Baseline Water Quality Data

Inventory and Analysis

Big South Fork National River and Recreation Area



Water Resources Division and Servicewide Inventory and Monitoring Program

National Park Service - Department of the Interior
Fort Collins - Denver - Washington

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BASELINE WATER QUALITY DATA

INVENTORY AND ANALYSIS

BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA

National Park Service
Water Resources Division
Fort Collins, CO 80525

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EXECUTIVE SUMMARY

This document presents the results of surface-water-quality data retrievals for Big South Fork National River and Recreation Area (BISO) from five of the United States Environmental Protection Agency's (EPA) national databases: (1) Storage and Retrieval (STORET) database management system; (2) River Reach File (RF3); (3) Industrial Facilities Discharge (IFD); (4) Drinking Water Supplies (DRINKS) and; (5) Flow Gages (GAGES). This document is one product resulting from a cooperative contractual endeavor between the National Park Service's Servicewide Inventory and Monitoring Program, the National Park Service's Water Resources Division (WRD), and Horizon Systems Corporation to retrieve, format, and analyze water quality data for all units of the national park system containing significant water resources. The primary goal of the project is to provide descriptive water quality information in a manner and format that is both consistent with the goals of the Servicewide Inventory and Monitoring Program and useable by park resource managers. The document provides: (1) a complete inventory of all retrieved water quality parameter data, water quality stations, and the entities responsible for the data collection; (2) descriptive statistics and appropriate graphical plots of water quality data characterizing annual and seasonal central tendencies and trends; (3) a comparison of the park's water quality data to relevant EPA and WRD water quality screening criteria; and (4) an Inventory Data Evaluation and Analysis (IDEA) to determine what Servicewide Inventory and Monitoring Program water quality parameters have been measured within the study area. Accompanying the report are disks containing digital copies of all data used in the report, as well as all components of the report (tables, figures, etc.).

The results of the retrievals for the BISO study area from the IFD, DRINKS, and GAGES databases located 38 industrial dischargers, 2 drinking water intakes, and 5 active or inactive U. S. Geological Survey gaging stations. The results of the STORET retrieval for the study area yielded approximately 17,000 observations for 273 separate water quality parameters collected by 7 federal, state, and local government agencies at 52 water quality stations. Fourteen stations yielded data collected within the park boundary. Most of the sampling stations represent either one-time or intensive single-year sampling efforts by the collecting agencies. Twelve stations within the study area yielded longer-term records consisting of multiple observations for several important water quality parameters. Three stations yielding longer-term records within the park are: (1) Clear Fork Near Robbins, TN (BISO 0012); (2) South Fork Cumberland River Near Stearns, KY (BISO 0030) and; (3) South Fork Cumberland River at Blue Heron (BISO 0037). Nine stations yielding longer-term records within the study area, but outside of the park boundary are: (1) Clear Fork Near Burrville, TN (BISO 0003); (2) White Oak Creek at Rugby, TN (BISO 0006); (3) New River at New River, TN (BISO 0009); (4) No name (BISO 0026); (5) Rock Creek 06-03 (BISO 0028); (6) Rock Creek 06-05 (BISO 0032); (7) Rock Creek 06-05 (BISO 0033); (8) Rock Creek 06-06 (BISO 0035); and (9) Rock Creek at White Oak Junction, KY (BISO 0041).

Screening criteria consisting of published EPA water-quality criteria and instantaneous concentration values selected by the WRD were used to identify potential water quality problems within the study area. While the criteria represent important threshold concentrations of pollutants, it is important to remember that criteria may have been exceeded due to any number of natural or anthropogenic factors, including errors in field, laboratory, and/or recording procedures. The reader is advised to read the Introduction for additional caveats in interpreting the exceeded criteria in this report. The results of the BISO water quality criteria screen found 10 parameters that exceeded screening criteria at least once within the study area. Dissolved oxygen, pH, cadmium, copper, lead, zinc, and mercury exceeded their respective EPA acute or chronic criteria for the protection of aquatic life at least once. Cadmium, lead, nickel, and mercury exceeded their respective EPA drinking water criteria at least once. Fecal coliform bacteria concentrations and turbidity exceeded WRD screening limits for primary-body contact recreation and aquatic life, respectively.

Dissolved oxygen concentrations were measured 346 times at 18 monitoring stations throughout the study area during the period from 1965 through 1992. Only 3 observations at 2 monitoring stations were below the 4 milligrams per liter (mg/L) EPA criterion for the protection of freshwater aquatic life. These depressed dissolved oxygen concentrations were reported in 1979 and 1991 in a tributary to Clear Fork River (BISO 0018) and Pickett Lake (BISO 0024), respectively.

The pH was measured 695 times at 36 monitoring stations throughout the study area from 1960 through 1992. Eighty-two observations at 17 monitoring stations were less than or equal to pH 6.5 (EPA chronic criteria for protection of freshwater aquatic life). The criterion was exceeded throughout the study area.

Turbidity was measured 539 times at 22 monitoring stations from 1974 through 1992. The WRD screening criterion of 50 JTU/FTU/NTU was exceeded 30 times at 5 stations (BISO 0009, BISO 0012, BISO 0030, BISO 0033, BISO 0037).

Fecal coliform concentrations were measured 185 times at 4 stations and exceeded the 200 CFU/100 milliliters criterion 18 times at 3 stations (BISO 0020, BISO 0030, BISO 0037).

Cadmium concentrations (including total and dissolved cadmium) were measured 228 times at 9 monitoring stations from 1975 through 1992. The acute freshwater criterion of 3.9 µg/L and the drinking water criterion of 5 µg/L were exceeded 32 and 31 times respectively at two stations (BISO 0037, BISO 0041). The criteria were exceeded primarily in the South Fork of the Cumberland River at Blue Heron (BISO 0037).

Copper concentrations (including total and dissolved copper) were measured 256 times at 10 stations from 1975 through 1992. The acute freshwater criterion of 18 µg/L was exceeded 21 times at 4 stations (BISO 0009, BISO 0018, BISO 0037, BISO 0041).

Lead concentrations (including total and dissolved lead) were measured 257 times at 12 stations from 1975 through 1992. The acute freshwater criterion of 82 µg/L and the proposed drinking water criterion of 5 µg/L were exceeded 28 and 108 times respectively at 8 stations (BISO 0003, BISO 0009, BISO 0012, BISO 0017, BISO 0020, BISO 0030, BISO 0037, BISO 0041).

Nickel concentrations (including total and dissolved nickel) were measured 87 times at 5 monitoring stations from 1975 through 1992. The total nickel concentration exceeded the proposed drinking water criterion of 100 µg/L once at station BISO 0026.

Zinc concentrations (including total and dissolved zinc) were measured 231 times at 10 monitoring stations from 1975 through 1992. The acute freshwater criterion of 120 µg/L was exceeded 5 times at 3 monitoring stations (BISO 0026, BISO 0037, BISO 0041).

Mercury concentrations (including total and dissolved mercury) were measured 163 times at 9 monitoring stations from 1970 through 1992. The acute freshwater criterion of 2.4 µg/L and the drinking water criterion of 2 µg/L were exceeded 2 and 3 times respectively in the South Fork of the Cumberland River at Blue Heron (BISO 0037).

The IDEA conducted for BISO indicates that STORET data exist for all Level I parameter groups in the study area. Sufficient quantities of data were retrieved for most of the required parameters but much of the data were collected before 1985. Results for 23 of the 127 EPA priority toxic pollutants, including 12 inorganic parameters and 11 pesticides, were retrieved from STORET. The pesticide data were from a single station, BISO 0037.

The major surface water resource in the BISO study area is the Big South Fork of the Cumberland River. In addition, numerous streams of varying water quality enter BISO before discharging into the Big South Fork. More than 90 percent of the Big South Fork watershed lies outside NPS boundaries and activities occurring outside the recreation area influence water quality within BISO. These activities include coal mining, oil and gas drilling, sewage discharge, agricultural and forestry practices, road salting and garbage disposal. Based on the data inventories and analyses contained in this report, surface water within the study area includes near-pristine streams and streams impacted by human activities.

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INTRODUCTION

The National Park Service's (NPS) Organic Act of 1916 states that the mission of the NPS is to promote and regulate the use of national parks, monuments, and other units "... to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." One task embodied by this mission is preserving and protecting water resources and water dependent environments in parks. Ensuring the integrity of park water quality, due to its importance in sustaining natural, aquatic park ecosystems and supporting human consumptive and recreational use, is fundamental to successfully addressing this task. The first step in ensuring the integrity of park water quality is defining historic and extant water quality.

This document represents one product of an ongoing effort by the NPS Water Resources Division (WRD) and the Servicewide Inventory and Monitoring Program to characterize baseline water quality using existing data at park units containing significant natural resources. This effort was initiated in 1993 by the award of a contract to Horizon Systems Corporation to retrieve, format, and analyze surface water quality data from the Environmental Protection Agency's (EPA) Storage and Retrieval (STORET) database system. The scope of work identified in the Request For Proposals outlined several sequential, interrelated project phases, including, but not limited to: (1) determining the water quality retrieval/query area around each park; (2) downloading and assessing the quality of the data from STORET; (3) generating basic water quality summary statistics and graphic plots; (4) reformatting water quality data for compatibility with the park-based Water Quality Data Management System presently under-development; and (5) providing recommendations concerning possible hardware, software, and personnel options for storing combined park databases in a centralized NPS water quality database. This report documents the results of phases one through four of this effort for this park unit.

Goal

The goal of this document is to provide descriptive water quality information in a format usable for park planning purposes (eg. Water Resources Management Plans, Resource Management Plans, and General Management Plans). The report is designed to characterize baseline water quality rather than assess specific water quality problems at a park. This is consistent with the Servicewide Inventory and Monitoring Program's goal of obtaining basic, "Level I", water quality parameters for key waterbodies at each park (National Park Service 1993). Consequently, this report is best used as a reference document to help design new goal-driven water quality monitoring programs rather than as conclusive evidence of previous or existing water quality problems.

Purpose

The purpose of this report is to inventory existing park water quality data; establish baseline water quality at the park; identify potential water quality problems; and establish a park water quality database. This report is intended to enable park resource managers to compare and contrast water quality data collected as part of ongoing inventory and monitoring programs with historical water quality trends. Additionally, this report is intended to foster better designed park-based water quality inventory and monitoring programs in the future. The water quality databases which accompany this report will also lay the groundwork for establishing a NPS water quality database that will allow Regions and Washington Offices to generate regional and national assessments of park water quality.

Objectives

Specific objectives of the study documented in this report are to:

1. Retrieve water quality and related data from the EPA's STORET and other database systems;

2. Develop a complete inventory of all retrieved data;

3. Produce descriptive statistics and appropriate time series and box-and-whiskers plots of water quality data to characterize period of record, annual, and seasonal central tendencies and trends;

4. Compare water quality data with relevant national EPA water quality criteria on a station-by-station and study area basis;

5. Determine the presence and/or absence of the Servicewide Inventory and Monitoring Program's "Level I" water quality parameters within the study area; and

6. Reformat water quality and other related data for use in the park-based Water Quality Data Management System, presently under-development, and other appropriate analytical tools.

Document Overview

This report is comprised of five chapters. The first chapter, this Introduction, provides a brief statement of the study's background; goal, purpose, and objectives; and the key personnel who helped produce the document. This chapter also contains this brief overview of the document's contents and important interpretive caveats to consider when referring to and using this document. The second chapter focuses on the methods, procedures, and databases that were employed to retrieve and analyze water quality data for the park. The third chapter is the user's interpretive guide to chapter four. Chapter three explains how to interpret all the tables and figures presented in chapter four. Chapter four, which likely comprises the majority of the document (unless there isn't much water quality data for the park), contains detailed inventories, descriptive statistics, graphics, and national EPA water quality criteria comparisons characterizing the park unit's water quality data on a station-by-station basis and over the entire study area. This chapter also contains a comparison of park water quality data with the Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameters and a listing of water quality observations that were outside the STORET edit criteria range. Chapter five, the Appendices, contains more specialized materials such as the file names and database structures included on floppy disk(s) with this report; STORET edit criteria; national EPA water quality criteria; Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameters; selected water quality references; and other materials which provide background on the methods, procedures, and databases used or produced by this study.

The water quality and other related data referenced in this report accompany the document on floppy disk. The water quality parameter data file is in DBASE III+[1] format and will be useable in the park-based Water Quality Data Management System presently under-development. The water quality stations, industrial facilities discharges, drinking water intakes, water gages, water impoundments, and River Reach databases are also in DBASE III+ and/or ASCII format for ready-use in Geographic Information Systems (GIS), Computer-Aided Design Systems, or Desktop Mapping Systems.

Caveats

While intended primarily as a reference document, it is important that users peruse the first three chapters and Appendices of this report to better understand and interpret the results presented in chapter four. As a means for identifying potential areas for more intensive study, comparisons of the park's water quality data with relevant national EPA water quality criteria for appropriate designated uses[2] and with the Servicewide Inventory and

[1]The use and/or mention of specific proprietary hardware or software packages is for informational purposes only and is not intended to connote or denote an endorsement.

[2]The Environmental Protection Agency's Quality Criteria for Water 1995 Final Draft (Silver Book) was the primary source of water quality criteria. In the spirit of the other caveats offered in this section, it is important to recognize that water quality criteria are often revised when new or better information become available.

Monitoring Program's "Level I" water quality inventory parameters have been made. Extreme caution must be exercised in interpreting the results of these comparisons. Observations that exceed water quality criteria may have occurred due to any number of natural or anthropogenic factors, as well as other reasons. For example, STORET is a "user-beware" water quality database system. While there is some rudimentary edit (bounds) checking of any data entered in STORET (See Appendix C), users are basically free to enter their own data. Beyond data entry errors, the possibility of inaccurate data entering the system due to inappropriate measurement techniques, sample mistreatment, and other reasons is a serious concern. Consequently, if observations for a particular parameter frequently exceed the EPA water quality criterion over a prolonged time period, the best approach is to examine in detail the data exceeding the criterion. Questions which should be asked regarding the data include: What water source(s) are manifesting the problem? Does the data make sense? Was it collected by a reputable organization following a sound study plan and employing accepted techniques? If the answers to these questions still cause concern, a specific cause and effect water quality investigation focusing on the parameters of concern may be warranted. Similarly, the absence of particular Servicewide Inventory and Monitoring Program "Level I" water quality parameters from the park only means that no entity or organization has collected and entered this data into the EPA's STORET database. Too frequently, data that are collected in and around NPS units never make it into the EPA's national water quality database. These data may exist in published or unpublished reports, file cabinets, or other databases. Before definitively concluding that no baseline data exist for a particular parameter, these alternative resting grounds for data should be investigated. Such a detailed exploration, however, was beyond the scope of this study.

Key Personnel

Many individuals contributed to the design and implementation of this project. The primary contributors and their roles in the project are briefly mentioned below.

National Park Service, Water Resources Division:

Dean Tucker was the Contracting Officer's Technical Representative responsible for designing, coordinating, and implementing all aspects of this effort.

Gary Rosenlieb provided administrative oversight and was involved in quality control for all tasks related to this project.

Barry Long and Roy Irwin reviewed technical tasks and provided water quality expertise related to data analysis.

Gary Smillie provided hydrologic expertise in the determination of hydrologic seasons.

Julie Mattick and Scott Grover helped prepare the report, write the Executive Summary, and produce the seasonal hydrograph.

Allan Gill provided digital cartographic support, both in determining retrieval/query areas and producing graphics.

Jacquie Nolan designed the cover and provided publications support.

Horizon Systems:

Cindy McKay served as Project Manager for Horizon Systems, performed the initial requirements analysis, and was involved in all quality control tasks related to the project.

Alan Cahoon was responsible for automating the procedures which produced the water quality databases and Water Quality Results chapter.

Kendrick Gordon served as the Production Technician and was responsible for executing the software and procedures to produce the park unit chapters.

Sue Hanson, P.E., provided technical advice for writing this document.

Dr. Jim Loftis was the data quality analyst for the project.

Armando F. Ballofet, P.E., served as the local technical liaison between Horizon Systems and the NPS.

Other National Park Service:

Several other individuals provided invaluable technical review, comments, administrative support, and/or other assistance, including: Dan Kimball, Bill Jackson, Mark Flora, Gary Williams, John Karish, Brendhan Zubricki, Richard Hammerschlag, Randy Ferrin, Gary Vequist, Mike Martin, Kevin Berghoff, and Dyra Monroe.

METHODOLOGY

This section provides an overview of the procedures and criteria used to retrieve and analyze water quality data for each park unit. Generating baseline water quality data inventories and analyses for all NPS units is a monumental task. To accomplish this undertaking given a very limited budget, the procedures employed to produce each report had to be as generic and automated as possible. Consequently, customization of reports to individual park needs and issues was not feasible. Moreover, such customization was beyond the scope of this effort which was simply intended to produce baseline water quality data inventories for all parks rather than customized issue-driven reports. During the procedure-development stages of the project, specifications for the final product evolved, within the context of the aforementioned resource constraints, to focus on comprehensive water quality baseline data inventories and concise, descriptive statistical examinations of the available water quality data for each park unit. Detailed below are the data sources and final methods and procedures that were used to create the baseline water quality inventories, analyses, databases, and other products for each park unit. A thorough understanding of the limitations of the data sources and procedures described in this chapter and the next (Interpretive Guide to Water Quality Results) is a prerequisite to intelligent use of the results presented in this document.

Delineation of Park Study Area

The first step in retrieving water resources-related data for each park was deciding on a procedure to determine the study area boundary. Since water flows through parks, utilizing the park boundary as a simple query/study area was deemed inadequate. On the other end of the continuum, using the entire watershed as the study area was considered superfluous given: (1) the areal extent of certain park watersheds (eg. the entire Mississippi River); (2) the sheer volume of potentially irrelevant data such a large study area could generate; and (3) the resources required to specify the watershed for each park unit. The approach which was ultimately adopted - a modified hydrologic boundary - reflects a compromise between the park boundary and the entire watershed. Thus the study area employed for each park is an area extending at least three miles upstream and one mile downstream from the park boundary. Although these distances are somewhat arbitrary, this approach is easy to automate and was felt to limit the data retrieved, in most instances, to that of most importance to the park. Extending the query area one mile downstream of the park was intended to capture any data immediately downstream of the park which may reflect the quality of the water in the park. A current (as possible) copy of each park's boundary was obtained in digital format directly from the park or digitized from Regional land status maps, U.S. Geological Survey (USGS) quadrangles, or other sources. Using GIS techniques, the boundary was used to create the three miles upstream, one mile downstream buffer. For a few parks with which WRD water quality specialists were very familiar with potential water quality threats and/or valuable sources of data that may lie just outside the study area, the study area may have been tweaked (enlarged) to cover these areas of concern or interest. Unfortunately, a customized study area was not feasible for all park units. Hence, the three miles upstream, one mile downstream buffer was the primary study area employed for most parks. This study area was transferred to the EPA mainframe computer and used as the basis for all water resources-related data retrievals from the data sources described below.

Data Sources

The EPA maintains many mainframe data systems related to national water resources (U.S. Environmental Protection Agency 1992). Six of these data systems were used for this project:

- STOrage and RETrieval System (STORET) - water quality parameter data, locations of sampling stations, descriptive elements about stations and parameters;
- Industrial Facilities Discharge (IFD) - locations of industrial and municipal point source discharge facilities;

- Drinking Water Supplies (DRINKS) - locations of intake pipes for drinking water supplies;
- Water Gages (GAGES) - locations of USGS and other water gages;
- Water Impoundments (DAMS) - locations of most large water impoundments (greater than 10,000 acre feet at normal pool volume) and many smaller impoundments; and
- River Reach File, Version 3 (RF3) - 1:100,000 scale geographical representation of surface waters (rivers, lakes, etc.) with a unique identifier assigned to each surface water segment and connectivity information useful for routing and navigation.

STORET is the national water quality data repository (U.S. Environmental Protection Agency 1989). Water quality data is entered in STORET by public agencies (federal, state, or local) that collect water samples and/or perform laboratory analysis. As such, STORET is a "user-beware" data system. Although the EPA manages the STORET data system and, since November 1983, has imposed some minimum quality control criteria on the data (See Appendix C), data are generated and input to STORET by the "owner" agencies. Consequently, the EPA does not certify any data within STORET. Currently, there are over 800,000 active and inactive sampling stations and more than 225 million observations covering in excess of 13,000 water quality parameters entered in STORET. The earliest data dates back to the turn of the century. Using the bi-monthly update cycle, user agencies may store results of recent monitoring activities in STORET. Included in STORET is USGS WATSTORE water quality data, which is updated on a monthly basis. Although STORET contains a phenomenal amount of data, it is important to note that data exist in STORET only if the collectors decide to upload their data to the system. Since many agencies and researchers do not upload their data to STORET, the absence of water quality data in the system for a particular area doesn't mean that there has never been any water quality data collected for the area. The data may exist in published or unpublished reports, file cabinets, or in agency-specific databases. Identifying and retrieving these other sources of data were beyond the scope of the present effort. All parameter data and water quality station location data downloaded from STORET within the park's study area are included in DBASE III+ format files on disk(s) accompanying this report (See Appendices A and B).

The data within the IFD database are extracted from the EPA's Permit Compliance System (PCS). IFD contains the facility locations of all industrial and municipal dischargers which require a National Pollutant Discharge Elimination System (NPDES) permit to operate. Over 7,100 municipal, federal, and industrial facilities discharging into the waters of the United States are tracked by PCS and IFD. If any industrial facilities discharges exist within the study area, a file in DBASE III+ format documenting a variety of information about each discharge accompanies this report on disk (See Appendices A and B).

The EPA DRINKS database identifies locations of drinking water supply intakes. This file contains data for 850 supplies which serve more than 25,000 people, and 6,800 supplies which serve between 1,000 and 25,000 people. If any drinking water intakes exist within the study area, a file in DBASE III+ format documenting a variety of information about each intake accompanies this report on disk (See Appendices A and B).

The GAGES data originates primarily with the USGS and copies are maintained on the EPA mainframe computer for ease of integration with other EPA national data systems. Although other agency's water gages, as well as some artificial gages, may appear in GAGES, the vast majority of gages are stream gages belonging to the USGS. The GAGES database contains approximately 36,000 records for both active and inactive gaging stations. If any USGS or other agency stream gages occur within the study area, a file in DBASE III+ format documenting several fields of information about each gage accompanies this report on disk (See Appendices A and B).

The Water Impoundment database was originally compiled by the U.S. Army Corps of Engineers in response to a Congressional inquiry on dam safety hazards (GKY and Associates 1990). The EPA subsequently modified the database for use in water quality investigations. Of the 68,155 dams in the database, 2,125 are considered large (impounding 10,000 acre feet or more at normal pool volume). It is important to note that while the database includes entries for 66,030 smaller dams, estimates place the actual number of dams in the U.S. at several million

(including small farm ponds). If any water impoundments occur within the study area, a file in DBASE III+ format documenting several fields of information about each impoundment accompanies this report on disk (See Appendices A and B).

The RF3 data system is a hydrologic database of surface water features across the U.S. (excluding, at present, Idaho, Oregon and Washington, which currently operate a different system - although this data is expected to be converted to RF3 soon, Alaska and Hawaii). RF3 was created primarily from 1:100,000 scale USGS Digital Line Graph data. RF3 is made up of over 3,000,000 individual "reaches". A reach is generally defined as a portion of surface water between two confluences (U.S. Environmental Protection Agency 1993). The linework underlying RF3 contains over 95,000,000 coordinate points. RF3 is designed to facilitate hydrologic routing, identifying upstream and downstream elements, and specifying the exact location of any point on a stream network. RF3 data exists as a series of traces with associated attributes. The EPA project which is producing RF3 is being conducted in three phases: Compilation, Assessment, and Revision. The Compilation phase is complete except for Idaho, Washington, Oregon, and Alaska. The Assessment phase was completed during the first half of 1994; while the Revision phase was begun in March 1994. One important outcome of the Revision phase is that the reach codes which uniquely identify each surface water feature will change. Consequently, these codes should not be used, at this time, as keys for relating other data to RF3. The RF3 data provided with this document is provisional and should be used only to provide a geographic backdrop for the park's water quality data. RF3 data covering each USGS catalog unit (a geographic area representing a single or multiple drainage basin(s), or some other distinct hydrologic feature (U.S. Geological Survey 1982)) touched by the park's study area is included in ASCII export and DBASE III+ formats on the disk(s) accompanying this report (See Appendices A and B).

For additional information on any of these data systems, contact the EPA Office of Water at (202) 260-7028.

Data Retrieval and Analysis Procedures

The six EPA data systems discussed above reside on the EPA mainframe computer located in Research Triangle Park, N.C. Horizon Systems used a dedicated, leased telephone line with a data transfer rate of 9600 bits per second to download data occurring within the park's study area from all the databases. The bisynchronous communication software and hardware provided error checking during all data transfer procedures.

As described above, the park study/query area boundary was used to select the water quality stations, industrial facilities discharges, drinking water intakes, water gages, water impoundments, and river reaches associated with the park unit. For various reasons, screening criteria (described later in this section) were employed to select appropriate water quality stations, parameters, and observations. Horizon Systems wrote several mainframe programs to automate, to the greatest extent feasible, the STORET data retrieval and storage procedures. Once the data were extracted from the EPA data systems, they were downloaded to a microcomputer for statistical analyses and reformatted into DBASE III+ compatible format.

Specifically, once on the PC, the data were processed to:

(1) Reformat the data into DBASE III+ format and other database structures;
(2) Eliminate questionable data outside the STORET edit criteria ranges (See Appendix C);
(3) Display on a map the location of water quality monitoring stations and other water resources themes;
(4) Determine the frequency of water quality observations by station, parameter, and station/parameter;
(5) Generate descriptive period-of-record water quality statistics in a tabular format;
(6) Generate appropriate descriptive annual and seasonal analyses of the water quality data in a tabular format;
(7) Plot appropriate period of record time series and annual and seasonal box-and-whisker graphs;
(8) Compare the water quality data against relevant EPA national criteria; and

(9) Compare the water quality data against the NPS Servicewide Inventory and Monitoring Program's "Level I" water quality parameters.

Special customized microcomputer programs (primarily written in Clipper and Microsoft Professional BASIC) and procedures were created to address each of these tasks. All reformatted database files are included on disk(s) accompanying this document. The contents of these databases are described briefly below. Complete database structures are included in Appendices A and B. The descriptive water quality tabular statistics (see "Statistical Analyses" below) were computed based upon NPS specifications. Command or batch files were generated to drive STATGRAPHICS 7.0 in order to produce all the time series and box-and-whiskers plots.

Park Unit Databases

Up to seven digital databases in DBASE III+ and other formats have been created for the park by querying the water resources-related data sources described above. The disk(s) containing these databases accompany the report. The contents of each of these databases are discussed briefly below. More detailed documentation of these databases is included in Appendices A and B.

(A) Water Quality Parameter Data: This database includes all the water quality parameter data downloaded from STORET that passed the STORET Edit Criteria, Date, Station Type, and Phase 0 Parameter screens (described below) and is summarized tabularly and graphically in this document. This constitutes the park's baseline water quality data. Since it is already in digital format, more sophisticated analysis of the data is possible than the descriptive statistics and graphics presented here.

(B) Water Quality Station Locations: This database consists of the STORET header information describing each station where water quality data was collected. As the latitude and longitude of the station are included in the database, this file is easily imported into the park's GIS.

(C) Industrial Facility Discharge Locations: This database includes any industrial or municipal point source discharges located within the park's study area. As the latitude and longitude of each discharge facility are included in the database, this file is easily imported into the park's GIS.

(D) Drinking Water Intake Locations: This database includes any drinking water intakes located within the park's study area. As the latitude and longitude of each intake are included in the database, this file is easily imported into the park's GIS.

(E) Water Gage Locations: This database includes water (stream, lake, estuary, well, spring, climate, or other) gages located within the park's study area. Most of the gages will likely be stream gages belonging to the USGS. As the latitude and longitude of each gage are included in the database, this file is easily imported into the park's GIS.

(F) Water Impoundment Locations: This database includes any water impoundments (dams) located within the park's study area. As the latitude and longitude of each impoundment are included in the database, this file is easily imported into the park's GIS.

(G) River Reach Data: This database includes all stream traces (1:100,000 scale) and attributes for reaches falling within any USGS catalog unit that touches the park's study area. The traces are geo-referenced in ASCII format. The attributes are in both ASCII export and DBASE III+ formats. This information is also readily incorporated into the park's GIS.

The absence of any of these seven files from the disk(s) accompanying the report indicates that there was either no data of this type within the park's study area or the data was unavailable. Several other files are included on the disk(s) accompanying this report, including digital copies of all the figures and tables contained in the document and some other items. Refer to Appendices A and B for detailed documentation of these files. Not included on

disk is an Encyclopedia File (for WRD reference) that documents the minimum and maximum values for each water quality parameter and the parks in which those values were recorded. When Baseline Water Quality Data Inventory and Analysis reports have been completed for all parks, this Encyclopedia File will be available upon request from the NPS WRD.

Screening Methodologies and Procedures

Developing automated or semi-automated procedures to produce baseline water quality inventories and analyses for all national park units required constant testing and debugging of procedures. Three parks, Rock Creek Park, Yellowstone National Park, and Indiana Dunes National Lakeshore, were used to pilot test and refine the automated procedures. It became evident, after a preliminary analysis of all the downloaded STORET data, especially for Indiana Dunes National Lakeshore, that the specifications for the graphical analyses could generate hundreds (possibly thousands) of plots, many of which would not necessarily be useful. Also, there were many stations; parameters; and/or observations downloaded that were not part of the study's objectives; not overly useful; or of dubious quality. In order to reduce the number of graphical plots (time series, annual and seasonal box-and-whiskers) to fit within project resources, various screening criteria were investigated. Ultimately, a comprehensive set of screening criteria were developed to reduce the number of graphical plots. After initial counts of the total number of possible time series and annual and seasonal box-and-whiskers plots were generated, these counts were used to decide which screening criteria would be applied to limit the number of these plots produced for the park unit. Additional screening criteria were employed to restrict the tabular descriptive statistics results to only those deemed useful to the park. Table A provides the categories of screening criteria and to which analyses the screens were applied. A "yes" entry in the table means that the screening category eliminated or prevented data from appearing in certain tables and plots contained in the document. Consequently, in understanding how data from STORET was used in this report, it may be helpful to keep in mind the three general types of screening criteria: (1) screens that apply to stations; (2) screens that apply to certain parameters at stations; and/or (3) screens that apply only to particular observations of parameters at stations. A detailed description of each of the screening criteria categories follows this table. *It is important to note that statistics in "Inventory" reports may not be consistent with statistics in "Overview" reports since different categories of screening criteria were applied*. Also, if attempting to replicate the results of the statistical and graphical analyses presented in this document, be sure to follow the same screening methodologies.

STORET Edit Criteria

As mentioned previously, STORET is a "user-beware" data system. As the EPA doesn't certify any data in STORET, public agencies enter and are responsible for the quality of their own data. Only data entered since November 1983 have been subjected to any rudimentary edit/bounds checking. Agencies entering data since this date can elect to override the edit/bounds checking for individual observations. USGS WATSTORE water quality data is entered into STORET without any EPA edit/bounds checking to ensure data integrity between WATSTORE and STORET. Unfortunately, during the course of our pilot tests, erroneous USGS and EPA water quality data values were discovered. In order to eliminate as much "bad" data as possible, all water quality data downloaded from STORET was subjected to automatic edit/bounds checking (STORET Edit Criteria contained in Appendix C) for the 190 most common parameters. Observations falling outside the STORET Edit Criteria were documented (See the Water Quality Observations Outside STORET Edit Criteria for Park section in the Water Quality Results chapter) and then retained or discarded from the database and all tables and plots based on whether the value was judged as being in the realm of possibility. Although the STORET Edit Criteria screen likely removed some "bad" data for these common parameters, the probability of other erroneous data in the database is high. Be sure to consult the Caveat section in the Introduction.

Table A. Categories of Screening Criteria and to Which Output Products They Apply (A "yes" Entry Means the Screening Category Eliminated or Prevented Data From Being Used in the Product):

Screening Category	Data Download	Overview Tables	Inventory Tables	Annual Tables	Seasonal Tables	Standards Tables	Plots (All)
STORET Edit Criteria	yes	yes	yes	yes	yes	yes	yes
Date	yes	yes	yes	yes	yes	yes	yes
Station Type	yes	yes	yes	yes	yes	yes	yes
Phase 0 Parameter	yes	yes	yes	yes	yes	yes	yes
Phase 1 Parameter	no	no	yes	yes	yes	yes	yes
Media Type	no	no	yes	yes	yes	yes	yes
Remark Codes	no	no	yes	yes	yes	yes	yes
Composite Type	no	no	yes	yes	yes	yes	yes
Phase 2 Parameter	no	no	no	no	no	no	yes
Observations/Period of Record	no	no	no	yes	yes	no	yes

Date Screen

Every water quality observation in STORET typically has a sampling date associated with it. Unfortunately, STORET does not prevent users from entering incorrect dates. Consequently, any water quality observation with an incorrect and/or suspect date (eg. a month greater than 12; a day greater than 31; or a sample date later than the STORET retrieval date) were discarded.

Station Type Screen

STORET contains data from a wide variety of stations classified by the type of waterbody in which samples were collected. As this project's purpose was to inventory and analyze surface-water quality, the following surface-water station types were retrieved (clarification provided in parentheses):

Station Types Included In Retrieval
(a) STREAM
(b) CANAL
(c) LAKE
(d) RESERV (Reservoir)
(e) SPRING
(f) FWTLND (Fresh Water Wetland)
(g) SWTLND (Salt Water Wetland)
(h) ESTURY (Estuary)
(i) OCEAN

Ground water and/or other station type data may have been retrieved if the entering agency classified the station type incorrectly. Rectifying this error was beyond the scope and resources of this project.

Phase 0 Parameter Screen

Nearly all water quality parameters associated with each station type listed above were retrieved. The only exception to this was the exclusion of most of the STORET administrative parameters. A complete list of STORET administrative parameters is included in Appendix D. The few administrative parameters that were included in the retrievals are as follows:

Code	STORET Administrative Parameter Description
00027	Code No. for Agency Collecting Sample
00028	Code No. for Agency Analyzing Sample
00063	Sampling Points, Number of In a Cross Section
00111	Ratio of Fecal Coliform to Fecal Streptococci
00115	Sample Treatment Code (1=Raw, 2=Treated)
34772	NPDES Number, Cross Reference
45580	Method of Analysis
74065	Stream Flow Class
74066	Annual Runoff
74067	Soil Classification
74068	Water Quality Designated Use Classification

Phase 1 Parameter Screen

Some of the data retrieved from STORET was not suitable for statistical or graphical analysis. Consequently, this screening criterion eliminated all parameters which were not suitable for statistical or graphical analysis within the context of this project. The full list of these parameters is presented in Appendix E. Examples of parameters excluded from statistical and graphical analysis include the administrative parameters mentioned above, land use acreage, encoded values, dates, latitude/longitude, etc. Excluded parameters do, however, appear in the Parameter Period of Record and Station/Parameter Period of Record (two of the "Overview" Tables), as well as in the water quality parameter file included on disk(s) accompanying this report.

Media Type Screen

Water quality samples can be taken in a variety of aqueous media. Water quality data were retrieved from STORET only if the media were WATER or VERT (vertically integrated). WATER and VERT samples comprise the overwhelming majority of samples in STORET. The media screen eliminated the following water quality sampling media:

Media Screen	Description
BOTTOM	Sampled At the Bottom
DREDGE	Sampled By Dredge
PORE	Pore Sample
CORE	Core Sample

Remark Code Screen

STORET enables the agency collecting water quality samples to provide a qualifying remark for each parameter observation. These remarks provide additional information about the measured or observed value entered into STORET (See Appendix B - Parameter Data File for a complete listing and description of all remark codes). Based on the STORET remark codes, two potential screens were applied to water quality observations based on whether the measured value was used in subsequent analyses: (1) Elimination or (2) Modification/Inclusion.

Elimination:
Non-composite water quality parameters with the remark codes presented in Table B were eliminated from the period of record, annual, and seasonal descriptive statistics and graphics. Not including observations with these remarks was justified by the fact that most of the remarks: (A) indicate either less confidence in the measured value; (B) are remarks for nominal or categorical data that doesn't lend itself to statistical analysis; or, (C) complicate the statistical analysis beyond the scope of this effort. Observations containing these remark codes comprise a very small fraction of the data. Although statistical analyses weren't undertaken on this data, all water quality observations, regardless of remark code, are included on disk(s) accompanying this report. If you re-analyze this data in order to replicate the results presented here, be sure to eliminate all non-composite observations with the remark codes presented in Table B.

Table B. Non-composite Parameters With the Following Remark Codes Were Eliminated From Statistical and Graphical Analysis:

Remark Code	Description of STORET Remark Code
F	Female Species.
J	Estimated, Not the Result of Analytic Measurement.
M	Presence Verified, But Not Quantified, Below Quantification Limit. For Species, Male. For Oxygen Reduction Potential, Indicates Negative Value.
N	Presumptive Evidence of Presence.
O	Analysis Lost.
V	Analyte Was Detected In Sample and Method Blank.
W	Less Than Lowest Value Reportable Under Remark "T".
Z	Too Many Colonies Were Present to Count (TNTC), Value Represents Filtration Value.

Modification/Inclusion:
Water quality parameter observations with the remark codes presented in Table C were halved prior to inclusion in period of record, annual, and seasonal descriptive statistics and graphics. These remark codes deal with observations that were below the detection limit for the parameter. The common water quality data analysis convention for these remark codes is to use half of the detection limit in statistical analyses (Ward, Loftis, and McBride 1990; Gilbert 1987). Although this is a somewhat defensible treatment of observations below the detection limit, the statistics that may be computed using these halved values may not be defensible. Consequently, any computed statistics in inventory, annual, or seasonal tables that are comprised of 50% or more K, T, and U remark codes are footnoted "Computed with 50% or more of the total observations as values that were half the detection limit." This will provide the user with some caution in using and interpreting these results. Water quality data included on disk(s) accompanying this report that may have these remark codes are stored as the original entry (detection limit). If you re-analyze this data in order to replicate the results presented here, be sure to substitute half the detection limit value in the database whenever these remark codes are encountered.

Table C. The Value of Water Quality Parameters With the Following Remark Codes Were Halved (Half of the Detection Limit Entered In STORET) Prior to Inclusion In Descriptive Statistics and Graphics:	
Remark Code	**Description of STORET Remark Code**
K	Off-scale Low, Actual Value Not Known, But Known to Be Less Than Value Shown.
T	Less Than Detection Criteria.
U	Analyzed For But Not Detected, Value is Detection Limit For Process Used. If Species, Undetermined.

Composite Type Screen

Sometimes data entered in STORET represent something other than a single measurement at one location at one point in time. These samples are typically referred to as composite samples due to the fact that they vary temporally and spatially. Consequently, the observation entered into STORET for composite data is typically a computed value that summarizes the data over time and/or space. Such data complicate statistical and graphical analyses and must be handled separately. Such treatment was beyond the scope of this study; although composite values typically represent only a fraction of STORET observations. The composite type screen eliminates all composite observations from statistical and graphical analyses, except those with a composite type code of "A" that have a one day or less sampling period and those with a composite type code "D". All water quality observations, regardless of composite type code, are included on disk(s) accompanying this report. If you re-analyze this data in order to replicate the results presented here, be sure to exclude all composite observations except those with a code of "A" that have a one day or less sampling period and those with a code of "D". Table D presents a list of possible STORET composite type codes.

Table D. Possible STORET Composite Type Codes

Composite Type Code	STORET Composite Type Description
A	Average
H	Maximum
L	Minimum
N	Number of Observations
#	Number of Observations
S	Standard Deviation
U	Sum of Squares
V	Variance
C	Coefficient of Error
X	Coefficient of Variance
E	Skewness
F	Kurtosis
Z	Number of Obs. That Exceed An Established Limit
%	Precision
$	Accuracy
B	N/A
D	Indicates Replicate Sample

Phase 2 Parameter Screen

Due to budgetary limitations, the number of graphical plots (time series, annual and seasonal box-and-whiskers) produced had to be manageable - typically no more than 100 total plots. After scrutinizing the results of the pilot tests and the Baseline Water Quality Data Inventory and Analysis Reports produced for the first group of parks, the 19 parameters which, typically, were the most frequently measured at nearly all stations were water temperature, stage, discharge, and various meteorological measurements (See Table E). Consequently, most of the graphical plots produced would be of water temperature, stage, discharge, and meteorological conditions. Although these are important parameters, particularly in conjunction with other water quality parameters, it was felt that plotting resources would be better allocated to other water quality parameters. Consequently the STORET parameter codes listed in Table E never generated graphical plots. It is important to note, however, that these parameters are included in all other aspects of the project, including all applicable period of record, annual, and seasonal descriptive statistics tables.

Table E. Frequently Measured STORET Codes That Were Prevented From Generating Plots	
STORET Parameter Code	**STORET Parameter Description**
00003	Sampling Station Location, Vertical (Feet)
00010	Water Temperature (Degrees Centigrade)
00020	Temperature, Air (Degrees Centigrade)
00021	Temperature, Air (Degrees Fahrenheit)
00025	Barometric Pressure (MM of HG)
00032	Cloud Cover (Percent)
00035	Wind Velocity (Miles Per Hour)
00036	Wind Direction in Degrees from Trun N (Clockwise)
00040	Wind Direction (Azimuth)
00045	Precipitation, Total (Inches Per Day)
00046	Precipitation, Total (Inches Per Week)
00052	Humidity, Relative (Percent)
00061	Stream Flow, Instantaneous (CFS)
00065	Stream Stage (Feet)
81903	Depth of Bottom of Water @ Sample Site (Feet)
82553	Rainfall In 1 Day Inclusive Prior to Sample (Inches)
82554	Rainfall In 7 Days Inclusive Prior to Sample (Inches)
82371	Rainfall In 3 Days Inclusive Prior to Sample (Inches)
82372	Rainfall In 14 Days Inclusive Prior to Sample (Inches)
85599	Precipitation, Total/Period-Rain Equivalent (Cm/Sample)

Observations/Period of Record Screen

Despite never plotting water temperature, stage, discharge, and meteorological measurements, the number of plots generated by some parks still exceeded the 100 plot limit. Also, some rationale was needed to plot only those parameters with sufficient data density to make a meaningful statistical graphic. For example, time series plots comprised of only a few observations or annual or seasonal box-and-whiskers plots with limited observations and/or data in only one or two years or seasons are not very informative. Consequently, a number of plotting criteria were developed to limit the number of time series and box-and-whiskers plots to, at most, 100 informative graphics by using each parameter's number of observations and period of record. Similar, albeit less stringent criteria, were used for including results of annual and seasonal analyses in descriptive statistics tables. Consequently, there are more summaries of annual and seasonal results in tables than in graphics. Whenever an entry in an annual or seasonal table generated a plot, this entry was footnoted to notify the reader of the presence of the graphic. Due to differing quantities of data at parks, different screening criteria were employed. The same

criteria for appearance in seasonal and annual tables were used for all parks. Table F presents the least stringent plot screens.

Table F. Least Stringent Plot Screening Criteria Used to Limit the Number of Plots Generated

Time Series: To generate a time series plot, a station/parameter combination must have a period of record of at least 2 years and a total of at least 8 observations. Annual Analysis: To generate an annual box-and-whiskers plot, a station/parameter combination must have at least 9 observations in each of at least 4 years. The years do not have to be consecutive. Seasonal Analysis: To generate a seasonal box-and-whiskers plot, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years. The years do not have to be consecutive.

The exact three plot screens used varied by park unit and are documented in the Overview section of the Water Quality Results chapter. If your park's plotting criteria deviated from these least stringent criteria, it is because too many plots would have been generated using these criteria.

The criteria used for appearance of station/parameter combinations in annual and seasonal analysis tables are presented in Table G. These tabular criteria, which are actually the least stringent plotting criteria, were constant from park to park.

Table G. Criteria Used for Generating Entries in Annual and Seasonal Analysis Tables

Annual Analysis: For an entry to appear in an annual table, a station/parameter combination must have at least 9 observations in each of at least 4 years. The years do not have to be consecutive. Seasonal Analysis: For an entry to appear in a seasonal table, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years. The years do not have to be consecutive.

Statistical Definitions

Since this report is intended only to characterize historical and/or existing water quality at the park rather than address specific water quality problems, only simple descriptive statistics are presented. Inferential and non-parametric statistical analysis to examine relationships and trends were beyond the scope of the study. The complete water quality dataset is provided on disk accompanying this report to afford the opportunity for more detailed exploratory data analysis. The descriptive statistics are included in the inventory, annual, and seasonal tables. Table H provides a brief definition of each descriptive statistic provided for each parameter at a station.

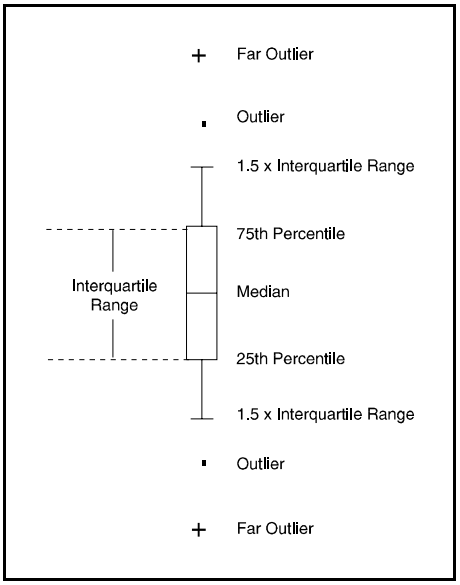
Table H. Definition of Descriptive Statistics Contained in Inventory, Annual, and Seasonal Tables

Observations:	The number of samples collected.
Median:	The median is the 50th percentile or the value in a dataset sorted in ascending order that exceeds 50% of all observations, yet is also exceeded by the remaining 50% of all observations.
Mean:	The sum of all observations collected divided by the number of observations.
Maximum:	The maximum value observed.
Minimum:	The minimum value observed.
Variance:	This is a measure of variability or dispersion of the observations; or, in other words, describes how many observations are close (or far), from the mean. It is calculated as the weighted average of the squared deviations from the mean.
Standard Deviation:	The positive square root of the variance.
10th Percentile:	The value in a dataset sorted in ascending order that exceeds 10% of all observations, yet is itself exceeded by the remaining 90% of all observations.
25th Percentile:	The value in a dataset sorted in ascending order that exceeds 25% of all observations, yet is itself exceeded by the remaining 75% of all observations. The 25th percentile is also known as the first quartile.
75th Percentile:	The value in a dataset sorted in ascending order that exceeds 75% of all observations, yet is itself exceeded by the remaining 25% of all observations. The 75th percentile is also known as the third quartile.
90th Percentile:	The value in a dataset sorted in ascending order that exceeds 90% of all observations, yet is itself exceeded by the remaining 10% of all observations.

As with the tabular descriptive statistics, the scope of the project limited the generation of exploratory graphics to time series plots and annual and seasonal box-and-whiskers plots. Plots were only generated, however, provided the parameter met or exceeded the relevant plotting criteria specified in the previous section.

Time series plots display the parameter concentration on the Y-axis and the date on the X-axis. This provides the user with a visual feeling for not only the parameter's concentration and variability over time, but also the density of data in different time periods. The time series plots provide a visual representation of the data in the basic station inventory. Due to software limitations, a line connects each measured value in sequence regardless of the time period between samples. Readers are cautioned not to assume that the concentration of the parameter between any two data points can be represented by a straight line. It is likely that the concentration varied between any two observations, particularly if the observations are separated by a significant time period.

The annual and seasonal box-and-whisker plots provide a graphical overview of the measured data and give the user a better understanding of the data's distribution and possible outliers. In essence, the box-and-whisker plots provide a visual representation of the data contained in the annual and/or seasonal tables. The interpretation of the boxes is provided in the figure to the right. Each box encompasses the middle 50 percent of measured values (from the 75th to 25th percentiles). The difference between the 75th and 25th percentiles is also known as the interquartile range. The horizontal line inside each box is the median or 50th percentile. The lines which extend out from each end of the box are the whiskers. The whiskers extend out from first quartile (25th percentile) and third quartile (75th percentile) to the smallest data point within 1.5 interquartile ranges from the first and third quartiles. Observations that extend beyond the whiskers are known as outliers. Far outliers are observations whose values lie more than three interquartile ranges below the first quartile or above the third quartile. These are designated with plus signs.



INTERPRETIVE GUIDE

TO WATER QUALITY RESULTS

This interpretive guide discusses each of the products presented in the next chapter - Water Quality Results. This chapter highlights how each of the tables and figures were prepared and how they can be used. Each subheading in this chapter corresponds to a particular product in the subsequent Water Quality Results chapter.

Overview

The Overview provides a brief one-page summary of the results of the various database retrievals for both the study area and the park. The study area results include the park results since the study area encompasses the park and all lands and waters within at least 3 miles upstream and 1 mile downstream of the park. Thus, the GIS estimated acreage of the study area should always be greater than the park acreage. The park acreage was computed from the digital boundary that was obtained for the park. More than likely this acreage will differ, perhaps significantly, from the "official" published acreage for the park due to the spatial and temporal accuracy of the digital boundary, treatment of inholdings, and other concerns. The number of STORET stations is the number of locations within the study area and park where an agency monitored (or intended to monitor) water quality. The number of stations with no data reveals the number of stations created in STORET for which water quality data were never entered. The number of stations with no statistical analysis reports the number of stations in the study area and park that contain data not amenable to normal parametric statistics. The number of longer term stations indicates the number of stations in the study area and park with at least 6 parameters having periods-of-record extending 2 years with an average of at least 1 observation per year over the period-of-record. The date of STORET retrieval is the calendar date when Horizon Systems downloaded all the data from STORET. Thus, the report documents all data entered in STORET prior to the retrieval date. Keep in mind that an agency can upload archival data at any time. Consequently, a retrieval date only guarantees that as of that date, this report contains all the data that had been entered into STORET. The period of record is the earliest date for which water quality data exist in STORET for the study area and park up to the date when the most recent data were entered prior to the retrieval date. The number of parameters measured is the number of unique water quality parameters measured within the study area and park and entered in STORET. The number of water quality observations is the sum of the total number of observations across all parameters within the study area and park. The number of industrial/municipal facilities discharges, drinking water intakes, water gages, and water impoundments are the number of each of these entities found within the study area and park. The number of time series, annual, and seasonal plots are the number of these different types of graphics produced by station/parameter combinations within the study area and park using the plotting criteria described in the previous chapter. The hydrologic seasons, described below, are the seasons used for the seasonal water quality data analysis. The time series, annual, and seasonal criteria are the plot and tabular screening criteria described in the previous chapter.

Regional Location Map

The Regional Location Map provides a small scale, general representation of the park and study area location within the United States. Digital, reproducible copies of this graphic are included on the disk(s) accompanying this report.

Water Quality Monitoring Locations Map(s)

The Water Quality Monitoring Locations Map(s) usually provides a larger scale representation of the park and study area than the Regional Location Map. This map indicates the locations within the study area where water quality has been monitored and the data entered into STORET. The water quality monitoring stations are labelled sequentially with the rightmost significant digits. The station names were assigned in numerically ascending order by latitude (for parks with a greater north-south extent than east-west) or longitude (for parks with a greater east-

west extent than north-south). Thus, this map serves as a visual index to the water quality data contained in the report. Since the 1:100,000 scale hydrography (from the River Reach File Ver. 3.0 or other sources) is displayed on the map, users can refer to the map to locate the station number on the reach in which they are interested and then find the appropriate section in the report that documents the water quality at that station. If the scale allows, USGS catalog units are also displayed on the map to provide an approximation of drainage basins. More than one Water Quality Monitoring Location map may be presented if the scale requires breaking the area into multiple maps for legibility. If multiple maps are necessary, an index map showing the geographic extent of each sub-map or panel will be present. Digital, reproducible copies of this graphic are included on the disk(s) accompanying this report. The digital, geo-referenced data files documented in Appendices A and B will allow the park to create water quality monitoring stations as a coverage in their GIS.

Dischargers, Drinking Intakes, Gages, and Impoundments Map(s)

The Dischargers, Drinking Intakes, Gages, and Impoundments Map(s) displays the same information as the Water Quality Monitoring Location Map(s) except the water quality stations are replaced by industrial/municipal facilities discharges, drinking water intakes, active and inactive gage locations, and water impoundments. This map also serves as a visual index allowing the user to determine the identification code of each discharger, drinking intake, gage, or impoundment. This number can then be used to obtain additional information about the entity on the following page of the report or to refer to the more detailed database files accompanying the report on disk. These more detailed database files are geo-referenced (See Appendices A and B), thus allowing the park to create these coverages in their GIS. More than one Dischargers, Drinking Intakes, Gages, and Impoundments map may be presented if the scale requires breaking the area into multiple maps for legibility. If multiple maps are necessary, an index map showing the geographic extent of each sub-map or panel will be present. Digital, reproducible copies of this graphic are also included on the disk(s) accompanying this report.

Industrial Facilities Discharges, Drinking Water Intakes, Water Gages, and Water Impoundments Table

This table provides some additional information about each of the discharges, drinking intakes, water gages, and water impoundments displayed on the previous map(s). This information generally includes the site identification number; the station or facility name; an address or some other indication of location; and some other pertinent information. More detailed information about each of these entities is contained in the database files on disk accompanying the report (See Appendices A and B).

Representative Mean Annual Hydrograph for Seasonal Analysis

One component of the water quality data analysis contained in the document is a seasonal analysis of the data (where adequate data exist). In order to undertake this analysis, some representation of the park's seasons was required. Seasons can be based on many factors (eg. hydrologic, climatic, recreational use, etc.). Since project resources did not allow us to contact every park and discuss with resource management staff what appropriate seasons may be for the park, WRD staff elected to adopt primarily a hydrologic/climatic definition of the seasons which uses a process of hydrograph separation to glean seasons from stream discharge patterns. The procedure employed to make these determinations was as follows:

(1) Find the nearest USGS Hydro-Climatic Data Network (HCDN) station (U.S. Geological Survey 1992) to the park that is most representative of streamflow conditions at the park. The HCDN is basically a subset of USGS streamflow stations, including only those stations that are unaffected by artificial diversions, storage, or other disruptions of the natural channel. All HCDN stations generally have at least a 20 year period of record. Consequently, discharge patterns at these stations should reflect only hydrologic and climatic influences. For the most part, selected HCDN sites were typically within 15-20 miles of the park. In some parks where WRD staff were aware of the existence of a stream gage located within the park that would be more representative of park waters even though it wasn't an HCDN site, this gage was selected.

(2) Retrieve the daily discharge values for the selected station from the USGS Daily Values File and generate a mean annual hydrograph and a box-and-whiskers plot of daily flows by month.

(3) Interpret the plots based on our knowledge of the hydrologic regime at these parks and assign seasons.

This approach, used for the majority of parks, assumes that most water quality data at the park will be found in streams and that the discharge pattern of the selected stream is representative of the seasons for all park waterbodies. Although this assumption may be weak for certain parks, project resources did not allow a more thorough investigation. For parks where there wasn't any stream gage (HCDN or otherwise) deemed representative of park waters, precipitation records from a nearby meteorological station were obtained from the National Climatic Data Center. Plotting daily average precipitation and box-and-whiskers of monthly precipitation sums allowed WRD hydrologists to make a rough approximation of climatic seasons for use in analyzing the water quality data.

Again, it is important to note the many ways of defining "seasons" and thus the limitations of the seasonal analysis contained in this document. For certain parks it may be more useful to perform a seasonal analysis with seasons defined by recreational use patterns or some other natural or anthropogenic factor. This option is available to the park since all the water quality data analyzed in this document is contained on disk(s) accompanying this report. Digital, reproducible copies of this seasonal analysis graphic are also included on the disk(s) accompanying this report.

Contacts for Agency Codes Retrieved

This table provides a list of the organizations who have entered data into STORET. A contact name at the organization and a phone number are also supplied. The agency code in the first column is the key for identifying which stations belong to that agency. This code will appear in the first line of each station's inventory. Although the agencies listed in this table are potential partners for future water quality monitoring or management endeavors, don't be surprised if the name of the contact and/or the telephone number is out of date. This information is entered when an agency first creates a station. The agency may not update this information when the initial contact moves on or the telephone number changes. Nonetheless, it is likely that the contact or someone else at the agency may be able to provide you with project reports or other information relative to the agency's data. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Quantity of Data Retrieved by Agency Code

This table displays the period-of-record; numbers of water quality stations, longer-term stations, and stations without data; total number of water quality observations; and the number of unique water quality parameters measured by each agency within the study area and park boundary. Using this table, a park can quickly determine which agencies collect the most data in and around the park and whether they have monitored recently. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Station Period of Record Tabulation

The Station Period of Record Tabulation provides a quick overview of the names of all the stations within the study area where water quality has been monitored and data entered into STORET. It also furnishes the total number of observations taken at each station and the frequency of observations between certain dates: (1) 01/01/85 until the most recent date data were measured; (2) 01/01/75 - 12/31/84; and (3) prior to 01/01/75. The station identification number, the four character park abbreviation code followed by a four digit number, provides the means to jump from a particular station in the table to the statistical and graphical analyses for this station contained in the Station-By-Station Results section. The Station Period of Record Tabulation reveals which water

quality stations were situated within the park as defined by the park's GIS boundary. The Station Period of Record Tabulation also footnotes longer-term water quality stations. Longer-term stations are those that have at least 6 parameters with an average of one or more observations per year for those parameters during a period of record extending at least two years. Note that although a station may not be flagged as longer-term, it can still harbor much important data (albeit for only a few parameters or over a very long term with just a few observations). A digital copy of this table accompanies this report on disk (See Appendices A and B).

Parameter Period of Record Tabulation

The Parameter Period of Record Tabulation provides a complete listing of every water quality parameter ever measured in the study area and entered into STORET. This table is a summation of all the water quality observations for each parameter across all stations in the study area. Like the Station Period of Record Tabulation, the total number of observations for each parameter and the frequency of observations between: (1) 01/01/85 until the most recent date data were measured; (2) 01/01/75 - 12/31/84; and (3) prior to 01/01/75 are provided. This table is handy for quickly assessing whether particular parameters have been measured in the study area. The Parameter Period of Record Tabulation also shows how many in-park (and total) water quality stations contained data for each parameter. Some administrative parameters and parameters not suitable for statistical analysis within the context of this project (as discussed in the Screening Methodologies and Procedures section of the Methodology chapter) are listed in the Parameter Period of Record Tabulation, but not in the Station-By-Station Results section. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Station/Parameter Period of Record Tabulation

The Station/Parameter Period of Record Tabulation combines the information found in the Station Period of Record Tabulation and the Parameter Period of Record Tabulation. This table provides a listing of all the stations where a particular water quality parameter was measured in the study area and the data entered into STORET. The table provides the start and end dates of the period of record of each parameter at each station; the number of years of measurement (computed from the start and end dates); whether the station/parameter combination occurred within the park boundary; the total number of observations for each parameter at each station, and whether a time series (T), annual (A), and/or seasonal (S) plot was generated for the station/parameter combination in the Station-By-Station Results section. This table is very useful when you need to determine at which locations within the study area (or park) particular parameters were monitored and how much data was collected there. Some administrative parameters and parameters not suitable for statistical analysis within the context of this project (as discussed in the Screening Methodologies and Procedures section of the Methodology chapter) are listed in the Station/Parameter Period of Record Tabulation, but not in the Station-By-Station Results section. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Station-By-Station Results

Probably the most voluminous portion of the document is the Station-By-Station Results. Here the results of the water quality analyses for each station are presented in sequence. The results include the station inventory; parameter inventory; EPA water quality criteria analysis; and, as applicable, time series graphics and annual and seasonal tables and box-and-whiskers graphics. Each of these products are discussed below.

Station Inventory for Station

Each station's data commences with its Station Inventory. The Station Inventory provides the descriptive attributes about each water quality monitoring station contained in STORET. This includes a variety of locational information such as a verbal description, the Federal Information Processing codes for county and state, latitude and longitude, and other items; the station type (stream, spring, estuary, etc.); monitoring agency; creation date; indices to the River Reach File; whether the station lies within the park boundary; and several other attributes. This water quality station location data is also contained on disk(s) accompanying the report (See Appendices A and B).

Parameter Inventory for Station

Following the descriptive attributes about a station is the Parameter Inventory for the station. The Parameter Inventory provides a complete inventory and descriptive summary of all the water quality parameter data for the station. This table furnishes the parameter STORET code and name; the period of record for this parameter at this station; and the descriptive statistics defined in the Statistical Definitions in the previous chapter. Three different footnotes can appear on a parameter's descriptive statistics. Two asterisks (**) in the 10th, 25th, 75th, or 90th percentile columns indicates that there was insufficient data to compute these statistics for this parameter. Percentiles were not computed unless the parameter had at least 9 observations. Two number signs (##) next to the number of observations indicates that more than 50 percent of the observations entered into the computations as values that were taken to be half the detection limit. Caution should be employed in interpreting and using statistical results when more than half the values are set to half the detection limit. The letter "p" following a numeric STORET parameter code in the Parameter Inventory indicates that a time series plot was produced for this parameter at this station. Digital, reproducible copies of the Parameter Inventory tables are contained on the disk(s) accompanying this report.

Two downloaded parameter groups, pH and bacteriological, received special treatment whenever descriptive statistics were computed in the Parameter Inventory (as well as subsequent annual and seasonal tables). Whenever pH appears in a descriptive statistics table, the entry is increased to 3 entries: (1) the original pH entry; (2) pH computed from conversion to and from $\mu eq/l\ H^+$; and (3) $\mu eq/l\ H^+$. The reason for these conversions is that pH is actually the negative logarithm of the hydrogen ion concentration. To be technically correct in computing descriptive statistics, pH values must be converted to $\mu eq/l\ H^+$ (Kunkle and Wilson 1984). Once the descriptive statistics are computed using the pH values expressed as $\mu eq/l\ H^+$, the results can be converted back to pH. The three pH entries in the descriptive statistics table will all have the same STORET code.

Whenever a bacteriological parameter appears in a descriptive statistics table, the entry is increased to 3 entries: (1) the original bacteriological entry; (2) an entry computed using the log of each measured value; and (3) an entry that simply reports the geometric mean. The reason for converting to logs and displaying the geometric mean is convention. Bacteriological water quality standards typically reference the geometric mean rather than the arithmetic. The three bacteriological entries in the descriptive statistics tables will all have the same STORET code.

EPA Water Quality Criteria Analysis for Station

The EPA Water Quality Criteria Analysis table follows the Parameter Inventory. This table presents a comparison between the station's STORET water quality data and applicable national water quality criteria for freshwater and marine aquatic organisms; drinking water; and other concerns. Comparison against applicable State water quality criteria was not feasible given project resources. Appendix F provides the relevant national EPA water quality criteria values. In most cases, the EPA water quality criteria values are single sample concentrations that can be directly compared to single sample STORET entries. There are, however, two notable exceptions to this single sample/single value comparison: ammonia and fecal-indicator bacteria. For these two parameters, criteria are either derived from or depend on the results of other chemical characteristics of the water or require a time series statistical treatment of multiple samples to determine whether the criterion has been exceeded. The EPA ammonia criterion is pH and temperature dependent. To calculate the criterion for each ammonia sample value was beyond

the scope of this project. Consequently, ammonia criteria were not included in Appendix F or the EPA Water Quality Criteria Analyses. Un-ionized ammonia criteria can be determined from formula table values included in the EPA Silver Book (Environmental Protection Agency 1995).

For the purposes of this project, fecal-indicator bacteria data were flagged as exceeding criteria when their concentrations exceeded 200, 1000, 126, and 33 (fresh)/35 (salt) colony forming units or most probable number for single samples of fecal coliform, total coliform, E. coli, and enterococci, respectively. These values represent only approximations of the criteria for primary contact recreation waters where criteria are typically expressed in terms of a geometric mean computed with no less than 5 samples during a given month. When a fecal-indicator bacterial observation exceeds a criterion in the EPA Water Quality Criteria Analysis section, the reader should refer to the corresponding geometric mean calculations in the preceding Parameter Inventory. Long-term geometric means that exceed the respective water quality criteria for multiple samples are more indicative of chronic bacteriological problems than single sample values.

Water quality observations carrying non-detection or below-detection limit remark codes (K, T, and U) required special treatment in the EPA Water Quality Criteria Analysis. As with the statistics in the Parameter Inventory, half the detection limit was the value used in the EPA Water Quality Criteria Analysis. For certain observations, however, half the detection limit may exceed a water quality criterion. For those observations it would be inappropriate to classify them as exceeding a criterion since the actual value wasn't known. Thus, it was decided that any below detection limit or non-detect observations that exceed a water quality criterion using half the detection value would be excluded from the EPA Water Quality Criteria Analysis. If non-detect or below detection limit values are excluded from the EPA Water Quality Criteria Analysis for a particular parameter, the total observations for that parameter will be footnoted with an ampersand (&). This will also explain the difference between the total observations in the Parameter Inventory and the EPA Water Quality Criteria Analysis. Non-detect or below detection limit values are included in the EPA Water Quality Criteria Analysis, however, if half the detection limit doesn't exceed the parameter's criterion.

The EPA Water Quality Criteria Analysis for each station lists the parameter; the standard type and value; the total number of observations for the parameter at this station; the number of observations that exceeded the standard value; and the proportion of observations that exceeded the standard value. Water quality observations are considered as having exceeded a criterion regardless of whether the criterion represents a maximum acceptable value or a minimum acceptable value. The table also breaks down the water quality criteria analysis on a seasonal basis to allow the reader to discern whether parameter observations tend to exceed criteria during only certain seasons or year round. Although the EPA Water Quality Criteria Analysis table is a good starting point for assessing potential water quality problems at the station, the reader is strongly encouraged to read the caveat section in the Introduction concerning drawing conclusions about water quality problems from this table. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

Time Series Plots for Station

Following the EPA Water Quality Criteria analysis will be any Time Series Plots for each parameter that met the time series plot screening criterion selected for the park unit. If a time series plot is generated for a particular parameter at a station, a "p" will appear next to the STORET parameter code in the Parameter Inventory. If no time series plots are present for the particular station, the data did not meet the time series screening criterion listed in the Overview section of the Water Quality Results chapter. The x-axis on these plots is the period of record, listing only the 2-digit calendar year for clarity (i.e. 1983 is presented as 83). The y-axis is the concentration of the selected parameter in its measurement units. In general, the units for a given parameter are given either on the y-axis or in the parameter description in the subtitle of the graph. Subtitle and/or y-axis parameter descriptions may be truncated on the plots so as to not exceed the maximum number of plotting characters. Y-axis values less than zero are sometimes shown for better representation of the entire plot. The station identification code, parameter description, and parameter STORET code are presented in the main title. The footnote provides a descriptive location name. Observations on the plot are represented as squares. Lines are drawn connecting each successive observation. As mentioned previously in the Statistical Definitions section of the Methodology chapter, the interconnecting line is drawn only for ease of reading and provides no indication of what the actual parameter

values were between the two observed measurements. Digital, reproducible copies of all time series plots accompany the report on disk (See Appendices A and B).

For time series plots of pH, the original pH values are plotted. For time series plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of a time series plot for bacteriological parameters is log-linear.

Annual Analysis for Station

If more than 9 observations exist in each of at least 4 years for a particular parameter at a station, an Annual Analysis table will be generated. Entries will be made in the table for each parameter having more than 9 observations in each of at least 4 years. The Annual Analysis presents the same descriptive statistics as the Parameter Inventory table, except that it provides the statistics by year, rather than the entire period of record. Although some of the years may not contain 9 observations, these years still have an entry in the table. A parameter needs only to have 9 observations in any 4 years of its period of record to qualify for the Annual Analysis table. Like the Parameter Inventory, percentiles with fewer than 9 observations are not computed and entries computed with greater than 50 percent of the data values set to half the detection limit are flagged. Entries in the Annual Analysis table that also meet the annual analysis box-and-whisker plot screening criterion will be flagged with a "p" next to the STORET code. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

Annual Box-and-Whiskers Plots for Station

Entries in the Annual Analysis table that meet the annual box-and-whisker plot screening criterion will generate Annual Box-and-Whiskers Plots. The interpretation of box-and-whiskers plots is explained in the Statistical Definitions section of the Methodology chapter. A box is generated for each year of the period of record, even if less than 9 observations were recorded in the year. The axis labeling and plot titling is the same as for the time series plots. Digital, reproducible copies of these graphics accompany the report on disk (See Appendices A and B).

For annual box-and-whiskers plots of pH, μeq/l H^+ are plotted. For annual box-and-whiskers plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of an annual box-and-whiskers plot for bacteriological parameters is log-linear.

Seasonal Analysis for Station

As explained above, a park's hydrologic seasons for seasonal water quality analysis were determined using a process of hydrograph separation and other techniques. If a parameter has more than 9 observations in each of 2 seasons with a period of record of at least 6 years and observations in at least 3 of the 6 years, a Seasonal Analysis table will be generated for the station. The Seasonal Analysis presents the same descriptive statistics as the Parameter Inventory table, except that it provides the statistics by season, rather than the entire period of record. Although certain parameters for a season at a station may not contain 9 observations, these parameters can still have an entry in the table. A parameter needs only to have 9 observations in each of 2 seasons with a period of record of at least 6 years and observations in at least 3 of the 6 years to qualify for the Seasonal Analysis table. Consequently, some of the parameters could have fewer than 9 observations in a particular season but still generate a table entry. Like the Parameter Inventory and Annual Analysis, percentiles with fewer than 9 observations are not computed and entries computed with greater than 50 percent of the data values set to half the detection limit are flagged. Entries in the Seasonal Analysis table that also meet the seasonal analysis box-and-whisker plot screening criterion will be flagged with a "p" next to the STORET code. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

Seasonal Box-and-Whiskers Plots for Station

Entries in the Seasonal Analysis table that meet the seasonal box-and-whisker plot screening criterion will generate Seasonal Box-and-Whiskers Plots. The interpretation of box-and-whiskers plots is explained in the Statistical Definitions section of the Methodology chapter. A box is generated for each season of the period of record, even if less than 9 observations were recorded in the season. On the x-axis, the seasons are labeled 1 through the number of seasons defined for the park through hydrograph separation. The actual calendar dates that correspond to these numerically labeled seasons exist in the Overview section and the Seasonal Analysis tables in the Water Quality Results chapter. The axis labeling and plot titling are the same as for the time series and annual box-and-whiskers plots. Digital, reproducible copies of these graphics accompany the report on disk (See Appendices A and B).

For seasonal box-and-whiskers plots of pH, μeq/l H^+ are plotted. For seasonal box-and-whiskers plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of a seasonal box-and-whiskers plot for bacteriological parameters is log-linear.

EPA Water Quality Criteria Analysis for Entire Park Study Area

This table essentially summarizes all the individual station-by-station EPA water quality criteria analyses in the study area. (Refer to the EPA Water Quality Criteria Analysis for Station section above for more detailed information on the treatment of special cases in the EPA Water Quality Criteria Analysis for Entire Park Study Area.) This table presents a comparison between the study area's STORET water quality data and applicable national water quality criteria for freshwater and marine aquatic organisms; drinking water; and other concerns. Comparison against applicable State water quality criteria was not feasible given project resources. Appendix F provides the relevant national EPA water quality criteria values. The EPA Water Quality Criteria Analysis for the Entire Park Study Area lists the parameter; the standard type and value; the total number of observations for the parameter at this station; the number of observations that exceeded the standard value; and the proportion of observations that exceeded the standard value. Water quality observations are considered as having exceeded a criterion regardless of whether the criterion represents a maximum acceptable value or a minimum acceptable value. The table also breaks down the water quality criteria analysis on a seasonal basis to allow the reader to discern whether parameter observations tend to exceed criteria during only certain seasons or year round. Although the EPA Water Quality Criteria Analysis for the Entire Park Study Area is a good starting point for assessing potential water quality problems at the park, the reader is strongly encouraged to read the caveat section in the Introduction before drawing conclusions about water quality problems from this table. A digital, reproducible copy of this table accompanies the report on disk (See Appendices A and B).

NPS Servicewide Inventory and Monitoring Program
Level I Water Quality Inventory Data Evaluation and Analysis (IDEA)

One of the objectives of this Baseline Water Quality Data Inventory and Analysis project is to perform an IDEA - an Inventory Data Evaluation and Analysis - to determine the presence and/or absence of Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups in the park's study area. The Strategic Plan for Conducting Baseline Natural Resource Inventories in the National Park Service (National Park Service 1993) identified the basic water quality parameters displayed in Table I as the parameters that all parks must have for "key" waterbodies (determined on the basis of size, uniqueness, threats, etc.) within park boundaries. Since these parameters can be measured in different ways and with different units, there are multiple STORET codes associated with each parameter; hence the concept of parameter groups. The Strategic Plan distinguishes between those parameter groups required for all parks and parameter groups required only on a case-by-case basis.

The IDEA basically compares the parameters listed in the Parameter Period of Record Tabulation and Station/Parameter Period of Record Tabulation with the "Level I" Servicewide Inventory and Monitoring water quality parameter groups, listed in Table I and in Appendix G, and notes, not only the presence or absence of each parameter group, but the total number of observations for each parameter present in the group; the number of

observations between certain time periods; and the total number of stations within the study area at which the parameter was measured. The total number of different (unique) stations measuring parameters for the group is in parentheses on each parameter group's summary line.

The first page of the IDEA lists the missing Servicewide Inventory and Monitoring Program "Level I" groups. If a parameter group appears on this list, no data for any of the parameters defining the group (See Appendix G) was retrieved for it within the study area. So-called non-priority parameter groups may appear in the missing list. Non-priority parameters are park-specific parameters (case-by-case) which may not be applicable to your park. Consequently, if you believe a particular parameter, not included in IDEA (See Appendix G), to be important for your park, you will have to consult the Parameter and Station/Parameter Period of Record Tabulations to determine the presence or absence of this parameter for the park. Although considered a "Level I" parameter, biological data, obtained through rapid bioassessment or other means, is not considered in this report which deals specifically with surface water chemistry. Following the Missing Level I Group list is the Present Level I Group list which displays the summary results for each Servicewide Inventory and Monitoring "Level I" water quality parameter group that was found.

Table I. Basic "Level I" Water Quality Parameters Identified as Required and Optional By the Servicewide Inventory and Monitoring Program for "Key" Park Waterbodies

Required Parameter Groups:
(1) Alkalinity
(2) pH
(3) Conductivity
(4) Dissolved Oxygen
(5) Rapid Bioassessment Baseline (EPA/State protocols, involving fish and macroinvertebrates)
(6) Temperature
(7) Flow

Case-By-Case Parameters Groups:
(8) Toxic Elements
(9) Clarity/Turbidity
(10) Nitrate/Nitrogen
(11) Phosphate/Phosphorus
(12) Chlorophyll
(13) Sulfates
(14) Bacteria

The last page of the IDEA summarizes the information from the Missing and Present Level I Group lists. This page provides information on the temporal and spatial distributions of the data. Included in this table are the total number of observations for each parameter group; the number of observations since January 1, 1985; the percent of the total observations since January 1, 1985; the number of stations measuring each parameter group; the percent of the total number of stations with data measuring the parameter group; the number of observations per station with data; the period-of-record for this parameter group; and the average number of observations per year of the period-of-record.

In interpreting the results of the IDEA, the reader should first consult the Missing Level I Group list. For the parameter groups listed, there was no baseline water quality data within the study area entered in STORET. Consequently, these parameter groups could be a higher priority for data collection. It is important, however, to realize that data within these parameter groups may have been already collected but not entered into STORET. The resources for this project did not enable us to pursue thorough literature and file cabinet reviews to dredge up

every last iota of data. If data exists for certain Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups in a park's file cabinet, it is the park's responsibility to factor that data into their IDEA. Consequently, the listing of a parameter group on the Missing "Level I" Group list is not a WRD endorsement to launch a study to collect these data. The IDEA is intended to simply note that no data exist for these parameter groups in STORET for the park. It is the park's responsibility to ascertain whether such data has already been collected by the park or other entities before embarking on a new study. In fact, in the future the WRD will require that any park study plan proposing to collect baseline water quality data show that they have consulted their Baseline Water Quality Data Inventory and Analysis report and searched in other locations (file cabinets, published literature, etc.) for the data they propose to collect. A similar interpretation springs from the Present "Level I" Group list. Insufficient data density in certain time periods for particular parameter groups is not necessarily cause for launching a new inventory and/or monitoring program. The park should still consult with other potential sources of data. Again, the IDEA is designed to provide only a quick check on data in STORET for the Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups.

Water Quality Observations Outside STORET Edit Criteria for Park

STORET data entered after November 1983 were subjected to rudimentary edit/bounds checking for 190 common parameters (See the STORET Edit Criteria in Appendix C). None of the data entered into STORET prior to that time has been subjected to edit/bounds checking. Moreover, to maintain exact comparability with USGS WATSTORE data, WATSTORE data entered into STORET has never been subjected to the EPA edit/bounds checking. During the pilot test phase of this project, obviously incorrect data was identified from both USGS and other agency data in STORET. As a consequence, all data downloaded from STORET was filtered through the STORET edit criteria to identify parameter observation values that fall outside any edit criterion ranges. This section documents the station name, parameter, date, time, parameter value, agency, and STORET station name of every observation that fell outside the range of an edit criterion. Not all data falling outside an edit criterion are necessarily incorrect. Such data may represent unique or special conditions. Consequently, every observation falling outside a STORET edit criterion was scrutinized to determine, in our best professional judgement, whether the value was in the realm of possibility or obviously incorrect. Water quality observations that appeared to be obviously incorrect are marked with an "X" in the Disposition column of this table. These values were not retrieved or included in any of the inventory tables or graphs. Water quality values outside a STORET edit criterion but within the realm of possibility were retained and included in inventory tables and graphs. The Water Quality Observations Outside STORET Edit Criteria for Park table documents all values that were outside an edit criterion range. This documentation is also necessitated by the fact that agencies can override the STORET edit criteria for individual observations. Although the edit criteria eliminate some potentially "bad" data from the report, the probability of other incorrect data, for both the 190 parameters that are edit/bound checked and all the other STORET parameters that aren't error checked, is high. Readers should consult the Caveat section in the Introduction for guidelines on the use and interpretation of STORET data. The responsibility for correcting these observations rests with the collecting agency.

WATER QUALITY RESULTS

OVERVIEW FOR BISO[1]

Study Area Boundary Description

The study area includes the park and all areas within at least 3 miles upstream of the park unit boundary and at least 1 mile downstream.

	Study Area	Park
GIS Estimated Acreage:	344256	122534
# STORET Stations:	52	14
# Stations With No Data:	12	2
# Stations With No Stat. Analysis:	0	0
# Longer Term Stations:	12	3
Date of STORET Retrieval:	07/12/93	07/12/93
Period of Record:	07/20/54-09/17/92	05/04/60-09/17/92
# Parameters Measured:	273	222
# Water Quality Observations:	17317	11123
# Industrial/Municipal Facilities:	38	6
# Drinking Water Intakes:	2	0
# Water Gages:	5	3
# Water Impoundments:	6	0
# Total Plots:	101	82
# Time Series:	28	25
# Annual:	37	36
# Seasonal:	36	21

Hydrologic Definition of Seasons:

1. November 16 - March 15
2. March 16 - June 30
3. July 1 - November 15

Time Series Plot Criteria:

To be included in the time series plots, a station/parameter combination must have at least 12 years and at least 56 observations.

Annual Analysis Criteria:

To be included in the annual box-and-whisker plots, a station/parameter combination must have at least 9 observations in each of at least 6 years.

To be included in the annual analysis tables, a station/parameter combination must have at least 9 observations in each of at least 4 years.

Seasonal Analysis Criteria:

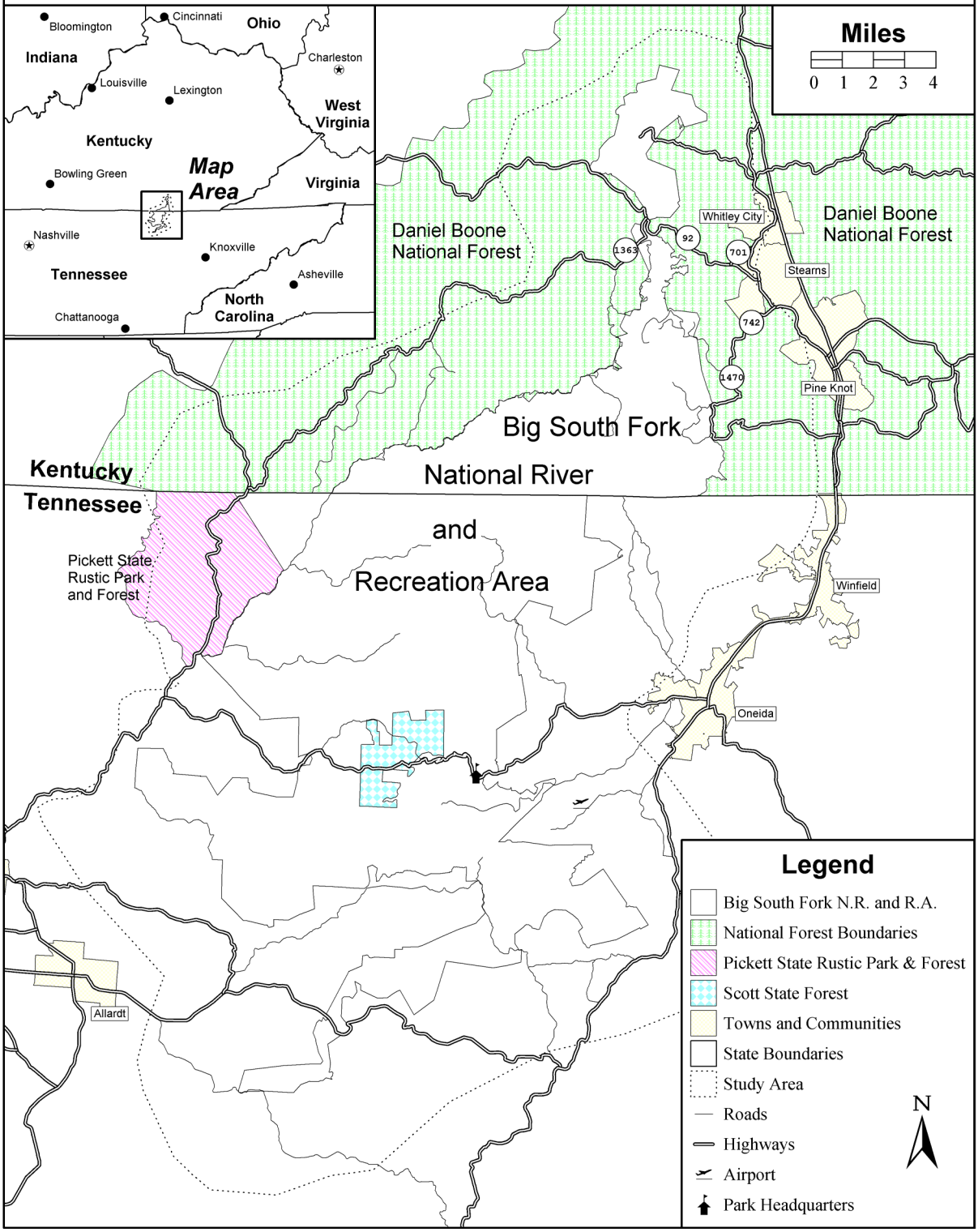
To be included in the seasonal box-and-whisker plots, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 15 years and observations in at least 4 of the 15 years.

To be included in the seasonal analysis tables, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years.

[1]To prepare a Microsoft Word version of this report, data were reprocessed through different versions of software than used originally. Consequently, some results presented in the Overview and Executive Summary may differ slightly from those presented in the analog report (eg. # of In Park and Longer Term Stations).

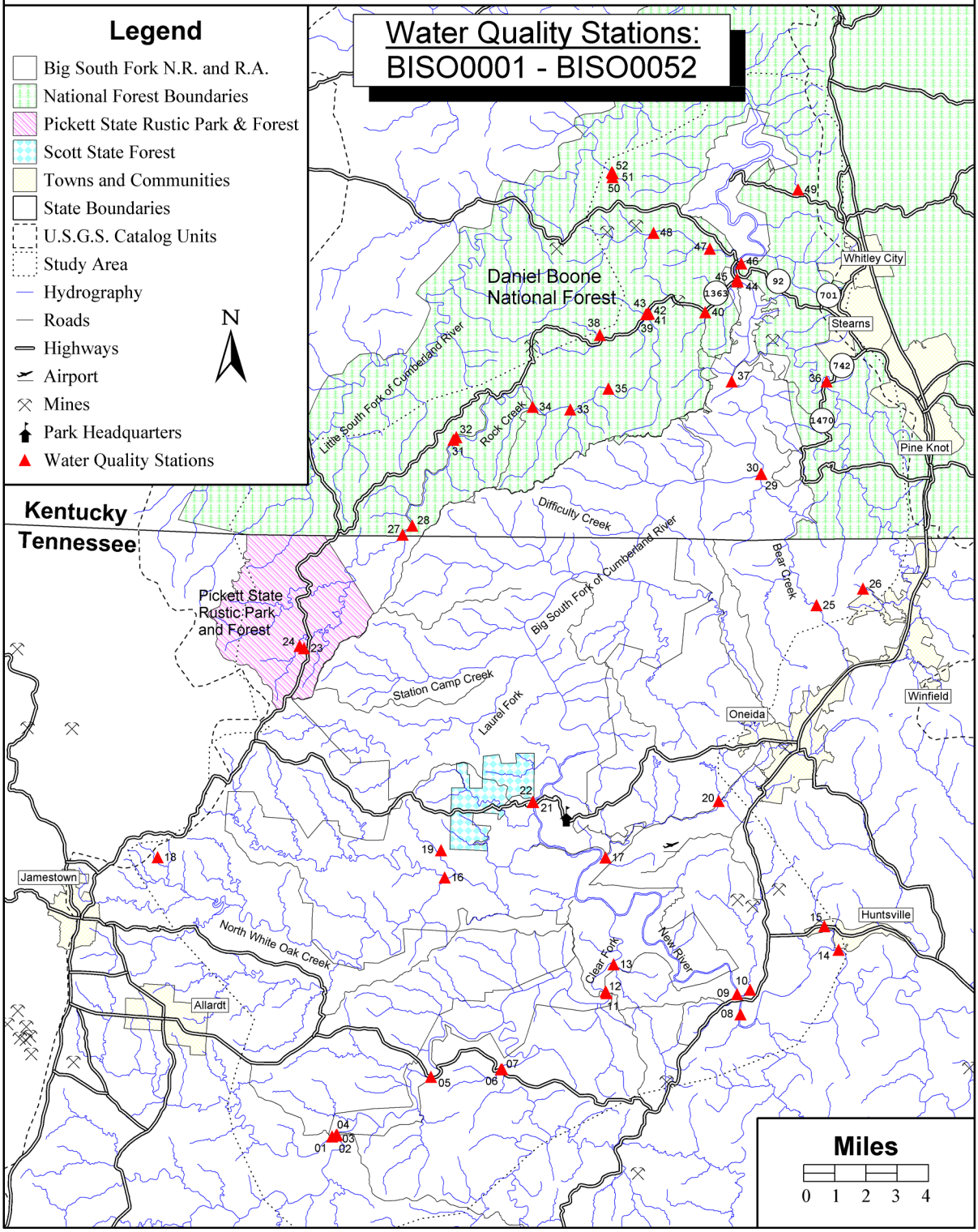
Big South Fork National River and Recreation Area

Regional Location Map



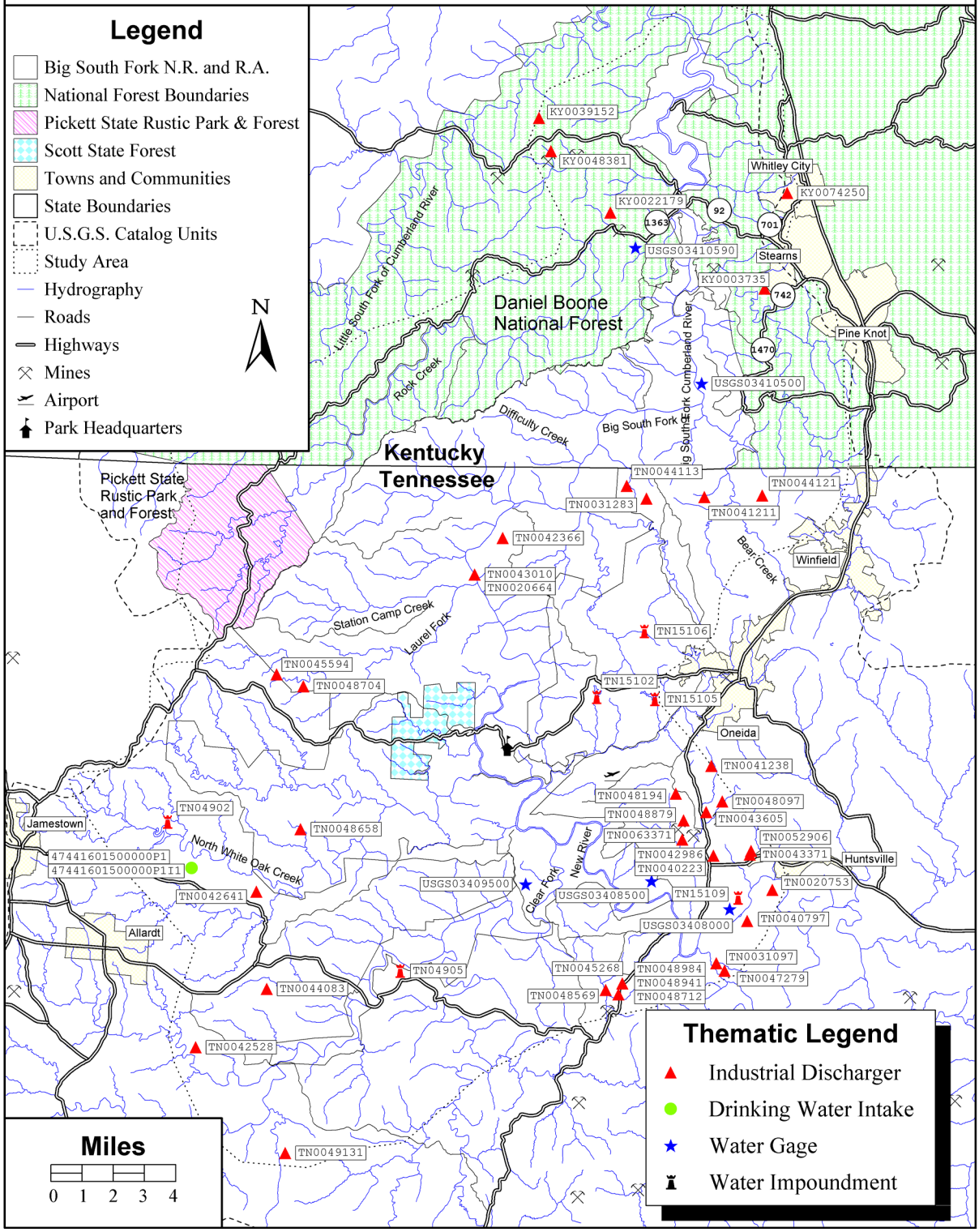
Big South Fork National River and Recreation Area

Water Quality Monitoring Locations



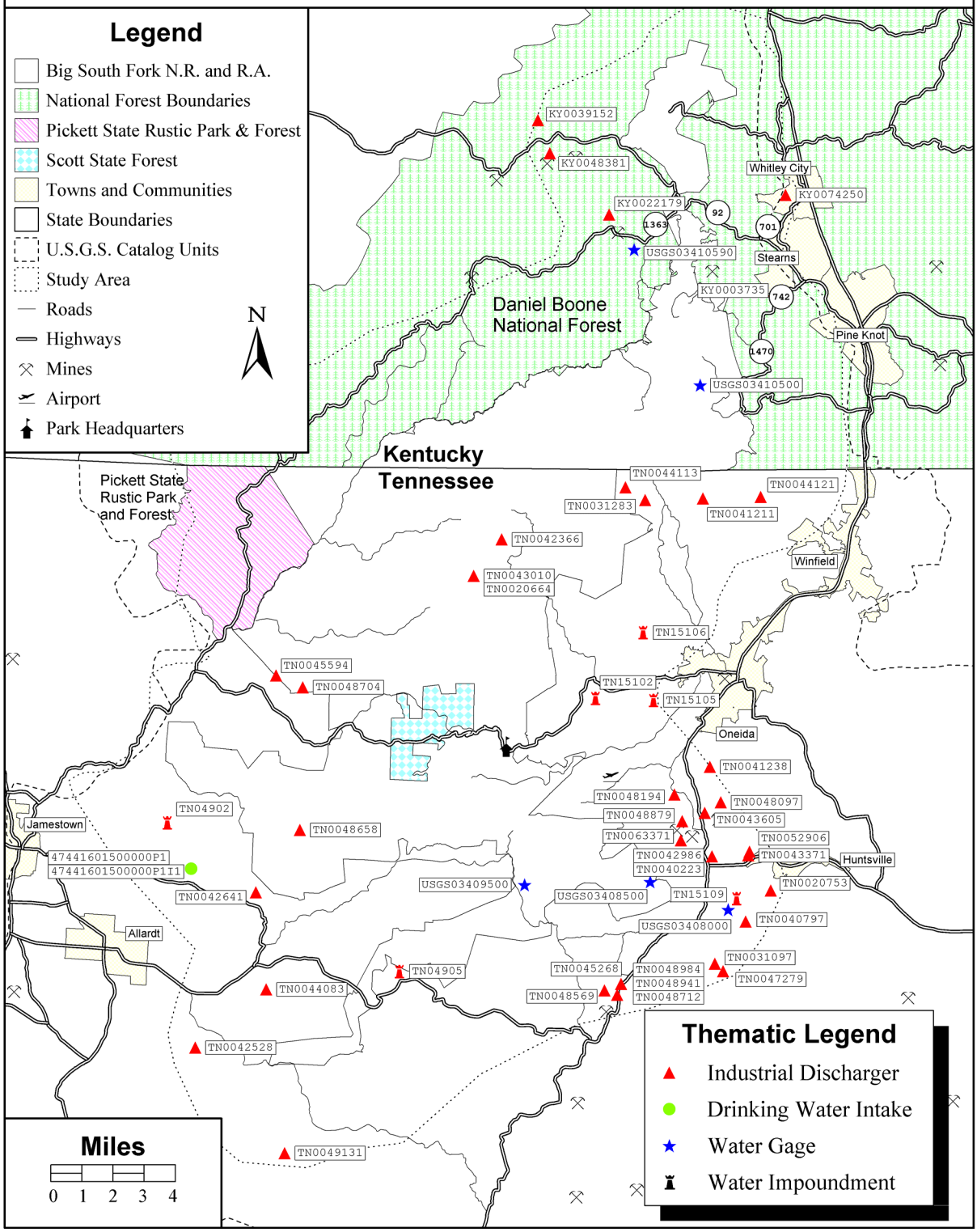
Big South Fork National River and Recreation Area

Dischargers, Drinking Intakes, Water Gages, & Water Impoundments



Big South Fork National River and Recreation Area

Dischargers, Drinking Intakes, Water Gages, & Water Impoundments



Industrial Facility Discharges, Drinking Water Intakes, and Stream Gages Within the BISO Study Area

Industrial Facility Discharges

Site ID	Station/Facility Name	Address	City	Facility Receiving Water Name
KY0003735	BLUE DIAMOND COAL CO	C/O L B POWERS, CHIEF ENG	KNOXVILLE	PAUNCH CRK
KY0022179	STEARNS MINING-COFFEY BR	.....	STEARNS	COFFEY BR
KY0039152	QUALITY ST COAL CO	.....	SANDY HOOK	CLARK HOLLOW
KY0048381	THUNDERBIRD COAL-WOLF CREEK	KY HWY 92	.....	WOLF C
KY0074250	MCCREARY CO APTS	RT 1 BOX 20	WHITLEY	LICK CRK
TN0020664	ONEIDA STP	INDUSTRIAL LANE	ONEIDA	LITTON FORK MI 0
TN0020753	HUNTSVILLE STP	.....	SCOTT COUNTY	UNTRIB 0.2 TO NE
TN0031097	M-A-S-H-BRIMSTONE SIDING	421 EAST MOUNT VERNON STR	SOMERSET	BRIMSTONE CR
TN0031283	ROSS COAL-#4-TRAMMEL BR	P.O.BOX 23	WINFIELD	TRAMMEL BR
TN0040223	HELENWOOD ENERGY-MACS BRANCH	ROUTE 1, BOX 251BB	HELENWOOD	MACS BR
TN0040797	RECTOR & COFFEY COAL-#3	P.O.BOX 151	HUNTSVILLE	NEW RV
TN0041211	CHACO MINING-AREA #2	.....	ONEIDA	BILLS B
TN0041238	DAUGHERTY & DAUGHERTY-AREA #8	.....	ONEIDA	BIG CHERRY FORK C
TN0042366	BUD COAL-MINE #7	.....	.....	SF CUMBERLAND R
TN0042528	MARION COAL-AREA #2	.....	.....	DRY C
TN0042641	NEWCASTLE COAL-AREA #3	.....	.....	N WHITE OAK C
TN0042986	CONRICH OF TN-TIPPLE	.....	.....	BRIMSTONE C
TN0043010	DAUGHERTY & DAUGHERTY-TIPPLE	.....	ONEIDA	PINE C
TN0043371	B A M COAL-AREA #11	.....	.....	FLAT C
TN0043605	PHILBROS MINING-AREA #10	ROUTE 1	PIONEER	SULPHUR CR
TN0044083	J WILLARD WINNINGHAM COAL-#1	SHIRLEY RD	ALLARDT	BIG C
TN0044113	BOUTAIN INC-WEST KNOB-AREA #3	.....	WINFIELD	TURKEY B
TN0044121	BUD COAL-AREA #8	.....	.....	ORDER B
TN0045268	ROSS TIPPLE CO-BLACK CREEK	.....	ROBBINS	BLACK C
TN0045594	JIM YORK COAL-AREA 5A & 5B	ROUTE 1	JAMESTOWN	BUTTERMILK BR
TN0047279	HELENWOOD ENERGY-#6	.....	ROBBINS	BRIMSTONE C
TN0048097	SEXTON BROS. SM1	ROUTE 1,BOX 145	HUNTSVILLE	PAINT ROCK CR
TN0048194	RONDALE INC-AREA 1	P.O.BOX 541	ONEIDA	WEST BR-PHILLIPS
TN0048569	RICHLAND COAL-MINE #5	.....	ROBBINS	RHODA C
TN0048658	HELENWOOD ENERGY-AREA #8	ROUTE 1,BOX 251BB	HELENWOOD	MILL SEAT CR TRI
TN0048704	JIM YORK COAL-AREA #7	ROUTE 1	JAMESTOWN	BUTTERMILK BR
TN0048712	RICHLAND COAL-MINE #7	.....	ROBBINS	RECVG STRM-TR TO NEW R
TN0048879	HELENWOOD ENERGY-#10	ROUTE 1,BOX 251 BB	HELENWOOD	JEFFERS HOLLOW B
TN0048941	RICHLAND COAL CO. #8, R	P.O. BOX 238	HUNTSVILLE	MILL CR-BRIMSTON
TN0048984	RICHLAND COAL CO. #10 R	P.O. BOX 238	HUNTSVILLE	MILL CR-BRIMSTON
TN0049131	COAL ENERGY-AREA 2	ROUTE 1,BOX 84B	KINGSTON	LITTLE LAUREL CR
TN0052906	HELENWOOD ENERGY, INC. #15	ROUTE N0. 1, BOX 251BB	HUNTSVILLE	FLAT CREEK
TN0063371	R MINING COMPANY, AREA #1	------	-----	WEST BRANCH/PHILLIPS CREEK

Industrial Facility Discharges, Drinking Water Intakes, and Stream Gages Within the BISO Study Area

Drinking Water Intakes

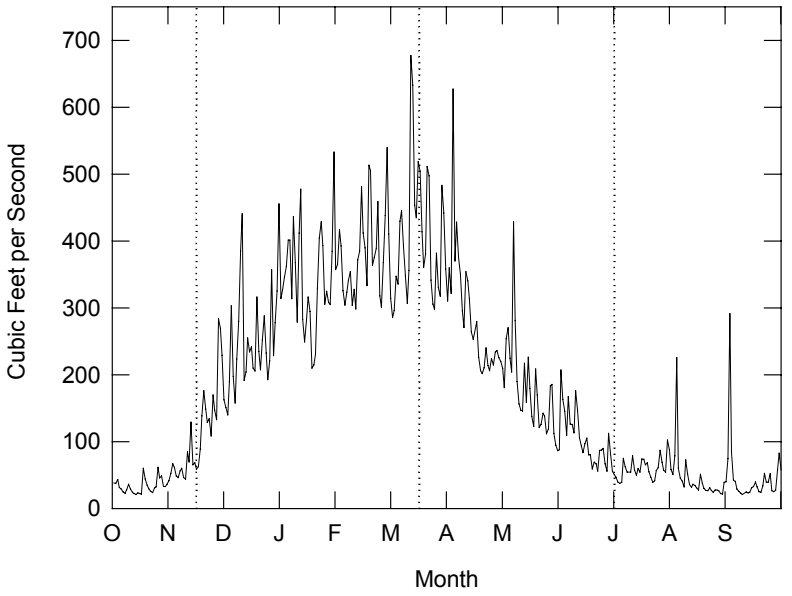
Site ID	Station/Facility Name	City	Population Served	Avg. Daily Production (Gal./Day)
47441601500000P1	TREATMENT PLANT	JAMESTOWN	2200	0000.00
47441601500000P1I1	LAKE	JAMESTOWN	2200	0000.00

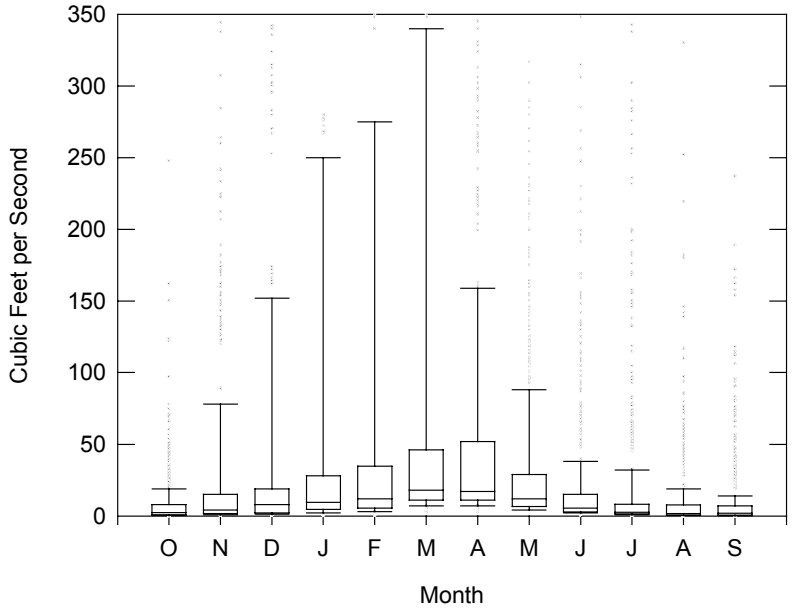
USGS Stream Gages

Site ID	Station Name	Catalog Unit	Drainage Area (Square Miles)	USGS Mean Annual Flow (Cubic Feet/Second)
USGS03408000	NEW RIVER NEAR NEW	05130104	1400.00	632.70
USGS03408500	NEW RIVER AT NEW RI	05130104	8200.00	739.68
USGS03409500	CLEAR FORK NEAR ROB	05130104	7200.00	467.16
USGS03410500	SOUTH FORK CUMBERLA	05130104	5400.00	1777.59
USGS03410590	ROCK C NR YAMACRAW	05130104	-	-

REPRESENTATIVE MEAN ANNUAL HYDROGRAPH FOR SEASONAL ANALYSIS

BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA
Wolf River near Byrdstown, TN
03416000, 45 year record





Representative mean annual hydrograph (top) and distribution of daily flows by month (bottom) for hydrologic season determination. Box and whiskers represent a five number summary; bottom whisker cap is 10th percentile, bottom of box is 25th percentile, internal line is median, top of box is 75th percentile, and top whisker is 90th percentile. Hydrologic seasons for Big South Fork National River and Recreation Area are: Jul. 1 to Nov. 15, Nov. 16 to Mar. 15, and Mar. 16 to Jun. 30.

CONTACTS FOR AGENCY CODES RETRIEVED FOR BISO

AGENCY	PRIMARY CONTACT NAME	ORGANIZATION	PHONE NUMBER(S)	
11COEHUN	MARCHESE, VINCE	CORPS OF ENGINEERS	(304)529-5248	
112WRD	YORK, TOM	US GEOLOGICAL SURVEY	(703)648-5687	
12NSS	LANDERS, DIXON H.	EPA ENVIRONMENTAL RES LAB	(503)754-4427	
21TNWQ	WIGGINS, GARLAND	TENN DEPT PUBLIC HEALTH	(615)741-6623	
131TVAC	WINTERS, KATHY	TENN VALLEY AUTHORITY	(615)751-3752	
1118ATL8	FOR. HYDROLOGIST	US FOREST SERVICE	(404)881-2692	(904)965-7265
21KY	BECK, GARY	KY DEPT NAT RES & ENV PRO	(502)564-3410	
11EPALES	LAMBOU, VICTOR W.	USEPA	(702)798-2259	
22KYOSM2	TRIMBLE, BOB	KY DPT NAT RES & ENV PROT	(502)564-2356	
22TNOSM2	BOBIC, BOB	TENNESSEE DEPT OF CONSERV	(615)546-4783	

QUANTITY OF DATA RETRIEVED FOR BISO BY AGENCY CODE

WITHIN THE ENTIRE STUDY AREA (S.A.) AND JUST WITHIN THE PARK

Agency	Organization	Period of Record		Water Quality Stations		Longer Term[1] Stations		No Data Stations		Water Quality Observations		Water Quality Parameters	
		Study Area	Park Only	S.A.	Park	S.A.	Park	S.A.	Park	S.A.	Park	S.A.	Park
11COEHUN	CORPS OF ENGINEERS	11/11/74-11/13/74	11/11/74-11/12/74	12	7	0	0	1	1	341	183	33	33
112WRD	US GEOLOGICAL SURVEY	07/20/54-08/04/92	05/04/60-08/04/92	16	3	6	2	0	0	8132	4696	175	133
12NSS	EPA ENVIRONMENTAL RES LAB	04/30/86-04/30/86	04/30/86-04/30/86	1	1	0	0	0	0	27	27	27	27
21TNWQ	TENN DEPT PUBLIC HEALTH	05/08/75-09/04/91	05/08/75-05/08/75	3	1	0	0	0	0	69	16	23	16
131TVAC	TENN VALLEY AUTHORITY	05/18/77-09/11/79	No Data in Park	2	0	1	0	0	0	399	0	57	0
1118ATL8	US FOREST SERVICE	04/05/79-09/27/82	No Data in Park	4	0	4	0	0	0	2021	0	17	0
21KY	KY DEPT NAT RES & ENV PRO	03/21/79-09/17/92	03/21/79-09/17/92	11	2	1	1	10	1	6201	6201	126	126
11EPALES	USEPA	04/01/73-03/16/74	No Data in Park	1	0	0	0	0	0	82	0	7	0
22KYOSM2	KY DPT NAT RES & ENV PROT	05/07/83-10/11/83	No Data in Park	1	0	0	0	0	0	45	0	15	0
22TNOSM2	TENNESSEE DEPT OF CONSERV	No Data in S.A.	No Data in Park	1	0	0	0	1	0	0	0	0	0
Totals		07/20/54-09/17/92	05/04/60-09/17/92	52	14	12	3	12	2	17317	11123	273	222

[1]Station With At Least 6 Parameters Having An Average of 1 Or More Observations Per Year During a Period of Record Extending At Least 2 Years.

Station Period of Record Tabulation
From 07/20/54 To 09/17/92

Station Ident.	Location Description	In Park	Total Obs	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75
BISO0001	CROOKED CREEK, MILE 0.1	No	32	0	0	32
BISO0002	CLEAR F AB CROOKED C NR BURRVILLE, TENN.	No	16	0	0	16
BISO0003[1]	CLEAR FORK NEAR BURRVILLE, TN	No	168	0	168	0
BISO0004	CLEAR FORK RIVER, MILE 19.8	No	33	0	0	33
BISO0005	CLEAR FORK RIVER, MILE 14.1	Yes	33	0	0	33
BISO0006[1]	WHITE OAK CREEK AT RUGBY, TN	No	531	0	531	0
BISO0007	WHITEOAK CREEK, MILE 5.7	No	33	0	0	33
BISO0008	NEW RIVER, MILE 8.8	No	30	0	0	30
BISO0009[1]	NEW RIVER AT NEW RIVER, TN	No	2203	81	1668	454
BISO0010	PHILLIPS CREEK, MILE 0.3	No	30	0	0	30
BISO0011	CLEAR FORK RIVER, MILE 3.8	Yes	29	0	0	29
BISO0012[1]	CLEAR FORK NEAR ROBBINS, TN	Yes	996	114	840	42
BISO0013	BLACK CREEK	Yes	27	27	0	0
BISO0014	NEW RIVER NEAR HUNTSVILLE, TN	No	5	0	5	0
BISO0015	FLAT CREEK AT HUNTSVILLE, TN	No	6	0	6	0
BISO0016	NORTH WHITEOAK CREEK, MILE 4.7	Yes	31	0	0	31
BISO0017	PINE CR. 0.25	Yes	16	0	16	0
BISO0018	TRIBUTARY TO SOUTH PRONG CLEAR FORK RIVER 5.0	No	115	0	115	0
BISO0019	LAUREL FORK, MILE 0.1	Yes	30	0	0	30
BISO0020	PINE CR. 5.8	No	16	0	16	0
BISO0021	SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD, TN	Yes	737	321	416	0
BISO0022	BSF CUMBERLAND RIVER, MILE 70.0	Yes	30	0	0	30
BISO0023	PICKETT STATE PARK WELL NEAR PAL	No	39	0	39	0
BISO0024	PICKETT LAKE @ DAM	No	37	37	0	0
BISO0025	SEXTON EXCAVATING MINE NEAR WINFIELD ON BEAR CR.	No	0	0	0	0
BISO0026[1]		No	284	0	284	0
BISO0027	ROCK CREEK AT KY-TN STATE LINE	No	0	0	0	0
BISO0028[1]	ROCK CREEK 06-03	No	497	0	497	0
BISO0029	BSF CUMBERLAND RIVER, MILE 49.6	Yes	0	0	0	0
BISO0030[1]	SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY	Yes	2963	2127	750	86
BISO0031	ROCK CREEK AT HEMLOCK GROVE PICNIC AREA	No	0	0	0	0
BISO0032[1]	ROCK CREEK 06-05	No	578	0	578	0
BISO0033[1]	ROCK CREEK 06-05	No	474	0	474	0
BISO0034	LEWIS HILL	No	12	0	0	12
BISO0035[1]	ROCK CREEK 06-06	No	472	0	472	0
BISO0036	ROARING PAUNCH CREEK NEAR BARTHELL, KY	No	151	0	151	0
BISO0037[1]	SOUTH FORK CUMBERLAND RIVER AT BLUE HERON	Yes	6201	3173	3028	0
BISO0038	ROCK CREEK AT CO-OPERATIVE KY	No	0	0	0	0
BISO0039	ROCK CREEK BELOW JONES BRANCH	No	0	0	0	0
BISO0040	ROCK C NR YAMACRAW	No	17	0	0	17
BISO0041[1]	ROCK CREEK AT WHITE OAK JUNCTION, KY	No	169	0	169	0
BISO0042	ROCK CREEK BELOW WHITE OAK CREEK	No	0	0	0	0
BISO0043	ROCK CREEK BELOW WHITE OAK CREEK	No	0	0	0	0
BISO0044	ROCK CREEK AT MOUTH	Yes	0	0	0	0
BISO0045	BSF CUMBERLAND RIVER, MILE 40.2	Yes	30	0	0	30
BISO0046	S FORK CUMBERLAND RIVER	No	82	0	0	82
BISO0047	WOLF CREEK AT WOLF CREEK, KY	No	107	0	107	0
BISO0048	UNNAMED TRIB. OF WOLF CREEK	No	45	0	45	0
BISO0049	ALVIN ANGLE	No	12	0	0	12
BISO0050	POND #3 @ JONES HOLLOW CHURCH ON JONES HOLLOW CR	No	0	0	0	0
BISO0051	JONES HOLLOW CREEK BELOW JONES HOLLOW CHURCH	No	0	0	0	0
BISO0052	JONES HOLLOW CREEK JUST BELOW JONES CHURCH	No	0	0	0	0

[1]Longer Term Station With At Least 6 Parameters Having An Average of 1 Or More Observations Per Year During a Period of Record Extending At Least 2 Years.

Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Parameter Code	Name	Total Obs	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)	176	89	87	0	3	1
00004	STREAM WIDTH (FEET)	35	24	0	11	12	7
00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE	4	3	1	0	2	0
00009	X-SEC. LOC.(FT FROM LEFT BANK LOOKING DOWNSTRM)	11	0	0	11	11	6
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	643	216	391	36	35	12
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	277	0	277	0	4	0
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	199	133	66	0	4	3
00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	277	0	277	0	4	0
00025	BAROMETRIC PRESSURE (MM OF HG)	35	35	0	0	1	1
00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	217	127	90	0	7	3
00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	346	127	219	0	12	3
00035	WIND VELOCITY (MILES PER HOUR)	14	3	0	11	12	7
00041	WEATHER (WMO CODE 4501)	25	25	0	0	1	1
00055	VELOCITY, STREAM FT/SEC	23	23	0	0	1	1
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	4	0	4	0	2	0
00060	FLOW, STREAM, MEAN DAILY CFS	38	0	13	25	6	3
00061	FLOW, STREAM, INSTANTANEOUS CFS	598	196	399	3	14	4
00064	DEPTH OF STREAM, MEAN (FT)	25	25	0	0	2	2
00065	STAGE, STREAM (FEET)	99	30	69	0	4	2
00068	DEPTH, MAXIMUM, OF SAMPLE (FEET)	3	3	0	0	1	0
00070	TURBIDITY, (JACKSON CANDLE UNITS)	27	0	27	0	4	1
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	321	34	276	11	16	7
00077	TRANSPARENCY, SECCHI DISC (INCHES)	4	3	1	0	2	1
00080	COLOR (PLATINUM-COBALT UNITS)	22	1	1	20	7	3
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	169	92	66	11	13	7
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	562	130	406	26	24	5
00098	SAMPLING STATION LOCATION VERTICAL (METERS)	13	0	13	0	2	0
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	17	13	0	4	6	3
00300	OXYGEN, DISSOLVED MG/L	329	149	179	1	13	5
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	5	0	0	5	5	1
00310	BOD, 5 DAY, 20 DEG C MG/L	86	22	64	0	3	2
00335	COD, .025N K2CR2O7 MG/L	72	7	65	0	1	1
00339	COD, BOTTOM DEPOSITS, DRY WEIGHT MG/KG	1	0	1	0	1	1
00400	PH (STANDARD UNITS)	483	159	289	35	31	11
00403	PH, LAB, STANDARD UNITS SU	212	43	169	0	16	5
00405	CARBON DIOXIDE (MG/L AS CO2)	51	0	34	17	7	2
00409	ALKALINITY,TOTAL,LOW LEVEL GRAN ANALYSIS UEQ/L	1	1	0	0	1	1
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	645	102	514	29	29	10
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	31	0	20	11	13	6
00417	ALKALINITY,FIXED ENDPOINT TITRATION, USGS LAB MG/L	2	2	0	0	1	1
00418	ALKALINITY,CARBONATE,INCREMENTAL TIT.USGS LAB MG/L	28	28	0	0	1	1
00435	ACIDITY, TOTAL (MG/L AS CACO3)	154	6	148	0	12	2
00440	BICARBONATE ION (MG/L AS HCO3)	51	1	24	26	9	3
00445	CARBONATE ION (MG/L AS CO3)	48	0	24	24	7	2
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	5	5	0	0	1	1
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	28	28	0	0	1	1
00500	RESIDUE, TOTAL (MG/L)	11	0	0	11	11	6
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11	0	0	11	11	6
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11	0	0	11	11	6
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11	0	0	11	11	6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	461	83	367	11	19	7
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	13	0	2	11	13	7
00545	RESIDUE, SETTLEABLE (ML/L)	2	0	2	0	2	1
00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	1	0	1	0	1	0
00557	OIL & GREASE,SED,DRY WT,FREON EXTR-GRAV METH,MG/KG	2	1	1	0	1	1
00600	NITROGEN, TOTAL (MG/L AS N)	65	0	54	11	16	6
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	12	0	1	11	12	6
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	35	35	0	0	1	1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	210	123	64	23	17	9
00611	NITROGEN, AMMONIA, BOTTOM DEPOSITS (MG/KG-N)	2	1	1	0	1	1
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	35	35	0	0	1	1
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	25	12	1	12	3	1
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	17	0	0	17	2	1
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	12	0	1	11	2	0
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	1	1	0	0	1	1
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	261	122	116	23	19	8
00627	NITROGEN KJELDAHL TOTAL BOTTOM DEP DRY WT MG/KG	2	1	1	0	1	1
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	257	100	134	23	29	10
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	35	35	0	0	1	1
00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	5	3	2	0	3	1
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	56	0	52	4	8	1

Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Parameter Code	Name	Total Obs	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	1	0	0	1	1	0
00665	PHOSPHORUS, TOTAL (MG/L AS P)	229	125	81	23	24	10
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	36	36	0	0	2	2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	47	35	0	12	2	1
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	102	82	20	0	3	1
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	1	1	0	0	1	1
00691	CARBON, DISSOLVED INORGANIC (MG/L AS C)	1	1	0	0	1	1
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	14	0	14	0	7	2
00721	CYANIDE IN BOTTOM DEPOSITS (MG/KG AS CN DRY WGT)	2	1	1	0	1	1
00900	HARDNESS, TOTAL (MG/L AS CACO3)	224	88	99	37	25	9
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	62	0	38	24	10	2
00915	CALCIUM, DISSOLVED (MG/L AS CA)	116	35	63	18	11	4
00916	CALCIUM, TOTAL (MG/L AS CA)	181	84	86	11	18	7
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	116	35	63	18	11	4
00927	MAGNESIUM, TOTAL (MG/L AS MG)	131	84	36	11	14	7
00929	SODIUM, TOTAL (MG/L AS NA)	103	85	18	0	2	1
00930	SODIUM, DISSOLVED (MG/L AS NA)	95	35	42	18	10	4
00931	SODIUM ADSORPTION RATIO	34	0	18	16	8	2
00932	SODIUM, PERCENT	34	0	18	16	8	2
00933	SODIUM,PLUS POTASSIUM (MG/L)	4	0	4	0	4	2
00935	POTASSIUM, DISSOLVED (MG/L AS K)	95	35	42	18	10	4
00937	POTASSIUM, TOTAL MG/L AS K)	149	82	67	0	5	1
00940	CHLORIDE,TOTAL IN WATER MG/L	253	120	107	26	14	3
00941	CHLORIDE, DISSOLVED IN WATER MG/L	1	1	0	0	1	1
00945	SULFATE, TOTAL (MG/L AS SO4)	301	36	228	37	32	9
00946	SULFATE, DISSOLVED (MG/L AS SO4)	157	89	68	0	3	2
00950	FLUORIDE, DISSOLVED (MG/L AS F)	149	42	84	23	12	4
00955	SILICA, DISSOLVED (MG/L AS SI02)	89	35	36	18	11	4
01000	ARSENIC, DISSOLVED (UG/L AS AS)	29	19	10	0	3	2
01002	ARSENIC, TOTAL (UG/L AS AS)	168	84	84	0	9	3
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	16	1	15	0	7	4
01005	BARIUM, DISSOLVED (UG/L AS BA)	28	23	5	0	2	2
01007	BARIUM, TOTAL (UG/L AS BA)	125	84	41	0	8	3
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	19	19	0	0	1	1
01012	BERYLLIUM, TOTAL (UG/L AS BE)	28	1	27	0	1	1
01025	CADMIUM, DISSOLVED (UG/L AS CD)	73	19	54	0	3	2
01027	CADMIUM, TOTAL (UG/L AS CD)	155	85	70	0	9	3
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	16	1	15	0	7	4
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	16	1	15	0	7	4
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	38	19	19	0	3	2
01034	CHROMIUM, TOTAL (UG/L AS CR)	180	85	95	0	12	4
01035	COBALT, DISSOLVED (UG/L AS CO)	24	23	1	0	2	1
01037	COBALT, TOTAL (UG/L AS CO)	4	0	4	0	2	0
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	14	0	14	0	6	3
01040	COPPER, DISSOLVED (UG/L AS CU)	74	19	55	0	4	2
01042	COPPER, TOTAL (UG/L AS CU)	182	85	97	0	10	3
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	16	1	15	0	7	4
01044	IRON, SUSPENDED (UG/L AS FE)	119	0	119	0	9	3
01045	IRON, TOTAL (UG/L AS FE)	371	84	276	11	30	11
01046	IRON, DISSOLVED (UG/L AS FE)	263	23	223	17	14	4
01049	LEAD, DISSOLVED (UG/L AS PB)	73	19	54	0	3	2
01051	LEAD, TOTAL (UG/L AS PB)	184	86	98	0	12	4
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	16	1	15	0	7	4
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	16	1	15	0	7	4
01054	MANGANESE, SUSPENDED (UG/L AS MN)	127	0	127	0	9	3
01055	MANGANESE, TOTAL (UG/L AS MN)	310	85	213	12	25	10
01056	MANGANESE, DISSOLVED (UG/L AS MN)	241	24	197	20	15	5
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	23	23	0	0	1	1
01065	NICKEL, DISSOLVED (UG/L AS NI)	42	23	19	0	3	2
01067	NICKEL, TOTAL (UG/L AS NI)	45	2	43	0	4	2
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	2	1	1	0	1	1
01075	SILVER, DISSOLVED (UG/L AS AG)	41	23	18	0	2	2
01077	SILVER, TOTAL (UG/L AS AG)	44	2	42	0	8	3
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	23	23	0	0	1	1
01085	VANADIUM, DISSOLVED (UG/L AS V)	23	23	0	0	1	1
01090	ZINC, DISSOLVED (UG/L AS ZN)	74	19	55	0	4	2
01092	ZINC, TOTAL (UG/L AS ZN)	157	84	73	0	10	3
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	16	1	15	0	7	4
01105	ALUMINUM, TOTAL (UG/L AS AL)	121	86	20	15	18	9
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	37	23	13	1	4	2
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	2	1	1	0	1	1

Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Parameter Code	Name	Total Obs	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
01130	LITHIUM, DISSOLVED (UG/L AS LI)	23	23	0	0	1	1
01145	SELENIUM, DISSOLVED (UG/L AS SE)	25	23	2	0	3	2
01147	SELENIUM, TOTAL (UG/L AS SE)	51	1	50	0	9	3
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	14	0	14	0	6	3
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	16	1	15	0	7	4
01300	OIL-GREASE (SEVERITY)	24	24	0	0	1	1
01305	DETERGENT SUDS (SEVERITY)	24	24	0	0	1	1
01320	GARBAGE, FLOATING (SEVERITY)	23	23	0	0	1	1
01325	ALGAE, FLOATING MATS (SEVERITY)	23	23	0	0	1	1
01330	ODOR, ATMOSPHERIC (SEVERITY)	23	23	0	0	1	1
01340	FISH, DEAD (SEVERITY)	23	23	0	0	1	1
01345	DEBRIS, FLOATING (SEVERITY)	23	23	0	0	1	1
01350	TURBIDITY (SEVERITY)	24	24	0	0	1	1
01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE	26	26	0	0	1	1
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	10	10	0	0	1	1
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	146	91	55	0	3	2
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	29	29	0	0	1	1
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	29	29	0	0	1	1
31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	2	0	2	0	2	1
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	2	2	0	0	1	0
32240	TANNIN AND LIGNIN (MG/L)	1	0	1	0	1	0
34257	B-BHC-BETA DRY WGTBOTUG/KG	1	1	0	0	1	1
34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	1	1	0	0	1	1
34354	ENDOSULFAN SULFATE DRY WGTBOTUG/KG	1	1	0	0	1	1
34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	1	1	0	0	1	1
34364	ENDOSULFAN, ALPHA DRY WGTBOTUG/KG	1	1	0	0	1	1
34369	ENDRIN ALDEHYDE DRY WGTBOTUG/KG	1	1	0	0	1	1
34721	2,3,4,6-TETRACHLOROPHENOL IN BOT DEP DRYWGTMG/KG	1	1	0	0	1	1
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	2	1	1	0	1	1
39064	CHLORDANE-CIS ISOMER BOTTOM DEPOS (UG/KG DRY SOL	2	1	1	0	1	1
39067	CHLORDANE-TRANS ISOMER,BOTTOM DEPOS(UG/KG DRY SL	2	1	1	0	1	1
39073	CHLORDANE-NONACHLOR,TRANS ISO,BOTTOM DEP UG/KG	2	1	1	0	1	1
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	2	1	1	0	1	1
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	28	28	0	0	1	1
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39311	P,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39316	O,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	2	1	1	0	1	1
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	1	0	1	0	1	0
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	1	0	1	0	1	0
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	2	1	1	0	1	1
39359	DDT SUM ANALOGS IN SEDIMENT UG/KG DRY WEIGHT	2	1	1	0	1	1
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	2	1	1	0	1	1
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	2	1	1	0	1	1
39398	ETHION IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	2	1	1	0	1	1
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39481	METHOXYCHLOR IN BOTTOM DEPOSITS (UG/KG DRY SOL.)	2	1	1	0	1	1
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39519	PCBS IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39530	MALATHION IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39540	PARATHION IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39570	DIAZINON IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39701	HEXACHLOROBENZENE IN BOT DEPOS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	1	1	0	0	1	1
39783	LINDANE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	2	1	1	0	1	1
39786	TRITHION IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0
39790	METHYL TRITHION IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1	0

Parameter Period of Record Tabulation
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Parameter Code	Name	Total Obs	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
39812	CHLORDENE, GAMMA ISOMER, IN SED., WET WT. MG/KG	1	1	0	0	1	1
39813	CHLORDENE, ALPHA ISOMER, IN SED., WET WT. MG/KG	1	1	0	0	1	1
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	19	0	19	0	2	0
47501	WEATHER AT TIME OF SAMPLING	133	85	48	0	1	1
70225	CURRENT SPEED (METERS/SEC)	9	0	0	9	9	4
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	280	39	220	21	12	3
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	33	0	17	16	8	2
70302	SOLIDS, DISSOLVED-TONS PER DAY	153	0	134	19	8	2
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	154	0	135	19	9	2
70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	4	1	3	0	3	1
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	140	32	108	0	6	3
70332	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .125MM	22	0	22	0	1	0
70333	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .250MM	22	0	22	0	1	0
70334	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .500MM	19	0	19	0	1	0
70335	SUSPENDED SED SIEVE DIAMETER,% FINER THAN 1.00MM	12	0	12	0	1	0
70336	SUSPENDED SED SIEVE DIAMETER,% FINER THAN 2.00MM	6	0	6	0	1	0
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	15	13	2	0	4	1
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11	0	0	11	11	6
70943	INVERTEBRATES, BENTHIC, TOTAL (ORGANISMS/SQ M)	2	0	2	0	1	0
71825	ACIDITY, TOTAL (MG/L AS H)	10	0	10	0	4	1
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	1	0	0	1	1	0
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	26	1	0	25	7	3
71883	MANGANESE, TOTAL ELEMENTAL (UG/L AS MN)	1	0	0	1	1	1
71885	IRON (UG/L AS FE)	7	1	0	6	6	2
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	18	0	15	3	8	2
71887	NITROGEN, TOTAL, AS NO3 - MG/L	2	0	2	0	1	0
71890	MERCURY, DISSOLVED (UG/L AS HG)	58	16	42	0	3	2
71900	MERCURY, TOTAL (UG/L AS HG)	168	81	86	1	9	3
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	16	1	15	0	7	4
72000	ELEVATION OF LAND SURFACE DATUM (FT. ABOVE MSL)	1	0	1	0	1	0
72004	PUMP OR FLOW PERIOD PRIOR TO SAMPLING MINUTES	1	0	1	0	1	0
72008	DEPTH, TOTAL OF WELL (FT BELOW LAND SURFACE DATUM)	1	0	1	0	1	0
72015	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	110	53	57	0	1	1
72019	DEPTH TO WATER LEVEL (FEET BELOW LAND SURFACE)	1	0	1	0	1	0
72020	ELEVATION IN FEET ABOVE MEAN SEA LEVEL	1	1	0	0	1	1
72025	DEPTH OF POND OR RESERVOIR IN FEET	5	0	0	5	5	3
72104	SAMPLE LOCATION, DISTANCE DOWNSTREAM (FEET)	7	7	0	0	1	1
78433	HEPTACHLOR SEDWETWTMG/KG	1	1	0	0	1	1
78434	HEPTACHLOR EPOXIDE SEDWETWTMG/KG	1	1	0	0	1	1
78871	OXYCHLORDANE IN SEDIMENT DRY WEIGHT UG/KG	1	1	0	0	1	1
80153	CARBON, ORGANIC, IN SEDIMENT (% AS C)	2	1	1	0	1	1
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	405	103	302	0	9	3
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	251	0	251	0	9	3
80203	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .062MM	2	0	2	0	2	0
80204	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .125MM	2	0	2	0	2	0
80206	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .500MM	2	0	2	0	2	0
80208	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN 2.00MM	2	0	2	0	2	0
81024	DRAINAGE AREA IN SQUARE MILES (SQ. MI.)	1	1	0	0	1	1
81765	CHLORDENE IN SEDIMENTS DRY WEIGHT UG/KG	1	1	0	0	1	1
82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	4	0	4	0	4	2
82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	4	0	4	0	4	2
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	116	87	29	0	1	1
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	75	9	66	0	2	2
82398	SAMPLING METHOD (CODES)	37	29	8	0	2	1
82556	2,3,4,5-TETRACHLOROPHENOL IN BOT DEP DRYWGTMG/KG	1	1	0	0	1	1
82557	ENDRIN KEYTONE IN BOTTOM DEPOSITS SEDDRYWGTMG/KG	1	1	0	0	1	1
83509	STREAM, WIDTH METER	1	1	0	0	1	1
84000	GEOLOGIC AGE CODE (SEE USGS CATALOG)	3	0	1	2	3	0
84001	AQUIFER NAME CODE (SEE USGS CATALOG)	3	0	1	2	3	0
85803	AQUIFER NAME CODE (SEE USGS CATALOG)	1	1	0	0	1	1

