | <0.02 | 0.5 | 0.4 | 0.07 | <0.01 | 0.01 | 150 | 19 | 5.9 | 1.2 | 47 | -- |
| 27... | <0.02 | 0.7 | 0.3 | 0.10 | <0.01 | <0.01 | 200 | 31 | 5.7 | 1.2 | 36 | -- |
| APR | | | | | | | | | | | | |
| 10... | <0.02 | 0.3 | 0.3 | 0.03 | <0.01 | <0.01 | 310 | 38 | 5.3 | 0.5 | 11 | -- |
| 24... | 0.05 | 0.5 | 0.4 | 0.05 | <0.01 | <0.01 | 300 | 45 | 6.3 | 0.5 | 21 | <0.002 |
| MAY | | | | | | | | | | | | |
| 05... | <0.02 | 0.5 | 0.4 | 0.06 | <0.01 | <0.01 | 320 | 48 | 7.5 | 0.7 | 31 | <0.002 |
| 22... | 0.04 | 0.7 | 0.6 | 0.09 | 0.02 | 0.01 | 240 | 13 | 9.4 | 0.7 | 40 | 0.165 |
| JUN | | | | | | | | | | | | |
| 05... | 0.04 | 0.7 | 0.6 | 0.11 | 0.03 | 0.03 | 370 | 24 | 10 | 1.7 | -- | 0.410 |
| JUL | | | | | | | | | | | | |
| 02... | <0.02 | 0.7 | 0.6 | 0.04 | <0.01 | <0.01 | 160 | 6.1 | 9.6 | 1.4 | 37 | 0.099 |
| 10... | <0.02 | 0.7 | 0.5 | 0.04 | <0.01 | <0.01 | 28 | 27 | 7.2 | 0.8 | 6 | 0.121 |
| 31... | <0.02 | 0.6 | 0.4 | 0.04 | <0.01 | 0.01 | 24 | 73 | 7.7 | 0.6 | 10 | 0.029 |
| AUG | | | | | | | | | | | | |
| 14... | <0.02 | 0.6 | 0.5 | 0.04 | 0.01 | 0.01 | 20 | 81 | 6.9 | 0.8 | 9 | <0.002 |
| SEP | | | | | | | | | | | | |
| 08... | <0.02 | 0.5 | 0.4 | 0.03 | <0.01 | <0.01 | 8 | 8.5 | 5.4 | 0.4 | 10 | 0.010 |
| 25... | <0.02 | 0.5 | <0.20 | 0.04 | <0.01 | <0.01 | 20 | 17 | 5.3 | 0.8 | 10 | 0.012 |

| DATE | ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRA-ZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040) | METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYL-ATE, WATER, DISS, REC (UG/L) (04028) | CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933) | CYANA-ZINE, WATER, DISS, REC (UG/L) (04041) | DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682) | P,P' DDE DISSOLV (UG/L) (34653) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | | |
| 21... | <0.002 | 0.051 | E0.034 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | <0.004 | <0.002 | <0.006 |
| DEC | | | | | | | | | | | | |
| 05... | <0.002 | 0.039 | E0.019 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | <0.004 | <0.002 | <0.006 |
| JAN | | | | | | | | | | | | |
| 16... | <0.002 | 0.036 | E0.019 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | <0.004 | <0.002 | <0.006 |

## 04211820 GRAND RIVER AT HARPERSFIELD, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342) | ATRA-ZINE, WATER, DISS, REC (UG/L) (39632) | DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040) | METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686) | BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673) | BUTYL-ATE, WATER, DISS, REC (UG/L) (04028) | CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680) | CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674) | CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933) | CYANA-ZINE, WATER, DISS, REC (UG/L) (04041) | DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682) | P,P' DDE DISSOLV (UG/L) (34653) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <0.002 | 0.044 | E0.019 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | <0.004 | E0.002 | <0.006 |
| MAR | | | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | <0.002 | 0.035 | E0.009 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | <0.004 | <0.002 | <0.006 |
| MAY | | | | | | | | | | | | |
| 05... | <0.002 | 0.039 | E0.010 | <0.080 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | <0.004 | <0.002 | <0.006 |
| 22... | 0.006 | 0.595 | E0.031 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.045 | E0.001 | <0.006 |
| JUN | | | | | | | | | | | | |
| 05... | 0.075 | 2.57 | E0.072 | <0.001 | <0.002 | <0.002 | E0.012 | <0.003 | 0.007 | 0.034 | E0.001 | <0.006 |
| JUL | | | | | | | | | | | | |
| 02... | 0.138 | 1.63 | E0.066 | <0.001 | <0.002 | <0.002 | E0.007 | <0.003 | 0.106 | 0.035 | <0.002 | <0.006 |
| 10... | 0.015 | 1.50 | E0.065 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.035 | <0.002 | <0.006 |
| 31... | 0.005 | 0.635 | E0.071 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | E0.004 | 0.024 | <0.002 | <0.006 |
| AUG | | | | | | | | | | | | |
| 14... | <0.002 | 0.490 | E0.056 | <0.001 | <0.002 | <0.002 | <0.003 | <0.003 | 0.021 | 0.017 | <0.002 | <0.006 |
| SEP | | | | | | | | | | | | |
| 08... | <0.002 | 0.346 | E0.044 | <0.100 | <0.002 | <0.002 | <0.003 | <0.003 | <0.004 | 0.017 | <0.002 | <0.006 |
| 25... | <0.002 | 0.276 | E0.027 | <0.080 | <0.002 | <0.002 | E0.013 | <0.003 | <0.004 | 0.009 | <0.002 | <0.006 |

| DATE | DI-AZINON, DIS-SOLVED (UG/L) (39572) | DI-ELDRIN DIS-SOLVED (UG/L) (39381) | 2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660) | DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677) | EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668) | ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663) | ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672) | FONOFOS WATER DISS REC (UG/L) (04095) | ALPHA BHC DIS-SOLVED (UG/L) (34253) | LINDANE DIS-SOLVED (UG/L) (39341) | LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 21... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| DEC | | | | | | | | | | | |
| 05... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| JAN | | | | | | | | | | | |
| 16... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| FEB | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| MAR | | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| MAY | | | | | | | | | | | |
| 05... | 0.007 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 22... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| JUN | | | | | | | | | | | |
| 05... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| JUL | | | | | | | | | | | |
| 02... | 0.040 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 10... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 31... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| AUG | | | | | | | | | | | |
| 14... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| SEP | | | | | | | | | | | |
| 08... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |
| 25... | <0.002 | <0.001 | <0.003 | <0.017 | <0.002 | <0.004 | <0.003 | <0.003 | <0.002 | <0.004 | <0.002 |

| DATE | MALA-THION, DIS-SOLVED (UG/L) (39532) | METO-LACHLOR WATER DISSOLV (UG/L) (39415) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630) | MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671) | NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684) | PARA-THION, DIS-SOLVED (UG/L) (39542) | METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667) | PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669) | PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683) | PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687) | PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 21... | <0.005 | 0.021 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| DEC | | | | | | | | | | | |
| 05... | <0.005 | 0.023 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |

## 04211820 GRAND RIVER AT HARPERSFIELD, OHIO--Continued

National Water-Quality Assessment Program, Lake Erie-Lake St. Clair Basin Study Unit

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | MALA-THION, DIS-SOLVED (UG/L) (39532) | METO-LACHLOR WATER DISSOLV (UG/L) (39415) | METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630) | MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671) | NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684) | PARA-THION, DIS-SOLVED (UG/L) (39542) | METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667) | PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669) | PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683) | PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687) | PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | | | | | | | | | | | |
| 16... | <0.005 | 0.014 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| FEB | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <0.005 | 0.009 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| MAR | | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | <0.005 | 0.016 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| MAY | | | | | | | | | | | |
| 05... | <0.005 | 0.014 | <0.010 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 22... | <0.005 | 0.315 | 0.012 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| JUN | | | | | | | | | | | |
| 05... | <0.005 | 1.51 | 0.120 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| JUL | | | | | | | | | | | |
| 02... | <0.005 | 0.609 | 0.032 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 10... | <0.005 | 0.843 | 0.033 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 31... | <0.005 | 0.287 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| AUG | | | | | | | | | | | |
| 14... | <0.005 | 0.174 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| SEP | | | | | | | | | | | |
| 08... | <0.005 | 0.129 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |
| 25... | <0.005 | 0.108 | <0.004 | <0.004 | <0.003 | <0.004 | <0.006 | <0.004 | <0.004 | <0.005 | <0.002 |

| DATE | PRO-METON, WATER, DISS, REC (UG/L) (04037) | PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676) | PROP-CHLOR, WATER, DISS, REC (UG/L) (04024) | PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679) | PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685) | SI-MAZINE, WATER, DISS, REC (UG/L) (04035) | TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670) | TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665) | TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675) | THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681) | TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | | |
| 24... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | | | |
| 21... | <0.018 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| DEC | | | | | | | | | | | |
| 05... | <0.018 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| JAN | | | | | | | | | | | |
| 16... | E0.008 | <0.003 | <0.007 | <0.004 | <0.013 | 0.006 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| FEB | | | | | | | | | | | |
| 06... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | <0.018 | <0.003 | <0.007 | <0.004 | <0.013 | <0.005 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAR | | | | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | | | | |
| 10... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24... | E0.014 | <0.003 | <0.007 | <0.004 | <0.013 | 0.009 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| MAY | | | | | | | | | | | |
| 05... | E0.013 | <0.003 | <0.007 | <0.004 | <0.013 | 0.030 | <0.010 | E0.014 | <0.013 | <0.002 | <0.001 |
| 22... | E0.007 | <0.003 | <0.007 | <0.004 | <0.013 | 0.034 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUN | | | | | | | | | | | |
| 05... | E0.009 | <0.003 | <0.007 | <0.004 | <0.013 | 0.177 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| JUL | | | | | | | | | | | |
| 02... | <0.018 | <0.003 | <0.007 | <0.004 | <0.013 | 0.124 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 10... | 0.019 | <0.003 | <0.007 | <0.004 | <0.013 | 0.056 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 31... | E0.017 | <0.003 | <0.007 | <0.004 | <0.013 | 0.056 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| AUG | | | | | | | | | | | |
| 14... | E0.017 | <0.003 | <0.007 | <0.004 | <0.013 | 0.040 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| SEP | | | | | | | | | | | |
| 08... | 0.044 | <0.003 | <0.007 | <0.004 | <0.013 | 0.025 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |
| 25... | E0.013 | <0.003 | <0.007 | <0.004 | <0.013 | 0.017 | <0.010 | <0.007 | <0.013 | <0.002 | <0.001 |

## 04212100 GRAND RIVER NEAR PAINESVILLE, OHIO

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 mi².
PERIOD OF RECORD.--October 1974 to current year.
GAGE.--Water-stage recorder. Datum of gage is 596.37 ft above sea level. Previously published, in error, as 620.37 ft above sea level.
REMARKS.--Records good except periods of estimated record, which are poor. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1340 | 1230 | 4750 | 942 | 1090 | 5670 | 1410 | 597 | 5870 | 113 | 17 | 35 |
| 2 | 847 | 1010 | 4880 | 993 | 913 | 5820 | 1200 | 531 | 10000 | 132 | 16 | 32 |
| 3 | 493 | 805 | 3240 | 1100 | 973 | 4300 | 922 | 1050 | 13400 | 127 | 15 | 32 |
| 4 | 293 | 627 | 2320 | 1100 | 1670 | 2710 | 682 | 2040 | 11500 | 97 | 16 | 30 |
| 5 | 210 | 552 | 1860 | 1090 | 5000 | 1970 | 537 | 1160 | 6500 | 79 | 16 | 26 |
| 6 | 159 | 535 | 1410 | 1670 | 4860 | 3350 | 475 | 2730 | 4030 | 69 | 14 | 28 |
| 7 | 129 | 482 | 1160 | 1370 | 2910 | 3570 | 399 | 2440 | 2350 | 62 | 12 | 27 |
| 8 | 105 | 1130 | 975 | 1030 | 2120 | 3030 | 329 | 1640 | 1090 | 55 | 12 | 25 |
| 9 | 111 | 4270 | 851 | 799 | 1770 | 3040 | 296 | 1670 | 551 | 53 | 11 | 29 |
| 10 | 462 | 5900 | 773 | 717 | 1190 | 4920 | 267 | 2140 | 367 | 50 | 11 | 42 |
| 11 | 468 | 5080 | 1620 | 587 | 779 | 4060 | 262 | 1920 | 282 | 45 | 12 | 79 |
| 12 | 389 | 3980 | 4070 | e500 | 592 | 2470 | 1260 | 1350 | 357 | 40 | 16 | 56 |
| 13 | 307 | 3470 | 4130 | e450 | 884 | 1850 | 3480 | 980 | 362 | 38 | 17 | 74 |
| 14 | 233 | 3140 | 3240 | e420 | 782 | 4290 | 2990 | 746 | 571 | 37 | 19 | 107 |
| 15 | 178 | 2640 | 2860 | e540 | 493 | 5880 | 2120 | 662 | 593 | 36 | 16 | 83 |
| 16 | 146 | 2080 | 2390 | e600 | 408 | 3680 | 1760 | 876 | 342 | 35 | 19 | 60 |
| 17 | 122 | 1820 | 3600 | e520 | 435 | 2630 | 1250 | 1010 | 809 | 31 | 41 | 45 |
| 18 | 566 | 4470 | 4090 | e480 | 516 | 2160 | 891 | 930 | 891 | 28 | 43 | 39 |
| 19 | 4400 | 5890 | 2770 | e450 | 1930 | 1440 | 739 | 1940 | 1030 | 25 | 65 | 33 |
| 20 | 7170 | 4290 | 1780 | e430 | 3820 | 976 | 660 | 4900 | 1080 | 24 | 103 | 121 |
| 21 | 5240 | 2740 | e740 | e420 | 3560 | 726 | 540 | 3070 | 603 | 23 | 155 | 94 |
| 22 | 3630 | 1730 | e560 | e1600 | 3020 | 614 | 598 | 1600 | 365 | 28 | 168 | 135 |
| 23 | 2640 | 1240 | e450 | 2570 | 2180 | 574 | 706 | 1010 | 251 | 26 | 196 | 261 |
| 24 | 2210 | 1070 | e3000 | 2230 | 1390 | 612 | 704 | 666 | 193 | 25 | 110 | 154 |
| 25 | 1610 | 2210 | 3920 | 2470 | 930 | 757 | 666 | 673 | 153 | 24 | 118 | 90 |
| 26 | 1120 | 6580 | 2390 | 2800 | 694 | 1490 | 598 | 926 | 129 | 23 | 125 | 73 |
| 27 | 808 | 5620 | 1820 | 1850 | 8310 | 1520 | 505 | 1350 | 113 | 24 | 85 | 56 |
| 28 | 622 | 3290 | 1650 | 2320 | 9510 | 1160 | 591 | 1100 | 124 | 23 | 65 | 46 |
| 29 | 515 | 2180 | 1940 | 2390 | --- | 962 | 577 | 852 | 132 | 21 | 57 | 40 |
| 30 | 727 | 2020 | 1600 | 1670 | --- | 1290 | 614 | 632 | 140 | 20 | 49 | 46 |
| 31 | 1190 | --- | 1210 | 1320 | --- | 1600 | --- | 789 | --- | 18 | 41 | --- |
| TOTAL | 38440 | 82081 | 72049 | 37428 | 62729 | 79121 | 28028 | 43980 | 64178 | 1431 | 1660 | 1998 |
| MEAN | 1240 | 2736 | 2324 | 1207 | 2240 | 2552 | 934 | 1419 | 2139 | 46.2 | 53.5 | 66.6 |
| MAX | 7170 | 6580 | 4880 | 2800 | 9510 | 5880 | 3480 | 4900 | 13400 | 132 | 196 | 261 |
| MIN | 105 | 482 | 450 | 420 | 408 | 574 | 262 | 531 | 113 | 18 | 11 | 25 |
| CFSM | 1.81 | 3.99 | 3.39 | 1.76 | 3.27 | 3.73 | 1.36 | 2.07 | 3.12 | .07 | .08 | .10 |
| IN. | 2.09 | 4.46 | 3.91 | 2.03 | 3.41 | 4.30 | 1.52 | 2.39 | 3.49 | .08 | .09 | .11 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 528 | 1291 | 1633 | 1430 | 1847 | 2058 | 1443 | 849 | 713 | 284 | 261 | 448 |
| MAX | 1880 | 4026 | 3816 | 3327 | 4044 | 3753 | 2598 | 3214 | 2851 | 1106 | 1106 | 1854 |
| (WY) | 1991 | 1986 | 1978 | 1993 | 1981 | 1993 | 1987 | 1989 | 1986 | 1987 | 1980 | 1990 |
| MIN | 42.1 | 67.1 | 363 | 109 | 322 | 577 | 450 | 106 | 39.8 | 30.5 | 17.0 | 11.0 |
| (WY) | 1992 | 1979 | 1992 | 1977 | 1987 | 1990 | 1975 | 1987 | 1988 | 1991 | 1991 | 1995 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1975 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 574422 | | 513123 | | | |
| ANNUAL MEAN | 1569 | | 1406 | | 1061 | |
| HIGHEST ANNUAL MEAN | | | | | 1406 | 1997 |
| LOWEST ANNUAL MEAN | | | | | 668 | 1992 |
| HIGHEST DAILY MEAN | 13200 | Jan 19 | 13400 | Jun 3 | 15300 | Nov 6 1985 |
| LOWEST DAILY MEAN | 23 | Sep 5 | 11 | Aug 9 | 5.1 | Aug 4 1991 |
| ANNUAL SEVEN-DAY MINIMUM | 26 | Aug 31 | 13 | Aug 5 | 5.3 | Aug 2 1991 |
| INSTANTANEOUS PEAK FLOW | | | 14800 | Jun 3 a | 18700 | Jun 11 1986 |
| INSTANTANEOUS PEAK STAGE | | | 11.33 | Jun 3 | 13.16 | Dec 25 1979 |
| INSTANTANEOUS LOW FLOW | | | 9.7 | Aug 10 | 5.1 | Aug 4 1991 |
| ANNUAL RUNOFF (CFSM) | 2.29 | | 2.05 | | 1.55 | |
| ANNUAL RUNOFF (INCHES) | 31.19 | | 27.87 | | 21.04 | |
| 10 PERCENT EXCEEDS | 4210 | | 3860 | | 2860 | |
| 50 PERCENT EXCEEDS | 833 | | 739 | | 430 | |
| 90 PERCENT EXCEEDS | 85 | | 31 | | 41 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

## 04213000 CONNEAUT CREEK AT CONNEAUT, OHIO

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 mi².
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 sea level. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.
REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 283 | 324 | 877 | 243 | 229 | 788 | 607 | 138 | 840 | 41 | 12 | 20 |
| 2 | 163 | 186 | 1630 | 237 | 247 | 1060 | 381 | 118 | 1670 | 41 | 12 | 18 |
| 3 | 112 | 149 | 625 | 395 | 344 | 1070 | 279 | 168 | 3480 | 38 | 16 | 17 |
| 4 | 85 | 145 | 384 | 403 | 614 | 487 | 203 | 307 | 3780 | 45 | 15 | 15 |
| 5 | 71 | 156 | 413 | 363 | 1770 | 368 | 171 | 269 | 624 | 38 | 13 | 14 |
| 6 | 63 | 165 | 389 | 779 | 1760 | 909 | 153 | 433 | 302 | 34 | 16 | 13 |
| 7 | 57 | 144 | 337 | 466 | 514 | 1010 | 139 | 730 | 192 | 33 | 13 | 13 |
| 8 | 52 | 718 | 284 | 288 | 314 | 629 | 117 | 326 | 147 | 32 | 11 | 12 |
| 9 | 54 | 2610 | 241 | 246 | 234 | 824 | 107 | 250 | 123 | 52 | 10 | 11 |
| 10 | 230 | 2550 | 233 | 222 | 177 | 1700 | 108 | 634 | 97 | 44 | 9.6 | 13 |
| 11 | 410 | 1510 | 341 | 175 | 150 | 1750 | 109 | 871 | 84 | 40 | 9.6 | 18 |
| 12 | 201 | 887 | 1330 | e150 | 132 | 557 | 254 | 442 | 78 | 38 | 10 | 14 |
| 13 | 124 | 747 | 2000 | e135 | 94 | 341 | 1100 | 315 | 109 | 33 | 13 | 19 |
| 14 | 91 | 703 | 1070 | e130 | 120 | 922 | 659 | 247 | 145 | 30 | 14 | 22 |
| 15 | 76 | 628 | 453 | e150 | 122 | 2340 | 335 | 206 | 161 | 25 | 17 | 19 |
| 16 | 63 | 531 | 317 | e170 | 106 | 656 | 219 | 284 | 90 | 24 | 37 | 16 |
| 17 | 56 | 501 | 611 | e150 | 104 | 368 | 178 | 313 | 92 | 22 | 33 | 15 |
| 18 | 68 | 1500 | 974 | e135 | 130 | 320 | 164 | 222 | 423 | 24 | 32 | 15 |
| 19 | 1300 | 2440 | 478 | e125 | 418 | 287 | 158 | 562 | 552 | 20 | 26 | 12 |
| 20 | 2260 | 1090 | 243 | e120 | 1680 | 223 | 136 | 1830 | 318 | 17 | 24 | 17 |
| 21 | 1090 | 622 | 127 | e110 | 1100 | 191 | 115 | 837 | 201 | 16 | 22 | 15 |
| 22 | 790 | 436 | e100 | e350 | 841 | 183 | 119 | 311 | 124 | 19 | 72 | 19 |
| 23 | 534 | 348 | e85 | e1400 | 443 | 216 | 142 | 203 | 82 | 18 | 64 | 25 |
| 24 | 524 | 298 | e800 | 910 | 254 | 195 | 160 | 171 | 66 | 17 | 57 | 18 |
| 25 | 417 | 407 | 1700 | 920 | 180 | 180 | 149 | 145 | 57 | 18 | 43 | 15 |
| 26 | 251 | 1770 | 583 | 1190 | 150 | 499 | 119 | 158 | 53 | 17 | 31 | 13 |
| 27 | 176 | 1800 | 374 | 495 | 2070 | 540 | 99 | 192 | 48 | 36 | 24 | 11 |
| 28 | 148 | 581 | 364 | 511 | 4560 | 279 | 125 | 131 | 49 | 19 | 25 | 10 |
| 29 | 135 | 355 | 794 | 637 | --- | 214 | 224 | 99 | 43 | 16 | 21 | 10 |
| 30 | 245 | 300 | 543 | 708 | --- | 259 | 187 | 91 | 38 | 15 | 21 | 13 |
| 31 | 561 | --- | 336 | 290 | --- | 680 | --- | 108 | --- | 13 | 22 | --- |
| TOTAL | 10690 | 24601 | 19036 | 12603 | 18857 | 20045 | 7016 | 11111 | 14068 | 875 | 745.2 | 462 |
| MEAN | 345 | 820 | 614 | 407 | 673 | 647 | 234 | 358 | 469 | 28.2 | 24.0 | 15.4 |
| MAX | 2260 | 2610 | 2000 | 1400 | 4560 | 2340 | 1100 | 1830 | 3780 | 52 | 72 | 25 |
| MIN | 52 | 144 | 85 | 110 | 94 | 180 | 99 | 91 | 38 | 13 | 9.6 | 10 |
| CFSM | 1.97 | 4.69 | 3.51 | 2.32 | 3.85 | 3.69 | 1.34 | 2.05 | 2.68 | .16 | .14 | .09 |
| IN. | 2.27 | 5.23 | 4.05 | 2.68 | 4.01 | 4.26 | 1.49 | 2.36 | 2.99 | .19 | .16 | .10 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MEAN | 140 | 325 | 422 | 417 | 464 | 541 | 388 | 233 | 136 | 77.5 | 66.7 | 106 |
| MAX | 804 | 1373 | 1049 | 929 | 1115 | 987 | 839 | 670 | 1013 | 415 | 493 | 709 |
| (WY) | 1927 | 1986 | 1928 | 1990 | 1981 | 1972 | 1957 | 1953 | 1986 | 1969 | 1980 | 1990 |
| MIN | 4.95 | 17.1 | 35.1 | 81.0 | 39.6 | 235 | 69.9 | 20.2 | 5.46 | 2.79 | 3.19 | 3.56 |
| (WY) | 1924 | 1954 | 1961 | 1977 | 1934 | 1969 | 1935 | 1934 | 1934 | 1934 | 1923 | 1932 |

| SUMMARY STATISTICS | FOR 1996 CALENDAR YEAR | | FOR 1997 WATER YEAR | | WATER YEARS 1922 - 1997 | |
|---|---|---|---|---|---|---|
| ANNUAL TOTAL | 173157.0 | | 140109.2 | | | |
| ANNUAL MEAN | 473 | | 384 | | 276 | |
| HIGHEST ANNUAL MEAN | | | | | 401 | 1986 |
| LOWEST ANNUAL MEAN | | | | | 140 | 1931 |
| HIGHEST DAILY MEAN | 5000 | Jan 19 | 4560 | Feb 28 | 11000 | Jan 31 1968 |
| LOWEST DAILY MEAN | 8.2 | Sep 6 | 9.6 | Aug 10 | .30 | Jul 30 1933 |
| ANNUAL SEVEN-DAY MINIMUM | 9.4 | Aug 31 | 11 | Aug 7 | .64 | Aug 27 1933 |
| INSTANTANEOUS PEAK FLOW | | | 6400 | Feb 28 a | 17000 | Jan 22 1959 |
| INSTANTANEOUS PEAK STAGE | | | 8.97 | Jan 23 b | 12.94 | Mar 4 1934 |
| INSTANTANEOUS LOW FLOW | | | 8.7 | Aug 8 | .20 | Jul 31 1933 |
| ANNUAL RUNOFF (CFSM) | 2.70 | | 2.19 | | 1.58 | |
| ANNUAL RUNOFF (INCHES) | 36.81 | | 29.78 | | 21.42 | |
| 10 PERCENT EXCEEDS | 1300 | | 943 | | 688 | |
| 50 PERCENT EXCEEDS | 203 | | 175 | | 97 | |
| 90 PERCENT EXCEEDS | 30 | | 16 | | 10 | |

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
b Ice jam.
e Estimated.

# PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

For continuous-record surface-water-discharge stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented in this table. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. The peaks are listed in chronological order. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by human intervention. 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 maximum peak discharge and gage height for the water year are flagged with an asterisk (*). Note: a = from highwater mark, b = ice jam, c = observed, e =estimated.

**Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997**

| Date | Time | Discharge (ft3/s) | Gage height (ft) | Date | Time | Discharge (ft3/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| | | | LAKE ERIE BASIN | | | | |
| | | | 04177000 OTTAWA RIVER AT TOLEDO UNIVERSITY, TOLEDO, OH (Base discharge: 1,150 $ft^3/s$) | | | | |
| Feb. 22 | 1200 | 1850 | 11.11 | Jun. 2 | 2300 | *2710 | *12.75 |
| Feb. 28 | 1130 | 1700 | 10.73 | Sep. 20 | 0430 | 1190 | 9.20 |
| Mar. 15 | 2100 | 1860 | 11.12 | | | | |
| | | | 04185000 TIFFIN RIVER AT STRYKER, OH (Base discharge: 1,850 $ft^3/s$) | | | | |
| Dec. 26 | 2300 | 2240 | 12.54 | Mar. 16 | 0600 | 3380 | 14.02 |
| Feb. 23 | 1500 | *3400 | *14.04 | Sep. 21 | 1400 | 2030 | 12.26 |
| Mar. 1 | 1400 | 3030 | 13.61 | | | | |
| | | | 04185440 UNNAMED TRIBUTARY TO LOST CREEK NR FARMER, OH (Base discharge: 120 $ft^3/s$) | | | | |
| Nov. 7 | 2115 | 163 | 3.64 | Mar. 14 | 0815 | *525 | *5.09 |
| Dec. 11 | 1715 | 164 | 3.65 | Jul. 9 | 0300 | 168 | 3.67 |
| Dec. 24 | 0015 | 308 | 4.35 | Aug. 17 | 0345 | 174 | 3.71 |
| Feb. 20 | 2245 | 450 | 4.86 | Sep. 10 | 0515 | 129 | 3.42 |
| Feb. 27 | 0530 | 466 | 4.91 | Sep. 17 | 1400 | 129 | 3.42 |
| | | | 04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OH (Base discharge: 2,700 $ft^3/s$) | | | | |
| Dec. 23 | 1200 | -- | *b16.90 | Feb. 28 | 1000 | 6210 | 15.47 |
| Feb. 5 | 2300 | 4230 | 13.44 | Jun. 3 | 0030 | *7380 | 16.40 |
| | | | 04187100 OTTAWA RIVER AT LIMA, OH (Base discharge: 1,300 $ft^3/s$) | | | | |
| Dec. 17 | 1200 | 1880 | 13.87 | May 26 | 0430 | 3330 | 16.27 |
| Feb. 4 | 2030 | 1510 | 13.28 | Jun. 1 | 2300 | *4310 | *18.14 |
| Feb. 27 | 1830 | 3940 | 17.43 | Aug. 17 | 2330 | 1370 | 13.05 |
| | | | 04189000 BLANCHARD RIVER NEAR FINDLAY, OH (Base discharge: 2,800 $ft^3/s$) | | | | |
| Dec. 13 | 1330 | 3550 | 9.20 | May 26 | 0730 | 7540 | 13.70 |
| Dec. 18 | 0330 | 3950 | 9.91 | Jun. 2 | 0730 | *9630 | *15.42 |
| Feb. 5 | 1130 | 3660 | 9.41 | Jul. 10 | 0430 | 7700 | 13.85 |
| Feb. 28 | 0200 | 7250 | 13.43 | Aug. 17 | 1800 | 2770 | 7.75 |
| Mar. 14 | 2100 | 2800 | 7.81 | | | | |
| | | | 04195500 PORTAGE RIVER AT WOODVILLE, OH (Base discharge: 3,500 $ft^3/s$) | | | | |
| Feb. 6 | 0100 | 4760 | 9.55 | May 27 | 0030 | 7420 | 11.69 |
| Feb. 28 | 1630 | 9110 | 12.85 | Jun. 3 | 0030 | *9810 | *13.30 |
| Mar. 15 | 1030 | 5110 | 9.86 | | | | |
| | | | 04196000 SANDUSKY RIVER NEAR BUCYRUS, OH (Base discharge: 1,200 $ft^3/s$) | | | | |
| Nov. 26 | 1930 | 1770 | 6.82 | Feb. 27 | 2000 | 1790 | 6.87 |
| Dec. 1 | 2100 | 1420 | 6.11 | Mar. 2 | 1600 | 1490 | 6.26 |
| Dec. 12 | 1230 | 2520 | 7.97 | Mar. 6 | 0630 | 1380 | 6.01 |
| Dec. 18 | 0030 | 2130 | 7.50 | May 19 | 2000 | 1240 | 5.69 |
| Dec. 24 | 1800 | 1920 | 7.11 | May 26 | 0830 | 1860 | 7.00 |
| Feb. 5 | -- | 1670 | a6.62 | Jun. 1 | 1800 | *3240 | *8.45 |

# PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

**Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997 (Continued)**

| Date | Time | Discharge (ft3/s) | Gage height (ft) | Date | Time | Discharge (ft3/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| 04196800 TYMOCHTEE CREEK AT CRAWFORD, OH (Base discharge: 1,800 $ft^3/s$) | | | | | | | |
| Dec. 12 | -- | e2460 | -- | Feb. 6 | 1700 | 2760 | 7.02 |
| Dec. 18 | -- | e1900 | -- | Mar. 1 | 0400 | 2170 | 6.46 |
| Dec. 25 | -- | e1900 | -- | Jun. 3 | 0100 | *5070 | *8.74 |
| 04197100 HONEY CREEK AT MELMORE, OH (Base discharge: 1,500 $ft^3/s$) | | | | | | | |
| Feb. 5 | -- | 1510 | a7.06 | May 26 | 0700 | 3070 | 9.49 |
| Feb. 27 | 1900 | 3010 | 9.41 | Jun. 1 | 2330 | *3580 | *10.14 |
| 04198000 SANDUSKY RIVER NEAR FREMONT, OH (Base discharge: 10,000 $ft^3/s$) | | | | | | | |
| Dec. 18 | 0500 | 10700 | 6.32 | May 26 | 1030 | 19200 | 8.95 |
| Feb. 5 | 1300 | e12000 | b9.93 | Jun. 2 | 0900 | *24800 | *10.59 |
| Feb. 28 | 0300 | 18600 | 8.78 | Jul. 10 | 0500 | 10000 | 6.09 |
| 04199000 HURON RIVER AT MILAN, OH (Base discharge: 4,700 $ft^3/s$) | | | | | | | |
| Dec. 12 | 0600 | 5340 | 14.87 | Feb. 27 | 1445 | *12300 | *20.68 |
| Dec. 17 | 1915 | 6870 | 16.35 | May 25 | 2359 | 8160 | 17.47 |
| Feb. 5 | 0100 | 8370 | 17.65 | Jun. 1 | 2044 | 11200 | 19.86 |
| 04199155 OLD WOMAN'S CREEK AT BERLIN ROAD NEAR HURON, OH (Base discharge: 400 $ft^3/s$) | | | | | | | |
| Nov. 26 | 0715 | 632 | 8.51 | Mar. 2 | 0715 | 621 | 8.45 |
| Dec. 11 | 2215 | 838 | 9.36 | Mar. 14 | 1000 | 613 | 8.41 |
| Dec. 17 | 1230 | 870 | 9.48 | May 3 | 1430 | 499 | 7.77 |
| Dec. 24 | 0515 | 431 | 7.34 | Jun. 1 | 1645 | 1100 | 10.18 |
| Jan. 28 | 0330 | 434 | 7.36 | Aug. 17 | 0200 | 809 | 9.25 |
| Feb. 4 | 2400 | 766 | 9.08 | Sep. 20 | 0815 | 911 | 9.62 |
| Feb. 27 | 0715 | *1940 | *11.81 | | | | |
| 04200500 BLACK RIVER AT ELYRIA, OH (Base discharge: 3,200 $ft^3/s$) | | | | | | | |
| Nov. 27 | 0700 | 4360 | 9.63 | Feb. 27 | 1600 | 7320 | 12.58 |
| Dec. 2 | 0100 | 3470 | 8.56 | May 26 | 1930 | 4370 | 9.64 |
| Dec. 13 | 0300 | 6460 | 11.80 | Jun. 2 | 1230 | *10400 | *15.03 |
| Dec. 18 | 1030 | 4720 | 10.04 | | | | |
| 04201500 ROCKY RIVER NEAR BEREA, OH (Base discharge: 4,000 $ft^3/s$) | | | | | | | |
| Oct. 19 | 0630 | 5160 | 5.16 | Dec. 24 | 1100 | 4280 | 4.74 |
| Nov. 26 | 0930 | 5790 | 5.44 | Feb. 27 | 1100 | 8710 | 6.64 |
| Dec. 1 | 1700 | 4480 | 4.84 | Apr. 12 | 2300 | 4640 | 4.92 |
| Dec. 12 | 0200 | 7290 | 6.04 | May 25 | 2300 | 5790 | 5.44 |
| Dec. 17 | 1530 | 5160 | 5.16 | Jun. 1 | 1600 | *9930 | *7.12 |
| 04206208 YELLOW CREEK AT GHENT, OH (Base discharge: 140 $ft^3/s$ - Revised) | | | | | | | |
| Dec. 11 | 1945 | 198 | 12.71 | Jun. 1 | 1425 | *207 | *12.76 |
| May 25 | 1545 | 178 | 12.61 | | | | |
| 04206210 NORTH FORK AT BATH, OH (Base discharge: 140 $ft^3/s$ - Revised) | | | | | | | |
| Dec. 11 | 1935 | *219 | *12.70 | Jun. 1 | 0330 | 172 | 12.38 |
| May 25 | 1140 | 192 | 12.52 | Jun. 1 | 1250 | 154 | 12.25 |
| 04206211 PARK CREEK AT BATH CENTER, OH (Base discharge: 60.0 $ft^3/s$ - Revised) | | | | | | | |
| Dec. 11 | 1315 | *92 | *13.27 | Jun. 1 | 0240 | 86 | 13.11 |
| May 25 | 1100 | 67 | 12.54 | Jun. 1 | 1045 | 72 | 12.71 |
| 04206212 NORTH FORK AT BATH CENTER, OH (Base discharge: 230 $ft^3/s$ - Revised) | | | | | | | |
| Dec. 11 | 1930 | 271 | 11.90 | Jun. 1 | 0315 | *298 | *12.01 |
| May 25 | 1205 | 264 | 11.87 | Jun. 1 | 1245 | 271 | 11.90 |

# PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

**Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997 (Continued)**

| Date | Time | Discharge (ft3/s) | Gage height (ft) | Date | Time | Discharge (ft3/s) | Gage height (ft) |
|---|---|---|---|---|---|---|---|
| 04206215 BATH CREEK AT BATH CENTER, OH (Base discharge: 80.0 $ft^3/s$ - Revised) | | | | | | | |
| Dec. 11 | 2050 | 109 | 13.64 | Jun. 1 | 1440 | *110 | *13.65 |
| May 25 | 1455 | 95 | 13.50 | | | | |
| 04206220 YELLOW CREEK AT BOTZUM, OH (Base discharge: 650 $ft^3/s$ - Revised) | | | | | | | |
| Dec. 11 | 2030 | 781 | 13.78 | Jun. 1 | 0325 | *1030 | 14.38 |
| May 25 | 1120 | 969 | 14.21 | Jun. 1 | 1335 | 996 | *14.59 |
| 04207200 TINKERS CREEK AT BEDFORD, OH (Base discharge: 1,500 $ft^3/s$) | | | | | | | |
| Feb. 27 | 0500 | 3820 | 7.89 | Jun. 1 | 0400 | *3860 | *7.92 |
| Apr. 12 | 1330 | 1660 | 6.21 | | | | |
| 04209000 CHAGRIN RIVER AT WILLOUGHBY, OH (Base discharge: 4,000 $ft^3/s$) | | | | | | | |
| Nov. 26 | 0530 | 5500 | 8.18 | Apr. 12 | 1730 | 4070 | 7.25 |
| Dec. 1 | 1000 | 4670 | 7.70 | Jun. 1 | 1700 | 10100 | 11.55 |
| Feb. 27 | 0800 | *14900 | *14.22 | | | | |
| 04211820 GRAND RIVER AT HARPERSFIELD, OH (Base discharge: 5,500 $ft^3/s$) | | | | | | | |
| Oct. 20 | 0815 | 5850 | 7.39 | Feb. 28 | 0330 | 11600 | 9.71 |
| Nov. 26 | 2230 | 6180 | 7.56 | Mar. 15 | 0545 | 6040 | 7.49 |
| Feb. 5 | 1200 | 6510 | 7.73 | Jun. 3 | Unknown | *e16000 | *a11.38 |
| 04212100 GRAND RIVER NEAR PAINESVILLE, OH (Base discharge: 6,500 $ft^3/s$) | | | | | | | |
| Oct. 20 | 0530 | 8160 | 8.14 | Feb. 27 | 0930 | 13300 | 10.65 |
| Nov. 26 | 0700 | 7250 | 7.59 | Jun. 3 | 1530 | *14800 | *11.33 |
| 04213000 CONNEAUT CREEK AT CONNEAUT, OH (Base discharge: 2,900 $ft^3/s$) | | | | | | | |
| Jan. 23 | 1100 | -- | *b8.97 | Jun. 4 | 0530 | 4800 | 7.35 |
| Feb. 28 | 1130 | *6400 | 8.34 | | | | |

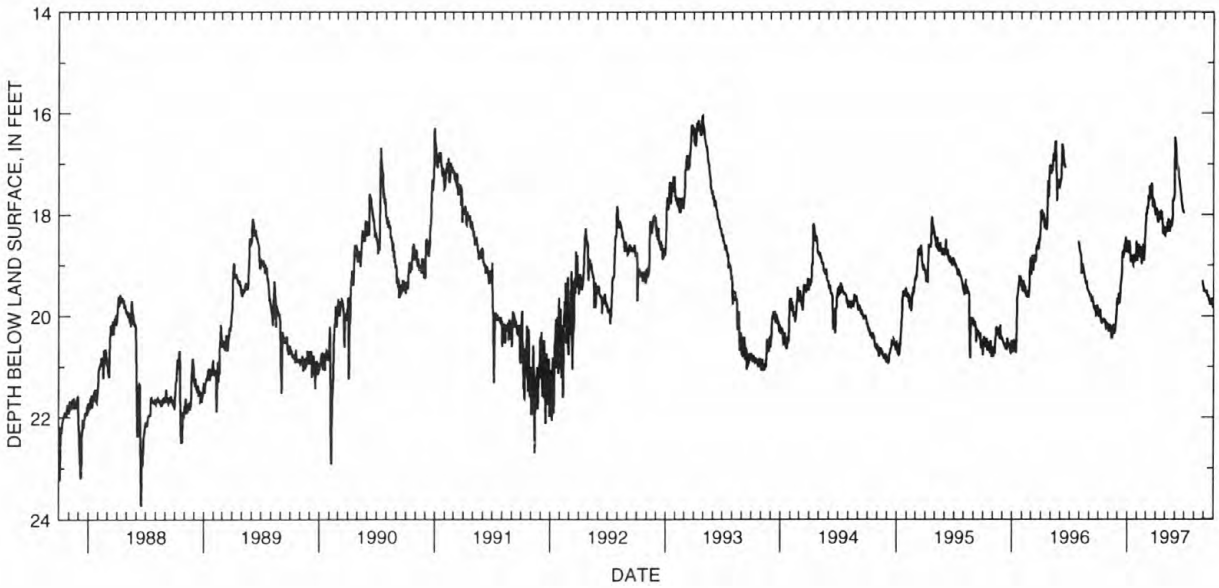
### 404838082563100. LOCAL NUMBER, CR-1

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 sea level.
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, 16.04 ft below land-surface datum, Apr. 29, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19.87 | 20.14 | 19.65 | 18.69 | 18.75 | 18.21 | 17.99 | 18.41 | 17.08 | 17.95 | --- | 19.48 |
| 2 | 19.93 | 20.25 | 19.67 | 18.51 | 18.81 | 18.12 | 17.98 | 18.42 | 16.46 | --- | --- | 19.47 |
| 3 | 19.98 | 20.29 | 19.69 | 18.61 | 18.92 | 18.00 | 17.87 | 18.33 | 16.53 | --- | --- | 19.52 |
| 4 | 20.02 | 20.29 | 19.78 | 18.62 | 18.79 | 17.97 | 17.90 | 18.34 | 16.56 | --- | --- | 19.53 |
| 5 | 19.98 | 20.26 | 19.63 | 18.58 | 18.63 | 17.97 | 17.88 | 18.31 | 16.64 | --- | --- | 19.52 |
| 6 | 19.96 | 20.26 | 19.57 | 18.68 | 18.63 | 17.85 | 17.90 | 18.31 | 16.74 | --- | --- | 19.49 |
| 7 | 19.88 | 20.16 | 19.57 | 18.75 | 18.58 | 17.88 | 18.04 | 18.35 | 16.86 | --- | --- | 19.52 |
| 8 | 19.86 | 20.18 | 19.62 | 18.75 | 18.64 | 17.88 | 18.13 | 18.22 | 16.95 | --- | --- | 19.53 |
| 9 | 19.97 | 20.23 | 19.76 | 18.52 | 18.67 | 17.84 | 18.14 | 18.15 | 17.05 | --- | --- | 19.55 |
| 10 | 20.09 | 20.26 | 19.67 | 18.57 | 18.64 | 17.62 | 18.16 | 18.18 | 17.09 | --- | --- | 19.49 |
| 11 | 20.13 | 20.36 | 19.55 | 18.79 | 18.62 | 17.64 | 18.12 | 18.17 | 17.08 | --- | --- | 19.53 |
| 12 | 20.10 | 20.40 | 19.40 | 18.90 | 18.83 | 17.72 | 17.94 | 18.08 | 17.05 | --- | --- | 19.58 |
| 13 | 20.08 | 20.38 | 19.34 | 18.94 | 18.84 | 17.69 | 18.02 | 18.13 | 17.11 | --- | --- | 19.61 |
| 14 | 20.13 | 20.39 | 19.28 | 18.92 | 18.66 | 17.43 | 18.08 | 18.11 | 17.27 | --- | --- | 19.61 |
| 15 | 20.12 | 20.40 | 19.24 | 18.80 | 18.87 | 17.51 | 18.08 | 18.26 | 17.32 | --- | --- | 19.61 |
| 16 | 20.07 | 20.31 | 19.14 | 18.82 | 18.97 | 17.56 | 17.95 | 18.34 | 17.29 | --- | --- | 19.61 |
| 17 | 20.08 | 20.25 | 18.88 | 18.85 | 18.98 | 17.43 | 17.95 | 18.29 | 17.37 | --- | --- | 19.66 |
| 18 | 20.06 | 20.21 | 18.74 | 18.91 | 18.80 | 17.51 | 17.94 | 18.28 | 17.46 | --- | --- | 19.70 |
| 19 | 20.06 | 20.16 | 18.73 | 18.86 | 18.89 | 17.48 | 17.96 | 18.22 | 17.49 | --- | --- | 19.65 |
| 20 | 20.06 | 20.20 | 18.84 | 19.00 | 18.88 | 17.40 | 18.00 | 18.18 | 17.54 | --- | --- | 19.74 |
| 21 | 20.09 | 20.29 | 18.84 | 19.01 | 18.58 | 17.38 | 17.99 | 18.21 | 17.58 | --- | --- | 19.78 |
| 22 | 20.09 | 20.36 | 18.80 | 18.79 | 18.83 | 17.64 | 18.07 | 18.23 | 17.70 | --- | --- | 19.72 |
| 23 | 20.06 | 20.28 | 18.75 | 18.91 | 18.88 | 17.81 | 18.08 | 18.24 | 17.76 | --- | --- | 19.72 |
| 24 | 20.16 | 20.31 | 18.61 | 18.83 | 18.91 | 17.85 | 18.24 | 18.13 | 17.81 | --- | --- | 19.73 |
| 25 | 20.20 | 20.29 | 18.60 | 18.87 | 18.82 | 17.67 | 18.36 | 18.05 | 17.79 | --- | --- | 19.66 |
| 26 | 20.24 | 20.14 | 18.56 | 18.94 | 18.66 | 17.78 | 18.39 | 17.72 | 17.87 | --- | --- | 19.77 |
| 27 | 20.23 | 20.16 | 18.55 | 18.78 | 18.44 | 17.74 | 18.27 | 17.72 | 17.92 | --- | --- | 19.77 |
| 28 | 20.18 | 20.02 | 18.44 | 18.82 | 18.41 | 17.70 | 18.23 | 17.74 | 17.94 | --- | 19.30 | 19.68 |
| 29 | 20.16 | 19.95 | 18.67 | 18.85 | --- | 17.84 | 18.28 | 17.66 | 17.95 | --- | 19.39 | 19.65 |
| 30 | 20.18 | 19.81 | 18.70 | 18.67 | --- | 17.83 | 18.25 | 17.69 | 17.96 | --- | 19.38 | 19.84 |
| 31 | 20.18 | --- | 18.75 | 18.52 | --- | 17.92 | --- | 17.61 | --- | --- | 19.44 | --- |
| MAX | 20.24 | 20.40 | 19.78 | 19.01 | 18.98 | 18.21 | 18.39 | 18.42 | 17.96 | 17.95 | 19.44 | 19.84 |

CAL YR 1996 LOW 20.73
WTR YR 1997 LOW 20.40



### 404838082563100. LOCAL NUMBER, CR-1--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) | FLOW RATE (G/M) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| AUG 28... | CR-1 | 970828 | 1137 | 19.25 | 54.00 | 57 | 3.0 | 855 | 6.9 |

| DATE | 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) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFIDE WATER, FLTRD, FIELD, (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 28... | 20.5 | 0.1 | 120 | 32 | 9.5 | 334 | 0.011 | 14 | <0.010 | <0.050 |

| 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) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 28... | 0.069 | <0.20 | <0.010 | <0.010 | 86 | <0.50 | <1.0 | <5.0 | 18 | <10 |

| 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) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 28... | 1700 | <10 | 16 | 144 | 12 | <10 | <1.0 | 3070 | <6 | 6.8 |

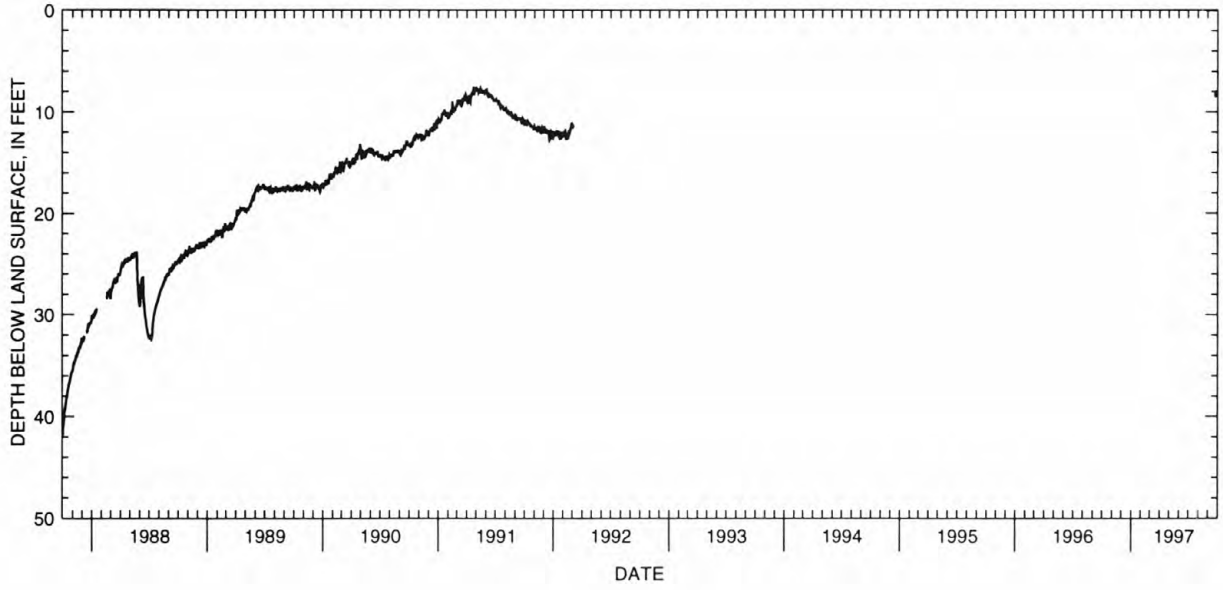
### 412518081221500. LOCAL NUMBER, GE-3A

LOCATION.--Lat 41°25'18", long 81°22'15", Hydrologic Unit 04110003, 1.2 miles 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 sea level.
Measuring point: Floor of instrument shelter 3.50 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.0 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Water level affected by pumping wells nearby for Chagrin Falls municipal supply.
PERIOD OF RECORD.--September 1951 to September 1991 continuous. Discontinued October 1991 to March 1996. Periodic measurements April 1996 to September 1997. Continuous September 1997 to current year.
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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.52 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.54 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.16 |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.43 |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.43 |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.24 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.90 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.18 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MAX | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.54 |

WTR YR 1997 LOW 8.54



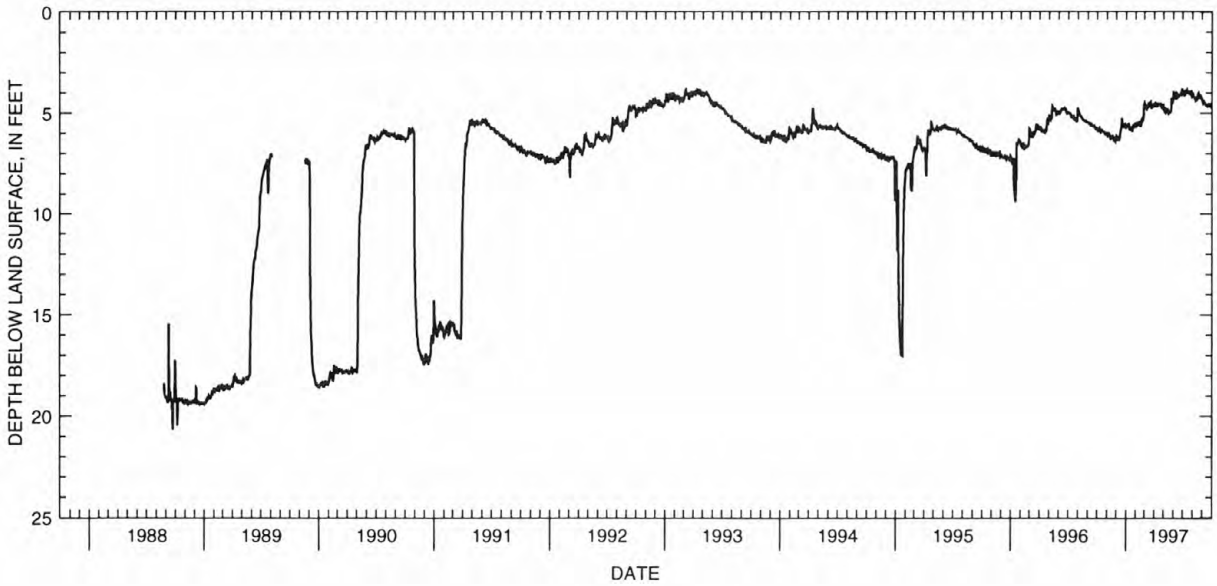
### 405940083275500. LOCAL NUMBER, HA-3

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 sea level, 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, 3.82 ft below land-surface datum, Mar. 7, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.79 | 6.02 | 6.18 | 5.67 | 5.61 | 4.50 | 4.64 | 4.84 | 4.15 | 4.00 | 4.03 | 4.37 |
| 2 | 5.85 | 6.09 | 6.23 | 5.55 | 5.64 | 4.63 | 4.61 | 4.84 | 3.90 | 3.91 | 4.02 | 4.37 |
| 3 | 5.88 | 6.12 | 6.26 | 5.61 | 5.70 | 4.53 | 4.53 | 4.87 | 4.03 | 3.95 | 4.08 | 4.47 |
| 4 | 5.86 | 6.10 | 6.35 | 5.60 | 5.57 | 4.64 | 4.54 | 4.90 | 4.03 | 4.03 | 4.11 | 4.50 |
| 5 | 5.83 | 6.07 | 6.23 | 5.58 | 5.47 | 4.66 | 4.51 | 4.86 | 4.15 | 4.06 | 4.16 | 4.46 |
| 6 | 5.81 | 6.07 | 6.19 | 5.63 | 5.47 | 4.74 | 4.54 | 4.87 | 4.22 | 4.08 | 4.21 | 4.43 |
| 7 | 5.76 | 6.02 | 6.21 | 5.66 | 5.47 | 4.74 | 4.61 | 4.91 | 4.24 | 4.12 | 4.24 | 4.47 |
| 8 | 5.74 | 6.04 | 6.25 | 5.66 | 5.50 | 4.78 | 4.66 | 4.81 | 4.14 | 4.11 | 4.26 | 4.48 |
| 9 | 5.83 | 6.11 | 6.36 | 5.49 | 5.51 | 4.74 | 4.66 | 4.83 | 4.26 | 3.99 | 4.29 | 4.48 |
| 10 | 5.91 | 6.16 | 6.28 | 5.61 | 5.49 | 4.61 | 4.66 | 4.88 | 4.27 | 4.01 | 4.33 | 4.49 |
| 11 | 5.93 | 6.25 | 6.21 | 5.78 | 5.48 | 4.68 | 4.61 | 4.85 | 4.08 | 3.98 | 4.39 | 4.54 |
| 12 | 5.88 | 6.27 | 6.14 | 5.82 | 5.60 | 4.71 | 4.50 | 4.82 | 4.01 | 3.96 | 4.38 | 4.58 |
| 13 | 5.86 | 6.24 | 5.95 | 5.82 | 5.61 | 4.70 | 4.57 | 4.84 | 4.04 | 3.88 | 4.26 | 4.61 |
| 14 | 5.90 | 6.25 | 5.82 | 5.79 | 5.48 | 4.52 | 4.60 | 4.83 | 4.13 | 3.85 | 4.27 | 4.60 |
| 15 | 5.90 | 6.24 | 5.79 | 5.68 | 5.60 | 4.51 | 4.57 | 4.94 | 4.15 | 4.04 | 4.27 | 4.60 |
| 16 | 5.85 | 6.15 | 5.71 | 5.77 | 5.64 | 4.54 | 4.49 | 4.99 | 4.05 | 3.97 | 4.39 | 4.60 |
| 17 | 5.86 | 6.13 | 5.56 | 5.78 | 5.64 | 4.49 | 4.55 | 4.93 | 4.10 | 3.92 | 4.21 | 4.65 |
| 18 | 5.89 | 6.13 | 5.24 | 5.82 | 5.49 | 4.55 | 4.55 | 4.93 | 4.22 | 3.93 | 4.07 | 4.67 |
| 19 | 5.90 | 6.12 | 5.37 | 5.77 | 5.52 | 4.54 | 4.56 | 4.96 | 4.15 | 4.01 | 4.04 | 4.65 |
| 20 | 5.91 | 6.15 | 5.53 | 5.86 | 5.49 | 4.49 | 4.58 | 4.97 | 4.09 | 4.03 | 4.01 | 4.61 |
| 21 | 5.92 | 6.23 | 5.53 | 5.86 | 5.22 | 4.46 | 4.56 | 4.98 | 4.08 | 4.04 | 4.10 | 4.58 |
| 22 | 5.91 | 6.27 | 5.56 | 5.65 | 5.32 | 4.64 | 4.60 | 4.98 | 4.10 | 4.03 | 4.19 | 4.55 |
| 23 | 5.93 | 6.21 | 5.56 | 5.62 | 5.32 | 4.73 | 4.60 | 4.97 | 4.10 | 3.98 | 4.23 | 4.57 |
| 24 | 6.01 | 6.22 | 5.67 | 5.56 | 5.33 | 4.73 | 4.70 | 4.90 | 4.06 | 4.00 | 4.23 | 4.58 |
| 25 | 6.03 | 6.23 | 5.67 | 5.68 | 5.27 | 4.58 | 4.73 | 4.85 | 4.04 | 4.01 | 4.13 | 4.57 |
| 26 | 6.05 | 6.34 | 5.64 | 5.70 | 5.15 | 4.65 | 4.74 | 4.25 | 4.01 | 3.98 | 4.11 | 4.65 |
| 27 | 6.03 | 6.38 | 5.60 | 5.60 | 4.72 | 4.59 | 4.67 | 4.39 | 4.05 | 4.08 | 4.11 | 4.65 |
| 28 | 6.00 | 6.28 | 5.57 | 5.61 | 4.54 | 4.55 | 4.65 | 4.46 | 3.89 | 4.11 | 4.16 | 4.60 |
| 29 | 5.98 | 6.22 | 5.70 | 5.63 | --- | 4.63 | 4.69 | 4.53 | 3.85 | 4.01 | 4.21 | 4.58 |
| 30 | 6.05 | 6.15 | 5.72 | 5.52 | --- | 4.60 | 4.66 | 4.45 | 3.87 | 3.97 | 4.25 | 4.75 |
| 31 | 6.05 | --- | 5.70 | 5.47 | --- | 4.62 | --- | 4.39 | --- | 4.03 | 4.32 | --- |
| MAX | 6.05 | 6.38 | 6.36 | 5.86 | 5.70 | 4.78 | 4.74 | 4.99 | 4.27 | 4.12 | 4.39 | 4.75 |

CAL YR 1996 LOW 9.40
WTR YR 1997 LOW 6.38



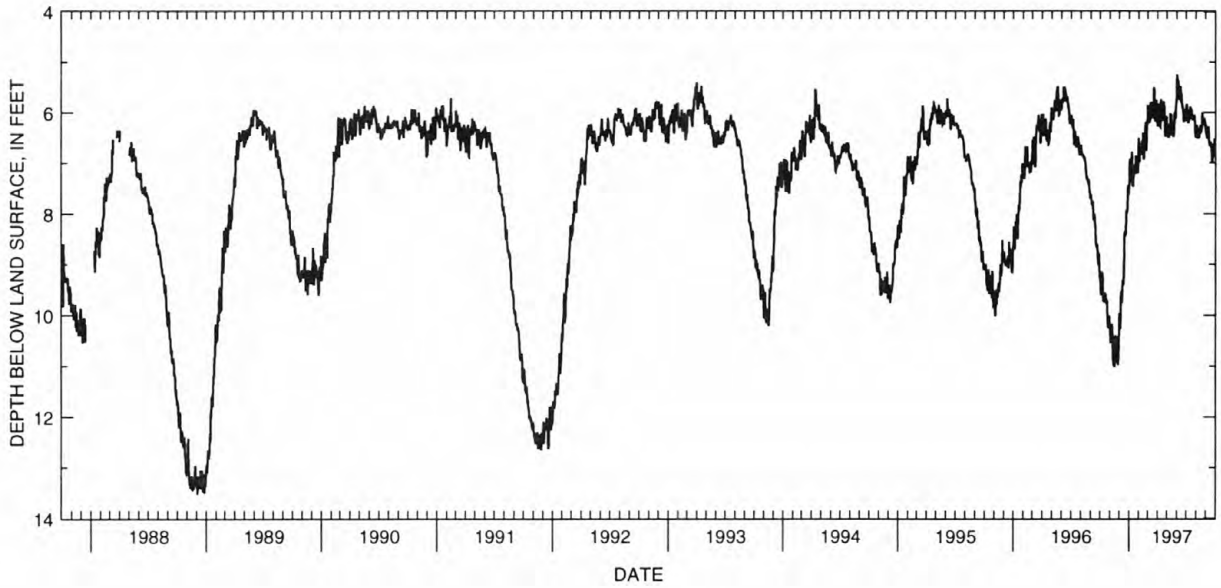
### 404648083412600. LOCAL NUMBER, HN-2A

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 sea level, 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, 5.25 ft below land-surface datum, June 2, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.27 | 10.15 | 9.96 | 7.49 | 6.66 | 5.85 | 6.25 | 6.33 | 5.39 | 5.92 | 6.43 | 6.38 |
| 2 | 9.38 | 10.39 | 10.08 | 7.07 | 6.85 | 6.02 | 6.25 | 6.33 | 5.25 | 5.85 | 6.28 | 6.39 |
| 3 | 9.53 | 10.51 | 10.16 | 6.95 | 6.98 | 5.97 | 6.10 | 6.30 | 5.37 | 5.85 | 6.26 | 6.46 |
| 4 | 9.60 | 10.55 | 10.27 | 6.94 | 6.75 | 5.90 | 5.97 | 6.44 | 5.38 | 6.02 | 6.25 | 6.47 |
| 5 | 9.55 | 10.50 | 10.04 | 6.92 | 6.80 | 5.90 | 5.93 | 6.43 | 5.36 | 6.10 | 6.38 | 6.43 |
| 6 | 9.47 | 10.50 | 9.63 | 7.18 | 6.81 | 6.13 | 5.82 | 6.45 | 5.40 | 6.11 | 6.45 | 6.31 |
| 7 | 9.28 | 10.24 | 9.53 | 7.35 | 6.74 | 6.17 | 6.11 | 6.50 | 5.51 | 6.20 | 6.50 | 6.30 |
| 8 | 9.15 | 10.17 | 9.55 | 7.35 | 6.73 | 6.16 | 6.25 | 6.35 | 5.59 | 6.20 | 6.50 | 6.31 |
| 9 | 9.27 | 10.29 | 9.76 | 6.91 | 6.75 | 6.13 | 6.27 | 6.23 | 5.70 | 6.10 | 6.40 | 6.30 |
| 10 | 9.62 | 10.55 | 9.62 | 6.78 | 6.78 | 5.80 | 6.28 | 6.30 | 5.75 | 6.14 | 6.42 | 6.28 |
| 11 | 9.73 | 10.85 | 9.31 | 7.20 | 6.56 | 5.95 | 6.16 | 6.29 | 5.67 | 6.13 | 6.48 | 6.45 |
| 12 | 9.70 | 10.95 | 9.32 | 7.42 | 6.81 | 6.05 | 5.74 | 6.02 | 5.53 | 6.08 | 6.48 | 6.58 |
| 13 | 9.63 | 10.97 | 9.41 | 7.47 | 6.83 | 6.03 | 6.07 | 6.11 | 5.48 | 5.95 | 6.36 | 6.64 |
| 14 | 9.73 | 10.99 | 9.36 | 7.46 | 6.40 | 5.79 | 6.16 | 6.10 | 5.75 | 5.89 | 6.37 | 6.64 |
| 15 | 9.73 | 11.00 | 9.26 | 7.17 | 6.73 | 6.03 | 6.16 | 6.33 | 5.80 | 5.95 | 6.25 | 6.63 |
| 16 | 9.58 | 11.00 | 8.88 | 7.05 | 6.91 | 6.11 | 6.01 | 6.45 | 5.63 | 5.99 | 6.38 | 6.60 |
| 17 | 9.56 | 10.74 | 8.41 | 7.05 | 6.91 | 5.80 | 5.90 | 6.28 | 5.78 | 5.95 | 6.38 | 6.60 |
| 18 | 9.59 | 10.59 | 8.37 | 7.11 | 6.61 | 5.90 | 5.89 | 6.27 | 5.86 | 5.93 | 6.35 | 6.69 |
| 19 | 9.67 | 10.40 | 8.35 | 7.05 | 6.66 | 5.88 | 5.78 | 6.30 | 5.90 | 6.10 | 6.32 | 6.65 |
| 20 | 9.70 | 10.45 | 8.43 | 7.19 | 6.66 | 5.53 | 5.81 | 6.39 | 5.93 | 6.12 | 6.10 | 6.86 |
| 21 | 9.77 | 10.62 | 8.42 | 7.21 | 6.20 | 5.51 | 5.79 | 6.47 | 5.94 | 6.11 | 6.00 | 6.98 |
| 22 | 9.77 | 10.75 | 8.17 | 6.85 | 6.61 | 5.80 | 5.90 | 6.47 | 6.10 | 6.10 | 6.15 | 6.95 |
| 23 | 9.70 | 10.67 | 7.95 | 7.13 | 6.72 | 6.12 | 5.87 | 6.45 | 6.17 | 6.09 | 6.25 | 6.85 |
| 24 | 9.97 | 10.59 | 7.95 | 7.03 | 6.76 | 6.18 | 6.17 | 6.26 | 6.17 | 6.12 | 6.23 | 6.86 |
| 25 | 10.12 | 10.59 | 7.98 | 7.09 | 6.68 | 5.78 | 6.41 | 6.02 | 6.12 | 6.13 | 6.17 | 6.62 |
| 26 | 10.23 | 10.90 | 7.96 | 7.20 | 6.27 | 5.95 | 6.48 | 6.01 | 6.10 | 6.08 | 6.18 | 6.82 |
| 27 | 10.25 | 10.98 | 7.75 | 7.00 | 6.15 | 5.83 | 6.30 | 6.11 | 6.17 | 6.05 | 6.15 | 6.82 |
| 28 | 10.18 | 10.83 | 7.44 | 7.13 | 6.22 | 5.75 | 6.08 | 6.11 | 6.15 | 6.18 | 6.12 | 6.69 |
| 29 | 10.14 | 10.60 | 7.60 | 7.20 | --- | 5.90 | 6.13 | 5.93 | 6.05 | 6.36 | 6.19 | 6.52 |
| 30 | 10.01 | 10.20 | 7.62 | 6.92 | --- | 5.91 | 6.08 | 5.84 | 6.00 | 6.43 | 6.19 | 6.85 |
| 31 | 10.18 | --- | 7.55 | 6.50 | --- | 6.16 | --- | 5.73 | --- | 6.50 | 6.28 | --- |
| MAX | 10.25 | 11.00 | 10.27 | 7.49 | 6.98 | 6.18 | 6.48 | 6.50 | 6.17 | 6.50 | 6.50 | 6.98 |

CAL YR 1996 LOW 11.00
WTR YR 1997 LOW 11.00



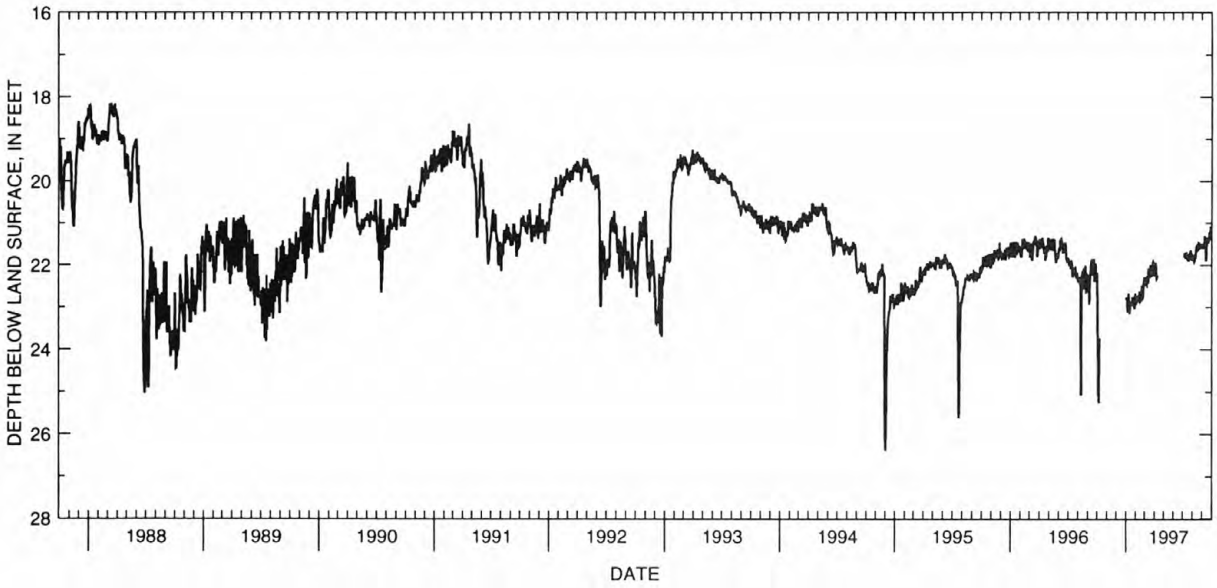
## 412123083574000. LOCAL NUMBER, HY-2

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 sea level, 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, 26.38 ft below land-surface datum, Dec. 3, 1994; minimum daily low, 14.55 ft below land-surface datum, Mar. 22, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 22.22 | --- | --- | --- | 22.75 | 22.29 | 22.23 | --- | --- | --- | 21.83 | 21.57 |
| 2 | 22.18 | --- | --- | 22.76 | 22.82 | 22.36 | 22.26 | --- | --- | --- | 21.75 | 21.59 |
| 3 | 22.72 | --- | --- | 22.81 | 22.94 | 22.33 | 22.15 | --- | --- | --- | 21.78 | 21.60 |
| 4 | 23.77 | --- | --- | 22.79 | 22.87 | 22.33 | 22.10 | --- | --- | --- | 21.78 | 21.60 |
| 5 | 24.40 | --- | --- | 22.79 | 22.84 | 22.31 | 22.06 | --- | --- | --- | 21.87 | 21.60 |
| 6 | 25.09 | --- | --- | 22.97 | 22.83 | 22.42 | 21.94 | --- | --- | --- | 21.89 | 21.50 |
| 7 | 25.26 | --- | --- | 23.09 | 22.81 | 22.46 | 22.11 | --- | --- | 21.82 | 21.92 | 21.48 |
| 8 | 24.70 | --- | --- | 23.09 | 22.81 | 22.46 | 22.23 | --- | --- | 21.76 | 21.90 | 21.52 |
| 9 | 23.98 | --- | --- | 22.96 | 22.83 | 22.47 | 22.32 | --- | --- | 21.71 | 21.82 | 21.45 |
| 10 | 23.74 | --- | --- | 22.67 | 22.79 | 22.26 | 22.30 | --- | --- | 21.80 | 21.77 | 21.31 |
| 11 | --- | --- | --- | 22.90 | 22.71 | 22.32 | 22.25 | --- | --- | 21.84 | 21.85 | 21.39 |
| 12 | --- | --- | --- | 23.06 | 22.81 | 22.41 | --- | --- | --- | 21.81 | 21.78 | 21.48 |
| 13 | --- | --- | --- | 23.11 | 22.87 | 22.41 | --- | --- | --- | 21.72 | 21.66 | 21.52 |
| 14 | --- | --- | --- | 23.15 | 22.62 | 22.07 | --- | --- | --- | 21.72 | 21.68 | 21.90 |
| 15 | --- | --- | --- | 23.02 | 22.74 | 22.26 | --- | --- | --- | 21.74 | 21.55 | 21.86 |
| 16 | --- | --- | --- | 22.86 | 22.85 | 22.31 | --- | --- | --- | 21.81 | 21.53 | 21.54 |
| 17 | --- | --- | --- | 22.90 | 22.84 | 22.20 | --- | --- | --- | 21.79 | 21.53 | 21.38 |
| 18 | --- | --- | --- | 22.94 | 22.68 | 22.27 | --- | --- | --- | 21.80 | 21.64 | 21.38 |
| 19 | --- | --- | --- | 22.90 | 22.74 | 22.23 | --- | --- | --- | 21.86 | 21.62 | 21.37 |
| 20 | --- | --- | --- | 22.94 | 22.74 | 22.05 | --- | --- | --- | 21.91 | 21.56 | 21.35 |
| 21 | --- | --- | --- | 22.94 | 22.48 | 22.00 | --- | --- | --- | 21.85 | 21.47 | 21.43 |
| 22 | --- | --- | --- | 22.75 | 22.65 | 22.07 | --- | --- | --- | 21.81 | 21.48 | 21.44 |
| 23 | --- | --- | --- | 22.92 | 22.74 | 22.21 | --- | --- | --- | 21.77 | 21.57 | 21.37 |
| 24 | --- | --- | --- | 22.92 | 22.78 | 22.28 | --- | --- | --- | 21.74 | 21.59 | 21.40 |
| 25 | --- | --- | --- | 22.86 | 22.77 | 22.11 | --- | --- | --- | 21.75 | 21.57 | 21.22 |
| 26 | --- | --- | --- | 22.96 | 22.54 | 22.10 | --- | --- | --- | 21.70 | 21.57 | 21.33 |
| 27 | --- | --- | --- | 22.91 | 22.37 | 22.05 | --- | --- | --- | 21.66 | 21.55 | 21.31 |
| 28 | --- | --- | --- | 22.98 | 22.44 | 21.97 | --- | --- | --- | 21.71 | 21.50 | 21.19 |
| 29 | --- | --- | --- | 23.04 | --- | 21.94 | --- | --- | --- | 21.79 | 21.57 | 21.09 |
| 30 | --- | --- | --- | 22.92 | --- | 21.97 | --- | --- | --- | 21.87 | 21.56 | 21.23 |
| 31 | --- | --- | --- | 22.67 | --- | 22.11 | --- | --- | --- | 21.87 | 21.51 | --- |
| MAX | 25.26 | --- | --- | 23.15 | 22.94 | 22.47 | 22.32 | --- | --- | 21.91 | 21.92 | 21.90 |

CAL YR 1996 LOW 25.26
WTR YR 1997 LOW 25.26



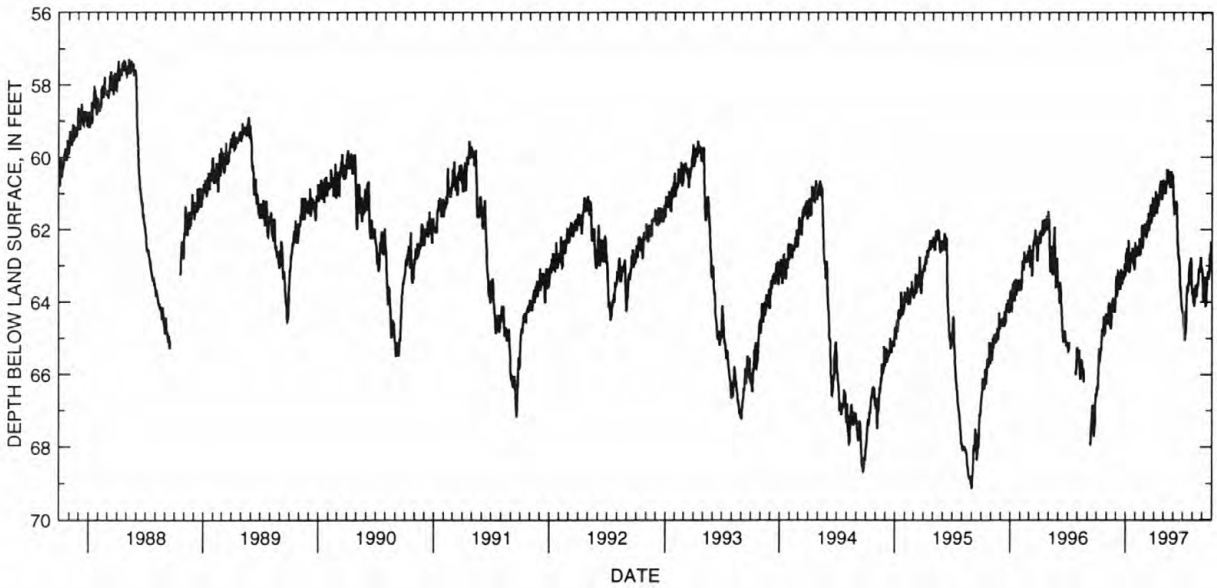
### 413704083362200. LOCAL NUMBER, LU-1

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 sea level, from topographic map.
Measuring point: Floor of instrument shelter 2.98 ft above land-surface datum (Revised from 1978 and 1979).
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to Aug. 23, 1978, measuring point was 3.10 ft above land-surface datum. Reported in 1979 as 3.00 ft above land-surface datum.
PERIOD OF RECORD.--March 1946 to September 1982 continuous, October 1983 to January 1985 periodic, continuous thereafter.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 117.25 ft below land-surface datum, Sept. 18, 1957; minimum daily low, 56.87 ft below land-surface datum, Apr. 16, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 66.50 | 64.33 | 63.29 | 63.19 | 62.47 | 61.86 | 61.61 | 60.74 | 61.02 | 64.28 | 63.73 | 63.14 |
| 2 | 66.33 | 64.44 | 63.55 | 62.69 | 62.59 | 61.97 | 61.61 | 60.77 | 61.30 | 64.28 | 63.71 | 63.21 |
| 3 | 66.44 | 64.59 | 63.62 | 62.66 | 62.77 | 61.96 | 61.43 | 60.65 | 61.36 | 64.35 | 63.94 | 63.73 |
| 4 | 66.42 | 64.59 | 63.85 | 62.66 | 62.67 | 61.84 | 61.29 | 60.84 | 61.53 | 64.54 | 64.02 | 63.98 |
| 5 | 66.27 | 64.43 | 63.74 | 62.51 | 62.61 | 61.87 | 61.17 | 60.85 | 61.51 | 64.73 | 64.04 | 64.00 |
| 6 | 66.04 | 64.39 | 63.26 | 62.86 | 62.61 | 62.07 | 60.94 | 60.88 | 61.34 | 64.83 | 64.04 | 63.73 |
| 7 | 65.72 | 64.13 | 63.18 | 63.12 | 62.60 | 62.16 | 61.24 | 61.02 | 61.31 | 65.06 | 64.13 | 63.54 |
| 8 | 65.50 | 64.02 | 63.20 | 63.14 | 62.63 | 62.19 | 61.43 | 60.85 | 61.29 | 65.00 | 63.99 | 63.40 |
| 9 | 65.29 | 64.05 | 63.49 | 62.84 | 62.66 | 62.18 | 61.50 | 60.66 | 61.29 | 64.79 | 63.77 | 63.30 |
| 10 | 65.56 | 64.18 | 63.43 | 62.29 | 62.55 | 61.75 | 61.51 | 60.75 | 61.26 | 64.87 | 63.59 | 63.68 |
| 11 | 65.66 | 64.45 | 63.23 | 62.75 | 62.43 | 61.89 | 61.36 | 60.73 | 61.22 | 64.78 | 63.54 | 64.03 |
| 12 | 65.51 | 64.65 | 63.29 | 63.10 | 62.67 | 62.04 | 61.04 | 60.36 | 61.41 | 64.45 | 63.73 | 64.10 |
| 13 | 65.35 | 64.68 | 63.55 | 63.16 | 62.73 | 62.04 | 61.10 | 60.36 | 61.82 | 64.07 | 63.66 | 64.09 |
| 14 | 65.33 | 64.71 | 63.64 | 63.15 | 62.25 | 61.54 | 61.25 | 60.36 | 62.36 | 63.72 | 63.86 | 63.90 |
| 15 | 65.33 | 64.74 | 63.64 | 63.01 | 62.50 | 61.92 | 61.27 | 60.49 | 62.51 | 63.57 | 63.74 | 63.72 |
| 16 | 65.02 | 64.51 | 63.34 | 62.63 | 62.68 | 62.03 | 61.11 | 60.65 | 62.45 | 63.75 | 63.56 | 63.54 |
| 17 | 64.93 | 64.33 | 63.10 | 62.71 | 62.70 | 61.78 | 60.99 | 60.44 | 62.81 | 63.69 | 63.58 | 63.28 |
| 18 | 64.76 | 64.14 | 63.21 | 62.79 | 62.32 | 61.88 | 60.94 | 60.45 | 62.75 | 63.50 | 63.57 | 63.30 |
| 19 | 64.87 | 63.98 | 63.21 | 62.80 | 62.39 | 61.84 | 60.76 | 60.47 | 62.76 | 63.55 | 63.48 | 63.15 |
| 20 | 64.76 | 63.95 | 63.49 | 62.83 | 62.42 | 61.42 | 60.78 | 60.64 | 62.90 | 63.46 | 63.25 | 63.26 |
| 21 | 64.76 | 64.00 | 63.49 | 62.91 | 61.88 | 61.31 | 60.72 | 60.79 | 63.09 | 63.22 | 63.10 | 63.37 |
| 22 | 64.74 | 64.11 | 63.28 | 62.51 | 62.24 | 61.43 | 60.69 | 60.85 | 63.48 | 63.09 | 63.09 | 63.26 |
| 23 | 64.40 | 64.04 | 63.17 | 62.91 | 62.43 | 61.71 | 60.65 | 60.80 | 63.66 | 62.93 | 63.19 | 63.09 |
| 24 | 64.65 | 63.94 | 63.21 | 62.88 | 62.52 | 61.82 | 60.81 | 60.63 | 63.64 | 62.91 | 63.13 | 63.11 |
| 25 | 64.74 | 63.94 | 63.35 | 62.79 | 62.48 | 61.51 | 61.10 | 60.39 | 63.78 | 63.02 | 63.00 | 62.67 |
| 26 | 64.87 | 64.13 | 63.38 | 62.99 | 62.01 | 61.43 | 61.19 | 60.62 | 63.99 | 62.85 | 62.94 | 62.86 |
| 27 | 64.85 | 64.30 | 63.23 | 62.85 | 61.95 | 61.24 | 61.06 | 60.74 | 64.14 | 62.78 | 62.79 | 62.85 |
| 28 | 64.68 | 64.18 | 62.93 | 62.98 | 62.09 | 61.16 | 60.70 | 60.74 | 64.18 | 62.96 | 62.77 | 62.59 |
| 29 | 64.60 | 64.00 | 63.14 | 63.12 | --- | 61.17 | 60.73 | 60.61 | 64.20 | 63.33 | 63.12 | 62.33 |
| 30 | 64.33 | 63.68 | 63.21 | 62.86 | --- | 61.20 | 60.62 | 60.47 | 64.30 | 63.59 | 63.14 | 62.54 |
| 31 | 64.38 | --- | 63.29 | 62.35 | --- | 61.47 | --- | 60.74 | --- | 63.80 | 63.06 | --- |
| MAX | 66.50 | 64.74 | 63.85 | 63.19 | 62.77 | 62.19 | 61.61 | 61.02 | 64.30 | 65.06 | 64.13 | 64.10 |

CAL YR 1996 LOW 67.96
WTR YR 1997 LOW 66.50



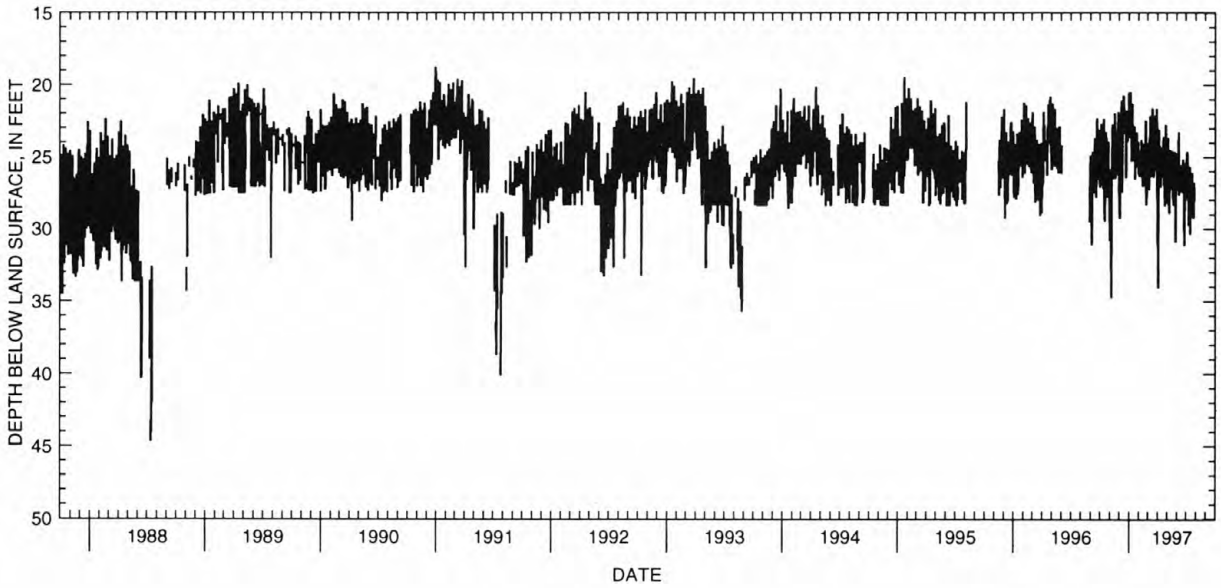
## 410142082005900. LOCAL NUMBER, MD-1

LOCATION.--Lat 41°01'42", long 82°00'59", Hydrologic Unit 04110001, at 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 sea level, 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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27.11 | 30.79 | 28.90 | 20.53 | 25.73 | 24.11 | 31.04 | 25.34 | 24.69 | 27.20 | --- | --- |
| 2 | 25.33 | 26.44 | 24.37 | 23.61 | 25.51 | 24.13 | 30.09 | 27.50 | 27.30 | 25.86 | --- | --- |
| 3 | 26.95 | 25.86 | 29.25 | 22.21 | 26.36 | 24.45 | 34.07 | 25.48 | 24.72 | 27.98 | --- | --- |
| 4 | 26.00 | 27.05 | 25.88 | 21.11 | 25.97 | 26.13 | 26.25 | 23.62 | 25.53 | 25.16 | --- | --- |
| 5 | 24.62 | 31.08 | 23.91 | 20.47 | 25.30 | 27.30 | 24.70 | 27.84 | 25.55 | 24.60 | --- | --- |
| 6 | 22.66 | 34.74 | 25.62 | 23.04 | 26.05 | 25.88 | 23.08 | 26.26 | 26.87 | 24.93 | --- | --- |
| 7 | 26.01 | 25.89 | 22.31 | 22.27 | 25.73 | 23.78 | 26.84 | 28.34 | 23.98 | 26.59 | --- | --- |
| 8 | 25.94 | 25.49 | 21.07 | 22.93 | 26.01 | 23.41 | 24.52 | 28.89 | 23.24 | 27.51 | --- | --- |
| 9 | 26.63 | 23.08 | 27.47 | 25.26 | 23.79 | 22.13 | 26.03 | 27.61 | 27.67 | 28.13 | --- | --- |
| 10 | 24.35 | 22.71 | 26.71 | 23.30 | 25.46 | 26.37 | 25.72 | 26.57 | 25.56 | 29.74 | --- | --- |
| 11 | 25.90 | 23.41 | 24.82 | 21.27 | 26.07 | 24.65 | 27.11 | 24.46 | 27.43 | 27.98 | --- | --- |
| 12 | 27.21 | 26.52 | 23.17 | 22.58 | 26.53 | 23.85 | 24.39 | 25.92 | 27.00 | 26.45 | --- | --- |
| 13 | 22.33 | 23.95 | 23.31 | 24.01 | 25.96 | 24.31 | 24.42 | 26.26 | 27.45 | 25.64 | --- | --- |
| 14 | 25.95 | 22.93 | 21.39 | 22.76 | 27.04 | 25.38 | 24.87 | 27.17 | 25.53 | 30.35 | --- | --- |
| 15 | 28.94 | 25.48 | 20.72 | 25.22 | 24.02 | 23.49 | 25.20 | 25.74 | 26.16 | 29.07 | --- | --- |
| 16 | 29.44 | 23.11 | 22.59 | 24.06 | 24.41 | 21.61 | 25.36 | 27.07 | 26.63 | 29.00 | --- | --- |
| 17 | 28.53 | 21.94 | 21.38 | 23.95 | 26.74 | 23.95 | 26.35 | 25.94 | 26.26 | 26.74 | --- | --- |
| 18 | 26.29 | 24.15 | 23.05 | 23.93 | 25.90 | 23.83 | 24.84 | 24.55 | 27.47 | 28.04 | --- | --- |
| 19 | 23.24 | 26.48 | 22.91 | 22.86 | 26.64 | 24.41 | 24.59 | 27.13 | 26.35 | 27.44 | --- | --- |
| 20 | 27.79 | 23.46 | 22.33 | 26.54 | 24.29 | 26.40 | 23.59 | 27.93 | 26.93 | 26.10 | --- | --- |
| 21 | 25.24 | 24.31 | 22.99 | 24.84 | 25.93 | 25.89 | 26.99 | 25.91 | 26.86 | 27.48 | --- | --- |
| 22 | 23.61 | 25.89 | 23.45 | 25.68 | 24.57 | 23.31 | 26.30 | 28.33 | 25.15 | 27.02 | --- | --- |
| 23 | 27.80 | 26.20 | 26.45 | 23.98 | 22.44 | 22.11 | 26.84 | 26.06 | 27.24 | 26.86 | --- | --- |
| 24 | 25.69 | 23.67 | 23.11 | 23.46 | 28.33 | 25.87 | 28.39 | 25.37 | 27.55 | 28.46 | --- | --- |
| 25 | 26.78 | 25.94 | 21.75 | 23.73 | 27.89 | 24.62 | 26.29 | 24.60 | 27.39 | 29.24 | --- | --- |
| 26 | 25.57 | 25.06 | 22.92 | 23.28 | 27.63 | 23.72 | 25.46 | 25.91 | 31.15 | 26.78 | --- | --- |
| 27 | 23.89 | 24.42 | 23.88 | 25.55 | 24.48 | 23.93 | 22.74 | 26.99 | 27.50 | 27.07 | --- | --- |
| 28 | 27.03 | 21.85 | 22.41 | 24.59 | 24.94 | 23.76 | 26.63 | 30.88 | 26.63 | 28.05 | --- | --- |
| 29 | 26.98 | 22.48 | 21.86 | 24.18 | --- | 23.04 | 26.82 | 27.24 | 25.42 | --- | --- | --- |
| 30 | 27.27 | 24.25 | 23.31 | 23.91 | --- | 21.62 | 28.18 | 27.63 | 26.65 | --- | --- | --- |
| 31 | 28.93 | --- | 23.21 | 26.18 | --- | 24.80 | --- | 25.18 | --- | --- | --- | --- |
| MAX | 29.44 | 34.74 | 29.25 | 26.54 | 28.33 | 27.30 | 34.07 | 30.88 | 31.15 | 30.35 | --- | --- |

CAL YR 1996 LOW 34.74
WTR YR 1997 LOW 34.74



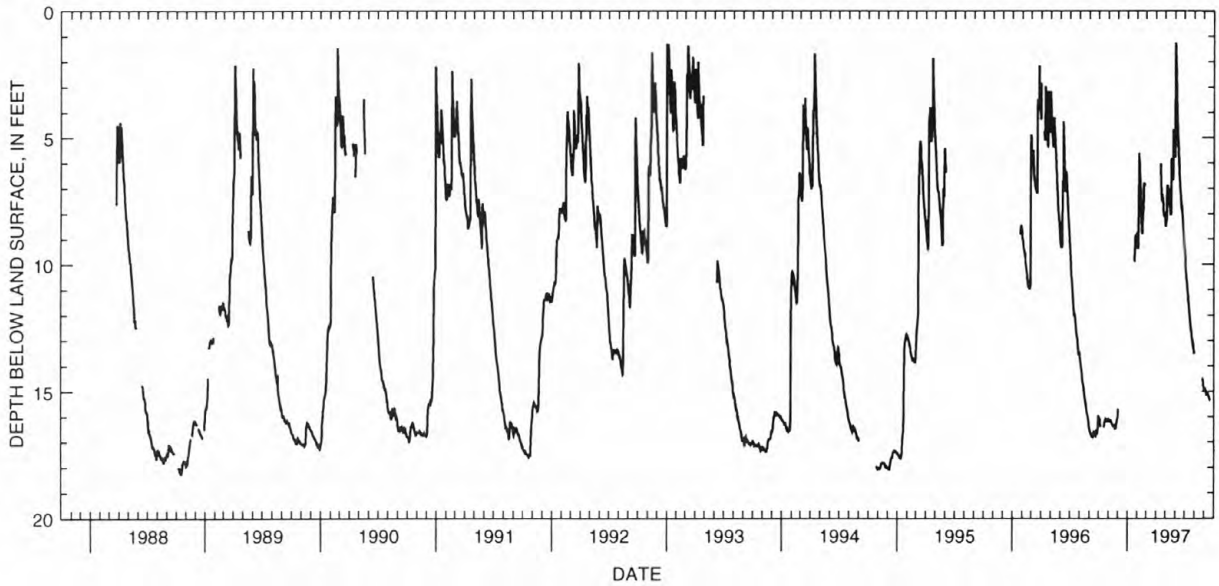
### 413434082494000. LOCAL NUMBER, O-2

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 sea level, 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, 1.24 ft below land-surface datum, June 2, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.02 | 16.08 | 15.92 | --- | 9.17 | --- | --- | 8.40 | 4.57 | 9.35 | 13.54 | 14.96 |
| 2 | 16.02 | 16.11 | 15.72 | --- | 9.29 | --- | --- | 8.53 | 1.24 | 9.51 | --- | 14.96 |
| 3 | 16.18 | 16.16 | 15.71 | --- | 9.39 | --- | --- | 8.39 | 1.55 | 9.75 | --- | 14.92 |
| 4 | 16.18 | 16.20 | --- | --- | 9.35 | --- | --- | 8.30 | 1.97 | 10.14 | --- | 14.85 |
| 5 | 16.17 | 16.20 | --- | --- | 6.90 | --- | --- | 8.22 | 2.66 | 10.34 | --- | 14.89 |
| 6 | 16.35 | 16.20 | --- | --- | 5.61 | --- | --- | 7.30 | 3.28 | 10.49 | --- | 14.96 |
| 7 | 16.38 | 16.22 | --- | --- | 5.85 | --- | --- | 6.90 | 3.98 | 10.58 | --- | 15.02 |
| 8 | 16.41 | 16.19 | --- | --- | 6.13 | --- | --- | 6.90 | 4.35 | 10.64 | --- | 15.04 |
| 9 | --- | 16.17 | --- | --- | 6.38 | --- | --- | 6.99 | 4.68 | 10.82 | --- | 15.17 |
| 10 | --- | 16.20 | --- | --- | 6.59 | --- | --- | 7.09 | 5.02 | 10.97 | --- | 15.13 |
| 11 | --- | 16.23 | --- | --- | 7.04 | --- | --- | 7.17 | 5.29 | 11.11 | --- | 15.02 |
| 12 | --- | 16.28 | --- | --- | 7.56 | --- | --- | 7.24 | 5.52 | 11.28 | --- | 15.05 |
| 13 | --- | 16.32 | --- | --- | 7.70 | --- | --- | 7.40 | 5.98 | 11.48 | --- | 15.13 |
| 14 | --- | 16.33 | --- | --- | 7.97 | --- | --- | 7.49 | 6.42 | 11.55 | --- | 15.14 |
| 15 | --- | 16.34 | --- | --- | 8.39 | --- | --- | 7.62 | 6.64 | 11.70 | --- | 15.16 |
| 16 | --- | 16.35 | --- | --- | 8.69 | --- | 6.02 | 7.78 | 6.77 | 11.91 | --- | 15.20 |
| 17 | 16.42 | 16.36 | --- | --- | 8.81 | --- | 6.69 | 7.98 | 7.02 | 12.02 | --- | 15.22 |
| 18 | 16.40 | 16.35 | --- | --- | 8.28 | --- | 7.13 | 8.07 | 7.16 | 12.17 | --- | 15.30 |
| 19 | 16.28 | 16.38 | --- | --- | 8.00 | --- | 7.52 | 8.01 | 7.36 | 12.32 | --- | 15.32 |
| 20 | 16.19 | 16.39 | --- | --- | 7.87 | --- | 7.33 | 5.88 | 7.56 | 12.47 | --- | 15.29 |
| 21 | 16.15 | 16.42 | --- | --- | 7.50 | --- | 7.22 | 5.83 | 7.83 | 12.63 | --- | --- |
| 22 | 16.13 | 16.45 | --- | --- | 6.82 | --- | 7.34 | 6.13 | 7.67 | 12.60 | --- | --- |
| 23 | 16.10 | 16.44 | --- | 9.91 | 6.82 | --- | 7.43 | 6.38 | 7.86 | 12.70 | --- | --- |
| 24 | 16.11 | 16.48 | --- | 9.36 | 6.83 | --- | 7.64 | 6.65 | 8.07 | 12.85 | --- | --- |
| 25 | 16.14 | 16.49 | --- | 8.91 | 6.84 | --- | 7.93 | 6.64 | 8.23 | 13.03 | --- | --- |
| 26 | 16.19 | 16.32 | --- | 8.89 | 6.89 | --- | 8.03 | 4.68 | 8.40 | 12.97 | 14.48 | --- |
| 27 | 16.19 | 16.19 | --- | 8.86 | 6.89 | --- | 8.01 | 5.12 | 8.61 | 13.14 | 14.48 | --- |
| 28 | 16.20 | 16.16 | --- | 9.00 | --- | --- | 8.02 | 5.40 | 8.82 | 13.13 | 14.55 | --- |
| 29 | 16.20 | 16.10 | --- | 9.06 | --- | --- | 8.10 | 5.53 | 9.01 | 13.27 | 14.63 | --- |
| 30 | 16.11 | 16.04 | --- | 8.97 | --- | --- | 8.15 | 5.69 | 9.20 | 13.36 | 14.77 | --- |
| 31 | 16.08 | --- | --- | 8.89 | --- | --- | --- | 5.79 | --- | 13.47 | 14.87 | --- |
| MAX | 16.42 | 16.49 | 15.92 | 9.91 | 9.39 | --- | 8.15 | 8.53 | 9.20 | 13.47 | 14.87 | 15.32 |

CAL YR 1996 LOW 16.76
WTR YR 1997 LOW 16.49



## 413434082494000. LOCAL NUMBER, O-2--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) | FLOW RATE (G/M) | SPE-CIFIC CON-DUCT-ANCE (US/CM) |
|---|---|---|---|---|---|---|---|---|
| AUG 26... | O-2 W WILLIAMS NR PORT CLI | 970826 | 1317 | 14.58 | 62.00 | 37 | 6.0 | 683 |

| DATE | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | CALCIUM DIS-SOLVED (MG/L AS CA) | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFIDE WATER, FLTRD, FIELD, (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | 6.9 | 12.5 | 81 | 38 | 3.1 | 316 | 0.002 | 9.1 | <0.010 | 0.314 |

| 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) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | 0.021 | <0.20 | <0.010 | 0.012 | 48 | <0.50 | <1.0 | <5.0 | <3.0 | <10 |

| 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) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | 19 | <10 | <4 | 1.7 | <10 | <10 | <1.0 | 112 | <6 | 7.1 |

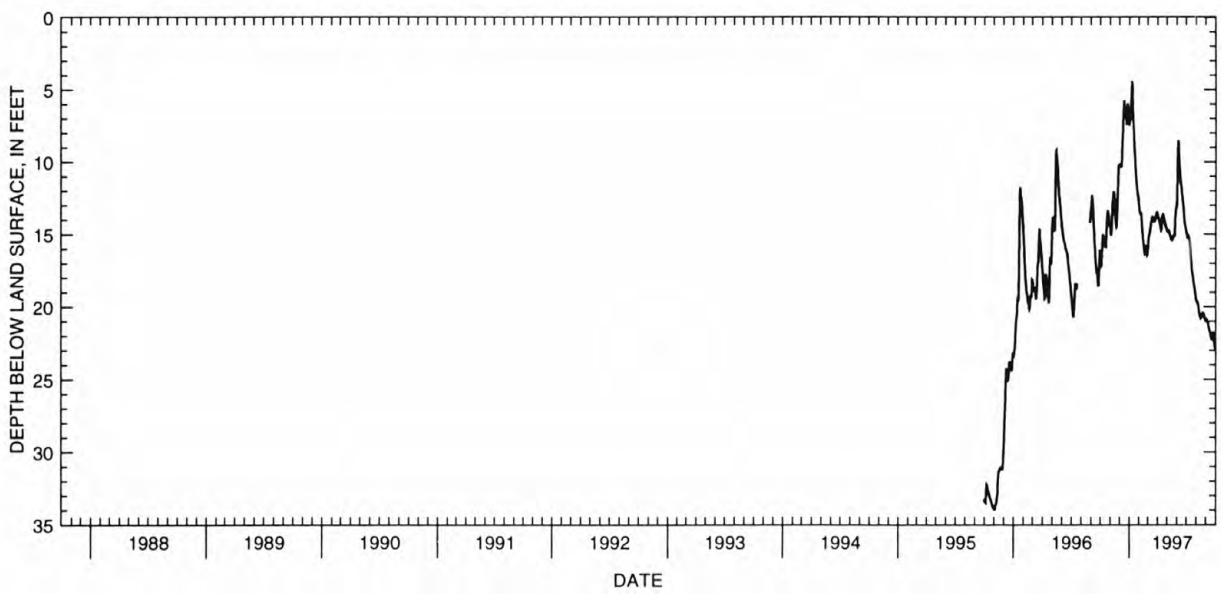
## 410931081192900. LOCAL NUMBER, PO-123

LOCATION.--Lat 41°09'31", long 81°19'29", Hydrologic Unit 04110002, east of Kent.
Owner: City of Kent.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., cased.
INSTRUMENTATION.--Digitial recorder--60-minute punch.
DATUM.--Elevation of land-surface datum is 1042 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 3.5 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
PERIOD OF RECORD.--October 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 33.97 ft below land-surface datum, Nov. 3, 1995; minimum daily low, 4.43 ft below land-surface datum, Jan. 9, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16.32 | 14.50 | 10.25 | 7.40 | 13.00 | 16.13 | 13.64 | 14.79 | 13.15 | 14.80 | 19.52 | 20.99 |
| 2 | 16.59 | 14.54 | 10.14 | 6.70 | 13.27 | 15.93 | 13.73 | 14.81 | 12.02 | 14.94 | 19.59 | 20.99 |
| 3 | 16.96 | 14.86 | 10.23 | 7.04 | 13.43 | 15.56 | 13.84 | 14.84 | 10.32 | 15.08 | 19.67 | 20.92 |
| 4 | 17.23 | 15.09 | 10.30 | 7.03 | 13.57 | 15.14 | 13.94 | 14.83 | 9.22 | 15.15 | 19.69 | 20.90 |
| 5 | 17.18 | 15.06 | 10.28 | 6.43 | 13.59 | 15.12 | 13.98 | 14.80 | 8.51 | 15.10 | 19.65 | 20.93 |
| 6 | 16.66 | 14.53 | 10.38 | 6.00 | 13.55 | 15.11 | 14.08 | 14.70 | 8.83 | 15.13 | 19.70 | 20.97 |
| 7 | 16.05 | 13.85 | 10.29 | 5.21 | 13.53 | 14.90 | 14.13 | 14.76 | 9.41 | 15.09 | 19.80 | 21.03 |
| 8 | 15.60 | 13.10 | 9.72 | 4.74 | 13.72 | 14.70 | 14.21 | 14.83 | 9.83 | 15.13 | 19.93 | 21.13 |
| 9 | 15.10 | 12.72 | 9.11 | 4.43 | 13.95 | 14.64 | 14.33 | 14.95 | 10.28 | 15.21 | 20.11 | 21.26 |
| 10 | 15.09 | 12.63 | 8.39 | 4.91 | 14.24 | 14.48 | 14.51 | 15.07 | 10.55 | 15.24 | 20.25 | 21.37 |
| 11 | 15.59 | 12.27 | 7.78 | 5.76 | 14.52 | 14.27 | 14.64 | 15.11 | 10.93 | 15.28 | 20.41 | 21.48 |
| 12 | 15.81 | 12.05 | 7.09 | 6.39 | 14.89 | 14.16 | 14.73 | 15.19 | 11.20 | 15.58 | 20.53 | 21.59 |
| 13 | 15.73 | 12.13 | 6.24 | 7.05 | 15.08 | 14.04 | 14.68 | 15.27 | 11.39 | 15.80 | 20.64 | 21.67 |
| 14 | 15.33 | 12.45 | 5.87 | 7.57 | 15.33 | 13.92 | 14.09 | 15.35 | 11.60 | 16.09 | 20.70 | 21.74 |
| 15 | 15.46 | 12.82 | 5.76 | 7.85 | 15.59 | 13.81 | 13.79 | 15.42 | 11.67 | 16.42 | 20.72 | 21.82 |
| 16 | 15.40 | 13.19 | 6.23 | 8.47 | 15.77 | 13.81 | 13.77 | 15.44 | 11.94 | 16.75 | 20.80 | 21.91 |
| 17 | 15.50 | 13.55 | 6.58 | 8.83 | 15.96 | 14.00 | 13.73 | 15.46 | 12.15 | 17.07 | 20.77 | 22.04 |
| 18 | 15.88 | 13.83 | 6.61 | 9.27 | 16.18 | 14.00 | 13.66 | 15.44 | 12.37 | 17.35 | 20.69 | 22.15 |
| 19 | 15.89 | 14.06 | 6.76 | 9.61 | 16.33 | 13.98 | 13.69 | 15.32 | 12.51 | 17.58 | 20.57 | 22.24 |
| 20 | 15.50 | 14.35 | 6.73 | 10.13 | 16.31 | 14.13 | 13.76 | 15.29 | 12.76 | 17.64 | 20.52 | 22.25 |
| 21 | 14.67 | 14.51 | 6.68 | 10.49 | 16.19 | 14.13 | 13.85 | 15.12 | 12.98 | 17.80 | 20.64 | 22.09 |
| 22 | 14.16 | 14.48 | 7.19 | 10.84 | 15.98 | 14.14 | 13.96 | 15.11 | 13.18 | 17.95 | 20.64 | 21.81 |
| 23 | 13.76 | 13.84 | 7.44 | 11.22 | 15.94 | 14.12 | 14.07 | 15.18 | 13.48 | 18.11 | 20.65 | 21.77 |
| 24 | 13.52 | 13.07 | 7.28 | 11.41 | 16.01 | 14.06 | 14.23 | 15.17 | 13.83 | 18.30 | 20.51 | 21.78 |
| 25 | 13.36 | 12.29 | 6.50 | 11.76 | 16.19 | 13.95 | 14.39 | 15.14 | 14.09 | 18.46 | 20.48 | 22.01 |
| 26 | 13.50 | 11.46 | 5.97 | 11.91 | 16.33 | 13.81 | 14.45 | 14.87 | 14.24 | 18.55 | 20.55 | 22.20 |
| 27 | 13.76 | 10.43 | 6.15 | 12.10 | 16.45 | 13.68 | 14.41 | 13.89 | 14.38 | 18.66 | 20.65 | 22.40 |
| 28 | 14.03 | 10.25 | 6.46 | 12.31 | 16.43 | 13.63 | 14.52 | 13.59 | 14.49 | 18.83 | 20.77 | 22.55 |
| 29 | 14.18 | 10.24 | 6.90 | 12.28 | --- | 13.51 | 14.59 | 13.25 | 14.57 | 19.01 | 20.83 | 22.69 |
| 30 | 14.34 | 10.26 | 7.25 | 12.43 | --- | 13.49 | 14.60 | 13.14 | 14.68 | 19.17 | 20.87 | 22.88 |
| 31 | 14.41 | --- | 7.49 | 12.65 | --- | 13.49 | --- | 13.16 | --- | 19.39 | 20.93 | --- |
| MAX | 17.23 | 15.09 | 10.38 | 12.65 | 16.45 | 16.13 | 14.73 | 15.46 | 14.68 | 19.39 | 20.93 | 22.88 |

CAL YR 1996 LOW 23.48
WTR YR 1997 LOW 22.88



## 410931081192900. LOCAL NUMBER, PO-123--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) | FLOW RATE (G/M) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| JUL 02... | PO-123 | 970702 | 0921 | 14.69 | 76.00 | 40 | 9.0 | 1080 | 7.1 |

| DATE | 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) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFIDE WATER, FLTRD, FIELD, (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| JUL 02... | 12.5 | 0.1 | 120 | 21 | 65 | 242 | 0.00 | 13 | <0.010 | 0.051 |

| 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) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| JUL 02... | 0.202 | 0.35 | <0.010 | <0.010 | 60 | <0.50 | <1.0 | <5.0 | 6.2 | <10 |

| 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) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| JUL 02... | 4000 | <10 | 10 | 314 | <10 | <10 | <1.0 | 262 | <6 | 8.0 |

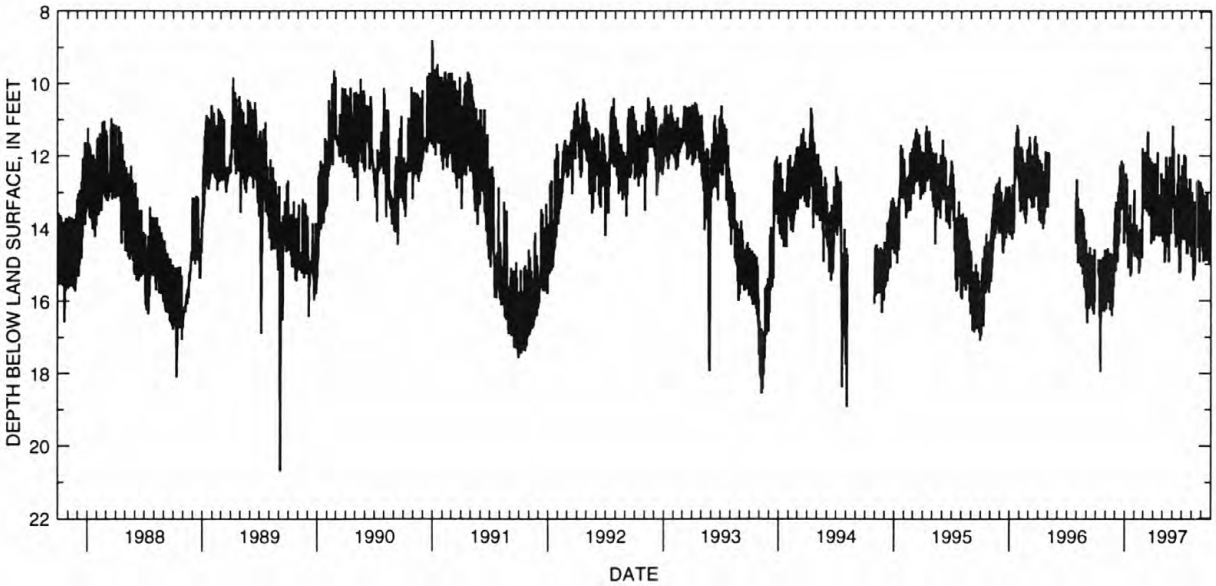
## 405505084032900. LOCAL NUMBER, PU-1

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 sea level, 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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | 15.65 | 15.20 | 13.55 | 12.94 | 12.92 | 12.55 | 13.44 | 13.29 | 13.80 | 14.79 | 13.80 |
| 2 | --- | 15.77 | 14.03 | 13.61 | 14.78 | 12.58 | 12.97 | 14.37 | 11.90 | 13.52 | 14.20 | 12.87 |
| 3 | --- | 14.61 | 13.45 | 12.70 | 14.05 | 12.61 | 13.63 | 13.96 | 11.17 | 12.26 | 13.00 | 14.50 |
| 4 | --- | 16.24 | 15.19 | 12.68 | 14.05 | 13.21 | 12.52 | 12.63 | 12.68 | 13.83 | 14.31 | 14.08 |
| 5 | --- | 15.45 | 13.84 | 13.36 | 14.68 | 12.84 | 14.34 | 13.70 | 12.71 | 13.36 | 14.34 | 12.92 |
| 6 | --- | 14.84 | 13.27 | 12.49 | 14.24 | 12.74 | 13.51 | 13.63 | 11.77 | 12.79 | 13.25 | 14.64 |
| 7 | --- | 16.03 | 14.36 | 13.97 | 14.41 | 13.45 | 12.21 | 14.34 | 13.43 | 13.63 | 15.26 | 14.19 |
| 8 | --- | 14.98 | 13.41 | 12.64 | 14.05 | 12.89 | 13.85 | 13.93 | 13.06 | 14.32 | 15.44 | 13.07 |
| 9 | 15.08 | 14.56 | 13.42 | 14.09 | 13.91 | 11.90 | 13.58 | 14.94 | 13.57 | 14.03 | 13.51 | 14.92 |
| 10 | 15.24 | 15.46 | 14.93 | 14.10 | 14.23 | 13.36 | 12.51 | 14.67 | 14.15 | 11.97 | 15.20 | 14.18 |
| 11 | 14.86 | 15.75 | 13.70 | 14.50 | 14.81 | 12.99 | 14.20 | 14.27 | 13.87 | 13.85 | 14.53 | 14.51 |
| 12 | 15.34 | 14.89 | 13.02 | 14.01 | 14.26 | 11.97 | 13.48 | 13.02 | 13.33 | 13.32 | 13.53 | 14.64 |
| 13 | 14.86 | 16.03 | 14.47 | 15.10 | 14.25 | 13.53 | 12.24 | 12.03 | 14.52 | 12.03 | 15.29 | 14.26 |
| 14 | 16.42 | 15.48 | 13.62 | 15.00 | 14.85 | 12.98 | 13.04 | 13.53 | 13.63 | 13.90 | 14.43 | 13.09 |
| 15 | 15.40 | 14.94 | 12.86 | 14.18 | 14.20 | 11.47 | 13.66 | 12.89 | 13.12 | 13.74 | 13.26 | 14.50 |
| 16 | 17.95 | 16.25 | 14.14 | 14.70 | 14.70 | 11.33 | 11.90 | 12.29 | 13.71 | 12.62 | 14.54 | 14.40 |
| 17 | 16.64 | 15.78 | 12.84 | 14.20 | 15.24 | 11.74 | 14.15 | 13.73 | 13.76 | 14.70 | 13.57 | 13.26 |
| 18 | 16.49 | 14.68 | 12.26 | 13.72 | 14.59 | 12.84 | 13.54 | 13.06 | 12.76 | 14.16 | 14.54 | 14.89 |
| 19 | 15.06 | 16.18 | 13.51 | 13.35 | 15.06 | 12.97 | 13.58 | 12.62 | 14.43 | 12.96 | 12.72 | 14.73 |
| 20 | 16.27 | 15.95 | 12.52 | 15.32 | 14.03 | 13.65 | 14.23 | 14.50 | 14.12 | 14.71 | 12.99 | 12.99 |
| 21 | 15.94 | 14.78 | 13.37 | 14.38 | 14.38 | 12.42 | 13.45 | 13.06 | 11.95 | 13.98 | 13.68 | 14.35 |
| 22 | 14.87 | 16.41 | 12.18 | 14.75 | 14.26 | 13.06 | 13.07 | 14.93 | 13.91 | 12.90 | 12.67 | 14.33 |
| 23 | 16.02 | 15.61 | 12.14 | 15.22 | 14.82 | 12.06 | 14.04 | 13.78 | 13.78 | 14.27 | 14.51 | 14.31 |
| 24 | 15.16 | 14.72 | 13.46 | 14.10 | 14.09 | 12.76 | 13.85 | 14.14 | 15.23 | 13.67 | 13.00 | 13.50 |
| 25 | 14.80 | 16.17 | 13.09 | 13.88 | 14.28 | 13.52 | 13.09 | 12.04 | 15.15 | 13.70 | 13.71 | 14.87 |
| 26 | 15.81 | 15.52 | 12.62 | 13.96 | 14.81 | 12.42 | 14.21 | 13.83 | 13.65 | 14.26 | 12.71 | 14.46 |
| 27 | 15.80 | 14.77 | 12.23 | 14.64 | 13.40 | 14.43 | 14.02 | 12.36 | 15.20 | 13.85 | 14.93 | 15.01 |
| 28 | 14.82 | 15.60 | 13.34 | 14.22 | 11.79 | 13.60 | 12.49 | 14.15 | 13.65 | 12.64 | 13.98 | 14.70 |
| 29 | 16.30 | 14.72 | 12.65 | 14.51 | --- | 12.17 | 13.78 | 13.12 | 14.41 | 14.49 | 14.14 | 13.69 |
| 30 | 15.18 | 13.84 | 14.41 | 14.65 | --- | 13.81 | 14.16 | 13.48 | 12.55 | 14.17 | 12.73 | 14.67 |
| 31 | 14.60 | --- | 13.67 | 13.75 | --- | 13.12 | --- | 12.63 | --- | 13.03 | 13.83 | --- |
| MAX | 17.95 | 16.41 | 15.20 | 15.32 | 15.24 | 14.43 | 14.34 | 14.94 | 15.23 | 14.71 | 15.44 | 15.01 |

CAL YR 1996 LOW 17.95
WTR YR 1997 LOW 17.95



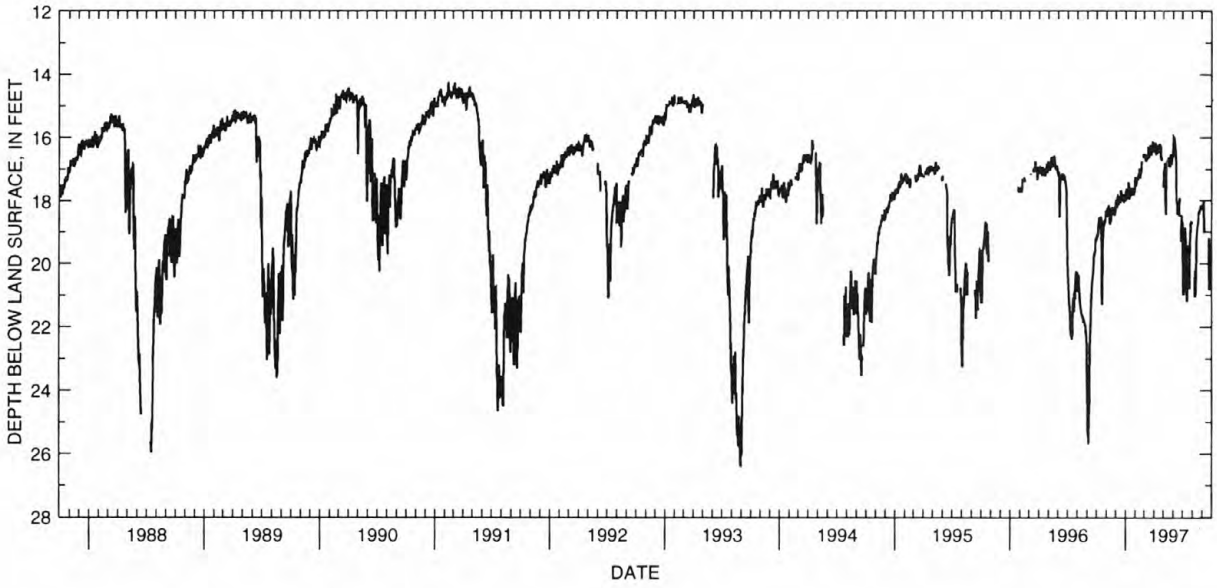
## 411914083045300. LOCAL NUMBER, S-3

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 sea level, 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, 26.38 ft below land-surface datum, Aug. 30, 1993; minimum daily low, 14.02 ft below land-surface datum, Mar. 24, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19.22 | 18.34 | 17.97 | 17.95 | 17.36 | 16.51 | 16.43 | 17.38 | 16.38 | 18.68 | --- | 18.28 |
| 2 | 19.06 | 18.42 | 18.12 | 17.68 | 17.44 | 16.64 | 16.43 | 17.56 | 16.13 | 19.91 | --- | 18.24 |
| 3 | 19.13 | 18.45 | 18.13 | 17.66 | 17.53 | 16.59 | 16.30 | 17.07 | 15.97 | 20.69 | --- | 18.28 |
| 4 | 19.13 | 18.45 | 18.24 | 17.63 | 17.43 | 16.60 | 16.24 | 17.05 | 15.99 | 20.98 | --- | 18.22 |
| 5 | 19.01 | 18.46 | 18.16 | 17.63 | 17.34 | 16.57 | 16.18 | 16.96 | 16.05 | 20.00 | --- | 18.15 |
| 6 | 18.89 | 18.43 | 17.91 | 17.82 | 17.34 | 16.69 | 16.15 | 16.80 | 16.05 | 19.39 | --- | 18.03 |
| 7 | 18.71 | 18.25 | 17.87 | 17.91 | 17.29 | 16.74 | 16.32 | 16.85 | 16.23 | 19.84 | --- | 18.03 |
| 8 | 18.63 | 18.15 | 17.91 | 17.90 | 17.30 | 16.69 | 16.43 | 18.14 | 16.29 | 19.49 | 20.41 | 18.53 |
| 9 | 18.54 | 18.22 | 18.13 | 17.73 | 17.32 | 16.69 | 16.50 | 18.45 | 16.39 | 18.87 | 21.05 | 19.02 |
| 10 | 18.67 | 18.34 | 18.10 | 17.40 | 17.26 | 16.53 | 16.49 | 17.63 | 16.68 | 19.02 | 20.22 | 18.85 |
| 11 | 18.70 | 18.66 | 17.94 | 17.69 | 17.14 | 16.58 | 16.43 | 17.19 | 17.58 | 19.24 | 20.72 | --- |
| 12 | 18.60 | 18.76 | 17.93 | 17.88 | 17.24 | 16.66 | 16.21 | 16.82 | 18.02 | 19.84 | 20.99 | --- |
| 13 | 18.52 | 18.72 | 18.00 | 17.92 | 17.27 | 16.63 | 16.32 | 16.77 | 18.05 | 20.85 | 19.99 | --- |
| 14 | 18.54 | 18.62 | 18.04 | 17.91 | 16.97 | 16.29 | 16.46 | 16.72 | 18.45 | 20.78 | 19.57 | --- |
| 15 | 18.55 | 18.67 | 18.07 | 17.79 | 17.15 | --- | 16.44 | 16.72 | --- | 21.20 | 19.25 | --- |
| 16 | 19.45 | 18.49 | 17.90 | 17.65 | 17.21 | 16.62 | 16.32 | 16.78 | --- | 20.22 | 19.01 | --- |
| 17 | 20.93 | 18.38 | 17.66 | 17.66 | 17.22 | 16.49 | 16.28 | 16.65 | --- | 19.71 | 18.87 | --- |
| 18 | 21.30 | 18.33 | 17.75 | 17.78 | 17.07 | 16.55 | 16.24 | 16.63 | --- | 19.43 | 18.85 | --- |
| 19 | 20.17 | 18.23 | 17.77 | 17.73 | 17.08 | 16.49 | 16.19 | 16.64 | --- | 19.63 | 18.76 | --- |
| 20 | 19.52 | 18.23 | 17.91 | 17.79 | 17.05 | 16.28 | 16.25 | 16.77 | 18.50 | 19.87 | 18.61 | --- |
| 21 | 19.18 | 18.32 | 17.90 | 17.79 | 16.74 | 16.22 | 16.24 | 16.87 | 18.11 | 19.42 | 18.42 | --- |
| 22 | 19.02 | 18.38 | 17.86 | 17.57 | --- | 16.30 | 16.27 | 16.91 | 17.91 | 20.50 | 18.39 | --- |
| 23 | 18.69 | 18.33 | 17.84 | 17.75 | --- | 16.49 | 16.25 | 16.84 | --- | 20.79 | 18.45 | 19.20 |
| 24 | 18.69 | 18.30 | 17.93 | 17.73 | --- | 16.55 | 16.63 | 16.68 | --- | 19.64 | 18.38 | 20.47 |
| 25 | 18.70 | 18.29 | 18.02 | 17.69 | --- | 16.35 | 16.64 | 16.52 | --- | 19.25 | 18.33 | 20.82 |
| 26 | 18.73 | 18.44 | 18.03 | 17.82 | --- | 16.31 | 16.71 | 16.63 | 19.30 | 18.99 | 18.33 | 19.92 |
| 27 | 18.70 | 18.48 | 17.94 | 17.76 | 16.50 | 16.22 | 16.60 | 16.73 | 18.88 | 18.73 | 18.22 | 19.36 |
| 28 | 18.62 | 18.43 | 17.78 | 17.70 | 16.64 | 16.11 | --- | 16.74 | 18.47 | 18.66 | 18.19 | --- |
| 29 | 18.53 | 18.33 | 17.91 | 17.73 | --- | 16.18 | --- | 16.64 | --- | 18.72 | 18.16 | --- |
| 30 | 18.34 | 18.18 | 17.98 | 17.55 | --- | 16.19 | --- | 16.61 | 18.83 | 18.72 | 18.23 | --- |
| 31 | 18.37 | --- | 18.01 | 17.24 | --- | 16.38 | --- | 16.53 | --- | 18.75 | 18.17 | --- |
| MAX | 21.30 | 18.76 | 18.24 | 17.95 | 17.53 | 16.74 | 16.71 | 18.45 | 19.30 | 21.20 | 21.05 | 20.82 |

CAL YR 1996 LOW 25.69
WTR YR 1997 LOW 21.30



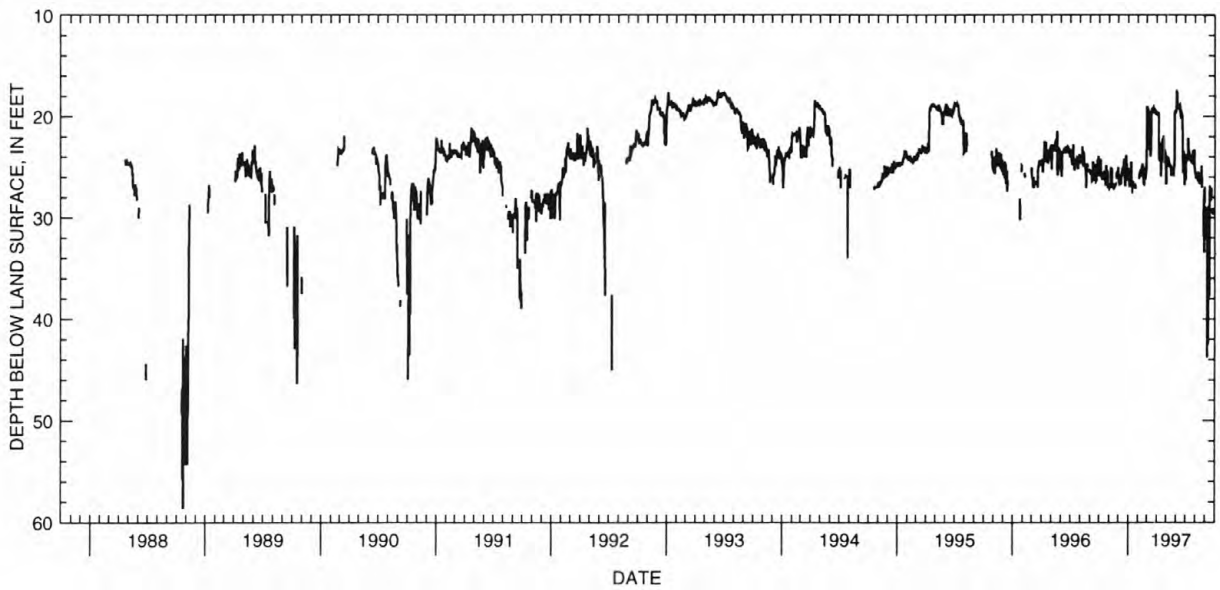
## 412703083213600. LOCAL NUMBER, S-2

LOCATION.--Lat 41°27'03", long 83°21'36", Hydrologic Unit 04100010, at waterworks 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 sea level 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, 17.43 ft below land-surface datum, June 3, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 25.65 | 27.10 | 25.80 | 26.25 | --- | 19.03 | 19.81 | 26.72 | 19.43 | 24.01 | 25.74 | 27.00 |
| 2 | 25.52 | 26.96 | 26.20 | 25.19 | --- | 19.24 | 19.75 | 24.70 | 18.90 | 26.30 | 25.78 | --- |
| 3 | 24.27 | 26.96 | 26.13 | 25.69 | --- | 19.22 | 19.64 | 23.95 | 17.43 | 24.30 | 26.13 | 28.93 |
| 4 | 25.62 | 27.07 | 26.55 | 26.76 | 26.19 | 19.33 | 19.70 | 24.27 | 17.63 | 23.94 | 25.77 | 29.17 |
| 5 | 24.26 | 26.97 | 26.49 | 26.75 | 25.78 | 19.38 | 19.65 | 24.25 | 18.24 | 23.99 | 25.83 | 32.08 |
| 6 | 25.58 | 26.68 | 26.63 | 26.72 | 25.61 | 19.76 | 19.62 | 24.06 | 18.66 | 24.36 | 25.86 | 31.48 |
| 7 | 25.91 | 25.07 | 26.82 | 26.96 | 25.54 | 21.16 | 19.82 | 24.16 | 18.93 | 24.28 | 26.00 | 29.12 |
| 8 | 26.07 | 25.85 | 26.41 | 26.52 | 25.80 | 22.65 | 22.60 | 24.28 | 19.04 | 23.96 | 26.01 | 29.86 |
| 9 | 26.09 | 26.23 | 26.64 | 25.67 | 25.99 | 23.24 | 24.14 | 24.34 | 19.15 | 23.70 | 26.39 | 43.82 |
| 10 | 26.26 | 25.16 | 25.99 | 24.54 | --- | 19.77 | 24.42 | 24.77 | 19.21 | 22.13 | 25.51 | --- |
| 11 | 26.01 | 26.67 | 25.79 | 26.97 | 25.56 | 20.89 | 24.36 | 24.98 | 19.16 | 23.22 | 26.29 | 42.50 |
| 12 | 25.67 | 27.06 | 25.51 | --- | 25.57 | 23.97 | 23.11 | 24.69 | 19.10 | 23.66 | 26.49 | 29.53 |
| 13 | 25.67 | 26.82 | 25.39 | 27.61 | 25.19 | 23.36 | 24.34 | 24.94 | 18.98 | 23.51 | 26.55 | 28.88 |
| 14 | 25.64 | --- | 25.11 | 27.06 | 24.94 | 21.93 | 25.90 | 25.00 | 19.43 | 23.77 | 26.39 | 29.04 |
| 15 | 25.58 | 26.95 | 25.27 | 26.42 | 24.72 | 19.58 | 25.31 | 24.86 | 19.76 | 24.24 | 26.32 | 37.79 |
| 16 | 25.66 | 27.23 | 25.29 | 27.04 | 25.65 | 19.36 | 23.52 | 25.16 | 19.66 | 24.29 | 26.35 | 27.34 |
| 17 | 25.48 | 27.05 | 24.96 | --- | 25.11 | 19.20 | 23.39 | 25.88 | 20.05 | 24.33 | 25.76 | 26.85 |
| 18 | 25.95 | 27.03 | 24.47 | --- | 26.12 | 19.35 | 22.92 | 25.60 | 20.00 | 24.23 | 26.04 | --- |
| 19 | 26.33 | 26.69 | 24.23 | --- | 26.68 | 19.30 | 22.23 | 25.68 | 20.05 | 24.53 | 26.40 | --- |
| 20 | 26.39 | 26.90 | 25.81 | --- | 26.73 | 19.21 | 23.23 | --- | 19.95 | 24.55 | 26.25 | 28.35 |
| 21 | 26.84 | 26.81 | 26.33 | --- | 25.05 | 19.17 | 23.54 | 25.73 | 19.93 | 24.45 | 24.91 | 27.83 |
| 22 | 26.39 | 26.88 | 26.91 | 26.93 | 25.35 | 19.41 | 23.29 | 25.41 | 22.65 | 24.58 | 27.06 | 27.10 |
| 23 | 24.85 | --- | 25.63 | 26.67 | 25.27 | 19.62 | 21.95 | --- | 24.52 | 24.60 | --- | --- |
| 24 | 26.12 | 26.19 | 24.99 | 27.19 | 26.22 | 19.70 | 23.81 | 25.93 | 25.56 | 23.80 | --- | 29.11 |
| 25 | 26.56 | 25.99 | 23.85 | --- | 25.78 | 19.53 | 23.52 | 25.17 | 23.58 | 23.37 | --- | 29.48 |
| 26 | 25.37 | 25.68 | 26.13 | --- | 25.65 | 19.61 | 24.62 | 24.96 | 23.46 | 24.71 | 31.87 | 29.67 |
| 27 | 25.53 | 25.73 | 24.73 | --- | 25.32 | 19.49 | 23.64 | 24.44 | 25.16 | 24.05 | 30.26 | 29.44 |
| 28 | 26.86 | 25.70 | 25.71 | --- | 23.23 | 19.45 | 23.59 | 19.63 | 26.80 | 24.82 | 28.14 | 29.46 |
| 29 | 27.08 | 25.75 | 26.30 | --- | --- | 19.52 | 23.74 | 19.67 | 23.80 | 23.28 | 33.45 | 29.17 |
| 30 | 26.71 | 25.04 | 26.07 | 26.43 | --- | 19.56 | 25.26 | 19.67 | 25.98 | 25.04 | 27.25 | 29.69 |
| 31 | 27.00 | --- | 25.80 | --- | --- | 19.75 | --- | 19.61 | --- | 25.48 | 28.55 | --- |
| MAX | 27.08 | 27.23 | 26.91 | 27.61 | 26.73 | 23.97 | 25.90 | 26.72 | 26.80 | 26.30 | 33.45 | 43.82 |

CAL YR 1996 LOW 30.25
WTR YR 1997 LOW 43.82



### 412703083213600. LOCAL NUMBER, S-2--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) | FLOW RATE (G/M) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | S-2 | 970826 | 2001 | 32.40 | 198.00 | 185 | 7.0 | 1520 | 6.9 |

| DATE | 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) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFIDE WATER, FLTRD, FIELD, (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | 13.0 | 0.6 | 120 | 71 | 69 | 336 | 0.009 | 8.8 | <0.010 | 0.910 |

| 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) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | 0.038 | <0.20 | <0.010 | 0.015 | 120 | <0.50 | <1.0 | <5.0 | <3.0 | <10 |

| 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) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 26... | 4.9 | <10 | 25 | 2.7 | <10 | <10 | <1.0 | 36700 | <6 | 29 |

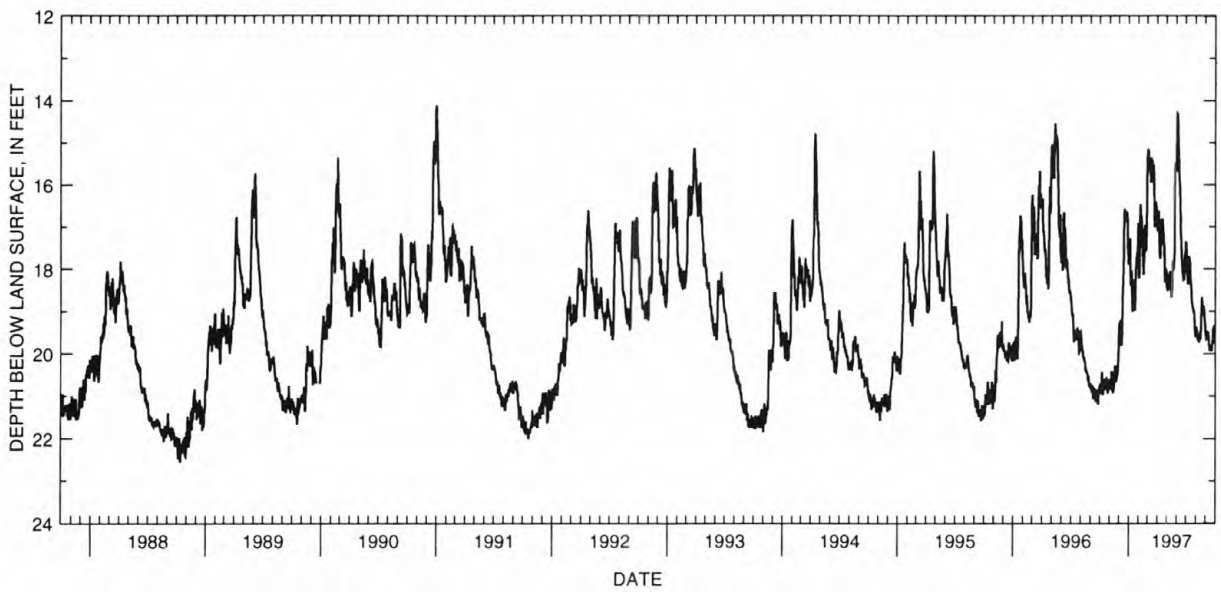
### 410802083093900. LOCAL NUMBER, SE-2

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 sea level, 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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20.77 | 20.61 | 19.45 | 17.84 | 17.63 | 15.32 | 16.98 | 18.41 | 15.26 | 17.35 | 19.51 | 19.52 |
| 2 | 20.71 | 20.74 | 19.29 | 17.45 | 17.99 | 15.23 | 17.11 | 18.46 | 14.38 | 17.39 | 19.37 | 19.51 |
| 3 | 20.89 | 20.85 | 19.28 | 17.70 | 18.22 | 15.16 | 17.06 | 18.36 | 14.30 | 17.60 | 19.45 | 19.63 |
| 4 | 20.95 | 20.83 | 19.54 | 17.70 | 18.06 | 15.20 | 17.01 | 18.52 | 14.31 | 17.91 | 19.39 | 19.62 |
| 5 | 20.84 | 20.71 | 19.46 | 17.28 | 16.95 | 15.22 | 16.86 | 18.46 | 14.41 | 18.11 | 19.56 | 19.56 |
| 6 | 20.70 | 20.67 | 19.21 | 18.02 | 16.67 | 15.48 | 16.62 | 18.31 | 14.71 | 18.20 | 19.61 | 19.46 |
| 7 | 20.50 | 20.45 | 19.32 | 18.37 | 16.46 | 15.58 | 17.03 | 18.46 | 15.02 | 18.36 | 19.68 | 19.55 |
| 8 | 20.43 | 20.42 | 19.54 | 18.39 | 16.69 | 15.66 | 17.49 | 18.23 | 15.29 | 18.34 | 19.64 | 19.61 |
| 9 | 20.61 | 20.53 | 19.81 | 18.16 | 16.76 | 15.65 | 17.69 | 18.11 | 15.62 | 18.13 | 19.57 | 19.57 |
| 10 | 20.89 | 20.67 | 19.78 | 18.03 | 16.79 | 15.41 | 17.75 | 18.28 | 15.87 | 17.70 | 19.62 | 19.49 |
| 11 | 20.98 | 20.89 | 19.52 | 18.64 | 16.87 | 15.64 | 17.66 | 18.21 | 15.98 | 17.74 | 19.72 | 19.64 |
| 12 | 20.87 | 20.91 | 19.08 | 18.95 | 17.37 | 15.93 | 17.35 | 18.05 | 16.08 | 17.81 | 19.73 | 19.79 |
| 13 | 20.77 | 20.91 | 18.51 | 19.01 | 17.46 | 15.95 | 16.85 | 18.14 | 16.48 | 17.80 | 19.60 | 19.87 |
| 14 | 20.84 | 20.77 | 18.34 | 18.97 | 17.23 | 15.36 | 16.97 | 18.16 | 17.11 | 17.87 | 19.68 | 19.86 |
| 15 | 20.86 | 20.83 | 18.13 | 18.95 | 17.76 | 15.51 | 17.00 | 18.48 | 17.29 | 18.12 | 19.48 | 19.82 |
| 16 | 20.67 | 20.62 | 17.76 | 18.25 | 18.04 | 15.59 | 16.86 | 18.67 | 17.30 | 18.27 | 19.66 | 19.79 |
| 17 | 20.66 | 20.47 | 17.11 | 18.35 | 18.14 | 15.41 | 16.81 | 18.52 | 17.65 | 18.37 | 19.55 | 19.83 |
| 18 | 20.59 | 20.38 | 16.66 | 18.82 | 17.81 | 15.68 | 16.83 | 18.54 | 17.83 | 18.43 | 19.16 | 19.94 |
| 19 | 20.70 | 20.28 | 16.57 | 18.80 | 17.58 | 15.66 | 17.03 | 18.05 | 18.01 | 18.71 | 19.00 | 19.88 |
| 20 | 20.63 | 20.37 | 16.78 | 18.82 | 17.56 | 15.61 | 17.15 | 17.84 | 18.07 | 18.82 | 18.72 | 19.86 |
| 21 | 20.69 | 20.54 | 16.77 | 18.98 | 16.96 | 15.60 | 17.16 | 17.81 | 18.16 | 18.85 | 18.66 | 19.93 |
| 22 | 20.66 | 20.67 | 16.80 | 18.36 | 17.27 | 16.25 | 17.39 | 17.97 | 18.11 | 18.92 | 18.87 | 19.75 |
| 23 | 20.56 | 20.63 | 16.78 | 18.02 | 17.43 | 16.75 | 17.46 | 18.02 | 18.25 | 18.90 | 18.99 | 19.67 |
| 24 | 20.77 | 20.56 | 16.63 | 17.95 | 17.57 | 17.01 | 17.84 | 17.85 | 18.24 | 18.98 | 18.98 | 19.74 |
| 25 | 20.86 | 20.56 | 16.68 | 17.72 | 17.55 | 16.80 | 18.17 | 17.65 | 18.26 | 19.04 | 18.86 | 19.38 |
| 26 | 20.91 | 20.47 | 16.71 | 17.87 | 17.22 | 16.51 | 18.32 | 16.19 | 18.03 | 18.96 | 18.93 | 19.61 |
| 27 | 20.90 | 20.51 | 16.70 | 17.74 | 16.60 | 16.41 | 18.13 | 15.64 | 17.71 | 19.05 | 18.93 | 19.58 |
| 28 | 20.74 | 20.36 | 16.84 | 17.59 | 15.84 | 16.40 | 17.99 | 15.52 | 17.63 | 19.21 | 18.97 | 19.40 |
| 29 | 20.68 | 20.08 | 17.50 | 17.61 | --- | 16.52 | 18.08 | 15.47 | 17.71 | 19.42 | 19.16 | 19.33 |
| 30 | 20.63 | 19.84 | 17.65 | 17.33 | --- | 16.54 | 18.03 | 15.67 | 17.51 | 19.56 | 19.24 | 19.76 |
| 31 | 20.70 | --- | 17.89 | 16.91 | --- | 16.75 | --- | 15.69 | --- | 19.60 | 19.36 | --- |
| MAX | 20.98 | 20.91 | 19.81 | 19.01 | 18.22 | 17.01 | 18.32 | 18.67 | 18.26 | 19.60 | 19.73 | 19.94 |

CAL YR 1996 LOW 21.18
WTR YR 1997 LOW 20.98



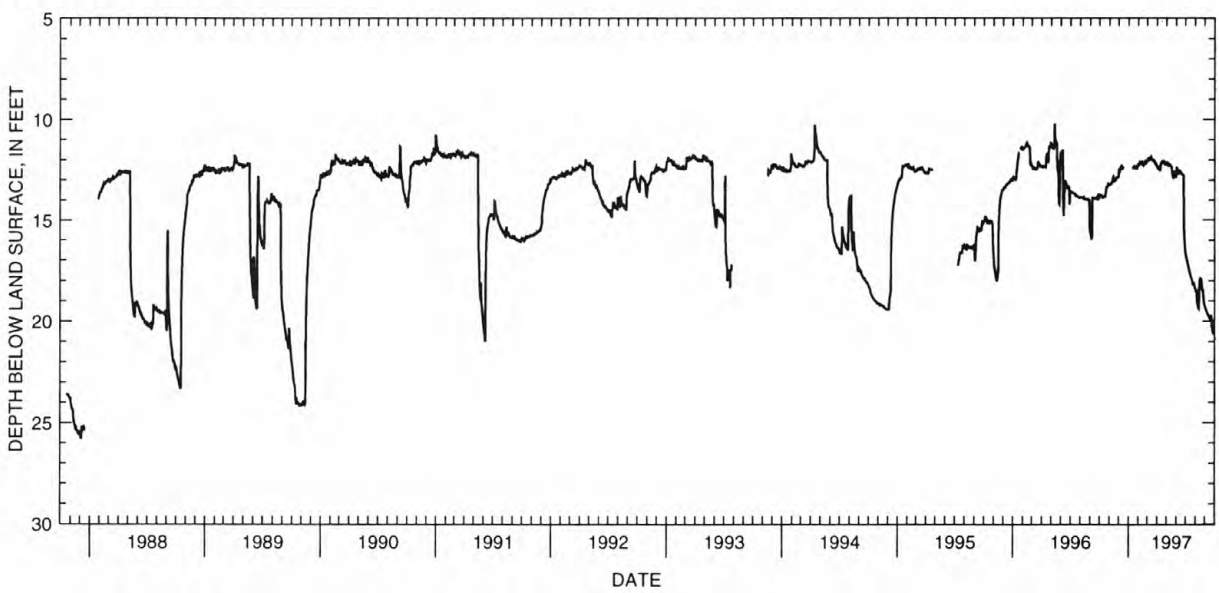
## 410330081282000. LOCAL NUMBER, SU-6

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 sea level 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-WDR-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, 10.19 ft below land-surface datum, May 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13.78 | 13.25 | 12.43 | --- | 12.27 | 12.01 | 12.35 | 12.20 | 12.61 | 16.66 | 18.40 | 19.24 |
| 2 | 13.81 | 13.24 | 12.49 | --- | 12.26 | 11.94 | 12.37 | 12.21 | 12.33 | 16.76 | 18.43 | 19.31 |
| 3 | 13.84 | 13.23 | 12.52 | --- | 12.24 | 11.90 | 12.39 | 12.13 | 12.40 | 16.85 | 18.43 | 19.37 |
| 4 | 13.84 | 13.20 | 12.54 | --- | 12.21 | 11.99 | 12.42 | 12.12 | 12.45 | 16.94 | 18.51 | 19.41 |
| 5 | 13.83 | 13.19 | 12.40 | --- | 12.09 | 12.00 | 12.43 | 12.14 | 12.51 | 16.99 | 18.51 | 19.44 |
| 6 | 13.82 | 13.19 | 12.39 | --- | 12.09 | 11.87 | 12.39 | 12.24 | 12.58 | 17.03 | 18.79 | 19.49 |
| 7 | 13.78 | 13.15 | 12.35 | --- | 12.09 | 11.91 | 12.42 | 12.29 | 12.62 | 17.12 | 19.02 | 19.55 |
| 8 | 13.80 | 13.11 | 12.28 | --- | 12.10 | 11.98 | 12.45 | 12.28 | 12.63 | 17.20 | 19.13 | 19.58 |
| 9 | 13.83 | 13.11 | 12.36 | --- | 12.12 | 11.98 | 12.49 | 12.25 | 12.66 | 17.25 | 19.19 | 19.62 |
| 10 | 13.85 | 13.04 | 12.42 | --- | 12.13 | 11.84 | 12.51 | 12.26 | 12.71 | 17.34 | 19.24 | 19.63 |
| 11 | 13.87 | 13.01 | 12.43 | --- | 12.15 | 11.90 | 12.51 | 12.25 | 12.56 | 17.40 | 19.30 | 19.66 |
| 12 | 13.85 | 12.86 | 12.33 | --- | 12.21 | 11.93 | 12.38 | 12.23 | 12.52 | 17.45 | 19.39 | 19.71 |
| 13 | 13.82 | 12.83 | 12.36 | 12.36 | 12.22 | 11.94 | 12.11 | 12.25 | 12.53 | 17.54 | 19.41 | 19.75 |
| 14 | 13.82 | 12.89 | 12.37 | 12.38 | 12.15 | 11.90 | 12.16 | 12.26 | 12.59 | 17.59 | 18.38 | 19.76 |
| 15 | 13.84 | 12.98 | 12.34 | 12.36 | 12.19 | 11.95 | 12.16 | 12.30 | 12.61 | 17.64 | 18.00 | 19.80 |
| 16 | 13.84 | 13.02 | --- | 12.33 | 12.21 | 11.98 | 12.13 | 12.34 | 12.62 | 17.70 | 17.99 | 19.83 |
| 17 | 13.85 | 13.01 | --- | 12.35 | 12.24 | 11.96 | 12.07 | 12.35 | 12.64 | 17.77 | 17.87 | 19.85 |
| 18 | 13.84 | 13.02 | --- | 12.38 | 12.19 | 11.99 | 12.08 | 12.44 | 12.65 | 17.82 | 17.82 | 19.88 |
| 19 | 13.72 | 13.04 | --- | 12.38 | 12.16 | 11.99 | 12.09 | 12.66 | 12.68 | 17.84 | 17.91 | 19.88 |
| 20 | 13.66 | 13.02 | --- | 12.36 | 12.16 | 12.02 | 12.09 | 12.74 | 12.72 | 17.86 | 17.94 | 19.87 |
| 21 | 13.49 | 12.95 | --- | 12.39 | 12.11 | 12.02 | 12.07 | 12.81 | 12.72 | 17.94 | 17.95 | 19.69 |
| 22 | 13.39 | 12.96 | --- | 12.36 | 12.19 | 12.06 | 12.11 | 12.86 | 12.72 | 18.00 | 18.25 | 19.88 |
| 23 | 13.33 | 12.92 | --- | 12.42 | 12.19 | 12.10 | 12.13 | 12.89 | 12.72 | 18.15 | 18.42 | 19.98 |
| 24 | 13.32 | 12.89 | --- | 12.42 | 12.18 | 12.13 | 12.15 | 12.89 | 12.75 | 18.16 | 18.45 | 20.23 |
| 25 | 13.32 | 12.86 | --- | 12.36 | 12.17 | 12.09 | 12.20 | 12.84 | 14.93 | 18.07 | 18.43 | 20.41 |
| 26 | 13.32 | 12.87 | --- | 12.37 | 12.14 | 12.11 | 12.21 | 12.53 | 15.73 | 18.08 | 18.45 | 20.49 |
| 27 | 13.23 | 12.87 | --- | 12.32 | 12.09 | 12.13 | 12.18 | 12.65 | 16.04 | 18.09 | 18.68 | 20.56 |
| 28 | 13.19 | 12.86 | --- | 12.28 | 12.04 | 12.19 | 12.14 | 12.73 | 16.30 | 18.14 | 18.82 | 20.56 |
| 29 | 13.21 | 12.86 | --- | 12.35 | --- | 12.24 | 12.17 | 12.77 | 16.48 | 18.21 | 19.04 | 20.59 |
| 30 | 13.23 | 12.83 | --- | 12.31 | --- | 12.24 | 12.17 | 12.82 | 16.59 | 18.26 | 19.16 | 20.63 |
| 31 | 13.25 | --- | --- | 12.25 | --- | 12.28 | --- | 12.83 | --- | 18.35 | 19.20 | --- |
| MAX | 13.87 | 13.25 | 12.54 | 12.42 | 12.27 | 12.28 | 12.51 | 12.89 | 16.59 | 18.35 | 19.41 | 20.63 |

CAL YR 1996 LOW 15.96
WTR YR 1997 LOW 20.63



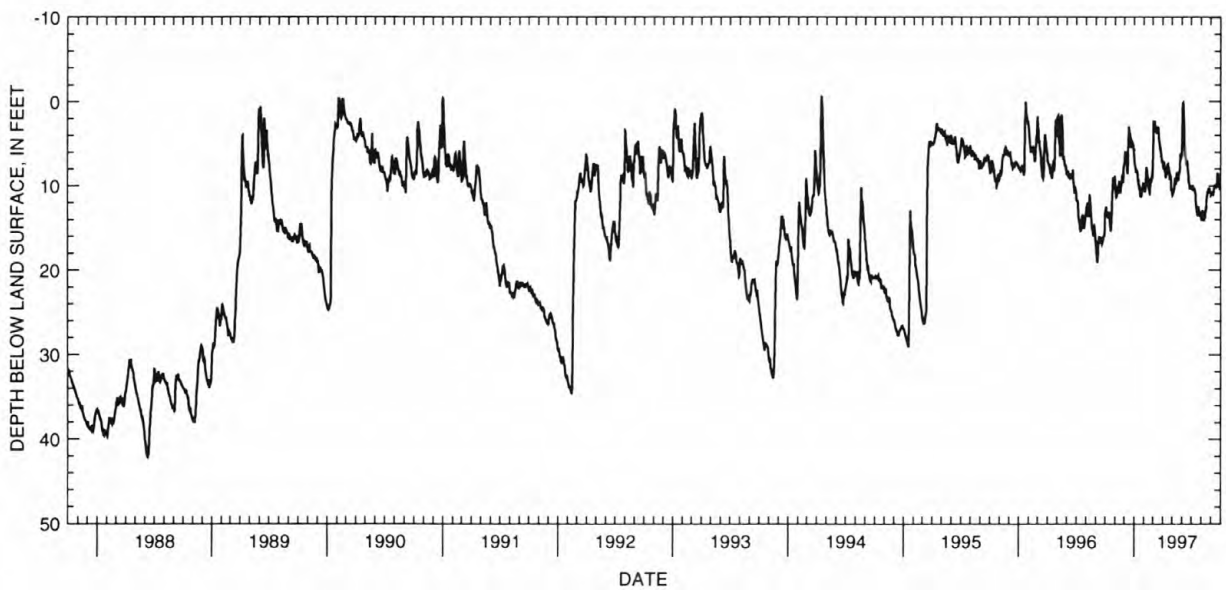
## 410846081271600. LOCAL NUMBER, SU-7

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 sea level, 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, 0.67 ft above land-surface datum, Apr. 15, 1994.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 12.98 | 9.77 | 7.16 | 6.59 | 10.09 | 6.90 | 7.02 | 10.80 | 6.33 | 10.32 | 13.90 | 11.14 |
| 2 | 12.84 | 10.51 | 5.89 | 7.25 | 10.48 | 4.73 | 7.71 | 11.12 | 3.33 | 10.31 | 14.01 | 11.12 |
| 3 | 12.61 | 10.92 | 6.21 | 7.61 | 10.17 | 2.40 | 8.02 | 11.05 | 1.10 | 10.38 | 14.10 | 10.90 |
| 4 | 12.51 | 11.28 | 6.27 | 7.67 | 10.78 | 2.26 | 7.64 | 10.72 | .24 | 10.34 | 14.14 | 10.94 |
| 5 | 13.34 | 11.40 | 5.96 | 8.00 | 10.33 | 2.71 | 7.12 | 10.52 | .18 | 10.12 | 12.90 | 10.94 |
| 6 | 13.51 | 11.36 | 6.28 | 8.44 | 9.62 | 2.40 | 7.38 | 10.63 | .51 | 9.92 | 13.60 | 10.78 |
| 7 | 13.61 | 10.76 | 6.83 | 8.14 | 8.78 | 2.28 | 8.07 | 10.51 | 1.54 | 10.40 | 13.77 | 10.69 |
| 8 | 13.56 | 10.98 | 7.20 | 8.12 | 7.78 | 3.03 | 8.29 | 10.30 | 2.62 | 10.49 | 13.76 | 10.87 |
| 9 | 13.54 | 10.90 | 7.38 | 8.17 | 7.82 | 3.30 | 8.28 | 9.69 | 3.98 | 10.60 | 14.08 | 10.92 |
| 10 | 13.86 | 10.74 | 8.42 | 8.29 | 8.33 | 3.30 | 8.66 | 9.06 | 5.11 | 10.35 | 14.09 | 10.69 |
| 11 | 13.34 | 10.24 | 8.58 | 8.56 | 8.25 | 3.32 | 9.07 | 9.17 | 5.70 | 10.36 | 14.17 | 10.27 |
| 12 | 13.10 | 9.95 | 7.67 | 9.16 | 8.82 | 3.60 | 8.54 | 9.79 | 6.20 | 10.70 | 13.50 | 10.20 |
| 13 | 13.45 | 9.72 | 4.99 | 9.46 | 9.23 | 3.82 | 8.72 | 9.76 | 6.75 | 10.72 | 13.86 | 9.97 |
| 14 | 13.90 | 9.55 | 3.81 | 9.64 | 9.85 | 3.49 | 8.25 | 8.94 | 7.30 | 10.94 | 13.62 | 9.97 |
| 15 | 14.39 | 9.57 | 2.95 | 9.57 | 10.15 | 2.93 | 7.83 | 8.84 | 7.58 | 11.79 | 13.18 | 10.00 |
| 16 | 14.88 | 9.87 | 3.39 | 10.33 | 10.43 | 3.10 | 7.78 | 8.40 | 6.97 | 12.32 | 12.82 | 10.00 |
| 17 | 14.92 | 10.79 | 4.02 | 10.53 | 10.34 | 3.51 | 7.47 | 8.52 | 7.01 | 12.60 | 12.44 | 9.98 |
| 18 | 15.41 | 10.79 | 3.68 | 10.02 | 10.64 | 2.99 | 7.41 | 9.19 | 7.14 | 13.07 | 11.90 | 10.05 |
| 19 | 15.02 | 10.76 | 3.92 | 10.92 | 11.13 | 3.69 | 7.89 | 9.42 | 7.36 | 13.28 | 11.21 | 9.85 |
| 20 | 14.45 | 9.81 | 4.24 | 11.20 | 10.27 | 4.28 | 7.84 | 8.74 | 8.27 | 13.41 | 11.04 | 10.16 |
| 21 | 13.52 | 9.82 | 5.01 | 11.23 | 9.98 | 4.67 | 7.98 | 9.42 | 8.33 | 13.58 | 10.83 | 9.32 |
| 22 | 12.21 | 9.31 | 5.13 | 10.69 | 9.40 | 5.14 | 8.17 | 8.59 | 8.93 | 13.08 | 10.81 | 8.45 |
| 23 | 10.90 | 8.79 | 5.52 | 10.76 | 9.12 | 5.21 | 8.92 | 8.59 | 9.77 | 12.45 | 10.59 | 8.55 |
| 24 | 9.76 | 8.75 | 5.39 | 11.37 | 9.56 | 5.79 | 8.84 | 8.41 | 9.53 | 12.77 | 10.39 | 9.15 |
| 25 | 9.02 | 9.54 | 5.00 | 10.59 | 9.14 | 5.41 | 8.70 | 8.12 | 10.23 | 12.98 | 10.40 | 9.60 |
| 26 | 9.19 | 9.54 | 4.86 | 10.58 | 8.89 | 5.86 | 8.80 | 7.59 | 10.41 | 13.23 | 10.43 | 9.57 |
| 27 | 9.48 | 8.57 | 4.97 | 10.54 | 9.20 | 6.65 | 9.26 | 6.19 | 10.18 | 13.23 | 10.23 | 9.79 |
| 28 | 10.09 | 7.65 | 5.04 | 10.21 | 8.42 | 6.22 | 10.60 | 6.36 | 10.00 | 13.41 | 10.44 | 9.78 |
| 29 | 9.61 | 7.54 | 5.32 | 9.75 | --- | 7.04 | 10.42 | 6.42 | 10.10 | 13.58 | 10.80 | 10.13 |
| 30 | 9.05 | 7.33 | 5.66 | 9.78 | --- | 7.21 | 10.63 | 6.61 | 10.16 | 13.69 | 10.73 | 10.06 |
| 31 | 8.84 | --- | 6.05 | 9.99 | --- | 7.22 | --- | 6.48 | --- | 13.74 | 10.79 | --- |
| MAX | 15.41 | 11.40 | 8.58 | 11.37 | 11.13 | 7.22 | 10.63 | 11.12 | 10.41 | 13.74 | 14.17 | 11.14 |

CAL YR 1996 LOW 19.00
WTR YR 1997 LOW 15.41



## 410846081271600. LOCAL NUMBER, SU-7--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) | FLOW RATE (G/M) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| JUL 01... | SU-7 | 970701 | 1637 | 10.30 | 100.00 | 60 | 9.0 | 577 | 7.6 |

| DATE | 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) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFIDE WATER, FLTRD, FIELD, (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| JUL 01... | 13.0 | 0.1 | 63 | 12 | 35 | 158 | 0.003 | 9.7 | <0.010 | 0.052 |

| 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) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| JUL 01... | 0.083 | <0.20 | <0.010 | <0.010 | 127 | <0.50 | <1.0 | <5.0 | 3.4 | <10 |

| 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) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| JUL 01... | 1200 | <10 | 6 | 119 | <10 | <10 | <1.0 | 112 | <6 | <3.0 |

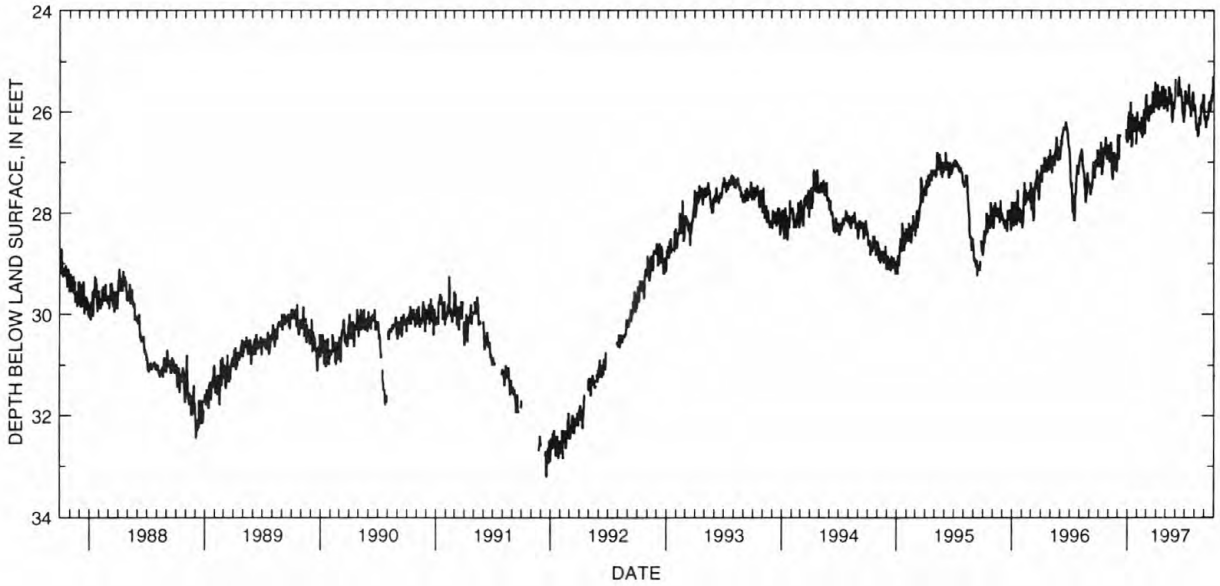
## 405215084335400. LOCAL NUMBER, VW-1

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 sea level.
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 33.20 ft below land-surface datum, Dec. 20-21, 1991; minimum daily low, 18.85 ft below land-surface datum, Mar. 6, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 26.95 | 26.65 | 26.45 | 26.60 | 26.10 | 25.65 | 25.90 | 25.75 | 25.55 | 26.00 | 25.90 | 26.05 |
| 2 | 26.95 | 26.90 | 26.65 | 26.20 | 26.25 | 25.90 | 25.90 | 25.75 | 25.35 | 25.60 | 25.85 | 26.15 |
| 3 | 27.05 | 26.90 | 26.75 | 26.10 | 26.35 | 25.90 | 25.85 | 25.70 | 25.50 | 25.60 | 25.95 | 26.15 |
| 4 | 27.10 | 27.00 | 26.95 | 26.10 | 26.25 | 25.90 | 25.70 | 25.85 | 25.55 | 25.70 | 26.00 | 26.10 |
| 5 | 27.00 | 26.95 | 26.90 | 26.00 | 26.30 | 25.90 | 25.60 | 25.90 | 25.50 | 25.80 | 26.20 | 26.20 |
| 6 | 26.90 | 26.90 | 26.50 | 26.30 | 26.30 | 26.10 | 25.45 | 25.90 | 25.45 | 25.80 | 26.30 | 26.30 |
| 7 | 26.70 | 26.75 | 26.45 | 26.40 | 26.30 | 26.15 | 25.75 | 26.00 | 25.55 | 25.85 | 26.35 | 26.30 |
| 8 | 26.60 | 26.60 | 26.50 | 26.55 | 26.35 | 26.15 | 25.90 | 25.85 | 25.55 | 25.75 | 26.35 | 26.20 |
| 9 | 26.75 | 26.65 | --- | 26.45 | 26.40 | 26.20 | 25.95 | 25.75 | 25.65 | 25.75 | 26.25 | 26.10 |
| 10 | 27.15 | 26.80 | --- | 25.80 | 26.30 | 25.90 | 25.95 | 25.85 | 25.70 | 25.80 | 26.30 | 26.10 |
| 11 | 27.25 | 27.10 | --- | 26.20 | 26.20 | 25.95 | 25.85 | 25.80 | 25.65 | 25.80 | 26.45 | 26.15 |
| 12 | 27.20 | 27.25 | --- | 26.50 | 26.40 | 26.05 | 25.60 | 25.50 | 25.50 | 25.80 | 26.50 | 26.15 |
| 13 | 27.10 | 27.30 | --- | 26.70 | 26.45 | 26.05 | 25.70 | 25.55 | 25.30 | 25.65 | 26.45 | 26.10 |
| 14 | 27.05 | 27.30 | --- | 26.70 | 26.10 | 25.85 | 25.85 | 25.55 | 25.55 | 25.45 | 26.45 | 26.05 |
| 15 | 27.05 | 27.35 | --- | 26.65 | 26.35 | 25.95 | 25.90 | 25.75 | 25.65 | 25.65 | 26.35 | 25.95 |
| 16 | 26.85 | 27.20 | --- | 26.05 | 26.50 | 26.05 | 25.80 | 25.85 | 25.60 | 25.90 | 26.10 | 25.80 |
| 17 | 26.75 | 27.05 | --- | 26.30 | 26.50 | 26.00 | 25.70 | 25.65 | 25.55 | 25.90 | 26.15 | 25.90 |
| 18 | 26.70 | 26.95 | --- | 26.30 | 26.30 | 25.95 | 25.65 | 25.65 | 25.55 | 25.90 | 26.25 | 25.80 |
| 19 | 26.75 | 26.80 | --- | 26.35 | 26.30 | 25.95 | 25.50 | 25.65 | 25.65 | 26.00 | 26.25 | 25.80 |
| 20 | 26.70 | 26.85 | --- | 26.20 | 26.30 | 25.80 | 25.55 | 25.85 | 25.70 | 26.10 | 26.15 | 26.00 |
| 21 | 26.75 | 26.95 | --- | 26.40 | 25.95 | 25.60 | 25.50 | 26.10 | 25.70 | 26.05 | 25.90 | 25.95 |
| 22 | 26.65 | 27.05 | --- | 26.30 | 26.20 | 25.65 | 25.50 | 26.20 | 25.90 | 25.95 | 25.85 | 25.80 |
| 23 | 26.50 | 26.95 | --- | 26.30 | 26.35 | 25.75 | 25.50 | 26.20 | 25.95 | 25.85 | 25.95 | 25.80 |
| 24 | 26.75 | 26.90 | --- | 26.35 | 26.45 | 26.00 | 25.60 | 26.05 | 26.05 | 25.80 | 25.95 | 25.70 |
| 25 | 26.80 | 26.90 | --- | 26.10 | 26.40 | 26.00 | 25.90 | 25.85 | 26.00 | 25.80 | 25.85 | 25.65 |
| 26 | 26.90 | 27.10 | 26.55 | --- | 26.10 | 25.75 | 25.95 | 25.80 | 26.05 | 25.65 | 25.80 | 25.70 |
| 27 | 26.95 | 27.20 | 26.55 | --- | 25.70 | 25.80 | 25.85 | 25.90 | 26.20 | 25.60 | 25.85 | 25.70 |
| 28 | 26.85 | 27.15 | 26.35 | 26.65 | 25.85 | 25.60 | 25.60 | 25.95 | 26.20 | 25.65 | 25.70 | 25.50 |
| 29 | 26.80 | 26.95 | 26.50 | 26.50 | --- | 25.40 | 25.65 | 25.90 | 26.10 | 25.80 | 25.65 | 25.30 |
| 30 | 26.65 | 26.70 | 26.60 | 26.35 | --- | 25.60 | 25.55 | 25.80 | 26.05 | 25.90 | 25.70 | 25.55 |
| 31 | 26.75 | --- | 26.60 | 26.00 | --- | 25.80 | --- | 25.75 | --- | 26.00 | 25.65 | --- |
| MAX | 27.25 | 27.35 | 26.95 | 26.70 | 26.50 | 26.20 | 25.95 | 26.20 | 26.20 | 26.10 | 26.50 | 26.30 |

CAL YR 1996 LOW 28.30
WTR YR 1997 LOW 27.35



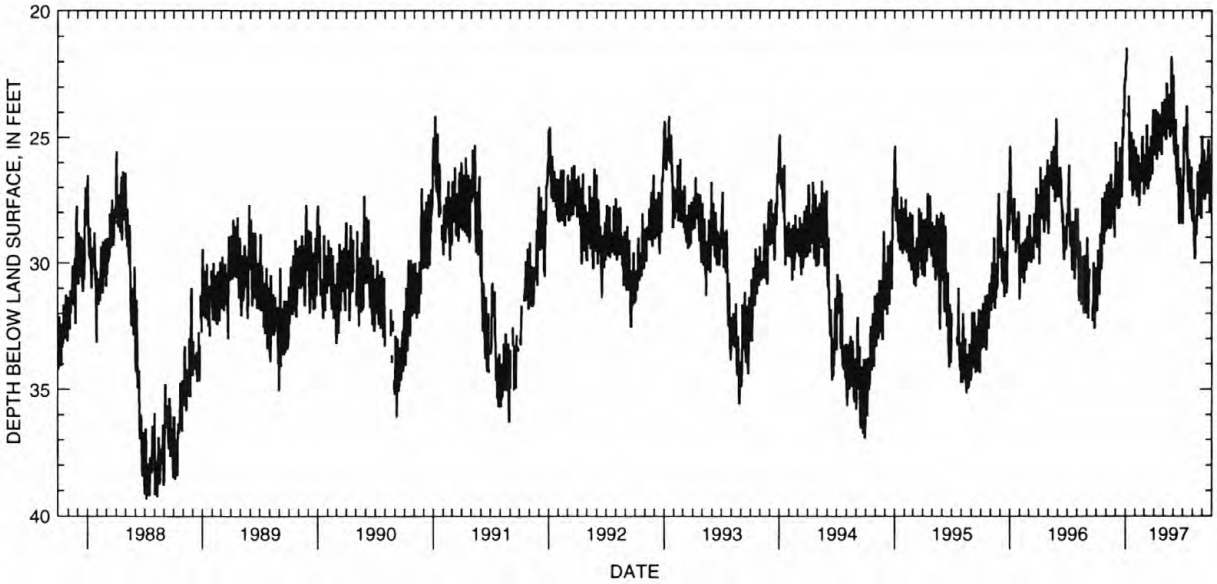
### 412821084313600. LOCAL NUMBER, WM-1

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 sea level, 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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.80 | 28.45 | 25.60 | 22.75 | 27.00 | 27.30 | 25.20 | 24.50 | 23.00 | 28.45 | 28.35 | 25.10 |
| 2 | 31.50 | 28.00 | 25.20 | 22.10 | 25.90 | 25.85 | 25.70 | 24.85 | 22.55 | 27.60 | 28.15 | 24.95 |
| 3 | 31.75 | 26.90 | 26.70 | 22.05 | 25.40 | 25.70 | 25.65 | 24.40 | 25.00 | 26.85 | 27.30 | 26.50 |
| 4 | 31.90 | 27.10 | 27.70 | 21.95 | 26.50 | 25.75 | 25.70 | 23.95 | 25.55 | 26.55 | 27.10 | 27.05 |
| 5 | 30.75 | 28.65 | 27.70 | 21.45 | 26.95 | 26.15 | 25.40 | 23.50 | 25.65 | 25.00 | 28.40 | 27.20 |
| 6 | 30.70 | 28.45 | 27.30 | --- | 27.35 | 26.60 | 24.20 | 23.90 | 25.70 | 24.60 | 29.15 | 27.30 |
| 7 | 29.50 | 28.30 | 27.00 | --- | 27.35 | 26.95 | 23.90 | 24.65 | 25.45 | 24.65 | 29.40 | 25.50 |
| 8 | 30.80 | 28.30 | 26.20 | 24.05 | 26.95 | 26.25 | 24.90 | 24.85 | 24.40 | 24.85 | 29.85 | 25.60 |
| 9 | 30.70 | 27.90 | 26.00 | 24.10 | 26.20 | 25.40 | 25.60 | 25.00 | 24.30 | 25.55 | 29.70 | 26.60 |
| 10 | 30.90 | 27.20 | 27.85 | 24.15 | 25.70 | 24.50 | 25.75 | 25.10 | 25.80 | 25.30 | 28.45 | 27.50 |
| 11 | 31.25 | 26.80 | 27.05 | 24.20 | 25.80 | 25.70 | 25.90 | 23.80 | 26.40 | 25.25 | 28.50 | 27.35 |
| 12 | 30.65 | 28.00 | 27.35 | 23.35 | 26.90 | 26.65 | 25.65 | 22.85 | 26.30 | 25.45 | 28.30 | 27.10 |
| 13 | 29.85 | 28.20 | 27.80 | 25.00 | 27.75 | 27.10 | 24.00 | 23.50 | 26.45 | 24.55 | 28.60 | 26.80 |
| 14 | 28.85 | 28.65 | 27.50 | 26.65 | 27.65 | 26.85 | 24.50 | 24.45 | 26.90 | 23.75 | 28.90 | 26.05 |
| 15 | 29.75 | 28.60 | 25.40 | 26.75 | 27.20 | 26.95 | 24.95 | 24.40 | 25.90 | 24.50 | 28.40 | 26.10 |
| 16 | 29.80 | 27.65 | 26.60 | 26.20 | 26.25 | 25.90 | 25.50 | 24.65 | 25.30 | 25.75 | 27.80 | 27.05 |
| 17 | 30.25 | 26.50 | 26.70 | 26.60 | 26.05 | 25.40 | 25.40 | 24.65 | 26.75 | 26.45 | 26.50 | 26.95 |
| 18 | 30.00 | 27.15 | 26.95 | 26.40 | 26.70 | 26.20 | 25.30 | 23.60 | 27.05 | 26.95 | 26.40 | 27.25 |
| 19 | 28.60 | --- | 27.00 | 25.50 | 26.25 | 26.70 | 25.55 | 23.30 | 27.90 | 27.20 | 27.10 | 26.65 |
| 20 | 27.45 | --- | 27.40 | 24.80 | 26.80 | 26.75 | 24.25 | 24.20 | 28.45 | 26.40 | 28.00 | 25.75 |
| 21 | 28.40 | --- | 26.75 | 26.35 | 26.65 | 26.50 | 24.10 | 24.50 | 28.10 | 25.90 | 28.00 | 25.35 |
| 22 | 28.80 | --- | 25.65 | 26.50 | 25.85 | 26.00 | 24.70 | 24.90 | 26.90 | 27.05 | 28.10 | 25.10 |
| 23 | 28.75 | 27.15 | 25.10 | 27.05 | 25.20 | 25.00 | 25.30 | 25.00 | 26.25 | 27.35 | 28.10 | 25.70 |
| 24 | 29.10 | 27.25 | 24.60 | 27.35 | 24.95 | 24.95 | 25.30 | 24.70 | 27.20 | 27.60 | 26.90 | 26.60 |
| 25 | 29.25 | 27.10 | 24.95 | 27.20 | 25.85 | 25.90 | 25.30 | 23.35 | 27.55 | 27.85 | 26.10 | 27.00 |
| 26 | 28.95 | 28.25 | 23.90 | 25.90 | 25.95 | 26.00 | 25.70 | 22.00 | --- | 27.40 | 27.10 | 28.00 |
| 27 | 27.65 | 28.65 | 23.95 | 25.10 | 25.85 | 26.50 | 24.30 | 21.80 | 28.05 | 26.35 | 27.60 | 27.70 |
| 28 | 27.20 | 29.00 | 24.15 | 26.00 | 26.35 | 26.00 | 23.60 | 23.70 | 27.55 | 26.20 | 27.70 | 27.10 |
| 29 | 28.35 | 27.00 | 22.95 | 26.85 | --- | 24.35 | 24.15 | 23.90 | 26.85 | 27.45 | 28.00 | 27.45 |
| 30 | 28.25 | 26.40 | 22.70 | 26.90 | --- | 23.90 | 24.95 | 24.80 | 27.50 | 28.05 | 28.25 | 27.95 |
| 31 | 28.75 | --- | 22.65 | 27.10 | --- | 24.95 | --- | 24.30 | --- | 28.25 | 25.90 | --- |
| MAX | 31.90 | 29.00 | 27.85 | 27.35 | 27.75 | 27.30 | 25.90 | 25.10 | 28.45 | 28.45 | 29.85 | 28.00 |

CAL YR 1996 LOW 32.60
WTR YR 1997 LOW 31.90



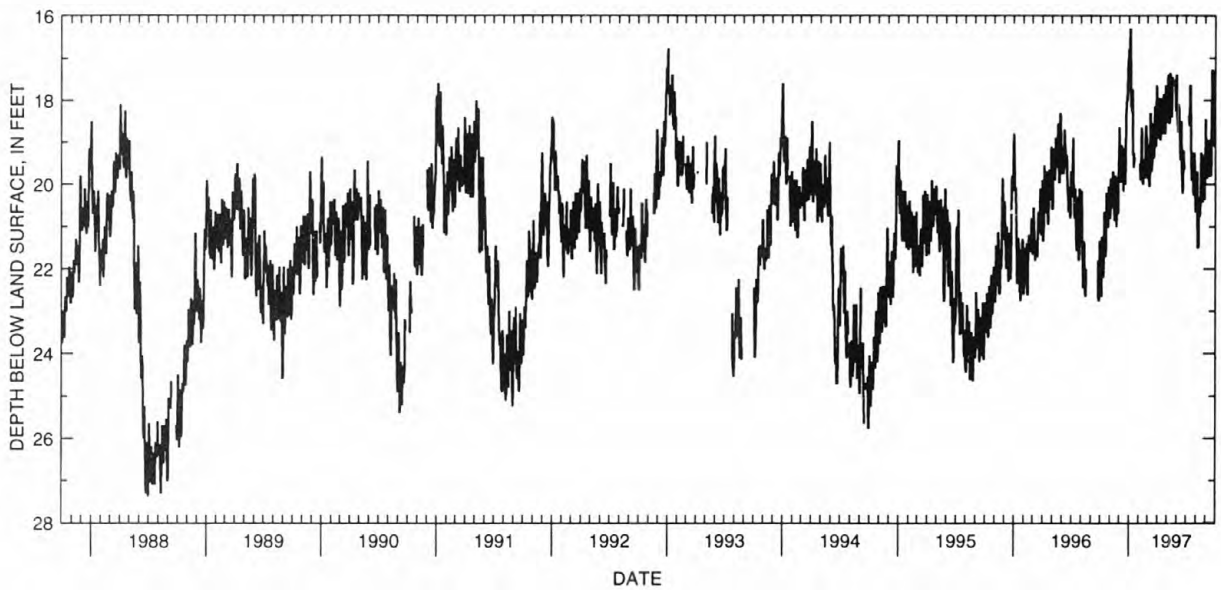
## 412930084320900. LOCAL NUMBER, WM-3

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 sea level, 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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 21.60 | 20.80 | 18.65 | 16.80 | --- | 19.75 | 18.40 | 18.50 | 17.40 | --- | 20.65 | 18.45 |
| 2 | 22.00 | 20.65 | 18.80 | 16.95 | --- | 19.50 | 18.60 | 18.50 | 17.60 | --- | 20.40 | 18.90 |
| 3 | 22.30 | 19.90 | 19.50 | 16.80 | --- | 19.85 | 18.75 | 18.30 | 18.25 | --- | 19.75 | 19.50 |
| 4 | 22.50 | 19.85 | 19.85 | 16.50 | --- | 19.85 | 18.90 | 17.80 | 18.60 | --- | 20.00 | 19.75 |
| 5 | 22.65 | 20.30 | 19.95 | 16.30 | 19.50 | 19.80 | 18.80 | 17.40 | 18.75 | --- | 19.70 | 19.85 |
| 6 | 22.05 | 20.55 | 19.90 | 17.05 | 19.80 | 19.90 | 18.00 | 17.95 | 18.75 | --- | 21.05 | 19.60 |
| 7 | 21.25 | 20.50 | 19.75 | 17.85 | 19.90 | 20.05 | 17.95 | 18.30 | 18.70 | --- | 21.50 | 18.95 |
| 8 | 21.70 | 20.50 | 19.10 | 18.15 | 19.80 | 19.75 | 18.40 | 18.30 | 18.10 | --- | 21.50 | 19.00 |
| 9 | 21.90 | 20.40 | 19.10 | 18.15 | 19.25 | 19.10 | 18.75 | 18.55 | 18.20 | --- | 21.45 | 19.45 |
| 10 | 22.00 | 19.70 | 19.90 | 18.25 | 18.65 | 18.30 | 18.85 | 18.50 | 18.75 | 18.35 | 20.40 | 19.75 |
| 11 | 22.20 | 19.70 | --- | 18.25 | 18.75 | 18.80 | 18.95 | 17.85 | 18.95 | 18.50 | 20.30 | 19.80 |
| 12 | 22.00 | 20.15 | --- | 17.75 | 19.55 | 19.35 | 18.80 | 17.35 | 19.15 | 18.60 | 20.40 | 19.80 |
| 13 | 21.20 | 20.30 | 20.15 | 18.90 | 19.95 | 19.70 | 17.95 | 17.60 | 19.40 | 18.20 | 20.55 | 19.55 |
| 14 | 20.65 | 20.55 | 20.15 | 19.30 | 19.95 | 19.60 | 18.10 | 18.00 | 19.40 | 17.65 | 20.75 | 18.95 |
| 15 | 21.00 | 20.85 | 19.40 | 19.25 | 20.00 | 19.60 | 18.40 | 18.30 | 18.85 | 17.65 | 20.70 | 19.10 |
| 16 | 21.30 | 20.70 | 19.15 | 19.60 | 19.70 | 19.00 | 18.65 | 18.40 | 18.50 | 18.30 | 20.30 | 19.55 |
| 17 | 21.50 | 20.10 | 19.40 | 19.50 | 19.40 | 18.55 | 18.70 | 18.20 | 19.10 | 19.20 | 19.50 | 19.75 |
| 18 | 21.70 | 19.80 | 19.70 | 19.35 | 19.65 | 19.00 | 18.80 | 17.70 | 19.70 | 19.65 | 19.25 | 19.80 |
| 19 | 21.55 | 20.20 | 19.85 | --- | 19.80 | 19.20 | 18.75 | 17.45 | 20.10 | 19.90 | 19.95 | 19.55 |
| 20 | 20.65 | 20.45 | 20.00 | --- | 19.85 | 19.35 | 18.05 | --- | 20.20 | 19.80 | 20.20 | 18.70 |
| 21 | 20.20 | 20.90 | 19.70 | --- | 19.80 | 19.35 | 17.85 | --- | 20.10 | 19.25 | 20.20 | 18.00 |
| 22 | 20.45 | 21.00 | 18.90 | --- | 19.50 | 19.15 | 18.20 | --- | 19.35 | 19.30 | 20.40 | 17.30 |
| 23 | 20.55 | 20.85 | 18.30 | --- | 18.90 | 18.50 | 18.55 | --- | 19.20 | 19.90 | 20.40 | 17.30 |
| 24 | 20.85 | 20.05 | 18.20 | --- | 18.60 | 18.15 | 18.60 | --- | 19.45 | 20.15 | 19.70 | 17.40 |
| 25 | 21.00 | 19.85 | 18.05 | --- | 18.80 | 18.60 | 18.80 | --- | 19.65 | 20.25 | 19.30 | 17.75 |
| 26 | 21.00 | 20.45 | 17.90 | --- | 18.90 | 18.90 | 18.75 | --- | --- | 20.05 | 19.65 | 18.20 |
| 27 | 20.30 | 20.70 | 18.00 | --- | 19.10 | 19.10 | 18.10 | --- | --- | 19.25 | 19.90 | 18.20 |
| 28 | 20.05 | 20.65 | 17.55 | --- | 19.55 | 19.05 | 17.65 | 17.50 | --- | 19.45 | 20.20 | 18.05 |
| 29 | 20.25 | 19.75 | 17.20 | --- | --- | 18.20 | 18.10 | 17.80 | --- | 19.95 | 20.35 | 18.40 |
| 30 | 20.55 | 19.15 | 17.05 | --- | --- | 17.65 | 18.30 | 18.25 | --- | 20.30 | 20.00 | 19.10 |
| 31 | 20.80 | --- | 17.05 | --- | --- | 17.85 | --- | 18.20 | --- | 20.60 | 19.15 | --- |
| MAX | 22.65 | 21.00 | 20.15 | 19.60 | 20.00 | 20.05 | 18.95 | 18.55 | 20.20 | 20.60 | 21.50 | 19.85 |

CAL YR 1996 LOW 22.75
WTR YR 1997 LOW 22.65



### 412930084320900. LOCAL NUMBER, WM-3--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) | FLOW RATE (G/M) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) |
|---|---|---|---|---|---|---|---|---|---|
| AUG 27... | WM-3 CITY OF BRYAN AT BRYA | 970827 | 1241 | 19.09 | 174.00 | 161 | 8.0 | 586 | 7.6 |

| DATE | 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) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 | SULFIDE WATER, FLTRD, FIELD, (MG/L) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 27... | 13.0 | 0.1 | 46 | 30 | 28 | 304 | 0.010 | 16 | <0.010 | <0.050 |

| 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) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 27... | 0.396 | 0.45 | <0.010 | 0.013 | 490 | <0.50 | <1.0 | <5.0 | 5.3 | <10 |

| 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) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | NICKEL, DIS-SOLVED (UG/L AS NI) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| AUG 27... | 420 | <10 | 14 | 17 | <10 | <10 | <1.0 | 4590 | <6 | 5.6 |

### 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 85 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 sea level, 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, 10.66 ft below land-surface datum, Oct. 24, 1994; 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 |
|---|---|
| Oct. 17, 1996 | 10.11 |
| May 20, 1997 | 8.13 |

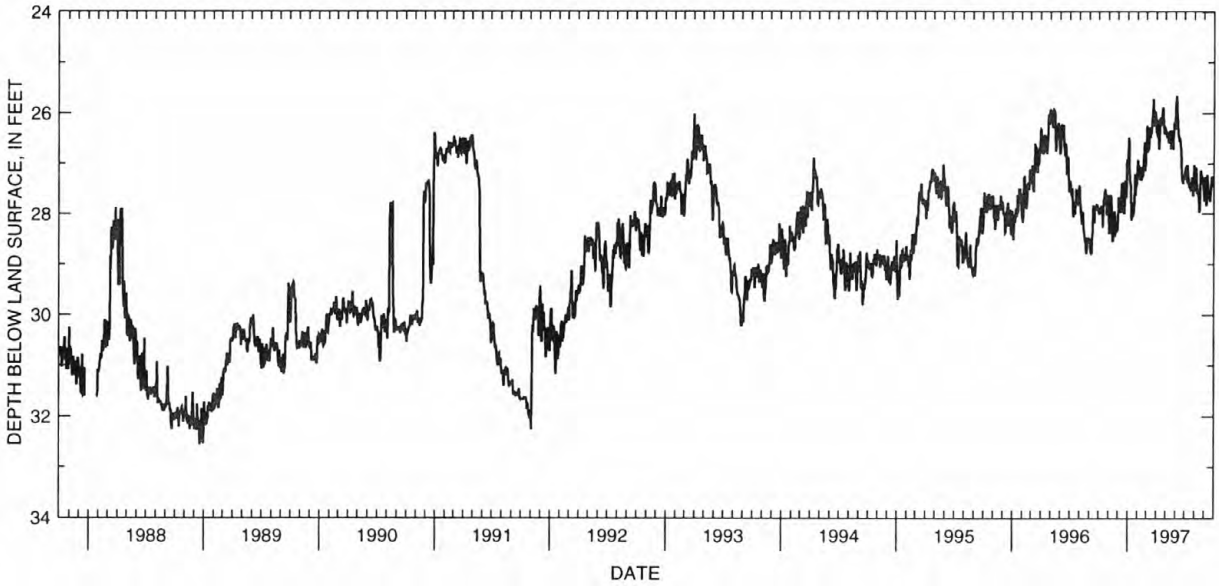
## 405009083172600. LOCAL NUMBER, WY-1

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 sea level, 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, 25.65 ft below land-surface datum, June 5, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 27.93 | 27.97 | 28.11 | 27.09 | 26.98 | 26.56 | 26.39 | 26.31 | 26.20 | 27.23 | 27.25 | 27.73 |
| 2 | 28.02 | 28.18 | 27.91 | 27.06 | 26.92 | 26.24 | 26.30 | 26.36 | 25.86 | 27.15 | 27.41 | 27.75 |
| 3 | 27.92 | 28.40 | 27.67 | 26.74 | 27.07 | 26.32 | 26.20 | 26.38 | 25.84 | 27.13 | 27.52 | 27.62 |
| 4 | 27.89 | 28.27 | 27.76 | 26.48 | 27.08 | 26.58 | 26.45 | 26.45 | 25.71 | 27.08 | 27.52 | 27.32 |
| 5 | 27.96 | 27.90 | 27.84 | 26.55 | 27.03 | 26.59 | 26.46 | 26.44 | 25.65 | 27.07 | 27.29 | 27.26 |
| 6 | 27.93 | 27.75 | 27.84 | 27.08 | 27.13 | 26.65 | 26.13 | 26.44 | 25.98 | 27.18 | 27.09 | 27.55 |
| 7 | 28.00 | 27.71 | 27.80 | 27.19 | 27.20 | 26.72 | 26.28 | 26.46 | 26.05 | 27.20 | 27.07 | 27.82 |
| 8 | 27.93 | 27.65 | 27.81 | 27.36 | 27.22 | 26.71 | 26.46 | 26.38 | 26.12 | 27.35 | 27.37 | 27.84 |
| 9 | 27.84 | 27.62 | 27.94 | 27.40 | 27.32 | 26.66 | 26.71 | 26.53 | 26.21 | 27.36 | 27.60 | 27.81 |
| 10 | 27.89 | 27.73 | 27.98 | 27.37 | 27.15 | 26.43 | 26.68 | 26.58 | 26.40 | 27.02 | 27.56 | 27.25 |
| 11 | 27.91 | 28.07 | 27.75 | 27.80 | 27.06 | 26.28 | 26.52 | 26.53 | 26.46 | 27.17 | 27.59 | 27.22 |
| 12 | 27.87 | 28.36 | 27.53 | 28.07 | 27.14 | 26.40 | 26.34 | 26.39 | 26.46 | 27.28 | 27.55 | 27.33 |
| 13 | 28.13 | 28.52 | 27.38 | 28.13 | 27.33 | 26.48 | 26.08 | 26.39 | 26.54 | 27.29 | 27.66 | 27.56 |
| 14 | 28.27 | 28.53 | 27.66 | 28.02 | 27.31 | 26.39 | 26.16 | 26.59 | 26.55 | 27.39 | 27.58 | 27.58 |
| 15 | 28.04 | 28.55 | 27.58 | 27.94 | 27.24 | 26.37 | 26.19 | 26.52 | 26.48 | 27.45 | 27.59 | 27.57 |
| 16 | 27.79 | 28.48 | 27.48 | 27.78 | 27.23 | 26.40 | 26.16 | 26.34 | 26.54 | 27.47 | 27.96 | 27.58 |
| 17 | 27.72 | 28.41 | 27.40 | 27.94 | 27.24 | 26.37 | 26.22 | 26.52 | 26.57 | 27.47 | 27.96 | 27.55 |
| 18 | 27.72 | 28.22 | 27.37 | 27.97 | 27.23 | 26.18 | 26.22 | 26.68 | 26.68 | 27.47 | 27.90 | 27.54 |
| 19 | 27.57 | 28.12 | 27.72 | 28.00 | 26.98 | 26.08 | 26.03 | 26.68 | 26.70 | 27.50 | 27.48 | 27.74 |
| 20 | 27.57 | 27.96 | 27.98 | 27.99 | 26.95 | 26.06 | 25.98 | 26.49 | 26.89 | 27.48 | 27.23 | 27.76 |
| 21 | 27.57 | 28.12 | 28.00 | 27.85 | 26.79 | 25.95 | 25.95 | 26.41 | 27.16 | 27.43 | 27.13 | 27.63 |
| 22 | 27.50 | 28.37 | 27.82 | 27.74 | 26.57 | 25.71 | 25.88 | 26.42 | 27.32 | 27.44 | 27.15 | 27.51 |
| 23 | 27.56 | 28.39 | 27.55 | 27.25 | 26.74 | 26.08 | 25.98 | 26.34 | 27.35 | 27.41 | 27.28 | 27.38 |
| 24 | 27.69 | 28.34 | 27.33 | 27.20 | 27.10 | 26.26 | 26.19 | 26.68 | 27.28 | 27.26 | 27.29 | 27.34 |
| 25 | 27.75 | 28.25 | 27.61 | 27.44 | 27.14 | 26.23 | 26.27 | 26.69 | 27.38 | 27.43 | 27.25 | 27.25 |
| 26 | 28.00 | 28.28 | 27.65 | 27.64 | 27.02 | 26.17 | 26.40 | 26.48 | 27.38 | 27.55 | 27.27 | 27.27 |
| 27 | 28.03 | 28.31 | 27.68 | 27.38 | 26.72 | 26.22 | 26.40 | 26.44 | 27.23 | 27.63 | 27.36 | 27.41 |
| 28 | 27.89 | 28.35 | 27.46 | 27.31 | 26.58 | 26.06 | 26.32 | 26.19 | 27.28 | 27.63 | 27.39 | 27.44 |
| 29 | 27.73 | 28.32 | 27.00 | 27.42 | --- | 25.99 | 26.29 | 26.17 | 27.29 | 27.53 | 27.40 | 27.45 |
| 30 | 27.62 | 28.29 | 26.91 | 27.40 | --- | 26.00 | 26.30 | 26.30 | 27.28 | 27.17 | 27.53 | 27.25 |
| 31 | 27.96 | --- | 27.07 | 27.23 | --- | 26.24 | --- | 26.30 | --- | 27.02 | 27.58 | --- |
| MAX | 28.27 | 28.55 | 28.11 | 28.13 | 27.33 | 26.72 | 26.71 | 26.69 | 27.38 | 27.63 | 27.96 | 27.84 |

CAL YR 1996 LOW 28.80
WTR YR 1997 LOW 28.55



# PROJECT DATA

## Selected Water-Quality Data in the Vicinity of Wayne National Forest

The following table lists the results of physical and chemical analyses of surface-water samples collected from the Monday Creek Basin. Past mining practices have affected many streams there. The intent of the study that produced the following data was to identify streams most affected by acid mine drainage. Restoration efforts can then be focused where needed most. Additional samples were collected from several major tributaries to the Ohio River. The study began in 1995 and will continue into 1997.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

393819082125400 - MONDAY CR NR MCCUNEVILLE OH

| DATE | TIME | TEMPERATURE WATER (DEG C) (00010) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | OXYGEN, DISSOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DISSOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | 1200 | 19.5 | 16 | 495 | 8.3 | 6.7 | 22 | -- |
| JUN | | | | | | | | |
| 04... | 1100 | 14.0 | 4.4 | 467 | 9.8 | 4.7 | -- | -- |

| DATE | IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045) | IRON, DISSOLVED (UG/L AS FE) (01046) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055) | MANGANESE, DISSOLVED (UG/L AS MN) (01056) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105) | ALUMINUM, DISSOLVED (UG/L AS AL) (01106) | ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | 18 | -- |
| JUN | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | 8 |

393739082140600 - 051 UNAM TR TO MONDAY C (20-2) AT MCCUNEVILLE OH

| DATE | TIME | TEMPERATURE WATER (DEG C) (00010) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | OXYGEN, DISSOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DISSOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | 1530 | 19.0 | 30 | 415 | 8.0 | 5.4 | 3 | -- |
| JUN | | | | | | | | |
| 04... | 1230 | 15.5 | 6.1 | 516 | 8.8 | 4.7 | -- | -- |

| DATE | IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045) | IRON, DISSOLVED (UG/L AS FE) (01046) | MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055) | MANGANESE, DISSOLVED (UG/L AS MN) (01056) | ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105) | ALUMINUM, DISSOLVED (UG/L AS AL) (01106) | ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | 2 | 8 |
| JUN | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | -- | 12 |

393626082143500 - MONDAY CR BL ROCK RUN NR NEW STRAITSVILLE OH

| DATE | TIME | TEMPERATURE WATER (DEG C) (00010) | DISCHARGE, INST. CUBIC FEET PER SECOND (00061) | SPECIFIC CONDUCTANCE (US/CM) (00095) | OXYGEN, DISSOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STANDARD UNITS) (00400) | BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DISSOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 03... | 1425 | 16.0 | 36 | 530 | 8.8 | 5.8 | 7 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

393626082143500 - MONDAY CR BL ROCK RUN NR NEW STRAITSVILLE OH--Continued

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | 6 | 0 |

393244082154000 - MONDAY CR BL LOST RUN NR NEW STRAITSVILLE OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 02... | 1400 | 16.5 | 151 | 428 | 8.5 | 5.8 | 10 | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | 8 | 0 |

393306082153100 - LOST RUN NR NEW STRAITSVILLE OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | 1000 | 17.5 | 4.6 | 1000 | 8.3 | 3.2 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | -- | -- | -- | -- | -- | -- | -- | 117 |

392827082100100 - UNNAMED TRIB TO SNOW FK IN LANG H NR BUCHTEL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 18... | 1200 | 14.0 | 1.9 | 980 | 7.0 | 2.6 | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

392827082100100 - UNNAMED TRIB TO SNOW FK IN LANG H NR BUCHTEL OH

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | 73 |

392802082122400 - UNAM TR TO MONDAY CR IN SNAKE H NR NELSONVILLE

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 18... | 0815 | 18.0 | 1.5 | 1150 | 8.1 | 3.1 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | 134 |

393004082125900 - UNAM TR TO MONDAY CR NR CARBON HILL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 18... | 1015 | 15.5 | 1.1 | 1190 | 8.9 | 3.2 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | 252 |

393828082131500 - UNAM TRIB TO MONDAY C NR MCCUNEVILLE OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | 1330 | 18.0 | 6.0 | 317 | 8.9 | 3.6 | -- | -- |
| JUN | | | | | | | | |
| 18... | 1415 | 18.5 | 0.68 | 1230 | 8.2 | 2.9 | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

393828082131500 - UNAM TRIB TO MONDAY C NR MCCUNEVILLE OH--Continued

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | -- | 12 |
| JUN | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | 128 |

393743082135900 - MONDAY C AT MCCUNEVILLE OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | 1700 | 19.0 | 29 | 385 | 8.0 | 5.9 | 7 | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 20... | -- | -- | -- | -- | -- | -- | 6 | 4 |

392950082141100 - MONDAY C AT CARBON HILL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 04... | 0845 | 14.5 | 151 | 425 | 8.6 | 6.5 | 26 | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 04... | -- | -- | -- | -- | -- | -- | 22 | -- |

393226082163400 - 041 L MONDAY C NR CARBON HILL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 02... | 1115 | 16.0 | 123 | 319 | 8.0 | 6.7 | 44 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

393226082163400 - 041 L MONDAY C NR CARBON HILL OH--Continued

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | 36 | -- |

393117082100600 - MI FK SYCAMORE H NR MURRAY CITY OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | 1200 | 16.5 | 9.0 | 473 | 8.8 | 6.7 | 25 | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | | -- | -- | -- | -- | -- | 20 | -- |

392945082100100 - BRUSH FK NR MURRAY CITY OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | 1450 | 17.5 | 7.4 | 1070 | 8.7 | 3.1 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | -- | -- | -- | -- | -- | -- | -- | 134 |

392733082121000 - 051 MONDAY C (20-9) NR BUCHTEL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 02... | 1645 | 17.0 | 412 | 360 | 8.5 | 6.4 | 18 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

392733082121000 - 051 MONDAY C (20-9) NR BUCHTEL OH--Continued

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 02... | -- | -- | -- | -- | -- | -- | 14 | -- |

392741082114200 - SNOW FK AT BUCHTEL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 03... | 1000 | 17.0 | 75 | 463 | 8.6 | 4.7 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | -- | 11 |

393116082101500 - SPENCER H AT MURRAY CITY OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | 1315 | 21.0 | 1.5 | 477 | 8.4 | 4.8 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 17... | -- | -- | -- | -- | -- | -- | -- | 5 |

393118082100100 - SALEM H AT MURRAY CITY OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 03... | 1345 | 15.5 | 15 | 391 | 8.9 | 6.5 | 34 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

393118082100100 - SALEM H AT MURRAY CITY OH--Continued

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| JUN | | | | | | | | |
| 03... | -- | -- | -- | -- | -- | -- | 28 | -- |

392926082145900 - UNNAMED TRIB AT CARBON HILL OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 21... | 0815 | 18.0 | 1.0 | 897 | 8.2 | 3.2 | -- | -- |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 21... | -- | -- | -- | -- | -- | -- | -- | 125 |

392647082061800 - UNNAMED T NR REDTOWN OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| SEP | | | | | | | | |
| 04... | 1045 | 13.5 | 3.5 | 2660 | 7.7 | 4.5 | -- | 1900 |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| SEP | | | | | | | | |
| 04... | 350000 | 337000 | 6400 | 6770 | 6100 | 6430 | -- | 655 |

392647082061801 - SUNDAY C NR MILLFIELD OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| SEP | | | | | | | | |
| 04... | 1400 | 18.5 | 20 | 742 | 7.7 | 6.8 | 49 | 280 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

392647082061801 - SUNDAY C NR MILLFIELD OH--Continued

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| SEP | | | | | | | | |
| 04... | 1600 | 170 | 590 | 667 | 120 | 5.0 | 40 | -- |

392647082061802 - SUNDAY C AT MILLFIELD OH

| DATE | TIME | TEMPER-ATURE WATER (DEG C) (00010) | DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453) | SULFATE DIS-SOLVED (MG/L AS SO4) (00945) |
|---|---|---|---|---|---|---|---|---|
| SEP | | | | | | | | |
| 04... | 1225 | 17.5 | 23 | 928 | 7.3 | 6.4 | 22 | 469 |

| DATE | 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) | ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105) | ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106) | ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086) | ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508) |
|---|---|---|---|---|---|---|---|---|
| SEP | | | | | | | | |
| 04... | 37000 | 35200 | 1300 | 1320 | 820 | 46 | 18 | 46 |

The following tables list the results of chemical analysis of ground-water samples collected from seven 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 "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 for approxiamtely 6 weeks. Wells at the sites in Clark and Champaign Counties were not sampled on a regular basis this water year due to lack of salt application in those areas. Sampling will resume at those sites as soon as salt enters the aquifer system. Ground-water level measurements are listed in the fourth table.

