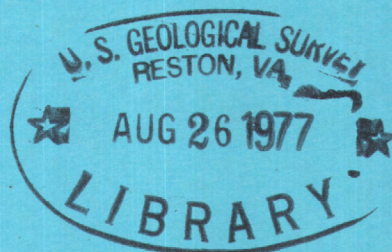


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Water Resources Data for Oklahoma *ma* *nc* Water Year 1976

Volume 1. Arkansas River Basin



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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OK-76-1

Prepared in cooperation with the State of Oklahoma
and with other agencies

CALENDAR FOR WATER YEAR 1976

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Water Resources Data for Oklahoma Water Year 1976

Volume 1. Arkansas River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OK-76-1

**Prepared in cooperation with the State of Oklahoma
and with other agencies**

UNITED STATES DEPARTMENT OF THE INTERIOR

THOMAS S. KLEPPE, Secretary

GEOLOGICAL SURVEY

Cecil D. Andrus, Director

For information on the water program in Oklahoma write to
District Chief, Water Resources Division
U.S. Geological Survey
Rm 621, 201 N.W. 3rd Street
Oklahoma City, Oklahoma 73102

PREFACE

This report was prepared by personnel of the Oklahoma district of the Water Resources Division of the U.S. Geological Survey under the supervision of J. H. Irwin, District Chief, and A. Clebsch, Regional Hydrologist, Central Region. It was done in cooperation with the State of Oklahoma and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Oklahoma are in two volumes as follows:

- Volume 1. Arkansas River Basin
- Volume 2. Red River Basin

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(Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment)

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(Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological,
(m) microbiological, (t) water temperature, (s) sediment)

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WATER RESOURCES DATA FOR OKLAHOMA, 1976

Volume 1, Arkansas River Basin

INTRODUCTION

Water resources data for Oklahoma for the 1975 water year are presented in two volumes, appropriately identified by river basins. Data in each volume consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs. Volumes 1 and 2 of this report contain discharge records for 122 gaging stations; stage and contents for 22 lakes and reservoirs; water quality for 95 gaging stations, and 3 lakes. Also included are data for 44 crest-stage partial-record stations and 1 low-flow partial-record station. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Oklahoma.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia, 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a state-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a state-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, volume 1 of this report is identified as "U.S. Geological Survey Water-Data Report OK-76-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Oklahoma have had cooperative agreements for the systematic collection of streamflow records since 1935, and for water-quality records since 1941. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Oklahoma Water Resources Board, Gerald E. Borelli, Chairman, succeeded by W. Earl Walker; Forrest Nelson, executive director.

Oklahoma Department of Highways, Richard A. Ward, Director.

Oklahoma City Water Department, Charles Baker, Director of water services.

Oklahoma State Department of Health, Environmental Health Services, Loyd F. Pummill, chief.

Oklahoma Pollution Control Coordinating Board, James F. Lovell, Chairman; Denver Talley, executive director.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 83 gaging stations and 29 water-quality stations published in this report. Assistance for 3 gaging stations and 5 water-quality stations was furnished by the Bureau of Reclamation, U.S. Department of the Interior. Also furnishing assistance was the Environmental Protection Agency.

The following organizations aided in collecting records:

Grand River Dam Authority; Central Oklahoma Master Conservancy District; Fort Cobb Reservoir Master Conservancy District; Lugert-Altus Irrigation District; Foss Reservoir Master Conservancy District; the cities of Ada, Altus, Edmond, Guthrie, Lawton, Shawnee, and Tulsa; the Department of Transportation, Federal Highway Administration; and the Agricultural Research Service, U.S. Department of Agriculture.

Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

Streamflow for the first six months of the 1976 water year was near normal due to rains in prior years; however, lack of runoff from rainfall gave evidence of the beginnings of a drought. Because of normal streamflow, reservoir contents remained near normal during this period. Normal runoff continued in April except in northeast Oklahoma where excessive runoff was experienced. A new peak of 27 years of record occurred at Baron Fork at Eldon (recurrence interval, 20 years). Other stations in the area had peaks in the range of 2 to 7 recurrence intervals. Flow was above normal in May in the northwest section for the first time in three years. Mingo and Joe Creeks in Tulsa experienced a flood which was within the top five rises in 75 years. Three deaths occurred, 1,980 homes were flooded, and damage was in the millions. Another major flood occurred in July in the City of Pryor, causing damage in excess of one million dollars. The second highest peak since 1939 occurred at Spring River near Quapaw on July 3. Except for these isolated heavy runoff areas, streamflow remained at or below normal. Drought conditions had become serious for the north-central area by the end of the year. Monthly and annual mean discharge is compared with median at Washita River near Durwood in Figure 2.

Reservoir contents were below the previous year at the year's end but were near average for the year. The exception was Keystone Lake in North-central Oklahoma, which was only 69 percent of normal at year's end.

Dissolved solids in the streams was higher than normal at the first of the water year and remained higher throughout the year. Drought conditions were responsible, in part, for this situation. At Washita River near Durwood highest mean monthly specific conductance (for a 31-year period) occurred for the months of October, November, December, July, and August and was at least fourth highest for every month except September. Monthly and annual mean specific conductance is compared with the mean monthly and annual specific conductance at Washita River near Durwood in figure 3. A study of figures 2 and 3 show that while there was less than normal flow, there was higher than normal specific conductivity.

Ground-water levels were below average throughout the year and below the levels of last year. There was a general rising trend during April to July and a general decline thereafter. Some water levels in the Oklahoma Panhandle and in central Oklahoma reached an all time low this year with records up to 20 years in the panhandle and 33 years in central Oklahoma.

DEFINITION OF TERMS

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

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

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

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

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C \pm 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C \pm 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C \pm 1.0°C on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

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

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

Bottom material: See Bed material.

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

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

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

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

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

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

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

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

Cubic foot per second (FT³/s, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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

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

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

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (coloidal) suspended particles. Analyses are performed on filtered samples.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

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

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

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

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

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

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

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

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

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

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

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

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

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

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

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

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

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

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

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

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

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

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

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

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

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

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

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

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

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

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

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

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

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

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

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

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

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

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

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

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

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

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

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

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

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

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

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

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

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

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

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

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

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

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

DOWNSTREAM ORDER AND STATION NUMBER

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

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

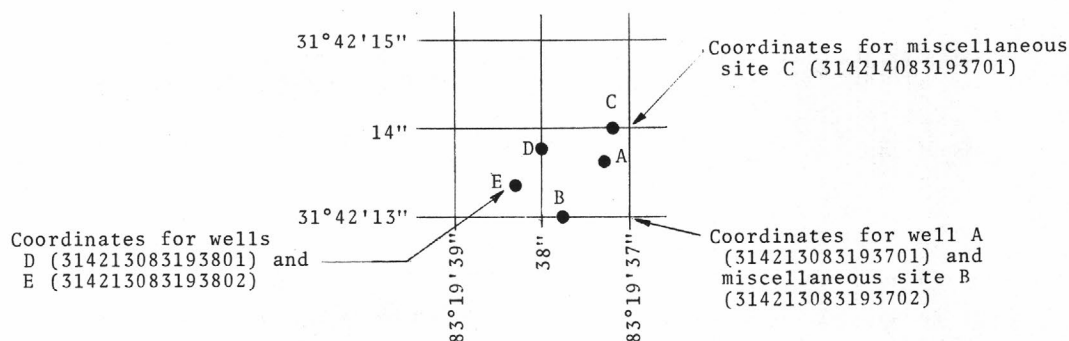


Figure 1. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

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

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

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

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

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

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

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

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

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

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD".

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges are revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

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

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations. A continuing record station is a specific site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperatures

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

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

Sediment

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

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

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

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 1.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

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

PUBLICATIONS ON TECHNIQUES OF WATER RESOURCES INVESTIGATIONS

Thirty-three manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigation."

- 1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H.H. Stevens Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1976. 65 pages. \$1.60.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. \$0.85.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. \$1.90.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. \$1.75.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. \$1.00.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. \$0.20.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. \$0.40.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. \$0.35.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. \$0.30.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. \$0.20.
- 3-A7. *Stage measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$0.45.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. \$1.25.
- 3-A11. *Measurement of discharge by moving-boat method*, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. \$0.40.
- 3-A12. *Fluorometric procedures for dye tracing*, by J.F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. \$0.35. Not currently available.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. \$0.70.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. \$2.50.
- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. \$0.65.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. \$2.50.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. \$1.15.
- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. \$0.30.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$0.20.
- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. \$0.65.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. \$0.75.
- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. \$0.65.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. \$0.65.
- 5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M.W. Skougstad, and M.J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. \$2.40.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. \$0.80.
- 5-A3. *Methods for analysis of organic substances in water*, by D.F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. \$0.90.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by K.V. Slack, R.C. Averett, P.E. Greeson, and R.G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. \$2.85.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. \$0.65.

- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. \$2.30.
- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8. Chapter A1. 1968. 23 pages. \$0.70.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. \$0.40.

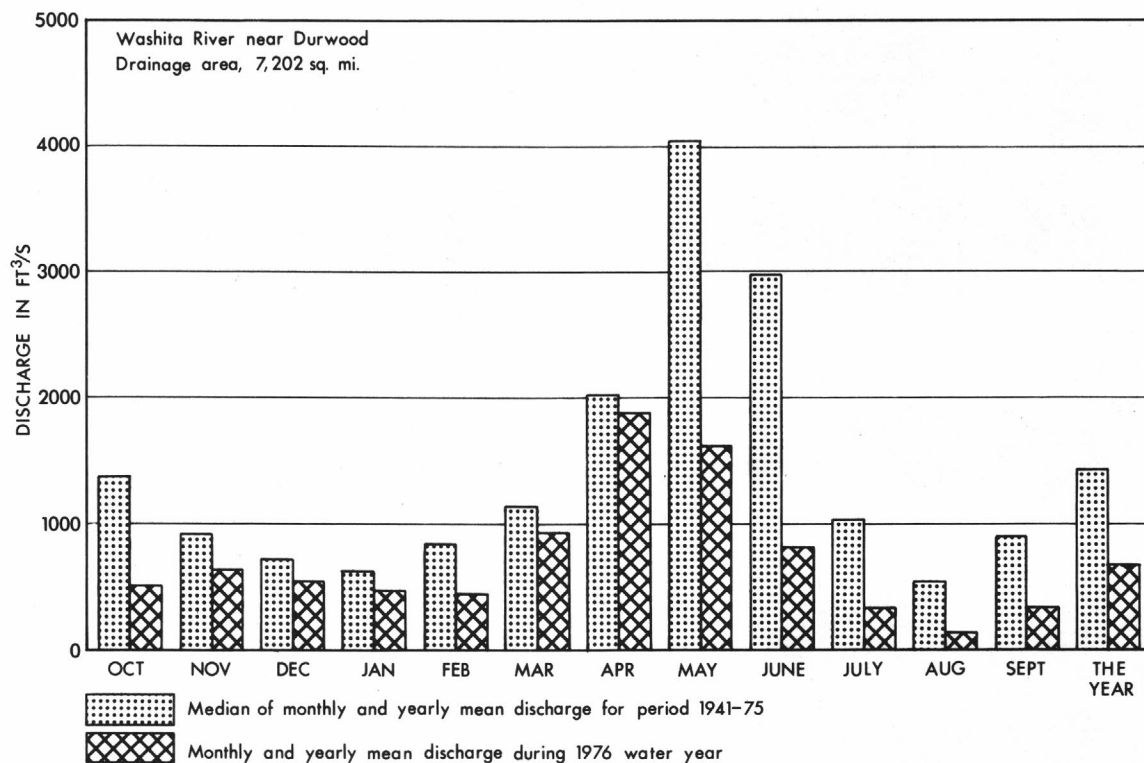


FIGURE 2.--Discharge during 1976 water year compared with median discharge for period 1941-75 for one representative gaging station.

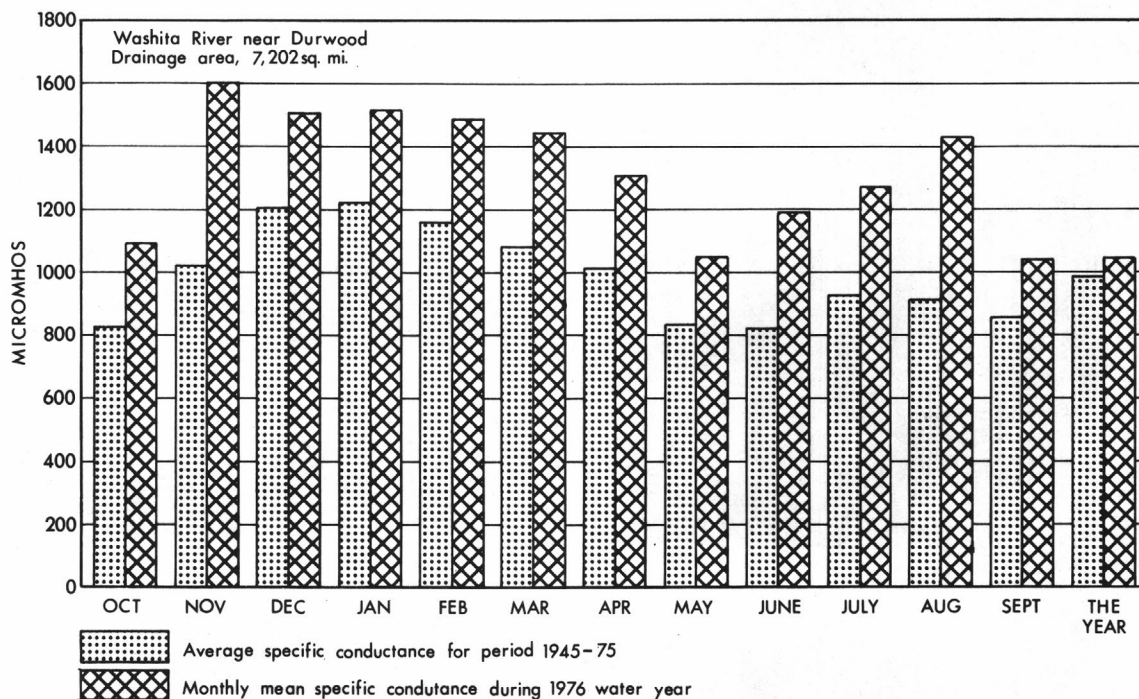


FIGURE 3.--Specific conductance during 1976 water year compared with average specific conductance for period 1945-75 at one site.

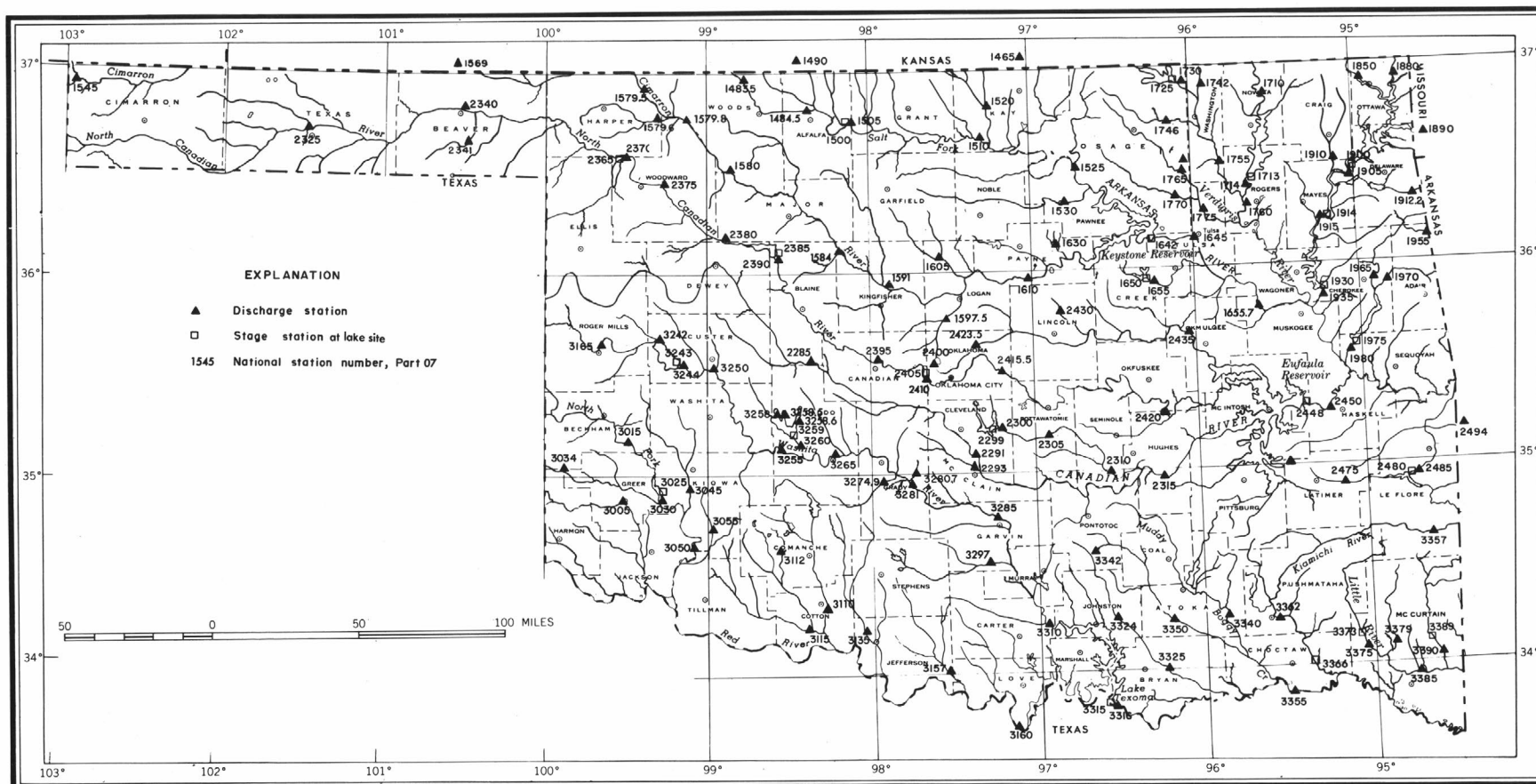


Figure 4.--Map of Oklahoma showing location of continuous-record surface-water stations, water year 1976.

Figure 5.-- Map of Oklahoma showing location of partial record stations, water year 1976.

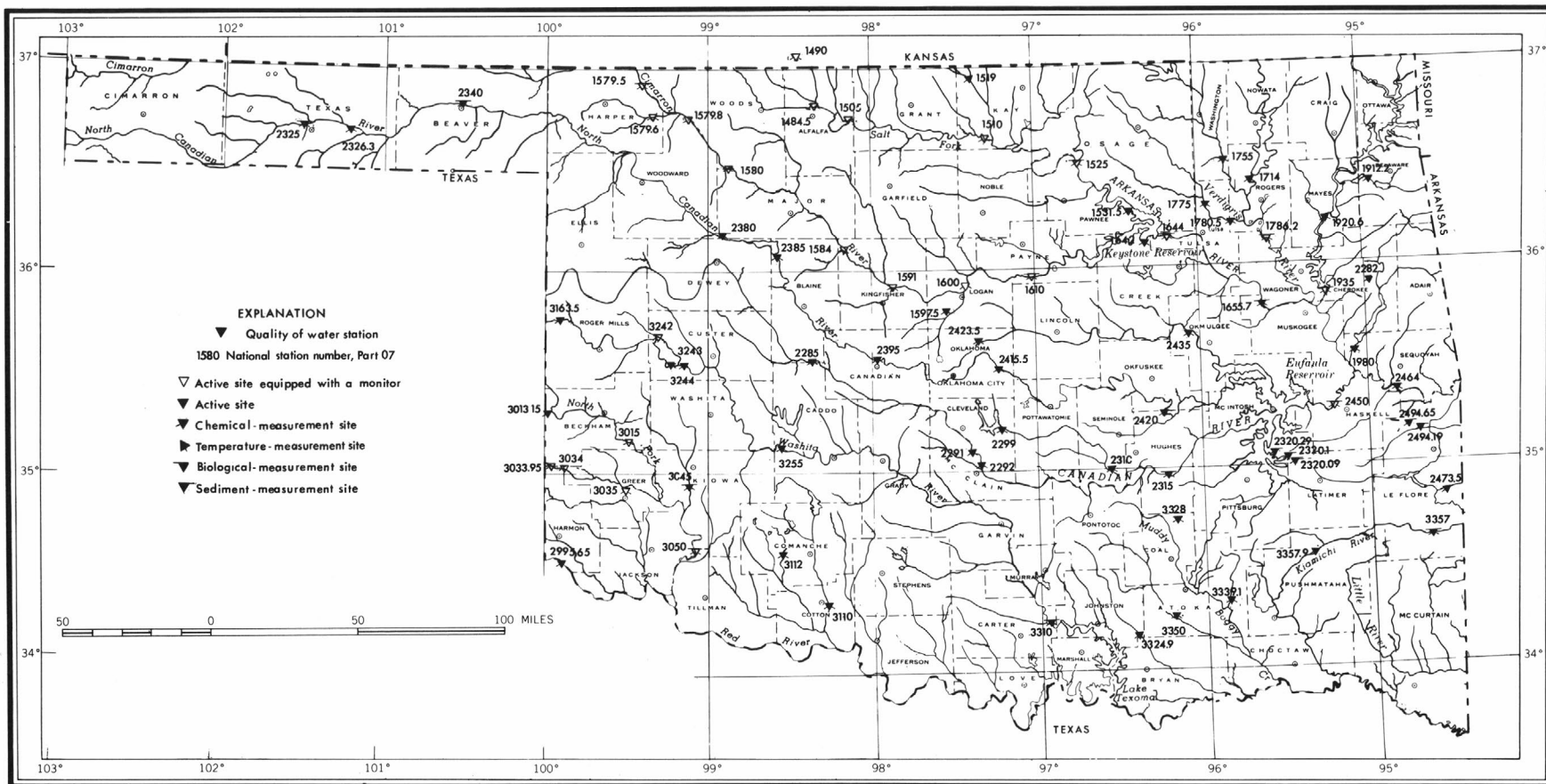


Figure 6.-- Map of Oklahoma showing location of water-quality stations, water year 1976.

GAGING STATION RECORDS

ARKANSAS RIVER BASIN

07148130 KAW LAKE NEAR PONCA CITY, OK

LOCATION.--Lat 36°41'58", long 96°55'18", in NW 1/4 SW 1/4 sec.30, T.26 N., R.4 E., Osage County, 1,700 ft (518 m) east of centerline of spillway on dam on Arkansas River, about 8 miles (13 km) east of Ponca City, and at mile 653.7 (1,051.8 km).

DRAINAGE AREA.--46,530 mi² (120,513 km²), of which 7,607 mi² (19,702 km²) is probably noncontributing.

PERIOD OF RECORD.--April to September 1976.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to July 8, 1976, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by a rolled, earthfill dam. Spillway is concrete, gravity ogee-wier type controlled by 8, 50 foot (15.2 m) taintor gates. Outlet works consist of two sluice gates. Regulated storage began April 22, 1976; conservation pool first filled July 6, 1976. Capacity, 1,348,000 acre-ft (1.66 km³), at elevation 1,044.5 ft (318.36 m), top of flood control pool, 428,600 acre-ft (528 hm³), at elevation 1,010.0 ft (307.85 m), top of conservation pool, and 250,700 acre-ft (309 hm³), at elevation 997.5 ft (304.04 m), crest of controlled spillway. Dead storage 85,100 acre-ft (105 hm³) below elevation 978.0 ft (298.09 m). Figures given herein represent total contents. Reservoir is designed for flood control, water quality control, recreation, fish and wildlife, water supply, and power.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum contents during period April to September, 482,000 acre-ft (594 hm³) July 7, elevation, 1,013.00 ft (308.762 m); minimum since conservation pool first filled, 236,100 acre-ft (291 hm³) Aug. 3, elevation, 996.23 ft (303.651 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

996	233,500	1005	349,400
999	268,800	1009	411,800
1002	307,300	1013	482,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	132800	200400	197100	236700	238100
2							---	147000	199300	219000	236400	238000
3							---	160100	195900	270600	236600	237800
4							---	172700	192700	348600	237000	238000
5							---	176700	189300	395500	238000	238100
6							---	177100	181600	465900	238700	238000
7							---	175500	179700	481600	239200	238400
8							---	177300	178800	465000	239700	238100
9							---	180600	177300	443300	240200	237700
10							---	184500	177300	417300	240400	237300
11							---	188800	177800	392800	240700	237300
12							---	188800	177800	369600	240700	237200
13							---	188800	177800	347600	240000	237100
14							---	189300	178000	327300	240000	237500
15							---	189300	178300	308800	240000	237700
16							---	185400	178600	293000	240000	240000
17							0	185000	178700	277100	239900	240800
18							0	182400	178600	266300	239600	241200
19							0	181600	178900	256800	239200	242400
20							0	180000	181000	252900	238900	242400
21							0	178300	183000	249000	238600	242600
22							8550	177800	183500	244100	238500	243100
23							10560	177800	183600	241700	238100	244000
24							13650	177800	184700	241300	237800	244100
25							17190	178300	186600	240700	238000	245000
26							19870	182100	189700	239900	238300	245400
27							22280	198300	191800	238900	238500	245500
28							27070	204600	192800	237700	238100	245700
29							47020	206800	194800	237500	237900	246200
30							96090	203700	195800	237500	237800	247500
31							---	202300	---	237500	237800	---
MAX				---			---	206800	200400	481600	240700	247500
MIN				---			---	132800	177300	197100	236400	237100
†							979.90	993.10	992.45	996.35	996.38	997.22
‡								+106,210	-6,500	+41,700	+300	+9,700

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

21

07148350 SALT FORK ARKANSAS RIVER NEAR WINCHESTER, OK

LOCATION.--Lat 36°57'45", long 98°46'55", in NE 1/4 SE 1/4 sec.26, T.29 N., R.15 W., Woods County, near left bank on downstream side of pier of county road bridge, 1 mi (1.6 km) northeast of Winchester, 2.5 mi (4.0 km) upstream from Greenwood Creek, 4.9 mi (7.9 km) downstream from Yellowstone Creek, 5 mi (8.0 km) downstream from State line, 19 mi (30.6 km) northwest of Alva, and at mile 156.2 (251.3 km).

DRAINAGE AREA.--856 mi² (2,220 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year. Monthly discharge only for some periods, published in WSP 1731.

REVISED RECORDS.--WSP 1731: Drainage area. WSP 1921: 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,409.6 ft (429.6 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--17 years, 87.4 ft³/s (2.475 m³/s), 63,320 acre-ft/yr (78.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,000 ft³/s (1,473 m³/s) Aug. 19, 1961, gage height, 13.95 ft (4.252 m), from rating curve extended above 17,400 ft³/s (493 m³/s); no flow at times in 1961, 1964-72.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1957 reached a stage of 15.4 ft (4.69 m), from information by county engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,740 ft³/s (77.6 m³/s) Apr. 29, gage height, 8.94 ft (2.725 m), no peak above base of 5,000 ft³/s (142 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	2.2	33	42	30	27	25	460	84	5.2	.24	0
2	.58	369	34	29	30	29	26	416	76	9.3	.20	0
3	.55	77	38	35	31	28	26	376	67	12	.16	0
4	.52	46	37	44	30	36	26	371	62	9.3	.16	0
5	.50	35	37	44	20	54	28	379	57	8.9	.12	0
6	.47	28	33	48	31	63	28	741	53	8.4	.12	0
7	.43	24	33	53	34	55	28	989	53	7.7	.08	0
8	.42	25	34	49	39	54	30	456	49	6.5	.08	0
9	.38	25	36	51	41	58	32	415	43	5.7	0	0
10	.48	26	36	58	40	50	29	676	40	4.4	0	0
11	.46	26	36	58	35	45	27	870	37	3.8	0	0
12	.41	25	35	65	34	42	29	1230	33	3.0	0	0
13	.38	24	38	58	33	39	27	749	29	2.6	0	0
14	.64	23	47	80	33	37	27	378	24	2.1	0	0
15	.52	24	43	53	36	35	29	247	21	1.9	1.6	49
16	.54	25	40	60	35	34	66	193	19	1.6	.84	14
17	.51	26	31	49	34	33	797	162	18	1.6	.36	7.5
18	.58	26	25	42	32	31	436	142	27	1.5	.30	4.1
19	.59	36	31	37	30	32	169	125	20	1.3	.23	4.5
20	.53	39	40	34	30	28	1440	114	15	1.1	.17	4.2
21	.49	29	39	43	27	27	668	107	12	.85	.12	3.9
22	.48	30	40	35	26	27	343	129	11	.80	.06	3.8
23	.50	31	41	34	29	27	214	185	11	.59	.01	3.5
24	.48	30	42	33	30	26	165	197	9.8	.59	0	3.5
25	.55	23	42	32	28	27	123	140	9.5	.48	0	3.5
26	.60	19	41	30	26	23	94	131	8.8	.40	0	22
27	.64	30	41	31	26	23	85	147	8.0	.36	0	23
28	.58	33	40	32	27	24	1180	148	6.9	.36	0	21
29	.59	41	40	36	27	25	1550	116	5.9	.28	0	11
30	.62	41	39	32	---	24	623	94	5.1	.28	0	7.0
31	.70	---	37	31	---	24	---	88	---	.28	0	---
TOTAL	16.42	1238.2	1159	1358	904	1087	8370	10971	915.0	103.17	4.85	185.5
MEAN	.53	41.3	37.4	43.8	31.2	35.1	279	354	30.5	3.33	.16	6.18
MAX	.70	369	47	80	41	63	1550	1230	84	12	1.6	49
MIN	.38	2.2	25	29	20	23	25	88	5.1	.28	0	0
AC=FT	33	2460	2300	2690	1790	2160	16600	21760	1810	205	9.6	368
CAL YR 1975	TOTAL	32573.99	MEAN 89.2	MAX 4080	MIN .30	AC=FT	64610					
WTR YR 1976	TOTAL	26312.14	MEAN 71.9	MAX 1550	MIN 0	AC=FT	52190					

ARKANSAS RIVER BASIN

07148350 SALT FORK ARKANSAS RIVER NEAR WINCHESTER, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-62, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1960 to September 1961.

WATER TEMPERATURES: June 1960 to September 1961.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV												
05...	1028	9740	1100	35	2800	7.9	16.0	35	9.2	101	37	810
DEC												
10...	1028	9740	0945	36	2200	8.4	3.0	15	--	--	16	860
JAN												
07...	1028	9740	0845	53	3200	8.1	.0	150	11.8	84	31	--
FEB												
04...	1028	9740	0845	30	2100	7.9	1.0	5	13.6	104	25	840
MAR												
03...	1028	9740	0930	28	2100	8.1	7.0	2	13.2	118	62	1000
APR												
07...	1028	9740	0800	28	2600	8.1	13.5	7	9.3	98	12	--
MAY												
05...	1028	9740	0800	379	1800	8.3	14.0	50	8.9	95	24	710
JUN												
30...	1028	9740	0930	5.1	--	8.2	24.0	1	8.3	105	41	1230
JUL												
28...	1028	9740	1200	.36	3500	8.0	31.0	1	10.9	154	8	1220
SEP												
30...	1028	9740	1500	7.0	2800	8.1	29.5	24	7.4	100	13	1110

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHURUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
05...	390	780	52	150	6.9	220	.4	2000	.80	.07	5
DEC											
10...	--	--	--	200	4.8	310	--	1730	1.5	.16	--
JAN											
07...	460	920	84	260	8.6	440	.4	2210	1.9	.16	--
FEB											
04...	330	690	49	160	4.8	310	.4	1540	.30	.01	2
MAR											
03...	240	910	46	210	4.8	320	.4	1660	<.30	<.00	--
APR											
07...	140	41	63	--	8.7	420	.4	1810	.40	<.08	--
MAY											
05...	230	580	34	120	6.0	240	.5	1310	.70	<.08	5
JUN											
30...	370	920	71	240	6.7	380	.5	2400	.90	<.08	--
JUL											
28...	390	840	80	210	7.5	290	.4	2360	1.4	<.08	--
SEP											
30...	378	985	79	144	7.6	204	.5	2100	.50	<.10	--

ARKANSAS RIVER BASIN

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07148350 SALT FORK ARKANSAS RIVER NEAR WINCHESTER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHMU- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
05...	<10	10	30	2500	60	160	--	40	--	<10	48
DEC											
10...	--	--	--	200	--	60	--	--	--	--	--
JAN											
07...	--	--	--	2900	--	100	--	--	--	--	--
FEB											
04...	<10	6	10	300	20	54	--	10	--	<10	<10
MAR											
03...	--	--	--	400	--	120	--	--	--	--	--
APR											
07...	--	--	--	100	--	110	--	--	--	--	--
MAY											
05...	<10	10	10	500	10	90	<.5	20	3	<10	20
JUN											
30...	--	--	--	100	--	320	--	--	--	--	--
JUL											
28...	--	--	--	100	--	90	--	--	--	--	--
SEP											
30...	--	--	--	300	--	412	--	--	--	--	--

ARKANSAS RIVER BASIN

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK

LOCATION.--Lat 36°49'18", long 98°21'35", in SW 1/4 NW 1/4, sec.14, T.27 N., R.11 W., Alfalfa County, on downstream right bank near end of bridge on State Highways 8 and 58, 2.0 mi (3.2 km) upstream from Medicine Lodge River, 2.5 mi (4.0 km) northeast of Ingersoll and at mile 120.3 (194 km).