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0001	No	00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	0	1	
BISO0004	No	00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	0	1	
BISO0007	No	00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	0	1	
BISO0008	No	00004	STREAM WIDTH (FEET)	11/13/74-11/13/74	0	1	
BISO0010	No	00004	STREAM WIDTH (FEET)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	0	1	
BISO0030	Yes	00004	STREAM WIDTH (FEET)	02/09/88-08/04/92	4	24	
BISO0045	Yes	00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	0	1	
BISO0001	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	0	1	
BISO0002	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-05/18/65	0	1	
BISO0003	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-08/19/81	2	6	
BISO0004	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	0	1	
BISO0006	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/22/79-11/19/81	2	26	
BISO0007	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	0	1	
BISO0008	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/13/74-11/13/74	0	1	
BISO0009	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	26	114	
BISO0010	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	26	76	
BISO0013	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/86-04/30/86	0	1	
BISO0014	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/30/82-09/30/82	0	1	
BISO0015	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/30/82-09/30/82	0	1	
BISO0016	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/08/75-05/08/75	0	1	
BISO0018	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	0	1	
BISO0020	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/08/75-05/08/75	0	1	
BISO0021	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-07/22/86	7	90	
BISO0022	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	0	1	
BISO0023	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/25/77-05/25/77	0	1	
BISO0024	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/19/91-09/04/91	0	3	
BISO0026	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/77-07/18/79	2	17	
BISO0030	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/04/60-08/04/92	32	107	
BISO0034	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/21/54-07/21/54	0	1	
BISO0036	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/14/79-03/31/81	1	7	
BISO0037	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	13	155	
BISO0040	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/21/65-05/21/65	0	1	
BISO0041	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/12/79-06/16/81	2	8	
BISO0045	Yes	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	0	1	
BISO0047	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/14/79-06/10/81	1	6	
BISO0048	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/07/83-07/07/83	0	3	
BISO0049	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/20/54-07/20/54	0	1	
BISO0028	No	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/27/82	3	70	
BISO0032	No	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/27/82	3	71	
BISO0033	No	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/27/82	3	68	
BISO0035	No	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/09/82	3	68	
BISO0030	Yes	00055	VELOCITY, STREAM FT/SEC	02/09/88-08/04/92	4	23	
BISO0023	No	00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	05/25/77-05/25/77	0	1	
BISO0048	No	00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	05/07/83-07/07/83	0	3	
BISO0002	No	00060	FLOW, STREAM, MEAN DAILY CFS	05/18/65-05/18/65	0	1	
BISO0009	No	00060	FLOW, STREAM, MEAN DAILY CFS	05/27/64-06/22/67	3	17	
BISO0012	Yes	00060	FLOW, STREAM, MEAN DAILY CFS	05/27/64-05/18/65	0	2	
BISO0030	Yes	00060	FLOW, STREAM, MEAN DAILY CFS	05/04/60-08/31/71	11	4	
BISO0037	Yes	00060	FLOW, STREAM, MEAN DAILY CFS	08/18/81-09/13/83	2	13	
BISO0040	No	00060	FLOW, STREAM, MEAN DAILY CFS	05/21/65-05/21/65	0	1	
BISO0003	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-08/19/81	2	6	
BISO0006	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	05/22/79-11/19/81	2	26	
BISO0009	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	16	180	
BISO0012	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	16	75	
BISO0014	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/30/82-09/30/82	0	1	
BISO0015	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/30/82-09/30/82	0	1	
BISO0021	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-09/04/86	7	92	
BISO0026	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/24/78-05/17/78	0	5	
BISO0030	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/02/70-08/04/92	21	106	
BISO0036	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/14/79-03/31/81	1	7	
BISO0037	Yes	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	7	77	
BISO0041	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/12/79-06/16/81	2	8	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0047	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/14/79-06/10/81	1	8	
BISO0048	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	05/07/83-10/11/83	0	6	
BISO0013	Yes	00064	DEPTH OF STREAM, MEAN (FT)	04/30/86-04/30/86	0	1	
BISO0030	Yes	00064	DEPTH OF STREAM, MEAN (FT)	02/09/88-08/04/92	4	24	
BISO0009	No	00065	STAGE, STREAM (FEET)	09/13/85-09/13/85	0	1	
BISO0012	Yes	00065	STAGE, STREAM (FEET)	09/13/85-09/13/85	0	1	
BISO0030	Yes	00065	STAGE, STREAM (FEET)	09/13/85-08/04/92	6	28	
BISO0032	No	00065	STAGE, STREAM (FEET)	04/05/79-09/27/82	3	69	
BISO0024	No	00068	DEPTH, MAXIMUM, OF SAMPLE (FEET)	06/19/91-09/04/91	0	3	
BISO0009	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/13/75-04/05/77	1	18	
BISO0012	Yes	00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/30/76-04/06/77	1	7	
BISO0018	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	08/03/79-08/03/79	0	1	
BISO0023	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/25/77-05/25/77	0	1	
BISO0001	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	0	1	
BISO0004	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	0	1	
BISO0007	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	0	1	
BISO0008	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/13/74-11/13/74	0	1	
BISO0010	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	0	1	
BISO0028	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/27/82	3	69	
BISO0030	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	10/30/86-06/02/92	5	34	
BISO0032	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/27/82	3	71	
BISO0033	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/27/82	3	68	
BISO0035	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/09/82	3	68	
BISO0045	Yes	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	0	1	
BISO0024	No	00077	TRANSPARENCY, SECCHI DISC (INCHES)	06/19/91-09/04/91	0	3	
BISO0037	Yes	00077	TRANSPARENCY, SECCHI DISC (INCHES)	03/21/79-03/21/79	0	1	
BISO0002	No	00080	COLOR (PLATINUM-COBALT UNITS)	05/18/65-05/18/65	0	1	
BISO0009	No	00080	COLOR (PLATINUM-COBALT UNITS)	05/27/64-06/22/67	3	15	
BISO0012	Yes	00080	COLOR (PLATINUM-COBALT UNITS)	05/27/64-05/18/65	0	2	
BISO0013	Yes	00080	COLOR (PLATINUM-COBALT UNITS)	04/30/86-04/30/86	0	1	
BISO0023	No	00080	COLOR (PLATINUM-COBALT UNITS)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00080	COLOR (PLATINUM-COBALT UNITS)	05/04/60-05/04/60	0	1	
BISO0040	No	00080	COLOR (PLATINUM-COBALT UNITS)	05/21/65-05/21/65	0	1	
BISO0001	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	0	1	
BISO0004	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	0	1	
BISO0007	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	0	1	
BISO0008	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/13/74-11/13/74	0	1	
BISO0010	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	0	1	
BISO0024	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/19/91-09/04/91	0	3	
BISO0037	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	13	155	T,A
BISO0045	Yes	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	0	1	
BISO0002	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/18/65-05/18/65	0	1	
BISO0003	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-08/19/81	2	6	
BISO0006	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/22/79-11/19/81	2	26	
BISO0009	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	27	108	T,A,S
BISO0012	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	27	73	T,S
BISO0013	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/30/86-04/30/86	0	1	
BISO0014	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/30/82-09/30/82	0	1	
BISO0015	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/30/82-09/30/82	0	1	
BISO0018	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/30/79-09/11/79	0	3	
BISO0021	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-07/22/86	7	86	
BISO0023	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/25/77-05/25/77	0	1	
BISO0028	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-09/27/82	3	13	
BISO0030	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/04/60-08/04/92	32	105	T,S
BISO0032	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-09/27/82	3	14	
BISO0033	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-09/27/82	3	12	
BISO0034	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/21/54-07/21/54	0	1	
BISO0035	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-06/15/82	2	12	
BISO0036	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/14/79-03/31/81	1	7	
BISO0037	Yes	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	6	72	A
BISO0040	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/21/65-05/21/65	0	1	
BISO0041	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM 25C)	06/12/79-06/16/81	2	8	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0047	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/14/79-06/10/81	1	6	
BISO0048	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/07/83-07/07/83	0	3	
BISO0049	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/20/54-07/20/54	0	1	
BISO0001	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	0	1	
BISO0004	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	0	1	
BISO0005	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	0	1	
BISO0007	No	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	0	1	
BISO0013	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	04/30/86-04/30/86	0	1	
BISO0037	Yes	00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	10/21/91-09/17/92	0	12	
BISO0003	No	00300	OXYGEN, DISSOLVED MG/L	06/06/81-08/19/81	0	2	
BISO0006	No	00300	OXYGEN, DISSOLVED MG/L	01/22/81-10/01/81	0	9	
BISO0009	No	00300	OXYGEN, DISSOLVED MG/L	05/13/75-09/17/81	6	24	
BISO0012	Yes	00300	OXYGEN, DISSOLVED MG/L	05/15/76-09/21/81	5	14	
BISO0017	Yes	00300	OXYGEN, DISSOLVED MG/L	05/08/75-05/08/75	0	1	
BISO0018	No	00300	OXYGEN, DISSOLVED MG/L	09/11/79-09/11/79	0	1	
BISO0020	No	00300	OXYGEN, DISSOLVED MG/L	05/08/75-05/08/75	0	1	
BISO0021	Yes	00300	OXYGEN, DISSOLVED MG/L	02/16/84-09/17/85	1	72	
BISO0024	No	00300	OXYGEN, DISSOLVED MG/L	06/19/91-09/04/91	0	3	
BISO0026	No	00300	OXYGEN, DISSOLVED MG/L	05/18/77-07/18/79	2	15	
BISO0030	Yes	00300	OXYGEN, DISSOLVED MG/L	01/28/81-08/04/92	11	43	
BISO0037	Yes	00300	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	12	143	T,A
BISO0040	No	00300	OXYGEN, DISSOLVED MG/L	05/21/65-05/21/65	0	1	
BISO0001	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	0	1	
BISO0004	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	0	1	
BISO0005	Yes	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	0	1	
BISO0007	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	0	1	
BISO0040	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/21/65-05/21/65	0	1	
BISO0017	Yes	00310	BOD, 5 DAY, 20 DEG C MG/L	05/08/75-05/08/75	0	1	
BISO0020	No	00310	BOD, 5 DAY, 20 DEG C MG/L	05/08/75-05/08/75	0	1	
BISO0037	Yes	00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	12	84	T
BISO0037	Yes	00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	6	72	
BISO0037	Yes	00339	COD, BOTTOM DEPOSITS, DRY WEIGHT MG/KG	12/02/83-12/02/83	0	1	
BISO0001	No	00400	PH (STANDARD UNITS)	11/11/74-11/11/74	0	1	
BISO0002	No	00400	PH (STANDARD UNITS)	05/18/65-05/18/65	0	1	
BISO0003	No	00400	PH (STANDARD UNITS)	05/23/79-08/19/81	2	6	
BISO0004	No	00400	PH (STANDARD UNITS)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00400	PH (STANDARD UNITS)	11/11/74-11/11/74	0	1	
BISO0006	No	00400	PH (STANDARD UNITS)	05/22/79-10/01/81	2	24	
BISO0007	No	00400	PH (STANDARD UNITS)	11/11/74-11/11/74	0	1	
BISO0008	No	00400	PH (STANDARD UNITS)	11/13/74-11/13/74	0	1	
BISO0009	No	00400	PH (STANDARD UNITS)	05/27/64-09/17/81	17	59	T,S
BISO0010	No	00400	PH (STANDARD UNITS)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00400	PH (STANDARD UNITS)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00400	PH (STANDARD UNITS)	05/27/64-09/21/81	17	33	S
BISO0015	No	00400	PH (STANDARD UNITS)	09/30/82-09/30/82	0	1	
BISO0016	Yes	00400	PH (STANDARD UNITS)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00400	PH (STANDARD UNITS)	05/08/75-05/08/75	0	1	
BISO0018	No	00400	PH (STANDARD UNITS)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00400	PH (STANDARD UNITS)	11/12/74-11/12/74	0	1	
BISO0020	No	00400	PH (STANDARD UNITS)	05/08/75-05/08/75	0	1	
BISO0021	Yes	00400	PH (STANDARD UNITS)	05/23/79-09/06/85	6	75	
BISO0022	Yes	00400	PH (STANDARD UNITS)	11/12/74-11/12/74	0	1	
BISO0023	No	00400	PH (STANDARD UNITS)	05/25/77-05/25/77	0	1	
BISO0024	No	00400	PH (STANDARD UNITS)	06/19/91-09/04/91	0	3	
BISO0026	No	00400	PH (STANDARD UNITS)	05/18/77-07/18/79	2	16	
BISO0030	Yes	00400	PH (STANDARD UNITS)	05/04/60-08/04/92	32	70	T,S
BISO0036	No	00400	PH (STANDARD UNITS)	06/14/79-03/31/81	1	7	
BISO0037	Yes	00400	PH (STANDARD UNITS)	03/21/79-09/17/92	13	152	T,A
BISO0040	No	00400	PH (STANDARD UNITS)	05/21/65-05/21/65	0	1	
BISO0041	No	00400	PH (STANDARD UNITS)	06/12/79-06/16/81	2	8	
BISO0045	Yes	00400	PH (STANDARD UNITS)	11/12/74-11/12/74	0	1	
BISO0047	No	00400	PH (STANDARD UNITS)	06/14/79-06/10/81	1	6	
BISO0048	No	00400	PH (STANDARD UNITS)	05/07/83-07/07/83	0	3	
BISO0003	No	00403	PH, LAB, STANDARD UNITS SU	06/06/81-08/19/81	0	2	
BISO0006	No	00403	PH, LAB, STANDARD UNITS SU	10/21/80-10/01/81	0	12	
BISO0009	No	00403	PH, LAB, STANDARD UNITS SU	12/03/80-09/17/81	0	10	
BISO0012	Yes	00403	PH, LAB, STANDARD UNITS SU	10/21/80-09/21/81	0	10	
BISO0013	Yes	00403	PH, LAB, STANDARD UNITS SU	04/30/86-04/30/86	0	1	
BISO0017	Yes	00403	PH, LAB, STANDARD UNITS SU	05/08/75-05/08/75	0	1	
BISO0020	No	00403	PH, LAB, STANDARD UNITS SU	05/08/75-05/08/75	0	1	
BISO0028	No	00403	PH, LAB, STANDARD UNITS SU	07/18/79-09/27/82	3	14	
BISO0030	Yes	00403	PH, LAB, STANDARD UNITS SU	12/04/80-06/02/92	11	44	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0032	No	00403	PH, LAB, STANDARD UNITS SU	07/18/79-09/27/82	3	15	
BISO0033	No	00403	PH, LAB, STANDARD UNITS SU	07/18/79-09/27/82	3	13	
BISO0035	No	00403	PH, LAB, STANDARD UNITS SU	07/18/79-06/15/82	2	13	
BISO0036	No	00403	PH, LAB, STANDARD UNITS SU	03/31/81-03/31/81	0	1	
BISO0037	Yes	00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	6	72	
BISO0041	No	00403	PH, LAB, STANDARD UNITS SU	03/30/81-06/16/81	0	2	
BISO0047	No	00403	PH, LAB, STANDARD UNITS SU	06/10/81-06/10/81	0	1	
BISO0006	No	00405	CARBON DIOXIDE (MG/L AS CO2)	09/04/79-09/04/79	0	1	
BISO0009	No	00405	CARBON DIOXIDE (MG/L AS CO2)	05/27/64-09/06/79	15	35	S
BISO0012	Yes	00405	CARBON DIOXIDE (MG/L AS CO2)	08/25/76-09/06/79	3	7	
BISO0023	No	00405	CARBON DIOXIDE (MG/L AS CO2)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00405	CARBON DIOXIDE (MG/L AS CO2)	09/19/72-09/04/79	6	3	
BISO0036	No	00405	CARBON DIOXIDE (MG/L AS CO2)	08/23/79-05/13/80	0	3	
BISO0041	No	00405	CARBON DIOXIDE (MG/L AS CO2)	08/23/79-08/23/79	0	1	
BISO0013	Yes	00409	ALKALINITY,TOTAL,LOW LEVEL GRAN ANALYSIS UEQ/L	04/30/86-04/30/86	0	1	
BISO0001	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0003	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/23/79-08/19/81	2	6	
BISO0004	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0006	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/22/79-10/01/81	2	24	
BISO0007	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0008	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	0	1	
BISO0009	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/27/64-09/17/81	17	55	S
BISO0010	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/25/76-09/21/81	5	30	
BISO0016	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0018	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0021	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/23/79-07/16/80	1	4	
BISO0022	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0023	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/25/77-05/25/77	0	1	
BISO0026	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/18/77-07/18/79	2	16	
BISO0028	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/27/82	3	69	
BISO0030	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/04/60-02/22/89	28	46	S
BISO0032	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/27/82	3	71	
BISO0033	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/27/82	3	68	
BISO0035	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/09/82	3	68	
BISO0036	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/14/79-09/11/80	1	6	
BISO0037	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	13	154	T,A
BISO0041	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/12/79-09/11/80	1	5	
BISO0045	Yes	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0047	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/14/79-05/14/80	0	4	
BISO0048	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/07/83-07/07/83	0	3	
BISO0001	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	0	1	
BISO0004	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	0	1	
BISO0007	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	0	1	
BISO0008	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/13/74-11/13/74	0	1	
BISO0010	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	0	1	
BISO0018	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	0	1	
BISO0026	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/18/77-07/18/79	2	16	
BISO0045	Yes	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	0	1	
BISO0030	Yes	00417	ALKALINITY,FIXED ENDPOINT TITRATION, USGS LAB MG/L	12/10/86-02/04/87	0	2	
BISO0030	Yes	00418	ALKALINITY,CARBONATE,INCREMENTAL TIT.USGS LAB MG/L	10/14/87-08/04/92	4	28	
BISO0018	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/30/79-09/11/79	0	4	
BISO0021	Yes	00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/23/79-05/23/79	0	1	
BISO0026	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/18/77-07/18/79	2	15	
BISO0028	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-09/27/82	3	13	
BISO0032	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-09/27/82	3	14	
BISO0033	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-09/27/82	3	12	
BISO0035	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-06/15/82	2	12	
BISO0036	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/31/81-03/31/81	0	1	
BISO0037	Yes	00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	6	71	
BISO0041	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	06/12/79-06/16/81	2	6	
BISO0047	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/30/81-06/10/81	0	2	
BISO0048	No	00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/07/83-07/07/83	0	3	
BISO0002	No	00440	BICARBONATE ION (MG/L AS HCO3)	05/18/65-05/18/65	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0009	No	00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/05/77	12	33	
BISO0012	Yes	00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/06/77	12	8	
BISO0013	Yes	00440	BICARBONATE ION (MG/L AS HCO3)	04/30/86-04/30/86	0	1	
BISO0023	No	00440	BICARBONATE ION (MG/L AS HCO3)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00440	BICARBONATE ION (MG/L AS HCO3)	05/04/60-09/19/72	12	4	
BISO0034	No	00440	BICARBONATE ION (MG/L AS HCO3)	07/21/54-07/21/54	0	1	
BISO0040	No	00440	BICARBONATE ION (MG/L AS HCO3)	05/21/65-05/21/65	0	1	
BISO0049	No	00440	BICARBONATE ION (MG/L AS HCO3)	07/20/54-07/20/54	0	1	
BISO0002	No	00445	CARBONATE ION (MG/L AS CO3)	05/18/65-05/18/65	0	1	
BISO0009	No	00445	CARBONATE ION (MG/L AS CO3)	05/18/65-04/05/77	11	32	
BISO0012	Yes	00445	CARBONATE ION (MG/L AS CO3)	05/27/64-04/06/77	12	8	
BISO0023	No	00445	CARBONATE ION (MG/L AS CO3)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00445	CARBONATE ION (MG/L AS CO3)	05/04/60-09/19/72	12	4	
BISO0034	No	00445	CARBONATE ION (MG/L AS CO3)	07/21/54-07/21/54	0	1	
BISO0049	No	00445	CARBONATE ION (MG/L AS CO3)	07/20/54-07/20/54	0	1	
BISO0030	Yes	00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	10/14/87-06/08/88	0	5	
BISO0030	Yes	00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	10/14/87-08/04/92	4	28	
BISO0001	No	00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	0	1	
BISO0004	No	00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	0	1	
BISO0007	No	00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	0	1	
BISO0008	No	00500	RESIDUE, TOTAL (MG/L)	11/13/74-11/13/74	0	1	
BISO0010	No	00500	RESIDUE, TOTAL (MG/L)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	0	1	
BISO0045	Yes	00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	0	1	
BISO0001	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	0	1	
BISO0004	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	0	1	
BISO0007	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	0	1	
BISO0008	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/13/74-11/13/74	0	1	
BISO0010	No	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	0	1	
BISO0045	Yes	00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	0	1	
BISO0001	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	0	1	
BISO0004	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	0	1	
BISO0005	Yes	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	0	1	
BISO0007	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	0	1	
BISO0008	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/13/74-11/13/74	0	1	
BISO0010	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/13/74-11/13/74	0	1	
BISO0011	Yes	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	0	1	
BISO0016	Yes	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	0	1	
BISO0019	Yes	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	0	1	
BISO0022	Yes	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	0	1	
BISO0045	Yes	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	0	1	
BISO0001	No	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0004	No	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0007	No	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0008	No	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/13/74-11/13/74	0	1	
BISO0010	No	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0045	Yes	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0001	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0004	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0007	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0008	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/13/74-11/13/74	0	1	
BISO0010	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0018	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0026	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/18/77-07/18/79	2	17	
BISO0028	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/27/82	3	70	
BISO0032	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/27/82	3	71	
BISO0033	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/27/82	3	69	
BISO0035	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/09/82	3	67	
BISO0037	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	13	149	T,A
BISO0045	Yes	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0048	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/07/83-07/07/83	0	3	
BISO0001	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0004	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0007	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	0	1	
BISO0008	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/13/74-11/13/74	0	1	
BISO0010	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/08/75-05/08/75	0	1	
BISO0019	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0020	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/08/75-05/08/75	0	1	
BISO0022	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0045	Yes	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00545	RESIDUE, SETTLEABLE (ML/L)	05/08/75-05/08/75	0	1	
BISO0020	No	00545	RESIDUE, SETTLEABLE (ML/L)	05/08/75-05/08/75	0	1	
BISO0018	No	00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	08/03/79-08/03/79	0	1	
BISO0037	Yes	00557	OIL & GREASE,SED,DRY WT,FREON EXTR-GRAV METH,MG/KG	12/02/83-10/24/90	6	2	
BISO0001	No	00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0004	No	00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0007	No	00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0008	No	00600	NITROGEN, TOTAL (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0009	No	00600	NITROGEN, TOTAL (MG/L AS N)	05/13/75-10/29/75	0	2	
BISO0010	No	00600	NITROGEN, TOTAL (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0028	No	00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-09/27/82	3	14	
BISO0032	No	00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-09/27/82	3	14	
BISO0033	No	00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-09/27/82	3	12	
BISO0035	No	00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-06/15/82	2	12	
BISO0045	Yes	00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0001	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0004	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0007	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0008	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0010	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0018	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	08/03/79-08/03/79	0	1	
BISO0019	Yes	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0045	Yes	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0030	Yes	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	10/30/86-08/04/92	5	35	
BISO0001	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0004	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0007	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0008	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0010	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/08/75-05/08/75	0	1	
BISO0019	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0020	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/08/75-05/08/75	0	1	
BISO0022	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0024	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/04/91-09/04/91	0	2	
BISO0030	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/30/86-08/04/92	5	35	
BISO0037	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	13	148	T,A
BISO0045	Yes	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0046	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/01/73-03/16/74	0	12	
BISO0037	Yes	00611	NITROGEN, AMMONIA, BOTTOM DEPOSITS (MG/KG-N)	12/02/83-10/24/90	6	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0030	Yes	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	10/30/86-08/04/92	5	35	
BISO0023	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/10/90-08/04/92	1	12	
BISO0046	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/01/73-03/16/74	0	12	
BISO0009	No	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	05/27/64-06/22/67	3	16	
BISO0030	Yes	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	09/19/72-09/19/72	0	1	
BISO0023	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/25/77-05/25/77	0	1	
BISO0046	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/01/73-03/16/74	0	11	
BISO0030	Yes	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/06/91-08/06/91	0	1	
BISO0001	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0004	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0007	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0008	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0009	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/13/75-10/29/75	0	2	
BISO0010	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0028	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-09/27/82	3	14	
BISO0030	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/30/86-08/04/92	5	35	
BISO0032	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-09/27/82	3	14	
BISO0033	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-09/27/82	3	12	
BISO0035	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-06/15/82	2	12	
BISO0037	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	13	149	T,A
BISO0045	Yes	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0046	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/01/73-03/16/74	0	12	
BISO0037	Yes	00627	NITROGEN KJELDAHL TOTAL BOTTOM DEP DRY WT MG/KG	12/02/83-10/24/90	6	2	
BISO0001	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0003	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/19/81-08/19/81	0	1	
BISO0004	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0006	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/04/79-07/15/80	0	2	
BISO0007	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	0	1	
BISO0008	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0009	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/13/75-08/17/81	6	5	
BISO0010	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/06/79-08/18/81	1	3	
BISO0016	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/08/75-05/08/75	0	1	
BISO0018	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/03/79-08/03/79	0	1	
BISO0019	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0020	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/08/75-05/08/75	0	1	
BISO0022	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0023	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/25/77-05/25/77	0	1	
BISO0024	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/19/91-09/04/91	0	3	
BISO0028	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-09/27/82	3	14	
BISO0030	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/04/79-08/04/92	12	15	
BISO0032	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-09/27/82	3	14	
BISO0033	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-09/27/82	3	12	
BISO0035	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-06/15/82	2	12	
BISO0036	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	13	147	T,A
BISO0041	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/23/80-07/23/80	0	1	
BISO0045	Yes	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	0	1	
BISO0046	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/01/73-03/16/74	0	12	
BISO0030	Yes	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	10/30/86-08/04/92	5	35	
BISO0017	Yes	00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	05/08/75-05/08/75	0	1	
BISO0020	No	00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	05/08/75-05/08/75	0	1	
BISO0024	No	00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	06/19/91-09/04/91	0	3	
BISO0002	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/18/65-05/18/65	0	1	
BISO0009	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	09/29/65-09/29/65	0	1	
BISO0012	Yes	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/18/65-05/18/65	0	1	
BISO0028	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-09/27/82	3	14	
BISO0032	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-09/27/82	3	14	
BISO0033	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-09/27/82	3	12	
BISO0035	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-06/15/82	2	12	
BISO0040	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/21/65-05/21/65	0	1	
BISO0009	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	05/18/65-05/18/65	0	1	
BISO0001	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0003	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/19/81-08/19/81	0	1	
BISO0004	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	0	1	
BISO0006	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/04/79-07/15/80	0	2	
BISO0007	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	0	1	
BISO0008	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/13/74-11/13/74	0	1	
BISO0009	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/13/75-08/17/81	6	5	
BISO0010	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/06/79-08/18/81	1	3	
BISO0016	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	0	1	
BISO0017	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/08/75-05/08/75	0	1	
BISO0019	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	0	1	
BISO0020	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/08/75-05/08/75	0	1	
BISO0022	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	0	1	
BISO0023	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/25/77-05/25/77	0	1	
BISO0024	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/19/91-09/04/91	0	3	
BISO0030	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/72-08/04/92	19	39	S
BISO0036	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	13	149	T,A
BISO0041	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/23/80-07/23/80	0	1	
BISO0045	Yes	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	0	1	
BISO0046	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/01/73-03/16/74	0	11	
BISO0013	Yes	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/30/86-04/30/86	0	1	
BISO0030	Yes	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10/30/86-08/04/92	5	35	
BISO0030	Yes	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	10/30/86-08/04/92	5	35	
BISO0046	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/01/73-03/16/74	0	12	
BISO0009	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/13/75-10/29/75	0	2	
BISO0023	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/25/77-05/25/77	0	1	
BISO0037	Yes	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	9	99	A
BISO0013	Yes	00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	04/30/86-04/30/86	0	1	
BISO0013	Yes	00691	CARBON, DISSOLVED INORGANIC (MG/L AS C)	04/30/86-04/30/86	0	1	
BISO0003	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	08/19/81-08/19/81	0	1	
BISO0006	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/04/79-07/15/80	0	2	
BISO0009	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/06/79-08/17/81	1	3	
BISO0012	Yes	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/06/79-08/18/81	1	3	
BISO0030	Yes	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/04/79-08/17/81	1	3	
BISO0036	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	07/23/80-07/23/80	0	1	
BISO0041	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	07/23/80-07/23/80	0	1	
BISO0037	Yes	00721	CYANIDE IN BOTTOM DEPOSITS (MG/KG AS CN DRY WGT)	12/02/83-10/24/90	6	2	
BISO0001	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0002	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/18/65-05/18/65	0	1	
BISO0003	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/19/81-08/19/81	0	1	
BISO0004	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0006	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/04/79-07/15/80	0	2	
BISO0007	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0008	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	0	1	
BISO0009	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/17/81	17	36	S
BISO0010	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/18/81	17	11	
BISO0016	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0019	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0023	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/25/77-05/25/77	0	1	
BISO0026	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/18/79-07/18/79	0	1	
BISO0030	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/04/60-08/17/81	21	7	
BISO0034	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/21/54-07/21/54	0	1	
BISO0036	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	12	148	T,A
BISO0040	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/21/65-05/21/65	0	1	
BISO0041	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/23/80-07/23/80	0	1	
BISO0045	Yes	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0049	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/20/54-07/20/54	0	1	
BISO0002	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/18/65-05/18/65	0	1	
BISO0003	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	08/19/81-08/19/81	0	1	
BISO0006	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	09/04/79-07/15/80	0	2	
BISO0009	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/17/81	17	36	S
BISO0012	Yes	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/18/81	17	11	
BISO0023	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/04/60-08/17/81	21	7	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0036	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	07/23/80-07/23/80	0	1	
BISO0040	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/21/65-05/21/65	0	1	
BISO0041	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	07/23/80-07/23/80	0	1	
BISO0003	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	08/19/81-08/19/81	0	1	
BISO0006	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	09/04/79-07/15/80	0	2	
BISO0009	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/17/81	17	35	S
BISO0012	Yes	00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/18/81	17	11	
BISO0013	Yes	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/30/86-04/30/86	0	1	
BISO0018	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	08/03/79-08/03/79	0	1	
BISO0023	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/04/60-06/02/92	32	38	S
BISO0036	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/17/79-07/10/84	4	24	
BISO0041	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/23/80-07/23/80	0	1	
BISO0001	No	00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	0	1	
BISO0004	No	00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	0	1	
BISO0007	No	00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	0	1	
BISO0008	No	00916	CALCIUM, TOTAL (MG/L AS CA)	11/13/74-11/13/74	0	1	
BISO0010	No	00916	CALCIUM, TOTAL (MG/L AS CA)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	0	1	
BISO0018	No	00916	CALCIUM, TOTAL (MG/L AS CA)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	0	1	
BISO0026	No	00916	CALCIUM, TOTAL (MG/L AS CA)	05/18/77-10/31/78	1	15	
BISO0028	No	00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-09/27/82	3	13	
BISO0032	No	00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-09/27/82	3	14	
BISO0033	No	00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-09/27/82	3	12	
BISO0035	No	00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-06/15/82	2	12	
BISO0037	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	9	100	A
BISO0045	Yes	00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	0	1	
BISO0003	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	08/19/81-08/19/81	0	1	
BISO0006	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	09/04/79-07/15/80	0	2	
BISO0009	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/17/81	17	35	S
BISO0012	Yes	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/18/81	17	11	
BISO0013	Yes	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/30/86-04/30/86	0	1	
BISO0018	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	08/03/79-08/03/79	0	1	
BISO0023	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/04/60-06/02/92	32	38	S
BISO0036	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/17/79-07/10/84	4	24	
BISO0041	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/23/80-07/23/80	0	1	
BISO0001	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	0	1	
BISO0004	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	0	1	
BISO0007	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	0	1	
BISO0008	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/13/74-11/13/74	0	1	
BISO0010	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	0	1	
BISO0016	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	0	1	
BISO0018	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	0	1	
BISO0022	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	0	1	
BISO0026	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	05/18/77-10/31/78	1	15	
BISO0037	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	9	101	A
BISO0045	Yes	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	0	1	
BISO0018	No	00929	SODIUM, TOTAL (MG/L AS NA)	08/03/79-08/03/79	0	1	
BISO0037	Yes	00929	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	9	102	A
BISO0003	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	08/19/81-08/19/81	0	1	
BISO0006	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	09/04/79-07/15/80	0	2	
BISO0009	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	05/27/64-08/17/81	17	21	
BISO0012	Yes	00930	SODIUM, DISSOLVED (MG/L AS NA)	05/27/64-08/18/81	17	5	
BISO0013	Yes	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/30/86-04/30/86	0	1	
BISO0023	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00930	SODIUM, DISSOLVED (MG/L AS NA)	05/04/60-06/02/92	32	38	S
BISO0036	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00930	SODIUM, DISSOLVED (MG/L AS NA)	10/17/79-07/10/84	4	24	
BISO0041	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	07/23/80-07/23/80	0	1	
BISO0003	No	00931	SODIUM ADSORPTION RATIO	08/19/81-08/19/81	0	1	
BISO0006	No	00931	SODIUM ADSORPTION RATIO	09/04/79-07/15/80	0	2	
BISO0009	No	00931	SODIUM ADSORPTION RATIO	05/27/64-08/17/81	17	21	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0012	Yes	00931	SODIUM ADSORPTION RATIO	09/06/79-08/18/81	1	3	
BISO0023	No	00931	SODIUM ADSORPTION RATIO	05/25/77-05/25/77	0	1	
BISO0030	Yes	00931	SODIUM ADSORPTION RATIO	05/04/60-08/17/81	21	4	
BISO0036	No	00931	SODIUM ADSORPTION RATIO	07/23/80-07/23/80	0	1	
BISO0041	No	00931	SODIUM ADSORPTION RATIO	07/23/80-07/23/80	0	1	
BISO0003	No	00932	SODIUM, PERCENT	08/19/81-08/19/81	0	1	
BISO0006	No	00932	SODIUM, PERCENT	09/04/79-07/15/80	0	2	
BISO0009	No	00932	SODIUM, PERCENT	05/27/64-08/17/81	17	21	
BISO0012	Yes	00932	SODIUM, PERCENT	09/06/79-08/18/81	1	3	
BISO0023	No	00932	SODIUM, PERCENT	05/25/77-05/25/77	0	1	
BISO0030	Yes	00932	SODIUM, PERCENT	05/04/60-08/17/81	21	4	
BISO0036	No	00932	SODIUM, PERCENT	07/23/80-07/23/80	0	1	
BISO0041	No	00932	SODIUM, PERCENT	07/23/80-07/23/80	0	1	
BISO0006	No	00933	SODIUM,PLUS POTASSIUM (MG/L)	09/04/79-09/04/79	0	1	
BISO0009	No	00933	SODIUM,PLUS POTASSIUM (MG/L)	09/06/79-09/06/79	0	1	
BISO0012	Yes	00933	SODIUM,PLUS POTASSIUM (MG/L)	09/06/79-09/06/79	0	1	
BISO0030	Yes	00933	SODIUM,PLUS POTASSIUM (MG/L)	09/04/79-09/04/79	0	1	
BISO0003	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	08/19/81-08/19/81	0	1	
BISO0006	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	09/04/79-07/15/80	0	2	
BISO0009	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/27/64-08/17/81	17	21	
BISO0012	Yes	00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/27/64-08/18/81	17	5	
BISO0013	Yes	00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/30/86-04/30/86	0	1	
BISO0023	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/04/60-06/02/92	32	38	S
BISO0036	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/17/79-07/10/84	4	24	
BISO0041	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	07/23/80-07/23/80	0	1	
BISO0028	No	00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-09/27/82	3	13	
BISO0032	No	00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-09/27/82	3	14	
BISO0033	No	00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-09/27/82	3	12	
BISO0035	No	00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-06/15/82	2	12	
BISO0037	Yes	00937	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	9	98	A
BISO0002	No	00940	CHLORIDE,TOTAL IN WATER MG/L	05/18/65-05/18/65	0	1	
BISO0003	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/19/81-08/19/81	0	1	
BISO0006	No	00940	CHLORIDE,TOTAL IN WATER MG/L	09/04/79-07/15/80	0	2	
BISO0009	No	00940	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/17/81	17	37	S
BISO0012	Yes	00940	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/18/81	17	12	
BISO0018	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/03/79-08/03/79	0	1	
BISO0023	No	00940	CHLORIDE,TOTAL IN WATER MG/L	05/25/77-05/25/77	0	1	
BISO0030	Yes	00940	CHLORIDE,TOTAL IN WATER MG/L	05/04/60-06/02/92	32	41	S
BISO0034	No	00940	CHLORIDE,TOTAL IN WATER MG/L	07/21/54-07/21/54	0	1	
BISO0036	No	00940	CHLORIDE,TOTAL IN WATER MG/L	07/23/80-07/23/80	0	1	
BISO0037	Yes	00940	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	13	152	T,A
BISO0040	No	00940	CHLORIDE,TOTAL IN WATER MG/L	05/21/65-05/21/65	0	1	
BISO0041	No	00940	CHLORIDE,TOTAL IN WATER MG/L	07/23/80-07/23/80	0	1	
BISO0049	No	00940	CHLORIDE,TOTAL IN WATER MG/L	07/20/54-07/20/54	0	1	
BISO0013	Yes	00941	CHLORIDE, DISSOLVED IN WATER MG/L	04/30/86-04/30/86	0	1	
BISO0001	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	0	1	
BISO0002	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/18/65-05/18/65	0	1	
BISO0003	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/23/79-08/19/81	2	6	
BISO0004	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	0	1	
BISO0005	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	0	1	
BISO0006	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/22/79-10/01/81	2	24	
BISO0007	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	0	1	
BISO0008	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/13/74-11/13/74	0	1	
BISO0009	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/17/81	17	56	T,S
BISO0010	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/13/74-11/13/74	0	1	
BISO0011	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	0	1	
BISO0012	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/21/81	17	33	S
BISO0016	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	0	1	
BISO0018	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/30/79-09/11/79	0	4	
BISO0019	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	0	1	
BISO0021	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	05/23/79-07/16/80	1	4	
BISO0022	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	0	1	
BISO0023	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/25/77-05/25/77	0	1	
BISO0024	No	00945	SULFATE, TOTAL (MG/L AS SO4)	06/19/91-09/04/91	0	2	
BISO0026	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/18/77-07/18/79	2	17	
BISO0028	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-09/27/82	3	14	
BISO0030	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	05/04/60-06/02/92	32	66	T,S
BISO0032	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-09/27/82	3	14	
BISO0033	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-09/27/82	3	12	
BISO0034	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/21/54-07/21/54	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0035	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-06/15/82	2	12	
BISO0036	No	00945	SULFATE, TOTAL (MG/L AS SO4)	06/14/79-03/31/81	1	7	
BISO0040	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/21/65-05/21/65	0	1	
BISO0041	No	00945	SULFATE, TOTAL (MG/L AS SO4)	06/12/79-06/16/81	2	8	
BISO0045	Yes	00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	0	1	
BISO0047	No	00945	SULFATE, TOTAL (MG/L AS SO4)	06/14/79-06/10/81	1	6	
BISO0049	No	00945	SULFATE, TOTAL (MG/L AS SO4)	07/20/54-07/20/54	0	1	
BISO0013	Yes	00946	SULFATE, DISSOLVED (MG/L AS SO4)	04/30/86-04/30/86	0	1	
BISO0037	Yes	00946	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	13	153	T,A
BISO0048	No	00946	SULFATE, DISSOLVED (MG/L AS SO4)	05/07/83-07/07/83	0	3	
BISO0003	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	08/19/81-08/19/81	0	1	
BISO0006	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	09/04/79-07/15/80	0	2	
BISO0009	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/27/64-08/17/81	17	21	
BISO0012	Yes	00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/27/64-08/18/81	17	5	
BISO0013	Yes	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/30/86-04/30/86	0	1	
BISO0023	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/04/60-06/02/92	32	41	S
BISO0034	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/21/54-07/21/54	0	1	
BISO0036	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00950	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	6	73	A
BISO0041	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/23/80-07/23/80	0	1	
BISO0049	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/20/54-07/20/54	0	1	
BISO0003	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	08/19/81-08/19/81	0	1	
BISO0006	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	09/04/79-07/15/80	0	2	
BISO0009	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	05/27/64-08/17/81	17	20	
BISO0012	Yes	00955	SILICA, DISSOLVED (MG/L AS SI02)	05/27/64-08/18/81	17	5	
BISO0013	Yes	00955	SILICA, DISSOLVED (MG/L AS SI02)	04/30/86-04/30/86	0	1	
BISO0018	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	08/03/79-08/03/79	0	1	
BISO0023	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	05/25/77-05/25/77	0	1	
BISO0030	Yes	00955	SILICA, DISSOLVED (MG/L AS SI02)	05/04/60-06/02/92	32	38	S
BISO0036	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	07/23/80-07/23/80	0	1	
BISO0037	Yes	00955	SILICA, DISSOLVED (MG/L AS SI02)	03/21/79-09/23/80	1	18	
BISO0041	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	07/23/80-07/23/80	0	1	
BISO0018	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01000	ARSENIC, DISSOLVED (UG/L AS AS)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01000	ARSENIC, DISSOLVED (UG/L AS AS)	10/17/79-06/24/80	0	9	
BISO0003	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/19/81-08/19/81	0	1	
BISO0006	No	01002	ARSENIC, TOTAL (UG/L AS AS)	09/04/79-07/15/80	0	2	
BISO0009	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/13/75-08/17/81	6	9	
BISO0012	Yes	01002	ARSENIC, TOTAL (UG/L AS AS)	03/30/76-08/18/81	5	6	
BISO0018	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01002	ARSENIC, TOTAL (UG/L AS AS)	09/04/79-08/17/81	1	3	
BISO0036	No	01002	ARSENIC, TOTAL (UG/L AS AS)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01002	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	13	144	T,A
BISO0041	No	01002	ARSENIC, TOTAL (UG/L AS AS)	07/23/80-07/23/80	0	1	
BISO0003	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	12/02/83-10/24/90	6	2	
BISO0030	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	10/30/86-06/02/92	5	23	
BISO0037	Yes	01005	BARIUM, DISSOLVED (UG/L AS BA)	10/17/79-06/24/80	0	5	
BISO0003	No	01007	BARIUM, TOTAL (UG/L AS BA)	08/19/81-08/19/81	0	1	
BISO0006	No	01007	BARIUM, TOTAL (UG/L AS BA)	09/04/79-07/15/80	0	2	
BISO0009	No	01007	BARIUM, TOTAL (UG/L AS BA)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	09/06/79-08/18/81	1	3	
BISO0030	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	09/04/79-08/17/81	1	3	
BISO0036	No	01007	BARIUM, TOTAL (UG/L AS BA)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01007	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	11	111	A
BISO0041	No	01007	BARIUM, TOTAL (UG/L AS BA)	07/23/80-07/23/80	0	1	
BISO0030	Yes	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01012	BERYLLIUM, TOTAL (UG/L AS BE)	01/19/81-01/14/85	3	28	
BISO0018	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	5	53	
BISO0003	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/19/81-08/19/81	0	1	
BISO0006	No	01027	CADMIUM, TOTAL (UG/L AS CD)	09/04/79-07/15/80	0	2	
BISO0009	No	01027	CADMIUM, TOTAL (UG/L AS CD)	05/13/75-08/17/81	6	8	
BISO0012	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	04/04/77-08/18/81	4	5	
BISO0018	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/03/79-08/03/79	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0030	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	09/04/79-08/17/81	1	3	
BISO0036	No	01027	CADMIUM, TOTAL (UG/L AS CD)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01027	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	11	133	A
BISO0041	No	01027	CADMIUM, TOTAL (UG/L AS CD)	07/23/80-07/23/80	0	1	
BISO0003	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	12/02/83-10/24/90	6	2	
BISO0003	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	12/02/83-10/24/90	6	2	
BISO0018	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/21/79-09/23/80	1	18	
BISO0003	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/19/81-08/19/81	0	1	
BISO0006	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/04/79-07/15/80	0	2	
BISO0009	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/13/75-08/17/81	6	8	
BISO0012	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/30/76-08/18/81	5	6	
BISO0017	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/08/75-05/08/75	0	1	
BISO0018	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/03/79-08/03/79	0	1	
BISO0020	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/08/75-05/08/75	0	1	
BISO0026	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	06/14/77-07/18/79	2	5	
BISO0030	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/04/79-08/17/81	1	3	
BISO0036	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01034	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	13	150	T,A
BISO0041	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	07/23/80-07/23/80	0	1	
BISO0018	No	01035	COBALT, DISSOLVED (UG/L AS CO)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01035	COBALT, DISSOLVED (UG/L AS CO)	10/30/86-06/02/92	5	23	
BISO0009	No	01037	COBALT, TOTAL (UG/L AS CO)	05/13/75-05/15/76	1	3	
BISO0018	No	01037	COBALT, TOTAL (UG/L AS CO)	08/03/79-08/03/79	0	1	
BISO0003	No	01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	07/16/80-08/17/81	1	2	
BISO0009	No	01040	COPPER, DISSOLVED (UG/L AS CU)	05/15/76-05/15/76	0	1	
BISO0018	No	01040	COPPER, DISSOLVED (UG/L AS CU)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	5	53	
BISO0003	No	01042	COPPER, TOTAL (UG/L AS CU)	08/19/81-08/19/81	0	1	
BISO0006	No	01042	COPPER, TOTAL (UG/L AS CU)	09/04/79-07/15/80	0	2	
BISO0009	No	01042	COPPER, TOTAL (UG/L AS CU)	05/13/75-08/17/81	6	9	
BISO0012	Yes	01042	COPPER, TOTAL (UG/L AS CU)	03/30/76-08/18/81	5	6	
BISO0018	No	01042	COPPER, TOTAL (UG/L AS CU)	05/30/79-09/11/79	0	4	
BISO0026	No	01042	COPPER, TOTAL (UG/L AS CU)	06/14/77-07/18/79	2	5	
BISO0030	Yes	01042	COPPER, TOTAL (UG/L AS CU)	09/04/79-08/17/81	1	3	
BISO0036	No	01042	COPPER, TOTAL (UG/L AS CU)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01042	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	13	150	T,A
BISO0041	No	01042	COPPER, TOTAL (UG/L AS CU)	07/23/80-07/23/80	0	1	
BISO0003	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	12/02/83-10/24/90	6	2	
BISO0003	No	01044	IRON, SUSPENDED (UG/L AS FE)	05/23/79-08/19/81	2	5	
BISO0006	No	01044	IRON, SUSPENDED (UG/L AS FE)	05/22/79-10/01/81	2	23	
BISO0009	No	01044	IRON, SUSPENDED (UG/L AS FE)	05/24/79-09/17/81	2	20	
BISO0012	Yes	01044	IRON, SUSPENDED (UG/L AS FE)	05/24/79-09/21/81	2	22	
BISO0021	Yes	01044	IRON, SUSPENDED (UG/L AS FE)	05/23/79-07/16/80	1	3	
BISO0030	Yes	01044	IRON, SUSPENDED (UG/L AS FE)	05/22/79-09/15/81	2	25	
BISO0036	No	01044	IRON, SUSPENDED (UG/L AS FE)	06/14/79-03/31/81	1	7	
BISO0041	No	01044	IRON, SUSPENDED (UG/L AS FE)	06/12/79-06/16/81	2	8	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0047	No	01044	IRON, SUSPENDED (UG/L AS FE)	06/14/79-06/10/81	1	6	
BISO0001	No	01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	0	1	
BISO0003	No	01045	IRON, TOTAL (UG/L AS FE)	05/23/79-08/19/81	2	6	
BISO0004	No	01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	0	1	
BISO0005	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	0	1	
BISO0006	No	01045	IRON, TOTAL (UG/L AS FE)	05/22/79-10/01/81	2	24	
BISO0007	No	01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	0	1	
BISO0008	No	01045	IRON, TOTAL (UG/L AS FE)	11/13/74-11/13/74	0	1	
BISO0009	No	01045	IRON, TOTAL (UG/L AS FE)	05/13/75-09/17/81	6	40	
BISO0010	No	01045	IRON, TOTAL (UG/L AS FE)	11/13/74-11/13/74	0	1	
BISO0011	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	0	1	
BISO0012	Yes	01045	IRON, TOTAL (UG/L AS FE)	03/30/76-09/21/81	5	31	
BISO0016	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	0	1	
BISO0017	Yes	01045	IRON, TOTAL (UG/L AS FE)	05/08/75-05/08/75	0	1	
BISO0018	No	01045	IRON, TOTAL (UG/L AS FE)	05/30/79-09/11/79	0	4	
BISO0019	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	0	1	
BISO0020	No	01045	IRON, TOTAL (UG/L AS FE)	05/08/75-05/08/75	0	1	
BISO0021	Yes	01045	IRON, TOTAL (UG/L AS FE)	05/23/79-07/16/80	1	4	
BISO0022	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	0	1	
BISO0026	No	01045	IRON, TOTAL (UG/L AS FE)	05/18/77-07/18/79	2	16	
BISO0028	No	01045	IRON, TOTAL (UG/L AS FE)	07/18/79-09/27/82	3	13	
BISO0030	Yes	01045	IRON, TOTAL (UG/L AS FE)	05/22/79-09/15/81	2	28	
BISO0032	No	01045	IRON, TOTAL (UG/L AS FE)	07/18/79-09/27/82	3	14	
BISO0033	No	01045	IRON, TOTAL (UG/L AS FE)	07/18/79-09/27/82	3	11	
BISO0035	No	01045	IRON, TOTAL (UG/L AS FE)	07/18/79-06/15/82	2	12	
BISO0036	No	01045	IRON, TOTAL (UG/L AS FE)	06/14/79-03/31/81	1	7	
BISO0037	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	11	131	A
BISO0041	No	01045	IRON, TOTAL (UG/L AS FE)	06/12/79-06/16/81	2	8	
BISO0045	Yes	01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	0	1	
BISO0047	No	01045	IRON, TOTAL (UG/L AS FE)	06/14/79-06/10/81	1	6	
BISO0048	No	01045	IRON, TOTAL (UG/L AS FE)	05/07/83-07/07/83	0	3	
BISO0002	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/18/65-05/18/65	0	1	
BISO0003	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/23/79-08/19/81	2	6	
BISO0006	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-10/01/81	2	24	
BISO0009	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/17/81	16	55	S
BISO0012	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/21/81	16	32	S
BISO0018	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/30/79-09/11/79	0	4	
BISO0021	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	05/23/79-07/16/80	1	4	
BISO0023	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/25/77-05/25/77	0	1	
BISO0030	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-06/02/92	13	51	
BISO0036	No	01046	IRON, DISSOLVED (UG/L AS FE)	06/14/79-03/31/81	1	7	
BISO0037	Yes	01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	5	61	
BISO0041	No	01046	IRON, DISSOLVED (UG/L AS FE)	06/12/79-06/16/81	2	8	
BISO0047	No	01046	IRON, DISSOLVED (UG/L AS FE)	06/14/79-06/10/81	1	6	
BISO0048	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/07/83-07/07/83	0	3	
BISO0018	No	01049	LEAD, DISSOLVED (UG/L AS PB)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	5	53	
BISO0003	No	01051	LEAD, TOTAL (UG/L AS PB)	08/19/81-08/19/81	0	1	
BISO0006	No	01051	LEAD, TOTAL (UG/L AS PB)	09/04/79-07/15/80	0	2	
BISO0009	No	01051	LEAD, TOTAL (UG/L AS PB)	05/13/75-08/17/81	6	9	
BISO0012	Yes	01051	LEAD, TOTAL (UG/L AS PB)	03/30/76-08/18/81	5	6	
BISO0017	Yes	01051	LEAD, TOTAL (UG/L AS PB)	05/08/75-05/08/75	0	1	
BISO0018	No	01051	LEAD, TOTAL (UG/L AS PB)	05/30/79-09/11/79	0	3	
BISO0020	No	01051	LEAD, TOTAL (UG/L AS PB)	05/08/75-05/08/75	0	1	
BISO0026	No	01051	LEAD, TOTAL (UG/L AS PB)	06/14/77-07/18/79	2	5	
BISO0030	Yes	01051	LEAD, TOTAL (UG/L AS PB)	09/04/79-08/17/81	1	3	
BISO0036	No	01051	LEAD, TOTAL (UG/L AS PB)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01051	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	13	151	T,A
BISO0041	No	01051	LEAD, TOTAL (UG/L AS PB)	07/23/80-07/23/80	0	1	
BISO0003	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	12/02/83-10/24/90	6	2	
BISO0003	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/05/79-07/16/80	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0030	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	12/02/83-10/24/90	6	2	
BISO0003	No	01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/23/79-08/19/81	2	6	
BISO0006	No	01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/22/79-10/01/81	2	24	
BISO0009	No	01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/24/79-09/17/81	2	22	
BISO0012	Yes	01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/24/79-09/21/81	2	24	
BISO0021	Yes	01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/23/79-07/16/80	1	4	
BISO0030	Yes	01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/22/79-09/15/81	2	28	
BISO0036	No	01054	MANGANESE, SUSPENDED (UG/L AS MN)	06/14/79-03/31/81	1	7	
BISO0041	No	01054	MANGANESE, SUSPENDED (UG/L AS MN)	04/02/80-06/16/81	1	6	
BISO0047	No	01054	MANGANESE, SUSPENDED (UG/L AS MN)	06/14/79-06/10/81	1	6	
BISO0001	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	0	1	
BISO0003	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/23/79-08/19/81	2	6	
BISO0004	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	0	1	
BISO0005	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	0	1	
BISO0006	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/22/79-08/18/81	2	23	
BISO0007	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	0	1	
BISO0008	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/13/74-11/13/74	0	1	
BISO0009	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/13/75-09/17/81	6	36	
BISO0010	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/13/74-11/13/74	0	1	
BISO0011	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	0	1	
BISO0012	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	03/30/76-09/21/81	5	31	
BISO0016	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	0	1	
BISO0018	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/30/79-09/11/79	0	4	
BISO0019	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	0	1	
BISO0021	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	05/23/79-07/16/80	1	4	
BISO0022	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	0	1	
BISO0026	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/18/77-10/31/78	1	15	
BISO0030	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	05/22/79-09/15/81	2	25	
BISO0036	No	01055	MANGANESE, TOTAL (UG/L AS MN)	06/14/79-03/31/81	1	7	
BISO0037	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	11	132	A
BISO0040	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/21/65-05/21/65	0	1	
BISO0041	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/02/80-06/16/81	1	6	
BISO0045	Yes	01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	0	1	
BISO0047	No	01055	MANGANESE, TOTAL (UG/L AS MN)	06/14/79-06/10/81	1	6	
BISO0048	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/07/83-07/07/83	0	3	
BISO0002	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/18/65-05/18/65	0	1	
BISO0003	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/23/79-08/19/81	2	6	
BISO0006	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-10/01/81	2	24	
BISO0009	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/17/81	17	40	S
BISO0012	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/21/81	17	26	S
BISO0013	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/30/86-04/30/86	0	1	
BISO0018	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/30/79-09/11/79	0	4	
BISO0021	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/23/79-07/16/80	1	4	
BISO0023	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/25/77-05/25/77	0	1	
BISO0030	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-06/02/92	13	51	
BISO0036	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	06/14/79-03/31/81	1	7	
BISO0037	Yes	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	5	61	
BISO0041	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/02/80-06/16/81	1	6	
BISO0047	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	06/14/79-06/10/81	1	6	
BISO0048	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/07/83-07/07/83	0	3	
BISO0030	Yes	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	10/30/86-06/02/92	5	23	
BISO0009	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/15/76-05/15/76	0	1	
BISO0030	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	10/30/86-06/02/92	5	23	
BISO0037	Yes	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/21/79-09/23/80	1	18	
BISO0009	No	01067	NICKEL, TOTAL (UG/L AS NI)	05/13/75-04/05/77	1	18	
BISO0012	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	03/30/76-04/06/77	1	7	
BISO0026	No	01067	NICKEL, TOTAL (UG/L AS NI)	06/14/77-07/18/79	2	5	
BISO0037	Yes	01067	NICKEL, TOTAL (UG/L AS NI)	11/09/83-02/27/85	1	15	
BISO0037	Yes	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	12/02/83-10/24/90	6	2	
BISO0030	Yes	01075	SILVER, DISSOLVED (UG/L AS AG)	10/30/86-06/02/92	5	23	
BISO0037	Yes	01075	SILVER, DISSOLVED (UG/L AS AG)	03/21/79-09/23/80	1	18	
BISO0003	No	01077	SILVER, TOTAL (UG/L AS AG)	08/19/81-08/19/81	0	1	
BISO0006	No	01077	SILVER, TOTAL (UG/L AS AG)	09/04/79-07/15/80	0	2	
BISO0009	No	01077	SILVER, TOTAL (UG/L AS AG)	05/15/76-08/17/81	5	4	
BISO0012	Yes	01077	SILVER, TOTAL (UG/L AS AG)	09/06/79-08/18/81	1	3	
BISO0030	Yes	01077	SILVER, TOTAL (UG/L AS AG)	09/04/79-08/17/81	1	3	
BISO0036	No	01077	SILVER, TOTAL (UG/L AS AG)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01077	SILVER, TOTAL (UG/L AS AG)	01/19/81-02/27/85	4	29	
BISO0041	No	01077	SILVER, TOTAL (UG/L AS AG)	07/23/80-07/23/80	0	1	
BISO0030	Yes	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	10/30/86-06/02/92	5	23	
BISO0030	Yes	01085	VANADIUM, DISSOLVED (UG/L AS V)	10/30/86-06/02/92	5	23	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0009	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	05/15/76-05/15/76	0	1	
BISO0018	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	10/30/86-06/04/91	4	19	
BISO0037	Yes	01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	5	53	
BISO0003	No	01092	ZINC, TOTAL (UG/L AS ZN)	08/19/81-08/19/81	0	1	
BISO0006	No	01092	ZINC, TOTAL (UG/L AS ZN)	09/04/79-07/15/80	0	2	
BISO0009	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/13/75-08/17/81	6	6	
BISO0012	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	09/06/79-08/18/81	1	3	
BISO0018	No	01092	ZINC, TOTAL (UG/L AS ZN)	05/30/79-09/11/79	0	4	
BISO0026	No	01092	ZINC, TOTAL (UG/L AS ZN)	06/14/77-07/18/79	2	5	
BISO0030	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	09/04/79-08/17/81	1	3	
BISO0036	No	01092	ZINC, TOTAL (UG/L AS ZN)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01092	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	11	131	A
BISO0041	No	01092	ZINC, TOTAL (UG/L AS ZN)	07/23/80-07/23/80	0	1	
BISO0003	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	12/02/83-10/24/90	6	2	
BISO0001	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	0	1	
BISO0002	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	05/18/65-05/18/65	0	1	
BISO0004	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	0	1	
BISO0005	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	0	1	
BISO0007	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	0	1	
BISO0008	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/13/74-11/13/74	0	1	
BISO0009	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	09/29/65-10/29/75	10	3	
BISO0010	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/13/74-11/13/74	0	1	
BISO0011	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	0	1	
BISO0012	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	05/18/65-05/18/65	0	1	
BISO0013	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	04/30/86-04/30/86	0	1	
BISO0016	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	0	1	
BISO0018	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	08/03/79-08/03/79	0	1	
BISO0019	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	0	1	
BISO0022	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	0	1	
BISO0037	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	9	102	A
BISO0040	No	01105	ALUMINUM, TOTAL (UG/L AS AL)	05/21/65-05/21/65	0	1	
BISO0045	Yes	01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	0	1	
BISO0009	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	05/18/65-05/18/65	0	1	
BISO0018	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	10/30/86-06/02/92	5	23	
BISO0037	Yes	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	07/19/83-07/10/84	0	12	
BISO0037	Yes	01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	12/02/83-10/24/90	6	2	
BISO0030	Yes	01130	LITHIUM, DISSOLVED (UG/L AS LI)	10/30/86-06/02/92	5	23	
BISO0018	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01145	SELENIUM, DISSOLVED (UG/L AS SE)	10/30/86-06/02/92	5	23	
BISO0037	Yes	01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/19/80-03/19/80	0	1	
BISO0003	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/19/81-08/19/81	0	1	
BISO0006	No	01147	SELENIUM, TOTAL (UG/L AS SE)	09/04/79-07/15/80	0	2	
BISO0009	No	01147	SELENIUM, TOTAL (UG/L AS SE)	05/13/75-08/17/81	6	8	
BISO0012	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	03/30/76-08/18/81	5	6	
BISO0018	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/03/79-08/03/79	0	1	
BISO0030	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	09/04/79-08/17/81	1	3	
BISO0036	No	01147	SELENIUM, TOTAL (UG/L AS SE)	07/23/80-07/23/80	0	1	
BISO0037	Yes	01147	SELENIUM, TOTAL (UG/L AS SE)	01/19/81-01/14/85	3	28	
BISO0041	No	01147	SELENIUM, TOTAL (UG/L AS SE)	07/23/80-07/23/80	0	1	
BISO0003	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/16/80-08/17/81	1	2	
BISO0003	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	12/02/83-10/24/90	6	2	
BISO0030	Yes	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	10/30/86-08/16/88	1	10	
BISO0017	Yes	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/08/75-05/08/75	0	1	

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Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0020	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/08/75-05/08/75	0	1	
BISO0037	Yes	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	144	T,A
BISO0030	Yes	31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	04/08/87-08/04/92	5	29	
BISO0030	Yes	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	12/10/86-08/04/92	5	29	
BISO0017	Yes	31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	05/08/75-05/08/75	0	1	
BISO0020	No	31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	05/08/75-05/08/75	0	1	
BISO0024	No	32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	06/19/91-09/04/91	0	2	
BISO0009	No	32240	TANNIN AND LIGNIN (MG/L)	05/13/75-05/13/75	0	1	
BISO0037	Yes	34257	B-BHC-BETA DRY WGTBOTUG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	34354	ENDOSULFAN SULFATE DRY WGTBOTUG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	34364	ENDOSULFAN, ALPHA DRY WGTBOTUG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	34369	ENDRIN ALDEHYDE DRY WGTBOTUG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	34721	2,3,4,6-TETRACHLOROPHENOL IN BOT DEP DRYWGTMG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	12/02/83-10/24/90	6	2	
BISO0037	Yes	39064	CHLORDANE-CIS ISOMER BOTTOM DEPOS (UG/KG DRY SOL	12/02/83-10/24/90	6	2	
BISO0037	Yes	39067	CHLORDANE-TRANS ISOMER,BOTTOM DEPOS(UG/KG DRY SL	12/02/83-10/24/90	6	2	
BISO0037	Yes	39073	CHLORDANE-NONACHLOR,TRANS ISO,BOTTOM DEP UG/KG	12/02/83-10/24/90	6	2	
BISO0037	Yes	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	12/02/83-10/24/90	6	2	
BISO0030	Yes	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	10/14/87-08/04/92	4	28	
BISO0037	Yes	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0037	Yes	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0037	Yes	39311	P,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0037	Yes	39316	O,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0037	Yes	39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0037	Yes	39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0003	No	39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0003	No	39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	08/19/81-08/19/81	0	1	
BISO0003	No	39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	08/19/81-08/19/81	0	1	
BISO0037	Yes	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	12/02/83-10/24/90	6	2	
BISO0037	Yes	39359	DDT SUM ANALOGS IN SEDIMENT UG/KG DRY WEIGHT	12/02/83-10/24/90	6	2	
BISO0003	No	39360	DDD IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39365	DDE IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39370	DDT IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	12/02/83-10/24/90	6	2	
BISO0003	No	39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0003	No	39398	ETHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	12/02/83-10/24/90	6	2	
BISO0003	No	39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39481	METHOXYCHLOR IN BOTTOM DEPOSITS (UG/KG DRY SOL.)	12/02/83-10/24/90	6	2	
BISO0003	No	39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39519	PCBS IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0003	No	39530	MALATHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39540	PARATHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39570	DIAZINON IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39701	HEXACHLOROBENZENE IN BOT DEPOS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0037	Yes	39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	10/24/90-10/24/90	0	1	
BISO0037	Yes	39783	LINDANE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	6	2	
BISO0003	No	39786	TRITHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0003	No	39790	METHYL TRITHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	0	1	
BISO0037	Yes	39812	CHLORDENE, GAMMA ISOMER, IN SED., WET WT. MG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	39813	CHLORDENE, ALPHA ISOMER, IN SED., WET WT. MG/KG	10/24/90-10/24/90	0	1	
BISO0018	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	05/30/79-09/11/79	0	4	
BISO0026	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	05/18/77-10/31/78	1	15	
BISO0037	Yes	47501	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	11	133	A
BISO0001	No	70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	0	1	
BISO0004	No	70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	0	1	
BISO0005	Yes	70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	0	1	
BISO0007	No	70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	0	1	
BISO0008	No	70225	CURRENT SPEED (METERS/SEC)	11/13/74-11/13/74	0	1	
BISO0010	No	70225	CURRENT SPEED (METERS/SEC)	11/13/74-11/13/74	0	1	
BISO0016	Yes	70225	CURRENT SPEED (METERS/SEC)	11/12/74-11/12/74	0	1	
BISO0022	Yes	70225	CURRENT SPEED (METERS/SEC)	11/12/74-11/12/74	0	1	
BISO0045	Yes	70225	CURRENT SPEED (METERS/SEC)	11/12/74-11/12/74	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0003	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	06/06/81-06/06/81	0	1	
BISO0006	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/18/79-10/01/81	2	22	
BISO0009	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/17/81	17	54	S
BISO0012	Yes	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/21/81	17	31	S
BISO0018	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/30/79-09/11/79	0	4	
BISO0023	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/25/77-05/25/77	0	1	
BISO0026	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/18/77-07/18/79	2	17	
BISO0030	Yes	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/04/60-06/02/92	32	65	T,S
BISO0036	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/02/80-03/31/81	0	5	
BISO0037	Yes	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	6	70	A
BISO0041	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/02/80-06/16/81	1	6	
BISO0047	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/02/80-06/10/81	1	4	
BISO0003	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	08/19/81-08/19/81	0	1	
BISO0006	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	09/04/79-07/15/80	0	2	
BISO0009	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/27/64-08/17/81	17	20	
BISO0012	Yes	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	09/06/79-08/18/81	1	3	
BISO0023	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/25/77-05/25/77	0	1	
BISO0030	Yes	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/04/60-08/17/81	21	4	
BISO0036	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	07/23/80-07/23/80	0	1	
BISO0041	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	07/23/80-07/23/80	0	1	
BISO0003	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	06/06/81-08/19/81	0	2	
BISO0006	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	07/18/79-10/01/81	2	22	
BISO0009	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	05/27/64-09/17/81	17	54	S
BISO0012	Yes	70302	SOLIDS, DISSOLVED-TONS PER DAY	03/30/76-09/21/81	5	29	
BISO0030	Yes	70302	SOLIDS, DISSOLVED-TONS PER DAY	05/04/60-09/15/81	21	31	S
BISO0036	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	04/02/80-03/31/81	0	5	
BISO0041	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	04/02/80-06/16/81	1	6	
BISO0047	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	04/02/80-06/10/81	1	4	
BISO0003	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	06/06/81-08/19/81	0	2	
BISO0006	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	07/18/79-10/01/81	2	22	
BISO0009	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/27/64-09/17/81	17	54	S
BISO0012	Yes	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/30/76-09/21/81	5	29	
BISO0023	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/25/77-05/25/77	0	1	
BISO0030	Yes	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/04/60-09/15/81	21	31	S
BISO0036	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/02/80-03/31/81	0	5	
BISO0041	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/02/80-06/16/81	1	6	
BISO0047	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/02/80-06/10/81	1	4	
BISO0018	No	70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	08/03/79-08/03/79	0	1	
BISO0026	No	70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	10/31/78-10/31/78	0	1	
BISO0037	Yes	70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	12/02/83-10/24/90	6	2	
BISO0003	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/23/79-05/23/79	0	1	
BISO0006	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-05/22/79	0	1	
BISO0009	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	01/27/76-07/28/81	5	88	
BISO0012	Yes	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	03/30/76-06/12/79	3	11	
BISO0021	Yes	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/23/79-05/04/84	4	2	
BISO0030	Yes	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-06/02/92	13	37	
BISO0009	No	70332	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .125MM	03/30/76-04/06/77	1	22	
BISO0009	No	70333	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .250MM	03/30/76-04/06/77	1	22	
BISO0009	No	70334	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .500MM	03/30/76-04/05/77	1	19	
BISO0009	No	70335	SUSPENDED SED SIEVE DIAMETER,% FINER THAN 1.00MM	03/30/76-04/05/77	1	12	
BISO0009	No	70336	SUSPENDED SED SIEVE DIAMETER,% FINER THAN 2.00MM	05/15/76-04/05/77	0	6	
BISO0009	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/29/75-10/29/75	0	1	
BISO0018	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	08/03/79-08/03/79	0	1	
BISO0024	No	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	06/19/91-06/19/91	0	1	
BISO0030	Yes	70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/10/90-08/04/92	1	12	
BISO0001	No	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0004	No	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0005	Yes	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0007	No	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	0	1	
BISO0008	No	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/13/74-11/13/74	0	1	
BISO0010	No	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/13/74-11/13/74	0	1	
BISO0011	Yes	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0016	Yes	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0019	Yes	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0022	Yes	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0045	Yes	70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	0	1	
BISO0009	No	70943	INVERTEBRATES, BENTHIC, TOTAL (ORGANISMS/SQ M)	06/16/80-06/18/80	0	2	
BISO0021	Yes	71825	ACIDITY, TOTAL (MG/L AS H)	05/23/79-05/23/79	0	1	
BISO0036	No	71825	ACIDITY, TOTAL (MG/L AS H)	03/31/81-03/31/81	0	1	
BISO0041	No	71825	ACIDITY, TOTAL (MG/L AS H)	06/12/79-06/16/81	2	6	
BISO0047	No	71825	ACIDITY, TOTAL (MG/L AS H)	03/30/81-06/10/81	0	2	
BISO0034	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/21/54-07/21/54	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0002	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/18/65-05/18/65	0	1	
BISO0009	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/27/64-06/22/67	3	16	
BISO0012	Yes	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/27/64-05/18/65	0	2	
BISO0013	Yes	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	04/30/86-04/30/86	0	1	
BISO0030	Yes	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/04/60-09/19/72	12	4	
BISO0040	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/21/65-05/21/65	0	1	
BISO0049	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/20/54-07/20/54	0	1	
BISO0030	Yes	71883	MANGANESE, TOTAL ELEMENTAL (UG/L AS MN)	05/04/60-05/04/60	0	1	
BISO0009	No	71885	IRON (UG/L AS FE)	05/18/65-11/29/66	1	2	
BISO0013	Yes	71885	IRON (UG/L AS FE)	04/30/86-04/30/86	0	1	
BISO0030	Yes	71885	IRON (UG/L AS FE)	05/04/60-05/04/60	0	1	
BISO0034	No	71885	IRON (UG/L AS FE)	07/21/54-07/21/54	0	1	
BISO0040	No	71885	IRON (UG/L AS FE)	05/21/65-05/21/65	0	1	
BISO0049	No	71885	IRON (UG/L AS FE)	07/20/54-07/20/54	0	1	
BISO0003	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	08/19/81-08/19/81	0	1	
BISO0006	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	09/04/79-07/15/80	0	2	
BISO0009	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	09/06/79-08/17/81	1	3	
BISO0012	Yes	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	09/06/79-08/18/81	1	3	
BISO0023	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	05/25/77-05/25/77	0	1	
BISO0030	Yes	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	10/02/70-08/17/81	10	6	
BISO0036	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	07/23/80-07/23/80	0	1	
BISO0041	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	07/23/80-07/23/80	0	1	
BISO0009	No	71887	NITROGEN, TOTAL, AS NO3 - MG/L	05/13/75-10/29/75	0	2	
BISO0018	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	08/03/79-08/03/79	0	1	
BISO0030	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	10/30/86-06/04/91	4	16	
BISO0037	Yes	71890	MERCURY, DISSOLVED (UG/L AS HG)	09/27/79-07/10/84	4	41	
BISO0003	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/19/81-08/19/81	0	1	
BISO0006	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/04/79-07/15/80	0	2	
BISO0009	No	71900	MERCURY, TOTAL (UG/L AS HG)	05/13/75-08/17/81	6	8	
BISO0012	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	03/30/76-08/18/81	5	6	
BISO0018	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/03/79-08/03/79	0	1	
BISO0030	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	11/09/70-08/17/81	10	4	
BISO0036	No	71900	MERCURY, TOTAL (UG/L AS HG)	07/23/80-07/23/80	0	1	
BISO0037	Yes	71900	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	13	144	A
BISO0041	No	71900	MERCURY, TOTAL (UG/L AS HG)	07/23/80-07/23/80	0	1	
BISO0003	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/05/79-07/17/80	0	2	
BISO0006	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/04/79-07/15/80	0	2	
BISO0009	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/06/79-08/17/81	1	3	
BISO0012	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/06/79-08/18/81	1	3	
BISO0021	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/05/79-07/16/80	0	2	
BISO0030	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/16/80-08/17/81	1	2	
BISO0037	Yes	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	12/02/83-10/24/90	6	2	
BISO0023	No	72008	DEPTH, TOTAL OF WELL (FT BELOW LAND SURFACE DATUM)	05/25/77-05/25/77	0	1	
BISO0037	Yes	72015	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	10	110	A
BISO0023	No	72019	DEPTH TO WATER LEVEL (FEET BELOW LAND SURFACE)	05/25/77-05/25/77	0	1	
BISO0013	Yes	72020	ELEVATION IN FEET ABOVE MEAN SEA LEVEL	04/30/86-04/30/86	0	1	
BISO0004	No	72025	DEPTH OF POND OR RESERVOIR IN FEET	11/11/74-11/11/74	0	1	
BISO0005	Yes	72025	DEPTH OF POND OR RESERVOIR IN FEET	11/11/74-11/11/74	0	1	
BISO0007	No	72025	DEPTH OF POND OR RESERVOIR IN FEET	11/11/74-11/11/74	0	1	
BISO0016	Yes	72025	DEPTH OF POND OR RESERVOIR IN FEET	11/12/74-11/12/74	0	1	
BISO0019	Yes	72025	DEPTH OF POND OR RESERVOIR IN FEET	11/12/74-11/12/74	0	1	
BISO0030	Yes	72104	SAMPLE LOCATION, DISTANCE DOWNSTREAM (FEET)	06/08/88-10/08/91	3	7	
BISO0037	Yes	78433	HEPTACHLOR SEDWETWTMG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	78434	HEPTACHLOR EPOXIDE SEDWETWTMG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	78871	OXYCHLORDANE IN SEDIMENT DRY WEIGHT UG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	80153	CARBON, ORGANIC, IN SEDIMENT (% AS C)	12/02/83-10/24/90	6	2	
BISO0003	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-08/19/81	2	6	
BISO0006	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-10/01/81	2	23	
BISO0009	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/24/75-09/03/86	10	143	
BISO0012	Yes	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/30/76-09/02/86	10	45	
BISO0021	Yes	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-09/04/86	7	83	
BISO0030	Yes	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-06/02/92	13	85	T
BISO0036	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	06/14/79-03/31/81	1	7	
BISO0041	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	08/23/79-06/16/81	1	7	
BISO0047	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	06/14/79-06/10/81	1	6	
BISO0003	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/23/79-08/19/81	2	6	
BISO0006	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/22/79-10/01/81	2	23	
BISO0009	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/24/75-01/07/83	7	129	
BISO0012	Yes	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/30/76-06/18/82	6	34	
BISO0021	Yes	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/23/79-07/16/80	1	4	
BISO0030	Yes	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/22/79-01/06/83	3	35	
BISO0036	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	06/14/79-03/31/81	1	7	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 07/20/54 To 09/17/92

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
BISO0041	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	08/23/79-06/16/81	1	7	
BISO0047	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	06/14/79-06/10/81	1	6	
BISO0018	No	80203	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .062MM	08/03/79-08/03/79	0	1	
BISO0026	No	80203	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .062MM	10/31/78-10/31/78	0	1	
BISO0018	No	80204	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .125MM	08/03/79-08/03/79	0	1	
BISO0026	No	80204	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .125MM	10/31/78-10/31/78	0	1	
BISO0018	No	80206	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .500MM	08/03/79-08/03/79	0	1	
BISO0026	No	80206	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .500MM	10/31/78-10/31/78	0	1	
BISO0018	No	80208	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN 2.00MM	08/03/79-08/03/79	0	1	
BISO0026	No	80208	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN 2.00MM	10/31/78-10/31/78	0	1	
BISO0037	Yes	81765	CHLORDENE IN SEDIMENTS DRY WEIGHT UG/KG	10/24/90-10/24/90	0	1	
BISO0009	No	82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	08/17/81-08/17/81	0	1	
BISO0012	Yes	82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	08/18/81-08/18/81	0	1	
BISO0030	Yes	82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	08/17/81-08/17/81	0	1	
BISO0041	No	82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	07/23/80-07/23/80	0	1	
BISO0003	No	82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/19/81-08/19/81	0	1	
BISO0009	No	82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/17/81-08/17/81	0	1	
BISO0012	Yes	82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/18/81-08/18/81	0	1	
BISO0030	Yes	82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/17/81-08/17/81	0	1	
BISO0037	Yes	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	10	116	A
BISO0013	Yes	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/30/86-04/30/86	0	1	
BISO0037	Yes	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	6	74	A
BISO0037	Yes	82556	2,3,4,5-TETRACHLOROPHENOL IN BOT DEP DRYWGTMG/KG	10/24/90-10/24/90	0	1	
BISO0037	Yes	82557	ENDRIN KEYTONE IN BOTTOM DEPOSITS SEDDRYWGTMG/KG	10/24/90-10/24/90	0	1	
BISO0013	Yes	83509	STREAM, WIDTH METER	04/30/86-04/30/86	0	1	
BISO0037	Yes	85803	CHLORDENE,CIS ISOMER,NONACHLR,SEDIMNT,DRY WT,MG/KG	10/24/90-10/24/90	0	1	

[1]T=Time Series Plot, A=Annual Plot, S=Seasonal Plot

Station-By-Station Results

Station Inventory for Station: BISO0001

NPS Station ID: BISO0001
LAT/LON: 36.323892/ -84.789170
Agency: 11COEHUN
Date Created: 07/14/79
Location: CROOKED CREEK, MILE 0.1
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10009
RMI-Indexes: 1021500 007720 01140 9598 2160 0840
Within Park Boundary: No
RMI-Miles: 0953.80 0058.30 514.00 075.40 019.90 000.10
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104027
RF1 Mile Point: 10.490
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002903.84
RF3 Mile Point: 4.86
Distance from RF3: 0.02
On/Off RF3:
Description:
QUADRANGLE: BURRVILLE, TN
LOCATION: 0.1 MILE UPSTREAM OF PETERS BRIDGE

Parameter Inventory for Station: BISO0001

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	1	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	1	11.3	11.3	11.3	11.3	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	1	96.	96.	96.	96.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/11/74-11/11/74	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	1	64.	64.	64.	64.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	1	57.	57.	57.	57.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	1	395.	395.	395.	395.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	1	25.	25.	25.	25.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0001

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0002

NPS Station ID: BISO0002 LAT/LON: 36.324449/ -84.786948 Agency: 112WRD Date Created: / /
Location: CLEAR F AB CROOKED C NR BURRVILLE, TENN. FIPS State/County: 47129 TENNESSEE/MORGAN
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 03408800
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: Elevation: 0 Water Body Id:
Minor Basin: ECO Region:
RF1 Index: 05130104027 RF1 Mile Point: 10.380 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104054300.00 RF3 Mile Point: 0.51 Distance from RF3: 0.06 On/Off RF3:
Description:

Parameter Inventory for Station: BISO0002

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-05/18/65	1	20.6	20.6	20.6	20.6	0.	0.	**	**	**	**
00060	FLOW, STREAM, MEAN DAILY CFS	05/18/65-05/18/65	1	28.	28.	28.	28.	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	05/18/65-05/18/65	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/18/65-05/18/65	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/18/65-05/18/65	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/18/65-05/18/65	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/18/65-05/18/65	1	0.126	0.126	0.126	0.126	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	05/18/65-05/18/65	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	05/18/65-05/18/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/18/65-05/18/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/18/65-05/18/65	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/18/65-05/18/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	05/18/65-05/18/65	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/18/65-05/18/65	1	4.	4.	4.	4.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	05/18/65-05/18/65	1	50.	50.	50.	50.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/18/65-05/18/65	1	20.	20.	20.	20.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	05/18/65-05/18/65	1	200.	200.	200.	200.	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/18/65-05/18/65	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0002

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00400	PH	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00				1	0	0.00						
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0003

NPS Station ID: BISO0003
LAT/LON: 36.324449/ -84.786948
Agency: 112WRD
Date Created: 07/21/79
Location: CLEAR FORK NEAR BURRVILLE, TN
FIPS State/County: 47129 TENNESSEE/MORGAN
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03408860
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104002903.84
RF3 Mile Point: 4.82
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-08/19/81	6	19.	19.083	28.	7.5	53.942	7.344	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-08/19/81	6	131.5	288.833	1210.	2.	212186.567	460.637	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-08/19/81	6	46.5	46.167	55.	37.	54.567	7.387	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/06/81-08/19/81	2	8.45	8.45	8.5	8.4	0.005	0.071	**	**	**	**
00400	PH (STANDARD UNITS)	05/23/79-08/19/81	6	6.95	6.883	7.3	6.2	0.182	0.426	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/23/79-08/19/81	6	6.947	6.696	7.3	6.2	0.224	0.473	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/23/79-08/19/81	6	0.113	0.201	0.631	0.05	0.05	0.223	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	06/06/81-08/19/81	2	6.85	6.85	7.1	6.6	0.125	0.354	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	06/06/81-08/19/81	2	6.782	6.782	7.1	6.6	0.134	0.367	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/06/81-08/19/81	2	0.165	0.165	0.251	0.079	0.015	0.121	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/23/79-08/19/81	6	13.	12.	16.	7.	14.	3.742	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/19/81-08/19/81	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/19/81-08/19/81	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/19/81-08/19/81	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	08/19/81-08/19/81	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	08/19/81-08/19/81	1	6.6	6.6	6.6	6.6	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	08/19/81-08/19/81	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	08/19/81-08/19/81	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
00931	SODIUM ADSORPTION RATIO	08/19/81-08/19/81	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00932	SODIUM, PERCENT	08/19/81-08/19/81	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	08/19/81-08/19/81	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	08/19/81-08/19/81	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/23/79-08/19/81	6	6.	6.333	10.	4.	5.867	2.422	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	08/19/81-08/19/81	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/19/81-08/19/81	1	3.2	3.2	3.2	3.2	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/19/81-08/19/81	1	2.	2.	2.	2.	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/05/79-07/17/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	08/19/81-08/19/81	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/19/81-08/19/81	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/17/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/17/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/19/81-08/19/81	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/05/79-07/17/80	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	08/19/81-08/19/81	1	2.	2.	2.	2.	0.	0.	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/05/79-07/17/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	05/23/79-08/19/81	5	360.	986.	3900.	100.	2669380.	1633.824	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/23/79-08/19/81	6	395.	958.333	4000.	180.	2242816.667	1497.604	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01046	IRON, DISSOLVED (UG/L AS FE)	05/23/79-08/19/81	6	100.	115.	200.	80.	2110.	45.935	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/19/81-08/19/81	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/05/79-07/17/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/05/79-07/17/80	2	102.5	102.5	160.	45.	6612.5	81.317	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/23/79-08/19/81	6	10.	58.333	300.	0.	14136.667	118.898	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/23/79-08/19/81	6	45.	95.	360.	20.	17430.	132.023	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/23/79-08/19/81	6	45.	37.5	60.	5.	597.5	24.444	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	08/19/81-08/19/81	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	08/19/81-08/19/81	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/05/79-07/17/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	08/19/81-08/19/81	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/05/79-07/17/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/05/79-07/17/80	2	1600.	1600.	2200.	1000.	720000.	848.528	**	**	**	**
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39340	GAMMA-BHC(LINDANE),WHOLE WATER,UG/L	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER,UG/L	08/19/81-08/19/81	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39398	ETHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
39530	MALATHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39540	PARATHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39570	DIAZINON IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39786	TRITHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
39790	METHYL TRITHION IN WHOLE WATER SAMPLE (UG/L)	08/19/81-08/19/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	06/06/81-06/06/81	1	37.	37.	37.	37.	0.	0.	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	08/19/81-08/19/81	1	34.	34.	34.	34.	0.	0.	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	06/06/81-08/19/81	2	66.1	66.1	121.	11.2	6028.02	77.64	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	06/06/81-08/19/81	2	0.065	0.065	0.08	0.05	0.	0.021	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/23/79-05/23/79	1	39.	39.	39.	39.	0.	0.	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	08/19/81-08/19/81	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/19/81-08/19/81	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/05/79-07/17/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-08/19/81	6	11.	63.5	342.	1.	18635.1	136.51	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/23/79-08/19/81	6	1.495	188.522	1120.	0.03	208244.323	456.338	**	**	**	**
82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/19/81-08/19/81	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**

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EPA Water Quality Criteria Analysis for Station: BISO0003

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	2	0	0.00				1	0	0.00	1	0	0.00			
00400	PH	Other-Hi Lim.	9.	6	0	0.00				2	0	0.00	4	0	0.00			
		Other-Lo Lim.	6.5	6	1	0.17				2	0	0.00	4	1	0.25			
00403	PH, LAB	Other-Hi Lim.	9.	2	0	0.00				1	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00				1	0	0.00	1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	6	0	0.00				2	0	0.00	4	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0003

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	1	0	0.00							1	0	0.00			
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
39360	DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	1	0	0.00							1	0	0.00			
39365	DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	1	0	0.00							1	0	0.00			
39370	DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	1	0	0.00							1	0	0.00			
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	1	0	0.00							1	0	0.00			
39390	ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
39400	TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00							1	0	0.00			
		Drinking Water	3.	1	0	0.00							1	0	0.00			
39410	HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
		Drinking Water	0.4	1	0	0.00							1	0	0.00			
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	1	0	0.00							1	0	0.00			
39540	PARATHION IN WHOLE WATER SAMPLE	Fresh Acute	0.065	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0004

NPS Station ID: BISO0004
LAT/LON: 36.324726/ -84.786392
Agency: 11COEHUN
Date Created: 07/14/79
Location: CLEAR FORK RIVER, MILE 19.8
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10007
RMI-Indexes: 1021500 007720 01140 9598 2160
Within Park Boundary: No
RMI-Miles: 0953.80 0058.30 514.00 075.40 019.80
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104027
RF1 Mile Point: 10.380
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002703.78
RF3 Mile Point: 5.02
Distance from RF3: 0.02
On/Off RF3:
Description:
QUADRANGLE: BURRVILLE, TN
LOCATION: AT PETERS BRIDGE AT MOUTH OF CROOKED CREEK

Parameter Inventory for Station: BISO0004

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	1	40.	40.	40.	40.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	1	8.4	8.4	8.4	8.4	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	1	94.	94.	94.	94.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/11/74-11/11/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	1	56.	56.	56.	56.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	1	48.	48.	48.	48.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	28.	28.	28.	28.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	1	395.	395.	395.	395.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	1	25.	25.	25.	25.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
72025	DEPTH OF POND OR RESERVOIR IN FEET	11/11/74-11/11/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0004

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0005

NPS Station ID: BISO0005
LAT/LON: 36.350560/ -84.731670
Agency: 11COEHUN
Date Created: 07/14/79
Location: CLEAR FORK RIVER, MILE 14.1
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10005
RMI-Indexes: 1021500 007720 01140 9598 2160
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 075.40 014.10
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104027
RF1 Mile Point: 4.590
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002812.53
RF3 Mile Point: 12.74
Distance from RF3: 0.01
On/Off RF3:
Description:
QUADRANGLE: RUGBY, TN
LOCATION: AT HIGHWAY 52 BRIDGE (BREWSTER BRIDGE)

Parameter Inventory for Station: BISO0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	1	50.	50.	50.	50.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	1	2.3	2.3	2.3	2.3	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	1	10.9	10.9	10.9	10.9	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	1	93.	93.	93.	93.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/11/74-11/11/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	1	62.	62.	62.	62.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	1	53.	53.	53.	53.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	1	355.	355.	355.	355.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	1	45.	45.	45.	45.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
72025	DEPTH OF POND OR RESERVOIR IN FEET	11/11/74-11/11/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0005

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------11/16-3/15---------- Obs	Exceed	Prop.	----------3/16-6/30---------- Obs	Exceed	Prop.	----------7/01-11/15---------- Obs	Exceed	Prop.	----------n/a---------- Obs	Exceed	Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0006

NPS Station ID: BISO0006
LAT/LON: 36.353337/ -84.690560
Agency: 112WRD
Date Created: 07/21/79
Location: WHITE OAK CREEK AT RUGBY, TN
FIPS State/County: 47129 TENNESSEE/MORGAN
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03409400
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104032
RF1 Mile Point: 2.470
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104003400.69
RF3 Mile Point: 1.28
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/22/79-11/19/81	26	12.25	13.192	28.	0.5	61.222	7.824	3.1	7.	20.625	23.3
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/22/79-11/19/81	26	60.5	104.723	659.	0.1	23824.1	154.351	0.91	4.75	128.75	314.9
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/22/79-11/19/81	26	107.5	147.	370.	44.	10276.96	101.375	48.5	58.75	250.	306.5
00300	OXYGEN, DISSOLVED MG/L	01/22/81-10/01/81	9	8.4	8.9	12.2	6.5	4.178	2.044	6.5	7.2	10.65	12.2
00400	PH (STANDARD UNITS)	05/22/79-10/01/81	24	7.1	7.058	7.7	6.3	0.132	0.363	6.55	6.8	7.375	7.55
00400	CONVERTED PH (STANDARD UNITS)	05/22/79-10/01/81	24	7.1	6.91	7.7	6.3	0.155	0.394	6.55	6.8	7.375	7.55
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/22/79-10/01/81	24	0.079	0.123	0.501	0.02	0.013	0.114	0.028	0.042	0.158	0.284
00403	PH, LAB, STANDARD UNITS SU	10/21/80-10/01/81	12	7.25	7.233	7.6	6.9	0.059	0.242	6.9	6.95	7.4	7.57
00403	CONVERTED PH, LAB, STANDARD UNITS	10/21/80-10/01/81	12	7.247	7.171	7.6	6.9	0.063	0.251	6.9	6.95	7.4	7.57
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/21/80-10/01/81	12	0.057	0.067	0.126	0.025	0.001	0.038	0.027	0.04	0.114	0.126
00405	CARBON DIOXIDE (MG/L AS CO2)	09/04/79-09/04/79	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/22/79-10/01/81	24	19.	33.208	94.	8.	642.346	25.345	11.	14.	54.	70.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/04/79-07/15/80	2	0.32	0.32	0.56	0.08	0.115	0.339	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/04/79-07/15/80	2	0.005	0.005	0.01	0.	0.	0.007	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/04/79-07/15/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/04/79-07/15/80	2	45.5	45.5	48.	43.	12.5	3.536	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	09/04/79-07/15/80	2	8.5	8.5	17.	0.	144.5	12.021	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	09/04/79-07/15/80	2	11.5	11.5	12.	11.	0.5	0.707	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	09/04/79-07/15/80	2	4.05	4.05	4.4	3.7	0.245	0.495	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	09/04/79-07/15/80	2	19.05	19.05	33.	5.1	389.205	19.728	**	**	**	**
00931	SODIUM ADSORPTION RATIO	09/04/79-07/15/80	2	1.2	1.2	2.1	0.3	1.62	1.273	**	**	**	**
00932	SODIUM, PERCENT	09/04/79-07/15/80	2	39.	39.	58.	20.	722.	26.87	**	**	**	**
00933	SODIUM,PLUS POTASSIUM (MG/L)	09/04/79-09/04/79	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	09/04/79-07/15/80	2	2.1	2.1	2.5	1.7	0.32	0.566	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	09/04/79-07/15/80	2	13.5	13.5	24.	3.	220.5	14.849	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/22/79-10/01/81	24	17.	21.167	49.	6.	116.145	10.777	10.	13.25	30.75	35.5
00950	FLUORIDE, DISSOLVED (MG/L AS F)	09/04/79-07/15/80	2	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	09/04/79-07/15/80	2	2.2	2.2	4.	0.4	6.48	2.546	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	09/04/79-07/15/80	2	1.	1.	1.	1.	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/04/79-07/15/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/04/79-07/15/80	2 ##	37.5	37.5	50.	25.	312.5	17.678	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	09/04/79-07/15/80	2 ##	0.5	0.5	1.	0.	0.5	0.707	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/04/79-07/15/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/04/79-07/15/80	2	20.	20.	20.	20.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/04/79-07/15/80	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/04/79-07/15/80	2	10.	10.	10.	10.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	09/04/79-07/15/80	2	2.5	2.5	5.	0.	12.5	3.536	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/04/79-07/15/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01044	IRON, SUSPENDED (UG/L AS FE)	05/22/79-10/01/81	23	280.	360.435	1100.	120.	60395.257	245.754	144.	180.	470.	746.
01045	IRON, TOTAL (UG/L AS FE)	05/22/79-10/01/81	24	390.	438.75	1100.	180.	55941.848	236.52	195.	232.5	557.5	835.
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-10/01/81	24	70.	75.	180.	10.	1408.696	37.533	30.	45.	97.5	120.
01051	LEAD, TOTAL (UG/L AS PB)	09/04/79-07/15/80	2 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/04/79-07/15/80	2 ##	87.5	87.5	170.	5.	13612.5	116.673	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/04/79-07/15/80	2	590.	590.	690.	490.	20000.	141.421	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/22/79-10/01/81	24	20.	21.667	100.	0.	571.014	23.896	0.	2.5	30.	60.
01055	MANGANESE, TOTAL (UG/L AS MN)	05/22/79-08/18/81	23	80.	90.435	190.	30.	1422.53	37.716	50.	70.	110.	152.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-10/01/81	24	70.	67.917	160.	30.	878.08	29.632	35.	45.	70.	115.
01077	SILVER, TOTAL (UG/L AS AG)	09/04/79-07/15/80	2 ##	0.5	0.5	1.	0.	0.5	0.707	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	09/04/79-07/15/80	2 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/04/79-07/15/80	2	38.	38.	40.	36.	8.	2.828	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	09/04/79-07/15/80	2 ##	0.25	0.25	0.5	0.	0.125	0.354	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/04/79-07/15/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/04/79-07/15/80	2	19500.	19500.	21000.	18000.	4500000.	2121.32	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/18/79-10/01/81	22	71.	91.091	204.	34.	3256.848	57.069	35.2	41.5	141.25	188.9
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	09/04/79-07/15/80	2	107.	107.	149.	65.	3528.	59.397	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	07/18/79-10/01/81	22	8.025	13.705	67.6	0.08	311.682	17.655	0.298	1.62	18.7	43.56
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	07/18/79-10/01/81	22	0.095	0.125	0.28	0.05	0.006	0.078	0.05	0.058	0.195	0.254
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-05/22/79	1	59.	59.	59.	59.	0.	0.	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	09/04/79-07/15/80	2	0.015	0.015	0.03	0.	0.	0.021	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	09/04/79-07/15/80	2 ##	0.175	0.175	0.25	0.1	0.011	0.106	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/04/79-07/15/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-10/01/81	23	8.	19.609	182.	1.	1487.794	38.572	1.8	4.	16.	57.4
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/22/79-10/01/81	23	0.82	19.427	324.	0.	4580.297	67.678	0.01	0.09	3.9	45.6

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0006

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	9	0	0.00	1	0	0.00	5	0	0.00	3	0	0.00			
00400	PH	Other-Hi Lim.	9.	24	0	0.00	6	0	0.00	9	0	0.00	9	0	0.00			
		Other-Lo Lim.	6.5	24	2	0.08	6	1	0.17	9	0	0.00	9	1	0.11			
00403	PH, LAB	Other-Hi Lim.	9.	12	0	0.00	3	0	0.00	5	0	0.00	4	0	0.00			
		Other-Lo Lim.	6.5	12	0	0.00	3	0	0.00	5	0	0.00	4	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	2	0	0.00							2	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	24	0	0.00	6	0	0.00	9	0	0.00	9	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	2	0	0.00							2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2	0	0.00							2	0	0.00			
		Drinking Water	5.	2	0	0.00							2	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	2	0	0.00							2	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	2	0	0.00							2	0	0.00			
		Drinking Water	1300.	2	0	0.00							2	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	2	0	0.00							2	0	0.00			
		Drinking Water	5.	2	0	0.00							2	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	2	0	0.00							2	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	2	0	0.00							2	0	0.00			
		Drinking Water	2.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0007

NPS Station ID: BISO0007
LAT/LON: 36.353337/ -84.691393
Agency: 11COEHUN
Date Created: 07/14/79
Location: WHITEOAK CREEK, MILE 5.7
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10010
RMI-Indexes: 1021500 007720 01140 9598 2160 0490
Within Park Boundary: No
RMI-Miles: 0953.80 0058.30 514.00 075.40 009.40 005.70
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104032
RF1 Mile Point: 2.620
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002800.00
RF3 Mile Point: 0.02
Distance from RF3: 0.00
On/Off RF3:
Description:
QUADRANGLE: RUGBY, TN
LOCATION: AT HIGHWAY 52 BRIDGE (WHITEOAK BRIDGE)

Parameter Inventory for Station: BISO0007

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/11/74-11/11/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/11/74-11/11/74	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/11/74-11/11/74	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/11/74-11/11/74	1	60.	60.	60.	60.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	11/11/74-11/11/74	1	10.6	10.6	10.6	10.6	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/11/74-11/11/74	1	92.	92.	92.	92.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/11/74-11/11/74	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/11/74-11/11/74	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	28.	28.	28.	28.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/11/74-11/11/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/11/74-11/11/74	1	74.	74.	74.	74.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/11/74-11/11/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/11/74-11/11/74	1	62.	62.	62.	62.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/11/74-11/11/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/11/74-11/11/74	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/11/74-11/11/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/11/74-11/11/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/11/74-11/11/74	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/11/74-11/11/74	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/11/74-11/11/74	1	38.	38.	38.	38.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/11/74-11/11/74	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/11/74-11/11/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/11/74-11/11/74	1	13.	13.	13.	13.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/11/74-11/11/74	1	425.	425.	425.	425.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/74-11/11/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/11/74-11/11/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/11/74-11/11/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/11/74-11/11/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
72025	DEPTH OF POND OR RESERVOIR IN FEET	11/11/74-11/11/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0007

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0008

NPS Station ID: BISO0008
LAT/LON: 36.376115/ -84.553059
Agency: 11COEHUN
Date Created: 07/14/79
Location: NEW RIVER, MILE 8.8
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10006
RMI-Indexes: 1021500 007720 01140 9598 2170
Within Park Boundary: No
RMI-Miles: 0953.80 0058.30 514.00 075.40 008.80
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104037
RF1 Mile Point: 8.450
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002401.05
RF3 Mile Point: 1.04
Distance from RF3: 0.02
On/Off RF3:
Description:
QUADRANGLE: ONEIDA SOUTH, TN
LOCATION: AT HWY 27 BRIDGE AT NEW RIVER, TN - 0.2 MILES U/S OF USGS GAGE

Parameter Inventory for Station: BISO0008

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/13/74-11/13/74	1	200.	200.	200.	200.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/13/74-11/13/74	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/13/74-11/13/74	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/13/74-11/13/74	1	200.	200.	200.	200.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/13/74-11/13/74	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/13/74-11/13/74	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/13/74-11/13/74	1	0.079	0.079	0.079	0.079	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	1	32.	32.	32.	32.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/13/74-11/13/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/13/74-11/13/74	1	180.	180.	180.	180.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/13/74-11/13/74	1	40.	40.	40.	40.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/13/74-11/13/74	1	178.	178.	178.	178.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/13/74-11/13/74	1	34.	34.	34.	34.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/13/74-11/13/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/13/74-11/13/74	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/13/74-11/13/74	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/13/74-11/13/74	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/13/74-11/13/74	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/13/74-11/13/74	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/13/74-11/13/74	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/13/74-11/13/74	1	0.075	0.075	0.075	0.075	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	1	96.	96.	96.	96.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/13/74-11/13/74	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/13/74-11/13/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/13/74-11/13/74	1	72.	72.	72.	72.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/13/74-11/13/74	1	2000.	2000.	2000.	2000.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/13/74-11/13/74	1	300.	300.	300.	300.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/13/74-11/13/74	1	880.	880.	880.	880.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/13/74-11/13/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/13/74-11/13/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0008

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0009

NPS Station ID: BISO0009
LAT/LON: 36.385559/ -84.554726
Agency: 112WRD
Date Created: / /
Location: NEW RIVER AT NEW RIVER, TN
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03408500
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104003801.65
RF3 Mile Point: 2.10
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	114	14.75	14.243	30.	0.5	60.918	7.805	3.05	7.725	21.625	25.
00060	FLOW, STREAM, MEAN DAILY CFS	05/27/64-06/22/67	17	82.	312.294	1620.	16.	205398.721	453.209	18.4	39.5	310.	1140.
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	180	1000.	5449.044	47100.	7.	102495355.864	10123.999	80.5	259.5	6505.	14500.
00065	STAGE, STREAM (FEET)	09/13/85-09/13/85	1	2.42	2.42	2.42	2.42	0.	0.	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/13/75-04/05/77	18	40.	87.667	350.	1.	14264.235	119.433	2.8	9.	117.5	350.
00080	COLOR (PLATINUM-COBALT UNITS)	05/27/64-06/22/67	15	5.	5.2	8.	1.	3.171	1.781	2.2	4.	7.	7.4
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	108	220.	242.769	530.	80.	10239.432	101.19	126.8	169.5	312.5	400.4
00300	OXYGEN, DISSOLVED MG/L	05/13/75-09/17/81	24	8.45	8.446	13.3	4.4	2.959	1.72	6.7	7.425	9.4	10.45
00400p	PH (STANDARD UNITS)	05/27/64-09/17/81	59	7.	6.929	7.9	5.6	0.3	0.548	6.1	6.6	7.3	7.6
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/17/81	59	7.	6.566	7.9	5.6	0.435	0.659	6.1	6.6	7.3	7.6
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/17/81	59	0.1	0.272	2.512	0.013	0.198	0.445	0.025	0.05	0.251	0.794
00403	PH, LAB, STANDARD UNITS SU	12/03/80-09/17/81	10	7.35	7.24	7.7	6.1	0.2	0.448	6.2	7.1	7.525	7.69
00403	CONVERTED PH, LAB, STANDARD UNITS	12/03/80-09/17/81	10	7.347	6.913	7.7	6.1	0.319	0.565	6.2	7.1	7.525	7.69
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/03/80-09/17/81	10	0.045	0.122	0.794	0.02	0.056	0.237	0.02	0.03	0.079	0.723
00405	CARBON DIOXIDE (MG/L AS CO2)	05/27/64-09/06/79	35	4.8	12.717	92.	0.4	402.11	20.053	1.72	3.	9.9	44.4
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/27/64-09/17/81	55	21.	23.418	48.	7.	121.47	11.021	9.8	16.	34.	38.8
00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/05/77	33	20.	20.879	58.	8.	95.922	9.794	10.	14.5	25.	31.6
00445	CARBONATE ION (MG/L AS CO3)	05/18/65-04/05/77	32	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00600	NITROGEN, TOTAL (MG/L AS N)	05/13/75-10/29/75	2	0.635	0.635	1.1	0.17	0.432	0.658	**	**	**	**
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	05/27/64-06/22/67	16	0.05	0.048	0.2	0.	0.003	0.051	0.	0.005	0.065	0.123
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	05/13/75-10/29/75	2	0.12	0.12	0.14	0.1	0.001	0.028	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/13/75-08/17/81	5	0.14	0.302	0.99	0.07	0.15	0.388	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	09/29/65-09/29/65	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	05/18/65-05/18/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/13/75-08/17/81	5	0.01	0.016	0.04	0.	0.	0.015	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/13/75-10/29/75	2	2.5	2.5	3.1	1.9	0.72	0.849	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/06/79-08/17/81	3	0.	0.002	0.005	0.	0.	0.003	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/17/81	36	73.5	76.333	163.	32.	1025.714	32.027	38.7	52.5	89.5	117.5
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/17/81	36	53.5	57.306	150.	24.	650.39	25.503	29.1	40.5	67.	93.1
00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/17/81	35	17.	17.954	40.	7.3	58.286	7.635	8.86	12.	22.	27.4
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/17/81	35	6.3	7.069	15.	3.3	7.108	2.666	4.	5.1	8.1	11.
00930	SODIUM, DISSOLVED (MG/L AS NA)	05/27/64-08/17/81	21	7.6	8.376	24.	3.	22.806	4.776	3.48	5.45	9.5	14.6
00931	SODIUM ADSORPTION RATIO	05/27/64-08/17/81	21	0.4	0.4	0.9	0.2	0.031	0.176	0.2	0.3	0.45	0.68
00932	SODIUM, PERCENT	05/27/64-08/17/81	21	19.	18.714	30.	12.	23.014	4.797	13.	14.5	21.5	27.2
00933	SODIUM,PLUS POTASSIUM (MG/L)	09/06/79-09/06/79	1	9.6	9.6	9.6	9.6	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/27/64-08/17/81	21	1.5	1.533	2.6	0.4	0.301	0.549	0.82	1.1	2.	2.2
00940	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/17/81	37	1.	2.432	31.	0.6	24.933	4.993	0.78	0.95	2.	4.
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/17/81	56	64.5	75.518	208.	23.	1771.2	42.086	36.	48.25	85.5	136.3

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0009

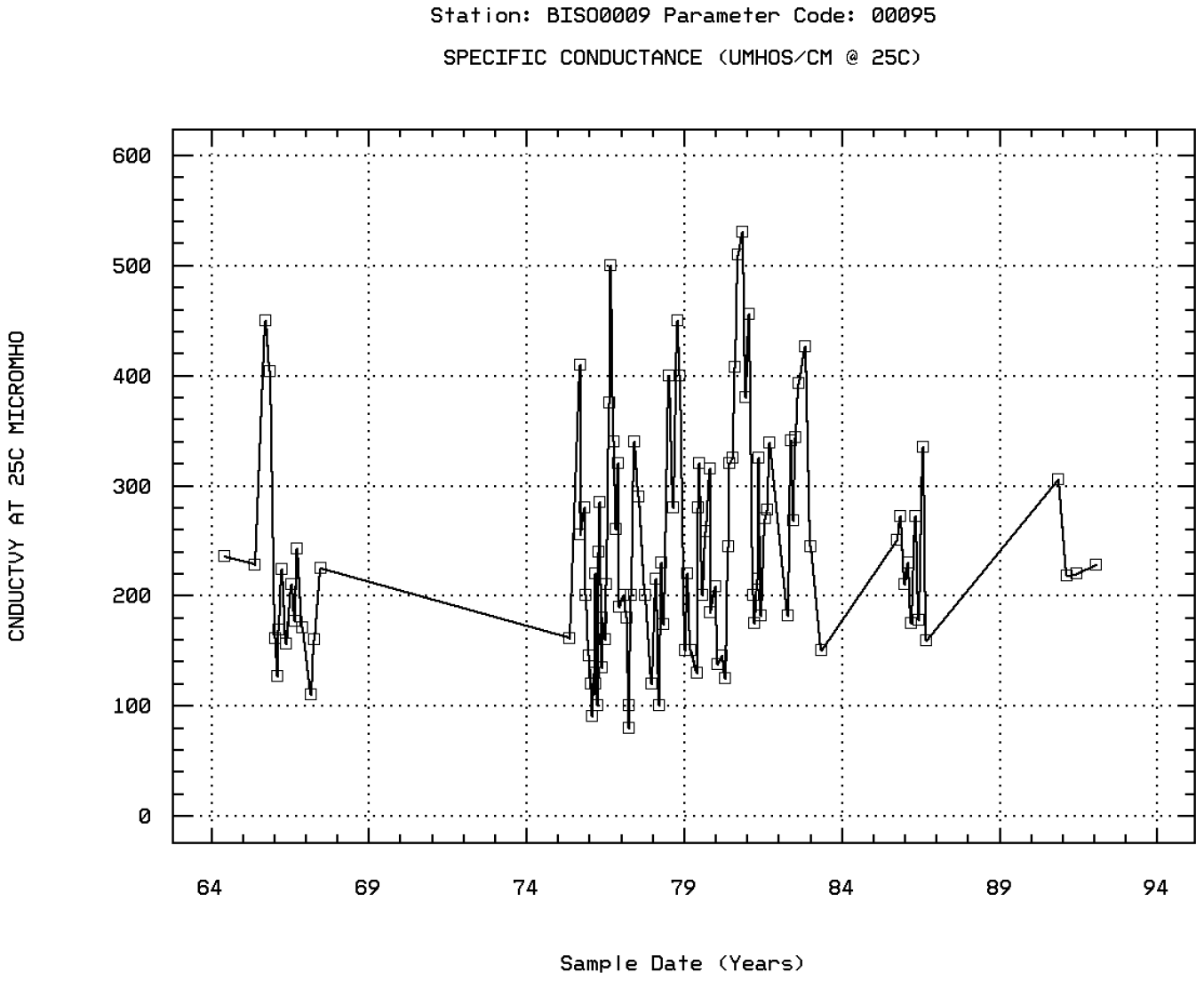
Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/27/64-08/17/81	21	0.	0.06	0.2	0.	0.005	0.074	0.	0.	0.1	0.2
00955	SILICA, DISSOLVED (MG/L AS SI02)	05/27/64-08/17/81	20	5.7	5.625	7.1	4.2	0.473	0.687	4.62	5.225	6.15	6.3
01002	ARSENIC, TOTAL (UG/L AS AS)	05/13/75-08/17/81	9	3.	6.389	25.	0.5	63.486	7.968	0.5	1.	10.	25.
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/06/79-08/17/81	3	0.	1.667	5.	0.	8.333	2.887	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/06/79-08/17/81	3	100.	116.667	200.	50.	5833.333	76.376	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	05/13/75-08/17/81	8 ##	0.25	0.375	1.	0.	0.196	0.443	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/17/81	3 ##	5.	3.5	5.	0.5	6.75	2.598	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/17/81	3	20.	15.	20.	5.	75.	8.66	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/13/75-08/17/81	8	10.	21.25	60.	10.	355.357	18.851	**	**	**	**
01037	COBALT, TOTAL (UG/L AS CO)	05/13/75-05/15/76	3	3.	9.667	25.	1.	177.333	13.317	**	**	**	**
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/06/79-08/17/81	3	10.	13.333	20.	10.	33.333	5.774	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	05/15/76-05/15/76	1	9.	9.	9.	9.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	05/13/75-08/17/81	9	4.	19.889	63.	0.	548.111	23.412	0.	2.	40.5	63.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/06/79-08/17/81	3	20.	15.	20.	5.	75.	8.66	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	05/24/79-09/17/81	20	640.	2354.	11000.	130.	12338183.158	3512.575	181.	425.	2700.	10610.
01045	IRON, TOTAL (UG/L AS FE)	05/13/75-09/17/81	40	850.	7040.5	83000.	170.	261411897.179	16168.237	296.	605.	5250.	23600.
01046	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/17/81	55	30.	43.545	240.	0.	2503.401	50.034	5.	5.	60.	120.
01051	LEAD, TOTAL (UG/L AS PB)	05/13/75-08/17/81	9	11.	16.778	41.	0.	204.944	14.316	0.	5.5	30.5	41.
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/06/79-08/17/81	3	10.	13.333	20.	10.	33.333	5.774	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/06/79-08/17/81	3	550.	576.667	670.	510.	6933.333	83.267	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/24/79-09/17/81	22	20.	78.182	590.	0.	22767.965	150.891	0.	0.	82.5	356.
01055	MANGANESE, TOTAL (UG/L AS MN)	05/13/75-09/17/81	36	260.	352.5	1600.	120.	88687.857	297.805	154.	190.	365.	765.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/17/81	40	150.	167.75	600.	0.	17597.372	132.655	10.	92.5	225.	297.
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/15/76-05/15/76	1 ##	0.	0.	0.	0.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	05/13/75-04/05/77	18	9.5	17.278	56.	0.	318.448	17.845	2.7	6.75	21.25	52.4
01077	SILVER, TOTAL (UG/L AS AG)	05/15/76-08/17/81	4 ##	0.25	0.375	1.	0.	0.229	0.479	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	05/15/76-05/15/76	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/13/75-08/17/81	6	15.	31.667	110.	10.	1536.667	39.2	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/06/79-08/17/81	3	60.	51.667	69.	26.	514.333	22.679	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	09/29/65-10/29/75	3	580.	576.667	1100.	50.	275633.333	525.008	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	05/18/65-05/18/65	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	05/13/75-08/17/81	8 ##	0.5	0.625	1.	0.	0.125	0.354	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/06/79-08/17/81	3	0.	0.167	0.5	0.	0.083	0.289	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/06/79-08/17/81	3	22000.	18366.667	28000.	5100.	141003333.333	11874.482	**	**	**	**
32240	TANNIN AND LIGNIN (MG/L)	05/13/75-05/13/75	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/17/81	54	124.	141.407	348.	52.	5355.038	73.178	63.5	92.	167.25	251.5
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/27/64-08/17/81	20	128.5	128.65	248.	63.	1840.661	42.903	76.7	97.5	153.75	185.6
70302	SOLIDS, DISSOLVED-TONS PER DAY	05/27/64-09/17/81	54	92.85	355.039	5710.	6.5	762850.84	873.413	15.05	56.3	241.	927.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/27/64-09/17/81	54	0.17	0.193	0.47	0.07	0.01	0.099	0.09	0.128	0.23	0.34
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	01/27/76-07/28/81	88	95.5	89.523	100.	0.	392.344	19.808	81.	91.	98.	99.
70332	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .125MM	03/30/76-04/06/77	22	99.	97.409	99.	78.	20.539	4.532	94.3	98.	99.	99.
70333	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .250MM	03/30/76-04/06/77	22	99.	98.091	100.	84.	11.61	3.407	94.6	99.	99.	100.
70334	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .500MM	03/30/76-04/05/77	19	99.	98.368	100.	88.	8.579	2.929	94.	99.	100.	100.
70335	SUSPENDED SED SIEVE DIAMETER,% FINER THAN 1.00MM	03/30/76-04/05/77	12	99.5	98.25	100.	90.	9.114	3.019	91.5	97.5	100.	100.
70336	SUSPENDED SED SIEVE DIAMETER,% FINER THAN 2.00MM	05/15/76-04/05/77	6	100.	98.333	100.	94.	7.067	2.658	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/29/75-10/29/75	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
70943	INVERTEBRATES, BENTHIC, TOTAL (ORGANISMS/SQ M)	06/16/80-06/18/80	2	1712.5	1712.5	3400.	25.	5695312.5	2386.485	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/27/64-06/22/67	16	0.2	0.206	0.9	0.	0.051	0.226	0.	0.025	0.275	0.55
71885	IRON (UG/L AS FE)	05/18/65-11/29/66	2 ##	37.5	37.5	70.	5.	2112.5	45.962	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	09/06/79-08/17/81	3	0.03	0.03	0.06	0.	0.001	0.03	**	**	**	**
71887	NITROGEN, TOTAL, AS NO3 - MG/L	05/13/75-10/29/75	2	2.9	2.9	5.	0.8	8.82	2.97	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	05/13/75-08/17/81	8 ##	0.25	0.2	0.25	0.05	0.009	0.093	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/06/79-08/17/81	3	0.	0.002	0.005	0.	0.	0.003	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/24/75-09/03/86	143	108.	704.385	4845.	1.	1175661.675	1084.279	7.	18.	884.	2259.4
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/24/75-01/07/83	129	502.	42172.393	591000.	0.16104292	51793.133	102123.708	3.6	28.5	25900.	177000.
82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	08/17/81-08/17/81	1	30.	30.	30.	30.	0.	0.	**	**	**	**
82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/17/81-08/17/81	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

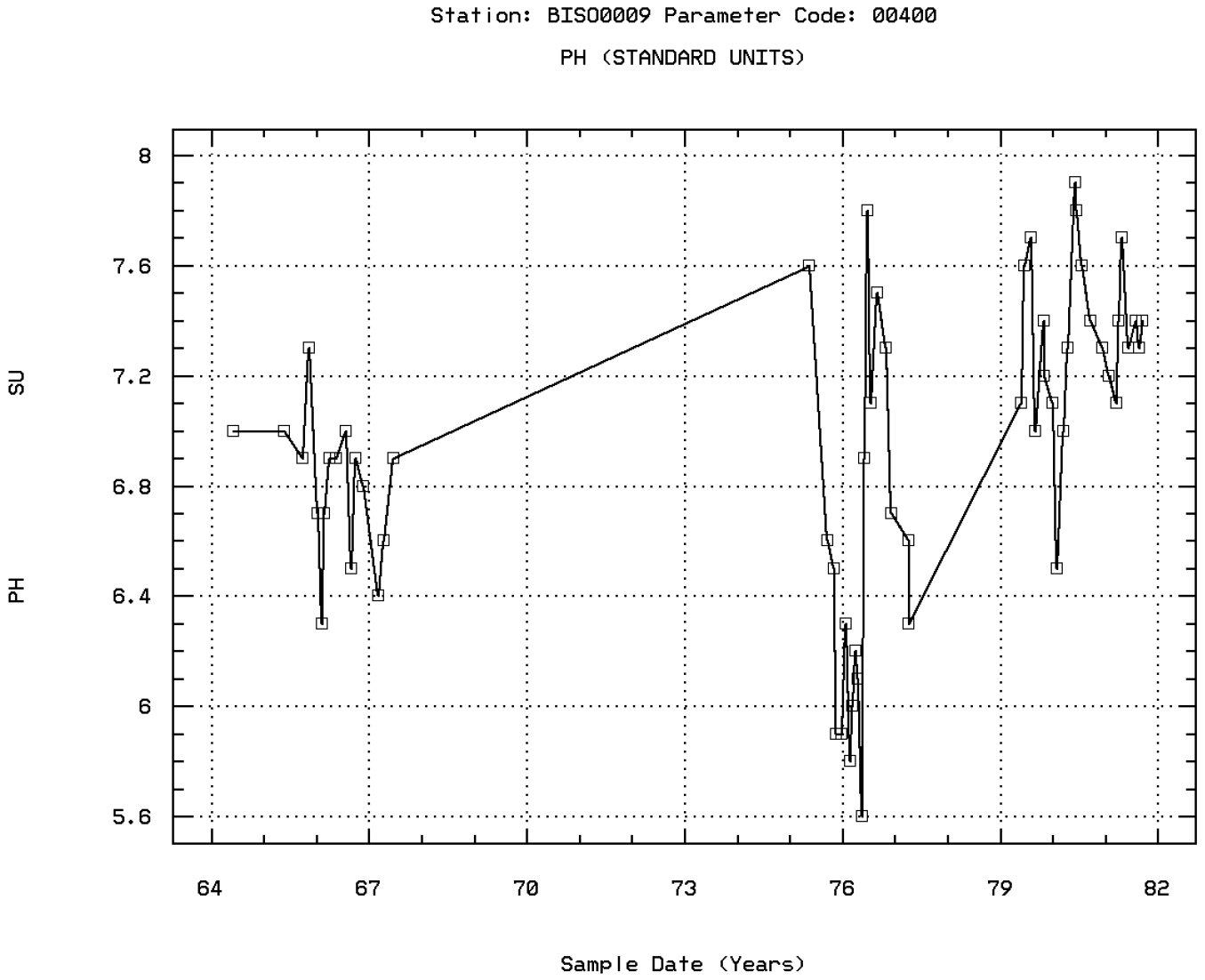
EPA Water Quality Criteria Analysis for Station: BISO0009

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	18	8	0.44	6	2	0.33	8	6	0.75	4	0	0.00			
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	24	0	0.00	7	0	0.00	8	0	0.00	9	0	0.00			
00400	PH	Other-Hi Lim.	9.	59	0	0.00	18	0	0.00	22	0	0.00	19	0	0.00			
		Other-Lo Lim.	6.5	59	14	0.24	18	8	0.44	22	4	0.18	19	2	0.11			
00403	PH, LAB	Other-Hi Lim.	9.	10	0	0.00	3	0	0.00	4	0	0.00	3	0	0.00			
		Other-Lo Lim.	6.5	10	1	0.10	3	1	0.33	4	0	0.00	3	0	0.00			
00618	NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	16	0	0.00	6	0	0.00	6	0	0.00	4	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	5	0	0.00				1	0	0.00	4	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	37	0	0.00	12	0	0.00	14	0	0.00	11	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	56	0	0.00	17	0	0.00	21	0	0.00	18	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	9	0	0.00				5	0	0.00	4	0	0.00			
		Drinking Water	50.	9	0	0.00				5	0	0.00	4	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	3	0	0.00							3	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	8	0	0.00				4	0	0.00	4	0	0.00			
		Drinking Water	5.	8	0	0.00				4	0	0.00	4	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	8	0	0.00				4	0	0.00	4	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00				1	0	0.00						
		Drinking Water	1300.	1	0	0.00				1	0	0.00						
01042	COPPER, TOTAL	Fresh Acute	18.	9	4	0.44				5	4	0.80	4	0	0.00			
		Drinking Water	1300.	9	0	0.00				5	0	0.00	4	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	9	0	0.00				5	0	0.00	4	0	0.00			
		Drinking Water	5.	9	8	0.89				5	5	1.00	4	3	0.75			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01067	NICKEL, TOTAL	Fresh Acute	1400.	18	0	0.00	6	0	0.00	8	0	0.00	4	0	0.00			
		Drinking Water	100.	18	0	0.00	6	0	0.00	8	0	0.00	4	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	4	0	0.00				1	0	0.00	3	0	0.00			
		Drinking Water	50.	4	0	0.00				1	0	0.00	3	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00				1	0	0.00						
01092	ZINC, TOTAL	Fresh Acute	120.	6	0	0.00				2	0	0.00	4	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	8	0	0.00				4	0	0.00	4	0	0.00			
		Drinking Water	50.	8	0	0.00				4	0	0.00	4	0	0.00			
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	16	0	0.00	6	0	0.00	6	0	0.00	4	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	8	0	0.00				4	0	0.00	4	0	0.00			
		Drinking Water	2.	8	0	0.00				4	0	0.00	4	0	0.00			

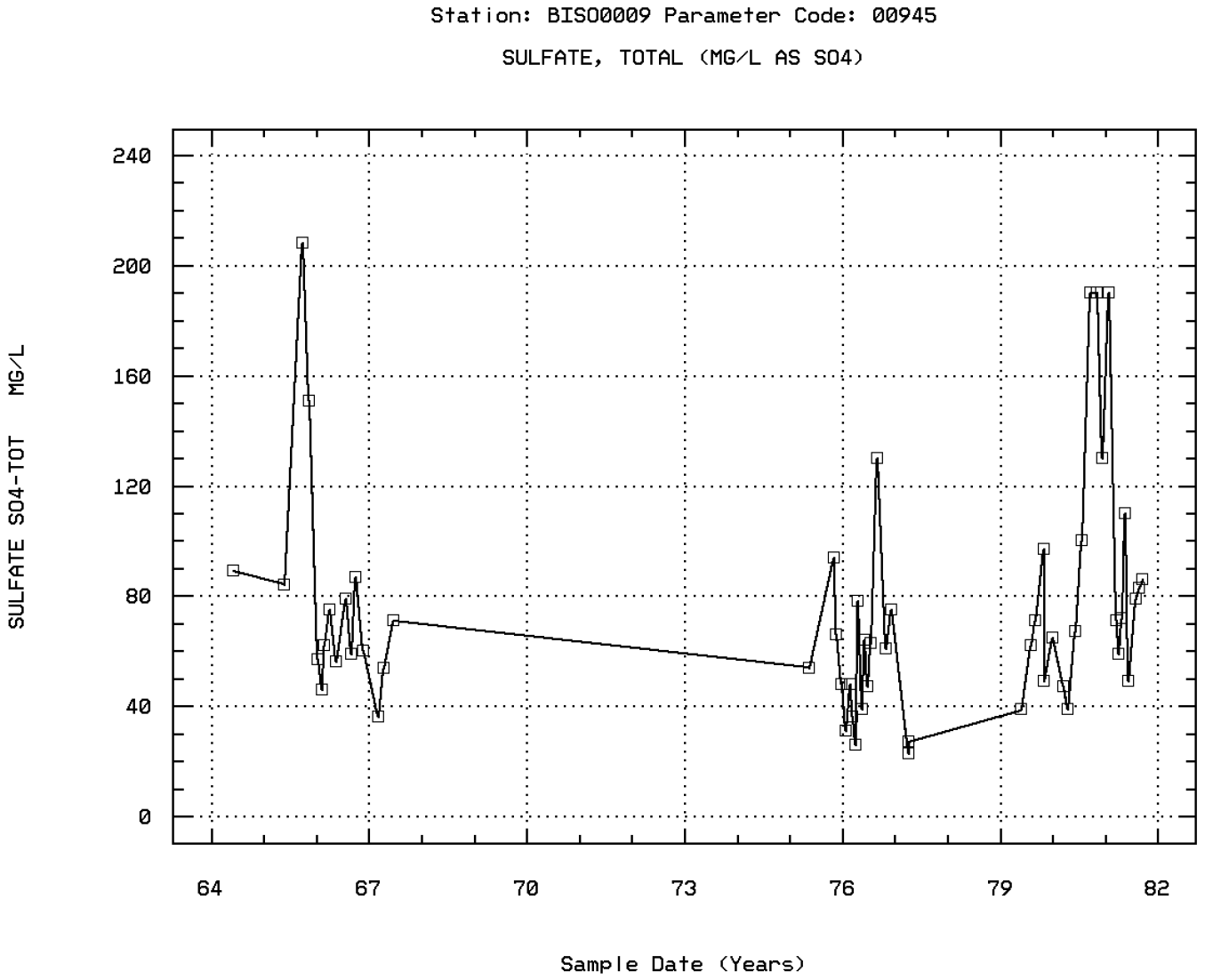
& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter



NEW RIVER AT NEW RIVER, TN



NEW RIVER AT NEW RIVER, TN



NEW RIVER AT NEW RIVER, TN

Annual Analysis for 1964 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	1	236.	236.	236.	236.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1965 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	3	20.6	20.2	22.2	17.8	4.96	2.227	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	3	404.	360.667	450.	228.	13729.333	117.172	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1966 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	9	10.	12.767	28.3	1.7	92.663	9.626	1.7	4.7	21.65	28.3
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	9	171.	182.	243.	127.	1340.75	36.616	127.	158.5	217.	243.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1967 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	3	18.3	16.1	24.4	5.6	91.99	9.591	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	3	160.	165.	225.	110.	3325.	57.663	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1975 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	6	15.25	13.9	19.	6.6	23.504	4.848	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	6	335.5	1275.	5150.	94.	3878590.4	1969.414	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	6	227.5	241.833	410.	145.	9514.167	97.541	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1976 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	24	14.	13.175	26.	1.3	48.414	6.958	3.15	7.975	17.375	24.5
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	25	1000.	3410.04	17400.	11.	20115679.873	4485.051	31.6	259.	5975.	10126.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	18	200.	220.833	500.	90.	12109.559	110.043	99.	127.5	293.75	387.5

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1977 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	9	13.	13.667	27.	1.	72.	8.485	1.	8.	21.	27.
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	66	6030.	11641.742	47100.	55.	205601793.733	14338.821	187.1	897.25	15075.	37450.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	9	200.	190.	340.	80.	7250.	85.147	80.	110.	245.	340.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1978 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	8	15.75	15.5	25.	2.	52.214	7.226	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	28	1165.	2687.536	9530.	20.	9447057.443	3073.607	37.5	261.75	5452.5	7652.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	8	255.	281.125	450.	100.	15435.839	124.241	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1979 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	11	11.	12.545	22.5	1.5	72.573	8.519	1.7	2.5	22.	22.4
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	11	507.	1070.727	6340.	56.	3216971.418	1793.592	73.8	173.	1030.	5294.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	11	208.	219.636	320.	130.	4373.655	66.134	134.	150.	280.	319.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1980 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	10	18.25	16.55	30.	5.	92.358	9.61	5.1	6.	24.5	29.6
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	9	54.	419.556	1460.	7.	361148.778	600.957	7.	9.5	1035.5	1460.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	10	322.5	312.6	530.	125.	22046.711	148.481	126.3	143.25	433.5	528.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1981 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	9	17.	15.	25.	1.	69.5	8.337	1.	7.	22.	25.
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	9	383.	726.667	3490.	67.	1152445.5	1073.52	67.	132.5	755.	3490.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	9	270.	271.111	456.	175.	8391.111	91.603	175.	191.	332.	456.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1982 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	6	22.35	19.467	24.2	10.5	35.407	5.95	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	6	178.5	215.167	524.	41.	26568.567	162.999	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	6	342.5	325.667	426.	182.	7827.467	88.473	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1983 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	2	9.5	9.5	14.	5.	40.5	6.364	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	2	769.5	769.5	1140.	399.	274540.5	523.966	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	2	197.5	197.5	245.	150.	4512.5	67.175	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1984 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	1	11.5	11.5	11.5	11.5	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	4	3965.	3213.	4500.	422.	3569036.	1889.189	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1985 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	3	13.5	9.833	14.5	1.5	52.333	7.234	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	4	270.	386.5	907.	99.	136667.667	369.686	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	3	250.	244.	272.	210.	988.	31.432	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1986 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	6	18.75	17.	28.5	3.5	77.6	8.809	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	6	464.	584.167	1500.	45.	267672.967	517.371	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	6	204.	224.833	335.	159.	4679.767	68.409	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1990 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	1	72.	72.	72.	72.	0.	0.	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	1	305.	305.	305.	305.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1991 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	2	14.	14.	22.	6.	128.	11.314	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	2	538.5	538.5	546.	531.	112.5	10.607	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	2	219.	219.	220.	218.	2.	1.414	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

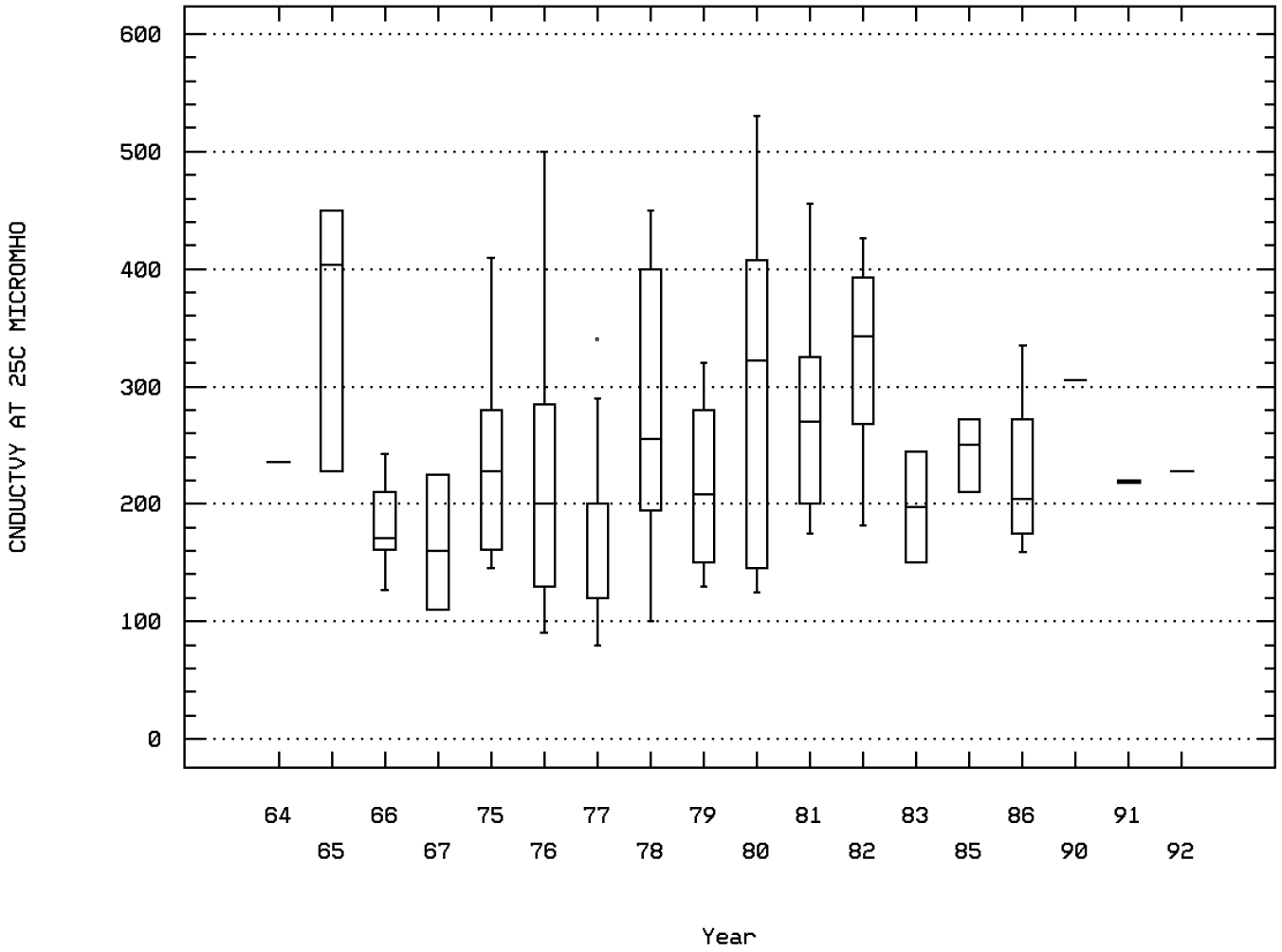
Annual Analysis for 1992 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	1	345.	345.	345.	345.	0.	0.	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	1	228.	228.	228.	228.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station: BISO0009 Parameter Code: 00095

SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)



NEW RIVER AT NEW RIVER, TN

Seasonal Analysis for Season #1: 11/16 to 3/15 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	37	5.6	5.565	17.8	0.5	13.691	3.7	1.24	2.5	7.65	10.2
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	62	1280.	3367.516	14400.	54.	17018478.516	4125.346	158.7	436.5	4997.5	10909.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	36	195.	204.861	456.	90.	8219.837	90.663	117.	139.75	226.	386.
00400p	PH (STANDARD UNITS)	05/27/64-09/17/81	18	6.7	6.611	7.3	5.8	0.252	0.502	5.89	6.225	7.1	7.3
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/17/81	18	6.7	6.352	7.3	5.8	0.323	0.568	5.89	6.225	7.1	7.3
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/17/81	18	0.2	0.444	1.585	0.05	0.239	0.489	0.05	0.079	0.626	1.292
00405p	CARBON DIOXIDE (MG/L AS CO2)	05/27/64-09/06/79	12	7.2	18.875	64.	2.9	458.266	21.407	2.99	3.9	36.75	60.1
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	05/27/64-09/17/81	17	16.	19.824	36.	7.	103.404	10.169	7.	10.	29.	36.
00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/05/77	12	16.	18.5	36.	8.	93.545	9.672	8.3	10.	28.25	34.8
00445	CARBONATE ION (MG/L AS CO3)	05/18/65-04/05/77	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/17/81	12	59.5	65.833	135.	34.	848.333	29.126	35.2	44.5	85.25	123.9
00902p	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/17/81	12	45.5	50.667	105.	27.	480.606	21.923	27.9	32.5	61.75	95.1
00915p	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/17/81	12	13.5	15.917	34.	7.3	62.878	7.93	7.75	10.175	21.25	31.6
00925p	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/17/81	12	5.75	6.317	12.	3.9	5.245	2.29	3.93	4.625	7.725	10.92
00940p	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/17/81	12	1.	1.2	3.	0.7	0.424	0.651	0.73	0.925	1.	2.7
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/17/81	17	60.	71.706	190.	31.	1926.096	43.887	35.	46.5	73.	158.8
01045	IRON, TOTAL (UG/L AS FE)	05/13/75-09/17/81	11	770.	1940.	9200.	270.	7107060.	2665.907	274.	350.	2700.	8140.
01046p	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/17/81	17	30.	44.118	140.	5.	1969.485	44.379	5.	7.5	65.	140.
01055	MANGANESE, TOTAL (UG/L AS MN)	05/13/75-09/17/81	8	290.	281.25	460.	160.	9355.357	96.723	**	**	**	**
01056p	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/17/81	11	130.	181.818	590.	0.	35136.364	187.447	0.	10.	300.	548.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/17/81	17	105.	128.588	314.	63.	5424.132	73.649	63.8	82.	139.	270.
70302p	SOLIDS, DISSOLVED-TONS PER DAY	05/27/64-09/17/81	17	128.	193.576	774.	11.2	33628.513	183.381	30.72	71.75	274.	448.4
70303p	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/27/64-09/17/81	17	0.14	0.175	0.43	0.09	0.01	0.1	0.09	0.11	0.19	0.366
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/24/75-09/03/86	46	141.5	455.761	3660.	1.	499520.897	706.768	4.	19.5	706.	985.
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/24/75-01/07/83	41	693.	10964.561	75600.	0.72276977493.344		16642.641	2.9	51.5	16450.	35700.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	42	16.05	16.907	26.	8.	21.229	4.607	10.15	13.875	22.	22.91
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	62	1145.	10179.887	47100.	56.	232488040.233	15247.559	153.7	272.25	15225.	38450.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	37	200.	208.568	341.	80.	4856.086	69.686	120.	160.	256.5	321.
00400p	PH (STANDARD UNITS)	05/27/64-09/17/81	22	7.	7.023	7.9	5.6	0.376	0.613	6.13	6.6	7.6	7.8
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/17/81	22	7.	6.566	7.9	5.6	0.595	0.771	6.13	6.6	7.6	7.8
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/17/81	22	0.1	0.272	2.512	0.013	0.295	0.543	0.016	0.025	0.251	0.745
00405p	CARBON DIOXIDE (MG/L AS CO2)	05/27/64-09/06/79	13	4.4	12.854	92.	0.4	619.271	24.885	0.68	2.8	8.5	66.8
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	05/27/64-09/17/81	20	18.5	20.75	44.	8.	88.724	9.419	11.	14.5	27.25	35.8
00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/05/77	13	20.	19.615	30.	10.	33.923	5.824	11.6	14.5	23.5	28.8
00445	CARBONATE ION (MG/L AS CO3)	05/18/65-04/05/77	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/17/81	13	66.	62.385	85.	32.	278.59	16.691	34.8	51.	76.	83.
00902p	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/17/81	13	46.	46.231	68.	24.	190.692	13.809	25.2	35.	59.5	65.6
00915p	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/17/81	13	16.	14.492	19.	7.5	14.592	3.82	8.06	11.	18.	18.6
00925p	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/17/81	13	6.3	6.315	11.	3.3	4.305	2.075	3.58	4.5	7.7	9.8
00940p	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/17/81	14	1.	1.557	4.	0.6	1.307	1.143	0.65	0.8	2.	4.
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/17/81	21	56.	58.19	110.	23.	502.162	22.409	26.2	39.	73.5	88.
01045	IRON, TOTAL (UG/L AS FE)	05/13/75-09/17/81	15	2300.	15552.667	83000.	290.	594403663.81	24380.395	368.	620.	25000.	62000.
01046p	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/17/81	20	20.	41.25	240.	0.	3310.197	57.534	0.5	5.	57.5	117.
01055	MANGANESE, TOTAL (UG/L AS MN)	05/13/75-09/17/81	15	270.	485.333	1600.	140.	176940.952	420.643	164.	190.	690.	1240.
01056p	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/17/81	15	190.	178.	600.	10.	19145.714	138.368	10.	100.	230.	378.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/17/81	20	112.5	112.7	206.	52.	1376.537	37.102	57.3	90.	137.75	145.8
70302p	SOLIDS, DISSOLVED-TONS PER DAY	05/27/64-09/17/81	20	89.1	708.195	5710.	20.5	1877978.845	1370.394	25.39	60.475	890.	2420.
70303p	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/27/64-09/17/81	20	0.155	0.155	0.28	0.07	0.003	0.051	0.08	0.123	0.19	0.2
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/24/75-09/03/86	54	83.5	905.185	4845.	3.	1607727.739	1267.962	8.	16.75	1794.5	2807.5
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/24/75-01/07/83	49	3850.	85132.494	591000.	2.522748903094.472		150827.395	4.5	26.5	123000.	325000.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