This study began in 1988 and will continue through 2001. Water-quality sampling began in 1991 and will continue until 1999. These data are presented to the Ohio Department of Transportation for their use in reviewing deicing practices and to accumulate baseline data. Dashes (--) indicate sample was not analyzed for that constituent.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393541083000801 PK-50 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 08W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 883 | 99 | 35 | 61 | 0.040 |
| DEC | | | | | |
| 09... | 786 | 100 | 19 | 36 | 0.030 |
| FEB 1997 | | | | | |
| 06... | 741 | 97 | 11 | 22 | 0.030 |
| MAR | | | | | |
| 17... | 738 | 93 | 13 | 20 | 0.040 |
| APR | | | | | |
| 25... | 723 | 98 | 18 | 22 | 0.028 |
| JUN | | | | | |
| 10... | 720 | 78 | 33 | 36 | 0.054 |
| JUL | | | | | |
| 25... | 711 | 75 | 39 | 28 | 0.033 |
| AUG | | | | | |
| 28... | 665 | 95 | 18 | 21 | 0.034 |
| 393541083000802 PK-50 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 08W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 818 | 96 | 30 | 42 | 0.030 |
| DEC | | | | | |
| 09... | 726 | 98 | 18 | 22 | 0.030 |
| FEB 1997 | | | | | |
| 06... | 704 | 97 | 8.2 | 17 | 0.040 |
| MAR | | | | | |
| 17... | 737 | 93 | 10 | 24 | 0.040 |
| APR | | | | | |
| 25... | 702 | 92 | 17 | 22 | 0.030 |
| JUN | | | | | |
| 10... | 677 | 81 | 21 | 22 | 0.039 |
| JUL | | | | | |
| 25... | 708 | 83 | 21 | 20 | 0.032 |
| AUG | | | | | |
| 28... | 617 | 88 | 16 | 18 | 0.034 |
| 393541083000803 PK-50 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 08W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 830 | 100 | 32 | 45 | 0.030 |
| DEC | | | | | |
| 09... | 777 | 98 | 20 | 26 | 0.040 |
| FEB 1997 | | | | | |
| 06... | 683 | 82 | 15 | 23 | 0.040 |
| MAR | | | | | |
| 17... | 769 | 83 | 34 | 42 | 0.040 |
| APR | | | | | |
| 25... | 691 | 78 | 42 | 37 | 0.032 |
| JUN | | | | | |
| 10... | 715 | 79 | 41 | 37 | 0.043 |
| JUL | | | | | |
| 25... | 653 | 76 | 22 | 21 | 0.046 |
| AUG | | | | | |
| 28... | 730 | 98 | 33 | 25 | 0.046 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393541083000804 PK-50 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 08W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 839 | 98 | 33 | 48 | 0.030 |
| DEC | | | | | |
| 09... | 746 | 99 | 19 | 24 | 0.030 |
| FEB 1997 | | | | | |
| 06... | 679 | 76 | 11 | 19 | 0.030 |
| MAR | | | | | |
| 17... | 736 | 84 | 27 | 33 | 0.030 |
| APR | | | | | |
| 25... | 722 | 81 | 38 | 38 | 0.050 |
| JUN | | | | | |
| 10... | 701 | 81 | 34 | 33 | 0.048 |
| JUL | | | | | |
| 25... | 650 | 74 | 23 | 21 | 0.037 |
| AUG | | | | | |
| 28... | 666 | 94 | 20 | 22 | 0.046 |
| 393541083000805 PK-50 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 08W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 873 | 97 | 43 | 52 | 0.040 |
| DEC | | | | | |
| 09... | 733 | 96 | 21 | 25 | 0.030 |
| FEB 1997 | | | | | |
| 06... | 690 | 78 | 11 | 18 | 0.030 |
| MAR | | | | | |
| 17... | 720 | 90 | 26 | 34 | 0.040 |
| APR | | | | | |
| 25... | 732 | 84 | 34 | 35 | 0.040 |
| JUN | | | | | |
| 10... | 654 | 82 | 27 | 27 | 0.046 |
| JUL | | | | | |
| 25... | 568 | 75 | 30 | 19 | 0.029 |
| AUG | | | | | |
| 28... | 608 | 87 | 14 | 19 | 0.041 |
| 393541083000901 PK-49 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 09W) | | | | | |
| FEB 1997 | | | | | |
| 14... | 600 | 77 | 8.2 | 17 | -- |
| MAR | | | | | |
| 17... | 601 | 87 | 10 | 25 | -- |
| APR | | | | | |
| 25... | 553 | 83 | 8.6 | 19 | -- |
| JUN | | | | | |
| 10... | 569 | -- | -- | 18 | -- |
| JUL | | | | | |
| 25... | 544 | 75 | 5.4 | 19 | -- |
| AUG | | | | | |
| 28... | 541 | 85 | 4.2 | 18 | -- |
| 393541083000902 PK-49 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 09W) | | | | | |
| FEB 1997 | | | | | |
| 14... | 548 | 85 | 7.7 | 17 | -- |
| MAR | | | | | |
| 17... | 609 | 88 | 16 | 29 | -- |
| APR | | | | | |
| 25... | 546 | 85 | 8.1 | 18 | -- |
| JUN | | | | | |
| 10... | 544 | -- | -- | 19 | -- |
| JUL | | | | | |
| 25... | 540 | 80 | 5.7 | 19 | -- |
| AUG | | | | | |
| 28... | 560 | 85 | 4.7 | 18 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393541083000903 PK-49 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 09W) | | | | | |
| FEB 1997 | | | | | |
| 14... | 551 | 79 | 7.0 | 16 | -- |
| MAR | | | | | |
| 17... | 667 | -- | -- | 29 | -- |
| APR | | | | | |
| 25... | 571 | -- | -- | 18 | -- |
| JUN | | | | | |
| 10... | 529 | 86 | 5.2 | 18 | -- |
| JUL | | | | | |
| 25... | 554 | 79 | 6.7 | 19 | -- |
| AUG | | | | | |
| 28... | 526 | 83 | 5.1 | 18 | -- |
| 393541083000904 PK-49 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 09W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 710 | 96 | 8.5 | 22 | -- |
| DEC | | | | | |
| 09... | 590 | -- | -- | 16 | -- |
| FEB 1997 | | | | | |
| 06... | 507 | 78 | 7.2 | 15 | -- |
| MAR | | | | | |
| 17... | 675 | 86 | 21 | 37 | -- |
| APR | | | | | |
| 25... | 558 | 87 | 15 | 20 | -- |
| JUN | | | | | |
| 10... | 570 | 79 | 6.0 | 19 | -- |
| JUL | | | | | |
| 25... | 528 | 79 | 4.8 | 18 | -- |
| AUG | | | | | |
| 28... | 508 | 80 | 3.7 | 17 | -- |
| 393541083000905 PK-49 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 09W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 682 | 96 | 12 | 19 | -- |
| DEC | | | | | |
| 09... | 600 | 80 | 12 | 15 | -- |
| FEB 1997 | | | | | |
| 06... | 508 | 68 | 7.3 | 15 | -- |
| MAR | | | | | |
| 17... | 551 | -- | -- | 19 | -- |
| APR | | | | | |
| 25... | 533 | 90 | 19 | 27 | -- |
| JUN | | | | | |
| 10... | 593 | 80 | 16 | 22 | -- |
| JUL | | | | | |
| 25... | 535 | 76 | 9.1 | 20 | -- |
| AUG | | | | | |
| 28... | 492 | 78 | 5.9 | 18 | -- |
| 393541083000906 PK-49 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 09W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 858 | 86 | 43 | 91 | -- |
| FEB 1997 | | | | | |
| 06... | 480 | 48 | 11 | 16 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393541083001001 PK-47 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 10W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 652 | 87 | 8.9 | 17 | -- |
| DEC | | | | | |
| 09... | -- | 89 | 7.0 | 18 | -- |
| FEB 1997 | | | | | |
| 06... | 528 | 72 | 4.4 | 21 | -- |
| MAR | | | | | |
| 17... | 672 | 84 | 14 | 46 | -- |
| APR | | | | | |
| 25... | 588 | 81 | 16 | 31 | -- |
| JUN | | | | | |
| 10... | 595 | 83 | 9.6 | 23 | -- |
| JUL | | | | | |
| 25... | 621 | 80 | 10 | 25 | -- |
| AUG | | | | | |
| 28... | 577 | 80 | 6.4 | 21 | -- |
| 393541083001002 PK-47 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 10W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 642 | -- | -- | 17 | -- |
| DEC | | | | | |
| 09... | 603 | 83 | 7.3 | 20 | -- |
| FEB 1997 | | | | | |
| 06... | 580 | 77 | 4.6 | 25 | -- |
| MAR | | | | | |
| 17... | 684 | 85 | 16 | 50 | -- |
| APR | | | | | |
| 25... | 583 | 80 | 15 | 30 | -- |
| JUN | | | | | |
| 10... | 592 | 82 | 10 | 24 | -- |
| JUL | | | | | |
| 25... | 616 | -- | -- | 25 | -- |
| AUG | | | | | |
| 28... | 584 | 79 | 7.2 | 20 | -- |
| 393541083001003 PK-47 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 10W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 647 | 85 | 8.7 | 17 | -- |
| DEC | | | | | |
| 09... | 596 | 86 | 7.6 | 19 | -- |
| FEB 1997 | | | | | |
| 06... | 611 | 75 | 5.0 | 31 | -- |
| MAR | | | | | |
| 17... | 685 | 89 | 17 | 50 | -- |
| APR | | | | | |
| 25... | 575 | 79 | 15 | 31 | -- |
| JUN | | | | | |
| 10... | 595 | 84 | 10 | 23 | -- |
| JUL | | | | | |
| 25... | 624 | 78 | 10 | 25 | -- |
| AUG | | | | | |
| 28... | 579 | 84 | 7.1 | 20 | -- |
| 393541083001004 PK-47 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 10W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 649 | 87 | 9.0 | 17 | -- |
| DEC | | | | | |
| 09... | 595 | 83 | 7.2 | 17 | -- |
| FEB 1997 | | | | | |
| 06... | 609 | -- | -- | 28 | -- |
| MAR | | | | | |
| 17... | 659 | 88 | 12 | 40 | -- |
| APR | | | | | |
| 25... | 615 | 86 | 16 | 31 | -- |
| JUN | | | | | |
| 10... | 575 | 78 | 10 | 22 | -- |
| JUL | | | | | |
| 25... | 600 | 78 | 9.8 | 23 | -- |
| AUG | | | | | |
| 28... | 579 | 83 | 7.1 | 20 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393541083001005 PK-47 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 10W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 648 | 89 | 8.3 | 17 | -- |
| DEC | | | | | |
| 09... | -- | 85 | 7.1 | 18 | -- |
| FEB 1997 | | | | | |
| 06... | 615 | 77 | 5.5 | 35 | -- |
| MAR | | | | | |
| 17... | 728 | -- | -- | 53 | -- |
| APR | | | | | |
| 25... | 627 | 78 | 16 | 31 | -- |
| JUN | | | | | |
| 10... | 603 | 92 | 14 | 27 | -- |
| JUL | | | | | |
| 25... | 645 | 79 | 16 | 32 | -- |
| AUG | | | | | |
| 28... | 583 | -- | -- | 21 | -- |
| 393541083001006 PK-47 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 10W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 582 | -- | -- | 17 | -- |
| DEC | | | | | |
| 09... | -- | -- | -- | 15 | -- |
| 393541083001201 PK-53 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 12W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 641 | 85 | 2.2 | 15 | -- |
| DEC | | | | | |
| 09... | 641 | 88 | 2.0 | 14 | -- |
| FEB 1997 | | | | | |
| 06... | 514 | 77 | 1.3 | 14 | -- |
| MAR | | | | | |
| 17... | 584 | 79 | 1.8 | 14 | -- |
| APR | | | | | |
| 25... | 516 | 83 | 2.7 | 15 | -- |
| JUN | | | | | |
| 10... | 671 | 110 | 3.7 | 13 | -- |
| JUL | | | | | |
| 25... | 641 | 88 | 2.4 | 14 | -- |
| AUG | | | | | |
| 28... | 526 | 88 | 2.4 | 14 | -- |
| 393541083001202 PK-53 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 41N LONG 083 00 12W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 638 | 81 | 2.0 | 15 | -- |
| DEC | | | | | |
| 09... | -- | 86 | 2.1 | 14 | -- |
| FEB 1997 | | | | | |
| 06... | 527 | 76 | 1.3 | 14 | -- |
| MAR | | | | | |
| 17... | 541 | -- | -- | 14 | -- |
| APR | | | | | |
| 25... | 535 | 80 | 2.3 | 15 | -- |
| JUN | | | | | |
| 10... | 597 | -- | -- | 14 | -- |
| JUL | | | | | |
| 25... | 592 | 88 | 2.7 | 15 | -- |
| AUG | | | | | |
| 28... | 589 | -- | -- | 15 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393541083001203 PK-53 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 12W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 632 | 84 | 2.2 | 15 | -- |
| DEC | | | | | |
| 09... | 633 | 86 | 2.0 | 14 | -- |
| FEB 1997 | | | | | |
| 06... | 517 | 73 | 1.4 | 14 | -- |
| MAR | | | | | |
| 17... | 572 | 79 | 1.7 | 14 | -- |
| APR | | | | | |
| 25... | 534 | 82 | 2.4 | 15 | -- |
| JUN | | | | | |
| 10... | 545 | 84 | 1.8 | 13 | -- |
| JUL | | | | | |
| 25... | 612 | 83 | 2.6 | 14 | -- |
| AUG | | | | | |
| 28... | 532 | 90 | 2.3 | 14 | -- |
| 393541083001204 PK-53 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 12W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 644 | 83 | 2.0 | 14 | -- |
| DEC | | | | | |
| 09... | 629 | 84 | 2.0 | 14 | -- |
| FEB 1997 | | | | | |
| 06... | 529 | 66 | 1.4 | 14 | -- |
| MAR | | | | | |
| 17... | 544 | 79 | 1.6 | 14 | -- |
| APR | | | | | |
| 25... | 534 | 80 | 2.1 | 15 | -- |
| JUN | | | | | |
| 10... | 526 | 83 | 1.8 | 13 | -- |
| JUL | | | | | |
| 25... | 632 | -- | -- | 14 | -- |
| AUG | | | | | |
| 28... | 532 | 88 | 2.3 | 15 | -- |
| 393541083001205 PK-53 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 41N LONG 083 00 12W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 642 | 84 | 2.1 | 13 | -- |
| DEC | | | | | |
| 09... | 618 | 85 | 1.9 | 13 | -- |
| FEB 1997 | | | | | |
| 06... | 525 | 75 | 1.3 | 13 | -- |
| MAR | | | | | |
| 17... | 527 | 76 | 1.5 | 14 | -- |
| APR | | | | | |
| 25... | 488 | 79 | 2.1 | 14 | -- |
| JUN | | | | | |
| 10... | 578 | -- | -- | 14 | -- |
| JUL | | | | | |
| 25... | 594 | 80 | 2.1 | 14 | -- |
| AUG | | | | | |
| 28... | 560 | 88 | 2.3 | 15 | -- |
| 393541083001206 PK-53 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 41N LONG 083 00 12W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 632 | 83 | 2.1 | 14 | -- |
| DEC | | | | | |
| 09... | 615 | 88 | 2.0 | 14 | -- |
| FEB 1997 | | | | | |
| 06... | 495 | 75 | 1.3 | 13 | -- |
| MAR | | | | | |
| 17... | 517 | 74 | 1.5 | 15 | -- |
| APR | | | | | |
| 25... | 542 | 75 | 1.8 | 14 | -- |
| JUL | | | | | |
| 25... | 575 | 81 | 2.1 | 15 | -- |
| AUG | | | | | |
| 28... | 540 | 86 | 2.6 | 15 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393542083000501 PK-52 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 42N LONG 083 00 05W) | | | | | |
| FEB 1997 | | | | | |
| 14... | 588 | 67 | 31 | 22 | -- |
| APR | | | | | |
| 25... | 800 | -- | -- | 55 | -- |
| JUN | | | | | |
| 10... | 762 | -- | -- | 48 | -- |
| JUL | | | | | |
| 25... | 665 | 81 | 37 | 37 | -- |
| AUG | | | | | |
| 28... | 593 | 81 | 23 | 25 | -- |
| 393542083000502 PK-52 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 42N LONG 083 00 05W) | | | | | |
| FEB 1997 | | | | | |
| 14... | 615 | 71 | 37 | 25 | -- |
| MAR | | | | | |
| 17... | 598 | -- | -- | 31 | -- |
| APR | | | | | |
| 25... | 719 | 97 | 37 | 62 | -- |
| JUN | | | | | |
| 10... | 744 | 94 | 41 | 49 | -- |
| JUL | | | | | |
| 25... | 634 | 79 | 35 | 33 | -- |
| AUG | | | | | |
| 28... | 611 | 90 | 27 | 30 | -- |
| 393542083000503 PK-52 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 42N LONG 083 00 05W) | | | | | |
| FEB 1997 | | | | | |
| 14... | 619 | 70 | 37 | 25 | -- |
| MAR | | | | | |
| 17... | 574 | -- | -- | 27 | -- |
| APR | | | | | |
| 25... | 732 | 94 | 37 | 60 | -- |
| JUN | | | | | |
| 10... | 677 | 93 | 40 | 48 | -- |
| JUL | | | | | |
| 25... | 677 | 75 | 36 | 35 | -- |
| AUG | | | | | |
| 28... | 599 | 87 | 26 | 27 | -- |
| 393542083000504 PK-52 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 42N LONG 083 00 05W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 758 | 100 | 12 | 16 | -- |
| DEC | | | | | |
| 09... | 648 | -- | -- | 16 | -- |
| FEB 1997 | | | | | |
| 06... | 606 | 75 | 26 | 20 | -- |
| MAR | | | | | |
| 17... | 642 | 79 | 35 | 33 | -- |
| APR | | | | | |
| 25... | 764 | 92 | 36 | 63 | -- |
| JUN | | | | | |
| 10... | 718 | -- | -- | 48 | -- |
| JUL | | | | | |
| 25... | 664 | 84 | 35 | 32 | -- |
| AUG | | | | | |
| 28... | 600 | 85 | 26 | 29 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393542083000505 PK-52 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 42N LONG 083 00 05W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 785 | 83 | 45 | 36 | -- |
| DEC | | | | | |
| 09... | 659 | 83 | 31 | 22 | -- |
| FEB 1997 | | | | | |
| 06... | 649 | 70 | 29 | 20 | -- |
| MAR | | | | | |
| 17... | 636 | 85 | 36 | 33 | -- |
| APR | | | | | |
| 25... | 753 | 97 | 35 | 60 | -- |
| JUN | | | | | |
| 10... | 687 | 97 | 41 | 47 | -- |
| JUL | | | | | |
| 25... | 684 | 79 | 29 | 29 | -- |
| AUG | | | | | |
| 28... | 632 | 100 | 30 | 31 | -- |
| 393542083000506 PK-52 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 42N LONG 083 00 05W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 872 | 85 | 64 | 53 | -- |
| DEC | | | | | |
| 09... | 716 | -- | -- | 26 | -- |
| FEB 1997 | | | | | |
| 06... | 725 | 73 | 44 | 31 | -- |
| MAR | | | | | |
| 17... | 674 | 78 | 35 | 33 | -- |
| APR | | | | | |
| 25... | 813 | 97 | 39 | 63 | -- |
| JUN | | | | | |
| 10... | 750 | 95 | 43 | 47 | -- |
| JUL | | | | | |
| 25... | 670 | 83 | 37 | 36 | -- |
| AUG | | | | | |
| 28... | 634 | 90 | 30 | 33 | -- |
| 393542083000701 PK-51 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 42N LONG 083 00 07W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 780 | 99 | 22 | 28 | -- |
| DEC | | | | | |
| 09... | 723 | 94 | 20 | 22 | -- |
| FEB 1997 | | | | | |
| 06... | 563 | -- | -- | 19 | -- |
| MAR | | | | | |
| 17... | 608 | 85 | 17 | 23 | -- |
| APR | | | | | |
| 25... | 644 | 89 | 16 | 25 | -- |
| JUN | | | | | |
| 10... | 608 | -- | -- | 24 | -- |
| JUL | | | | | |
| 25... | 607 | 83 | 12 | 23 | -- |
| AUG | | | | | |
| 28... | 569 | 78 | 10 | 21 | -- |
| 393542083000702 PK-51 NR CIRCLEVILLE OH-LEVEL 2 (LAT 39 35 42N LONG 083 00 07W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 715 | 90 | 25 | 18 | -- |
| DEC | | | | | |
| 09... | 644 | 87 | 18 | 18 | -- |
| FEB 1997 | | | | | |
| 06... | 567 | 84 | 17 | 24 | -- |
| MAR | | | | | |
| 17... | 652 | 85 | 16 | 26 | -- |
| APR | | | | | |
| 25... | 626 | 96 | 14 | 25 | -- |
| JUN | | | | | |
| 10... | 592 | -- | -- | 23 | -- |
| JUL | | | | | |
| 25... | 576 | 120 | 10 | 21 | -- |
| AUG | | | | | |
| 28... | 541 | 79 | 8.7 | 19 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 393542083000703 PK-51 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 42N LONG 083 00 07W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 709 | 86 | 24 | 19 | -- |
| DEC | | | | | |
| 09... | 628 | 85 | 19 | 18 | -- |
| FEB 1997 | | | | | |
| 06... | 625 | 80 | 19 | 27 | -- |
| MAR | | | | | |
| 17... | 653 | 85 | 14 | 27 | -- |
| APR | | | | | |
| 25... | 628 | 93 | 13 | 25 | -- |
| JUN | | | | | |
| 10... | 576 | 91 | 13 | 23 | -- |
| JUL | | | | | |
| 25... | 610 | -- | -- | 20 | -- |
| AUG | | | | | |
| 28... | 568 | 82 | 9.9 | 19 | -- |
| 393542083000704 PK-51 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 42N LONG 083 00 07W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 712 | 89 | 26 | 20 | -- |
| DEC | | | | | |
| 09... | 641 | 84 | 18 | 18 | -- |
| FEB 1997 | | | | | |
| 06... | 614 | 82 | 19 | 27 | -- |
| MAR | | | | | |
| 17... | 620 | 82 | 13 | 26 | -- |
| APR | | | | | |
| 25... | 640 | 88 | 13 | 26 | -- |
| JUN | | | | | |
| 10... | 587 | 93 | 13 | 22 | -- |
| JUL | | | | | |
| 25... | 606 | 79 | 9.6 | 21 | -- |
| AUG | | | | | |
| 28... | 578 | 92 | 9.1 | 18 | -- |
| 393542083000705 PK-51 NR CIRCLEVILLE OH-LEVEL 5 (LAT 39 35 42N LONG 083 00 07W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 716 | 90 | 27 | 20 | -- |
| DEC | | | | | |
| 09... | 632 | 84 | 18 | 19 | -- |
| FEB 1997 | | | | | |
| 06... | 636 | 81 | 19 | 28 | -- |
| MAR | | | | | |
| 17... | 584 | 83 | 11 | 24 | -- |
| APR | | | | | |
| 25... | 624 | 93 | 12 | 24 | -- |
| JUN | | | | | |
| 10... | 572 | 98 | 14 | 23 | -- |
| JUL | | | | | |
| 25... | 603 | 79 | 9.7 | 21 | -- |
| AUG | | | | | |
| 28... | 589 | 87 | 9.3 | 19 | -- |
| 393542083000706 PK-51 NR CIRCLEVILLE OH-LEVEL 6 (LAT 39 35 42N LONG 083 00 07W) | | | | | |
| OCT 1996 | | | | | |
| 24... | 659 | 90 | 27 | 21 | -- |
| DEC | | | | | |
| 09... | 624 | 83 | 18 | 17 | -- |
| FEB 1997 | | | | | |
| 06... | 503 | 77 | 15 | 25 | -- |
| MAR | | | | | |
| 17... | 577 | -- | -- | 25 | -- |
| APR | | | | | |
| 25... | 636 | 80 | 12 | 24 | -- |
| JUN | | | | | |
| 10... | 561 | 87 | 12 | 23 | -- |
| JUL | | | | | |
| 25... | 575 | 79 | 9.8 | 21 | -- |
| AUG | | | | | |
| 28... | 598 | 92 | 11 | 20 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 395859083440201 CL-141 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 02W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 784 | 110 | 8.5 | 12 | -- |
| NOV | | | | | |
| 27... | 659 | 110 | 12 | 19 | -- |
| 395859083440202 CL-141 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 02W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 814 | -- | -- | 12 | -- |
| NOV | | | | | |
| 27... | 821 | 120 | 12 | 19 | -- |
| 395859083440203 CL-141 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 02W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 736 | 100 | 10 | 16 | -- |
| NOV | | | | | |
| 27... | 617 | 110 | 12 | 19 | -- |
| 395859083440204 CL-141 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 02W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 695 | 110 | 13 | 17 | -- |
| NOV | | | | | |
| 27... | -- | 120 | 16 | 23 | -- |
| 395859083440205 CL-141 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 02W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 841 | -- | -- | 21 | -- |
| NOV | | | | | |
| 27... | 701 | 120 | 15 | 23 | -- |
| 395859083440301 CL-143 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 03W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 897 | 110 | 21 | 39 | -- |
| NOV | | | | | |
| 27... | 473 | 69 | 13 | 25 | -- |
| 395859083440302 CL-143 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 03W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 695 | 88 | 9.6 | 15 | -- |
| NOV | | | | | |
| 27... | 594 | 96 | 11 | 17 | -- |
| 395859083440303 CL-143 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 03W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 677 | 87 | 7.9 | 13 | -- |
| NOV | | | | | |
| 27... | 535 | 72 | 9.8 | 49 | -- |
| 395859083440304 CL-143 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 03W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 606 | 84 | 3.2 | 5.2 | -- |
| NOV | | | | | |
| 27... | 588 | 95 | 4.5 | 8.7 | -- |
| 395859083440305 CL-143 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 03W) | | | | | |
| OCT 1996 | | | | | |
| 22... | -- | 79 | 3.2 | 5.1 | -- |
| NOV | | | | | |
| 27... | -- | -- | -- | 6.3 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 395859083440401 CL-142 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 04W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 838 | 110 | 20 | 34 | -- |
| NOV | | | | | |
| 27... | 804 | -- | -- | 32 | -- |
| 395859083440402 CL-142 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 04W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 863 | 110 | 26 | 43 | -- |
| 395859083440403 CL-142 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 04W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 841 | 110 | 28 | 43 | -- |
| NOV | | | | | |
| 27... | 663 | 110 | 21 | 30 | -- |
| 395859083440404 CL-142 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 04W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 676 | -- | -- | 17 | -- |
| NOV | | | | | |
| 27... | 791 | -- | -- | 34 | -- |
| 395859083440501 CL-140 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 05W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 819 | 97 | 8.2 | 11 | 0.030 |
| NOV | | | | | |
| 27... | 812 | 110 | 12 | 17 | 0.030 |
| 395859083440502 CL-140 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 05W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 810 | 110 | 8.1 | 11 | 0.030 |
| NOV | | | | | |
| 27... | 823 | 110 | 11 | 16 | 0.030 |
| APR 1997 | | | | | |
| 22... | 861 | -- | -- | -- | -- |
| 395859083440503 CL-140 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 05W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 800 | 110 | 9.7 | 14 | 0.040 |
| NOV | | | | | |
| 27... | 830 | 110 | 15 | 20 | 0.030 |
| 395859083440504 CL-140 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 05W) | | | | | |
| OCT 1996 | | | | | |
| 22... | -- | -- | -- | -- | -- |
| NOV | | | | | |
| 27... | 827 | 100 | 16 | 22 | 0.030 |
| APR 1997 | | | | | |
| 22... | 865 | -- | -- | -- | -- |
| 395859083440505 CL-140 NR SPRINGFIELD OH-LEVEL 5 (LAT 39 58 59N LONG 083 44 05W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 899 | 100 | 29 | 40 | 0.040 |
| NOV | | | | | |
| 27... | 794 | 97 | 20 | 22 | 0.030 |
| 395859083440600 CL-137 NR SPRINGFIELD OH (LAT 39 58 59N LONG 083 44 06W) | | | | | |
| OCT 1996 | | | | | |
| 30... | 813 | 100 | 9.4 | 10 | 0.020 |
| APR 1997 | | | | | |
| 22... | 872 | 110 | 13 | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 395859083440601 CL-137 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 58 59N LONG 083 44 06W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 761 | 110 | 7.0 | 11 | -- |
| NOV | | | | | |
| 27... | -- | 120 | 7.3 | 12 | -- |
| 395859083440602 CL-137 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 06W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 792 | 100 | 12 | 14 | -- |
| NOV | | | | | |
| 27... | 674 | 130 | 6.6 | 10 | -- |
| 395859083440603 CL-137 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 06W) | | | | | |
| OCT 1996 | | | | | |
| 22... | -- | 100 | 12 | 15 | -- |
| NOV | | | | | |
| 27... | 713 | 110 | 6.2 | 10 | -- |
| 395859083440604 CL-137 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 06W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 744 | 85 | 34 | 29 | -- |
| NOV | | | | | |
| 27... | 691 | 110 | 7.8 | 12 | -- |
| 395901083440700 CL-136 NR SPRINGFIELD OH (LAT 39 59 01N LONG 083 44 07W) | | | | | |
| OCT 1996 | | | | | |
| 30... | 794 | 100 | 4.3 | 7.7 | 0.030 |
| APR 1997 | | | | | |
| 22... | 817 | 100 | 5.2 | -- | -- |
| 395901083440701 CL-136 NR SPRINGFIELD OH-LEVEL 1 (LAT 39 59 01N LONG 083 44 07W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 734 | 110 | 3.7 | 6.4 | -- |
| NOV | | | | | |
| 27... | 670 | -- | -- | 6.1 | -- |
| 395901083440702 CL-136 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 59 01N LONG 083 44 07W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 788 | -- | -- | 6.2 | -- |
| NOV | | | | | |
| 27... | 607 | -- | -- | 7.3 | -- |
| 395901083440703 CL-136 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 59 01N LONG 083 44 07W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 791 | 110 | 3.6 | 6.4 | -- |
| NOV | | | | | |
| 27... | 670 | 110 | 4.8 | 8.7 | -- |
| 395901083440704 CL-136 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 59 01N LONG 083 44 07W) | | | | | |
| OCT 1996 | | | | | |
| 22... | 672 | 110 | 3.7 | 6.4 | -- |
| NOV | | | | | |
| 27... | 585 | 77 | 13 | 27 | -- |
| 400947083480001 CH-44 NR URBANA OH-LEVEL 1 (LAT 40 09 47N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 850 | 110 | 13 | 35 | 0.030 |
| DEC | | | | | |
| 06... | 945 | 110 | 17 | 57 | 0.040 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 400947083480002 CH-44 NR URBANA OH-LEVEL 2 (LAT 40 09 47N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 907 | 110 | 19 | 52 | 0.050 |
| DEC | | | | | |
| 06... | 941 | 120 | 18 | 61 | 0.030 |
| 400947083480003 CH-44 NR URBANA OH-LEVEL 3 (LAT 40 09 47N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 918 | 110 | 27 | 60 | 0.040 |
| DEC | | | | | |
| 06... | 915 | 110 | 20 | 46 | 0.030 |
| 400947083480004 CH-44 NR URBANA OH-LEVEL 4 (LAT 40 09 47N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 1110 | 110 | 44 | 69 | 0.040 |
| DEC | | | | | |
| 06... | 1040 | 110 | 42 | 58 | 0.030 |
| 400948083475801 CH-46 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 47 58W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 919 | 110 | 45 | 92 | -- |
| DEC | | | | | |
| 06... | 879 | 110 | 31 | 58 | -- |
| 400948083475802 CH-46 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 47 58W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 970 | 110 | 44 | 90 | -- |
| DEC | | | | | |
| 06... | 871 | 110 | 31 | 58 | -- |
| 400948083475803 CH-46 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 47 58W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 864 | 110 | 40 | 80 | -- |
| DEC | | | | | |
| 06... | 869 | 110 | 30 | 61 | -- |
| 400948083475804 CH-46 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 47 58W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 820 | 110 | 23 | 48 | -- |
| DEC | | | | | |
| 06... | 957 | 110 | 32 | 52 | -- |
| 400948083475805 CH-46 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 47 58W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 680 | 95 | 16 | 18 | -- |
| DEC | | | | | |
| 06... | 878 | 100 | 24 | 42 | -- |
| 400948083480002 CH-45 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 690 | 100 | 8.2 | 21 | -- |
| DEC | | | | | |
| 06... | 817 | 110 | 13 | 33 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 400948083480003 CH-45 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 646 | 100 | 9.0 | 25 | -- |
| DEC | | | | | |
| 06... | 910 | 110 | 37 | 74 | -- |
| 400948083480004 CH-45 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 757 | 100 | 16 | 39 | -- |
| DEC | | | | | |
| 06... | 924 | 110 | 42 | 84 | -- |
| 400948083480005 CH-45 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 48 00W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 918 | 110 | 35 | 88 | -- |
| DEC | | | | | |
| 06... | 980 | 110 | 42 | 73 | -- |
| 400948083480101 CH-43 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 48 01W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 725 | 120 | 9.8 | 26 | -- |
| DEC | | | | | |
| 06... | 884 | 120 | 18 | 62 | -- |
| 400948083480102 CH-43 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 48 01W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 694 | 110 | 19 | 45 | -- |
| DEC | | | | | |
| 06... | 892 | 120 | 19 | 61 | -- |
| 400948083480103 CH-43 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 48 01W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 766 | 110 | 13 | 37 | -- |
| DEC | | | | | |
| 06... | 924 | 120 | 20 | 61 | -- |
| 400948083480104 CH-43 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 48 01W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 801 | 110 | 18 | 44 | -- |
| DEC | | | | | |
| 06... | 821 | 110 | 22 | 44 | -- |
| 400948083480105 CH-43 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 48 01W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 860 | 110 | 34 | 57 | -- |
| DEC | | | | | |
| 06... | 863 | -- | -- | 59 | -- |
| 400948083480201 CH-41 NR URBANA OH-LEVEL 1 (LAT 40 09 48N LONG 083 48 02W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 809 | -- | -- | 31 | -- |
| DEC | | | | | |
| 06... | 793 | 100 | 9.4 | 20 | -- |
| 400948083480202 CH-41 NR URBANA OH-LEVEL 2 (LAT 40 09 48N LONG 083 48 02W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 672 | 110 | 8.4 | 39 | -- |
| DEC | | | | | |
| 06... | 771 | 100 | 13 | 27 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 400948083480203 CH-41 NR URBANA OH-LEVEL 3 (LAT 40 09 48N LONG 083 48 02W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 698 | 110 | 8.4 | 41 | -- |
| DEC | | | | | |
| 06... | 775 | 100 | 12 | 27 | -- |
| 400948083480204 CH-41 NR URBANA OH-LEVEL 4 (LAT 40 09 48N LONG 083 48 02W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 741 | 110 | 27 | 58 | -- |
| DEC | | | | | |
| 06... | 820 | 110 | 34 | 36 | -- |
| 400948083480205 CH-41 NR URBANA OH-LEVEL 5 (LAT 40 09 48N LONG 083 48 02W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 937 | -- | -- | 65 | -- |
| DEC | | | | | |
| 06... | -- | 100 | 100 | 46 | -- |
| 400948083480206 CH-41 NR URBANA OH-LEVEL 6 (LAT 40 09 48N LONG 083 48 02W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 837 | 110 | 50 | 67 | -- |
| DEC | | | | | |
| 06... | 980 | -- | -- | 49 | -- |
| 400952083480801 CH-40 NR URBANA OH-LEVEL 1 (LAT 40 09 52N LONG 083 48 08W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 615 | 110 | 6.3 | 24 | -- |
| 400952083480802 CH-40 NR URBANA OH-LEVEL 2 (LAT 40 09 52N LONG 083 48 08W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 736 | -- | -- | 24 | -- |
| 400952083480803 CH-40 NR URBANA OH-LEVEL 3 (LAT 40 09 52N LONG 083 48 08W) | | | | | |
| DEC 1996 | | | | | |
| 06... | 748 | 100 | 6.4 | 24 | -- |
| 400952083480804 CH-40 NR URBANA OH-LEVEL 4 (LAT 40 09 52N LONG 083 48 08W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 632 | 100 | 6.3 | 22 | -- |
| DEC | | | | | |
| 06... | 779 | 110 | 6.5 | 22 | -- |
| 400952083480805 CH-40 NR URBANA OH-LEVEL 5 (LAT 40 09 52N LONG 083 48 08W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 611 | 110 | 6.6 | 24 | -- |
| DEC | | | | | |
| 06... | 723 | 110 | 6.1 | 22 | -- |
| 400952083480806 CH-40 NR URBANA OH-LEVEL 6 (LAT 40 09 52N LONG 083 48 08W) | | | | | |
| OCT 1996 | | | | | |
| 10... | 746 | -- | -- | 24 | -- |
| DEC | | | | | |
| 06... | 841 | 150 | 9.1 | 120 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403922082325901 R-19 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 22N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | -- | 68 | 13 | 41 | -- |
| DEC | | | | | |
| 03... | 531 | 99 | 9.8 | 16 | -- |
| JAN 1997 | | | | | |
| 30... | 485 | 73 | 12 | 44 | -- |
| MAR | | | | | |
| 21... | 515 | -- | -- | 35 | -- |
| APR | | | | | |
| 30... | 501 | 67 | 10 | 34 | -- |
| JUN | | | | | |
| 06... | 489 | 72 | 9.8 | 35 | -- |
| JUL | | | | | |
| 16... | 498 | 64 | 11 | 32 | -- |
| SEP | | | | | |
| 03... | 490 | 70 | 9.7 | 35 | -- |
| 403922082325902 R-19 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 22N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 503 | 69 | 13 | 42 | -- |
| DEC | | | | | |
| 03... | 539 | 75 | 10 | 49 | -- |
| JAN 1997 | | | | | |
| 30... | 478 | 70 | 10 | 40 | -- |
| MAR | | | | | |
| 21... | 527 | -- | -- | 30 | -- |
| APR | | | | | |
| 30... | 531 | -- | -- | 37 | -- |
| JUN | | | | | |
| 06... | 276 | 65 | 10 | 38 | -- |
| JUL | | | | | |
| 16... | 512 | 66 | 11 | 33 | -- |
| SEP | | | | | |
| 03... | 487 | 72 | 9.2 | 39 | -- |
| 403922082325903 R-19 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 22N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 529 | 69 | 12 | 42 | -- |
| DEC | | | | | |
| 03... | 539 | 78 | 10 | 49 | -- |
| JAN 1997 | | | | | |
| 30... | 526 | 69 | 10 | 39 | -- |
| MAR | | | | | |
| 21... | 476 | 63 | 11 | 27 | -- |
| APR | | | | | |
| 30... | 532 | 70 | 10 | 38 | -- |
| JUN | | | | | |
| 06... | 506 | 70 | 11 | 38 | -- |
| JUL | | | | | |
| 16... | 499 | 65 | 11 | 34 | -- |
| SEP | | | | | |
| 03... | 484 | 70 | 9.3 | 39 | -- |
| 403922082325904 R-19 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 22N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | -- | 70 | 13 | 42 | -- |
| DEC | | | | | |
| 03... | 545 | -- | -- | 47 | -- |
| JAN 1997 | | | | | |
| 30... | 503 | 72 | 10 | 39 | -- |
| MAR | | | | | |
| 21... | 457 | 59 | 10 | 34 | -- |
| APR | | | | | |
| 30... | 525 | 71 | 10 | 39 | -- |
| JUN | | | | | |
| 06... | 504 | 70 | 11 | 35 | -- |
| JUL | | | | | |
| 16... | 506 | 65 | 11 | 32 | -- |
| SEP | | | | | |
| 03... | 496 | -- | -- | 35 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403922082325905 R-19 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 22N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 163 | -- | -- | 5.5 | -- |
| DEC | | | | | |
| 03... | 753 | -- | -- | 29 | -- |
| MAR 1997 | | | | | |
| 21... | 481 | 60 | 9.2 | 45 | -- |
| APR | | | | | |
| 30... | 464 | 58 | 13 | 32 | -- |
| JUN | | | | | |
| 06... | 466 | 62 | 11 | 33 | -- |
| JUL | | | | | |
| 16... | 487 | -- | -- | 32 | -- |
| SEP | | | | | |
| 03... | 314 | -- | -- | 15 | -- |
| 403922082325906 R-19 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 22N LONG 082 32 59W) | | | | | |
| JUL 1997 | | | | | |
| 16... | 481 | -- | -- | 30 | -- |
| 403922082330001 R-20 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 22N LONG 082 33 00W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 508 | 70 | 14 | 30 | -- |
| DEC | | | | | |
| 03... | 522 | 75 | 15 | 37 | -- |
| JAN 1997 | | | | | |
| 30... | 447 | 62 | 10 | 25 | -- |
| MAR | | | | | |
| 21... | 351 | 44 | 11 | 8.4 | -- |
| APR | | | | | |
| 30... | 397 | 54 | 8.1 | 23 | -- |
| JUN | | | | | |
| 06... | 301 | 61 | 7.2 | 16 | -- |
| JUL | | | | | |
| 16... | 419 | 57 | 9.0 | 25 | -- |
| SEP | | | | | |
| 03... | 415 | 68 | 11 | 34 | -- |
| 403922082330002 R-20 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 22N LONG 082 33 00W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 503 | 69 | 14 | 29 | -- |
| DEC | | | | | |
| 03... | 483 | 72 | 15 | 37 | -- |
| JAN 1997 | | | | | |
| 30... | 422 | 59 | 9.9 | 24 | -- |
| MAR | | | | | |
| 21... | 346 | 45 | 11 | 8.0 | -- |
| APR | | | | | |
| 30... | 394 | 54 | 8.1 | 22 | -- |
| JUN | | | | | |
| 06... | 390 | 61 | 7.1 | 16 | -- |
| JUL | | | | | |
| 16... | 414 | 57 | 9.1 | 26 | -- |
| SEP | | | | | |
| 03... | 451 | 68 | 11 | 33 | -- |
| 403922082330003 R-20 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 22N LONG 082 33 00W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 508 | 68 | 15 | 30 | -- |
| DEC | | | | | |
| 03... | 518 | 76 | 16 | 39 | -- |
| JAN 1997 | | | | | |
| 30... | 422 | 61 | 10 | 24 | -- |
| MAR | | | | | |
| 21... | 336 | 43 | 12 | 7.9 | -- |
| APR | | | | | |
| 30... | 396 | 53 | 7.8 | 20 | -- |
| JUN | | | | | |
| 06... | 383 | 59 | 7.5 | 17 | -- |
| JUL | | | | | |
| 16... | 423 | -- | -- | 28 | -- |
| SEP | | | | | |
| 03... | 452 | 65 | 11 | 34 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403922082330004 R-20 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 22N LONG 082 33 00W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 474 | 63 | 15 | 29 | -- |
| DEC | | | | | |
| 03... | 502 | 70 | 15 | 38 | -- |
| JAN 1997 | | | | | |
| 30... | 417 | 60 | 9.5 | 24 | -- |
| MAR | | | | | |
| 21... | 326 | 40 | 12 | 6.9 | -- |
| APR | | | | | |
| 30... | 366 | 51 | 6.6 | 13 | -- |
| JUN | | | | | |
| 06... | 364 | 57 | 6.1 | 14 | -- |
| JUL | | | | | |
| 16... | 419 | 54 | 9.2 | 27 | -- |
| SEP | | | | | |
| 03... | 411 | 62 | 8.8 | 24 | -- |
| 403922082330005 R-20 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 22N LONG 082 33 00W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 445 | 65 | 11 | 17 | -- |
| DEC | | | | | |
| 03... | 671 | 120 | 18 | 31 | -- |
| JAN 1997 | | | | | |
| 30... | 463 | 62 | 13 | 33 | -- |
| MAR | | | | | |
| 21... | 438 | 57 | 11 | 24 | -- |
| APR | | | | | |
| 30... | 394 | 54 | 9.6 | 17 | -- |
| JUN | | | | | |
| 06... | 266 | 56 | 8.6 | 16 | -- |
| JUL | | | | | |
| 16... | 398 | -- | -- | 17 | -- |
| SEP | | | | | |
| 03... | 399 | 62 | 8.7 | 21 | -- |
| 403922082330006 R-20 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 22N LONG 082 33 00W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 449 | 63 | 11 | 17 | -- |
| DEC | | | | | |
| 03... | 457 | 68 | 13 | 24 | -- |
| JAN 1997 | | | | | |
| 30... | 463 | 61 | 13 | 33 | -- |
| MAR | | | | | |
| 21... | 437 | 57 | 11 | 24 | -- |
| APR | | | | | |
| 30... | 400 | 53 | 9.3 | 17 | -- |
| JUN | | | | | |
| 06... | 388 | 58 | 8.5 | 18 | -- |
| JUL | | | | | |
| 16... | 402 | 54 | 8.8 | 16 | -- |
| SEP | | | | | |
| 03... | 395 | -- | -- | 20 | -- |
| 403923082325401 R-21 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 54W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 436 | 67 | 2.3 | 3.2 | -- |
| DEC | | | | | |
| 03... | -- | 45 | 2.8 | 4.3 | -- |
| JAN 1997 | | | | | |
| 30... | 342 | 51 | 2.6 | 3.7 | -- |
| MAR | | | | | |
| 21... | 252 | 32 | 2.1 | 2.9 | -- |
| APR | | | | | |
| 30... | 324 | 51 | 2.6 | 3.8 | -- |
| JUN | | | | | |
| 06... | 496 | 47 | 2.5 | 3.4 | -- |
| JUL | | | | | |
| 16... | 347 | 51 | 2.8 | 3.9 | -- |
| SEP | | | | | |
| 03... | 288 | 43 | 1.9 | 2.4 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403923082325402 R-21 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 54W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 307 | 42 | 2.1 | 2.7 | -- |
| DEC | | | | | |
| 03... | -- | 44 | 3.0 | 4.1 | -- |
| JAN 1997 | | | | | |
| 30... | 316 | 49 | 2.7 | 3.9 | -- |
| MAR | | | | | |
| 21... | 248 | 33 | 2.1 | 3.0 | -- |
| APR | | | | | |
| 30... | 325 | 50 | 2.4 | 3.5 | -- |
| JUN | | | | | |
| 06... | 296 | 49 | 2.8 | 3.5 | -- |
| JUL | | | | | |
| 16... | 344 | 53 | 2.6 | 3.3 | -- |
| SEP | | | | | |
| 03... | 272 | 38 | 2.0 | 2.3 | -- |
| 403923082325403 R-21 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 54W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 261 | 38 | 2.0 | 2.6 | -- |
| DEC | | | | | |
| 03... | 303 | 43 | 2.7 | 4.4 | -- |
| JAN 1997 | | | | | |
| 30... | 331 | 47 | 2.5 | 3.9 | -- |
| MAR | | | | | |
| 21... | 233 | 31 | 2.1 | 2.8 | -- |
| APR | | | | | |
| 30... | 319 | -- | -- | 3.9 | -- |
| JUN | | | | | |
| 06... | 269 | 43 | 2.6 | 3.2 | -- |
| JUL | | | | | |
| 16... | 352 | 53 | 2.5 | 3.2 | -- |
| SEP | | | | | |
| 03... | 259 | 39 | 1.9 | 2.1 | -- |
| 403923082325404 R-21 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 54W) | | | | | |
| DEC 1996 | | | | | |
| 03... | 310 | -- | -- | 3.4 | -- |
| JAN 1997 | | | | | |
| 30... | 347 | 50 | 2.7 | 4.0 | -- |
| MAR | | | | | |
| 21... | 233 | 32 | 2.1 | 3.0 | -- |
| APR | | | | | |
| 30... | 299 | 45 | 2.7 | 4.3 | -- |
| JUN | | | | | |
| 06... | 235 | 40 | 2.7 | 3.6 | -- |
| JUL | | | | | |
| 16... | 313 | -- | -- | 4.3 | -- |
| 403923082325405 R-21 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 54W) | | | | | |
| JAN 1997 | | | | | |
| 30... | 324 | -- | -- | 4.8 | -- |
| MAR | | | | | |
| 21... | 244 | -- | -- | 3.0 | -- |
| JUN | | | | | |
| 06... | 374 | 38 | 3.0 | 3.5 | -- |
| JUL | | | | | |
| 16... | -- | -- | -- | 4.4 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403923082325601 R-15 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 56W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 306 | 27 | 17 | 19 | -- |
| DEC | | | | | |
| 03... | 353 | 31 | 23 | 36 | -- |
| JAN 1997 | | | | | |
| 30... | 309 | 23 | 21 | 37 | -- |
| MAR | | | | | |
| 21... | 296 | -- | -- | 32 | -- |
| APR | | | | | |
| 30... | 218 | 20 | 12 | 15 | -- |
| JUN | | | | | |
| 06... | 272 | 20 | 28 | 29 | -- |
| JUL | | | | | |
| 16... | 226 | 21 | 12 | 13 | -- |
| SEP | | | | | |
| 03... | 251 | 25 | 11 | 11 | -- |
| 403923082325602 R-15 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 56W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 315 | 28 | 17 | 19 | -- |
| DEC | | | | | |
| 03... | 344 | 30 | 27 | 38 | -- |
| JAN 1997 | | | | | |
| 30... | 301 | 22 | 21 | 35 | -- |
| MAR | | | | | |
| 21... | 304 | 22 | 24 | 34 | -- |
| APR | | | | | |
| 30... | 221 | 21 | 13 | 16 | -- |
| JUN | | | | | |
| 06... | 376 | 19 | 27 | 27 | -- |
| SEP | | | | | |
| 03... | 245 | -- | -- | 11 | -- |
| 403923082325603 R-15 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 56W) | | | | | |
| OCT 1996 | | | | | |
| 16... | -- | -- | -- | 6.8 | -- |
| DEC | | | | | |
| 03... | 350 | -- | -- | 44 | -- |
| JAN 1997 | | | | | |
| 30... | 300 | 21 | 21 | 34 | -- |
| MAR | | | | | |
| 21... | 289 | 20 | 23 | 32 | -- |
| APR | | | | | |
| 30... | 216 | 20 | 11 | 15 | -- |
| JUN | | | | | |
| 06... | 290 | 20 | 25 | -- | -- |
| SEP | | | | | |
| 03... | 167 | -- | -- | 8.4 | -- |
| 403923082325604 R-15 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 56W) | | | | | |
| MAR 1997 | | | | | |
| 21... | 295 | -- | -- | 32 | -- |
| JUN | | | | | |
| 06... | -- | 19 | 26 | 27 | -- |
| JUL | | | | | |
| 16... | 206 | -- | -- | 20 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403923082325701 R-18 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 57W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 464 | 55 | 6.2 | 51 | 0.040 |
| DEC | | | | | |
| 03... | 451 | 58 | 5.7 | 48 | 0.040 |
| JAN 1997 | | | | | |
| 30... | 368 | 44 | 11 | 37 | 0.040 |
| MAR | | | | | |
| 21... | 435 | 46 | 15 | 47 | 0.030 |
| APR | | | | | |
| 30... | 373 | 38 | 15 | 32 | 0.034 |
| JUN | | | | | |
| 06... | 340 | 39 | 11 | 29 | 0.033 |
| JUL | | | | | |
| 16... | 378 | 42 | 9.9 | 35 | 0.040 |
| SEP | | | | | |
| 03... | 417 | 54 | 6.1 | 49 | 0.043 |
| 403923082325702 R-18 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 57W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 431 | 54 | 5.4 | 49 | 0.030 |
| DEC | | | | | |
| 03... | 456 | 55 | 5.5 | 49 | 0.040 |
| JAN 1997 | | | | | |
| 30... | 392 | 42 | 11 | 36 | 0.030 |
| MAR | | | | | |
| 21... | 432 | 45 | 15 | 49 | 0.030 |
| APR | | | | | |
| 30... | 348 | 37 | 16 | 32 | 0.031 |
| JUN | | | | | |
| 06... | 333 | 37 | 10 | 30 | 0.035 |
| JUL | | | | | |
| 16... | 362 | 40 | 9.7 | 36 | 0.038 |
| SEP | | | | | |
| 03... | 411 | 52 | 5.8 | 49 | 0.039 |
| 403923082325703 R-18 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 57W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 520 | 51 | 9.0 | 49 | 0.040 |
| DEC | | | | | |
| 03... | 484 | 66 | 10 | 46 | 0.030 |
| JAN 1997 | | | | | |
| 30... | 431 | 62 | 11 | 39 | 0.020 |
| MAR | | | | | |
| 21... | 492 | 60 | 13 | 43 | 0.040 |
| APR | | | | | |
| 30... | 375 | 56 | 14 | 30 | 0.034 |
| JUN | | | | | |
| 06... | 424 | 56 | 13 | 31 | 0.035 |
| JUL | | | | | |
| 16... | 433 | 55 | 13 | 32 | 0.045 |
| SEP | | | | | |
| 03... | 436 | 63 | 10 | 41 | 0.026 |
| 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 538 | 59 | 13 | 50 | 0.040 |
| DEC | | | | | |
| 03... | 512 | 68 | 12 | 48 | 0.030 |
| JAN 1997 | | | | | |
| 30... | 527 | 68 | 14 | 47 | 0.030 |
| MAR | | | | | |
| 21... | 528 | 62 | 20 | 42 | 0.030 |
| APR | | | | | |
| 30... | 461 | 53 | 22 | 36 | 0.037 |
| JUN | | | | | |
| 06... | 403 | 49 | 18 | 28 | 0.030 |
| JUL | | | | | |
| 16... | 429 | 51 | 17 | 33 | 0.026 |
| SEP | | | | | |
| 03... | 461 | 63 | 11 | 48 | 0.042 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 582 | 66 | 18 | 50 | 0.040 |
| DEC | | | | | |
| 03... | 564 | 75 | 14 | 49 | 0.040 |
| JAN 1997 | | | | | |
| 30... | 558 | 70 | 21 | 47 | 0.030 |
| MAR | | | | | |
| 21... | 558 | 62 | 27 | 52 | 0.020 |
| APR | | | | | |
| 30... | 461 | 52 | 26 | 33 | 0.030 |
| JUN | | | | | |
| 06... | 436 | 53 | 23 | 28 | 0.038 |
| JUL | | | | | |
| 16... | 456 | 54 | 20 | 34 | 0.024 |
| SEP | | | | | |
| 03... | 466 | 64 | 15 | 43 | 0.040 |
| 403923082325706 R-18 NR LEXINGTON OH-LEVEL 6 (LAT 40 39 23N LONG 082 32 57W) | | | | | |
| JAN 1997 | | | | | |
| 30... | 508 | 63 | 28 | 36 | 0.020 |
| MAR | | | | | |
| 21... | 508 | 56 | 33 | 61 | 0.020 |
| APR | | | | | |
| 30... | 405 | 41 | 29 | 24 | 0.030 |
| JUN | | | | | |
| 06... | 425 | 48 | 22 | 32 | 0.033 |
| 403923082325901 R-17 NR LEXINGTON OH-LEVEL 1 (LAT 40 39 23N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 523 | 67 | 8.0 | 49 | -- |
| DEC | | | | | |
| 03... | 524 | 71 | 7.2 | 52 | -- |
| JAN 1997 | | | | | |
| 30... | 503 | 58 | 11 | 47 | -- |
| MAR | | | | | |
| 21... | 465 | -- | -- | 40 | -- |
| APR | | | | | |
| 30... | 462 | 54 | 16 | 40 | -- |
| JUN | | | | | |
| 06... | 389 | 55 | 14 | 32 | -- |
| JUL | | | | | |
| 16... | 440 | 53 | 12 | 36 | -- |
| SEP | | | | | |
| 03... | 476 | 65 | 7.4 | 48 | -- |
| 403923082325902 R-17 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 496 | 63 | 5.7 | 51 | -- |
| DEC | | | | | |
| 03... | 503 | 67 | 5.9 | 53 | -- |
| JAN 1997 | | | | | |
| 30... | 447 | 48 | 13 | 38 | -- |
| MAR | | | | | |
| 21... | 451 | -- | -- | 47 | -- |
| APR | | | | | |
| 30... | 399 | 44 | 16 | 34 | -- |
| JUN | | | | | |
| 06... | 387 | 48 | 11 | 33 | -- |
| JUL | | | | | |
| 16... | 408 | 45 | 11 | 35 | -- |
| SEP | | | | | |
| 03... | 460 | 64 | 6.2 | 48 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 403923082325903 R-17 NR LEXINGTON OH-LEVEL 3 (LAT 40 39 23N LONG 082 32 59W) | | | | | |
| OCT 1996 | | | | | |
| 16... | 488 | 61 | 5.6 | 52 | -- |
| DEC | | | | | |
| 03... | 497 | 64 | 5.8 | 54 | -- |
| JAN 1997 | | | | | |
| 30... | 417 | 42 | 13 | 36 | -- |
| MAR | | | | | |
| 21... | 476 | 48 | 18 | 54 | -- |
| APR | | | | | |
| 30... | 400 | 42 | 16 | 33 | -- |
| JUN | | | | | |
| 06... | 368 | 42 | 9.3 | 34 | -- |
| JUL | | | | | |
| 16... | 406 | 46 | 11 | 35 | -- |
| SEP | | | | | |
| 03... | 452 | 59 | 5.8 | 49 | -- |
| 403923082325904 R-17 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 59W) | | | | | |
| MAR 1997 | | | | | |
| 21... | 463 | 46 | 18 | 53 | -- |
| APR | | | | | |
| 30... | 380 | -- | -- | 31 | -- |
| JUN | | | | | |
| 06... | 353 | 40 | 10 | 32 | -- |
| JUL | | | | | |
| 16... | 454 | -- | -- | 41 | -- |
| 403923082325905 R-17 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 59W) | | | | | |
| JUL 1997 | | | | | |
| 16... | 411 | -- | -- | 26 | -- |
| 411136081172403 PO-122 NR RAVENNA OH LV-3 (LAT 41 11 36N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 746 | 65 | 57 | 120 | 0.040 |
| 411136081172404 PO-122 NR RAVENNA OH LV-4 (LAT 41 11 36N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 777 | 60 | 51 | 130 | 0.050 |
| DEC | | | | | |
| 11... | 722 | 64 | 59 | 120 | 0.030 |
| FEB 1997 | | | | | |
| 03... | 705 | 66 | 63 | 120 | 0.030 |
| MAR | | | | | |
| 26... | 775 | 70 | 64 | 130 | -- |
| MAY | | | | | |
| 05... | 756 | 66 | 59 | 120 | -- |
| JUN | | | | | |
| 18... | 602 | 64 | 50 | 92 | -- |
| JUL | | | | | |
| 22... | 633 | 68 | 51 | 99 | -- |
| SEP | | | | | |
| 05... | 618 | 66 | 44 | 88 | -- |
| 411136081172405 PO-122 NR RAVENNA OH LV-5 (LAT 41 11 36N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 785 | 66 | 57 | 130 | 0.040 |
| DEC | | | | | |
| 11... | 791 | 64 | 59 | 130 | 0.040 |
| FEB 1997 | | | | | |
| 03... | 770 | 65 | 63 | 130 | 0.030 |
| MAR | | | | | |
| 26... | 758 | 62 | 60 | 130 | -- |
| MAY | | | | | |
| 05... | 749 | 62 | 56 | 120 | -- |
| JUN | | | | | |
| 18... | 651 | 65 | 51 | 97 | -- |
| JUL | | | | | |
| 22... | 661 | 69 | 51 | 110 | -- |
| SEP | | | | | |
| 05... | 617 | 66 | 44 | 91 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411136081172406 PO-122 NR RAVENNA OH LV-6 (LAT 41 11 36N LONG 081 17 24W) | | | | | |
| DEC 1996 | | | | | |
| 11... | 794 | 67 | 62 | 140 | 0.030 |
| FEB 1997 | | | | | |
| 03... | 711 | 61 | 61 | 120 | 0.030 |
| MAY | | | | | |
| 05... | 757 | 65 | 59 | 130 | -- |
| JUN | | | | | |
| 18... | 602 | 63 | 47 | 91 | -- |
| JUL | | | | | |
| 22... | 605 | 69 | 50 | 93 | -- |
| SEP | | | | | |
| 05... | 624 | 65 | 44 | 94 | -- |
| 411137081172101 PO-114 NR RAVENNA OH-LEVEL 1 (LAT 41 11 37N LONG 081 17 21W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 438 | 66 | 13 | 3.9 | -- |
| DEC | | | | | |
| 11... | -- | 68 | 16 | 4.4 | -- |
| FEB 1997 | | | | | |
| 03... | 418 | 74 | 13 | 5.8 | -- |
| MAR | | | | | |
| 26... | 475 | 83 | 10 | 7.9 | -- |
| MAY | | | | | |
| 05... | 445 | 72 | 13 | 6.8 | -- |
| JUN | | | | | |
| 18... | 457 | 78 | 10 | 7.5 | -- |
| JUL | | | | | |
| 22... | 500 | -- | -- | 11 | -- |
| SEP | | | | | |
| 05... | 472 | 82 | 8.1 | 10 | -- |
| 411137081172102 PO-114 NR RAVENNA OH-LEVEL 2 (LAT 41 11 37N LONG 081 17 21W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 436 | 66 | 12 | 3.4 | -- |
| DEC | | | | | |
| 11... | -- | 66 | 16 | 4.7 | -- |
| FEB 1997 | | | | | |
| 03... | 457 | 78 | 12 | 5.9 | -- |
| MAR | | | | | |
| 26... | 465 | 82 | 9.3 | 8.3 | -- |
| MAY | | | | | |
| 05... | 444 | 74 | 14 | 6.8 | -- |
| JUN | | | | | |
| 18... | 464 | 81 | 9.7 | 8.1 | -- |
| SEP | | | | | |
| 05... | 481 | 83 | 7.8 | 11 | -- |
| 411137081172103 PO-114 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 21W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 413 | 65 | 8.3 | 3.7 | -- |
| DEC | | | | | |
| 11... | -- | 68 | 16 | 4.7 | -- |
| FEB 1997 | | | | | |
| 03... | 420 | -- | -- | 5.4 | -- |
| MAR | | | | | |
| 26... | 455 | 78 | 9.2 | 9.0 | -- |
| MAY | | | | | |
| 05... | 432 | 72 | 14 | 6.1 | -- |
| JUN | | | | | |
| 18... | 462 | 81 | 9.5 | 8.1 | -- |
| SEP | | | | | |
| 05... | 506 | 89 | 7.4 | 13 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411137081172104 PO-114 NR RAVENNA OH-LEVEL 4 (LAT 41 11 37N LONG 081 17 21W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 409 | 67 | 7.6 | 2.9 | -- |
| DEC | | | | | |
| 11... | 426 | -- | -- | 3.8 | -- |
| FEB 1997 | | | | | |
| 03... | 444 | 72 | 14 | 5.9 | -- |
| MAR | | | | | |
| 26... | 426 | 73 | 9.7 | 8.2 | -- |
| MAY | | | | | |
| 05... | 430 | 71 | 13 | 6.1 | -- |
| JUN | | | | | |
| 18... | 462 | -- | -- | 7.6 | -- |
| JUL | | | | | |
| 22... | 504 | 91 | 7.5 | 12 | -- |
| SEP | | | | | |
| 05... | 509 | 90 | 7.0 | 13 | -- |
| 411137081172105 PO-114 NR RAVENNA OH-LEVEL 5 (LAT 41 11 37N LONG 081 17 21W) | | | | | |
| OCT 1996 | | | | | |
| 18... | -- | 70 | 6.4 | 2.8 | -- |
| DEC | | | | | |
| 11... | -- | -- | -- | 5.3 | -- |
| FEB 1997 | | | | | |
| 03... | 444 | -- | -- | 5.1 | -- |
| MAR | | | | | |
| 26... | 441 | -- | -- | 8.1 | -- |
| MAY | | | | | |
| 05... | 426 | 69 | 13 | 6.5 | -- |
| JUN | | | | | |
| 18... | 460 | 80 | 11 | 7.0 | -- |
| JUL | | | | | |
| 22... | 508 | 94 | 7.6 | 11 | -- |
| SEP | | | | | |
| 05... | 506 | -- | -- | 14 | -- |
| 411137081172106 PO-114 NR RAVENNA OH-LEVEL 6 (LAT 41 11 37N LONG 081 17 21W) | | | | | |
| MAY 1997 | | | | | |
| 05... | 414 | -- | -- | 6.3 | -- |
| JUN | | | | | |
| 18... | 459 | 81 | 11 | 6.9 | -- |
| JUL | | | | | |
| 22... | 504 | 94 | 8.5 | 12 | -- |
| 411137081172301 PO-118 NR RAVENNA OH-LEVEL 1 (LAT 41 11 37N LONG 081 17 23W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 2270 | 77 | 310 | 550 | -- |
| DEC | | | | | |
| 11... | 691 | -- | -- | 130 | -- |
| FEB 1997 | | | | | |
| 03... | 582 | 25 | 79 | 110 | -- |
| MAR | | | | | |
| 26... | 1100 | 38 | 130 | 260 | -- |
| MAY | | | | | |
| 05... | 1370 | 70 | 221 | 350 | -- |
| JUN | | | | | |
| 18... | 685 | 42 | 94 | 150 | -- |
| JUL | | | | | |
| 22... | 2890 | 95 | 463 | 750 | -- |
| SEP | | | | | |
| 05... | 3570 | -- | -- | 1100 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411137081172302 PO-118 NR RAVENNA OH-LEVEL 2 (LAT 41 11 37N LONG 081 17 23W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 2190 | 82 | 300 | 550 | -- |
| DEC | | | | | |
| 11... | 912 | -- | -- | 180 | -- |
| FEB 1997 | | | | | |
| 03... | 761 | -- | -- | 160 | -- |
| MAR | | | | | |
| 26... | 915 | 40 | 140 | 210 | -- |
| MAY | | | | | |
| 05... | 1880 | 73 | 256 | 480 | -- |
| JUN | | | | | |
| 18... | 750 | 47 | 108 | 160 | -- |
| JUL | | | | | |
| 22... | 2660 | -- | -- | 750 | -- |
| SEP | | | | | |
| 05... | 3540 | 130 | 568 | 1100 | -- |
| 411137081172303 PO-118 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 23W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 2300 | 89 | 320 | 560 | -- |
| DEC | | | | | |
| 11... | 1140 | -- | -- | 250 | -- |
| FEB 1997 | | | | | |
| 03... | 660 | 35 | 100 | 130 | -- |
| MAR | | | | | |
| 26... | 1250 | 51 | 170 | 300 | -- |
| MAY | | | | | |
| 05... | 1640 | 72 | 251 | 410 | -- |
| JUN | | | | | |
| 18... | 998 | 50 | 128 | 240 | -- |
| JUL | | | | | |
| 22... | 2900 | -- | -- | 750 | -- |
| SEP | | | | | |
| 05... | 3570 | 130 | 588 | 1100 | -- |
| 411137081172304 PO-118 NR RAVENNA OH-LEVEL 4 (LAT 41 11 37N LONG 081 17 23W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 2110 | 83 | 300 | 520 | -- |
| DEC | | | | | |
| 11... | 1020 | 43 | 140 | 210 | -- |
| FEB 1997 | | | | | |
| 03... | 556 | 31 | 80 | 100 | -- |
| MAR | | | | | |
| 26... | 1150 | 48 | 150 | 280 | -- |
| MAY | | | | | |
| 05... | 1340 | 73 | 249 | 350 | -- |
| JUN | | | | | |
| 18... | 1000 | 49 | 134 | 240 | -- |
| JUL | | | | | |
| 22... | 2800 | 90 | 466 | 740 | -- |
| SEP | | | | | |
| 05... | 3490 | 110 | 578 | 1000 | -- |
| 411137081172305 PO-118 NR RAVENNA OH-LEVEL 5 (LAT 41 11 37N LONG 081 17 23W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1940 | 80 | 260 | 470 | -- |
| DEC | | | | | |
| 11... | 988 | 44 | 130 | 210 | -- |
| FEB 1997 | | | | | |
| 03... | 615 | 32 | 78 | 120 | -- |
| MAR | | | | | |
| 26... | 933 | 43 | 130 | 220 | -- |
| MAY | | | | | |
| 05... | 1350 | 66 | 216 | 340 | -- |
| JUN | | | | | |
| 18... | 1010 | 49 | 126 | 240 | -- |
| JUL | | | | | |
| 22... | 1530 | -- | -- | 370 | -- |
| SEP | | | | | |
| 05... | 3290 | 130 | 543 | 950 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411137081172306 PO-118 NR RAVENNA OH-LEVEL 6 (LAT 41 11 37N LONG 081 17 23W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1660 | 71 | 230 | 400 | -- |
| DEC | | | | | |
| 11... | 1030 | 42 | 140 | 210 | -- |
| FEB 1997 | | | | | |
| 03... | 487 | 25 | 65 | 89 | -- |
| MAR | | | | | |
| 26... | 576 | 31 | 81 | 120 | -- |
| MAY | | | | | |
| 05... | 1100 | 43 | 98 | 260 | -- |
| JUN | | | | | |
| 18... | 944 | 41 | 118 | 240 | -- |
| JUL | | | | | |
| 22... | 1170 | 66 | 134 | 280 | -- |
| SEP | | | | | |
| 05... | 965 | -- | -- | 260 | -- |
| 411137081172401 PO-117 NR RAVENNA OH-LEVEL 1 (LAT 41 11 37N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1110 | 66 | 89 | 230 | 0.040 |
| DEC | | | | | |
| 11... | 806 | 66 | 81 | 140 | 0.030 |
| FEB 1997 | | | | | |
| 03... | 607 | 51 | 49 | 81 | 0.020 |
| MAR | | | | | |
| 26... | 510 | 47 | 40 | 63 | 0.020 |
| MAY | | | | | |
| 05... | 627 | 57 | 52 | 88 | 0.024 |
| JUN | | | | | |
| 18... | 604 | 62 | 50 | 91 | 0.024 |
| JUL | | | | | |
| 22... | 632 | 60 | 101 | 96 | 0.017 |
| SEP | | | | | |
| 05... | 781 | 76 | 76 | 170 | 0.035 |
| 411137081172402 PO-117 NR RAVENNA OH-LEVEL 2 (LAT 41 11 37N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1150 | 78 | 160 | 250 | 0.040 |
| DEC | | | | | |
| 11... | 1250 | 74 | 140 | 260 | 0.050 |
| FEB 1997 | | | | | |
| 03... | 995 | 62 | 130 | 190 | 0.040 |
| MAR | | | | | |
| 26... | 720 | 48 | 88 | 120 | 0.030 |
| MAY | | | | | |
| 05... | 801 | 56 | 94 | 140 | 0.027 |
| JUN | | | | | |
| 18... | 784 | 57 | 88 | 140 | 0.030 |
| JUL | | | | | |
| 22... | 862 | 63 | 51 | 160 | 0.029 |
| SEP | | | | | |
| 05... | 945 | 68 | 114 | 220 | 0.042 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411137081172403 PO-117 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1780 | 120 | 200 | 440 | 0.070 |
| DEC | | | | | |
| 11... | 1120 | 57 | 150 | 220 | 0.040 |
| FEB 1997 | | | | | |
| 03... | 855 | 55 | 110 | 150 | 0.040 |
| MAR | | | | | |
| 26... | 709 | 45 | 87 | 110 | 0.030 |
| MAY | | | | | |
| 05... | 824 | 57 | 95 | 150 | 0.031 |
| JUN | | | | | |
| 18... | 924 | 65 | 105 | 190 | 0.042 |
| JUL | | | | | |
| 22... | 965 | 66 | 108 | 190 | 0.042 |
| SEP | | | | | |
| 05... | 1200 | 91 | 141 | 310 | 0.051 |
| 411137081172404 PO-117 NR RAVENNA OH-LEVEL 4 (LAT 41 11 37N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 2140 | 130 | 270 | 550 | 0.090 |
| DEC | | | | | |
| 11... | 1330 | 68 | 170 | 280 | 0.050 |
| FEB 1997 | | | | | |
| 03... | 783 | 59 | 93 | 120 | 0.030 |
| MAR | | | | | |
| 26... | 655 | 48 | 77 | 100 | 0.020 |
| MAY | | | | | |
| 05... | 927 | 68 | 106 | 180 | 0.036 |
| JUN | | | | | |
| 18... | 924 | 64 | 107 | 180 | 0.038 |
| JUL | | | | | |
| 22... | 1290 | 92 | 146 | 300 | 0.051 |
| SEP | | | | | |
| 05... | 1900 | 120 | 217 | 460 | 0.077 |
| 411137081172405 PO-117 NR RAVENNA OH-LEVEL 5 (LAT 41 11 37N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 2240 | 120 | 300 | 540 | -- |
| DEC | | | | | |
| 11... | 870 | 54 | 110 | 150 | 0.030 |
| FEB 1997 | | | | | |
| 03... | 608 | 47 | 69 | 81 | 0.020 |
| MAR | | | | | |
| 26... | 562 | 47 | 59 | 80 | 0.020 |
| MAY | | | | | |
| 05... | 796 | 60 | 83 | 150 | 0.032 |
| JUN | | | | | |
| 18... | 853 | 65 | 92 | 160 | 0.031 |
| JUL | | | | | |
| 22... | 1410 | 97 | 158 | 330 | 0.055 |
| SEP | | | | | |
| 05... | 2190 | 130 | 295 | 580 | 0.10 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411137081172406 PO-117 NR RAVENNA OH-LEVEL 6 (LAT 41 11 37N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1160 | 82 | 130 | 240 | 0.040 |
| DEC | | | | | |
| 11... | 542 | 50 | 48 | 75 | 0.020 |
| FEB 1997 | | | | | |
| 03... | 420 | 39 | 34 | 42 | 0.020 |
| MAR | | | | | |
| 26... | 389 | 42 | 29 | 37 | 0.020 |
| MAY | | | | | |
| 05... | 474 | 44 | 32 | 63 | 0.020 |
| JUN | | | | | |
| 18... | 538 | 59 | 39 | 75 | 0.019 |
| SEP | | | | | |
| 05... | 1170 | 91 | 141 | 280 | 0.051 |
| 411138081172401 PO-115 NR RAVENNA OH-LEVEL 1 (LAT 41 11 38N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1080 | 36 | 180 | 170 | -- |
| DEC | | | | | |
| 11... | 614 | 48 | 73 | 64 | -- |
| FEB 1997 | | | | | |
| 03... | 1200 | 53 | 180 | 270 | -- |
| MAR | | | | | |
| 26... | 1470 | 72 | 200 | 370 | -- |
| MAY | | | | | |
| 05... | 1960 | 95 | 268 | 500 | -- |
| JUN | | | | | |
| 18... | 1490 | 58 | 227 | 350 | -- |
| JUL | | | | | |
| 22... | 1980 | 53 | 335 | 490 | -- |
| SEP | | | | | |
| 05... | 2640 | 57 | 487 | 690 | -- |
| 411138081172402 PO-115 NR RAVENNA OH-LEVEL 2 (LAT 41 11 38N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1050 | 33 | 160 | 170 | -- |
| DEC | | | | | |
| 11... | -- | 50 | 72 | 63 | -- |
| FEB 1997 | | | | | |
| 03... | 1120 | 55 | 160 | 250 | -- |
| MAR | | | | | |
| 26... | 1420 | 74 | 200 | 350 | -- |
| MAY | | | | | |
| 05... | 1930 | 95 | 261 | 480 | -- |
| JUN | | | | | |
| 18... | 1420 | 61 | 216 | 330 | -- |
| JUL | | | | | |
| 22... | 1950 | 54 | 339 | 470 | -- |
| SEP | | | | | |
| 05... | 2630 | 57 | 482 | 690 | -- |
| 411138081172403 PO-115 NR RAVENNA OH-LEVEL 3 (LAT 41 11 38N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1150 | -- | -- | 200 | -- |
| DEC | | | | | |
| 11... | 626 | 48 | 75 | 62 | -- |
| FEB 1997 | | | | | |
| 03... | 954 | 57 | 120 | 200 | -- |
| MAR | | | | | |
| 26... | 1280 | 75 | 180 | 300 | -- |
| MAY | | | | | |
| 05... | 1790 | 96 | 255 | 450 | -- |
| JUN | | | | | |
| 18... | 1320 | 60 | 204 | 290 | -- |
| JUL | | | | | |
| 22... | 1960 | 56 | 327 | 450 | -- |
| SEP | | | | | |
| 05... | 2480 | 50 | 448 | 600 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 411138081172404 PO-115 NR RAVENNA OH-LEVEL 4 (LAT 41 11 38N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1130 | -- | -- | 190 | -- |
| DEC | | | | | |
| 11... | 601 | 55 | 62 | 56 | -- |
| FEB 1997 | | | | | |
| 03... | 971 | 58 | 120 | 190 | -- |
| MAR | | | | | |
| 26... | 1320 | 71 | 160 | 320 | -- |
| MAY | | | | | |
| 05... | 1860 | 92 | 245 | 460 | -- |
| JUN | | | | | |
| 18... | 1440 | 58 | 191 | 340 | -- |
| JUL | | | | | |
| 22... | 1950 | 51 | 321 | 470 | -- |
| SEP | | | | | |
| 05... | 2620 | 52 | 458 | 690 | -- |
| 411138081172405 PO-115 NR RAVENNA OH-LEVEL 5 (LAT 41 11 38N LONG 081 17 24W) | | | | | |
| OCT 1996 | | | | | |
| 18... | 1000 | 48 | 150 | 150 | -- |
| DEC | | | | | |
| 11... | 569 | 51 | 59 | 50 | -- |
| FEB 1997 | | | | | |
| 03... | 739 | 59 | 79 | 130 | -- |
| MAR | | | | | |
| 26... | 828 | 70 | 92 | 170 | -- |
| MAY | | | | | |
| 05... | 1060 | 84 | 157 | 240 | -- |
| JUN | | | | | |
| 18... | 938 | 66 | 120 | 180 | -- |
| JUL | | | | | |
| 22... | 1640 | 49 | 288 | 360 | -- |
| SEP | | | | | |
| 05... | 2450 | 54 | 431 | 660 | -- |
| 411138081172406 PO-115 NR RAVENNA OH-LEVEL 6 (LAT 41 11 38N LONG 081 17 24W) | | | | | |
| DEC 1996 | | | | | |
| 11... | 510 | 57 | 42 | 34 | -- |
| FEB 1997 | | | | | |
| 03... | 647 | 58 | 57 | 110 | -- |
| MAR | | | | | |
| 26... | 680 | 59 | 62 | 130 | -- |
| MAY | | | | | |
| 05... | 671 | 77 | 63 | 120 | -- |
| JUN | | | | | |
| 18... | 566 | 56 | 65 | 87 | -- |
| JUL | | | | | |
| 22... | 960 | -- | -- | 180 | -- |
| SEP | | | | | |
| 05... | 877 | -- | -- | 210 | -- |
| 413546083480901 LU-28 NR HOLLAND OH-LEVEL 1 (LAT 41 35 46N LONG 083 48 09W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 605 | 90 | 9.4 | 63 | -- |
| DEC | | | | | |
| 05... | 618 | 100 | 9.0 | 68 | -- |
| FEB 1997 | | | | | |
| 13... | 579 | 94 | 8.3 | 57 | -- |
| MAR | | | | | |
| 20... | 629 | 92 | 11 | 72 | -- |
| APR | | | | | |
| 29... | 610 | 94 | 11 | 65 | -- |
| JUN | | | | | |
| 05... | 615 | 96 | 16 | 73 | -- |
| JUL | | | | | |
| 18... | 614 | 100 | 12 | 74 | -- |
| AUG | | | | | |
| 26... | 587 | 100 | 13 | 65 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413546083480902 LU-28 NR HOLLAND OH-LEVEL 2 (LAT 41 35 46N LONG 083 48 09W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 665 | 84 | 24 | 83 | -- |
| DEC | | | | | |
| 05... | 698 | 110 | 17 | 98 | -- |
| FEB 1997 | | | | | |
| 13... | 758 | 110 | 14 | 120 | -- |
| MAR | | | | | |
| 20... | 813 | 110 | 27 | 140 | -- |
| APR | | | | | |
| 29... | 732 | 100 | 24 | 120 | -- |
| JUN | | | | | |
| 05... | 732 | 85 | 44 | 130 | -- |
| JUL | | | | | |
| 18... | 779 | 87 | 50 | 140 | -- |
| AUG | | | | | |
| 26... | 814 | 110 | 34 | 160 | -- |
| 413546083480903 LU-28 NR HOLLAND OH-LEVEL 3 (LAT 41 35 46N LONG 083 48 09W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 602 | 61 | 40 | 70 | -- |
| DEC | | | | | |
| 05... | 738 | 92 | 30 | 120 | -- |
| FEB 1997 | | | | | |
| 13... | 968 | 110 | 34 | 200 | -- |
| MAR | | | | | |
| 20... | 908 | 86 | 62 | 180 | -- |
| APR | | | | | |
| 29... | 1140 | 78 | 121 | 250 | -- |
| JUN | | | | | |
| 05... | 832 | 73 | 90 | 170 | -- |
| JUL | | | | | |
| 18... | 817 | 46 | 113 | 140 | -- |
| AUG | | | | | |
| 26... | 784 | -- | -- | 150 | -- |
| 413546083480904 LU-28 NR HOLLAND OH-LEVEL 4 (LAT 41 35 46N LONG 083 48 09W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1040 | 43 | 150 | 210 | -- |
| DEC | | | | | |
| 05... | 778 | 91 | 41 | 140 | -- |
| FEB 1997 | | | | | |
| 13... | 929 | 95 | 56 | 200 | -- |
| MAR | | | | | |
| 20... | 951 | 95 | 64 | 190 | -- |
| APR | | | | | |
| 29... | 968 | 71 | 99 | 160 | -- |
| JUN | | | | | |
| 05... | 893 | 61 | 106 | 150 | -- |
| JUL | | | | | |
| 18... | 712 | 44 | 91 | 94 | -- |
| AUG | | | | | |
| 26... | 1060 | 47 | 160 | 240 | -- |
| 413546083480905 LU-28 NR HOLLAND OH-LEVEL 5 (LAT 41 35 46N LONG 083 48 09W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 855 | 99 | 29 | 41 | -- |
| DEC | | | | | |
| 05... | 1050 | -- | -- | 89 | -- |
| FEB 1997 | | | | | |
| 13... | 604 | 58 | 22 | 31 | -- |
| MAR | | | | | |
| 20... | 431 | 46 | 26 | 49 | -- |
| APR | | | | | |
| 29... | 418 | 24 | 63 | 11 | -- |
| JUN | | | | | |
| 05... | 376 | 37 | 48 | 8.4 | -- |
| JUL | | | | | |
| 18... | 377 | 51 | 17 | 8.5 | -- |
| AUG | | | | | |
| 26... | 888 | 100 | 42 | 70 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413547083481001 LU-26 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 10W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 701 | 120 | 7.8 | 100 | 0.020 |
| DEC | | | | | |
| 05... | 703 | 120 | 8.4 | 93 | 0.030 |
| FEB 1997 | | | | | |
| 13... | 721 | 97 | 18 | 94 | 0.030 |
| MAR | | | | | |
| 20... | 711 | 110 | 12 | 93 | 0.050 |
| APR | | | | | |
| 29... | 676 | 110 | 14 | 85 | 0.044 |
| JUN | | | | | |
| 05... | 659 | 120 | 9.7 | 88 | 0.045 |
| JUL | | | | | |
| 18... | 669 | 100 | 11 | 86 | 0.021 |
| AUG | | | | | |
| 26... | 637 | 110 | 11 | 86 | 0.033 |
| 413547083481002 LU-26 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 10W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1650 | 100 | 160 | 480 | 0.070 |
| DEC | | | | | |
| 05... | 2810 | 65 | 490 | 740 | 0.12 |
| FEB 1997 | | | | | |
| 13... | 673 | 6.4 | 130 | 59 | 0.020 |
| MAR | | | | | |
| 20... | 840 | 10 | 160 | 130 | 0.040 |
| APR | | | | | |
| 29... | 305 | 3.2 | 69 | 7.4 | 0.014 |
| JUN | | | | | |
| 05... | 437 | 4.4 | 85 | 51 | 0.029 |
| AUG | | | | | |
| 26... | 1090 | 22 | 187 | 300 | 0.057 |
| 413547083481003 LU-26 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 10W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 2500 | 220 | 180 | 690 | 0.10 |
| DEC | | | | | |
| 05... | 2230 | 60 | 370 | 570 | 0.080 |
| FEB 1997 | | | | | |
| 13... | 780 | 9.9 | 140 | 150 | <0.010 |
| MAR | | | | | |
| 20... | 544 | 11 | 97 | 86 | <0.010 |
| APR | | | | | |
| 29... | 382 | 12 | 69 | 27 | <0.010 |
| JUN | | | | | |
| 05... | 553 | 25 | 82 | 88 | 0.021 |
| AUG | | | | | |
| 26... | 1090 | 47 | 150 | 300 | 0.039 |
| 413547083481004 LU-26 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 10W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 770 | 120 | 9.6 | 140 | 0.030 |
| DEC | | | | | |
| 05... | 1530 | 170 | 70 | 390 | 0.060 |
| FEB 1997 | | | | | |
| 13... | 443 | 34 | 43 | 38 | 0.020 |
| MAR | | | | | |
| 20... | 508 | 59 | 26 | 71 | 0.020 |
| APR | | | | | |
| 29... | 858 | 120 | 21 | 190 | 0.033 |
| JUN | | | | | |
| 05... | 538 | 79 | 16 | 80 | 0.021 |
| JUL | | | | | |
| 18... | 625 | 69 | 36 | 100 | 0.010 |
| AUG | | | | | |
| 26... | 376 | 36 | 33 | 24 | <0.010 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413547083481005 LU-26 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 10W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1110 | 27 | 200 | 250 | 0.050 |
| DEC | | | | | |
| 05... | 2620 | 75 | 440 | 590 | 0.12 |
| FEB 1997 | | | | | |
| 13... | 1550 | 38 | 260 | 280 | 0.080 |
| MAR | | | | | |
| 20... | 1190 | 23 | 230 | 150 | 0.070 |
| APR | | | | | |
| 29... | -- | 15 | 149 | 120 | 0.045 |
| JUN | | | | | |
| 05... | 957 | 20 | 182 | 110 | -- |
| JUL | | | | | |
| 18... | 768 | 14 | 161 | 44 | 0.023 |
| AUG | | | | | |
| 26... | 747 | 12 | 150 | 87 | 0.027 |
| 413547083481006 LU-26 NR HOLLAND OH-LEVEL 6 (LAT 41 35 47N LONG 083 48 10W) | | | | | |
| FEB 1997 | | | | | |
| 13... | 380 | 30 | 12 | 9.6 | 0.010 |
| MAR | | | | | |
| 20... | 266 | 22 | 12 | 13 | 0.020 |
| APR | | | | | |
| 29... | 240 | 18 | 11 | 26 | <0.010 |
| JUN | | | | | |
| 05... | 281 | 24 | 11 | 39 | 0.025 |
| AUG | | | | | |
| 26... | 236 | 18 | 11 | 25 | <0.010 |
| 413547083481101 LU-27 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 11W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1780 | 160 | 100 | 170 | -- |
| DEC | | | | | |
| 05... | 1160 | 130 | 76 | 120 | -- |
| FEB 1997 | | | | | |
| 13... | 766 | 100 | 30 | 64 | -- |
| MAR | | | | | |
| 20... | 1290 | 120 | 61 | 120 | -- |
| APR | | | | | |
| 29... | 1590 | 160 | 31 | 100 | -- |
| JUN | | | | | |
| 05... | 1240 | 170 | 58 | 230 | -- |
| JUL | | | | | |
| 18... | 1870 | 150 | 187 | 490 | -- |
| AUG | | | | | |
| 26... | 912 | 130 | 42 | 190 | -- |
| 413547083481102 LU-27 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 11W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1780 | 160 | 110 | 170 | -- |
| DEC | | | | | |
| 05... | 1240 | 110 | 100 | 160 | -- |
| FEB 1997 | | | | | |
| 13... | 784 | 75 | 54 | 110 | -- |
| MAR | | | | | |
| 20... | 1390 | 120 | 64 | 120 | -- |
| APR | | | | | |
| 29... | 1840 | 180 | 36 | 100 | -- |
| JUN | | | | | |
| 05... | 1470 | 140 | 49 | 140 | -- |
| JUL | | | | | |
| 18... | 2080 | 150 | 217 | 570 | -- |
| AUG | | | | | |
| 26... | 1440 | 79 | 162 | 340 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413547083481103 LU-27 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 11W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1850 | 160 | 120 | 170 | -- |
| DEC | | | | | |
| 05... | 1330 | 110 | 120 | 160 | -- |
| FEB 1997 | | | | | |
| 13... | -- | 78 | 62 | 54 | -- |
| MAR | | | | | |
| 20... | 1290 | -- | -- | 96 | -- |
| APR | | | | | |
| 29... | 1820 | 170 | 36 | 51 | -- |
| JUN | | | | | |
| 05... | 987 | 120 | 45 | 65 | -- |
| JUL | | | | | |
| 18... | 1720 | 91 | 232 | 320 | -- |
| AUG | | | | | |
| 26... | 1720 | 97 | 245 | 490 | -- |
| 413547083481104 LU-27 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 11W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1690 | 150 | 110 | 140 | -- |
| DEC | | | | | |
| 05... | 1170 | 120 | 81 | 78 | -- |
| FEB 1997 | | | | | |
| 13... | 882 | 77 | 66 | 66 | -- |
| MAR | | | | | |
| 20... | 1380 | 110 | 85 | 110 | -- |
| APR | | | | | |
| 29... | 1830 | 150 | 68 | 91 | -- |
| JUN | | | | | |
| 05... | 1280 | 120 | 13 | 28 | -- |
| JUL | | | | | |
| 18... | 1030 | 65 | 121 | 60 | -- |
| AUG | | | | | |
| 26... | 1200 | 130 | 81 | 50 | -- |
| 413547083481105 LU-27 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 11W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 2070 | -- | -- | 39 | -- |
| FEB 1997 | | | | | |
| 13... | 833 | 95 | 27 | 7.5 | -- |
| MAR | | | | | |
| 20... | 1320 | 140 | 18 | 13 | -- |
| APR | | | | | |
| 29... | 1820 | 180 | 14 | 12 | -- |
| JUN | | | | | |
| 05... | 872 | 100 | 8.9 | 3.8 | -- |
| JUL | | | | | |
| 18... | 1400 | 180 | 12 | 11 | -- |
| AUG | | | | | |
| 26... | 1620 | 220 | 10 | 14 | -- |
| 413547083481201 LU-25 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 12W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 758 | 120 | 8.4 | 120 | -- |
| DEC | | | | | |
| 05... | 792 | 130 | 13 | 130 | -- |
| FEB 1997 | | | | | |
| 13... | 884 | 130 | 23 | 150 | -- |
| MAR | | | | | |
| 20... | 759 | 110 | 16 | 110 | -- |
| APR | | | | | |
| 29... | 721 | 110 | 20 | 110 | -- |
| JUN | | | | | |
| 05... | 670 | 100 | 24 | 100 | -- |
| JUL | | | | | |
| 18... | 708 | 110 | 18 | 110 | -- |
| AUG | | | | | |
| 26... | 658 | 110 | 14 | 91 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413547083481202 LU-25 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 12W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 849 | 130 | 7.0 | 160 | -- |
| DEC | | | | | |
| 05... | 814 | 110 | 28 | 140 | -- |
| FEB 1997 | | | | | |
| 13... | 1180 | 140 | 53 | 270 | -- |
| MAR | | | | | |
| 20... | 541 | 58 | 40 | 63 | -- |
| APR | | | | | |
| 29... | 821 | 90 | 52 | 170 | -- |
| JUN | | | | | |
| 05... | 486 | 52 | 50 | 67 | -- |
| JUL | | | | | |
| 18... | 591 | 66 | 34 | 83 | -- |
| AUG | | | | | |
| 26... | 581 | 82 | 23 | 82 | -- |
| 413547083481203 LU-25 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 12W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1050 | 92 | 80 | 230 | -- |
| DEC | | | | | |
| 05... | 1920 | 140 | 190 | 510 | -- |
| FEB 1997 | | | | | |
| 13... | 618 | 51 | 68 | 88 | -- |
| MAR | | | | | |
| 20... | 484 | 25 | 66 | 55 | -- |
| APR | | | | | |
| 29... | 517 | 27 | 73 | 68 | -- |
| JUN | | | | | |
| 05... | 377 | 13 | 59 | 31 | -- |
| JUL | | | | | |
| 18... | 647 | 16 | 106 | 130 | -- |
| AUG | | | | | |
| 26... | 974 | 67 | 115 | 250 | -- |
| 413547083481204 LU-25 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 12W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1030 | 77 | 89 | 230 | -- |
| DEC | | | | | |
| 05... | 2080 | 100 | 270 | 540 | -- |
| FEB 1997 | | | | | |
| 13... | 607 | 25 | 90 | 80 | -- |
| MAR | | | | | |
| 20... | 524 | 14 | 88 | 66 | -- |
| APR | | | | | |
| 29... | 743 | 18 | 134 | 110 | -- |
| JUN | | | | | |
| 05... | 524 | 23 | 70 | 69 | -- |
| JUL | | | | | |
| 18... | 814 | -- | -- | 110 | -- |
| AUG | | | | | |
| 26... | 795 | 26 | 135 | 160 | -- |
| 413547083481205 LU-25 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 12W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 1090 | 36 | 170 | 240 | -- |
| DEC | | | | | |
| 05... | 1960 | 73 | 300 | 460 | -- |
| FEB 1997 | | | | | |
| 13... | 1110 | 34 | 170 | 200 | -- |
| MAR | | | | | |
| 20... | 354 | 25 | 24 | 22 | -- |
| APR | | | | | |
| 29... | 340 | 19 | 33 | 33 | -- |
| JUN | | | | | |
| 05... | 513 | 21 | 51 | 63 | -- |
| JUL | | | | | |
| 18... | 381 | 20 | 39 | 29 | -- |
| AUG | | | | | |
| 26... | 488 | 23 | 44 | 82 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413547083481300 LU-22 NR HOLLAND OH (LAT 41 35 47N LONG 083 48 13W) | | | | | |
| NOV 1996 | | | | | |
| 14... | 987 | 39 | 150 | 160 | 0.030 |
| APR 1997 | | | | | |
| 29... | 634 | 33 | 75 | -- | -- |
| 413547083481301 LU-22 NR HOLLAND OH-LEVEL 1 (LAT 41 35 47N LONG 083 48 13W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 806 | 120 | 19 | 150 | -- |
| DEC | | | | | |
| 05... | 728 | 94 | 40 | 95 | -- |
| FEB 1997 | | | | | |
| 13... | 645 | 99 | 8.7 | 76 | -- |
| MAR | | | | | |
| 20... | 633 | 98 | 9.5 | 72 | -- |
| APR | | | | | |
| 29... | 615 | 110 | 8.2 | 70 | -- |
| JUN | | | | | |
| 05... | 504 | 75 | 14 | 58 | -- |
| JUL | | | | | |
| 18... | 622 | 100 | 8.9 | 72 | -- |
| AUG | | | | | |
| 26... | 661 | 110 | 9.4 | 110 | -- |
| 413547083481302 LU-22 NR HOLLAND OH-LEVEL 2 (LAT 41 35 47N LONG 083 48 13W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 900 | 110 | 33 | 180 | -- |
| DEC | | | | | |
| 05... | 687 | 72 | 53 | 96 | -- |
| FEB 1997 | | | | | |
| 13... | 484 | 69 | 11 | 46 | -- |
| MAR | | | | | |
| 20... | 454 | 64 | 14 | 38 | -- |
| APR | | | | | |
| 29... | 470 | 78 | 7.5 | 41 | -- |
| JUN | | | | | |
| 05... | 461 | 60 | 23 | 58 | -- |
| JUL | | | | | |
| 18... | 470 | 76 | 6.6 | 50 | -- |
| AUG | | | | | |
| 26... | 761 | 100 | 29 | 170 | -- |
| 413547083481303 LU-22 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 13W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 950 | 97 | 55 | 200 | -- |
| DEC | | | | | |
| 05... | 768 | 61 | 71 | 120 | -- |
| FEB 1997 | | | | | |
| 13... | 417 | 59 | 13 | 32 | -- |
| MAR | | | | | |
| 20... | 355 | 31 | 29 | 26 | -- |
| APR | | | | | |
| 29... | 370 | 51 | 15 | 29 | -- |
| JUN | | | | | |
| 05... | 553 | 42 | 55 | 100 | -- |
| JUL | | | | | |
| 18... | 500 | 61 | 27 | 76 | -- |
| AUG | | | | | |
| 26... | 2430 | 190 | 212 | 690 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413547083481304 LU-22 NR HOLLAND OH-LEVEL 4 (LAT 41 35 47N LONG 083 48 13W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 2540 | 76 | 430 | 580 | -- |
| DEC | | | | | |
| 05... | 793 | 48 | 110 | 130 | -- |
| FEB 1997 | | | | | |
| 13... | 472 | 40 | 56 | 52 | -- |
| MAR | | | | | |
| 20... | 467 | 25 | 59 | 49 | -- |
| APR | | | | | |
| 29... | 598 | 35 | 76 | 110 | -- |
| JUN | | | | | |
| 05... | 575 | 26 | 73 | 100 | -- |
| JUL | | | | | |
| 18... | 1640 | 86 | 203 | 440 | -- |
| AUG | | | | | |
| 26... | 842 | 74 | 66 | 190 | -- |
| 413547083481305 LU-22 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 13W) | | | | | |
| DEC 1996 | | | | | |
| 05... | -- | -- | -- | 110 | -- |
| FEB 1997 | | | | | |
| 13... | 540 | 22 | 82 | 63 | -- |
| MAR | | | | | |
| 20... | 348 | 19 | 35 | 29 | -- |
| APR | | | | | |
| 29... | 435 | 33 | 52 | 58 | -- |
| JUN | | | | | |
| 05... | 485 | 26 | 54 | 71 | -- |
| JUL | | | | | |
| 18... | 460 | 26 | 38 | 42 | -- |
| AUG | | | | | |
| 26... | 526 | 46 | 49 | 72 | -- |
| 413549083481501 LU-21 NR HOLLAND OH-LEVEL 1 (LAT 41 35 49N LONG 083 48 15W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 846 | 130 | 8.3 | 120 | -- |
| DEC | | | | | |
| 05... | 724 | 110 | 6.3 | 23 | -- |
| FEB 1997 | | | | | |
| 13... | 861 | 150 | 8.8 | 120 | -- |
| MAR | | | | | |
| 20... | 869 | -- | -- | 120 | -- |
| APR | | | | | |
| 29... | 157 | 25 | 7.9 | 13 | -- |
| JUN | | | | | |
| 05... | 851 | 150 | 9.7 | 110 | -- |
| JUL | | | | | |
| 18... | 857 | 150 | 9.6 | 120 | -- |
| AUG | | | | | |
| 26... | 791 | -- | -- | 110 | -- |
| 413549083481502 LU-21 NR HOLLAND OH-LEVEL 2 (LAT 41 35 49N LONG 083 48 15W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 411 | 59 | 4.0 | 32 | -- |
| DEC | | | | | |
| 05... | 508 | 86 | 5.7 | 48 | -- |
| FEB 1997 | | | | | |
| 13... | 357 | 52 | 4.1 | 21 | -- |
| MAR | | | | | |
| 20... | 251 | 47 | 5.2 | 9.1 | -- |
| APR | | | | | |
| 29... | 129 | 9.6 | 6.6 | 12 | -- |
| JUN | | | | | |
| 05... | 244 | 44 | 3.4 | 7.6 | -- |
| JUL | | | | | |
| 18... | 230 | 36 | 2.9 | 4.8 | -- |
| AUG | | | | | |
| 26... | 389 | 69 | 4.7 | 31 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 413549083481503 LU-21 NR HOLLAND OH-LEVEL 3 (LAT 41 35 49N LONG 083 48 15W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 267 | 38 | 2.8 | 10 | -- |
| DEC | | | | | |
| 05... | -- | 50 | 3.9 | 20 | -- |
| FEB 1997 | | | | | |
| 13... | 246 | 29 | 4.1 | 14 | -- |
| MAR | | | | | |
| 20... | 232 | 22 | 12 | 11 | -- |
| APR | | | | | |
| 29... | 135 | 8.2 | 6.8 | 12 | -- |
| JUN | | | | | |
| 05... | 203 | 22 | 7.9 | 10 | -- |
| AUG | | | | | |
| 26... | 269 | 44 | 3.2 | 13 | -- |
| 413549083481504 LU-21 NR HOLLAND OH-LEVEL 4 (LAT 41 35 49N LONG 083 48 15W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 239 | 33 | 2.6 | 6.9 | -- |
| DEC | | | | | |
| 05... | 274 | 40 | 3.5 | 12 | -- |
| FEB 1997 | | | | | |
| 13... | 137 | 11 | 5.1 | 11 | -- |
| MAR | | | | | |
| 20... | 173 | 7.9 | 17 | 11 | -- |
| APR | | | | | |
| 29... | 130 | 7.3 | 6.6 | 12 | -- |
| JUN | | | | | |
| 05... | 165 | 15 | 8.5 | 10 | -- |
| JUL | | | | | |
| 18... | 128 | 10 | 7.4 | 9.6 | -- |
| AUG | | | | | |
| 26... | 240 | 36 | 3.0 | 8.4 | -- |
| 413549083481505 LU-21 NR HOLLAND OH-LEVEL 5 (LAT 41 35 49N LONG 083 48 15W) | | | | | |
| OCT 1996 | | | | | |
| 11... | 295 | 39 | 4.6 | 11 | -- |
| DEC | | | | | |
| 05... | 203 | 27 | 4.1 | 9.6 | -- |
| FEB 1997 | | | | | |
| 13... | 136 | 13 | 4.7 | 10 | -- |
| MAR | | | | | |
| 20... | 179 | 9.0 | 16 | 11 | -- |
| APR | | | | | |
| 29... | 126 | 7.4 | 7.0 | 12 | -- |
| JUN | | | | | |
| 05... | 161 | 13 | 9.0 | 12 | -- |
| JUL | | | | | |
| 18... | 149 | 7.5 | 7.3 | 9.3 | -- |
| AUG | | | | | |
| 26... | 178 | 20 | 5.3 | 9.8 | -- |
| 415305080414201 AB-139 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 05N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 388 | 49 | 10 | 5.3 | -- |
| DEC | | | | | |
| 12... | 326 | 35 | 10 | 15 | -- |
| FEB 1997 | | | | | |
| 12... | 298 | -- | -- | 2.6 | -- |
| MAR | | | | | |
| 27... | 255 | 35 | 3.5 | 2.7 | -- |
| MAY | | | | | |
| 06... | 523 | -- | -- | 49 | -- |
| JUN | | | | | |
| 16... | 195 | 26 | 15 | 8.7 | -- |
| JUL | | | | | |
| 23... | 1010 | 76 | 115 | 160 | -- |
| SEP | | | | | |
| 04... | 748 | 53 | 93 | 99 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415305080414202 AB-139 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 05N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 364 | 58 | 11 | 4.2 | -- |
| DEC | | | | | |
| 12... | 237 | 28 | 4.1 | 3.2 | -- |
| FEB 1997 | | | | | |
| 12... | 289 | 39 | 4.9 | 2.8 | -- |
| MAR | | | | | |
| 27... | 231 | 30 | 3.6 | 2.6 | -- |
| MAY | | | | | |
| 06... | 348 | -- | -- | 2.5 | -- |
| JUN | | | | | |
| 16... | -- | 25 | 16 | 20 | -- |
| JUL | | | | | |
| 23... | 599 | 80 | 26 | 62 | -- |
| SEP | | | | | |
| 04... | 728 | 52 | 92 | 93 | -- |
| 415305080414203 AB-139 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 05N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 370 | 53 | 7.7 | 3.5 | -- |
| DEC | | | | | |
| 12... | 212 | 29 | 4.3 | 3.2 | -- |
| FEB 1997 | | | | | |
| 12... | 280 | 38 | 4.8 | 2.9 | -- |
| MAR | | | | | |
| 27... | 225 | -- | -- | 3.2 | -- |
| MAY | | | | | |
| 06... | 326 | -- | -- | 2.4 | -- |
| JUN | | | | | |
| 16... | 354 | 24 | 13 | 41 | -- |
| JUL | | | | | |
| 23... | 402 | 56 | 6.4 | 8.9 | -- |
| SEP | | | | | |
| 04... | 726 | 51 | 89 | 90 | -- |
| 415305080414204 AB-139 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 05N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 363 | 50 | 6.9 | 4.9 | -- |
| DEC | | | | | |
| 12... | 242 | 32 | 4.5 | 2.8 | -- |
| FEB 1997 | | | | | |
| 12... | 276 | 36 | 5.0 | 3.4 | -- |
| MAR | | | | | |
| 27... | 216 | 28 | 3.6 | 2.6 | -- |
| MAY | | | | | |
| 06... | 325 | 46 | 3.6 | 2.2 | -- |
| JUN | | | | | |
| 16... | 197 | 29 | 18 | 5.4 | -- |
| JUL | | | | | |
| 23... | 366 | 51 | 5.0 | 5.4 | -- |
| SEP | | | | | |
| 04... | 691 | 52 | 81 | 82 | -- |
| 415305080414205 AB-139 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 05N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | -- | 39 | 8.5 | 4.2 | -- |
| DEC | | | | | |
| 12... | 260 | 34 | 4.6 | 2.7 | -- |
| FEB 1997 | | | | | |
| 12... | 250 | 32 | 4.0 | 3.0 | -- |
| MAR | | | | | |
| 27... | 240 | 30 | 4.7 | 2.7 | -- |
| MAY | | | | | |
| 06... | 314 | 40 | 3.8 | 2.7 | -- |
| JUN | | | | | |
| 16... | 214 | -- | -- | 15 | -- |
| JUL | | | | | |
| 23... | 288 | -- | -- | 5.6 | -- |
| SEP | | | | | |
| 04... | 122 | -- | -- | 7.1 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415307080414201 AB-133 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 07N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1640 | 120 | 150 | 350 | -- |
| DEC | | | | | |
| 12... | 1650 | 95 | 170 | 370 | -- |
| FEB 1997 | | | | | |
| 12... | 2760 | 100 | 410 | 750 | -- |
| MAR | | | | | |
| 27... | 3800 | -- | -- | 1100 | -- |
| MAY | | | | | |
| 06... | 4110 | 44 | 213 | 1200 | -- |
| JUN | | | | | |
| 16... | 2230 | 110 | 309 | 530 | -- |
| JUL | | | | | |
| 23... | 2650 | 72 | 454 | 720 | -- |
| SEP | | | | | |
| 04... | 2830 | 80 | 458 | 790 | -- |
| 415307080414202 AB-133 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 07N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1350 | 36 | 220 | 260 | -- |
| DEC | | | | | |
| 12... | 1740 | 49 | 280 | 390 | -- |
| FEB 1997 | | | | | |
| 12... | 2650 | 90 | 410 | 740 | -- |
| MAR | | | | | |
| 27... | 3750 | 130 | 590 | 1100 | -- |
| MAY | | | | | |
| 06... | 4150 | 140 | 673 | 1200 | -- |
| JUN | | | | | |
| 16... | 2390 | 66 | 386 | 640 | -- |
| JUL | | | | | |
| 23... | 2690 | 75 | 455 | 680 | -- |
| SEP | | | | | |
| 04... | 2950 | 85 | 470 | 830 | -- |
| 415307080414203 AB-133 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 07N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1280 | 35 | 220 | 240 | -- |
| DEC | | | | | |
| 12... | 1890 | 50 | 290 | 450 | -- |
| FEB 1997 | | | | | |
| 12... | 2530 | 87 | 400 | 720 | -- |
| MAR | | | | | |
| 27... | 3720 | 130 | 580 | 1100 | -- |
| MAY | | | | | |
| 06... | 4200 | 140 | 649 | 1200 | -- |
| JUN | | | | | |
| 16... | 2270 | 60 | 366 | 610 | -- |
| JUL | | | | | |
| 23... | 2670 | -- | -- | 710 | -- |
| SEP | | | | | |
| 04... | 2850 | 78 | 467 | 800 | -- |
| 415307080414204 AB-133 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 07N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1320 | 34 | 220 | 250 | -- |
| DEC | | | | | |
| 12... | 1840 | 50 | 290 | 420 | -- |
| FEB 1997 | | | | | |
| 12... | 2520 | 89 | 400 | 690 | -- |
| MAR | | | | | |
| 27... | 3610 | -- | -- | 1100 | -- |
| MAY | | | | | |
| 06... | 4170 | 140 | 638 | 1200 | -- |
| JUN | | | | | |
| 16... | 2310 | 64 | 377 | 610 | -- |
| JUL | | | | | |
| 23... | 2620 | 78 | 471 | 700 | -- |
| SEP | | | | | |
| 04... | 2800 | 79 | 478 | 770 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415307080414205 AB-133 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 07N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1330 | 34 | 210 | 250 | -- |
| DEC | | | | | |
| 12... | 1790 | 48 | 280 | 400 | -- |
| FEB 1997 | | | | | |
| 12... | 2420 | 77 | 370 | 660 | -- |
| MAR | | | | | |
| 27... | 3630 | 130 | 560 | 1100 | -- |
| MAY | | | | | |
| 06... | 4030 | 130 | 622 | 1200 | -- |
| JUN | | | | | |
| 16... | 2270 | 62 | 380 | 620 | -- |
| JUL | | | | | |
| 23... | 2350 | 59 | 416 | 620 | -- |
| SEP | | | | | |
| 04... | 2740 | 78 | 456 | 770 | -- |
| 415307080414206 AB-133 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 07N LONG 080 41 42W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1230 | 34 | 210 | 240 | -- |
| DEC | | | | | |
| 12... | 1180 | 32 | 200 | 250 | -- |
| FEB 1997 | | | | | |
| 12... | 2350 | 72 | 360 | 640 | -- |
| MAR | | | | | |
| 27... | 3590 | 120 | 530 | 1000 | -- |
| MAY | | | | | |
| 06... | 3910 | 120 | 574 | 1100 | -- |
| JUN | | | | | |
| 16... | 2170 | 56 | 358 | 580 | -- |
| JUL | | | | | |
| 23... | 2170 | 52 | 379 | 540 | -- |
| 415308080414301 AB-135 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 08N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1050 | 96 | 79 | 190 | -- |
| DEC | | | | | |
| 12... | 1010 | 85 | 76 | 170 | -- |
| FEB 1997 | | | | | |
| 12... | 957 | 88 | 72 | 170 | -- |
| MAR | | | | | |
| 27... | 1050 | 100 | 81 | 200 | -- |
| MAY | | | | | |
| 06... | 1050 | 95 | 80 | 200 | -- |
| JUN | | | | | |
| 16... | 963 | 88 | 72 | 170 | -- |
| JUL | | | | | |
| 23... | 970 | 87 | 72 | 170 | -- |
| SEP | | | | | |
| 04... | 1030 | 92 | 85 | 220 | -- |
| 415308080414302 AB-135 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 08N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1000 | -- | -- | 180 | -- |
| DEC | | | | | |
| 12... | 992 | 84 | 75 | 180 | -- |
| FEB 1997 | | | | | |
| 12... | 959 | 87 | 72 | 170 | -- |
| MAR | | | | | |
| 27... | 1100 | 97 | 85 | 220 | -- |
| MAY | | | | | |
| 06... | 1010 | -- | -- | 180 | -- |
| JUN | | | | | |
| 16... | 946 | 87 | 71 | 170 | -- |
| JUL | | | | | |
| 23... | 930 | 85 | 70 | 170 | -- |
| SEP | | | | | |
| 04... | 1130 | 98 | 96 | 250 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DIS-SOLVED (MG/L AS CA) (00915) | SODIUM, DIS-SOLVED (MG/L AS NA) (00930) | CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415308080414303 AB-135 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 08N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1020 | 93 | 80 | 180 | -- |
| DEC | | | | | |
| 12... | 989 | 85 | 76 | 170 | -- |
| FEB 1997 | | | | | |
| 12... | 974 | 87 | 74 | 180 | -- |
| MAR | | | | | |
| 27... | 1080 | 99 | 85 | 210 | -- |
| MAY | | | | | |
| 06... | 994 | 91 | 75 | 190 | -- |
| JUN | | | | | |
| 16... | 942 | 85 | 70 | 170 | -- |
| JUL | | | | | |
| 23... | 939 | 96 | 73 | 160 | -- |
| SEP | | | | | |
| 04... | 1190 | 110 | 104 | 280 | -- |
| 415308080414304 AB-135 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 08N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1010 | 89 | 74 | 180 | -- |
| DEC | | | | | |
| 12... | 969 | 85 | 73 | 170 | -- |
| FEB 1997 | | | | | |
| 12... | 957 | 88 | 73 | 170 | -- |
| MAR | | | | | |
| 27... | 1020 | 96 | 77 | 200 | -- |
| MAY | | | | | |
| 06... | 992 | 91 | 75 | 180 | -- |
| JUN | | | | | |
| 16... | 939 | 83 | 68 | 180 | -- |
| JUL | | | | | |
| 23... | 947 | 88 | 70 | 170 | -- |
| 415308080414305 AB-135 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 08N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1010 | 90 | 75 | 180 | -- |
| DEC | | | | | |
| 12... | 991 | 87 | 75 | 170 | -- |
| FEB 1997 | | | | | |
| 12... | 965 | 88 | 72 | 170 | -- |
| MAR | | | | | |
| 27... | 984 | 95 | 73 | 190 | -- |
| MAY | | | | | |
| 06... | 1000 | 94 | 72 | 190 | -- |
| JUN | | | | | |
| 16... | 965 | 89 | 71 | 170 | -- |
| JUL | | | | | |
| 23... | 979 | 86 | 73 | 190 | -- |
| SEP | | | | | |
| 04... | 1140 | 110 | 96 | 290 | -- |
| 415308080414306 AB-135 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 08N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1030 | 91 | 76 | 190 | -- |
| DEC | | | | | |
| 12... | 991 | 85 | 75 | 180 | -- |
| FEB 1997 | | | | | |
| 12... | 957 | 89 | 75 | 180 | -- |
| MAR | | | | | |
| 27... | 972 | 91 | 75 | 190 | -- |
| MAY | | | | | |
| 06... | 1080 | 96 | 81 | 220 | -- |
| JUN | | | | | |
| 16... | 981 | 88 | 73 | 180 | -- |
| JUL | | | | | |
| 23... | 1020 | 92 | 76 | 190 | -- |
| SEP | | | | | |
| 04... | 937 | 95 | 70 | 190 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415309080414301 AB-136 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 09N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1620 | 74 | 230 | 370 | -- |
| DEC | | | | | |
| 12... | 1570 | 76 | 200 | 380 | -- |
| FEB 1997 | | | | | |
| 12... | 1530 | 80 | 200 | 360 | -- |
| MAR | | | | | |
| 27... | 1330 | -- | -- | 300 | -- |
| MAY | | | | | |
| 06... | 1380 | 74 | 175 | 320 | -- |
| JUN | | | | | |
| 16... | 1440 | 76 | 184 | 350 | -- |
| JUL | | | | | |
| 23... | 1730 | 86 | 220 | 430 | -- |
| SEP | | | | | |
| 04... | 2150 | 110 | 265 | 570 | -- |
| 415309080414302 AB-136 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 09N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1650 | 75 | 230 | 390 | -- |
| DEC | | | | | |
| 12... | 1610 | 76 | 210 | 380 | -- |
| FEB 1997 | | | | | |
| 12... | 1480 | 80 | 190 | 350 | -- |
| MAR | | | | | |
| 27... | 1400 | 77 | 180 | 330 | -- |
| MAY | | | | | |
| 06... | 1380 | 73 | 175 | 310 | -- |
| JUN | | | | | |
| 16... | 1460 | 77 | 193 | 360 | -- |
| JUL | | | | | |
| 23... | 1740 | 94 | 223 | 420 | -- |
| SEP | | | | | |
| 04... | 2150 | 110 | 278 | 550 | -- |
| 415309080414303 AB-136 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 09N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1630 | 74 | 230 | 380 | -- |
| DEC | | | | | |
| 12... | 1650 | 75 | 220 | 390 | -- |
| FEB 1997 | | | | | |
| 12... | 1560 | 77 | 200 | 360 | -- |
| MAR | | | | | |
| 27... | 1520 | 78 | 200 | 340 | -- |
| MAY | | | | | |
| 06... | 1380 | 75 | 175 | 320 | -- |
| JUN | | | | | |
| 16... | 1640 | 79 | 213 | 390 | -- |
| JUL | | | | | |
| 23... | 1710 | -- | -- | 410 | -- |
| SEP | | | | | |
| 04... | 2140 | 110 | 270 | 560 | -- |
| 415309080414304 AB-136 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 09N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1590 | 73 | 220 | 380 | -- |
| DEC | | | | | |
| 12... | 1650 | 72 | 220 | 390 | -- |
| FEB 1997 | | | | | |
| 12... | 1540 | 77 | 200 | 360 | -- |
| MAR | | | | | |
| 27... | 1480 | 73 | 200 | 330 | -- |
| MAY | | | | | |
| 06... | 1340 | 71 | 166 | 310 | -- |
| JUN | | | | | |
| 16... | 1600 | 80 | 214 | 400 | -- |
| JUL | | | | | |
| 23... | 1600 | 93 | 203 | 390 | -- |
| SEP | | | | | |
| 04... | 2010 | 100 | 254 | 500 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415309080414305 AB-136 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 09N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1600 | 74 | 220 | 400 | -- |
| DEC | | | | | |
| 12... | 1570 | 72 | 210 | 370 | -- |
| FEB 1997 | | | | | |
| 12... | 1610 | 81 | 210 | 370 | -- |
| MAR | | | | | |
| 27... | 1370 | 70 | 190 | 320 | -- |
| MAY | | | | | |
| 06... | 1470 | 77 | 184 | 340 | -- |
| JUN | | | | | |
| 16... | 1490 | 75 | 196 | 360 | -- |
| JUL | | | | | |
| 23... | 1720 | 87 | 207 | 420 | -- |
| SEP | | | | | |
| 04... | 1980 | 110 | 240 | 480 | -- |
| 415309080414306 AB-136 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 09N LONG 080 41 43W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 1450 | 71 | 200 | 330 | -- |
| DEC | | | | | |
| 12... | 1500 | 74 | 190 | 350 | -- |
| FEB 1997 | | | | | |
| 12... | 1440 | 78 | 180 | 330 | -- |
| MAR | | | | | |
| 27... | 1290 | 77 | 170 | 290 | -- |
| MAY | | | | | |
| 06... | 1240 | 68 | 153 | 270 | -- |
| JUN | | | | | |
| 16... | 1180 | 71 | 142 | 260 | -- |
| JUL | | | | | |
| 23... | 1320 | 76 | 157 | 290 | -- |
| SEP | | | | | |
| 04... | 1530 | 92 | 180 | 360 | -- |
| 415309080414401 AB-138 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 09N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 783 | 58 | 77 | 140 | 0.030 |
| DEC | | | | | |
| 12... | 691 | 52 | 63 | 120 | 0.040 |
| FEB 1997 | | | | | |
| 12... | 856 | 60 | 90 | 170 | 0.040 |
| MAR | | | | | |
| 27... | 683 | 53 | 70 | 130 | 0.030 |
| MAY | | | | | |
| 06... | 623 | 49 | 53 | 98 | 0.029 |
| JUN | | | | | |
| 16... | 635 | 49 | 60 | 110 | 0.033 |
| JUL | | | | | |
| 23... | 554 | 47 | 49 | 83 | 0.019 |
| SEP | | | | | |
| 04... | 544 | 56 | 38 | 76 | 0.030 |
| 415309080414402 AB-138 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 09N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 678 | 59 | 56 | 110 | 0.030 |
| DEC | | | | | |
| 12... | 629 | 54 | 48 | 93 | 0.030 |
| FEB 1997 | | | | | |
| 12... | 719 | 60 | 60 | 130 | 0.040 |
| MAR | | | | | |
| 27... | 627 | 52 | 56 | 100 | 0.030 |
| MAY | | | | | |
| 06... | 592 | 51 | 44 | 84 | 0.028 |
| JUN | | | | | |
| 16... | 576 | 53 | 50 | 87 | 0.021 |
| JUL | | | | | |
| 23... | 535 | 53 | 36 | 67 | 0.018 |
| SEP | | | | | |
| 04... | 546 | 57 | 34 | 75 | 0.030 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415309080414403 AB-138 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 09N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 630 | 55 | 44 | 89 | 0.030 |
| DEC | | | | | |
| 12... | 615 | 56 | 47 | 86 | 0.030 |
| FEB 1997 | | | | | |
| 12... | 705 | 60 | 70 | 120 | 0.030 |
| MAR | | | | | |
| 27... | 633 | 54 | 54 | 110 | 0.030 |
| MAY | | | | | |
| 06... | 543 | 58 | 31 | 69 | 0.023 |
| JUN | | | | | |
| 16... | 594 | 53 | 45 | 90 | 0.028 |
| JUL | | | | | |
| 23... | 513 | 54 | 31 | 63 | 0.015 |
| SEP | | | | | |
| 04... | 538 | 59 | 29 | 69 | 0.031 |
| 415309080414405 AB-138 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 09N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 584 | 51 | 50 | 91 | 0.030 |
| DEC | | | | | |
| 12... | 571 | 43 | 43 | 87 | 0.030 |
| FEB 1997 | | | | | |
| 12... | 597 | 51 | 49 | 110 | 0.030 |
| MAR | | | | | |
| 27... | 469 | 41 | 36 | 73 | 0.030 |
| MAY | | | | | |
| 06... | 599 | 46 | 50 | 98 | 0.032 |
| JUN | | | | | |
| 16... | 526 | 47 | 41 | 83 | 0.027 |
| JUL | | | | | |
| 23... | 436 | 45 | 32 | 59 | 0.015 |
| SEP | | | | | |
| 04... | 463 | 50 | 33 | 68 | 0.024 |
| 415309080414406 AB-138 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 09N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 741 | 53 | 74 | 130 | 0.030 |
| DEC | | | | | |
| 12... | 732 | 52 | 73 | 130 | 0.040 |
| FEB 1997 | | | | | |
| 12... | 808 | 51 | 72 | 160 | 0.040 |
| MAR | | | | | |
| 27... | 682 | 52 | 70 | 130 | 0.030 |
| MAY | | | | | |
| 06... | 663 | 48 | 58 | 120 | 0.030 |
| JUN | | | | | |
| 16... | 624 | 52 | 68 | 110 | 0.027 |
| JUL | | | | | |
| 23... | 554 | 46 | 55 | 85 | 0.016 |
| SEP | | | | | |
| 04... | 589 | 54 | 54 | 100 | 0.034 |
| 415310080414401 AB-137 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 10N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 690 | 79 | 44 | 68 | -- |
| DEC | | | | | |
| 12... | 660 | -- | -- | 70 | -- |
| FEB 1997 | | | | | |
| 12... | 659 | 72 | 44 | 83 | -- |
| MAR | | | | | |
| 27... | 689 | 72 | 46 | 82 | -- |
| MAY | | | | | |
| 06... | 672 | 67 | 46 | 82 | -- |
| JUN | | | | | |
| 16... | 695 | 69 | 48 | 91 | -- |
| JUL | | | | | |
| 23... | 699 | 69 | 50 | 92 | -- |
| SEP | | | | | |
| 04... | 724 | 80 | 47 | 100 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415310080414402 AB-137 NR KINGSVILLE OH-LEVEL 2 (LAT 41 53 10N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 674 | 70 | 44 | 70 | -- |
| DEC | | | | | |
| 12... | 640 | 62 | 43 | 72 | -- |
| FEB 1997 | | | | | |
| 12... | 654 | -- | -- | 85 | -- |
| MAR | | | | | |
| 27... | 649 | -- | -- | 81 | -- |
| MAY | | | | | |
| 06... | 670 | 63 | 46 | 83 | -- |
| JUN | | | | | |
| 16... | 685 | 68 | 51 | 91 | -- |
| JUL | | | | | |
| 23... | 700 | 75 | 50 | 90 | -- |
| SEP | | | | | |
| 04... | 717 | 86 | 47 | 110 | -- |
| 415310080414403 AB-137 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 10N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 676 | 71 | 45 | 69 | -- |
| DEC | | | | | |
| 12... | 641 | -- | -- | 75 | -- |
| FEB 1997 | | | | | |
| 12... | 640 | 72 | 45 | 88 | -- |
| MAR | | | | | |
| 27... | 642 | 65 | 47 | 80 | -- |
| MAY | | | | | |
| 06... | 672 | 64 | 47 | 81 | -- |
| JUN | | | | | |
| 16... | 683 | 68 | 51 | 90 | -- |
| JUL | | | | | |
| 23... | 695 | 71 | 47 | 89 | -- |
| SEP | | | | | |
| 04... | 712 | 80 | 46 | 100 | -- |
| 415310080414404 AB-137 NR KINGSVILLE OH-LEVEL 4 (LAT 41 53 10N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 664 | -- | -- | 70 | -- |
| DEC | | | | | |
| 12... | 638 | 61 | 42 | 72 | -- |
| FEB 1997 | | | | | |
| 12... | 670 | 72 | 45 | 89 | -- |
| MAR | | | | | |
| 27... | 638 | 63 | 47 | 80 | -- |
| MAY | | | | | |
| 06... | 667 | -- | -- | 82 | -- |
| JUN | | | | | |
| 16... | 691 | 67 | 51 | 92 | -- |
| JUL | | | | | |
| 23... | 689 | 73 | 49 | 90 | -- |
| SEP | | | | | |
| 04... | 728 | 80 | 46 | 99 | -- |
| 415310080414405 AB-137 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 10N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 663 | 68 | 47 | 72 | -- |
| DEC | | | | | |
| 12... | 646 | 65 | 43 | 73 | -- |
| FEB 1997 | | | | | |
| 12... | 671 | 72 | 44 | 88 | -- |
| MAR | | | | | |
| 27... | 639 | 68 | 46 | 80 | -- |
| MAY | | | | | |
| 06... | 665 | 64 | 48 | 80 | -- |
| JUN | | | | | |
| 16... | 704 | 68 | 53 | 97 | -- |
| JUL | | | | | |
| 23... | 691 | 67 | 50 | 91 | -- |
| SEP | | | | | |
| 04... | 719 | 76 | 44 | 99 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 THROUGH SEPTEMBER 1997--Continued

| DATE | SPECIFIC CONDUCTANCE LAB (US/CM) (90095) | CALCIUM DISSOLVED (MG/L AS CA) (00915) | SODIUM, DISSOLVED (MG/L AS NA) (00930) | CHLORIDE, DISSOLVED (MG/L AS CL) (00940) | BROMIDE DISSOLVED (MG/L AS BR) (71870) |
|---|---|---|---|---|---|
| 415310080414406 AB-137 NR KINGSVILLE OH-LEVEL 6 (LAT 41 53 10N LONG 080 41 44W) | | | | | |
| OCT 1996 | | | | | |
| 17... | 676 | 68 | 47 | 74 | -- |
| FEB 1997 | | | | | |
| 12... | 657 | 68 | 47 | 84 | -- |
| MAR | | | | | |
| 27... | 632 | -- | -- | 85 | -- |
| MAY | | | | | |
| 06... | 674 | -- | -- | 84 | -- |
| JUN | | | | | |
| 16... | 744 | 75 | 55 | 110 | -- |
| JUL | | | | | |
| 23... | 715 | 73 | 53 | 96 | -- |
| SEP | | | | | |
| 04... | 758 | 92 | 50 | 90 | -- |

SAMPLE ANALYSES FROM ONE WELL AT EACH SITE
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | PH WATER WHOLE LAB (STAND-ARD UNITS) (00403) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | CYANIDE DIS-SOLVED (MG/L AS CN) (00723) |
|---|---|---|---|---|
| 393541083000801 PK-50 NR CIRCLEVILLE OH-LEVEL 1 (LAT 39 35 41N LONG 083 00 08W) | | | | |
| OCT 1996 | | | | |
| 31... | 864 | 7.2 | 509 | <0.01 |
| 393541083000803 PK-50 NR CIRCLEVILLE OH-LEVEL 3 (LAT 39 35 41N LONG 083 00 08W) | | | | |
| APR 1997 | | | | |
| 25... | 740 | 7.4 | 430 | <0.01 |
| 393541083000804 PK-50 NR CIRCLEVILLE OH-LEVEL 4 (LAT 39 35 41N LONG 083 00 08W) | | | | |
| OCT 1996 | | | | |
| 31... | 852 | 7.2 | 501 | <0.01 |
| APR 1997 | | | | |
| 25... | 743 | 7.4 | 429 | <0.01 |
| 395859083440502 CL-140 NR SPRINGFIELD OH-LEVEL 2 (LAT 39 58 59N LONG 083 44 05W) | | | | |
| APR 1997 | | | | |
| 22... | 861 | 7.2 | 486 | <0.01 |
| 395859083440503 CL-140 NR SPRINGFIELD OH-LEVEL 3 (LAT 39 58 59N LONG 083 44 05W) | | | | |
| OCT 1996 | | | | |
| 30... | 816 | 7.1 | 457 | <0.01 |
| 395859083440504 CL-140 NR SPRINGFIELD OH-LEVEL 4 (LAT 39 58 59N LONG 083 44 05W) | | | | |
| APR 1997 | | | | |
| 22... | 865 | 7.2 | 687 | <0.01 |
| 400947083480002 CH-44 NR URBANA OH-LEVEL 2 (LAT 40 09 47N LONG 083 48 00W) | | | | |
| NOV 1996 | | | | |
| 12... | 887 | 7.2 | 479 | <0.01 |
| APR 1997 | | | | |
| 23... | 912 | 7.2 | 533 | <0.01 |
| 400947083480003 CH-44 NR URBANA OH-LEVEL 3 (LAT 40 09 47N LONG 083 48 00W) | | | | |
| NOV 1996 | | | | |
| 12... | 915 | 7.2 | 547 | <0.01 |
| APR 1997 | | | | |
| 23... | 897 | 7.2 | 538 | <0.01 |
| 403923082325702 R-18 NR LEXINGTON OH-LEVEL 2 (LAT 40 39 23N LONG 082 32 57W) | | | | |
| NOV 1996 | | | | |
| 13... | 468 | 7.0 | 250 | <0.01 |
| 403923082325704 R-18 NR LEXINGTON OH-LEVEL 4 (LAT 40 39 23N LONG 082 32 57W) | | | | |
| APR 1997 | | | | |
| 30... | 481 | 7.7 | 273 | <0.01 |
| 403923082325705 R-18 NR LEXINGTON OH-LEVEL 5 (LAT 40 39 23N LONG 082 32 57W) | | | | |
| NOV 1996 | | | | |
| 13... | 538 | 7.2 | 287 | <0.01 |
| APR 1997 | | | | |
| 30... | 473 | 8.1 | 267 | <0.01 |
| 411137081172402 PO-117 NR RAVENNA OH-LEVEL 2 (LAT 41 11 37N LONG 081 17 24W) | | | | |
| NOV 1996 | | | | |
| 18... | 1510 | 7.4 | 835 | <0.01 |

SAMPLE ANALYSES FROM ONE WELL AT EACH SITE--Continued
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095) | PH WATER WHOLE LAB (STAND-ARD UNITS) (00403) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | CYANIDE DIS-SOLVED (MG/L AS CN) (00723) |
|---|---|---|---|---|
| 411137081172403 PO-117 NR RAVENNA OH-LEVEL 3 (LAT 41 11 37N LONG 081 17 24W) | | | | |
| MAY 1997 | | | | |
| 05... | 784 | 7.6 | 436 | <0.01 |
| 411137081172404 PO-117 NR RAVENNA OH-LEVEL 4 (LAT 41 11 37N LONG 081 17 24W) | | | | |
| NOV 1996 | | | | |
| 18... | 1600 | 7.5 | 869 | <0.01 |
| MAY 1997 | | | | |
| 05... | 927 | 7.7 | 496 | <0.01 |
| 413547083481003 LU-26 NR HOLLAND OH-LEVEL 3 (LAT 41 35 47N LONG 083 48 10W) | | | | |
| NOV 1996 | | | | |
| 14... | 2390 | 7.6 | 1310 | <0.01 |
| APR 1997 | | | | |
| 29... | 386 | 8.3 | 221 | <0.01 |
| 413547083481005 LU-26 NR HOLLAND OH-LEVEL 5 (LAT 41 35 47N LONG 083 48 10W) | | | | |
| NOV 1996 | | | | |
| 14... | 1900 | 7.7 | 1010 | <0.01 |
| APR 1997 | | | | |
| 29... | 833 | 8.1 | 454 | <0.01 |
| 415309080414401 AB-138 NR KINGSVILLE OH-LEVEL 1 (LAT 41 53 09N LONG 080 41 44W) | | | | |
| NOV 1996 | | | | |
| 19... | 733 | 7.6 | 397 | <0.01 |
| 415309080414403 AB-138 NR KINGSVILLE OH-LEVEL 3 (LAT 41 53 09N LONG 080 41 44W) | | | | |
| NOV 1996 | | | | |
| 19... | 643 | 7.5 | 357 | <0.01 |
| MAY 1997 | | | | |
| 06... | 521 | 7.7 | 308 | <0.01 |
| 415309080414405 AB-138 NR KINGSVILLE OH-LEVEL 5 (LAT 41 53 09N LONG 080 41 44W) | | | | |
| MAY 1997 | | | | |
| 06... | 527 | 7.6 | 311 | <0.01 |

ADDITIONAL SAMPLE ANALYSES
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE WATER (DEG C) (00010) | HARD-NESS TOTAL (MG/L AS CACO3) (00900) | 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) | ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410) | ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 393541083001000 PK-47 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 10W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 31... | 10.54 | 620 | 7.4 | 14.0 | 330 | 83 | 29 | 6.4 | 2.2 | 268 | -- |
| APR 1997 | | | | | | | | | | | |
| 25... | 9.55 | 636 | 6.9 | 13.0 | 340 | 86 | 30 | 13 | 2.0 | -- | 264 |
| 393541083001200 PK-53 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 12W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 31... | 9.94 | 632 | 7.4 | 13.5 | 340 | 88 | 30 | 2.1 | 1.0 | 250 | -- |
| APR 1997 | | | | | | | | | | | |
| 25... | 8.95 | 603 | 7.0 | 12.0 | 350 | 91 | 30 | 2.0 | 0.76 | -- | 254 |
| 395859083440600 CL-137 NR SPRGFLD,OH (LAT 39 58 59N LONG 083 44 06W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 30... | 20.81 | 780 | 7.2 | 13.5 | 410 | 100 | 38 | 9.4 | 2.0 | 356 | -- |
| APR 1997 | | | | | | | | | | | |
| 22... | 20.25 | 814 | 6.9 | 12.0 | 430 | 110 | 41 | 13 | 3.4 | -- | 356 |
| 395901083440700 CL-136 NR SPRINGFIELD OH (LAT 39 59 01N LONG 083 44 07W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 30... | 19.16 | 753 | 7.1 | 14.0 | 420 | 100 | 40 | 4.3 | 1.2 | 360 | -- |
| APR 1997 | | | | | | | | | | | |
| 22... | 18.89 | 752 | 7.2 | 11.0 | 430 | 100 | 41 | 5.2 | 1.1 | -- | 371 |
| 400948083480200 CH-41 NR URBANA OH (LAT 40 09 48N LONG 083 48 02W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 12... | 10.32 | 968 | 7.3 | 12.0 | 400 | 100 | 36 | 51 | 4.1 | 360 | -- |
| APR 1997 | | | | | | | | | | | |
| 23... | 9.28 | 787 | 7.1 | 11.5 | 410 | 100 | 37 | 20 | 3.4 | -- | 318 |
| 400950083480600 CH-38 NR URBANA OH (LAT 40 09 50N LONG 083 48 06W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 12... | 7.62 | 726 | 7.3 | 13.5 | 390 | 95 | 36 | 3.9 | 1.9 | 312 | -- |
| APR 1997 | | | | | | | | | | | |
| 23... | 6.51 | 691 | 7.2 | 9.0 | 400 | 99 | 37 | 3.9 | 1.5 | -- | 330 |
| 403923082325400 R-21 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 54W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 13... | 16.97 | 192 | 7.1 | 12.0 | 85 | 24 | 6.0 | 1.9 | 1.2 | 54 | -- |
| APR 1997 | | | | | | | | | | | |
| 30... | 14.45 | 208 | 7.0 | 11.5 | 94 | 27 | 6.1 | 1.7 | 1.3 | -- | 66 |
| 403923082325600 R-15 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 56W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 13... | 17.02 | 268 | 7.0 | 11.5 | 89 | 24 | 7.1 | 17 | 1.0 | 64 | -- |
| APR 1997 | | | | | | | | | | | |
| 30... | 15.32 | 224 | 6.5 | 11.0 | 74 | 20 | 5.9 | 12 | 1.0 | -- | 66 |
| 411137081172100 PO-114 NR RAVENNA OH (LAT 41 11 37N LONG 081 17 21W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 18... | 1.02 | 295 | 6.8 | 9.0 | 140 | 50 | 4.6 | 10 | 1.1 | 132 | -- |
| MAY 1997 | | | | | | | | | | | |
| 05... | 1.24 | 300 | 6.8 | 9.5 | 150 | 52 | 3.9 | 6.7 | 1.1 | -- | 160 |
| 411138081172400 PO-115 NR RAVENNA OH (LAT 41 11 38N LONG 081 17 24W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 18... | 6.06 | 1100 | 7.2 | 12.5 | 160 | 54 | 5.3 | 180 | 2.8 | 200 | -- |
| MAY 1997 | | | | | | | | | | | |
| 05... | 6.33 | 2200 | 6.9 | 8.5 | 290 | 99 | 11 | 340 | 3.7 | -- | 134 |

ADDITIONAL SAMPLE ANALYSES--Continued
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | 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) | BROMIDE DIS- SOLVED (MG/L AS BR) (71870) | SILICA, DIS- SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301) | NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 393541083001000 PK-47 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 10W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 31... | 48 | 15 | 0.10 | 0.020 | 8.0 | 375 | 360 | 0.060 | 1.70 | 0.020 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 25... | -- | -- | -- | -- | 7.7 | -- | -- | -- | -- | -- | -- |
| 393541083001200 PK-53 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 12W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 31... | 42 | 15 | 0.20 | 0.020 | 8.5 | 395 | 337 | -- | -- | -- | -- |
| APR 1997 | | | | | | | | | | | |
| 25... | -- | -- | -- | -- | 8.3 | -- | -- | -- | -- | -- | -- |
| 395859083440600 CL-137 NR SPRGFLD,OH (LAT 39 58 59N LONG 083 44 06W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 30... | 31 | 10 | 0.20 | 0.020 | 12 | 431 | 460 | 0.020 | 9.90 | 0.020 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 22... | -- | -- | -- | -- | 11 | -- | -- | -- | -- | -- | -- |
| 395901083440700 CL-136 NR SPRINGFIELD OH (LAT 39 59 01N LONG 083 44 07W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 30... | 34 | 7.7 | 0.20 | 0.030 | 13 | 459 | 450 | 0.020 | 7.60 | 0.030 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 22... | -- | -- | -- | -- | 13 | -- | -- | -- | -- | -- | -- |
| 400948083480200 CH-41 NR URBANA OH (LAT 40 09 48N LONG 083 48 02W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 12... | 91 | 44 | 0.30 | 0.030 | 8.6 | 592 | 582 | 0.030 | 6.80 | <0.015 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | 8.3 | -- | -- | -- | -- | -- | -- |
| 400950083480600 CH-38 NR URBANA OH (LAT 40 09 50N LONG 083 48 06W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 12... | 79 | 15 | 0.40 | 0.020 | 7.9 | 451 | 428 | <0.010 | 0.090 | 0.030 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 23... | -- | -- | -- | -- | 6.4 | -- | -- | -- | -- | -- | -- |
| 403923082325400 R-21 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 54W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 13... | 18 | 2.4 | <0.10 | 0.020 | 9.8 | 107 | 114 | 0.040 | 4.00 | 0.020 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 30... | -- | -- | -- | -- | 9.1 | -- | -- | -- | -- | -- | -- |
| 403923082325600 R-15 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 56W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 13... | 24 | 18 | <0.10 | 0.020 | 8.8 | 153 | 153 | <0.010 | 3.40 | 0.020 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 30... | -- | -- | -- | -- | 8.5 | -- | -- | -- | -- | -- | -- |
| 411137081172100 PO-114 NR RAVENNA OH (LAT 41 11 37N LONG 081 17 21W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 18... | 24 | 3.0 | <0.10 | <0.010 | 6.2 | 180 | 181 | 0.020 | 0.550 | <0.015 | <0.20 |
| MAY 1997 | | | | | | | | | | | |
| 05... | 18 | 5.8 | -- | 0.022 | 5.9 | -- | 179 | -- | -- | -- | -- |
| 411138081172400 PO-115 NR RAVENNA OH (LAT 41 11 38N LONG 081 17 24W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 18... | 46 | 210 | 0.30 | 0.030 | 5.7 | 620 | 628 | 0.020 | 0.690 | <0.015 | <0.20 |
| MAY 1997 | | | | | | | | | | | |
| 05... | 53 | 600 | -- | 0.098 | 4.4 | -- | 1190 | -- | -- | -- | -- |

ADDITIONAL SAMPLE ANALYSES--Continued
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666) | PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671) | ARSENIC DIS-SOLVED (UG/L AS AS) (01000) | BARIUM, DIS-SOLVED (UG/L AS BA) (01005) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010) | BORON, DIS-SOLVED (UG/L AS B) (01020) | CADMIUM DIS-SOLVED (UG/L AS CD) (01025) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030) | COBALT, DIS-SOLVED (UG/L AS CO) (01035) | COPPER, DIS-SOLVED (UG/L AS CU) (01040) | IRON, DIS-SOLVED (UG/L AS FE) (01046) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 393541083001000 PK-47 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 10W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 31... | <0.010 | 0.010 | <1 | 79 | 1.5 | 41 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| APR 1997 | | | | | | | | | | | |
| 25... | -- | -- | -- | 72 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | <3.0 |
| 393541083001200 PK-53 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 12W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 31... | -- | -- | <1 | 65 | 1.5 | 23 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| APR 1997 | | | | | | | | | | | |
| 25... | -- | -- | -- | 60 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | <3.0 |
| 395859083440600 CL-137 NR SPRGFLD,OH (LAT 39 58 59N LONG 083 44 06W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 30... | 0.020 | <0.010 | <1 | 130 | 1.5 | 23 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| APR 1997 | | | | | | | | | | | |
| 22... | -- | -- | -- | 149 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | <3.0 |
| 395901083440700 CL-136 NR SPRINGFIELD OH (LAT 39 59 01N LONG 083 44 07W) | | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | | |
| 30... | <0.010 | <0.010 | <1 | 130 | 1.6 | 20 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| APR 1997 | | | | | | | | | | | |
| 22... | -- | -- | -- | 122 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | <3.0 |
| 400948083480200 CH-41 NR URBANA OH (LAT 40 09 48N LONG 083 48 02W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 12... | <0.010 | <0.010 | <1 | 89 | <0.50 | 56 | <1.0 | <1.0 | <3.0 | <10 | 48 |
| APR 1997 | | | | | | | | | | | |
| 23... | -- | -- | -- | 74 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | 51 |
| 400950083480600 CH-38 NR URBANA OH (LAT 40 09 50N LONG 083 48 06W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 12... | <0.010 | <0.010 | 2 | 76 | <0.50 | 31 | 2.0 | <1.0 | <3.0 | <10 | 880 |
| APR 1997 | | | | | | | | | | | |
| 23... | -- | -- | -- | 65 | <0.50 | -- | 1.1 | -- | <3.0 | <10 | 750 |
| 403923082325400 R-21 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 54W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 13... | <0.010 | <0.010 | <1 | 17 | <0.50 | 16 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| APR 1997 | | | | | | | | | | | |
| 30... | -- | -- | -- | 18 | <0.50 | -- | <1.0 | -- | 3.1 | <10 | 170 |
| 403923082325600 R-15 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 56W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 13... | <0.010 | 0.010 | <1 | 19 | <0.50 | 19 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| APR 1997 | | | | | | | | | | | |
| 30... | -- | -- | -- | 11 | <0.50 | -- | <1.0 | -- | 6.0 | <10 | 4.2 |
| 411137081172100 PO-114 NR RAVENNA OH (LAT 41 11 37N LONG 081 17 21W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 18... | <0.010 | <0.010 | <1 | 24 | <0.50 | 24 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| MAY 1997 | | | | | | | | | | | |
| 05... | -- | -- | -- | 24 | <0.50 | -- | 1.5 | -- | <3.0 | <10 | 13 |
| 411138081172400 PO-115 NR RAVENNA OH (LAT 41 11 38N LONG 081 17 24W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 18... | 0.050 | 0.060 | <1 | 28 | <0.50 | 65 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| MAY 1997 | | | | | | | | | | | |
| 05... | -- | -- | -- | 65 | <1.5 | -- | <3.0 | -- | <9.0 | <30 | 11 |

ADDITIONAL SAMPLE ANALYSES--Continued
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | 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) | MERCURY DIS-SOLVED (UG/L AS HG) (71890) | 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) | CYANIDE DIS-SOLVED (MG/L AS CN) (00723) |
|---|---|---|---|---|---|---|---|---|---|---|
| 393541083001000 PK-47 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 10W) | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | |
| 31... | 10 | <4 | 15 | <0.1 | <10 | 120 | <6 | 5.0 | 0.80 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 25... | <10 | <4 | 18 | -- | <10 | 128 | <6 | 6.0 | -- | <0.01 |
| 393541083001200 PK-53 NR CIRCLEVLE OH (LAT 39 35 41N LONG 083 00 12W) | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | |
| 31... | 20 | <4 | 2.0 | <0.1 | 10 | 83 | <6 | 12 | 0.80 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 25... | <10 | <4 | 3.1 | -- | <10 | 80 | <6 | 5.7 | -- | <0.01 |
| 395859083440600 CL-137 NR SPRGFLD,OH (LAT 39 58 59N LONG 083 44 06W) | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | |
| 30... | <10 | <4 | <1.0 | <0.1 | 20 | 180 | <6 | 5.0 | 0.90 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 22... | <10 | <4 | <1.0 | -- | <10 | 190 | <6 | <3.0 | -- | <0.01 |
| 395901083440700 CL-136 NR SPRINGFIELD OH (LAT 39 59 01N LONG 083 44 07W) | | | | | | | | | | |
| OCT 1996 | | | | | | | | | | |
| 30... | <10 | <4 | <1.0 | <0.1 | 10 | 370 | <6 | <3.0 | 0.80 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 22... | <10 | <4 | 1.9 | -- | <10 | 298 | <6 | <3.0 | -- | <0.01 |
| 400948083480200 CH-41 NR URBANA OH (LAT 40 09 48N LONG 083 48 02W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 12... | <10 | <4 | 120 | <0.1 | <10 | 400 | <6 | <3.0 | 1.3 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 23... | <10 | 4 | 104 | -- | 17 | 378 | <6 | 7.9 | -- | <0.01 |
| 400950083480600 CH-38 NR URBANA OH (LAT 40 09 50N LONG 083 48 06W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 12... | <10 | <4 | 120 | <0.1 | 20 | 330 | <6 | <3.0 | 1.8 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 23... | <10 | 4 | 114 | -- | 14 | 306 | <6 | <3.0 | -- | <0.01 |
| 403923082325400 R-21 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 54W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 13... | <10 | <4 | 18 | <0.1 | <10 | 44 | <6 | <3.0 | 0.50 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 30... | 17 | <4 | 246 | -- | 13 | 44 | <6 | <3.0 | -- | <0.01 |
| 403923082325600 R-15 NR LEXINGTON OH (LAT 40 39 23N LONG 082 32 56W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 13... | <10 | <4 | 2.0 | <0.1 | <10 | 45 | <6 | <3.0 | 0.60 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 30... | <10 | <4 | <1.0 | -- | <10 | 40 | <6 | 14 | -- | <0.01 |
| 411137081172100 PO-114 NR RAVENNA OH (LAT 41 11 37N LONG 081 17 21W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 18... | 20 | <4 | 8.0 | <0.1 | <10 | 100 | <6 | <3.0 | 1.6 | <0.01 |
| MAY 1997 | | | | | | | | | | |
| 05... | <10 | <4 | 28 | -- | <10 | 103 | <6 | 9.0 | -- | <0.01 |
| 411138081172400 PO-115 NR RAVENNA OH (LAT 41 11 38N LONG 081 17 24W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 18... | <10 | <4 | <1.0 | <0.1 | 10 | 150 | <6 | <3.0 | -- | <0.01 |
| MAY 1997 | | | | | | | | | | |
| 05... | <30 | <12 | <3.0 | -- | <30 | 350 | <18 | <9.0 | -- | <0.01 |

ADDITIONAL SAMPLE ANALYSES--Continued
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE WATER (DEG C) (00010) | HARD-NESS TOTAL (MG/L AS CACO3) (00900) | 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) | ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410) | ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 413547083481300 LU-22 NR HOLLAND OH (LAT 41 35 47N LONG 083 48 13W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 14... | 6.94 | 1010 | 7.7 | 14.5 | 120 | 39 | 5.5 | 150 | 2.6 | 160 | -- |
| APR 1997 | | | | | | | | | | | |
| 29... | 4.62 | 568 | 7.7 | 11.5 | 110 | 33 | 5.6 | 75 | 2.2 | -- | 88 |
| 413549083481500 LU-21 NR HOLLAND OH (LAT 41 35 49N LONG 083 48 15W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 14... | 6.30 | 290 | 7.2 | 13.5 | 130 | 42 | 5.5 | 3.1 | 1.3 | 74 | -- |
| APR 1997 | | | | | | | | | | | |
| 29... | 3.05 | 212 | 7.4 | 10.0 | 87 | 25 | 5.9 | 5.3 | 1.5 | -- | 62 |
| 415305080414200 AB-139 NR KINGSVILLE OH (LAT 41 53 05N LONG 080 41 42W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 19... | 3.23 | 365 | 7.4 | 12.5 | 190 | 61 | 10 | 49 | 0.90 | 122 | -- |
| MAY 1997 | | | | | | | | | | | |
| 06... | 8.93 | 383 | 7.4 | 10.0 | 190 | 59 | 11 | 39 | 0.81 | -- | 156 |
| 415307080414200 AB-133 NR KINGSVILLE OH (LAT 41 53 07N LONG 080 41 42W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 19... | 3.26 | 1300 | 7.1 | 12.0 | 110 | 36 | 5.7 | 210 | 1.6 | 180 | -- |
| MAY 1997 | | | | | | | | | | | |
| 06... | 6.22 | 3820 | 7.1 | 9.5 | 480 | 150 | 26 | 619 | 3.2 | -- | 206 |

| DATE | 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) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) | SILICA, DIS-SOLVED (MG/L AS SIO2) (00955) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 413547083481300 LU-22 NR HOLLAND OH (LAT 41 35 47N LONG 083 48 13W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 14... | 50 | 160 | 0.10 | 0.030 | 8.0 | 558 | 533 | <0.010 | 4.80 | 0.070 | 0.40 |
| APR 1997 | | | | | | | | | | | |
| 29... | -- | -- | -- | -- | 6.1 | -- | -- | -- | -- | -- | -- |
| 413549083481500 LU-21 NR HOLLAND OH (LAT 41 35 49N LONG 083 48 15W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 14... | 35 | 18 | <0.10 | 0.020 | 8.7 | 168 | 159 | <0.010 | 0.090 | 0.050 | <0.20 |
| APR 1997 | | | | | | | | | | | |
| 29... | -- | -- | -- | -- | 7.3 | -- | -- | -- | -- | -- | -- |
| 415305080414200 AB-139 NR KINGSVILLE OH (LAT 41 53 05N LONG 080 41 42W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 19... | 60 | 76 | 0.30 | 0.010 | 12 | 371 | 344 | <0.010 | 0.220 | 0.020 | <0.20 |
| MAY 1997 | | | | | | | | | | | |
| 06... | 62 | 83 | -- | 0.071 | 12 | -- | 345 | -- | -- | -- | -- |
| 415307080414200 AB-133 NR KINGSVILLE OH (LAT 41 53 07N LONG 080 41 42W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 19... | 46 | 250 | 0.10 | 0.040 | 5.7 | 676 | 664 | 0.010 | 0.140 | <0.015 | <0.20 |
| MAY 1997 | | | | | | | | | | | |
| 06... | 64 | 1100 | -- | 0.17 | 6.8 | -- | 2070 | -- | -- | -- | -- |

ADDITIONAL SAMPLE ANALYSES--Continued
WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666) | PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671) | ARSENIC DIS-SOLVED (UG/L AS AS) (01000) | BARIUM, DIS-SOLVED (UG/L AS BA) (01005) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010) | BORON, DIS-SOLVED (UG/L AS B) (01020) | CADMIUM DIS-SOLVED (UG/L AS CD) (01025) | CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030) | COBALT, DIS-SOLVED (UG/L AS CO) (01035) | COPPER, DIS-SOLVED (UG/L AS CU) (01040) | IRON, DIS-SOLVED (UG/L AS FE) (01046) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 413547083481300 LU-22 NR HOLLAND OH (LAT 41 35 47N LONG 083 48 13W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 14... | 0.020 | 0.030 | 2 | 49 | <0.50 | 28 | 2.0 | <1.0 | <3.0 | <10 | 320 |
| APR 1997 | | | | | | | | | | | |
| 29... | -- | -- | -- | 32 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | 260 |
| 413549083481500 LU-21 NR HOLLAND OH (LAT 41 35 49N LONG 083 48 15W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 14... | <0.010 | 0.020 | 1 | 40 | <0.50 | 23 | <1.0 | <1.0 | <3.0 | <10 | 660 |
| APR 1997 | | | | | | | | | | | |
| 29... | -- | -- | -- | 36 | <0.50 | -- | <1.0 | -- | <3.0 | <10 | 46 |
| 415305080414200 AB-139 NR KINGSVILLE OH (LAT 41 53 05N LONG 080 41 42W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 19... | <0.010 | <0.010 | <1 | 30 | <0.50 | 38 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| MAY 1997 | | | | | | | | | | | |
| 06... | -- | -- | -- | 28 | <0.50 | -- | 2.7 | -- | <3.0 | <10 | 3.9 |
| 415307080414200 AB-133 NR KINGSVILLE OH (LAT 41 53 07N LONG 080 41 42W) | | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | | |
| 19... | <0.010 | <0.010 | <1 | 42 | <0.50 | 37 | <1.0 | <1.0 | <3.0 | <10 | <3.0 |
| MAY 1997 | | | | | | | | | | | |
| 06... | -- | -- | -- | 184 | <1.5 | -- | 11 | -- | <9.0 | <30 | <9.0 |

| DATE | 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) | MERCURY DIS-SOLVED (UG/L AS HG) (71890) | 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) | CYANIDE DIS-SOLVED (MG/L AS CN) (00723) |
|---|---|---|---|---|---|---|---|---|---|---|
| 413547083481300 LU-22 NR HOLLAND OH (LAT 41 35 47N LONG 083 48 13W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 14... | <10 | <4 | 71 | <0.1 | <10 | 200 | 8 | <3.0 | 2.8 | 0.01 |
| APR 1997 | | | | | | | | | | |
| 29... | 12 | <4 | 47 | -- | <10 | 136 | <6 | <3.0 | -- | <0.01 |
| 413549083481500 LU-21 NR HOLLAND OH (LAT 41 35 49N LONG 083 48 15W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 14... | <10 | <4 | 100 | <0.1 | <10 | 99 | <6 | 5.0 | 1.5 | <0.01 |
| APR 1997 | | | | | | | | | | |
| 29... | <10 | <4 | 11 | -- | 12 | 72 | <6 | 5.0 | -- | <0.01 |
| 415305080414200 AB-139 NR KINGSVILLE OH (LAT 41 53 05N LONG 080 41 42W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 19... | 20 | 5 | 150 | <0.1 | <10 | 100 | <6 | <3.0 | -- | <0.01 |
| MAY 1997 | | | | | | | | | | |
| 06... | <10 | 5 | 101 | -- | <10 | 98 | <6 | <3.0 | -- | <0.01 |
| 415307080414200 AB-133 NR KINGSVILLE OH (LAT 41 53 07N LONG 080 41 42W) | | | | | | | | | | |
| NOV 1996 | | | | | | | | | | |
| 19... | <10 | <4 | 1.0 | <0.1 | <10 | 86 | <6 | <3.0 | -- | <0.01 |
| MAY 1997 | | | | | | | | | | |
| 06... | <30 | <12 | 3.5 | -- | <30 | 423 | <18 | <9.0 | -- | <0.01 |

The following table lists ground-water level measurements from wells located throughout the seven sites in 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) |
|---|---|---|---|---|---|---|
| 393540083001200 | PK-46 NR CIRCLEVILLE, OH | 34.6 | 112OTSH | 10-24-96 | 10.51 | 679.16 |
| | | | | 12-09-96 | 10.73 | |
| | | | | 02-06-97 | 10.21 | |
| | | | | 03-17-97 | 9.22 | |
| | | | | 04-25-97 | 9.64 | |
| | | | | 06-10-97 | 9.55 | |
| | | | | 07-25-97 | 10.36 | |
| | | | | 08-28-97 | 9.72 | |
| 393541083000700 | PK-44 NR CIRCLEVILLE OH | 38 | 112OTSH | 10-24-96 | 12.05 | 679.54 |
| | | | | 12-09-96 | 12.22 | |
| | | | | 02-06-97 | 11.76 | |
| | | | | 03-17-97 | 10.75 | |
| | | | | 04-25-97 | 11.19 | |
| | | | | 06-10-97 | 11.13 | |
| | | | | 07-25-97 | 11.90 | |
| | | | | 08-28-97 | 11.28 | |
| 393541083000800 | PK-50 NR CIRCLEVILLE OH | 34.3 | 112OTSH | 10-24-96 | 11.72 | 679.62 |
| | | | | 10-31-96 | 11.89 | |
| | | | | 12-09-96 | 11.94 | |
| | | | | 02-06-97 | 11.46 | |
| | | | | 03-17-97 | 10.26 | |
| | | | | 04-25-97 | 10.72 | |
| | | | | 06-10-97 | 10.72 | |
| | | | | 07-25-97 | 11.65 | |
| | | | | 08-28-97 | 10.88 | |
| 393541083000900 | PK-49 NR CIRCLEVILLE OH | 35.6 | 112OTSH | 10-24-96 | 11.42 | 679.51 |
| | | | | 12-09-96 | 11.62 | |
| | | | | 02-06-97 | 11.05 | |
| | | | | 03-17-97 | 10.10 | |
| | | | | 04-25-97 | 10.35 | |
| | | | | 06-10-97 | 10.53 | |
| | | | | 07-25-97 | 11.24 | |
| | | | | 08-28-97 | 10.64 | |
| 393541083001000 | PK-47 NR CIRCLEVILLE OH | 36.1 | 112OTSH | 10-24-96 | 10.37 | 678.37 |
| | | | | 10-31-96 | 10.54 | |
| | | | | 12-09-96 | 10.60 | |
| | | | | 02-06-97 | 10.04 | |
| | | | | 03-17-97 | 9.13 | |
| | | | | 04-25-97 | 9.55 | |
| | | | | 06-10-97 | 9.38 | |
| | | | | 07-25-97 | 10.21 | |
| | | | | 08-28-97 | 9.55 | |
| 393541083001100 | PK-48 NR CIRCLEVILLE OH | 28.0 | 112OTSH | 10-24-96 | 10.61 | 678.50 |
| | | | | 12-09-96 | 10.83 | |
| | | | | 02-06-97 | 10.39 | |
| | | | | 03-17-97 | 9.38 | |
| | | | | 04-25-97 | 9.79 | |
| | | | | 06-10-97 | 9.73 | |
| | | | | 07-25-97 | 10.49 | |
| | | | | 08-28-97 | 9.87 | |
| 393541083001200 | PK-53 NR CIRCLEVILLE OH | 35.6 | 112OTSH | 10-24-96 | 9.81 | 678.50 |
| | | | | 10-31-96 | 9.94 | |
| | | | | 12-09-96 | 10.03 | |
| | | | | 02-06-97 | 10.48 | |
| | | | | 03-17-97 | 8.51 | |
| | | | | 04-25-97 | 8.95 | |
| | | | | 06-10-97 | 8.84 | |
| | | | | 07-25-97 | 9.65 | |
| | | | | 08-28-97 | 9.02 | |
| 393542083000500 | PK-52 NR CIRCLEVILLE OH | 36.2 | 112OTSH | 10-24-96 | 11.82 | 679.58 |
| | | | | 12-09-96 | 12.09 | |
| | | | | 02-06-97 | 11.58 | |
| | | | | 03-17-97 | 10.30 | |
| | | | | 04-25-97 | 10.87 | |
| | | | | 06-10-97 | 10.78 | |
| | | | | 07-25-97 | 11.57 | |
| | | | | 08-28-97 | 10.94 | |

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 | 10-24-96 | 11.63 | 679.63 |
| | | | | 12-09-96 | 11.83 | |
| | | | | 02-06-97 | 11.32 | |
| | | | | 03-17-97 | 10.35 | |
| | | | | 04-25-97 | 10.78 | |
| | | | | 06-10-97 | 10.71 | |
| | | | | 07-25-97 | 11.49 | |
| | | | | 08-28-97 | 10.88 | |
| 395858083440100 | CL-133 NR SPRINGFIELD OH | 22.3 | 112OTSH | 03-12-97 | 14.39 | 1024.24 |
| 395859083440200 | CL-141 NR SPRINGFIELD OH | 37.5 | 112OTSH | 10-22-96 | 19.93 | 1030.70 |
| | | | | 11-27-96 | 20.92 | |
| | | | | 03-12-97 | 20.84 | |
| | | | | 04-22-97 | 19.63 | |
| 395859083440300 | CL-143 NR SPRINGFIELD OH | 40.0 | 112OTSH | 10-22-96 | 18.72 | 1029.45 |
| | | | | 11-27-96 | 19.69 | |
| | | | | 03-12-97 | 19.62 | |
| | | | | 04-22-97 | 18.39 | |
| 395859083440400 | CL-142 NR SPRINGFIELD OH | 35.9 | 112OTSH | 10-22-96 | 19.25 | 1030.00 |
| | | | | 11-27-96 | 20.22 | |
| | | | | 03-12-97 | 20.14 | |
| | | | | 04-22-97 | 18.91 | |
| 395859083440500 | CL-140 NR SPRINGFIELD OH | 36.7 | 112OTSH | 10-22-96 | 19.80 | 1030.49 |
| | | | | 10-30-96 | 20.03 | |
| | | | | 11-27-96 | 20.78 | |
| | | | | 03-12-97 | 20.72 | |
| | | | | 04-22-97 | 19.48 | |
| 395859083440600 | CL-137 NR SPRINGFIELD OH | 38.0 | 112OTSH | 10-22-96 | 20.57 | 1031.34 |
| | | | | 10-30-96 | 20.81 | |
| | | | | 11-27-96 | 21.55 | |
| | | | | 03-12-97 | 21.47 | |
| | | | | 04-22-97 | 20.25 | |
| | | | | 07-17-97 | 19.38 | |
| 395859083440700 | CL-138 NR SPRINGFIELD OH | 28.5 | 112OTSH | 10-22-96 | 20.83 | 1031.61 |
| | | | | 11-27-96 | 21.82 | |
| | | | | 01-29-97 | 22.12 | |
| | | | | 03-12-97 | 21.71 | |
| | | | | 04-22-97 | 20.54 | |
| | | | | 06-04-97 | 17.74 | |
| | | | | 07-17-97 | 19.64 | |
| | | | | 08-27-97 | 19.60 | |
| 395859083440800 | CL-139 NR SPRINGFIELD OH | 36.9 | 112OTSH | 10-22-96 | 20.15 | 1031.33 |
| | | | | 11-27-96 | 21.14 | |
| | | | | 03-12-97 | 21.05 | |
| | | | | 04-22-97 | 19.86 | |
| | | | | 07-17-97 | 18.99 | |
| 395901083440600 | CL-135 NR SPRINGFIELD OH | 37.2 | 112OTSH | 10-22-96 | 18.60 | 1031.89 |
| | | | | 11-27-96 | 19.04 | |
| | | | | 03-12-97 | 18.69 | |
| | | | | 04-22-97 | 18.51 | |
| 395901083440700 | CL-136 NR SPRINGFIELD OH | 37.5 | 112OTSH | 10-22-96 | 19.01 | 1032.08 |
| | | | | 10-30-96 | 19.16 | |
| | | | | 11-27-96 | 19.43 | |
| | | | | 03-12-97 | 19.08 | |
| | | | | 04-22-97 | 18.80 | |
| | | | | 07-17-97 | 18.53 | |
| 400947083480000 | CH-44 NR URBANA OH | 31.0 | 112OTSH | 10-10-96 | 9.93 | 1029.71 |
| | | | | 11-12-96 | 10.10 | |
| | | | | 12-06-96 | 9.13 | |
| | | | | 03-12-97 | 7.79 | |
| | | | | 04-23-97 | 9.00 | |
| | | | | 07-17-97 | 9.09 | |
| 400948083475800 | CH-46 NR URBANA OH | 34.8 | 112OTSH | 10-10-96 | 8.84 | 1028.56 |
| | | | | 12-06-96 | 8.00 | |
| | | | | 03-12-97 | 6.78 | |
| | | | | 04-23-97 | 7.96 | |
| | | | | 07-17-97 | 8.14 | |

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) |
|---|---|---|---|---|---|---|
| 400948083480000 | CH-45 NR URBANA OH | 34.4 | 112OTSH | 10-10-96 | 9.49 | 1029.26 |
| | | | | 12-06-96 | 8.63 | |
| | | | | 03-12-97 | 7.37 | |
| | | | | 04-23-97 | 8.60 | |
| | | | | 07-17-97 | 8.75 | |
| 400948083480100 | CH-43 NR URBANA OH | 32.2 | 112OTSH | 10-10-96 | 9.76 | 1029.48 |
| | | | | 12-06-96 | 8.87 | |
| | | | | 03-12-97 | 7.60 | |
| | | | | 04-23-97 | 8.87 | |
| | | | | 07-17-97 | 9.01 | |
| 400948083480200 | CH-41 NR URBANA OH | 34.3 | 112OTSH | 10-10-96 | 10.18 | 1029.98 |
| | | | | 11-12-96 | 10.32 | |
| | | | | 12-06-96 | 9.32 | |
| | | | | 03-12-97 | 8.03 | |
| | | | | 04-23-97 | 9.28 | |
| | | | | 07-17-97 | 9.43 | |
| 400949083480100 | CH-42 NR URBANA OH | 28.7 | 112OTSH | 10-10-96 | 10.14 | 1029.89 |
| | | | | 12-06-96 | 9.27 | |
| | | | | 01-29-97 | 8.80 | |
| | | | | 03-12-97 | 8.00 | |
| | | | | 04-23-97 | 9.24 | |
| | | | | 07-17-97 | 9.39 | |
| | | | | 08-27-97 | 9.79 | |
| 400950083480600 | CH-38 NR URBANA OH | 19.2 | 112OTSH | 10-10-96 | 7.45 | 1027.30 |
| | | | | 11-12-96 | 7.62 | |
| | | | | 12-06-96 | 6.58 | |
| | | | | 04-23-97 | 6.51 | |
| | | | | 07-17-97 | 6.69 | |
| 400952083480800 | CH-40 NR URBANA OH | 34.7 | 112OTSH | 10-10-96 | 8.14 | 1028.95 |
| | | | | 12-06-96 | 7.32 | |
| | | | | 04-23-97 | 7.22 | |
| | | | | 07-17-97 | 7.32 | |
| 403922082325900 | R-19 NR LEXINGTON OH | 30.0 | 112OTSH | 10-16-96 | 13.16 | 1164.90 |
| | | | | 12-03-96 | 12.19 | |
| | | | | 01-30-97 | 10.82 | |
| | | | | 03-21-97 | 9.57 | |
| | | | | 04-30-97 | 11.73 | |
| | | | | 06-06-97 | 9.45 | |
| | | | | 07-16-97 | 12.35 | |
| | | | | 09-03-97 | 12.95 | |
| 403922082330000 | R-20 NR LEXINGTON OH | 34.2 | 112OTSH | 10-16-96 | 9.88 | 1161.26 |
| | | | | 12-03-96 | 8.83 | |
| | | | | 01-30-97 | 7.71 | |
| | | | | 03-21-97 | 6.37 | |
| | | | | 04-30-97 | 8.56 | |
| | | | | 06-06-97 | 6.30 | |
| | | | | 07-16-97 | 9.15 | |
| | | | | 09-03-97 | 9.68 | |
| 403923082325400 | R-21 NR LEXINGTON OH | 25.0 | 112OTSH | 10-16-96 | 16.64 | 1185.19 |
| | | | | 11-13-96 | 16.97 | |
| | | | | 12-03-96 | 12.09 | |
| | | | | 01-30-97 | 10.27 | |
| | | | | 03-21-97 | 7.54 | |
| | | | | 04-30-97 | 14.45 | |
| | | | | 06-06-97 | 5.59 | |
| | | | | 07-16-97 | 16.39 | |
| | | | | 09-03-97 | 16.84 | |
| 403923082325500 | R-16 NR LEXINGTON OH | 18.9 | 112OTSH | 10-16-96 | 16.59 | 1168.37 |
| | | | | 12-03-96 | 15.39 | |
| | | | | 01-30-97 | 12.68 | |
| | | | | 03-21-97 | 11.68 | |
| | | | | 04-30-97 | 14.06 | |
| | | | | 06-06-97 | 11.39 | |
| | | | | 07-16-97 | 15.82 | |
| | | | | 09-03-97 | 16.42 | |

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) |
|---|---|---|---|---|---|---|
| 403923082325600 | R-15 NR LEXINGTON OH | 23.0 | 112OTSH | 10-16-96 | 16.87 | 1168.39 |
| | | | | 11-13-96 | 17.02 | |
| | | | | 12-03-96 | 14.99 | |
| | | | | 01-30-97 | 12.91 | |
| | | | | 03-21-97 | 11.72 | |
| | | | | 04-30-97 | 15.32 | |
| | | | | 06-06-97 | 12.73 | |
| | | | | 07-16-97 | 16.19 | |
| | | | | 09-03-97 | 16.74 | |
| 403923082325700 | R-18 NR LEXINGTON OH | 23.0 | 112OTSH | 10-16-96 | 15.07 | 1167.10 |
| | | | | 11-13-96 | 15.22 | |
| | | | | 12-03-96 | 14.10 | |
| | | | | 01-30-97 | 12.56 | |
| | | | | 03-21-97 | 11.12 | |
| | | | | 04-30-97 | 13.53 | |
| | | | | 06-06-97 | 10.96 | |
| | | | | 07-16-97 | 14.22 | |
| | | | | 09-03-97 | 14.85 | |
| 403923082325800 | R-12 NR LEXINGTON OH | 22.0 | 112OTSH | 10-16-96 | 15.23 | 1167.02 |
| | | | | 12-03-96 | 14.24 | |
| | | | | 01-30-97 | 12.75 | |
| | | | | 03-21-97 | 11.36 | |
| | | | | 04-30-97 | 13.70 | |
| | | | | 06-06-97 | 11.20 | |
| | | | | 07-16-97 | 14.39 | |
| | | | | 09-03-97 | 15.03 | |
| 403923082325900 | R-17 NR LEXINGTON OH | 23.2 | 112OTSH | 10-16-96 | 14.68 | 1166.89 |
| | | | | 12-03-96 | 13.72 | |
| | | | | 01-30-97 | 12.18 | |
| | | | | 03-21-97 | 10.72 | |
| | | | | 04-30-97 | 13.14 | |
| | | | | 06-06-97 | 10.56 | |
| | | | | 07-16-97 | 13.86 | |
| | | | | 09-03-97 | 14.47 | |
| 403923082330000 | R-13 NR LEXINGTON OH | 30 | 112OTSH | 10-16-96 | 11.02 | 1162.27 |
| | | | | 12-03-96 | 10.03 | |
| | | | | 01-30-97 | 5.34 | |
| | | | | 03-21-97 | 7.86 | |
| | | | | 04-30-97 | 9.73 | |
| | | | | 06-06-97 | 7.90 | |
| | | | | 07-16-97 | 10.30 | |
| | | | | 09-03-97 | 10.84 | |
| 403925082325600 | R-14 NR LEXINGTON OH | 30 | 112OTSH | 10-16-96 | 19.44 | 1185.01 |
| | | | | 12-03-96 | 14.90 | |
| | | | | 01-30-97 | 13.12 | |
| | | | | 03-21-97 | 10.39 | |
| | | | | 04-30-97 | 17.25 | |
| | | | | 06-06-97 | 8.74 | |
| | | | | 07-16-97 | 19.19 | |
| | | | | 09-03-97 | 19.66 | |
| 411136081172400 | PO-122 NR RAVENNA OH | 24 | 112OTSH | 12-11-96 | 2.37 | 1065.22 |
| | | | | 02-03-97 | 3.02 | |
| | | | | 03-26-97 | 2.70 | |
| | | | | 05-05-97 | 3.05 | |
| | | | | 06-18-97 | 3.23 | |
| | | | | 07-22-97 | 4.86 | |
| | | | | 09-05-97 | 5.44 | |
| 411136081172500 | PO-119 NR RAVENNA OH | 11.0 | 112OTSH | 10-18-96 | 3.66 | 1064.91 |
| 411136081172600 | PO-120 NR RAVENNA OH | 10.4 | 112OTSH | 10-18-96 | 2.68 | 1063.89 |
| | | | | 12-11-96 | 0.43 | |
| 411137081172100 | PO-114 NR RAVENNA OH | 12.3 | 112OTSH | 10-18-96 | 2.58 | 1064.40 |
| | | | | 11-05-96 | 1.65 | |
| | | | | 11-18-96 | 1.02 | |
| | | | | 12-11-96 | 0.29 | |
| | | | | 02-03-97 | 1.07 | |
| | | | | 03-26-97 | 0.79 | |
| | | | | 05-05-97 | 1.24 | |
| | | | | 06-18-97 | 1.24 | |
| | | | | 07-22-97 | 3.40 | |
| | | | | 09-05-97 | 4.48 | |

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) |
|---|---|---|---|---|---|---|
| 411137081172300 | PO-118 NR RAVENNA OH | 19.0 | 112OTSH | 10-18-96 | 5.84 | 1067.14 |
| | | | | 12-11-96 | 4.31 | |
| | | | | 02-03-97 | 4.90 | |
| | | | | 03-26-97 | 4.56 | |
| | | | | 05-05-97 | 4.86 | |
| | | | | 06-18-97 | 5.04 | |
| | | | | 07-22-97 | 6.70 | |
| 411137081172400 | PO-117 NR RAVENNA OH | 18.5 | 112OTSH | 10-18-96 | 5.54 | 1066.86 |
| | | | | 11-18-96 | 4.32 | |
| | | | | 12-11-96 | 4.02 | |
| | | | | 02-03-97 | 4.61 | |
| | | | | 03-26-97 | 4.26 | |
| | | | | 05-05-97 | 4.59 | |
| | | | | 06-18-97 | 4.75 | |
| | | | | 07-22-97 | 6.45 | |
| | | | | 09-05-97 | 7.04 | |
| 411137081172500 | PO-112 NR RAVENNA OH | 8.5 | 112OTSH | 10-18-96 | 3.14 | 1064.50 |
| | | | | 12-11-96 | 1.13 | |
| | | | | 02-03-97 | 2.23 | |
| | | | | 03-26-97 | 1.86 | |
| | | | | 07-22-97 | 4.05 | |
| | | | | 09-05-97 | 4.68 | |
| 411138081172100 | PO-111 NR RAVENNA OH | 10.0 | 112OTSH | 10-18-96 | 2.01 | 1063.92 |
| | | | | 02-03-97 | 0.69 | |
| | | | | 03-26-97 | 0.38 | |
| | | | | 05-05-97 | 0.78 | |
| | | | | 06-18-97 | 0.89 | |
| | | | | 07-22-97 | 2.79 | |
| | | | | 09-05-97 | 3.71 | |
| 411138081172400 | PO-115 NR RAVENNA OH | 17.5 | 112OTSH | 10-18-96 | 7.27 | 1068.59 |
| | | | | 11-18-96 | 6.06 | |
| | | | | 12-11-96 | 5.83 | |
| | | | | 02-03-97 | 6.31 | |
| | | | | 03-26-97 | 5.97 | |
| | | | | 05-05-97 | 6.33 | |
| | | | | 06-18-97 | 6.42 | |
| | | | | 07-22-97 | 8.13 | |
| | | | | 09-05-97 | 8.71 | |
| 411138081172500 | PO-116 NR RAVENNA OH | 17.5 | 112OTSH | 11-05-96 | 6.41 | 1068.39 |
| | | | | 12-11-96 | 5.75 | |
| | | | | 02-03-97 | 6.20 | |
| | | | | 03-26-97 | 5.84 | |
| | | | | 06-18-97 | 6.31 | |
| | | | | 07-22-97 | 7.98 | |
| | | | | 09-05-97 | 8.56 | |
| 411138081172600 | PO-121 NR RAVENNA OH | 18.4 | 112OTSH | 10-18-96 | 6.98 | 1068.24 |
| | | | | 12-11-96 | 5.49 | |
| | | | | 02-03-97 | 6.05 | |
| | | | | 03-26-97 | 5.71 | |
| | | | | 05-05-97 | 6.02 | |
| | | | | 06-18-97 | 6.17 | |
| | | | | 07-22-97 | 7.82 | |
| | | | | 09-05-97 | 8.42 | |
| 413546083480900 | LU-28 NR HOLLAND OH | 28.2 | 112LAKE | 10-11-96 | 7.60 | 676.61 |
| | | | | 12-05-96 | 7.13 | |
| | | | | 02-13-97 | 5.33 | |
| | | | | 03-20-97 | 3.95 | |
| | | | | 04-29-97 | 4.89 | |
| | | | | 06-05-97 | 3.57 | |
| | | | | 07-18-97 | 5.35 | |
| | | | | 08-26-97 | 6.09 | |
| 413547083481000 | LU-26 NR HOLLAND OH | 29.6 | 112LAKE | 10-11-96 | 7.14 | 676.75 |
| | | | | 11-14-96 | 6.68 | |
| | | | | 12-05-96 | 6.56 | |
| | | | | 02-13-97 | 4.77 | |
| | | | | 03-20-97 | 3.48 | |
| | | | | 04-29-97 | 4.32 | |
| | | | | 06-05-97 | 3.16 | |
| | | | | 07-18-97 | 4.82 | |
| | | | | 08-26-97 | 5.48 | |

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) |
|---|---|---|---|---|---|---|
| 413547083481100 | LU-27 NR HOLLAND OH | 28.4 | 112LAKE | 10-11-96 | 6.87 | 676.39 |
| | | | | 12-05-96 | 6.39 | |
| | | | | 02-13-97 | 4.59 | |
| | | | | 03-20-97 | 3.24 | |
| | | | | 04-29-97 | 4.13 | |
| | | | | 06-05-97 | 2.87 | |
| | | | | 07-18-97 | 4.60 | |
| | | | | 08-26-97 | 5.29 | |
| 413547083481200 | LU-25 NR HOLLAND OH | 29.4 | 112LAKE | 10-11-96 | 7.03 | 676.68 |
| | | | | 12-05-96 | 6.50 | |
| | | | | 02-13-97 | 4.74 | |
| | | | | 03-20-97 | 3.42 | |
| | | | | 04-29-97 | 4.30 | |
| | | | | 06-05-97 | 3.10 | |
| | | | | 07-18-97 | 4.76 | |
| | | | | 08-26-97 | 5.41 | |
| 413547083481300 | LU-22 NR HOLLAND OH | 28.3 | 112LAKE | 10-11-96 | 7.33 | 677.08 |
| | | | | 11-14-96 | 6.94 | |
| | | | | 12-05-96 | 6.81 | |
| | | | | 02-13-97 | 5.07 | |
| | | | | 03-20-97 | 3.81 | |
| | | | | 04-29-97 | 4.62 | |
| | | | | 06-05-97 | 3.37 | |
| | | | | 07-18-97 | 5.09 | |
| | | | | 08-26-97 | 5.69 | |
| 413547083481400 | LU-23 NR HOLLAND OH | 29.4 | 112LAKE | 10-11-96 | 7.23 | 676.97 |
| | | | | 12-05-96 | 6.72 | |
| | | | | 02-13-97 | 4.96 | |
| | | | | 03-20-97 | 3.67 | |
| | | | | 04-29-97 | 4.51 | |
| | | | | 06-05-97 | 3.40 | |
| | | | | 07-18-97 | 4.99 | |
| | | | | 08-26-97 | 5.61 | |
| 413547083481500 | LU-24 NR HOLLAND OH | 18.7 | 112LAKE | 10-11-96 | 7.46 | 677.21 |
| | | | | 12-05-96 | 6.96 | |
| | | | | 02-13-97 | 5.20 | |
| | | | | 03-20-97 | 3.87 | |
| | | | | 04-29-97 | 4.73 | |
| | | | | 06-05-97 | 3.62 | |
| | | | | 07-18-97 | 5.22 | |
| | | | | 08-26-97 | 5.84 | |
| 413548083480400 | LU-17 NR HOLLAND OH | 29.2 | 112LAKE | 10-11-96 | 7.57 | 676.23 |
| | | | | 12-05-96 | 7.03 | |
| | | | | 02-13-97 | 5.32 | |
| | | | | 03-20-97 | 3.98 | |
| | | | | 04-29-97 | 4.95 | |
| | | | | 06-05-97 | 3.57 | |
| | | | | 07-18-97 | 5.38 | |
| | | | | 08-26-97 | 6.09 | |
| 413549083481500 | LU-21 NR HOLLAND OH | 29.1 | 112LAKE | 10-11-96 | 6.70 | 677.07 |
| | | | | 11-14-96 | 6.30 | |
| | | | | 12-05-96 | 6.17 | |
| | | | | 02-13-97 | 4.45 | |
| | | | | 03-20-97 | 3.05 | |
| | | | | 04-29-97 | 4.07 | |
| | | | | 06-05-97 | 2.76 | |
| | | | | 07-18-97 | 4.62 | |
| | | | | 08-26-97 | 5.14 | |
| 413551083481200 | LU-20 NR HOLLAND OH | 31.0 | 112LAKE | 10-11-96 | 5.96 | 676.13 |
| | | | | 12-05-96 | 5.25 | |
| | | | | 02-13-97 | 3.67 | |
| | | | | 03-20-97 | 2.36 | |
| | | | | 04-29-97 | 3.42 | |
| | | | | 06-05-97 | 2.08 | |
| | | | | 07-18-97 | 4.06 | |
| | | | | 08-26-97 | 4.34 | |

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) |
|---|---|---|---|---|---|---|
| 413553083480600 | LU-18 NR HOLLAND OH | 29.0 | 112LAKE | 10-11-96 | 6.08 | 675.75 |
| | | | | 12-05-96 | 5.18 | |
| | | | | 02-13-97 | 3.81 | |
| | | | | 03-20-97 | 2.67 | |
| | | | | 04-29-97 | 3.77 | |
| | | | | 06-05-97 | 2.37 | |
| | | | | 07-18-97 | 4.43 | |
| | | | | 08-26-97 | 4.52 | |
| 413553083480900 | LU-19 NR HOLLAND OH | 31.3 | 112LAKE | 10-11-96 | 5.48 | 675.75 |
| | | | | 12-05-96 | 4.67 | |
| | | | | 02-13-97 | 3.23 | |
| | | | | 03-20-97 | 1.98 | |
| | | | | 04-29-97 | 3.14 | |
| | | | | 06-05-97 | 1.69 | |
| | | | | 07-18-97 | 3.87 | |
| | | | | 08-26-97 | 3.94 | |
| 415305080414200 | AB-139 NR KINGSVILLE OH | 20.2 | 111TRRC | 10-17-96 | 9.57 | 777.51 |
| | | | | 11-19-96 | 3.23 | |
| | | | | 12-12-96 | 6.24 | |
| | | | | 02-12-97 | 7.73 | |
| | | | | 03-27-97 | 7.90 | |
| | | | | 05-06-97 | 8.93 | |
| | | | | 06-16-97 | 9.07 | |
| | | | | 07-23-97 | 11.13 | |
| | | | | 09-04-97 | 11.22 | |
| 415305080414300 | AB-132 NR KINGSVILLE OH | 14.5 | 111TRRC | 10-17-96 | 10.41 | 778.47 |
| | | | | 12-12-96 | 6.74 | |
| | | | | 02-12-97 | 8.56 | |
| | | | | 03-27-97 | 8.74 | |
| | | | | 06-16-97 | 9.84 | |
| | | | | 07-23-97 | 12.04 | |
| | | | | 09-04-97 | 12.12 | |
| 415307080414200 | AB-133 NR KINGSVILLE OH | 20.0 | 111TRRC | 10-17-96 | 6.31 | 772.10 |
| | | | | 11-19-96 | 3.26 | |
| | | | | 12-12-96 | 4.61 | |
| | | | | 02-12-97 | 5.60 | |
| | | | | 03-27-97 | 5.64 | |
| | | | | 05-06-97 | 6.22 | |
| | | | | 06-16-97 | 6.15 | |
| | | | | 07-23-97 | 7.99 | |
| | | | | 09-04-97 | 7.91 | |
| 415307080414300 | AB-129 NR KINGSVILLE OH | 18.0 | 111TRRC | 10-17-96 | 6.72 | 772.50 |
| | | | | 12-12-96 | 4.96 | |
| | | | | 02-12-97 | 5.96 | |
| | | | | 03-27-97 | 6.01 | |
| | | | | 05-06-97 | 6.60 | |
| | | | | 06-16-97 | 6.59 | |
| | | | | 07-23-97 | 8.45 | |
| | | | | 09-04-97 | 8.36 | |
| 415307080414400 | AB-130 NR KINGSVILLE OH | 10.0 | 111TRRC | 10-17-96 | 5.86 | 770.95 |
| | | | | 12-12-96 | 5.06 | |
| | | | | 02-12-97 | 4.07 | |
| | | | | 03-27-97 | 5.37 | |
| | | | | 05-06-97 | 6.28 | |
| | | | | 06-16-97 | 5.74 | |
| | | | | 07-23-97 | 7.48 | |
| | | | | 09-04-97 | 7.50 | |
| 415307080414500 | AB-134 NR KINGSVILLE OH | 17.4 | 111TRRC | 10-17-96 | 6.32 | 772.10 |
| | | | | 12-12-96 | 4.47 | |
| | | | | 03-27-97 | 5.64 | |
| | | | | 05-06-97 | 6.16 | |
| | | | | 06-16-97 | 6.15 | |
| | | | | 07-23-97 | 8.01 | |
| | | | | 09-04-97 | 7.89 | |
| 415307080414600 | AB-140 NR KINGSVILLE OH | 20.8 | 111TRRC | 10-17-96 | 6.46 | 772.22 |
| | | | | 12-12-96 | 4.77 | |
| | | | | 03-27-97 | 5.77 | |
| | | | | 05-06-97 | 6.90 | |
| | | | | 06-16-97 | 6.30 | |
| | | | | 07-23-97 | 8.12 | |
| | | | | 09-04-97 | 8.05 | |

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) |
|---|---|---|---|---|---|---|
| 415308080414300 | AB-135 NR KINGSVILLE OH | 19.5 | 111TRRC | 10-17-96 | 6.41 | 771.36 |
| | | | | 12-12-96 | 5.19 | |
| | | | | 03-27-97 | 5.82 | |
| | | | | 05-06-97 | 6.59 | |
| | | | | 06-16-97 | 6.23 | |
| | | | | 07-23-97 | 8.11 | |
| | | | | 09-04-97 | 8.17 | |
| 415308080414400 | AB-131 NR KINGSVILLE OH | 21 | 111TRRC | 10-17-96 | 4.81 | 765.00 |
| | | | | 12-12-96 | 3.69 | |
| | | | | 03-27-97 | 4.27 | |
| | | | | 05-06-97 | 4.97 | |
| | | | | 06-16-97 | 4.94 | |
| | | | | 07-23-97 | 6.56 | |
| | | | | 09-04-97 | 6.61 | |
| 415309080414300 | AB-136 NR KINGSVILLE OH | 20.1 | 111TRRC | 10-17-96 | 5.34 | 767.66 |
| | | | | 12-12-96 | 4.39 | |
| | | | | 03-27-97 | 4.79 | |
| | | | | 05-06-97 | 5.51 | |
| | | | | 06-16-97 | 5.25 | |
| | | | | 07-23-97 | 6.85 | |
| | | | | 09-04-97 | 7.03 | |
| 415309080414400 | AB-138 NR KINGSVILLE OH | 19.5 | 111TRRC | 10-17-96 | 5.58 | 767.87 |
| | | | | 11-19-96 | 4.48 | |
| | | | | 12-12-96 | 4.61 | |
| | | | | 03-27-97 | 5.41 | |
| | | | | 05-06-97 | 5.75 | |
| | | | | 06-16-97 | 5.41 | |
| | | | | 07-23-97 | 7.04 | |
| | | | | 09-04-97 | 7.22 | |
| 415310080414400 | AB-137 NR KINGSVILLE OH | 19.5 | 111TRRC | 10-17-96 | 3.55 | 763.76 |
| | | | | 12-12-96 | 2.43 | |
| | | | | 03-27-97 | 3.00 | |
| | | | | 05-06-97 | 3.76 | |
| | | | | 06-16-97 | 3.67 | |
| | | | | 07-23-97 | 5.34 | |
| | | | | 09-04-97 | 5.38 | |

AQUIFER CODE (Geologic Unit)

111ALVM - Alluvium, Holocene Epoch
111TRRC - Terrace Deposits, Holocene Epoch
112LAKE - Lake Deposits. Pleistocene Epoch
112OTSH - Outwash, Pleistocene Epoch

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; 0.010-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 was set at 10.0 ft below land surface; probe removed July, 1992.