DRAINAGE AREA.--1,140 mi² (2,953 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1961 to September 1962, October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,170.30 ft (356.707 m) above mean sea level (State Highway Department bench mark).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,340 ft³/s (151 m³/s) Oct. 12, 1973, gage height, 11.5 ft (3.51 m) from graph of wire-weight reading; minimum daily, 0.30 ft³/s (0.008 m³/s) Sept. 5, 6, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,040 ft³/s (86.1 m³/s) May 13, gage height, 8.38 ft (2.554 m), no peak above base of 5,000 ft³/s (142 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	1.8	50	30	34	34	30	602	127	27	0	0
2	5.4	51	45	30	34	34	30	423	117	23	.10	0
3	5.1	516	37	18	34	33	30	333	103	18	.01	0
4	4.5	151	36	20	34	33	30	256	98	15	0	0
5	4.2	100	35	18	34	33	29	212	92	14	0	0
6	3.9	79	34	18	25	35	29	170	86	12	0	0
7	3.6	69	34	17	23	59	28	727	84	9.5	0	0
8	3.6	58	33	16	31	64	28	722	81	7.7	0	0
9	3.0	53	30	20	32	64	28	381	76	6.1	0	0
10	2.5	49	29	28	36	59	29	285	79	5.0	0	0
11	1.9	45	28	36	39	59	32	589	65	4.5	0	0
12	1.6	42	27	40	40	58	33	890	58	3.9	0	0
13	1.5	40	26	40	37	51	35	2000	52	3.3	0	0
14	1.8	40	26	31	36	45	36	920	47	2.8	0	0
15	1.5	40	31	35	35	43	33	530	44	2.3	0	0
16	1.3	40	33	36	35	43	37	383	41	2.1	0	0
17	.84	40	31	43	36	39	109	304	37	1.7	0	.07
18	.70	40	21	49	36	39	884	246	34	1.4	0	0
19	.70	45	26	46	36	39	444	204	35	1.0	0	0
20	.56	50	26	42	36	40	706	169	36	.59	0	6.0
21	.42	51	25	38	36	40	1150	151	31	.32	0	4.4
22	.35	51	29	36	35	38	624	400	29	.04	0	.18
23	.07	45	29	34	35	38	409	231	27	0	0	0
24	.07	42	29	34	34	37	284	214	25	0	0	0
25	.14	40	29	34	34	35	201	230	24	0	0	.02
26	.14	34	30	33	34	34	162	214	22	0	0	4.2
27	.07	32	30	30	34	33	135	202	20	0	0	24
28	.21	36	30	29	34	32	188	191	18	0	0	13
29	.28	37	30	30	34	31	1290	180	17	0	0	11
30	.35	38	30	33	---	30	1110	169	16	0	0	4.8
31	1.0	---	30	34	---	30	---	143	---	0	0	---
TOTAL	56.40	1955.8	959	978	993	1282	8193	12671	1621	161.25	.11	67.67
MEAN	1.82	65.2	30.9	31.5	34.2	41.4	273	409	54.0	5.20	.004	2.26
MAX	5.4	516	50	49	40	64	1290	2000	127	27	.10	24
MIN	.07	1.8	21	16	23	30	28	143	16	0	0	0
AC=FT	112	3880	1900	1940	1970	2540	16250	25130	3220	320	.2	134

CAL YR 1975 TOTAL 49434.90 MEAN 135 MAX 3340 MIN .07 AC=FT 98050
WTR YR 1976 TOTAL 28938.23 MEAN 79.1 MAX 2000 MIN 0 AC=FT 57400

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1961 to September 1962, October 1973 to current year.

WATER TEMPERATURE: October 1961 to September 1962, October 1973 to current year.

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,260 micromhos Aug. 27, 1976; minimum daily, 560 micromhos Sept. 17-24, 1962.

WATER TEMPERATURE: Maximum, 35.0°C July 9, 1975; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,260 micromhos Aug. 27; minimum daily, 663 micromhos Apr. 30.

WATER TEMPERATURE: Maximum daily, 32.5°C July 20; minimum daily, 0.0°C Nov. 25, Dec. 15, Jan. 4, 11, 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
02...	--	--	1630	--	23	2190	8.0	--	--	--	--	--
12...	--	--	1700	--	12	2650	8.1	--	--	--	--	--
30...	--	--	1700	--	4.5	2500	7.9	--	--	--	--	--
NOV												
03...	--	--	1745	--	304	1620	7.7	--	--	--	--	--
05...	1028	9740	1245	100	111	2000	7.9	16.0	110	9.0	99	52
14...	--	--	1045	--	40	2250	8.3	--	--	--	--	--
21...	--	--	1715	--	52	2390	8.2	--	--	--	--	--
DEC												
01...	--	--	1630	--	52	2460	7.9	--	--	--	--	--
10...	1028	9740	0830	29	29	2200	8.3	4.0	25	--	--	16
16...	--	--	1700	--	33	2320	8.1	--	--	--	--	--
24...	--	--	1330	--	29	2190	8.1	--	--	--	--	--
JAN												
04...	--	--	1415	--	25	2570	8.1	--	--	--	--	--
07...	1028	9740	1015	17	--	2900	8.0	0	10	3.4	24	11
20...	--	--	1230	--	42	2010	8.2	--	--	--	--	--
28...	--	--	1700	--	29	2300	8.1	--	--	--	--	--
FEB												
04...	1028	9740	1100	34	34	2300	8.5	1.0	5	14.6	110	290
05...	--	--	1730	--	34	2260	8.2	--	--	--	--	--
14...	--	--	1700	--	36	2320	8.4	--	--	--	--	--
29...	--	--	1615	--	34	2360	8.5	--	--	--	--	--
MAR												
03...	1028	9740	1130	33	33	2100	7.1	8.0	2	13.6	124	--
08...	--	--	1745	--	64	1740	8.0	--	--	--	--	--
30...	--	--	1800	--	30	2460	8.1	--	--	--	--	--
APR												
03...	--	--	1700	--	30	2450	8.2	--	--	--	--	--
06...	1028	9740	1415	29	29	2400	8.5	23.0	6	9.5	120	--
08...	--	--	1730	--	28	2440	8.1	--	--	--	--	--
30...	--	--	0815	--	1090	663	7.3	--	--	--	--	--
MAY												
04...	1028	9740	1415	256	251	1500	8.2	19.5	75	8.5	100	24
08...	--	--	0830	--	730	770	7.5	--	--	--	--	--
15...	--	--	1915	--	474	1520	7.7	--	--	--	--	--
20...	--	--	1400	--	167	2080	8.0	--	--	--	--	--
JUN												
02...	--	--	0815	--	109	2120	7.9	--	--	--	--	--
09...	--	--	1745	--	73	2370	8.1	--	--	--	--	--
20...	--	--	1915	--	34	2490	8.2	--	--	--	--	--
29...	1028	9740	1500	17	17	2540	8.4	35.0	5	7.2	106	28
JUL												
02...	--	--	1300	--	28	1460	7.7	--	--	--	--	--
05...	--	--	2015	--	14	2250	7.8	--	--	--	--	--
AUG												
02...	--	--	1730	--	.14	2490	7.4	--	--	--	--	--
SEP												
21...	--	--	1045	--	4.5	2870	7.6	--	--	--	--	--
29...	1028	9740	1130	11	11	2200	8.0	15.5	0	9.6	99	55

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)
OCT											
02...	980	840	280	67	130	22	1.8	8.8	161	0	132
12...	1200	950	330	86	160	22	2.0	23	273	0	224
30...	1100	950	310	83	140	21	1.8	18	202	0	166
NOV											
03...	930	850	320	32	23	5	.3	8.7	103	0	84
05...	--	--	--	--	--	--	--	--	--	--	--
14...	1000	870	320	60	140	22	1.9	6.5	213	0	175
21...	1000	880	310	62	170	26	2.3	6.0	182	0	149
DEC											
01...	1000	900	310	66	170	26	2.3	7.9	183	0	150
10...	--	--	--	--	--	--	--	--	--	--	--
16...	960	790	290	58	--	--	--	6.3	207	0	170
24...	900	730	270	55	140	25	2.0	6.5	210	0	172
JAN											
04...	1100	880	320	70	170	25	2.2	5.2	257	0	211
07...	--	--	--	--	--	--	--	--	--	--	--
20...	800	630	230	54	120	25	1.9	3.9	206	0	169
28...	900	730	260	61	170	29	2.5	4.3	208	0	171
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	900	740	270	55	160	28	2.3	4.4	201	0	165
14...	880	730	260	57	170	29	2.5	4.8	192	0	157
29...	860	720	250	57	180	31	2.7	4.9	164	3	140
MAR											
03...	--	--	--	--	--	--	--	--	--	--	--
08...	720	580	220	43	100	23	1.6	3.5	171	0	140
30...	900	770	270	56	210	33	3.0	5.1	169	0	139
APR											
03...	890	760	260	59	210	34	3.1	5.3	159	0	130
06...	--	--	--	--	--	--	--	--	--	--	--
08...	870	740	250	60	210	34	3.1	5.3	165	0	135
30...	270	170	89	12	30	19	.8	3.7	128	0	105
MAY											
04...	--	--	--	--	--	--	--	--	--	--	--
08...	290	180	93	13	37	22	1.0	3.9	125	0	103
15...	740	600	240	35	67	16	1.1	5.5	181	0	148
20...	920	770	290	47	140	25	2.0	5.5	182	0	149
JUN											
02...	880	760	260	56	150	27	2.2	5.3	151	0	124
09...	890	760	260	59	190	32	2.8	5.8	161	0	132
20...	1000	860	290	70	190	29	2.6	6.5	191	0	157
29...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	590	490	170	40	92	25	1.7	5.2	118	0	97
05...	960	810	270	70	140	24	2.0	6.3	190	0	156
AUG											
02...	1100	910	300	77	170	25	2.3	20	189	0	155
SEP											
21...	1300	1000	340	100	210	26	2.6	46	278	0	228
29...	--	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
02...	2.6	890	170	--	1690	2.30	105	.69	--	--	--
12...	3.5	880	260	--	2030	2.76	65.8	1.6	--	--	--
30...	4.1	910	230	--	1910	2.60	23.2	1.9	--	--	--
NOV											
03...	3.3	870	24	--	1420	1.93	1170	.96	--	--	--
05...	--	--	--	.3	--	--	--	--	2.1	.30	13
14...	1.7	850	180	--	1760	2.39	190	.66	--	--	--
21...	1.8	870	230	--	1830	2.49	257	.82	--	--	--
DEC											
01...	3.7	--	260	--	1770	2.41	249	.96	--	--	--
10...	--	--	--	.3	--	--	--	--	1.6	.08	--
16...	2.6	820	230	--	1800	2.45	160	.97	--	--	--
24...	2.7	750	--	--	1650	2.24	129	.93	--	--	--
JAN											
04...	3.3	810	240	--	1940	2.64	131	1.0	--	--	--
07...	--	--	--	.4	--	--	--	--	3.1	.32	--
20...	2.1	650	180	--	1480	2.01	168	.95	--	--	--
28...	2.6	730	230	--	1710	2.33	134	1.1	--	--	--
FEB											
04...	--	--	--	.3	--	--	--	--	.90	.22	2
05...	2.0	730	230	--	1660	2.26	152	.89	--	--	--
14...	1.2	720	250	--	1680	2.28	163	.70	--	--	--
29...	.9	710	270	--	1730	2.35	159	.38	--	--	--
MAR											
03...	--	--	--	.4	--	--	--	--	1.2	.14	--
08...	2.7	600	160	--	1310	1.78	226	.62	--	--	--
30...	2.1	780	280	--	1850	2.52	150	.22	--	--	--
APR											
03...	1.6	770	320	--	1830	2.49	148	.24	--	--	--
06...	--	--	--	.4	--	--	--	--	.50	.18	--
08...	2.1	780	290	--	1840	2.50	139	.17	--	--	--
30...	10	190	36	--	464	.63	1370	.82	--	--	--
MAY											
04...	--	--	--	.4	--	--	--	--	.50	.11	7
08...	6.3	200	50	--	506	.69	997	.76	--	--	--
15...	5.8	600	96	--	1160	1.58	1490	.31	--	--	--
20...	2.9	730	210	--	1590	2.16	717	.36	--	--	--
JUN											
02...	3.0	730	220	--	1780	2.42	524	.31	--	--	--
09...	2.0	790	280	--	1800	2.45	355	.29	--	--	--
20...	1.9	910	270	--	1900	2.58	174	.15	--	--	--
29...	--	--	--	.5	--	--	--	--	.80	.15	--
JUL											
02...	3.6	490	120	--	1080	1.47	81.6	.27	--	--	--
05...	4.8	820	190	--	1780	2.42	67.3	1.2	--	--	--
AUG											
02...	12	890	250	--	1950	2.65	.74	1.6	--	--	--
SEP											
21...	11	990	370	--	2330	3.17	28.3	2.2	--	--	--
29...	--	--	--	.3	--	--	--	--	3.6	.24	--

ARKANSAS RIVER BASIN

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
NOV											
03...	--	--	--	--	--	--	--	--	--	--	--
05...	<10	5	40	--	30	750	--	40	--	<10	--
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
DEC											
01...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	400	--	45	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
JAN											
04...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	100	--	76	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	<10	9	<10	1000	20	37	--	10	--	<10	<10
05...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
MAR											
03...	--	--	--	400	--	55	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	100	--	25	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	<10	20	10	1800	10	330	<.5	20	6	<10	20
08...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	300	--	38	--	--	--	--	--
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
AUG											
02...	--	--	--	--	--	--	--	--	--	--	--
SEP											
21...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	1100	--	815	--	--	--	--	--

ARKANSAS RIVER BASIN

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07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2210	2240	2450	2270	2290	2330	2430	987	2260	1600		---
2	2190	1930	2260	2290	2280	2270	2400	1010	2120	1790	2560	---
3	2200	1610	2250	2440	2290	2280	2450	1320	2230	2020	2650	---
4	2260	1910	2270	2570	2330	2280	2420	1610	2240	2180		---
5	2310	1970	2290	2280	2250	2260	2420	1600	2270	2270		---
6	2310	2020	2290	2220	2260	2220	2420	1380	2290	2230		---
7	2340	2120	2330	---	2280	2080	2360	1400	2360	2230		---
8	2340	2150	2340	---	2310	1770	2430	778	2360	2260		---
9	2470	2160	2310	---	2320	1880	2430	1100	2370	2210		---
10	2490	2230	2310	---	2320	1910	2420	1080	2280	2180		---
11	2560	2240	2330	2180	2320	1950	2280	1270	2410	2180		---
12	2650	2280	2320	2170	2310	1990	2320	1180	2490	2150		---
13	2630	2250	2310	2070	2310	2190	2330	1110	2420	2140		---
14	2460	2250	2350	2170	2320	2190	2320	1110	2440	2170		---
15	2500	2280	2330	2340	2320	2200	2220	1520	2420	2190		---
16	2490	2280	2300	2290	2270	2250	2230	1520	2440	2200		---
17	2530	2280	2310	---	2320	2170	2210	1850	2450	2180		---
18	2460	2320	2420	---	2410	2090	1330	1940	2420	2200		---
19	2470	1900	2260	2020	2390	2010	1310	2020	2390	2180		---
20	2510	2090	2240	2010	2290	1980	1250	2080	2490	2220		---
21	2510	2370	---	2020	2330	2350	877	1160	2470	2310		817
22	2560	2360	---	2050	2320	2340	952	1150	2390	2300		2610
23	2570	2340	2280	2110	2310	2370	972	2030	2410	2130		---
24	2630	2330	2190	2130	2320	2400	1240	2020	2360	---		2470
25	2560	2310	---	2150	2330	2390	1550	2020	2360	---		2480
26	2540	2330	---	2180	2350	2430	1600	1760	2330	---		1700
27	2480	2270	2240	2210	2270	2400	1640	2020	2340	---		---
28	2520	2220	2260	2260	2170	2420	1650	2030	2300	---		1690
29	2590	2240	---	2270	2340	2420	655	1930	2290	---		1700
30	2510	2290	---	2310	---	2420	653	1950	2340	---		1760
31	2420	---	2260	2360	---	2370	---	2000	---	---		---
MONTH	2460	2190	2300	2210	2310	2210	1860	1550	2360	---	---	---
YEAR	MAX	2650	MIN	653	MEAN	2150						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.5	7.5	3.5	11.0	15.0	19.0	14.0	21.0	27.5		---
2	21.0	---	11.5	1.5	10.5	13.0	21.5	15.0	21.5	24.0	26.0	---
3	21.0	15.0	12.0	2.0	10.0	14.0	20.5	16.0	27.5	26.0	23.0	---
4	21.0	17.0	14.0	0.0	2.5	12.0	21.0	17.0	27.0	21.0		---
5	12.0	17.0	14.5	1.0	1.0	10.0	15.5	16.0	20.5	21.0		---
6	13.0	18.0	8.5	2.0	1.5	13.0	23.0	18.0	21.0	27.0		---
7	14.0	17.5	8.0	---	2.0	---	19.0	17.5	26.0	21.0		---
8	17.0	17.0	8.5	---	3.0	7.0	22.0	14.5	21.0	21.0		---
9	21.0	16.0	10.0	---	5.0	12.0	21.5	16.5	29.0	26.0		---
10	22.0	14.0	6.0	---	5.5	17.0	23.5	17.0	30.5	22.0		---
11	22.5	14.0	6.0	0.0	5.0	11.5	22.5	16.5	31.0	31.0		---
12	22.0	10.0	6.5	0.0	6.0	5.0	19.0	17.0	25.0	30.0		---
13	23.0	10.5	13.5	2.5	---	7.0	23.0	16.5	31.5	30.5		---
14	18.5	7.0	7.0	3.0	7.5	7.5	26.0	20.0	30.5	31.0		---
15	17.0	15.0	0.0	7.0	8.5	9.0	23.0	21.0	23.0	32.0		---
16	19.0	16.0	0.5	7.5	12.0	14.5	22.0	18.0	29.0	31.5		---
17	17.0	16.5	0.5	7.0	10.0	12.0	22.5	23.0	30.0	22.0		---
18	20.0	17.5	2.5	7.5	8.0	20.0	25.0	23.0	26.0	31.0		---
19	23.0	11.5	3.5	6.5	14.5	19.0	16.5	24.0	17.0	22.5		---
20	21.0	5.0	4.5	4.0	15.5	16.0	14.5	24.0	24.0	32.5		---
21	18.0	5.0	3.0	4.5	12.0	19.0	16.0	20.0	26.0	32.0		19.0
22	23.0	7.5	3.5	5.0	9.5	8.0	21.5	25.0	24.0	31.5		23.5
23	19.5	6.0	3.0	5.0	10.5	18.5	24.0	25.0	22.5	31.0		24.0
24	14.0	5.5	4.0	5.5	12.0	22.0	22.0	21.5	25.0	24.0		24.5
25	14.0	0.0	3.0	10.0	14.0	23.0	17.0	23.5	19.0	---		23.5
26	15.0	0.5	1.0	8.0	15.0	14.5	14.0	19.5	24.0	---		23.5
27	18.5	---	1.5	4.0	17.0	19.0	15.0	20.0	25.0	---		23.0
28	17.5	0.5	3.5	6.0	20.0	20.0	11.0	20.5	23.0	---		22.0
29	18.0	6.0	4.5	8.0	21.0	15.0	13.0	20.5	29.0	---		24.0
30	17.0	1.0	5.0	11.0	---	17.0	12.0	22.0	28.5	---		25.5
31	18.0	---	7.0	11.5	---	18.0	---	26.0	---	---		---
MONTH	18.5	11.0	6.0	5.0	9.5	14.5	19.5	19.5	25.5	---	---	---
YEAR	MAX	32.5	MIN	0.0	MEAN	16.0						

ARKANSAS RIVER BASIN

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	740	750	810	760	760	770	800	310	750	560		---
2	730	660	750	760	760	760	790	320	710	620	540	---
3	730	560	750	800	760	760	810	450	740	680	871	---
4	750	650	760	840	770	760	800	560	750	730		---
5	770	670	760	760	750	750	800	560	760	760		---
6	770	680	760	740	750	740	800	470	760	740		---
7	780	710	770	---	760	700	780	480	780	740		---
8	780	720	780	---	770	610	800	230	780	750		---
9	810	720	770	---	770	640	800	360	780	740		---
10	820	740	770	---	770	650	800	350	760	730		---
11	840	750	770	730	770	660	760	430	800	730		---
12	870	760	770	730	770	670	770	390	820	720		---
13	860	750	770	700	770	730	770	360	800	720		---
14	810	750	780	730	770	730	770	360	800	730		---
15	820	760	770	780	770	730	740	530	800	730		---
16	820	760	760	760	760	750	740	530	800	730		---
17	830	760	770	---	770	730	740	630	810	730		---
18	810	770	800	---	800	700	450	660	800	730		---
19	810	650	750	680	790	680	440	680	790	730		---
20	830	700	750	680	760	670	420	700	820	740		---
21	830	780	---	680	770	780	270	380	810	770		240
22	840	780	---	690	770	780	300	380	790	760		850
23	840	780	760	710	770	780	310	690	800	710		---
24	860	770	730	710	770	790	410	680	780	---		810
25	840	770	---	720	770	790	540	680	780	---		820
26	830	770	---	730	780	800	560	610	770	---		590
27	820	760	750	740	760	790	570	680	780	---		---
28	830	740	750	750	730	800	570	690	760	---		590
29	850	750	---	760	780	800	180	660	760	---		590
30	830	760	---	770	---	800	180	660	780	---		610
31	800	---	750	780	---	780	---	680	---	---		---
MONTH	810	730	760	740	770	740	620	520	780	---	---	---
YEAR	MAX	870	MIN	180	MEAN	720						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.40	3.01	93.1	51.0	57.8	59.7	55.1	341	213	29.9		---
2	8.75	71.6	75.3	51.0	57.8	57.8	54.3	240	183	29.2	.23	---
3	8.26	571	61.9	33.0	57.8	56.1	55.9	288	170	26.2	.02	---
4	7.53	208	61.2	38.9	59.7	56.1	55.1	283	164	24.3		---
5	7.26	143	59.5	30.6	56.9	55.2	53.2	235	156	23.8		---
6	6.74	115	57.8	29.6	41.8	57.6	53.2	151	146	19.8		---
7	6.32	108	59.7	---	39.1	89.2	49.9	667	150	15.6		---
8	6.32	92.4	57.9	---	53.6	79.5	51.4	273	144	12.9		---
9	5.59	84.4	51.8	---	55.3	86.4	51.4	247	135	10.0		---
10	4.72	80.7	50.1	---	62.2	81.2	53.2	185	134	8.10		---
11	3.69	75.3	49.1	58.3	67.4	82.8	54.4	477	118	7.29		---
12	3.24	71.4	46.7	63.7	69.1	83.0	57.0	649	110	6.21		---
13	3.00	67.0	44.9	60.5	63.9	82.6	61.4	1350	95.5	5.17		---
14	3.35	67.0	45.6	49.4	62.2	72.9	62.2	621	86.3	4.46		---
15	2.83	68.0	54.4	61.4	60.5	69.7	54.4	544	80.8	3.73		---
16	2.46	68.0	57.0	61.2	59.5	72.0	60.9	393	75.3	3.40		---
17	1.61	68.0	53.6	---	62.2	62.1	180	402	68.9	2.75		---
18	1.30	69.1	38.6	---	65.1	60.0	764	345	62.4	2.27		---
19	1.30	62.0	43.5	67.1	65.1	56.9	372	297	63.3	1.62		---
20	1.07	76.9	43.5	61.2	61.2	57.2	553	256	68.0	.97		---
21	.81	90.9	---	55.4	63.2	70.2	528	106	57.8	.55		1.78
22	.68	90.9	---	53.5	60.5	66.7	320	281	52.5	.07		.36
23	.14	79.0	49.3	52.3	60.5	67.7	221	343	48.8	0		---
24	.14	73.7	47.0	53.2	58.8	66.9	222	312	44.5	---		0
25	.27	69.1	---	54.2	59.7	63.3	212	335	42.8	---		.04
26	.27	59.7	---	53.5	59.7	62.4	179	266	38.6	---		4.99
27	.13	54.4	50.2	49.4	57.8	59.7	153	295	35.1	---		---
28	.40	59.3	50.2	48.5	54.2	58.8	213	284	31.1	---		15.4
29	.55	61.9	---	51.0	59.7	56.9	418	253	28.9	---		13.1
30	.67	64.6	---	57.0	---	55.1	360	237	28.1	---		5.96
31	1.84	---	50.2	60.6	---	53.5	---	208	---	---		---
MONTH	3.21	95.8	54.1	52.2	59.0	66.4	186	360	94.4	---	---	---
YEAR	MAX	1350	MIN	0	MEAN	99.8						

ARKANSAS RIVER BASIN

07148450 SALT FORK ARKANSAS RIVER NEAR INGERSOLL, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	210	250	220	220	230	250	69	220	120		---
2	210	160	220	220	220	220	240	71	190	140	269	---
3	210	120	220	250	220	220	250	96	210	180	284	---
4	220	160	220	270	230	220	240	120	210	200		---
5	230	170	220	220	220	220	240	120	220	220		---
6	230	180	220	210	220	210	240	100	220	210		---
7	230	190	230	---	220	190	230	100	230	210		---
8	230	200	230	---	230	130	250	51	230	220		---
9	250	200	230	---	230	150	250	78	240	210		---
10	260	210	230	---	230	160	240	76	220	200		---
11	270	210	230	200	230	160	220	92	240	200		---
12	280	220	230	200	230	170	230	85	260	200		---
13	280	220	230	190	230	210	230	79	240	200		---
14	250	220	230	200	230	210	230	79	250	200		---
15	260	220	230	230	230	210	210	110	240	210		---
16	260	220	220	220	220	220	210	110	250	210		---
17	260	220	230	---	230	200	210	150	250	200		---
18	250	230	240	---	240	190	97	160	240	210		---
19	250	160	220	180	240	170	96	180	240	200		---
20	260	190	210	170	220	170	91	190	260	210		---
21	260	240	---	180	230	230	59	83	250	230		54
22	270	230	---	180	230	230	66	82	240	220		280
23	270	230	220	190	230	240	67	180	240	200		---
24	280	230	210	200	230	240	90	180	230	---		250
25	270	230	---	200	230	240	120	180	230	---		260
26	270	230	---	200	230	250	120	130	230	---		130
27	260	220	210	210	220	240	120	180	230	---		---
28	260	210	220	220	200	240	120	180	220	---		130
29	270	210	---	220	230	240	41	160	220	---		130
30	260	220	---	230	---	240	41	160	230	---		130
31	240	---	220	230	---	240	---	170	---	---		---
MONTH	250	210	220	210	230	210	170	120	230	---	---	---
YEAR	MAX	280	MIN	41	MEAN	200						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.89	1.02	33.7	17.8	20.2	21.1	20.2	112	75.4	8.75		---
2	3.06	22.0	26.7	17.8	20.2	20.2	19.4	81.1	60.0	8.69	.07	---
3	2.89	167	22.0	12.2	20.2	19.6	20.2	86.3	58.4	8.75	.01	---
4	2.67	65.2	21.4	14.6	21.1	19.6	19.4	82.9	55.6	8.10		---
5	2.61	45.9	20.8	10.7	20.2	19.6	18.8	68.7	54.6	8.32		---
6	2.42	38.4	20.2	10.2	14.9	19.8	18.8	45.9	51.1	6.80		---
7	2.24	35.4	21.1	---	13.7	30.3	17.4	196	52.2	5.39		---
8	2.24	31.3	20.5	---	19.3	22.5	18.9	99.4	50.3	4.57		---
9	2.02	28.6	18.6	---	19.9	25.9	18.9	80.2	49.2	3.46		---
10	1.75	27.8	18.0	---	22.4	25.5	18.8	58.5	46.9	2.70		---
11	1.39	25.5	17.4	19.4	24.2	25.5	19.0	146	42.1	2.43		---
12	1.21	24.9	16.8	21.6	24.8	26.6	20.5	204	40.7	2.11		---
13	1.13	23.8	16.1	20.5	23.0	28.9	21.7	427	33.7	1.78		---
14	1.21	23.8	16.1	16.7	22.4	25.5	22.4	196	31.7	1.51		---
15	1.05	23.8	19.3	21.7	21.7	24.4	18.7	157	28.5	1.30		---
16	.91	23.8	19.6	21.4	20.8	25.5	21.0	114	27.7	1.19		---
17	.59	23.8	19.3	---	22.4	21.1	61.8	123	25.0	.92		---
18	.47	24.8	13.6	---	23.3	20.0	232	106	22.0	.79		---
19	.47	19.4	15.4	22.4	23.3	17.9	115	99.1	22.7	.54		---
20	.39	25.6	14.7	19.3	21.4	18.4	173	86.7	25.3	.33		---
21	.29	33.0	---	18.5	22.4	24.8	183	33.8	20.9	.20		.64
22	.26	31.7	---	17.5	21.7	23.6	111	88.6	18.8	.02		.14
23	.05	27.9	17.2	17.4	21.7	24.6	74.0	112	17.5	0		---
24	.05	26.1	16.4	18.4	21.1	24.0	69.0	104	15.5	---		0
25	.10	24.8	---	18.4	21.1	22.7	65.1	112	14.9	---		.01
26	.10	21.1	---	17.8	21.1	22.9	52.5	75.1	13.7	---		1.47
27	.05	19.0	17.0	17.0	20.2	21.4	43.7	98.2	12.4	---		---
28	.15	20.4	17.8	17.2	18.4	20.7	60.9	92.8	10.7	---		4.56
29	.20	21.0	---	17.8	21.1	20.1	143	77.8	10.1	---		3.86
30	.25	22.6	---	20.5	---	---	123	73.0	9.94	---		1.68
31	.65	---	17.8	21.1	---	19.4	---	65.6	---	---		---
MONTH	1.15	31.6	19.1	17.9	21.0	22.6	60.7	113	33.3	---	---	---
YEAR	MAX	427	MIN	0	MEAN	32.9						

ARKANSAS RIVER BASIN

07148450 SALT FORK ARKANSAS RIVER NEAR INGEROLL, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C.), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1680	1700	1870	1730	1740	1770	1850	725	1720	1200		---
2	1660	1460	1720	1740	1730	1730	1830	743	1610	1350	1950	---
3	1670	1210	1710	1860	1740	1730	1870	985	1700	1530	2410	---
4	1720	1450	1730	1960	1770	1730	1840	1210	1700	1660		---
5	1760	1490	1740	1730	1710	1720	1840	1200	1730	1730		---
6	1760	1530	1740	1690	1720	1690	1840	1030	1740	1700		---
7	1780	1610	1770	---	1730	1580	1800	1050	1800	1700		---
8	1780	1630	1780	---	1760	1340	1850	562	1800	1720		---
9	1880	1640	1760	---	1770	1420	1850	813	1800	1680		---
10	1900	1700	1760	---	1770	1450	1840	798	1730	1660		---
11	1950	1700	1770	1660	1770	1480	1730	946	1840	1660		---
12	2020	1730	1770	1650	1760	1510	1770	876	1900	1630		---
13	2010	1710	1760	1570	1760	1660	1770	821	1840	1620		---
14	1870	1710	1790	1650	1770	1660	1770	821	1860	1650		---
15	1910	1730	1770	1780	1770	1670	1690	1140	1840	1660		---
16	1900	1730	1750	1740	1730	1710	1700	1140	1860	1670		---
17	1930	1730	1760	---	1770	1650	1680	1400	1870	1660		---
18	1870	1770	1840	---	1840	1590	993	1470	1840	1670		---
19	1880	1440	1720	1530	1820	1520	977	1530	1820	1660		---
20	1910	1590	1700	1520	1740	1500	930	1580	1900	1690		---
21	1910	1800	---	1530	1770	1790	639	860	1880	1760		592
22	1950	1800	---	1550	1770	1780	698	852	1820	1750		1990
23	1960	1780	1730	1600	1760	1800	713	1540	1840	1620		---
24	2010	1770	1660	1620	1770	1830	922	1530	1800	---		1880
25	1950	1760	---	1630	1770	1820	1160	1530	1800	---		1890
26	1940	1770	---	1660	1790	1850	1200	1330	1770	---		1280
27	1890	1730	1700	1680	1730	1830	1230	1530	1780	---		---
28	1920	1690	1720	1720	1650	1840	1240	1540	1750	---		1270
29	1980	1700	---	1750	1780	1840	466	1460	1740	---		1280
30	1910	1740	---	1760	---	1840	464	1480	1780	---		1330
31	1840	---	1720	1800	---	1800	---	1520	---	---		---
MONTH	1870	1660	1750	1680	1760	1680	1410	1160	1800	---	---	---
YEAR	MAX	2020	MIN	464	MEAN	1630						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.1	8.26	252	140	160	162	150	1180	590	87.5		---
2	24.2	201	209	141	159	159	148	849	509	83.8	.53	---
3	23.0	1690	171	90.4	160	154	151	886	473	74.4	.07	---
4	20.9	591	168	106	162	154	149	836	450	67.2		---
5	20.0	402	164	84.1	157	153	144	687	430	65.4		---
6	18.5	326	160	82.1	116	160	144	473	404	55.1		---
7	17.3	300	162	---	107	252	136	2060	408	43.6		---
8	17.3	255	159	---	147	232	140	1100	394	35.8		---
9	15.2	235	143	---	153	245	140	836	369	27.7		---
10	12.8	225	138	---	172	231	144	614	369	22.4		---
11	10.0	207	134	161	166	236	149	1500	323	20.2		---
12	8.73	196	129	178	190	236	158	2110	298	17.2		---
13	8.14	185	124	170	176	229	167	4430	258	14.4		---
14	9.09	185	126	138	172	202	172	2040	236	12.5		---
15	7.74	187	148	168	167	194	151	1630	219	10.3		---
16	6.67	187	156	169	163	199	170	1180	206	9.47		---
17	4.38	187	147	---	172	174	494	1150	187	7.62		---
18	3.53	191	104	---	179	167	2370	976	169	6.31		---
19	3.55	175	121	190	177	160	1170	843	172	4.48		---
20	2.89	215	119	172	169	162	1770	721	185	2.69		---
21	2.17	248	---	157	172	193	1980	351	157	1.52		7.03
22	1.84	248	---	151	167	183	1180	920	143	.19		.97
23	.37	216	135	147	166	185	787	960	134	0		---
24	.38	201	130	149	162	183	707	884	121	---		0
25	.74	190	---	150	162	172	630	950	117	---		.10
26	.73	162	---	148	164	170	525	768	105	---		14.5
27	.36	149	138	136	159	163	448	834	96.1	---		---
28	1.09	164	139	135	151	159	629	794	85.0	---		44.6
29	1.50	170	---	140	163	154	1620	710	79.9	---		38.0
30	1.80	179	---	157	---	149	1390	675	76.9	---		17.2
31	4.97	---	139	165	---	146	---	587	---	---		---
MONTH	8.80	269	149	145	162	184	604	1110	259	---	---	---
YEAR	MAX	4430	MIN	0	MEAN	298						

ARKANSAS RIVER BASIN

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07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS

LOCATION.--Lat 37°02'17", long 98°28'04", in SE¼SW¼ sec.36, T.34 S., R.11 W., Barber County, Hydrologic Unit 11060003, at downstream side of bridge on State Highway 14, 200 ft (61 m) downstream from the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.5 mi (2.4 km) northeast of Kiowa, and at mile 22.2 (35.7 km).