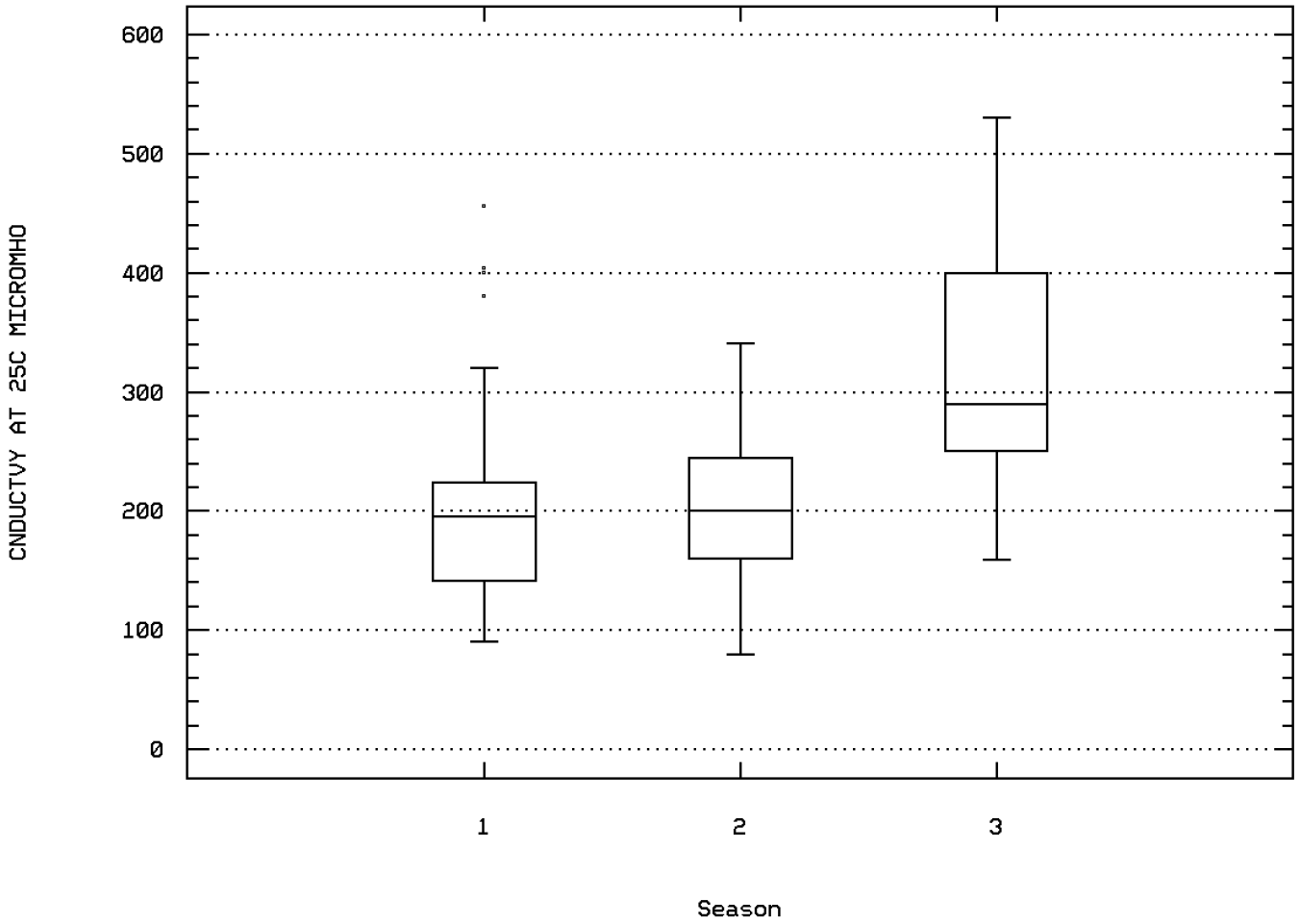
Seasonal Analysis for Season #3: 7/01 to 11/15 - Station BISO0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-01/21/92	35	21.5	20.22	30.	8.5	34.869	5.905	10.8	15.3	25.	27.52
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/13/75-01/21/92	56	349.	2515.875	17100.	7.	17976923.711	4239.92	22.1	83.5	3377.5	7484.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-01/21/92	35	290.	317.914	530.	159.	10013.375	100.067	194.	250.	400.	470.
00400p	PH (STANDARD UNITS)	05/27/64-09/17/81	19	7.2	7.121	7.7	6.5	0.141	0.375	6.5	6.9	7.4	7.6
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/17/81	19	7.2	6.964	7.7	6.5	0.167	0.408	6.5	6.9	7.4	7.6
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/17/81	19	0.063	0.109	0.316	0.02	0.01	0.099	0.025	0.04	0.126	0.316
00405p	CARBON DIOXIDE (MG/L AS CO2)	05/27/64-09/06/79	10	3.2	5.15	15.	1.3	19.076	4.368	1.37	2.	8.425	14.44
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	05/27/64-09/17/81	18	33.	29.778	48.	13.	125.242	11.191	13.	20.25	38.5	42.6
00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/05/77	8	23.5	26.5	58.	16.	184.571	13.586	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	05/18/65-04/05/77	8	0.	0.	0.	0.	0.	0.	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/17/81	11	110.	104.273	163.	63.	1078.618	32.842	65.6	77.	110.	162.4
00902p	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/17/81	11	70.	77.636	150.	50.	851.855	29.187	51.4	60.	88.	142.
00915p	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/17/81	10	26.5	24.9	40.	16.	47.433	6.887	16.2	19.5	27.25	38.8
00925p	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/17/81	10	8.95	8.95	15.	5.1	9.196	3.033	5.15	6.275	11.	14.6
00940p	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/17/81	11	2.	4.891	31.	0.8	78.051	8.835	0.84	1.	3.	26.2
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/17/81	18	84.5	99.333	208.	49.	2340.824	48.382	58.	62.75	107.5	191.8
01045	IRON, TOTAL (UG/L AS FE)	05/13/75-09/17/81	14	850.	1927.857	7100.	170.	4874895.055	2207.916	320.	585.	3350.	6550.
01046p	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/17/81	18	30.	45.556	200.	0.	2387.908	48.866	4.5	10.	60.	128.
01055	MANGANESE, TOTAL (UG/L AS MN)	05/13/75-09/17/81	13	220.	243.077	440.	120.	8373.077	91.505	124.	175.	295.	412.
01056p	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/17/81	14	140.	145.714	240.	20.	4334.066	65.834	45.	95.	210.	235.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/17/81	17	168.	188.	348.	57.	7168.5	84.667	91.4	123.	220.5	343.2
70302p	SOLIDS, DISSOLVED-TONS PER DAY	05/27/64-09/17/81	17	77.	101.024	391.	6.5	11059.933	105.166	8.9	15.05	159.	266.2
70303p	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/27/64-09/17/81	17	0.23	0.256	0.47	0.08	0.013	0.115	0.128	0.17	0.3	0.47
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/24/75-09/03/86	43	108.	718.186	4405.	2.	1291118.965	1136.274	7.	21.	1183.	2626.8
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/24/75-01/07/83	39	263.	21005.114	203000.	0.162	212622781.952	47038.524	0.5	11.	21800.	64900.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station: BISO0009 Parameter Code: 00095

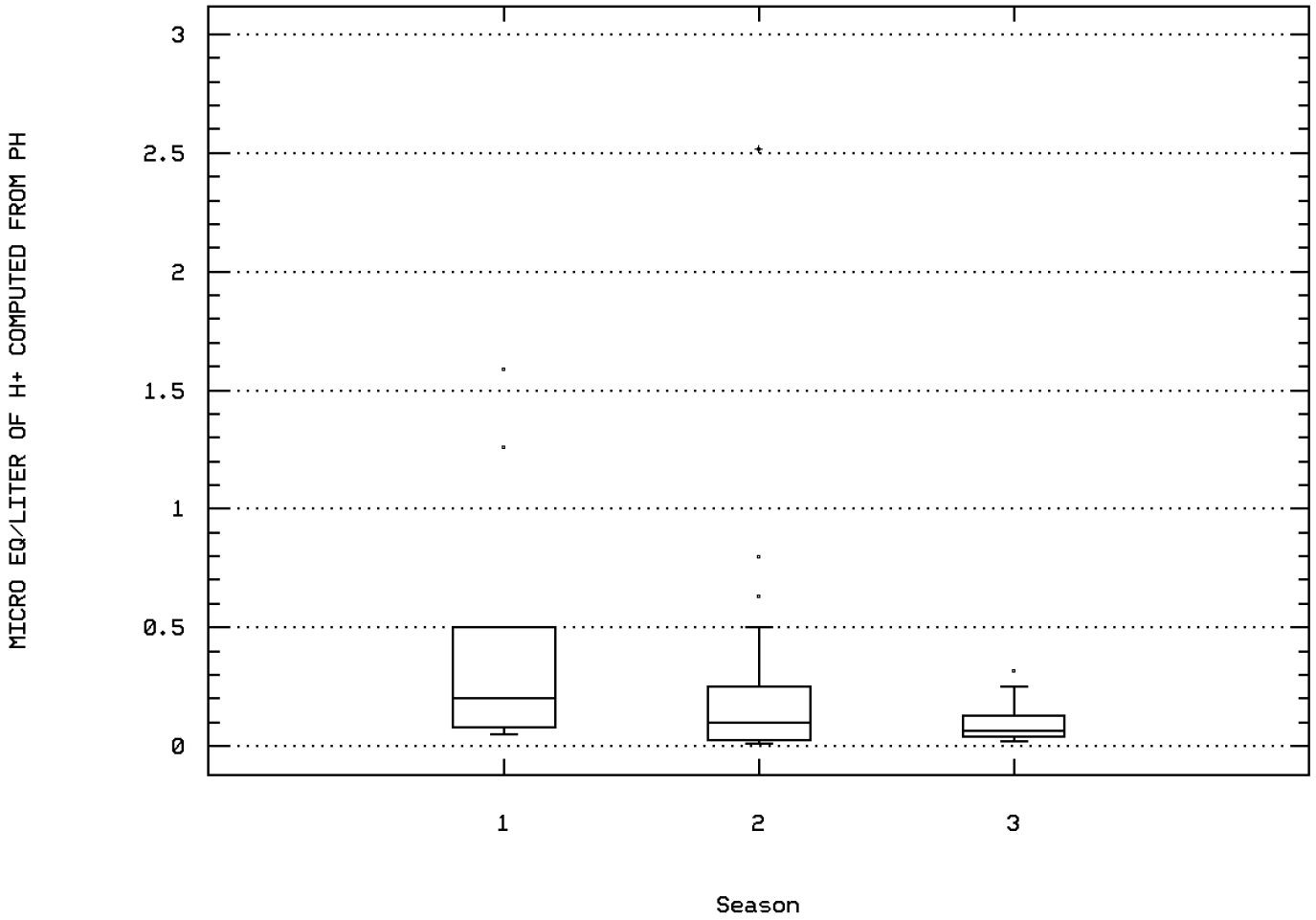
SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00400

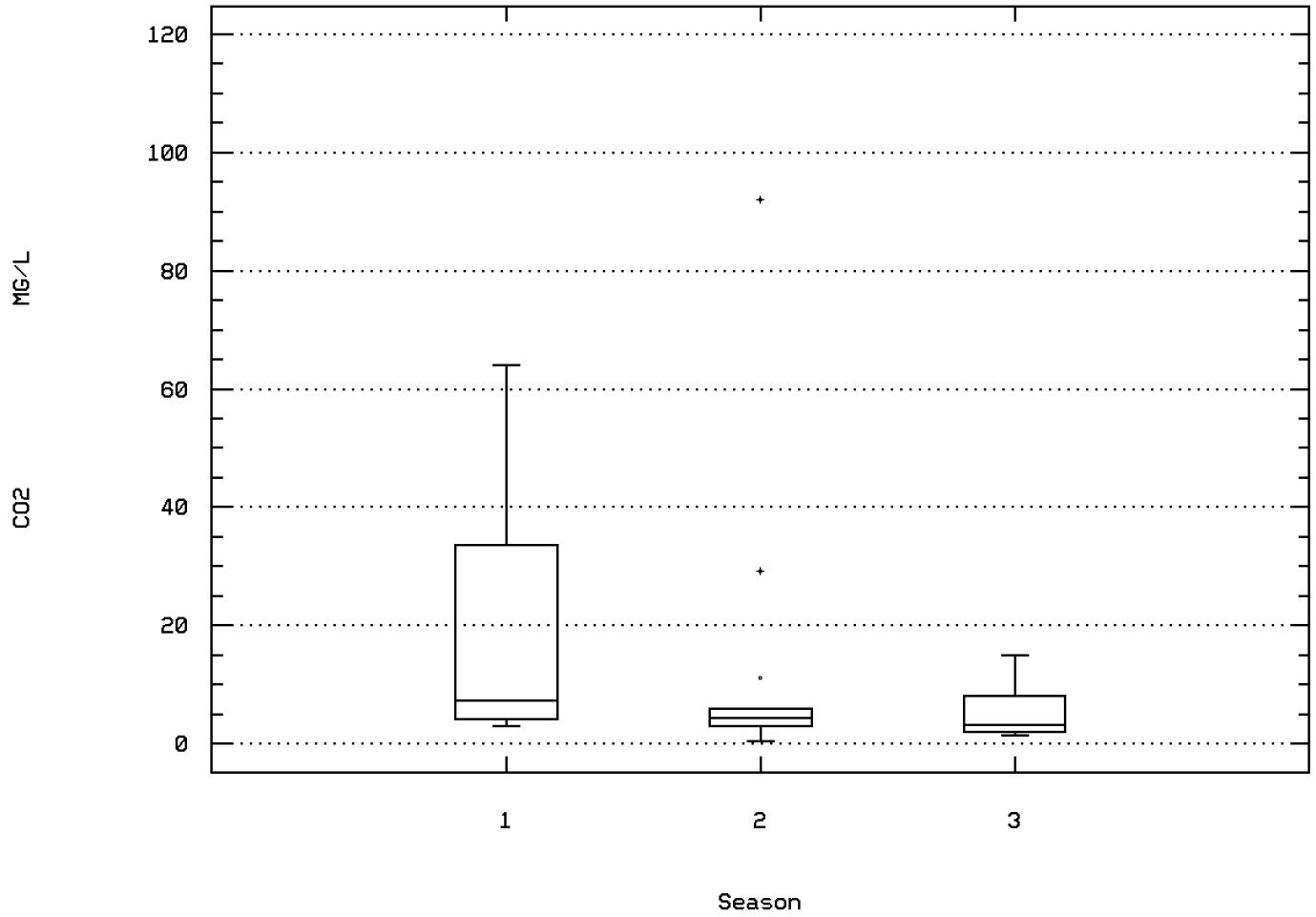
MICRO EQ/LITER OF H+ COMPUTED FROM PH



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00405

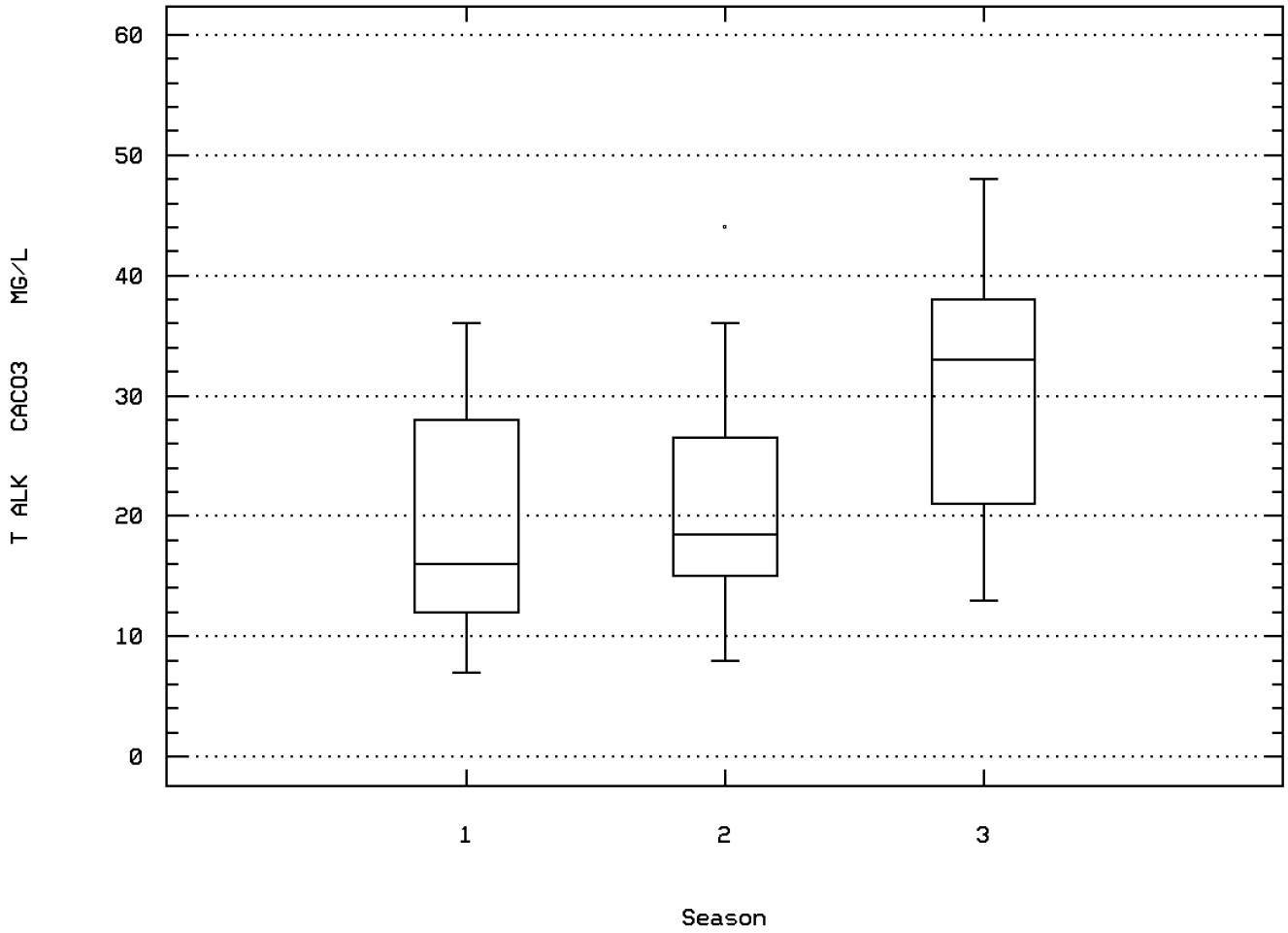
CARBON DIOXIDE (MG/L AS CO2)



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00410

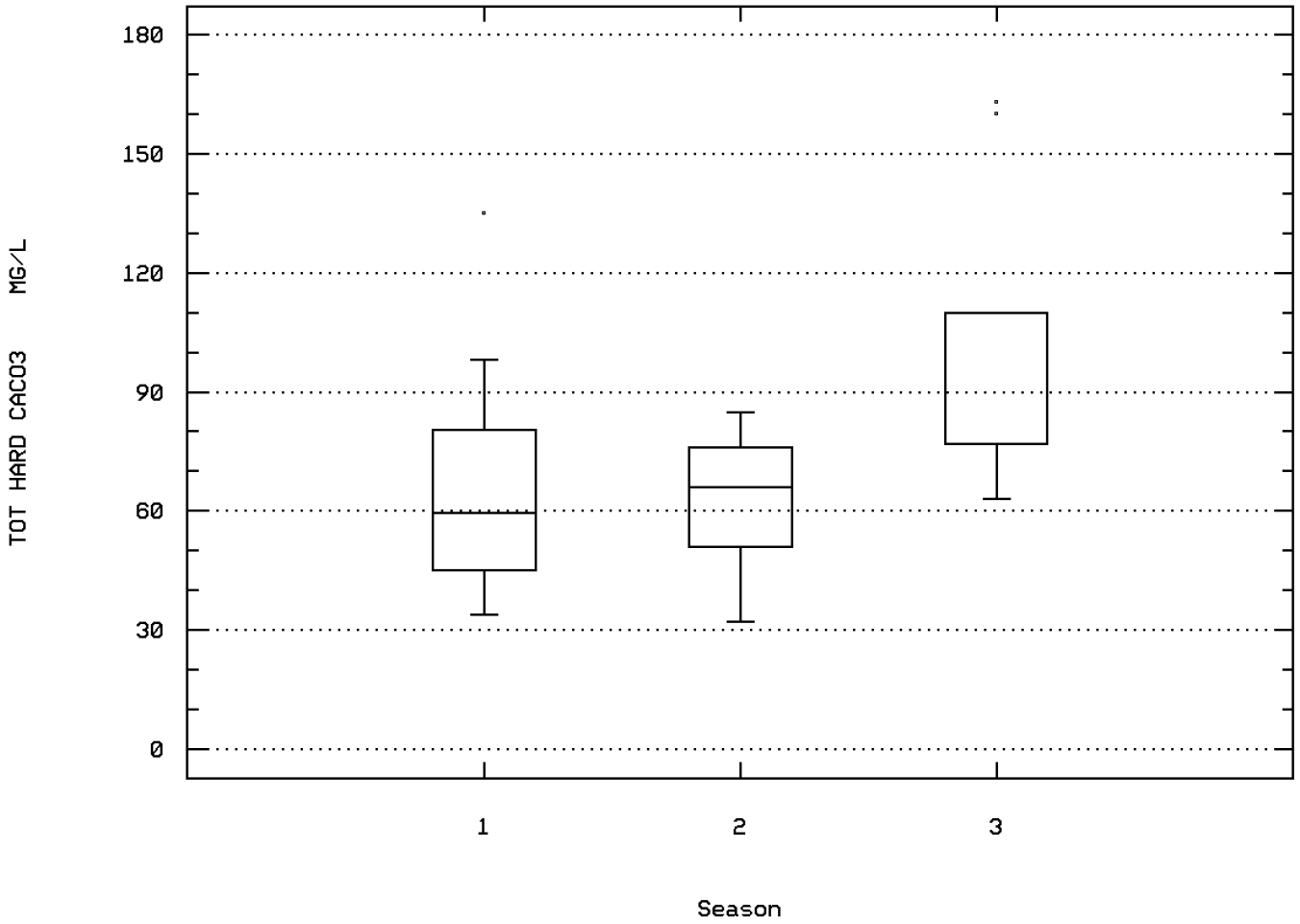
ALKALINITY, TOTAL (MG/L AS CACO3)



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00900

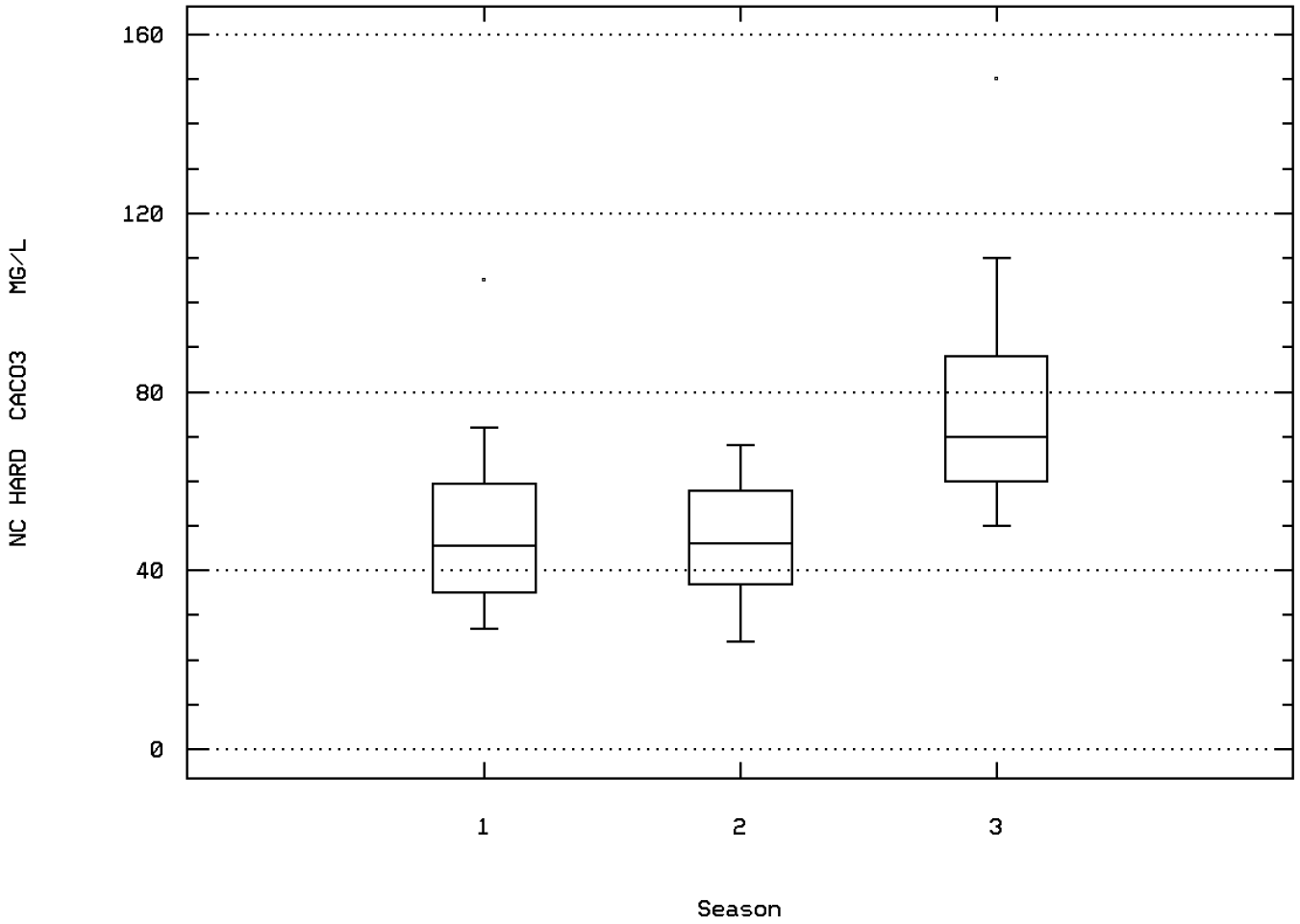
HARDNESS, TOTAL (MG/L AS CACO3)



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00902

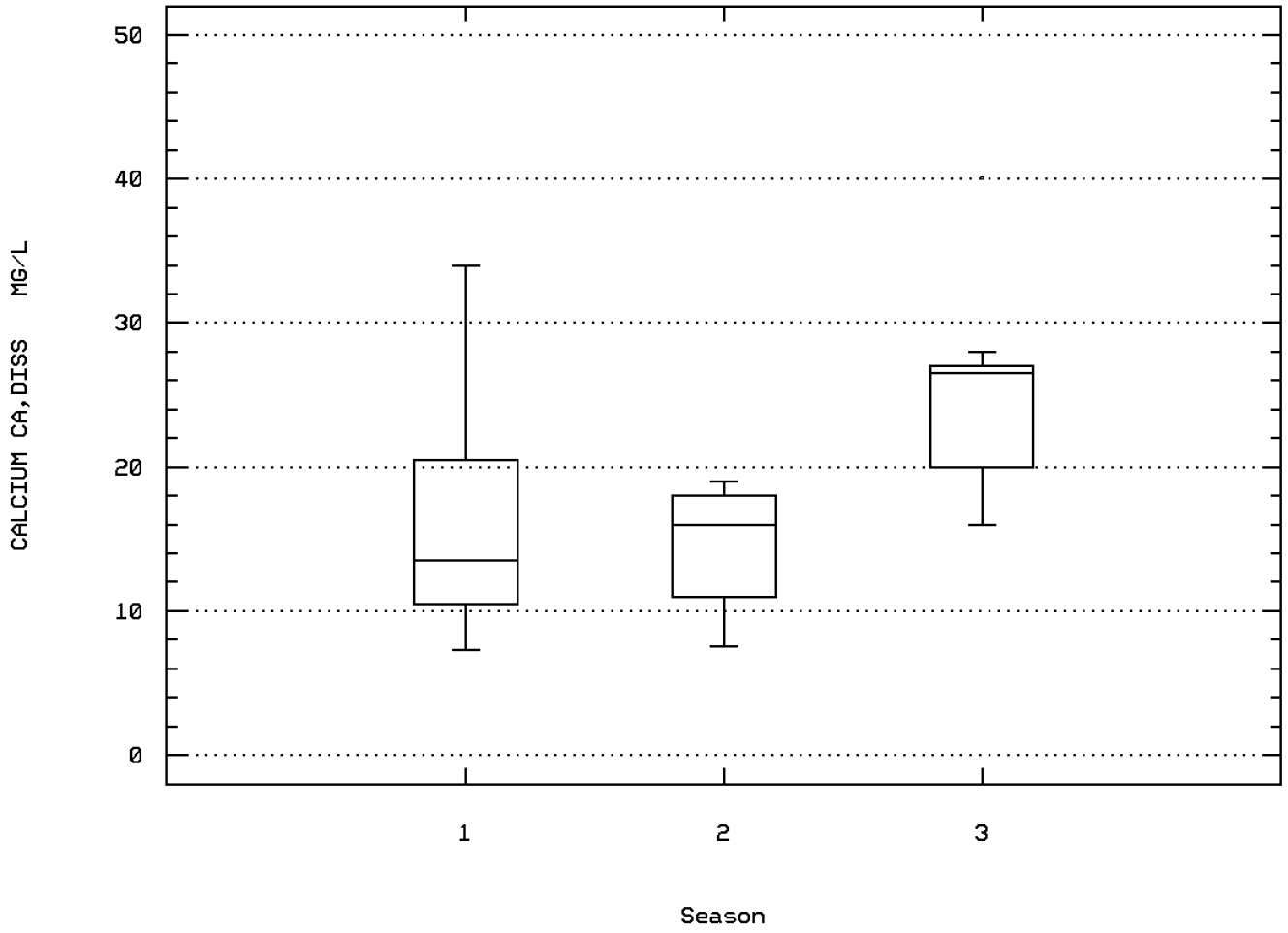
HARDNESS, NON-CARBONATE (MG/L AS CACO3)



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00915

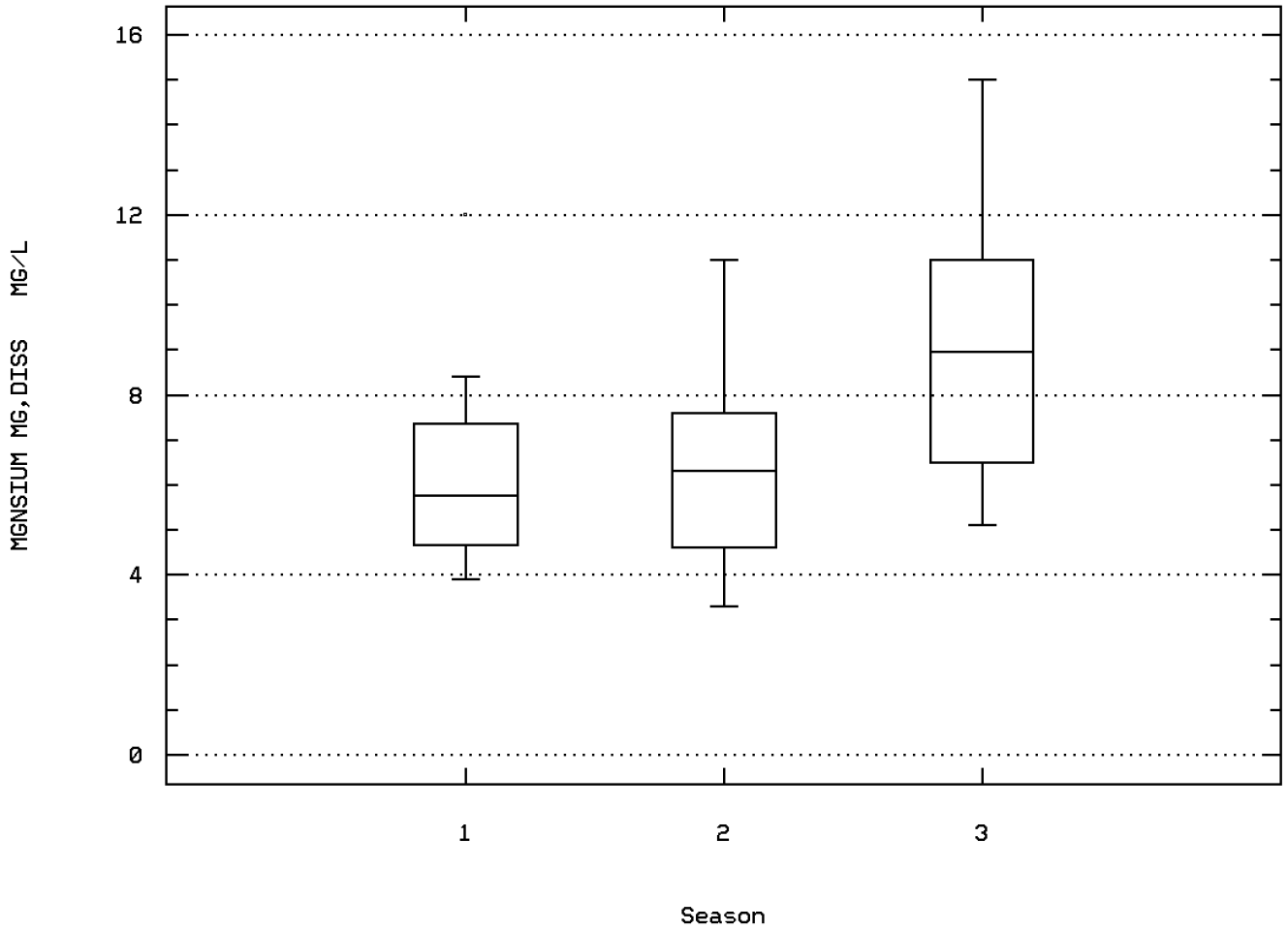
CALCIUM, DISSOLVED (MG/L AS CA)



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00925

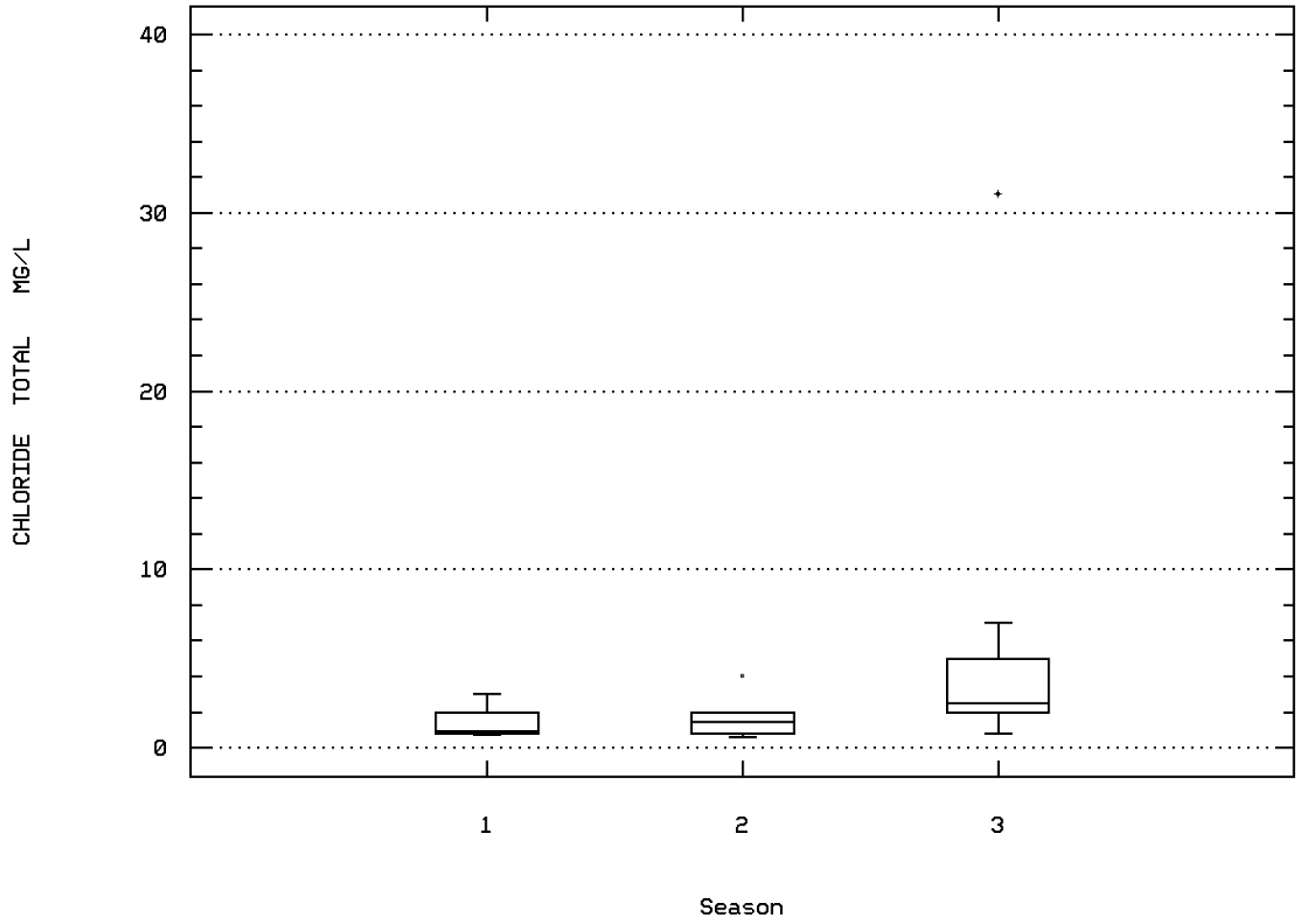
MAGNESIUM, DISSOLVED (MG/L AS MG)



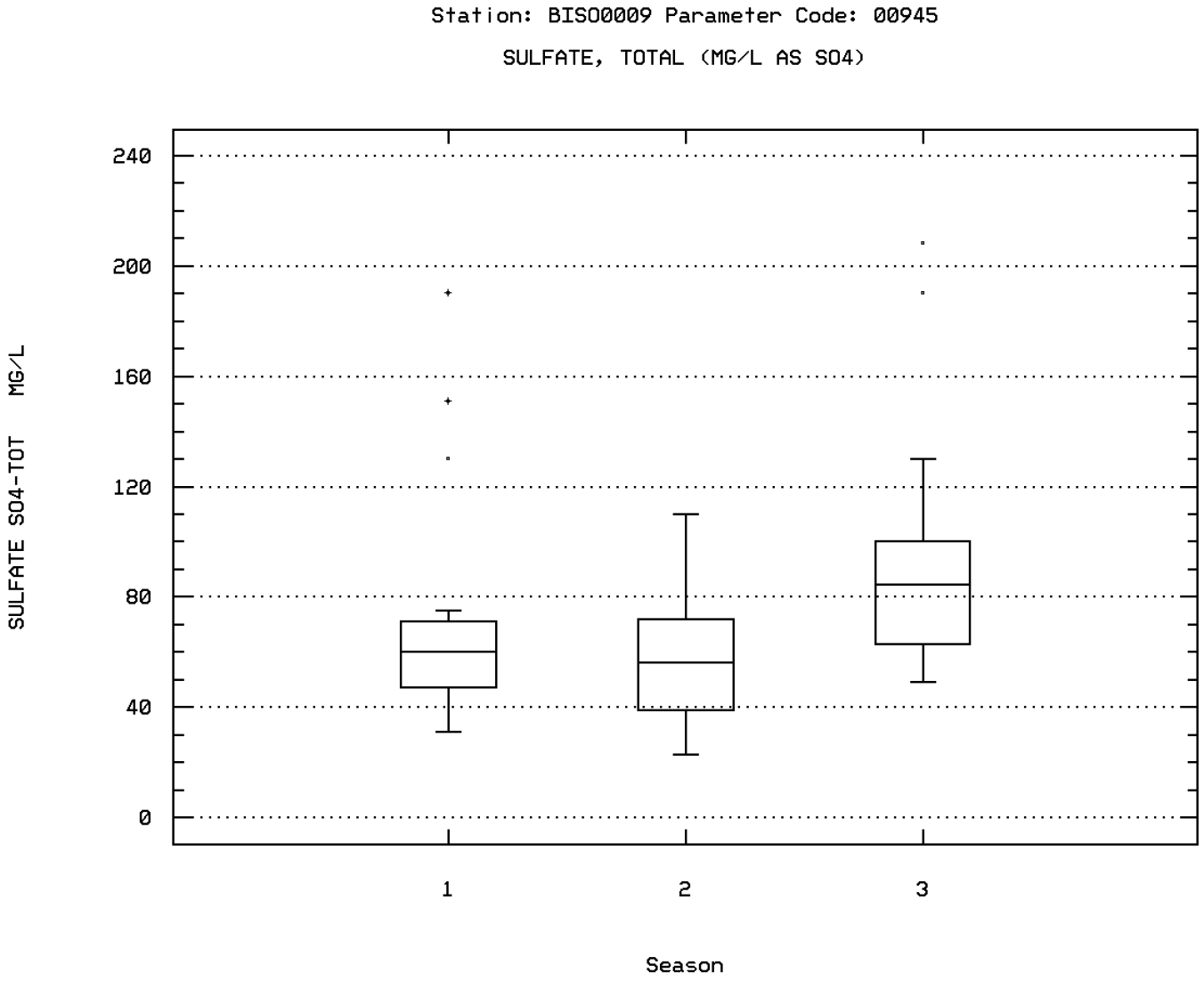
NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 00940

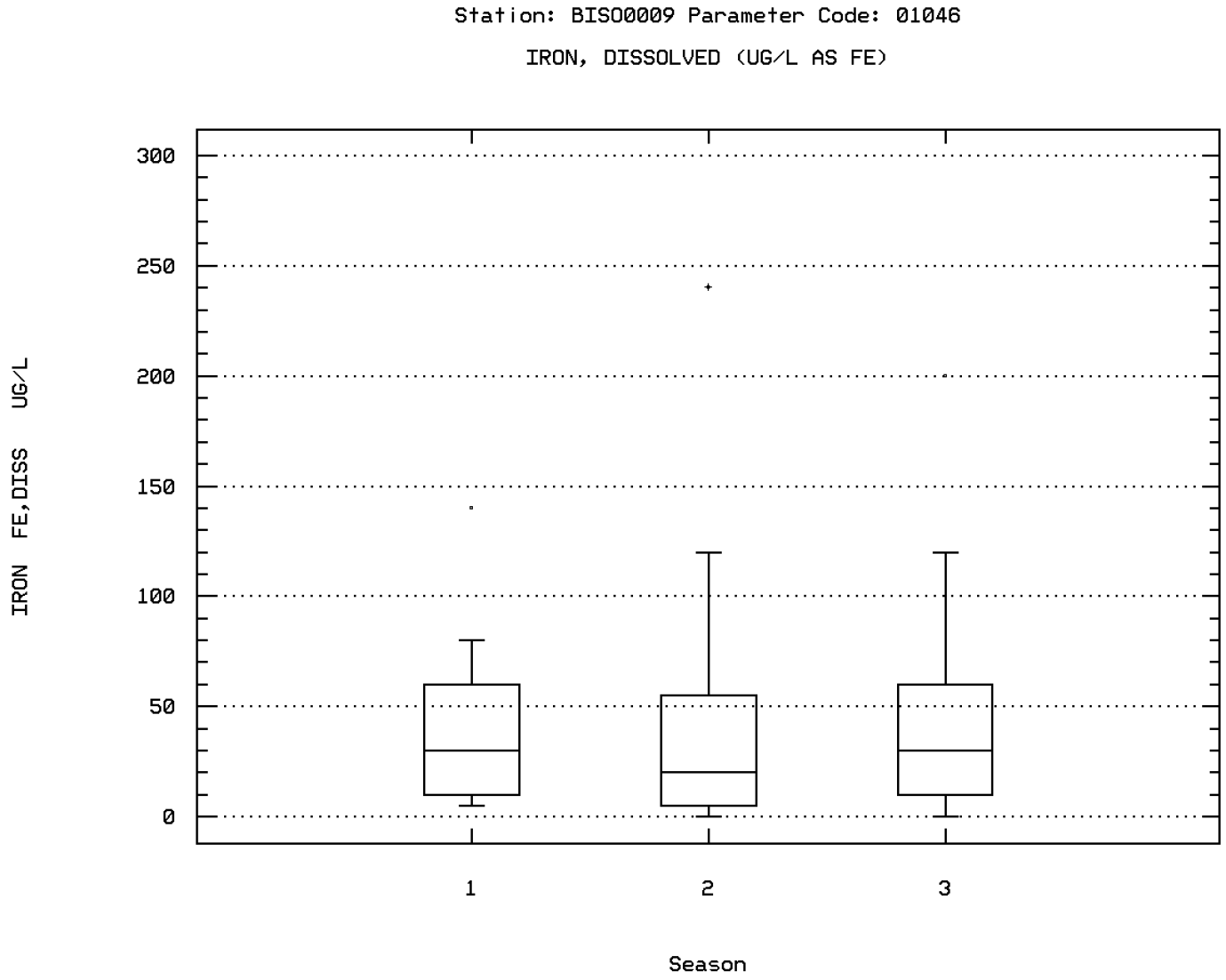
CHLORIDE,TOTAL IN WATER



NEW RIVER AT NEW RIVER, TN



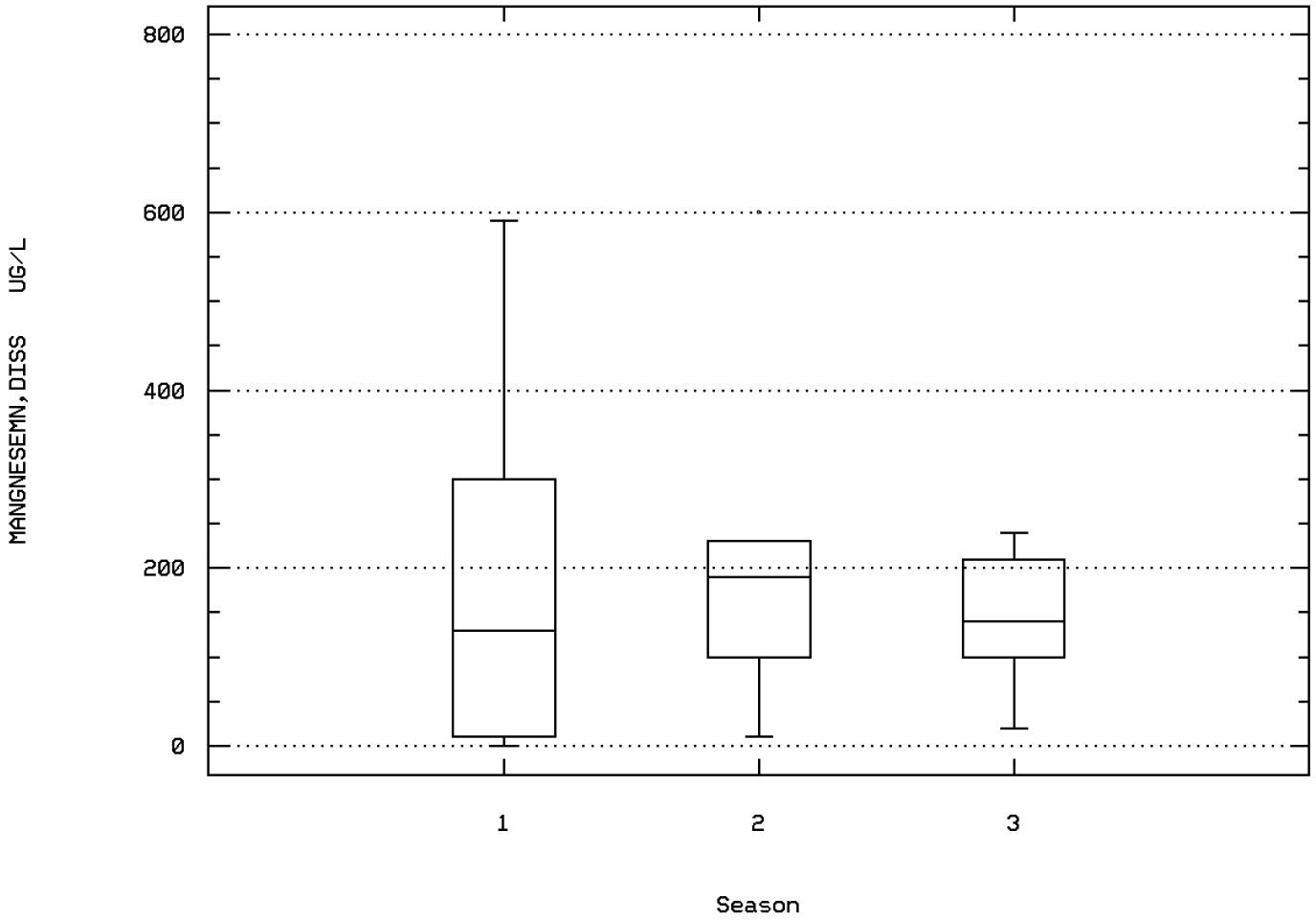
NEW RIVER AT NEW RIVER, TN



NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 01056

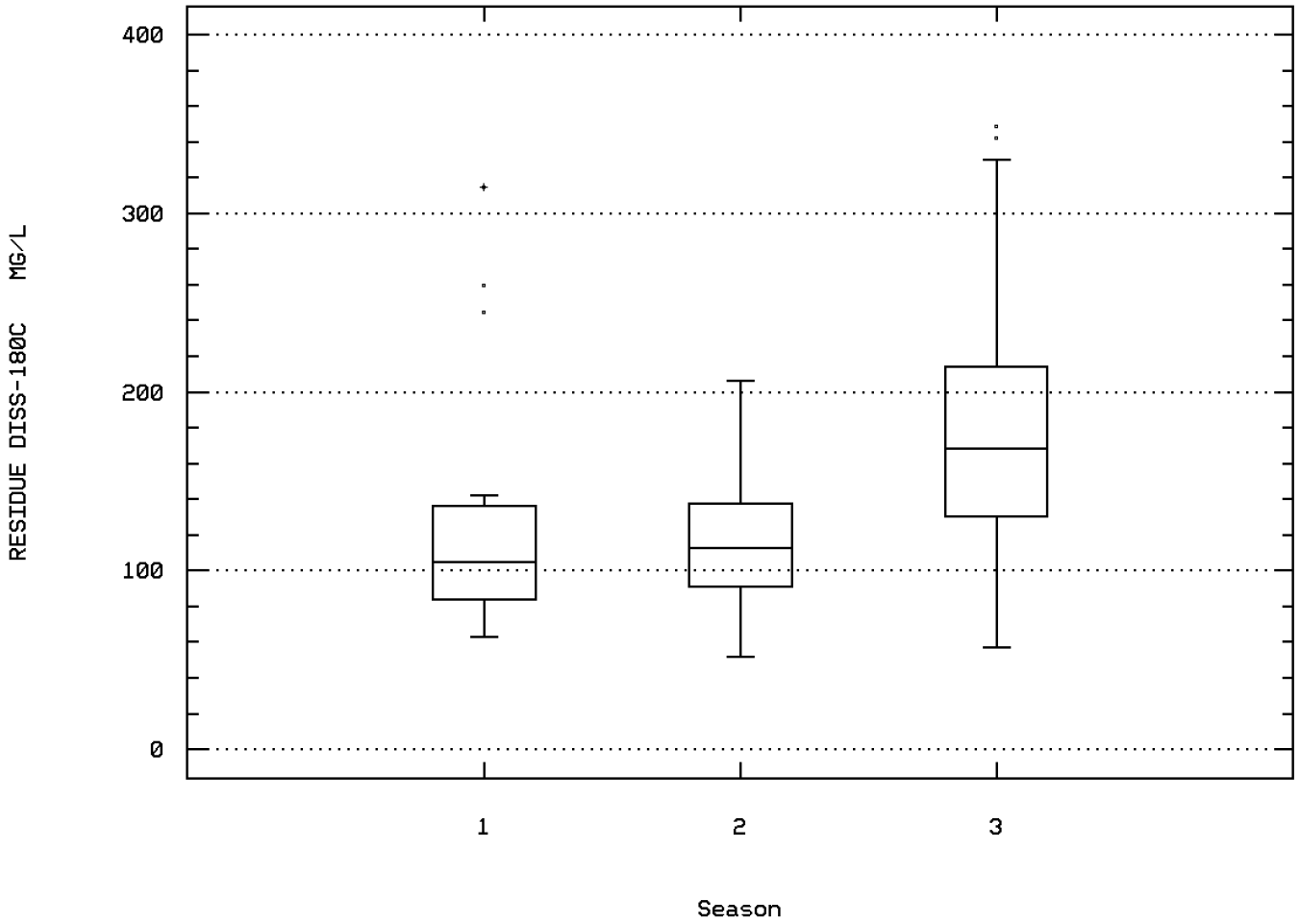
MANGANESE, DISSOLVED (UG/L AS MN)



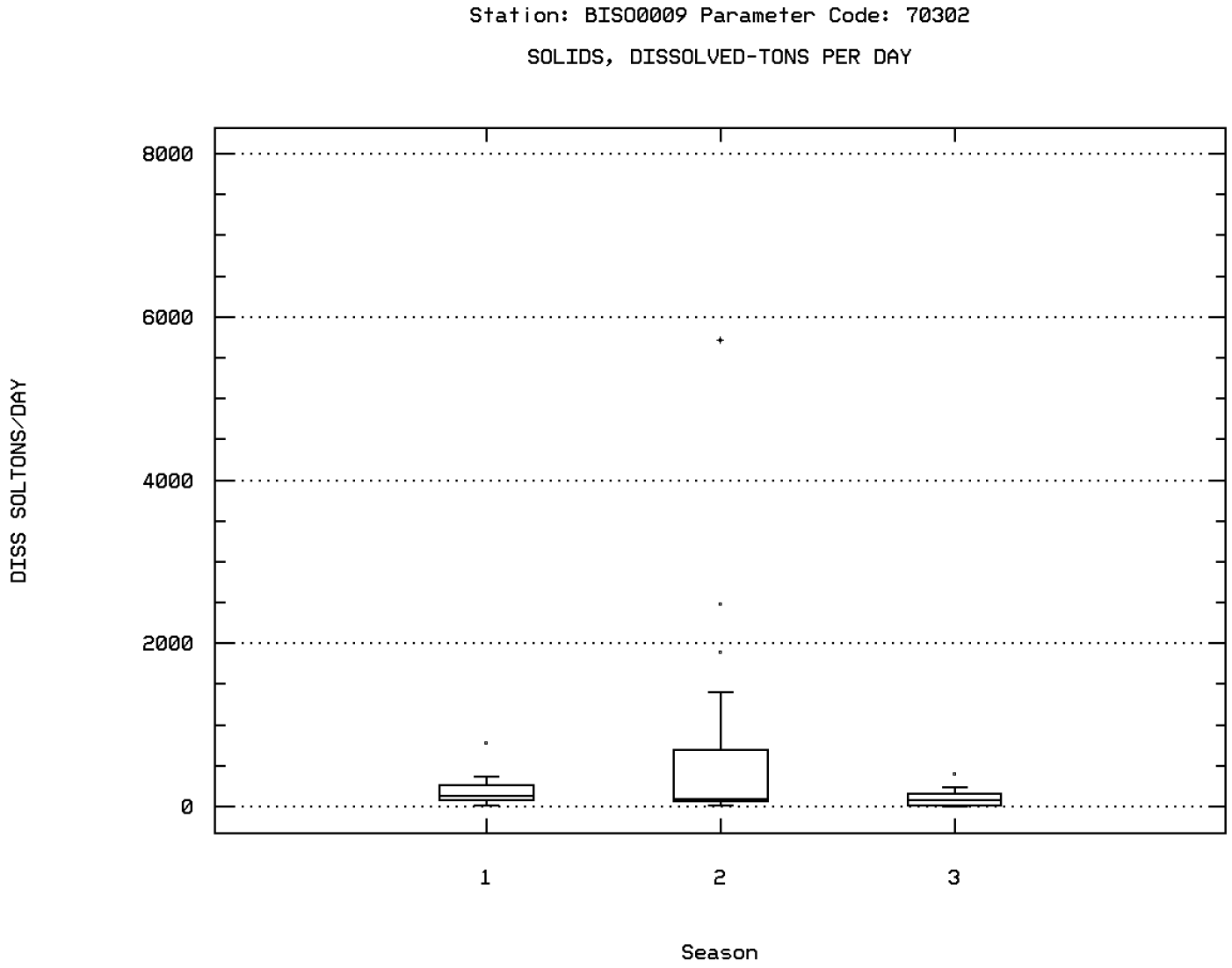
NEW RIVER AT NEW RIVER, TN

Station: BISO0009 Parameter Code: 70300

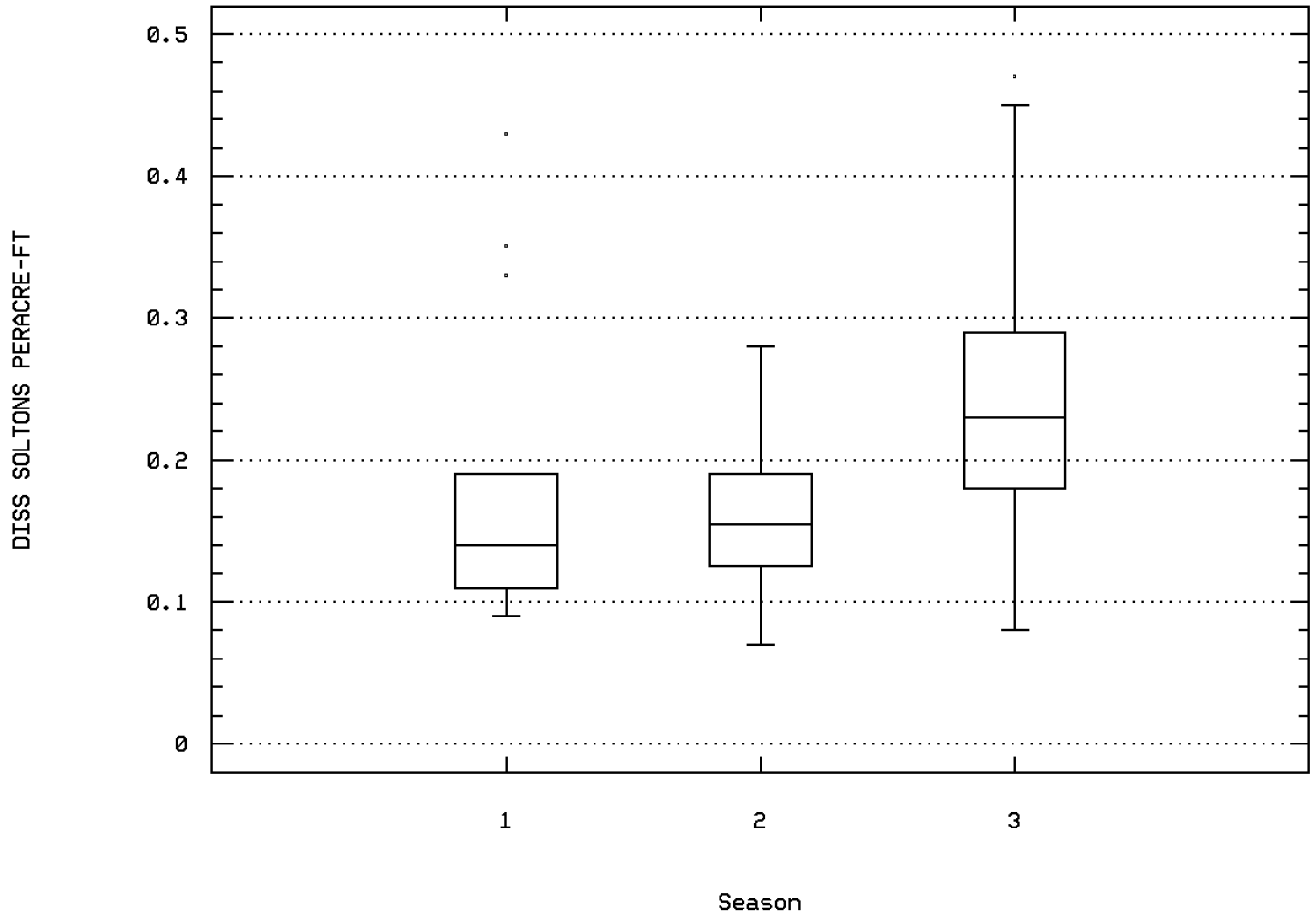
RESIDUE,TOTAL FILTRABLE (DRIED AT 180C)



NEW RIVER AT NEW RIVER, TN



NEW RIVER AT NEW RIVER, TN



NEW RIVER AT NEW RIVER, TN

Station Inventory for Station: BISO0010

NPS Station ID: BISO0010
LAT/LON: 36.387504/ -84.547226
Agency: 11COEHUN
Date Created: 07/14/79
Location: PHILLIPS CREEK, MILE 0.3
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10013
RMI-Indexes: 1021500 007720 01140 9598 2170 0430
Within Park Boundary: No
RMI-Miles: 0953.80 0058.30 514.00 075.45 008.80 000.30
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104039
RF1 Mile Point: 1.090
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002502.95
RF3 Mile Point: 3.38
Distance from RF3: 0.03
On/Off RF3:
Description:
QUADRANGLE: ONEIDA SOUTH, TN
LOCATION: 0.1 MILE UPSTREAM OF SECONDARY ROAD FORD

Parameter Inventory for Station: BISO0010

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/13/74-11/13/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/13/74-11/13/74	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/13/74-11/13/74	1	3.5	3.5	3.5	3.5	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/13/74-11/13/74	1	140.	140.	140.	140.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/13/74-11/13/74	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/13/74-11/13/74	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/13/74-11/13/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/13/74-11/13/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/13/74-11/13/74	1	124.	124.	124.	124.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/13/74-11/13/74	1	50.	50.	50.	50.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/13/74-11/13/74	1	111.	111.	111.	111.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/13/74-11/13/74	1	45.	45.	45.	45.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/13/74-11/13/74	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/13/74-11/13/74	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/13/74-11/13/74	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/13/74-11/13/74	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/13/74-11/13/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/13/74-11/13/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/13/74-11/13/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/13/74-11/13/74	1	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/13/74-11/13/74	1	82.	82.	82.	82.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/13/74-11/13/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/13/74-11/13/74	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/13/74-11/13/74	1	48.	48.	48.	48.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/13/74-11/13/74	1	650.	650.	650.	650.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/13/74-11/13/74	1	710.	710.	710.	710.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/13/74-11/13/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/13/74-11/13/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/13/74-11/13/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0010

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0011

NPS Station ID: BISO0011
LAT/LON: 36.387504/ -84.629726
Agency: 11COEHUN
Date Created: 07/14/79
Location: CLEAR FORK RIVER, MILE 3.8
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10004
RMI-Indexes: 1021500 007720 01140 9598 2160
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 075.40 003.80
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104026
RF1 Mile Point: 3.640
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104002607.93
RF3 Mile Point: 8.85
Distance from RF3: 0.02
On/Off RF3:
Description:
QUADRANGLE: HONEY CREEK, TN
LOCATION: AT BURNT MILL BRIDGE - 0.1 MILES U/S OF USGS STREAM GAGE

Parameter Inventory for Station: BISO0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	1	100.	100.	100.	100.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	1	8.8	8.8	8.8	8.8	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	1	3.9	3.9	3.9	3.9	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/74-11/12/74	1	0.063	0.063	0.063	0.063	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	1	52.	52.	52.	52.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	1	32.	32.	32.	32.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	1	38.	38.	38.	38.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	38.	38.	38.	38.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	1	520.	520.	520.	520.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0011

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0012

NPS Station ID: BISO0012
LAT/LON: 36.388337/ -84.630282
Agency: 112WRD
Date Created: / /
Location: CLEAR FORK NEAR ROBBINS, TN
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03409500
RMI-Indexes:
Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 2.80
On/Off RF1:
RF3 Index: 05130104002600.97
RF3 Mile Point: 1.87
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	76	16.	15.384	34.	0.5	64.066	8.004	5.	8.625	21.775	25.45
00060	FLOW, STREAM, MEAN DAILY CFS	05/27/64-05/18/65	2	59.5	59.5	62.	57.	12.5	3.536	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	75	197.	1084.933	25100.	2.	10735249.631	3276.469	13.6	44.	470.	2750.
00065	STAGE, STREAM (FEET)	09/13/85-09/13/85	1	1.52	1.52	1.52	1.52	0.	0.	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	03/30/76-04/06/77	7	5.	19.714	60.	4.	468.571	21.647	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	05/27/64-05/18/65	2	7.	7.	9.	5.	8.	2.828	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	73	60.	65.301	220.	30.	837.963	28.948	37.	46.	82.	95.
00300	OXYGEN, DISSOLVED MG/L	05/15/76-09/21/81	14	9.1	9.164	12.9	7.	3.73	1.931	7.1	7.45	10.325	12.55
00400	PH (STANDARD UNITS)	05/27/64-09/21/81	33	7.	6.945	7.8	5.2	0.306	0.553	6.14	6.7	7.35	7.6
00400	CONVERTED PH (STANDARD UNITS)	05/27/64-09/21/81	33	7.	6.426	7.8	5.2	0.584	0.764	6.14	6.7	7.35	7.6
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/21/81	33	0.1	0.375	6.31	0.016	1.225	1.107	0.025	0.045	0.2	0.729
00403	PH, LAB, STANDARD UNITS SU	10/21/80-09/21/81	10	7.2	7.22	7.8	6.8	0.093	0.305	6.81	6.975	7.375	7.78
00403	CONVERTED PH, LAB, STANDARD UNITS	10/21/80-09/21/81	10	7.2	7.136	7.8	6.8	0.101	0.317	6.81	6.975	7.375	7.78
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/21/80-09/21/81	10	0.063	0.073	0.158	0.016	0.002	0.044	0.017	0.044	0.106	0.155
00405	CARBON DIOXIDE (MG/L AS CO2)	08/25/76-09/06/79	7	4.2	22.129	101.	0.2	1383.529	37.196	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/25/76-09/21/81	30	13.	13.867	30.	6.	38.051	6.169	6.2	8.	18.25	20.9
00440	BICARBONATE ION (MG/L AS HCO3)	05/27/64-04/06/77	8	14.	15.375	26.	7.	39.125	6.255	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	05/27/64-04/06/77	8	0.	0.	0.	0.	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/06/79-08/18/81	3	0.1	0.09	0.13	0.04	0.002	0.046	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/18/65-05/18/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/06/79-08/18/81	3	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/06/79-08/18/81	3	0.	0.002	0.005	0.	0.	0.003	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/27/64-08/18/81	11	19.	23.909	65.	6.	249.291	15.789	7.2	16.	30.	59.
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/27/64-08/18/81	11	7.	10.273	43.	0.	140.618	11.858	0.2	2.	13.	37.4
00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/27/64-08/18/81	11	5.7	6.509	21.	0.4	28.589	5.347	0.96	3.5	7.9	18.54
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/27/64-08/18/81	11	1.8	1.845	3.2	0.7	0.569	0.754	0.8	1.3	2.4	3.16
00930	SODIUM, DISSOLVED (MG/L AS NA)	05/27/64-08/18/81	5	2.9	4.	9.4	1.4	9.855	3.139	**	**	**	**
00931	SODIUM ADSORPTION RATIO	09/06/79-08/18/81	3	0.3	0.4	0.7	0.2	0.07	0.265	**	**	**	**
00932	SODIUM, PERCENT	09/06/79-08/18/81	3	23.	25.	35.	17.	84.	9.165	**	**	**	**
00933	SODIUM,PLUS POTASSIUM (MG/L)	09/06/79-09/06/79	1	4.7	4.7	4.7	4.7	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/27/64-08/18/81	5	1.8	1.56	2.3	0.7	0.463	0.68	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	05/27/64-08/18/81	12	3.	2.917	6.	1.	2.265	1.505	1.	2.	3.75	5.7
00945	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/21/81	33	9.	10.212	26.	5.	22.36	4.729	7.	7.	11.	17.
00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/27/64-08/18/81	5	0.05	0.04	0.1	0.	0.002	0.042	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	05/27/64-08/18/81	5	2.5	2.36	3.5	1.	1.113	1.055	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/30/76-08/18/81	6	1.	1.417	3.	0.5	0.842	0.917	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/06/79-08/18/81	3	0.	2.	6.	0.	12.	3.464	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/06/79-08/18/81	3	100.	116.667	200.	50.	5833.333	76.376	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01027	CADMIUM, TOTAL (UG/L AS CD)	04/04/77-08/18/81	5 ##	0.	0.1	0.5	0.	0.05	0.224	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/18/81	3 ##	5.	3.5	5.	0.5	6.75	2.598	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/06/79-08/18/81	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/30/76-08/18/81	6 ##	10.	12.5	20.	5.	37.5	6.124	**	**	**	**
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/06/79-08/18/81	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/30/76-08/18/81	6	2.5	3.5	9.	0.	11.5	3.391	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/06/79-08/18/81	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	05/24/79-09/21/81	22	235.	794.091	6000.	110.	1799196.753	1341.341	140.	150.	825.	2210.
01045	IRON, TOTAL (UG/L AS FE)	03/30/76-09/21/81	31	300.	956.452	6200.	150.	2110623.656	1452.799	164.	230.	1000.	3100.
01046	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/21/81	32	60.	73.125	170.	20.	1977.016	44.464	23.	40.	97.5	150.
01051	LEAD, TOTAL (UG/L AS PB)	03/30/76-08/18/81	6	12.	10.167	15.	3.	24.967	4.997	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/06/79-08/18/81	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/06/79-08/18/81	3	44.	35.667	50.	13.	394.333	19.858	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/24/79-09/21/81	24	20.	34.167	230.	0.	2599.275	50.983	0.	10.	20.	115.
01055	MANGANESE, TOTAL (UG/L AS MN)	03/30/76-09/21/81	31	40.	60.645	270.	10.	3546.237	59.55	20.	30.	60.	154.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/21/81	26	20.	21.154	50.	0.	200.615	14.164	3.5	10.	32.5	40.
01067	NICKEL, TOTAL (UG/L AS NI)	03/30/76-04/06/77	7	4.	5.429	20.	0.	46.619	6.828	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	09/06/79-08/18/81	3 ##	0.5	0.5	1.	0.	0.25	0.5	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	09/06/79-08/18/81	3	10.	6.667	10.	0.	33.333	5.774	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/06/79-08/18/81	3	9.	7.833	9.5	5.	6.083	2.466	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	05/18/65-05/18/65	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/30/76-08/18/81	6 ##	0.5	0.417	0.5	0.	0.042	0.204	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/06/79-08/18/81	3	0.	0.167	0.5	0.	0.083	0.289	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/06/79-08/18/81	3	1900.	1833.333	2300.	1300.	253333.333	503.322	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/21/81	31	35.	41.065	77.	18.	278.862	16.699	21.6	27.	56.	65.6
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	09/06/79-08/18/81	3	44.	52.	69.	43.	217.	14.731	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	03/30/76-09/21/81	29	25.1	102.042	1220.	0.21	58959.988	242.817	0.67	6.47	69.	285.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	03/30/76-09/21/81	29	0.05	0.057	0.1	0.02	0.001	0.023	0.03	0.04	0.08	0.09
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	03/30/76-06/12/79	11	98.	88.545	100.	62.	199.273	14.116	62.8	78.	100.	100.
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/27/64-05/18/65	2	0.05	0.05	0.1	0.	0.005	0.071	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	09/06/79-08/18/81	3	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/30/76-08/18/81	6 ##	0.25	0.192	0.25	0.05	0.008	0.092	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/06/79-08/18/81	3	0.	0.002	0.005	0.	0.	0.003	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/30/76-09/02/86	45	9.	36.156	368.	0.	5445.634	73.795	2.	4.	22.	115.6
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/30/76-06/18/82	34	6.55	600.146	11100.	0.01	3889843.929	1972.269	0.11	1.575	273.	2015.
82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	08/18/81-08/18/81	1	2.	2.	2.	2.	0.	0.	**	**	**	**
82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/18/81-08/18/81	1	1.7	1.7	1.7	1.7	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0012

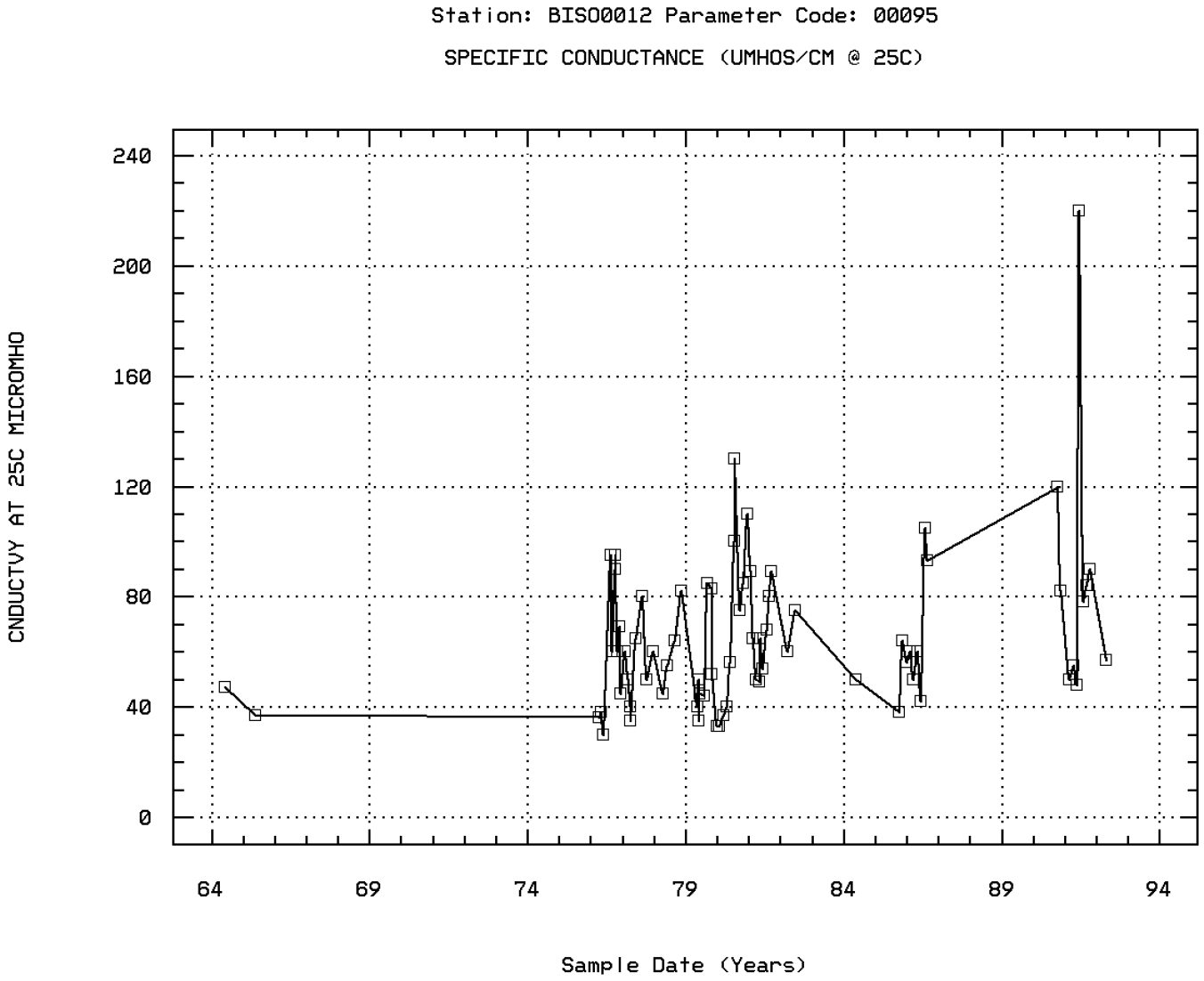
Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	7	1	0.14	1	0	0.00	3	1	0.33	3	0	0.00			
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	14	0	0.00	2	0	0.00	6	0	0.00	6	0	0.00			
00400	PH	Other-Hi Lim.	9.	33	0	0.00	7	0	0.00	13	0	0.00	13	0	0.00			
		Other-Lo Lim.	6.5	33	5	0.15	7	0	0.00	13	4	0.31	13	1	0.08			
00403	PH, LAB	Other-Hi Lim.	9.	10	0	0.00	2	0	0.00	4	0	0.00	4	0	0.00			
		Other-Lo Lim.	6.5	10	0	0.00	2	0	0.00	4	0	0.00	4	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	3	0	0.00							3	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	12	0	0.00	1	0	0.00	5	0	0.00	6	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	33	0	0.00	7	0	0.00	13	0	0.00	13	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	6	0	0.00				3	0	0.00	3	0	0.00			
		Drinking Water	50.	6	0	0.00				3	0	0.00	3	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	3	0	0.00							3	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	5	0	0.00				2	0	0.00	3	0	0.00			
		Drinking Water	5.	5	0	0.00				2	0	0.00	3	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	6	0	0.00				3	0	0.00	3	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	6	0	0.00				3	0	0.00	3	0	0.00			
		Drinking Water	1300.	6	0	0.00				3	0	0.00	3	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0012

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
01051	LEAD, TOTAL	Fresh Acute	82.	6	0	0.00				3	0	0.00	3	0	0.00			
		Drinking Water	5.	6	5	0.83				3	3	1.00	3	2	0.67			
01067	NICKEL, TOTAL	Fresh Acute	1400.	7	0	0.00	1	0	0.00	3	0	0.00	3	0	0.00			
		Drinking Water	100.	7	0	0.00	1	0	0.00	3	0	0.00	3	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	3	0	0.00							3	0	0.00			
		Drinking Water	50.	3	0	0.00							3	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	3	0	0.00							3	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	6	0	0.00				3	0	0.00	3	0	0.00			
		Drinking Water	50.	6	0	0.00				3	0	0.00	3	0	0.00			
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	2	0	0.00				2	0	0.00						
71900	MERCURY, TOTAL	Fresh Acute	2.4	6	0	0.00				3	0	0.00	3	0	0.00			
		Drinking Water	2.	6	0	0.00				3	0	0.00	3	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter



CLEAR FORK NEAR ROBBINS, TN

Annual Analysis for 1964 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	1	47.	47.	47.	47.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1965 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	1	21.1	21.1	21.1	21.1	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	1	37.	37.	37.	37.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1976 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	12	14.5	14.492	27.5	1.	71.446	8.453	1.15	8.875	19.55	27.35
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	12	210.	1777.667	8600.	6.	9099511.879	3016.54	8.4	22.5	3112.5	8105.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	10	60.	61.8	95.	30.	620.4	24.908	30.6	37.5	91.25	95.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1977 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	9	9.5	11.833	24.	1.	57.563	7.587	1.	7.	18.75	24.
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	9	336.	4197.778	25100.	66.	68686166.694	8287.712	66.	130.5	5706.5	25100.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	8	55.	55.	80.	35.	207.143	14.392	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1978 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	4	20.25	18.75	24.5	10.	43.083	6.564	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	4	89.	93.5	165.	31.	3260.333	57.099	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	4	59.5	61.5	82.	45.	247.	15.716	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1979 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	9	17.5	15.833	25.	5.	42.	6.481	5.	10.25	20.25	25.
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	9	454.	865.667	4390.	42.	1821952.5	1349.797	42.	226.	835.	4390.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	9	45.	51.889	85.	33.	370.111	19.238	33.	37.5	67.5	85.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1980 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	9	15.5	17.111	34.	5.	132.236	11.499	5.	5.25	28.25	34.
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	9	32.	316.222	1200.	2.	216100.694	464.866	2.	5.5	746.5	1200.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	9	75.	74.	130.	33.	1220.	34.928	33.	38.5	105.	130.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1981 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	9	16.5	14.633	25.	0.5	72.248	8.5	0.5	6.5	21.75	25.
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	9	297.	384.667	1720.	22.	272694.	522.201	22.	60.	404.	1720.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	9	65.	67.667	89.	49.	240.5	15.508	49.	52.	84.5	89.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1982 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	2	16.75	16.75	22.5	11.	66.125	8.132	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	2	220.	220.	353.	87.	35378.	188.09	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	2	67.5	67.5	75.	60.	112.5	10.607	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1984 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	2	12.	12.	14.	10.	8.	2.828	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	1	2450.	2450.	2450.	2450.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	1	50.	50.	50.	50.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1985 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	3	13.	9.833	14.	2.5	40.583	6.371	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	4	210.	389.5	1100.	38.	236577.	486.392	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	3	56.	52.667	64.	38.	177.333	13.317	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1986 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	6	18.75	16.667	30.	3.5	86.167	9.283	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	6	185.5	326.5	969.	13.	124321.1	352.592	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	6	60.	68.333	105.	42.	624.267	24.985	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1990 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	2	14.5	14.5	22.	7.	112.5	10.607	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	2	33.5	33.5	60.	7.	1404.5	37.477	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	2	101.	101.	120.	82.	722.	26.87	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1991 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	7	20.5	18.929	26.5	5.5	50.869	7.132	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	7	131.	159.857	441.	13.	25603.476	160.011	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	7	78.	89.286	220.	48.	3610.905	60.091	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1992 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	1	192.	192.	192.	192.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	1	57.	57.	57.	57.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #1: 11/16 to 3/15 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	16	5.	4.5	10.	0.5	7.1	2.665	0.85	1.75	6.625	7.9
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	16	265.	347.25	1200.	32.	105573.667	324.921	40.4	117.5	447.75	1020.1
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	16	60.	61.313	110.	33.	454.363	21.316	33.	46.25	78.75	95.3
00400p	PH (STANDARD UNITS)	05/27/64-09/21/81	7	6.8	6.786	7.	6.6	0.018	0.135	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/21/81	7	6.8	6.768	7.	6.6	0.018	0.136	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/21/81	7	0.158	0.17	0.251	0.1	0.003	0.051	**	**	**	**
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/21/81	7	10.	12.429	26.	8.	45.952	6.779	**	**	**	**
01046p	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/21/81	7	40.	45.714	70.	20.	328.571	18.127	**	**	**	**
01056p	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/21/81	6	20.	18.333	30.	10.	56.667	7.528	**	**	**	**
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/21/81	7	32.	41.571	75.	25.	382.952	19.569	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/30/76-09/02/86	8	4.	4.875	10.	0.	11.268	3.357	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/30/76-06/18/82	6	6.15	6.008	13.	0.35	23.29	4.826	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	33	16.2	16.112	24.	8.	22.597	4.754	9.2	12.25	19.95	22.8
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	31	357.	2312.484	25100.	66.	23702361.858	4868.507	88.	165.	2450.	7960.4
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	30	49.5	54.3	220.	30.	1088.217	32.988	35.1	40.	56.25	65.
00400p	PH (STANDARD UNITS)	05/27/64-09/21/81	13	7.	6.854	7.8	5.2	0.521	0.722	5.56	6.35	7.45	7.72
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/21/81	13	7.	6.171	7.8	5.2	1.026	1.013	5.56	6.35	7.45	7.72
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/21/81	13	0.1	0.674	6.31	0.016	2.927	1.711	0.02	0.036	0.474	4.103
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/21/81	13	8.	8.	10.	5.	2.	1.414	5.8	7.	9.	10.
01046p	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/21/81	12	70.	82.5	170.	30.	2275.	47.697	30.	42.5	120.	164.
01056p	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/21/81	10	15.	20.5	50.	0.	269.167	16.406	0.5	8.75	32.5	49.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/21/81	11	33.	30.364	40.	18.	63.455	7.966	18.6	24.	38.	40.
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/30/76-09/02/86	22	16.5	38.045	164.	1.	2126.617	46.115	2.3	6.	64.	118.3
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/30/76-06/18/82	17	51.	1177.165	11100.	1.5	7310242.342	2703.746	1.58	4.15	1451.	4468.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

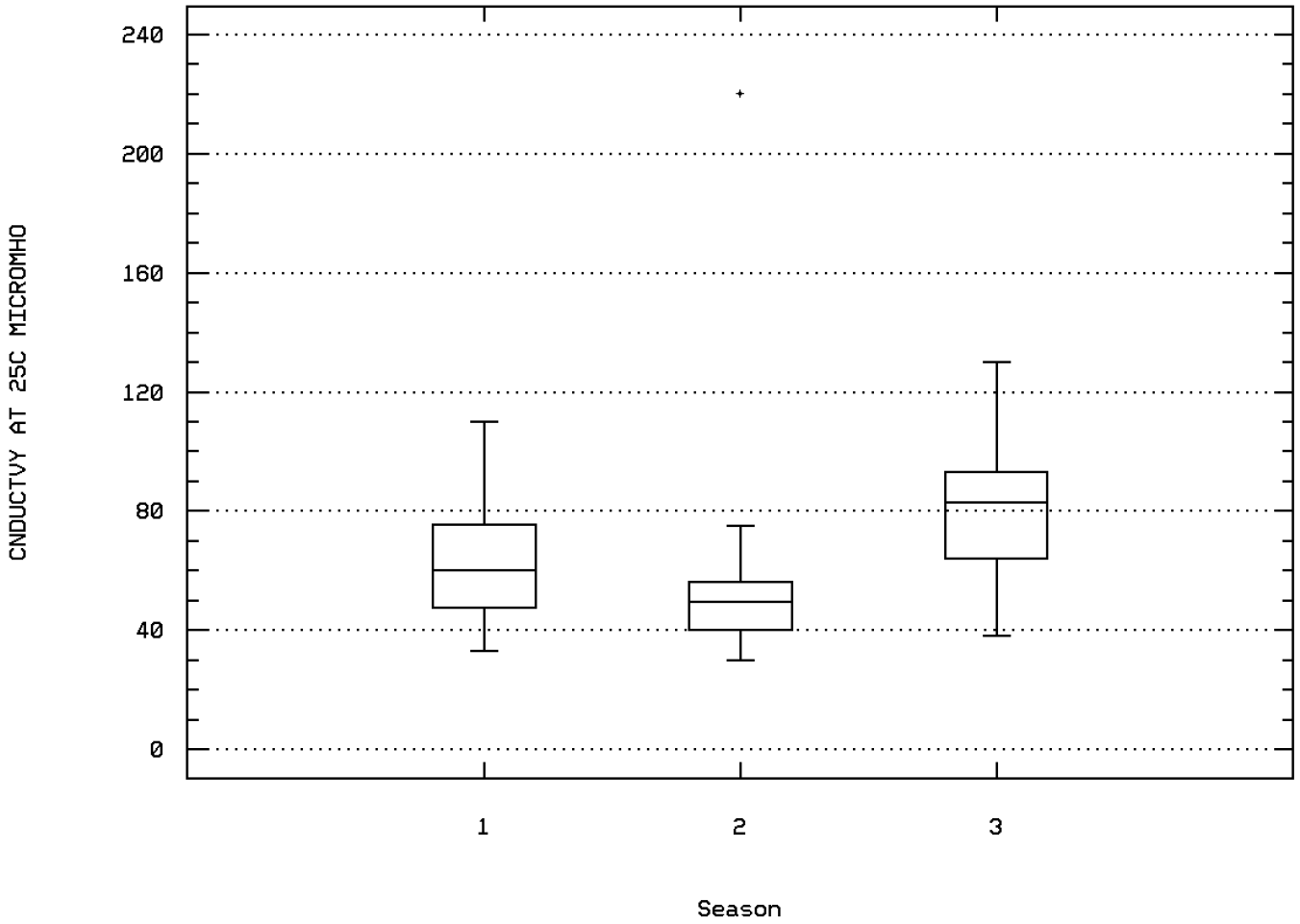
Seasonal Analysis for Season #3: 7/01 to 11/15 - Station BISO0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/65-04/15/92	27	22.	20.944	34.	7.5	47.218	6.872	11.2	15.5	26.5	29.2
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/76-04/15/92	28	34.5	147.393	1100.	2.	63792.396	252.572	5.9	13.25	145.	495.7
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/27/64-04/15/92	27	83.	79.889	130.	38.	474.179	21.776	48.8	64.	93.	108.
00400p	PH (STANDARD UNITS)	05/27/64-09/21/81	13	7.2	7.123	7.6	5.8	0.227	0.476	6.2	6.95	7.5	7.6
00400p	CONVERTED PH (STANDARD UNITS)	05/27/64-09/21/81	13	7.2	6.73	7.6	5.8	0.394	0.628	6.2	6.95	7.5	7.6
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/27/64-09/21/81	13	0.063	0.186	1.585	0.025	0.178	0.422	0.025	0.032	0.113	1.014
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/27/64-09/21/81	13	10.	11.231	24.	6.	25.359	5.036	6.4	7.	13.	21.2
01046p	IRON, DISSOLVED (UG/L AS FE)	05/18/65-09/21/81	13	60.	79.231	170.	20.	2291.026	47.865	20.	45.	115.	162.
01056p	MANGANESE, DISSOLVED (UG/L AS MN)	05/27/64-09/21/81	10	20.	23.5	40.	0.	244.722	15.644	0.5	8.75	40.	40.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/27/64-09/21/81	13	55.	49.846	77.	20.	264.141	16.252	24.8	33.5	60.5	72.6
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	03/30/76-09/02/86	15	7.	50.067	368.	1.	13147.21	114.661	2.2	4.	11.	322.4
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	03/30/76-06/18/82	11	3.5	32.464	296.	0.01	7780.243	88.206	0.018	0.11	5.9	245.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station: BISO0012 Parameter Code: 00095

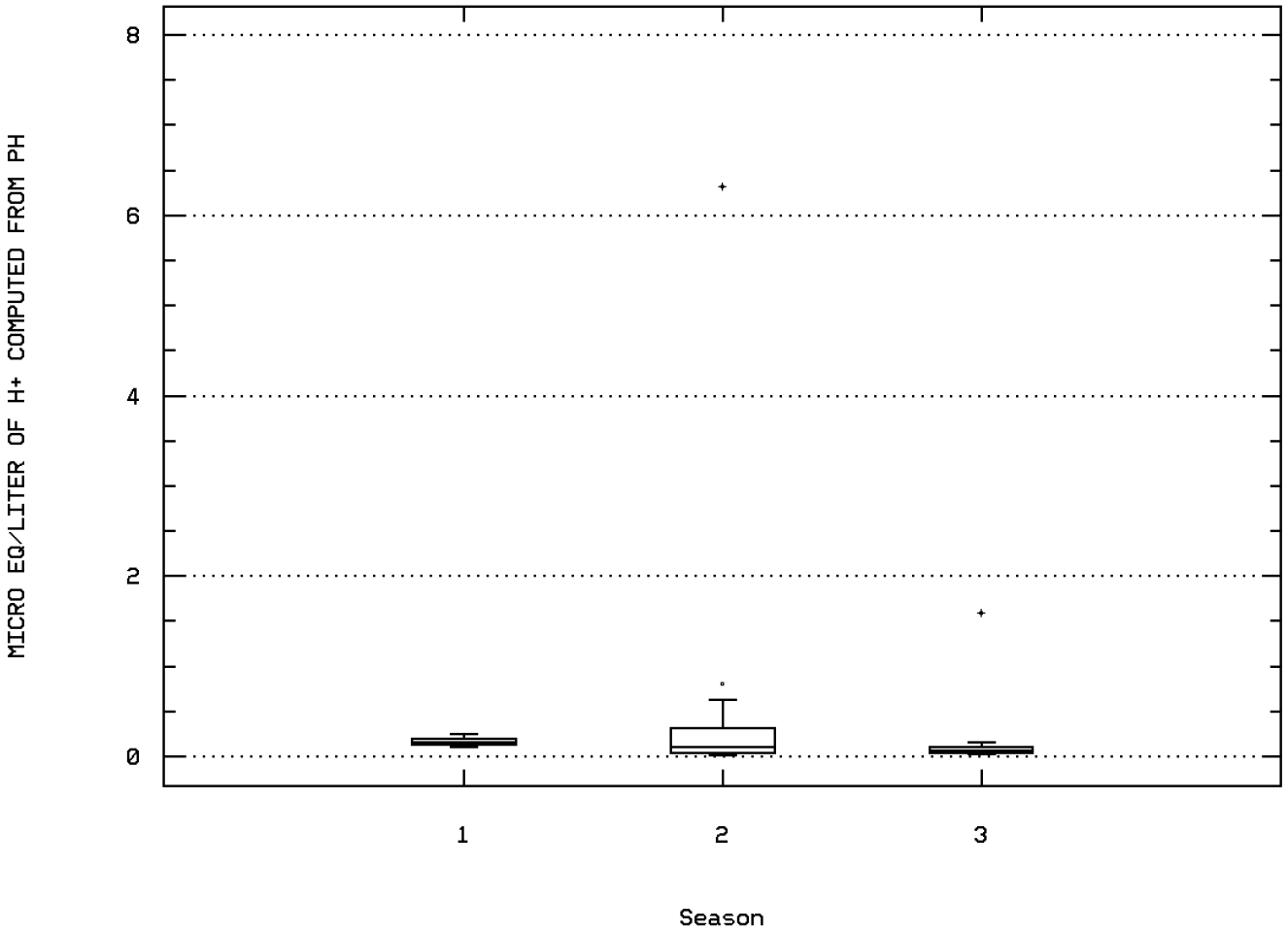
SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)



CLEAR FORK NEAR ROBBINS, TN

Station: BISO0012 Parameter Code: 00400

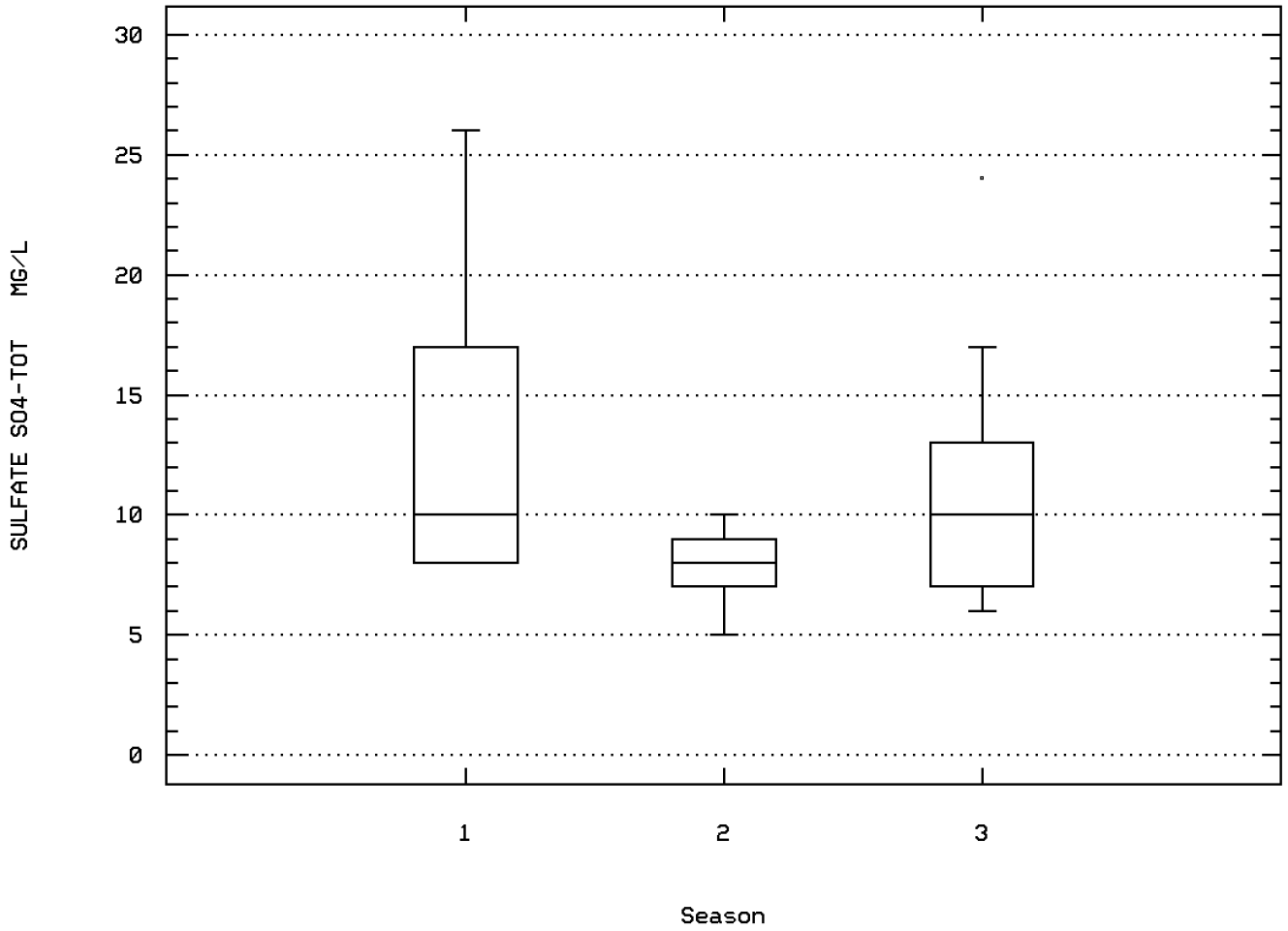
MICRO EQ/LITER OF H+ COMPUTED FROM PH



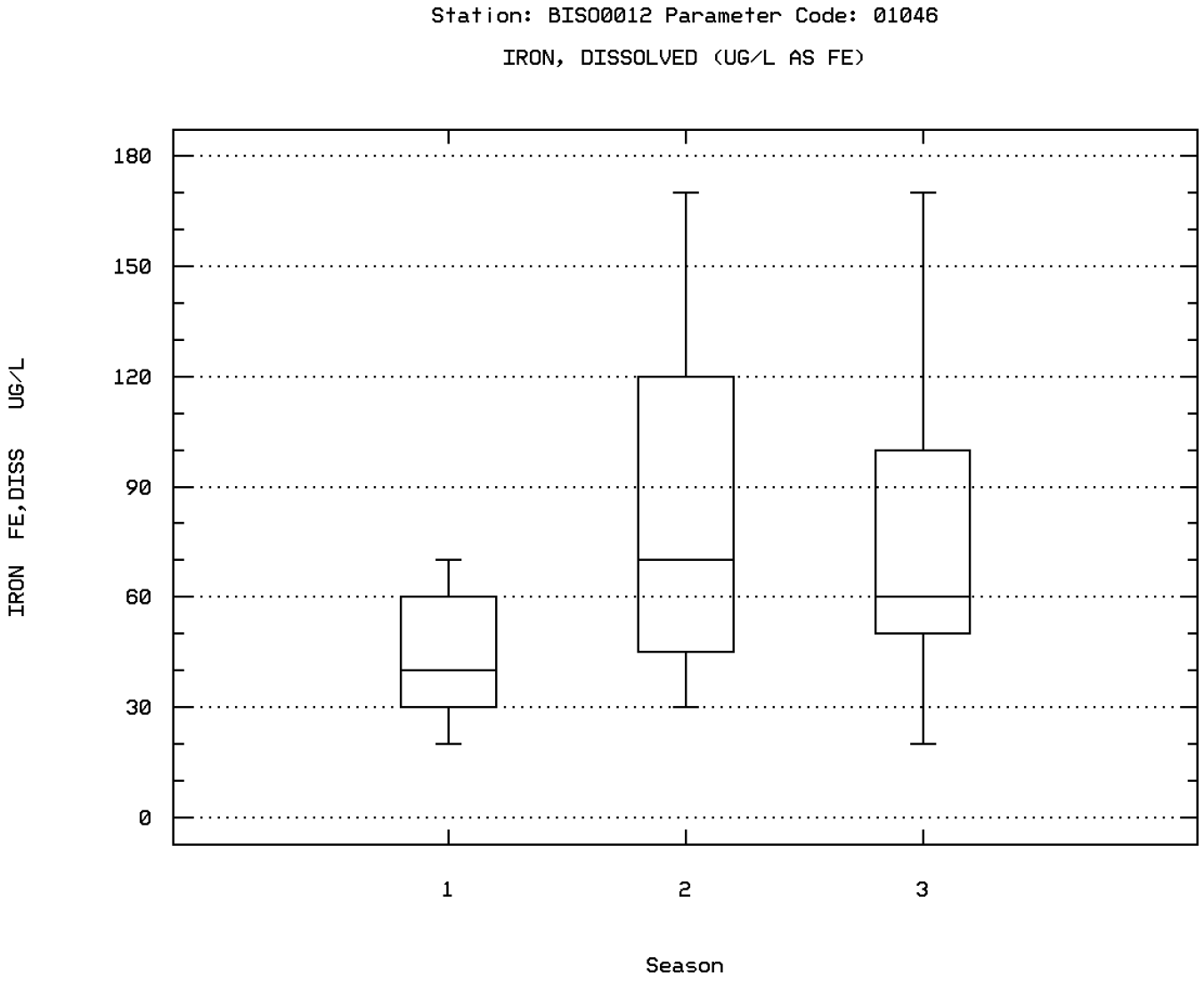
CLEAR FORK NEAR ROBBINS, TN

Station: BISO0012 Parameter Code: 00945

SULFATE, TOTAL (MG/L AS SO4)



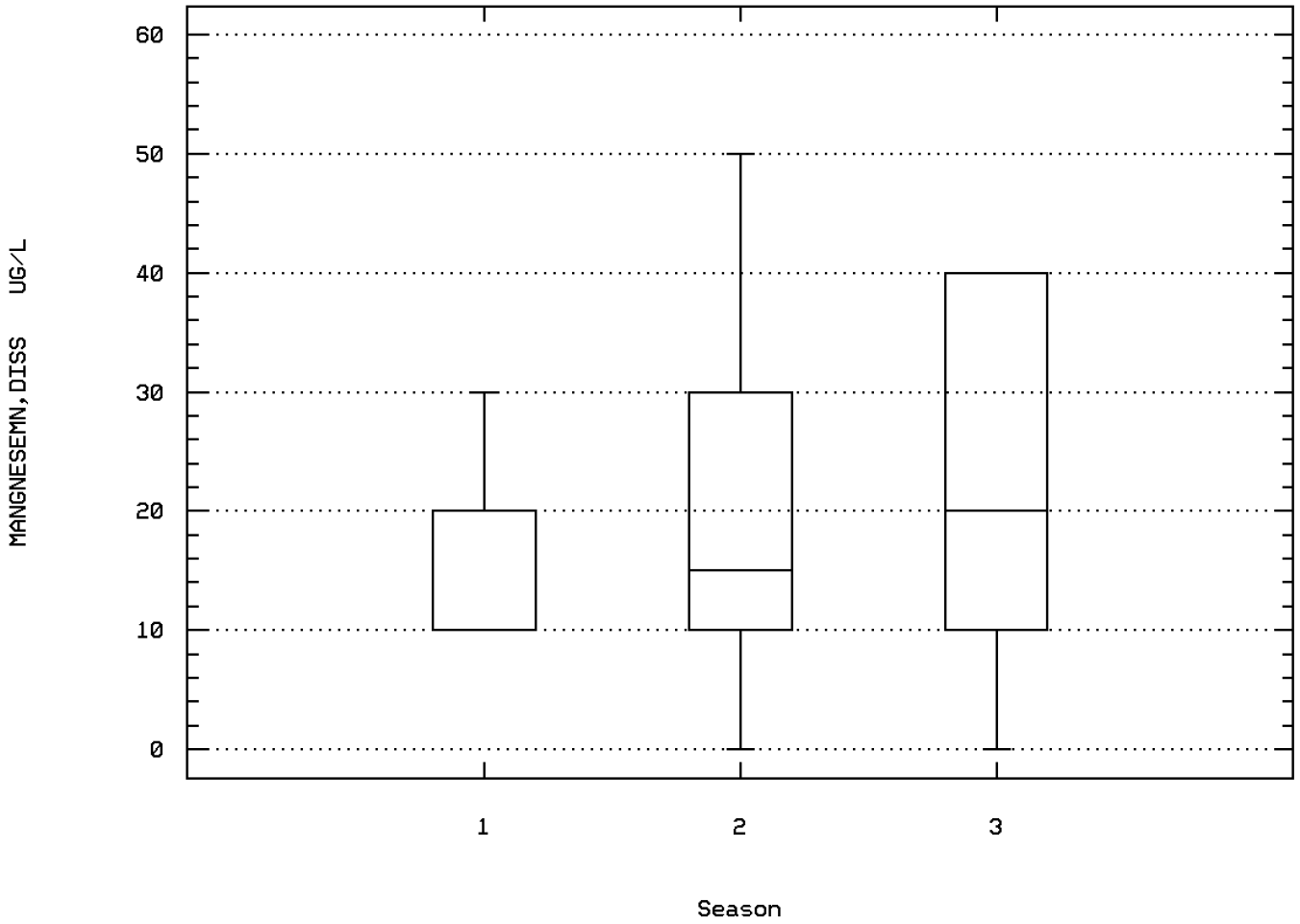
CLEAR FORK NEAR ROBBINS, TN



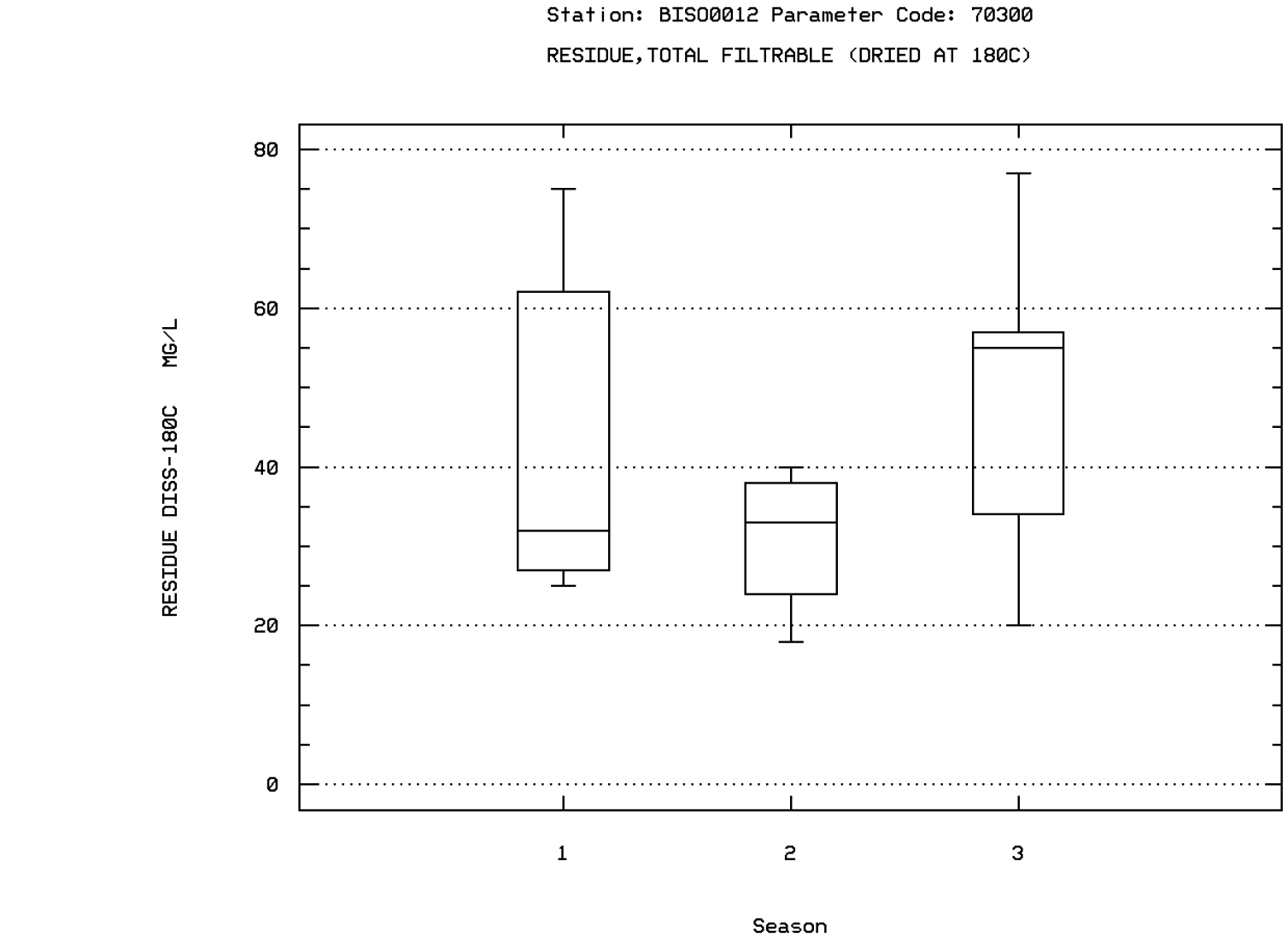
CLEAR FORK NEAR ROBBINS, TN

Station: BISO0012 Parameter Code: 01056

MANGANESE, DISSOLVED (UG/L AS MN)



CLEAR FORK NEAR ROBBINS, TN



CLEAR FORK NEAR ROBBINS, TN

Station Inventory for Station: BISO0013

NPS Station ID: BISO0013
LAT/LON: 36.400837/ -84.625281
Agency: 12NSS
Date Created: 10/22/88
Location: BLACK CREEK
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 2C066022L /2X02C066022L
RMI-Indexes:
Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 323
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104021700.00
RF3 Mile Point: 0.00
Distance from RF3: 0.02
On/Off RF3:
Description:
THESE DATA WERE COLLECTED DURING PHASE I OF THE NATIONAL STREAM SURVEY AS PART OF EPA'S NATIONAL SURFACE WATER SURVEY AND AQUATIC EFFECTS RESEARCH PROGRAM UNDER THE NATIONAL ACID PRECIPITATION ASSESSMENT PROGRAM. THE SURVEY DESIGN, METHODS, AND DATA LIMITAITONS ARE DESCRIBED IN:

Parameter Inventory for Station: BISO0013

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/86-04/30/86	1	20.1	20.1	20.1	20.1	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	04/30/86-04/30/86	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	04/30/86-04/30/86	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/30/86-04/30/86	1	162.	162.	162.	162.	0.	0.	**	**	**	**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	04/30/86-04/30/86	1	8.9	8.9	8.9	8.9	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/30/86-04/30/86	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/30/86-04/30/86	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/30/86-04/30/86	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00409	ALKALINITY,TOTAL,LOW LEVEL GRAN ANALYSIS UEQ/L	04/30/86-04/30/86	1	513.2	513.2	513.2	513.2	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	04/30/86-04/30/86	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	04/30/86-04/30/86	1	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	04/30/86-04/30/86	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
00691	CARBON, DISSOLVED INORGANIC (MG/L AS C)	04/30/86-04/30/86	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/30/86-04/30/86	1	16.9	16.9	16.9	16.9	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/30/86-04/30/86	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/30/86-04/30/86	1	3.56	3.56	3.56	3.56	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	04/30/86-04/30/86	1	1.56	1.56	1.56	1.56	0.	0.	**	**	**	**
00941	CHLORIDE, DISSOLVED IN WATER MG/L	04/30/86-04/30/86	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00946	SULFATE, DISSOLVED (MG/L AS SO4)	04/30/86-04/30/86	1	40.6	40.6	40.6	40.6	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/30/86-04/30/86	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	04/30/86-04/30/86	1	6.1	6.1	6.1	6.1	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/30/86-04/30/86	1	67.	67.	67.	67.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	04/30/86-04/30/86	1	150.	150.	150.	150.	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	04/30/86-04/30/86	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
71885	IRON (UG/L AS FE)	04/30/86-04/30/86	1	26.98	26.98	26.98	26.98	0.	0.	**	**	**	**
72020	ELEVATION IN FEET ABOVE MEAN SEA LEVEL	04/30/86-04/30/86	1	1060.	1060.	1060.	1060.	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/30/86-04/30/86	1	4.1	4.1	4.1	4.1	0.	0.	**	**	**	**
83509	STREAM, WIDTH METER	04/30/86-04/30/86	1	2.9	2.9	2.9	2.9	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0013

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	1	0	0.00				1	0	0.00						
00403	PH, LAB	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYS	Other-Lo Lim.	200.	1	0	0.00				1	0	0.00						
00941	CHLORIDE, DISSOLVED IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
00946	SULFATE, DISSOLVED (AS SO4)	Drinking Water	400.	1	0	0.00				1	0	0.00						
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	1	0	0.00				1	0	0.00						
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0014

NPS Station ID: BISO0014
LAT/LON: 36.405004/ -84.495837
Agency: 112WRD
Date Created: 01/08/83
Location: NEW RIVER NEAR HUNTSVILLE, TN
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03407990
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104039
RF1 Mile Point: 4.750
Distance from RF1: 1.00
On/Off RF1: OFF
RF3 Index: 05130104027800.00
RF3 Mile Point: 0.04
Distance from RF3: 0.02
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0014

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/30/82-09/30/82	1	17.5	17.5	17.5	17.5	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/30/82-09/30/82	1	82.	82.	82.	82.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/30/82-09/30/82	1	362.	362.	362.	362.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

********** No EPA Water Quality Criteria exist to compare against the data at this station. **********

Station Inventory for Station: BISO0015

NPS Station ID: BISO0015
LAT/LON: 36.416115/ -84.503616
Agency: 112WRD
Date Created: 01/08/83
Location: FLAT CREEK AT HUNTSVILLE, TN
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03407992
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104003904.40
RF3 Mile Point: 4.46
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/30/82-09/30/82	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/30/82-09/30/82	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/30/82-09/30/82	1	620.	620.	620.	620.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	09/30/82-09/30/82	1	6.2	6.2	6.2	6.2	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/30/82-09/30/82	1	6.2	6.2	6.2	6.2	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/30/82-09/30/82	1	0.631	0.631	0.631	0.631	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0015

			Total	Exceed	Prop.	11/16-3/15			3/16-6/30			7/01-11/15			n/a		
Parameter	Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00400 PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
	Other-Lo Lim.	6.5	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0016

NPS Station ID: BISO0016
LAT/LON: 36.443059/ -84.721115
Agency: 11COEHUN
Date Created: 07/14/79
Location: NORTH WHITEOAK CREEK, MILE 4.7
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10012
RMI-Indexes: 1021500 007720 01140 9598 1880
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 069.90 004.70
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104020
RF1 Mile Point: 0.150
Distance from RF1: 8.60
On/Off RF1: OFF
RF3 Index: 05130104053300.00
RF3 Mile Point: 1.04
Distance from RF3: 0.14
On/Off RF3:
Description:
QUADRANGLE: HONEY CREEK, TN
LOCATION: AT MOUTH OF LAUREL FORK

Parameter Inventory for Station: BISO0016

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	1	40.	40.	40.	40.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/74-11/12/74	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	1	60.	60.	60.	60.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	1	44.	44.	44.	44.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	1	11.	11.	11.	11.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	1	535.	535.	535.	535.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	1	45.	45.	45.	45.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
72025	DEPTH OF POND OR RESERVOIR IN FEET	11/12/74-11/12/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0016

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0017

NPS Station ID: BISO0017
LAT/LON: 36.450559/ -84.628337
Agency: 21TNWQ
Date Created: 11/23/76
Location: PINE CR. 0.25
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): PINESUR04
RMI-Indexes:
Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND BASIN
ECO Region:
RF1 Index: 05130104048
RF1 Mile Point: 0.290
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104004801.94
RF3 Mile Point: 4.22
Distance from RF3: 0.03
On/Off RF3:
Description:
PINE CREEK SURVEY MAY 1975
PINE CREEK MILE 0.25 NEAR THE MOUTH OF PINE CREEK

Parameter Inventory for Station: BISO0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/08/75-05/08/75	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/08/75-05/08/75	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/08/75-05/08/75	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/08/75-05/08/75	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/08/75-05/08/75	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/08/75-05/08/75	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	05/08/75-05/08/75	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	05/08/75-05/08/75	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/08/75-05/08/75	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/08/75-05/08/75	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00545	RESIDUE, SETTLEABLE (ML/L)	05/08/75-05/08/75	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/08/75-05/08/75	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/08/75-05/08/75	1	0.93	0.93	0.93	0.93	0.	0.	**	**	**	**
00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	05/08/75-05/08/75	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/08/75-05/08/75	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/08/75-05/08/75	1	1.	1.	1.	1.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/08/75-05/08/75	1	600.	600.	600.	600.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/08/75-05/08/75	1	5.	5.	5.	5.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/08/75-05/08/75	1	20.	20.	20.	20.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/08/75-05/08/75	1	1.301	1.301	1.301	1.301	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			20.								
31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	05/08/75-05/08/75	1	20.	20.	20.	20.	0.	0.	**	**	**	**
31679	LOG FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,	05/08/75-05/08/75	1	1.301	1.301	1.301	1.301	0.	0.	**	**	**	**
31679	GM FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,4	GEOMETRIC MEAN =			20.								

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0017

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	1	0	0.00				1	0	0.00						
00400	PH	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0017

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00403	PH, LAB	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	1	1.00				1	1	1.00						
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0018

NPS Station ID: BISO0018
LAT/LON: 36.455559/ -84.885837
Agency: 131TVAC
Date Created: 10/06/79
Location: TRIBUTARY TO SOUTH PRONG CLEAR FORK RIVER 5.0
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 600077
RMI-Indexes: 1021500 007720 01140 1214 0900 0110 0080
Within Park Boundary: No
RMI-Miles: 0953.80 0058.30 514.00 077.00 028.00 005.00 05.20
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: S. FORK CUMBERLAND BASIN
Elevation: 0
Water Body Id:
Minor Basin: LONG BRANCH 5.2
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104003000.74
RF3 Mile Point: 2.97
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0018

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/79-09/11/79	4	16.75	16.375	18.	14.	2.896	1.702	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	08/03/79-08/03/79	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/30/79-09/11/79	3	19.	18.333	19.	17.	1.333	1.155	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/11/79-09/11/79	1	3.2	3.2	3.2	3.2	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/30/79-09/11/79	4	5.65	5.625	6.2	5.	0.243	0.492	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/30/79-09/11/79	4	5.647	5.422	6.2	5.	0.297	0.545	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/30/79-09/11/79	4	2.254	3.785	10.	0.631	17.799	4.219	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/30/79-09/11/79	4	2.	2.25	4.	1.	2.25	1.5	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/30/79-09/11/79	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/30/79-09/11/79	4	6.	5.125	8.	0.5	13.063	3.614	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/30/79-09/11/79	4	2.	4.	11.	1.	22.	4.69	**	**	**	**
00556	OIL & GREASE (FREON EXTR.-GRAV METH) TOT,REC,MG/L	08/03/79-08/03/79	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	08/03/79-08/03/79	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/03/79-08/03/79	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	08/03/79-08/03/79	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	05/30/79-09/11/79	4	1.1	1.185	2.5	0.04	1.025	1.012	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	08/03/79-08/03/79	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	05/30/79-09/11/79	4	0.5	0.5	0.6	0.4	0.007	0.082	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	08/03/79-08/03/79	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	08/03/79-08/03/79	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/30/79-09/11/79	4	4.5	7.375	20.	0.5	78.563	8.864	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	08/03/79-08/03/79	1	4.	4.	4.	4.	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	08/03/79-08/03/79	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/03/79-08/03/79	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	08/03/79-08/03/79	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/03/79-08/03/79	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	08/03/79-08/03/79	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/03/79-08/03/79	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01035	COBALT, DISSOLVED (UG/L AS CO)	08/03/79-08/03/79	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01037	COBALT, TOTAL (UG/L AS CO)	08/03/79-08/03/79	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	08/03/79-08/03/79	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	05/30/79-09/11/79	4 ##	17.5	20.	40.	5.	316.667	17.795	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/30/79-09/11/79	4	205.	318.75	840.	25.	128372.917	358.292	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	05/30/79-09/11/79	4 ##	62.5	117.5	320.	25.	19475.	139.553	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	08/03/79-08/03/79	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/30/79-09/11/79	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/30/79-09/11/79	4	35.	62.5	150.	30.	3425.	58.523	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/30/79-09/11/79	4	30.	25.	30.	10.	100.	10.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0018

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01090	ZINC, DISSOLVED (UG/L AS ZN)	08/03/79-08/03/79	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	05/30/79-09/11/79	4	20.	21.25	40.	5.	272.917	16.52	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	08/03/79-08/03/79	1	250.	250.	250.	250.	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	08/03/79-08/03/79	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	08/03/79-08/03/79	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	08/03/79-08/03/79	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	05/30/79-09/11/79	4	4.5	4.75	8.	2.	6.25	2.5	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/30/79-09/11/79	4	15.	15.	20.	10.	33.333	5.774	**	**	**	**
70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	08/03/79-08/03/79	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	08/03/79-08/03/79	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	08/03/79-08/03/79	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/03/79-08/03/79	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
80203	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .062MM	08/03/79-08/03/79	1	1.	1.	1.	1.	0.	0.	**	**	**	**
80204	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .125MM	08/03/79-08/03/79	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
80206	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .500MM	08/03/79-08/03/79	1	73.4	73.4	73.4	73.4	0.	0.	**	**	**	**
80208	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN 2.00MM	08/03/79-08/03/79	1	98.7	98.7	98.7	98.7	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0018

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	1	1	1.00							1	1	1.00			
00400	PH	Other-Hi Lim.	9.	4	0	0.00				2	0	0.00	2	0	0.00			
		Other-Lo Lim.	6.5	4	4	1.00				2	2	1.00	2	2	1.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	4	0	0.00				2	0	0.00	2	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	1	1.00							1	1	1.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	4	2	0.50				2	1	0.50	2	1	0.50			
		Drinking Water	1300.	4	0	0.00				2	0	0.00	2	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	0 &	0	0.00												
01051	LEAD, TOTAL	Fresh Acute	82.	3	0	0.00				1	0	0.00	2	0	0.00			
		Drinking Water	5.	0 &	0	0.00												
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	4	0	0.00				2	0	0.00	2	0	0.00			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0019

NPS Station ID: BISO0019
LAT/LON: 36.455837/ -84.722781
Agency: 11COEHUN
Date Created: 07/14/79
Location: LAUREL FORK, MILE 0.1
FIPS State/County: 47049 TENNESSEE/FENTRESS
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10011
RMI-Indexes: 1021500 007720 01140 9598 1880 0180
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 069.90 004.70 000.10
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104046600.00
RF3 Mile Point: 0.00
Distance from RF3: 0.03
On/Off RF3:
Description:
QUADRANGLE: HONEY CREEK, TN
LOCATION: 0.1 MILE U/S OF ONEIDA AND WESTERN RAILROAD BRIDGE

Parameter Inventory for Station: BISO0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	1	35.	35.	35.	35.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/74-11/12/74	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	1	58.	58.	58.	58.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	1	28.	28.	28.	28.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	1	46.	46.	46.	46.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	1	8.	8.	8.	8.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	1	500.	500.	500.	500.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	1	40.	40.	40.	40.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
72025	DEPTH OF POND OR RESERVOIR IN FEET	11/12/74-11/12/74	1	2.	2.	2.	2.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0019

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0020

NPS Station ID: BISO0020
LAT/LON: 36.475560/ -84.562505
Agency: 21TNWQ
Date Created: 11/23/76
Location: PINE CR. 5.8
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): PINESUR03
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND BASIN
ECO Region:
RF1 Index: 05130104048
RF1 Mile Point: 4.820
Distance from RF1: 20.40
On/Off RF1: OFF
RF3 Index: 05130104004803.64
RF3 Mile Point: 4.43
Distance from RF3: 0.02
On/Off RF3:
Description:
PINE CREEK SURVEY MAY 1975
PINE CREEK MILE 5.8 AT UPPER EDGE OF GORGE.

Parameter Inventory for Station: BISO0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/08/75-05/08/75	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/08/75-05/08/75	1	5.8	5.8	5.8	5.8	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	05/08/75-05/08/75	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/08/75-05/08/75	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/08/75-05/08/75	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/08/75-05/08/75	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	05/08/75-05/08/75	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	05/08/75-05/08/75	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/08/75-05/08/75	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	05/08/75-05/08/75	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00545	RESIDUE, SETTLEABLE (ML/L)	05/08/75-05/08/75	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	05/08/75-05/08/75	1	0.52	0.52	0.52	0.52	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/08/75-05/08/75	1	0.71	0.71	0.71	0.71	0.	0.	**	**	**	**
00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	05/08/75-05/08/75	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/08/75-05/08/75	1	0.57	0.57	0.57	0.57	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/08/75-05/08/75	1	1.	1.	1.	1.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/08/75-05/08/75	1	1000.	1000.	1000.	1000.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	05/08/75-05/08/75	1	10.	10.	10.	10.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/08/75-05/08/75	1	4000.	4000.	4000.	4000.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	05/08/75-05/08/75	1	3.602	3.602	3.602	3.602	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			4000.								
31679	FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,48H	05/08/75-05/08/75	1	760.	760.	760.	760.	0.	0.	**	**	**	**
31679	LOG FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,	05/08/75-05/08/75	1	2.881	2.881	2.881	2.881	0.	0.	**	**	**	**
31679	GM FECAL STREPTOCOCCI,MF M-ENTEROCOCCUS AGAR,35C,4	GEOMETRIC MEAN =			760.								