DATUM.--Elevation of land-surface datum is 772.10 ft above sea level. Measuring point: shelter shelf 3.93 ft above land-surface datum.

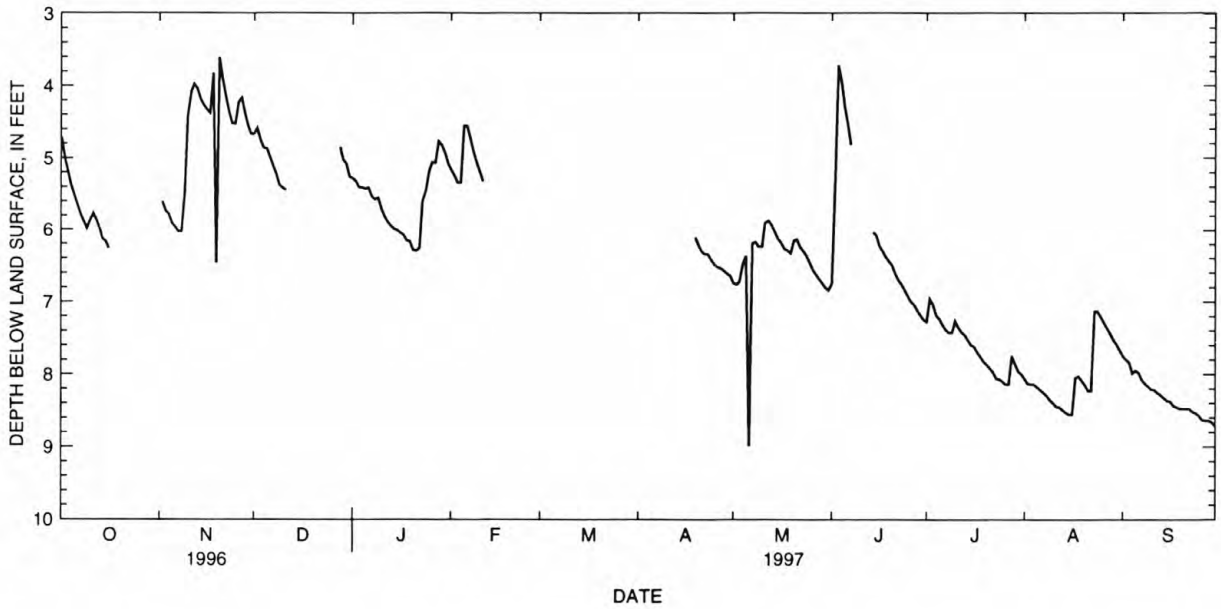
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells are available in preceding tables.

PERIOD OF RECORD.--February 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year
SPECIFIC CONDUCTANCE: February 1991 to July 1992
AIR TEMPERATURE: February 1991 to current year
WATER TEMPERATURE: February 1991 to July 1992
SOIL TEMPERATURE: July 1992 to current year
PRECIPITATION: February 1991 to current year

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 10.66 ft below land-surface datum, October 26, 1995 (this represents an artificial low due to pumping of well AB-133, 4 ft away); maximum daily high, 2.11 ft below land-surface datum, March 23, 1993.
SPECIFIC CONDUCTANCE: Maximum, 2560 microsiemens March 27, 1991; minimum, 948 microsiemens August 8, 1991.
AIR TEMPERATURE: Maximum, 33.1°C July 13, 1995; minimum, -29.6°C January 19, 1994.
WATER TEMPERATURE: Maximum, 15.5°C many days in 1991; minimum, 6.6°C March 26-28, April 1-7, 1992.
SOIL TEMPERATURE: Maximum, 31.8°C July 11, 1993; minimum, -3.1°C February 5, 1996.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 8.99 ft below land-surface datum, May 6, 1997 (this represents an artificial low due to pumping of well AB-133, 4 ft away); maximum daily high, 3.01 ft below land-surface datum, November 18-19, 1996.
AIR TEMPERATURE: Maximum, 31.6°C July 14, 1997; minimum, -19.7°C January 19, 1997.
SOIL TEMPERATURE: Maximum, 23.3°C July 18, 1997; minimum, -0.4°C January 18-19, 1997.



415307080414500 AB-134 NR KINGSVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 4.72 | 4.52 | 4.61 | --- | --- | --- | 4.67 | 4.35 | 4.46 | 5.28 | 5.20 | 5.23 |
| 2 | 5.00 | 4.72 | 4.83 | 5.60 | 5.42 | 5.51 | 4.59 | 4.40 | 4.50 | 5.32 | 5.26 | 5.29 |
| 3 | 5.19 | 5.00 | 5.09 | 5.73 | 5.60 | 5.67 | 4.75 | 4.59 | 4.65 | 5.40 | 5.28 | 5.35 |
| 4 | 5.37 | 5.19 | 5.28 | 5.78 | 5.73 | 5.76 | 4.86 | 4.75 | 4.83 | 5.41 | 5.35 | 5.39 |
| 5 | 5.52 | 5.37 | 5.44 | 5.91 | 5.78 | 5.85 | 4.87 | 4.79 | 4.83 | 5.42 | 5.31 | 5.36 |
| 6 | 5.64 | 5.52 | 5.58 | 5.96 | 5.91 | 5.94 | 4.99 | 4.87 | 4.96 | 5.41 | 5.31 | 5.37 |
| 7 | 5.78 | 5.64 | 5.70 | 6.03 | 5.96 | 5.98 | 5.10 | 4.96 | 5.06 | 5.53 | 5.41 | 5.47 |
| 8 | 5.88 | 5.78 | 5.82 | 6.03 | 5.48 | 5.77 | 5.23 | 5.10 | 5.16 | 5.57 | 5.53 | 5.55 |
| 9 | 5.99 | 5.87 | 5.94 | 5.48 | 4.42 | 4.97 | 5.37 | 5.23 | 5.33 | 5.55 | 5.39 | 5.47 |
| 10 | 5.87 | 5.63 | 5.68 | 4.42 | 4.08 | 4.24 | 5.41 | 5.31 | 5.36 | 5.70 | 5.54 | 5.62 |
| 11 | 5.77 | 5.67 | 5.72 | 4.08 | 3.96 | 4.02 | 5.44 | 4.65 | 5.22 | 5.81 | 5.70 | 5.76 |
| 12 | 5.87 | 5.77 | 5.83 | 3.98 | 3.95 | 3.96 | --- | --- | --- | 5.89 | 5.81 | 5.86 |
| 13 | 5.99 | 5.87 | 5.94 | 4.04 | 3.97 | 4.01 | --- | --- | --- | 5.94 | 5.89 | 5.92 |
| 14 | 6.13 | 5.99 | 6.07 | 4.19 | 4.04 | 4.11 | --- | --- | --- | 5.99 | 5.94 | 5.97 |
| 15 | 6.17 | 6.13 | 6.16 | 4.27 | 4.19 | 4.24 | --- | --- | --- | 6.00 | 5.88 | 5.96 |
| 16 | 6.27 | 6.17 | 6.22 | 4.33 | 4.27 | 4.31 | --- | --- | --- | 6.04 | 5.89 | 5.99 |
| 17 | --- | --- | --- | 4.38 | 3.83 | 4.28 | --- | --- | --- | 6.07 | 6.04 | 6.06 |
| 18 | --- | --- | --- | 3.83 | 3.01 | 3.25 | --- | --- | --- | 6.15 | 6.07 | 6.11 |
| 19 | --- | --- | --- | 6.46 | 3.01 | 3.26 | --- | --- | --- | 6.16 | 6.15 | 6.15 |
| 20 | --- | --- | --- | 3.61 | 3.23 | 3.44 | --- | --- | --- | 6.28 | 6.16 | 6.21 |
| 21 | --- | --- | --- | 3.93 | 3.61 | 3.77 | --- | --- | --- | 6.30 | 6.26 | 6.28 |
| 22 | --- | --- | --- | 4.15 | 3.93 | 4.06 | --- | --- | --- | 6.26 | 5.60 | 5.95 |
| 23 | --- | --- | --- | 4.36 | 4.15 | 4.25 | --- | --- | --- | 5.60 | 5.44 | 5.50 |
| 24 | --- | --- | --- | 4.52 | 4.36 | 4.45 | --- | --- | --- | 5.44 | 5.19 | 5.34 |
| 25 | --- | --- | --- | 4.53 | 4.23 | 4.46 | --- | --- | --- | 5.19 | 4.89 | 4.96 |
| 26 | --- | --- | --- | 4.23 | 3.99 | 4.04 | --- | --- | --- | 5.06 | 4.93 | 5.02 |
| 27 | --- | --- | --- | 4.17 | 3.99 | 4.08 | --- | --- | --- | 5.07 | 4.77 | 5.03 |
| 28 | --- | --- | --- | 4.39 | 4.17 | 4.27 | 4.85 | 4.78 | 4.82 | 4.77 | 4.62 | 4.67 |
| 29 | --- | --- | --- | 4.56 | 4.39 | 4.48 | 5.02 | 4.82 | 4.92 | 4.82 | 4.72 | 4.78 |
| 30 | --- | --- | --- | 4.67 | 4.55 | 4.61 | 5.08 | 5.02 | 5.06 | 4.93 | 4.81 | 4.87 |
| 31 | --- | --- | --- | --- | --- | --- | 5.26 | 5.07 | 5.19 | 5.08 | 4.93 | 4.98 |
| MONTH | 6.27 | 4.52 | 5.62 | 6.46 | 3.01 | 4.52 | 5.44 | 4.35 | 4.96 | 6.30 | 4.62 | 5.53 |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 5.16 | 5.08 | 5.14 | --- | --- | --- | --- | --- | --- | 6.74 | 6.64 | 6.67 |
| 2 | 5.24 | 5.16 | 5.20 | --- | --- | --- | --- | --- | --- | 6.76 | 6.72 | 6.75 |
| 3 | 5.34 | 5.24 | 5.31 | --- | --- | --- | --- | --- | --- | 6.72 | 6.48 | 6.67 |
| 4 | 5.34 | 4.56 | 5.08 | --- | --- | --- | --- | --- | --- | 6.48 | 6.37 | 6.39 |
| 5 | 4.56 | 4.40 | 4.43 | --- | --- | --- | --- | --- | --- | 6.37 | 6.29 | 6.36 |
| 6 | 4.56 | 4.40 | 4.47 | --- | --- | --- | --- | --- | --- | 8.99 | 6.16 | 6.38 |
| 7 | 4.74 | 4.56 | 4.65 | --- | --- | --- | --- | --- | --- | 6.19 | 6.17 | 6.17 |
| 8 | 4.92 | 4.74 | 4.82 | --- | --- | --- | --- | --- | --- | 6.17 | 6.13 | 6.15 |
| 9 | 5.06 | 4.92 | 4.99 | --- | --- | --- | --- | --- | --- | 6.24 | 6.16 | 6.19 |
| 10 | 5.20 | 5.06 | 5.13 | --- | --- | --- | --- | --- | --- | 6.24 | 5.90 | 6.03 |
| 11 | 5.32 | 5.20 | 5.26 | --- | --- | --- | --- | --- | --- | 5.90 | 5.87 | 5.88 |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.87 | 5.82 | 5.85 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 5.92 | 5.87 | 5.90 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.02 | 5.92 | 6.00 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.12 | 6.02 | 6.08 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.18 | 6.12 | 6.17 |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.27 | 6.15 | 6.20 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.29 | 6.27 | 6.28 |
| 19 | --- | --- | --- | --- | --- | --- | 6.11 | 6.04 | 6.09 | 6.33 | 6.15 | 6.28 |
| 20 | --- | --- | --- | --- | --- | --- | 6.23 | 6.11 | 6.21 | 6.15 | 6.06 | 6.08 |
| 21 | --- | --- | --- | --- | --- | --- | 6.31 | 6.23 | 6.28 | 6.13 | 6.05 | 6.08 |
| 22 | --- | --- | --- | --- | --- | --- | 6.35 | 6.31 | 6.34 | 6.25 | 6.13 | 6.18 |
| 23 | --- | --- | --- | --- | --- | --- | 6.35 | 6.33 | 6.33 | 6.30 | 6.25 | 6.29 |
| 24 | --- | --- | --- | --- | --- | --- | 6.42 | 6.35 | 6.37 | 6.37 | 6.30 | 6.34 |
| 25 | --- | --- | --- | --- | --- | --- | 6.49 | 6.42 | 6.44 | 6.46 | 6.37 | 6.41 |
| 26 | --- | --- | --- | --- | --- | --- | 6.52 | 6.49 | 6.51 | 6.56 | 6.46 | 6.50 |
| 27 | --- | --- | --- | --- | --- | --- | 6.54 | 6.52 | 6.53 | 6.63 | 6.56 | 6.60 |
| 28 | --- | --- | --- | --- | --- | --- | 6.57 | 6.52 | 6.55 | 6.69 | 6.63 | 6.66 |
| 29 | --- | --- | --- | --- | --- | --- | 6.61 | 6.57 | 6.61 | 6.75 | 6.69 | 6.72 |
| 30 | --- | --- | --- | --- | --- | --- | 6.64 | 6.61 | 6.63 | 6.81 | 6.75 | 6.77 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.84 | 6.75 | 6.83 |
| MONTH | 5.34 | 4.40 | 4.95 | --- | --- | --- | 6.64 | 6.04 | 6.41 | 8.99 | 5.82 | 6.32 |

415307080414500 AB-134 NR KINGSVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 6.75 | 5.34 | 6.06 | 7.28 | 6.96 | 7.18 | 8.06 | 8.00 | 8.05 | 7.75 | 7.67 | 7.72 |
| 2 | 5.34 | 3.72 | 4.49 | 6.96 | 6.94 | 6.94 | 8.13 | 8.06 | 8.09 | 7.80 | 7.75 | 7.77 |
| 3 | 3.72 | 3.70 | 3.70 | 7.04 | 6.94 | 6.99 | 8.14 | 8.12 | 8.14 | 7.84 | 7.80 | 7.83 |
| 4 | 3.95 | 3.70 | 3.80 | 7.19 | 7.04 | 7.12 | 8.14 | 8.12 | 8.13 | 7.99 | 7.75 | 7.88 |
| 5 | 4.30 | 3.95 | 4.14 | 7.24 | 7.19 | 7.22 | 8.18 | 8.14 | 8.15 | 7.95 | 7.91 | 7.93 |
| 6 | 4.55 | 4.30 | 4.43 | 7.32 | 7.24 | 7.28 | 8.22 | 8.18 | 8.19 | 7.98 | 7.95 | 7.97 |
| 7 | 4.82 | 4.55 | 4.69 | 7.39 | 7.32 | 7.35 | 8.26 | 8.22 | 8.24 | 8.08 | 7.98 | 8.04 |
| 8 | --- | --- | --- | 7.43 | 7.39 | 7.40 | 8.30 | 8.26 | 8.28 | 8.13 | 8.08 | 8.11 |
| 9 | --- | --- | --- | 7.43 | 7.26 | 7.32 | 8.36 | 8.30 | 8.33 | 8.17 | 8.13 | 8.15 |
| 10 | --- | --- | --- | 7.27 | 7.26 | 7.27 | 8.40 | 8.36 | 8.38 | 8.21 | 8.17 | 8.19 |
| 11 | --- | --- | --- | 7.36 | 7.27 | 7.32 | 8.45 | 8.40 | 8.43 | 8.22 | 8.21 | 8.21 |
| 12 | --- | --- | --- | 7.42 | 7.36 | 7.39 | 8.46 | 8.45 | 8.46 | 8.26 | 8.22 | 8.24 |
| 13 | --- | --- | --- | 7.46 | 7.42 | 7.44 | 8.50 | 8.45 | 8.48 | 8.29 | 8.26 | 8.28 |
| 14 | 6.03 | 5.86 | 5.95 | 7.53 | 7.46 | 7.50 | 8.53 | 8.50 | 8.52 | 8.33 | 8.29 | 8.31 |
| 15 | 6.07 | 6.03 | 6.06 | 7.60 | 7.53 | 7.56 | 8.56 | 8.52 | 8.53 | 8.37 | 8.33 | 8.35 |
| 16 | 6.23 | 6.07 | 6.15 | 7.62 | 7.60 | 7.62 | 8.56 | 8.05 | 8.31 | 8.38 | 8.37 | 8.38 |
| 17 | 6.30 | 6.21 | 6.26 | 7.70 | 7.62 | 7.66 | 8.05 | 7.92 | 7.96 | 8.44 | 8.38 | 8.39 |
| 18 | 6.38 | 6.30 | 6.33 | 7.76 | 7.70 | 7.73 | 8.03 | 7.93 | 7.98 | 8.46 | 8.44 | 8.46 |
| 19 | 6.44 | 6.38 | 6.41 | 7.83 | 7.76 | 7.79 | 8.09 | 8.03 | 8.06 | 8.48 | 8.46 | 8.47 |
| 20 | 6.50 | 6.44 | 6.48 | 7.87 | 7.83 | 7.85 | 8.15 | 8.09 | 8.11 | 8.48 | 8.45 | 8.46 |
| 21 | 6.61 | 6.50 | 6.55 | 7.92 | 7.87 | 7.89 | 8.23 | 8.15 | 8.19 | 8.48 | 8.47 | 8.48 |
| 22 | 6.70 | 6.61 | 6.65 | 7.97 | 7.92 | 7.95 | 8.23 | 7.13 | 7.67 | 8.48 | 8.46 | 8.47 |
| 23 | 6.76 | 6.70 | 6.73 | 8.06 | 7.97 | 8.00 | 7.13 | 7.09 | 7.10 | 8.52 | 8.46 | 8.48 |
| 24 | 6.84 | 6.76 | 6.80 | 8.07 | 8.02 | 8.04 | 7.13 | 7.09 | 7.11 | 8.54 | 8.50 | 8.53 |
| 25 | 6.92 | 6.84 | 6.87 | 8.10 | 8.07 | 8.09 | 7.21 | 7.13 | 7.17 | 8.57 | 8.50 | 8.51 |
| 26 | 7.00 | 6.92 | 6.95 | 8.14 | 8.10 | 8.12 | 7.29 | 7.21 | 7.25 | 8.63 | 8.57 | 8.61 |
| 27 | 7.04 | 7.00 | 7.03 | 8.14 | 7.66 | 7.79 | 7.37 | 7.29 | 7.32 | 8.64 | 8.63 | 8.64 |
| 28 | 7.12 | 7.04 | 7.09 | 7.75 | 7.66 | 7.69 | 7.44 | 7.36 | 7.40 | 8.64 | 8.63 | 8.64 |
| 29 | 7.19 | 7.12 | 7.16 | 7.86 | 7.75 | 7.81 | 7.53 | 7.44 | 7.48 | 8.66 | 8.62 | 8.65 |
| 30 | 7.25 | 7.19 | 7.22 | 7.96 | 7.86 | 7.91 | 7.59 | 7.53 | 7.56 | 8.71 | 8.66 | 8.69 |
| 31 | --- | --- | --- | 8.00 | 7.96 | 7.99 | 7.67 | 7.59 | 7.63 | --- | --- | --- |
| MONTH | 7.25 | 3.70 | 6.00 | 8.14 | 6.94 | 7.59 | 8.56 | 7.09 | 7.96 | 8.71 | 7.67 | 8.29 |
| YEAR | 8.99 | 3.01 | 6.39 | | | | | | | | | |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 23.4 | 11.0 | --- | --- | 16.4 | 1.0 | 4.9 | -7.5 | 3.6 | -.8 | 17.7 | .2 |
| 2 | 23.3 | 9.5 | 2.1 | .6 | 1.6 | -1.3 | 11.8 | 3.6 | 4.9 | -.9 | 14.2 | -.4 |
| 3 | 9.7 | 6.1 | 2.7 | -1.0 | 7.1 | -2.3 | 12.7 | 2.2 | 2.6 | -2.5 | 1.2 | -1.5 |
| 4 | 10.5 | 1.3 | 11.2 | -1.2 | 2.8 | .1 | 17.5 | 2.3 | 5.4 | -2.5 | 6.3 | -.1 |
| 5 | 16.5 | 2.9 | 13.2 | 2.0 | 3.4 | -1.8 | 17.5 | -1.8 | 4.2 | -2.0 | 6.4 | -.4 |
| 6 | 19.3 | 6.4 | 17.2 | 8.5 | 2.2 | .6 | -1.8 | -5.7 | -1.1 | -2.5 | -.4 | -5.3 |
| 7 | 21.8 | 8.5 | 19.9 | 7.5 | 3.8 | -3.9 | -4.3 | -6.2 | -1.7 | -6.3 | .3 | -6.6 |
| 8 | 16.5 | 5.7 | 7.5 | 3.8 | .0 | -2.5 | -3.7 | -6.4 | -2.8 | -6.3 | 4.8 | -3.1 |
| 9 | 12.2 | 7.4 | 5.1 | -.2 | .6 | -1.9 | 1.6 | -6.4 | -2.7 | -9.3 | 7.4 | -7.2 |
| 10 | 10.8 | 6.1 | .4 | -1.8 | 3.4 | -2.8 | -2.0 | -11.8 | -.8 | -4.3 | 7.0 | .9 |
| 11 | 9.4 | 3.9 | -.3 | -2.2 | 2.9 | 1.5 | -10.1 | -14.7 | -.9 | -3.6 | 6.6 | -7.3 |
| 12 | 15.5 | 2.7 | -.6 | -4.2 | --- | --- | -10.6 | -14.8 | --- | --- | 3.0 | -7.3 |
| 13 | 22.0 | 12.4 | -1.7 | -4.3 | --- | --- | -9.6 | -14.9 | --- | --- | 1.8 | -7.0 |
| 14 | 19.4 | 3.6 | -1.0 | -6.9 | --- | --- | -7.1 | -12.7 | --- | --- | 10.2 | -2.5 |
| 15 | 17.3 | 2.5 | .0 | -9.4 | --- | --- | 4.1 | -11.4 | --- | --- | -2.5 | -6.2 |
| 16 | 22.0 | 12.0 | 6.2 | -2.8 | --- | --- | 4.1 | -13.3 | --- | --- | -3.2 | -7.7 |
| 17 | --- | --- | 9.6 | .5 | --- | --- | -13.1 | -16.7 | --- | --- | 9.4 | -4.6 |
| 18 | --- | --- | 6.3 | 2.0 | --- | --- | -13.2 | -17.1 | --- | --- | 2.5 | -3.4 |
| 19 | --- | --- | 3.0 | .2 | --- | --- | -5.7 | -19.7 | --- | --- | 2.0 | -4.8 |
| 20 | --- | --- | 1.0 | -.5 | --- | --- | -1.1 | -9.6 | --- | --- | 6.4 | -4.4 |
| 21 | --- | --- | 1.2 | -.4 | --- | --- | 3.4 | -17.1 | --- | --- | 17.4 | -2.7 |
| 22 | --- | --- | 2.3 | .2 | --- | --- | 8.9 | 2.6 | 16.0 | -4.2 | 5.6 | -3.4 |
| 23 | --- | --- | 3.2 | -1.7 | --- | --- | 2.6 | -7.9 | 2.3 | -4.3 | -1.7 | -5.0 |
| 24 | --- | --- | 3.6 | .8 | --- | --- | 5.4 | -9.1 | -2.4 | -8.2 | 3.0 | -10.6 |
| 25 | --- | --- | 2.9 | .9 | --- | --- | 5.5 | -6.4 | .8 | -10.6 | 17.3 | 2.1 |
| 26 | --- | --- | 2.4 | -2.0 | --- | --- | -6.1 | -9.0 | 8.6 | -1.5 | 3.7 | .7 |
| 27 | --- | --- | -1.5 | -8.3 | --- | --- | 2.7 | -8.0 | 16.2 | .2 | --- | --- |
| 28 | --- | --- | -1.9 | -6.6 | 13.0 | 3.6 | .3 | -9.0 | 4.7 | -1.3 | --- | --- |
| 29 | --- | --- | 4.3 | -4.3 | 13.4 | 1.5 | -7.9 | -15.7 | --- | --- | --- | --- |
| 30 | --- | --- | 10.0 | 2.3 | 2.5 | -.6 | .7 | -10.2 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | .5 | -6.7 | 4.5 | -1.0 | --- | --- | --- | --- |
| MONTH | 23.4 | 1.3 | 19.9 | -9.4 | 16.4 | -6.7 | 17.5 | -19.7 | 16.2 | -10.6 | 17.7 | -10.6 |

415307080414500 AB-134 NR KINGSVILLE OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 20.0 | 2.9 | 15.2 | 12.2 | 25.2 | 17.5 | 25.7 | 13.1 | 23.8 | 15.4 |
| 2 | --- | --- | 14.2 | 1.4 | 16.5 | 11.9 | 29.2 | 16.7 | 26.6 | 19.8 | 26.4 | 14.5 |
| 3 | --- | --- | 16.0 | 4.6 | 17.9 | 8.9 | 22.4 | 19.0 | 24.5 | 17.5 | 16.2 | 11.6 |
| 4 | --- | --- | 12.0 | 5.0 | 19.3 | 6.1 | 19.1 | 11.9 | 21.7 | 17.5 | 18.4 | 5.4 |
| 5 | --- | --- | 18.5 | 2.5 | 23.3 | 7.1 | 21.2 | 8.9 | 20.0 | 15.4 | 21.4 | 7.7 |
| 6 | --- | --- | 12.2 | .2 | 22.8 | 10.9 | 24.0 | 9.3 | 20.5 | 9.3 | 26.1 | 14.8 |
| 7 | --- | --- | 11.5 | -2.3 | 19.2 | 11.9 | 20.8 | 12.3 | 23.8 | 8.9 | 21.0 | 13.7 |
| 8 | --- | --- | 9.8 | .6 | --- | --- | 27.4 | 10.9 | 25.3 | 10.1 | 19.9 | 13.6 |
| 9 | --- | --- | 12.9 | 5.8 | --- | --- | 19.2 | 10.3 | 28.6 | 13.4 | 24.4 | 13.1 |
| 10 | --- | --- | 8.9 | 3.9 | --- | --- | 22.9 | 8.1 | 27.0 | 16.8 | 20.3 | 16.0 |
| 11 | --- | --- | 16.5 | 1.9 | --- | --- | 24.5 | 10.4 | 21.1 | 15.2 | 18.9 | 15.1 |
| 12 | --- | --- | 15.3 | 8.8 | --- | --- | 25.6 | 11.0 | 25.3 | 15.2 | 17.2 | 14.1 |
| 13 | --- | --- | 15.4 | 2.0 | --- | --- | 26.8 | 13.3 | 21.8 | 12.4 | 20.4 | 11.6 |
| 14 | --- | --- | 14.6 | 4.6 | 19.9 | 8.6 | 31.6 | 18.4 | 21.5 | 11.4 | 21.6 | 11.6 |
| 15 | --- | --- | 10.4 | 4.0 | 22.7 | 4.6 | 26.8 | 19.2 | 26.7 | 14.2 | 23.3 | 11.7 |
| 16 | --- | --- | 11.0 | 4.5 | 26.2 | 13.5 | 29.7 | 16.4 | 29.2 | 19.9 | 24.6 | 13.9 |
| 17 | --- | --- | 12.5 | 1.9 | 18.2 | 13.6 | 29.1 | 20.4 | 22.9 | 16.9 | 21.9 | 13.6 |
| 18 | --- | --- | 19.4 | 1.4 | 18.1 | 14.1 | 28.6 | 20.4 | 20.7 | 10.4 | 23.7 | 10.5 |
| 19 | 8.6 | -3.6 | 22.5 | 8.4 | 25.8 | 13.3 | 21.7 | 11.4 | 21.7 | 8.9 | 26.0 | 13.8 |
| 20 | 9.4 | -5.0 | 12.1 | 5.4 | 30.0 | 19.6 | 24.5 | 10.0 | 21.5 | 15.6 | 19.8 | 11.9 |
| 21 | 13.3 | -.4 | 11.5 | 6.2 | 29.6 | 20.0 | 29.0 | 14.9 | 18.3 | 14.0 | 14.5 | 4.8 |
| 22 | 7.7 | 2.9 | 12.1 | 3.0 | 24.1 | 15.7 | 23.6 | 17.6 | 15.9 | 13.0 | 18.0 | 4.4 |
| 23 | 11.3 | 1.4 | 15.2 | -.3 | 28.2 | 14.8 | 22.6 | 15.7 | 20.2 | 12.6 | 16.9 | 10.8 |
| 24 | 13.3 | 1.1 | 21.5 | 5.4 | 30.7 | 20.4 | 23.5 | 17.9 | 17.8 | 11.9 | 16.6 | 6.2 |
| 25 | 13.0 | .8 | 15.1 | 9.9 | 31.0 | 20.3 | 24.2 | 15.2 | 21.0 | 12.6 | 19.0 | 6.7 |
| 26 | 13.5 | -2.0 | 13.8 | 6.4 | 25.1 | 15.3 | 25.3 | 14.2 | 24.2 | 12.6 | 14.3 | 5.6 |
| 27 | 16.1 | -.4 | 15.7 | 1.3 | 25.9 | 11.1 | 26.2 | 19.3 | 25.6 | 16.1 | 18.9 | 4.4 |
| 28 | 11.2 | 2.1 | 20.8 | 7.1 | 29.0 | 12.5 | 25.2 | 19.5 | 20.1 | 15.9 | 22.4 | 11.8 |
| 29 | 15.0 | -.6 | 14.8 | 11.5 | 28.6 | 16.9 | 22.0 | 14.9 | 20.6 | 13.2 | 22.5 | 12.2 |
| 30 | 22.1 | 7.6 | 19.6 | 13.0 | 25.4 | 18.3 | 23.4 | 9.6 | 21.8 | 12.7 | 16.4 | 12.4 |
| 31 | --- | --- | 18.2 | 13.5 | --- | --- | 25.4 | 10.2 | 22.6 | 14.3 | --- | --- |
| MONTH | 22.1 | -5.0 | 22.5 | -2.3 | 31.0 | 4.6 | 31.6 | 8.1 | 29.2 | 8.9 | 26.4 | 4.4 |
| YEAR | 31.6 | -19.7 | | | | | | | | | | |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 16.9 | 14.9 | --- | --- | 6.5 | 3.8 | 1.8 | 1.3 | .0 | .0 | 7.0 | 2.6 |
| 2 | 17.2 | 16.0 | 7.3 | 5.9 | 5.4 | 3.4 | 4.5 | 1.4 | .0 | .0 | 7.8 | 5.1 |
| 3 | 16.6 | 14.0 | 5.9 | 5.3 | 3.6 | 2.8 | 5.9 | 4.5 | .0 | .0 | 5.1 | 3.5 |
| 4 | 14.0 | 12.4 | 6.2 | 4.7 | 3.6 | 3.4 | 7.8 | 4.7 | .1 | .0 | 4.0 | 3.2 |
| 5 | 13.6 | 11.7 | 7.4 | 6.1 | 3.4 | 2.9 | 8.6 | 5.5 | .1 | .0 | 4.3 | 3.4 |
| 6 | 13.8 | 11.7 | 10.0 | 7.4 | 3.2 | 2.9 | 5.5 | 3.0 | .1 | .0 | 3.4 | 2.2 |
| 7 | 14.8 | 12.4 | 12.1 | 10.0 | 3.4 | 2.8 | 3.0 | 2.0 | .1 | .1 | 2.2 | 1.5 |
| 8 | 14.4 | 12.8 | 11.8 | 9.3 | 2.8 | 2.3 | 2.0 | 1.6 | .1 | .1 | 1.5 | 1.3 |
| 9 | 14.1 | 13.1 | 9.3 | 7.4 | 2.5 | 2.4 | 1.6 | 1.4 | .1 | .0 | 2.2 | 1.0 |
| 10 | 13.1 | 12.1 | 7.4 | 6.5 | 2.5 | 2.4 | 1.4 | 1.2 | .0 | .0 | 3.3 | 1.8 |
| 11 | 12.3 | 11.1 | 6.5 | 5.9 | 2.5 | 1.3 | 1.2 | .8 | .0 | .0 | 3.6 | 2.4 |
| 12 | 11.5 | 9.9 | 5.9 | 5.4 | --- | --- | .8 | .5 | --- | --- | 2.7 | 1.4 |
| 13 | 13.5 | 11.5 | 5.4 | 5.1 | --- | --- | .5 | .3 | --- | --- | 1.8 | 1.0 |
| 14 | 14.3 | 13.2 | 5.1 | 4.6 | --- | --- | .3 | .2 | --- | --- | 2.9 | .9 |
| 15 | 13.2 | 11.6 | 4.6 | 4.4 | --- | --- | .2 | .1 | --- | --- | 2.2 | .9 |
| 16 | 14.2 | 12.5 | 4.4 | 4.1 | --- | --- | .2 | .1 | --- | --- | .9 | .6 |
| 17 | --- | --- | 4.1 | 1.8 | --- | --- | .2 | -.2 | --- | --- | .9 | .5 |
| 18 | --- | --- | 3.3 | 1.8 | --- | --- | -.2 | -.4 | --- | --- | 1.3 | .7 |
| 19 | --- | --- | 3.4 | 3.2 | --- | --- | -.3 | -.4 | --- | --- | 1.4 | .5 |
| 20 | --- | --- | 3.2 | 2.7 | --- | --- | -.3 | -.3 | --- | --- | 2.4 | .7 |
| 21 | --- | --- | 2.9 | 2.8 | --- | --- | -.3 | -.3 | --- | --- | 4.7 | 1.3 |
| 22 | --- | --- | 3.1 | 2.9 | --- | --- | -.2 | -.3 | 5.5 | 1.8 | 4.7 | 2.9 |
| 23 | --- | --- | 3.2 | 2.7 | --- | --- | -.2 | -.2 | 1.8 | 1.0 | 2.9 | 1.7 |
| 24 | --- | --- | 3.8 | 3.2 | --- | --- | -.2 | -.2 | 1.0 | .6 | 2.7 | 1.2 |
| 25 | --- | --- | 4.0 | 3.7 | --- | --- | -.1 | -.2 | .6 | .4 | 4.5 | 2.0 |
| 26 | --- | --- | 3.9 | 2.6 | --- | --- | -.1 | -.1 | .4 | .3 | 4.4 | 3.1 |
| 27 | --- | --- | 2.6 | 1.9 | --- | --- | .0 | -.1 | 4.1 | .3 | --- | --- |
| 28 | --- | --- | 1.9 | 1.5 | 3.8 | 1.2 | .0 | -.1 | 3.7 | 2.3 | --- | --- |
| 29 | --- | --- | 1.5 | 1.3 | 4.3 | 3.8 | .0 | .0 | --- | --- | --- | --- |
| 30 | --- | --- | 3.8 | 1.4 | 4.0 | 3.2 | .0 | .0 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 3.2 | 1.8 | .0 | .0 | --- | --- | --- | --- |
| MONTH | 17.2 | 9.9 | 12.1 | 1.3 | 6.5 | 1.2 | 8.6 | -.4 | 5.5 | .0 | 7.8 | .5 |

415307080414500 AB-134 NR KINGSVILLE OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 11.3 | 9.4 | 13.9 | 13.6 | 21.8 | 20.4 | 21.5 | 19.7 | 20.6 | 18.7 |
| 2 | --- | --- | 9.8 | 8.0 | 14.0 | 13.5 | 22.9 | 20.4 | 21.4 | 20.0 | 20.4 | 19.0 |
| 3 | --- | --- | 10.6 | 9.3 | 14.8 | 13.5 | 22.5 | 20.4 | 21.7 | 20.4 | 20.0 | 17.9 |
| 4 | --- | --- | 10.4 | 8.4 | 15.7 | 13.2 | 20.4 | 18.2 | 21.7 | 20.5 | 17.9 | 16.3 |
| 5 | --- | --- | 10.1 | 8.2 | 15.7 | 13.7 | 19.1 | 17.1 | 21.0 | 19.7 | 17.5 | 15.7 |
| 6 | --- | --- | 9.9 | 9.3 | 16.6 | 14.4 | 19.5 | 17.2 | 20.7 | 18.7 | 18.6 | 16.7 |
| 7 | --- | --- | 10.0 | 7.7 | 16.2 | 15.0 | 20.2 | 18.1 | 20.5 | 18.0 | 18.9 | 17.4 |
| 8 | --- | --- | 9.4 | 8.1 | --- | --- | 20.0 | 18.1 | 21.0 | 18.3 | 18.8 | 17.7 |
| 9 | --- | --- | 9.2 | 8.4 | --- | --- | 19.8 | 18.6 | 21.5 | 18.8 | 18.7 | 17.3 |
| 10 | --- | --- | 8.6 | 7.6 | --- | --- | 19.6 | 17.2 | 21.3 | 19.8 | 18.6 | 18.1 |
| 11 | --- | --- | 9.0 | 6.9 | --- | --- | 20.1 | 17.6 | 21.0 | 19.8 | 18.3 | 17.9 |
| 12 | --- | --- | 10.6 | 9.0 | --- | --- | 20.7 | 18.2 | 21.8 | 19.1 | 18.1 | 17.4 |
| 13 | --- | --- | 11.4 | 8.8 | --- | --- | 21.1 | 18.8 | 21.4 | 19.9 | 18.3 | 17.1 |
| 14 | --- | --- | 11.3 | 9.6 | 18.5 | 16.9 | 22.3 | 19.7 | 20.9 | 18.6 | 18.4 | 16.9 |
| 15 | --- | --- | 11.0 | 9.5 | 18.1 | 15.6 | 22.8 | 21.3 | 20.4 | 19.0 | 18.5 | 17.0 |
| 16 | --- | --- | 9.7 | 8.3 | 17.8 | 16.4 | 23.1 | 20.8 | 22.0 | 20.3 | 19.1 | 17.3 |
| 17 | --- | --- | 10.1 | 8.9 | 18.3 | 17.0 | 23.1 | 21.5 | 21.6 | 20.9 | 18.8 | 17.9 |
| 18 | --- | --- | 12.0 | 8.6 | 18.0 | 17.1 | 23.3 | 21.5 | 21.9 | 20.2 | 18.4 | 17.0 |
| 19 | 6.6 | 3.6 | 13.7 | 11.8 | 19.2 | 16.6 | 23.0 | 21.2 | 20.9 | 18.9 | 18.4 | 17.0 |
| 20 | 7.4 | 4.2 | 13.3 | 11.3 | 20.8 | 18.4 | 22.4 | 19.9 | 20.3 | 19.2 | 18.4 | 17.4 |
| 21 | 8.2 | 5.4 | 12.5 | 11.0 | 21.6 | 19.7 | 21.8 | 20.6 | 20.0 | 18.7 | 17.4 | 15.7 |
| 22 | 7.5 | 6.6 | 12.2 | 10.3 | 21.7 | 20.0 | 21.9 | 20.7 | 18.7 | 17.0 | 15.8 | 14.3 |
| 23 | 7.8 | 6.0 | 12.6 | 9.8 | 21.4 | 19.4 | 21.5 | 20.1 | 18.4 | 16.8 | 15.5 | 14.9 |
| 24 | 9.3 | 7.0 | 13.7 | 10.9 | 22.5 | 20.0 | 21.4 | 19.9 | 18.0 | 17.0 | 15.3 | 13.9 |
| 25 | 9.7 | 6.9 | 13.3 | 12.4 | 23.0 | 21.0 | 21.8 | 20.0 | 18.5 | 17.1 | 14.8 | 13.4 |
| 26 | 10.1 | 7.1 | 13.4 | 11.3 | 22.3 | 20.9 | 21.3 | 19.8 | 19.1 | 17.3 | 15.0 | 14.1 |
| 27 | 9.3 | 7.6 | 13.2 | 10.8 | 21.9 | 19.3 | 23.0 | 20.9 | 19.8 | 18.2 | 14.8 | 12.9 |
| 28 | 10.3 | 8.3 | 13.8 | 11.5 | 22.3 | 19.3 | 23.2 | 21.5 | 19.5 | 18.6 | 15.6 | 13.8 |
| 29 | 11.0 | 7.8 | 13.3 | 12.5 | 22.5 | 20.0 | 22.4 | 20.7 | 19.7 | 18.4 | 15.6 | 14.8 |
| 30 | 11.6 | 9.0 | 13.8 | 12.6 | 21.9 | 20.5 | 22.0 | 19.6 | 19.7 | 18.2 | 15.3 | 14.5 |
| 31 | --- | --- | 14.1 | 13.4 | --- | --- | 22.1 | 19.4 | 19.2 | 18.4 | --- | --- |
| MONTH | 11.6 | 3.6 | 14.1 | 6.9 | 23.0 | 13.2 | 23.3 | 17.1 | 22.0 | 16.8 | 20.6 | 12.9 |
| YEAR | 23.3 | -.4 | | | | | | | | | | |

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | --- | .38 | .09 | .00 | .29 | --- | .00 | 1.29 | 1.28 | .00 | .01 |
| 2 | .04 | .00 | .00 | .04 | .00 | .44 | --- | .00 | 1.30 | .00 | .00 | .01 |
| 3 | .00 | .01 | .01 | .01 | .00 | .00 | --- | .00 | .25 | .00 | .59 | .01 |
| 4 | .00 | .05 | .19 | .00 | .61 | .00 | --- | .00 | .00 | .00 | .31 | .38 |
| 5 | .00 | .00 | .03 | .24 | .03 | .36 | --- | .00 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | .02 | .00 | .00 | .02 | --- | .11 | .00 | .00 | .00 | .01 |
| 7 | .00 | .37 | .00 | .00 | .00 | .03 | --- | .00 | .03 | .00 | .00 | .00 |
| 8 | .00 | .77 | .00 | .00 | .00 | .23 | --- | .12 | --- | .30 | .00 | .00 |
| 9 | 1.04 | .60 | .00 | .04 | .00 | .49 | --- | .26 | --- | .89 | .00 | .04 |
| 10 | .02 | .01 | .03 | .00 | .00 | .00 | --- | .35 | --- | .00 | .00 | .61 |
| 11 | .00 | .00 | .43 | .00 | .01 | .00 | --- | .00 | --- | .00 | .04 | .04 |
| 12 | .01 | .00 | --- | .00 | --- | .00 | --- | .06 | --- | .00 | .12 | .03 |
| 13 | .00 | .00 | --- | .00 | --- | .05 | --- | .00 | --- | .00 | .10 | .00 |
| 14 | .00 | .00 | --- | .00 | --- | .84 | --- | .21 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | --- | .07 | --- | .00 | --- | .20 | .00 | .00 | .21 | .00 |
| 16 | .00 | .33 | --- | .03 | --- | .00 | --- | .06 | .36 | .00 | 1.03 | .00 |
| 17 | --- | .16 | --- | .00 | --- | .00 | --- | .04 | .00 | .00 | .04 | .19 |
| 18 | --- | .01 | --- | .01 | --- | .00 | --- | .11 | .34 | .01 | .03 | .01 |
| 19 | --- | .00 | --- | .00 | --- | .00 | .00 | .62 | .00 | .00 | .01 | .07 |
| 20 | --- | .00 | --- | .00 | --- | .00 | .00 | .01 | .00 | .00 | .01 | .44 |
| 21 | --- | .00 | --- | .23 | --- | .01 | .00 | .01 | .00 | .24 | .03 | .00 |
| 22 | --- | .00 | --- | .06 | .03 | .01 | .00 | .00 | .01 | .00 | .03 | .00 |
| 23 | --- | .00 | --- | .00 | .00 | .00 | .00 | .00 | .00 | .02 | .04 | .02 |
| 24 | --- | .11 | --- | .21 | .00 | .00 | .00 | .00 | .00 | .00 | .04 | .00 |
| 25 | --- | .65 | --- | .08 | .00 | .38 | .00 | .26 | .12 | .00 | .03 | .01 |
| 26 | --- | .23 | --- | .00 | .37 | .00 | .00 | .00 | .12 | .00 | .03 | .00 |
| 27 | --- | .00 | --- | .46 | 1.59 | --- | .00 | .00 | .00 | 1.27 | .02 | .00 |
| 28 | --- | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .01 | .02 | .08 |
| 29 | --- | .02 | .01 | .00 | --- | --- | .00 | .09 | .00 | .00 | .01 | .12 |
| 30 | --- | .02 | .00 | .00 | --- | --- | .00 | .17 | .00 | .00 | .01 | .39 |
| 31 | --- | --- | .00 | .05 | --- | --- | --- | .84 | --- | .00 | .01 | --- |
| TOTAL | 1.11 | 3.34 | 1.10 | 1.62 | 2.64 | 3.15 | 0.00 | 3.52 | 3.82 | 4.02 | 2.76 | 2.47 |

WTR YR 1997 TOTAL 29.55

GROUND-WATER RECORDS

415307080414600. Local number, AB-140.

LOCATION.--Lat 41°53'07" Long 80°41'46", 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 20.8 ft. Cased with Sch 40 PVC to 5.8 ft; 0.020-in. screen from 5.8 to 20.8 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 8.3 (level 4), 12.3 (level 3), 16.3 (level 2), and 20.3 (level 1) ft below land surface.

DATUM.--Elevation of land-surface datum is 772.22 ft above sea level. Measuring point: top of PVC casing 1.70 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 are available in preceding tables.

PERIOD OF RECORD.--July 1992 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: (FOUR LEVELS): July 1992 to current year
WATER TEMPERATURE: (FOUR LEVELS): July 1992 to current year

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE:
LEVEL 1- Maximum, 3460 microsiemens October 28, 1993; minimum, 837 microsiemens January 30-31, 1995.
LEVEL 2- Maximum, 3670 microsiemens May 6, 1997; minimum, 359 microsiemens January 18, 1996.
LEVEL 3- Maximum, 3560 microsiemens May 5-6, 1997; minimum, 322 microsiemens March 13, 1995.
LEVEL 4- Maximum, 3610 microsiemens May 5, 1997; minimum, 254 microsiemens October 21, 1995.
WATER TEMPERATURE:
LEVEL 1- Maximum, 12.3°C many days in October, November, December, 1993, 1996; minimum, 7.2°C March 31, April 2-3, 1993.
LEVEL 2- Maximum, 13.0°C many days in October, November, 1992, 1995, 1996; minimum, 6.7°C March 23, 1993 and 1994.
LEVEL 3- Maximum, 14.8°C September 30, 1995, October 1, 2, 1996; minimum, 5.7°C March 22, 1994.
LEVEL 4- Maximum, 17.8°C August 12, 1994, July 27, 1997; minimum, 3.8°C March 23-24, 1993.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE:
LEVEL 1- Maximum, 2920 microsiemens August 27-30, 1997; minimum, 902 microsiemens December 11, 1996.
LEVEL 2- Maximum, 3670 microsiemens May 6, 1997; minimum, 390 microsiemens November 21, 1996.
LEVEL 3- Maximum, 3560 microsiemens May 5-6, 1997; minimum, 384 microsiemens November 21, 1996.
LEVEL 4- Maximum, 3610 microsiemens May 5, 1997; minimum, 378 microsiemens November 21, 1996.
WATER TEMPERATURE:
LEVEL 1- Maximum, 12.3°C many days in November, December, 1996; minimum, 8.3°C March 18,19,May 4-6,11-13, 1997.
LEVEL 2- Maximum, 13.0°C many days in October, November, 1996; minimum, 7.3°C March 11,12,16, 1997.
LEVEL 3- Maximum, 14.8°C October 1, 2, 1996; minimum, 6.6°C March 11, 1997.
LEVEL 4- Maximum, 17.8°C July 27, 1997; minimum, 5.4°C March 11, 15, 1997.

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#1 (22.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 1760 | 1740 | --- | --- | 919 | 914 | 1460 | 1410 | 1470 | 1440 | 1910 | 1880 |
| 2 | 1740 | 1720 | 1540 | 1540 | 929 | 918 | 1410 | 1330 | 1440 | 1410 | 1910 | 1910 |
| 3 | 1720 | 1690 | 1540 | 1530 | 929 | 927 | 1330 | 1270 | 1410 | 1380 | 1910 | 1900 |
| 4 | 1690 | 1680 | 1560 | 1530 | 928 | 926 | 1270 | 1220 | 1380 | 1340 | 1900 | 1900 |
| 5 | 1680 | 1650 | 1600 | 1560 | 937 | 928 | 1220 | 1170 | 1360 | 1350 | 1900 | 1870 |
| 6 | 1650 | 1630 | 1650 | 1600 | 944 | 937 | 1170 | 1130 | 1370 | 1350 | 1880 | 1830 |
| 7 | 1630 | 1600 | 1690 | 1650 | 951 | 944 | 1140 | 1110 | 1370 | 1360 | 1830 | 1770 |
| 8 | 1600 | 1570 | 1710 | 1690 | 953 | 946 | 1110 | 1090 | 1390 | 1370 | 1770 | 1740 |
| 9 | 1570 | 1560 | 1860 | 1700 | 946 | 927 | 1090 | 1060 | 1390 | 1380 | 1750 | 1730 |
| 10 | 1590 | 1560 | 1910 | 1860 | 927 | 911 | 1070 | 1050 | 1380 | 1370 | 2000 | 1740 |
| 11 | 1610 | 1590 | 1910 | 1900 | 1010 | 902 | 1050 | 1030 | 1370 | 1360 | 2020 | 2000 |
| 12 | 1630 | 1610 | 1900 | 1790 | --- | --- | 1030 | 1010 | --- | --- | 2050 | 2020 |
| 13 | 1620 | 1620 | 1790 | 1650 | --- | --- | 1010 | 1010 | --- | --- | 2070 | 2050 |
| 14 | 1630 | 1620 | 1650 | 1580 | --- | --- | 1010 | 1000 | --- | --- | 2070 | 2040 |
| 15 | 1650 | 1630 | 1580 | 1550 | --- | --- | 1030 | 1010 | --- | --- | 2050 | 2000 |
| 16 | 1660 | 1640 | 1550 | 1520 | --- | --- | 1060 | 1030 | --- | --- | 2000 | 1940 |
| 17 | --- | --- | 1520 | 1480 | --- | --- | 1090 | 1060 | --- | --- | 1940 | 1900 |
| 18 | --- | --- | 1480 | 1420 | --- | --- | 1110 | 1090 | --- | --- | 1910 | 1860 |
| 19 | --- | --- | 1420 | 1320 | --- | --- | 1120 | 1100 | --- | --- | 1860 | 1830 |
| 20 | --- | --- | 1320 | 1230 | --- | --- | 1120 | 1110 | --- | --- | 1840 | 1820 |
| 21 | --- | --- | 1230 | 1180 | --- | --- | 1130 | 1110 | --- | --- | 1830 | 1810 |
| 22 | --- | --- | 1180 | 1130 | --- | --- | 1470 | 1120 | 1960 | 1940 | 1840 | 1800 |
| 23 | --- | --- | 1130 | 1070 | --- | --- | 1580 | 1470 | 1950 | 1920 | 1840 | 1830 |
| 24 | --- | --- | 1070 | 1000 | --- | --- | 1590 | 1570 | 1920 | 1890 | 1840 | 1820 |
| 25 | --- | --- | 1000 | 940 | --- | --- | 1660 | 1590 | 1890 | 1860 | 1830 | 1820 |
| 26 | --- | --- | 993 | 924 | --- | --- | 1710 | 1650 | 1870 | 1820 | 1820 | 1800 |
| 27 | --- | --- | 996 | 989 | --- | --- | 1710 | 1660 | 1870 | 1810 | --- | --- |
| 28 | --- | --- | 989 | 945 | 1510 | 1500 | 1660 | 1600 | 1880 | 1870 | --- | --- |
| 29 | --- | --- | 945 | 925 | 1510 | 1500 | 1600 | 1550 | --- | --- | --- | --- |
| 30 | --- | --- | 925 | 915 | 1500 | 1490 | 1550 | 1510 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 1500 | 1460 | 1510 | 1470 | --- | --- | --- | --- |
| MONTH | 1760 | 1560 | 1910 | 915 | 1510 | 902 | 1710 | 1000 | 1960 | 1340 | 2070 | 1730 |

#1 (22.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 2400 | 2370 | 2380 | 2280 | 1850 | 1820 | 2810 | 2800 | 2900 | 2900 |
| 2 | --- | --- | 2410 | 2380 | 2510 | 2380 | 2060 | 1840 | 2820 | 2810 | 2900 | 2890 |
| 3 | --- | --- | 2400 | 2360 | 2500 | 2480 | 2200 | 2060 | 2840 | 2820 | 2890 | 2860 |
| 4 | --- | --- | 2370 | 2320 | 2550 | 2490 | 2250 | 2200 | 2850 | 2840 | 2880 | 2860 |
| 5 | --- | --- | 2400 | 2340 | 2550 | 2520 | 2290 | 2250 | 2850 | 2850 | 2860 | 2820 |
| 6 | --- | --- | 2440 | 2400 | 2520 | 2440 | 2330 | 2290 | 2850 | 2830 | 2830 | 2810 |
| 7 | --- | --- | 2430 | 2420 | 2440 | 2360 | 2330 | 2320 | 2860 | 2840 | 2810 | 2790 |
| 8 | --- | --- | 2430 | 2410 | --- | --- | 2330 | 2320 | 2860 | 2840 | 2790 | 2770 |
| 9 | --- | --- | 2480 | 2420 | --- | --- | 2360 | 2320 | 2860 | 2850 | 2770 | 2760 |
| 10 | --- | --- | 2490 | 2470 | --- | --- | 2390 | 2360 | 2850 | 2850 | 2760 | 2740 |
| 11 | --- | --- | 2480 | 2460 | --- | --- | 2430 | 2390 | 2850 | 2850 | 2740 | 2720 |
| 12 | --- | --- | 2470 | 2460 | --- | --- | 2480 | 2430 | 2860 | 2850 | 2720 | 2700 |
| 13 | --- | --- | 2460 | 2440 | --- | --- | 2520 | 2480 | 2860 | 2860 | 2700 | 2690 |
| 14 | --- | --- | 2450 | 2420 | 1980 | 1940 | 2540 | 2520 | 2860 | 2840 | 2690 | 2680 |
| 15 | --- | --- | 2420 | 2400 | 1940 | 1900 | 2550 | 2540 | 2870 | 2850 | 2680 | 2670 |
| 16 | --- | --- | 2400 | 2370 | 1900 | 1870 | 2570 | 2550 | 2870 | 2850 | 2680 | 2670 |
| 17 | --- | --- | 2370 | 2350 | 1870 | 1840 | 2590 | 2570 | 2870 | 2850 | 2680 | 2670 |
| 18 | --- | --- | 2350 | 2340 | 1840 | 1840 | 2610 | 2580 | 2860 | 2850 | 2680 | 2670 |
| 19 | 2520 | 2510 | 2340 | 2330 | 1860 | 1840 | 2620 | 2600 | 2860 | 2850 | 2690 | 2680 |
| 20 | 2510 | 2490 | 2340 | 2300 | 1900 | 1860 | 2630 | 2610 | 2850 | 2850 | 2700 | 2690 |
| 21 | 2500 | 2410 | 2330 | 2310 | 1910 | 1900 | 2640 | 2630 | 2860 | 2850 | 2710 | 2690 |
| 22 | 2420 | 2330 | 2430 | 2330 | 1910 | 1900 | 2640 | 2630 | 2880 | 2860 | 2740 | 2710 |
| 23 | 2330 | 2310 | 2450 | 2430 | 1900 | 1890 | 2640 | 2630 | 2890 | 2880 | 2760 | 2730 |
| 24 | 2340 | 2310 | 2450 | 2420 | 1890 | 1890 | 2640 | 2640 | 2910 | 2890 | 2780 | 2750 |
| 25 | 2390 | 2330 | 2420 | 2400 | 1890 | 1860 | 2650 | 2640 | 2910 | 2910 | 2790 | 2770 |
| 26 | 2390 | 2360 | 2400 | 2370 | 1870 | 1830 | 2650 | 2650 | 2910 | 2900 | 2800 | 2790 |
| 27 | 2370 | 2340 | 2380 | 2360 | 1830 | 1810 | 2670 | 2650 | 2920 | 2900 | 2820 | 2800 |
| 28 | 2340 | 2330 | 2360 | 2330 | 1810 | 1800 | 2710 | 2670 | 2920 | 2900 | 2830 | 2820 |
| 29 | 2350 | 2320 | 2330 | 2310 | 1800 | 1790 | 2740 | 2690 | 2920 | 2900 | 2840 | 2830 |
| 30 | 2370 | 2340 | 2310 | 2290 | 1820 | 1790 | 2780 | 2730 | 2920 | 2900 | 2850 | 2840 |
| 31 | --- | --- | 2290 | 2270 | --- | --- | 2810 | 2780 | 2910 | 2900 | --- | --- |
| MONTH | 2520 | 2310 | 2490 | 2270 | 2550 | 1790 | 2810 | 1820 | 2920 | 2800 | 2900 | 2670 |
| YEAR | 2920 | 902 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#2 (18.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 888 | 871 | --- | --- | 1010 | 695 | 833 | 816 | 1530 | 1510 | 2410 | 2100 |
| 2 | 874 | 872 | 1140 | 1060 | 1010 | 669 | 841 | 829 | 1550 | 1530 | 2410 | 2160 |
| 3 | 874 | 847 | 1060 | 993 | 669 | 657 | 850 | 836 | 1570 | 1550 | 2460 | 1940 |
| 4 | 852 | 838 | 1020 | 995 | 657 | 643 | 864 | 840 | 1920 | 1570 | 2090 | 1940 |
| 5 | 882 | 852 | 1060 | 1020 | 648 | 643 | 954 | 856 | 2050 | 1920 | 2220 | 2090 |
| 6 | 934 | 882 | 1120 | 1060 | 644 | 633 | 997 | 953 | 2080 | 1880 | 2450 | 2220 |
| 7 | 971 | 934 | 1160 | 1120 | 633 | 628 | 1010 | 997 | 1880 | 1360 | 2540 | 2450 |
| 8 | 1000 | 969 | 1580 | 1150 | 632 | 628 | 1010 | 915 | 1530 | 1440 | 2610 | 2400 |
| 9 | 1020 | 1000 | 1950 | 1580 | 647 | 630 | 959 | 926 | 1580 | 1530 | 2800 | 2570 |
| 10 | 1370 | 1010 | 1960 | 1820 | 669 | 647 | 965 | 948 | 1630 | 1580 | 3430 | 2800 |
| 11 | 1400 | 1370 | 1820 | 1530 | 1290 | 669 | 981 | 963 | 1680 | 1610 | 2900 | 1080 |
| 12 | 1390 | 1360 | 1530 | 1220 | --- | --- | 1030 | 978 | --- | --- | 1390 | 1080 |
| 13 | 1370 | 1340 | 1220 | 906 | --- | --- | 1060 | 1030 | --- | --- | 2170 | 1390 |
| 14 | 1350 | 1300 | 928 | 908 | --- | --- | 1120 | 1060 | --- | --- | 2800 | 2170 |
| 15 | 1310 | 1300 | 934 | 928 | --- | --- | 1170 | 1120 | --- | --- | 2800 | 1940 |
| 16 | 1320 | 1300 | 934 | 912 | --- | --- | 1240 | 1170 | --- | --- | 2020 | 1480 |
| 17 | --- | --- | 1120 | 899 | --- | --- | 1290 | 1240 | --- | --- | 2550 | 2020 |
| 18 | --- | --- | 1270 | 625 | --- | --- | 1320 | 1290 | --- | --- | 2800 | 2550 |
| 19 | --- | --- | 729 | 426 | --- | --- | 1350 | 1320 | --- | --- | 2890 | 2800 |
| 20 | --- | --- | 726 | 413 | --- | --- | 1380 | 1350 | --- | --- | 2900 | 2880 |
| 21 | --- | --- | 431 | 390 | --- | --- | 1400 | 1370 | --- | --- | 2880 | 2700 |
| 22 | --- | --- | 585 | 431 | --- | --- | 1970 | 1400 | 2160 | 2140 | 2710 | 2580 |
| 23 | --- | --- | 666 | 585 | --- | --- | 2070 | 1970 | 2140 | 1810 | 2600 | 2440 |
| 24 | --- | --- | 697 | 666 | --- | --- | 2110 | 2070 | 2150 | 1960 | 2520 | 2420 |
| 25 | --- | --- | 805 | 697 | --- | --- | 2170 | 2110 | 2310 | 2150 | 2590 | 2510 |
| 26 | --- | --- | 1210 | 805 | --- | --- | 2170 | 2150 | 2420 | 2300 | 2700 | 2590 |
| 27 | --- | --- | 1200 | 678 | --- | --- | 2160 | 1790 | 3190 | 2420 | --- | --- |
| 28 | --- | --- | 695 | 678 | 848 | 836 | 2100 | 1880 | 3180 | 2410 | --- | --- |
| 29 | --- | --- | 703 | 692 | 840 | 818 | 2100 | 1340 | --- | --- | --- | --- |
| 30 | --- | --- | 702 | 697 | 820 | 814 | 1470 | 1350 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 819 | 814 | 1520 | 1470 | --- | --- | --- | --- |
| MONTH | 1400 | 838 | 1960 | 390 | 1290 | 628 | 2170 | 816 | 3190 | 1360 | 3430 | 1080 |

#2 (18.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 3550 | 3530 | 3500 | 3330 | 2330 | 2180 | 2940 | 2940 | 2640 | 2620 |
| 2 | --- | --- | 3550 | 3510 | 3500 | 3180 | 2560 | 2330 | 2940 | 2930 | 2620 | 2590 |
| 3 | --- | --- | 3540 | 3490 | 3180 | 1090 | 2630 | 2560 | 2930 | 2920 | 2600 | 2590 |
| 4 | --- | --- | 3600 | 3540 | 1090 | 990 | 2630 | 2600 | 2920 | 2910 | 2600 | 2580 |
| 5 | --- | --- | 3640 | 3590 | 1490 | 993 | 2600 | 2460 | 2920 | 2910 | 2600 | 2590 |
| 6 | --- | --- | 3670 | 3610 | 1930 | 1490 | 2460 | 2340 | 2920 | 2910 | 2610 | 2600 |
| 7 | --- | --- | 3630 | 3510 | 2090 | 1930 | 2340 | 2300 | 2920 | 2900 | 2620 | 2610 |
| 8 | --- | --- | 3510 | 3400 | --- | --- | 2310 | 2300 | 2920 | 2900 | 2630 | 2620 |
| 9 | --- | --- | 3470 | 3430 | --- | --- | 2500 | 2310 | 2920 | 2900 | 2640 | 2630 |
| 10 | --- | --- | 3510 | 3470 | --- | --- | 2650 | 2500 | 2910 | 2900 | 2640 | 2630 |
| 11 | --- | --- | 3490 | 3460 | --- | --- | 2730 | 2650 | 2900 | 2890 | 2650 | 2640 |
| 12 | --- | --- | 3490 | 3470 | --- | --- | 2740 | 2730 | 2890 | 2880 | 2650 | 2650 |
| 13 | --- | --- | 3500 | 3480 | --- | --- | 2740 | 2600 | 2880 | 2880 | 2660 | 2640 |
| 14 | --- | --- | 3510 | 3480 | 2190 | 2170 | 2600 | 2500 | 2880 | 2860 | 2670 | 2650 |
| 15 | --- | --- | 3510 | 3490 | 2210 | 2180 | 2520 | 2480 | 2870 | 2860 | 2680 | 2660 |
| 16 | --- | --- | 3500 | 3490 | 2230 | 2200 | 2590 | 2520 | 2890 | 2860 | 2700 | 2670 |
| 17 | --- | --- | 3490 | 3470 | 2230 | 2190 | 2630 | 2590 | 2890 | 2880 | 2700 | 2690 |
| 18 | --- | --- | 3480 | 3460 | 2240 | 2210 | 2660 | 2630 | 2900 | 2890 | 2720 | 2700 |
| 19 | 3430 | 3390 | 3480 | 3460 | 2290 | 2240 | 2680 | 2650 | 2920 | 2890 | 2720 | 2710 |
| 20 | 3440 | 3410 | 3520 | 3470 | 2310 | 2280 | 2690 | 2660 | 2940 | 2910 | 2740 | 2720 |
| 21 | 3440 | 3410 | 3530 | 3440 | 2320 | 2310 | 2710 | 2680 | 2940 | 2930 | 2760 | 2740 |
| 22 | 3420 | 3410 | 3440 | 3340 | 2320 | 2280 | 2710 | 2700 | 2970 | 2940 | 2790 | 2760 |
| 23 | 3490 | 3420 | 3380 | 3340 | 2290 | 2280 | 2730 | 2710 | 2990 | 2970 | 2820 | 2790 |
| 24 | 3520 | 3470 | 3380 | 3360 | 2300 | 2290 | 2740 | 2730 | 2990 | 2950 | 2840 | 2800 |
| 25 | 3530 | 3500 | 3380 | 3370 | 2320 | 2300 | 2740 | 2730 | 2950 | 2890 | 2860 | 2830 |
| 26 | 3540 | 3510 | 3390 | 3370 | 2320 | 2310 | 2750 | 2730 | 2890 | 2850 | 2870 | 2850 |
| 27 | 3520 | 3490 | 3390 | 3360 | 2320 | 2270 | 2820 | 2740 | 2860 | 2800 | 2890 | 2860 |
| 28 | 3520 | 3500 | 3380 | 3360 | 2270 | 2240 | 2850 | 2810 | 2800 | 2750 | 2900 | 2880 |
| 29 | 3540 | 3510 | 3360 | 3350 | 2240 | 2220 | 2900 | 2850 | 2750 | 2700 | 2910 | 2890 |
| 30 | 3550 | 3520 | 3350 | 3340 | 2220 | 2180 | 2940 | 2890 | 2700 | 2670 | 2900 | 2890 |
| 31 | --- | --- | 3340 | 3300 | --- | --- | 2950 | 2930 | 2670 | 2640 | --- | --- |
| MONTH | 3550 | 3390 | 3670 | 3300 | 3500 | 990 | 2950 | 2180 | 2990 | 2640 | 2910 | 2580 |
| YEAR | 3670 | 390 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#3 (14.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 841 | 825 | --- | --- | 722 | 680 | 817 | 803 | 1500 | 1480 | 2120 | 2030 |
| 2 | 825 | 777 | 784 | 774 | 700 | 655 | 825 | 811 | 1520 | 1500 | 2370 | 2120 |
| 3 | 777 | 736 | 802 | 784 | 656 | 642 | 833 | 818 | 1540 | 1520 | 2370 | 1830 |
| 4 | 737 | 730 | 834 | 802 | 645 | 631 | 850 | 824 | 1770 | 1540 | 2070 | 1910 |
| 5 | 748 | 737 | 872 | 834 | 637 | 630 | 932 | 839 | 2010 | 1770 | 2170 | 2070 |
| 6 | 764 | 745 | 917 | 872 | 631 | 622 | 978 | 932 | 2010 | 1130 | 2390 | 2170 |
| 7 | 777 | 764 | 958 | 916 | 624 | 613 | 989 | 978 | 1430 | 1200 | 2440 | 1840 |
| 8 | 788 | 776 | 1210 | 955 | 619 | 611 | 986 | 860 | 1520 | 1430 | 1850 | 1760 |
| 9 | 794 | 786 | 1590 | 1210 | 635 | 614 | 948 | 909 | 1550 | 1510 | 1880 | 1820 |
| 10 | 1040 | 794 | 1590 | 1520 | 653 | 635 | 948 | 926 | 1600 | 1550 | 2820 | 1880 |
| 11 | 1040 | 1010 | 1520 | 1210 | 1010 | 653 | 964 | 945 | 1640 | 1580 | 2090 | 1020 |
| 12 | 1010 | 939 | 1210 | 792 | --- | --- | 1010 | 963 | --- | --- | 1390 | 1060 |
| 13 | 939 | 907 | 892 | 835 | --- | --- | 1050 | 1010 | --- | --- | 2150 | 1390 |
| 14 | 936 | 915 | 909 | 892 | --- | --- | 1100 | 1050 | --- | --- | 2720 | 2150 |
| 15 | 976 | 931 | 912 | 902 | --- | --- | 1150 | 1100 | --- | --- | 2510 | 1200 |
| 16 | 1010 | 976 | 905 | 877 | --- | --- | 1210 | 1150 | --- | --- | 2010 | 1210 |
| 17 | --- | --- | 877 | 847 | --- | --- | 1260 | 1210 | --- | --- | 2500 | 2010 |
| 18 | --- | --- | 874 | 540 | --- | --- | 1300 | 1260 | --- | --- | 2750 | 2500 |
| 19 | --- | --- | 713 | 416 | --- | --- | 1330 | 1300 | --- | --- | 2830 | 2750 |
| 20 | --- | --- | 607 | 405 | --- | --- | 1350 | 1330 | --- | --- | 2840 | 2570 |
| 21 | --- | --- | 428 | 384 | --- | --- | 1380 | 1350 | --- | --- | 2570 | 2370 |
| 22 | --- | --- | 577 | 428 | --- | --- | 1880 | 1370 | 1690 | 1460 | 2390 | 2200 |
| 23 | --- | --- | 655 | 577 | --- | --- | 2020 | 1880 | 1940 | 1690 | 2280 | 2200 |
| 24 | --- | --- | 685 | 655 | --- | --- | 2050 | 2020 | 2110 | 1940 | 2460 | 2280 |
| 25 | --- | --- | 698 | 684 | --- | --- | 2130 | 2050 | 2260 | 2110 | 2530 | 2460 |
| 26 | --- | --- | 958 | 692 | --- | --- | 2130 | 1730 | 2360 | 2260 | 2630 | 2530 |
| 27 | --- | --- | 876 | 663 | --- | --- | 1730 | 1140 | 2820 | 2360 | --- | --- |
| 28 | --- | --- | 681 | 663 | 835 | 821 | 1770 | 1360 | 2660 | 1950 | --- | --- |
| 29 | --- | --- | 688 | 678 | 823 | 800 | 1360 | 1190 | --- | --- | --- | --- |
| 30 | --- | --- | 688 | 682 | 804 | 797 | 1440 | 1330 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 804 | 797 | 1490 | 1440 | --- | --- | --- | --- |
| MONTH | 1040 | 730 | 1590 | 384 | 1010 | 611 | 2130 | 803 | 2820 | 1130 | 2840 | 1020 |

#3 (14.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 3470 | 3380 | 3200 | 3100 | 2060 | 1860 | 2550 | 2540 | 2560 | 2540 |
| 2 | --- | --- | 3410 | 3340 | 3100 | 2980 | 2260 | 2060 | 2540 | 2530 | 2550 | 2530 |
| 3 | --- | --- | 3430 | 3350 | 3010 | 927 | 2260 | 2180 | 2540 | 2520 | 2530 | 2530 |
| 4 | --- | --- | 3510 | 3400 | 1010 | 964 | 2180 | 2050 | 2560 | 2530 | 2540 | 2530 |
| 5 | --- | --- | 3560 | 3500 | 1500 | 983 | 2140 | 2070 | 2560 | 2550 | 2540 | 2540 |
| 6 | --- | --- | 3560 | 3170 | 1920 | 1500 | 2200 | 2140 | 2570 | 2560 | 2550 | 2540 |
| 7 | --- | --- | 3280 | 3260 | 2070 | 1920 | 2220 | 2200 | 2570 | 2560 | 2550 | 2540 |
| 8 | --- | --- | 3360 | 3280 | --- | --- | 2230 | 2220 | 2570 | 2550 | 2550 | 2540 |
| 9 | --- | --- | 3400 | 3340 | --- | --- | 2260 | 2230 | 2560 | 2540 | 2560 | 2540 |
| 10 | --- | --- | 3400 | 3350 | --- | --- | 2280 | 2260 | 2550 | 2540 | 2550 | 2540 |
| 11 | --- | --- | 3400 | 3350 | --- | --- | 2280 | 2280 | 2540 | 2540 | 2560 | 2540 |
| 12 | --- | --- | 3410 | 3390 | --- | --- | 2290 | 2280 | 2550 | 2530 | 2570 | 2560 |
| 13 | --- | --- | 3420 | 3410 | --- | --- | 2300 | 2280 | 2560 | 2540 | 2570 | 2570 |
| 14 | --- | --- | 3430 | 3410 | 2010 | 1990 | 2310 | 2300 | 2560 | 2550 | 2580 | 2570 |
| 15 | --- | --- | 3440 | 3390 | 2020 | 2000 | 2320 | 2310 | 2560 | 2560 | 2580 | 2580 |
| 16 | --- | --- | 3420 | 3350 | 2020 | 2000 | 2340 | 2320 | 2620 | 2540 | 2580 | 2580 |
| 17 | --- | --- | 3380 | 3320 | 2010 | 1980 | 2370 | 2340 | 2660 | 2620 | 2590 | 2580 |
| 18 | --- | --- | 3320 | 3280 | 1980 | 1950 | 2390 | 2360 | 2660 | 2650 | 2590 | 2580 |
| 19 | 3350 | 3290 | 3300 | 3260 | 1970 | 1950 | 2400 | 2380 | 2650 | 2640 | 2590 | 2590 |
| 20 | 3340 | 3250 | 3270 | 3230 | 2020 | 1960 | 2410 | 2390 | 2640 | 2630 | 2600 | 2590 |
| 21 | 3350 | 3240 | 3250 | 3230 | 2060 | 2010 | 2420 | 2410 | 2630 | 2610 | 2600 | 2600 |
| 22 | 3330 | 3330 | 3270 | 3240 | 2100 | 2060 | 2430 | 2420 | 2780 | 2610 | 2610 | 2600 |
| 23 | 3400 | 3330 | 3270 | 3250 | 2130 | 2100 | 2450 | 2430 | 2780 | 2760 | 2610 | 2600 |
| 24 | 3430 | 3390 | 3300 | 3260 | 2150 | 2130 | 2470 | 2440 | 2790 | 2770 | 2600 | 2600 |
| 25 | 3460 | 3410 | 3310 | 3290 | 2150 | 2130 | 2490 | 2460 | 2790 | 2780 | 2600 | 2600 |
| 26 | 3410 | 3330 | 3310 | 3270 | 2130 | 2080 | 2510 | 2490 | 2780 | 2740 | 2600 | 2590 |
| 27 | 3420 | 3410 | 3270 | 3240 | 2080 | 2020 | 2590 | 2450 | 2740 | 2670 | 2600 | 2580 |
| 28 | 3440 | 3410 | 3250 | 3230 | 2020 | 1980 | 2600 | 2590 | 2680 | 2620 | 2600 | 2580 |
| 29 | 3440 | 3420 | 3230 | 3210 | 1980 | 1930 | 2590 | 2560 | 2630 | 2600 | 2600 | 2590 |
| 30 | 3460 | 3430 | 3210 | 3170 | 1930 | 1880 | 2560 | 2550 | 2600 | 2570 | 2590 | 2580 |
| 31 | --- | --- | 3170 | 3120 | --- | --- | 2560 | 2550 | 2580 | 2560 | --- | --- |
| MONTH | 3460 | 3240 | 3560 | 3120 | 3200 | 927 | 2600 | 1860 | 2790 | 2520 | 2610 | 2530 |
| YEAR | 3560 | 384 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#4 (10.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 784 | 740 | --- | --- | 716 | 677 | 815 | 801 | 1510 | 1480 | 2130 | 1940 |
| 2 | 740 | 698 | 642 | 630 | 693 | 649 | 823 | 808 | 1530 | 1510 | 2400 | 1870 |
| 3 | 698 | 676 | 654 | 642 | 651 | 636 | 832 | 806 | 1570 | 1340 | 1930 | 1760 |
| 4 | 680 | 666 | 657 | 641 | 639 | 628 | 849 | 824 | 1760 | 1310 | 2090 | 1900 |
| 5 | 670 | 666 | 641 | 633 | 633 | 625 | 928 | 832 | 2000 | 946 | 2150 | 1970 |
| 6 | 673 | 667 | 671 | 636 | 626 | 616 | 958 | 628 | 1200 | 946 | 2070 | 1720 |
| 7 | 673 | 666 | 682 | 671 | 617 | 612 | 695 | 534 | 1440 | 1200 | 1750 | 1630 |
| 8 | 666 | 657 | 971 | 673 | 615 | 611 | 912 | 607 | 1530 | 1440 | 1850 | 1750 |
| 9 | 658 | 621 | 1470 | 971 | 634 | 614 | 948 | 721 | 1570 | 1530 | 1880 | 1840 |
| 10 | 726 | 632 | 1490 | 1240 | 650 | 631 | 956 | 721 | 1620 | 1350 | 2110 | 1460 |
| 11 | 721 | 667 | 1240 | 715 | 704 | 648 | 966 | 736 | 1630 | 1350 | 1460 | 972 |
| 12 | 667 | 646 | 839 | 763 | --- | --- | 1020 | 966 | --- | --- | 1420 | 1070 |
| 13 | 649 | 642 | 893 | 839 | --- | --- | 1050 | 1020 | --- | --- | 2190 | 1420 |
| 14 | 652 | 644 | 908 | 893 | --- | --- | 1100 | 1050 | --- | --- | 2530 | 2190 |
| 15 | 669 | 652 | 910 | 900 | --- | --- | 1160 | 1100 | --- | --- | 2530 | 1130 |
| 16 | 693 | 669 | 901 | 871 | --- | --- | 1220 | 1150 | --- | --- | 2040 | 1230 |
| 17 | --- | --- | 871 | 844 | --- | --- | 1210 | 1080 | --- | --- | 2540 | 2040 |
| 18 | --- | --- | 850 | 506 | --- | --- | 1310 | 1130 | --- | --- | 2770 | 2540 |
| 19 | --- | --- | 769 | 402 | --- | --- | 1340 | 1310 | --- | --- | 2820 | 2520 |
| 20 | --- | --- | 582 | 399 | --- | --- | 1330 | 1170 | --- | --- | 2540 | 2240 |
| 21 | --- | --- | 433 | 378 | --- | --- | 1390 | 1290 | --- | --- | 2250 | 2100 |
| 22 | --- | --- | 579 | 433 | --- | --- | 1560 | 1390 | 1710 | 1460 | 2100 | 2010 |
| 23 | --- | --- | 652 | 579 | --- | --- | 2040 | 1560 | 1960 | 1710 | 2130 | 2030 |
| 24 | --- | --- | 682 | 650 | --- | --- | 2060 | 1750 | 2140 | 1960 | 2130 | 2030 |
| 25 | --- | --- | 692 | 676 | --- | --- | 2150 | 1800 | 2280 | 2140 | 2150 | 2020 |
| 26 | --- | --- | 706 | 690 | --- | --- | 1950 | 948 | 2390 | 2280 | 2090 | 2010 |
| 27 | --- | --- | 697 | 659 | --- | --- | 1180 | 1040 | 2460 | 2240 | --- | --- |
| 28 | --- | --- | 682 | 662 | 836 | 820 | 1190 | 1180 | 2240 | 1870 | --- | --- |
| 29 | --- | --- | 687 | 678 | 821 | 801 | 1340 | 1190 | --- | --- | --- | --- |
| 30 | --- | --- | 686 | 679 | 807 | 798 | 1460 | 1340 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 802 | 796 | 1500 | 1450 | --- | --- | --- | --- |
| MONTH | 784 | 621 | 1490 | 378 | 836 | 611 | 2150 | 534 | 2460 | 946 | 2820 | 972 |

#4 (10.0' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 3250 | 3210 | 3250 | 2910 | 1810 | 1610 | 2340 | 2320 | 2370 | 2360 |
| 2 | --- | --- | 3210 | 3130 | 3190 | 2070 | 1880 | 1810 | 2320 | 2260 | 2370 | 2350 |
| 3 | --- | --- | 3330 | 3120 | 2070 | 861 | 1940 | 1860 | 2260 | 1830 | 2360 | 2340 |
| 4 | --- | --- | 3550 | 3330 | 999 | 920 | 2060 | 1940 | 2160 | 1940 | 2390 | 2290 |
| 5 | --- | --- | 3610 | 3480 | 1530 | 970 | 2140 | 2060 | 2040 | 1920 | 2330 | 2320 |
| 6 | --- | --- | --- | --- | 1940 | 1530 | 2190 | 2140 | 1920 | 1740 | 2330 | 2310 |
| 7 | --- | --- | 3340 | 3320 | 2030 | 1940 | 2180 | 2160 | 1740 | 1600 | 2310 | 2280 |
| 8 | --- | --- | 3390 | 3330 | --- | --- | 2160 | 2130 | 1600 | 998 | 2280 | 2250 |
| 9 | --- | --- | 3440 | 3390 | --- | --- | 2210 | 2120 | 998 | 837 | 2250 | 2210 |
| 10 | --- | --- | 3460 | 3440 | --- | --- | 2210 | 2190 | 898 | 710 | 2210 | 1960 |
| 11 | --- | --- | 3450 | 3430 | --- | --- | 2230 | 2200 | --- | --- | 2080 | 1980 |
| 12 | --- | --- | 3470 | 3450 | --- | --- | 2250 | 2220 | --- | --- | 1980 | 1790 |
| 13 | --- | --- | 3470 | 3280 | --- | --- | 2280 | 2250 | --- | --- | 1790 | 1530 |
| 14 | --- | --- | 3280 | 3140 | 1670 | 1630 | 2290 | 2270 | --- | --- | 1530 | 864 |
| 15 | --- | --- | 3140 | 3070 | 1730 | 1670 | 2300 | 2280 | --- | --- | 904 | 852 |
| 16 | --- | --- | 3090 | 3050 | 1710 | 1410 | 2330 | 2290 | --- | --- | 903 | 774 |
| 17 | --- | --- | 3110 | 3070 | 1620 | 1410 | 2330 | 2320 | 1990 | 1560 | --- | --- |
| 18 | --- | --- | 3140 | 3090 | 1690 | 1620 | 2340 | 2330 | 1860 | 1680 | --- | --- |
| 19 | 2880 | 2770 | 3220 | 3060 | 1850 | 1690 | 2360 | 2340 | 1680 | 1530 | --- | --- |
| 20 | 2970 | 2880 | 3280 | 3220 | 1940 | 1850 | 2380 | 2360 | 1550 | 1410 | --- | --- |
| 21 | 3040 | 2970 | 3240 | 3210 | 2000 | 1940 | 2390 | 2370 | 1410 | 957 | --- | --- |
| 22 | 3130 | 3000 | 3220 | 3190 | 2000 | 1960 | 2380 | 2370 | 2590 | 764 | --- | --- |
| 23 | 3200 | 3110 | 3190 | 3150 | 1960 | 1900 | 2370 | 2350 | 2660 | 2590 | --- | --- |
| 24 | 3110 | 3050 | 3190 | 3160 | 1900 | 1870 | 2350 | 2350 | 2650 | 2600 | --- | --- |
| 25 | 3170 | 3060 | 3190 | 3140 | 1870 | 1820 | 2370 | 2350 | 2600 | 2470 | --- | --- |
| 26 | 3230 | 3170 | 3160 | 3120 | 1820 | 1770 | 2380 | 2370 | 2470 | 2410 | --- | --- |
| 27 | 3260 | 3220 | 3120 | 3090 | 1770 | 1690 | 2410 | 821 | 2410 | 2400 | --- | --- |
| 28 | 3240 | 3190 | 3090 | 3050 | 1690 | 1650 | 2420 | 2400 | 2400 | 2380 | --- | --- |
| 29 | 3230 | 3200 | 3050 | 3010 | 1650 | 1640 | 2400 | 2390 | 2380 | 2370 | --- | --- |
| 30 | 3250 | 3200 | 3010 | 2980 | 1640 | 1630 | 2390 | 2370 | 2370 | 2360 | --- | --- |
| 31 | --- | --- | 2980 | 2890 | --- | --- | 2370 | 2330 | 2380 | 2360 | --- | --- |
| MONTH | 3260 | 2770 | 3610 | 2890 | 3250 | 861 | 2420 | 821 | 2660 | 710 | 2390 | 774 |
| YEAR | 3610 | 378 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#1 (22.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 11.6 | 11.4 | --- | --- | 12.3 | 12.0 | 11.1 | 10.9 | 10.9 | 10.5 | 10.3 | 10.3 |
| 2 | 11.7 | 11.6 | 12.3 | 12.3 | 12.3 | 12.2 | 10.9 | 10.9 | 10.5 | 10.3 | 10.3 | 10.3 |
| 3 | 11.6 | 11.6 | 12.3 | 12.2 | 12.3 | 12.2 | 11.0 | 10.9 | 10.3 | 10.1 | 10.3 | 10.1 |
| 4 | 11.6 | 11.6 | 12.3 | 12.1 | 12.3 | 12.2 | 10.9 | 10.7 | 10.1 | 9.9 | 10.3 | 9.9 |
| 5 | 11.6 | 11.6 | 12.3 | 12.3 | 12.2 | 12.0 | 11.0 | 10.7 | 10.1 | 9.9 | 9.9 | 9.7 |
| 6 | 11.6 | 11.6 | 12.3 | 12.1 | 12.0 | 12.0 | 10.9 | 10.9 | 10.7 | 10.1 | 9.7 | 9.2 |
| 7 | 11.8 | 11.6 | 12.3 | 12.1 | 12.0 | 12.0 | 11.1 | 10.9 | 10.9 | 10.5 | 9.7 | 9.2 |
| 8 | 11.9 | 11.6 | 12.3 | 12.3 | 12.0 | 11.8 | 11.1 | 10.7 | 10.9 | 10.7 | 9.9 | 9.7 |
| 9 | 11.8 | 11.6 | 12.3 | 12.2 | 11.8 | 11.8 | 10.9 | 10.7 | 10.7 | 10.3 | 10.1 | 9.6 |
| 10 | 11.8 | 11.8 | 12.3 | 12.2 | 11.8 | 11.8 | 10.9 | 10.7 | 10.3 | 10.1 | 9.9 | 9.5 |
| 11 | 11.8 | 11.8 | 12.2 | 12.2 | 12.0 | 11.8 | 10.9 | 10.7 | 10.1 | 9.6 | 10.3 | 9.9 |
| 12 | 11.9 | 11.8 | 12.2 | 12.2 | --- | --- | 10.7 | 10.7 | --- | --- | 10.3 | 10.3 |
| 13 | 11.9 | 11.8 | 12.3 | 12.2 | --- | --- | 10.7 | 10.7 | --- | --- | 10.3 | 9.9 |
| 14 | 11.9 | 11.8 | 12.3 | 12.2 | --- | --- | 10.7 | 10.5 | --- | --- | 9.9 | 9.3 |
| 15 | 12.0 | 11.8 | 12.3 | 12.2 | --- | --- | 10.7 | 10.5 | --- | --- | 9.9 | 9.3 |
| 16 | 12.1 | 11.8 | 12.3 | 12.2 | --- | --- | 10.7 | 10.5 | --- | --- | 10.1 | 9.8 |
| 17 | --- | --- | 12.3 | 12.2 | --- | --- | 10.7 | 10.5 | --- | --- | 10.0 | 9.1 |
| 18 | --- | --- | 12.3 | 12.3 | --- | --- | 10.7 | 10.4 | --- | --- | 9.1 | 8.3 |
| 19 | --- | --- | 12.3 | 12.2 | --- | --- | 10.6 | 10.4 | --- | --- | 8.7 | 8.3 |
| 20 | --- | --- | 12.3 | 12.2 | --- | --- | 10.5 | 10.5 | --- | --- | 9.1 | 8.6 |
| 21 | --- | --- | 12.3 | 12.2 | --- | --- | 10.5 | 10.3 | --- | --- | 9.5 | 9.1 |
| 22 | --- | --- | 12.3 | 12.2 | --- | --- | 10.7 | 10.3 | 10.7 | 10.5 | 9.7 | 9.5 |
| 23 | --- | --- | 12.3 | 12.2 | --- | --- | 10.7 | 10.3 | 10.7 | 10.5 | 9.9 | 9.6 |
| 24 | --- | --- | 12.3 | 12.3 | --- | --- | 10.5 | 10.3 | 10.5 | 10.0 | 9.9 | 9.5 |
| 25 | --- | --- | 12.3 | 12.3 | --- | --- | 10.5 | 10.3 | 10.0 | 9.5 | 9.5 | 8.9 |
| 26 | --- | --- | 12.3 | 12.2 | --- | --- | 10.9 | 10.3 | 9.5 | 9.5 | 8.9 | 8.7 |
| 27 | --- | --- | 12.3 | 12.2 | --- | --- | 11.1 | 10.9 | 9.9 | 9.3 | --- | --- |
| 28 | --- | --- | 12.2 | 12.2 | 11.8 | 11.6 | 11.1 | 10.9 | 10.3 | 9.9 | --- | --- |
| 29 | --- | --- | 12.3 | 12.2 | 11.6 | 11.4 | 11.1 | 10.9 | --- | --- | --- | --- |
| 30 | --- | --- | 12.3 | 12.3 | 11.4 | 11.1 | 11.1 | 11.1 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 11.1 | 11.1 | 11.1 | 10.9 | --- | --- | --- | --- |
| MONTH | 12.1 | 11.4 | 12.3 | 12.1 | 12.3 | 11.1 | 11.1 | 10.3 | 10.9 | 9.3 | 10.3 | 8.3 |

#1 (22.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 8.7 | 8.5 | 9.1 | 8.9 | 9.6 | 9.3 | 9.9 | 9.9 | 10.6 | 10.5 |
| 2 | --- | --- | 8.9 | 8.7 | 9.3 | 8.9 | 9.5 | 9.3 | 10.0 | 9.9 | 10.6 | 10.5 |
| 3 | --- | --- | 8.9 | 8.5 | 9.3 | 9.1 | 9.5 | 9.3 | 10.0 | 9.9 | 10.7 | 10.5 |
| 4 | --- | --- | 8.7 | 8.3 | 9.3 | 9.3 | 9.5 | 9.5 | 9.9 | 9.9 | 10.7 | 10.5 |
| 5 | --- | --- | 8.5 | 8.3 | 9.4 | 9.3 | 9.5 | 9.5 | 9.9 | 9.9 | 10.8 | 10.5 |
| 6 | --- | --- | 8.9 | 8.3 | 9.3 | 9.3 | 9.6 | 9.5 | 10.1 | 9.9 | 10.8 | 10.5 |
| 7 | --- | --- | 9.1 | 8.9 | 9.3 | 9.1 | 9.5 | 9.5 | 10.1 | 9.9 | 10.8 | 10.6 |
| 8 | --- | --- | 9.3 | 8.9 | --- | --- | 9.6 | 9.5 | 10.1 | 9.9 | 10.8 | 10.7 |
| 9 | --- | --- | 8.9 | 8.9 | --- | --- | 9.5 | 9.5 | 10.1 | 9.9 | 10.8 | 10.7 |
| 10 | --- | --- | 8.9 | 8.5 | --- | --- | 9.5 | 9.5 | 10.2 | 10.1 | 10.8 | 10.8 |
| 11 | --- | --- | 8.5 | 8.3 | --- | --- | 9.6 | 9.5 | 10.1 | 10.1 | 11.0 | 10.8 |
| 12 | --- | --- | 8.5 | 8.3 | --- | --- | 9.6 | 9.5 | 10.2 | 10.1 | 11.0 | 10.7 |
| 13 | --- | --- | 8.5 | 8.3 | --- | --- | 9.6 | 9.5 | 10.1 | 10.1 | 11.0 | 10.8 |
| 14 | --- | --- | 8.7 | 8.5 | 9.3 | 9.3 | 9.6 | 9.5 | 10.3 | 10.1 | 11.0 | 10.8 |
| 15 | --- | --- | 8.7 | 8.7 | 9.4 | 9.3 | 9.6 | 9.5 | 10.4 | 10.1 | 11.0 | 10.9 |
| 16 | --- | --- | 8.9 | 8.7 | 9.4 | 9.1 | 9.6 | 9.5 | 10.4 | 10.1 | 11.0 | 11.0 |
| 17 | --- | --- | 8.9 | 8.7 | 9.3 | 9.3 | 9.6 | 9.5 | 10.4 | 10.1 | 11.0 | 11.0 |
| 18 | --- | --- | 8.9 | 8.9 | 9.3 | 9.3 | 9.7 | 9.5 | 10.4 | 10.3 | 11.0 | 10.9 |
| 19 | 9.5 | 9.3 | 8.9 | 8.9 | 9.4 | 9.3 | 9.8 | 9.5 | 10.4 | 10.3 | 11.0 | 11.0 |
| 20 | 9.3 | 9.1 | 8.9 | 8.9 | 9.4 | 9.3 | 9.8 | 9.5 | 10.4 | 10.3 | 11.0 | 11.0 |
| 21 | 9.1 | 8.7 | 9.1 | 8.9 | 9.4 | 9.2 | 9.8 | 9.5 | 10.3 | 10.3 | 11.2 | 10.9 |
| 22 | 8.9 | 8.7 | 9.3 | 9.1 | 9.4 | 9.3 | 9.8 | 9.7 | 10.3 | 10.3 | 11.2 | 11.0 |
| 23 | 8.7 | 8.5 | 9.3 | 9.3 | 9.5 | 9.3 | 9.7 | 9.7 | 10.4 | 10.3 | 11.2 | 11.0 |
| 24 | 8.5 | 8.5 | 9.3 | 8.9 | 9.4 | 9.3 | 9.8 | 9.7 | 10.3 | 10.3 | 11.2 | 11.0 |
| 25 | 8.7 | 8.5 | 9.1 | 9.1 | 9.4 | 9.3 | 9.8 | 9.7 | 10.4 | 10.3 | 11.2 | 11.0 |
| 26 | 8.9 | 8.7 | 9.1 | 8.9 | 9.4 | 9.3 | 9.8 | 9.7 | 10.5 | 10.3 | 11.2 | 11.2 |
| 27 | 8.7 | 8.5 | 9.1 | 8.9 | 9.4 | 9.3 | 9.8 | 9.7 | 10.6 | 10.3 | 11.2 | 11.1 |
| 28 | 8.5 | 8.5 | 9.1 | 8.9 | 9.5 | 9.3 | 9.9 | 9.7 | 10.6 | 10.3 | 11.2 | 11.2 |
| 29 | 8.7 | 8.5 | 8.9 | 8.9 | 9.6 | 9.3 | 9.9 | 9.7 | 10.6 | 10.3 | 11.2 | 11.2 |
| 30 | 8.7 | 8.5 | 8.9 | 8.9 | 9.5 | 9.3 | 9.9 | 9.8 | 10.6 | 10.4 | 11.2 | 11.2 |
| 31 | --- | --- | 9.1 | 8.9 | --- | --- | 10.0 | 9.7 | 10.6 | 10.5 | --- | --- |
| MONTH | 9.5 | 8.5 | 9.3 | 8.3 | 9.6 | 8.9 | 10.0 | 9.3 | 10.6 | 9.9 | 11.2 | 10.5 |
| YEAR | 12.3 | 8.3 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#2 (18.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 12.8 | 12.7 | --- | --- | 12.3 | 12.0 | 10.9 | 10.7 | 9.9 | 9.7 | 9.3 | 7.9 |
| 2 | 12.8 | 12.7 | 13.0 | 13.0 | 12.3 | 11.8 | 10.7 | 10.7 | 9.9 | 9.7 | 9.3 | 8.7 |
| 3 | 13.0 | 12.7 | 13.0 | 13.0 | 12.0 | 11.8 | 10.7 | 10.7 | 9.9 | 9.7 | 9.7 | 7.9 |
| 4 | 13.0 | 12.7 | 13.0 | 13.0 | 12.0 | 11.8 | 10.7 | 10.7 | 9.9 | 9.7 | 8.7 | 7.9 |
| 5 | 13.0 | 12.7 | 13.0 | 13.0 | 12.0 | 11.8 | 10.7 | 10.5 | 9.9 | 9.7 | 8.9 | 8.7 |
| 6 | 13.0 | 12.7 | 13.0 | 13.0 | 11.8 | 11.8 | 10.9 | 10.7 | 10.5 | 9.9 | 9.1 | 8.9 |
| 7 | 13.0 | 12.7 | 13.0 | 13.0 | 11.8 | 11.8 | 10.9 | 10.9 | 10.3 | 8.9 | 9.5 | 8.9 |
| 8 | 13.0 | 12.7 | 13.0 | 12.7 | 11.8 | 11.6 | 11.1 | 10.7 | 9.4 | 9.0 | 9.7 | 9.3 |
| 9 | 13.0 | 12.7 | 13.0 | 12.7 | 11.8 | 11.6 | 10.7 | 10.5 | 9.5 | 9.4 | 9.7 | 9.3 |
| 10 | 13.0 | 12.7 | 13.0 | 13.0 | 11.8 | 11.6 | 10.7 | 10.5 | 9.5 | 9.4 | 9.7 | 9.3 |
| 11 | 13.0 | 12.7 | 13.0 | 13.0 | 12.0 | 11.6 | 10.7 | 10.5 | 9.7 | 9.4 | 9.3 | 7.3 |
| 12 | 13.0 | 12.7 | 13.0 | 12.9 | --- | --- | 10.7 | 10.5 | --- | --- | 8.1 | 7.3 |
| 13 | 13.0 | 12.7 | 13.0 | 12.9 | --- | --- | 10.7 | 10.5 | --- | --- | 8.3 | 8.1 |
| 14 | 13.0 | 12.7 | 13.0 | 12.9 | --- | --- | 10.5 | 10.5 | --- | --- | 8.9 | 8.1 |
| 15 | 13.0 | 12.8 | 13.0 | 12.9 | --- | --- | 10.5 | 10.3 | --- | --- | 9.1 | 8.3 |
| 16 | 13.0 | 12.7 | 13.0 | 12.9 | --- | --- | 10.5 | 10.3 | --- | --- | 8.9 | 7.3 |
| 17 | --- | --- | 13.0 | 12.7 | --- | --- | 10.5 | 10.4 | --- | --- | 8.1 | 8.1 |
| 18 | --- | --- | 13.0 | 12.5 | --- | --- | 10.6 | 10.4 | --- | --- | 8.3 | 8.1 |
| 19 | --- | --- | 12.7 | 11.6 | --- | --- | 10.5 | 10.4 | --- | --- | 8.7 | 8.3 |
| 20 | --- | --- | 12.5 | 12.2 | --- | --- | 10.5 | 10.3 | --- | --- | 9.1 | 8.6 |
| 21 | --- | --- | 12.3 | 12.2 | --- | --- | 10.5 | 10.3 | --- | --- | 9.3 | 8.7 |
| 22 | --- | --- | 12.3 | 12.2 | --- | --- | 10.7 | 10.3 | 10.1 | 9.5 | 9.1 | 8.7 |
| 23 | --- | --- | 12.3 | 12.2 | --- | --- | 10.5 | 10.3 | 9.7 | 8.3 | 9.1 | 8.5 |
| 24 | --- | --- | 12.3 | 12.3 | --- | --- | 10.5 | 10.2 | 9.0 | 8.8 | 8.9 | 8.5 |
| 25 | --- | --- | 12.5 | 12.3 | --- | --- | 10.3 | 10.3 | 9.1 | 8.8 | 8.9 | 8.7 |
| 26 | --- | --- | 12.7 | 12.5 | --- | --- | 10.9 | 10.3 | 9.1 | 8.9 | 8.7 | 8.7 |
| 27 | --- | --- | 12.7 | 12.0 | --- | --- | 10.9 | 10.3 | 9.9 | 8.9 | --- | --- |
| 28 | --- | --- | 12.2 | 12.0 | 10.9 | 10.7 | 10.9 | 10.5 | 9.9 | 9.3 | --- | --- |
| 29 | --- | --- | 12.2 | 12.0 | 10.9 | 10.7 | 10.9 | 9.0 | --- | --- | --- | --- |
| 30 | --- | --- | 12.3 | 12.0 | 10.9 | 10.7 | 9.7 | 9.0 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 10.9 | 10.7 | 9.7 | 9.5 | --- | --- | --- | --- |
| MONTH | 13.0 | 12.7 | 13.0 | 11.6 | 12.3 | 10.7 | 11.1 | 9.0 | 10.5 | 8.3 | 9.7 | 7.3 |

#2 (18.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 8.7 | 8.5 | 8.9 | 8.9 | 9.4 | 9.3 | 10.4 | 10.3 | 11.2 | 11.2 |
| 2 | --- | --- | 8.7 | 8.7 | 8.9 | 8.7 | 9.4 | 9.3 | 10.4 | 10.3 | 11.4 | 11.2 |
| 3 | --- | --- | 8.7 | 8.5 | 8.9 | 8.5 | 9.3 | 9.3 | 10.4 | 10.3 | 11.4 | 11.4 |
| 4 | --- | --- | 8.5 | 8.3 | 8.8 | 8.7 | 9.5 | 9.3 | 10.4 | 10.3 | 11.4 | 11.2 |
| 5 | --- | --- | 8.5 | 8.3 | 8.9 | 8.7 | 9.5 | 9.3 | 10.4 | 10.3 | 11.4 | 11.4 |
| 6 | --- | --- | 8.9 | 8.3 | 9.0 | 8.7 | 9.6 | 9.4 | 10.4 | 10.3 | 11.4 | 11.4 |
| 7 | --- | --- | 8.9 | 8.5 | 8.9 | 8.9 | 9.5 | 9.5 | 10.5 | 10.3 | 11.4 | 11.4 |
| 8 | --- | --- | 8.5 | 7.9 | --- | --- | 9.6 | 9.5 | 10.5 | 10.3 | 11.4 | 11.4 |
| 9 | --- | --- | 8.3 | 8.1 | --- | --- | 9.5 | 9.5 | 10.6 | 10.3 | 11.4 | 11.4 |
| 10 | --- | --- | 8.3 | 8.3 | --- | --- | 9.5 | 9.5 | 10.6 | 10.4 | 11.4 | 11.4 |
| 11 | --- | --- | 8.5 | 8.3 | --- | --- | 9.6 | 9.5 | 10.6 | 10.5 | 11.4 | 11.4 |
| 12 | --- | --- | 8.5 | 8.3 | --- | --- | 9.6 | 9.5 | 10.6 | 10.5 | 11.4 | 11.4 |
| 13 | --- | --- | 8.5 | 8.3 | --- | --- | 9.6 | 9.5 | 10.6 | 10.5 | 11.6 | 11.4 |
| 14 | --- | --- | 8.7 | 8.5 | 9.1 | 8.9 | 9.7 | 9.5 | 10.8 | 10.5 | 11.6 | 11.4 |
| 15 | --- | --- | 8.7 | 8.5 | 9.1 | 8.9 | 9.7 | 9.5 | 10.8 | 10.5 | 11.6 | 11.4 |
| 16 | --- | --- | 8.7 | 8.7 | 9.1 | 8.9 | 9.8 | 9.6 | 10.8 | 10.6 | 11.7 | 11.4 |
| 17 | --- | --- | 8.9 | 8.7 | 9.1 | 8.9 | 9.8 | 9.7 | 10.8 | 10.8 | 11.6 | 11.6 |
| 18 | --- | --- | 8.9 | 8.7 | 9.1 | 9.1 | 9.8 | 9.7 | 10.8 | 10.8 | 11.7 | 11.4 |
| 19 | 8.7 | 8.5 | 8.9 | 8.7 | 9.2 | 8.9 | 9.9 | 9.7 | 10.9 | 10.7 | 11.7 | 11.6 |
| 20 | 8.9 | 8.5 | 8.9 | 8.9 | 9.2 | 9.0 | 9.9 | 9.7 | 11.0 | 10.8 | 11.6 | 11.6 |
| 21 | 8.7 | 8.5 | 8.9 | 8.7 | 9.2 | 9.1 | 9.9 | 9.7 | 11.0 | 11.0 | 11.6 | 11.6 |
| 22 | 8.5 | 8.5 | 8.7 | 8.3 | 9.1 | 8.9 | 9.9 | 9.9 | 11.0 | 11.0 | 11.8 | 11.6 |
| 23 | 8.5 | 8.3 | 8.7 | 8.7 | 9.2 | 8.9 | 9.9 | 9.7 | 11.0 | 11.0 | 11.8 | 11.6 |
| 24 | 8.5 | 8.3 | 8.9 | 8.5 | 9.2 | 9.1 | 9.9 | 9.9 | 11.0 | 10.9 | 11.8 | 11.6 |
| 25 | 8.7 | 8.5 | 8.7 | 8.7 | 9.3 | 9.1 | 10.1 | 9.9 | 11.2 | 11.0 | 11.9 | 11.6 |
| 26 | 8.9 | 8.5 | 8.9 | 8.7 | 9.4 | 9.1 | 10.1 | 9.9 | 11.2 | 11.0 | 11.9 | 11.6 |
| 27 | 8.5 | 8.3 | 8.9 | 8.7 | 9.3 | 9.1 | 10.1 | 9.9 | 11.2 | 11.0 | 11.9 | 11.6 |
| 28 | 8.5 | 8.3 | 8.9 | 8.7 | 9.3 | 9.1 | 10.2 | 10.1 | 11.2 | 11.2 | 11.9 | 11.6 |
| 29 | 8.5 | 8.3 | 8.9 | 8.9 | 9.4 | 9.2 | 10.2 | 10.1 | 11.2 | 11.2 | 11.9 | 11.6 |
| 30 | 8.5 | 8.4 | 8.9 | 8.9 | 9.3 | 9.3 | 10.3 | 10.1 | 11.2 | 11.2 | 11.9 | 11.8 |
| 31 | --- | --- | 8.9 | 8.7 | --- | --- | 10.4 | 10.1 | 11.2 | 11.2 | --- | --- |
| MONTH | 8.9 | 8.3 | 8.9 | 7.9 | 9.4 | 8.5 | 10.4 | 9.3 | 11.2 | 10.3 | 11.9 | 11.2 |
| YEAR | 13.0 | 7.3 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#3 (14.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 14.8 | 14.7 | --- | --- | 12.1 | 11.6 | 10.5 | 10.3 | 9.5 | 9.5 | 8.3 | 7.7 |
| 2 | 14.8 | 14.7 | 13.9 | 13.9 | 11.8 | 11.6 | 10.5 | 10.3 | 9.5 | 9.5 | 8.9 | 8.3 |
| 3 | 14.7 | 14.7 | 13.9 | 13.9 | 11.8 | 11.6 | 10.5 | 10.3 | 9.7 | 9.5 | 9.1 | 7.4 |
| 4 | 14.7 | 14.7 | 14.0 | 13.9 | 11.8 | 11.6 | 10.5 | 10.3 | 9.7 | 9.3 | 8.3 | 7.9 |
| 5 | 14.7 | 14.5 | 14.0 | 13.9 | 11.8 | 11.6 | 10.5 | 10.3 | 9.7 | 9.3 | 8.5 | 8.1 |
| 6 | 14.7 | 14.5 | 14.0 | 13.7 | 11.8 | 11.6 | 10.7 | 10.5 | 9.9 | 7.9 | 8.9 | 8.5 |
| 7 | 14.7 | 14.5 | 14.0 | 13.7 | 11.6 | 11.6 | 10.9 | 10.7 | 8.9 | 8.3 | 9.0 | 7.5 |
| 8 | 14.7 | 14.4 | 14.0 | 13.7 | 11.8 | 11.4 | 10.9 | 10.0 | 9.0 | 8.9 | 7.5 | 7.0 |
| 9 | 14.7 | 14.5 | 13.7 | 13.4 | 11.6 | 11.6 | 10.5 | 10.3 | 9.2 | 8.9 | 7.2 | 7.1 |
| 10 | 14.5 | 14.2 | 13.7 | 13.7 | 11.6 | 11.4 | 10.5 | 10.3 | 9.3 | 9.0 | 8.3 | 6.8 |
| 11 | 14.5 | 14.2 | 13.7 | 13.7 | 12.0 | 11.4 | 10.5 | 10.2 | 9.5 | 9.0 | 7.9 | 6.6 |
| 12 | 14.5 | 14.2 | 13.7 | 13.2 | --- | --- | 10.5 | 10.2 | --- | --- | 7.7 | 7.3 |
| 13 | 14.5 | 14.2 | 13.4 | 13.2 | --- | --- | 10.5 | 10.2 | --- | --- | 7.9 | 7.7 |
| 14 | 14.5 | 14.2 | 13.2 | 13.2 | --- | --- | 10.3 | 10.2 | --- | --- | 8.3 | 7.2 |
| 15 | 14.4 | 14.2 | 13.2 | 13.0 | --- | --- | 10.3 | 10.2 | --- | --- | 7.9 | 6.8 |
| 16 | 14.2 | 14.2 | 13.2 | 12.9 | --- | --- | 10.3 | 10.2 | --- | --- | 7.7 | 6.8 |
| 17 | --- | --- | 13.0 | 13.0 | --- | --- | 10.5 | 10.2 | --- | --- | 7.9 | 7.7 |
| 18 | --- | --- | 13.0 | 12.7 | --- | --- | 10.4 | 10.2 | --- | --- | 7.9 | 7.9 |
| 19 | --- | --- | 12.7 | 11.6 | --- | --- | 10.3 | 10.2 | --- | --- | 8.3 | 7.9 |
| 20 | --- | --- | 12.3 | 12.2 | --- | --- | 10.3 | 10.0 | --- | --- | 8.5 | 7.5 |
| 21 | --- | --- | 12.3 | 12.2 | --- | --- | 10.3 | 10.0 | --- | --- | 7.6 | 7.4 |
| 22 | --- | --- | 12.5 | 12.2 | --- | --- | 10.5 | 9.5 | 7.9 | 7.2 | 7.6 | 7.2 |
| 23 | --- | --- | 12.5 | 12.2 | --- | --- | 10.5 | 9.9 | 8.5 | 7.9 | 7.7 | 7.5 |
| 24 | --- | --- | 12.5 | 12.3 | --- | --- | 10.3 | 10.0 | 8.7 | 8.3 | 8.5 | 7.7 |
| 25 | --- | --- | 12.3 | 12.3 | --- | --- | 10.3 | 9.9 | 8.7 | 8.5 | 8.5 | 8.3 |
| 26 | --- | --- | 12.7 | 12.0 | --- | --- | 10.3 | 9.6 | 8.9 | 8.5 | 8.5 | 8.3 |
| 27 | --- | --- | 12.3 | 12.0 | --- | --- | 9.8 | 8.5 | 8.9 | 8.1 | --- | --- |
| 28 | --- | --- | 12.2 | 12.0 | 10.5 | 10.3 | 9.9 | 8.3 | 8.3 | 7.2 | --- | --- |
| 29 | --- | --- | 12.2 | 12.0 | 10.5 | 10.3 | 9.2 | 8.3 | --- | --- | --- | --- |
| 30 | --- | --- | 12.0 | 11.8 | 10.5 | 10.3 | 9.5 | 9.0 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 10.5 | 10.3 | 9.5 | 9.3 | --- | --- | --- | --- |
| MONTH | 14.8 | 14.2 | 14.0 | 11.6 | 12.1 | 10.3 | 10.9 | 8.3 | 9.9 | 7.2 | 9.1 | 6.6 |

#3 (14.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 8.5 | 7.9 | 8.7 | 8.5 | 9.9 | 9.7 | 11.4 | 11.4 | 12.8 | 12.5 |
| 2 | --- | --- | 8.1 | 7.9 | 8.7 | 8.5 | 9.8 | 9.7 | 11.4 | 11.4 | 12.8 | 12.6 |
| 3 | --- | --- | 8.5 | 7.9 | 8.7 | 8.5 | 9.9 | 9.7 | 11.6 | 11.4 | 12.8 | 12.8 |
| 4 | --- | --- | 8.5 | 8.1 | 8.9 | 8.7 | 10.1 | 9.9 | 11.6 | 11.4 | 12.8 | 12.7 |
| 5 | --- | --- | 8.3 | 8.1 | 9.0 | 8.9 | 10.2 | 9.9 | 11.6 | 11.6 | 12.8 | 12.7 |
| 6 | --- | --- | 8.5 | 7.9 | 9.0 | 8.9 | 10.2 | 9.9 | 11.7 | 11.6 | 12.8 | 12.8 |
| 7 | --- | --- | 8.0 | 7.9 | 8.9 | 8.9 | 10.4 | 10.1 | 11.7 | 11.6 | 13.0 | 12.8 |
| 8 | --- | --- | 8.3 | 7.9 | --- | --- | 10.4 | 10.3 | 11.9 | 11.6 | 13.0 | 12.8 |
| 9 | --- | --- | 8.3 | 8.1 | --- | --- | 10.4 | 10.3 | 11.9 | 11.7 | 13.0 | 12.8 |
| 10 | --- | --- | 8.5 | 8.1 | --- | --- | 10.4 | 10.3 | 11.9 | 11.9 | 13.0 | 13.0 |
| 11 | --- | --- | 8.5 | 8.3 | --- | --- | 10.4 | 10.3 | 11.9 | 11.8 | 13.0 | 13.0 |
| 12 | --- | --- | 8.3 | 8.3 | --- | --- | 10.6 | 10.3 | 12.1 | 11.8 | 13.0 | 13.0 |
| 13 | --- | --- | 8.4 | 8.3 | --- | --- | 10.6 | 10.5 | 12.1 | 11.9 | 13.0 | 13.0 |
| 14 | --- | --- | 8.5 | 8.3 | 8.9 | 8.9 | 10.6 | 10.5 | 12.1 | 12.1 | 13.0 | 13.0 |
| 15 | --- | --- | 8.7 | 8.1 | 9.1 | 8.9 | 10.6 | 10.6 | 12.1 | 12.1 | 13.0 | 13.0 |
| 16 | --- | --- | 8.5 | 8.1 | 9.1 | 8.9 | 10.6 | 10.5 | 12.1 | 11.9 | 13.1 | 13.0 |
| 17 | --- | --- | 8.3 | 8.1 | 9.3 | 9.1 | 10.8 | 10.6 | 12.1 | 12.1 | 13.0 | 13.0 |
| 18 | --- | --- | 8.3 | 8.1 | 9.3 | 9.1 | 10.8 | 10.8 | 12.3 | 12.1 | 13.0 | 13.0 |
| 19 | 8.5 | 7.9 | 8.3 | 8.1 | 9.4 | 9.1 | 11.0 | 10.8 | 12.3 | 12.1 | 13.0 | 13.0 |
| 20 | 8.5 | 7.9 | 8.3 | 8.1 | 9.4 | 9.2 | 11.0 | 10.8 | 12.3 | 12.1 | 13.0 | 13.0 |
| 21 | 8.5 | 7.8 | 8.3 | 8.3 | 9.4 | 9.3 | 11.0 | 11.0 | 12.3 | 12.3 | 13.0 | 13.0 |
| 22 | 8.3 | 8.3 | 8.3 | 8.1 | 9.4 | 9.3 | 11.0 | 11.0 | 12.3 | 12.1 | 13.0 | 13.0 |
| 23 | 8.3 | 8.1 | 8.3 | 8.1 | 9.6 | 9.3 | 11.2 | 11.0 | 12.3 | 12.1 | 13.0 | 13.0 |
| 24 | 8.3 | 8.1 | 8.7 | 8.3 | 9.6 | 9.5 | 11.2 | 11.0 | 12.3 | 12.3 | 13.0 | 13.0 |
| 25 | 8.5 | 7.9 | 8.7 | 8.5 | 9.6 | 9.5 | 11.2 | 11.2 | 12.3 | 12.3 | 13.0 | 13.0 |
| 26 | 8.1 | 7.8 | 8.5 | 8.3 | 9.6 | 9.5 | 11.2 | 11.2 | 12.3 | 12.3 | 13.0 | 13.0 |
| 27 | 8.3 | 8.1 | 8.5 | 8.3 | 9.7 | 9.5 | 11.4 | 11.2 | 12.5 | 12.3 | 13.2 | 13.0 |
| 28 | 8.3 | 8.1 | 8.4 | 8.3 | 9.8 | 9.6 | 11.4 | 11.2 | 12.6 | 12.3 | 13.2 | 13.0 |
| 29 | 8.4 | 8.3 | 8.3 | 8.3 | 9.8 | 9.7 | 11.4 | 11.4 | 12.6 | 12.3 | 13.2 | 13.0 |
| 30 | 8.4 | 8.2 | 8.4 | 8.3 | 9.8 | 9.7 | 11.4 | 11.4 | 12.8 | 12.5 | 13.2 | 13.0 |
| 31 | --- | --- | 8.5 | 8.3 | --- | --- | 11.4 | 11.4 | 12.6 | 12.5 | --- | --- |
| MONTH | 8.5 | 7.8 | 8.7 | 7.9 | 9.8 | 8.5 | 11.4 | 9.7 | 12.8 | 11.4 | 13.2 | 12.5 |
| YEAR | 14.8 | 6.6 | | | | | | | | | | |

415307080414600 AB-140 NR KINGSVILLE, OH--Continued

#4 (10.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | --- | --- | 11.6 | 11.4 | 9.9 | 9.7 | 8.9 | 8.7 | 7.4 | 6.2 |
| 2 | 15.8 | 15.5 | 13.9 | 13.9 | 11.4 | 11.1 | 9.9 | 9.7 | 8.9 | 8.7 | 7.9 | 5.9 |
| 3 | 15.8 | 15.8 | 13.9 | 13.9 | 11.4 | 11.1 | 9.9 | 9.7 | 8.9 | 7.7 | 7.2 | 5.9 |
| 4 | 15.8 | 15.5 | 14.0 | 13.9 | 11.4 | 11.1 | 9.9 | 9.7 | 9.1 | 7.7 | 7.4 | 6.3 |
| 5 | 15.5 | 15.5 | 14.0 | 13.9 | 11.4 | 11.1 | 10.1 | 9.7 | 9.1 | 6.6 | 7.6 | 6.3 |
| 6 | 15.5 | 15.5 | 14.0 | 13.7 | 11.1 | 11.1 | 10.1 | 9.0 | 7.7 | 6.6 | 7.0 | 5.9 |
| 7 | 15.5 | 15.2 | 13.7 | 13.7 | 11.1 | 11.1 | 9.2 | 8.5 | 8.1 | 7.7 | 6.6 | 5.9 |
| 8 | 15.5 | 15.2 | 13.7 | 13.7 | 11.1 | 10.9 | 9.9 | 8.6 | 8.3 | 8.1 | 7.0 | 6.6 |
| 9 | 15.2 | 15.2 | 13.7 | 13.7 | 11.1 | 10.9 | 9.9 | 8.9 | 8.5 | 8.1 | 6.8 | 6.6 |
| 10 | 15.2 | 15.2 | 13.7 | 13.4 | 11.1 | 10.9 | 9.9 | 8.8 | 8.5 | 7.2 | 6.8 | 5.8 |
| 11 | 15.2 | 15.2 | 13.4 | 13.0 | 11.1 | 10.5 | 9.8 | 8.8 | 8.7 | 7.3 | 6.6 | 5.4 |
| 12 | 15.2 | 15.0 | 13.2 | 12.9 | --- | --- | 9.8 | 9.6 | --- | --- | 6.8 | 6.6 |
| 13 | 15.2 | 15.0 | 13.0 | 12.9 | --- | --- | 9.8 | 9.4 | --- | --- | 7.2 | 6.8 |
| 14 | 15.0 | 15.0 | 13.0 | 12.9 | --- | --- | 9.9 | 9.6 | --- | --- | 7.6 | 6.6 |
| 15 | 15.0 | 14.9 | 13.0 | 12.7 | --- | --- | 9.9 | 9.7 | --- | --- | 6.8 | 5.4 |
| 16 | 15.0 | 15.0 | 12.9 | 12.7 | --- | --- | 9.9 | 9.4 | --- | --- | 7.0 | 6.4 |
| 17 | --- | --- | 12.8 | 12.7 | --- | --- | 9.4 | 8.8 | --- | --- | 7.2 | 7.0 |
| 18 | --- | --- | 12.7 | 12.0 | --- | --- | 9.8 | 9.0 | --- | --- | 7.4 | 7.2 |
| 19 | --- | --- | 12.0 | 11.1 | --- | --- | 9.6 | 9.0 | --- | --- | 7.4 | 5.8 |
| 20 | --- | --- | 11.8 | 11.6 | --- | --- | 9.2 | 8.8 | --- | --- | 5.9 | 5.6 |
| 21 | --- | --- | 12.0 | 11.6 | --- | --- | 9.7 | 9.2 | --- | --- | 5.8 | 5.5 |
| 22 | --- | --- | 12.0 | 11.8 | --- | --- | 9.7 | 8.7 | 7.4 | 6.7 | 5.8 | 5.5 |
| 23 | --- | --- | 12.0 | 11.8 | --- | --- | 9.7 | 8.5 | 7.7 | 7.3 | 6.1 | 5.8 |
| 24 | --- | --- | 12.0 | 11.8 | --- | --- | 9.6 | 8.3 | 7.9 | 7.7 | 6.0 | 5.7 |
| 25 | --- | --- | 12.0 | 11.8 | --- | --- | 9.5 | 8.5 | 7.9 | 7.9 | 5.9 | 5.8 |
| 26 | --- | --- | 12.0 | 11.4 | --- | --- | 8.5 | 7.3 | 8.1 | 7.9 | 5.9 | 5.8 |
| 27 | --- | --- | 11.6 | 11.4 | --- | --- | 8.3 | 7.7 | 8.1 | 6.3 | --- | --- |
| 28 | --- | --- | 11.6 | 11.4 | 9.7 | 9.5 | 8.1 | 7.7 | 7.0 | 5.8 | --- | --- |
| 29 | --- | --- | 11.6 | 11.3 | 9.7 | 9.5 | 8.5 | 7.9 | --- | --- | --- | --- |
| 30 | --- | --- | 11.6 | 11.4 | 9.9 | 9.7 | 8.7 | 8.3 | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | 9.9 | 9.7 | 8.7 | 8.5 | --- | --- | --- | --- |
| MONTH | 15.8 | 14.9 | 14.0 | 11.1 | 11.6 | 9.5 | 10.1 | 7.3 | 9.1 | 5.8 | 7.9 | 5.4 |

#4 (10.0' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | 6.9 | 6.8 | 8.5 | 8.3 | 11.4 | 11.0 | 13.0 | 13.0 | 14.2 | 14.0 |
| 2 | --- | --- | 7.0 | 6.8 | 8.9 | 8.3 | 11.2 | 11.0 | 13.1 | 13.0 | 14.2 | 14.0 |
| 3 | --- | --- | 7.2 | 6.8 | 9.3 | 8.9 | 11.2 | 11.2 | 15.3 | 13.0 | 14.2 | 14.0 |
| 4 | --- | --- | 8.0 | 7.2 | 9.3 | 9.1 | 11.4 | 11.2 | 14.2 | 13.2 | 14.3 | 14.0 |
| 5 | --- | --- | 7.9 | 7.2 | 9.1 | 8.7 | 11.4 | 11.4 | 13.3 | 13.2 | 14.3 | 14.2 |
| 6 | --- | --- | 7.9 | 7.2 | 9.0 | 8.9 | 11.6 | 11.4 | 13.5 | 13.2 | 14.3 | 14.2 |
| 7 | --- | --- | 7.7 | 7.6 | 9.1 | 8.9 | 11.7 | 11.6 | 13.5 | 13.2 | 14.3 | 14.2 |
| 8 | --- | --- | 7.9 | 7.7 | --- | --- | 11.9 | 11.6 | 13.5 | 13.5 | 14.2 | 14.2 |
| 9 | --- | --- | 7.9 | 7.9 | --- | --- | 11.9 | 11.6 | 13.5 | 13.5 | 14.3 | 14.2 |
| 10 | --- | --- | 7.9 | 7.9 | --- | --- | 11.9 | 11.6 | 13.5 | 13.5 | 15.0 | 14.2 |
| 11 | --- | --- | 8.1 | 7.9 | --- | --- | 11.9 | 11.8 | --- | --- | 14.2 | 14.2 |
| 12 | --- | --- | 8.0 | 7.9 | --- | --- | 12.1 | 11.8 | --- | --- | 14.2 | 14.2 |
| 13 | --- | --- | 7.9 | 7.6 | --- | --- | 12.1 | 12.1 | --- | --- | 14.3 | 14.2 |
| 14 | --- | --- | 7.7 | 7.6 | 9.5 | 9.5 | 12.3 | 12.1 | --- | --- | 14.3 | 14.2 |
| 15 | --- | --- | 7.8 | 7.6 | 9.7 | 9.5 | 12.3 | 12.1 | --- | --- | 14.3 | 14.2 |
| 16 | --- | --- | 7.8 | 7.7 | 9.8 | 9.5 | 12.3 | 12.1 | --- | --- | 14.3 | 14.2 |
| 17 | --- | --- | 7.8 | 7.7 | 9.9 | 9.7 | 12.4 | 12.1 | 13.8 | 13.7 | --- | --- |
| 18 | --- | --- | 7.8 | 7.7 | 9.9 | 9.7 | 12.4 | 12.3 | 13.8 | 13.7 | --- | --- |
| 19 | 6.7 | 6.6 | 7.8 | 7.8 | 10.0 | 9.9 | 12.3 | 12.3 | 13.9 | 13.7 | --- | --- |
| 20 | 6.7 | 6.5 | 8.0 | 7.7 | 10.0 | 9.9 | 12.3 | 12.3 | 14.0 | 13.7 | --- | --- |
| 21 | 6.7 | 6.6 | 7.9 | 7.9 | 10.2 | 9.9 | 12.6 | 12.3 | 14.0 | 14.0 | --- | --- |
| 22 | 6.7 | 6.6 | 8.0 | 7.9 | 10.4 | 10.1 | 12.6 | 12.5 | 14.5 | 13.7 | --- | --- |
| 23 | 6.7 | 6.6 | 8.0 | 7.9 | 10.4 | 10.3 | 12.8 | 12.5 | 14.0 | 13.7 | --- | --- |
| 24 | 6.7 | 6.6 | 8.0 | 7.9 | 10.4 | 10.3 | 12.8 | 12.8 | 14.0 | 14.0 | --- | --- |
| 25 | 6.7 | 6.6 | 8.1 | 7.9 | 10.6 | 10.4 | 12.8 | 12.8 | 14.0 | 14.0 | --- | --- |
| 26 | 6.7 | 6.6 | 8.1 | 7.9 | 10.6 | 10.6 | 12.8 | 12.8 | 14.0 | 14.0 | --- | --- |
| 27 | 6.8 | 6.6 | 8.1 | 8.1 | 10.8 | 10.5 | 17.8 | 12.8 | 14.0 | 14.0 | --- | --- |
| 28 | 6.9 | 6.6 | 8.2 | 8.1 | 11.0 | 10.7 | 13.0 | 12.8 | 14.0 | 14.0 | --- | --- |
| 29 | 6.9 | 6.7 | 8.3 | 8.1 | 11.0 | 11.0 | 13.0 | 13.0 | 14.0 | 14.0 | --- | --- |
| 30 | 6.9 | 6.7 | 8.4 | 8.3 | 11.2 | 11.0 | 13.0 | 13.0 | 14.2 | 14.0 | --- | --- |
| 31 | --- | --- | 8.4 | 8.3 | --- | --- | 13.1 | 13.0 | 14.2 | 14.0 | --- | --- |
| MONTH | 6.9 | 6.5 | 8.4 | 6.8 | 11.2 | 8.3 | 17.8 | 11.0 | 15.3 | 13.0 | 15.0 | 14.0 |
| YEAR | 17.8 | 5.4 | | | | | | | | | | |

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; 0.010-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 various 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) ft below land surface.

DATUM.--Elevation of land-surface datum is 676.13 ft above sea level. Measuring point: shelter shelf 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 are available in preceding tables. Incomplete data this year due to damage to wiring by animals or problems with recorder.

PERIOD OF RECORD.--February 1991 to current year.

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.
PRECIPITATION: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE:
LEVEL 1- Maximum, 1260 microsiemens August 13, 1991; minimum, 273 microsiemens April 7-8, 14, 1997.
LEVEL 2- Maximum, 953 microsiemens July 1, 1991; minimum, 266 microsiemens April 7-9, 1997.
LEVEL 3- Maximum, 785 microsiemens April 25, 1991; minimum, 99 microsiemens June 9-10, 1993.
LEVEL 4- Maximum, 634 microsiemens January 29, 1994; minimum, 70 microsiemens July 14-17, 19, 1996.
AIR TEMPERATURE: Maximum, 38.2°C July 14, 1995; minimum, -28.1°C January 19, 1994.
WATER TEMPERATURE:
LEVEL 1- Maximum, 12.7°C several days in November, December 1991; minimum, 7.8°C August 5-6, 1997.
LEVEL 2- Maximum, 13.6°C several days in November, 1991; minimum, 7.8°C August 5, 1997.
LEVEL 3- Maximum, 15.2°C many days in October 1991; minimum, 7.6°C March 26, 28, 1993.
LEVEL 4- Maximum, 17.5°C many days in 1991; minimum, 6.0°C March 24-26, 1993.
SOIL TEMPERATURE: Maximum, 31.3C June 19, 1994; minimum, -4.7°C February 6, 1994.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE:
LEVEL 1- Maximum, 803 microsiemens November 27-29, 1996; minimum, 273 microsiemens April 7-8, 14, 1997.
LEVEL 2- Maximum, 766 microsiemens December 4, 1996; minimum, 266 microsiemens April 7-9, 1997.
LEVEL 3- Maximum, 425 microsiemens November 8, 1996; minimum, 108 microsiemens July 15-17, 1997.
LEVEL 4- Maximum, 282 microsiemens February 21, 1997; minimum, 72 microsiemens October 2-4, 9-10, 19-21, 1996.
AIR TEMPERATURE: Maximum, 34.6°C July 14, 22, 1997; minimum, -14.2°C February 17, 1997.
WATER TEMPERATURE:
LEVEL 1- Maximum, 12.4°C November 26-28, December 2-4, 1996; minimum, 7.8°C August 5-6, 1997.
LEVEL 2- Maximum, 12.9°C many days in November, December, 1996; minimum, 7.8°C August 5, 1997.
LEVEL 3- Maximum, 14.7°C October 1, 6-7, 1996; minimum, 8.6°C March 20-21, 25-27, 29, April 1, 2, 4, 1997.
LEVEL 4- Maximum, 16.2°C October 1-4, 1996; minimum, 7.1°C March 17, 1997.
SOIL TEMPERATURE: Maximum, 27.1°C June 28, 1997; minimum, -0.1°C February 1-3, 1997.

413551083481200 LU-20 NR HOLLAND OH--Continued

#1 (26.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 780 | 774 | 791 | 790 | 801 | 800 | --- | --- | 780 | 773 | 373 | 368 |
| 2 | 780 | 775 | 792 | 791 | 802 | 797 | --- | --- | 786 | 777 | 368 | 361 |
| 3 | 778 | 777 | 793 | 791 | 801 | 796 | --- | --- | 801 | 786 | 362 | 357 |
| 4 | 779 | 775 | 793 | 792 | 802 | 797 | --- | --- | 801 | 794 | 358 | 353 |
| 5 | 780 | 775 | 794 | 793 | --- | --- | --- | --- | 794 | 788 | 353 | 349 |
| 6 | 782 | 776 | 794 | 793 | --- | --- | --- | --- | 788 | 781 | 349 | 342 |
| 7 | 782 | 778 | 794 | 787 | --- | --- | --- | --- | 781 | 767 | 342 | 338 |
| 8 | 784 | 779 | 793 | 786 | --- | --- | --- | --- | 770 | 753 | 338 | 333 |
| 9 | 785 | 780 | 795 | 793 | --- | --- | --- | --- | 753 | 739 | 333 | 331 |
| 10 | 786 | 781 | 797 | 791 | --- | --- | --- | --- | 739 | 726 | 333 | 327 |
| 11 | --- | --- | 798 | 792 | --- | --- | --- | --- | 726 | 713 | 327 | 321 |
| 12 | --- | --- | 798 | 793 | --- | --- | --- | --- | 713 | 697 | 322 | 319 |
| 13 | --- | --- | 799 | 794 | --- | --- | --- | --- | 697 | 680 | 319 | 316 |
| 14 | --- | --- | 799 | 794 | --- | --- | --- | --- | 680 | 658 | 351 | 318 |
| 15 | --- | --- | 799 | 795 | --- | --- | --- | --- | 658 | 631 | 329 | 323 |
| 16 | --- | --- | 799 | 795 | --- | --- | --- | --- | 631 | 603 | 324 | 320 |
| 17 | --- | --- | 800 | 795 | --- | --- | --- | --- | 603 | 577 | 320 | 313 |
| 18 | --- | --- | 800 | 796 | --- | --- | --- | --- | 577 | 556 | 313 | 310 |
| 19 | 782 | 780 | 798 | 797 | --- | --- | --- | --- | 556 | 526 | 310 | 307 |
| 20 | 784 | 782 | 799 | 798 | --- | --- | --- | --- | 526 | 389 | 307 | 303 |
| 21 | 785 | 784 | 799 | 798 | --- | --- | --- | --- | 390 | 382 | 304 | 301 |
| 22 | 786 | 785 | 800 | 799 | --- | --- | --- | --- | 382 | 369 | 301 | 295 |
| 23 | 786 | 784 | 800 | 799 | --- | --- | --- | --- | 369 | 361 | 295 | 291 |
| 24 | 787 | 786 | 801 | 800 | --- | --- | --- | --- | 361 | 356 | 292 | 289 |
| 25 | 789 | 787 | 801 | 800 | --- | --- | --- | --- | 356 | 352 | 293 | 290 |
| 26 | 790 | 789 | 802 | 797 | --- | --- | --- | --- | 354 | 350 | 290 | 285 |
| 27 | 790 | 790 | 803 | 798 | --- | --- | --- | --- | 398 | 354 | 286 | 282 |
| 28 | 791 | 787 | 803 | 798 | --- | --- | --- | --- | 384 | 373 | 284 | 282 |
| 29 | 792 | 787 | 803 | 798 | --- | --- | --- | --- | --- | --- | 284 | 280 |
| 30 | 792 | 787 | 802 | 800 | --- | --- | --- | --- | --- | --- | 282 | 279 |
| 31 | 790 | 788 | --- | --- | --- | --- | --- | --- | --- | --- | 279 | 276 |
| MONTH | 792 | 774 | 803 | 786 | 802 | 796 | --- | --- | 801 | 350 | 373 | 276 |

#1 (26.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 277 | 275 | 286 | 284 | 430 | 421 | 478 | 474 | 546 | 541 | 667 | 663 |
| 2 | 277 | 275 | 287 | 284 | 426 | 425 | 479 | 475 | 549 | 544 | 671 | 667 |
| 3 | 279 | 276 | 301 | 286 | 425 | 423 | 480 | 476 | 551 | 547 | 675 | 670 |
| 4 | 278 | 276 | 296 | 292 | 426 | 423 | 481 | 478 | 583 | 550 | 678 | 675 |
| 5 | 284 | 276 | 307 | 292 | 430 | 426 | 482 | 479 | 615 | 579 | 681 | 678 |
| 6 | 279 | 274 | 309 | 306 | 432 | 430 | 483 | 480 | 615 | 583 | 684 | 681 |
| 7 | 274 | 273 | 313 | 307 | 433 | 431 | 485 | 481 | 609 | 580 | 687 | 684 |
| 8 | 275 | 273 | 319 | 312 | 435 | 432 | 487 | 482 | 581 | 570 | 689 | 687 |
| 9 | 276 | 275 | 322 | 318 | 437 | 433 | 488 | 484 | 575 | 572 | 692 | 689 |
| 10 | 279 | 276 | 327 | 321 | 439 | 435 | 489 | 486 | 578 | 575 | 695 | 692 |
| 11 | 279 | 277 | 332 | 326 | 443 | 439 | 491 | 487 | 582 | 578 | 697 | 693 |
| 12 | 283 | 278 | 337 | 331 | 447 | 443 | 491 | 488 | 586 | 582 | 700 | 693 |
| 13 | 280 | 274 | 341 | 335 | 449 | 447 | 493 | 490 | 590 | 586 | 702 | 697 |
| 14 | 276 | 273 | 347 | 340 | 451 | 449 | 494 | 491 | 594 | 587 | 705 | 699 |
| 15 | 279 | 275 | 350 | 345 | 454 | 450 | 496 | 492 | 598 | 592 | 707 | 702 |
| 16 | 280 | 277 | 352 | 348 | 458 | 454 | 498 | 494 | 603 | 598 | 710 | 704 |
| 17 | 280 | 278 | 355 | 350 | 458 | 457 | 500 | 496 | 616 | 601 | 712 | 707 |
| 18 | 280 | 278 | 359 | 353 | 458 | 455 | 503 | 499 | 624 | 613 | 715 | 710 |
| 19 | 281 | 279 | 365 | 357 | 460 | 458 | 505 | 501 | 628 | 622 | 715 | 713 |
| 20 | 281 | 279 | 364 | 361 | 461 | 459 | 508 | 502 | 630 | 626 | 716 | 714 |
| 21 | 281 | 279 | 368 | 363 | 465 | 460 | 510 | 506 | 631 | 628 | 715 | 711 |
| 22 | 280 | 279 | 372 | 366 | 465 | 464 | 517 | 508 | 634 | 631 | 716 | 711 |
| 23 | 281 | 279 | 376 | 371 | 465 | 462 | 521 | 517 | 639 | 634 | 719 | 712 |
| 24 | 281 | 279 | 380 | 374 | 466 | 465 | 524 | 519 | 642 | 637 | 721 | 715 |
| 25 | 280 | 278 | 390 | 380 | 470 | 466 | 527 | 521 | 648 | 642 | 725 | 719 |
| 26 | 281 | 278 | 387 | 384 | 472 | 469 | 529 | 524 | 649 | 648 | 727 | 722 |
| 27 | 283 | 279 | 389 | 385 | 473 | 470 | 532 | 527 | 651 | 649 | 730 | 725 |
| 28 | 285 | 281 | 393 | 387 | 474 | 471 | 535 | 530 | 654 | 651 | 731 | 727 |
| 29 | 284 | 282 | 407 | 391 | 475 | 472 | 537 | 532 | 657 | 654 | 730 | 728 |
| 30 | 285 | 282 | 406 | 404 | 477 | 473 | 541 | 535 | 660 | 657 | 732 | 730 |
| 31 | --- | --- | 424 | 404 | --- | --- | 544 | 538 | 663 | 660 | --- | --- |
| MONTH | 285 | 273 | 424 | 284 | 477 | 421 | 544 | 474 | 663 | 541 | 732 | 663 |
| YEAR | 803 | 273 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#2 (21.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 709 | 705 | 754 | 752 | 763 | 756 | --- | --- | 720 | 489 | 362 | 356 |
| 2 | 709 | 706 | 754 | 749 | 763 | 760 | --- | --- | 726 | 693 | 357 | 349 |
| 3 | 707 | 705 | 754 | 749 | 765 | 762 | --- | --- | 696 | 667 | 350 | 346 |
| 4 | 708 | 706 | 754 | 749 | 766 | 765 | --- | --- | 668 | 633 | 346 | 341 |
| 5 | 713 | 708 | 754 | 753 | --- | --- | --- | --- | 634 | 600 | 342 | 337 |
| 6 | 718 | 713 | 754 | 754 | --- | --- | --- | --- | 600 | 540 | 338 | 330 |
| 7 | 719 | 718 | 759 | 754 | --- | --- | --- | --- | 540 | 355 | 331 | 326 |
| 8 | 720 | 719 | 762 | 758 | --- | --- | --- | --- | 355 | 342 | 328 | 321 |
| 9 | 721 | 720 | 758 | 748 | --- | --- | --- | --- | 344 | 335 | 324 | 320 |
| 10 | 721 | 717 | 748 | 735 | --- | --- | --- | --- | 335 | 328 | 322 | 316 |
| 11 | --- | --- | 735 | 723 | --- | --- | --- | --- | 328 | 324 | 317 | 311 |
| 12 | --- | --- | 723 | 717 | --- | --- | --- | --- | 324 | 320 | 312 | 308 |
| 13 | --- | --- | 717 | 715 | --- | --- | --- | --- | 320 | 317 | 310 | 306 |
| 14 | --- | --- | 716 | 714 | --- | --- | --- | --- | 319 | 316 | 330 | 307 |
| 15 | --- | --- | 717 | 714 | --- | --- | --- | --- | 318 | 314 | 320 | 314 |
| 16 | --- | --- | 721 | 717 | --- | --- | --- | --- | 320 | 317 | 314 | 312 |
| 17 | --- | --- | 720 | 718 | --- | --- | --- | --- | 323 | 320 | 312 | 304 |
| 18 | --- | --- | 722 | 719 | --- | --- | --- | --- | 323 | 320 | 305 | 301 |
| 19 | 723 | 719 | 724 | 722 | --- | --- | --- | --- | 327 | 323 | 301 | 298 |
| 20 | 725 | 723 | 728 | 724 | --- | --- | --- | --- | 375 | 327 | 299 | 295 |
| 21 | 726 | 725 | 730 | 727 | --- | --- | --- | --- | 375 | 368 | 296 | 293 |
| 22 | 727 | 726 | 733 | 730 | --- | --- | --- | --- | 371 | 355 | 293 | 286 |
| 23 | 730 | 727 | 735 | 733 | --- | --- | --- | --- | 356 | 349 | 287 | 283 |
| 24 | 735 | 730 | 737 | 735 | --- | --- | --- | --- | 349 | 344 | 283 | 280 |
| 25 | 737 | 734 | 739 | 737 | --- | --- | --- | --- | 345 | 340 | 284 | 281 |
| 26 | 738 | 737 | 741 | 739 | --- | --- | --- | --- | 343 | 339 | 282 | 276 |
| 27 | 740 | 738 | 743 | 740 | --- | --- | --- | --- | 375 | 343 | 278 | 275 |
| 28 | 744 | 740 | 748 | 743 | --- | --- | --- | --- | 366 | 361 | 276 | 274 |
| 29 | 747 | 744 | 752 | 748 | --- | --- | --- | --- | --- | --- | 276 | 273 |
| 30 | 751 | 747 | 756 | 752 | --- | --- | --- | --- | --- | --- | 274 | 270 |
| 31 | 752 | 751 | --- | --- | --- | --- | --- | --- | --- | --- | 272 | 269 |
| MONTH | 752 | 705 | 762 | 714 | 766 | 756 | --- | --- | 726 | 314 | 362 | 269 |

#2 (21.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 270 | 267 | 279 | 277 | 418 | 410 | 467 | 464 | 530 | 529 | 570 | 569 |
| 2 | 270 | 268 | 280 | 276 | 417 | 414 | 468 | 465 | 531 | 530 | 572 | 567 |
| 3 | 271 | 268 | 292 | 280 | 416 | 413 | 469 | 466 | 531 | 528 | 575 | 569 |
| 4 | 271 | 269 | 289 | 286 | 418 | 413 | 468 | 466 | 562 | 531 | 579 | 573 |
| 5 | 275 | 269 | 296 | 286 | 421 | 416 | 471 | 468 | 572 | 552 | 583 | 577 |
| 6 | 273 | 268 | 301 | 296 | 423 | 419 | 470 | 469 | 566 | 551 | 585 | 580 |
| 7 | 268 | 266 | 306 | 300 | 425 | 422 | 471 | 470 | 555 | 540 | 582 | 582 |
| 8 | 269 | 266 | 312 | 304 | 426 | 423 | 473 | 471 | 541 | 534 | 583 | 582 |
| 9 | 270 | 266 | 315 | 311 | 428 | 424 | 474 | 472 | 536 | 535 | 583 | 582 |
| 10 | 271 | 268 | 320 | 314 | 430 | 426 | 476 | 474 | 537 | 536 | 583 | 582 |
| 11 | 273 | 269 | 325 | 318 | 434 | 428 | 477 | 476 | 537 | 534 | 584 | 583 |
| 12 | 276 | 272 | 329 | 323 | 437 | 432 | 479 | 477 | 537 | 534 | 585 | 581 |
| 13 | 273 | 267 | 333 | 328 | 439 | 436 | 480 | 479 | 538 | 534 | 587 | 581 |
| 14 | 269 | 267 | 338 | 332 | 441 | 437 | 483 | 480 | 538 | 535 | 590 | 584 |
| 15 | 271 | 268 | 342 | 337 | 444 | 439 | 485 | 483 | 538 | 535 | 593 | 588 |
| 16 | 273 | 270 | 344 | 340 | 447 | 442 | 487 | 485 | 539 | 536 | 596 | 591 |
| 17 | 273 | 270 | 347 | 343 | 447 | 446 | 489 | 487 | 558 | 537 | 603 | 594 |
| 18 | 273 | 270 | 351 | 346 | 449 | 446 | 491 | 489 | 561 | 558 | 615 | 603 |
| 19 | 273 | 271 | 357 | 350 | 450 | 447 | 494 | 491 | 561 | 560 | 621 | 615 |
| 20 | 273 | 270 | 357 | 353 | 451 | 448 | 496 | 492 | 560 | 560 | 650 | 587 |
| 21 | 273 | 271 | 359 | 355 | 454 | 450 | 500 | 496 | 561 | 560 | 587 | 573 |
| 22 | 273 | 271 | 364 | 359 | 454 | 453 | 507 | 498 | 563 | 561 | 573 | 572 |
| 23 | 274 | 271 | 368 | 363 | 454 | 453 | 511 | 505 | 563 | 562 | 574 | 573 |
| 24 | 273 | 271 | 371 | 367 | 456 | 454 | 514 | 508 | 567 | 563 | 577 | 574 |
| 25 | 273 | 271 | 378 | 370 | 458 | 456 | 517 | 512 | 575 | 567 | 579 | 577 |
| 26 | 273 | 270 | 379 | 376 | 462 | 458 | 520 | 515 | 575 | 569 | 581 | 578 |
| 27 | 275 | 272 | 381 | 377 | 462 | 460 | 523 | 518 | 572 | 567 | 583 | 581 |
| 28 | 277 | 273 | 384 | 379 | 464 | 461 | 525 | 520 | 570 | 566 | 584 | 583 |
| 29 | 277 | 275 | 395 | 382 | 465 | 461 | 528 | 523 | 568 | 567 | 586 | 584 |
| 30 | 277 | 274 | 398 | 395 | 466 | 463 | 530 | 526 | 569 | 568 | 588 | 586 |
| 31 | --- | --- | 411 | 395 | --- | --- | 532 | 528 | 569 | 568 | --- | --- |
| MONTH | 277 | 266 | 411 | 276 | 466 | 410 | 532 | 464 | 575 | 528 | 650 | 567 |
| YEAR | 766 | 266 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#3 (13.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 358 | 353 | 276 | 231 | --- | --- | 208 | 205 | 334 | 329 |
| 2 | 293 | 289 | 354 | 348 | 292 | 219 | --- | --- | 212 | 207 | 331 | 323 |
| 3 | 294 | 289 | 350 | 347 | 288 | 229 | --- | --- | 220 | 211 | 323 | 319 |
| 4 | 300 | 294 | 351 | 347 | 230 | 197 | --- | --- | 232 | 220 | 321 | 315 |
| 5 | 305 | 300 | 351 | 350 | --- | --- | --- | --- | 246 | 232 | 317 | 311 |
| 6 | 310 | 305 | 355 | 351 | --- | --- | --- | --- | 264 | 246 | 313 | 304 |
| 7 | 310 | 307 | 382 | 355 | --- | --- | --- | --- | 331 | 264 | 306 | 301 |
| 8 | 308 | 307 | 425 | 382 | --- | --- | --- | --- | 323 | 314 | 303 | 297 |
| 9 | 307 | 304 | 422 | 386 | --- | --- | --- | --- | 315 | 307 | 300 | 297 |
| 10 | 304 | 300 | 386 | 356 | --- | --- | --- | --- | 307 | 300 | 300 | 292 |
| 11 | --- | --- | 356 | 325 | --- | --- | --- | --- | 301 | 296 | 293 | 287 |
| 12 | --- | --- | 325 | 302 | --- | --- | --- | --- | 298 | 293 | 289 | 285 |
| 13 | --- | --- | 302 | 282 | --- | --- | --- | --- | 295 | 291 | 286 | 283 |
| 14 | --- | --- | 282 | 224 | --- | --- | --- | --- | 292 | 289 | 298 | 284 |
| 15 | --- | --- | 230 | 215 | --- | --- | --- | --- | 291 | 289 | 297 | 292 |
| 16 | --- | --- | 236 | 226 | --- | --- | --- | --- | 294 | 289 | 292 | 289 |
| 17 | --- | --- | 258 | 234 | --- | --- | --- | --- | 297 | 291 | 290 | 282 |
| 18 | --- | --- | 260 | 234 | --- | --- | --- | --- | 297 | 293 | 282 | 279 |
| 19 | 319 | 316 | 269 | 254 | --- | --- | --- | --- | 300 | 294 | 279 | 276 |
| 20 | 320 | 318 | 270 | 263 | --- | --- | --- | --- | 332 | 299 | 277 | 274 |
| 21 | 318 | 316 | 264 | 250 | --- | --- | --- | --- | 344 | 332 | 275 | 271 |
| 22 | 317 | 315 | 278 | 246 | --- | --- | --- | --- | 341 | 327 | 271 | 265 |
| 23 | 324 | 317 | 278 | 258 | --- | --- | --- | --- | 328 | 320 | 266 | 263 |
| 24 | 328 | 324 | 258 | 254 | --- | --- | --- | --- | 320 | 316 | 264 | 260 |
| 25 | 328 | 325 | 273 | 251 | --- | --- | --- | --- | 317 | 313 | 264 | 260 |
| 26 | 327 | 325 | 265 | 226 | --- | --- | --- | --- | 315 | 311 | 262 | 256 |
| 27 | 331 | 326 | 226 | 202 | --- | --- | --- | --- | 336 | 314 | 259 | 255 |
| 28 | 337 | 331 | 267 | 203 | --- | --- | --- | --- | 336 | 333 | 257 | 254 |
| 29 | 345 | 335 | 256 | 214 | --- | --- | --- | --- | --- | --- | 257 | 252 |
| 30 | 358 | 345 | 273 | 210 | --- | --- | --- | --- | --- | --- | 254 | 251 |
| 31 | 360 | 357 | --- | --- | --- | --- | --- | --- | --- | --- | 253 | 249 |
| MONTH | 360 | 289 | 425 | 202 | 292 | 197 | --- | --- | 344 | 205 | 334 | 249 |

#3 (13.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 251 | 248 | 262 | 259 | 395 | 387 | 112 | 111 | 122 | 121 | 186 | 182 |
| 2 | 251 | 247 | 263 | 260 | 395 | 393 | 111 | 110 | 121 | 121 | 188 | 185 |
| 3 | 252 | 248 | 271 | 263 | 395 | 392 | 111 | 109 | 121 | 120 | 192 | 188 |
| 4 | 252 | 248 | 271 | 269 | 396 | 394 | 110 | 109 | 138 | 120 | 196 | 192 |
| 5 | 256 | 249 | 276 | 269 | 398 | 396 | 110 | 110 | 141 | 138 | 197 | 196 |
| 6 | 255 | 249 | 284 | 275 | 400 | 398 | 110 | 109 | 141 | 138 | 199 | 197 |
| 7 | 249 | 246 | 287 | 283 | 401 | 398 | 110 | 109 | 139 | 136 | 198 | 195 |
| 8 | 249 | 247 | 292 | 287 | 398 | 326 | 110 | 109 | 138 | 136 | 195 | 194 |
| 9 | 252 | 248 | 296 | 291 | 326 | 170 | 111 | 110 | 136 | 135 | 194 | 193 |
| 10 | 252 | 250 | 301 | 293 | 170 | 152 | 111 | 111 | 135 | 135 | 199 | 194 |
| 11 | 254 | 252 | 306 | 299 | 160 | 148 | 111 | 111 | 135 | 134 | 202 | 198 |
| 12 | 256 | 253 | 310 | 303 | 162 | 148 | 111 | 110 | 136 | 135 | 205 | 202 |
| 13 | 255 | 250 | 313 | 309 | 161 | 129 | 110 | 109 | 138 | 136 | 210 | 205 |
| 14 | 251 | 248 | 318 | 313 | 129 | 124 | 109 | 109 | 142 | 138 | 214 | 210 |
| 15 | 253 | 250 | 323 | 318 | 126 | 124 | 109 | 108 | 144 | 142 | 217 | 214 |
| 16 | 254 | 252 | 325 | 323 | 142 | 126 | 109 | 108 | 155 | 143 | 221 | 217 |
| 17 | 254 | 252 | 328 | 324 | 136 | 116 | 109 | 108 | 172 | 155 | 249 | 221 |
| 18 | 255 | 253 | 331 | 326 | 116 | 115 | 110 | 109 | 175 | 172 | 283 | 249 |
| 19 | 255 | 253 | 336 | 329 | 115 | 114 | 110 | 109 | 175 | 175 | 297 | 283 |
| 20 | 254 | 252 | 336 | 334 | 114 | 113 | 111 | 110 | 175 | 172 | 328 | 232 |
| 21 | 255 | 252 | 339 | 336 | 118 | 112 | 115 | 110 | 173 | 172 | 232 | 199 |
| 22 | 255 | 252 | 343 | 339 | 119 | 110 | 119 | 115 | 172 | 172 | 199 | 194 |
| 23 | 255 | 253 | 347 | 343 | 110 | 109 | 121 | 119 | 175 | 172 | 195 | 193 |
| 24 | 255 | 253 | 350 | 346 | 110 | 109 | 122 | 121 | 184 | 175 | 197 | 194 |
| 25 | 255 | 253 | 358 | 350 | 112 | 110 | 122 | 122 | 191 | 184 | 197 | 195 |
| 26 | 255 | 253 | 358 | 356 | 115 | 112 | 122 | 122 | 191 | 187 | 197 | 195 |
| 27 | 257 | 253 | 360 | 356 | 113 | 112 | 123 | 122 | 187 | 182 | 199 | 196 |
| 28 | 259 | 255 | 364 | 359 | 112 | 111 | 123 | 122 | 183 | 179 | 201 | 199 |
| 29 | 260 | 258 | 372 | 362 | 111 | 110 | 122 | 122 | 179 | 178 | 203 | 200 |
| 30 | 260 | 257 | 377 | 372 | 111 | 110 | 123 | 122 | 179 | 178 | 202 | 202 |
| 31 | --- | --- | 387 | 374 | --- | --- | 123 | 122 | 182 | 179 | --- | --- |
| MONTH | 260 | 246 | 387 | 259 | 401 | 109 | 123 | 108 | 191 | 120 | 328 | 182 |
| YEAR | 425 | 108 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#4 (8.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 73 | 73 | 100 | 95 | 115 | 111 | --- | --- | 167 | 166 | 276 | 271 |
| 2 | 73 | 72 | 95 | 82 | 118 | 115 | --- | --- | 171 | 167 | 271 | 266 |
| 3 | 73 | 72 | 82 | 81 | 125 | 118 | --- | --- | 178 | 171 | 267 | 262 |
| 4 | 73 | 72 | 84 | 81 | 125 | 123 | --- | --- | 187 | 178 | 264 | 259 |
| 5 | 73 | 73 | 83 | 82 | --- | --- | --- | --- | 197 | 186 | 260 | 257 |
| 6 | 73 | 73 | 84 | 82 | --- | --- | --- | --- | 210 | 196 | 259 | 252 |
| 7 | 73 | 73 | 84 | 83 | --- | --- | --- | --- | 262 | 210 | 253 | 250 |
| 8 | 73 | 73 | 166 | 84 | --- | --- | --- | --- | 261 | 253 | 252 | 247 |
| 9 | 73 | 72 | 156 | 136 | --- | --- | --- | --- | 253 | 246 | 248 | 245 |
| 10 | 73 | 72 | 136 | 124 | --- | --- | --- | --- | 249 | 242 | 248 | 243 |
| 11 | --- | --- | 124 | 116 | --- | --- | --- | --- | 243 | 240 | 246 | 240 |
| 12 | --- | --- | 116 | 110 | --- | --- | --- | --- | 240 | 238 | 241 | 238 |
| 13 | --- | --- | 110 | 106 | --- | --- | --- | --- | 239 | 235 | 239 | 236 |
| 14 | --- | --- | 106 | 103 | --- | --- | --- | --- | 237 | 233 | 248 | 237 |
| 15 | --- | --- | 103 | 100 | --- | --- | --- | --- | 236 | 234 | 247 | 242 |
| 16 | --- | --- | 100 | 98 | --- | --- | --- | --- | 239 | 235 | 244 | 241 |
| 17 | --- | --- | 98 | 96 | --- | --- | --- | --- | 240 | 238 | 241 | 237 |
| 18 | --- | --- | 96 | 95 | --- | --- | --- | --- | 242 | 239 | 238 | 233 |
| 19 | 72 | 72 | 95 | 94 | --- | --- | --- | --- | 244 | 241 | 233 | 231 |
| 20 | 73 | 72 | 94 | 94 | --- | --- | --- | --- | 266 | 243 | 232 | 229 |
| 21 | 73 | 72 | 95 | 94 | --- | --- | --- | --- | 282 | 266 | 229 | 227 |
| 22 | 73 | 73 | 96 | 95 | --- | --- | --- | --- | 278 | 267 | 227 | 223 |
| 23 | 74 | 73 | 96 | 95 | --- | --- | --- | --- | 268 | 262 | 225 | 220 |
| 24 | 76 | 74 | 97 | 96 | --- | --- | --- | --- | 264 | 259 | 222 | 218 |
| 25 | 77 | 76 | 98 | 97 | --- | --- | --- | --- | 260 | 258 | 222 | 218 |
| 26 | 77 | 77 | 101 | 98 | --- | --- | --- | --- | 259 | 257 | 219 | 216 |
| 27 | 80 | 77 | 104 | 100 | --- | --- | --- | --- | 276 | 258 | 217 | 215 |
| 28 | 82 | 80 | 106 | 104 | --- | --- | --- | --- | 277 | 273 | 216 | 214 |
| 29 | 86 | 81 | 109 | 106 | --- | --- | --- | --- | --- | --- | 217 | 214 |
| 30 | 100 | 86 | 111 | 109 | --- | --- | --- | --- | --- | --- | 214 | 213 |
| 31 | 102 | 100 | --- | --- | --- | --- | --- | --- | --- | --- | 214 | 210 |
| MONTH | 102 | 72 | 166 | 81 | 125 | 111 | --- | --- | 282 | 166 | 276 | 210 |

#4 (8.6' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 212 | 210 | 226 | 223 | 132 | 101 | 85 | 85 | 92 | 92 | 101 | 100 |
| 2 | 211 | 210 | 228 | 226 | 115 | 102 | 86 | 85 | 92 | 92 | 101 | 100 |
| 3 | 213 | 210 | 235 | 228 | 102 | 100 | 86 | 86 | 92 | 92 | 102 | 100 |
| 4 | 213 | 210 | 237 | 235 | 100 | 97 | 86 | 86 | 98 | 92 | 102 | 102 |
| 5 | 217 | 212 | 238 | 234 | 99 | 98 | 86 | 86 | 99 | 98 | 102 | 102 |
| 6 | 216 | 212 | 247 | 238 | 98 | 93 | 86 | 86 | 99 | 98 | 102 | 100 |
| 7 | 212 | 210 | 250 | 246 | 93 | 88 | 86 | 86 | 98 | 97 | 102 | 99 |
| 8 | 211 | 210 | 254 | 240 | 88 | 86 | 86 | 86 | 98 | 97 | 99 | 99 |
| 9 | 214 | 211 | 240 | 160 | 86 | 86 | 87 | 86 | 97 | 95 | 99 | 99 |
| 10 | 214 | 212 | 160 | 144 | 86 | 86 | 86 | 86 | 95 | 95 | 99 | 99 |
| 11 | 216 | 213 | 144 | 136 | 88 | 86 | 88 | 86 | 96 | 95 | 100 | 99 |
| 12 | 219 | 215 | 136 | 128 | 89 | 88 | 86 | 86 | 97 | 96 | 100 | 100 |
| 13 | 216 | 212 | 128 | 121 | 89 | 88 | 86 | 86 | 97 | 96 | 100 | 98 |
| 14 | 215 | 212 | 121 | 116 | 88 | 87 | 86 | 86 | 97 | 96 | 101 | 100 |
| 15 | 216 | 213 | 117 | 112 | 88 | 87 | 87 | 86 | 97 | 97 | 101 | 100 |
| 16 | 217 | 214 | 112 | 108 | 91 | 88 | 87 | 87 | 99 | 97 | 100 | 100 |
| 17 | 217 | 215 | 108 | 105 | 91 | 87 | 88 | 87 | 100 | 99 | 101 | 100 |
| 18 | 218 | 217 | 105 | 102 | 87 | 86 | 88 | 87 | 100 | 99 | 103 | 101 |
| 19 | 218 | 217 | 104 | 101 | 86 | 86 | 88 | 88 | 100 | 100 | 103 | 102 |
| 20 | 218 | 216 | 101 | 100 | 86 | 86 | 90 | 88 | 100 | 100 | 150 | 102 |
| 21 | 219 | 216 | 100 | 97 | 90 | 86 | 91 | 88 | 100 | 100 | 103 | 100 |
| 22 | 219 | 217 | 98 | 96 | 90 | 85 | 92 | 91 | 102 | 100 | 100 | 98 |
| 23 | 219 | 218 | 96 | 95 | 86 | 85 | 93 | 91 | 102 | 101 | 99 | 98 |
| 24 | 220 | 218 | 95 | 94 | 85 | 85 | 93 | 93 | 102 | 102 | 98 | 96 |
| 25 | 219 | 217 | 98 | 94 | 86 | 85 | 94 | 93 | 102 | 101 | 98 | 96 |
| 26 | 219 | 217 | 98 | 94 | 88 | 86 | 94 | 93 | 102 | 101 | 97 | 96 |
| 27 | 221 | 219 | 94 | 93 | 86 | 85 | 93 | 93 | 102 | 101 | 97 | 97 |
| 28 | 223 | 221 | 93 | 92 | 85 | 85 | 93 | 92 | 103 | 101 | 97 | 95 |
| 29 | 223 | 222 | 98 | 92 | 85 | 84 | 93 | 92 | 103 | 101 | 97 | 97 |
| 30 | 223 | 223 | 97 | 97 | 85 | 84 | 93 | 92 | 101 | 101 | 97 | 95 |
| 31 | --- | --- | 102 | 97 | --- | --- | 93 | 92 | 101 | 100 | --- | --- |
| MONTH | 223 | 210 | 254 | 92 | 132 | 84 | 94 | 85 | 103 | 92 | 150 | 95 |
| YEAR | 282 | 72 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 25.7 | 9.2 | 5.1 | -1.9 | 14.4 | -1.3 | --- | --- | 3.1 | -.5 | 18.7 | 2.7 |
| 2 | 24.8 | 7.0 | 3.8 | -3.1 | 1.4 | -5.1 | --- | --- | 5.2 | -.7 | 11.7 | -2.8 |
| 3 | 12.3 | -.1 | 6.2 | -2.5 | 3.3 | -4.5 | --- | --- | 1.3 | -.5 | 3.9 | -2.1 |
| 4 | 15.4 | -.8 | 11.7 | -1.0 | 4.1 | -3.6 | --- | --- | 7.7 | -.1 | 9.1 | .1 |
| 5 | 20.0 | 1.5 | 12.7 | 4.4 | --- | --- | --- | --- | 1.8 | -.8 | 4.9 | .1 |
| 6 | 24.6 | 5.2 | 16.9 | 9.3 | --- | --- | --- | --- | -.5 | -1.8 | .7 | -6.3 |
| 7 | 24.7 | 9.8 | 16.0 | 4.1 | --- | --- | --- | --- | -.5 | -3.0 | 2.2 | -8.2 |
| 8 | 12.0 | 8.9 | 9.7 | 1.6 | --- | --- | --- | --- | 1.3 | -7.6 | 6.9 | -.9 |
| 9 | 10.0 | 2.4 | 4.6 | .1 | --- | --- | --- | --- | -1.4 | -9.4 | 8.9 | -2.7 |
| 10 | 9.7 | 1.9 | 3.0 | -2.2 | --- | --- | --- | --- | .6 | -2.0 | 10.8 | .3 |
| 11 | --- | --- | 1.9 | -4.4 | --- | --- | --- | --- | .6 | -4.4 | 8.7 | -2.4 |
| 12 | --- | --- | .3 | -5.6 | --- | --- | --- | --- | -1.3 | -10.2 | 7.2 | -4.9 |
| 13 | --- | --- | -.2 | -7.4 | --- | --- | --- | --- | -4.9 | -11.8 | 1.3 | -.9 |
| 14 | --- | --- | .3 | -9.4 | --- | --- | --- | --- | .0 | -5.1 | 2.9 | -4.9 |
| 15 | --- | --- | 4.3 | -10.2 | --- | --- | --- | --- | -.6 | -4.5 | -3.0 | -8.1 |
| 16 | --- | --- | 12.1 | -2.2 | --- | --- | --- | --- | -1.1 | -13.2 | .6 | -10.4 |
| 17 | --- | --- | 12.5 | 2.2 | --- | --- | --- | --- | 3.7 | -14.2 | 11.7 | .0 |
| 18 | --- | --- | 3.0 | -1.2 | --- | --- | --- | --- | 14.2 | 3.6 | 7.3 | -3.1 |
| 19 | 10.8 | --- | 1.8 | -4.3 | --- | --- | --- | --- | 10.3 | -3.3 | 6.3 | -5.0 |
| 20 | 16.5 | 7.0 | 1.4 | -6.7 | --- | --- | --- | --- | 10.1 | -5.1 | 13.3 | 1.6 |
| 21 | 15.6 | 8.8 | .8 | -2.8 | --- | --- | --- | --- | 17.3 | 2.5 | 21.3 | 4.5 |
| 22 | 16.9 | 9.2 | 4.4 | -1.5 | --- | --- | --- | --- | 2.5 | -3.9 | 8.7 | -2.8 |
| 23 | 14.7 | 4.1 | 4.4 | -1.6 | --- | --- | --- | --- | 4.1 | -3.9 | 5.3 | -6.2 |
| 24 | 14.7 | 4.1 | 3.3 | -.4 | --- | --- | --- | --- | 1.0 | -8.5 | 6.0 | -9.2 |
| 25 | 18.9 | 1.7 | .3 | -2.4 | --- | --- | --- | --- | 2.1 | -8.5 | 13.4 | 1.3 |
| 26 | 15.9 | 9.1 | -1.5 | -4.0 | --- | --- | --- | --- | 7.5 | -.3 | 9.2 | 1.8 |
| 27 | 19.3 | 14.0 | -2.4 | -11.4 | --- | --- | --- | --- | 12.7 | 1.0 | 22.1 | 5.3 |
| 28 | 15.7 | 3.6 | -.5 | -7.7 | --- | --- | --- | --- | 5.4 | .6 | 19.1 | 6.9 |
| 29 | 15.3 | -.6 | 6.1 | -9.0 | --- | --- | --- | --- | --- | --- | 13.7 | 7.6 |
| 30 | 16.2 | 2.6 | 9.6 | 1.9 | --- | --- | --- | --- | --- | --- | 7.6 | 1.5 |
| 31 | 6.9 | -1.6 | --- | --- | --- | --- | --- | --- | --- | --- | 7.2 | -2.2 |
| MONTH | 25.7 | -1.6 | 16.9 | -11.4 | 14.4 | -5.1 | --- | --- | 17.3 | -14.2 | 22.1 | -10.4 |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 15.2 | -5.3 | 17.6 | 3.9 | 15.2 | 12.7 | 28.1 | 19.8 | 29.1 | 14.7 | 29.8 | 15.7 |
| 2 | 18.2 | .3 | 15.0 | .5 | 15.2 | 13.6 | 31.2 | 18.3 | 30.5 | 20.5 | 30.4 | 14.6 |
| 3 | 20.3 | 7.5 | 9.5 | 7.0 | 17.3 | 11.0 | 23.1 | 16.9 | 26.8 | 16.3 | 19.7 | 7.1 |
| 4 | 25.5 | 9.7 | 16.8 | 3.4 | 22.2 | 8.6 | 20.7 | 15.1 | 25.5 | 17.4 | 21.6 | 4.1 |
| 5 | 20.5 | 12.7 | 18.5 | 1.9 | 24.7 | 8.5 | 25.0 | 9.8 | 22.3 | 11.2 | 23.9 | 6.1 |
| 6 | 22.8 | 4.3 | 16.5 | 5.8 | 24.3 | 12.1 | 26.2 | 11.6 | 25.3 | 9.1 | 27.7 | 17.1 |
| 7 | 6.8 | -.8 | 17.5 | 2.4 | 20.9 | 12.8 | 25.2 | 14.5 | 27.0 | 11.3 | 26.6 | 14.2 |
| 8 | 2.4 | -6.1 | 16.7 | 7.1 | 21.3 | 11.7 | 31.3 | 15.8 | 28.4 | 12.8 | 23.3 | 14.9 |
| 9 | 3.6 | -7.7 | 13.5 | 5.5 | 26.2 | 10.3 | 22.6 | 12.2 | 30.3 | 14.6 | 20.0 | 17.4 |
| 10 | 7.9 | -7.5 | 16.1 | 4.1 | 29.5 | 9.8 | 24.3 | 9.4 | 24.4 | 16.8 | 20.7 | 15.8 |
| 11 | 8.6 | 2.7 | 19.3 | 3.5 | 29.5 | 13.8 | 28.2 | 10.0 | 20.8 | 15.0 | 19.0 | 14.6 |
| 12 | 5.5 | 2.6 | 15.6 | 7.1 | 22.3 | 18.0 | 29.5 | 11.8 | 28.8 | 15.4 | 20.4 | 13.0 |
| 13 | 7.9 | 1.6 | 17.2 | .8 | 28.1 | 18.1 | 31.6 | 14.9 | 24.6 | 15.9 | 23.4 | 10.2 |
| 14 | 12.2 | -3.1 | 16.7 | 5.3 | 24.3 | 13.2 | 34.6 | 21.8 | 23.9 | 11.7 | 22.5 | 12.8 |
| 15 | 16.2 | 1.1 | 9.4 | 4.2 | 26.7 | 7.6 | 30.3 | 19.2 | 29.3 | 18.2 | 27.6 | 15.3 |
| 16 | 15.6 | 3.3 | 13.5 | .9 | 23.5 | 17.1 | 33.9 | 18.3 | 32.2 | 20.6 | 28.8 | 15.0 |
| 17 | 5.7 | -.1 | 19.2 | 10.3 | 20.2 | 15.2 | 32.3 | 23.0 | 24.8 | 16.7 | 26.3 | 12.6 |
| 18 | 12.0 | -3.8 | 23.1 | 8.0 | 26.5 | 16.0 | 34.0 | 19.9 | 22.3 | 13.7 | 27.4 | 10.7 |
| 19 | 14.5 | -3.9 | 22.2 | 8.5 | 30.7 | 16.0 | 27.4 | 15.1 | 24.0 | 13.9 | 26.9 | 14.1 |
| 20 | 17.7 | -2.8 | 15.8 | 2.9 | 32.1 | 22.0 | 29.6 | 9.9 | 20.6 | 16.0 | 20.6 | 11.1 |
| 21 | 16.8 | 2.0 | 16.1 | 4.0 | 31.6 | 19.2 | 22.6 | 17.7 | 20.6 | 13.7 | 17.4 | 5.3 |
| 22 | 10.9 | 2.7 | 18.1 | 3.2 | 29.0 | 19.0 | 20.7 | 16.8 | 20.1 | 11.9 | 17.8 | 5.2 |
| 23 | 15.7 | 1.5 | 21.0 | 3.8 | 31.3 | 18.4 | 25.9 | 18.8 | 23.8 | 9.0 | 18.9 | 10.6 |
| 24 | 15.3 | 3.9 | 25.5 | 8.5 | 32.9 | 22.4 | 26.5 | 18.5 | 16.5 | 13.4 | 20.1 | 4.2 |
| 25 | 16.3 | 3.4 | 14.9 | 9.1 | 33.1 | 20.6 | 29.9 | 16.0 | 22.4 | 15.1 | 23.1 | 8.1 |
| 26 | 19.1 | .8 | 15.9 | 5.9 | 28.1 | 17.5 | 33.4 | 21.1 | 25.6 | 13.8 | 19.9 | 7.9 |
| 27 | 13.5 | 7.0 | 17.0 | 7.1 | 29.9 | 15.5 | 32.3 | 21.9 | 29.1 | 15.8 | 22.2 | 3.9 |
| 28 | 16.3 | 4.2 | 21.8 | 9.6 | 31.0 | 16.3 | 30.3 | 21.0 | 24.6 | 15.6 | 25.6 | 8.7 |
| 29 | 20.0 | 3.6 | 15.4 | 12.9 | 31.2 | 16.5 | 24.9 | 15.0 | 22.9 | 12.1 | 24.1 | 11.2 |
| 30 | 23.5 | 9.4 | 22.1 | 13.5 | 27.5 | 20.8 | 26.3 | 11.5 | 25.3 | 12.1 | 17.6 | 12.3 |
| 31 | --- | --- | 15.2 | 13.3 | --- | --- | 29.1 | 11.0 | 25.7 | 16.8 | --- | --- |
| MONTH | 25.5 | -7.7 | 25.5 | .5 | 33.1 | 7.6 | 34.6 | 9.4 | 32.2 | 9.0 | 30.4 | 3.9 |
| YEAR | 34.6 | -14.2 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#1 (26.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 11.5 | 11.3 | 11.9 | 11.9 | 12.2 | 12.1 | --- | --- | 11.9 | 11.7 | 10.9 | 10.8 |
| 2 | 11.5 | 11.3 | 11.9 | 11.9 | 12.4 | 12.1 | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 3 | 11.5 | 11.5 | 11.9 | 11.9 | 12.4 | 12.1 | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 4 | 11.7 | 11.5 | 12.0 | 11.9 | 12.4 | 12.1 | --- | --- | 11.9 | 11.7 | 10.8 | 10.8 |
| 5 | 11.7 | 11.5 | 12.0 | 11.9 | --- | --- | --- | --- | 11.9 | 11.9 | 10.8 | 10.8 |
| 6 | 11.7 | 11.5 | 12.0 | 11.9 | --- | --- | --- | --- | 11.9 | 11.9 | 10.8 | 10.8 |
| 7 | 11.7 | 11.5 | 12.0 | 11.9 | --- | --- | --- | --- | 11.9 | 11.7 | 10.8 | 10.8 |
| 8 | 11.7 | 11.5 | 12.0 | 11.9 | --- | --- | --- | --- | 11.9 | 11.7 | 10.8 | 10.8 |
| 9 | 11.7 | 11.5 | 11.9 | 11.9 | --- | --- | --- | --- | 11.9 | 11.6 | 10.8 | 10.8 |
| 10 | 11.7 | 11.5 | 12.1 | 11.9 | --- | --- | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 11 | --- | --- | 12.1 | 11.9 | --- | --- | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 12 | --- | --- | 12.1 | 11.9 | --- | --- | --- | --- | 11.7 | 11.7 | 10.9 | 10.8 |
| 13 | --- | --- | 12.1 | 11.9 | --- | --- | --- | --- | 11.7 | 11.6 | 10.8 | 10.8 |
| 14 | --- | --- | 12.1 | 11.9 | --- | --- | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 15 | --- | --- | 12.2 | 11.9 | --- | --- | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 16 | --- | --- | 12.2 | 11.9 | --- | --- | --- | --- | 11.7 | 11.7 | 10.8 | 10.8 |
| 17 | --- | --- | 12.2 | 11.9 | --- | --- | --- | --- | 11.7 | 11.6 | 10.9 | 10.6 |
| 18 | --- | --- | 12.1 | 11.9 | --- | --- | --- | --- | 11.7 | 11.5 | 10.8 | 10.8 |
| 19 | 11.7 | 11.7 | 12.1 | 12.1 | --- | --- | --- | --- | 11.7 | 11.5 | 10.8 | 10.6 |
| 20 | 11.7 | 11.7 | 12.2 | 12.1 | --- | --- | --- | --- | 11.7 | 11.0 | 10.9 | 10.6 |
| 21 | 11.7 | 11.7 | 12.1 | 12.1 | --- | --- | --- | --- | 11.3 | 11.0 | 10.8 | 10.6 |
| 22 | 11.7 | 11.7 | 12.2 | 12.1 | --- | --- | --- | --- | 11.2 | 11.0 | 10.8 | 10.6 |
| 23 | 11.7 | 11.7 | 12.2 | 12.1 | --- | --- | --- | --- | 11.0 | 11.0 | 10.8 | 10.6 |
| 24 | 11.7 | 11.7 | 12.1 | 12.1 | --- | --- | --- | --- | 11.0 | 11.0 | 10.8 | 10.6 |
| 25 | 11.7 | 11.7 | 12.1 | 12.1 | --- | --- | --- | --- | 11.0 | 11.0 | 10.8 | 10.6 |
| 26 | 11.7 | 11.7 | 12.4 | 12.1 | --- | --- | --- | --- | 11.0 | 10.8 | 10.8 | 10.6 |
| 27 | 11.7 | 11.7 | 12.4 | 12.1 | --- | --- | --- | --- | 11.0 | 10.8 | 10.7 | 10.6 |
| 28 | 11.9 | 11.7 | 12.4 | 12.1 | --- | --- | --- | --- | 10.8 | 10.8 | 10.6 | 10.6 |
| 29 | 11.9 | 11.7 | 12.3 | 12.1 | --- | --- | --- | --- | --- | --- | 10.6 | 10.6 |
| 30 | 11.9 | 11.7 | 12.2 | 12.1 | --- | --- | --- | --- | --- | --- | 10.6 | 10.6 |
| 31 | 11.9 | 11.9 | --- | --- | --- | --- | --- | --- | --- | --- | 10.6 | 10.6 |
| MONTH | 11.9 | 11.3 | 12.4 | 11.9 | 12.4 | 12.1 | --- | --- | 11.9 | 10.8 | 10.9 | 10.6 |

#1 (26.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 10.7 | 10.4 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 10.5 | 10.9 | 10.9 |
| 2 | 10.7 | 10.4 | 10.4 | 10.2 | 10.2 | 10.2 | 10.5 | 10.2 | 10.7 | 10.5 | 10.9 | 10.9 |
| 3 | 10.6 | 10.4 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 10.5 | 10.9 | 10.8 |
| 4 | 10.7 | 10.4 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 9.0 | 10.9 | 10.8 |
| 5 | 10.6 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.2 | 9.4 | 7.8 | 10.9 | 10.8 |
| 6 | 10.7 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.2 | 9.4 | 7.8 | 10.9 | 10.9 |
| 7 | 10.6 | 10.6 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 9.9 | 8.4 | 10.9 | 10.9 |
| 8 | 10.6 | 10.6 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 9.8 | 10.9 | 10.9 |
| 9 | 10.6 | 10.6 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 10.6 | 10.9 | 10.9 |
| 10 | 10.6 | 10.4 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.3 | 10.7 | 10.6 | 10.9 | 10.9 |
| 11 | 10.6 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.3 | 10.6 | 10.6 | 11.1 | 10.9 |
| 12 | 10.6 | 10.4 | 10.4 | 10.2 | 10.2 | 10.2 | 10.5 | 10.3 | 10.7 | 10.6 | 11.1 | 10.9 |
| 13 | 10.6 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 10.9 |
| 14 | 10.6 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 10.9 |
| 15 | 10.6 | 10.4 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 10.9 |
| 16 | 10.6 | 10.4 | 10.4 | 10.2 | 10.2 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 10.9 |
| 17 | 10.6 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 10.9 |
| 18 | 10.6 | 10.4 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 10.9 |
| 19 | 10.6 | 10.2 | 10.4 | 10.2 | 10.3 | 10.2 | 10.5 | 10.3 | 10.9 | 10.6 | 11.1 | 11.1 |
| 20 | 10.5 | 10.2 | 10.4 | 10.2 | 10.3 | 10.2 | 10.6 | 10.3 | 10.9 | 10.6 | 11.1 | 11.1 |
| 21 | 10.5 | 10.2 | 10.4 | 10.2 | 10.4 | 10.2 | 10.4 | 10.4 | 10.9 | 10.9 | 11.3 | 11.0 |
| 22 | 10.4 | 10.4 | 10.4 | 10.2 | 10.3 | 10.2 | 10.6 | 10.4 | 10.9 | 10.8 | 11.3 | 11.0 |
| 23 | 10.4 | 10.2 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.4 | 10.9 | 10.7 | 11.3 | 11.1 |
| 24 | 10.4 | 10.2 | 10.4 | 10.2 | 10.3 | 10.2 | 10.6 | 10.4 | 10.9 | 10.9 | 11.3 | 11.1 |
| 25 | 10.4 | 10.2 | 10.4 | 10.2 | 10.3 | 10.2 | 10.6 | 10.4 | 10.9 | 10.9 | 11.3 | 11.1 |
| 26 | 10.5 | 10.2 | 10.4 | 10.2 | 10.4 | 10.2 | 10.7 | 10.4 | 10.9 | 10.9 | 11.3 | 11.1 |
| 27 | 10.4 | 10.2 | 10.4 | 10.2 | 10.4 | 10.2 | 10.7 | 10.4 | 10.9 | 10.9 | 11.3 | 11.1 |
| 28 | 10.4 | 10.2 | 10.4 | 10.2 | 10.4 | 10.2 | 10.7 | 10.4 | 10.9 | 10.9 | 11.3 | 11.1 |
| 29 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 10.4 | 10.9 | 10.8 | 11.3 | 11.3 |
| 30 | 10.4 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 10.5 | 10.9 | 10.8 | 11.3 | 11.3 |
| 31 | --- | --- | 10.4 | 10.2 | --- | --- | 10.7 | 10.5 | 10.9 | 10.9 | --- | --- |
| MONTH | 10.7 | 10.2 | 10.4 | 10.2 | 10.5 | 10.2 | 10.7 | 10.2 | 10.9 | 7.8 | 11.3 | 10.8 |
| YEAR | 12.4 | 7.8 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#2 (21.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 12.4 | 12.2 | 12.6 | 12.6 | 12.9 | 12.6 | --- | --- | 10.8 | 10.4 | 10.2 | 10.2 |
| 2 | 12.4 | 12.2 | 12.8 | 12.6 | 12.8 | 12.8 | --- | --- | 11.5 | 10.8 | 10.2 | 10.2 |
| 3 | 12.4 | 12.4 | 12.8 | 12.6 | 12.8 | 12.8 | --- | --- | 11.5 | 11.5 | 10.2 | 10.2 |
| 4 | 12.4 | 12.4 | 12.8 | 12.6 | 12.9 | 12.8 | --- | --- | 11.5 | 11.2 | 10.2 | 10.0 |
| 5 | 12.4 | 12.4 | 12.6 | 12.6 | --- | --- | --- | --- | 11.5 | 11.2 | 10.2 | 10.2 |
| 6 | 12.5 | 12.4 | 12.6 | 12.6 | --- | --- | --- | --- | 11.2 | 11.2 | 10.2 | 10.1 |
| 7 | 12.5 | 12.4 | 12.6 | 12.6 | --- | --- | --- | --- | 11.2 | 10.6 | 10.2 | 10.1 |
| 8 | 12.4 | 12.4 | 12.9 | 12.6 | --- | --- | --- | --- | 10.8 | 10.6 | 10.2 | 10.0 |
| 9 | 12.4 | 12.4 | 12.9 | 12.8 | --- | --- | --- | --- | 10.8 | 10.6 | 10.2 | 10.0 |
| 10 | 12.6 | 12.4 | 12.9 | 12.8 | --- | --- | --- | --- | 10.6 | 10.6 | 10.2 | 10.0 |
| 11 | --- | --- | 12.9 | 12.8 | --- | --- | --- | --- | 10.6 | 10.6 | 10.2 | 10.0 |
| 12 | --- | --- | 12.8 | 12.8 | --- | --- | --- | --- | 10.6 | 10.4 | 10.2 | 9.9 |
| 13 | --- | --- | 12.8 | 12.8 | --- | --- | --- | --- | 10.6 | 10.4 | 10.2 | 10.0 |
| 14 | --- | --- | 12.8 | 12.8 | --- | --- | --- | --- | 10.6 | 10.2 | 10.2 | 10.0 |
| 15 | --- | --- | 12.9 | 12.8 | --- | --- | --- | --- | 10.6 | 10.4 | 10.1 | 9.9 |
| 16 | --- | --- | 12.9 | 12.6 | --- | --- | --- | --- | 10.6 | 10.2 | 10.1 | 9.9 |
| 17 | --- | --- | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.1 | 10.0 | 9.8 |
| 18 | --- | --- | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.2 | 10.0 | 9.8 |
| 19 | 12.6 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.2 | 10.2 | 10.0 | 9.7 |
| 20 | 12.7 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.1 | 10.0 | 9.8 |
| 21 | 12.7 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.6 | 10.2 | 10.0 | 9.6 |
| 22 | 12.6 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.6 | 10.2 | 10.0 | 9.8 |
| 23 | 12.6 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.2 | 10.0 | 9.7 |
| 24 | 12.7 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.1 | 10.0 | 9.7 |
| 25 | 12.7 | 12.6 | 12.8 | 12.8 | --- | --- | --- | --- | 10.5 | 10.1 | 10.0 | 9.8 |
| 26 | 12.6 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.2 | 10.0 | 9.8 |
| 27 | 12.7 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.2 | 10.0 | 9.6 |
| 28 | 12.7 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | 10.4 | 10.2 | 10.0 | 9.6 |
| 29 | 12.6 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | --- | --- | 9.8 | 9.6 |
| 30 | 12.6 | 12.6 | 12.9 | 12.8 | --- | --- | --- | --- | --- | --- | 10.0 | 9.6 |
| 31 | 12.6 | 12.6 | --- | --- | --- | --- | --- | --- | --- | --- | 10.0 | 9.6 |
| MONTH | 12.7 | 12.2 | 12.9 | 12.6 | 12.9 | 12.6 | --- | --- | 11.5 | 10.1 | 10.2 | 9.6 |