DRAINAGE AREA.--903 mi² (2,340 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1895 to October 1896, October 1937 to September 1950, October 1954 to September 1955, June 1959 to current year. Published as Medicine River near Kiowa 1895-96. All figures of discharge above 2,000 ft³/s (57 m³/s) for June and July 1896, published in Eighteenth Annual Report of the Geological Survey (Part 4), have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1391: 1938(M), 1942(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,286.99 ft (382.275 m) above mean sea level (levels by Corps of Engineers). May 1895 to October 1896, nonrecording gage at site 2.0 mi (3.2 km) upstream at different datum. Feb. 11 to Mar. 2, 1938, nonrecording gage and Mar. 3, 1938, to Sept. 30, 1944, water-stage recorder at present site at datum 3.00 ft (0.914 m) higher. Oct. 1, 1944, to Sept. 30, 1950, and Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site and datum.

REMARKS.--Records good, except those for winter periods, which are poor.

AVERAGE DISCHARGE.--31 years (1937-50, 1954-55, 1959-76), 140 ft³/s (3.965 m³/s), 101,400 acre-ft/yr (125 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) Oct. 22, 1941, gage height, 11.75 ft (3.581 m), present datum; maximum gage height, 12.10 ft (3.688 m) Oct. 12, 1973; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of May 8, 1922, and June 1957 reached stages of about 16 ft (4.9 m) and 15.5 ft (4.7 m), respectively, present site and datum, from the Atchison, Topeka and Santa Fe Railway Co. records and information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,960 ft³/s (83.8 m³/s) Apr. 30, gage height, 8.60 ft (2.621 m), no peak above base of 3,700 ft³/s (104 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	54	100	98	82	68	74	666	148	24	7.5	0
2	29	303	98	92	80	72	74	566	142	88	9.5	0
3	32	215	94	75	82	74	72	402	138	746	13	0
4	34	150	90	55	78	84	66	330	134	303	12	0
5	32	120	90	65	76	114	70	282	130	170	12	0
6	29	104	86	80	55	128	68	488	128	126	11	0
7	28	98	88	95	50	118	66	534	120	100	28	0
8	26	94	88	120	92	116	68	314	110	86	10	.22
9	25	94	88	122	96	110	66	263	100	68	7.0	0
10	25	92	88	140	90	112	64	412	98	56	5.3	0
11	25	88	86	164	78	112	68	251	90	48	3.9	0
12	24	80	86	198	76	108	66	236	82	42	7.5	0
13	23	80	90	178	74	100	70	224	72	34	10	1.0
14	24	84	108	158	70	96	70	210	62	30	7.5	0
15	26	86	110	152	72	96	72	195	56	29	14	3.2
16	29	86	104	132	72	96	88	184	48	36	8.5	2.2
17	34	88	96	124	68	96	287	174	46	46	5.3	5.2
18	36	88	75	108	66	92	720	162	52	32	4.6	13
19	38	96	90	96	66	88	286	154	52	25	3.6	19
20	40	116	112	88	64	86	271	150	48	24	2.8	20
21	38	118	108	84	64	78	1590	184	38	20	2.2	20
22	34	106	102	80	66	76	807	218	34	17	1.8	19
23	36	104	100	76	68	72	338	208	36	15	1.8	18
24	40	104	100	74	70	72	239	190	38	14	.75	17
25	42	94	98	74	72	72	195	176	36	13	0	17
26	44	82	94	78	70	72	166	176	30	12	0	19
27	46	106	92	80	70	72	156	218	25	12	0	26
28	46	122	94	88	72	70	605	266	20	13	0	32
29	46	130	94	86	68	72	2520	210	22	12	0	34
30	46	118	96	84	---	72	1660	182	23	11	0	34
31	48	---	98	82	---	74	---	164	---	9.5	0	---
TOTAL	1050	3300	2943	3226	2107	2774	10962	8389	2158	2261.5	189.55	299.82
MEAN	33.9	110	94.9	104	72.7	89.5	365	271	71.9	73.0	6.11	9.99
MAX	48	303	112	198	96	128	2520	666	148	746	28	34
MIN	23	54	75	55	50	68	64	150	20	9.5	0	0
AC-FT	2080	6550	5840	6400	4180	5500	21740	16640	4280	4490	376	595

CAL YR 1975 TOTAL 45335.00 MEAN 124 MAX 1390 MIN 12 AC-FT 89920
WTR YR 1976 TOTAL 39659.87 MEAN 108 MAX 2520 MIN .00 AC-FT 78670

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-57, 1960-62, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1954 to September 1955, October 1973 to current year.

WATER TEMPERATURE: October 1954 to September 1955, October 1973 to current year.

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,590 micromhos Sept. 17, 1976; minimum daily, 359 micromhos Aug. 17, 1974.

WATER TEMPERATURE: Maximum, 33.0°C Aug. 10, 1974 and Aug. 6, 1975; minimum 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,590 micromhos Sept. 17; minimum daily, 396 micromhos July 4.

WATER TEMPERATURE: Maximum daily, 31.5°C Aug. 17; minimum daily, 0.5°C Dec. 17, Feb. 6, 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
UCT											
01...	--	--	0950	25	1100	8.2	--	--	--	--	--
17...	--	--	1130	34	1040	8.3	--	--	--	--	--
31...	--	--	1045	48	944	8.2	--	--	--	--	--
NOV											
02...	--	--	1030	303	680	8.2	--	--	--	--	--
05...	1028	9740	0930	120	1000	7.3	17.0	36	--	--	45
09...	--	--	1020	94	951	8.7	--	--	--	--	--
27...	--	--	1100	106	1120	8.5	--	--	--	--	--
DEC											
01...	--	--	1245	100	903	8.4	--	--	--	--	--
10...	1028	9740	1030	88	900	8.7	5.0	18	--	--	4
18...	--	--	1230	75	1080	8.2	--	--	--	--	--
30...	--	--	1125	96	954	8.3	--	--	--	--	--
JAN											
05...	--	--	1530	65	1150	8.3	--	--	--	--	--
15...	1028	9740	1500	152	850	8.2	1.0	10	>20.0	--	24
15...	--	--	1730	152	791	8.4	--	--	--	--	--
29...	--	--	0915	86	939	8.3	--	--	--	--	--
FEB											
04...	1028	9740	1000	78	850	8.5	1.0	5	15.0	113	365
06...	--	--	1100	55	1060	8.2	--	--	--	--	--
10...	--	--	1045	90	892	8.4	--	--	--	--	--
22...	--	--	1310	66	932	8.2	--	--	--	--	--
MAR											
03...	1028	9740	1030	74	675	8.0	7.0	3	13.4	120	--
05...	--	--	1015	114	861	8.2	--	--	--	--	--
07...	--	--	1130	118	1010	8.1	--	--	--	--	--
29...	--	--	1100	72	938	8.5	--	--	--	--	--
APR											
06...	1028	9740	1615	68	900	8.4	22.5	15	8.5	106	--
11...	--	--	0615	68	924	7.8	--	--	--	--	--
27...	--	--	1245	156	1080	8.1	--	--	--	--	--
30...	--	--	1100	1660	448	7.7	--	--	--	--	--
MAY											
01...	--	--	1050	666	774	7.7	--	--	--	--	--
04...	1028	9740	1545	330	1100	8.1	19.0	53	8.5	99	24
06...	--	--	1400	488	1190	8.0	--	--	--	--	--
28...	--	--	1820	266	1340	8.2	--	--	--	--	--
JUN											
08...	--	--	1115	110	1150	8.2	--	--	--	--	--
15...	--	--	1115	56	1280	8.1	--	--	--	--	--
28...	--	--	0945	20	1370	8.1	--	--	--	--	--
29...	1028	9740	1745	22	1400	8.5	33.0	3	6.9	98	18
JUL											
04...	--	--	1200	303	396	7.6	--	--	--	--	--
13...	--	--	0945	34	1080	8.0	--	--	--	--	--
28...	1028	9740	1330	13	1300	8.4	32.0	5	10.6	151	5
31...	--	--	0930	9.5	1370	8.0	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHMS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
AUG											
03...	--	--	0915	13	1380	7.7	--	--	--	--	--
15...	--	--	1130	14	876	7.5	--	--	--	--	--
23...	--	--	1100	1.8	1540	7.5	--	--	--	--	--
SEP											
17...	--	--	1020	5.2	1590	7.6	--	--	--	--	--
20...	--	--	1100	20	1240	7.7	--	--	--	--	--
28...	--	--	1020	32	1040	7.8	--	--	--	--	--
29...	1028	9740	1415	34	1100	8.3	21.5	2	9.1	106	9
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
OCT											
01...	360	210	100	27	78	32	1.8	4.2	181	0	148
17...	370	180	110	23	68	28	1.5	4.3	229	0	188
31...	330	170	97	22	62	29	1.5	4.0	204	0	167
NOV											
02...	250	120	72	17	38	23	1.0	24	159	0	130
05...	--	--	--	--	--	--	--	--	--	--	--
09...	360	150	110	21	62	27	1.4	5.3	245	4	208
27...	430	200	130	25	78	28	1.6	4.5	281	0	230
DEC											
01...	360	160	110	20	53	24	1.2	11	242	0	198
10...	--	--	--	--	--	--	--	--	--	--	--
18...	430	200	130	25	100	33	2.1	4.1	278	0	228
30...	360	150	110	20	59	26	1.4	3.5	254	0	208
JAN											
05...	420	190	120	28	78	29	1.7	3.7	271	0	222
15...	--	--	--	--	--	--	--	--	--	--	--
15...	310	130	92	19	43	23	1.1	3.0	218	0	179
29...	370	160	110	22	53	24	1.2	3.4	248	0	203
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
06...	400	170	120	25	69	27	1.5	3.4	279	0	229
10...	360	160	110	21	56	25	1.3	3.3	244	0	200
22...	320	160	90	22	58	28	1.4	3.3	192	0	157
MAR											
03...	--	--	--	--	--	--	--	--	--	--	--
05...	330	160	98	20	50	25	1.2	3.1	208	0	171
07...	370	170	110	22	71	29	1.6	4.5	237	0	194
29...	370	180	110	22	63	27	1.4	3.6	222	0	182
APR											
06...	--	--	--	--	--	--	--	--	--	--	--
11...	340	160	100	22	60	27	1.4	3.6	218	0	179
27...	450	250	140	25	60	22	1.2	4.9	247	0	203
30...	170	81	54	8.9	17	17	.6	5.5	110	0	90
MAY											
01...	300	160	91	18	37	21	.9	5.8	171	0	140
04...	--	--	--	--	--	--	--	--	--	--	--
06...	520	300	160	29	64	21	1.2	5.0	262	0	215
28...	580	390	180	32	81	23	1.5	4.8	233	0	191
JUN											
08...	450	280	130	30	74	26	1.5	4.7	205	0	168
15...	480	320	140	32	91	29	1.8	5.2	202	0	166
28...	490	330	140	34	99	30	1.9	5.5	198	0	162
29...	--	--	--	--	--	--	--	--	--	--	--
JUL											
04...	160	51	53	7.6	17	18	.6	6.8	137	0	112
13...	380	210	110	26	75	30	1.7	5.8	209	0	171
28...	--	--	--	--	--	--	--	--	--	--	--
31...	470	300	130	35	110	33	2.2	5.9	205	0	168
AUG											
03...	450	310	120	37	110	34	2.3	5.5	168	0	138
15...	300	200	85	21	59	29	1.5	11	120	0	98
23...	530	340	150	37	110	31	2.1	6.2	234	0	192
SEP											
17...	540	380	140	46	130	34	2.4	6.9	196	0	161
20...	400	260	110	31	96	34	2.1	5.4	170	0	139
28...	380	230	110	26	77	30	1.7	4.3	189	0	155
29...	--	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
01...	1.8	240	100	--	679	.92	45.8	.09	--	--	--
17...	1.8	210	88	--	663	.90	60.9	.00	--	--	--
31...	2.1	190	76	--	580	.79	75.2	.11	--	--	--
NOV											
02...	1.6	140	56	--	459	.62	376	1.1	--	--	--
05...	--	--	--	.4	--	--	--	--	1.5	.14	5
09...	.8	180	75	--	602	.82	153	.55	--	--	--
27...	1.4	240	96	--	721	.98	206	1.5	--	--	--
DEC											
01...	1.5	170	77	--	597	.81	161	1.2	--	--	--
10...	--	--	--	--	--	--	--	--	1.2	.11	--
18...	2.8	210	84	--	712	.97	144	1.2	--	--	--
30...	2.0	180	72	--	613	.83	159	1.2	--	--	--
JAN											
05...	2.2	220	100	--	743	1.01	130	1.4	--	--	--
15...	--	--	--	.4	--	--	--	--	1.4	.12	--
15...	1.4	130	56	--	499	.68	205	1.3	--	--	--
29...	2.0	180	69	--	604	.82	140	1.2	--	--	--
FEB											
04...	--	--	--	.4	--	--	--	--	1.5	.09	2
06...	2.8	220	82	--	679	.92	101	1.2	--	--	--
10...	1.6	170	61	--	563	.77	137	1.3	--	--	--
22...	1.9	180	72	--	506	.69	90.2	.92	--	--	--
MAR											
03...	--	--	--	.4	--	--	--	--	1.1	.04	--
05...	2.1	160	63	--	535	.73	165	.94	--	--	--
07...	3.0	210	89	--	644	.88	205	1.2	--	--	--
29...	1.1	190	70	--	601	.82	117	.76	--	--	--
APR											
06...	--	--	--	.4	--	--	--	--	.40	.10	--
11...	5.5	210	72	--	599	.81	110	.52	--	--	--
27...	3.1	270	75	--	740	1.01	312	.60	--	--	--
30...	3.5	100	20	--	290	.39	1300	.77	--	--	--
MAY											
01...	5.5	190	46	--	508	.69	913	.62	--	--	--
04...	--	--	--	.5	--	--	--	--	.80	.12	4
06...	4.2	310	89	--	825	1.12	1090	.48	--	--	--
28...	2.4	380	110	--	942	1.28	677	.62	--	--	--
JUN											
08...	2.1	310	96	--	811	1.10	241	.32	--	--	--
15...	2.6	370	120	--	883	1.20	134	.01	--	--	--
28...	2.5	350	140	--	945	1.29	51.0	.08	--	--	--
29...	--	--	--	.5	--	--	--	--	1.1	<.08	--
JUL											
04...	5.5	58	22	--	231	.31	189	1.1	--	--	--
13...	3.3	260	97	--	688	.94	63.2	.18	--	--	--
28...	--	--	--	.4	--	--	--	--	2.3	<.08	--
31...	3.3	330	140	--	899	1.22	23.1	.10	--	--	--
AUG											
03...	5.4	350	150	--	906	1.23	31.8	.08	--	--	--
15...	6.1	220	72	--	563	.77	21.3	2.8	--	--	--
23...	12	390	140	--	1000	1.36	4.86	.42	--	--	--
SEP											
17...	7.9	430	160	--	1090	1.48	15.3	.18	--	--	--
20...	5.4	330	120	--	841	1.14	45.4	.17	--	--	--
28...	4.8	260	98	--	674	.92	58.2	.07	--	--	--
29...	--	--	--	.4	--	--	--	--	1.0	<.09	--

ARKANSAS RIVER BASIN

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07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRU- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
01...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
NOV											
02...	--	--	--	--	--	--	--	--	--	--	--
05...	5	28	32	--	30	--	--	37	--	2	1850
09...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
DEC											
01...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	800	--	130	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JAN											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	300	--	100	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	1	5	3	--	18	52	--	8	--	2	10
06...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
MAR											
03...	--	--	--	500	--	52	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
APR											
06...	--	--	--	200	--	25	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
04...	<1	11	8	600	5	200	<.5	20	6	4	16
06...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JUN											
08...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	200	--	29	--	--	--	--	--
JUL											
04...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	<100	--	22	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
17...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	<100	--	<5	--	--	--	--	--

ARKANSAS RIVER BASIN

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25. DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	954	896	944	950	914	926	770	1180	1330	850	---
2	1080	573	950	986	949	919	929	1090	1180	1610	1250	---
3	1060	856	945	1050	938	908	937	1050	1180	730	1380	---
4	1040	931	957	1090	924	907	950	1120	1170	446	1340	---
5	1060	979	967	1140	983	848	948	1160	1180	404	1360	---
6	1070	937	954	1090	1020	905	953	1060	1180	761	1360	---
7	1080	924	948	1100	1040	1010	930	1090	1200	832	1380	---
8	1090	948	948	1150	911	902	927	1240	1140	788	1490	---
9	1100	953	948	1140	876	891	925	1160	1160	847	1330	---
10	1100	939	945	1100	890	914	921	1170	1160	913	1410	---
11	1090	961	952	1050	938	910	920	1270	1160	1030	1050	---
12	1080	963	943	904	930	927	919	1240	1200	1050	1400	---
13	1070	966	944	829	952	952	915	1260	1230	1080	1390	---
14	1090	979	939	940	895	960	903	1240	1240	1120	1420	---
15	1070	974	889	805	929	947	909	1280	1290	1150	876	---
16	1070	968	955	795	913	943	941	1260	1300	1120	1410	1530
17	1050	956	1000	833	875	936	901	1240	1280	1090	1430	1590
18	1020	949	1080	856	842	917	885	1230	1240	1270	1420	1450
19	1000	861	1000	935	942	939	917	1250	1270	1180	---	1240
20	1000	912	942	919	959	957	936	1230	1260	1160	1410	1240
21	1010	889	930	946	892	948	461	1130	1340	1200	1450	1240
22	1020	945	920	884	929	953	560	1390	1320	1240	---	1290
23	1010	949	940	904	908	950	814	1400	1330	1260	---	1310
24	1030	950	936	938	911	954	926	1180	1330	1280	---	1310
25	995	973	939	955	922	933	1030	1200	1330	1330	---	1210
26	989	1060	943	994	925	948	1010	1180	1350	1330	---	1200
27	972	1120	948	993	924	954	1080	1180	1340	1360	---	1100
28	969	990	941	966	924	956	862	1330	1370	1310	---	1040
29	962	887	952	917	920	930	577	1190	1410	1340	---	1040
30	949	874	940	928	---	950	453	1100	1320	1340	---	1030
31	938	---	960	1010	---	935	---	1150	---	790	---	---
MONTH	1040	937	950	971	928	933	876	1190	1250	1090	---	---
YEAR	MAX	1610	MIN	404	MEAN	1050						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	16.0	3.5	4.5	10.0	8.0	13.5	13.5	22.0	26.5	28.0	---
2	10.0	16.5	8.0	1.0	8.0	12.0	15.0	16.0	25.0	21.5	25.0	---
3	12.0	13.5	8.0	---	7.0	7.0	16.5	15.5	---	23.5	22.0	---
4	12.0	15.0	6.5	---	1.5	7.5	14.0	15.0	23.0	24.0	22.5	---
5	14.0	16.5	4.5	2.0	1.0	2.5	11.0	18.0	23.0	23.0	25.0	---
6	14.0	21.5	4.0	2.0	0.5	5.0	17.0	18.5	23.0	23.0	24.0	---
7	15.0	19.5	6.5	---	0.5	7.0	18.0	17.0	23.0	23.5	23.0	---
8	15.0	15.0	3.5	---	3.5	6.0	16.5	16.5	25.0	25.0	28.0	---
9	16.0	13.5	4.5	---	6.0	9.5	18.0	16.5	23.0	25.5	23.0	---
10	16.5	10.0	8.5	---	11.5	12.0	24.0	16.5	22.5	28.0	26.0	---
11	17.0	12.5	6.0	2.0	8.0	13.5	14.5	20.0	25.0	27.0	28.0	---
12	21.0	7.0	5.5	2.0	11.0	8.0	20.0	20.5	24.0	24.0	29.0	---
13	19.0	5.0	7.0	1.5	10.5	6.5	19.0	17.0	27.0	29.0	23.5	---
14	17.5	7.0	8.0	1.5	11.0	5.0	24.5	17.0	25.0	28.5	25.0	---
15	12.0	9.5	4.5	1.5	12.0	8.5	19.0	21.0	22.5	29.5	26.5	---
16	13.5	13.5	5.0	2.5	11.0	5.5	22.0	18.5	21.5	26.0	26.0	21.0
17	13.0	12.5	0.5	3.5	8.5	9.0	18.0	17.0	19.5	25.0	31.5	23.0
18	10.0	15.0	1.0	4.5	5.5	21.0	16.5	18.5	20.0	24.5	23.5	21.0
19	12.5	13.0	2.0	---	5.5	14.5	17.0	20.0	19.5	25.0	26.0	30.0
20	20.0	4.0	2.0	2.0	16.0	10.5	15.0	19.0	19.0	25.5	24.0	17.5
21	16.5	4.0	3.0	3.0	5.0	12.5	13.0	22.0	18.5	27.0	26.0	17.5
22	18.0	3.5	4.0	3.5	9.0	11.5	18.0	20.5	19.5	23.0	22.5	23.0
23	15.5	2.5	2.5	6.0	8.0	14.0	21.0	20.5	22.5	26.0	23.0	18.0
24	11.0	2.0	2.0	6.0	8.0	16.0	19.0	25.0	20.5	26.0	23.0	18.0
25	7.0	1.0	---	4.0	9.0	19.5	15.0	23.0	20.0	24.5	23.0	23.0
26	10.0	1.0	5.5	1.0	12.0	13.5	12.5	19.0	21.5	25.0	---	24.0
27	14.5	1.0	3.0	---	9.0	14.0	12.5	23.0	31.0	23.0	---	15.0
28	11.5	1.0	4.0	2.0	12.0	12.0	12.5	25.0	25.5	27.0	---	13.5
29	10.5	14.0	3.5	2.5	13.0	16.5	11.5	23.0	25.0	26.5	---	13.0
30	12.0	4.5	2.5	5.0	---	11.5	12.0	24.0	21.5	29.0	---	13.0
31	16.0	---	3.5	7.0	---	9.5	---	22.0	---	26.5	---	---
MONTH	14.0	9.5	4.5	---	8.0	10.5	16.5	19.5	22.5	25.5	25.0	---
YEAR	MAX	31.5	MIN	0.5	MEAN	15.0						

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	200	180	190	190	180	190	140	270	320	160	---
2	240	100	190	210	190	180	190	240	270	410	290	---
3	230	160	190	230	190	180	190	230	270	130	330	---
4	220	190	200	240	190	180	190	250	270	81	320	---
5	230	200	200	260	200	160	190	260	270	73	330	---
6	230	190	200	240	220	180	200	230	270	140	330	---
7	240	190	190	240	220	210	190	240	280	160	330	---
8	240	190	190	260	180	180	190	290	260	140	370	---
9	240	200	190	260	170	170	190	260	260	160	320	---
10	240	190	190	240	170	180	180	270	260	180	340	---
11	240	200	190	230	190	180	180	300	260	220	230	---
12	240	200	190	180	190	190	180	290	280	230	340	---
13	230	200	190	150	190	190	180	300	290	240	340	---
14	240	200	190	190	180	200	180	290	290	250	350	---
15	230	200	170	150	190	190	180	300	310	260	170	---
16	230	200	200	140	180	190	190	300	310	250	340	380
17	230	200	210	160	170	190	180	290	300	240	350	400
18	220	190	240	160	160	180	170	290	290	300	350	360
19	210	160	210	190	190	190	180	290	300	270	---	290
20	210	180	190	180	200	200	190	290	300	260	340	290
21	210	170	190	190	180	190	84	250	320	280	360	290
22	220	190	180	170	190	200	100	340	320	290	---	310
23	210	190	190	180	180	190	150	340	320	300	---	310
24	220	190	190	190	180	200	190	270	320	300	---	310
25	210	200	190	200	180	190	220	280	320	320	---	280
26	210	230	190	210	190	190	210	270	330	320	---	280
27	200	250	190	210	190	200	240	270	320	330	---	240
28	200	210	190	200	190	200	170	320	330	310	---	220
29	200	170	190	180	180	190	100	270	340	320	---	220
30	190	170	190	190	---	190	82	240	320	320	---	220
31	190	---	200	210	---	190	---	260	---	140	---	---
MONTH	220	190	190	200	190	190	180	270	300	240	---	---
YEAR	MAX	410	MIN	73	MEAN	230						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.9	29.2	48.6	50.3	42.1	33.0	38.0	252	108	20.7	3.24	---
2	18.8	81.8	50.3	52.2	41.0	35.0	38.0	367	104	97.4	7.44	---
3	19.9	92.9	48.2	46.6	42.1	36.0	36.9	250	101	262	11.6	---
4	20.2	76.9	48.6	35.6	40.0	40.8	33.9	223	97.7	66.3	10.4	---
5	19.9	64.8	48.6	45.6	41.0	49.2	35.9	198	94.8	33.5	10.7	---
6	18.0	53.4	46.4	51.8	32.7	62.2	36.7	303	93.3	47.6	9.80	---
7	18.1	50.3	45.1	61.6	29.7	66.9	33.9	346	90.7	43.2	24.9	---
8	16.8	48.2	45.1	84.2	44.7	56.4	34.9	246	77.2	32.5	9.99	---
9	16.2	50.8	45.1	85.6	44.1	53.2	33.9	185	70.2	29.4	6.05	---
10	16.2	47.2	45.1	90.7	41.3	54.4	31.1	300	68.8	27.2	4.87	---
11	16.2	47.5	44.1	102	40.0	54.4	33.0	203	63.2	28.5	2.42	---
12	15.6	43.2	44.1	96.2	39.0	55.4	32.1	185	62.0	26.1	6.88	---
13	14.3	43.2	46.2	72.1	38.0	51.3	34.0	181	56.4	22.0	9.18	---
14	15.6	45.4	55.4	81.1	34.0	51.8	34.0	164	48.5	20.2	7.09	---
15	16.1	46.4	50.5	61.6	36.9	49.2	35.0	158	46.9	20.4	6.43	---
16	18.0	46.4	56.2	49.9	35.0	49.2	45.1	149	40.2	24.3	7.80	2.26
17	21.1	47.5	54.4	53.6	31.2	49.2	139	136	37.3	29.8	5.01	5.62
18	21.4	45.1	48.6	46.7	28.5	44.7	330	127	40.7	25.9	4.35	12.6
19	21.5	41.5	51.0	49.2	33.9	45.1	139	121	42.1	18.2	---	14.9
20	22.7	56.4	57.5	42.8	34.6	46.4	139	117	38.9	16.8	2.57	15.7
21	21.5	54.2	55.4	43.1	31.1	40.0	361	124	32.8	15.1	2.14	15.7
22	20.2	54.4	49.6	36.7	33.9	41.0	218	200	29.4	13.3	---	15.9
23	20.4	53.4	51.3	36.9	33.0	36.9	137	191	31.1	12.2	---	15.1
24	23.8	53.4	51.3	38.0	34.0	38.9	123	139	32.8	11.3	---	14.2
25	23.8	50.8	50.3	40.0	35.0	36.9	116	133	31.1	11.2	---	12.9
26	24.9	50.9	48.2	44.2	35.9	36.9	94.1	128	26.7	10.4	---	14.4
27	24.8	71.5	47.2	45.4	35.9	38.9	101	159	21.6	10.7	---	16.8
28	24.8	69.2	48.2	47.5	36.9	37.8	278	230	17.8	10.9	---	19.0
29	24.8	59.7	48.2	41.8	33.0	36.9	680	153	20.2	10.4	---	20.2
30	23.6	54.2	49.2	43.1	---	36.9	368	118	19.9	9.50	---	20.2
31	24.6	---	52.9	46.5	---	38.0	---	115	---	3.59	---	---
MONTH	20.0	54.3	49.4	55.6	36.5	45.3	126	190	54.8	32.6	---	---
YEAR	MAX	680	MIN	2.14	MEAN	60.8						