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0020

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	1	0	0.00				1	0	0.00						
00400	PH	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0020

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00403	PH, LAB	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	1	1.00				1	1	1.00						
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	1	1.00				1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0021

NPS Station ID: BISO0021 LAT/LON: 36.477226/ -84.669170 Agency: 112WRD Date Created: 07/21/79
Location: SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD, TN FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 03410210
RMI-Indexes: Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: Elevation: 0 Water Body Id:
Minor Basin: ECO Region:
RF1 Index: 05130104 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 05130104003600.93 RF3 Mile Point: 0.99 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: BISO0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-07/22/86	90	17.75	16.06	31.5	0.1	64.879	8.055	4.15	9.	23.05	25.99
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-09/04/86	92	704.	2637.12	49100.	20.	44597324.502	6678.123	98.6	291.25	1590.	4745.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-07/22/86	86	150.	165.372	358.	65.	3874.448	62.245	92.7	128.75	195.	260.
00300	OXYGEN, DISSOLVED MG/L	02/16/84-09/17/85	72	9.25	9.915	14.4	7.5	3.639	1.908	7.8	8.3	11.4	12.71
00400	PH (STANDARD UNITS)	05/23/79-09/06/85	75	7.3	7.255	7.8	6.7	0.075	0.274	6.9	7.1	7.5	7.6
00400	CONVERTED PH (STANDARD UNITS)	05/23/79-09/06/85	75	7.3	7.17	7.8	6.7	0.082	0.287	6.9	7.1	7.5	7.6
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/23/79-09/06/85	75	0.05	0.068	0.2	0.016	0.002	0.044	0.025	0.032	0.079	0.126
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/23/79-07/16/80	4	16.5	17.75	26.	12.	42.917	6.551	**	**	**	**
00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/23/79-05/23/79	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/23/79-07/16/80	4	46.5	44.5	58.	27.	173.667	13.178	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	09/05/79-07/16/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/16/80	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	09/05/79-07/16/80	2	20.	20.	20.	20.	0.	0.	**	**	**	**
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	09/05/79-07/16/80	2	20.	20.	20.	20.	0.	0.	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	09/05/79-07/16/80	2 ##	12.5	12.5	20.	5.	112.5	10.607	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	05/23/79-07/16/80	3	580.	673.333	1100.	340.	150933.333	388.501	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/23/79-07/16/80	4	635.	685.	1100.	370.	92566.667	304.248	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	05/23/79-07/16/80	4	40.	47.5	80.	30.	558.333	23.629	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	09/05/79-07/16/80	2	20.	20.	20.	20.	0.	0.	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	09/05/79-07/16/80	2	650.	650.	870.	430.	96800.	311.127	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/23/79-07/16/80	4	15.	15.	30.	0.	166.667	12.91	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/23/79-07/16/80	4	80.	87.5	120.	70.	558.333	23.629	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/23/79-07/16/80	4	75.	72.5	100.	40.	625.	25.	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	09/05/79-07/16/80	2	44.5	44.5	69.	20.	1200.5	34.648	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	09/05/79-07/16/80	2	0.	0.	0.	0.	0.	0.	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	09/05/79-07/16/80	2	107000.	107000.	200000.	14000.	17298000000.	131521.861	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/23/79-05/04/84	2	68.	68.	89.	47.	882.	29.698	**	**	**	**
71825	ACIDITY, TOTAL (MG/L AS H)	05/23/79-05/23/79	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	09/05/79-07/16/80	2	0.01	0.01	0.02	0.	0.	0.014	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-09/04/86	83	8.	53.687	807.	0.	19325.706	139.017	2.	3.	22.	197.2
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/23/79-07/16/80	4	27.	30.7	67.	1.8	727.427	26.971	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0021

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	72	0	0.00	15	0	0.00	29	0	0.00	28	0	0.00			
00400	PH	Other-Hi Lim.	9.	75	0	0.00	15	0	0.00	30	0	0.00	30	0	0.00			
		Other-Lo Lim.	6.5	75	0	0.00	15	0	0.00	30	0	0.00	30	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	4	0	0.00				1	0	0.00	3	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Seasonal Analysis for Season #1: 11/16 to 3/15 - Station BISO0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-07/22/86	20	5.75	5.46	11.	0.1	11.933	3.454	0.28	2.3	7.75	10.91
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-09/04/86	22	1330.	4427.682	25500.	538.	53475794.227	7312.715	590.4	857.5	3457.5	21170.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-07/22/86	17	134.	128.059	155.	82.	368.684	19.201	93.2	117.	141.	151.
00400	PH (STANDARD UNITS)	05/23/79-09/06/85	15	7.3	7.293	7.6	7.	0.035	0.187	7.	7.1	7.5	7.54
00400	CONVERTED PH (STANDARD UNITS)	05/23/79-09/06/85	15	7.3	7.256	7.6	7.	0.036	0.191	7.	7.1	7.5	7.54
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/23/79-09/06/85	15	0.05	0.055	0.1	0.025	0.001	0.024	0.029	0.032	0.079	0.1
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-09/04/86	19	5.	69.421	803.	0.	35640.702	188.787	1.	2.	25.	265.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-07/22/86	36	18.1	16.833	27.6	6.9	35.459	5.955	8.85	11.55	20.8	26.12
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-09/04/86	36	1035.	3300.222	49100.	120.	75478413.321	8687.831	192.3	360.25	1790.	7775.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-07/22/86	35	144.	147.886	330.	65.	2860.339	53.482	88.2	115.	171.	214.6
00400	PH (STANDARD UNITS)	05/23/79-09/06/85	30	7.3	7.26	7.8	6.7	0.072	0.269	6.9	7.1	7.5	7.59
00400	CONVERTED PH (STANDARD UNITS)	05/23/79-09/06/85	30	7.3	7.179	7.8	6.7	0.079	0.281	6.9	7.1	7.5	7.59
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/23/79-09/06/85	30	0.05	0.066	0.2	0.016	0.002	0.044	0.026	0.032	0.079	0.126
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-09/04/86	29	5.	62.31	807.	1.	27839.293	166.851	2.	3.	16.5	288.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 7/01 to 11/15 - Station BISO0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/23/79-07/22/86	34	23.	21.476	31.5	7.	31.522	5.614	13.	17.875	25.5	26.25
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/23/79-09/04/86	34	304.	776.412	8660.	20.	2713350.613	1647.225	34.	95.25	480.25	2270.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/23/79-07/22/86	34	194.5	202.029	358.	76.	4427.848	66.542	130.	151.5	250.5	307.5
00400	PH (STANDARD UNITS)	05/23/79-09/06/85	30	7.15	7.23	7.8	6.7	0.101	0.317	6.81	7.	7.5	7.69
00400	CONVERTED PH (STANDARD UNITS)	05/23/79-09/06/85	30	7.147	7.125	7.8	6.7	0.112	0.335	6.81	7.	7.5	7.69
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/23/79-09/06/85	30	0.071	0.075	0.2	0.016	0.003	0.051	0.02	0.032	0.1	0.155
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/23/79-09/04/86	35	11.	38.	299.	1.	4358.882	66.022	3.8	7.	32.	134.2

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station Inventory for Station: BISO0022

NPS Station ID: BISO0022
LAT/LON: 36.477226/ -84.669448
Agency: 11COEHUN
Date Created: 07/14/79
Location: BSF CUMBERLAND RIVER, MILE 70.0
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10003
RMI-Indexes: 1021500 007720 01140 9598
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 070.00
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104018
RF1 Mile Point: 7.830
Distance from RF1: 15.50
On/Off RF1: OFF
RF3 Index: 05130104004803.64
RF3 Mile Point: 4.14
Distance from RF3: 0.13
On/Off RF3:
Description:
QUADRANGLE: HONEY CREEK, TN
LOCATION: AT LEATHERWOOD FORD

Parameter Inventory for Station: BISO0022

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	1	200.	200.	200.	200.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	1	5.6	5.6	5.6	5.6	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	1	110.	110.	110.	110.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/74-11/12/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	1	102.	102.	102.	102.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	1	56.	56.	56.	56.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	1	96.	96.	96.	96.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	1	51.	51.	51.	51.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	1	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	60.	60.	60.	60.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	1	740.	740.	740.	740.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	1	80.	80.	80.	80.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	1 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0022

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0023

NPS Station ID: BISO0023
LAT/LON: 36.551115/ -84.798892
Agency: 112WRD
Date Created: 04/14/78
Location: PICKETT STATE PARK WELL NEAR PAL
FIPS State/County: 47137 TENNESSEE/PICKETT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 363304084475600
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 17.50
On/Off RF1:
RF3 Index: 05130104045400.00
RF3 Mile Point: 3.41
Distance from RF3: 0.03
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/25/77-05/25/77	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	05/25/77-05/25/77	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	05/25/77-05/25/77	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/25/77-05/25/77	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/25/77-05/25/77	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/25/77-05/25/77	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/25/77-05/25/77	1	6.31	6.31	6.31	6.31	0.	0.	**	**	**	**
00405	CARBON DIOXIDE (MG/L AS CO2)	05/25/77-05/25/77	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/25/77-05/25/77	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	05/25/77-05/25/77	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	05/25/77-05/25/77	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	05/25/77-05/25/77	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	05/25/77-05/25/77	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/25/77-05/25/77	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	05/25/77-05/25/77	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	05/25/77-05/25/77	1	2.1	2.1	2.1	2.1	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/25/77-05/25/77	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/25/77-05/25/77	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/25/77-05/25/77	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/25/77-05/25/77	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	05/25/77-05/25/77	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
00931	SODIUM ADSORPTION RATIO	05/25/77-05/25/77	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00932	SODIUM, PERCENT	05/25/77-05/25/77	1	50.	50.	50.	50.	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/25/77-05/25/77	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	05/25/77-05/25/77	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/25/77-05/25/77	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/25/77-05/25/77	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	05/25/77-05/25/77	1	5.4	5.4	5.4	5.4	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	05/25/77-05/25/77	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/25/77-05/25/77	1	20.	20.	20.	20.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/25/77-05/25/77	1	9.	9.	9.	9.	0.	0.	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/25/77-05/25/77	1	9.	9.	9.	9.	0.	0.	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/25/77-05/25/77	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	05/25/77-05/25/77	1	0.	0.	0.	0.	0.	0.	**	**	**	**
72008	DEPTH, TOTAL OF WELL (FT BELOW LAND SURFACE DATUM)	05/25/77-05/25/77	1	275.	275.	275.	275.	0.	0.	**	**	**	**
72019	DEPTH TO WATER LEVEL (FEET BELOW LAND SURFACE)	05/25/77-05/25/77	1	120.	120.	120.	120.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0023

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	0	0.00				1	0	0.00						
00400	PH	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00						
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	0	0.00				1	0	0.00						
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	1	0	0.00				1	0	0.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0024

NPS Station ID: BISO0024
LAT/LON: 36.552226/ -84.801393
Agency: 21TNWQ
Date Created: 03/28/92
Location: PICKETT LAKE @ DAM
FIPS State/County: 47137 TENNESSEE/PICKETT
Station Type: /RESERV/TYPA/AMBNT
STORET Station ID(s): PICKETT
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 13
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 13.20
On/Off RF1:
RF3 Index: 05130104007302.13
RF3 Mile Point: 3.77
Distance from RF3: 0.10
On/Off RF3:
Description:
1991 CLEAN LAKES STATEWIDE ASSESSMENT LOCATION
LOCATED IN PICKETT STATE PARK

Parameter Inventory for Station: BISO0024

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/19/91-09/04/91	3	20.3	19.833	21.3	17.9	3.053	1.747	**	**	**	**
00068	DEPTH, MAXIMUM, OF SAMPLE (FEET)	06/19/91-09/04/91	3	4.9	7.1	13.1	3.3	27.64	5.257	**	**	**	**
00077	TRANSPARENCY, SECCHI DISC (INCHES)	06/19/91-09/04/91	3	91.	96.	106.	91.	75.	8.66	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/19/91-09/04/91	3	23.	33.	60.	16.	559.	23.643	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/19/91-09/04/91	3	1.3	3.433	8.2	0.8	17.103	4.136	**	**	**	**
00400	PH (STANDARD UNITS)	06/19/91-09/04/91	3	5.42	5.657	6.18	5.37	0.206	0.454	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/19/91-09/04/91	3	5.42	5.536	6.18	5.37	0.228	0.477	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/19/91-09/04/91	3	3.802	2.909	4.266	0.661	3.847	1.961	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/04/91-09/04/91	2 ##	0.02	0.02	0.03	0.01	0.	0.014	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	06/19/91-09/04/91	3	0.03	0.027	0.03	0.02	0.	0.006	**	**	**	**
00635	NITROGEN, AMMONIA&ORG., TOTAL 1 DET (MG/L AS N)	06/19/91-09/04/91	3	0.4	0.3	0.4	0.1	0.03	0.173	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/19/91-09/04/91	3 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	06/19/91-09/04/91	2	6.5	6.5	8.	5.	4.5	2.121	**	**	**	**
32209	CHLOROPHYLL A UG/L FLUOROMETRIC CORRECTED	06/19/91-09/04/91	2	3.75	3.75	5.5	2.	6.125	2.475	**	**	**	**
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	06/19/91-06/19/91	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0024

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	3	2	0.67				1	0	0.00	2	2	1.00			
00400	PH	Other-Hi Lim.	9.	3	0	0.00				1	0	0.00	2	0	0.00			
		Other-Lo Lim.	6.5	3	3	1.00				1	1	1.00	2	2	1.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	3	0	0.00				1	0	0.00	2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	2	0	0.00				1	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0025

NPS Station ID: BISO0025
LAT/LON: 36.565281/ -84.503337
Agency: 22TNOSM2
Date Created: 09/03/83
Location: SEXTON EXCAVATING MINE NEAR WINFIELD ON BEAR CR.
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 151005S4
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER/EAST BR.BEAR CR.
ECO Region:
RF1 Index: 05130104050
RF1 Mile Point: 4.970
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104005003.24
RF3 Mile Point: 7.13
Distance from RF3: 0.23
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0025

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0026

NPS Station ID: BISO0026
LAT/LON: 36.572504/ -84.476392
Agency: 131TVAC
Date Created: 08/29/77
Location:
FIPS State/County: 47151 TENNESSEE/SCOTT
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 476141
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: JONES BRANCH 1.44
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 05130104059801.50
RF3 Mile Point: 2.38
Distance from RF3: 0.15
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/18/77-07/18/79	17	11.	12.294	20.1	2.8	29.253	5.409	2.96	9.05	17.7	20.02
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/24/78-05/17/78	5	0.3	0.52	1.	0.2	0.127	0.356	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/18/77-07/18/79	15	9.2	9.22	12.2	7.5	2.267	1.506	7.5	7.8	9.8	11.9
00400	PH (STANDARD UNITS)	05/18/77-07/18/79	16	4.1	4.413	6.1	3.7	0.547	0.739	3.7	3.825	4.85	5.82
00400	CONVERTED PH (STANDARD UNITS)	05/18/77-07/18/79	16	4.1	4.083	6.1	3.7	0.663	0.814	3.7	3.825	4.85	5.82
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/18/77-07/18/79	16	79.433	82.68	199.526	0.794	4870.047	69.786	1.635	14.43	150.34	199.526
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/18/77-07/18/79	16	0.	0.625	8.	0.	4.117	2.029	0.	0.	0.	3.8
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/18/77-07/18/79	16	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/18/77-07/18/79	15	31.	30.733	120.	1.	848.21	29.124	1.6	9.	41.	74.4
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/18/77-07/18/79	17	4.	10.206	71.	0.5	275.408	16.595	1.7	3.	10.5	29.4
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/18/79-07/18/79	1	120.	120.	120.	120.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	05/18/77-10/31/78	15	3.6	5.627	20.	2.7	27.148	5.21	2.7	3.	5.	17.6
00927	MAGNESIUM, TOTAL (MG/L AS MG)	05/18/77-10/31/78	15	4.5	4.587	11.	1.8	4.363	2.089	2.52	3.3	4.9	8.18
00945	SULFATE, TOTAL (MG/L AS SO4)	05/18/77-07/18/79	17	57.	58.647	130.	3.	1214.368	34.848	9.4	35.	79.	122.
01034	CHROMIUM, TOTAL (UG/L AS CR)	06/14/77-07/18/79	5 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	06/14/77-07/18/79	5 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/18/77-07/18/79	16	830.	816.875	2100.	160.	220569.583	469.648	272.	480.	1055.	1540.
01051	LEAD, TOTAL (UG/L AS PB)	06/14/77-07/18/79	5 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/18/77-10/31/78	15	2800.	2906.667	4900.	1700.	982095.238	991.007	1760.	1900.	3500.	4480.
01067	NICKEL, TOTAL (UG/L AS NI)	06/14/77-07/18/79	5	25.	42.	100.	5.	1707.5	41.322	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	06/14/77-07/18/79	5	60.	80.	210.	20.	6150.	78.422	**	**	**	**
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	05/18/77-10/31/78	15	27.	32.933	85.	20.	300.924	17.347	20.	22.	35.	68.2
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/18/77-07/18/79	17	80.	110.	270.	30.	4587.5	67.731	54.	65.	170.	222.
70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	10/31/78-10/31/78	1	4.9	4.9	4.9	4.9	0.	0.	**	**	**	**
80203	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .062MM	10/31/78-10/31/78	1	21.3	21.3	21.3	21.3	0.	0.	**	**	**	**
80204	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .125MM	10/31/78-10/31/78	1	29.2	29.2	29.2	29.2	0.	0.	**	**	**	**
80206	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN .500MM	10/31/78-10/31/78	1	94.6	94.6	94.6	94.6	0.	0.	**	**	**	**
80208	TOTAL SEDIMENT SIEVE DIAMETER,% FINER THAN 2.00MM	10/31/78-10/31/78	1	99.7	99.7	99.7	99.7	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0026

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	15	0	0.00	5	0	0.00	3	0	0.00	7	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0026

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00400	PH	Other-Hi Lim.	9.	16	0	0.00	6	0	0.00	4	0	0.00	6	0	0.00			
		Other-Lo Lim.	6.5	16	16	1.00	6	6	1.00	4	4	1.00	6	6	1.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	17	0	0.00	6	0	0.00	4	0	0.00	7	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
		Drinking Water	1300.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
		Drinking Water	5.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	5	0	0.00	2	0	0.00	1	0	0.00	2	0	0.00			
		Drinking Water	100.	5	1	0.20	2	0	0.00	1	1	1.00	2	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	5	1	0.20	2	0	0.00	1	1	1.00	2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0027

NPS Station ID: BISO0027
LAT/LON: 36.602782/ -84.740559
Agency: 21KY
Date Created: 06/30/90
Location: ROCK CREEK AT KY-TN STATE LINE
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SUD430 /02008007
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104010
RF1 Mile Point: 4.600
Distance from RF1: 0.00
On/Off RF1: ON
RF3 Index: 05130104001010.26
RF3 Mile Point: 19.57
Distance from RF3: 0.03
On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 1-43 BARTHELL SW TN-KY QUADRANGLE SAMPLE COLLECTED AT KY-TN STATE LINE
IN MCCREARY COUNTY STREAM ORDER 3 RMI 21.9
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0027

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0028

NPS Station ID: BISO0028 LAT/LON: 36.606948/ -84.735003 Agency: 1118ATL8 Date Created: 02/09/80
Location: ROCK CREEK 06-03 FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 020603
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: KENTUCKY Elevation: 0 Water Body Id:
Minor Basin: OHIO RIVER CUMBERLAND R ECO Region:
RF1 Index: 05130104010 RF1 Mile Point: 18.600 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104001008.93 RF3 Mile Point: 9.01 Distance from RF3: 0.04 On/Off RF3:
Description:
FOR FUTURE INFORMATION CONTACT FOREST SOIL SCIENTIST US FOREST SERVICE TO MONITOR THE CHANGES IN WATER QUALITY AFFECTED BY TIMBER HARVESTING
SAMPLE ARE COLLECTED TWICE MONTHLY ONCE FOR STORM FLOW & ONE BASE FLOW TO COMPARE WATER QUALITY CHANGES BY DETERMINISTIC & PR BABILISTIC MEANS
SAMPLE ARE GRABBED & WILL BE COLLECTED WEEKLY DURNING HARVESTING PERIOD

Parameter Inventory for Station: BISO0028

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/27/82	70	54.	54.6	78.	32.	164.765	12.836	35.1	43.75	67.	72.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/27/82	69	1.	2.193	16.	0.4	7.993	2.827	0.6	0.8	2.4	4.7
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-09/27/82	13	41.	41.846	63.	25.	117.808	10.854	27.8	33.	49.	61.
00403	PH, LAB, STANDARD UNITS SU	07/18/79-09/27/82	14	6.9	7.014	7.6	6.5	0.109	0.33	6.6	6.8	7.325	7.55
00403	CONVERTED PH, LAB, STANDARD UNITS	07/18/79-09/27/82	14	6.9	6.913	7.6	6.5	0.12	0.347	6.6	6.8	7.325	7.55
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/18/79-09/27/82	14	0.126	0.122	0.316	0.025	0.006	0.08	0.028	0.048	0.158	0.258
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/27/82	69	11.	10.435	24.	3.	22.514	4.745	4.	6.	14.	16.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-09/27/82	13	2.	2.	3.	1.	0.333	0.577	1.	2.	2.	3.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/27/82	66	2.	4.808	56.	0.25	90.665	9.522	0.25	1.	4.	9.6
00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-09/27/82	14 ##	0.075	0.141	0.43	0.05	0.014	0.12	0.05	0.05	0.24	0.365
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-09/27/82	14 ##	0.075	0.141	0.43	0.05	0.014	0.12	0.05	0.05	0.24	0.365
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-09/27/82	14 ##	0.01	0.019	0.06	0.01	0.	0.015	0.01	0.01	0.023	0.05
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-09/27/82	14	0.02	0.018	0.03	0.008	0.	0.008	0.009	0.01	0.023	0.03
00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-09/27/82	13	4.	4.023	5.9	2.2	1.462	1.209	2.36	2.95	4.85	5.9
00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-09/27/82	13	0.63	0.635	0.74	0.49	0.007	0.086	0.506	0.57	0.725	0.74
00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-09/27/82	14	5.	4.929	9.	2.	3.302	1.817	2.5	4.	5.25	8.5
01045	IRON, TOTAL (UG/L AS FE)	07/18/79-09/27/82	13	190.	186.923	300.	70.	5639.744	75.098	74.	125.	250.	296.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0028

				Total	Exceed	Prop.	----------11/16-3/15----------			----------3/16-6/30----------			----------7/01-11/15----------			----------n/a----------		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	69	0	0.00	21	0	0.00	20	0	0.00	28	0	0.00			
00403	PH, LAB	Other-Hi Lim.	9.	14	0	0.00	4	0	0.00	6	0	0.00	4	0	0.00			
		Other-Lo Lim.	6.5	14	1	0.07	4	1	0.25	6	0	0.00	4	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	14	0	0.00	4	0	0.00	6	0	0.00	4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	14	0	0.00	4	0	0.00	6	0	0.00	4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0029

NPS Station ID: BISO0029
LAT/LON: 36.626948/ -84.533059
Agency: 11COEHUN
Date Created: 07/14/79
Location: BSF CUMBERLAND RIVER, MILE 49.6
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10002
RMI-Indexes: 1021500 007720 01140 9598
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 049.60
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104012
RF1 Mile Point: 5.140
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104000912.77
RF3 Mile Point: 14.05
Distance from RF3: 0.04
On/Off RF3:
Description:
QUADRANGLE: BARTHELL, KY
LOCATION: AT USGS STREAM GAGE NEAR STEARNS

Parameter Inventory for Station: BISO0029

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0030

NPS Station ID: BISO0030 LAT/LON: 36.626948/ -84.533338 Agency: 112WRD Date Created: / /
Location: SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 03410500
RMI-Indexes: Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: Elevation: 0 Water Body Id:
Minor Basin: ECO Region:
RF1 Index: 05130104 RF1 Mile Point: 0.000 Distance from RF1: 1.90 On/Off RF1:
RF3 Index: 05130104005900.90 RF3 Mile Point: 2.05 Distance from RF3: 0.03 On/Off RF3:
Description:

Parameter Inventory for Station: BISO0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	02/09/88-08/04/92	24	171.	157.208	223.	76.	2120.259	46.046	85.	106.	190.25	211.
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/04/60-08/04/92	107	15.5	15.401	31.	0.5	62.896	7.931	4.	9.	22.5	25.76
00055	VELOCITY, STREAM FT/SEC	02/09/88-08/04/92	23	1.4	1.678	4.4	0.7	0.832	0.912	0.74	1.1	2.5	2.86
00060	FLOW, STREAM, MEAN DAILY CFS	05/04/60-08/31/71	4	359.	550.	1300.	182.	262604.667	512.45	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/02/70-08/04/92	106	707.	1997.67	30400.	38.	19798066.433	4449.502	91.7	290.25	1607.5	3843.
00064	DEPTH OF STREAM, MEAN (FT)	02/09/88-08/04/92	24	3.5	4.35	14.5	1.1	9.373	3.062	1.35	2.05	6.325	7.75
00065	STAGE, STREAM (FEET)	09/13/85-08/04/92	28	3.62	4.685	16.33	1.24	10.844	3.293	1.383	2.528	6.46	8.882
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	10/30/86-06/02/92	34	2.65	11.576	130.	0.3	681.364	26.103	0.6	1.25	6.475	41.
00080	COLOR (PLATINUM-COBALT UNITS)	05/04/60-05/04/60	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/04/60-08/04/92	105	125.	135.238	280.	59.	2119.702	46.04	84.6	101.5	152.	209.4
00300	OXYGEN, DISSOLVED MG/L	01/28/81-08/04/92	43	9.7	9.802	13.7	7.	3.614	1.901	7.4	7.9	11.4	12.44
00400p	PH (STANDARD UNITS)	05/04/60-08/04/92	70	7.235	7.171	8.	5.22	0.22	0.469	6.61	7.	7.418	7.695
00400p	CONVERTED PH (STANDARD UNITS)	05/04/60-08/04/92	70	7.235	6.705	8.	5.22	0.44	0.664	6.61	7.	7.418	7.695
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/04/60-08/04/92	70	0.058	0.197	6.026	0.01	0.539	0.734	0.02	0.038	0.1	0.246
00403	PH, LAB, STANDARD UNITS SU	12/04/80-06/02/92	44	7.6	7.557	8.4	6.1	0.162	0.403	7.1	7.3	7.8	8.
00403	CONVERTED PH, LAB, STANDARD UNITS	12/04/80-06/02/92	44	7.6	7.287	8.4	6.1	0.236	0.486	7.1	7.3	7.8	8.
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/04/80-06/02/92	44	0.025	0.052	0.794	0.004	0.014	0.118	0.01	0.016	0.05	0.079
00405	CARBON DIOXIDE (MG/L AS CO2)	09/19/72-09/04/79	3	1.	1.167	1.8	0.7	0.323	0.569	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/04/60-02/22/89	46	18.	19.217	35.	8.	53.241	7.297	9.7	14.	25.25	30.
00417	ALKALINITY,FIXED ENDPOINT TITRATION, USGS LAB MG/L	12/10/86-02/04/87	2	12.	12.	12.	12.	0.	0.	**	**	**	**
00418	ALKALINITY,CARBONATE,INCREMENTAL TIT.USGS LAB MG/L	10/14/87-08/04/92	28	19.4	20.9	38.9	9.	58.979	7.68	11.29	14.5	27.575	31.1
00440	BICARBONATE ION (MG/L AS HCO3)	05/04/60-09/19/72	4	18.5	18.75	28.	10.	55.583	7.455	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	05/04/60-09/19/72	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	10/14/87-06/08/88	5 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	10/14/87-08/04/92	28	22.	23.929	46.	0.	108.291	10.406	11.8	15.75	32.75	37.
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	10/30/86-08/04/92	35	0.02	0.028	0.23	0.	0.001	0.038	0.005	0.01	0.03	0.044
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/30/86-08/04/92	35	0.02	0.029	0.12	0.005	0.001	0.026	0.005	0.01	0.04	0.068
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	10/30/86-08/04/92	35 ##	0.005	0.006	0.02	0.005	0.	0.004	0.005	0.005	0.005	0.01
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	10/10/90-08/04/92	12 ##	0.005	0.007	0.02	0.005	0.	0.005	0.005	0.005	0.009	0.017
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	09/19/72-09/19/72	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	08/06/91-08/06/91	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/30/86-08/04/92	35	0.3	0.394	1.4	0.1	0.096	0.311	0.1	0.1	0.5	0.8
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/04/79-08/04/92	15	0.18	0.19	0.32	0.025	0.01	0.098	0.04	0.11	0.3	0.32
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	10/30/86-08/04/92	35	0.1	0.154	0.3	0.025	0.007	0.084	0.05	0.1	0.2	0.3
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/72-08/04/92	39	0.02	0.024	0.1	0.005	0.	0.022	0.005	0.005	0.03	0.06
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10/30/86-08/04/92	35 ##	0.005	0.01	0.03	0.005	0.	0.008	0.005	0.005	0.01	0.024
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	10/30/86-08/04/92	35 ##	0.005	0.005	0.01	0.005	0.	0.001	0.005	0.005	0.005	0.007
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/04/79-08/17/81	3	0.	0.002	0.005	0.	0.	0.003	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/04/60-08/17/81	7	46.	45.429	66.	18.	224.619	14.987	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/04/60-08/17/81	7	30.	26.571	34.	10.	78.619	8.867	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	05/04/60-06/02/92	38	11.5	12.147	21.	4.4	16.081	4.01	7.39	9.375	14.	19.1
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/04/60-06/02/92	38	4.9	5.126	8.4	1.8	2.494	1.579	3.28	4.15	5.975	8.01
00930	SODIUM, DISSOLVED (MG/L AS NA)	05/04/60-06/02/92	38	3.65	4.989	14.	1.3	12.568	3.545	1.79	2.875	5.975	12.2
00931	SODIUM ADSORPTION RATIO	05/04/60-08/17/81	4	0.25	0.25	0.3	0.2	0.003	0.058	**	**	**	**
00932	SODIUM, PERCENT	05/04/60-08/17/81	4	17.	17.25	23.	12.	20.917	4.573	**	**	**	**
00933	SODIUM,PLUS POTASSIUM (MG/L)	09/04/79-09/04/79	1	5.3	5.3	5.3	5.3	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	05/04/60-06/02/92	38	1.35	1.539	3.3	0.4	0.355	0.596	1.	1.1	1.9	2.32
00940	CHLORIDE,TOTAL IN WATER MG/L	05/04/60-06/02/92	41	3.	3.12	11.	0.9	3.971	1.993	2.	2.	3.5	6.6
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/04/60-06/02/92	66	35.	38.242	91.	18.	206.002	14.353	23.7	27.	43.5	60.3
00950	FLUORIDE, DISSOLVED (MG/L AS F)	05/04/60-06/02/92	41	0.1	0.106	0.4	0.	0.006	0.08	0.05	0.05	0.1	0.2
00955	SILICA, DISSOLVED (MG/L AS SI02)	05/04/60-06/02/92	38	4.6	4.816	26.	1.7	13.711	3.703	1.99	3.675	5.025	5.6
01000	ARSENIC, DISSOLVED (UG/L AS AS)	10/30/86-06/04/91	19 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01002	ARSENIC, TOTAL (UG/L AS AS)	09/04/79-08/17/81	3	1.	2.	4.	1.	3.	1.732	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	07/16/80-08/17/81	2	4.	4.	8.	0.	32.	5.657	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	10/30/86-06/02/92	23	24.	26.261	38.	17.	35.292	5.941	20.	21.	31.	36.2
01007	BARIUM, TOTAL (UG/L AS BA)	09/04/79-08/17/81	3	100.	83.333	100.	50.	833.333	28.868	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	10/30/86-06/04/91	19 ##	0.25	0.25	0.25	0.25	0.	0.	0.25	0.25	0.25	0.25
01025	CADMIUM, DISSOLVED (UG/L AS CD)	10/30/86-06/04/91	19 ##	0.5	0.895	3.	0.5	0.488	0.699	0.5	0.5	1.	2.
01027	CADMIUM, TOTAL (UG/L AS CD)	09/04/79-08/17/81	3 ##	0.5	0.5	1.	0.	0.25	0.5	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/16/80-08/17/81	2 ##	2.75	2.75	5.	0.5	10.125	3.182	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	07/16/80-08/17/81	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	10/30/86-06/04/91	19 ##	0.5	0.842	3.	0.5	0.585	0.765	0.5	0.5	0.5	2.5
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/04/79-08/17/81	3	10.	11.667	20.	5.	58.333	7.638	**	**	**	**
01035	COBALT, DISSOLVED (UG/L AS CO)	10/30/86-06/02/92	23 ##	1.5	1.5	1.5	1.5	0.	0.	1.5	1.5	1.5	1.5
01038	COBALT IN BOTTOM DEPOSITS (MG/KG AS CO DRY WGT)	07/16/80-08/17/81	2 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	10/30/86-06/04/91	19	2.	3.237	10.	0.5	5.566	2.359	1.	2.	5.	6.
01042	COPPER, TOTAL (UG/L AS CU)	09/04/79-08/17/81	3	8.	7.	9.	4.	7.	2.646	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	07/16/80-08/17/81	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	05/22/79-09/15/81	25	500.	906.8	6700.	130.	1776547.667	1332.872	160.	240.	1060.	2040.
01045	IRON, TOTAL (UG/L AS FE)	05/22/79-09/15/81	28	575.	941.786	6700.	140.	1574844.841	1254.928	198.	285.	1175.	1860.
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-06/02/92	51	55.	71.902	800.	5.	11886.81	109.027	11.2	31.	82.	110.
01049	LEAD, DISSOLVED (UG/L AS PB)	10/30/86-06/04/91	19 ##	2.5	2.105	5.	0.5	1.127	1.062	0.5	1.	2.5	2.5
01051	LEAD, TOTAL (UG/L AS PB)	09/04/79-08/17/81	3	4.	7.333	17.	1.	72.333	8.505	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	07/16/80-08/17/81	2 ##	12.5	12.5	20.	5.	112.5	10.607	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	07/16/80-08/17/81	2	485.	485.	670.	300.	68450.	261.63	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	05/22/79-09/15/81	28	30.	78.571	1200.	0.	49501.587	222.49	0.	2.5	60.	111.
01055	MANGANESE, TOTAL (UG/L AS MN)	05/22/79-09/15/81	25	120.	173.2	1200.	80.	47481.	217.901	86.	105.	155.	220.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-06/02/92	51	76.	86.137	220.	28.	2063.881	45.43	40.	57.	100.	150.
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	10/30/86-06/02/92	23 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01065	NICKEL, DISSOLVED (UG/L AS NI)	10/30/86-06/02/92	23	2.	2.565	6.	0.5	2.666	1.633	0.5	1.	3.	5.6
01075	SILVER, DISSOLVED (UG/L AS AG)	10/30/86-06/02/92	23 ##	0.5	0.543	1.	0.5	0.021	0.144	0.5	0.5	0.5	0.8
01077	SILVER, TOTAL (UG/L AS AG)	09/04/79-08/17/81	3 ##	0.5	0.5	1.	0.	0.25	0.5	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	10/30/86-06/02/92	23	38.	42.391	78.	25.	237.885	15.424	25.	30.	56.	67.8
01085	VANADIUM, DISSOLVED (UG/L AS V)	10/30/86-06/02/92	23 ##	3.	3.	3.	3.	0.	0.	3.	3.	3.	3.
01090	ZINC, DISSOLVED (UG/L AS ZN)	10/30/86-06/04/91	19	14.	14.5	31.	1.5	57.306	7.57	4.	8.	19.	24.
01092	ZINC, TOTAL (UG/L AS ZN)	09/04/79-08/17/81	3	20.	26.667	50.	10.	433.333	20.817	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	07/16/80-08/17/81	2	28.	28.	47.	9.	722.	26.87	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	10/30/86-06/02/92	23	30.	38.043	100.	5.	826.68	28.752	5.	10.	50.	90.
01130	LITHIUM, DISSOLVED (UG/L AS LI)	10/30/86-06/02/92	23 ##	2.	2.739	7.	2.	2.838	1.685	2.	2.	2.	6.6
01145	SELENIUM, DISSOLVED (UG/L AS SE)	10/30/86-06/02/92	23 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01147	SELENIUM, TOTAL (UG/L AS SE)	09/04/79-08/17/81	3 ##	0.5	0.333	0.5	0.	0.083	0.289	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	07/16/80-08/17/81	2 ##	0.25	0.25	0.5	0.	0.125	0.354	**	**	**	**
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	07/16/80-08/17/81	2	9550.	9550.	18000.	1100.	142805000.	11950.105	**	**	**	**
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	10/30/86-08/16/88	10	18.5	143.5	738.	0.	72483.389	269.227	0.1	2.5	193.25	719.6
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	10/30/86-08/16/88	10	1.266	1.238	2.868	0.	1.064	1.031	0.	0.358	2.083	2.856
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			17.281								
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	04/08/87-08/04/92	29	15.	77.948	867.	0.	35317.953	187.931	0.5	3.	38.	396.
31625	LOG FECAL COLIFORM, MF,M-FC, 0.7 UM	04/08/87-08/04/92	29	1.176	1.094	2.938	-0.301	0.743	0.862	-0.301	0.477	1.57	2.598
31625	GM FECAL COLIFORM, MF,M-FC, 0.7 UM	GEOMETRIC MEAN =			12.419								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	12/10/86-08/04/92	29	22.	432.259	5750.	0.5	1789612.404	1337.764	2.	9.	71.5	1060.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	12/10/86-08/04/92	29	1.342	1.451	3.76	-0.301	0.889	0.943	0.301	0.954	1.846	3.025

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			28.26								
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	10/14/87-08/04/92	28	18.	19.714	38.	0.	72.286	8.502	9.8	13.25	26.75	30.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/04/60-06/02/92	65	79.	85.154	175.	24.	867.913	29.46	55.	63.5	105.	128.2
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	05/04/60-08/17/81	4	83.5	74.25	91.	39.	584.917	24.185	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	05/04/60-09/15/81	31	110.	161.397	539.	11.7	20151.672	141.957	16.88	70.6	207.	397.
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/04/60-09/15/81	31	0.1	0.116	0.24	0.03	0.002	0.044	0.07	0.08	0.14	0.168
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-06/02/92	34	76.5	73.324	100.	25.	422.892	20.564	42.5	55.75	91.75	98.5
70507	PHOSPHORUS,IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10/10/90-08/04/92	12 ##	0.008	0.009	0.02	0.005	0.	0.006	0.005	0.005	0.01	0.02
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/04/60-09/19/72	4	0.9	0.8	1.2	0.2	0.187	0.432	**	**	**	**
71883	MANGANESE, TOTAL ELEMENTAL (UG/L AS MN)	05/04/60-05/04/60	1	280.	280.	280.	280.	0.	0.	**	**	**	**
71885	IRON (UG/L AS FE)	05/04/60-05/04/60	1	240.	240.	240.	240.	0.	0.	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	10/02/70-08/17/81	6	0.045	0.077	0.25	0.	0.008	0.09	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	10/30/86-06/04/91	16 ##	0.05	0.084	0.2	0.05	0.004	0.06	0.05	0.05	0.1	0.2
71900	MERCURY, TOTAL (UG/L AS HG)	11/09/70-08/17/81	4 ##	0.175	0.163	0.25	0.05	0.011	0.103	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	07/16/80-08/17/81	2 ##	0.003	0.003	0.005	0.	0.	0.004	**	**	**	**
72104	SAMPLE LOCATION, DISTANCE DOWNSTREAM (FEET)	06/08/88-10/08/91	7	300.	300.	400.	200.	4166.667	64.55	**	**	**	**
80154p	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-06/02/92	85	11.	56.638	1410.	0.25	33060.303	181.825	2.	4.	27.	99.6
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	05/22/79-01/06/83	35	17.	367.938	10400.	0.74	3062349.887	1749.957	3.04	5.6	148.	324.6
82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	08/17/81-08/17/81	1	3.	3.	3.	3.	0.	0.	**	**	**	**
82068	POTASSIUM 40, DISSOLVED, K-40 PC/LITER	08/17/81-08/17/81	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0030

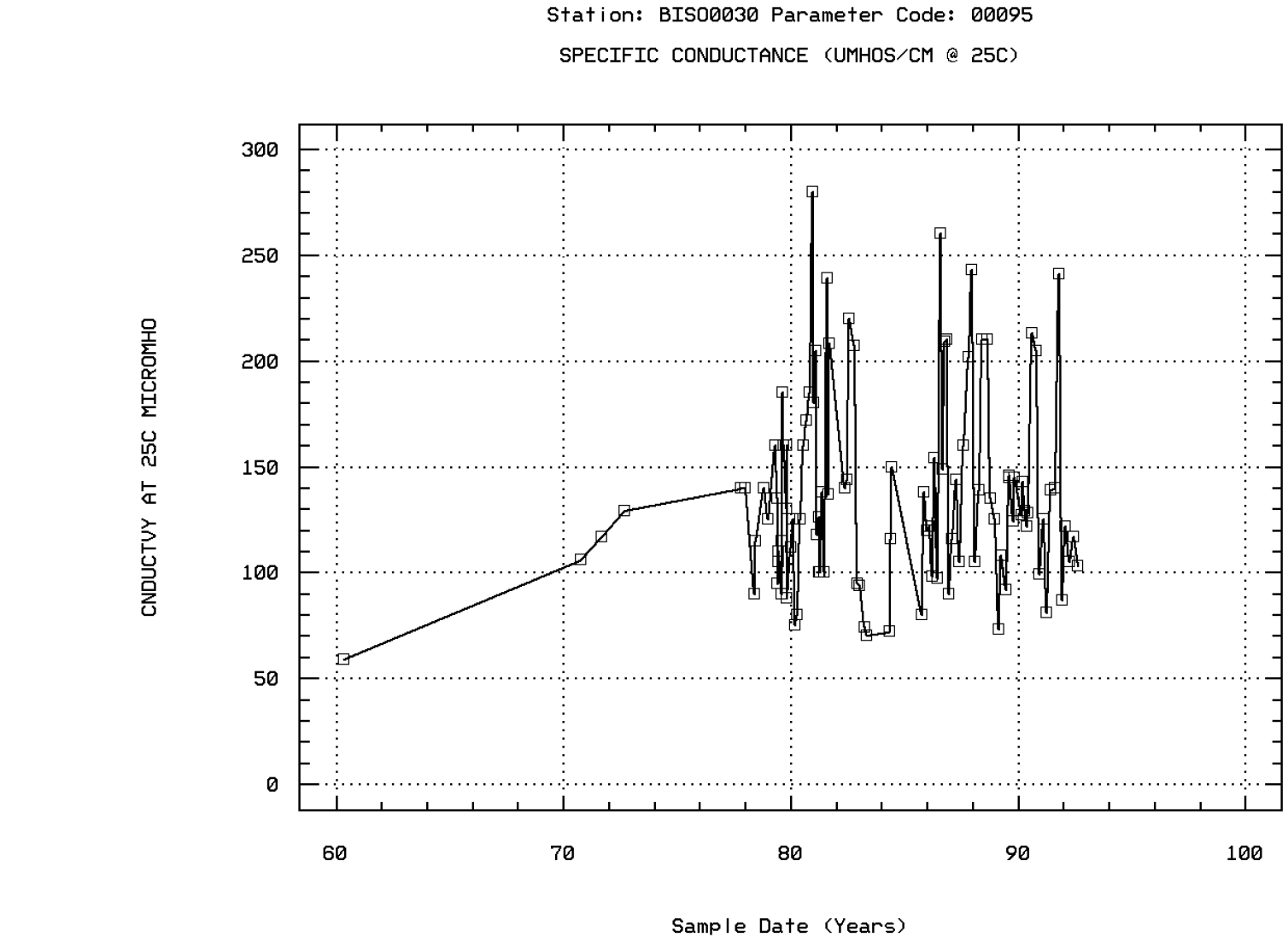
Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	34	3	0.09	11	3	0.27	12	0	0.00	11	0	0.00			
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	43	0	0.00	13	0	0.00	16	0	0.00	14	0	0.00			
00400	PH	Other-Hi Lim.	9.	70	0	0.00	17	0	0.00	27	0	0.00	26	0	0.00			
		Other-Lo Lim.	6.5	70	6	0.09	17	3	0.18	27	3	0.11	26	0	0.00			
00403	PH, LAB	Other-Hi Lim.	9.	44	0	0.00	14	0	0.00	16	0	0.00	14	0	0.00			
		Other-Lo Lim.	6.5	44	1	0.02	14	1	0.07	16	0	0.00	14	0	0.00			
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	35	0	0.00	11	0	0.00	12	0	0.00	12	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	12	0	0.00	4	0	0.00	4	0	0.00	4	0	0.00			
00618	NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	15	0	0.00	4	0	0.00	4	0	0.00	7	0	0.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	35	0	0.00	11	0	0.00	12	0	0.00	12	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	41	0	0.00	11	0	0.00	13	0	0.00	17	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	66	0	0.00	17	0	0.00	23	0	0.00	26	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
		Drinking Water	50.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00							3	0	0.00			
		Drinking Water	50.	3	0	0.00							3	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	3	0	0.00							3	0	0.00			
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
		Drinking Water	5.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	3	0	0.00							3	0	0.00			
		Drinking Water	5.	3	0	0.00							3	0	0.00			
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	3	0	0.00							3	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
		Drinking Water	1300.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	3	0	0.00							3	0	0.00			
		Drinking Water	1300.	3	0	0.00							3	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
		Drinking Water	5.	19	1	0.05	4	0	0.00	10	1	0.10	5	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	3	0	0.00							3	0	0.00			
		Drinking Water	5.	3	1	0.33							3	1	0.33			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

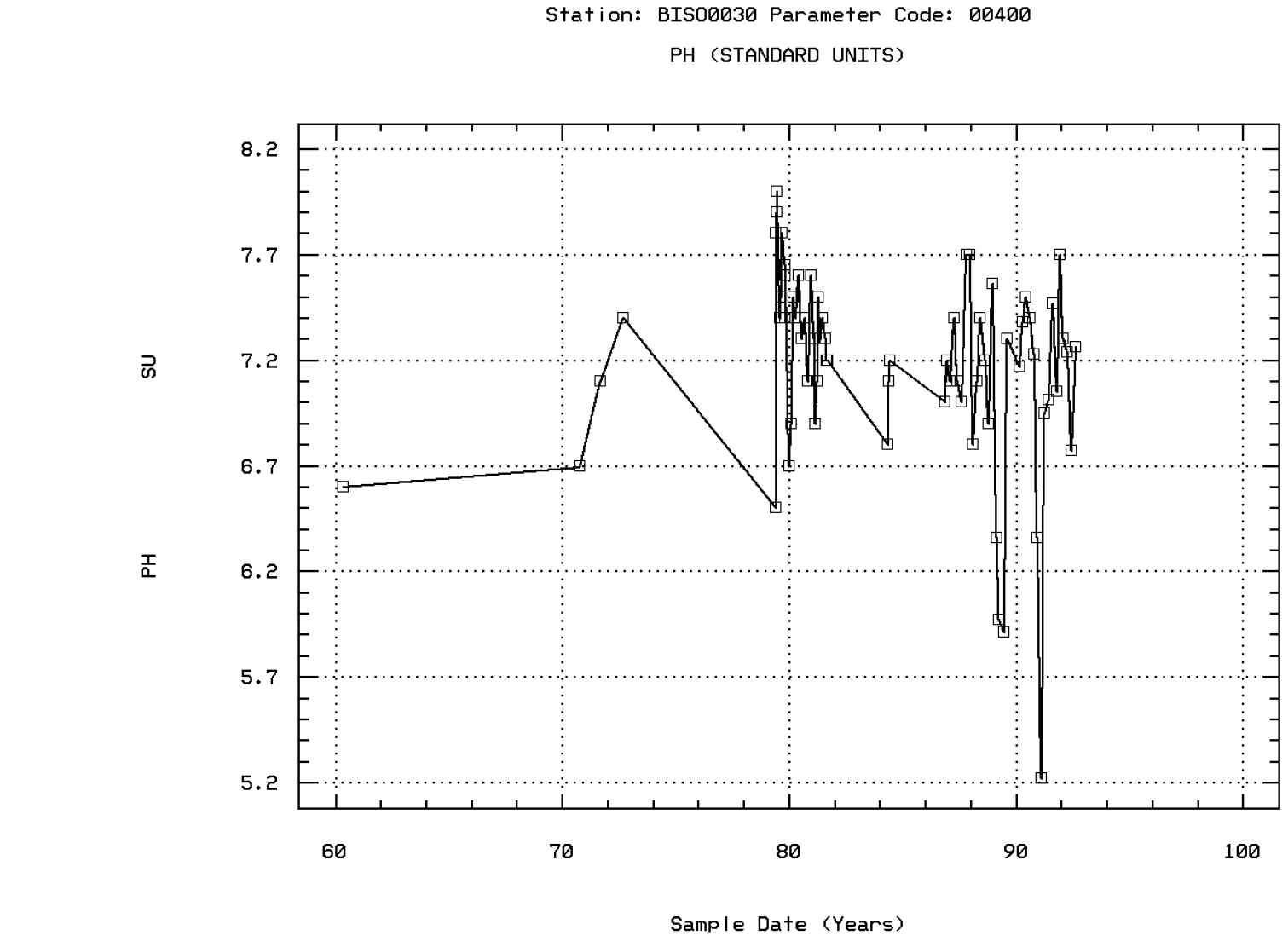
EPA Water Quality Criteria Analysis for Station: BISO0030

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
		Drinking Water	100.	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
		Drinking Water	50.	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	3	0	0.00							3	0	0.00			
		Drinking Water	50.	3	0	0.00							3	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	3	0	0.00							3	0	0.00			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
		Drinking Water	50.	23	0	0.00	5	0	0.00	12	0	0.00	6	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	3	0	0.00							3	0	0.00			
		Drinking Water	50.	3	0	0.00							3	0	0.00			
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	10	2	0.20	3	1	0.33	4	0	0.00	3	1	0.33			
31625	FECAL COLIFORM, MF	Other-Hi Lim.	200.	29	3	0.10	8	3	0.38	11	0	0.00	10	0	0.00			
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	4	0	0.00				1	0	0.00	3	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	16	0	0.00	4	0	0.00	8	0	0.00	4	0	0.00			
		Drinking Water	2.	16	0	0.00	4	0	0.00	8	0	0.00	4	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00							4	0	0.00			
		Drinking Water	2.	4	0	0.00							4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter



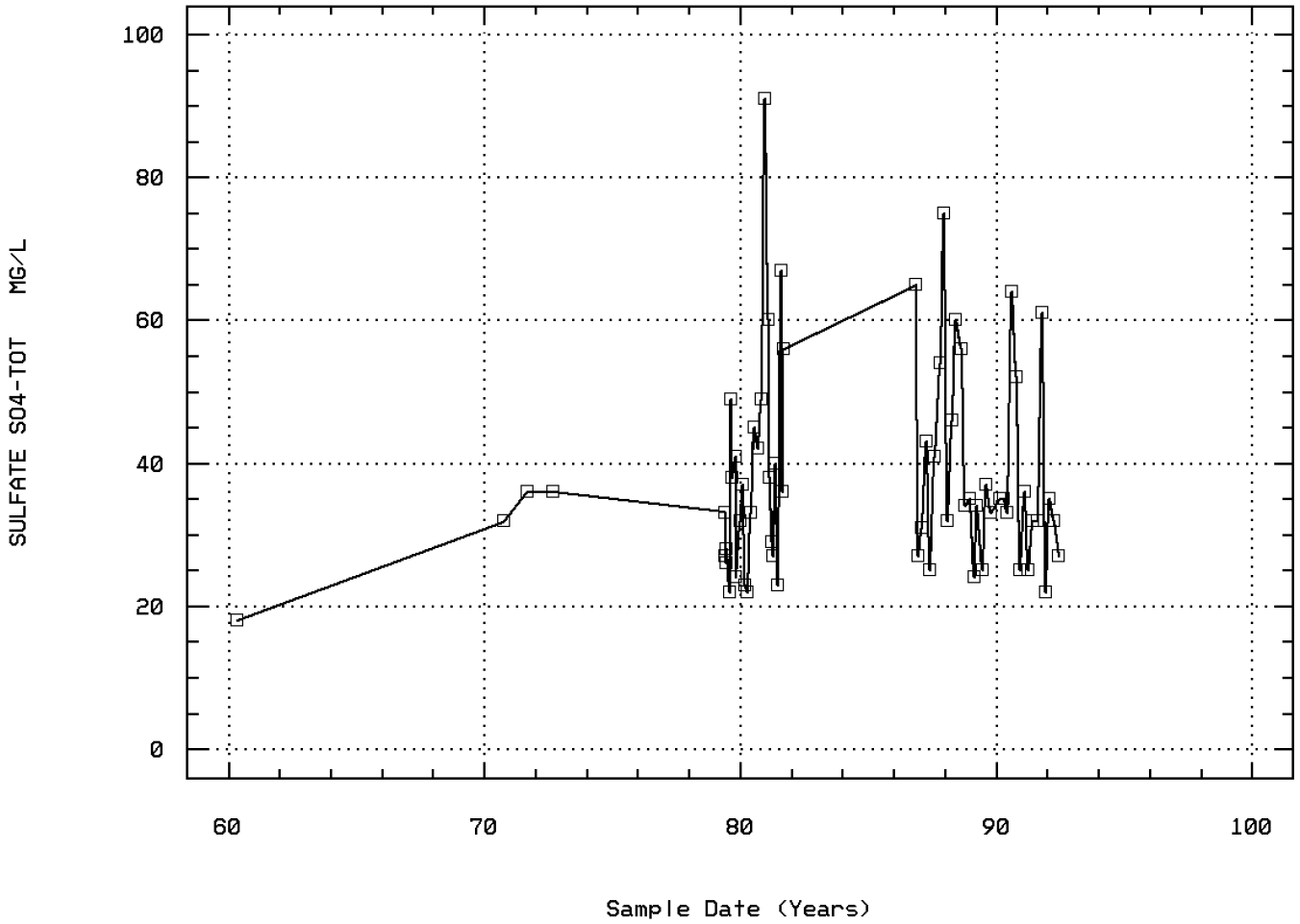
SOUTH FORK CUMBERLAND RIVER NEAR STEARN



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00945

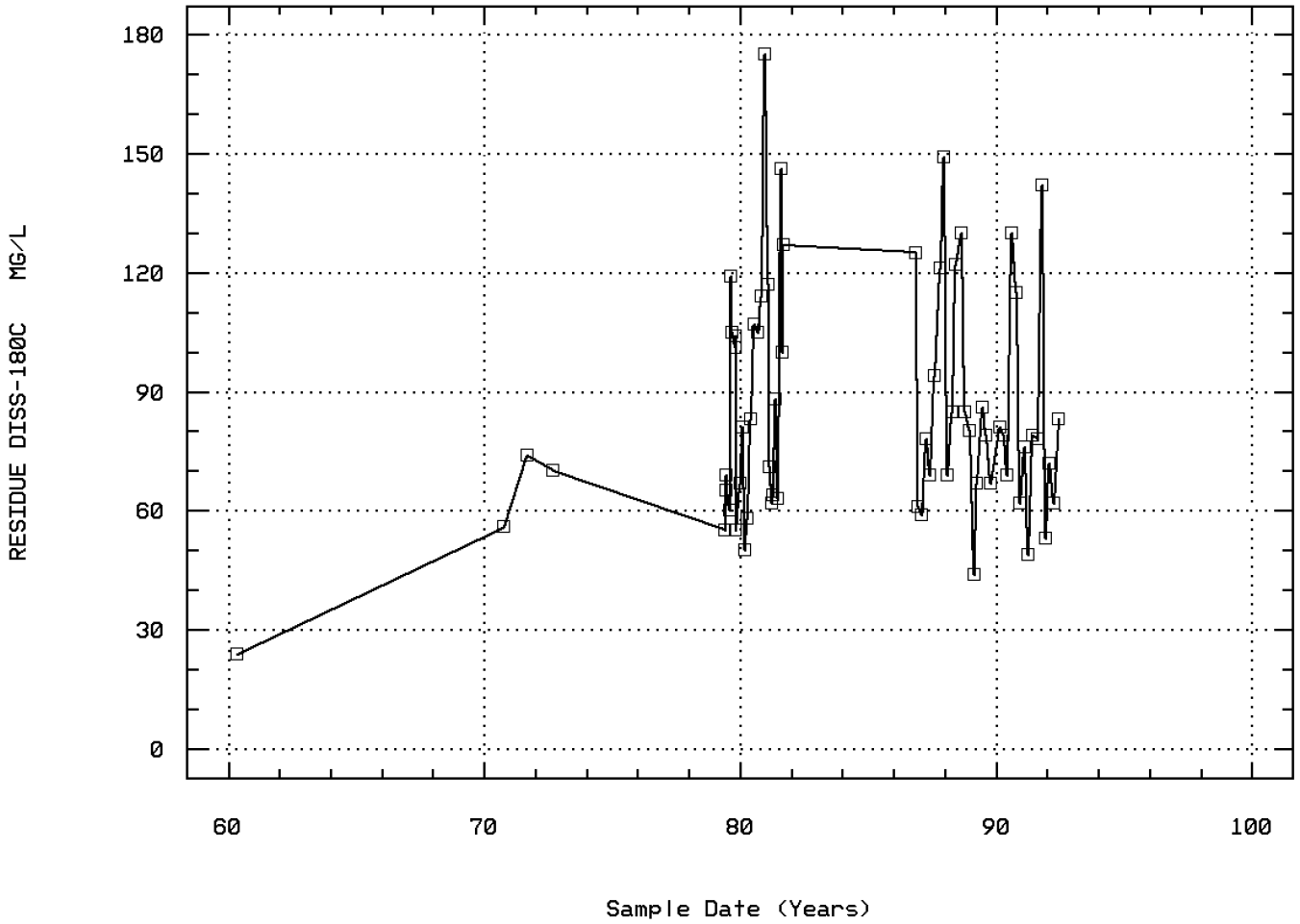
SULFATE, TOTAL (MG/L AS SO4)



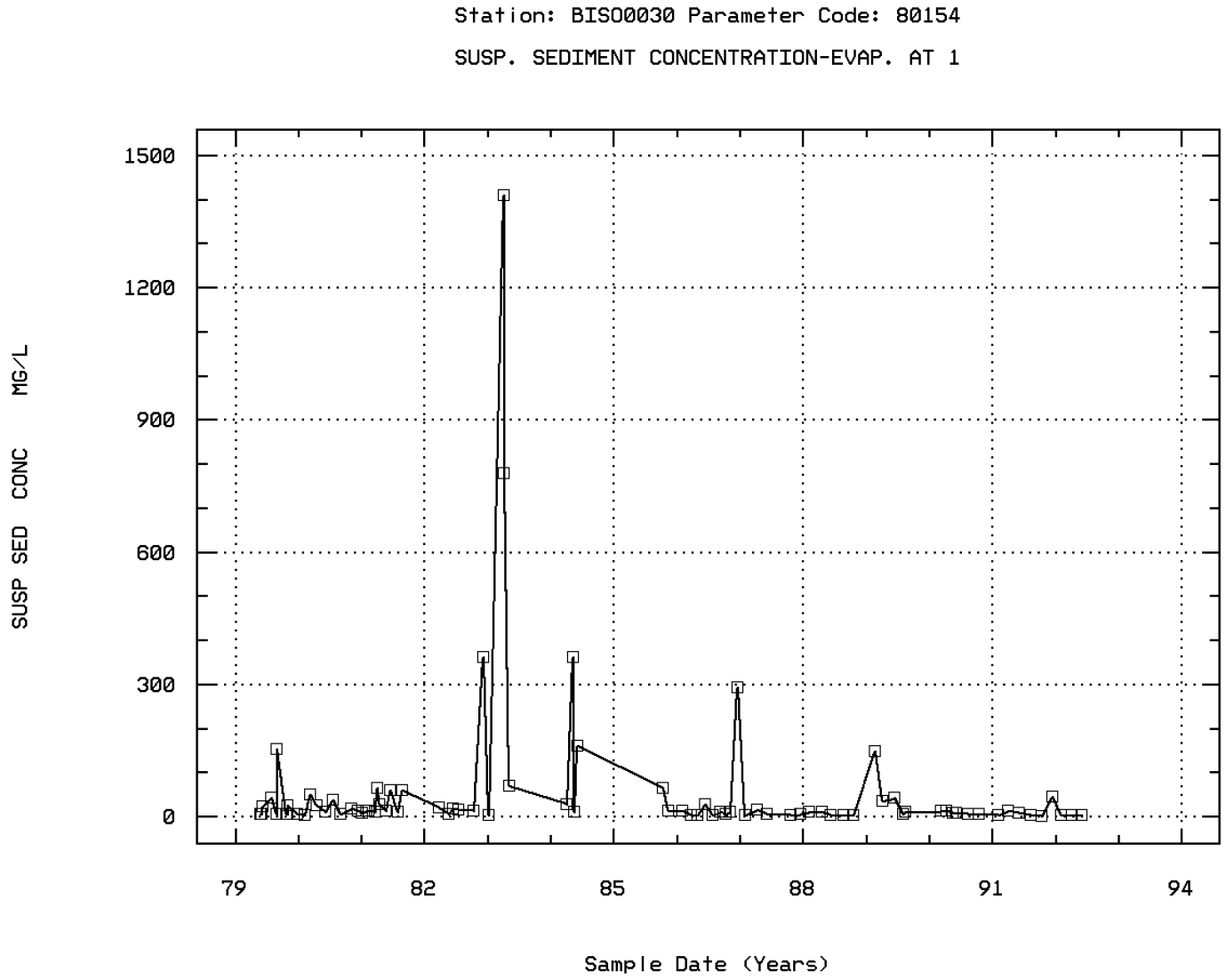
SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 70300

RESIDUE,TOTAL FILTRABLE (DRIED AT 180C)



SOUTH FORK CUMBERLAND RIVER NEAR STEARN



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Seasonal Analysis for Season #1: 11/16 to 3/15 - Station BISO0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/04/60-08/04/92	25	4.7	5.644	18.	0.5	15.888	3.986	1.6	2.75	8.	11.78
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/02/70-08/04/92	25	1080.	3060.52	21800.	92.	26307372.677	5129.071	133.2	740.5	2390.	12080.
00065	STAGE, STREAM (FEET)	09/13/85-08/04/92	8	4.96	6.979	16.33	3.55	18.992	4.358	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/04/60-08/04/92	25	122.	129.84	280.	73.	2437.223	49.368	82.2	97.	133.5	220.2
00300	OXYGEN, DISSOLVED MG/L	01/28/81-08/04/92	13	12.	11.954	13.7	10.1	0.966	0.983	10.42	11.2	12.65	13.5
00400p	PH (STANDARD UNITS)	05/04/60-08/04/92	17	7.17	7.022	7.7	5.22	0.393	0.627	6.132	6.75	7.53	7.7
00400p	CONVERTED PH (STANDARD UNITS)	05/04/60-08/04/92	17	7.17	6.33	7.7	5.22	0.901	0.949	6.132	6.75	7.53	7.7
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/04/60-08/04/92	17	0.068	0.467	6.026	0.02	2.069	1.438	0.02	0.03	0.179	1.554
00403	PH, LAB, STANDARD UNITS SU	12/04/80-06/02/92	14	7.3	7.343	7.9	6.1	0.204	0.452	6.5	7.275	7.725	7.85
00403	CONVERTED PH, LAB, STANDARD UNITS	12/04/80-06/02/92	14	7.3	7.01	7.9	6.1	0.324	0.569	6.5	7.275	7.725	7.85
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/04/80-06/02/92	14	0.05	0.098	0.794	0.013	0.041	0.202	0.014	0.019	0.053	0.46
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	05/04/60-02/22/89	12	14.5	16.917	30.	9.	48.992	6.999	9.3	11.5	24.	29.1
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/72-08/04/92	11	0.02	0.031	0.1	0.005	0.001	0.032	0.005	0.005	0.06	0.094
00915p	CALCIUM, DISSOLVED (MG/L AS CA)	05/04/60-06/02/92	11	9.6	10.209	20.	6.4	12.805	3.578	6.6	8.2	11.	18.2
00925p	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/04/60-06/02/92	11	4.4	4.464	8.4	2.9	2.243	1.498	2.94	3.4	4.9	7.72
00930p	SODIUM, DISSOLVED (MG/L AS NA)	05/04/60-06/02/92	11	3.1	3.609	14.	1.3	12.559	3.544	1.34	1.7	3.3	11.92
00935p	POTASSIUM, DISSOLVED (MG/L AS K)	05/04/60-06/02/92	11	1.2	1.409	3.3	1.	0.431	0.656	1.02	1.1	1.4	2.98
00940p	CHLORIDE,TOTAL IN WATER MG/L	05/04/60-06/02/92	11	2.	2.727	7.	1.	2.418	1.555	1.2	2.	3.	6.2
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/04/60-06/02/92	17	35.	38.706	91.	22.	360.846	18.996	22.8	26.	37.5	78.2
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	05/04/60-06/02/92	11	0.1	0.105	0.3	0.05	0.006	0.079	0.05	0.05	0.1	0.28
00955p	SILICA, DISSOLVED (MG/L AS SI02)	05/04/60-06/02/92	11	4.8	4.682	5.4	3.3	0.306	0.553	3.5	4.4	5.	5.34
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-06/02/92	11	50.	54.	130.	10.	1184.8	34.421	12.	20.	73.	121.8
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-06/02/92	11	110.	117.909	190.	57.	2234.291	47.268	59.6	76.	150.	190.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/04/60-06/02/92	17	71.	80.412	175.	44.	1228.507	35.05	48.8	60.	81.	154.2
70302p	SOLIDS, DISSOLVED-TONS PER DAY	05/04/60-09/15/81	6	166.5	183.1	410.	72.8	15261.964	123.539	**	**	**	**
70303p	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/04/60-09/15/81	6	0.105	0.128	0.24	0.07	0.004	0.062	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-06/02/92	9	80.	81.889	98.	53.	191.611	13.842	53.	77.	95.5	98.
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-06/02/92	21	11.	47.619	362.	1.	9817.648	99.084	1.2	2.5	29.	263.8

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/04/60-08/04/92	42	17.	16.517	25.2	7.5	29.795	5.458	9.	11.	22.	23.85
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/02/70-08/04/92	41	1160.	2875.78	30400.	90.	31954820.326	5652.859	348.2	537.5	2920.	5116.
00065	STAGE, STREAM (FEET)	09/13/85-08/04/92	10	4.72	5.201	8.38	1.39	5.835	2.416	1.549	3.393	7.853	8.328
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/04/60-08/04/92	41	110.	113.439	210.	59.	877.952	29.63	74.	95.	136.5	148.8
00300	OXYGEN, DISSOLVED MG/L	01/28/81-08/04/92	16	9.3	9.444	11.5	7.4	1.956	1.399	7.61	7.95	10.75	11.43
00400p	PH (STANDARD UNITS)	05/04/60-08/04/92	27	7.2	7.149	8.	5.91	0.249	0.499	6.394	6.95	7.4	7.82
00400p	CONVERTED PH (STANDARD UNITS)	05/04/60-08/04/92	27	7.2	6.798	8.	5.91	0.378	0.615	6.394	6.95	7.4	7.82
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/04/60-08/04/92	27	0.063	0.159	1.23	0.01	0.087	0.295	0.015	0.04	0.112	0.467
00403	PH, LAB, STANDARD UNITS SU	12/04/80-06/02/92	16	7.75	7.65	8.4	6.9	0.165	0.407	7.04	7.325	7.975	8.12
00403	CONVERTED PH, LAB, STANDARD UNITS	12/04/80-06/02/92	16	7.747	7.47	8.4	6.9	0.2	0.447	7.04	7.325	7.975	8.12
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/04/80-06/02/92	16	0.018	0.034	0.126	0.004	0.001	0.034	0.008	0.011	0.048	0.093
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	05/04/60-02/22/89	15	16.	16.333	30.	8.	35.524	5.96	8.	12.	19.	26.4
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/72-08/04/92	12	0.02	0.02	0.04	0.005	0.	0.012	0.005	0.009	0.02	0.04
00915p	CALCIUM, DISSOLVED (MG/L AS CA)	05/04/60-06/02/92	13	10.	10.715	19.	4.4	12.588	3.548	5.56	8.7	12.5	17.
00925p	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/04/60-06/02/92	13	4.7	4.638	8.4	1.8	2.498	1.58	2.4	3.7	5.3	7.52
00930p	SODIUM, DISSOLVED (MG/L AS NA)	05/04/60-06/02/92	13	3.7	3.677	8.7	1.8	2.917	1.708	1.92	2.6	4.1	6.9
00935p	POTASSIUM, DISSOLVED (MG/L AS K)	05/04/60-06/02/92	13	1.2	1.177	1.7	0.4	0.127	0.356	0.6	1.	1.45	1.7
00940p	CHLORIDE,TOTAL IN WATER MG/L	05/04/60-06/02/92	13	2.	2.385	4.	1.	0.59	0.768	1.4	2.	3.	3.6
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/04/60-06/02/92	23	29.	31.435	60.	18.	83.348	9.13	22.4	25.	34.	44.8
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	05/04/60-06/02/92	13 ##	0.05	0.092	0.3	0.05	0.006	0.076	0.05	0.05	0.1	0.26
00955p	SILICA, DISSOLVED (MG/L AS SI02)	05/04/60-06/02/92	13	4.6	4.562	5.6	2.8	0.596	0.772	3.12	4.15	5.2	5.52
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-06/02/92	22	61.5	91.455	800.	5.	26226.45	161.946	6.5	29.75	90.25	117.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-06/02/92	22	67.	81.136	220.	28.	2248.695	47.42	42.4	55.75	82.5	179.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0030

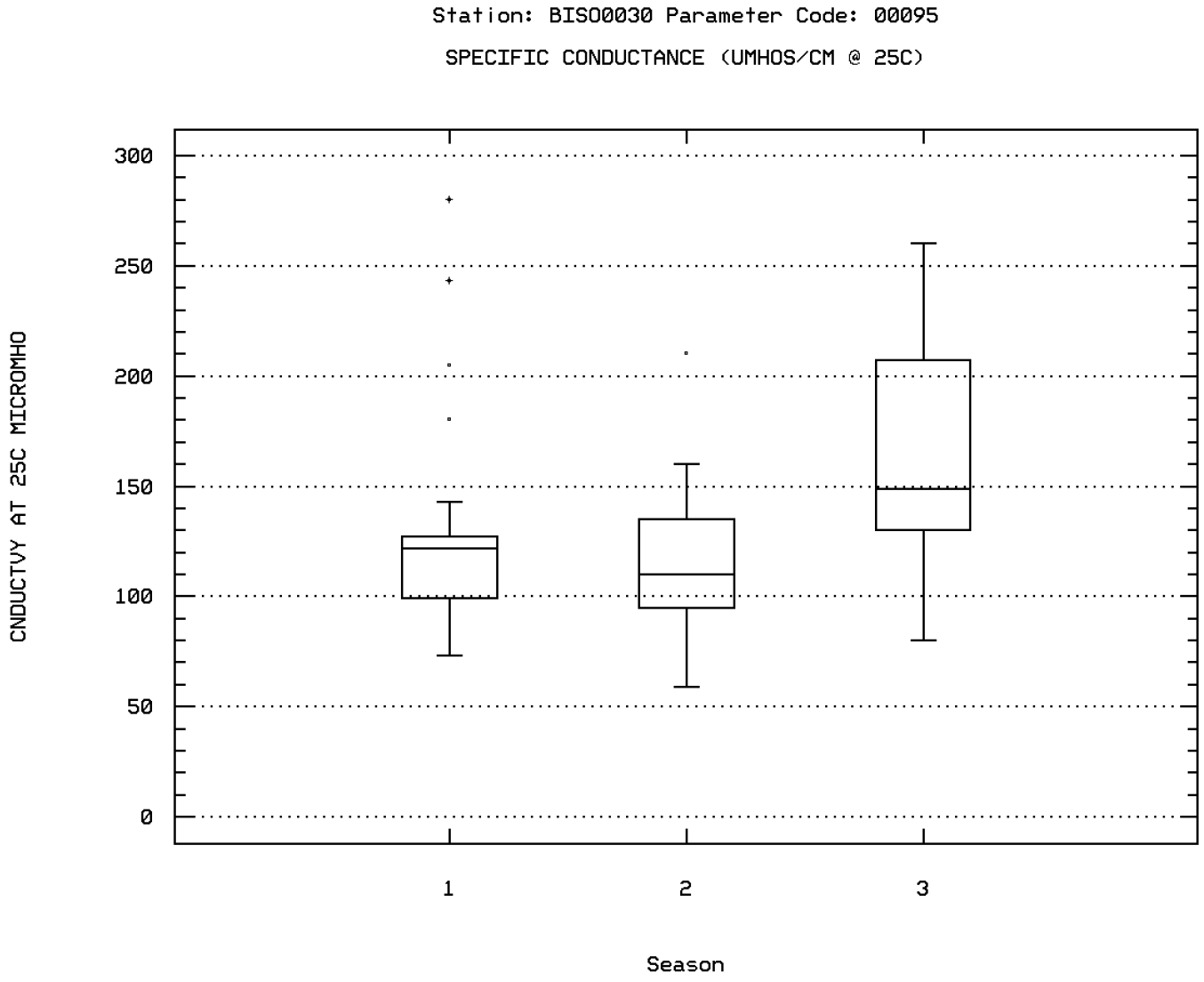
Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/04/60-06/02/92	22	69.	70.864	122.	24.	344.409	18.558	50.8	62.	83.	87.4
70302p	SOLIDS, DISSOLVED-TONS PER DAY	05/04/60-09/15/81	10	141.	209.89	539.	70.6	28028.112	167.416	71.07	81.975	380.	525.2
70303p	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/04/60-09/15/81	10	0.09	0.085	0.12	0.03	0.001	0.024	0.034	0.078	0.095	0.119
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-06/02/92	15	75.	73.	99.	33.	433.143	20.812	41.4	53.	91.	97.8
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-06/02/92	36	12.	91.333	1410.	2.	70556.171	265.624	2.7	6.25	32.5	220.3

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

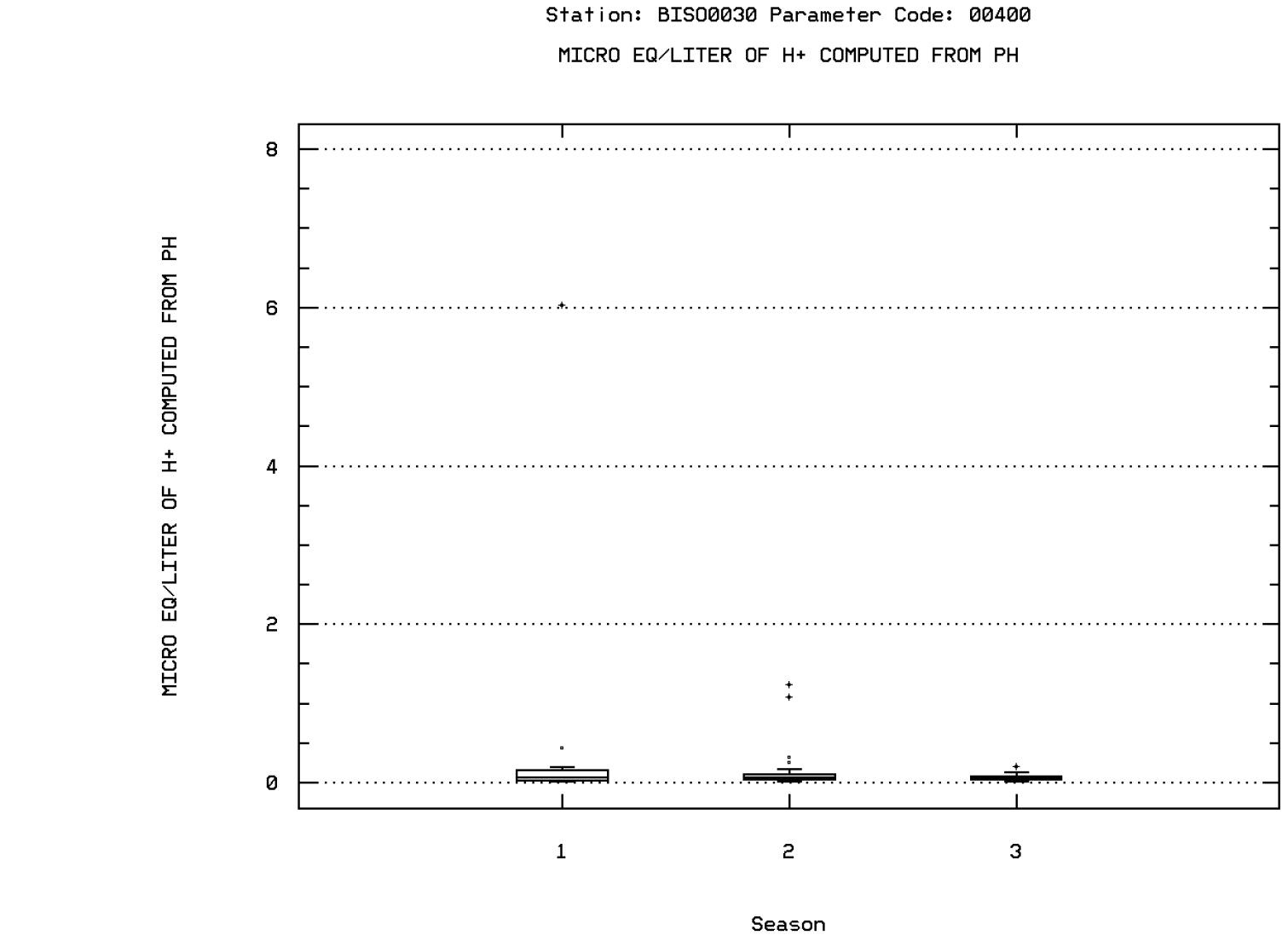
Seasonal Analysis for Season #3: 7/01 to 11/15 - Station BISO0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/04/60-08/04/92	40	21.75	20.328	31.	9.5	42.589	6.526	10.55	14.2	25.925	28.85
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/02/70-08/04/92	40	266.	433.325	2350.	38.	294480.892	542.661	63.1	102.5	477.5	842.7
00065	STAGE, STREAM (FEET)	09/13/85-08/04/92	10	2.355	2.334	3.7	1.24	0.81	0.9	1.248	1.395	3.075	3.684
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/04/60-08/04/92	39	149.	161.615	260.	80.	2091.874	45.737	103.	130.	207.	220.
00300	OXYGEN, DISSOLVED MG/L	01/28/81-08/04/92	14	8.	8.214	9.8	7.	1.024	1.012	7.05	7.35	9.35	9.75
00400p	PH (STANDARD UNITS)	05/04/60-08/04/92	26	7.3	7.291	7.8	6.7	0.065	0.254	6.97	7.1	7.418	7.665
00400p	CONVERTED PH (STANDARD UNITS)	05/04/60-08/04/92	26	7.3	7.218	7.8	6.7	0.07	0.265	6.97	7.1	7.418	7.665
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/04/60-08/04/92	26	0.05	0.061	0.2	0.016	0.002	0.039	0.022	0.038	0.079	0.108
00403	PH, LAB, STANDARD UNITS SU	12/04/80-06/02/92	14	7.6	7.664	8.1	7.2	0.069	0.262	7.25	7.55	7.85	8.05
00403	CONVERTED PH, LAB, STANDARD UNITS	12/04/80-06/02/92	14	7.6	7.592	8.1	7.2	0.074	0.272	7.25	7.55	7.85	8.05
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	12/04/80-06/02/92	14	0.025	0.026	0.063	0.008	0.	0.016	0.009	0.014	0.029	0.057
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	05/04/60-02/22/89	19	23.	22.947	35.	9.	50.386	7.098	14.	19.	28.	33.
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/72-08/04/92	16	0.016	0.022	0.08	0.005	0.	0.02	0.005	0.006	0.03	0.052
00915p	CALCIUM, DISSOLVED (MG/L AS CA)	05/04/60-06/02/92	14	13.5	15.	21.	11.	10.308	3.211	11.5	12.75	17.5	20.5
00925p	MAGNESIUM, DISSOLVED (MG/L AS MG)	05/04/60-06/02/92	14	5.8	6.1	8.1	4.7	1.437	1.199	4.8	4.9	7.175	8.05
00930p	SODIUM, DISSOLVED (MG/L AS NA)	05/04/60-06/02/92	14	6.15	7.293	14.	3.3	14.368	3.791	3.35	3.75	10.125	14.
00935p	POTASSIUM, DISSOLVED (MG/L AS K)	05/04/60-06/02/92	14	1.95	1.979	3.1	1.3	0.21	0.458	1.4	1.65	2.225	2.8
00940p	CHLORIDE,TOTAL IN WATER MG/L	05/04/60-06/02/92	17	3.	3.935	11.	0.9	6.721	2.593	1.78	2.	4.5	8.6
00945p	SULFATE, TOTAL (MG/L AS SO4)	05/04/60-06/02/92	26	41.	43.962	67.	22.	154.518	12.431	29.6	35.5	54.5	64.3
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	05/04/60-06/02/92	17	0.1	0.118	0.4	0.	0.007	0.086	0.04	0.1	0.1	0.24
00955p	SILICA, DISSOLVED (MG/L AS SI02)	05/04/60-06/02/92	14	3.7	5.157	26.	1.7	38.032	6.167	1.75	1.975	5.075	15.95
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/79-06/02/92	18	50.	58.944	120.	10.	986.997	31.417	19.	37.5	82.5	111.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/79-06/02/92	18	70.	72.833	150.	30.	1105.206	33.245	30.9	41.5	100.	123.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	05/04/60-06/02/92	26	104.5	100.346	146.	55.	711.275	26.67	58.8	77.	122.	133.6
70302p	SOLIDS, DISSOLVED-TONS PER DAY	05/04/60-09/15/81	15	73.9	120.387	381.	11.7	16029.841	126.609	13.32	22.	141.	353.4
70303p	SOLIDS, DISSOLVED-TONS PER ACRE-FT	05/04/60-09/15/81	15	0.14	0.131	0.2	0.07	0.001	0.037	0.076	0.1	0.16	0.182
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	05/22/79-06/02/92	10	67.	66.1	100.	25.	574.989	23.979	26.3	50.75	83.5	100.
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	05/22/79-06/02/92	28	7.5	18.795	152.	0.25	966.792	31.093	2.	4.	17.	60.4

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot



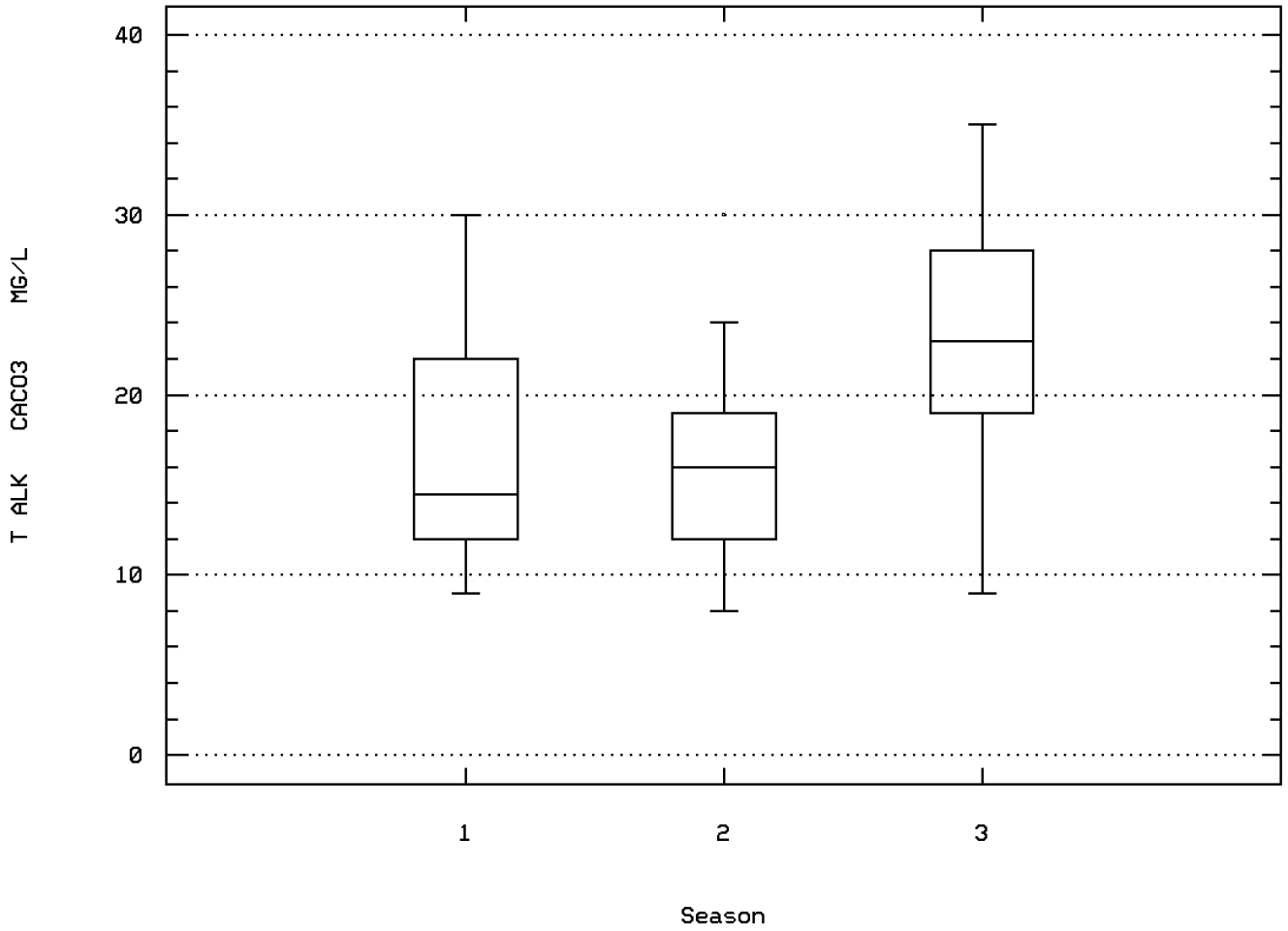
SOUTH FORK CUMBERLAND RIVER NEAR STEARN



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00410

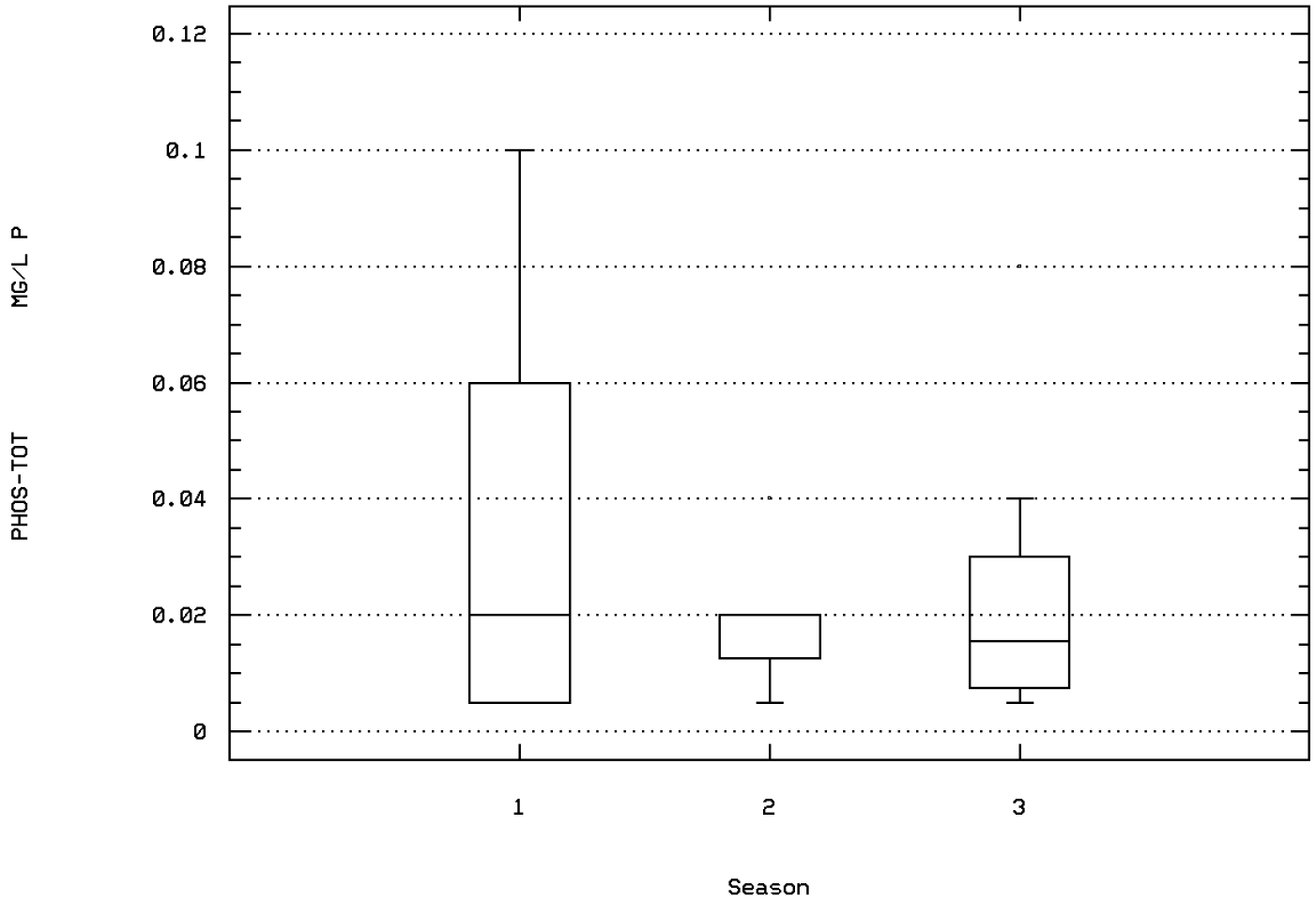
ALKALINITY, TOTAL (MG/L AS CACO3)



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00665

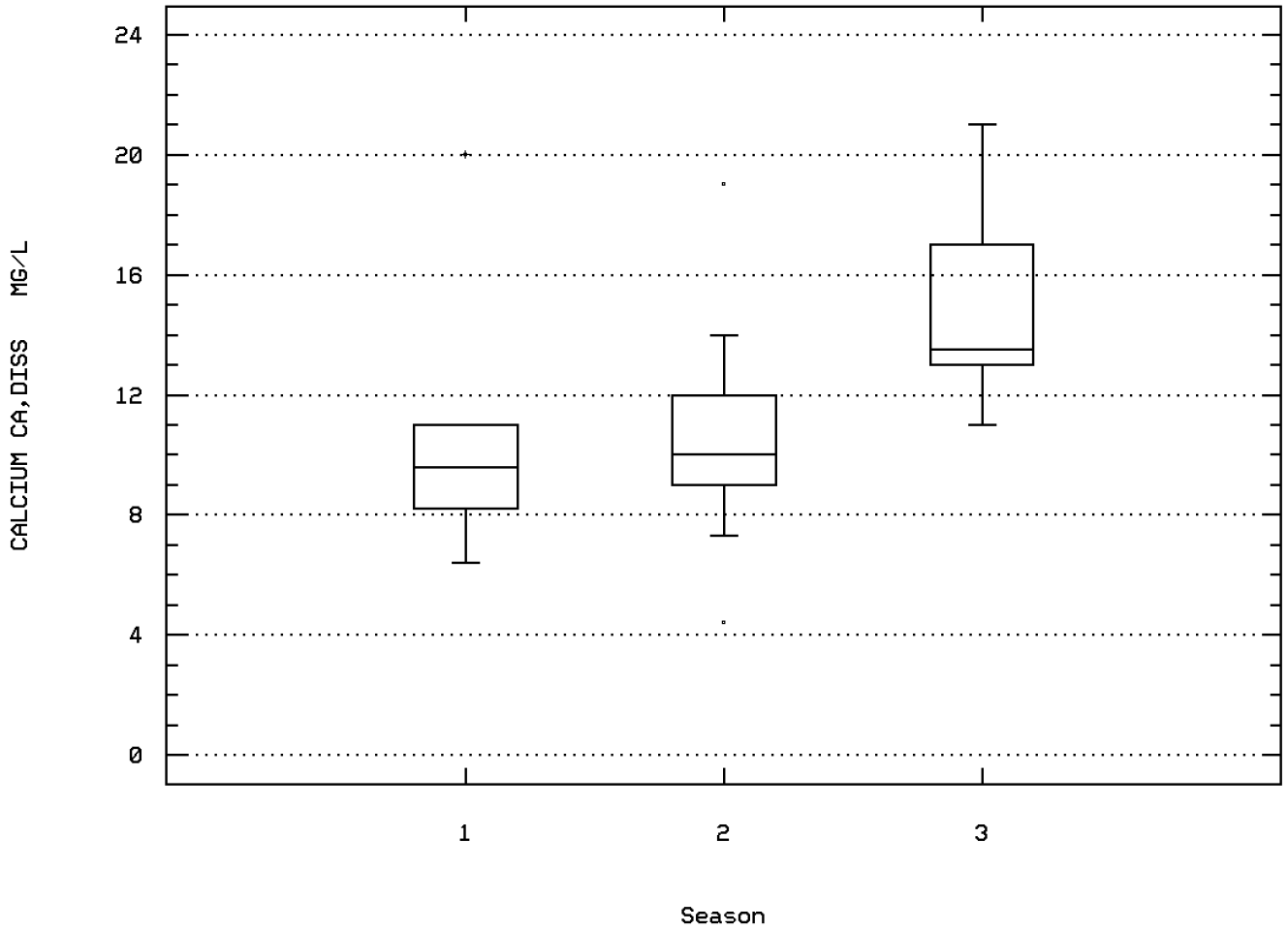
PHOSPHORUS, TOTAL (MG/L AS P)



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00915

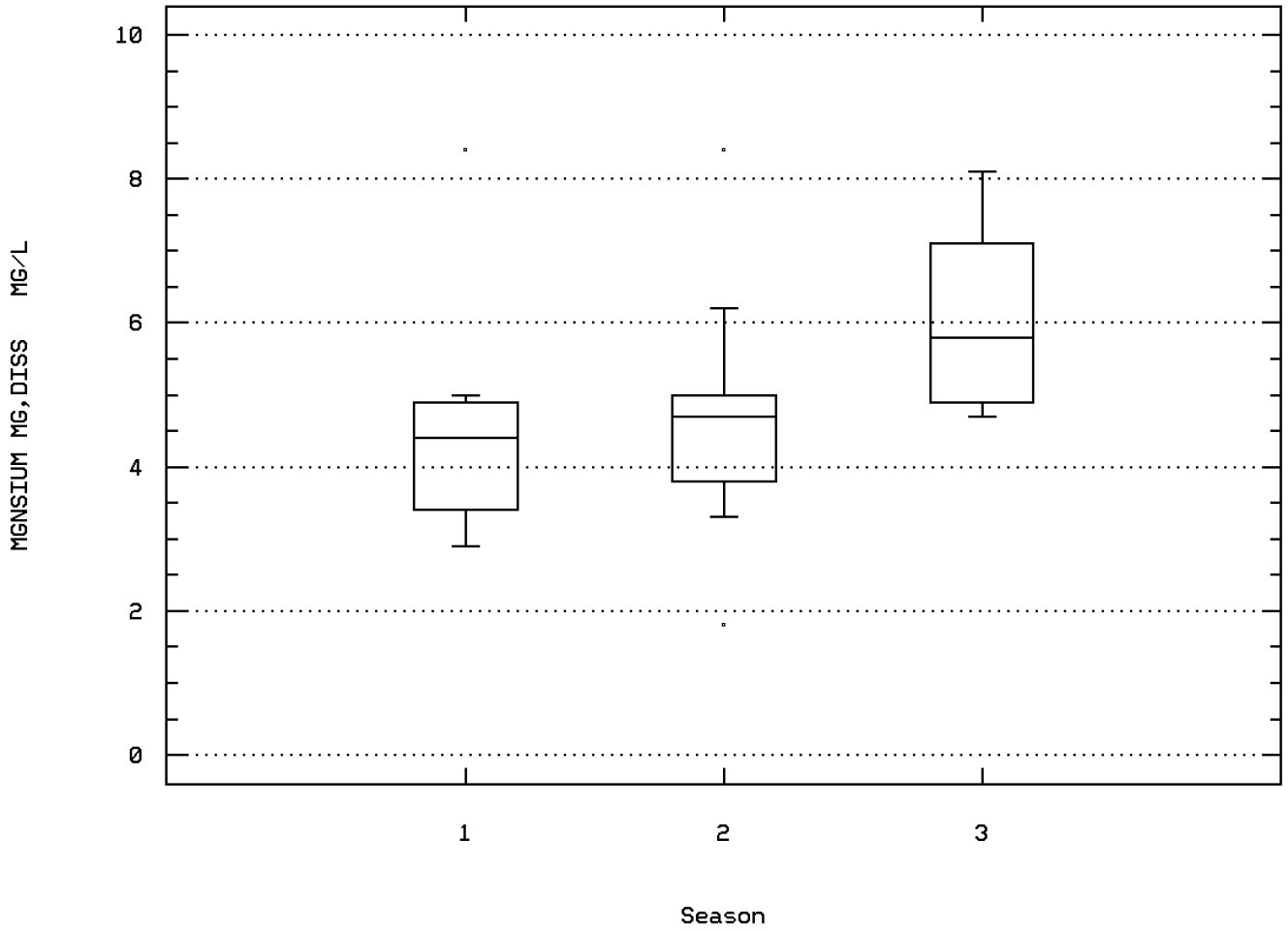
CALCIUM, DISSOLVED (MG/L AS CA)



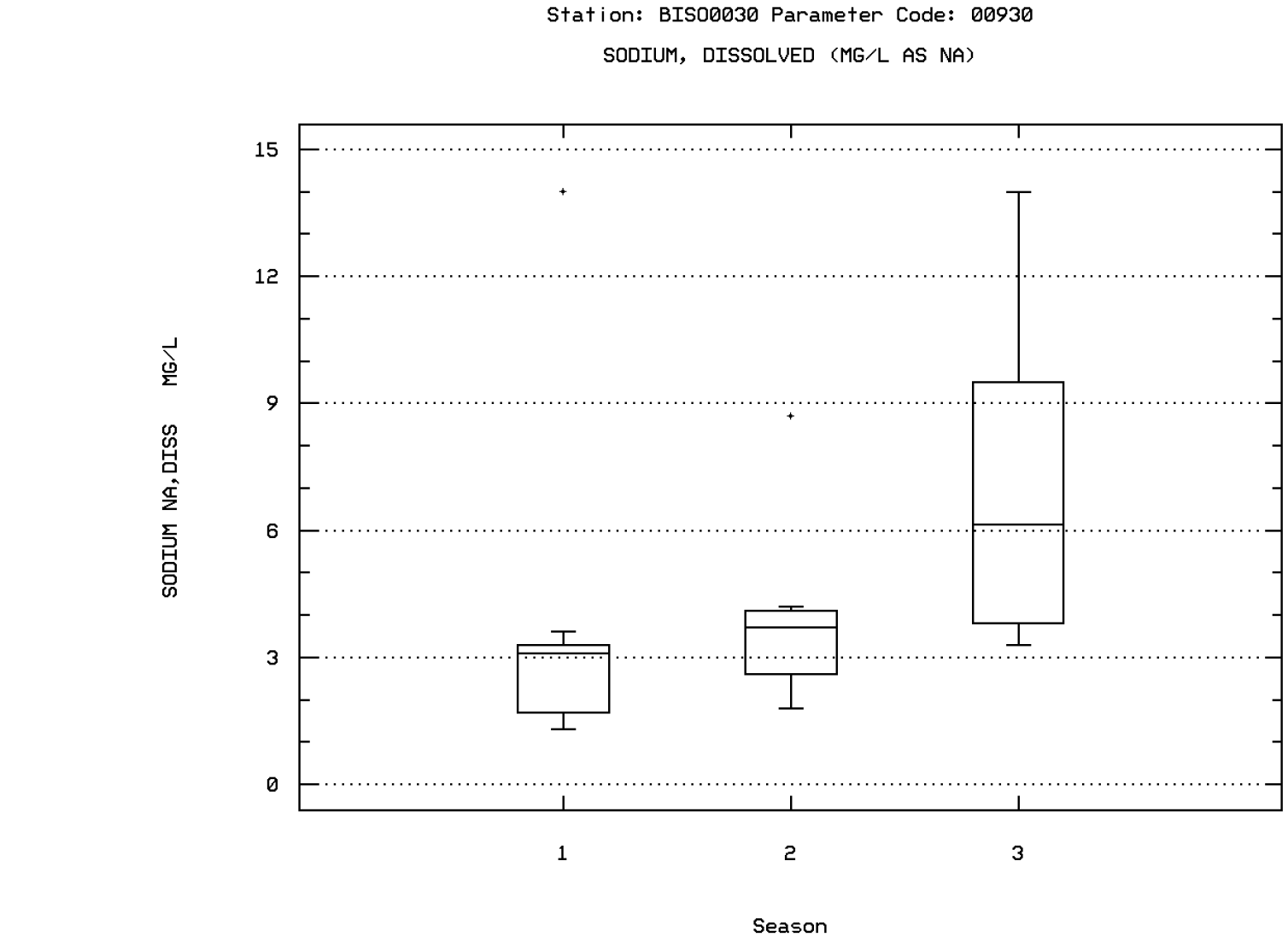
SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00925

MAGNESIUM, DISSOLVED (MG/L AS MG)



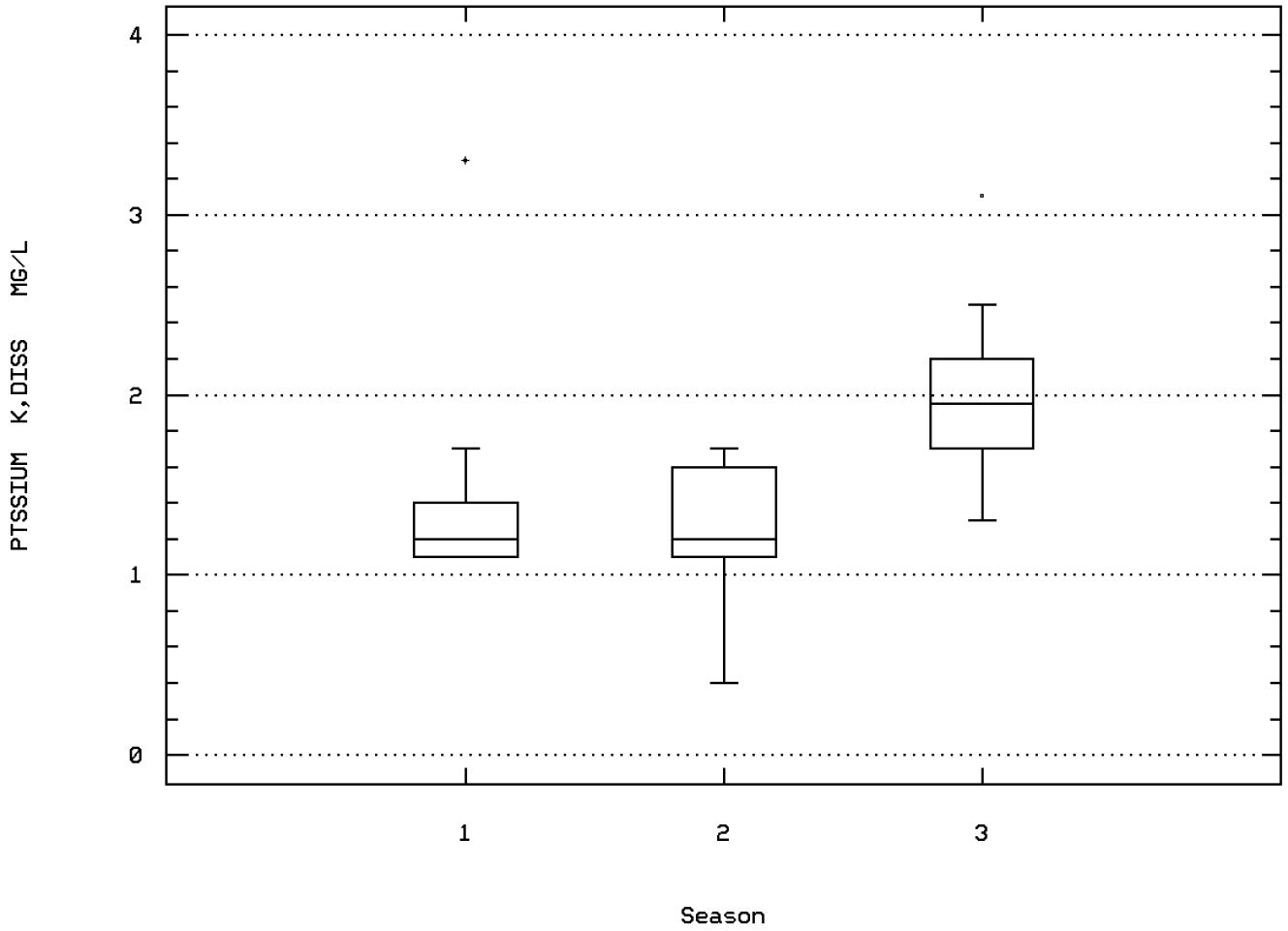
SOUTH FORK CUMBERLAND RIVER NEAR STEARN



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00935

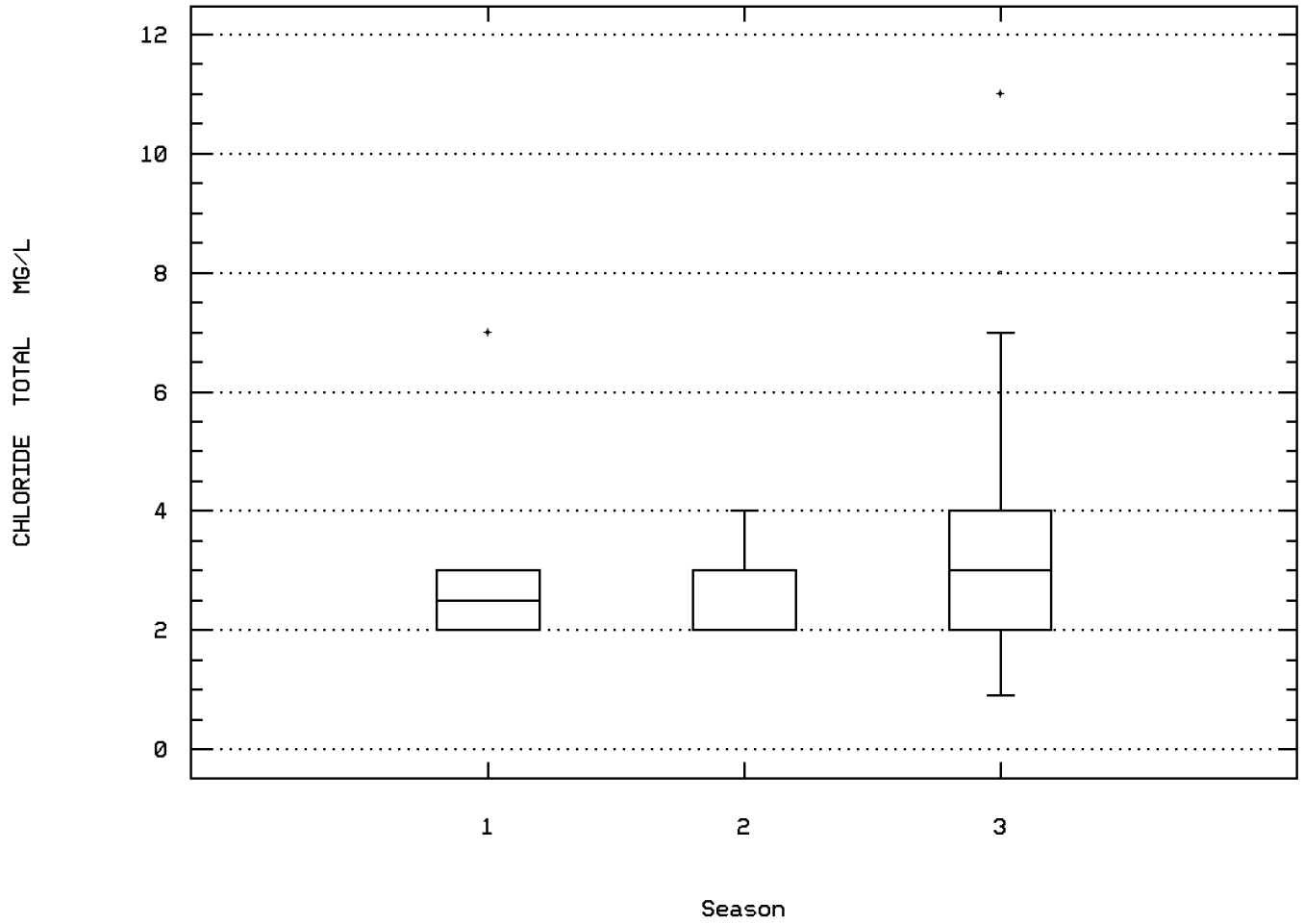
POTASSIUM, DISSOLVED (MG/L AS K)



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00940

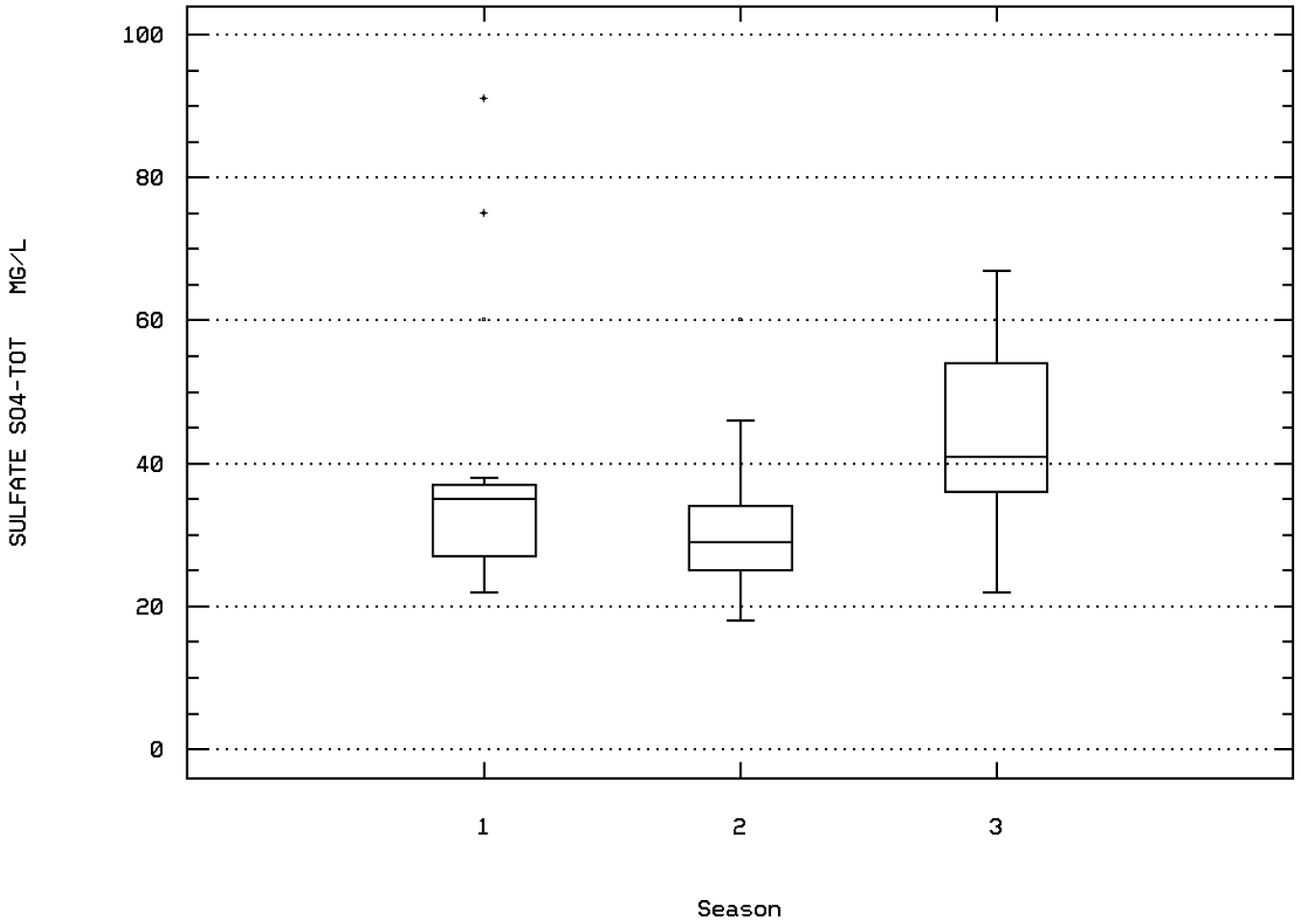
CHLORIDE,TOTAL IN WATER



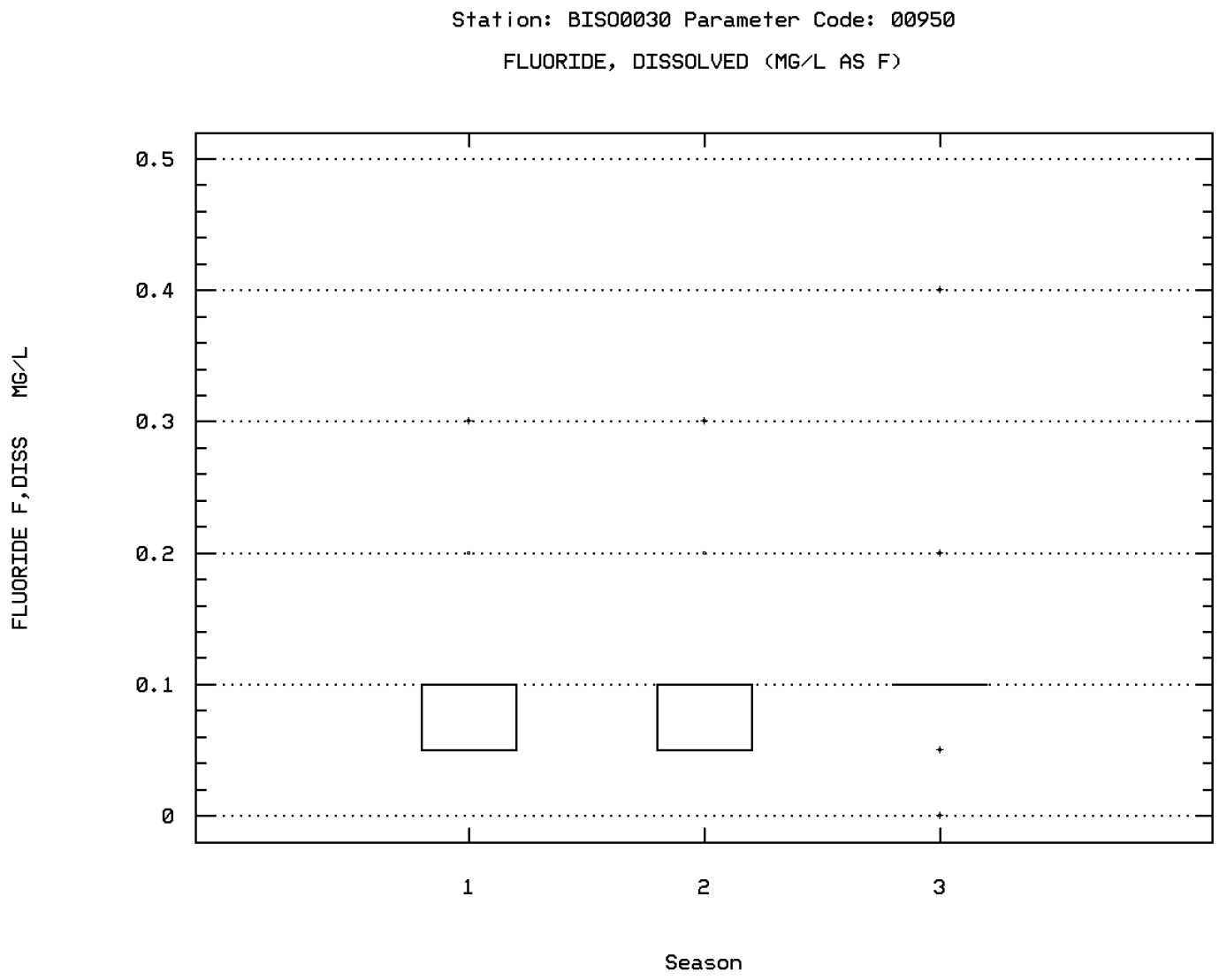
SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00945

SULFATE, TOTAL (MG/L AS SO4)



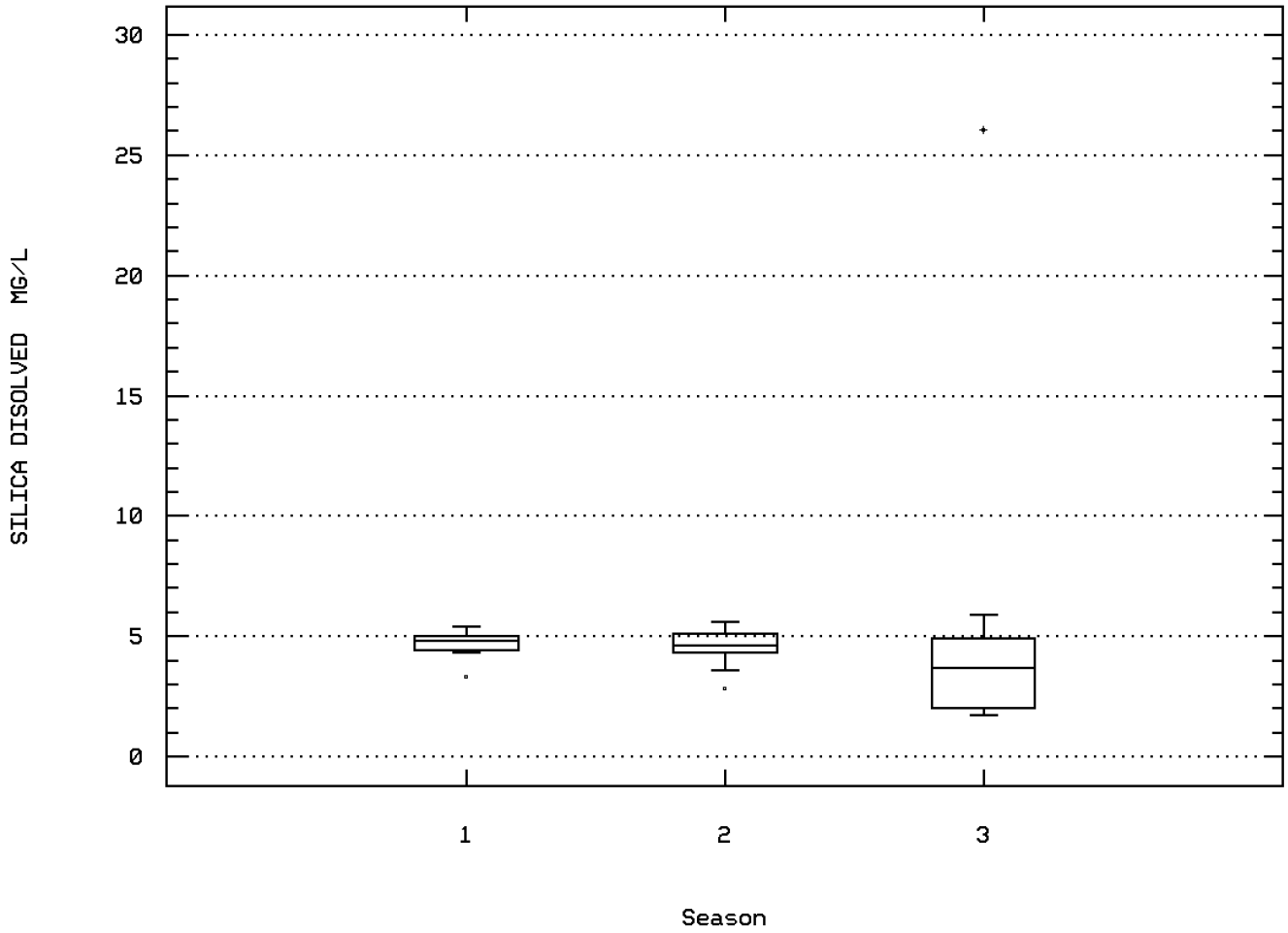
SOUTH FORK CUMBERLAND RIVER NEAR STEARN



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 00955

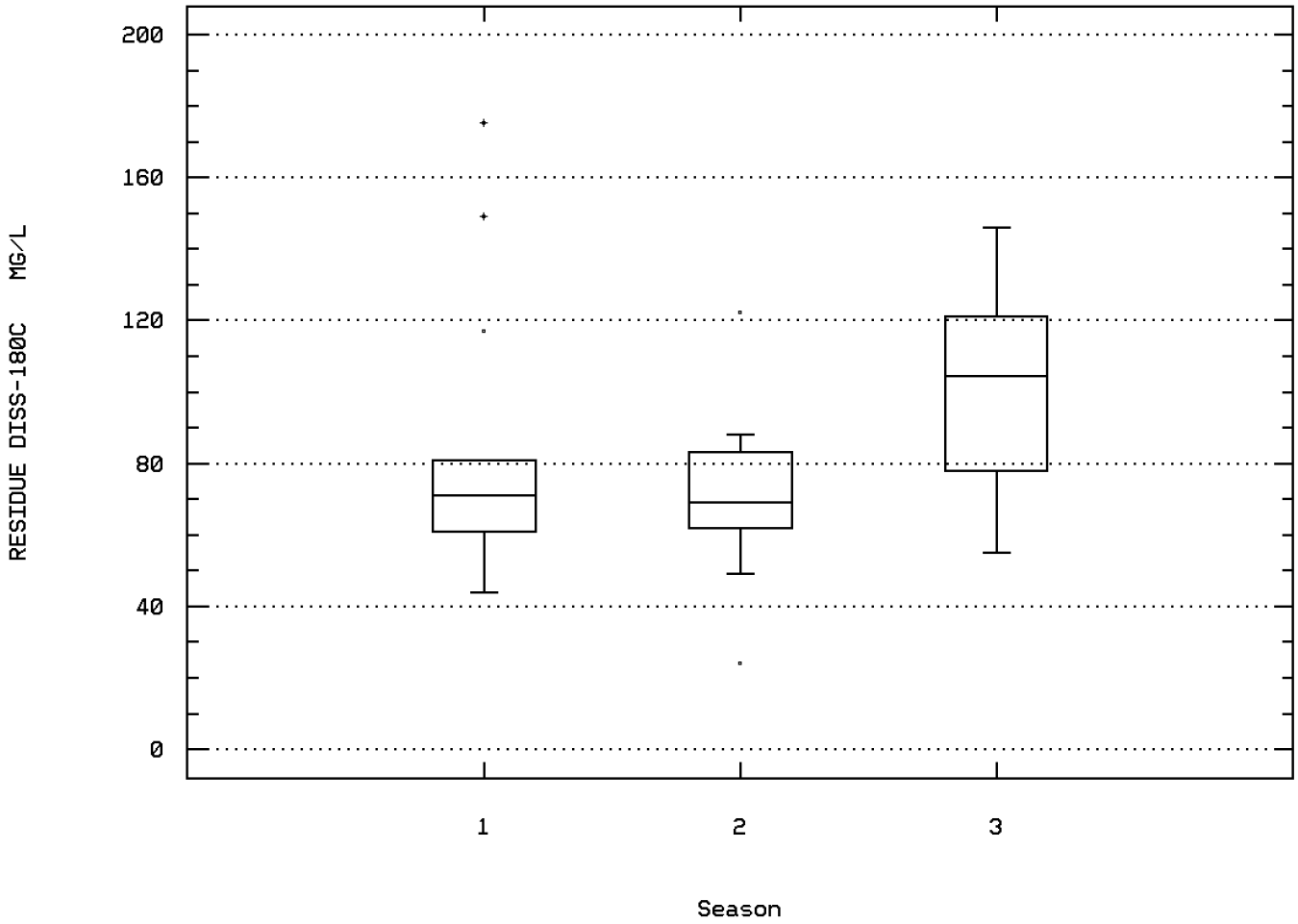
SILICA, DISSOLVED (MG/L AS SI02)



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 70300

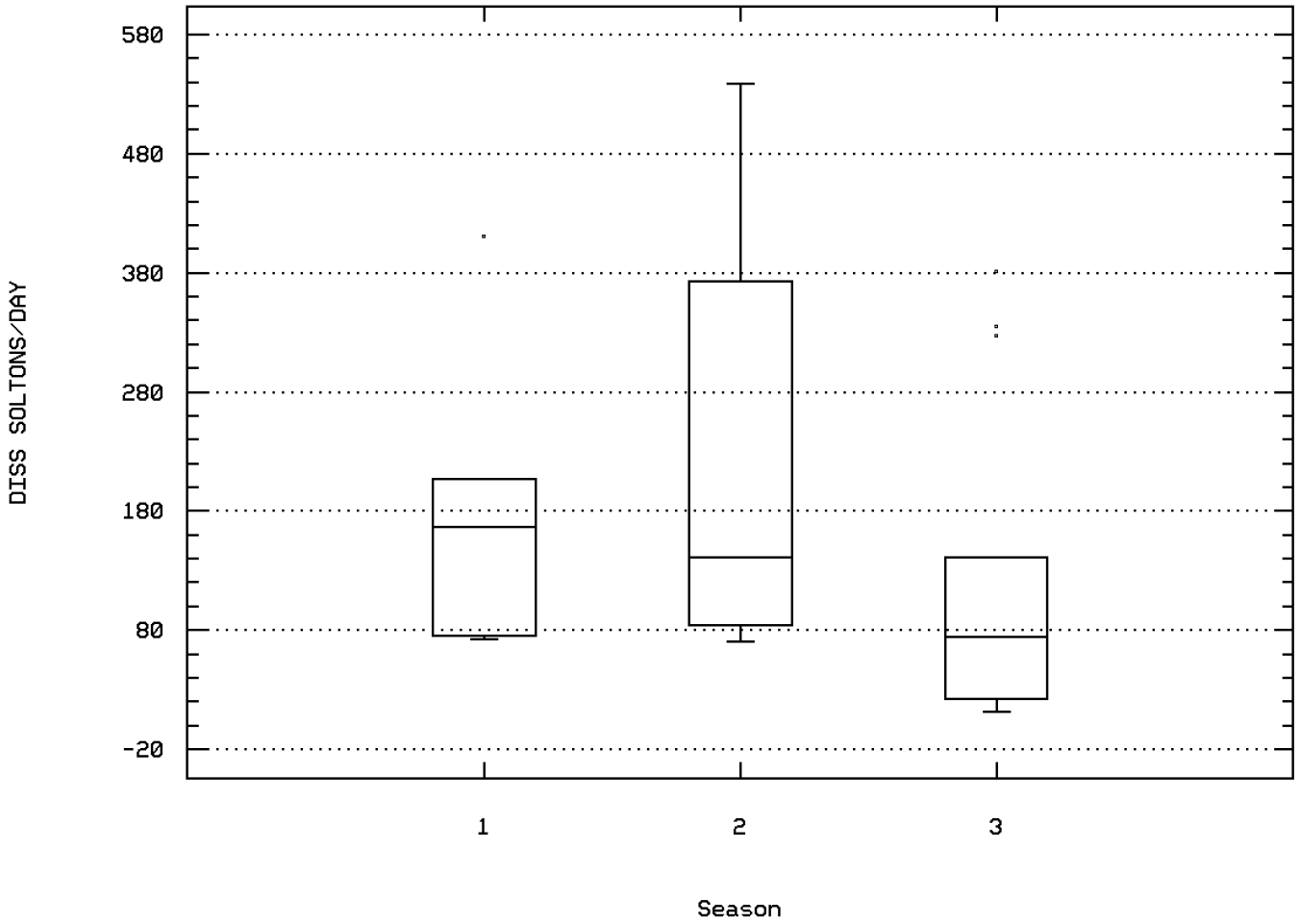
RESIDUE,TOTAL FILTRABLE (DRIED AT 180C)



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 70302

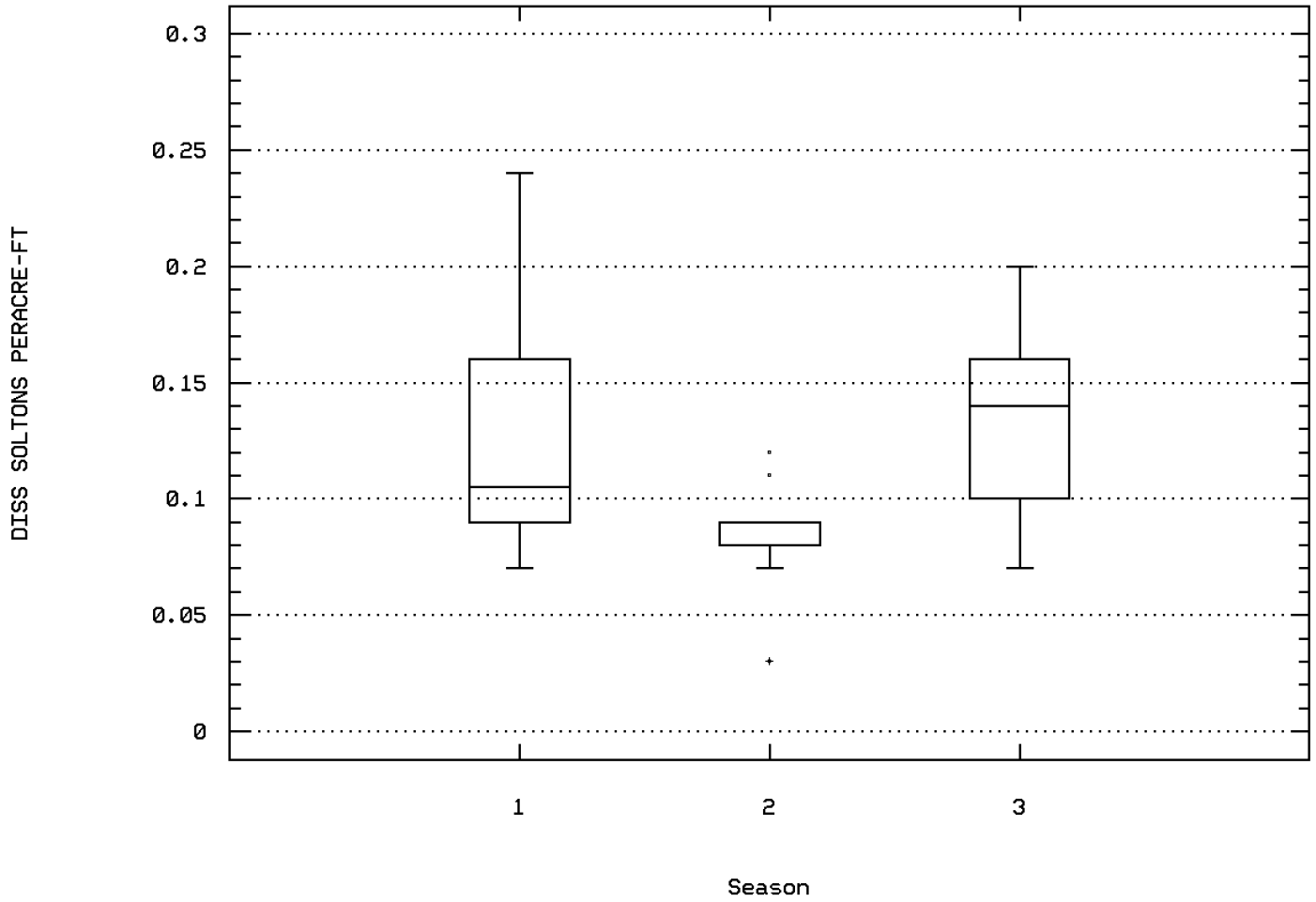
SOLIDS, DISSOLVED-TONS PER DAY



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station: BISO0030 Parameter Code: 70303

SOLIDS, DISSOLVED-TONS PER ACRE-FT



SOUTH FORK CUMBERLAND RIVER NEAR STEARN

Station Inventory for Station: BISO0031

NPS Station ID: BISO0031 LAT/LON: 36.646392/ -84.710004 Agency: 21KY Date Created: 06/30/90
Location: ROCK CREEK AT HEMLOCK GROVE PICNIC AREA FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): SUD429 /02008006
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: OHIO RIVER Elevation: 0 Water Body Id:
Minor Basin: CUMBERLAND RIVER ECO Region:
RF1 Index: 05130104010 RF1 Mile Point: 9.500 Distance from RF1: 0.00 On/Off RF1: ON
RF3 Index: 05130104005901.62 RF3 Mile Point: 1.61 Distance from RF3: 0.42 On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 2-43 BELL FARM KY QUADRANGLE SAMPLE COLLECTED AT HEMLOCK GROVE PICNIC AREA
IN MCCREARY COUNTY STREAM ORDER 3
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0031

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0032

NPS Station ID: BISO0032 LAT/LON: 36.647504/ -84.708338 Agency: 1118ATL8 Date Created: 11/10/79
Location: ROCK CREEK 06-05 FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 020604 /072002005804
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: KENTUCKY Elevation: 0 Water Body Id:
Minor Basin: OHIO RIVER CUMBERLAND R. ECO Region:
RF1 Index: 05130104010 RF1 Mile Point: 14.920 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104005000.00 RF3 Mile Point: 0.00 Distance from RF3: 0.02 On/Off RF3:
Description:
SAMPLE POINT IN STREAM OF ROCK CREEK BETWEEN FS RD 566 & HEMLOCK GROVE TO MONITOR THE CHANGES IN WATER QUALITY AFFECTED BY TIMBER HARVESTING
SAMPLE ARE COLLECTED TWICE MONTHLY ONCE FOR STORM FLOW & ONE BASE FLOW TO COMPARE WATER QUALITY CHANGES BY DETERMINISTIC & PROBABILISTIC MEANS
SAMPLE ARE GRABBED & WILL BE COLLECTED WEEKLY DURNING HARVESTING PERIOD

Parameter Inventory for Station: BISO0032

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/27/82	71	56.	55.451	78.	32.	176.68	13.292	35.	45.	67.	72.
00065	STAGE, STREAM (FEET)	04/05/79-09/27/82	69	1.05	1.207	5.4	0.55	0.462	0.68	0.7	0.81	1.365	1.95
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/27/82	71	1.2	2.315	15.	0.1	8.799	2.966	0.6	0.8	2.4	6.4
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-09/27/82	14	41.	45.071	104.	22.	400.533	20.013	27.	32.	50.25	84.
00403	PH, LAB, STANDARD UNITS SU	07/18/79-09/27/82	15	6.9	7.007	7.8	6.3	0.178	0.422	6.48	6.7	7.4	7.74
00403	CONVERTED PH, LAB, STANDARD UNITS	07/18/79-09/27/82	15	6.9	6.847	7.8	6.3	0.205	0.453	6.48	6.7	7.4	7.74
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/18/79-09/27/82	15	0.126	0.142	0.501	0.016	0.015	0.122	0.018	0.04	0.2	0.351
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/27/82	71	11.	11.789	47.	2.	56.112	7.491	4.2	6.	15.	18.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-09/27/82	14	2.	1.929	3.	1.	0.379	0.616	1.	1.75	2.	3.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/27/82	68	2.	5.279	55.	0.25	96.339	9.815	0.25	0.925	4.75	12.
00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-09/27/82	14	0.14	0.134	0.32	0.05	0.005	0.074	0.05	0.05	0.16	0.26
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-09/27/82	14	0.125	0.123	0.3	0.05	0.005	0.072	0.05	0.05	0.155	0.25
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-09/27/82	14 ##	0.01	0.026	0.15	0.01	0.001	0.037	0.01	0.01	0.023	0.095
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-09/27/82	14	0.02	0.017	0.03	0.005	0.	0.008	0.006	0.008	0.02	0.03
00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-09/27/82	14	3.75	4.779	14.6	2.4	9.746	3.122	2.55	2.875	5.65	10.55
00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-09/27/82	14	0.61	0.657	0.86	0.48	0.015	0.121	0.505	0.558	0.775	0.835
00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-09/27/82	14	5.	4.857	7.	2.	1.978	1.406	2.5	4.	6.	7.
01045	IRON, TOTAL (UG/L AS FE)	07/18/79-09/27/82	14	175.	176.429	330.	50.	8470.879	92.037	60.	80.	262.5	315.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0032

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	71	0	0.00	21	0	0.00	21	0	0.00	29	0	0.00			
00403	PH, LAB	Other-Hi Lim.	9.	15	0	0.00	4	0	0.00	6	0	0.00	5	0	0.00			
		Other-Lo Lim.	6.5	15	1	0.07	4	1	0.25	6	0	0.00	5	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	14	0	0.00	4	0	0.00	5	0	0.00	5	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0032

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00945 SULFATE, TOTAL (AS SO4)	Drinking Water	400.	14	0	0.00	4	0	0.00	5	0	0.00	5	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0033

NPS Station ID: BISO0033 LAT/LON: 36.659170/ -84.642226 Agency: 1118ATL8 Date Created: 11/10/79
Location: ROCK CREEK 06-05 FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 020605
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: KENTUCKY Elevation: 0 Water Body Id:
Minor Basin: OHIO RIVER CUMBERLAND R. ECO Region:
RF1 Index: 05130104010 RF1 Mile Point: 9.120 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104001010.26 RF3 Mile Point: 19.49 Distance from RF3: 0.02 On/Off RF3:
Description:
SAMPLE POINT IN STREAM OF ROCK CR BETWEEN FS RD 566 AND WHITE CREEK TO MONITOR THE CHANGES IN WATER QUALITY AFFECTED BY TIMBER HARVESTING
SAMPLE ARE COLLECTED TWICE MONTHLY ONCE FOR STORM FLOW & ONE BASE FLOW TO COMPARE WATER QUALITY CHANGES BY DETERMINISTIC & PROBABILISTIC MEANS
SAMPLE ARE GRABBED & WILL BE COLLECTED WEEKLY DURING HARVESTING PERIOD

Parameter Inventory for Station: BISO0033

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/27/82	68	56.	56.787	82.	34.	175.868	13.262	37.9	45.	69.	74.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/27/82	68	2.	5.538	140.	0.4	290.826	17.054	1.	1.3	3.375	10.46
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-09/27/82	12	76.	73.417	109.	33.	730.811	27.034	35.7	45.5	101.5	107.5
00403	PH, LAB, STANDARD UNITS SU	07/18/79-09/27/82	13	7.4	7.254	7.8	6.3	0.178	0.422	6.5	7.	7.55	7.8
00403	CONVERTED PH, LAB, STANDARD UNITS	07/18/79-09/27/82	13	7.4	7.029	7.8	6.3	0.232	0.482	6.5	7.	7.55	7.8
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/18/79-09/27/82	13	0.04	0.093	0.501	0.016	0.017	0.13	0.016	0.028	0.103	0.364
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/27/82	68	21.5	25.676	58.	2.	255.745	15.992	7.9	11.	40.	49.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-09/27/82	12	2.	2.083	4.	1.	0.629	0.793	1.	2.	2.	3.7
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/27/82	63	3.	8.81	120.	0.25	404.133	20.103	0.74	2.	6.	17.4
00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-09/27/82	12	0.17	0.164	0.31	0.05	0.006	0.076	0.05	0.123	0.2	0.295
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-09/27/82	12	0.15	0.151	0.26	0.05	0.005	0.068	0.05	0.113	0.195	0.26
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-09/27/82	12 ##	0.015	0.021	0.05	0.01	0.	0.015	0.01	0.01	0.028	0.05
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-09/27/82	12	0.02	0.027	0.08	0.01	0.	0.021	0.01	0.01	0.03	0.071
00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-09/27/82	12	8.95	9.192	15.	2.9	20.441	4.521	3.29	4.675	14.3	14.82
00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-09/27/82	12	0.735	0.747	1.	0.57	0.021	0.145	0.57	0.615	0.875	0.976
00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-09/27/82	12	6.	5.583	7.	4.	0.992	0.996	4.	5.	6.	7.
01045	IRON, TOTAL (UG/L AS FE)	07/18/79-09/27/82	11	260.	262.727	500.	60.	19741.818	140.506	70.	140.	370.	484.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0033

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	68	1	0.01	21	0	0.00	19	0	0.00	28	1	0.04			
00403	PH, LAB	Other-Hi Lim.	9.	13	0	0.00	4	0	0.00	5	0	0.00	4	0	0.00			
		Other-Lo Lim.	6.5	13	1	0.08	4	1	0.25	5	0	0.00	4	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	12	0	0.00	4	0	0.00	4	0	0.00	4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	12	0	0.00	4	0	0.00	4	0	0.00	4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0034

NPS Station ID: BISO0034
Location: LEWIS HILL
Station Type: /TYPA/AMBNT/SPRING
RMI-Indexes:
RMI-Miles:
HUC: 05130104
Major Basin:
Minor Basin:
RF1 Index: 05130104
RF3 Index: 05130104059401.29
Description:

LAT/LON: 36.660837/ -84.663892
Depth of Water: 0
Elevation: 0
RF1 Mile Point: 0.000
RF3 Mile Point: 1.68

Agency: 112WRD
FIPS State/County: 21147 KENTUCKY/MCCREARY
STORET Station ID(s): 363939084395001
Within Park Boundary: No
Aquifer:
Water Body Id:
ECO Region:
Distance from RF1: 5.90
Distance from RF3: 0.44

Date Created: 02/28/78
On/Off RF1:
On/Off RF3:

Parameter Inventory for Station: BISO0034

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/21/54-07/21/54	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/21/54-07/21/54	1	621.	621.	621.	621.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	07/21/54-07/21/54	1	368.	368.	368.	368.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	07/21/54-07/21/54	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/21/54-07/21/54	1	225.	225.	225.	225.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	07/21/54-07/21/54	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	07/21/54-07/21/54	1	41.	41.	41.	41.	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/21/54-07/21/54	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/21/54-07/21/54	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
71885	IRON (UG/L AS FE)	07/21/54-07/21/54	1	140.	140.	140.	140.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0034

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0035

NPS Station ID: BISO0035 LAT/LON: 36.668337/ -84.620004 Agency: 1118ATL8 Date Created: 02/09/80
Location: ROCK CREEK 06-06 FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 020606 /072002005806
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: KENTUCKY Elevation: 0 Water Body Id:
Minor Basin: OHIO RIVER CUMBERLAND R ECO Region:
RF1 Index: 05130104010 RF1 Mile Point: 7.980 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104001018.20 RF3 Mile Point: 18.72 Distance from RF3: 0.02 On/Off RF3:
Description:
SAMPLE POINT IN STREAM OF ROCK CREEK BETWEEN FS RD 566 AND WHITE OAK CR TO MONITOR THE CHANGES IN WATER QUALITY AFFECTED BY TIMBER HARVESTING
SAMPLE ARE COLLECTED TWICE MONTHLY ONCE FOR STORM FLOW & ONE BASE FLOW TO COMPARE WATER QUALITY CHANGES BY DETERMINISTIC& PR BABILISTIC MEANS
SAMPLE ARE GRABBED & WILL BE COLLECTED WEEKLY DURNING HARVESTING PERIOD

Parameter Inventory for Station: BISO0035

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	04/05/79-09/09/82	68	55.	56.632	82.	34.	182.445	13.507	37.9	46.	69.	75.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	04/05/79-09/09/82	68	1.85	3.816	27.	0.4	21.478	4.634	0.89	1.3	4.55	10.37
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/18/79-06/15/82	12	65.	69.75	107.	32.	667.841	25.843	35.3	46.25	96.5	107.
00403	PH, LAB, STANDARD UNITS SU	07/18/79-06/15/82	13	7.4	7.308	7.9	6.9	0.101	0.317	6.9	7.05	7.55	7.82
00403	CONVERTED PH, LAB, STANDARD UNITS	07/18/79-06/15/82	13	7.4	7.212	7.9	6.9	0.111	0.333	6.9	7.05	7.55	7.82
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/18/79-06/15/82	13	0.04	0.061	0.126	0.013	0.002	0.039	0.016	0.028	0.09	0.126
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/79-09/09/82	68	19.5	25.647	58.	4.	252.232	15.882	7.9	11.	41.75	48.1
00435	ACIDITY, TOTAL (MG/L AS CACO3)	07/18/79-06/15/82	12	2.	1.833	3.	1.	0.333	0.577	1.	1.25	2.	2.7
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/05/79-09/09/82	64	2.5	6.98	103.	0.25	209.292	14.467	0.6	1.	6.75	16.5
00600	NITROGEN, TOTAL (MG/L AS N)	07/18/79-06/15/82	12	0.17	0.167	0.43	0.05	0.011	0.106	0.05	0.068	0.2	0.379
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/18/79-06/15/82	12	0.15	0.149	0.3	0.05	0.006	0.078	0.05	0.068	0.17	0.288
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/18/79-06/15/82	12 ##	0.01	0.024	0.13	0.01	0.001	0.034	0.01	0.01	0.02	0.103
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	07/18/79-06/15/82	12	0.025	0.033	0.09	0.009	0.001	0.022	0.012	0.02	0.04	0.081
00916	CALCIUM, TOTAL (MG/L AS CA)	07/18/79-06/15/82	12	6.95	8.042	14.8	2.9	15.423	3.927	3.26	4.45	11.4	14.41
00937	POTASSIUM, TOTAL MG/L AS K)	07/18/79-06/15/82	12	0.71	0.773	1.22	0.56	0.034	0.183	0.581	0.655	0.885	1.145
00945	SULFATE, TOTAL (MG/L AS SO4)	07/18/79-06/15/82	12	6.	6.083	8.	4.	1.356	1.165	4.3	5.25	6.75	8.
01045	IRON, TOTAL (UG/L AS FE)	07/18/79-06/15/82	12	260.	295.	680.	110.	24754.545	157.336	122.	180.	317.5	626.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0035

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	68	0	0.00	21	0	0.00	20	0	0.00	27	0	0.00			
00403	PH, LAB	Other-Hi Lim.	9.	13	0	0.00	4	0	0.00	6	0	0.00	3	0	0.00			
		Other-Lo Lim.	6.5	13	0	0.00	4	0	0.00	6	0	0.00	3	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	12	0	0.00	4	0	0.00	5	0	0.00	3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	12	0	0.00	4	0	0.00	5	0	0.00	3	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0036

NPS Station ID: BISO0036 LAT/LON: 36.669170/ -84.494171 Agency: 112WRD Date Created: 08/23/80
Location: ROARING PAUNCH CREEK NEAR BARTHELL, KY FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 03410530
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: Elevation: 0 Water Body Id:
Minor Basin: ECO Region:
RF1 Index: 05130104 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 05130104000912.77 RF3 Mile Point: 12.78 Distance from RF3: 0.01 On/Off RF3:
Description:

Parameter Inventory for Station: BISO0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/14/79-03/31/81	7	17.	17.571	23.	10.5	24.369	4.937	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/14/79-03/31/81	7	21.	55.986	233.	0.9	6731.168	82.044	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/14/79-03/31/81	7	100.	141.	290.	75.	6373.333	79.833	**	**	**	**
00400	PH (STANDARD UNITS)	06/14/79-03/31/81	7	7.35	7.243	7.55	6.85	0.066	0.257	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/14/79-03/31/81	7	7.35	7.174	7.55	6.85	0.072	0.268	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/14/79-03/31/81	7	0.045	0.067	0.141	0.028	0.002	0.043	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/31/81-03/31/81	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/31/81-03/31/81	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/31/81-03/31/81	1	0.316	0.316	0.316	0.316	0.	0.	**	**	**	**
00405	CARBON DIOXIDE (MG/L AS CO2)	08/23/79-05/13/80	3	2.3	2.3	2.4	2.2	0.01	0.1	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/14/79-09/11/80	6	24.	26.167	44.	11.	166.167	12.891	**	**	**	**
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/31/81-03/31/81	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/23/80-07/23/80	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/23/80-07/23/80	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/23/80-07/23/80	1	61.	61.	61.	61.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	07/23/80-07/23/80	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/23/80-07/23/80	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/23/80-07/23/80	1	5.8	5.8	5.8	5.8	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	07/23/80-07/23/80	1	4.9	4.9	4.9	4.9	0.	0.	**	**	**	**
00931	SODIUM ADSORPTION RATIO	07/23/80-07/23/80	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00932	SODIUM, PERCENT	07/23/80-07/23/80	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	07/23/80-07/23/80	1	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	07/23/80-07/23/80	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	06/14/79-03/31/81	7	23.	27.286	41.	17.	110.238	10.499	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/23/80-07/23/80	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	07/23/80-07/23/80	1	1.9	1.9	1.9	1.9	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	07/23/80-07/23/80	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	07/23/80-07/23/80	1	20.	20.	20.	20.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	07/23/80-07/23/80	1	4.	4.	4.	4.	0.	0.	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	06/14/79-03/31/81	7	660.	1577.143	6900.	330.	5617423.81	2370.111	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	06/14/79-03/31/81	7	750.	1672.857	7000.	480.	5599657.143	2366.359	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	06/14/79-03/31/81	7	110.	98.571	150.	50.	1314.286	36.253	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	07/23/80-07/23/80	1	4.	4.	4.	4.	0.	0.	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	06/14/79-03/31/81	7	40.	108.571	490.	20.	28947.619	170.14	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	06/14/79-03/31/81	7	180.	212.857	500.	110.	18790.476	137.078	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01056	MANGANESE, DISSOLVED (UG/L AS MN)	06/14/79-03/31/81	7	100.	103.571	180.	5.	3555.952	59.632	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/02/80-03/31/81	5	64.	76.	110.	50.	834.	28.879	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	07/23/80-07/23/80	1	88.	88.	88.	88.	0.	0.	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	04/02/80-03/31/81	5	1.99	8.82	32.7	0.27	188.753	13.739	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/02/80-03/31/81	5	0.09	0.104	0.15	0.07	0.001	0.038	**	**	**	**
71825	ACIDITY, TOTAL (MG/L AS H)	03/31/81-03/31/81	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	07/23/80-07/23/80	1	0.21	0.21	0.21	0.21	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	07/23/80-07/23/80	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	06/14/79-03/31/81	7	12.	57.286	282.	8.	10187.905	100.935	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	06/14/79-03/31/81	7	0.68	12.517	46.	0.02	423.843	20.587	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0036

				Total	Exceed	Prop.	----------11/16-3/15----------			----------3/16-6/30----------			----------7/01-11/15----------			----------n/a----------		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00400	PH	Other-Hi Lim.	9.	7	0	0.00				4	0	0.00	3	0	0.00			
		Other-Lo Lim.	6.5	7	0	0.00				4	0	0.00	3	0	0.00			
00403	PH, LAB	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	1	1.00				1	1	1.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	7	0	0.00				4	0	0.00	3	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0037

NPS Station ID: BISO0037 LAT/LON: 36.670281/ -84.548892 Agency: 21KY Date Created: 06/21/80
Location: SOUTH FORK CUMBERLAND RIVER AT BLUE HERON FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): PRI008 /02008900
RMI-Indexes: Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: OHIO Elevation: 0 Water Body Id: KY5130104-021
Minor Basin: CUMBERLAND ECO Region:
RF1 Index: 05130104009 RF1 Mile Point: 12.730 Distance from RF1: 0.00 On/Off RF1: ON
RF3 Index: 05130104001005.86 RF3 Mile Point: 10.57 Distance from RF3: 0.02 On/Off RF3:
Description:
TOPO MAP NO 2-44 BARTHELL QUADRANGLE SAMPLE TAKEN OFF LEFT BANK AT BLUE HERON INTERPRETATIVE CENTER
SAMPLE TAKEN AT SOUTH FORK CUMBERLAND RIVER MP 44.8 U.S.G.S. GAGING STATION AT MP 49.6

Parameter Inventory for Station: BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	155	15.	15.595	31.	0.1	65.052	8.065	5.	9.	23.	26.32
00060	FLOW, STREAM, MEAN DAILY CFS	08/18/81-09/13/83	13	963.	1710.308	7160.	16.	4540152.897	2130.763	22.8	67.5	2915.	5912.
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	77	760.	2024.455	41200.	41.	29671478.751	5447.153	83.2	209.5	1420.	4562.
00077	TRANSPARENCY, SECCHI DISC (INCHES)	03/21/79-03/21/79	1	36.	36.	36.	36.	0.	0.	**	**	**	**
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	155	131.	149.084	340.	60.	3869.337	62.204	81.6	106.	184.	251.6
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	72	140.	163.444	356.	79.	4644.729	68.152	92.6	113.75	217.75	272.1
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE MG/L	10/21/91-09/17/92	12	8.6	8.533	11.9	6.1	2.282	1.511	6.37	7.475	9.15	11.33
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	143	9.	9.132	15.2	4.8	4.701	2.168	6.62	7.6	10.4	12.24
00310p	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	84	0.6	0.729	2.8	0.05	0.376	0.613	0.1	0.3	1.	1.5
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	72	5.75	10.033	236.	1.	755.55	27.487	2.56	3.525	8.575	14.4
00339	COD, BOTTOM DEPOSITS, DRY WEIGHT MG/KG	12/02/83-12/02/83	1	65600.	65600.	65600.	65600.	0.	0.	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	152	7.1	7.08	8.42	6.1	0.177	0.421	6.558	6.8	7.3	7.6
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	152	7.1	6.905	8.42	6.1	0.208	0.456	6.558	6.8	7.3	7.6
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	152	0.079	0.124	0.794	0.004	0.014	0.12	0.025	0.05	0.158	0.277
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	72	7.1	7.113	8.7	6.4	0.134	0.366	6.7	6.9	7.3	7.5
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	72	7.1	6.99	8.7	6.4	0.149	0.386	6.7	6.9	7.3	7.5
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	72	0.079	0.102	0.398	0.002	0.006	0.074	0.032	0.05	0.126	0.2
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	154	18.5	20.532	64.	7.	90.747	9.526	11.	14.	25.	31.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	71	3.	3.62	27.	0.	11.668	3.416	2.	2.	4.	5.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	149	6.	23.446	317.	0.5	2738.987	52.335	1.	3.	16.5	62.
00557	OIL & GREASE,SED,DRY WT,FREON EXTR-GRAV METH,MG/KG	12/02/83-10/24/90	2	172.	172.	244.	100.	10368.	101.823	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	148 ##	0.025	0.045	0.25	0.003	0.002	0.042	0.025	0.025	0.05	0.11
00611	NITROGEN, AMMONIA, BOTTOM DEPOSITS (MG/KG-N)	12/02/83-10/24/90	2	3.715	3.715	6.48	0.95	15.29	3.91	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	149	0.188	0.225	1.03	0.025	0.036	0.188	0.025	0.087	0.314	0.42
00627	NITROGEN KJELDAHL TOTAL BOTTOM DEP DRY WT MG/KG	12/02/83-10/24/90	2	234.7	234.7	437.	32.4	81850.58	286.095	**	**	**	**
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	147	0.14	0.152	0.69	0.003	0.011	0.103	0.03	0.07	0.23	0.27
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	149	0.012	0.024	0.235	0.002	0.001	0.032	0.003	0.005	0.035	0.06
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	99	1.9	2.144	6.8	0.6	1.274	1.129	0.9	1.4	2.7	3.6
00721	CYANIDE IN BOTTOM DEPOSITS (MG/KG AS CN DRY WGT)	12/02/83-10/24/90	2 ##	1.503	1.503	2.495	0.51	1.97	1.404	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	148	52.	56.547	155.	19.	510.794	22.601	31.	41.	66.	89.
00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/17/79-07/10/84	24	10.1	11.858	38.	0.1	73.288	8.561	3.1	5.75	16.	23.85
00916	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	100	12.4	13.761	42.5	4.8	37.834	6.151	7.16	9.925	16.65	22.39
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/17/79-07/10/84	24	4.8	5.675	18.9	2.5	12.368	3.517	2.6	3.6	7.75	8.9

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	101	5.1	5.456	12.4	1.9	4.057	2.014	3.24	4.1	6.5	8.88
00929	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	102	4.83	6.123	18.8	0.3	19.442	4.409	2.045	3.	8.275	13.3
00930	SODIUM, DISSOLVED (MG/L AS NA)	10/17/79-07/10/84	24	4.2	6.167	28.1	1.75	33.735	5.808	1.775	2.413	8.65	12.6
00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/17/79-07/10/84	24	1.465	1.73	3.99	0.86	0.568	0.754	1.06	1.17	2.255	2.8
00937	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	98	1.35	1.541	3.26	0.76	0.297	0.545	0.959	1.1	1.98	2.284
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	152	4.	5.929	146.	0.025	150.23	12.257	2.	3.	6.75	9.7
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	153	36.5	42.433	102.	11.9	406.224	20.155	21.44	29.1	48.7	75.9
00950	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	73 ##	0.05	0.058	0.16	0.025	0.001	0.026	0.03	0.05	0.06	0.096
00955	SILICA, DISSOLVED (MG/L AS SI02)	03/21/79-09/23/80	18	4.55	4.3	6.6	2.5	1.015	1.008	2.5	3.55	4.825	5.61
01000	ARSENIC, DISSOLVED (UG/L AS AS)	10/17/79-06/24/80	9 ##	1.	1.556	2.5	0.5	0.653	0.808	0.5	1.	2.5	2.5
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	144 ##	1.	2.12	39.	0.5	17.336	4.164	0.5	0.5	1.	4.5
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	12/02/83-10/24/90	2	5.4	5.4	6.99	3.81	5.056	2.249	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	10/17/79-06/24/80	5 ##	50.	38.4	50.	20.	252.8	15.9	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	111	31.	35.946	104.	4.	473.27	21.755	12.	22.	45.	68.8
01012	BERYLLIUM, TOTAL (UG/L AS BE)	01/19/81-01/14/85	28 ##	0.5	0.554	1.	0.5	0.025	0.157	0.5	0.5	0.5	1.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	53	1.	5.66	43.	0.5	64.036	8.002	0.5	0.5	9.	17.2
01027	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	133 ##	0.5	1.244	20.	0.5	7.071	2.659	0.5	0.5	0.5	2.
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	12/02/83-10/24/90	2	0.085	0.085	0.09	0.08	0.	0.007	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	12/02/83-10/24/90	2	9.68	9.68	15.1	4.26	58.753	7.665	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/21/79-09/23/80	18	1.	1.5	6.	0.5	1.971	1.404	0.5	0.875	2.	4.2
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	150	2.	2.157	13.	0.5	4.665	2.16	0.5	1.	2.	4.
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	53	4.	9.689	146.	0.5	453.271	21.29	1.	2.	9.5	23.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	150	3.	5.23	98.	0.5	93.992	9.695	1.	2.	5.	11.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	12/02/83-10/24/90	2	12.61	12.61	20.5	4.72	124.504	11.158	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	131	470.	775.29	10900.	60.	1274269.515	1128.835	240.4	310.	850.	1230.4
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	61	101.	131.311	552.	2.	12087.285	109.942	20.	57.5	188.	280.
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	53	10.	49.396	420.	0.5	5822.071	76.302	1.	4.	82.	148.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	151	3.	18.646	272.	0.5	1767.415	42.041	0.5	1.	10.	82.2
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	12/02/83-10/24/90	2	12.15	12.15	12.4	11.9	0.125	0.354	**	**	**	**
01053	MANGANESE IN BOTTOM DEPOSITS (MG/KG AS MN DRY WGT)	12/02/83-10/24/90	2	635.5	635.5	1160.	111.	550200.5	741.755	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	132	110.	117.749	410.	15.	3657.895	60.481	60.	80.	140.	197.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	61	123.	133.738	330.	14.	3252.13	57.027	74.2	93.	163.	217.2
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/21/79-09/23/80	18	7.	5.917	11.	1.	10.596	3.255	1.	2.375	9.	9.2
01067	NICKEL, TOTAL (UG/L AS NI)	11/09/83-02/27/85	15	4.	7.167	20.	0.5	44.202	6.648	1.4	3.	9.	20.
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	12/02/83-10/24/90	2	26.4	26.4	41.8	11.	474.32	21.779	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	03/21/79-09/23/80	18 ##	0.5	0.583	2.	0.5	0.125	0.354	0.5	0.5	0.5	0.65
01077	SILVER, TOTAL (UG/L AS AG)	01/19/81-02/27/85	29 ##	0.5	0.621	2.	0.5	0.155	0.393	0.5	0.5	0.5	1.
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	53	10.	20.764	208.	2.	975.39	31.231	6.	7.5	21.5	48.4
01092	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	131	12.	25.763	930.	0.5	6994.155	83.631	4.	8.	21.	36.8
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	12/02/83-10/24/90	2	47.2	47.2	79.8	14.6	2125.52	46.103	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	102	138.	274.588	2360.	7.	168065.373	409.958	63.6	91.75	245.	630.3
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	07/19/83-07/10/84	12	54.5	68.792	239.	0.5	4359.794	66.029	0.95	29.75	81.75	211.1
01108	ALUMINUM IN BOTTOM DEPOSITS (MG/KG AS AL DRY WGT)	12/02/83-10/24/90	2	4340.	4340.	6130.	2550.	6408200.	2531.442	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/19/80-03/19/80	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	01/19/81-01/14/85	28 ##	0.5	1.125	10.	0.5	3.215	1.793	0.5	0.5	1.	2.
01170	IRON IN BOTTOM DEPOSITS (MG/KG AS FE DRY WGT)	12/02/83-10/24/90	2	10270.	10270.	14400.	6140.	34113800.	5840.702	**	**	**	**
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	144	18.	109.899	7700.	0.5	421826.544	649.482	2.25	5.	43.	160.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	144	1.253	1.231	3.886	-0.301	0.504	0.71	0.349	0.699	1.633	2.201
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			17.014								
34257	B-BHC-BETA DRY WGTBOTUG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34354	ENDOSULFAN SULFATE DRY WGTBOTUG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34364	ENDOSULFAN, ALPHA DRY WGTBOTUG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34369	ENDRIN ALDEHYDE DRY WGTBOTUG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34721	2,3,4,6-TETRACHLOROPHENOL IN BOT DEP DRYWGTMG/KG	10/24/90-10/24/90	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39064	CHLORDANE-CIS ISOMER BOTTOM DEPOS (UG/KG DRY SOL	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39067	CHLORDANE-TRANS ISOMER,BOTTOM DEPOS(UG/KG DRY SL	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39073	CHLORDANE-NONACHLOR,TRANS ISO,BOTTOM DEP UG/KG	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39311	P,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39316	O,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	12/02/83-10/24/90	2 ##	9.	9.	15.	3.	72.	8.485	**	**	**	**
39359	DDT SUM ANALOGS IN SEDIMENT UG/KG DRY WEIGHT	12/02/83-10/24/90	2 ##	0.004	0.004	0.005	0.003	0.	0.001	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	12/02/83-10/24/90	2 ##	26.75	26.75	28.5	25.	6.125	2.475	**	**	**	**
39481	METHOXYCHLOR IN BOTTOM DEPOSITS (UG/KG DRY SOL.)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39519	PCBS IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	14.	14.	25.	3.	242.	15.556	**	**	**	**
39701	HEXACHLOROBENZENE IN BOT DEPOS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39758	MIREX, BOTTOM MATERIAL (UG/KG DRY SOLIDS)	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
39783	LINDANE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	12/02/83-10/24/90	2 ##	4.	4.	5.	3.	2.	1.414	**	**	**	**
39812	CHLORDENE, GAMMA ISOMER, IN SED., WET WT. MG/KG	10/24/90-10/24/90	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
39813	CHLORDENE, ALPHA ISOMER, IN SED., WET WT. MG/KG	10/24/90-10/24/90	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
47501	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	133	31814.	35762.541	99994.	10014.	537702449.402	23188.412	11814.4	19996.5	42713.	81103.
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	70	87.	103.4	206.	50.	1829.49	42.773	58.2	73.5	128.	177.8
70322	SOLIDS, VOLATILE, PERCENT OF TOTAL SOLIDS	12/02/83-10/24/90	2	9.05	9.05	16.	2.1	96.605	9.829	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	09/27/79-07/10/84	18	0.3	0.592	3.7	0.05	0.742	0.862	0.095	0.2	0.475	1.72
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	104 ##	0.05	0.195	2.4	0.05	0.157	0.396	0.05	0.05	0.1	0.4
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	12/02/83-10/24/90	2	0.01	0.01	0.01	0.009	0.	0.001	**	**	**	**
72015	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	110	0.	0.327	36.	0.	11.782	3.432	0.	0.	0.	0.
78433	HEPTACHLOR SEDWETWTMG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
78434	HEPTACHLOR EPOXIDE SEDWETWTMG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
78871	OXYCHLORDANE IN SEDIMENT DRY WEIGHT UG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
80153	CARBON, ORGANIC, IN SEDIMENT (% AS C)	12/02/83-10/24/90	2	310.165	310.165	620.	0.33	191995.454	438.173	**	**	**	**
81765	CHLORDENE IN SEDIMENTS DRY WEIGHT UG/KG	10/24/90-10/24/90	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	116	5.6	14.72	124.	0.4	471.73	21.719	1.87	3.	18.5	40.6
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	74	4.85	19.627	330.	0.8	1868.581	43.227	1.8	2.6	19.5	52.5
82556	2,3,4,5-TETRACHLOROPHENOL IN BOT DEP DRYWGTMG/KG	10/24/90-10/24/90	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
82557	ENDRIN KEYTONE IN BOTTOM DEPOSITS SEDDRYWGTMG/KG	10/24/90-10/24/90	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
85803	CHLORDENE,CIS ISOMER,NONACHLR,SEDIMNT,DRY WT,MG/KG	10/24/90-10/24/90	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**

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EPA Water Quality Criteria Analysis for Station: BISO0037

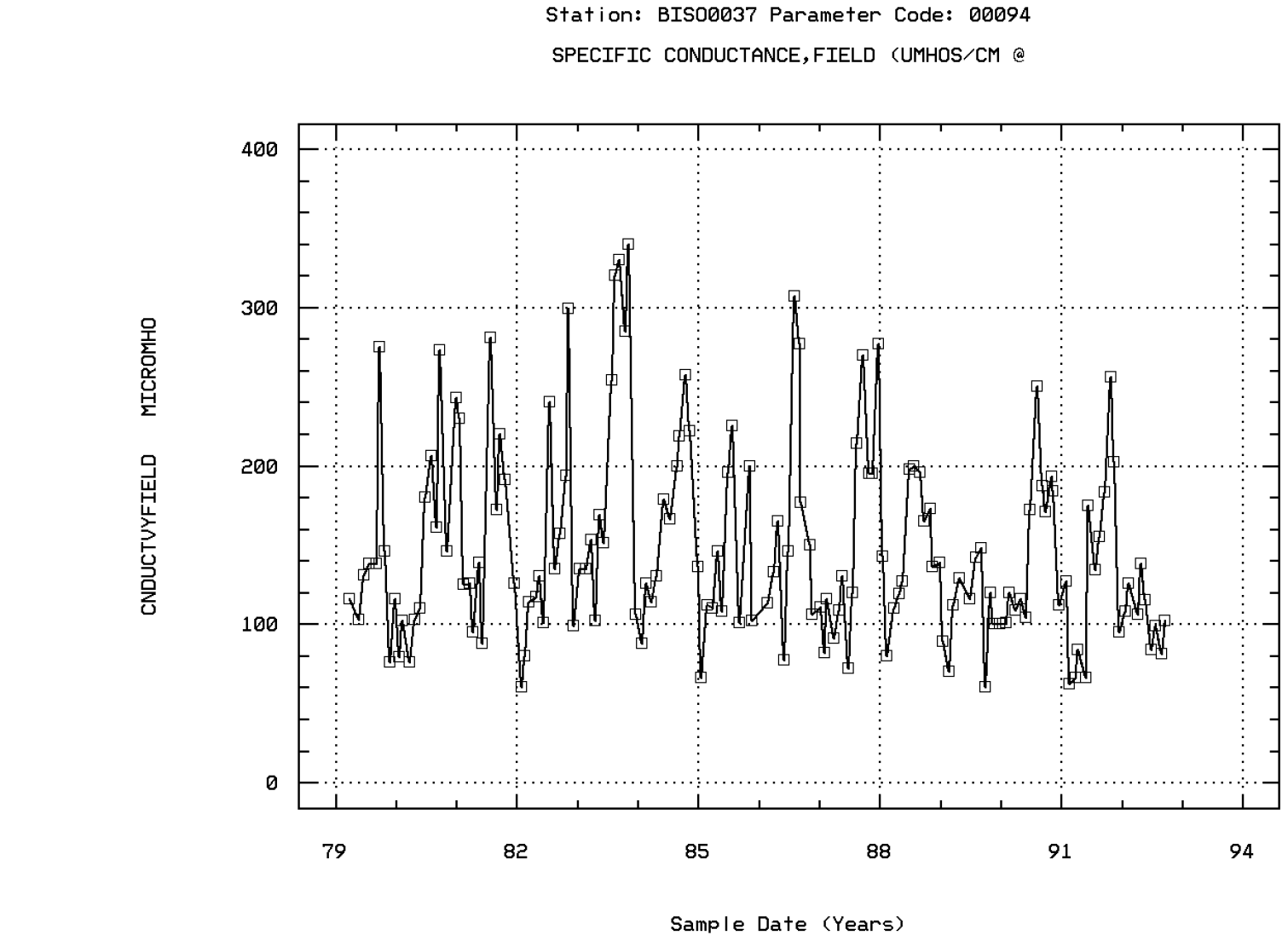
Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	12	0	0.00	4	0	0.00	4	0	0.00	4	0	0.00			
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	143	0	0.00	40	0	0.00	48	0	0.00	55	0	0.00			
00400	PH	Other-Hi Lim.	9.	152	0	0.00	44	0	0.00	52	0	0.00	56	0	0.00			
		Other-Lo Lim.	6.5	152	14	0.09	44	5	0.11	52	6	0.12	56	3	0.05			
00403	PH, LAB	Other-Hi Lim.	9.	72	0	0.00	20	0	0.00	23	0	0.00	29	0	0.00			
		Other-Lo Lim.	6.5	72	2	0.03	20	0	0.00	23	2	0.09	29	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	147	0	0.00	42	0	0.00	48	0	0.00	57	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	152	0	0.00	43	0	0.00	51	0	0.00	58	0	0.00			
00946	SULFATE, DISSOLVED (AS SO4)	Drinking Water	400.	153	0	0.00	44	0	0.00	50	0	0.00	59	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	9	0	0.00	4	0	0.00	4	0	0.00	1	0	0.00			
		Drinking Water	50.	9	0	0.00	4	0	0.00	4	0	0.00	1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	144	0	0.00	40	0	0.00	49	0	0.00	55	0	0.00			
		Drinking Water	50.	144	0	0.00	40	0	0.00	49	0	0.00	55	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	5	0	0.00	2	0	0.00	2	0	0.00	1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	111	0	0.00	30	0	0.00	36	0	0.00	45	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	28	0	0.00	8	0	0.00	6	0	0.00	14	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	53	22	0.42	16	6	0.38	17	8	0.47	20	8	0.40			
		Drinking Water	5.	53	21	0.40	16	6	0.38	17	8	0.47	20	7	0.35			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	133	9	0.07	39	3	0.08	43	4	0.09	51	2	0.04			
		Drinking Water	5.	133	9	0.07	39	3	0.08	43	4	0.09	51	2	0.04			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: BISO0037

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	18	0	0.00	4	0	0.00	7	0	0.00	7	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	150	0	0.00	43	0	0.00	49	0	0.00	58	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	53	8	0.15	16	2	0.13	17	3	0.18	20	3	0.15			
		Drinking Water	1300.	53	0	0.00	16	0	0.00	17	0	0.00	20	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	150	5	0.03	43	2	0.05	49	0	0.00	58	3	0.05			
		Drinking Water	1300.	150	0	0.00	43	0	0.00	49	0	0.00	58	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	53	13	0.25	16	3	0.19	17	3	0.18	20	7	0.35			
		Drinking Water	5.	49 &	35	0.71	16	10	0.63	14	10	0.71	19	15	0.79			
01051	LEAD, TOTAL	Fresh Acute	82.	151	15	0.10	43	3	0.07	50	6	0.12	58	6	0.10			
		Drinking Water	5.	148 &	54	0.36	43	17	0.40	48	15	0.31	57	22	0.39			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	18	0	0.00	4	0	0.00	7	0	0.00	7	0	0.00			
		Drinking Water	100.	18	0	0.00	4	0	0.00	7	0	0.00	7	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	15	0	0.00	6	0	0.00	3	0	0.00	6	0	0.00			
		Drinking Water	100.	15	0	0.00	6	0	0.00	3	0	0.00	6	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	18	0	0.00	4	0	0.00	7	0	0.00	7	0	0.00			
		Drinking Water	50.	18	0	0.00	4	0	0.00	7	0	0.00	7	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	29	0	0.00	9	0	0.00	6	0	0.00	14	0	0.00			
		Drinking Water	50.	29	0	0.00	9	0	0.00	6	0	0.00	14	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	53	1	0.02	16	0	0.00	17	0	0.00	20	1	0.05			
01092	ZINC, TOTAL	Fresh Acute	120.	131	2	0.02	37	0	0.00	44	1	0.02	50	1	0.02			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
01147	SELENIUM, TOTAL	Fresh Acute	20.	28	0	0.00	8	0	0.00	6	0	0.00	14	0	0.00			
		Drinking Water	50.	28	0	0.00	8	0	0.00	6	0	0.00	14	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	144	12	0.08	40	3	0.08	48	8	0.17	56	1	0.02			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	18	1	0.06	5	0	0.00	7	1	0.14	6	0	0.00			
		Drinking Water	2.	18	1	0.06	5	0	0.00	7	1	0.14	6	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	104	1	0.01	30	0	0.00	35	0	0.00	39	1	0.03			
		Drinking Water	2.	104	2	0.02	30	0	0.00	35	1	0.03	39	1	0.03			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	116	8	0.07	33	3	0.09	40	2	0.05	43	3	0.07			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	74	9	0.12	20	1	0.05	25	4	0.16	29	4	0.14			

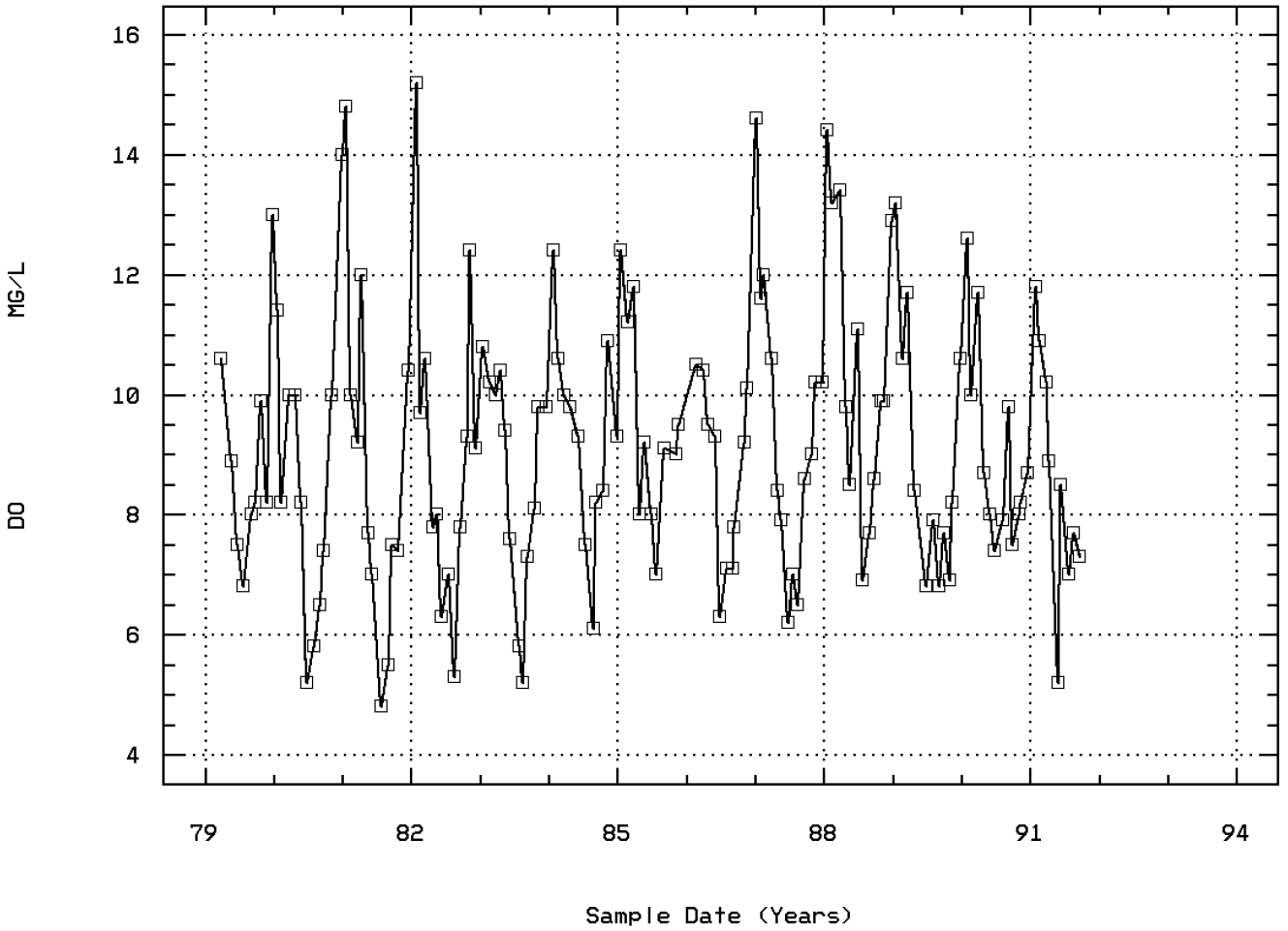
& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter



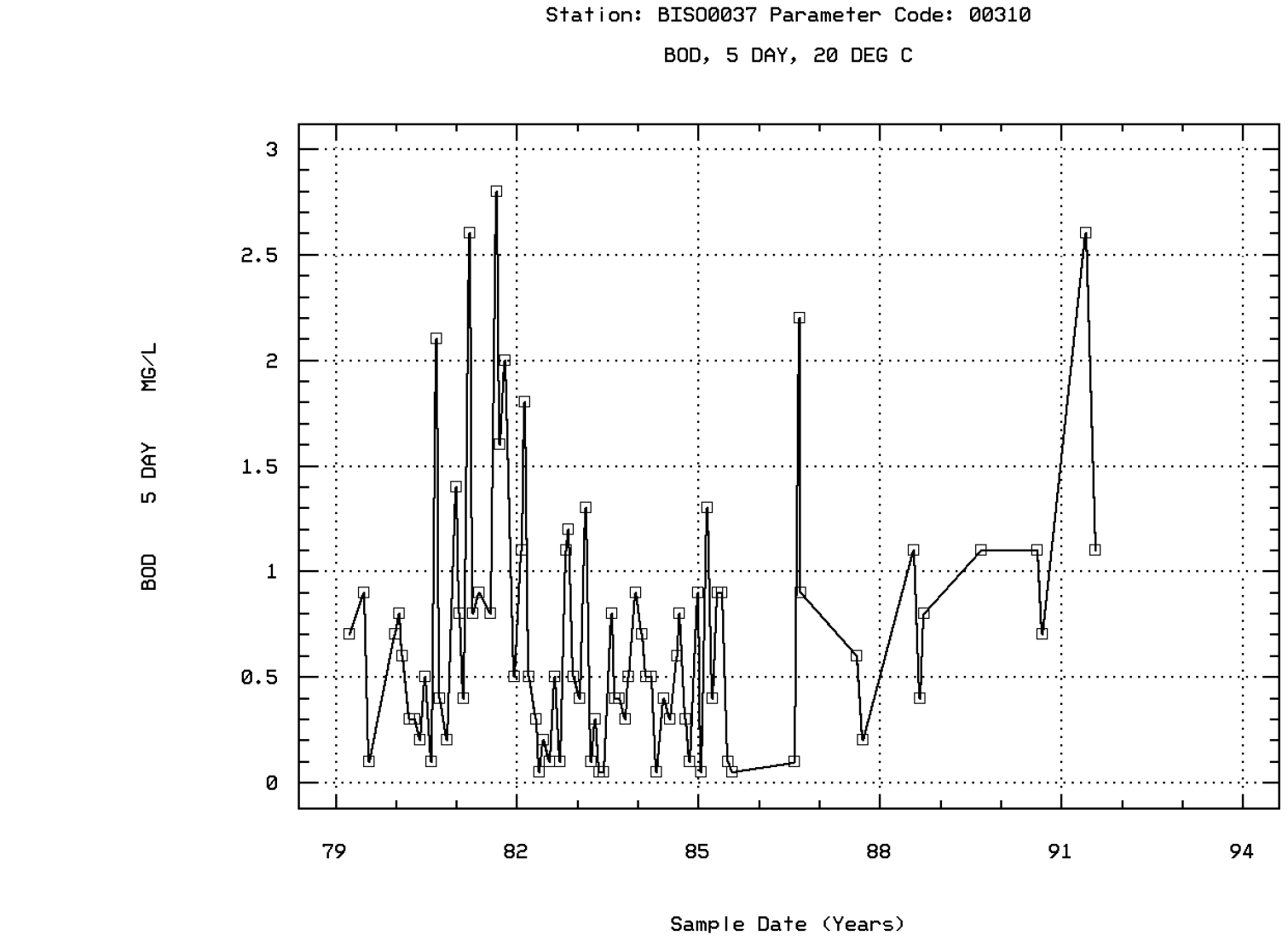
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00300

OXYGEN, DISSOLVED



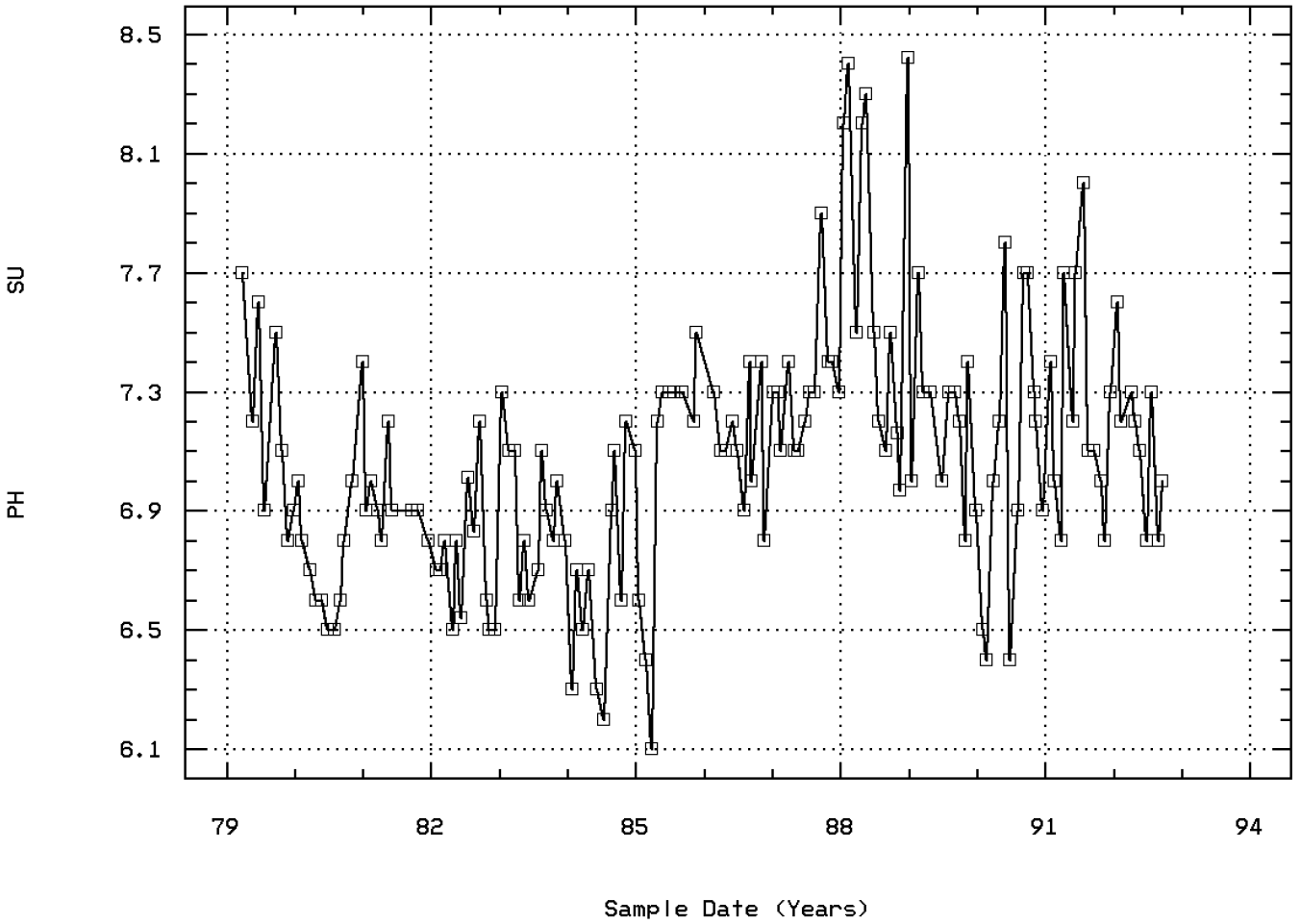
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00400

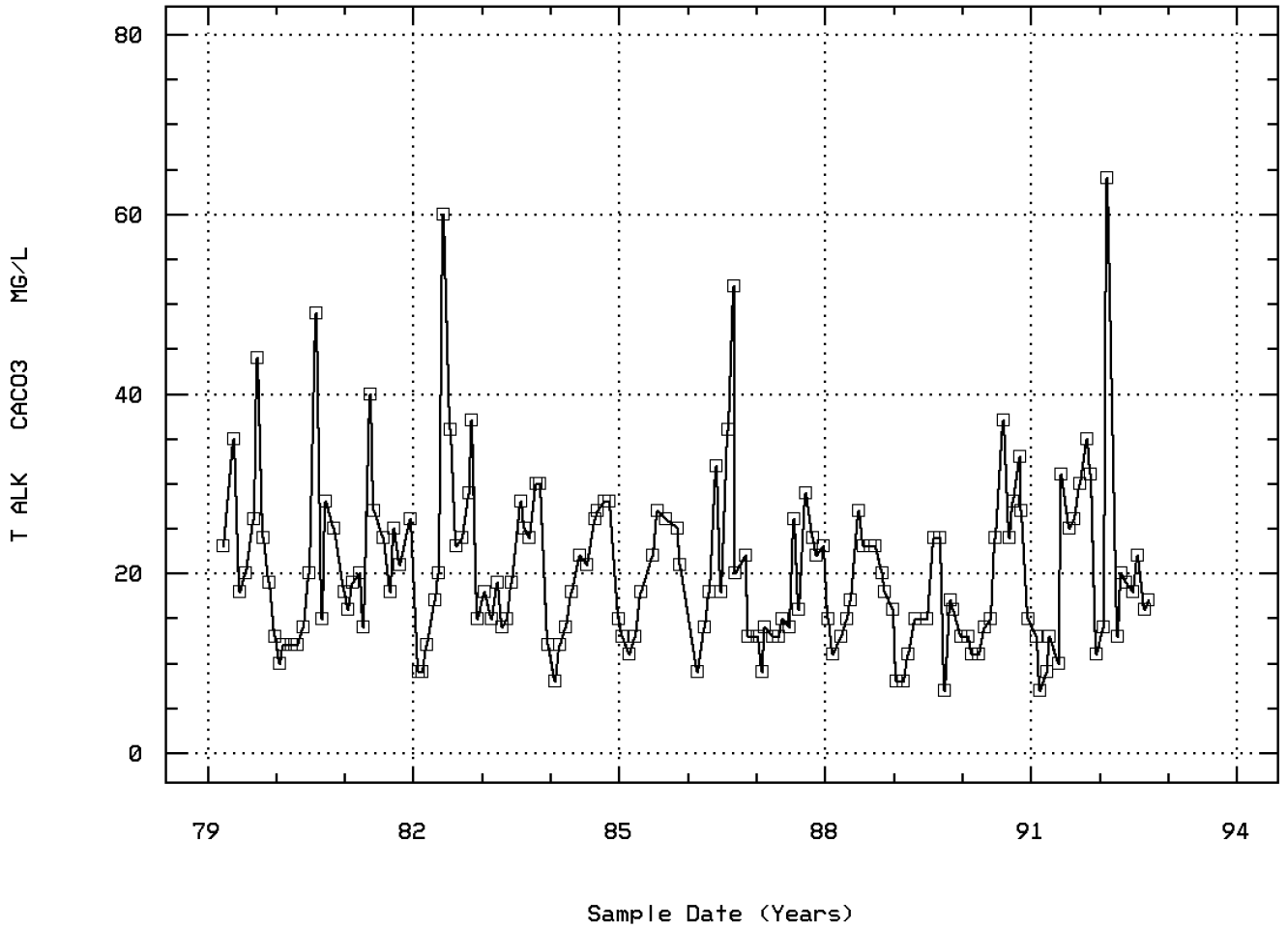
PH (STANDARD UNITS)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00410

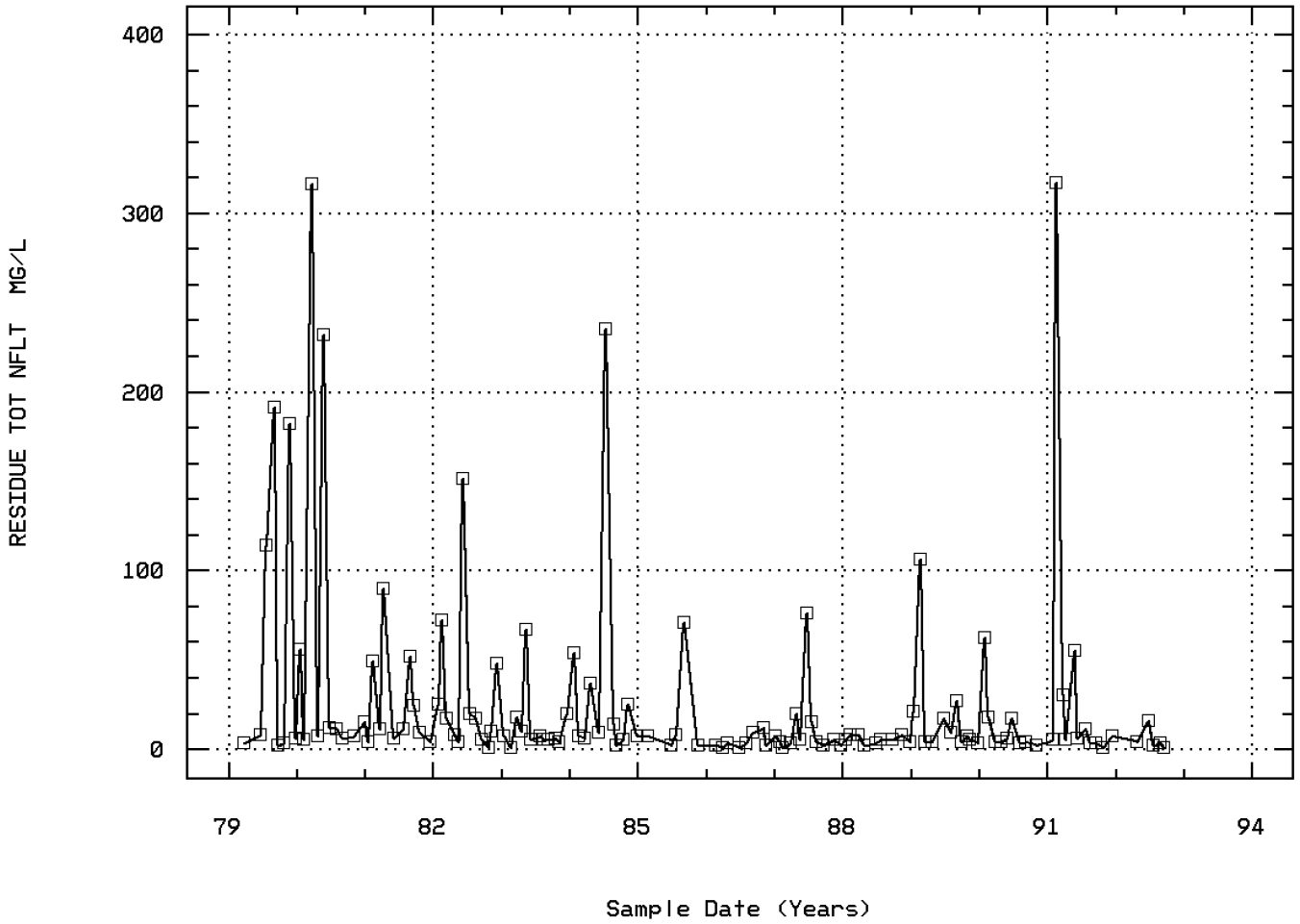
ALKALINITY, TOTAL (MG/L AS CACO3)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00530

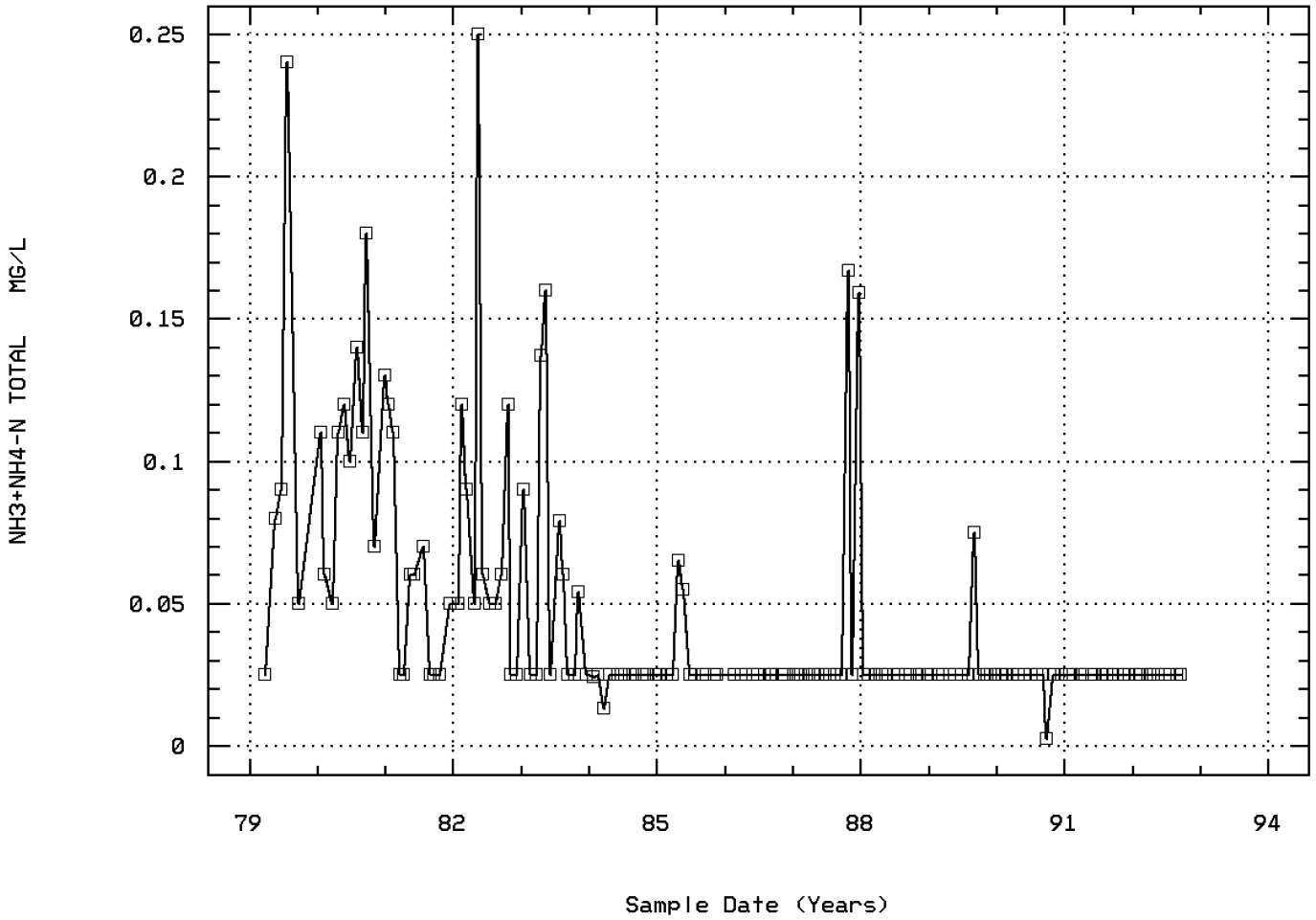
RESIDUE, TOTAL NONFILTRABLE (MG/L)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00610

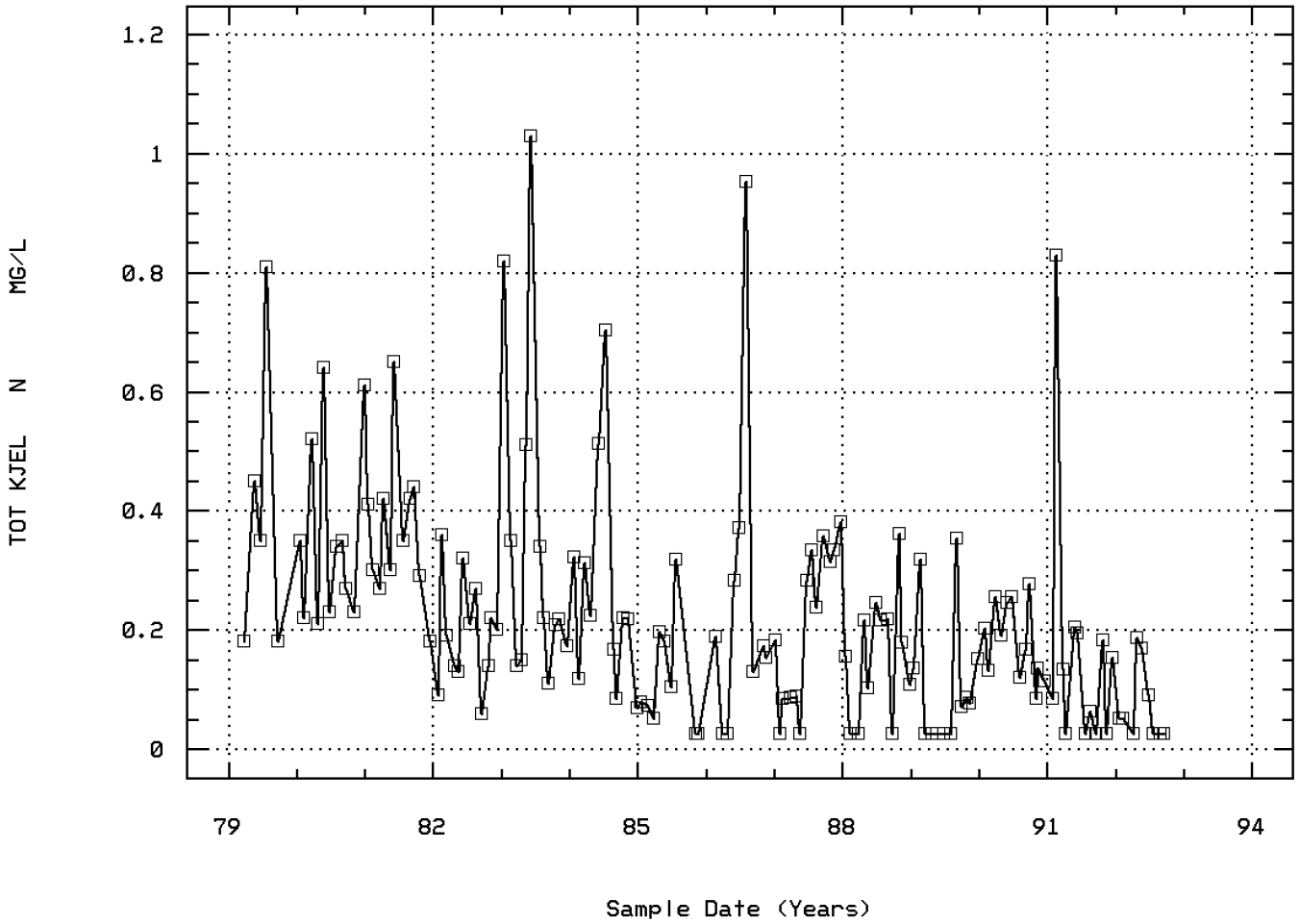
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



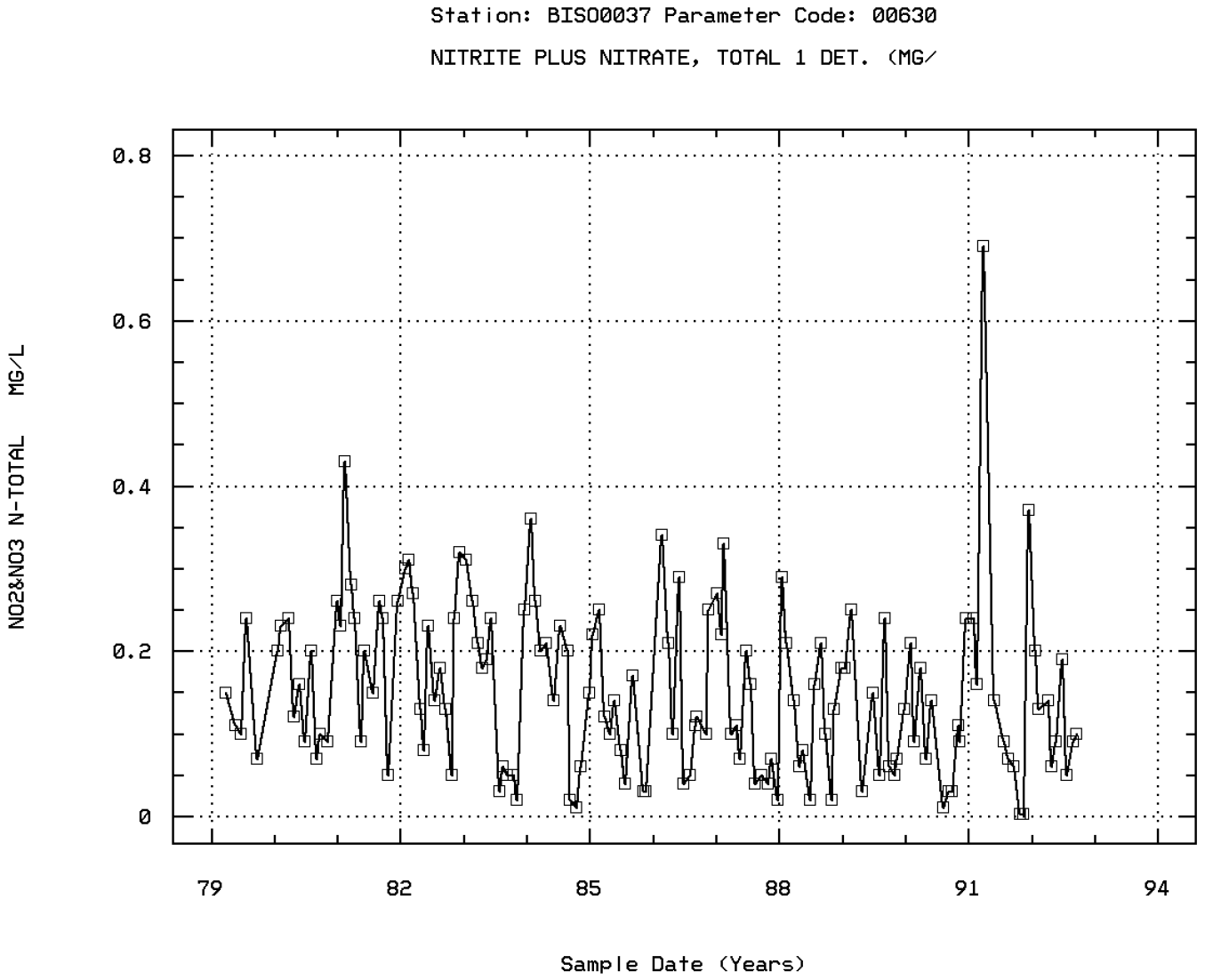
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00625

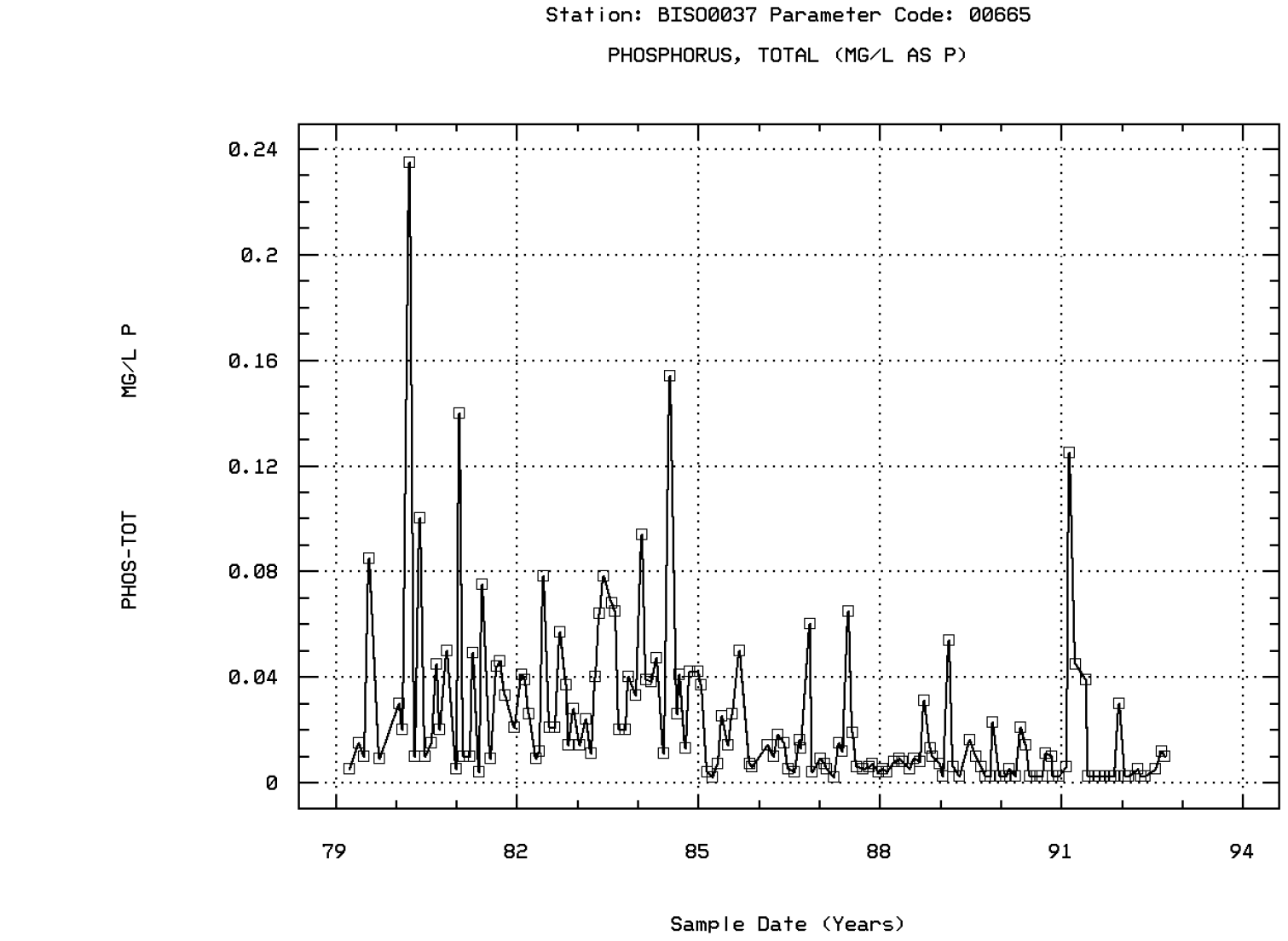
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER



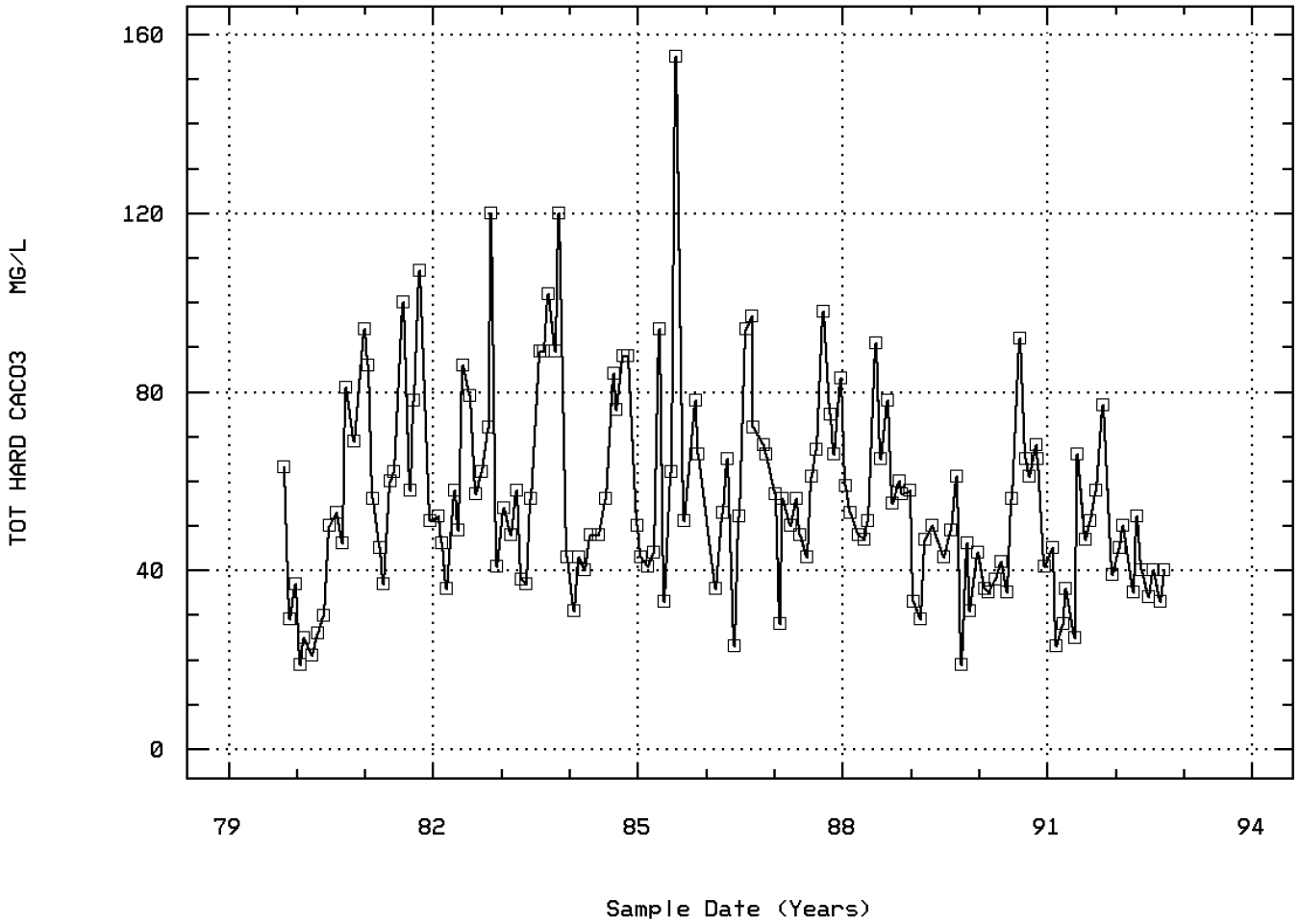
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00900

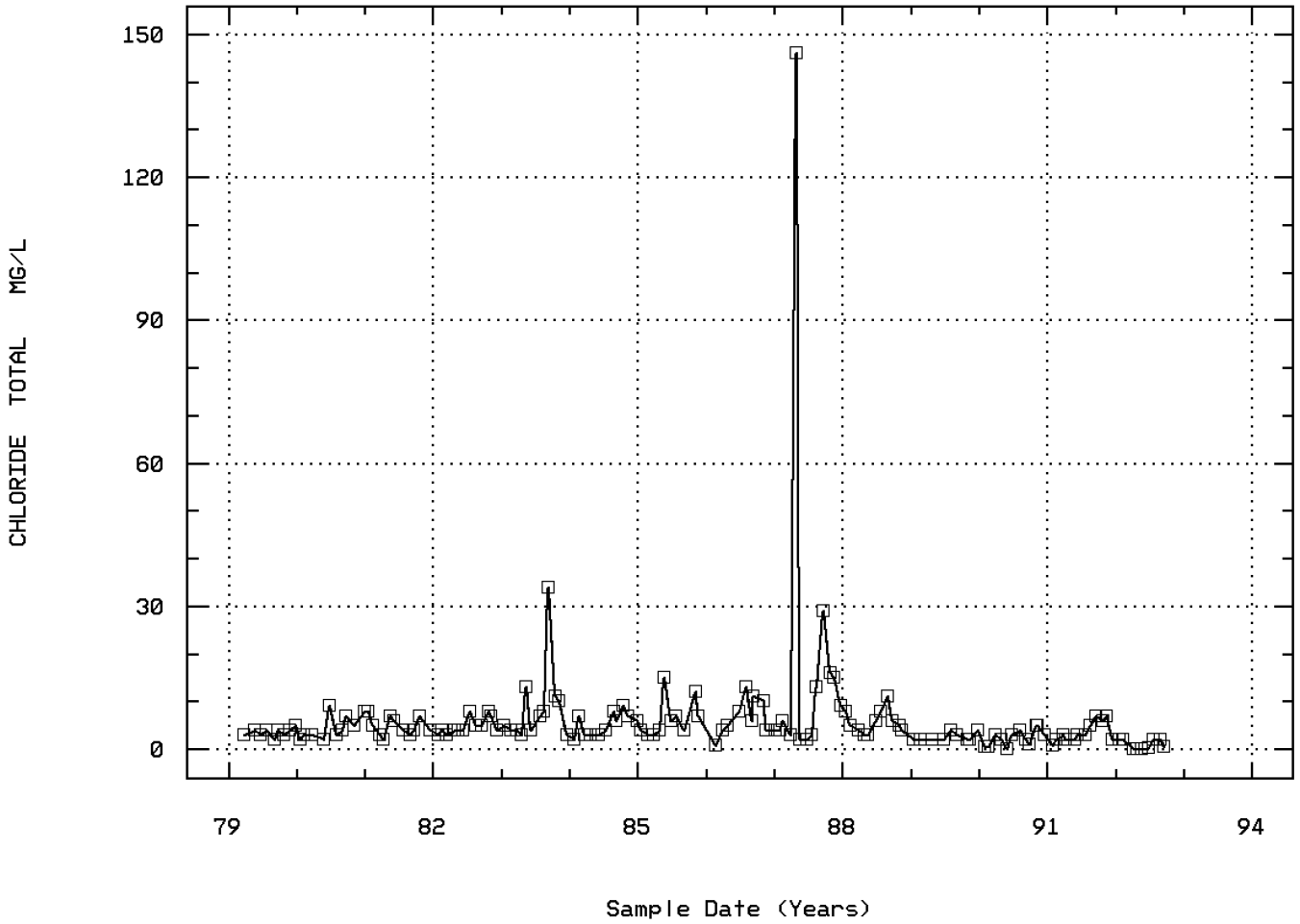
HARDNESS, TOTAL (MG/L AS CACO3)



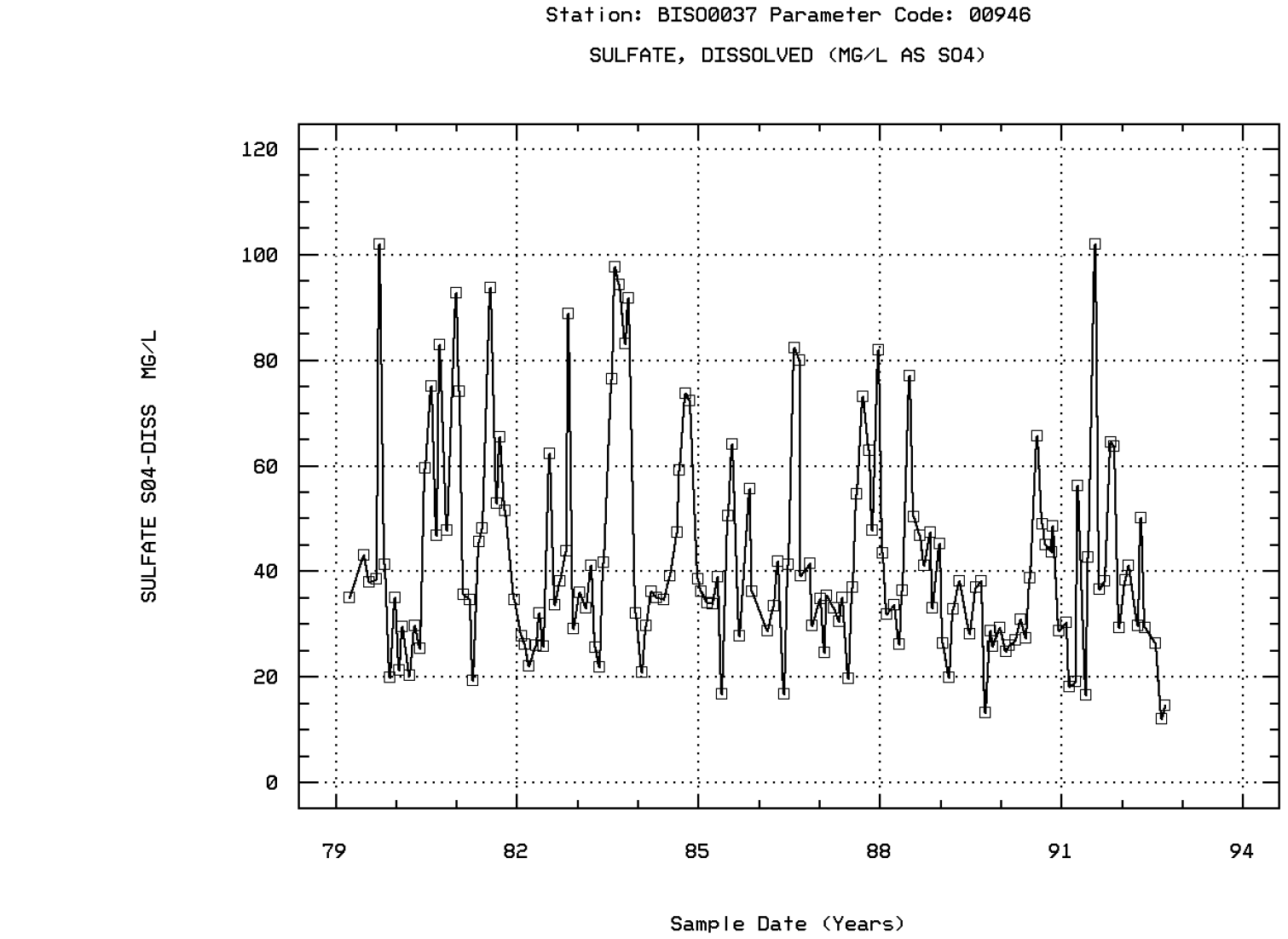
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00940

CHLORIDE,TOTAL IN WATER



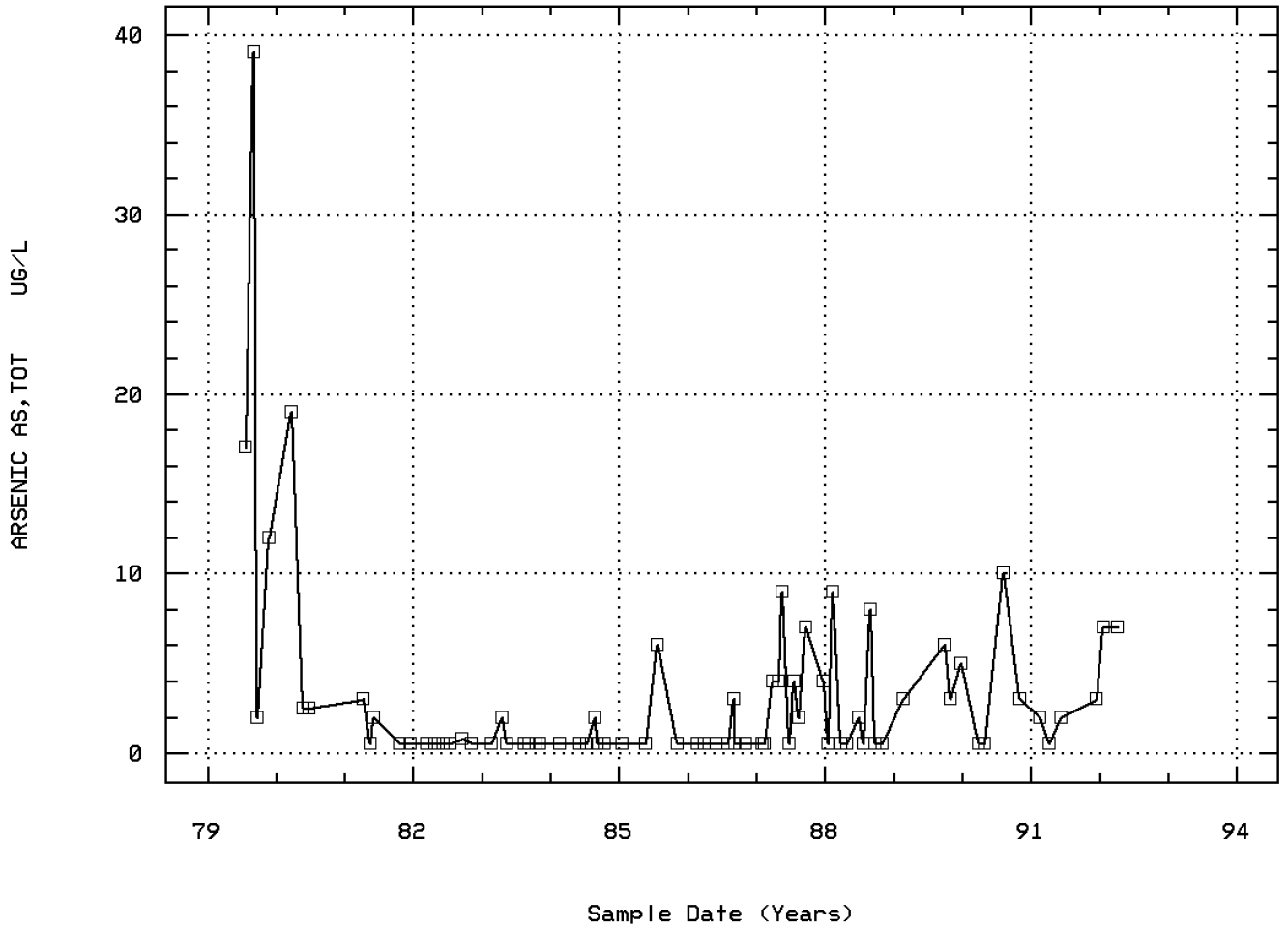
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01002

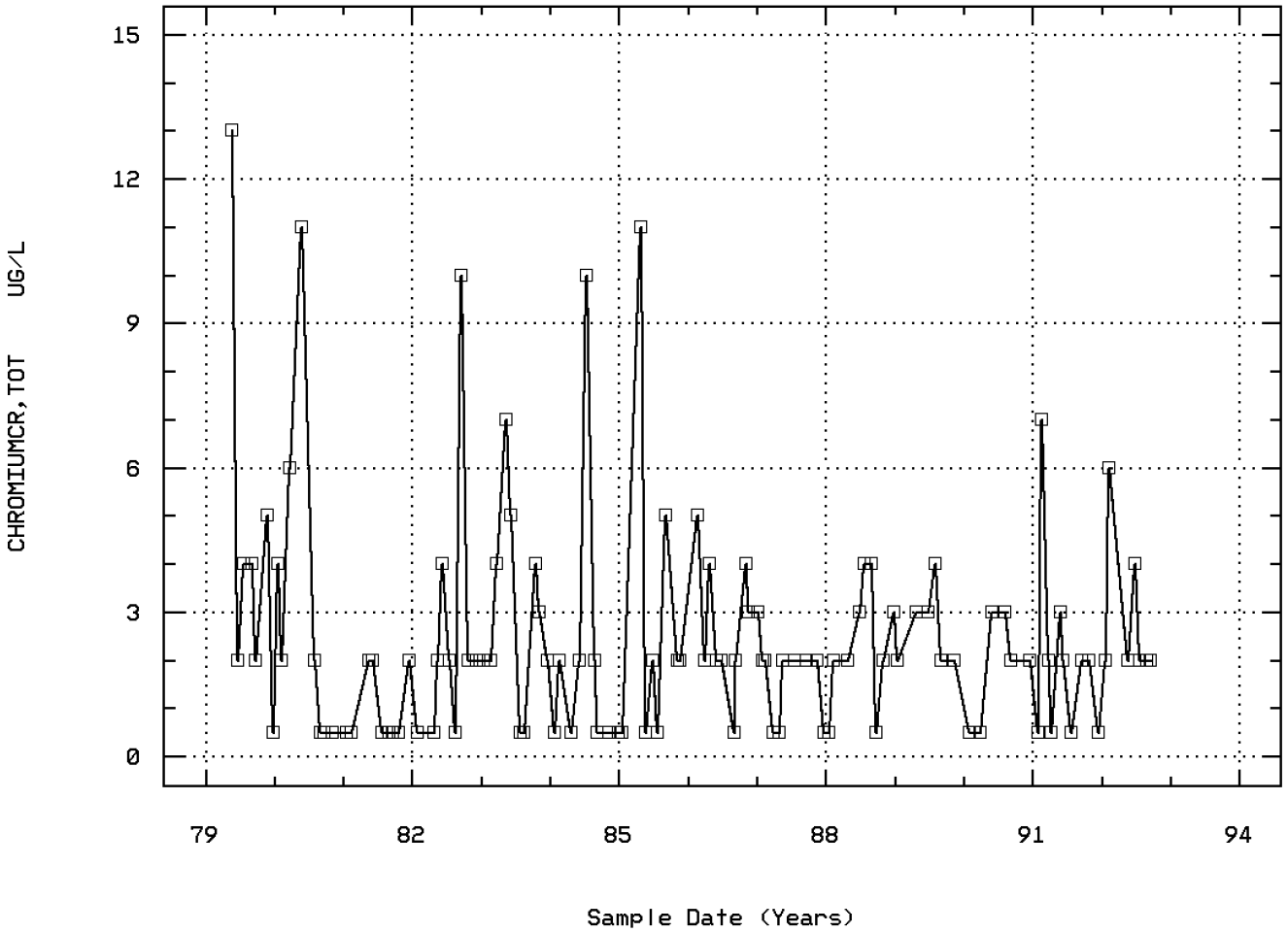
ARSENIC, TOTAL (UG/L AS AS)



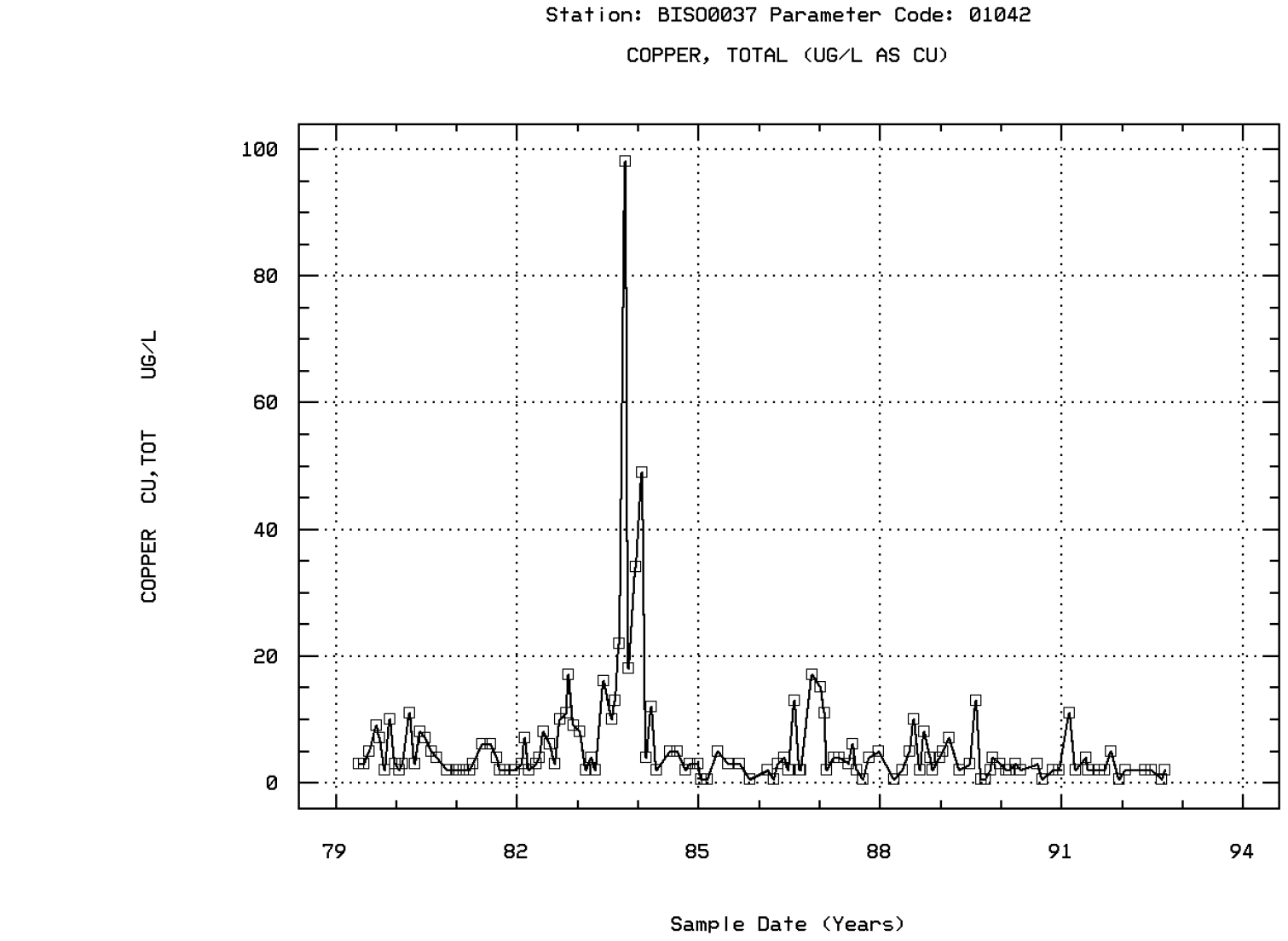
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01034

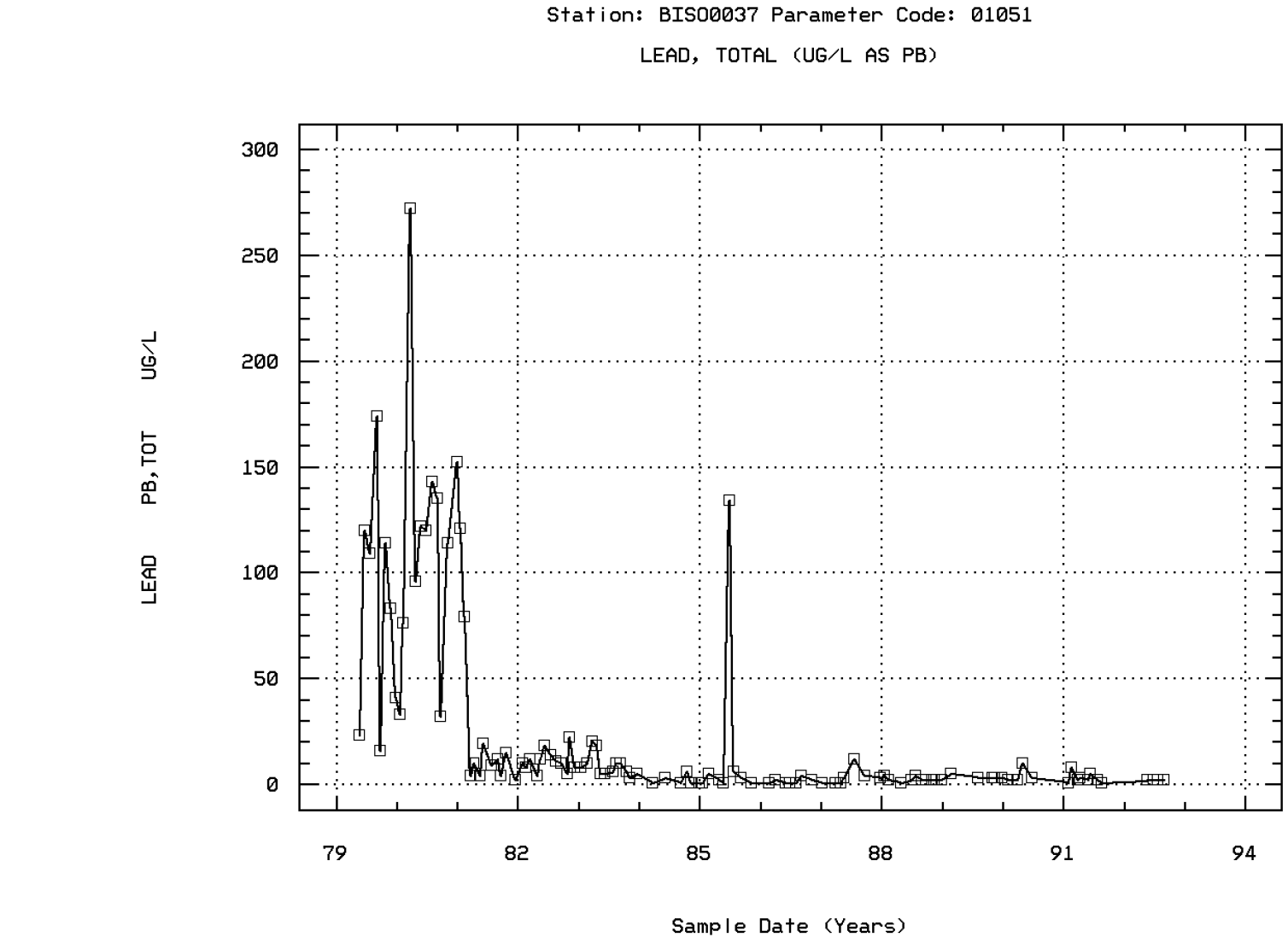
CHROMIUM, TOTAL (UG/L AS CR)



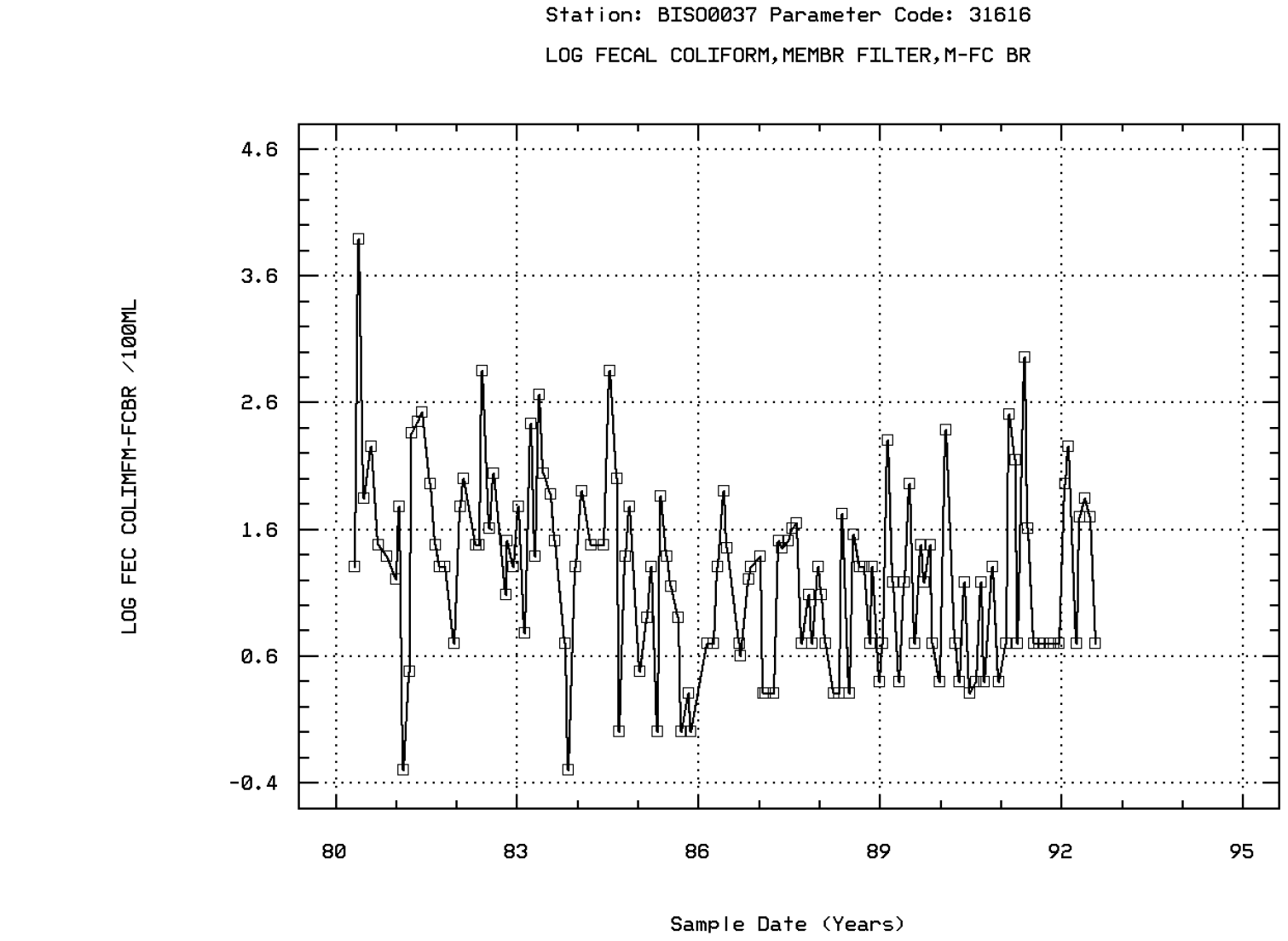
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



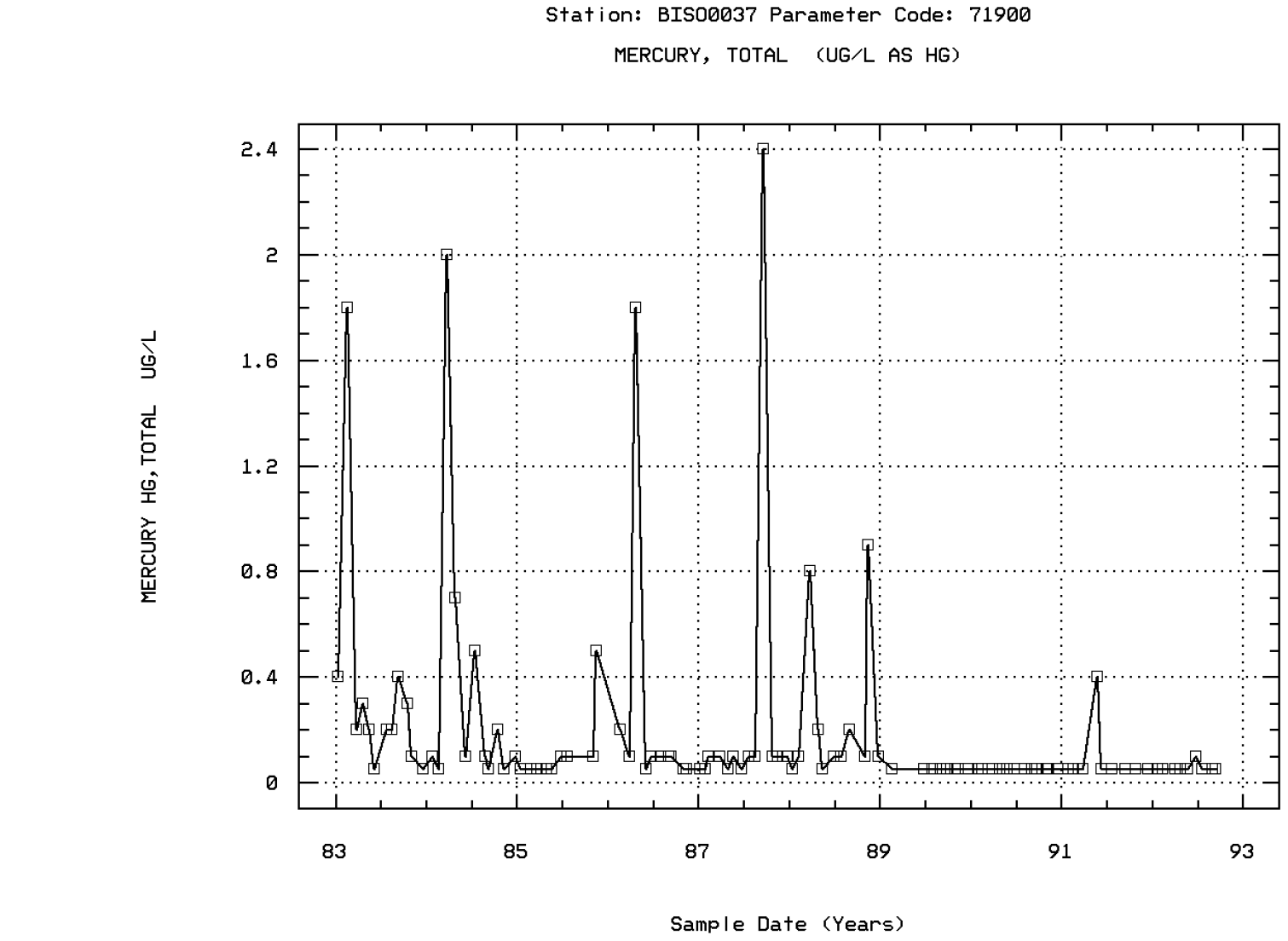
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Annual Analysis for 1979 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	9	18.	16.467	24.7	5.	42.248	6.5	5.	11.5	22.	24.7
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	9	131.	137.667	275.	76.	3114.75	55.81	76.	109.5	142.	275.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	9	135.	146.333	293.	80.	3557.	59.641	80.	115.5	153.	293.
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	9	8.2	9.011	13.	6.8	3.594	1.896	6.8	7.75	10.25	13.
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	5	0.7	0.68	1.	0.1	0.122	0.349	**	**	**	**
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	8	5.45	9.65	24.	1.3	82.177	9.065	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	8	7.15	7.213	7.7	6.8	0.121	0.348	**	**	**	**
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	8	7.147	7.104	7.7	6.8	0.135	0.367	**	**	**	**
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	8	0.071	0.079	0.158	0.02	0.003	0.053	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	8	7.05	7.088	7.6	6.8	0.081	0.285	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	8	7.047	7.018	7.6	6.8	0.087	0.294	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	8	0.09	0.096	0.158	0.025	0.002	0.05	**	**	**	**
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	9	23.	24.667	44.	13.	90.	9.487	13.	18.5	30.5	44.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	8	2.5	2.875	8.	1.	4.982	2.232	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	9	6.	56.667	191.	1.	6728.	82.024	1.	2.5	148.	191.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	5	0.08	0.097	0.24	0.025	0.007	0.084	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	5	0.35	0.394	0.81	0.18	0.067	0.26	**	**	**	**
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	5	0.11	0.134	0.24	0.07	0.004	0.066	**	**	**	**
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	5	0.01	0.025	0.085	0.005	0.001	0.034	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	3	37.	43.	63.	29.	316.	17.776	**	**	**	**
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	9	4.	3.556	5.	2.	0.778	0.882	2.	3.	4.	5.
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	8	38.25	44.063	102.	19.8	598.1	24.456	**	**	**	**
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	9 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	8	1.5	9.25	39.	1.	182.5	13.509	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	9	6.	8.056	20.	0.5	32.778	5.725	0.5	4.5	11.	20.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	8	3.	3.938	13.	0.5	15.888	3.986	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	9	4.	6.111	26.	1.	61.611	7.849	1.	1.5	7.	26.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	8	4.	5.25	10.	2.	9.357	3.059	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	9	194.	210.444	462.	100.	12435.778	111.516	100.	122.	252.	462.
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	9	81.	79.444	152.	4.	2360.278	48.583	4.	44.	124.	152.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	8	96.	85.	174.	16.	3015.429	54.913	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	9	120.	130.	218.	66.	2406.	49.051	66.	93.	165.	218.
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	9	13.	23.	90.	6.	765.25	27.663	6.	7.5	30.	90.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	9	78.	88.667	156.	58.	881.	29.682	58.	67.	100.	156.
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	1	36.	36.	36.	36.	0.	0.	**	**	**	**
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	9	2.1	21.3	90.	0.8	1049.38	32.394	0.8	1.1	46.	90.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1980 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	11	17.5	16.091	28.	3.	90.891	9.534	3.2	7.	25.	27.9
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	11	146.	152.636	273.	76.	4450.455	66.712	76.6	102.	206.	267.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	11	160.	165.364	260.	79.	4480.255	66.935	80.8	107.	220.	258.
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	11	8.2	8.791	14.	5.2	6.805	2.609	5.32	6.5	10.	13.48
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	11	0.4	0.627	2.1	0.1	0.372	0.61	0.12	0.2	0.8	1.96
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	11	4.4	6.3	15.	1.5	18.34	4.283	1.76	3.2	7.8	14.6
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	11	6.7	6.773	7.4	6.5	0.074	0.272	6.5	6.6	7.	7.32
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	11	6.7	6.711	7.4	6.5	0.078	0.28	6.5	6.6	7.	7.32
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	11	0.2	0.195	0.316	0.04	0.008	0.091	0.052	0.1	0.251	0.316
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	11	7.	7.009	7.2	6.8	0.013	0.114	6.82	6.9	7.1	7.18
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	11	7.	6.995	7.2	6.8	0.013	0.115	6.82	6.9	7.1	7.18
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	11	0.1	0.101	0.158	0.063	0.001	0.027	0.066	0.079	0.126	0.152
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	11	15.	19.545	49.	10.	128.473	11.335	10.4	12.	25.	44.8
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	11	2.	2.636	4.	2.	0.855	0.924	2.	2.	4.	4.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	11	11.	60.727	316.	1.	11690.018	108.12	1.8	6.	56.	299.2

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1980 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11	0.11	0.107	0.18	0.05	0.001	0.037	0.052	0.07	0.13	0.172
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	11	0.34	0.361	0.64	0.21	0.025	0.158	0.212	0.23	0.52	0.634
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	11	0.16	0.16	0.26	0.07	0.005	0.069	0.074	0.09	0.23	0.256
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	11	0.02	0.049	0.235	0.005	0.005	0.067	0.006	0.01	0.05	0.208
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	11	46.	46.727	94.	19.	656.818	25.628	19.4	25.	69.	91.4
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	11	3.	4.273	9.	1.	7.018	2.649	1.2	2.	7.	8.8
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	11	46.8	48.236	92.8	20.3	675.821	25.997	20.48	25.3	75.	90.8
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	11 ##	0.05	0.055	0.1	0.05	0.	0.015	0.05	0.05	0.05	0.09
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	6	1.75	4.5	19.	1.	51.	7.141	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	11	10.	14.818	43.	6.	118.964	10.907	6.4	8.	21.	39.2
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	2	11.	11.	15.	7.	32.	5.657	**	**	**	**
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	11	1.	2.682	11.	0.5	10.564	3.25	0.5	0.5	4.	10.
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	11	2.	3.182	10.	1.	6.364	2.523	1.	2.	4.	8.8
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	3.	4.364	11.	1.	9.655	3.107	1.2	2.	7.	10.4
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	2	1155.	1155.	1446.	864.	169362.	411.536	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	11	90.	126.636	374.	42.	10030.855	100.154	42.6	50.	190.	342.8
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	11	116.	145.364	420.	56.	10830.255	104.069	58.	80.	195.	376.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	11	120.	117.727	272.	32.	4269.018	65.338	32.2	76.	143.	248.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	2	196.	196.	226.	166.	1800.	42.426	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	11	168.	156.182	272.	60.	4942.764	70.305	62.8	86.	198.	267.2
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	11	9.	14.364	46.	6.	154.255	12.42	6.2	8.	14.	42.8
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	2	9.	9.	10.	8.	2.	1.414	**	**	**	**
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	8	27.	1006.25	7700.	10.	7318459.929	2705.265	**	**	**	**
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	8	1.429	1.794	3.886	1.	0.87	0.933	**	**	**	**
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			62.182								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	2	34999.	34999.	49999.	19999.	450000000.	21213.203	**	**	**	**
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	10	112.	114.6	190.	56.	2089.822	45.715	56.6	63.5	148.	188.2
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	11	2.6	14.318	74.	1.	599.138	24.477	1.16	1.8	8.2	69.4

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Annual Analysis for 1981 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	11	15.	14.136	27.	2.	64.705	8.044	2.4	8.5	20.	26.2
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	11	139.	163.	281.	88.	3753.4	61.265	89.4	125.	220.	270.8
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	11	156.	163.727	273.	87.	3399.218	58.303	90.4	120.	219.	265.2
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	11	7.7	8.755	14.8	4.8	8.537	2.922	4.94	7.	10.4	14.24
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	11	0.9	1.291	2.8	0.4	0.697	0.835	0.42	0.8	2.	2.76
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	11	7.3	7.736	13.	2.5	12.613	3.551	2.94	4.9	11.2	13.
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	9	6.9	6.922	7.2	6.8	0.014	0.12	6.8	6.85	6.95	7.2
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	9	6.9	6.909	7.2	6.8	0.015	0.121	6.8	6.85	6.95	7.2
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	9	0.126	0.123	0.158	0.063	0.001	0.029	0.063	0.113	0.142	0.158
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	11	6.9	7.064	8.7	6.7	0.317	0.563	6.7	6.8	7.	8.4
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	11	6.9	6.917	8.7	6.7	0.34	0.583	6.7	6.8	7.	8.4
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	11	0.126	0.121	0.2	0.002	0.003	0.058	0.014	0.1	0.158	0.2
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	11	21.	22.727	40.	14.	50.218	7.086	14.4	18.	26.	37.4
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	11	4.	3.909	6.	0.	2.291	1.514	0.6	4.	5.	5.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	11	11.	23.727	90.	1.	798.018	28.249	1.6	4.	49.	82.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11	0.05	0.054	0.12	0.025	0.001	0.035	0.025	0.025	0.07	0.118
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	11	0.35	0.366	0.65	0.18	0.015	0.123	0.198	0.29	0.42	0.608
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	11	0.24	0.221	0.43	0.05	0.01	0.101	0.058	0.15	0.26	0.4
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	11	0.033	0.04	0.14	0.004	0.002	0.04	0.005	0.01	0.049	0.127
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	11	60.	67.273	107.	37.	508.618	22.553	38.6	51.	86.	105.6
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	11	4.	4.818	8.	2.	3.764	1.94	2.2	3.	7.	7.8
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	11	48.2	50.445	93.6	19.3	437.229	20.91	22.36	34.6	65.4	89.68

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Annual Analysis for 1981 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	11 ##	0.05	0.073	0.16	0.05	0.002	0.041	0.05	0.05	0.11	0.154
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	11	1.	1.136	3.	0.5	0.555	0.745	0.5	0.5	1.	2.8
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	4	35.5	34.75	44.	24.	95.583	9.777	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	3	1.	3.833	10.	0.5	28.583	5.346	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	11	1.	2.591	13.	0.5	16.741	4.092	0.5	0.5	2.	12.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	11 ##	0.5	1.	2.	0.5	0.45	0.671	0.5	0.5	2.	2.
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	3	2.	1.667	2.	1.	0.333	0.577	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	2.	2.909	6.	1.	2.891	1.7	1.2	2.	4.	6.
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	11	1030.	1252.	2980.	130.	859488.8	927.086	191.2	560.	2100.	2912.
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	11	156.	182.364	552.	50.	20553.255	143.364	51.	70.	258.	497.6
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	3	5.	42.	118.	3.	4333.	65.826	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	11	10.	25.364	121.	2.	1476.855	38.43	2.4	4.	19.	112.6
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	11	148.	146.182	226.	35.	3169.764	56.301	48.	103.	204.	223.6
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	11	130.	130.545	214.	75.	1601.673	40.021	77.	97.	150.	205.2
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	3	7.	7.333	9.	6.	2.333	1.528	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	11	10.	13.818	40.	5.	104.964	10.245	5.2	8.	16.	36.8
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	11	30.	97.136	330.	0.5	14984.405	122.411	1.	5.	230.	320.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	11	1.477	1.456	2.519	-0.301	0.795	0.892	-0.145	0.699	2.362	2.504
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			28.564								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	11	49992.	59084.	99994.	19992.	1029087091.8	32079.387	19992.4	39992.	99992.	99993.8
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	11	90.	105.273	170.	50.	1535.418	39.184	54.8	76.	128.	169.2
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	2	20.15	20.15	32.	8.3	280.845	16.758	**	**	**	**
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	11	3.	9.282	26.	1.2	85.582	9.251	1.36	2.	15.	25.6

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Annual Analysis for 1982 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	12	13.5	15.292	26.	1.5	54.748	7.399	3.45	11.	21.75	25.7
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	12	123.5	143.833	299.	60.	4803.788	69.309	66.	99.5	184.75	281.3
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	12	115.5	146.083	311.	87.	4663.72	68.291	89.1	101.	187.	287.
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	12	8.55	9.042	15.2	5.3	7.454	2.73	5.6	7.2	10.375	14.36
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	12	0.5	0.621	1.8	0.05	0.307	0.554	0.065	0.125	1.1	1.62
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	12	6.45	6.192	10.2	1.4	6.319	2.514	2.03	4.4	8.275	9.87
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	12	6.7	6.723	7.2	6.5	0.048	0.22	6.5	6.51	6.823	7.143
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	12	6.7	6.679	7.2	6.5	0.051	0.225	6.5	6.51	6.822	7.143
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	12	0.2	0.209	0.316	0.063	0.008	0.088	0.073	0.151	0.309	0.316
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	12	6.8	6.883	7.5	6.6	0.082	0.286	6.6	6.7	6.9	7.47
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	12	6.8	6.818	7.5	6.6	0.086	0.294	6.6	6.7	6.9	7.47
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	12	0.158	0.152	0.251	0.032	0.005	0.07	0.034	0.126	0.2	0.251
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	12	21.5	24.25	60.	9.	215.841	14.692	9.	12.75	34.25	53.1
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	12	4.	4.667	13.	2.	8.242	2.871	2.3	3.	5.5	10.9
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	12	17.	31.458	151.	0.5	1838.339	42.876	1.55	5.75	42.25	127.3
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	12	0.055	0.079	0.25	0.025	0.004	0.062	0.025	0.05	0.113	0.211
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	12	0.195	0.194	0.36	0.06	0.008	0.09	0.069	0.133	0.258	0.348
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	12	0.205	0.198	0.32	0.05	0.009	0.093	0.059	0.13	0.293	0.317
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	12	0.027	0.032	0.078	0.009	0.	0.02	0.01	0.016	0.041	0.072
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	12	57.5	63.167	120.	36.	545.061	23.347	37.5	46.75	77.25	109.8
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	12	4.	4.917	8.	3.	3.174	1.782	3.	4.	6.5	8.
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	12	30.5	37.925	88.7	22.	375.126	19.368	23.11	26.05	42.375	80.78
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	12	0.055	0.058	0.09	0.04	0.	0.014	0.043	0.05	0.06	0.087
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	12 ##	0.65	0.733	1.	0.5	0.062	0.25	0.5	0.5	1.	1.
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	4	38.5	40.	47.	36.	24.667	4.967	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	12	1.	1.333	3.	0.5	0.879	0.937	0.5	0.5	2.	3.
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	12	1.	2.042	8.	0.5	5.93	2.435	0.5	0.5	2.	7.4

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Annual Analysis for 1982 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	12	1.5	2.208	10.	0.5	7.021	2.65	0.5	0.625	2.	8.2
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	12	4.	5.167	11.	2.	8.879	2.98	2.	3.	7.	10.7
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	12	6.5	6.917	17.	2.	19.356	4.4	2.3	3.	9.75	15.2
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	12	966.5	1257.333	3760.	522.	870106.606	932.795	544.2	721.75	1160.	3370.
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	12	102.5	127.083	330.	16.	6787.538	82.387	34.6	78.	164.5	297.
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	12	7.5	7.75	20.	2.	25.659	5.065	2.	4.	10.	17.6
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	12	10.5	11.167	22.	4.	25.97	5.096	4.3	8.	13.5	20.8
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	12	131.5	129.	208.	15.	2504.909	50.049	34.5	105.5	166.	199.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	12	112.	111.167	145.	74.	419.606	20.484	78.8	96.25	126.25	141.7
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	12	8.5	12.5	40.	2.	108.273	10.405	2.6	8.	15.75	35.2
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	12	14.	16.	46.	4.	124.182	11.144	4.	8.75	20.5	38.8
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	31.	97.	710.	10.	38369.091	195.88	10.	14.	90.	530.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	1.491	1.593	2.851	1.	0.279	0.528	1.	1.135	1.945	2.608
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			39.148								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	12	41814.	40485.667	82723.	11815.	308472278.788	17563.379	14242.	30606.5	48106.25	72877.9
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	12	83.	88.	188.	50.	1338.909	36.591	52.4	63.5	90.5	168.2
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	8	18.5	33.725	124.	2.8	1596.834	39.96	**	**	**	**
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	12	6.	18.717	100.	1.8	847.547	29.113	2.4	4.	22.5	85.

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Annual Analysis for 1983 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	12	11.	14.167	27.	6.	67.97	8.244	6.	7.	23.25	26.7
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	12	161.	206.667	340.	102.	8451.697	91.933	103.2	135.	311.25	337.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	12	150.5	198.417	356.	92.	9525.538	97.599	95.	118.25	299.25	349.4
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	12	9.6	8.7	10.8	5.2	3.485	1.867	5.38	7.375	10.15	10.68
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	12	0.4	0.458	1.3	0.05	0.14	0.375	0.05	0.15	0.725	1.18
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	12	4.2	23.725	236.	1.	4471.964	66.873	1.51	3.525	6.725	167.33
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	12	6.85	6.9	7.3	6.6	0.049	0.222	6.6	6.725	7.1	7.24
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	12	6.847	6.851	7.3	6.6	0.052	0.227	6.6	6.725	7.1	7.24
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	12	0.142	0.141	0.251	0.05	0.005	0.068	0.059	0.079	0.189	0.251
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	12	7.25	7.15	7.7	6.4	0.19	0.436	6.43	6.725	7.45	7.7
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	12	7.247	6.935	7.7	6.4	0.24	0.49	6.43	6.725	7.45	7.7
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	12	0.057	0.116	0.398	0.02	0.017	0.129	0.02	0.036	0.208	0.374
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	12	19.	20.75	30.	12.	41.295	6.426	12.6	15.	27.25	30.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	12	3.	5.5	27.	2.	49.909	7.065	2.	2.	5.	21.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	12	6.5	12.875	67.	0.5	322.642	17.962	1.55	5.	16.	52.9
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	12 ##	0.04	0.061	0.16	0.025	0.002	0.047	0.025	0.025	0.087	0.153
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	12	0.219	0.356	1.03	0.11	0.085	0.292	0.119	0.156	0.47	0.967
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	12	0.185	0.154	0.31	0.02	0.011	0.105	0.023	0.05	0.248	0.295
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	12	0.037	0.04	0.078	0.011	0.001	0.023	0.012	0.02	0.065	0.075
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	6	3.8	3.883	4.7	3.3	0.27	0.519	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	12	57.	68.583	120.	37.	773.174	27.806	37.3	44.25	89.	114.6
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	6	20.65	19.967	30.3	7.1	95.239	9.759	**	**	**	**
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	6	8.8	8.6	12.4	4.4	6.724	2.593	**	**	**	**
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	6	7.9	7.717	16.7	0.9	33.654	5.801	**	**	**	**
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	6	2.515	2.528	3.26	1.78	0.232	0.482	**	**	**	**
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	12	6.	8.833	34.	3.	73.97	8.601	3.	4.	10.75	27.7
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	12	41.3	56.192	97.7	21.8	877.723	29.626	22.94	32.325	89.6	96.65
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	12	0.045	0.053	0.11	0.025	0.001	0.028	0.025	0.03	0.078	0.104
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	12 ##	0.75	0.833	2.	0.5	0.197	0.444	0.5	0.5	1.	1.7
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	8	72.	70.625	104.	30.	656.839	25.629	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	12 ##	0.75	2.75	20.	0.5	31.886	5.647	0.5	0.5	1.	15.8
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	12 ##	0.75	2.833	20.	0.5	31.652	5.626	0.5	0.5	1.75	15.8

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Annual Analysis for 1983 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	12	2.	2.667	7.	0.5	4.015	2.004	0.5	1.	4.	6.4
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	12	7.5	13.417	55.	1.	244.629	15.641	1.	2.	22.	45.4
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	12	11.5	19.	98.	1.	713.636	26.714	1.3	2.5	21.	78.8
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	12	474.5	519.917	1050.	250.	56444.447	237.58	256.	326.5	587.5	996.
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	12	38.5	55.167	190.	2.	2983.788	54.624	2.9	14.	78.5	166.
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	12	5.	5.833	13.	1.	14.879	3.857	1.	2.	9.5	12.1
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	12	7.	8.833	20.	3.	27.97	5.289	3.6	5.	10.	19.4
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	12	153.	164.667	350.	22.	6956.788	83.407	43.6	115.	217.5	320.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	12	142.	150.	330.	14.	6315.636	79.471	35.	95.	195.	297.
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	12	18.5	36.917	208.	2.	3195.538	56.529	3.2	7.5	45.	162.4
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	12	26.	96.	930.	4.	69112.182	262.892	4.9	8.5	31.5	662.1
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	6	154.5	185.333	344.	65.	12071.867	109.872	**	**	**	**
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	28.	89.375	460.	0.5	19284.688	138.869	1.85	7.	101.25	403.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	1.443	1.429	2.663	-0.301	0.671	0.819	-0.001	0.834	2.	2.593
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			26.87								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	12	46563.5	50434.333	92722.	19903.	707124937.879	26591.821	19903.3	29934.5	79902.75	91909.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	12	92.	124.333	206.	56.	3492.97	59.101	59.	76.	189.	204.8
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	12	0.2	0.35	1.8	0.05	0.222	0.471	0.05	0.125	0.375	1.38
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	8	5.2	10.9	42.	0.4	205.691	14.342	**	**	**	**
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	12	5.8	10.25	45.	2.2	159.208	12.618	2.38	3.85	8.5	39.3

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Annual Analysis for 1984 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	11	14.	15.8	25.	7.	46.59	6.826	7.3	9.	23.	24.8
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	7	263.	624.	2340.	66.	634893.667	796.802	**	**	**	**
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	11	166.	167.	257.	88.	2812.4	53.032	93.2	126.	219.	250.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	11	142.	164.545	270.	88.	3160.073	56.215	93.6	134.	219.	264.8
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	11	9.3	9.318	12.4	6.1	3.01	1.735	6.38	8.2	10.6	12.1
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	11	0.5	0.468	0.9	0.05	0.074	0.272	0.06	0.3	0.7	0.88
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	11	4.8	8.136	29.8	2.9	64.481	8.03	2.96	3.3	9.	26.84
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	11	6.7	6.691	7.2	6.2	0.123	0.351	6.22	6.3	7.1	7.18
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	11	6.7	6.572	7.2	6.2	0.138	0.372	6.22	6.3	7.1	7.18
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	11	0.2	0.268	0.631	0.063	0.039	0.196	0.066	0.079	0.501	0.605
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	10	7.45	7.39	7.8	6.9	0.063	0.251	6.93	7.2	7.525	7.78
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	10	7.447	7.321	7.8	6.9	0.069	0.262	6.93	7.2	7.525	7.78
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	10	0.036	0.048	0.126	0.016	0.001	0.032	0.017	0.03	0.063	0.12
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	11	21.	19.909	28.	8.	49.091	7.006	8.8	14.	27.	28.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	11	2.	2.273	4.	1.	1.018	1.009	1.	1.	3.	3.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	11	9.	36.455	235.	2.	4595.673	67.791	2.6	6.	37.	198.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11 ##	0.025	0.024	0.025	0.013	0.	0.004	0.015	0.025	0.025	0.025
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	11	0.221	0.269	0.704	0.068	0.037	0.192	0.071	0.118	0.323	0.666
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	11	0.2	0.167	0.36	0.01	0.011	0.106	0.012	0.06	0.23	0.34
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	11	0.041	0.05	0.154	0.011	0.002	0.041	0.011	0.026	0.047	0.142
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	11	1.4	1.736	4.9	0.6	1.585	1.259	0.62	0.9	1.8	4.56
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	11	50.	59.273	88.	31.	432.818	20.804	32.8	43.	84.	88.
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	10	12.45	16.3	42.5	4.8	122.278	11.058	5.14	8.35	21.725	40.79
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	11	5.6	6.009	10.1	2.7	6.735	2.595	2.84	3.6	9.1	9.98
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	11	4.4	5.645	11.5	1.9	9.035	3.006	2.14	3.5	8.2	11.
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	10	1.635	1.705	3.18	1.2	0.337	0.58	1.2	1.313	1.823	3.057
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	11	6.	5.273	9.	2.	5.618	2.37	2.2	3.	7.	8.8
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	11	38.6	44.173	73.6	20.9	293.868	17.143	22.64	34.6	59.1	73.32
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	11	0.05	0.063	0.14	0.025	0.002	0.04	0.025	0.025	0.08	0.136
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	11	1.	0.864	2.	0.5	0.205	0.452	0.5	0.5	1.	1.8

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Annual Analysis for 1984 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	11	30.	31.909	54.	21.	81.491	9.027	21.4	25.	37.	50.8
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/21/79-07/10/84	6 ##	0.5	0.667	1.	0.5	0.067	0.258	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	11 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	11	1.	1.864	10.	0.5	7.705	2.776	0.5	0.5	2.	8.4
01040	COPPER, DISSOLVED (UG/L AS CU)	03/21/79-07/10/84	6	11.5	32.583	146.	0.5	3178.642	56.379	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	3.	7.909	49.	1.	195.091	13.967	1.	2.	5.	41.6
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	10	495.	765.	3560.	60.	1051316.667	1025.337	73.	205.	820.	3307.
01046	IRON, DISSOLVED (UG/L AS FE)	03/21/79-07/10/84	6	65.	88.333	280.	20.	9256.667	96.212	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	03/21/79-07/10/84	6 ##	0.5	2.5	10.	0.5	14.5	3.808	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	11	1.	1.455	6.	0.5	2.773	1.665	0.5	0.5	1.	5.4
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	10	135.	143.	250.	90.	2245.556	47.387	90.	112.5	160.	244.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/21/79-07/10/84	6	100.	116.667	240.	70.	3906.667	62.503	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/21/79-07/10/84	6	14.25	20.083	52.	2.	343.842	18.543	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	10	9.	9.4	20.	3.	24.044	4.904	3.2	5.75	11.75	19.4
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	11	216.	357.	1870.	58.	268533.8	518.202	64.6	102.	297.	1598.6
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	10	30.	104.5	700.	1.	44819.389	211.706	1.9	10.	85.	640.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	10	1.477	1.486	2.845	0.	0.563	0.75	0.1	1.	1.927	2.761
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			30.625								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	11	32215.	41137.636	89904.	12713.	669233204.655	25869.542	14151.	22735.	42722.	89904.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	11	92.	98.545	178.	58.	1272.073	35.666	58.4	72.	128.	169.2
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	11	0.1	0.359	2.	0.05	0.341	0.584	0.05	0.05	0.5	1.74
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	11	15.	27.073	100.	3.2	900.242	30.004	3.48	4.8	50.	90.4
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	11	12.	45.945	330.	3.	9176.863	95.796	3.1	3.9	34.	276.

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Annual Analysis for 1985 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	10	17.	15.9	26.	2.	60.822	7.799	2.65	9.25	22.25	26.
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	11	691.	741.545	1790.	87.	267637.273	517.337	96.8	246.	1100.	1666.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	10	111.	136.6	225.	66.	2781.156	52.737	69.5	101.75	197.	222.5
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	6	124.	147.833	232.	106.	2479.367	49.793	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	10	9.15	9.52	12.4	7.	3.093	1.759	7.1	8.	11.35	12.34
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	8	0.65	0.588	1.3	0.05	0.246	0.496	**	**	**	**
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	7	6.1	6.043	11.	1.9	10.526	3.244	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	10	7.25	7.02	7.5	6.1	0.224	0.473	6.13	6.55	7.3	7.48
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	10	7.247	6.744	7.5	6.1	0.308	0.555	6.13	6.55	7.3	7.48
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	10	0.057	0.18	0.794	0.032	0.061	0.247	0.033	0.05	0.288	0.755
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	8	7.3	7.288	7.5	6.9	0.041	0.203	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	8	7.3	7.242	7.5	6.9	0.044	0.209	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	8	0.05	0.057	0.126	0.032	0.001	0.032	**	**	**	**
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	9	21.	19.556	27.	11.	37.028	6.085	11.	13.	25.5	27.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	6	2.5	2.5	3.	2.	0.3	0.548	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	7	2.	13.143	71.	1.	659.143	25.674	**	**	**	**
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	10 ##	0.025	0.032	0.065	0.025	0.	0.015	0.025	0.025	0.033	0.064
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	9	0.079	0.117	0.318	0.025	0.009	0.097	0.025	0.039	0.189	0.318
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	10	0.11	0.118	0.25	0.03	0.006	0.078	0.03	0.038	0.183	0.247
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	10	0.011	0.018	0.05	0.002	0.	0.016	0.002	0.006	0.029	0.049
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	8	1.8	1.688	2.3	0.8	0.39	0.624	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	10	56.5	66.7	155.	33.	1312.456	36.228	33.8	42.5	82.	148.9
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	8	13.5	13.413	19.	5.5	21.961	4.686	**	**	**	**
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	8	5.05	5.4	7.5	2.7	2.506	1.583	**	**	**	**
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	8	7.05	6.788	11.1	3.	7.661	2.768	**	**	**	**
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	8	1.355	1.379	1.99	0.94	0.117	0.341	**	**	**	**
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	10	5.	6.5	15.	3.	16.278	4.035	3.	3.75	8.25	14.7

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Annual Analysis for 1985 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	10	36.15	39.33	64.	16.7	191.045	13.822	17.8	32.275	51.675	63.15
00950p	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	7 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	8	1.	1.438	6.	0.5	3.46	1.86	**	**	**	**
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	8	27.5	24.75	41.	8.	129.643	11.386	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	9 ##	0.5	1.111	6.	0.5	3.361	1.833	0.5	0.5	0.5	6.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	9	2.	2.722	11.	0.5	11.632	3.411	0.5	0.5	3.5	11.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	9	1.	1.722	5.	0.5	2.507	1.583	0.5	0.5	3.	5.
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	8	495.	681.25	2400.	220.	498726.786	706.206	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	9	2.	16.944	134.	0.5	1930.965	43.943	0.5	0.5	5.5	134.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	8	85.	96.25	150.	70.	712.5	26.693	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	8	11.	9.5	15.	2.	26.571	5.155	**	**	**	**
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	9	77.	190.778	864.	20.	70470.694	265.463	20.	66.5	232.	864.
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	11	8.	14.	72.	1.	434.4	20.842	1.	1.	20.	62.4
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	11	0.903	0.752	1.857	0.	0.409	0.64	0.	0.	1.301	1.762
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			5.646								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	10	22579.	27207.	49903.	10522.	139632196.222	11816.607	11460.4	20362.	34925.25	49215.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	5	84.	100.8	176.	70.	1877.2	43.327	**	**	**	**
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	9 ##	0.05	0.117	0.5	0.05	0.021	0.146	0.05	0.05	0.1	0.5
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	10	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	10	4.3	13.42	73.	1.6	518.848	22.778	1.72	2.95	12.05	68.9
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	8	3.55	18.513	100.	2.	1159.216	34.047	**	**	**	**

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Annual Analysis for 1986 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	11	14.7	16.2	29.	4.	69.95	8.364	4.4	11.	23.5	28.6
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	11	885.	1149.636	4710.	65.	1765744.255	1328.813	79.2	160.	1500.	4136.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	11	146.	160.182	307.	77.	5105.164	71.45	82.8	111.	177.	301.
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	11	9.3	9.264	14.6	6.3	5.235	2.288	6.46	7.1	10.4	13.78
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	3	0.9	1.067	2.2	0.1	1.123	1.06	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	11	7.1	7.145	7.4	6.8	0.039	0.197	6.82	7.	7.3	7.4
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	11	7.1	7.104	7.4	6.8	0.041	0.202	6.82	7.	7.3	7.4
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	11	0.079	0.079	0.158	0.04	0.001	0.037	0.04	0.05	0.1	0.152
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	11	18.	22.455	52.	9.	162.473	12.746	9.8	13.	32.	48.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	9	3.	4.333	12.	0.5	16.438	4.054	0.5	1.25	8.	12.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11 ##	0.025	0.025	0.025	0.025	0.	0.	0.025	0.025	0.025	0.025
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	10	0.178	0.248	0.953	0.025	0.072	0.269	0.025	0.104	0.304	0.895
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	11	0.12	0.171	0.34	0.04	0.011	0.104	0.042	0.1	0.27	0.33
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	11	0.013	0.015	0.06	0.004	0.	0.016	0.004	0.005	0.016	0.052
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	11	2.1	1.964	3.1	0.8	0.611	0.781	0.82	1.2	2.6	3.04
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	11	65.	62.091	97.	23.	481.291	21.938	25.6	52.	72.	96.4
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	11	12.3	13.355	22.7	5.2	27.285	5.223	6.18	10.4	14.5	22.68
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	11	4.6	5.609	9.7	2.5	4.579	2.14	2.84	4.3	6.4	9.54
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	11	6.4	6.909	17.9	2.	25.899	5.089	2.2	3.2	7.1	17.34
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	11	1.28	1.404	2.19	1.03	0.163	0.404	1.03	1.05	1.68	2.154
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	10	5.5	6.57	13.	0.7	14.649	3.827	1.03	4.	10.25	12.8
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	11	39.	42.645	82.3	16.8	416.651	20.412	19.16	29.7	41.9	81.84
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	11 ##	0.5	0.909	3.	0.5	0.541	0.735	0.5	0.5	1.	2.6
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	11	25.	35.455	97.	7.	776.073	27.858	8.4	20.	43.	93.4
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	11 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	11	2.	2.591	5.	0.5	1.841	1.357	0.6	2.	4.	4.8
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	2.	5.591	17.	0.5	38.141	6.176	0.6	2.	13.	16.6
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	11	410.	425.455	610.	290.	9607.273	98.017	296.	340.	500.	598.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	11	1.	1.227	4.	0.5	1.168	1.081	0.5	0.5	2.	3.6
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	11	90.	90.	110.	70.	180.	13.416	70.	80.	100.	108.

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Annual Analysis for 1986 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	11	19.	30.909	115.	6.	1086.491	32.962	6.6	12.	32.	106.2
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	11	101.	131.273	243.	72.	3207.018	56.631	76.	97.	166.	239.4
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	11	16.	19.727	80.	4.	472.618	21.74	4.2	5.	24.	69.6
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	11	1.204	1.112	1.903	0.602	0.167	0.409	0.621	0.699	1.38	1.812
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			12.952								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	11	31943.	29773.909	49904.	10914.	136266057.691	11673.305	12711.8	21229.	40933.	48445.6
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	11	0.1	0.245	1.8	0.05	0.268	0.517	0.05	0.05	0.1	1.48
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	11	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	11	7.2	8.764	23.	3.3	28.885	5.374	3.68	5.4	10.5	20.8

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Annual Analysis for 1987 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	12	13.5	15.208	29.	2.	78.339	8.851	2.9	7.5	23.375	27.8
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	12	522.5	907.083	3220.	41.	1063736.265	1031.376	50.	88.5	1435.	3004.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	12	125.	155.917	277.	72.	5143.72	71.72	75.	95.5	209.25	274.9
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	12	8.8	9.017	12.	6.2	3.729	1.931	6.29	7.225	10.5	11.88
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	2	0.4	0.4	0.6	0.2	0.08	0.283	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.3	7.317	7.9	7.1	0.047	0.217	7.1	7.125	7.4	7.75
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.3	7.277	7.9	7.1	0.049	0.221	7.1	7.125	7.4	7.75
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	12	0.05	0.053	0.079	0.013	0.	0.02	0.021	0.04	0.075	0.079
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	12	15.5	18.167	29.	9.	39.788	6.308	10.2	13.25	23.75	28.1
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	12	4.	11.458	76.	0.5	447.794	21.161	0.65	2.	12.5	59.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	12 ##	0.025	0.048	0.167	0.025	0.003	0.054	0.025	0.025	0.025	0.165
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	12	0.26	0.213	0.381	0.025	0.019	0.139	0.025	0.085	0.334	0.374
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	12	0.085	0.118	0.33	0.02	0.009	0.093	0.026	0.043	0.19	0.297
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	12	0.007	0.013	0.065	0.002	0.	0.017	0.003	0.005	0.014	0.051
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	12	1.85	2.	4.9	0.8	1.385	1.177	0.8	1.05	2.725	4.33
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	12	58.5	60.917	98.	28.	351.174	18.74	32.5	48.5	73.	93.5
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	12	14.45	13.7	20.4	6.	22.167	4.708	6.51	9.05	17.45	20.1
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	12	6.05	5.983	9.	3.4	3.307	1.819	3.43	4.5	6.975	8.94
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	12	5.65	9.367	18.8	1.4	47.342	6.881	1.73	3.75	17.4	18.65
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	12	1.42	1.54	2.63	0.84	0.418	0.647	0.846	0.97	2.208	2.525
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	12	7.5	20.667	146.	2.	1621.879	40.273	2.	3.	15.75	110.9
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	12	36.1	44.575	82.	19.6	386.009	19.647	21.07	31.15	60.75	79.3
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	12	3.	3.125	9.	0.5	7.597	2.756	0.5	0.625	4.	8.4
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	12	21.	29.417	99.	4.	750.629	27.398	4.6	8.5	47.75	84.
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	12 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	12	1.5	1.375	2.	0.5	0.46	0.678	0.5	0.625	2.	2.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	4.	3.864	11.	0.5	8.405	2.899	0.6	2.	5.	10.
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	12	430.	499.167	910.	280.	47535.606	218.027	286.	312.5	665.	892.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	12	1.	2.417	12.	0.5	10.402	3.225	0.5	1.	3.	9.6
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	12	115.	127.5	250.	90.	1838.636	42.879	90.	102.5	137.5	220.
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	12	13.	17.75	77.	6.	359.841	18.969	6.9	10.	15.75	59.6
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	12	152.5	189.333	636.	7.	31134.061	176.448	19.3	79.5	207.75	574.5
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	16.	18.667	44.	2.	253.879	15.934	2.	2.75	32.	42.8
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	1.19	1.032	1.643	0.301	0.293	0.541	0.301	0.401	1.505	1.631
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			10.765								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	12	22629.	26749.917	42713.	11024.	156593418.083	12513.729	11149.7	14558.75	40929.25	42710.6
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	12	0.1	0.279	2.4	0.05	0.447	0.668	0.05	0.063	0.1	1.71
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	11	6.	11.473	30.	3.5	96.284	9.812	3.56	4.	22.	29.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Annual Analysis for 1988 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	12	14.25	14.217	31.	0.1	108.32	10.408	0.37	3.3	24.125	29.5
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	3	393.	412.	701.	142.	78391.	279.984	**	**	**	**
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	12	141.	148.833	200.	80.	1455.788	38.155	89.	121.	190.25	199.4
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	12	9.9	10.525	14.4	6.9	6.058	2.461	7.14	8.525	13.125	14.1
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	3	0.8	0.767	1.1	0.4	0.123	0.351	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.5	7.704	8.42	6.97	0.311	0.558	7.009	7.17	8.275	8.414
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.5	7.437	8.42	6.97	0.389	0.624	7.009	7.17	8.275	8.414
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	12	0.032	0.037	0.107	0.004	0.001	0.035	0.004	0.005	0.068	0.099
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	12	17.5	18.417	27.	11.	23.174	4.814	11.6	15.	23.	25.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	11	5.	4.545	8.	1.	7.073	2.659	1.	2.	8.	8.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	12 ##	0.025	0.025	0.025	0.025	0.	0.	0.025	0.025	0.025	0.025
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	12	0.167	0.156	0.361	0.025	0.011	0.104	0.025	0.044	0.218	0.327
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	12	0.135	0.133	0.29	0.02	0.007	0.082	0.02	0.065	0.203	0.266
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	12	0.008	0.01	0.031	0.004	0.	0.007	0.004	0.006	0.01	0.026
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	12	2.45	2.558	6.8	1.2	2.294	1.514	1.2	1.475	2.875	5.75
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	12	57.5	60.167	91.	47.	162.879	12.762	47.3	51.5	63.75	87.1
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	12	14.6	15.292	24.1	11.8	12.461	3.53	11.89	12.45	17.25	22.36
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	12	5.5	5.875	9.4	4.4	1.682	1.297	4.58	5.1	6.475	8.56
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	12	5.5	7.133	16.1	2.3	17.428	4.175	2.69	4.	10.25	15.05
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	12	1.455	1.517	2.04	0.95	0.174	0.417	0.956	1.145	1.965	2.031
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	11	5.	5.727	11.	3.	6.018	2.453	3.	4.	8.	10.4
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	12	42.2	42.658	76.9	26.2	170.877	13.072	27.91	33.15	47.15	68.92
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	12 ##	0.75	2.083	9.	0.5	9.22	3.036	0.5	0.5	1.75	8.7
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	12	41.5	37.167	61.	9.	317.424	17.816	9.9	23.5	53.75	59.5
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	12 ##	0.5	0.542	1.	0.5	0.021	0.144	0.5	0.5	0.5	0.85
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	12	2.	2.	4.	0.5	1.591	1.261	0.5	1.	3.	4.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	12	2.	3.375	10.	0.5	9.051	3.009	0.65	1.	4.75	9.4
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	12	435.	410.833	580.	230.	12662.879	112.529	242.	285.	482.5	571.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	12	2.	2.042	4.	0.5	1.112	1.054	0.65	1.25	2.	4.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	12	110.	100.	120.	60.	400.	20.	66.	80.	117.5	120.
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	12	9.5	23.667	93.	6.	845.333	29.075	6.	8.	23.75	87.6
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	12	159.5	161.5	397.	63.	8077.727	89.876	68.4	100.	167.	354.1
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	8.5	14.875	52.	2.	250.642	15.832	2.	2.125	20.	47.2
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	0.889	0.913	1.716	0.301	0.274	0.524	0.301	0.325	1.301	1.668
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			8.181								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	10	16717.5	29797.4	81823.	10915.	710948084.933	26663.61	11004.9	12052.5	48862.5	80912.1
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	11	0.1	0.245	0.9	0.05	0.092	0.304	0.05	0.1	0.2	0.88
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	12	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	12	4.	8.642	30.	3.	84.141	9.173	3.	3.	9.875	28.5

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Annual Analysis for 1989 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	11	13.8	14.627	27.9	1.	67.498	8.216	2.12	7.	22.4	27.22
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	12	1170.	3766.917	23300.	652.	42281448.629	6502.419	664.	797.25	3900.	18638.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	11	112.	107.818	148.	60.	765.764	27.672	62.	89.	129.	146.8
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	11	8.2	8.982	13.2	6.8	4.804	2.192	6.8	6.9	10.6	12.9
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	2	1.05	1.05	1.1	1.	0.005	0.071	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	11	7.3	7.2	7.7	6.8	0.066	0.257	6.82	7.	7.3	7.64
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	11	7.3	7.134	7.7	6.8	0.071	0.266	6.82	7.	7.3	7.64
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	11	0.05	0.073	0.158	0.02	0.002	0.042	0.024	0.05	0.1	0.152
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	11	15.	14.364	24.	7.	34.455	5.87	7.2	8.	17.	24.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	11	7.	18.818	106.	3.	901.164	30.019	3.2	4.	21.	90.2
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11 ##	0.025	0.03	0.075	0.025	0.	0.015	0.025	0.025	0.025	0.065
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	11	0.076	0.117	0.353	0.025	0.014	0.117	0.025	0.025	0.152	0.346

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Annual Analysis for 1989 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	10	0.1	0.121	0.25	0.03	0.007	0.082	0.032	0.05	0.195	0.249
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	11	0.006	0.012	0.054	0.003	0.	0.016	0.003	0.003	0.016	0.048
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	10	1.6	1.79	3.5	0.8	0.719	0.848	0.83	1.175	2.25	3.45
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	11	44.	41.091	61.	19.	141.091	11.878	21.	31.	49.	58.8
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	11	10.	11.227	19.9	5.4	27.064	5.202	5.44	6.	14.7	19.84
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	11	4.1	4.191	5.9	1.9	1.539	1.241	2.02	3.6	5.3	5.84
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	11	3.6	3.398	5.1	0.3	3.139	1.772	0.34	2.2	5.05	5.1
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	10	1.095	1.205	1.81	0.88	0.091	0.301	0.885	1.028	1.4	1.793
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	10	2.	2.4	4.	1.	0.933	0.966	1.1	2.	3.25	4.
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	11	28.7	28.827	38.2	13.2	59.92	7.741	14.52	25.7	36.9	38.2
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	11 ##	1.	2.182	6.	1.	3.364	1.834	1.	1.	3.	5.8
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	11	44.	43.636	76.	14.	531.655	23.058	14.6	20.	69.	75.4
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	11 ##	0.5	0.591	1.	0.5	0.041	0.202	0.5	0.5	0.5	1.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	11	2.	1.909	4.	1.	1.091	1.044	1.	1.	3.	3.8
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	3.	3.727	13.	0.5	13.368	3.656	0.5	1.	5.	11.8
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	11	480.	845.273	3890.	260.	1102393.818	1049.949	266.	370.	1020.	3344.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	10 ##	2.	2.2	5.	1.	1.956	1.398	1.	1.	3.	4.8
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	11	100.	126.	320.	60.	5544.	74.458	63.2	80.	140.	296.
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	11	9.	35.636	231.	3.	4430.255	66.56	3.6	7.	23.	196.2
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	11	213.	468.091	1770.	94.	295136.891	543.265	97.4	124.	617.	1656.
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	15.	34.583	200.	2.5	3300.947	57.454	2.5	5.	30.	167.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	1.176	1.136	2.301	0.398	0.357	0.597	0.398	0.699	1.477	2.197
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			13.674								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	9	20912.	28099.556	92332.	10014.	691277077.528	26292.149	10014.	10919.5	36174.5	92332.
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	8 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
72015p	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	8	0.	0.	0.	0.	0.	0.	**	**	**	**
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	11	7.	21.982	100.	1.9	1248.87	35.339	1.96	2.9	19.	97.