#2 (21.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 10.0 | 9.6 | 9.6 | 9.6 | 10.0 | 9.8 | 10.2 | 10.0 | 10.5 | 10.4 | 11.1 | 11.1 |
| 2 | 9.8 | 9.6 | 9.8 | 9.5 | 10.0 | 9.8 | 10.2 | 10.0 | 10.5 | 10.4 | 11.3 | 11.1 |
| 3 | 9.8 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.2 | 10.0 | 10.6 | 10.4 | 11.3 | 11.1 |
| 4 | 9.8 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.2 | 10.2 | 10.5 | 8.4 | 11.3 | 11.1 |
| 5 | 9.8 | 9.6 | 9.8 | 9.5 | 10.0 | 9.8 | 10.3 | 10.0 | 9.2 | 7.8 | 11.3 | 11.1 |
| 6 | 9.8 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 9.4 | 8.4 | 11.3 | 11.1 |
| 7 | 10.0 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.3 | 9.2 | 11.3 | 11.3 |
| 8 | 10.0 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.7 | 10.2 | 11.3 | 11.3 |
| 9 | 9.9 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.7 | 10.6 | 11.3 | 11.3 |
| 10 | 9.8 | 9.5 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.7 | 10.6 | 11.3 | 11.3 |
| 11 | 9.8 | 9.6 | 9.8 | 9.6 | 10.1 | 9.8 | 10.3 | 10.2 | 10.9 | 10.6 | 11.3 | 11.3 |
| 12 | 9.8 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.9 | 10.6 | 11.5 | 11.3 |
| 13 | 9.8 | 9.6 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.9 | 10.6 | 11.5 | 11.3 |
| 14 | 9.8 | 9.5 | 9.8 | 9.6 | 10.0 | 9.8 | 10.3 | 10.2 | 10.9 | 10.7 | 11.5 | 11.3 |
| 15 | 9.8 | 9.5 | 9.8 | 9.6 | 10.1 | 9.8 | 10.3 | 10.2 | 10.9 | 10.7 | 11.6 | 11.3 |
| 16 | 9.6 | 9.6 | 10.0 | 9.6 | 10.0 | 10.0 | 10.3 | 10.2 | 10.9 | 10.7 | 11.6 | 11.3 |
| 17 | 9.8 | 9.5 | 10.0 | 9.6 | 10.0 | 10.0 | 10.3 | 10.2 | 10.9 | 10.9 | 11.6 | 11.5 |
| 18 | 9.8 | 9.5 | 9.8 | 9.6 | 10.1 | 9.8 | 10.3 | 10.2 | 10.9 | 10.9 | 11.6 | 11.5 |
| 19 | 9.8 | 9.5 | 9.8 | 9.6 | 10.1 | 9.9 | 10.3 | 10.2 | 10.9 | 10.9 | 11.6 | 11.5 |
| 20 | 9.8 | 9.4 | 10.0 | 9.8 | 10.1 | 9.9 | 10.4 | 10.2 | 10.9 | 10.9 | 11.8 | 11.5 |
| 21 | 9.8 | 9.6 | 10.0 | 9.6 | 10.1 | 9.9 | 10.2 | 10.2 | 10.9 | 10.9 | 11.8 | 11.5 |
| 22 | 9.8 | 9.6 | 10.0 | 9.6 | 10.1 | 10.0 | 10.4 | 10.2 | 10.9 | 10.8 | 11.8 | 11.7 |
| 23 | 9.8 | 9.5 | 10.0 | 9.6 | 10.1 | 10.0 | 10.4 | 10.2 | 10.9 | 10.8 | 11.8 | 11.7 |
| 24 | 9.8 | 9.6 | 9.9 | 9.6 | 10.1 | 10.0 | 10.4 | 10.2 | 10.9 | 10.9 | 11.8 | 11.7 |
| 25 | 9.8 | 9.6 | 9.8 | 9.8 | 10.1 | 10.0 | 10.5 | 10.2 | 10.9 | 10.9 | 11.8 | 11.7 |
| 26 | 9.8 | 9.5 | 10.0 | 9.6 | 10.1 | 10.0 | 10.4 | 10.2 | 11.1 | 10.9 | 11.8 | 11.7 |
| 27 | 9.8 | 9.6 | 10.0 | 9.8 | 10.2 | 10.0 | 10.5 | 10.2 | 11.1 | 10.9 | 11.8 | 11.7 |
| 28 | 9.8 | 9.6 | 9.8 | 9.8 | 10.2 | 10.0 | 10.5 | 10.3 | 11.1 | 10.9 | 11.8 | 11.7 |
| 29 | 9.6 | 9.6 | 10.0 | 9.8 | 10.2 | 10.0 | 10.5 | 10.3 | 11.1 | 11.1 | 11.8 | 11.7 |
| 30 | 9.8 | 9.6 | 9.8 | 9.6 | 10.2 | 10.0 | 10.5 | 10.3 | 11.1 | 11.1 | 11.7 | 11.7 |
| 31 | --- | --- | 10.0 | 9.6 | --- | --- | 10.5 | 10.3 | 11.1 | 11.1 | --- | --- |
| MONTH | 10.0 | 9.4 | 10.0 | 9.5 | 10.2 | 9.8 | 10.5 | 10.0 | 11.1 | 7.8 | 11.8 | 11.1 |
| YEAR | 12.9 | 7.8 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#3 (13.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 14.7 | 14.4 | 14.6 | 14.3 | 12.9 | 12.6 | --- | --- | 10.0 | 9.8 | 9.2 | 9.0 |
| 2 | 14.6 | 14.4 | 14.6 | 14.3 | 12.6 | 12.4 | --- | --- | 10.0 | 9.8 | 9.2 | 9.0 |
| 3 | 14.6 | 14.6 | 14.6 | 14.3 | 12.6 | 12.4 | --- | --- | 10.0 | 9.7 | 9.2 | 9.0 |
| 4 | 14.6 | 14.6 | 14.6 | 14.3 | 12.4 | 12.4 | --- | --- | 10.0 | 9.6 | 9.2 | 9.0 |
| 5 | 14.6 | 14.6 | 14.4 | 14.3 | --- | --- | --- | --- | 9.8 | 9.5 | 9.2 | 9.0 |
| 6 | 14.7 | 14.4 | 14.4 | 14.3 | --- | --- | --- | --- | 9.5 | 9.3 | 9.1 | 8.9 |
| 7 | 14.7 | 14.6 | 14.4 | 14.3 | --- | --- | --- | --- | 10.0 | 9.5 | 9.2 | 8.9 |
| 8 | 14.6 | 14.6 | 14.4 | 14.1 | --- | --- | --- | --- | 10.0 | 9.5 | 9.2 | 9.0 |
| 9 | 14.6 | 14.6 | 14.3 | 14.3 | --- | --- | --- | --- | 9.8 | 9.5 | 9.2 | 8.9 |
| 10 | 14.6 | 14.6 | 14.3 | 14.3 | --- | --- | --- | --- | 9.8 | 9.5 | 9.2 | 9.0 |
| 11 | --- | --- | 14.3 | 14.1 | --- | --- | --- | --- | 9.8 | 9.5 | 9.2 | 9.0 |
| 12 | --- | --- | 14.3 | 14.0 | --- | --- | --- | --- | 9.7 | 9.5 | 9.2 | 8.9 |
| 13 | --- | --- | 14.3 | 14.0 | --- | --- | --- | --- | 9.7 | 9.5 | 9.1 | 9.0 |
| 14 | --- | --- | 14.1 | 13.8 | --- | --- | --- | --- | 9.6 | 9.3 | 9.1 | 8.8 |
| 15 | --- | --- | 14.0 | 13.8 | --- | --- | --- | --- | 9.6 | 9.3 | 9.1 | 8.9 |
| 16 | --- | --- | 13.9 | 13.8 | --- | --- | --- | --- | 9.6 | 9.3 | 9.1 | 8.8 |
| 17 | --- | --- | 13.8 | 13.6 | --- | --- | --- | --- | 9.6 | 9.4 | 9.0 | 8.8 |
| 18 | --- | --- | 13.6 | 13.6 | --- | --- | --- | --- | 9.6 | 9.4 | 9.0 | 8.7 |
| 19 | 14.6 | 14.6 | 13.6 | 13.5 | --- | --- | --- | --- | 9.4 | 9.3 | 9.1 | 8.7 |
| 20 | 14.6 | 14.6 | 13.6 | 13.5 | --- | --- | --- | --- | 9.5 | 9.3 | 9.0 | 8.6 |
| 21 | 14.6 | 14.6 | 13.6 | 13.5 | --- | --- | --- | --- | 9.4 | 9.2 | 9.0 | 8.6 |
| 22 | 14.6 | 14.6 | 13.6 | 13.3 | --- | --- | --- | --- | 9.4 | 9.1 | 9.0 | 8.8 |
| 23 | 14.6 | 14.6 | 13.6 | 13.3 | --- | --- | --- | --- | 9.4 | 9.2 | 9.0 | 8.8 |
| 24 | 14.6 | 14.4 | 13.3 | 13.1 | --- | --- | --- | --- | 9.4 | 9.1 | 9.0 | 8.7 |
| 25 | 14.6 | 14.4 | 13.1 | 13.1 | --- | --- | --- | --- | 9.4 | 9.1 | 9.0 | 8.6 |
| 26 | 14.6 | 14.4 | 13.1 | 13.1 | --- | --- | --- | --- | 9.4 | 9.1 | 9.0 | 8.6 |
| 27 | 14.6 | 14.4 | 13.1 | 12.8 | --- | --- | --- | --- | 9.6 | 9.1 | 9.0 | 8.6 |
| 28 | 14.6 | 14.3 | 12.9 | 12.8 | --- | --- | --- | --- | 9.2 | 9.1 | 9.0 | 8.8 |
| 29 | 14.6 | 14.3 | 12.9 | 12.6 | --- | --- | --- | --- | --- | --- | 9.0 | 8.6 |
| 30 | 14.6 | 14.3 | 12.6 | 12.6 | --- | --- | --- | --- | --- | --- | 9.0 | 8.8 |
| 31 | 14.6 | 14.3 | --- | --- | --- | --- | --- | --- | --- | --- | 9.0 | 8.8 |
| MONTH | 14.7 | 14.3 | 14.6 | 12.6 | 12.9 | 12.4 | --- | --- | 10.0 | 9.1 | 9.2 | 8.6 |

#3 (13.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 9.0 | 8.6 | 9.2 | 9.0 | 9.6 | 9.6 | 10.5 | 10.2 | 12.2 | 12.0 | 13.6 | 13.4 |
| 2 | 9.1 | 8.6 | 9.4 | 9.1 | 9.8 | 9.6 | 10.5 | 10.4 | 12.2 | 12.0 | 13.6 | 13.4 |
| 3 | 9.0 | 8.8 | 9.2 | 9.2 | 9.8 | 9.6 | 10.7 | 10.4 | 12.2 | 12.2 | 13.6 | 13.4 |
| 4 | 9.0 | 8.6 | 9.4 | 9.1 | 9.8 | 9.8 | 10.7 | 10.6 | 12.2 | 10.6 | 13.6 | 13.6 |
| 5 | 9.0 | 8.8 | 9.4 | 9.1 | 9.8 | 9.8 | 10.7 | 10.6 | 11.1 | 10.2 | 13.6 | 13.6 |
| 6 | 9.0 | 8.8 | 9.4 | 9.2 | 9.8 | 9.8 | 10.9 | 10.6 | 11.6 | 10.6 | 13.7 | 13.6 |
| 7 | 9.2 | 8.8 | 9.4 | 9.2 | 10.0 | 9.8 | 10.9 | 10.6 | 12.5 | 11.3 | 13.7 | 13.6 |
| 8 | 9.1 | 8.9 | 9.4 | 9.2 | 10.0 | 9.6 | 10.9 | 10.9 | 12.7 | 12.0 | 13.6 | 13.6 |
| 9 | 9.1 | 8.8 | 9.4 | 9.2 | 9.6 | 9.6 | 10.9 | 10.9 | 12.7 | 12.4 | 13.6 | 13.6 |
| 10 | 9.1 | 8.9 | 9.4 | 9.2 | 9.7 | 9.5 | 10.9 | 10.8 | 12.7 | 12.7 | 13.9 | 13.6 |
| 11 | 9.0 | 9.0 | 9.4 | 9.2 | 9.7 | 9.6 | 10.9 | 10.8 | 12.7 | 12.6 | 13.9 | 13.6 |
| 12 | 9.2 | 9.0 | 9.4 | 9.4 | 9.6 | 9.6 | 11.1 | 10.9 | 12.7 | 12.6 | 13.9 | 13.8 |
| 13 | 9.2 | 9.0 | 9.4 | 9.4 | 9.7 | 9.6 | 11.1 | 10.9 | 12.7 | 12.7 | 13.9 | 13.6 |
| 14 | 9.1 | 8.9 | 9.4 | 9.4 | 9.8 | 9.6 | 11.1 | 11.1 | 12.7 | 12.6 | 13.9 | 13.8 |
| 15 | 9.1 | 8.8 | 9.4 | 9.4 | 9.8 | 9.6 | 11.3 | 11.1 | 12.7 | 12.7 | 13.9 | 13.9 |
| 16 | 9.2 | 9.0 | 9.4 | 9.4 | 9.8 | 9.8 | 11.4 | 11.1 | 12.9 | 12.7 | 13.9 | 13.9 |
| 17 | 9.2 | 9.0 | 9.6 | 9.4 | 9.8 | 9.8 | 11.4 | 11.3 | 12.9 | 12.7 | 13.9 | 13.9 |
| 18 | 9.2 | 8.9 | 9.6 | 9.4 | 10.0 | 9.8 | 11.4 | 11.3 | 12.9 | 12.9 | 13.9 | 13.8 |
| 19 | 9.1 | 8.8 | 9.6 | 9.4 | 10.0 | 9.8 | 11.5 | 11.3 | 12.9 | 12.9 | 13.9 | 13.9 |
| 20 | 9.2 | 8.9 | 9.6 | 9.6 | 10.0 | 9.8 | 11.6 | 11.3 | 13.1 | 12.9 | 13.9 | 13.6 |
| 21 | 9.2 | 8.8 | 9.6 | 9.6 | 10.1 | 9.8 | 11.5 | 11.5 | 13.1 | 12.9 | 14.1 | 13.8 |
| 22 | 9.2 | 9.0 | 9.6 | 9.6 | 10.1 | 10.0 | 11.7 | 11.5 | 13.1 | 13.1 | 14.1 | 13.8 |
| 23 | 9.2 | 9.0 | 9.6 | 9.6 | 10.1 | 10.0 | 11.8 | 11.6 | 13.2 | 13.1 | 14.1 | 13.8 |
| 24 | 9.2 | 9.0 | 9.6 | 9.6 | 10.1 | 10.0 | 11.8 | 11.7 | 13.1 | 13.1 | 14.1 | 13.8 |
| 25 | 9.2 | 9.0 | 9.6 | 9.6 | 10.3 | 10.0 | 11.8 | 11.7 | 13.2 | 13.1 | 14.1 | 13.8 |
| 26 | 9.2 | 9.0 | 9.6 | 9.6 | 10.3 | 10.2 | 11.8 | 11.7 | 13.2 | 13.1 | 14.1 | 13.9 |
| 27 | 9.2 | 9.0 | 9.8 | 9.6 | 10.3 | 10.2 | 11.8 | 11.8 | 13.4 | 13.1 | 14.1 | 13.9 |
| 28 | 9.2 | 9.0 | 9.8 | 9.6 | 10.3 | 10.2 | 12.0 | 11.7 | 13.4 | 13.1 | 14.1 | 13.9 |
| 29 | 9.2 | 9.0 | 9.8 | 9.6 | 10.3 | 10.2 | 12.0 | 11.9 | 13.4 | 13.4 | 14.1 | 13.9 |
| 30 | 9.2 | 9.0 | 9.6 | 9.6 | 10.5 | 10.2 | 12.0 | 11.9 | 13.4 | 13.4 | 14.1 | 14.1 |
| 31 | --- | --- | 9.6 | 9.6 | --- | --- | 12.2 | 11.9 | 13.6 | 13.4 | --- | --- |
| MONTH | 9.2 | 8.6 | 9.8 | 9.0 | 10.5 | 9.5 | 12.2 | 10.2 | 13.6 | 10.2 | 14.1 | 13.4 |
| YEAR | 14.7 | 8.6 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

#4 (8.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 16.2 | 16.0 | 14.8 | 14.6 | 12.2 | 11.9 | --- | --- | 8.7 | 8.4 | 7.7 | 7.3 |
| 2 | 16.2 | 15.9 | 14.6 | 14.5 | 12.1 | 11.9 | --- | --- | 8.7 | 8.4 | 7.6 | 7.4 |
| 3 | 16.2 | 15.9 | 14.6 | 14.3 | 11.9 | 11.7 | --- | --- | 8.6 | 8.4 | 7.6 | 7.4 |
| 4 | 16.2 | 15.9 | 14.6 | 14.3 | 11.9 | 11.7 | --- | --- | 8.6 | 8.4 | 7.6 | 7.4 |
| 5 | 16.0 | 15.9 | 14.4 | 14.3 | --- | --- | --- | --- | 8.6 | 8.2 | 7.6 | 7.4 |
| 6 | 16.0 | 15.9 | 14.4 | 14.1 | --- | --- | --- | --- | 8.4 | 8.2 | 7.6 | 7.4 |
| 7 | 16.0 | 15.7 | 14.1 | 14.1 | --- | --- | --- | --- | 8.4 | 8.2 | 7.8 | 7.4 |
| 8 | 15.9 | 15.6 | 14.3 | 13.8 | --- | --- | --- | --- | 8.4 | 8.2 | 7.6 | 7.4 |
| 9 | 15.9 | 15.6 | 14.1 | 13.8 | --- | --- | --- | --- | 8.4 | 8.1 | 7.6 | 7.4 |
| 10 | 15.9 | 15.6 | 13.8 | 13.8 | --- | --- | --- | --- | 8.4 | 8.2 | 7.6 | 7.4 |
| 11 | --- | --- | 13.8 | 13.8 | --- | --- | --- | --- | 8.4 | 8.0 | 7.6 | 7.4 |
| 12 | --- | --- | 13.8 | 13.8 | --- | --- | --- | --- | 8.4 | 8.0 | 7.6 | 7.4 |
| 13 | --- | --- | 13.8 | 13.6 | --- | --- | --- | --- | 8.4 | 7.9 | 7.6 | 7.4 |
| 14 | --- | --- | 13.8 | 13.5 | --- | --- | --- | --- | 8.4 | 8.0 | 7.6 | 7.4 |
| 15 | --- | --- | 13.6 | 13.5 | --- | --- | --- | --- | 8.2 | 7.8 | 7.6 | 7.4 |
| 16 | --- | --- | 13.6 | 13.3 | --- | --- | --- | --- | 8.2 | 7.8 | 7.6 | 7.4 |
| 17 | --- | --- | 13.4 | 13.1 | --- | --- | --- | --- | 8.0 | 7.8 | 7.6 | 7.1 |
| 18 | --- | --- | 13.3 | 13.1 | --- | --- | --- | --- | 8.0 | 7.8 | 7.6 | 7.2 |
| 19 | 15.4 | 15.1 | 13.1 | 13.1 | --- | --- | --- | --- | 8.0 | 7.8 | 7.6 | 7.2 |
| 20 | 15.4 | 15.1 | 13.1 | 12.8 | --- | --- | --- | --- | 8.0 | 7.8 | 7.6 | 7.3 |
| 21 | 15.1 | 15.1 | 13.1 | 12.8 | --- | --- | --- | --- | 8.0 | 7.6 | 7.6 | 7.3 |
| 22 | 15.1 | 15.1 | 12.9 | 12.6 | --- | --- | --- | --- | 7.8 | 7.6 | 7.6 | 7.3 |
| 23 | 15.1 | 15.1 | 12.8 | 12.6 | --- | --- | --- | --- | 7.8 | 7.6 | 7.6 | 7.4 |
| 24 | 15.1 | 15.1 | 12.6 | 12.6 | --- | --- | --- | --- | 7.8 | 7.6 | 7.6 | 7.4 |
| 25 | 15.1 | 14.9 | 12.6 | 12.6 | --- | --- | --- | --- | 7.8 | 7.6 | 7.6 | 7.4 |
| 26 | 15.1 | 14.9 | 12.6 | 12.4 | --- | --- | --- | --- | 7.8 | 7.6 | 7.6 | 7.3 |
| 27 | 14.9 | 14.9 | 12.6 | 12.3 | --- | --- | --- | --- | 7.8 | 7.4 | 7.6 | 7.3 |
| 28 | 14.9 | 14.8 | 12.4 | 12.3 | --- | --- | --- | --- | 7.6 | 7.4 | 7.6 | 7.4 |
| 29 | 14.9 | 14.8 | 12.4 | 12.1 | --- | --- | --- | --- | --- | --- | 7.6 | 7.4 |
| 30 | 14.9 | 14.8 | 12.2 | 11.9 | --- | --- | --- | --- | --- | --- | 7.6 | 7.4 |
| 31 | 14.9 | 14.8 | --- | --- | --- | --- | --- | --- | --- | --- | 7.6 | 7.4 |
| MONTH | 16.2 | 14.8 | 14.8 | 11.9 | 12.2 | 11.7 | --- | --- | 8.7 | 7.4 | 7.8 | 7.1 |

#4 (8.6' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.7 | 7.5 | 8.6 | 8.4 | 9.4 | 9.4 | 12.5 | 12.4 | 14.9 | 14.9 | 15.7 | 15.7 |
| 2 | 7.7 | 7.4 | 8.6 | 8.6 | 9.6 | 9.4 | 12.7 | 12.4 | 14.9 | 14.9 | 15.7 | 15.7 |
| 3 | 7.7 | 7.6 | 8.6 | 8.6 | 9.6 | 9.6 | 12.7 | 12.6 | 14.9 | 14.9 | 15.7 | 15.6 |
| 4 | 7.7 | 7.5 | 8.8 | 8.6 | 9.8 | 9.6 | 12.9 | 12.6 | 14.9 | 13.4 | 15.7 | 15.6 |
| 5 | 7.7 | 7.6 | 9.0 | 8.8 | 9.8 | 9.6 | 12.9 | 12.7 | 14.1 | 13.1 | 15.7 | 15.6 |
| 6 | 7.9 | 7.6 | 8.8 | 8.8 | 9.8 | 9.8 | 13.1 | 12.9 | 14.7 | 13.6 | 15.7 | 15.7 |
| 7 | 8.0 | 7.8 | 9.0 | 8.8 | 10.0 | 9.8 | 13.2 | 13.1 | 15.2 | 14.3 | 15.7 | 15.7 |
| 8 | 8.0 | 7.8 | 9.0 | 8.6 | 10.0 | 10.0 | 13.2 | 13.1 | 15.2 | 14.9 | 15.7 | 15.7 |
| 9 | 8.0 | 7.8 | 8.6 | 8.4 | 10.2 | 10.0 | 13.4 | 13.1 | 15.2 | 15.1 | 15.7 | 15.7 |
| 10 | 8.0 | 7.8 | 8.4 | 8.4 | 10.3 | 10.0 | 13.4 | 13.3 | 15.2 | 15.1 | 15.7 | 15.7 |
| 11 | 8.0 | 7.8 | 8.4 | 8.4 | 10.3 | 10.2 | 13.6 | 13.3 | 15.4 | 15.1 | 15.7 | 15.7 |
| 12 | 8.0 | 7.8 | 8.4 | 8.4 | 10.2 | 10.2 | 13.6 | 13.4 | 15.4 | 15.1 | 15.7 | 15.7 |
| 13 | 8.0 | 7.8 | 8.6 | 8.4 | 10.5 | 10.2 | 13.7 | 13.6 | 15.4 | 15.1 | 15.9 | 15.6 |
| 14 | 8.0 | 7.8 | 8.6 | 8.4 | 10.6 | 10.4 | 13.7 | 13.6 | 15.4 | 15.4 | 15.7 | 15.6 |
| 15 | 8.0 | 7.8 | 8.6 | 8.6 | 10.7 | 10.6 | 13.9 | 13.6 | 15.4 | 15.4 | 15.7 | 15.7 |
| 16 | 8.0 | 8.0 | 8.6 | 8.6 | 10.7 | 10.6 | 13.9 | 13.6 | 15.7 | 15.4 | 15.7 | 15.7 |
| 17 | 8.0 | 8.0 | 8.6 | 8.6 | 10.9 | 10.6 | 13.9 | 13.9 | 15.4 | 15.4 | 15.7 | 15.7 |
| 18 | 8.0 | 8.0 | 8.6 | 8.6 | 10.9 | 10.9 | 13.9 | 13.9 | 15.7 | 15.4 | 15.7 | 15.6 |
| 19 | 8.2 | 8.0 | 8.8 | 8.6 | 10.9 | 10.9 | 13.9 | 13.9 | 15.7 | 15.4 | 15.7 | 15.7 |
| 20 | 8.2 | 8.0 | 8.8 | 8.6 | 11.1 | 10.9 | 14.1 | 13.8 | 15.7 | 15.7 | 15.9 | 15.1 |
| 21 | 8.2 | 8.0 | 9.0 | 8.8 | 11.1 | 11.1 | 14.1 | 13.9 | 15.7 | 15.7 | 15.9 | 15.6 |
| 22 | 8.2 | 8.0 | 9.0 | 8.8 | 11.4 | 11.1 | 14.1 | 14.1 | 15.7 | 15.6 | 15.9 | 15.6 |
| 23 | 8.2 | 8.0 | 9.0 | 8.8 | 11.4 | 11.3 | 14.4 | 14.1 | 15.7 | 15.6 | 15.9 | 15.6 |
| 24 | 8.4 | 8.0 | 9.0 | 9.0 | 11.6 | 11.3 | 14.4 | 14.4 | 15.7 | 15.7 | 15.9 | 15.7 |
| 25 | 8.4 | 8.2 | 9.2 | 9.0 | 11.8 | 11.5 | 14.4 | 14.4 | 15.7 | 15.7 | 15.9 | 15.7 |
| 26 | 8.4 | 8.2 | 9.2 | 9.0 | 11.8 | 11.7 | 14.4 | 14.4 | 15.7 | 15.7 | 15.9 | 15.7 |
| 27 | 8.4 | 8.4 | 9.2 | 9.2 | 12.0 | 11.7 | 14.7 | 14.4 | 15.7 | 15.7 | 15.9 | 15.7 |
| 28 | 8.4 | 8.4 | 9.4 | 9.2 | 12.0 | 12.0 | 14.7 | 14.4 | 15.7 | 15.7 | 15.9 | 15.7 |
| 29 | 8.4 | 8.4 | 9.4 | 9.2 | 12.2 | 12.0 | 14.7 | 14.6 | 15.7 | 15.6 | 15.7 | 15.6 |
| 30 | 8.4 | 8.4 | 9.4 | 9.4 | 12.5 | 12.2 | 14.9 | 14.6 | 15.7 | 15.6 | 15.7 | 15.7 |
| 31 | --- | --- | 9.4 | 9.4 | --- | --- | 14.9 | 14.6 | 15.7 | 15.7 | --- | --- |
| MONTH | 8.4 | 7.4 | 9.4 | 8.4 | 12.5 | 9.4 | 14.9 | 12.4 | 15.7 | 13.1 | 15.9 | 15.1 |
| YEAR | 16.2 | 7.1 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 19.1 | 14.6 | 7.5 | 6.1 | 6.6 | 4.7 | --- | --- | -.1 | -.1 | 7.4 | 3.2 |
| 2 | 20.2 | 17.3 | 6.7 | 5.4 | 4.9 | 3.2 | --- | --- | .0 | -.1 | 7.4 | 4.7 |
| 3 | 18.4 | 14.2 | 6.9 | 5.1 | 3.2 | 2.5 | --- | --- | .0 | -.1 | 5.6 | 3.1 |
| 4 | 16.2 | 12.6 | 7.2 | 4.9 | 3.7 | 2.6 | --- | --- | .0 | .0 | 4.9 | 3.3 |
| 5 | 16.6 | 12.7 | 8.5 | 6.7 | --- | --- | --- | --- | .0 | .0 | 4.9 | 3.6 |
| 6 | 17.1 | 13.1 | 10.5 | 8.4 | --- | --- | --- | --- | .1 | .0 | 3.6 | 2.5 |
| 7 | 18.0 | 14.5 | 12.2 | 9.7 | --- | --- | --- | --- | .1 | .1 | 2.5 | 1.8 |
| 8 | 17.3 | 15.3 | 9.9 | 8.6 | --- | --- | --- | --- | .2 | .1 | 3.4 | 1.8 |
| 9 | 15.3 | 12.5 | 8.8 | 6.8 | --- | --- | --- | --- | .2 | .1 | 3.4 | 2.0 |
| 10 | 12.5 | 10.9 | 6.8 | 5.4 | --- | --- | --- | --- | .2 | .2 | 4.6 | 2.3 |
| 11 | --- | --- | 5.5 | 4.3 | --- | --- | --- | --- | .2 | .2 | 5.5 | 3.4 |
| 12 | --- | --- | 4.7 | 3.9 | --- | --- | --- | --- | .2 | .2 | 5.3 | 2.6 |
| 13 | --- | --- | 3.9 | 3.0 | --- | --- | --- | --- | .2 | .2 | 4.6 | 3.4 |
| 14 | --- | --- | 3.1 | 2.7 | --- | --- | --- | --- | .2 | .2 | 3.4 | 2.6 |
| 15 | --- | --- | 2.7 | 2.0 | --- | --- | --- | --- | .2 | .2 | 2.6 | 1.8 |
| 16 | --- | --- | 3.8 | 2.1 | --- | --- | --- | --- | .2 | .2 | 1.8 | 1.3 |
| 17 | --- | --- | 5.9 | 3.3 | --- | --- | --- | --- | .2 | .1 | 5.0 | 1.6 |
| 18 | --- | --- | 5.9 | 4.2 | --- | --- | --- | --- | .2 | .2 | 4.8 | 3.2 |
| 19 | 12.8 | 11.3 | 4.4 | 3.3 | --- | --- | --- | --- | .2 | .2 | 5.0 | 2.2 |
| 20 | 13.2 | 10.9 | 3.3 | 2.6 | --- | --- | --- | --- | .6 | .2 | 7.2 | 3.6 |
| 21 | 13.8 | 12.0 | 3.3 | 2.6 | --- | --- | --- | --- | 6.4 | .6 | 8.8 | 5.3 |
| 22 | 13.5 | 12.2 | 4.1 | 2.7 | --- | --- | --- | --- | 6.4 | 2.8 | 8.5 | 5.7 |
| 23 | 13.4 | 10.6 | 3.9 | 2.9 | --- | --- | --- | --- | 2.8 | 1.8 | 5.7 | 3.7 |
| 24 | 11.7 | 9.9 | 4.3 | 3.8 | --- | --- | --- | --- | 2.2 | 1.3 | 4.4 | 2.4 |
| 25 | 12.2 | 9.0 | 3.9 | 3.0 | --- | --- | --- | --- | 1.4 | .9 | 5.8 | 3.7 |
| 26 | 12.7 | 11.1 | 3.0 | 2.7 | --- | --- | --- | --- | 2.3 | 1.0 | 5.6 | 3.9 |
| 27 | 14.5 | 12.6 | 2.7 | 2.3 | --- | --- | --- | --- | 3.9 | 2.3 | 9.4 | 4.4 |
| 28 | 14.4 | 12.9 | 2.3 | 2.2 | --- | --- | --- | --- | 3.9 | 2.7 | 9.0 | 7.0 |
| 29 | 12.9 | 10.2 | 2.2 | 2.1 | --- | --- | --- | --- | --- | --- | 9.0 | 8.1 |
| 30 | 12.1 | 9.8 | 4.7 | 2.1 | --- | --- | --- | --- | --- | --- | 8.1 | 6.6 |
| 31 | 9.8 | 7.4 | --- | --- | --- | --- | --- | --- | --- | --- | 7.6 | 4.8 |
| MONTH | 20.2 | 7.4 | 12.2 | 2.0 | 6.6 | 2.5 | --- | --- | 6.4 | -.1 | 9.4 | 1.3 |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 8.6 | 4.1 | 13.2 | 10.1 | 15.1 | 14.2 | 25.2 | 22.4 | 24.8 | 22.3 | 22.8 | 19.7 |
| 2 | 9.8 | 5.1 | 10.5 | 8.2 | 14.5 | 14.0 | 25.3 | 22.3 | 24.7 | 23.0 | 22.3 | 20.1 |
| 3 | 9.9 | 7.2 | 9.9 | 8.9 | 16.2 | 13.9 | 24.6 | 22.1 | 24.7 | 22.7 | 21.8 | 19.2 |
| 4 | 12.4 | 8.7 | 12.3 | 7.5 | 18.3 | 13.4 | 22.1 | 20.5 | 24.1 | 21.8 | 20.6 | 17.7 |
| 5 | 12.2 | 11.1 | 11.5 | 8.6 | 18.8 | 14.8 | 23.1 | 19.2 | 23.9 | 20.7 | 19.9 | 17.5 |
| 6 | 13.6 | 11.4 | 12.4 | 9.4 | 19.4 | 15.8 | 22.6 | 20.0 | 23.8 | 19.8 | 21.2 | 18.9 |
| 7 | 12.3 | 8.8 | 13.3 | 9.0 | 18.8 | 16.3 | 22.8 | 20.0 | 24.5 | 20.2 | 21.4 | 19.5 |
| 8 | 9.6 | 6.3 | 12.5 | 10.5 | 19.8 | 16.0 | 22.8 | 20.3 | 24.7 | 20.8 | 21.1 | 19.8 |
| 9 | 7.7 | 4.3 | 11.5 | 9.7 | 20.7 | 16.5 | 23.1 | 20.6 | 24.4 | 21.5 | 20.8 | 19.9 |
| 10 | 8.2 | 4.3 | 13.0 | 8.5 | 21.4 | 17.3 | 23.4 | 19.0 | 24.1 | 22.3 | 19.9 | 19.0 |
| 11 | 8.2 | 6.5 | 12.3 | 9.5 | 21.0 | 18.5 | 23.8 | 19.5 | 23.0 | 20.7 | 19.3 | 18.3 |
| 12 | 7.8 | 6.3 | 12.7 | 10.7 | 20.7 | 19.0 | 24.4 | 20.5 | 23.1 | 19.8 | 18.5 | 17.4 |
| 13 | 7.2 | 5.8 | 13.5 | 9.2 | 22.5 | 18.6 | 24.9 | 21.3 | 23.0 | 21.4 | 19.5 | 16.4 |
| 14 | 9.5 | 4.5 | 13.3 | 10.8 | 22.2 | 19.2 | 25.9 | 22.9 | 22.6 | 19.5 | 19.1 | 17.6 |
| 15 | 10.6 | 6.3 | 12.5 | 9.8 | 22.0 | 18.5 | 25.7 | 23.5 | 22.9 | 20.7 | 21.3 | 18.1 |
| 16 | 10.8 | 8.6 | 11.2 | 7.9 | 21.5 | 19.6 | 26.0 | 23.0 | 24.3 | 22.0 | 21.4 | 18.9 |
| 17 | 10.1 | 7.4 | 15.1 | 9.6 | 20.9 | 18.3 | 25.7 | 24.0 | 23.0 | 21.7 | 21.1 | 19.9 |
| 18 | 9.5 | 5.5 | 15.4 | 12.0 | 21.7 | 18.6 | 26.1 | 23.5 | 22.0 | 20.1 | 20.5 | 17.5 |
| 19 | 10.6 | 6.1 | 16.1 | 14.5 | 23.5 | 19.2 | 26.2 | 23.6 | 22.0 | 19.4 | 20.9 | 18.3 |
| 20 | 11.4 | 7.1 | 14.9 | 11.6 | 23.9 | 21.0 | 25.8 | 22.5 | 21.4 | 20.0 | 20.7 | 19.5 |
| 21 | 10.8 | 8.6 | 15.5 | 11.2 | 24.7 | 21.2 | 25.3 | 22.9 | 20.0 | 19.0 | 19.5 | 16.5 |
| 22 | 10.5 | 8.9 | 16.8 | 11.8 | 25.8 | 21.5 | 23.1 | 21.2 | 19.5 | 17.8 | 18.0 | 15.4 |
| 23 | 10.8 | 7.8 | 16.8 | 13.0 | 26.4 | 22.0 | 22.3 | 20.5 | 20.6 | 17.0 | 17.6 | 16.3 |
| 24 | 10.9 | 9.0 | 17.0 | 13.5 | 27.0 | 23.2 | 23.7 | 20.9 | 20.1 | 18.1 | 17.8 | 14.6 |
| 25 | 11.6 | 8.7 | 16.5 | 14.0 | 26.8 | 23.9 | 25.0 | 21.0 | 20.2 | 17.8 | 17.7 | 14.9 |
| 26 | 12.7 | 8.7 | 15.3 | 11.9 | 26.0 | 22.9 | 25.9 | 22.8 | 21.5 | 18.2 | 18.4 | 15.4 |
| 27 | 12.3 | 10.4 | 16.4 | 12.1 | 26.9 | 21.7 | 26.6 | 23.9 | 22.5 | 19.1 | 18.0 | 15.0 |
| 28 | 12.3 | 9.2 | 16.8 | 13.5 | 27.1 | 22.6 | 26.7 | 24.1 | 22.4 | 20.1 | 18.5 | 15.5 |
| 29 | 13.4 | 9.2 | 16.3 | 14.7 | 26.1 | 23.0 | 26.1 | 23.2 | 21.9 | 19.7 | 18.1 | 16.3 |
| 30 | 13.3 | 10.8 | 16.5 | 14.0 | 25.0 | 23.2 | 25.4 | 22.1 | 21.4 | 19.1 | 17.5 | 16.6 |
| 31 | --- | --- | 16.1 | 15.0 | --- | --- | 25.1 | 21.8 | 21.5 | 19.9 | --- | --- |
| MONTH | 13.6 | 4.1 | 17.0 | 7.5 | 27.1 | 13.4 | 26.7 | 19.0 | 24.8 | 17.0 | 22.8 | 14.6 |
| YEAR | 27.1 | -.1 | | | | | | | | | | |

413551083481200 LU-20 NR HOLLAND OH--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .00 | .01 | --- | .00 | .01 | .00 | .02 | .30 | .00 | .00 | .00 |
| 2 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .04 | .35 | .00 | .00 | .01 |
| 3 | .00 | .00 | .04 | --- | .00 | .00 | .00 | .86 | .01 | .00 | .37 | .00 |
| 4 | .00 | .00 | .00 | --- | .31 | .00 | .00 | .00 | .00 | .00 | .19 | .00 |
| 5 | .00 | .02 | --- | --- | .00 | .03 | .18 | .17 | .00 | .00 | .00 | .00 |
| 6 | .00 | .00 | --- | --- | .00 | .01 | .00 | .00 | .00 | .03 | .00 | .00 |
| 7 | .00 | .69 | --- | --- | .00 | .05 | .00 | .00 | .00 | .03 | .00 | .00 |
| 8 | .00 | .03 | --- | --- | .00 | .00 | .00 | .09 | .00 | .09 | .00 | .00 |
| 9 | .07 | .13 | --- | --- | .00 | .06 | .00 | .00 | .00 | .01 | .00 | .09 |
| 10 | .01 | .00 | --- | --- | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .29 |
| 11 | --- | .01 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 | .08 | .00 |
| 12 | --- | .01 | --- | --- | .03 | .00 | .18 | .06 | .08 | .00 | .08 | .00 |
| 13 | --- | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 14 | --- | .00 | --- | --- | .00 | .99 | .00 | .22 | .00 | .01 | .00 | .00 |
| 15 | --- | .00 | --- | --- | .00 | .00 | .00 | .06 | .00 | .00 | .14 | .00 |
| 16 | --- | .00 | --- | --- | .01 | .00 | .03 | .02 | .32 | .00 | .85 | .00 |
| 17 | --- | .05 | --- | --- | .01 | .00 | .00 | .00 | .00 | .00 | .06 | .51 |
| 18 | --- | .00 | --- | --- | .00 | .03 | .00 | .11 | .01 | .03 | .00 | .00 |
| 19 | .00 | .00 | --- | --- | .00 | .00 | .00 | .18 | .00 | .00 | .01 | 1.50 |
| 20 | .00 | .00 | --- | --- | .87 | .01 | .00 | .00 | .00 | .00 | .00 | .01 |
| 21 | .00 | .00 | --- | --- | .03 | .01 | .00 | .00 | .80 | .50 | .00 | .00 |
| 22 | .02 | .00 | --- | --- | .09 | .00 | .00 | .00 | .00 | .06 | .00 | .00 |
| 23 | .24 | .00 | --- | --- | .00 | .03 | .00 | .00 | .00 | .04 | .00 | .03 |
| 24 | .00 | .06 | --- | --- | .00 | .02 | .01 | .00 | .00 | .01 | .04 | .00 |
| 25 | .00 | .01 | --- | --- | .00 | .15 | .00 | .49 | .26 | .00 | .02 | .00 |
| 26 | .01 | .02 | --- | --- | .44 | .00 | .00 | .00 | .03 | .00 | .01 | .00 |
| 27 | .00 | .00 | --- | --- | .15 | .00 | .05 | .00 | .00 | .00 | .00 | .00 |
| 28 | .00 | .00 | --- | --- | .00 | .00 | .00 | .01 | .00 | .00 | .00 | .04 |
| 29 | .20 | .11 | --- | --- | --- | .13 | .01 | .55 | .02 | .00 | .00 | .00 |
| 30 | .22 | .09 | --- | --- | --- | .05 | .18 | .00 | .12 | .00 | .00 | .00 |
| 31 | .00 | --- | --- | --- | --- | .00 | --- | .20 | --- | .00 | .07 | --- |
| TOTAL | 0.77 | 1.23 | 0.05 | --- | 1.94 | 1.58 | 0.64 | 3.09 | 2.30 | 0.81 | 1.92 | 2.48 |

WTR YR 1997 TOTAL 16.81

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; 0.010-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) ft below land surface.

DATUM.--Elevation of land-surface datum is 676.97 ft above sea level. Measuring point: top of PVC casing 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 are available in preceding 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, 1630 microsiemens July 16 and 17, 1991; minimum, 310 microsiemens September 20, 1997.
LEVEL 2- Maximum, 1790 microsiemens July 15, 1991; minimum, 261 microsiemens September 20, 1997.
LEVEL 3- Maximum, 1530 microsiemens July 22 and 23, 1991; minimum, 251 microsiemens September 20, 1997.
LEVEL 4- Maximum, 1180 microsiemens August 17-18, 1994; minimum, 107 microsiemens August 31, 1991.
WATER TEMPERATURE:
LEVEL 1- Maximum, 13.9°C many days in 1991; minimum, 11.1°C many days in April, May, June, 1993, May, 1994, May, June, 1996; April, May, June, 1997.
LEVEL 2- Maximum, 16.5°C September 20, 1997; minimum, 9.6°C April 2,7, 13, 18, 1993.
LEVEL 3- Maximum, 17.5°C many days in 1991; minimum, 6.6°C March 14-15, 1997.
LEVEL 4- Maximum, 19.0°C many days in 1991; minimum, 7.4°C March 25-29, 1993.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE:
LEVEL 1- Maximum, 1320 microsiemens September 20, 1997; minimum, 310 microsiemens September 20, 1997.
LEVEL 2- Maximum, 1010 microsiemens September 20, 1997; minimum, 261 microsiemens September 20, 1997.
LEVEL 3- Maximum, 751 microsiemens September 28, 1997; minimum, 251 microsiemens September 20, 1997.
LEVEL 4- Maximum, 715 microsiemens September 29-30, 1997; minimum, 239 microsiemens September 20, 1997.
WATER TEMPERATURE:
LEVEL 1- Maximum, 13.7°C January 3, 1997; minimum, 11.1°C April 26, many days in May, and June 2-3, 1997.
LEVEL 2- Maximum, 16.5°C September 20, 1997; minimum, 9.8°C March 14-15, 1997.
LEVEL 3- Maximum, 16.0°C September 20, 1997; minimum, 6.6°C March 14-15, 1997.
LEVEL 4- Maximum, 17.7°C September 20, 1997; minimum, 7.7°C March 14-15, 1997.

413547083481400 LU-23 NR HOLLAND OH--Continued

#1 (25.4' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 792 | 777 | 722 | 718 | 658 | 656 | 636 | 635 | 495 | 491 | 442 | 436 |
| 2 | 785 | 774 | 719 | 716 | 657 | 657 | 635 | 633 | 501 | 491 | 443 | 441 |
| 3 | 774 | 759 | 716 | 711 | 657 | 656 | 633 | 629 | 495 | 491 | 445 | 441 |
| 4 | 760 | 742 | 711 | 706 | 656 | 656 | 632 | 630 | 497 | 484 | 445 | 442 |
| 5 | 770 | 737 | 707 | 703 | 656 | 654 | 632 | 631 | 544 | 483 | 446 | 444 |
| 6 | 771 | 757 | 703 | 700 | 654 | 651 | 632 | 629 | 554 | 500 | 445 | 441 |
| 7 | 769 | 761 | 700 | 695 | 651 | 650 | 629 | 627 | 527 | 490 | 450 | 441 |
| 8 | 771 | 761 | 695 | 685 | 651 | 650 | 631 | 626 | 501 | 489 | 453 | 448 |
| 9 | 763 | 756 | 688 | 684 | 651 | 650 | 631 | 627 | 499 | 491 | 455 | 451 |
| 10 | 767 | 756 | 690 | 685 | 651 | 650 | 629 | 625 | 500 | 492 | 456 | 453 |
| 11 | 769 | 747 | 690 | 688 | 650 | 649 | 625 | 619 | 494 | 488 | 458 | 455 |
| 12 | 788 | 767 | 690 | 687 | 650 | 647 | 625 | 618 | 494 | 483 | 459 | 456 |
| 13 | 799 | 782 | 687 | 684 | 647 | 646 | 626 | 617 | 510 | 484 | 458 | 456 |
| 14 | 806 | 799 | 684 | 680 | 647 | 645 | 623 | 599 | 513 | 510 | 568 | 426 |
| 15 | 810 | 801 | 680 | 674 | 646 | 645 | 627 | 599 | 513 | 509 | 426 | 406 |
| 16 | 813 | 800 | 676 | 672 | 646 | 646 | 617 | 585 | 510 | 503 | 406 | 404 |
| 17 | 818 | 805 | 675 | 670 | 647 | 645 | 624 | 584 | 512 | 499 | 405 | 404 |
| 18 | 821 | 811 | 670 | 668 | 645 | 642 | 603 | 536 | 509 | 499 | 408 | 405 |
| 19 | 825 | 813 | 668 | 666 | 643 | 639 | 621 | 533 | 511 | 499 | 411 | 408 |
| 20 | 823 | 807 | 666 | 665 | 644 | 640 | 607 | 535 | 510 | 500 | 414 | 409 |
| 21 | 819 | 806 | 665 | 663 | 645 | 641 | 618 | 531 | 560 | 464 | 414 | 411 |
| 22 | 823 | 807 | 663 | 662 | 644 | 644 | 611 | 556 | 464 | 454 | 417 | 411 |
| 23 | 807 | 789 | 662 | 660 | 644 | 642 | 616 | 562 | 454 | 452 | 415 | 412 |
| 24 | 790 | 771 | 660 | 659 | 642 | 641 | 600 | 486 | 454 | 453 | 418 | 410 |
| 25 | 772 | 758 | 660 | 659 | 641 | 639 | 619 | 543 | 455 | 454 | 424 | 413 |
| 26 | 760 | 752 | 659 | 659 | 639 | 638 | 601 | 487 | 455 | 454 | 430 | 416 |
| 27 | 752 | 743 | 659 | 658 | 638 | 638 | 568 | 487 | 467 | 429 | 428 | 424 |
| 28 | 746 | 737 | 659 | 658 | 638 | 637 | 595 | 504 | 441 | 433 | 428 | 424 |
| 29 | 738 | 731 | 659 | 658 | 637 | 636 | 504 | 492 | --- | --- | 430 | 423 |
| 30 | 731 | 725 | 659 | 657 | 637 | 636 | 495 | 491 | --- | --- | 436 | 423 |
| 31 | 725 | 722 | --- | --- | 636 | 635 | 507 | 491 | --- | --- | 439 | 434 |
| MONTH | 825 | 722 | 722 | 657 | 658 | 635 | 636 | 486 | 560 | 429 | 568 | 404 |

#1 (25.4' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 442 | 436 | 608 | 440 | 534 | 509 | 676 | 671 | 705 | 698 | 727 | 720 |
| 2 | 443 | 436 | 607 | 453 | 691 | 534 | 676 | 671 | 705 | 700 | 729 | 721 |
| 3 | 442 | 436 | 454 | 435 | 718 | 691 | 675 | 671 | 705 | 700 | 725 | 721 |
| 4 | 444 | 436 | 449 | 439 | 727 | 717 | 675 | 668 | 704 | 646 | 722 | 719 |
| 5 | 554 | 439 | 466 | 448 | 729 | 725 | 672 | 670 | 673 | 646 | 720 | 716 |
| 6 | 470 | 435 | 455 | 450 | 729 | 704 | 676 | 672 | 695 | 673 | 721 | 714 |
| 7 | 456 | 450 | 452 | 448 | 704 | 665 | 677 | 672 | 698 | 692 | 721 | 715 |
| 8 | 450 | 446 | 451 | 447 | 665 | 619 | 678 | 671 | 700 | 695 | 723 | 718 |
| 9 | 448 | 443 | 458 | 444 | 619 | 573 | 678 | 674 | 700 | 694 | 725 | 723 |
| 10 | 447 | 443 | 592 | 439 | 573 | 521 | 679 | 673 | 705 | 699 | 732 | 725 |
| 11 | 450 | 443 | 595 | 481 | 656 | 524 | 682 | 677 | 708 | 705 | 851 | 728 |
| 12 | 450 | 436 | 481 | 453 | 653 | 647 | 680 | 675 | 709 | 705 | 862 | 841 |
| 13 | 472 | 444 | 600 | 448 | 647 | 645 | 685 | 680 | 710 | 705 | 894 | 860 |
| 14 | 460 | 450 | 600 | 486 | 653 | 645 | 685 | 680 | 711 | 706 | 921 | 893 |
| 15 | 456 | 450 | 486 | 462 | 653 | 650 | 684 | 682 | 710 | 705 | 944 | 921 |
| 16 | 459 | 452 | 556 | 459 | 656 | 650 | 685 | 680 | 710 | 694 | 965 | 943 |
| 17 | 466 | 452 | 589 | 490 | 660 | 654 | 685 | 681 | 735 | 639 | 1070 | 965 |
| 18 | 461 | 455 | 490 | 469 | 660 | 658 | 687 | 680 | 712 | 693 | 1190 | 1070 |
| 19 | 466 | 455 | 471 | 463 | 659 | 655 | 686 | 680 | 720 | 712 | 1210 | 1190 |
| 20 | 466 | 455 | 466 | 462 | 659 | 652 | 688 | 683 | 716 | 707 | 1320 | 310 |
| 21 | 465 | 457 | 493 | 465 | 658 | 652 | 685 | 683 | 707 | 693 | 332 | 314 |
| 22 | 465 | 456 | 475 | 469 | 658 | 554 | 685 | 683 | 701 | 695 | 543 | 332 |
| 23 | 470 | 454 | 472 | 467 | 559 | 549 | 697 | 682 | 709 | 698 | 833 | 543 |
| 24 | 470 | 457 | 563 | 465 | 570 | 534 | 703 | 697 | 709 | 680 | 928 | 826 |
| 25 | 470 | 455 | 563 | 476 | 653 | 570 | 704 | 699 | 700 | 670 | 935 | 919 |
| 26 | 463 | 454 | 483 | 475 | 647 | 643 | 704 | 699 | 707 | 679 | 919 | 887 |
| 27 | 484 | 456 | 485 | 481 | 648 | 642 | 704 | 699 | 715 | 705 | 887 | 861 |
| 28 | 465 | 458 | 483 | 477 | 676 | 644 | 704 | 699 | 718 | 713 | 861 | 848 |
| 29 | 486 | 458 | 481 | 476 | 679 | 674 | 704 | 699 | 722 | 715 | 848 | 837 |
| 30 | 476 | 450 | 511 | 481 | 679 | 674 | 704 | 699 | 724 | 718 | 837 | 824 |
| 31 | --- | --- | 514 | 509 | --- | --- | 705 | 699 | 725 | 720 | --- | --- |
| MONTH | 554 | 435 | 608 | 435 | 729 | 509 | 705 | 668 | 735 | 639 | 1320 | 310 |
| YEAR | 1320 | 310 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#2 (16.9' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 702 | 697 | 621 | 615 | 459 | 453 | 436 | 432 | 441 | 437 | 394 | 392 |
| 2 | 701 | 697 | 615 | 608 | 454 | 450 | 437 | 433 | 442 | 437 | 394 | 391 |
| 3 | 701 | 695 | 611 | 601 | 452 | 450 | 436 | 434 | 441 | 437 | 394 | 390 |
| 4 | 702 | 695 | 606 | 598 | 451 | 447 | 435 | 433 | 441 | 433 | 392 | 391 |
| 5 | 701 | 695 | 599 | 591 | 448 | 445 | 435 | 432 | 433 | 427 | 393 | 390 |
| 6 | 707 | 695 | 591 | 584 | 449 | 445 | 434 | 432 | 434 | 427 | 392 | 388 |
| 7 | 707 | 701 | 590 | 582 | 449 | 446 | 435 | 431 | 434 | 430 | 394 | 389 |
| 8 | 707 | 700 | 583 | 572 | 447 | 444 | 434 | 430 | 434 | 429 | 397 | 393 |
| 9 | 704 | 700 | 576 | 573 | 444 | 442 | 434 | 430 | 432 | 428 | 399 | 396 |
| 10 | 704 | 702 | 575 | 568 | 442 | 440 | 433 | 429 | 434 | 426 | 400 | 396 |
| 11 | 708 | 650 | 568 | 559 | 442 | 438 | 433 | 429 | 428 | 422 | 402 | 399 |
| 12 | 664 | 655 | 559 | 550 | 441 | 439 | 433 | 430 | 423 | 418 | 403 | 399 |
| 13 | 666 | 660 | 550 | 537 | 440 | 438 | 433 | 430 | 427 | 418 | 401 | 398 |
| 14 | 668 | 660 | 551 | 533 | 439 | 437 | 433 | 430 | 423 | 416 | 399 | 352 |
| 15 | 666 | 661 | 559 | 547 | 439 | 437 | 434 | 429 | 416 | 410 | 363 | 361 |
| 16 | 668 | 664 | 547 | 536 | 438 | 436 | 434 | 430 | 412 | 406 | 363 | 360 |
| 17 | 667 | 660 | 536 | 526 | 437 | 433 | 435 | 430 | 410 | 406 | 364 | 361 |
| 18 | 670 | 663 | 526 | 516 | 434 | 432 | 436 | 431 | 411 | 406 | 364 | 361 |
| 19 | 671 | 667 | 516 | 509 | 435 | 433 | 436 | 433 | 411 | 406 | 364 | 362 |
| 20 | 669 | 666 | 510 | 506 | 435 | 432 | 436 | 432 | 413 | 407 | 368 | 363 |
| 21 | 668 | 664 | 507 | 500 | 435 | 432 | 437 | 434 | 407 | 389 | 366 | 362 |
| 22 | 667 | 662 | 505 | 499 | 434 | 431 | 435 | 421 | 406 | 401 | 366 | 360 |
| 23 | 666 | 658 | 500 | 494 | 434 | 431 | 429 | 421 | 403 | 400 | 366 | 362 |
| 24 | 661 | 654 | 494 | 487 | 432 | 429 | 431 | 422 | 402 | 399 | 367 | 362 |
| 25 | 657 | 651 | 487 | 482 | 431 | 430 | 430 | 426 | 403 | 400 | 367 | 362 |
| 26 | 655 | 649 | 483 | 477 | 432 | 430 | 437 | 426 | 403 | 401 | 372 | 364 |
| 27 | 650 | 642 | 477 | 471 | 434 | 431 | 437 | 433 | 401 | 371 | 374 | 371 |
| 28 | 647 | 637 | 471 | 465 | 436 | 431 | 442 | 431 | 393 | 380 | 375 | 371 |
| 29 | 639 | 635 | 465 | 461 | 435 | 433 | 442 | 439 | --- | --- | 375 | 369 |
| 30 | 638 | 623 | 461 | 457 | 436 | 432 | 440 | 436 | --- | --- | 381 | 372 |
| 31 | 626 | 621 | --- | --- | 436 | 433 | 441 | 436 | --- | --- | 384 | 379 |
| MONTH | 708 | 621 | 621 | 457 | 459 | 429 | 442 | 421 | 442 | 371 | 403 | 352 |

#2 (16.9' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 387 | 382 | 399 | 379 | 492 | 457 | 428 | 423 | 542 | 538 | 550 | 541 |
| 2 | 388 | 383 | 399 | 379 | 628 | 492 | 426 | 423 | 539 | 534 | 544 | 539 |
| 3 | 388 | 383 | 394 | 387 | 651 | 628 | 426 | 423 | 537 | 530 | 544 | 539 |
| 4 | 389 | 384 | 397 | 390 | 657 | 650 | 426 | 423 | 554 | 531 | 554 | 541 |
| 5 | 389 | 369 | 405 | 397 | 660 | 655 | 426 | 424 | 573 | 554 | 575 | 554 |
| 6 | 393 | 382 | 404 | 399 | 656 | 634 | 427 | 424 | 580 | 573 | 597 | 575 |
| 7 | 394 | 390 | 401 | 397 | 634 | 593 | 426 | 421 | 577 | 566 | 617 | 597 |
| 8 | 391 | 386 | 399 | 396 | 593 | 556 | 424 | 421 | 569 | 562 | 633 | 614 |
| 9 | 392 | 389 | 397 | 393 | 556 | 510 | 425 | 422 | 563 | 559 | 649 | 632 |
| 10 | 393 | 386 | 393 | 389 | 510 | 468 | 426 | 423 | 564 | 560 | 674 | 649 |
| 11 | 395 | 388 | 406 | 388 | 469 | 427 | 428 | 424 | 565 | 562 | 691 | 673 |
| 12 | 395 | 384 | 405 | 399 | 427 | 401 | 429 | 426 | 564 | 556 | 717 | 691 |
| 13 | 395 | 385 | 399 | 396 | 401 | 390 | 430 | 427 | 559 | 552 | 730 | 717 |
| 14 | 401 | 393 | 413 | 396 | 392 | 386 | 430 | 427 | 556 | 544 | 749 | 730 |
| 15 | 400 | 395 | 414 | 410 | 388 | 384 | 432 | 429 | 546 | 539 | 770 | 749 |
| 16 | 402 | 397 | 410 | 407 | 388 | 385 | 434 | 430 | 546 | 529 | 797 | 770 |
| 17 | 403 | 396 | 421 | 406 | 389 | 387 | 435 | 431 | 574 | 541 | 819 | 797 |
| 18 | 403 | 398 | 421 | 416 | 390 | 387 | 462 | 434 | 544 | 539 | 832 | 815 |
| 19 | 406 | 400 | 418 | 411 | 392 | 389 | 484 | 462 | 585 | 544 | 981 | 829 |
| 20 | 408 | 401 | 415 | 411 | 395 | 391 | 486 | 483 | 592 | 585 | 1010 | 261 |
| 21 | 408 | 403 | 424 | 414 | 408 | 395 | 486 | 485 | 590 | 583 | 278 | 271 |
| 22 | 408 | 402 | 423 | 418 | 501 | 408 | 506 | 486 | 583 | 575 | 312 | 278 |
| 23 | 408 | 401 | 421 | 416 | 501 | 488 | 556 | 506 | 575 | 563 | 538 | 312 |
| 24 | 409 | 404 | 419 | 414 | 490 | 473 | 553 | 550 | 565 | 556 | 694 | 538 |
| 25 | 409 | 403 | 426 | 416 | 475 | 458 | 551 | 544 | 564 | 558 | 747 | 694 |
| 26 | 409 | 402 | 432 | 426 | 458 | 444 | 547 | 542 | 575 | 554 | 762 | 746 |
| 27 | 412 | 404 | 433 | 428 | 446 | 438 | 544 | 537 | 572 | 564 | 760 | 751 |
| 28 | 411 | 405 | 431 | 425 | 438 | 431 | 540 | 539 | 567 | 562 | 754 | 748 |
| 29 | 419 | 405 | 435 | 423 | 433 | 429 | 540 | 537 | 563 | 556 | 753 | 751 |
| 30 | 415 | 397 | 461 | 435 | 431 | 426 | 541 | 537 | 557 | 551 | 754 | 752 |
| 31 | --- | --- | 460 | 453 | --- | --- | 542 | 538 | 554 | 547 | --- | --- |
| MONTH | 419 | 369 | 461 | 379 | 660 | 384 | 556 | 421 | 592 | 529 | 1010 | 261 |
| YEAR | 1010 | 261 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#3 (10.4' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 724 | 718 | 670 | 665 | 491 | 487 | 465 | 461 | 465 | 462 | 415 | 412 |
| 2 | 727 | 721 | 666 | 658 | 487 | 484 | 465 | 462 | 465 | 459 | 415 | 411 |
| 3 | 729 | 723 | 659 | 650 | 484 | 479 | 464 | 461 | 466 | 461 | 412 | 409 |
| 4 | 730 | 725 | 650 | 645 | 481 | 478 | 463 | 460 | 465 | 457 | 412 | 409 |
| 5 | 730 | 724 | 645 | 639 | 478 | 475 | 462 | 457 | 457 | 448 | 413 | 409 |
| 6 | 728 | 720 | 640 | 632 | 480 | 476 | 461 | 459 | 458 | 448 | 412 | 406 |
| 7 | 727 | 722 | 635 | 625 | 480 | 477 | 461 | 459 | 458 | 453 | 414 | 407 |
| 8 | 724 | 723 | 632 | 624 | 478 | 474 | 462 | 458 | 458 | 453 | 417 | 411 |
| 9 | 724 | 723 | 632 | 626 | 475 | 470 | 461 | 458 | 458 | 452 | 418 | 414 |
| 10 | 727 | 722 | 627 | 619 | 473 | 468 | 459 | 455 | 456 | 451 | 418 | 414 |
| 11 | 737 | 719 | 619 | 611 | 471 | 467 | 458 | 455 | 451 | 445 | 422 | 416 |
| 12 | 725 | 720 | 611 | 605 | 469 | 467 | 459 | 455 | 446 | 442 | 423 | 417 |
| 13 | 729 | 719 | 605 | 594 | 469 | 466 | 459 | 455 | 447 | 440 | 419 | 417 |
| 14 | 731 | 725 | 614 | 590 | 471 | 466 | 459 | 455 | 445 | 438 | 419 | 376 |
| 15 | 730 | 725 | 602 | 599 | 470 | 466 | 460 | 454 | 440 | 433 | 379 | 375 |
| 16 | 730 | 724 | 599 | 587 | 469 | 466 | 461 | 456 | 434 | 428 | 379 | 375 |
| 17 | 729 | 723 | 587 | 579 | 468 | 463 | 461 | 457 | 432 | 427 | 380 | 377 |
| 18 | 729 | 728 | 579 | 567 | 465 | 463 | 461 | 457 | 431 | 425 | 381 | 378 |
| 19 | 730 | 729 | 567 | 556 | 465 | 463 | 462 | 459 | 432 | 428 | 382 | 377 |
| 20 | 732 | 726 | 556 | 548 | 466 | 463 | 461 | 456 | 434 | 427 | 385 | 379 |
| 21 | 731 | 726 | 548 | 540 | 464 | 461 | 462 | 458 | 431 | 413 | 382 | 379 |
| 22 | 729 | 725 | 541 | 532 | 462 | 460 | 459 | 446 | 425 | 422 | 381 | 378 |
| 23 | 727 | 722 | 532 | 525 | 463 | 459 | 451 | 444 | 424 | 421 | 381 | 378 |
| 24 | 723 | 717 | 526 | 517 | 461 | 457 | 457 | 445 | 424 | 420 | 381 | 377 |
| 25 | 717 | 709 | 520 | 512 | 461 | 457 | 455 | 451 | 424 | 421 | 383 | 378 |
| 26 | 713 | 706 | 512 | 506 | 463 | 459 | 461 | 451 | 424 | 420 | 387 | 380 |
| 27 | 706 | 697 | 506 | 500 | 464 | 461 | 460 | 456 | 422 | 393 | 391 | 385 |
| 28 | 700 | 688 | 502 | 494 | 464 | 460 | 467 | 456 | 414 | 398 | 391 | 387 |
| 29 | 692 | 686 | 498 | 492 | 464 | 460 | 468 | 463 | --- | --- | 391 | 386 |
| 30 | 686 | 679 | 495 | 490 | 465 | 460 | 466 | 462 | --- | --- | 394 | 388 |
| 31 | 679 | 669 | --- | --- | 465 | 461 | 465 | 460 | --- | --- | 399 | 394 |
| MONTH | 737 | 669 | 670 | 490 | 491 | 457 | 468 | 444 | 466 | 393 | 423 | 375 |

#3 (10.4' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 402 | 397 | 411 | 389 | 497 | 465 | 437 | 432 | 547 | 543 | 556 | 550 |
| 2 | 403 | 399 | 406 | 388 | 557 | 436 | 434 | 431 | 547 | 542 | 554 | 548 |
| 3 | 404 | 399 | 405 | 399 | 436 | 355 | 434 | 430 | 544 | 537 | 553 | 547 |
| 4 | 404 | 400 | 406 | 402 | 355 | 344 | 432 | 431 | 541 | 536 | 550 | 545 |
| 5 | 404 | 388 | 415 | 405 | 412 | 346 | 432 | 428 | 542 | 537 | 547 | 544 |
| 6 | 406 | 394 | 414 | 409 | 647 | 412 | 430 | 426 | 544 | 538 | 547 | 543 |
| 7 | 409 | 405 | 411 | 407 | 645 | 616 | 430 | 427 | 544 | 539 | 546 | 541 |
| 8 | 406 | 401 | 408 | 404 | 616 | 579 | 430 | 426 | 555 | 541 | 542 | 539 |
| 9 | 407 | 403 | 404 | 402 | 579 | 537 | 431 | 428 | 558 | 553 | 544 | 540 |
| 10 | 406 | 401 | 404 | 397 | 537 | 494 | 430 | 426 | 560 | 555 | 566 | 543 |
| 11 | 407 | 402 | 410 | 396 | 496 | 455 | 431 | 427 | 560 | 557 | 584 | 566 |
| 12 | 407 | 398 | 412 | 408 | 455 | 427 | 431 | 428 | 562 | 557 | 604 | 584 |
| 13 | 407 | 398 | 408 | 404 | 427 | 409 | 434 | 430 | 563 | 559 | 617 | 604 |
| 14 | 415 | 407 | 420 | 404 | 409 | 396 | 435 | 431 | 563 | 553 | 629 | 617 |
| 15 | 414 | 408 | 420 | 417 | 398 | 390 | 437 | 433 | 556 | 541 | 641 | 629 |
| 16 | 413 | 410 | 417 | 414 | 393 | 390 | 438 | 435 | 545 | 537 | 655 | 641 |
| 17 | 415 | 408 | 423 | 414 | 393 | 390 | 437 | 434 | 543 | 328 | 682 | 655 |
| 18 | 415 | 412 | 427 | 422 | 395 | 392 | 452 | 435 | 337 | 329 | 676 | 659 |
| 19 | 419 | 413 | 426 | 421 | 397 | 394 | 459 | 451 | 343 | 335 | 696 | 664 |
| 20 | 419 | 413 | 423 | 420 | 398 | 395 | 460 | 456 | 346 | 340 | 709 | 251 |
| 21 | 420 | 417 | 432 | 422 | 402 | 397 | 466 | 460 | 399 | 344 | 283 | 274 |
| 22 | 419 | 416 | 432 | 429 | 412 | 400 | 478 | 466 | 538 | 399 | 283 | 281 |
| 23 | 419 | 413 | 430 | 427 | 421 | 411 | 486 | 478 | 565 | 538 | 331 | 280 |
| 24 | 420 | 416 | 428 | 424 | 446 | 421 | 487 | 484 | 565 | 558 | 544 | 331 |
| 25 | 421 | 415 | 433 | 424 | 474 | 446 | 491 | 486 | 560 | 553 | 673 | 544 |
| 26 | 420 | 414 | 440 | 433 | 467 | 455 | 497 | 489 | 556 | 550 | 722 | 673 |
| 27 | 424 | 415 | 440 | 437 | 457 | 448 | 507 | 496 | 562 | 554 | 748 | 718 |
| 28 | 422 | 418 | 439 | 434 | 448 | 443 | 520 | 506 | 562 | 555 | 751 | 744 |
| 29 | 429 | 418 | 440 | 433 | 445 | 441 | 539 | 520 | 560 | 555 | 750 | 744 |
| 30 | 427 | 411 | 466 | 440 | 441 | 434 | 544 | 538 | 559 | 554 | 749 | 743 |
| 31 | --- | --- | 469 | 466 | --- | --- | 545 | 541 | 558 | 552 | --- | --- |
| MONTH | 429 | 388 | 469 | 388 | 647 | 344 | 545 | 426 | 565 | 328 | 751 | 251 |
| YEAR | 751 | 251 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#4 (6.9' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 587 | 580 | 551 | 545 | 403 | 400 | 387 | 383 | 393 | 391 | 355 | 352 |
| 2 | 588 | 583 | 545 | 538 | 400 | 397 | 389 | 385 | 394 | 390 | 355 | 353 |
| 3 | 591 | 584 | 538 | 532 | 398 | 395 | 388 | 386 | 393 | 391 | 354 | 352 |
| 4 | 593 | 587 | 532 | 527 | 397 | 394 | 388 | 386 | 393 | 388 | 354 | 352 |
| 5 | 593 | 587 | 527 | 519 | 394 | 392 | 388 | 384 | 389 | 381 | 354 | 352 |
| 6 | 592 | 586 | 519 | 514 | 393 | 392 | 387 | 384 | 388 | 382 | 354 | 349 |
| 7 | 592 | 584 | 516 | 509 | 395 | 392 | 387 | 385 | 388 | 386 | 356 | 349 |
| 8 | 590 | 589 | 513 | 507 | 394 | 391 | 387 | 384 | 389 | 384 | 359 | 354 |
| 9 | 589 | 588 | 513 | 510 | 392 | 389 | 387 | 384 | 387 | 385 | 361 | 357 |
| 10 | 588 | 586 | 511 | 505 | 391 | 389 | 386 | 383 | 389 | 384 | 361 | 359 |
| 11 | 600 | 586 | 505 | 500 | 389 | 387 | 385 | 382 | 385 | 379 | 363 | 360 |
| 12 | 590 | 585 | 500 | 493 | 387 | 386 | 385 | 382 | 380 | 375 | 364 | 362 |
| 13 | 589 | 584 | 493 | 485 | 388 | 386 | 386 | 383 | 381 | 376 | 363 | 361 |
| 14 | 589 | 584 | 503 | 483 | 389 | 386 | 385 | 384 | 381 | 374 | 362 | 323 |
| 15 | 589 | 584 | 494 | 489 | 388 | 387 | 386 | 384 | 374 | 370 | 327 | 324 |
| 16 | 588 | 584 | 489 | 482 | 388 | 386 | 386 | 384 | 370 | 365 | 328 | 325 |
| 17 | 590 | 586 | 482 | 473 | 388 | 383 | 387 | 384 | 369 | 365 | 328 | 326 |
| 18 | 590 | 586 | 473 | 464 | 386 | 383 | 387 | 384 | 370 | 364 | 328 | 326 |
| 19 | 590 | 586 | 464 | 455 | 386 | 383 | 389 | 386 | 369 | 364 | 328 | 326 |
| 20 | 593 | 589 | 455 | 448 | 386 | 385 | 388 | 385 | 370 | 365 | 331 | 327 |
| 21 | 590 | 585 | 450 | 442 | 386 | 384 | 389 | 386 | 368 | 352 | 331 | 327 |
| 22 | 588 | 585 | 442 | 436 | 386 | 383 | 387 | 377 | 363 | 361 | 329 | 326 |
| 23 | 586 | 583 | 438 | 433 | 384 | 383 | 380 | 377 | 362 | 359 | 331 | 327 |
| 24 | 583 | 579 | 433 | 427 | 385 | 381 | 385 | 376 | 362 | 360 | 329 | 326 |
| 25 | 579 | 571 | 427 | 420 | 384 | 381 | 385 | 381 | 363 | 360 | 332 | 327 |
| 26 | 574 | 569 | 422 | 415 | 384 | 381 | 389 | 380 | 363 | 361 | 335 | 328 |
| 27 | 570 | 566 | 417 | 412 | 384 | 383 | 390 | 386 | 362 | 336 | 338 | 335 |
| 28 | 567 | 561 | 412 | 408 | 386 | 383 | 394 | 386 | 354 | 338 | 339 | 335 |
| 29 | 564 | 559 | 408 | 404 | 386 | 384 | 396 | 393 | --- | --- | 339 | 334 |
| 30 | 559 | 556 | 406 | 403 | 386 | 384 | 395 | 391 | --- | --- | 343 | 334 |
| 31 | 556 | 551 | --- | --- | 386 | 383 | 393 | 391 | --- | --- | 346 | 343 |
| MONTH | 600 | 551 | 551 | 403 | 403 | 381 | 396 | 376 | 394 | 336 | 364 | 323 |

#4 (6.9' BLS) SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 349 | 345 | 363 | 346 | 439 | 418 | 401 | 397 | 490 | 472 | 527 | 522 |
| 2 | 349 | 347 | 360 | 343 | 439 | 304 | 399 | 396 | 499 | 489 | 526 | 521 |
| 3 | 350 | 347 | 360 | 356 | 304 | 284 | 398 | 396 | 504 | 497 | 524 | 520 |
| 4 | 352 | 348 | 361 | 357 | 284 | 278 | 398 | 396 | 505 | 467 | 523 | 518 |
| 5 | 352 | 340 | 369 | 360 | 307 | 278 | 397 | 395 | 470 | 466 | 521 | 515 |
| 6 | 354 | 344 | 368 | 364 | 375 | 307 | 396 | 393 | 492 | 467 | 519 | 514 |
| 7 | 358 | 353 | 365 | 362 | 558 | 375 | 396 | 393 | 502 | 491 | 517 | 513 |
| 8 | 355 | 352 | 363 | 360 | 555 | 527 | 396 | 393 | 505 | 502 | 516 | 512 |
| 9 | 356 | 352 | 360 | 358 | 527 | 495 | 396 | 391 | 508 | 504 | 515 | 515 |
| 10 | 356 | 352 | 358 | 355 | 496 | 456 | 394 | 391 | 510 | 506 | 515 | 510 |
| 11 | 359 | 353 | 365 | 353 | 456 | 415 | 395 | 392 | 511 | 508 | 514 | 513 |
| 12 | 359 | 349 | 366 | 362 | 417 | 386 | 395 | 392 | 514 | 509 | 521 | 514 |
| 13 | 359 | 349 | 364 | 361 | 386 | 371 | 395 | 392 | 518 | 513 | 530 | 521 |
| 14 | 364 | 357 | 373 | 361 | 371 | 365 | 397 | 393 | 520 | 515 | 540 | 530 |
| 15 | 364 | 361 | 375 | 373 | 367 | 360 | 397 | 394 | 522 | 517 | 550 | 540 |
| 16 | 364 | 360 | 373 | 370 | 361 | 354 | 397 | 394 | 520 | 508 | 563 | 550 |
| 17 | 365 | 359 | 379 | 369 | 356 | 353 | 399 | 395 | 510 | 306 | 590 | 563 |
| 18 | 366 | 363 | 382 | 379 | 358 | 355 | 401 | 397 | 307 | 304 | 588 | 566 |
| 19 | 369 | 362 | 381 | 377 | 360 | 356 | 411 | 399 | 311 | 306 | 595 | 569 |
| 20 | 368 | 364 | 379 | 376 | 360 | 357 | 418 | 410 | 314 | 309 | 601 | 239 |
| 21 | 369 | 365 | 386 | 377 | 364 | 358 | 424 | 418 | 324 | 314 | 268 | 264 |
| 22 | 369 | 365 | 385 | 381 | 364 | 361 | 427 | 421 | 328 | 324 | 269 | 266 |
| 23 | 368 | 365 | 383 | 380 | 365 | 361 | 426 | 423 | 506 | 328 | 281 | 265 |
| 24 | 370 | 367 | 382 | 378 | 379 | 365 | 430 | 425 | 528 | 506 | 459 | 281 |
| 25 | 371 | 367 | 389 | 380 | 406 | 379 | 444 | 429 | 522 | 291 | 602 | 459 |
| 26 | 370 | 366 | 395 | 389 | 417 | 406 | 449 | 444 | 512 | 302 | 669 | 602 |
| 27 | 373 | 366 | 396 | 392 | 415 | 410 | 453 | 447 | 518 | 512 | 704 | 669 |
| 28 | 372 | 369 | 394 | 390 | 412 | 404 | 457 | 450 | 524 | 518 | 714 | 704 |
| 29 | 379 | 368 | 398 | 388 | 406 | 398 | 458 | 453 | 525 | 522 | 715 | 709 |
| 30 | 378 | 362 | 420 | 398 | 404 | 398 | 465 | 458 | 527 | 523 | 715 | 714 |
| 31 | --- | --- | 420 | 418 | --- | --- | 473 | 463 | 527 | 523 | --- | --- |
| MONTH | 379 | 340 | 420 | 343 | 558 | 278 | 473 | 391 | 528 | 291 | 715 | 239 |
| YEAR | 715 | 239 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#1 (25.4' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 12.8 | 12.5 | 13.2 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.7 | 12.7 | 12.3 | 12.0 |
| 2 | 12.8 | 12.5 | 13.2 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.7 | 12.7 | 12.2 | 12.0 |
| 3 | 12.7 | 12.5 | 13.2 | 13.1 | 13.4 | 13.4 | 13.7 | 13.4 | 12.7 | 12.7 | 12.2 | 12.0 |
| 4 | 12.7 | 12.5 | 13.2 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.7 | 12.5 | 12.2 | 12.0 |
| 5 | 12.7 | 12.5 | 13.2 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.7 | 12.4 | 12.0 | 12.0 |
| 6 | 12.8 | 12.7 | 13.2 | 13.2 | 13.4 | 13.4 | 13.4 | 13.4 | 12.7 | 12.4 | 12.0 | 12.0 |
| 7 | 13.0 | 12.7 | 13.2 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.7 | 12.4 | 12.0 | 11.8 |
| 8 | 12.7 | 12.7 | 13.4 | 13.1 | 13.4 | 13.4 | 13.4 | 13.3 | 12.7 | 12.4 | 12.0 | 11.8 |
| 9 | 12.9 | 12.7 | 13.4 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.6 | 12.4 | 12.0 | 11.8 |
| 10 | 12.9 | 12.7 | 13.4 | 13.1 | 13.4 | 13.4 | 13.4 | 13.3 | 12.5 | 12.4 | 12.0 | 11.8 |
| 11 | 13.0 | 12.7 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.3 | 12.5 | 12.4 | 11.8 | 11.8 |
| 12 | 13.0 | 12.7 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.3 | 12.5 | 12.4 | 12.0 | 11.7 |
| 13 | 13.0 | 12.7 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.3 | 12.4 | 12.4 | 11.8 | 11.8 |
| 14 | 13.0 | 12.7 | 13.4 | 13.4 | 13.4 | 13.4 | 13.4 | 13.1 | 12.5 | 12.4 | 12.4 | 11.5 |
| 15 | 13.0 | 12.7 | 13.4 | 13.3 | 13.4 | 13.4 | 13.3 | 13.1 | 12.5 | 12.4 | 11.8 | 11.5 |
| 16 | 13.2 | 12.9 | 13.4 | 13.2 | 13.4 | 13.4 | 13.1 | 13.1 | 12.5 | 12.4 | 11.8 | 11.7 |
| 17 | 13.2 | 12.7 | 13.4 | 13.2 | 13.4 | 13.4 | 13.3 | 13.1 | 12.5 | 12.2 | 11.8 | 11.8 |
| 18 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.3 | 13.3 | 12.9 | 12.5 | 12.2 | 11.8 | 11.8 |
| 19 | 13.0 | 12.9 | 13.4 | 13.4 | 13.6 | 13.3 | 13.1 | 12.8 | 12.5 | 12.2 | 11.8 | 11.6 |
| 20 | 13.0 | 12.9 | 13.4 | 13.4 | 13.6 | 13.3 | 13.2 | 12.9 | 12.4 | 12.2 | 11.8 | 11.6 |
| 21 | 13.0 | 12.9 | 13.4 | 13.4 | 13.6 | 13.3 | 13.2 | 12.9 | 12.2 | 12.2 | 11.8 | 11.6 |
| 22 | 13.0 | 12.9 | 13.4 | 13.4 | 13.4 | 13.4 | 13.2 | 12.9 | 12.2 | 12.2 | 11.8 | 11.5 |
| 23 | 13.0 | 12.9 | 13.4 | 13.4 | 13.4 | 13.4 | 13.1 | 12.9 | 12.2 | 12.2 | 11.8 | 11.5 |
| 24 | 13.1 | 12.9 | 13.4 | 13.4 | 13.4 | 13.4 | 13.1 | 12.7 | 12.2 | 12.2 | 11.8 | 11.4 |
| 25 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.4 | 13.1 | 12.7 | 12.2 | 12.2 | 11.6 | 11.4 |
| 26 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.3 | 13.1 | 12.6 | 12.2 | 12.2 | 11.6 | 11.5 |
| 27 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.4 | 12.9 | 12.6 | 12.2 | 11.8 | 11.6 | 11.4 |
| 28 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.4 | 12.9 | 12.7 | 12.0 | 12.0 | 11.6 | 11.4 |
| 29 | 13.2 | 13.0 | 13.4 | 13.3 | 13.4 | 13.4 | 12.9 | 12.6 | --- | --- | 11.6 | 11.3 |
| 30 | 13.2 | 13.1 | 13.4 | 13.4 | 13.4 | 13.4 | 12.9 | 12.6 | --- | --- | 11.6 | 11.3 |
| 31 | 13.2 | 13.1 | --- | --- | 13.4 | 13.4 | 12.7 | 12.7 | --- | --- | 11.6 | 11.3 |
| MONTH | 13.2 | 12.5 | 13.4 | 13.1 | 13.6 | 13.3 | 13.7 | 12.6 | 12.7 | 11.8 | 12.4 | 11.3 |

#1 (25.4' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 11.6 | 11.3 | 11.6 | 11.1 | 11.4 | 11.4 | 11.6 | 11.4 | 11.9 | 11.6 | 12.3 | 12.1 |
| 2 | 11.6 | 11.3 | 11.6 | 11.1 | 11.4 | 11.1 | 11.6 | 11.4 | 11.9 | 11.6 | 12.3 | 12.1 |
| 3 | 11.6 | 11.3 | 11.4 | 11.1 | 11.4 | 11.1 | 11.6 | 11.4 | 11.9 | 11.6 | 12.3 | 12.1 |
| 4 | 11.6 | 11.4 | 11.4 | 11.1 | 11.6 | 11.3 | 11.8 | 11.4 | 11.9 | 11.6 | 12.3 | 12.2 |
| 5 | 12.0 | 11.4 | 11.6 | 11.1 | 11.6 | 11.4 | 11.6 | 11.6 | 11.9 | 11.6 | 12.5 | 12.2 |
| 6 | 11.6 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.6 | 11.4 | 11.9 | 11.6 | 12.5 | 12.3 |
| 7 | 11.5 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.6 | 11.4 | 11.9 | 11.6 | 12.5 | 12.3 |
| 8 | 11.3 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.8 | 11.4 | 11.9 | 11.6 | 12.5 | 12.3 |
| 9 | 11.5 | 11.3 | 11.1 | 11.1 | 11.4 | 11.2 | 11.6 | 11.4 | 12.1 | 11.8 | 12.3 | 12.3 |
| 10 | 11.4 | 11.3 | 11.4 | 11.1 | 11.4 | 11.2 | 11.8 | 11.4 | 12.1 | 11.8 | 12.5 | 12.3 |
| 11 | 11.4 | 11.3 | 11.6 | 11.1 | 11.6 | 11.2 | 11.6 | 11.4 | 11.8 | 11.8 | 12.5 | 12.3 |
| 12 | 11.3 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.8 | 11.6 | 12.1 | 11.8 | 12.5 | 12.3 |
| 13 | 11.4 | 11.3 | 11.4 | 11.1 | 11.6 | 11.6 | 11.7 | 11.4 | 12.1 | 11.8 | 12.5 | 12.5 |
| 14 | 11.6 | 11.3 | 11.6 | 11.3 | 11.6 | 11.4 | 11.7 | 11.4 | 12.1 | 11.8 | 12.8 | 12.5 |
| 15 | 11.6 | 11.3 | 11.4 | 11.1 | 11.6 | 11.6 | 11.6 | 11.6 | 12.1 | 11.8 | 12.8 | 12.5 |
| 16 | 11.4 | 11.3 | 11.2 | 11.1 | 11.6 | 11.4 | 11.8 | 11.6 | 12.1 | 11.8 | 12.8 | 12.5 |
| 17 | 11.3 | 11.3 | 11.6 | 11.1 | 11.6 | 11.4 | 11.8 | 11.6 | 12.1 | 11.8 | 12.8 | 12.5 |
| 18 | 11.4 | 11.3 | 11.4 | 11.1 | 11.6 | 11.6 | 11.8 | 11.6 | 12.1 | 11.8 | 12.8 | 12.5 |
| 19 | 11.6 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.8 | 11.6 | 12.1 | 11.8 | 12.8 | 12.5 |
| 20 | 11.6 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.7 | 11.4 | 11.8 | 11.8 | 13.4 | 12.5 |
| 21 | 11.6 | 11.3 | 11.4 | 11.1 | 11.6 | 11.4 | 11.6 | 11.6 | 12.1 | 11.8 | 12.8 | 12.5 |
| 22 | 11.4 | 11.3 | 11.4 | 11.1 | 11.6 | 11.2 | 11.6 | 11.6 | 12.1 | 11.8 | 12.7 | 12.5 |
| 23 | 11.4 | 11.2 | 11.4 | 11.1 | 11.4 | 11.4 | 11.8 | 11.6 | 12.1 | 11.8 | 12.7 | 12.5 |
| 24 | 11.6 | 11.3 | 11.4 | 11.1 | 11.4 | 11.4 | 11.9 | 11.6 | 12.0 | 12.0 | 12.8 | 12.5 |
| 25 | 11.6 | 11.3 | 11.4 | 11.1 | 11.7 | 11.4 | 11.9 | 11.6 | 12.3 | 12.0 | 12.8 | 12.5 |
| 26 | 11.6 | 11.1 | 11.4 | 11.1 | 11.6 | 11.4 | 11.9 | 11.6 | 12.3 | 11.8 | 12.8 | 12.5 |
| 27 | 11.4 | 11.3 | 11.4 | 11.1 | 11.7 | 11.4 | 11.9 | 11.6 | 12.3 | 12.0 | 12.8 | 12.5 |
| 28 | 11.4 | 11.3 | 11.4 | 11.1 | 11.7 | 11.4 | 11.9 | 11.6 | 12.3 | 12.0 | 12.8 | 12.5 |
| 29 | 11.6 | 11.3 | 11.1 | 11.1 | 11.7 | 11.4 | 11.9 | 11.6 | 12.3 | 12.0 | 12.8 | 12.5 |
| 30 | 11.4 | 11.2 | 11.4 | 11.1 | 11.6 | 11.4 | 11.9 | 11.6 | 12.3 | 12.0 | 12.7 | 12.7 |
| 31 | --- | --- | 11.4 | 11.1 | --- | --- | 11.9 | 11.6 | 12.3 | 12.0 | --- | --- |
| MONTH | 12.0 | 11.1 | 11.6 | 11.1 | 11.7 | 11.1 | 11.9 | 11.4 | 12.3 | 11.6 | 13.4 | 12.1 |
| YEAR | 13.7 | 11.1 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#2 (16.9' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 14.7 | 14.4 | 14.9 | 14.9 | 14.1 | 13.9 | 12.7 | 12.4 | 11.5 | 11.3 | 10.5 | 10.5 |
| 2 | 14.7 | 14.4 | 14.9 | 14.9 | 14.1 | 13.9 | 12.5 | 12.5 | 11.5 | 11.3 | 10.5 | 10.5 |
| 3 | 14.6 | 14.4 | 14.9 | 14.6 | 14.1 | 13.9 | 12.5 | 12.5 | 11.3 | 11.3 | 10.5 | 10.5 |
| 4 | 14.7 | 14.4 | 14.9 | 14.6 | 13.9 | 13.6 | 12.5 | 12.5 | 11.3 | 11.3 | 10.5 | 10.5 |
| 5 | 14.7 | 14.4 | 14.9 | 14.6 | 13.9 | 13.6 | 12.5 | 12.4 | 11.3 | 11.3 | 10.5 | 10.5 |
| 6 | 14.7 | 14.4 | 14.9 | 14.6 | 13.9 | 13.6 | 12.4 | 12.4 | 11.3 | 11.3 | 10.7 | 10.5 |
| 7 | 14.7 | 14.4 | 14.7 | 14.6 | 13.6 | 13.6 | 12.4 | 12.2 | 11.3 | 11.3 | 10.5 | 10.4 |
| 8 | 14.6 | 14.4 | 14.9 | 14.6 | 13.6 | 13.6 | 12.5 | 12.2 | 11.3 | 11.1 | 10.5 | 10.3 |
| 9 | 14.6 | 14.6 | 14.9 | 14.9 | 13.6 | 13.6 | 12.4 | 12.2 | 11.3 | 11.1 | 10.5 | 10.5 |
| 10 | 14.6 | 14.6 | 14.9 | 14.9 | 13.6 | 13.4 | 12.4 | 12.2 | 11.3 | 11.1 | 10.5 | 10.3 |
| 11 | 14.6 | 14.4 | 14.9 | 14.6 | 13.6 | 13.4 | 12.4 | 12.2 | 11.3 | 11.1 | 10.5 | 10.3 |
| 12 | 14.7 | 14.4 | 14.9 | 14.6 | 13.4 | 13.4 | 12.4 | 12.1 | 11.3 | 11.1 | 10.5 | 10.3 |
| 13 | 14.7 | 14.4 | 14.9 | 14.6 | 13.4 | 13.4 | 12.2 | 12.2 | 11.3 | 11.1 | 10.5 | 10.3 |
| 14 | 14.7 | 14.4 | 14.9 | 14.6 | 13.7 | 13.4 | 12.2 | 12.2 | 11.3 | 11.1 | 10.7 | 9.8 |
| 15 | 14.9 | 14.6 | 14.9 | 14.6 | 13.4 | 13.4 | 12.2 | 12.0 | 11.3 | 11.1 | 10.2 | 9.8 |
| 16 | 14.9 | 14.6 | 14.9 | 14.6 | 13.4 | 13.4 | 12.2 | 11.9 | 11.1 | 11.1 | 10.3 | 10.0 |
| 17 | 14.9 | 14.6 | 14.6 | 14.6 | 13.4 | 13.4 | 12.2 | 11.9 | 11.1 | 10.9 | 10.3 | 10.0 |
| 18 | 14.7 | 14.6 | 14.6 | 14.6 | 13.4 | 13.3 | 12.2 | 11.9 | 11.1 | 10.7 | 10.3 | 10.0 |
| 19 | 14.9 | 14.6 | 14.6 | 14.6 | 13.3 | 13.1 | 12.2 | 11.7 | 11.1 | 10.9 | 10.3 | 10.0 |
| 20 | 14.7 | 14.6 | 14.6 | 14.4 | 13.3 | 13.1 | 12.0 | 11.7 | 11.1 | 10.7 | 10.3 | 10.1 |
| 21 | 14.7 | 14.6 | 14.6 | 14.4 | 13.1 | 13.1 | 12.0 | 11.7 | 11.1 | 10.5 | 10.3 | 10.1 |
| 22 | 14.7 | 14.6 | 14.4 | 14.4 | 13.1 | 12.9 | 12.0 | 11.8 | 10.7 | 10.7 | 10.3 | 10.1 |
| 23 | 14.9 | 14.6 | 14.4 | 14.4 | 13.1 | 12.9 | 11.8 | 11.7 | 10.7 | 10.7 | 10.5 | 10.0 |
| 24 | 14.9 | 14.6 | 14.4 | 14.4 | 13.1 | 12.9 | 11.8 | 11.7 | 10.9 | 10.6 | 10.3 | 10.1 |
| 25 | 14.9 | 14.6 | 14.4 | 14.1 | 12.9 | 12.9 | 11.8 | 11.5 | 10.7 | 10.5 | 10.3 | 10.1 |
| 26 | 14.9 | 14.6 | 14.4 | 14.1 | 12.9 | 12.9 | 11.7 | 11.5 | 10.7 | 10.5 | 10.3 | 10.1 |
| 27 | 14.9 | 14.6 | 14.1 | 14.1 | 12.9 | 12.7 | 11.8 | 11.5 | 11.1 | 10.3 | 10.3 | 10.1 |
| 28 | 14.9 | 14.6 | 14.1 | 14.1 | 12.9 | 12.7 | 11.7 | 11.5 | 10.5 | 10.5 | 10.3 | 10.1 |
| 29 | 14.9 | 14.6 | 14.1 | 14.1 | 12.7 | 12.7 | 11.7 | 11.5 | --- | --- | 10.3 | 10.1 |
| 30 | 14.9 | 14.6 | 14.1 | 14.1 | 12.7 | 12.4 | 11.5 | 11.3 | --- | --- | 10.3 | 9.9 |
| 31 | 14.9 | 14.6 | --- | --- | 12.7 | 12.4 | 11.6 | 11.3 | --- | --- | 10.3 | 10.0 |
| MONTH | 14.9 | 14.4 | 14.9 | 14.1 | 14.1 | 12.4 | 12.7 | 11.3 | 11.5 | 10.3 | 10.7 | 9.8 |

1#2 (16.9' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 10.3 | 10.0 | 10.5 | 10.1 | 10.7 | 10.7 | 11.4 | 11.2 | 12.6 | 12.3 | 14.0 | 13.7 |
| 2 | 10.3 | 9.9 | 10.3 | 10.3 | 10.7 | 10.7 | 11.4 | 11.2 | 12.8 | 12.5 | 14.0 | 13.7 |
| 3 | 10.3 | 10.1 | 10.5 | 10.3 | 11.0 | 10.7 | 11.4 | 11.1 | 12.8 | 12.5 | 13.9 | 13.7 |
| 4 | 10.3 | 9.9 | 10.3 | 10.1 | 11.0 | 10.9 | 11.4 | 11.1 | 12.8 | 12.5 | 13.9 | 13.7 |
| 5 | 10.3 | 9.9 | 10.5 | 10.1 | 11.0 | 10.7 | 11.4 | 11.4 | 12.8 | 12.5 | 14.2 | 13.9 |
| 6 | 10.3 | 9.9 | 10.5 | 10.1 | 11.0 | 10.7 | 11.6 | 11.4 | 12.8 | 12.5 | 14.2 | 13.9 |
| 7 | 10.3 | 10.1 | 10.5 | 10.3 | 11.0 | 10.7 | 11.6 | 11.4 | 12.8 | 12.5 | 14.2 | 13.9 |
| 8 | 10.3 | 10.0 | 10.5 | 10.3 | 11.0 | 10.7 | 11.6 | 11.4 | 12.8 | 12.5 | 14.2 | 13.9 |
| 9 | 10.3 | 10.0 | 10.5 | 10.3 | 11.0 | 10.7 | 11.6 | 11.4 | 13.0 | 12.7 | 14.2 | 14.2 |
| 10 | 10.3 | 10.0 | 10.5 | 10.3 | 11.0 | 10.7 | 11.6 | 11.4 | 13.0 | 12.7 | 14.4 | 13.9 |
| 11 | 10.3 | 10.1 | 10.5 | 10.3 | 11.0 | 10.8 | 11.6 | 11.4 | 12.9 | 12.7 | 14.2 | 14.1 |
| 12 | 10.3 | 10.1 | 10.5 | 10.3 | 11.0 | 10.7 | 11.7 | 11.4 | 13.2 | 12.7 | 14.4 | 14.1 |
| 13 | 10.3 | 10.1 | 10.5 | 10.3 | 11.0 | 10.7 | 11.7 | 11.4 | 13.2 | 13.0 | 14.5 | 14.1 |
| 14 | 10.3 | 10.0 | 10.5 | 10.3 | 11.0 | 10.7 | 11.8 | 11.4 | 13.2 | 12.9 | 14.4 | 14.1 |
| 15 | 10.3 | 10.1 | 10.5 | 10.5 | 11.0 | 10.7 | 11.9 | 11.6 | 13.2 | 12.9 | 14.5 | 14.1 |
| 16 | 10.1 | 9.9 | 10.5 | 10.3 | 11.0 | 10.7 | 11.9 | 11.6 | 13.3 | 13.0 | 14.5 | 14.1 |
| 17 | 10.3 | 10.1 | 10.7 | 10.3 | 11.0 | 10.7 | 11.9 | 11.6 | 13.7 | 13.2 | 14.4 | 14.2 |
| 18 | 10.3 | 10.0 | 10.8 | 10.5 | 11.0 | 10.8 | 11.9 | 11.6 | 13.5 | 13.2 | 14.5 | 14.2 |
| 19 | 10.3 | 10.0 | 10.8 | 10.5 | 11.0 | 10.8 | 11.9 | 11.6 | 13.5 | 13.2 | 14.4 | 14.2 |
| 20 | 10.3 | 10.0 | 10.7 | 10.3 | 11.2 | 10.7 | 12.1 | 11.8 | 13.2 | 13.2 | 16.5 | 14.2 |
| 21 | 10.3 | 10.1 | 10.7 | 10.5 | 11.2 | 11.0 | 11.8 | 11.8 | 13.4 | 13.2 | 15.2 | 14.6 |
| 22 | 10.3 | 10.1 | 10.8 | 10.5 | 11.4 | 11.0 | 11.8 | 11.8 | 13.4 | 13.2 | 14.7 | 14.4 |
| 23 | 10.3 | 10.1 | 10.8 | 10.5 | 11.4 | 11.2 | 12.1 | 11.8 | 13.7 | 13.4 | 14.4 | 14.2 |
| 24 | 10.3 | 10.1 | 10.8 | 10.5 | 11.4 | 11.2 | 12.1 | 12.0 | 13.7 | 13.2 | 14.4 | 14.2 |
| 25 | 10.3 | 10.1 | 10.7 | 10.5 | 11.4 | 11.2 | 12.3 | 12.0 | 13.7 | 13.4 | 14.4 | 14.4 |
| 26 | 10.3 | 10.1 | 10.5 | 10.5 | 11.4 | 11.2 | 12.3 | 12.1 | 13.7 | 13.4 | 14.7 | 14.4 |
| 27 | 10.3 | 10.1 | 10.7 | 10.5 | 11.4 | 11.1 | 12.5 | 12.1 | 13.7 | 13.4 | 14.7 | 14.4 |
| 28 | 10.3 | 10.1 | 10.8 | 10.5 | 11.4 | 11.1 | 12.3 | 12.3 | 13.7 | 13.4 | 14.7 | 14.4 |
| 29 | 10.5 | 10.1 | 10.7 | 10.5 | 11.4 | 11.1 | 12.5 | 12.3 | 13.7 | 13.4 | 14.7 | 14.6 |
| 30 | 10.5 | 10.1 | 10.8 | 10.5 | 11.4 | 11.2 | 12.5 | 12.2 | 13.9 | 13.6 | 14.7 | 14.6 |
| 31 | --- | --- | 10.7 | 10.5 | --- | --- | 12.6 | 12.3 | 13.9 | 13.7 | --- | --- |
| MONTH | 10.5 | 9.9 | 10.8 | 10.1 | 11.4 | 10.7 | 12.6 | 11.1 | 13.9 | 12.3 | 16.5 | 13.7 |
| YEAR | 16.5 | 9.8 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#3 (10.4' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 15.2 | 14.9 | 14.1 | 13.9 | 11.8 | 11.8 | 9.9 | 9.6 | 8.5 | 8.5 | 7.4 | 7.0 |
| 2 | 15.2 | 14.9 | 13.9 | 13.9 | 11.8 | 11.5 | 9.7 | 9.7 | 8.5 | 8.3 | 7.4 | 7.0 |
| 3 | 15.1 | 14.9 | 13.9 | 13.6 | 11.8 | 11.5 | 9.7 | 9.7 | 8.5 | 8.3 | 7.4 | 7.2 |
| 4 | 15.2 | 14.9 | 13.9 | 13.6 | 11.8 | 11.3 | 9.7 | 9.5 | 8.5 | 8.3 | 7.4 | 7.2 |
| 5 | 15.2 | 14.9 | 13.7 | 13.6 | 11.5 | 11.3 | 9.7 | 9.4 | 8.5 | 8.3 | 7.4 | 7.2 |
| 6 | 15.2 | 14.7 | 13.7 | 13.4 | 11.5 | 11.3 | 9.6 | 9.6 | 8.5 | 8.3 | 7.4 | 7.3 |
| 7 | 15.0 | 14.7 | 13.6 | 13.4 | 11.3 | 11.3 | 9.6 | 9.6 | 8.3 | 8.1 | 7.4 | 7.2 |
| 8 | 14.9 | 14.9 | 13.4 | 13.4 | 11.3 | 11.3 | 9.7 | 9.4 | 8.3 | 8.1 | 7.4 | 7.0 |
| 9 | 14.9 | 14.9 | 13.4 | 13.4 | 11.3 | 11.3 | 9.6 | 9.2 | 8.3 | 8.1 | 7.4 | 7.2 |
| 10 | 14.9 | 14.6 | 13.4 | 13.4 | 11.3 | 11.1 | 9.6 | 9.4 | 8.3 | 7.9 | 7.4 | 7.0 |
| 11 | 14.9 | 14.6 | 13.4 | 13.4 | 11.3 | 11.1 | 9.6 | 9.4 | 8.1 | 7.9 | 7.4 | 7.0 |
| 12 | 14.9 | 14.6 | 13.4 | 13.1 | 11.3 | 11.1 | 9.6 | 9.2 | 8.1 | 7.9 | 7.4 | 7.0 |
| 13 | 14.9 | 14.4 | 13.1 | 13.1 | 11.1 | 10.9 | 9.4 | 9.2 | 8.1 | 7.9 | 7.4 | 7.0 |
| 14 | 14.7 | 14.4 | 13.1 | 12.9 | 11.1 | 10.7 | 9.4 | 9.2 | 8.1 | 7.9 | 7.7 | 6.6 |
| 15 | 14.7 | 14.4 | 13.1 | 12.9 | 11.1 | 10.7 | 9.4 | 9.2 | 8.1 | 7.9 | 7.0 | 6.6 |
| 16 | 14.7 | 14.4 | 13.0 | 12.7 | 10.9 | 10.7 | 9.4 | 9.0 | 8.1 | 7.9 | 7.0 | 6.8 |
| 17 | 14.7 | 14.4 | 12.9 | 12.7 | 10.9 | 10.7 | 9.4 | 9.0 | 8.1 | 7.9 | 7.0 | 6.9 |
| 18 | 14.4 | 14.4 | 12.7 | 12.7 | 10.9 | 10.6 | 9.2 | 9.0 | 8.1 | 7.8 | 7.2 | 6.8 |
| 19 | 14.4 | 14.4 | 12.7 | 12.7 | 10.7 | 10.6 | 9.2 | 9.0 | 7.9 | 7.7 | 7.2 | 6.9 |
| 20 | 14.4 | 14.2 | 12.7 | 12.4 | 10.6 | 10.4 | 9.1 | 9.0 | 7.9 | 7.7 | 7.2 | 6.8 |
| 21 | 14.4 | 14.1 | 12.5 | 12.4 | 10.5 | 10.4 | 9.2 | 9.0 | 8.1 | 7.6 | 7.3 | 6.9 |
| 22 | 14.4 | 14.1 | 12.5 | 12.4 | 10.5 | 10.5 | 9.1 | 8.9 | 7.7 | 7.4 | 7.2 | 7.0 |
| 23 | 14.1 | 14.1 | 12.5 | 12.2 | 10.5 | 10.3 | 9.1 | 8.8 | 7.6 | 7.4 | 7.2 | 7.0 |
| 24 | 14.2 | 14.1 | 12.4 | 12.2 | 10.5 | 10.0 | 9.0 | 8.8 | 7.7 | 7.3 | 7.2 | 7.0 |
| 25 | 14.4 | 14.1 | 12.2 | 12.2 | 10.5 | 10.0 | 8.9 | 8.8 | 7.6 | 7.4 | 7.2 | 7.0 |
| 26 | 14.1 | 14.1 | 12.2 | 12.0 | 10.2 | 10.0 | 8.8 | 8.6 | 7.7 | 7.4 | 7.2 | 7.0 |
| 27 | 14.4 | 14.1 | 12.2 | 12.0 | 10.1 | 10.0 | 8.9 | 8.5 | 7.9 | 7.0 | 7.3 | 6.8 |
| 28 | 14.4 | 14.1 | 12.2 | 12.0 | 10.1 | 9.9 | 8.9 | 8.4 | 7.4 | 7.0 | 7.2 | 6.9 |
| 29 | 14.2 | 14.1 | 12.2 | 11.8 | 10.1 | 9.9 | 8.8 | 8.4 | --- | --- | 7.2 | 6.8 |
| 30 | 14.1 | 14.1 | 12.0 | 11.8 | 10.1 | 9.6 | 8.7 | 8.4 | --- | --- | 7.2 | 6.8 |
| 31 | 14.1 | 13.9 | --- | --- | 9.9 | 9.6 | 8.7 | 8.5 | --- | --- | 7.2 | 7.0 |
| MONTH | 15.2 | 13.9 | 14.1 | 11.8 | 11.8 | 9.6 | 9.9 | 8.4 | 8.5 | 7.0 | 7.7 | 6.6 |

#3 (10.4' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.3 | 7.0 | 7.8 | 7.6 | 8.5 | 8.3 | 10.5 | 10.1 | 12.8 | 12.5 | 14.5 | 14.1 |
| 2 | 7.3 | 7.0 | 7.8 | 7.6 | 8.5 | 8.3 | 10.6 | 10.3 | 13.0 | 12.5 | 14.5 | 14.1 |
| 3 | 7.2 | 7.0 | 7.8 | 7.7 | 8.5 | 8.3 | 10.8 | 10.3 | 13.0 | 12.7 | 14.4 | 14.2 |
| 4 | 7.3 | 7.0 | 8.0 | 7.6 | 8.6 | 8.3 | 10.5 | 10.5 | 13.2 | 12.7 | 14.4 | 14.2 |
| 5 | 7.4 | 7.0 | 7.9 | 7.7 | 8.6 | 8.3 | 10.8 | 10.5 | 13.2 | 12.9 | 14.4 | 14.2 |
| 6 | 7.3 | 7.0 | 8.0 | 7.8 | 8.7 | 8.3 | 11.0 | 10.7 | 13.3 | 12.9 | 14.5 | 14.2 |
| 7 | 7.4 | 7.2 | 8.0 | 7.8 | 8.7 | 8.5 | 11.0 | 10.7 | 13.5 | 13.0 | 14.5 | 14.2 |
| 8 | 7.4 | 7.2 | 8.0 | 7.9 | 8.7 | 8.5 | 11.2 | 10.9 | 13.5 | 13.2 | 14.4 | 14.2 |
| 9 | 7.4 | 7.2 | 7.9 | 7.9 | 8.8 | 8.7 | 11.2 | 11.0 | 13.5 | 13.2 | 14.4 | 14.2 |
| 10 | 7.4 | 7.2 | 8.1 | 7.9 | 8.9 | 8.7 | 11.4 | 11.1 | 13.5 | 13.2 | 14.4 | 14.1 |
| 11 | 7.4 | 7.4 | 8.1 | 7.9 | 8.9 | 8.7 | 11.4 | 11.1 | 13.4 | 13.4 | 14.4 | 14.4 |
| 12 | 7.4 | 7.4 | 8.0 | 7.9 | 8.9 | 8.7 | 11.6 | 11.4 | 13.7 | 13.4 | 14.7 | 14.4 |
| 13 | 7.4 | 7.4 | 8.2 | 7.9 | 9.0 | 8.7 | 11.6 | 11.4 | 13.7 | 13.4 | 14.5 | 14.4 |
| 14 | 7.6 | 7.2 | 8.1 | 7.9 | 9.1 | 8.9 | 11.7 | 11.4 | 13.7 | 13.4 | 14.7 | 14.4 |
| 15 | 7.6 | 7.2 | 8.1 | 7.9 | 9.1 | 8.9 | 11.6 | 11.4 | 13.7 | 13.4 | 14.7 | 14.4 |
| 16 | 7.4 | 7.2 | 8.1 | 7.9 | 9.1 | 8.9 | 11.7 | 11.4 | 13.7 | 13.4 | 14.7 | 14.4 |
| 17 | 7.4 | 7.4 | 8.2 | 8.0 | 9.3 | 9.1 | 11.9 | 11.6 | 14.7 | 13.7 | 14.7 | 14.2 |
| 18 | 7.4 | 7.4 | 8.4 | 8.1 | 9.4 | 9.1 | 11.9 | 11.6 | 13.9 | 13.7 | 14.7 | 14.4 |
| 19 | 7.6 | 7.4 | 8.4 | 8.1 | 9.4 | 9.1 | 11.9 | 11.6 | 14.0 | 13.7 | 14.7 | 14.2 |
| 20 | 7.6 | 7.4 | 8.4 | 8.1 | 9.5 | 9.1 | 12.1 | 11.8 | 13.9 | 13.7 | 16.0 | 14.2 |
| 21 | 7.6 | 7.4 | 8.4 | 8.1 | 9.5 | 9.3 | 11.8 | 11.6 | 14.2 | 13.7 | 15.2 | 14.6 |
| 22 | 7.6 | 7.4 | 8.4 | 8.1 | 9.9 | 9.5 | 12.1 | 11.8 | 13.9 | 13.9 | 14.7 | 14.4 |
| 23 | 7.6 | 7.4 | 8.4 | 8.1 | 9.8 | 9.5 | 12.3 | 12.0 | 14.2 | 13.9 | 14.4 | 14.4 |
| 24 | 7.6 | 7.4 | 8.4 | 8.1 | 9.9 | 9.7 | 12.3 | 12.0 | 14.4 | 13.7 | 14.4 | 14.4 |
| 25 | 7.6 | 7.4 | 8.3 | 8.3 | 10.0 | 9.7 | 12.5 | 12.3 | 14.4 | 14.1 | 14.7 | 14.4 |
| 26 | 7.6 | 7.4 | 8.3 | 8.3 | 10.0 | 9.7 | 12.6 | 12.3 | 14.4 | 14.1 | 14.7 | 14.4 |
| 27 | 7.6 | 7.4 | 8.5 | 8.3 | 10.0 | 9.7 | 12.6 | 12.3 | 14.4 | 14.1 | 14.7 | 14.4 |
| 28 | 7.8 | 7.4 | 8.5 | 8.3 | 10.1 | 9.9 | 12.8 | 12.3 | 14.4 | 14.2 | 14.7 | 14.4 |
| 29 | 7.8 | 7.4 | 8.3 | 8.3 | 10.2 | 9.9 | 12.8 | 12.5 | 14.4 | 14.1 | 14.7 | 14.4 |
| 30 | 7.8 | 7.6 | 8.5 | 8.3 | 10.4 | 10.1 | 12.8 | 12.5 | 14.5 | 14.1 | 14.7 | 14.4 |
| 31 | --- | --- | 8.3 | 8.3 | --- | --- | 12.8 | 12.5 | 14.4 | 14.2 | --- | --- |
| MONTH | 7.8 | 7.0 | 8.5 | 7.6 | 10.4 | 8.3 | 12.8 | 10.1 | 14.7 | 12.5 | 16.0 | 14.1 |
| YEAR | 16.0 | 6.6 | | | | | | | | | | |

413547083481400 LU-23 NR HOLLAND OH--Continued

#4 (6.9' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 16.8 | 16.5 | 15.4 | 15.4 | 13.2 | 13.1 | 11.1 | 10.9 | 9.7 | 9.6 | 8.5 | 8.1 |
| 2 | 16.8 | 16.5 | 15.4 | 15.4 | 13.1 | 13.1 | 11.1 | 10.7 | 9.7 | 9.5 | 8.3 | 8.3 |
| 3 | 16.8 | 16.5 | 15.4 | 15.1 | 13.1 | 12.9 | 10.9 | 10.7 | 9.6 | 9.4 | 8.5 | 8.3 |
| 4 | 16.8 | 16.5 | 15.4 | 15.1 | 13.1 | 12.9 | 10.9 | 10.7 | 9.7 | 9.4 | 8.5 | 8.3 |
| 5 | 16.8 | 16.5 | 15.2 | 15.1 | 12.9 | 12.9 | 10.9 | 10.7 | 9.6 | 9.4 | 8.5 | 8.3 |
| 6 | 16.8 | 16.5 | 15.2 | 14.9 | 12.9 | 12.9 | 10.9 | 10.6 | 9.4 | 9.2 | 8.5 | 8.3 |
| 7 | 16.8 | 16.5 | 14.9 | 14.9 | 12.9 | 12.7 | 10.7 | 10.6 | 9.5 | 9.2 | 8.5 | 8.3 |
| 8 | 16.5 | 16.5 | 14.9 | 14.9 | 12.7 | 12.7 | 10.7 | 10.5 | 9.5 | 9.1 | 8.5 | 8.3 |
| 9 | 16.5 | 16.5 | 14.9 | 14.9 | 12.7 | 12.4 | 10.7 | 10.5 | 9.2 | 9.0 | 8.5 | 8.3 |
| 10 | 16.5 | 16.5 | 14.9 | 14.6 | 12.7 | 12.4 | 10.7 | 10.4 | 9.2 | 9.0 | 8.5 | 8.3 |
| 11 | 16.5 | 16.2 | 14.9 | 14.6 | 12.5 | 12.4 | 10.6 | 10.4 | 9.2 | 9.0 | 8.3 | 8.3 |
| 12 | 16.5 | 16.2 | 14.6 | 14.6 | 12.5 | 12.4 | 10.6 | 10.4 | 9.1 | 9.0 | 8.3 | 8.3 |
| 13 | 16.5 | 16.2 | 14.6 | 14.3 | 12.5 | 12.2 | 10.6 | 10.4 | 9.2 | 9.0 | 8.3 | 8.3 |
| 14 | 16.5 | 16.2 | 14.6 | 14.3 | 12.4 | 12.2 | 10.5 | 10.4 | 9.1 | 9.0 | 8.9 | 7.7 |
| 15 | 16.5 | 16.2 | 14.4 | 14.1 | 12.2 | 12.2 | 10.5 | 10.4 | 9.1 | 9.0 | 8.1 | 7.7 |
| 16 | 16.5 | 16.2 | 14.4 | 14.1 | 12.2 | 12.0 | 10.5 | 10.4 | 9.1 | 9.0 | 8.1 | 7.9 |
| 17 | 16.3 | 16.0 | 14.1 | 14.1 | 12.2 | 12.0 | 10.4 | 10.4 | 9.1 | 8.9 | 8.1 | 7.9 |
| 18 | 16.2 | 16.0 | 14.1 | 14.1 | 12.0 | 11.7 | 10.4 | 10.2 | 9.1 | 8.9 | 8.3 | 7.9 |
| 19 | 16.2 | 15.9 | 14.1 | 14.1 | 11.9 | 11.7 | 10.4 | 10.2 | 9.1 | 8.9 | 8.3 | 7.9 |
| 20 | 16.0 | 15.7 | 14.1 | 13.9 | 11.7 | 11.7 | 10.4 | 10.0 | 9.1 | 8.8 | 8.3 | 7.9 |
| 21 | 16.0 | 15.7 | 14.1 | 13.9 | 11.8 | 11.5 | 10.3 | 10.1 | 9.1 | 8.5 | 8.4 | 8.1 |
| 22 | 16.0 | 15.7 | 13.9 | 13.6 | 11.8 | 11.5 | 10.3 | 10.1 | 8.7 | 8.5 | 8.3 | 8.1 |
| 23 | 15.7 | 15.7 | 13.9 | 13.6 | 11.6 | 11.5 | 10.1 | 10.0 | 8.7 | 8.5 | 8.3 | 8.1 |
| 24 | 15.7 | 15.7 | 13.6 | 13.6 | 11.6 | 11.3 | 10.0 | 9.9 | 8.7 | 8.5 | 8.3 | 8.1 |
| 25 | 16.0 | 15.6 | 13.6 | 13.6 | 11.5 | 11.3 | 10.0 | 9.8 | 8.8 | 8.4 | 8.3 | 8.1 |
| 26 | 15.7 | 15.4 | 13.6 | 13.4 | 11.5 | 11.3 | 10.0 | 9.8 | 8.7 | 8.5 | 8.3 | 8.1 |
| 27 | 15.7 | 15.4 | 13.4 | 13.4 | 11.3 | 11.3 | 9.9 | 9.6 | 9.1 | 8.3 | 8.4 | 8.1 |
| 28 | 15.7 | 15.4 | 13.4 | 13.3 | 11.3 | 11.1 | 9.8 | 9.6 | 8.3 | 8.1 | 8.5 | 8.1 |
| 29 | 15.7 | 15.4 | 13.4 | 13.2 | 11.1 | 11.1 | 9.8 | 9.6 | --- | --- | 8.3 | 8.1 |
| 30 | 15.4 | 15.4 | 13.4 | 13.1 | 11.1 | 11.1 | 9.7 | 9.6 | --- | --- | 8.3 | 8.3 |
| 31 | 15.4 | 15.4 | --- | --- | 11.1 | 10.9 | 9.7 | 9.6 | --- | --- | 8.3 | 8.1 |
| MONTH | 16.8 | 15.4 | 15.4 | 13.1 | 13.2 | 10.9 | 11.1 | 9.6 | 9.7 | 8.1 | 8.9 | 7.7 |

#4 (6.9' BLS) WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 8.5 | 8.1 | 9.1 | 9.1 | 9.9 | 9.9 | 13.0 | 12.5 | 15.5 | 15.2 | 16.9 | 16.5 |
| 2 | 8.5 | 8.1 | 9.3 | 9.0 | 10.3 | 9.9 | 13.0 | 12.7 | 15.7 | 15.2 | 16.9 | 16.5 |
| 3 | 8.5 | 8.3 | 9.3 | 9.1 | 10.3 | 10.1 | 13.2 | 13.0 | 15.8 | 15.4 | 16.8 | 16.5 |
| 4 | 8.6 | 8.3 | 9.3 | 9.1 | 10.3 | 10.1 | 13.2 | 13.0 | 15.8 | 15.4 | 16.8 | 16.5 |
| 5 | 8.5 | 8.3 | 9.3 | 9.1 | 10.3 | 10.1 | 13.5 | 13.2 | 15.7 | 15.4 | 16.8 | 16.5 |
| 6 | 8.5 | 8.3 | 9.3 | 9.1 | 10.3 | 10.1 | 13.7 | 13.4 | 15.8 | 15.4 | 16.9 | 16.5 |
| 7 | 8.5 | 8.3 | 9.3 | 9.1 | 10.5 | 10.3 | 13.7 | 13.4 | 16.0 | 15.7 | 16.9 | 16.5 |
| 8 | 8.7 | 8.5 | 9.3 | 9.3 | 10.5 | 10.3 | 13.7 | 13.4 | 16.0 | 15.7 | 16.8 | 16.5 |
| 9 | 8.7 | 8.5 | 9.5 | 9.3 | 10.8 | 10.5 | 13.9 | 13.4 | 16.0 | 15.7 | 16.5 | 16.5 |
| 10 | 8.7 | 8.5 | 9.5 | 9.3 | 10.8 | 10.5 | 14.0 | 13.6 | 16.0 | 15.7 | 16.8 | 16.5 |
| 11 | 8.7 | 8.5 | 9.5 | 9.3 | 10.8 | 10.5 | 14.0 | 13.6 | 16.0 | 15.7 | 16.5 | 16.5 |
| 12 | 8.7 | 8.5 | 9.7 | 9.3 | 10.8 | 10.5 | 14.2 | 13.7 | 16.3 | 16.0 | 16.8 | 16.5 |
| 13 | 8.7 | 8.5 | 9.5 | 9.5 | 10.8 | 10.5 | 14.2 | 13.9 | 16.3 | 16.0 | 16.9 | 16.5 |
| 14 | 8.7 | 8.5 | 9.5 | 9.3 | 11.0 | 10.7 | 14.2 | 13.9 | 16.3 | 16.0 | 16.8 | 16.5 |
| 15 | 8.7 | 8.5 | 9.5 | 9.5 | 11.0 | 10.7 | 14.4 | 13.9 | 16.3 | 16.0 | 16.9 | 16.5 |
| 16 | 8.7 | 8.5 | 9.6 | 9.5 | 11.2 | 10.7 | 14.5 | 14.2 | 16.3 | 16.0 | 16.9 | 16.5 |
| 17 | 8.9 | 8.5 | 9.7 | 9.5 | 11.4 | 10.9 | 14.5 | 14.2 | 17.1 | 16.3 | 16.8 | 16.5 |
| 18 | 8.9 | 8.5 | 9.7 | 9.5 | 11.4 | 11.1 | 14.4 | 14.0 | 16.6 | 16.3 | 16.9 | 16.5 |
| 19 | 8.9 | 8.5 | 9.7 | 9.5 | 11.6 | 11.2 | 14.5 | 14.2 | 16.6 | 16.3 | 16.8 | 16.5 |
| 20 | 8.9 | 8.7 | 9.7 | 9.5 | 11.6 | 11.4 | 14.5 | 14.2 | 16.5 | 16.3 | 17.7 | 16.5 |
| 21 | 8.9 | 8.7 | 9.7 | 9.5 | 11.6 | 11.4 | 14.4 | 14.2 | 16.8 | 16.3 | 17.1 | 16.8 |
| 22 | 8.9 | 8.7 | 9.9 | 9.7 | 12.1 | 11.4 | 14.7 | 14.4 | 16.5 | 16.5 | 16.8 | 16.5 |
| 23 | 8.9 | 8.7 | 9.9 | 9.7 | 12.1 | 11.8 | 14.9 | 14.7 | 16.8 | 16.5 | 16.8 | 16.5 |
| 24 | 9.1 | 8.7 | 9.9 | 9.7 | 12.1 | 11.8 | 15.0 | 14.7 | 16.8 | 16.0 | 16.8 | 16.5 |
| 25 | 9.1 | 8.9 | 9.7 | 9.7 | 12.1 | 11.8 | 15.0 | 14.9 | 16.8 | 16.5 | 16.8 | 16.5 |
| 26 | 9.1 | 8.9 | 9.7 | 9.7 | 12.3 | 11.8 | 15.2 | 14.9 | 16.9 | 16.5 | 16.8 | 16.5 |
| 27 | 9.1 | 8.9 | 9.9 | 9.7 | 12.5 | 12.3 | 15.3 | 14.9 | 16.8 | 16.5 | 16.8 | 16.5 |
| 28 | 9.1 | 8.9 | 9.9 | 9.7 | 12.8 | 12.3 | 15.2 | 14.9 | 16.8 | 16.5 | 16.9 | 16.5 |
| 29 | 9.3 | 9.1 | 9.9 | 9.7 | 12.8 | 12.5 | 15.5 | 14.9 | 16.8 | 16.5 | 16.8 | 16.5 |
| 30 | 9.3 | 9.1 | 9.9 | 9.7 | 12.8 | 12.5 | 15.5 | 15.2 | 16.9 | 16.5 | 16.5 | 16.5 |
| 31 | --- | --- | 9.9 | 9.9 | --- | --- | 15.5 | 15.2 | 16.8 | 16.5 | --- | --- |
| MONTH | 9.3 | 8.1 | 9.9 | 9.0 | 12.8 | 9.9 | 15.5 | 12.5 | 17.1 | 15.2 | 17.7 | 16.5 |
| YEAR | 17.7 | 7.7 | | | | | | | | | | |

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; 0.010-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 ft above sea level. Measuring point: shelter floor 2.12 ft above land-surface datum.

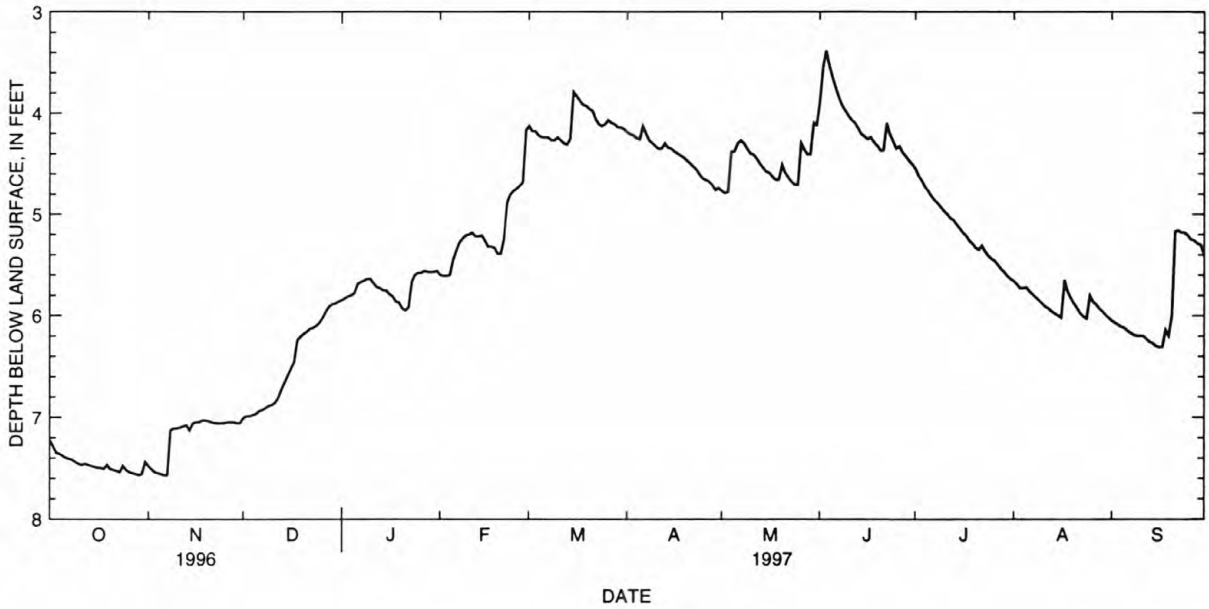
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells are available in adjacent tables.

PERIOD OF RECORD.--February 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER LEVEL: Maximum daily low, 8.10 ft below land-surface datum, October 24, 1991; maximum daily high, 3.23 ft below land-surface data, June 2, 1997.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 7.57 ft below land-surface datum, October 29, November 6-7, 1996; maximum daily high, 3.23 ft below land-surface data, June 2, 1997.



413547083481500 LU-24 NR HOLLAND OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 7.23 | 7.18 | 7.20 | 7.48 | 7.44 | 7.46 | 7.01 | 6.99 | 6.99 | 5.85 | 5.83 | 5.83 |
| 2 | 7.29 | 7.23 | 7.25 | 7.51 | 7.48 | 7.50 | 6.99 | 6.99 | 6.99 | 5.83 | 5.81 | 5.82 |
| 3 | 7.35 | 7.29 | 7.31 | 7.54 | 7.51 | 7.53 | 6.99 | 6.98 | 6.98 | 5.81 | 5.80 | 5.81 |
| 4 | 7.36 | 7.35 | 7.36 | 7.55 | 7.54 | 7.55 | 6.98 | 6.97 | 6.98 | 5.80 | 5.78 | 5.79 |
| 5 | 7.38 | 7.36 | 7.37 | 7.56 | 7.55 | 7.56 | 6.97 | 6.94 | 6.95 | 5.78 | 5.69 | 5.74 |
| 6 | 7.40 | 7.38 | 7.39 | 7.57 | 7.56 | 7.57 | 6.94 | 6.93 | 6.94 | 5.69 | 5.67 | 5.68 |
| 7 | 7.41 | 7.40 | 7.41 | 7.57 | 7.13 | 7.48 | 6.93 | 6.91 | 6.92 | 5.67 | 5.66 | 5.66 |
| 8 | 7.42 | 7.41 | 7.42 | 7.13 | 7.04 | 7.06 | 6.91 | 6.89 | 6.90 | 5.66 | 5.64 | 5.65 |
| 9 | 7.44 | 7.42 | 7.43 | 7.11 | 7.07 | 7.10 | 6.89 | 6.88 | 6.89 | 5.64 | 5.61 | 5.62 |
| 10 | 7.46 | 7.44 | 7.45 | 7.11 | 7.10 | 7.10 | 6.88 | 6.86 | 6.87 | 5.64 | 5.61 | 5.62 |
| 11 | 7.47 | 7.45 | 7.46 | 7.10 | 7.09 | 7.10 | 6.86 | 6.81 | 6.85 | 5.68 | 5.64 | 5.66 |
| 12 | 7.46 | 7.45 | 7.46 | 7.09 | 7.08 | 7.09 | 6.81 | 6.73 | 6.76 | 5.72 | 5.68 | 5.70 |
| 13 | 7.47 | 7.46 | 7.47 | 7.08 | 7.06 | 7.07 | 6.73 | 6.66 | 6.69 | 5.73 | 5.72 | 5.73 |
| 14 | 7.48 | 7.47 | 7.48 | 7.13 | 7.06 | 7.06 | 6.66 | 6.59 | 6.62 | 5.75 | 5.73 | 5.74 |
| 15 | 7.49 | 7.48 | 7.49 | 7.06 | 7.05 | 7.06 | 6.59 | 6.52 | 6.55 | 5.75 | 5.69 | 5.72 |
| 16 | 7.50 | 7.49 | 7.50 | 7.05 | 7.05 | 7.05 | 6.52 | 6.46 | 6.49 | 5.79 | 5.70 | 5.74 |
| 17 | 7.50 | 7.50 | 7.50 | 7.05 | 7.03 | 7.04 | 6.46 | 6.24 | 6.38 | 5.81 | 5.79 | 5.80 |
| 18 | 7.51 | 7.44 | 7.48 | 7.03 | 7.03 | 7.03 | 6.24 | 6.21 | 6.22 | 5.86 | 5.81 | 5.84 |
| 19 | 7.47 | 7.44 | 7.45 | 7.03 | 7.03 | 7.03 | 6.21 | 6.18 | 6.19 | 5.87 | 5.86 | 5.86 |
| 20 | 7.51 | 7.47 | 7.49 | 7.04 | 7.03 | 7.04 | 6.18 | 6.16 | 6.17 | 5.93 | 5.87 | 5.89 |
| 21 | 7.52 | 7.51 | 7.52 | 7.05 | 7.04 | 7.04 | 6.16 | 6.13 | 6.14 | 5.95 | 5.92 | 5.94 |
| 22 | 7.53 | 7.52 | 7.53 | 7.06 | 7.05 | 7.06 | 6.13 | 6.12 | 6.13 | 5.92 | 5.67 | 5.79 |
| 23 | 7.54 | 7.46 | 7.50 | 7.06 | 7.05 | 7.06 | 6.12 | 6.10 | 6.11 | 5.67 | 5.60 | 5.63 |
| 24 | 7.48 | 7.46 | 7.46 | 7.06 | 7.06 | 7.06 | 6.10 | 6.07 | 6.09 | 5.60 | 5.56 | 5.58 |
| 25 | 7.52 | 7.48 | 7.50 | 7.06 | 7.05 | 7.06 | 6.07 | 6.02 | 6.05 | 5.58 | 5.56 | 5.57 |
| 26 | 7.54 | 7.52 | 7.54 | 7.05 | 7.05 | 7.05 | 6.02 | 5.96 | 5.99 | 5.58 | 5.56 | 5.57 |
| 27 | 7.55 | 7.54 | 7.54 | 7.05 | 7.05 | 7.05 | 5.96 | 5.91 | 5.94 | 5.56 | 5.55 | 5.55 |
| 28 | 7.56 | 7.55 | 7.56 | 7.05 | 7.05 | 7.05 | 5.91 | 5.89 | 5.90 | 5.57 | 5.55 | 5.57 |
| 29 | 7.57 | 7.55 | 7.57 | 7.06 | 7.05 | 7.06 | 5.89 | 5.88 | 5.88 | 5.57 | 5.57 | 5.57 |
| 30 | 7.56 | 7.43 | 7.47 | 7.06 | 7.01 | 7.03 | 5.88 | 5.86 | 5.87 | 5.57 | 5.55 | 5.56 |
| 31 | 7.44 | 7.43 | 7.43 | --- | --- | --- | 5.86 | 5.85 | 5.86 | 5.56 | 5.53 | 5.55 |
| MONTH | 7.57 | 7.18 | 7.45 | 7.57 | 7.01 | 7.17 | 7.01 | 5.85 | 6.46 | 5.95 | 5.53 | 5.70 |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 5.60 | 5.56 | 5.59 | 4.13 | 4.12 | 4.13 | 4.19 | 4.16 | 4.18 | 4.77 | 4.73 | 4.75 |
| 2 | 5.61 | 5.60 | 5.61 | 4.18 | 4.13 | 4.16 | 4.21 | 4.19 | 4.20 | 4.79 | 4.77 | 4.78 |
| 3 | 5.61 | 5.60 | 5.61 | 4.18 | 4.17 | 4.18 | 4.22 | 4.21 | 4.21 | 4.78 | 4.38 | 4.59 |
| 4 | 5.60 | 5.45 | 5.53 | 4.22 | 4.18 | 4.20 | 4.25 | 4.22 | 4.24 | 4.38 | 4.37 | 4.37 |
| 5 | 5.45 | 5.36 | 5.40 | 4.24 | 4.22 | 4.23 | 4.26 | 4.10 | 4.19 | 4.38 | 4.30 | 4.36 |
| 6 | 5.36 | 5.28 | 5.32 | 4.24 | 4.22 | 4.23 | 4.13 | 4.07 | 4.09 | 4.30 | 4.25 | 4.26 |
| 7 | 5.28 | 5.24 | 5.26 | 4.24 | 4.21 | 4.23 | 4.21 | 4.13 | 4.17 | 4.27 | 4.26 | 4.27 |
| 8 | 5.24 | 5.21 | 5.22 | 4.27 | 4.21 | 4.24 | 4.27 | 4.21 | 4.24 | 4.30 | 4.27 | 4.29 |
| 9 | 5.21 | 5.20 | 5.21 | 4.27 | 4.21 | 4.24 | 4.30 | 4.27 | 4.29 | 4.35 | 4.30 | 4.33 |
| 10 | 5.20 | 5.18 | 5.19 | 4.24 | 4.20 | 4.23 | 4.33 | 4.30 | 4.32 | 4.40 | 4.35 | 4.38 |
| 11 | 5.18 | 5.17 | 5.18 | 4.27 | 4.20 | 4.23 | 4.35 | 4.33 | 4.34 | 4.41 | 4.40 | 4.41 |
| 12 | 5.22 | 5.17 | 5.19 | 4.30 | 4.27 | 4.29 | 4.35 | 4.23 | 4.29 | 4.45 | 4.41 | 4.43 |
| 13 | 5.22 | 5.20 | 5.21 | 4.31 | 4.26 | 4.30 | 4.30 | 4.23 | 4.26 | 4.50 | 4.45 | 4.47 |
| 14 | 5.21 | 5.19 | 5.20 | 4.26 | 3.68 | 3.85 | 4.34 | 4.30 | 4.32 | 4.54 | 4.50 | 4.52 |
| 15 | 5.26 | 5.21 | 5.24 | 3.79 | 3.70 | 3.74 | 4.35 | 4.34 | 4.35 | 4.58 | 4.54 | 4.56 |
| 16 | 5.32 | 5.26 | 5.27 | 3.83 | 3.79 | 3.82 | 4.38 | 4.35 | 4.36 | 4.59 | 4.58 | 4.59 |
| 17 | 5.32 | 5.31 | 5.32 | 3.88 | 3.82 | 3.84 | 4.40 | 4.38 | 4.39 | 4.63 | 4.58 | 4.60 |
| 18 | 5.33 | 5.31 | 5.32 | 3.92 | 3.88 | 3.91 | 4.42 | 4.40 | 4.41 | 4.66 | 4.63 | 4.64 |
| 19 | 5.39 | 5.33 | 5.35 | 3.93 | 3.92 | 3.92 | 4.44 | 4.42 | 4.43 | 4.66 | 4.47 | 4.53 |
| 20 | 5.39 | 5.25 | 5.37 | 3.96 | 3.92 | 3.94 | 4.47 | 4.44 | 4.46 | 4.51 | 4.48 | 4.49 |
| 21 | 5.25 | 4.89 | 5.02 | 3.98 | 3.94 | 3.96 | 4.50 | 4.47 | 4.48 | 4.59 | 4.51 | 4.55 |
| 22 | 4.89 | 4.81 | 4.85 | 4.06 | 3.98 | 4.03 | 4.53 | 4.50 | 4.52 | 4.64 | 4.59 | 4.62 |
| 23 | 4.81 | 4.77 | 4.78 | 4.11 | 4.06 | 4.08 | 4.56 | 4.53 | 4.54 | 4.68 | 4.64 | 4.67 |
| 24 | 4.77 | 4.75 | 4.76 | 4.13 | 4.11 | 4.12 | 4.61 | 4.56 | 4.59 | 4.71 | 4.68 | 4.70 |
| 25 | 4.75 | 4.72 | 4.73 | 4.11 | 4.06 | 4.08 | 4.65 | 4.61 | 4.63 | 4.71 | 4.25 | 4.42 |
| 26 | 4.72 | 4.69 | 4.72 | 4.07 | 4.05 | 4.06 | 4.66 | 4.65 | 4.66 | 4.30 | 4.25 | 4.27 |
| 27 | 4.69 | 4.17 | 4.36 | 4.10 | 4.05 | 4.07 | 4.68 | 4.66 | 4.67 | 4.36 | 4.30 | 4.33 |
| 28 | 4.17 | 4.13 | 4.15 | 4.11 | 4.08 | 4.10 | 4.71 | 4.68 | 4.69 | 4.41 | 4.36 | 4.38 |
| 29 | --- | --- | --- | 4.14 | 4.10 | 4.13 | 4.76 | 4.71 | 4.72 | 4.41 | 4.09 | 4.27 |
| 30 | --- | --- | --- | 4.14 | 4.13 | 4.14 | 4.74 | 4.71 | 4.73 | 4.10 | 4.09 | 4.09 |
| 31 | --- | --- | --- | 4.16 | 4.13 | 4.14 | --- | --- | --- | 4.12 | 3.89 | 4.03 |
| MONTH | 5.61 | 4.13 | 5.14 | 4.31 | 3.68 | 4.09 | 4.76 | 4.07 | 4.40 | 4.79 | 3.89 | 4.45 |

413547083481500 LU-24 NR HOLLAND OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 3.89 | 3.54 | 3.80 | 4.55 | 4.51 | 4.53 | 5.66 | 5.64 | 5.65 | 6.05 | 6.02 | 6.04 |
| 2 | 3.54 | 3.23 | 3.34 | 4.62 | 4.55 | 4.58 | 5.69 | 5.66 | 5.68 | 6.07 | 6.05 | 6.06 |
| 3 | 3.38 | 3.24 | 3.31 | 4.67 | 4.62 | 4.65 | 5.73 | 5.69 | 5.71 | 6.09 | 6.07 | 6.08 |
| 4 | 3.54 | 3.38 | 3.46 | 4.73 | 4.67 | 4.69 | 5.73 | 5.48 | 5.56 | 6.11 | 6.09 | 6.10 |
| 5 | 3.65 | 3.54 | 3.60 | 4.77 | 4.73 | 4.75 | 5.72 | 5.59 | 5.67 | 6.12 | 6.11 | 6.12 |
| 6 | 3.76 | 3.65 | 3.70 | 4.82 | 4.77 | 4.79 | 5.76 | 5.72 | 5.74 | 6.15 | 6.12 | 6.14 |
| 7 | 3.85 | 3.76 | 3.80 | 4.86 | 4.82 | 4.84 | 5.79 | 5.76 | 5.77 | 6.17 | 6.15 | 6.16 |
| 8 | 3.93 | 3.85 | 3.89 | 4.89 | 4.86 | 4.87 | 5.82 | 5.79 | 5.80 | 6.19 | 6.17 | 6.18 |
| 9 | 3.98 | 3.93 | 3.96 | 4.93 | 4.89 | 4.91 | 5.85 | 5.82 | 5.83 | 6.20 | 6.19 | 6.19 |
| 10 | 4.03 | 3.98 | 4.01 | 4.97 | 4.93 | 4.95 | 5.88 | 5.85 | 5.86 | 6.20 | 6.14 | 6.16 |
| 11 | 4.07 | 4.03 | 4.05 | 5.00 | 4.97 | 4.99 | 5.91 | 5.88 | 5.89 | 6.20 | 6.15 | 6.18 |
| 12 | 4.10 | 4.07 | 4.09 | 5.04 | 5.00 | 5.02 | 5.93 | 5.91 | 5.92 | 6.23 | 6.20 | 6.22 |
| 13 | 4.15 | 4.10 | 4.13 | 5.06 | 5.04 | 5.05 | 5.96 | 5.93 | 5.94 | 6.26 | 6.23 | 6.24 |
| 14 | 4.21 | 4.15 | 4.18 | 5.10 | 5.06 | 5.08 | 5.98 | 5.96 | 5.97 | 6.27 | 6.26 | 6.27 |
| 15 | 4.23 | 4.21 | 4.22 | 5.14 | 5.10 | 5.12 | 6.00 | 5.98 | 5.99 | 6.30 | 6.27 | 6.28 |
| 16 | 4.26 | 4.18 | 4.23 | 5.18 | 5.14 | 5.16 | 6.02 | 5.65 | 5.93 | 6.31 | 6.30 | 6.31 |
| 17 | 4.24 | 4.17 | 4.21 | 5.21 | 5.18 | 5.20 | 5.65 | 5.47 | 5.54 | 6.31 | 6.06 | 6.20 |
| 18 | 4.29 | 4.24 | 4.26 | 5.26 | 5.21 | 5.23 | 5.76 | 5.61 | 5.69 | 6.14 | 6.06 | 6.10 |
| 19 | 4.32 | 4.29 | 4.31 | 5.29 | 5.26 | 5.27 | 5.83 | 5.76 | 5.80 | 6.20 | 6.00 | 6.17 |
| 20 | 4.37 | 4.32 | 4.34 | 5.33 | 5.29 | 5.31 | 5.88 | 5.83 | 5.85 | 6.00 | 5.17 | 5.26 |
| 21 | 4.37 | 4.05 | 4.24 | 5.35 | 5.15 | 5.28 | 5.93 | 5.88 | 5.90 | 5.17 | 5.16 | 5.17 |
| 22 | 4.10 | 4.00 | 4.04 | 5.31 | 5.16 | 5.24 | 5.98 | 5.93 | 5.96 | 5.16 | 5.16 | 5.16 |
| 23 | 4.21 | 4.10 | 4.16 | 5.37 | 5.31 | 5.34 | 6.01 | 5.98 | 6.00 | 5.18 | 5.16 | 5.17 |
| 24 | 4.28 | 4.21 | 4.24 | 5.41 | 5.37 | 5.39 | 6.03 | 5.61 | 5.86 | 5.18 | 5.18 | 5.18 |
| 25 | 4.35 | 4.28 | 4.32 | 5.44 | 5.41 | 5.42 | 5.80 | 5.63 | 5.72 | 5.21 | 5.18 | 5.19 |
| 26 | 4.33 | 4.26 | 4.29 | 5.46 | 5.44 | 5.45 | 5.86 | 5.80 | 5.83 | 5.25 | 5.21 | 5.23 |
| 27 | 4.39 | 4.33 | 4.36 | 5.50 | 5.46 | 5.48 | 5.89 | 5.86 | 5.88 | 5.26 | 5.25 | 5.26 |
| 28 | 4.43 | 4.39 | 4.41 | 5.54 | 5.50 | 5.52 | 5.93 | 5.89 | 5.91 | 5.29 | 5.26 | 5.27 |
| 29 | 4.47 | 4.43 | 4.45 | 5.57 | 5.54 | 5.56 | 5.96 | 5.93 | 5.95 | 5.30 | 5.29 | 5.29 |
| 30 | 4.51 | 4.47 | 4.49 | 5.61 | 5.57 | 5.60 | 5.99 | 5.96 | 5.98 | 5.38 | 5.30 | 5.34 |
| 31 | --- | --- | --- | 5.64 | 5.61 | 5.62 | 6.02 | 5.99 | 6.01 | --- | --- | --- |
| MONTH | 4.51 | 3.23 | 4.06 | 5.64 | 4.51 | 5.13 | 6.03 | 5.47 | 5.83 | 6.31 | 5.16 | 5.82 |
| YEAR | 7.57 | 3.23 | 5.48 | | | | | | | | | |

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; 0.010-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 ft below land surface.

DATUM.--Elevation of land-surface datum is 1168.37 ft above sea level. Measuring point: shelter shelf 2.36 ft above land-surface datum.

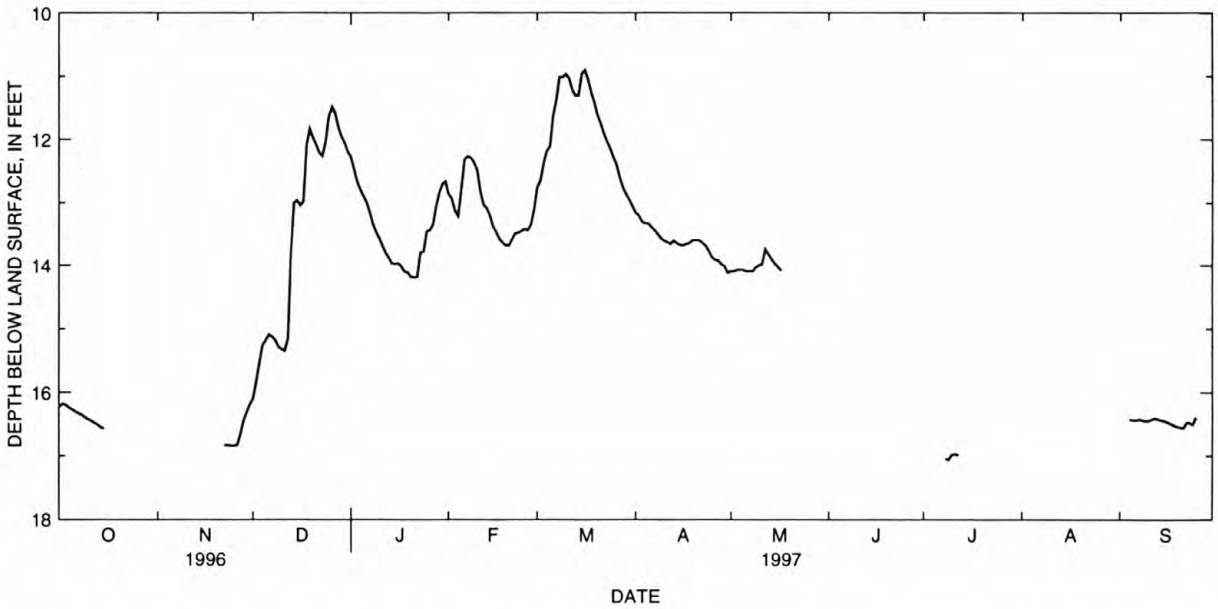
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells are available in preceding tables. Incomplete data this year due to problems with recorder.

PERIOD OF RECORD.--February 1991 to current year.

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, 17.62 ft below land-surface datum, November 30-December 3, 1991, November 26-28, 1994; maximum daily high, 10.56 ft below land-surface datum, March 27, 1993.
SPECIFIC CONDUCTANCE: Maximum, 774 microsiemens August 9, 1995; minimum, 157 microsiemens March 6, 1991.
AIR TEMPERATURE: Maximum, 36.0°C August 1, 1991; minimum, -26.1°C January 19, 1992.
WATER TEMPERATURE: Maximum, 12.6°C October 11-13, 1995; minimum, 7.7°C April 16-17, 1994, and March 22-April 8, 1996.
SOIL TEMPERATURE: Maximum, 29.3°C August 29, 1993, and June 19, 1994; minimum, -1.6°C February 6, 1996.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 17.06 ft below land-surface datum, July 9, 1997; maximum daily high, 10.87 ft below land-surface datum, March 16, 1997.
SPECIFIC CONDUCTANCE: Maximum, 457 microsiemens October 15, 1996; minimum, 189 microsiemens May 2-3, 1997.
AIR TEMPERATURE: Maximum, 30.7°C July 14, 1997; minimum, -23.4°C January 19, 1997.
WATER TEMPERATURE: Maximum, 12.0°C November 22-24, December 4-7, 9, 1996; minimum, 7.9°C March 14-April 6, 8, 10-11, 1997.
SOIL TEMPERATURE: Maximum, 22.6°C July 15, 1997; minimum, 0.4°C January 22, 27-28, 1997.



403923082325500 R-16 NR LEXINGTON OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 16.22 | 16.18 | 16.20 | --- | --- | --- | 16.10 | 15.83 | 15.99 | 12.27 | 12.19 | 12.21 |
| 2 | 16.18 | 16.18 | 16.18 | --- | --- | --- | 15.83 | 15.54 | 15.68 | 12.47 | 12.27 | 12.37 |
| 3 | 16.20 | 16.18 | 16.19 | --- | --- | --- | 15.54 | 15.26 | 15.39 | 12.66 | 12.47 | 12.58 |
| 4 | 16.24 | 16.20 | 16.22 | --- | --- | --- | 15.26 | 15.18 | 15.21 | 12.79 | 12.66 | 12.75 |
| 5 | 16.27 | 16.24 | 16.26 | --- | --- | --- | 15.18 | 15.09 | 15.13 | 12.89 | 12.79 | 12.85 |
| 6 | 16.30 | 16.27 | 16.28 | --- | --- | --- | 15.09 | 15.09 | 15.09 | 12.99 | 12.86 | 12.92 |
| 7 | 16.33 | 16.30 | 16.31 | --- | --- | --- | 15.12 | 15.09 | 15.10 | 13.15 | 12.97 | 13.04 |
| 8 | 16.35 | 16.33 | 16.34 | --- | --- | --- | 15.18 | 15.12 | 15.14 | 13.33 | 13.15 | 13.26 |
| 9 | 16.39 | 16.35 | 16.37 | --- | --- | --- | 15.28 | 15.18 | 15.23 | 13.46 | 13.32 | 13.35 |
| 10 | 16.42 | 16.39 | 16.40 | --- | --- | --- | 15.32 | 15.28 | 15.30 | 13.56 | 13.46 | 13.50 |
| 11 | 16.45 | 16.42 | 16.44 | --- | --- | --- | 15.35 | 15.15 | 15.32 | 13.68 | 13.56 | 13.61 |
| 12 | 16.48 | 16.45 | 16.47 | --- | --- | --- | 15.15 | 13.80 | 14.45 | 13.80 | 13.68 | 13.73 |
| 13 | 16.51 | 16.48 | 16.50 | --- | --- | --- | 13.80 | 13.00 | 13.35 | 13.88 | 13.79 | 13.84 |
| 14 | 16.55 | 16.51 | 16.53 | --- | --- | --- | 13.00 | 12.80 | 12.86 | 13.97 | 13.88 | 13.93 |
| 15 | 16.57 | 16.55 | 16.56 | --- | --- | --- | 12.96 | 12.82 | 12.89 | 13.98 | 13.80 | 13.94 |
| 16 | --- | --- | --- | --- | --- | --- | 13.04 | 12.82 | 12.97 | 13.97 | 13.80 | 13.88 |
| 17 | --- | --- | --- | --- | --- | --- | 12.98 | 12.04 | 12.30 | 14.02 | 13.97 | 14.00 |
| 18 | --- | --- | --- | --- | --- | --- | 12.08 | 11.83 | 11.95 | 14.10 | 13.99 | 14.04 |
| 19 | --- | --- | --- | --- | --- | --- | 11.83 | 11.74 | 11.76 | 14.11 | 14.09 | 14.10 |
| 20 | --- | --- | --- | --- | --- | --- | 11.97 | 11.78 | 11.87 | 14.18 | 14.11 | 14.15 |
| 21 | --- | --- | --- | --- | --- | --- | 12.08 | 11.97 | 12.02 | 14.19 | 14.17 | 14.18 |
| 22 | --- | --- | --- | 16.83 | 16.82 | 16.83 | 12.21 | 12.08 | 12.15 | 14.18 | 13.79 | 14.05 |
| 23 | --- | --- | --- | 16.83 | 16.83 | 16.83 | 12.26 | 12.03 | 12.21 | 13.80 | 13.78 | 13.79 |
| 24 | --- | --- | --- | 16.84 | 16.83 | 16.83 | 12.03 | 11.58 | 11.65 | 13.78 | 13.45 | 13.63 |
| 25 | --- | --- | --- | 16.84 | 16.83 | 16.84 | 11.64 | 11.48 | 11.55 | 13.45 | 13.37 | 13.39 |
| 26 | --- | --- | --- | 16.83 | 16.66 | 16.76 | 11.48 | 11.41 | 11.44 | 13.43 | 13.34 | 13.40 |
| 27 | --- | --- | --- | 16.66 | 16.45 | 16.55 | 11.58 | 11.45 | 11.54 | 13.34 | 13.04 | 13.21 |
| 28 | --- | --- | --- | 16.45 | 16.31 | 16.37 | 11.80 | 11.58 | 11.68 | 13.04 | 12.81 | 12.85 |
| 29 | --- | --- | --- | 16.31 | 16.19 | 16.25 | 11.95 | 11.80 | 11.87 | 12.84 | 12.70 | 12.78 |
| 30 | --- | --- | --- | 16.19 | 16.10 | 16.15 | 12.05 | 11.95 | 12.01 | 12.70 | 12.64 | 12.66 |
| 31 | --- | --- | --- | --- | --- | --- | 12.19 | 12.05 | 12.13 | 12.66 | 12.56 | 12.60 |
| MONTH | 16.57 | 16.18 | 16.35 | 16.84 | 16.10 | 16.60 | 16.10 | 11.41 | 13.33 | 14.19 | 12.19 | 13.37 |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 12.86 | 12.59 | 12.74 | 12.75 | 12.65 | 12.70 | 13.15 | 13.05 | 13.11 | 14.09 | 13.83 | 13.97 |
| 2 | 12.93 | 12.85 | 12.87 | 12.65 | 12.37 | 12.45 | 13.19 | 13.14 | 13.16 | 14.09 | 14.07 | 14.08 |
| 3 | 13.12 | 12.93 | 13.05 | 12.37 | 12.18 | 12.26 | 13.29 | 13.19 | 13.24 | 14.07 | 13.91 | 13.97 |
| 4 | 13.21 | 12.79 | 13.12 | 12.18 | 12.11 | 12.14 | 13.32 | 13.29 | 13.30 | 14.07 | 14.02 | 14.06 |
| 5 | 12.79 | 12.31 | 12.43 | 12.11 | 11.62 | 11.93 | 13.32 | 13.29 | 13.30 | 14.07 | 13.99 | 14.03 |
| 6 | 12.31 | 12.26 | 12.28 | 11.62 | 11.37 | 11.52 | 13.38 | 13.30 | 13.35 | 14.09 | 14.00 | 14.06 |
| 7 | 12.26 | 12.23 | 12.25 | 11.37 | 11.00 | 11.18 | 13.43 | 13.38 | 13.42 | 14.09 | 14.07 | 14.09 |
| 8 | 12.29 | 12.23 | 12.24 | 11.01 | 10.95 | 10.97 | 13.49 | 13.43 | 13.46 | 14.09 | 14.03 | 14.07 |
| 9 | 12.36 | 12.29 | 12.32 | 11.01 | 10.96 | 10.99 | 13.56 | 13.49 | 13.52 | 14.03 | 14.00 | 14.01 |
| 10 | 12.48 | 12.36 | 12.41 | 10.96 | 10.90 | 10.92 | 13.60 | 13.55 | 13.57 | 14.00 | 13.98 | 13.99 |
| 11 | 12.81 | 12.48 | 12.62 | 11.03 | 10.89 | 10.95 | 13.62 | 13.55 | 13.59 | 13.98 | 13.72 | 13.94 |
| 12 | 13.03 | 12.81 | 12.90 | 11.21 | 11.03 | 11.12 | 13.65 | 13.52 | 13.60 | 13.74 | 13.66 | 13.69 |
| 13 | 13.08 | 13.03 | 13.05 | 11.30 | 11.21 | 11.27 | 13.60 | 13.52 | 13.56 | 13.82 | 13.74 | 13.78 |
| 14 | 13.20 | 13.05 | 13.12 | 11.30 | 10.94 | 11.06 | 13.64 | 13.60 | 13.62 | 13.90 | 13.82 | 13.86 |
| 15 | 13.37 | 13.20 | 13.29 | 10.95 | 10.88 | 10.93 | 13.67 | 13.64 | 13.66 | 13.97 | 13.86 | 13.94 |
| 16 | 13.46 | 13.37 | 13.40 | 10.90 | 10.87 | 10.88 | 13.68 | 13.64 | 13.66 | 14.02 | 13.96 | 13.99 |
| 17 | 13.57 | 13.46 | 13.53 | 11.06 | 10.88 | 10.94 | 13.65 | 13.64 | 13.64 | 14.08 | 13.99 | 14.03 |
| 18 | 13.63 | 13.57 | 13.60 | 11.25 | 11.06 | 11.16 | 13.64 | 13.59 | 13.60 | --- | --- | --- |
| 19 | 13.68 | 13.63 | 13.65 | 11.41 | 11.25 | 11.33 | 13.59 | 13.54 | 13.56 | --- | --- | --- |
| 20 | 13.68 | 13.58 | 13.64 | 11.61 | 11.41 | 11.50 | 13.59 | 13.56 | 13.58 | --- | --- | --- |
| 21 | 13.58 | 13.36 | 13.49 | 11.74 | 11.61 | 11.68 | 13.59 | 13.58 | 13.58 | --- | --- | --- |
| 22 | 13.48 | 13.34 | 13.43 | 11.90 | 11.74 | 11.84 | 13.63 | 13.58 | 13.60 | --- | --- | --- |
| 23 | 13.47 | 13.41 | 13.43 | 12.03 | 11.90 | 11.96 | 13.68 | 13.63 | 13.65 | --- | --- | --- |
| 24 | 13.44 | 13.38 | 13.41 | 12.14 | 12.03 | 12.08 | 13.76 | 13.68 | 13.72 | --- | --- | --- |
| 25 | 13.41 | 13.38 | 13.39 | 12.28 | 12.14 | 12.19 | 13.86 | 13.76 | 13.80 | --- | --- | --- |
| 26 | 13.43 | 13.34 | 13.40 | 12.39 | 12.28 | 12.34 | 13.91 | 13.86 | 13.89 | --- | --- | --- |
| 27 | 13.34 | 13.09 | 13.15 | 12.60 | 12.39 | 12.49 | 13.92 | 13.89 | 13.90 | --- | --- | --- |
| 28 | 13.09 | 12.75 | 12.95 | 12.75 | 12.60 | 12.68 | 13.98 | 13.91 | 13.94 | --- | --- | --- |
| 29 | --- | --- | --- | 12.86 | 12.75 | 12.79 | 14.01 | 13.96 | 13.99 | --- | --- | --- |
| 30 | --- | --- | --- | 12.94 | 12.86 | 12.90 | 14.11 | 13.84 | 13.99 | --- | --- | --- |
| 31 | --- | --- | --- | 13.05 | 12.94 | 12.99 | --- | --- | --- | --- | --- | --- |
| MONTH | 13.68 | 12.23 | 13.04 | 13.05 | 10.87 | 11.75 | 14.11 | 13.05 | 13.59 | 14.09 | 13.66 | 13.97 |

403923082325500 R-16 NR LEXINGTON OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.42 | 16.39 | 16.40 |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.43 | 16.42 | 16.42 |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.44 | 16.39 | 16.42 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.42 | 16.40 | 16.41 |
| 8 | --- | --- | --- | 17.05 | 16.99 | 17.03 | --- | --- | --- | 16.44 | 16.42 | 16.43 |
| 9 | --- | --- | --- | 17.06 | 16.98 | 17.02 | --- | --- | --- | 16.45 | 16.44 | 16.44 |
| 10 | --- | --- | --- | 16.98 | 16.95 | 16.96 | --- | --- | --- | 16.45 | 16.42 | 16.44 |
| 11 | --- | --- | --- | 16.97 | 16.95 | 16.95 | --- | --- | --- | 16.42 | 16.41 | 16.41 |
| 12 | --- | --- | --- | 16.99 | 16.93 | 16.96 | --- | --- | --- | 16.41 | 16.41 | 16.41 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.42 | 16.41 | 16.42 |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.44 | 16.42 | 16.44 |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.45 | 16.44 | 16.45 |
| 16 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.47 | 16.45 | 16.46 |
| 17 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.49 | 16.47 | 16.48 |
| 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.52 | 16.49 | 16.51 |
| 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.54 | 16.52 | 16.53 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.55 | 16.53 | 16.54 |
| 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.56 | 16.47 | 16.54 |
| 22 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.48 | 16.46 | 16.48 |
| 23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.48 | 16.46 | 16.47 |
| 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.50 | 16.38 | 16.48 |
| 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 16.39 | 16.28 | 16.38 |
| 26 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | --- | --- | --- | 17.06 | 16.93 | 16.98 | --- | --- | --- | 16.56 | 16.28 | 16.45 |
| YEAR | 17.06 | 10.87 | 13.90 | | | | | | | | | |

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 444 | 441 | --- | --- | 417 | 414 | 285 | 274 | 268 | 258 | 254 | 248 |
| 2 | 444 | 440 | --- | --- | 417 | 413 | 274 | 266 | 258 | 246 | 272 | 253 |
| 3 | 442 | 440 | --- | --- | 416 | 412 | 266 | 257 | 246 | 242 | 293 | 271 |
| 4 | 444 | 441 | --- | --- | 414 | 407 | 258 | 252 | 243 | 240 | 296 | 292 |
| 5 | 444 | 442 | --- | --- | 410 | 405 | 252 | 246 | 289 | 242 | 333 | 293 |
| 6 | 445 | 443 | --- | --- | 408 | 403 | 246 | 240 | 304 | 289 | 344 | 333 |
| 7 | 447 | 444 | --- | --- | 408 | 402 | 240 | 235 | 305 | 302 | 338 | 325 |
| 8 | 448 | 445 | --- | --- | 404 | 404 | 236 | 233 | 302 | 293 | 330 | 324 |
| 9 | 450 | 447 | --- | --- | 405 | 401 | 235 | 233 | 293 | 279 | 324 | 314 |
| 10 | 451 | 447 | --- | --- | 406 | 403 | 234 | 230 | 280 | 268 | 331 | 315 |
| 11 | 451 | 449 | --- | --- | 404 | 403 | 230 | 226 | 268 | 260 | 332 | 324 |
| 12 | 454 | 450 | --- | --- | 404 | 401 | 226 | 223 | 260 | 256 | 324 | 308 |
| 13 | 455 | 452 | --- | --- | 401 | 390 | 223 | 221 | 256 | 253 | 310 | 303 |
| 14 | 456 | 453 | --- | --- | 392 | 378 | 221 | 219 | 255 | 252 | 333 | 303 |
| 15 | 457 | 455 | --- | --- | 381 | 372 | 220 | 216 | 252 | 249 | 333 | 330 |
| 16 | --- | --- | --- | --- | 372 | 368 | 217 | 215 | 249 | 246 | 331 | 325 |
| 17 | --- | --- | --- | --- | 368 | 289 | 220 | 216 | 246 | 242 | 326 | 311 |
| 18 | --- | --- | --- | --- | 292 | 290 | 221 | 219 | 243 | 239 | 311 | 295 |
| 19 | --- | --- | --- | --- | 290 | 287 | 221 | 219 | 239 | 236 | 295 | 287 |
| 20 | --- | --- | --- | --- | 287 | 282 | 220 | 217 | 236 | 232 | 288 | 280 |
| 21 | --- | --- | --- | --- | 288 | 283 | 218 | 215 | 232 | 229 | 281 | 277 |
| 22 | --- | --- | 442 | 438 | 288 | 285 | 216 | 213 | 230 | 227 | 277 | 271 |
| 23 | --- | --- | 442 | 437 | 286 | 284 | 237 | 216 | 227 | 222 | 272 | 263 |
| 24 | --- | --- | 442 | 437 | 317 | 283 | 252 | 237 | 223 | 221 | 263 | 252 |
| 25 | --- | --- | 439 | 439 | 320 | 317 | 263 | 252 | 223 | 221 | 252 | 246 |
| 26 | --- | --- | 441 | 437 | 318 | 309 | 267 | 262 | 223 | 221 | 246 | 239 |
| 27 | --- | --- | 438 | 435 | 309 | 301 | 268 | 263 | 237 | 223 | 239 | 232 |
| 28 | --- | --- | 435 | 431 | 302 | 298 | 282 | 263 | 248 | 237 | 232 | 228 |
| 29 | --- | --- | 431 | 424 | 299 | 295 | 287 | 282 | --- | --- | 228 | 223 |
| 30 | --- | --- | 426 | 416 | 295 | 291 | 285 | 278 | --- | --- | 224 | 220 |
| 31 | --- | --- | --- | --- | 291 | 285 | 278 | 268 | --- | --- | 221 | 218 |
| MONTH | 457 | 440 | 442 | 416 | 417 | 282 | 287 | 213 | 305 | 221 | 344 | 218 |

403923082325500 R-16 NR LEXINGTON OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 219 | 216 | 192 | 191 | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | 217 | 212 | 192 | 189 | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 213 | 210 | 191 | 189 | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 211 | 208 | 194 | 191 | --- | --- | --- | --- | --- | --- | 348 | 344 |
| 5 | 208 | 206 | 198 | 194 | --- | --- | --- | --- | --- | --- | 349 | 346 |
| 6 | 207 | 205 | 202 | 198 | --- | --- | --- | --- | --- | --- | 351 | 348 |
| 7 | 205 | 203 | 204 | 202 | --- | --- | --- | --- | --- | --- | 353 | 349 |
| 8 | 203 | 200 | 206 | 204 | --- | --- | 219 | 215 | --- | --- | 354 | 351 |
| 9 | 201 | 198 | 211 | 206 | --- | --- | 223 | 219 | --- | --- | 355 | 352 |
| 10 | 200 | 197 | 216 | 211 | --- | --- | 227 | 223 | --- | --- | 354 | 354 |
| 11 | 198 | 196 | 220 | 216 | --- | --- | 230 | 226 | --- | --- | 355 | 354 |
| 12 | 198 | 196 | 221 | 219 | --- | --- | 234 | 230 | --- | --- | 356 | 355 |
| 13 | 198 | 197 | 222 | 220 | --- | --- | 238 | 233 | --- | --- | 357 | 355 |
| 14 | 198 | 196 | 221 | 220 | --- | --- | 241 | 236 | --- | --- | 358 | 356 |
| 15 | 198 | 196 | 221 | 220 | --- | --- | 244 | 240 | --- | --- | 360 | 357 |
| 16 | 197 | 195 | 220 | 217 | --- | --- | --- | --- | --- | --- | 360 | 358 |
| 17 | 197 | 195 | 218 | 215 | --- | --- | --- | --- | --- | --- | 362 | 360 |
| 18 | 198 | 196 | --- | --- | --- | --- | --- | --- | --- | --- | 363 | 360 |
| 19 | 198 | 197 | --- | --- | --- | --- | --- | --- | --- | --- | 364 | 361 |
| 20 | 199 | 197 | --- | --- | --- | --- | --- | --- | --- | --- | 364 | 364 |
| 21 | 199 | 198 | --- | --- | --- | --- | --- | --- | --- | --- | 365 | 363 |
| 22 | 199 | 198 | --- | --- | --- | --- | --- | --- | --- | --- | 366 | 363 |
| 23 | 199 | 198 | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 364 |
| 24 | 199 | 198 | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 365 |
| 25 | 198 | 195 | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 365 |
| 26 | 195 | 192 | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 366 |
| 27 | 193 | 191 | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 366 |
| 28 | 192 | 191 | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 364 |
| 29 | 192 | 190 | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 365 |
| 30 | 192 | 190 | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 367 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 219 | 190 | 222 | 189 | --- | --- | 244 | 215 | --- | --- | 369 | 344 |
| YEAR | 457 | 189 | | | | | | | | | | |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 24.5 | 6.5 | --- | --- | 15.6 | -1.6 | 8.0 | -2.1 | 4.0 | -3.1 | 17.3 | 8.5 |
| 2 | 23.8 | 9.2 | --- | --- | 5.4 | -3.9 | 12.5 | 7.9 | 7.5 | -3.1 | 14.8 | .2 |
| 3 | 11.3 | 1.2 | --- | --- | 5.2 | -5.2 | 14.5 | 11.2 | 4.2 | -1.5 | 1.7 | -.7 |
| 4 | 12.6 | -1.2 | --- | --- | 1.2 | -4.2 | 17.2 | 11.2 | 8.2 | 1.3 | 8.3 | 1.0 |
| 5 | 18.0 | -.1 | --- | --- | 2.1 | -5.7 | 17.1 | -1.8 | 2.7 | -.9 | 7.3 | .0 |
| 6 | 20.4 | 4.1 | --- | --- | 2.4 | -1.3 | -1.5 | -7.1 | -.9 | -2.4 | .2 | -4.3 |
| 7 | 22.6 | 3.7 | --- | --- | 6.4 | -1.6 | -3.4 | -9.2 | -1.0 | -3.0 | 3.9 | -9.1 |
| 8 | 18.8 | 5.6 | --- | --- | .6 | -3.2 | -1.7 | -12.9 | -.4 | -5.1 | 8.5 | -2.4 |
| 9 | 12.0 | 4.8 | --- | --- | .1 | -2.2 | 1.7 | -5.2 | -1.5 | -9.6 | 10.2 | -4.3 |
| 10 | 9.7 | -.7 | --- | --- | 8.5 | -1.8 | -4.3 | -16.3 | -1.5 | -3.5 | 10.4 | -.3 |
| 11 | 11.3 | .7 | --- | --- | 11.1 | 4.6 | -13.9 | -17.7 | -.7 | -2.9 | 8.1 | -4.4 |
| 12 | 17.8 | .0 | --- | --- | 13.7 | 2.4 | -13.6 | -20.6 | -.6 | -13.2 | 6.9 | -6.6 |
| 13 | 21.8 | 12.5 | --- | --- | 3.0 | 1.0 | -12.5 | -21.4 | -1.9 | -14.5 | 4.8 | -2.2 |
| 14 | 18.8 | 4.4 | --- | --- | 9.6 | -3.5 | -6.2 | -19.7 | 1.0 | -3.0 | 12.8 | -4.7 |
| 15 | 21.3 | 1.7 | --- | --- | 10.0 | -4.1 | 4.5 | -17.4 | -.8 | -11.2 | -3.1 | -6.8 |
| 16 | --- | --- | --- | --- | 7.3 | 1.2 | 3.8 | -18.8 | -.2 | -12.9 | .9 | -9.8 |
| 17 | --- | --- | --- | --- | 6.7 | -2.0 | -15.5 | -20.1 | 3.0 | -14.0 | 8.9 | -1.2 |
| 18 | --- | --- | --- | --- | -1.8 | -8.0 | -12.5 | -20.4 | 14.0 | 3.0 | 6.0 | -1.7 |
| 19 | --- | --- | --- | --- | -8.0 | -13.2 | -5.6 | -23.4 | 11.2 | -2.4 | 8.2 | -3.8 |
| 20 | --- | --- | --- | --- | -9.9 | -13.4 | 2.4 | -5.7 | 11.5 | -3.2 | 8.9 | -1.1 |
| 21 | --- | --- | --- | --- | .0 | -12.8 | 6.6 | -10.4 | 19.9 | 11.5 | 19.5 | -1.0 |
| 22 | --- | --- | .0 | -7.0 | 1.4 | -.7 | 10.0 | 3.3 | 14.7 | -6.2 | 13.3 | .4 |
| 23 | --- | --- | 6.3 | -7.3 | 9.8 | 1.4 | 3.3 | -6.0 | 3.0 | -6.2 | 6.3 | -5.1 |
| 24 | --- | --- | 5.1 | 1.6 | 10.3 | -7.5 | 5.4 | -5.7 | 1.5 | -7.0 | 7.5 | -8.8 |
| 25 | --- | --- | 4.0 | 2.6 | -5.5 | -10.6 | 5.4 | -12.2 | 3.1 | -10.4 | 17.6 | 3.2 |
| 26 | --- | --- | 2.6 | -3.7 | 3.3 | -11.0 | -5.5 | -12.7 | 10.9 | .0 | 7.6 | 1.3 |
| 27 | --- | --- | -2.4 | -8.2 | 5.6 | .0 | 3.2 | -5.5 | 16.1 | -.2 | 21.0 | 4.9 |
| 28 | --- | --- | 1.2 | -8.1 | 15.6 | 5.6 | .1 | -10.9 | 12.4 | -2.2 | 19.6 | 2.6 |
| 29 | --- | --- | 5.8 | -9.2 | 15.4 | 2.4 | -3.3 | -13.0 | --- | --- | 13.0 | 7.1 |
| 30 | --- | --- | 10.4 | 1.9 | 7.8 | 1.3 | 1.4 | -7.2 | --- | --- | 7.8 | 1.5 |
| 31 | --- | --- | --- | --- | 6.7 | -2.0 | 6.8 | -1.4 | --- | --- | 4.0 | -2.0 |
| MONTH | 24.5 | -1.2 | 10.4 | -9.2 | 15.6 | -13.4 | 17.2 | -23.4 | 19.9 | -14.5 | 21.0 | -9.8 |

403923082325500 R-16 NR LEXINGTON OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 12.6 | -4.2 | 21.0 | 5.2 | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | 16.8 | -5.4 | 14.4 | -1.3 | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 18.8 | -2.3 | 16.3 | 4.9 | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 23.6 | 6.5 | 13.6 | 4.0 | --- | --- | --- | --- | --- | --- | 18.7 | 3.3 |
| 5 | 18.5 | 11.2 | 17.8 | -1.2 | --- | --- | --- | --- | --- | --- | 22.2 | 3.8 |
| 6 | 21.2 | 7.2 | 15.8 | 3.4 | --- | --- | --- | --- | --- | --- | 23.4 | 12.3 |
| 7 | 7.2 | .0 | 15.5 | -1.0 | --- | --- | --- | --- | --- | --- | 24.9 | 11.7 |
| 8 | 7.4 | -6.5 | 12.8 | 8.2 | --- | --- | 27.3 | 14.8 | --- | --- | 24.0 | 12.3 |
| 9 | 1.5 | -7.1 | 13.8 | 4.9 | --- | --- | 23.0 | 11.4 | --- | --- | 24.9 | 14.8 |
| 10 | 6.9 | -9.9 | 12.3 | 1.0 | --- | --- | 22.9 | 8.7 | --- | --- | 19.6 | 16.7 |
| 11 | 11.6 | 1.2 | 18.0 | -2.1 | --- | --- | 26.6 | 9.1 | --- | --- | 18.5 | 13.1 |
| 12 | 14.1 | 3.8 | 15.6 | 7.1 | --- | --- | 27.6 | 12.3 | --- | --- | 18.1 | 11.5 |
| 13 | 5.4 | -2.2 | 16.3 | .5 | --- | --- | 29.2 | 12.0 | --- | --- | 20.8 | 8.5 |
| 14 | 11.0 | -4.5 | 16.0 | 2.3 | --- | --- | 30.7 | 15.8 | --- | --- | 23.0 | 10.7 |
| 15 | 13.8 | -4.0 | 11.7 | 4.4 | --- | --- | 26.9 | 18.0 | --- | --- | 24.8 | 14.1 |
| 16 | 12.3 | .2 | 12.4 | 2.3 | --- | --- | --- | --- | --- | --- | 25.6 | 11.0 |
| 17 | 5.1 | -.1 | 20.5 | 9.2 | --- | --- | --- | --- | --- | --- | 22.8 | 11.1 |
| 18 | 9.7 | -1.7 | --- | --- | --- | --- | --- | --- | --- | --- | 25.5 | 6.9 |
| 19 | 12.4 | -4.7 | --- | --- | --- | --- | --- | --- | --- | --- | 25.8 | 9.4 |
| 20 | 15.6 | -5.2 | --- | --- | --- | --- | --- | --- | --- | --- | 20.9 | 12.7 |
| 21 | 14.3 | 2.4 | --- | --- | --- | --- | --- | --- | --- | --- | 16.4 | 6.1 |
| 22 | 11.8 | 5.4 | --- | --- | --- | --- | --- | --- | --- | --- | 19.0 | 3.1 |
| 23 | 12.7 | 5.2 | --- | --- | --- | --- | --- | --- | --- | --- | 16.8 | 9.3 |
| 24 | 14.1 | 6.0 | --- | --- | --- | --- | --- | --- | --- | --- | 17.7 | 4.5 |
| 25 | 12.6 | 1.9 | --- | --- | --- | --- | --- | --- | --- | --- | 22.0 | 2.8 |
| 26 | 17.1 | -2.0 | --- | --- | --- | --- | --- | --- | --- | --- | 19.6 | 5.8 |
| 27 | 14.0 | 5.2 | --- | --- | --- | --- | --- | --- | --- | --- | 21.5 | 2.2 |
| 28 | 14.2 | 3.3 | --- | --- | --- | --- | --- | --- | --- | --- | 23.0 | 6.2 |
| 29 | 18.6 | -1.1 | --- | --- | --- | --- | --- | --- | --- | --- | 22.5 | 10.5 |
| 30 | 22.4 | 1.3 | --- | --- | --- | --- | --- | --- | --- | --- | 18.3 | 12.9 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 23.6 | -9.9 | 21.0 | -2.1 | --- | --- | 30.7 | 8.7 | --- | --- | 25.8 | 2.2 |
| YEAR | 30.7 | -23.4 | | | | | | | | | | |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 11.6 | 11.2 | --- | --- | 11.8 | 11.5 | 10.9 | 10.7 | 9.9 | 9.6 | 8.9 | 8.7 |
| 2 | 11.6 | 11.2 | --- | --- | 11.8 | 11.5 | 10.9 | 10.9 | 9.9 | 9.6 | 8.7 | 8.5 |
| 3 | 11.6 | 11.4 | --- | --- | 11.8 | 11.5 | 10.9 | 10.7 | 9.9 | 9.6 | 8.7 | 8.3 |
| 4 | 11.6 | 11.3 | --- | --- | 12.0 | 11.5 | 10.9 | 10.7 | 9.9 | 9.4 | 8.5 | 8.3 |
| 5 | 11.6 | 11.3 | --- | --- | 12.0 | 11.6 | 10.9 | 10.5 | 9.6 | 9.2 | 8.5 | 8.1 |
| 6 | 11.6 | 11.4 | --- | --- | 12.0 | 11.6 | 10.7 | 10.7 | 9.4 | 9.2 | 8.3 | 8.1 |
| 7 | 11.6 | 11.4 | --- | --- | 12.0 | 11.6 | 10.7 | 10.5 | 9.4 | 9.2 | 8.3 | 8.0 |
| 8 | 11.6 | 11.4 | --- | --- | 11.8 | 11.8 | 10.7 | 10.5 | 9.5 | 9.0 | 8.3 | 8.1 |
| 9 | 11.6 | 11.4 | --- | --- | 12.0 | 11.6 | 10.7 | 10.5 | 9.5 | 9.0 | 8.3 | 8.1 |
| 10 | 11.8 | 11.5 | --- | --- | 11.8 | 11.5 | 10.7 | 10.5 | 9.2 | 9.0 | 8.3 | 8.1 |
| 11 | 11.8 | 11.6 | --- | --- | 11.8 | 11.8 | 10.7 | 10.5 | 9.2 | 9.0 | 8.3 | 8.1 |
| 12 | 11.8 | 11.5 | --- | --- | 11.8 | 11.8 | 10.7 | 10.5 | 9.2 | 9.0 | 8.3 | 8.0 |
| 13 | 11.9 | 11.6 | --- | --- | 11.8 | 11.6 | 10.6 | 10.4 | 9.2 | 9.0 | 8.3 | 8.1 |
| 14 | 11.9 | 11.6 | --- | --- | 11.8 | 11.5 | 10.7 | 10.4 | 9.2 | 9.0 | 8.1 | 7.9 |
| 15 | 11.8 | 11.6 | --- | --- | 11.8 | 11.5 | 10.7 | 10.3 | 9.2 | 9.0 | 8.1 | 7.9 |
| 16 | --- | --- | --- | --- | 11.8 | 11.8 | 10.5 | 10.3 | 9.2 | 9.0 | 8.1 | 7.9 |
| 17 | --- | --- | --- | --- | 11.8 | 11.3 | 10.6 | 10.4 | 9.2 | 9.0 | 8.1 | 7.9 |
| 18 | --- | --- | --- | --- | 11.5 | 11.3 | 10.6 | 10.2 | 9.2 | 9.0 | 8.1 | 7.9 |
| 19 | --- | --- | --- | --- | 11.3 | 11.3 | 10.6 | 10.2 | 9.1 | 9.0 | 8.1 | 7.9 |
| 20 | --- | --- | --- | --- | 11.3 | 11.3 | 10.5 | 10.2 | 9.1 | 9.0 | 8.1 | 7.9 |
| 21 | --- | --- | --- | --- | 11.3 | 11.1 | 10.5 | 10.2 | 9.1 | 9.1 | 8.1 | 7.9 |
| 22 | --- | --- | 12.0 | 11.6 | 11.3 | 11.1 | 10.5 | 10.3 | 9.1 | 8.8 | 8.1 | 7.9 |
| 23 | --- | --- | 12.0 | 11.5 | 11.3 | 11.1 | 10.5 | 10.0 | 9.0 | 8.8 | 8.1 | 7.9 |
| 24 | --- | --- | 12.0 | 11.6 | 11.1 | 10.9 | 10.3 | 10.0 | 9.1 | 8.8 | 8.1 | 7.9 |
| 25 | --- | --- | 11.8 | 11.8 | 10.9 | 10.9 | 10.3 | 10.0 | 9.1 | 8.8 | 8.1 | 7.9 |
| 26 | --- | --- | 11.8 | 11.5 | 11.1 | 10.9 | 10.2 | 10.0 | 9.1 | 8.8 | 8.1 | 7.9 |
| 27 | --- | --- | 11.8 | 11.5 | 11.1 | 10.9 | 10.1 | 9.8 | 8.9 | 8.7 | 8.1 | 7.9 |
| 28 | --- | --- | 11.8 | 11.5 | 10.9 | 10.9 | 10.1 | 9.8 | 8.9 | 8.6 | 8.1 | 7.9 |
| 29 | --- | --- | 11.8 | 11.5 | 10.9 | 10.9 | 9.9 | 9.6 | --- | --- | 8.1 | 7.9 |
| 30 | --- | --- | 11.8 | 11.6 | 10.9 | 10.7 | 9.9 | 9.6 | --- | --- | 8.1 | 7.9 |
| 31 | --- | --- | --- | --- | 10.9 | 10.7 | 9.9 | 9.6 | --- | --- | 8.1 | 7.9 |
| MONTH | 11.9 | 11.2 | 12.0 | 11.5 | 12.0 | 10.7 | 10.9 | 9.6 | 9.9 | 8.6 | 8.9 | 7.9 |

403923082325500 R-16 NR LEXINGTON OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 8.1 | 7.9 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | 8.2 | 7.9 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 8.1 | 7.9 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 8.2 | 7.9 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | 11.0 | 10.7 |
| 5 | 8.1 | 7.9 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | 11.0 | 10.7 |
| 6 | 8.1 | 7.9 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | 11.0 | 10.7 |
| 7 | 8.3 | 8.1 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | 11.0 | 10.7 |
| 8 | 8.3 | 7.9 | 8.5 | 8.5 | --- | --- | 9.7 | 9.3 | --- | --- | 11.0 | 10.7 |
| 9 | 8.3 | 8.0 | 8.5 | 8.5 | --- | --- | 9.5 | 9.5 | --- | --- | 11.0 | 10.8 |
| 10 | 8.3 | 7.9 | 8.5 | 8.5 | --- | --- | 9.7 | 9.5 | --- | --- | 11.0 | 10.9 |
| 11 | 8.3 | 7.9 | 8.5 | 8.3 | --- | --- | 9.8 | 9.5 | --- | --- | 11.0 | 10.9 |
| 12 | 8.3 | 8.1 | 8.5 | 8.5 | --- | --- | 9.8 | 9.5 | --- | --- | 11.0 | 10.9 |
| 13 | 8.3 | 8.1 | 8.5 | 8.3 | --- | --- | 9.8 | 9.5 | --- | --- | 11.2 | 10.9 |
| 14 | 8.3 | 8.1 | 8.5 | 8.5 | --- | --- | 9.8 | 9.5 | --- | --- | 11.2 | 10.9 |
| 15 | 8.3 | 8.1 | 8.5 | 8.5 | --- | --- | 9.9 | 9.5 | --- | --- | 11.2 | 10.9 |
| 16 | 8.3 | 8.1 | 8.5 | 8.5 | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 17 | 8.3 | 8.1 | 8.7 | 8.5 | --- | --- | --- | --- | --- | --- | 11.0 | 10.9 |
| 18 | 8.3 | 8.1 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 19 | 8.3 | 8.1 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 20 | 8.3 | 8.1 | --- | --- | --- | --- | --- | --- | --- | --- | 11.0 | 10.9 |
| 21 | 8.3 | 8.1 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 22 | 8.3 | 8.1 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 23 | 8.3 | 8.1 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 24 | 8.3 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 25 | 8.3 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 10.9 |
| 26 | 8.5 | 8.2 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 11.0 |
| 27 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 11.0 |
| 28 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | 11.4 | 11.0 |
| 29 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | 11.4 | 11.1 |
| 30 | 8.5 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- | 11.2 | 11.1 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 8.5 | 7.9 | 8.7 | 8.3 | --- | --- | 9.9 | 9.3 | --- | --- | 11.4 | 10.7 |
| YEAR | 12.0 | 7.9 | | | | | | | | | | |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 18.6 | 15.2 | --- | --- | 7.3 | 4.5 | 4.7 | 3.7 | .5 | .5 | 9.0 | 6.0 |
| 2 | 19.0 | 17.1 | --- | --- | 5.7 | 3.9 | 6.8 | 4.7 | .5 | .5 | 9.4 | 6.6 |
| 3 | 18.1 | 14.7 | --- | --- | 3.9 | 3.0 | 8.3 | 6.8 | .6 | .5 | 6.6 | 4.8 |
| 4 | 15.5 | 12.7 | --- | --- | 3.5 | 3.2 | 9.9 | 8.2 | 1.8 | .5 | 5.4 | 4.5 |
| 5 | 16.0 | 12.5 | --- | --- | 3.2 | 2.5 | 10.1 | 6.5 | 1.7 | .9 | 5.7 | 4.9 |
| 6 | 16.7 | 13.3 | --- | --- | 3.0 | 2.5 | 6.5 | 3.3 | .9 | .8 | 4.9 | 3.0 |
| 7 | 17.4 | 13.6 | --- | --- | 4.0 | 2.8 | 3.3 | 2.2 | .8 | .7 | 3.6 | 2.2 |
| 8 | 16.7 | 14.7 | --- | --- | 3.2 | 2.3 | 2.2 | 1.7 | .8 | .7 | 4.3 | 3.1 |
| 9 | 15.9 | 13.2 | --- | --- | 2.6 | 2.3 | 1.7 | 1.5 | .8 | .7 | 4.9 | 2.5 |
| 10 | 13.2 | 11.8 | --- | --- | 3.4 | 2.4 | 1.5 | 1.5 | .8 | .7 | 6.2 | 3.5 |
| 11 | 13.4 | 11.3 | --- | --- | 6.3 | 3.4 | 1.5 | 1.4 | .7 | .7 | 5.2 | 4.1 |
| 12 | 13.5 | 10.8 | --- | --- | 6.8 | 5.7 | 1.5 | 1.3 | .7 | .7 | 5.6 | 2.7 |
| 13 | 15.2 | 12.8 | --- | --- | 6.2 | 4.9 | 1.3 | 1.2 | .7 | .7 | 4.7 | 3.4 |
| 14 | 15.7 | 14.0 | --- | --- | 5.5 | 4.0 | 1.2 | 1.1 | .7 | .7 | 5.7 | 3.8 |
| 15 | 15.0 | 12.5 | --- | --- | 4.7 | 3.3 | 1.1 | .9 | .7 | .7 | 3.9 | 2.4 |
| 16 | --- | --- | --- | --- | 5.1 | 4.7 | 1.0 | .9 | .7 | .6 | 3.1 | 1.7 |
| 17 | --- | --- | --- | --- | 5.4 | 4.4 | 1.0 | .9 | .7 | .6 | 3.9 | 2.0 |
| 18 | --- | --- | --- | --- | 4.4 | 2.5 | .9 | .7 | 1.8 | .6 | 3.9 | 3.2 |
| 19 | --- | --- | --- | --- | 2.5 | 1.7 | .8 | .6 | 3.4 | 1.8 | 5.3 | 2.2 |
| 20 | --- | --- | --- | --- | 1.7 | 1.2 | .7 | .6 | 4.4 | 1.9 | 5.4 | 3.6 |
| 21 | --- | --- | --- | --- | 1.2 | 1.1 | .7 | .5 | 7.5 | 4.4 | 7.5 | 4.0 |
| 22 | --- | --- | 3.8 | 2.9 | 1.1 | .9 | 1.2 | .4 | 7.5 | 3.5 | 7.5 | 5.0 |
| 23 | --- | --- | 3.8 | 2.6 | 2.3 | .8 | 1.2 | .7 | 3.5 | 2.4 | 5.4 | 3.7 |
| 24 | --- | --- | 4.5 | 3.8 | 3.3 | 1.7 | .7 | .5 | 3.0 | 1.8 | 5.4 | 2.7 |
| 25 | --- | --- | 4.8 | 4.5 | 1.7 | 1.2 | .7 | .5 | 2.7 | 1.5 | 6.9 | 4.5 |
| 26 | --- | --- | 4.6 | 2.9 | 1.2 | 1.1 | .7 | .7 | 3.1 | 1.6 | 6.6 | 5.1 |
| 27 | --- | --- | 2.9 | 2.2 | 1.4 | 1.1 | .7 | .4 | 6.3 | 3.1 | 8.8 | 4.5 |
| 28 | --- | --- | 2.4 | 2.0 | 6.1 | 1.4 | .6 | .4 | 6.9 | 3.9 | 9.3 | 6.8 |
| 29 | --- | --- | 2.3 | 1.7 | 6.6 | 5.7 | .6 | .5 | --- | --- | 9.2 | 8.3 |
| 30 | --- | --- | 4.5 | 2.3 | 5.8 | 4.9 | .5 | .5 | --- | --- | 8.3 | 7.1 |
| 31 | --- | --- | --- | --- | 5.5 | 4.4 | .5 | .5 | --- | --- | 7.1 | 5.0 |
| MONTH | 19.0 | 10.8 | 4.8 | 1.7 | 7.3 | .8 | 10.1 | .4 | 7.5 | .5 | 9.4 | 1.7 |

403923082325500 R-16 NR LEXINGTON OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.5 | 3.6 | 12.6 | 10.0 | --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | 8.8 | 4.5 | 10.3 | 8.3 | --- | --- | --- | --- | --- | --- | --- | --- |
| 3 | 8.9 | 5.9 | 11.2 | 9.9 | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 12.1 | 8.1 | 11.4 | 9.0 | --- | --- | --- | --- | --- | --- | 18.6 | 16.4 |
| 5 | 11.5 | 10.5 | 10.6 | 8.7 | --- | --- | --- | --- | --- | --- | 18.9 | 15.9 |
| 6 | 12.9 | 11.0 | 11.7 | 9.7 | --- | --- | --- | --- | --- | --- | 19.3 | 17.7 |
| 7 | 11.7 | 8.2 | 12.3 | 8.9 | --- | --- | --- | --- | --- | --- | 20.0 | 17.8 |
| 8 | 8.8 | 6.1 | 11.7 | 10.3 | --- | --- | 21.2 | 18.8 | --- | --- | 20.2 | 18.3 |
| 9 | 6.5 | 4.2 | 10.6 | 9.7 | --- | --- | 20.8 | 18.7 | --- | --- | 19.9 | 18.9 |
| 10 | 7.3 | 3.7 | 9.8 | 8.6 | --- | --- | 19.8 | 17.4 | --- | --- | 19.5 | 19.0 |
| 11 | 8.1 | 6.0 | 11.0 | 7.7 | --- | --- | 20.5 | 17.6 | --- | --- | 19.2 | 18.6 |
| 12 | 8.4 | 6.7 | 12.5 | 10.4 | --- | --- | 21.4 | 18.5 | --- | --- | 18.6 | 17.9 |
| 13 | 8.3 | 5.9 | 11.7 | 9.7 | --- | --- | 21.8 | 19.0 | --- | --- | 18.3 | 17.0 |
| 14 | 7.7 | 4.6 | 11.6 | 9.9 | --- | --- | 22.4 | 19.9 | --- | --- | 19.0 | 17.1 |
| 15 | 9.0 | 5.3 | 11.3 | 10.2 | --- | --- | 22.6 | 21.1 | --- | --- | 19.8 | 18.2 |
| 16 | 8.2 | 6.7 | 11.4 | 9.1 | --- | --- | --- | --- | --- | --- | 20.2 | 18.0 |
| 17 | 7.4 | 5.8 | 13.8 | 10.1 | --- | --- | --- | --- | --- | --- | 19.8 | 19.2 |
| 18 | 7.6 | 4.8 | --- | --- | --- | --- | --- | --- | --- | --- | 19.9 | 17.4 |
| 19 | 8.6 | 5.0 | --- | --- | --- | --- | --- | --- | --- | --- | 19.4 | 17.6 |
| 20 | 9.2 | 5.5 | --- | --- | --- | --- | --- | --- | --- | --- | 19.5 | 18.6 |
| 21 | 10.0 | 7.6 | --- | --- | --- | --- | --- | --- | --- | --- | 18.6 | 16.8 |
| 22 | 10.3 | 8.8 | --- | --- | --- | --- | --- | --- | --- | --- | 17.4 | 15.4 |
| 23 | 10.1 | 8.5 | --- | --- | --- | --- | --- | --- | --- | --- | 17.0 | 16.2 |
| 24 | 10.4 | 8.8 | --- | --- | --- | --- | --- | --- | --- | --- | 17.1 | 15.1 |
| 25 | 10.4 | 8.9 | --- | --- | --- | --- | --- | --- | --- | --- | 17.0 | 14.5 |
| 26 | 11.8 | 7.8 | --- | --- | --- | --- | --- | --- | --- | --- | 16.9 | 15.2 |
| 27 | 11.1 | 9.6 | --- | --- | --- | --- | --- | --- | --- | --- | 17.1 | 14.2 |
| 28 | 11.9 | 9.3 | --- | --- | --- | --- | --- | --- | --- | --- | 17.6 | 15.1 |
| 29 | 12.8 | 8.7 | --- | --- | --- | --- | --- | --- | --- | --- | 17.3 | 15.9 |
| 30 | 12.8 | 9.8 | --- | --- | --- | --- | --- | --- | --- | --- | 16.9 | 15.9 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 12.9 | 3.6 | 13.8 | 7.7 | --- | --- | 22.6 | 17.4 | --- | --- | 20.2 | 14.2 |
| YEAR | 22.6 | .4 | | | | | | | | | | |

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | --- | .74 | .00 | .00 | .47 | .00 | .27 | --- | --- | --- | --- |
| 2 | .00 | --- | .00 | .02 | .00 | .29 | .00 | .64 | --- | --- | --- | --- |
| 3 | .00 | --- | .09 | .00 | .00 | .03 | .00 | .43 | --- | --- | --- | --- |
| 4 | .00 | --- | .00 | .00 | 1.14 | .00 | .01 | .00 | --- | --- | --- | .00 |
| 5 | .00 | --- | .11 | .30 | .00 | 1.26 | .22 | .26 | --- | --- | --- | .00 |
| 6 | .00 | --- | .03 | .00 | .00 | .01 | .00 | .00 | --- | --- | --- | .01 |
| 7 | .00 | --- | .00 | .00 | .00 | .01 | .00 | .00 | --- | --- | --- | .00 |
| 8 | .00 | --- | .00 | .00 | .04 | .00 | .00 | .62 | --- | .00 | --- | .00 |
| 9 | .34 | --- | .04 | .03 | .00 | .70 | .00 | .03 | --- | 2.39 | --- | .69 |
| 10 | .03 | --- | .00 | .00 | .00 | .00 | .00 | .01 | --- | .00 | --- | .95 |
| 11 | .00 | --- | 2.22 | .00 | .00 | .00 | .00 | .00 | --- | .00 | --- | .00 |
| 12 | .00 | --- | .11 | .00 | .01 | .00 | .73 | .05 | --- | .00 | --- | .00 |
| 13 | .00 | --- | .01 | .00 | .00 | .36 | .05 | .00 | --- | .00 | --- | .00 |
| 14 | .00 | --- | .00 | .00 | .02 | .84 | .01 | .15 | --- | .00 | --- | .00 |
| 15 | .00 | --- | .00 | .45 | .00 | .00 | .00 | .01 | --- | .00 | --- | .00 |
| 16 | --- | --- | .55 | .00 | .00 | .00 | .35 | .00 | --- | --- | --- | .00 |
| 17 | --- | --- | .90 | .00 | .04 | .00 | .04 | .01 | --- | --- | --- | .01 |
| 18 | --- | --- | .01 | .00 | .00 | .14 | .01 | --- | --- | --- | --- | .00 |
| 19 | --- | --- | .00 | .00 | .11 | .00 | .00 | --- | --- | --- | --- | .12 |
| 20 | --- | --- | .00 | .00 | .07 | .00 | .00 | --- | --- | --- | --- | .48 |
| 21 | --- | --- | .00 | .00 | .00 | .05 | .00 | --- | --- | --- | --- | .00 |
| 22 | --- | .00 | .04 | .57 | .01 | .01 | .00 | --- | --- | --- | --- | .00 |
| 23 | --- | .00 | 1.35 | .00 | .00 | .00 | .00 | --- | --- | --- | --- | .14 |
| 24 | --- | .15 | .11 | .29 | .00 | .00 | .00 | --- | --- | --- | --- | .00 |
| 25 | --- | 1.14 | .00 | .01 | .00 | .30 | .06 | --- | --- | --- | --- | .00 |
| 26 | --- | .17 | .00 | .00 | .69 | .00 | .00 | --- | --- | --- | --- | .00 |
| 27 | --- | .00 | .03 | .33 | .15 | .00 | .24 | --- | --- | --- | --- | .00 |
| 28 | --- | .01 | .00 | .00 | .00 | .38 | .07 | --- | --- | --- | --- | .00 |
| 29 | --- | .01 | .00 | .00 | --- | .42 | .00 | --- | --- | --- | --- | .01 |
| 30 | --- | .42 | .00 | .02 | --- | .11 | .00 | --- | --- | --- | --- | .06 |
| 31 | --- | --- | .00 | .00 | --- | .01 | --- | --- | --- | --- | --- | --- |
| TOTAL | 0.37 | 1.90 | 6.34 | 2.02 | 2.28 | 5.39 | 1.79 | 2.48 | --- | 2.39 | --- | 2.47 |

WTR YR 1997 TOTAL 27.43

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; 0.010-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 temperature, soil temperature, water temperature and specific conductance. Conductivity/water temperature probe set at 10.8 ft below land surface from February 1991, through July 1992, when removed; probe reinstalled August 1994 through current year at at depth of 13.4 ft below land surface.