ARKANSAS RIVER BASIN

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	75	69	74	75	71	72	56	99	110	64	---
2	88	35	75	78	74	71	72	89	99	140	110	---
3	86	65	74	85	73	70	73	85	99	51	120	---
4	84	73	75	89	72	70	75	93	98	21	120	---
5	86	78	76	95	76	64	74	97	99	18	120	---
6	87	73	75	89	82	70	75	86	99	55	120	---
7	88	72	74	90	84	81	72	89	100	62	120	---
8	89	74	74	96	70	69	72	110	95	57	130	---
9	90	75	74	95	67	68	72	97	97	64	110	---
10	90	73	74	90	68	71	71	98	97	71	120	---
11	89	76	75	85	73	70	71	110	97	83	85	---
12	88	76	74	70	72	72	71	110	100	85	120	---
13	87	76	74	62	75	75	71	110	100	88	120	---
14	89	78	73	74	69	76	70	110	110	93	120	---
15	87	77	68	59	72	74	70	110	110	96	67	---
16	87	76	75	58	71	74	74	110	110	93	120	140
17	85	75	80	62	67	73	69	110	110	89	130	140
18	82	74	88	65	63	71	68	100	110	110	120	130
19	80	65	80	73	74	73	71	110	110	99	---	110
20	80	71	74	71	76	75	73	100	110	97	120	110
21	81	68	72	74	68	74	23	94	120	100	130	110
22	82	74	71	68	72	75	33	120	110	110	---	110
23	81	74	74	70	70	75	60	120	110	110	---	110
24	83	75	73	73	70	75	72	99	110	110	---	110
25	79	77	73	75	72	73	83	100	110	110	---	100
26	79	86	74	79	72	74	81	99	120	110	---	100
27	77	93	74	79	72	75	88	99	120	120	---	90
28	77	79	74	76	72	75	65	110	120	110	---	84
29	76	68	75	71	71	72	35	100	120	120	---	84
30	74	67	74	72	---	75	22	90	110	120	---	83
31	73	---	76	81	---	73	---	96	---	58	---	---
MONTH	84	73	75	77	72	73	67	100	110	89	---	---
YEAR	MAX	140	MIN	18	MEAN	85						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.21	10.9	18.6	19.6	16.6	13.0	14.4	101	39.6	7.13	1.30	---
2	6.89	28.6	19.8	19.4	16.0	13.8	14.4	136	38.0	33.3	2.82	---
3	7.43	37.7	18.8	17.2	16.2	14.0	14.2	92.3	36.9	103	4.21	---
4	7.71	29.6	18.2	13.2	15.2	15.9	13.4	82.9	35.5	17.2	3.89	---
5	7.43	25.3	18.5	16.7	16.0	19.7	14.0	73.9	34.7	8.26	3.89	---
6	6.81	20.5	17.4	19.2	12.2	24.2	13.8	113	34.2	16.7	3.56	---
7	6.65	19.1	17.6	23.1	11.3	25.8	12.8	128	32.4	16.7	9.07	---
8	6.25	18.8	17.6	31.1	17.4	21.6	13.2	93.3	28.2	13.2	3.51	---
9	6.07	19.0	17.6	31.3	17.4	21.3	12.8	68.9	26.2	11.8	2.08	---
10	6.07	18.1	17.6	34.0	16.5	21.5	12.3	109	25.7	10.7	1.72	---
11	6.01	18.1	17.4	37.6	15.4	21.2	13.0	74.5	23.6	10.8	.90	---
12	5.70	16.4	17.2	37.4	14.8	21.0	12.7	70.1	22.1	9.64	2.43	---
13	5.40	16.4	18.0	29.8	15.0	20.2	13.4	66.5	19.4	8.08	3.24	---
14	5.77	17.7	21.3	31.6	15.0	19.7	13.2	62.4	18.4	7.53	2.43	---
15	6.11	17.9	20.2	24.2	14.0	19.2	13.6	57.9	16.6	7.52	2.53	---
16	6.81	17.6	21.1	20.7	13.8	19.2	17.6	54.6	14.3	9.04	2.75	.83
17	7.80	17.8	20.7	20.8	12.3	18.9	53.5	51.7	13.7	11.1	1.86	1.97*
18	7.97	17.6	17.8	19.0	11.2	17.6	132	43.7	15.4	9.50	1.49	4.56
19	8.21	16.8	19.4	18.9	13.2	17.3	54.8	45.7	15.4	6.68	---	5.64
20	8.64	22.2	22.4	16.9	13.1	17.4	53.4	40.5	14.3	6.29	.91	5.94
21	8.31	21.7	21.0	16.8	11.8	15.6	98.7	46.7	12.3	5.40	.77	5.94
22	7.53	21.2	19.6	14.7	12.8	15.4	71.9	70.6	10.1	5.05	---	5.64
23	7.87	20.8	20.0	14.4	12.9	14.6	54.8	67.4	10.7	4.45	---	5.35
24	8.96	21.1	19.7	14.6	13.2	14.6	46.5	50.8	11.3	4.16	---	5.05
25	8.96	19.5	19.3	15.0	14.0	14.2	43.7	47.5	10.7	3.86	---	4.59
26	9.39	19.0	18.8	16.6	13.6	14.4	36.3	47.0	9.72	3.56	---	5.13
27	9.56	26.6	18.4	17.1	13.6	14.6	37.1	58.3	8.10	3.89	---	6.32
28	9.56	26.0	18.8	18.1	14.0	14.2	106	79.0	6.48	3.86	---	7.26
29	9.44	23.9	19.0	16.5	13.0	14.0	238	56.7	7.13	3.89	---	7.71
30	9.19	21.3	19.2	16.3	---	14.6	98.6	44.2	6.83	3.56	---	7.62
31	9.46	---	20.1	17.9	---	14.6	---	42.5	---	1.49	---	---
MONTH	7.55	20.9	19.1	21.3	14.1	17.5	44.8	70.2	19.9	11.9	---	---
YEAR	MAX	238	MIN	.77	MEAN	22.6						

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	719	615	577	609	613	589	597	493	766	866	546	---
2	699	362	615	637	612	592	599	706	766	1050	813	---
3	686	550	609	679	605	585	604	679	766	466	899	---
4	673	600	617	706	595	584	613	726	759	277	873	---
5	686	632	624	739	635	545	611	753	766	249	886	---
6	693	604	615	706	659	583	615	686	766	487	886	---
7	699	595	611	715	673	653	599	706	779	534	899	---
8	706	611	611	746	587	581	597	806	739	505	972	---
9	713	615	611	739	563	573	596	753	753	544	866	---
10	713	605	609	713	573	589	593	759	753	588	919	---
11	706	620	614	679	605	586	593	826	753	666	679	---
12	699	621	608	562	599	597	592	806	779	679	913	---
13	693	623	609	532	614	614	589	819	799	699	906	---
14	706	632	605	606	576	619	581	806	806	726	926	---
15	693	629	572	516	599	611	585	833	839	746	563	---
16	693	625	616	510	588	608	607	819	846	726	919	999
17	679	617	646	535	563	603	580	806	833	706	932	1040
18	659	612	699	550	541	591	569	799	806	826	926	946
19	646	553	646	603	607	605	591	813	826	766	---	806
20	646	587	607	592	619	617	603	799	819	753	919	806
21	653	572	599	610	574	611	287	733	873	779	946	806
22	659	609	593	569	599	615	353	906	859	806	---	839
23	653	612	606	562	585	613	522	913	866	819	---	853
24	666	613	603	605	587	615	597	766	866	833	---	853
25	643	628	605	616	594	601	666	779	866	866	---	786
26	639	686	608	642	596	611	653	766	879	866	---	779
27	627	726	611	641	595	615	699	766	873	886	---	713
28	625	639	607	623	595	617	554	866	893	853	---	673
29	621	571	614	591	593	599	364	773	919	873	---	673
30	612	562	606	598	---	613	282	713	859	873	---	666
31	605	---	619	653	---	603	---	746	---	506	---	---
MONTH	671	604	613	627	598	601	563	772	816	704	---	---
YEAR	MAX	1050	MIN	249	MEAN	676						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.5	89.7	156	161	136	108	119	687	306	56.1	11.1	---
2	54.7	296	162	158	132	115	120	1080	294	249	20.9	---
3	59.3	319	155	137	134	117	117	737	285	939	31.6	---
4	61.8	243	150	105	125	132	109	647	275	227	28.3	---
5	59.3	205	152	130	130	160	115	573	269	114	28.7	---
6	54.3	170	143	152	97.9	201	113	904	265	166	26.3	---
7	52.8	157	145	183	90.9	208	107	1020	252	144	68.0	---
8	49.6	155	145	242	146	182	110	683	219	117	26.2	---
9	48.1	156	145	243	146	179	106	535	203	99.9	16.4	---
10	48.1	150	145	270	139	178	102	844	199	88.9	13.2	---
11	47.7	147	143	301	127	177	109	560	183	86.3	7.15	---
12	45.3	134	141	311	123	174	105	514	172	77.0	18.5	---
13	43.0	135	148	256	123	166	111	495	155	64.2	24.5	---
14	45.7	143	176	259	109	160	110	457	135	58.8	18.8	---
15	48.6	146	170	212	116	158	114	439	127	58.4	21.3	---
16	54.3	145	173	182	114	158	144	407	110	70.6	21.1	5.93
17	62.3	147	167	179	103	156	449	379	103	87.7	13.3	14.6
18	64.1	145	142	160	96.4	147	1110	349	113	71.4	11.5	33.2
19	66.3	143	157	156	108	144	456	338	116	51.7	---	41.3
20	69.8	184	184	141	107	143	441	324	106	48.8	6.95	43.5
21	67.0	182	175	138	99.2	129	1230	364	89.6	42.1	5.62	43.5
22	60.5	174	163	123	107	126	769	533	78.9	37.0	---	43.0
23	63.5	172	164	119	107	119	476	513	84.2	33.2	---	41.5
24	71.9	172	163	121	111	120	385	393	88.9	31.5	---	39.2
25	72.9	159	160	123	115	117	351	370	84.2	30.4	---	36.1
26	75.9	152	154	135	113	119	293	364	71.2	28.1	---	40.0
27	77.9	208	152	138	112	120	294	451	58.9	28.7	---	50.1
28	77.6	210	154	148	116	117	905	622	48.2	29.9	---	58.1
29	77.1	200	156	137	109	116	2480	438	54.6	28.3	---	61.8
30	76.0	179	157	136	---	119	1260	350	53.3	25.9	---	61.1
31	78.4	---	164	145	---	120	---	330	---	13.0	---	---
MONTH	60.7	174	157	174	117	145	424	545	153	103	---	---
YEAR	MAX	2480	MIN	5.62	MEAN	187						

ARKANSAS RIVER BASIN

07150000 GREAT SALT PLAINS LAKE NEAR JET, OK

LOCATION.--Lat 36°44'40", long 98°08'08", in NW 1/4 SE 1/4 sec.11, T.26 N., R.9 W., Alfalfa County, at right end of Great Salt Plains Dam on Salt Fork Arkansas River, 4.5 mi (7.2 km) upstream from Wagon Creek, 5.5 mi (8.8 km) northeast of Jet, and at mile 103.3 (166.2 km).

DRAINAGE AREA.--3,200 mi² (8,288 km²), of which 8 mi² (20.7 km²) is probably noncontributing.

PERIOD OF RECORD.--July 1941 to current year. Prior to October 1970, published as Great Salt Plains Reservoir near Jet.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by earth dam. Outlet works consist of 310 ft (94.5 m) uncontrolled concrete spillway containing a series of three weirs to form a cascade. Storage began in June 1941; conservation pool was first filled Oct. 21, 1941. Capacity, 257,700 acre-ft (318 hm³) at elevation 1,138.5 ft (347.01 m), crest of upper weir, and 31,420 acre-ft (38.7 hm³) at elevation 1,125.0 ft (342.90 m), crest of intermediate weir and conservation pool. Reservoir is used for flood control and as a wildlife refuge. Figures given herein represent total contents. Revised capacity table, based on survey in 1971, used since Oct. 1, 1972.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 189,400 acre-ft (234 hm³) July 2, 1951, elevation, 1,134.38 ft (345,759 m); minimum, 17,180 acre-ft (21.2 hm³) Sept. 6, 1973, elevation, 1,123.16 ft (342.539 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 48,550 acre-ft (59.9 hm³) May 2, elevation, 1,126.76 ft (343.436 m), minimum, 21,480 acre-ft (26.5 hm³) Sept. 16, elevation, 1,123.76 ft (342.522 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

1123	16,080	1126	40,700
1124	23,280	1127	51,180
1125	31,420		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27380	24900	34080	34900	33630	33010	33010	48340	37320	31600	28200	23280
2	27220	26330	34080	34350	33190	32740	32740	46750	37030	34350	29030	23280
3	27220	27130	34170	34080	33360	32300	32740	46100	36570	34540	28700	22900
4	27050	28200	34260	33900	33360	32740	32740	45260	36290	35180	28950	22750
5	27220	29030	34450	33810	33450	32740	32830	43920	35910	34990	28780	22520
6	26810	29370	34450	33990	33630	33360	32740	42390	35640	34810	28200	22300
7	26410	29860	34450	33630	33450	33540	32740	41890	35360	34720	27710	22000
8	26010	30220	34350	33900	33450	34080	32470	41890	34990	34450	28280	21920
9	26250	30390	34350	33450	33630	34260	32830	42290	34540	34260	27710	22450
10	26250	30470	34080	33540	33190	34080	32740	42800	34450	33810	27460	22300
11	26170	31250	34350	33540	33630	34260	32650	42090	34080	33630	27220	21770
12	26090	30390	34540	33720	33450	34080	33190	44530	33990	33100	26890	21770
13	26090	30560	34350	33720	33190	34260	33540	45160	33900	33010	26730	21920
14	25850	30900	33810	33720	33810	33900	34260	44950	33810	32560	26730	21920
15	25690	31060	33810	33990	33360	34540	34720	44530	33540	32740	26730	21550
16	25690	31160	33540	34080	33190	34450	34260	43300	33010	32740	26410	21550
17	25530	31080	34170	34260	33630	34450	34350	41690	33010	32560	26090	22220
18	25370	30970	34260	34540	33190	34350	34990	40600	33010	32470	25610	22370
19	25530	38560	34080	34630	33190	34260	36850	39620	32830	32120	25610	22900
20	25650	33810	34080	33900	33450	34080	38940	36940	32560	32120	25610	23260
21	25770	32920	34080	33810	33010	33810	39230	37980	32210	31860	25290	23280
22	25290	32920	34170	33900	32920	33450	41390	36170	31680	31600	25060	22980
23	25140	33190	34450	33810	33270	33450	42090	38940	32300	31250	24620	22370
24	24980	32650	34170	33630	33190	33190	41690	38460	32300	31080	24670	22600
25	24900	33810	34630	34080	32630	33360	39910	37980	32030	30900	24590	23810
26	24590	33450	34540	33630	33010	33360	39620	39910	31860	30730	24280	24430
27	24670	33540	34720	34080	32830	32740	38940	39910	32300	30390	23810	23660
28	24670	33540	34260	33900	33010	32740	40700	39040	31770	30130	23740	24120
29	24900	33630	34630	33630	32920	32740	42190	38460	31510	29880	23660	24120
30	24900	33900	33900	33810	---	32740	46410	37790	31080	29790	23280	24120
31	24900	---	33900	33810	---	33190	---	37790	---	24290	23360	---
MAX	27380	38560	34720	34900	33810	34540	46410	48340	37320	35180	29030	24430
MIN	24590	24900	33540	33450	32830	32300	32470	37790	31080	29290	23280	21550
†	1,124.21	1,125.28	1,125.28	1,125.27	1,125.17	1,125.20	1,126.56	1,125.70	1,124.96	1,124.75	1,124.01	1,124.11
‡	-2,720	+9,000	0	-90	-890	+270	+13,220	-8,620	-6,710	-1,790	-5,930	+760

CAL YR 1975 MAX 58,080 MIN 24,590 ‡ -1,740
WTR YR 1976 MAX 48,340 MIN 21,550 ‡ -3,500

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

43

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK

LOCATION.--Lat 36°45'11", long 98°07'44", in NE 1/4 NE 1/4 sec.11, T.26 N., R.9 W., Alfalfa County, near center of span on downstream side of county road bridge, 0.6 mi (0.97 km) downstream from Great Salt Plains Dam, 4 mi (6.4 km) upstream from Wagon Creek, 6 mi (9.7 km) northeast of Jet, and at mile 102.7 (165.2 km).

DRAINAGE AREA.--3,202 mi² (8,293 km²), of which 8 mi² (20.7 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,092.20 ft (332.903 m) above mean sea level (levels by Corps of Engineers). Prior to Mar. 17, 1938, nonrecording gage at site 2.5 miles (4.0 km) upstream at datum 13.46 ft (4.103 m) higher. Mar. 17, 1938, to Apr. 26, 1953, water-stage recorder at site 200 ft (61.0 m) upstream, datum 5.00 ft (1.524 m) higher prior to Oct. 1, 1950.

REMARKS.--Records good. Flow regulated since June 1941 by Great Salt Plains Lake (station 07150000).

AVERAGE DISCHARGE.--(since regulation by Great Salt Plains Dam) 35 years (water years 1942-76), 377 ft³/s (10.68 m³/s), 273,100 acre-ft/yr (337 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,900 ft³/s (733 m³/s) May 19, 1938, gage height, 13.80 ft (4.206 m), present datum; no flow at times in 1939-41, 1944, 1955-56.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 ft³/s (54.1 m³/s) May 2, gage height, 6.21 ft (1.893 m); minimum daily, 5.9 ft³/s (0.17 m³/s) Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	5.9	108	165	121	69	51	1710	509	22	22	27
2	9.1	7.3	97	146	119	87	77	1750	467	94	24	27
3	8.9	6.5	103	111	97	35	27	1640	397	190	22	26
4	8.8	6.6	118	96	64	110	31	1550	353	206	22	26
5	8.8	6.5	119	88	105	76	42	1390	319	224	22	26
6	8.7	6.5	98	89	113	66	45	1200	289	218	20	26
7	8.6	7.0	104	119	115	80	45	1040	279	212	20	27
8	8.5	7.1	113	123	109	96	39	1050	258	164	22	28
9	9.5	9.4	107	125	141	136	49	1050	245	143	20	28
10	8.4	7.7	106	108	119	138	78	1200	232	143	20	27
11	8.1	8.3	108	64	108	158	43	1140	191	143	23	26
12	7.6	8.6	103	64	143	211	47	1250	179	116	23	27
13	7.9	6.8	114	70	112	128	82	1490	172	69	25	27
14	8.3	7.2	127	73	122	120	97	1460	133	47	24	27
15	8.8	7.2	117	79	122	118	106	1420	112	30	25	28
16	7.6	7.2	98	89	141	135	217	1330	110	24	24	28
17	7.8	8.3	73	98	150	128	159	1140	100	26	24	31
18	7.6	8.2	111	107	127	140	190	969	73	20	25	28
19	7.3	197	104	114	93	159	238	866	61	20	24	29
20	7.3	231	98	132	184	170	489	736	54	20	25	28
21	6.9	47	98	129	236	102	580	633	37	22	25	27
22	6.7	28	102	138	63	91	769	598	25	20	25	25
23	6.7	34	109	130	55	106	995	725	58	15	25	25
24	6.9	43	119	88	108	97	1050	679	44	12	25	24
25	6.8	28	121	104	65	106	890	597	30	12	25	23
26	6.6	71	130	131	52	99	722	689	31	15	25	21
27	6.3	59	123	126	60	67	675	791	25	20	26	20
28	6.5	64	121	127	65	34	754	746	24	22	27	19
29	6.4	262	120	133	71	176	873	681	12	20	26	18
30	7.2	151	129	119	---	53	1240	622	13	20	26	17
31	6.0	---	94	127	---	39	---	541	---	20	26	---
TOTAL	239.9	1347.3	3392	3412	3180	3330	10700	32683	4832	2329	737	766
MEAN	7.74	44.9	109	110	110	107	357	1054	161	75.1	23.8	25.5
MAX	9.5	262	130	165	236	211	1240	1750	509	224	27	31
MIN	6.0	5.9	73	64	52	34	27	541	12	12	20	17
AC=FT	476	2670	6730	6770	6310	6610	21220	64830	9580	4620	1460	1520
CAL YR 1975	TOTAL	177122.7	MEAN 485	MAX 3560	MIN 5.9	AC=FT 351300						
WTR YR 1976	TOTAL	66948.2	MEAN 183	MAX 1750	MIN 5.9	AC=FT 132800						

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-63, 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1954 to September 1959, October 1961 to September 1963, July 1968 to current year.

WATER TEMPERATURE: October 1954 to September 1959, October 1961 to September 1963, July 1968 to current year.

CHLORIDES: October 1955 to September 1959.

INSTRUMENTATION.--Water quality monitor since July 1968.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 42,200 micromhos Mar. 9, 1955; minimum daily, 1,350 micromhos July 3, 1957.

WATER TEMPERATURE: Maximum, 35.5°C July 28, 1974; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 15,000 micromhos Sept. 29; minimum daily, 2,460 micromhos May 5.

WATER TEMPERATURE: Maximum daily, 34.0°C Aug. 13; minimum daily, 0.0°C Jan. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
07...	--	--	1915	--	7.9	11200	7.6	--	--	--	--	--
16...	--	--	1840	--	7.4	10400	8.0	--	--	--	--	--
25...	--	--	1910	--	6.6	11400	7.4	--	--	--	--	--
NOV												
05...	1028	9740	1405	6.5	--	13500	7.6	16.0	39	8.2	89	136
05...	--	--	1810	--	6.6	12200	7.7	--	--	--	--	--
14...	--	--	1745	--	7.0	13000	7.3	--	--	--	--	--
24...	--	--	1620	--	50	9430	7.9	--	--	--	--	--
DEC												
05...	--	--	1630	--	116	8690	8.1	--	--	--	--	--
10...	1028	9740	1200	106	--	9500	8.5	8.0	65	--	--	91
15...	--	--	1700	--	116	8540	8.2	--	--	--	--	--
25...	--	--	1700	--	113	8000	8.3	--	--	--	--	--
JAN												
05...	--	--	1745	--	82	7910	8.1	--	--	--	--	--
07...	1028	9740	1100	119	--	8200	8.4	.5	30	4.6	33	76
15...	--	--	1800	--	75	8160	8.2	--	--	--	--	--
25...	--	--	1820	--	122	7190	7.9	--	--	--	--	--
FEB												
04...	1028	9740	1200	64	--	6900	8.4	4.0	24	13.0	105	114
07...	--	--	1715	--	125	7030	8.1	--	--	--	--	--
17...	--	--	1830	--	179	5700	8.1	--	--	--	--	--
25...	--	--	1945	--	50	6560	7.4	--	--	--	--	--
MAR												
03...	1028	9740	1230	35	--	6500	8.2	9.0	--	12.4	115	--
05...	--	--	1715	--	67	6860	7.3	--	--	--	--	--
15...	--	--	1700	--	125	6620	8.1	--	--	--	--	--
24...	--	--	1330	--	80	6470	8.1	--	--	--	--	--
APR												
05...	--	--	1820	--	42	7700	7.4	--	--	--	--	--
06...	1028	9740	1230	45	--	6900	8.3	15.0	40	9.8	104	--
17...	--	--	1910	--	146	9920	7.3	--	--	--	--	--
23...	--	--	1935	--	1010	2870	7.2	--	--	--	--	--
MAY												
04...	1028	9740	1230	1550	--	6500	8.6	16.5	36	10.3	113	59
05...	--	--	1940	--	1300	2840	7.5	--	--	--	--	--
15...	--	--	2100	--	1360	4490	7.5	--	--	--	--	--
25...	--	--	2030	--	599	4170	7.3	--	--	--	--	--
JUN												
01...	--	--	2040	--	476	3930	7.5	--	--	--	--	--
19...	--	--	1900	--	54	5790	7.5	--	--	--	--	--
29...	1028	9740	1320	12	--	8000	8.8	31.0	110	11.0	151	312
30...	--	--	1945	--	20	10300	7.2	--	--	--	--	--
JUL												
10...	--	--	2100	--	143	6130	7.2	--	--	--	--	--
16...	--	--	2115	--	24	7750	7.0	--	--	--	--	--
24...	--	--	2015	--	12	10600	7.1	--	--	--	--	--
27...	1028	9740	1700	20	--	9750	8.6	29.0	15	10.1	136	6335

ARKANSAS RIVER BASIN

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07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COLLECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	DIS-CHARGE (CFS)	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHUS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATURATION	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
AUG												
05...	--	--	2030	--	22	9820	7.4	--	--	--	--	--
14...	--	--	2130	--	24	11200	7.5	--	--	--	--	--
25...	1028	9740	1415	25	--	11000	8.8	28.0	32	14.2	189	51
26...	--	--	1840	--	25	12800	7.1	--	--	--	--	--
SEP												
05...	--	--	1945	--	25	13300	7.1	--	--	--	--	--
15...	--	--	1800	--	27	13900	7.0	--	--	--	--	--
29...	1028	9740	0915	18	--	14500	7.8	15.0	16	9.6	97	64
29...	--	--	1745	--	18	15000	7.0	--	--	--	--	--
DATE	HARD-NESS (CA, MG) (MG/L)	NON-CARBONATE HARD-NESS (MG/L)	TOTAL CALCIUM (CA) (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT												
07...	680	510	--	190	--	50	--	2200	87	37	11	210
16...	650	480	--	180	--	49	--	2000	87	34	11	211
25...	690	520	--	190	--	52	--	2300	88	38	11	210
NOV												
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	760	590	--	210	--	58	--	2500	88	39	11	213
14...	790	610	--	220	--	59	--	2600	88	40	11	220
24...	710	560	--	190	--	56	--	1800	85	30	11	179
DEC												
05...	630	480	--	170	--	50	--	1600	84	28	11	188
10...	--	--	--	--	--	--	--	--	--	--	--	--
15...	640	480	--	170	--	52	--	1500	83	26	11	193
25...	610	440	--	160	--	50	--	1500	84	27	9.7	206
JAN												
05...	630	460	--	170	--	51	--	1500	83	26	9.1	212
07...	--	--	--	--	--	--	--	--	--	--	--	--
15...	640	460	--	170	--	52	--	1500	83	26	9.5	216
25...	600	430	--	160	--	48	--	1300	82	23	8.6	209
FEB												
04...	--	--	--	--	--	--	--	--	--	--	--	--
07...	600	420	--	160	--	48	--	1200	81	21	8.9	213
17...	580	410	--	160	--	45	--	960	78	17	7.7	215
25...	600	430	--	160	--	49	--	1200	81	21	8.5	207
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
05...	630	470	--	170	--	51	--	1200	80	21	8.9	198
15...	570	420	--	150	--	48	--	1200	82	22	8.3	189
24...	610	450	--	160	--	50	--	--	--	--	8.0	190
APR												
05...	670	520	--	180	--	54	--	1400	82	24	9.1	190
06...	--	--	--	--	--	--	--	--	--	--	--	--
17...	640	510	--	170	--	52	--	2000	86	33	8.8	163
23...	410	310	--	120	--	27	--	440	70	9.4	6.7	129
MAY												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	420	280	--	120	--	29	--	430	69	9.1	6.7	169
15...	460	330	--	130	--	33	--	780	78	16	6.7	157
25...	490	360	--	140	--	34	--	670	75	13	6.8	161
JUN												
01...	510	390	--	150	--	34	--	640	73	12	7.1	154
19...	570	440	--	160	--	42	--	980	79	18	8.2	156
29...	--	--	--	--	--	--	--	--	--	--	--	--
30...	650	540	--	180	--	48	--	2100	87	36	9.8	128
JUL												
10...	490	410	--	130	--	41	--	1100	83	28	9.3	104
16...	560	460	--	150	--	44	--	1500	85	28	10	113
24...	670	570	--	180	--	53	--	2200	88	37	11	124
27...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
05...	660	560	--	170	--	56	--	1900	86	32	10	122
14...	670	580	--	180	--	54	--	2200	87	37	11	116
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	720	630	--	190	--	59	--	2500	88	41	12	110
SEP												
05...	750	670	--	190	--	67	--	2600	88	41	12	97
15...	780	700	--	200	--	67	--	2700	88	42	13	97
29...	--	--	--	--	--	--	--	--	--	--	--	--
29...	800	710	--	200	--	72	--	3000	89	46	12	104