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Annual Analysis for 1990 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	12	15.	15.875	27.5	6.	63.613	7.976	6.39	8.15	24.875	27.29
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	12	722.5	1533.917	9890.	67.	7467536.447	2732.679	69.7	122.75	1422.5	7697.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	12	145.5	151.583	250.	101.	2269.72	47.642	101.9	109.75	186.25	232.9
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	12	8.45	9.042	12.6	7.4	2.792	1.671	7.43	7.925	9.95	12.33
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	2	0.9	0.9	1.1	0.7	0.08	0.283	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.1	7.083	7.8	6.4	0.245	0.495	6.4	6.6	7.6	7.77
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.089	6.85	7.8	6.4	0.305	0.552	6.4	6.6	7.6	7.77
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	12	0.082	0.141	0.398	0.016	0.021	0.145	0.017	0.027	0.269	0.398
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	12	19.5	21.	37.	11.	80.727	8.985	11.	13.25	27.75	35.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	12	4.	10.25	62.	1.	299.659	17.311	1.	1.25	14.25	48.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11 ##	0.025	0.023	0.025	0.003	0.	0.007	0.007	0.025	0.025	0.025
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	12	0.179	0.182	0.277	0.084	0.004	0.066	0.093	0.123	0.253	0.271
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	11	0.09	0.109	0.24	0.01	0.006	0.076	0.014	0.03	0.18	0.234
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	12 ##	0.003	0.007	0.021	0.003	0.	0.006	0.003	0.003	0.011	0.019
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	12	2.1	2.083	3.8	0.9	0.631	0.794	0.99	1.475	2.475	3.56
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	12	49.	52.833	92.	35.	321.242	17.923	35.	36.5	65.	84.8
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	10	13.9	14.84	25.8	8.	36.396	6.033	8.12	10.025	18.325	25.66
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	10	5.05	5.4	8.4	3.5	2.636	1.623	3.51	4.05	6.625	8.23
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	11	7.1	6.076	10.5	2.25	10.784	3.284	2.34	2.8	8.9	10.386
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	9	1.89	1.722	2.32	0.96	0.277	0.526	0.96	1.165	2.23	2.32
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	12	2.5	2.404	5.	0.05	2.987	1.728	0.155	0.6	3.75	5.
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	12	34.75	37.908	65.7	24.7	161.05	12.691	25.09	27.075	47.6	60.66
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	11 ##	1.	1.909	10.	0.5	7.641	2.764	0.5	1.	1.	8.6
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	10	33.5	37.8	78.	20.	349.733	18.701	20.1	21.75	46.75	76.3

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Annual Analysis for 1990 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	10 ##	0.5	0.6	1.	0.5	0.044	0.211	0.5	0.5	0.625	1.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	10	1.	1.5	3.	0.5	0.889	0.943	0.5	0.875	2.25	3.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	2.	1.773	3.	0.5	0.668	0.817	0.6	1.	2.	3.
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	10	405.	465.9	950.	160.	61258.1	247.504	171.	281.25	689.75	929.9
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	12 ##	1.	2.083	10.	1.	6.629	2.575	1.	1.	2.	7.9
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	11	79.	82.364	177.	48.	1190.655	34.506	49.4	60.	80.	161.6
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	10	16.5	16.8	33.	3.	97.067	9.852	3.2	8.75	24.	32.7
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	10	141.5	229.2	679.	53.	41609.511	203.984	56.3	101.	334.75	661.3
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	7.5	27.25	240.	2.	4526.659	67.28	2.15	2.5	15.	174.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12	0.849	0.885	2.38	0.301	0.357	0.598	0.33	0.398	1.176	2.056
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			7.681								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	12	20265.	22338.667	42705.	10514.	134703632.788	11606.189	10634.3	12702.5	32484.25	41900.1
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	12 ##	0.05	0.05	0.05	0.05	0.	0.	0.05	0.05	0.05	0.05
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	11	3.4	6.864	34.	1.3	89.427	9.457	1.32	1.5	9.	29.

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Annual Analysis for 1991 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	12	16.5	17.667	29.	5.	70.242	8.381	5.9	10.25	27.	28.55
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	9	1030.	6109.	41200.	65.	177410664.75	13319.559	65.	159.5	5125.	41200.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	12	130.5	133.75	256.	62.	3866.568	62.182	63.2	70.5	181.	239.8
00300p	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	9	8.5	8.611	11.8	5.2	4.351	2.086	5.2	7.15	10.55	11.8
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	2	1.85	1.85	2.6	1.1	1.125	1.061	**	**	**	**
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.15	7.258	8.	6.8	0.143	0.378	6.8	7.	7.625	7.91
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	12	7.147	7.135	8.	6.8	0.159	0.399	6.8	7.	7.625	7.91
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	12	0.071	0.073	0.158	0.01	0.002	0.05	0.013	0.025	0.1	0.158
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	12	19.	20.083	35.	7.	108.811	10.431	7.6	10.25	30.75	33.8
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	12	5.5	36.958	317.	0.5	8027.112	89.594	0.65	3.	25.25	238.4
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	11 ##	0.025	0.025	0.025	0.025	0.	0.	0.025	0.025	0.025	0.025
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	12	0.109	0.162	0.828	0.025	0.049	0.221	0.025	0.025	0.192	0.641
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	10	0.115	0.183	0.69	0.003	0.044	0.211	0.003	0.046	0.273	0.658
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	11 ##	0.003	0.024	0.125	0.003	0.001	0.037	0.003	0.003	0.039	0.109
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	10	1.95	1.95	2.7	1.	0.252	0.502	1.05	1.65	2.3	2.69
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	11	45.	45.	77.	23.	296.4	17.216	23.4	28.	58.	74.8
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	11	11.6	11.527	18.3	6.	17.144	4.141	6.06	8.5	15.2	18.
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	11	4.9	4.764	7.5	2.3	2.445	1.564	2.44	3.8	6.2	7.26
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	11	3.85	5.107	14.4	0.9	18.983	4.357	1.	1.6	7.49	13.8
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	11	1.47	1.617	2.45	0.9	0.28	0.529	0.924	1.09	2.01	2.402
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	12	3.	3.567	7.	0.8	4.544	2.132	1.16	2.	5.75	7.
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	12	37.35	43.05	102.	16.5	623.359	24.967	16.98	21.55	61.8	90.72
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	10 ##	1.	1.35	3.	0.5	0.558	0.747	0.55	1.	2.	2.9
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	11	28.	29.727	68.	5.	298.218	17.269	5.2	24.	34.	63.4
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	11 ##	0.5	0.545	1.	0.5	0.023	0.151	0.5	0.5	0.5	0.9
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	11	2.	1.909	7.	0.5	3.591	1.895	0.5	0.5	2.	6.2
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	11	2.	2.864	11.	0.5	9.105	3.017	0.6	1.	4.	9.8
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	11	320.	1650.545	10900.	186.	9959356.273	3155.845	187.	236.	2010.	9162.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	11	2.	2.364	8.	0.5	5.205	2.281	0.5	1.	3.	7.4
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	11	77.	107.909	410.	30.	10729.891	103.585	34.8	55.	110.	350.4
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	11	9.	17.182	52.	0.5	278.814	16.698	0.6	7.	23.	50.
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	11	194.	636.636	2360.	27.	706161.455	840.334	35.8	76.	1120.	2292.
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12 ##	5.	120.	900.	5.	69181.818	263.024	5.	5.	115.	726.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	12 ##	0.699	1.233	2.954	0.699	0.712	0.844	0.699	0.699	2.01	2.82
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			17.111								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	12	31610.	34960.	82204.	10925.	589334644.909	24276.216	10925.	13544.	42625.75	81549.7
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	9 ##	0.05	0.089	0.4	0.05	0.014	0.117	0.05	0.05	0.05	0.4

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Annual Analysis for 1991 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	12	4.5	13.917	45.	0.8	280.769	16.756	0.83	1.825	30.	43.5

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

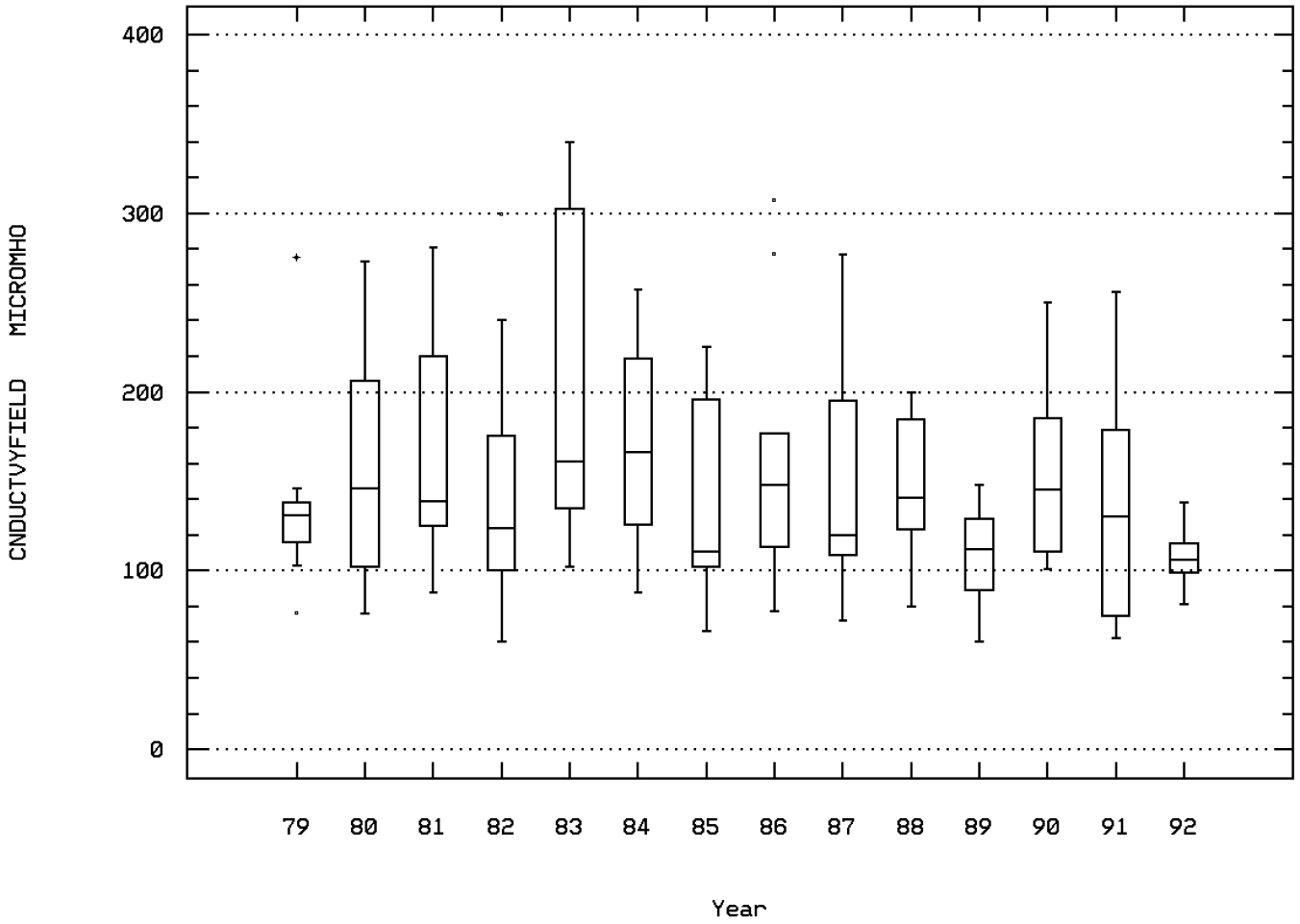
Annual Analysis for 1992 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	9	22.	17.278	26.	2.5	85.499	9.247	2.5	7.25	24.6	26.
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	9	106.	106.556	138.	81.	335.028	18.304	81.	91.5	120.5	138.
00400p	PH (STANDARD UNITS)	03/21/79-09/17/92	9	7.2	7.144	7.6	6.8	0.065	0.255	6.8	6.9	7.3	7.6
00400p	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	9	7.2	7.08	7.6	6.8	0.07	0.264	6.8	6.9	7.3	7.6
00400p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	9	0.063	0.083	0.158	0.025	0.002	0.047	0.025	0.05	0.129	0.158
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	9	18.	22.556	64.	13.	249.528	15.796	13.	15.	21.	64.
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	9	1.	3.278	16.	0.5	24.069	4.906	0.5	1.	3.5	16.
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	8 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	9	0.051	0.072	0.186	0.025	0.004	0.064	0.025	0.025	0.13	0.186
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	9	0.1	0.117	0.2	0.05	0.003	0.053	0.05	0.075	0.165	0.2
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	8 ##	0.004	0.005	0.012	0.003	0.	0.004	**	**	**	**
00680p	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	7	1.8	2.529	5.5	1.4	2.606	1.614	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	9	40.	41.	52.	33.	46.25	6.801	33.	34.5	47.5	52.
00916p	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	9	10.2	10.278	13.5	8.5	2.364	1.538	8.5	8.95	11.05	13.5
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	9	3.6	3.744	5.1	2.7	0.668	0.817	2.7	3.05	4.55	5.1
00929p	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	9	2.75	3.047	4.54	2.03	0.761	0.872	2.03	2.245	3.79	4.54
00937p	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	9	1.11	1.148	1.57	0.76	0.056	0.237	0.76	1.01	1.32	1.57
00940p	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	9	0.5	0.981	2.	0.025	0.955	0.977	0.025	0.05	2.	2.
00946p	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	8	29.45	30.15	50.1	11.9	168.134	12.967	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	9 ##	1.	2.333	7.	1.	7.	2.646	1.	1.	4.	7.
01007p	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	9	23.	22.556	32.	12.	36.528	6.044	12.	18.	26.5	32.
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	9 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01034p	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	9	2.	2.444	6.	1.	2.528	1.59	1.	1.5	3.	6.
01042p	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	9	1.	1.389	2.	0.5	0.361	0.601	0.5	1.	2.	2.
01045p	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	9	278.	371.222	1090.	184.	78169.694	279.588	184.	239.	380.5	1090.
01051p	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	9 ##	1.	1.444	2.	1.	0.278	0.527	1.	1.	2.	2.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	9	60.	68.878	111.	40.	714.834	26.736	40.	45.5	98.45	111.
01092p	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	9	9.	11.667	36.	1.	155.5	12.47	1.	2.5	20.	36.
01105p	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	9	106.	128.222	402.	31.	11846.694	108.843	31.	63.	133.5	402.
31616p	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	9	50.	52.222	180.	5.	3263.194	57.124	5.	7.5	80.	180.
31616p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	9	1.699	1.428	2.255	0.699	0.339	0.582	0.699	0.849	1.9	2.255
31616p	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			26.781								
47501p	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	9	31815.	37100.667	73023.	11824.	476566013.5	21830.392	11824.	20689.5	56913.5	73023.
71900p	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	9 ##	0.05	0.056	0.1	0.05	0.	0.017	0.05	0.05	0.05	0.1
82078p	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	9	3.	7.511	45.	1.5	198.126	14.076	1.5	2.5	3.75	45.

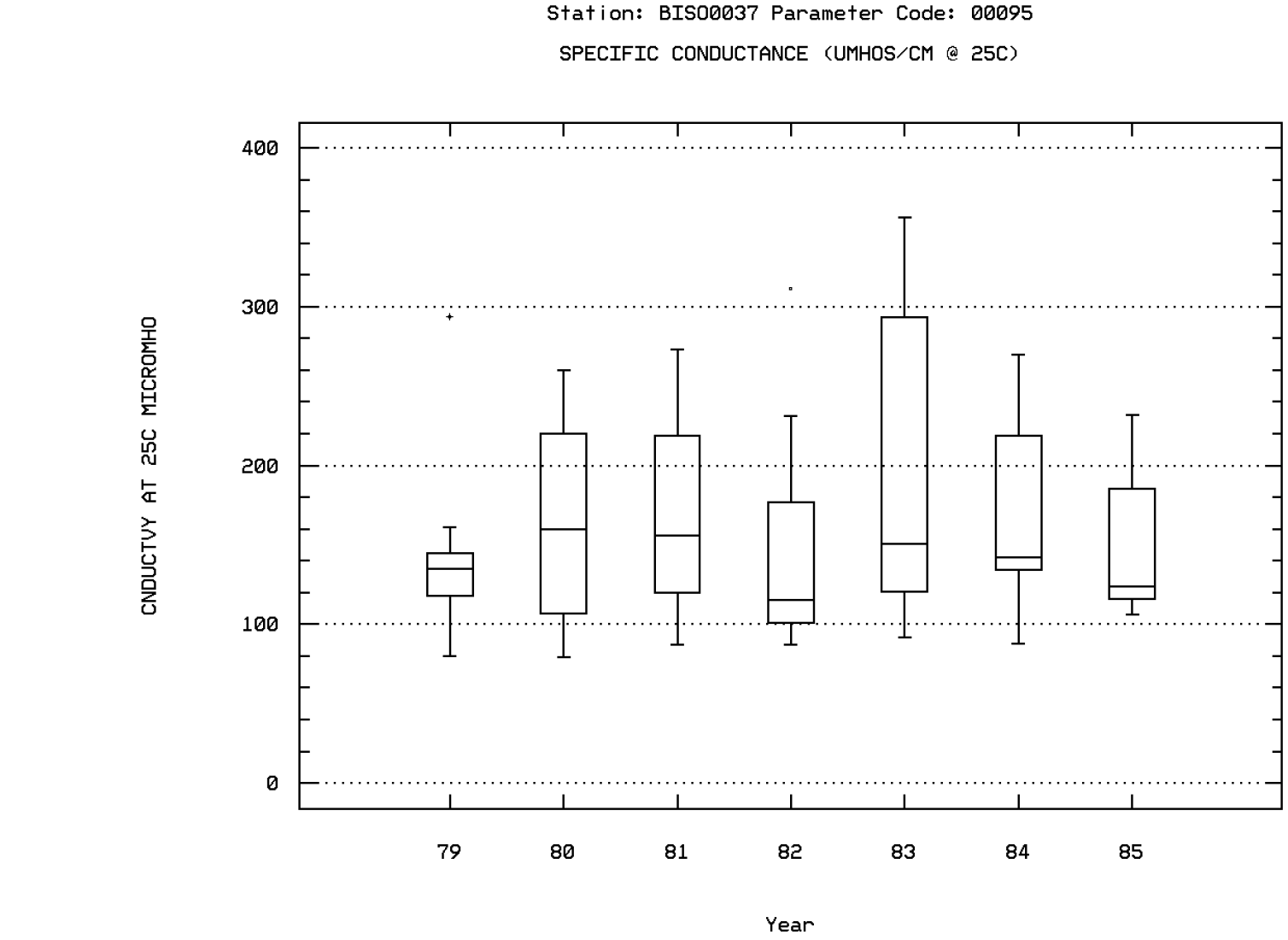
** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station: BISO0037 Parameter Code: 00094

SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @



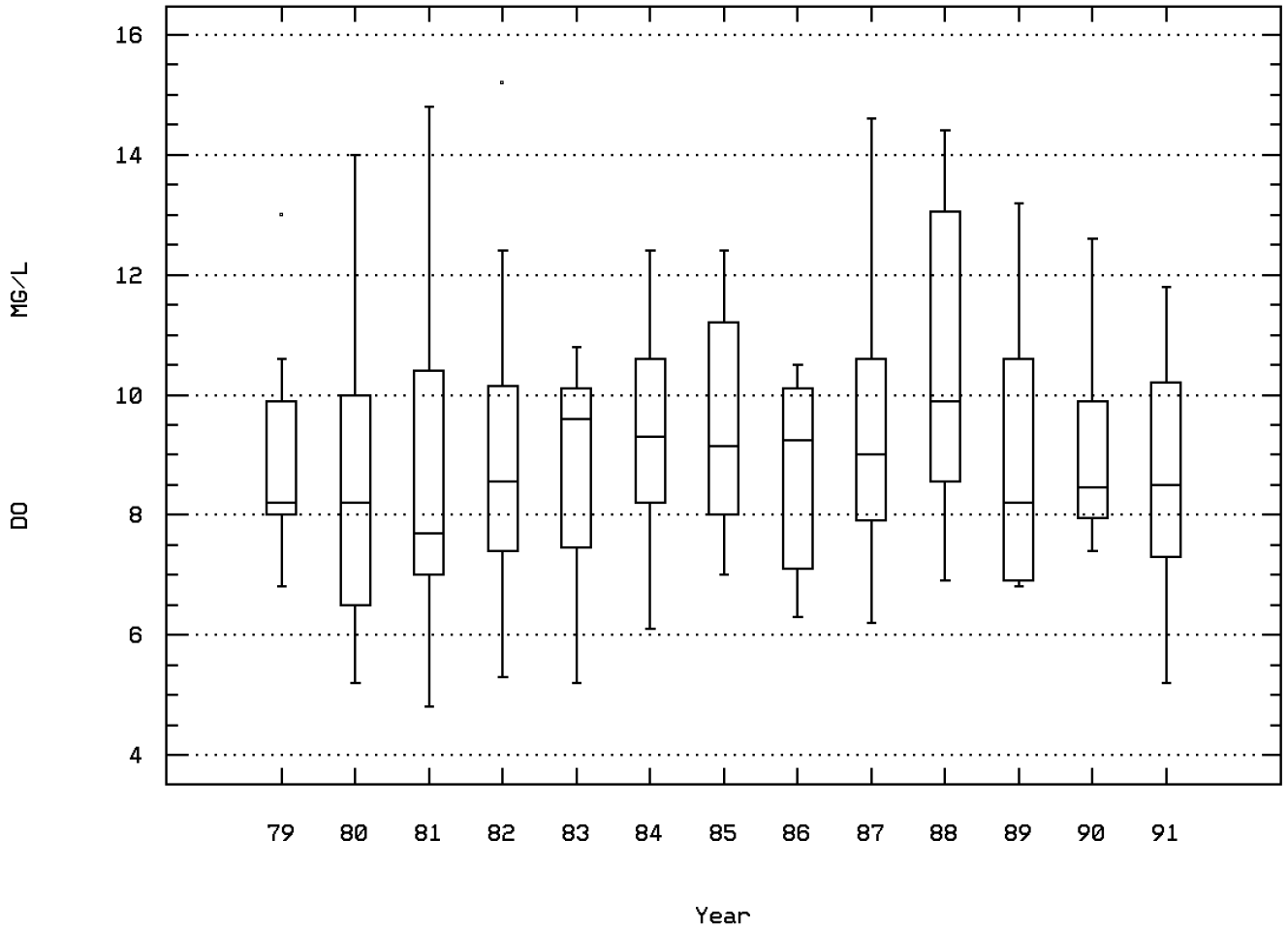
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



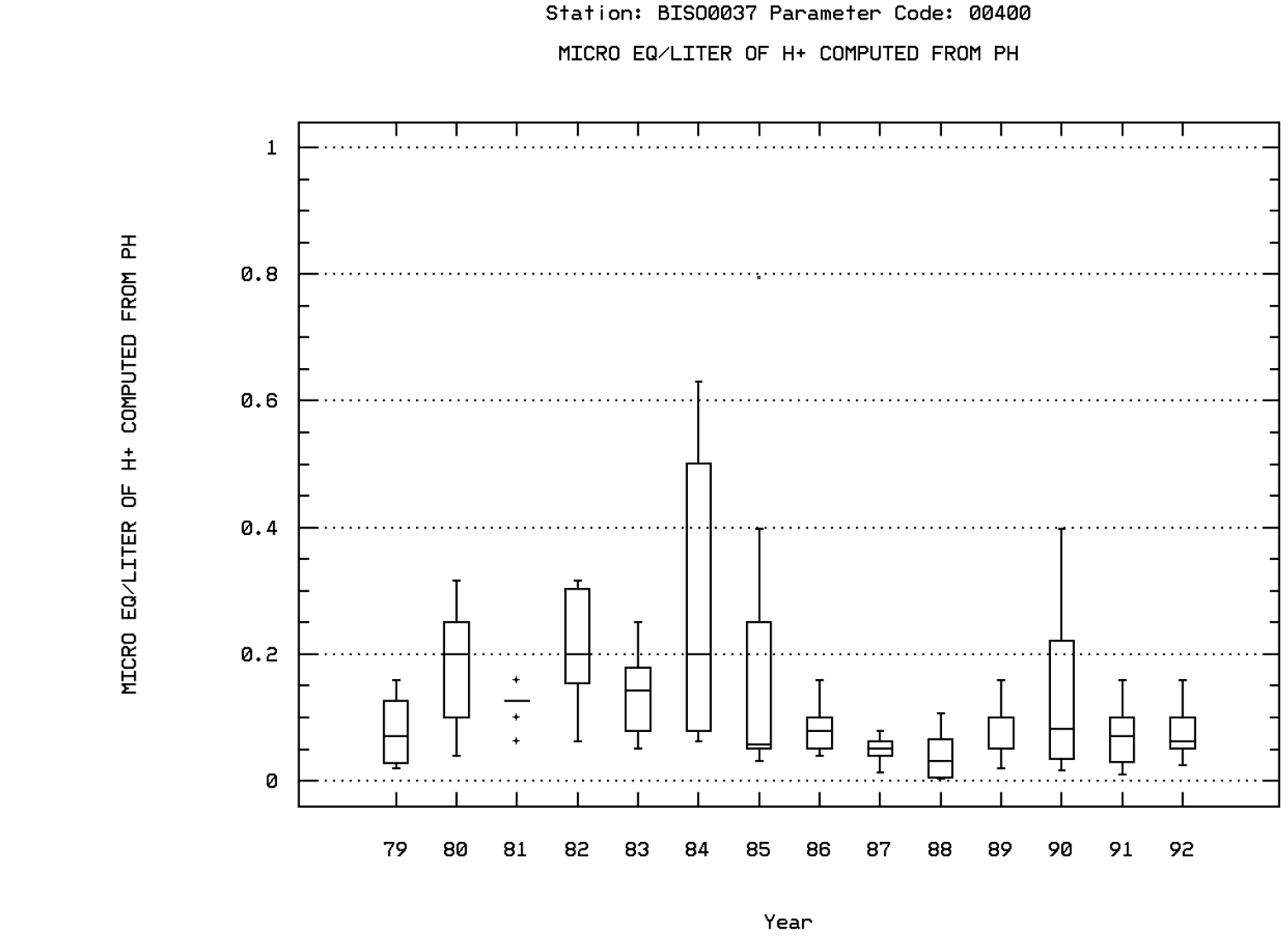
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00300

OXYGEN, DISSOLVED



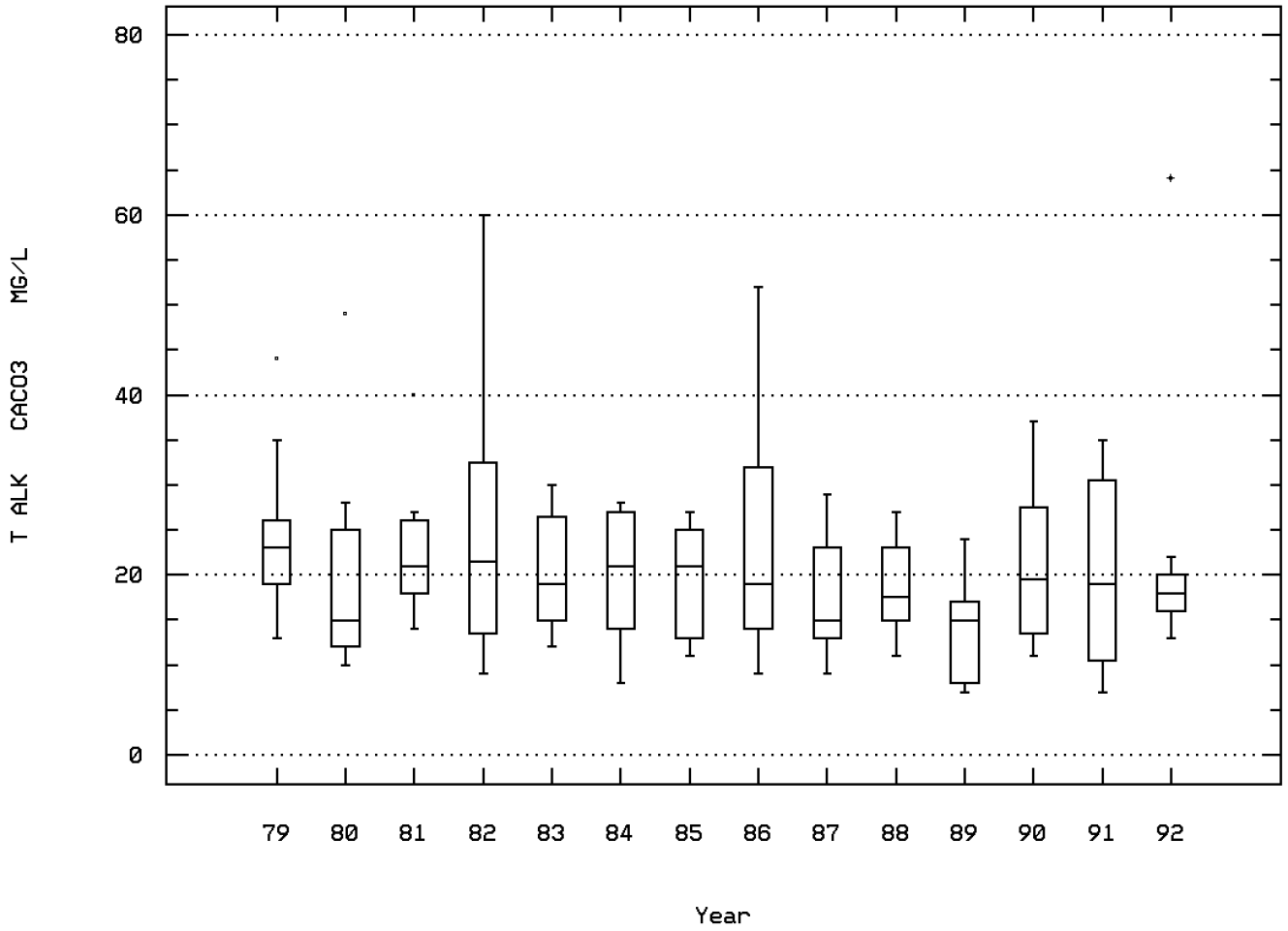
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00410

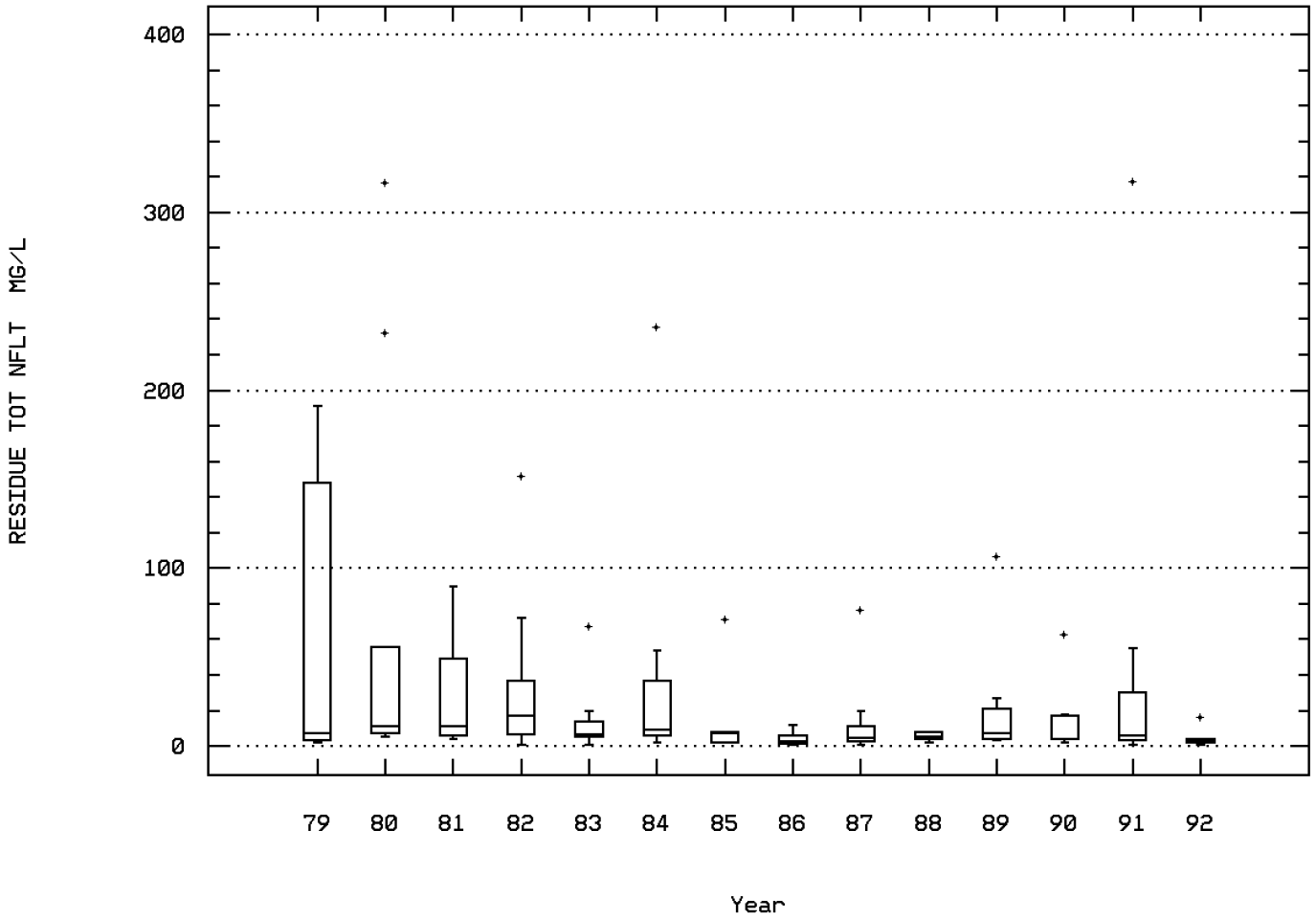
ALKALINITY, TOTAL (MG/L AS CACO3)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00530

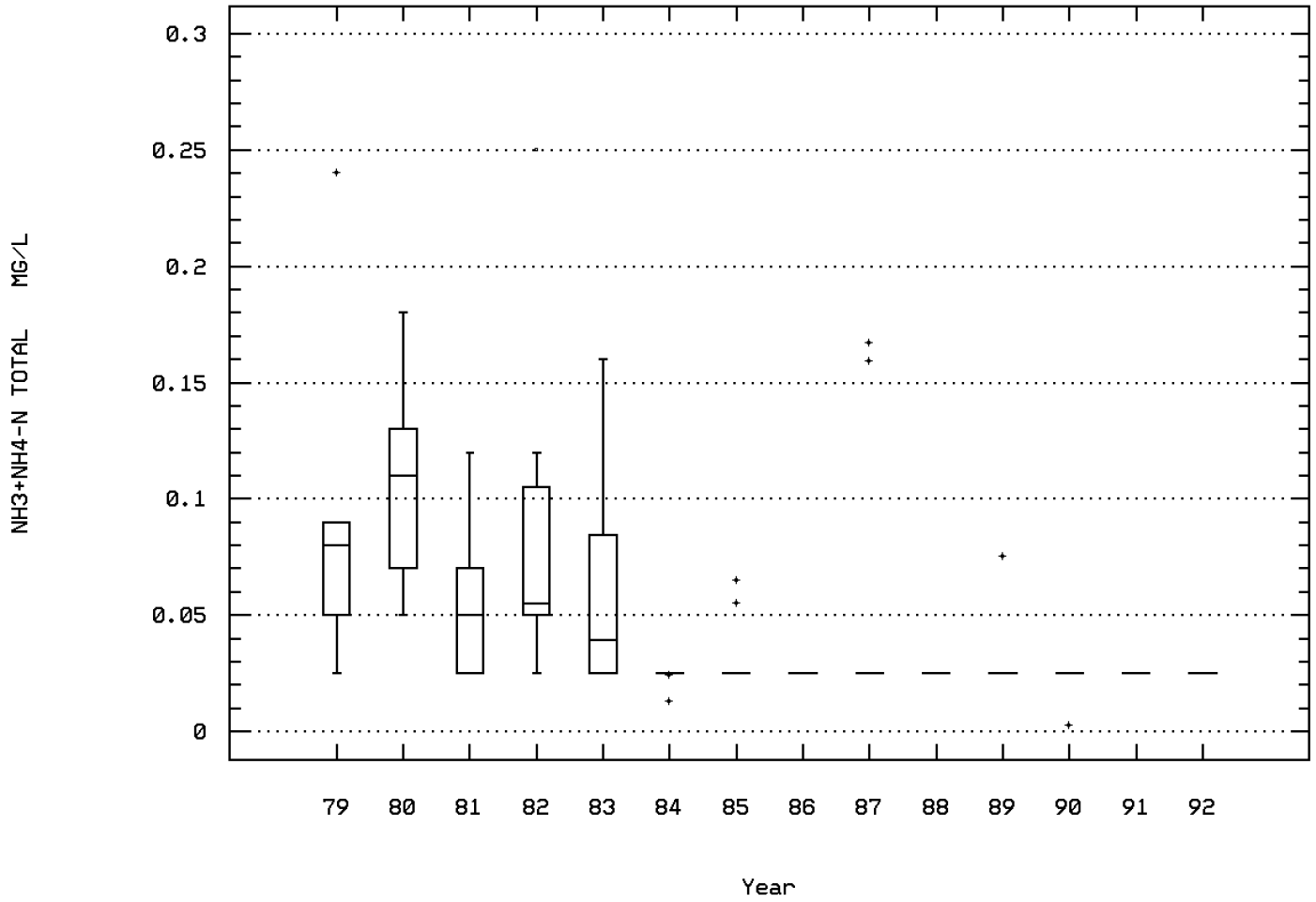
RESIDUE, TOTAL NONFILTRABLE (MG/L)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00610

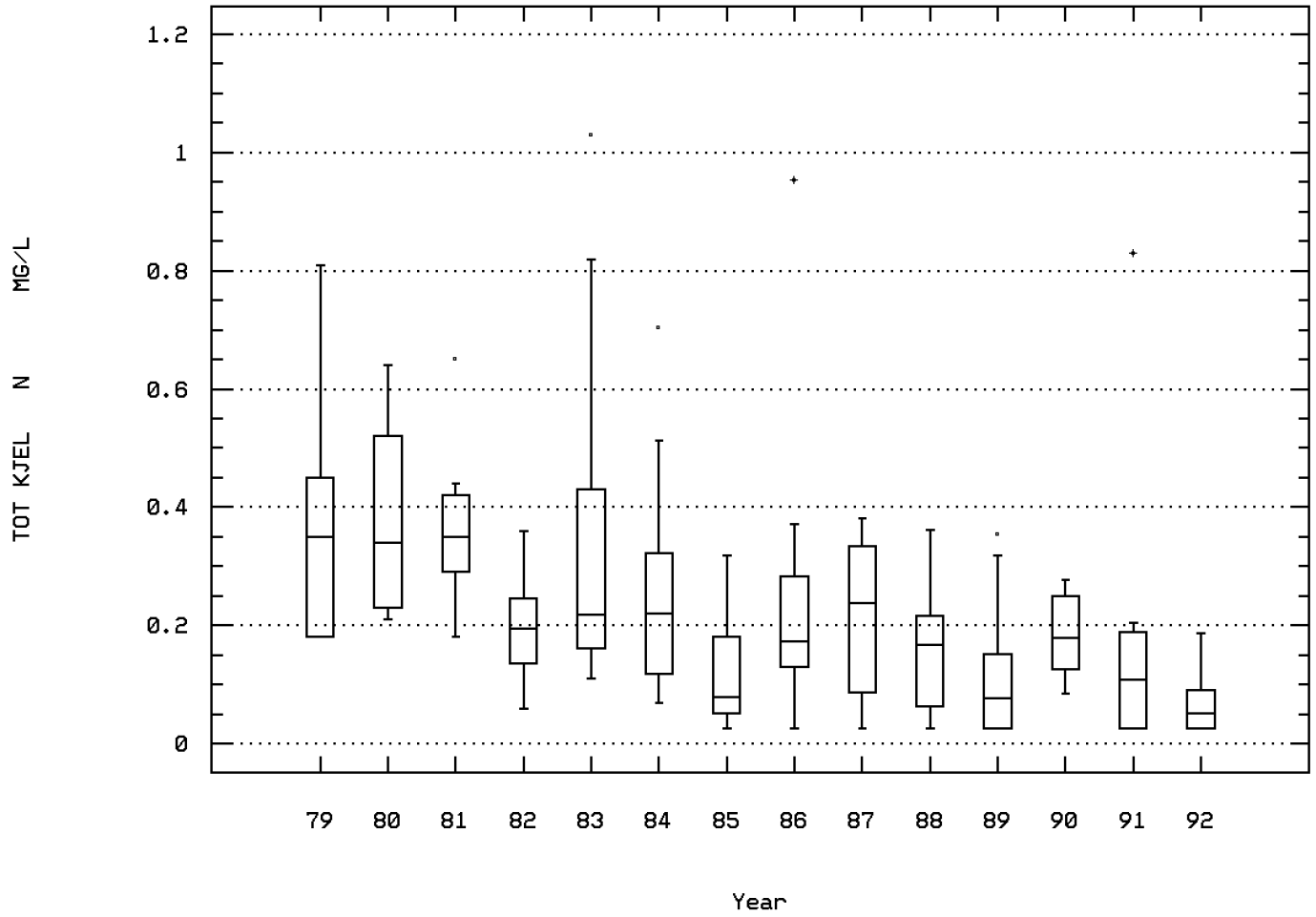
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



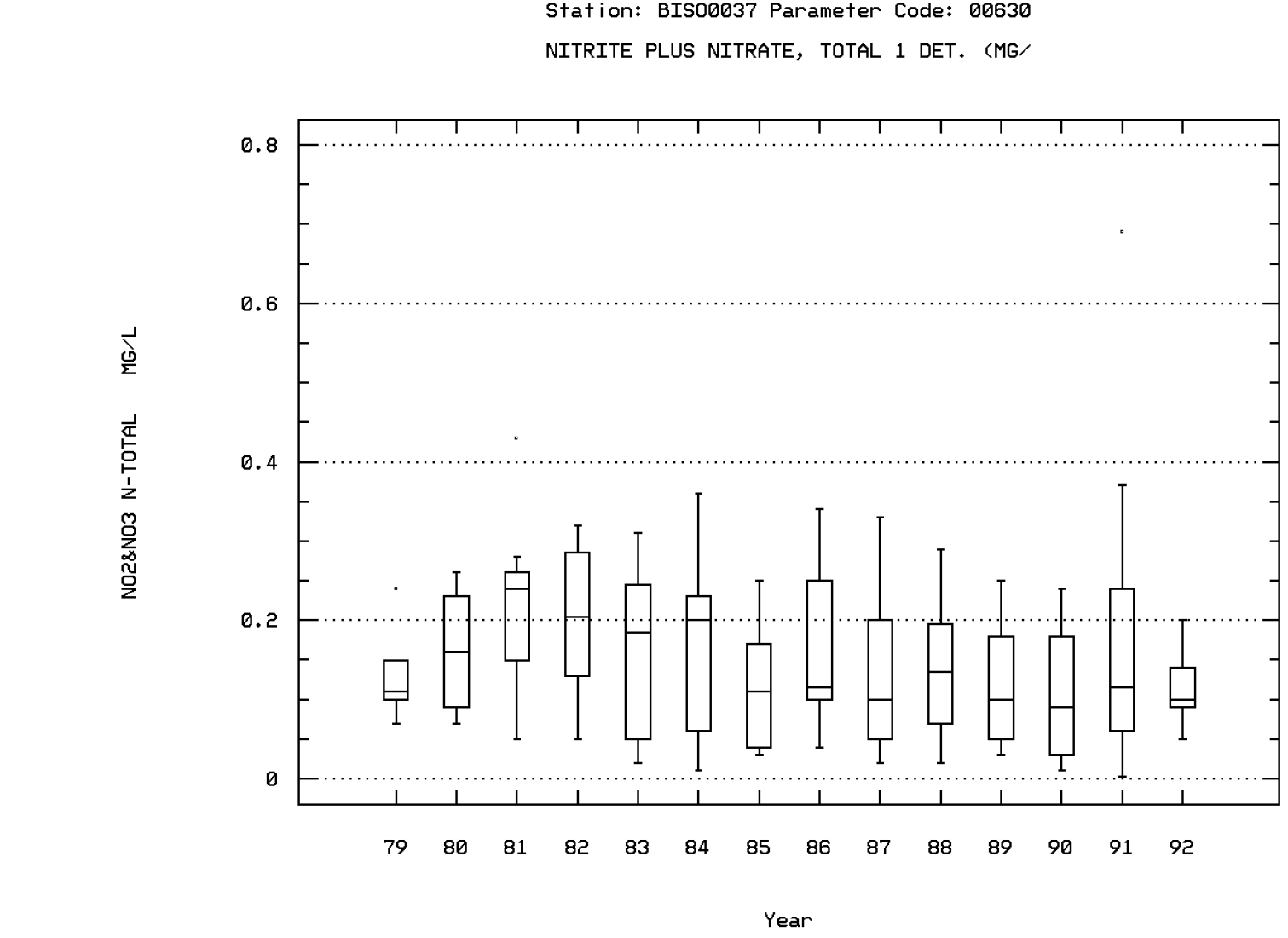
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00625

NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



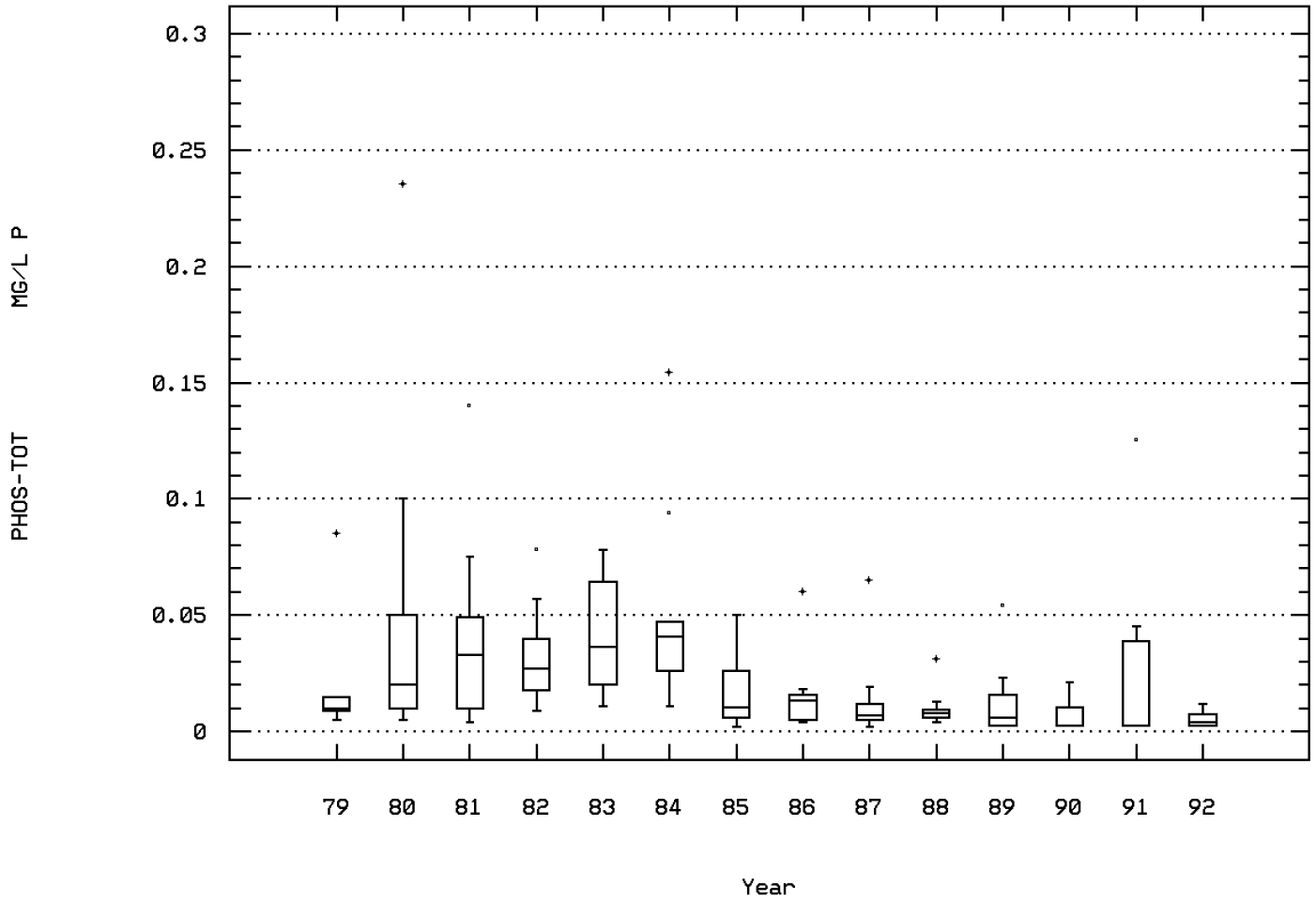
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00665

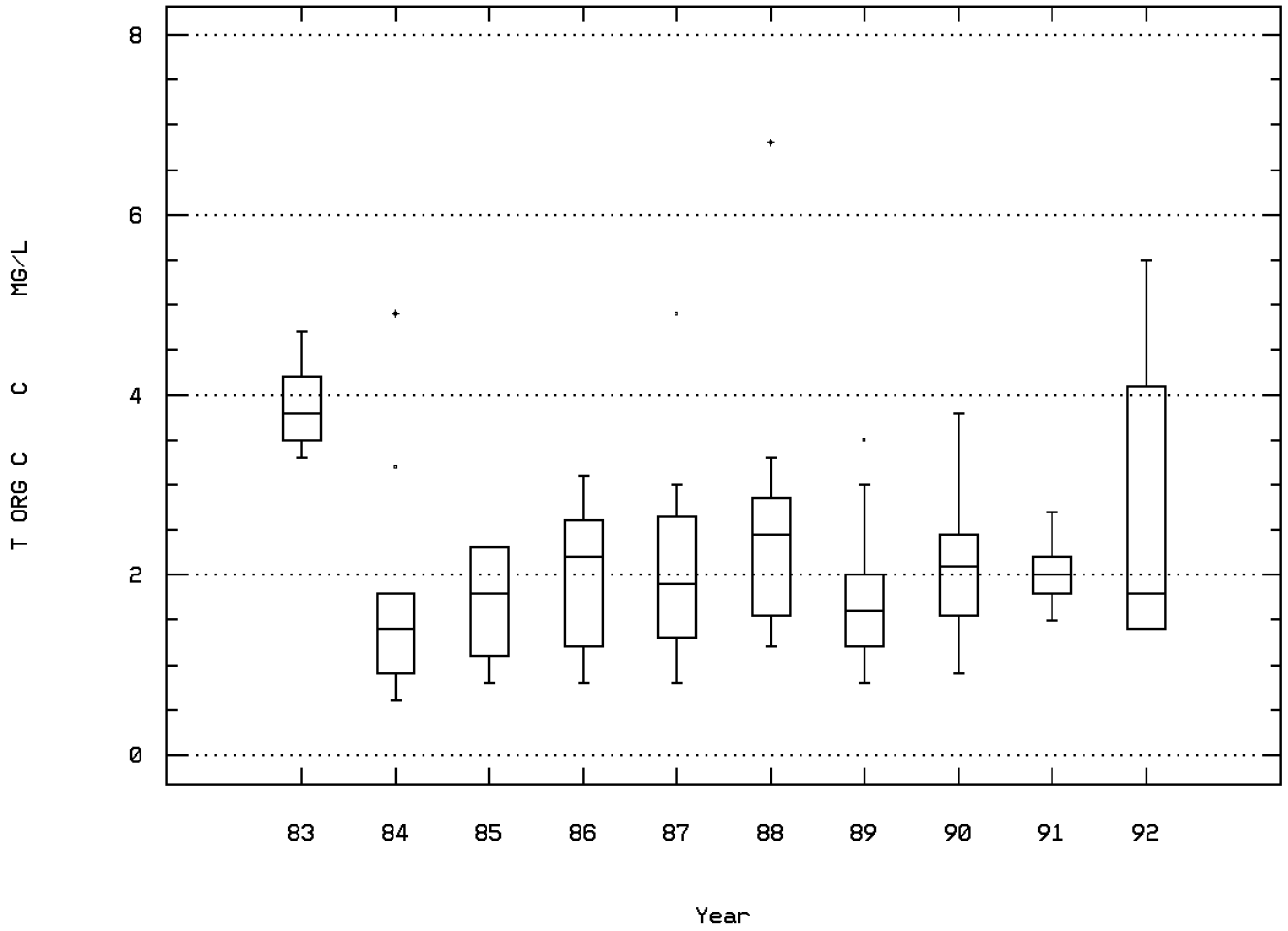
PHOSPHORUS, TOTAL (MG/L AS P)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00680

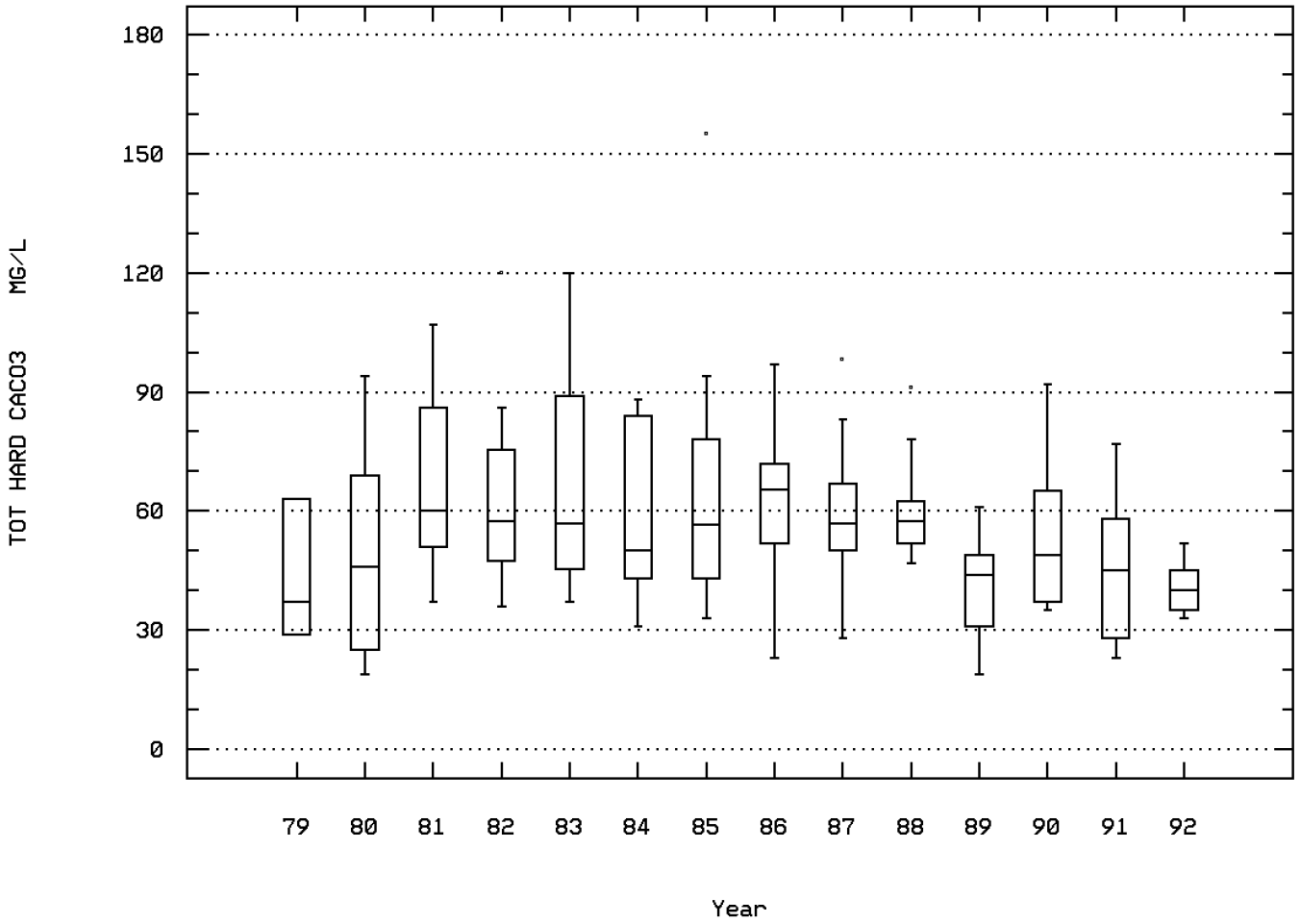
CARBON, TOTAL ORGANIC (MG/L AS C)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00900

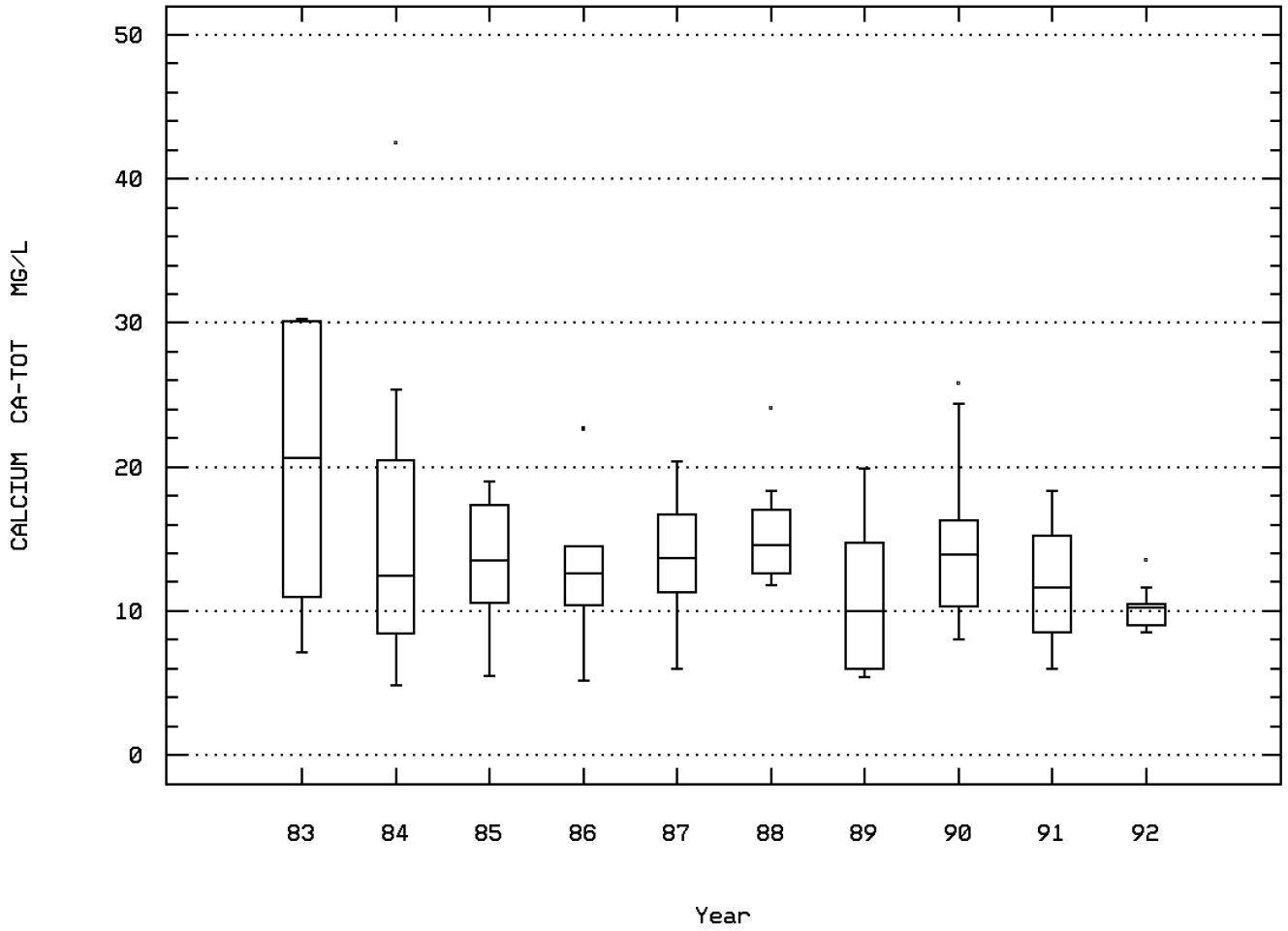
HARDNESS, TOTAL (MG/L AS CACO3)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00916

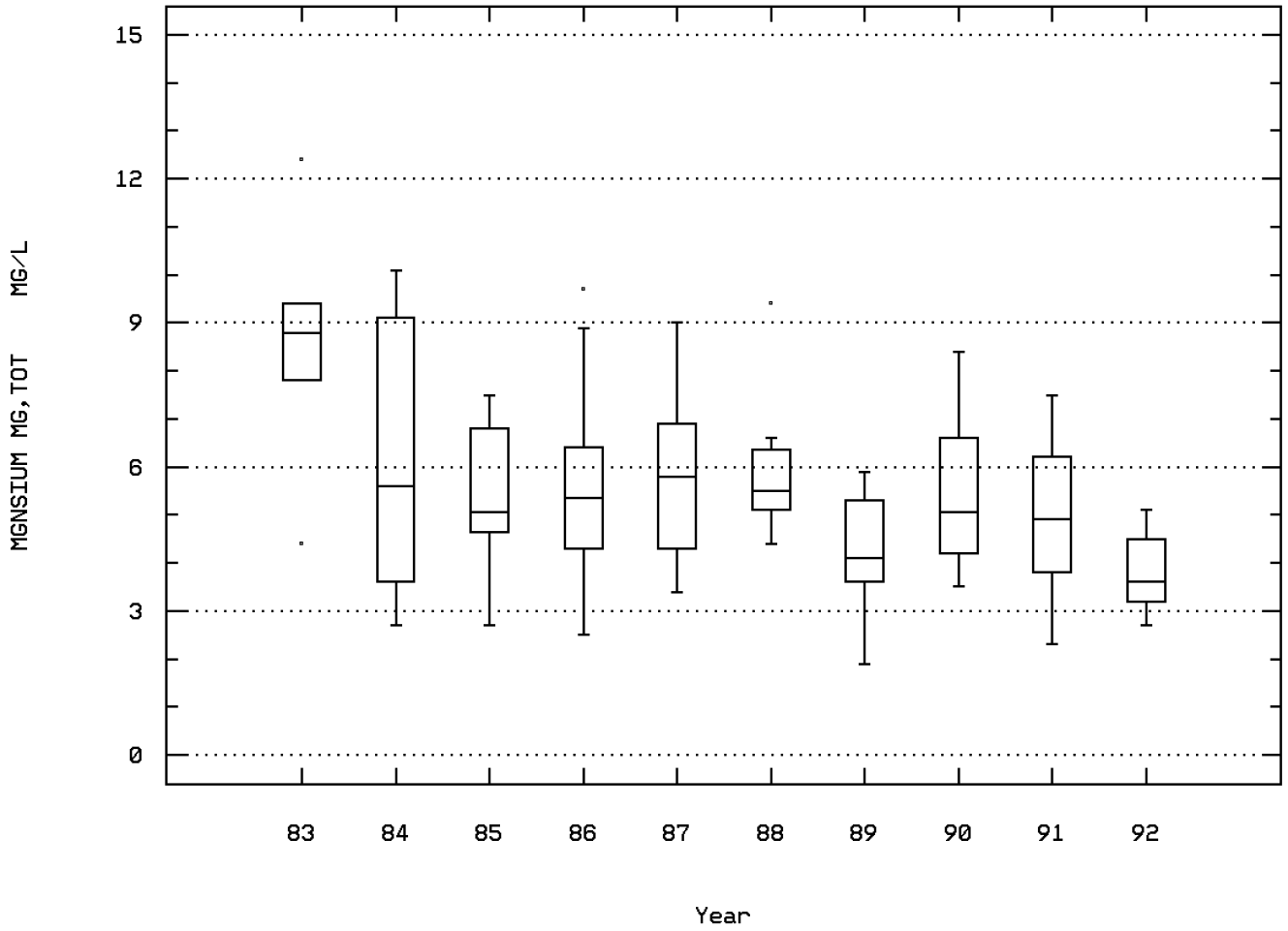
CALCIUM, TOTAL (MG/L AS CA)



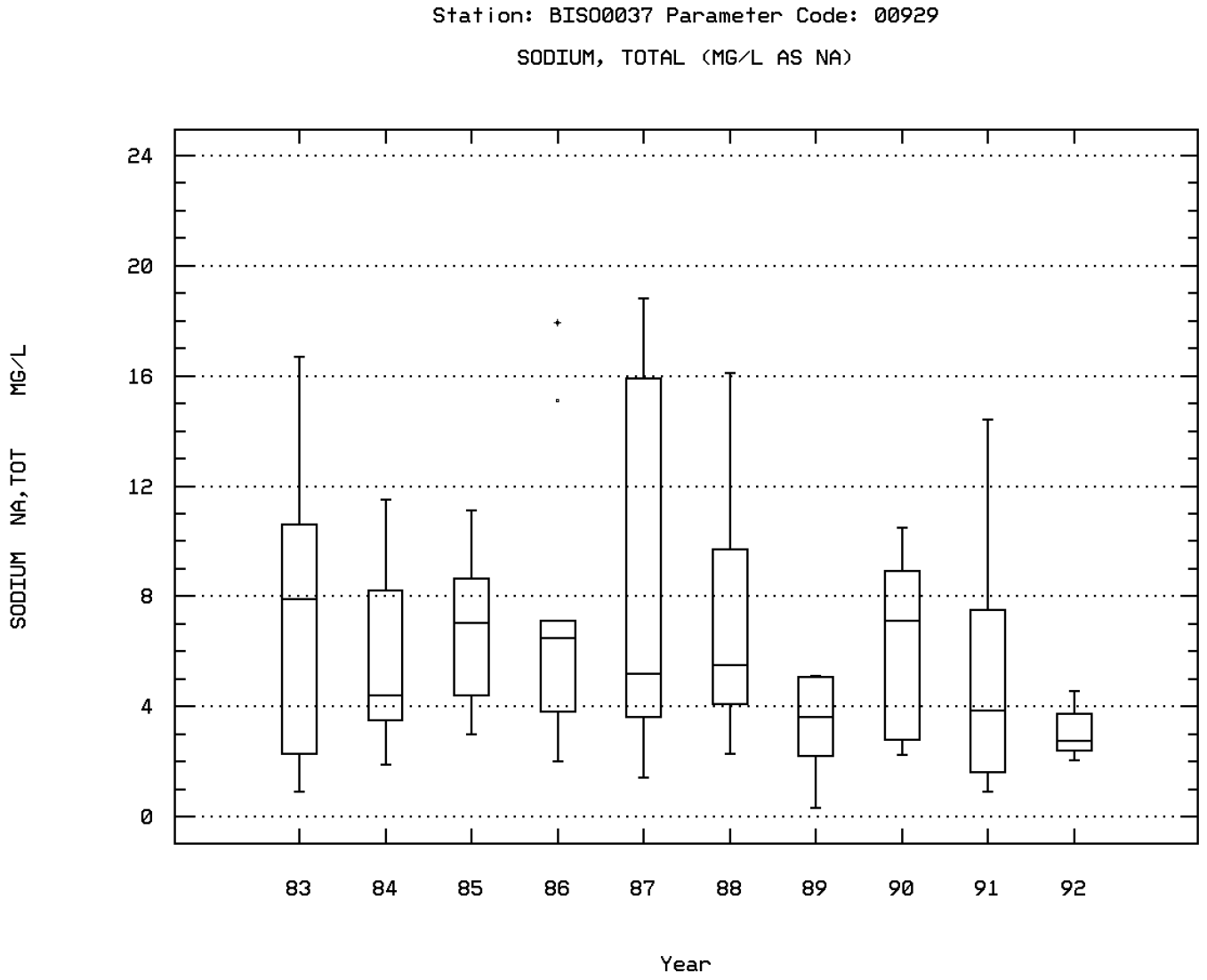
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00927

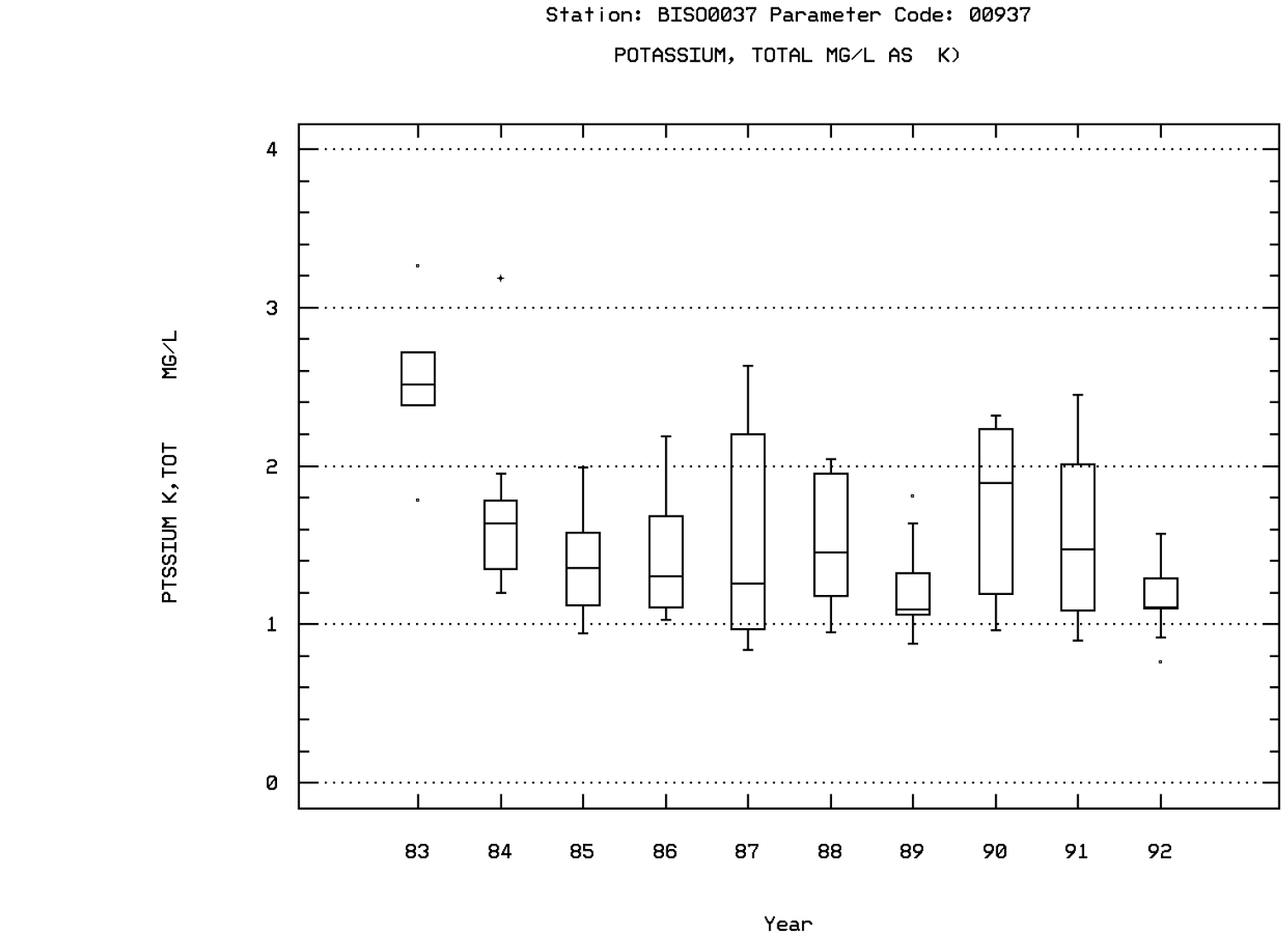
MAGNESIUM, TOTAL (MG/L AS MG)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER



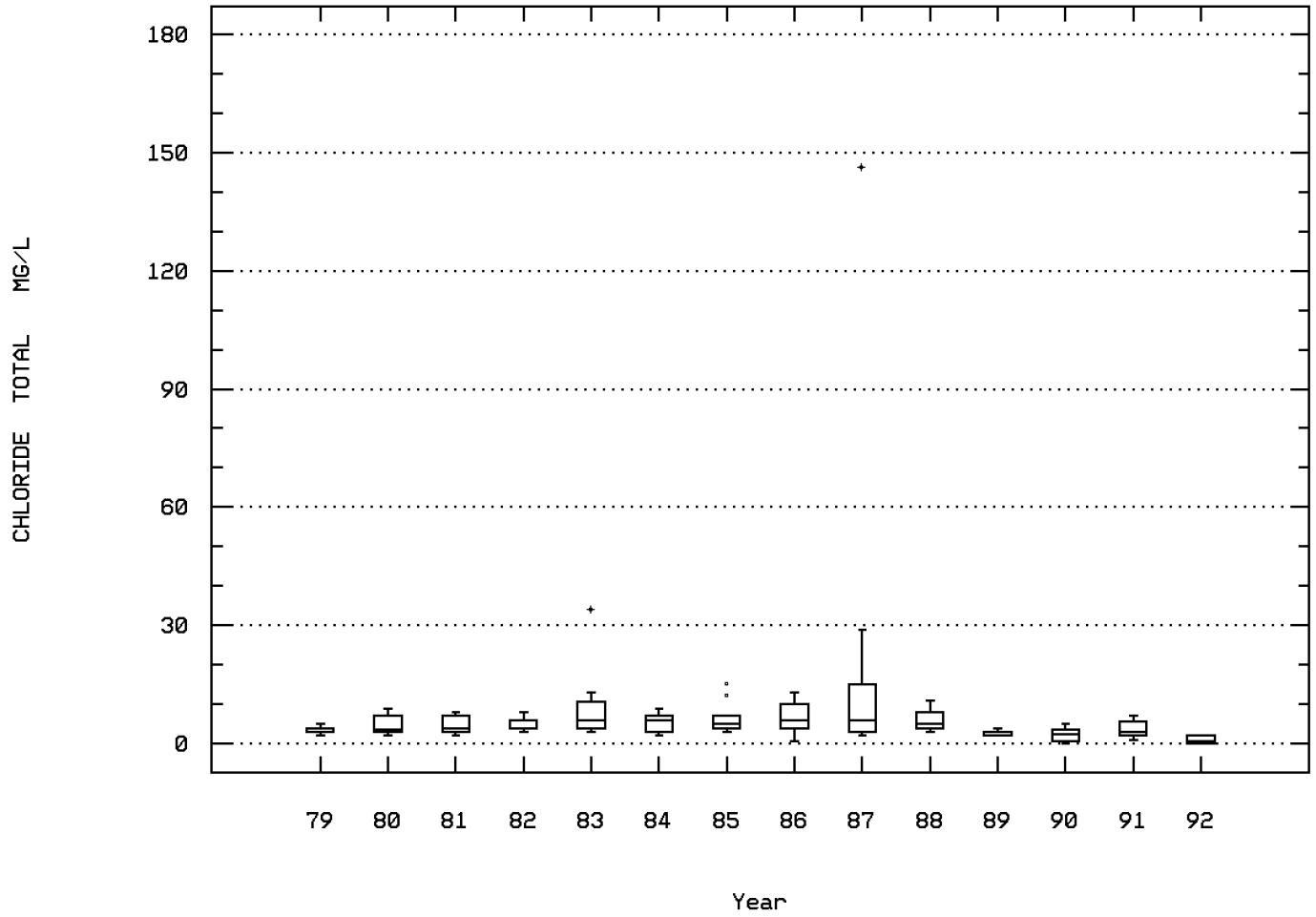
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00940

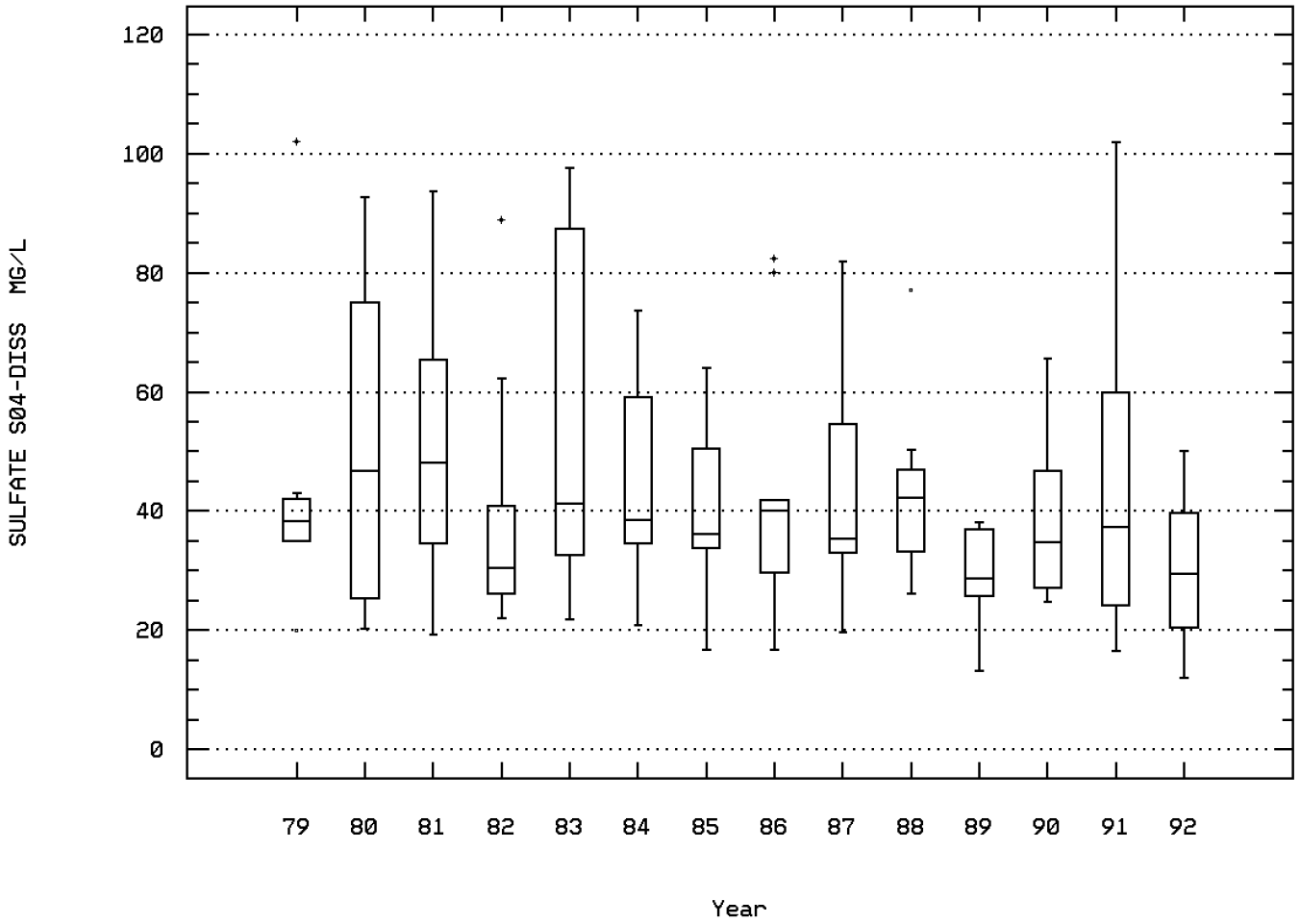
CHLORIDE,TOTAL IN WATER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BIS00037 Parameter Code: 00946

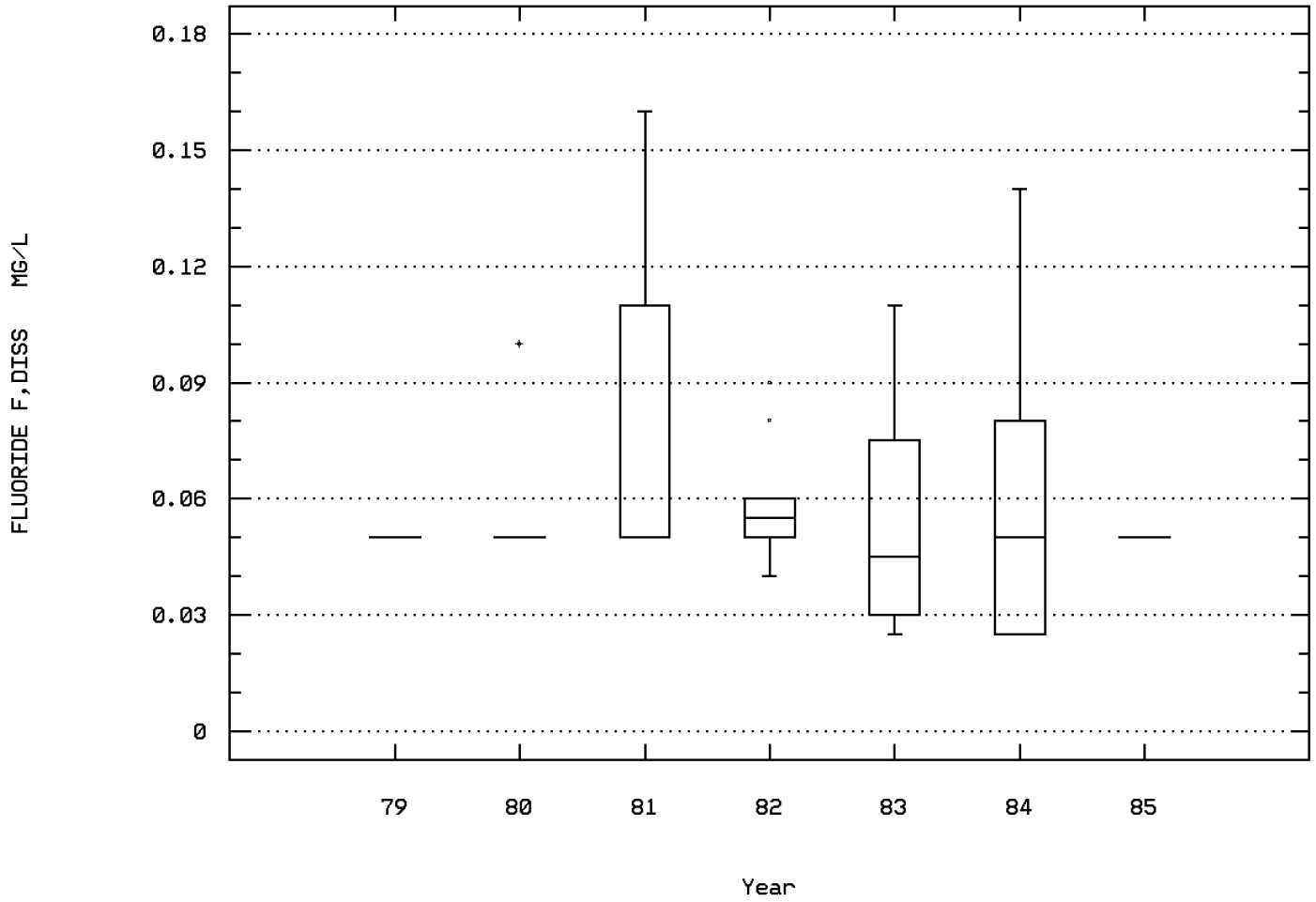
SULFATE, DISSOLVED (MG/L AS SO4)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 00950

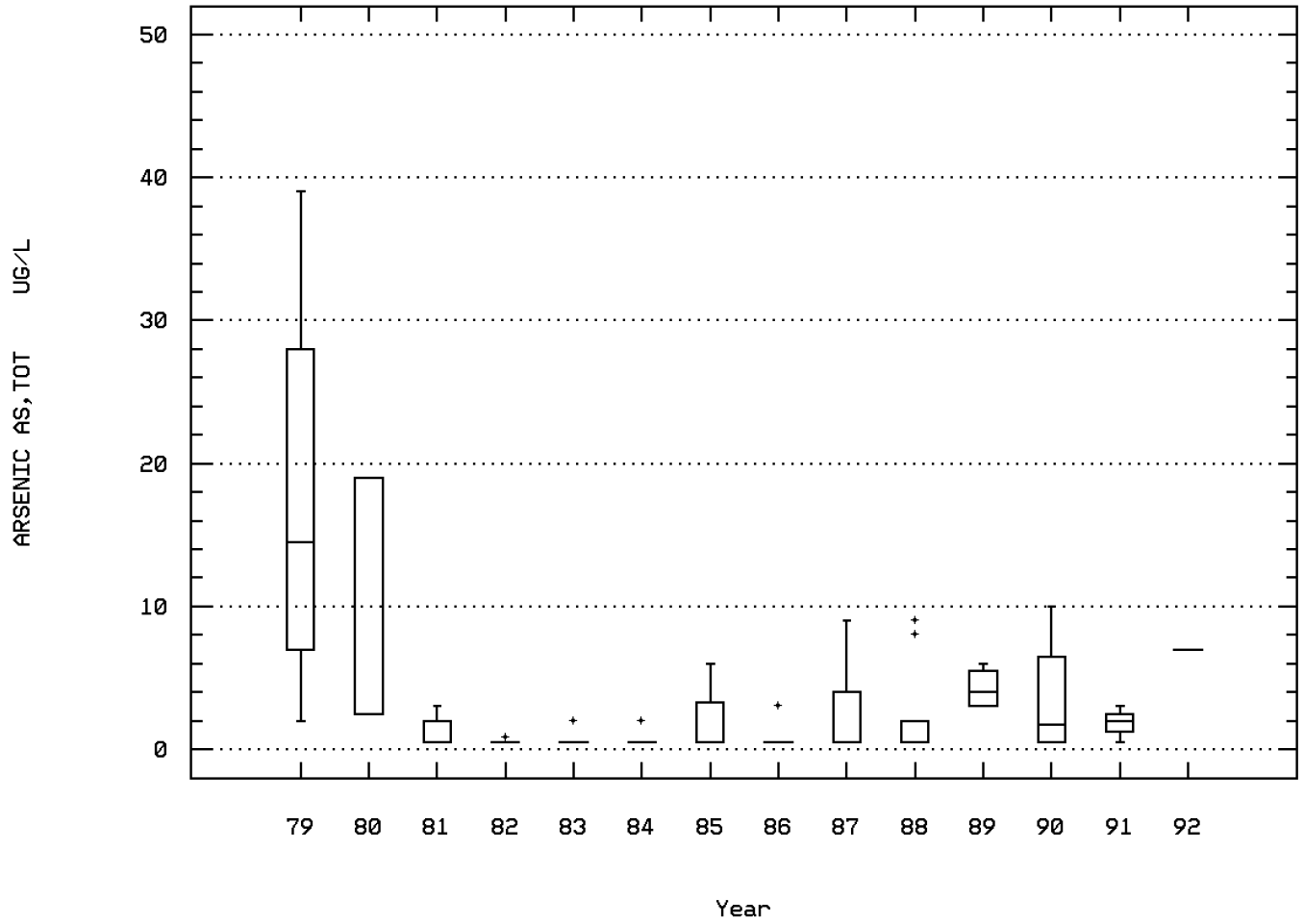
FLUORIDE, DISSOLVED (MG/L AS F)



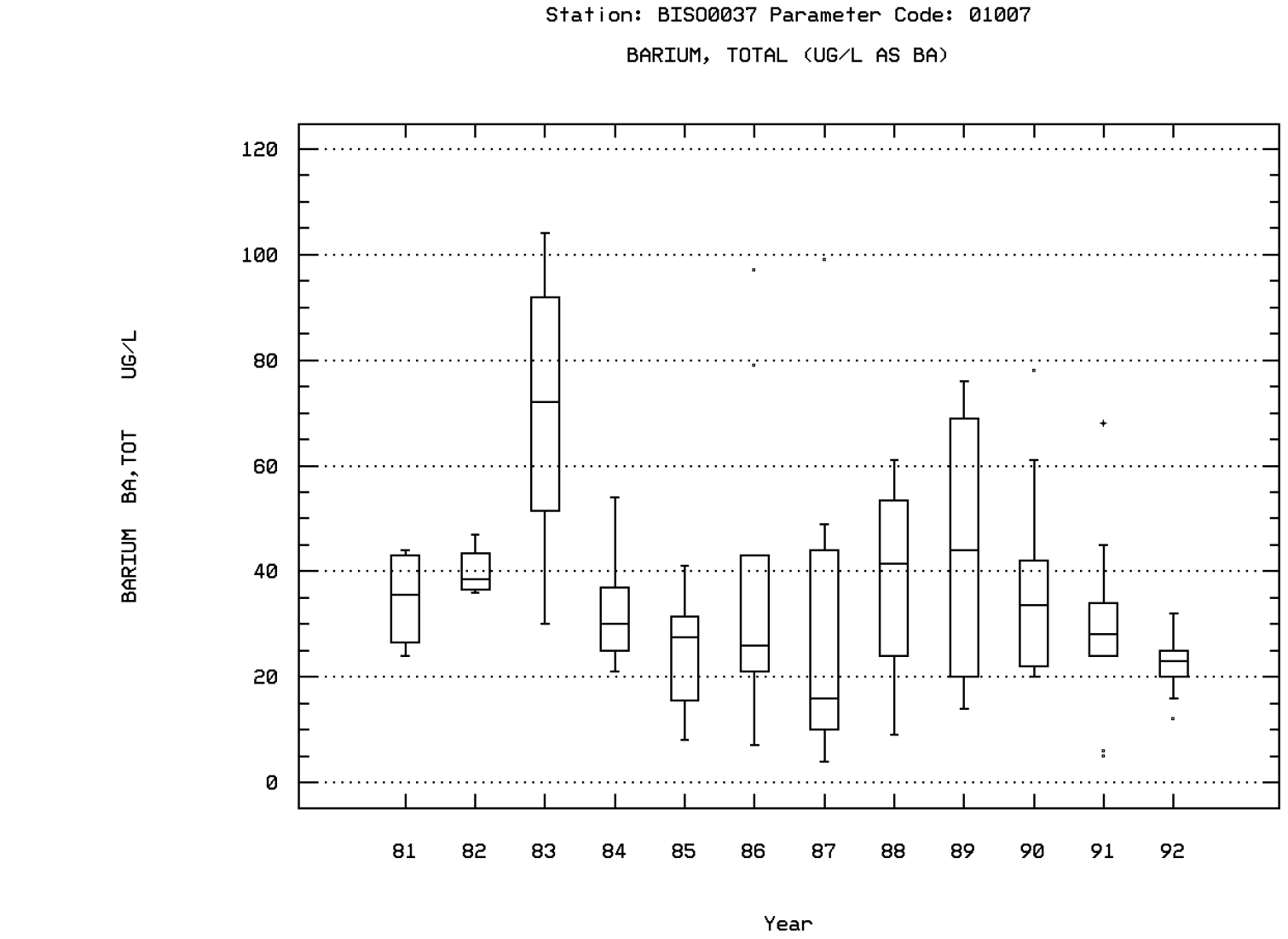
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01002

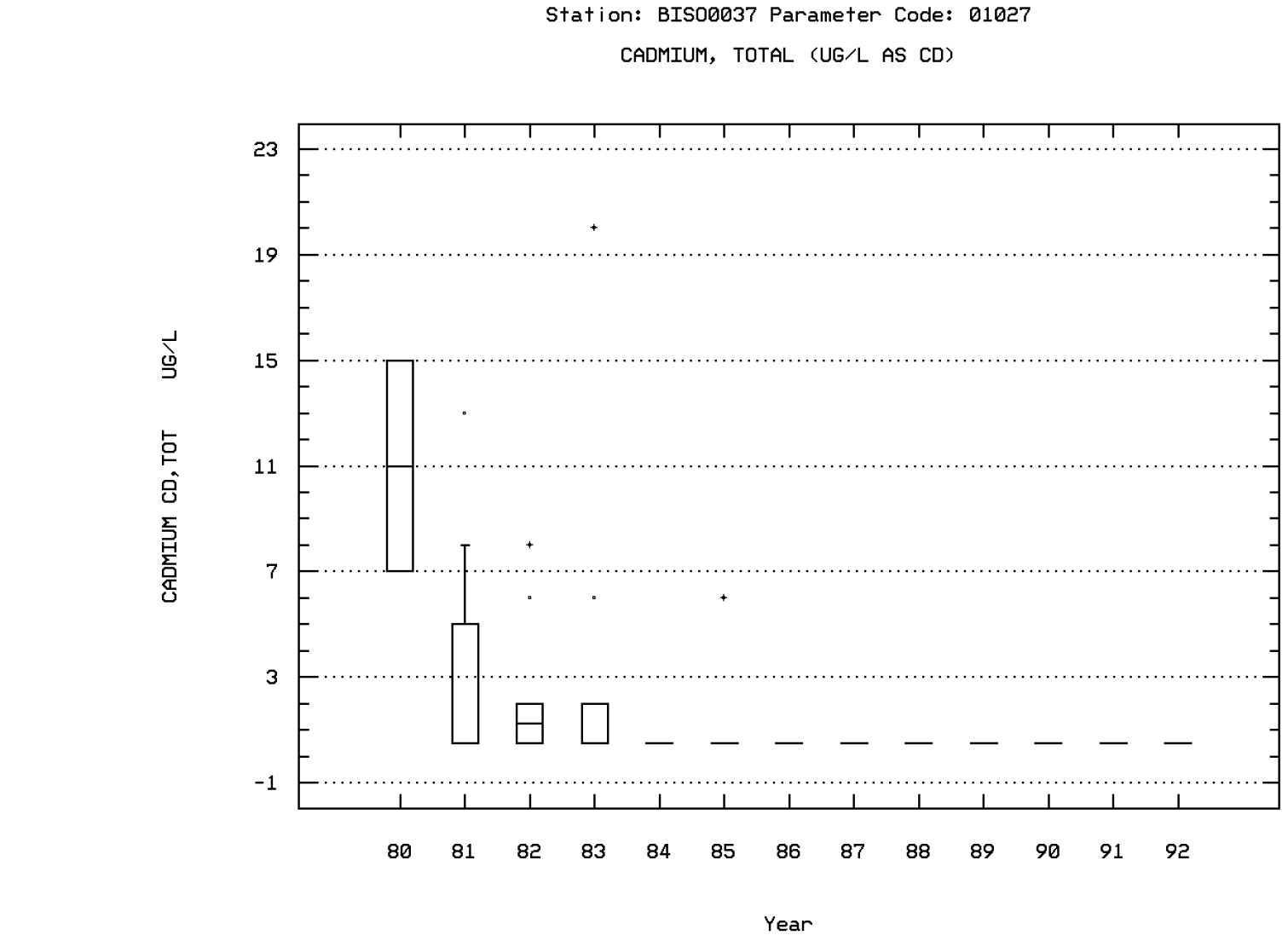
ARSENIC, TOTAL (UG/L AS AS)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER



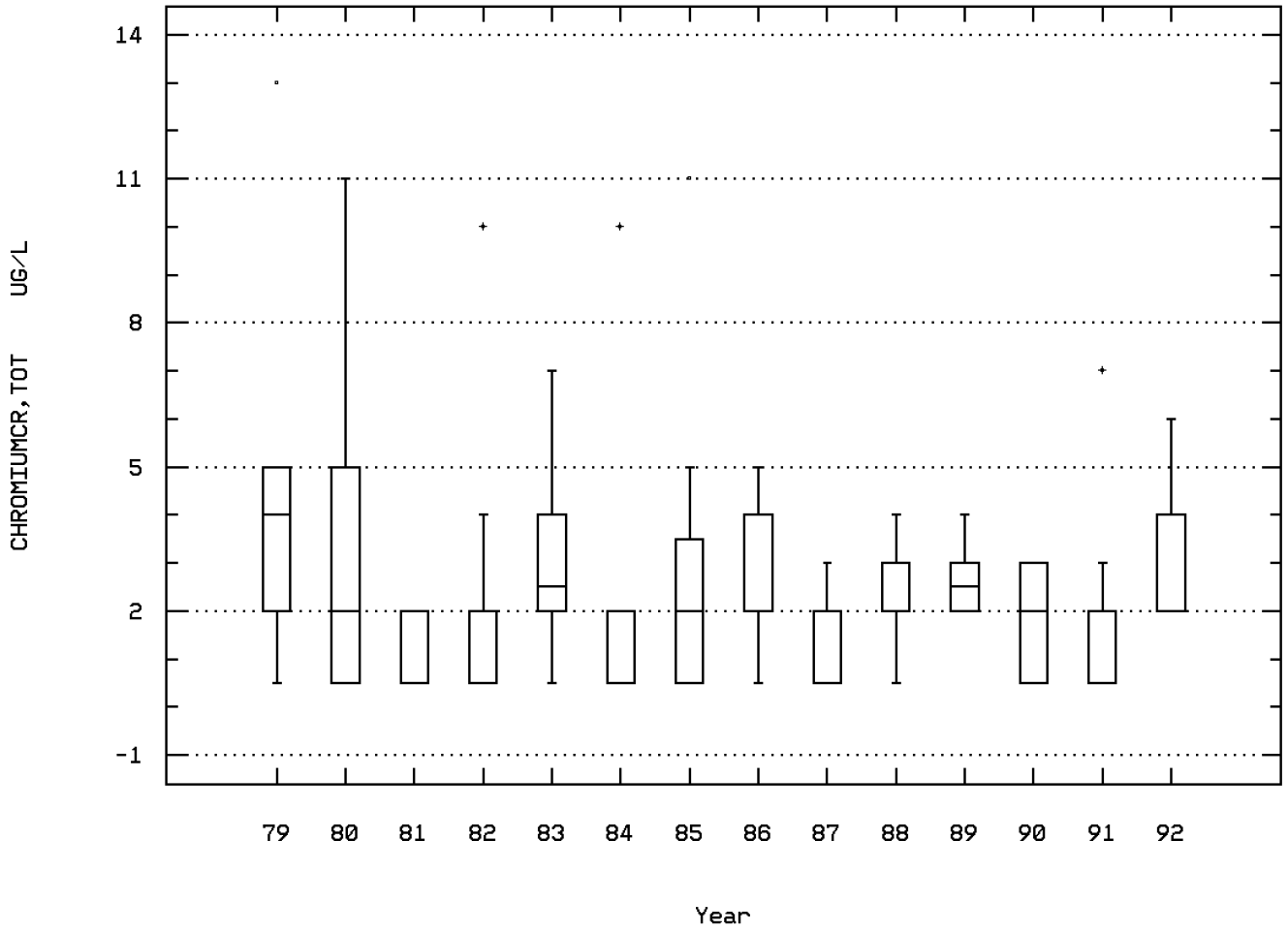
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01034

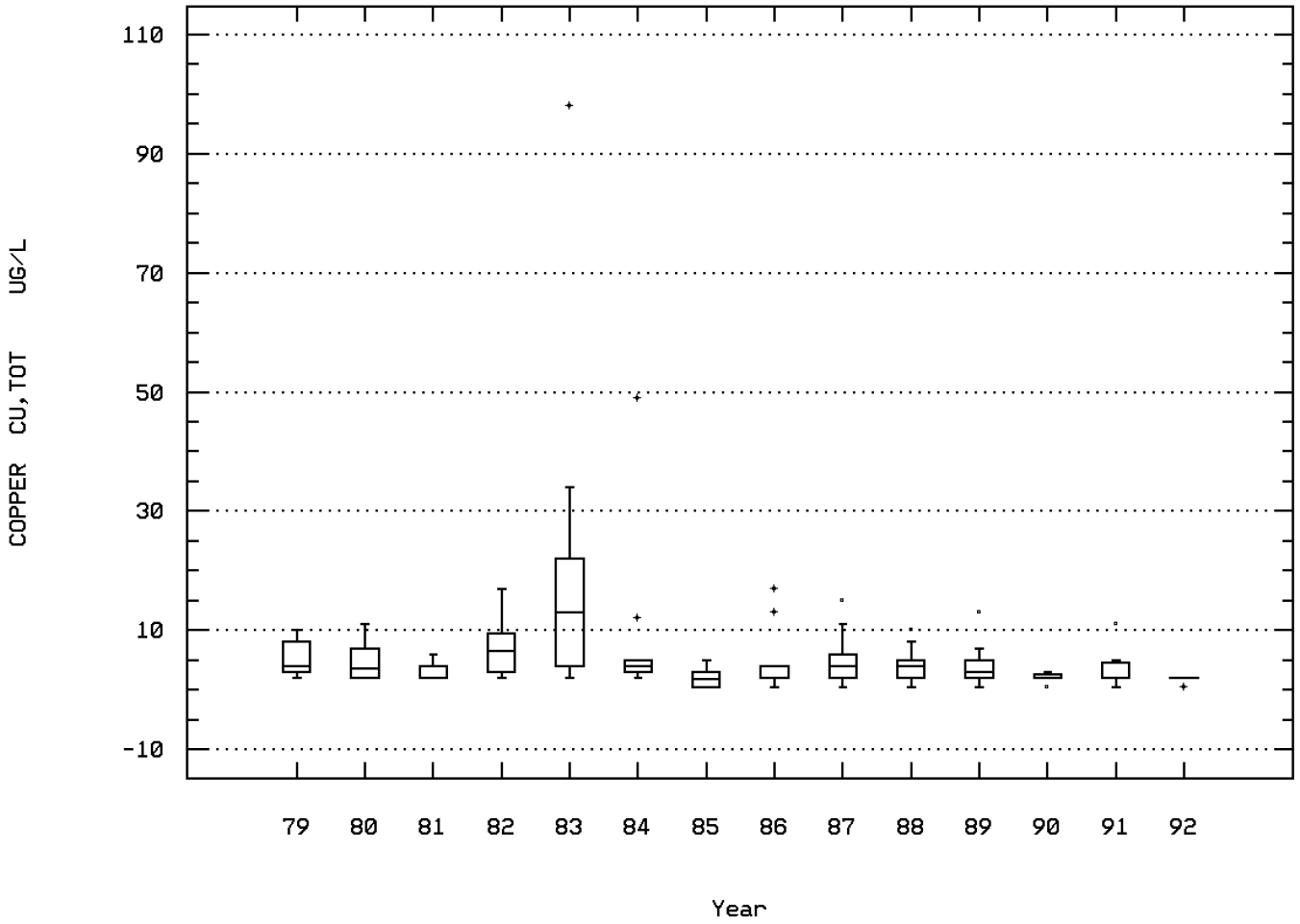
CHROMIUM, TOTAL (UG/L AS CR)



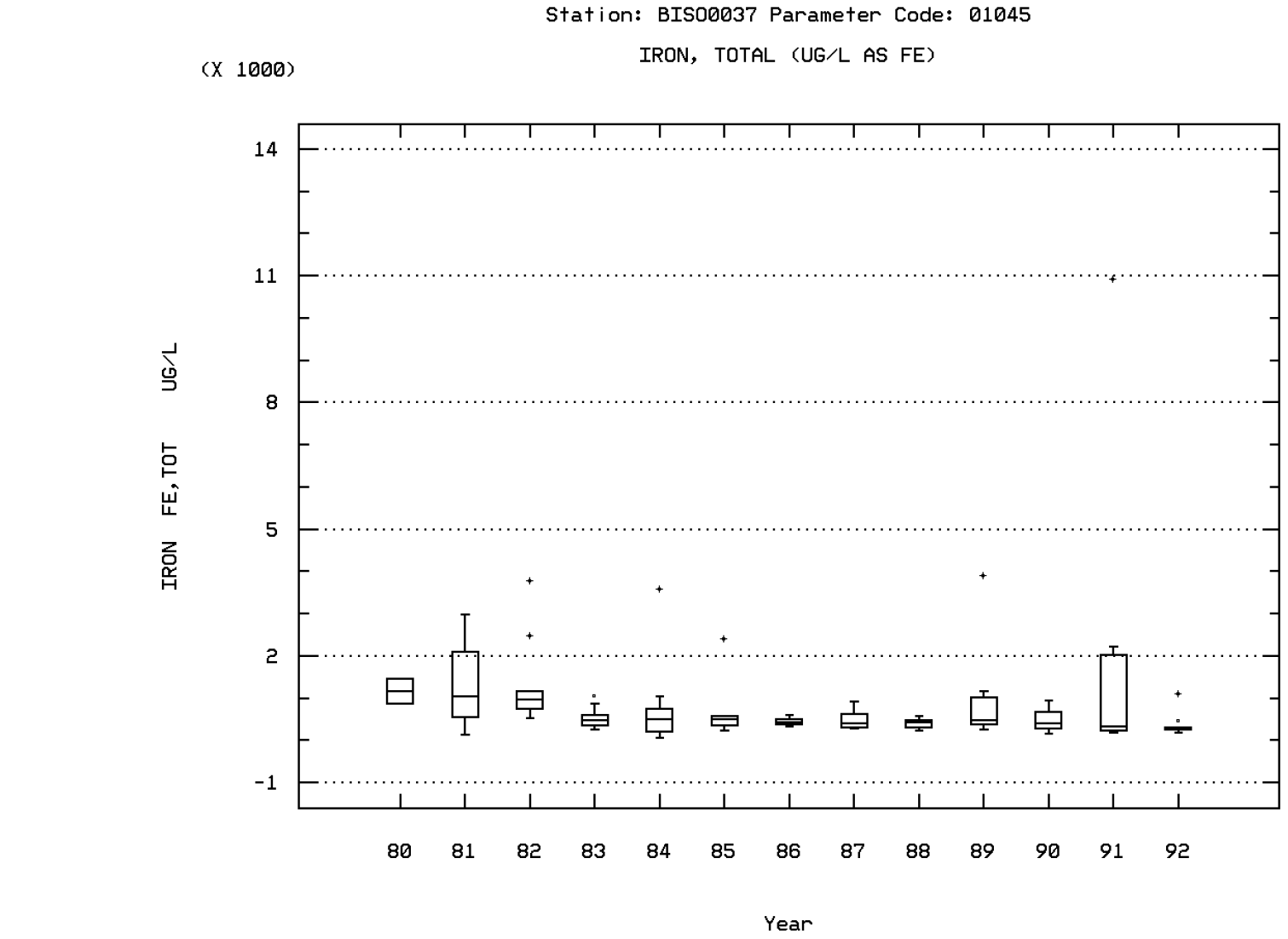
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01042

COPPER, TOTAL (UG/L AS CU)



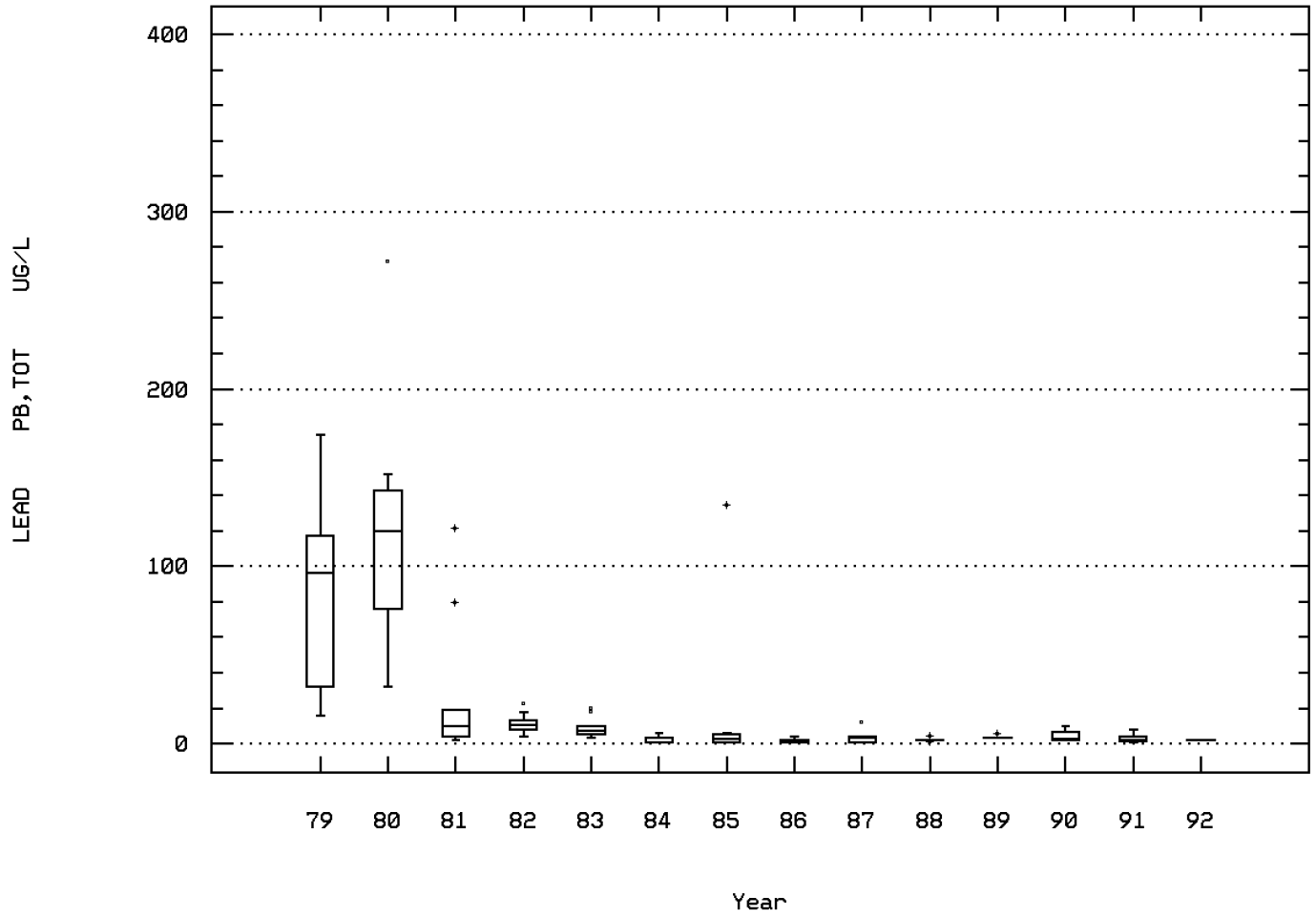
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01051

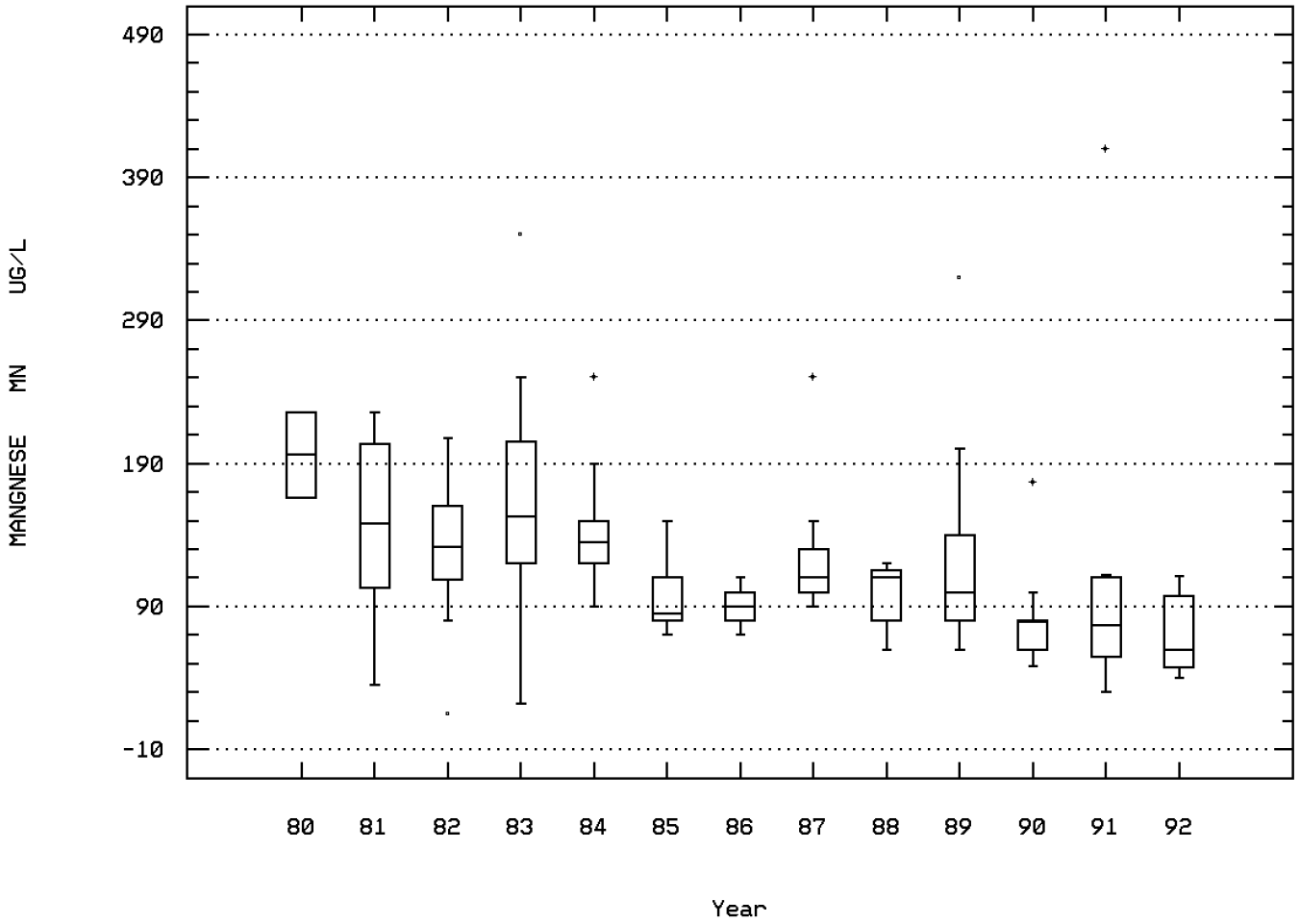
LEAD, TOTAL (UG/L AS PB)



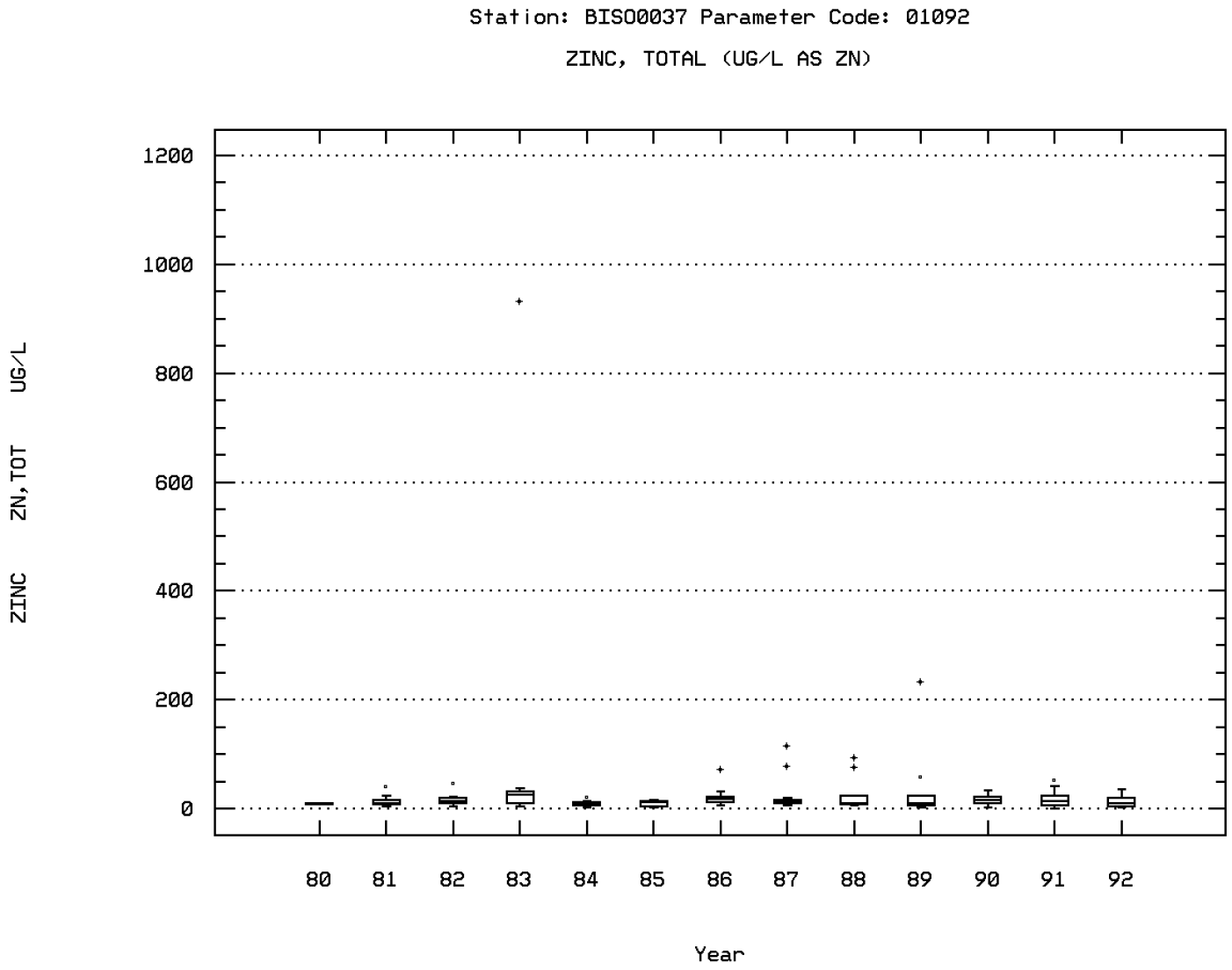
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01055

MANGANESE, TOTAL (UG/L AS MN)



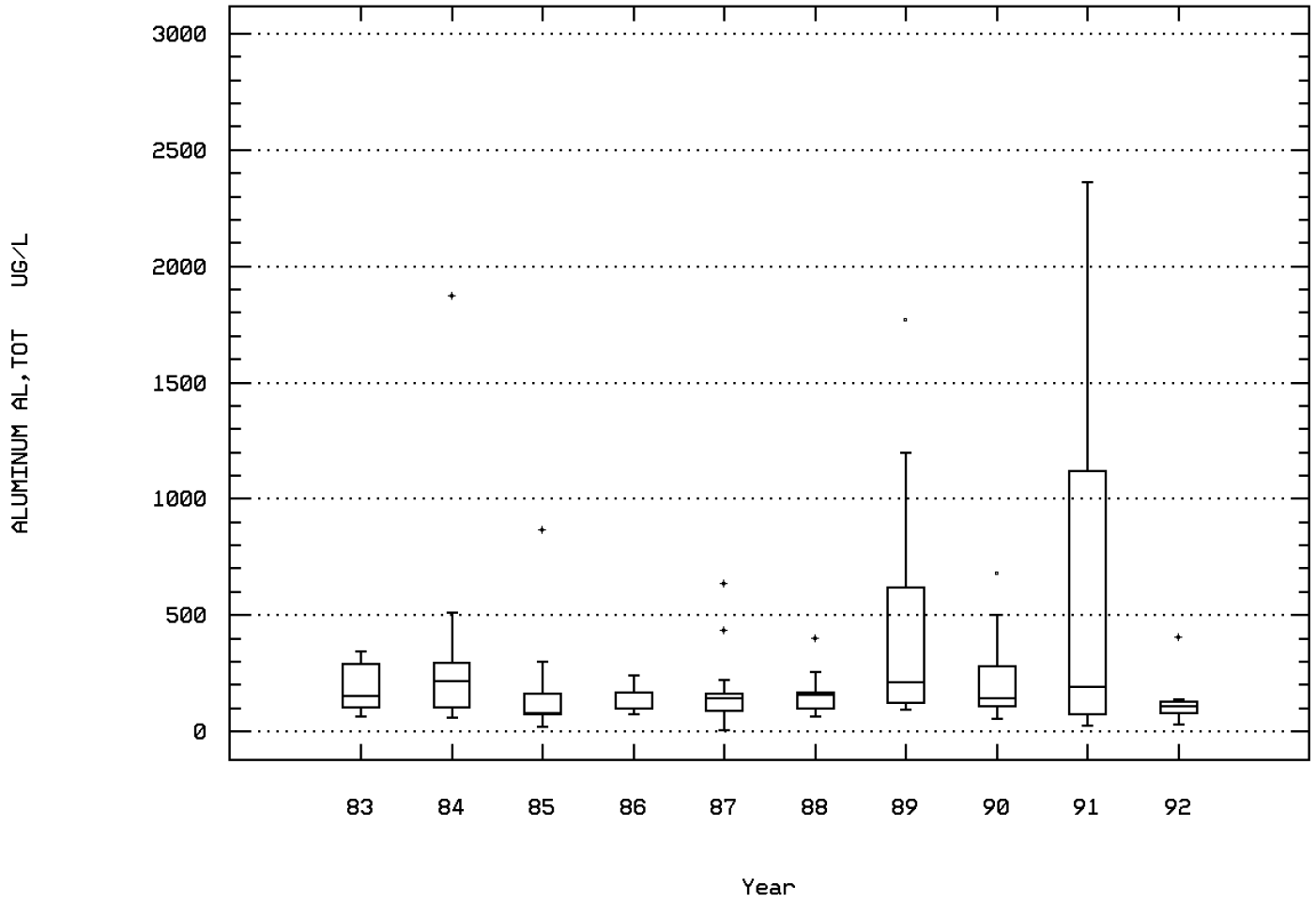
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 01105

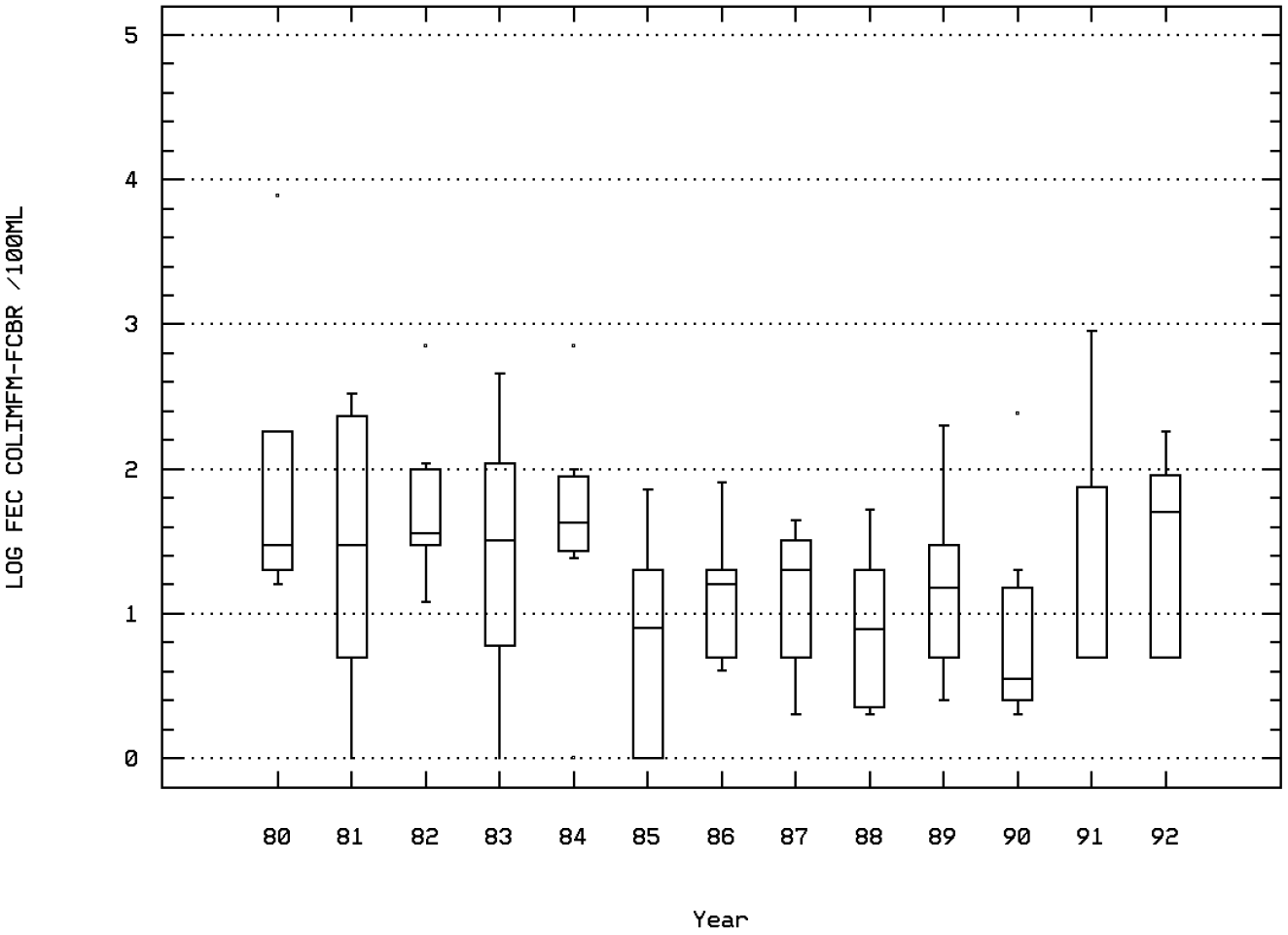
ALUMINUM, TOTAL (UG/L AS AL)



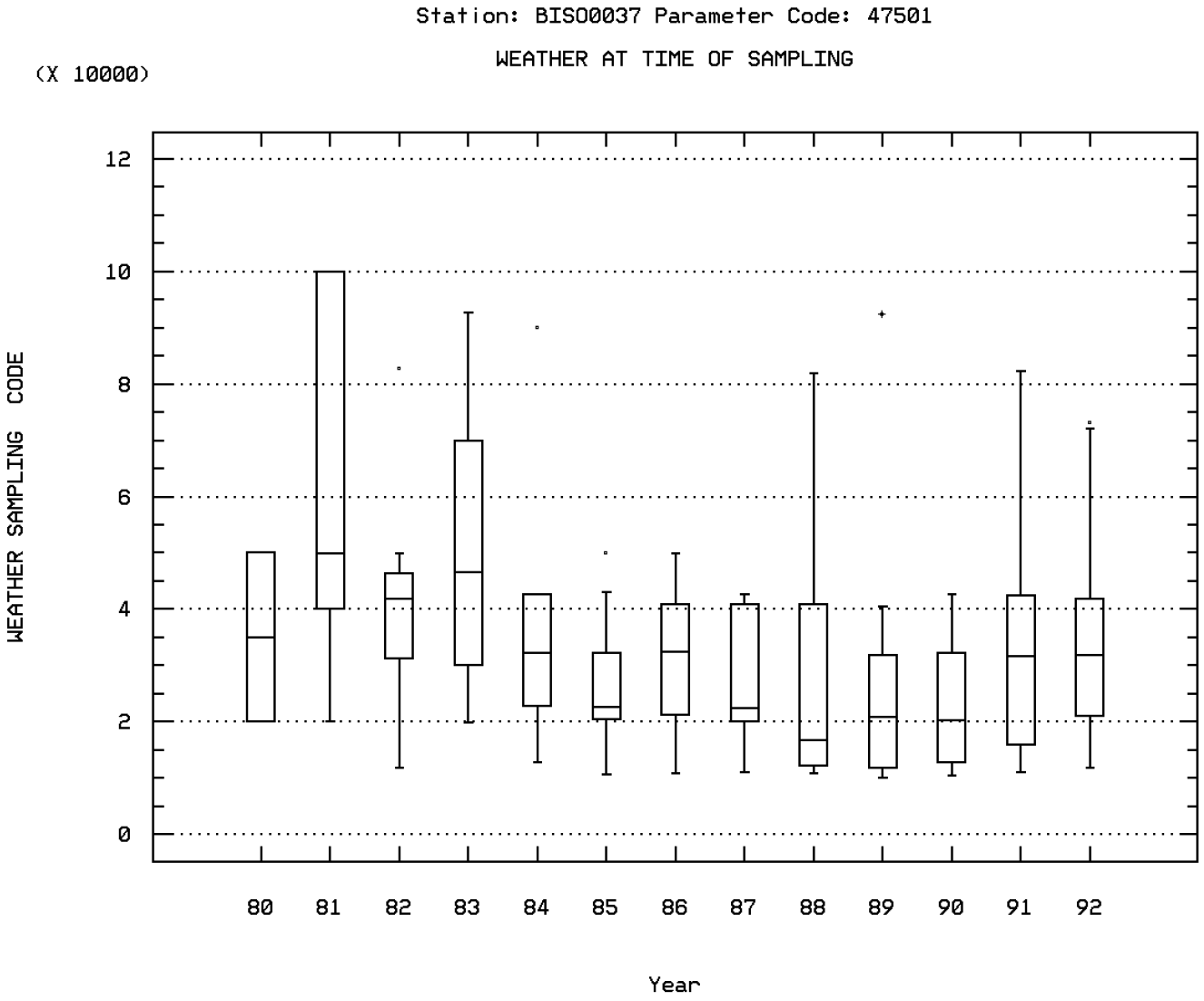
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 31616

LOG FECAL COLIFORM,MEMBR FILTER,M-FC BR



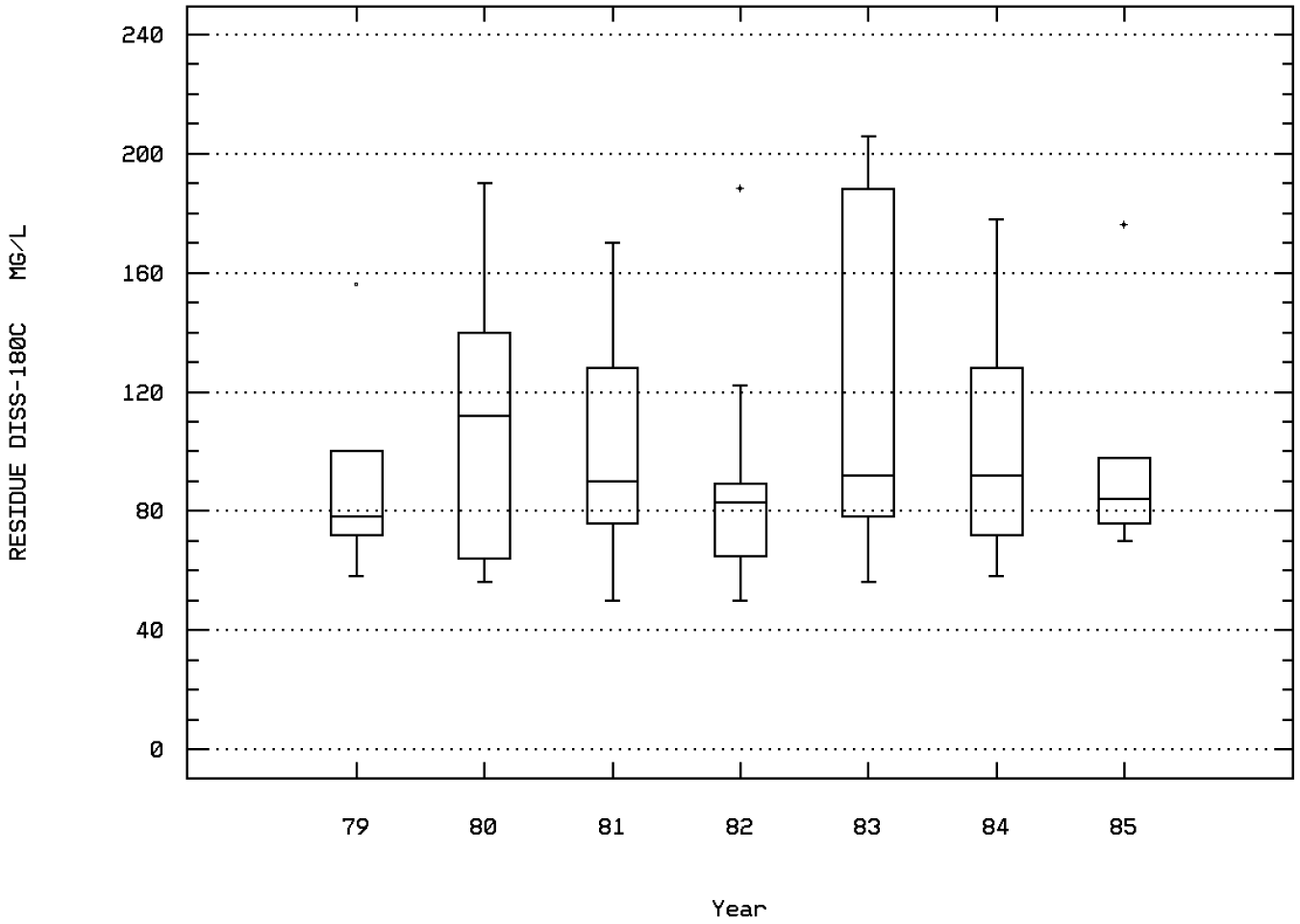
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