DATUM.--Elevation of land-surface datum is 1068.39 ft above sea level. Measuring point: shelter shelf 2.20 ft above land-surface datum.

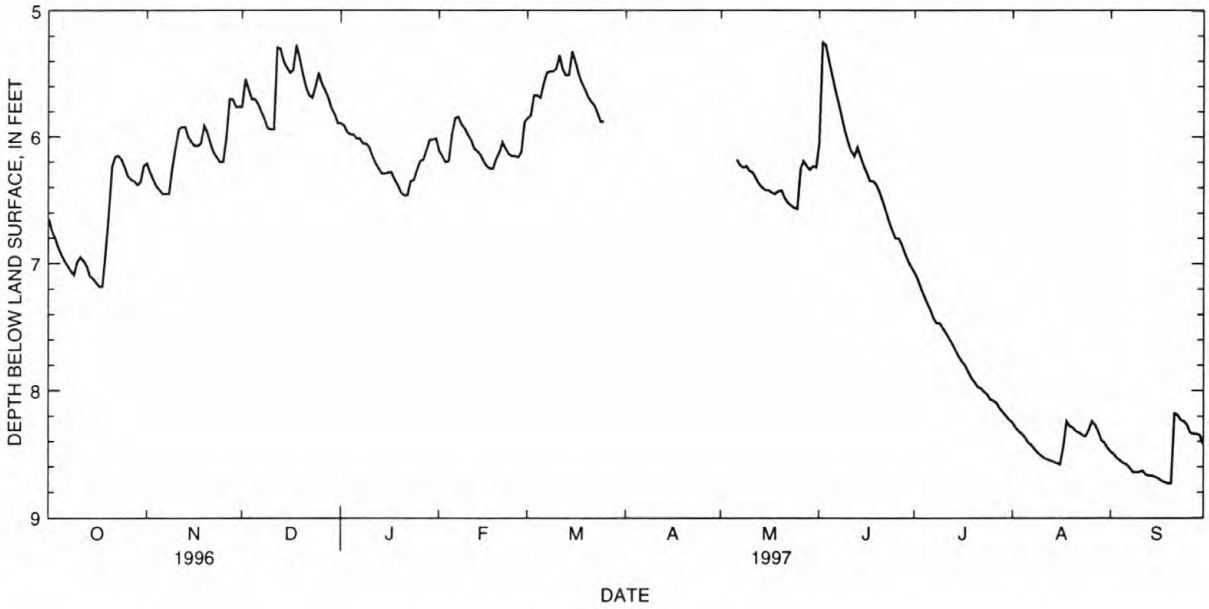
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells are available in preceding tables.

PERIOD OF RECORD.--February 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: February 1991 to July 1992; September 1994 to current year.
AIR TEMPERATURE: February 1991 to current year.
SOIL TEMPERATURE: July 1992 to current year.
PRECIPITATION: February 1991 to current year. (Incomplete data this year due to malfunctioning of raingage).
WATER TEMPERATURE: February 1991 to July 1992; September 1994 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD:
WATER LEVEL: Maximum daily low, 9.45 ft below land-surface datum, October 9-10, 1991; maximum daily high, 4.35 ft below land-surface datum, April 13, 1994.
SPECIFIC CONDUCTANCE: Maximum, 2540 microsiemens December 19-20, 22-28, 1991; minimum, 242 microsiemens April 10, 1992.
AIR TEMPERATURE: Maximum, 36.0°C August 2, 1991; minimum, -32.2°C January 19, 1994.
WATER TEMPERATURE: Maximum, 14.8°C October 1, 1991; minimum, 6.1°C March 23-28, 1996.
SOIL TEMPERATURE: Maximum, 28.5°C August 11, 1992; minimum, -0.4°C February 10-14, 1994.

EXTREMES FOR CURRENT YEAR:
WATER LEVEL: Maximum daily low, 8.73 ft below land-surface datum, September 19-20, 1997; maximum daily high, 5.20 ft below land-surface datum, June 2-3, 1997.
SPECIFIC CONDUCTANCE: Maximum, 1500 microsiemens June 6, 9-10, 1997; minimum, 341 microsiemens January 4-6, 1997.
AIR TEMPERATURE: Maximum, 33.8°C June 25, 1997; minimum, -25.1°C January 19, 1997.
WATER TEMPERATURE: Maximum, 13.5°C October 13, 1996; minimum, 6.6°C March 25, 1997.
SOIL TEMPERATURE: Maximum, 22.1°C July 27, 1997; minimum, 0.3°C January 30, 1997.



411138081172500 PO-116 NR RAVENNA OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 6.65 | 6.61 | 6.62 | 6.21 | 6.21 | 6.21 | 5.76 | 5.53 | 5.62 | 5.89 | 5.89 | 5.89 |
| 2 | 6.74 | 6.65 | 6.68 | 6.28 | 6.21 | 6.23 | 5.54 | 5.53 | 5.53 | 5.91 | 5.89 | 5.90 |
| 3 | 6.80 | 6.73 | 6.76 | 6.34 | 6.28 | 6.31 | 5.62 | 5.54 | 5.56 | 5.96 | 5.91 | 5.94 |
| 4 | 6.87 | 6.80 | 6.84 | 6.39 | 6.34 | 6.37 | 5.70 | 5.62 | 5.67 | 5.98 | 5.96 | 5.98 |
| 5 | 6.93 | 6.87 | 6.90 | 6.42 | 6.39 | 6.40 | 5.70 | 5.70 | 5.70 | 5.98 | 5.95 | 5.96 |
| 6 | 6.98 | 6.93 | 6.95 | 6.45 | 6.42 | 6.44 | 5.74 | 5.70 | 5.72 | 6.01 | 5.95 | 5.99 |
| 7 | 7.02 | 6.98 | 7.00 | 6.45 | 6.45 | 6.45 | 5.80 | 5.74 | 5.78 | 6.01 | 6.01 | 6.01 |
| 8 | 7.06 | 7.02 | 7.04 | 6.45 | 6.24 | 6.31 | 5.86 | 5.80 | 5.82 | 6.05 | 6.01 | 6.04 |
| 9 | 7.09 | 6.99 | 7.06 | 6.24 | 6.09 | 6.17 | 5.93 | 5.86 | 5.91 | 6.05 | 6.02 | 6.03 |
| 10 | 6.99 | 6.92 | 6.93 | 6.09 | 5.94 | 6.01 | 5.94 | 5.93 | 5.94 | 6.08 | 6.02 | 6.05 |
| 11 | 6.95 | 6.93 | 6.94 | 5.94 | 5.92 | 5.93 | 5.94 | 5.29 | 5.77 | 6.15 | 6.08 | 6.11 |
| 12 | 6.98 | 6.95 | 6.96 | 5.92 | 5.91 | 5.92 | 5.29 | 5.22 | 5.23 | 6.21 | 6.15 | 6.18 |
| 13 | 7.02 | 6.98 | 7.00 | 5.92 | 5.91 | 5.91 | 5.30 | 5.22 | 5.26 | 6.25 | 6.21 | 6.23 |
| 14 | 7.10 | 7.02 | 7.07 | 6.00 | 5.92 | 5.95 | 5.40 | 5.30 | 5.35 | 6.29 | 6.25 | 6.27 |
| 15 | 7.12 | 7.10 | 7.11 | 6.04 | 6.00 | 6.02 | 5.45 | 5.40 | 5.43 | 6.29 | 6.27 | 6.29 |
| 16 | 7.15 | 7.12 | 7.14 | 6.07 | 6.04 | 6.06 | 5.49 | 5.45 | 5.48 | 6.28 | 6.27 | 6.27 |
| 17 | 7.18 | 7.15 | 7.17 | 6.07 | 6.05 | 6.07 | 5.47 | 5.25 | 5.32 | 6.28 | 6.28 | 6.28 |
| 18 | 7.18 | 6.91 | 7.10 | 6.05 | 5.91 | 5.96 | 5.27 | 5.25 | 5.26 | 6.34 | 6.28 | 6.31 |
| 19 | 6.91 | 6.61 | 6.76 | 5.91 | 5.91 | 5.91 | 5.37 | 5.27 | 5.31 | 6.38 | 6.34 | 6.36 |
| 20 | 6.61 | 6.24 | 6.50 | 5.96 | 5.91 | 5.94 | 5.50 | 5.37 | 5.44 | 6.44 | 6.38 | 6.41 |
| 21 | 6.24 | 6.16 | 6.18 | 6.05 | 5.96 | 6.00 | 5.60 | 5.50 | 5.55 | 6.46 | 6.44 | 6.45 |
| 22 | 6.16 | 6.15 | 6.16 | 6.12 | 6.05 | 6.10 | 5.67 | 5.60 | 5.64 | 6.46 | 6.35 | 6.42 |
| 23 | 6.15 | 6.14 | 6.15 | 6.16 | 6.12 | 6.13 | 5.69 | 5.60 | 5.68 | 6.35 | 6.34 | 6.34 |
| 24 | 6.18 | 6.14 | 6.15 | 6.20 | 6.16 | 6.18 | 5.60 | 5.46 | 5.49 | 6.34 | 6.26 | 6.30 |
| 25 | 6.24 | 6.18 | 6.21 | 6.20 | 6.01 | 6.16 | 5.49 | 5.46 | 5.47 | 6.26 | 6.19 | 6.21 |
| 26 | 6.31 | 6.24 | 6.28 | 6.01 | 5.70 | 5.79 | 5.58 | 5.49 | 5.53 | 6.19 | 6.18 | 6.19 |
| 27 | 6.34 | 6.31 | 6.32 | 5.70 | 5.70 | 5.70 | 5.63 | 5.58 | 5.62 | 6.18 | 6.10 | 6.17 |
| 28 | 6.35 | 6.34 | 6.35 | 5.70 | 5.70 | 5.70 | 5.69 | 5.63 | 5.66 | 6.10 | 6.02 | 6.05 |
| 29 | 6.38 | 6.35 | 6.36 | 5.76 | 5.70 | 5.73 | 5.77 | 5.69 | 5.73 | 6.02 | 6.02 | 6.02 |
| 30 | 6.36 | 6.22 | 6.26 | 5.76 | 5.76 | 5.76 | 5.82 | 5.77 | 5.80 | 6.02 | 6.01 | 6.02 |
| 31 | 6.23 | 6.21 | 6.22 | --- | --- | --- | 5.89 | 5.82 | 5.85 | 6.01 | 6.01 | 6.01 |
| MONTH | 7.18 | 6.14 | 6.68 | 6.45 | 5.70 | 6.06 | 5.94 | 5.22 | 5.58 | 6.46 | 5.89 | 6.15 |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 6.11 | 6.01 | 6.07 | 5.85 | 5.83 | 5.83 | --- | --- | --- | --- | --- | --- |
| 2 | 6.15 | 6.11 | 6.13 | 5.83 | 5.67 | 5.74 | --- | --- | --- | --- | --- | --- |
| 3 | 6.20 | 6.15 | 6.18 | 5.67 | 5.64 | 5.65 | --- | --- | --- | --- | --- | --- |
| 4 | 6.19 | 5.98 | 6.12 | 5.67 | 5.64 | 5.65 | --- | --- | --- | --- | --- | --- |
| 5 | 5.98 | 5.85 | 5.89 | 5.69 | 5.58 | 5.66 | --- | --- | --- | --- | --- | --- |
| 6 | 5.85 | 5.84 | 5.85 | 5.58 | 5.48 | 5.51 | --- | --- | --- | 6.18 | 6.12 | 6.14 |
| 7 | 5.84 | 5.84 | 5.84 | 5.49 | 5.48 | 5.48 | --- | --- | --- | 6.22 | 6.18 | 6.20 |
| 8 | 5.90 | 5.84 | 5.86 | 5.48 | 5.47 | 5.47 | --- | --- | --- | 6.24 | 6.21 | 6.22 |
| 9 | 5.93 | 5.90 | 5.92 | 5.48 | 5.46 | 5.48 | --- | --- | --- | 6.23 | 6.20 | 6.21 |
| 10 | 5.98 | 5.93 | 5.96 | 5.46 | 5.31 | 5.35 | --- | --- | --- | 6.27 | 6.23 | 6.26 |
| 11 | 6.02 | 5.98 | 6.00 | 5.35 | 5.31 | 5.32 | --- | --- | --- | 6.28 | 6.27 | 6.28 |
| 12 | 6.09 | 6.02 | 6.05 | 5.46 | 5.35 | 5.41 | --- | --- | --- | 6.33 | 6.28 | 6.30 |
| 13 | 6.11 | 6.09 | 6.10 | 5.51 | 5.46 | 5.49 | --- | --- | --- | 6.37 | 6.33 | 6.35 |
| 14 | 6.14 | 6.11 | 6.12 | 5.51 | 5.30 | 5.37 | --- | --- | --- | 6.40 | 6.37 | 6.39 |
| 15 | 6.19 | 6.14 | 6.16 | 5.32 | 5.30 | 5.30 | --- | --- | --- | 6.42 | 6.40 | 6.40 |
| 16 | 6.23 | 6.19 | 6.20 | 5.40 | 5.32 | 5.37 | --- | --- | --- | 6.42 | 6.40 | 6.41 |
| 17 | 6.25 | 6.23 | 6.24 | 5.50 | 5.40 | 5.43 | --- | --- | --- | 6.44 | 6.39 | 6.41 |
| 18 | 6.25 | 6.17 | 6.23 | 5.57 | 5.50 | 5.55 | --- | --- | --- | 6.45 | 6.43 | 6.45 |
| 19 | 6.17 | 6.12 | 6.14 | 5.62 | 5.57 | 5.59 | --- | --- | --- | 6.43 | 6.40 | 6.42 |
| 20 | 6.12 | 6.04 | 6.09 | 5.68 | 5.62 | 5.64 | --- | --- | --- | 6.42 | 6.40 | 6.40 |
| 21 | 6.04 | 6.00 | 6.02 | 5.72 | 5.68 | 5.70 | --- | --- | --- | 6.48 | 6.42 | 6.46 |
| 22 | 6.09 | 6.00 | 6.04 | 5.75 | 5.72 | 5.74 | --- | --- | --- | 6.52 | 6.48 | 6.50 |
| 23 | 6.13 | 6.09 | 6.10 | 5.81 | 5.75 | 5.78 | --- | --- | --- | 6.54 | 6.52 | 6.53 |
| 24 | 6.15 | 6.13 | 6.14 | 5.88 | 5.81 | 5.85 | --- | --- | --- | 6.56 | 6.54 | 6.55 |
| 25 | 6.15 | 6.15 | 6.15 | 5.88 | 5.88 | 5.88 | --- | --- | --- | 6.57 | 6.25 | 6.43 |
| 26 | 6.16 | 6.12 | 6.15 | --- | --- | --- | --- | --- | --- | 6.25 | 6.15 | 6.18 |
| 27 | 6.12 | 5.88 | 5.96 | --- | --- | --- | --- | --- | --- | 6.19 | 6.15 | 6.16 |
| 28 | 5.88 | 5.85 | 5.87 | --- | --- | --- | --- | --- | --- | 6.23 | 6.19 | 6.21 |
| 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.26 | 6.21 | 6.24 |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.23 | 6.21 | 6.21 |
| 31 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.24 | 6.05 | 6.20 |
| MONTH | 6.25 | 5.84 | 6.06 | 5.88 | 5.30 | 5.57 | --- | --- | --- | 6.57 | 6.05 | 6.33 |

411138081172500 PO-116 NR RAVENNA OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 6.05 | 5.24 | 5.66 | 7.07 | 7.03 | 7.05 | 8.25 | 8.23 | 8.24 | 8.48 | 8.45 | 8.47 |
| 2 | 5.25 | 5.20 | 5.23 | 7.12 | 7.07 | 7.10 | 8.29 | 8.25 | 8.27 | 8.50 | 8.48 | 8.48 |
| 3 | 5.27 | 5.20 | 5.23 | 7.19 | 7.12 | 7.15 | 8.32 | 8.29 | 8.31 | 8.53 | 8.50 | 8.51 |
| 4 | 5.40 | 5.27 | 5.33 | 7.25 | 7.19 | 7.22 | 8.34 | 8.32 | 8.33 | 8.55 | 8.53 | 8.54 |
| 5 | 5.51 | 5.40 | 5.45 | 7.31 | 7.25 | 7.28 | 8.37 | 8.34 | 8.35 | 8.57 | 8.55 | 8.56 |
| 6 | 5.63 | 5.51 | 5.57 | 7.36 | 7.31 | 7.34 | 8.41 | 8.37 | 8.38 | 8.58 | 8.57 | 8.57 |
| 7 | 5.73 | 5.63 | 5.68 | 7.43 | 7.36 | 7.40 | 8.43 | 8.41 | 8.42 | 8.61 | 8.58 | 8.60 |
| 8 | 5.84 | 5.73 | 5.78 | 7.47 | 7.43 | 7.45 | 8.46 | 8.43 | 8.44 | 8.64 | 8.61 | 8.62 |
| 9 | 5.95 | 5.84 | 5.90 | 7.47 | 7.45 | 7.46 | 8.49 | 8.46 | 8.47 | 8.64 | 8.64 | 8.64 |
| 10 | 6.04 | 5.95 | 5.99 | 7.51 | 7.47 | 7.48 | 8.51 | 8.49 | 8.50 | 8.64 | 8.62 | 8.64 |
| 11 | 6.11 | 6.04 | 6.08 | 7.55 | 7.51 | 7.53 | 8.53 | 8.51 | 8.52 | 8.63 | 8.61 | 8.62 |
| 12 | 6.15 | 6.08 | 6.12 | 7.59 | 7.55 | 7.57 | 8.54 | 8.53 | 8.53 | 8.66 | 8.62 | 8.63 |
| 13 | 6.08 | 6.03 | 6.04 | 7.63 | 7.59 | 7.61 | 8.55 | 8.54 | 8.54 | 8.67 | 8.66 | 8.66 |
| 14 | 6.16 | 6.06 | 6.12 | 7.68 | 7.63 | 7.65 | 8.56 | 8.55 | 8.55 | 8.67 | 8.67 | 8.67 |
| 15 | 6.23 | 6.16 | 6.20 | 7.73 | 7.68 | 7.70 | 8.57 | 8.56 | 8.56 | 8.68 | 8.67 | 8.67 |
| 16 | 6.29 | 6.23 | 6.26 | 7.77 | 7.73 | 7.75 | 8.58 | 8.44 | 8.56 | 8.69 | 8.68 | 8.69 |
| 17 | 6.35 | 6.29 | 6.32 | 7.80 | 7.77 | 7.78 | 8.44 | 8.23 | 8.35 | 8.71 | 8.69 | 8.69 |
| 18 | 6.35 | 6.29 | 6.32 | 7.85 | 7.80 | 7.82 | 8.24 | 8.21 | 8.22 | 8.72 | 8.71 | 8.72 |
| 19 | 6.38 | 6.31 | 6.35 | 7.90 | 7.85 | 7.87 | 8.28 | 8.24 | 8.26 | 8.73 | 8.72 | 8.72 |
| 20 | 6.44 | 6.38 | 6.41 | 7.93 | 7.90 | 7.91 | 8.29 | 8.28 | 8.28 | 8.73 | 8.16 | 8.29 |
| 21 | 6.51 | 6.44 | 6.47 | 7.97 | 7.93 | 7.95 | 8.32 | 8.29 | 8.31 | 8.18 | 8.16 | 8.17 |
| 22 | 6.59 | 6.51 | 6.55 | 7.98 | 7.97 | 7.98 | 8.33 | 8.32 | 8.33 | 8.19 | 8.18 | 8.19 |
| 23 | 6.67 | 6.59 | 6.63 | 8.01 | 7.98 | 7.99 | 8.35 | 8.33 | 8.33 | 8.23 | 8.19 | 8.21 |
| 24 | 6.74 | 6.67 | 6.70 | 8.03 | 8.01 | 8.02 | 8.36 | 8.31 | 8.35 | 8.24 | 8.23 | 8.23 |
| 25 | 6.80 | 6.74 | 6.77 | 8.07 | 8.03 | 8.05 | 8.31 | 8.23 | 8.25 | 8.27 | 8.24 | 8.25 |
| 26 | 6.80 | 6.78 | 6.78 | 8.08 | 8.07 | 8.07 | 8.24 | 8.23 | 8.23 | 8.33 | 8.27 | 8.30 |
| 27 | 6.85 | 6.80 | 6.82 | 8.10 | 8.08 | 8.09 | 8.27 | 8.24 | 8.25 | 8.34 | 8.33 | 8.33 |
| 28 | 6.92 | 6.85 | 6.88 | 8.14 | 8.10 | 8.11 | 8.32 | 8.27 | 8.29 | 8.34 | 8.34 | 8.34 |
| 29 | 6.98 | 6.92 | 6.95 | 8.17 | 8.14 | 8.15 | 8.39 | 8.32 | 8.35 | 8.35 | 8.34 | 8.34 |
| 30 | 7.03 | 6.98 | 7.01 | 8.20 | 8.17 | 8.18 | 8.41 | 8.39 | 8.40 | 8.42 | 8.35 | 8.39 |
| 31 | --- | --- | --- | 8.23 | 8.20 | 8.21 | 8.45 | 8.41 | 8.43 | --- | --- | --- |
| MONTH | 7.03 | 5.20 | 6.19 | 8.23 | 7.03 | 7.71 | 8.58 | 8.21 | 8.37 | 8.73 | 8.16 | 8.49 |
| YEAR | 8.73 | 5.20 | 6.68 | | | | | | | | | |

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 1220 | 1210 | 1350 | 1340 | 744 | 598 | 345 | 343 | 481 | 474 | 855 | 836 |
| 2 | 1220 | 1210 | 1350 | 1340 | 598 | 467 | 344 | 342 | 489 | 481 | 864 | 852 |
| 3 | 1220 | 1210 | 1340 | 1330 | 467 | 447 | 344 | 342 | 534 | 489 | 878 | 864 |
| 4 | 1220 | 1210 | 1340 | 1330 | 447 | 445 | 344 | 341 | 551 | 534 | 887 | 878 |
| 5 | 1220 | 1210 | 1360 | 1330 | 447 | 445 | 343 | 341 | 566 | 551 | 889 | 886 |
| 6 | 1230 | 1220 | 1370 | 1360 | 450 | 447 | 343 | 341 | 586 | 566 | 888 | 886 |
| 7 | 1230 | 1220 | 1380 | 1370 | 450 | 446 | 344 | 342 | 612 | 586 | 889 | 885 |
| 8 | 1230 | 1220 | 1380 | 1370 | 448 | 445 | 345 | 343 | 637 | 612 | 886 | 884 |
| 9 | 1230 | 1230 | 1370 | 1370 | 445 | 439 | 345 | 343 | 657 | 637 | 886 | 881 |
| 10 | 1230 | 1230 | 1370 | 1370 | 440 | 436 | 347 | 345 | 676 | 657 | 882 | 877 |
| 11 | 1240 | 1220 | 1370 | 1360 | 456 | 435 | 349 | 346 | 690 | 676 | 879 | 870 |
| 12 | 1230 | 1220 | 1360 | 1360 | 456 | 424 | 352 | 348 | 700 | 690 | 871 | 863 |
| 13 | 1240 | 1230 | 1360 | 1360 | 424 | 398 | 355 | 350 | 714 | 699 | 863 | 852 |
| 14 | 1240 | 1230 | 1360 | 1360 | 398 | 388 | 360 | 355 | 724 | 714 | 852 | 815 |
| 15 | 1250 | 1230 | 1370 | 1360 | 388 | 383 | 375 | 360 | 727 | 721 | 815 | 799 |
| 16 | 1250 | 1240 | 1370 | 1360 | 384 | 378 | 381 | 375 | 727 | 723 | 799 | 789 |
| 17 | 1260 | 1240 | 1360 | 1360 | 386 | 378 | 387 | 381 | 727 | 722 | 789 | 777 |
| 18 | 1260 | 1250 | 1360 | 1360 | 384 | 376 | 395 | 387 | 725 | 720 | 777 | 755 |
| 19 | 1270 | 1260 | 1370 | 1360 | 377 | 364 | 399 | 395 | 724 | 723 | 756 | 734 |
| 20 | 1280 | 1270 | 1370 | 1360 | 366 | 361 | 408 | 399 | 724 | 719 | 735 | 722 |
| 21 | 1290 | 1280 | 1370 | 1360 | 361 | 358 | 413 | 407 | 742 | 722 | 722 | 710 |
| 22 | 1300 | 1290 | 1370 | 1360 | 361 | 358 | 419 | 413 | 770 | 736 | 710 | 705 |
| 23 | 1310 | 1300 | 1370 | 1360 | 367 | 361 | 426 | 419 | 794 | 769 | 706 | 702 |
| 24 | 1320 | 1310 | 1370 | 1360 | 377 | 366 | 432 | 426 | 811 | 794 | 703 | 697 |
| 25 | 1320 | 1310 | 1370 | 1360 | 376 | 372 | 436 | 430 | 821 | 811 | 702 | 696 |
| 26 | 1330 | 1320 | 1370 | 1330 | 372 | 360 | 439 | 436 | 824 | 817 | --- | --- |
| 27 | 1340 | 1330 | 1330 | 1230 | 362 | 356 | 443 | 439 | 823 | 817 | --- | --- |
| 28 | 1340 | 1330 | 1230 | 1070 | 357 | 351 | 451 | 443 | 836 | 823 | --- | --- |
| 29 | 1350 | 1340 | 1070 | 897 | 351 | 349 | 455 | 451 | --- | --- | --- | --- |
| 30 | 1350 | 1340 | 897 | 744 | 349 | 347 | 462 | 454 | --- | --- | --- | --- |
| 31 | 1350 | 1340 | --- | --- | 347 | 345 | 474 | 462 | --- | --- | --- | --- |
| MONTH | 1350 | 1210 | 1380 | 744 | 744 | 345 | 474 | 341 | 836 | 474 | 889 | 696 |

411138081172500 PO-116 NR RAVENNA OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | --- | --- | 1460 | 1450 | 1410 | 1390 | 1390 | 1380 | 1360 | 1330 |
| 2 | --- | --- | --- | --- | 1470 | 1450 | 1420 | 1390 | 1390 | 1380 | 1360 | 1330 |
| 3 | --- | --- | --- | --- | 1490 | 1470 | 1400 | 1400 | 1390 | 1380 | 1340 | 1330 |
| 4 | --- | --- | --- | --- | 1490 | 1480 | 1410 | 1390 | 1390 | 1380 | 1350 | 1330 |
| 5 | --- | --- | --- | --- | 1490 | 1470 | 1410 | 1390 | 1380 | 1370 | 1350 | 1330 |
| 6 | --- | --- | 1220 | 1190 | 1500 | 1470 | 1410 | 1390 | 1380 | 1370 | 1360 | 1340 |
| 7 | --- | --- | 1260 | 1220 | 1490 | 1470 | 1410 | 1390 | 1380 | 1360 | 1360 | 1340 |
| 8 | --- | --- | 1290 | 1260 | 1490 | 1470 | 1410 | 1390 | 1380 | 1360 | 1350 | 1340 |
| 9 | --- | --- | 1320 | 1290 | 1500 | 1470 | 1400 | 1390 | 1370 | 1360 | 1350 | 1340 |
| 10 | --- | --- | 1350 | 1320 | 1500 | 1470 | 1410 | 1400 | 1370 | 1350 | 1350 | 1340 |
| 11 | --- | --- | 1380 | 1350 | 1480 | 1460 | 1420 | 1400 | 1360 | 1350 | 1360 | 1350 |
| 12 | --- | --- | 1390 | 1370 | 1470 | 1450 | 1420 | 1400 | 1360 | 1350 | 1360 | 1350 |
| 13 | --- | --- | 1410 | 1390 | 1470 | 1450 | 1420 | 1390 | 1350 | 1340 | 1360 | 1350 |
| 14 | --- | --- | 1430 | 1410 | 1460 | 1450 | 1420 | 1390 | 1350 | 1340 | 1360 | 1350 |
| 15 | --- | --- | 1440 | 1430 | 1470 | 1440 | 1420 | 1400 | 1350 | 1340 | 1370 | 1350 |
| 16 | --- | --- | 1450 | 1440 | 1450 | 1430 | 1420 | 1390 | 1350 | 1340 | 1380 | 1360 |
| 17 | --- | --- | 1460 | 1440 | 1450 | 1430 | 1410 | 1390 | 1340 | 1330 | 1370 | 1360 |
| 18 | --- | --- | 1480 | 1460 | 1430 | 1420 | 1420 | 1390 | 1340 | 1320 | 1390 | 1360 |
| 19 | --- | --- | 1470 | 1460 | 1440 | 1420 | 1410 | 1390 | 1330 | 1320 | 1380 | 1370 |
| 20 | --- | --- | 1480 | 1460 | 1450 | 1420 | 1410 | 1390 | 1330 | 1320 | 1390 | 1370 |
| 21 | --- | --- | 1480 | 1470 | 1440 | 1410 | 1400 | 1390 | 1330 | 1320 | 1390 | 1380 |
| 22 | --- | --- | 1490 | 1480 | 1440 | 1410 | 1400 | 1390 | 1330 | 1330 | 1400 | 1390 |
| 23 | --- | --- | 1490 | 1480 | 1450 | 1410 | 1400 | 1400 | 1340 | 1330 | 1400 | 1390 |
| 24 | --- | --- | 1490 | 1470 | 1450 | 1420 | 1410 | 1400 | 1340 | 1330 | 1400 | 1390 |
| 25 | --- | --- | 1480 | 1470 | 1450 | 1420 | 1410 | 1400 | 1340 | 1330 | 1400 | 1400 |
| 26 | --- | --- | 1470 | 1460 | 1420 | 1400 | 1400 | 1400 | 1340 | 1330 | 1410 | 1400 |
| 27 | --- | --- | 1470 | 1460 | 1430 | 1400 | 1420 | 1400 | 1340 | 1330 | 1410 | 1400 |
| 28 | --- | --- | 1470 | 1450 | 1430 | 1400 | 1400 | 1400 | 1340 | 1330 | 1410 | 1400 |
| 29 | --- | --- | 1460 | 1450 | 1420 | 1400 | 1400 | 1390 | 1340 | 1330 | 1410 | 1400 |
| 30 | --- | --- | 1450 | 1440 | 1410 | 1400 | 1410 | 1390 | 1350 | 1330 | 1410 | 1400 |
| 31 | --- | --- | 1460 | 1450 | --- | --- | 1410 | 1380 | 1340 | 1340 | --- | --- |
| MONTH | --- | --- | 1490 | 1190 | 1500 | 1400 | 1420 | 1380 | 1390 | 1320 | 1410 | 1330 |
| YEAR | 1500 | 341 | | | | | | | | | | |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 24.8 | 6.3 | 7.7 | -.6 | 16.7 | .0 | 7.3 | -6.7 | 4.5 | -.7 | 17.8 | 5.7 |
| 2 | 24.4 | 10.0 | 1.4 | -2.5 | 4.1 | -4.8 | 12.1 | 7.3 | 6.5 | -.8 | 14.8 | -1.5 |
| 3 | 12.7 | 3.3 | 6.0 | -3.9 | 6.5 | -5.0 | 14.2 | 8.6 | 5.5 | -1.1 | 2.8 | -1.8 |
| 4 | 13.5 | -1.5 | 12.0 | -5.5 | 2.0 | -.2 | 18.0 | 6.2 | 7.3 | -.5 | 6.4 | .3 |
| 5 | 18.1 | 2.2 | 14.2 | .2 | 3.7 | -.5 | 17.8 | -1.5 | 4.4 | -1.2 | 6.8 | .3 |
| 6 | 21.0 | 2.6 | 18.1 | 8.5 | 4.0 | .0 | -1.5 | -6.3 | -.5 | -2.1 | .3 | -5.4 |
| 7 | 23.5 | 3.7 | 20.5 | 6.9 | 6.8 | -2.5 | -4.4 | -7.0 | -.3 | -2.7 | 2.6 | -8.1 |
| 8 | 21.1 | 4.5 | 6.9 | 3.0 | -.2 | -3.9 | -1.1 | -7.1 | -.5 | -5.6 | 8.2 | -1.9 |
| 9 | 13.9 | 7.7 | 3.0 | .2 | .0 | -4.7 | 2.4 | -6.0 | .1 | -7.6 | 10.1 | -5.9 |
| 10 | 11.9 | 4.3 | 1.8 | -2.3 | 4.6 | -2.1 | -2.9 | -13.3 | -1.0 | -4.2 | 10.1 | -.1 |
| 11 | 11.9 | .4 | -.3 | -3.0 | 6.4 | 2.0 | -10.7 | -16.4 | -.1 | -3.1 | 5.3 | -5.4 |
| 12 | 17.4 | -1.2 | .2 | -5.1 | 13.7 | 3.4 | -11.7 | -17.2 | -.4 | -14.9 | 6.0 | -8.2 |
| 13 | 22.5 | 12.9 | -.1 | -7.9 | 4.2 | 1.1 | -10.5 | -17.3 | -2.6 | -19.7 | 4.1 | -3.1 |
| 14 | 17.9 | 3.8 | -1.4 | -8.9 | 7.9 | -2.8 | -6.9 | -14.8 | 2.4 | -4.1 | 12.1 | -2.6 |
| 15 | 21.0 | 2.4 | 2.2 | -12.2 | 8.3 | -5.0 | 4.9 | -16.7 | -.6 | -4.6 | -2.6 | -6.5 |
| 16 | 24.6 | 7.7 | 8.4 | -3.9 | 6.8 | 2.7 | 4.9 | -17.3 | -1.0 | -8.2 | .5 | -8.1 |
| 17 | 24.6 | 6.2 | 12.3 | -4.8 | 6.8 | .3 | -15.2 | -19.4 | 2.6 | -13.7 | 9.8 | -2.6 |
| 18 | 16.6 | 5.2 | 8.5 | .5 | .3 | -6.9 | -12.6 | -23.1 | 13.4 | 2.3 | 7.3 | -2.9 |
| 19 | 8.7 | 5.2 | 4.8 | -1.2 | -6.9 | -13.0 | -5.3 | -25.1 | 12.1 | 2.1 | 9.8 | -3.9 |
| 20 | 11.8 | 5.9 | 1.0 | -2.2 | -8.6 | -13.0 | -.2 | -7.2 | 13.2 | -4.0 | 8.7 | -4.4 |
| 21 | 10.6 | 6.4 | 1.8 | -1.5 | 1.0 | -11.9 | 6.2 | -15.6 | 21.4 | 12.3 | 18.6 | -.7 |
| 22 | 12.6 | 7.6 | 1.8 | -2.6 | 1.4 | -1.6 | 9.9 | 4.6 | 15.2 | -4.2 | 9.8 | -2.6 |
| 23 | 14.0 | 5.7 | 5.3 | -3.7 | 9.9 | 1.4 | 4.6 | -5.8 | 2.7 | -5.1 | 3.4 | -7.8 |
| 24 | 14.2 | 2.3 | 6.7 | 2.0 | 10.2 | -6.0 | 5.4 | -6.6 | -.3 | -8.4 | 6.9 | -10.5 |
| 25 | 18.7 | -.6 | 4.2 | 2.6 | -5.5 | -10.0 | 6.0 | -9.3 | 3.7 | -7.9 | 19.1 | 1.1 |
| 26 | 19.6 | 3.1 | 2.8 | -3.5 | 1.5 | -10.9 | -6.0 | -10.5 | 9.1 | -.3 | --- | --- |
| 27 | 19.1 | 14.0 | -.8 | -4.7 | 3.5 | .2 | 3.9 | -6.0 | 16.3 | 3.6 | --- | --- |
| 28 | 16.3 | .5 | -1.4 | -10.5 | 16.0 | 3.5 | 3.3 | -10.5 | 10.8 | 1.7 | --- | --- |
| 29 | 16.1 | -2.0 | 6.2 | -10.5 | 14.8 | 2.8 | -4.4 | -10.5 | --- | --- | --- | --- |
| 30 | 19.8 | 4.8 | 11.0 | .9 | 6.6 | -1.0 | 2.1 | -7.9 | --- | --- | --- | --- |
| 31 | 7.8 | .5 | --- | --- | 3.9 | -6.3 | 5.9 | -1.0 | --- | --- | --- | --- |
| MONTH | 24.8 | -2.0 | 20.5 | -12.2 | 16.7 | -13.0 | 18.0 | -25.1 | 21.4 | -19.7 | 19.1 | -10.5 |

411138081172500 PO-116 NR RAVENNA OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | --- | --- | 17.8 | 14.2 | 27.8 | 18.0 | 29.3 | 9.5 | 28.4 | 15.0 |
| 2 | --- | --- | --- | --- | 20.3 | 14.5 | 30.0 | 16.3 | 31.3 | 16.9 | 29.0 | 13.8 |
| 3 | --- | --- | --- | --- | 16.2 | 8.4 | 24.8 | 17.2 | 33.6 | 17.6 | 18.0 | 7.6 |
| 4 | --- | --- | --- | --- | 23.8 | 4.7 | 21.5 | 12.2 | 26.4 | 15.0 | 19.5 | 3.1 |
| 5 | --- | --- | --- | --- | 23.9 | 6.4 | 24.6 | 9.8 | 23.7 | 9.6 | 24.9 | 3.5 |
| 6 | --- | --- | 14.3 | 2.7 | 23.3 | 7.9 | 25.9 | 7.5 | 24.7 | 7.2 | 26.5 | 13.8 |
| 7 | --- | --- | 13.8 | -1.7 | 20.7 | 10.0 | 27.0 | 12.8 | 28.2 | 5.2 | 25.6 | 13.8 |
| 8 | --- | --- | 12.8 | 1.3 | 23.6 | 8.3 | 29.1 | 12.7 | 30.6 | 8.4 | 24.6 | 13.3 |
| 9 | --- | --- | 13.1 | 5.9 | 27.6 | 7.2 | 24.1 | 9.9 | 31.4 | 9.6 | 23.6 | 13.4 |
| 10 | --- | --- | 9.4 | -.1 | 29.2 | 8.4 | 26.1 | 7.6 | 28.6 | 14.1 | 21.5 | 16.6 |
| 11 | --- | --- | 19.8 | -1.7 | 28.2 | 9.7 | 29.9 | 8.6 | 26.7 | 15.6 | 20.3 | 13.3 |
| 12 | --- | --- | 16.7 | 9.8 | 25.4 | 13.4 | 30.7 | 11.0 | 31.0 | 15.1 | 19.1 | 13.2 |
| 13 | --- | --- | 18.1 | 1.3 | 25.1 | 15.4 | 31.6 | 11.1 | 22.8 | 13.1 | 22.3 | 11.1 |
| 14 | --- | --- | 16.1 | 2.1 | 22.7 | 9.9 | 32.6 | 14.1 | 27.1 | 10.0 | 23.4 | 9.4 |
| 15 | --- | --- | 11.2 | 4.5 | 25.4 | 5.1 | 31.8 | 18.5 | 28.2 | 13.0 | 26.3 | 10.7 |
| 16 | --- | --- | 13.6 | 4.6 | 26.3 | 9.9 | 32.3 | 14.7 | 30.6 | 19.3 | 27.7 | 10.2 |
| 17 | --- | --- | 16.5 | 5.3 | 25.4 | 14.7 | 31.1 | 16.5 | 23.2 | 18.2 | 23.4 | 12.7 |
| 18 | --- | --- | 25.9 | 5.3 | 20.9 | 12.7 | 33.1 | 17.5 | 23.3 | 12.9 | 27.6 | 7.0 |
| 19 | --- | --- | 25.6 | 11.0 | 28.0 | 12.6 | 27.7 | 10.2 | 25.2 | 12.1 | 27.7 | 8.8 |
| 20 | --- | --- | 15.2 | 5.1 | 30.7 | 17.7 | 30.5 | 7.2 | 21.0 | 14.5 | 20.5 | 12.1 |
| 21 | --- | --- | 12.8 | 2.3 | 31.3 | 19.6 | 31.0 | 12.3 | 19.2 | 13.3 | 17.9 | 5.0 |
| 22 | --- | --- | 15.0 | 1.9 | 30.3 | 15.1 | 25.4 | 17.6 | 15.7 | 12.7 | 19.4 | 2.1 |
| 23 | --- | --- | 20.4 | .1 | 32.3 | 13.5 | 25.7 | 18.4 | 21.9 | 9.1 | 17.7 | 8.1 |
| 24 | --- | --- | 24.6 | 3.3 | 32.4 | 17.1 | 26.8 | 17.3 | 16.1 | 7.3 | 19.2 | 3.2 |
| 25 | --- | --- | 15.5 | 11.3 | 33.8 | 18.1 | 28.1 | 15.1 | 24.4 | 14.5 | 22.9 | 3.3 |
| 26 | --- | --- | 18.1 | 6.1 | 26.9 | 14.6 | 27.9 | 13.7 | 27.4 | 11.8 | 18.2 | 5.1 |
| 27 | --- | --- | 20.8 | 7.1 | 28.5 | 11.5 | 32.7 | 19.2 | 28.6 | 13.5 | 22.6 | 1.1 |
| 28 | --- | --- | 21.4 | 4.8 | 30.6 | 10.6 | 30.2 | 14.3 | 24.8 | 13.1 | 23.6 | 7.9 |
| 29 | --- | --- | 15.5 | 11.0 | 29.5 | 13.8 | 26.4 | 10.1 | 20.6 | 11.2 | 23.0 | 10.3 |
| 30 | --- | --- | 20.7 | 13.3 | 26.7 | 17.7 | 27.1 | 7.9 | 25.5 | 9.0 | 17.9 | 12.3 |
| 31 | --- | --- | 17.5 | 12.9 | --- | --- | 31.6 | 7.7 | 24.6 | 11.8 | --- | --- |
| MONTH | --- | --- | 25.9 | -1.7 | 33.8 | 4.7 | 33.1 | 7.2 | 33.6 | 5.2 | 29.0 | 1.1 |
| YEAR | 33.8 | -25.1 | | | | | | | | | | |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 13.2 | 12.9 | 13.1 | 12.9 | 11.3 | 11.3 | 9.4 | 9.2 | 8.0 | 8.0 | 7.3 | 7.1 |
| 2 | 13.2 | 12.9 | 13.1 | 12.9 | 11.3 | 11.1 | 9.2 | 9.0 | 8.1 | 8.0 | 7.3 | 7.1 |
| 3 | 13.2 | 12.9 | 13.1 | 12.9 | 11.3 | 11.1 | 9.2 | 9.0 | 8.1 | 8.0 | 7.1 | 7.1 |
| 4 | 13.2 | 12.9 | 13.2 | 12.9 | 11.1 | 11.1 | 9.2 | 9.0 | 8.0 | 8.0 | 7.1 | 7.1 |
| 5 | 13.4 | 13.1 | 13.2 | 12.9 | 11.1 | 11.1 | 9.2 | 9.0 | 8.0 | 7.8 | 7.1 | 7.1 |
| 6 | 13.4 | 13.1 | 13.2 | 12.9 | 11.1 | 10.9 | 9.2 | 9.0 | 7.8 | 7.8 | 7.1 | 7.1 |
| 7 | 13.4 | 13.1 | 13.2 | 12.9 | 11.1 | 10.8 | 9.2 | 9.0 | 7.8 | 7.8 | 7.1 | 7.1 |
| 8 | 13.4 | 13.1 | 12.9 | 12.9 | 10.9 | 10.8 | 9.2 | 9.0 | 7.8 | 7.6 | 7.1 | 7.1 |
| 9 | 13.2 | 13.1 | 12.9 | 12.9 | 10.9 | 10.8 | 9.2 | 9.0 | 7.8 | 7.6 | 7.1 | 7.1 |
| 10 | 13.2 | 13.1 | 12.9 | 12.9 | 10.9 | 10.6 | 9.0 | 9.0 | 7.8 | 7.6 | 7.2 | 6.9 |
| 11 | 13.4 | 13.1 | 12.9 | 12.9 | 10.6 | 10.4 | 9.2 | 9.0 | 7.7 | 7.5 | 7.5 | 7.1 |
| 12 | 13.4 | 13.1 | 12.9 | 12.9 | 10.5 | 10.4 | 9.1 | 8.9 | 7.8 | 7.6 | 7.5 | 7.3 |
| 13 | 13.5 | 13.2 | 12.9 | 12.9 | 10.4 | 10.4 | 9.1 | 8.9 | 7.8 | 7.6 | 7.5 | 7.3 |
| 14 | 13.4 | 13.1 | 12.9 | 12.9 | 10.5 | 10.2 | 9.0 | 8.8 | 7.6 | 7.5 | 7.3 | 6.9 |
| 15 | 13.4 | 13.1 | 12.9 | 12.7 | 10.4 | 10.2 | 9.0 | 8.8 | 7.6 | 7.5 | 7.3 | 7.1 |
| 16 | 13.4 | 13.1 | 12.9 | 12.6 | 10.2 | 10.2 | 9.0 | 8.8 | 7.6 | 7.4 | 7.3 | 7.3 |
| 17 | 13.4 | 13.1 | 12.9 | 12.6 | 10.2 | 10.0 | 9.0 | 8.7 | 7.6 | 7.4 | 7.3 | 7.1 |
| 18 | 13.2 | 13.1 | 12.7 | 12.6 | 10.2 | 10.0 | 8.9 | 8.7 | 7.5 | 7.3 | 7.3 | 6.9 |
| 19 | 13.1 | 13.1 | 12.6 | 12.4 | 10.2 | 10.0 | 8.8 | 8.6 | 7.3 | 7.3 | 7.2 | 6.9 |
| 20 | 13.2 | 13.1 | 12.6 | 12.4 | 10.2 | 10.0 | 8.8 | 8.6 | 7.5 | 7.3 | 7.0 | 6.9 |
| 21 | 13.1 | 13.1 | 12.4 | 12.4 | 10.0 | 10.0 | 8.8 | 8.6 | 7.5 | 7.1 | 7.1 | 6.9 |
| 22 | 13.2 | 13.1 | 12.4 | 12.4 | 10.0 | 9.8 | 8.6 | 8.6 | 7.5 | 7.1 | 7.0 | 6.8 |
| 23 | 13.2 | 13.1 | 12.4 | 12.2 | 9.8 | 9.6 | 8.6 | 8.6 | 7.4 | 7.3 | 6.9 | 6.8 |
| 24 | 13.2 | 12.9 | 12.2 | 12.0 | 9.8 | 9.6 | 8.6 | 8.4 | 7.3 | 7.1 | 7.0 | 6.7 |
| 25 | 13.2 | 12.9 | 12.0 | 12.0 | 9.6 | 9.6 | 8.6 | 8.4 | 7.3 | 7.1 | 7.0 | 6.6 |
| 26 | 13.2 | 12.9 | 12.0 | 12.0 | 9.6 | 9.4 | 8.6 | 8.4 | 7.3 | 7.1 | --- | --- |
| 27 | 13.2 | 12.9 | 12.0 | 11.7 | 9.6 | 9.4 | 8.4 | 8.4 | 7.3 | 7.1 | --- | --- |
| 28 | 13.2 | 12.9 | 11.7 | 11.5 | 9.4 | 9.4 | 8.4 | 8.2 | 7.3 | 7.1 | --- | --- |
| 29 | 13.2 | 12.9 | 11.7 | 11.3 | 9.4 | 9.4 | 8.4 | 8.2 | --- | --- | --- | --- |
| 30 | 13.1 | 12.9 | 11.5 | 11.3 | 9.4 | 9.4 | 8.4 | 8.0 | --- | --- | --- | --- |
| 31 | 13.1 | 12.9 | --- | --- | 9.4 | 9.4 | 8.2 | 8.0 | --- | --- | --- | --- |
| MONTH | 13.5 | 12.9 | 13.2 | 11.3 | 11.3 | 9.4 | 9.4 | 8.0 | 8.1 | 7.1 | 7.5 | 6.6 |

411138081172500 PO-116 NR RAVENNA OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | --- | --- | 8.1 | 7.9 | 9.3 | 9.1 | 10.8 | 10.4 | 12.0 | 11.6 |
| 2 | --- | --- | --- | --- | 8.1 | 7.9 | 9.3 | 9.1 | 10.8 | 10.5 | 12.0 | 11.6 |
| 3 | --- | --- | --- | --- | 8.1 | 7.9 | 9.3 | 9.2 | 10.8 | 10.7 | 12.0 | 11.8 |
| 4 | --- | --- | --- | --- | 8.3 | 8.0 | 9.4 | 9.0 | 10.7 | 10.5 | 12.0 | 11.7 |
| 5 | --- | --- | --- | --- | 8.3 | 8.0 | 9.5 | 9.2 | 10.9 | 10.7 | 12.0 | 11.7 |
| 6 | --- | --- | 7.4 | 7.1 | 8.3 | 8.0 | 9.5 | 9.2 | 10.9 | 10.7 | 12.1 | 11.8 |
| 7 | --- | --- | 7.4 | 7.1 | 8.3 | 8.1 | 9.6 | 9.3 | 10.9 | 10.6 | 12.1 | 11.8 |
| 8 | --- | --- | 7.3 | 7.1 | 8.3 | 8.0 | 9.7 | 9.4 | 11.0 | 10.7 | 12.1 | 11.8 |
| 9 | --- | --- | 7.3 | 7.1 | 8.3 | 8.0 | 9.7 | 9.4 | 11.0 | 10.7 | 12.0 | 11.8 |
| 10 | --- | --- | 7.3 | 7.1 | 8.3 | 8.1 | 9.7 | 9.4 | 11.1 | 10.7 | 12.0 | 11.8 |
| 11 | --- | --- | 7.4 | 7.1 | 8.5 | 8.1 | 9.7 | 9.4 | 11.1 | 10.9 | 12.0 | 11.8 |
| 12 | --- | --- | 7.5 | 7.3 | 8.5 | 8.3 | 9.7 | 9.4 | 11.2 | 10.9 | 12.0 | 11.8 |
| 13 | --- | --- | 7.5 | 7.3 | 8.5 | 8.3 | 9.9 | 9.6 | 11.3 | 11.1 | 12.2 | 12.0 |
| 14 | --- | --- | 7.5 | 7.3 | 8.5 | 8.3 | 9.9 | 9.6 | 11.4 | 11.1 | 12.2 | 12.0 |
| 15 | --- | --- | 7.5 | 7.3 | 8.7 | 8.3 | 9.9 | 9.7 | 11.4 | 11.1 | 12.3 | 12.0 |
| 16 | --- | --- | 7.5 | 7.3 | 8.7 | 8.4 | 10.1 | 9.7 | 11.4 | 11.2 | 12.3 | 12.0 |
| 17 | --- | --- | 7.5 | 7.3 | 8.7 | 8.5 | 10.1 | 9.9 | 11.4 | 11.3 | 12.3 | 12.0 |
| 18 | --- | --- | 7.6 | 7.3 | 8.7 | 8.4 | 10.1 | 9.9 | 11.6 | 11.1 | 12.3 | 12.0 |
| 19 | --- | --- | 7.7 | 7.5 | 8.7 | 8.4 | 10.3 | 9.9 | 11.6 | 11.3 | 12.3 | 12.0 |
| 20 | --- | --- | 7.7 | 7.5 | 8.7 | 8.5 | 10.3 | 10.0 | 11.6 | 11.3 | 12.2 | 12.0 |
| 21 | --- | --- | 7.7 | 7.5 | 8.9 | 8.7 | 10.3 | 10.0 | 11.6 | 11.3 | 12.3 | 12.0 |
| 22 | --- | --- | 7.7 | 7.5 | 8.9 | 8.7 | 10.3 | 10.3 | 11.6 | 11.3 | 12.3 | 12.0 |
| 23 | --- | --- | 7.7 | 7.5 | 8.9 | 8.6 | 10.3 | 10.3 | 11.6 | 11.3 | 12.2 | 12.0 |
| 24 | --- | --- | 7.8 | 7.5 | 8.9 | 8.7 | 10.5 | 10.3 | 11.6 | 11.3 | 12.3 | 12.0 |
| 25 | --- | --- | 7.7 | 7.5 | 8.9 | 8.7 | 10.5 | 10.3 | 11.6 | 11.3 | 12.3 | 12.0 |
| 26 | --- | --- | 7.9 | 7.7 | 9.1 | 8.9 | 10.5 | 10.3 | 11.6 | 11.3 | 12.3 | 12.0 |
| 27 | --- | --- | 7.9 | 7.7 | 9.1 | 8.8 | 10.5 | 10.3 | 11.6 | 11.3 | 12.3 | 12.0 |
| 28 | --- | --- | 7.9 | 7.7 | 9.1 | 8.8 | 10.5 | 10.5 | 11.8 | 11.5 | 12.3 | 12.0 |
| 29 | --- | --- | 7.9 | 7.7 | 9.1 | 8.8 | 10.7 | 10.5 | 11.8 | 11.5 | 12.3 | 12.0 |
| 30 | --- | --- | 8.1 | 7.9 | 9.1 | 9.1 | 10.7 | 10.4 | 11.8 | 11.5 | 12.2 | 12.0 |
| 31 | --- | --- | 8.1 | 7.9 | --- | --- | 10.7 | 10.4 | 11.8 | 11.5 | --- | --- |
| MONTH | --- | --- | 8.1 | 7.1 | 9.1 | 7.9 | 10.7 | 9.0 | 11.8 | 10.4 | 12.3 | 11.6 |
| YEAR | 13.5 | 6.6 | | | | | | | | | | |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 16.7 | 13.8 | 9.7 | 8.4 | 7.1 | 4.6 | 3.0 | 2.1 | .4 | .4 | 6.9 | 4.2 |
| 2 | 17.3 | 15.5 | 8.4 | 7.4 | 6.1 | 3.8 | 5.3 | 3.0 | .4 | .4 | 7.6 | 5.7 |
| 3 | 16.8 | 14.6 | 7.8 | 6.7 | 3.9 | 2.8 | 6.7 | 5.3 | .4 | .4 | 5.7 | 4.3 |
| 4 | 14.6 | 12.2 | 7.5 | 5.4 | 3.9 | 3.7 | 8.2 | 6.2 | .4 | .4 | 4.5 | 4.0 |
| 5 | 14.3 | 12.0 | 8.3 | 6.7 | 3.8 | 3.3 | 8.7 | 6.3 | .4 | .4 | 4.7 | 4.0 |
| 6 | 14.3 | 11.6 | 10.2 | 8.2 | 3.7 | 3.3 | 6.3 | 3.7 | .4 | .4 | 4.4 | 3.3 |
| 7 | 14.7 | 11.8 | 12.0 | 10.2 | 4.4 | 3.3 | 3.7 | 2.5 | .4 | .4 | 3.3 | 2.6 |
| 8 | 14.4 | 12.0 | 11.8 | 9.7 | 3.3 | 2.4 | 2.8 | 2.1 | .5 | .4 | 3.3 | 2.5 |
| 9 | 13.7 | 13.1 | 9.7 | 8.0 | 2.9 | 2.5 | 2.1 | 1.7 | .5 | .4 | 3.9 | 1.9 |
| 10 | 13.1 | 12.0 | 8.0 | 7.0 | 3.1 | 2.9 | 1.7 | 1.4 | .5 | .4 | 5.3 | 3.2 |
| 11 | 12.5 | 10.9 | 7.0 | 5.9 | 3.4 | 2.8 | 1.4 | 1.1 | .5 | .5 | 4.2 | 2.9 |
| 12 | 11.9 | 9.4 | 5.9 | 5.2 | 5.2 | 3.4 | 1.1 | .9 | .5 | .5 | 3.9 | 1.9 |
| 13 | 13.9 | 11.9 | 5.2 | 4.7 | 5.1 | 4.3 | .9 | .8 | .5 | .5 | 3.4 | 2.2 |
| 14 | 14.8 | 13.1 | 4.9 | 4.6 | 4.8 | 3.6 | .8 | .7 | .5 | .5 | 4.2 | 2.7 |
| 15 | 13.4 | 11.2 | 4.6 | 3.9 | 3.7 | 2.5 | .8 | .7 | .5 | .5 | 3.5 | 2.0 |
| 16 | 14.3 | 11.9 | 4.0 | 3.5 | 4.5 | 3.5 | .7 | .7 | .5 | .5 | 2.2 | 1.4 |
| 17 | 14.4 | 12.0 | 4.8 | 3.1 | 5.0 | 4.4 | .7 | .6 | .5 | .5 | 2.8 | 1.3 |
| 18 | 13.8 | 12.4 | 5.6 | 4.8 | 4.4 | 2.9 | .6 | .5 | .5 | .4 | 3.4 | 2.6 |
| 19 | 12.4 | 11.4 | 5.6 | 4.6 | 2.9 | 1.7 | .5 | .4 | .7 | .5 | 4.8 | 1.8 |
| 20 | 12.1 | 11.4 | 4.9 | 4.2 | 1.7 | 1.2 | .4 | .4 | 1.9 | .6 | 4.1 | 2.4 |
| 21 | 11.6 | 11.1 | 4.3 | 3.9 | 1.2 | 1.0 | .4 | .4 | 5.2 | 1.9 | 6.0 | 2.9 |
| 22 | 11.9 | 11.2 | 4.3 | 4.0 | 1.0 | .9 | .4 | .4 | 5.3 | 2.5 | 6.1 | 4.0 |
| 23 | 12.1 | 11.3 | 4.2 | 3.3 | 1.0 | .9 | .5 | .4 | 2.5 | 1.5 | 4.0 | 2.7 |
| 24 | 11.4 | 10.5 | 4.9 | 4.0 | 2.3 | .9 | .5 | .4 | 1.8 | 1.2 | 3.8 | 1.7 |
| 25 | 11.4 | 9.1 | 5.2 | 4.8 | 1.5 | 1.1 | .5 | .4 | 1.6 | 1.0 | 5.3 | 3.0 |
| 26 | 11.8 | 9.9 | 4.9 | 3.9 | 1.1 | 1.0 | .5 | .4 | 2.3 | 1.0 | --- | --- |
| 27 | 12.8 | 11.7 | 3.9 | 3.2 | 1.0 | 1.0 | .5 | .4 | 5.4 | 2.3 | --- | --- |
| 28 | 13.5 | 11.6 | 3.2 | 2.5 | 4.3 | 1.0 | .5 | .4 | 5.2 | 3.8 | --- | --- |
| 29 | 11.6 | 9.7 | 2.5 | 2.0 | 5.1 | 4.3 | .4 | .4 | --- | --- | --- | --- |
| 30 | 11.8 | 10.9 | 4.6 | 2.3 | 4.8 | 3.8 | .4 | .3 | --- | --- | --- | --- |
| 31 | 10.9 | 9.2 | --- | --- | 3.9 | 3.0 | .4 | .4 | --- | --- | --- | --- |
| MONTH | 17.3 | 9.1 | 12.0 | 2.0 | 7.1 | .9 | 8.7 | .3 | 5.4 | .4 | 7.6 | 1.3 |

411138081172500 PO-116 NR RAVENNA OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | --- | --- | --- | --- | 13.9 | 13.0 | 20.2 | 18.9 | 19.4 | 17.0 | 18.6 | 16.8 |
| 2 | --- | --- | --- | --- | 14.8 | 13.6 | 21.0 | 18.5 | 20.6 | 18.3 | 19.2 | 17.0 |
| 3 | --- | --- | --- | --- | 14.6 | 13.8 | 20.4 | 19.2 | 20.5 | 18.8 | 18.8 | 16.6 |
| 4 | --- | --- | --- | --- | 15.6 | 12.2 | 19.7 | 18.4 | 20.9 | 19.0 | 16.6 | 14.5 |
| 5 | --- | --- | --- | --- | 15.6 | 12.7 | 19.3 | 17.0 | 20.2 | 17.9 | 16.3 | 13.7 |
| 6 | --- | --- | 10.9 | 8.9 | 16.2 | 13.0 | 18.7 | 16.1 | 19.3 | 16.3 | 17.5 | 15.3 |
| 7 | --- | --- | 10.6 | 7.4 | 15.9 | 13.8 | 19.2 | 16.7 | 19.0 | 15.5 | 17.7 | 15.9 |
| 8 | --- | --- | 9.2 | 7.8 | 16.5 | 13.3 | 19.5 | 17.0 | 19.6 | 16.1 | 17.7 | 16.1 |
| 9 | --- | --- | 9.0 | 8.3 | 16.4 | 13.3 | 19.0 | 17.6 | 19.9 | 16.5 | 17.4 | 16.1 |
| 10 | --- | --- | 8.5 | 7.8 | 17.0 | 13.6 | 18.6 | 15.8 | 19.5 | 17.8 | 17.5 | 16.9 |
| 11 | --- | --- | 9.5 | 6.2 | 16.4 | 14.1 | 18.8 | 15.8 | 19.2 | 18.3 | 17.6 | 17.0 |
| 12 | --- | --- | 10.8 | 8.9 | 16.5 | 14.7 | 19.2 | 16.3 | 20.7 | 17.7 | 17.2 | 16.4 |
| 13 | --- | --- | 11.1 | 8.3 | 17.3 | 15.6 | 19.6 | 16.5 | 20.2 | 19.1 | 17.2 | 16.1 |
| 14 | --- | --- | 10.6 | 8.6 | 17.7 | 15.7 | 20.3 | 17.3 | 19.6 | 17.2 | 17.0 | 15.4 |
| 15 | --- | --- | 10.2 | 9.4 | 17.2 | 14.1 | 21.2 | 18.8 | 19.0 | 17.5 | 17.2 | 15.6 |
| 16 | --- | --- | 11.1 | 8.7 | 16.8 | 14.6 | 21.1 | 18.5 | 20.7 | 19.0 | 17.6 | 15.4 |
| 17 | --- | --- | 11.9 | 9.3 | 17.6 | 15.7 | 20.8 | 18.9 | 20.1 | 19.3 | 17.1 | 16.1 |
| 18 | --- | --- | 13.1 | 9.5 | 17.2 | 16.2 | 21.8 | 19.1 | 19.6 | 19.0 | 17.0 | 15.0 |
| 19 | --- | --- | 14.2 | 12.3 | 18.0 | 15.6 | 21.4 | 19.2 | 19.7 | 17.9 | 16.9 | 14.8 |
| 20 | --- | --- | 14.0 | 11.6 | 19.2 | 16.8 | 19.9 | 17.2 | 19.1 | 18.2 | 17.2 | 16.5 |
| 21 | --- | --- | 12.9 | 11.1 | 20.2 | 17.8 | 19.5 | 17.5 | 18.4 | 17.8 | 16.5 | 15.1 |
| 22 | --- | --- | 12.7 | 9.7 | 20.8 | 18.6 | 19.4 | 18.5 | 17.8 | 16.7 | 15.1 | 13.3 |
| 23 | --- | --- | 12.6 | 9.1 | 20.1 | 17.6 | 19.7 | 18.5 | 17.8 | 16.4 | 14.8 | 14.2 |
| 24 | --- | --- | 13.4 | 9.8 | 20.5 | 18.2 | 20.0 | 18.5 | 17.0 | 15.6 | 14.5 | 13.0 |
| 25 | --- | --- | 12.9 | 12.3 | 21.2 | 18.7 | 20.7 | 18.6 | 17.2 | 15.9 | 14.2 | 12.2 |
| 26 | --- | --- | 14.0 | 11.2 | 20.5 | 19.4 | 19.8 | 18.2 | 17.9 | 16.0 | 14.1 | 12.8 |
| 27 | --- | --- | 14.4 | 11.0 | 20.3 | 17.6 | 22.1 | 19.2 | 18.7 | 16.7 | 13.6 | 11.5 |
| 28 | --- | --- | 14.2 | 11.0 | 20.0 | 17.2 | 21.6 | 19.9 | 19.0 | 17.0 | 14.2 | 12.1 |
| 29 | --- | --- | 13.2 | 12.2 | 20.4 | 17.7 | 21.0 | 18.6 | 18.1 | 16.9 | 14.8 | 13.4 |
| 30 | --- | --- | 13.3 | 12.0 | 19.7 | 18.6 | 20.2 | 17.1 | 17.7 | 15.9 | 14.4 | 13.8 |
| 31 | --- | --- | 13.4 | 12.6 | --- | --- | 20.1 | 16.8 | 17.5 | 16.1 | --- | --- |
| MONTH | --- | --- | 14.4 | 6.2 | 21.2 | 12.2 | 22.1 | 15.8 | 20.9 | 15.5 | 19.2 | 11.5 |
| YEAR | 22.1 | .3 | | | | | | | | | | |

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; 0.010-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 ft below land surface.

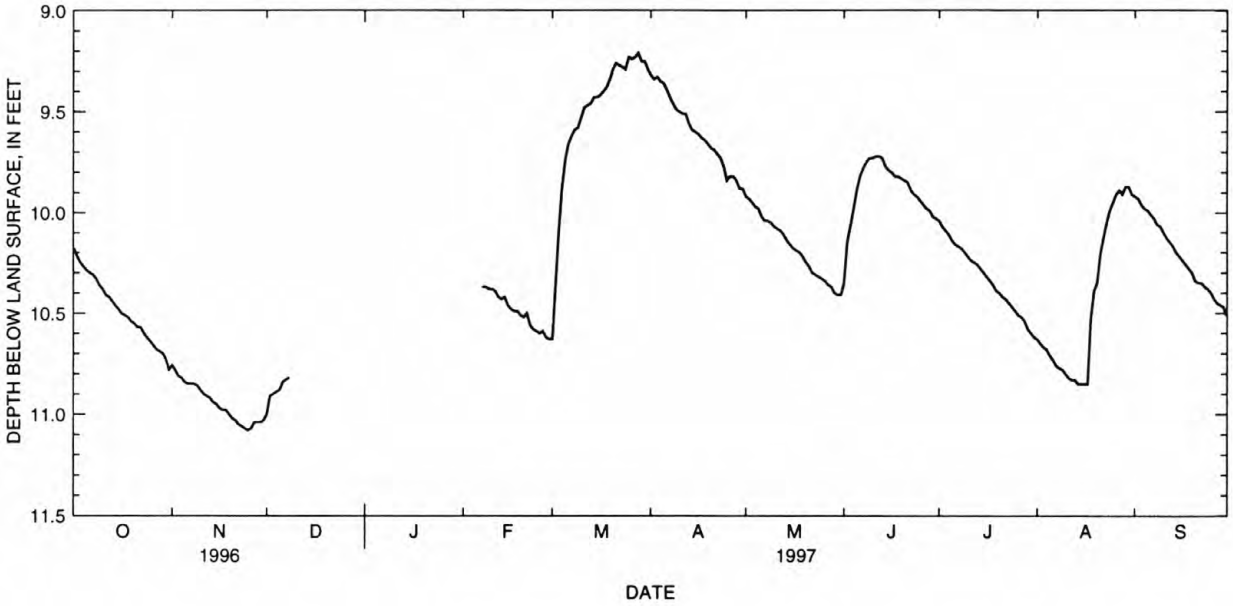
DATUM.--Elevation of land-surface datum is 678.50 ft above sea level. Measuring point: shelter shelf 3.36 ft above land-surface datum.

PERIOD OF RECORD.--February 1991 to current year.

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, 13.11 ft below land-surface datum, June 18, 1992; maximum daily high, 6.50 ft below land-surface datum, June 20, 1996.
SPECIFIC CONDUCTANCE: Maximum, 933 microsiemens April 15, 1994; minimum, 585 microsiemens October 23, 1992.
AIR TEMPERATURE: Maximum, 37.5°C July 15, 1995; minimum, -34.1°C January 19, 1994.
WATER TEMPERATURE: Maximum, 15.0°C October 20-21 1991; minimum, 10.6°C April 29, 1993.
SOIL TEMPERATURE: Maximum, 32.5°C September 16, 1991; minimum, -2.2°C February 12, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 11.08 ft below land-surface datum, November 25, 1996; maximum daily high, 9.19 ft below land-surface datum, March 28-29, 1997.
SPECIFIC CONDUCTANCE: Maximum, 792 microsiemens March 26, 1997; minimum, 589 microsiemens August 10-12, 1997.
AIR TEMPERATURE: Maximum, 34.6°C July 21, 1997; minimum, -10.2°C November 15, 1996.
WATER TEMPERATURE: Maximum, 13.3°C November 13-December 8, 1996; minimum, 11.0°C September 12, 1997.
SOIL TEMPERATURE: Maximum, 24.9°C July 27-28, 1997; minimum, -0.3°C February 26, 1997.



393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | 10.18 | 10.16 | 10.17 | 10.76 | 10.74 | 10.76 | 11.00 | 10.90 | 10.93 | --- | --- | --- |
| 2 | 10.22 | 10.18 | 10.20 | 10.78 | 10.76 | 10.77 | 10.91 | 10.90 | 10.91 | --- | --- | --- |
| 3 | 10.25 | 10.22 | 10.23 | 10.81 | 10.78 | 10.80 | 10.90 | 10.89 | 10.89 | --- | --- | --- |
| 4 | 10.27 | 10.25 | 10.26 | 10.82 | 10.81 | 10.81 | 10.89 | 10.88 | 10.89 | --- | --- | --- |
| 5 | 10.29 | 10.27 | 10.28 | 10.84 | 10.82 | 10.83 | 10.88 | 10.84 | 10.86 | --- | --- | --- |
| 6 | 10.30 | 10.29 | 10.29 | 10.85 | 10.84 | 10.84 | 10.84 | 10.83 | 10.84 | --- | --- | --- |
| 7 | 10.31 | 10.30 | 10.30 | 10.85 | 10.84 | 10.85 | 10.83 | 10.82 | 10.83 | --- | --- | --- |
| 8 | 10.33 | 10.31 | 10.32 | 10.85 | 10.84 | 10.85 | 10.82 | 10.82 | 10.82 | --- | --- | --- |
| 9 | 10.36 | 10.33 | 10.34 | 10.86 | 10.84 | 10.85 | --- | --- | --- | --- | --- | --- |
| 10 | 10.38 | 10.36 | 10.37 | 10.88 | 10.86 | 10.87 | --- | --- | --- | --- | --- | --- |
| 11 | 10.41 | 10.38 | 10.40 | 10.90 | 10.88 | 10.89 | --- | --- | --- | --- | --- | --- |
| 12 | 10.42 | 10.41 | 10.42 | 10.91 | 10.90 | 10.91 | --- | --- | --- | --- | --- | --- |
| 13 | 10.44 | 10.42 | 10.43 | 10.92 | 10.91 | 10.92 | --- | --- | --- | --- | --- | --- |
| 14 | 10.46 | 10.44 | 10.45 | 10.94 | 10.92 | 10.93 | --- | --- | --- | --- | --- | --- |
| 15 | 10.48 | 10.46 | 10.47 | 10.95 | 10.94 | 10.95 | --- | --- | --- | --- | --- | --- |
| 16 | 10.50 | 10.48 | 10.49 | 10.97 | 10.95 | 10.96 | --- | --- | --- | --- | --- | --- |
| 17 | 10.51 | 10.50 | 10.50 | 10.98 | 10.97 | 10.97 | --- | --- | --- | --- | --- | --- |
| 18 | 10.52 | 10.51 | 10.52 | 10.98 | 10.98 | 10.98 | --- | --- | --- | --- | --- | --- |
| 19 | 10.54 | 10.52 | 10.53 | 11.00 | 10.98 | 10.99 | --- | --- | --- | --- | --- | --- |
| 20 | 10.55 | 10.54 | 10.54 | 11.02 | 11.00 | 11.01 | --- | --- | --- | --- | --- | --- |
| 21 | 10.57 | 10.55 | 10.56 | 11.03 | 11.02 | 11.02 | --- | --- | --- | --- | --- | --- |
| 22 | 10.57 | 10.57 | 10.57 | 11.05 | 11.03 | 11.04 | --- | --- | --- | --- | --- | --- |
| 23 | 10.60 | 10.57 | 10.58 | 11.06 | 11.05 | 11.05 | --- | --- | --- | --- | --- | --- |
| 24 | 10.62 | 10.60 | 10.61 | 11.07 | 11.06 | 11.07 | --- | --- | --- | --- | --- | --- |
| 25 | 10.64 | 10.62 | 10.63 | 11.08 | 11.07 | 11.08 | --- | --- | --- | --- | --- | --- |
| 26 | 10.66 | 10.64 | 10.65 | 11.07 | 11.04 | 11.04 | --- | --- | --- | --- | --- | --- |
| 27 | 10.68 | 10.66 | 10.67 | 11.04 | 11.04 | 11.04 | --- | --- | --- | --- | --- | --- |
| 28 | 10.69 | 10.68 | 10.68 | 11.04 | 11.04 | 11.04 | --- | --- | --- | --- | --- | --- |
| 29 | 10.70 | 10.69 | 10.69 | 11.04 | 11.03 | 11.04 | --- | --- | --- | --- | --- | --- |
| 30 | 10.73 | 10.68 | 10.70 | 11.03 | 11.00 | 11.01 | --- | --- | --- | --- | --- | --- |
| 31 | 10.78 | 10.73 | 10.74 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | 10.78 | 10.16 | 10.47 | 11.08 | 10.74 | 10.94 | 11.00 | 10.82 | 10.87 | --- | --- | --- |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | --- | --- | --- | 10.63 | 10.37 | 10.54 | 9.32 | 9.29 | 9.31 | 9.92 | 9.88 | 9.90 |
| 2 | --- | --- | --- | 10.37 | 10.09 | 10.18 | 9.34 | 9.32 | 9.33 | 9.93 | 9.91 | 9.92 |
| 3 | --- | --- | --- | 10.09 | 9.88 | 9.98 | 9.33 | 9.32 | 9.33 | 9.95 | 9.90 | 9.92 |
| 4 | --- | --- | --- | 9.88 | 9.74 | 9.81 | 9.35 | 9.33 | 9.35 | 9.97 | 9.95 | 9.96 |
| 5 | --- | --- | --- | 9.74 | 9.66 | 9.69 | 9.36 | 9.33 | 9.35 | 9.98 | 9.96 | 9.97 |
| 6 | --- | --- | --- | 9.66 | 9.62 | 9.64 | 9.39 | 9.34 | 9.36 | 10.02 | 9.97 | 9.99 |
| 7 | 10.37 | 10.36 | 10.36 | 9.62 | 9.59 | 9.61 | 9.43 | 9.39 | 9.41 | 10.04 | 10.02 | 10.03 |
| 8 | 10.37 | 10.36 | 10.36 | 9.59 | 9.58 | 9.58 | 9.46 | 9.43 | 9.44 | 10.04 | 10.03 | 10.04 |
| 9 | 10.38 | 10.37 | 10.38 | 9.58 | 9.53 | 9.56 | 9.49 | 9.46 | 9.47 | 10.05 | 10.03 | 10.04 |
| 10 | 10.38 | 10.38 | 10.38 | 9.53 | 9.48 | 9.50 | 9.50 | 9.49 | 9.50 | 10.07 | 10.05 | 10.06 |
| 11 | 10.39 | 10.38 | 10.38 | 9.48 | 9.46 | 9.47 | 9.51 | 9.49 | 9.50 | 10.08 | 10.07 | 10.07 |
| 12 | 10.42 | 10.39 | 10.40 | 9.47 | 9.46 | 9.47 | 9.51 | 9.49 | 9.49 | 10.09 | 10.07 | 10.08 |
| 13 | 10.43 | 10.40 | 10.42 | 9.46 | 9.42 | 9.45 | 9.56 | 9.51 | 9.53 | 10.11 | 10.09 | 10.10 |
| 14 | 10.42 | 10.40 | 10.41 | 9.43 | 9.41 | 9.41 | 9.59 | 9.56 | 9.57 | 10.14 | 10.11 | 10.12 |
| 15 | 10.46 | 10.42 | 10.44 | 9.43 | 9.42 | 9.42 | 9.60 | 9.59 | 9.60 | 10.16 | 10.14 | 10.15 |
| 16 | 10.48 | 10.45 | 10.46 | 9.42 | 9.40 | 9.41 | 9.61 | 9.60 | 9.61 | 10.18 | 10.16 | 10.18 |
| 17 | 10.49 | 10.48 | 10.49 | 9.40 | 9.38 | 9.39 | 9.63 | 9.61 | 9.62 | 10.19 | 10.18 | 10.19 |
| 18 | 10.49 | 10.48 | 10.48 | 9.38 | 9.34 | 9.37 | 9.64 | 9.63 | 9.64 | 10.20 | 10.19 | 10.19 |
| 19 | 10.51 | 10.48 | 10.49 | 9.34 | 9.29 | 9.31 | 9.66 | 9.64 | 9.64 | 10.22 | 10.20 | 10.21 |
| 20 | 10.52 | 10.50 | 10.51 | 9.29 | 9.26 | 9.27 | 9.68 | 9.66 | 9.67 | 10.25 | 10.22 | 10.24 |
| 21 | 10.50 | 10.47 | 10.48 | 9.26 | 9.22 | 9.24 | 9.69 | 9.68 | 9.68 | 10.27 | 10.25 | 10.26 |
| 22 | 10.56 | 10.48 | 10.53 | 9.27 | 9.22 | 9.25 | 9.71 | 9.69 | 9.70 | 10.30 | 10.27 | 10.29 |
| 23 | 10.58 | 10.56 | 10.57 | 9.28 | 9.25 | 9.26 | 9.73 | 9.71 | 9.72 | 10.31 | 10.30 | 10.31 |
| 24 | 10.59 | 10.58 | 10.59 | 9.29 | 9.23 | 9.26 | 9.77 | 9.73 | 9.75 | 10.32 | 10.31 | 10.31 |
| 25 | 10.60 | 10.59 | 10.59 | 9.23 | 9.21 | 9.22 | 9.84 | 9.76 | 9.79 | 10.33 | 10.32 | 10.32 |
| 26 | 10.59 | 10.56 | 10.58 | 9.24 | 9.22 | 9.23 | 9.82 | 9.80 | 9.81 | 10.34 | 10.33 | 10.33 |
| 27 | 10.62 | 10.56 | 10.59 | 9.23 | 9.21 | 9.22 | 9.82 | 9.81 | 9.82 | 10.36 | 10.34 | 10.35 |
| 28 | 10.63 | 10.62 | 10.63 | 9.21 | 9.19 | 9.20 | 9.84 | 9.81 | 9.83 | 10.37 | 10.36 | 10.37 |
| 29 | --- | --- | --- | 9.25 | 9.19 | 9.22 | 9.88 | 9.84 | 9.86 | 10.40 | 10.37 | 10.38 |
| 30 | --- | --- | --- | 9.25 | 9.24 | 9.25 | 9.88 | 9.86 | 9.87 | 10.41 | 10.40 | 10.40 |
| 31 | --- | --- | --- | 9.29 | 9.25 | 9.27 | --- | --- | --- | 10.41 | 10.35 | 10.41 |
| MONTH | 10.63 | 10.36 | 10.48 | 10.63 | 9.19 | 9.47 | 9.88 | 9.29 | 9.59 | 10.41 | 9.88 | 10.16 |

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 10.35 | 10.15 | 10.21 | 10.04 | 10.03 | 10.03 | 10.63 | 10.62 | 10.63 | 9.92 | 9.91 | 9.91 |
| 2 | 10.15 | 10.07 | 10.11 | 10.07 | 10.04 | 10.05 | 10.65 | 10.63 | 10.64 | 9.93 | 9.92 | 9.92 |
| 3 | 10.07 | 9.98 | 10.02 | 10.09 | 10.07 | 10.08 | 10.67 | 10.65 | 10.66 | 9.96 | 9.93 | 9.95 |
| 4 | 9.98 | 9.89 | 9.93 | 10.11 | 10.09 | 10.10 | 10.68 | 10.67 | 10.67 | 9.98 | 9.96 | 9.97 |
| 5 | 9.89 | 9.82 | 9.86 | 10.14 | 10.11 | 10.13 | 10.71 | 10.68 | 10.69 | 9.99 | 9.98 | 9.99 |
| 6 | 9.82 | 9.78 | 9.80 | 10.16 | 10.14 | 10.15 | 10.73 | 10.71 | 10.72 | 10.01 | 9.99 | 10.00 |
| 7 | 9.78 | 9.75 | 9.77 | 10.17 | 10.16 | 10.16 | 10.76 | 10.73 | 10.75 | 10.03 | 10.01 | 10.02 |
| 8 | 9.75 | 9.73 | 9.74 | 10.18 | 10.17 | 10.17 | 10.77 | 10.76 | 10.77 | 10.06 | 10.03 | 10.05 |
| 9 | 9.73 | 9.73 | 9.73 | 10.20 | 10.18 | 10.19 | 10.78 | 10.77 | 10.78 | 10.07 | 10.06 | 10.07 |
| 10 | 9.73 | 9.72 | 9.73 | 10.22 | 10.20 | 10.21 | 10.80 | 10.78 | 10.79 | 10.10 | 10.07 | 10.08 |
| 11 | 9.72 | 9.72 | 9.72 | 10.24 | 10.22 | 10.23 | 10.82 | 10.80 | 10.81 | 10.13 | 10.10 | 10.11 |
| 12 | 9.72 | 9.71 | 9.72 | 10.25 | 10.24 | 10.25 | 10.83 | 10.82 | 10.83 | 10.15 | 10.13 | 10.14 |
| 13 | 9.73 | 9.71 | 9.72 | 10.26 | 10.25 | 10.26 | 10.83 | 10.82 | 10.83 | 10.17 | 10.15 | 10.16 |
| 14 | 9.77 | 9.73 | 9.75 | 10.28 | 10.26 | 10.27 | 10.85 | 10.83 | 10.84 | 10.20 | 10.17 | 10.19 |
| 15 | 9.79 | 9.77 | 9.78 | 10.30 | 10.28 | 10.29 | 10.85 | 10.81 | 10.83 | 10.22 | 10.20 | 10.21 |
| 16 | 9.80 | 9.78 | 9.78 | 10.32 | 10.30 | 10.31 | 10.85 | 10.83 | 10.84 | 10.24 | 10.22 | 10.23 |
| 17 | 9.82 | 9.80 | 9.81 | 10.34 | 10.32 | 10.33 | 10.85 | 10.53 | 10.74 | 10.26 | 10.24 | 10.25 |
| 18 | 9.82 | 9.81 | 9.82 | 10.36 | 10.34 | 10.35 | 10.53 | 10.39 | 10.44 | 10.28 | 10.26 | 10.27 |
| 19 | 9.83 | 9.82 | 9.83 | 10.39 | 10.36 | 10.37 | 10.39 | 10.35 | 10.37 | 10.30 | 10.28 | 10.29 |
| 20 | 9.84 | 9.83 | 9.84 | 10.40 | 10.39 | 10.40 | 10.35 | 10.21 | 10.28 | 10.34 | 10.30 | 10.31 |
| 21 | 9.85 | 9.84 | 9.85 | 10.42 | 10.40 | 10.41 | 10.21 | 10.13 | 10.17 | 10.35 | 10.34 | 10.35 |
| 22 | 9.89 | 9.85 | 9.87 | 10.43 | 10.42 | 10.43 | 10.13 | 10.05 | 10.08 | 10.35 | 10.34 | 10.35 |
| 23 | 9.91 | 9.89 | 9.90 | 10.45 | 10.43 | 10.44 | 10.05 | 9.99 | 10.02 | 10.37 | 10.35 | 10.36 |
| 24 | 9.92 | 9.91 | 9.92 | 10.47 | 10.45 | 10.46 | 9.99 | 9.95 | 9.97 | 10.38 | 10.37 | 10.38 |
| 25 | 9.94 | 9.92 | 9.93 | 10.49 | 10.47 | 10.48 | 9.95 | 9.91 | 9.93 | 10.40 | 10.38 | 10.39 |
| 26 | 9.96 | 9.94 | 9.95 | 10.51 | 10.49 | 10.50 | 9.91 | 9.89 | 9.90 | 10.43 | 10.40 | 10.41 |
| 27 | 9.98 | 9.96 | 9.97 | 10.52 | 10.50 | 10.51 | 9.89 | 9.87 | 9.88 | 10.45 | 10.43 | 10.44 |
| 28 | 9.99 | 9.98 | 9.98 | 10.54 | 10.52 | 10.53 | 9.91 | 9.86 | 9.87 | 10.46 | 10.45 | 10.46 |
| 29 | 10.02 | 9.99 | 10.00 | 10.58 | 10.54 | 10.56 | 9.87 | 9.87 | 9.87 | 10.47 | 10.46 | 10.47 |
| 30 | 10.03 | 10.02 | 10.02 | 10.60 | 10.58 | 10.59 | 9.87 | 9.87 | 9.87 | 10.51 | 10.47 | 10.49 |
| 31 | --- | --- | --- | 10.62 | 10.60 | 10.61 | 9.91 | 9.87 | 9.88 | --- | --- | --- |
| MONTH | 10.35 | 9.71 | 9.87 | 10.62 | 10.03 | 10.32 | 10.85 | 9.86 | 10.43 | 10.51 | 9.91 | 10.21 |
| YEAR | 11.08 | 9.19 | 10.20 | | | | | | | | | |

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 656 | 655 | 644 | 642 | 630 | 629 | --- | --- | 675 | 648 | 620 | 615 |
| 2 | 658 | 655 | 644 | 642 | 630 | 628 | --- | --- | 673 | 645 | 621 | 617 |
| 3 | 659 | 657 | 644 | 640 | 631 | 629 | --- | --- | 665 | 640 | 622 | 617 |
| 4 | 659 | 657 | 643 | 639 | 632 | 629 | --- | --- | 663 | 643 | 628 | 619 |
| 5 | 660 | 657 | 641 | 639 | 632 | 630 | --- | --- | 646 | 626 | 636 | 625 |
| 6 | 659 | 652 | 640 | 638 | 632 | 630 | --- | --- | 628 | 611 | 641 | 629 |
| 7 | 657 | 653 | 639 | 637 | 632 | 630 | --- | --- | 616 | 612 | 643 | 637 |
| 8 | 658 | 653 | 639 | 638 | 633 | 631 | --- | --- | 617 | 613 | 645 | 643 |
| 9 | 655 | 654 | 639 | 639 | --- | --- | --- | --- | 618 | 614 | 646 | 642 |
| 10 | 655 | 652 | 640 | 638 | --- | --- | --- | --- | 618 | 614 | 651 | 644 |
| 11 | 655 | 652 | 640 | 638 | --- | --- | --- | --- | 619 | 615 | 656 | 647 |
| 12 | 654 | 653 | 641 | 637 | --- | --- | --- | --- | 620 | 616 | 659 | 653 |
| 13 | 654 | 651 | 640 | 635 | --- | --- | --- | --- | 620 | 616 | 663 | 657 |
| 14 | 652 | 651 | 640 | 634 | --- | --- | --- | --- | 624 | 616 | 670 | 662 |
| 15 | 653 | 650 | 641 | 633 | --- | --- | --- | --- | 624 | 617 | 676 | 666 |
| 16 | 652 | 650 | 639 | 632 | --- | --- | --- | --- | 624 | 618 | 679 | 672 |
| 17 | 651 | 650 | 638 | 632 | --- | --- | --- | --- | 624 | 617 | 687 | 676 |
| 18 | 652 | 651 | 637 | 632 | --- | --- | --- | --- | 624 | 620 | 693 | 683 |
| 19 | 652 | 649 | 637 | 632 | --- | --- | --- | --- | 622 | 619 | 709 | 690 |
| 20 | 651 | 644 | 637 | 632 | --- | --- | --- | --- | 623 | 617 | 735 | 706 |
| 21 | 649 | 644 | 637 | 632 | --- | --- | --- | --- | 621 | 619 | 756 | 735 |
| 22 | 649 | 645 | 637 | 632 | --- | --- | --- | --- | 622 | 617 | 774 | 756 |
| 23 | --- | --- | 634 | 630 | --- | --- | --- | --- | 622 | 618 | 784 | 770 |
| 24 | --- | --- | 632 | 631 | --- | --- | --- | --- | 622 | 617 | 786 | 780 |
| 25 | 650 | 647 | 632 | 631 | --- | --- | --- | --- | 621 | 617 | 788 | 785 |
| 26 | 647 | 646 | 632 | 631 | --- | --- | --- | --- | 622 | 616 | 792 | 784 |
| 27 | 646 | 644 | 633 | 631 | --- | --- | --- | --- | 621 | 617 | 789 | 780 |
| 28 | 645 | 644 | 633 | 630 | --- | --- | --- | --- | 622 | 615 | 784 | 775 |
| 29 | 646 | 643 | 633 | 629 | --- | --- | --- | --- | --- | --- | 778 | 769 |
| 30 | 644 | 642 | 631 | 629 | --- | --- | --- | --- | --- | --- | 773 | 760 |
| 31 | 644 | 642 | --- | --- | --- | --- | 684 | 670 | --- | --- | 765 | 754 |
| MONTH | 660 | 642 | 644 | 629 | 633 | 628 | 684 | 670 | 675 | 611 | 792 | 615 |

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 757 | 748 | 646 | 641 | 615 | 613 | 604 | 603 | 593 | 591 | 613 | 608 |
| 2 | 749 | 741 | 646 | 640 | 614 | 613 | 604 | 602 | 593 | 591 | 613 | 609 |
| 3 | 743 | 736 | 643 | 638 | 614 | 613 | 603 | 601 | 594 | 592 | 611 | 609 |
| 4 | 737 | 733 | 642 | 639 | 614 | 611 | 602 | 601 | 593 | 592 | 612 | 610 |
| 5 | 733 | 731 | 640 | 636 | 614 | 610 | 602 | 600 | 593 | 592 | 612 | 610 |
| 6 | 732 | 730 | 638 | 634 | 614 | 610 | 601 | 600 | 594 | 590 | 611 | 610 |
| 7 | 732 | 726 | 637 | 634 | 614 | 613 | 602 | 599 | 595 | 590 | 611 | 609 |
| 8 | 730 | 723 | 635 | 633 | 614 | 611 | 601 | 599 | 595 | 590 | 611 | 607 |
| 9 | 727 | 720 | 634 | 633 | 615 | 611 | 600 | 599 | 593 | 590 | 611 | 607 |
| 10 | 724 | 714 | 634 | 631 | 616 | 612 | 600 | 596 | 591 | 589 | 611 | 607 |
| 11 | 718 | 712 | 632 | 629 | 617 | 613 | 600 | 596 | 592 | 589 | 608 | 607 |
| 12 | 712 | 707 | 630 | 626 | 618 | 614 | 599 | 597 | 592 | 589 | 629 | 607 |
| 13 | 707 | 700 | 630 | 626 | 618 | 614 | 599 | 597 | 591 | 590 | 608 | 606 |
| 14 | 704 | 694 | 629 | 626 | 618 | 614 | 599 | 594 | 591 | 590 | 608 | 606 |
| 15 | 698 | 691 | 628 | 625 | 617 | 611 | 599 | 594 | 592 | 590 | 607 | 605 |
| 16 | 696 | 686 | 627 | 623 | 617 | 613 | 598 | 594 | 593 | 590 | 607 | 604 |
| 17 | 687 | 679 | 626 | 624 | 613 | 612 | 599 | 593 | 593 | 591 | 606 | 605 |
| 18 | 685 | 676 | 625 | 623 | 612 | 611 | 598 | 593 | 596 | 592 | 607 | 605 |
| 19 | 681 | 672 | 624 | 622 | 615 | 610 | 598 | 593 | 597 | 595 | 607 | 605 |
| 20 | 676 | 668 | 623 | 621 | 614 | 610 | 598 | 592 | 598 | 597 | 607 | 606 |
| 21 | 672 | 664 | 623 | 621 | 614 | 609 | 598 | 592 | 599 | 597 | 608 | 602 |
| 22 | 668 | 661 | 623 | 618 | 613 | 609 | 593 | 592 | 601 | 599 | 607 | 602 |
| 23 | 665 | 657 | 622 | 618 | 611 | 609 | 593 | 592 | 604 | 601 | 607 | 602 |
| 24 | 662 | 655 | 620 | 618 | 612 | 608 | 593 | 592 | 606 | 604 | 606 | 602 |
| 25 | 660 | 652 | 619 | 618 | 611 | 607 | 593 | 592 | 606 | 603 | 604 | 602 |
| 26 | 658 | 650 | 618 | 617 | 610 | 606 | 594 | 592 | 607 | 604 | 603 | 601 |
| 27 | 654 | 649 | 618 | 616 | 608 | 605 | 594 | 591 | 609 | 605 | 605 | 602 |
| 28 | 653 | 648 | 617 | 615 | 607 | 604 | 593 | 591 | 610 | 605 | 604 | 602 |
| 29 | 651 | 644 | 616 | 615 | 606 | 604 | 593 | 592 | 611 | 607 | 604 | 602 |
| 30 | 648 | 643 | 616 | 614 | 605 | 603 | 593 | 591 | 613 | 607 | 603 | 602 |
| 31 | --- | --- | 615 | 614 | --- | --- | 593 | 591 | 614 | 610 | --- | --- |
| MONTH | 757 | 643 | 646 | 614 | 618 | 603 | 604 | 591 | 614 | 589 | 629 | 601 |
| YEAR | 792 | 589 | | | | | | | | | | |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 24.8 | 13.2 | 7.1 | -3.2 | 14.3 | -.5 | --- | --- | 4.2 | -1.1 | 16.6 | 8.0 |
| 2 | 13.8 | 2.6 | 5.5 | -3.2 | 7.0 | -4.0 | --- | --- | 6.2 | -1.1 | 14.1 | 1.4 |
| 3 | 13.3 | -.6 | 6.9 | -6.3 | 6.7 | -3.9 | --- | --- | 4.3 | .5 | 2.2 | .2 |
| 4 | 18.6 | -1.0 | 12.7 | -5.7 | 1.3 | -6.0 | --- | --- | 9.6 | 2.8 | 11.8 | 2.2 |
| 5 | 20.9 | 1.4 | 13.2 | 3.2 | 3.1 | -6.0 | --- | --- | 3.4 | -.1 | 8.3 | .6 |
| 6 | 22.5 | 2.7 | 13.2 | 5.0 | 3.9 | -.6 | --- | --- | .7 | -3.0 | 5.3 | -2.5 |
| 7 | 20.8 | 2.4 | 20.0 | 4.8 | 7.1 | -1.9 | --- | --- | 1.6 | -3.5 | 7.6 | -5.2 |
| 8 | 12.1 | 3.1 | 7.3 | 2.8 | .4 | -4.7 | --- | --- | -1.1 | -3.6 | 14.0 | -1.9 |
| 9 | 11.2 | -.1 | 4.1 | -1.0 | --- | --- | --- | --- | -1.1 | -5.6 | 11.2 | -4.9 |
| 10 | 13.1 | .4 | 1.6 | -2.9 | --- | --- | --- | --- | -.1 | -4.6 | 11.5 | -.8 |
| 11 | 18.3 | -1.0 | .6 | -5.7 | --- | --- | --- | --- | .7 | -2.7 | 11.3 | -2.1 |
| 12 | 21.9 | 8.3 | 2.2 | -8.9 | --- | --- | --- | --- | .8 | -7.7 | 9.7 | -4.8 |
| 13 | 23.6 | 8.8 | -.9 | -4.5 | --- | --- | --- | --- | 1.2 | -8.6 | 6.8 | .0 |
| 14 | 21.5 | 4.9 | .8 | -9.7 | --- | --- | --- | --- | 1.7 | -1.0 | 11.7 | -3.6 |
| 15 | 23.7 | 8.4 | 5.8 | -10.2 | --- | --- | --- | --- | .8 | -9.0 | -.9 | -6.0 |
| 16 | 24.8 | 7.8 | 10.7 | -4.8 | --- | --- | --- | --- | 2.1 | -9.0 | 2.6 | -8.3 |
| 17 | 17.2 | 3.1 | 12.6 | -3.4 | --- | --- | --- | --- | 5.3 | -9.9 | 9.6 | -3.4 |
| 18 | 10.0 | -.2 | 9.2 | -.9 | --- | --- | --- | --- | 15.8 | 1.3 | 6.3 | 1.1 |
| 19 | 10.4 | 3.8 | 3.7 | -3.4 | --- | --- | --- | --- | 13.2 | -1.9 | 10.1 | -1.8 |
| 20 | 19.4 | 8.8 | 3.5 | -1.9 | --- | --- | --- | --- | 14.1 | -5.2 | 10.7 | -.2 |
| 21 | 18.3 | 11.3 | .2 | -2.7 | --- | --- | --- | --- | 19.1 | 11.5 | 20.4 | -1.7 |
| 22 | 18.1 | 7.9 | -.7 | -5.2 | --- | --- | --- | --- | 14.5 | -4.6 | 14.8 | 2.6 |
| 23 | --- | --- | 7.9 | -5.9 | --- | --- | --- | --- | 7.6 | -5.8 | 9.8 | -3.8 |
| 24 | --- | --- | 7.6 | 2.3 | --- | --- | --- | --- | 4.9 | -7.2 | 11.1 | -7.3 |
| 25 | 17.1 | .3 | 6.3 | 2.3 | --- | --- | --- | --- | 5.7 | -8.6 | 19.5 | 3.9 |
| 26 | 15.1 | 8.8 | 3.0 | -3.3 | --- | --- | --- | --- | 10.7 | -5.1 | 10.3 | 2.1 |
| 27 | 19.5 | 13.9 | -2.6 | -8.5 | --- | --- | --- | --- | 17.0 | -.8 | 19.9 | .4 |
| 28 | 17.4 | 2.2 | 4.3 | -8.3 | --- | --- | --- | --- | 15.3 | -2.7 | 18.7 | 5.1 |
| 29 | 18.1 | .4 | 7.1 | -9.1 | --- | --- | --- | --- | --- | --- | 12.7 | 7.9 |
| 30 | 21.4 | 5.1 | 10.3 | 2.1 | --- | --- | --- | --- | --- | --- | 9.0 | 1.0 |
| 31 | 9.7 | -1.3 | --- | --- | --- | --- | 7.7 | -2.4 | --- | --- | 5.7 | -2.3 |
| MONTH | 24.8 | -1.3 | 20.0 | -10.2 | 14.3 | -6.0 | 7.7 | -2.4 | 19.1 | -9.9 | 20.4 | -8.3 |

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 13.4 | -5.4 | 21.2 | 3.3 | 21.5 | 14.4 | 29.0 | 18.7 | 28.4 | 10.2 | 28.8 | 13.9 |
| 2 | 17.6 | -4.9 | 18.3 | .5 | 24.0 | 15.0 | 30.5 | 17.6 | 25.4 | 12.0 | 30.1 | 15.6 |
| 3 | 20.3 | -1.9 | 17.0 | 5.9 | 16.0 | 11.6 | 26.2 | 15.6 | 31.5 | 15.6 | 20.5 | 6.5 |
| 4 | 24.8 | 3.7 | 15.8 | 5.1 | 20.5 | 10.8 | 22.9 | 15.4 | 26.0 | 16.9 | 19.5 | 3.2 |
| 5 | 19.7 | 12.6 | 19.4 | 2.2 | 23.4 | 9.1 | 23.8 | 12.4 | 22.5 | 11.0 | 23.5 | 4.3 |
| 6 | 22.6 | 9.2 | 17.7 | 6.1 | 23.6 | 9.2 | 25.1 | 9.1 | 22.8 | 6.9 | 23.4 | 10.1 |
| 7 | 9.2 | -.4 | 19.3 | 1.0 | 19.5 | 10.7 | 27.1 | 11.3 | 24.3 | 7.7 | 27.7 | 13.1 |
| 8 | 12.8 | -4.8 | 15.1 | 8.7 | 18.7 | 11.7 | 28.3 | 14.7 | 27.3 | 7.4 | 25.5 | 13.8 |
| 9 | 4.1 | -8.6 | 13.6 | 5.8 | 24.2 | 11.8 | 23.9 | 13.9 | 27.5 | 13.2 | 20.7 | 13.9 |
| 10 | 7.6 | -8.7 | 13.9 | 5.0 | 26.8 | 10.4 | 23.2 | 10.4 | 26.5 | 16.3 | 20.2 | 15.0 |
| 11 | 18.3 | 3.8 | 19.6 | -.2 | 23.6 | 11.7 | 27.2 | 9.9 | 28.1 | 17.4 | 19.8 | 14.1 |
| 12 | 17.1 | 5.7 | 17.2 | 7.1 | 23.6 | 15.5 | 30.3 | 13.1 | 29.4 | 17.6 | 22.2 | 9.9 |
| 13 | 5.7 | -1.0 | 17.0 | 3.4 | 24.1 | 17.0 | 31.6 | 14.2 | 24.6 | 17.0 | 22.6 | 7.3 |
| 14 | 11.0 | -4.3 | 19.3 | 5.5 | 24.3 | 11.6 | 31.5 | 17.0 | 25.0 | 14.3 | 25.2 | 10.3 |
| 15 | 15.5 | -3.0 | 14.5 | 5.6 | 24.8 | 7.4 | 31.3 | 18.1 | 27.8 | 17.7 | 26.2 | 16.1 |
| 16 | 15.7 | .4 | 14.9 | 1.9 | 26.6 | 13.8 | 31.9 | 14.7 | 30.7 | 20.0 | 28.4 | 14.6 |
| 17 | 6.4 | -.5 | 23.3 | 9.0 | 24.6 | 15.9 | 33.0 | 16.9 | 26.8 | 17.8 | 25.1 | 12.9 |
| 18 | 12.0 | -2.5 | 27.1 | 11.6 | 21.5 | 15.9 | 33.1 | 17.1 | 23.8 | 17.5 | 26.2 | 5.6 |
| 19 | 14.3 | -.1 | 28.8 | 13.7 | 27.5 | 14.7 | 29.9 | 15.4 | 24.5 | 16.1 | 28.3 | 7.8 |
| 20 | 17.5 | -3.0 | 16.7 | 7.6 | 29.2 | 16.9 | 30.0 | 10.5 | 20.4 | 16.8 | 24.8 | 11.3 |
| 21 | 14.3 | 4.7 | 15.7 | 5.5 | 29.7 | 18.6 | 34.6 | 13.1 | 21.0 | 12.6 | 17.5 | 5.6 |
| 22 | 14.6 | 3.6 | 18.0 | 1.2 | 28.1 | 19.3 | 25.6 | 18.9 | 19.0 | 11.2 | 19.6 | 2.7 |
| 23 | 13.9 | 2.6 | 20.4 | 1.9 | 31.1 | 15.9 | 24.0 | 19.3 | 22.0 | 8.1 | 15.1 | 7.2 |
| 24 | 14.1 | 4.0 | 27.5 | 5.2 | 32.7 | 17.3 | 27.3 | 19.5 | 20.4 | 10.2 | 18.2 | 5.2 |
| 25 | 16.0 | 1.7 | 20.2 | 13.0 | 30.7 | 19.7 | 28.2 | 16.7 | 25.0 | 15.3 | 23.7 | 2.5 |
| 26 | 18.1 | -2.6 | 18.8 | 10.7 | 26.5 | 16.6 | 31.7 | 16.2 | 26.0 | 13.9 | 20.9 | 5.4 |
| 27 | 11.8 | 8.2 | 20.5 | 8.1 | 30.0 | 12.9 | 34.2 | 19.6 | 27.8 | 14.3 | 23.6 | 4.5 |
| 28 | 14.8 | 5.3 | 20.7 | 9.3 | 29.5 | 13.5 | 31.3 | 19.5 | 27.7 | 14.4 | 23.5 | 6.4 |
| 29 | 19.5 | .1 | 14.9 | 11.4 | 28.6 | 16.8 | 25.7 | 14.6 | 20.9 | 11.2 | 24.1 | 9.3 |
| 30 | 24.4 | 2.1 | 22.6 | 12.5 | 26.3 | 18.4 | 24.2 | 10.4 | 23.6 | 10.9 | 20.6 | 11.3 |
| 31 | --- | --- | 18.5 | 14.6 | --- | --- | 27.1 | 10.1 | 27.1 | 10.6 | --- | --- |
| MONTH | 24.8 | -8.7 | 28.8 | -.2 | 32.7 | 7.4 | 34.6 | 9.1 | 31.5 | 6.9 | 30.1 | 2.5 |
| YEAR | 34.6 | -10.2 | | | | | | | | | | |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 12.7 | 12.6 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | 12.4 | 12.1 |
| 2 | 12.6 | 12.6 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | 12.4 | 12.1 |
| 3 | 12.6 | 12.6 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | 12.4 | 12.1 |
| 4 | 12.7 | 12.6 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | 12.4 | 11.9 |
| 5 | 12.7 | 12.6 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | 12.1 | 11.9 |
| 6 | 12.9 | 12.6 | 13.1 | 13.1 | 13.3 | 13.3 | --- | --- | --- | --- | 12.4 | 11.9 |
| 7 | 12.9 | 12.6 | 13.1 | 13.1 | 13.3 | 13.3 | --- | --- | 12.8 | 12.6 | 12.1 | 11.9 |
| 8 | 12.9 | 12.6 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | 12.8 | 12.6 | 11.9 | 11.9 |
| 9 | 12.9 | 12.8 | 13.0 | 13.0 | --- | --- | --- | --- | 12.8 | 12.6 | 12.1 | 11.9 |
| 10 | 12.9 | 12.8 | 13.1 | 13.0 | --- | --- | --- | --- | 12.8 | 12.6 | 12.1 | 11.9 |
| 11 | 12.9 | 12.8 | 13.1 | 13.0 | --- | --- | --- | --- | 12.8 | 12.6 | 12.1 | 11.9 |
| 12 | 12.9 | 12.8 | 13.1 | 13.0 | --- | --- | --- | --- | 12.8 | 12.6 | 12.1 | 11.9 |
| 13 | 12.9 | 12.9 | 13.3 | 13.0 | --- | --- | --- | --- | 12.8 | 12.6 | 12.1 | 11.9 |
| 14 | 12.9 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.8 | 12.3 | 12.1 | 11.9 |
| 15 | 12.9 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.8 | 12.3 | 12.1 | 11.9 |
| 16 | 12.9 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.8 | 12.3 | 12.1 | 11.9 |
| 17 | 12.9 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.8 | 12.3 | 12.1 | 11.7 |
| 18 | 12.9 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.6 | 12.3 | 11.9 | 11.7 |
| 19 | 13.1 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.6 | 12.4 | 11.9 | 11.7 |
| 20 | 13.1 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.6 | 12.3 | 11.9 | 11.7 |
| 21 | 13.1 | 12.9 | 13.3 | 13.0 | --- | --- | --- | --- | 12.4 | 12.4 | 11.9 | 11.7 |
| 22 | 13.1 | 12.8 | 13.3 | 13.0 | --- | --- | --- | --- | 12.6 | 12.3 | 11.9 | 11.7 |
| 23 | --- | --- | 13.3 | 13.3 | --- | --- | --- | --- | 12.6 | 12.3 | 11.9 | 11.7 |
| 24 | --- | --- | 13.3 | 13.3 | --- | --- | --- | --- | 12.6 | 12.3 | 11.9 | 11.6 |
| 25 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | 12.6 | 12.3 | 11.7 | 11.7 |
| 26 | 13.1 | 13.1 | 13.3 | 13.3 | --- | --- | --- | --- | 12.6 | 12.1 | 11.9 | 11.5 |
| 27 | 13.1 | 13.1 | 13.3 | 13.3 | --- | --- | --- | --- | 12.4 | 12.1 | 11.9 | 11.5 |
| 28 | 13.1 | 13.1 | 13.3 | 13.3 | --- | --- | --- | --- | 12.6 | 12.1 | 11.7 | 11.5 |
| 29 | 13.1 | 13.0 | 13.3 | 13.3 | --- | --- | --- | --- | --- | --- | 11.7 | 11.5 |
| 30 | 13.1 | 13.1 | 13.3 | 13.3 | --- | --- | --- | --- | --- | --- | 11.7 | 11.5 |
| 31 | 13.1 | 13.0 | --- | --- | --- | --- | --- | --- | --- | --- | 11.9 | 11.5 |
| MONTH | 13.1 | 12.6 | 13.3 | 13.0 | 13.3 | 13.3 | --- | --- | 12.8 | 12.1 | 12.4 | 11.5 |

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 11.9 | 11.4 | 11.5 | 11.2 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 11.9 |
| 2 | 11.7 | 11.4 | 11.5 | 11.2 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 11.9 |
| 3 | 11.7 | 11.5 | 11.5 | 11.3 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 12.1 |
| 4 | 11.5 | 11.5 | 11.3 | 11.2 | 11.5 | 11.3 | 11.5 | 11.5 | 11.8 | 11.7 | 12.2 | 12.1 |
| 5 | 11.5 | 11.5 | 11.5 | 11.2 | 11.5 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 12.1 |
| 6 | 11.5 | 11.5 | 11.5 | 11.3 | 11.5 | 11.3 | 11.6 | 11.5 | 11.9 | 11.7 | 12.2 | 12.1 |
| 7 | 11.7 | 11.5 | 11.5 | 11.2 | 11.3 | 11.3 | 11.6 | 11.5 | 12.0 | 11.7 | 12.2 | 12.2 |
| 8 | 11.7 | 11.4 | 11.3 | 11.3 | 11.5 | 11.3 | 11.6 | 11.5 | 12.0 | 11.7 | 12.4 | 12.2 |
| 9 | 11.7 | 11.4 | 11.3 | 11.3 | 11.5 | 11.3 | 11.5 | 11.5 | 12.0 | 11.7 | 12.4 | 12.2 |
| 10 | 11.7 | 11.4 | 11.3 | 11.2 | 11.6 | 11.3 | 11.8 | 11.5 | 12.0 | 11.9 | 12.4 | 12.2 |
| 11 | 11.5 | 11.5 | 11.5 | 11.2 | 11.5 | 11.3 | 11.7 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 12 | 11.7 | 11.5 | 11.5 | 11.3 | 11.5 | 11.3 | 11.6 | 11.5 | 12.0 | 11.9 | 12.4 | 11.0 |
| 13 | 11.7 | 11.5 | 11.5 | 11.2 | 11.5 | 11.3 | 11.6 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 14 | 11.7 | 11.3 | 11.3 | 11.2 | 11.5 | 11.3 | 11.7 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 15 | 11.7 | 11.4 | 11.5 | 11.2 | 11.7 | 11.3 | 11.7 | 11.5 | 12.0 | 11.9 | 12.5 | 12.4 |
| 16 | 11.7 | 11.2 | 11.5 | 11.2 | 11.5 | 11.3 | 11.8 | 11.5 | 12.0 | 12.0 | 12.5 | 12.4 |
| 17 | 11.7 | 11.3 | 11.3 | 11.3 | 11.5 | 11.5 | 11.8 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 18 | 11.7 | 11.2 | 11.3 | 11.3 | 11.5 | 11.5 | 11.8 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 19 | 11.7 | 11.2 | 11.3 | 11.3 | 11.6 | 11.3 | 11.8 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 20 | 11.7 | 11.3 | 11.3 | 11.3 | 11.6 | 11.3 | 11.8 | 11.5 | 12.0 | 11.9 | 12.4 | 12.4 |
| 21 | 11.5 | 11.3 | 11.3 | 11.3 | 11.6 | 11.3 | 11.8 | 11.5 | 12.0 | 11.9 | 12.6 | 12.4 |
| 22 | 11.5 | 11.2 | 11.5 | 11.2 | 11.6 | 11.3 | 11.8 | 11.7 | 12.0 | 11.9 | 12.6 | 12.4 |
| 23 | 11.7 | 11.2 | 11.5 | 11.2 | 11.6 | 11.5 | 11.8 | 11.7 | 12.0 | 11.9 | 12.6 | 12.4 |
| 24 | 11.5 | 11.3 | 11.3 | 11.2 | 11.6 | 11.3 | 11.8 | 11.7 | 12.0 | 11.9 | 12.7 | 12.4 |
| 25 | 11.7 | 11.2 | 11.3 | 11.3 | 11.6 | 11.3 | 11.8 | 11.7 | 12.0 | 11.9 | 12.7 | 12.6 |
| 26 | 11.7 | 11.2 | 11.3 | 11.3 | 11.6 | 11.3 | 11.8 | 11.7 | 12.2 | 11.9 | 12.7 | 12.6 |
| 27 | 11.5 | 11.3 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 11.9 | 12.7 | 12.6 |
| 28 | 11.5 | 11.3 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 11.9 | 12.7 | 12.6 |
| 29 | 11.7 | 11.2 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 11.9 | 12.7 | 12.6 |
| 30 | 11.5 | 11.2 | 11.3 | 11.3 | 11.6 | 11.5 | 11.8 | 11.7 | 12.2 | 11.9 | 12.6 | 12.6 |
| 31 | --- | --- | 11.3 | 11.3 | --- | --- | 11.8 | 11.7 | 12.2 | 11.9 | --- | --- |
| MONTH | 11.9 | 11.2 | 11.5 | 11.2 | 11.7 | 11.3 | 11.8 | 11.5 | 12.2 | 11.7 | 12.7 | 11.0 |
| YEAR | 13.3 | 11.0 | | | | | | | | | | |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 17.5 | 16.5 | 11.8 | 10.9 | 6.9 | 4.1 | --- | --- | --- | --- | 7.2 | 3.7 |
| 2 | 17.5 | 15.8 | 10.9 | 9.7 | 6.6 | 5.4 | --- | --- | --- | --- | 8.3 | 7.2 |
| 3 | 15.8 | 14.4 | 9.7 | 8.8 | 5.4 | 4.6 | --- | --- | --- | --- | 7.3 | 5.5 |
| 4 | 14.4 | 13.4 | 8.9 | 7.9 | 5.1 | 4.6 | --- | --- | --- | --- | 6.7 | 5.6 |
| 5 | 14.1 | 13.3 | 9.9 | 8.8 | 4.6 | 3.6 | --- | --- | --- | --- | 6.6 | 5.9 |
| 6 | 14.1 | 13.3 | 10.1 | 7.8 | 4.7 | 4.2 | --- | --- | --- | --- | 6.3 | 5.4 |
| 7 | 14.2 | 13.1 | 11.8 | 8.9 | 5.0 | 4.6 | --- | --- | .5 | .4 | 5.4 | 4.3 |
| 8 | 14.3 | 14.0 | 11.7 | 10.6 | 4.8 | 4.0 | --- | --- | .5 | .4 | 6.2 | 4.9 |
| 9 | 14.0 | 12.9 | 10.6 | 9.2 | --- | --- | --- | --- | .6 | .5 | 5.9 | 4.7 |
| 10 | 13.2 | 12.6 | 9.2 | 8.3 | --- | --- | --- | --- | .6 | .6 | 6.2 | 5.5 |
| 11 | 12.7 | 11.7 | 8.3 | 7.3 | --- | --- | --- | --- | .7 | .6 | 6.0 | 5.1 |
| 12 | 13.5 | 12.5 | 7.3 | 6.2 | --- | --- | --- | --- | .7 | .6 | 5.7 | 4.6 |
| 13 | 14.4 | 13.4 | 6.2 | 5.9 | --- | --- | --- | --- | .7 | .6 | 5.2 | 4.3 |
| 14 | 14.4 | 13.5 | 6.0 | 5.3 | --- | --- | --- | --- | .7 | .5 | 6.4 | 4.8 |
| 15 | 14.6 | 13.8 | 5.3 | 4.3 | --- | --- | --- | --- | .8 | .7 | 5.8 | 4.2 |
| 16 | 14.7 | 13.8 | 4.7 | 4.1 | --- | --- | --- | --- | .8 | .7 | 4.2 | 3.3 |
| 17 | 14.8 | 12.2 | 5.3 | 3.5 | --- | --- | --- | --- | .8 | .7 | 4.7 | 3.4 |
| 18 | 13.7 | 12.6 | 6.5 | 5.3 | --- | --- | --- | --- | .8 | .7 | 5.2 | 3.6 |
| 19 | 12.6 | 12.2 | 6.2 | 5.7 | --- | --- | --- | --- | .8 | .2 | 5.3 | 4.4 |
| 20 | 13.2 | 12.5 | 5.9 | 5.6 | --- | --- | --- | --- | 1.1 | .8 | 5.9 | 4.8 |
| 21 | 13.9 | 13.2 | 5.6 | 5.1 | --- | --- | --- | --- | 4.6 | 1.0 | 7.0 | 4.7 |
| 22 | 13.9 | 13.1 | 5.1 | 4.7 | --- | --- | --- | --- | 4.9 | 3.9 | 7.2 | 6.5 |
| 23 | --- | --- | 4.8 | 4.5 | --- | --- | --- | --- | 3.9 | 2.8 | 6.5 | 5.5 |
| 24 | --- | --- | 5.6 | 4.8 | --- | --- | --- | --- | 3.1 | 2.3 | 5.9 | 4.6 |
| 25 | 12.9 | 11.8 | 5.8 | 4.6 | --- | --- | --- | --- | 2.5 | 2.0 | 7.5 | 5.8 |
| 26 | 12.7 | 12.0 | 5.9 | 5.1 | --- | --- | --- | --- | 2.3 | -.3 | 7.5 | 6.9 |
| 27 | 14.3 | 12.7 | 5.1 | 4.2 | --- | --- | --- | --- | 5.1 | 2.3 | 7.9 | 6.0 |
| 28 | 14.5 | 13.9 | 4.2 | 3.5 | --- | --- | --- | --- | 4.8 | 3.9 | 8.7 | 7.2 |
| 29 | 13.9 | 12.5 | 3.5 | 3.0 | --- | --- | --- | --- | --- | --- | 9.5 | 8.3 |
| 30 | 14.2 | 13.3 | 4.3 | 1.9 | --- | --- | --- | --- | --- | --- | 9.3 | 8.5 |
| 31 | 13.8 | 11.8 | --- | --- | --- | --- | --- | --- | --- | --- | 8.5 | 6.8 |
| MONTH | 17.5 | 11.7 | 11.8 | 1.9 | 6.9 | 3.6 | --- | --- | 5.1 | -.3 | 9.5 | 3.3 |

393541083001100 PK-48 NR CIRCLEVILLE OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.0 | 5.6 | 12.2 | 11.3 | 16.7 | 14.6 | 22.6 | 20.1 | 22.1 | 20.6 | 21.6 | 20.5 |
| 2 | 7.5 | 5.7 | 11.4 | 9.0 | 17.8 | 16.5 | 23.0 | 21.8 | 22.0 | 21.0 | 22.1 | 20.9 |
| 3 | 8.3 | 6.3 | 12.1 | 10.3 | 17.6 | 16.6 | 22.8 | 21.5 | 22.7 | 21.5 | 22.1 | 20.2 |
| 4 | 9.9 | 7.8 | 12.4 | 11.1 | 17.0 | 16.0 | 22.6 | 21.6 | 22.6 | 19.2 | 20.2 | 18.5 |
| 5 | 10.7 | 8.5 | 12.1 | 10.8 | 17.3 | 16.0 | 21.6 | 20.5 | 22.3 | 21.1 | 18.9 | 17.8 |
| 6 | 11.8 | 10.6 | 12.8 | 11.6 | 17.3 | 16.3 | 21.0 | 19.7 | 21.1 | 19.8 | 19.1 | 18.2 |
| 7 | 11.6 | 9.8 | 12.9 | 11.2 | 17.2 | 16.4 | 21.4 | 19.8 | 20.3 | 19.2 | 20.0 | 18.9 |
| 8 | 9.8 | 8.2 | 12.8 | 11.0 | 16.7 | 16.2 | 22.1 | 20.4 | 20.4 | 19.0 | 20.1 | 19.4 |
| 9 | 9.0 | 7.0 | 12.5 | 11.3 | 17.5 | 16.0 | 21.9 | 20.2 | 21.2 | 19.8 | 20.0 | 19.4 |
| 10 | 7.4 | 5.8 | 12.0 | 11.1 | 17.8 | 16.4 | 20.9 | 19.8 | 21.7 | 20.7 | 20.2 | 19.4 |
| 11 | 8.9 | 7.2 | 12.1 | 10.5 | 17.8 | 16.9 | 21.0 | 19.4 | 22.2 | 21.2 | 20.1 | 19.4 |
| 12 | 9.9 | 7.2 | 12.6 | 11.8 | 18.3 | 17.3 | 21.4 | 20.0 | 22.8 | 21.5 | 19.6 | 18.9 |
| 13 | 9.8 | 8.6 | 12.4 | 11.5 | 18.9 | 16.5 | 22.0 | 20.4 | 23.1 | 21.0 | 19.1 | 18.1 |
| 14 | 8.7 | 7.2 | 12.5 | 11.5 | 19.0 | 18.4 | 22.9 | 21.1 | 22.8 | 22.0 | 19.0 | 18.1 |
| 15 | 9.0 | 7.1 | 12.5 | 11.8 | 18.7 | 17.3 | 23.2 | 21.9 | 22.8 | 20.2 | 19.9 | 18.9 |
| 16 | 8.9 | 7.7 | 12.2 | 11.0 | 18.5 | 17.0 | 23.1 | 21.7 | 24.0 | 22.6 | 20.2 | 19.3 |
| 17 | 8.9 | 7.8 | 13.4 | 11.5 | 19.2 | 16.0 | 23.5 | 22.0 | 23.4 | 21.5 | 20.0 | 19.4 |
| 18 | 8.6 | 7.2 | 14.7 | 12.9 | 19.6 | 17.6 | 23.8 | 22.3 | 23.1 | 21.8 | 19.8 | 18.4 |
| 19 | 9.3 | 7.6 | 16.1 | 14.7 | 20.2 | 18.6 | 23.6 | 22.5 | 23.0 | 22.4 | 19.1 | 17.8 |
| 20 | 9.7 | 7.7 | 16.0 | 14.6 | 21.0 | 19.6 | 23.3 | 21.5 | 22.9 | 19.8 | 20.1 | 17.9 |
| 21 | 10.0 | 8.8 | 15.1 | 13.7 | 21.6 | 20.3 | 23.3 | 21.4 | 22.4 | 21.4 | 19.3 | 17.7 |
| 22 | 10.6 | 9.1 | 14.6 | 13.0 | 21.7 | 21.0 | 23.1 | 20.2 | 21.4 | 20.7 | 17.7 | 16.4 |
| 23 | 10.5 | 9.4 | 14.5 | 13.0 | 21.9 | 20.7 | 22.8 | 20.0 | 21.0 | 20.1 | 16.9 | 16.3 |
| 24 | 10.7 | 9.8 | 15.3 | 13.4 | 22.3 | 21.0 | 23.6 | 21.9 | 20.5 | 19.7 | 16.7 | 16.3 |
| 25 | 10.7 | 9.4 | 16.0 | 13.8 | 22.8 | 21.6 | 23.5 | 22.5 | 21.2 | 20.3 | 16.4 | 15.2 |
| 26 | 10.9 | 8.9 | 16.1 | 15.3 | 22.7 | 19.8 | 24.0 | 22.4 | 21.5 | 20.4 | 16.4 | 15.5 |
| 27 | 10.8 | 9.1 | 15.5 | 14.4 | 21.9 | 20.7 | 24.9 | 22.3 | 21.9 | 20.8 | 16.2 | 15.2 |
| 28 | 11.4 | 9.7 | 15.6 | 14.6 | 21.7 | 20.5 | 24.9 | 23.8 | 22.2 | 20.9 | 16.7 | 15.3 |
| 29 | 11.7 | 9.8 | 15.6 | 14.3 | 21.9 | 20.8 | 24.7 | 23.4 | 21.8 | 20.6 | 16.7 | 16.0 |
| 30 | 12.2 | 10.2 | 16.1 | 14.1 | 21.9 | 20.1 | 23.4 | 21.8 | 21.0 | 20.0 | 16.9 | 16.6 |
| 31 | --- | --- | 16.0 | 14.8 | --- | --- | 21.9 | 20.7 | 21.1 | 19.8 | --- | --- |
| MONTH | 12.2 | 5.6 | 16.1 | 9.0 | 22.8 | 14.6 | 24.9 | 19.4 | 24.0 | 19.0 | 22.1 | 15.2 |
| YEAR | 24.9 | -.3 | | | | | | | | | | |

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | .00 | .04 | .52 | --- | .00 | 2.00 | .00 | .18 | 1.04 | .20 | .00 | .00 |
| 2 | .00 | .00 | .00 | --- | .00 | .36 | .00 | .56 | .46 | .28 | .01 | .00 |
| 3 | .00 | .00 | .00 | --- | .00 | .18 | .00 | .36 | .03 | .01 | .00 | .03 |
| 4 | .00 | .00 | .00 | --- | 1.14 | .00 | .00 | .01 | .00 | .00 | .97 | .00 |
| 5 | .00 | .00 | .16 | --- | .00 | .20 | .24 | .07 | .00 | .00 | .00 | .00 |
| 6 | .00 | .18 | .00 | --- | .01 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .82 | .00 | --- | .00 | .00 | .00 | .00 | .04 | .00 | .00 | .00 |
| 8 | .42 | .07 | .00 | --- | .04 | .00 | .00 | .68 | .05 | .00 | .00 | .00 |
| 9 | .00 | .11 | --- | --- | .00 | .64 | .00 | .02 | .01 | .49 | .00 | .16 |
| 10 | .00 | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 | .05 | .03 |
| 11 | .00 | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 | .36 | .02 |
| 12 | .00 | .00 | --- | --- | .00 | .00 | .27 | .00 | .00 | .00 | .03 | .00 |
| 13 | .00 | .00 | --- | --- | .00 | .22 | .00 | .00 | .32 | .00 | 1.10 | .00 |
| 14 | .00 | .00 | --- | --- | .14 | .28 | .00 | .02 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 | 1.22 | .00 |
| 16 | .00 | .00 | --- | --- | .01 | .00 | .02 | .00 | .39 | .00 | .02 | .00 |
| 17 | .80 | .28 | --- | --- | .00 | .00 | .00 | .01 | .00 | .00 | .23 | .00 |
| 18 | .01 | .02 | --- | --- | .00 | .71 | .00 | .00 | .82 | .00 | .12 | .00 |
| 19 | .00 | .03 | --- | --- | .04 | .00 | .00 | .24 | .00 | .00 | .02 | .00 |
| 20 | .00 | .00 | --- | --- | .01 | .00 | .00 | .00 | .00 | .00 | 2.66 | .60 |
| 21 | .00 | .07 | --- | --- | .00 | .00 | .00 | .00 | .00 | .04 | .10 | .00 |
| 22 | .13 | .09 | --- | --- | .00 | .00 | .00 | .00 | .00 | .31 | .01 | .00 |
| 23 | --- | .01 | --- | --- | .00 | .00 | .00 | .00 | .00 | .48 | .02 | .03 |
| 24 | --- | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .16 | .00 | .00 |
| 25 | .00 | .80 | --- | --- | .00 | .34 | .02 | 1.06 | .00 | .00 | .02 | .00 |
| 26 | .20 | .10 | --- | --- | .29 | .00 | .00 | .15 | .10 | .00 | .01 | .00 |
| 27 | .01 | .00 | --- | --- | .00 | .00 | .24 | .00 | .00 | .82 | .00 | .00 |
| 28 | .06 | .00 | --- | --- | .00 | .13 | .08 | .00 | .00 | .01 | .08 | .00 |
| 29 | .00 | .02 | --- | --- | --- | .15 | .00 | .25 | .48 | .00 | .01 | .00 |
| 30 | .00 | .56 | --- | --- | --- | .19 | .00 | .00 | .14 | .00 | .00 | .00 |
| 31 | .00 | --- | --- | .00 | --- | .00 | --- | 1.66 | --- | .00 | .00 | --- |
| TOTAL | 1.63 | 3.20 | 0.68 | 0.00 | 1.68 | 5.40 | 0.87 | 5.27 | 3.88 | 2.80 | 7.04 | 0.87 |

WTR YR 1997 TOTAL 33.32

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; 0.020-in. screen from 13.7 to 28.7 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 23.7 ft below land surface.

DATUM.--Elevation of land-surface datum is 1029.89 ft above sea level. Measuring point: shelter shelf 2.32 ft above land-surface datum.

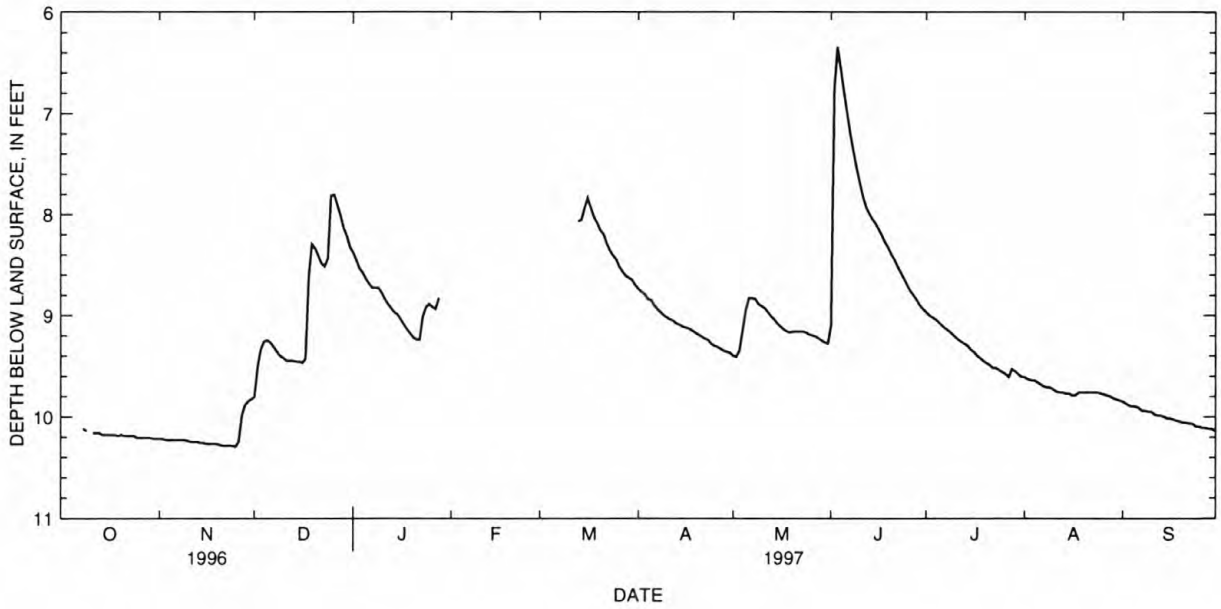
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells are available in preceding tables. Incomplete data this year due to problems with recorder.

PERIOD OF RECORD.--February 1991 to current year.

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, 10.62 ft below land-surface datum, December 19, 1991; maximum daily high, 4.64 ft below land-surface datum, May 11, 1996.
SPECIFIC CONDUCTANCE: Maximum, 919 microsiemens December 11-12, 1993; minimum, 712 microsiemens August 23-24, 1997.
AIR TEMPERATURE: Maximum, 37.6°C June 18, 1994; minimum, -33.6°C January 19, 1994.
WATER TEMPERATURE: Maximum, 13.2°C many days October, November 1992; minimum, 10.2°C many days in May, June, and July 1996.
SOIL TEMPERATURE: Maximum, 30.5°C August 2, 1991; minimum, -1.8°C Februrary 10, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 10.30 ft below land-surface datum, November 25, 1996; maximum daily high, 6.20 ft below land-surface datum, June 2-3, 1997.
SPECIFIC CONDUCTANCE: Maximum, 862 microsiemens October 7-8, 1996; minimum, 712 microsiemens August 23-24, 1997.
AIR TEMPERATURE: Maximum, 33.8°C July 27, 1997; minimum, -22.2°C January 13, 1997.
WATER TEMPERATURE: Maximum, 12.4°C many days in November, December, 1996; minimum, 10.3°C several days in May, June, 1997.
SOIL TEMPERATURE: Maximum, 25.2°C July 27, 1997; minimum, 0.4°C January 22, 1997.



400949083480100 CH-42 NR URBANA OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | --- | --- | --- | 10.22 | 10.21 | 10.21 | 9.81 | 9.51 | 9.68 | 8.38 | 8.33 | 8.35 |
| 2 | --- | --- | --- | 10.22 | 10.21 | 10.22 | 9.51 | 9.34 | 9.41 | 8.46 | 8.38 | 8.42 |
| 3 | --- | --- | --- | 10.23 | 10.22 | 10.22 | 9.34 | 9.26 | 9.29 | 8.54 | 8.46 | 8.50 |
| 4 | --- | --- | --- | 10.23 | 10.23 | 10.23 | 9.26 | 9.25 | 9.26 | 8.58 | 8.54 | 8.57 |
| 5 | --- | --- | --- | 10.23 | 10.23 | 10.23 | 9.25 | 9.24 | 9.25 | 8.64 | 8.58 | 8.61 |
| 6 | --- | --- | --- | 10.23 | 10.23 | 10.23 | 9.27 | 9.25 | 9.26 | 8.69 | 8.64 | 8.67 |
| 7 | --- | --- | --- | 10.23 | 10.23 | 10.23 | 9.31 | 9.27 | 9.30 | 8.73 | 8.69 | 8.71 |
| 8 | 10.12 | 10.11 | 10.12 | 10.23 | 10.23 | 10.23 | 9.36 | 9.31 | 9.33 | 8.73 | 8.73 | 8.73 |
| 9 | 10.14 | 10.12 | 10.13 | 10.23 | 10.23 | 10.23 | 9.40 | 9.36 | 9.38 | 8.73 | 8.70 | 8.71 |
| 10 | --- | --- | --- | 10.24 | 10.23 | 10.23 | 9.42 | 9.40 | 9.41 | 8.78 | 8.73 | 8.75 |
| 11 | 10.16 | 10.15 | 10.15 | 10.25 | 10.24 | 10.24 | 9.45 | 9.42 | 9.43 | 8.84 | 8.78 | 8.81 |
| 12 | 10.16 | 10.16 | 10.16 | 10.25 | 10.25 | 10.25 | 9.45 | 9.45 | 9.45 | 8.89 | 8.84 | 8.86 |
| 13 | 10.16 | 10.16 | 10.16 | 10.25 | 10.25 | 10.25 | 9.45 | 9.45 | 9.45 | 8.93 | 8.89 | 8.91 |
| 14 | 10.18 | 10.16 | 10.17 | 10.26 | 10.25 | 10.26 | 9.46 | 9.45 | 9.46 | 8.97 | 8.93 | 8.96 |
| 15 | 10.18 | 10.18 | 10.18 | 10.26 | 10.26 | 10.26 | 9.46 | 9.46 | 9.46 | 8.99 | 8.97 | 8.98 |
| 16 | 10.18 | 10.18 | 10.18 | 10.27 | 10.26 | 10.27 | 9.47 | 9.43 | 9.46 | 9.04 | 8.99 | 9.02 |
| 17 | 10.18 | 10.18 | 10.18 | 10.27 | 10.27 | 10.27 | 9.43 | 8.61 | 9.05 | 9.09 | 9.04 | 9.07 |
| 18 | 10.18 | 10.18 | 10.18 | 10.27 | 10.27 | 10.27 | 8.61 | 8.30 | 8.42 | 9.14 | 9.09 | 9.11 |
| 19 | 10.19 | 10.18 | 10.18 | 10.27 | 10.27 | 10.27 | 8.30 | 8.25 | 8.27 | 9.18 | 9.14 | 9.16 |
| 20 | 10.18 | 10.18 | 10.18 | 10.28 | 10.27 | 10.27 | 8.34 | 8.26 | 8.30 | 9.22 | 9.18 | 9.20 |
| 21 | 10.19 | 10.18 | 10.18 | 10.29 | 10.28 | 10.28 | 8.41 | 8.34 | 8.38 | 9.24 | 9.22 | 9.23 |
| 22 | 10.19 | 10.19 | 10.19 | 10.29 | 10.29 | 10.29 | 8.49 | 8.41 | 8.45 | 9.24 | 9.01 | 9.16 |
| 23 | 10.19 | 10.19 | 10.19 | 10.29 | 10.29 | 10.29 | 8.52 | 8.44 | 8.51 | 9.01 | 8.92 | 8.96 |
| 24 | 10.19 | 10.19 | 10.19 | 10.29 | 10.29 | 10.29 | 8.44 | 7.82 | 8.04 | 8.92 | 8.85 | 8.88 |
| 25 | 10.21 | 10.19 | 10.20 | 10.30 | 10.25 | 10.29 | 7.82 | 7.74 | 7.76 | 8.89 | 8.85 | 8.87 |
| 26 | 10.21 | 10.21 | 10.21 | 10.25 | 9.99 | 10.10 | 7.81 | 7.74 | 7.76 | 8.92 | 8.89 | 8.91 |
| 27 | 10.21 | 10.21 | 10.21 | 9.99 | 9.89 | 9.93 | 7.91 | 7.81 | 7.87 | 8.94 | 8.83 | 8.92 |
| 28 | 10.21 | 10.21 | 10.21 | 9.89 | 9.85 | 9.86 | 8.02 | 7.91 | 7.97 | 8.83 | 8.80 | 8.81 |
| 29 | 10.21 | 10.21 | 10.21 | 9.85 | 9.83 | 9.84 | 8.14 | 8.02 | 8.08 | --- | --- | --- |
| 30 | 10.22 | 10.21 | 10.21 | 9.83 | 9.81 | 9.82 | 8.22 | 8.14 | 8.18 | --- | --- | --- |
| 31 | 10.22 | 10.22 | 10.22 | --- | --- | --- | 8.33 | 8.22 | 8.27 | --- | --- | --- |
| MONTH | 10.22 | 10.11 | 10.18 | 10.30 | 9.81 | 10.20 | 9.81 | 7.74 | 8.83 | 9.24 | 8.33 | 8.85 |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | --- | --- | --- | --- | --- | --- | 8.74 | 8.70 | 8.72 | 9.40 | 9.37 | 9.38 |
| 2 | --- | --- | --- | --- | --- | --- | 8.77 | 8.74 | 8.76 | 9.41 | 9.35 | 9.41 |
| 3 | --- | --- | --- | --- | --- | --- | 8.79 | 8.77 | 8.78 | 9.35 | 9.15 | 9.26 |
| 4 | --- | --- | --- | --- | --- | --- | 8.84 | 8.79 | 8.82 | 9.15 | 8.95 | 9.04 |
| 5 | --- | --- | --- | --- | --- | --- | 8.85 | 8.84 | 8.85 | 8.95 | 8.83 | 8.88 |
| 6 | --- | --- | --- | --- | --- | --- | 8.90 | 8.85 | 8.88 | 8.83 | 8.82 | 8.82 |
| 7 | --- | --- | --- | --- | --- | --- | 8.94 | 8.90 | 8.92 | 8.83 | 8.82 | 8.82 |
| 8 | --- | --- | --- | --- | --- | --- | 8.97 | 8.94 | 8.95 | 8.84 | 8.83 | 8.83 |
| 9 | --- | --- | --- | --- | --- | --- | 9.00 | 8.97 | 8.98 | 8.89 | 8.84 | 8.87 |
| 10 | --- | --- | --- | --- | --- | --- | 9.02 | 9.00 | 9.01 | 8.91 | 8.89 | 8.90 |
| 11 | --- | --- | --- | --- | --- | --- | 9.04 | 9.02 | 9.03 | 8.93 | 8.91 | 8.93 |
| 12 | --- | --- | --- | --- | --- | --- | 9.05 | 9.04 | 9.04 | 8.97 | 8.93 | 8.95 |
| 13 | --- | --- | --- | 8.07 | 8.03 | 8.06 | 9.08 | 9.05 | 9.07 | 9.01 | 8.97 | 8.98 |
| 14 | --- | --- | --- | 8.06 | 7.94 | 8.00 | 9.09 | 9.08 | 9.09 | 9.04 | 9.01 | 9.02 |
| 15 | --- | --- | --- | 7.94 | 7.84 | 7.88 | 9.11 | 9.09 | 9.10 | 9.08 | 9.04 | 9.06 |
| 16 | --- | --- | --- | 7.84 | 7.83 | 7.84 | 9.12 | 9.11 | 9.11 | 9.11 | 9.08 | 9.10 |
| 17 | --- | --- | --- | 7.94 | 7.84 | 7.88 | 9.13 | 9.12 | 9.13 | 9.14 | 9.11 | 9.12 |
| 18 | --- | --- | --- | 8.03 | 7.94 | 7.99 | 9.15 | 9.13 | 9.14 | 9.16 | 9.14 | 9.15 |
| 19 | --- | --- | --- | 8.09 | 8.04 | 8.07 | 9.17 | 9.15 | 9.16 | 9.17 | 9.15 | 9.16 |
| 20 | --- | --- | --- | 8.16 | 8.09 | 8.13 | 9.19 | 9.17 | 9.18 | 9.16 | 9.16 | 9.16 |
| 21 | --- | --- | --- | 8.20 | 8.16 | 8.18 | 9.21 | 9.19 | 9.20 | 9.16 | 9.15 | 9.16 |
| 22 | --- | --- | --- | 8.29 | 8.20 | 8.25 | 9.23 | 9.21 | 9.22 | 9.16 | 9.15 | 9.15 |
| 23 | --- | --- | --- | 8.36 | 8.29 | 8.32 | 9.24 | 9.23 | 9.24 | 9.16 | 9.16 | 9.16 |
| 24 | --- | --- | --- | 8.41 | 8.36 | 8.38 | 9.28 | 9.24 | 9.26 | 9.17 | 9.16 | 9.17 |
| 25 | --- | --- | --- | 8.45 | 8.40 | 8.43 | 9.30 | 9.28 | 9.29 | 9.19 | 9.17 | 9.18 |
| 26 | --- | --- | --- | 8.52 | 8.45 | 8.49 | 9.31 | 9.30 | 9.31 | 9.20 | 9.19 | 9.19 |
| 27 | --- | --- | --- | 8.57 | 8.52 | 8.54 | 9.33 | 9.31 | 9.31 | 9.21 | 9.20 | 9.21 |
| 28 | --- | --- | --- | 8.61 | 8.57 | 8.59 | 9.35 | 9.33 | 9.34 | 9.23 | 9.21 | 9.23 |
| 29 | --- | --- | --- | 8.63 | 8.60 | 8.62 | 9.36 | 9.35 | 9.36 | 9.25 | 9.23 | 9.24 |
| 30 | --- | --- | --- | 8.65 | 8.63 | 8.64 | 9.37 | 9.36 | 9.37 | 9.27 | 9.25 | 9.26 |
| 31 | --- | --- | --- | 8.70 | 8.65 | 8.68 | --- | --- | --- | 9.28 | 9.10 | 9.23 |
| MONTH | --- | --- | --- | 8.70 | 7.83 | 8.26 | 9.37 | 8.70 | 9.09 | 9.41 | 8.82 | 9.10 |

400949083480100 CH-42 NR URBANA OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 9.10 | 6.76 | 8.00 | 8.97 | 8.94 | 8.96 | 9.61 | 9.61 | 9.61 | 9.85 | 9.84 | 9.85 |
| 2 | 6.76 | 6.20 | 6.38 | 9.00 | 8.97 | 8.99 | 9.63 | 9.61 | 9.62 | 9.87 | 9.85 | 9.86 |
| 3 | 6.34 | 6.20 | 6.25 | 9.02 | 8.98 | 9.00 | 9.64 | 9.63 | 9.63 | 9.89 | 9.87 | 9.88 |
| 4 | 6.56 | 6.34 | 6.45 | 9.04 | 9.02 | 9.03 | 9.64 | 9.64 | 9.64 | 9.90 | 9.89 | 9.89 |
| 5 | 6.78 | 6.56 | 6.67 | 9.07 | 9.04 | 9.06 | 9.66 | 9.64 | 9.65 | 9.90 | 9.90 | 9.90 |
| 6 | 7.00 | 6.78 | 6.89 | 9.10 | 9.07 | 9.09 | 9.68 | 9.66 | 9.67 | 9.91 | 9.90 | 9.91 |
| 7 | 7.20 | 7.00 | 7.10 | 9.13 | 9.10 | 9.11 | 9.70 | 9.68 | 9.69 | 9.94 | 9.91 | 9.93 |
| 8 | 7.38 | 7.20 | 7.29 | 9.15 | 9.13 | 9.14 | 9.71 | 9.70 | 9.70 | 9.94 | 9.94 | 9.94 |
| 9 | 7.54 | 7.38 | 7.46 | 9.18 | 9.15 | 9.16 | 9.71 | 9.71 | 9.71 | 9.95 | 9.94 | 9.95 |
| 10 | 7.69 | 7.54 | 7.62 | 9.21 | 9.18 | 9.19 | 9.73 | 9.71 | 9.72 | 9.95 | 9.95 | 9.95 |
| 11 | 7.82 | 7.69 | 7.76 | 9.24 | 9.21 | 9.22 | 9.75 | 9.73 | 9.74 | 9.98 | 9.95 | 9.97 |
| 12 | 7.93 | 7.82 | 7.88 | 9.26 | 9.24 | 9.25 | 9.76 | 9.75 | 9.75 | 9.99 | 9.98 | 9.98 |
| 13 | 7.99 | 7.93 | 7.96 | 9.28 | 9.26 | 9.27 | 9.76 | 9.75 | 9.75 | 9.99 | 9.99 | 9.99 |
| 14 | 8.05 | 7.99 | 8.02 | 9.30 | 9.28 | 9.29 | 9.77 | 9.76 | 9.76 | 10.00 | 9.99 | 9.99 |
| 15 | 8.09 | 8.05 | 8.07 | 9.34 | 9.30 | 9.32 | 9.77 | 9.77 | 9.77 | 10.02 | 10.00 | 10.01 |
| 16 | 8.15 | 8.09 | 8.12 | 9.36 | 9.34 | 9.35 | 9.79 | 9.77 | 9.79 | 10.02 | 10.02 | 10.02 |
| 17 | 8.21 | 8.15 | 8.18 | 9.40 | 9.36 | 9.38 | 9.79 | 9.76 | 9.77 | 10.03 | 10.02 | 10.03 |
| 18 | 8.28 | 8.21 | 8.24 | 9.42 | 9.40 | 9.41 | 9.76 | 9.76 | 9.76 | 10.04 | 10.03 | 10.04 |
| 19 | 8.33 | 8.28 | 8.31 | 9.45 | 9.42 | 9.43 | 9.76 | 9.76 | 9.76 | 10.05 | 10.04 | 10.05 |
| 20 | 8.40 | 8.33 | 8.36 | 9.47 | 9.45 | 9.46 | 9.76 | 9.76 | 9.76 | 10.06 | 10.05 | 10.06 |
| 21 | 8.45 | 8.40 | 8.42 | 9.49 | 9.47 | 9.48 | 9.76 | 9.76 | 9.76 | 10.06 | 10.06 | 10.06 |
| 22 | 8.52 | 8.45 | 8.49 | 9.52 | 9.49 | 9.50 | 9.76 | 9.75 | 9.75 | 10.07 | 10.06 | 10.07 |
| 23 | 8.58 | 8.52 | 8.56 | 9.52 | 9.52 | 9.52 | 9.76 | 9.75 | 9.76 | 10.07 | 10.07 | 10.07 |
| 24 | 8.64 | 8.58 | 8.61 | 9.54 | 9.52 | 9.53 | 9.76 | 9.76 | 9.76 | 10.10 | 10.07 | 10.08 |
| 25 | 8.70 | 8.64 | 8.67 | 9.56 | 9.54 | 9.55 | 9.77 | 9.76 | 9.77 | 10.10 | 10.10 | 10.10 |
| 26 | 8.76 | 8.70 | 8.73 | 9.58 | 9.56 | 9.57 | 9.78 | 9.77 | 9.78 | 10.11 | 10.10 | 10.10 |
| 27 | 8.80 | 8.76 | 8.78 | 9.61 | 9.51 | 9.57 | 9.79 | 9.78 | 9.79 | 10.11 | 10.11 | 10.11 |
| 28 | 8.85 | 8.80 | 8.83 | 9.53 | 9.51 | 9.52 | 9.80 | 9.79 | 9.80 | 10.12 | 10.11 | 10.11 |
| 29 | 8.90 | 8.85 | 8.88 | 9.55 | 9.53 | 9.54 | 9.82 | 9.80 | 9.81 | 10.12 | 10.12 | 10.12 |
| 30 | 8.94 | 8.90 | 8.92 | 9.58 | 9.55 | 9.57 | 9.83 | 9.82 | 9.83 | 10.14 | 10.12 | 10.13 |
| 31 | --- | --- | --- | 9.61 | 9.58 | 9.59 | 9.84 | 9.83 | 9.84 | --- | --- | --- |
| MONTH | 9.10 | 6.20 | 7.93 | 9.61 | 8.94 | 9.32 | 9.84 | 9.61 | 9.74 | 10.14 | 9.84 | 10.01 |
| YEAR | 10.30 | 6.20 | 9.24 | | | | | | | | | |

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 848 | 843 | 833 | 832 | 835 | 830 | --- | --- | --- | --- |
| 2 | --- | --- | 850 | 843 | 837 | 831 | 834 | 833 | --- | --- | --- | --- |
| 3 | --- | --- | 851 | 842 | 833 | 831 | 833 | 832 | --- | --- | --- | --- |
| 4 | --- | --- | 850 | 842 | 833 | 832 | 833 | 832 | --- | --- | --- | --- |
| 5 | --- | --- | 847 | 841 | 836 | 831 | 834 | 832 | --- | --- | --- | --- |
| 6 | --- | --- | 847 | 841 | 832 | 830 | 839 | 833 | --- | --- | --- | --- |
| 7 | 862 | 856 | 846 | 840 | 835 | 829 | 840 | 832 | --- | --- | --- | --- |
| 8 | 862 | 856 | 846 | 840 | 836 | 831 | 841 | 832 | --- | --- | --- | --- |
| 9 | --- | --- | 843 | 841 | 832 | 831 | 834 | 832 | --- | --- | --- | --- |
| 10 | --- | --- | 849 | 843 | 837 | 828 | 841 | 833 | --- | --- | --- | --- |
| 11 | 858 | 850 | 849 | 842 | 834 | 829 | 842 | 834 | --- | --- | --- | --- |
| 12 | 854 | 848 | 851 | 842 | 831 | 830 | 841 | 832 | --- | --- | --- | --- |
| 13 | 851 | 846 | 849 | 843 | 837 | 831 | 842 | 831 | --- | --- | 821 | 819 |
| 14 | 853 | 846 | 849 | 840 | 838 | 831 | 842 | 829 | --- | --- | 824 | 818 |
| 15 | 848 | 846 | 849 | 840 | 838 | 831 | 840 | 830 | --- | --- | 824 | 819 |
| 16 | 848 | 846 | 843 | 839 | 837 | 831 | 839 | 830 | --- | --- | 822 | 817 |
| 17 | 852 | 846 | 841 | 839 | 839 | 832 | 840 | 832 | --- | --- | 823 | 817 |
| 18 | 851 | 846 | 846 | 839 | 841 | 834 | 840 | 831 | --- | --- | 823 | 817 |
| 19 | 851 | 846 | 845 | 839 | 842 | 836 | 840 | 830 | --- | --- | 822 | 818 |
| 20 | 852 | 846 | 844 | 838 | 846 | 841 | 840 | 830 | --- | --- | 821 | 817 |
| 21 | 846 | 845 | 841 | 838 | 843 | 834 | 839 | 830 | --- | --- | 820 | 815 |
| 22 | 846 | 845 | 845 | 838 | 838 | 837 | 834 | 830 | --- | --- | 818 | 815 |
| 23 | 846 | 845 | 846 | 837 | 838 | 836 | 831 | 830 | --- | --- | 818 | 815 |
| 24 | 846 | 844 | 839 | 836 | 844 | 836 | 834 | 829 | --- | --- | 819 | 814 |
| 25 | 848 | 842 | 842 | 837 | 843 | 835 | 835 | 829 | --- | --- | 816 | 812 |
| 26 | 845 | 845 | 842 | 837 | 840 | 830 | 837 | 830 | --- | --- | 815 | 811 |
| 27 | 845 | 845 | 842 | 837 | 832 | 830 | 835 | 828 | --- | --- | 813 | 810 |
| 28 | 846 | 841 | 842 | 834 | 834 | 829 | 833 | 828 | --- | --- | 811 | 809 |
| 29 | 846 | 841 | 842 | 834 | 835 | 829 | --- | --- | --- | --- | 811 | 808 |
| 30 | 845 | 841 | 839 | 832 | 836 | 830 | --- | --- | --- | --- | 810 | 808 |
| 31 | 847 | 841 | --- | --- | 835 | 830 | --- | --- | --- | --- | 810 | 807 |
| MONTH | 862 | 841 | 851 | 832 | 846 | 828 | 842 | 828 | --- | --- | 824 | 807 |

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SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 809 | 804 | 782 | 780 | 752 | 743 | 744 | 738 | 721 | 720 | 720 | 714 |
| 2 | 808 | 803 | 784 | 778 | 748 | 742 | 744 | 738 | 721 | 719 | 720 | 714 |
| 3 | 807 | 802 | 781 | 776 | 746 | 741 | 742 | 737 | 721 | 719 | 719 | 714 |
| 4 | 808 | 802 | 778 | 773 | 746 | 741 | 742 | 737 | 721 | 719 | 721 | 715 |
| 5 | 806 | 801 | 775 | 771 | 746 | 741 | 741 | 736 | 720 | 718 | 722 | 716 |
| 6 | 806 | 802 | 775 | 770 | 747 | 741 | 737 | 735 | 720 | 717 | 722 | 717 |
| 7 | 805 | 799 | 774 | 769 | 747 | 742 | 740 | 735 | 719 | 717 | 718 | 717 |
| 8 | 804 | 799 | 772 | 768 | 746 | 741 | 740 | 735 | 719 | 717 | 719 | 717 |
| 9 | 804 | 799 | 772 | 768 | 747 | 741 | 736 | 734 | 719 | 718 | 720 | 718 |
| 10 | 803 | 797 | 771 | 767 | 747 | 741 | 736 | 733 | 719 | 718 | 720 | 719 |
| 11 | 803 | 798 | 771 | 765 | 747 | 742 | 735 | 733 | 719 | 715 | 721 | 716 |
| 12 | 801 | 796 | 770 | 765 | 747 | 742 | 735 | 733 | 719 | 714 | 722 | 717 |
| 13 | 801 | 795 | 768 | 763 | 748 | 742 | 735 | 733 | 719 | 714 | 721 | 717 |
| 14 | 801 | 793 | 768 | 762 | 747 | 741 | 735 | 732 | 719 | 713 | 722 | 717 |
| 15 | 800 | 795 | 768 | 762 | 746 | 741 | 734 | 732 | 719 | 714 | 723 | 718 |
| 16 | 798 | 793 | 767 | 761 | 746 | 741 | 733 | 731 | 719 | 713 | 724 | 718 |
| 17 | 797 | 791 | 766 | 760 | 745 | 741 | 734 | 728 | 715 | 713 | 720 | 718 |
| 18 | 797 | 791 | 765 | 759 | 746 | 740 | 733 | 727 | 715 | 714 | 724 | 718 |
| 19 | 795 | 790 | 763 | 757 | 746 | 740 | 733 | 727 | 715 | 714 | 720 | 719 |
| 20 | 794 | 790 | 762 | 757 | 745 | 739 | 733 | 727 | 715 | 714 | 720 | 719 |
| 21 | 792 | 789 | 762 | 756 | 745 | 739 | 732 | 726 | 716 | 715 | 722 | 720 |
| 22 | 791 | 787 | 761 | 755 | 746 | 740 | 731 | 726 | 716 | 715 | 722 | 721 |
| 23 | 789 | 786 | 760 | 754 | 746 | 739 | 730 | 725 | 717 | 712 | 722 | 721 |
| 24 | 790 | 785 | 758 | 753 | 746 | 739 | 730 | 725 | 717 | 712 | 722 | 721 |
| 25 | 789 | 785 | 757 | 752 | 745 | 739 | 731 | 724 | 718 | 713 | 723 | 721 |
| 26 | 788 | 784 | 757 | 751 | 745 | 739 | 728 | 723 | 719 | 713 | 723 | 722 |
| 27 | 786 | 783 | 757 | 750 | 746 | 738 | 729 | 722 | 719 | 713 | 724 | 723 |
| 28 | 787 | 782 | 755 | 750 | 746 | 739 | 724 | 722 | 720 | 714 | 725 | 722 |
| 29 | 785 | 780 | 755 | 748 | 745 | 739 | 723 | 721 | 716 | 715 | 724 | 723 |
| 30 | 784 | 780 | 753 | 748 | 743 | 738 | 723 | 721 | 717 | 716 | 725 | 724 |
| 31 | --- | --- | 752 | 747 | --- | --- | 723 | 720 | 718 | 717 | --- | --- |
| MONTH | 809 | 780 | 784 | 747 | 752 | 738 | 744 | 720 | 721 | 712 | 725 | 714 |
| YEAR | 862 | 712 | | | | | | | | | | |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 7.4 | -1.8 | 14.5 | -1.1 | 8.6 | -.3 | --- | --- | --- | --- |
| 2 | --- | --- | 4.7 | -3.9 | 5.5 | -4.4 | 12.9 | 8.6 | --- | --- | --- | --- |
| 3 | --- | --- | 6.8 | -6.6 | 5.6 | -4.4 | 14.1 | 11.7 | --- | --- | --- | --- |
| 4 | --- | --- | 12.2 | -4.3 | 1.1 | -4.1 | 17.0 | 11.9 | --- | --- | --- | --- |
| 5 | --- | --- | 16.4 | 5.7 | 2.8 | -2.8 | 15.6 | -2.0 | --- | --- | --- | --- |
| 6 | --- | --- | 15.3 | 6.7 | 3.2 | -2.5 | -2.0 | -7.7 | --- | --- | --- | --- |
| 7 | 21.6 | 7.2 | 20.9 | 4.6 | 7.8 | -1.3 | -1.3 | -10.3 | --- | --- | --- | --- |
| 8 | 10.7 | 1.0 | 9.7 | 3.6 | 1.8 | -3.2 | -2.6 | -13.4 | --- | --- | --- | --- |
| 9 | --- | --- | 3.6 | -.1 | 1.0 | -3.4 | .8 | -5.1 | --- | --- | --- | --- |
| 10 | --- | --- | 3.2 | -3.7 | 11.8 | -1.4 | -4.2 | -17.4 | --- | --- | --- | --- |
| 11 | 14.6 | -.6 | -.1 | -5.9 | 14.7 | 4.6 | -14.7 | -18.3 | --- | --- | --- | --- |
| 12 | 20.3 | 1.0 | .9 | -10.2 | 7.1 | 3.0 | -13.2 | -21.5 | --- | --- | --- | --- |
| 13 | 23.6 | 10.7 | -.9 | -5.0 | 3.6 | -3.5 | -13.1 | -22.2 | --- | --- | 4.5 | -.5 |
| 14 | 25.8 | 8.5 | 2.3 | -10.4 | 8.0 | -4.0 | -4.2 | -19.7 | --- | --- | 12.8 | -4.3 |
| 15 | 23.5 | 7.4 | 4.7 | -8.4 | 10.2 | -1.0 | 3.1 | -14.2 | --- | --- | -1.4 | -7.1 |
| 16 | 23.9 | 8.0 | 12.1 | -2.8 | 5.9 | -.2 | 1.0 | -18.1 | --- | --- | 2.8 | -9.6 |
| 17 | 25.7 | 5.2 | 13.6 | 3.0 | 6.4 | -2.1 | -14.3 | -20.4 | --- | --- | 10.1 | .3 |
| 18 | 18.5 | 3.4 | 9.7 | -.2 | -1.7 | -9.1 | -11.5 | -19.1 | --- | --- | 5.8 | -1.0 |
| 19 | 12.8 | -2.3 | 4.1 | -4.0 | -9.1 | -12.7 | -4.8 | -19.7 | --- | --- | 8.5 | -3.0 |
| 20 | 11.9 | 3.4 | 3.8 | -3.3 | -9.9 | -13.1 | 5.4 | -5.8 | --- | --- | 10.6 | -.9 |
| 21 | 21.5 | 7.9 | 1.6 | -4.0 | .6 | -13.4 | 8.1 | -6.7 | --- | --- | 21.8 | -.8 |
| 22 | 17.9 | 11.2 | 1.0 | -6.8 | 2.6 | -.3 | 10.3 | 1.9 | --- | --- | 13.2 | .8 |
| 23 | 16.7 | 6.6 | 7.4 | -7.5 | 10.2 | 2.6 | 1.9 | -3.5 | --- | --- | 10.5 | -4.9 |
| 24 | 16.4 | .9 | 7.3 | 3.2 | 9.9 | -8.1 | 3.3 | -3.5 | --- | --- | 9.0 | -6.1 |
| 25 | 18.4 | -.6 | 5.3 | 1.0 | -3.7 | -9.9 | 2.8 | -11.2 | --- | --- | 19.1 | 3.5 |
| 26 | 17.2 | 10.2 | 1.0 | -3.3 | 4.0 | -8.8 | -4.1 | -12.2 | --- | --- | 10.1 | 2.3 |
| 27 | 18.6 | 14.8 | -3.2 | -6.4 | 6.1 | .1 | 3.0 | -4.1 | --- | --- | 21.8 | 3.4 |
| 28 | 18.3 | 1.2 | 2.7 | -6.4 | 16.8 | 6.1 | -.9 | -12.0 | --- | --- | 20.0 | 7.4 |
| 29 | 20.6 | -.4 | 6.3 | -7.8 | 15.1 | 1.7 | --- | --- | --- | --- | 11.4 | 7.0 |
| 30 | 20.8 | 3.1 | 10.9 | 3.1 | 6.4 | .4 | --- | --- | --- | --- | 7.7 | .6 |
| 31 | 8.1 | -1.2 | --- | --- | 6.7 | -.4 | --- | --- | --- | --- | 6.4 | -2.6 |
| MONTH | 25.8 | -2.3 | 20.9 | -10.4 | 16.8 | -13.4 | 17.0 | -22.2 | --- | --- | 21.8 | -9.6 |

400949083480100 CH-42 NR URBANA OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 13.7 | -5.6 | 15.5 | 2.7 | 18.9 | 13.4 | 28.7 | 19.2 | 28.0 | 10.8 | 30.2 | 13.9 |
| 2 | 18.4 | -4.5 | 16.1 | 1.3 | 22.6 | 15.1 | 30.9 | 17.2 | 25.7 | 14.6 | 31.2 | 14.7 |
| 3 | 20.8 | -1.5 | 14.7 | 6.1 | 16.9 | 11.1 | 26.0 | 17.4 | 31.6 | 15.8 | 24.7 | 7.0 |
| 4 | 25.0 | 4.3 | 15.5 | 5.5 | 21.1 | 9.0 | 22.3 | 14.5 | 29.8 | 16.1 | 25.0 | 2.5 |
| 5 | 19.5 | 13.0 | 19.1 | 2.4 | 23.3 | 11.0 | 22.6 | 11.3 | 26.3 | 9.7 | 24.1 | 3.7 |
| 6 | 23.3 | 6.6 | 16.7 | 5.3 | 21.3 | 13.7 | 24.7 | 8.1 | 26.3 | 7.5 | 25.5 | 12.9 |
| 7 | 7.9 | -.2 | 19.1 | 1.0 | 19.2 | 12.0 | 27.6 | 14.3 | 26.0 | 7.8 | 29.7 | 13.5 |
| 8 | 9.7 | -6.2 | 15.6 | 10.0 | 18.9 | 12.9 | 28.4 | 17.1 | 27.1 | 8.1 | 28.0 | 12.0 |
| 9 | 3.6 | -8.1 | 13.9 | 5.9 | 24.6 | 11.4 | 24.9 | 13.1 | 26.6 | 13.6 | 22.4 | 17.1 |
| 10 | 8.1 | -8.3 | 15.4 | 4.7 | 27.7 | 9.4 | 26.5 | 11.0 | 24.6 | 17.6 | 20.0 | 16.0 |
| 11 | 16.9 | 1.9 | 21.5 | .1 | 26.9 | 12.2 | 27.2 | 11.0 | 28.6 | 17.1 | 19.7 | 10.4 |
| 12 | 15.6 | 4.2 | 15.8 | 5.9 | 25.6 | 15.7 | 29.1 | 11.8 | 29.4 | 16.5 | 21.7 | 8.0 |
| 13 | 4.5 | -1.8 | 16.1 | 1.9 | 26.9 | 16.7 | 29.9 | 13.0 | 25.5 | 15.4 | 27.0 | 7.1 |
| 14 | 11.3 | -3.8 | 19.1 | 5.4 | 25.9 | 12.5 | 31.9 | 16.4 | 28.8 | 11.9 | 27.6 | 11.1 |
| 15 | 14.8 | -2.9 | 12.6 | 5.5 | 25.7 | 8.1 | 28.3 | 17.8 | 27.4 | 18.9 | 28.1 | 15.1 |
| 16 | 14.9 | 3.8 | 14.8 | .9 | 26.7 | 15.7 | 31.4 | 13.5 | 31.2 | 19.1 | 28.6 | 12.7 |
| 17 | 4.5 | -1.4 | 24.2 | 9.7 | 24.8 | 13.9 | 32.3 | 16.7 | 26.8 | 18.6 | 24.4 | 9.6 |
| 18 | 12.3 | -3.3 | 28.2 | 13.9 | 21.8 | 17.6 | 31.1 | 18.3 | 25.4 | 17.3 | 28.0 | 6.3 |
| 19 | 14.4 | .3 | 26.4 | 11.1 | 29.4 | 16.2 | 32.9 | 13.5 | 24.8 | 14.3 | 28.7 | 9.0 |
| 20 | 16.9 | -3.2 | 18.2 | 5.4 | 30.6 | 18.2 | 29.5 | 9.5 | 20.7 | 16.7 | 24.1 | 10.3 |
| 21 | 14.0 | 4.0 | 17.7 | 3.6 | 30.8 | 19.7 | 30.5 | 15.4 | 22.1 | 13.6 | 22.4 | 5.4 |
| 22 | 12.8 | 5.3 | 19.9 | 2.7 | 28.5 | 18.5 | 22.9 | 19.7 | 20.1 | 11.5 | 23.2 | 1.8 |
| 23 | 13.1 | .9 | 21.3 | 3.2 | 31.7 | 16.6 | 26.2 | 19.8 | 24.1 | 7.4 | 15.9 | 9.2 |
| 24 | 14.4 | 2.4 | 27.8 | 5.2 | 32.1 | 18.4 | 29.8 | 19.1 | 19.6 | 11.9 | 22.3 | 5.0 |
| 25 | 16.8 | 1.2 | 21.5 | 11.5 | 32.8 | 20.0 | 29.6 | 14.2 | 25.7 | 14.2 | 24.9 | 1.1 |
| 26 | 18.6 | -3.0 | 18.9 | 9.1 | 27.3 | 15.9 | 32.6 | 17.1 | 27.2 | 13.2 | 28.1 | 4.8 |
| 27 | 13.5 | 9.0 | 20.9 | 7.1 | 31.6 | 12.0 | 33.8 | 20.6 | 28.8 | 13.4 | 25.6 | 4.9 |
| 28 | 14.5 | 3.7 | 20.1 | 9.8 | 28.9 | 14.8 | 31.3 | 20.0 | 28.1 | 14.1 | 27.2 | 5.4 |
| 29 | 20.1 | .0 | 15.3 | 11.7 | 29.9 | 18.0 | 26.1 | 15.5 | 27.1 | 11.0 | 24.5 | 9.5 |
| 30 | 23.6 | 2.3 | 19.0 | 13.2 | 26.9 | 19.6 | 27.5 | 10.9 | 24.3 | 9.3 | 20.0 | 11.0 |
| 31 | --- | --- | 15.4 | 13.7 | --- | --- | 28.6 | 10.2 | 27.7 | 13.2 | --- | --- |
| MONTH | 25.0 | -8.3 | 28.2 | .1 | 32.8 | 8.1 | 33.8 | 8.1 | 31.6 | 7.4 | 31.2 | 1.1 |
| YEAR | 33.8 | -22.2 | | | | | | | | | | |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 12.3 | 12.1 | 12.4 | 12.3 | 12.1 | 11.9 | --- | --- | --- | --- |
| 2 | --- | --- | 12.3 | 12.1 | 12.4 | 12.1 | 11.9 | 11.9 | --- | --- | --- | --- |
| 3 | --- | --- | 12.4 | 12.1 | 12.3 | 12.3 | 11.9 | 11.9 | --- | --- | --- | --- |
| 4 | --- | --- | 12.4 | 12.1 | 12.3 | 12.3 | 11.9 | 11.9 | --- | --- | --- | --- |
| 5 | --- | --- | 12.4 | 12.1 | 12.3 | 12.1 | 11.9 | 11.9 | --- | --- | --- | --- |
| 6 | --- | --- | 12.4 | 12.1 | 12.3 | 12.3 | 11.9 | 11.6 | --- | --- | --- | --- |
| 7 | 12.1 | 11.9 | 12.4 | 12.1 | 12.4 | 12.1 | 11.9 | 11.6 | --- | --- | --- | --- |
| 8 | 12.1 | 11.9 | 12.4 | 12.1 | 12.3 | 12.1 | 11.9 | 11.6 | --- | --- | --- | --- |
| 9 | --- | --- | 12.3 | 12.3 | 12.3 | 12.3 | 11.9 | 11.9 | --- | --- | --- | --- |
| 10 | --- | --- | 12.3 | 12.1 | 12.4 | 12.1 | 11.9 | 11.6 | --- | --- | --- | --- |
| 11 | 12.1 | 11.9 | 12.3 | 12.1 | 12.4 | 12.1 | 11.9 | 11.6 | --- | --- | --- | --- |
| 12 | 12.1 | 11.9 | 12.3 | 12.1 | 12.3 | 12.3 | 11.9 | 11.6 | --- | --- | --- | --- |
| 13 | 12.1 | 11.9 | 12.3 | 12.1 | 12.3 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 11.0 |
| 14 | 12.1 | 11.9 | 12.4 | 12.1 | 12.4 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 10.7 |
| 15 | 12.1 | 12.1 | 12.4 | 12.1 | 12.4 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 10.7 |
| 16 | 12.1 | 12.1 | 12.4 | 12.3 | 12.3 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 10.7 |
| 17 | 12.1 | 11.9 | 12.4 | 12.3 | 12.3 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 10.7 |
| 18 | 12.1 | 11.9 | 12.4 | 12.1 | 12.3 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 10.7 |
| 19 | 12.1 | 11.9 | 12.3 | 12.1 | 12.3 | 12.1 | 11.9 | 11.6 | --- | --- | 11.0 | 10.7 |
| 20 | 12.1 | 11.9 | 12.4 | 12.1 | 12.1 | 11.9 | 11.9 | 11.4 | --- | --- | 10.8 | 10.7 |
| 21 | 12.1 | 12.1 | 12.4 | 12.3 | 12.3 | 12.1 | 11.9 | 11.4 | --- | --- | 10.8 | 10.7 |
| 22 | 12.1 | 12.1 | 12.3 | 12.1 | 12.1 | 12.1 | 11.7 | 11.5 | --- | --- | 10.8 | 10.8 |
| 23 | 12.1 | 12.1 | 12.4 | 12.1 | 12.1 | 12.1 | 11.7 | 11.7 | --- | --- | 10.8 | 10.7 |
| 24 | 12.1 | 12.1 | 12.3 | 12.3 | 12.1 | 11.9 | 11.7 | 11.4 | --- | --- | 10.8 | 10.7 |
| 25 | 12.3 | 12.1 | 12.3 | 12.1 | 12.1 | 11.9 | 11.7 | 11.4 | --- | --- | 10.8 | 10.8 |
| 26 | 12.1 | 12.1 | 12.3 | 12.1 | 12.1 | 11.9 | 11.7 | 11.4 | --- | --- | 10.8 | 10.8 |
| 27 | 12.1 | 12.1 | 12.3 | 12.1 | 12.1 | 12.1 | 11.7 | 11.4 | --- | --- | 10.8 | 10.8 |
| 28 | 12.3 | 12.1 | 12.3 | 12.1 | 12.1 | 11.9 | 11.7 | 11.4 | --- | --- | 10.8 | 10.8 |
| 29 | 12.3 | 12.1 | 12.4 | 12.1 | 12.1 | 11.9 | --- | --- | --- | --- | 10.8 | 10.8 |
| 30 | 12.3 | 12.1 | 12.4 | 12.1 | 12.1 | 11.9 | --- | --- | --- | --- | 10.8 | 10.8 |
| 31 | 12.3 | 12.1 | --- | --- | 12.1 | 11.9 | --- | --- | --- | --- | 10.8 | 10.7 |
| MONTH | 12.3 | 11.9 | 12.4 | 12.1 | 12.4 | 11.9 | 12.1 | 11.4 | --- | --- | 11.0 | 10.7 |

400949083480100 CH-42 NR URBANA OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 10.8 | 10.7 | 10.6 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.4 | 11.2 |
| 2 | 10.8 | 10.6 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.4 | 11.2 |
| 3 | 10.8 | 10.6 | 10.6 | 10.3 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.4 | 11.2 |
| 4 | 10.8 | 10.6 | 10.6 | 10.4 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.8 | 11.5 | 11.2 |
| 5 | 10.8 | 10.6 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.5 | 11.2 |
| 6 | 10.8 | 10.6 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.5 | 10.8 | 10.8 | 11.5 | 11.3 |
| 7 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.5 | 11.4 |
| 8 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.5 | 11.4 |
| 9 | 10.8 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.6 | 10.6 | 10.8 | 10.8 | 11.4 | 11.4 |
| 10 | 10.8 | 10.6 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.5 | 10.8 | 10.8 | 11.4 | 11.4 |
| 11 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.6 | 11.0 | 10.8 | 11.6 | 11.4 |
| 12 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.6 | 11.0 | 10.8 | 11.6 | 11.4 |
| 13 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.6 | 11.0 | 10.8 | 11.7 | 11.4 |
| 14 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.6 | 11.0 | 10.8 | 11.7 | 11.4 |
| 15 | 10.7 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.6 | 11.0 | 10.8 | 11.7 | 11.4 |
| 16 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.6 | 11.0 | 10.8 | 11.7 | 11.4 |
| 17 | 10.8 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.0 | 11.0 | 11.7 | 11.6 |
| 18 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.6 | 11.0 | 11.0 | 11.7 | 11.5 |
| 19 | 10.8 | 10.5 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.6 | 11.0 | 11.0 | 11.7 | 11.6 |
| 20 | 10.6 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.0 | 11.0 | 11.7 | 11.6 |
| 21 | 10.6 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.0 | 11.0 | 11.7 | 11.6 |
| 22 | 10.6 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.0 | 11.0 | 11.7 | 11.6 |
| 23 | 10.6 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.2 | 11.0 | 11.7 | 11.6 |
| 24 | 10.6 | 10.4 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.2 | 11.0 | 11.7 | 11.6 |
| 25 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.6 | 11.2 | 11.0 | 11.7 | 11.6 |
| 26 | 10.6 | 10.4 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.3 | 11.0 | 11.7 | 11.6 |
| 27 | 10.6 | 10.5 | 10.6 | 10.3 | 10.6 | 10.4 | 10.8 | 10.6 | 11.3 | 11.0 | 11.7 | 11.6 |
| 28 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.3 | 11.0 | 11.7 | 11.6 |
| 29 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.2 | 11.2 | 11.7 | 11.6 |
| 30 | 10.6 | 10.4 | 10.6 | 10.4 | 10.6 | 10.4 | 10.8 | 10.8 | 11.3 | 11.2 | 11.7 | 11.6 |
| 31 | --- | --- | 10.6 | 10.4 | --- | --- | 10.8 | 10.8 | 11.3 | 11.2 | --- | --- |
| MONTH | 10.8 | 10.4 | 10.6 | 10.3 | 10.6 | 10.3 | 10.8 | 10.4 | 11.3 | 10.8 | 11.7 | 11.2 |
| YEAR | 12.4 | 10.3 | | | | | | | | | | |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 9.6 | 8.5 | 6.7 | 5.0 | 5.1 | 4.4 | --- | --- | --- | --- |
| 2 | --- | --- | 8.5 | 7.2 | 5.5 | 4.2 | 6.8 | 5.1 | --- | --- | --- | --- |
| 3 | --- | --- | 7.6 | 6.4 | 4.2 | 3.5 | 8.1 | 6.8 | --- | --- | --- | --- |
| 4 | --- | --- | 7.2 | 5.7 | 3.9 | 3.4 | 9.5 | 8.0 | --- | --- | --- | --- |
| 5 | --- | --- | 8.7 | 7.1 | 3.4 | 3.2 | 9.7 | 6.4 | --- | --- | --- | --- |
| 6 | --- | --- | 10.0 | 8.6 | 3.5 | 3.1 | 6.4 | 3.8 | --- | --- | --- | --- |
| 7 | 14.6 | 13.6 | 12.0 | 10.0 | 4.0 | 3.4 | 3.8 | 2.6 | --- | --- | --- | --- |
| 8 | 14.4 | 12.8 | 11.3 | 9.7 | 3.7 | 2.7 | 2.6 | 2.1 | --- | --- | --- | --- |
| 9 | --- | --- | 9.7 | 7.9 | 2.7 | 2.5 | 2.1 | 2.0 | --- | --- | --- | --- |
| 10 | --- | --- | 7.9 | 6.4 | 3.8 | 2.5 | 2.0 | 1.7 | --- | --- | --- | --- |
| 11 | 11.8 | 10.8 | 6.4 | 5.3 | 5.9 | 3.8 | 1.7 | 1.5 | --- | --- | --- | --- |
| 12 | 12.0 | 10.3 | 5.3 | 3.9 | 5.8 | 5.6 | 1.5 | 1.4 | --- | --- | --- | --- |
| 13 | 13.4 | 12.0 | 4.0 | 3.6 | 5.6 | 4.9 | 1.4 | 1.2 | --- | --- | 5.0 | 3.8 |
| 14 | 14.3 | 13.2 | 3.9 | 3.1 | 4.9 | 4.0 | 1.3 | 1.2 | --- | --- | 5.4 | 3.8 |
| 15 | 14.1 | 12.9 | 3.1 | 2.6 | 4.9 | 3.9 | 1.2 | 1.0 | --- | --- | 3.8 | 2.4 |
| 16 | 14.3 | 13.2 | 4.2 | 2.9 | 5.0 | 4.6 | 1.1 | 1.0 | --- | --- | 2.6 | 1.9 |
| 17 | 14.5 | 12.9 | 6.1 | 4.1 | 5.2 | 4.3 | 1.1 | .9 | --- | --- | 3.9 | 2.2 |
| 18 | 14.7 | 12.7 | 6.2 | 5.6 | 4.3 | 2.7 | .9 | .6 | --- | --- | 4.0 | 3.5 |
| 19 | 12.7 | 10.8 | 5.6 | 4.7 | 2.7 | 1.7 | .6 | .5 | --- | --- | 4.7 | 2.8 |
| 20 | 11.5 | 11.0 | 5.0 | 4.5 | 1.7 | 1.1 | .5 | .5 | --- | --- | 5.3 | 3.7 |
| 21 | 12.6 | 11.5 | 4.7 | 4.4 | 1.1 | .9 | .5 | .5 | --- | --- | 7.3 | 4.0 |
| 22 | 13.1 | 12.5 | 4.4 | 3.7 | 1.0 | .9 | .5 | .4 | --- | --- | 7.3 | 5.5 |
| 23 | 13.2 | 11.1 | 4.0 | 3.2 | 1.6 | .9 | .6 | .5 | --- | --- | 5.6 | 4.4 |
| 24 | 11.5 | 10.8 | 5.1 | 4.0 | 2.3 | 1.4 | .7 | .6 | --- | --- | 5.3 | 3.5 |
| 25 | 11.1 | 9.6 | 5.2 | 5.0 | 1.4 | 1.1 | .7 | .7 | --- | --- | 7.0 | 4.8 |
| 26 | 12.1 | 11.0 | 5.0 | 4.0 | 1.1 | 1.0 | .7 | .6 | --- | --- | 6.6 | 5.6 |
| 27 | 13.4 | 12.1 | 4.0 | 3.1 | 1.1 | 1.1 | .6 | .5 | --- | --- | 8.0 | 5.3 |
| 28 | 13.6 | 12.5 | 3.1 | 2.7 | 4.3 | 1.1 | .6 | .6 | --- | --- | 8.8 | 6.7 |
| 29 | 12.5 | 10.8 | 2.9 | 2.2 | 5.1 | 4.3 | --- | --- | --- | --- | 8.8 | 8.1 |
| 30 | 12.9 | 11.9 | 5.0 | 2.9 | 4.7 | 4.3 | --- | --- | --- | --- | 8.1 | 7.1 |
| 31 | 11.9 | 9.6 | --- | --- | 4.9 | 4.7 | --- | --- | --- | --- | 7.1 | 5.7 |
| MONTH | 14.7 | 9.6 | 12.0 | 2.2 | 6.7 | .9 | 9.7 | .4 | --- | --- | 8.8 | 1.9 |

400949083480100 CH-42 NR URBANA OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.0 | 4.5 | 11.4 | 9.4 | 14.6 | 13.7 | 21.9 | 19.9 | 21.3 | 19.5 | 21.8 | 19.2 |
| 2 | 7.8 | 5.0 | 9.4 | 8.4 | 15.4 | 14.4 | 22.1 | 20.0 | 21.3 | 19.9 | 22.4 | 20.0 |
| 3 | 8.2 | 5.9 | 10.2 | 9.3 | 15.4 | 14.6 | 20.9 | 19.6 | 22.5 | 20.3 | 21.8 | 19.3 |
| 4 | 9.9 | 7.3 | 10.5 | 9.1 | 15.6 | 13.7 | 20.2 | 19.0 | 22.8 | 21.0 | 19.3 | 16.8 |
| 5 | 10.6 | 9.4 | 10.2 | 9.1 | 16.1 | 14.4 | 19.7 | 18.0 | 22.1 | 20.3 | 18.5 | 16.1 |
| 6 | 11.7 | 10.5 | 11.1 | 9.8 | 15.7 | 14.8 | 19.0 | 17.0 | 20.5 | 18.4 | 19.0 | 17.3 |
| 7 | 10.8 | 8.3 | 11.2 | 9.3 | 15.2 | 14.3 | 19.7 | 17.7 | 19.8 | 17.7 | 20.1 | 17.8 |
| 8 | 8.3 | 7.0 | 11.0 | 10.2 | 14.8 | 14.3 | 20.4 | 18.7 | 20.1 | 17.7 | 20.3 | 18.2 |
| 9 | 7.0 | 5.1 | 10.6 | 9.9 | 16.4 | 14.1 | 20.1 | 18.9 | 20.4 | 18.7 | 19.8 | 19.0 |
| 10 | 6.6 | 4.3 | 10.5 | 9.3 | 17.1 | 14.7 | 20.2 | 17.4 | 20.3 | 19.5 | 19.4 | 18.9 |
| 11 | 8.0 | 6.0 | 10.8 | 8.9 | 17.3 | 15.6 | 20.7 | 17.7 | 21.3 | 19.8 | 18.9 | 18.3 |
| 12 | 8.6 | 7.4 | 11.2 | 10.4 | 17.3 | 16.3 | 21.0 | 18.2 | 21.5 | 20.0 | 18.7 | 16.9 |
| 13 | 8.3 | 6.7 | 10.7 | 9.4 | 18.1 | 16.7 | 21.3 | 18.6 | 21.7 | 21.1 | 18.4 | 16.3 |
| 14 | 7.7 | 5.4 | 10.9 | 9.6 | 18.4 | 17.0 | 21.7 | 19.5 | 21.2 | 19.6 | 18.9 | 17.0 |
| 15 | 8.2 | 5.8 | 10.8 | 9.9 | 17.9 | 15.9 | 22.3 | 20.3 | 21.4 | 20.2 | 19.9 | 18.0 |
| 16 | 8.1 | 7.0 | 10.3 | 9.2 | 17.6 | 16.5 | 22.4 | 19.7 | 23.4 | 21.3 | 20.4 | 18.3 |
| 17 | 7.8 | 6.5 | 12.1 | 9.8 | 17.9 | 16.6 | 23.0 | 20.2 | 23.2 | 21.8 | 19.9 | 19.0 |
| 18 | 7.7 | 5.6 | 13.7 | 11.6 | 17.9 | 17.4 | 23.2 | 20.9 | 22.1 | 21.4 | 19.3 | 16.7 |
| 19 | 8.4 | 6.4 | 14.8 | 13.7 | 18.8 | 17.1 | 23.3 | 21.0 | 21.4 | 20.4 | 19.2 | 17.0 |
| 20 | 8.7 | 6.4 | 14.4 | 12.7 | 19.7 | 17.9 | 22.1 | 19.3 | 21.1 | 20.3 | 19.9 | 18.7 |
| 21 | 8.8 | 7.7 | 13.3 | 11.8 | 20.5 | 18.8 | 22.1 | 20.1 | 20.5 | 19.5 | 18.7 | 16.6 |
| 22 | 9.5 | 8.3 | 13.2 | 11.0 | 21.0 | 19.3 | 21.9 | 21.1 | 19.6 | 18.3 | 17.2 | 15.0 |
| 23 | 9.3 | 8.1 | 13.3 | 11.0 | 21.2 | 19.1 | 22.3 | 20.9 | 19.6 | 17.6 | 16.6 | 15.7 |
| 24 | 9.2 | 8.1 | 14.1 | 11.6 | 21.7 | 19.7 | 23.1 | 21.5 | 19.0 | 17.9 | 17.3 | 15.2 |
| 25 | 9.5 | 7.9 | 14.7 | 14.1 | 21.9 | 20.2 | 23.2 | 21.0 | 19.9 | 18.1 | 16.6 | 13.9 |
| 26 | 9.9 | 7.3 | 14.4 | 13.3 | 21.5 | 20.3 | 23.9 | 21.4 | 20.5 | 18.4 | 16.9 | 14.7 |
| 27 | 9.6 | 8.8 | 14.6 | 12.7 | 21.2 | 18.7 | 25.2 | 22.8 | 21.3 | 18.8 | 17.5 | 14.8 |
| 28 | 10.3 | 8.8 | 14.3 | 13.2 | 20.9 | 19.1 | 24.6 | 22.8 | 21.8 | 19.6 | 17.4 | 15.1 |
| 29 | 10.7 | 8.3 | 13.7 | 13.2 | 21.0 | 19.4 | 24.0 | 22.2 | 20.8 | 19.1 | 17.3 | 15.6 |
| 30 | 11.3 | 8.9 | 14.0 | 13.2 | 21.0 | 19.8 | 22.4 | 20.3 | 20.3 | 18.1 | 17.3 | 16.4 |
| 31 | --- | --- | 14.0 | 13.8 | --- | --- | 22.0 | 19.6 | 20.7 | 18.7 | --- | --- |
| MONTH | 11.7 | 4.3 | 14.8 | 8.4 | 21.9 | 13.7 | 25.2 | 17.0 | 23.4 | 17.6 | 22.4 | 13.9 |
| YEAR | 25.2 | .4 | | | | | | | | | | |

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | .00 | .55 | .00 | --- | --- | .00 | .20 | 1.66 | .32 | .00 | .00 |
| 2 | --- | .00 | .00 | .00 | --- | --- | .00 | 1.07 | .37 | .87 | .00 | .00 |
| 3 | --- | .00 | .00 | .01 | --- | --- | .00 | .44 | .03 | .00 | .00 | .00 |
| 4 | --- | .00 | .00 | .02 | --- | --- | .00 | .00 | .03 | .00 | .52 | .00 |
| 5 | --- | .00 | .11 | .39 | --- | --- | .39 | .09 | .00 | .00 | .00 | .00 |
| 6 | --- | .00 | .05 | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 |
| 7 | .00 | .38 | .00 | .00 | --- | --- | .00 | .00 | .02 | .07 | .00 | .00 |
| 8 | .06 | .02 | .00 | .00 | --- | --- | .00 | .43 | .00 | .00 | .00 | .00 |
| 9 | --- | .08 | .00 | .06 | --- | --- | .00 | .00 | .00 | .35 | .00 | .02 |
| 10 | --- | .01 | .03 | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .19 |
| 11 | .00 | .00 | .16 | .00 | --- | --- | .00 | .00 | .00 | .00 | .00 | .00 |
| 12 | .00 | .00 | .13 | .00 | --- | --- | .57 | .02 | .00 | .00 | .16 | .00 |
| 13 | .00 | .00 | .00 | .00 | --- | .41 | .00 | .00 | 1.02 | .00 | .93 | .00 |
| 14 | .00 | .00 | .00 | .03 | --- | .31 | .00 | .15 | .00 | .00 | .00 | .00 |
| 15 | .00 | .00 | .00 | .31 | --- | .00 | .00 | .01 | .00 | .00 | .32 | .00 |
| 16 | .00 | .00 | .86 | .00 | --- | .00 | .00 | .01 | .45 | .00 | .16 | .00 |
| 17 | .00 | .10 | .70 | .00 | --- | .00 | .00 | .03 | .00 | .00 | 1.31 | .09 |
| 18 | .73 | .00 | .00 | .00 | --- | .31 | .00 | .12 | .10 | .25 | .02 | .00 |
| 19 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .81 | .00 | .00 | .06 | .00 |
| 20 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .00 | .60 | .04 |
| 21 | .00 | .16 | .00 | .00 | --- | .00 | .00 | .00 | .00 | .15 | .30 | .00 |
| 22 | .00 | .00 | .01 | .53 | --- | .00 | .00 | .00 | .00 | .30 | .06 | .00 |
| 23 | .24 | .00 | 1.14 | .00 | --- | .00 | .00 | .00 | .00 | .67 | .00 | .27 |
| 24 | .00 | .04 | .05 | .16 | --- | .00 | .00 | .00 | .00 | .00 | .07 | .00 |
| 25 | .00 | 1.30 | .00 | .00 | --- | .07 | .01 | .49 | .07 | .00 | .00 | .00 |
| 26 | .10 | .23 | .01 | .00 | --- | .00 | .00 | .02 | .08 | .00 | .00 | .00 |
| 27 | .01 | .00 | .03 | .44 | --- | .00 | .27 | .00 | .00 | 1.38 | .02 | .00 |
| 28 | .01 | .01 | .00 | .00 | --- | .46 | .05 | .04 | .00 | .01 | .00 | .01 |
| 29 | .00 | .09 | .00 | --- | --- | .32 | .00 | .19 | .00 | .00 | .00 | .01 |
| 30 | .21 | .52 | .00 | --- | --- | .09 | .23 | .19 | .23 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | --- | --- | .00 | --- | 1.24 | --- | .00 | .00 | --- |
| TOTAL | 1.36 | 2.94 | 3.83 | 1.95 | --- | 1.97 | 1.52 | 5.55 | 4.06 | 4.37 | 4.53 | 0.63 |

WTR YR 1997 TOTAL 32.71

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. Army 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; 0.020-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, and also water temperature and specific conductance.

DATUM.--Elevation of land-surface datum is 1031.61 ft above sea level. Measuring point: shelter shelf 3.31 ft above land-surface datum.

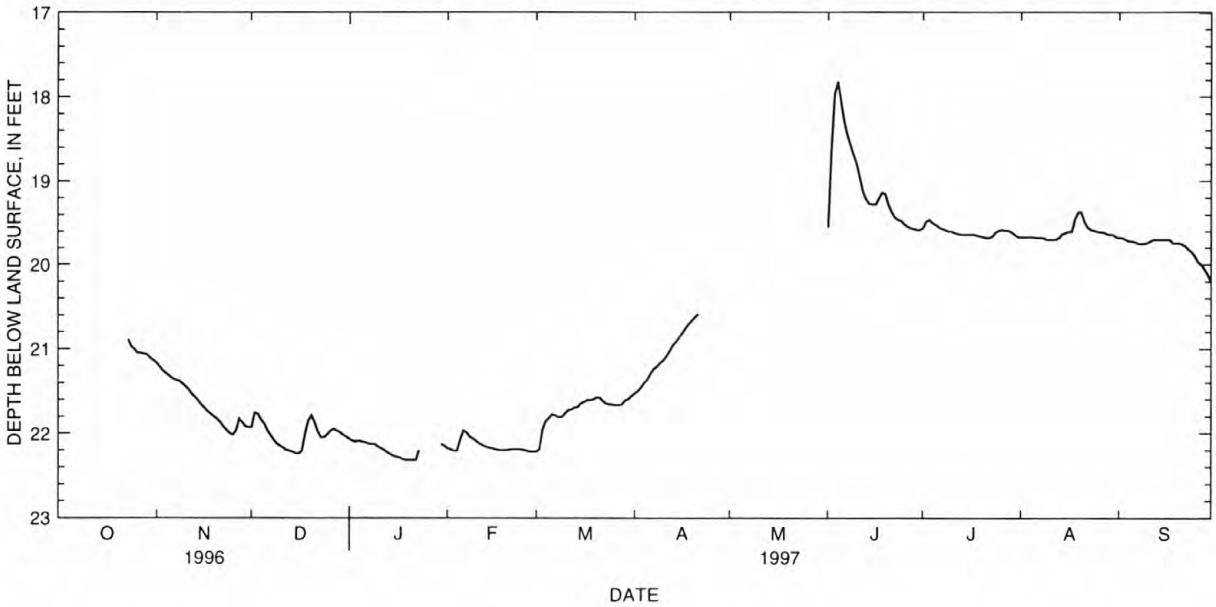
REMARKS.--This station is part of an eight-site network to collect data for the Ohio Department of Transportation concerning road salt application and its effect(s) on shallow ground-water quality. Water-quality data for nearby wells are available in preceding tables. Incomplete conductance data this year due to defective probe.