ARKANSAS RIVER BASIN

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO ₃) (MG/L)	ALKA- LITY AS CaCO ₃ (MG/L)	CARBON DIOXIDE (CO ₂) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT												
07...	0	172	8.4	520	3400	--	6450	8.77	138	.73	--	--
16...	0	173	3.4	500	3100	--	5930	8.06	118	.76	--	--
25...	0	172	13	500	3500	--	6580	8.95	117	.76	--	--
NOV												
05...	--	--	--	--	--	.4	--	--	--	--	2.7	.14
05...	0	175	6.8	550	3700	--	7430	10.1	132	1.8	--	--
14...	0	180	18	530	4100	--	7970	10.8	151	.95	--	--
24...	0	147	3.6	460	2900	--	5570	7.58	752	.57	--	--
DEC												
05...	0	154	2.4	440	2600	--	5070	6.90	1590	.79	--	--
10...	--	--	--	--	--	.3	--	--	--	--	1.3	.14
15...	0	158	1.9	460	2400	--	4960	6.75	1550	.01	--	--
25...	0	169	1.7	440	2300	--	4680	6.36	1430	.65	--	--
JAN												
05...	0	174	2.7	450	2400	--	4600	6.26	1020	.64	--	--
07...	--	--	--	--	--	.4	--	--	--	--	1.6	.04
15...	0	177	2.2	490	2400	--	4760	6.47	964	.46	--	--
25...	0	171	4.2	430	2000	--	4120	5.60	1360	.89	--	--
FEB												
04...	--	--	--	--	--	.4	--	--	--	--	1.3	.08
07...	0	175	2.7	540	1800	--	4130	5.62	1390	.74	--	--
17...	0	176	2.7	400	1500	--	3260	4.43	1580	.85	--	--
25...	0	170	13	470	1800	--	3880	5.28	524	.79	--	--
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
05...	0	162	16	470	1900	--	4220	5.74	763	.53	--	--
15...	0	155	2.4	460	1800	--	3900	5.30	1320	.43	--	.09
24...	0	156	2.4	450	1800	--	4140	5.63	894	.61	--	--
APR												
05...	0	156	12	450	2300	--	4640	6.31	526	.59	--	--
06...	--	--	--	--	--	.4	--	--	--	--	.90	.27
17...	0	134	13	480	3100	--	5760	7.83	2270	.48	--	--
23...	0	106	13	350	680	--	1740	2.37	4750	.58	--	--
MAY												
04...	--	--	--	--	--	.4	--	--	--	--	.70	.09
05...	0	139	8.6	330	640	--	1670	2.27	5860	1.0	--	--
15...	0	129	7.9	330	1200	--	2600	3.54	9550	.36	--	--
25...	0	132	13	370	1100	--	2470	3.36	4000	1.3	--	--
JUN												
01...	0	126	7.8	400	930	--	2270	3.09	2920	.42	--	--
19...	0	128	7.9	430	1600	--	3450	4.69	503	.78	--	--
29...	--	--	--	--	--	.4	--	--	--	--	2.0	.14
30...	0	105	13	590	3100	--	6190	8.42	334	1.0	--	--
JUL												
10...	0	85	11	420	1700	--	3520	4.79	1360	1.3	--	--
16...	0	93	18	460	2300	--	4550	6.19	295	1.1	--	--
24...	0	102	16	520	3300	--	6350	8.64	206	1.5	--	--
27...	--	--	--	--	--	.3	--	--	--	--	3.4	.29
AUG												
05...	0	100	7.8	510	2900	--	5800	7.89	345	1.5	--	--
14...	0	95	5.9	570	3500	--	6760	9.19	438	1.6	--	--
25...	--	--	--	--	--	.5	--	--	--	--	3.4	.12
26...	0	90	14	610	4000	--	7630	10.4	515	1.4	--	--
SEP												
05...	0	80	12	650	4200	--	8050	10.9	543	1.5	--	--
15...	0	80	16	660	4400	--	8370	11.4	610	1.5	--	--
29...	--	--	--	--	--	.4	--	--	--	--	2.5	.21
29...	0	85	17	650	4800	--	9070	12.3	441	1.7	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
07...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
NOV											
05...	6	3	8	8	1900	30	500	--	14	4	--
05...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	900	--	100	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JAN											
05...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	300	--	45	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	5	4	7	6	1500	33	92	--	23	0	15
07...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
03...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	500	--	140	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
04...	4	3	9	12	200	5	90	<.5	23	5	18
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	1600	--	480	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	1900	--	--	--	--	--	--
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
25...	11	7	27	22	700	30	450	.6	33	7	15
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	800	--	384	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10900	11700	8470	7910	5850	6500	7360	6150	4040	6620	9560	12800
2	10100	12400	8770	7670	7440	6690	6930	4010	4190	6550	9430	12900
3	11300	12600	8770	7570	7320	6620	7680	4700	4920	6460	9540	13000
4	11200	12100	8700	7880	7670	7550	7480	5060	5190	6890	9560	12900
5	11000	12100	8750	7950	6840	6850	7630	2460	5220	7950	9730	13000
6	11100	12300	8870	7930	7380	6860	7380	3860	5210	7880	9560	13100
7	11200	12200	8960	7950	7290	6870	7620	4870	5070	7790	9930	13100
8	11600	12600	8890	8180	7340	6730	7830	5060	5080	5950	9760	13400
9	11600	12100	8970	8240	7490	6550	7640	5240	4850	5490	10300	13400
10	10700	11600	8990	8170	6550	6470	7510	3970	4510	6000	10400	13600
11	11800	13300	8960	8230	6430	6470	8900	4210	4820	6720	10700	13700
12	11800	13300	8920	8260	6360	6220	7400	4050	5100	6990	11000	13700
13	11500	11500	8960	8130	6570	6470	7150	4460	4950	7250	11100	13700
14	11700	13000	8770	8230	9330	6490	7250	4660	5120	7550	11200	14000
15	11700	12700	8520	8180	8840	6180	7200	4600	5230	7780	9740	13700
16	10600	12900	8180	8180	7300	6640	9920	4610	5240	7770	11200	14100
17	10800	13400	7760	8150	7130	6630	10800	4270	5270	7620	11100	13300
18	11200	13300	8610	8100	5850	6640	9370	4390	5290	8160	11100	14600
19	11000	9880	8450	7670	6280	6390	9070	4170	5770	8280	11300	14400
20	11700	8180	8450	8490	5870	6430	8840	3420	5770	8490	12100	14400
21	12100	9180	8300	7560	5970	6630	8490	3610	5930	9600	11400	14600
22	12500	9340	8460	6970	6130	6500	8080	3900	6320	9690	12500	14500
23	12300	9450	8440	9090	6610	6490	5590	3730	6160	9960	12400	14800
24	12700	9490	8340	4670	6520	6460	3810	3810	6080	10400	12400	15000
25	11600	9130	8010	7090	6540	6500	6750	4150	6660	10000	11900	14000
26	12600	10700	8020	10200	6440	6490	7510	4570	6640	8640	12500	14600
27	13200	9580	8250	8910	6370	7160	8110	4590	6790	9240	12600	14500
28	13200	7910	8200	8230	6410	7460	6980	4490	7240	8260	12600	12700
29	13400	8580	7810	6080	6610	6850	6430	3870	7950	9770	12700	15000
30	13100	7370	7880	5010	---	7330	6740	3830	9730	9600	12800	14900
31	12600	---	7890	6190	---	7350	---	4290	---	9460	12600	---
MONTH	11700	11100	8490	7780	6850	6690	7650	4290	5680	8030	11100	13800
YEAR	MAX	15000	MIN	2460	MEAN	8610						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	15.5	4.5	2.5	6.5	11.0	11.5	13.0	23.5	24.5	26.5	22.0
2	17.0	16.0	1.0	1.5	5.0	11.0	12.0	14.0	23.0	24.0	23.5	23.0
3	16.5	14.0	4.5	0.5	5.0	8.0	12.0	13.5	21.5	23.5	24.5	23.5
4	17.0	14.5	6.0	0.0	3.5	7.0	12.5	14.0	22.0	23.5	24.5	24.5
5	16.5	15.5	8.0	0.5	2.0	6.5	13.5	15.5	22.0	23.5	25.5	24.5
6	19.0	15.5	7.0	0.5	1.0	5.5	13.5	15.5	22.0	24.0	25.0	25.0
7	18.0	16.0	6.5	0.5	1.0	5.0	14.0	15.0	23.0	24.0	25.5	24.5
8	16.5	16.0	6.0	0.0	1.5	5.0	14.5	15.0	23.5	25.0	25.5	22.5
9	17.0	14.5	6.0	0.0	9.5	6.0	14.5	15.0	23.5	25.5	24.5	21.0
10	20.0	12.0	6.5	0.5	6.0	8.0	14.5	17.5	24.0	25.5	25.0	20.5
11	19.5	10.0	6.5	0.5	6.0	8.0	16.0	19.5	24.0	25.0	25.0	20.0
12	19.5	11.0	5.5	1.0	7.0	8.0	15.0	18.0	24.0	25.0	26.5	21.0
13	19.5	10.5	7.0	1.5	8.5	6.5	16.5	16.5	25.0	25.0	25.5	21.0
14	18.5	9.0	8.0	1.5	9.0	7.0	18.0	16.0	24.5	24.5	24.5	22.5
15	16.0	10.0	5.5	2.0	10.5	6.5	18.5	17.5	23.5	25.0	25.5	22.0
16	15.0	11.5	4.0	2.5	11.0	6.0	16.5	17.0	24.0	26.0	25.5	21.5
17	15.0	12.5	2.5	2.5	10.5	7.5	15.5	17.0	24.0	26.0	26.0	22.5
18	16.5	15.5	1.5	3.0	10.0	9.5	16.0	17.5	23.0	25.5	26.5	23.5
19	15.0	12.5	1.5	3.0	9.5	11.0	16.0	18.5	23.0	25.5	25.0	22.5
20	15.5	13.5	1.5	2.5	9.5	11.5	15.5	19.0	23.0	25.0	24.5	21.5
21	17.0	4.5	1.5	3.0	7.5	10.5	15.0	20.0	22.5	24.0	24.0	20.5
22	18.0	4.0	2.0	3.5	6.5	11.0	16.5	20.5	24.0	24.5	24.0	20.5
23	17.0	3.5	1.5	4.5	6.5	11.0	18.5	21.0	24.0	25.0	24.5	20.5
24	13.5	3.0	1.5	5.5	6.5	12.5	18.5	22.5	25.0	28.0	24.0	21.0
25	12.0	1.5	1.5	4.5	7.0	13.5	16.0	20.5	24.5	28.5	24.5	20.0
26	11.5	0.5	1.5	3.0	8.0	14.5	14.0	19.5	25.0	26.5	23.5	19.5
27	14.5	0.5	2.0	2.5	9.0	13.5	12.5	18.5	26.0	25.5	23.5	17.5
28	13.5	7.0	2.0	3.0	10.5	13.0	12.0	19.5	26.5	26.0	22.5	17.0
29	12.0	6.0	2.0	3.0	11.0	13.0	12.0	21.0	25.0	27.5	22.5	17.0
30	13.0	6.5	2.0	4.5	---	12.5	12.0	21.5	24.0	26.0	22.5	18.0
31	15.0	---	2.5	5.0	---	10.5	---	22.0	---	27.0	21.0	---
MONTH	16.0	10.0	4.0	2.0	7.0	9.5	15.0	18.0	24.0	25.5	24.5	21.5
YEAR	MAX	28.5	MIN	0.0	MEAN	14.5						

ARKANSAS RIVER BASIN

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07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	510	550	440	440	410	430	440	420	370	430	460	590
2	480	580	450	440	440	430	430	370	370	430	450	600
3	530	590	450	440	440	430	440	380	390	430	460	600
4	530	570	450	440	440	440	440	390	400	430	460	600
5	520	570	450	440	430	430	440	320	400	440	460	600
6	520	570	450	440	440	430	440	360	400	440	460	610
7	530	570	450	440	440	430	440	390	390	440	470	610
8	540	590	450	440	440	430	440	390	390	420	470	620
9	540	570	450	440	440	430	440	400	390	400	490	620
10	510	540	450	440	430	430	440	360	380	420	490	630
11	550	620	450	440	430	430	450	370	390	430	510	630
12	550	620	450	440	430	420	440	370	390	430	520	630
13	540	540	450	440	430	430	430	380	390	430	520	630
14	550	600	450	440	450	430	430	380	390	440	530	650
15	550	590	440	440	450	420	430	380	400	440	460	630
16	500	600	440	440	440	430	470	380	400	440	530	650
17	510	620	440	440	430	430	510	370	400	440	520	620
18	530	620	450	440	410	430	450	380	400	440	520	670
19	520	470	440	440	420	430	450	370	410	440	530	660
20	550	440	440	440	410	430	450	350	410	440	570	660
21	570	450	440	440	420	430	440	350	420	460	540	670
22	580	450	440	430	420	430	440	360	430	460	580	670
23	570	450	440	450	430	430	410	360	420	470	580	680
24	590	450	440	380	430	430	360	360	420	490	580	690
25	540	450	440	430	430	430	430	370	430	480	560	650
26	590	510	440	480	430	430	440	380	430	450	580	670
27	610	460	440	450	430	430	440	380	430	450	590	670
28	610	440	440	440	430	440	430	380	430	440	590	590
29	620	450	440	420	430	430	430	360	440	470	590	690
30	610	440	440	390	---	440	430	360	460	460	590	680
31	590	---	440	420	---	440	---	370	---	450	590	---
MONTH	550	530	440	440	430	430	440	370	410	440	520	640
YEAR	MAX	690	MIN	320	MEAN	470						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.8	8.76	128	196	134	80.1	60.6	1940	508	25.5	27.3	43.0
2	11.8	11.4	118	173	141	101	69.4	1750	467	109	29.2	43.7
3	12.7	10.4	125	132	115	40.6	32.1	1680	418	221	27.3	42.1
4	12.6	10.2	143	114	76.0	131	36.8	1630	381	239	27.3	42.1
5	12.4	10.0	145	105	122	88.2	49.9	1200	345	266	27.3	42.1
6	12.2	10.0	119	106	134	76.6	53.5	1170	312	259	24.8	42.8
7	12.3	10.8	126	141	137	92.9	53.5	1100	294	252	25.4	44.5
8	12.4	11.3	137	146	129	111	46.3	1110	272	186	27.9	46.9
9	13.9	14.5	130	148	168	158	58.2	1130	258	154	26.5	46.9
10	11.6	11.2	129	128	138	160	92.7	1170	238	162	26.5	45.9
11	12.0	13.9	131	76.0	125	183	52.2	1140	201	166	31.7	44.2
12	11.3	14.4	125	76.0	166	239	55.8	1250	188	135	32.3	45.9
13	11.5	9.91	139	83.2	130	149	95.2	1530	181	80.1	35.1	45.9
14	12.3	11.7	154	86.7	148	139	113	1500	140	55.8	34.3	47.4
15	13.1	11.5	139	93.9	148	134	123	1460	121	35.6	31.0	47.6
16	10.3	11.7	116	106	168	157	275	1360	119	28.5	34.3	49.1
17	10.7	13.9	86.7	116	174	149	219	1140	108	30.9	33.7	51.9
18	10.9	13.7	135	127	141	163	231	994	78.8	23.8	35.1	50.7
19	10.2	250	124	135	105	185	289	865	67.5	23.8	34.3	51.7
20	10.8	274	116	157	204	197	594	696	59.8	23.8	38.5	49.9
21	10.6	57.1	116	153	268	118	689	598	42.0	27.3	36.4	48.8
22	10.5	34.0	121	160	71.4	106	914	581	29.0	24.8	39.1	45.2
23	10.3	41.3	129	158	63.9	123	1100	705	65.8	19.0	39.1	45.9
24	11.0	52.2	141	90.3	125	113	1020	660	49.9	15.9	39.1	44.7
25	9.91	34.0	144	121	75.5	123	1030	596	34.8	15.6	37.8	40.4
26	10.5	97.8	154	170	60.4	115	858	707	36.0	18.2	39.1	38.0
27	10.4	73.3	146	153	69.7	77.8	802	812	29.0	24.3	41.4	36.2
28	10.7	76.0	144	151	75.5	40.4	875	765	27.9	26.1	43.0	30.3
29	10.7	318	143	151	82.4	204	1010	662	14.3	25.4	41.4	33.5
30	11.9	179	153	125	---	63.0	1440	605	16.1	24.8	41.4	31.2
31	9.56	---	112	144	---	46.3	---	540	---	24.3	41.4	---
MONTH	11.4	56.5	131	130	127	125	412	1070	170	87.8	33.8	44.0
YEAR	MAX	1940	MIN	8.76	MEAN	200						

ARKANSAS RIVER BASIN

07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3300	3600	2500	2300	1600	1800	2100	1700	1000	1800	2900	4000
2	3000	3900	2600	2200	2100	1800	1900	1000	1100	1800	2800	4100
3	3500	3900	2600	2100	2000	1800	2200	1200	1300	1800	2800	4100
4	3400	3800	2500	2200	2200	2100	2100	1300	1400	1900	2900	4100
5	3400	3800	2600	2300	1900	1900	2200	520	1400	2300	2900	4100
6	3400	3800	2600	2300	2100	1900	2100	960	1400	2200	2900	4100
7	3400	3800	2600	2300	2000	1900	2200	1300	1300	2200	3000	4100
8	3600	3900	2600	2400	2100	1900	2200	1300	1300	1600	2900	4200
9	3600	3800	2600	2400	2100	1800	2200	1400	1300	1500	3100	4200
10	3300	3600	2600	2300	1800	1800	2100	990	1200	1600	3200	4300
11	3700	4200	2600	2400	1800	1800	2600	1100	1300	1900	3300	4300
12	3700	4200	2600	2400	1700	1700	2100	1000	1300	1900	3400	4300
13	3600	3600	2600	2300	1800	1800	2000	1100	1300	2000	3400	4300
14	3600	4100	2600	2400	2800	1800	2000	1200	1400	2100	3400	4500
15	3600	4000	2500	2400	2600	1700	2000	1200	1400	2200	2900	4300
16	3200	4100	2400	2400	2000	1800	3000	1200	1400	2200	3400	4500
17	3300	4200	2200	2300	2000	1800	3300	1100	1400	2200	3400	4200
18	3400	4200	2500	2300	1600	1600	2800	1100	1400	2300	3400	4700
19	3400	3000	2500	2200	1700	1700	2700	1100	1600	2400	3500	4600
20	3600	2400	2500	2500	1600	1800	2600	820	1600	2500	3600	4600
21	3600	2700	2400	2100	1600	1800	2500	880	1600	2900	3500	4700
22	3900	2800	2500	1900	1700	1800	2300	970	1700	2900	3900	4600
23	3800	2800	2400	2700	1800	1800	1500	920	1700	3000	3900	4700
24	4000	2800	2400	1200	1800	1800	940	940	1700	3200	3900	4800
25	3600	2700	2300	2000	1600	1800	1900	1000	1800	3000	3700	4500
26	3900	3300	2300	3100	1800	1800	2100	1200	1800	2500	3900	4700
27	4200	2900	2400	2600	1700	2000	2300	1200	1900	2700	3900	4600
28	4200	2300	2400	2400	1800	2100	1900	1200	2000	2400	3900	4000
29	4200	2500	2200	1700	1800	1900	1800	960	2300	2900	4000	4800
30	4100	2100	2200	1300	---	2000	1900	950	2900	2900	4000	4800
31	3900	---	2200	1700	---	2100	---	1100	---	2800	3900	---
MONTH	3600	3400	2500	2200	1900	1800	2200	1100	1500	2300	3400	4400
YEAR	MAX	4800	MIN	520	MEAN	2500						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82.9	57.3	729	1020	523	335	289	7850	1370	107	172	292
2	73.7	76.9	661	867	675	423	395	4720	1390	457	181	299
3	84.1	68.4	723	629	524	170	160	5310	1390	923	166	288
4	80.8	67.7	796	570	380	624	176	5440	1330	1060	172	288
5	80.8	66.7	835	546	539	390	249	1950	1210	1390	172	288
6	79.9	66.7	688	553	641	339	255	3110	1090	1290	157	288
7	78.9	71.8	730	739	621	410	267	3650	979	1260	162	299
8	82.6	74.8	793	797	618	492	232	3690	906	708	172	318
9	92.3	96.4	751	810	799	661	291	3970	860	579	167	318
10	74.8	74.8	744	671	578	671	442	3210	752	618	173	313
11	80.9	94.1	758	415	525	768	302	3390	670	734	205	302
12	75.9	97.5	723	415	656	968	266	3380	628	595	211	313
13	76.8	66.1	800	435	544	622	443	4430	604	373	229	313
14	80.7	79.7	892	473	922	583	524	4730	503	266	220	328
15	85.5	77.8	790	512	856	542	572	4600	423	178	196	325
16	65.7	79.7	635	577	761	656	1760	4310	416	143	220	340
17	69.5	94.1	434	609	810	622	1420	3390	378	154	220	352
18	69.8	93.0	749	664	549	680	1440	2880	276	124	229	355
19	67.0	1600	702	677	427	730	1740	2570	264	130	227	360
20	71.0	1500	661	891	795	826	3430	1630	233	135	256	348
21	70.8	343	635	731	1020	496	3920	1500	160	172	236	343
22	70.6	212	688	708	289	442	4780	1570	115	157	263	310
23	68.7	257	706	948	267	515	4030	1800	266	121	263	317
24	74.5	325	771	285	525	471	2660	1720	202	104	263	311
25	66.1	204	751	562	316	515	4570	1610	146	97.2	250	279
26	69.5	633	807	1100	253	481	4090	2230	151	101	263	266
27	71.4	462	797	885	275	362	4190	2560	128	146	274	248
28	73.7	397	784	823	316	193	3870	2420	130	143	284	205
29	72.6	1770	713	610	345	903	4240	1770	74.5	157	281	233
30	79.7	856	766	418	---	286	6360	1600	102	157	281	220
31	63.2	---	558	583	---	221	---	1610	---	151	274	---
MONTH	75.3	332	729	662	564	529	1910	3180	572	411	221	302
YEAR	MAX	7850	MIN	57.3	MEAN	792						

ARKANSAS RIVER BASIN

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07150500 SALT FORK ARKANSAS RIVER NEAR JET, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6460	6970	4940	4620	3410	3790	4290	3580	2340	3860	5590	7680
2	5940	7420	5120	4470	4340	3900	4040	2330	2430	3820	5510	7750
3	6710	7550	5120	4420	4270	3860	4480	2730	2860	3760	5580	7810
4	6650	7230	5080	4600	4470	4400	4360	2940	3020	4020	5590	7750
5	6520	7230	5110	4640	3990	3990	4450	1420	3040	4640	5700	7810
6	6590	7360	5180	4630	4300	4000	4300	2240	3030	4600	5590	7870
7	6650	7290	5230	4640	4250	4000	4450	2830	2950	4540	5430	7870
8	6910	7550	5190	4770	4280	3920	4570	2940	2950	3460	5720	8070
9	6910	7230	5240	4810	4370	3820	4460	3050	2820	3190	6070	8070
10	6330	6910	5250	4770	3820	3770	4380	2300	2620	3490	6130	8200
11	7040	8000	5230	4800	3750	3770	5200	2440	2800	3920	6330	8260
12	7040	8000	5210	4820	3710	3620	4320	2350	2970	4080	6520	8260
13	6840	6840	5230	4740	3830	3770	4170	2590	2880	4230	6590	8260
14	6970	7810	5120	4800	5450	3780	4230	2710	2980	4400	6650	8450
15	6970	7620	4970	4770	5160	3600	4200	2670	3040	4540	5710	8260
16	6260	7750	4770	4770	4260	3870	5830	2680	3050	4530	6650	8520
17	6390	8070	4530	4760	4160	3860	6390	2480	3070	4450	6590	8000
18	6650	8000	5030	4730	3410	3870	5470	2550	3080	4760	6590	8840
19	6520	5800	4930	4470	3660	3720	5300	2420	3360	4830	6710	8710
20	6970	4770	4930	4960	3420	3750	5160	1980	3360	4960	7230	8710
21	7230	5360	4840	4410	3480	3860	4960	2090	3450	5620	6780	8840
22	7490	5450	4940	4060	3570	3790	4720	2260	3680	5680	7490	8780
23	7360	5520	4930	5310	3650	3780	3250	2160	3590	5850	7420	8970
24	7620	5550	4870	2710	3800	3760	2210	2210	3540	6130	7420	9100
25	6910	5330	4670	4130	3810	3790	3930	2410	3880	5880	7100	8450
26	7550	6330	4680	6010	3750	3780	4380	2650	3870	5040	7490	8840
27	7940	5610	4810	5200	3710	4170	4730	2670	3960	5400	7550	8780
28	7940	4620	4790	4800	3730	4350	4070	2610	4220	4820	7550	7620
29	8070	5010	4560	3540	3650	3990	3750	2240	4640	5730	7620	9100
30	7870	4300	4600	2910	---	4270	3930	2220	5700	5620	7680	9030
31	7550	---	4600	3610	---	4290	---	2490	---	5530	7550	---
MONTH	7000	6620	4960	4540	4000	3900	4470	2490	3310	4690	6600	8360
YEAR	MAX	9100	MIN	1420	MEAN	5070						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	111	1440	2060	1110	706	591	16500	3220	229	332	560
2	146	146	1340	1760	1390	916	840	11000	3060	970	357	565
3	161	133	1420	1320	1120	365	327	12100	3070	1930	331	548
4	158	129	1620	1190	772	1310	365	12300	2880	2240	332	544
5	155	127	1640	1100	1130	819	505	5330	2620	2810	339	548
6	155	129	1370	1110	1310	713	522	7260	2360	2710	302	552
7	154	138	1470	1490	1320	864	541	7950	2220	2600	315	574
8	159	145	1580	1580	1260	1020	481	8330	2050	1530	340	610
9	177	183	1510	1620	1660	1400	590	8650	1870	1230	328	610
10	144	144	1500	1390	1230	1400	922	7450	1640	1350	331	598
11	154	179	1530	829	1090	1610	604	7510	1440	1510	393	580
12	144	186	1450	833	1430	2060	548	7930	1440	1280	405	602
13	146	126	1610	896	1160	1300	923	10400	1340	788	445	602
14	156	152	1760	946	1800	1220	1110	10700	1070	558	431	616
15	166	148	1570	1020	1700	1150	1200	10200	919	368	385	624
16	128	151	1260	1150	1620	1410	3420	9620	906	294	431	644
17	135	181	893	1260	1680	1330	2740	7630	829	312	427	670
18	136	177	1510	1370	1170	1460	2810	6670	607	257	445	668
19	129	3090	1380	1380	919	1600	3410	5660	553	261	435	682
20	137	2980	1300	1770	1700	1720	6810	3930	490	268	486	658
21	135	680	1280	1540	2220	1060	7770	3570	345	334	458	644
22	135	412	1360	1510	607	931	9800	3650	248	307	506	593
23	133	507	1450	1860	572	1080	8730	4230	562	237	501	605
24	142	644	1560	644	1110	985	6270	4050	421	199	501	590
25	127	403	1530	1160	669	1080	9440	3880	314	191	479	525
26	135	1210	1640	2130	526	1010	8540	4930	324	204	506	501
27	135	894	1600	1770	601	754	8620	5700	267	292	530	474
28	139	798	1560	1650	655	399	8290	5260	273	286	550	391
29	139	3540	1480	1270	738	1900	8840	4120	150	309	535	442
30	153	1750	1600	935	---	611	13200	3730	200	303	539	414
31	122	---	1170	1240	---	452	---	3640	---	299	530	---
MONTH	145	653	1460	1350	1180	1120	3960	7220	1260	853	427	574
YEAR	MAX	16500	MIN	111	MEAN	1690						

ARKANSAS RIVER BASIN

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK

LOCATION.--Lat 36°40'13", long 97°18'33", in NW 1/4 SE 1/4 sec.4, T.25 N., R.1 W., Kay County, near right bank on downstream side of pier of bridge on U.S. Highway 77 in Tonkawa, 4 mi (6.4 km) downstream from Thompson Creek, 7.8 mi (12.6 km) upstream from Chikaskia River, and at mile 33.8 (34.4 km).

DRAINAGE AREA.--4,528 mi² (11,728 km²) of which 8 mi² (20.7 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to October 1905 (gage heights only), October 1935 to current year.
Monthly discharge only for some periods, published as Arkansas River (Salt Fork) near Tonkawa 1903-4 and as "near Tonkawa" 1905.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 930.22 ft (283.531 m) above mean sea level (Corps of Engineers bench mark). September 1903 to October 1905, nonrecording gage near present site at different datum. Jan. 2, 1936, to Jan. 22, 1939 nonrecording gage, and Jan. 23, 1939, to June 20, 1960, water-stage recorder at site 100 ft (30.5 m) upstream at same datum.

REMARKS.--Records good. Some regulation since June 1941 by Great Salt Plains Lake, 69.5 miles (111.8 km) upstream (station 07150000).

AVERAGE DISCHARGE.--(since regulation by Great Salt Plains Dam) 35 years (water years 1942-76), 749 ft³/s (21.21 m³/s), 542,600 acre-ft/yr (669 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 97,300 ft³/s (2,760 m³/s) Oct. 11, 1973, gage height, 28.98 ft (8.833 m); no flow Aug. 31 to Oct. 12, Oct. 14-16, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1923 reached a stage of 26.8 ft (8.17 m), from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,900 ft³/s (224 m³/s) July 3, gage height, 13.29 ft (4.051 m), no peaks above base of 11,000 ft³/s (312 m³/s); minimum, 40 ft³/s (1.13 m³/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	72	496	190	176	105	122	1140	774	132	73	51
2	83	75	383	165	172	109	116	1460	709	2090	71	52
3	83	158	267	145	175	109	109	1790	652	5750	71	53
4	82	305	232	125	166	120	103	1750	581	1730	72	51
5	81	158	215	115	158	110	96	1680	510	638	69	49
6	80	116	211	189	128	102	87	1580	461	381	67	47
7	79	111	209	256	132	141	85	1370	424	314	66	46
8	78	107	193	243	194	124	85	1190	391	272	60	46
9	75	95	193	241	181	132	84	1110	367	237	58	59
10	75	86	199	231	170	139	86	1080	344	197	56	68
11	76	81	194	239	175	170	86	1170	320	157	54	67
12	76	77	187	248	189	172	103	1250	305	144	54	58
13	75	75	201	210	162	181	107	1370	282	142	53	58
14	74	76	186	184	184	215	103	2240	254	131	54	56
15	80	76	190	161	176	176	141	1720	258	122	55	55
16	78	77	200	145	170	166	147	1590	262	113	57	58
17	74	78	185	146	181	157	195	1470	213	105	55	65
18	73	79	178	149	179	173	232	1310	239	98	54	59
19	73	84	160	152	179	167	262	1120	230	87	51	63
20	73	86	195	160	185	163	1280	986	202	81	50	177
21	73	98	186	164	149	175	1010	884	174	81	50	237
22	73	230	173	181	167	182	774	787	161	79	49	136
23	72	162	173	188	246	168	746	1270	155	79	49	85
24	69	116	172	185	147	141	846	2380	146	79	50	64
25	69	103	175	184	117	144	978	2350	143	77	51	66
26	70	107	181	164	125	147	987	2220	145	77	50	171
27	72	95	187	146	132	138	851	3460	141	76	46	441
28	69	106	190	178	113	131	957	2820	137	76	48	303
29	70	149	189	179	108	135	1020	1430	136	74	46	152
30	70	173	194	183	---	135	1110	1090	132	74	48	95
31	72	---	183	181	---	128	---	927	---	73	50	---
TOTAL	2331	3411	6477	5627	4736	4555	12908	47994	9248	13766	1739	2988
MEAN	75.2	114	209	182	163	147	430	1548	308	444	56.1	99.6
MAX	84	305	496	256	246	215	1280	3460	774	5750	73	441
MIN	69	72	160	115	108	102	84	787	132	73	46	46
AC-FT	4620	6770	12850	11160	9390	9030	25600	95200	18340	27300	3450	5930
CAL YR 1975	TOTAL	504128	MEAN	1381	MAX	17900	MIN	69	AC-FT	999900		
WTR YR 1976	TOTAL	115780	MEAN	316	MAX	5750	MIN	46	AC-FT	229600		

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948, 1952-63, 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1959 to September 1963, July 1968 to current year.

WATER TEMPERATURE: November 1959 to September 1963, July 1968 to current year.

INSTRUMENTATION.--Water quality monitor since July 1968.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 14,800 micromhos June 30, 1972, Dec. 30, 1973; minimum, 193 micromhos Aug. 17, 1974.

WATER TEMPERATURE: Maximum, 35.0°C July 14, 1969; minimum, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 7,600 micromhos Apr. 24; minimum daily 398 micromhos July 2.