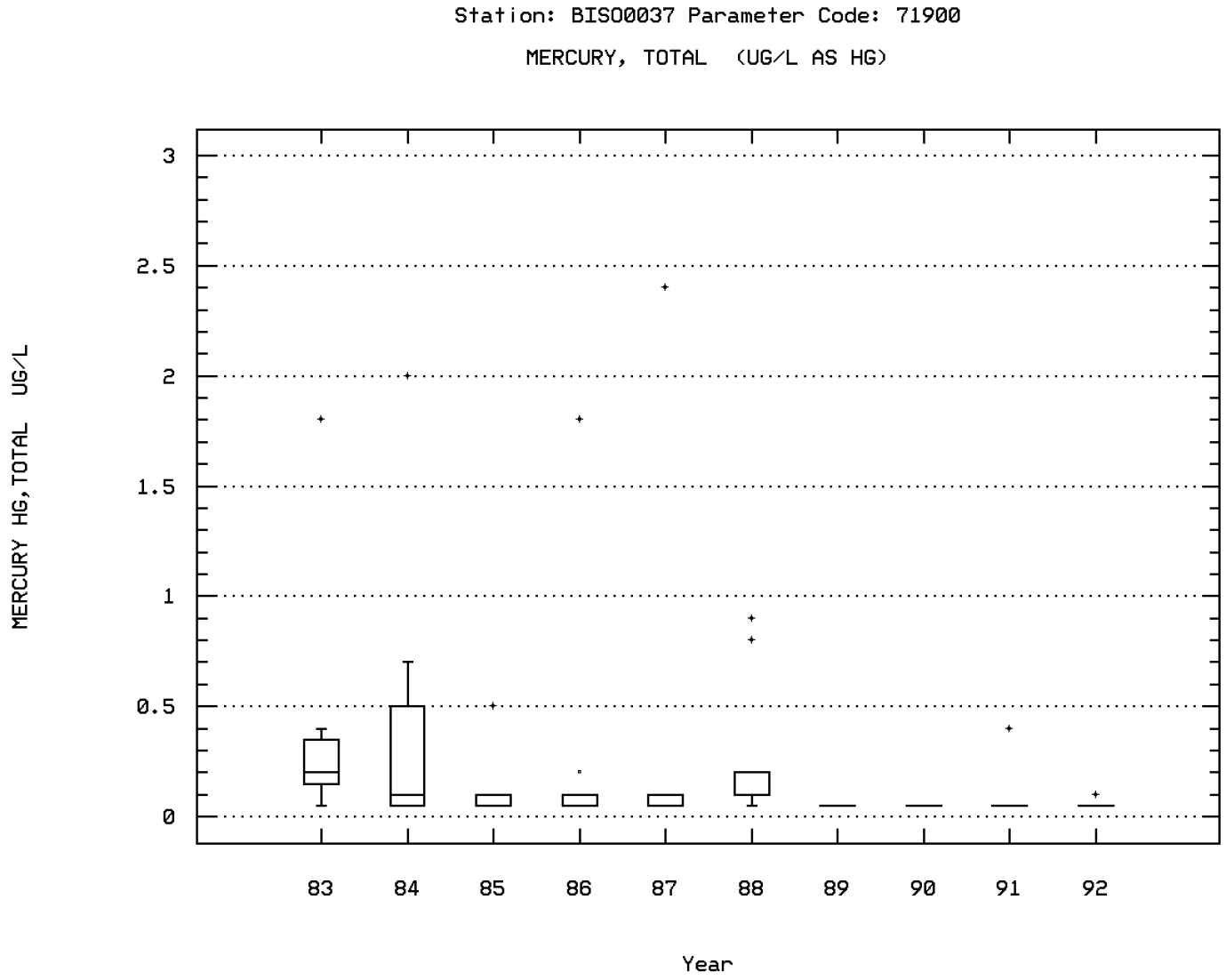
SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 70300

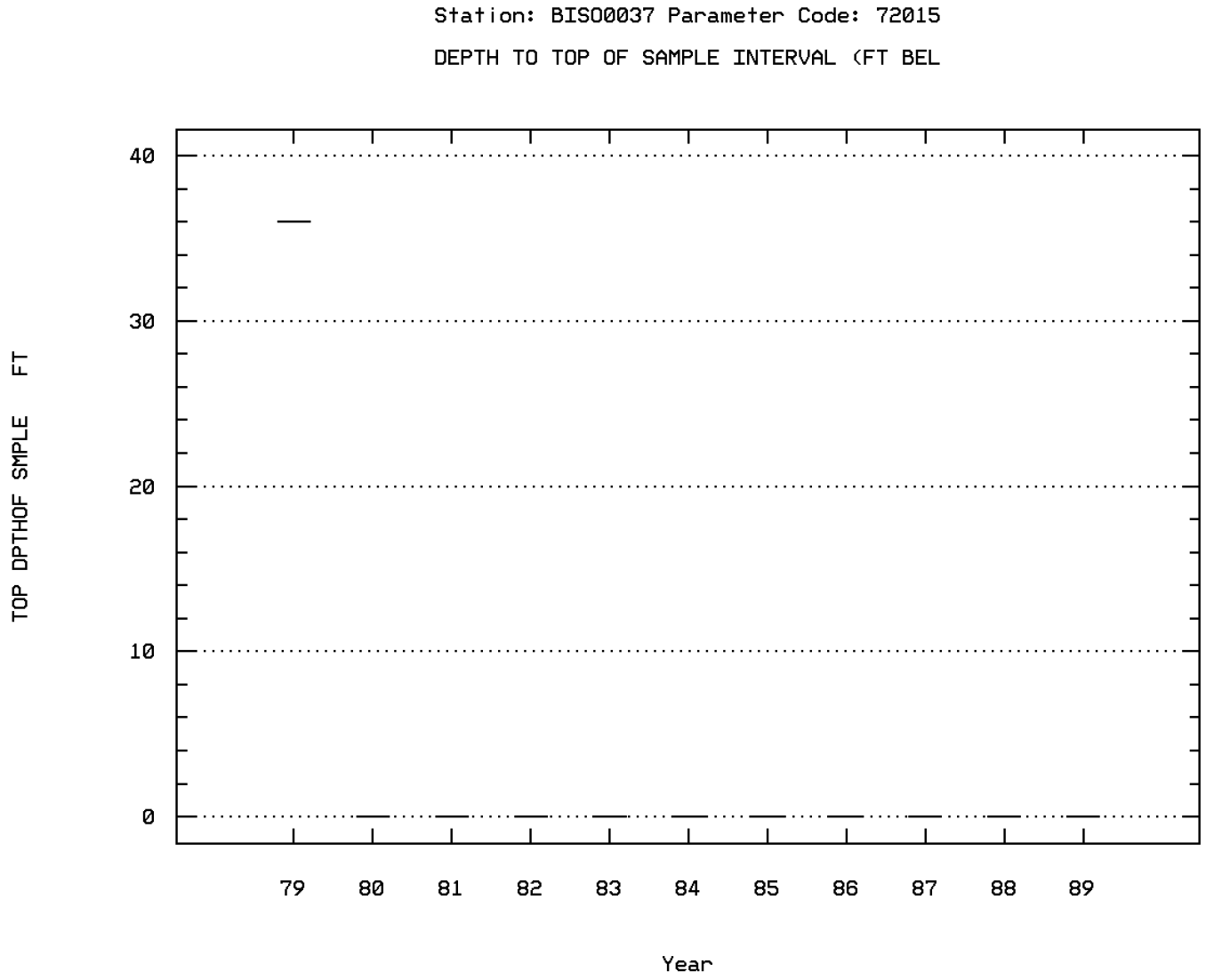
RESIDUE,TOTAL FILTRABLE (DRIED AT 180C)



SOUTH FORK CUMBERLAND RIVER AT BLUE HER



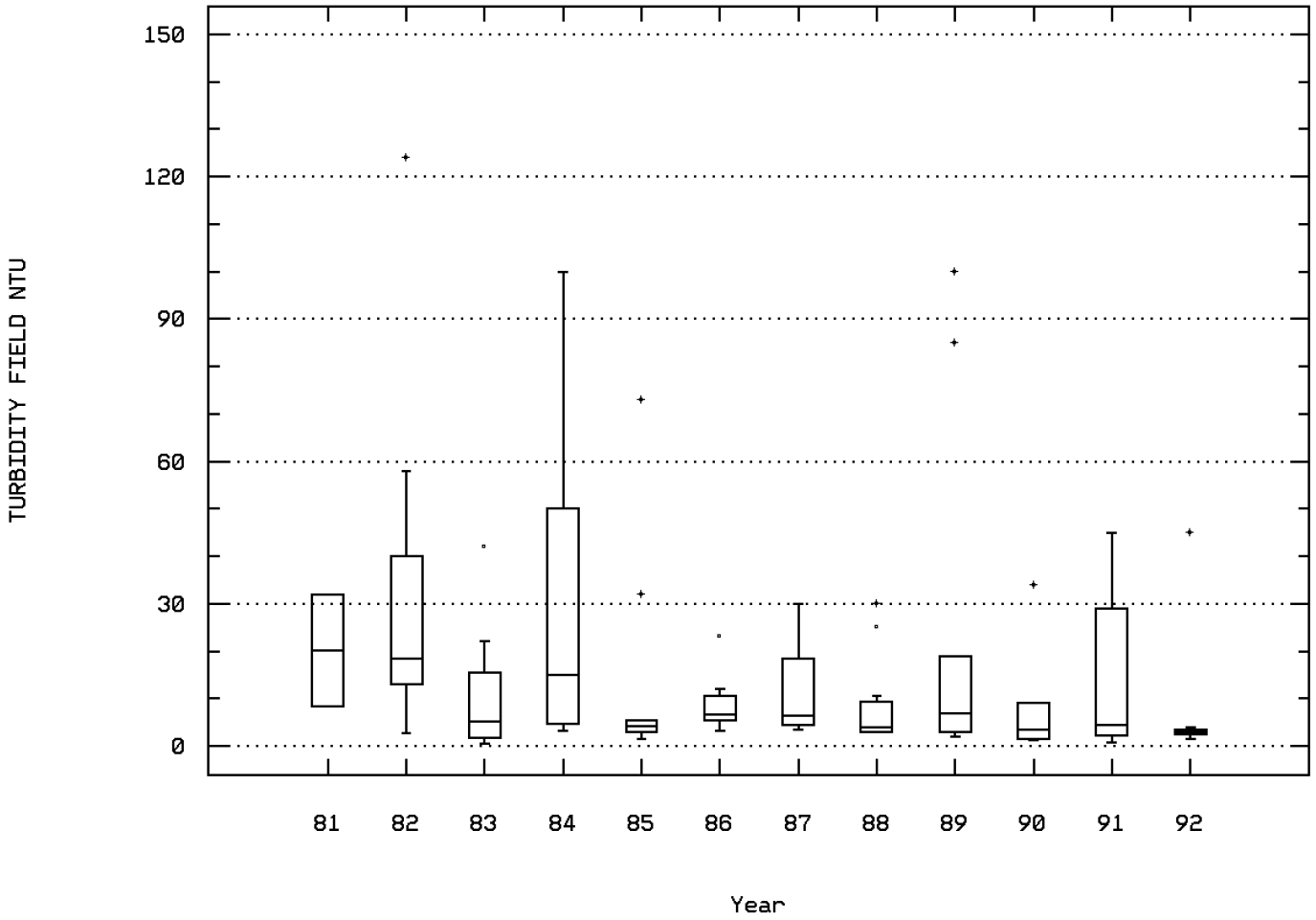
SOUTH FORK CUMBERLAND RIVER AT BLUE HER



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 82078

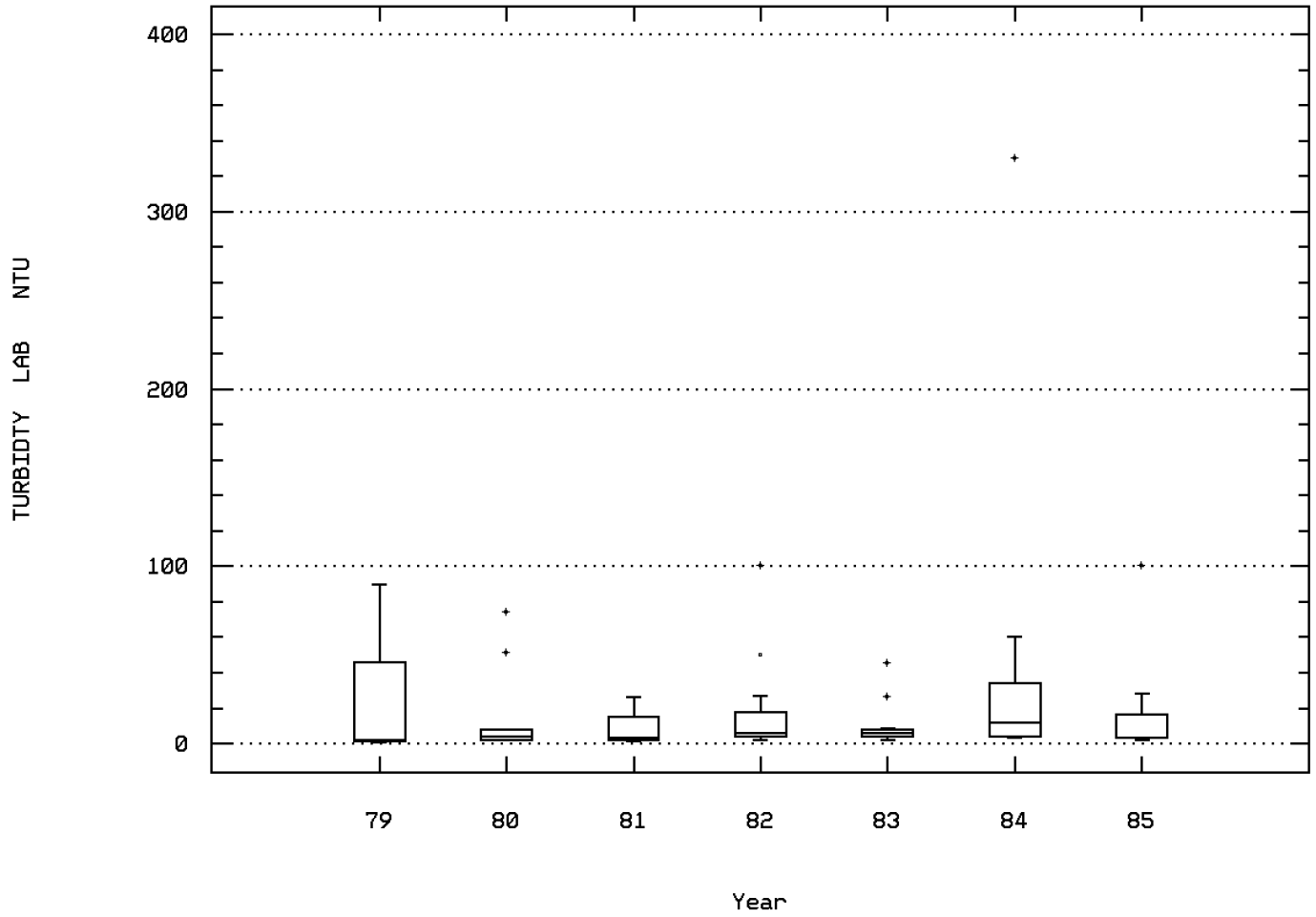
TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Station: BISO0037 Parameter Code: 82079

TURBIDITY,LAB NEPHELOMETRIC TURBIDITY U



SOUTH FORK CUMBERLAND RIVER AT BLUE HER

Seasonal Analysis for Season #1: 11/16 to 3/15 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	44	6.8	6.4	13.5	0.1	12.167	3.488	1.55	4.	8.875	11.
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	21	1100.	4829.571	41200.	85.	96914792.257	9844.531	412.	730.5	2540.	20618.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	44	112.	119.682	277.	60.	2144.641	46.31	73.	90.5	133.	198.5
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	20	118.	124.45	260.	79.	2114.471	45.983	80.7	95.75	131.5	224.8
00300	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	40	10.6	11.22	15.2	8.2	3.326	1.824	9.12	10.	12.55	14.36
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	20	0.75	0.808	1.8	0.05	0.174	0.417	0.4	0.5	1.075	1.39
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	20	5.75	5.935	16.	1.	12.407	3.522	1.36	3.375	8.4	9.09
00400	PH (STANDARD UNITS)	03/21/79-09/17/92	44	7.	7.075	8.42	6.3	0.228	0.478	6.5	6.8	7.3	7.65
00400	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	44	7.	6.887	8.42	6.3	0.265	0.514	6.5	6.8	7.3	7.65
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	44	0.1	0.13	0.501	0.004	0.013	0.113	0.023	0.05	0.158	0.316
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	20	7.	7.09	7.8	6.7	0.106	0.326	6.8	6.8	7.3	7.68
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	20	7.	6.998	7.8	6.7	0.115	0.339	6.8	6.8	7.3	7.68
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	20	0.1	0.101	0.2	0.016	0.003	0.056	0.021	0.05	0.158	0.158
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	44	13.	15.318	64.	7.	81.245	9.014	8.5	11.	17.5	22.5
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	20	3.	3.25	9.	1.	3.461	1.86	1.1	2.	4.	5.9
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	44	7.	26.795	317.	0.5	3162.76	56.238	1.	2.25	20.75	67.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	42 ##	0.025	0.044	0.159	0.024	0.001	0.037	0.025	0.025	0.05	0.117
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	42	0.164	0.214	0.828	0.025	0.035	0.187	0.033	0.084	0.32	0.401
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	42	0.24	0.224	0.43	0.003	0.009	0.094	0.076	0.175	0.275	0.337
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	42	0.01	0.023	0.14	0.003	0.001	0.031	0.003	0.004	0.031	0.05
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	29	1.6	1.897	4.9	0.7	1.278	1.131	0.8	1.	2.55	4.1
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	43	45.	47.209	94.	19.	262.598	16.205	28.4	36.	56.	66.
00916	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	27	11.5	11.233	20.4	5.6	11.808	3.436	6.88	8.5	13.3	16.02
00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	27	4.4	4.726	8.8	3.4	1.302	1.141	3.58	3.9	5.2	6.1
00929	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	27	3.58	4.324	18.3	0.3	13.354	3.654	1.84	2.33	4.54	7.68
00937	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	26	1.275	1.335	2.63	0.84	0.185	0.43	0.909	1.013	1.423	2.07
00940	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	43	4.	4.219	15.	0.4	7.507	2.74	1.28	2.	5.	8.
00946	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	44	32.	35.345	92.8	18.1	242.318	15.567	21.05	26.675	36.175	55.7
00950	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	20 ##	0.05	0.052	0.12	0.025	0.	0.019	0.031	0.05	0.05	0.077
01002	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	40	1.	1.813	12.	0.5	5.919	2.433	0.5	1.	1.	4.9
01007	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	30	27.	32.4	73.	6.	294.938	17.174	14.1	21.	44.25	60.4
01027	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	39 ##	0.5	1.487	15.	0.5	10.217	3.196	0.5	0.5	0.5	2.
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	43	2.	1.86	7.	0.5	2.385	1.544	0.5	0.5	2.	4.6
01042	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	43	2.	5.733	49.	0.5	81.73	9.04	1.	2.	7.	13.4
01045	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	37	436.	972.054	10900.	186.	3301610.053	1817.033	236.	310.	965.	1648.8
01051	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	43	2.	16.267	152.	0.5	1161.552	34.082	0.5	1.	8.	77.8
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	37	120.	138.405	410.	70.	3975.414	63.051	79.8	100.	158.	226.
01092	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	37	12.	18.811	115.	3.	463.102	21.52	5.	8.	21.	36.
01105	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	28	160.5	322.357	2020.	7.	221279.571	470.404	69.5	125.5	272.75	810.6
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	40	10.	41.3	320.	0.5	5209.882	72.18	2.05	5.	51.	172.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	40	1.	1.101	2.505	-0.301	0.462	0.68	0.311	0.699	1.679	2.23
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			12.623								
47501	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	40	41363.	42683.15	99992.	10514.	675260893.413	25985.783	11853.9	21187.	49997.75	89132.2
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	20	72.	79.	190.	50.	994.316	31.533	56.2	58.5	83.5	125.
71900	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	30 ##	0.05	0.18	1.8	0.05	0.126	0.354	0.05	0.05	0.1	0.49
72015	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	31	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	33	7.	15.618	100.	0.9	433.382	20.818	1.96	3.	20.5	44.8
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	20	6.4	12.745	50.	2.3	202.876	14.243	2.42	3.	23.25	37.6

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	52	17.25	17.062	31.	7.	35.157	5.929	9.5	12.	21.225	25.7
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	25	1060.	1479.8	5600.	136.	2251079.75	1500.36	158.2	545.	1725.	4674.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	52	116.	121.962	198.	66.	1045.606	32.336	79.1	103.	138.75	174.1

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 3/16 to 6/30 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	24	122.	126.125	206.	87.	874.984	29.58	90.	104.25	140.5	173.5
00300	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	48	8.9	8.933	13.4	5.2	3.162	1.778	6.3	7.825	10.	11.7
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	25	0.4	0.604	2.6	0.05	0.461	0.679	0.05	0.15	0.9	1.64
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	23	4.9	6.104	15.	1.5	15.058	3.88	2.16	3.	7.7	13.
00400	PH (STANDARD UNITS)	03/21/79-09/17/92	52	7.1	7.07	8.3	6.1	0.206	0.454	6.5	6.725	7.3	7.7
00400	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	52	7.1	6.864	8.3	6.1	0.249	0.499	6.5	6.725	7.3	7.7
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	52	0.079	0.137	0.794	0.005	0.021	0.144	0.02	0.05	0.189	0.316
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	23	7.	7.017	8.7	6.4	0.22	0.469	6.54	6.7	7.2	7.46
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	23	7.	6.865	8.7	6.4	0.244	0.494	6.54	6.7	7.2	7.46
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	23	0.1	0.136	0.398	0.002	0.01	0.1	0.035	0.063	0.2	0.29
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	51	17.	18.686	60.	9.	75.7	8.701	12.	14.	20.	30.2
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	23	3.	3.	8.	0.	2.636	1.624	1.4	2.	4.	5.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	48	6.	27.083	316.	0.5	3564.706	59.705	1.	3.	17.	77.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	50 ##	0.025	0.046	0.25	0.013	0.002	0.044	0.025	0.025	0.056	0.109
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	52	0.196	0.232	1.03	0.025	0.038	0.195	0.025	0.093	0.296	0.511
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	48	0.14	0.153	0.69	0.02	0.011	0.103	0.06	0.09	0.2	0.24
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	50	0.011	0.026	0.235	0.002	0.001	0.039	0.003	0.005	0.038	0.074
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	29	1.4	1.738	4.9	0.6	0.805	0.897	0.9	1.2	2.2	3.
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	49	48.	47.673	94.	21.	243.766	15.613	28.	37.	56.	65.
00916	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	33	11.4	11.43	24.1	5.2	16.492	4.061	6.	8.65	13.35	16.76
00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	33	4.6	4.627	9.5	1.9	2.936	1.714	2.58	3.45	5.5	6.3
00929	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	33	3.73	4.39	16.1	0.9	7.989	2.826	1.64	2.72	5.075	7.58
00937	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	32	1.11	1.209	2.32	0.76	0.107	0.326	0.935	1.023	1.275	1.691
00940	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	51	3.	6.38	146.	0.025	405.744	20.143	0.36	2.	4.	7.8
00946	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	50	33.5	34.206	76.9	16.5	137.546	11.728	19.33	26.15	41.075	49.91
00950	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	24 ##	0.05	0.055	0.16	0.025	0.001	0.033	0.025	0.04	0.05	0.12
01002	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	49 ##	1.	1.806	19.	0.5	8.884	2.981	0.5	0.5	1.5	4.
01007	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	36	31.5	33.833	99.	4.	429.4	20.722	7.7	22.	42.75	63.4
01027	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	43 ##	0.5	1.395	20.	0.5	10.459	3.234	0.5	0.5	0.5	4.4
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	49	2.	2.622	13.	0.5	7.578	2.753	0.5	1.	3.	6.
01042	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	49	3.	3.388	16.	0.5	9.649	3.106	1.	1.	4.	8.
01045	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	44	445.	677.5	3760.	60.	549645.698	741.381	220.	275.	662.5	2055.
01051	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	50	2.	21.27	272.	0.5	2545.002	50.448	0.5	1.	10.5	117.6
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	44	100.	109.68	320.	22.	3073.709	55.441	55.	80.	119.	192.5
01092	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	44	11.	19.284	231.	0.5	1171.295	34.224	4.	7.25	20.75	34.
01105	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	33	166.	348.848	2360.	48.	209411.758	457.615	72.4	96.5	416.5	943.6
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	48	30.	252.833	7700.	1.	1237048.684	1112.227	2.	5.	78.	343.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	48	1.477	1.458	3.886	0.	0.68	0.825	0.301	0.699	1.892	2.533
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			28.731								
47501	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	43	21034.	31218.767	92722.	10016.	516228245.135	22720.657	11454.4	12724.	39994.	73939.2
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	21	84.	84.095	122.	50.	340.59	18.455	57.2	73.	97.	114.
71900	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	35 ##	0.05	0.237	2.	0.05	0.203	0.45	0.05	0.05	0.2	0.74
72015	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	38	0.	0.947	36.	0.	34.105	5.84	0.	0.	0.	0.
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	40	5.3	15.125	124.	1.5	517.97	22.759	2.62	3.05	21.	44.7
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	25	6.6	18.492	100.	0.8	714.715	26.734	1.	1.8	26.	65.6

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 7/01 to 11/15 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/21/79-09/17/92	59	23.	21.159	29.	9.	35.227	5.935	12.	15.	26.	27.5
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/07/84-09/18/91	31	244.	563.452	4540.	41.	796056.656	892.22	65.2	87.	685.	1214.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/21/79-09/17/92	59	191.	194.915	340.	60.	4312.286	65.668	102.	146.	250.	285.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/21/79-07/16/85	28	219.5	223.286	356.	139.	3902.656	62.471	144.7	161.	272.25	313.3
00300	OXYGEN, DISSOLVED MG/L	03/21/79-09/18/91	55	7.7	7.787	12.4	4.8	2.102	1.45	5.8	7.	8.6	9.84
00310	BOD, 5 DAY, 20 DEG C MG/L	03/21/79-07/16/91	39	0.6	0.768	2.8	0.05	0.428	0.654	0.1	0.3	1.1	2.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 7/01 to 11/15 - Station BISO0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00335	COD, .025N K2CR2O7 MG/L	03/21/79-08/29/85	29	6.4	15.976	236.	1.4	1834.357	42.829	3.3	3.9	10.15	24.
00400	PH (STANDARD UNITS)	03/21/79-09/17/92	56	7.1	7.095	8.	6.2	0.117	0.342	6.6	6.9	7.3	7.5
00400	CONVERTED PH (STANDARD UNITS)	03/21/79-09/17/92	56	7.1	6.964	8.	6.2	0.135	0.367	6.6	6.9	7.3	7.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-09/17/92	56	0.079	0.109	0.631	0.01	0.01	0.1	0.032	0.05	0.126	0.251
00403	PH, LAB, STANDARD UNITS SU	03/21/79-08/29/85	29	7.2	7.203	7.7	6.7	0.079	0.281	6.8	6.95	7.45	7.6
00403	CONVERTED PH, LAB, STANDARD UNITS	03/21/79-08/29/85	29	7.2	7.116	7.7	6.7	0.087	0.295	6.8	6.95	7.45	7.6
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/21/79-08/29/85	29	0.063	0.076	0.2	0.02	0.003	0.05	0.025	0.036	0.113	0.158
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/21/79-09/17/92	59	25.	26.017	52.	7.	59.672	7.725	17.	22.	28.	36.
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/21/79-07/16/85	28	3.	4.393	27.	1.	24.618	4.962	1.9	2.	4.	6.7
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/21/79-09/17/92	57	5.	17.798	235.	0.5	1765.776	42.021	1.	2.5	11.	32.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/21/79-09/17/92	56 ##	0.025	0.046	0.24	0.003	0.002	0.045	0.025	0.025	0.05	0.113
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/21/79-09/17/92	55	0.216	0.227	0.953	0.025	0.035	0.186	0.025	0.085	0.318	0.385
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/21/79-09/17/92	57	0.07	0.097	0.26	0.003	0.005	0.071	0.02	0.05	0.145	0.232
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/21/79-09/17/92	57	0.014	0.024	0.154	0.003	0.001	0.027	0.003	0.006	0.039	0.058
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	07/19/83-09/17/92	41	2.3	2.607	6.8	1.4	1.278	1.131	1.52	1.85	3.05	3.96
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/79-09/17/92	56	68.	71.482	155.	19.	586.509	24.218	44.2	56.25	88.	100.6
00916	CALCIUM, TOTAL (MG/L AS CA)	07/19/83-09/17/92	40	16.4	17.39	42.5	4.8	52.109	7.219	9.19	12.75	20.35	25.76
00927	MAGNESIUM, TOTAL (MG/L AS MG)	07/19/83-09/17/92	41	6.6	6.605	12.4	2.5	4.669	2.161	3.52	5.35	8.1	9.34
00929	SODIUM, TOTAL (MG/L AS NA)	07/19/83-09/17/92	42	8.4	8.641	18.8	0.5	22.145	4.706	2.78	5.04	11.175	16.46
00937	POTASSIUM, TOTAL MG/L AS K)	07/19/83-09/17/92	40	1.965	1.941	3.26	0.88	0.254	0.504	1.323	1.6	2.225	2.559
00940	CHLORIDE,TOTAL IN WATER MG/L	03/21/79-09/17/92	58	5.	6.8	34.	0.5	33.371	5.777	2.	3.75	8.	12.1
00946	SULFATE, DISSOLVED (MG/L AS SO4)	03/21/79-09/17/92	59	48.5	54.692	102.	11.9	519.418	22.791	27.7	38.2	73.	91.8
00950	FLUORIDE, DISSOLVED (MG/L AS F)	03/21/79-08/29/85	29 ##	0.05	0.064	0.14	0.025	0.001	0.024	0.05	0.05	0.08	0.1
01002	ARSENIC, TOTAL (UG/L AS AS)	05/16/79-09/17/92	55 ##	1.	2.624	39.	0.5	33.32	5.772	0.5	0.5	2.	6.4
01007	BARIUM, TOTAL (UG/L AS BA)	01/19/81-09/17/92	45	32.	40.	104.	5.	618.182	24.863	12.	24.5	48.5	82.6
01027	CADMIUM, TOTAL (UG/L AS CD)	11/11/80-09/17/92	51 ##	0.5	0.931	8.	0.5	1.95	1.396	0.5	0.5	0.5	1.8
01034	CHROMIUM, TOTAL (UG/L AS CR)	05/16/79-09/17/92	58	2.	1.983	10.	0.5	3.772	1.942	0.5	0.5	2.	4.
01042	COPPER, TOTAL (UG/L AS CU)	05/16/79-09/17/92	58	3.	6.414	98.	0.5	172.817	13.146	0.5	2.	6.25	13.
01045	IRON, TOTAL (UG/L AS FE)	11/11/80-09/17/92	50	490.	715.74	3560.	160.	431259.951	656.704	278.7	337.5	900.75	1160.
01051	LEAD, TOTAL (UG/L AS PB)	05/16/79-09/17/92	58	3.	18.147	174.	0.5	1596.842	39.961	0.95	1.	10.25	109.5
01055	MANGANESE, TOTAL (UG/L AS MN)	11/11/80-09/17/92	51	100.	109.725	350.	15.	3639.283	60.326	49.4	70.	135.	188.
01092	ZINC, TOTAL (UG/L AS ZN)	11/11/80-09/17/92	50	12.5	36.61	930.	1.	16993.564	130.359	3.1	7.	24.	55.3
01105	ALUMINUM, TOTAL (UG/L AS AL)	07/19/83-09/17/92	41	102.	182.195	1870.	27.	92575.211	304.262	54.	77.	152.5	282.2
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	56	13.	36.384	700.	0.5	9185.245	95.84	2.5	5.	30.	79.5
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/24/80-09/17/92	56	1.113	1.128	2.845	-0.301	0.332	0.576	0.398	0.699	1.477	1.899
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			13.439								
47501	WEATHER AT TIME OF SAMPLING	11/11/80-09/17/92	50	30919.	34133.7	99994.	10014.	408647757.439	20215.038	11013.9	20395.	41157.5	49905.9
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/21/79-08/29/85	29	132.	134.207	206.	62.	1902.67	43.62	80.	93.	174.	190.
71900	MERCURY, TOTAL (UG/L AS HG)	05/16/79-09/17/92	39	0.1	0.168	2.4	0.05	0.144	0.38	0.05	0.05	0.1	0.3
72015	DEPTH TO TOP OF SAMPLE INTERVAL (FT BELOW LSD)	03/21/79-09/28/89	41	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/22/81-09/17/92	43	5.	13.653	100.	0.4	478.519	21.875	1.44	3.	17.	32.
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/21/79-08/29/85	29	4.6	25.352	330.	1.8	4052.456	63.659	2.	2.6	14.	90.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station Inventory for Station: BISO0038

NPS Station ID: BISO0038
LAT/LON: 36.693337/ -84.624171
Agency: 21KY
Date Created: 06/30/90
Location: ROCK CREEK AT CO-OPERATIVE KY
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SUD432 /02008009
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104010
RF1 Mile Point: 25.500
Distance from RF1: 0.00
On/Off RF1: ON
RF3 Index: 05130104006700.00
RF3 Mile Point: 0.00
Distance from RF3: 0.01
On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 2-44 BARTHELL KY QUADRANGLE SAMPLE COLLECTED AT CO-OPERATIVE KY
IN MCCREARY COUNTY STREAM ORDER 2
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0038

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0039

NPS Station ID: BISO0039
LAT/LON: 36.702504/ -84.597226
Agency: 21KY
Date Created: 06/30/90
Location: ROCK CREEK BELOW JONES BRANCH
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SUD431 /02008008
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104010
RF1 Mile Point: 26.450
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index: 05130104001018.20
RF3 Mile Point: 19.00
Distance from RF3: 0.02
On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 2-44 BARTHELL KY QUADRANGLE SAMPLE COLLECTED BELOW JONES BRANCH
IN MCCREARY COUNTY STREAM ORDER 3
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0039

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0040

NPS Station ID: BISO0040
LAT/LON: 36.702781/ -84.563059
Agency: 112WRD
Date Created: / /
Location: ROCK C NR YAMACRAW
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03410590
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130101
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130101
RF1 Mile Point: 0.000
Distance from RF1: 0.80
On/Off RF1:
RF3 Index: 05130104001300.00
RF3 Mile Point: 0.00
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0040

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/21/65-05/21/65	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00060	FLOW, STREAM, MEAN DAILY CFS	05/21/65-05/21/65	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00080	COLOR (PLATINUM-COBALT UNITS)	05/21/65-05/21/65	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/21/65-05/21/65	1	190.	190.	190.	190.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/21/65-05/21/65	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/21/65-05/21/65	1	91.	91.	91.	91.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/21/65-05/21/65	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/21/65-05/21/65	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/21/65-05/21/65	1	0.079	0.079	0.079	0.079	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	05/21/65-05/21/65	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	05/21/65-05/21/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	05/21/65-05/21/65	1	68.	68.	68.	68.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	05/21/65-05/21/65	1	46.	46.	46.	46.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	05/21/65-05/21/65	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	05/21/65-05/21/65	1	71.	71.	71.	71.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/21/65-05/21/65	1	200.	200.	200.	200.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	05/21/65-05/21/65	1	100.	100.	100.	100.	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	05/21/65-05/21/65	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
71885	IRON (UG/L AS FE)	05/21/65-05/21/65	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0040

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	1	0	0.00				1	0	0.00						
00400	PH	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00				1	0	0.00						
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0041

NPS Station ID: BISO0041
LAT/LON: 36.702781/ -84.595559
Agency: 112WRD
Date Created: 08/23/80
Location: ROCK CREEK AT WHITE OAK JUNCTION, KY
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03410560
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 1.20
On/Off RF1:
RF3 Index: 05130104005104.13
RF3 Mile Point: 4.13
Distance from RF3: 0.03
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0041

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/12/79-06/16/81	8	17.25	16.813	21.5	10.	13.21	3.635	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/12/79-06/16/81	8	3.5	56.113	321.	0.2	12123.09	110.105	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/12/79-06/16/81	8	370.	352.25	770.	75.	64556.214	254.079	**	**	**	**
00400	PH (STANDARD UNITS)	06/12/79-06/16/81	8	4.75	5.044	6.8	3.35	1.977	1.406	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/12/79-06/16/81	8	4.424	3.986	6.8	3.35	3.255	1.804	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/12/79-06/16/81	8	37.631	103.267	446.684	0.158	25096.373	158.418	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/30/81-06/16/81	2	6.9	6.9	7.	6.8	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/30/81-06/16/81	2	6.889	6.889	7.	6.8	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/81-06/16/81	2	0.129	0.129	0.158	0.1	0.002	0.041	**	**	**	**
00405	CARBON DIOXIDE (MG/L AS CO2)	08/23/79-08/23/79	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/12/79-09/11/80	5	0.5	2.2	7.	0.	8.575	2.928	**	**	**	**
00435	ACIDITY, TOTAL (MG/L AS CACO3)	06/12/79-06/16/81	6	7.5	29.	109.	0.	1802.	42.45	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	07/23/80-07/23/80	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/23/80-07/23/80	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/23/80-07/23/80	1	180.	180.	180.	180.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	07/23/80-07/23/80	1	150.	150.	150.	150.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	07/23/80-07/23/80	1	44.	44.	44.	44.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	07/23/80-07/23/80	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	07/23/80-07/23/80	1	29.	29.	29.	29.	0.	0.	**	**	**	**
00931	SODIUM ADSORPTION RATIO	07/23/80-07/23/80	1	0.9	0.9	0.9	0.9	0.	0.	**	**	**	**
00932	SODIUM, PERCENT	07/23/80-07/23/80	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	07/23/80-07/23/80	1	3.1	3.1	3.1	3.1	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	07/23/80-07/23/80	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	06/12/79-06/16/81	8	99.	131.5	340.	18.	15171.429	123.172	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/23/80-07/23/80	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	07/23/80-07/23/80	1	21.	21.	21.	21.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	07/23/80-07/23/80	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	07/23/80-07/23/80	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	07/23/80-07/23/80	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	07/23/80-07/23/80	1	18.	18.	18.	18.	0.	0.	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	06/12/79-06/16/81	8	2600.	3136.25	7000.	390.	5064798.214	2250.511	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	06/12/79-06/16/81	8	3900.	4451.25	11000.	410.	12208441.071	3494.058	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	06/12/79-06/16/81	8	775.	1317.5	4000.	20.	2266878.571	1505.616	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	07/23/80-07/23/80	1	11.	11.	11.	11.	0.	0.	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	04/02/80-06/16/81	6	0.	11.667	60.	0.	576.667	24.014	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/02/80-06/16/81	6	510.	935.	2700.	140.	1082390.	1040.38	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: BISO0041

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01056	MANGANESE, DISSOLVED (UG/L AS MN)	04/02/80-06/16/81	6	510.	923.333	2700.	80.	1105186.667	1051.279	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	07/23/80-07/23/80	1	260.	260.	260.	260.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	07/23/80-07/23/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/02/80-06/16/81	6	154.5	222.667	512.	47.	40078.667	200.197	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	07/23/80-07/23/80	1	485.	485.	485.	485.	0.	0.	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	04/02/80-06/16/81	6	5.54	10.64	40.7	0.24	237.417	15.408	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/02/80-06/16/81	6	0.21	0.303	0.7	0.06	0.075	0.273	**	**	**	**
71825	ACIDITY, TOTAL (MG/L AS H)	06/12/79-06/16/81	6	0.15	0.592	2.2	0.05	0.722	0.85	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	07/23/80-07/23/80	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	07/23/80-07/23/80	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	08/23/79-06/16/81	7	13.	20.714	73.	3.	564.238	23.754	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	08/23/79-06/16/81	7	0.09	9.486	63.	0.	557.384	23.609	**	**	**	**
82031	COAL IN BOTTOM MATERIAL DRY WEIGHT GRAMS/KG	07/23/80-07/23/80	1	7.	7.	7.	7.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0041

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------11/16-3/15---------- Obs	Exceed	Prop.	----------3/16-6/30---------- Obs	Exceed	Prop.	----------7/01-11/15---------- Obs	Exceed	Prop.	----------n/a---------- Obs	Exceed	Prop.
00400	PH	Other-Hi Lim.	9.	8	0	0.00				5	0	0.00	3	0	0.00			
		Other-Lo Lim.	6.5	8	6	0.75				5	4	0.80	3	2	0.67			
00403	PH, LAB	Other-Hi Lim.	9.	2	0	0.00				2	0	0.00						
		Other-Lo Lim.	6.5	2	0	0.00				2	0	0.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	8	0	0.00				5	0	0.00	3	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	1	1.00							1	1	1.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	1	1.00							1	1	1.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	1	1.00							1	1	1.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0042

NPS Station ID: BISO0042
LAT/LON: 36.702781/ -84.596392
Agency: 21KY
Date Created: 06/30/90
Location: ROCK CREEK BELOW WHITE OAK CREEK
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SUD426 /02008003
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104010
RF1 Mile Point: 22.700
Distance from RF1: 0.00
On/Off RF1: ON
RF3 Index: 05130104066400.00
RF3 Mile Point: 0.62
Distance from RF3: 0.01
On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 2-44 BARTHELL KY QUADRANGLE SAMPLE COLLECTED BELOW WHITE OAK CREEK
IN MCCREARY COUNTY STREAM ORDER 4
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0042

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0043

NPS Station ID: BISO0043
LAT/LON: 36.702781/ -84.596392
Agency: 21KY
Date Created: 06/30/90
Location: ROCK CREEK BELOW WHITE OAK CREEK
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SUD427 /02008004
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104010
RF1 Mile Point: 22.700
Distance from RF1: 0.00
On/Off RF1: ON
RF3 Index: 05130104006700.00
RF3 Mile Point: 0.00
Distance from RF3: 0.01
On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 2-44 BARTHELL KY QUADRANGLE SAMPLE COLLECTED BELOW WHITE OAK CREEK
IN MCCREARY COUNTY STREAM ORDER 4
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0043

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0044

NPS Station ID: BISO0044
LAT/LON: 36.716670/ -84.543893
Agency: 21KY
Date Created: 06/30/90
Location: ROCK CREEK AT MOUTH
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SUD433 /02008010
RMI-Indexes:
Within Park Boundary: Yes
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104010
RF1 Mile Point: 26.450
Distance from RF1: 0.00
On/Off RF1: ON
RF3 Index: 05130104015700.00
RF3 Mile Point: 0.04
Distance from RF3: 0.05
On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 2-44 BARTHELL KY QUADRANGLE SAMPLE COLLECTED AT MOUTH
IN MCCREARY COUNTY STREAM ORDER 2
PHYSICOCHEMICAL/BIOLOGICAL STATION

Parameter Inventory for Station: BISO0044

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0045

NPS Station ID: BISO0045
LAT/LON: 36.717781/ -84.544170
Agency: 11COEHUN
Date Created: 07/14/79
Location: BSF CUMBERLAND RIVER, MILE 40.2
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 3BSF10001
RMI-Indexes: 1021500 007720 01140 9598
Within Park Boundary: Yes
RMI-Miles: 0953.80 0058.30 514.00 040.20
HUC: 05130104
Depth of Water: 10
Aquifer:
Major Basin: CUMBERLAND RIVER BASIN
Elevation: 0
Water Body Id:
Minor Basin: BIG SOUTH FORK CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104009
RF1 Mile Point: 13.730
Distance from RF1: 13.50
On/Off RF1: OFF
RF3 Index: 05130104013200.00
RF3 Mile Point: 1.78
Distance from RF3: 0.27
On/Off RF3:
Description:
QUADRANGLE: BARTHELL, KY
LOCATION: AT HIGHWAY 92 BRIDGE

Parameter Inventory for Station: BISO0045

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/12/74-11/12/74	1	250.	250.	250.	250.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/74-11/12/74	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/12/74-11/12/74	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/74-11/12/74	1	135.	135.	135.	135.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/12/74-11/12/74	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/74-11/12/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	11/12/74-11/12/74	1	102.	102.	102.	102.	0.	0.	**	**	**	**
00505	RESIDUE, TOTAL VOLATILE (MG/L)	11/12/74-11/12/74	1	32.	32.	32.	32.	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	11/12/74-11/12/74	1	95.	95.	95.	95.	0.	0.	**	**	**	**
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	11/12/74-11/12/74	1	29.	29.	29.	29.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	11/12/74-11/12/74	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/12/74-11/12/74	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/74-11/12/74	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/74-11/12/74	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/74-11/12/74	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/12/74-11/12/74	1	64.	64.	64.	64.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/74-11/12/74	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/74-11/12/74	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/74-11/12/74	1	46.	46.	46.	46.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	11/12/74-11/12/74	1	1950.	1950.	1950.	1950.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/74-11/12/74	1	170.	170.	170.	170.	0.	0.	**	**	**	**
01105	ALUMINUM, TOTAL (UG/L AS AL)	11/12/74-11/12/74	1	500.	500.	500.	500.	0.	0.	**	**	**	**
70225	CURRENT SPEED (METERS/SEC)	11/12/74-11/12/74	1	1.	1.	1.	1.	0.	0.	**	**	**	**
70508	ACIDITY, TOTAL, HOT (MG/L AS CACO3)	11/12/74-11/12/74	1	0.	0.	0.	0.	0.	0.	**	**	**	**

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EPA Water Quality Criteria Analysis for Station: BISO0045

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00400	PH	Other-Hi Lim.	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0046

NPS Station ID: BISO0046
LAT/LON: 36.725004/ -84.541671
Agency: 11EPALES
Date Created: / /
Location: S FORK CUMBERLAND RIVER
FIPS State/County: 21000 KENTUCKY/
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 2101T1 /LS2101T1
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: I/CUMBERLAND LAKE
Elevation: 0
Water Body Id:
Minor Basin: HWY 92 BRDG 3 MI W OF SMITHTOWN
ECO Region:
RF1 Index: 05130104009
RF1 Mile Point: 12.630
Distance from RF1: 0.00
On/Off RF1: OFF
RF3 Index:
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:
AT ST HWY BRIDGE APPROX 3 MI W OF SMITH TOWN ON HWY 92 (5 MI W OF STEARN S KY)

Parameter Inventory for Station: BISO0046

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/01/73-03/16/74	12	0.031	0.043	0.147	0.017	0.001	0.036	0.018	0.021	0.049	0.122
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/01/73-03/16/74	12	0.001	0.002	0.005	0.001	0.	0.001	0.001	0.001	0.002	0.004
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	04/01/73-03/16/74	11	0.14	0.141	0.24	0.024	0.004	0.066	0.032	0.073	0.2	0.234
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/01/73-03/16/74	12	0.335	0.423	1.1	0.05	0.111	0.333	0.065	0.19	0.575	1.07
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/01/73-03/16/74	12	0.14	0.14	0.24	0.03	0.004	0.064	0.039	0.085	0.195	0.231
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/01/73-03/16/74	11	0.02	0.029	0.115	0.003	0.001	0.032	0.004	0.01	0.045	0.101
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	04/01/73-03/16/74	12 ##	0.003	0.004	0.01	0.003	0.	0.003	0.003	0.003	0.007	0.01

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0046

				Total	Exceed	Prop.	----------11/16-3/15----------			----------3/16-6/30----------			----------7/01-11/15----------			----------n/a----------		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	12	0	0.00	4	0	0.00	4	0	0.00	4	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	11	0	0.00	4	0	0.00	4	0	0.00	3	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	12	0	0.00	4	0	0.00	4	0	0.00	4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0047

NPS Station ID: BISO0047
LAT/LON: 36.732226/ -84.559449
Agency: 112WRD
Date Created: 08/23/80
Location: WOLF CREEK AT WOLF CREEK, KY
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 03410700
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 1.30
On/Off RF1:
RF3 Index: 05130104001003.61
RF3 Mile Point: 3.64
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0047

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/14/79-06/10/81	6	17.	16.667	24.	11.5	19.967	4.468	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/14/79-06/10/81	8	0.4	1.738	7.	0.	6.171	2.484	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/14/79-06/10/81	6	75.	98.333	180.	55.	2926.667	54.099	**	**	**	**
00400	PH (STANDARD UNITS)	06/14/79-06/10/81	6	6.725	6.833	7.6	6.55	0.15	0.387	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/14/79-06/10/81	6	6.724	6.739	7.6	6.55	0.16	0.4	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/14/79-06/10/81	6	0.189	0.182	0.282	0.025	0.008	0.09	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	06/10/81-06/10/81	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	06/10/81-06/10/81	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/10/81-06/10/81	1	0.158	0.158	0.158	0.158	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	06/14/79-05/14/80	4	38.5	38.25	60.	16.	630.917	25.118	**	**	**	**
00435	ACIDITY, TOTAL (MG/L AS CACO3)	03/30/81-06/10/81	2	5.	5.	5.	5.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	06/14/79-06/10/81	6	23.5	26.333	43.	16.	129.467	11.378	**	**	**	**
01044	IRON, SUSPENDED (UG/L AS FE)	06/14/79-06/10/81	6	265.	315.	480.	210.	13710.	117.09	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	06/14/79-06/10/81	6	400.	400.	560.	250.	11920.	109.179	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	06/14/79-06/10/81	6	85.	85.	180.	30.	2830.	53.198	**	**	**	**
01054	MANGANESE, SUSPENDED (UG/L AS MN)	06/14/79-06/10/81	6	5.	5.	10.	0.	30.	5.477	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	06/14/79-06/10/81	6	125.	178.333	350.	60.	18216.667	134.969	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	06/14/79-06/10/81	6	125.	173.333	350.	50.	18506.667	136.039	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/02/80-06/10/81	4	42.	56.5	104.	38.	1009.	31.765	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	04/02/80-06/10/81	4	0.35	0.388	0.75	0.1	0.072	0.269	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/02/80-06/10/81	4	0.055	0.075	0.14	0.05	0.002	0.044	**	**	**	**
71825	ACIDITY, TOTAL (MG/L AS H)	03/30/81-06/10/81	2	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	06/14/79-06/10/81	6	7.	6.167	10.	1.	10.567	3.251	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	06/14/79-06/10/81	6	0.01	0.035	0.11	0.	0.002	0.045	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0047

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00400	PH	Other-Hi Lim.	9.	6	0	0.00				5	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	6	0	0.00				5	0	0.00	1	0	0.00			
00403	PH, LAB	Other-Hi Lim.	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	6	0	0.00				5	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0048

NPS Station ID: BISO0048
LAT/LON: 36.740281/ -84.591670
Agency: 22KYOSM2
Date Created: 10/22/83
Location: UNNAMED TRIB. OF WOLF CREEK
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 0485901S01
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin: OHIO RIVER
Elevation: 0
Water Body Id:
Minor Basin: CUMBERLAND RIVER
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 8.00
On/Off RF1:
RF3 Index: 05130104006800.00
RF3 Mile Point: 2.48
Distance from RF3: 0.07
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/07/83-07/07/83	3	16.	17.333	20.	16.	5.333	2.309	**	**	**	**
00059	FLOW, RATE, INSTANTANEOUS GALLONS/MIN	05/07/83-07/07/83	3	139.14	96.557	148.11	2.42	6666.399	81.648	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	05/07/83-10/11/83	6	0.	0.	0.	0.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	05/07/83-07/07/83	3	100.	103.333	120.	90.	233.333	15.275	**	**	**	**
00400	PH (STANDARD UNITS)	05/07/83-07/07/83	3	6.6	6.567	6.9	6.2	0.123	0.351	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/07/83-07/07/83	3	6.6	6.474	6.9	6.2	0.136	0.369	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/07/83-07/07/83	3	0.251	0.336	0.631	0.126	0.069	0.263	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	05/07/83-07/07/83	3	5.	6.333	9.	5.	5.333	2.309	**	**	**	**
00435	ACIDITY, TOTAL (MG/L AS CACO3)	05/07/83-07/07/83	3	2.	1.667	2.	1.	0.333	0.577	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	05/07/83-07/07/83	3	14.	18.333	33.	8.	170.333	13.051	**	**	**	**
00946	SULFATE, DISSOLVED (MG/L AS SO4)	05/07/83-07/07/83	3	20.	20.	22.	18.	4.	2.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	05/07/83-07/07/83	3	120.	110.	120.	90.	300.	17.321	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	05/07/83-07/07/83	3	30.	20.	30.	0.	300.	17.321	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	05/07/83-07/07/83	3	80.	73.333	100.	40.	933.333	30.551	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/07/83-07/07/83	3	0.	10.	30.	0.	300.	17.321	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0048

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	11/16-3/15 Obs	11/16-3/15 Exceed	11/16-3/15 Prop.	3/16-6/30 Obs	3/16-6/30 Exceed	3/16-6/30 Prop.	7/01-11/15 Obs	7/01-11/15 Exceed	7/01-11/15 Prop.	n/a Obs	n/a Exceed	n/a Prop.
00400	PH	Other-Hi Lim.	9.	3	0	0.00				2	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	3	1	0.33				2	0	0.00	1	1	1.00			
00946	SULFATE, DISSOLVED (AS SO4)	Drinking Water	400.	3	0	0.00				2	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0049

NPS Station ID: BISO0049
LAT/LON: 36.758615/ -84.507781
Agency: 112WRD
Date Created: 02/28/78
Location: ALVIN ANGLE
FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/SPRING
STORET Station ID(s): 364531084302801
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 05130104
Depth of Water: 0
Aquifer:
Major Basin:
Elevation: 0
Water Body Id:
Minor Basin:
ECO Region:
RF1 Index: 05130104
RF1 Mile Point: 0.000
Distance from RF1: 8.40
On/Off RF1:
RF3 Index: 05130104006801.47
RF3 Mile Point: 1.57
Distance from RF3: 0.48
On/Off RF3:
Description:

Parameter Inventory for Station: BISO0049

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/20/54-07/20/54	1	15.6	15.6	15.6	15.6	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/20/54-07/20/54	1	33.	33.	33.	33.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	07/20/54-07/20/54	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	07/20/54-07/20/54	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/20/54-07/20/54	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	07/20/54-07/20/54	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	07/20/54-07/20/54	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	07/20/54-07/20/54	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	07/20/54-07/20/54	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
71885	IRON (UG/L AS FE)	07/20/54-07/20/54	1	40.	40.	40.	40.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: BISO0049

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------11/16-3/15---------- Obs	Exceed	Prop.	----------3/16-6/30---------- Obs	Exceed	Prop.	----------7/01-11/15---------- Obs	Exceed	Prop.	----------n/a---------- Obs	Exceed	Prop.
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	1	0	0.00							1	0	0.00			
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: BISO0050

NPS Station ID: BISO0050 LAT/LON: 36.766670/ -84.614588 Agency: 21KY Date Created: 05/27/89
Location: POND #3 @ JONES HOLLOW CHURCH ON JONES HOLLOW CR FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 8/7///21147/ /02006007
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: OHIO RIVER Elevation: 0 Water Body Id:
Minor Basin: CUMBERLAND RIVER ECO Region:
RF1 Index: 05130104006 RF1 Mile Point: 13.100 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104005900.34 RF3 Mile Point: 0.34 Distance from RF3: 0.02 On/Off RF3:
Description:
USGS TOPOGRAPHIC MAP NO. 3-44, NEVELSVILLE, KY QUADRANGLE COLLECTED AT JONES HOLLOW CREEK POND #3, MILEPOINT 1.05
PHYSICOCHEMICAL STATION IN MCCREARY COUNTY
STREAM ORDER 2

Parameter Inventory for Station: BISO0050

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0051

NPS Station ID: BISO0051 LAT/LON: 36.768448/ -84.614420 Agency: 21KY Date Created: 06/10/89
Location: JONES HOLLOW CREEK BELOW JONES HOLLOW CHURCH FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): SUD190 /02006008
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: OHIO RIVER Elevation: 0 Water Body Id:
Minor Basin: CUMBERLAND RIVER ECO Region:
RF1 Index: 05130104006 RF1 Mile Point: 13.100 Distance from RF1: 0.00 On/Off RF1: ON
RF3 Index: 051301040666400.00 RF3 Mile Point: 0.67 Distance from RF3: 0.05 On/Off RF3:
Description:
USGS TOPOGRAPHIC MAP NO. 3-44, NEVELSVILLE, KY COLLECTED AT JONES HOLLOW CREEK, MILEPOINT 1.0
PHYSICOCHEMICAL STATION IN MCCREARY COUNTY

Parameter Inventory for Station: BISO0051

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

Station Inventory for Station: BISO0052

NPS Station ID: BISO0052 LAT/LON: 36.768892/ -84.615004 Agency: 21KY Date Created: 06/23/90
Location: JONES HOLLOW CREEK JUST BELOW JONES CHURCH FIPS State/County: 21147 KENTUCKY/MCCREARY
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): SUD382 /02006031
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 05130104 Depth of Water: 0 Aquifer:
Major Basin: OHIO RIVER Elevation: 0 Water Body Id:
Minor Basin: CUMBERLAND RIVER ECO Region:
RF1 Index: 05130104006 RF1 Mile Point: 12.080 Distance from RF1: 0.00 On/Off RF1: OFF
RF3 Index: 05130104066400.00 RF3 Mile Point: 0.17 Distance from RF3: 0.18 On/Off RF3:
Description:
TOPOGRAPHIC MAP NO 3-44 NEVELSVILLE KY QUADRANGLE COLLECTED JUST BELOW JONES CHURCH
IN MCCREARY COUNTY STREAM ORDER 2 RMI 1.02
BIOLOGICAL/PHYSICOCHEMICAL STATION

Parameter Inventory for Station: BISO0052

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data Available for this Station ********

EPA Water Quality Criteria Analysis for Entire BISO Study Area

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------11/16-3/15---------- Obs	Exceed	Prop.	----------3/16-6/30---------- Obs	Exceed	Prop.	----------7/01-11/15---------- Obs	Exceed	Prop.	----------n/a---------- Obs	Exceed	Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	27	9	0.33	7	2	0.29	12	7	0.58	8	0	0.00			
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	321	4	0.01	95	3	0.03	92	0	0.00	134	1	0.01			
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	Fresh Acute	4.	17	0	0.00	4	0	0.00	5	0	0.00	8	0	0.00			
00300	OXYGEN, DISSOLVED	Fresh Acute	4.	329	3	0.01	83	0	0.00	120	0	0.00	126	3	0.02			
00400	PH	Other-Hi Lim.	9.	483	0	0.00	113	0	0.00	183	0	0.00	187	0	0.00			
		Other-Lo Lim.	6.5	483	74	0.15	113	23	0.20	183	29	0.16	187	22	0.12			
00403	PH, LAB	Other-Hi Lim.	9.	212	0	0.00	58	0	0.00	83	0	0.00	71	0	0.00			
		Other-Lo Lim.	6.5	212	8	0.04	58	5	0.09	83	3	0.04	71	0	0.00			
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYS	Other-Lo Lim.	200.	1	0	0.00				1	0	0.00						
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	35	0	0.00	11	0	0.00	12	0	0.00	12	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	25	0	0.00	8	0	0.00	9	0	0.00	8	0	0.00			
00618	NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	17	0	0.00	6	0	0.00	6	0	0.00	5	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	12	0	0.00	4	0	0.00	5	0	0.00	3	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	257	0	0.00	66	0	0.00	81	0	0.00	110	0	0.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	35	0	0.00	11	0	0.00	12	0	0.00	12	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	14	0	0.00							14	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	253	0	0.00	67	0	0.00	86	0	0.00	100	0	0.00			
00941	CHLORIDE, DISSOLVED IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	400.	301	0	0.00	69	0	0.00	113	0	0.00	119	0	0.00			
00946	SULFATE, DISSOLVED (AS SO4)	Drinking Water	400.	157	0	0.00	44	0	0.00	53	0	0.00	60	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	29	0	0.00	8	0	0.00	14	0	0.00	7	0	0.00			
		Drinking Water	50.	29	0	0.00	8	0	0.00	14	0	0.00	7	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	168	0	0.00	40	0	0.00	57	0	0.00	71	0	0.00			
		Drinking Water	50.	168	0	0.00	40	0	0.00	57	0	0.00	71	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	28	0	0.00	7	0	0.00	14	0	0.00	7	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	125	0	0.00	30	0	0.00	36	0	0.00	59	0	0.00			
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	19	0	0.00	4	0	0.00	10	0	0.00	5	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	28	0	0.00	8	0	0.00	6	0	0.00	14	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	73	22	0.30	20	6	0.30	27	8	0.30	26	8	0.31			
		Drinking Water	5.	73	21	0.29	20	6	0.30	27	8	0.30	26	7	0.27			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	155	10	0.06	39	3	0.08	49	4	0.08	67	3	0.04			
		Drinking Water	5.	155	10	0.06	39	3	0.08	49	4	0.08	67	3	0.04			
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	38	0	0.00	8	0	0.00	17	0	0.00	13	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	180	0	0.00	45	0	0.00	59	0	0.00	76	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	74	9	0.12	20	2	0.10	28	3	0.11	26	4	0.15			
		Drinking Water	1300.	74	0	0.00	20	0	0.00	28	0	0.00	26	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	182	12	0.07	45	2	0.04	60	5	0.08	77	5	0.06			
		Drinking Water	1300.	182	0	0.00	45	0	0.00	60	0	0.00	77	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	73	13	0.18	20	3	0.15	27	3	0.11	26	7	0.27			
		Drinking Water	5.	68 &	36	0.53	20	10	0.50	24	11	0.46	24	15	0.63			
01051	LEAD, TOTAL	Fresh Acute	82.	184	15	0.08	45	3	0.07	62	6	0.10	77	6	0.08			
		Drinking Water	5.	173 &	72	0.42	43	17	0.40	58	25	0.43	72	30	0.42			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	42	0	0.00	9	0	0.00	20	0	0.00	13	0	0.00			
		Drinking Water	100.	42	0	0.00	9	0	0.00	20	0	0.00	13	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	45	0	0.00	15	0	0.00	15	0	0.00	15	0	0.00			
		Drinking Water	100.	45	1	0.02	15	0	0.00	15	1	0.07	15	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	41	0	0.00	9	0	0.00	19	0	0.00	13	0	0.00			
		Drinking Water	50.	41	0	0.00	9	0	0.00	19	0	0.00	13	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	44	0	0.00	9	0	0.00	7	0	0.00	28	0	0.00			
		Drinking Water	50.	44	0	0.00	9	0	0.00	7	0	0.00	28	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	74	1	0.01	20	0	0.00	28	0	0.00	26	1	0.04			
01092	ZINC, TOTAL	Fresh Acute	120.	157	4	0.03	39	0	0.00	49	2	0.04	69	2	0.03			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	25	0	0.00	5	0	0.00	13	0	0.00	7	0	0.00			
		Drinking Water	50.	25	0	0.00	5	0	0.00	13	0	0.00	7	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	51	0	0.00	8	0	0.00	13	0	0.00	30	0	0.00			
		Drinking Water	50.	51	0	0.00	8	0	0.00	13	0	0.00	30	0	0.00			
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	10	2	0.20	3	1	0.33	4	0	0.00	3	1	0.33			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	146	13	0.09	40	3	0.08	50	9	0.18	56	1	0.02			
31625	FECAL COLIFORM, MF	Other-Hi Lim.	200.	29	3	0.10	8	3	0.38	11	0	0.00	10	0	0.00			
39330	ALDRIN IN WHOLE WATER SAMPLE	Fresh Acute	3.	1	0	0.00							1	0	0.00			
39340	GAMMA-BHC(LINDANE), WHOLE WATER	Fresh Acute	2.	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Entire BISO Study Area

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------11/16-3/15---------- Obs	Exceed	Prop.	----------3/16-6/30---------- Obs	Exceed	Prop.	----------7/01-11/15---------- Obs	Exceed	Prop.	----------n/a---------- Obs	Exceed	Prop.
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATE	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
39360	DDD IN WHOLE WATER SAMPLE	Fresh Acute	0.6	1	0	0.00							1	0	0.00			
39365	DDE IN WHOLE WATER SAMPLE	Fresh Acute	1050.	1	0	0.00							1	0	0.00			
39370	DDT IN WHOLE WATER SAMPLE	Fresh Acute	1.1	1	0	0.00							1	0	0.00			
39380	DIELDRIN IN WHOLE WATER SAMPLE	Fresh Acute	2.5	1	0	0.00							1	0	0.00			
39390	ENDRIN IN WHOLE WATER SAMPLE	Fresh Acute	0.18	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
39400	TOXAPHENE IN WHOLE WATER SAMPLE	Fresh Acute	0.73	1	0	0.00							1	0	0.00			
		Drinking Water	3.	1	0	0.00							1	0	0.00			
39410	HEPTACHLOR IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
		Drinking Water	0.4	1	0	0.00							1	0	0.00			
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	Fresh Acute	0.52	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE	Drinking Water	40.	1	0	0.00							1	0	0.00			
39540	PARATHION IN WHOLE WATER SAMPLE	Fresh Acute	0.065	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	26	0	0.00	6	0	0.00	12	0	0.00	8	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	35	1	0.03	9	0	0.00	15	1	0.07	11	0	0.00			
		Drinking Water	2.	35	1	0.03	9	0	0.00	15	1	0.07	11	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	128	1	0.01	30	0	0.00	42	0	0.00	56	1	0.02			
		Drinking Water	2.	128	2	0.02	30	0	0.00	42	1	0.02	56	1	0.02			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	116	8	0.07	33	3	0.09	40	2	0.05	43	3	0.07			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	75	9	0.12	20	1	0.05	26	4	0.15	29	4	0.14			

& - Below detection limit observations, for which half the detection limit exceeded the edit criterion, were excluded from the criterion comparison for this parameter

NPS Servicewide Inventory and Monitoring Program Level I

Water Quality Parameter Inventory Data Evaluation and Analysis:

Missing Level I Groups

There are STORET Data for Every Level I I&M Parameter Group Within the BISO Study Area

NPS Servicewide Inventory and Monitoring Program Level I

Water Quality Parameter Inventory Data Evaluation and Analysis:

Present Level I Groups

STORET Data Within the BISO Study Area Exist for These Groups:

Alkalinity		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS (UEQ/L)	1	1	0	0	1
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	645	102	514	29	29
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	31	0	20	11	13
00435	ACIDITY, TOTAL (MG/L AS CACO3)	154	6	148	0	12
00440	BICARBONATE ION (MG/L AS HCO3)	51	1	24	26	9
00445	CARBONATE ION (MG/L AS CO3)	48	0	24	24	7
		930	110	730	90	71 (34)[!]

pH		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00400	PH (STANDARD UNITS)	483	159	289	35	31
00403	PH, LAB (STANDARD UNITS)	212	43	169	0	16
		695	202	458	35	47 (36)[!]

Conductivity		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	169	92	66	11	13
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	562	130	406	26	24
		731	222	472	37	37 (36)[!]

Dissolved Oxygen		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	17	13	0	4	6
00300	OXYGEN, DISSOLVED (MG/L)	329	149	179	1	13
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION	5	0	0	5	5
		351	162	179	10	24 (18)[!]

Water Temperature		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	643	216	391	36	35
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	277	0	277	0	4
		920	216	668	36	39 (39)[!]

Flow		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00059	FLOW RATE, INSTANTANEOUS, GALLONS/MINUTE	4	0	4	0	2
00060	FLOW, STREAM, MEAN DAILY CFS	38	0	13	25	6
00061	FLOW, STREAM, INSTANTANEOUS CFS	598	196	399	3	14
00065	STAGE, STREAM (FEET)	99	30	69	0	4
		739	226	485	28	26 (18)[!]

[!]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Clarity/Turbidity		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00070	TURBIDITY, (JACKSON CANDLE UNITS)	27	0	27	0	4
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	321	34	276	11	16
00077	TRANSPARENCY, SECCHI DISC (INCHES)	4	3	1	0	2
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	461	83	367	11	19
82078	TURBIDITY, FIELD NEPHELOMETRIC TURBIDITY UNITS NTU	116	87	29	0	1
82079	TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	75	9	66	0	2
		1004	216	766	22	44 (25)[1]

Nitrate/Nitrogen		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00600	NITROGEN, TOTAL (MG/L AS N)	65	0	54	11	16
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	12	0	1	11	12
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	35	35	0	0	1
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	210	123	64	23	17
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	17	0	0	17	2
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	12	0	1	11	2
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	1	1	0	0	1
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)	261	122	116	23	19
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	257	100	134	23	29
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	35	35	0	0	1
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	1	0	0	1	1
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	26	1	0	25	7
		932	417	370	145	108 (34)[1]

Phosphate/Phosphorus		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	56	0	52	4	8
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	1	0	0	1	1
00665	PHOSPHORUS, TOTAL (MG/L AS P)	229	125	81	23	24
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	36	36	0	0	2
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	47	35	0	12	2
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	15	13	2	0	4
		384	209	135	40	41 (32)[1]

Chlorophyll		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
32209	CHLOROPHYLL A (UG/L) FLUOROMETRIC CORRECTED	2	2	0	0	1
		2	2	0	0	1 (1)[1]

Sulfates/Total Dissolved Solids/Hardness		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00900	HARDNESS, TOTAL (MG/L AS CACO3)	224	88	99	37	25
00945	SULFATE, TOTAL (MG/L AS SO4)	301	36	228	37	32
00946	SULFATE, DISSOLVED (MG/L AS SO4)	157	89	68	0	3
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	280	39	220	21	12
		962	252	615	95	72 (35)[1]

Bacteria		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
31613	FECAL COLIFORM, MEMBR, FILTER,M-FC AGAR,44.5C,24HR	10	10	0	0	1
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	146	91	55	0	3
31625	FECAL COLIFORM, MF, M-FC, 0.7 UM	29	29	0	0	1
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	29	29	0	0	1
		214	159	55	0	6 (4)[1]

[1]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Toxic Elements		Total Obs.	01/01/85 to 09/17/92	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
01000	ARSENIC, DISSOLVED (UG/L AS AS)	29	19	10	0	3
01002	ARSENIC, TOTAL (UG/L AS AS)	168	84	84	0	9
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	19	19	0	0	1
01012	BERYLLIUM, TOTAL (UG/L AS BE)	28	1	27	0	1
01025	CADMIUM, DISSOLVED (UG/L AS CD)	73	19	54	0	3
01027	CADMIUM, TOTAL (UG/L AS CD)	155	85	70	0	9
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	38	19	19	0	3
01034	CHROMIUM, TOTAL (UG/L AS CR)	180	85	95	0	12
01040	COPPER, DISSOLVED (UG/L AS CU)	74	19	55	0	4
01042	COPPER, TOTAL (UG/L AS CU)	182	85	97	0	10
01049	LEAD, DISSOLVED (UG/L AS PB)	73	19	54	0	3
01051	LEAD, TOTAL (UG/L AS PB)	184	86	98	0	12
71890	MERCURY, DISSOLVED (UG/L AS HG)	58	16	42	0	3
71900	MERCURY, TOTAL (UG/L AS HG)	168	81	86	1	9
01065	NICKEL, DISSOLVED (UG/L AS NI)	42	23	19	0	3
01067	NICKEL, TOTAL (UG/L AS NI)	45	2	43	0	4
01145	SELENIUM, DISSOLVED (UG/L AS SE)	25	23	2	0	3
01147	SELENIUM, TOTAL (UG/L AS SE)	51	1	50	0	9
01075	SILVER, DISSOLVED (UG/L AS AG)	41	23	18	0	2
01077	SILVER, TOTAL (UG/L AS AG)	44	2	42	0	8
01090	ZINC, DISSOLVED (UG/L AS ZN)	74	19	55	0	4
01092	ZINC, TOTAL (UG/L AS ZN)	157	84	73	0	10
00720	CYANIDE, TOTAL (MG/L AS CN)	14	0	14	0	7
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39340	GAMMA-BHC(LINDANE), WHOLE WATER (UG/L)	1	0	1	0	1
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATER (UG/L)	1	0	1	0	1
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	1	0	1	0	1
		1933	814	1118	1	143 (12)[1]

[1]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

NPS Servicewide Inventory and Monitoring Program Level I

Water Quality Parameter Inventory Data Evaluation and Analysis:

Park Summary: Level I Group Currentness and Distribution

Parameter Group	Total Obs.	Obs. Since 1985	% Obs. Since 1985	Stations Measuring This Group	% of Total Stations Measuring This Group	Obs. Per Station Measuring This Group	Period of Record For This Group	Observations Per Year of Period of Record
Alkalinity	930	110	11.8	34	85.0	27.4	07/20/54-09/17/92	24.4
pH	695	202	29.1	36	90.0	19.3	05/04/60-09/17/92	21.5
Conductivity	731	222	30.4	36	90.0	20.3	07/20/54-09/17/92	19.2
Dissolved Oxygen	351	162	46.2	18	45.0	19.5	05/21/65-09/17/92	12.8
Water Temperature	920	216	23.5	39	97.5	23.6	07/20/54-09/17/92	24.1
Flow	739	226	30.6	18	45.0	41.1	05/04/60-08/04/92	22.9
Clarity/Turbidity	1004	216	21.5	25	62.5	40.2	11/11/74-09/17/92	56.2
Nitrate/Nitrogen	932	417	44.7	34	85.0	27.4	07/20/54-09/17/92	24.4
Phosphate/Phosphorus	384	209	54.4	32	80.0	12.0	05/18/65-09/17/92	14.0
Chlorophyll	2	2	100.0	1	2.5	2.0	06/19/91-09/04/91	2.0[!]
Sulfates/Total Dissolved Solids/Hardness	962	252	26.2	35	87.5	27.5	07/20/54-09/17/92	25.2
Bacteria	214	159	74.3	4	10.0	53.5	05/08/75-09/17/92	12.3
Toxic Elements	1933	814	42.1	12	30.0	161.1	11/09/70-09/17/92	88.4

[!]Period of record for this parameter group was less than one year. Value shown is the total observations.

Water Quality Observations
Outside STORET Edit Criteria for BISO

(Disposition: X = Discarded, Blank = Retained)

NPS Station ID	Parameter		Date	Time	Parameter Value	Agency	STORET Station ID	Disposition
BISO0009	01045	IRON, TOTAL (UG/L AS FE)	770404	1900	83000.0000000	112WRD	03408500	
BISO0012	00405	CARBON DIOXIDE (MG/L AS CO2)	770406	0900	101.0000000	112WRD	03409500	
BISO0037	71900	MERCURY, TOTAL (UG/L AS HG)	810825		32.3000000	21KY	PRI008	

APPENDICES

Appendix A

Computer Files Transmitted With

Park Baseline Water Quality Data Inventory and Analysis

Computer disk(s) accompanying this report include up to seven (depending on the presence or absence of certain data elements) compressed (ZIP) files containing digital copies of nearly all the tables, figures, and other materials used to produce this report. To decompress these files, you must use the commonly available shareware program PKUNZIP. The command to type at the DOS prompt is:

PKUNZIP -E *COMPRESS.ZIP FILENAME.EXT*

where COMPRESS.ZIP is the name of one of the seven compressed (ZIP) files listed below and FILENAME.EXT is the name of the file you wish to extract. If you want to decompress all of the files in COMPRESS.ZIP, simply omit the FILENAME.EXT. To obtain a listing of all the files compressed into a particular ZIP file, type the following:

PKUNZIP -V *COMPRESS.ZIP* |MORE

where COMPRESS.ZIP is the name of one of the seven compressed ZIP files listed below. If a ZIP file spans multiple disks, use the last disk of the series (span) when obtaining a listing of all the files compressed into a particular ZIP file. Once you see the file you wish to obtain, substitute this file name for FILENAME.EXT in the first command line above to extract and decompress this particular file.

Included on one of the disk(s) accompanying this report is a program named PRINTZIP. This program will decompress ZIP files which don't span multiple disks and print certain files to a Hewlett-Packard (or compatible) Laser Printer. To use PRINTZIP, however, you must still have a copy of PKUNZIP in a directory listed in your path or in the same directory as the PRINTZIP program. PRINTZIP provides an easy, menu-driven interface for using PKUNZIP to decompress files and then send them to the printer. PRINTZIP allows you to send individual files, groups of files, or all files to the printer. PRINTZIP will not work with ZIP files that span multiple disks.

The following compressed (ZIP) files are included on the disk(s) accompanying this report:

(1) BISOTABS.ZIP

This compressed file contains all the tables presented in the report. The files compressed into this file include:

(a) BISOSITE.DOC - Descriptive listing of select fields from the industrial facilities discharges, drinking water intakes, and EPA-USGS stream gages databases.

(b) BISOAGNC.DOC - Contacts for agencies whose data were retrieved within the study area.

(c) BISOAGNQ.DOC - Number of stations, observations, and parameters retrieved by agency code within the study area and park.

(d) BISOOV0.DOC - Overview of park and retrieved data.

(e) BISOOV1.DOC - Station period of record table.

(f) BISOOV2.DOC - Parameter period of record table.

(g) BISOOV3.DOC - Station/parameter period of record table.

(h) BISOINV.DOC - Station by station descriptive statistics over the entire period of record and comparison against EPA Water Quality Criteria for each station.

(i) BISOSEAN.DOC - Seasonal and annual water quality descriptive statistics at stations with water quality data meeting the default seasonal and annual criteria.

(j) BISOEPAS.DOC - EPA Water Quality Criteria comparison for data at all stations combined within the study area.

(k) BISOIDEA.DOC - Comparison of downloaded STORET data with NPS Servicewide Inventory and Monitoring Program "Level I" water quality parameters.

(l) BISOBAD.DOC - Water quality observation values that were outside the range of one of 190 STORET edit criteria and were either discarded or retained.

All these compressed document files are in ASCII format and contain printer codes appropriate to Hewlett-Packard (or compatible) Laser Printers. While at the DOS prompt, any of these document files may be printed directly to a Hewlett-Packard (or compatible) Laser Printer by using the PRINT command. For example, if the document BISOOV1.DOC is in the subdirectory C:\WATER, you could type: PRINT C:\WATER\BISOOV1.DOC. This will print the file to your local or networked Hewlett-Packard (or compatible) Laser Printer attached to parallel port one (LPT1:). Alternatively, you can use the PRINTZIP program to decompress and print any of these files provided the ZIP file doesn't span multiple disks. These ASCII files can also be imported into word-processed documents, but the printer codes will then have to be removed.

(2) BISOFIGS.ZIP

This compressed file contains graphics files for all the statistical figures (time series plots; annual box and whiskers plots; seasonal box and whiskers plots) in the report in two different formats: Computer Graphic Metafile (CGM) and Hewlett-Packard Printer Control Language (PCL). The files are named with the last three digits of the Station Name followed by the five digit STORET code. The file name extension begins with either a 1 (time series), 2 (annual), or 3 (seasonal) and then either GM for CGM or CL for PCL. For example, 00100300.2GM would denote the file contains an annual box and whiskers plot in CGM format for parameter 00300 (dissolved oxygen) at station BISO0001. While at the DOS prompt, any PCL file can be printed directly to a Hewlett-Packard (or compatible) Laser Printer by using the COPY command. For example, if the graphic 00100300.2CL (an annual box and whiskers plot of parameter 00300, dissolved oxygen, at station BISO0001) is in the subirectory C:\WATER, you would type: COPY C:\WATER\00100300.2CL LPT1: /B. This will print the file to your local or networked Hewlett-Packard (or compatible) Laser Printer attached to parallel port one (LPT1:). The /B is necessary because the PCL file is in a binary format. Alternatively, you can use the PRINTZIP program to decompress and print any of the PCL files provided the ZIP file doesn't span multiple disks. The CGM files can be imported and/or edited in most graphics packages, including WordPerfect.

(3) BISOPARM.ZIP

This file compresses BISOPARM.DBF which contains all the actual values (raw data) of all the water quality data downloaded from STORET and summarized in the report. The detailed database structure for this file is contained in Appendix B.

(4) BISOSITE.ZIP

This compressed file contains up to five geo-referenced, DBASE III+ compatible site (point location) files documenting the location in the study area of water quality monitoring stations, industrial facilities discharges, drinking water intakes, water gages, and water impoundments. These files include:

(a) BISOWQ.DBF - All water quality monitoring station locations within the project's study area downloaded from STORET.

(b) BISOIFD.DBF - All municipal and industrial facility discharges within the project's study area downloaded from the IFD database.

(c) BISODRIN.DBF - All drinking water intakes within the project's study area downloaded from the DRINKS database.

(d) BISOGAGE.DBF - All water gages within the project's study area downloaded from the GAGES database.

(e) BISODAMS.DBF - All water impoundments within the project's study area downloaded from the DAMS database. (Not implemented in BISO report.)

The absence of any of these files indicates that none of the particular sites were found within the study area. Detailed database structures for each of these files are contained in Appendix B.

(5) BISOMISC.ZIP

This compressed file contains a variety of graphic and document files that are contained in the report. They are grouped into this miscellaneous compressed (ZIP) file because they don't fit neatly into any of the other compressed files. The files contained in this compressed file include:

(a) BISOEXEC.DOC - WordPerfect Ver. 5.1 copy of the Executive Summary in the report.

(b) BISOTOC.DOC - WordPerfect Ver. 5.1 copy of the report's Table of Contents.

(c) INTRO.DOC - WordPerfect Ver. 5.1 copy of all the text in the report from the Introduction through the Interpretive Guide to Water Quality Results.

(d) APPENDIX.DOC - WordPerfect Ver. 5.1 copy of all the Appendices in the report.

(e) BISOREGI - PCL and CLP (Windows Clipboard) copies of map displaying the regional location of the park and study area.

(f) BISOWQ - PCL and CLP (Windows Clipboard) copies of park maps displaying water quality station locations within the park's study area. If, due to scaling and aesthetic concerns, multiple maps were needed, these files will have alphabetically ordered suffixes (BISOWQA, BISOWQB, BISOWQC, etc.) and the index map name will end with an ampersand (&).

(g) BISOIDG - PCL and CLP (Windows Clipboard) copies of park maps displaying locations of industrial facilities discharges, drinking water intakes, and stream gages within the park's study area. If, due to scaling and aesthetic concerns, multiple maps were needed, these files will have alphabetically ordered suffixes (BISOIDGA, BISOIDGB, BISOIDGC, etc.) and the index map name will end with an ampersand (&). If no industrial facilities discharges, drinking water intakes, water gages, or water impoundments exist within the park's study area, these files will not be in the compressed (ZIP) file.

(h) BISOSEHY - PCL and CLP (Windows Clipboard) copies of the hydrographs or other materials used by WRD staff as the basis for a first attempt at a seasonal analysis of the park's water quality data.

Other materials may also be included in this miscellaneous compressed (ZIP) file as warranted by conditions at the park. As with BISOFIGS.ZIP and BISOTABS.ZIP, you can use the PRINTZIP program to print any of the PCL files in BISOMISC.ZIP provided the ZIP file doesn't span multiple disks. You should not, however, use PRINTZIP to print the WordPerfect document files. The CLP (Windows Clipboard) files can be imported (pasted) and/or edited in most Windows-based word processors and graphics packages.

(6) BISORF3.ZIP

This compressed file contains the Environmental Protection Agency's River Reach File Ver. 3.0 provisional data for the USGS catalog unit(s) encompassing the study area. The attribute data exist in both ASCII and DBASE III+ format, while the geographic traces exist in ASCII format. This compressed file contains four files for each catalog unit that touches the study area. Catalog units are identified by unique 8-character numeric names which identify the region, subregion, accounting unit, and catalog unit. Examples (your 8-character numeric names will be different) of the file types included in this compressed file are:

(a) 12345678.RF3 - ASCII formatted attribute file from the River Reach File for all hydrographic traces within the catalog unit.

(b) 12345678.DBF - DBASE III+ formatted attribute file from the River Reach File for all hydrographic traces within the catalog unit.

(c) 12345678.TRC - ASCII formatted geographic file from the River Reach File containing digital, geo-referenced descriptions of all hydrographic traces within the catalog unit at a scale of 1:100,000 suitable for import into a geographic information system.

(d) 12345678.CUB - ASCII formatted geographic file from the River Reach File containing a digital, geo-referenced description of the catalog unit boundary suitable for import into a geographic information system.

Detailed database structures for RF3-related files are contained in Appendix B.

(7) BISOWQMW.ZIP

Between 2000 and 2002, all Baseline Water Quality Data Inventory and Analysis Reports were compiled or re-compiled in Microsoft Word 2000 (Ver. 9.0) format. This complete, digital version of the report will be made available through various means, including the Internet. Although the reports can be opened in Microsoft Word 1997 (Ver. 8.0), the time series and annual and seasonal box-plots may not be centered appropriately on a page due to discrepancies with how Word 2000 formats pictures and how Word 1997 formatted pictures. Consequently, Word 2000 is the recommended software for viewing the report. Prior to printing the report from Word, be sure to enable "Print Text as Graphics" or "Print True Type Font as Graphics" in the Printer Properties. This ensures a more faithful reproduction of the maps included in the Word document.

The Microsoft Word version of the Baseline Water Quality Data Inventory and Analysis Report may differ slightly from the original analog version. Reports issued during 1994-1996 didn't have as many "bells-and-whistles" as subsequent reports. In compiling digital Microsoft Word versions of these earlier reports, attempts were made to bring these 1994-1996 reports up to the current standard wherever feasible and practicable. Unfortunately, some changes were not feasible or practicable. For example, water quality criteria screens were added or modified over time when newer criteria became available. The digital Microsoft Word version of Appendix F presents the latest criteria screening parameters and values. Some of these parameters and/or values may not have been screened against in the EPA water quality criteria analyses for each station and the entire study area in the 1994-1996 analog versions of the report. Similarly, the Introduction, Methodology, and Interpretive Guide to Water Quality Results may mention certain features that aren't included in the 1994-1996 reports. Additionally, to prepare a Microsoft Word version of this report, data were processed through different versions of software than used originally. Consequently, some results presented in the Overview and Executive Summary may differ slightly from those presented in the analog report (eg. # of In Park and Longer Term Stations).

Appendix B

Water Quality Database File Structures

The following table provides the DBASE III+ database field structure for all the water quality parameter data downloaded from STORET. This data will allow parks or other interested parties to replicate the statistical analyses and graphics contained in this report; perform more sophisticated analyses; or to establish a baseline park water quality database.

Parameter Data File: BISOPARM.DBF in BISOPARM.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
NPSSTATID	1	8	8	NPS Station ID (NPS park code + 4 digit sequence number)
BEGDATE	9	14	6	Measurement Start Date [yymmdd]
BEGTIME	15	18	4	Measurement Start Time [hhmm]
PARMCODE	19	23	5	STORET Parameter Code
PARMVALU	24	39	16.7	Parameter Value
REMARK	40	40	1	Parameter Remark Value
				A=Value is Mean of 2 or More Determinations
				B=Results Based Upon Colony Counts Outside Acceptable Range
				C=Value Calculated
				D=Field Measurement
				E=Extra Sample Taken in Compositing Process
				F=Female Species
				G=Maximum of 2 or More Determinations
				H=Based on Field Kit Determination
				I=Value is Less Than Practical Quantitation Limit and Greater Than or Equal to the Method Detection Limit
				J=Estimated, Not the Result of Analytic Measurement
				K=Off-scale Low, Actual Value Not Known, But Known to be Less Than Value Shown
				L=Off-scale High, Actual Value Not Known, But Known to be Greater Than Value Shown

Parameter Data File: BISOPARM.DBF in BISOPARM.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
				M=Presence Verified, But Not Quantified, Below Quantification Limit; For Species, Male; For Oxygen Reduction Potential, Indicates a Negative Value
				N=Presumptive Evidence of Presence
				O=Analysis Lost
				P=Too Numerous to Count
				Q=Exceeded Normal Holding Time
				R=Significant Rain in Last 48 Hours
				S=Laboratory test
				T=Less Than Detection Criteria
				U=Analyzed For But Not Detected, Value is Detection Limit For Process Used; If Species, Undetermined
				V=Analyte was Detected in Sample and Method Blank
				W=Less Than Lowest Value Reportable Under Remark "T"
				X=Quasi Vertically-Integrated Sample
				Y=Analysis of Unpreserved Sample
				Z=Too Many Colonies Were Present to Count (TNTC), Value Represents Filtration Value
				$=Calculated By Retrieval Software
MEDIA	41	46	6	Sample Media
DEPTH	47	55	9.3	Depth of Sample [in feet]
ENDDATE	56	61	6	Measurement End Date [yymmdd] [all composite samples]
ENDTIME	62	65	4	Measurement End Time [hhmm] [all composite samples]
SAMPTYPE	66	69	4	Type of Sample ["sophisticated" composite samples]
				C=Continuous Collection
				G=Collection of Individual Grab Samples
				GNxx=xx is the Number of Individual Grab Samples
				B=N/A

Parameter Data File: BISOPARM.DBF in BISOPARM.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
COMPTYPE	70	70	1	Composite Value Type ["sophisticated" composite samples]
				A=Average
				H=Maximum
				L=Minimum
				N=Number of Observations
				#=Number of Observations
				S=Standard Deviation
				U=Sum of Squares
				V=Variance
				C=Coefficient of Error
				X=Coefficient of Variance
				E=Skewness
				F=Kurtosis
				Z=Number of Observations That Exceed an Established Limit
				%=Precision
				$=Accuracy
				B=N/A
				D=Indicates Replicate Sample
COMPST	71	71	1	Composite Space/Time Indicator
				S=Space
				T=Time
				B=Space and Time
				F=Flow Proportional
				1-9=Replicate Number

Note: DBASE III+ record lengths will be one greater than the last stop column displayed (71 here) because DBASE III+ reserves the first space/column of every record for a deletion flag. Hence, DBASE III+ will display a record length of 72 for this database.

The following table provides the DBASE III+ database field structure for all the water quality station locations downloaded from STORET. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Water Quality Station Data File: BISOWQ.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
NPSSTATID	1	8	8	NPS Station ID (NPS park code + 4 digit sequence number)
AGENCY	9	16	8	Agency Code of Station Owner
STORIDP	17	31	15	STORET Primary Station Code
STORIDS1	32	43	12	STORET First Secondary Station Code
STORIDS2	44	55	12	STORET Second Secondary Station Code
STORIDS3	56	65	10	STORET Third Secondary Station Code
LATITUDE	66	73	8	Station Latitude [degrees:minutes:seconds]
LONGITUDE	74	82	9	Station Longitude [degrees:minutes:seconds]
LAT	83	93	11.6	Station Latitude [decimal degrees, (-) below equator]
LON	94	104	11.6	Station Longitude [decimal degrees, (-) western hemisphere]
LLPREC	105	105	1	Latitude/Longitude Precision Code
RMI	106	329	224	River Mile Index
STATLOC	330	377	48	Station Location Description
CNTYCODE	378	382	5	FIPS State/County Code
STNAME	383	398	16	State Name
CNTYNAME	399	418	20	County Name
HYDUNIT	419	426	8	Hydrologic Unit Code (MAJ/MIN/SUB = Catalog Unit)
MAJBASN	427	450	24	Major Basin Name
MINBASN	451	490	40	Minor Basin Name
STATTYPE	491	550	60	Station Type
STORDATE	551	556	6	Date Station was Stored in STORET
RF1INDEX	557	567	11	RF1 Reach Number Location [2]
RF1MILE	568	575	8.3	Mile Point on RF1 Reach [2]
RF1LOC	576	578	3	Indicates the Location as ON or OFF RF1 Reach [2]
RF1DIST	579	584	6.2	Distance From RF1 Reach

Water Quality Station Data File: BISOWQ.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
RF3INDEX	585	601	17	RF3 Reach Number Location [3]
RF3MILE	602	607	6.2	Mile point on RF3 Reach [3]
RF3LOC	608	610	3	Indicates the Location as ON or OFF RF3 Reach [2]
RF3DIST	611	616	6.2	Distance From RF3 Reach
DEPH2O	617	620	4	Depth of Water at Station Location [in feet]
ELEV	621	625	5	Station Elevation
ECOREG	626	628	3	ECO Region
H2OBODY	629	678	50	Waterbody ID
AQUIFERS	679	718	40	Aquifer Description
STATDESC1	719	790	72	Station Sentence Description
STATDESC2	791	862	72	Station Sentence Description
STATDESC3	863	934	72	Station Sentence Description
STATDESC4	935	1006	72	Station Sentence Description
STATDESC5	1007	1078	72	Station Sentence Description
STATDESC6	1079	1150	72	Station Sentence Description
STATDESC7	1151	1222	72	Station Sentence Description
STATDESC8	1223	1294	72	Station Sentence Description
STATDESC9	1295	1366	72	Station Sentence Description
STATDESC10	1367	1438	72	Station Sentence Description
STATDESC11	1439	1510	72	Station Sentence Description
STATDESC12	1511	1582	72	Station Sentence Description
STATDESC13	1583	1654	72	Station Sentence Description
STATDESC14	1655	1726	72	Station Sentence Description
STATDESC15	1727	1798	72	Station Sentence Description
STATLOCKED	1799	1799	1	Station Locked (Logical) True/False

The following table provides the DBASE III+ database field structures for the EPA Industrial Facilities Discharge database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Industrial Facilities Discharges File: BISOIFD.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	9	9	Site Identifier (NPDES Number)
LATITUDE	10	17	8	Facility Latitude (Degrees:Minutes:Seconds)
LONGITUDE	18	26	9	Facility Longitude (Degrees:Minutes:Seconds)
LAT	27	37	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	38	48	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	49	59	11	RF1 Reach Number Location
RF1MILE	60	65	6.2	Mile Point on RF1 Reach
RF1DIST	66	71	6.2	Distance From RF1 Reach
RF3INDEX	72	88	17	RF3 Reach Number Location
RF3MILE	89	94	6.2	Mile Point on RF3 Reach
RF3DIST	95	100	6.2	Distance From RF3 Reach
ADR	101	125	25	Address
BFL	126	132	7.2	Total Direct Combined C&P Flow (1000 GPD)
CCFLG	133	133	1	Coastal County Flag "Y"/"N"/"E"=Estuary
CC1	134	138	5	City Code #1 (EPA Code)
CFL	139	145	7.2	Total Direct Cooling Flow (1000 GPD)
CNC	146	148	3	County Code (FIPS)
CTY	149	168	20	City Name
CZIP	169	177	9	Canadian Zip Code
DNB	178	186	9	Dunn & Bradstreet Number
DNBFLG	187	187	1	Dunn & Bradstreet PCS Source Flag
EGF	188	202	15.4	Flow From Effluent Guidelines (1000 GPD)
EGS	203	208	6	Effluent Guidelines Subcategory
EXPDT	209	216	8	Expiration Date (mm/dd/yy)
E308SN	217	220	4	Effluent Guidelines Survey Number
FAC	221	229	9	SCS Facility Identifier (Cross-Reference)
FDS	230	232	3	Facility Data Source

Industrial Facilities Discharges File: BISOIFD.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
FFL	233	239	7.2	Total Facility Flow (1000 GPD)
FHF	240	240	1	Fac. Hit Flag (Reach File) V=Versar Assumed
FLOTYP	241	243	3	I=Blow Down, R=Bottom Ash, S=Fly Ash
FLR	244	250	7.2	Flow Recvd-Industrial (1000 GPD) Permit Data
FRDS	251	259	9	FRDS ID# - XREF To Water Supply
FRW	260	289	30	Facility Receiving Water Name
FS1	290	293	4	Facility SIC Code (From PCS)
FS2	294	297	4	Facility SIC Code #1
FS3	298	301	4	Facility SIC Code #2
FS4	302	305	4	Facility SIC Code #3
FS5	306	309	4	Facility SIC Code #4
FUD	310	317	8	Facility Level Last Date Updated (mm/dd/yy)
IACC	318	318	1	Inactive/Active Indicator ("I" or "A")
ICAT	319	320	2	WQAB Industrial Category
ICAT2	321	322	2	WQAB Industrial Category 2
ICAT3	323	324	2	WQAB Industrial Category 3
IFL	325	331	7	Total Indirect Flow (1000 GPD)
IFT	332	332	1	Illinois Facility Type (A thru Z)
IG1	333	334	2	Facility Industrial Group #1
IG2	335	336	2	Facility Industrial Group #2
IJCN	337	346	10	Canadian Record Identifier
INACT	347	353	7	Inactive/Rescinded P=Based on Permit;A=Actual
INDCNT	354	357	4	Computed Number of Indirect Dischargers
LATLON	358	372	15	Polygon Retrieval Lat/Long.
MAJ	373	373	1	Major-Minor Flag (From PCS)
MAPID	374	377	4	Map Identifier
MJMN	378	381	4	Major/Minor Basin (EPA-STORET)
NAM	382	441	60	Facility Name
NDC	442	444	3	Number of Discharges (Pipes)

Industrial Facilities Discharges File: BISOIFD.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
NDSFLO	445	451	7.2	NEEDS Flow (1000 GPD)
NDSIFLO	452	458	7.2	NEEDS Industrial Flow (1000 GPD)
NID	459	462	4	Number of Indirect Dischargers
NPC	463	463	1	NEEDS Pre-Treatment Code "Y"=Yes, "N"=No
NPS	464	464	1	NPDES Facility Source/Status
NSN	465	473	9	NEEDS Survey Number
NTC	474	474	1	NEEDS Treatment Code
OCP	475	480	6	Organic Chemical Producers ID Number
ODESCC	481	481	1	ODES Coastal County "Y"=Yes; "N"=No
OFL	482	488	7.2	Total Non-Direct Other Flow (1000 GPD)
OWN	489	491	3	Ownership Code
PFL	492	498	7.2	Total Direct Process Flow (1000 GPD)
REG	499	500	2	EPA Region
REGKEY	501	504	4	Region Key
RSLOFLO	505	511	7.2	Receiving Stream Low Flow
RSMNFLO	512	518	7.2	Receiving Stream Mean Flow
STA	519	520	2	State Postal Abbreviation
STAID	521	535	15	State Identifier
STC	536	537	2	State Code (FIPS)
STCITY	538	544	7	State/City Code
TFLOW	545	551	7.2	Type Flow (1000 GPD)
UFL	552	558	7.2	Total Direct Undefined Flow (1000 GPD)
XEGS	559	561	3	Effluent Guidelines Subcat Index
XKEY	562	562	1	"1","2","3","4","5","6","7","8","9"
XNME	563	565	3	GLP,DIR,F2C,ENF,CET,LAG,PPB,M85,M86
ZIP	566	570	5	Zip Code

The following table provides the DBASE III+ database field structures for drinking water intakes from the EPA DRINKS database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Drinking Water Intakes File: BISODRIN.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	20	20	Site Identifier
LATITUDE	21	28	8	Facility Latitude (Degrees:Minutes:Seconds)
LONGITUDE	29	37	9	Facility Longitude (Degrees:Minutes:Seconds)
LAT	38	48	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	49	59	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	60	70	11	RF1 Reach Number Location
RF1MILE	71	76	6.2	Mile Point on RF1 Reach
RF1DIST	77	82	6.2	Distance From RF1 Reach
RF3INDEX	83	99	17	RF3 Reach Number Location
RF3MILE	100	105	6.2	Mile Point on RF3 Reach
RF3DIST	106	111	6.2	Distance From RF3 Reach
AQCD	112	115	4	Aquifer Code
ASC	116	138	23	STORET Agency/Station Code
AVGD	139	142	4	Average Depth
BUY	143	143	1	Purchase Code
CC1	144	148	5	City Code #1 (EPA Code)
CNC	149	151	3	County Code (FIPS)
CNME	152	166	15	Contact Name
CNN	167	186	20	County Name
CTITLE	187	201	15	Contact Title
CTY	202	221	20	City Name
DUD	222	229	8	Date of Update
FRDS	230	238	9	FRDS ID# - Cross-Reference
GEOAG	239	258	20	Geologic Age
GEOCDE	259	261	3	Geologic Age Code
IDAT	262	269	8	Date (mm/dd/yy)

Drinking Water Intakes File: BISODRIN.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
INTAKET	270	270	1	Type Source G/S/B
INTRVWR	271	285	15	Interviewer
MAXD	286	289	4	Maximum Depth
MILES	290	296	7.2	Miles
MIND	297	300	4	Minimum Depth
NAME	301	320	20	Name
NPD	321	329	9	NPDES# XREF to IFD Database
NWLS	330	332	3	Number of Wells
OWN	333	335	3	Ownership
PAVGF	336	342	7.2	Production Avg. Daily (Gal/Day)
PCTSUP	343	345	3	%Surface / %Ground
PHONE	346	355	10	Telephone Number
PMAXF	356	362	7.2	Production Max. Daily (Gal/Day)
POPSV	363	371	9	Population Served
REG	372	373	2	EPA Region
SHLAT	374	379	6	Sitehelp Latitude (DDMMSS)
SHLNG	380	386	7	Sitehelp Longitude (DDDMMSS)
SHMILES	387	393	7.2	Sitehelp Miles
SHNME	394	403	10	Sitehelp Source Name
SHPCT	404	410	7.2	Sitehelp Percent of Reach Miles
SRC	411	413	3	Sitehelp Source Code
STA	414	415	2	State Abbreviation
STC	416	417	2	State Code (FIPS)
TUF	418	424	7.2	Total Utility Flow
TYPCDE	425	425	1	Type Code
UHF	426	426	1	Utility Hit Flag (Reach File)
VCDE	427	427	1	Versar Code='V'=>25K; '*'=<25K POPSVD
WFPC	428	428	1	Wellfield Precision Code
WFTYP	429	429	1	Well Type (Cassing,Artesian,Infiltration,etc.)

Drinking Water Intakes File: BISODRIN.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
WUN	430	449	20	Water Utility Name

The following table provides the DBASE III+ database field structures for the Water Gage database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Water Gage File: BISOGAGE.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	20	20	Site Identifier
LATITUDE	21	28	8	Facility Latitude (DDMMSS)
LONGITUDE	29	37	9	Facility Longitude (DDDMMSS)
LAT	38	48	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	49	59	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	60	70	11	RF1 Reach Number Location
RF1MILE	71	76	6.2	Mile Point on RF1 Reach
RF1DIST	77	82	6.2	Distance From RF1 Reach
RF3INDEX	83	99	17	RF3 Reach Number Location
RF3MILE	100	105	6.2	Mile Point on RF3 Reach
RF3DIST	106	111	6.2	Distance From RF3 Reach
JAN	112	118	7.2	Monthly Flow - January
FEB	119	125	7.2	Monthly Flow - February
MAR	126	132	7.2	Monthly Flow - March
APR	133	139	7.2	Monthly Flow - April
MAY	140	146	7.2	Monthly Flow - May
JUN	147	153	7.2	Monthly Flow - June
JUL	154	160	7.2	Monthly Flow - July
AUG	161	167	7.2	Monthly Flow - August
SEP	168	174	7.2	Monthly Flow - September
OCT	175	181	7.2	Monthly Flow - October
NOV	182	188	7.2	Monthly Flow - November
DEC	189	195	7.2	Monthly Flow - December
RGN	196	197	2	Region Code
AREA	198	204	7.2	Drainage Area (SQ.MI.)
DUD	205	212	8	Date of Update

Water Gage File: BISOGAGE.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
FBCF	213	213	1	Flag - Basic Characteristic File ('Y')
FDFF	214	214	1	Flag - Daily Flows File ('Y')
FQMINV	215	224	10	IHS Pt. Files Index
GHF	225	225	1	Hit Flag (Reach File)
ICDE	226	226	1	Integrity Code
LFVEL	227	233	7.2	Low Flow Velocity
METHOD	234	236	3	Calculation Method Code
MFVEL	237	243	7.2	Mean Flow Velocity
MNFLO	244	250	7.2	USGS Mean Annual Flow
NME	251	298	48	Station Name
SHLAT	299	304	6	Sitehelp Latitude (DDMMSS)
SHLNG	305	311	7	Sitehelp Longitude (DDDMMSS)
SHMILES	312	318	7.2	Sitehelp Miles
SHNME	319	328	10	Sitehelp Source Name
SHPCT	329	335	7.2	Sitehelp Percent of Reach Miles
SITE	336	337	2	Site Location
SRC	338	340	3	Sitehelp Source Code
STCTY	341	345	5	State/County Numeric Code
SVTEN	346	352	7.2	USGS 7-10 Year Flow
BEG_WYR	353	356	4	Beginning Water Year
END_WYR	357	359	4	Ending Water Year
ELEV	361	368	8.2	Elevation (Feet)
WELL_DP	369	376	8.2	Well Depth (Feet)

The following table provides the DBASE III+ database field structures for the Water Impoundment database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Water Impoundment File: BISODAMS.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	7	7	Site Identifier
SOURCE	8	10	3	Source of Data
ST1	11	12	2	Primary State Code Abbreviation
STCTY1	13	17	5	State/County Numeric Code
NAME	18	47	30	Official Name of Dam
LATITUDE	48	53	6	Facility Latitude (DDMMSS)
LONGITUDE	54	60	7	Facility Longitude (DDDMMSS)
LAT	61	70	10.6	Facility Latitude (decimal degrees, (-) below equator)
LON	71	81	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
INME	82	111	30	Impoundment Name
RNME	112	139	28	River, Stream, or Tributary Name on Which Dam Built
CUSEGMI	140	149	10	Catalog Unit, Segment, and Segment Length
REGN	150	151	2	Water Resources Council Region Code
RGBSN	152	155	4	Water Resources Region/Basin Code
CU	156	163	8	Catalog Unit
SEG	164	166	3	Reach Segment of Dam
SEGL	167	171	5.2	Reach Segment Length
PURP	172	172	1	Major Purpose of Dam
				I=Irrigation
				H=Hydroelectric
				N=Navigation
				S=Water Supply
				R=Recreation
				P=Stock/Farm Pond
				D=Debris Control
				F=Flood Control

Water Impoundment File: BISODAMS.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
				O=Other
FRF3	173	189	17	RF3 Reach Number Location
FRF3MI	190	194	5	Mile Point on RF3 Reach
PURPKEY	195	195	1	Purpose Key
PUR2	196	196	1	Purpose of Dam 2 (See Above)
PUR3	197	197	1	Purpose of Dam 3 (See Above)
PUR4	198	198	1	Purpose of Dam 4 (See Above)
PUR5	199	199	1	Purpose of Dam 5 (See Above)
PUR6	200	200	1	Purpose of Dam 6 (See Above)
PUR7	201	201	1	Purpose of Dam 7 (See Above)
PUR8	202	202	1	Purpose of Dam 8 (See Above)
PUR9	203	203	1	Purpose of Dam 9 (See Above)
PUR10	204	204	1	Purpose of Dam 10 (See Above)
TYPDAM	205	206	2	Major Dam Portion Type
				RE=Earth
				VA=Vaulted Arch
				CD=Buttress
				PG=Gravity
				ER=Rockfill
				MV=Multi-Arch
				OT=Other
YRCMP	207	210	4	Year Dam Completed
SHGT	211	214	4	Structural Height (Feet)
HHGT	215	218	4	Hydraulic Height (Feet)
VNORM	219	236	8	Normal Storage of Impoundment (Acre-Feet)
VMAX	227	234	8	Maximum Storage of Impoundment (Acre-Feet)
LCRST	235	239	5	Crest Length of Dam (Feet)
TSPL	240	240	1	Spillway Type
				C=Controlled

Water Impoundment File: BISODAMS.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
				U=Uncontrolled
				N=None
				X=Unknown
WSPL	241	244	4	Dam Spillway Width (Feet)
QMAX	245	251	7	Maximum Spillway Discharge (CFS)
PINS	252	258	7.2	Quantity of Installed Power (Megawatts)
PPRO	259	265	7.2	Quantity of Proposed Power (Megawatts)
LOCK	266	266	1	Number of Navigational Locks
OWNR	267	290	24	Name of Impoundment Owner
PFOWN	291	291	1	Ownership Code
				N=Non-Federal
				G=Federal Government Agency
				C=Corps of Engineers
				X=Unknown
FEDR	292	292	1	Federally Regulated (Y=Yes, N=No, X=Unknown)
FLND	293	293	1	Private Dam on Federal Land (Y=Yes, N=No, X=Unknown)
SCSA	294	294	1	Type of Soil Conservation Service Assistance
				N=No Assistance
				T=Technical Assistance
				F=Financial Assistance
				B=Both Technical and Financial Assistance
				X=Unknown
DHAZ	295	295	1	Degree of Downstream Hazard
				1=High (More than a Few Lives Lost; Excessive Economic Loss)
				2=Significant (A Few Lives Lost; Appreciable Economic Loss)
				3=Low (No Lives Expected Lost; Minimal Economic Loss)
DCITY	296	319	24	Nearest Downstream City

Water Impoundment File: BISODAMS.DBF in BISOSITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
POP	320	326	7	Population of Downstream City
DMILE	327	331	5.2	Distance of Downstream City From Dam (Miles)
RET	332	342	11.2	Retention Coefficient (Dimensionless)
MIX	343	353	11.2	Mixing Coefficient (Dimensionless)
SAREA	354	361	8	Surface Area of Impoundment (Acres)
SAFLG	362	362	1	Surface Area Flag (C=Calc., M=Measured, O=Other)
ILNTH	363	367	5	Length of Impoundment (Feet)
ILFLG	368	368	1	Impoundment Length Flag (C=Calc., M=Measured, O=Other)
UPKEY	369	374	6	Update Key (YYMMDD)

The following table provides the ASCII and DBASE III+ database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) attributes. The actual numeric file names will vary depending on the catalog unit(s). This information can be readily incorporated into the park's Geographic Information System.

RF3 Structure File: 12345678.RF3 and 12345678.DBF in BISORF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
CATUNIT	1	8	8	Cataloging Unit (CU)
SEGM	9	12	4	Segment Number (SEG)
MI	13	17	5.2	Mile Point (MI)
UPMI	18	22	5.2	Upstream Mile Pt.
SEQNO	23	33	11.6	Hydro Sequence No.
RFLAG	34	34	1	Reach Flag (0,1)
OWFLAG	35	35	1	Open Water Flag (0,1)
TFLAG	36	36	1	Terminal Flag (0,1)
SFLAG	37	37	1	Start Flag (0,1)
RCHTYPE	38	38	1	Reach Type Code
LEV	39	40	2	Stream Level
JUNC	41	42	2	Level of Downstream Reach
DIVERGENCE	43	43	1	Divergence Code
STARTCU	44	51	8	Start CU
STRTSG	52	55	4	Start SEG
STOPCU	56	63	8	Stop CU
STOPSG	64	67	4	Stop SEG
USDIR	68	68	1	Upstream Direction
TERMID	69	73	5	Terminal Stream ID
TRMBLV	74	74	1	Terminal Base Level
PNAME	75	104	30	Primary Name
PNMCD	105	115	11	Primary Name Code
CNAME	116	145	30	Complement Name
CNMCD	146	156	11	Complement Name Code

RF3 Structure File: 12345678.RF3 and 12345678.DBF in BISORF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
OWNAME	157	186	30	Open Water Name
OWNMCD	187	197	11	Open Water Name Code
DSCU	198	205	8	Downstream CU
DSSEG	206	209	4	Downstream SEG
DSMI	210	214	5.2	Downstream MI
CCU	215	222	8	Complement CU
CSEG	223	226	4	Complement SEG
CMILE	227	231	5.2	Complement MI
CDIR	232	232	1	Complement Direction
ULCU	233	240	8	Upstream Left CU
ULSEG	241	244	4	Upstream Left SEG
ULMI	245	249	5.2	Upstream Left MI
URCU	250	257	8	Upstream Right CU
URSEG	258	261	4	Upstream Right SEG
URMI	262	266	5.2	Upstream Right MI
SEGL	267	272	6.2	Reach Length (Miles)
RFORGFLAG	273	273	1	RF Orgin flag(1,2,3)
ALTPNMCD	274	281	8	Alt. Primary Name Code
ALTOWNMC	282	289	8	Alt. OW Name Code
DLAT	290	297	8.4	Downstream Latitude
DLONG	298	305	8.4	Downstream Longitude
ULAT	306	313	8.4	Upstream Latitude
ULONG	314	321	8.4	Upstream Longitude
MINLAT	322	329	8.4	Minimum Latitude
MINLONG	330	337	8.4	Minimum Longitude
MAXLAT	338	345	8.4	Maximum Latitude
MAXLONG	346	353	8.4	Maximum Longitude
NDLGREC	354	357	4	No. of DLG Records
LL1KEY1	358	367	10	Starting DLG LL Key1

RF3 Structure File: 12345678.RF3 and 12345678.DBF in BISORF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
LL2KEY1	368	377	10	Ending DLG LL Key1
LL1KEY2	378	387	10	Starting DLG LL Key2
LL2KEY2	388	497	10	Ending DLG LL Key2
LL1KEY3	398	407	10	Starting DLG LL Key3
LL2KEY3	408	417	10	Ending DLG LL Key3
LL1KEY4	418	427	10	Starting DLG LL Key4
LL2KEY4	428	437	10	Ending DLG LL Key4
LL1KEY5	438	447	10	Starting DLG LL Key5
LL2KEY5	448	457	10	Ending DLG LL Key5
LL1KEY6	458	467	10	Starting DLG LL Key6
LL2KEY6	468	477	10	Ending DLG LL Key6
LL1KEY7	478	487	10	Starting DLG LL Key7
LL2KEY7	488	597	10	Ending DLG LL Key7
LL1KEY8	498	507	10	Starting DLG LL Key8
LL2KEY8	508	517	10	Ending DLG LL Key8
LL1KEY9	518	527	10	Starting DLG LL Key9
LL2KEY9	528	537	10	Ending DLG LL Key9
LL1KEY10	538	547	10	Start DLG LL Key 10
LL2KEY10	548	557	10	Ending DLG LL Key10
LN1AT2	558	561	4	DLG Line Attr. 1
LN2AT2	562	565	4	DLG Line Attr. 2
AREA1	566	569	4	DLG Area ID 1
AREA2	570	573	4	DLG Area ID 2
AR1AT2	574	577	4	DLG Area Attribute
AR1AT4	578	581	4	DLG Area Attribute
AR2AT2	582	585	4	DLG Area Attribute
AR2AT4	586	589	4	DLG Area Attribute
UPDATE1	590	595	6	Update Date #1 (mmddyy)
UPDTCD1	596	603	8	Update Type Code #1

RF3 Structure File: 12345678.RF3 and 12345678.DBF in BISORF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
UPDTSRC1	604	611	8	Update Source #1
UPDATE2	612	617	6	Update Date #2 (mmddyy)
UPDTCD2	618	625	8	Update Type Code#2
UPDTSRC2	626	633	8	Update Source #2
UPDATE3	634	639	6	Update Date #3 (mmddyy)
UPDTCD3	640	647	8	Update Type Code #3
UPDTSRC3	648	655	8	Update Source #3
DIVCU	656	663	8	Divergent CU
DIVSEG	664	667	4	Divergent SEG
DIVMILE	668	672	5.2	Divergent MI
DLGID	673	678	6	DLG Number Special Use For Internal State Codes
FILLER	678	685	7	Filler: Future Use

Note: The structure for the .DBF file varies slightly from the RF3 structure displayed here in that the fields UPDATE1, UPDATE2, and UPDATE3 have a width of 8 and the last two fields, DLGID and FILLER, have been replaced with a field named ID of length 17. This ID field combines the CATUNIT, SEGM, and MI fields.

The following table provides the ASCII database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) traces. The actual numeric file names will vary depending on the catalog unit(s). This file contains the actual hydrographic network and is suitable for conversion into a variety of Geographic Information System formats.

RF3 Trace File: 12345678.TRC in BISORF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
(Header Record)				
CATUNIT	1	8	8	Cataloging Unit
SEGM	9	12	4	Segment Number
MI	13	17	5.2	Mile Point
NPTS	18	21	4	Number of Lat/Lon Coordinates
(Coordinate Record)				
LATITUDE	1	8	8.4	Latitude in Decimal
LONGITUDE	9	16	8.4	Longitude in Decimal
FILLER	17	21	5	

The following table provides the ASCII database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) catalog unit boundary file. The actual numeric file names will vary depending on the catalog unit(s). This file contains the actual catalog unit boundary and is suitable for conversion into a variety of Geographic Information System formats.

Catalog Unit Boundary File: 12345678.CUB in BISORF3.ZIP
First Line = Catalog Unit Number (8 Characters)
Subsequent Lines:
L=DDMMSS,L=DDDMMSS,L=DDMMSS,L=DDDMMSS,L=DDMMSS,L=DDDMMSS, ...
Example:
02070010
L=391259,L=0770809,L=391220,L=0770749,L=391147,L=0770715,L=391120,L=0770633,
L=391058,L=0770535,L=391042,L=0770520,L=391016,L=0770427,L=390948,L=0770416,
L=390526,L=0765331,L=390500,L=0765149,L=390456,L=0765139,L=390357,L=0765123,
...
L=390744,L=0771007,L=390826,L=0771022,L=390910,L=0771022,L=390950,L=0771003,
L=391107,L=0770922,
There can be as many as four latitude/longitude pairs per line.

The following table provides the DBASE III+ database field structure of the Water Resources Division's "encyclopedia" file that documents the minimum and maximum parameter values found and the park(s) where they occurred. This file is intended for Water Resources Division internal use, but will be available to anyone upon request after Baseline Water Quality Data Inventory and Analysis reports have been completed for all parks.

Encyclopedia File: WRD File For Internal Use Only				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
PARM	1	5	5	STORET Parameter Code
PARMNAME	6	45	40	Parameter Name
MINVAL	46	61	16.7	Minimum Value
MINVALPARK	62	65	4	Park Unit with Minimum Value
MAXVAL	66	71	16.7	Maximum Value
MAXVALPARK	72	75	4	Park Unit with Maximum Value

Appendix C

STORET Water Quality Control/Edit Checking

The following table provides the high and low values used by STORET since November 1983 for 190 common water quality parameters to screen or error check data. Data entered into STORET prior to November 1983, however, were not subjected to this edit/bounds check. Additionally, data from the USGS WATSTORE system that is loaded into STORET is never subjected to these edit criteria and agencies entering data in STORET can override these edit criteria to enter data values that fall outside a range. As a consequence, all data downloaded from STORET for the purposes of this project were filtered through these edit criteria to document values outside the generally accepted ranges. Decisions were then made on a case-by-case basis to retain or discard obviously incorrect data. Refer to the Water Quality Observations Outside STORET Edit Criteria section of the Interpretive Guide To Water Quality Results chapter for more information on this subject.