PERIOD OF RECORD.--February 1991 to current year.

PERIOD OF DAILY RECORD.--
WATER LEVEL: February 1991 to current year.
SPECIFIC CONDUCTANCE: July 1992 to current year.
AIR TEMPERATURE: February 1991 to current year.
WATER TEMPERATURE: July 1992 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, 22.61 ft below land-surface datum, February 2,3, 1995; maximum daily high, 17.00 ft below land-surface datum, May 12, 1996.
WATER TEMPERATURE: Maximum, 13.9°C many days in November, December, 1993; minimum, 2.2°C August 29-September 4, 1995.
AIR TEMPERATURE: Maximum, 37.5°C July 22, 1991; minimum, -30.7°C January 21, 1994.
SOIL TEMPERATURE: Maximum, 39.5°C July 22 and August 2, 1991; minimum, -2.7°C Dec. 27, 1992.
SPECIFIC CONDUCTANCE: Maximum, 1010 microsiemens, February 4-7, May 13-15, 1996; minimum 733 microsiemens, May 19-20, July 14-16, 1995.

EXTREMES FOR CURRENT YEAR.--
WATER LEVEL: Maximum daily low, 22.32 ft below land-surface datum, January 19-22, 1997; maximum daily high, 17.71 ft below land-surface datum, June 4, 1997.
SPECIFIC CONDUCTANCE: Maximum, 889 microsiemens, June 10, 1997; minimum 754 microsiemens, September 4, 1997.
AIR TEMPERATURE: Maximum, 35.7°C July 27, 1997; minimum, -20.3°C January 13, 1997.
WATER TEMPERATURE: Maximum, 13.4°C November 11-December 18, 21-27, 1996; minimum, 6.6°C June 10, 1997.
SOIL TEMPERATURE: Maximum, 32.6°C July 27, 1997; minimum, -0.7°C January 19, 1997.



395859083440700 CL-138 NR SPRINGFIELD,OH--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OCTOBER | | | NOVEMBER | | | DECEMBER | | | JANUARY | |
| 1 | --- | --- | --- | 21.17 | 21.14 | 21.16 | 21.93 | 21.76 | 21.83 | 22.07 | 22.04 | 22.06 |
| 2 | --- | --- | --- | 21.21 | 21.17 | 21.19 | 21.76 | 21.73 | 21.74 | 22.09 | 22.07 | 22.08 |
| 3 | --- | --- | --- | 21.26 | 21.21 | 21.24 | 21.77 | 21.73 | 21.74 | 22.10 | 22.09 | 22.09 |
| 4 | --- | --- | --- | 21.29 | 21.26 | 21.28 | 21.84 | 21.77 | 21.80 | 22.09 | 22.09 | 22.09 |
| 5 | --- | --- | --- | 21.32 | 21.29 | 21.31 | 21.89 | 21.84 | 21.87 | 22.10 | 22.09 | 22.09 |
| 6 | --- | --- | --- | 21.35 | 21.32 | 21.34 | 21.97 | 21.89 | 21.93 | 22.11 | 22.10 | 22.10 |
| 7 | --- | --- | --- | 21.37 | 21.35 | 21.36 | 22.02 | 21.97 | 22.00 | 22.12 | 22.11 | 22.11 |
| 8 | --- | --- | --- | 21.38 | 21.37 | 21.37 | 22.08 | 22.02 | 22.05 | 22.13 | 22.12 | 22.12 |
| 9 | --- | --- | --- | 21.41 | 21.38 | 21.40 | 22.12 | 22.08 | 22.10 | 22.13 | 22.12 | 22.12 |
| 10 | --- | --- | --- | 21.44 | 21.41 | 21.43 | 22.15 | 22.12 | 22.13 | 22.16 | 22.13 | 22.14 |
| 11 | --- | --- | --- | 21.48 | 21.44 | 21.46 | 22.17 | 22.15 | 22.16 | 22.18 | 22.16 | 22.17 |
| 12 | --- | --- | --- | 21.53 | 21.48 | 21.51 | 22.20 | 22.17 | 22.18 | 22.20 | 22.18 | 22.20 |
| 13 | --- | --- | --- | 21.57 | 21.53 | 21.55 | 22.21 | 22.20 | 22.21 | 22.23 | 22.20 | 22.22 |
| 14 | --- | --- | --- | 21.61 | 21.57 | 21.59 | 22.22 | 22.21 | 22.22 | 22.25 | 22.23 | 22.24 |
| 15 | --- | --- | --- | 21.66 | 21.61 | 21.64 | 22.24 | 22.22 | 22.23 | 22.27 | 22.25 | 22.26 |
| 16 | --- | --- | --- | 21.70 | 21.66 | 21.68 | 22.24 | 22.21 | 22.24 | 22.28 | 22.27 | 22.27 |
| 17 | --- | --- | --- | 21.74 | 21.70 | 21.72 | 22.21 | 21.99 | 22.10 | 22.29 | 22.28 | 22.28 |
| 18 | --- | --- | --- | 21.77 | 21.74 | 21.75 | 21.99 | 21.85 | 21.91 | 22.31 | 22.29 | 22.30 |
| 19 | --- | --- | --- | 21.80 | 21.77 | 21.78 | 21.85 | 21.79 | 21.82 | 22.32 | 22.31 | 22.31 |
| 20 | --- | --- | --- | 21.83 | 21.80 | 21.81 | 21.79 | 21.77 | 21.78 | 22.32 | 22.32 | 22.32 |
| 21 | --- | --- | --- | 21.87 | 21.83 | 21.85 | 21.87 | 21.78 | 21.82 | 22.32 | 22.32 | 22.32 |
| 22 | --- | --- | --- | 21.92 | 21.87 | 21.89 | 21.98 | 21.87 | 21.93 | 22.32 | 22.20 | 22.27 |
| 23 | 20.89 | 20.85 | 20.87 | 21.96 | 21.92 | 21.94 | 22.05 | 21.98 | 22.02 | 22.20 | 22.14 | 22.17 |
| 24 | 20.97 | 20.89 | 20.93 | 22.00 | 21.96 | 21.98 | 22.05 | 22.01 | 22.02 | --- | --- | --- |
| 25 | 21.01 | 20.97 | 20.99 | 22.02 | 21.97 | 22.01 | 22.01 | 21.97 | 21.98 | --- | --- | --- |
| 26 | 21.05 | 21.01 | 21.03 | 21.97 | 21.81 | 21.87 | 21.97 | 21.95 | 21.95 | --- | --- | --- |
| 27 | 21.05 | 21.05 | 21.05 | 21.83 | 21.81 | 21.81 | 21.95 | 21.95 | 21.95 | --- | --- | --- |
| 28 | 21.06 | 21.05 | 21.06 | 21.87 | 21.83 | 21.85 | 21.97 | 21.95 | 21.96 | --- | --- | --- |
| 29 | 21.07 | 21.06 | 21.07 | 21.92 | 21.87 | 21.90 | 21.99 | 21.97 | 21.98 | --- | --- | --- |
| 30 | 21.11 | 21.06 | 21.08 | 21.93 | 21.92 | 21.92 | 22.02 | 21.99 | 22.00 | 22.13 | 22.11 | 22.12 |
| 31 | 21.14 | 21.11 | 21.13 | --- | --- | --- | 22.04 | 22.02 | 22.03 | 22.15 | 22.13 | 22.14 |
| MONTH | 21.14 | 20.85 | 21.02 | 22.02 | 21.14 | 21.62 | 22.24 | 21.73 | 21.99 | 22.32 | 22.04 | 22.18 |

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | FEBRUARY | | | MARCH | | | APRIL | | | MAY | |
| 1 | 22.18 | 22.15 | 22.17 | 22.22 | 22.19 | 22.21 | 21.53 | 21.50 | 21.51 | --- | --- | --- |
| 2 | 22.19 | 22.17 | 22.18 | 22.19 | 21.96 | 22.06 | 21.50 | 21.46 | 21.48 | --- | --- | --- |
| 3 | 22.21 | 22.19 | 22.20 | 21.96 | 21.86 | 21.91 | 21.46 | 21.41 | 21.43 | --- | --- | --- |
| 4 | 22.21 | 22.08 | 22.17 | 21.86 | 21.82 | 21.84 | 21.41 | 21.36 | 21.39 | --- | --- | --- |
| 5 | 22.08 | 21.97 | 22.02 | 21.82 | 21.78 | 21.80 | 21.36 | 21.30 | 21.33 | --- | --- | --- |
| 6 | 21.97 | 21.94 | 21.95 | 21.78 | 21.78 | 21.78 | 21.30 | 21.24 | 21.27 | --- | --- | --- |
| 7 | 21.99 | 21.94 | 21.97 | 21.79 | 21.78 | 21.78 | 21.24 | 21.21 | 21.23 | --- | --- | --- |
| 8 | 22.04 | 21.99 | 22.02 | 21.81 | 21.78 | 21.79 | 21.21 | 21.17 | 21.19 | --- | --- | --- |
| 9 | 22.06 | 22.03 | 22.04 | 21.81 | 21.77 | 21.80 | 21.17 | 21.14 | 21.15 | --- | --- | --- |
| 10 | 22.09 | 22.06 | 22.08 | 21.77 | 21.73 | 21.75 | 21.14 | 21.09 | 21.11 | --- | --- | --- |
| 11 | 22.12 | 22.09 | 22.11 | 21.73 | 21.72 | 21.72 | 21.09 | 21.03 | 21.06 | --- | --- | --- |
| 12 | 22.14 | 22.12 | 22.13 | 21.72 | 21.70 | 21.71 | 21.03 | 20.96 | 21.00 | --- | --- | --- |
| 13 | 22.16 | 22.14 | 22.15 | 21.70 | 21.69 | 21.70 | 20.96 | 20.92 | 20.94 | --- | --- | --- |
| 14 | 22.17 | 22.16 | 22.16 | 21.69 | 21.65 | 21.67 | 20.92 | 20.87 | 20.90 | --- | --- | --- |
| 15 | 22.18 | 22.17 | 22.17 | 21.65 | 21.63 | 21.64 | 20.87 | 20.82 | 20.84 | --- | --- | --- |
| 16 | 22.19 | 22.17 | 22.18 | 21.63 | 21.61 | 21.62 | 20.82 | 20.76 | 20.79 | --- | --- | --- |
| 17 | 22.20 | 22.19 | 22.20 | 21.61 | 21.61 | 21.61 | 20.76 | 20.71 | 20.73 | --- | --- | --- |
| 18 | 22.20 | 22.20 | 22.20 | 21.61 | 21.60 | 21.61 | 20.71 | 20.67 | 20.69 | --- | --- | --- |
| 19 | 22.20 | 22.20 | 22.20 | 21.60 | 21.58 | 21.59 | 20.67 | 20.63 | 20.64 | --- | --- | --- |
| 20 | 22.20 | 22.19 | 22.20 | 21.58 | 21.58 | 21.58 | 20.63 | 20.59 | 20.61 | --- | --- | --- |
| 21 | 22.19 | 22.16 | 22.17 | 21.58 | 21.58 | 21.58 | 20.59 | 20.56 | 20.57 | --- | --- | --- |
| 22 | 22.19 | 22.16 | 22.17 | 21.62 | 21.58 | 21.60 | --- | --- | --- | --- | --- | --- |
| 23 | 22.19 | 22.18 | 22.18 | 21.65 | 21.62 | 21.63 | --- | --- | --- | --- | --- | --- |
| 24 | 22.19 | 22.19 | 22.19 | 21.66 | 21.65 | 21.66 | --- | --- | --- | --- | --- | --- |
| 25 | 22.20 | 22.19 | 22.20 | 21.66 | 21.66 | 21.66 | --- | --- | --- | --- | --- | --- |
| 26 | 22.21 | 22.20 | 22.20 | 21.67 | 21.66 | 21.67 | --- | --- | --- | --- | --- | --- |
| 27 | 22.22 | 22.20 | 22.21 | 21.67 | 21.66 | 21.67 | --- | --- | --- | --- | --- | --- |
| 28 | 22.22 | 22.22 | 22.22 | 21.66 | 21.61 | 21.64 | --- | --- | --- | --- | --- | --- |
| 29 | --- | --- | --- | 21.61 | 21.60 | 21.60 | --- | --- | --- | --- | --- | --- |
| 30 | --- | --- | --- | 21.60 | 21.56 | 21.58 | --- | --- | --- | --- | --- | --- |
| 31 | --- | --- | --- | 21.56 | 21.53 | 21.55 | --- | --- | --- | --- | --- | --- |
| MONTH | 22.22 | 21.94 | 22.14 | 22.22 | 21.53 | 21.71 | 21.53 | 20.56 | 21.04 | --- | --- | --- |

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DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN | MAX | MIN | MEAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JUNE | | | JULY | | | AUGUST | | | SEPTEMBER | |
| 1 | 19.55 | 18.60 | 19.20 | 19.56 | 19.48 | 19.50 | 19.67 | 19.67 | 19.67 | 19.68 | 19.67 | 19.67 |
| 2 | 18.60 | 17.97 | 18.22 | 19.48 | 19.45 | 19.47 | 19.67 | 19.67 | 19.67 | 19.68 | 19.68 | 19.68 |
| 3 | 17.97 | 17.73 | 17.81 | 19.46 | 19.44 | 19.45 | 19.67 | 19.66 | 19.67 | 19.70 | 19.68 | 19.69 |
| 4 | 17.82 | 17.71 | 17.75 | 19.50 | 19.46 | 19.47 | 19.67 | 19.65 | 19.66 | 19.72 | 19.70 | 19.70 |
| 5 | 18.05 | 17.82 | 17.93 | 19.52 | 19.50 | 19.51 | 19.67 | 19.66 | 19.66 | 19.72 | 19.72 | 19.72 |
| 6 | 18.29 | 18.05 | 18.17 | 19.55 | 19.52 | 19.53 | 19.68 | 19.67 | 19.67 | 19.73 | 19.72 | 19.73 |
| 7 | 18.45 | 18.29 | 18.37 | 19.57 | 19.55 | 19.56 | 19.68 | 19.66 | 19.67 | 19.75 | 19.73 | 19.74 |
| 8 | 18.57 | 18.45 | 18.51 | 19.58 | 19.57 | 19.57 | 19.68 | 19.67 | 19.67 | 19.75 | 19.74 | 19.75 |
| 9 | 18.69 | 18.57 | 18.63 | 19.60 | 19.58 | 19.59 | 19.70 | 19.68 | 19.69 | 19.75 | 19.74 | 19.74 |
| 10 | 18.80 | 18.69 | 18.74 | 19.60 | 19.60 | 19.60 | 19.70 | 19.70 | 19.70 | 19.74 | 19.72 | 19.73 |
| 11 | 18.96 | 18.80 | 18.87 | 19.62 | 19.60 | 19.61 | 19.70 | 19.69 | 19.69 | 19.72 | 19.70 | 19.71 |
| 12 | 19.13 | 18.96 | 19.04 | 19.63 | 19.62 | 19.62 | 19.70 | 19.68 | 19.69 | 19.70 | 19.70 | 19.70 |
| 13 | 19.22 | 19.13 | 19.18 | 19.64 | 19.63 | 19.64 | 19.68 | 19.63 | 19.65 | 19.70 | 19.70 | 19.70 |
| 14 | 19.27 | 19.22 | 19.25 | 19.64 | 19.64 | 19.64 | 19.63 | 19.62 | 19.62 | 19.70 | 19.70 | 19.70 |
| 15 | 19.28 | 19.27 | 19.28 | 19.64 | 19.63 | 19.63 | 19.62 | 19.58 | 19.60 | 19.70 | 19.69 | 19.69 |
| 16 | 19.28 | 19.21 | 19.27 | 19.64 | 19.64 | 19.64 | 19.60 | 19.58 | 19.59 | 19.70 | 19.69 | 19.69 |
| 17 | 19.21 | 19.14 | 19.17 | 19.64 | 19.64 | 19.64 | 19.60 | 19.45 | 19.53 | 19.70 | 19.69 | 19.69 |
| 18 | 19.14 | 19.12 | 19.12 | 19.65 | 19.64 | 19.64 | 19.45 | 19.37 | 19.39 | 19.74 | 19.70 | 19.72 |
| 19 | 19.15 | 19.12 | 19.12 | 19.66 | 19.64 | 19.65 | 19.37 | 19.36 | 19.36 | 19.74 | 19.73 | 19.73 |
| 20 | 19.28 | 19.15 | 19.21 | 19.67 | 19.66 | 19.66 | 19.37 | 19.35 | 19.36 | 19.74 | 19.72 | 19.73 |
| 21 | 19.36 | 19.28 | 19.32 | 19.68 | 19.67 | 19.67 | 19.49 | 19.37 | 19.43 | 19.76 | 19.74 | 19.75 |
| 22 | 19.43 | 19.36 | 19.40 | 19.68 | 19.66 | 19.67 | 19.55 | 19.49 | 19.52 | 19.78 | 19.76 | 19.77 |
| 23 | 19.46 | 19.43 | 19.44 | 19.66 | 19.61 | 19.63 | 19.58 | 19.55 | 19.57 | 19.82 | 19.78 | 19.80 |
| 24 | 19.47 | 19.46 | 19.46 | 19.61 | 19.59 | 19.59 | 19.59 | 19.58 | 19.58 | 19.85 | 19.82 | 19.83 |
| 25 | 19.51 | 19.47 | 19.49 | 19.59 | 19.58 | 19.58 | 19.60 | 19.59 | 19.59 | 19.90 | 19.85 | 19.87 |
| 26 | 19.54 | 19.51 | 19.52 | 19.58 | 19.56 | 19.57 | 19.61 | 19.60 | 19.60 | 19.97 | 19.90 | 19.94 |
| 27 | 19.56 | 19.54 | 19.55 | 19.59 | 19.58 | 19.58 | 19.61 | 19.60 | 19.60 | 20.00 | 19.97 | 19.99 |
| 28 | 19.57 | 19.56 | 19.56 | 19.59 | 19.56 | 19.57 | 19.63 | 19.61 | 19.61 | 20.05 | 20.00 | 20.02 |
| 29 | 19.58 | 19.57 | 19.57 | 19.61 | 19.58 | 19.59 | 19.64 | 19.63 | 19.63 | 20.11 | 20.05 | 20.08 |
| 30 | 19.58 | 19.56 | 19.57 | 19.64 | 19.61 | 19.62 | 19.64 | 19.64 | 19.64 | 20.19 | 20.11 | 20.15 |
| 31 | --- | --- | --- | 19.67 | 19.64 | 19.65 | 19.67 | 19.64 | 19.65 | --- | --- | --- |
| MONTH | 19.58 | 17.71 | 18.99 | 19.68 | 19.44 | 19.59 | 19.70 | 19.35 | 19.60 | 20.19 | 19.67 | 19.78 |
| YEAR | 22.32 | 17.71 | 20.83 | | | | | | | | | |

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 777 | 775 | 798 | 796 | 807 | 806 | 829 | 827 | 824 | 823 |
| 2 | --- | --- | 776 | 775 | 799 | 797 | 806 | 805 | 828 | 825 | 823 | 821 |
| 3 | --- | --- | 776 | 775 | 801 | 798 | 806 | 804 | 826 | 824 | 822 | 821 |
| 4 | --- | --- | 775 | 772 | 802 | 800 | 805 | 804 | 824 | 822 | 824 | 821 |
| 5 | --- | --- | 773 | 772 | 802 | 799 | 805 | 804 | 822 | 822 | 831 | 824 |
| 6 | --- | --- | 773 | 772 | 801 | 798 | 806 | 805 | 823 | 822 | 835 | 831 |
| 7 | --- | --- | 774 | 773 | 798 | 795 | 806 | 805 | 830 | 823 | 841 | 835 |
| 8 | --- | --- | 775 | 773 | 796 | 795 | 806 | 805 | 833 | 828 | 841 | 835 |
| 9 | --- | --- | 776 | 774 | 799 | 796 | 807 | 806 | 833 | 825 | 844 | 840 |
| 10 | --- | --- | 778 | 776 | 800 | 798 | 808 | 807 | 830 | 827 | 854 | 844 |
| 11 | --- | --- | 780 | 774 | 802 | 798 | 809 | 808 | 829 | 827 | 862 | 850 |
| 12 | --- | --- | 781 | 776 | 804 | 802 | 811 | 809 | 830 | 829 | 881 | 860 |
| 13 | --- | --- | 782 | 777 | 805 | 803 | 811 | 810 | 831 | 829 | 881 | 874 |
| 14 | --- | --- | 784 | 779 | 804 | 803 | 812 | 810 | 829 | 826 | 884 | 881 |
| 15 | --- | --- | 786 | 780 | 804 | 802 | 812 | 811 | 829 | 823 | 887 | 884 |
| 16 | --- | --- | 787 | 782 | 805 | 803 | 813 | 811 | 826 | 820 | 887 | 885 |
| 17 | --- | --- | 790 | 784 | 805 | 804 | 813 | 812 | 823 | 819 | 887 | 883 |
| 18 | --- | --- | 787 | 785 | 806 | 804 | 814 | 813 | 821 | 819 | 883 | 879 |
| 19 | --- | --- | 793 | 787 | 808 | 806 | 819 | 814 | 819 | 818 | 883 | 877 |
| 20 | --- | --- | 794 | 789 | 810 | 808 | 819 | 815 | 819 | 817 | 885 | 878 |
| 21 | --- | --- | 790 | 789 | 812 | 810 | 820 | 814 | 819 | 818 | 885 | 879 |
| 22 | --- | --- | 791 | 790 | 813 | 812 | 819 | 818 | 821 | 818 | 884 | 880 |
| 23 | 784 | 779 | 795 | 790 | 816 | 811 | 819 | 818 | 821 | 820 | 880 | 877 |
| 24 | 784 | 780 | 791 | 791 | 817 | 810 | --- | --- | 822 | 820 | 878 | 872 |
| 25 | 785 | 780 | 792 | 791 | 816 | 811 | --- | --- | 822 | 819 | 876 | 868 |
| 26 | 785 | 779 | 792 | 791 | 815 | 810 | --- | --- | 820 | 819 | 872 | 866 |
| 27 | 784 | 779 | 794 | 792 | 815 | 809 | --- | --- | 823 | 818 | 868 | 861 |
| 28 | 784 | 779 | 796 | 793 | 813 | 809 | --- | --- | 824 | 819 | 863 | 855 |
| 29 | 782 | 779 | 797 | 794 | 809 | 808 | --- | --- | --- | --- | 859 | 851 |
| 30 | 779 | 777 | 798 | 796 | 808 | 807 | 828 | 821 | --- | --- | 854 | 847 |
| 31 | 779 | 776 | --- | --- | 807 | 807 | 829 | 828 | --- | --- | 849 | 842 |
| MONTH | 785 | 776 | 798 | 772 | 817 | 795 | 829 | 804 | 833 | 817 | 887 | 821 |

395859083440700 CL-138 NR SPRINGFIELD,OH--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 843 | 837 | --- | --- | 809 | 793 | 808 | 799 | 778 | 775 | 759 | 756 |
| 2 | 837 | 833 | --- | --- | 793 | 786 | 804 | 800 | 778 | 775 | 757 | 755 |
| 3 | 835 | 830 | --- | --- | 790 | 787 | 801 | 793 | 778 | 772 | 759 | 755 |
| 4 | 834 | 828 | --- | --- | 805 | 789 | 799 | 793 | 778 | 772 | 760 | 754 |
| 5 | 833 | 828 | --- | --- | 796 | 792 | 798 | 792 | 777 | 771 | 762 | 756 |
| 6 | 831 | 830 | --- | --- | 796 | 795 | 795 | 790 | 774 | 771 | 764 | 759 |
| 7 | 831 | 829 | --- | --- | 796 | 792 | 795 | 790 | 775 | 772 | 765 | 762 |
| 8 | 830 | 828 | --- | --- | 798 | 791 | 793 | 788 | 775 | 772 | 768 | 764 |
| 9 | 830 | 829 | --- | --- | 850 | 798 | 790 | 787 | 775 | 773 | 769 | 767 |
| 10 | 832 | 830 | --- | --- | 889 | 806 | 790 | 786 | 775 | 774 | 771 | 768 |
| 11 | 834 | 832 | --- | --- | 833 | 817 | 789 | 786 | 776 | 773 | 773 | 771 |
| 12 | 835 | 834 | --- | --- | 837 | 832 | 789 | 785 | 776 | 774 | 777 | 773 |
| 13 | 836 | 835 | --- | --- | 837 | 830 | 788 | 782 | 776 | 772 | 779 | 775 |
| 14 | 840 | 835 | --- | --- | 832 | 824 | 787 | 780 | 776 | 774 | 780 | 774 |
| 15 | 839 | 835 | --- | --- | 827 | 819 | 785 | 779 | 776 | 773 | 782 | 775 |
| 16 | 839 | 833 | --- | --- | 823 | 810 | 783 | 778 | 778 | 775 | 782 | 776 |
| 17 | 837 | 835 | --- | --- | 812 | 807 | 782 | 777 | 778 | 770 | 782 | 778 |
| 18 | 835 | 833 | --- | --- | 812 | 806 | 780 | 776 | 773 | 766 | 782 | 776 |
| 19 | 834 | 831 | --- | --- | 813 | 807 | 779 | 775 | 772 | 770 | 783 | 777 |
| 20 | 835 | 830 | --- | --- | 819 | 810 | 779 | 775 | 774 | 772 | 782 | 778 |
| 21 | 833 | 828 | --- | --- | 821 | 815 | 778 | 775 | 779 | 774 | 782 | 779 |
| 22 | --- | --- | --- | --- | 823 | 818 | 777 | 775 | 780 | 775 | 784 | 780 |
| 23 | --- | --- | --- | --- | 823 | 818 | 776 | 774 | 780 | 775 | 785 | 783 |
| 24 | --- | --- | --- | --- | 825 | 819 | 777 | 775 | 778 | 775 | 787 | 784 |
| 25 | --- | --- | --- | --- | 822 | 819 | 778 | 772 | 779 | 776 | 790 | 783 |
| 26 | --- | --- | --- | --- | 823 | 818 | 779 | 773 | 779 | 777 | 790 | 785 |
| 27 | --- | --- | --- | --- | 821 | 818 | 778 | 773 | 778 | 773 | 790 | 785 |
| 28 | --- | --- | --- | --- | 820 | 814 | 778 | 772 | 777 | 772 | 789 | 786 |
| 29 | --- | --- | --- | --- | 816 | 811 | 775 | 773 | 773 | 764 | 791 | 788 |
| 30 | --- | --- | --- | --- | 812 | 807 | 777 | 774 | 764 | 760 | 792 | 790 |
| 31 | --- | --- | --- | --- | --- | --- | 778 | 774 | 761 | 757 | --- | --- |
| MONTH | 843 | 828 | --- | --- | 889 | 786 | 808 | 772 | 780 | 757 | 792 | 754 |
| YEAR | 889 | 754 | | | | | | | | | | |

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 7.0 | -1.3 | 14.8 | -.7 | 9.3 | .4 | 4.9 | -1.1 | 17.7 | 9.0 |
| 2 | --- | --- | 2.6 | -2.6 | 6.2 | -2.0 | 13.8 | 9.2 | 8.2 | -.7 | 15.2 | 1.1 |
| 3 | --- | --- | 6.7 | -5.3 | 6.5 | -2.6 | 14.6 | 12.0 | 5.8 | -.7 | 2.6 | .5 |
| 4 | --- | --- | 12.1 | -.5 | 1.4 | -3.9 | 15.7 | 11.7 | 10.9 | 1.6 | 10.1 | 1.2 |
| 5 | --- | --- | 15.0 | 6.7 | 3.1 | -1.8 | 15.6 | -1.3 | 2.5 | -.6 | 8.7 | .6 |
| 6 | --- | --- | 14.6 | 6.6 | 4.4 | -.2 | -1.3 | -7.1 | .0 | -1.8 | 2.5 | -2.9 |
| 7 | --- | --- | 20.9 | 5.0 | 7.8 | -.7 | -1.5 | -9.4 | -.1 | -2.0 | 6.5 | -7.0 |
| 8 | --- | --- | 9.3 | 4.1 | 1.6 | -2.7 | -2.4 | -11.8 | .2 | -3.7 | 11.8 | -1.1 |
| 9 | --- | --- | 4.1 | -.4 | .7 | -2.9 | 1.2 | -4.6 | -.1 | -12.3 | 11.3 | -2.2 |
| 10 | --- | --- | .5 | -3.3 | 11.9 | -1.2 | -3.5 | -17.1 | .0 | -3.3 | 12.1 | -1.8 |
| 11 | --- | --- | .0 | -5.9 | 15.2 | 5.2 | -14.1 | -18.1 | -.3 | -2.4 | 11.9 | -1.7 |
| 12 | --- | --- | .7 | -8.6 | 11.6 | 3.7 | -12.3 | -19.6 | .8 | -9.8 | 10.1 | -3.5 |
| 13 | --- | --- | -.9 | -3.9 | 4.2 | -3.2 | -12.1 | -20.3 | .0 | -9.4 | 5.1 | .2 |
| 14 | --- | --- | 1.2 | -7.4 | 8.1 | -3.3 | -5.2 | -18.4 | 1.5 | -2.1 | 13.5 | -3.7 |
| 15 | --- | --- | 4.4 | -7.5 | 9.9 | -.1 | 4.3 | -12.5 | -.4 | -10.2 | -1.6 | -6.4 |
| 16 | --- | --- | 12.2 | -1.6 | 6.9 | .4 | 1.8 | -17.4 | 1.5 | -10.2 | 2.7 | -9.4 |
| 17 | --- | --- | 13.2 | 4.5 | 6.6 | -2.3 | -13.6 | -19.7 | 4.9 | -13.2 | 10.3 | .9 |
| 18 | --- | --- | 10.6 | .2 | -1.4 | -8.2 | -11.7 | -18.6 | 16.1 | 4.9 | 7.1 | -.6 |
| 19 | --- | --- | 4.3 | -1.7 | -8.2 | -12.4 | -4.6 | -17.3 | 13.1 | -2.3 | 9.9 | -2.5 |
| 20 | --- | --- | 3.2 | -1.6 | -9.3 | -12.5 | 6.4 | -4.9 | 10.3 | -4.5 | 11.0 | .3 |
| 21 | --- | --- | 1.5 | -2.7 | 1.4 | -11.0 | 8.6 | -6.3 | 18.4 | 9.1 | 22.0 | -.7 |
| 22 | --- | --- | .3 | -3.5 | 3.0 | .4 | 10.3 | 2.7 | 12.6 | -4.7 | 15.8 | .6 |
| 23 | 16.9 | 6.8 | 6.3 | -3.3 | 10.4 | 3.0 | 2.7 | -2.5 | 7.7 | -5.0 | 10.5 | -3.0 |
| 24 | 16.7 | 3.7 | 8.0 | 4.2 | 10.8 | -8.4 | --- | --- | 3.5 | -6.9 | 9.7 | -5.1 |
| 25 | 17.2 | 2.4 | 5.9 | 1.6 | -2.8 | -8.2 | --- | --- | 4.9 | -8.8 | 19.3 | 4.0 |
| 26 | 16.5 | 11.0 | 1.6 | -2.9 | 4.2 | -7.3 | --- | --- | 10.0 | -1.9 | 10.6 | 2.9 |
| 27 | 20.2 | 14.9 | -2.6 | -4.8 | 6.0 | .5 | --- | --- | 15.7 | -1.0 | 21.6 | 4.9 |
| 28 | 18.0 | 3.3 | 3.7 | -4.9 | 17.3 | 6.0 | --- | --- | 14.1 | -1.0 | 17.9 | 8.2 |
| 29 | 21.4 | 2.0 | 6.9 | -6.8 | 15.9 | 1.8 | --- | --- | --- | --- | 11.7 | 7.7 |
| 30 | 21.8 | 4.2 | 10.4 | 3.3 | 6.6 | .9 | 1.9 | -7.2 | --- | --- | 8.1 | .8 |
| 31 | 8.6 | -.4 | --- | --- | 7.5 | .4 | 9.8 | -1.9 | --- | --- | 6.9 | -2.4 |
| MONTH | 21.8 | -.4 | 20.9 | -8.6 | 17.3 | -12.5 | 15.7 | -20.3 | 18.4 | -13.2 | 22.0 | -9.4 |

395859083440700 CL-138 NR SPRINGFIELD,OH--Continued

TEMPERATURE, AIR, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 13.8 | -4.5 | --- | --- | 21.1 | 13.7 | 30.4 | 19.2 | 28.3 | 11.9 | 30.0 | 16.8 |
| 2 | 18.5 | -3.3 | --- | --- | 21.9 | 15.8 | 30.7 | 18.1 | 25.9 | 15.4 | 30.3 | 16.2 |
| 3 | 20.9 | -.5 | --- | --- | 17.1 | 12.5 | 27.4 | 17.3 | 31.7 | 17.4 | 21.0 | 8.4 |
| 4 | 23.9 | 5.5 | --- | --- | 21.7 | 10.7 | 23.2 | 15.2 | 28.1 | 17.1 | 21.7 | 5.0 |
| 5 | 20.3 | 13.2 | --- | --- | 22.5 | 11.4 | 24.6 | 11.8 | 23.6 | 11.4 | 23.3 | 5.8 |
| 6 | 22.7 | 7.6 | --- | --- | 21.8 | 13.1 | 26.3 | 10.0 | 23.1 | 7.3 | 25.3 | 14.1 |
| 7 | 8.9 | .7 | --- | --- | 19.0 | 11.6 | 29.3 | 14.3 | 26.9 | 8.6 | 29.2 | 13.5 |
| 8 | 10.6 | -6.0 | --- | --- | 18.2 | 12.6 | 29.3 | 17.6 | 27.4 | 10.3 | 27.2 | 15.1 |
| 9 | 3.9 | -7.6 | --- | --- | 24.6 | 10.3 | 24.1 | 13.6 | 26.7 | 17.6 | 22.6 | 17.2 |
| 10 | 7.7 | -7.8 | --- | --- | 27.3 | 10.0 | 25.1 | 11.5 | 24.4 | 18.1 | 20.4 | 16.3 |
| 11 | 17.6 | 3.4 | --- | --- | 25.4 | 12.4 | 28.5 | 12.9 | 28.3 | 18.0 | 20.7 | 12.8 |
| 12 | 17.4 | 4.8 | --- | --- | 24.8 | 16.0 | 30.1 | 13.3 | 29.3 | 17.9 | 22.7 | 11.1 |
| 13 | 4.8 | -.5 | --- | --- | 26.5 | 16.9 | 32.2 | 14.5 | 26.1 | 17.9 | 25.1 | 8.9 |
| 14 | 11.3 | -3.4 | --- | --- | 24.2 | 12.3 | 32.2 | 17.8 | 27.1 | 14.0 | 26.4 | 12.7 |
| 15 | 15.4 | -.9 | --- | --- | 27.0 | 7.5 | 29.4 | 19.3 | 28.3 | 19.8 | 26.9 | 16.4 |
| 16 | 13.8 | 4.7 | --- | --- | 26.1 | 16.8 | 33.0 | 15.7 | 31.5 | 20.6 | 28.4 | 15.6 |
| 17 | 4.7 | -.9 | --- | --- | 25.1 | 13.7 | 32.8 | 17.6 | 27.4 | 18.9 | 25.4 | 11.9 |
| 18 | 12.6 | -2.9 | --- | --- | 23.7 | 16.6 | 32.1 | 19.5 | 23.8 | 18.2 | 27.1 | 8.4 |
| 19 | 14.8 | 2.1 | --- | --- | 29.7 | 15.7 | 29.7 | 14.8 | 24.4 | 16.4 | 28.1 | 13.2 |
| 20 | 16.4 | -2.0 | --- | --- | 30.4 | 17.8 | 31.1 | 10.9 | 20.6 | 16.8 | 25.2 | 12.1 |
| 21 | 14.9 | 4.9 | --- | --- | 30.0 | 19.3 | 32.2 | 16.3 | 22.5 | 14.6 | 19.6 | 7.9 |
| 22 | --- | --- | --- | --- | 30.5 | 18.6 | 24.7 | 20.0 | 21.0 | 11.7 | 21.1 | 4.6 |
| 23 | --- | --- | --- | --- | 35.5 | 16.8 | 27.2 | 19.7 | 22.9 | 8.5 | 16.4 | 10.2 |
| 24 | --- | --- | --- | --- | 32.7 | 18.8 | 28.4 | 19.5 | 20.7 | 12.8 | 20.4 | 8.2 |
| 25 | --- | --- | --- | --- | 32.4 | 20.1 | 29.3 | 16.5 | 25.7 | 16.7 | 25.2 | 4.7 |
| 26 | --- | --- | --- | --- | 28.5 | 15.0 | 33.5 | 18.0 | 26.3 | 14.5 | 22.1 | 8.4 |
| 27 | --- | --- | --- | --- | 31.2 | 11.9 | 35.7 | 21.7 | 29.7 | 15.4 | 24.5 | 7.1 |
| 28 | --- | --- | --- | --- | 30.5 | 14.8 | 31.3 | 21.3 | 28.2 | 15.9 | 25.7 | 12.2 |
| 29 | --- | --- | --- | --- | 29.6 | 17.9 | 25.2 | 16.1 | 22.7 | 12.6 | 24.3 | 10.9 |
| 30 | --- | --- | --- | --- | 26.6 | 19.9 | 25.6 | 12.4 | 24.5 | 10.9 | 20.4 | 12.0 |
| 31 | --- | --- | --- | --- | --- | --- | 28.5 | 11.7 | 27.8 | 15.0 | --- | --- |
| MONTH | 23.9 | -7.8 | --- | --- | 35.5 | 7.5 | 35.7 | 10.0 | 31.7 | 7.3 | 30.3 | 4.6 |
| YEAR | 35.7 | -20.3 | | | | | | | | | | |

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.7 | 12.6 | 12.0 | 12.0 |
| 2 | --- | --- | 13.1 | 13.1 | 13.4 | 13.4 | 13.2 | 13.1 | 12.7 | 12.6 | 12.0 | 12.0 |
| 3 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.2 | 13.1 | 12.7 | 12.6 | 12.0 | 12.0 |
| 4 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.2 | 13.1 | 12.7 | 12.6 | 12.0 | 12.0 |
| 5 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.2 | 13.1 | 12.6 | 12.6 | 12.0 | 12.0 |
| 6 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.6 | 12.6 | 12.0 | 12.0 |
| 7 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.6 | 12.4 | 12.0 | 11.7 |
| 8 | --- | --- | 13.2 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.7 | 12.4 | 12.0 | 11.7 |
| 9 | --- | --- | 13.1 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.6 | 12.4 | 11.7 | 11.7 |
| 10 | --- | --- | 13.1 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.4 | 12.4 | 11.8 | 11.5 |
| 11 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.4 | 12.4 | 11.7 | 11.5 |
| 12 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.0 | 12.4 | 12.4 | 11.7 | 11.5 |
| 13 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.0 | 12.4 | 12.4 | 11.5 | 11.5 |
| 14 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.4 | 12.4 | 11.5 | 11.5 |
| 15 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.4 | 12.2 | 11.5 | 11.5 |
| 16 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.4 | 12.2 | 11.5 | 11.5 |
| 17 | --- | --- | 13.4 | 13.1 | 13.4 | 13.4 | 13.1 | 13.0 | 12.4 | 12.2 | 11.5 | 11.5 |
| 18 | --- | --- | 13.4 | 13.4 | 13.4 | 13.3 | 13.1 | 13.1 | 12.2 | 12.2 | 11.5 | 11.5 |
| 19 | --- | --- | 13.4 | 13.1 | 13.3 | 13.3 | 13.1 | 12.9 | 12.2 | 12.2 | 11.5 | 11.3 |
| 20 | --- | --- | 13.4 | 13.1 | 13.3 | 13.3 | 13.1 | 12.9 | 12.2 | 12.2 | 11.5 | 11.3 |
| 21 | --- | --- | 13.4 | 13.4 | 13.4 | 13.3 | 13.1 | 12.9 | 12.2 | 12.2 | 11.5 | 11.3 |
| 22 | --- | --- | 13.4 | 13.4 | 13.4 | 13.4 | 12.9 | 12.9 | 12.2 | 12.2 | 11.3 | 11.3 |
| 23 | 13.1 | 12.9 | 13.4 | 13.1 | 13.4 | 13.1 | 12.9 | 12.9 | 12.2 | 12.2 | 11.3 | 11.3 |
| 24 | 13.1 | 12.9 | 13.4 | 13.4 | 13.4 | 13.1 | --- | --- | 12.2 | 12.1 | 11.3 | 11.1 |
| 25 | 13.1 | 12.9 | 13.4 | 13.4 | 13.4 | 13.1 | --- | --- | 12.2 | 12.1 | 11.3 | 11.1 |
| 26 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.1 | --- | --- | 12.2 | 12.2 | 11.3 | 11.1 |
| 27 | 13.2 | 12.9 | 13.4 | 13.4 | 13.4 | 13.1 | --- | --- | 12.2 | 12.0 | 11.1 | 10.9 |
| 28 | 13.2 | 13.0 | 13.4 | 13.3 | 13.2 | 13.1 | --- | --- | 12.2 | 12.0 | 11.1 | 10.9 |
| 29 | 13.2 | 13.1 | 13.4 | 13.3 | 13.2 | 13.1 | --- | --- | --- | --- | 11.1 | 10.9 |
| 30 | 13.2 | 13.1 | 13.4 | 13.4 | 13.1 | 13.1 | 12.9 | 12.6 | --- | --- | 11.1 | 10.9 |
| 31 | 13.2 | 13.1 | --- | --- | 13.1 | 13.1 | 12.7 | 12.6 | --- | --- | 11.1 | 10.8 |
| MONTH | 13.2 | 12.9 | 13.4 | 13.1 | 13.4 | 13.1 | 13.2 | 12.6 | 12.7 | 12.0 | 12.0 | 10.8 |

395859083440700 CL-138 NR SPRINGFIELD,OH--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 10.9 | 10.8 | --- | --- | 9.9 | 9.7 | 9.9 | 9.9 | 10.5 | 10.4 | 11.4 | 11.3 |
| 2 | 10.9 | 10.8 | --- | --- | 9.9 | 9.7 | 9.9 | 9.9 | 10.5 | 10.5 | 11.4 | 11.3 |
| 3 | 10.9 | 10.7 | --- | --- | 9.9 | 9.8 | 10.0 | 9.8 | 10.7 | 10.5 | 11.5 | 11.3 |
| 4 | 10.9 | 10.7 | --- | --- | 9.8 | 9.6 | 10.1 | 9.8 | 10.7 | 10.5 | 11.6 | 11.3 |
| 5 | 10.9 | 10.7 | --- | --- | 9.8 | 9.6 | 10.1 | 9.8 | 10.7 | 10.5 | 11.6 | 11.4 |
| 6 | 10.7 | 10.7 | --- | --- | 9.7 | 9.6 | 10.1 | 9.9 | 10.7 | 10.7 | 11.6 | 11.4 |
| 7 | 10.7 | 10.6 | --- | --- | 9.8 | 9.6 | 10.1 | 9.9 | 10.8 | 10.7 | 11.6 | 11.5 |
| 8 | 10.7 | 10.6 | --- | --- | 9.8 | 9.6 | 10.1 | 9.9 | 10.8 | 10.7 | 11.6 | 11.6 |
| 9 | 10.7 | 10.6 | --- | --- | 9.7 | 7.7 | 10.1 | 10.0 | 10.7 | 10.7 | 11.6 | 11.6 |
| 10 | 10.7 | 10.6 | --- | --- | 9.8 | 6.6 | 10.1 | 9.9 | 10.7 | 10.7 | 11.6 | 11.6 |
| 11 | 10.7 | 10.6 | --- | --- | 9.8 | 9.6 | 10.1 | 10.0 | 10.7 | 10.7 | 11.6 | 11.5 |
| 12 | 10.7 | 10.7 | --- | --- | 9.7 | 9.6 | 10.1 | 10.0 | 10.8 | 10.7 | 11.6 | 11.5 |
| 13 | 10.7 | 10.6 | --- | --- | 9.9 | 9.6 | 10.3 | 10.0 | 10.7 | 10.7 | 11.6 | 11.5 |
| 14 | 10.7 | 10.5 | --- | --- | 9.8 | 9.6 | 10.3 | 10.0 | 10.8 | 10.7 | 11.8 | 11.5 |
| 15 | 10.6 | 10.4 | --- | --- | 9.9 | 9.6 | 10.3 | 10.1 | 10.7 | 10.7 | 11.8 | 11.6 |
| 16 | 10.6 | 10.4 | --- | --- | 9.9 | 9.6 | 10.3 | 10.1 | 10.8 | 10.7 | 11.8 | 11.6 |
| 17 | 10.5 | 10.4 | --- | --- | 9.9 | 9.7 | 10.3 | 10.1 | 10.9 | 10.7 | 11.8 | 11.8 |
| 18 | 10.5 | 10.4 | --- | --- | 9.9 | 9.6 | 10.3 | 10.1 | 10.9 | 10.7 | 12.0 | 11.8 |
| 19 | 10.5 | 10.4 | --- | --- | 9.9 | 9.7 | 10.3 | 10.3 | 10.9 | 10.9 | 12.0 | 11.8 |
| 20 | 10.5 | 10.3 | --- | --- | 9.9 | 9.7 | 10.3 | 10.2 | 10.9 | 10.9 | 12.0 | 11.8 |
| 21 | 10.5 | 10.3 | --- | --- | 9.9 | 9.7 | 10.3 | 10.3 | 10.9 | 10.9 | 12.0 | 12.0 |
| 22 | --- | --- | --- | --- | 9.9 | 9.7 | 10.3 | 10.3 | 11.1 | 10.9 | 12.1 | 12.0 |
| 23 | --- | --- | --- | --- | 9.9 | 9.7 | 10.3 | 10.3 | 11.1 | 10.9 | 12.0 | 12.0 |
| 24 | --- | --- | --- | --- | 9.9 | 9.7 | 10.3 | 10.3 | 11.1 | 11.1 | 12.0 | 12.0 |
| 25 | --- | --- | --- | --- | 9.9 | 9.9 | 10.5 | 10.3 | 11.2 | 11.1 | 12.2 | 12.0 |
| 26 | --- | --- | --- | --- | 9.9 | 9.9 | 10.5 | 10.3 | 11.2 | 11.1 | 12.3 | 12.0 |
| 27 | --- | --- | --- | --- | 9.9 | 9.8 | 10.5 | 10.3 | 11.3 | 11.1 | 12.3 | 12.0 |
| 28 | --- | --- | --- | --- | 9.9 | 9.8 | 10.5 | 10.3 | 11.2 | 11.1 | 12.3 | 12.2 |
| 29 | --- | --- | --- | --- | 9.9 | 9.9 | 10.5 | 10.5 | 11.4 | 11.1 | 12.3 | 12.2 |
| 30 | --- | --- | --- | --- | 9.9 | 9.9 | 10.5 | 10.4 | 11.4 | 11.2 | 12.3 | 12.2 |
| 31 | --- | --- | --- | --- | --- | --- | 10.5 | 10.4 | 11.4 | 11.3 | --- | --- |
| MONTH | 10.9 | 10.3 | --- | --- | 9.9 | 6.6 | 10.5 | 9.8 | 11.4 | 10.4 | 12.3 | 11.3 |
| YEAR | 13.4 | 6.6 | | | | | | | | | | |

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | --- | --- | 10.2 | 8.9 | 7.3 | 5.1 | 5.5 | 4.5 | .0 | .0 | 8.7 | 5.3 |
| 2 | --- | --- | 8.9 | 7.8 | 5.9 | 4.4 | 7.5 | 5.5 | .1 | .0 | 9.1 | 6.8 |
| 3 | --- | --- | 7.8 | 6.6 | 4.5 | 3.9 | 8.6 | 7.5 | .1 | .0 | 6.8 | 4.9 |
| 4 | --- | --- | 8.0 | 6.3 | 4.2 | 3.3 | 9.6 | 8.5 | .1 | .0 | 6.1 | 4.8 |
| 5 | --- | --- | 9.7 | 8.0 | 3.3 | 2.9 | 9.8 | 6.8 | .1 | .1 | 6.1 | 5.3 |
| 6 | --- | --- | 10.7 | 9.2 | 3.7 | 3.1 | 6.8 | 3.7 | .1 | .1 | 5.3 | 3.7 |
| 7 | --- | --- | 12.8 | 10.7 | 4.4 | 3.5 | 3.7 | 2.1 | .2 | .1 | 3.9 | 2.6 |
| 8 | --- | --- | 11.4 | 9.9 | 3.8 | 2.6 | 2.1 | 1.4 | .2 | .1 | 6.2 | 3.9 |
| 9 | --- | --- | 9.9 | 7.9 | 2.8 | 2.4 | 1.5 | 1.2 | .3 | .2 | 5.8 | 3.8 |
| 10 | --- | --- | 7.9 | 6.4 | 4.2 | 2.3 | 1.4 | 1.3 | .3 | .2 | 6.0 | 4.5 |
| 11 | --- | --- | 6.4 | 5.3 | 6.4 | 4.2 | 1.4 | 1.2 | .3 | .3 | 6.3 | 4.5 |
| 12 | --- | --- | 5.3 | 4.1 | 6.6 | 5.9 | 1.2 | 1.0 | .4 | .3 | 6.0 | 4.0 |
| 13 | --- | --- | 4.4 | 4.0 | 6.2 | 5.0 | 1.0 | .7 | .4 | .3 | 5.1 | 3.9 |
| 14 | --- | --- | 4.1 | 3.0 | 5.0 | 4.0 | .7 | .5 | .4 | .3 | 6.1 | 4.0 |
| 15 | --- | --- | 3.0 | 2.4 | 5.0 | 3.7 | .5 | .4 | .4 | .3 | 4.3 | 2.4 |
| 16 | --- | --- | 4.5 | 2.9 | 5.1 | 4.6 | .6 | .5 | .4 | .3 | 2.8 | 1.7 |
| 17 | --- | --- | 6.5 | 4.3 | 5.4 | 4.4 | .6 | .2 | .4 | .3 | 4.4 | 2.3 |
| 18 | --- | --- | 6.6 | 5.8 | 4.4 | 2.7 | .2 | -.4 | .4 | .4 | 4.4 | 3.6 |
| 19 | --- | --- | 5.8 | 4.9 | 2.7 | 1.5 | -.4 | -.7 | .7 | .3 | 4.7 | 2.5 |
| 20 | --- | --- | 5.2 | 4.6 | 1.5 | 1.0 | -.2 | -.5 | 1.9 | .5 | 5.9 | 3.6 |
| 21 | --- | --- | 4.7 | 4.5 | 1.0 | .8 | -.1 | -.3 | 6.1 | 1.9 | 7.9 | 4.0 |
| 22 | --- | --- | 4.6 | 4.2 | .9 | .7 | .0 | -.1 | 6.1 | 3.2 | 7.8 | 6.0 |
| 23 | 14.1 | 11.9 | 4.4 | 3.8 | 2.4 | .7 | .1 | .0 | 3.2 | 2.0 | 6.3 | 4.6 |
| 24 | 12.5 | 11.5 | 5.6 | 4.4 | 3.2 | 1.5 | --- | --- | 2.3 | 1.4 | 5.5 | 3.5 |
| 25 | 12.2 | 10.7 | 5.7 | 5.0 | 1.5 | 1.0 | --- | --- | 1.5 | 1.1 | 7.7 | 5.1 |
| 26 | 13.1 | 12.0 | 5.0 | 3.3 | 1.0 | .8 | --- | --- | 2.5 | .9 | 7.7 | 6.0 |
| 27 | 14.6 | 13.1 | 3.3 | 2.7 | 1.4 | .9 | --- | --- | 5.8 | 2.5 | 9.0 | 5.8 |
| 28 | 14.5 | 13.3 | 3.1 | 2.4 | 5.5 | 1.4 | --- | --- | 5.4 | 3.6 | 9.2 | 7.3 |
| 29 | 13.3 | 11.9 | 3.0 | 1.9 | 6.2 | 5.3 | --- | --- | --- | --- | 9.7 | 9.0 |
| 30 | 14.0 | 12.6 | 5.1 | 3.0 | 5.3 | 4.7 | -.1 | -.5 | --- | --- | 9.1 | 7.8 |
| 31 | 12.6 | 10.2 | --- | --- | 5.4 | 4.8 | .0 | -.2 | --- | --- | 7.8 | 6.0 |
| MONTH | 14.6 | 10.2 | 12.8 | 1.9 | 7.3 | .7 | 9.8 | -.7 | 6.1 | .0 | 9.7 | 1.7 |

395859083440700 CL-138 NR SPRINGFIELD,OH--Continued

TEMPERATURE, SOIL, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7.4 | 4.6 | --- | --- | 16.1 | 14.8 | 25.9 | 24.5 | 28.3 | 23.5 | 24.5 | 21.6 |
| 2 | 8.7 | 5.2 | --- | --- | 17.1 | 15.8 | 26.0 | 24.6 | 26.5 | 24.1 | 24.6 | 22.0 |
| 3 | 9.6 | 6.2 | --- | --- | 16.9 | 16.1 | 25.5 | 24.5 | 29.2 | 23.4 | 23.8 | 20.8 |
| 4 | 11.3 | 8.0 | --- | --- | 17.0 | 15.4 | 25.0 | 23.8 | 28.7 | 24.9 | 21.1 | 18.5 |
| 5 | 11.6 | 10.2 | --- | --- | 17.5 | 15.4 | 23.8 | 22.5 | 26.3 | 23.3 | 21.4 | 17.9 |
| 6 | 13.2 | 11.3 | --- | --- | 17.7 | 16.2 | 23.1 | 21.3 | 24.7 | 21.1 | 21.8 | 19.4 |
| 7 | 11.9 | 9.2 | --- | --- | 17.3 | 16.3 | 23.7 | 21.8 | 26.4 | 20.6 | 22.7 | 19.6 |
| 8 | 9.3 | 7.5 | --- | --- | 16.6 | 16.0 | 24.4 | 22.7 | 27.3 | 21.4 | 23.0 | 20.4 |
| 9 | 7.6 | 5.3 | --- | --- | 18.1 | 15.8 | 24.2 | 22.7 | 27.0 | 23.4 | 22.2 | 21.1 |
| 10 | 7.7 | 4.5 | --- | --- | 19.2 | 16.2 | 23.1 | 21.4 | 25.9 | 23.7 | 21.5 | 20.7 |
| 11 | 9.3 | 6.5 | --- | --- | 20.3 | 17.8 | 23.4 | 21.1 | 26.6 | 23.7 | 20.8 | 19.8 |
| 12 | 10.2 | 8.2 | --- | --- | 20.9 | 19.4 | 23.9 | 21.5 | 26.9 | 23.8 | 20.4 | 18.1 |
| 13 | 9.6 | 7.4 | --- | --- | 21.0 | 20.2 | 24.5 | 22.0 | 26.2 | 24.1 | 20.7 | 17.6 |
| 14 | 9.1 | 6.0 | --- | --- | 20.8 | 20.0 | 25.3 | 23.0 | 26.1 | 22.2 | 20.6 | 18.4 |
| 15 | 10.0 | 6.5 | --- | --- | 20.5 | 18.4 | 25.7 | 24.2 | 25.8 | 23.2 | 22.0 | 19.5 |
| 16 | 9.5 | 7.9 | --- | --- | 20.8 | 19.4 | 25.8 | 23.5 | 27.6 | 24.4 | 22.6 | 20.0 |
| 17 | 9.0 | 7.3 | --- | --- | 20.7 | 19.8 | 29.8 | 23.8 | 26.5 | 24.1 | 21.6 | 20.3 |
| 18 | 8.8 | 6.0 | --- | --- | 20.8 | 20.4 | 31.5 | 25.8 | 25.0 | 23.7 | 21.0 | 18.1 |
| 19 | 9.8 | 7.3 | --- | --- | 22.7 | 19.9 | 31.4 | 26.4 | 24.5 | 22.6 | 21.1 | 18.2 |
| 20 | 10.3 | 7.2 | --- | --- | 24.4 | 22.0 | 31.4 | 24.5 | 23.8 | 22.5 | 21.5 | 19.9 |
| 21 | 10.9 | 8.7 | --- | --- | 25.2 | 23.6 | 29.9 | 26.0 | 23.3 | 21.5 | 19.9 | 17.8 |
| 22 | --- | --- | --- | --- | 25.0 | 24.2 | 28.1 | 26.0 | 22.2 | 20.1 | 18.5 | 16.0 |
| 23 | --- | --- | --- | --- | 25.2 | 23.6 | 27.9 | 24.9 | 22.0 | 19.0 | 17.7 | 16.7 |
| 24 | --- | --- | --- | --- | 25.9 | 24.2 | 28.5 | 25.6 | 21.0 | 19.7 | 17.9 | 16.0 |
| 25 | --- | --- | --- | --- | 26.5 | 24.8 | 29.9 | 24.5 | 23.7 | 20.1 | 17.7 | 14.8 |
| 26 | --- | --- | --- | --- | 26.1 | 25.0 | 30.8 | 25.4 | 23.9 | 20.7 | 18.1 | 15.6 |
| 27 | --- | --- | --- | --- | 25.1 | 23.3 | 32.6 | 27.3 | 24.8 | 21.1 | 17.8 | 15.2 |
| 28 | --- | --- | --- | --- | 25.0 | 23.5 | 30.9 | 26.8 | 24.6 | 21.7 | 18.7 | 15.9 |
| 29 | --- | --- | --- | --- | 25.2 | 23.7 | 29.0 | 25.8 | 23.2 | 21.0 | 18.0 | 16.3 |
| 30 | --- | --- | --- | --- | 25.3 | 24.5 | 28.1 | 23.0 | 23.1 | 19.9 | 17.9 | 16.6 |
| 31 | --- | --- | --- | --- | --- | --- | 28.8 | 22.8 | 23.7 | 20.8 | --- | --- |
| MONTH | 13.2 | 4.5 | --- | --- | 26.5 | 14.8 | 32.6 | 21.1 | 29.2 | 19.0 | 24.6 | 14.8 |
| YEAR | 32.6 | -.7 | | | | | | | | | | |

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY SUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | .00 | .39 | .00 | .00 | .42 | .00 | --- | 1.53 | .01 | .00 | .00 |
| 2 | --- | .00 | .00 | .00 | .00 | .00 | .00 | --- | .08 | .06 | .05 | .00 |
| 3 | --- | .00 | .00 | .01 | .00 | .07 | .00 | --- | .00 | .00 | .00 | .00 |
| 4 | --- | .00 | .00 | .01 | .50 | .00 | .00 | --- | .00 | .00 | .10 | .00 |
| 5 | --- | .00 | .07 | .12 | .01 | .04 | .14 | --- | .00 | .00 | .00 | .00 |
| 6 | --- | .00 | .03 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .00 |
| 7 | --- | .25 | .00 | .00 | .00 | .00 | .00 | --- | .01 | .00 | .00 | .00 |
| 8 | --- | .00 | .00 | .00 | .09 | .00 | .00 | --- | .05 | .00 | .00 | .00 |
| 9 | --- | .09 | .01 | .03 | .00 | .32 | .00 | --- | .00 | .18 | .00 | .03 |
| 10 | --- | .05 | .01 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .34 |
| 11 | --- | .04 | .01 | .00 | .00 | .00 | .00 | --- | .00 | .00 | .00 | .07 |
| 12 | --- | .00 | .20 | .00 | .01 | .00 | .23 | --- | .00 | .00 | .16 | .00 |
| 13 | --- | .00 | .00 | .00 | .00 | .19 | .01 | --- | .66 | .00 | .55 | .00 |
| 14 | --- | .01 | .00 | .02 | .06 | .08 | .01 | --- | .00 | .29 | .00 | .00 |
| 15 | --- | .00 | .00 | .17 | .00 | .00 | .00 | --- | .00 | .00 | .28 | .00 |
| 16 | --- | .00 | .26 | .00 | .01 | .00 | .01 | --- | .87 | .00 | .00 | .00 |
| 17 | --- | .22 | .06 | .00 | .00 | .00 | .00 | --- | .00 | .00 | 1.58 | .01 |
| 18 | --- | .00 | .01 | .00 | .00 | .21 | .00 | --- | .08 | .02 | .02 | .00 |
| 19 | --- | .00 | .00 | .00 | .05 | .00 | .00 | --- | .00 | .00 | .02 | .00 |
| 20 | --- | .00 | .00 | .00 | .03 | .00 | .00 | --- | .00 | .00 | .20 | .46 |
| 21 | --- | .07 | .00 | .00 | .00 | .00 | .00 | --- | .00 | .07 | .03 | .00 |
| 22 | --- | .02 | .01 | .22 | .00 | .00 | .01 | --- | .00 | .11 | .17 | .00 |
| 23 | .13 | .00 | .41 | .00 | .00 | .00 | --- | --- | .00 | .36 | .01 | .07 |
| 24 | .00 | .01 | .01 | .01 | .00 | .00 | --- | --- | .00 | .00 | .01 | .00 |
| 25 | .00 | .57 | .00 | --- | .00 | .13 | --- | --- | .05 | .00 | .00 | .00 |
| 26 | .14 | .00 | .01 | --- | .11 | .00 | --- | --- | .02 | .00 | .00 | .00 |
| 27 | .01 | .00 | .00 | --- | .08 | .00 | --- | --- | .00 | .36 | .00 | .00 |
| 28 | .03 | .00 | .00 | --- | .00 | .13 | --- | --- | .00 | .01 | .00 | .01 |
| 29 | .00 | .09 | .00 | --- | --- | .00 | --- | --- | .06 | .00 | .00 | .01 |
| 30 | .00 | .24 | .00 | .00 | --- | .05 | --- | --- | .39 | .00 | .00 | .00 |
| 31 | .00 | --- | .00 | .00 | --- | .00 | --- | .25 | --- | .00 | .00 | --- |
| TOTAL | 0.31 | 1.66 | 1.49 | 0.59 | 0.95 | 1.64 | 0.41 | 0.25 | 3.80 | 1.47 | 3.18 | 1.00 |

WTR YR 1997 TOTAL 16.75

## Geochemistry and Ground-Water Flow Beneath an Abandoned Coal Mine Treated with Flue-Gas Desulfurization By-Products as Soil and Spoil Amendments

The following tables list ground-water levels and chemical analyses of interstitial-, ground-, and surface-water samples collected from an abandoned mine site that has been reclaimed in part by application of a coal-combustion by-product, also known as flue-gas desulfurization (FGD) by-product. Water levels in wells are measured periodically. The fourth round of water-quality analyses from ground- and surface-water samples are presented herein--subsequent sampling rounds will continue through 1998. Additionally, interstitial waters were sampled by use of soil-suction lysimeters. The lysimeters produced only small amounts of water; thus, chemical analyses for interstitial water are incomplete.

The site selected for study is in Tuscarawas County, Ohio, and is also known as the Fleming abandoned mine site. FGD by-products are produced as a result of injection of dolostone slurry through the flue gases of coal-burning utilities that use high-sulfur coals as fuel. Beneficial uses of the by-products are being developed, and their environmental effects are being assessed.

The following site description applies to all wells, soil-suction lysimeters, and surface-water sites used for this study.

LOCATION.--Hydrologic Unit 05040001, approximately 1.5 mi northwest of the city of Dover, Ohio; 0.5 mi west of Interstate I-77.
AQUIFER.--Sandstones and coals of Allegheny and Conemaugh Groups, of middle and lower Pennsylvanian Age.
INSTRUMENTATION.--Periodic measurement of water level with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is given in feet above National Geodetic Vertical Datum of 1983, surveyed using Total Station with reference points established by global positioning system, accurate to 0.01 ft.
PERIOD OF RECORD.--Mar. 1995 to current year for wells TU-100 through TU-114; Dec. 1995 to current year for wells TU-115 through TU-119.
REMARKS.--These sites are used for chemical-quality sampling only as part of a cooperative study with The Ohio State University.

WELL, SOIL-SUCTION LYSIMETER, AND SURFACE-WATER SITE DESCRIPTIONS

| LOCAL NUMBER | SITE ID | LATITUDE (DMS) | LONGITUDE (DMS) | CASING INNER DIAMETER (IN) | LSD (FT) | MP (FT) | DEPTH (FT BELOW LSD) | SCREEN INTERVAL TOP | SCREEN INTERVAL BOTTOM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Ground-water wells | | | | | |
| TU-100-W1S | 403321081311901 | 40 33 21 | 081 31 19 | 6 | 1078.90 | 1081.48 | 68.00 | 1022.90 | 1012.90 |
| TU-101-W1D | 403321081311902 | 40 33 21 | 081 31 19 | 6 | 1079.05 | 1081.79 | 98.00 | 993.05 | 983.05 |
| TU-102-W2 | 403319081312000 | 40 33 19 | 081 31 20 | 6 | 1079.99 | 1082.64 | 68.00 | 1023.99 | 1013.99 |
| TU-103-W3S | 403315081312301 | 40 33 15 | 081 31 23 | 6 | 1072.89 | 1075.38 | 70.00 | 1014.89 | 1004.89 |
| TU-104-W3D | 403315081312302 | 40 33 15 | 081 31 23 | 6 | 1072.93 | 1075.53 | 86.00 | 998.93 | 988.93 |
| TU-105-W4S | 403313081311901 | 40 33 13 | 081 31 19 | 6 | 1047.80 | 1050.49 | 46.00 | 1013.80 | 1003.80 |
| TU-106-W4I | 403313081311902 | 40 33 13 | 081 31 19 | 6 | 1047.32 | 1050.19 | 63.50 | 995.82 | 985.82 |
| TU-107-W4D | 403313081311903 | 40 33 13 | 081 31 19 | 6 | 1046.58 | 1049.19 | 100.00 | 958.58 | 948.58 |
| TU-108-W5SP | 403312081311401 | 40 33 12 | 081 31 14 | 6 | 1045.84 | 1048.53 | 16.00 | 1036.84 | 1031.84 |
| TU-109-W5D | 403312081311402 | 40 33 12 | 081 31 14 | 6 | 1045.90 | 1048.53 | 38.00 | 1019.90 | 1009.90 |
| TU-110-W6S | 403315081311001 | 40 33 15 | 081 31 10 | 6 | 1051.18 | 1053.81 | 43.00 | 1020.18 | 1010.18 |
| TU-111-W6D | 403315081311002 | 40 33 15 | 081 31 10 | 6 | 1051.62 | 1054.02 | 60.00 | 1003.62 | 993.62 |
| TU-112-W7 | 403320081311000 | 40 33 20 | 081 31 10 | 6 | 1059.13 | 1061.75 | 53.00 | 1018.13 | 1008.13 |
| TU-113-W8S | 403323081311601 | 40 33 23 | 081 31 16 | 6 | 1076.57 | 1079.26 | 68.00 | 1020.57 | 1010.57 |
| TU-114-W8D | 403323081311602 | 40 33 23 | 081 31 16 | 6 | 1075.54 | 1078.26 | 92.00 | 995.54 | 985.54 |
| TU-115-W9 | 403316081310600 | 40 33 16 | 081 31 06 | 2 | 1049.88 | 1051.38 | 49.00 | 1012.88 | 1002.88 |
| TU-116-W10 | 403314081311500 | 40 33 14 | 081 31 15 | 2 | 1053.53 | 1055.33 | 57.00 | 1008.53 | 998.53 |
| TU-117-W11 | 403316081311300 | 40 33 16 | 081 31 13 | 2 | 1055.69 | 1057.18 | 58.00 | 1009.69 | 999.69 |
| TU-118-W12 | 403318081311200 | 40 33 18 | 081 31 12 | 2 | 1057.07 | 1059.14 | 57.60 | 1011.47 | 1001.47 |
| TU-119-W13 | 403321081311400 | 40 33 21 | 081 31 14 | 2 | 1070.98 | 1072.71 | 70.00 | 1012.98 | 1002.98 |
| | | | | Soil-suction lysimeters | | | | | |
| TU-131-L1A-2.5 | 403316081311102 | 40 33 16 | 081 31 11 | -- | -- | -- | 2.50 | -- | -- |
| TU-132-L1A-3.5 | 403316081311103 | | | -- | -- | -- | 3.50 | -- | -- |
| TU-133-L1B-1.5 | 403316081311104 | | | -- | -- | -- | 1.50 | -- | -- |
| TU-134-L1B-2.5 | 403316081311105 | | | -- | -- | -- | 2.50 | -- | -- |
| TU-135-L1B-3.5 | 403316081311106 | | | -- | -- | -- | 3.50 | -- | -- |
| TU-138-L2A-3.5 | 403313081311403 | 40 33 13 | 091 31 14 | -- | -- | -- | 3.50 | -- | -- |
| TU-139-L2B-1.5 | 403313081311404 | | | -- | -- | -- | 1.50 | -- | -- |
| TU-141-L2B-3.5 | 403313081311406 | | | -- | -- | -- | 3.50 | -- | -- |
| TU-142-L3A-4.5A | 403314081311801 | 40 33 14 | 081 31 18 | -- | -- | -- | 4.50 | -- | -- |
| TU-143-L3A-4.5B | 403314081311802 | | | -- | -- | -- | 4.50 | -- | -- |
| TU-146-L3B-3.5 | 403314081311805 | | | -- | -- | -- | 3.50 | -- | -- |
| TU-148-L3C-2.5 | 403314081311807 | | | -- | -- | -- | 2.50 | -- | -- |
| TU-149-L3C-3.5 | 403314081311808 | | | -- | -- | -- | 3.50 | -- | -- |

WELL, SOIL-SUCTION LYSIMETER, AND SURFACE-WATER SITE DESCRIPTIONS (CONTINUED)

| LOCAL NUMBER | SITE ID | LATITUDE (DMS) | LONGITUDE (DMS) | CASING INNER DIAMETER (IN) | LSD (FT) | MP (FT) | DEPTH (FT BELOW LSD) | SCREEN INTERVAL TOP | SCREEN INTERVAL BOTTOM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Soil-suction lysimeters (continued) | | | | | |
| TU-152-L4A-3.5 | 403315081312103 | 40 33 15 | 081 31 21 | -- | -- | -- | 3.50 | -- | -- |
| TU-154-L4B-2.5 | 403315081312105 | | | -- | -- | -- | 2.50 | -- | -- |
| TU-156-L4C-1.5UP | 403315081312107 | | | -- | -- | -- | 1.50 | -- | -- |
| TU-157-L4C-2.5UP | 403315081312108 | | | -- | -- | -- | 2.50 | -- | -- |
| TU-158-L4C-3.5UP | 403315081312109 | | | -- | -- | -- | 3.50 | -- | -- |
| TU-160-L5A-2.5 | 403316081310502 | 40 33 16 | 081 31 05 | -- | -- | -- | 2.50 | -- | -- |
| TU-161-L5A-3.5 | 403316081310503 | | | -- | -- | -- | 3.50 | -- | -- |
| TU-162-L5B-1.5 | 403316081310504 | | | -- | -- | -- | 1.50 | -- | -- |
| TU-163-L5B-2.5 | 403316081310505 | | | -- | -- | -- | 2.50 | -- | -- |
| TU-164-L5B-3.5 | 403316081310506 | | | -- | -- | -- | 3.50 | -- | -- |
| | | | | Surface-water sites | | | | | |
| TU-120 | 403258081311900 | 40 32 58 | 081 31 19 | -- | -- | -- | -- | -- | -- |
| TU-124 | 403311081311600 | 40 33 11 | 081 31 16 | -- | -- | -- | -- | -- | -- |
| TU-125 | 403304081305700 | 40 33 04 | 081 30 57 | -- | -- | -- | -- | -- | -- |

WATER LEVELS IN GROUND-WATER WELLS

| SITE-ID | LOCAL WELL NUMBER | DEPTH OF WELL (FEET) | AQUIFER CODE | WATER-LEVEL DATE | WATER LEVEL (FT BELOW LAND SURFACE) | ALTITUDE OF LAND SURFACE (FEET) |
|---|---|---|---|---|---|---|
| 403321081311901 | TU-100-W1S | 68.0 | 324ALGN | 10-15-96 | 43.47 | 1078.90 |
| | | | | 11-26-96 | 43.34 | |
| | | | | 01-29-97 | 43.31 | |
| | | | | 02-24-97 | 43.10 | |
| | | | | 04-18-97 | 41.92 | |
| | | | | 06-05-97 | 41.87 | |
| | | | | 06-23-97 | 41.86 | |
| | | | | 09-03-97 | 42.38 | |
| 403321081311902 | TU-101-W1D | 98.0 | 324PSVL | 10-15-96 | 42.95 | 1079.05 |
| | | | | 11-26-96 | 43.06 | |
| | | | | 01-29-97 | 43.11 | |
| | | | | 02-24-97 | 42.89 | |
| | | | | 04-18-97 | 41.71 | |
| | | | | 06-05-97 | 41.63 | |
| | | | | 06-23-97 | 41.61 | |
| | | | | 09-03-97 | 42.18 | |
| 403319081312000 | TU-102-W2 | 68.0 | 324ALGN | 10-15-96 | 44.96 | 1079.99 |
| | | | | 11-26-96 | 44.92 | |
| | | | | 01-29-97 | 44.78 | |
| | | | | 02-24-97 | 44.56 | |
| | | | | 04-18-97 | 43.41 | |
| | | | | 06-05-97 | 43.38 | |
| | | | | 06-23-97 | 43.34 | |
| | | | | 09-03-97 | 43.95 | |
| 403315081312301 | TU-103-W3S | 70.0 | 324ALGN | 10-15-96 | 40.85 | 1072.89 |
| | | | | 11-26-96 | 40.72 | |
| | | | | 01-29-97 | 40.65 | |
| | | | | 02-24-97 | 40.50 | |
| | | | | 04-18-97 | 39.67 | |
| | | | | 06-05-97 | 39.51 | |
| | | | | 06-23-97 | 39.59 | |
| | | | | 09-03-97 | 40.24 | |
| 403315081312302 | TU-104-W3D | 86.0 | 324PSVL | 10-15-96 | 40.66 | 1072.93 |
| | | | | 11-26-96 | 40.51 | |
| | | | | 01-29-97 | 40.43 | |
| | | | | 02-24-97 | 40.30 | |
| | | | | 04-18-97 | 39.48 | |
| | | | | 06-05-97 | 39.46 | |
| | | | | 06-23-97 | 39.40 | |
| | | | | 09-03-97 | 40.04 | |
| 403313081311901 | TU-105-W4S | 46.0 | 324ALGN | 10-15-96 | 24.02 | 1047.80 |
| | | | | 11-26-96 | 23.98 | |
| | | | | 01-29-97 | 24.07 | |
| | | | | 02-24-97 | 24.09 | |
| | | | | 04-18-97 | 24.58 | |
| | | | | 06-05-97 | 24.66 | |
| | | | | 06-23-97 | 24.68 | |
| | | | | 09-03-97 | 24.18 | |
| 403313081311902 | TU-106-W4I | 63.5 | 324PSVL | 10-15-96 | 39.74 | 1047.32 |
| | | | | 11-26-96 | 39.57 | |
| | | | | 01-29-97 | 39.49 | |
| | | | | 02-24-97 | 39.38 | |
| | | | | 04-18-97 | 39.05 | |
| | | | | 06-05-97 | 39.02 | |
| | | | | 06-23-97 | 39.03 | |
| | | | | 09-03-97 | 39.22 | |

WATER LEVELS IN GROUND-WATER WELLS (CONTINUED)

| SITE-ID | LOCAL WELL NUMBER | DEPTH OF WELL (FEET) | AQUIFER CODE | WATER-LEVEL DATE | WATER LEVEL (FT BELOW LAND SURFACE) | ALTITUDE OF LAND SURFACE (FEET) |
|---|---|---|---|---|---|---|
| 403313081311903 | TU-107-W4D | 100.0 | 324PSVL | 10-15-96 | 65.16 | 1046.58 |
| | | | | 11-26-96 | 64.75 | |
| | | | | 01-29-97 | 64.88 | |
| | | | | 02-24-97 | 64.84 | |
| | | | | 04-18-97 | 64.44 | |
| | | | | 06-05-97 | 63.56 | |
| | | | | 06-23-97 | 63.73 | |
| | | | | 09-03-97 | 64.56 | |
| 403312081311401 | TU-108-W5SP | 15.0 | 324ALGN | 10-15-96 | 13.43 | 1045.84 |
| | | | | 11-26-96 | 12.01 | |
| | | | | 01-29-97 | 10.80 | |
| | | | | 02-24-97 | 10.70 | |
| | | | | 04-18-97 | 10.64 | |
| | | | | 06-05-97 | 10.40 | |
| | | | | 06-23-97 | 10.66 | |
| | | | | 09-03-97 | 12.80 | |
| 403312081311402 | TU-109-W5D | 38.0 | 324ALGN | 10-15-96 | 14.46 | 1045.90 |
| | | | | 11-26-96 | 14.08 | |
| | | | | 01-29-97 | 13.70 | |
| | | | | 02-24-97 | 13.59 | |
| | | | | 04-18-97 | 12.91 | |
| | | | | 06-05-97 | 12.78 | |
| | | | | 06-23-97 | 12.79 | |
| | | | | 09-03-97 | 13.70 | |
| 403315081311001 | TU-110-W6S | 43.0 | 324ALGN | 10-15-96 | 16.90 | 1051.18 |
| | | | | 11-26-96 | 16.72 | |
| | | | | 01-29-97 | 16.34 | |
| | | | | 02-24-97 | 16.12 | |
| | | | | 04-18-97 | 15.00 | |
| | | | | 06-05-97 | 14.90 | |
| | | | | 06-23-97 | 14.80 | |
| | | | | 09-03-97 | 15.89 | |
| 403315081311002 | TU-111-W6D | 60.0 | 324PSVL | 10-15-96 | 17.41 | 1051.62 |
| | | | | 11-26-96 | 17.14 | |
| | | | | 01-29-97 | 16.78 | |
| | | | | 02-24-97 | 16.59 | |
| | | | | 04-18-97 | 15.47 | |
| | | | | 06-05-97 | 15.33 | |
| | | | | 06-23-97 | 15.27 | |
| | | | | 09-03-97 | 16.38 | |
| 403320081311000 | TU-112-W7 | 53.0 | 324ALGN | 10-15-96 | 25.18 | 1059.13 |
| | | | | 11-26-96 | 24.95 | |
| | | | | 01-29-97 | 24.66 | |
| | | | | 02-24-97 | 24.34 | |
| | | | | 04-18-97 | 23.16 | |
| | | | | 06-05-97 | 23.04 | |
| | | | | 06-23-97 | 23.00 | |
| | | | | 09-03-97 | 24.24 | |
| 403323081311601 | TU-113-W8S | 68.0 | 324ALGN | 10-15-96 | 41.05 | 1076.57 |
| | | | | 11-26-96 | 40.93 | |
| | | | | 01-29-97 | 40.94 | |
| | | | | 02-24-97 | 40.71 | |
| | | | | 04-18-97 | 39.50 | |
| | | | | 06-05-97 | 39.45 | |
| | | | | 06-23-97 | 39.43 | |
| | | | | 09-03-97 | 39.95 | |

WATER LEVELS IN GROUND-WATER WELLS (CONTINUED)

| SITE-ID | LOCAL WELL NUMBER | DEPTH OF WELL (FEET) | AQUIFER CODE | WATER-LEVEL DATE | WATER LEVEL (FT BELOW LAND SURFACE) | ALTITUDE OF LAND SURFACE (FEET) |
|---|---|---|---|---|---|---|
| 403323081311602 | TU-114-W8D | 92.0 | 324PSVL | 10-15-96 | 40.05 | 1075.54 |
| | | | | 11-26-96 | 39.92 | |
| | | | | 01-29-97 | 40.07 | |
| | | | | 02-24-97 | 39.68 | |
| | | | | 04-18-97 | 38.47 | |
| | | | | 06-05-97 | 38.42 | |
| | | | | 06-23-97 | 38.41 | |
| | | | | 09-03-97 | 38.92 | |
| 403316081310600 | TU-115-W9 | 49.0 | 324ALGN | 10-15-96 | 16.33 | 1049.88 |
| | | | | 11-26-96 | 16.09 | |
| | | | | 01-29-97 | 15.56 | |
| | | | | 02-24-97 | 15.38 | |
| | | | | 04-18-97 | 14.19 | |
| | | | | 06-05-97 | 14.08 | |
| | | | | 06-23-97 | 13.99 | |
| | | | | 09-03-97 | 15.43 | |
| 403314081311500 | TU-116-W10 | 57.0 | 324ALGN | 10-15-96 | 21.11 | 1053.53 |
| | | | | 11-26-96 | 20.95 | |
| | | | | 01-29-97 | 20.79 | |
| | | | | 02-24-97 | 20.63 | |
| | | | | 04-18-97 | 19.77 | |
| | | | | 06-05-97 | 19.66 | |
| | | | | 06-23-97 | 19.70 | |
| | | | | 09-03-97 | 20.33 | |
| 403316081311300 | TU-117-W11 | 58.0 | 324ALGN | 10-15-96 | 21.02 | 1055.69 |
| | | | | 11-26-96 | 20.81 | |
| | | | | 01-29-97 | 19.87 | |
| | | | | 02-24-97 | 20.42 | |
| | | | | 04-18-97 | 19.29 | |
| | | | | 06-05-97 | 19.22 | |
| | | | | 06-23-97 | 19.12 | |
| | | | | 09-03-97 | 20.00 | |
| 403318081311200 | TU-118-W12 | 57.6 | 324ALGN | 10-15-96 | 22.53 | 1057.07 |
| | | | | 11-26-96 | 22.37 | |
| | | | | 01-29-97 | 22.17 | |
| | | | | 02-24-97 | 21.88 | |
| | | | | 04-18-97 | 20.71 | |
| | | | | 06-05-97 | 20.63 | |
| | | | | 06-23-97 | 20.62 | |
| | | | | 09-03-97 | 21.52 | |
| 403321081311400 | TU-119-W13 | 70.0 | 324ALGN | 10-15-96 | 36.23 | 1070.98 |
| | | | | 11-26-96 | 36.08 | |
| | | | | 01-29-97 | 35.92 | |
| | | | | 02-24-97 | 35.65 | |
| | | | | 04-18-97 | 34.46 | |
| | | | | 06-05-97 | 34.39 | |
| | | | | 06-23-97 | 34.36 | |
| | | | | 09-03-97 | 35.18 | |

| LOCAL NUMBER | DATE | TIME | DEPTH TO WATER (FT BELOW LSD) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | REDOX POT-ENT-IAL (MV) | TEMPER-ATURE AIR (DEG C) | TEMPER-ATURE WATER (DEG C) | TURBID-ITY (NTU) | OXYGEN DIS-SOLVED (MG/L) | HARD-NESS (MG/L) AS CACO3) | ACID-ITY (MG/L AS CACO3) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ground water | | | | | | | |
| TU-100-W1S | 970626 | 930 | 41.86 | 3280 | 5.7 | 187 | 25 | 13.0 | 0 | <0.1 | 1789 | 12.1 |
| TU-101-W1D | 970626 | 800 | 41.61 | 1990 | 7.4 | 46 | 25 | 16.0 | 34 | <0.1 | 717 | 0.1 |
| TU-102-W2 | 970625 | 1720 | 43.34 | 3570 | 5.6 | 225 | 30 | 12.0 | 0 | <0.1 | 1738 | 13.4 |
| TU-103-W3S | 970623 | 1430 | 39.59 | 2180 | 6.1 | 151 | 24 | 13.0 | 4 | <0.1 | 1436 | 1.7 |
| TU-104-W3D | 970623 | 1300 | 39.40 | 2640 | 6.3 | 114 | 21 | 14.0 | 0 | 0.1 | 1647 | 0.8 |
| TU-105-W4S | 970623 | 1615 | 24.68 | 3050 | 5.8 | 234 | 24 | 13.0 | 1 | <0.1 | 1720 | 9.3 |
| TU-106-W4I | 970623 | 1740 | 39.03 | 3000 | 5.9 | 137 | 24 | 14.0 | 2 | <0.1 | 1878 | 9.0 |
| TU-107-W4D | 970624 | 745 | 63.73 | 1670 | 6.8 | 106 | 15 | 13.0 | 13 | 0.1 | 968 | 0.2 |
| TU-108-W5SP | 970624 | 1100 | 10.66 | 2760 | 3.4 | -- | 21 | 12.0 | 22 | -- | 1422 | 5.9 |
| TU-109-W5D | 970624 | 1000 | 12.79 | 3130 | 5.5 | 232 | 20 | 13.0 | 2 | <0.1 | 1537 | 7.5 |
| TU-110-W6S | 970624 | 1240 | 14.80 | 4010 | 5.2 | 252 | 21 | 14.0 | 9 | <0.1 | 1928 | 28.8 |
| TU-111-W6D | 970625 | 1300 | 15.27 | 4040 | 5.6 | 190 | 30 | 14.0 | 9 | <0.1 | 2508 | 21.2 |
| TU-112-W7 | 970624 | 1600 | 23.00 | 2340 | 5.8 | 187 | 23 | 13.0 | 73 | <0.1 | 1500 | 5.0 |
| TU-113-W8S | 970625 | 1610 | 39.43 | 1590 | 6.3 | 144 | 30 | 14.0 | 3 | <0.1 | 1076 | 0.7 |
| TU-114-W8D | 970625 | 1440 | 38.41 | 2980 | 5.8 | 197 | 30 | 14.0 | 2 | <0.1 | 1715 | 7.3 |
| TU-115-W9 | 970624 | 1400 | 13.99 | 2640 | 5.6 | 233 | 21 | 15.0 | 3 | 0.2 | 1469 | 6.3 |
| TU-116-W10 | 970626 | 1050 | 19.70 | 3280 | 5.4 | 234 | 25 | 14.0 | 0 | <0.1 | 1737 | 11.0 |
| TU-117-W11 | 970626 | 1200 | 19.12 | 3370 | 5.8 | 210 | 30 | 14.0 | 45 | 0.3 | 1696 | 9.0 |
| TU-118-W12 | 970626 | 1330 | 20.62 | 3250 | 5.7 | 222 | 30 | 14.0 | 4 | 0.2 | 1583 | 6.3 |
| TU-119-W13 | 970626 | 1440 | 34.36 | 3120 | 5.9 | 185 | 30 | 15.0 | 8 | 0.3 | 1432 | 8.3 |
| | | | | | Interstitial water | | | | | | | |
| TU-131-L1A-2.5 | 970627 | 900 | -- | 8800 | 4.2 | -- | -- | -- | -- | -- | 7500 | -- |
| TU-132-L1A-3.5 | 970627 | 910 | -- | 6600 | 5.8 | -- | -- | -- | -- | -- | 5500 | -- |
| TU-133-L1B-1.5 | 970627 | -- | -- | 7700 | 7.4 | -- | -- | -- | -- | -- | -- | -- |
| TU-134-L1B-2.5 | 970627 | -- | -- | 6200 | 3.8 | -- | -- | -- | -- | -- | -- | -- |
| TU-135-L1B-3.5 | 970627 | 920 | -- | 5600 | 5.2 | -- | -- | -- | -- | -- | 4000 | -- |
| TU-138-L2A-3.5 | 970627 | -- | -- | 5500 | 6.7 | -- | -- | -- | -- | -- | -- | -- |
| TU-139-L2B-1.5 | 970627 | 930 | -- | 6000 | 6.9 | -- | -- | -- | -- | -- | 4900 | -- |
| TU-141-L2B-3.5 | 970627 | -- | -- | 4700 | 6.9 | -- | -- | -- | -- | -- | -- | -- |
| TU-142-L3A-4.5A | 970627 | -- | -- | 4300 | 6.5 | -- | -- | -- | -- | -- | -- | -- |
| TU-143-L3A-4.5B | 970627 | 940 | -- | 4800 | 5.5 | -- | -- | -- | -- | -- | 1800 | -- |
| TU-146-L3B-3.5 | 970627 | -- | -- | 4100 | 6.5 | -- | -- | -- | -- | -- | -- | -- |
| TU-148-L3C-2.5 | 970627 | 950 | -- | 4000 | 6.4 | -- | -- | -- | -- | -- | 2200 | -- |
| TU-149-L3C-3.5 | 970627 | -- | -- | 4300 | 6.6 | -- | -- | -- | -- | -- | -- | -- |
| TU-152-L4A-3.5 | 970627 | -- | -- | 3900 | 6.7 | -- | -- | -- | -- | -- | -- | -- |
| TU-154-L4B-2.5 | 970627 | -- | -- | 4000 | 6.8 | -- | -- | -- | -- | -- | -- | -- |
| TU-156-L4C-1.5UP | 970627 | -- | -- | 4500 | 6.5 | -- | -- | -- | -- | -- | -- | -- |
| TU-157-L4C-2.5UP | 970627 | 1000 | -- | 4900 | 6.0 | -- | -- | -- | -- | -- | 3600 | -- |
| TU-158-L4C-3.5UP | 970627 | 1010 | -- | 4600 | 6.4 | -- | -- | -- | -- | -- | 3300 | -- |
| TU-160-L5A-2.5 | 970627 | 1020 | -- | 2400 | 4.8 | -- | -- | -- | -- | -- | 1200 | -- |
| TU-161-L5A-3.5 | 970627 | -- | -- | 1400 | 5.6 | -- | -- | -- | -- | -- | -- | -- |
| TU-163-L5B-2.5 | 970627 | -- | -- | 1900 | 5.2 | -- | -- | -- | -- | -- | -- | -- |
| TU-164-L5B-3.5 | 970627 | 1030 | -- | 1200 | 5.4 | -- | -- | -- | -- | -- | 580 | -- |
| | | | | | Surface water | | | | | | | |
| TU-120 | 970625 | 830 | -- | 1370 | 4.2 | 551 | 27 | 22.0 | 2 | 6.7 | 674 | 1.3 |
| TU-124 | 970625 | 1100 | -- | 1430 | 4.5 | 500 | 27 | 27.0 | 11 | 4.9 | 713 | 0.9 |
| TU-125 | 970625 | 1000 | -- | 538 | 5.3 | 409 | 27 | 20.0 | 10 | 6.1 | 208 | 0.2 |

| LOCAL NUMBER | DATE | 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) | BI-CARB-ONATE IT-FLD (MG/L AS HCO3) | ALKA-LIN-ITY WATER WHOLE FIELD (MG/L AS CACO3) | SULF-ATE DIS-SOLVED (MG/L AS SO4) | CHLOR-IDE DIS-SOLVED (MG/L AS CL) | FLUOR-IDE DIS-SOLVED (MG/L AS F) | SILICA DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ground water | | | | | | |
| TU-100-W1S | 970626 | 373 | 207 | 12 | 14 | 85 | 66 | 2443 | <0.1 | <0.1 | 9.59 |
| TU-101-W1D | 970626 | 178 | 65 | 178 | 8 | 242 | 192 | 965 | 20.4 | <0.1 | 7.51 |
| TU-102-W2 | 970625 | 359 | 204 | 10 | 15 | 68 | 53 | 2378 | <0.1 | <0.1 | 8.62 |
| TU-103-W3S | 970623 | 321 | 154 | 8 | 6 | 105 | 86 | 1452 | 21.0 | <0.1 | 8.60 |
| TU-104-W3D | 970623 | 420 | 145 | 10 | 7 | 159 | 130 | 1593 | 20.4 | <0.1 | 8.80 |
| TU-105-W4S | 970623 | 360 | 199 | 9 | 10 | 76 | 59 | 2288 | 20.9 | <0.1 | 8.80 |
| TU-106-W4I | 970623 | 402 | 212 | 9 | 10 | 81 | 67 | 2362 | 20.6 | <0.1 | 9.50 |
| TU-107-W4D | 970624 | 254 | 80 | 13 | 16 | 286 | 232 | 867 | 10.7 | <0.1 | 7.23 |
| TU-108-W5SP | 970624 | 238 | 201 | 8 | 10 | -- | -- | 1883 | 26.4 | 5.8 | 28.36 |
| TU-109-W5D | 970624 | 314 | 182 | 9 | 10 | 53 | 42 | 2047 | 21.8 | <0.1 | 10.21 |
| TU-110-W6S | 970624 | 324 | 272 | 9 | 12 | 34 | 25 | 3517 | 42.9 | 8.8 | 6.87 |
| TU-111-W6D | 970625 | 450 | 336 | 12 | 12 | 112 | 75 | 3797 | <0.1 | <0.1 | 12.35 |
| TU-112-W7 | 970624 | 334 | 161 | 10 | 10 | 73 | 60 | 1785 | 21.2 | <0.1 | 9.16 |
| TU-113-W8S | 970625 | 259 | 104 | 7 | 5 | 159 | 122 | 996 | 20.9 | <0.1 | 8.45 |
| TU-114-W8D | 970625 | 389 | 180 | 9 | 7 | 124 | 91 | 2105 | 21.2 | <0.1 | 9.99 |
| TU-115-W9 | 970624 | 314 | 166 | 8 | 12 | 57 | 45 | 1869 | 21.4 | 3.1 | 9.91 |
| TU-116-W10 | 970626 | 354 | 207 | 9 | 12 | 44 | 36 | 2502 | 43.1 | <0.1 | 8.54 |
| TU-117-W11 | 970626 | 356 | 196 | 10 | 12 | 92 | 72 | 2287 | 42.8 | <0.1 | 10.31 |
| TU-118-W12 | 970626 | 342 | 176 | 10 | 11 | 56 | 46 | 2212 | 21.5 | <0.1 | 7.92 |
| TU-119-W13 | 970626 | 304 | 163 | 9 | 9 | 83 | 63 | 2167 | 20.3 | <0.1 | 7.47 |
| | | | | | Interstitial water | | | | | | |
| TU-131-L1A-2.5 | 970627 | 422.6 | 1573.3 | 66.5 | -- | -- | -- | 7210 | 43.9 | 1.8 | 100.90 |
| TU-132-L1A-3.5 | 970627 | 465.1 | 1045.9 | 36.4 | -- | -- | -- | 4607 | 25.7 | 0.8 | 71.39 |
| TU-135-L1B-3.5 | 970627 | 439.3 | 693.5 | 70.3 | -- | -- | -- | 3420 | 22.0 | 1.6 | 81.11 |
| TU-139-L2B-1.5 | 970627 | 500.8 | 898.1 | 26.3 | -- | -- | -- | 4057 | 8.9 | 1.0 | 77.28 |
| TU-143-L3A-4.5B | 970627 | 284.0 | 271.8 | 4.1 | -- | -- | -- | 2987 | 16.3 | 1.6 | 50.03 |
| TU-148-L3C-2.5 | 970627 | 379.9 | 298.1 | 4.0 | -- | -- | -- | 2598 | 1.8 | 0.8 | 38.86 |
| TU-157-L4C-2.5UP | 970627 | 474.3 | 586.1 | 68.6 | -- | -- | -- | 3354 | 13.9 | 0.7 | 57.22 |
| TU-158-L4C-3.5UP | 970627 | 357.3 | 575.0 | 11.8 | -- | -- | -- | 2616 | 9.3 | 1.0 | 49.35 |
| TU-160-L5A-2.5 | 970627 | 251.8 | 139.6 | 43.5 | -- | -- | -- | 1544 | 7.2 | 1.4 | 72.42 |
| TU-164-L5B-3.5 | 970627 | 121.6 | 67.7 | 30.5 | -- | -- | -- | 636 | 4.2 | 0.2 | 56.82 |
| | | | | | Surface water | | | | | | |
| TU-120 | 970625 | 134 | 82 | 5 | 4 | -- | -- | 754 | 13.1 | 2.0 | 14.55 |
| TU-124 | 970625 | 140 | 88 | 3 | 5 | -- | -- | 763 | 11.9 | 1.9 | 8.24 |
| TU-125 | 970625 | 40 | 26 | 4 | 2 | 2 | 3 | 231 | 4.9 | 0.7 | 11.11 |

| LOCAL NUMBER | DATE | DIS-SOLVED SOLIDS RESI-DUE AT 180C (MG/L) | NITRO-GEN NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN NITRO-GEN AMMONIA DIS-SOLVED (MG/L AS N) | NITRITE PLUS NITRATE DIS-SOLVED (MG/L AS N) | PHOS-PHORUS ORTHO-PHOS-PHATE DIS-SOLVED (MG/L AS P) | ALUM-INUM TOTAL (UG/L AS AL) | ALUM-INUM DIS-SOLVED (UG/L AS AL) | ANTI-MONY DIS-SOLVED (UG/L AS SB) | ARS-ENIC DIS-SOLVED (UG/L AS AS) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Ground water | | | | | | |
| TU-100-W1S | 970626 | 3754 | <0.01 | 1.85 | <0.05 | 0.01 | 36 | 96 | <106 | <1.0 |
| TU-101-W1D | 970626 | 1679 | <0.01 | 1.86 | <0.05 | <0.01 | 317 | <27 | 106 | <1.0 |
| TU-102-W2 | 970625 | 3654 | <0.01 | 1.08 | <0.05 | 0.02 | 537 | 560 | 121 | <1.0 |
| TU-103-W3S | 970623 | 2200 | <0.01 | 0.35 | <0.05 | 0.01 | 29 | 69 | <106 | <1.0 |
| TU-104-W3D | 970623 | 2450 | <0.01 | 0.59 | <0.05 | 0.02 | <27 | 57 | <106 | <1.0 |
| TU-105-W4S | 970623 | 3389 | <0.01 | 0.95 | <0.05 | 0.02 | 50 | 110 | <106 | 1.64 |
| TU-106-W4I | 970623 | 3536 | 0.01 | 0.85 | <0.05 | 0.02 | <27 | 56 | <106 | <1.0 |
| TU-107-W4D | 970624 | 1493 | 0.01 | 1.37 | <0.05 | <0.01 | 112 | 29 | 130 | 1.27 |
| TU-108-W5SP | 970624 | 2769 | 0.01 | 0.35 | 0.26 | <0.01 | 30831 | 29561 | <106 | <1.0 |
| TU-109-W5D | 970624 | 2869 | <0.01 | 0.55 | <0.05 | 0.04 | 3316 | 2654 | <106 | <1.0 |
| TU-110-W6S | 970624 | 5329 | 0.01 | 0.58 | <0.05 | 0.02 | 4606 | 4546 | <106 | 1.39 |
| TU-111-W6D | 970625 | 5643 | 0.01 | 0.64 | <0.05 | 0.02 | 884 | 761 | <106 | <1.0 |
| TU-112-W7 | 970624 | 2664 | <0.01 | 0.87 | <0.05 | 0.02 | 67 | 45 | <106 | <1.0 |
| TU-113-W8S | 970625 | 1584 | <0.01 | 0.43 | <0.05 | <0.01 | 29 | <27 | <106 | <1.0 |
| TU-114-W8D | 970625 | 3096 | <0.01 | 0.56 | <0.05 | <0.01 | 45 | 75 | <106 | <1.0 |
| TU-115-W9 | 970624 | 2817 | <0.01 | 1.07 | 0.05 | 0.01 | 255 | 277 | <106 | <1.0 |
| TU-116-W10 | 970626 | 3593 | <0.01 | 0.95 | <0.05 | 0.02 | 315 | 353 | <106 | <1.0 |
| TU-117-W11 | 970626 | 3543 | <0.01 | 1.10 | <0.05 | 0.01 | 181 | 156 | <106 | <1.0 |
| TU-118-W12 | 970626 | 3251 | <0.01 | 1.22 | <0.05 | <0.01 | 128 | 178 | <106 | 1.50 |
| TU-119-W13 | 970626 | 3287 | <0.01 | 0.80 | <0.05 | 0.02 | 75 | 384 | 151 | <1.0 |
| | | | | Interstitial water | | | | | | |
| TU-131-L1A-2.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | 1.32 |
| TU-132-L1A-3.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-135-L1B-3.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-139-L2B-1.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-143-L3A-4.5B | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-148-L3C-2.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-157-L4C-2.5UP | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-158-L4C-3.5UP | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-160-L5A-2.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| TU-164-L5B-3.5 | 970627 | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 |
| | | | | Surface water | | | | | | |
| TU-120 | 970625 | 1157 | <0.01 | 0.17 | 0.13 | <0.01 | 4058 | 4082 | <106 | <1.0 |
| TU-124 | 970625 | 1139 | <0.01 | 0.07 | 0.06 | <0.01 | 1894 | 1617 | <106 | <1.0 |
| TU-125 | 970625 | 349 | <0.01 | 0.07 | 0.32 | 0.01 | 705 | 508 | <106 | <1.0 |

| LOCAL NUMBER | DATE | BARIUM DIS SOLVED (UG/L AS BA) | BERYL-LIUM DIS-SOLVED (UG/L AS BE) | BORON DIS-SOLVED (UG/L AS B) | CAD-MIUM DIS-SOLVED (UG/L AS CD) | CHROM-IUM DIS-SOLVED (UG/L AS CR) | COBALT DIS-SOLVED (UG/L AS CO) | COPPER DIS-SOLVED (UG/L AS CU) | IRON TOTAL (UG/L AS FE) | IRON DIS-SOLVED (UG/L AS FE) | LEAD DIS-SOLVED (UG/L AS PB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ground water | | | | | | |
| TU-100-W1S | 970626 | 20 | 2.0 | 650 | 5 | <2 | 218 | <2 | 313529 | 317575 | <1 |
| TU-101-W1D | 970626 | 15 | <0.1 | 321 | <1 | <2 | <6 | <2 | 1490 | 2408 | <1 |
| TU-102-W2 | 970625 | 15 | 7.0 | 486 | 4 | <2 | 204 | <2 | 354778 | 351255 | <1 |
| TU-103-W3S | 970623 | 14 | <0.1 | 179 | 2 | <2 | 86 | <2 | 60596 | 64056 | <1 |
| TU-104-W3D | 970623 | 12 | <0.1 | 241 | 1 | <2 | <6 | <2 | 41425 | 43071 | <1 |
| TU-105-W4S | 970623 | 12 | 2.0 | 441 | 5 | <2 | 208 | <2 | 262197 | 274980 | <1 |
| TU-106-W4I | 970623 | 10 | 2.0 | 462 | 3 | <2 | 194 | <2 | 245938 | 253850 | <2 |
| TU-107-W4D | 970624 | 17 | <0.1 | 361 | <1 | <2 | <6 | <2 | 13238 | 13295 | <1 |
| TU-108-W5SP | 970624 | 11 | 12.0 | 226 | 5 | 14 | 1278 | 167 | 31137 | 31283 | 5.2 |
| TU-109-W5D | 970624 | 12 | 4.0 | 351 | 3 | <2 | 351 | <2 | 227380 | 235772 | <1 |
| TU-110-W6S | 970624 | 9 | 31.0 | 465 | 10 | <2 | 676 | 7 | 755815 | 727996 | <2 |
| TU-111-W6D | 970625 | 9 | 10.0 | 462 | 8 | <2 | 459 | <2 | 552791 | 555994 | <1 |
| TU-112-W7 | 970624 | 19 | 1.0 | 423 | 4 | <2 | 170 | <2 | 132733 | 140541 | <1 |
| TU-113-W8S | 970625 | 33 | <0.1 | 272 | <1 | <2 | <6 | <2 | 34430 | 33618 | <1 |
| TU-114-W8D | 970625 | 16 | 1.0 | 285 | 2 | <2 | 144 | <2 | 201273 | 209243 | <1 |
| TU-115-W9 | 970624 | 13 | 9.0 | 481 | 2 | <2 | 290 | <2 | 164413 | 175823 | <1 |
| TU-116-W10 | 970626 | 12 | 5.0 | 468 | 4 | <2 | 306 | <2 | 289950 | 285834 | <1 |
| TU-117-W11 | 970626 | 9 | 2.0 | 420 | 2 | <2 | 200 | <2 | 217221 | 234117 | <2 |
| TU-118-W12 | 970626 | 13 | 2.0 | 441 | 1 | 2 | 180 | <2 | 140303 | 159798 | <2 |
| TU-119-W13 | 970626 | 19 | <0.1 | 383 | 4 | 15 | 107 | 31 | 182687 | 224047 | <1 |
| | | | | | Interstitial water | | | | | | |
| TU-131-L1A-2.5 | 970627 | -- | -- | 525 | -- | -- | -- | -- | -- | 93105 | <2 |
| TU-132-L1A-3.5 | 970627 | -- | -- | 858 | -- | -- | -- | -- | -- | 9738 | <2 |
| TU-135-L1B-3.5 | 970627 | -- | -- | 392 | -- | -- | -- | -- | -- | 103530 | <2 |
| TU-139-L2B-1.5 | 970627 | -- | -- | 1607 | -- | -- | -- | -- | -- | 35 | <2 |
| TU-143-L3A-4.5B | 970627 | -- | -- | 312 | -- | -- | -- | -- | -- | 111600 | <1 |
| TU-148-L3C-2.5 | 970627 | -- | -- | 791 | -- | -- | -- | -- | -- | 37 | <1 |
| TU-157-L4C-2.5UP | 970627 | -- | -- | 971 | -- | -- | -- | -- | -- | 34847 | <1 |
| TU-158-L4C-3.5UP | 970627 | -- | -- | 644 | -- | -- | -- | -- | -- | 10287 | <1 |
| TU-160-L5A-2.5 | 970627 | -- | -- | 76 | -- | -- | -- | -- | -- | 40230 | <1 |
| TU-164-L5B-3.5 | 970627 | -- | -- | 101 | -- | -- | -- | -- | -- | 17143 | <1 |
| | | | | | Surface water | | | | | | |
| TU-120 | 970625 | 22 | 2.0 | 183 | 2 | 5 | 111 | 9 | 636 | 728 | <1 |
| TU-124 | 970625 | 23 | <0.1 | 267 | <1 | <2 | 90 | <2 | 363 | 1175 | <1 |
| TU-125 | 970625 | 34 | <0.1 | 57 | 2 | <2 | <6 | 2 | 20 | 294 | <1 |

| LOCAL NUMBER | DATE | LITHIUM DISSOLVED (UG/L AS LI) | MANGANESE TOTAL (UG/L AS MN) | MANGANESE DISSOLVED (UG/L AS MN) | MOLYBDENUM DISSOLVED (UG/L AS MO) | NICKEL DISSOLVED (UG/L AS NI) | SELENIUM DISSOLVED (UG/L AS SE) | SILVER DISSOLVED (UG/L AS AG) | STRONTIUM DISSOLVED (UG/L AS SR) | VANADIUM DISSOLVED (UG/L AS V) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ground water | | | | | |
| TU-100-W1S | 970626 | 147 | 16457 | 16249 | <11 | 519 | <1 | <3 | 4954 | 15 |
| TU-101-W1D | 970626 | 26 | 238 | 250 | 21 | <5 | <1 | <3 | 2282 | <5 |
| TU-102-W2 | 970625 | 211 | 19159 | 18481 | <11 | 422 | <1 | <3 | 2789 | 13 |
| TU-103-W3S | 970623 | 106 | 13038 | 12796 | 22 | 81 | <2 | 8 | 1154 | <5 |
| TU-104-W3D | 970623 | 78 | 3413 | 3295 | 16 | 15 | <1 | <3 | 1894 | 13 |
| TU-105-W4S | 970623 | 166 | 14731 | 15134 | 13 | 459 | <2 | <3 | 2868 | 6 |
| TU-106-W4I | 970623 | 176 | 13965 | 13879 | <11 | 430 | <1 | <3 | 2878 | 13 |
| TU-107-W4D | 970624 | 37 | 1213 | 1201 | 15 | <5 | <1 | <3 | 2130 | 11 |
| TU-108-W5SP | 970624 | 498 | 66215 | 65427 | <11 | 1029 | <1 | <3 | 596 | 10 |
| TU-109-W5D | 970624 | 256 | 19531 | 19882 | <11 | 483 | <2 | 6 | 1838 | 6 |
| TU-110-W6S | 970624 | 242 | 60372 | 59071 | <11 | 878 | <2 | <3 | 1150 | 9 |
| TU-111-W6D | 970625 | 369 | 42238 | 42721 | <11 | 827 | <1 | 5 | 1807 | 20 |
| TU-112-W7 | 970624 | 217 | 10719 | 10485 | <11 | 394 | <2 | <3 | 2881 | <5 |
| TU-113-W8S | 970625 | 74 | 1473 | 1468 | 12 | 17 | <1 | <3 | 1615 | <5 |
| TU-114-W8D | 970625 | 156 | 13551 | 13352 | <11 | 376 | <1 | <3 | 1249 | 17 |
| TU-115-W9 | 970624 | 235 | 19089 | 18880 | <11 | 622 | <2 | <3 | 2734 | 6 |
| TU-116-W10 | 970626 | 195 | 20787 | 19692 | <11 | 629 | <1 | <3 | 2833 | 24 |
| TU-117-W11 | 970626 | 176 | 18919 | 19419 | <11 | 455 | <1 | 8 | 2143 | 10 |
| TU-118-W12 | 970626 | 122 | 14110 | 15206 | <11 | 382 | <2 | 7 | 3152 | 6 |
| TU-119-W13 | 970626 | 129 | 7360 | 8552 | <11 | 257 | <1 | 53 | 2051 | 17 |
| | | | | | Interstitial water | | | | | |
| TU-131-L1A-2.5 | 970627 | -- | -- | 43894 | -- | -- | <5 | -- | -- | -- |
| TU-132-L1A-3.5 | 970627 | -- | -- | 75018 | -- | -- | <4 | -- | -- | -- |
| TU-135-L1B-3.5 | 970627 | -- | -- | 145770 | -- | -- | <4 | -- | -- | -- |
| TU-139-L2B-1.5 | 970627 | -- | -- | 12143 | -- | -- | <4 | -- | -- | -- |
| TU-143-L3A-4.5B | 970627 | -- | -- | 100310 | -- | -- | <4 | -- | -- | -- |
| TU-148-L3C-2.5 | 970627 | -- | -- | 660 | -- | -- | <2 | -- | -- | -- |
| TU-157-L4C-2.5UP | 970627 | -- | -- | 64004 | -- | -- | <4 | -- | -- | -- |
| TU-158-L4C-3.5UP | 970627 | -- | -- | 26436 | -- | -- | <4 | -- | -- | -- |
| TU-160-L5A-2.5 | 970627 | -- | -- | 78420 | -- | -- | <4 | -- | -- | -- |
| TU-164-L5B-3.5 | 970627 | -- | -- | 7546 | -- | -- | <1 | -- | -- | -- |
| | | | | | Surface water | | | | | |
| TU-120 | 970625 | 139 | 16286 | 16203 | 14 | 250 | -- | 5 | 333 | 6 |
| TU-124 | 970625 | 86 | 5805 | 5846 | 11 | 200 | <1 | <3 | 456 | 8 |
| TU-125 | 970625 | 49 | 1915 | 1991 | <11 | 130 | <2 | 10 | 130 | <5 |

| LOCAL NUMBER | DATE | ZINC DIS-SOLVED (UG/L AS ZN) | CARBON ORGANIC DIS-SOLVED (MG/L AS C) | $\delta^{34}S$ (PER MIL) |
|---|---|---|---|---|
| | | Ground water | | |
| TU-100-W1S | 970626 | 337 | 0.6 | -10.5 |
| TU-101-W1D | 970626 | 47 | 0.6 | -6.9 |
| TU-102-W2 | 970625 | 373 | 0.8 | -9.8 |
| TU-103-W3S | 970623 | 22 | 0.8 | -13.8 |
| TU-104-W3D | 970623 | 3 | 0.9 | -13.7 |
| TU-105-W4S | 970623 | 460 | 0.8 | -9.8 |
| TU-106-W4I | 970623 | 371 | 0.8 | -9.3 |
| TU-107-W4D | 970624 | 77 | 1.2 | -9.1 |
| TU-108-W5SP | 970624 | 1840 | 3.7 | -15.7 |
| TU-109-W5D | 970624 | 587 | 1.4 | -10.7 |
| TU-110-W6S | 970624 | 1619 | 1.5 | -9.4 |
| TU-111-W6D | 970625 | 542 | 1.3 | -7.5 |
| TU-112-W7 | 970624 | 229 | 0.7 | -10.7 |
| TU-113-W8S | 970625 | 4 | 0.6 | -11.8 |
| TU-114-W8D | 970625 | 109 | 1.0 | -12.4 |
| TU-115-W9 | 970624 | 820 | 0.6 | -11.5 |
| TU-116-W10 | 970626 | 870 | 1.1 | -9.8 |
| TU-117-W11 | 970626 | 440 | 0.8 | -11.2 |
| TU-118-W12 | 970626 | 412 | 0.6 | -11.4 |
| TU-119-W13 | 970626 | 45 | 0.7 | -5.3 |
| | | Interstitial water | | |
| TU-131-L1A-2.5 | 970627 | -- | -- | -2.1 |
| TU-132-L1A-3.5 | 970627 | -- | -- | -2.0 |
| TU-135-L1B-3.5 | 970627 | -- | -- | -9.0 |
| TU-139-L2B-1.5 | 970627 | -- | -- | -0.5 |
| TU-143-L3A-4.5B | 970627 | -- | -- | -16.6 |
| TU-148-L3C-2.5 | 970627 | -- | -- | -4.3 |
| TU-157-L4C-2.5UP | 970627 | -- | -- | -6.8 |
| TU-158-L4C-3.5UP | 970627 | -- | -- | -3.9 |
| TU-160-L5A-2.5 | 970627 | -- | -- | -15.2 |
| TU-164-L5B-3.5 | 970627 | -- | -- | -14.1 |
| | | Surface water | | |
| TU-120 | 970625 | 254 | 1.8 | -14.5 |
| TU-124 | 970625 | 240 | 2.1 | -9.5 |
| TU-125 | 970625 | 160 | 1.9 | -14.1 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin

Streambed-sediment samples were collected during low-flow conditions in the Lake Erie - Lake St. Clair Basin at 10 sites in 1996 to determine concentrations of trace elements and hydrophobic organic compounds. Where more than one sample was collected on the same day, the letter after the date denotes an individual sample.

Bed-sediment samples were collected from the top 1 to 2 centimeters of material taken from at least five different depositional areas within the stream reach. A subsample from the composite sample collected at each site was shipped to the USGS Iowa City, Iowa sediment laboratory for particle-size analysis, and the results are reported at the end of this table. Additionally, subsamples from the composite were (1) processed using a 2.0-millimeter stainless-steel mesh wet sieve (WS, <2MM) for preparation of material for organic contaminant analysis, and (2) processed using a 63-micrometer nylon-cloth wet sieve (<63U WS) for preparation of material for trace element analysis. More specific details describing the guidelines used in collection and in processing the streambed-sediment samples can be found in Shelton and Capel (1994).

Bed-sediment constituent concentrations are provided on a percent (percent of dry weight) or a dry-weight (DW) basis. Constituent names are abbreviated as follows: DDD, dichlorodiphenyldichloroethane; DDE, dichlorodiphenyldichloroethene; DCPA, dimethyl tetrachloroterephthalate; DDT, dicholorodiphenyltrichloroethane; HCH, hexachlorocyclohexane; PCB, polychlorinated biphenyls. (BED SED = bottom sediment, REC = recoverable, UG/G = micrograms per gram, UG/KG = microgram per kilogram, G/KG = gram per kilogram, MM = millimeter, (34790) = the USGS National Water Quality Laboratory parameter code). Additional surface-water and water-quality data for these sampling sites can be found in the continuous-record station sections of the Indiana, Michigan, Ohio, and New York data reports.

CALENDAR YEAR 1996

| STATION NUMBER | STATION NAME | LATITUDE | LONGITUDE | DRAINAGE AREA ($mi^2$) | DATE | TIME |
|---|---|---|---|---|---|---|
| 04159492 | BLACK RIVER NEAR JEDDO, MI | 43° 09′ 09″ N | 082° 37′ 27″ W | 464 | 07-11-96 | 1130 |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 42° 36′ 52″ N | 083° 01′ 36″ W | 309 | 07-12-96 | 0900 |
| 04175600 | RIVER RAISIN NEAR MANCHESTER, MI | 42° 10′ 05″ N | 084° 04′ 34″ W | 132 | 07-10-96 | 1545 |
| 04178000 | ST JOSEPH RIVER NEAR NEWVILLE, IN | 41° 23′ 08″ N | 084° 48′ 06″ W | 610 | 07-09-96 | 1500 |
| 04183000 | MAUMEE RIVER AT NEW HAVEN, IN | 41° 05′ 06″ N | 085° 01′ 20″ W | 1,967 | 07-09-96 | 1030 |
| 04186500 | AUGLAIZE RIVER NEAR FORT JENNINGS, OH | 40° 56′ 55″ N | 084° 15′ 58″ W | 332 | 07-08-96 | 1530 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 41° 30′ 00″ N | 083° 42′ 46″ W | 6,330 | 07-10-96 | 0930 |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | 41° 27′ 54″ N | 082° 22′ 50″ W | 788 | 08-20-96 A | 1030 |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | 41° 27′ 54″ N | 082° 22′ 50″ W | 788 | 08-20-96 B | 1045 |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | 41° 27′ 54″ N | 082° 22′ 50″ W | 788 | 08-20-96 C | 1100 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 41° 45′ 19″ N | 080° 56′ 55″ W | 552 | 08-21-96 | 0945 |
| 04213500 | CATTARAUGUS CREEK AT GOWANDA, NY | 42° 27′ 50″ N | 078° 56′ 07″ W | 436 | 08-22-96 | 1030 |

# PROJECT DATA

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | SPECIFIC CONDUCTANCE, (US/CM) | PH, WATER WHOLE (STANDARD UNITS) | TEMPERATURE, AIR (DEG C) | TEMPERATURE, WATER (DEG C) | TEMPERATURE, SEDIMENT (DEG C) | BAROMETRIC PRESSURE, (MM OF HG) | OXYGEN, DISSOLVED (MG/L) | ALUMINUM, BED SED <63U WS PERCENT (34790) | CALCIUM, BED SED <63U WS PERCENT (34830) | IRON, BED SED <63U WS PERCENT (34880) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | 784 | 8.35 | 28.0 | 19.6 | 20.0 | 753 | 8.57 | 5.7 | 6.6 | 3.2 |
| 04161820 | 07-12-96 | 832 | 7.90 | 19.5 | 18.8 | 19.0 | 752 | 8.59 | 4.9 | 7.6 | 3.1 |
| 04175600 | 07-10-96 | 500 | 7.78 | 21.0 | 20.7 | 20.0 | 752 | 9.47 | 4.6 | 7.2 | 3.3 |
| 04178000 | 07-09-96 | 591 | 7.80 | 22.5 | 20.9 | 20.5 | 742 | 6.93 | 7.0 | 3.4 | 3.8 |
| 04183000 | 07-09-96 | 708 | 7.85 | 25.5 | 22.7 | 22.0 | 742 | 7.80 | 6.5 | 4.5 | 3.6 |
| 04186500 | 07-08-96 | 815 | 8.22 | 25.5 | 25.5 | 25.5 | 740 | 9.18 | 6.9 | 2.7 | 3.7 |
| 04193500 | 07-10-96 | 493 | 8.60 | 17.0 | 23.3 | 22.0 | 752 | 14.3 | 5.9 | 6.5 | 3.0 |
| 04208504 | 08-20-96 [A] | 1050 | 7.63 | 26.0 | 23.1 | - - | 755 | 7.60 | 6.8 | 2.0 | 4.4 |
| 04208504 | 08-20-96 [B] | 1050 | 7.63 | 26.0 | 23.1 | - - | 755 | 7.60 | 6.8 | 2.0 | 4.3 |
| 04208504 | 08-20-96 [C] | 1050 | 7.63 | 26.0 | 23.1 | - - | 755 | 7.60 | 6.8 | 2.0 | 4.4 |
| 04211820 | 08-21-96 | 346 | 8.15 | 23.5 | 24.6 | - - | 750 | 8.51 | 6.5 | 0.48 | 3.6 |
| 04213500 | 08-22-96 | 327 | 8.17 | 22.0 | 21.3 | - - | 748 | 8.66 | 5.7 | 4.2 | 3.3 |

| STATION NUMBER | DATE | MAGNESIUM, BED SED <63U WS PERCENT (34900) | SODIUM, BED SED <63U WS PERCENT (34960) | POTASSIUM, BED SED <63U WS PERCENT (34940) | PHOSPHORUS, BED SED <63U WS PERCENT (34935) | TITANIUM, BED SED <63U WS PERCENT (49274) | ANTIMONY, BED SED <63U WS (UG/G) (34795) | ARSENIC, BED SED <63U WS (UG/G) (34800) | BARIUM, BED SED <63U WS (UG/G) (34805) | BERYLLIUM, BED SED <63U WS (UG/G) (34810) | BISMUTH, BED SED <63U WS (UG/G) (34816) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | 2.7 | 0.72 | 1.9 | 0.07 | 0.260 | 0.7 | 10 | 410 | 1 | <10 |
| 04161820 | 07-12-96 | 2.8 | 0.75 | 1.6 | 0.11 | 0.240 | 1.0 | 13 | 420 | 1 | <10 |
| 04175600 | 07-10-96 | 2.0 | 0.60 | 1.5 | 0.09 | 0.210 | 0.7 | 21 | 450 | 1 | <10 |
| 04178000 | 07-09-96 | 1.8 | 0.54 | 2.0 | 0.11 | 0.350 | 0.9 | 9.5 | 510 | 2 | <10 |
| 04183000 | 07-09-96 | 2.0 | 0.64 | 2.0 | 0.12 | 0.300 | 1.0 | 9.7 | 500 | 2 | <10 |
| 04186500 | 07-08-96 | 1.4 | 0.59 | 2.0 | 0.12 | 0.300 | 0.9 | 10 | 490 | 2 | <10 |
| 04193500 | 07-10-96 | 2.2 | 0.80 | 1.8 | 0.11 | 0.290 | 0.7 | 7.2 | 460 | 1 | <10 |
| 04208504 | 08-20-96 [A] | 1.1 | 0.53 | 2.1 | 0.11 | 0.350 | 3.0 | 21 | 420 | 2 | <10 |
| 04208504 | 08-20-96 [B] | 1.1 | 0.55 | 2.2 | 0.11 | 0.320 | 3.0 | 19 | 420 | 2 | <10 |
| 04208504 | 08-20-96 [C] | 1.1 | 0.54 | 2.2 | 0.11 | 0.330 | 2.0 | 20 | 430 | 2 | <10 |
| 04211820 | 08-21-96 | 0.81 | 0.62 | 2.0 | 0.07 | 0.330 | 0.7 | 15 | 410 | 2 | <10 |
| 04213500 | 08-22-96 | 1.3 | 0.67 | 1.9 | 0.07 | 0.290 | 0.6 | 11 | 390 | 2 | <10 |

| STATION NUMBER | DATE | CADMIUM, BED SED <63U WS (UG/G) (34825) | CERIUM, BED SED <63U WS (UG/G) (34835) | CHROMIUM, BED SED <63U WS (UG/G) (34840) | COBALT, BED SED <63U WS (UG/G) (34845) | COPPER, BED SED <63U WS (UG/G) (34850) | EUROPIUM, BED SED <63U WS (UG/G) (34855) | GALLIUM, BED SED <63U WS (UG/G) (34860) | GOLD, BED SED <63U WS (UG/G) (34870) | HOLMIUM, BED SED <63U WS (UG/G) (34875) | LANTHANUM, BED SED <63U WS (UG/G) (34885) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | 0.4 | 63 | 60 | 14 | 27 | <2 | 15 | <8 | <4 | 33 |
| 04161820 | 07-12-96 | 1.1 | 52 | 87 | 12 | 59 | <2 | 13 | <8 | <4 | 28 |
| 04175600 | 07-10-96 | 0.5 | 46 | 44 | 11 | 16 | <2 | 15 | <8 | <4 | 26 |
| 04178000 | 07-09-96 | 0.6 | 67 | 84 | 17 | 36 | <2 | 18 | <8 | <4 | 37 |
| 04183000 | 07-09-96 | 2.3 | 66 | 84 | 15 | 56 | <2 | 17 | <8 | <4 | 37 |
| 04186500 | 07-08-96 | 0.7 | 67 | 81 | 16 | 33 | <2 | 19 | <8 | <4 | 38 |
| 04193500 | 07-10-96 | 0.6 | 59 | 62 | 13 | 24 | <2 | 16 | <8 | <4 | 32 |
| 04208504 | 08-20-96 [A] | 1.3 | 65 | 83 | 18 | 65 | <2 | 16 | <8 | <4 | 33 |
| 04208504 | 08-20-96 [B] | 1.3 | 64 | 80 | 18 | 66 | <2 | 15 | <8 | <4 | 33 |
| 04208504 | 08-20-96 [C] | 1.3 | 66 | 81 | 18 | 65 | <2 | 15 | <8 | <4 | 34 |
| 04211820 | 08-21-96 | 0.4 | 67 | 67 | 17 | 19 | <2 | 15 | <8 | <4 | 34 |
| 04213500 | 08-22-96 | 0.3 | 55 | 52 | 15 | 25 | <2 | 13 | <8 | <4 | 28 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | LEAD, BED SED <63U WS (UG/G) (34890) | LITHIUM, BED SED <63U WS (UG/G) (34895) | MANGA-NESE, BED SED <63U WS (UG/G) (34905) | MERCURY, BED SED <63U WS (UG/G) (34910) | MOLYB-DENUM, BED SED <63U WS (UG/G) (34915) | NEODYM-IUM, BED SED <63U WS (UG/G) (34920) | NICKEL, BED SED <63U WS (UG/G) (34925) | NIOBIUM, BED SED <63U WS (UG/G) (34930) | SCAN-DIUM, BED SED <63U WS (UG/G) (34945) | SELE-NIUM, BED SED <63U WS (UG/G) (34950) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | 22 | 50 | 580 | 0.06 | <2 | 38 | 31 | 11 | 10 | 0.4 |
| 04161820 | 07-12-96 | 75 | 30 | 900 | 0.25 | <2 | 38 | 35 | 11 | 9 | 0.8 |
| 04175600 | 07-10-96 | 20 | 30 | 2100 | 0.15 | <2 | 32 | 24 | 11 | 8 | 0.8 |
| 04178000 | 07-09-96 | 26 | 49 | 710 | 0.05 | <2 | 39 | 41 | 14 | 13 | 0.7 |
| 04183000 | 07-09-96 | 60 | 50 | 670 | 0.46 | <2 | 39 | 41 | 13 | 12 | 0.7 |
| 04186500 | 07-08-96 | 30 | 50 | 590 | 0.09 | <2 | 39 | 45 | 14 | 13 | 0.8 |
| 04193500 | 07-10-96 | 27 | 40 | 610 | 0.11 | <2 | 42 | 31 | 12 | 11 | 0.6 |
| 04208504 | 08-20-96 [A] | 63 | 50 | 910 | 0.11 | <2 | 29 | 49 | 15 | 13 | 0.6 |
| 04208504 | 08-20-96 [B] | 65 | 50 | 900 | 0.13 | <2 | 28 | 50 | 14 | 13 | 0.6 |
| 04208504 | 08-20-96 [C] | 62 | 50 | 930 | 0.13 | <2 | 29 | 50 | 13 | 13 | 0.6 |
| 04211820 | 08-21-96 | 25 | 50 | 1100 | 0.03 | <2 | 29 | 33 | 12 | 12 | 0.3 |
| 04213500 | 08-22-96 | 21 | 40 | 750 | 0.02 | <2 | 26 | 30 | 11 | 11 | 0.2 |

| STATION NUMBER | DATE | SILVER, BED SED <63U WS (UG/G) (34955) | STRON-TIUM, BED SED <63U WS (UG/G) (34965) | SULFUR, BED SED <63U WS (UG/G) (34970) | TANTA-LUM, BED SED <63U WS (UG/G) (34975) | THORIUM, BED SED <63U WS (UG/G) (34980) | TIN, BED SED <63U WS (UG/G) (34985) | URANIUM, BED SED <63U WS (UG/G) (35000) | VANA-DIUM, BED SED <63U WS (UG/G) (35005) | YTTR-IUM, BED SED <63U WS (UG/G) (35010) | YTTER-BIUM, BED SED <63U WS (UG/G) (35015) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | 0.1 | 150 | 0.07 | <40 | 10 | <5 | 3.0 | 91 | 19 | 2 |
| 04161820 | 07-12-96 | 1.0 | 170 | 0.16 | <40 | 6 | <5 | 2.6 | 73 | 17 | 2 |
| 04175600 | 07-10-96 | 0.2 | 180 | 0.24 | <40 | 7 | <5 | 3.2 | 74 | 15 | 2 |
| 04178000 | 07-09-96 | 0.2 | 160 | 0.11 | <40 | 8 | <5 | 4.4 | 120 | 22 | 2 |
| 04183000 | 07-09-96 | 1.0 | 190 | 0.08 | <40 | 10 | <5 | 4.2 | 110 | 22 | 3 |
| 04186500 | 07-08-96 | 0.2 | 330 | 0.11 | <40 | 9 | <5 | 4.6 | 110 | 23 | 2 |
| 04193500 | 07-10-96 | 0.2 | 240 | 0.11 | <40 | 10 | <5 | 3.6 | 89 | 22 | 2 |
| 04208504 | 08-20-96 [A] | 0.6 | 110 | 0.24 | <40 | 13 | <5 | 3.8 | 100 | 23 | 3 |
| 04208504 | 08-20-96 [B] | 0.6 | 110 | 0.24 | <40 | 9 | <5 | 3.8 | 100 | 24 | 2 |
| 04208504 | 08-20-96 [C] | 0.7 | 110 | 0.24 | <40 | 11 | <5 | 4.0 | 110 | 22 | 2 |
| 04211820 | 08-21-96 | 0.1 | 93 | 0.18 | <40 | 12 | <5 | 3.7 | 92 | 22 | 3 |
| 04213500 | 08-22-96 | 0.1 | 130 | 0.31 | <40 | 9 | <5 | 3.2 | 78 | 22 | 2 |

| STATION NUMBER | DATE | ZINC, BED SED <63U WS (UG/G) (35020) | CARBON ORG + INORG, BED SED WS, <63U DW, REC PERCENT (49267) | CARBON ORGANIC, BED SED WS, <63U DW, REC PERCENT (49266) | CARBON INORG, BED SED WS, <63U DW, REC PERCENT (49269) | CARBON ORG + INORG, BED SED WS, <2MM DW, REC (G/KG) (49272) | CARBON ORGANIC, BED SED WS, <2MM DW, REC (G/KG) (49271) | CARBON INORG, BED SED WS, <2MM DW, REC (G/KG) (49270) | PCB, BED SED WS, <2MM DW, REC (UG/KG) (49459) | ACENAPH THYLENE, BED SED WS, <2MM DW, REC (UG/KG) (49428) | ACENAPH THENE, BED SED WS, <2MM DW, REC (UG/KG) (49429) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | 89 | 4.02 | 1.43 | 2.59 | 17.0 | 5.00 | 12.0 | <50 | <50 | <50 |
| 04161820 | 07-12-96 | 220 | 6.21 | 3.26 | 2.95 | 27.0 | 14.0 | 13.0 | <50 | e42 | e30 |
| 04175600 | 07-10-96 | 82 | 7.08 | 4.60 | 2.48 | 21.0 | 14.0 | 6.80 | <50 | e19 | <50 |
| 04178000 | 07-09-96 | 150 | 3.57 | 2.37 | 1.20 | 30.0 | 21.0 | 8.70 | <50 | e23 | <50 |
| 04183000 | 07-09-96 | 190 | 3.87 | 2.20 | 1.67 | 21.0 | 10.0 | 11.0 | 400 | 77 | 98 |
| 04186500 | 07-08-96 | 150 | 3.16 | 2.31 | 0.85 | 31.0 | 12.0 | 19.0 | <50 | <50 | <50 |
| 04193500 | 07-10-96 | 110 | 4.23 | 1.90 | 2.33 | 18.0 | 6.00 | 12.0 | <50 | e21 | e16 |
| 04208504 | 08-20-96 [A] | 270 | 2.46 | 1.84 | 0.62 | 12.0 | 10.0 | 1.80 | 120 | 55 | 58 |
| 04208504 | 08-20-96 [B] | 270 | 2.43 | 1.80 | 0.63 | 15.0 | 13.0 | 2.20 | 120 | 100 | 75 |
| 04208504 | 08-20-96 [C] | 270 | 2.45 | 1.82 | 0.63 | 18.0 | 15.0 | 2.80 | 100 | 79 | 61 |
| 04211820 | 08-21-96 | 110 | 1.53 | 1.44 | 0.09 | 11.0 | 11.0 | 0.400 | <50 | <50 | <50 |
| 04213500 | 08-22-96 | 86 | 2.35 | 1.01 | 1.34 | 22.0 | 12.0 | 9.70 | <50 | e13 | <50 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | ACRIDINE, BED SED, WS <2MM DW, REC (UG/KG) (49430) | ALDRIN, BED SED, WS <2MM DW, REC (UG/KG) (49319) | C8-ALKYL PHENOL, BED SED, WS <2MM DW, REC (UG/KG) (49424) | ANTHRACENE, BED SED, WS <2MM DW, REC (UG/KG) (49434) | 9,10 ANTHRA-QUINONE, BED SED, WS <2MM DW, REC (UG/KG) (49437) | AZO-BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49443) | BENZ (A) ANTHRACENE, BED SED, WS <2MM DW, REC (UG/KG) (49436) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <50 | <1.00 | <50 | <50 | <50 | <50 | e16 |
| 04161820 | 07-12-96 | e45 | <1.00 | <50 | 89 | 160 | <50 | 320 |
| 04175600 | 07-10-96 | <50 | <1.00 | <50 | e17 | <50 | <50 | e20 |
| 04178000 | 07-09-96 | <50 | <1.00 | <50 | e21 | e25 | <50 | e34 |
| 04183000 | 07-09-96 | e47 | <1.00 | <50 | 260 | 190 | <50 | 740 |
| 04186500 | 07-08-96 | <50 | <1.00 | <50 | e20 | e33 | <50 | e28 |
| 04193500 | 07-10-96 | <50 | <1.00 | <50 | e32 | e27 | <50 | 67 |
| 04208504 | 08-20-96 [A] | 65 | <1.00 | <50 | 240 | 270 | <50 | 650 |
| 04208504 | 08-20-96 [B] | 83 | <1.00 | <50 | 360 | 290 | <50 | 900 |
| 04208504 | 08-20-96 [C] | e46 | <1.00 | <50 | 260 | 260 | <50 | 600 |
| 04211820 | 08-21-96 | <50 | <1.00 | <50 | e11 | e23 | <50 | e49 |
| 04213500 | 08-22-96 | <50 | <1.00 | <50 | e9.0 | e21 | <50 | 55 |

| STATION NUMBER | DATE | BENZO-CINNOLINE, BED SED, WS <2MM DW, REC (UG/KG) (49468) | BENZO (B) FLUOR-ANTHENE, BED SED, WS <2MM DW, REC (UG/KG) (49458) | BENZO (K) FLUOR-ANTHENE, BED SED, WS <2MM DW, REC (UG/KG) (49397) | BENZO (G,H,I) PERYLENE, BED SED, WS <2MM DW, REC (UG/KG) (49408) | BENZO (A) PYRENE, BED SED, WS <2MM DW, REC (UG/KG) (49389) | 2, 2'-BIQUINOLINE, BED SED, WS <2MM DW, REC (UG/KG) (49391) | 4-BROMO PHENYLPHENYLE THER, BED SED, WS <2MM DW, REC (UG/KG) (49454) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| 04161820 | 07-12-96 | <50 | 540 | 340 | 230 | 500 | <50 | <50 |
| 04175600 | 07-10-96 | <50 | e33 | e10 | <50 | e35 | <50 | <50 |
| 04178000 | 07-09-96 | <50 | e46 | e38 | e35 | 62 | <50 | <50 |
| 04183000 | 07-09-96 | e41 | 630 | 500 | 370 | 710 | <50 | <50 |
| 04186500 | 07-08-96 | <50 | e38 | e13 | e34 | e37 | <50 | <50 |
| 04193500 | 07-10-96 | <50 | 71 | e43 | e42 | 76 | <50 | <50 |
| 04208504 | 08-20-96 [A] | <50 | 980 | 790 | 380 | 830 | <50 | <50 |
| 04208504 | 08-20-96 [B] | <50 | 1100 | 1300 | 490 | 1100 | <50 | <50 |
| 04208504 | 08-20-96 [C] | <50 | 990 | 880 | 380 | 780 | <50 | <50 |
| 04211820 | 08-21-96 | <50 | 56 | e25 | e35 | e47 | <50 | <50 |
| 04213500 | 08-22-96 | <50 | 67 | e45 | e40 | 58 | <50 | <50 |

| STATION NUMBER | DATE | BUTYL BENZYL-PHTHALATE, BED SED, WS <2MM DW, REC (UG/KG) (49427) | CARBAZOLE, BED SED, WS <2MM DW, REC (UG/KG) (49449) | CIS-CHLORDANE, BED SED, WS <2MM DW, REC (UG/KG) (49320) | TRANS-CHLORDANE, BED SED, WS <2MM DW, REC (UG/KG) (49321) | BIS 2-CHLORO-ETHOXY METHANE, BED SED, WS <2MM DW, REC (UG/KG) (49401) | 4-CHLORO 3-METHYL-PHENOL, BED SED, WS <2MM DW, REC (UG/KG) (49422) | 2-CHLORO-NAPH-THALENE, BED SED, WS <2MM DW, REC (UG/KG) (49407) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | e35 | <50 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04161820 | 07-12-96 | 93 | 82 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04175600 | 07-10-96 | e39 | e18 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04178000 | 07-09-96 | 51 | <50 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04183000 | 07-09-96 | 60 | 130 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04186500 | 07-08-96 | 50 | <50 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04193500 | 07-10-96 | e49 | e21 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04208504 | 08-20-96 [A] | 120 | 150 | 2.80 | 2.90 | <50 | <50 | <50 |
| 04208504 | 08-20-96 [B] | 92 | 160 | 2.80 | 2.90 | <50 | <50 | <50 |
| 04208504 | 08-20-96 [C] | 130 | 170 | 2.00 | 2.00 | <50 | <50 | <50 |
| 04211820 | 08-21-96 | e40 | <50 | <1.00 | <1.00 | <50 | <50 | <50 |
| 04213500 | 08-22-96 | e42 | <50 | <1.00 | <1.00 | <50 | <50 | <50 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | CHLORONEB, BED SED, WS <2MM DW, REC (UG/KG) (49322) | 2-CHLORO-PHENOL, BED SED, WS <2MM DW REC (UG/KG) (49467) | 4-CHLORO-PHENYL PHENYL ETHER, BED SED, WS <2MM DW, REC (UG/KG) (49455) | CHRYSENE, BED SED, WS <2MM DW, REC (UG/KG) (49450) | P-CRESOL, BED SED, WS <2MM DW, REC (UG/KG) (49451) | DCPA, BED SED, WS <2MM DW, REC (UG/KG) (49324) | O, P'- DDD, BED SED, WS <2MM DW, REC (UG/KG) (49325) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <5.00 | <50 | <50 | e14 | e20 | <5.00 | <1.00 |
| 04161820 | 07-12-96 | <5.00 | <50 | <50 | 470 | 240 | <5.00 | <1.00 |
| 04175600 | 07-10-96 | <5.00 | <50 | <50 | e22 | 170 | <5.00 | <1.00 |
| 04178000 | 07-09-96 | <5.00 | <50 | <50 | e48 | 320 | <5.00 | <1.00 |
| 04183000 | 07-09-96 | <5.00 | <50 | <50 | 740 | 100 | <5.00 | <1.00 |
| 04186500 | 07-08-96 | <5.00 | <50 | <50 | e40 | 130 | <5.00 | <1.00 |
| 04193500 | 07-10-96 | <5.00 | <50 | <50 | 81 | 200 | <5.00 | <1.00 |
| 04208504 | 08-20-96 [A] | <5.00 | <50 | <50 | 940 | 790 | <5.00 | <1.40 |
| 04208504 | 08-20-96 [B] | <5.00 | <50 | <50 | 1200 | 900 | <5.00 | <1.10 |
| 04208504 | 08-20-96 [C] | <5.00 | <50 | <50 | 1100 | 700 | <5.00 | <2.00 |
| 04211820 | 08-21-96 | <5.00 | <50 | <50 | 65 | 280 | <5.00 | <1.00 |
| 04213500 | 08-22-96 | <5.00 | <50 | <50 | 85 | 140 | <5.00 | <1.00 |

| STATION NUMBER | DATE | P, P'- DDD, BED SED, WS <2MM DW, REC (UG/KG) (49326) | O, P'- DDE, BED SED, WS <2MM DW, REC (UG/KG) (49327) | P, P'- DDE, BED SED, WS <2MM DW, REC (UG/KG) (49328) | O, P'- DDT, BED SED, WS <2MM DW, REC (UG/KG) (49329) | P, P'- DDT, BED SED, WS <2MM DW, REC (UG/KG) (49330) | DIBENZ (A,H) ANTHRACENE, BED SED, WS <2MM DW, REC (UG/KG) (49461) | DIBENZO-THIOPHENE, BED SED, WS <2MM DW, REC (UG/KG) (49452) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <1.00 | <1.00 | <1.00 | <2.00 | <2.00 | <50 | <50 |
| 04161820 | 07-12-96 | 2.70 | <1.00 | 3.70 | 3.30 | <2.00 | 130 | e41 |
| 04175600 | 07-10-96 | <1.00 | <1.00 | <1.00 | <2.00 | <2.00 | e28 | e20 |
| 04178000 | 07-09-96 | 2.10 | <1.00 | 1.20 | <2.00 | <2.00 | e33 | <50 |
| 04183000 | 07-09-96 | 4.50 | <1.00 | 2.10 | <2.00 | <2.00 | <50 | 74 |
| 04186500 | 07-08-96 | <1.00 | <1.00 | <1.00 | <2.00 | <2.00 | e29 | e26 |
| 04193500 | 07-10-96 | 1.30 | <1.00 | <1.00 | <2.00 | <2.00 | <50 | e28 |
| 04208504 | 08-20-96 [A] | e2.20 | <5.00 | 6.50 | <2.00 | e8.70 | 170 | 58 |
| 04208504 | 08-20-96 [B] | e2.10 | <5.00 | 8.10 | <2.00 | e8.40 | 220 | 81 |
| 04208504 | 08-20-96 [C] | e3.50 | <1.00 | 6.40 | <2.00 | 6.00 | 210 | 69 |
| 04211820 | 08-21-96 | <1.00 | <1.00 | 1.20 | <2.00 | <2.00 | e28 | <50 |
| 04213500 | 08-22-96 | <1.00 | <1.00 | <1.00 | <2.00 | <2.00 | <50 | <50 |

| STATION NUMBER | DATE | DI-N BUTYL PHTHALATE, BED SED, WS <2MM DW, REC (UG/KG) (49381) | 1,2-DICHLORO-BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49439) | 1,3-DICHLORO-BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49441) | 1,4-DICHLORO-BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49442) | DIELDRIN, BED SED, WS <2MM DW, REC (UG/KG) (49331) | DIETHYL PHTHALATE, BED SED, WS <2MM DW, REC (UG/KG) (49383) | 1,2-DIMETHYL-NAPHTHALENE, BED SED, WS <2MM DW, REC (UG/KG) (49403) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | e49 | <50 | <50 | <50 | <1.00 | e22 | <50 |
| 04161820 | 07-12-96 | 61 | <50 | <50 | e6.0 | <1.00 | e26 | <50 |
| 04175600 | 07-10-96 | 61 | <50 | <50 | <50 | <1.00 | e22 | <50 |
| 04178000 | 07-09-96 | 62 | <50 | <50 | <50 | 1.40 | e24 | <50 |
| 04183000 | 07-09-96 | 75 | <50 | <50 | e10 | <1.00 | e25 | e22 |
| 04186500 | 07-08-96 | 61 | <50 | <50 | <50 | 4.60 | e34 | e9.0 |
| 04193500 | 07-10-96 | 53 | <50 | <50 | <50 | 1.00 | e24 | <50 |
| 04208504 | 08-20-96 [A] | 68 | <50 | <50 | e13 | 1.70 | e32 | e11 |
| 04208504 | 08-20-96 [B] | 67 | <50 | <50 | e15 | 2.00 | e44 | e11 |
| 04208504 | 08-20-96 [C] | 82 | <50 | <50 | <50 | <1.00 | e25 | e29 |
| 04211820 | 08-21-96 | e46 | <50 | <50 | <50 | <1.00 | e39 | <50 |
| 04213500 | 08-22-96 | 61 | <50 | <50 | <50 | <1.00 | e41 | <50 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | 1,6-DIMETHYL-NAPH-THALENE, BED SED, WS <2MM DW, REC (UG/KG) (49404) | 2,6-DIMETHYL-NAPH-THALENE, BED SED, WS <2MM DW, REC (UG/KG) (49406) | 3,5-DIMETHYL-PHENOL, BED SED, WS <2MM DW, REC (UG/KG) (49421) | DIMETHYL PHTHALATE, BED SED, WS <2MM DW, REC (UG/KG) (49384) | 2,4-DINITRO-TOLUENE, BED SED, WS <2MM DW, REC (UG/KG) (49395) | 2,6-DINITRO-TOLUENE, BED SED, WS <2MM DW, REC (UG/KG) (49396) | DI-N-OCTYL PHTHALATE, BED SED, WS <2MM DW, REC (UG/KG) (49382) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | e8.0 | e12 | <50 | <50 | <50 | <50 | <50 |
| 04161820 | 07-12-96 | e18 | e39 | e37 | e10 | <50 | <50 | 87 |
| 04175600 | 07-10-96 | <50 | e39 | <50 | <50 | <50 | e20 | 55 |
| 04178000 | 07-09-96 | e12 | e30 | <50 | <50 | <50 | <50 | <50 |
| 04183000 | 07-09-96 | e41 | 51 | <50 | <50 | <50 | <50 | <50 |
| 04186500 | 07-08-96 | e21 | e39 | <50 | <50 | <50 | <50 | <50 |
| 04193500 | 07-10-96 | <50 | e20 | 59 | <50 | <50 | <50 | e33 |
| 04208504 | 08-20-96 [A] | e43 | 96 | <50 | <50 | <50 | <50 | 200 |
| 04208504 | 08-20-96 [B] | e44 | 92 | <50 | <50 | <50 | <50 | 130 |
| 04208504 | 08-20-96 [C] | 73 | 150 | <50 | <50 | <50 | <50 | e130 |
| 04211820 | 08-21-96 | e11 | e42 | <50 | <50 | <50 | <50 | 60 |
| 04213500 | 08-22-96 | <50 | e38 | <50 | <50 | <50 | <50 | 91 |

| STATION NUMBER | DATE | ALPHA-ENDOSULFAN, BED SED, WS <2MM DW, REC (UG/KG) (49332) | ENDRIN, BED SED, WS <2MM DW, REC (UG/KG) (49335) | BIS 2-ETHYLHEXYL PHTHALATE, BED SED, WS <2MM DW, REC (UG/KG) (49426) | 2-ETHYL NAPH-THALENE, BED SED, WS <2MM DW, REC (UG/KG) (49490) | FLUOR-ANTHENE, BED SED, WS <2MM DW, REC (UG/KG) (49466) | FLUORENE, BED SED, WS <2MM DW, REC (UG/KG) (49399) | ALPHA-HCH, BED SED, WS <2MM DW, REC (UG/KG) (49338) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <1.00 | <2.00 | e36 | <50 | e23 | e19 | <1.00 |
| 04161820 | 07-12-96 | <1.00 | <2.00 | 400 | e9 | 910 | e42 | <1.00 |
| 04175600 | 07-10-96 | <1.00 | <2.00 | e49 | <50 | e39 | e20 | <1.00 |
| 04178000 | 07-09-96 | <1.00 | <2.00 | 130 | <50 | 72 | e22 | <1.00 |
| 04183000 | 07-09-96 | <1.00 | <2.00 | 360 | e18 | 1600 | 100 | <1.00 |
| 04186500 | 07-08-96 | <1.00 | <2.00 | 98 | e7.0 | 64 | e24 | <1.00 |
| 04193500 | 07-10-96 | <1.00 | <2.00 | 60 | <50 | 130 | e25 | <1.00 |
| 04208504 | 08-20-96 [A] | <5.00 | <2.00 | 1100 | e10 | 1900 | 81 | <1.00 |
| 04208504 | 08-20-96 [B] | <5.00 | <2.00 | 1000 | e11 | 2500 | 120 | <1.00 |
| 04208504 | 08-20-96 [C] | 1.30 | <2.00 | 1200 | e11 | 1800 | 97 | <1.00 |
| 04211820 | 08-21-96 | <1.00 | <2.00 | 380 | <50 | 97 | e8.0 | <1.00 |
| 04213500 | 08-22-96 | <1.00 | <2.00 | 83 | <50 | 100 | <50 | <1.00 |

| STATION NUMBER | DATE | BETA-HCH, BED SED, WS <2MM DW, REC (UG/KG) (49339) | LINDANE, BED SED, WS <2MM DW, REC (UG/KG) (49345) | HEPTACHLOR, BED SED, WS <2MM DW, REC (UG/KG) (49341) | HEPTACHLOR EPOXIDE, BED SED, WS <2MM DW, REC (UG/KG) (49342) | HEXACHLORO-BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49343) | INDENO (1,2,3- CD) PYRENE, BED SED, WS <2MM DW, REC (UG/KG) (49390) | ISODRIN, BED SED, WS <2MM DW, REC (UG/KG) (49344) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | <50 | <1.00 |
| 04161820 | 07-12-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 370 | <1.00 |
| 04175600 | 07-10-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | e29 | <1.00 |
| 04178000 | 07-09-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 52 | <1.00 |
| 04183000 | 07-09-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 560 | <1.00 |
| 04186500 | 07-08-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | <50 | <1.00 |
| 04193500 | 07-10-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 66 | <1.00 |
| 04208504 | 08-20-96 [A] | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 540 | <1.00 |
| 04208504 | 08-20-96 [B] | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 700 | <1.00 |
| 04208504 | 08-20-96 [C] | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 570 | <1.00 |
| 04211820 | 08-21-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 66 | <1.00 |
| 04213500 | 08-22-96 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | 74 | <1.00 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | ISOPHORONE, BED SED, WS <2MM DW, REC (UG/KG) (49400) | ISOQUINOLINE, BED SED, WS <2MM DW, REC (UG/KG) (49394) | O,P'-METHOXYCHLOR, BED SED, WS <2MM DW, REC (UG/KG) (49347) | P,P'-METHOXY CHLOR, BED SED, WS <2MM DW, REC (UG/KG) (49346) | 2-METHYLANTHRACENE, BED SED, WS <2MM DW, REC (UG/KG) (49435) | 4,5-METHYLENE-PHEN ANTHRENE, BED SED, WS <2MM DW, REC (UG/KG) (49411) | 1-METHYL-9H-FLUORENE, BED SED, WS <2MM DW, REC (UG/KG) (49398) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <50 | <50 | <5.00 | <5.00 | <50 | <50 | <50 |
| 04161820 | 07-12-96 | <50 | <50 | <5.00 | <5.00 | e34 | 78 | <50 |
| 04175600 | 07-10-96 | <50 | <50 | <5.00 | <5.00 | e21 | e21 | <50 |
| 04178000 | 07-09-96 | <50 | <50 | <5.00 | <5.00 | e23 | e25 | <50 |
| 04183000 | 07-09-96 | <50 | <50 | <5.00 | <5.00 | 88 | 170 | e41 |
| 04186500 | 07-08-96 | <50 | <50 | <5.00 | <5.00 | e23 | e29 | e21 |
| 04193500 | 07-10-96 | <50 | <50 | <5.00 | <5.00 | e27 | e35 | e22 |
| 04208504 | 08-20-96 [A] | <50 | <50 | <5.00 | <5.00 | e47 | 160 | e23 |
| 04208504 | 08-20-96 [B] | <50 | e12 | <5.00 | <5.00 | 65 | 230 | e28 |
| 04208504 | 08-20-96 [C] | <50 | <50 | <5.00 | <5.00 | 52 | 170 | e33 |
| 04211820 | 08-21-96 | <50 | <50 | <5.00 | <5.00 | <50 | <50 | <50 |
| 04213500 | 08-22-96 | <50 | <50 | <5.00 | <5.00 | <50 | e9.0 | <50 |

| STATION NUMBER | DATE | 1-METHYL-PHEN-ANTHRENE, BED SED, WS <2MM DW, REC (UG/KG) (49410) | 1-METHYL-PYRENE, BED SED, WS <2MM DW, REC (UG/KG) (49388) | MIREX, BED SED, WS <2MM DW, REC (UG/KG) (49348) | NAPHTHALENE, BED SED, WS <2MM DW, REC (UG/KG) (49402) | NITROBENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49444) | N-NITROSODIPHENYLAMINE, BED SED, WS <2MM DW, REC (UG/KG) (49433) | N-NITROSODI-N-PROPYLAMINE, BED SED, WS <2MM DW, REC (UG/KG) (49431) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | e19 | e18 | <1.00 | <50 | <50 | <50 | <50 |
| 04161820 | 07-12-96 | e43 | 50 | <1.00 | e12 | <50 | <50 | <50 |
| 04175600 | 07-10-96 | e19 | e19 | <1.00 | <50 | <50 | <50 | <50 |
| 04178000 | 07-09-96 | e24 | e23 | <1.00 | <50 | <50 | <50 | <50 |
| 04183000 | 07-09-96 | 110 | 120 | <1.00 | 62 | <50 | <50 | <50 |
| 04186500 | 07-08-96 | e30 | e22 | <1.00 | <50 | <50 | e32 | <50 |
| 04193500 | 07-10-96 | e34 | e27 | <1.00 | <50 | <50 | <50 | <50 |
| 04208504 | 08-20-96 [A] | 93 | 110 | <1.00 | 67 | <50 | <50 | <50 |
| 04208504 | 08-20-96 [B] | 110 | 87 | <1.00 | 71 | <50 | <50 | <50 |
| 04208504 | 08-20-96 [C] | 140 | 110 | <1.00 | 75 | <50 | 56 | <50 |
| 04211820 | 08-21-96 | e12 | e12 | <1.00 | e17 | <50 | <50 | <50 |
| 04213500 | 08-22-96 | e10 | e15 | <1.00 | <5.0 | <50 | <50 | <50 |

| STATION NUMBER | DATE | CIS-NONACHLOR, BED SED, WS <2MM DW, REC (UG/KG) (49316) | TRANS-NONACHLOR, BED SED, WS <2MM DW, REC (UG/KG) (49317) | OXY-CHLORDANE, BED SED, WS <2MM DW, REC (UG/KG) (49318) | PENTA-CHLORO ANISOLE, BED SED, WS <2MM DW, REC (UG/KG) (49460) | PENTA-CHLORO-NITRO-BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49446) | CIS-PERMETHRIN, BED SED, WS <2MM DW, REC (UG/KG) (49349) | TRANS-PERMETHRIN, BED SED, WS <2MM DW, REC (UG/KG) (49350) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04161820 | 07-12-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04175600 | 07-10-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04178000 | 07-09-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04183000 | 07-09-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <7.00 | <11.0 |
| 04186500 | 07-08-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04193500 | 07-10-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04208504 | 08-20-96 [A] | <1.00 | 4.20 | <1.00 | <1.0 | <50 | <10.0 | <6.20 |
| 04208504 | 08-20-96 [B] | <1.00 | 4.20 | <1.00 | <1.0 | <50 | <13.0 | <12.0 |
| 04208504 | 08-20-96 [C] | <1.00 | 2.40 | <1.00 | <1.0 | <50 | <5.00 | <12.0 |
| 04211820 | 08-21-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |
| 04213500 | 08-22-96 | <1.00 | <1.00 | <1.00 | <1.0 | <50 | <5.00 | <5.00 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assessment Program)

Concentrations of trace elements and organic compounds in streambed sediments from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| STATION NUMBER | DATE | PHEN-ANTHRENE, BED SED, WS <2MM DW, REC (UG/KG) (49409) | PHEN-ANTHRIDINE, BED SED, WS <2MM DW, REC (UG/KG) (49393) | PHENOL, BED SED, WS <2MM DW, REC (UG/KG) (49413) | PYRENE, BED SED, WS <2MM DW, REC (UG/KG) (49387) | QUINOLINE, BED SED, WS <2MM DW, REC (UG/KG) (49392) | TOXAPHENE, BED SED, WS <2MM DW, REC (UG/KG) (49351) | 1,2,4-TRI-CHLORO BENZENE, BED SED, WS <2MM DW, REC (UG/KG) (49438) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | 07-11-96 | e11 | <50 | e10 | e21 | <50 | <200 | <50 |
| 04161820 | 07-12-96 | 380 | e31 | e25 | 740 | <50 | <200 | <50 |
| 04175600 | 07-10-96 | e16 | <50 | e15 | e32 | <50 | <200 | <50 |
| 04178000 | 07-09-96 | e33 | <50 | e23 | 62 | <50 | <200 | <50 |
| 04183000 | 07-09-96 | 970 | e48 | e21 | 1400 | <50 | <200 | <50 |
| 04186500 | 07-08-96 | e37 | <50 | e16 | 63 | <50 | <200 | <50 |
| 04193500 | 07-10-96 | 62 | <50 | e26 | 120 | <50 | <200 | <50 |
| 04208504 | 08-20-96 [A] | 950 | e40 | 61 | 1500 | <50 | <200 | <50 |
| 04208504 | 08-20-96 [B] | 1300 | e44 | 67 | 2000 | <50 | <200 | <50 |
| 04208504 | 08-20-96 [C] | 990 | e25 | 75 | 1400 | <50 | <200 | <50 |
| 04211820 | 08-21-96 | e46 | <50 | e13 | 79 | <50 | <200 | <50 |
| 04213500 | 08-22-96 | e44 | <50 | <50 | 84 | <50 | <200 | <50 |

| STATION NUMBER | DATE | 2,3,6 TRIMETHYL-NAPH-THALENE, BED SED, WS <2MM DW, REC (UG/KG) (49405) | Particle-size sieve analysis of streambed: % SAND BED MAT. <2 MM AND >.062 MM | % SILT BED MAT. <.062 MM AND >.004 MM | % CLAY BED MAT. <.004 MM |
|---|---|---|---|---|---|
| 04159492 | 07-11-96 | <50 | 90.2 | 6.3 | 3.5 |
| 04161820 | 07-12-96 | e7.0 | 69.3 | 22.8 | 7.9 |
| 04175600 | 07-10-96 | <50 | 78.5 | 12.2 | 9.3 |
| 04178000 | 07-09-96 | <5.0 | 57.7 | 22.3 | 20.0 |
| 04183000 | 07-09-96 | e22 | 92.2 | 4.5 | 3.3 |
| 04186500 | 07-08-96 | e13 | 62.0 | 30.2 | 7.8 |
| 04193500 | 07-10-96 | e8.0 | 79.4 | 13.6 | 7.0 |
| 04208504 | 08-20-96 [A] | e22 | 50.4 | 30.3 | 19.3 |
| 04208504 | 08-20-96 [B] | e25 | 53.0 | 27.8 | 19.2 |
| 04208504 | 08-20-96 [C] | e39 | 47.8 | 32.3 | 19.9 |
| 04211820 | 08-21-96 | <50 | 55.9 | 31.7 | 12.4 |
| 04213500 | 08-22-96 | <50 | 21.0 | 53.9 | 25.1 |

REFERENCE CITED:

Shelton, L.R., and Capel, P.D., 1994, *Guidelines for collecting and processing samples of stream bed sediment for analysis of trace elements and organic contaminants for the National Water-Quality Assessment Program:* U.S. Geological Survey Open-File Report 94-458, 20 p.

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue

The purpose of this survey was to assess the occurrence and distribution of trace elements and organochlorine compounds in fish tissue. The following species were collected: common carp (*Cyprinus carpio*), and rock bass (*Ambloplites rupestris*). Where more than one sample was collected at a particular site and date, the letter after the species distinguishes each sample. More information regarding methods can be found in Crawford and Luoma (1994).

Concentrations of trace elements in fish-liver composites

Each sample for trace element analyses consists of a composite of liver tissue taken from 1 to 10 fish. Sexually mature fish were sought. Laboratory procedures include (1) drying, (2) digestion, and (3) analysis by use of inductively-coupled plasma-emission spectrometry (for Al, Ba, B, Cr, Cu, Fe, Mn, Sr, and Zn), inductively coupled plasma mass spectrometry (for Sb, As, Be, Cd, Co, Pb, Mo, Ni, Se, Ag, U, and V), and cold vapor atomic absorption (for Hg). Constituent concentrations are provided on a dry-weight (DRY WGT) basis. Concentrations are corrected for percent water. (MM = Millimeters, SDEV = Standard deviation, MIN = Minimum, MAX = Maximum, F = Female, M = Male, REC = Recoverable, UG/G = micrograms per gram, (49273) = USGS National Water Quality Laboratory parameter code).

CALENDAR YEAR 1996

| STATION NUMBER | STATION NAME | DATE | TIME | SPECIES | NUMBER IN COMPOSITE M | F | TOTAL |
|---|---|---|---|---|---|---|---|
| 04159492 | BLACK RIVER NEAR JEDDO, MI | 07-24-96 | 1300 | COMMON CARP | 3 | 1 | 4 |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 09-04-96 | 1400 | COMMON CARP | 1 | 0 | 1 |
| 04175600 | RIVER RAISIN NEAR MANCHESTER, MI | 07-23-96 | 1300 | ROCK BASS | 2 | 6 | 8 |
| 04178000 | ST JOSEPH RIVER NEAR NEWVILLE, IN | 07-22-96 | 1300 | COMMON CARP | 4 | 4 | 8 |
| 04183000 | MAUMEE RIVER AT NEW HAVEN, IN | 09-05-96 | 1130 | COMMON CARP | 5 | 3 | 8 |
| 04186500 | AUGLAIZE RIVER NEAR FORT JENNINGS, OH | 07-26-96 | 0950 | COMMON CARP | 3 | 5 | 8 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 08-08-96 | 1400 | COMMON CARP [A] | 2 | 6 | 8 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 08-08-96 | 1600 | COMMON CARP [B] | 6 | 2 | 8 |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | 10-08-96 | 1200 | COMMON CARP | 3 | 5 | 8 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 08-06-96 | 1000 | ROCK BASS | 5 | 5 | 10 |

| STATION NUMBER | SPECIES | TOTAL LENGTH OF FISH (MM) MEAN | SDEV | MIN | MAX | WEIGHT OF FISH (GRAMS) MEAN | SDEV | MIN | MAX | AGE OF FISH (YEARS) MEAN | SDEV | MIN | MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | 429 | 100 | 285 | 515 | 1180 | 712 | 300 | 2041 | 5.8 | 1.3 | 4 | 7 |
| 04161820 | COMMON CARP | 591 | - - | 591 | 591 | 2812 | -- | 2812 | 2812 | 10 | -- | 10 | 10 |
| 04175600 | ROCK BASS | 163 | 59 | 79 | 240 | 133 | 65 | 80 | 260 | 4.1 | 1.0 | 3 | 6 |
| 04178000 | COMMON CARP | 501 | 75 | 410 | 650 | 1843 | 959 | 907 | 3856 | 8.1 | 2.3 | 6 | 13 |
| 04183000 | COMMON CARP | 509 | 72 | 405 | 593 | 1891 | 760 | 816 | 2926 | 8.9 | 1.8 | 6 | 11 |
| 04186500 | COMMON CARP | 482 | 70 | 345 | 600 | 1616 | 691 | 680 | 2948 | 8.2 | 1.3 | 6 | 10 |
| 04193500 | COMMON CARP [A] | 490 | 35 | 453 | 563 | 1531 | 297 | 1361 | 2155 | 7.2 | 1.2 | 5 | 9 |
| 04193500 | COMMON CARP [B] | 444 | 32 | 387 | 482 | 1043 | 169 | 794 | 1247 | 6.9 | 1.0 | 5 | 8 |
| 04208504 | COMMON CARP | 665 | 56 | 568 | 735 | 4695 | 1367 | 3062 | 6804 | 11 | 2.2 | 8 | 15 |
| 04211820 | ROCK BASS | 140 | 29 | 110 | 197 | 58 | 38 | 26 | 142 | 2.4 | 0.7 | 2 | 4 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue--Continued

Concentrations of trace elements in fish-liver composites--Continued

| STATION NUMBER | SPECIES | WATER PRESENT, BIOTA, TISSUE, DRY WGT REC PERCENT (49273) | ALUMI-NUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49237) | ANTI-MONY, BIOTA, TISSUE, DRY WGT REC (UG/G) (49246) | ARSENIC, BIOTA, TISSUE, DRY WGT REC (UG/G) (49247) | BARIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49238) | BERYL-LIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49248) | BORON, BIOTA, TISSUE, DRY WGT REC (UG/G) (49239) | CADMIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49249) |
|---|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | 74 | 1.7 | <0.2 | 0.6 | <0.1 | <0.2 | 0.3 | 3.2 |
| 04161820 | COMMON CARP | 69 | 13 | <0.2 | 0.2 | 0.1 | <0.2 | <0.2 | 1.7 |
| 04175600 | ROCK BASS | 79 | <1.0 | <0.3 | 0.6 | 0.5 | <0.3 | 1.1 | 2.0 |
| 04178000 | COMMON CARP | 61 | 1.4 | <0.1 | 0.1 | <0.1 | <0.1 | 0.2 | 2.9 |
| 04183000 | COMMON CARP | 73 | 28 | <0.2 | 0.2 | 0.3 | <0.2 | 0.3 | 16 |
| 04186500 | COMMON CARP | 71 | <1.0 | <0.2 | <0.2 | <0.1 | <0.2 | 0.4 | 4.0 |
| 04193500 | COMMON CARP [A] | 76 | 9.3 | <0.2 | 0.5 | <0.1 | <0.2 | 0.3 | 58 |
| 04193500 | COMMON CARP [B] | 72 | 12 | <0.2 | 0.8 | 0.1 | <0.2 | <0.2 | 39 |
| 04208504 | COMMON CARP | 73 | 9.8 | <0.2 | 1.0 | <0.1 | <0.2 | 0.2 | 15 |
| 04211820 | ROCK BASS | 78 | <1.0 | <0.3 | 0.8 | 0.2 | <0.3 | 4.0 | 1.8 |

| STATION NUMBER | SPECIES | CHROM-IUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49240) | COBALT, BIOTA, TISSUE, DRY WGT REC (UG/G) (49250) | COPPER, BIOTA, TISSUE, DRY WGT REC (UG/G) (49241) | IRON, BIOTA, TISSUE, DRY WGT REC (UG/G) (49242) | LEAD, BIOTA, TISSUE, DRY WGT REC (UG/G) (49251) | MANGA-NESE, BIOTA, TISSUE, DRY WGT REC (UG/G) (49243) | MER-CURY, BIOTA, TISSUE, DRY WGT REC (UG/G) (49258) | MOLYB-DENUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49252) |
|---|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | <0.5 | <0.2 | 95 | 620 | <0.2 | 6.0 | 0.9 | 1.1 |
| 04161820 | COMMON CARP | <0.5 | <0.2 | 93 | 1300 | 0.6 | 3.4 | 0.2 | 0.7 |
| 04175600 | ROCK BASS | 0.7 | 0.5 | 8.5 | 300 | <0.3 | 7.6 | 0.3 | 1.1 |
| 04178000 | COMMON CARP | <0.5 | <0.1 | 38 | 340 | <0.1 | 2.9 | 0.2 | 0.7 |
| 04183000 | COMMON CARP | 0.5 | <0.2 | 90 | 690 | 0.4 | 4.8 | 0.3 | 1.3 |
| 04186500 | COMMON CARP | <0.5 | <0.2 | 58 | 310 | <0.2 | 2.7 | 0.1 | 0.7 |
| 04193500 | COMMON CARP [A] | <0.5 | <0.2 | 200 | 710 | 0.3 | 3.5 | 1.0 | 1.7 |
| 04193500 | COMMON CARP [B] | <0.5 | <0.2 | 120 | 860 | 0.3 | 2.8 | 0.3 | 1.3 |
| 04208504 | COMMON CARP | <0.5 | <0.2 | 82 | 580 | 0.4 | 4.0 | 0.2 | 0.8 |
| 04211820 | ROCK BASS | 0.7 | 0.5 | 10 | 300 | <0.3 | 7.3 | 0.3 | 0.9 |

| STATION NUMBER | SPECIES | NICKEL, BIOTA, TISSUE, DRY WGT REC (UG/G) (49253) | SELEN-IUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49254) | SILVER, BIOTA, TISSUE, DRY WGT REC (UG/G) (49255) | STRON-TIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49244) | URANIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49257) | VANA-DIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49465) | ZINC, BIOTA, TISSUE, DRY WGT REC (UG/G) (49245) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | <0.2 | 5.3 | 0.8 | 0.2 | <0.2 | 0.4 | 670 |
| 04161820 | COMMON CARP | <0.2 | 6.1 | 0.6 | 0.3 | <0.2 | 0.6 | 1500 |
| 04175600 | ROCK BASS | <0.3 | 8.3 | <0.3 | 1.1 | <0.3 | <0.3 | 88 |
| 04178000 | COMMON CARP | <0.1 | 1.8 | 0.2 | 0.4 | <0.1 | <0.1 | 310 |
| 04183000 | COMMON CARP | <0.2 | 7.7 | 0.8 | 1.7 | <0.2 | 0.6 | 980 |
| 04186500 | COMMON CARP | <0.2 | 5.1 | 0.3 | 1.0 | <0.2 | <0.2 | 250 |
| 04193500 | COMMON CARP [A] | <0.2 | 7.2 | 2.1 | 1.1 | <0.2 | 0.8 | 900 |
| 04193500 | COMMON CARP [B] | <0.2 | 5.6 | 1.1 | 0.9 | <0.2 | 0.7 | 910 |
| 04208504 | COMMON CARP | <0.2 | 5.5 | 0.9 | 0.3 | <0.2 | 0.7 | 890 |
| 04211820 | ROCK BASS | <0.3 | 6.7 | <0.3 | 0.7 | <0.3 | <0.3 | 89 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue--Continued

Concentrations of organochlorine compounds in whole fish

Each sample for organochlorine analyses consists of a composite of 3 to 8 whole fish. Sexually mature fish were sought. Laboratory procedures include (1) homogenization, (2) extraction by use of methylene chloride in a soxhlet apparatus, (3) clean-up by use of gel permeation chromatography, (4) fractionation by use of alumina/silica gel, and (5) analysis by gas chromatography with two dissimilar capillary columns coupled with an electron capture detector. Constituent concentrations are provided on a wet-weight (WW) basis and are not corrected for percent lipids. Constituent names are abbreviated as follows: DDD, dichlorodiphenyldichloroethane; DDE, dichlorodiphenyldichloroethene; DCPA, dimethyl tetrachloroterephthalate; DDT, dicholorodiphenyltrichloroethane; HCH, hexachlorocyclohexane; PCB, polychlorinated biphenyls. (MM = Millimeters, SDEV = Standard deviation, MIN = Minimum, MAX = Maximum, F = Female, M = Male, REC = Recoverable, WH ORG = Whole organic analysis fish, UG/KG = micrograms per kilogram, (49289) = the USGS National Water Quality Laboratory parameter code, e = Estimated, -- = No data).

CALENDAR YEAR 1996

| STATION NUMBER | STATION NAME | DATE | TIME | SPECIES | NUMBER IN COMPOSITE M | F | TOTAL |
|---|---|---|---|---|---|---|---|
| 04159492 | BLACK RIVER NEAR JEDDO, MI | 07-24-96 | 1300 | COMMON CARP | 2 | 3 | 5 |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 09-04-96 | 1400 | ROCK BASS | 2 | 1 | 3 |
| 04175600 | RIVER RAISIN NEAR MANCHESTER, MI | 07-23-96 | 1300 | ROCK BASS | 3 | 5 | 8 |
| 04178000 | ST JOSEPH RIVER NEAR NEWVILLE, IN | 07-22-96 | 1300 | COMMON CARP | 3 | 5 | 8 |
| 04183000 | MAUMEE RIVER AT NEW HAVEN, IN | 09-05-96 | 1130 | COMMON CARP | 6 | 2 | 8 |
| 04186500 | AUGLAIZE RIVER NEAR FORT JENNINGS, OH | 07-26-96 | 0950 | COMMON CARP | 4 | 4 | 8 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 08-08-96 | 1400 | COMMON CARP [A] | 3 | 5 | 8 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 08-08-96 | 1600 | COMMON CARP [B] | 7 | 1 | 8 |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | 10-08-96 | 1200 | COMMON CARP | 7 | 1 | 8 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 08-06-96 | 1000 | ROCK BASS | 3 | 5 | 8 |

| STATION NUMBER | SPECIES | TOTAL LENGTH OF FISH (MM) MEAN | SDEV | MIN | MAX | WEIGHT OF FISH (GRAMS) MEAN | SDEV | MIN | MAX | AGE OF FISH (YEARS) MEAN | SDEV | MIN | MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | 428 | 86 | 305 | 533 | 1072 | 585 | 454 | 1928 | 5.6 | 1.5 | 3 | 7 |
| 04161820 | ROCK BASS | 195 | 48 | 164 | 250 | 164 | 100 | 105 | 280 | 5 | 1.0 | 4 | 6 |
| 04175600 | ROCK BASS | 186 | 30 | 138 | 223 | 135 | 60 | 56 | 214 | 4.2 | 1.0 | 3 | 6 |
| 04178000 | COMMON CARP | 492 | 42 | 435 | 560 | 1740 | 435 | 1247 | 2608 | 7.8 | 0.9 | 6 | 9 |
| 04183000 | COMMON CARP | 454 | 37 | 385 | 502 | 1264 | 286 | 771 | 1633 | 7.5 | 0.7 | 6 | 8 |
| 04186500 | COMMON CARP | 456 | 106 | 257 | 582 | 1387 | 767 | 210 | 2495 | 7.1 | 2.4 | 3 | 9 |
| 04193500 | COMMON CARP [A] | 468 | 47 | 432 | 576 | 1233 | 350 | 907 | 2041 | 7.4 | 0.9 | 6 | 9 |
| 04193500 | COMMON CARP [B] | 416 | 45 | 375 | 515 | 950 | 373 | 680 | 1814 | 6.1 | 0.6 | 5 | 7 |
| 04208504 | COMMON CARP | 566 | 42 | 512 | 622 | 2882 | 682 | 1701 | 3683 | 9.4 | 1.4 | 7 | 12 |
| 04211820 | ROCK BASS | 159 | 23 | 126 | 197 | 82 | 40 | 35 | 160 | 2.9 | 0.6 | 2 | 4 |

# PROJECT DATA

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue--Continued

Concentrations of organochlorine compounds in whole fish--Continued

| STATION NUMBER | SPECIES | LIPIDS, BIOTA, WH ORG WW, REC PERCENT (49289) | ALDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49353) | CIS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49380) | TRANS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49379) | DCPA, BIOTA, WH ORG WW, REC (UG/KG) (49378) | O,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG) (49374) | P,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG) (49375) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | 6.10 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04161820 | ROCK BASS | 3.80 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | e12.0 |
| 04175600 | ROCK BASS | 2.60 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04178000 | COMMON CARP | 20.0 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04183000 | COMMON CARP | 2.60 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04186500 | COMMON CARP | 12.0 | <5.00 | 9.20 | <5.00 | <5.00 | <5.00 | e8.20 |
| 04193500 | COMMON CARP [A] | 6.00 | <5.00 | 6.80 | <5.00 | <5.00 | <5.00 | e11.0 |
| 04193500 | COMMON CARP [B] | 7.40 | <5.00 | 8.00 | <5.00 | <5.00 | <5.00 | e12.0 |
| 04208504 | COMMON CARP | 19.0 | <5.00 | e59.0 | e29.0 | <5.00 | <5.00 | e72.0 |
| 04211820 | ROCK BASS | 3.40 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |

| STATION NUMBER | SPECIES | O,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG) (49373) | P,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG) (49372) | O,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG) (49377) | P,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG) (49376) | DIELDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49371) | ENDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49370) | ALPHA-HCH, BIOTA, WH ORG WW, REC (UG/KG) (49366) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | <5.00 | 6.80 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04161820 | ROCK BASS | <5.00 | 56.0 | <5.00 | 8.80 | <5.00 | <5.00 | <5.00 |
| 04175600 | ROCK BASS | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04178000 | COMMON CARP | <5.00 | 9.80 | <5.00 | <5.00 | - - | <5.00 | <5.00 |
| 04183000 | COMMON CARP | <5.00 | 20.0 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04186500 | COMMON CARP | <5.00 | 40.0 | <5.00 | <5.00 | 28.0 | <5.00 | <5.00 |
| 04193500 | COMMON CARP [A] | <5.00 | 100 | <5.00 | <5.00 | 32.0 | <5.00 | <5.00 |
| 04193500 | COMMON CARP [B] | <5.00 | e110 | <5.00 | <5.00 | 40.0 | <5.00 | <5.00 |
| 04208504 | COMMON CARP | <14.0 | 200 | - - | <10.0 | e17.0 | <5.00 | <5.00 |
| 04211820 | ROCK BASS | <5.00 | 19.0 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |

| STATION NUMBER | SPECIES | BETA-HCH, BIOTA, WH ORG WW, REC (UG/KG) (49365) | DELTA-HCH, BIOTA, WH ORG WW, REC (UG/KG) (49364) | LINDANE, BIOTA, WH ORG WW, REC (UG/KG) (49363) | HEPTA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49369) | HEPTA-CHLOR, EPOXIDE, BIOTA, WH ORG WW, REC (UG/KG) (49368) | HEXA-CHLORO-BENZENE, BIOTA, WH ORG WW, REC (UG/KG) (49367) | O,P'-METHOXY CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49362) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04161820 | ROCK BASS | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04175600 | ROCK BASS | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04178000 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04183000 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04186500 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | e5.00 | <5.00 | <5.00 |
| 04193500 | COMMON CARP [A] | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04193500 | COMMON CARP [B] | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| 04208504 | COMMON CARP | <5.00 | <5.00 | <6.00 | <5.00 | e10.0 | <5.00 | <10.0 |
| 04211820 | ROCK BASS | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue--Continued

Concentrations of organochlorine compounds in whole fish--Continued

| STATION NUMBER | SPECIES | P,P'-METHOXY CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49361) | MIREX, BIOTA, WH ORG WW, REC (UG/KG) (49360) | CIS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49359) | TRANS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49358) | OXY-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49357) | PENTA-CHLORO-ANISOLE, BIOTA, WH ORG WW, REC (UG/KG) (49356) | PCB, BIOTA, WH ORG WW, REC (UG/KG) (49354) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <50.0 |
| 04161820 | ROCK BASS | <5.00 | <5.00 | <5.00 | 6.00 | <5.00 | <5.00 | 110 |
| 04175600 | ROCK BASS | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <50.0 |
| 04178000 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | 67 |
| 04183000 | COMMON CARP | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | 270 |
| 04186500 | COMMON CARP | <5.00 | <5.00 | <5.00 | 16.0 | <5.00 | <5.00 | 210 |
| 04193500 | COMMON CARP [A] | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | 670 |
| 04193500 | COMMON CARP [B] | <5.00 | <5.00 | <5.00 | 11.0 | <5.00 | <5.00 | 870 |
| 04208504 | COMMON CARP | <10.0 | <5.00 | e12.0 | e51.0 | e6.20 | <5.00 | 3200 |
| 04211820 | ROCK BASS | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <50.0 |

| STATION NUMBER | SPECIES | TOXA-PHENE, BIOTA, WH ORG WW, REC (UG/KG) (49355) |
|---|---|---|
| 04159492 | COMMON CARP | <200 |
| 04161820 | ROCK BASS | <200 |
| 04175600 | ROCK BASS | <200 |
| 04178000 | COMMON CARP | <200 |
| 04183000 | COMMON CARP | <200 |
| 04186500 | COMMON CARP | <200 |
| 04193500 | COMMON CARP [A] | <200 |
| 04193500 | COMMON CARP [B] | <200 |
| 04208504 | COMMON CARP | <200 |
| 04211820 | ROCK BASS | <200 |

REFERENCE CITED:

Crawford, J.K. and Luoma, S.N., 1994, *Guidelines for studies of contaminants in biological tissues for the National Water-Quality Assessment Program*: U.S. Geological Survey Open-File Report 92-494, 69 p.

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue

The purpose of this survey was to assess the occurrence and distribution of trace elememts and organochlorine compounds in fish tissue. The following species were collected: common carp (*Cyprinus carpio*), and northern hog sucker (*Hypentelium nigricans*). More information regarding methods can be found in Crawford and Luoma (1994).

Concentrations of trace elements in fish-liver composites

Each sample for trace element analyses consists of a composite of liver tissue taken from 6 to 12 fish. Sexually mature fish were sought. Laboratory procedures include (1) drying, (2) digestion, and (3) analysis by use of inductively-coupled plasma-emission spectrometry (for Al, Ba, B, Cr, Cu, Fe, Mn, Sr, and Zn), inductively coupled plasma mass spectrometry (for Sb, As, Be, Cd, Co, Pb, Mo, Ni, Se, Ag, U, and V), and cold vapor atomic absorption (for Hg). Constituent concentrations are provided on a dry-weight (DRY WGT) basis. Concentrations are corrected for percent water. (MM = Millimeters, SDEV = Standard deviation, MIN = Minimum, MAX = Maximum, F = Female, M = Male, REC = Recoverable, UG/G = micrograms per gram, (49273) = the USGS National Water Quality Laboratory parameter code).

CALENDAR YEAR 1997

| STATION NUMBER | STATION NAME | DATE | TIME | SPECIES | NUMBER IN COMPOSITE M | F | TOTAL |
|---|---|---|---|---|---|---|---|
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 07/29/97 | 2100 | COMMON CARP | 2 | 4 | 6 |
| 413101084521301 | FISH CEEK NEAR HAMILTON, IN | 08/12/97 | 1600 | COMMON CARP | 5 | 3 | 8 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 07/22/97 | 0930 | COMMON CARP | 2 | 6 | 8 |
| 04213500 | CATTARAUGUS CREEK AT GOWANDA, NY | 09/24/97 | 1330 | HOG SUCKER | 6 | 6 | 12 |

| STATION NUMBER | SPECIES | TOTAL LENGTH OF FISH (MM) MEAN | SDEV | MIN | MAX | WEIGHT OF FISH (GRAMS) MEAN | SDEV | MIN | MAX | AGE OF FISH (YEARS) MEAN | SDEV | MIN | MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMOM CARP | 539 | 80 | 401 | 648 | 2816 | 1582 | 1134 | 5783 | 10 | 2.3 | 7 | 14 |
| 413101084521301 | COMMOM CARP | 601 | 50 | 492 | 662 | 3226 | 769 | 1701 | 4264 | 10.9 | 1.6 | 9 | 14 |
| 04211820 | COMMOM CARP | 699 | 89 | 578 | 860 | 5713 | 2909 | 2495 | 11567 | 13.6 | 2.6 | 10 | 18 |
| 04213500 | HOG SUCKER | 238 | 34 | 202 | 298 | 165 | 67 | 95 | 283 | 3.2 | 1.4 | 1 | 5 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue--Continued

Concentrations of trace elements in fish-liver composites--Continued

| STATION NUMBER | SPECIES | WATER PRESENT, BIOTA, TISSUE, DRY WGT REC PERCENT (49273) | ALUMINUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49237) | ANTIMONY, BIOTA, TISSUE, DRY WGT REC (UG/G) (49246) | ARSENIC, BIOTA, TISSUE, DRY WGT REC (UG/G) (49247) | BARIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49238) | BERYLLIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49248) | BORON, BIOTA, TISSUE, DRY WGT REC (UG/G) (49239) |
|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | 67 | 11.4 | <0.15 | 0.41 | 0.27 | <0.15 | 0.40 |
| 413101084521301 | COMMON CARP | 73 | 5.4 | <0.20 | 0.28 | 0.37 | <0.20 | <0.04 |
| 04211820 | COMMON CARP | 69 | 4.5 | <0.14 | 0.82 | <0.10 | <0.14 | 0.53 |
| 04213500 | HOG SUCKER | 77 | <0.1 | <0.27 | 0.63 | 0.16 | <0.27 | 0.40 |

| STATION NUMBER | SPECIES | CADMIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49249) | CHROMIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49240) | COBALT, BIOTA, TISSUE, DRY WGT REC (UG/G) (49250) | COPPER, BIOTA, TISSUE, DRY WGT REC (UG/G) (49241) | IRON, BIOTA, TISSUE, DRY WGT REC (UG/G) (49242) | LEAD, BIOTA, TISSUE, DRY WGT REC (UG/G) (49251) | MANGANESE, BIOTA, TISSUE, DRY WGT REC (UG/G) (49243) | MERCURY, BIOTA, TISSUE, DRY WGT REC (UG/G) (49258) |
|---|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | 6.0 | <0.5 | <0.15 | 69.4 | 511 | 0.35 | 4.22 | 0.56 |
| 413101084521301 | COMMON CARP | 6.2 | <0.5 | <0.20 | 193 | 839 | <0.20 | 6.86 | 0.12 |
| 04211820 | COMMON CARP | 24.2 | <0.5 | 0.17 | 98.6 | 660 | <0.14 | 6.16 | 0.23 |
| 04213500 | HOG SUCKER | 1.1 | 0.6 | 0.27 | 22.9 | 149 | <0.27 | 5.61 | 0.08 |

| STATION NUMBER | SPECIES | MOLYBDENUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49252) | NICKEL, BIOTA, TISSUE, DRY WGT REC (UG/G) (49253) | SELENIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49254) | SILVER, BIOTA, TISSUE, DRY WGT REC (UG/G) (49255) | STRONTIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49244) | URANIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49257) | VANADIUM, BIOTA, TISSUE, DRY WGT REC (UG/G) (49465) | ZINC, BIOTA, TISSUE, DRY WGT REC (UG/G) (49245) |
|---|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | 0.89 | 0.18 | 6.66 | 0.58 | 0.34 | <0.15 | 0.47 | 553 |
| 413101084521301 | COMMON CARP | 2.13 | <0.20 | 8.52 | 0.87 | 1.66 | <0.20 | 0.52 | 849 |
| 04211820 | COMMON CARP | 1.07 | <0.14 | 4.64 | 0.72 | 0.61 | <0.14 | 0.65 | 734 |
| 04213500 | HOG SUCKER | 1.94 | <0.27 | 4.49 | <0.27 | 0.24 | <0.27 | <0.27 | 89 |

# PROJECT DATA

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Concentrations of organochlorine compounds in whole fish

Each sample for organochlorine analyses consists of a composite of 6 to 8 whole fish. Sexually mature fish were sought. Laboratory procedures include (1) homogenization, (2) extraction by use of methylene chloride in a soxhlet apparatus, (3) clean-up by use of gel permeation chromatography, (4) fractionation by use of alumina/silica gel, and (5) analysis by gas chromatography with two dissimilar capillary columns coupled with an electron capture detector. Constituent concentrations are provided on a wet-weight (WW) basis and are not corrected for percent lipids. Constituent names are abbreviated as follows: DDD, dichlorodiphenyldichloroethane; DDE, dichlorodiphenyldichloroethene; DCPA, dimethyl tetrachloroterephthalate; DDT, dicholorodiphenyltrichloroethane; HCH, hexachlorocyclohexane; PCB, polychlorinated biphenyls. (MM = Millimeters, SDEV = Standard deviation, MIN = Minimum, MAX = Maximum, F = Female, M = Male, REC = Recoverable, WH ORG = Whole organic analysis fish, UG/KG = micrograms per kilogram, (49289) = the USGS National Water Quality Laboratory parameter code, e = Estimated, -- = No data).

CALENDAR YEAR 1997

| STATION NUMBER | STATION NAME | DATE | TIME | SPECIES | NUMBER IN COMPOSITE M | F | TOTAL |
|---|---|---|---|---|---|---|---|
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 07/29/97 | 2100 | COMMON CARP | 1 | 5 | 6 |
| 413101084521301 | FISH CEEK NEAR HAMILTON, IN | 08/12/97 | 1600 | COMMON CARP | 3 | 5 | 8 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 07/22/97 | 0930 | COMMON CARP | 7 | 1 | 8 |
| 04213500 | CATTARAUGUS CREEK AT GOWANDA, NY | 09/24/97 | 1330 | HOG SUCKER | 5 | 3 | 8 |

| STATION NUMBER | SPECIES | TOTAL LENGTH OF FISH (MM) MEAN | SDEV | MIN | MAX | WEIGHT OF FISH (GRAMS) MEAN | SDEV | MIN | MAX | AGE OF FISH (YEARS) MEAN | SDEV | MIN | MAX |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | 489 | 65 | 378 | 541 | 2192 | 854 | 907 | 3175 | 8.7 | 1.6 | 5 | 10 |
| 413101084521301 | COMMON CARP | 487 | 55 | 412 | 553 | 1738 | 601 | 1043 | 2495 | 8.4 | 0.5 | 8 | 9 |
| 04211820 | COMMON CARP | 547 | 97 | 402 | 650 | 2310 | 1050 | 907 | 3629 | 10 | 2.6 | 7 | 14 |
| 04213500 | HOG SUCKER | 245 | 17 | 220 | 276 | 167 | 36 | 120 | 230 | 3 | 1.2 | 2 | 5 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Concentrations of trace elements and organochlorine compounds in fish tissue--Continued

Concentrations of organochlorine compounds in whole fish--Continued

| STATION NUMBER | SPECIES | LIPIDS, BIOTA, WH ORG WW, REC PERCENT (49289) | ALDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49353) | CIS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49380) | TRANS-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49379) | DCPA, BIOTA, WH ORG WW, REC (UG/KG) (49378) | O,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG) (49374) | P,P'-DDD, BIOTA, WH ORG WW, REC (UG/KG) (49375) |
|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | 12.0 | <5.0 | 18.0 | 7.6 | <5.0 | 6.7 | e32.0 |
| 413101084521301 | COMMON CARP | e10.0 | <5.0 | e4.0 | e1.9 | <5.0 | <5.0 | e5.4 |
| 04211820 | COMMON CARP | 18.0 | <5.0 | 20.0 | 13.0 | <5.0 | <5.0 | e22.0 |
| 04213500 | HOG SUCKER | -- | -- | -- | -- | -- | -- | -- |

| STATION NUMBER | SPECIES | O,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG) (49373) | P,P'-DDE, BIOTA, WH ORG WW, REC (UG/KG) (49372) | O,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG) (49377) | P,P'-DDT, BIOTA, WH ORG WW, REC (UG/KG) (49376) | DIELDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49371) | ENDRIN, BIOTA, WH ORG WW, REC (UG/KG) (49370) | ALPHA-HCH, BIOTA, WH ORG WW, REC (UG/KG) (49366) |
|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | 35.0 | 370 | <5.0 | 6.5 | <5.0 | <5.0 | <5.0 |
| 413101084521301 | COMMON CARP | <5.0 | 41 | <5.0 | <5.0 | 5.7 | <5.0 | <5.0 |
| 04211820 | COMMON CARP | <5.0 | 100 | <5.0 | <5.0 | 6.9 | <5.0 | <5.0 |
| 04213500 | HOG SUCKER | -- | -- | -- | -- | -- | -- | -- |

| STATION NUMBER | SPECIES | BETA-HCH, BIOTA, WH ORG WW, REC (UG/KG) (49365) | DELTA-HCH, BIOTA, WH ORG WW, REC (UG/KG) (49364) | LINDANE, BIOTA, WH ORG WW, REC (UG/KG) (49363) | HEPTA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49369) | HEPTA-CHLOR, EPOXIDE, BIOTA, WH ORG WW, REC (UG/KG) (49368) | HEXA-CHLORO-BENZENE, BIOTA, WH ORG WW, REC (UG/KG) (49367) | O,P'-METHOXY CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49362) |
|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | e3.4 | <5.0 |
| 413101084521301 | COMMON CARP | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | e1.1 | <5.0 |
| 04211820 | COMMON CARP | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | e3.2 | <7.0 |
| 04213500 | HOG SUCKER | -- | -- | -- | -- | -- | -- | -- |

| STATION NUMBER | SPECIES | P,P'-METHOXY CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49361) | MIREX, BIOTA, WH ORG WW, REC (UG/KG) (49360) | CIS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49359) | TRANS-NONA-CHLOR, BIOTA, WH ORG WW, REC (UG/KG) (49358) | OXY-CHLOR-DANE, BIOTA, WH ORG WW, REC (UG/KG) (49357) | PENTA-CHLORO-ANISOLE, BIOTA, WH ORG WW, REC (UG/KG) (49356) | PCB, BIOTA, WH ORG WW, REC (UG/KG) (49354) |
|---|---|---|---|---|---|---|---|---|
| 04161820 | COMMON CARP | <5.0 | <5.0 | e4.2 | 16.0 | <5.0 | <5.0 | 670 |
| 413101084521301 | COMMON CARP | <5.0 | <5.0 | <5.0 | 9.9 | <5.0 | e2.0 | 120 |
| 04211820 | COMMON CARP | <5.0 | <5.0 | 7.0 | 21.0 | <5.0 | e3.2 | 1400 |
| 04213500 | HOG SUCKER | -- | -- | -- | -- | -- | -- | -- |

| STATION NUMBER | SPECIES | TOXA-PHENE, BIOTA, WH ORG WW, REC (UG/KG) (49355) |
|---|---|---|
| 04161820 | COMMON CARP | <200 |
| 413101084521301 | COMMON CARP | <200 |
| 04211820 | COMMON CARP | <200 |
| 04213500 | HOG SUCKER | -- |

REFERENCE CITED:

Crawford, J.K. and Luoma, S.N., 1994, *Guidelines for studies of contaminants in biological tissues for the National Water-Quality Assessment Program*: U.S. Geological Survey Open-File Report 92-494, 69 p.