WATER TEMPERATURE: Maximum daily 34.0°C Aug. 13; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
UCT												
07...	--	--	1730	--	81	3570	8.7	--	--	--	--	--
15...	--	--	1730	--	77	3420	8.5	--	--	--	--	--
25...	--	--	1900	--	70	3490	8.4	--	--	--	--	--
NOV												
04...	1028	9740	1445	305	--	1200	7.7	17.0	170	8.5	93	81
04...	--	--	1630	--	270	1220	8.3	--	--	--	--	--
14...	--	--	1615	--	77	3230	8.4	--	--	--	--	--
24...	--	--	1650	--	111	5850	8.5	--	--	--	--	--
DEC												
02...	1028	9740	1345	383	--	6000	8.3	6.0	140	12.8	108	140
04...	--	--	1200	--	232	4940	8.4	--	--	--	--	--
15...	--	--	1700	--	198	6300	8.3	--	--	--	--	--
23...	--	--	1700	--	175	6030	8.5	--	--	--	--	--
JAN												
05...	--	--	1730	--	122	4860	8.1	--	--	--	--	--
15...	1028	9740	1130	161	--	5250	8.0	2.0	6	14.8	112	4
15...	--	--	1700	--	157	5010	8.1	--	--	--	--	--
26...	--	--	1730	--	157	5300	8.4	--	--	--	--	--
FEB												
03...	1028	9740	1400	175	--	5000	8.6	7.5	3	13.2	115	56
05...	--	--	1700	--	162	4890	8.2	--	--	--	--	--
15...	--	--	1800	--	172	5620	7.6	--	--	--	--	--
25...	--	--	1815	--	111	4500	7.9	--	--	--	--	--
MAR												
02...	1028	9740	1415	109	--	4000	8.5	18.0	30	11.3	128	--
05...	--	--	1530	--	105	4910	8.3	--	--	--	--	--
15...	--	--	1730	--	170	5570	8.2	--	--	--	--	--
25...	--	--	1830	--	154	5250	8.2	--	--	--	--	--
APR												
05...	--	--	1900	--	96	5200	7.5	--	--	--	--	--
06...	1028	9740	1245	87	--	2600	--	20.0	25	11.0	129	62
15...	--	--	1835	--	147	4070	7.6	--	--	--	--	--
26...	--	--	1945	--	942	3430	7.4	--	--	--	--	--
MAY												
03...	--	--	1900	--	1850	5430	7.6	--	--	--	--	--
05...	1028	9740	1315	1680	--	7000	8.3	17.5	66	8.7	98	90
08...	--	--	2000	--	1190	3850	7.6	--	--	--	--	--
28...	--	--	2000	--	2170	1330	7.8	--	--	--	--	--
JUN												
02...	1028	9740	1400	709	--	3750	8.4	26.0	35	8.8	111	46
05...	--	--	1945	--	493	4010	7.5	--	--	--	--	--
16...	--	--	1915	--	256	4440	7.5	--	--	--	--	--
25...	--	--	1930	--	142	4200	7.7	--	--	--	--	--
JUL												
02...	--	--	2030	--	4930	398	7.3	--	--	--	--	--
08...	--	--	1845	--	266	5680	7.2	--	--	--	--	--
13...	1028	9740	0945	142	--	5000	8.6	26.0	37	8.1	105	39
20...	--	--	1925	--	81	3790	7.6	--	--	--	--	--

ARKANSAS RIVER BASIN

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
AUG												
07...	--	--	0815	--	67	5060	7.8	--	--	--	--	--
15...	--	--	1705	--	56	5660	7.7	--	--	--	--	--
17...	1028	9740	1300	55	--	5000	8.6	31.0	12	10.4	142	32
29...	--	--	2000	--	46	6800	7.0	--	--	--	--	--
SEP												
05...	--	--	2005	--	47	6930	7.7	--	--	--	--	--
14...	1028	9740	1245	56	--	5500	8.4	26.0	16	11.6	149	19
16...	--	--	1945	--	61	5450	--	--	--	--	--	--
27...	--	--	1925	--	387	1660	7.5	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	
OCT												
07...	370	78	87	36	590	78	13	4.5	351	0	288	
15...	370	81	92	34	560	76	13	4.3	336	8	289	
25...	330	56	78	32	570	79	14	4.1	305	12	270	
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	160	20	39	14	180	71	6.3	4.4	165	0	135	
14...	360	53	89	34	540	76	12	4.2	371	3	309	
24...	510	280	130	45	--	--	--	8.4	270	3	226	
DEC												
02...	--	--	--	--	--	--	--	--	--	--	--	--
04...	450	260	120	37	850	80	17	8.0	239	0	196	
15...	500	280	130	43	--	--	--	8.2	270	0	221	
23...	490	260	130	41	1100	83	22	7.5	280	0	230	
JAN												
05...	420	260	110	36	900	82	19	5.7	197	0	162	
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	450	240	110	42	890	81	18	5.9	251	0	206	
26...	510	290	130	44	930	80	18	6.5	266	0	218	
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
05...	480	280	120	43	870	80	17	6.3	242	0	198	
15...	540	330	140	46	1000	80	19	7.5	251	0	206	
25...	500	280	130	43	810	78	16	6.5	270	0	221	
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
05...	460	240	110	44	860	80	18	5.8	258	0	212	
15...	520	330	130	47	950	80	18	7.1	228	0	187	
25...	480	290	120	43	900	80	18	6.6	227	0	186	
APR												
05...	470	270	110	48	970	81	19	6.5	242	0	198	
06...	--	--	--	--	--	--	--	--	--	--	--	--
15...	410	220	98	41	670	78	14	5.6	241	0	198	
26...	420	290	120	29	580	75	12	7.1	155	0	127	
MAY												
03...	480	340	130	38	950	81	19	7.7	168	0	138	
05...	--	--	--	--	--	--	--	--	--	--	--	--
08...	450	320	130	31	640	75	13	7.2	164	0	135	
28...	210	110	56	15	250	72	7.6	5.9	113	0	93	
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
05...	480	330	130	38	650	74	13	7.3	185	0	152	
16...	470	330	120	41	740	77	15	7.3	166	0	136	
25...	410	220	100	39	720	79	15	7.0	231	0	189	
JUL												
02...	84	19	22	7.1	44	52	2.1	4.2	79	0	65	
08...	450	350	120	37	1100	84	23	9.3	127	0	104	
13...	--	--	--	--	--	--	--	--	--	--	--	--
20...	380	190	93	35	770	81	17	7.1	222	0	182	
AUG												
07...	370	190	83	39	940	84	21	6.2	211	0	173	
15...	410	230	89	45	1100	85	24	6.7	220	0	180	
17...	--	--	--	--	--	--	--	--	--	--	--	--
29...	620	440	170	48	1300	82	23	7.0	225	0	185	
SEP												
05...	450	270	100	48	1300	86	27	7.3	219	0	180	
14...	--	--	--	--	--	--	--	--	--	--	--	--
16...	410	230	95	43	1000	84	21	6.1	200	12	184	
27...	150	59	40	12	280	80	10	4.3	110	0	90	

ARKANSAS RIVER BASIN

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07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO ₂) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
07...	1.1	170	870	--	2000	2.72	437	.29	--	--	--
15...	1.8	150	830	--	1920	2.61	399	.37	--	--	--
25...	2.1	180	830	--	1900	2.58	359	.18	--	--	--
NOV											
04...	--	--	--	.4	--	--	--	--	5.3	.39	32
04...	1.3	98	230	--	695	.95	507	1.2	--	--	--
14...	2.4	180	760	--	1830	2.49	380	.23	--	--	--
24...	1.4	370	1600	--	3440	4.68	1030	.53	--	--	--
DEC											
02...	--	--	--	.4	--	--	--	--	3.2	.50	--
04...	1.5	300	1500	--	2830	3.85	1770	1.1	--	--	--
15...	2.2	370	1700	--	3610	4.91	1930	.44	--	.12	--
23...	1.4	330	1700	--	3470	4.72	1640	.50	--	--	--
JAN											
05...	2.5	290	1300	--	2800	3.81	922	.24	--	--	--
15...	--	--	--	.4	--	--	--	--	2.4	.78	--
15...	3.2	330	1300	--	2790	3.79	1180	.55	--	--	--
26...	1.7	340	1400	--	3000	4.08	1270	.47	--	--	--
FEB											
03...	--	--	--	.4	--	--	--	--	.60	.05	2
05...	2.4	320	1400	--	2900	3.94	1270	.73	--	--	--
15...	10	370	1500	--	3230	4.39	1500	.78	--	--	--
25...	5.4	320	1300	--	2700	3.67	809	.43	--	--	--
MAR											
02...	--	--	--	.4	--	--	--	--	1.2	.08	--
05...	2.1	330	1300	--	2810	3.82	797	.44	--	--	--
15...	2.3	380	1500	--	3260	4.43	1500	.51	--	--	--
25...	2.3	340	1400	--	2970	4.04	1240	.51	--	--	--
APR											
05...	12	320	1500	--	3060	4.16	793	.12	--	--	--
06...	--	--	--	.4	--	--	--	--	1.5	.02	--
15...	9.7	240	1000	--	2320	3.16	921	.53	--	--	--
26...	9.9	330	840	--	2000	2.72	5090	1.1	--	--	--
MAY											
03...	6.8	300	1500	--	3140	4.27	15700	1.4	--	--	--
05...	--	--	--	.5	--	--	--	--	.70	.11	5
08...	6.6	300	970	--	2210	3.01	7100	.61	--	--	--
28...	2.9	150	350	--	868	1.18	5090	.85	--	--	--
JUN											
02...	--	--	--	.3	--	--	--	--	.90	.12	--
05...	9.4	440	1000	--	2310	3.14	3080	.98	--	--	--
16...	8.4	380	1100	--	2560	3.48	1770	1.1	--	--	--
25...	7.4	290	1100	--	2360	3.21	905	.61	--	--	--
JUL											
02...	6.3	21	67	--	231	.31	3080	1.4	--	--	--
08...	13	340	1600	--	3310	4.50	2380	.79	--	--	--
13...	--	--	--	.4	--	--	--	--	2.5	.25	--
20...	8.9	250	1200	--	2400	3.26	525	1.1	--	--	--
AUG											
07...	5.4	260	1400	--	2870	3.90	519	.67	--	--	--
15...	7.0	310	1600	--	3280	4.46	496	.81	--	--	--
17...	--	--	--	.3	--	--	--	--	<.80	.08	7
29...	36	330	1900	--	3940	5.36	489	1.3	--	--	--
SEP											
05...	7.0	350	2000	--	3990	5.43	506	1.4	--	--	--
14...	--	--	--	.4	--	--	--	--	2.5	.24	--
16...	--	280	1500	--	3240	4.41	534	.99	--	--	--
27...	5.6	86	400	--	891	1.21	931	2.6	--	--	--

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3560	3390	2380	3990	5470	4580	6430	5690	3320	3960	5490	6640
2	3590	3300	4910	5320	5250	5000	5300	5550	---	398	5420	6730
3	3560	3390	3920	5890	5200	5080	5180	5420	4210	434	---	---
4	3550	1220	4730	6510	4960	4820	5140	4160	4230	839	5170	---
5	3550	---	6040	4860	4800	4820	4570	5120	4010	1480	5450	6930
6	3550	2180	5040	6100	4860	4680	5320	4930	4630	3250	5170	6980
7	3570	2520	5380	5990	4360	4670	4940	2590	---	---	5060	---
8	3520	2580	5310	5510	4960	5210	4930	3850	4720	5680	---	---
9	3540	2500	5570	6300	5480	4640	4840	4800	4750	---	---	6270
10	3530	2560	6140	6010	5330	4650	4860	4950	4800	---	5210	6850
11	3580	2770	6350	6030	5140	5280	5020	5010	5160	---	5410	---
12	3580	2770	5880	6150	5380	5450	4900	4930	4850	4930	5540	6090
13	3590	2710	6880	5230	5450	5420	4930	---	4150	4860	5620	5910
14	3580	2620	6400	4830	5470	---	4550	2790	4240	5000	5640	6650
15	3420	3120	6300	4890	5560	5570	4110	---	4530	---	5660	6540
16	3520	3120	6600	4670	5400	5240	4320	---	4430	---	---	5680
17	3500	3970	6690	5440	5440	5880	4110	4430	4130	4500	---	---
18	---	3620	6600	5550	5570	5310	5050	---	3790	4490	6080	---
19	---	3330	6030	5460	5430	4880	5900	---	3780	4070	6080	6580
20	3490	3370	5740	5900	5510	4580	2160	4430	3830	3820	6150	---
21	3570	3820	6650	6030	4850	5790	2990	---	4060	4460	6140	---
22	3560	4580	5620	6310	4240	5660	5910	---	3740	4620	---	2340
23	3530	6090	5720	6680	5110	5020	6740	4180	3930	4730	6140	2660
24	3550	5700	5970	6340	5030	4590	7580	---	4100	4700	6250	4020
25	3490	4720	6700	5810	4260	6470	5980	---	4190	4640	6200	---
26	3480	4760	---	5360	4470	5540	3500	2640	4360	4700	---	---
27	3460	4420	6060	4840	4770	5680	6210	1400	4360	4670	---	1660
28	3460	4870	6050	4960	4660	5340	6270	1330	4590	4650	---	---
29	3480	4620	4920	5610	4980	5520	6300	1420	4310	4590	6800	---
30	3420	5180	---	5680	---	5380	5810	3490	---	4860	6750	1890
31	3460	---	2730	5800	---	5010	---	---	---	4950	6740	---
MONTH	3530	3580	5630	5610	5080	5190	5130	---	4270	3970	---	---
YEAR	MAX	7580	MIN	398	MEAN	4750						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	17.5	6.5	4.0	11.0	14.0	14.0	18.0	26.0	25.0	29.0	24.5
2	19.0	18.5	7.0	2.5	10.0	16.0	17.5	18.0	---	20.5	24.5	25.0
3	18.5	18.0	6.5	1.0	9.5	12.5	18.0	16.5	27.5	23.0	---	---
4	18.5	16.5	10.5	0.0	7.0	10.0	---	20.0	27.0	24.5	27.0	---
5	20.5	17.0	9.0	4.0	4.0	9.5	17.5	18.0	26.0	22.0	29.0	27.5
6	20.0	18.0	7.5	4.0	3.5	12.0	20.5	17.0	25.5	28.5	29.0	27.0
7	21.0	18.0	5.0	2.0	4.0	11.0	18.5	17.5	---	---	27.5	---
8	20.5	17.5	6.5	2.5	7.0	11.0	18.5	19.0	27.0	30.5	---	---
9	20.5	17.5	6.0	3.5	9.0	12.5	18.5	19.0	27.5	---	---	21.5
10	22.5	14.0	5.5	4.0	10.5	16.0	19.0	20.0	26.0	---	26.0	22.5
11	21.0	13.5	7.5	4.0	11.0	17.0	21.0	22.0	28.0	---	30.0	---
12	22.5	11.0	6.0	4.5	14.0	13.5	19.5	19.5	28.0	29.0	32.0	24.0
13	22.5	9.5	9.5	4.5	16.0	12.0	20.5	---	29.0	29.0	34.0	22.0
14	21.5	10.5	11.0	5.0	15.5	15.5	23.5	19.0	27.0	28.5	30.0	26.5
15	19.0	12.0	3.0	6.5	17.0	16.0	22.0	---	26.0	---	30.0	26.0
16	18.0	14.0	3.0	7.5	18.0	12.5	20.5	---	27.0	---	---	28.0
17	18.5	15.5	1.5	8.0	15.5	13.0	18.5	20.5	26.0	---	---	---
18	---	17.0	3.5	8.5	14.5	16.0	20.0	---	25.5	29.0	30.0	---
19	---	15.5	1.0	9.0	15.0	13.0	21.0	---	27.0	28.0	29.0	26.0
20	19.0	5.0	2.5	7.5	15.0	15.0	18.0	23.0	26.0	30.0	27.0	---
21	20.5	5.5	2.0	8.5	9.0	14.5	17.5	24.5	25.5	30.5	28.0	---
22	21.0	7.0	2.0	10.0	10.5	15.0	20.0	---	26.5	30.5	---	22.5
23	19.5	8.0	2.0	11.5	11.5	---	23.5	25.0	26.0	30.5	29.0	24.0
24	14.5	6.5	2.5	10.5	12.0	18.5	23.0	21.0	27.5	---	25.0	25.0
25	12.5	4.5	2.0	8.0	13.0	20.5	19.0	---	28.5	31.0	28.0	---
26	13.5	2.5	---	5.5	14.0	14.5	17.5	19.0	31.0	30.0	---	---
27	17.0	3.0	---	5.5	16.0	16.0	18.0	18.0	29.5	---	---	18.0
28	14.5	7.0	---	8.0	16.0	13.5	---	21.0	29.0	---	---	---
29	15.5	15.0	2.0	10.0	16.0	14.0	17.0	24.5	31.0	28.5	25.0	---
30	17.0	9.5	---	11.0	---	13.5	17.0	26.0	---	32.0	23.5	22.0
31	16.5	---	5.5	11.5	---	12.5	---	---	---	31.0	22.5	---
MONTH	18.5	12.0	5.0	6.0	12.0	14.0	19.5	---	27.5	---	---	---
YEAR	MAX	34.0	MIN	0.0	MEAN	17.0						

ARKANSAS RIVER BASIN

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	160	130	210	330	260	410	350	160	210	330	420
2	180	160	290	320	310	290	320	340	---	22	330	430
3	180	160	210	360	310	300	310	330	230	24	---	---
4	180	81	270	410	290	280	300	230	230	54	310	---
5	180	---	380	280	280	280	260	300	210	100	330	450
6	180	130	300	380	280	270	320	290	260	160	310	450
7	180	140	320	370	240	270	290	140	---	---	300	---
8	170	140	320	330	290	310	290	200	270	350	---	---
9	180	140	340	400	330	260	280	280	270	---	---	390
10	180	140	380	370	320	260	280	290	280	---	310	440
11	180	150	400	380	300	320	290	290	310	---	330	---
12	180	150	360	380	320	330	280	290	280	290	340	380
13	180	140	440	310	330	330	290	---	230	280	340	370
14	180	140	400	280	330	---	260	150	230	290	340	420
15	170	160	400	280	340	340	220	---	260	---	350	420
16	170	160	420	270	320	310	240	---	250	---	---	350
17	170	210	430	330	330	360	220	250	220	250	---	---
18	---	180	420	340	340	320	300	---	200	250	380	---
19	---	160	380	330	330	280	360	---	200	220	380	420
20	170	160	350	360	330	260	130	250	200	200	380	---
21	180	200	420	380	280	360	150	---	220	250	380	---
22	180	260	340	400	230	350	370	---	190	260	---	130
23	180	380	350	430	300	290	430	230	210	270	380	140
24	180	350	370	400	300	260	500	---	220	270	390	210
25	170	270	430	360	230	410	370	---	230	260	390	---
26	170	270	---	320	250	340	170	140	240	270	---	---
27	170	250	380	280	270	350	390	95	240	270	---	110
28	170	280	380	290	270	320	390	89	260	260	---	---
29	170	260	290	340	290	330	400	96	240	260	440	---
30	170	310	---	350	---	320	360	170	---	280	430	120
31	170	---	140	360	---	290	---	---	---	290	430	---
MONTH	180	200	350	340	300	310	310	---	230	230	---	---
YEAR	MAX	500	MIN	22	MEAN	280						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.8	31.1	174	108	157	73.7	135	1080	334	74.8	65.0	57.8
2	40.3	32.4	300	143	144	85.3	100	1340	---	124	63.3	60.4
3	40.3	68.3	151	141	146	88.3	91.2	1590	405	373	---	---
4	39.9	66.7	169	138	130	90.7	83.4	1090	361	252	60.3	---
5	39.4	---	221	86.9	119	83.2	67.4	1360	289	172	61.5	59.5
6	38.9	40.7	171	194	96.8	74.4	75.2	1240	324	165	56.1	57.1
7	38.4	42.0	181	256	85.5	103	66.6	518	---	---	53.5	---
8	35.8	40.4	167	217	152	104	66.6	643	285	257	---	---
9	36.4	35.9	177	260	161	92.7	63.5	839	268	---	---	62.1
10	36.4	32.5	204	231	147	97.6	65.0	846	260	---	46.9	80.8
11	36.9	32.8	210	245	142	147	67.3	916	268	---	48.1	---
12	36.9	31.2	182	254	163	153	77.9	979	231	113	49.6	59.5
13	36.4	28.3	239	176	144	161	83.8	---	175	107	48.7	57.9
14	36.0	28.7	201	139	164	---	72.3	907	158	103	49.6	63.5
15	36.7	32.8	205	122	162	162	83.8	---	181	---	52.0	62.4
16	35.8	33.3	227	106	147	139	95.3	---	177	---	---	54.8
17	34.0	44.2	215	130	161	153	116	992	127	70.9	---	---
18	---	38.4	202	137	164	149	188	---	129	66.1	55.4	---
19	---	36.3	164	135	159	126	255	---	124	51.7	52.3	71.4
20	33.5	37.2	184	156	165	114	449	666	109	43.7	51.3	---
21	35.5	52.9	211	168	113	170	409	---	103	54.7	51.3	---
22	35.5	161	159	195	104	172	773	---	82.6	55.5	---	47.7
23	35.0	166	163	218	199	132	866	789	87.9	57.6	50.3	32.1
24	33.5	110	172	200	119	99.0	1140	---	86.7	57.6	52.6	36.3
25	31.7	75.1	203	179	72.7	159	977	---	88.8	54.1	53.7	---
26	32.1	78.0	---	142	84.4	135	453	839	94.0	56.1	---	---
27	33.0	64.1	192	110	96.2	130	896	887	91.4	55.4	---	131
28	31.7	80.1	195	139	82.4	113	1010	678	96.2	53.4	---	---
29	32.1	105	148	164	84.6	120	1100	371	88.1	51.9	54.6	---
30	32.1	145	---	173	---	117	1080	500	---	55.9	55.7	30.8
31	33.0	---	69.2	176	---	100	---	---	---	57.2	58.0	---
MONTH	35.8	61.0	188	169	133	121	367	---	186	103	---	---
YEAR	MAX	1590	MIN	28.3	MEAN	191						

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	880	820	460	1000	1500	1200	1800	1600	790	1000	1500	1900
2	890	790	1300	1500	1500	1400	1500	1600	---	66	1500	1900
3	880	820	1000	1700	1400	1400	1400	1500	1100	73	---	---
4	880	230	1300	1900	1400	1300	1400	1100	1100	150	1400	---
5	880	---	1700	1300	1300	1300	1200	1400	1000	280	1500	2000
6	880	420	1400	1700	1300	1300	1500	1400	1300	770	1400	2000
7	880	510	1500	1700	1200	1300	1400	540	---	---	1400	---
8	870	530	1500	1500	1400	1400	1400	980	1300	1600	---	---
9	870	500	1600	1800	1500	1300	1300	1300	1300	---	---	1800
10	870	520	1800	1700	1500	1300	1300	1400	1300	---	1400	2000
11	890	600	1800	1700	1400	1500	1400	1400	1400	---	1500	---
12	890	600	1700	1800	1500	1500	1300	1400	1300	1400	1600	1700
13	890	580	2000	1500	1500	1500	1400	---	1100	1300	1600	1700
14	890	550	1800	1300	1500	---	1200	610	1100	1400	1600	1900
15	830	720	1800	1300	1600	1600	1100	---	1200	---	1600	1900
16	870	720	1900	1300	1500	1500	1200	---	1200	---	---	1600
17	860	1000	1900	1500	1500	1700	1100	1200	1100	1200	---	---
18	---	900	1900	1600	1600	1500	1400	---	960	1200	1700	---
19	---	800	1700	1500	1500	1300	1700	---	960	1100	1700	1900
20	860	810	1600	1700	1500	1200	410	1200	980	970	1800	---
21	880	970	1900	1700	1300	1600	680	---	1100	1200	1800	---
22	880	1200	1600	1800	1100	1600	1700	---	940	1300	---	450
23	870	1700	1600	1900	1400	1400	1900	1100	1000	1300	1800	560
24	880	1600	1700	1800	1400	1200	2200	---	1100	1300	1800	1000
25	860	1300	1900	1600	1100	1900	1700	---	1100	1300	1800	---
26	850	1300	---	1500	1200	1600	860	550	1200	1300	---	---
27	840	1200	1700	1300	1300	1600	1800	260	1200	1300	---	310
28	840	1300	1700	1400	1300	1500	1800	250	1200	1300	---	---
29	850	1300	1300	1600	1400	1500	1800	270	1100	1200	2000	---
30	830	1400	---	1600	---	1500	1600	860	---	1300	2000	360
31	840	---	590	1600	---	1400	---	---	---	1400	1900	---
MONTH	870	890	1600	1600	1400	1400	1400	---	1100	1100	---	---
YEAR	MAX	2200	MIN	66	MEAN	1300						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	159	616	513	713	340	593	4920	1650	356	296	262
2	199	160	1340	668	697	412	470	6310	---	372	288	267
3	197	350	721	666	661	412	412	7250	1940	1130	---	---
4	195	189	814	641	627	421	389	5200	1730	701	272	---
5	192	---	987	404	555	366	311	6350	1380	482	279	265
6	190	132	798	868	449	358	352	5970	1620	792	253	254
7	188	153	846	1180	428	495	321	2000	---	---	249	---
8	183	153	782	984	733	469	321	3150	1370	1180	---	---
9	176	128	834	1170	733	463	295	3900	1290	---	---	287
10	176	121	967	1060	688	488	302	4080	1210	---	212	367
11	183	131	943	1100	661	688	325	4420	1210	---	219	---
12	183	125	858	1210	765	697	362	4720	1070	544	233	266
13	180	117	1090	850	656	733	404	---	838	498	229	266
14	178	113	904	646	745	---	334	3690	754	495	233	287
15	179	148	923	565	760	760	419	---	836	---	238	282
16	183	150	1030	509	688	672	476	---	849	---	---	251
17	172	211	949	591	733	721	579	4760	633	340	---	---
18	---	192	913	644	773	701	677	---	619	318	248	---
19	---	181	734	616	725	566	1200	---	596	258	234	323
20	170	188	842	734	749	528	1420	3190	534	212	243	---
21	173	257	954	753	523	756	1850	---	517	262	243	---
22	173	745	747	880	496	786	3550	---	409	277	---	165
23	169	744	747	964	930	635	3830	3770	418	277	238	129
24	164	501	789	899	556	457	5030	---	434	277	243	173
25	160	362	898	795	347	739	4490	---	425	270	248	---
26	161	376	---	664	405	635	2290	3300	470	270	---	---
27	163	308	858	512	463	596	4140	2430	457	267	---	369
28	156	372	872	673	397	531	4650	1900	444	267	---	---
29	161	523	663	773	408	547	4960	1040	404	240	248	---
30	157	654	---	791	---	547	4800	2530	---	260	259	92.3
31	163	---	292	782	---	484	---	---	---	276	256	---
MONTH	177	274	852	778	623	568	1660	---	893	425	---	---
YEAR	MAX	7250	MIN	92.3	MEAN	866						

ARKANSAS RIVER BASIN

07151000 SALT FORK ARKANSAS RIVER AT TONKAWA, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	1910	1340	2280	3170	2630	3710	3300	1870	2260	3180	3830
2	2030	1860	2830	3080	3030	2880	3060	3210	---	238	3140	3880
3	2020	1910	2230	3410	3000	2930	2990	3140	2410	258	---	---
4	2010	696	2720	3760	2860	2780	2970	2380	2420	484	2990	---
5	2010	---	3500	2800	2760	2780	2620	2960	2290	841	3150	3990
6	2010	1230	2910	3530	2800	2690	3080	2840	2660	1830	2990	4020
7	2020	1420	3110	3470	2500	2680	2850	1460	---	---	2920	---
8	1990	1450	3070	3190	2860	3010	2840	2190	2710	3290	---	---
9	2000	1410	3230	3640	3170	2670	2790	2760	2730	---	---	3620
10	2000	1440	3550	3480	3080	2670	2800	2850	2760	---	3010	3940
11	2030	1560	3670	3490	2970	3050	2900	2890	2980	---	3130	---
12	2030	1560	3410	3560	3110	3150	2820	2840	2790	2840	3210	3520
13	2030	1530	3960	3020	3150	3140	2840	---	2370	2800	3260	3420
14	2030	1480	3700	2780	3170	---	2610	1570	2430	2880	3270	3830
15	1930	1760	3640	2820	3220	3230	2350	---	2600	---	3280	3770
16	1990	1760	3810	2680	3120	3030	2470	---	2540	---	---	3290
17	1980	2260	3860	3150	3150	3410	2350	2540	2360	2580	---	---
18	---	2050	3810	3210	3230	3070	2910	---	2160	2580	3520	---
19	---	1880	3490	3160	3140	2810	3420	---	2150	2320	3520	3800
20	1970	1900	3330	3420	3190	2630	1220	2540	2180	2170	3560	---
21	2020	2170	3830	3490	2790	3360	1680	---	2320	2560	3550	---
22	2020	2630	3260	3650	2430	3280	3420	---	2130	2650	---	1320
23	2000	3520	3320	3850	2950	2900	3880	2390	2240	2720	3550	1500
24	2010	3300	3460	3660	2900	2640	4350	---	2340	2700	3610	2290
25	1970	2710	3860	3370	2440	3730	3460	---	2400	2670	3590	---
26	1970	2740	---	3100	2560	3210	1980	1490	2500	2700	---	---
27	1960	2530	3510	2790	2750	3290	3590	796	2500	2680	---	941
28	1960	2810	3500	2860	2680	3090	3620	757	2640	2670	---	---
29	1970	2650	2840	3250	2870	3200	3640	808	2470	2640	3920	---
30	1930	2990	---	3290	---	3110	3370	1970	---	2800	3690	1070
31	1960	---	1540	3360	---	2890	---	---	---	2850	3880	---
MONTH	2000	2040	3250	3250	2930	3000	2950	---	2440	2280	---	---
YEAR	MAX	4350	MIN	238	MEAN	2730						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458	371	1790	1170	1510	746	1220	10200	3910	805	627	527
2	455	377	2930	1370	1410	848	958	12700	---	1340	602	545
3	453	815	1610	1340	1420	862	880	15200	4240	4010	---	---
4	445	573	1700	1270	1280	901	826	11200	3800	2260	581	---
5	440	---	2030	869	1180	826	679	13400	3150	1450	587	528
6	434	385	1660	1800	968	741	723	12100	3310	1880	541	510
7	431	426	1750	2400	891	1020	654	5400	---	---	520	---
8	419	419	1600	2090	1500	1010	652	7040	2860	2420	---	---
9	405	362	1680	2370	1550	952	633	8270	2710	---	---	577
10	405	334	1910	2170	1410	1000	650	8310	2560	---	455	723
11	417	341	1920	2250	1400	1400	673	9130	2570	---	456	---
12	417	324	1720	2380	1590	1460	784	9580	2300	1100	468	551
13	411	310	2150	1710	1380	1530	820	---	1800	1070	467	536
14	406	304	1860	1380	1570	---	726	9500	1670	1020	477	579
15	417	361	1870	1230	1530	1530	895	---	1810	---	487	560
16	419	366	2060	1050	1430	1360	980	---	1800	---	---	515
17	396	476	1930	1240	1540	1450	1240	10100	1360	731	---	---
18	---	437	1830	1290	1560	1430	1820	---	1390	683	513	---
19	---	426	1510	1300	1520	1270	2420	---	1340	545	485	646
20	388	441	1750	1480	1590	1160	4220	6760	1190	475	481	---
21	398	574	1920	1550	1120	1590	4580	---	1090	560	479	---
22	398	1630	1520	1780	1100	1610	7150	---	926	565	---	485
23	389	1540	1550	1950	1960	1320	7820	8200	937	580	470	344
24	374	1030	1610	1830	1150	1010	9940	---	922	576	487	396
25	367	754	1820	1670	771	1450	9140	---	927	555	494	---
26	372	792	---	1370	864	1270	5280	8930	979	561	---	---
27	381	649	1770	1100	980	1230	8250	7440	952	550	---	1120
28	365	804	1800	1370	818	1090	9350	5760	977	548	---	---
29	372	1070	1450	1570	837	1170	10000	3120	907	527	487	---
30	365	1400	---	1630	---	1130	10100	5800	---	559	504	274
31	381	---	761	1640	---	999	---	---	---	562	524	---
MONTH	406	624	1770	1600	1300	1180	3470	---	1940	1040	---	---
YEAR	MAX	15200	MIN	274	MEAN	1870						

ARKANSAS RIVER BASIN

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07152000 CHIKASKIA RIVER NEAR BLACKWELL, OK

LOCATION.--Lat 36°48'31", long 97°16'39", in NE 1/4 NW 1/4 sec.23, T.27 N., R.1 W., Kay County, near left bank on downstream side of pier of St. Louis-San Francisco Railway Co. bridge at northeast edge of Blackwell, 0.2 mi (0.32 km) downstream from Bitter Creek, and at mile 28.2 (45.4 km).

DRAINAGE AREA.--1,859 mi² (4,815 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 967.41 ft (29.487 m) above mean sea level (levels by Corps of Engineers). See WSP 1921 for history of changes prior to April, 1952.

REMARKS.--Records good. Some regulation at low flow by Lake Blackwell, capacity, 3,600 acre-ft (4.44 hm³) 12.6 mi (20.3 km) above station. Small diversion made from reservoir for municipal supply of city of Blackwell.

AVERAGE DISCHARGE.--41 years, 485 ft³/s (13.74 m³/s), 351,400 acre-ft/yr (433 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85,000 ft³/s (2,410 m³/s), June 22, 1942, gage height, 33.3 ft (10.15 m), from floodmark, present site and datum; no flow at times in 1954, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1923 reached a stage of about 34 ft (10.4 m), present site and datum, from information by local residents, discharge 100,000 ft³/s (283 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s (297 m³/s) at 1745 July 3, gage height, 26.96 ft (8.217 m), no other peaks above base of 8,000 ft³/s (227 m³/s); minimum, 11 ft³/s (0.31 m³/s) Sept. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	65	276	152	128	116	101	1440	458	140	46	13
2	72	66	265	143	119	121	96	937	314	2920	49	12
3	76	86	201	131	115	121	96	602	246	9200	46	16
4	79	126	173	119	110	119	92	455	216	6030	42	21
5	79	180	165	110	115	125	91	381	206	1590	42	23
6	76	173	157	108	152	125	89	341	197	710	41	19
7	74	150	152	152	155	128	88	385	185	538	41	17
8	72	133	152	156	157	145	88	865	176	416	41	17
9	71	128	149	141	159	147	92	451	173	340	40	22
10	69	117	148	113	160	147	90	448	166	284	40	47
11	69	113	147	112	154	147	88	839	159	249	39	34
12	72	108	143	112	148	157	89	549	155	218	39	21
13	72	106	138	127	145	148	94	394	144	199	38	17
14	71	104	133	143	139	142	97	371	138	179	37	17
15	77	104	131	144	137	138	109	349	151	163	39	36
16	74	106	178	150	138	131	98	312	184	171	43	42
17	66	108	222	167	138	128	167	281	180	318	41	56
18	68	110	156	167	137	122	220	258	169	220	36	56
19	69	119	128	167	133	119	211	239	298	184	31	58
20	69	140	146	158	130	121	1400	224	484	167	24	129
21	69	143	169	150	135	120	909	212	303	146	19	148
22	69	152	173	148	121	116	606	216	222	121	20	165
23	66	159	178	146	121	111	416	341	190	104	25	200
24	65	150	207	144	120	109	353	1360	209	96	25	143
25	65	145	217	142	125	108	324	433	808	87	22	113
26	65	150	205	138	125	114	325	1340	363	80	22	175
27	65	178	193	130	123	111	276	5910	210	59	27	129
28	62	176	184	112	121	104	628	2450	162	60	50	88
29	60	175	175	124	121	112	2540	638	159	64	34	70
30	63	236	166	131	---	116	2470	471	168	54	24	71
31	65	---	160	133	---	108	---	712	---	48	16	---
TOTAL	2160	4006	5387	4270	3881	3876	12343	24204	7193	25155	1079	1975
MEAN	69.7	134	174	138	134	125	411	781	240	811	34.8	65.8
MAX	79	236	276	167	160	157	2540	5910	808	9200	50	200
MIN	60	65	128	108	110	104	88	212	138	48	16	12
AC-FT	4280	7950	10690	8470	7700	7690	24480	48010	14270	49890	2140	3920
CAL YR 1975	TOTAL	266992	MEAN 731	MAX 18700	MIN 59	AC-FT 529600						
WTR YR 1976	TOTAL	95529	MEAN 261	MAX 9200	MIN 12	AC-FT 189500						

ARKANSAS RIVER BASIN

07152000 CHIKASKIA RIVER NEAR BLACKWELL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-63, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1959 to September 1963.