STORET Code	STORET Parameter Description	High Value	Low Value
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	37.0	-2.0
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	98.0	31.0
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	52.0	-40.0
00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	125.0	-40.0
00026	TOXICS-IDENTIFY DATA COLLECTION BY EPA DIRECTIVE	1990.9	1977.0
00032	CLOUD COVER (PERCENT)	101.0	0.0
00035	WIND VELOCITY (MILES PER HOUR)	85.0	0.0
00036	WIND DIRECTION IN DEGREES FROM TRUE N (CLOCKWISE)	361.0	0.0
00045	PRECIPITATION, TOTAL (INCHES PER DAY)	15.0	0.0
00070	TURBIDITY, (JACKSON CANDLE UNITS)	1500.0	0.0
00074	TURBIDITY, TRANSMISSOMETER, PERCENT TRANSMISSION	101.0	0.0
00075	TURBIDITY, HELLIGE (PPM AS SILICON DIOXIDE)	500.0	0.0
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	1000.0	0.0
00077	TRANSPARENCY, SECCHI DISC (INCHES)	600.0	0.0
00080	COLOR (PLATINUM-COBALT UNITS)	500.0	0.0
00081	COLOR,APPARENT(UNFILTERED SAMPLE) PLAT-COB UNITS	500.0	0.0
00085	ODOR (THRESHOLD NUMBER AT ROOM TEMPERATURE)	250.0	0.0
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	60000.0	1.0
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	60000.0	1.0
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	30.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
00300	OXYGEN, DISSOLVED (MG/L)	30.0	0.0
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION%	200.0	0.0
00310	BOD, 5 DAY, 20 DEG C (MG/L)	150.0	0.0
00335	COD, .025N K2CR2O7 (MG/L)	1000.0	0.0
00340	COD, .25N K2CR2O7 (MG/L)	1000.0	0.0
00365	CHLORINE DEMAND, 15 MINUTE (MG/L)	15.0	0.0
00400	PH (STANDARD UNITS)	12.0	0.9
00403	PH, LAB, STANDARD UNITS, (STANDARD UNITS)	12.0	0.9
00405	CARBON DIOXIDE (MG/L AS CO2)	100.0	0.0
00406	PH, FIELD (STANDARD UNITS)	12.0	0.9
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	1000.0	0.0
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	750.0	0.0
00435	ACIDITY, TOTAL (MG/L AS CACO3)	1000.0	0.0
00436	ACIDITY, MINERAL (METHYL ORANGE) (MG/L AS CACO3)	1000.0	0.0
00437	ACIDITY, CO2 (PHENOLPHTHALEIN) (MG/L AS CACO3)	750.0	0.0
00440	BICARBONATE ION (MG/L AS HCO3)	450.0	0.0
00445	CARBONATE ION (MG/L AS CO3)	100.0	0.0
00480	SALINITY - PARTS PER THOUSAND	40.0	0.0
00500	RESIDUE, TOTAL (MG/L)	15000.0	0.0
00505	RESIDUE, TOTAL VOLATILE (MG/L)	10000.0	0.0
00510	RESIDUE, TOTAL FIXED (MG/L)	10000.0	0.0
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C), (MG/L)	20000.0	0.0
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	10000.0	0.0
00525	RESIDUE, FIXED FILTRABLE (MG/L)	10000.0	0.0
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10000.0	0.0
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10000.0	0.0
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	10000.0	0.0
00545	RESIDUE, SETTLEABLE (ML/L)	1000.0	0.0
00546	RESIDUE, SETTLEABLE (MG/L)	1000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
00550	OIL & GREASE (SOXHLET EXTRACTION) TOTAL,REC., (MG/L)	250.0	0.0
00600	NITROGEN, TOTAL (MG/L AS N)	100.0	0.0
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	15.0	0.0
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	25.0	0.0
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	20.0	0.0
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	5.0	0.0
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	50.0	0.0
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	50.0	0.0
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	55.0	0.0
00635	NITROGEN, AMMONIA & ORG., TOTAL 1 DET (MG/L AS N)	70.0	0.0
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	30.0	0.0
00653	PHOSPHATE, TOTAL SOLUBLE (MG/L)	30.0	0.0
00655	PHOSPHATE, POLY (MG/L AS PO4)	30.0	0.0
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	30.0	0.0
00665	PHOSPHORUS, TOTAL (MG/L AS P)	10.0	0.0
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10.0	0.0
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	100.0	0.0
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	100.0	0.0
00685	CARBON, TOTAL INORGANIC (MG/L AS C)	100.0	0.0
00690	CARBON, TOTAL (MG/L AS C)	150.0	0.0
00720	CYANIDE, TOTAL (MG/L AS CN)	10.0	0.0
00745	SULFIDE, TOTAL (MG/L AS S)	1500.0	0.0
00746	SULFIDE, DISSOLVED (MG/L AS S)	1500.0	0.0
00760	SULFITE WASTE LIQUOR, PEARL BENSON INDEX (MG/L)	150.0	0.0
00900	HARDNESS, TOTAL (MG/L AS CACO3)	5000.0	0.0
00910	CALCIUM (MG/L AS CACO3)	3000.0	0.0
00915	CALCIUM, DISSOLVED (MG/L AS CA)	1000.0	0.0
00916	CALCIUM, TOTAL (MG/L AS CA)	1000.0	0.0
00920	MAGNESIUM (MG/L AS CACO3)	3000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	1000.0	0.0
00927	MAGNESIUM, TOTAL (MG/L AS MG)	1000.0	0.0
00929	SODIUM, TOTAL (MG/L AS NA)	5000.0	0.0
00930	SODIUM, DISSOLVED (MG/L AS NA)	5000.0	0.0
00931	SODIUM ADSORPTION RATIO	50.0	0.0
00935	POTASSIUM, DISSOLVED (MG/L AS K)	175.0	0.0
00937	POTASSIUM, TOTAL MG/L AS K)	175.0	0.0
00940	CHLORIDE, TOTAL IN WATER, (MG/L)	22000.0	0.0
00945	SULFATE, TOTAL (MG/L AS SO4)	2500.0	0.0
00946	SULFATE, DISSOLVED (MG/L AS SO4)	2500.0	0.0
00950	FLUORIDE, DISSOLVED (MG/L AS F)	15.0	0.0
00951	FLUORIDE, TOTAL (MG/L AS F)	15.0	0.0
00955	SILICA, DISSOLVED (MG/L AS SI02)	2000.0	0.0
00956	SILICA, TOTAL (MG/L AS SI02)	2000.0	0.0
01000	ARSENIC, DISSOLVED (UG/L AS AS)	5000.0	0.0
01002	ARSENIC, TOTAL (UG/L AS AS)	5000.0	0.0
01005	BARIUM, DISSOLVED (UG/L AS BA)	2000.0	0.0
01007	BARIUM, TOTAL (UG/L AS BA)	2000.0	0.0
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	2000.0	0.0
01012	BERYLLIUM, TOTAL (UG/L AS BE)	2000.0	0.0
01020	BORON, DISSOLVED (UG/L AS B)	5000.0	0.0
01022	BORON, TOTAL (UG/L AS B)	5000.0	0.0
01025	CADMIUM, DISSOLVED (UG/L AS CD)	500.0	0.0
01027	CADMIUM, TOTAL (UG/L AS CD)	500.0	0.0
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	2000.0	0.0
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	2000.0	0.0
01033	CHROMIUM, TRI-VAL (UG/L AS CR)	2000.0	0.0
01034	CHROMIUM, TOTAL (UG/L AS CR)	2000.0	0.0
01040	COPPER, DISSOLVED (UG/L AS CU)	2000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
01042	COPPER, TOTAL (UG/L AS CU)	5000.0	0.0
01045	IRON, TOTAL (UG/L AS FE)	56000.0	0.0
01046	IRON, DISSOLVED (UG/L AS FE)	56000.0	0.0
01047	IRON, FERROUS (UG/L AS FE)	56000.0	0.0
01049	LEAD, DISSOLVED (UG/L AS PB)	1000.0	0.0
01051	LEAD, TOTAL (UG/L AS PB)	1000.0	0.0
01055	MANGANESE, TOTAL (UG/L AS MN)	5000.0	0.0
01056	MANGANESE, DISSOLVED (UG/L AS MN)	5000.0	0.0
01065	NICKEL, DISSOLVED (UG/L AS NI)	2000.0	0.0
01067	NICKEL, TOTAL (UG/L AS NI)	2000.0	0.0
01075	SILVER, DISSOLVED (UG/L AS AG)	5000.0	0.0
01077	SILVER, TOTAL (UG/L AS AG)	5000.0	0.0
01090	ZINC, DISSOLVED (UG/L AS ZN)	25000.0	0.0
01092	ZINC, TOTAL (UG/L AS ZN)	25000.0	0.0
01105	ALUMINUM, TOTAL (UG/L AS AL)	20000.0	0.0
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	20000.0	0.0
01145	SELENIUM, DISSOLVED (UG/L AS SE)	100.0	0.0
01501	ALPHA, TOTAL	200.0	0.0
01503	ALPHA, DISSOLVED	75.0	0.0
01505	ALPHA, SUSPENDED	150.0	0.0
03501	BETA, TOTAL	3500.0	0.0
03503	BETA, DISSOLVED	3000.0	0.0
03505	BETA, SUSPENDED	1500.0	0.0
09503	RADIUM 226, DISSOLVED	500.0	0.0
13501	STRONTIUM 90, TOTAL	500.0	0.0
22703	URANIUM, NATURAL, DISSOLVED	500.0	0.0
31501	COLIFORM, TOT,MEMBRANE FILTER,IMMED.M-ENDO MED, 35C	24000000.0	0.0
31502	COLIFORM, TOTAL, 10/ML	24000000.0	0.0
31503	COLIFORM, TOT,MEMBR FILTER, DELAYED,M-ENDO MED, 35C	24000000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
31504	COLIFORM, TOT,MEMBR FILTER,IMMED,LES ENDO AGAR, 35C	24000000.0	0.0
31613	FECAL COLIFORM, MEMBR FILTER, M-FC AGAR,44.5C, 24HR	10000000.0	0.0
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	10000000.0	0.0
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH, 44.5C	10000000.0	0.0
31672	FECAL STREPTOCOCCI,PLATE COUNT M-ENTER AGAR,35C48HR	500000.0	0.0
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	500000.0	0.0
31677	FECAL STREPTOCOCCI,MPN,AD-EVA, 35C (TUBE 31678)	500000.0	0.0
31679	FECAL STREPTOCOCCI, MF M-ENTEROCOCCUS AGAR,35C,48H	500000.0	0.0
31749	PLATE COUNT, TOTAL, TPC AGAR, 20C, 48 HRS	99999999.0	0.0
31751	PLATE COUNT, TOTAL, TPC AGAR, 35C, 24 HRS	99999999.0	0.0
32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	500.0	0.0
32211	CHLOROPHYLL-A UG/L SPECTROPHOTOMETRIC ACID. METH.	750.0	0.0
32212	CHLOROPHYLL-B UG/L TRICHROMATIC UNCORRECTED	1000.0	0.0
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	200.0	0.0
32217	CHLOROPHYLL A UG/L FLUOROMETRIC UNCORRECTED	500.0	0.0
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	200.0	0.0
32219	PHEOPHYTIN RATIO(OD 663)SPECTRO,BEFORE/AFTER ACID	2.0	0.0
32221	CHLOROPHYLL A,% OF(PHEOPHYTIN A+CHL A),SPEC-ACID.	101.0	0.0
32230	CHLOROPHYLL A (MG/L)	0.5	0.0
32231	CHLOROPHYLL B (MG/L)	0.8	0.0
32232	CHLOROPHYLL C (MG/L)	0.2	0.0
32234	CHLOROPHYLL, TOTAL (A+B+C) (MG/L)	1.0	0.0
32270	CHLOROFORM EXTRACTABLES TOTAL IN MG PER LITER	5.0	0.0
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	1500.0	0.0
38260	METHYLENE BLUE ACTIVE SUBST. (DETERGENTS, ETC.)	10.0	0.0
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39340	GAMMA-BHC(LINDANE),WHOLE WATER, (UG/L)	20.0	0.0
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER, (UG/L)	20.0	0.0
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39530	MALATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39540	PARATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39782	LINDANE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	5.0	0.0
60050	ALGAE, TOTAL (CELLS/ML)	700000.0	0.0
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	4000.0	0.0
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	10.0	0.0
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10.0	0.0
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	65.0	0.0
71886	PHOSPHORUS, TOTAL, AS PO4 - (MG/L)	30.0	0.0
71890	MERCURY, DISSOLVED (UG/L AS HG)	10.0	0.0
71895	MERCURY, SUSPENDED (UG/L AS HG)	10.0	0.0
71900	MERCURY, TOTAL (UG/L AS HG)	10.0	0.0
74010	IRON, TOTAL (MG/L AS FE)	56000.0	0.0

Appendix D

STORET Administrative Parameters

STORET Code	Description of STORET Administrative Parameters
00022	LENGTH OF EXPOSURE OF SAMPLE OR TEST - DAYS
00026	TOXICS-IDENTIFY DATA COLLECTION BY EPA DIRECTIVE
00027	CODE NO FOR AGENCY COLLECTING SAMPLE
00028	CODE NO FOR AGENCY ANALYZING SAMPLE
00029	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION
00073	SAMPLE LOC CODE DEFINED BY THERMAL STRUCT & DEPTH
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)
00116	INTENSIVE SURVEY IDENTIFICATION NUMBER
00145	TOTAL PRODUCTION OF PRODUCT MANUFACTURED TONS/DAY
01273	TOTAL ACID PRIORITY POLLUTANTS MG/L
01274	TOTAL BASE-NEUTRAL PRIORITY POLLUTANTS MG/L
01275	TOTAL VOLATILE PRIORITY POLLUTANTS MG/L
01365	ANALYSIS DATE (DIOXIN) (YYMMDD)
04177	SAMPLE STABILIZATION, RECOVERY TEST CODE
04178	FIELD PROTOCOL(CONFDNCE ASSIGNED FIELD SAMPLE) CODE
04179	SAMPLE STATION LOCKED CODE
04180	CONDITION OF STATION SITE CODE
04181	LABORATORY QA/QC PLAN CONFIDENCE CODE
04182	SAMPLE TYPE CODE
04183	SAMPLE REMARKS CODE
30333	BAG MESH SIZE, BEDLOAD SAMPLER, MM
34772	NPDES NUMBER, CROSS REFERENCE CODE
34785	GAGE TYPE, METHOD CODE

STORET Code	Description of STORET Administrative Parameters
45575	GC MAKE AND MODEL INFORMATION CODE
45576	GC DETECTOR TYPE CODE
45577	GC COLUMN TYPE CODE
45580	METHOD OF ANALYSIS CODE
45581	LABORATORY LOCATION CODE
46107	SAMPLE LOCATION CODE (TREATMENT PLANT OPERATION)
46390	TOXICITY CHARACTERISTIC LEACHING PROCEDURE P OR F
46396	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS YES OR NO
46397	PROCESS TO FURTHER REDUCE PATHOGENS YES OR NO
47001	PERMIT EXPIRATION DATE (JULIAN CALENDAR)
47044	OBSERVATIONS,WASTE SITE-SEVERITY OF PROBLEMS CODE
47460	SUBSAMPLE - DECIMAL FRACTION OF WHOLE NUMBER
47477	COMPOSITION AND/OR DISPOSITION OF CATCH NUM CODE
70231	CURRENT DIRECTION (DEGREES FROM DOWNSTREAM FLOW)
71999	SAMPLE PURPOSE CODE
72032	NUMBER OF SPILLWAY GATES OPEN
73672	DATE OF ANALYSIS YYMMDD
73673	DATE OF EXTRACTION YYMMDD
74031	GRANT, PROJECT COST ELIGIBLE FOR CONSTRUCTION
74032	GRANT, AMOUNT OF PL 660 GRANT FOR THIS PROJECT
74033	GRANT, FEDERAL, OTHER THAN PL 660 GRANT
74034	GRANT, FUTURE PL 660 WHICH MAY APPLY TO THIS PROJ
74035	GRANT, TOTAL FEDERAL, WHICH APPLIES TO THIS PROJ
74036	GRANT, PROJ NUMBER ASSIGNED TO THIS APPLICATION
74037	GRANT, TYPE OF PROJECT TO WHICH GRANT APPLIES
74038	GRANT, STATUS OF PROJECT TO WHICH GRANT APPLIES
74039	PCS/STORET WATER QUALITY FILE INTERFACE YR/MO/DAY
74040	SURVEY NUMBER YYMMNO
74041	STORET STORAGE TRANSACTION DATE YR/MO/DAY

STORET Code	Description of STORET Administrative Parameters
74050	RADIOACTIVITY, GENERAL (PERMIT)
74051	ALGICIDES, GENERAL (PERMIT)
74052	CHLORINATED HYDROCARBONS, GENERAL (PERMIT)
74053	PESTICIDES, GENERAL (PERMIT)
74056	COLIFORM, TOTAL, GENERAL (PERMIT)
74065	STREAM FLOW CLASS
74066	ANNUAL RUNOFF
74067	SOIL CLASSIFICATION
74068	WATER QUALITY DESIGNATED USE CLASSIFICATION (IA)
74100	PRIMARY 1972 SIC CODE
74101	SECONDARY 1972 SIC CODE
74102	SECONDARY 1972 SIC CODE
74103	SECONDARY 1972 SIC CODE
74200	SAMPLE PRESERVATION METHODS ONE OR MORE IN COMB.
74205	LAND RESOURCE AREA (IOWA)
74206	SOIL EROSION POTENTIAL (IOWA)
74209	WATER QUALITY INDEX - STATE OF ILLINOIS, EPA
74210	FOREST STREAM WATER QUALITY INDEX CALC. NUMBER
74990	FISH SPECIES NUMERIC CODE - F&W SERVICE
74995	ANATOMY CODE
75000	SPECIES CODE-REMARK=SEX (M=MALE,F=FEMALE,U=UNK.)
81028	WITHDRAWAL OF GROUNDWATER (MILLION GAL/DAY)
82258	WATER CLASSIFICATION CODE (1-9) CODE
82292	DATA RELAY GROUND STATION SOURCE NODE CODE, CODE
82309	CONTAMINATION SOURCE POSSIBLE CODES NUMERIC CODE
82310	DEPTH CONFIDENCE IN REPORTED VALUES NUMERIC CODES
82373	FREQUENCY OF SAMPLING M=MON,Q=QUAR,Y=YR,R=RNFFCODE
82519	DRILLER REGISTRATION NUMBER ALPHA-NUMERIC CODE
82562	NARRATIVE REQUIREMENT EXCEEDANCES INTEGER

STORET Code	Description of STORET Administrative Parameters
82576	DAILY EXCURSION TIME, WATER MIN
82577	MONTHLY EXCURSION TIME, WATER TOTAL MIN
82578	DAY/MAXIMUM EXCURSION TIME, WATER MIN
82579	CODE NUMBER FOR PERSON COLLECTING SAMPLE
84002	CODE, GENERAL INFORMATION - ALPHA, NUMERIC CODE
84003	WATER SHED ID NUMBER (IOWA)
84005	FISH SPECIES CODE-FISH & WILDLIFE SER
84006	OWNERSHIP CLASSIFICATION OF LAKE, ILLINOIS SYSTEM
84010	PUBLIC ACCESS TO LAKE ILLINOIS SYSTEM
84011	CONFIDENCE CODE FOR GLC CONFIRMATION CODE
84012	PATIENT PARAMETERS (AGE, SEX, WT, ETC.) CODE
84013	SAMPLE PARAMETERS D=DESIGN SPECIMEN, S=SURPLUS
84027	CODE NUMBER FOR AGENCY COLLECTING SAMPLE
84028	CODE NO FOR AGENCY ANALYZING SAMPLE
84029	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE FIELD
84033	EGD ANALYTICAL DATA COMPLETENESS Y=YES N=NO CODE
84034	EGD SMPL NO.(SMPL.IDENT) NUMERIC=SCS ALPH+4NUM=JRB
84035	EGD SAMPLE CLASSIFICATION CATEGORY ALPHA CODE
84036	EGD INDUSTRIAL CATEGORY NUMERIC CODE
84037	EGD INDUSTRIAL CATEGORY NAME ALPHA CODE
84038	EGD LABORATORY NUMERIC CODE
84039	EGD LABORATORY NAME ALPHA CODE
84040	EGD SAMPLE STATUS (1-5,9,AND BLANK) NUMERIC CODE
84041	EGD ACID STATUS (1-5,9,AND BLANK) NUMERIC CODE
84042	EGD BASE STATUS (1-5,9AND BLANK) NUMERIC CODE
84043	EGD PESTICIDE STATUS (1-5,9,AND BLANK) NUMERIC CODE
84044	EGD VOA FRACT. STATUS INDICATOR (1-5,9,BLANK) CODE
84045	EGD ACID EXTRACT DATE (YYMMDD) NUMERIC CODE
84046	EGD BASE EXTRACTION DATE (YYMMDD) NUMERIC CODE

STORET Code	Description of STORET Administrative Parameters
84047	EGD PESTICIDE EXTRACTION DATE (YYMMDD) NUMERIC CODE
84048	EGD VOA FRACTION INJECTION DATE YYMMDD NUMERIC CODE
84049	EGD ACID CONC. FACTOR (FIVE NUMERIC DIGITS) CODE
84050	EGD BASE CONC.FACTOR (FIVE NUMERIC DIGITS) CODE
84051	EGD PESTICIDE CONC.FACTOR (FIVE NUMERIC DIGITS) CODE
84052	EGD VOA FRACTION CONC. FACTOR (5 NUMERIC DIGITS) CODE
84053	SAMPLE TYPE AND FREQUENCY OF COLLECTION CODE
84054	LITHOLOGY ALPHA-NUMERIC CODE
84055	AVAILABLE LOGS ALPHA-NUMERIC CODE
84056	WATER USE CATEGORY ALPHA-NUMERIC CODE
84057	INSPECTION TYPE ALPHA-NUMERIC CODE
84058	HYDROGEOLOGIC SYSTEM ALPHA-NUMERIC CODE
84059	WELL OWNERSHIP ALPHA-NUMERIC CODE
84060	TOPOGRAPHY ALPHA-NUMERIC CODE
84061	WELL USE ALPHA-NUMERIC CODE
84062	MEASURING POINT DESCRIPTION ALPHA-NUMERIC CODE
84063	DRILLING METHOD ALPHA-NUMERIC CODE
84064	WELL DATA AVAILABILITY ALPHA-NUMERIC CODE
84065	PERMIT COMPLIANCE DATA ALPHA-NUMERIC CODE
84067	NATURE OF MONITORING ALPHA-NUMERIC CODE
84073	REPLACES EXISTING WELL ALPHA-NUMERIC CODE
84074	AQUIFER TYPE (SEE USGS HANDBOOK) ALPHA CODE
84075	WELL PERMIT NUMBER ALPHA-NUMERIC CODE
84076	TSD MONITORING WELL TYPE ALPHA CODE
84077	TSD MONITORING WELL SAMPLING METHOD ALPHA CODE
84083	POLLUTION VERIFICATION ALPHA CODE
84084	WELL SAMPLE PURPOSE ALPHA CODE
84090	SAMPLE FILE CONTROL PROJECT IDENTIFICATION A-CODE
84091	INFILTRATION DATE/BEGINNING 'YYMMDD'

STORET Code	Description of STORET Administrative Parameters
84092	INFILTRATION DATE/ENDING 'YYMMDD'
84093	ENFORCEMENT FORM #2-C,DATA IDENTIFICATION CODE
84102	SAMPLE SPECIES-SUB ID ALPHA CODE
84103	DIOXIN LABORATORY ALPHA CODE
84104	DIOXIN STUDY ALPHA CODE
84112	SOURCE OF GEOHYDROLOGIC DATA CODE
84119	SOURCE OF EVACUATION DATA CODE
84121	REGULATING AGENCY CODE
84122	SAMPLE PURPOSE CODE
84126	SOURCE OF DEPTH DATA CODE
84127	METHOD OF DEPTH MEASUREMENT CODE
84128	SOURCE OF WATER-LEVEL DATA CODE
84129	DATA QUALITY
84141	LAKE, PHYSICAL CONDITION AT SAMPLE TIME, 1-5, CODE
84142	LAKE,RECREATIONAL SUITABILITY @ SMPL TIME,1-5, CODE
84164	SAMPLER TYPE, CODE
85300	PROBLEM CODE NES SURVEY
85327	WATER LEVEL AT SAMPLE COLLECTION TIME-CODE-NES
85332	CLOUD COVER AT SAMPLE COLLECTION TIME-CODE-NES
85553	WELL COMPLETION DATE (MONTH/YEAR)
85554	WELL WORKOVER DATE, LATEST (MONTH/YEAR)

Appendix E

STORET Parameters Not Suitable for Statistical Analysis

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
00001	X-SEC. LOC., HORIZ (FT. FROM R BANK LOOK UPSTR.)
00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)
00003	SAMPLING STATION LOCATION, VERTICAL (FEET)
00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)
00006	DISTANCE FROM LOCATION IN X MILES
00007	DISTANCE FROM LOCATION IN Y MILES
00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE
00009	X-SEC. LOC.(FT FROM LEFT BANK LOOKING DOWNSTRM)
00027	CODE NO FOR AGENCY COLLECTING SAMPLE
00028	CODE NO FOR AGENCY ANALYZING SAMPLE
00033	WEATHER CODE FOR OCEAN-OBSERV. (WMO CODE 4677)
00037	WIND FORCE (BEAUFORT UNITS)
00038	WIND DIRECTION (WMO CODES 0885 + 0887)
00041	WEATHER (WMO CODE 4501)
00042	ALTITUDE IN FEET ABOVE MEAN SEA LEVEL
00043	CLOUD TYPE (WMO CODE 0500)
00044	CLOUD AMOUNT (WMO CODE 2700)
00047	TOTAL PARTIAL PRESSURE DISSOLVED GASES (MM HG)
00048	TOTAL PARTIAL PRESSURE DISSOLVED GASES (% SAT)
00049	SURFACE AREA IN SQUARE MILES
00050	EVAPORATION, TOTAL (INCHES PER DAY)
00051	SURFACE AREA IN SQUARE FEET
00053	SURFACE AREA, ACRES
00054	RESERVOIR STORAGE - ACRE FEET
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION
00067	TIDE STAGE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
00069	SEA WAVES(0=NONE;1=0-3";2=4-20";3=21-48";4=4-8')
00097	SAMPLING STATION LOCATION, VERTICAL (FEET)
00098	SAMPLING STATION LOCATION, VERTICAL (METERS)
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)
01300	OIL-GREASE (SEVERITY)
01305	DETERGENT SUDS (SEVERITY)
01310	GAS BUBBLES (SEVERITY)
01315	SLUDGE, FLOATING (SEVERITY)
01320	GARBAGE, FLOATING (SEVERITY)
01325	ALGAE, FLOATING MATS (SEVERITY)
01330	ODOR, ATMOSPHERIC (SEVERITY)
01331	TASTE (SEVERITY)
01335	SEWAGE SOLIDS, FRESH, FLOATING (SEVERITY)
01340	FISH, DEAD (SEVERITY)
01345	DEBRIS, FLOATING (SEVERITY)
01350	TURBIDITY (SEVERITY)
01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE
01355	ICE COVER, FLOATING OR SOLID (SEVERITY)
03595	BIOASSAY (96 HR), EFFLUENT, TOTAL CODE
03596	BIOASSAY (48 HR), EFFLUENT, TOTAL CODE
03597	BIOASSAY (24 HR), EFFLUENT, TOTAL CODE
03598	TOXICITY, EFFLUENT, TOTAL CODE
03599	TOXICITY, CHOICE OF SPECIES, EFFLUENT CODE
03600	TOXICITY, TROUT, EFFLUENT, TOTAL CODE
03601	TOXICITY, SAND DOLLAR, EFFLUENT CODE
03602	BIOCHEMICAL OXYGEN DEMAND, EFFLUENT, TOTAL CODE
03603	SOLIDS, TOTAL SUSPENDABLE, EFFLUENT, TOTAL CODE
03605	FLOW METER CALIBRATION, WATER CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
03717	ONCORHYNCHUS MYKISS, WATER CODE
04117	TETHER LINE USED FOR COLLECTING SAMPLE CODE
04160	HALOCARBONS, PURGEABLE, SCAN, EFFLUENT CODE
04161	HALOCARBONS, PURGEABLE, SCAN, SLUDGE CODE
04162	AROMATIC, PURGEABLE, SCAN, EFFLUENT CODE
04163	AROMATIC, PURGEABLE, SCAN, SLUDGE CODE
04164	PHENOLIC, TOTAL, SCAN, EFFLUENT CODE
04165	PHENOLIC, TOTAL, SCAN, SLUDGE CODE
04166	PCB, TOTAL, SCAN, EFFLUENT CODE
04167	PCB, TOTAL, SCAN, SLUDGE CODE
04174	FREE LIQUIDS IN SEWAGE SLUDGE CODE
34765	AVIAN NUMERICAL SPECIES CODE (BIRDS)
34766	MAMMALIAN NUMERICAL SPECIES CODE
34771	MACROPHYTE, INSTREAM, VISUAL SIGHTING CODE
34773	ODOR, AMBIENT WATER CODE
34774	FISH, INSTREAM, VISUAL SIGHTING CODE
34775	STREAMBANK CHANNEL ALTERATIONS CODE
34776	HYDRAULIC STRUCTURES, INSTREAM CODE
34780	LAND USE, ADJACENT STREAM CODE
34781	SAMPLE POINTS, # OF LONGTDNL TRANSECTS, REACH CODE
34782	STREAM STAGE TREND CODE
34789	HABITATS, TYPES SAMPLED CODE
45613	FLOATING SOLIDS/VISIBLE FOAM, VISUAL, YES=1, NO=0, CODE
45614	SANITARY WASTE DISCHARGE ASSESSMENT, YES=1, NO=0, CODE
45615	INTERMITTENT DISCHARGE ASSESSMENT, YES=1, NO=0,CODE
46001	WATER APPEARANCE CODE (BASED ON FIELD ASSESSMENT)
46478	EQUIPMENT INSPECTION, VISUAL CODE
46486	TOXICITY,ACUTE 24HR(STATIC)CERIODAPHNIA (P/F) CODE
47454	FLOW METER REVOLUTIONS NUMBER

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
47455	LATITUDE, STARTING, OF A SAMPLE TOW DDMMSS
47456	LONGITUDE, STARTING, OF A SAMPLE TOW DDDMMSS
47457	LATITUDE, FINISHING, OF A SAMPLE TOW DDMMSS
47458	LONGITUDE, FINISHING, OF A SAMPLE TOW DDDMMSS
47459	LENGTH FREQUENCY NUMBER
47461	TIME THAT THE EQUIPMENT WAS SAMPLING MINUTES
47476	DIRECTION OF TOW IN RELATION TO CURRENT NUM CODE
50044	HYDROGRAPH LIMB, 1BASE, 2RISING, 3PEAK, 4FALLING, CODE
61390	DIATOMS,FIRST DOMINANT SPECIES OF UNITS - CODE
61391	DIATOMS,SECOND DOMINANT SPECIES OF UNITS - CODE
61392	DIATOMS,THIRD DOMINANT SPECIES OF UNITS - CODE
61393	DIATOMS,FOURTH DOMINANT SPECIES OF UNITS - CODE
70220	WAVE DIRECTION (WMO CODES 0885 + 0887)
70222	WAVE HEIGHT (WMO CODE 1555)
70223	WAVE PERIOD (WMO CODE 3155)
71090	BIVALVE SPECIES CODE
71500	EQUITABILITY INDEX,BENTHIC MACROINVER CODE
72000	ELEVATION OF LAND SURFACE DATUM (FT. ABOVE MSL)
72001	DEPTH, TOTAL OF HOLE (FT BELOW LAND SURFACE DATUM)
72002	DEPTH TO TOP OF WATER-BEARING ZONE SAMPLED (FT)
72003	DEPTH TO BOTTOM OF WATER-BEARING ZONE SAMPLED (FT)
72004	PUMP OR FLOW PERIOD PRIOR TO SAMPLING MINUTES
72005	SAMPLE SOURCE CODE (BM WELL DATA)
72006	SAMPLING CONDITION CODE (BM WELL DATA)
72007	FORMATION NAME CODE (BM WELL DATA)
72017	SERIES CODE (BM WELL DATA)
72018	SYSTEM CODE (BM WELL DATA)
72111	DIRECT READOUT GROUND STATN TRANSMIT EROR CODE NUM
74054	FECAL STREPTOCOCCI, GENERAL (PERMIT)

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
74055	FECAL COLIFORM, GENERAL (PERMIT)
80889	ACTIVATED SLUDGE PROCESS MODIFICATION CODE
81024	DRAINAGE AREA IN SQUARE MILES (SQ. MI.)
81637	SHELLFISH SPECIES NUMERIC CODE
82289	LAGOON OBSERVATION, VISUAL, Y=YES N=NO CODE
82398	SAMPLING METHOD (CODES)
82524	STORAGE COEFFICIENT NUMERICAL CODE
82923	ATMOSPHERIC DEPOSITION TYPE, WET CODE
83205	ATMOSPHERIC DEPOSITION TYPE, BULK CODE
84000	GEOLOGIC AGE CODE (SEE USGS CATALOG)
84001	AQUIFER NAME CODE (SEE USGS CATALOG)
84004	LAKE TYPE ILLINOIS CLASSIFICATION SYSTEM
84007	ANATOMY ALPHA CODE
84008	LIFE STYLE/HABITAT OF THE INDIVIDUALS IN THE SAMPLE
84009	SHELLFISH SPECIES ALPHANUMERIC CODE
84014	SPECIES SEX CODE
84030	CLOUD AMOUNT ALPHA WEATHER CODES
84031	PHYSICAL WEATHER ALPHA WEATHER CODES
84032	STREAM CONDITION ALPHA WEATHER CODES
84066	OIL AND GREASE, VISUAL, ALPHA-NUMERIC CODE
84068	SERIES CODE ALPHA-NUMERIC CODE
84069	FORMATION CODE ALPHA-NUMERIC CODE
84070	METHOD OF TESTING WELL YIELD ALPHA-NUMERIC CODE
84071	WATER LEVEL MEASUREMENT CONDITIONS ALPHA-NUM CODE
84072	WATER LEVEL MEASUREMENT METHOD ALPHA-NUMERIC CODE
84078	GIARDIA LAMBLIA, 2HSO4 OR SUC GRAD, MICRO, CODE
84079	BACTERIA, CELLUOLYTIC, AEROBIC-ANAEROBIC, RT 5-7, CODE
84080	BACTERIA, HYDROCARBONOCLASTIC, SHAKE INC 32C/WK, CODE
84081	YERSINIA ENTEROCOLITICA, SB BROTH, MAC AGAR,22C, CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
84082	SALMONELLA/SHIGELLA, QUANT OR QUAL, HVF OR SWAB, CODE
84085	ORGANICS, VOLATILE, DETECTED, NUMERIC CODE, CODE
84086	MACROINVERTEBRATE SPECIES NUMERIC CODE
84087	MACROINVERTEBRATE HABITAT CODE
84088	BIOLOGY 1 MACROINVERTEBRATE CODE
84089	BIOLOGY 2 MACROINVERTEBRATE CODE
84094	PHYTOPLANKTON SPECIES CODE, NUMERIC
84095	PHYTOPLANKTON SPECIES CODE, ALPHA
84096	SEVERITY OF NON-PLANKTON ALGAE-MAT COVERAGE CODE
84097	LAGOON MOUTH CONDITION CODE
84098	COLOR OF NON-PLANKTONIC ALGAE CODE
84099	WATER - RELATIVE WATER LEVEL CODE
84100	SEX(1-MALE,2-FEMALE,3-MIXED,4-UNKNOWN) NUM CODE
84101	METAFORM, BENTHIC, ADULT(A), PUPAE(P), LARVAE(L) CODE
84105	OIL-SEPARATOR OBSERVATION ASSESS (0=DID NOT,1=DID)
84106	EVAPORAT/BED OBS ASSESS (0=DID NOT LOOK, 1=DID LOOK)
84107	AREA INSPECTION, VISUAL (0=DID NOT, 1=DID) CODE
84108	DRAIN FIELD INSPECTION ASSESS (0=DID NOT, 1=DID) CODE
84109	SLUDGE BUILD-UP IN WATER (0=DID NOT OBS, 1=OBS) CODE
84110	POND OBSERVATION ASSESS WATER (0=DID NOT, 1=DID) CODE
84111	LITHOLOGIC MODIFIER CODE
84113	WELL INTAKE FINISH CODE
84114	WELL CASING MATERIAL CODE
84115	TYPE OF MATERIAL FROM WHICH OPENING IS MADE CODE
84116	DRILLING FLUID CODE
84117	TYPE OF SURFACE SEAL CODE
84118	METHOD OF DEVELOPMENT CODE
84120	PACKING MATERIAL CODE
84124	METHOD OF EVACUTAION CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
84125	METHOD OF WATER-LEVEL MEASUREMENT CODE
84130	OUTFALL OBSERVATION, VISUAL, Y=YES N=NO CODE
84131	SAMPLING METHOD, CONFIDENCE CODE (A,B,C,D) CODE
84132	STREAMBANK, VEGETATIVE STABILITY RATING CODE
84133	STREAMBANK, STABILITY (BANK EROSION) RATING CODE
84134	PARTICLES, DEGREE SURROUNDED BY FINE SEDIMENT, CODE
84135	STREAMSIDE, (SHORELINE) COVER RATING CODE
84136	CANOPY TYPE CODE
84137	CHANNEL STABILITY RATING CODE (E,G,F,P) CODE
84138	COLIFORM, TOTAL, WATER, WHOLE, MPN, PRES=1, ABSNT=2, CODE
84139	ENTEROBACTER AGGLOMERANS, WTR, MF, PRES=1, ABSNT=2, CODE
84140	KLEBSIELLA PNEUMONIAE, WTR, WH, MF, PRES=1, ABSNT=2, CODE
84143	WELL, PURGING CONDITION CODE
84144	WELL, SELECTION CRITERIA CODE
84145	PROJECT COMPONENT CODE
84146	LAND USE, PREDOMINANT, WITHIN 100 FT OF WELL, CODE
84147	LAND USE, PREDOMINANT, 1/4 MI.RADIUS OF WELL, CODE
84148	LAND USE, PREDMNT., FRAC., WITHIN 1/4 MI OF WELL, CODE
84149	LAND USE, CHANGE, LAST 10 YRS, WITHIN 1/4MI WELL, CODE
84150	HABITAT QUALITY INDEX RATING CODE
84151	AQUATIC LIFE, USE CLASSES CODE
84152	STREAM, STAGE CLASS CODE
84153	STREAMBANKS, GRAZING DAMAGE CODE
84154	CHANNEL, MAJOR ALTERATIONS CODE
84155	RIFFLE/RUNS, OCCURRENCE CODE
84156	POOL, DESCRIPTION CODE
84157	SANDBARS, LARGE, OCCURRENCE CODE
84158	LAND USE, NEAR STREAM, PREDOMINANT CODE
84159	STREAM,COVER (INSTREAM SHELTER FOR ADULT FISH), CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
84160	STREAM, DEGRADATION RATING CODE
84161	STREAM, ORDER CODE
84162	LAND RESOURCE AREA CODE
84163	FLOW, STREAM, CLASSIFICATION CODE
84165	DISCHARGE EVENT OBSERVATION, YES=1 NO=0, CODE
84166	STORM HYDROGRAPH, DIRECTION, (RISE,FALL), CODE
84167	MICROSCOPIC EXAMINATION CODE
84168	AVIAN SPECIES ALPHA CODE (BIRDS)
84169	MAMMALIAN ALPHA SPECIES CODE
84170	ALPHA AGE TEXT CODE
84200	LATITUDE/LONGITUDE COORDINATES OF WELL, METHOD CODE
84201	NATIONAL REFERENCE DATUM, ALTITUDE(VERTICAL) CODE
84202	ALTITUDE METHOD CODE
85000	STREAM MILE, ACTUAL MILES
85014	HABITAT, 1970 ACRES THIS TYPE FOR THIS STATION
85015	HAB., ESTIMATED ACRES THIS TYPE THIS STATION
85016	HAB., ESTIMATED ACRES THIS TYPE THIS STA. BY 1990
85017	HAB., ESTIMATED ACRES THIS TYPE THIS STA. BY 2000
85018	TYPE CODES: 1=CLEAR CUT/2=SELECT CUT/3=RNGE DEVLP
85019	ACRES, NO. ALTERED FROM 1965-1970 (0-5 YEARS OLD)
85020	ACRES, NO. ALTERED 1960-1965 (5-10 YEARS OLD)
85021	ACRES, NO. ALTERED 1955-1960 (10-15 YEARS OLD)
85022	ACRES, NO. ALTERED 1950-1955 (15-20 YEARS OLD)
85023	ACRES, NO. ALTERED BEFORE 1950 (20+ YEARS OLD)
85024	ACRES,PREDICTED YRLY.AVE.TO BE ALTERED IN FUTURE
85025	LANDOWNERS, CODES FOR ALL IN STATE OF OREGON
85026	ACRES, CURRENT OWNED THIS LANDOWNER THIS STATION
85027	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 1980
85028	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 1990

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85029	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 2000
85030	LAND USES, CODES FOR ALL IN STATE OF OREGON
85031	ACRES, CURRENT DEDICATED TO THIS USE THIS STATION
85032	ACRES, ESTM. DEDICTD TO THIS USE THIS STA BY 1980
85033	ACRES, ESTM. DEDICTD TO THIS USE THIS STA BY 1990
85034	ACRES, ESTM. DEDICTD TO THIS USE BY YR.2000 --STA.
85035	HAB., INDICATED ANIMAL USES THIS TYPE IN WINTER
85036	HAB., INDICATED ANIMAL USES THIS TYPE IN SPRING
85037	HAB., INDICATED ANIMAL USES THIS TYPE IN SUMMER
85038	HAB., INDICATED ANIMAL USES THIS TYPE IN FALL
85039	HAB., INDICATED ANML USES THIS TYPE FOR WINTERING
85040	HAB., INDICATED ANML USES THIS TYPE FOR FEEDING
85041	HAB., INDICATED ANML USES TYPE FOR REARING YOUNG
85042	HAB., INDICATED BIRD USES THIS TYPE FOR NESTING
85043	HAB., INDICATED ANML USES THIS TYPE FOR SHELTER
85044	HAB., INDICATED ANML USES THIS TYPE FOR REST AREA
85045	ANML, SHOWS PRESENCE/ABSNC OF COMMENTS ON THIS ANML
85046	HAB.,ACRES OCCUPIED BY THIS ANML THIS UNIT & CO.
85050	ANIMALS ARE NOT PRESENT THIS STATION
85051	ANIMALS, ONLY A FEW ARE PRESENT THIS STATION
85052	ANIMALS COMMONLY SEEN; USE MODERATE THIS STATION
85053	ANIMALS FREQUENTLY SEEN; USE HEAVY THIS STATION
85070	OWNERSHIP (.1) AND ACCESS (.2) BY YEAR
85071	PRIVATE OWNERSHIP AND ACCESS MILEAGE
85072	FEDERAL OWNERSHIP AND ACCESS MILEAGE
85073	STATE OWNERSHIP AND ACCESS MILEAGE
85074	COUNTY OWNERSHIP AND ACCESS MILEAGE
85075	CITY OWNERSHIP AND ACCESS MILEAGE
85076	WATER YEAR DATA REFERS TO

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85077	CALENDAR YEAR DATA REFERS TO
85088	MONTHS POLLUTION IS A PROBLEM JAN THRU JUNE
85089	MONTHS POLLUTION IS A PROBLEM JULY TO DECEMBER
85090	MAN-CAUSED CHANNEL CHANGE IN MILES
85091	STREAM BANK HABITAT DESTROYED IN MILES
85092	STREAMBED SILTED IN MILES
85093	TURBIDITY PROBLEM IN MILES
85094	SEVERITY: 1=ELIMINATES 2=INTERFERES 3=NO PROBLEM
85095	DURATION OF TURBIDITY PROBLEM IN MONTHS
85096	SEASON OF NATURAL DRY CHANNEL 1=SP 2=SU 3=F 4=W
85097	NATURAL DRY CHANNEL IN MILES
85098	MAN-CAUSED DRY CHANNEL SEASON 1=SP 2=SU 3=F 4=W
85099	MAN-CAUSED DRY CHANNEL IN MILES
85100	YEAR BARRIER IS PRESENT
85101	NUMBER OF NATURAL BARRIERS
85102	MILES BLOCKED BY NATURAL BARRIERS
85103	NUMBER OF NATURAL BARRIERS TO BE REMOVED
85104	NUMBER OF DAMS AND MAN CAUSED OBSTRUCTIONS
85105	MILES BLOCKED BY DAMS OR MAN CAUSED OBSTRUCTIONS
85106	NUMBER OF DAMS TO BE ALTERED
85107	MILES OF STREAM OCCUPIED BY IMPOUNDMENT
85108	LOWER END OF SECTION COVERED BY THIS FORM
85109	UPPER END OF SECTION COVERED BY THIS FORM
85110	LOWER LIMIT THIS SPECIES THIS FORM BY RIVER MILE
85111	UPPER LIMIT THIS SPECIES THIS FORM BY RIVER MILE
85112	STREAM SURVEY:1=COMPLETE 2=INCOMPLETE 3=NONE
85113	ABUNDANCE: 1=FSHWY/TAG&R 2=SURVEY 3=EST PLUS 4=EST
85114	ABUNDANCE: N=S&ST 1=ABUNDANT 4=SCARCE RGH FSH 3=SCARCE
85116	SQUARE YARDS OF SPAWNING AREA IN 1970

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85117	SQUARE YARDS OF SPAWNING AREA IN 1980
85118	SQUARE YARDS OF SPAWNING AREA IN 1990
85119	SQUARE YARDS OF SPAWNING AREA IN 2000
85120	MILES OF REARING AREA IN 1970
85121	MILES OF REARING AREA IN 1980
85122	MILES OF REARING AREA IN 1990
85123	MILES OF REARING AREA IN 2000
85124	CATCH BY SPORT ANGLING IN 1970
85125	RECREATION DAYS SPENT ANGLING IN 1970
85126	RECREATION DAYS SPENT ANGLING IN 1980
85127	RECREATION DAYS SPENT ANGLING IN 1990
85128	RECREATION DAYS SPENT ANGLING IN 2000
85129	CONTRIBUTION TO COMMERCIAL CATCH IN 1970
85130	PERCENT OF TOTAL FISHING DONE FROM BOAT IN 1970
85131	PERCENT OF TOTAL FISHING DONE FROM BANK IN 1970
85132	PERCENT OF TOTAL FISHING DONE WITH LURE IN 1970
85133	PERCENT OF TOTAL FISHING DONE WITH BAIT IN 1970
85134	PERCENT OF TOTAL FISHING DONE WITH A FLY IN 1970
85146	YEAR THIS FACTOR HAS A LIMITING EFFECT
85157	MAN DAYS OF WATER SKIING
85158	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85159	MAN DAYS OF BOATING OTHER THAN ANGLING
85160	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85161	MAN DAYS OF SWIMMING
85162	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85163	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NOT PRESENT
85165	NUMBER OF MONTHS SUSPENDED SOLIDS ARE A PROBLEM
85167	NUMBER OF MONTHS PLANKTON IS A PROBLEM
85168	1=ELIMINATE PROD 2=REDUCE 3=NO INTER. 4=NOT PRES

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85169	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85170	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85171	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85172	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85173	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85174	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85175	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85176	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85177	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85178	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85179	YEAR THIS NUMBER OF FACILITIES PRESENT
85180	NUMBER OF BOAT RAMPS
85181	NUMBER OF MOORAGES
85182	NUMBER OF PICNIC AREAS
85183	NUMBER OF CAMP AREAS
85184	NUMBER OF RESORTS
85185	YEAR THIS ZONED AREA PRESENT
85186	ACRES SET ASIDE FOR OTHER BOATING
85187	ACRES SET ASIDE FOR WATER SKIING
85188	MILES OF SHORE LOST TO ACCESS BY HOME SITES
85189	TOTAL MILES OF SHORELINE
85193	WILL RECR BE INC BY RELEASE OF FINGERL 0=NO 1=YES
85195	CATCH AND RECREATION ESTIMATE 1=BEST 4=POOREST
85333	PRECIPITATION-SAMPLE COLLECTION TIME-CODE- NES
85538	GAMMA SCAN DATE (YR,MO,DAY)
85539	DATE OF REPORT (YR,MO,DAY)
85658	TIME NIGHT CO2 HR
85661	TIME, INTERVAL DAY CO2 HR

Appendix F

National EPA Water Quality Criteria Summary[1]

The following table presents the national water quality criteria that were used to assess water quality data on a station-by-station basis and within the entire study area. Criteria are, for the most part, maximum values (except for dissolved oxygen, pH, and as noted). Criteria exist in any of four categories: Fresh Acute, Drinking Water, Marine Acute, and Other. Acute criteria are the highest 1-hour average concentrations which should not result in unacceptable impacts to aquatic organisms in either fresh or marine waters, respectively. The Drinking Water criteria are intended for human consumption; while the Other criteria represents National Park Service or other concerns. Parameters are listed in ascending order by STORET code. It is important to note that similar parameters often have non-consecutive codes. Consequently, scanning the entire list is necessary to obtain the criteria for all parameters of a particular type (eg. lead, copper, etc.). Refer to the Parameter Period of Record Tabulation to obtain the STORET code for any parameter measured in the park.

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
	00070				50[t]	TURBIDITY, JACKSON CANDLE UNITS	JTU	Physical
	00076				50[t]	TURBIDITY, HACH TURBIDIMETER, FORMAZIN TUR. UNITS	FTU	Physical
14808798	00154		250[s]			SULFATE (AS S) WHOLE WATER	MG/L	General Inorganic
7782447	00299				4.0[u]	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	MG/L	Dissolved Oxygen
7782447	00300				4.0[u]	OXYGEN, DISSOLVED	MG/L	Dissolved Oxygen
	00400				≤6.5, ≥9.0[#]	PH	SU	Physical
	00403				≤6.5, ≥9.0[#]	PH, LAB	SU	Physical
	00406				≤6.5, ≥9.0[#]	PH, FIELD	SU	Physical

[1]Sources: (1) U.S. Environmental Protection Agency, Quality Criteria for Water 1995, Final Draft; (2) U.S. Environmental Protection Agency, 40 CFR 141 - National Primary Drinking Water Regulations, and 40 CFR 143 - National Secondary Drinking Water Regulations, July 1, 1994; and (3) Others as Noted in Footnotes.

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
471341	00409				<200[=]	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS	UEQ/L	General Inorganic
17778880	00613		1			NITRITE NITROGEN, DISSOLVED AS N	MG/L	Nitrogen
17778880	00615		1			NITRITE NITROGEN, TOTAL AS N	MG/L	Nitrogen
17778880	00618		10			NITRATE NITROGEN, DISSOLVED AS N	MG/L	Nitrogen
17778880	00620		10			NITRATE NITROGEN, TOTAL AS N	MG/L	Nitrogen
17778880	00628		10			NITRITE + NITRATE, SUSPENDED AS N	MG/L	Nitrogen
17778880	00630		10			NITRITE PLUS NITRATE, TOTAL 1 DET.	MG/L	Nitrogen
17778880	00631		10			NITRITE PLUS NITRATE, DISSOLVED 1 DET.	MG/L	Nitrogen
57125	00718	22	200	1.0		CYANIDE, WEAK ACID, DISSOCIABLE, WATER, WHOLE	UG/L	General Inorganic
57125	00719	22	200	1.0		CYANIDE, FREE,IN WATER&WASTEWATERS, HBG METHOD	UG/L	General Inorganic
57125	00720	0.022	0.2	0.001		CYANIDE, TOTAL	MG/L	General Inorganic
57125	00722	0.022	0.2	0.001		CYANIDE, FREE (AMENABLE TO CHLORINATION)	MG/L	General Inorganic
57125	00723	22	200	1.0		CYANIDE, DISSOLVED STD METHOD	UG/L	General Inorganic
57125	00724	22	200	1.0		CYANIDE COMPLEXED TO A RANGE OF COMPNDS, WATER	UG/L	General Inorganic
16887006	00940	860	250[s]			CHLORIDE,TOTAL IN WATER	MG/L	General Inorganic
16887006	00941	860	250[s]			CHLORIDE, DISSOLVED IN WATER	MG/L	General Inorganic
14808798	00945		250[s]			SULFATE, TOTAL (AS SO4)	MG/L	General Inorganic
14808798	00946		250[s]			SULFATE, DISSOLVED (AS SO4)	MG/L	General Inorganic
1332214	00948		7000000			ASBESTOS, WHOLE SAMPLE	CNT/L	General Inorganic
16984488	00950		4.0			FLUORIDE, DISSOLVED AS F	MG/L	General Inorganic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
16984488	00951		4.0			FLUORIDE, TOTAL AS F	MG/L	General Inorganic
7782414	00953		4000			FLUORINE, TOTAL	UG/L	General Inorganic
7440382	00978	360	50	69		ARSENIC, TOTAL RECOVERABLE IN WATER AS AS	UG/L	Metal
7782492	00981	20	50	300		SELENIUM,TOTAL RECOVERABLE IN WATER AS SE	UG/L	Metal
7440280	00982	1400*	2.0	2130*		THALLIUM, TOTAL RECOVERABLE IN WATER AS TL	UG/L	Metal
7782492	00990	20	50	300		SELENITE, TOTAL RECOVERABLE INORGANIC	UG/L	Metal
7440382	00991	360	50	69		ARSENIC, TOTAL RECOVERABLE TRIVALENT INORGANIC	UG/L	Metal
7440382	00995	360	50	69		ARSENIC, INORGANIC DISS	UG/L	Metal
7440382	00996	360	50	69		ARSENIC, INORGANIC SUSP	UG/L	Metal
7440382	00997	360	50	69		ARSENIC, INORGANIC TOT	UG/L	Metal
7440417	00998	130*	4.0			BERYLLIUM,TOTAL RECOVERABLE IN WATER AS BE	UG/L	Metal
7440382	01000	360	50	69		ARSENIC, DISSOLVED	UG/L	Metal
7440382	01001	360	50	69		ARSENIC, SUSPENDED	UG/L	Metal
7440382	01002	360	50	69		ARSENIC, TOTAL	UG/L	Metal
7440393	01005		2000			BARIUM, DISSOLVED	UG/L	Metal
7440393	01006		2000			BARIUM, SUSPENDED	UG/L	Metal
7440393	01007		2000			BARIUM, TOTAL	UG/L	Metal
7440393	01009		2000			BARIUM,TOTAL RECOVERABLE IN WATER AS BA	UG/L	Metal
7440417	01010	130*	4.0			BERYLLIUM, DISSOLVED	UG/L	Metal
7440417	01011	130*	4.0			BERYLLIUM, SUSPENDED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440417	01012	130*	4.0			BERYLLIUM, TOTAL	UG/L	Metal
7440439	01025	3.9+	5.0	43		CADMIUM, DISSOLVED	UG/L	Metal
7440439	01026	3.9+	5.0	43		CADMIUM, SUSPENDED	UG/L	Metal
7440439	01027	3.9+	5.0	43		CADMIUM, TOTAL	UG/L	Metal
7440473	01030		100			CHROMIUM, DISSOLVED	UG/L	Metal
7440473	01031		100			CHROMIUM, SUSPENDED	UG/L	Metal
7440473	01032	16	100	1100		CHROMIUM, HEXAVALENT	UG/L	Metal
16065831	01033	1700+	100	10300*		CHROMIUM, TRI-VAL	UG/L	Metal
7440473	01034		100			CHROMIUM, TOTAL	UG/L	Metal
7440508	01040	18+	1300a	2.9		COPPER, DISSOLVED	UG/L	Metal
7440508	01041	18+	1300a	2.9		COPPER, SUSPENDED	UG/L	Metal
7440508	01042	18+	1300a	2.9		COPPER, TOTAL	UG/L	Metal
7439921	01049	82+	15a	220		LEAD, DISSOLVED	UG/L	Metal
7439921	01050	82+	15a	220		LEAD, SUSPENDED	UG/L	Metal
7439921	01051	82+	15a	220		LEAD, TOTAL	UG/L	Metal
7440280	01057	1400*	2.0	2130*		THALLIUM, DISSOLVED	UG/L	Metal
7440280	01058	1400*	2.0	2130*		THALLIUM, SUSPENDED	UG/L	Metal
7440280	01059	1400*	2.0	2130*		THALLIUM, TOTAL	UG/L	Metal
7440020	01065	1400+	100	75		NICKEL, DISSOLVED	UG/L	Metal
7440020	01066	1400+	100	75		NICKEL, SUSPENDED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440020	01067	1400[+]	100	75		NICKEL, TOTAL	UG/L	Metal
7440020	01074	1400[+]	100	75		NICKEL, TOTAL RECOVERABLE IN WATER AS NI	UG/L	Metal
7440224	01075	4.1[+]	100[s]	0.12		SILVER, DISSOLVED	UG/L	Metal
7440224	01076	4.1[+]	100[s]	0.12		SILVER, SUSPENDED	UG/L	Metal
7440224	01077	4.1[+]	100[s]	0.12		SILVER, TOTAL	UG/L	Metal
7440224	01079	4.1[+]	100[s]	0.12		SILVER, TOTAL RECOVERABLE IN WATER AS AG	UG/L	Metal
7440508	01089	0.018[+]	1.3[a]	0.0029		COPPER AS SUSPENDED BLACK OXIDE IN WATER	MG/L	General Inorganic
7440666	01090	120[+]	5000[s]	95		ZINC, DISSOLVED	UG/L	Metal
7440666	01091	120[+]	5000[s]	95		ZINC, SUSPENDED	UG/L	Metal
7440666	01092	120[+]	5000[s]	95		ZINC, TOTAL	UG/L	Metal
7440666	01094	120[+]	5000[s]	95		ZINC, TOTAL RECOVERABLE IN WATER AS ZN	UG/L	Metal
7440360	01095	88[p]	6.0	1500[p]		ANTIMONY, DISSOLVED	UG/L	Metal
7440360	01096	88[p]	6.0	1500[p]		ANTIMONY, SUSPENDED	UG/L	Metal
7440360	01097	88[p]	6.0	1500[p]		ANTIMONY, TOTAL	UG/L	Metal
7440439	01113	3.9[+]	5.0	43		CADMIUM,TOTAL RECOVERABLE IN WATER AS CD	UG/L	Metal
7439921	01114	82[+]	15[a]	220		LEAD, TOTAL RECOVERABLE IN WATER AS PB	UG/L	Metal
7440473	01118		100			CHROMIUM TOTAL RECOVERABLE IN WATER AS CR	UG/L	Metal
7440508	01119	18[+]	1300[a]	2.9		COPPER, TOTAL RECOVERABLE IN WATER AS CU	UG/L	Metal
7440280	01124	1400[*]	2.0	2130[*]		THALLIUM, ACID SOLUBLE, WATER, WHOLE	UG/L	Metal
7440280	01128	1400[*]	2.0	2130[*]		THALLIUM, TOTAL RECOVERABLE <95%	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782492	01145	20	50	300		SELENIUM, DISSOLVED	UG/L	Metal
7782492	01146	20	50	300		SELENIUM, SUSPENDED	UG/L	Metal
7782492	01147	20	50	300		SELENIUM, TOTAL	UG/L	Metal
7782492	01167	20	50	300		SELENIUM, ACID SOLUBLE, WATER, WHOLE	UG/L	Metal
18540299	01220	16	100	1100		CHROMIUM, HEXAVALENT, DISSOLVED	UG/L	Metal
7440360	01268	88[p]	6.0	1500[p]		ANTIMONY (SB), WATER, TOTAL RECOVERABLE	UG/L	Metal
57125	01291	22	200	1.0		CYANIDE, FILTERABLE, TOTAL IN WATER	UG/L	General Inorganic
7440666	01303	0.120[+]	5.0[s]	0.095		ZINC, POTENTIALLY DISSOLVED WATER	MG/L	Metal
7440224	01304	0.0041[+]	0.1[s]	0.00012		SILVER, POTENTIALLY DISSOLVED WATER	MG/L	Metal
7440508	01306	0.018[+]	1.3[a]	0.0029		COPPER, POTENTIALLY DISSOLVED WATER	MG/L	Metal
18540299	01307	0.016	0.1	1.1		CHROMIUM, HEXAVALENT, POTENTIALLY DISSOLVED	MG/L	Metal
7440382	01309	0.36	0.05	0.069		ARSENIC, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440393	01311		2.0			BARIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440417	01312	0.13[*]	0.004			BERYLLIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440439	01313	0.0039[+]	0.005	0.043		CADMIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
16065831	01314	1.7[+]	0.1	10.3[*]		CHROMIUM, TRIVALENT, POTENTIALLY DISSOLVED	MG/L	Metal
7439921	01318	0.082[+]	0.015[a]	0.220		LEAD, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7439976	01321	0.0024	0.002	0.0021		MERCURY, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440020	01322	1.4[+]	0.1	0.075		NICKEL, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7782492	01323	0.020	0.050	0.300		SELENIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440280	01324	1.4*	0.002	2.13*		THALLIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440611	01326		0.020c			URANIUM, POTENTIALLY DISSOLVED, WATER	MG/L	Metal
7440224	01523	4.1+	100s	0.12		SILVER, IONIC	UG/L	Metal
50328	03648		0.2			BENZO (A) PYRENE, LIQUID FRACTION, ELUTRIATE	UG/L	General Organic
122349	04035		4.0			SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE	UG/L	Pesticide
10028178	04124		20r			TRITIUM, TOTAL, WATER	PC/ML	Radiological
10028178	07000		20000r			TRITIUM, TOTAL	PC/L	Radiological
10028178	07005		20000r			TRITIUM, DISSOLVED	PC/L	Radiological
10028178	07010		20000r			TRITIUM, SUSPENDED	PC/L	Radiological
	09501		5.0			RADIUM 226, TOTAL	PC/L	Radiological
	09503		5.0			RADIUM 226, DISSOLVED	PC/L	Radiological
	09505		5.0			RADIUM 226, SUSPENDED	PC/L	Radiological
	11500		5.0			RADIUM 226 + RADIUM 228, DISSOLVED	PC/L	Radiological
	11501		5.0			RADIUM 228, TOTAL	PC/L	Radiological
	11503		5.0			RADIUM 226 + RADIUM 228, TOTAL	PC/L	Radiological
10098972	13501		8.0r			STRONTIUM 90, TOTAL	PC/L	Radiological
10098972	13503		8.0r			STRONTIUM 90, DISSOLVED	PC/L	Radiological
10098972	13505		8.0r			STRONTIUM 90, SUSPENDED	PC/L	Radiological
7782492	22675	20	50	300		SELENIUM, DISSOLVED ORGANIC	UG/L	Metal
7782492	22676	20	50	300		SELENIUM, HEXAVALENT, DISSOLVED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782492	22677	20	50	300		SELENIUM, TETRAVALENT, DISSOLVED	UG/L	Metal
7440382	22678	360	50	69		ARSENIC, DISSOLVED ORGANIC	UG/L	Metal
7440382	22679	850*	50	2319*		ARSENIC, PENTAVALENT,DISSOLVED	UG/L	Metal
7440382	22680	360	50	69		ARSENIC, TRIVALENT, DISSOLVED	UG/L	Metal
7440611	22703		20c			URANIUM, NATURAL DISSOLVED	UG/L	Metal
7440611	22705		20c			URANIUM, NATURAL SUSPENDED	UG/L	Metal
7440611	22706		20c			URANIUM, TOTAL AS U308	UG/L	Metal
7440611	22708		0.020c			URANIUM, NATURAL, TOTAL	MG/L	Radiological
7440611	28011		20c			URANIUM, NATURAL, TOTAL	UG/L	Radiological
88857	30191		7.0			DINOSEB, WATER, WHOLE RECOVERABLE	UG/L	Pesticide
75990	30200		200			DALAPON, WATER, WHOLE RECOVERABLE	UG/L	Pesticide
106934	30203		0.05			ETHANE, 1,2-DIBROMO-, WATER, WHOLE, RECOVERABLE	UG/L	Pesticide
	31501		1.0n		1000b	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED.	CFU/100ML	Bacteriological
	31503		1.0n		1000b	COLIFORM, TOTAL, MEMBRANE FILTER, DELAY. M-ENDO	CFU/100ML	Bacteriological
	31504		1.0n		1000b	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED. LES-ENDO	CFU/100ML	Bacteriological
	31505		1.0n		1000b	COLIFORM, TOTAL, MPN, CONF. TEST 35C (TUBE 31506)	MPN/100ML	Bacteriological
	31506		1.0n		1000b	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE CONFIG	MPN/100ML	Bacteriological
	31507		1.0n		1000b	COLIFORM, TOTAL, MPN, COMP. TEST 35C (TUBE 31508)	MPN/100ML	Bacteriological
	31508		1.0n		1000b	COLIFORM, TOTAL, MPN, COMP. TEST, TUBE CONFIG	MPN/100ML	Bacteriological
	31613				200^	FECAL COLIFORM, MEMBRANE FILTER, AGAR	CFU/100ML	Bacteriological

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
	31614				200^	FECAL COLIFORM, MPN, TUBE CONFIGURATION	MPN/100ML	Bacteriological
	31615				200^	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	MPN/100ML	Bacteriological
	31616				200^	FECAL COLIFORM, MEMBRANE FILTER, BROTH, 44.5C	CFU/100ML	Bacteriological
	31617				200^	FECAL COLIFORM, MPN, EIJKMAN, 44.5C (TUBE 31618)	MPN/100ML	Bacteriological
	31625				200^	FECAL COLIFORM, MF, M-FC, 0.7 UM	CFU/100ML	Bacteriological
	31648				126^	E. COLI, MTEC, MF	CFU/100ML	Bacteriological
	31649				33^	ENTEROCOCCI, ME, MF	CFU/100ML	Bacteriological
67663	32003	28900*	100[t]			CARBON CHLOROFORM AND CARBON ALCOHOL EXTRS.,TOTAL	UG/L	General Organic
67663	32005	28900*	100[t]			CARBON CHLOROFORM EXTRACTABLES	UG/L	General Organic
67663	32021	28900*	100[t]			CARBON CHLOROFORM EXTRACTS, ETHER INSOLUBLES OF	UG/L	General Organic
67663	32022	28900*	100[t]			CARBON CHLOROFORM EXTRACTS, WATER SOLUBLES OF	UG/L	General Organic
75274	32101		100[t]			BROMODICHLOROMETHANE, WHOLE WATER	UG/L	General Organic
56235	32102	35200*	5.0	50000*		CARBON TETRACHLORIDE, WHOLE WATER	UG/L	General Organic
107062	32103	118000*	5.0	113000*		1,2-DICHLOROETHANE,WHOLE WATER	UG/L	General Organic
75252	32104		100[t]			BROMOFORM, WHOLE WATER	UG/L	General Organic
124481	32105		100[t]			DIBROMOCHLOROMETHANE, WHOLE WATER	UG/L	General Organic
67663	32106	28900*	100[t]			CHLOROFORM, WHOLE WATER	UG/L	General Organic
56235	32260	35.2*	0.005	50*		CARBON TETRACHLORIDE EXTRACTABLES	MG/L	General Organic
67663	32270	28.9*	0.1[t]			CHLOROFORM EXTRACTABLES TOTAL	MG/L	General Organic
108883	34010	17500*	1000	6300*		TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
1330207	34020		10000			XYLENES IN WTR SMPLE GC-MS, HEXADECONE EXTR.	UG/L	General Organic
83329	34205	1700*		970*		ACENAPHTHENE, TOTAL	UG/L	General Organic
83329	34206	1700*		970*		ACENAPHTHENE, DISSOLVED	UG/L	General Organic
83329	34207	1700*		970*		ACENAPHTHENE, SUSPENDED	UG/L	General Organic
107028	34210	68*		55*		ACROLEIN, TOTAL	UG/L	Pesticide
107028	34211	68*		55*		ACROLEIN, DISSOLVED	UG/L	Pesticide
107028	34212	68*		55*		ACROLEIN, SUSPENDED	UG/L	Pesticide
107131	34215	7550*				ACRYLONITRILE, TOTAL	UG/L	General Organic
107131	34216	7550*				ACRYLONITRILE, DISSOLVED	UG/L	General Organic
107131	34217	7550*				ACRYLONITRILE, SUSPENDED	UG/L	General Organic
71432	34235	5300*	5.0	5100*		BENZENE, DISSOLVED	UG/L	General Organic
71432	34236	5300*	5.0	5100*		BENZENE, SUSPENDED	UG/L	General Organic
92875	34239	2500*				BENZIDINE, DISSOLVED	UG/L	General Organic
92875	34240	2500*				BENZIDINE, SUSPENDED	UG/L	General Organic
58899	34265	2.0	0.2	0.16		R-BHC (LINDANE) GAMMA, DISSOLVED	UG/L	Pesticide
58899	34266	2.0	0.2	0.16		R-BHC (LINDANE) GAMMA, SUSPENDED	UG/L	Pesticide
75252	34288		100[t]			BROMOFORM, DISSOLVED	UG/L	General Organic
75252	34289		100[t]			BROMOFORM, SUSPENDED	UG/L	General Organic
56235	34297	35200*	5.0	50000*		CARBON TETRACHLORIDE, DISSOLVED	UG/L	General Organic
56235	34298	35200*	5.0	50000*		CARBON TETRACHLORIDE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
108907	34301		100			CHLOROBENZENE, TOTAL	UG/L	General Organic
108907	34302		100			CHLOROBENZENE, DISSOLVED	UG/L	General Organic
108907	34303		100			CHLOROBENZENE, SUSPENDED	UG/L	General Organic
124481	34306		100[t]			CHLORODIBROMOMETHANE, TOTAL	UG/L	General Organic
124481	34307		100[t]			CHLORODIBROMOMETHANE, DISSOLVED	UG/L	General Organic
124481	34308		100[t]			CHLORODIBROMOMETHANE, SUSPENDED	UG/L	General Organic
67663	34316	28900[*]	100[t]			CHLOROFORM, DISSOLVED	UG/L	General Organic
67663	34317	28900[*]	100[t]			CHLOROFORM, SUSPENDED	UG/L	General Organic
57125	34325	0.022	0.2	0.001		CYANIDE, SUSPENDED	MG/L	General Inorganic
75274	34328		100[t]			DICHLOROBROMOMETHANE, DISSOLVED	UG/L	General Organic
75274	34329		100[t]			DICHLOROBROMOMETHANE, SUSPENDED	UG/L	General Organic
122667	34346	270[*]				1,2-DIPHENYLHYDRAZINE, TOTAL	UG/L	General Organic
122667	34347	270[*]				1,2-DIPHENYLHYDRAZINE, DISSOLVED	UG/L	General Organic
122667	34348	270[*]				1,2-DIPHENYLHYDRAZINE, SUSPENDED	UG/L	General Organic
33213659	34356	0.22		0.034		ENDOSULFAN, BETA, TOTAL	UG/L	Pesticide
33213659	34357	0.22		0.034		ENDOSULFAN, BETA, DISSOLVED	UG/L	Pesticide
33213659	34358	0.22		0.034		ENDOSULFAN, BETA, SUSPENDED	UG/L	Pesticide
959988	34361	0.22		0.034		ENDOSULFAN, ALPHA, TOTAL	UG/L	Pesticide
959988	34362	0.22		0.034		ENDOSULFAN, ALPHA, DISSOLVED	UG/L	Pesticide
959988	34363	0.22		0.034		ENDOSULFAN, ALPHA, SUSPENDED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
100414	34371	32000*	700	430*		ETHYLBENZENE, TOTAL	UG/L	General Organic
100414	34372	32000*	700	430*		ETHYLBENZENE, DISSOLVED	UG/L	General Organic
100414	34373	32000*	700	430*		ETHYLBENZENE, SUSPENDED	UG/L	General Organic
206440	34376	3980*		40*		FLUORANTHENE, TOTAL	UG/L	General Organic
206440	34377	3980*		40*		FLUORANTHENE, DISSOLVED	UG/L	General Organic
206440	34378	3980*		40*		FLUORANTHENE, SUSPENDED	UG/L	General Organic
77474	34386	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, TOTAL	UG/L	General Organic
77474	34387	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, DISSOLVED	UG/L	General Organic
77474	34388	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, SUSPENDED	UG/L	General Organic
87683	34391	90*		32*		HEXACHLOROBUTADIENE, TOTAL	UG/L	General Organic
87683	34392	90*		32*		HEXACHLOROBUTADIENE, DISSOLVED	UG/L	General Organic
87683	34393	90*		32*		HEXACHLOROBUTADIENE, SUSPENDED	UG/L	General Organic
67721	34396	980*		940*		HEXACHLOROETHANE, TOTAL	UG/L	General Organic
67721	34397	980*		940*		HEXACHLOROETHANE, DISSOLVED	UG/L	General Organic
67721	34398	980*		940*		HEXACHLOROETHANE, SUSPENDED	UG/L	General Organic
118741	34401	6.0[p]	1.0			HEXACHLOROBENZENE, DISSOLVED	UG/L	General Organic
118741	34402	6.0[p]	1.0			HEXACHLOROBENZENE, SUSPENDED	UG/L	General Organic
193395	34403		0.40[c]			INDENO (1,2,3-CD) PYRENE, TOTAL	UG/L	General Organic
193395	34404		0.40[c]			INDENO (1,2,3-CD) PYRENE, DISSOLVED	UG/L	General Organic
193395	34405		0.40[c]			INDENO (1,2,3-CD) PYRENE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
78591	34408	117000*		12900*		ISOPHORONE, TOTAL	UG/L	Pesticide
78591	34409	117000*		12900*		ISOPHORONE, DISSOLVED	UG/L	Pesticide
78591	34410	117000*		12900*		ISOPHORONE, SUSPENDED	UG/L	Pesticide
75092	34423		5.0			METHYLENE CHLORIDE, TOTAL	UG/L	General Organic
75092	34424		5.0			METHYLENE CHLORIDE, DISSOLVED	UG/L	General Organic
75092	34425		5.0			METHYLENE CHLORIDE, SUSPENDED	UG/L	General Organic
91203	34443	2300*		2350*		NAPHTHALENE, DISSOLVED	UG/L	General Organic
91203	34444	2300*		2350*		NAPHTHALENE, SUSPENDED	UG/L	General Organic
98953	34447	27000*		6680*		NITROBENZENE, TOTAL	UG/L	General Organic
98953	34448	27000*		6680*		NITROBENZENE, DISSOLVED	UG/L	General Organic
98953	34449	27000*		6680*		NITROBENZENE, SUSPENDED	UG/L	General Organic
59507	34452	30*				PARACHLOROMETA CRESOL, TOTAL	UG/L	General Organic
59507	34453	30*				PARACHLOROMETA CRESOL, DISSOLVED	UG/L	General Organic
59507	34454	30*				PARACHLOROMETA CRESOL, SUSPENDED	UG/L	General Organic
87865	34459	20***	1.0	13		PCP (PENTACHLOROPHENOL), DISSOLVED	UG/L	Pesticide
87865	34460	20***	1.0	13		PCP (PENTACHLOROPHENOL), SUSPENDED	UG/L	Pesticide
85018	34461	30p		7.7p		PHENANTHRENE, TOTAL	UG/L	General Organic
85018	34462	30p		7.7p		PHENANTHRENE, DISSOLVED	UG/L	General Organic
85018	34463	30p		7.7p		PHENANTHRENE, SUSPENDED	UG/L	General Organic
108952	34466	10200*		5800*		PHENOL, DISSOLVED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
108952	34467	10200*		5800*		PHENOL, SUSPENDED	UG/L	General Organic
127184	34475	5280*	5.0	10200*		TETRACHLOROETHYLENE, TOTAL	UG/L	General Organic
127184	34476	5280*	5.0	10200*		TETRACHLOROETHYLENE, DISSOLVED	UG/L	General Organic
127184	34477	5280*	5.0	10200*		TETRACHLOROETHYLENE, SUSPENDED	UG/L	General Organic
108883	34481	17500*	1000	6300*		TOLUENE, DISSOLVED	UG/L	General Organic
108883	34482	17500*	1000	6300*		TOLUENE, SUSPENDED	UG/L	General Organic
79016	34485	45000*	5.0	2000*		TRICHLOROETHYLENE, DISSOLVED	UG/L	General Organic
79016	34486	45000*	5.0	2000*		TRICHLOROETHYLENE, SUSPENDED	UG/L	General Organic
75014	34493		2.0			VINYL CHLORIDE, DISSOLVED	UG/L	General Organic
75014	34494		2.0			VINYL CHLORIDE, SUSPENDED	UG/L	General Organic
75354	34501		7.0			1,1-DICHLOROETHYLENE, TOTAL	UG/L	General Organic
75354	34502		7.0			1,1-DICHLOROETHYLENE, DISSOLVED	UG/L	General Organic
75354	34503		7.0			1,1-DICHLOROETHYLENE, SUSPENDED	UG/L	General Organic
71556	34506		200	31200*		1,1,1-TRICHLOROETHANE, TOTAL	UG/L	General Organic
71556	34507		200	31200*		1,1,1-TRICHLOROETHANE, DISSOLVED	UG/L	General Organic
71556	34508		200	31200*		1,1,1-TRICHLOROETHANE, SUSPENDED	UG/L	General Organic
79005	34511		5.0			1,1,2-TRICHLOROETHANE, TOTAL	UG/L	General Organic
79005	34512		5.0			1,1,2-TRICHLOROETHANE, DISSOLVED	UG/L	General Organic
79005	34513		5.0			1,1,2-TRICHLOROETHANE, SUSPENDED	UG/L	General Organic
79345	34516			9020*		1,1,2,2-TETRACHLOROETHANE, TOTAL	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
79345	34517			9020*		1,1,2,2-TETRACHLOROETHANE, DISSOLVED	UG/L	General Organic
79345	34518			9020*		1,1,2,2-TETRACHLOROETHANE, SUSPENDED	UG/L	General Organic
107062	34531	118000*	5.0	113000*		1,2-DICHLOROETHANE, TOTAL	UG/L	General Organic
107062	34532	118000*	5.0	113000*		1,2-DICHLOROETHANE, DISSOLVED	UG/L	General Organic
107062	34533	118000*	5.0	113000*		1,2-DICHLOROETHANE, SUSPENDED	UG/L	General Organic
95501	34536		600			1,2-DICHLOROBENZENE, TOTAL	UG/L	General Organic
95501	34537		600			1,2-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
95501	34538		600			1,2-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic
78875	34541		5.0			1,2-DICHLOROPROPANE, TOTAL	UG/L	General Organic
78875	34542		5.0			1,2-DICHLOROPROPANE, DISSOLVED	UG/L	General Organic
78875	34543		5.0			1,2-DICHLOROPROPANE, SUSPENDED	UG/L	General Organic
156605	34546		100			TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER	UG/L	General Organic
156605	34547		100			TRANS-1,2-DICHLOROETHENE, DISSOLVED	UG/L	General Organic
156605	34548		100			TRANS-1,2-DICHLOROETHENE, SUSPENDED	UG/L	General Organic
120821	34551		70			1,2,4-TRICHLOROBENZENE, TOTAL	UG/L	General Organic
120821	34552		70			1,2,4-TRICHLOROBENZENE, DISSOLVED	UG/L	General Organic
120821	34553		70			1,2,4-TRICHLOROBENZENE, SUSPENDED	UG/L	General Organic
541731	34566		600			1,3-DICHLOROBENZENE, TOTAL	UG/L	General Organic
541731	34567		600			1,3-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
541731	34568		600			1,3-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
106467	34571		75			1,4-DICHLOROBENZENE, TOTAL	UG/L	General Organic
106467	34572		75			1,4-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
106467	34573		75			1,4-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic
95578	34586	4380*				2-CHLOROPHENOL, TOTAL	UG/L	General Organic
95578	34587	4380*				2-CHLOROPHENOL, DISSOLVED	UG/L	General Organic
95578	34588	4380*				2-CHLOROPHENOL, SUSPENDED	UG/L	General Organic
120832	34601	2020*				2,4-DICHLOROPHENOL, TOTAL	UG/L	General Organic
120832	34602	2020*				2,4-DICHLOROPHENOL, DISSOLVED	UG/L	General Organic
120832	34603	2020*				2,4-DICHLOROPHENOL, SUSPENDED	UG/L	General Organic
105679	34606	2120*				2,4-DIMETHYLPHENOL, TOTAL	UG/L	General Organic
105679	34607	2120*				2,4-DIMETHYLPHENOL, DISSOLVED	UG/L	General Organic
105679	34608	2120*				2,4-DIMETHYLPHENOL, SUSPENDED	UG/L	General Organic
121142	34611	330*		590*		2,4-DINITROTOLUENE, TOTAL	UG/L	General Organic
121142	34612	330*		590*		2,4-DINITROTOLUENE, DISSOLVED	UG/L	General Organic
121142	34613	330*		590*		2,4-DINITROTOLUENE, SUSPENDED	UG/L	General Organic
72548	34651	0.6*		3.6*		P,P'-DDD, DISSOLVED	UG/L	Pesticide
72548	34652	0.6*		3.6*		P,P'-DDD, SUSPENDED	UG/L	Pesticide
72559	34653	1050*		14*		P,P'-DDE, DISSOLVED	UG/L	Pesticide
72559	34654	1050*		14*		P,P'-DDE, SUSPENDED	UG/L	Pesticide
50293	34655	1.1		0.13		P,P'-DDT, DISSOLVED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
50293	34656	1.1		0.13		P,P'-DDT, SUSPENDED	UG/L	Pesticide
1746016	34675	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), TOT	UG/L	General Organic
1746016	34676	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), DISS	UG/L	General Organic
1746016	34677	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), SUSP	UG/L	General Organic
108952	34694	10200*		5800*		PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	UG/L	General Organic
91203	34696	2300*		2350*		NAPHTHALENE, TOTAL	UG/L	General Organic
75990	38432		200			DALAPON, WATER, TOTAL	UG/L	Pesticide
75990	38433		200			DALAPON, WATER, DISSOLVED	UG/L	Pesticide
75990	38434		200			DALAPON, WATER, SUSPENDED	UG/L	Pesticide
96128	38437		0.2			DIBROMOCHLOROPROPANE, WATER, TOTAL	UG/L	Pesticide
96128	38438		0.2			DIBROMOCHLOROPROPANE, WATER, DISSOLVED	UG/L	Pesticide
96128	38439		0.2			DIBROMOCHLOROPROPANE WATER, SUSPENDED	UG/L	Pesticide
96128	38760		0.2			DBCP, WATER, TOTAL	UG/L	Pesticide
96128	38761		0.2			DBCP, WATER, DISSOLVED	UG/L	Pesticide
96128	38762		0.2			DBCP, WATER, SUSPENDED	UG/L	Pesticide
88857	38779		7.0			DINOSEB, DISSOLVED	UG/L	Pesticide
88857	38780		7.0			DINOSEB, SUSPENDED	UG/L	Pesticide
23135220	38865		200			OXAMYL, TOTAL	UG/L	Pesticide
23135220	38866		200			OXAMYL, DISSOLVED	UG/L	Pesticide
23135220	38867		200			OXAMYL, SUSPENDED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
145733	38926		100			ENDOTHALL, WHOLE WATER SAMPLE	UG/L	Pesticide
2921882	38932	0.083		0.011		CHLORPYRIFOS, TOTAL RECOVERABLE	UG/L	Pesticide
2921882	38933	0.083		0.011		CHLORPYRIFOS, DISSOLVED	UG/L	Pesticide
2163806	38935		50			MONOSODIUM METHANEARSONATE (MSMA)	UG/L	Pesticide
2921882	39012	0.083		0.011		DURSBAN, FLAME PHOTOMETRIC, WATER SAMPLE	UG/L	Pesticide
56382	39015	0.065				ETHYLPARATHION, FLAME IONIFATION, WATER SAMPLE	UG/L	Pesticide
122349	39025		4.0			SIMAZINE, COULSON CONDUCTIVITY WATER SAMPLE	UG/L	Pesticide
87865	39032	20***	1.0	13		PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE	UG/L	Pesticide
1912249	39033		3.0			ATRAZINE IN WHOLE WATER SAMPLE	UG/L	Pesticide
118741	39039	6.0[p]	1.0			HEXACHLOROBENZENE WATER SAMPLE, ELECTRON CPT	UG/L	Pesticide
93721	39045		50			2,4,5-TP INCLUDES ACIDS & SALTS WATER SAMPLE	UG/L	Pesticide
116063	39053		3.0			ALDICARB IN WHOLE WATER	UG/L	Pesticide
122349	39055		4.0			SIMAZINE IN WHOLE WATER	UG/L	Pesticide
117817	39100	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	UG/L	General Organic
117817	39103	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, DISSOLVED	UG/L	General Organic
117817	39104	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, SUSPENDED	UG/L	General Organic
	39117	0.94*		2.994*		PHTHLATE ESTERS IN WATER	MG/L	General Organic
75014	39175		2.0			VINYL CHLORIDE-WHOLE WATER SAMPLE	UG/L	General Organic
79016	39180	45000*	5.0	2000*		TRICHLOROETHYLENE-WHOLE WATER SAMPLE	UG/L	General Organic
50293	39300	1.1		0.13		P,P' DDT IN WHOLE WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
72548	39310	0.6*		3.6*		P,P' DDD IN WHOLE WATER SAMPLE	UG/L	Pesticide
72559	39320	1050*		14*		P,P' DDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
309002	39330	3.0		1.3		ALDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
309002	39331	3.0		1.3		ALDRIN IN FILT. FRAC. OF WAT. SAMP.	UG/L	Pesticide
309002	39332	3.0		1.3		ALDRIN IN SUSP. FRAC. OF WAT. SAMP.	UG/L	Pesticide
58899	39340	2.0	0.2	0.16		GAMMA-BHC(LINDANE), WHOLE WATER	UG/L	Pesticide
58899	39341	2.0	0.2	0.16		GAMMA-BHC(LINDANE), DISSOLVED	UG/L	Pesticide
58899	39342	2.0	0.2	0.16		GAMMA-BHC(LINDANE), SUSPENDED	UG/L	Pesticide
57749	39350	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), WHOLE WATER	UG/L	Pesticide
57749	39352	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), DISSOLVED	UG/L	Pesticide
57749	39353	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), SUSPENDED	UG/L	Pesticide
72548	39360	0.6*		3.6*		DDD IN WHOLE WATER SAMPLE	UG/L	Pesticide
72548	39361	0.6*		3.6*		DDD IN FILT. FRAC. OF WATER SMAPLE	UG/L	Pesticide
72548	39362	0.6*		3.6*		DDD IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72559	39365	1050*		14*		DDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
72559	39366	1050*		14*		DDE IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72559	39367	1050*		14*		DDE IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
50293	39370	1.1		0.13		DDT IN WHOLE WATER SAMPLE	UG/L	Pesticide
50293	39371	1.1		0.13		DDT IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
50293	39372	1.1		0.13		DDT IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
60571	39380	2.5		0.71		DIELDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
60571	39381	2.5		0.71		DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
60571	39382	2.5		0.71		DIELDRIN IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
115297	39388	0.22		0.034		ENDOSULFAN IN WHOLE WATER SAMPLE	UG/L	Pesticide
72208	39390	0.18	2.0	0.037		ENDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
72208	39391	0.18	2.0	0.037		ENDRIN IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72208	39392	0.18	2.0	0.037		ENDRIN IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
8001352	39400	0.73	3.0	0.21		TOXAPHENE IN WHOLE WATER SAMPLE	UG/L	Pesticide
8001352	39401	0.73	3.0	0.21		TOXAPHENE IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
8001352	39402	0.73	3.0	0.21		TOXAPHENE IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
76448	39410	0.52	0.4	0.053		HEPTACHLOR IN WHOLE WATER SAMPLE	UG/L	Pesticide
76448	39411	0.52	0.4	0.053		HEPTACHLOR IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
76448	39412	0.52	0.4	0.053		HEPTACHLOR IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
1024573	39420	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
1024573	39421	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN FILT. FRAC. WATER SAMPLE	UG/L	Pesticide
1024573	39422	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN SUSP. FRAC. WATER SAMPLE	UG/L	Pesticide
72435	39478		40			METHOXYCHLOR IN WHOLE WATER DISSOLVED	UG/L	Pesticide
72435	39479		40			METHOXYCHLOR IN WHOLE WATER SUSPENDED	UG/L	Pesticide
72435	39480		40			METHOXYCHLOR IN WHOLE WATER SAMPLE	UG/L	Pesticide
56382	39540	0.065				PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
56382	39542	0.065				PARATHION IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
56382	39543	0.065				PARATHION IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
1912249	39630		3.0			ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	UG/L	Pesticide
1912249	39632		3.0			ATRAZINE DISSOLVED IN WATER	PPB	Pesticide
118741	39700	6.0[p]	1.0			HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	UG/L	General Organic
87683	39702	90[*]		32[*]		HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE	UG/L	General Organic
1918021	39720		500			PICLORAM IN WHOLE WATER SAMPLE	UG/L	Pesticide
94757	39730		70			2,4-D IN WHOLE WATER SAMPLE	UG/L	Pesticide
94757	39732		70			2,4-D IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
94757	39733		70			2,4-D IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
93721	39760		50			SILVEX IN WHOLE WATER SAMPLE	UG/L	Pesticide
93721	39762		50			SILVEX IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
93721	39763		50			SILVEX IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
58899	39782	2.0	0.2	0.16		LINDANE IN WHOLE WATER SAMPLE	UG/L	Pesticide
1071836	39941		700			ROUNDUP IN WHOLE WATER SAMPLE (GLYPHOSATE)	UG/L	Pesticide
7782505	45650	0.019		0.013		CHLORINE, IN ORGANIC COMPOUNDS, WATER, WHOLE	MG/L	General Inorganic
56382	46315	0.065				ETHYL PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide
58899	46322	2.0	0.2	0.16		LINDANE PLUS ISOMERS IN WHOLE WATER SAMPLE	UG/L	Pesticide
76448	46326	0.52	0.4	0.053		HEPTACHLOR AND METABOLITES IN WHOLE H2O SAMPLE	UG/L	Pesticide
15972608	46342		2.0			ALACHLOR (LASSO), WATER, DISSOLVED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782505	46472	0.019		0.013		CHLORINE, TOTAL RESIDUAL, AVERAGE VALUE, WATER	MG/L	General Inorganic
7782505	46473	0.019		0.013		CHLORINE, FREE AVAILABLE, AVERAGE VALUE, WATER	MG/L	General Inorganic
57125	46479	22	200	1.0		CYANIDE, DISSOLVED, WATER	UG/L	General Inorganic
7440382	46551	360	50	69		ARSENIC, FIELD ACIDIFIED W/HNO3, LAB FILTERED	UG/L	Metal
7440393	46558		2000			BARIUM, FIELD ACIDIFIED W/HNO3-LAB FILT	UG/L	Metal
7440439	46559	3.9[+]	5.0	43		CADMIUM,FIELD ACIDIFIED-HNO3-LAB FILTER	UG/L	Metal
7440473	46560		100			CHROMIUM, FIELD ACIDIFIED-HNO3-LAB FILT.	UG/L	Metal
7440508	46562	18[+]	1300[a]	2.9		COPPER, FIELD ACIDIFIED-HNO3- LAB FILTER.	UG/L	Metal
7439921	46564	82[+]	15[a]	220		LEAD, FIELD ACIDIFIED-HNO3-LAB FILTERED	UG/L	Metal
7440224	46566	4.1[+]	100[s]	0.12		SILVER, FIELD ACIDIFIED-HNO3-LAB FILTER.	UG/L	Metal
7440666	46567	120[+]	5000[s]	95		ZINC, EXTRACTABLE, FIELD ACID W/HNO3,LAB FILTR	UG/L	Metal
56382	49011	0.065				UNKNOWNS AS PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide
7782505	50058	0.019		0.013		CHLORINE DOSE	MG/L	General Inorganic
7782505	50060	0.019		0.013		CHLORINE, TOTAL RESIDUAL	MG/L	General Inorganic
7782505	50064	0.019		0.013		CHLORINE, FREE AVAILABLE	MG/L	General Inorganic
7782505	50066	0.019		0.013		CHLORINE, COMBINED AVAILABLE	MG/L	General Inorganic
7782505	50074	0.019		0.013		CHLORITE, WHOLE WATER	MG/L	General Inorganic
16887006	70352	860	250[s]			CHLORIDE, ORGANIC	MG/L	General Organic
14797558	71850		44			NITRATE NITROGEN, TOTAL (AS NO3)	MG/L	Nitrogen
14797558	71851		44			NITRATE NITROGEN, DISSOLVED (AS NO3)	MG/L	Nitrogen

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
14797650	71855		3.3			NITRITE NITROGEN, TOTAL (AS NO2)	MG/L	Nitrogen
14797650	71856		3.3			NITRITE NITROGEN, DISSOLVED (AS NO2)	MG/L	Nitrogen
7439976	71890	2.4	2.0	2.1		MERCURY, DISSOLVED	UG/L	Metal
7439976	71895	2.4	2.0	2.1		MERCURY, SUSPENDED	UG/L	Metal
7439976	71900	2.4	2.0	2.1		MERCURY, TOTAL	UG/L	Metal
7439976	71901	2.4	2.0	2.1		MERCURY,TOTAL RECOVERABLE IN WATER AS HG	UG/L	Metal
7440439	71946	3.9[+]	5.0	43		CADMIUM, EXTRACTABLE	UG/L	Metal
7440473	71947		100			CHROMIUM, EXTRACTABLE	UG/L	Metal
7439921	71949	82[+]	15[a]	220		LEAD, EXTRACTABLE	UG/L	Metal
7440666	71950	120[+]	5000[s]	95		ZINC, EXTRACTABLE	UG/L	Metal
7440508	71951	18[+]	1300[a]	2.9		COPPER, EXTRACTABLE	UG/L	Metal
1336363	76011	2000	500	10000		PCBS, SUSPENDED, WATER	NG/L	General Organic
1336363	76012	2000	500	10000		PCBS, TOTAL RECOVERABLE, WATER	NG/L	General Organic
156592	77093		70			CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	UG/L	General Organic
100425	77128		100			STYRENE, WHOLE WATER	UG/L	General Organic
106489	77296			29700[*]		P-CHLOROPHENOL, WHOLE WATER	UG/L	General Organic
106934	77651		0.05			1,2-DIBROMOETHANE, WHOLE WATER	UG/L	General Organic
95954	77687	100[p]		240[p]		2,4,5-TRICHLOROPHENOL, WHOLE WATER	UG/L	General Organic
935955	77769			440[*]		2,3,5,6-TETRACHLOROPHENOL, WHOLE WATER	UG/L	General Organic
103231	77903		400			BIS (2-ETHYLHEXYL) ADIPATE, WHOLE WATER	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
18540299	78247	16	100	1100		CHROMIUM, HEXAVALENT, TOTAL RECOVERABLE	UG/L	Metal
57125	78248	22	200	1.0		CYANIDE, TOTAL RECOVERABLE, WATER, WHOLE	UG/L	Metal
	78456	11*		12*		HALOMETHANES, SUMMATION, WHOLE WATER	MG/L	General Organic
14808798	78462		250s			SULFATE, WATER, DISSOLVED AS S	MG/L	Metal
85007	78885		20			DIQUAT DIBROMIDE (REGLONE) WHOLE WATER SAMPLE	UG/L	Pesticide
7440611	80020		20c			URANIUM, DISS. BY EXTRACTION FLUOROMETRIC	UG/L	Radiological
16065831	80357	1700	100	10300*		CHROMIUM, TRIVALENT, DISSOLVED	UG/L	Metal
57125	81208	0.022	0.2	0.001		CYANIDE,FREE (NOT AMENABLE TO CHLORINATION)	MG/L	General Inorganic
608731	81283	100*		0.34*		BENZENEHEXACHLORIDE, WHOLE WATER	UG/L	Pesticide
88857	81287		7.0			DNBP(C10H12N2O5), WHOLE WATER SAMPLE	UG/L	Pesticide
26638197	81327	23000*	5.0	10300*		DICHLOROPROPANE, WHOLE WATER SAMPLE	UG/L	General Organic
25321226	81333	1120*		1970*		DICHLOROBENZENE ISOMER, WHOLE WATER SAMPLE	UG/L	General Organic
2921882	81403	0.083		0.011		DURSBAN (CHLOROPYRIFOS) WHOLE WATER SAMPLE	UG/L	Pesticide
1563662	81405		40			CARBOFURAN (EURADAN) WHOLE WATER SAMPLE	UG/L	Pesticide
76017	81501	7240*		390*		PENTACHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
25321226	81524	1120*		1970*		DICHLOROBENZENE, WHOLE WATER SAMPLE	UG/L	General Organic
25322207	81549	9320*				TETRACHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
26638197	81703	23*	0.005*	10.3*		DICHLOROPROPANE, WHOLE WATER SAMPLE	MG/L	General Organic
7440508	81750	18+	1300a	2.9		COPPER, INTERSTITIAL WATERFROM SEDIMENTS	UG/L	Metal
7440020	81752	1400+	100	75		NICKEL, INTERSTITIAL WATER FROM SEDIMENTS	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440666	81754	120[+]	5000[s]	95		ZINC, INTERSTITIAL WATER FROM SEDIMENTS	UG/L	Metal
25323891	81853	18000[*]				TRICHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
7439976	81931	2.4	2.0	2.1		MERCURY (HG) SUSPENDED FRACTION OF WATER	UG/G	Metal
7440666	81933	120[+]	5000[s]	95		ZINC (ZN) SUSPENDED FRACTION OF WATER	UG/G	Metal
7439921	81936	82[+]	15[a]	220		LEAD (PB) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440439	81937	3.9[+]	5.0	43		CADMIUM (CD) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440473	81938		100			CHROMIUM (CR) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440508	81939	18[+]	1300[a]	2.9		COPPER (CU) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440666	81940	120[+]	5000[s]	95		ZINC (ZN) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440473	81941		100			CHROMIUM (CR) DISSOLVED ANIONIC SPECIES	UG/L	Metal
7440508	81942	18[+]	1300[a]	2.9		COPPER (CU) DISSOLVED ANIONIC SPECIES	UG/L	Metal
7440666	81943	120[+]	5000[s]	95		ZINC (ZN) DISSOLVED ANIONIC SPECIES	UG/L	Metal
	82078				50[l]	TURBIDITY, FIELD	NTU	Physical
	82079				50[l]	TURBIDITY, LAB	NTU	Physical
88857	82226		7.0			2 SECONDARY BUTYL 4,6-DINITROPHENOL	UG/L	Pesticide
16887006	82295	860000	250000[s]			CHLORIDE DISSOLVED AS CL IN WATER	UG/L	General Inorganic
72435	82350		40			METHOXYCHLOR, DISSOLVED IN WATER	UG/L	Pesticide
72435	82351		40			METHOXYCHLOR, SUSPENDED IN WATER	UG/L	Pesticide
115297	82354	0.22		0.034		ENDOSULFAN, DISSOLVED IN WATER	UG/L	Pesticide
115297	82355	0.22		0.034		ENDOSULFAN, SUSPENDED IN WATER	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
57125	82573	0.022	0.2	0.001		CYANIDE/CHLORINATION IN WATER	MG/L	General Inorganic
1646873	82586		4.0			ALDICARB SULFOXIDE, WATER, TOTAL RECOVERABLE	UG/L	General Organic
1646884	82587		2.0			ALDICARB SULFONE, WHOLE WATER, TOTAL RECOVERABLE	UG/L	General Organic
23135220	82613		200			OXAMYL, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
1563662	82615		40			CARBOFURAN, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
116063	82619		3.0			ALDICARB, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
33213659	82624	0.22		0.034		ENDOSULFAN, BETA, WH WATER, TOTAL RECOVERABLE	UG/L	Pesticide
96128	82625		0.2			DIBROMOCHLOROPROPANE, WATER, TOTAL RECOVERABLE	UG/L	Pesticide

Footnote Key:

[*]Insufficient Data to Develop Criteria. Value Presented is the L.O.E.L. - Lowest Observed Effect Level.

[+]Hardness Dependent Criteria (100 mg/L $CaCO_3$ Used).

[***]pH Dependent Criteria (7.8 pH Used).

[=]Rule of thumb criterion used by the NPS Air Quality Division for determining sensitivity to acid deposition.

[^]Freshwater bathing criterion, EPA geometric mean based on at least 5 samples equally spaced over a 30-day period; Enterococci marine water bathing criterion 35 CFU/100 ml.

[#]EPA freshwater aquatic life chronic criterion; marine criterion is ≤6.5, ≥8.5.

[!]Arizona state standard.

[a]EPA action level, 40 CFR 141.80.

[b]California and Florida state bathing water standards.

[c]A Compilation of Water Quality Goals, California Regional Water Quality Control Board Central Valley Region, Sacramento, California, September, 1991.

[n]Total coliform drinking water maximum contaminant level (1 cfu/100ml or 1 mpn/100ml) was not used in water quality criteria comparisons.

[p]Proposed Criterion.

[r]Average annual concentration assumed to produce a total body or organ dose of 4 mrem/year, 40 CFR 141.16.

[s]EPA National Secondary Drinking Water Regulation, 40 CFR 143.

[t]The maximum contaminant level for the sum of the concentrations of trihalomethanes is 100 µg/L, 40 CFR 141.12.

[u]Coldwater criterion one day minimum; warmwater criterion seven day mean minimum.

Appendix G

Inventory Data Evaluation and Analysis (IDEA)
Servicewide Inventory and Monitoring Program "Level I"
Parameter Groups

The following table provides the Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameter groups (National Park Service 1993). In order to determine the presence and/or absence of data for each of these parameter groups in the park, the parameter groups had to be defined by STORET parameter codes. This table provides the STORET codes and parameter descriptions for each parameter comprising one of the Servicewide Inventory and Monitoring Program's "Level I" water quality parameter groups. Additional parameters could have been incorporated into each group, but an effort was made to represent each group with the parameters deemed to most likely occur in STORET and parks. The Toxic Elements Parameter Group was defined as the EPA's Clean Water Act Section 304(a) Priority Toxic Pollutants (40 CFR 131.36). Parameters are listed in ascending order of STORET code within each parameter group. It is important to note that similar parameters often have non-consecutive codes. Consequently, scanning the entire list is necessary to find all the parameters of a particular type (eg. lead, copper, etc.). Refer to the Parameter Period of Record Tabulation to obtain the STORET code for any parameter measured in the park.

STORET Code	Water Temperature Parameter Group	C.A.S. Number
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	-
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	-
STORET Code	**Flow Parameter Group[1]**	**C.A.S. Number**
00056	FLOW RATE, GALLONS/DAY	-
00058	FLOW RATE, GALLONS/MIN.	-
00059	FLOW RATE, INSTANTANEOUS, GALLONS/MINUTE	-
00060	FLOW, STREAM, MEAN DAILY CFS	-
00061	FLOW, STREAM, INSTANTANEOUS CFS	-
00065	STAGE, STREAM (FEET)	-
00067	TIDE STAGE CODE	-
00072	STAGE, STREAM (METERS)	-

[1]Tide stage is included in the Flow Parameter Group for coastal parks.

STORET Code	Clarity/Turbidity Parameter Group	C.A.S. Number
00070	TURBIDITY, (JACKSON CANDLE UNITS)	-
00075	TURBIDITY, HELLIGE (PPM AS SILICON DIOXIDE)	-
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	-
00077	TRANSPARENCY, SECCHI DISC (INCHES)	-
00078	TRANSPARENCY, SECCHI DISC (METERS)	-
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	-
82078	TURBIDITY, FIELD NEPHELOMETRIC TURBIDITY UNITS NTU	-
82079	TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	-
STORET Code	**Conductivity Parameter Group**	**C.A.S. Number**
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	-
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	-
00096	SALINITY AT 25 DEGREES C (MG/ML)	-
00480	SALINITY - PARTS PER THOUSAND	-
STORET Code	**Dissolved Oxygen Parameter Group**	**C.A.S. Number**
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	7782447
00300	OXYGEN, DISSOLVED (MG/L)	7782447
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION	7782447
00389	OXYGEN, DISSOLVED, LAB ANAL. BY PROBE OF FIELD SAMPLE (MG/L)	7782447
STORET Code	**pH Parameter Group**	**C.A.S. Number**
00400	PH (STANDARD UNITS)	-
00403	PH, LAB (STANDARD UNITS)	-
00406	PH, FIELD (STANDARD UNITS)	-

STORET Code	Alkalinity Parameter Group	C.A.S. Number
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS (µEQ/L)	471341
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	471341
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	77098
00430	ALKALINITY, CARBONATE (MG/L AS CACO3)	471341
00435	ACIDITY, TOTAL (MG/L AS CACO3)	471341
00440	BICARBONATE ION (MG/L AS HCO3)	71523
00445	CARBONATE ION (MG/L AS CO3)	3812326

STORET Code	Nitrate/Nitrogen Parameter Group	C.A.S. Number
00600	NITROGEN, TOTAL (MG/L AS N)	17778880
00602	NITROGEN, DISSOLVED (MG/L AS N)	17778880
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	17778880
00607	NITROGEN, ORGANIC, DISSOLVED (MG/L AS N)	17778880
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	17778880
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	17778880
00612	AMMONIA, UNIONZED (MG/L AS N)	7664417
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	17778880
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	17778880
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	17778880
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)	17778880
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	17778880
00631	NITRITE PLUS NITRATE, DISSOLVED 1 DET. (MG/L AS N)	17778880
71845	NITROGEN, AMMONIA, TOTAL (MG/L AS NH4)	14798039
71846	NITROGEN, AMMONIA, DISSOLVED (MG/L AS NH4)	14798039
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	14797558
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	14797558
71855	NITRITE NITROGEN, TOTAL (MG/L AS NO2)	14797650
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	14797650

STORET Code	Phosphate/Phosphorus Parameter Group	C.A.S. Number
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	14265442
00655	PHOSPHATE, POLY (MG/L AS PO4)	14265442
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	14265442
00665	PHOSPHORUS, TOTAL (MG/L AS P)	7723140
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	7723140
00670	PHOSPHORUS, TOTAL ORGANIC (MG/L AS P)	7723140
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	7723140
70505	PHOSPHORUS, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	7723140
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	7723140

STORET Code	Sulfates/Total Dissolved Solids/Hardness Parameter Group	C.A.S. Number
00900	HARDNESS, TOTAL (MG/L AS CACO3)	471341
00945	SULFATE, TOTAL (MG/L AS SO4)	14808798
00946	SULFATE, DISSOLVED (MG/L AS SO4)	14808798
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	-

STORET Code	Chlorophyll Parameter Group	C.A.S. Number
32209	CHLOROPHYLL A (UG/L) FLUOROMETRIC CORRECTED	479618
32210	CHLOROPHYLL A (UG/L) TRICHROMATIC UNCORRECTED	479618
32211	CHLOROPHYLL A (UG/L) SPECTROPHOTOMETRIC ACID METH.	479618
32217	CHLOROPHYLL A (UG/L) FLUOROMETRIC UNCORRECTED	479618
32223	CHLOROPHYLL A (MG/M2) SPECTROPHOTOMETRIC CORRECTED	479618
32228	CHLOROPHYLL A (MG/M2) PERIPHYTON SPECTRO.	479618
32229	CHLOROPHYLL A (MG/M2) FLUOR. CORRECTED, SUBSTRATER	479618
32230	CHLOROPHYLL A (MG/L)	479618

STORET Code	Bacteria Parameter Group	C.A.S. Number
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI	-
31501	COLIFORM, TOT, MEMBRANE FILTER, IMMED., M-ENDO MED,35C	-
31503	COLIFORM, TOT, MEMBRANE FILTER, DELAY, M-ENDO MED, 35C	-
31504	COLIFORM, TOT, MEMBRANE FILTER, IMMED., LES-ENDO AGAR, 35C	-
31505	COLIFORM, TOT, MPN, CONFIRMED TEST,35C(TUBE 31506)	-
31506	COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	-
31507	COLIFORM, TOT, MPN, COMPLETED TEST,35C(TUBE 31508)	-
31508	COLIFORM, TOT, MPN, COMPLETED TEST, TUBE CONFIG.	-
31613	FECAL COLIFORM, MEMBR, FILTER,M-FC AGAR,44.5C,24HR	-
31614	FECAL COLIFORM, MPN, TUBE CONFIGURATION	-
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	-
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	-
31617	FECAL COLIFORM, MPN,EIJKMAN TEST,44.5C(TUBE 31618)	-
31625	FECAL COLIFORM, MF, M-FC, 0.7 UM	-
31648	E. COLI - MTEC-MF	-
31649	ENTEROCOCCI- ME-MF	-
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	-
31676	FECAL STREPTOCOCCI, MPN, KF BROTH, TUBE CONFIG.	-
31677	FECAL STREPTOCOCCI, MPN, AD-EVA, 35C (TUBE 31678)	-
31751	PLATE COUNT, TOTAL, TPC AGAR, 35C, 24 HRS	-

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants)	C.A.S. Number
00718	CYANIDE, WEAK ACID, DISSOC. WATER, WHOLE (UG/L)	57125
00719	CYANIDE, FREE, IN WATER & WASTEWATERS, HBG (UG/L)	57125
00720	CYANIDE, TOTAL (MG/L AS CN)	57125
00722	CYANIDE, FREE (AMENABLE TO CHLORINATION) (MG/L)	57125
00723	CYANIDE, DISSOLVED STD METHOD (UG/L)	57125
00724	CYANIDE COMPLEXED TO A RANGE OF COMPNDS (UG/L)	57125

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
00969	CHRYSOTILE ASBESTOS FIBERS/LITER	1332214
00973	AMPHIBOLE ASBESTOS FIBERS/LITER	1332214
00976	AMBIGUOUS ASBESTOS FIBERS/LITER	1332214
00977	NON-AMPHIBOLE NON-CHRYSOTILE ASBESTOS FIBERS/LITER	1332214
00978	ARSENIC, TOTAL RECOVERABLE IN WATER AS AS	7440382
00981	SELENIUM, TOTAL RECOVERABLE IN WATER AS SE (UG/L)	7782492
00982	THALLIUM, TOTAL RECOVERABLE IN WATER AS (UG/L)	7440280
00990	SELENITE, TOTAL RECOVERABLE INORGANIC (UG/L)	7782492
00991	ARSENIC, TOTAL RECOVER. TRIVALENT INORGANIC (UG/L)	7440382
00995	ARSENIC, INORGANIC DISSOLVED (UG/L AS AS)	7440382
00996	ARSENIC, INORGANIC SUSPENDED (UG/L AS AS)	7440382
00997	ARSENIC, INORGANIC TOTAL (UG/L AS AS)	7440382
00998	BERYLLIUM, TOTAL RECOVERABLE IN WATER AS BE (UG/L)	7440417
01000	ARSENIC, DISSOLVED (UG/L AS AS)	7440382
01001	ARSENIC, SUSPENDED (UG/L AS AS)	7440382
01002	ARSENIC, TOTAL (UG/L AS AS)	7440382
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	7440417
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)	7440417
01012	BERYLLIUM, TOTAL (UG/L AS BE)	7440417
01025	CADMIUM, DISSOLVED (UG/L AS CD)	7440439
01026	CADMIUM, SUSPENDED (UG/L AS CD)	7440439
01027	CADMIUM, TOTAL (UG/L AS CD)	7440439
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	7440473
01031	CHROMIUM, SUSPENDED (UG/L AS CR)	7440473
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	7440473
01033	CHROMIUM, TRI-VAL (UG/L AS CR)	16065831
01034	CHROMIUM, TOTAL (UG/L AS CR)	7440473
01040	COPPER, DISSOLVED (UG/L AS CU)	7440508

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
01041	COPPER, SUSPENDED (UG/L AS CU)	7440508
01042	COPPER, TOTAL (UG/L AS CU)	7440508
01049	LEAD, DISSOLVED (UG/L AS PB)	7439921
01050	LEAD, SUSPENDED (UG/L AS PB)	7439921
01051	LEAD, TOTAL (UG/L AS PB)	7439921
01057	THALLIUM, DISSOLVED (UG/L AS TL)	7440280
01058	THALLIUM, SUSPENDED (UG/L AS TL)	7440280
01059	THALLIUM, TOTAL (UG/L AS TL)	7440280
01065	NICKEL, DISSOLVED (UG/L AS NI)	7440020
01066	NICKEL, SUSPENDED (UG/L AS NI)	7440020
01067	NICKEL, TOTAL (UG/L AS NI)	7440020
01074	NICKEL, TOTAL RECOVERABLE IN WATER AS NI (UG/L)	7440020
01075	SILVER, DISSOLVED (UG/L AS AG)	7440224
01076	SILVER, SUSPENDED (UG/L AS AG)	7440224
01077	SILVER, TOTAL (UG/L AS AG)	7440224
01079	SILVER, TOTAL RECOVERABLE IN WATER AS AG (UG/L)	7440224
01089	COPPER AS SUSPENDED BLACK OXIDE IN WATER (MG/L)	7440508
01090	ZINC, DISSOLVED (UG/L AS ZN)	7440666
01091	ZINC, SUSPENDED (UG/L ZN)	7440666
01092	ZINC, TOTAL (UG/L AS ZN)	7440666
01094	ZINC, TOTAL RECOVERABLE IN WATER AS ZN (UG/L)	7440666
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	7440360
01096	ANTIMONY, SUSPENDED (UG/L AS SB)	7440360
01097	ANTIMONY, TOTAL (UG/L AS SB)	7440360
01113	CADMIUM, TOTAL RECOVERABLE IN WATER AS CD (UG/L)	7440439
01114	LEAD, TOTAL RECOVERABLE IN WATER AS PB (UG/L)	7439921
01118	CHROMIUM, TOTAL RECOVERABLE IN WATER AS CR (UG/L)	7440473
01119	COPPER,TOTAL RECOVERABLE IN WATER AS CU (UG/L)	7440508

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
01124	THALLIUM, ACID SOLUBLE, WATER, WHOLE (UG/L)	7440280
01128	THALLIUM,TOTAL RECOVERABLE <95%, UG/L AS TL	7440280
01138	SELENIUM, IN WATER, LBS/DAY	7782492
01145	SELENIUM, DISSOLVED (UG/L AS SE)	7782492
01146	SELENIUM, SUSPENDED (UG/L AS SE)	7782492
01147	SELENIUM, TOTAL (UG/L AS SE)	7782492
01167	SELENIUM, ACID SOLUBLE, WATER, WHOLE (UG/L)	7782492
01220	CHROMIUM, HEXAVALENT, DISSOLVED IN (UG/L AS CR)	18540299
01252	ARSENIC, LB/DAY/CFS STREAM FLOW	7440382
01253	CADMIUM, LB/DAY/CFS STREAM FLOW	7440439
01254	CHROMIUM, TOTAL (LBS/DAY/CFS STREAM FLOW)	7740473
01255	CHROMIUM, HEXAVALENT, LB/DAY/CFS STREAM FLOW	18540299
01256	COPPER, LB/DAY/CFS STREAM FLOW	7440508
01257	CYANIDE LB/DAY/CFS STREAM FLOW	57125
01259	LEAD, LB/DAY/CFS STREAM FLOW	7439921
01260	MERCURY, LB/DAY/CFS STREAM FLOW	7439976
01261	NICKEL, LB/DAY/CFS STREAM FLOW	7440020
01263	SILVER, LB/DAY/CFS STREAM FLOW	7440224
01264	ZINC LB/DAY/CFS STREAM FLOW	7440666
01268	ANTIMONY, (SB), WATER, TOTAL RECOVERABLE (UG/L)	7440360
01291	CYANIDE, FILTERABLE, TOTAL IN WATER (UG/L)	57125
01303	ZINC, POTENTIALLY DISSOLVED WATER (MG/L)	7440666
01304	SILVER, POTENTIALLY DISSOLVED WATER (MG/L)	7440224
01306	COPPER, POTENTIALLY DISSOLVED WATER (MG/L)	7440508
01307	CHROMIUM, HEXAVALENT, POTENT. DISS. WATER (MG/L)	18540299
01309	ARSENIC, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440382
01312	BERYLLIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440417
01313	CADMIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440439

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
01314	CHROMIUM, TRIVALENT, POTENT., DISS., WATER (MG/L)	16065831
01318	LEAD, POTENTIALLY, DISSOLVED, WATER (MG/L)	7439921
01321	MERCURY, POTENTIALLY, DISSOLVED, WATER (MG/L)	7439976
01322	NICKEL, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440020
01323	SELENIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7782492
01324	THALLIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440280
01523	SILVER, IONIC (UG/L)	7440224
22675	SELENIUM, DISSOLVED ORGANIC (UG/L)	7782492
22676	SELENIUM, HEXAVALENT, DISSOLVED (UG/L)	7782492
22677	SELENIUM, TETRAVALENT, DISSOLVED	7782492
22678	ARSENIC, DISSOLVED ORGANIC (UG/L)	7440382
22679	ARSENIC, PENTAVALENT, DISSOLVED (UG/L)	7440382
22680	ARSENIC, TRIVALENT, DISSOLVED (UG/L)	7440382
30197	2-CHLOROETHYLVINYL ETHER,WATER,WHL,RECOVER (UG/L)	110758
30201	CHLOROMETHANE, WATER, WHOLE, RECOVERABLE (UG/L)	74873
30202	BROMOMETHANE, WATER, WHOLE, RECOVERABLE (UG/L)	74839
32003	CARBON CHLOROFORM AND CARBON ALCOHOL EXT. (UG/L)	67663
32005	CARBON CHLOROFORM EXTRACTABLES (UG/L)	67663
32021	CARBON CHLOROFORM EXTRACTS, ETHER INSOLUBLE (UG/L)	67663
32022	CARBON CHLOROFORM EXTRACTS, WATER SOLUBLES (UG/L)	67663
32101	BROMODICHLOROMETHANE, WHOLE WATER (UG/L)	75274
32102	CARBON TETRACHLORIDE, WHOLE WATER, (UG/L)	56235
32103	1,2-DICHLOROETHANE, WHOLE WATER (UG/L)	107062
32104	BROMOFORM, WHOLE WATER, (UG/L)	75252
32105	DIBROMOCHLOROMETHANE, WHOLE WATER, (UG/L)	124481
32106	CHLOROFORM, WHOLE WATER (UG/L)	67663
32260	CARBON TETRACHLORIDE EXTRACTABLES (MG/L)	56235
32270	CHLOROFORM EXTRACTABLES TOTAL IN MG PER LITER	67663

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	108883
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	71432
34198	BHC-DELTA, WATER, WHOLE (LBS/DAY)	319868
34200	ACENAPHTHYLENE, TOTAL (UG/L)	208968
34201	ACENAPHTHYLENE, DISSOLVED (UG/L)	208968
34202	ACENAPHTHYLENE, SUSPENDED (UG/L)	208968
34205	ACENAPHTHENE, TOTAL (UG/L)	83329
34206	ACENAPHTHENE, DISSOLVED (UG/L)	83329
34207	ACENAPHTHENE, SUSPENDED (UG/L)	83329
34210	ACROLEIN, TOTAL (UG/L)	107028
34211	ACROLEIN, DISSOLVED (UG/L)	107028
34212	ACROLEIN, SUSPENDED (UG/L)	107028
34215	ACRYLONITRILE, TOTAL (UG/L)	107131
34216	ACRYLONITRILE, DISSOLVED (UG/L)	107131
34217	ACRYLONITRILE, SUSPENDED (UG/L)	107131
34220	ANTHRACENE, TOTAL (UG/L)	120127
34221	ANTHRACENE, DISSOLVED (UG/L)	120127
34222	ANTHRACENE, SUSPENDED (UG/L)	120127
34225	ASBESTOS (FIBROUS) TOTAL (UG/L)	1332214
34226	ASBESTOS (FIBROUS) DISSOLVED (UG/L)	1332214
34227	ASBESTOS (FIBROUS) SUSPENDED (UG/L)	1332214
34230	BENZO(B)FLUORANTHENE, WHOLE WATER (UG/L)	205992
34231	BENZO(B)FLUORANTHENE, DISSOLVED (UG/L)	205992
34232	BENZO(B)FLUORANTHENE, SUSPENDED (UG/L)	205992
34235	BENZENE, DISSOLVED (UG/L)	71432
34236	BENZENE, SUSPENDED (UG/L)	71432
34239	BENZIDINE, DISSOLVED (UG/L)	92875
34240	BENZIDINE, SUSPENDED (UG/L)	92875

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34242	BENZO(K)FLUORANTHENE, TOTAL (UG/L)	207089
34243	BENZO(K)FLUORANTHENE, DISSOLVED (UG/L)	207089
34244	BENZO(K)FLUORANTHENE, SUSPENDED (UG/L)	207089
34247	BENZO-A-PYRENE, TOTAL (UG/L)	50328
34248	BENZO-A-PYRENE, DISSOLVED (UG/L)	50328
34249	BENZO-A-PYRENE, SUSPENDED (UG/L)	50328
34253	A-BHC-ALPHA, DISSOLVED (UG/L)	319846
34254	A-BHC-ALPHA, SUSPENDED (UG/L)	319846
34255	B-BHC-BETA, DISSOLVED (UG/L)	319857
34256	B-BHC-BETA, SUSPENDED (UG/L)	319857
34259	DELTA BENZENE HEXACHLORIDE, TOTAL (UG/L)	319868
34260	DELTA BENZENE HEXACHLORIDE, DISSOLVED (UG/L)	319868
34261	DELTA BENZENE HEXACHLORIDE, SUSPENDED (UG/L)	319868
34265	R-BHC (LINDANE) GAMMA, DISSOLVED (UG/L)	58899
34266	R-BHC (LINDANE) GAMMA, SUSPENDED (UG/L)	58899
34273	BIS (2-CHLOROETHYL) ETHER, TOTAL (UG/L)	111444
34274	BIS (2-CHLOROETHYL) ETHER, DISSOLVED (UG/L)	111444
34275	BIS (2-CHLOROETHYL) ETHER, SUSPENDED (UG/L)	111444
34278	BIS (2-CHLOROETHOXY) METHANE, TOTAL (UG/L)	111911
34279	BIS (2-CHLOROETHOXY) METHANE, DISSOLVED (UG/L)	111911
34280	BIS (2-CHLOROETHOXY) METHANE, SUSPENDED (UG/L)	111911
34288	BROMOFORM, DISSOLVED (UG/L)	75252
34289	BROMOFORM, SUSPENDED (UG/L)	75252
34292	N-BUTYL BENZYL PHTHALATE, WHOLE WATER (UG/L)	85687
34293	N-BUTYL BENZYL PHTHALATE, DISSOLVED (UG/L)	85687
34294	N-BUTYL BENZYL PHTHALATE, SUSPENDED (UG/L)	85687
34297	CARBON TETRACHLORIDE, DISSOLVED (UG/L)	56235
34298	CARBON TETRACHLORIDE, SUSPENDED (UG/L)	56235

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34301	CHLOROBENZENE, TOTAL (UG/L)	108907
34302	CHLOROBENZENE, DISSOLVED (UG/L)	108907
34303	CHLOROBENZENE, SUSPENDED (UG/L)	108907
34306	CHLORODIBROMOMETHANE, TOTAL (UG/L)	124481
34307	CHLORODIBROMOMETHANE, DISSOLVED (UG/L)	124481
34308	CHLORODIBROMOMETHANE, SUSPENDED (UG/L)	124481
34311	CHLOROETHANE, TOTAL (UG/L)	75003
34312	CHLOROETHANE, DISSOLVED (UG/L)	75003
34313	CHLOROETHANE, SUSPENDED (UG/L)	75003
34316	CHLOROFORM, DISSOLVED (UG/L)	67663
34317	CHLOROFORM, SUSPENDED (UG/L)	67663
34320	CHRYSENE, TOTAL (UG/L)	218019
34321	CHRYSENE, DISSOLVED (UG/L)	218019
34322	CHRYSENE, SUSPENDED (UG/L)	218019
34325	CYANIDE, SUSPENDED (MG/L)	57125
34327	DI-N-BUTYL PHTHALATE, DISSOLVED (UG/L)	84742
34328	DICHLOROBROMOMETHANE, DISSOLVED (UG/L)	75274
34329	DICHLOROBROMOMETHANE, SUSPENDED (UG/L)	75274
34336	DIETHYL PHTHALATE, TOTAL (UG/L)	84662
34337	DIETHYL PHTHALATE, DISSOLVED (UG/L)	84662
34338	DIETHYL PHTHALATE, SUSPENDED (UG/L)	84662
34341	DIMETHYL PHTHALATE, TOTAL (UG/L)	131113
34342	DIMETHYL PHTHALATE, DISSOLVED (UG/L)	131113
34343	DIMETHYL PHTHALATE, SUSPENDED (UG/L)	131113
34346	1,2-DIPHENYLHYDRAZINE, TOTAL (UG/L)	122667
34347	1,2-DIPHENYLHYDRAZINE, DISSOLVED (UG/L)	122667
34348	1,2-DIPHENYLHYDRAZINE, SUSPENDED (UG/L)	122667
34351	ENDOSULFAN SULFATE, TOTAL (UG/L)	1031078

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34352	ENDOSULFAN SULFATE, DISSOLVED (UG/L)	1031078
34353	ENDOSULFAN SULFATE, SUSPENDED (UG/L)	1031078
34356	ENDOSULFAN, BETA, TOTAL (UG/L)	33213659
34357	ENDOSULFAN, BETA, DISSOLVED (UG/L)	33213659
34358	ENDOSULFAN, BETA, SUSPENDED (UG/L)	33213659
34361	ENDOSULFAN, ALPHA, TOTAL (UG/L)	959988
34362	ENDOSULFAN, ALPHA, DISSOLVED (UG/L)	959988
34363	ENDOSULFAN, ALPHA, SUSPENDED (UG/L)	959988
34371	ETHYLBENZENE, TOTAL (UG/L)	100414
34372	ETHYLBENZENE, DISSOLVED (UG/L)	100414
34373	ETHYLBENZENE, SUSPENDED (UG/L)	100414
34376	FLUORANTHENE, TOTAL (UG/L)	206440
34377	FLUORANTHENE, DISSOLVED (UG/L)	206440
34378	FLUORANTHENE, SUSPENDED (UG/L)	206440
34381	FLUORENE, TOTAL (UG/L)	86737
34382	FLUORENE, DISSOLVED (UG/L)	86737
34383	FLUORENE, SUSPENDED (UG/L)	86737
34386	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	77474
34387	HEXACHLOROCYCLOPENTADIENE, DISSOLVED (UG/L)	77474
34388	HEXACHLOROCYCLOPENTADIENE, SUSPENDED (UG/L)	77474
34391	HEXACHLOROBUTADIENE, TOTAL (UG/L)	87683
34392	HEXACHLOROBUTADIENE, DISSOLVED (UG/L)	87683
34393	HEXACHLOROBUTADIENE, SUSPENDED (UG/L)	87683
34396	HEXACHLOROETHANE, TOTAL (UG/L)	67721
34397	HEXACHLOROETHANE, DISSOLVED (UG/L)	67721
34398	HEXACHLOROETHANE, SUSPENDED (UG/L)	67721
34401	HEXACHLOROBENZENE, DISSOLVED (UG/L)	118741
34402	HEXACHLOROBENZENE, SUSPENDED (UG/L)	118741

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34403	INDENO (1,2,3-CD) PYRENE, TOTAL (UG/L)	193395
34404	INDENO (1,2,3-CD) PYRENE, DISSOLVED (UG/L)	193395
34405	INDENO (1,2,3-CD) PYRENE, SUSPENDED (UG/L)	193395
34408	ISOPHORONE, TOTAL (UG/L)	78591
34409	ISOPHORONE, DISSOLVED (UG/L)	78591
34410	ISOPHORONE, SUSPENDED (UG/L)	78591
34413	METHYL BROMIDE, TOTAL (UG/L)	74839
34414	METHYL BROMIDE, DISSOLVED (UG/L)	74839
34415	METHYL BROMIDE, SUSPENDED (UG/L)	74839
34418	METHYL CHLORIDE, TOTAL (UG/L)	74873
34419	METHYL CHLORIDE, DISSOLVED (UG/L)	74873
34420	METHYL CHLORIDE, SUSPENDED (UG/L)	74873
34423	METHYLENE CHLORIDE, TOTAL (UG/L)	75092
34424	METHYLENE CHLORIDE, DISSOLVED (UG/L)	75092
34425	METHYLENE CHLORIDE, SUSPENDED (UG/L)	75092
34428	N-NITROSODI-N-PROPYLAMINE, TOTAL (UG/L)	621647
34429	N-NITROSODI-N-PROPYLAMINE, DISSOLVED (UG/L)	621647
34430	N-NITROSODI-N-PROPYLAMINE, SUSPENDED (UG/L)	621647
34433	N-NITROSODIPHENYLAMINE, TOTAL (UG/L)	86306
34434	N-NITROSODIPHENYLAMINE, DISSOLVED (UG/L)	86306
34435	N-NITROSODIPHENYLAMINE, SUSPENDED (UG/L)	86306
34438	N-NITROSODIMETHYLAMINE, TOTAL (UG/L)	62759
34439	N-NITROSODIMETHYLAMINE, DISSOLVED (UG/L)	62759
34440	N-NITROSODIMETHYLAMINE, SUSPENDED (UG/L)	62759
34443	NAPHTHALENE, DISSOLVED (UG/L)	91203
34444	NAPHTHALENE, SUSPENDED (UG/L)	91203
34447	NITROBENZENE, TOTAL (UG/L)	98953
34448	NITROBENZENE, DISSOLVED (UG/L)	98953

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34449	NITROBENZENE, SUSPENDED (UG/L)	98953
34452	PARACHLOROMETA CRESOL, TOTAL (UG/L)	59507
34453	PARACHLOROMETA CRESOL, DISSOLVED (UG/L)	59507
34454	PARACHLOROMETA CRESOL, SUSPENDED (UG/L)	59507
34457	PCB - 1242, DISSOLVED (UG/L)	53469219
34458	PCB - 1242, SUSPENDED (UG/L)	53469219
34459	PCP (PENTACHLOROPHENOL), DISSOLVED (UG/L)	87865
34460	PCP (PENTACHLOROPHENOL), SUSPENDED (UG/L)	87865
34461	PHENANTHRENE, TOTAL (UG/L)	85018
34462	PHENANTHRENE, DISSOLVED (UG/L)	85018
34463	PHENANTHRENE, SUSPENDED (UG/L)	85018
34466	PHENOL, DISSOLVED (UG/L)	108952
34467	PHENOL, SUSPENDED (UG/L)	108952
34469	PYRENE, TOTAL (UG/L)	129000
34470	PYRENE, DISSOLVED (UG/L)	129000
34471	PYRENE, SUSPENDED (UG/L)	129000
34475	TETRACHLOROETHYLENE, TOTAL (UG/L)	127184
34476	TETRACHLOROETHYLENE, DISSOLVED (UG/L)	127184
34477	TETRACHLOROETHYLENE, SUSPENDED (UG/L)	127184
34481	TOLUENE, DISSOLVED (UG/L)	108883
34482	TOLUENE, SUSPENDED (UG/L)	108883
34485	TRICHLOROETHYLENE, DISSOLVED (UG/L)	79016
34486	TRICHLOROETHYLENE, SUSPENDED (UG/L)	79016
34493	VINYL CHLORIDE, DISSOLVED (UG/L)	75014
34494	VINYL CHLORIDE, SUSPENDED (UG/L)	75014
34496	1,1-DICHLOROETHANE, TOTAL (UG/L)	75343
34497	1,1-DICHLOROETHANE, DISSOLVED (UG/L)	75343
34498	1,1-DICHLOROETHANE, SUSPENDED (UG/L)	75343

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34501	1,1-DICHLOROETHYLENE, TOTAL (UG/L)	75354
34502	1,1-DICHLOROETHYLENE, DISSOLVED (UG/L)	75354
34503	1,1-DICHLOROETHYLENE, SUSPENDED (UG/L)	75354
34506	1,1,1-TRICHLOROETHANE, TOTAL (UG/L)	71556
34507	1,1,1-TRICHLOROETHANE, DISSOLVED (UG/L)	71556
34508	1,1,1-TRICHLOROETHANE, SUSPENDED (UG/L)	71556
34511	1,1,2-TRICHLOROETHANE, TOTAL (UG/L)	79005
34512	1,1,2-TRICHLOROETHANE, DISSOLVED (UG/L)	79005
34513	1,1,2-TRICHLOROETHANE, SUSPENDED (UG/L)	79005
34516	1,1,2,2-TETRACHLOROETHANE, TOTAL (UG/L)	79345
34517	1,1,2,2-TETRACHLOROETHANE, DISSOLVED (UG/L)	79345
34518	1,1,2,2-TETRACHLOROETHANE, SUSPENDED (UG/L)	79345
34521	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, TOTAL (UG/L)	191242
34522	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, DISS. (UG/L)	191242
34523	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, SUSP. (UG/L)	191242
34526	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, TOTAL (UG/L)	56553
34527	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, DISS. (UG/L)	56553
34528	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, SUSP. (UG/L)	56553
34531	1,2-DICHLOROETHANE, TOTAL (UG/L)	107062
34532	1,2-DICHLOROETHANE, DISSOLVED (UG/L)	107062
34533	1,2-DICHLOROETHANE, SUSPENDED (UG/L)	107062
34536	1,2-DICHLOROBENZENE, TOTAL (UG/L)	95501
34537	1,2-DICHLOROBENZENE, DISSOLVED (UG/L)	95501
34538	1,2-DICHLOROBENZENE, SUSPENDED (UG/L)	95501
34541	1,2-DICHLOROPROPANE, TOTAL (UG/L)	78875
34542	1,2-DICHLOROPROPANE, DISSOLVED (UG/L)	78875
34543	1,2-DICHLOROPROPANE, SUSPENDED (UG/L)	78875
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER (UG/L)	156605

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34547	TRANS-1,2-DICHLOROETHENE, DISSOLVED (UG/L)	156605
34548	TRANS-1,2-DICHLOROETHENE, SUSPENDED (UG/L)	156605
34551	1,2,4-TRICHLOROBENZENE, TOTAL (UG/L)	120821
34552	1,2,4-TRICHLOROBENZENE, DISSOLVED (UG/L)	120821
34553	1,2,4-TRICHLOROBENZENE, SUSPENDED (UG/L)	120821
34556	1,2,5,6-DIBENZANTHRACENE, TOTAL (UG/L)	53703
34557	1,2,5,6-DIBENZANTHRACENE, DISSOLVED (UG/L)	53703
34558	1,2,5,6-DIBENZANTHRACENE, SUSPENDED (UG/L)	53703
34561	1,3-DICHLOROPROPENE, TOTAL (UG/L)	542756
34562	1,3-DICHLOROPROPENE, DISSOLVED (UG/L)	542756
34563	1,3-DICHLOROPROPENE, SUSPENDED (UG/L)	542756
34566	1,3-DICHLOROBENZENE, TOTAL (UG/L)	541731
34567	1,3-DICHLOROBENZENE, DISSOLVED (UG/L)	541731
34568	1,3-DICHLOROBENZENE, SUSPENDED (UG/L)	541731
34571	1,4-DICHLOROBENZENE, TOTAL (UG/L)	106467
34572	1,4-DICHLOROBENZENE, DISSOLVED (UG/L)	106467
34573	1,4-DICHLOROBENZENE, SUSPENDED (UG/L)	106467
34576	2-CHLOROETHYL VINYL ETHER, TOTAL (UG/L)	110758
34577	2-CHLOROETHYL VINYL ETHER, DISSOLVED (UG/L)	110758
34578	2-CHLOROETHYL VINYL ETHER, SUSPENDED (UG/L)	110758
34581	2-CHLORONAPHTHALENE, TOTAL (UG/L)	91587
34582	2-CHLORONAPHTHALENE, DISSOLVED (UG/L)	91587
34583	2-CHLORONAPHTHALENE, SUSPENDED (UG/L)	91587
34586	2-CHLOROPHENOL, TOTAL (UG/L)	95578
34587	2-CHLOROPHENOL, DISSOLVED (UG/L)	95578
34588	2-CHLOROPHENOL, SUSPENDED (UG/L)	95578
34591	2-NITROPHENOL, TOTAL (UG/L)	88755
34592	2-NITROPHENOL, DISSOLVED (UG/L)	88755

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34593	2-NITROPHENOL, SUSPENDED (UG/L)	88755
34596	DI-N-OCTYL PHTHALATE, TOTAL (UG/L)	117840
34597	DI-N-OCTYL PHTHALATE, DISSOLVED (UG/L)	117840
34598	DI-N-OCTYL PHTHALATE, SUSPENDED (UG/L)	117840
34601	2,4-DICHLOROPHENOL, TOTAL (UG/L)	120832
34602	2,4-DICHLOROPHENOL, DISSOLVED (UG/L)	120832
34603	2,4-DICHLOROPHENOL, SUSPENDED (UG/L)	120832
34606	2,4-DIMETHYLPHENOL, TOTAL (UG/L)	105679
34607	2,4-DIMETHYLPHENOL, DISSOLVED (UG/L)	105679
34608	2,4-DIMETHYLPHENOL, SUSPENDED (UG/L)	105679
34611	2,4-DINITROTOLUENE, TOTAL (UG/L)	121142
34612	2,4-DINITROTOLUENE, DISSOLVED (UG/L)	121142
34613	2,4-DINITROTOLUENE, SUSPENDED (UG/L)	121142
34616	2,4-DINITROPHENOL, TOTAL (UG/L)	51285
34617	2,4-DINITROPHENOL, DISSOLVED (UG/L)	51285
34618	2,4-DINITROPHENOL, SUSPENDED (UG/L)	51285
34621	2,4,6-TRICHLOROPHENOL, TOTAL (UG/L)	88062
34622	2,4,6-TRICHLOROPHENOL, DISSOLVED (UG/L)	88062
34623	2,4,6-TRICHLOROPHENOL, SUSPENDED (UG/L)	88062
34626	2,6-DINITROTOLUENE, TOTAL (UG/L)	606202
34627	2,6-DINITROTOLUENE, DISSOLVED (UG/L)	606202
34628	2,6-DINITROTOLUENE, SUSPENDED (UG/L)	606202
34631	3,3'-DICHLOROBENZIDINE, TOTAL (UG/L)	91941
34632	3,3'-DICHLOROBENZIDINE, DISSOLVED (UG/L)	91941
34633	3,3'-DICHLOROBENZIDINE, SUSPENDED (UG/L)	91941
34636	4-BROMOPHENYL PHENYL ETHER, TOTAL (UG/L)	101553
34637	4-BROMOPHENYL PHENYL ETHER, DISSOLVED (UG/L)	101553
34638	4-BROMOPHENYL PHENYL ETHER, SUSPENDED (UG/L)	101553

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34641	4-CHLOROPHENYL PHENYL ETHER, TOTAL (UG/L)	7005723
34642	4-CHLOROPHENYL PHENYL ETHER, DISSOLVED (UG/L)	7005723
34643	4-CHLOROPHENYL PHENYL ETHER, SUSPENDED (UG/L)	7005723
34646	4-NITROPHENOL, TOTAL (UG/L)	100027
34647	4-NITROPHENOL, DISSOLVED (UG/L)	100027
34648	4-NITROPHENOL, SUSPENDED (UG/L)	100027
34651	P,P'-DDD, DISSOLVED (UG/L)	72548
34652	P,P'-DDD, SUSPENDED (UG/L)	72548
34653	P,P'-DDE, DISSOLVED (UG/L)	72559
34654	P,P'-DDE, SUSPENDED (UG/L)	72559
34655	P,P'-DDT, DISSOLVED (UG/L)	50293
34656	P,P'-DDT, SUSPENDED (UG/L)	50293
34657	DNOC (4,6-DINITRO-ORTHO-CRESOL), TOTAL (UG/L)	534521
34658	DNOC (4,6-DINITRO-ORTHO-CRESOL), DISSOLVED (UG/L)	534521
34659	DNOC (4,6-DINITRO-ORTHO-CRESOL), SUSPENDED (UG/L)	534521
34662	PCB - 1221, DISSOLVED (UG/L)	11104282
34663	PCB - 1221, SUSPENDED (UG/L)	11104282
34665	PCB - 1232, DISSOLVED (UG/L)	11141165
34666	PCB - 1232, SUSPENDED (UG/L)	11141165
34671	PCB - 1016, TOTAL (UG/L)	12674112
34672	PCB - 1016, DISSOLVED (UG/L)	12674112
34673	PCB - 1016, SUSPENDED (UG/L)	12674112
34675	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD),TOT(UG/L)	1746016
34676	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)DISS(UG/L)	1746016
34677	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)SUSP(UG/L)	1746016
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTAL (UG/L)	108952
34696	NAPHTHALENE, TOTAL (UG/L)	91203
34750	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)TOT(PG/L)	1746016

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34751	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)DISS(PG/L)	1746016
34752	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)SUSP(PG/L)	1746016
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE (UG/L)	87865
39039	HEXACHLOROBENZENE WATER SAMPLE,ELECTRON CPT (UG/L)	118741
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER (UG/L)	117817
39103	BIS(2-ETHYLHEXYL) PHTHALATE, DISSOLVED, (UG/L)	117817
39104	BIS(2-ETHYLHEXYL) PHTHALATE, SUSPENDED, (UG/L)	117817
39107	PHTHALATES,DIETHYLHEXYL SUS.FRAC.WTR DWT (MG/KG)	117817
39110	DI-N-BUTYL PHTHALATE, WHOLE WATER (UG/L)	84742
39114	DI-N-BUTYL PHTHALATE, SUSPENDED (UG/L)	84742
39115	PHTHALATES,DIBUTYL SUS.FRAC.WATER DWT (UG/KG)	84742
39120	BENZIDINE IN WHOLE WATER SAMPLE (UG/L)	92875
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE (UG/L)	75014
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE (UG/L)	79016
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	50293
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	72548
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	72559
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	309002
39331	ALDRIN IN FILT. FRAC. OF WAT. SAMP. (UG/L)	309002
39332	ALDRIN IN SUSP. FRAC. OF WAT. SAMP. (UG/L)	309002
39336	BHC-ALPHA, WATER, WHOLE (LBS/DAY)	319846
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	319846
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	319857
39340	GAMMA-BHC(LINDANE), WHOLE WATER (UG/L)	58899
39341	GAMMA-BHC(LINDANE), DISSOLVED (UG/L)	58899
39342	GAMMA-BHC(LINDANE), SUSPENDED (UG/L)	58899
39344	BHC-GAMMA, WATER, WHOLE (LBS/DAY)	58899
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATER (UG/L)	57749

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
39352	CHLORDANE(TECH MIX & METABS), DISSOLVED (UG/L)	57749
39353	CHLORDANE(TECH MIX & METABS), SUSPENDED (UG/L)	57749
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	72548
39361	DDD IN FILT. FRAC. OF WATER SMAPLE (UG/L)	72548
39362	DDD IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72548
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	72559
39366	DDE IN FILT. FRAC. OF WATER SAMPLE (UG/L)	72559
39367	DDE IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72559
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	50293
39371	DDT IN FILT. FRAC. OF WATER SAMPLE (UG/L)	50293
39372	DDT IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	50293
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	60571
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	60571
39382	DIELDRIN IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	60571
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	72208
39391	ENDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	72208
39392	ENDRIN IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72208
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	8001352
39401	TOXAPHENE IN FILT. FRAC. OF WATER SAMPLE (UG/L)	8001352
39402	TOXAPHENE IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	8001352
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	76448
39411	HEPTACHLOR IN FILT. FRAC. OF WATER SAMPLE (UG/L)	76448
39412	HEPTACHLOR IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	76448
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	1024573
39421	HEPTACHLOR EPOXIDE IN FILT. FRAC. WAT. SAM. (UG/L)	1024573
39422	HEPTACHLOR EPOXIDE IN SUSP. FRAC. WAT. SAM. (UG/L)	1024573
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE (UG/L)	11104282
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11141165

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE (UG/L)	53469219
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12672296
39501	PCB - 1248 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	12672296
39502	PCB - 1248 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	12672296
39504	PCB - 1254 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11097691
39505	PCB - 1254 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11097691
39506	PCB - 1254 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	11097691
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11096825
39509	PCB - 1260 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11096825
39510	PCB - 1260 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	11096825
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	118741
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)	87683
39782	LINDANE IN WHOLE WATER SAMPLE (UG/L)	58899
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	534521
46322	LINDANE PLUS ISOMERS IN WHOLE WATER SAMPLE (UG/L)	58899
46323	DELTA-BHC IN WHOLE WATER SAMPLE (UG/L)	319868
46326	HEPTACHLOR AND METABOLITES IN WH. H2O SAMP. (UG/L)	76448
46479	CYANIDE, DISSOLVED, WATER (UG/L)	57125
46551	ARSENIC, FIELD ACIDIFIED W/HNO3, LAB FILT. (UG/L)	7440382
46559	CADMIUM, FIELD ACIDIFIED-HNO3-LAB FILTER (UG/L-CD)	7440439
46560	CHROMIUM, FIELD ACIDIFIED-HN03-LAB FILT. (UG/L-CR)	7440473
46562	COPPER, FIELD ACIDIFIED-HNO3-LAB FILTER. (UG/L-CU)	7440508
46564	LEAD, FIELD ACIDIFIED-HNO3-LAB FILTERED (UG/L-PB)	7439921
46566	SILVER, FIELD ACIDIFIED-HNO3-LAB FILTER.(UG/L-AG)	7440224
46567	ZINC, EXTRACT. FIELD ACID W/HNO3, LAB FILT. (UG/L)	7440666
70012	PARACHLOROMETA CRESOL, WATER, WHOLE (LBS/DAY)	59507
70017	HEXACHLOROCYCLOPENTADIENE, WATER, WHOLE (LBS/DAY)	77474
70021	LEAD, (TCLP), WATER, TOTAL (MG/L)	7439921

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
71890	MERCURY, DISSOLVED (UG/L AS HG)	7439976
71895	MERCURY, SUSPENDED (UG/L AS HG)	7439976
71900	MERCURY, TOTAL (UG/L AS HG)	7439976
71901	MERCURY, TOTAL RECOVERABLE IN WATER AS HG (UG/L)	7439976
71946	CADMIUM, EXTRACTABLE (UG/L AS CD)	7440439
71947	CHROMIUM, EXTRACTABLE (UG/L AS CR)	7440473
71949	LEAD, EXTRACTABLE (UG/L AS PB)	7439921
71950	ZINC, EXTRACTABLE (UG/L AS ZN)	7440666
71951	COPPER, EXTRACTABLE (UG/L AS CU)	7440508
73063	CHLOROGUAIACOL,4-, TOTAL, WATER (UG/L)	16766306
73522	PROPANE, 2,2'-OXYBIS(1-CHLORO)- TOTAL (UG/L)	108601
77163	1,3-DICHLOROPROPENE-1, WHOLE WATER (UG/L)	542756
77354	1,1-DICHLORO-2,2-DIFLUOROETHANE WHOLE WATER (UG/L)	471432
77771	3-CHLORO-4-HYDROXYBENZOPHENONE, WHOLE WATER (UG/L)	55191203
78113	ETHYL BENZENE WHOLE WATER SAMPLE (UG/L)	100414
78124	BENZENE IN WATER (VOLATILE ANALYSIS) (UG/L)	71432
78131	TOLUENE IN WHOLE WATER (VOLATILE ANALYSIS) (UG/L)	108883
78208	2,4-DINITRO-O-CRESOL IN WHOLE WATER SAMPLE (UG/L)	534521
78247	CHROMIUM, HEXAVALENT, TOTAL RECOVERABLE, WT (UG/L)	18540299
78248	CYANIDE, TOTAL RECOVERABLE, WATER, WHOLE (UG/L)	57125
80357	CHROMIUM, TRIVALENT, DISSOLVED, AS CR	16065831
81208	CYANIDE, FREE (NOT AMEN. TO CHLORINATION) (MG/L)	57125
81210	CYANIDE - STATE OF ILLINOIS (MG/L)	57125
81214	CADMIUM - STATE OF ILLINOIS (MG/L)-COLD	7440439
81215	CHROMIUM - STATE OF ILLINOIS (MG/L), COLD DIGEST	18540299
81216	CHROMIUM(TRI)-STATE OF ILLINOIS (MG/L)-COLD DIGEST	16065831
81217	CHROMIUM, TOTAL - STATE OF ILLINOIS (MG/L) COLD DIGEST	7440473
81218	COPPER, STATE OF ILLINOIS, MG/L, COLD DIGEST	7440508

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
81220	LEAD, STATE OF ILLINOIS, MG/L, COLD DIGEST	7439921
81222	NICKEL - STATE OF ILLINOIS, MG/L, COLD DIGEST	7440020
81223	SILVER, STATE OF ILLINOIS, MG/L, COLD DIGEST	7440224
81224	ZINC - STATE OF ILLINOIS, MG/L, COLD DIGEST	7440666
81642	SILVER (AG) IN WATER POUNDS PER DAY (LBS/DAY)	7440224
81750	COPPER, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440508
81751	LEAD, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7439921
81752	NICKEL, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440020
81753	CADMIUM, INTERSTITIAL WATER FROM SEDIMENT	7440439
81754	ZINC, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440666
81766	HEPTACHLOR EPOXIDE IN EPILITHIC ALGAE SED. (UG/KG)	1024573
81931	MERCURY (HG) SUSPENDED FRACTION OF WATER (UG/G)	7439976
81932	CADMIUM (CD) SUSPENDED FRACTION OF WATER (UG/G)	7440439
81933	ZINC (ZN) SUSPENDED FRACTION OF WATER (UG/G)	7440666
81934	LEAD (PB) SUSPENDED FRACTION OF WATER (UG/G)	7439921
81936	LEAD (PB) DISSOLVED CATIONIC SPECIES (UG/L)	7439921
81937	CADMIUM (CD) DISSOLVED CATIONIC SPECIES (UG/L)	7440439
81938	CHROMIUM, DISSOLVED CATIONIC SPECIES (UG/L)	7440473
81939	COPPER (CU) DISSOLVED CATIONIC SPECIES (UG/L)	7440508
81940	ZINC (ZN) DISSOLVED CATIONIC SPECIES (UG/L)	7440666
81941	CHROMIUM, DISSOLVED ANIONIC SPECIES (UG/L)	7440473
81942	COPPER (CU) DISSOLVED ANIONIC SPECIES (UG/L)	7440508
81943	ZINC (ZN) DISSOLVED ANIONIC SPECIES (UG/L)	7440666
82058	CHROMIUM, TOTAL, PERCENT REMOVAL	7440473
82399	CHROMIUM, HEXAVALENT (KG/BATCH)	18540299
82512	M,P-DICHLOROBENZENE (MEASURES 1,3&1,4) TOT. (UG/L)	541731
82573	CYANIDE/CHLORINATION IN WATER (MG/L)	57125
82621	HEXACHLOROBENZENE, WATER, TOTAL RECOVER. (UG/L)	118741

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
82622	ENDRIN ALDEHYDE, WH. WATER, TOTAL RECOVER. (UG/L)	7421934
82623	ENDOSULFAN SULFATE, WATER, TOTAL RECOVER. (UG/L)	1031078
82624	ENDOSULFAN, BETA, WH. WATER, TOTAL RECOVER. (UG/L)	33213659
82626	1,2-DIPHENYLHYDRAZINE, WATER, TOTAL RECOVER. (UG/L)	122667
82627	PARACHLOROMETA CRESOL, WATER, TOTAL RECOVER. (UG/L)	59507
85006	ZINC, TOTAL - (#/DAY)	7440666
85007	CHROMIUM, TOTAL (#/DAY)	7440473
85010	NICKEL, TOTAL - (#/DAY)	7440020
85013	MERCURY, TOTAL - (#/DAY)	7439976

Appendix H

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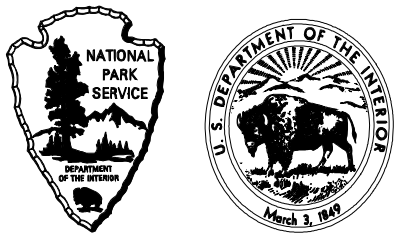
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As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The Department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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