# PROJECT DATA

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin, 1996-97

Fish community surveys were conducted at 10 stream sites in the Lake Erie - Lake St. Clair basin in 1996. Fish were collected by electrofishing with pulsed-DC current in a mapped reach at each stream site. Two electrofishing passes were conducted at each reach on the same day. Kick seining was done briefly in riffles after completion of electrofishing. One-quarter-inch mesh was used for the kick seine and the dip nets. Fish were identified, measured, weighed, and checked for external anomalies such as parasites, lesions, and skeletal deformities. Most individuals were returned to the stream after processing. More details regarding collection methods can be found in Meador and others (1993). Individual fish data (including length, weight, and anomalies) are available from the USGS, Lansing, Michigan office. Additional surface-water and (or) water-quality data for these sites can be found in the continuous-record sections of the Indiana, Michigan, Ohio, and New York data reports.

Fish species, number, weights, and anomalies collected during 1996

Family names are in uppercase, scientific names are in italics, and common names are in parentheses. Common names follow American Fisheries Society (Robins and others, 1991). Undetermined and hybridized fish are located at the end of the table (-- , unknown value).

CALENDAR YEAR 1996

| | | | | | CATOSTOMIDAE | | |
|---|---|---|---|---|---|---|---|
| | | | | | *Carpiodes cyprinus* (quillback) | | |
| STATION NUMBER | STATION NAME | DATE | DRAINAGE AREA ($mi^2$) | REACH -A LENGTH (meters) | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | BLACK RIVER NEAR JEDDO, MI | 07-24-96 | 464 | 466 | 0 | 0 | 0 |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 07-25-96 | 309 | 286 | 0 | 0 | 0 |
| 04175600 | RIVER RAISIN NEAR MANCHESTER, MI | 07-23-96 | 132 | 247 | 0 | 0 | 0 |
| 04178000 | ST JOSEPH RIVER NEAR NEWVILLE, IN | 07-22-96 | 610 | 300 | 0 | 0 | 0 |
| 04183000* | MAUMEE RIVER AT NEW HAVEN, IN | 09-05-96 | 1,967 | 352 | 1 | 542 | 0 |
| 04186500 | AUGLAIZE RIVER NEAR FORT JENNINGS, OH | 07-26-96 | 332 | 241 | 0 | 0 | 0 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 08-08-96 | 6,330 | 500 | 2 | 910 | 0 |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | 10-08-96 | 788 | 313 | 0 | 0 | 0 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 08-06-96 | 552 | 509 | 0 | 0 | 0 |
| 04213500 | CATTARAUGUS CREEK AT GOWANDA, NY | 08-07-96 | 436 | 368 | 0 | 0 | 0 |

* site sampled and fish identified by Ohio Environmental Protection Agency

CATOSTOMIDAE -- Continued

| | *Catostomus commersoni* (white sucker) | | | *Hypentelium nigricans* (northern hog sucker) | | | *Minytrema melanops* (spotted sucker) | | | *Moxostoma anisurum* (silver redhorse) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 36 | 1730 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 2 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 2 | 1 | 0 | 13 | 834 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 | 2 | 183 | 0 | 1 | 50 | 1 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2750 | 1 |
| 04186500 | 2 | 172 | 0 | 9 | 1070 | 0 | 2 | 340 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 2 | 754 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 11 | 4790 | 5 | 3 | 392 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 36 | 3560 | 0 | 0 | 0 | 0 | 1 | 29 | 0 |
| 04213500 | 10 | 60.5 | 0 | 20 | 597 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Fish species, number, weights and anomalies collected during 1996--Continued

CATOSTOMIDAE -- Continued

| STATION NUMBER | *Moxostoma duquesnei* (black redhorse) | | | *Moxostoma erythrurum* (golden redhorse) | | | *Moxostoma macrolepidotum* (shorthead redhorse) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 20 | 2570 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 0 | 0 | 0 | 9 | 2780 | 0 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 2 | 114 | 2 | 1 | -- | 1 |
| 04186500 | 3 | 1590 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1080 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 71 | 12600 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 2 | 379 | 1 | 0 | 0 | 0 |

CENTRARCHIDAE

| STATION NUMBER | *Ambloplites rupestris* (rock bass) | | |
|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 5 | 232 | 0 |
| 04161820 | 0 | 0 | 0 |
| 04175600 | 18 | 2190 | 6 |
| 04178000 | 7 | 454 | 2 |
| 04183000* | 1 | 64 | 0 |
| 04186500 | 2 | 115 | 0 |
| 04193500 | 11 | 797 | 1 |
| 04208504 | 0 | 0 | 0 |
| 04211820 | 70 | 2410 | 23 |
| 04213500 | 0 | 0 | 0 |

CENTRARCHIDAE -- Continued

| STATION NUMBER | *Lepomis cyanellus* (green sunfish) | | | *Lepomis gibbosus* (pumpkinseed) | | | *Lepomis humilis* (orangespotted sunfish) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 6 | 27.1 | 0 | 1 | 6.8 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04178000 | 16 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 40 | 95 | 0 | 0 | 0 | 0 | 4 | 38 | 0 |
| 04186500 | 6 | 180 | 0 | 1 | 20 | 0 | 0 | 0 | 0 |
| 04193500 | 2 | 11.5 | 0 | 0 | 0 | 0 | 2 | 10.5 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 2 | 39 | 0 | 24 | 161 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| STATION NUMBER | *Lepomis macrochirus* (bluegill) | | |
|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 |
| 04161820 | 1 | 16.5 | 0 |
| 04175600 | 0 | 0 | 0 |
| 04178000 | 8 | 26.4 | 0 |
| 04183000* | 73 | 329 | 2 |
| 04186500 | 2 | 7.3 | 0 |
| 04193500 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 |
| 04211820 | 12 | 304 | 0 |
| 04213500 | 0 | 0 | 0 |

CENTRARCHIDAE -- Continued

| STATION NUMBER | *Lepomis megalotis* (longear sunfish) | | | *Micropterus dolomieu* (smallmouth bass) | | | *Micropterus salmoides* (largemouth bass) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 2 | 68 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 22.5 | 0 |
| 04175600 | 0 | 0 | 0 | 15 | 834 | 0 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 246 | 0 |
| 04183000* | 0 | 0 | 0 | 2 | 320 | 0 | 0 | 0 | 0 |
| 04186500 | 6 | 113 | 0 | 1 | 340 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 12 | 1860 | 0 | 1 | 120 | 0 |
| 04208504 | 0 | 0 | 0 | 1 | 380 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 10 | 763 | 1 | 8 | 21.1 | 0 |
| 04213500 | 0 | 0 | 0 | 6 | 25.4 | 0 | 0 | 0 | 0 |

| STATION NUMBER | *Pomoxis annularis* (white crappie) | | |
|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 |
| 04175600 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 |
| 04193500 | 1 | 75 | 0 |
| 04208504 | 0 | 0 | 0 |
| 04211820 | 6 | 768 | 3 |
| 04213500 | 0 | 0 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| | CENTRARCHIDAE -- Continued | | | CLUPEIDAE | | | CYPRINIDAE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pomoxis nigromaculatus* (black crappie) | | | *Dorosoma cepedianum* (gizzard shad) | | | *Campostoma anomalum* (central stoneroller) | | | *Carassius auratus* (goldfish) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 27.2 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04178000 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 7 | 14 | 0 | 0 | 0 | 0 | 1 | 8 | 0 |
| 04186500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 1 | 125 | 0 | 10 | 64.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 130 | 2600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 53.2 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 10.3 | 0 | 0 | 0 | 0 |

CYPRINIDAE -- Continued

| | *Cyprinella spiloptera* (spotfin shiner) | | | *Cyprinus carpio* (common carp) | | | *Luxilus chrysocephalus* (striped shiner) | | | *Luxilus cornutus* (common shiner) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 14 | 46.8 | 0 | 9 | 10100 | 0 | 1 | 7.6 | 0 | 30 | 198 | 0 |
| 04161820 | 1 | 85 | 0 | 1 | 4310 | 0 | 0 | 0 | 0 | 1 | 12.5 | 0 |
| 04175600 | 5 | 182 | 0 | 0 | 0 | 0 | 106 | 592 | 1 | 0 | 0 | 0 |
| 04178000 | 1 | 16 | 0 | 21 | 25800 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 20 | 48 | 0 | 13 | 23000 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04186500 | 25 | 59.8 | 0 | 17 | 28400 | 0 | 9 | 8 | 0 | 0 | 0 | 0 |
| 04193500 | 9 | 11.5 | 0 | 43 | 50300 | 0 | 6 | 3.5 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 16 | 60600 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 2 | 9.5 | 0 | 3 | 8620 | 0 | 21 | 157 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 143 | 0 | 0 | 0 | 0 |

CYPRINIDAE -- Continued

| | *Nocomis biguttatus* (hornyhead chub) | | | *Nocomis micropogon* (river chub) | | | *Notropis atherinoides* (emerald shiner) | | | *Notropis hudsonius* (spottail shiner) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 20 | 516 | 0 | 1 | 51.5 | 0 | 0 | 0 | 0 | 1 | 10 | 0 |
| 04178000 | 1 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1.6 | 0 | 0 | 0 | 0 |
| 04211820 | 26 | 647 | 0 | 1 | 90 | 0 | 1 | 2.3 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 14 | 250 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

CYPRINIDAE -- Continued

| STATION NUMBER | *Notropis photogenis* (silver shiner) | | | *Notropis stramineus* (sand shiner) | | | *Notropis volucellus* (mimic shiner) | | | *Phenacobius mirabilis* (suckermouth minnow) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1.5 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 3 | 3.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 2 | 10 | 0 | 0 | 0 | 0 | 1 | 4 | 0 |
| 04186500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 19.3 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 13 | 19.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

CYPRINIDAE -- Continued CYPRINODONTIDAE

| STATION NUMBER | *Pimephales notatus* (bluntnose minnow) | | | *Rhinichthys cataractae* (longnose dace) | | | *Semotilus atromaculatus* (creek chub) | | | *Fundulus notatus* (blackstripe topminnow) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 7 | 12.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 17 | 41.8 | 0 | 0 | 0 | 0 | 7 | 79.7 | 0 | 0 | 0 | 0 |
| 04178000 | 5 | 7.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1.3 | 0 |
| 04183000* | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04186500 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 69 | 185 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04213500 | 6 | 8.5 | 0 | 13 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ESOCIDAE ICTALURIDAE

| STATION NUMBER | *Esox lucius* (northern pike) | | | *Ameiurus natalis* (yellow bullhead) | | | *Ictalurus punctatus* (channel catfish) | | | *Noturus flavus* (stonecat) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2660 | 0 | 5 | 197 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 1 | 1590 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 20.2 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 567 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 1 | 104 | | 15 | 6680 | 2 | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4420 | 1 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 1 | 105 | 0 | 5 | 1290 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 3 | 358 | 0 | 1 | 1.4 | 0 | 6 | 151 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 35.9 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| | ICTALURIDAE -- Continued | | | | | | LEPISOSTEIDAE | | | PERCICHTHYIDAE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Noturus miurus* (brindled madtom) | | | *Pylodictis olivaris* (flathead catfish) | | | *Lepisosteus osseus* (longnose gar) | | | *Morone americana* (white perch) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 1 | 3.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 1 | 40 | 0 | 2 | 700 | 0 | 1 | 90 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | PERCIDAE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Ammocrypta pellucida* (eastern sand darter) | | | *Etheostoma blennioides* (greenside darter) | | | *Etheostoma caeruleum* (rainbow darter) | | | *Etheostoma flabellare* (fantail darter) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 6 | 19.1 | 0 | 8 | 13.9 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 0 | 0 | 0 | 17 | 50.9 | 0 | 3 | 3.2 | 0 | 6 | 10.4 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 | 1 | 4.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 1 | 1.5 | 0 | 61 | 210 | 0 | 6 | 8.5 | 0 | 3 | 6.1 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | PERCIDAE -- Continued | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Etheostoma nigrum* (johnny darter) | | | *Percina caprodes* (logperch) | | | *Percina maculata* (blackside darter) | | | *Stizostedion vitreum* (walleye) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4.5 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 3 | 3.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4.7 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 3 | 18.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 1 | 0.6 | 0 | 20 | 186 | 0 | 16 | 41 | 0 | 1 | 680 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

| | PERCOPSIDAE | | | PETROMYZONTIDAE | | | SCIAENIDAE | | | UNDETERMINED FISH | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Percopsis omiscomaycus* (trout-perch) | | | *Ichthyomyzon fossor* (northern brook lamprey) | | | *Aplodinotus grunniens* (freshwater drum) | | | (undetermined darter) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04175600 | 0 | 0 | 0 | 1 | 1.9 | 0 | 0 | 0 | 0 | 1 | -- | 0 |
| 04178000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000* | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 814 | 0 | 0 | 0 | 0 |
| 04186500 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1020 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 790 | 0 | 0 | 0 | 0 |
| 04208504 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 4 | 9.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04213500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.2 | 0 |

| | HYBRIDIZED FISH | | |
|---|---|---|---|
| | (hybrid sunfish) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04159492 | 3 | 33.6 | 0 |
| 04161820 | 3 | 50.5 | 0 |
| 04175600 | 0 | 0 | 0 |
| 04178000 | 1 | 14 | 0 |
| 04183000* | 0 | 0 | 0 |
| 04186500 | 1 | 6 | 0 |
| 04193500 | 2 | 38 | 0 |
| 04208504 | 0 | 0 | 0 |
| 04211820 | 7 | 55.5 | 0 |
| 04213500 | 0 | 0 | 0 |

REFERENCES CITED:

Robins, C.R., Bailey, R.M., Bond, C.E., Brooker, J.R., Lachner, E.A., Lea, R.N., and Scott, W.B., 1991, *Common and scientific names of fishes from the United States and Canada, Fifth Edition:* American Fisheries Society Special Publication 20, Bethesda, MD, 183 p.

Meador, M.R., Cuffney, T.R., and Gurtz, M.E., 1993, *Methods for collecting samples of fish communities as part of the National Water-Quality Assessment Program:* U.S. Geological Survey Open-File Report 93-104, 40 p.

# PROJECT DATA

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin, 1996-97--Continued

Fish community surveys were conducted at 4 stream sites in the Lake Erie - Lake St. Clair basin in 1997. Fish were collected by electrofishing with pulsed-DC current in mapped reaches at each stream site. Two electrofishing passes were conducted at each reach on the same day. Kick seining was done briefly in riffles after completion of electrofishing. One-quarter-inch mesh was used for the kick seine and the dip nets. Fish were identified, measured, weighed, and checked for external anomalies such as parasites, lesions, and skeletal deformities. Most individuals were returned to the stream after processing. More details regarding collection methods can be found in Meador and others (1993). Individual fish data (including length, weight, and anomalies) are available from the USGS, Lansing, Michigan. Additional surface-water and/or water-quality data for these sites can be found in the continuous-record sections of the Indiana, Michigan, Ohio, and New York data reports.

Fish species, number, weights, and anomalies collected during 1997

Family names are in uppercase, scientific names are in italics, and common names are in parentheses. Common names follow American Fisheries Society (Robins and others, 1991). Hybridized fish are located at the end of the table. (--, unknown value).

CALENDAR YEAR 1997

| | | | | | | CATOSTOMIDAE | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | *Carpiodes cyprinus* (quillback) | | |
| STATION NUMBER | STATION NAME | DATE | DRAINAGE AREA ($mi^2$) | REACH | REACH LENGTH (meters) | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 07/29/97 | 309 | A | 286 | 0 | 0 | 0 |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 07/29/97 | 309 | B | 308 | 0 | 0 | 0 |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | 07/29/97 | 309 | C | 298 | 0 | 0 | 0 |
| 04183000 | MAUMEE RIVER AT NEW HAVEN, IN | 10/18/97 | 1,967 | A | 352 | 2 | 1630 | 0 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 07/30/97 | 6,330 | A | 500 | 3 | 1800 | 1 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 07/31/97 | 6,330 | B | 400 | 4 | 1670 | 0 |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | 07/31/97 | 6,330 | C | 400 | 7 | 3440 | 0 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 07/22/97 | 552 | A | 509 | 1 | 536 | 0 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 07/22/97 | 552 | B | 267 | 2 | 1700 | 0 |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | 07/23/97 | 552 | C | 291 | 0 | 0 | 0 |

CATOSTOMIDAE -- Continued

| | *Carpiodes velifer* (highfin carpsucker) | | | *Catostomus commersoni* (white sucker) | | | *Hypentelium nigricans* (northern hog sucker) | | | *Moxostoma anisurum* (silver redhorse) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 1 | 278 | 0 | 22 | 1490 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 13 | 1690 | 1 | 21 | 2560 | 3 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 1 | 456 | 0 | 11 | 766 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 3 | 730 | 0 | 1 | 0.6 | 0 | 8 | 2720 | 1 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1210 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 2660 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 2 | 214 | 0 | 55 | 5510 | 0 | 17 | 12900 | 0 |
| 04211820 | 0 | 0 | 0 | 7 | 25 | 0 | 86 | 7630 | 0 | 8 | 5930 | 1 |
| 04211820 | 0 | 0 | 0 | 1 | 30 | 0 | 89 | 7020 | 0 | 19 | 7080 | 0 |

## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Fish species, number, weights and anomalies collected during 1997--Continued

CATOSTOMIDAE -- Continued

| STATION NUMBER | *Moxostoma carinatum* (river redhorse) | | | *Moxostoma duquesnei* (black redhorse) | | | *Moxostoma erythrurum* (golden redhorse) | | | *Moxostoma macrolepidotum* (shorthead redhorse) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 2 | 1470 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 1 | 2450 | 1 | 0 | 0 | 0 | 5 | 5450 | 0 | 7 | 1510 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 6840 | 1 |
| 04193500 | 0 | 0 | 0 | 4 | 2020 | 0 | 0 | 0 | 0 | 6 | 1600 | 0 |
| 04193500 | 0 | 0 | 0 | 1 | 256 | 0 | 0 | 0 | 0 | 16 | 4630 | 2 |
| 04211820 | 0 | 0 | 0 | 108 | 28000 | 0 | 57 | 11700 | 1 | 0 | 0 | 0 |
| 04211820 | 1 | 2490 | 0 | 83 | 16700 | 0 | 63 | 15900 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 137 | 21200 | 0 | 81 | 12600 | 0 | 0 | 0 | 0 |

CENTRARCHIDAE

| STATION NUMBER | *Ambloplites rupestris* (rock bass) | | | *Lepomis cyanellus* (green sunfish) | | | *Lepomis gibbosus* (pumpkinseed) | | | *Lepomis humilis* (orangespotted sunfish) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 145 | 0 | 0 | 0 | 0 |
| 04161820 | 6 | 745 | 0 | 1 | 3 | 0 | 6 | 101 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 1 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 |
| 04193500 | 6 | 390 | 1 | 5 | 22 | 0 | 0 | 0 | 0 | 8 | 37 | 0 |
| 04193500 | 3 | 320 | 0 | 6 | 138 | 0 | 1 | 12 | 0 | 3 | 21 | 0 |
| 04193500 | 2 | 207 | 0 | 1 | 16 | 0 | 0 | 0 | 0 | 2 | 8 | 0 |
| 04211820 | 57 | 3330 | 11 | 1 | -- | 1 | 9 | 222 | 0 | 0 | 0 | 0 |
| 04211820 | 53 | 3370 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 64 | 4110 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

CENTRARCHIDAE -- Continued

| STATION NUMBER | *Lepomis macrochirus* (bluegill) | | | *Lepomis megalotis* (longear sunfish) | | | *Micropterus dolomieu* (smallmouth bass) | | | *Micropterus salmoides* (largemouth bass) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 6 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 27.2 | 0 |
| 04161820 | 9 | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 24.3 | 0 |
| 04161820 | 5 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 340 | 0 | 0 | 0 | 0 |
| 04193500 | 3 | 159 | 0 | 0 | 0 | 0 | 19 | 3030 | 0 | 0 | 0 | 0 |
| 04193500 | 3 | 10 | 0 | 0 | 0 | 0 | 19 | 2580 | 1 | 1 | 2 | 0 |
| 04193500 | 1 | 17 | 0 | 0 | 0 | 0 | 16 | 2450 | 2 | 0 | 0 | 0 |
| 04211820 | 17 | 1050 | 4 | 12 | 385 | 1 | 40 | 1470 | 0 | 3 | 282 | 0 |
| 04211820 | 2 | 178 | 1 | 3 | 55.1 | 1 | 29 | 779 | 0 | 0 | 0 | 0 |
| 04211820 | 9 | 78.3 | 0 | 1 | 60 | 0 | 43 | 2700 | 2 | 5 | 1050 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Fish species, number, weights, and anomalies collected during 1997--Continued

| | CENTRARCHIDAE -- Continued | | | | | | CLUPEIDAE | | | CYPRINIDAE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Pomoxis annularis* (white crappie) | | | *Pomoxis nigromaculatus* (black crappie) | | | *Dorosoma cepedianum* (gizzard shad) | | | *Campostoma anomalum* (central stoneroller) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 308 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 1 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 1 | 277 | 0 | 0 | 0 | 0 | 1 | 65 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 7 | 380 | 0 | 18 | 938 | 0 | 9 | 15 | 0 |
| 04211820 | 0 | 0 | 0 | 4 | 101 | 0 | 0 | 0 | 0 | 16 | 47.2 | 0 |
| 04211820 | 0 | 0 | 0 | 4 | 91.4 | 0 | 5 | 244 | 0 | 42 | 567 | 0 |

| | CYPRINIDAE -- Continued | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Carassius auratus* (goldfish) | | | *Cyprinella spiloptera* (spotfin shiner) | | | *Cyprinus carpio* (common carp) | | | *Luxilus chrysocephalus* (striped shiner) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 1 | 6 | 0 | 2 | 8160 | 0 | 1 | 33 | 0 |
| 04161820 | 0 | 0 | 0 | 1 | 3 | 0 | 6 | 13000 | 1 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 13 | 97 | 0 | 4 | 12100 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 7 | 23.8 | 0 | 33 | 36400 | 5 | 2 | 2 | 0 |
| 04193500 | 0 | 0 | 0 | 15 | 30 | 0 | 61 | 68600 | 0 | 7 | 7 | 0 |
| 04193500 | 1 | 196 | 0 | 2 | 5 | 0 | 25 | 27600 | 4 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 3 | 13.7 | 0 | 35 | 100000 | 8 | 10 | 125 | 0 |
| 04211820 | 0 | 0 | 0 | 2 | 3 | 0 | 22 | 81500 | 5 | 25 | 206 | 1 |
| 04211820 | 0 | 0 | 0 | 3 | 10 | 0 | 5 | 7030 | 0 | 30 | 325 | 3 |

| | CYPRINIDAE -- Continued | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Nocomis micropogon* (river chub) | | | *Notropis atherinoides* (emerald shiner) | | | *Notropis photogenis* (silver shiner) | | | *Notropis stramineus* (sand shiner) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 1 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 20 | 75 | 0 | 0 | 0 | 0 | 3 | 3 | 0 |
| 04193500 | 0 | 0 | 0 | 9 | 11.2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 52 | 885 | 0 | 3 | 5 | 0 | 2 | 5 | 0 | 0 | 0 | 0 |
| 04211820 | 160 | 1430 | 1 | 8 | 11 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |
| 04211820 | 186 | 4270 | 1 | 46 | 85.6 | 0 | 0 | 0 | 0 | 2 | 4.1 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Fish species, number, weights, anomalies collected during 1997--Continued

| | CYPRINIDAE -- Continued | | | | | | | | | CYPRINODONTIDAE | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Notropis volucellus* (mimic shiner) | | | *Pimephales notatus* (bluntnose minnow) | | | *Semotilus atromaculatus* (creek chub) | | | Fundulus notatus (blackstripe topminnow) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 11 | 17 | 0 | 0 | 0 | 0 | 2 | 2 | 0 |
| 04193500 | 0 | 0 | 0 | 23 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 1 | 1 | 0 | 81 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 1 | 1 | 0 | 42 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 11 | 12 | 0 | 24 | 53.8 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 04211820 | 26 | 31 | 0 | 72 | 207 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 68 | 542 | 0 | 104 | 387 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | ESOCIDAE | | | | | | ICTALURIDAE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Esox lucius* (northern pike) | | | *Esox americanus vermiculatus* (grass pickerel) | | | *Ameiurus melas* (black bullhead) | | | Ameiurus natalis (yellow bullhead) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 1 | 680 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 3 | 1960 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 130 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 212 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 1 | 7 | 0 | 1 | 110 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 168 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | ICTALURIDAE -- Continued | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Ictalurus punctatus* (channel catfish) | | | *Noturus flavus* (stonecat) | | | *Noturus miurus* (brindled madtom) | | | *Pylodictis olivaris* (flathead catfish) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 1 | 1470 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 6 | 1960 | 0 | 3 | 42 | 0 | 0 | 0 | 0 | 2 | 658 | 0 |
| 04193500 | 2 | 1330 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 1 | 44 | 0 |
| 04193500 | 1 | 240 | 1 | 2 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 1 | 567 | 0 | 22 | 447 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 14 | 223 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 32 | 603 | 0 | 1 | 7.5 | 0 | 0 | 0 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Fish species, number, weights, and anomalies collected during 1997--Continued

| | LEPISOSTEIDAE | | | PERCICHTHYIDAE | | | PERCIDAE | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Lepisosteus osseus* (longnose gar) | | | *Morone chrysops* (white bass) | | | *Ammocrypta pellucida* (eastern sand darter) | | | *Etheostoma blennioides* (greenside darter) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4.1 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4.7 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 8 | 3410 | 0 | 1 | 262 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 7 | 3630 | 2 | 1 | 229 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 7 | 3500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 | 129 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 11 | 47.2 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 66 | 197 | 0 |

PERCIDAE -- Continued

| | *Etheostoma caeruleum* (rainbow darter) | | | *Etheostoma flabellare* (fantail darter) | | | *Etheostoma nigrum* (johnny darter) | | | *Etheostoma zonale* (banded darter) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1.7 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 6 | 13 | 0 | 5 | 10 | | 0 | 0 | 0 | 1 | 5 | 0 |
| 04211820 | 5 | 13.7 | 0 | 5 | 9.3 | 0 | 2 | 2.6 | 0 | 0 | 0 | 0 |
| 04211820 | 8 | 14 | 0 | 19 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

PERCIDAE -- Continued

| | *Perca flavescens* (yellow perch) | | | *Percina caprodes* (logperch) | | | *Percina maculata* (blackside darter) | | | *Stizostedion vitreum* (walleye) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 1 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 1 | 29 | 0 | 2 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 1 | 36 | 0 | 2 | 24 | 0 | 1 | 4 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 1 | 9 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 1 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 9 | 85.1 | 0 | 5 | 39 | 0 | 2 | 888 | 0 |
| 04211820 | 0 | 0 | 0 | 18 | 171 | 1 | 27 | 81.5 | 1 | 4 | 3500 | 0 |
| 04211820 | 0 | 0 | 0 | 29 | 263 | 0 | 30 | 64 | 0 | 1 | 516 | 0 |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin (National Water-Quality Assesment Program)

Fish community results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Fish species, number, weights, and anomalies collected during 1997--Continued

| | PERCOPSIDAE | | | SALMONIDAE | | | SCIAENIDAE | | | HYBRIDIZED FISH | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Percopsis omiscomaycus* (trout-perch) | | | *Oncorhynchus mykiss* (rainbow trout) | | | *Aplodinotus grunniens* (freshwater drum) | | | (hybrid carp) | | |
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 0 | 0 | 0 | 1 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 2 | 160 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1360 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 2510 | 0 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 2020 | 1 | 0 | 0 | 0 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 1340 | 0 | 1 | 227 | 0 |
| 04211820 | 3 | 14 | 0 | 0 | 0 | 0 | 3 | 802 | 0 | 0 | 0 | 0 |
| 04211820 | 2 | 9.9 | 0 | 0 | 0 | 0 | 2 | 1480 | 0 | 0 | 0 | 0 |
| 04211820 | 9 | 30.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

HYBRIDIZED FISH -- Continued

| | (hybrid sunfish) | | | (hybrid redhorse) | | | (hybrid walleye) | | |
|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies | Number of Fish | Batch Weight (grams) | Fish with Anomalies |
| 04161820 | 9 | 118 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 24 | 353 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04161820 | 10 | 126 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04183000 | 1 | 12 | 0 | 0 | 0 | 0 | 4 | 3600 | 0 |
| 04193500 | 2 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 5 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04193500 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04211820 | 1 | 44 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 04211820 | 4 | 60 | 0 | 3 | 3 | 0 | 0 | 0 | 0 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

REFERENCES CITED:

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Meador, M.R., Cuffney, T.R., and Gurtz, M.E., 1993, *Methods for collecting samples of fish communities as part of the National Water-Quality Assessment Program:* U.S. Geological Survey Open-File Report 93-104, 40 p.

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Freshwater mussel and clam species results from selected sites in the Lake Erie - Lake St. Clair Basin

Mussel and clam surveys were conducted at 10 stream sites in the Lake Erie - Lake St. Clair basin in 1996-97 during low-flow conditions. Personnel from the Biological Resources Division (BRD) and the Water Resources Division (WRD) of the U.S. Geological Survey (USGS) did viewing-bucket and systematic quadrate searches. Live individuals were returned to the stream after identification (species list is subject to change upon further taxonomic review). Additional biological, surface-water and (or) water-quality data for these sites can be found in the continuous-record sections of the Indiana, Michigan, Ohio, and New York data reports.

Mussels and clams found are indicated as follows:

| | |
|---|---|
| L | Live species found at site |
| D | Only shells found, but presumed to be living at site |
| R | Only relic shells found |
| -- | None found |

Mussel and clam species and abundance at selected sites during 1996-97 water years

Subfamily names are in uppercase, scientific names are in italics, and common names are in parentheses. Common names follow Cummings and Mayer (1992) and Watters (1988).

| | | AMBLEMINAE | | | |
|---|---|---|---|---|---|
| STATION NUMBER | STATION NAME | *Amblema plicata* (threeridge) | *Cyclonaias tuberculata* (purple wartyback) | *Elliptio dilatata* (spike) | *Fusconaia flava* (wabash pigtoe) |
| 04159492 | BLACK RIVER NEAR JEDDO, MI | -- | -- | -- | L |
| 04161820 | CLINTON RIVER AT STERLING HEIGHTS, MI | R | -- | R | R |
| 04175600 | RIVER RAISIN NEAR MANCHESTER, MI | -- | L | L | L |
| 04178000 | ST JOSEPH RIVER NEAR NEWVILLE, IN | D | D | L | L |
| 04183000 | MAUMEE RIVER NEAR NEW HAVEN, IN | D | D | R | D |
| 04186500 | AUGLAIZE RIVER NEAR FORT JENNINGS, OH | D | R | R | L |
| 04193500 | MAUMEE RIVER AT WATERVILLE, OH | D | R | R | R |
| 04208504 | CUYAHOGA RIVER AT LTV STEEL AT CLEVELAND, OH | -- | -- | -- | -- |
| 04211820 | GRAND RIVER AT HARPERSFIELD, OH | D | -- | L | L |
| 04213500 | CATTARAUGUS CREEK AT GOWANDA, NY | -- | -- | -- | -- |

| | AMBLEMINAE -- Continued | | | | | ANODONTINAE | |
|---|---|---|---|---|---|---|---|
| STATION NUMBER | *Pleurobema clava* (clubshell ) | *Pleurobema sintoxia* (round pigtoe) | *Quadrula cylindrica* (rabbitsfoot) | *Quadrula pustulosa* (pimpleback) | *Quadrula quadrula* (mapleleaf) | *Alasmidonta marginata* (elktoe) | *Alasmidonta viridis* (slippershell mussel) |
| 04159492 | -- | -- | -- | -- | -- | L | -- |
| 04161820 | -- | -- | -- | -- | -- | R | -- |
| 04175600 | -- | D | -- | -- | -- | L | D |
| 04178000 | D | D | R | -- | -- | -- | -- |
| 04183000 | R | D | -- | L | L | L | -- |
| 04186500 | -- | -- | -- | L | L | L | -- |
| 04193500 | -- | -- | -- | L | L | D | -- |
| 04208504 | -- | -- | -- | -- | -- | -- | -- |
| 04211820 | -- | D | -- | -- | -- | L | -- |
| 04213500 | -- | -- | -- | -- | -- | -- | -- |

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Freshwater mussel and clam species results from selected sites in the Lake Erie - Lake St. Clair Basin--Continued

Mussel and clam species and abundance at selected sites during 1996-97 water years--Continued

ANODONTINAE -- Continued

| STATION NUMBER | *Anodontoides ferussacianus* (cylindrical papershell) | *Lasmigona complanata* (white heelsplitter) | *Lasmigona compressa* (creek heelsplitter) | *Lasmigona costata* (fluted shell) | *Pyganodon grandis* (giant floater) | *Strophitus undulatus* (squawfoot) | *Utterbackia imbecillis* (paper pondshell) |
|---|---|---|---|---|---|---|---|
| 04159492 | L | L | -- | D | L | L | -- |
| 04161820 | -- | R | -- | R | R | -- | -- |
| 04175600 | -- | -- | L | -- | D | L | -- |
| 04178000 | -- | D | -- | -- | L | -- | -- |
| 04183000 | -- | L | -- | D | D | -- | -- |
| 04186500 | -- | L | -- | L | L | L | -- |
| 04193500 | -- | D | -- | R | D | D | D |
| 04208504 | -- | -- | -- | -- | -- | -- | -- |
| 04211820 | -- | -- | -- | L | D | L | -- |
| 04213500 | -- | -- | -- | -- | -- | -- | -- |

| STATION NUMBER | CORBICULIDAE *Corbicula fluminea* (asian clam) | DREISSENIDAE *Dreissena polymorpha* (zebra mussel) | *Actinonaias ligamentina* (mucket) | LAMPSILINAE *Epioblasma obliquata* (white catspaw) | *Lampsilis cardium* (plain pocketbook) | *Lampsilis fasciola* (wavy-rayed lampmussel | *Lampsilis radiata siliquoidea* (fat mucket) | *Leptodea fragilis* (fragile papershell) |
|---|---|---|---|---|---|---|---|---|
| 04159492 | -- | -- | D | -- | -- | -- | L | -- |
| 04161820 | -- | L | R | -- | R | -- | R | -- |
| 04175600 | -- | -- | D | -- | L | L | L | -- |
| 04178000 | -- | -- | L | R | L | -- | D | -- |
| 04183000 | D | -- | D | -- | -- | -- | D | L |
| 04186500 | L | -- | -- | -- | L | -- | L | L |
| 04193500 | D | -- | -- | -- | -- | -- | D | L |
| 04208504 | -- | -- | -- | -- | -- | -- | -- | -- |
| 04211820 | -- | -- | L | -- | L | -- | L | D |
| 04213500 | -- | -- | -- | -- | -- | -- | -- | -- |

LAMPSILINAE - Continued

| STATION NUMBER | *Ligumia recta* (black sandshell) | *Obovaria olivaria* (hickorynut) | *Obovaria subrotunda* (round hickorynut) | *Potamilus alatus* (pink heelsplitter) | *Ptychobranchus fasciolaris* (kidneyshell) | *Truncilla truncata* (deertoe) | *Villosa iris* (rainbow) |
|---|---|---|---|---|---|---|---|
| 04159492 | -- | -- | -- | -- | -- | -- | -- |
| 04161820 | R | -- | -- | -- | -- | -- | -- |
| 04175600 | -- | D | -- | -- | -- | -- | L |
| 04178000 | -- | -- | D | -- | -- | -- | -- |
| 04183000 | R | -- | D | L | -- | L | L |
| 04186500 | -- | -- | -- | L | -- | L | -- |
| 04193500 | R | -- | -- | L | R | L | -- |
| 04208504 | -- | -- | -- | -- | -- | -- | -- |
| 04211820 | -- | -- | -- | L | -- | D | L |
| 04213500 | -- | -- | -- | -- | -- | -- | -- |

REFERENCES CITED:

Cummings, K.S., and Mayer, C.A., 1992, *Field guide to freshwater mussels of the Midwest:* Illinois Natural History Survey Manual 5, 194 p.

Watters, G.T., 1988, *A field guide to the freshwater mussels of Ohio*: Division of Wildlife, Ohio Department of Natural Resources, 105 p.

# PROJECT DATA
## Results from selected sites in the Lake Erie-Lake St. Clair Basin
## (National Water-Quality Assesment Program)

Streambed and streambank material characterizations from selected sites in the Lake Erie - Lake St. Clair Basin

The composition of the streambed and streambank is an important facet of stream character, influencing channel form and hydraulics, erosion rates, sediment supply, and other characteristics (Rosgen, 1994). A quantitative description of the size of the coarse streambed material was obtained at all fixed sites using the Wolman Pebble Count technique (Wolman, 1954). Streambed and streambank cores were sieved by the USGS Iowa City, Iowa Sediment Laboratory. Particles are tallied by using Wentworth size classes in which the size doubles with each class (2,4,8,16,32). A minimum of 50 attempts were made per transect at three transects to obtain a Wolman Pebble Count. Streambed and streambank core samples were collected at each transect, and the composite results are listed below.

Percent size and type of coarse material found on the streambed
by Wolman Pebble Count Method (size in millimeters)

Percent size and type of bed material found in streambed cores (size in millimeters).

| | | | % Cobbles | | | | % Gravel | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | STATION NAME | Rosgen Stream Type | >512 and <256 (mm) | >256 and <128 (mm) | >128 and <64 (mm) | >64 and <32 (mm) | >32 and <16 (mm) | >16 and <8 (mm) | >8 and <4 (mm) | >4 and <2 (mm) |
| 04159492 | BLACK R. NEAR JEDDO, MI | B-3 | 0 | 10.7 | 45.0 | 24.2 | 6.7 | 8.3 | 4.2 | 0.8 |
| 04161820 | CLINTON R. AT STERLING HEIGHTS, MI | C-5 | 0 | 0 | 0 | 0.8 | 42.7 | 51.0 | 5.5 | 0 |
| 04175600 | RIVER RAISIN NEAR MANCHESTER, MI | B-5 | 0 | 0.7 | 7.8 | 21.7 | 36.4 | 27.9 | 5.5 | 0 |
| 04178000 | ST JOSEPH R. NEAR NEWVILLE, IN | B-4 | 0 | 1.5 | 12.1 | 27.1 | 30.8 | 22.5 | 6.0 | 0 |
| 04183000 | MAUMEE R. AT NEW HAVEN, IN | C-4 | 0 | 2.8 | 7.7 | 27.4 | 34.6 | 26.1 | 1.4 | 0 |
| 04186500 | AUGLAIZE R. NEAR FORT JENNINGS, OH | A-6 | 0 | 0.8 | 16.1 | 36.5 | 20.4 | 17.5 | 7.3 | 1.4 |
| 04193500 | MAUMEE R. AT WATERVILLE, OH | C-1 | 0 | 11.4 | 22.9 | 24.0 | 28.1 | 7.3 | 6.3 | 0 |
| 04208504 | CUYAHOGA R. AT LTV STEEL AT CLEVELAND, OH | C-5 | 0 | 5.0 | 24.0 | 41.0 | 26.0 | 4.0 | 0 | 0 |
| 04211820 | GRAND R. AT HARPERSFIELD, OH | B-1 | 1.1 | 14.9 | 26.6 | 31.8 | 16.9 | 7.5 | 1.1 | 0 |
| 04213500 | CATTARAUGUS CR. AT GOWANDA, NY | A-1 | 0.7 | 13.6 | 20.7 | 25.1 | 27.7 | 10.3 | 1.9 | 0 |

Percent size and type of bed material found in streambed cores (size in millimeters)

| | % Gravel | | | | | % Sand | | | % Silt | % Clay |
|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | <16 (mm) | >16-<8 (mm) | >8-<4 (mm) | <4->2 (mm) | <2->1 (mm) | >1-<0.5 (mm) | >0.5-<0.25 (mm) | >0.25-<0.125 (mm) | >0.125-<0.062 (mm) | >0.062 (mm) |
| 04159492 | 0 | 7.8 | 14.7 | 12.3 | 10.9 | 8.9 | 20.0 | 11.3 | 2.0 | 12.2 |
| 04161820 | 0.4 | 13.3 | 15.8 | 10.4 | 7.8 | 12.2 | 28.6 | 10.0 | 1.2 | 0.3 |
| 04175600 | 0 | 5.6 | 6.7 | 6.9 | 5.8 | 12.3 | 36.1 | 18.4 | 1.6 | 6.5 |
| 04178000 | 0 | 11.7 | 11.6 | 10.7 | 12.5 | 16.6 | 19.5 | 7.3 | 3.3 | 6.9 |
| 04183000 | 0 | 10.9 | 17.9 | 13.2 | 8.6 | 7.6 | 18.2 | 10.4 | 3.8 | 9.4 |
| 04186500 | 1.3 | 18.3 | 16.7 | 13.7 | 13.1 | 13.1 | 11.7 | 4.5 | 1.7 | 6.1 |
| 04193500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04208504 | 1.9 | 3.0 | 5.6 | 8.0 | 14.3 | 21.4 | 33.8 | 8.7 | 1.8 | 1.5 |
| 04211820 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04213500 | - | 18.8 | 22.3 | 17.0 | 14.0 | 11.6 | 12.3 | 2.9 | 0.6 | 0.5 |

Percent size and type of bank material found in streambank cores (size in millimeters)

| | % Gravel | | | | | % Sand | | | % Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|---|
| STATION NUMBER | <16 (mm) | >16-<8 (mm) | >8-<4 (mm) | >4-<2 (mm) | >2-<1 (mm) | >1-<0.5 (mm) | >0.5-<0.25 (mm) | >0.25-<0.125 (mm) | >0.125-<0.062 (mm) | >0.062 (mm) |
| 04159492 | 0 | 1.5 | 0.5 | 0.7 | 1.2 | 2.5 | 17.9 | 38.4 | 16.2 | 21.0 |
| 04161820 | 0 | 4.2 | 6.2 | 4.0 | 2.3 | 1.9 | 15.1 | 39.1 | 16.6 | 10.8 |
| 04175600 | 0 | 0.1 | 0.7 | 1.1 | 2.7 | 4.9 | 16.6 | 32.7 | 12.9 | 28.5 |
| 04178000 | 0 | 0 | 0.7 | 3.3 | 5.3 | 5.1 | 7.2 | 13.2 | 10.9 | 54.2 |
| 04183000 | 0 | 0.1 | 0.3 | 1.1 | 2.7 | 3.2 | 4.3 | 21.9 | 16.7 | 45.7 |
| 04186500 | 0 | 0.4 | 1.9 | 2.8 | 4.8 | 4.6 | 7.4 | 13.4 | 11.2 | 53.5 |
| 04193500 | 0 | 0 | 1.2 | 1.4 | 2.3 | 3.6 | 13.0 | 24.3 | 21.5 | 32.7 |
| 04208504 | 0 | 0 | 0.2 | 0.4 | 1.0 | 2.0 | 10.6 | 28.4 | 20.3 | 37.1 |
| 04211820 | 0 | 1.2 | 3.2 | 3.9 | 4.5 | 9.4 | 22.6 | 16.6 | 11.8 | 27.0 |
| 04213500 | 0 | 0.4 | 0.4 | 0.7 | 0.9 | 2.0 | 12.0 | 25.6 | 23.2 | 34.9 |

REFERENCES CITED:

Rosgen, D.L., 1994, A classification of natural rivers: Catena, v. 22, p. 169-199.
Wolman, M.G., 1954, A method of sampling coarse river-bed material: Trans. Am. Geophys. Union, v. 35, p. 951-956.

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

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.

03229500 - BIG WALNUT C AT REES OH

LOCATION.--Lat 39°51'24", long 82°57'26", in NE 1/4 sec. 26, T.4 N., R.22 W., Franklin County, Hydrologic Unit 05060001, on right bank at downstream side of bridge on Reese Road, 0.5 mi southwest of Rees, 4.2 mi downstream from Alum Creek, and 10.5 mi upstream from mouth.

PERIOD OF RECORD.--Discharge - Aug. 1921 to Dec. 1935, Oct. 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Chemical-quality sampling only as part of a cooperative study with the City of Columbus - beginning Dec. 15, 1995.

REMARKS.--Flow regulated by Hoover Reservoir 26 mi upstream (see station 03228400) and Alum Creek Lake 30 mi upstream since August 1973. Beginning June 15, 1956, diversion at Morse Road Treatment Plant, 21 mi upstream from station, for municipal water supply for the city of Columbus.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | GAGE HEIGHT (FEET) | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 13... | BIG WALNUT C AT REES OH | 961113 | 1230 | 1.90 | 189 | 482 | 7.8 | 4.0 | 11.8 |
| FEB | | | | | | | | | |
| 20... | BIG WALNUT C AT REES OH | 970220 | 1130 | 2.14 | 259 | 813 | 7.6 | 4.5 | 11.8 |
| MAY | | | | | | | | | |
| 16... | BIG WALNUT C AT REES OH | 970516 | 0930 | 2.00 | 216 | 590 | 7.4 | 12.5 | 7.4 |
| AUG | | | | | | | | | |
| 21... | BIG WALNUT C AT REES OH | 970821 | 0930 | -- | -- | 402 | 7.4 | 20.5 | 7.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | 58 | 17 | 21 | 3.7 | 152 | 62 | 39 | 0.30 | 3.0 | 311 |
| FEB | | | | | | | | | | |
| 20... | 79 | 24 | 66 | 3.3 | 206 | 80 | 120 | 0.20 | 3.9 | 513 |
| MAY | | | | | | | | | | |
| 16... | 60 | 20 | 28 | 3.2 | 164 | 64 | 46 | 0.23 | 2.4 | 350 |
| AUG | | | | | | | | | | |
| 21... | 45 | 12 | 14 | 3.3 | 118 | 40 | 22 | 0.18 | 6.2 | 245 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | <0.010 | 0.740 | 0.020 | 0.30 | <0.010 | 0.010 | 57 | <0.50 | <1.0 | <3.0 |
| FEB | | | | | | | | | | |
| 20... | 0.020 | 1.30 | 0.240 | 1.0 | <0.010 | <0.010 | 78 | <0.50 | 1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | 71 | <0.50 | <1.0 | <3.0 |
| AUG | | | | | | | | | | |
| 21... | 0.025 | 1.16 | 0.044 | 0.50 | 0.018 | <0.010 | 49 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | <10 | 33 | <10 | <4 | 19 | <10 | 410 | <6 | 6.0 | 4.8 |
| FEB | | | | | | | | | | |
| 20... | <10 | 4.0 | 10 | 5 | 37 | <10 | 450 | <6 | 6.0 | 3.9 |
| MAY | | | | | | | | | | |
| 16... | <10 | 9.3 | <10 | 5 | 51 | 19 | 380 | <6 | 7.7 | 4.4 |
| AUG | | | | | | | | | | |
| 21... | <10 | 39 | <10 | 5 | 8.3 | <10 | 211 | <6 | <3.0 | 5.9 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

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 intermittently to current year.
REMARKS.--This site is used for chemical-quality sampling only as part of a cooperative study with the City of Columbus.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | GAGE HEIGHT (FEET) | DIS-CHARGE, INST. CUBIC FEET PER SECOND | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 13... | SCIOTO R AT SHADEVILLE OH | 961113 | 0930 | -- | 583 | 736 | 7.7 | 8.0 | 10.2 |
| FEB | | | | | | | | | |
| 20... | SCIOTO R AT SHADEVILLE OH | 970220 | 1440 | -- | 1910 | 605 | 7.6 | 5.0 | 12.6 |
| MAY | | | | | | | | | |
| 16... | SCIOTO R AT SHADEVILLE OH | 970516 | 1129 | -- | 598 | 703 | 7.9 | 13.5 | 10.3 |
| AUG | | | | | | | | | |
| 21... | SCIOTO R AT SHADEVILLE OH | 970821 | 1201 | -- | -- | 593 | 7.6 | 22.5 | 6.3 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | 81 | 23 | 44 | 6.2 | 166 | 150 | 67 | 0.60 | 3.8 | 506 |
| FEB | | | | | | | | | | |
| 20... | 67 | 19 | 31 | 4.1 | 158 | 77 | 54 | 0.40 | 6.4 | 379 |
| MAY | | | | | | | | | | |
| 16... | 73 | 24 | 34 | 4.9 | 154 | 110 | 51 | 0.43 | 3.2 | 446 |
| AUG | | | | | | | | | | |
| 21... | 61 | 19 | 25 | 4.2 | 148 | 86 | 36 | 0.37 | 5.0 | 377 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | 0.030 | 2.90 | 0.080 | 0.60 | 0.640 | 0.600 | 38 | <0.50 | 3.0 | <3.0 |
| FEB | | | | | | | | | | |
| 20... | 0.050 | 4.10 | 0.130 | 0.60 | 0.290 | 0.370 | 39 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 16... | -- | -- | -- | -- | -- | -- | 44 | <0.50 | <1.0 | 3.7 |
| AUG | | | | | | | | | | |
| 21... | 0.071 | 2.00 | 0.221 | 0.84 | 0.215 | 0.183 | 48 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 13... | <10 | 18 | <10 | 14 | 12 | 20 | 1800 | <6 | 12 | -- |
| FEB | | | | | | | | | | |
| 20... | <10 | 31 | <10 | 5 | 14 | <10 | 1100 | <6 | 4.0 | 5.0 |
| MAY | | | | | | | | | | |
| 16... | <10 | 6.4 | <10 | 11 | 9.1 | <10 | 1640 | <6 | 9.2 | 5.2 |
| AUG | | | | | | | | | | |
| 21... | <10 | 8.0 | <10 | 12 | 8.9 | <10 | 1360 | <6 | <3.0 | 5.5 |

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.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 4 in., depth 31 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 715 ft above sea level. Measuring point: Top of casing, 1.3 ft above land-surface datum
PERIOD OF RECORD.--Oct. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.03 ft below land-surface datum, Oct. 17, 1979; lowest measured, 21.69 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 15.62 |
| MAY 15 | 17.18 |
| SEP 14 | 18.12 |

394927082595800. Local number, FR-70.
LOCATION.--Lat 39°49'27", long 82°59'58", Hydrologic Unit 05060001.
Owner.-St. Joseph Cemetery.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 59 ft; 4-in. casing.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 705 ft above sea level. Measuring point: Top of concrete base, 0.35 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, 27.60 ft below land-surface datum, June 12, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 16.07 |
| MAY 15 | 17.08 |
| SEP 14 | 17.87 |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 715 ft above sea level. 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, dry on dates in 1992, 1995, 1996 and May 15 and Sept. 14 of this water year.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 36.78 |
| MAY 15 | DRY |
| SEP 14 | DRY |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683 ft above sea level. 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, 11.51 ft below land-surface datum, Mar. 17, 1995; lowest measured, 53.59 ft below land-surface datum, Dec. 11, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 12.15 |
| MAY 15 | 18.59 |
| SEP 14 | 29.41 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395157083003500. Local number, FR-109
LOCATION.--Lat 39°51'57", long 83°00'35", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 6 in., depth 92 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 702.2 ft above sea level. Measuring point: Top of outer steel casing, 30.8 ft above land-surface datum.
PERIOD OF RECORD.--June 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.47 ft above land-surface datum, Sept. 5, 1990; lowest measured, 30.56 ft below land-surface datum, Aug. 5, 1988.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

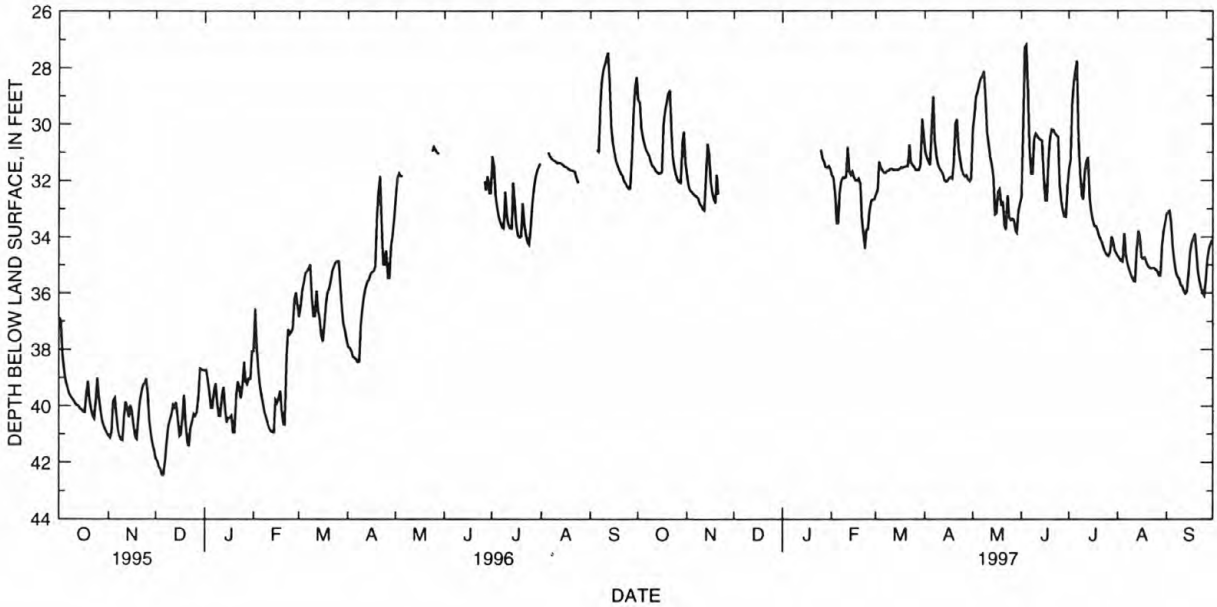
| Date | Water Level |
|---|---|
| MAR 17 | 18.45 |
| MAY 15 | 13.47 |
| SEP 14 | 10.08 |

395039082585800. Local number, FR-115 (TH-67)
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 well, diameter 6 in., depth 116 ft.
INSTRUMENTATION - Data logger -- 60-minute record.
DATUM.--Elevation of land-surface datum is 721 ft above sea level. 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.--Maximum daily low, 48.15 ft below land-surface datum, Feb. 28 and 29, 1992; minimum daily low, 27.21 ft below land-surface datum, May 3, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 29.15 | 31.84 | --- | --- | 31.82 | 32.49 | 30.99 | 30.15 | 32.60 | 31.58 | 34.68 | 33.18 |
| 2 | 29.24 | 32.21 | --- | --- | 31.89 | 32.34 | 31.18 | 29.69 | 29.99 | 31.28 | 34.76 | 33.12 |
| 3 | 30.15 | 32.35 | --- | --- | 32.49 | 31.33 | 31.34 | 29.03 | 27.29 | 29.30 | 34.85 | 33.07 |
| 4 | 30.51 | 32.41 | --- | --- | 33.51 | 31.55 | 31.45 | 28.86 | 27.21 | 28.48 | 34.87 | 33.51 |
| 5 | 30.74 | 32.49 | --- | --- | 33.51 | 31.62 | 30.03 | 28.57 | 28.69 | 28.09 | 33.88 | 34.43 |
| 6 | 30.89 | 32.53 | --- | --- | 32.41 | 31.72 | 29.03 | 28.37 | 30.94 | 27.76 | 34.59 | 34.91 |
| 7 | 31.03 | 32.56 | --- | --- | 32.01 | 31.73 | 30.58 | 28.31 | 31.75 | 30.54 | 34.93 | 35.26 |
| 8 | 31.14 | 32.64 | --- | --- | 31.89 | 31.66 | 31.15 | 28.13 | 31.75 | 31.80 | 35.12 | 35.41 |
| 9 | 31.33 | 32.81 | --- | --- | 31.91 | 31.66 | 31.43 | 29.02 | 30.51 | 32.52 | 35.31 | 35.47 |
| 10 | 31.47 | 32.90 | --- | --- | 31.87 | 31.59 | 31.58 | 30.31 | 30.34 | 32.67 | 35.45 | 35.70 |
| 11 | 31.53 | 33.01 | --- | --- | 30.81 | 31.59 | 31.66 | 30.72 | 30.43 | 31.69 | 35.55 | 35.76 |
| 12 | 31.64 | 33.05 | --- | --- | 31.69 | 31.63 | 31.77 | 31.16 | 30.52 | 31.32 | 35.57 | 35.93 |
| 13 | 31.71 | 31.87 | --- | --- | 31.80 | 31.62 | 31.99 | 31.43 | 30.55 | 31.18 | 34.47 | 36.01 |
| 14 | 31.75 | 30.70 | --- | --- | 31.69 | 31.62 | 32.04 | 31.90 | 30.60 | 32.59 | 33.78 | 35.95 |
| 15 | 31.74 | 31.08 | --- | --- | 31.88 | 31.62 | 32.03 | 33.20 | 31.94 | 33.10 | 34.01 | 35.27 |
| 16 | 31.71 | 32.06 | --- | --- | 32.00 | 31.58 | 31.92 | 33.16 | 32.69 | 33.39 | 34.73 | 34.55 |
| 17 | 30.04 | 32.46 | --- | --- | 32.01 | 31.53 | 31.89 | 32.39 | 32.69 | 33.61 | 34.77 | 34.22 |
| 18 | 29.53 | 32.68 | --- | --- | 31.93 | 31.55 | 31.94 | 32.31 | 31.25 | 33.62 | 34.73 | 34.07 |
| 19 | 29.24 | 32.79 | --- | --- | 32.12 | 31.52 | 31.35 | 32.90 | 30.49 | 33.75 | 34.90 | 33.89 |
| 20 | 28.94 | 31.80 | --- | --- | 33.34 | 31.49 | 29.97 | 32.74 | 30.19 | 33.97 | 35.01 | 34.55 |
| 21 | 28.80 | 32.48 | --- | --- | 33.96 | 31.49 | 29.83 | 33.60 | 30.20 | 34.08 | 35.09 | 35.26 |
| 22 | 30.24 | --- | --- | --- | 34.43 | 30.72 | 30.91 | 33.75 | 30.32 | 34.23 | 35.11 | 35.55 |
| 23 | 31.13 | --- | --- | --- | 33.75 | 31.35 | 31.27 | 32.54 | 30.39 | 34.42 | 35.09 | 35.82 |
| 24 | 31.55 | --- | --- | --- | 33.72 | 31.45 | 31.61 | 33.30 | 30.44 | 34.55 | 35.10 | 36.00 |
| 25 | 31.80 | --- | --- | 30.91 | 33.06 | 31.52 | 31.79 | 33.40 | 32.12 | 34.64 | 35.16 | 36.09 |
| 26 | 31.98 | --- | --- | 31.22 | 32.71 | 31.63 | 31.86 | 33.35 | 32.70 | 34.68 | 35.20 | 35.56 |
| 27 | 32.06 | --- | --- | 31.33 | 32.67 | 31.63 | 31.82 | 33.39 | 33.05 | 34.56 | 35.37 | 34.79 |
| 28 | 32.09 | --- | --- | 31.52 | 32.67 | 31.63 | 31.97 | 33.78 | 33.27 | 33.98 | 35.37 | 34.41 |
| 29 | 30.65 | --- | --- | 31.55 | --- | 31.46 | 32.03 | 33.86 | 33.29 | 34.16 | 34.31 | 34.23 |
| 30 | 30.27 | --- | --- | 31.49 | --- | 29.82 | 31.95 | 33.10 | 32.19 | 34.47 | 33.82 | 34.11 |
| 31 | 31.41 | --- | --- | 31.59 | --- | 30.34 | --- | 32.82 | --- | 34.60 | 33.53 | --- |
| MEAN | 30.82 | --- | --- | --- | 32.48 | 31.50 | 31.35 | 31.59 | 31.01 | 32.60 | 34.81 | 34.87 |
| MAX | 32.09 | --- | --- | --- | 34.43 | 32.49 | 32.04 | 33.86 | 33.29 | 34.68 | 35.57 | 36.09 |

395039082585800. Local number, FR-115 (TH-67)--Continued




395016083010300. Local number, FR-117, (M-2)
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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 700 ft above sea level. 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, 24.15 ft below land-surface datum, Dec. 10, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

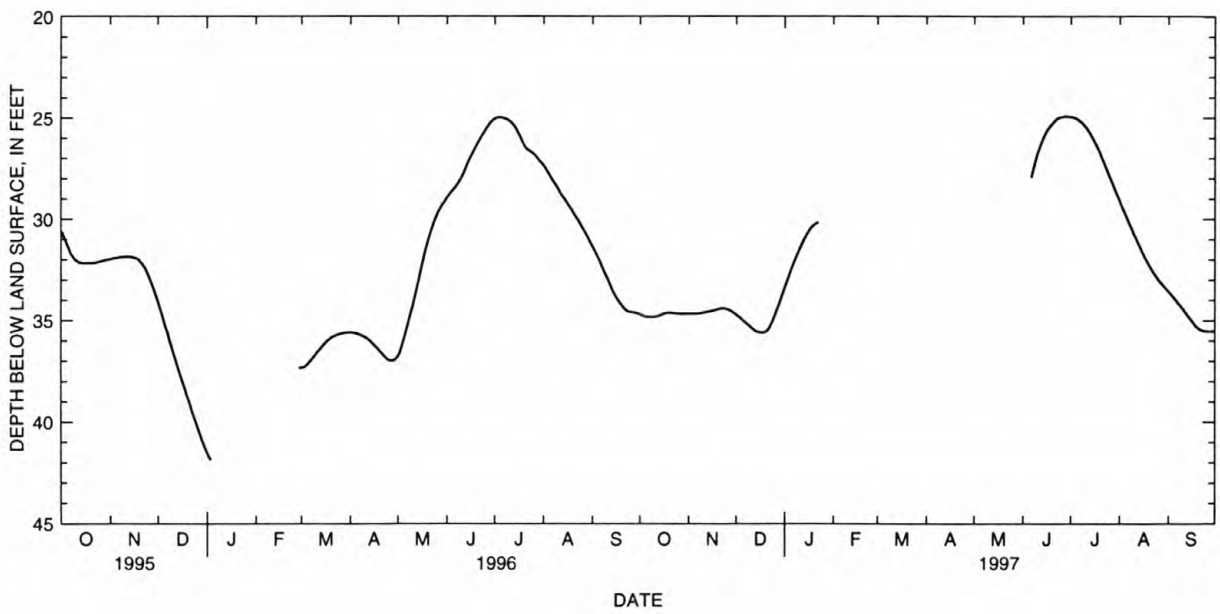
| Date | Water Level |
|---|---|
| MAR 17 | 15.63 |
| MAY 15 | 16.14 |
| SEP 14 | 17.93 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395058083002400. Local number, FR-119, (M-5)
LOCATION.--Lat 39°51'11", long 83°00'26", Hydrologic Unit 05060001.
Owner.--Franklin County.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 85 ft.
INSTRUMENTATION - Data logger -- 60-minute record.
DATUM.--Elevation of land-surface datum is 700 ft above sea level. Measuring point: Top of plywood, 2.48 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 52.34 ft below land-surface datum, Mar. 4-7, 1992; minimum daily low, 11.10 ft below land-surface datum, June 17, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34.70 | 34.66 | 34.71 | 33.34 | --- | --- | --- | --- | --- | 24.95 | 29.12 | 33.58 |
| 2 | 34.73 | 34.67 | 34.78 | 33.11 | --- | --- | --- | --- | --- | 24.96 | 29.31 | 33.67 |
| 3 | 34.78 | 34.67 | 34.84 | 32.90 | --- | --- | --- | --- | --- | 24.98 | 29.49 | 33.76 |
| 4 | 34.80 | 34.67 | 34.90 | 32.68 | --- | --- | --- | --- | --- | 25.02 | 29.67 | 33.85 |
| 5 | 34.82 | 34.67 | 34.98 | 32.47 | --- | --- | --- | --- | --- | 25.07 | 29.85 | 33.95 |
| 6 | 34.82 | 34.67 | 35.05 | 32.27 | --- | --- | --- | --- | 27.94 | 25.11 | 30.03 | 34.05 |
| 7 | 34.82 | 34.67 | 35.12 | 32.07 | --- | --- | --- | --- | 27.61 | 25.18 | 30.20 | 34.15 |
| 8 | 34.82 | 34.65 | 35.18 | 31.88 | --- | --- | --- | --- | 27.31 | 25.25 | 30.37 | 34.24 |
| 9 | 34.82 | 34.64 | 35.24 | 31.70 | --- | --- | --- | --- | 27.02 | 25.34 | 30.55 | 34.33 |
| 10 | 34.82 | 34.62 | 35.32 | 31.51 | --- | --- | --- | --- | 26.76 | 25.43 | 30.76 | 34.44 |
| 11 | 34.81 | 34.60 | 35.39 | 31.34 | --- | --- | --- | --- | 26.52 | 25.53 | 30.89 | 34.55 |
| 12 | 34.79 | 34.59 | 35.45 | 31.17 | --- | --- | --- | --- | 26.30 | 25.64 | 31.07 | 34.65 |
| 13 | 34.76 | 34.57 | 35.51 | 31.02 | --- | --- | --- | --- | 26.10 | 25.77 | 31.24 | 34.75 |
| 14 | 34.74 | 34.56 | 35.55 | 30.87 | --- | --- | --- | --- | 25.92 | 25.91 | 31.41 | 34.85 |
| 15 | 34.70 | 34.54 | 35.58 | 30.73 | --- | --- | --- | --- | 25.75 | 26.05 | 31.58 | 34.94 |
| 16 | 34.66 | 34.52 | 35.59 | 30.59 | --- | --- | --- | --- | 25.61 | 26.20 | 31.74 | 35.05 |
| 17 | 34.64 | 34.50 | 35.60 | 30.48 | --- | --- | --- | --- | 25.51 | 26.36 | 31.90 | 35.15 |
| 18 | 34.63 | 34.48 | 35.60 | 30.38 | --- | --- | --- | --- | 25.40 | 26.51 | 32.05 | 35.26 |
| 19 | 34.62 | 34.46 | 35.59 | 30.31 | --- | --- | --- | --- | 25.31 | 26.68 | 32.19 | 35.33 |
| 20 | 34.62 | 34.44 | 35.55 | 30.25 | --- | --- | --- | --- | 25.22 | 26.87 | 32.33 | 35.40 |
| 21 | 34.62 | 34.42 | 35.48 | 30.20 | --- | --- | --- | --- | 25.13 | 27.06 | 32.46 | 35.45 |
| 22 | 34.64 | 34.41 | 35.36 | 30.16 | --- | --- | --- | --- | 25.06 | 27.25 | 32.59 | 35.48 |
| 23 | 34.65 | 34.41 | 35.21 | --- | --- | --- | --- | --- | 25.01 | 27.44 | 32.71 | 35.51 |
| 24 | 34.65 | 34.42 | 35.04 | --- | --- | --- | --- | --- | 24.97 | 27.63 | 32.82 | 35.51 |
| 25 | 34.66 | 34.44 | 34.85 | --- | --- | --- | --- | --- | 24.95 | 27.83 | 32.93 | 35.53 |
| 26 | 34.66 | 34.46 | 34.65 | --- | --- | --- | --- | --- | 24.94 | 28.02 | 33.04 | 35.54 |
| 27 | 34.66 | 34.50 | 34.44 | --- | --- | --- | --- | --- | 24.92 | 28.20 | 33.14 | 35.54 |
| 28 | 34.66 | 34.54 | 34.23 | --- | --- | --- | --- | --- | 24.92 | 28.39 | 33.23 | 35.54 |
| 29 | 34.66 | 34.60 | 34.00 | --- | --- | --- | --- | --- | 24.93 | 28.58 | 33.31 | 35.54 |
| 30 | 34.66 | 34.65 | 33.78 | --- | --- | --- | --- | --- | 24.94 | 28.76 | 33.40 | 35.54 |
| 31 | 34.66 | --- | 33.56 | --- | --- | --- | --- | --- | --- | 28.94 | 33.49 | --- |
| MEAN | 34.71 | 34.56 | 35.04 | --- | --- | --- | --- | --- | --- | 26.48 | 31.58 | 34.84 |
| MAX | 34.82 | 34.67 | 35.60 | --- | --- | --- | --- | --- | --- | 28.94 | 33.49 | 35.54 |



395117083011600. Local number, FR-120, (M-6)
LOCATION.--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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685 ft above sea level. 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, 35.24 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 14.07 |
| MAY 15 | 14.44 |
| SEP 14 | 15.67 |

395123083003301. Local number, FR-121A
LOCATION.--Lat 39°51'23", long 83°00'33", Hydrologic Unit 05060001.
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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 690.99 ft above sea level. Measuring point: Top of outer steel casing, 3.16 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.53 ft below land-surface datum, Mar. 26, 1993; lowest measured, 32.94 ft below land-surface datum, Dec 8, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 14 | 21.32 |
| MAR 17 | 12.01 |
| MAY 15 | 23.29 |
| SEP 14 | 25.36 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | FR-121A | 970214 | 1317 | 21.32 | 52.00 | 1190 | 6.7 | 12.0 | 2.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | 190 | 51 | 18 | 2.5 | 410 | 300 | 41 | 0.40 | 12 | 912 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | <0.010 | 0.340 | 0.030 | <0.20 | 0.070 | <0.010 | 22 | <0.50 | 2.0 | <3.0 |

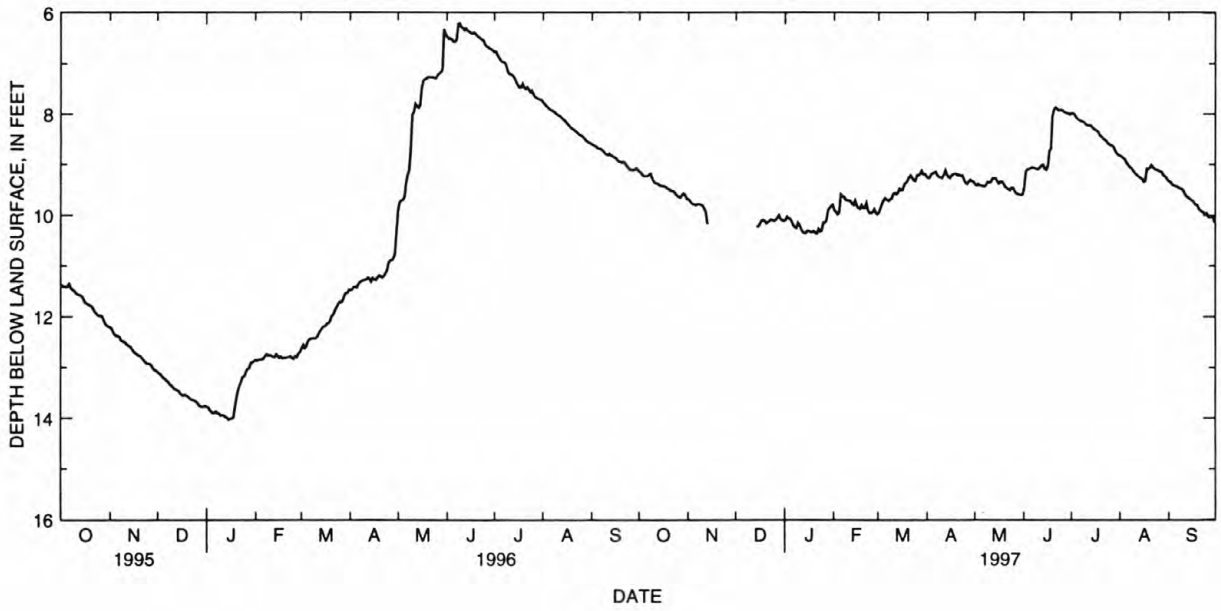
| DATE | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | <10 | 300 | 20 | 10 | 160 | <10 | 230 | <6 | 3.0 | 1.1 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395131082592400. Local number, FR-123, (M-9)
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 ft above sea level. 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.--Maximum daily low, 18.55 ft below land-surface datum, May 12, 1992; minimum daily low, 6.87 ft below land-surface datum, Apr. 1, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.14 | 9.68 | --- | 10.10 | 9.90 | 9.95 | 9.26 | 9.39 | 9.46 | 7.98 | 8.82 | 9.33 |
| 2 | 9.16 | 9.71 | --- | 10.03 | 9.93 | 9.85 | 9.26 | 9.41 | 9.14 | 7.98 | 8.84 | 9.34 |
| 3 | 9.21 | 9.76 | --- | 10.06 | 9.98 | 9.76 | 9.19 | 9.38 | 9.09 | 8.01 | 8.87 | 9.39 |
| 4 | 9.23 | 9.78 | --- | 10.07 | 9.94 | 9.70 | 9.17 | 9.41 | 9.09 | 8.07 | 8.89 | 9.41 |
| 5 | 9.23 | 9.79 | --- | 10.12 | 9.59 | 9.66 | 9.15 | 9.41 | 9.07 | 8.10 | 8.96 | 9.42 |
| 6 | 9.23 | 9.80 | --- | 10.20 | 9.62 | 9.69 | 9.14 | 9.42 | 9.05 | 8.12 | 9.00 | 9.43 |
| 7 | 9.20 | 9.78 | --- | 10.24 | 9.63 | 9.71 | 9.21 | 9.43 | 9.06 | 8.14 | 9.04 | 9.45 |
| 8 | 9.18 | 9.78 | --- | 10.25 | 9.69 | 9.68 | 9.24 | 9.39 | 9.07 | 8.14 | 9.06 | 9.47 |
| 9 | 9.27 | 9.80 | --- | 10.15 | 9.70 | 9.67 | 9.25 | 9.34 | 9.09 | 8.16 | 9.11 | 9.47 |
| 10 | 9.33 | 9.80 | --- | 10.19 | 9.71 | 9.58 | 9.26 | 9.35 | 9.09 | 8.20 | 9.15 | 9.51 |
| 11 | 9.36 | 9.87 | --- | 10.28 | 9.71 | 9.56 | 9.20 | 9.34 | 9.05 | 8.22 | 9.19 | 9.57 |
| 12 | 9.37 | 9.92 | --- | 10.33 | 9.77 | 9.58 | 9.11 | 9.27 | 9.01 | 8.23 | 9.21 | 9.62 |
| 13 | 9.38 | 10.17 | --- | 10.35 | 9.79 | 9.55 | 9.20 | 9.27 | 9.00 | 8.22 | 9.24 | 9.64 |
| 14 | 9.41 | --- | 10.22 | 10.35 | 9.71 | 9.47 | 9.24 | 9.27 | 9.08 | 8.25 | 9.26 | 9.67 |
| 15 | 9.42 | --- | 10.22 | 10.30 | 9.81 | 9.50 | 9.26 | 9.33 | 9.10 | 8.29 | 9.28 | 9.69 |
| 16 | 9.42 | --- | 10.18 | 10.31 | 9.86 | 9.49 | 9.21 | 9.37 | 9.03 | 8.31 | 9.34 | 9.71 |
| 17 | 9.43 | --- | 10.11 | 10.33 | 9.87 | 9.39 | 9.19 | 9.33 | 8.73 | 8.33 | 9.33 | 9.75 |
| 18 | 9.45 | --- | 10.09 | 10.33 | 9.80 | 9.36 | 9.18 | 9.33 | 8.68 | 8.35 | 9.08 | 9.79 |
| 19 | 9.47 | --- | 10.11 | 10.31 | 9.86 | 9.32 | 9.18 | 9.38 | 8.05 | 8.42 | 9.09 | 9.80 |
| 20 | 9.49 | --- | 10.16 | 10.35 | 9.86 | 9.25 | 9.21 | 9.44 | 7.91 | 8.44 | 9.06 | 9.87 |
| 21 | 9.52 | --- | 10.15 | 10.36 | 9.76 | 9.21 | 9.20 | 9.46 | 7.87 | 8.47 | 9.01 | 9.91 |
| 22 | 9.52 | --- | 10.11 | 10.27 | 9.90 | 9.26 | 9.22 | 9.48 | 7.90 | 8.51 | 9.05 | 9.92 |
| 23 | 9.53 | --- | 10.08 | 10.32 | 9.95 | 9.31 | 9.21 | 9.50 | 7.93 | 8.52 | 9.09 | 9.95 |
| 24 | 9.58 | --- | 10.10 | 10.31 | 9.96 | 9.32 | 9.30 | 9.45 | 7.92 | 8.57 | 9.10 | 9.97 |
| 25 | 9.61 | --- | 10.11 | 10.14 | 9.94 | 9.21 | 9.36 | 9.45 | 7.92 | 8.59 | 9.11 | 9.96 |
| 26 | 9.64 | --- | 10.09 | 10.15 | 9.88 | 9.21 | 9.38 | 9.52 | 7.95 | 8.62 | 9.13 | 10.03 |
| 27 | 9.65 | --- | 10.05 | 10.10 | 9.95 | 9.18 | 9.33 | 9.57 | 7.97 | 8.62 | 9.13 | 10.04 |
| 28 | 9.60 | --- | 10.00 | 9.90 | 9.98 | 9.12 | 9.30 | 9.58 | 7.98 | 8.66 | 9.18 | 10.03 |
| 29 | 9.57 | --- | 10.07 | 9.85 | --- | 9.19 | 9.33 | 9.59 | 7.99 | 8.73 | 9.22 | 10.05 |
| 30 | 9.60 | --- | 10.10 | 9.81 | --- | 9.18 | 9.33 | 9.60 | 8.01 | 8.78 | 9.24 | 10.14 |
| 31 | 9.68 | --- | 10.11 | 9.79 | --- | 9.23 | --- | 9.59 | --- | 8.81 | 9.29 | --- |
| MEAN | 9.42 | --- | --- | 10.18 | 9.82 | 9.46 | 9.24 | 9.42 | 8.61 | 8.35 | 9.11 | 9.71 |
| MAX | 9.68 | --- | --- | 10.36 | 9.98 | 9.95 | 9.38 | 9.60 | 9.46 | 8.81 | 9.34 | 10.14 |



395008082593100. Local number, FR-126 (M-13)
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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 703 ft above sea level. 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. 9, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 19 | 15.58 |
| MAR 17 | 10.52 |
| MAY 15 | 11.12 |
| SEP 14 | 12.02 |

395126083014000. Local number, FR-131 (M-18).
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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 728 ft above sea level. 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, 37.41 ft below land-surface datum, Sept 5, 1996; lowest measured, dry on Dec. 10, 1991; Mar. 16, June 12, July 28, 1992; and Apr. 11, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 39.32 |
| MAY 15 | 41.74 |
| SEP 14 | 46.82 |

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, finished with 4.0 ft of 0.80 in. well screen.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 765 ft above sea level, 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

| Date | Water Level |
|---|---|
| MAR 17 | 57.02 |
| MAY 15 | 58.76 |
| SEP 14 | 59.10 |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 720 ft above sea level. 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, 25.60 ft below land-surface datum, June 3, 1996; lowest measured, 31.72 ft below land-surface datum, Dec. 10, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 27.45 |
| MAY 15 | 28.86 |
| SEP 14 | 31.28 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395027082592500. Local number, FR-151
LOCATION.--Lat 39°50'27", long 82°59'25", Hydrologic Unit 05060001, near Shadeville.
Owner.---City of Columbus.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, diameter 2 in., depth 60 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 718 ft above sea level. Measuring point: Top of plastic pipe, 2.50 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, 37.56 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 19 | 29.74 |
| MAR 17 | 26.61 |
| MAY 15 | 30.15 |
| SEP 09 | 27.67 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 19... | FR-151 | 961119 | 1220 | 29.74 | 60.30 | 1150 | 6.8 | 14.0 | 0.1 |
| SEP | | | | | | | | | |
| 09... | FR-151 | 970909 | 1250 | 27.67 | 60.30 | 986 | 6.8 | 15.5 | 0.4 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | 170 | 49 | 4.4 | 1.7 | 380 | 250 | 17 | 0.20 | 13 | 792 |
| SEP | | | | | | | | | | |
| 09... | 160 | 49 | 4.5 | 1.6 | 390 | 220 | 15 | 0.17 | 13 | 762 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | <0.010 | <0.050 | 0.040 | <0.20 | <0.010 | <0.010 | 35 | <0.50 | <1.0 | 15 |
| SEP | | | | | | | | | | |
| 09... | <0.010 | <0.050 | 0.034 | <0.20 | <0.010 | <0.010 | 31 | <0.50 | <1.0 | 9.4 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | <10 | 2800 | <10 | <4 | 59 | <10 | 300 | <6 | <3.0 | -- |
| SEP | | | | | | | | | | |
| 09... | <10 | 2600 | 11 | 5 | 74 | 12 | 292 | <6 | <3.0 | 0.80 |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 752 ft above sea level. Measuring point: Top of casing, 1.17 ft above land-surface datum.
PERIOD OF RECORD.--June 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level 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

| Date | Water Level |
|---|---|
| MAR 17 | 90.71 |
| MAY 15 | 92.54 |
| SEP 14 | 94.32 |

395206083014501. Local number, FR-209
LOCATION.--Lat 39°52'06", 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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 704 ft above sea level. Measuring point: Top of casing, 0.72 ft above land-surface datum
PERIOD OF RECORD.--June 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.51 ft below land-surface datum, May 23, 1984; lowest measured, 18.11 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 14.16 |
| MAY 15 | 15.04 |
| SEP 14 | 15.47 |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 730 ft above sea level. Measuring point: Top of casing, 0.80 ft above land-surface datum
PERIOD OF RECORD.--June 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.38 ft below land-surface datum, June 8, 1982; lowest measured, 84.83 ft below land-surface datum, Mar. 16,1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 79.02 |
| MAY 15 | 81.08 |
| SEP 14 | 82.87 |

395323083014000. Local number, FR-269
LOCATION.--Lat 39°53'23", long 83°01'40", Hydrologic Unit 05060001.
Owner.--Franklin County Waste to Energy Facility.
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled commercial water well, depth 90 ft; 75 ft of 6-in. casing.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 705 ft above sea level. Measuring point: Top of casing, 0.22 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.84 ft below land-surface datum, June 3 and Sept. 5, 1996; lowest measured, 71.79 ft below land-surface datum, Dec. 10, 1990.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

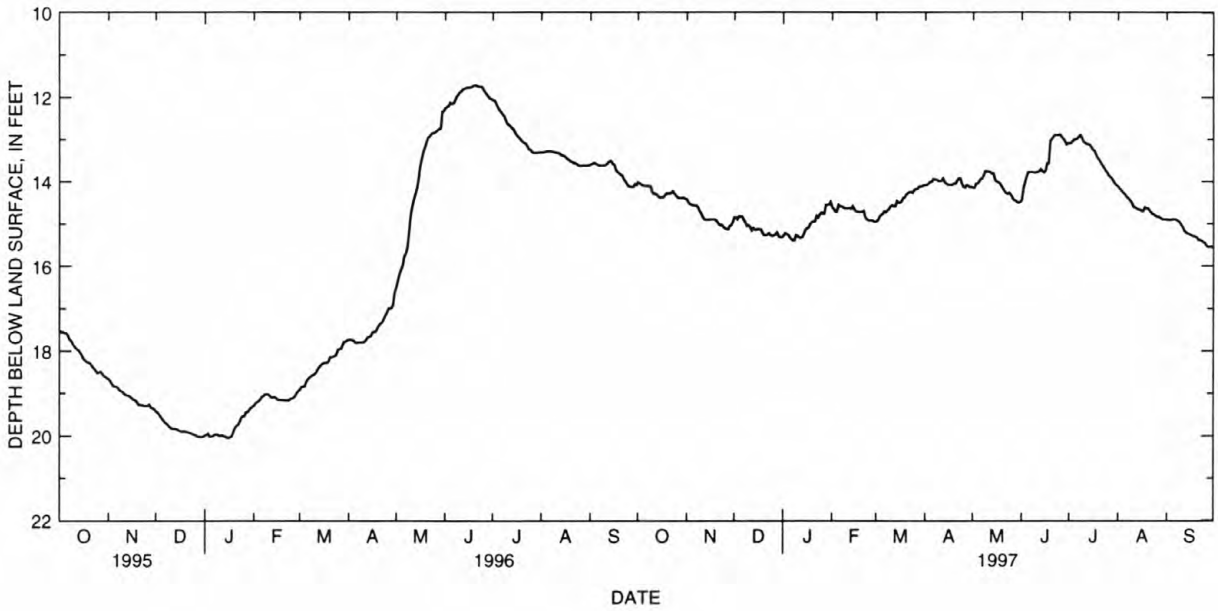
| Date | Water Level |
|---|---|
| MAR 17 | 66.87 |
| MAY 15 | 67.44 |
| SEP 05 | 67.79 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395055082592400. Local number, FR-271
LOCATION.--Lat 39°50'55", long 82°59'24", Hydrologic Unit 05060001, at Parsons Avenue Water Plant
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 - Data logger -- 60-minute record.
DATUM.--Elevation of land-surface datum is 710 ft above sea level. Measuring point: Top of PVC casing, 2.53 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.00 ft below land-surface datum, Apr. 25 - May 2, 1992; minimum daily low, 13.92 ft below land-surface datum, Mar. 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14.02 | 14.41 | 14.84 | 15.29 | 14.60 | 14.95 | 14.08 | 14.15 | 14.45 | 13.09 | 14.12 | 14.90 |
| 2 | 14.04 | 14.49 | 14.84 | 15.22 | 14.65 | 14.91 | 14.08 | 14.15 | 14.15 | 13.09 | 14.17 | 14.90 |
| 3 | 14.07 | 14.53 | 14.89 | 15.24 | 14.71 | 14.83 | 14.04 | 14.05 | 14.01 | 13.04 | 14.21 | 14.90 |
| 4 | 14.09 | 14.55 | 14.82 | 15.25 | 14.71 | 14.78 | 14.00 | 14.05 | 13.88 | 13.00 | 14.26 | 14.90 |
| 5 | 14.09 | 14.56 | 14.82 | 15.31 | 14.55 | 14.77 | 14.00 | 14.00 | 13.77 | 13.00 | 14.29 | 14.89 |
| 6 | 14.10 | 14.56 | 14.83 | 15.36 | 14.58 | 14.70 | 13.93 | 13.93 | 13.77 | 12.98 | 14.34 | 14.89 |
| 7 | 14.10 | 14.56 | 14.91 | 15.39 | 14.58 | 14.72 | 13.95 | 13.92 | 13.77 | 12.93 | 14.38 | 14.91 |
| 8 | 14.10 | 14.61 | 14.97 | 15.39 | 14.61 | 14.67 | 13.95 | 13.84 | 13.77 | 12.90 | 14.41 | 14.93 |
| 9 | 14.12 | 14.70 | 15.05 | 15.26 | 14.63 | 14.65 | 13.98 | 13.75 | 13.78 | 12.97 | 14.46 | 14.96 |
| 10 | 14.25 | 14.75 | 15.03 | 15.28 | 14.63 | 14.58 | 13.99 | 13.76 | 13.78 | 13.06 | 14.52 | 15.03 |
| 11 | 14.29 | 14.83 | 15.08 | 15.32 | 14.63 | 14.56 | 13.98 | 13.76 | 13.77 | 13.08 | 14.61 | 15.08 |
| 12 | 14.29 | 14.89 | 15.15 | 15.33 | 14.62 | 14.58 | 13.92 | 13.76 | 13.75 | 13.11 | 14.61 | 15.17 |
| 13 | 14.31 | 14.90 | 15.10 | 15.31 | 14.64 | 14.58 | 14.00 | 13.81 | 13.70 | 13.11 | 14.64 | 15.20 |
| 14 | 14.36 | 14.90 | 15.14 | 15.24 | 14.58 | 14.46 | 14.04 | 13.80 | 13.75 | 13.13 | 14.66 | 15.23 |
| 15 | 14.38 | 14.90 | 15.14 | 15.14 | 14.65 | 14.50 | 14.07 | 13.95 | 13.78 | 13.19 | 14.66 | 15.24 |
| 16 | 14.38 | 14.89 | 15.12 | 15.10 | 14.70 | 14.50 | 14.07 | 14.00 | 13.74 | 13.25 | 14.70 | 15.26 |
| 17 | 14.37 | 14.89 | 15.13 | 15.09 | 14.71 | 14.46 | 14.07 | 14.01 | 13.56 | 13.28 | 14.70 | 15.28 |
| 18 | 14.32 | 14.89 | 15.14 | 15.00 | 14.71 | 14.38 | 14.08 | 14.03 | 13.56 | 13.37 | 14.61 | 15.30 |
| 19 | 14.28 | 14.90 | 15.23 | 14.96 | 14.71 | 14.37 | 14.04 | 14.10 | 13.03 | 13.44 | 14.63 | 15.30 |
| 20 | 14.28 | 14.94 | 15.27 | 14.94 | 14.71 | 14.30 | 14.05 | 14.16 | 12.98 | 13.49 | 14.63 | 15.33 |
| 21 | 14.28 | 14.99 | 15.27 | 14.94 | 14.69 | 14.27 | 13.98 | 14.22 | 12.93 | 13.55 | 14.68 | 15.38 |
| 22 | 14.27 | 15.04 | 15.25 | 14.81 | 14.85 | 14.24 | 13.92 | 14.27 | 12.89 | 13.62 | 14.73 | 15.38 |
| 23 | 14.22 | 15.02 | 15.22 | 14.85 | 14.89 | 14.24 | 13.92 | 14.29 | 12.90 | 13.67 | 14.77 | 15.40 |
| 24 | 14.28 | 15.07 | 15.27 | 14.78 | 14.92 | 14.26 | 14.04 | 14.26 | 12.90 | 13.74 | 14.78 | 15.43 |
| 25 | 14.32 | 15.10 | 15.28 | 14.73 | 14.92 | 14.19 | 14.12 | 14.30 | 12.88 | 13.78 | 14.82 | 15.45 |
| 26 | 14.37 | 15.12 | 15.27 | 14.76 | 14.92 | 14.17 | 14.14 | 14.37 | 12.93 | 13.86 | 14.83 | 15.52 |
| 27 | 14.39 | 15.13 | 15.25 | 14.76 | 14.93 | 14.17 | 14.08 | 14.43 | 12.98 | 13.89 | 14.83 | 15.54 |
| 28 | 14.39 | 15.05 | 15.20 | 14.55 | 14.95 | 14.12 | 14.09 | 14.45 | 13.02 | 13.92 | 14.87 | 15.54 |
| 29 | 14.39 | 15.03 | 15.29 | 14.55 | --- | 14.11 | 14.13 | 14.48 | 13.12 | 13.99 | 14.89 | 15.53 |
| 30 | 14.38 | 14.96 | 15.31 | 14.54 | --- | 14.11 | 14.12 | 14.50 | 13.09 | 14.05 | 14.89 | 15.57 |
| 31 | 14.41 | --- | 15.32 | 14.48 | --- | 14.08 | --- | 14.48 | --- | 14.09 | 14.89 | --- |
| MEAN | 14.26 | 14.84 | 15.11 | 15.04 | 14.71 | 14.46 | 14.03 | 14.10 | 13.48 | 13.38 | 14.60 | 15.21 |
| MAX | 14.41 | 15.13 | 15.32 | 15.39 | 14.95 | 14.95 | 14.14 | 14.50 | 14.45 | 14.09 | 14.89 | 15.57 |



# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395055082592400 - FR-271 PARSONS AVE WTP DEEP WELL AT COLUMBUS OH--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 18... | FR-271 PARSONS AVE WTP DEE | 961118 | 1150 | 17.32 | 86.00 | 1010 | 7.1 | 12.0 | 0.1 |
| MAY | | | | | | | | | |
| 14... | FR-271 PARSONS AVE WTP DEE | 970514 | 1150 | 16.37 | 86.00 | 1010 | 6.9 | 13.0 | 0.3 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 18... | -- | -- | -- | -- | 340 | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 14... | 160 | 48 | 8.7 | 1.5 | 362 | 200 | 41 | 0.29 | 16 | 738 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 18... | 0.010 | <0.050 | 0.050 | <0.20 | <0.010 | <0.010 | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 14... | <0.010 | <0.050 | 0.056 | <0.20 | <0.010 | <0.010 | 56 | <0.50 | <1.0 | 3.5 |

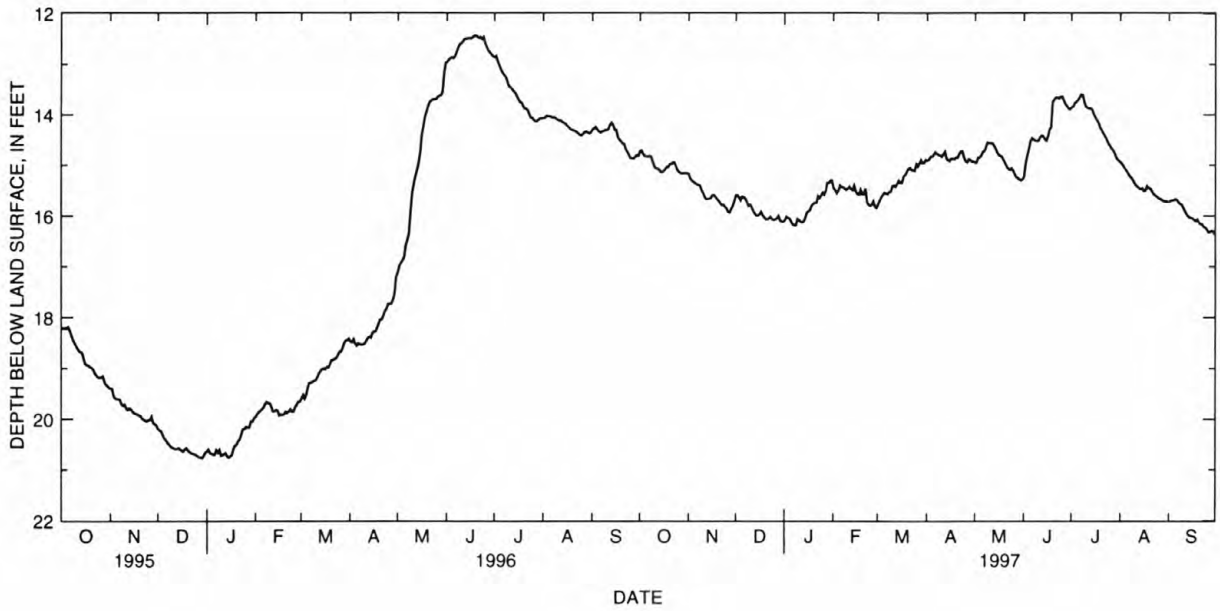
| DATE | COPPER, DIS-SOLVED (UG/L AS CU) | IRON, DIS-SOLVED (UG/L AS FE) | LEAD, DIS-SOLVED (UG/L AS PB) | LITHIUM DIS-SOLVED (UG/L AS LI) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) | STRON-TIUM, DIS-SOLVED (UG/L AS SR) | VANA-DIUM, DIS-SOLVED (UG/L AS V) | ZINC, DIS-SOLVED (UG/L AS ZN) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | | | |
| 14... | <10 | 3600 | <10 | 7 | 48 | <10 | 174 | <6 | 12 | 1.0 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

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 - Data logger -- 60-minute record.
DATUM.--Elevation of land-surface datum is 710 ft above sea level. Measuring point: Top of outer steel casing, 2.36 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.45 ft below land-surface datum, Apr. 24, 1992; minimum daily low, 14.53 ft below land-surface datum, Mar. 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14.72 | 15.17 | 15.59 | 16.09 | 15.45 | 15.77 | 14.91 | 14.95 | 15.23 | 13.85 | 14.94 | 15.72 |
| 2 | 14.71 | 15.26 | 15.59 | 16.02 | 15.49 | 15.69 | 14.89 | 14.95 | 14.95 | 13.84 | 14.97 | 15.70 |
| 3 | 14.78 | 15.30 | 15.64 | 16.04 | 15.55 | 15.63 | 14.83 | 14.85 | 14.81 | 13.77 | 15.02 | 15.69 |
| 4 | 14.82 | 15.33 | 15.69 | 16.05 | 15.50 | 15.58 | 14.83 | 14.85 | 14.68 | 13.74 | 15.07 | 15.69 |
| 5 | 14.83 | 15.35 | 15.62 | 16.11 | 15.40 | 15.54 | 14.79 | 14.80 | 14.52 | 13.71 | 15.11 | 15.67 |
| 6 | 14.83 | 15.38 | 15.63 | 16.16 | 15.43 | 15.56 | 14.74 | 14.73 | 14.46 | 13.66 | 15.16 | 15.68 |
| 7 | 14.82 | 15.38 | 15.66 | 16.19 | 15.43 | 15.57 | 14.77 | 14.72 | 14.49 | 13.60 | 15.21 | 15.73 |
| 8 | 14.83 | 15.40 | 15.72 | 16.19 | 15.46 | 15.52 | 14.80 | 14.64 | 14.51 | 13.61 | 15.24 | 15.76 |
| 9 | 14.93 | 15.49 | 15.80 | 16.06 | 15.48 | 15.52 | 14.80 | 14.55 | 14.52 | 13.76 | 15.29 | 15.77 |
| 10 | 15.02 | 15.54 | 15.78 | 16.08 | 15.46 | 15.41 | 14.83 | 14.56 | 14.52 | 13.84 | 15.35 | 15.84 |
| 11 | 15.06 | 15.62 | 15.83 | 16.12 | 15.42 | 15.40 | 14.78 | 14.56 | 14.45 | 13.86 | 15.40 | 15.90 |
| 12 | 15.07 | 15.67 | 15.90 | 16.13 | 15.47 | 15.42 | 14.73 | 14.56 | 14.41 | 13.88 | 15.42 | 15.96 |
| 13 | 15.08 | 15.67 | 15.95 | 16.11 | 15.49 | 15.36 | 14.87 | 14.61 | 14.42 | 13.87 | 15.45 | 16.00 |
| 14 | 15.13 | 15.66 | 15.99 | 16.04 | 15.40 | 15.30 | 14.90 | 14.67 | 14.48 | 13.90 | 15.47 | 16.03 |
| 15 | 15.14 | 15.65 | 15.99 | 15.94 | 15.51 | 15.35 | 14.92 | 14.75 | 14.51 | 13.99 | 15.45 | 16.04 |
| 16 | 15.11 | 15.59 | 15.97 | 15.90 | 15.57 | 15.35 | 14.87 | 14.80 | 14.43 | 14.05 | 15.51 | 16.05 |
| 17 | 15.07 | 15.59 | 15.92 | 15.89 | 15.58 | 15.22 | 14.87 | 14.81 | 14.29 | 14.11 | 15.50 | 16.08 |
| 18 | 15.03 | 15.63 | 15.99 | 15.80 | 15.48 | 15.19 | 14.88 | 14.83 | 14.25 | 14.16 | 15.41 | 16.10 |
| 19 | 15.03 | 15.67 | 16.03 | 15.76 | 15.57 | 15.14 | 14.84 | 14.90 | 13.75 | 14.25 | 15.45 | 16.07 |
| 20 | 14.97 | 15.70 | 16.07 | 15.74 | 15.57 | 15.07 | 14.85 | 14.96 | 13.70 | 14.30 | 15.45 | 16.13 |
| 21 | 14.97 | 15.75 | 16.07 | 15.74 | 15.46 | 15.05 | 14.78 | 15.02 | 13.66 | 14.36 | 15.50 | 16.16 |
| 22 | 14.94 | 15.79 | 16.05 | 15.61 | 15.72 | 15.09 | 14.72 | 15.07 | 13.66 | 14.42 | 15.56 | 16.16 |
| 23 | 14.95 | 15.78 | 16.02 | 15.65 | 15.78 | 15.10 | 14.72 | 15.09 | 13.68 | 14.47 | 15.59 | 16.21 |
| 24 | 15.04 | 15.82 | 16.07 | 15.60 | 15.80 | 15.11 | 14.84 | 15.06 | 13.64 | 14.55 | 15.61 | 16.23 |
| 25 | 15.10 | 15.85 | 16.08 | 15.54 | 15.78 | 14.98 | 14.92 | 15.10 | 13.64 | 14.60 | 15.64 | 16.26 |
| 26 | 15.14 | 15.92 | 16.07 | 15.58 | 15.71 | 15.02 | 14.94 | 15.17 | 13.72 | 14.66 | 15.66 | 16.32 |
| 27 | 15.16 | 15.93 | 16.05 | 15.51 | 15.82 | 14.96 | 14.88 | 15.23 | 13.79 | 14.69 | 15.67 | 16.32 |
| 28 | 15.16 | 15.86 | 16.00 | 15.35 | 15.84 | 14.90 | 14.89 | 15.25 | 13.83 | 14.74 | 15.70 | 16.29 |
| 29 | 15.16 | 15.80 | 16.09 | 15.35 | --- | 14.96 | 14.93 | 15.28 | 13.88 | 14.82 | 15.71 | 16.30 |
| 30 | 15.15 | 15.71 | 16.11 | 15.30 | --- | 14.95 | 14.92 | 15.30 | 13.89 | 14.88 | 15.71 | 16.37 |
| 31 | 15.16 | --- | 16.12 | 15.30 | --- | 14.89 | --- | 15.28 | --- | 14.91 | 15.71 | --- |
| MEAN | 15.00 | 15.61 | 15.91 | 15.84 | 15.56 | 15.28 | 14.84 | 14.90 | 14.23 | 14.16 | 15.42 | 16.01 |
| MAX | 15.16 | 15.93 | 16.12 | 16.19 | 15.84 | 15.77 | 14.94 | 15.30 | 15.23 | 14.91 | 15.71 | 16.37 |



395055082592401 - FR-272 PARSONS AVE WTP SHALLOW WELL AT COLUMBUS--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 18... | FR-272 PARSONS AVE WTP SHA | 961118 | 1055 | 17.90 | 45.00 | 1270 | 6.9 | 12.5 | 0.1 |
| MAY | | | | | | | | | |
| 14... | FR-272 PARSONS AVE WTP SHA | 970514 | 1000 | 16.78 | 45.00 | 1260 | 6.7 | 12.5 | 0.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 18... | 190 | 55 | 19 | 2.6 | 388 | 270 | 57 | 0.20 | 14 | 874 |
| MAY | | | | | | | | | | |
| 14... | 190 | 54 | 29 | 3.1 | 390 | 270 | 72 | 0.22 | 14 | 942 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 18... | 0.010 | <0.050 | 0.070 | <0.20 | <0.010 | <0.010 | 33 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 14... | 0.011 | <0.050 | 0.059 | <0.20 | <0.010 | <0.010 | 36 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 18... | <10 | 4500 | 10 | 6 | 97 | 10 | 160 | <6 | <3.0 | -- |
| MAY | | | | | | | | | | |
| 14... | <10 | 4400 | <10 | 9 | 96 | 16 | 164 | <6 | 8.1 | 1.1 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395224083000500. Local number, FR-273
LOCATION.--Lat 39°52'24", long 83°00'05", 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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 710 ft above sea level. 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, 20.78 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 19 | 19.97 |
| DEC 02 | 19.85 |
| MAR 17 | 16.07 |
| MAY 15 | 19.47 |
| SEP 14 | 20.27 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| NOV 19... | FR-273 AT CNTY WTP DEEP SR | 961119 | 0825 | 19.97 | 91.50 | 579 | 7.0 | 13.5 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 0.8 | 88 | 29 | 5.8 | 1.7 | 340 | 27 | 4.0 | 1.1 | 14 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | 360 | <0.010 | <0.050 | 0.050 | <0.20 | <0.010 | <0.010 | 150 | <0.50 | <1.0 |

| DATE | 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) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 19... | <3.0 | <10 | <3.0 | <10 | 7 | 110 | 20 | 460 | <6 | <3.0 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395224083000501. Local number, FR-274
LOCATION.--Lat 39°52'24", long 83°00'05", 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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 705 ft above sea level. 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, 16.98 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 18 | 17.24 |
| DEC 02 | 17.35 |
| MAR 17 | 13.66 |
| MAY 15 | 16.46 |
| SEP 14 | 16.78 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| NOV 18... | FR-274 AT CNTY WTP SHALLOW | 961118 | 0840 | 17.24 | 25.00 | 960 | 7.1 | 14.0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 18... | 0.5 | 100 | 30 | 62 | 2.0 | 340 | 82 | 82 | 0.40 | 12 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 18... | 576 | 0.020 | 0.130 | 0.120 | <0.20 | <0.010 | <0.010 | 56 | <0.50 | <1.0 |

| DATE | 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) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 18... | <3.0 | <10 | 1800 | <10 | 7 | 41 | 30 | 170 | <6 | <3.0 |

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 25 ft; 2-in. casing.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 680 ft above sea level. 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, 1.44 ft below land-surface datum, Mar. 26, 1993; lowest measured, 13.12 ft below land-surface datum, Apr. 18, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 5.10 |
| MAY 15 | 8.46 |
| SEP 14 | 9.32 |

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 or electric tape by USGS personnel. 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, 76.05 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 71.93 |
| MAY 15 | 73.32 |
| SEP 14 | 73.63 |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 713 ft above sea level. 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, 14.79 ft below land-surface datum, Feb 26, 1993; lowest measured, 21.33 ft below land-surface datum, Dec. 10, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 15.51 |
| MAY 15 | 16.16 |
| SEP 14 | 18.17 |

395115083022600. Local number, FR-278
LOCATION.--Lat 39°51'15", long 83°02'26", Hydrologic Unit 05060001
Owner.--Mr. Brian Davis
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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 735 ft above sea level. Measuring point: Top of casing, 0.95 ft above land-surface datum.
PERIOD OF RECORD.-- July 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.07 ft below land-surface datum, Dec. 15, 1993; lowest measured, 35.11 ft below land-surface datum, Dec. 10, 1991.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 30.93 |
| MAY 15 | 31.66 |
| SEP 14 | 33.83 |

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 or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 735 ft above sea level. 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, 31.54 ft below land-surface datum, Apr. 11, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 16.22 |
| MAY 15 | 17.45 |
| SEP 14 | 21.44 |

395000082581700. Local number, FR-281
LOCATION.--Lat 39°50'00", long 82°58'17", Hydrologic Unit 05060001.
Owner.--Hamilton Township Trustees.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled domestic water-supply well, depth 83 ft, 4-in. steel.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 731 ft above sea level. Measuring point: top of casing, 1.40 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1991 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.21 ft below land-surface datum, May 31, 1996; lowest measured, 42.42 ft below land-surface datum, Mar. 16, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 36.37 |
| MAY 15 | 37.66 |
| SEP 14 | 39.57 |

394921083004700. Local number, FR-282
LOCATION.--Lat 39°49'21", long 83°00'47", Hydrologic Unit 05060001.
Owner.--City of Columbus.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, depth 56 ft, 2-in. PVC.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 673 ft above sea level. Measuring point: top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--June 1992 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.75 ft below land-surface datum, Mar. 26, 1993; lowest measured, 10.90 ft below land-surface datum, Sept. 13, 1993.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 5.42 |
| MAY 15 | 6.23 |
| SEP 14 | 10.07 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395131083003801. Local number FR-301
LOCATION.--Lat 39°51'31", long 83°00'38", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 74 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 684 ft above sea level. Measuring point: Top of casing, 1.95 ft above land-surface datum
PERIOD OF RECORD.--Dec.15, 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.36 ft below land-surface datum, May 31, 1993; lowest measured, 31.95 ft below land-surface datum, Nov. 14, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 14 | 31.95 |
| MAR 17 | 15.48 |
| MAY 15 | 16.28 |
| SEP 14 | 17.99 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | FR-301 | 961114 | 1015 | 31.95 | 74.00 | 1070 | 7.0 | 13.0 | 0.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | 150 | 46 | 7.2 | 1.2 | 314 | 290 | 26 | 0.50 | 15 | 768 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | <0.010 | <0.050 | 0.150 | 0.20 | <0.010 | <0.010 | 39 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 14... | <10 | 3600 | <10 | 5 | 63 | 20 | 630 | <6 | 14 | 1.2 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395140083003901. Local number FR-302
LOCATION.--Lat 39°51'40", long 83°00'39", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 56 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 684 ft above sea level. Measuring point: Top of casing, 1.40 ft above land-surface datum
PERIOD OF RECORD.--Dec.15, 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.92 ft below land-surface datum, May 31, 1996; lowest measured, 27.45 ft below land-surface datum, Dec. 5, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 15.93 |
| MAY 15 | 7.34 |
| SEP 14 | 17.84 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | |
| 13... | FR-302 | 970513 | 1431 | 23.13 | 56.00 | 988 | 7.0 | 13.0 | 0.4 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 13... | 150 | 37 | 12 | 1.8 | 274 | 250 | 26 | 0.31 | 10 | 716 |

| DATE | NITRO-GEN, N1TRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 13... | <0.010 | <0.050 | 0.159 | <0.20 | <0.010 | <0.010 | 34 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 13... | <10 | 2600 | <10 | 7 | 114 | 11 | 1070 | <6 | <3.0 | 1.2 |

395150083004001. Local number FR-303
LOCATION.--Lat 39°51'50", long 83°00'40", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 57 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 691 ft above sea level. Measuring point: Top of casing, 1.75 ft above land-surface datum
PERIOD OF RECORD.--Dec. 15, 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.32 ft below land-surface datum, May 31, 1996; lowest measured, 31.85 ft below land-surface datum, Dec. 15, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 14 | 23.92 |
| MAR 17 | 19.22 |
| MAY 15 | 22.13 |
| SEP 14 | 20.74 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| FEB 14... | FR-303 | 970214 | 1146 | 23.92 | 57.00 | 1100 | 6.9 | 12.5 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | 0.1 | 180 | 52 | 7.5 | 1.3 | 352 | 330 | 21 | 0.30 | 14 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | 887 | 0.020 | <0.050 | 0.280 | 0.20 | <0.010 | <0.010 | 27 | <0.50 | <1.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | <10 | 6600 | 10 | 6 | 110 | 20 | 970 | <6 | 3.0 | 0.40 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395157083004101. Local number FR-304
LOCATION.--Lat 39°51'57", long 83°00'41", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 43 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 689 ft above sea level. Measuring point: Top of casing, 2.00 ft above land-surface datum
PERIOD OF RECORD.--Dec.15, 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.03 ft below land-surface datum, May 31, 1996; lowest measured, 32.12 ft below land-surface datum, Nov. 14, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 14 | 32.12 |
| FEB 07 | 24.26 |
| MAR 17 | 20.80 |
| MAY 15 | 26.23 |
| SEP 14 | 23.82 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 14... | FR-304 | 961114 | 1130 | 32.12 | 43.00 | 960 | 7.5 | 14.5 | 0.1 |
| FEB | | | | | | | | | |
| 07... | FR-304 | 970207 | 0942 | 24.00 | 43.00 | 838 | 7.0 | 12.5 | 0.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 14... | 130 | 40 | 16 | 3.1 | 122 | 350 | 38 | 0.40 | 5.3 | 693 |
| FEB | | | | | | | | | | |
| 07... | 130 | 30 | 16 | 2.4 | 258 | 190 | 32 | 0.30 | 7.8 | 568 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 14... | <0.010 | <0.050 | 0.040 | <0.20 | <0.010 | <0.010 | 33 | <0.50 | <1.0 | <3.0 |
| FEB | | | | | | | | | | |
| 07... | 0.030 | 2.60 | 0.020 | <0.20 | <0.010 | <0.010 | 33 | <0.50 | <1.0 | 5.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 14... | <10 | 1100 | <10 | 7 | 320 | 40 | 680 | <6 | <3.0 | 1.2 |
| FEB | | | | | | | | | | |
| 07... | <10 | 860 | 30 | 4 | 330 | <10 | 680 | <6 | <3.0 | 1.1 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395158083005401. Local number FR-305
LOCATION.--Lat 39°51'58", long 83°00'54", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 8 in. diameter, 78.50 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 688 ft above sea level. Measuring point: Top of casing, 1.70 ft above land-surface datum
PERIOD OF RECORD.--Dec. 15, 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.00 ft below land-surface datum, May 31, 1996; lowest measured, 47.75 ft below land-surface datum, Mar. 17, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 50.71 |
| MAY 15 | 20.93 |
| SEP 14 | 20.45 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) | CALCIUM DIS-SOLVED (MG/L AS CA) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 13... | FR-305 | 970513 | 1234 | 56.36 | 78.50 | 846 | 7.2 | 13.0 | 1.0 | 120 |

| DATE | MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) | SODIUM, DIS-SOLVED (MG/L AS NA) | POTAS-SIUM, DIS-SOLVED (MG/L AS K) | ALKA-LINITY WAT DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | | |
| 13... | 30 | 15 | 2.0 | 202 | 200 | 30 | 0.27 | 8.3 | 574 | 56 | <0.50 | <1.0 |

| DATE | 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) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | | |
| 13... | <3.0 | <10 | 710 | 14 | 6 | 152 | 14 | 640 | <6 | 4.5 | 1.1 |

395048083004500. Local number FR-310
LOCATION.--Lat 39°50'48", long 83°00'45", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 2-in. diameter PVC, 61 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683.36 ft above sea level. Measuring point: top of outer steel protective casing, 4.25 ft above land-surface datum
PERIOD OF RECORD.--Mar. 1993 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.21 ft below land-surface datum, May 31, 1996; lowest measured, 23.66 ft below land-surface datum, Sept. 13, 1993.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 20.77 |
| MAY 15 | 23.08 |
| SEP 14 | 22.19 |

395044083010500. Local number FR-311
LOCATION.--Lat 39°50'44", long 83°01'05", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 2-in. diameter PVC, 42 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683.01 ft above sea level. Measuring point: top of outer steel protective casing, 4.10 ft above land-surface datum
PERIOD OF RECORD.--Mar. 1993 to current year
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.86 ft below land-surface datum, May 31, 1996; lowest measured, 16.13 ft below land-surface datum, Sept. 13, 1993.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 6.93 |
| MAY 15 | 9.12 |
| SEP 14 | 14.53 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395151082591700. Local number FR-312
LOCATION.--Lat 39°51'51", long 83°59'17", Hydrologic Unit 05060001
Owner.--Walter Kuhnwein
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 54.5 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 725.57 ft above sea level. Measuring point: Top of PVC casing, 0.20 ft below land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.25 ft below land-surface datum, Nov. 19, 1996; lowest measured, 30.55 ft below land-surface datum, Dec. 7, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 19 | 11.45 |
| MAR 17 | 17.07 |
| MAY 13 | 27.06 |
| SEP 02 | 28.55 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 19... | FR-312 | 961119 | 1025 | 27.70 | 40.00 | 720 | 7.0 | 11.5 | 0.2 |
| MAY | | | | | | | | | |
| 13... | FR-312 | 970513 | 0916 | 27.06 | 40.00 | 738 | 7.0 | 13.0 | 0.3 |
| SEP | | | | | | | | | |
| 02... | FR-312 | 970902 | 1336 | 26.36 | 40.00 | 765 | 7.0 | 13.5 | 0.3 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | 110 | 34 | 3.0 | 1.3 | 304 | 75 | 29 | 0.30 | 14 | 444 |
| MAY | | | | | | | | | | |
| 13... | 110 | 34 | 3.0 | 1.3 | 290 | 79 | 27 | 0.30 | 14 | 483 |
| SEP | | | | | | | | | | |
| 02... | 110 | 34 | 2.9 | 1.3 | 282 | 81 | 23 | 0.25 | 13 | 481 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | <0.010 | <0.050 | 0.060 | <0.20 | <0.010 | <0.010 | 130 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 13... | <0.010 | <0.050 | 0.028 | <0.20 | <0.010 | <0.010 | 129 | <0.50 | <1.0 | 5.0 |
| SEP | | | | | | | | | | |
| 02... | <0.010 | <0.050 | 0.037 | <0.20 | <0.010 | <0.010 | 115 | <0.50 | <1.0 | 5.2 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | <10 | 1800 | <10 | 5 | 78 | 20 | 160 | <6 | <3.0 | -- |
| MAY | | | | | | | | | | |
| 13... | <10 | 1700 | 16 | 6 | 69 | 19 | 161 | <6 | <3.0 | 0.60 |
| SEP | | | | | | | | | | |
| 02... | <10 | 1500 | <10 | 7 | 69 | <10 | 155 | <6 | 3.1 | 0.60 |

394948082583400. Local number FR-313
LOCATION.--Lat 39°49'48", long 83°58'34", Hydrologic Unit 05060001
Owner.--Jeanne Badders
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 79 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 744.53 ft above sea level. Measuring point: Top of PVC casing, 0.18 ft below land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.58 ft below land-surface datum, May 31, 1996; lowest measured, 57.48 ft below land-surface datum, Dec. 7, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 06 | 51.61 |
| MAY 15 | 53.45 |
| SEP 14 | 53.82 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 06... | FR-313 | 970206 | 1323 | 51.61 | 79.00 | 702 | 7.0 | 12.5 | 0.1 |
| MAY | | | | | | | | | |
| 15... | FR-313 | 970515 | 0908 | 53.45 | 79.00 | 820 | 7.0 | 13.5 | 0.3 |
| SEP | | | | | | | | | |
| 09... | FR-313 | 970909 | 1400 | 53.74 | 79.00 | 722 | 7.1 | 14.0 | 0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 06... | 97 | 22 | 31 | 2.5 | 246 | 83 | 60 | 0.20 | 9.4 | 467 |
| MAY | | | | | | | | | | |
| 15... | 100 | 23 | 33 | 2.7 | 264 | 80 | 63 | 0.21 | 10 | 520 |
| SEP | | | | | | | | | | |
| 09... | 94 | 21 | 29 | 2.4 | 226 | 66 | 56 | 0.20 | 9.7 | 486 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 06... | 0.020 | <0.050 | 0.090 | 0.20 | <0.010 | <0.010 | 64 | <0.50 | 1.0 | 8.0 |
| MAY | | | | | | | | | | |
| 15... | 0.012 | <0.050 | 0.101 | <0.20 | <0.010 | <0.010 | 69 | <0.50 | <1.0 | <3.0 |
| SEP | | | | | | | | | | |
| 09... | <0.010 | <0.050 | 0.095 | <0.20 | <0.010 | <0.010 | 61 | <0.50 | <1.0 | 8.3 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 06... | <10 | 2100 | <10 | 5 | 85 | <10 | 200 | <6 | <3.0 | 2.2 |
| MAY | | | | | | | | | | |
| 15... | <10 | 2300 | <10 | 6 | 87 | 14 | 208 | <6 | <3.0 | 1.7 |
| SEP | | | | | | | | | | |
| 09... | <10 | 2100 | 13 | 7 | 83 | 14 | 193 | <6 | 7.5 | 2.1 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395241082584500. Local number FR-314 (MW 32)
LOCATION.--Lat 39°52'41", long 83°58'45", Hydrologic Unit 05060001 Owner.--WTVN
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 72 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 733.40 ft above sea level. Measuring point: Top of PVC casing, 0.17 ft below land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.97 ft below land-surface datum, May 31, 1996; lowest measured, 22.49 ft below land-surface datum, Dec. 7, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 19 | 21.26 |
| MAR 17 | 18.09 |
| MAY 15 | 19.41 |
| SEP 14 | 20.28 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 19... | FR-314 WTVN @ OBETZ RD | 961119 | 0930 | 21.26 | 72.00 | 640 | 7.2 | 13.5 | 0.1 |
| SEP | | | | | | | | | |
| 10... | FR-314 WTVN @ OBETZ RD | 970910 | 1010 | 19.38 | 72.00 | 640 | 7.0 | 14.0 | 0.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | 88 | 30 | 4.6 | 2.3 | 296 | 56 | 10 | 0.30 | 15 | 381 |
| SEP | | | | | | | | | | |
| 10... | 94 | 29 | 3.3 | 1.8 | 270 | 61 | 12 | 0.22 | 15 | 385 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | 0.010 | <0.050 | 0.040 | <0.20 | <0.010 | <0.010 | 290 | <0.50 | <1.0 | 6.0 |
| SEP | | | | | | | | | | |
| 10... | <0.010 | <0.050 | 0.035 | <0.20 | <0.010 | <0.010 | 196 | <0.50 | <1.0 | 9.1 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 19... | <10 | 1500 | <10 | 8 | 580 | 10 | 130 | <6 | <3.0 | -- |
| SEP | | | | | | | | | | |
| 10... | <10 | 1700 | <10 | 11 | 269 | 15 | 106 | <6 | <3.0 | 0.80 |

395100083015700. Local number FR-315 (MW 42)
LOCATION.--Lat 39°51'00", long 83°01'57", Hydrologic Unit 05060001
Owner.--SW Conservation Club.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 65 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 729.14 ft above sea level. Measuring point: Top of PVC casing, 0.22 ft below land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.63 ft below land-surface datum, June 3, 1996; lowest measured, 28.16 ft below land-surface datum, Dec. 7, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 20 | 23.85 |
| FEB 06 | 24.29 |
| MAY 06 | 25.40 |
| AUG 20 | 25.03 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 20... | FR-315 SWCC @ BORROR RD | 961120 | 0840 | 27.65 | 65.00 | 645 | 7.1 | 12.0 | 0.1 |
| FEB | | | | | | | | | |
| 06... | FR-315 SWCC @ BORROR RD | 970206 | 0956 | 23.85 | 65.00 | 596 | 7.1 | 12.5 | 0.2 |
| MAY | | | | | | | | | |
| 06... | FR-315 SWCC @ BORROR RD | 970506 | 1138 | 25.46 | 65.00 | 565 | 7.1 | 13.0 | 0.2 |
| AUG | | | | | | | | | |
| 20... | FR-315 SWCC @ BORROR RD | 970820 | 0900 | 25.03 | 65.00 | 663 | 7.0 | 13.5 | 0.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 20... | 93 | 31 | 2.9 | 1.3 | 272 | 74 | 19 | 0.30 | 13 | 412 |
| FEB | | | | | | | | | | |
| 06... | 89 | 30 | 2.8 | 1.2 | 280 | 72 | 15 | 0.30 | 12 | 398 |
| MAY | | | | | | | | | | |
| 06... | 94 | 32 | 3.0 | 1.1 | 262 | 74 | 18 | 0.25 | 13 | 409 |
| AUG | | | | | | | | | | |
| 20... | 90 | 30 | 2.9 | 1.2 | 300 | 72 | 17 | 0.28 | 12 | 445 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 20... | 0.010 | <0.050 | <0.015 | <0.20 | 0.010 | <0.010 | 230 | <0.50 | <1.0 | 16 |
| FEB | | | | | | | | | | |
| 06... | 0.020 | <0.050 | 0.020 | <0.20 | <0.010 | <0.010 | 220 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 06... | <0.010 | <0.050 | <0.015 | <0.20 | <0.010 | <0.010 | 241 | <0.50 | <1.0 | 4.6 |
| AUG | | | | | | | | | | |
| 20... | 0.012 | <0.050 | 0.030 | <0.20 | <0.010 | <0.010 | 212 | <0.50 | <1.0 | 4.7 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 20... | <10 | 2300 | <10 | <4 | 75 | <10 | 240 | <6 | <3.0 | -- |
| FEB | | | | | | | | | | |
| 06... | <10 | 2200 | <10 | <4 | 66 | 20 | 230 | <6 | 3.0 | 0.80 |
| MAY | | | | | | | | | | |
| 06... | <10 | 2400 | <10 | 4 | 68 | 19 | 242 | <6 | <3.0 | 0.90 |
| AUG | | | | | | | | | | |
| 20... | <10 | 2200 | <10 | 6 | 67 | 13 | 217 | <6 | 6.3 | 0.90 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395035083014700. Local number FR-316 (MW 44A)
LOCATION.--Lat 39°50'35", long 83°01'47", Hydrologic Unit 05060001
Owner.--SW Conservation Club.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 62 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 725.72 ft above sea level. Measuring point: Top of PVC casing, 2.61 ft above land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.68 ft below land-surface datum, Nov. 20, 1996; lowest measured, 38.21 ft below land-surface datum, Sept. 8, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 20 | 29.68 |
| MAR 17 | 36.52 |
| MAY 15 | 37.80 |
| SEP 14 | 38.21 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| NOV 20... | FR-316 SWCC @ RT 104 | 961120 | 1015 | 39.68 | 62.00 | 826 | 7.1 | 12.0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 20... | 3.2 | 110 | 40 | 35 | 3.3 | 320 | 98 | 67 | 0.40 | 12 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 20... | 570 | <0.010 | <0.050 | 0.050 | <0.20 | <0.010 | <0.010 | 100 | <0.50 | 1.0 |

| DATE | 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) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 20... | 14 | <10 | 1900 | <10 | 7 | 79 | 10 | 630 | <6 | 3.0 |

395153083014000. Local number FR-317 (MW 43)
LOCATION.--Lat 39°51'53", long 83°01'40", Hydrologic Unit 05060001
Owner.--Heimat Haus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 40 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 689.64 ft above sea level. Measuring point: Top of PVC casing, 0.24 ft below land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.44 ft below land-surface datum, Feb. 28, 1996; lowest measured, 6.04 ft below land-surface datum, Oct. 25, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 4.25 |
| MAY 15 | 5.06 |
| SEP 15 | 5.46 |

395042082585900. Local number FR-318 (MW 13)
LOCATION.--Lat 39°50'42", long 82°58'59", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 85 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 738.68 ft above sea level. Measuring point: Top of PVC casing, 3.11 ft above land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.77 ft below land-surface datum, May 15, 1997; lowest measured, 55.19 ft below land-surface datum, Dec. 6, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 13 | 47.69 |
| MAY 15 | 45.77 |
| SEP 14 | 49.66 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 13... | FR-318 NR PAWP | 970213 | 1209 | 47.69 | 85.00 | 777 | 7.1 | 13.0 | 0.1 |
| MAY | | | | | | | | | |
| 07... | FR-318 NR PAWP | 970507 | 1043 | 45.77 | 85.00 | 756 | 7.1 | 13.5 | 0.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 13... | 100 | 31 | 13 | 1.9 | 258 | 130 | 41 | 0.30 | 12 | 503 |
| MAY | | | | | | | | | | |
| 07... | 110 | 33 | 13 | 1.9 | 248 | 120 | 41 | 0.28 | 13 | 501 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 13... | 0.010 | <0.050 | 0.050 | <0.20 | 0.010 | <0.010 | 46 | <0.50 | 2.0 | <3.0 |
| MAY | | | | | | | | | | |
| 07... | <0.010 | <0.050 | 0.020 | <0.20 | <0.010 | <0.010 | 47 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 13... | <10 | 2000 | <10 | 5 | 120 | 20 | 130 | <6 | <3.0 | 0.90 |
| MAY | | | | | | | | | | |
| 07... | <10 | 2000 | <10 | 5 | 118 | 16 | 135 | <6 | <3.0 | 1.0 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395205083001500. Local number FR-319 (MW 45)
LOCATION.--Lat 39°52'05", long 83°00'15", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 55 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 721.80 ft above sea level. Measuring point: Top of PVC casing, 2.22 ft above land-surface datum
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.75 ft below land-surface datum, June 3, 1996; lowest measured, 37.47 ft below land-surface datum, Sept. 14, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 05 | 36.72 |
| FEB 04 | 36.72 |
| MAY 15 | 35.01 |
| AUG 21 | 30.11 |
| SEP 14 | 37.47 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | |
| 31... | FR-319 @ WALTERS HOMES | 961031 | 1500 | 37.15 | 55.00 | 1240 | 7.0 | 14.0 | 0.4 |
| FEB | | | | | | | | | |
| 04... | FR-319 @ WALTERS HOMES | 970204 | 1220 | 36.72 | 55.00 | 1180 | 6.8 | 12.0 | 0.1 |
| MAY | | | | | | | | | |
| 08... | FR-319 @ WALTERS HOMES | 970508 | 1033 | 33.88 | 55.00 | 1200 | 6.8 | 12.5 | 0.2 |
| AUG | | | | | | | | | |
| 20... | FR-319 @ WALTERS HOMES | 970820 | 1015 | 32.23 | 55.00 | 1320 | 6.9 | 13.0 | 0.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 31... | 140 | 43 | 46 | 1.7 | 342 | 110 | 140 | 0.30 | 14 | 730 |
| FEB | | | | | | | | | | |
| 04... | 140 | 44 | 57 | 2.0 | 354 | 110 | 160 | 0.30 | 14 | 759 |
| MAY | | | | | | | | | | |
| 08... | 140 | 44 | 60 | 2.1 | 340 | 110 | 170 | 0.29 | 14 | 810 |
| AUG | | | | | | | | | | |
| 20... | 150 | 43 | 61 | 2.0 | 352 | 100 | 170 | 0.29 | 14 | 808 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 31... | -- | -- | -- | -- | -- | -- | 46 | 1.5 | 1.0 | 5.0 |
| FEB | | | | | | | | | | |
| 04... | 0.020 | 0.280 | 0.040 | <0.20 | <0.010 | <0.010 | 52 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 08... | <0.010 | <0.050 | 0.018 | <0.20 | 0.038 | <0.010 | 51 | <0.50 | <1.0 | <3.0 |
| AUG | | | | | | | | | | |
| 20... | 0.010 | <0.050 | 0.042 | <0.20 | <0.010 | <0.010 | 51 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| OCT | | | | | | | | | | |
| 31... | <10 | 2900 | <10 | 5 | 77 | 20 | 120 | <6 | 7.0 | 0.90 |
| FEB | | | | | | | | | | |
| 04... | <10 | 2900 | <10 | 5 | 79 | 10 | 130 | <6 | 6.0 | 0.80 |
| MAY | | | | | | | | | | |
| 08... | <10 | 3100 | <10 | 8 | 80 | <10 | 126 | <6 | <3.0 | 1.1 |
| AUG | | | | | | | | | | |
| 20... | <10 | 2900 | <10 | 8 | 80 | 23 | 126 | <6 | <3.0 | 1.1 |

394954083002801. Local number FR-320 (MW 34)
LOCATION.--Lat 39°49'54", long 83°00'28", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 70 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 690.64 ft above sea level. Measuring point: Top of PVC casing, 2.97 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.25 ft below land-surface datum, May 31, 1996; lowest measured, 24.55 ft below land-surface datum, Nov. 20, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 20 | 24.55 |
| FEB 06 | 14.53 |
| MAY 09 | 16.77 |
| AUG 27 | 19.25 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 20... | FR-320 NR SR 665 & SCIOTO | 961120 | 1125 | 24.55 | 70.00 | 846 | 7.0 | 13.0 | 0.1 |
| FEB | | | | | | | | | |
| 06... | FR-320 NR SR 665 & SCIOTO | 970206 | 1157 | 14.53 | 70.00 | 774 | 6.9 | 12.0 | 0.1 |
| MAY | | | | | | | | | |
| 09... | FR-320 NR SR 665 & SCIOTO | 970509 | 1353 | 16.77 | 70.00 | 791 | 6.9 | 12.5 | 0.4 |
| AUG | | | | | | | | | |
| 25... | FR-320 NR SR 665 & SCIOTO | 970825 | 0901 | 19.25 | 70.00 | 859 | 7.0 | 13.0 | 0.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 20... | 110 | 35 | 20 | 2.7 | 348 | 100 | 35 | 0.20 | 12 | 545 |
| FEB | | | | | | | | | | |
| 06... | 110 | 36 | 19 | 2.4 | 330 | 100 | 35 | 0.20 | 12 | 538 |
| MAY | | | | | | | | | | |
| 09... | 110 | 36 | 19 | 2.6 | 340 | 100 | 34 | 0.19 | 12 | 552 |
| AUG | | | | | | | | | | |
| 25... | 110 | 35 | 18 | 2.2 | 326 | 98 | 36 | 0.19 | 12 | 427 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 20... | 0.010 | 0.160 | <0.015 | <0.20 | <0.010 | <0.010 | 50 | <0.50 | <1.0 | <3.0 |
| FEB | | | | | | | | | | |
| 06... | 0.020 | <0.050 | 0.030 | <0.20 | <0.010 | <0.010 | 53 | <0.50 | 1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 09... | <0.010 | 0.056 | <0.015 | <0.20 | <0.010 | <0.010 | 51 | <0.50 | <1.0 | <3.0 |
| AUG | | | | | | | | | | |
| 25... | <0.010 | 0.063 | 0.021 | <0.20 | <0.010 | <0.010 | 48 | <0.50 | <1.0 | <12 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 20... | <10 | 450 | <10 | 4 | 110 | <10 | 520 | <6 | <3.0 | -- |
| FEB | | | | | | | | | | |
| 06... | <10 | 880 | <10 | 5 | 96 | <10 | 560 | <6 | <3.0 | 0.80 |
| MAY | | | | | | | | | | |
| 09... | <10 | 660 | <10 | 6 | 94 | <10 | 520 | <6 | <3.0 | 0.80 |
| AUG | | | | | | | | | | |
| 25... | <10 | 360 | <10 | 7 | 107 | <10 | 505 | <6 | <20 | 0.80 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395038083002100. Local number FR-321 (MW 21)
LOCATION.--Lat 39°50'38", long 83°00'21", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 68 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 697.05 ft above sea level. Measuring point: Top of PVC casing, 2.50 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.41 ft below land-surface datum, Mar. 17, 1997; lowest measured, 47.13 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 01 | 37.60 |
| FEB 05 | 30.95 |
| MAR 17 | 22.41 |
| MAY 15 | 30.84 |
| AUG 22 | 41.45 |
| SEP 14 | 44.62 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 01... | FR-321 @ Y IN WELLFIELD RD | 961101 | 0922 | 37.60 | 68.00 | 1130 | 6.7 | 12.5 | 0.9 |
| FEB | | | | | | | | | |
| 05... | FR-321 @ Y IN WELLFIELD RD | 970205 | 0953 | 28.45 | 68.00 | 1050 | 6.7 | 12.0 | 0.3 |
| MAY | | | | | | | | | |
| 09... | FR-321 @ Y IN WELLFIELD RD | 970509 | 1124 | 32.10 | 68.00 | 1020 | 6.7 | 12.5 | 1.0 |
| AUG | | | | | | | | | |
| 22... | FR-321 @ Y IN WELLFIELD RD | 970822 | 0905 | 43.95 | 68.00 | 1210 | 6.7 | 13.0 | 0.9 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 01... | -- | -- | -- | -- | 410 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 05... | 180 | 45 | 12 | 2.7 | 388 | 250 | 26 | 0.20 | 12 | 789 |
| MAY | | | | | | | | | | |
| 09... | 170 | 45 | 12 | 2.8 | 386 | 230 | 26 | 0.17 | 12 | 800 |
| AUG | | | | | | | | | | |
| 22... | 190 | 47 | 9.2 | 2.5 | 386 | 280 | 20 | 0.17 | 12 | 886 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 01... | 0.010 | 0.420 | 0.030 | <0.20 | 0.030 | 0.030 | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 05... | 0.060 | 1.70 | 0.020 | <0.20 | <0.010 | 0.020 | 33 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 09... | <0.010 | 0.913 | <0.015 | <0.20 | 0.031 | 0.033 | 34 | <0.50 | <1.0 | <3.0 |
| AUG | | | | | | | | | | |
| 22... | <0.010 | 2.06 | 0.021 | <0.20 | 0.037 | 0.036 | 55 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 01... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | | |
| 05... | <10 | <3.0 | <10 | 7 | <1.0 | <10 | 670 | <6 | 9.0 | 0.70 |
| MAY | | | | | | | | | | |
| 09... | <10 | <3.0 | <10 | 8 | <1.0 | <10 | 598 | <6 | <3.0 | 0.90 |
| AUG | | | | | | | | | | |
| 22... | <10 | 6.9 | <10 | 10 | <1.0 | <10 | 616 | <6 | <3.0 | 0.80 |

395131083005200. Local number FR-322 (MW 22)
LOCATION.--Lat 39°51'31", long 83°00'52", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 60 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 686.42 ft above sea level. Measuring point: Top of PVC casing, 2.30 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.23 ft below land-surface datum, May 31, 1996; lowest measured, 28.35 ft below land-surface datum, Dec. 5, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 12.81 |
| MAY 15 | 16.52 |
| SEP 14 | 18.73 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | FR-322 @ CW 100 | 970902 | 1222 | 21.00 | 60.00 | 809 | 7.0 | 12.5 | 0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | 120 | 27 | 15 | 1.9 | 268 | 130 | 24 | 0.18 | 8.0 | 543 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | <0.010 | <0.050 | 0.038 | <0.20 | <0.010 | <0.010 | 35 | <0.50 | <1.0 | 4.4 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | <10 | 1300 | <10 | 5 | 279 | <10 | 638 | <6 | 3.5 | 1.3 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395146082594300. Local number FR-323 (MW 19)
LOCATION.--Lat 39°51'45", long 82°59'44", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 59.5 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 714.29 ft above sea level. Measuring point: Top of PVC casing, 2.69 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.69 ft below land-surface datum, May 31, 1996; lowest measured, 20.88 ft below land-surface datum, Feb. 29, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 14 | 19.16 |
| MAR 17 | 19.03 |
| MAR 15 | 19.75 |
| SEP 14 | 20.53 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| FEB 14... | FR-323 Rathmell Road shall | 970214 | 0851 | 19.16 | 59.50 | 953 | 6.9 | 12.5 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | 0.6 | 130 | 32 | 26 | 2.2 | 386 | 130 | 43 | 0.20 | 15 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | 633 | 0.010 | <0.050 | 0.260 | 0.20 | <0.010 | <0.010 | 490 | <0.50 | <1.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB 14... | <10 | 5900 | <10 | 5 | 130 | 20 | 170 | <6 | <3.0 | 1.1 |

395146082594301. Local number FR-324 (MW 19D)
LOCATION.--Lat 39°51'45", long 82°59'44", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Devonian limestone
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 169.89 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 714.17 ft above sea level. Measuring point: Top of PVC casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.59 ft below land-surface datum, Mar. 1, 1996; lowest measured, 156.30 ft below land-surface datum, Aug. 13, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 14 | >100 |
| MAR 17 | >100 |
| MAY 15 | >100 |
| SEP 14 | >100 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| NOV 21... | FR-325 US 23 North of Shad | 961121 | 0900 | 35.56 | 93.00 | 776 | 7.1 | 13.0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 21... | 0.2 | 110 | 35 | 3.8 | 1.2 | 386 | 65 | 9.5 | 0.30 | 15 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 21... | 473 | 0.020 | 0.910 | 0.620 | 0.70 | <0.010 | <0.010 | 460 | <0.50 | <1.0 |

| DATE | 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) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV 21... | 28 | <10 | 4000 | 20 | 5 | 45 | 10 | 270 | <6 | <3.0 |

395010083000200. Local number FR-325 (MW 23)
LOCATION.--Lat 39°50'10", long 83°50'02", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 93 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 719.55 ft above sea level. Measuring point: Top of PVC casing, 2.51 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.49 ft below land-surface datum, May 31, 1996; lowest measured, 35.99 ft below land-surface datum, Feb. 29, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 21 | 35.56 |
| MAR 17 | 31.30 |
| MAY 15 | 32.00 |
| SEP 14 | 34.49 |

395254083000900. Local number FR-326 (MW 31)
LOCATION.--Lat 39°52'54", long 83°00'07", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 68.38 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 718.84 ft above sea level. Measuring point: Top of PVC casing, 2.58 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.68 ft below land-surface datum, June 3, 1996; lowest measured, 47.67 ft below land-surface datum, Nov. 15, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 15 | 47.67 |
| FEB 05 | 47.26 |
| MAY 06 | 46.02 |
| AUG 20 | 46.37 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 15... | FR-326, along U.S. 23 | 961115 | 1458 | 47.67 | 68.38 | 888 | 7.2 | 13.0 | 0.2 |
| FEB | | | | | | | | | |
| 05... | FR-326, along U.S. 23 | 970205 | 1301 | 47.26 | 68.38 | 915 | 7.0 | 13.0 | 0.1 |
| MAY | | | | | | | | | |
| 06... | FR-326, along U.S. 23 | 970506 | 1352 | 46.92 | 68.38 | 823 | 7.0 | 14.0 | 0.3 |
| AUG | | | | | | | | | |
| 20... | FR-326, along U.S. 23 | 970820 | 1117 | 46.37 | 68.38 | 976 | 7.0 | 14.0 | 0.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 15... | 120 | 37 | 16 | 1.8 | 356 | 95 | 53 | 0.30 | 13 | 574 |
| FEB | | | | | | | | | | |
| 05... | 130 | 40 | 16 | 1.8 | 358 | 94 | 53 | 0.30 | 13 | 574 |
| MAY | | | | | | | | | | |
| 06... | 130 | 41 | 18 | 2.0 | 360 | 97 | 55 | 0.25 | 13 | 587 |
| AUG | | | | | | | | | | |
| 20... | 130 | 40 | 19 | 2.0 | 380 | 98 | 54 | 0.26 | 13 | 685 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 15... | 0.010 | <0.050 | 0.060 | <0.20 | <0.010 | <0.010 | 85 | <0.50 | 1.0 | <3.0 |
| FEB | | | | | | | | | | |
| 05... | 0.040 | 0.330 | 0.040 | <0.20 | <0.010 | <0.010 | 90 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 06... | <0.010 | <0.050 | 0.021 | <0.20 | <0.010 | <0.010 | 91 | <0.50 | <1.0 | <3.0 |
| AUG | | | | | | | | | | |
| 20... | <0.010 | <0.050 | 0.040 | <0.20 | <0.010 | <0.010 | 88 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 15... | <10 | 2600 | <10 | <4 | 53 | <10 | 370 | <6 | <3.0 | -- |
| FEB | | | | | | | | | | |
| 05... | <10 | 2700 | <10 | 5 | 54 | <10 | 370 | <6 | 8.0 | 0.80 |
| MAY | | | | | | | | | | |
| 06... | <10 | 2800 | <10 | 5 | 54 | 16 | 377 | <6 | 3.6 | 0.80 |
| AUG | | | | | | | | | | |
| 20... | <10 | 2700 | <10 | 7 | 53 | 11 | 354 | <6 | <3.0 | 0.90 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395133083001800. Local number FR-327 (MW 25)
LOCATION.--Lat 39°51'33", long 83°00'22", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 74.75 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 740.73 ft above sea level. Measuring point: Top of PVC casing, 2.76 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.71 ft below land-surface datum, Aug. 10, 1996; lowest measured, 52.54 ft below land-surface datum, Oct. 25, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 15 | 51.13 |
| FEB 05 | 45.79 |
| MAR 17 | 51.41 |
| MAY 15 | 49.47 |
| SEP 14 | 48.80 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 15... | FR-327, s of Olen 1000 ft | 961115 | 1133 | 51.13 | 74.75 | 1260 | 6.8 | 12.5 | 1.3 |
| FEB | | | | | | | | | |
| 05... | FR-327, s of Olen 1000 ft | 970205 | 1122 | 45.79 | 74.75 | 1010 | 6.7 | 12.0 | 0.6 |
| MAY | | | | | | | | | |
| 14... | FR-327, s of Olen 1000 ft | 970514 | 1405 | 46.00 | 74.75 | 1080 | 6.7 | 13.0 | 1.6 |
| SEP | | | | | | | | | |
| 09... | FR-327, s of Olen 1000 ft | 970909 | 1040 | 50.36 | 74.75 | 1170 | 6.7 | 13.0 | 1.2 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 15... | 170 | 47 | 21 | 3.5 | 432 | 150 | 77 | 0.20 | 13 | 806 |
| FEB | | | | | | | | | | |
| 05... | 140 | 41 | 29 | 3.7 | 442 | 97 | 51 | 0.20 | 13 | 656 |
| MAY | | | | | | | | | | |
| 14... | 150 | 43 | 27 | 3.5 | 430 | 89 | 87 | 0.19 | 13 | 714 |
| SEP | | | | | | | | | | |
| 09... | 160 | 49 | 33 | 3.5 | 398 | 140 | 96 | 0.17 | 14 | 841 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 15... | 0.020 | 1.50 | 0.030 | <0.20 | <0.010 | <0.010 | 75 | <0.50 | 1.0 | <3.0 |
| FEB | | | | | | | | | | |
| 05... | 0.020 | 1.50 | <0.015 | <0.20 | <0.010 | <0.010 | 68 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 14... | 0.015 | 1.15 | 0.016 | <0.20 | <0.010 | <0.010 | 68 | <0.50 | <1.0 | <3.0 |
| SEP | | | | | | | | | | |
| 09... | <0.010 | 1.41 | <0.015 | <0.20 | <0.010 | <0.010 | 70 | <0.50 | 1.4 | <3.0 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395059083000900. Local number, FR-328 US 23 south of Olen quarry (MW 26)
LOCATION.--Lat 39°50'59", long 83°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 4 in., depth 70 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 730.38 ft above sea level. Measuring point: Top of 4-inch PVC casing, 2.61 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.69 ft below land-surface datum, Sept. 4, 1996; lowest measured, 44.99 ft below land-surface datum, Oct. 25, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| OCT 25 | 44.99 |
| FEB 27 | 43.69 |
| MAY 31 | 40.97 |
| SEP 04 | 40.69 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 18... | FR-328 US 23 South of Olen | 970218 | 1233 | 42.94 | 52.17 | 844 | 6.9 | 14.0 | 0.2 |
| SEP | | | | | | | | | |
| 10... | FR-328 US 23 South of Olen | 970910 | 1216 | 42.18 | 104.00 | 735 | 6.9 | 17.0 | 0.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 18... | 120 | 39 | 7.6 | 1.6 | 356 | 130 | 19 | 0.40 | 15 | 581 |
| SEP | | | | | | | | | | |
| 10... | 130 | 42 | 7.7 | 2.5 | 330 | 140 | 19 | 0.35 | 16 | 558 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 18... | 0.010 | <0.050 | 0.050 | <0.20 | <0.010 | <0.010 | 63 | <0.50 | <1.0 | 9.0 |
| SEP | | | | | | | | | | |
| 10... | <0.010 | <0.050 | 0.076 | <0.20 | <0.010 | <0.010 | 59 | <0.50 | <1.0 | 17 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 18... | <10 | 3400 | <10 | 5 | 230 | 10 | 780 | <6 | 5.0 | 0.70 |
| SEP | | | | | | | | | | |
| 10... | <10 | 3300 | <10 | 8 | 228 | <10 | 640 | <6 | 7.4 | 0.90 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395108082591100. Local number FR-329 (MW 15)
LOCATION.--Lat 39°51'08", long 83°59'12", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 69.19 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 733.26 ft above sea level. Measuring point: Top of PVC casing, 2.83 ft above land-surface datum.
PERIOD OF RECORD.--May 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.38 ft below land-surface datum, Mar. 17, 1997; lowest measured, 338.55 ft below land-surface datum, Feb. 18, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 18 | 38.55 |
| MAR 17 | 34.38 |
| MAY 15 | 35.59 |
| SEP 14 | 37.09 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 18... | FR-329 east of Parsons ave | 970218 | 1608 | 38.55 | 69.19 | 850 | 6.9 | 12.5 | 0.1 |
| SEP | | | | | | | | | |
| 09... | FR-329 east of Parsons ave | 970909 | 1205 | 38.61 | 69.19 | 871 | 7.0 | 13.0 | 0.1 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 18... | 130 | 40 | 6.7 | 1.6 | 356 | 130 | 30 | 0.30 | 13 | 586 |
| SEP | | | | | | | | | | |
| 09... | 120 | 41 | 6.9 | 1.5 | 320 | 120 | 28 | 0.24 | 14 | 609 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 18... | <0.010 | <0.050 | 0.020 | <0.20 | <0.010 | <0.010 | 57 | <0.50 | <1.0 | <3.0 |
| SEP | | | | | | | | | | |
| 09... | 0.012 | <0.050 | 0.031 | <0.20 | <0.010 | <0.010 | 53 | <0.50 | <1.0 | 14 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 18... | <10 | 2900 | <10 | 6 | 68 | 10 | 130 | <6 | <3.0 | -- |
| SEP | | | | | | | | | | |
| 09... | <10 | 2800 | 17 | 4 | 69 | 17 | 125 | <6 | <3.0 | 0.70 |

395108082591101. Local number FR-330 (MW 15D)
LOCATION.--Lat 39°51'08", long 83°59'12", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 115 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 734.29 ft above sea level. Measuring point: Top of PVC casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--May 1996 to current year.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 18 | >100 |
| MAR 17 | >100 |
| MAY 15 | >100 |
| SEP 14 | >100 |

395054082585300. Local number FR-331 (MW 14)
LOCATION.--Lat 39°50'54", long 83°58'55", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 74.33 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 738.32 ft above sea level. Measuring point: Top of PVC casing, 2.60 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.40 ft below land-surface datum, May 31, 1996; lowest measured, 49.93 ft below land-surface datum, Dec. 6, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 13 | 44.35 |
| MAY 07 | 46.39 |
| SEP 14 | 45.68 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | |
| 13... | FR-331 South Hamilton Mead | 970213 | 1023 | 44.35 | 74.33 | 880 | 6.9 | 13.5 | 0.2 |
| MAY | | | | | | | | | |
| 07... | FR-331 South Hamilton Mead | 970507 | 1259 | 43.39 | 74.33 | 849 | 7.0 | 15.0 | 0.3 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 13... | 120 | 38 | 14 | 2.1 | -- | 100 | 41 | 0.30 | 13 | 563 |
| MAY | | | | | | | | | | |
| 07... | 120 | 40 | 14 | 2.3 | 350 | 100 | 40 | 0.23 | 14 | 566 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 13... | <0.010 | <0.050 | <0.015 | <0.20 | <0.010 | <0.010 | 75 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 07... | <0.010 | <0.050 | 0.019 | <0.20 | <0.010 | <0.010 | 78 | <0.50 | <1.0 | 4.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| FEB | | | | | | | | | | |
| 13... | <10 | 1800 | <10 | 5 | 110 | 10 | 140 | <6 | <3.0 | 0.70 |
| MAY | | | | | | | | | | |
| 07... | <10 | 1900 | <10 | 6 | 102 | 17 | 148 | <6 | <3.0 | -- |

395031082590000. Local number FR-332 (MW 04)
LOCATION.--Lat 39°50'31", long 83°59'00", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 48.03 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 707.13 ft above sea level. Measuring point: Top of PVC casing, 2.81 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.46 ft below land-surface datum, May 7, 1997; lowest measured, 31.20 ft below land-surface datum, Oct. 25, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 26.61 |
| MAY 07 | 15.46 |
| SEP 14 | 28.61 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) |
|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | |
| 07... | FR-332 near CW-115 | 970507 | 1439 | 18.36 | 48.03 | 769 | 7.1 | 12.0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 07... | 0.2 | 110 | 30 | 24 | 2.5 | 232 | 140 | 46 | 0.22 | 8.6 |

| DATE | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 07... | 511 | <0.010 | <0.050 | 0.171 | <0.20 | <0.010 | <0.010 | 63 | <0.50 | <1.0 |

| DATE | 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) | MANGA-NESE, DIS-SOLVED (UG/L AS MN) | 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| MAY | | | | | | | | | | |
| 07... | 3.9 | <10 | 1700 | <10 | 5 | 275 | <10 | 272 | <6 | <3.0 |

395031082590001. Local number FR-333 (MW 04D)
LOCATION.--Lat 39°50'30", long 83°59'00", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 194.39 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 706.98 ft above sea level. Measuring point: Top of PVC casing, 2.61 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.53 ft below land-surface datum, Oct. 25, 1995; lowest measured, 135.40 ft below land-surface datum, Mar. 13, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | >100 |
| MAY 15 | >100 |
| SEP 14 | >100 |

395139082581600. Local number FR-334 (MW 17)
LOCATION.--Lat 39°51'40", long 83°58'15", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 64.32 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 740.07 ft above sea level. Measuring point: Top of PVC casing, 0.20 ft below land-surface datum.
PERIOD OF RECORD.--Mar. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.45 ft below land-surface datum, May 31, 1996; lowest measured, 32.62 ft below land-surface datum, Sept. 14, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| FEB 17 | 29.62 |
| MAY 15 | 31.48 |
| SEP 14 | 32.62 |

395134082560600. Local number FR-335 (MW 18)
LOCATION.--Lat 39°51'35", long 83°59'05", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 56.86 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 734.68 ft above sea level. Measuring point: Top of PVC casing, 0.25 ft below land-surface datum.
PERIOD OF RECORD.--May 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.03 ft below land-surface datum, May 31, 1996; lowest measured, 36.17 ft below land-surface datum, Sept. 4, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 33.47 |
| MAY 15 | 34.86 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| SEP 10... | FR-335 Hamilton Middle Sch | 970910 | 1125 | 39.61 | 59.86 | 695 | 7.0 | 16.5 | 0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 10... | 110 | 35 | 12 | 1.7 | 304 | 94 | 38 | 0.30 | 15 | 487 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 10... | <0.010 | 0.061 | 0.041 | <0.20 | <0.010 | <0.010 | 65 | <0.50 | <1.0 | 15 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 10... | <10 | 2700 | <10 | 7 | 50 | <10 | 145 | <6 | <3.0 | 0.80 |

395108083010601. Local number FR-336 (MW 33)
LOCATION.--Lat 39°51'05", long 83°01'06", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 59 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 685.90 ft above sea level. Measuring point: Top of PVC casing, 2.75 ft above land-surface datum.
PERIOD OF RECORD.--Dec. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.31 ft below land-surface datum, May 31, 1996; lowest measured, 31.75 ft below land-surface datum, Nov. 21, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| NOV 21 | 31.75 |
| FEB 12 | 18.89 |
| MAR 17 | 12.91 |
| MAY 15 | 22.74 |
| AUG 25 | 21.30 |
| SEP 14 | 23.68 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | |
| 21... | FR-336 500ft south of CW-1 | 961121 | 1005 | 31.75 | 59.00 | 898 | 6.9 | 12.5 | 0.1 |
| FEB | | | | | | | | | |
| 12... | FR-336 500ft south of CW-1 | 970212 | 1134 | 18.89 | 59.00 | 836 | 7.0 | 13.5 | 0.2 |
| MAY | | | | | | | | | |
| 09... | FR-336 500ft south of CW-1 | 970509 | 0947 | 23.30 | 59.00 | 752 | 6.9 | 12.5 | 0.3 |
| AUG | | | | | | | | | |
| 25... | FR-336 500ft south of CW-1 | 970825 | 1041 | 21.30 | 59.00 | 825 | 7.0 | 12.5 | 0.3 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 21... | 120 | 27 | 33 | 3.7 | 276 | 130 | 57 | 0.40 | 8.7 | 573 |
| FEB | | | | | | | | | | |
| 12... | 100 | 25 | 32 | 3.2 | 292 | 130 | 48 | 0.40 | 8.1 | 529 |
| MAY | | | | | | | | | | |
| 09... | 110 | 26 | 26 | 3.2 | 260 | 120 | 42 | 0.34 | 8.5 | 543 |
| AUG | | | | | | | | | | |
| 25... | 110 | 26 | 23 | 2.9 | 266 | 120 | 41 | 0.33 | 7.9 | 529 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN, 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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 21... | <0.010 | 1.70 | 0.140 | 0.30 | <0.010 | <0.010 | 45 | <0.50 | <1.0 | 4.0 |
| FEB | | | | | | | | | | |
| 12... | 0.040 | 0.060 | 0.060 | <0.20 | <0.010 | <0.010 | 45 | <0.50 | <1.0 | <3.0 |
| MAY | | | | | | | | | | |
| 09... | <0.010 | <0.050 | 0.033 | <0.20 | <0.010 | <0.010 | 43 | <0.50 | <1.0 | <3.0 |
| AUG | | | | | | | | | | |
| 25... | <0.010 | 0.050 | 0.034 | <0.20 | <0.010 | <0.010 | 45 | <0.50 | <1.0 | <3.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| NOV | | | | | | | | | | |
| 21... | <10 | 520 | 20 | 7 | 230 | 10 | 1200 | <6 | <3.0 | 1.8 |
| FEB | | | | | | | | | | |
| 12... | <10 | 340 | 20 | 8 | 210 | 20 | 1100 | <6 | <3.0 | 1.8 |
| MAY | | | | | | | | | | |
| 09... | <10 | 390 | 10 | 8 | 204 | <10 | 1100 | <6 | <3.0 | 1.7 |
| AUG | | | | | | | | | | |
| 25... | <10 | 170 | <10 | 9 | 208 | <10 | 1080 | <6 | 9.3 | 1.8 |

395115083010601. Local number FR-337 (MW 01)
LOCATION.--Lat 39°51'13", long 83°01'05", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 60 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 687 ft above sea level. Measuring point: Top of PVC casing, 2.40 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.36 ft below land-surface datum, May 31, 1996; lowest measured, 27.40 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 14.46 |
| MAY 15 | 16.41 |
| SEP 14 | 25.61 |

395115083010602. Local number FR-338 (MW 01D)
LOCATION.--Lat 39°51'13", long 83°01'05", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 105 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 686.83 ft above sea level. Measuring point: Top of PVC casing, 2.48 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.35 ft below land-surface datum, May 31, 1996; lowest measured, 23.30 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 22.04 |
| MAY 15 | 21.85 |
| SEP 14 | 21.59 |

395046083003107. Local number FR-339 (MW 02)
LOCATION.--Lat 39°50'47", long 83°00'30", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 70 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 696.60 ft above sea level. Measuring point: Top of PVC casing, 2.35 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.11 ft below land-surface datum, Mar. 17, 1997; lowest measured, 51.00 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 21.11 |
| MAY 15 | 37.70 |
| SEP 14 | 46.68 |

395046083003107. Local number FR-340 (MW 02D)
LOCATION.--Lat 39°50'47", long 83°00'30", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 138 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 697 ft above sea level. Measuring point: Top of PVC casing, 2.40 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.95 ft below land-surface datum, Mar. 17, 1997; lowest measured, 50.16 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 21.95 |
| MAY 15 | 35.78 |
| SEP 14 | 44.93 |

395020083003406. Local number FR-341 (MW 03)
LOCATION.--Lat 39°50'24", long 83°00'28", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 75 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683.43 ft above sea level. Measuring point: Top of PVC casing, 2.52 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.79 ft below land-surface datum, May 31, 1996; lowest measured, 32.39 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 12.78 |
| MAY 15 | 19.88 |
| SEP 14 | 30.45 |

395020083003407. Local number FR-342 (MW 03D)
LOCATION.--Lat 39°50'24", long 83°00'28", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Devonian limestone.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 123 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 683 ft above sea level. Measuring point: Top of PVC casing, 2.50 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.86 ft below land-surface datum, Mar. 17, 1997; lowest measured, 20.46 ft below land-surface datum, Feb. 26, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 11.86 |
| MAY 15 | 14.73 |
| SEP 14 | 20.02 |

395031082585400. Local number FR-343 (MW 35)
LOCATION.--Lat 39°50'20", long 83°58'54", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 52 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 708.30 ft above sea level. Measuring point: Top of PVC casing, 2.61 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1995 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.61 ft below land-surface datum, May 31, 1996; lowest measured, 26.09 ft below land-surface datum, Oct. 25, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 18.81 |
| MAY 15 | 19.99 |
| SEP 14 | 23.91 |

395222083002900. Local number FR-344 (MW 27)
LOCATION.--Lat 39°52'22", long 83°00'29", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 134 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 707.88 ft above sea level. Measuring point: Top of PVC casing, 2.17 ft above land-surface datum.
PERIOD OF RECORD.--May 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.26 ft below land-surface datum, Aug. 13, 1996; lowest measured, >100 ft below land-surface datum, Sept. 4, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 95.68 |
| MAY 15 | 90.54 |
| SEP 14 | 81.33 |

# PROJECT DATA
## Columbus Well Field, Southern Franklin County

395236083004201. Local number FR-345 (MW 41)
LOCATION.--Lat 39°52'36", long 83°00'42", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 45 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 688.90 ft above sea level. Measuring point: Top of PVC casing, 2.53 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.25 ft below land-surface datum, Sept. 14, 1997; lowest measured, 24.09 ft below land-surface datum, Sept. 4, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 21.79 |
| MAY 15 | 21.22 |
| SEP 02 | 20.27 |
| SEP 14 | 20.25 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | LOCAL IDENT-I-FIER | DATE | TIME | DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) | DEPTH OF WELL, TOTAL (FEET) | SPE-CIFIC CON-DUCT-ANCE (US/CM) | PH WATER WHOLE FIELD (STAND-ARD UNITS) | TEMPER-ATURE WATER (DEG C) | OXYGEN, DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | FR-345 | 970902 | 1016 | 22.80 | 45.00 | 916 | 7.2 | 23.5 | 0.0 |

| DATE | 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 DIS TOT IT 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) | SILICA, DIS-SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | 120 | 36 | 17 | 3.2 | 112 | 290 | 33 | 0.38 | 7.1 | 638 |

| DATE | NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) | NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) | NITRO-GEN,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) | BARIUM, DIS-SOLVED (UG/L AS BA) | BERYL-LIUM, DIS-SOLVED (UG/L AS BE) | CADMIUM DIS-SOLVED (UG/L AS CD) | COBALT, DIS-SOLVED (UG/L AS CO) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | <0.010 | <0.050 | 0.107 | <0.20 | <0.010 | <0.010 | 85 | <0.50 | <1.0 | 4.0 |

| 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) | 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) | CARBON, ORGANIC DIS-SOLVED (MG/L AS C) |
|---|---|---|---|---|---|---|---|---|---|---|
| SEP 02... | <10 | 1500 | <10 | 9 | 165 | 43 | 539 | <6 | 10 | 1.0 |

395225083012301. Local number FR-346 (MW 40)
LOCATION.--Lat 39°52'25", long 83°01'23", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 51 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 695.26 ft above sea level. Measuring point: Top of PVC casing, 2.58 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1996 to Mar. 1997. Well abandoned.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.28 ft below land-surface datum, Mar. 17, 1997; lowest measured, 21.76 ft below land-surface datum, Sept. 4, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 16.28 |

395206083012401. Local number FR-347 (MW 28)
LOCATION.--Lat 39°52'06", long 83°01'24", Hydrologic Unit 05060001
Owner.--City of Columbus
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation water well, 4 in. diameter, 43 ft deep.
INSTRUMENTATION.--Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 695.69 ft above sea level. Measuring point: Top of PVC casing, 2.79 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1996 to Mar. 1997. Well abandoned.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.01 ft below land-surface datum, Mar. 17, 1997; lowest measured, 23.33 ft below land-surface datum, Sept. 4, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| MAR 17 | 16.99 |

## Long-Term Ground-Water Monitoring Network, Geauga County

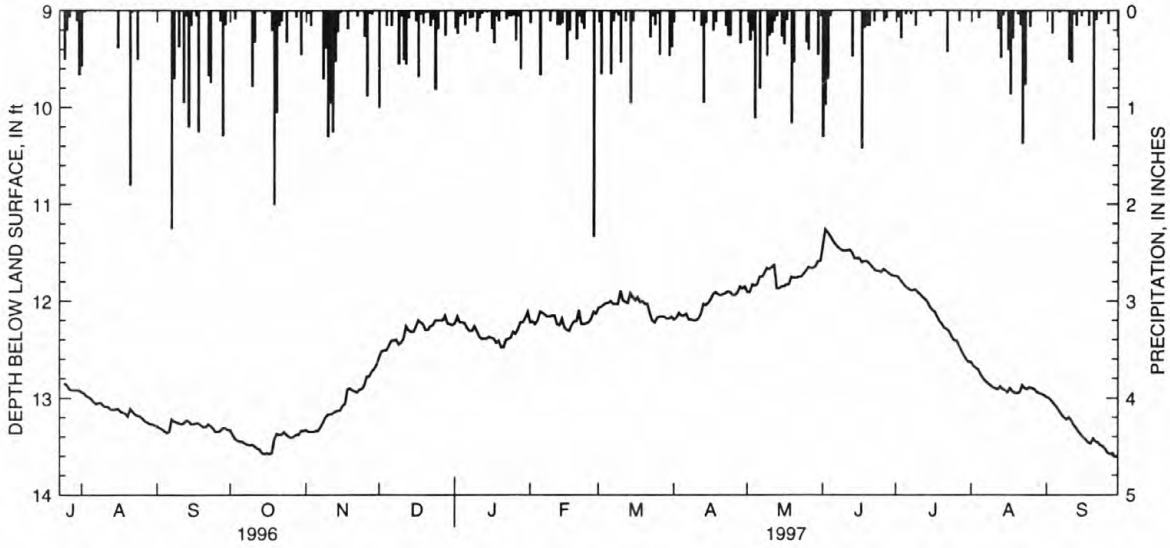
The following tables contain ground-water-level measurements from the 32 wells that comprise the long-term ground-water monitoring network in Geauga County. In addition to the 32 network wells, water levels were measured in one supplemental well (GE-147) that is no longer considered to be part of the network. The data were collected as part of a cooperative study with the Geauga County Planning Commission and Board of County Commissioners. The purpose of the study is to determine whether fluctuations in water levels represent consistent, long-term trends caused by human activity or are predominantly the result of seasonal and annual variations in recharge. Precipitation data presented in this section were obtained from National Weather Service station 331458 in Chardon, Ohio. Land-surface datums are accurate within ± 5 ft. Water levels known to have been measured after a well had been recently pumped are designated with an asterisk (*).

412331081123000. Local number GE-22
LOCATION.--Lat 41°23'31", long 81°12'30"; west of Valley View Road by La Due Reservoir at old Sugar House; Auburn Township.
Owner.--City of Akron.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Water-supply well located in pit, not currently in use; diameter 6.25 in.; depth 80 ft.
INSTRUMENTATION - Pressure transducer and CR10 data logger (records hourly) with SM192 storage module.
DATUM.--Elevation of land-surface datum is 1,160 ft above sea level. Measuring point: Mark on wooden base of instrument shelter; changed from 3.96 ft below land-surface datum to 3.20 ft above land-surface datum on May 13, 1997.
PERIOD OF RECORD.--Periodic water-level measurements from June 8, 1978 through September 8, 1994. Continuous water-level data from July 24, 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.26 ft below land-surface datum, June 2, 1997; lowest measured, 14.34 ft below land-surface datum, November 12, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13.33 | 13.33 | 12.58 | 12.23 | 12.22 | 12.07 | 12.19 | 11.91 | 11.42 | 11.74 | 12.63 | 12.99 |
| 2 | 13.38 | 13.35 | 12.52 | 12.16 | 12.21 | 12.06 | 12.17 | 11.91 | 11.26 | 11.75 | 12.67 | 13.00 |
| 3 | 13.42 | 13.35 | 12.51 | 12.22 | 12.24 | 12.04 | 12.12 | 11.83 | 11.29 | 11.79 | 12.69 | 13.03 |
| 4 | 13.44 | 13.35 | 12.51 | 12.22 | 12.20 | 12.02 | 12.15 | 11.84 | 11.33 | 11.82 | 12.71 | 13.06 |
| 5 | 13.45 | 13.34 | 12.46 | 12.23 | 12.11 | 12.02 | 12.15 | 11.83 | 11.37 | 11.85 | 12.76 | 13.09 |
| 6 | 13.45 | 13.34 | 12.41 | 12.28 | 12.12 | 12.00 | 12.13 | 11.75 | 11.41 | 11.87 | 12.80 | 13.13 |
| 7 | 13.47 | 13.30 | 12.41 | 12.31 | 12.14 | 12.03 | 12.19 | 11.75 | 11.44 | 11.89 | 12.83 | 13.17 |
| 8 | 13.48 | 13.25 | 12.40 | 12.31 | 12.16 | 12.03 | 12.19 | 11.71 | 11.46 | 11.89 | 12.85 | 13.20 |
| 9 | 13.49 | 13.20 | 12.45 | 12.26 | 12.16 | 12.03 | 12.20 | 11.66 | 11.48 | 11.88 | 12.87 | 13.22 |
| 10 | 13.48 | 13.17 | 12.43 | 12.31 | 12.15 | 11.89 | 12.20 | 11.67 | 11.48 | 11.91 | 12.89 | 13.20 |
| 11 | 13.50 | 13.17 | 12.39 | 12.37 | 12.15 | 11.99 | 12.18 | 11.65 | 11.48 | 11.93 | 12.90 | 13.23 |
| 12 | 13.52 | 13.16 | 12.26 | 12.39 | 12.24 | 12.01 | 12.13 | 11.63 | 11.47 | 11.96 | 12.91 | 13.28 |
| 13 | 13.53 | 13.14 | 12.30 | 12.39 | 12.25 | 12.02 | 12.03 | 11.87 | 11.50 | 11.98 | 12.88 | 13.31 |
| 14 | 13.57 | 13.13 | 12.32 | 12.39 | 12.18 | 11.92 | 12.04 | 11.87 | 11.56 | 12.01 | 12.91 | 13.35 |
| 15 | 13.58 | 13.13 | 12.32 | 12.37 | 12.27 | 11.96 | 12.02 | 11.85 | 11.56 | 12.06 | 12.92 | 13.38 |
| 16 | 13.57 | 13.08 | 12.27 | 12.38 | 12.30 | 11.99 | 11.98 | 11.85 | 11.56 | 12.09 | 12.94 | 13.41 |
| 17 | 13.58 | 13.06 | 12.20 | 12.39 | 12.31 | 11.96 | 11.93 | 11.83 | 11.60 | 12.11 | 12.90 | 13.43 |
| 18 | 13.57 | 12.91 | 12.22 | 12.43 | 12.25 | 12.01 | 11.91 | 11.83 | 11.59 | 12.16 | 12.93 | 13.46 |
| 19 | 13.43 | 12.90 | 12.24 | 12.41 | 12.21 | 12.00 | 11.93 | 11.75 | 11.59 | 12.21 | 12.95 | 13.47 |
| 20 | 13.37 | 12.92 | 12.30 | 12.48 | 12.21 | 12.03 | 11.94 | 11.76 | 11.61 | 12.24 | 12.95 | 13.42 |
| 21 | 13.38 | 12.93 | 12.30 | 12.48 | 12.09 | 12.03 | 11.93 | 11.76 | 11.64 | 12.28 | 12.94 | 13.45 |
| 22 | 13.38 | 12.94 | 12.26 | 12.40 | 12.24 | 12.13 | 11.92 | 11.75 | 11.67 | 12.29 | 12.87 | 13.46 |
| 23 | 13.35 | 12.91 | 12.25 | 12.39 | 12.24 | 12.20 | 11.90 | 11.75 | 11.69 | 12.32 | 12.90 | 13.49 |
| 24 | 13.38 | 12.91 | 12.20 | 12.38 | 12.23 | 12.22 | 11.91 | 11.72 | 11.69 | 12.37 | 12.91 | 13.50 |
| 25 | 13.40 | 12.87 | 12.20 | 12.32 | 12.22 | 12.17 | 11.94 | 11.69 | 11.70 | 12.41 | 12.89 | 13.53 |
| 26 | 13.41 | 12.78 | 12.20 | 12.34 | 12.18 | 12.16 | 11.94 | 11.65 | 11.67 | 12.41 | 12.90 | 13.57 |
| 27 | 13.40 | 12.78 | 12.20 | 12.29 | 12.11 | 12.16 | 11.91 | 11.66 | 11.69 | 12.46 | 12.91 | 13.58 |
| 28 | 13.38 | 12.73 | 12.15 | 12.22 | 12.13 | 12.16 | 11.85 | 11.66 | 11.71 | 12.51 | 12.94 | 13.57 |
| 29 | 13.38 | 12.70 | 12.23 | 12.22 | --- | 12.18 | 11.87 | 11.64 | 11.73 | 12.56 | 12.95 | 13.61 |
| 30 | 13.34 | 12.66 | 12.24 | 12.17 | --- | 12.18 | 11.85 | 11.59 | 11.74 | 12.60 | 12.96 | 13.60 |
| 31 | 13.34 | --- | 12.25 | 12.11 | --- | 12.16 | --- | 11.59 | --- | 12.63 | 12.97 | --- |
| MEAN | 13.44 | 13.06 | 12.32 | 12.32 | 12.20 | 12.06 | 12.03 | 11.75 | 11.55 | 12.13 | 12.87 | 13.34 |
| MAX | 13.58 | 13.35 | 12.58 | 12.48 | 12.31 | 12.22 | 12.20 | 11.91 | 11.74 | 12.63 | 12.97 | 13.61 |
| MIN | 13.33 | 12.66 | 12.15 | 12.11 | 12.09 | 11.89 | 11.85 | 11.59 | 11.26 | 11.74 | 12.63 | 12.99 |

CAL YR 1996 MEAN 13.04 HIGH 12.15 LOW 13.58
WTR YR 1997 MEAN 12.42 HIGH 11.26 LOW 13.61



412309081202400. Local number GE-23
LOCATION.--Lat 41°23'09", long 81°20'24"; Alltel building on Bainbridge Rd., west of S.R. 306; Bainbridge Township.
Owner.--Alltel Telephone Company.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Commercial water-supply well; diameter 5.63 in.; depth 42.5 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,162 ft above sea level. Measuring point: Top of casing, 1.32 ft above land-surface datum.
PERIOD OF RECORD.--April 26,1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.46 ft below land-surface datum, April 26, 1978; lowest measured, 19.37 ft below land-surface datum, January 16, 1996.