WATER TEMPERATURE: November 1959 to September 1963.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV 04...	1028	9740	1325	86	1280	7.9	16.0	25	15.0	161	7	440
DEC 02...	1028	9740	1300	265	950	8.0	5.0	8	12.2	102	23	320
JAN 15...	1028	9740	1230	144	1350	8.2	3.0	7	17.2	133	<4	440
FEB 03...	1028	9740	1300	115	1300	8.9	6.0	3	14.2	122	<4	--
MAR 02...	1028	9740	1330	121	1120	8.8	15.0	1	13.2	139	40	380
APR 06...	1028	9740	1200	89	900	--	17.0	5	10.4	114	59	410
MAY 05...	1028	9740	1230	381	550	8.4	16.0	>5	8.5	92	24	180
JUN 02...	1028	9740	1245	314	650	8.0	25.0	50	7.9	101	42	240
JUL 12...	1028	9740	0830	218	740	8.2	26.5	31	8.2	107	7	270
AUG 17...	1028	9740	1130	41	1500	8.2	27.5	25	7.9	102	5	506
SEP 14...	1028	9740	1200	17	1520	8.2	22.5	15	8.8	107	20	439

ARKANSAS RIVER BASIN

07152000 CHIKASKIA RIVER NEAR BLACKWELL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 04...	2	6	6	--	15	175	--	5	--	2	14
DEC 02...	--	--	--	100	--	40	--	--	--	--	--
JAN 15...	--	--	--	200	--	100	--	--	--	--	--
FEB 03...	2	5	4	200	22	125	--	7	--	2	4
MAR 02...	--	--	--	200	--	240	--	--	--	--	--
APR 06...	--	--	--	100	--	190	--	--	--	--	--
MAY 05...	1	12	9	--	5	180	<.5	13	--	1	35
JUN 02...	--	--	--	600	--	140	--	--	--	--	--
JUL 12...	--	--	--	600	--	132	--	--	--	--	--
AUG 17...	3	15	7	400	27	278	<.5	15	<2	3	17
SEP 14...	--	--	--	300	--	157	--	--	--	--	--

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV 04...	134	310	38	97	4.8	210	.4	1220	1.2	.10	4
DEC 02...	--	220	--	--	--	110	.4	517	1.5	.03	--
JAN 15...	150	312	31	79	3.5	190	.3	713	2.2	.10	--
FEB 03...	--	--	--	82	3.0	--	.3	--	1.6	.28	2
MAR 02...	94	180	30	83	3.6	200	.3	756	.80	.01	--
APR 06...	110	290	30	96	3.6	260	.3	759	.50	<.08	--
MAY 05...	52	125	9.5	32	7.4	--	.3	329	.70	.25	1
JUN 02...	65	200	17	40	5.0	90	.2	395	.80	.19	--
JUL 12...	83	188	19	47	7.3	130	.4	449	2.0	.24	--
AUG 17...	175	389	40	124	9.9	313	.3	1112	.80	.09	6
SEP 14...	154	--	37	130	6.1	318	.4	1223	1.9	.17	--

ARKANSAS RIVER BASIN

07152290 GREASY CREEK NEAR WATCHORN, OK

LOCATION.--Lat 36°27'22", long 96°59'38", on west line, sec.21, T.23 N., R.3 E., Pawnee County, near left wingwall on downstream side at county road bridge, 2.5 mi (4.0 km) north of abandoned townsite of Watchorn, 18 mi (29 km) southeast of Ponca City, and at mile 3.2 (5.1 km).

DRAINAGE AREA.--28 mi² (73 km²).

PERIOD OF RECORD.--July 1974 to June 1976 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 831.96 ft (253.581 m) above mean sea level (Benham, Blair and Affiliate).

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft³/s (93.4 m³/s) Aug. 9, 1974, gage height, 17.0 ft (5.18 m) from high-water mark; maximum gage height, 23.08 ft (7.035 m) Nov. 3, 1974 (backwater from Arkansas River); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum gage height for period October 1975 to June 1976, 5.21 ft (1.588 m) Oct. 15 (discharge undetermined); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.10	.20	.10	.30	.20			
2			0	0	.10	.20	.10	.30	.20			
3			0	0	.10	.20	.10	.30	.20			
4			0	0	.15	.20	.10	.30	.18			
5			0	0	.30	.20	.10	.30	.17			
6			0	0	.20	.20	.10	.30	.16			
7			0	0	.14	.20	.10	.30	.15			
8			0	.01	.12	.20	.12	.35	.14			
9			.04	.01	.11	.20	.10	.32	.13			
10			.10	.02	.10	.20	.10	.30	.12			
11			.06	.02	.10	.40	.10	.30	.11			
12			.03	.02	.10	.60	.10	.35	.10			
13			0	.03	.10	.70	.10	.42	.10			
14			.15	.03	.11	.80	.10	.42	.10			
15			.18	.04	.13	.90	.10	.40	.10			
16			.15	.08	.10	.75	.10	.36	.10			
17			.11	.14	.10	.70	.10	.33	.10			
18			.10	.12	.10	.80	.10	.32	.12			
19			.09	.10	.10	.76	.10	.30	.14			
20			.09	.08	.10	.70	.10	.28	.30			
21			.08	.08	.10	.50	.10	.24	.25			
22			.07	.09	.11	.35	.14	.22	.17			
23			.06	.09	.13	.25	.38	.22	.15			
24			.05	.09	.16	.23	.35	.22	.12			
25			.04	.09	.16	.20	.32	.22	.10			
26			.03	.10	.20	.16	.30	.21	.10			
27			.03	.10	.18	.13	.30	.21	.10			
28			.02	.10	.16	.12	.30	.20	.10			
29			.02	.10	.16	.10	.30	.20	.10			
30			.01	.10	---	.10	.30	.20	.10			
31		---	.01	.10	---	.10	---	.20	---			
TOTAL	0	0	1.52	1.74	3.82	11.35	4.81	8.89	4.21			
MEAN	0	0	.049	.056	.13	.37	.16	.29	.14			
MAX	0	0	.18	.14	.30	.90	.38	.42	.30			
MIN	0	0	0	0	.10	.10	.10	.20	.10			
AC-FT	0	0	3.0	3.5	7.6	23	9.5	18	8.4			

CAL YR 1975 TOTAL 4020.17 MEAN 11.0 MAX 692 MIN 0 AC-FT 7970

ARKANSAS RIVER BASIN

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07152500 ARKANSAS RIVER AT RALSTON, OK

LOCATION.--Lat 36°30'09", long 96°43'22", in NW 1/4 sec.1, T.23 N., R.5 E., Osage County, near left bank on downstream side of pier of bridge on State Highway 18 at Ralston, 2 mi (3.2 km) downstream from Salt Creek, 2 mi (3.2 km) upstream from Grayhorse Creek, and at mile 594.0 (955.7 km).

DRAINAGE AREA.--54,465 mi² (141,064 km²), of which 7,615 mi² (19,723 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1922 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 776.70 ft (236.738 m) above mean sea level. Oct. 1, 1925, to Nov. 13, 1935, nonrecording gage at site of former highway bridge 1,200 ft (366 m) downstream at same datum. Nov. 14, 1935, to Feb. 23, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated since April 1976 by Kaw Lake (station 07148130) 59.7 mi (96.1 km) upstream; some regulation by Great Salt Plains Lake (station 07150000) since 1941.

AVERAGE DISCHARGE.--50 years (water years 1926-75), 4,826 ft³/s (136.7 m³/s), 3,496,000 acre-ft/yr (4.31 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 211,000 ft³/s (5,980 m³/s) Oct. 13, 1973, gage height, 22.98 ft (7.004 m); minimum, 14 ft³/s (0.40 m³/s) Oct. 12, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 11, 1923, reached a stage of 23.8 ft (7.25 m), referred to outside gage on basis of stages observed in 1923 and 1944 at site 1,200 ft (366 m) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30,100 ft³/s (852 m³/s) at 1015 July 5, gage height, 10.04 ft (3.060 m), no other peak above base of 30,000 ft³/s (850 m³/s); minimum, 466 ft³/s (13.2 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	892	846	1200	1280	1040	934	860	6070	7060	1800	2200	524
2	885	869	1210	1240	1030	905	866	7550	6940	5380	1980	522
3	881	891	1580	1230	1010	895	889	7270	6530	16500	1640	509
4	879	962	1860	1220	968	989	866	6610	6300	22900	1270	564
5	860	1030	2370	1170	948	793	838	4560	6090	27800	1030	610
6	836	1150	2160	1130	903	766	810	5030	5960	21100	937	506
7	823	1290	1840	1560	876	785	787	6740	5840	19800	903	490
8	807	1490	1650	1850	844	835	780	6680	5000	19800	877	482
9	785	1520	1520	1720	857	1200	765	6610	3430	18900	845	487
10	767	1450	1410	1700	865	1190	692	6920	3030	19700	831	494
11	759	1370	1330	1560	835	1170	709	6650	2430	19800	811	488
12	741	1270	1270	1220	858	2650	759	6720	2050	18200	797	481
13	730	1190	1250	1110	891	1900	840	7150	1920	16700	790	472
14	750	1150	1220	1150	1040	1570	885	6940	1830	15100	781	492
15	1250	1110	1280	1190	1130	1440	950	7360	1760	13800	784	501
16	1240	1100	1330	1170	1120	1400	998	7540	1750	13400	770	525
17	974	1080	1290	1180	1110	1330	1170	7140	1700	11500	752	568
18	919	1070	1300	1190	1080	1270	1320	6900	1800	10500	740	610
19	871	1070	1410	1180	1060	1210	1340	6670	1860	8690	728	575
20	841	1100	1500	1180	1090	1150	3230	5950	1820	7150	742	608
21	828	1090	1380	1180	1050	1100	3200	4870	1840	5690	734	547
22	834	1090	1310	1190	1040	1070	5260	4500	2060	4350	722	563
23	828	1100	1280	1200	1030	1070	4130	4120	1980	4620	713	656
24	804	1230	1300	1190	1010	1050	3320	4260	1860	3390	713	650
25	803	1240	1340	1180	1040	1040	2610	5030	1800	2600	715	600
26	817	1180	1340	1160	999	990	2380	7180	1760	2540	639	694
27	825	1180	1310	1140	956	940	2380	7970	2120	2490	567	674
28	825	1170	1290	1110	945	927	5130	12900	2130	2430	544	741
29	831	1210	1310	1080	956	936	5250	14100	1930	2390	523	837
30	836	1220	1300	1060	---	897	5330	9490	1850	2360	506	832
31	831	---	1280	1040	---	853	---	7610	---	2250	513	---
TOTAL	26552	34718	44420	38760	28581	35255	59344	215110	94430	343630	27097	17302
MEAN	857	1157	1433	1250	986	1137	1978	6939	3148	11080	874	577
MAX	1250	1520	2370	1850	1130	2650	5330	14100	7060	27800	2200	837
MIN	730	846	1200	1040	835	766	692	4120	1700	1800	506	472
AC-FT	52670	68860	88110	76880	56690	69930	117700	426700	187300	681600	53750	34320

CAL YR 1975	TOTAL	2581091	MEAN	7071	MAX	65000	MIN	730	AC-FT	5120000
WTR YR 1976	TOTAL	965199	MEAN	2637	MAX	27800	MIN	472	AC-FT	1914000

ARKANSAS RIVER BASIN
07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-63, 1965 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1950 to September 1963, July 1968 to current year.

WATER TEMPERATURE: January 1950 to September 1963, July 1968 to current year.

INSTRUMENTATION.--Water quality monitor since July 1968.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 7,510 micromhos Sept. 14, 1955; minimum, 200 micromhos Aug. 16, 1974.

WATER TEMPERATURE: Maximum daily, 37.0°C July 28, 1956; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,470 micromhos Apr. 27; minimum daily, 350 micromhos July 3.

WATER TEMPERATURE: Maximum daily, 28.0°C June 20; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
05...	--	--	0900	--	862	1860	7.6	14.5	--	--	--	--
07...	--	--	1200	--	820	1800	8.7	18.5	1	11.0	126	--
15...	--	--	0730	--	1150	1520	8.2	18.5	--	--	--	--
21...	--	--	0900	--	831	2100	8.5	16.5	6	8.8	93	--
24...	--	--	1200	--	800	1900	7.5	16.0	--	--	--	--
NOV												
04...	--	--	0755	--	956	1760	8.5	15.0	60	10.2	104	--
05...	--	--	0730	--	1020	1960	7.5	--	--	--	--	--
15...	--	--	0730	--	1120	1870	7.8	--	--	--	--	--
26...	--	--	0730	--	1230	2580	7.8	--	--	--	--	--
DEC												
02...	1028	9740	0900	1210	--	1920	8.2	3.0	15	13.6	106	65
05...	--	--	0730	--	2340	2150	7.7	--	--	--	--	--
15...	--	--	0730	--	1240	2340	8.0	--	--	--	--	--
25...	--	--	0900	--	1340	2250	8.3	--	--	--	--	--
JAN												
05...	--	--	0730	--	1220	2570	8.3	--	--	--	--	--
15...	--	--	0730	--	1180	2520	8.1	--	--	--	--	--
16...	1028	9740	0930	1170	--	2800	8.2	2.0	15	>20.0	--	8
24...	--	--	0730	--	1200	2400	8.1	--	--	--	--	--
FEB												
04...	1028	9740	0930	968	--	2500	8.8	2.5	3	12.8	98	352
05...	--	--	0730	--	956	2600	8.5	--	--	--	--	--
15...	--	--	0830	--	1130	2550	8.6	--	--	--	--	--
26...	--	--	0730	--	999	2790	8.6	--	--	--	--	--
MAR												
02...	1028	9740	1600	905	--	2200	9.1	18.0	3	12.5	142	--
05...	--	--	0730	--	800	2180	8.4	--	--	--	--	--
15...	--	--	0730	--	1450	2100	8.2	--	--	--	--	--
25...	--	--	0730	--	1050	2610	8.0	--	--	--	--	--
APR												
05...	--	--	0730	--	841	2530	7.2	--	--	--	--	--
06...	1028	9740	1500	810	--	1500	--	21.0	15	10.4	124	--
14...	--	--	0730	--	872	2230	7.4	--	--	--	--	--
23...	--	--	0730	--	4290	1350	7.2	--	--	--	--	--
MAY												
05...	--	--	0730	--	4640	2420	7.5	--	--	--	--	--
05...	1028	9740	1500	4580	--	2500	8.1	17.0	81	8.8	98	55
15...	--	--	0730	--	7140	1210	7.8	--	--	--	--	--
29...	--	--	0730	--	15300	714	8.3	--	--	--	--	--

ARKANSAS RIVER BASIN

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07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
JUN												
02...	1028	9740	1645	6940	--	1200	8.3	26.0	35	9.1	117	42
05...	--	--	0730	--	6150	1180	8.1	--	--	--	--	--
15...	--	--	0730	--	1760	1600	8.1	--	--	--	--	--
25...	--	--	0730	--	1800	1230	7.9	--	--	--	--	--
JUL												
03...	--	--	1330	--	15500	350	7.7	--	--	--	--	--
12...	1028	9740	1445	18200	--	--	8.0	28.0	65	9.2	105	10
15...	--	--	0830	--	14000	506	7.8	--	--	--	--	--
25...	--	--	0800	--	2600	626	7.9	--	--	--	--	--
AUG												
05...	--	--	0730	--	1040	989	8.1	--	--	--	--	--
15...	--	--	0900	--	800	1290	8.2	--	--	--	--	--
17...	1028	9740	1500	752	--	1250	8.8	31.0	12	8.8	116	15
28...	--	--	0730	--	551	1540	8.1	--	--	--	--	--
SEP												
05...	--	--	0800	--	666	1580	8.0	--	--	--	--	--
14...	1028	9740	1515	492	--	1800	8.8	26.0	6	10.5	135	27
15...	--	--	0730	--	500	1970	8.3	--	--	--	--	--
25...	--	--	0745	--	590	1860	7.7	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT												
05...	340	140	--	93	--	26	--	240	60	5.7	5.9	249
07...	--	--	--	--	--	--	--	--	--	--	--	--
15...	290	120	--	81	--	21	--	200	60	5.1	4.8	211
21...	--	--	--	--	--	--	--	--	--	--	--	--
24...	310	140	--	81	--	25	--	270	65	6.7	5.6	204
NOV												
04...	--	--	130	--	27	--	290	--	--	--	--	247
05...	330	130	--	89	--	26	--	260	63	6.2	6.0	245
15...	350	120	--	98	--	25	--	240	60	5.6	6.3	277
26...	390	180	--	110	--	29	--	370	67	8.1	5.9	265
DEC												
02...	--	--	--	--	--	--	--	--	--	--	--	--
05...	340	150	--	100	--	23	--	300	65	7.0	6.1	233
15...	380	170	--	110	--	25	--	340	66	7.6	6.2	258
25...	380	160	--	110	--	25	--	300	63	6.7	5.2	269
JAN												
05...	420	180	--	120	--	28	--	360	65	7.7	5.6	284
15...	440	200	--	130	--	29	--	350	63	7.2	5.0	295
16...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	5.0	--
FEB												
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	400	180	--	110	--	30	--	370	67	8.1	5.5	269
15...	390	170	--	110	--	29	--	370	67	8.1	5.6	224
26...	400	170	--	110	--	30	--	410	69	8.9	6.0	257
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
05...	360	160	--	98	--	28	--	310	65	7.1	5.0	222
15...	340	140	--	95	--	24	--	300	66	7.1	5.0	235
25...	350	190	--	92	--	29	--	420	72	9.8	5.4	193
APR												
05...	370	170	--	99	--	29	--	380	64	8.6	5.8	235
06...	--	--	--	--	--	--	--	--	--	--	--	--
14...	350	160	--	93	--	28	--	320	66	7.5	5.6	228
23...	230	100	--	67	--	16	--	200	65	5.7	5.0	162
MAY												
05...	290	170	--	85	--	20	--	390	74	9.9	6.1	149
05...	--	--	--	--	--	--	--	--	--	--	--	--
15...	180	70	--	51	--	12	--	170	67	5.6	5.3	130
29...	150	43	--	43	--	9.5	--	83	54	3.0	4.9	126

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

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07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
05...	230	90	--	65	--	16	--	150	58	4.3	6.2	168
15...	250	100	--	72	--	17	--	240	67	6.6	6.4	177
25...	240	83	--	68	--	17	--	150	57	4.2	6.1	191
JUL												
03...	130	25	--	44	--	4.1	--	21	26	.8	3.5	124
12...	--	--	--	--	--	--	--	--	--	--	--	--
15...	120	24	--	38	--	7.2	--	51	46	2.0	5.1	122
25...	160	40	--	48	--	9.1	--	66	47	2.3	5.5	143
AUG												
05...	200	58	--	60	--	13	--	120	55	3.7	5.5	177
15...	240	80	--	70	--	16	--	160	58	4.5	5.8	196
17...	--	--	--	--	--	--	--	--	--	--	--	--
28...	270	98	--	76	--	19	--	210	62	5.6	5.9	207
SEP												
05...	280	120	--	76	--	21	--	210	62	5.5	5.9	192
14...	--	--	--	--	--	--	--	--	--	--	--	--
15...	300	200	--	85	--	22	--	290	67	7.3	6.1	131
25...	270	120	--	76	--	20	--	270	68	7.1	6.4	188
DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SULFOS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT												
05...	0	204	10	120	400	--	1030	1.40	2400	.68	--	--
07...	--	--	--	--	--	--	1040	1.41	2300	--	1.8	.34
15...	0	173	2.1	100	300	--	840	1.14	2610	.67	--	--
21...	--	--	--	--	--	--	1030	1.40	2310	--	2.0	.27
24...	0	167	10	130	420	--	1060	1.44	2290	.58	--	--
NOV												
04...	0	203	1.2	130	400	--	1060	1.44	2740	--	1.3	.27
05...	0	201	12	130	420	--	1080	1.47	2970	.78	--	--
15...	0	227	7.0	120	380	--	1050	1.43	3180	1.2	--	--
26...	0	217	6.7	170	580	--	1440	1.96	4780	1.6	--	--
DEC												
02...	--	--	--	--	--	.5	--	--	--	--	1.6	.42
05...	0	191	7.4	140	470	--	1250	1.70	7900	2.5	--	--
15...	0	212	4.1	180	500	--	1340	1.82	4490	1.7	--	--
25...	0	221	2.2	150	490	--	1270	1.73	4600	2.2	--	--
JAN												
05...	0	233	2.3	170	600	--	1460	1.99	4810	2.0	--	--
15...	0	242	3.8	200	570	--	1440	1.96	4590	2.4	--	--
16...	--	--	--	--	--	.4	--	--	--	--	1.7	.44
24...	--	--	--	--	--	--	1360	1.85	4410	--	--	--
FEB												
04...	--	--	--	--	--	.5	--	--	--	--	1.1	.39
05...	0	221	1.4	170	610	--	1450	1.97	3740	1.6	--	--
15...	22	220	1.1	190	590	--	1420	1.93	4330	1.6	--	--
26...	8	224	1.1	210	630	--	2220	3.02	5990	1.3	--	--
MAR												
02...	--	--	--	--	--	.4	--	--	--	--	1.4	.07
05...	13	204	1.6	150	480	--	1230	1.67	2660	.74	--	.32
15...	0	193	2.4	150	460	--	1190	1.62	4660	1.2	--	.34
25...	0	158	3.1	210	650	--	1490	2.03	4220	1.5	--	--
APR												
05...	0	193	24	170	590	--	1420	1.93	3220	.76	--	--
06...	--	--	--	--	--	.4	--	--	--	--	.80	.40
14...	0	187	15	150	530	--	1280	1.74	3010	.80	--	--
23...	0	133	16	130	290	--	782	1.06	9060	1.8	--	--
MAY												
05...	0	122	7.5	220	590	--	1350	1.84	16900	.63	--	--
05...	--	--	--	--	--	.5	--	--	--	--	.70	.24
15...	0	107	3.3	90	260	--	684	.93	13200	.79	--	--
29...	0	103	1.0	59	120	--	422	.57	17400	.83	--	--
JUN												
02...	--	--	--	--	--	.2	--	--	--	--	.80	.25
05...	0	138	2.1	92	230	--	664	.90	11000	.62	--	--
15...	0	145	2.3	110	350	--	891	1.21	4230	.76	--	--
25...	0	157	3.8	97	240	--	683	.93	3320	.40	--	--

ARKANSAS RIVER BASIN

07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1810	1960	2020	2530	2600	2360	2500	1840	1160	1240	938	1600
2	1810	1940	2250	2530	2640	2350	2490	1340	1200	968	940	1600
3	1850	1920	2400	2550	2660	2380	2450	1180	1140	457	917	1570
4	1850	1940	2180	2620	2660	2230	2540	1500	1170	549	948	1740
5	1860	1950	2090	2550	2600	2180	2530	2440	1190	901	989	1550
6	1750	1980	1510	2530	2620	2340	2400	1810	1220	920	1140	1430
7	1870	2140	1590	2540	2640	2330	2460	1370	1200	780	1200	1660
8	1890	1620	1830	2760	2510	2340	2350	1420	1180	532	1260	1750
9	2070	1540	1960	2780	2430	2310	2380	1120	1370	454	1270	1780
10	2460	1560	2140	2650	2400	2360	2400	947	1400	541	1290	1860
11	2020	1620	2230	2780	2530	2240	2410	1020	1520	415	1290	1930
12	1860	1710	2320	2830	2690	1500	2300	1130	1590	472	1270	2030
13	2330	1810	2370	2600	2500	1860	2260	1150	---	510	1260	1940
14	1920	1840	2380	2580	2610	2060	2200	1210	---	501	1260	1930
15	1490	1870	2330	2520	2500	2100	2080	1280	1600	516	1290	1990
16	1300	1890	2390	2500	2510	2210	2210	1110	1550	478	1320	2040
17	1600	1900	2330	2370	2520	2370	2190	1230	1500	474	1340	1820
18	1770	1920	2440	2300	2550	2440	2060	1360	1460	476	1320	1780
19	1860	1990	2640	2260	2560	2400	1990	1350	1440	551	1290	1660
20	1900	1970	2320	2300	2590	2360	1470	1350	1400	518	1310	1730
21	1920	1950	2050	2270	2580	2420	1510	1490	1410	493	1400	1800
22	1910	1980	2110	2310	2590	2500	1420	1410	1430	612	1400	1860
23	1910	1970	2390	2340	2670	2540	1360	1470	1200	495	1310	1790
24	1900	2000	2370	2400	2600	2590	1750	1410	1200	613	1290	2480
25	1940	2070	2250	2540	2530	2610	2310	1200	1180	626	1320	1810
26	1940	2730	2310	2670	2790	2630	2870	1120	1340	753	1340	1480
27	1920	2460	2380	2620	2700	2540	3470	779	1200	772	1400	1430
28	1900	2350	2430	2630	2540	2530	1840	833	1120	780	1540	1400
29	1880	2210	2420	2540	2390	2500	1120	720	1160	772	1590	1590
30	1920	1990	2450	2440	---	2490	1950	793	1260	793	1620	1730
31	1940	---	2520	2490	---	2560	---	1000	---	866	1600	---
MONTH	1880	1960	2240	2530	2580	2340	2180	1270	1310	640	1280	1760
YEAR	MAX	3470	MIN	415	MEAN	1830						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.0	16.0	4.0	5.0	5.5	11.0	9.5	14.5	23.0	23.0	26.5	21.0
2	13.0	16.5	4.0	2.0	4.5	14.5	12.0	15.5	24.0	22.0	26.0	20.5
3	12.0	15.5	7.0	1.0	2.5	9.5	13.5	14.5	24.5	21.0	22.0	25.0
4	14.0	14.5	8.5	1.0	3.0	6.5	12.5	15.5	23.5	22.0	22.5	26.5
5	14.5	15.5	12.5	1.0	0.0	2.0	12.0	17.0	23.0	23.0	22.5	27.0
6	15.0	15.5	8.5	0.0	0.0	3.5	16.5	15.5	23.0	23.5	23.5	25.5
7	15.5	16.5	6.5	0.0	0.0	6.0	16.5	14.5	23.5	23.5	23.0	24.5
8	14.5	16.5	6.5	0.0	0.5	7.0	16.5	15.0	24.0	23.0	23.5	23.5
9	21.0	16.5	6.5	0.0	9.0	5.5	17.0	17.0	24.0	23.0	24.5	21.0
10	20.5	13.5	7.0	0.0	10.0	8.0	17.0	18.0	24.5	23.5	25.0	20.0
11	21.5	12.0	8.0	0.0	10.0	12.0	17.5	19.5	25.0	24.0	24.0	20.5
12	22.0	9.5	7.5	2.0	11.0	10.0	17.0	18.5	24.5	24.0	24.0	20.5
13	21.5	7.5	10.0	2.5	13.5	4.5	16.5	16.5	17.5	23.5	25.0	20.0
14	21.0	8.0	12.0	2.5	12.0	6.0	17.5	17.0	23.0	24.0	24.0	22.5
15	18.5	9.5	7.5	3.5	13.5	10.0	19.0	17.5	22.0	24.0	24.0	24.0
16	17.0	11.5	5.0	3.0	15.5	5.5	18.0	17.0	21.0	23.5	25.0	23.5
17	16.5	13.0	2.0	3.5	13.0	7.0	17.5	18.0	21.0	24.5	25.0	23.0
18	15.5	14.5	3.5	5.0	11.0	10.0	17.5	19.0	21.5	24.5	26.0	24.5
19	15.5	13.5	2.0	5.0	11.0	13.0	18.5	19.5	20.5	24.5	23.5	24.5
20	16.5	6.0	2.0	1.5	13.0	13.0	16.5	20.0	28.0	26.0	23.0	22.5
21	18.0	3.0	1.5	7.0	14.5	10.0	16.5	21.5	21.5	25.0	23.0	21.5
22	18.5	3.5	2.0	2.5	15.0	10.5	18.5	22.5	20.5	25.0	23.0	21.5
23	18.5	3.5	2.5	7.5	14.0	10.0	20.0	23.5	22.5	25.5	23.0	22.5
24	17.0	3.0	2.5	5.0	15.5	12.5	20.0	22.5	22.5	26.5	22.5	23.0
25	13.0	1.0	3.5	4.0	7.0	14.5	16.0	20.0	22.0	27.5	22.0	22.5
26	12.0	1.0	3.5	0.0	7.5	17.0	14.5	19.0	23.5	27.5	23.0	21.0
27	14.0	0.5	2.5	0.5	9.0	10.5	15.0	18.0	24.5	26.0	23.5	19.0
28	15.0	3.5	2.5	3.5	12.0	11.0	13.5	19.5	25.5	25.0	23.0	16.5
29	14.0	13.0	1.5	3.0	13.0	12.5	13.5	21.0	27.0	24.5	21.0	17.5
30	13.5	7.0	3.0	4.5	---	9.0	14.5	22.5	25.0	26.0	23.0	19.0
31	14.5	---	3.5	5.0	---	10.0	---	22.5	---	26.0	21.0	---
MONTH	16.5	10.0	5.0	2.5	9.0	9.5	16.0	18.5	23.0	24.5	23.5	22.0
YEAR	MAX	28.0	MIN	0.0	MEAN	15.0						

07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	130	140	170	180	160	170	120	76	81	60	110
2	120	130	150	170	180	160	170	88	79	62	61	110
3	120	130	160	170	180	160	170	77	74	27	59	100
4	120	130	150	180	180	150	170	100	77	33	61	120
5	120	130	140	170	180	150	170	160	78	58	64	100
6	120	130	100	170	180	160	160	120	80	59	74	95
7	130	140	110	170	180	160	170	90	79	49	79	110
8	130	110	120	190	170	160	160	94	77	32	83	120
9	140	100	130	190	160	160	160	73	90	27	84	120
10	170	100	140	180	160	160	160	61	93	33	85	120
11	140	110	150	190	170	150	160	66	100	24	85	130
12	120	110	160	190	180	100	160	74	110	28	84	140
13	160	120	160	180	170	120	150	75	---	31	83	130
14	130	120	160	170	180	140	150	79	---	30	83	130
15	99	130	160	170	170	140	140	84	110	31	85	130
16	86	130	160	170	170	150	150	72	100	28	87	140
17	110	130	160	160	170	160	150	81	100	28	88	120
18	120	130	160	160	170	160	140	90	97	28	87	120
19	120	130	180	150	170	160	130	89	95	33	85	110
20	130	130	160	160	180	160	97	89	93	31	86	120
21	130	130	140	150	170	160	100	99	93	29	93	120
22	130	130	140	160	180	170	94	93	95	38	93	120
23	130	130	160	160	180	170	90	97	79	30	86	120
24	130	130	160	160	180	180	120	93	79	38	85	170
25	130	140	150	170	170	180	160	79	77	39	87	120
26	130	190	160	180	190	180	190	73	88	48	88	98
27	130	170	160	180	180	170	240	49	79	49	93	95
28	130	160	160	180	170	170	120	53	73	49	100	93
29	130	150	160	170	160	170	73	45	76	49	110	110
30	130	130	170	160	---	170	130	50	83	50	110	120
31	130	---	170	170	---	170	---	65	---	55	110	---
MONTH	130	130	150	170	170	160	150	83	87	40	84	120
YEAR	MAX	240	MIN	24	MEAN	120						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	297	454	588	505	403	395	1970	1450	394	356	156
2	287	305	490	569	501	391	397	1790	1480	901	326	155
3	285	313	683	565	491	387	408	1510	1300	1200	261	137
4	285	338	753	593	470	401	397	1780	1310	2040	209	183
5	279	362	896	537	461	321	385	1980	1280	4350	178	165
6	271	404	583	519	439	331	350	1630	1290	3360	187	130
7	289	488	546	716	426	339	361	1640	1250	2620	193	146
8	283	443	535	949	387	361	337	1700	1040	1710	197	156
9	297	410	534	882	370	518	330	1300	833	1380	192	158
10	352	391	533	826	374	514	299	1140	761	1760	191	160
11	287	407	539	800	383	474	306	1190	656	1280	186	171
12	240	377	549	626	417	715	328	1340	609	1380	181	182
13	315	386	540	539	409	616	340	1450	---	1400	177	166
14	263	373	527	528	505	593	358	1480	---	1220	175	173
15	334	390	553	546	519	544	359	1670	523	1160	180	176
16	288	386	575	537	514	567	404	1470	472	1010	181	198
17	289	379	557	510	509	575	474	1560	459	869	179	184
18	298	376	562	514	496	549	499	1680	471	794	174	198
19	282	376	685	478	487	523	470	1600	477	774	167	171
20	295	386	648	510	530	497	846	1430	457	598	172	197
21	291	383	522	478	482	475	864	1300	462	446	184	177
22	293	383	495	514	505	491	1330	1130	528	446	181	182
23	291	386	553	518	501	491	1000	1080	422	374	166	213
24	282	432	562	514	491	510	1080	1070	397	348	164	298
25	282	469	543	542	477	505	1130	1070	374	274	168	194
26	287	605	579	564	512	481	1220	1420	418	329	152	184
27	290	542	566	554	465	431	1540	1050	452	329	142	173
28	290	505	557	539	434	425	1660	1850	420	321	147	186
29	292	490	566	496	413	430	1030	1710	396	316	155	249
30	293	428	597	458	---	412	1870	1280	415	319	150	270
31	292	---	588	477	---	392	---	1340	---	334	152	---
MONTH	290	407	576	580	465	473	692	1470	729	1100	188	183
YEAR	MAX	4350	MIN	130	MEAN	597						