WATER LEVELS IN FEET BELOW LAND-SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-19-96 | 18.58 |
| 01-21-97 | 17.79* |
| 03-18-97 | 17.33 |
| 05-13-97 | 16.72 |
| 07-17-97 | 17.03 |

413138081152000. Local number, GE-76
LOCATION.--Lat 41°31'38", long 81°15'20"; 10755 Mayfield Road; Munson Township.
Owner.--Fowler's Mill Christian Church.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Private water-supply well; diameter 6.0 in.; depth 150 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,170 ft above sea level. Measuring point: Top of casing, 1.68 ft above land-surface datum.
PERIOD OF RECORD.--June 15, 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.19 ft below land-surface datum, June 15, 1978; lowest measured, 24.50 ft below land-surface datum, May 9, 1986 and August 21, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 22.57 |
| 01-21-97 | 22.65 |
| 03-18-97 | 21.73 |
| 05-14-97 | 21.58 |
| 07-16-97 | 21.98 |

412627081075400. Local number, GE-83
LOCATION.--Lat 41°26'27", long 81°07'54"; 15776 Jug Street; Burton Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6.0 in.; depth 70 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,220 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--June 14,1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.59 ft below land-surface datum, August 14, 1985; lowest measured, 33.95 ft below land-surface datum, November 12, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 01-21-97 | 32.51 |
| 03-18-97 | 31.45 |
| 05-14-97 | 30.52 |
| 07-16-97 | 30.51 |

412748081143900. Local number, GE-91
LOCATION.--Lat 41°27'48", long 81°14'39"; northeast corner of Auburn Rd. and S.R. 87 intersection; Newbury Township.
Owner.--Dairy Mart.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Commercial water-supply well; diameter 5.63 in.; depth 85 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,250 ft above sea level. Measuring point: Top of casing, 1.16 ft above land-surface datum.
PERIOD OF RECORD.--October 19, 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.10 ft below land-surface datum, October 19, 1978; lowest measured, 45.83 ft below land-surface datum, March 27, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 44.71 |
| 01-21-97 | 44.53 |
| 03-17-97 | 44.00 |
| 05-14-97 | 43.31 |
| 07-16-97 | 45.56 |

413757081122300. Local number, GE-101
LOCATION.--Lat 41°37'57", long 81°12'23"; 12080 Clark Road; Chardon Township.
Owner.--Privately owned.
AQUIFER.--Sand and gravel of Quaternary age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6.25 in.; depth 48 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 990 ft above sea level. Measuring point: Top of casing, 0.90 ft above land-surface datum.
PERIOD OF RECORD.--May 7, 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.81 ft below land-surface datum, March 17, 1997; lowest measured, 25.08 ft below land-surface datum, August 21, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 21.67 |
| 01-23-97 | 22.27 |
| 03-17-97 | 20.81 |
| 05-14-97 | 21.46 |
| 07-16-97 | 23.09 |

413755081101200. Local number, GE-103
LOCATION.--Lat 41°37'55", long 81°10'12"; 8755 Old State Road (S.R. 608); Hambden Township.
Owner.--Privately owned.
AQUIFER.--Berea Sandstone of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 136 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,159 ft above sea level. Measuring point: Top of casing, 0.40 ft above land-surface datum.
PERIOD OF RECORD.--May 7, 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 79.44 ft below land-surface datum, May 7, 1980; lowest measured, 91.85 ft below land-surface datum, March 27, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 91.20 |
| 01-21-97 | 91.46 |
| 03-17-97 | 91.25 |
| 05-14-97 | 90.85 |
| 07-16-97 | 91.09 |

413456081035600. Local number, GE-106
LOCATION.--Lat 41°34'56", long 81°03'56"; 10691 Clay Street; Montville Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 72 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,255 ft above sea level. Measuring point: Top of casing, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--May 7, 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.84 ft below land-surface datum, May 7, 1980; lowest measured, 37.44 ft below land-surface datum, May 29, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 35.17 |
| 01-21-97 | 35.58 |
| 03-17-97 | 35.06 |
| 05-14-97 | 34.69 |
| 07-16-97 | 35.42 |

413207081044400. Local number GE-112
LOCATION.--Lat 41°32'07", long 81°04'44"; by golf course maintenance building at 15900 Mayfield Road; Huntsburg Township.
Owner.--Rolling Green Golf Course.
AQUIFER.--Pottsville Formation (sandstone)of Pennsylvanian age.
WELL CHARACTERISTICS.--Commercial water-supply well for shop and house (not used for irrigation); diameter 5.63 in.; depth 80 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,265 ft above sea level. Measuring point: Top of casing, 1.30 ft above land-surface datum.
PERIOD OF RECORD.--May 8, 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.86 ft below land-surface datum, May 5, 1980; lowest measured, 48.77 ft below land-surface datum, March 27, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 47.69 |
| 01-21-97 | 47.61 |
| 03-18-97 | 48.30 |
| 05-14-97 | 46.79 |
| 07-15-97 | 46.47 |

412657081040500. Local number GE-119
LOCATION.--Lat 41°26'57", long 81°03'57"; 15400 S.R. 608; Middlefield Township.
Owner.--Geauga County Airport.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Commercial water-supply well; diameter 5.63 in.; depth 79 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,170 ft above sea level. Measuring point: Top of casing, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--August 20, 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.96 ft below land-surface datum, August 20, 1980; lowest measured, 15.31 ft below land-surface datum, March 28, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 13.67 |
| 01-22-97 | 13.22 |
| 03-18-97 | 12.96 |
| 05-14-97 | 12.52 |
| 07-15-97 | 12.85 |

412841081023200. Local number, GE-136
LOCATION.--Lat 41°28'41", long 81°02'32"; 16826 Nauvoo Road; Middlefield Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 58 ft; water level not static in spring and summer months (pump removes approximately 1 gal/min of water from well during the growing season).
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,130 ft above sea level. Measuring point: Top of casing 1.20 ft above land-surface datum.
PERIOD OF RECORD.--August 8, 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.31 ft below land-surface datum, May 8, 1986; lowest measured, 24.27 ft below land-surface datum, May 28, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 17.69 |
| 01-22-97 | 18.10* |
| 03-14-97 | 18.90 |
| 05-14-97 | 19.94 |
| 07-15-97 | 20.75 |

412138081072000. Local number GE-139
LOCATION.--Lat 41°21'38", long 81°07'20"; 14515 Hoover Road; Troy Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 90 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,171 ft above sea level. Measuring point: Top of casing, 0.37 ft above land-surface datum.
PERIOD OF RECORD.--August 15, 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.85 ft below land-surface datum, May 14, 1997; lowest measured, 36.89 ft below land-surface datum, September 9, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-19-96 | 34.13 |
| 01-21-97 | 33.89 |
| 03-18-97 | 33.26 |
| 05-14-97 | 32.85 |
| 07-15-97 | 34.27 |

412845081030100. Local number GE-147
LOCATION.--Lat 41°28'45", long 81°03'01"; 16598 Nauvoo Road; Middlefield Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 63 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,120 ft above sea level. Measuring point: Top of casing 1.90 ft above land-surface datum.
PERIOD OF RECORD.--September 18, 1985 through July 15, 1997.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.26 ft below land-surface datum, April 30, 1986; lowest measured, 13.91 ft below land-surface datum, September 6, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 10.61* |
| 01-22-97 | 3.51 |
| 03-18-97 | 4.44 |
| 05-14-97 | 12.16* |
| 07-15-97 | 10.94 |

413155081214900. Local number GE-150
LOCATION.--Lat 41°31'55", long 81°21'49"; 12390 Caves Road; Chester Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6.63 in.; depth 90 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,220 ft above sea level. Measuring point: Top of casing, 1.55 ft above land-surface datum.
PERIOD OF RECORD.--February 13, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.07 ft below land-surface datum, May 14, 1997; lowest measured, 26.20 ft below land-surface datum, September 11, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 24.16 |
| 01-22-97 | 24.38 |
| 03-17-97 | 22.80 |
| 05-14-97 | 22.07 |
| 07-16-97 | 22.65 |

412415081033500. Local number GE-163
LOCATION.--Lat 41°24'15", long 81°03'35"; 17115 Madison Road; Parkman Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 60 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,182 ft above sea level. Measuring point: Top of casing, 1.10 ft above land-surface datum.
PERIOD OF RECORD.--February 5, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.17 ft below land-surface datum, February 5, 1986; lowest measured, 15.81 ft below land-surface datum, September 9, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 14.45 |
| 01-22-97 | 14.31 |
| 03-18-97 | 13.97 |
| 05-14-97 | 13.57 |
| 07-15-97 | 14.61 |

412454081162400. Local number GE-166
LOCATION.--Lat 41°24'54", long 81°16'24"; 16725 Munn Road; Auburn Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 155 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,260 ft above sea level. Measuring point: Top of casing, 1.88 ft above land-surface datum.
PERIOD OF RECORD.--February 4, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.37 ft below land-surface datum, July 16, 1997; lowest measured, 69.18 ft below land-surface datum, March 27, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-19-96 | 52.69 |
| 01-21-97 | 49.62 |
| 03-19-97 | 67.16* |
| 05-14-97 | 68.18* |
| 07-16-97 | 49.37 |

412311081213000. Local number, GE-170
LOCATION.--Lat 41°23'11", long 81°21'30"; 7956 Bainbridge Road; Bainbridge Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 92 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,110 ft above sea level. Measuring point: Top of casing, 1.47 ft above land-surface datum
PERIOD OF RECORD.--February 4, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.82 ft below land-surface datum, November 19, 1996; lowest measured, 50.00 ft below land-surface datum, August 18, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-19-96 | 43.82 |
| 01-21-97 | 44.91 |
| 03-18-97 | 44.23 |
| 05-13-97 | 44.30 |
| 07-17-97 | 48.61 |

413630081145000. Local number, GE-185A
LOCATION.--Lat 41°36'30", long 81°14'50"; 9673 Mentor Road; Chardon Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.5 in.; depth 90 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,260 ft above sea level. Measuring point: Top of casing 0.84 ft above land-surface datum
PERIOD OF RECORD.--January 1, 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.39 ft below land-surface datum, November 21, 1996; lowest measured, 35.86 ft* below land-surface datum, July 16, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 32.39 |
| 03-17-97 | 32.91 |
| 05-14-97 | 33.13 |
| 07-16-97 | 35.86* |

413607081032500. Local number, GE-202
LOCATION.--Lat 41°36'07", long 81°03'25"; 9999 Plank Road; Montville Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 74 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,247 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--February 10, 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.60 ft below land-surface datum, February 10, 1986; lowest measured, 30.30 ft below land-surface datum, September 6, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 29.30 |
| 01-21-97 | 29.50 |
| 03-17-97 | 29.01 |
| 05-14-97 | 28.80 |
| 07-16-97 | 29.74 |

413357081214800. Local number, GE-255
LOCATION.--Lat 41°33'57", long 81°21'48"; 11240 Caves Road; Chester Township.
Owner.--Privately owned.
AQUIFER.--Berea Sandstone of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 123 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,075 ft above sea level. Measuring point: Top of casing, 2.08 ft above land-surface datum.
PERIOD OF RECORD.--September 8, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.32 ft below land surface datum, May 14, 1997; lowest maeasured, 54.04 ft below land-surface datum, January 17, 1996 and July 16, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 01-23-97 | 52.45 |
| 03-17-97 | 52.15 |
| 05-14-97 | 51.32 |
| 07-16-97 | 54.04 |

413634081103500. Local number, GE-262
LOCATION.--Lat 41°36'34", long 81°10'35"; 9593 Wildwood Road; Hambden Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 100 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,200 ft above sea level. Measuring point: Top of casing 1.60 ft above land-surface datum
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.19 ft below land-surface datum, September 10, 1996; lowest measured, 40.26 ft below land-surface datum, March 27, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 34.72 |
| 01-21-97 | 35.87 |
| 03-17-97 | 34.71 |
| 05-14-97 | 34.45* |
| 07-16-97 | 34.99 |

413127081025900. Local number, GE-280
LOCATION.--Lat 41°31'27", long 81°02'59"; 12972 Madison Road; Huntsburg Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 162 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,145 ft above sea level. Measuring point: Top of casing 1.45 ft above land-surface datum
PERIOD OF RECORD.--September 8, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.29 ft below land-surface datum, March 18, 1997; lowest measured, 35.05 ft below land-surface datum, September 8, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 01-22-97 | 32.76 |
| 03-18-97 | 32.29 |
| 05-14-97 | 32.46 |
| 07-15-97 | 33.82 |

413350081163500. Local number, GE-303
LOCATION.--Lat 41°33'50", long 81°16'35"; 10250 Mulberry Road; Munson Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 95 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,230 ft above sea level. Measuring point: Top of casing 1.60 ft above land-surface datum
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.23 ft below land-surface datum, May 14, 1997; lowest measured, 62.63 ft below land-surface datum, September 10, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-21-96 | 61.36 |
| 01-21-97 | 60.61 |
| 03-17-97 | 57.39 |
| 05-14-97 | 57.23 |
| 07-16-97 | 59.50 |

413315081134200. Local number, GE-308
LOCATION.--Lat 41°33'15", long 81°13'42"; 11675 Chestnutdale Drive; Munson Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 6 in.; depth 98 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,165 ft above sea level. Measuring point: Top of casing 1.68 ft above land-surface datum
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.26 ft below land-surface datum, January 21, 1997; lowest measured, 24.80 ft below land-surface datum, July 15, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 23.94 |
| 01-21-97 | 20.26 |
| 03-17-97 | 22.25 |
| 05-14-97 | 20.35 |
| 07-15-97 | 21.02 |

412558081184200. Local number GE-332
LOCATION.--Lat 41°25'58", long 81°18'42"; 103 Silver Springs; Russell Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone)of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 104 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,180 ft above sea level. Measuring point: Top of casing, 1.14 ft above land-surface datum.
PERIOD OF RECORD.--September 8, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.83 ft below land-surface datum, May 14,1997; lowest measured, 34.89 ft below land-surface datum, September 9, 1996.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-19-96 | 34.58 |
| 01-22-97 | 34.04 |
| 03-17-97 | 33.99 |
| 05-14-97 | 33.83 |
| 07-16-97 | 34.15 |

412743081195700. Local number, GE-338
LOCATION.--Lat 41°27'43", long 81°19'57"; 14940 Surrey Downs; Russell Township.
Owner.--Privately owned.
AQUIFER.--Berea Sandstone of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.56 in.; depth 160 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,078 ft above sea level. Measuring point: Top of casing, 1.38 ft above land-surface datum.
PERIOD OF RECORD.--September 8, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.84 ft below land-surface datum, September 8, 1994; lowest measured, 73.29 ft below land-surface datum, January 22, 1997.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 66.95* |
| 01-22-97 | 73.29 |
| 03-18-97 | 66.28 |
| 05-13-97 | 66.58 |
| 07-16-97 | 67.27 |

414121081030800. Local number, GE-341
LOCATION.--Lat 41°41'21", long 81°03'08"; 6758 Madison Road; Thompson Township.
Owner.--Thompson United Methodist Church.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Private water-supply well; diameter 6.63 in.; depth 120 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,267 ft above sea level. Measuring point: Top of casing 2.00 ft above land-surface datum
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.12 ft below land-surface datum, November 20, 1996; lowest measured, 10.11 ft below land-surface datum, September 7, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 11-20-96 | 4.12 |
| 01-22-97 | 5.91 |
| 03-17-97 | 4.23 |
| 05-14-97 | 4.83 |
| 07-16-97 | 6.37 |

413957081052100. Local number, GE-343
LOCATION.--Lat 41°39'57", long 81°05'21"; 15554 Valentine Road; Thompson Township.
Owner.--Privately owned.
AQUIFER.--Berea Sandstone of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well; diameter 5.63 in.; depth 120 ft.
INSTRUMENTATION - Periodic measurement with steel or electric tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,145 ft above sea level. Measuring point: Top of casing, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--September 7, 1994 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.40 ft below land-surface datum, May 14, 1997; lowest measured, 72.93 ft below land-surface datum, September 7, 1994.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM

| Date | Water Level |
|---|---|
| 01-22-97 | 69.91 |
| 03-17-97 | 69.62 |
| 05-14-97 | 69.40 |
| 07-16-97 | 71.62 |

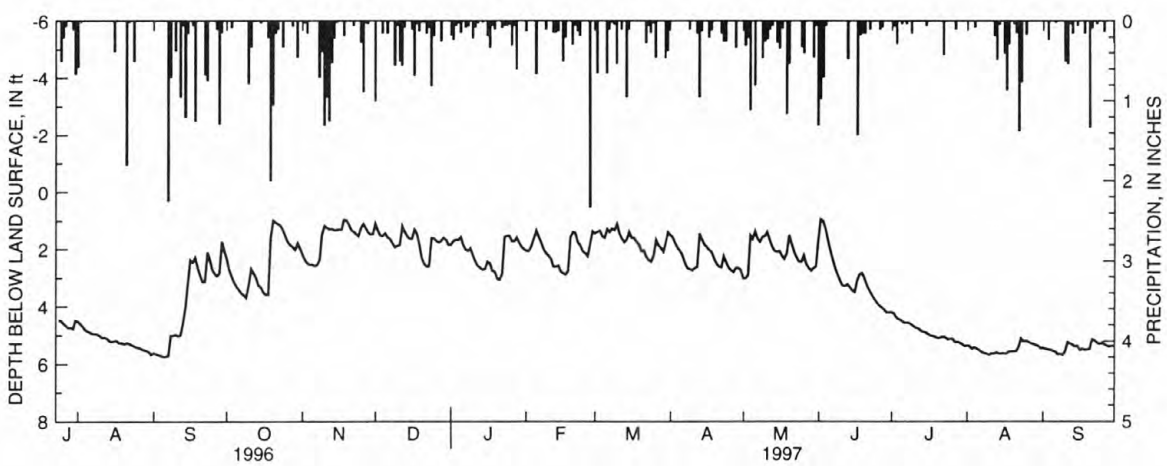
# PROJECT DATA
## Long-Term Ground-Water Monitoring Network, Geauga County

414125081031500. Local number GE-348
LOCATION.--Lat 41°41'25", long 81°03'15"; 66506 W. Thompson Road; Thompson Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6.0 in.; depth 53 ft.
INSTRUMENTATION - Pressure transducer and CR10 data logger (records hourly) with SM192 storage module.
DATUM.--Elevation of land-surface datum is 1,265 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 2.55 ft above land-surface datum.
PERIOD OF RECORD.--July 23, 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.94 ft below land-surface datum, June 2, 1997; lowest measured, 5.75 ft below land-surface datum, September 5, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.32 | 2.18 | 1.10 | 1.85 | 2.06 | 1.44 | 1.50 | 3.01 | 1.70 | 4.20 | 5.35 | 5.44 |
| 2 | 2.72 | 2.37 | 1.35 | 1.71 | 2.06 | 1.38 | 1.57 | 3.01 | .94 | 4.24 | 5.38 | 5.47 |
| 3 | 2.93 | 2.48 | 1.51 | 1.66 | 1.89 | 1.35 | 1.79 | 2.90 | 1.00 | 4.38 | 5.47 | 5.49 |
| 4 | 3.15 | 2.54 | 1.53 | 1.67 | 1.62 | 1.55 | 1.96 | 1.51 | 1.29 | 4.45 | 5.42 | 5.51 |
| 5 | 3.30 | 2.53 | 1.44 | 1.57 | 1.34 | 1.60 | 2.05 | 1.63 | 1.68 | 4.47 | 5.47 | 5.54 |
| 6 | 3.41 | 2.58 | 1.58 | 1.84 | 1.56 | 1.29 | 2.22 | 1.37 | 2.05 | 4.56 | 5.52 | 5.57 |
| 7 | 3.53 | 2.55 | 1.63 | 2.01 | 1.77 | 1.39 | 2.49 | 1.64 | 2.37 | 4.57 | 5.59 | 5.67 |
| 8 | 3.60 | 2.37 | 1.79 | 2.05 | 2.00 | 1.27 | 2.65 | 1.74 | 2.65 | 4.56 | 5.62 | 5.65 |
| 9 | 3.69 | 1.48 | 1.93 | 1.97 | 2.13 | 1.32 | 2.69 | 1.57 | 2.90 | 4.62 | 5.64 | 5.68 |
| 10 | 3.26 | 1.18 | 1.88 | 2.20 | 2.22 | 1.11 | 2.73 | 1.53 | 3.10 | 4.68 | 5.68 | 5.55 |
| 11 | 2.68 | 1.24 | 1.85 | 2.42 | 2.33 | 1.43 | 2.65 | 1.39 | 3.26 | 4.74 | 5.63 | 5.24 |
| 12 | 2.82 | 1.30 | 1.19 | 2.57 | 2.60 | 1.62 | 2.62 | 1.66 | 3.28 | 4.76 | 5.64 | 5.28 |
| 13 | 2.99 | 1.28 | 1.37 | 2.64 | 2.61 | 1.75 | 1.45 | 1.91 | 3.22 | 4.84 | 5.60 | 5.33 |
| 14 | 3.26 | 1.33 | 1.54 | 2.71 | 2.57 | 1.67 | 1.64 | 2.05 | 3.32 | 4.88 | 5.64 | 5.39 |
| 15 | 3.33 | 1.32 | 1.63 | 2.69 | 2.77 | 1.39 | 1.83 | 2.08 | 3.43 | 4.89 | 5.63 | 5.37 |
| 16 | 3.50 | 1.30 | 1.64 | 2.43 | 2.84 | 1.60 | 1.92 | 2.06 | 3.49 | 4.96 | 5.63 | 5.52 |
| 17 | 3.58 | 1.31 | 1.31 | 2.48 | 2.88 | 1.60 | 2.02 | 2.22 | 3.10 | 5.01 | 5.64 | 5.47 |
| 18 | 3.58 | .96 | 1.45 | 2.75 | 2.76 | 1.74 | 2.09 | 2.33 | 2.87 | 5.02 | 5.57 | 5.51 |
| 19 | 1.59 | .98 | 1.82 | 2.78 | 1.57 | 1.83 | 2.32 | 2.14 | 2.83 | 5.06 | 5.56 | 5.49 |
| 20 | .99 | 1.13 | 2.30 | 3.03 | 1.39 | 2.06 | 2.49 | 1.50 | 3.01 | 5.10 | 5.56 | 5.48 |
| 21 | 1.06 | 1.32 | 2.50 | 3.06 | 1.42 | 2.04 | 2.60 | 1.79 | 3.26 | 5.07 | 5.56 | 5.14 |
| 22 | 1.11 | 1.38 | 2.60 | 2.87 | 1.76 | 2.26 | 2.63 | 2.08 | 3.44 | 5.05 | 5.41 | 5.18 |
| 23 | 1.17 | 1.47 | 2.59 | 1.57 | 1.87 | 2.37 | 2.24 | 2.27 | 3.58 | 5.07 | 5.11 | 5.25 |
| 24 | 1.33 | 1.54 | 1.61 | 1.53 | 2.07 | 2.43 | 2.45 | 2.43 | 3.73 | 5.14 | 5.21 | 5.30 |
| 25 | 1.55 | 1.25 | 1.61 | 1.52 | 2.13 | 2.22 | 2.64 | 2.44 | 3.86 | 5.12 | 5.19 | 5.26 |
| 26 | 1.75 | 1.11 | 1.71 | 1.72 | 2.24 | 1.67 | 2.73 | 2.21 | 3.96 | 5.12 | 5.23 | 5.32 |
| 27 | 1.85 | 1.25 | 1.77 | 1.72 | 1.82 | 1.85 | 2.79 | 2.50 | 4.03 | 5.24 | 5.28 | 5.35 |
| 28 | 1.92 | 1.41 | 1.71 | 1.58 | 1.37 | 1.96 | 2.65 | 2.65 | 4.10 | 5.23 | 5.30 | 5.40 |
| 29 | 2.02 | 1.48 | 1.60 | 1.77 | --- | 2.08 | 2.65 | 2.75 | 4.21 | 5.27 | 5.34 | 5.37 |
| 30 | 1.79 | 1.47 | 1.67 | 1.92 | --- | 1.78 | 2.72 | 2.66 | 4.21 | 5.31 | 5.36 | 5.37 |
| 31 | 1.97 | --- | 1.85 | 1.99 | --- | 1.40 | --- | 2.60 | --- | 5.38 | 5.46 | --- |
| MEAN | 2.51 | 1.60 | 1.71 | 2.14 | 2.06 | 1.69 | 2.29 | 2.12 | 3.00 | 4.87 | 5.47 | 5.42 |
| MAX | 3.69 | 2.58 | 2.60 | 3.06 | 2.88 | 2.43 | 2.79 | 3.01 | 4.21 | 5.38 | 5.68 | 5.68 |
| MIN | .99 | .96 | 1.10 | 1.52 | 1.34 | 1.11 | 1.45 | 1.37 | .94 | 4.20 | 5.11 | 5.14 |

CAL YR 1996 MEAN 3.05 HIGH .96 LOW 5.75
WTR YR 1997 MEAN 2.91 HIGH .94 LOW 5.68



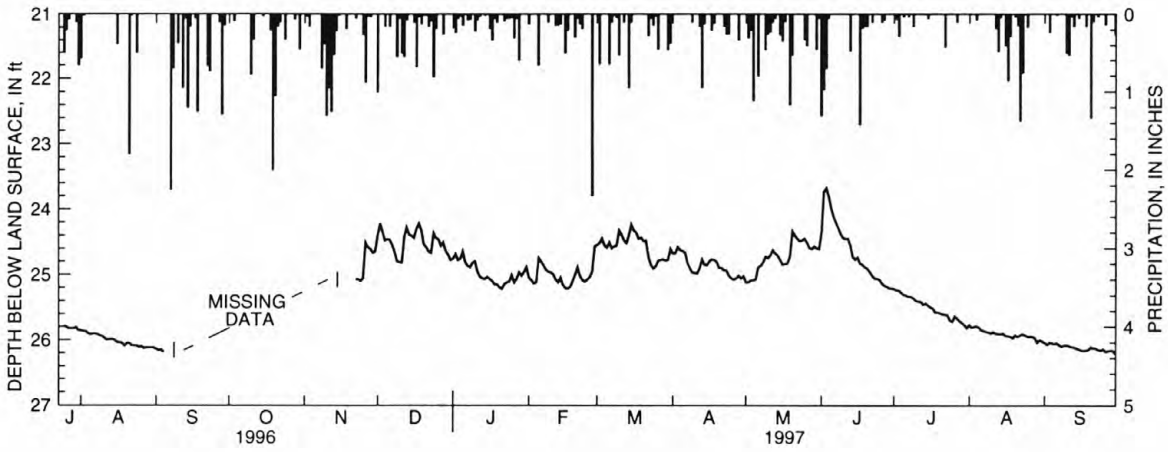
# PROJECT DATA
## Long-Term Ground-Water Monitoring Network, Geauga County

413247081103300. Local number GE-349
LOCATION.--Lat 41°32'47", long 81°10'33"; 121 Bershire Drive, Aquilla Village; Claridon Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 5.63 in.; depth 58.19 ft.
INSTRUMENTATION - Pressure transducer and CR10 data logger (records hourly) with SM192 storage module.
DATUM.--Elevation of land-surface datum is 1,190 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 1.05 ft above land-surface datum.
PERIOD OF RECORD.--July 24, 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.68 ft below land-surface datum, June 3, 1997; lowest measured, 26.21 ft below land-surface datum, September 30, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | 24.40 | 24.76 | 25.05 | 24.55 | 24.68 | 25.12 | 24.35 | 25.22 | 25.77 | 26.04 |
| 2 | --- | --- | 24.22 | 24.69 | 25.09 | 24.52 | 24.68 | 25.12 | 23.73 | 25.24 | 25.81 | 26.07 |
| 3 | --- | --- | 24.34 | 24.78 | 25.14 | 24.45 | 24.58 | 25.09 | 23.68 | 25.24 | 25.80 | 26.04 |
| 4 | --- | --- | 24.48 | 24.76 | 25.12 | 24.56 | 24.63 | 25.09 | 23.81 | 25.28 | 25.79 | 26.05 |
| 5 | --- | --- | 24.46 | 24.65 | 24.75 | 24.59 | 24.64 | 25.08 | 23.98 | 25.31 | 25.81 | 26.06 |
| 6 | --- | --- | 24.47 | 24.81 | 24.80 | 24.51 | 24.67 | 24.89 | 24.12 | 25.32 | 25.85 | 26.05 |
| 7 | --- | --- | 24.54 | 24.87 | 24.86 | 24.60 | 24.83 | 24.87 | 24.21 | 25.34 | 25.86 | 26.08 |
| 8 | --- | --- | 24.65 | 24.89 | 24.93 | 24.57 | 24.90 | 24.82 | 24.29 | 25.34 | 25.88 | 26.10 |
| 9 | --- | --- | 24.80 | 24.82 | 24.96 | 24.56 | 24.97 | 24.73 | 24.38 | 25.36 | 25.88 | 26.08 |
| 10 | --- | --- | 24.81 | 24.80 | 24.97 | 24.33 | 24.98 | 24.75 | 24.44 | 25.40 | 25.90 | 26.08 |
| 11 | --- | --- | 24.82 | 24.96 | 25.00 | 24.39 | 24.99 | 24.71 | 24.45 | 25.41 | 25.88 | 26.09 |
| 12 | --- | --- | 24.42 | 25.03 | 25.08 | 24.48 | 24.91 | 24.63 | 24.45 | 25.41 | 25.90 | 26.11 |
| 13 | --- | --- | 24.28 | 25.06 | 25.12 | 24.52 | 24.77 | 24.68 | 24.56 | 25.46 | 25.91 | 26.11 |
| 14 | --- | --- | 24.39 | 25.07 | 25.05 | 24.41 | 24.85 | 24.71 | 24.73 | 25.44 | 25.91 | 26.13 |
| 15 | --- | --- | 24.41 | 25.04 | 25.16 | 24.24 | 24.86 | 24.78 | 24.77 | 25.47 | 25.90 | 26.14 |
| 16 | --- | --- | 24.44 | 25.07 | 25.21 | 24.33 | 24.80 | 24.85 | 24.74 | 25.50 | 25.94 | 26.16 |
| 17 | --- | --- | 24.30 | 25.10 | 25.22 | 24.36 | 24.77 | 24.84 | 24.83 | 25.52 | 25.94 | 26.16 |
| 18 | --- | --- | 24.22 | 25.15 | 25.19 | 24.45 | 24.78 | 24.83 | 24.85 | 25.58 | 25.95 | 26.16 |
| 19 | --- | --- | 24.32 | 25.15 | 25.10 | 24.44 | 24.81 | 24.73 | 24.89 | 25.58 | 25.97 | 26.15 |
| 20 | --- | --- | 24.54 | 25.20 | 25.00 | 24.49 | 24.90 | 24.34 | 24.91 | 25.59 | 25.93 | 26.11 |
| 21 | --- | --- | 24.58 | 25.22 | 24.89 | 24.48 | 24.90 | 24.40 | 24.96 | 25.61 | 25.95 | 26.13 |
| 22 | --- | 25.07 | 24.65 | 25.15 | 25.03 | 24.73 | 24.94 | 24.45 | 25.02 | 25.61 | 25.93 | 26.13 |
| 23 | --- | 25.07 | 24.67 | 25.12 | 25.09 | 24.85 | 24.94 | 24.49 | 25.06 | 25.62 | 25.91 | 26.15 |
| 24 | --- | 25.10 | 24.37 | 25.11 | 25.11 | 24.91 | 25.02 | 24.48 | 25.06 | 25.70 | 25.93 | 26.16 |
| 25 | --- | 25.06 | 24.44 | 25.01 | 25.08 | 24.88 | 25.06 | 24.45 | 25.08 | 25.72 | 25.95 | 26.14 |
| 26 | --- | 24.51 | 24.46 | 25.12 | 25.04 | 24.79 | 25.08 | 24.51 | 25.13 | 25.64 | 25.95 | 26.18 |
| 27 | --- | 24.58 | 24.56 | 25.07 | 24.96 | 24.78 | 25.06 | 24.59 | 25.17 | 25.67 | 25.95 | 26.17 |
| 28 | --- | 24.61 | 24.51 | 24.97 | 24.57 | 24.77 | 25.02 | 24.61 | 25.18 | 25.71 | 25.97 | 26.16 |
| 29 | --- | 24.67 | 24.64 | 25.02 | --- | 24.79 | 25.06 | 24.57 | 25.21 | 25.74 | 26.04 | 26.16 |
| 30 | --- | 24.65 | 24.70 | 24.96 | --- | 24.78 | 25.03 | 24.60 | 25.21 | 25.77 | 26.00 | 26.21 |
| 31 | --- | --- | 24.78 | 24.89 | --- | 24.61 | --- | 24.61 | --- | 25.82 | 26.02 | --- |
| MEAN | --- | 24.81 | 24.51 | 24.98 | 25.02 | 24.57 | 24.87 | 24.72 | 24.64 | 25.50 | 25.91 | 26.12 |
| MAX | --- | 25.10 | 24.82 | 25.22 | 25.22 | 24.91 | 25.08 | 25.12 | 25.21 | 25.82 | 26.04 | 26.21 |
| MIN | --- | 24.51 | 24.22 | 24.65 | 24.57 | 24.24 | 24.58 | 24.34 | 23.68 | 25.22 | 25.77 | 26.04 |

CAL YR 1996 MEAN 25.30 HIGH 24.22 LOW 26.19
WTR YR 1997 MEAN 25.08 HIGH 23.68 LOW 26.21



# PROJECT DATA

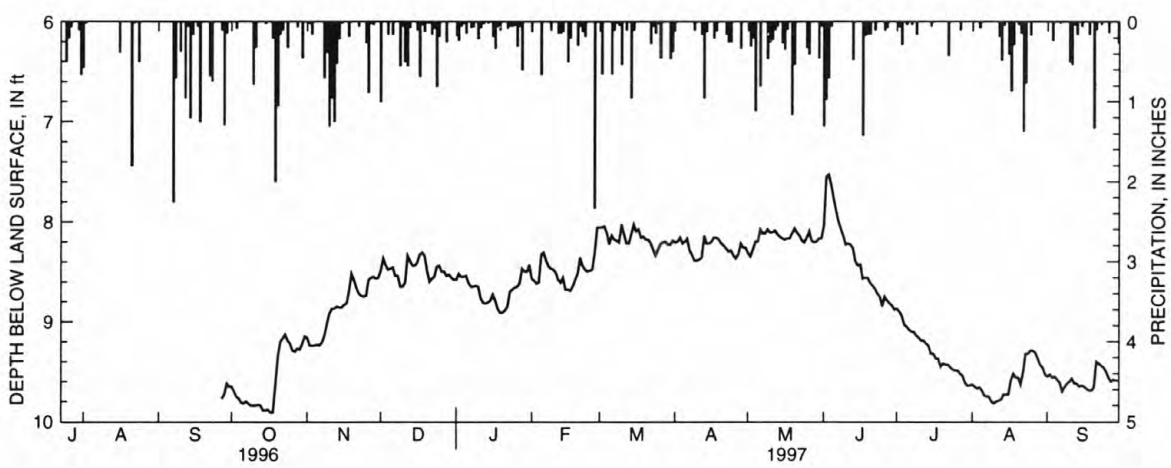
## Long-Term Ground-Water Monitoring Network, Geauga County

412322081190000. Local number GE-350
LOCATION.--Lat 41°23'32", long 81°19'00"; 9100 Bainbridge Road; Bainbridge Township.
Owner.--Privately owned.
AQUIFER.--Pottsville Formation (sandstone) of Pennsylvanian age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6.0 in.; depth 59.87 ft.
INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).
DATUM.--Elevation of land-surface datum is 1,120 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 0.77 ft above land-surface datum.
PERIOD OF RECORD.--September 26, 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.53 ft below land-surface datum, June 3, 1997; lowest measured, 10.08 ft below land-surface datum, September 26, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9.65 | 9.16 | 8.49 | 8.58 | 8.57 | 8.06 | 8.21 | 8.32 | 8.04 | 8.87 | 9.63 | 9.55 |
| 2 | 9.70 | 9.24 | 8.37 | 8.52 | 8.59 | 8.06 | 8.20 | 8.35 | 7.55 | 8.90 | 9.65 | 9.53 |
| 3 | 9.75 | 9.24 | 8.43 | 8.55 | 8.62 | 8.05 | 8.16 | 8.28 | 7.53 | 8.94 | 9.67 | 9.56 |
| 4 | 9.77 | 9.24 | 8.48 | 8.55 | 8.61 | 8.12 | 8.22 | 8.20 | 7.64 | 9.03 | 9.66 | 9.55 |
| 5 | 9.81 | 9.23 | 8.47 | 8.54 | 8.33 | 8.23 | 8.20 | 8.20 | 7.77 | 9.05 | 9.69 | 9.58 |
| 6 | 9.82 | 9.24 | 8.46 | 8.61 | 8.31 | 8.14 | 8.17 | 8.08 | 7.89 | 9.08 | 9.74 | 9.61 |
| 7 | 9.80 | 9.21 | 8.54 | 8.65 | 8.39 | 8.18 | 8.29 | 8.12 | 8.00 | 9.10 | 9.75 | 9.70 |
| 8 | 9.82 | 9.14 | 8.54 | 8.65 | 8.45 | 8.19 | 8.33 | 8.12 | 8.07 | 9.10 | 9.75 | 9.66 |
| 9 | 9.84 | 9.03 | 8.65 | 8.64 | 8.47 | 8.21 | 8.39 | 8.08 | 8.14 | 9.14 | 9.80 | 9.62 |
| 10 | 9.84 | 8.92 | 8.65 | 8.65 | 8.48 | 8.03 | 8.39 | 8.11 | 8.23 | 9.16 | 9.82 | 9.60 |
| 11 | 9.84 | 8.87 | 8.61 | 8.77 | 8.51 | 8.12 | 8.38 | 8.11 | 8.22 | 9.19 | 9.80 | 9.57 |
| 12 | 9.83 | 8.87 | 8.34 | 8.81 | 8.58 | 8.22 | 8.36 | 8.09 | 8.23 | 9.19 | 9.79 | 9.62 |
| 13 | 9.84 | 8.85 | 8.39 | 8.82 | 8.61 | 8.22 | 8.14 | 8.13 | 8.27 | 9.22 | 9.78 | 9.62 |
| 14 | 9.89 | 8.86 | 8.44 | 8.81 | 8.56 | 8.13 | 8.22 | 8.15 | 8.40 | 9.24 | 9.73 | 9.65 |
| 15 | 9.89 | 8.86 | 8.44 | 8.79 | 8.68 | 8.03 | 8.22 | 8.17 | 8.44 | 9.32 | 9.73 | 9.64 |
| 16 | 9.88 | 8.83 | 8.41 | 8.73 | 8.68 | 8.10 | 8.20 | 8.18 | 8.43 | 9.32 | 9.73 | 9.65 |
| 17 | 9.91 | 8.82 | 8.33 | 8.79 | 8.69 | 8.08 | 8.16 | 8.17 | 8.57 | 9.37 | 9.59 | 9.67 |
| 18 | 9.91 | 8.70 | 8.31 | 8.87 | 8.65 | 8.16 | 8.16 | 8.17 | 8.56 | 9.37 | 9.52 | 9.69 |
| 19 | 9.64 | 8.52 | 8.34 | 8.91 | 8.58 | 8.15 | 8.18 | 8.12 | 8.56 | 9.45 | 9.56 | 9.69 |
| 20 | 9.35 | 8.58 | 8.49 | 8.91 | 8.52 | 8.18 | 8.22 | 8.07 | 8.61 | 9.42 | 9.56 | 9.66 |
| 21 | 9.20 | 8.66 | 8.60 | 8.89 | 8.36 | 8.18 | 8.24 | 8.11 | 8.64 | 9.43 | 9.63 | 9.40 |
| 22 | 9.17 | 8.72 | 8.57 | 8.85 | 8.44 | 8.22 | 8.27 | 8.14 | 8.67 | 9.43 | 9.50 | 9.42 |
| 23 | 9.13 | 8.74 | 8.55 | 8.70 | 8.48 | 8.28 | 8.30 | 8.19 | 8.72 | 9.46 | 9.32 | 9.44 |
| 24 | 9.19 | 8.75 | 8.45 | 8.68 | 8.50 | 8.34 | 8.29 | 8.21 | 8.75 | 9.48 | 9.32 | 9.46 |
| 25 | 9.22 | 8.74 | 8.44 | 8.66 | 8.49 | 8.28 | 8.34 | 8.16 | 8.85 | 9.49 | 9.29 | 9.50 |
| 26 | 9.29 | 8.58 | 8.50 | 8.65 | 8.48 | 8.22 | 8.37 | 8.10 | 8.75 | 9.49 | 9.29 | 9.56 |
| 27 | 9.30 | 8.56 | 8.50 | 8.62 | 8.32 | 8.21 | 8.33 | 8.19 | 8.79 | 9.52 | 9.31 | 9.60 |
| 28 | 9.27 | 8.55 | 8.54 | 8.47 | 8.06 | 8.20 | 8.22 | 8.21 | 8.82 | 9.54 | 9.37 | 9.58 |
| 29 | 9.28 | 8.57 | 8.53 | 8.50 | --- | 8.23 | 8.26 | 8.20 | 8.84 | 9.61 | 9.43 | 9.59 |
| 30 | 9.22 | 8.56 | 8.56 | 8.50 | --- | 8.23 | 8.26 | 8.17 | 8.88 | 9.64 | 9.46 | 9.59 |
| 31 | 9.15 | --- | 8.58 | 8.43 | --- | 8.19 | --- | 8.17 | --- | 9.64 | 9.53 | --- |
| MEAN | 9.59 | 8.86 | 8.48 | 8.68 | 8.50 | 8.17 | 8.26 | 8.16 | 8.36 | 9.30 | 9.59 | 9.59 |
| MAX | 9.91 | 9.24 | 8.65 | 8.91 | 8.69 | 8.34 | 8.39 | 8.35 | 8.88 | 9.64 | 9.82 | 9.70 |
| MIN | 9.13 | 8.52 | 8.31 | 8.43 | 8.06 | 8.03 | 8.14 | 8.07 | 7.53 | 8.87 | 9.29 | 9.40 |

CAL YR 1996 MEAN 9.01 HIGH 8.31 LOW 9.91
WTR YR 1997 MEAN 8.80 HIGH 7.53 LOW 9.91

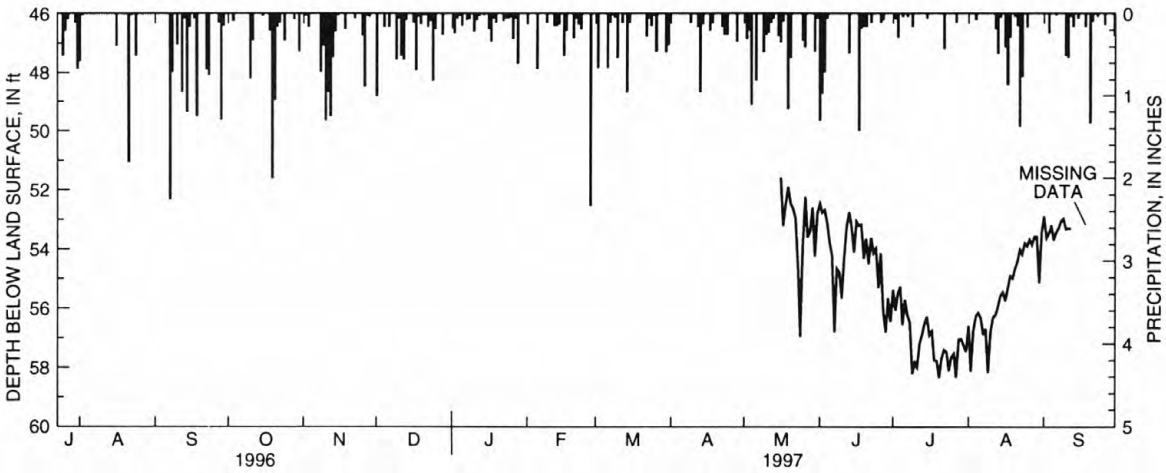


413119081213200. Local number, GE-351
LOCATION.--Lat 41°31'19", long 81°21'32"; south side of S.R. 322, east of intersection with Caves Road and west of Bloom Brothers Hardware; Chester Township.
Owner.--Privately owned.
AQUIFER.--Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6 in.; depth 126.5 ft.
INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).
DATUM.--Elevation of land-surface datum is 1,135 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 1.25 ft above land-surface datum.
PERIOD OF RECORD.--May 15, 1997 through September 30, 1997.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.58 ft below land-surface datum, May 16, 1997; lowest measured, 58.35 ft below land-surface datum, July 20, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | --- | --- | --- | --- | --- | --- | --- | --- | 52.47 | 55.37 | 56.59 | 52.89 |
| 2 | --- | --- | --- | --- | --- | --- | --- | --- | 52.76 | 56.07 | 58.13 | 53.62 |
| 3 | --- | --- | --- | --- | --- | --- | --- | --- | 52.68 | 55.49 | 56.75 | 53.47 |
| 4 | --- | --- | --- | --- | --- | --- | --- | --- | 53.11 | 55.26 | 56.26 | 53.19 |
| 5 | --- | --- | --- | --- | --- | --- | --- | --- | 53.75 | 56.57 | 56.16 | 53.70 |
| 6 | --- | --- | --- | --- | --- | --- | --- | --- | 54.22 | 55.71 | 56.33 | 53.45 |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | 56.81 | 56.25 | 56.90 | 53.29 |
| 8 | --- | --- | --- | --- | --- | --- | --- | --- | 54.66 | 56.48 | 56.69 | 53.06 |
| 9 | --- | --- | --- | --- | --- | --- | --- | --- | 54.78 | 58.22 | 58.19 | 52.97 |
| 10 | --- | --- | --- | --- | --- | --- | --- | --- | 55.66 | 57.83 | 56.79 | 53.32 |
| 11 | --- | --- | --- | --- | --- | --- | --- | --- | 54.28 | 57.99 | 56.32 | 53.30 |
| 12 | --- | --- | --- | --- | --- | --- | --- | --- | 53.22 | 57.19 | 56.23 | 53.31 |
| 13 | --- | --- | --- | --- | --- | --- | --- | --- | 52.75 | 56.88 | 55.94 | --- |
| 14 | --- | --- | --- | --- | --- | --- | --- | --- | 53.23 | 56.50 | 55.58 | --- |
| 15 | --- | --- | --- | --- | --- | --- | --- | --- | 54.11 | 56.28 | 55.46 | --- |
| 16 | --- | --- | --- | --- | --- | --- | --- | 51.58 | 53.07 | 56.91 | 55.75 | --- |
| 17 | --- | --- | --- | --- | --- | --- | --- | 53.21 | 53.20 | 56.78 | 55.35 | --- |
| 18 | --- | --- | --- | --- | --- | --- | --- | 52.50 | 53.17 | 57.76 | 54.91 | --- |
| 19 | --- | --- | --- | --- | --- | --- | --- | 51.90 | 54.31 | 57.77 | 54.99 | --- |
| 20 | --- | --- | --- | --- | --- | --- | --- | 52.46 | 53.64 | 58.35 | 54.67 | --- |
| 21 | --- | --- | --- | --- | --- | --- | --- | 52.62 | 54.50 | 57.71 | 54.42 | --- |
| 22 | --- | --- | --- | --- | --- | --- | --- | 52.95 | 53.61 | 57.40 | 54.02 | --- |
| 23 | --- | --- | --- | --- | --- | --- | --- | 54.61 | 54.13 | 57.47 | 54.17 | --- |
| 24 | --- | --- | --- | --- | --- | --- | --- | 56.96 | 53.98 | 58.12 | 53.80 | --- |
| 25 | --- | --- | --- | --- | --- | --- | --- | 53.88 | 55.30 | 57.64 | 53.90 | --- |
| 26 | --- | --- | --- | --- | --- | --- | --- | 52.24 | 54.13 | 57.53 | 53.68 | --- |
| 27 | --- | --- | --- | --- | --- | --- | --- | 53.59 | 56.11 | 58.34 | 53.85 | --- |
| 28 | --- | --- | --- | --- | --- | --- | --- | 53.39 | 56.80 | 57.05 | 53.57 | --- |
| 29 | --- | --- | --- | --- | --- | --- | --- | 52.59 | 55.66 | 57.03 | 53.57 | --- |
| 30 | --- | --- | --- | --- | --- | --- | --- | 54.24 | 56.45 | 57.25 | 55.14 | --- |
| 31 | --- | --- | --- | --- | --- | --- | --- | 52.78 | --- | 57.46 | 53.42 | --- |
| MEAN | --- | --- | --- | --- | --- | --- | --- | 53.22 | 54.22 | 57.05 | 55.40 | 53.30 |
| MAX | --- | --- | --- | --- | --- | --- | --- | 56.96 | 56.81 | 58.35 | 58.19 | 53.70 |
| MIN | --- | --- | --- | --- | --- | --- | --- | 51.58 | 52.47 | 55.26 | 53.42 | 52.89 |

WTR YR 1997 MEAN 55.03 HIGH 51.58 LOW 58.35



# PROJECT DATA

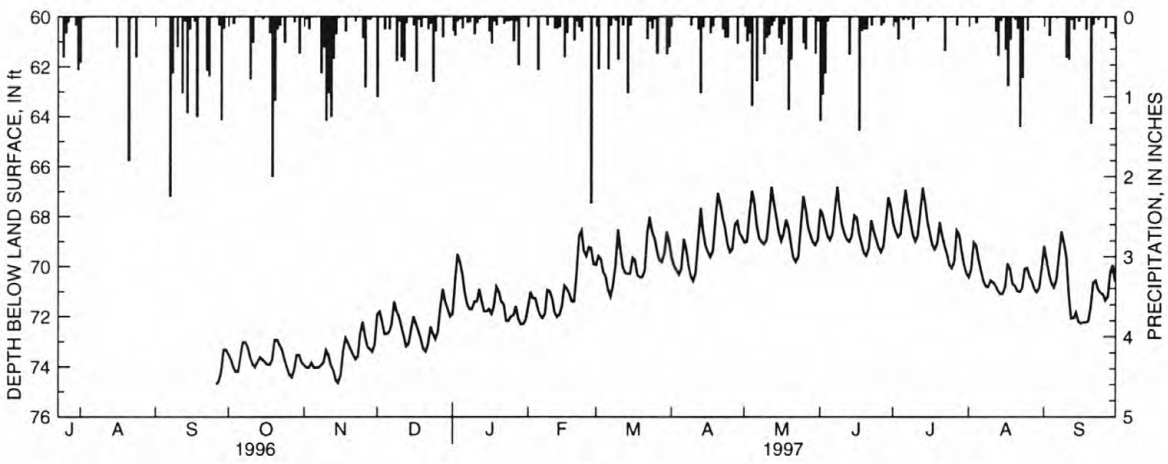
## Long-Term Ground-Water Monitoring Network, Geauga County

412851081045200. Local number, GE-352
LOCATION.--Lat 41°28'51", long 81°04'52"; west side of S.R. 608, north of village, by hunters' parking lot; Middlefield Township.
Owner.--City of Akron.
AQUIFER.--Glacial deposits of Qauternary age.
WELL CHARACTERISTICS.--Domestic water-supply well, not currently in use; diameter 6 in.; depth 122.3 ft.
INSTRUMENTATION - Pressure transducer and CR10X data logger (records hourly).
DATUM.--Elevation of land-surface datum is 1,140 ft above sea level. Measuring point: Mark on wooden base of instrument shelter, 1.15 ft above land-surface datum.
PERIOD OF RECORD.--September 25, 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.81 ft below land-surface datum, May 12, 1997 and June 8, 1997; lowest measured, 74.80 ft below land-surface datum, September 25, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 73.51 | 73.94 | 71.90 | 71.90 | 71.63 | 69.94 | 69.65 | 69.04 | 67.72 | 68.28 | 70.42 | 69.17 |
| 2 | 73.71 | 74.04 | 71.80 | 70.60 | 71.01 | 69.59 | 69.96 | 69.01 | 67.93 | 68.59 | 70.10 | 69.76 |
| 3 | 74.01 | 74.04 | 72.20 | 69.50 | 71.26 | 69.70 | 70.15 | 67.90 | 68.38 | 68.82 | 69.03 | 70.31 |
| 4 | 74.21 | 73.84 | 72.70 | 69.80 | 71.27 | 70.24 | 70.31 | 66.97 | 68.78 | 68.69 | 69.16 | 70.68 |
| 5 | 74.21 | 74.04 | 72.70 | 70.30 | 71.69 | 70.38 | 70.10 | 67.45 | 68.94 | 67.79 | 69.71 | 70.83 |
| 6 | 73.61 | 74.04 | 72.60 | 71.00 | 71.94 | 70.93 | 68.89 | 68.37 | 68.69 | 66.93 | 70.16 | 70.50 |
| 7 | 73.02 | 74.04 | 72.30 | 71.50 | 72.06 | 71.20 | 69.31 | 68.87 | 67.66 | 67.71 | 70.57 | 69.53 |
| 8 | 73.02 | 73.94 | 71.40 | 71.70 | 71.90 | 70.77 | 69.94 | 69.01 | 66.81 | 68.13 | 70.78 | 68.59 |
| 9 | 73.22 | 73.84 | 71.80 | 71.70 | 70.93 | 69.98 | 70.39 | 69.10 | 67.71 | 68.72 | 70.81 | 69.04 |
| 10 | 73.62 | 73.34 | 72.00 | 71.40 | 70.98 | 68.51 | 70.57 | 68.93 | 68.34 | 68.99 | 70.55 | 69.63 |
| 11 | 73.92 | 73.54 | 72.40 | 71.40 | 71.29 | 69.28 | 70.25 | 68.01 | 68.67 | 68.78 | 70.62 | 71.07 |
| 12 | 74.02 | 73.94 | 72.80 | 70.90 | 71.83 | 70.02 | 68.95 | 66.81 | 68.91 | 67.86 | 70.74 | 72.07 |
| 13 | 73.82 | 74.14 | 73.20 | 71.40 | 72.02 | 70.25 | 67.64 | 67.48 | 69.01 | 66.84 | 70.95 | 72.06 |
| 14 | 73.62 | 74.55 | 73.10 | 71.80 | 71.92 | 70.29 | 68.57 | 68.02 | 68.79 | 67.47 | 71.09 | 71.83 |
| 15 | 73.72 | 74.65 | 72.50 | 71.80 | 71.59 | 70.29 | 69.16 | 68.63 | 67.95 | 68.20 | 71.09 | 72.19 |
| 16 | 73.82 | 74.35 | 72.00 | 71.70 | 70.76 | 69.64 | 69.43 | 68.98 | 68.04 | 68.68 | 70.79 | 72.27 |
| 17 | 73.92 | 73.35 | 72.30 | 71.90 | 70.88 | 69.72 | 69.62 | 68.69 | 68.68 | 69.14 | 69.87 | 72.22 |
| 18 | 73.92 | 72.85 | 72.60 | 71.60 | 71.07 | 70.33 | 69.38 | 68.12 | 69.07 | 69.31 | 70.10 | 72.23 |
| 19 | 73.72 | 73.05 | 72.90 | 70.80 | 71.39 | 70.43 | 68.13 | 68.44 | 69.45 | 69.07 | 70.69 | 72.18 |
| 20 | 72.93 | 73.30 | 73.30 | 71.00 | 71.39 | 70.43 | 67.05 | 69.12 | 69.57 | 68.21 | 70.75 | 71.62 |
| 21 | 72.93 | 73.50 | 73.40 | 71.40 | 70.29 | 70.17 | 67.46 | 69.64 | 69.28 | 68.74 | 70.97 | 70.63 |
| 22 | 73.13 | 73.70 | 73.10 | 71.50 | 68.77 | 68.63 | 68.05 | 69.82 | 68.15 | 69.18 | 71.01 | 70.55 |
| 23 | 73.33 | 73.60 | 72.40 | 72.17 | 68.56 | 68.01 | 68.45 | 69.61 | 68.57 | 69.50 | 70.86 | 70.90 |
| 24 | 73.73 | 72.70 | 72.70 | 72.17 | 69.39 | 68.60 | 69.10 | 68.44 | 68.91 | 69.94 | 70.08 | 71.04 |
| 25 | 74.03 | 72.20 | 72.90 | 71.99 | 69.58 | 68.87 | 69.42 | 67.18 | 69.24 | 70.07 | 70.05 | 71.10 |
| 26 | 74.33 | 72.80 | 72.60 | 71.95 | 69.22 | 69.39 | 69.31 | 67.72 | 69.42 | 69.79 | 70.38 | 71.35 |
| 27 | 74.43 | 73.20 | 71.60 | 71.58 | 69.26 | 69.75 | 68.31 | 68.41 | 69.18 | 68.55 | 70.58 | 71.20 |
| 28 | 74.13 | 73.30 | 70.90 | 72.09 | 69.91 | 69.82 | 68.18 | 68.75 | 68.20 | 68.71 | 70.90 | 70.20 |
| 29 | 73.53 | 73.40 | 71.40 | 72.31 | --- | 69.48 | 68.67 | 69.03 | 67.23 | 69.38 | 71.02 | 69.93 |
| 30 | 73.53 | 73.10 | 71.70 | 72.30 | --- | 68.60 | 68.83 | 69.14 | 67.63 | 69.91 | 70.85 | 70.60 |
| 31 | 73.83 | --- | 72.00 | 72.15 | --- | 69.01 | --- | 68.92 | --- | 70.27 | 70.03 | --- |
| MEAN | 73.69 | 73.61 | 72.36 | 71.46 | 70.85 | 69.75 | 69.11 | 68.50 | 68.50 | 68.72 | 70.47 | 70.84 |
| MAX | 74.43 | 74.65 | 73.40 | 72.31 | 72.06 | 71.20 | 70.57 | 69.82 | 69.57 | 70.27 | 71.09 | 72.27 |
| MIN | 72.93 | 72.20 | 70.90 | 69.50 | 68.56 | 68.01 | 67.05 | 66.81 | 66.81 | 66.84 | 69.03 | 68.59 |

CAL YR 1996 MEAN 73.26 HIGH 70.90 LOW 74.70
WTR YR 1997 MEAN 70.66 HIGH 66.81 LOW 74.65



The following table lists the sites of the low-flow partial record network in Ohio, including the instantaneous discharge measurements made at each site for the 1997 water year. Also included in this table are sites established in the 1996 water year (designated with an "**") which were not published in the 1996 annual data report. The data were collected as part of a cooperative study with The Ohio Department of Natural Resources. The objective of the study is to define the low-flow characteristics of 180 sites that have essentially unregulated streamflow.

03098390 MILL CREEK NEAR YOUNGSTOWN, OHIO
LOCATION.-- Lat 41°02'00", Long 80°41'37", Mahoning County, Hydrologic Unit 05030103 at pedestrian bridge over Mill Creek at end of extra parking lot next to Mill Creek Park Golf Course, 0.75 northeast of park entrance at SR 224, 0.75 mi downstream from Indian Run, 3.1 mi upstream from Newport Lake Dam, 3 mi southwest of South Side Youngstown, Ohio. (Youngstown 1:24000 quad)
DRAINAGE AREA.-- 51.5 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03098390 | 7/17/97 | 9.17 |

03108996 MIDDLE FORK LITTLE BEAVER CREEK AT TEEGARDEN, OHIO
LOCATION.-- Lat 40°49'18", Long 80°49'37", Columbiana County, Hydrologic Unit 05030101 at Teegarden covered bridge of Eagleton Road over Middle Fork Little Beaver Creek (covered bridge is abandoned, next to new bridge), 3.3 mi below Stone Mill Run, 1 mi northeast of Salem Reservoir, 4.5 mi northwest of Lisbon, Ohio. (Lisbon 1:24000 quad)
DRAINAGE AREA.-- 90.2 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03108996 | 11/20/96 | 64.4 |
| 03108996 | 7/17/97 | 20.8 |

03109861 YELLOW CREEK AT BERGHOLZ, OHIO
LOCATION.-- Lat 40°30'54", Long 80°53'17", Jefferson County, Hydrologic Unit 05030101 at State Route 164 bridge over Yellow Creek, 0.8 mi below confluence of Elkhorn Creek, 0.4 mi southwest of Bergholz, Ohio.(Bergholz 1:24000 quad)
DRAINAGE AREA.-- 65.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03109861 | 11/20/96 | 37.1 |
| 03109861 | 7/17/97 | 8.53 |

03111465 SHORT CREEK AT ADENA, OHIO
LOCATION.-- Lat 40°13'09", Long 80°52'22", Jefferson County, Hydrologic Unit 05030106 at Adena-Smithfield Road bridge over Short Creek, 400 ft below confluence with North Fork, in Adena, Ohio. (Dillonvale 1:24000 quad)
DRAINAGE AREA.-- 63.9 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03111465 | 10/7/96 | 20.2 |
| 03111465 | 7/17/97 | 22.2 |

03112820 MCMAHON CREEK AT GLENCOE, OHIO
LOCATION.-- Lat 40°00'10", Long 80°52'38", Belmont County, Hydrologic Unit 05030106 at County Road 149, 0.7 mi southeast of Glencoe, Ohio. (St. Clairsville 1:24000 quad)
DRAINAGE AREA.-- 50.7 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03112820 | 11/22/96 | 24.4 |
| 03112820 | 7/18/97 | 3.64 |

03113550 MCMAHON CREEK AT BELLAIRE, OHIO
LOCATION.-- Lat 40°00'39", Long 80°45'45", Belmont County, Hydrologic Unit 05030106 at county road bridge connecting Bellaire with State Route 147, 300 ft upstream from Bellaire City Limits, Ohio. (Lansing 1:24000 quad)
DRAINAGE AREA.-- 90.2 $mi^2$

| Station Number | Date | Discharge |
|---|---|---|
| 03113550 | 10/4/96 | 29.5 |
| 03113550 | 7/18/97 | 7.83 |

03114241 SUNFISH CREEK AT COATS, OHIO
LOCATION.-- Lat 39°46'14", Long 81°02'34", Monroe County, Hydrologic Unit 05030201 at riffle beside Sunfish Creek Road, 800 ft downstream from confluence of unnamed tributary, 0.7 mi downstream from confluence of Standingstone Run, 1.0 mi southeast of Coats, 4.0 mi east of Woodsfield, Ohio. (Woodsfield 1:24000 quad)
DRAINAGE AREA.-- 51.3 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03114241 | 7/17/97 | 0.04 |

03115385 CLEAR FORK NEAR RINARD MILLS, OHIO
LOCATION.-- Lat 39°36'08", Long 81°09'17", Monroe County, Hydrologic Unit 05030201 at State Route 26 bridge over Clear Fork, 0.3 mi above confluence with L Muskingum River, 1.2 mi north of Rinard Mills, Ohio. (Rinard Mills 1:24000 quad)
DRAINAGE AREA.-- 48.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03115385 | 7/17/97 | 1.00 |

03123166 SOUTH FORK SUGAR CREEK NEAR SUGARCREEK, OHIO
LOCATION.-- Lat 40°31'25", Long 81°36'52", Tuscarawas County, Hydrologic Unit 05040001 at Tuscarawas County Road 75, 0.2 mi downstream from confluence with East Branch, 0.2 mi northeast of Sugarcreek, Ohio. (Strasburg 1:24000 quad)
DRAINAGE AREA.-- 63.3 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03123166 | 10/17/96 | 9.04 |

03123299 WALNUT CREEK AT DUNDEE, OHIO
LOCATION.-- Lat 40°35'12", Long 81°37'16", Tuscarawas County, Hydrologic Unit 05040001 at private road bridge, 0.5 mi upstream from mouth, 0.7 mi west of Dundee, Ohio. (Strasburg 1:24000 quad)
DRAINAGE AREA.-- 48.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03123299 | 10/17/96 | 5.83 |

03126170 SKULL FORK NEAR FREEPORT, OHIO
LOCATION.-- Lat 40°11'52", Long 81°16'13", Harrison County, Hydrologic Unit 05040001 at county road bridge, 0.8 mi south of Freeport, Ohio. (Freeport 1:24000 quad)
DRAINAGE AREA.-- 45.9 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03126170 | 7/17/97 | 1.03 |

03136142 KOKOSING RIVER AT CHESTERVILLE, OHIO
LOCATION.-- Lat 40°28'28", Long 82°41'02", Morrow County, Hydrologic Unit 05040003 at State Route 314 bridge, 0.5 mi downstream from confluence with South Branch, 0.4 mi south of Chesterville, Ohio. (Chesterville 1:24000 quad)
DRAINAGE AREA.-- 38.7 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03136142 | * 9/25/96 | 2.69 |

03140700 BUFFFALO FORK AT PLEASANT CITY, OHIO
LOCATION.--39°54'10", Long 81°33'15", Guernsey County, Hydrologic Unit 05040005 at State Route 82 bridge, 500 ft north of junction with State Route 146, at Pleasant City, Ohio. (Byesville 1:24000 quad)
DRAINAGE AREA.-- 71.1 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03140800 BUFFFALO CREEK AT PLEASANT CITY, OHIO
LOCATION.--39°54'10", Long 81°33'00", Guernsey County, Hydrologic Unit 05040005 at State Route 146 bridge, just above confluence with Buffalo Fork, at Pleasant City, Ohio. (Byesville 1:24000 quad)
DRAINAGE AREA.-- 49.7 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03140800 | * 9/25/96 | 0.75 |

03143760 WAKATOMIKA CREEK NEAR PERRYTON, OHIO
LOCATION.-- Lat 40°13'10", Long 82°10'53", Coshocton County, Hydrologic Unit 05040004, at point in stream 0.15 mi north of east-west section of county road, 0.7 mi upstream from Winding Fork, 5.2 mi north of Perryton, Ohio. (Perryton 1:24000 quad)
DRAINAGE AREA.-- 58.3 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03143760 | 7/18/97 | 8.39 |

03145329 RACCOON CREEK AT ALEXANDRIA, OHIO
LOCATION.-- Lat 40°05'05", Long 82°36'18", Licking County, Hydrologic Unit 05040006, at State Route 37 bridge over Raccoon Creek, 0.8 mi above confluence with Lobdell Creek, 0.9 mi below confluence with Simpson Run, 0.7 mi north of intersection of SR 37 and SR 161, 0.2 mi southeast of Alexandria, Ohio. (Granville 1:24000 quad)
DRAINAGE AREA.-- 40.6 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03145329 | 10/17/96 | 2.42 |

03145533 RACCOON CREEK AT NEWARK, OHIO
LOCATION.-- Lat 40°02'34", Long 82°24'44", Licking County, Hydrologic Unit 05040006, at West Main Street bridge over Raccoon Creek, 0.7 mi above confluence with South Fork Licking River, in Newark, Ohio. (Newark 1:24000 quad)
DRAINAGE AREA.-- 101 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03145533 | 10/17/96 | 20.4 |

03150200 MEIGS CREEK NEAR REINERSVILLE, OHIO
LOCATION.-- Lat 39°37'43", Long 81°43'12", Morgan County, Hydrologic Unit 05040004, at county road bridge at Unionville, 0.1 mi upstream from Dyes Fork, 5.1 mi southwest of Reinersville, Ohio. (Reinersville 1:24000 quad)
DRAINAGE AREA.-- 73.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03158165 MONDAY CREEK NEAR GREENDALE, OHIO
LOCATION.-- Lat 39°31'24", Long 82°16'17", Hocking County, Hydrologic Unit 05030204 at Dawley Road over Monday Creek, 0.7 mi above confluence with Sand Run, 0.9 mi above proposed reservoir site, 1.3 mi southeast of Greendale, 4 mi northeast of Haydenville, Ohio. (Gore 1:24000 quad)
DRAINAGE AREA.-- 67.2 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03159555 EAST BRANCH SHADE RIVER NEAR TUPPERS PLAINS, OHIO
LOCATION.-- Lat 39°08'29", Long 81°52'39", Meigs County, Hydrologic Unit 05030202 at private road bridge, adjacent to Township Road 279, 2.1 mi downstream from Meigs Creek, 2.8 mi upstream from Big Run, 2.7 mi southwest of Tuppers Plains, Ohio (Alfred 1:24000 quad)
DRAINAGE AREA.-- 37.5 $mi^2$

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03160050 LEADING CREEK NEAR MIDDLEPORT, OHIO
LOCATION.-- Lat 39°00'25", Long 82°05'10", Meigs County, Hydrologic Unit 05030202 at first private road bridge, 1.2 mi above State Highway 7, 1.75 mi northwest of Middleport, Ohio. (Pomeroy 1:24000 quad)
DRAINAGE AREA.-- 118 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03205260 SYMMES CREEK NEAR CENTERPOINT, OHIO
LOCATION.-- Lat 38°52'12", Long 82°28'44", Jackson County, Hydrologic Unit 05090101 at Jenkins Alban Road bridge over Symmes Creek, 2.5 mi above confluence with Black Fork, 1.9 mi northwest of Centerpoint, Ohio. (Patriot 1:24000 quad)
DRAINAGE AREA.-- 45.9 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03205260 | 10/17/96 | 0.99 |

03230745 DEER CREEK AT US 142 NEAR LONDON, OHIO
LOCATION.-- Lat 39°54'17", Long 83°23'35", Madison County, Hydrologic Unit 05060002 at State Route 142 bridge, 3.0 mi northeast of London, Ohio. (London 1:24000 quad)
DRAINAGE AREA.-- 50.7 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03231550 PAINT CREEK AT WASHINGTON COURT HOUSE, OHIO
LOCATION.-- Lat 39°32'12", Long 83°26'46", Fayette County, Hydrologic Unit 05060003 at U.S. 35 (Dayton Avenue) bridge in Washington Court House, 1.7 mi (2.7 km) upstream from East Fork Paint Creek. (Washington Court House 1:24000 quad)
DRAINAGE AREA.-- 62.3 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03231620 EAST FORK PAINT CREEK NEAR BLOOMINGBURG, OHIO
LOCATION.-- Lat 39°35'15", Long 83°23'47", Fayette County, Hydrologic Unit 05060003 at Matthews Road bridge, 0.3 mi upstream from Green Ditch, 1.2 mi south of Bloomingburg, Ohio, 2.0 mi upstream from Big Run. (Washington Court House 1:24000 quad)
DRAINAGE AREA.-- 36.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03237040 BIG BEAVER CREEK NEAR PIKETON, OHIO
LOCATION.-- Lat 39°02'41", Long 83°01'18", Pike County, Hydrologic Unit 05060002 at State Route 124 bridge, 0.9 mi upstream from Little Beaver Creek, 1.2 mi south of Piketon, Ohio. (Piketon 1:24000 quad)
DRAINAGE AREA.-- 62.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03237040 | 8/8/97 | 1.43 |
| 03237040 | 9/26/97 | 0.69 |

03237130 SCIOTO BRUSH CREEK AT OTWAY, OHIO
LOCATION.-- Lat 38°51'43", Long 83°11'24", Scioto County, Hydrologic Unit 05060002, at State Highway 348 bridge, 600 ft upstream from South Fork, in Otway, Ohio. (Otway 1:24000 quad)
DRAINAGE AREA.-- 94.4 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03237130 | 8/8/97 | 5.54 |
| 03237130 | 9/26/97 | 0.80 |

03238370 EAST FORK WHITE OAK CREEK NEAR SARDINIA, OHIO
LOCATION.-- Lat 39°00'24", Long 83°49'19", Brown County, Hydrologic Unit 05090201, at State Route 32 bridge, 0.2 mi (0.3 km) upstream from Slab Camp Run, 0.7 mi (1.1 km) west of Sardinia, Ohio. (Sardinia 1:24000 quad)
DRAINAGE AREA.-- 60.1 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03238370 | 8/8/97 | 4.02 |
| 03238370 | 9/26/97 | 0.35 |

03243150 TODD FORK NEAR CLARKSVILLE, OHIO
LOCATION.-- Lat 39°26'10", Long 83°56'41", Clinton County, Hydrologic Unit 05090202, at U.S. Highway 22 bridge, 1.0 mi (1.6 km) upstream from Lytle Creek, 2.7 mi (4.3 km) northeast of Clarksville, Ohio. (Clarksville 1:24000 quad)
DRAINAGE AREA.-- 56.6 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03244950 O'BANNON CREEK AT LOVELAND, OHIO
LOCATION.-- Lat 39°16'08", Long 84°15'21", Clermont County, Hydrologic Unit 05090202, at State Route 48 bridge, in Loveland, Ohio. (Mason 1:24000 quad)
DRAINAGE AREA.-- 59.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03244950 | * 9/13/96 | 2.02 |

03247300 STONELICK CREEK NEAR PERINTOWN, OHIO
LOCATION.-- Lat 39°07'20", Long 84°11'56", Clermont County, Hydrologic Unit 05090202, at U.S. Highway 50 bridge, 1.9 mi east of Perintown, Ohio. (Batavia 1:24000 quad)
DRAINAGE AREA.-- 76.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03247300 | * 9/13/96 | 4.76 |

03260450 SOUTH FORK GREAT MIAMI RIVER NEAR HUNTSVILLE, OHIO
LOCATION.-- Lat 40°28'43", Long 83°48'43", Logan County, Hydrologic Unit 05080001, at State Route 117 bridge, 3.3 mi (5.3 km) upstream from Indian Lake, 2.5 mi (4.0 km) north of Huntsville, Ohio. (Huntsville 1:24000 quad)
DRAINAGE AREA.-- 47.5 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03260450 | 9/25/97 | 3.70 |

03263168 STILLWATER RIVER NEAR ANSONIA, OHIO
LOCATION.-- Lat 40°13'01", Long 84°36'44", Darke County, Hydrologic Unit 05080001, at Beisner Road over Stillwater River, 0.1 mi north of State Route 47, 1.2 mi east of Ansonia, 1.8 mi west of Dawn, Ohio. (Dawn 1:24000 quad)
DRAINAGE AREA.-- 74.3 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03263168 | 9/25/97 | 0.96 |

03263390 GREENVILLE CREEK NEAR COLETOWN, OHIO
LOCATION.-- Lat 40°08'54", Long 84°43'56", Darke County, Hydrologic Unit 05080001, at Fisher Road bridge, 1.9 mi (2.9 km) northwest of Coletown, Ohio. (Ansonia 1:24000 quad)
DRAINAGE AREA.-- 69.2 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03263390 | 9/25/97 | 5.11 |

03266647 MAD RIVER AT LIPPINCOTT, OHIO
LOCATION.-- Lat 40°11'41", Long 83°47'48", Champaign County, Hydrologic Unit 05080001, at Lippincott Road bridge over Mad River, 0.55 mi upstream from confluence of Macochee Ditch, 1.5 mi upstream from confluence of Gladdy Creek, 4.0 mi southwest of West Liberty, Ohio, 5.0 mi northwest of Urbana, Ohio. (Northville 1:24000 quad)
DRAINAGE AREA.-- 68.4 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03266647 | 10/17/96 | 49.0 |
| 03266647 | 9/25/97 | 45.1 |

03266897 KINGS CREEK NEAR URBANA, OHIO
LOCATION.-- Lat 40°09'25", Long 83°47'08", Champaign County, Hydrologic Unit 05080001, at State Route 290 bridge over Kings Creek, just above confluence with Mad River, 3.0 mi northwest of Urbana, Ohio. (Northville 1:24000 quad)
DRAINAGE AREA.-- 43.6 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03266897 | 10/17/96 | 29.3 |
| 03266897 | 9/25/97 | 24.9 |

03271736 TWIN CREEK AT LEWISBURG, OHIO
LOCATION.-- Lat 39°51'17", Long 84°31'54", Preble County, Hydrologic Unit 05080002, at U.S. Route 40 over Twin Creek, 0.1 mi below confluence with Millers Fork, 0.1 mi above confluence with Swamp Creek, 0.3 mi east of Lewisburg, Ohio. (Lewisburg 1:24000 quad)
DRAINAGE AREA.-- 68.4 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

03272429 FOUR MILE CREEK NEAR COLLEGE CORNER, OHIO
LOCATION.-- Lat 39°35'31", Long 84°46'14", Preble County, Hydrologic Unit 05080002, at bridge over Four Mile Creek, 0.1 mi below confluence with East Fork Four Mile Creek, 0.8 mi above confluence with Little Four Mile Creek, 0.8 mi northwest from Acton Lake, in Hueston Woods State Park, 3 mi northeast of College Corner, Ohio & Indiana.(College Corner 1:24000 quad)
DRAINAGE AREA.-- 50.1 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03272429 | * 9/12/96 | 0.08 |

03276588 DRY FORK WHITEWATER RIVER AT NEW HAVEN, OHIO
LOCATION.-- Lat 39°15'57", Long 84°44'54", Hamilton County, Hydrologic Unit 05080003, at Mt. Hope Road bridge, 0.9 mi below confluence with Howard Creek, 1.2 mi above confluence with Lee Creek, next to Miami Whitewater Forest, 0.8 mi southwest of New Haven, Ohio.(Shandon 1:24000 quad)
DRAINAGE AREA.-- 59.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 03272429 | * 9/12/96 | 1.12 |

04180911 ST MARYS RIVER ABOVE KOPP CREEK AT ST MARYS, OHIO
LOCATION.-- Lat 40°32'07", Long 84°22'38", Auglaize County, Hydrologic Unit 04100004, at Aqueduct Road over St. Mary's River, 150 ft upstream from Miami and Erie Canal aqueduct, 0.3 mi above confluence of Kopp Creek, 2.1 mi east of Grand Lake, 0.5 mi southeast of St. Mary's, Ohio. (St. Marys 1:24000 quad)
DRAINAGE AREA.-- 67.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04180911 | 9/25/97 | 1.71 |

04185200 BEAVER CREEK NEAR STRYKER, OHIO
LOCATION.-- Lat 41°27'23", Long 84°26'09", Williams County, Hydrologic Unit 04100006, at bridge of township road, 0.3 mi (0.5 km) upstream from mouth, 3.1 mi (5.0 km) southwest of Stryker, Ohio (Evansport 1:24000 quad)
DRAINAGE AREA.-- 44.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04185299 BRUSH CREEK AT EVANSPORT, OHIO
LOCATION.-- Lat 41°26'00", Long 84°23'24", Williams County, Hydrologic Unit 04100006, at county road over Brush Creek, 1.0 mi above mouth, 0.4 mi north of Williams/Defiance County line, 0.6 mi northeast of Evansport, Ohio. (Evansport 1:24000 quad)
DRAINAGE AREA.-- 64.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04189172 RILEY CREEK NEAR BLUFFTON, OHIO
LOCATION.-- Lat 40°54'12", Long 83°56'19", Allen County, Hydrologic Unit 04100007, at Phillips Road bridge over Riley Creek, 3.7 mi downstream from confluence of Little Riley Creek, 2.5 mi northwest of Bluffton, Ohio. (Bluffton 1:24000 quad)
DRAINAGE AREA.-- 64.4 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04191007 TOWN CREEK NEAR HOAGLIN, OHIO
LOCATION.-- Lat 40°58'36", Long 84°28'36", Van Wert County, Hydrologic Unit 04100007, at State Route 637 bridge over Town Creek, 2.1 mi above confluence with Maddox Creek, 0.9 mi south of Paulding/Van Wert County line, 2.3 mi northeast of Hoaglin, 3.1 mi north of State Route 224, 10 mi northeast of Van Wert, Ohio. (Wetsel 1:24000 quad)
DRAINAGE AREA.-- 51.7 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04191100 FLATROCK CREEK NEAR PAYNE, OHIO
LOCATION.-- Lat 41°05'57", Long 84°40'06", Paulding County, Hydrologic Unit 04100007, at Township road 71 bridge, 2.0 mi downstream from Wildcat Creek, 3.5 mi northeast of Payne, Ohio. Proceed 3.4 mi northeast from Payne on State Highway 500 to township road 71, turn right and go 0.1 mi to bridge and station. (Payne 1:24000 quad)
DRAINAGE AREA.-- 147 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04194362 SOUTH BRANCH PORTAGE RIVER NEAR JERRY CITY, OHIO
LOCATION.-- Lat 41°16'22", Long 83°30'56", Wood County, Hydrologic Unit 04100010, at Portage View Road over South Branch Portage River, 0.6 mi above confluence with East Branch, 2.1 mi southeast of Six Points, 4.5 mi northeast of Jerry City, Ohio. (Jerry City 1:24000 quad)
DRAINAGE AREA.-- 54.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04196580 LITTLE TYMOCHTEE CREEK NEAR MARSEILLES, OHIO
LOCATION.-- Lat 40°41'13", Long 83°24'44", Marion County, Hydrologic Unit 04100011, at County Road 22 bridge, 1.3 mi above mouth, 1.4 mi southwest of Marseilles, Ohio. (Marseilles 1:24000 quad)
DRAINAGE AREA.-- 43.7 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04196580 | 10/16/96 | 0.05 |

04197052 HONEY CREEK NEAR CAROLINE, OHIO
LOCATION.-- Lat 41°02'41", Long 82°51'04", Seneca County, Hydrologic Unit 04100011, at truss bridge over Honey Creek, 1.7 mi below confluence with Brokenknife Creek, 2.3 mi east of Caroline, 2.5 mi southeast of Attica, Ohio. (Centerton 1:24000 quad)
DRAINAGE AREA. -- 69.0 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04198007 MUSKELLUNGE CREEK NEAR FREMONT, OHIO
LOCATION.-- Lat 41°22'21", Long 83°08'46", Sandusky County, Hydrologic Unit 04100011, at Christy Road bridge, 1.8 mi (2.9 km) upstream from mouth, 1.8 mi (2.9 km) northwest of Fremont, Ohio. (Fremont West 1:24000 quad)
DRAINAGE AREA.-- 41.8 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04198017 WEST BRANCH HURON RIVER NEAR NEW HAVEN, OHIO
LOCATION.-- Lat 41°03'08", Long 82°39'37", Huron County, Hydrologic Unit 04100012, at Boughtonville Road bridge, 0.5 mi below confluence with Marsh Run, 3.3 mi east of Willard, Ohio. (Willard 1:24000 quad)
DRAINAGE AREA.-- 69.4 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04198017 | 10/16/96 | 7.38 |

04199251 VERMILION RIVER NEAR NEW LONDON, OHIO
LOCATION.-- Lat 41°03'51", Long 82°27'10", Huron County, Hydrologic Unit 04100012, at U.S. Route 250 bridge, 0.8 mi west of New London Reservior, 0.2 mi north of Akron Canton Youngstown Penn Central Railroad, 3.0 mi southwest of New London, Ohio. (New London 1:24000 quad)
DRAINAGE AREA.-- 68.9 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04199251 | 10/16/96 | 3.24 |

04199706 EAST BRANCH BLACK RIVER NEAR PENFIELD, OHIO
LOCATION.-- Lat 41°08'12", Long 82°07'00", Medina/Lorain County, Hydrologic Unit 04110001, at Smith Road bridge over East Branch Black River, on Medina/Lorain County line, 0.3 mi east of State Route 301, 2.2 mi south of Penfield, 3.2 mi north of Spencer, Ohio. (Lagrange 1:24000 quad)
DRAINAGE AREA.-- 105 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04201079 WEST BRANCH ROCKY RIVER NEAR MEDINA, OHIO
LOCATION.-- Lat 41°09'09", Long 81°50'02", Medina County, Hydrologic Unit 04110001, at Weymouth Road bridge over West Branch Rocky River, 0.3 mi below confluence with North Branch, 1.9 mi northeast of Medina, Ohio. (Medina 1:24000 quad)
DRAINAGE AREA.-- 61.2 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| None performed | | |

04208815 CHAGRIN RIVER AT CHAGRIN FALLS, OHIO
LOCATION.-- Lat 41°25'33", Long 81°23'52", Geauga County, Hydrologic Unit 04110003, at Miles Road bridge, at west city limits of Chagrin Falls, Ohio. (Chagrin Falls 1:24000 quad)
DRAINAGE AREA.-- 57.3 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04208815 | 7/21/97 | 17.2 |

04212085 BIG CREEK AT PAINESVILLE, OHIO
LOCATION.-- Lat 41°41'50", Long 81°13'47", Lake County, Hydrologic Unit 04110004, at Fry Road bridge, 1.1 mi (1.8 km) upstream from mouth, 0.5 mi (0.8 km) south of south city limits of Painesville, Ohio. (Painesville 1:24000 quad)
DRAINAGE AREA.-- 36.4 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04212085 | 7/17/97 | 5.42 |

04212453 ASHTABULA RIVER NEAR KELLOGGSVILLE, OHIO
LOCATION.-- Lat 41°50'00", Long 80°37'13", Ashtabula County, Hydrologic Unit 04110003, at Root Road Covered Bridge over Ashtabula River, 1.7 mi downstream from confluence of East and West Branches of Ashtabula River, 1.6 mi south of Kelloggsville, 2.4 mi east of Sheffield Center, 7.5 mi southeast of Ashtabula, Ohio. (Pierpont 1:24000 quad)
DRAINAGE AREA.-- 66.5 $mi^2$.

| Station Number | Date | Discharge |
|---|---|---|
| 04212453 | 7/17/97 | 0 |
| 04212453 | 7/21/97 | 0.13 |

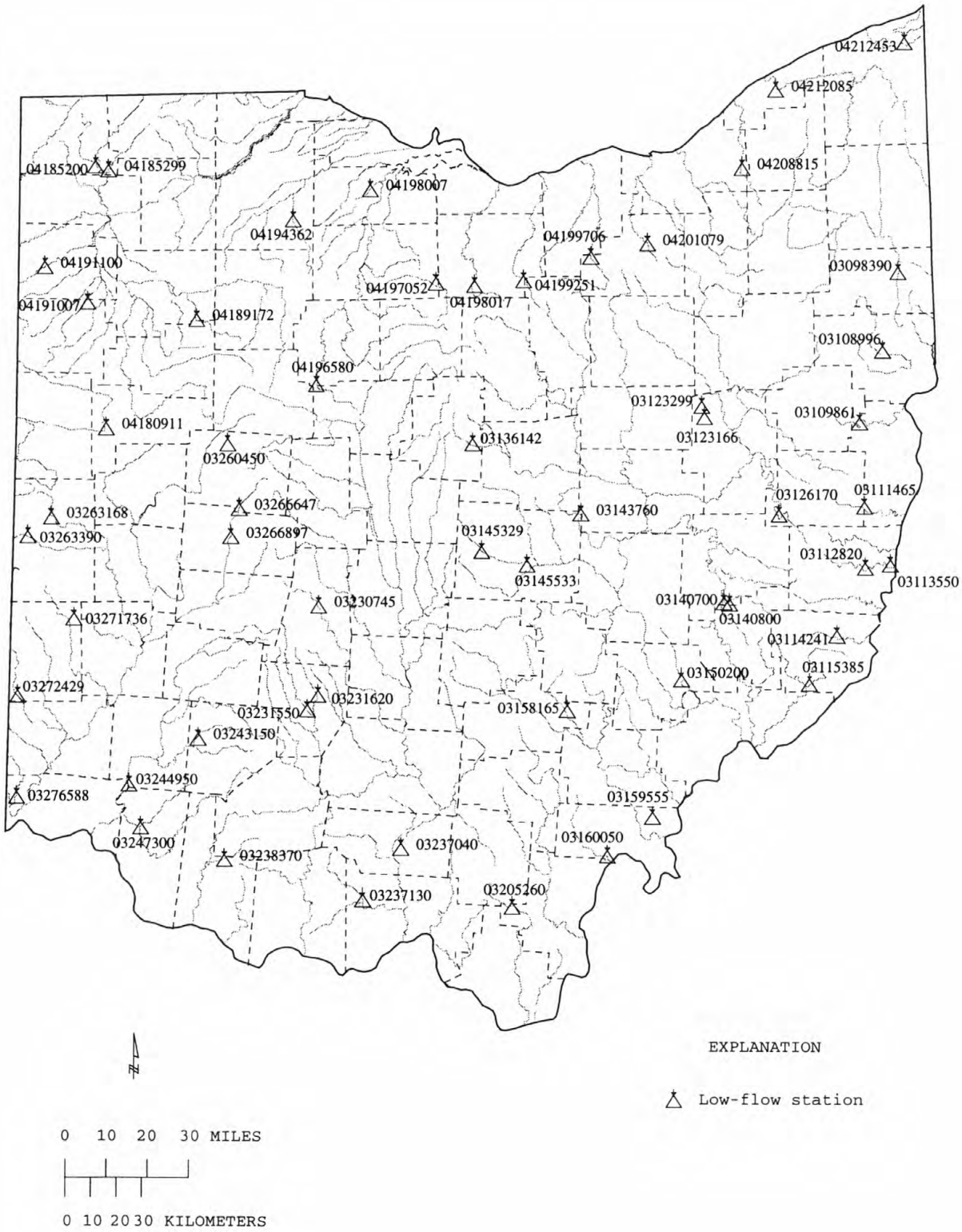



**Figure 10.** Low-flow station network.

# PROJECT DATA

## Bacteriological and Selected Water-Quality Data at Lake Erie

The following tables list the results of bacteriological, water-quality, and physical measurements of water samples collected in the nearshore zone of three Lake Erie beaches in Cuyahoga County, Ohio, during May through September 1997. Samples were collected as part of a three-year study to investigate the effects of sediment-stored fecal-indcator bacteria on the recreational water quality of Lake Erie beaches.

K indicates result was based on a colony count outside of the ideal range.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 412917081442810 LAKE ERIE AT EDGEWATER PARK, AREA 1 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 0731 | 2.0 | 270 | 8.2 | 8.5 | 10.5 | 44 | 10 |
| 21... | 0801 | 2.0 | 292 | 7.6 | 9.5 | 13.0 | 26 | 9.8 |
| JUN | | | | | | | | |
| 19... | 0717 | 2.0 | 320 | 7.8 | 16.0 | 17.0 | 4.3 | 9.2 |
| JUL | | | | | | | | |
| 10... | 0711 | 5.0 | 320 | 7.9 | 15.0 | 21.5 | 9.6 | 6.8 |
| 13... | 0703 | 3.0 | 390 | 7.8 | 18.0 | 21.0 | 13 | 6.5 |
| 13... | 1500 | 3.0 | 368 | 8.4 | 25.5 | 26.0 | 15 | 9.5 |
| 14... | 0712 | 2.0 | 370 | 7.7 | 22.0 | 22.0 | 4.7 | 5.2 |
| 14... | 1355 | 2.0 | 315 | 8.5 | 30.0 | 26.5 | 14 | 9.4 |
| 16... | 0847 | 2.0 | 307 | 8.4 | 24.5 | 24.0 | 12 | 8.2 |
| 16... | 1349 | 2.0 | 317 | 8.3 | 26.0 | 28.0 | 9.2 | 8.2 |
| 19... | 0701 | 3.0 | 280 | 7.3 | 22.0 | 25.0 | 15 | 7.4 |
| AUG | | | | | | | | |
| 05... | 0701 | 2.0 | 300 | 7.7 | 18.5 | 23.0 | 24 | 8.0 |
| 14... | 0701 | 5.0 | -- | 6.9 | 17.0 | 21.5 | 7.5 | -- |
| 15... | 0720 | 4.0 | -- | 7.1 | 23.0 | 25.5 | 5.1 | -- |
| 18... | 0723 | 2.0 | -- | 6.9 | 19.5 | 23.0 | 20 | -- |
| 21... | 0715 | 4.0 | 360 | 6.8 | 18.0 | 21.5 | 18 | -- |
| SEP | | | | | | | | |
| 01... | 0701 | 2.0 | 274 | 6.9 | 19.5 | 21.0 | 2.4 | -- |
| 01... | 1410 | 2.0 | -- | 8.1 | 26.0 | 23.0 | 3.9 | -- |
| 03... | 0644 | 2.0 | -- | -- | -- | 19.0 | 23 | -- |
| 412917081442820 LAKE ERIE AT EDGEWATER PARK, AREA 2 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 21... | 0751 | 2.0 | 292 | 7.6 | 9.5 | 13.0 | 26 | 9.8 |
| JUN | | | | | | | | |
| 18... | 0715 | 6.0 | 300 | 8.2 | 18.0 | 18.0 | 7.4 | 8.7 |
| 19... | 0709 | 4.0 | 320 | 7.8 | 16.0 | 17.0 | 5.3 | 9.2 |
| 21... | 0702 | 5.0 | 295 | 8.2 | 25.5 | 19.0 | 2.9 | 9.1 |
| 22... | 0712 | 5.0 | 296 | 8.2 | 19.5 | 20.0 | 9.4 | 8.6 |
| JUL | | | | | | | | |
| 08... | 0724 | 3.0 | 310 | 8.0 | 17.0 | 21.5 | 5.1 | 7.8 |
| 08... | 1431 | 3.0 | 315 | 7.9 | 24.5 | 25.5 | 4.7 | 6.8 |
| 17... | 0820 | 6.0 | 295 | 8.1 | 22.5 | 20.5 | 3.6 | 7.3 |
| 19... | 1405 | 3.0 | 300 | 8.0 | 21.5 | 26.5 | 10 | 7.4 |
| 22... | 0948 | 3.0 | 320 | 8.1 | 22.0 | 24.5 | 8.7 | 7.7 |
| 23... | 0814 | 2.0 | 380 | 7.9 | 21.0 | 24.0 | 15 | 7.1 |
| AUG | | | | | | | | |
| 05... | 0702 | 3.0 | 300 | 7.7 | 18.5 | 23.0 | 23 | 8.0 |
| 11... | 0653 | 3.0 | 305 | 7.2 | 22.0 | 22.5 | 5.3 | -- |
| 13... | 0703 | 3.0 | 340 | 7.1 | 20.5 | 21.5 | 4.4 | -- |
| 16... | 0706 | 2.0 | -- | 6.9 | 26.0 | 24.5 | 6.3 | -- |
| 17... | 0654 | 3.0 | -- | 7.2 | 21.0 | 22.5 | 8.6 | -- |
| 18... | 0702 | 3.0 | -- | 6.9 | 19.5 | 23.0 | 10 | -- |
| 20... | 0709 | 4.0 | 226 | 7.2 | 17.0 | 22.0 | 9.2 | -- |
| 21... | 0723 | 6.0 | 360 | 6.8 | 18.0 | 21.5 | 16 | -- |
| SEP | | | | | | | | |
| 01... | 0659 | 3.0 | 274 | 6.9 | 19.5 | 21.0 | 5.6 | -- |
| 01... | 1412 | 3.0 | -- | 8.1 | 26.0 | 23.0 | 3.4 | -- |
| 05... | 1238 | 6.0 | 381 | 8.1 | 20.5 | 21.5 | 14 | 9.0 |
| 412917081442830 LAKE ERIE AT EDGEWATER PARK, AREA 3 | | | | | | | | |
| JUN 1997 | | | | | | | | |
| 17... | 0740 | 6.0 | 297 | 8.3 | 16.0 | 16.5 | 3.5 | 9.3 |
| 20... | 0717 | 5.0 | 305 | 8.1 | 17.5 | 18.0 | 4.3 | 8.9 |
| 22... | 0707 | 3.0 | 296 | 8.2 | 19.5 | 20.0 | 11 | 8.6 |
| 24... | 1006 | 4.0 | 326 | 8.1 | 28.0 | 24.0 | 4.4 | 7.8 |
| JUL | | | | | | | | |
| 09... | 0705 | 5.0 | 320 | 7.7 | 18.5 | 22.0 | 5.8 | 8.2 |
| 09... | 1423 | 6.0 | 292 | 8.0 | 18.0 | 22.0 | 19 | 7.9 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 412917081442830 LAKE ERIE AT EDGEWATER PARK, AREA 3--Continued | | | | | | | | |
| JUL | | | | | | | | |
| 13... | 0706 | 6.0 | 390 | 7.8 | 18.0 | 21.0 | 15 | 6.5 |
| 13... | 1505 | 6.0 | 368 | 8.4 | 25.5 | 26.0 | 12 | 9.5 |
| 14... | 0706 | 4.0 | 370 | 7.7 | 22.0 | 22.0 | 4.8 | 5.2 |
| 14... | 1400 | 4.0 | 315 | 8.5 | 30.0 | 26.5 | 6.8 | 9.4 |
| 16... | 0853 | 4.0 | 307 | 8.4 | 24.5 | 24.0 | 3.7 | 8.2 |
| 16... | 1351 | 4.0 | 317 | 8.3 | 26.0 | 28.0 | 2.1 | 8.1 |
| 23... | 0811 | 4.0 | 380 | 7.9 | 21.0 | 24.0 | 17 | 7.1 |
| AUG | | | | | | | | |
| 06... | 0711 | 5.0 | -- | -- | -- | 22.0 | 26 | -- |
| 11... | 0659 | 4.0 | 305 | 7.2 | 22.0 | 22.5 | 2.2 | -- |
| 12... | 0706 | 4.0 | 401 | 6.9 | 17.0 | 22.0 | 4.0 | -- |
| 15... | 0710 | 3.0 | -- | 7.1 | 23.0 | 25.5 | 6.3 | -- |
| 20... | 0710 | 5.0 | 226 | 7.2 | 17.0 | 22.0 | 8.6 | -- |
| SEP | | | | | | | | |
| 02... | 0700 | 4.0 | -- | 6.3 | 20.0 | 20.5 | 3.1 | -- |
| 02... | 1540 | 4.0 | -- | 7.8 | 26.5 | 27.5 | 3.2 | -- |
| 03... | 0646 | 4.0 | -- | -- | -- | 19.0 | 20 | -- |

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 412917081442810 LAKE ERIE AT EDGEWATER PARK, AREA 1 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | 380 | 330 | 260 | 450 | -- | 180 | -- |
| 21... | 190 | 250 | 190 | 180 | 18 | 680 | -- |
| JUN | | | | | | | |
| 19... | 14 | -- | -- | -- | -- | 3 | -- |
| JUL | | | | | | | |
| 10... | 43 | -- | -- | -- | -- | 7 | -- |
| 13... | K17 | -- | -- | -- | -- | -- | -- |
| 13... | 24 | -- | -- | -- | -- | -- | -- |
| 14... | K10 | -- | -- | -- | -- | 7 | -- |
| 14... | 44 | -- | -- | -- | -- | 48 | -- |
| 16... | 170 | -- | -- | -- | -- | 13 | -- |
| 16... | 74 | -- | -- | -- | -- | 9 | -- |
| 19... | 110 | -- | -- | -- | -- | 11 | -- |
| AUG | | | | | | | |
| 05... | 220 | -- | -- | -- | -- | -- | -- |
| 14... | 56 | 42 | 58 | 62 | -- | 4 | -- |
| 15... | 170 | -- | -- | -- | -- | -- | -- |
| 18... | 600 | -- | -- | -- | -- | 30 | -- |
| 21... | 160 | -- | -- | -- | -- | 14 | -- |
| SEP | | | | | | | |
| 01... | 190 | 220 | 220 | 150 | -- | 1 | -- |
| 01... | 42 | -- | -- | -- | -- | -- | -- |
| 03... | K780 | -- | -- | -- | -- | 56 | -- |
| 412917081442820 LAKE ERIE AT EDGEWATER PARK, AREA 2 | | | | | | | |
| MAY 1997 | | | | | | | |
| 21... | 150 | -- | -- | -- | -- | 1400 | -- |
| JUN | | | | | | | |
| 18... | K7 | 6 | 6 | 6 | -- | 1 | <0.01 |
| 19... | K15 | 13 | 16 | 18 | -- | 20 | -- |
| 21... | K13 | -- | -- | -- | -- | 12 | -- |
| 22... | 250 | -- | -- | -- | -- | 6 | -- |
| JUL | | | | | | | |
| 08... | 120 | -- | -- | -- | -- | 3 | -- |
| 08... | 22 | -- | -- | -- | -- | -- | -- |
| 17... | 37 | -- | -- | -- | -- | -- | -- |
| 19... | K57 | -- | -- | -- | -- | 9 | -- |
| 22... | 120 | -- | -- | -- | -- | 30 | -- |
| 23... | K49 | -- | -- | -- | -- | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 412917081442820 LAKE ERIE AT EDGEWATER PARK, AREA 2--Continued | | | | | | | |
| AUG | | | | | | | |
| 05... | 220 | 200 | 210 | 210 | -- | -- | -- |
| 11... | K520 | 390 | K980 | K370 | 19 | -- | -- |
| 13... | 190 | -- | -- | -- | -- | -- | -- |
| 16... | 110 | 79 | 110 | 120 | -- | -- | -- |
| 17... | 750 | -- | -- | -- | -- | 93 | -- |
| 18... | 450 | 650 | 290 | 350 | -- | 9 | -- |
| 20... | 100 | -- | -- | -- | -- | -- | -- |
| 21... | 130 | -- | -- | -- | 39 | 13 | 0.02 |
| SEP | | | | | | | |
| 01... | 200 | -- | -- | -- | -- | 3 | -- |
| 01... | 26 | -- | -- | -- | 20 | -- | <0.01 |
| 05... | K16 | -- | -- | -- | -- | -- | -- |
| 412917081442830 LAKE ERIE AT EDGEWATER PARK, AREA 3 | | | | | | | |
| JUN 1997 | | | | | | | |
| 17... | K44 | 43 | 56 | 57 | -- | 5 | -- |
| 20... | K15 | -- | -- | -- | -- | 3 | -- |
| 22... | 280 | -- | -- | -- | -- | 10 | -- |
| 24... | K25 | -- | -- | -- | -- | 3 | -- |
| JUL | | | | | | | |
| 09... | K8 | -- | -- | -- | 21 | 5 | -- |
| 09... | 83 | -- | -- | -- | -- | -- | -- |
| 13... | K12 | -- | -- | -- | -- | -- | -- |
| 13... | K16 | -- | -- | -- | -- | -- | -- |
| 14... | K7 | -- | -- | -- | -- | 65 | -- |
| 14... | 10 | -- | -- | -- | -- | 5 | -- |
| 16... | K9 | -- | -- | -- | -- | 1 | -- |
| 16... | K7 | -- | -- | -- | -- | 1 | -- |
| 23... | 32 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 06... | 59 | 25 | 69 | 57 | -- | -- | -- |
| 11... | 45 | -- | -- | -- | -- | -- | -- |
| 12... | 150 | 120 | 170 | 110 | -- | 4 | -- |
| 15... | 180 | 88 | 120 | 83 | -- | -- | -- |
| 20... | 140 | 91 | 110 | 110 | -- | -- | -- |
| SEP | | | | | | | |
| 02... | K28 | -- | -- | -- | -- | 1 | -- |
| 02... | K4 | 1 | K16 | K7 | -- | -- | -- |
| 03... | K880 | -- | -- | -- | -- | 33 | -- |

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 412917081442840 LAKE ERIE AT EDGEWATER PARK, AREA 4 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 0811 | 2.0 | 270 | 8.2 | 8.5 | 10.5 | 52 | 10 |
| 22... | 0732 | 2.0 | 300 | 7.6 | 9.0 | 12.5 | 22 | 9.8 |
| JUN | | | | | | | | |
| 20... | 0713 | 2.0 | 305 | 8.1 | 17.5 | 18.0 | 5.0 | 8.9 |
| JUL | | | | | | | | |
| 08... | 0713 | 3.0 | 310 | 8.0 | 17.0 | 21.5 | 6.4 | 7.8 |
| 08... | 1430 | 3.0 | 315 | 7.9 | 24.5 | 25.5 | 4.7 | 6.8 |
| 10... | 0706 | 4.0 | 320 | 7.9 | 15.0 | 21.5 | 11 | 6.8 |
| 15... | 0707 | 4.0 | 350 | 8.1 | 22.5 | 23.0 | 4.7 | 7.7 |
| 15... | 1408 | 4.0 | 341 | 7.0 | 26.0 | 25.5 | 7.3 | 8.4 |
| 18... | 0705 | 3.0 | 290 | 8.2 | 22.5 | 25.0 | 7.2 | 7.5 |
| AUG | | | | | | | | |
| 04... | 0710 | 2.0 | 285 | 7.8 | 20.5 | 23.0 | 1.6 | 7.5 |
| 06... | 0712 | 5.0 | -- | -- | -- | 22.0 | 24 | -- |
| 13... | 0703 | 3.0 | 340 | 7.1 | 20.5 | 21.5 | 6.8 | -- |
| 14... | 0708 | 6.0 | -- | 6.9 | 17.0 | 21.5 | 8.0 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 412917081442840 LAKE ERIE AT EDGEWATER PARK, AREA 4--Continued | | | | | | | | |
| AUG | | | | | | | | |
| 16... | 0709 | 6.0 | -- | 6.9 | 26.0 | 24.5 | 4.4 | -- |
| 17... | 0659 | 5.0 | -- | 7.2 | 21.0 | 22.5 | 7.5 | -- |
| 19... | 0718 | 5.0 | 457 | 7.4 | 16.0 | 21.5 | 11 | -- |
| SEP | | | | | | | | |
| 05... | 1240 | 3.0 | 381 | 8.1 | 20.5 | 21.5 | 17 | 9.0 |
| 412917081442850 LAKE ERIE AT EDGEWATER PARK, AREA 5 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 22... | 0734 | 2.0 | 300 | 7.6 | 9.0 | 12.5 | 34 | 9.8 |
| JUN | | | | | | | | |
| 17... | 0722 | 4.0 | 297 | 8.3 | 16.0 | 16.5 | 3.6 | 9.3 |
| 18... | 0717 | 5.0 | 300 | 8.2 | 18.0 | 18.0 | 7.4 | 8.7 |
| 24... | 0956 | 3.0 | 326 | 8.1 | 28.0 | 24.0 | 5.5 | 7.8 |
| JUL | | | | | | | | |
| 08... | 0710 | 5.0 | 310 | 8.0 | 17.0 | 21.5 | -- | 7.8 |
| 09... | 0714 | 6.0 | 320 | 7.7 | 18.5 | 22.0 | 6.6 | 7.4 |
| 09... | 1424 | 5.0 | 292 | 8.0 | 18.0 | 22.0 | 21 | 7.9 |
| 15... | 0701 | 2.0 | 350 | 8.1 | 22.5 | 23.0 | 7.8 | 7.7 |
| 15... | 1410 | 2.0 | 341 | 7.0 | 26.0 | 25.5 | 9.1 | 8.4 |
| 17... | 0830 | 5.0 | 295 | 8.1 | 22.5 | 20.5 | 2.8 | 7.3 |
| 18... | 0702 | 5.0 | 290 | 8.2 | 22.5 | 25.0 | 2.8 | 7.5 |
| 19... | 0702 | 5.0 | 280 | 7.3 | 22.0 | 25.0 | 8.5 | 7.4 |
| 19... | 1410 | 5.0 | 300 | 8.0 | 21.5 | 26.5 | 7.8 | 7.4 |
| 22... | 0951 | 3.0 | 320 | 8.1 | 22.0 | 24.5 | 9.2 | 7.7 |
| AUG | | | | | | | | |
| 04... | 0706 | 3.0 | 285 | 7.8 | 20.5 | 23.0 | 3.9 | 7.5 |
| 12... | 0703 | 4.0 | 401 | 6.9 | 17.0 | 22.0 | 5.3 | -- |
| 19... | 0713 | 4.0 | 457 | 7.4 | 16.0 | 21.5 | 8.5 | -- |
| SEP | | | | | | | | |
| 02... | 0658 | 3.0 | -- | 6.3 | 20.0 | 20.5 | 3.8 | -- |
| 02... | 1541 | 3.0 | -- | 7.8 | 26.5 | 27.5 | 4.3 | -- |
| 413509081340210 LAKE ERIE AT VILLA ANGELA, AREA 1 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 0912 | 2.0 | 332 | 8.0 | 10.0 | 12.5 | 78 | 9.8 |
| JUN | | | | | | | | |
| 17... | 0822 | 5.0 | 310 | 7.8 | 15.0 | 18.0 | 6.2 | 9.3 |
| 18... | 0818 | 6.0 | 284 | 8.2 | 19.0 | 17.0 | 3.4 | 9.6 |
| 24... | 1101 | 4.0 | 329 | 8.4 | 22.0 | 21.0 | 4.6 | 9.1 |
| JUL | | | | | | | | |
| 17... | 0737 | 2.0 | 285 | 8.2 | 25.5 | 25.5 | 19 | 7.4 |
| 22... | 0911 | 5.0 | 285 | 8.1 | 21.5 | 24.5 | 2.1 | 6.9 |
| AUG | | | | | | | | |
| 04... | 0734 | 5.0 | 290 | 8.0 | 20.5 | 23.0 | 1.8 | 7.0 |
| 13... | 0743 | 6.0 | -- | 7.0 | 22.0 | 23.0 | 6.4 | -- |
| 14... | 0725 | 3.0 | -- | 7.0 | 17.0 | 22.0 | 2.5 | -- |
| 18... | 0752 | 2.0 | -- | 6.6 | 20.0 | 23.0 | 13 | -- |
| 20... | 0746 | 5.0 | 260 | 6.7 | -- | 21.5 | 4.0 | -- |
| SEP | | | | | | | | |
| 02... | 0721 | 3.0 | -- | 6.1 | 20.0 | -- | 1.7 | -- |
| 02... | 1410 | 3.0 | -- | 7.7 | 26.0 | 24.0 | 2.2 | -- |
| 05... | 1142 | 2.0 | 290 | 8.0 | 20.0 | 20.5 | 23 | 8.9 |

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 412917081442840 LAKE ERIE AT EDGEWATER PARK, AREA 4 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | 310 | -- | -- | -- | -- | 200 | -- |
| 22... | 80 | 90 | 110 | 90 | -- | 120 | -- |
| JUN | | | | | | | |
| 20... | 30 | -- | -- | -- | -- | 5 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 412917081442840 LAKE ERIE AT EDGEWATER PARK, AREA 4--Continued | | | | | | | |
| JUL | | | | | | | |
| 08... | 57 | -- | -- | -- | -- | 100 | -- |
| 08... | K20 | -- | -- | -- | -- | -- | -- |
| 10... | 65 | -- | -- | -- | -- | 8 | -- |
| 15... | 73 | -- | -- | -- | -- | -- | -- |
| 15... | 100 | -- | -- | -- | -- | -- | -- |
| 18... | K8 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 04... | 140 | -- | 140 | 110 | -- | 1 | -- |
| 06... | 73 | -- | -- | -- | -- | -- | -- |
| 13... | 79 | 150 | 61 | 67 | 32 | -- | 0.02 |
| 14... | 41 | -- | -- | -- | -- | 6 | -- |
| 16... | 57 | -- | -- | -- | -- | -- | -- |
| 17... | 250 | 130 | 160 | 220 | 28 | 10 | <0.01 |
| 19... | 460 | 210 | 260 | 230 | -- | 4 | -- |
| SEP | | | | | | | |
| 05... | 44 | -- | -- | -- | -- | -- | -- |
| 412917081442850 LAKE ERIE AT EDGEWATER PARK, AREA 5 | | | | | | | |
| MAY 1997 | | | | | | | |
| 22... | 100 | -- | -- | -- | -- | 53 | -- |
| JUN | | | | | | | |
| 17... | K46 | -- | -- | -- | -- | 3 | -- |
| 18... | K14 | -- | -- | -- | -- | 31 | -- |
| 24... | K14 | 13 | K20 | K12 | -- | 3 | -- |
| JUL | | | | | | | |
| 08... | -- | -- | -- | -- | -- | -- | -- |
| 09... | 90 | -- | -- | -- | -- | 7 | -- |
| 09... | 68 | -- | -- | -- | -- | -- | -- |
| 15... | 250 | -- | -- | -- | -- | -- | -- |
| 15... | 72 | -- | -- | -- | -- | -- | -- |
| 17... | 21 | -- | -- | -- | -- | -- | -- |
| 18... | K28 | -- | -- | -- | -- | -- | -- |
| 19... | K57 | -- | -- | -- | -- | 9 | -- |
| 19... | 21 | -- | -- | -- | -- | 9 | -- |
| 22... | 73 | -- | -- | -- | -- | 13 | -- |
| AUG | | | | | | | |
| 04... | 27 | -- | -- | -- | -- | 1 | -- |
| 12... | 100 | -- | -- | -- | -- | 6 | -- |
| 19... | 420 | -- | -- | -- | -- | 3 | -- |
| SEP | | | | | | | |
| 02... | -- | -- | -- | -- | -- | 2 | -- |
| 02... | 24 | -- | -- | -- | -- | -- | -- |
| 413509081340210 LAKE ERIE AT VILLA ANGELA, AREA 1 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | K4200 | -- | K2900 | K3300 | -- | 77 | -- |
| JUN | | | | | | | |
| 17... | 1200 | 500 | 500 | 400 | -- | 7 | -- |
| 18... | K44 | 23 | 23 | 20 | 17 | 7 | <0.01 |
| 24... | 140 | 230 | 200 | 140 | -- | 3 | -- |
| JUL | | | | | | | |
| 17... | K590 | -- | -- | -- | -- | -- | -- |
| 22... | 770 | -- | -- | -- | -- | 2 | -- |
| AUG | | | | | | | |
| 04... | 34 | -- | -- | -- | -- | 1 | -- |
| 13... | 770 | -- | 1500 | K900 | 17 | -- | 0.05 |
| 14... | 1500 | -- | -- | -- | -- | 3 | -- |
| 18... | 1100 | -- | -- | -- | -- | 11 | -- |
| 20... | 41 | -- | -- | -- | -- | -- | -- |
| SEP | | | | | | | |
| 02... | -- | 24 | 27 | -- | -- | 1 | -- |
| 02... | 130 | -- | -- | -- | -- | -- | -- |
| 05... | K71 | -- | -- | -- | -- | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413509081340220 LAKE ERIE AT VILLA ANGELA, AREA 2 | | | | | | | | |
| JUL 1997 | | | | | | | | |
| 13... | 0732 | 6.0 | 293 | 8.1 | 18.5 | 21.5 | 14 | 7.4 |
| 13... | 1430 | 6.0 | 290 | 8.4 | 25.5 | 24.5 | 8.5 | 8.8 |
| 15... | 0741 | 6.0 | 280 | 8.2 | 23.0 | 24.0 | 3.6 | 7.4 |
| 15... | 1407 | 6.0 | 268 | 8.5 | 26.0 | 25.0 | 4.6 | 7.9 |
| 19... | 0741 | 5.0 | 290 | 8.1 | 21.5 | 25.0 | 7.8 | 7.5 |
| 19... | 1335 | 5.0 | 300 | 8.1 | 23.5 | 25.5 | 6.6 | 7.4 |
| 23... | 0727 | 4.0 | 300 | 7.3 | 21.0 | 22.5 | 7.2 | 5.2 |
| AUG | | | | | | | | |
| 05... | 0736 | 5.0 | 300 | 7.8 | 19.0 | 22.5 | 24 | 7.7 |
| 10... | 0714 | 4.0 | 285 | 6.2 | 22.0 | 23.0 | 0.91 | -- |
| 10... | 1434 | 2.0 | 280 | 7.2 | 25.5 | 24.0 | 20 | -- |
| 12... | 0737 | 5.0 | 275 | 6.9 | 18.0 | 21.5 | 2.7 | -- |
| 17... | 0730 | 6.0 | -- | 7.2 | 22.0 | 22.5 | 13 | -- |
| 19... | 0757 | 6.0 | 632 | 6.6 | 18.0 | 22.0 | 5.6 | -- |
| 21... | 0820 | 4.0 | 305 | 6.9 | 19.0 | 21.0 | 51 | -- |
| SEP | | | | | | | | |
| 03... | 0718 | 6.0 | -- | -- | -- | -- | 34 | -- |
| 413509081340230 LAKE ERIE AT VILLA ANGELA, AREA 3 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 21... | 0856 | 2.0 | 358 | 7.7 | 9.5 | 13.0 | 80 | 10 |
| JUN | | | | | | | | |
| 20... | 0803 | 6.0 | 320 | 8.1 | 24.0 | 18.0 | 3.2 | 9.1 |
| 24... | 1112 | 2.0 | 329 | 8.4 | 22.0 | 21.0 | 5.0 | 9.1 |
| JUL | | | | | | | | |
| 14... | 0744 | 5.0 | 295 | 8.3 | 21.0 | 22.5 | 3.4 | 8.1 |
| 14... | 1436 | 5.0 | 265 | 8.6 | 28.0 | 25.5 | 1.7 | 9.0 |
| 16... | 0803 | 3.0 | 280 | 8.5 | 21.5 | 24.0 | 4.4 | 8.6 |
| 16... | 1418 | 3.00 | 290 | 8.4 | 25.0 | 27.5 | 3.3 | 8.0 |
| 17... | 0741 | 3.0 | 285 | 8.2 | 25.5 | 25.5 | 9.2 | 7.4 |
| 22... | 0913 | 6.0 | 285 | 8.1 | 21.5 | 24.5 | 2.9 | 6.9 |
| AUG | | | | | | | | |
| 11... | 0733 | 6.0 | 285 | 7.0 | 22.5 | 23.0 | 2.3 | -- |
| 13... | 0747 | 2.0 | -- | 7.0 | 22.0 | 23.0 | 18 | -- |
| 15... | 0755 | 3.0 | -- | 7.1 | 22.0 | 23.5 | 2.3 | -- |
| 16... | 0756 | 2.0 | -- | 6.9 | 27.0 | 24.0 | 13 | -- |
| 18... | 0808 | 4.0 | -- | 6.6 | 20.0 | 23.0 | 13 | -- |
| SEP | | | | | | | | |
| 01... | 0737 | 4.0 | 255 | 7.8 | 20.0 | 21.0 | 2.0 | -- |
| 01... | 1345 | 4.0 | -- | 8.7 | 26.0 | 23.0 | 1.7 | -- |
| 413509081340240 LAKE ERIE AT VILLA ANGELA, AREA 4 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 0914 | 2.0 | 332 | 8.0 | 10.0 | 12.5 | 70 | 9.8 |
| JUN | | | | | | | | |
| 19... | 0746 | 3.0 | 290 | 8.1 | 18.0 | 16.5 | 4.6 | 8.7 |
| 20... | 0804 | 3.0 | 320 | 8.1 | 24.0 | 18.0 | 2.3 | 9.1 |
| 21... | 0736 | 3.0 | 330 | 8.2 | 21.0 | 19.5 | 3.7 | 8.8 |
| 22... | 0751 | 6.0 | 350 | 8.1 | 19.0 | 19.5 | 15 | 8.0 |
| JUL | | | | | | | | |
| 08... | 0806 | 5.0 | 305 | 8.1 | 17.0 | 21.5 | 2.9 | 7.8 |
| 08... | 1424 | 5.0 | 304 | 8.3 | 22.0 | 23.0 | 2.6 | 8.9 |
| 09... | 0753 | 5.0 | 315 | 8.0 | 18.0 | 21.5 | 4.9 | 8.3 |
| 09... | 1406 | 5.0 | 330 | 8.0 | 18.5 | 22.0 | 10 | 8.0 |
| 10... | 0748 | 6.0 | 286 | 8.2 | 17.5 | 21.0 | 3.1 | 6.4 |
| 14... | 0745 | 3.0 | 295 | 8.3 | 21.0 | 22.5 | 2.2 | 8.1 |
| 14... | 1440 | 3.0 | 265 | 8.6 | 28.0 | 25.5 | 8.2 | 9.0 |
| 16... | 0804 | 4.0 | 280 | 8.5 | 21.5 | 24.0 | 3.8 | 8.6 |
| 16... | 1422 | 4.0 | 290 | 8.4 | 25.0 | 27.5 | 2.4 | 8.0 |
| 18... | 0739 | 3.0 | 300 | 8.1 | 23.0 | 25.0 | 18 | 7.4 |
| 23... | 0730 | 5.0 | 300 | 7.3 | 21.0 | 22.5 | 6.9 | 5.2 |
| AUG | | | | | | | | |
| 06... | 0747 | 6.0 | -- | -- | -- | 22.0 | 6.5 | -- |
| 10... | 0718 | 3.0 | 285 | 6.2 | 22.0 | 23.0 | 11 | -- |
| 10... | 1432 | 3.0 | 280 | 7.2 | 25.5 | 24.0 | 49 | -- |
| 11... | 0735 | 2.0 | 285 | 7.0 | 22.5 | 23.0 | 24 | -- |
| 14... | 0737 | 2.0 | 305 | 7.0 | 17.0 | 22.0 | 3.6 | -- |
| 20... | 0758 | 5.0 | 260 | 6.7 | -- | 21.5 | 4.2 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413509081340240 LAKE ERIE AT VILLA ANGELA, AREA 4--Continued | | | | | | | | |
| SEP | | | | | | | | |
| 02... | 0723 | 3.0 | -- | 6.1 | 20.0 | -- | 1.7 | -- |
| 02... | 1412 | 3.0 | -- | 7.7 | 26.0 | 24.0 | 1.6 | -- |
| 05... | 1144 | 5.0 | 290 | 8.0 | 20.0 | 20.5 | 14 | 8.9 |

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 413509081340220 LAKE ERIE AT VILLA ANGELA, AREA 2 | | | | | | | |
| JUL 1997 | | | | | | | |
| 13... | 190 | -- | -- | -- | -- | -- | -- |
| 13... | 220 | -- | -- | -- | -- | -- | -- |
| 15... | 250 | -- | -- | -- | -- | -- | -- |
| 15... | 540 | -- | -- | -- | -- | -- | -- |
| 19... | 56 | -- | -- | -- | -- | 4 | -- |
| 19... | K56 | -- | -- | -- | -- | 6 | -- |
| 23... | 87 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 05... | 230 | 220 | 190 | 190 | -- | -- | -- |
| 10... | 75 | -- | -- | -- | -- | -- | -- |
| 10... | 250 | -- | -- | -- | -- | -- | -- |
| 12... | 60 | -- | -- | -- | -- | 3 | -- |
| 17... | 1700 | -- | -- | -- | 23 | 15 | 0.03 |
| 19... | 83 | -- | -- | -- | -- | 2 | -- |
| 21... | -- | -- | -- | -- | 31 | 58 | 0.14 |
| SEP | | | | | | | |
| 03... | K7600 | -- | -- | -- | -- | 34 | -- |
| 413509081340230 LAKE ERIE AT VILLA ANGELA, AREA 3 | | | | | | | |
| MAY 1997 | | | | | | | |
| 21... | 2400 | -- | -- | -- | 31 | 370 | -- |
| JUN | | | | | | | |
| 20... | 520 | 570 | 380 | 250 | -- | 29 | -- |
| 24... | 140 | -- | -- | -- | -- | 4 | -- |
| JUL | | | | | | | |
| 14... | 80 | -- | -- | -- | -- | 2 | -- |
| 14... | K3 | -- | -- | -- | -- | 3 | -- |
| 16... | 47 | -- | -- | -- | -- | 2 | -- |
| 16... | 80 | -- | -- | -- | -- | 1 | -- |
| 17... | 260 | -- | -- | -- | -- | -- | -- |
| 22... | 270 | -- | -- | -- | -- | 1 | -- |
| AUG | | | | | | | |
| 11... | K62 | -- | -- | -- | -- | -- | -- |
| 13... | 770 | -- | -- | -- | -- | -- | -- |
| 15... | K77 | 30 | K57 | K23 | -- | -- | -- |
| 16... | 640 | 500 | 650 | 690 | -- | -- | -- |
| 18... | 690 | 340 | 370 | 230 | -- | 9 | -- |
| SEP | | | | | | | |
| 01... | K18 | -- | -- | -- | -- | 1 | -- |
| 01... | K12 | -- | -- | -- | -- | -- | -- |
| 413509081340240 LAKE ERIE AT VILLA ANGELA, AREA 4 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | K4000 | -- | -- | -- | -- | 64 | -- |
| JUN | | | | | | | |
| 19... | 43 | -- | -- | -- | -- | 3 | -- |
| 20... | K410 | -- | -- | -- | -- | 5 | -- |
| 21... | 130 | 130 | 140 | 110 | -- | 9 | -- |
| 22... | 700 | -- | -- | -- | -- | 44 | -- |
| JUL | | | | | | | |
| 08... | K7 | -- | -- | -- | -- | 13 | -- |
| 08... | K16 | -- | -- | -- | -- | -- | -- |
| 09... | K37 | -- | -- | -- | -- | 2 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 413509081340240 LAKE ERIE AT VILLA ANGELA, AREA 4--Continued | | | | | | | |
| JUL | | | | | | | |
| 09... | 33 | -- | -- | -- | -- | -- | -- |
| 10... | 38 | -- | -- | -- | -- | 2 | -- |
| 14... | 100 | -- | -- | -- | -- | 1 | -- |
| 14... | 150 | -- | -- | -- | -- | 1 | -- |
| 16... | 51 | -- | -- | -- | -- | 1 | -- |
| 16... | K12 | -- | -- | -- | -- | -- | -- |
| 18... | 220 | -- | -- | -- | -- | -- | -- |
| 23... | 210 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 06... | 33 | -- | -- | -- | -- | -- | -- |
| 10... | 520 | 130 | 140 | 150 | -- | -- | -- |
| 10... | K290 | -- | -- | -- | -- | -- | -- |
| 11... | 180 | 160 | 130 | 110 | 17 | -- | -- |
| 14... | 1800 | 2000 | 2200 | 1900 | -- | 4 | -- |
| 20... | K46 | 7 | K19 | K28 | -- | -- | -- |
| SEP | | | | | | | |
| 02... | K13 | -- | -- | -- | -- | 0 | -- |
| 02... | 23 | -- | -- | -- | -- | -- | -- |
| 05... | K12 | -- | -- | -- | -- | -- | -- |

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413509081340250 LAKE ERIE AT VILLA ANGELA, AREA 5 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 21... | 0906 | 2.0 | 358 | 7.7 | 9.5 | 13.0 | 67 | 10 |
| 22... | 0824 | 2.0 | 360 | 7.6 | 10.0 | 13.0 | 18 | 9.7 |
| JUN | | | | | | | | |
| 17... | 0835 | 4.0 | 310 | 7.8 | 15.0 | 18.0 | 17 | 9.3 |
| 19... | 0757 | 5.0 | 290 | 8.1 | 18.0 | 16.5 | 2.7 | 8.7 |
| 22... | 0756 | 5.0 | 350 | 8.1 | 19.0 | 19.5 | 8.2 | 8.0 |
| JUL | | | | | | | | |
| 08... | 0802 | 6.0 | 305 | 8.1 | 17.0 | 21.5 | 3.4 | 7.8 |
| 08... | 1425 | 6.0 | 304 | 8.3 | 22.0 | 23.0 | 2.8 | 8.9 |
| 09... | 0746 | 6.0 | 315 | 8.0 | 18.0 | 21.5 | 5.6 | 8.3 |
| 09... | 1407 | 6.0 | 330 | 8.0 | 18.5 | 22.0 | 9.9 | 8.0 |
| 10... | 0749 | 2.0 | 286 | 8.2 | 17.5 | 21.0 | 5.4 | 6.4 |
| 13... | 0734 | 5.0 | 293 | 8.1 | 18.5 | 21.5 | 8.4 | 7.4 |
| 13... | 1432 | 5.0 | 290 | 8.4 | 25.5 | 24.5 | 8.9 | 8.8 |
| 15... | 0747 | 4.0 | 280 | 8.2 | 23.0 | 24.0 | 5.8 | 7.4 |
| 15... | 1405 | 4.0 | 268 | 8.5 | 26.0 | 25.0 | 5.0 | 7.9 |
| 18... | 0745 | 2.0 | 300 | 8.1 | 23.0 | 25.0 | 18 | 7.4 |
| 19... | 0745 | 3.0 | 290 | 8.1 | 21.5 | 25.0 | 10 | 7.5 |
| 19... | 1335 | 3.0 | 300 | 8.1 | 23.5 | 25.5 | 7.0 | 7.4 |
| AUG | | | | | | | | |
| 04... | 0736 | 3.0 | 290 | 8.0 | 20.5 | 23.0 | 2.1 | 7.0 |
| 05... | 0747 | 4.0 | 300 | 7.8 | 19.0 | 22.5 | 23 | 7.7 |
| 06... | 0742 | 3.0 | -- | -- | -- | 22.0 | 12 | -- |
| 12... | 0733 | 4.0 | 275 | 6.9 | 18.0 | 21.5 | 3.3 | -- |
| 15... | 0805 | 5.0 | -- | 7.1 | 22.0 | 23.5 | 2.3 | -- |
| 16... | 0746 | 6.0 | -- | 6.9 | 27.0 | 24.0 | 3.9 | -- |
| 17... | 0742 | 5.0 | -- | 7.2 | 22.0 | 22.5 | 28 | -- |
| SEP | | | | | | | | |
| 01... | 0743 | 6.0 | 255 | 7.8 | 20.0 | 21.0 | 1.4 | -- |
| 01... | 1347 | 6.0 | -- | 8.7 | 26.0 | 23.0 | 1.9 | -- |
| 03... | 0716 | 5.0 | -- | -- | -- | -- | 37 | -- |
| 413509081340260 LAKE ERIE AT VILLA ANGELA, AREA 6 | | | | | | | | |
| AUG 1997 | | | | | | | | |
| 19... | 0755 | 5.0 | 632 | 6.6 | 18.0 | 22.0 | 7.5 | -- |
| 21... | 0818 | 6.0 | 305 | 6.9 | 19.0 | 21.0 | 38 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413509081340270 LAKE ERIE AT VILLA ANGELA, AREA 7 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 22... | 0822 | 2.0 | 360 | 7.6 | 10.0 | 13.0 | 31 | 9.7 |
| JUN | | | | | | | | |
| 18... | 0832 | 2.0 | 284 | 8.2 | 19.0 | 17.0 | 3.7 | 9.6 |
| 413700081312510 LAKE ERIE AT SIMMS BEACH, AREA 1 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 0956 | 2.0 | 316 | 8.0 | 9.0 | 11.5 | 58 | 10 |
| 21... | 0941 | 2.0 | 287 | 7.8 | 13.0 | 12.5 | 38 | 10 |
| 22... | 0858 | 2.0 | 326 | 7.6 | 9.0 | 13.0 | 110 | 10 |
| JUN | | | | | | | | |
| 17... | 0903 | 3.0 | 310 | 8.0 | 15.0 | 18.0 | 34 | 9.0 |
| 18... | 0906 | 4.0 | 284 | 8.2 | 18.0 | 17.0 | 7.3 | 9.3 |
| 19... | 0823 | 5.0 | 280 | 8.1 | 18.0 | 17.0 | 5.5 | 8.8 |
| 20... | 0822 | 5.0 | 300 | 7.8 | 18.0 | 17.5 | 3.5 | 8.4 |
| 21... | 0801 | 6.0 | 320 | 8.1 | 20.5 | 19.5 | 5.0 | 8.5 |
| 22... | 0821 | 2.0 | 340 | 8.1 | 19.0 | 20.0 | 22 | 8.0 |
| 24... | 1142 | 6.0 | 314 | 8.1 | 24.0 | 21.5 | 4.4 | 8.4 |
| JUL | | | | | | | | |
| 08... | 0836 | 4.0 | 299 | 8.0 | 22.0 | 22.0 | 38 | 7.5 |
| 08... | 1450 | 4.00 | 304 | 7.9 | 22.5 | 23.0 | 9.8 | 8.1 |
| 09... | 0831 | 5.0 | 320 | 8.0 | 18.0 | 21.5 | 64 | 8.3 |
| 09... | 1426 | 5.0 | 312 | 8.0 | 18.0 | 21.5 | 350 | 8.2 |
| 10... | 0830 | 4.0 | 288 | 8.1 | 17.5 | 21.0 | -- | 7.4 |
| 10... | 0832 | 4.0 | 288 | 8.1 | 17.5 | 21.0 | 20 | 7.4 |
| 13... | 0811 | 5.0 | 290 | 8.1 | 19.0 | 22.0 | 12 | 7.5 |
| 13... | 1400 | 5.0 | 290 | 8.2 | 23.0 | 24.5 | 7.4 | 8.7 |
| 14... | 0809 | 4.0 | 290 | 6.2 | 23.0 | 22.5 | 4.7 | 7.8 |
| 14... | 1449 | 4.0 | 268 | 8.4 | 26.0 | 25.0 | 6.4 | 8.6 |
| 15... | 0803 | 5.0 | 270 | 8.2 | 23.0 | 24.5 | 8.6 | 7.4 |
| 15... | 1453 | 5.0 | 294 | 8.0 | 26.0 | 25.5 | 17 | 7.6 |
| 16... | 0737 | 4.0 | 300 | 8.0 | 21.5 | 24.5 | 5.2 | 6.7 |
| 16... | 1441 | 4.0 | 294 | 8.4 | 26.0 | 26.5 | 5.2 | 8.8 |
| 17... | 0713 | 5.0 | 300 | 7.8 | 23.0 | 25.5 | 13 | 7.2 |
| 18... | 0801 | 4.0 | 311 | 7.8 | 23.5 | 25.0 | 23 | 6.9 |
| 19... | 0807 | 5.0 | 300 | 8.0 | 21.5 | 25.0 | 340 | 7.4 |
| 19... | 1309 | 5.0 | 290 | 7.8 | 19.5 | 25.5 | 360 | 7.7 |
| 22... | 0842 | 4.00 | 280 | 8.0 | 23.5 | 24.0 | 120 | 7.3 |
| 23... | 0657 | 5.0 | 280 | 7.3 | 20.0 | 23.0 | 57 | 7.6 |
| AUG | | | | | | | | |
| 04... | 0808 | 4.0 | 300 | 7.6 | 22.0 | 23.0 | 48 | -- |
| 05... | 0801 | 5.0 | 300 | 8.0 | 18.0 | 22.0 | 210 | 8.1 |
| 06... | 0805 | 4.00 | -- | -- | -- | -- | 48 | -- |
| 10... | 0703 | 4.0 | 280 | 6.3 | 21.5 | 23.5 | 3.7 | -- |
| 10... | 1405 | 4.0 | 275 | 7.0 | 33.0 | 24.0 | 15 | -- |
| 11... | 0801 | 5.0 | 630 | 6.9 | 22.5 | 23.0 | 2.6 | -- |
| 12... | 0805 | 4.0 | 275 | 6.9 | -- | 21.0 | 11 | -- |
| 13... | 0801 | 5.0 | -- | 6.9 | 22.0 | 23.0 | 32 | -- |
| 14... | 0801 | 4.0 | -- | 7.0 | 17.5 | 21.5 | 29 | -- |
| 15... | 0825 | 4.0 | -- | 7.0 | 22.0 | 23.5 | 9.5 | -- |
| 16... | 0814 | 5.0 | -- | 6.6 | 27.0 | 24.0 | 38 | -- |
| 17... | 0800 | 4.0 | -- | 6.9 | -- | 23.0 | 46 | -- |
| 18... | 0846 | 4.0 | -- | 6.5 | 20.0 | 23.5 | 250 | -- |
| 19... | 0826 | 4.0 | 508 | 7.6 | 20.0 | 22.5 | 13 | -- |
| 20... | 0832 | 4.0 | 264 | 7.0 | 21.0 | 21.5 | 19 | -- |
| 21... | 0844 | 4.0 | 269 | 6.8 | 19.0 | 21.0 | 180 | -- |
| SEP | | | | | | | | |
| 01... | 0803 | 5.0 | -- | 7.5 | 20.5 | 21.0 | 5.4 | 260 |
| 01... | 1320 | 5.0 | -- | 8.0 | 22.0 | 26.0 | 3.6 | -- |
| 02... | 0807 | 4.0 | -- | 6.0 | 20.0 | -- | 2.4 | -- |
| 02... | 1418 | 4.0 | -- | 7.8 | 26.0 | 24.0 | 1.8 | -- |
| 03... | 0736 | 5.0 | -- | -- | -- | -- | 220 | -- |
| 05... | 1052 | 4.0 | 336 | 7.4 | 20.5 | 20.0 | 41 | 8.9 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 413509081340250 LAKE ERIE AT VILLA ANGELA, AREA 5 | | | | | | | |
| MAY 1997 | | | | | | | |
| 21... | 2500 | 1700 | 2000 | 1800 | -- | 110 | -- |
| 22... | 270 | 190 | 240 | 160 | -- | 19 | -- |
| JUN | | | | | | | |
| 17... | 1800 | -- | -- | -- | -- | 12 | -- |
| 19... | 33 | 23 | K20 | K20 | -- | 4 | -- |
| 22... | 500 | -- | -- | -- | -- | 6 | -- |
| JUL | | | | | | | |
| 08... | K19 | -- | -- | -- | -- | 5 | -- |
| 08... | 21 | -- | -- | -- | -- | -- | -- |
| 09... | 77 | -- | -- | -- | 19 | 2 | -- |
| 09... | 39 | -- | -- | -- | -- | -- | -- |
| 10... | 29 | -- | -- | -- | -- | 4 | -- |
| 13... | 45 | -- | -- | -- | -- | -- | -- |
| 13... | 40 | -- | -- | -- | -- | -- | -- |
| 15... | 310 | -- | -- | -- | -- | -- | -- |
| 15... | 200 | -- | -- | -- | -- | -- | -- |
| 18... | 180 | -- | -- | -- | -- | -- | -- |
| 19... | 87 | -- | -- | -- | -- | 3 | -- |
| 19... | K62 | -- | -- | -- | -- | 9 | -- |
| AUG | | | | | | | |
| 04... | 50 | -- | 51 | 47 | -- | 0 | -- |
| 05... | 130 | -- | -- | -- | -- | -- | -- |
| 06... | 53 | -- | -- | -- | -- | -- | -- |
| 12... | 64 | 60 | 56 | 71 | -- | 3 | -- |
| 15... | K30 | -- | -- | -- | -- | -- | -- |
| 16... | 500 | -- | -- | -- | -- | -- | -- |
| 17... | 2200 | 770 | 1400 | 720 | -- | 35 | -- |
| SEP | | | | | | | |
| 01... | K16 | 27 | K32 | K18 | -- | 1 | -- |
| 01... | K7 | -- | -- | -- | 20 | -- | <0.01 |
| 03... | K8700 | -- | -- | -- | -- | 39 | -- |
| 413509081340260 LAKE ERIE AT VILLA ANGELA, AREA 6 | | | | | | | |
| AUG 1997 | | | | | | | |
| 19... | K85 | 34 | K64 | K45 | -- | 1 | -- |
| 21... | K6100 | -- | -- | -- | -- | 46 | -- |
| 413509081340270 LAKE ERIE AT VILLA ANGELA, AREA 7 | | | | | | | |
| MAY 1997 | | | | | | | |
| 22... | 410 | -- | -- | -- | -- | 54 | -- |
| JUN | | | | | | | |
| 18... | 290 | -- | -- | -- | -- | 1 | -- |
| 413700081312510 LAKE ERIE AT SIMMS BEACH, AREA 1 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | 1800 | -- | -- | -- | -- | 67 | -- |
| 21... | 670 | -- | -- | -- | -- | 100 | -- |
| 22... | 250 | 290 | 290 | 200 | -- | 250 | -- |
| JUN | | | | | | | |
| 17... | 1400 | 1400 | 970 | 970 | -- | 63 | -- |
| 18... | K77 | -- | -- | -- | -- | 17 | -- |
| 19... | 53 | -- | -- | -- | -- | 4 | -- |
| 20... | 100 | -- | -- | -- | -- | 4 | -- |
| 21... | 220 | 820 | 250 | 170 | -- | 6 | -- |
| 22... | 4000 | -- | -- | -- | -- | 47 | -- |
| 24... | K120 | 120 | 120 | 110 | -- | 3 | -- |
| JUL | | | | | | | |
| 08... | 49 | -- | -- | -- | -- | 540 | -- |
| 08... | 30 | -- | -- | -- | -- | -- | -- |
| 09... | 1700 | -- | -- | -- | -- | 160 | -- |
| 09... | 360 | -- | -- | -- | -- | -- | -- |
| 10... | -- | -- | -- | -- | -- | -- | -- |
| 10... | 83 | -- | -- | -- | -- | 23 | -- |
| 13... | K5 | -- | -- | -- | -- | -- | -- |
| 13... | 83 | -- | -- | -- | -- | -- | -- |
| 14... | K20 | -- | -- | -- | -- | 1 | -- |
| 14... | K21 | -- | -- | -- | -- | 14 | -- |
| 15... | K500 | -- | -- | -- | -- | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 413700081312510 LAKE ERIE AT SIMMS BEACH, AREA 1--Continued | | | | | | | |
| 15... | 280 | -- | -- | -- | -- | -- | -- |
| 16... | 180 | -- | -- | -- | -- | 1 | -- |
| 16... | 140 | -- | -- | -- | -- | 5 | -- |
| 17... | 240 | -- | -- | -- | -- | -- | -- |
| 18... | 480 | -- | -- | -- | -- | -- | -- |
| 19... | K990 | -- | -- | -- | -- | 390 | -- |
| 19... | 670 | -- | -- | -- | -- | 290 | -- |
| 22... | 4600 | -- | -- | -- | -- | 120 | -- |
| 23... | 4900 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 04... | 5800 | -- | >2700 | >2700 | -- | 53 | -- |
| 05... | K800 | -- | -- | -- | -- | -- | -- |
| 06... | K100 | -- | -- | -- | -- | -- | -- |
| 10... | 100 | 120 | 100 | 130 | -- | -- | -- |
| 10... | 350 | -- | -- | -- | -- | -- | -- |
| 11... | 400 | -- | -- | -- | 19 | -- | -- |
| 12... | 530 | -- | -- | -- | -- | 30 | -- |
| 13... | K16000 | -- | -- | -- | -- | 48 | -- |
| 14... | 490 | 230 | 530 | 460 | -- | 63 | -- |
| 15... | 120 | -- | -- | -- | -- | -- | -- |
| 16... | K6800 | 4600 | K3200 | K3300 | -- | -- | -- |
| 17... | 15000 | -- | -- | -- | 26 | 48 | 0.19 |
| 18... | 3400 | -- | -- | -- | -- | -- | -- |
| 19... | K86 | -- | -- | -- | -- | 22 | -- |
| 20... | 87 | -- | -- | -- | -- | -- | -- |
| 21... | 2200 | -- | -- | -- | -- | 240 | -- |
| SEP | | | | | | | |
| 01... | 80 | -- | -- | -- | -- | K4 | -- |
| 01... | 180 | -- | -- | -- | 19 | 0 | <0.01 |
| 02... | 62 | -- | -- | -- | -- | 3 | -- |
| 02... | K16 | -- | -- | -- | -- | -- | -- |
| 03... | 2600 | -- | -- | -- | -- | 290 | -- |
| 05... | 700 | -- | -- | -- | -- | -- | -- |

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413700081312520 LAKE ERIE AT SIMMS BEACH, AREA 2 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 1001 | 2.0 | 316 | 8.0 | 9.0 | 11.5 | 38 | 10 |
| 21... | 0946 | 2.0 | 287 | 7.8 | 13.0 | 12.5 | 54 | 10 |
| 22... | 0905 | 2.0 | 326 | 7.6 | 9.0 | 13.0 | 100 | 10 |
| JUN | | | | | | | | |
| 17... | 0906 | 5.0 | 310 | 8.0 | 15.0 | 18.0 | 24 | 9.0 |
| 18... | 0858 | 5.0 | 284 | 8.2 | 18.0 | 17.0 | 6.6 | 9.3 |
| 19... | 0827 | 6.0 | 280 | 8.1 | 18.0 | 17.0 | 9.9 | 8.8 |
| 20... | 0826 | 6.0 | 300 | 7.8 | 18.0 | 17.5 | 3.1 | 8.4 |
| 21... | 0806 | 3.0 | 320 | 8.1 | 20.5 | 19.5 | 5.2 | 8.5 |
| 22... | 0826 | 3.0 | 340 | 8.1 | 19.0 | 20.0 | 20 | 8.0 |
| 24... | 1137 | 5.0 | 314 | 8.1 | 24.0 | 21.5 | 4.3 | 8.4 |
| JUL | | | | | | | | |
| 08... | 0841 | 5.0 | 299 | 8.0 | 22.0 | 22.0 | 16 | 7.5 |
| 08... | 1451 | 5.0 | 304 | 7.9 | 22.5 | 23.0 | 7.5 | 8.1 |
| 09... | 0836 | 4.0 | 320 | 8.0 | 18.0 | 21.5 | 42 | 8.3 |
| 09... | 1428 | 4.0 | 312 | 8.0 | 18.0 | 21.5 | 250 | 8.2 |
| 10... | 0836 | 5.0 | 288 | 8.1 | 17.5 | 21.0 | 12 | 7.4 |
| 13... | 0812 | 4.0 | 290 | 8.1 | 19.0 | 22.0 | 8.2 | 7.5 |
| 13... | 1405 | 4.0 | 290 | 8.2 | 23.0 | 24.5 | 14 | 8.7 |
| 14... | 0815 | 5.0 | 290 | 6.2 | 23.0 | 22.5 | 2.3 | 7.8 |
| 14... | 1453 | 5.0 | 268 | 8.4 | 26.0 | 25.0 | 5.2 | 8.6 |
| 15... | 0807 | 4.0 | 270 | 8.2 | 23.0 | 24.5 | 8.5 | 7.4 |
| 15... | 1459 | 4.0 | 294 | 8.0 | 26.0 | 25.5 | 13 | 7.6 |
| 16... | 0742 | 5.0 | 300 | 8.0 | 21.5 | 24.5 | 4.0 | 6.7 |
| 16... | 1443 | 4.0 | 294 | 8.4 | 26.0 | 28.0 | 5.2 | 8.8 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413700081312520 LAKE ERIE AT SIMMS BEACH, AREA 2--Continued | | | | | | | | |
| JUL | | | | | | | | |
| 17... | 0720 | 4.0 | 300 | 7.8 | 23.0 | 25.5 | 11 | 7.2 |
| 18... | 0805 | 5.0 | 311 | 7.8 | 23.5 | 25.0 | 27 | 6.9 |
| 19... | 0807 | 4.0 | 300 | 8.1 | 21.5 | 25.0 | 150 | 7.4 |
| 19... | 1315 | 4.0 | 290 | 7.8 | 19.5 | 25.5 | 210 | 7.7 |
| 22... | 0844 | 5.0 | 280 | 8.0 | 23.5 | 24.0 | 3.2 | 7.3 |
| 23... | 0702 | 4.0 | 280 | 7.3 | 20.0 | 23.0 | 51 | 7.6 |
| AUG | | | | | | | | |
| 04... | 0812 | 5.0 | 300 | 7.6 | 22.0 | 23.0 | 20 | -- |
| 05... | 0806 | 4.0 | 300 | 8.0 | 18.0 | 22.0 | 200 | 8.1 |
| 06... | 0811 | 5.0 | -- | -- | -- | -- | 47 | -- |
| 10... | 0705 | 5.0 | 280 | 6.3 | 21.5 | 23.5 | 2.6 | -- |
| 10... | 1407 | 5.0 | 275 | 7.0 | 33.0 | 24.0 | 10 | -- |
| 11... | 0805 | 4.0 | 630 | 6.9 | 22.5 | 23.0 | -- | -- |
| 11... | 0806 | 4.0 | 630 | 6.9 | 22.5 | 23.0 | 2.9 | -- |
| 12... | 0810 | 5.0 | 275 | 6.9 | -- | 21.0 | 5.6 | -- |
| 13... | 0803 | 4.0 | -- | 6.9 | 22.0 | 23.0 | 27 | -- |
| 14... | 0805 | 5.0 | -- | 7.0 | 17.5 | 21.5 | 38 | -- |
| 15... | 0830 | 5.0 | -- | 7.0 | 22.0 | 23.5 | 9.2 | -- |
| 16... | 0820 | 4.0 | -- | 6.6 | 27.0 | 24.0 | 15 | -- |
| 17... | 0805 | 4.0 | -- | 6.9 | -- | 23.0 | 74 | -- |
| 18... | 0826 | 4.0 | -- | 6.5 | 20.0 | 23.5 | 180 | -- |
| 19... | 0828 | 5.0 | 508 | 7.6 | 20.0 | 22.5 | 11 | -- |
| 20... | 0834 | 5.0 | 264 | 7.0 | 21.0 | 21.5 | 17 | -- |
| 21... | 0846 | 5.0 | 269 | 6.8 | 19.0 | 21.0 | 140 | -- |
| SEP | | | | | | | | |
| 01... | 0804 | 5.0 | 260 | 7.5 | 20.5 | 21.0 | 2.1 | |
| 01... | 1322 | 5.0 | -- | 8.0 | 22.0 | 26.0 | 7.8 | -- |
| 02... | 0811 | 4.0 | -- | 6.0 | 20.0 | -- | 3.0 | -- |
| 02... | 1420 | 4.0 | -- | 7.8 | 26.0 | 24.0 | 2.4 | -- |
| 03... | 0738 | 5.0 | -- | -- | -- | -- | 200 | -- |
| 05... | 1054 | 4.0 | 336 | 7.4 | 20.5 | 20.0 | 32 | 8.9 |
| 413700081312530 LAKE ERIE AT SIMMS BEACH, AREA 3 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 1006 | 2.0 | 316 | 8.0 | 9.0 | 11.5 | 38 | 10 |
| 21... | 0951 | 2.0 | 287 | 7.8 | 13.0 | 12.5 | 36 | 10 |
| 22... | 0859 | 2.0 | 326 | 7.6 | 9.0 | 13.0 | 82 | 10 |
| JUN | | | | | | | | |
| 17... | 0911 | 6.0 | 310 | 8.0 | 15.0 | 18.0 | 26 | 9.0 |
| 18... | 0907 | 2.0 | 284 | 8.2 | 18.0 | 17.0 | 7.4 | 9.3 |
| 19... | 0828 | 3.0 | 280 | 8.1 | 18.0 | 17.0 | 10 | 8.8 |
| 20... | 0839 | 2.0 | 300 | 7.8 | 18.0 | 17.5 | 3.4 | 8.4 |
| 21... | 0811 | 5.0 | 320 | 8.1 | 20.5 | 19.5 | 6.2 | 8.5 |
| 22... | 0831 | 4.0 | 340 | 8.1 | 19.0 | 20.0 | 28 | 8.0 |
| 24... | 1143 | 3.0 | 314 | 8.1 | 24.0 | 21.5 | 5.9 | 8.4 |
| JUL | | | | | | | | |
| 08... | 0837 | 4.0 | 299 | 8.0 | 22.0 | 22.0 | 5.5 | 7.5 |
| 08... | 1453 | 4.0 | 304 | 7.9 | 22.5 | 23.0 | 6.4 | 8.1 |
| 09... | 0834 | 5.0 | 320 | 8.0 | 18.0 | 21.5 | 34 | 8.3 |
| 09... | 1427 | 5.0 | 312 | 8.0 | 18.0 | 21.5 | 170 | 8.2 |
| 10... | 0837 | 4.0 | 288 | 8.1 | 17.5 | 21.0 | 12 | 7.4 |
| 13... | 0815 | 5.0 | 290 | 8.1 | 19.0 | 22.0 | 12 | 7.5 |
| 13... | 1410 | 5.0 | 290 | 8.2 | 23.0 | 24.5 | 8.5 | 8.7 |
| 14... | 0817 | 4.0 | 290 | 6.2 | 23.0 | 22.5 | 7.0 | 7.8 |
| 14... | 1500 | 4.0 | 268 | 8.4 | 26.0 | 25.0 | 4.1 | 8.6 |
| 15... | 0809 | 5.0 | 270 | 8.2 | 23.0 | 24.5 | 7.2 | 7.4 |
| 15... | 1501 | 5.0 | 294 | 8.0 | 26.0 | 25.5 | 13 | 7.6 |
| 16... | 0744 | 4.0 | 300 | 8.0 | 21.5 | 24.5 | 3.4 | 6.7 |
| 16... | 1445 | 4.0 | 294 | 8.4 | 26.0 | 26.5 | 7.6 | 8.8 |
| 17... | 0718 | 5.0 | 300 | 7.8 | 23.0 | 25.5 | 11 | 7.2 |
| 18... | 0807 | 4.0 | 311 | 7.8 | 23.5 | 25.0 | 24 | 6.9 |
| 19... | 0811 | 5.0 | 300 | 8.0 | 21.5 | 25.0 | 130 | 7.4 |
| 19... | 1314 | 5.0 | 290 | 7.8 | 19.5 | 25.5 | 120 | 7.2 |
| 22... | 0846 | 4.0 | 280 | 8.0 | 23.5 | 24.0 | 42 | 7.3 |
| 23... | 0704 | 5.0 | 280 | 7.3 | 20.0 | 23.0 | 35 | 7.6 |
| AUG | | | | | | | | |
| 04... | 0814 | 4.0 | 300 | 7.6 | 22.0 | 23.0 | 15 | -- |
| 05... | 0808 | 5.0 | 300 | 8.0 | 18.0 | 22.0 | 310 | 8.1 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

413700081312530 LAKE ERIE AT SIMMS BEACH, AREA 3--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| AUG | | | | | | | | |
| 06... | 0814 | 4.0 | -- | -- | -- | -- | 62 | -- |
| 10... | 0707 | 4.0 | 280 | 6.3 | 21.5 | 23.5 | 2.1 | -- |
| 10... | 1409 | 4.0 | 275 | 7.0 | 33.0 | 24.0 | 12 | -- |
| 11... | 0806 | 5.0 | 630 | 6.9 | 22.5 | 23.0 | 2.9 | -- |
| 12... | 0805 | 4.0 | 275 | 6.9 | -- | 21.0 | 9.6 | -- |
| 13... | 0804 | 5.0 | -- | 6.9 | 22.0 | 23.0 | 27 | -- |
| 14... | 0806 | 4.0 | -- | 7.0 | 17.5 | 21.5 | 17 | -- |
| 15... | 0835 | 4.0 | -- | 7.0 | 22.0 | 23.5 | 11 | -- |
| 16... | 0830 | 5.0 | -- | 6.6 | 27.0 | 24.0 | 27 | -- |
| 17... | 0810 | 4.0 | -- | 6.9 | -- | 23.0 | 52 | -- |
| 18... | 0839 | 4.0 | -- | 6.5 | 20.0 | 23.5 | 150 | -- |
| 19... | 0830 | 4.0 | 508 | 7.6 | 20.0 | 22.5 | 11 | -- |
| 20... | 0836 | 4.0 | 264 | 7.0 | 21.0 | 21.5 | 23 | -- |
| 21... | 0848 | 4.0 | 269 | 6.8 | 19.0 | 21.0 | 140 | -- |

413700081312520 LAKE ERIE AT SIMMS BEACH, AREA 2

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| MAY 1997 | | | | | | | |
| 20... | 2100 | -- | -- | -- | -- | 53 | -- |
| 21... | 530 | 600 | 520 | 310 | -- | 160 | -- |
| 22... | 230 | -- | -- | -- | -- | 360 | -- |
| JUN | | | | | | | |
| 17... | 1500 | -- | -- | -- | -- | 44 | -- |
| 18... | K23 | 20 | K50 | <1 | 16 | 16 | <0.01 |
| 19... | 100 | -- | -- | -- | -- | 8 | -- |
| 20... | 160 | -- | -- | -- | -- | 3 | -- |
| 21... | 1200 | -- | -- | -- | -- | 5 | -- |
| 22... | 3900 | -- | -- | -- | -- | 25 | -- |
| 24... | 110 | -- | -- | -- | -- | 4 | -- |
| JUL | | | | | | | |
| 08... | 40 | -- | -- | -- | -- | 100 | -- |
| 08... | 66 | -- | -- | -- | -- | -- | -- |
| 09... | 750 | -- | -- | -- | 19 | 74 | -- |
| 09... | 470 | -- | -- | -- | -- | -- | -- |
| 10... | 32 | -- | -- | -- | -- | 10 | -- |
| 13... | K23 | -- | -- | -- | -- | -- | -- |
| 13... | 97 | -- | -- | -- | -- | -- | -- |
| 14... | K12 | -- | -- | -- | -- | 1 | -- |
| 14... | 38 | -- | -- | -- | -- | 5 | -- |
| 15... | 230 | -- | -- | -- | -- | -- | -- |
| 15... | 490 | -- | -- | -- | -- | -- | -- |
| 16... | 150 | -- | -- | -- | -- | 2 | -- |
| 16... | 100 | -- | -- | -- | -- | 4 | -- |
| 17... | 640 | -- | -- | -- | -- | -- | -- |
| 18... | 430 | -- | -- | -- | -- | -- | -- |
| 19... | 770 | -- | -- | -- | -- | 160 | -- |
| 19... | 240 | -- | -- | -- | -- | 200 | -- |
| 22... | 1500 | -- | -- | -- | -- | 28 | -- |
| 23... | 680 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 04... | 970 | -- | -- | -- | -- | 11 | -- |
| 05... | 1400 | 1200 | 1100 | 1500 | -- | -- | -- |
| 06... | 210 | -- | -- | -- | -- | -- | -- |
| 10... | 400 | -- | -- | -- | -- | -- | -- |
| 10... | 7200 | -- | -- | -- | -- | -- | -- |
| 11... | -- | -- | -- | -- | -- | -- | -- |
| 11... | 450 | 320 | 380 | 370 | -- | -- | -- |
| 12... | 320 | -- | -- | -- | -- | 7 | -- |
| 13... | K17000 | -- | -- | -- | -- | 51 | -- |
| 14... | 1300 | -- | -- | -- | -- | 62 | -- |
| 15... | 200 | -- | -- | -- | -- | -- | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 413700081312520 LAKE ERIE AT SIMMS BEACH, AREA 2--Continued | | | | | | | |
| AUG | | | | | | | |
| 16... | K3400 | -- | -- | -- | -- | -- | -- |
| 17... | 19000 | 14000 | 13000 | 8700 | -- | 134 | -- |
| 18... | 2300 | 1400 | 1700 | 1700 | -- | 200 | -- |
| 19... | K270 | -- | -- | -- | -- | -- | -- |
| 20... | 170 | 76 | 110 | 110 | -- | -- | -- |
| 21... | 1900 | -- | -- | -- | -- | 150 | 0.08 |
| SEP | | | | | | | |
| 01... | 140 | 85 | 180 | 140 | -- | 1 | -- |
| 01... | 670 | -- | -- | -- | -- | 3 | -- |
| 02... | K40 | -- | -- | -- | -- | 1 | -- |
| 02... | K23 | -- | -- | -- | -- | -- | -- |
| 03... | 1900 | -- | -- | -- | -- | 240 | -- |
| 05... | 810 | -- | -- | -- | -- | -- | -- |
| 413700081312530 LAKE ERIE AT SIMMS BEACH, AREA 3 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | 1600 | -- | -- | -- | -- | 88 | -- |
| 21... | 270 | -- | -- | -- | -- | 300 | -- |
| 22... | 160 | 170 | 220 | 170 | -- | 130 | -- |
| JUN | | | | | | | |
| 17... | 1800 | -- | -- | -- | -- | 47 | -- |
| 18... | 640 | -- | -- | -- | -- | 8 | -- |
| 19... | 110 | 96 | 130 | 90 | -- | 7 | -- |
| 20... | 290 | 580 | 320 | 170 | -- | 4 | -- |
| 21... | 660 | -- | -- | -- | -- | 7 | -- |
| 22... | 20000 | -- | -- | -- | -- | 29 | -- |
| 24... | 170 | 360 | 240 | 170 | -- | 5 | -- |
| JUL | | | | | | | |
| 08... | 25 | -- | -- | -- | -- | 8 | -- |
| 08... | 63 | -- | -- | -- | -- | -- | -- |
| 09... | 5500 | -- | -- | -- | -- | 85 | -- |
| 09... | 970 | -- | -- | -- | -- | -- | -- |
| 10... | 69 | -- | -- | -- | -- | 8 | -- |
| 13... | K23 | -- | -- | -- | -- | -- | -- |
| 13... | 60 | -- | -- | -- | -- | -- | -- |
| 14... | 29 | -- | -- | -- | -- | 0 | -- |
| 14... | 61 | -- | -- | -- | -- | 3 | -- |
| 15... | 360 | -- | -- | -- | -- | -- | -- |
| 15... | 170 | -- | -- | -- | -- | -- | -- |
| 16... | 210 | -- | -- | -- | -- | 2 | -- |
| 16... | 110 | -- | -- | -- | -- | 8 | -- |
| 17... | 360 | -- | -- | -- | -- | -- | -- |
| 18... | 340 | -- | -- | -- | -- | -- | -- |
| 19... | 520 | -- | -- | -- | -- | 150 | -- |
| 19... | 300 | -- | -- | -- | -- | 120 | -- |
| 22... | 1000 | -- | -- | -- | -- | 51 | -- |
| 23... | 370 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 04... | 480 | -- | -- | -- | -- | 32 | -- |
| 05... | 1400 | -- | -- | -- | -- | -- | -- |
| 06... | 220 | -- | -- | -- | -- | -- | -- |
| 10... | 320 | -- | -- | -- | -- | -- | -- |
| 10... | 2200 | -- | -- | -- | -- | -- | -- |
| 11... | 670 | -- | -- | -- | -- | -- | -- |
| 12... | 1200 | 730 | 620 | 730 | -- | 13 | -- |
| 13... | K36000 | -- | -- | -- | 21 | 63 | 0.07 |
| 14... | 690 | -- | -- | -- | -- | 66 | -- |
| 15... | 240 | 96 | K190 | K110 | -- | -- | -- |
| 16... | K1500 | -- | -- | -- | -- | -- | -- |
| 17... | 6500 | -- | -- | -- | -- | 73 | -- |
| 18... | 2400 | -- | -- | -- | -- | 170 | -- |
| 19... | K57 | 46 | K62 | K57 | -- | 3 | -- |
| 20... | 83 | -- | -- | -- | -- | -- | -- |
| 21... | 1600 | -- | -- | -- | -- | 150 | -- |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | TIME | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095) | PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400) | TEMPER-ATURE AIR (DEG C) (00020) | TEMPER-ATURE WATER (DEG C) (00010) | TUR-BID-ITY (NTU) (00076) | OXYGEN, DIS-SOLVED (MG/L) (00300) |
|---|---|---|---|---|---|---|---|---|
| 413700081312530 LAKE ERIE AT SIMMS BEACH, AREA 3 | | | | | | | | |
| SEP 1997 | | | | | | | | |
| 01... | 0809 | 5.0 | -- | 7.5 | 20.5 | 21.0 | 1.8 | |
| 01... | 1324 | 5.0 | -- | 8.0 | 22.0 | 26.0 | 6.5 | -- |
| 02... | 0815 | 4.0 | -- | 6.0 | 20.0 | -- | 1.4 | -- |
| 02... | 1422 | 4.0 | -- | 7.8 | 26.0 | 24.0 | 1.5 | -- |
| 03... | 0740 | 5.0 | -- | -- | -- | -- | 190 | -- |
| 05... | 1056 | 4.0 | 336 | 7.4 | 20.5 | 20.0 | 50 | 8.9 |
| 413700081312540 LAKE ERIE AT SIMMS BEACH, AREA 4 | | | | | | | | |
| MAY 1997 | | | | | | | | |
| 20... | 1011 | 2.0 | 316 | 8.0 | 9.0 | 11.5 | 25 | 10 |
| 21... | 0956 | 2.0 | 287 | 7.8 | 13.0 | 12.5 | 32 | 10 |
| 22... | 0906 | 2.0 | 326 | 7.6 | 9.0 | 13.0 | 78 | 10 |
| JUN | | | | | | | | |
| 17... | 0915 | 3.0 | 310 | 8.0 | 15.0 | 18.0 | 59 | 9.0 |
| 18... | 0901 | 3.0 | 284 | 8.2 | 18.0 | 17.0 | 13 | 9.3 |
| 19... | 0835 | 4.0 | 280 | 8.1 | 18.0 | 17.0 | 11 | 8.8 |
| 20... | 0824 | 4.0 | 300 | 7.8 | 18.0 | 17.5 | 3.8 | 8.4 |
| 21... | 0816 | 5.0 | 320 | 8.1 | 20.5 | 19.5 | 8.6 | 8.5 |
| 22... | 0836 | 5.0 | 340 | 8.1 | 19.0 | 20.0 | 20 | 8.0 |
| 24... | 1137 | 4.0 | 314 | 8.1 | 24.0 | 21.5 | 4.3 | 8.4 |
| JUL | | | | | | | | |
| 08... | 0831 | 5.0 | 299 | 8.0 | 22.0 | 22.0 | 5.5 | 7.5 |
| 08... | 1454 | 5.0 | 304 | 7.9 | 22.5 | 23.0 | 11 | 8.1 |
| 09... | 0840 | 4.0 | 320 | 8.0 | 18.0 | 21.5 | -- | 8.3 |
| 09... | 0841 | 4.0 | 320 | 8.0 | 18.0 | 21.5 | 22 | 8.3 |
| 09... | 1429 | 4.0 | 312 | 8.0 | 18.0 | 21.5 | 170 | 8.2 |
| 10... | 0833 | 5.0 | 288 | 8.1 | 17.5 | 21.0 | 15 | 7.4 |
| 13... | 0817 | 4.0 | 290 | 8.1 | 19.0 | 22.0 | 11 | 7.5 |
| 13... | 1401 | 4.0 | 290 | 8.2 | 23.0 | 24.5 | 7.7 | 8.7 |
| 14... | 0812 | 5.0 | 290 | 6.2 | 23.0 | 22.5 | 5.8 | 7.8 |
| 14... | 1508 | 5.0 | 268 | 8.4 | 26.0 | 25.0 | 3.9 | 8.6 |
| 15... | 0805 | 4.0 | 270 | 8.2 | 23.0 | 24.5 | 12 | 7.4 |
| 15... | 1505 | 4.0 | 294 | 8.0 | 26.0 | 25.5 | 19 | 7.6 |
| 16... | 0740 | 5.0 | 300 | 8.0 | 21.5 | 24.5 | 5.6 | 6.7 |
| 16... | 1447 | 5.0 | 294 | 8.4 | 26.0 | 26.5 | 3.3 | 8.8 |
| 17... | 0716 | 4.0 | 300 | 7.8 | 23.0 | 25.5 | 16 | 7.2 |
| 18... | 0803 | 5.0 | 311 | 7.8 | 23.5 | 25.0 | 34 | 6.9 |
| 19... | 0812 | 4.0 | 300 | 8.0 | 21.5 | 25.0 | 130 | 7.4 |
| 19... | 1311 | 4.0 | 290 | 7.8 | 19.5 | 25.5 | 170 | 7.7 |
| 22... | 0851 | 5.0 | 280 | 8.0 | 23.5 | 24.0 | 24 | 7.3 |
| 23... | 0700 | 4.0 | 280 | 7.3 | 20.0 | 23.0 | 36 | 7.6 |
| AUG | | | | | | | | |
| 04... | 0810 | 5.0 | 300 | 7.6 | 22.0 | 23.0 | 14 | -- |
| 05... | 0805 | 4.0 | 300 | 8.0 | 18.0 | 22.0 | 270 | 8.1 |
| 06... | 0808 | 5.0 | -- | -- | -- | -- | 45 | -- |
| 10... | 0709 | 5.0 | 280 | 6.3 | 21.5 | 23.5 | 2.7 | -- |
| 10... | 1412 | 5.0 | 275 | 7.0 | 33.0 | 24.0 | 8.8 | -- |
| 11... | 0801 | 4.0 | 630 | 6.9 | 22.5 | 23.0 | 9.1 | -- |
| 12... | 0810 | 5.0 | 275 | 6.9 | -- | 21.0 | 5.7 | -- |
| 13... | 0802 | 4.0 | -- | 6.9 | 22.0 | 23.0 | 51 | -- |
| 14... | 0802 | 5.0 | -- | 7.0 | 17.5 | 21.5 | 20 | -- |
| 15... | 0841 | 5.0 | -- | 7.0 | 22.0 | 23.5 | 6.9 | -- |
| 16... | 0845 | 4.0 | -- | 6.6 | 27.0 | 24.0 | 41 | -- |
| 17... | 0815 | 4.0 | -- | 6.9 | -- | 23.0 | 74 | -- |
| 18... | 0831 | 4.0 | -- | 6.5 | 20.0 | 23.5 | 160 | -- |
| 19... | 0832 | 5.0 | 508 | 7.6 | 20.0 | 22.5 | 7.8 | -- |
| 20... | 0836 | 5.0 | 264 | 7.0 | 21.0 | 21.5 | 14 | -- |
| 21... | 0850 | 5.0 | 269 | 6.8 | 19.0 | 21.0 | 180 | -- |
| SEP | | | | | | | | |
| 01... | 0814 | 5.0 | -- | 7.5 | 20.5 | 21.0 | 2.9 | |
| 01... | 1326 | 5.0 | -- | 8.0 | 22.0 | 26.0 | 3.6 | -- |
| 02... | 0819 | 4.0 | -- | 6.0 | 20.0 | -- | 2.2 | -- |
| 02... | 1424 | 4.0 | -- | 7.8 | 26.0 | 24.0 | 1.3 | -- |
| 03... | 0742 | 5.0 | -- | -- | -- | -- | 180 | -- |
| 05... | 1058 | 4.0 | 336 | 7.4 | 20.5 | 20.0 | 43 | 8.9 |

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML) (31633) | E. COLI ONPG-MUG, AUTO AN (COLO-NIES/ 100 ML (50468) | E. COLI WTR UNFLTRD MF, MI (COLS./ 100 ML) (90901) | E. COLI WTR UNFLTRD MF MOD MTEC (COLS./ 100 ML) (90902) | CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940) | SEDI-MENT, SUS-PENDED (MG/L) (80154) | PHOS-PHORUS TOTAL (MG/L AS P) (00665) |
|---|---|---|---|---|---|---|---|
| 413700081312530 LAKE ERIE AT SIMMS BEACH, AREA 3 | | | | | | | |
| SEP 1997 | | | | | | | |
| 01... | 140 | -- | -- | -- | -- | 1 | -- |
| 01... | 73 | -- | -- | -- | 20 | 1 | 0.01 |
| 02... | K10 | 12 | K26 | K16 | -- | 1 | -- |
| 02... | K10 | -- | -- | -- | -- | -- | -- |
| 03... | 1600 | -- | -- | -- | -- | 220 | -- |
| 05... | 410 | -- | -- | -- | -- | -- | -- |
| 413700081312540 LAKE ERIE AT SIMMS BEACH, AREA 4 | | | | | | | |
| MAY 1997 | | | | | | | |
| 20... | 1300 | 1300 | 900 | 900 | -- | 42 | -- |
| 21... | 240 | -- | -- | -- | 23 | -- | -- |
| 22... | 120 | -- | -- | -- | -- | 270 | -- |
| JUN | | | | | | | |
| 17... | 2100 | -- | -- | -- | -- | 160 | -- |
| 18... | 79 | -- | -- | -- | -- | 45 | -- |
| 19... | 80 | -- | -- | -- | -- | 7 | -- |
| 20... | K2200 | -- | -- | -- | -- | 3 | -- |
| 21... | 1500 | 830 | 1700 | 1300 | -- | 17 | -- |
| 22... | 29000 | -- | -- | -- | -- | 29 | -- |
| 24... | 400 | -- | -- | -- | -- | 4 | -- |
| JUL | | | | | | | |
| 08... | 70 | -- | -- | -- | -- | 5 | -- |
| 08... | 120 | -- | -- | -- | -- | -- | -- |
| 09... | -- | -- | -- | -- | -- | -- | -- |
| 09... | 840 | -- | -- | -- | -- | 53 | -- |
| 09... | 490 | -- | -- | -- | -- | -- | -- |
| 10... | 44 | -- | -- | -- | -- | 15 | -- |
| 13... | K19 | -- | -- | -- | -- | -- | -- |
| 13... | 93 | -- | -- | -- | -- | -- | -- |
| 14... | K16 | -- | -- | -- | -- | 1 | -- |
| 14... | K11 | -- | -- | -- | -- | 2 | -- |
| 15... | 500 | -- | -- | -- | -- | -- | -- |
| 15... | 360 | -- | -- | -- | -- | -- | -- |
| 16... | 190 | -- | -- | -- | -- | 2 | -- |
| 16... | 42 | -- | -- | -- | -- | 2 | -- |
| 17... | -- | -- | -- | -- | -- | -- | -- |
| 18... | 370 | -- | -- | -- | -- | -- | -- |
| 19... | 480 | -- | -- | -- | -- | 160 | -- |
| 19... | K190 | -- | -- | -- | -- | 180 | -- |
| 22... | 1400 | -- | -- | -- | -- | 21 | -- |
| 23... | 350 | -- | -- | -- | -- | -- | -- |
| AUG | | | | | | | |
| 04... | 630 | -- | -- | -- | -- | 14 | -- |
| 05... | 2300 | -- | -- | -- | -- | -- | -- |
| 06... | 110 | -- | -- | -- | -- | -- | -- |
| 10... | 2000 | -- | -- | -- | -- | -- | -- |
| 10... | 1300 | -- | -- | -- | -- | -- | -- |
| 11... | 830 | -- | -- | -- | -- | -- | -- |
| 12... | -- | -- | -- | -- | -- | 8 | -- |
| 13... | K22000 | -- | -- | -- | -- | 140 | -- |
| 14... | K400 | -- | -- | -- | -- | 40 | -- |
| 15... | K400 | -- | -- | -- | -- | -- | -- |
| 16... | 2400 | -- | -- | -- | -- | -- | -- |
| 17... | 7700 | -- | -- | -- | -- | 126 | -- |
| 18... | 4300 | -- | -- | -- | -- | 190 | -- |
| 19... | K49 | -- | -- | -- | -- | 4 | -- |
| 20... | 260 | -- | -- | -- | -- | -- | -- |
| 21... | 2400 | -- | -- | -- | -- | 270 | -- |
| SEP | | | | | | | |
| 01... | 140 | -- | -- | -- | -- | 4 | -- |
| 01... | 77 | -- | -- | -- | -- | 1 | -- |
| 02... | -- | -- | -- | -- | -- | K0 | -- |
| 02... | K18 | -- | -- | -- | -- | -- | -- |
| 03... | 1300 | -- | -- | -- | -- | 240 | -- |
| 05... | 2100 | -- | -- | -- | -- | -- | -- |

# PROJECT DATA

## Bacteriological and Selected Sediment-Quality Data at Lake Erie

The following tables list the results of bacteriological and sediment-quality studies of lake-bottom sediment samples collected in the nearshore zone of three Lake Erie beaches in Cuyahoga County, Ohio, during May through September 1997. Samples were collected as part of a three-year study to investigate the effects of sediment-stored fecal-indicator bacteria on the recreational water quality of Lake Erie beaches.

K indicates result was based on colony count outside of the ideal range.

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 412917081442810 LAKE ERIE AT EDGEWATER PARK, AREA 1 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 23 | K3 | -- | -- | -- |
| 21... | 2.0 | 25 | K1 | -- | -- | -- |
| 22... | 2.0 | 22 | K1 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 2.0 | 24 | K2 | -- | -- | -- |
| 18... | 4.0 | 25 | 13 | -- | -- | -- |
| 19... | 2.0 | 25 | K3 | -- | -- | -- |
| 20... | 3.0 | 25 | K3 | -- | -- | -- |
| 22... | 6.0 | 22 | K5 | -- | -- | -- |
| 24... | 2.0 | 22 | 13 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 2.0 | 24 | K22 | -- | -- | -- |
| 09... | 4.0 | 23 | K18 | -- | -- | -- |
| 10... | 5.0 | 26 | K110 | -- | -- | -- |
| 13... | 3.0 | 21 | K7 | -- | -- | -- |
| 14... | 2.0 | 23 | 10 | -- | -- | -- |
| 15... | 5.0 | 24 | 22 | -- | -- | -- |
| 16... | 2.0 | 26 | 23 | -- | -- | -- |
| 17... | 5.0 | 22 | K2 | -- | -- | -- |
| 18... | 4.0 | 22 | 13 | -- | -- | -- |
| 19... | 3.0 | 14 | K4 | -- | -- | -- |
| 22... | 6.0 | 21 | K9 | -- | -- | -- |
| 23... | 3.0 | 23 | K3 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 4.0 | 21 | K6 | -- | -- | -- |
| 05... | 2.0 | 22 | 9 | -- | -- | -- |
| 06... | 3.0 | 21 | 10 | -- | -- | -- |
| 11... | 5.0 | 23 | 12 | -- | -- | -- |
| 12... | 2.0 | 22 | K6 | -- | -- | -- |
| 13... | 2.0 | 22 | 15 | -- | -- | -- |
| 14... | 5.0 | 22 | K6 | -- | -- | -- |
| 15... | 4.0 | 24 | K3 | -- | -- | -- |
| 16... | 5.0 | 22 | K4 | -- | -- | -- |
| 18... | 2.0 | 24 | K11 | -- | -- | -- |
| 19... | 3.0 | 22 | 17 | -- | -- | -- |
| 20... | 3.0 | 23 | K8 | -- | -- | -- |
| 21... | 4.0 | 23 | 16 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 2.0 | 24 | 72 | -- | -- | -- |
| 02... | 5.0 | 25 | 28 | -- | -- | -- |
| 03... | 2.0 | 21 | K3 | -- | -- | -- |
| 05... | 5.0 | 26 | K1 | -- | -- | -- |
| 412917081442820 LAKE ERIE AT EDGEWATER PARK, AREA 2 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 24 | <1 | -- | -- | -- |
| 21... | 2.0 | 22 | K1 | -- | -- | -- |
| 22... | 2.0 | 22 | K1 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 4.0 | 22 | K2 | -- | -- | -- |
| 18... | 6.0 | 21 | K1 | -- | -- | -- |
| 19... | 4.0 | 23 | K2 | -- | -- | -- |
| 20... | 4.0 | 25 | K1 | -- | -- | -- |
| 21... | 5.0 | 24 | K1 | -- | -- | -- |
| 22... | 5.0 | 22 | 12 | -- | -- | -- |
| 24... | 6.0 | 21 | K6 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 3.0 | 23 | 15 | -- | -- | -- |
| 09... | 4.0 | 23 | K13 | -- | -- | -- |
| 10... | 2.0 | 23 | K2 | -- | -- | -- |
| 13... | 5.0 | 23 | K5 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 412917081442820 LAKE ERIE AT EDGEWATER PARK, AREA 2--Continued | | | | | | |
| JUL | | | | | | |
| 14... | 3.0 | 23 | 19 | -- | -- | -- |
| 15... | 6.0 | 25 | 13 | -- | -- | -- |
| 16... | 3.0 | 23 | 13 | -- | -- | -- |
| 17... | 6.0 | 10 | 9 | -- | -- | -- |
| 18... | 6.0 | 22 | K7 | -- | -- | -- |
| 19... | 6.0 | 23 | 11 | -- | -- | -- |
| 22... | 3.0 | 22 | K5 | -- | -- | -- |
| 23... | 5.0 | 24 | K4 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 5.0 | 22 | 9 | -- | -- | -- |
| 05... | 3.0 | 33 | K1 | -- | -- | -- |
| 06... | 4.0 | 21 | K1 | -- | -- | -- |
| 11... | 3.0 | 21 | 14 | 1.1 | 3.2 | 4.3 |
| 12... | 3.0 | 23 | K4 | -- | -- | -- |
| 13... | 3.0 | 23 | K2 | -- | -- | -- |
| 14... | 3.0 | 23 | 10 | 1.2 | 3.0 | 4.2 |
| 15... | 3.0 | 21 | K4 | -- | -- | -- |
| 16... | 2.0 | 22 | 9 | -- | -- | -- |
| 17... | 3.0 | 24 | K9 | -- | -- | -- |
| 18... | 3.0 | 22 | K7 | -- | -- | -- |
| 19... | 6.0 | 22 | 20 | -- | -- | -- |
| 20... | 4.0 | 23 | 10 | -- | -- | -- |
| 21... | 6.0 | 21 | 12 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 3.0 | 23 | 12 | -- | -- | -- |
| 02... | 2.0 | 22 | K9 | -- | -- | -- |
| 03... | 3.0 | 22 | 10 | -- | -- | -- |
| 05... | 6.0 | 21 | K1 | -- | -- | -- |
| 412917081442830 LAKE ERIE AT EDGEWATER PARK, AREA 3 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 22 | 6 | -- | -- | -- |
| 21... | 2.0 | 23 | K2 | -- | -- | -- |
| 22... | 2.0 | 22 | K2 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 6.0 | 23 | 5 | -- | -- | -- |
| 18... | 2.0 | 23 | 10 | -- | -- | -- |
| 19... | 5.0 | 24 | K1 | -- | -- | -- |
| 20... | 5.0 | 24 | 11 | -- | -- | -- |
| 21... | 6.0 | 23 | K1 | -- | -- | -- |
| 22... | 3.0 | 21 | 24 | -- | -- | -- |
| 24... | 4.0 | 21 | K3 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 6.0 | 21 | K140 | -- | -- | -- |
| 09... | 5.0 | 22 | K6 | 3.5 | 0.8 | 4.3 |
| 10... | 3.0 | 23 | 10 | -- | -- | -- |
| 13... | 6.0 | 21 | 10 | -- | -- | -- |
| 14... | 4.0 | 23 | K1 | -- | -- | -- |
| 15... | 3.0 | 22 | K28 | -- | -- | -- |
| 16... | 4.0 | 21 | 16 | -- | -- | -- |
| 17... | 3.0 | 23 | K4 | -- | -- | -- |
| 18... | 2.0 | 22 | K7 | -- | -- | -- |
| 19... | 2.0 | 23 | K5 | -- | -- | -- |
| 22... | 4.0 | 21 | K2 | -- | -- | -- |
| 23... | 4.0 | 22 | K2 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 5.0 | 21 | K2 | -- | -- | -- |
| 05... | 5.0 | 20 | 17 | -- | -- | -- |
| 06... | 5.0 | 20 | K1 | -- | -- | -- |
| 11... | 4.0 | 22 | K2 | -- | -- | -- |
| 12... | 4.0 | 22 | K3 | -- | -- | -- |
| 13... | 6.0 | 20 | K3 | -- | -- | -- |
| 14... | 2.0 | 30 | K3 | -- | -- | -- |
| 15... | 3.0 | 23 | -- | -- | -- | -- |
| 16... | 3.0 | 24 | 8 | -- | -- | -- |
| 17... | 4.0 | 22 | 17 | -- | -- | -- |
| 18... | 4.0 | 20 | K4 | 3.0 | 0.8 | 3.8 |
| 19... | 2.0 | 22 | 21 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 412917081442830 LAKE ERIE AT EDGEWATER PARK, AREA 3--Continued | | | | | | |
| AUG | | | | | | |
| 20... | 5.0 | 22 | 12 | -- | -- | -- |
| 21... | 2.0 | 21 | K8 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 4.0 | 21 | 15 | -- | -- | -- |
| 02... | 4.0 | 21 | -- | -- | -- | -- |
| 03... | 4.0 | 21 | 25 | -- | -- | -- |
| 05... | 4.0 | 20 | K2 | -- | -- | -- |
| 412917081442840 LAKE ERIE AT EDGEWATER PARK, AREA 4 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 23 | K2 | -- | -- | -- |
| 21... | 2.0 | 22 | 5 | -- | -- | -- |
| 22... | 2.0 | 21 | K3 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 3.0 | 21 | K1 | -- | -- | -- |
| 18... | 4.0 | 21 | K3 | 1.0 | 2.1 | 3.1 |
| 19... | 6.0 | 24 | 10 | -- | -- | -- |
| 20... | 2.0 | 23 | K3 | -- | -- | -- |
| 22... | 4.0 | 21 | K4 | -- | -- | -- |
| 24... | 5.0 | 20 | K4 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 3.0 | 23 | 12 | -- | -- | -- |
| 09... | 5.0 | 22 | K2 | -- | -- | -- |
| 10... | 4.0 | 24 | K3 | -- | -- | -- |
| 13... | 2.0 | 24 | K2 | -- | -- | -- |
| 14... | 6.0 | 23 | K8 | -- | -- | -- |
| 15... | 4.0 | 22 | K2 | -- | -- | -- |
| 16... | 4.0 | 26 | 20 | -- | -- | -- |
| 17... | 2.0 | 23 | K6 | -- | -- | -- |
| 18... | 3.0 | 22 | K3 | -- | -- | -- |
| 19... | 2.0 | 26 | 13 | -- | -- | -- |
| 22... | 2.0 | 22 | K2 | -- | -- | -- |
| 23... | 2.0 | 22 | K2 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 2.0 | 20 | K2 | -- | -- | -- |
| 05... | 3.0 | 21 | K2 | -- | -- | -- |
| 06... | 5.0 | 23 | K5 | -- | -- | -- |
| 11... | 2.0 | 26 | 86 | -- | -- | -- |
| 12... | 5.0 | 23 | 32 | -- | -- | -- |
| 13... | 3.0 | 21 | 21 | -- | -- | -- |
| 14... | 6.0 | 22 | 5 | -- | -- | -- |
| 15... | 2.0 | 22 | K3 | -- | -- | -- |
| 16... | 6.0 | 22 | K8 | -- | -- | -- |
| 17... | 5.0 | 22 | 18 | -- | -- | -- |
| 18... | 6.0 | 21 | 22 | -- | -- | -- |
| 19... | 5.0 | 22 | 23 | -- | -- | -- |
| 20... | 6.0 | 20 | 14 | -- | -- | -- |
| 21... | 5.0 | 21 | 26 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 6.0 | 20 | K8 | -- | -- | -- |
| 02... | 5.0 | 22 | 28 | -- | -- | -- |
| 03... | 6.0 | 23 | K8 | -- | -- | -- |
| 05... | 3.0 | 20 | K3 | -- | -- | -- |
| 412917081442850 LAKE ERIE AT EDGEWATER PARK, AREA 5 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.5 | 18 | 6 | -- | -- | -- |
| 21... | 2.0 | 18 | K3 | -- | -- | -- |
| 22... | 2.0 | 28 | <1 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 4.0 | 20 | K2 | -- | -- | -- |
| 18... | 5.0 | 22 | K2 | -- | -- | -- |
| 19... | 2.0 | 17 | <1 | -- | -- | -- |
| 20... | 4.0 | 22 | <1 | -- | -- | -- |
| 22... | 4.0 | 20 | 10 | -- | -- | -- |
| 24... | 3.0 | 18 | K2 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 5.0 | 21 | K2 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 412917081442850 LAKE ERIE AT EDGEWATER PARK, AREA 5--Continued | | | | | | |
| JUL | | | | | | |
| 09... | 6.0 | 21 | K5 | -- | -- | -- |
| 10... | 5.0 | 24 | K2 | -- | -- | -- |
| 13... | 5.0 | 21 | K2 | -- | -- | -- |
| 14... | 2.0 | 18 | K2 | -- | -- | -- |
| 15... | 2.0 | 19 | 9 | -- | -- | -- |
| 16... | 4.0 | 20 | K1 | -- | -- | -- |
| 17... | 5.0 | 22 | K1 | -- | -- | -- |
| 18... | 5.0 | 22 | K2 | -- | -- | -- |
| 19... | 5.0 | 22 | K2 | -- | -- | -- |
| 22... | 3.0 | 21 | K1 | -- | -- | -- |
| 23... | 3.0 | 21 | K1 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 3.0 | 19 | K4 | -- | -- | -- |
| 05... | 4.0 | 20 | K1 | -- | -- | -- |
| 06... | 6.0 | 21 | K2 | -- | -- | -- |
| 11... | 3.0 | 19 | K1 | -- | -- | -- |
| 12... | 4.0 | 23 | K7 | -- | -- | -- |
| 13... | 5.0 | 21 | K6 | -- | -- | -- |
| 14... | 4.0 | 21 | 4 | -- | -- | -- |
| 15... | 5.0 | 20 | K4 | -- | -- | -- |
| 16... | 3.0 | 22 | K5 | -- | -- | -- |
| 17... | 6.0 | 22 | K9 | -- | -- | -- |
| 18... | 5.0 | 20 | 5 | -- | -- | -- |
| 19... | 4.0 | 20 | 12 | -- | -- | -- |
| 20... | 3.0 | 20 | 9 | -- | -- | -- |
| 21... | 5.0 | 19 | 12 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 5.0 | 22 | 12 | -- | -- | -- |
| 02... | 3.0 | 14 | 15 | -- | -- | -- |
| 03... | 5.0 | 21 | K3 | -- | -- | -- |
| 05... | 2.0 | 20 | K3 | -- | -- | -- |
| 413509081340210 LAKE ERIE AT VILLA ANGELA, AREA 1 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 21 | 16 | -- | -- | -- |
| 21... | 2.0 | 17 | K5 | -- | -- | -- |
| 22... | 2.0 | 22 | 5 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 5.0 | 22 | 34 | -- | -- | -- |
| 18... | 6.0 | 22 | 34 | -- | -- | -- |
| 19... | 4.0 | 22 | 32 | -- | -- | -- |
| 20... | 5.0 | 21 | 87 | -- | -- | -- |
| 21... | 6.0 | 22 | 63 | -- | -- | -- |
| 22... | 5.0 | 21 | K19 | -- | -- | -- |
| 24... | 4.0 | 22 | 31 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 2.0 | 16 | 10 | -- | -- | -- |
| 09... | 2.0 | 18 | K4 | -- | -- | -- |
| 10... | 3.0 | 24 | -- | -- | -- | -- |
| 13... | 6.0 | 22 | 18 | -- | -- | -- |
| 14... | 4.0 | 22 | 12 | -- | -- | -- |
| 15... | 4.0 | 21 | 100 | -- | -- | -- |
| 16... | 2.0 | 15 | K410 | -- | -- | -- |
| 17... | 2.0 | 17 | 330 | -- | -- | -- |
| 18... | 2.0 | 17 | K22 | -- | -- | -- |
| 19... | 4.00 | 23 | 46 | -- | -- | -- |
| 22... | 5.0 | 22 | 58 | -- | -- | -- |
| 23... | 4.0 | 22 | 45 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 5.0 | 23 | 46 | -- | -- | -- |
| 05... | 3.0 | 19 | K20 | -- | -- | -- |
| 06... | 2.0 | 18 | K19 | -- | -- | -- |
| 10... | 2.0 | 18 | 72 | -- | -- | -- |
| 11... | 4.0 | 20 | K6 | -- | -- | -- |
| 12... | 5.0 | 22 | 32 | -- | -- | -- |
| 13... | 6.0 | 21 | 13 | -- | -- | -- |
| 14... | 3.0 | 20 | 21 | -- | -- | -- |
| 15... | 6.0 | 21 | 38 | -- | -- | -- |
| 16... | 4.0 | 21 | 33 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 413509081340210 LAKE ERIE AT VILLA ANGELA, AREA 1--Continued | | | | | | |
| AUG | | | | | | |
| 17... | 2.0 | 18 | 110 | -- | -- | -- |
| 18... | 2.0 | 12 | K17 | -- | -- | -- |
| 19... | 6.0 | 22 | 280 | -- | -- | -- |
| 20... | 5.0 | 20 | 290 | -- | -- | -- |
| 21... | 2.0 | 18 | K29 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 2.0 | 15 | K7 | -- | -- | -- |
| 02... | 3.0 | 19 | 22 | -- | -- | -- |
| 03... | 3.0 | 20 | K180 | -- | -- | -- |
| 05... | 2.0 | 15 | K2 | -- | -- | -- |
| 413509081340220 LAKE ERIE AT VILLA ANGELA, AREA 2 | | | | | | |
| JUN 1997 | | | | | | |
| 18... | 4.0 | 17 | 37 | 2.4 | 1.4 | 3.8 |
| JUL | | | | | | |
| 09... | 4.0 | 21 | K5 | -- | -- | -- |
| 10... | 3.0 | 21 | -- | -- | -- | -- |
| 13... | 6.0 | 20 | K5 | -- | -- | -- |
| 14... | 4.0 | 18 | K170 | -- | -- | -- |
| 15... | 6.0 | 21 | 49 | -- | -- | -- |
| 16... | 5.0 | 21 | 270 | -- | -- | -- |
| 17... | 2.0 | 19 | 52 | -- | -- | -- |
| 18... | 4.0 | 22 | 36 | -- | -- | -- |
| 22... | 2.0 | 18 | 210 | -- | -- | -- |
| 23... | 4.0 | 23 | 38 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 4.0 | 20 | 22 | -- | -- | -- |
| 05... | 5.0 | 20 | 14 | -- | -- | -- |
| 06... | 5.0 | 21 | 39 | -- | -- | -- |
| 10... | 4.0 | 21 | 12 | -- | -- | -- |
| 11... | 3.0 | 17 | 24 | -- | -- | -- |
| 12... | 5.0 | 23 | 50 | -- | -- | -- |
| 13... | 6.0 | 20 | 14 | -- | -- | -- |
| 14... | 2.0 | 17 | 110 | -- | -- | -- |
| 15... | 3.0 | 20 | 18 | -- | -- | -- |
| 16... | 3.0 | 20 | 75 | -- | -- | -- |
| 17... | 6.0 | 21 | 51 | -- | -- | -- |
| 18... | 3.0 | 15 | 50 | -- | -- | -- |
| 19... | 6.0 | 22 | 260 | -- | -- | -- |
| 20... | 2.0 | 18 | K10 | -- | -- | -- |
| 21... | 4.0 | 22 | 70 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 3.0 | 21 | K7 | -- | -- | -- |
| 02... | 5.0 | 21 | K7 | -- | -- | -- |
| 03... | 6.0 | 21 | 240 | -- | -- | -- |
| 05... | 3.0 | 20 | 12 | -- | -- | -- |
| 413509081340230 LAKE ERIE AT VILLA ANGELA,AREA 3 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 20 | 21 | -- | -- | -- |
| 21... | 2.0 | 20 | 16 | -- | -- | -- |
| 22... | 2.0 | 14 | K2 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 2.0 | 16 | 13 | -- | -- | -- |
| 19... | 6.0 | 20 | 21 | -- | -- | -- |
| 20... | 6.0 | 22 | 60 | -- | -- | -- |
| 22... | 3.0 | 17 | 19 | -- | -- | -- |
| 24... | 2.0 | 17 | 16 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 3.0 | 20 | 10 | -- | -- | -- |
| 09... | 3.0 | 16 | K3 | -- | -- | -- |
| 10... | 4.0 | 21 | -- | -- | -- | -- |
| 13... | 2.0 | 17 | 23 | -- | -- | -- |
| 14... | 5.0 | 20 | 11 | -- | -- | -- |
| 15... | 3.0 | 19 | 100 | -- | -- | -- |
| 16... | 3.0 | 22 | 48 | -- | -- | -- |
| 17... | 3.0 | 19 | 30 | -- | -- | -- |
| 18... | 6.0 | 21 | 100 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 413509081340230 LAKE ERIE AT VILLA ANGELA,AREA 3--Continued | | | | | | |
| JUL | | | | | | |
| 19... | 6.0 | 24 | 50 | -- | -- | -- |
| 22... | 6.0 | 21 | 29 | -- | -- | -- |
| 23... | 2.0 | 17 | K9 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 6.0 | 21 | 140 | -- | -- | -- |
| 05... | 6.0 | 20 | K24 | -- | -- | -- |
| 06... | 3.0 | 18 | K5 | -- | -- | -- |
| 10... | 6.0 | 21 | 35 | -- | -- | -- |
| 11... | 6.0 | 21 | 15 | -- | -- | -- |
| 12... | 2.0 | 14 | 29 | -- | -- | -- |
| 13... | 2.0 | 16 | 13 | -- | -- | -- |
| 14... | 6.0 | 22 | 40 | -- | -- | -- |
| 15... | 3.0 | 20 | 95 | -- | -- | -- |
| 16... | 2.0 | 16 | 36 | -- | -- | -- |
| 17... | 3.0 | 19 | 70 | -- | -- | -- |
| 18... | 4.0 | 23 | 46 | -- | -- | -- |
| 19... | 2.0 | 18 | 23 | -- | -- | -- |
| 20... | 4.0 | 20 | 28 | -- | -- | -- |
| 21... | 5.0 | 21 | 110 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 4.0 | 21 | K7 | -- | -- | -- |
| 02... | 4.0 | 20 | K3 | -- | -- | -- |
| 03... | 4.0 | 19 | K140 | -- | -- | -- |
| 05... | 4.0 | 21 | K13 | -- | -- | -- |
| 413509081340240 LAKE ERIE AT VILLA ANGELA, AREA 4 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.50 | 18 | 20 | -- | -- | -- |
| 21... | 2.0 | 19 | 8 | -- | -- | -- |
| 22... | 2.0 | 19 | K3 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 5.0 | 21 | 19 | -- | -- | -- |
| 18... | 5.0 | 21 | 59 | -- | -- | -- |
| 19... | 3.0 | 21 | K7 | -- | -- | -- |
| 20... | 3.0 | 21 | 29 | -- | -- | -- |
| 21... | 3.0 | 17 | 25 | -- | -- | -- |
| 22... | 6.0 | 21 | 50 | -- | -- | -- |
| 24... | 3.0 | 21 | 15 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 5.0 | 22 | K6 | -- | -- | -- |
| 09... | 5.0 | 22 | K5 | -- | -- | -- |
| 10... | 6.0 | 23 | -- | -- | -- | -- |
| 13... | 4.0 | 20 | K4 | -- | -- | -- |
| 14... | 3.0 | 18 | 14 | -- | -- | -- |
| 15... | 2.0 | 19 | 87 | -- | -- | -- |
| 16... | 4.0 | 22 | K6 | -- | -- | -- |
| 17... | 6.0 | 22 | 88 | -- | -- | -- |
| 18... | 3.0 | 19 | 21 | -- | -- | -- |
| 19... | 2.0 | 11 | K22 | -- | -- | -- |
| 22... | 2.0 | 14 | 80 | -- | -- | -- |
| 23... | 5.0 | 20 | 29 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 2.0 | 16 | K4 | -- | -- | -- |
| 05... | 2.0 | 17 | 10 | -- | -- | -- |
| 06... | 6.0 | 23 | 19 | -- | -- | -- |
| 10... | 3.0 | 17 | 4 | -- | -- | -- |
| 11... | 2.0 | 15 | 68 | 2.4 | 2.4 | 4.8 |
| 12... | 3.0 | 19 | 13 | -- | -- | -- |
| 13... | 3.0 | 20 | 19 | -- | -- | -- |
| 14... | 2.0 | 16 | 18 | 4.1 | 0.5 | 4.6 |
| 15... | 3.0 | 17 | 18 | -- | -- | -- |
| 16... | 5.0 | 22 | 28 | -- | -- | -- |
| 17... | 4.0 | 21 | 64 | -- | -- | -- |
| 18... | 5.0 | 21 | 230 | 2.4 | 0.6 | 3.0 |
| 19... | 3.0 | 15 | 69 | -- | -- | -- |
| 20... | 5.0 | 21 | 150 | -- | -- | -- |
| 21... | 6.0 | 22 | 78 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 5.0 | 21 | 9 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 413509081340240 LAKE ERIE AT VILLA ANGELA, AREA 4--Continued | | | | | | |
| SEP | | | | | | |
| 02... | 3.0 | 20 | K5 | -- | -- | -- |
| 03... | 2.0 | 16 | K65 | -- | -- | -- |
| 05... | 5.0 | 21 | 30 | -- | -- | -- |
| 413509081340250 LAKE ERIE AT VILLA ANGELA, AREA 5 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.50 | 19 | 10 | -- | -- | -- |
| 21... | 2.0 | 19 | 39 | -- | -- | -- |
| 22... | 2.0 | 20 | 5 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 4.0 | 21 | K5 | -- | -- | -- |
| 18... | 6.0 | 19 | K23 | -- | -- | -- |
| 19... | 5.0 | 21 | 27 | -- | -- | -- |
| 20... | 2.0 | 16 | 47 | -- | -- | -- |
| 22... | 5.0 | 21 | 28 | -- | -- | -- |
| 24... | 6.0 | 20 | 31 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 6.0 | 21 | 11 | -- | -- | -- |
| 09... | 6.0 | 22 | K7 | 1.8 | 1.4 | 3.2 |
| 10... | 2.0 | 20 | -- | -- | -- | -- |
| 13... | 5.0 | 21 | 19 | -- | -- | -- |
| 14... | 2.0 | 18 | 24 | -- | -- | -- |
| 15... | 4.0 | 21 | 16 | -- | -- | -- |
| 16... | 6.0 | 22 | 27 | -- | -- | -- |
| 17... | 4.0 | 21 | K8 | -- | -- | -- |
| 18... | 2.0 | 16 | 14 | -- | -- | -- |
| 19... | 3.0 | 20 | K8 | -- | -- | -- |
| 22... | 3.0 | 19 | 65 | -- | -- | -- |
| 23... | 3.0 | 21 | 18 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 3.0 | 23 | 24 | -- | -- | -- |
| 05... | 4.0 | 20 | K7 | -- | -- | -- |
| 06... | 3.0 | 17 | 14 | -- | -- | -- |
| 10... | 5.0 | 20 | 9 | -- | -- | -- |
| 11... | 5.0 | 20 | 30 | -- | -- | -- |
| 12... | 4.0 | 20 | K6 | -- | -- | -- |
| 13... | 5.0 | 21 | 21 | -- | -- | -- |
| 14... | 4.0 | 17 | 35 | -- | -- | -- |
| 15... | 5.0 | 21 | 40 | -- | -- | -- |
| 16... | 6.0 | 18 | 150 | -- | -- | -- |
| 17... | 5.0 | 22 | 140 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 6.0 | 20 | 20 | -- | -- | -- |
| 02... | 4.0 | 20 | 14 | -- | -- | -- |
| 03... | 5.0 | 21 | 200 | -- | -- | -- |
| 05... | 6.0 | 21 | 56 | -- | -- | -- |
| 413509081340260 LAKE ERIE AT VILLA ANGELA, AREA 6 | | | | | | |
| AUG 1997 | | | | | | |
| 18... | 5.0 | 21 | 73 | -- | -- | -- |
| 19... | 5.0 | 21 | 27 | -- | -- | -- |
| 20... | 6.0 | 13 | 220 | -- | -- | -- |
| 21... | 6.0 | 20 | 67 | -- | -- | -- |
| 413509081340270 LAKE ERIE AT VILLA ANGELA, AREA 7 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 18 | 13 | -- | -- | -- |
| 21... | 2.0 | 18 | 12 | -- | -- | -- |
| 22... | 2.0 | 16 | 23 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 2.0 | 15 | 68 | -- | -- | -- |
| 18... | 2.0 | 17 | 61 | -- | -- | -- |
| 19... | 6.0 | 21 | K18 | -- | -- | -- |
| 20... | 4.0 | 20 | 24 | -- | -- | -- |
| 21... | 5.0 | 19 | 13 | -- | -- | -- |
| 22... | 4.0 | 21 | 64 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

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|---|---|---|---|---|---|---|
| 413509081340270 LAKE ERIE AT VILLA ANGELA, AREA 7--Continued | | | | | | |
| JUN | | | | | | |
| 24... | 5.0 | 15 | 230 | -- | -- | -- |
| JUL | | | | | | |
| 08... | 4.0 | 21 | K7 | -- | -- | -- |
| 413700081312510 LAKE ERIE AT SIMMS BEACH, AREA 1 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 12 | 39 | -- | -- | -- |
| 21... | 2.0 | 15 | 140 | -- | -- | -- |
| 22... | 2.0 | 15 | K2 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 3.0 | 14 | 3 | -- | -- | -- |
| 18... | 4.0 | 15 | 130 | 7.7 | 0.5 | 8.2 |
| 19... | 5.0 | 15 | 250 | -- | -- | -- |
| 20... | 5.0 | 19 | 340 | -- | -- | -- |
| 21... | 6.0 | 21 | 150 | -- | -- | -- |
| 22... | 2.0 | 11 | 340 | -- | -- | -- |
| 24... | 6.0 | 22 | -- | -- | -- | -- |
| JUL | | | | | | |
| 08... | 4.0 | 16 | 55 | -- | -- | -- |
| 09... | 4.0 | 16 | 88 | -- | -- | -- |
| 10... | 4.0 | 22 | K210 | -- | -- | -- |
| 13... | 5.0 | 17 | 390 | -- | -- | -- |
| 14... | 4.0 | 15 | 99 | 4.6 | 2.0 | 6.6 |
| 15... | 5.0 | 15 | 290 | -- | -- | -- |
| 16... | 4.0 | 15 | 87 | -- | -- | -- |
| 17... | 5.0 | 16 | 140 | -- | -- | -- |
| 18... | 4.0 | 15 | 160 | -- | -- | -- |
| 19... | 5.0 | 15 | 180 | -- | -- | -- |
| 22... | 4.0 | 11 | K480 | -- | -- | -- |
| 23... | 5.0 | 17 | 190 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 4.0 | 16 | 54 | -- | -- | -- |
| 05... | 5.0 | 16 | 41 | -- | -- | -- |
| 06... | 4.0 | 16 | 9 | -- | -- | -- |
| 10... | 4.0 | 17 | 56 | -- | -- | -- |
| 11... | 5.0 | 18 | 100 | 4.1 | 1.0 | 5.1 |
| 12... | 4.0 | 16 | 690 | -- | -- | -- |
| 13... | 5.0 | 17 | 540 | -- | -- | -- |
| 14... | 4.0 | 13 | 490 | -- | -- | -- |
| 15... | 4.0 | 14 | 1500 | -- | -- | -- |
| 16... | 4.0 | 16 | 9300 | -- | -- | -- |
| 16... | 5.0 | 17 | 6600 | -- | -- | -- |
| 17... | 4.0 | 17 | 9400 | -- | -- | -- |
| 17... | 5.0 | 18 | 2900 | -- | -- | -- |
| 18... | 4.0 | 12 | K100 | 4.7 | 1.9 | 6.6 |
| 18... | 5.0 | 15 | K120 | -- | -- | -- |
| 19... | 4.0 | 16 | 140 | -- | -- | -- |
| 19... | 5.0 | 16 | 220 | -- | -- | -- |
| 20... | 4.0 | 15 | 34 | -- | -- | -- |
| 20... | 5.0 | 15 | 300 | -- | -- | -- |
| 21... | 4.0 | 15 | 320 | -- | -- | -- |
| 21... | 5.0 | 13 | 530 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 4.0 | 15 | K13 | -- | -- | -- |
| 01... | 5.0 | 15 | 22 | -- | -- | -- |
| 02... | 4.0 | 16 | 30 | -- | -- | -- |
| 02... | 5.0 | 16 | K54 | -- | -- | -- |
| 03... | 4.0 | 15 | 11 | -- | -- | -- |
| 03... | 5.0 | 17 | K7 | -- | -- | -- |
| 05... | 4.0 | 18 | 19 | -- | -- | -- |
| 413700081312520 LAKE ERIE AT SIMMS BEACH, AREA 3 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 9 | 43 | -- | -- | -- |
| 21... | 2.0 | 10 | K5 | -- | -- | -- |
| 22... | 2.0 | 16 | 4 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 5.0 | 18 | 120 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 413700081312520 LAKE ERIE AT SIMMS BEACH, AREA 3--Continued | | | | | | |
| JUN | | | | | | |
| 18... | 5.0 | 10 | 270 | -- | -- | -- |
| 19... | 6.0 | 16 | K480 | -- | -- | -- |
| 20... | 6.0 | 18 | 470 | -- | -- | -- |
| 21... | 3.0 | 15 | 30 | -- | -- | -- |
| 22... | 3.0 | 12 | 57 | -- | -- | -- |
| 24... | 5.0 | 13 | -- | -- | -- | -- |
| JUL | | | | | | |
| 08... | 5.0 | 16 | K440 | -- | -- | -- |
| 09... | 4.0 | 15 | K14 | 1.1 | 3.2 | 4.3 |
| 10... | 5.0 | 18 | K30 | -- | -- | -- |
| 13... | 4.0 | 18 | 22 | -- | -- | -- |
| 14... | 5.0 | 16 | 66 | -- | -- | -- |
| 15... | 4.0 | 16 | 43 | -- | -- | -- |
| 16... | 5.0 | 16 | 95 | -- | -- | -- |
| 17... | 4.0 | 14 | 33 | -- | -- | -- |
| 18... | 5.0 | 18 | 160 | -- | -- | -- |
| 19... | 5.0 | 19 | 92 | -- | -- | -- |
| 22... | 5.0 | 18 | 77 | -- | -- | -- |
| 23... | 4.0 | 20 | 53 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 5.00 | 16 | 330 | -- | -- | -- |
| 05... | 4.0 | 19 | 73 | -- | -- | -- |
| 06... | 5.0 | 16 | 49 | -- | -- | -- |
| 10... | 5.0 | 17 | 20 | -- | -- | -- |
| 11... | 4.0 | 15 | K190 | -- | -- | -- |
| 12... | 5.0 | 19 | 140 | -- | -- | -- |
| 12... | 4.0 | 18 | 270 | -- | -- | -- |
| 13... | 4.0 | 15 | 520 | -- | -- | -- |
| 14... | 5.0 | 18 | 240 | 4.9 | 0.8 | 5.7 |
| 15... | 5.0 | 18 | 230 | -- | -- | -- |
| 16... | 4.0 | 17 | 870 | -- | -- | -- |
| 16... | 5.0 | 18 | K1700 | -- | -- | -- |
| 17... | 4.0 | 15 | 2400 | -- | -- | -- |
| 17... | 5.0 | 16 | 2800 | -- | -- | -- |
| 18... | 4.0 | 17 | K200 | -- | -- | -- |
| 18... | 5.0 | 17 | 81 | -- | -- | -- |
| 19... | 4.0 | 15 | 550 | -- | -- | -- |
| 19... | 5.0 | 16 | 350 | -- | -- | -- |
| 20... | 4.0 | 18 | 89 | -- | -- | -- |
| 20... | 5.0 | 17 | 1400 | -- | -- | -- |
| 21... | 4.0 | 13 | 300 | -- | -- | -- |
| 21... | 5.0 | 18 | 180 | -- | -- | -- |
| SEP | | | | | | |
| 01... | 4.0 | 15 | 19 | -- | -- | -- |
| 01... | 5.0 | 17 | 920 | -- | -- | -- |
| 02... | 4.0 | 11 | 110 | -- | -- | -- |
| 02... | 5.0 | 19 | 160 | -- | -- | -- |
| 03... | 4.0 | 15 | 45 | -- | -- | -- |
| 03... | 5.0 | 17 | M18 | -- | -- | -- |
| 05... | 4.0 | 17 | 140 | -- | -- | -- |
| 413700081312530 LAKE ERIS AT SIMMS BEACH, AREA 4 | | | | | | |
| MAY 1997 | | | | | | |
| 20... | 2.0 | 14 | 82 | -- | -- | -- |
| 21... | 2.0 | 18 | K4 | -- | -- | -- |
| 22... | 2.0 | 14 | K2 | -- | -- | -- |
| JUN | | | | | | |
| 17... | 6.0 | 18 | 75 | -- | -- | -- |
| 18... | 2.0 | 14 | K18 | -- | -- | -- |
| 19... | 3.0 | 19 | 49 | -- | -- | -- |
| 20... | 2.0 | 19 | 35 | -- | -- | -- |
| 21... | 5.0 | 21 | 110 | -- | -- | -- |
| 22... | 4.0 | 11 | 68 | -- | -- | -- |
| 24... | 3.0 | 10 | -- | -- | -- | -- |
| JUL | | | | | | |
| 08... | 4.0 | 18 | 36 | -- | -- | -- |
| 09... | 5.0 | 18 | 55 | -- | -- | -- |
| 10... | 3.0 | 15 | K330 | -- | -- | -- |
| 13... | 5.00 | 20 | 50 | -- | -- | -- |

SEDIMENT-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997--Continued

| DATE | DEPTH AT SAMPLE LOC-ATION, TOTAL (FEET) (81903) | MOIS-TURE CONTENT DRY WT. (% OF TOTAL) (00495) | E. COLI MF-MTEC UREASE, SEDIMNT (COL/G SEDIMNT DRY WT) (50466) | CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270) | CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271) | CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272) |
|---|---|---|---|---|---|---|
| 413700081312530 LAKE ERIS AT SIMMS BEACH, AREA 4--Continued | | | | | | |
| JUL | | | | | | |
| 14... | 4.0 | 22 | 15 | -- | -- | -- |
| 15... | 5.0 | 12 | K410 | -- | -- | -- |
| 16... | 4.0 | 15 | 170 | -- | -- | -- |
| 17... | 5.0 | 18 | 100 | -- | -- | -- |
| 18... | 4.0 | 15 | K12 | -- | -- | -- |
| 19... | 5.0 | 19 | 27 | -- | -- | -- |
| 22... | 4.0 | 16 | 270 | -- | -- | -- |
| 23... | 5.0 | 18 | 58 | -- | -- | -- |
| AUG | | | | | | |
| 04... | 4.0 | 17 | 53 | -- | -- | -- |
| 05... | 5.0 | 18 | 33 | -- | -- | -- |
| 06... | 4.0 | 12 | K18 | -- | -- | -- |
| 10... | 4.0 | 17 | 20 | -- | -- | -- |
| 11... | 5.0 | 17 | K120 | -- | -- | -- |
| 12... | 5.0 | 15 | K340 | -- | -- | -- |
| 13... | 5.0 | 19 | 300 | -- | -- | -- |
| 13... | 4.0 | 15 | 780 | -- | -- | -- |
| 14... | 4.0 | 13 | 270 | -- | -- | -- |
| 15... | 4.0 | 15 | 950 | -- | -- | -- |
| 16... | 4.00 | 15 | 2400 | -- | -- | -- |
| 16... | 5.0 | 19 | K12000 | -- | -- | -- |
| 17... | 4.0 | 18 | 1800 | -- | -- | -- |
| 17... | 5.0 | 20 | 1600 | -- | -- | -- |
| 18... | 4.0 | 20 | K160 | -- | -- | |
| 18... | 5.0 | 18 | 590 | -- | -- | -- |
| 19... | 4.0 | 19 | 300 | -- | -- | -- |
| 19... | 5.0 | 20 | 310 | -- | -- | -- |
| 20... | 5.0 | 16 | K1100 | -- | -- | -- |
| 20... | 4.0 | 18 | 230 | -- | -- | |

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# CONVERSION FACTORS AND VERTICAL DATUM

| Multiply | By | To obtain |
|---|---|---|
| | *Length* | |
| inch (in.) | $2.54 \times 10^{1}$ | millimeter |
| | $2.54 \times 10^{-2}$ | meter |
| foot (ft) | $3.048 \times 10^{-1}$ | meter |
| mile (mi) | $1.609 \times 10^{0}$ | kilometer |
| | *Area* | |
| acre | $4.047 \times 10^{3}$ | square meter |
| | $4.047 \times 10^{-1}$ | square hectometer |
| | $4.047 \times 10^{-3}$ | square kilometer |
| square mile ($mi^2$) | $2.590 \times 10^{0}$ | square kilometer |
| | *Volume* | |
| gallon (gal) | $3.785 \times 10^{0}$ | liter |
| | $3.785 \times 10^{0}$ | cubic decimeter |
| | $3.785 \times 10^{-3}$ | cubic meter |
| million gallons (Mgal) | $3.785 \times 10^{3}$ | cubic meter |
| | $3.785 \times 10^{-3}$ | cubic hectometer |
| cubic foot ($ft^3$) | $2.832 \times 10^{1}$ | cubic decimeter |
| | $2.832 \times 10^{-2}$ | cubic meter |
| cubic-foot-per-second day [($ft^3$/s) d] | $2.447 \times 10^{3}$ | cubic meter |
| | $2.447 \times 10^{-3}$ | cubic hectometer |
| acre-foot (acre-ft) | $1.233 \times 10^{3}$ | cubic meter |
| | $1.233 \times 10^{-3}$ | cubic hectometer |
| | $1.233 \times 10^{-6}$ | cubic kilometer |
| | *Flow* | |
| cubic foot per second ($ft^3$/s) | $2.832 \times 10^{1}$ | liter per second |
| | $2.832 \times 10^{1}$ | cubic decimeter per second |
| | $2.832 \times 10^{-2}$ | cubic meter per second |
| gallon per minute (gal/min) | $6.309 \times 10^{-2}$ | liter per second |
| | $6.309 \times 10^{-2}$ | cubic decimeter per second |
| | $6.309 \times 10^{-5}$ | cubic meter per second |
| million gallons per day (Mgal/d) | $4.381 \times 10^{1}$ | cubic decimeter per second |
| | $4.381 \times 10^{-2}$ | cubic meter per second |
| | *Mass* | |
| ton (short) | $9.072 \times 10^{-1}$ | megagram or metric ton |

*Sea level:* In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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