ARKANSAS RIVER BASIN

07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	450	470	630	650	580	620	410	220	240	170	340
2	400	450	540	630	660	570	620	270	230	180	170	340
3	420	440	590	640	670	580	610	230	220	70	170	330
4	420	450	520	660	670	540	630	310	230	88	180	380
5	420	450	490	640	650	520	630	600	230	170	190	320
6	390	460	310	630	660	570	590	400	240	170	220	290
7	420	510	340	630	660	570	610	270	230	140	230	360
8	430	350	410	700	620	570	570	290	230	85	250	390
9	490	320	450	710	600	560	580	220	270	69	250	400
10	610	330	510	670	590	580	590	180	280	87	250	420
11	470	350	540	710	630	540	590	190	310	61	250	440
12	420	370	560	720	680	310	560	220	340	73	250	470
13	570	400	580	650	620	420	550	220	---	80	250	450
14	440	410	580	650	660	480	530	240	---	78	250	440
15	300	420	570	630	620	500	490	250	340	82	250	460
16	260	430	590	620	620	530	530	210	320	74	260	480
17	340	430	570	580	630	580	520	240	310	73	270	410
18	390	440	600	560	640	600	480	270	300	73	260	400
19	420	460	660	550	640	590	460	270	290	89	250	360
20	430	450	560	560	650	580	300	270	280	82	260	380
21	440	450	480	550	650	600	310	300	280	77	280	400
22	440	460	500	560	650	620	290	280	290	100	280	400
23	440	450	590	570	670	630	270	300	230	77	260	400
24	430	460	580	590	650	650	390	280	230	100	250	610
25	450	490	540	630	630	660	560	230	230	100	260	400
26	450	690	560	670	710	660	740	220	270	130	270	300
27	440	610	580	660	680	630	920	140	230	140	280	290
28	430	570	600	660	630	630	410	150	220	140	320	280
29	430	530	600	630	590	620	220	120	220	140	340	340
30	440	460	610	600	---	620	450	140	250	140	350	380
31	450	---	630	620	---	640	---	190	---	160	340	---
MONTH	430	450	540	630	640	570	520	260	260	110	250	390
YEAR	MAX	920	MIN	61	MEAN	420						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	963	1030	1520	2180	1830	1460	1440	6720	4190	1170	1010	481
2	956	1060	1760	2110	1840	1390	1450	5500	4310	2610	909	479
3	999	1060	2520	2130	1830	1400	1460	4510	3880	3120	753	454
4	997	1170	2610	2170	1750	1440	1470	5530	3910	5440	617	579
5	975	1250	3140	2020	1660	1110	1430	7420	3780	12800	528	527
6	880	1430	1810	1920	1610	1180	1290	5430	3860	9680	557	396
7	933	1780	1690	2650	1560	1210	1300	4910	3630	7480	561	476
8	937	1410	1830	3500	1410	1290	1200	5230	3110	4540	592	508
9	1040	1310	1850	3300	1390	1810	1200	3930	2500	3520	570	526
10	1260	1290	1940	3080	1380	1860	1100	3360	2290	4630	561	560
11	963	1290	1940	2990	1420	1710	1130	3410	2030	3260	547	580
12	840	1270	1920	2370	1580	2220	1150	3990	1880	3590	538	610
13	1120	1290	1960	1950	1490	2150	1250	4250	---	3610	533	573
14	891	1270	1910	2020	1850	2030	1270	4500	---	3180	527	584
15	1010	1260	1970	2020	1890	1940	1260	4970	1620	3060	529	622
16	870	1280	2120	1960	1870	2000	1430	4280	1510	2680	541	680
17	894	1250	1990	1850	1890	2080	1640	4630	1420	2270	548	629
18	968	1270	2110	1800	1870	2060	1710	5030	1460	2070	519	659
19	988	1330	2510	1750	1830	1930	1660	4860	1460	2090	491	559
20	976	1340	2270	1780	1910	1800	2620	4340	1380	1580	521	624
21	984	1320	1790	1750	1840	1780	2680	3940	1390	1180	555	591
22	991	1350	1770	1800	1830	1790	4120	3400	1610	1170	546	608
23	984	1340	2040	1850	1860	1820	3010	3340	1230	960	501	708
24	933	1530	2040	1900	1770	1840	3500	3220	1160	915	481	1070
25	976	1640	1950	2010	1770	1850	3950	3120	1120	702	502	648
26	993	2200	2030	2100	1920	1760	4760	4260	1280	892	466	562
27	980	1940	2050	2030	1760	1600	5910	3010	1320	941	429	528
28	958	1800	2090	1980	1610	1580	5680	5220	1270	919	470	560
29	965	1730	2120	1840	1520	1570	3120	4570	1150	903	480	768
30	993	1520	2140	1720	---	1500	6480	3590	1250	892	478	854
31	1010	---	2180	1740	---	1470	---	3900	---	972	471	---
MONTH	975	1400	2050	2140	1720	1700	2390	4460	2180	2990	559	600
YEAR	MAX	12800	MIN	396	MEAN	1930						

07152500 ARKANSAS RIVER AT RALSTON, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	998	1090	1120	1420	1470	1320	1410	1020	630	672	514	874
2	998	1080	1260	1420	1490	1320	1400	724	651	530	515	874
3	1020	1060	1350	1440	1500	1340	1380	640	619	263	503	856
4	1020	1080	1220	1480	1500	1250	1430	814	635	311	519	957
5	1030	1080	1160	1440	1470	1220	1420	1370	645	495	541	844
6	963	1100	820	1420	1480	1310	1350	998	661	505	619	773
7	1030	1190	868	1430	1490	1310	1380	739	651	432	651	909
8	1050	885	1010	1560	1410	1310	1320	767	640	302	682	963
9	1150	838	1090	1570	1370	1290	1340	609	739	262	687	980
10	1380	850	1190	1500	1350	1320	1350	519	755	307	698	1030
11	1120	885	1250	1570	1420	1250	1350	557	826	241	698	1070
12	1030	939	1300	1600	1520	814	1290	614	868	271	687	1130
13	1310	998	1330	1470	1410	1030	1260	625	---	291	682	1080
14	1060	1020	1340	1450	1470	1150	1230	656	---	286	682	1070
15	808	1030	1310	1420	1410	1170	1160	692	874	294	698	1100
16	703	1050	1340	1410	1410	1240	1240	604	844	274	713	1130
17	874	1050	1310	1330	1420	1330	1220	666	814	272	724	1000
18	974	1060	1370	1290	1440	1370	1150	734	791	273	713	980
19	1030	1100	1490	1260	1440	1350	1100	729	779	312	698	909
20	1050	1090	1300	1290	1460	1320	796	729	755	295	708	951
21	1060	1080	1140	1270	1450	1360	820	808	761	282	755	992
22	1060	1100	1180	1290	1460	1410	767	761	773	344	755	992
23	1060	1090	1340	1310	1510	1430	734	796	651	283	708	986
24	1050	1110	1330	1350	1470	1460	963	761	651	345	698	1400
25	1080	1150	1260	1430	1420	1470	1290	651	640	351	713	998
26	1080	1540	1290	1510	1580	1480	1630	609	724	418	724	802
27	1060	1380	1340	1480	1530	1430	1980	431	651	427	755	773
28	1050	1320	1370	1480	1430	1420	1020	459	609	432	838	755
29	1040	1240	1360	1430	1340	1410	609	400	630	427	868	868
30	1060	1100	1380	1370	---	1400	1080	438	682	438	885	951
31	1080	---	1420	1400	---	1440	---	546	---	476	874	---
MONTH	1040	1090	1250	1420	1450	1310	1220	692	712	358	694	967
YEAR	MAX	1980	MIN	241	MEAN	1020						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2400	2490	3630	4910	4130	3330	3270	16700	12000	3270	3050	1240
2	2380	2530	4120	4750	4140	3230	3270	14800	12200	7700	2750	1230
3	2430	2550	5760	4780	4090	3240	3310	12600	10900	11700	2230	1180
4	2420	2810	6130	4880	3920	3340	3340	14500	10800	19200	1780	1460
5	2390	3000	7420	4550	3760	2610	3210	16900	10600	37200	1500	1390
6	2170	3420	4780	4330	3610	2710	2950	13600	10600	28800	1570	1060
7	2290	4140	4310	6020	3520	2780	2930	13400	10300	23100	1590	1200
8	2290	3560	4500	7790	3210	2950	2780	13800	8640	16100	1610	1250
9	2440	3440	4470	7290	3170	4180	2770	10900	6840	13400	1570	1290
10	2860	3330	4530	6880	3150	4240	2520	9700	6180	16300	1570	1370
11	2300	3270	4490	6610	3200	3950	2580	10000	5420	12900	1530	1410
12	2060	3220	4460	5270	3520	5820	2640	11100	4800	13300	1480	1470
13	2580	3210	4490	4410	3390	5280	2860	12100	---	13100	1450	1380
14	2150	3170	4410	4500	4130	4870	2940	12300	---	11700	1440	1420
15	2730	3090	4530	4560	4300	4550	2980	13800	4150	11000	1480	1490
16	2350	3120	4810	4450	4260	4690	3340	12300	3990	9910	1480	1600
17	2300	3060	4560	4240	4260	4780	3850	12800	3740	8450	1470	1530
18	2420	3060	4810	4140	4200	4700	4100	13700	3840	7740	1420	1610
19	2420	3180	5670	4010	4120	4410	3980	13100	3910	7320	1370	1410
20	2380	3240	5260	4110	4300	4100	6940	11700	3710	5690	1420	1560
21	2370	3180	4250	4050	4110	4040	7080	10600	3780	4330	1500	1470
22	2390	3240	4170	4140	4100	4070	10900	9250	4300	4040	1470	1510
23	2370	3240	4630	4240	4200	4130	8180	8850	3480	3530	1360	1750
24	2280	3690	4670	4340	4010	4140	8630	8750	3270	3160	1340	2460
25	2340	3850	4560	4560	3990	4130	9090	8840	3110	2460	1380	1620
26	2380	4910	4670	4730	4260	3960	10500	11800	3440	2870	1250	1500
27	2360	4400	4740	4560	3950	3630	12700	9270	3730	2870	1160	1410
28	2340	4170	4770	4440	3650	3550	14100	16000	3500	2830	1230	1510
29	2330	4050	4810	4170	3460	3560	8630	15200	3280	2760	1230	1960
30	2390	3620	4840	3920	---	3390	15500	11200	3410	2790	1210	2140
31	2420	---	4910	3930	---	3320	---	11200	---	2890	1210	---
MONTH	2380	3370	4780	4820	3870	3930	5730	12300	6000	10100	1550	1500
YEAR	MAX	37200	MIN	1060	MEAN	5030						

ARKANSAS RIVER BASIN

07153000 BLACK BEAR CREEK AT PAWNEE, OK

LOCATION.--Lat 36°20'37", long 96°47'57", on east line of SE 1/4 NE 1/4 sec.31, T.22 N., R.5 E., Pawnee County, on downstream side of left pier of bridge on State Highway 18 in north Pawnee, 300 ft (91.4 m) downstream from Skedee Creek, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--576 mi² (1,492 km²).

PERIOD OF RECORD.--July 1944 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 802.73 ft (244.672 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 21, 1944, nonrecording gage at present site and datum except for Aug. 27, 1953, to Apr. 29, 1954, nonrecording gage at site 500 ft (152 m) downstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--32 years, 180 ft³/s (5.098 m³/s), 130,400 acre-ft/yr (161 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,200 ft³/s (855 m³/s) Oct. 3, 1959, gage height, 31.43 ft (9.580 m); no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1943, reached a stage of 28.19 ft (8.592 m), from floodmark, discharge, 17,800 ft³/s (504 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,560 ft³/s (44.2 m³/s) May 27, gage height, 7.43 ft (2.265 m), no peak above base of 4,000 ft³/s (113 m³/s); minimum, 0.14 ft³/s (0.004 m³/s) Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	11	21	17	12	9.3	9.7	81	80	2.7	.56	.27
2	7.6	13	16	20	12	9.1	9.7	48	65	17	2.4	.26
3	7.5	12	15	18	12	13	9.6	34	49	108	1.6	.32
4	7.5	12	15	14	11	16	9.3	27	36	13	121	.40
5	8.4	13	15	13	12	17	9.0	23	31	17	38	.43
6	7.8	16	12	13	12	17	8.8	21	29	17	15	.41
7	7.9	24	12	12	12	17	8.9	22	35	12	10	.36
8	8.5	16	12	12	12	19	9.1	21	37	10	8.5	.30
9	10	15	12	12	12	51	9.1	20	34	8.7	7.0	.40
10	12	13	11	12	12	32	9.9	21	32	6.9	5.3	.40
11	12	11	11	12	13	34	15	20	30	5.5	3.4	1.1
12	12	10	11	12	14	46	14	24	28	4.8	2.4	1.0
13	13	10	11	13	13	96	53	35	21	3.8	2.4	.99
14	13	10	12	13	13	70	46	304	19	3.0	1.3	1.2
15	162	11	13	13	14	35	35	135	18	8.1	.99	1.2
16	594	11	123	15	13	23	32	69	16	37	1.5	1.5
17	165	11	56	15	12	18	22	44	15	8.5	1.4	2.2
18	96	12	33	14	11	15	46	32	20	4.7	.75	2.2
19	60	14	24	15	11	13	43	26	14	3.1	.32	3.9
20	32	14	19	14	12	12	366	23	11	7.0	.15	23
21	22	14	16	13	12	11	272	20	8.6	6.3	.14	16
22	18	15	17	12	9.7	10	137	16	7.5	5.0	.16	40
23	15	22	16	12	9.7	9.9	83	14	7.7	3.9	.18	24
24	13	17	17	12	9.4	9.6	59	13	6.8	3.1	.18	14
25	12	14	18	12	8.8	9.4	32	12	6.3	2.3	.23	12
26	11	13	18	12	8.2	9.9	24	22	5.7	1.9	.26	38
27	11	13	17	11	8.0	9.4	21	662	5.0	1.3	.25	669
28	11	12	17	11	11	9.7	56	887	4.8	.74	.28	174
29	10	13	17	11	9.4	11	72	291	4.8	.64	.22	58
30	10	32	16	11	---	10	87	177	3.9	.98	.19	42
31	10	---	17	12	---	10	---	116	---	1.0	.21	---
TOTAL	1386.6	424	640	408	331.2	672.3	1608.1	3260	681.1	324.96	226.27	1128.84
MEAN	44.7	14.1	20.6	13.2	11.4	21.7	53.6	105	22.7	10.5	7.30	37.6
MAX	594	32	123	20	14	96	366	887	80	108	121	669
MIN	7.4	10	11	11	8.0	9.1	8.8	12	3.9	.64	.14	.26
AC-FT	2750	841	1270	809	657	1330	3190	6470	1350	645	449	2240

CAL YR 1975 TOTAL 146506.50 MEAN 401 MAX 6070 MIN 1.2 AC-FT 290600
WTR YR 1976 TOTAL 11091.37 MEAN 30.3 MAX 887 MIN .14 AC-FT 22000

ARKANSAS RIVER BASIN

75

07154500 CIMARRON RIVER NEAR KENTON, OK

LOCATION.--Lat 36°55'36", long 102°57'31", in SE 1/4 sec.4, T.5 N., R.1 E., Cimarron County, near right bank on downstream side of pier of county road bridge, 1.5 mi (2.41 km) upstream from North Carrizo Creek, 1.7 mi (2.74 km) northeast of Kenton, 2.2 mi (3.54 km) downstream from Carrizozo Creek, and at mile 594.0 (955.7 km).

DRAINAGE AREA.--1,106 mi² (2,865 km²), of which 68 mi² (176.1 km²) is probably noncontributing.

PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.

REVISED RECORDS.--WSP 1711: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft (1,299.082 m) above mean sea level, (levels by State Highway Department). April 1904 to July 1905 nonrecording gage at site 0.9 mi (1.45 km) upstream at different datum. Oct. 1, 1950, to Sept. 19, 1967, water-stage recorder at same site and at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records fair. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years (water years 1951-76), 21.7 ft³/s (0.615 m³/s), 15,720 acre-ft/yr (10.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) Oct. 17, 1965, gage height, 22.32 ft (6.803 m), present datum, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
June 7	0400	*5,040	143	13.45	4.100	9-26	0015	2,150	60.9	11.07	3.374
June 9	0115	2,640	74.8	11.58	3.530	9-27	1845	2,880	81.6	11.81	3.600

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	.04	.03	.02	.06	.17	0	0	0	0
2		0	0	.04	.04	0	.06	.13	0	0	15	0
3		0	0	.04	.04	0	.04	.13	0	0	25	0
4		0	0	.04	.04	.03	.04	.13	0	23	12	0
5		0	0	.04	.04	.04	.06	.14	0	5.7	7.0	0
6		0	0	.04	.04	.02	.07	.19	147	.23	.50	0
7		0	0	.04	.04	.02	.07	.21	1650	0	.10	0
8		0	0	.04	.04	.02	.07	.21	18	0	0	0
9		0	0	.04	.06	.02	.06	.21	485	0	0	0
10		0	0	.04	.04	.02	.06	.21	51	0	0	0
11		0	0	.02	.02	.01	.05	.18	.41	0	0	0
12		0	0	.02	.02	0	.04	.17	0	0	0	0
13		0	0	.02	.02	0	136	.17	0	0	8.5	0
14		0	0	.02	.04	0	3.0	.17	0	0	.70	0
15		0	0	.02	.04	0	.32	.14	0	0	.05	0
16		0	0	.02	.03	0	.25	.13	0	0	0	13
17		0	0	.07	.02	.01	.19	.13	0	0	0	165
18		0	0	.07	.03	.01	.15	.13	0	0	0	74
19		4.7	.24	.06	.02	.02	.13	.10	0	0	0	2.3
20		.34	.39	.04	.02	0	.10	.10	0	3.0	0	.05
21		0	.35	.04	.02	0	.10	.10	0	39	0	0
22		0	.04	.04	.02	.01	.07	.10	0	.78	17	0
23		0	.04	.04	.02	.02	.07	.12	0	129	4.2	0
24		0	.04	.04	.01	.01	.07	.13	0	6.7	.03	0
25		0	.04	.04	0	0	.07	.06	0	.50	0	50
26		0	.04	.04	0	0	.07	.03	0	.10	0	412
27		0	.04	.04	.01	.01	.07	0	0	0	0	574
28		0	.04	.04	.02	.01	.07	0	0	0	0	219
29		0	.04	.04	.02	.01	.07	0	0	0	0	10
30		0	.04	.04	---	.03	.15	0	0	0	0	.80
31		---	.04	.04	---	.04	---	0	---	0	0	---
TOTAL	0	5.04	1.38	1.20	.79	.38	141.63	3.69	2351.41	208.01	90.08	1520.15
MEAN	0	.17	.045	.039	.027	.012	4.72	.12	78.4	6.71	2.91	50.7
MAX	0	4.7	.39	.07	.06	.04	136	.21	1650	129	25	574
MIN	0	0	0	.02	0	0	.04	0	0	0	0	0
AC-FT	0	10.0	2.7	2.4	1.6	.8	281	7.3	4660	413	179	3020
CAL YR 1975	TOTAL	466.02	MEAN	1.28	MAX	168	MIN	0	AC-FT	924		
WTR YR 1976	TOTAL	4323.76	MEAN	11.8	MAX	1650	MIN	0	AC-FT	8580		

ARKANSAS RIVER BASIN

07156900 CIMARRON RIVER NEAR FORGAN, OK

LOCATION.--Lat 37°00'45", long 100°29'39", in SE 1/4 SE 1/4 sec.8, T.35 S., R.24 E., Mead County, Kans., near center of span on downstream side of pier of bridge on Kansas State Highway 23, 0.8 mi (1.3 km) north of Oklahoma-Kansas State line, 7.8 mi (12.5 km) north of Forgan, and at mile 375.7 (604.5 km).

DRAINAGE AREA.--8,536 mi² (22,108 km²), of which 4,316 mi² (11,178 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,325 ft (708.7 m) (from topographic map).

REMARKS.--Records good. Extensive diversion for irrigation above station.

AVERAGE DISCHARGE.--11 years, 84.8 ft³/s (2.402 m³/s), 61,440 acre-ft/yr (75.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) Oct. 20, 1965, gage height, 8.10 ft (2.469 m); minimum, 18 ft³/s (.510 m³/s) Jan. 4, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,200 ft³/s (402 m³/s) at 0245 Apr. 30, gage height, 6.95 ft (2.118 m), no other peak above base of 3,000 ft³/s (85.0 m³/s); minimum daily, 19 ft³/s (0.54 m³/s) Sept. 6, 7, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	58	72	80	65	88	70	815	89	52	26	32
2	42	54	65	70	75	66	75	239	70	70	100	45
3	41	78	60	50	80	65	76	125	59	36	707	36
4	42	59	58	40	80	80	74	116	97	40	192	28
5	40	51	55	45	81	68	79	125	108	40	57	26
6	40	48	55	36	82	79	74	161	113	40	150	19
7	38	57	63	27	63	95	81	125	153	40	45	19
8	40	66	60	30	67	94	73	59	164	32	38	28
9	40	65	60	35	69	75	64	64	124	26	35	28
10	43	65	58	45	80	87	61	54	119	28	30	23
11	41	67	55	40	83	79	63	49	185	28	32	26
12	40	69	55	50	76	55	67	44	119	32	34	21
13	42	71	70	47	88	55	60	38	69	32	31	19
14	46	81	80	44	98	61	66	38	126	36	29	23
15	51	87	63	60	90	54	86	38	125	36	32	89
16	56	87	58	65	86	51	103	26	117	36	30	150
17	57	81	55	68	75	52	95	28	101	28	31	55
18	55	74	52	71	74	54	85	26	120	26	32	67
19	53	102	49	69	71	59	79	24	93	28	45	61
20	50	84	49	65	67	61	145	24	61	28	26	50
21	48	78	49	80	80	65	117	26	42	32	32	40
22	49	66	52	83	80	71	89	64	38	28	50	40
23	52	71	49	80	72	78	74	44	45	28	45	40
24	56	67	52	76	66	74	67	38	57	26	40	45
25	62	54	55	73	61	65	62	75	57	28	36	73
26	59	50	66	67	66	55	72	186	58	23	28	61
27	63	45	70	84	71	59	85	344	45	28	26	55
28	65	65	55	83	78	55	519	1330	32	61	28	67
29	69	80	52	77	83	48	1200	784	57	36	28	64
30	65	73	60	72	---	57	7420	267	65	23	28	56
31	56	---	88	64	---	71	---	140	---	23	26	---
TOTAL	1550	2053	1840	1876	2207	2076	11281	5516	2708	1050	2069	1386
MEAN	50.0	68.4	59.4	60.5	76.1	67.0	376	178	90.3	33.9	66.7	46.2
MAX	69	102	88	84	98	95	7420	1330	185	70	707	150
MIN	38	45	49	27	61	48	60	24	32	23	26	19
AC=FT	3070	4070	3650	3720	4380	4120	22380	10940	5370	2080	4100	2750

CAL YR 1975 TOTAL 24778 MEAN 67.9 MAX 1440 MIN 28 AC=FT 49150
WTR YR 1976 TOTAL 35612 MEAN 97.3 MAX 7420 MIN 19 AC=FT 70640

ARKANSAS RIVER BASIN

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07157740 CIMARRON RIVER NEAR BUTTERMILK, KS

LOCATION.--Lat. 37°01'36", long. 99°28'45", in NW 1/4 sec.3, T.35 S., R.20 W., Comanche County, Kansas, near left abutment of county road bridge, 0.5 mi (.8 km), from Bluff Creek, 2 mi (3.2 km) north of Kansas-Oklahoma State line, 11.5 mi (18.5 km) southwest of Buttermilk, and at mile 304.8 (490.4 km).

* DRAINAGE AREA.--11,120 mi² (28,800 km²), of which 4,737 mi² (12,270 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September, 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,704.57 ft (519.553 m) above mean sea level.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,690 ft³/s (189 m³/s) Sept. 26, 1973, gage height, 8.29 ft (2.527 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

DATE	TIME	DISCHARGE		GAGE HEIGHT		DATE	TIME	DISCHARGE		GAGE HEIGHT	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Apr. 28	0815	3,450	97.7	5.39	1.643	May 10	0900	3,610	102	5.44	1.658
May 01	1715	6,650*	188	6.32	1.926	May 29	0600	3,550	101	5.42	1.652

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	82	48	43	43	3.8	4820	251	2.0	0	0
2		10	63	40	43	51	2.2	1130	177	1.7	0	0
3		9.4	56	35	44	52	1.8	482	138	2.0	0	0
4		56	53	27	46	53	1.8	352	108	21	16	0
5		75	50	20	24	83	2.2	245	89	12	52	0
6		42	42	13	14	90	1.6	747	76	8.0	20	0
7		32	38	22	28	94	3.0	496	65	4.6	6.3	0
8		27	37	17	46	90	2.0	273	61	1.3	9.3	0
9		18	37	18	146	105	1.8	204	55	.42	1.7	0
10		14	39	13	88	114	1.6	1930	48	.24	.54	0
11		12	42	24	49	101	1.3	767	39	0	0	0
12		11	40	22	42	80	1.1	376	28	0	0	0
13		7.8	40	22	42	52	1.3	279	34	0	0	0
14		8.8	47	47	42	47	1.5	181	35	0	0	0
15		14	47	117	42	41	9.9	134	33	0	0	.54
16		15	49	167	45	23	29	80	28	0	0	17
17		25	40	224	47	16	111	75	26	0	0	1.7
18		30	26	125	47	12	135	75	21	0	0	.74
19		42	29	77	45	10	111	70	19	0	0	.48
20		73	33	59	43	7.5	278	62	14	0	0	0
21		113	70	53	40	5.6	457	56	14	0	0	0
22		32	90	53	39	4.3	353	61	15	0	0	0
23		21	70	48	47	4.0	295	76	13	0	0	0
24		94	57	45	52	3.8	226	123	12	0	0	0
25		40	49	44	46	3.8	156	133	9.3	0	0	0
26		20	60	38	40	4.1	142	231	8.6	0	0	0
27		25	53	26	36	3.5	188	491	7.4	0	0	.90
28		30	47	50	39	3.0	2030	839	4.6	0	0	.90
29		40	45	72	42	4.1	1480	2070	2.8	0	0	.74
30		168	45	57	---	3.8	1860	984	1.7	0	0	.74
31		---	47	47	---	3.5	---	431	---	0	0	---
TOTAL	0	1105.0	1523	1670	1347	1208.0	7887.9	18273	1435.4	53.26	105.84	23.74
MEAN	0	36.8	49.1	53.9	46.4	39.0	263	589	47.8	1.72	3.41	.79
MAX	0	168	90	224	146	114	2030	4820	251	21	52	17
MIN	0	0	26	13	14	3.0	1.1	56	1.7	0	0	0
AC-FT	0	2190	3020	3310	2670	2400	15650	36240	2850	106	210	47
CAL YR 1975	TOTAL	21610.99	MEAN	59.2	MAX	886	MIN	0	AC-FT	42870		
WTR YR 1976	TOTAL	34632.14	MEAN	94.6	MAX	4820	MIN	0	AC-FT	68690		

ARKANSAS RIVER BASIN

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 4,800 micromhos Feb. 8, 1975; minimum, 377 micromhos Aug. 1, 1975.

WATER TEMPERATURE: Maximum daily, 33.5°C Aug. 6, 1976; minimum daily, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,190 micromhos Apr. 19; minimum daily, 492 micromhos Sept. 16.

WATER TEMPERATURE: Maximum daily 33.5°C Aug. 6; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV										
03...	1125	9.4	3160	8.0	760	600	200	64	390	52
12...	1715	11	3360	8.3	530	350	120	55	490	67
29...	0810	62	2620	8.3	410	250	98	41	370	66
DEC										
01...	1408	178	2910	8.2	400	210	96	39	410	69
18...	1724	26	3340	8.1	460	280	110	45	480	69
29...	0947	117	3160	8.1	440	240	100	45	450	69
JAN										
16...	1945	429	2430	8.0	340	170	80	34	360	69
17...	1444	401	2380	8.0	320	150	77	31	340	69
23...	0650	125	3110	8.3	410	230	94	42	460	71
FEB										
05...	1645	62	3600	8.1	520	320	120	54	530	68
10...	1030	226	2970	8.0	420	220	100	41	460	70
19...	1444	117	3310	8.2	440	260	100	47	510	71
MAR										
05...	1403	193	2810	7.7	440	260	100	47	480	70
17...	1108	65	3470	7.8	500	350	110	55	550	70
25...	1845	3.8	3770	8.0	690	530	150	76	540	63
APR										
10...	1744	1.6	3470	7.8	570	390	120	65	570	68
17...	0800	90	3650	7.6	730	570	180	68	490	59
28...	1700	2330	1360	7.4	280	140	72	24	170	56
MAY										
10...	1847	1510	922	8.0	210	86	57	16	110	52
12...	1654	314	2270	7.8	420	230	98	42	310	61
22...	1808	62	3280	7.9	530	340	120	56	520	68
JUN										
01...	1328	255	1380	7.6	270	120	72	23	180	58
11...	1718	37	3280	7.6	510	320	120	51	530	69
26...	1722	8.6	3640	7.4	670	480	150	71	570	65
JUL										
04...	1738	21	3820	7.4	550	360	130	55	590	69
AUG										
06...	1524	20	1680	7.5	320	130	79	29	220	59
08...	2042	9.3	1890	7.7	380	170	94	35	260	59
09...	1937	1.7	2510	7.9	480	330	120	43	330	59
SEP										
16...	1439	17	492	7.8	170	55	45	14	27	25
18...	0830	17	2420	7.4	630	470	160	55	270	48

ARKANSAS RIVER BASIN

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07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
NOV										
03...	6.1	7.7	198	162	3.2	590	630	2000	2.72	.14
12...	9.3	8.1	213	175	1.7	330	770	1960	2.67	.24
29...	7.9	5.9	196	161	1.6	260	590	1530	2.08	.56
DEC										
01...	8.9	6.6	232	190	2.3	210	660	1660	2.26	1.4
18...	9.7	6.5	223	183	2.8	280	760	1920	2.61	.96
29...	9.4	6.4	237	194	3.0	230	760	1800	2.45	1.1
JAN										
16...	8.5	6.4	207	170	3.3	160	560	1410	1.92	1.6
17...	8.3	6.1	203	167	3.2	140	540	1340	1.82	1.8
23...	9.9	7.1	211	173	1.7	220	710	1770	2.41	1.1
FEB										
05...	10	7.5	244	200	3.1	330	850	2100	2.86	1.0
10...	9.8	6.9	239	196	3.8	210	710	1660	2.26	1.2
19...	11	7.5	228	187	2.3	260	790	1900	2.58	.73
MAR										
05...	9.9	6.6	220	180	7.0	260	780	1850	2.52	1.0
17...	11	6.9	190	156	4.8	380	820	2150	2.92	.28
25...	9.0	6.2	190	156	3.0	520	850	2440	3.32	.97
APR										
10...	10	8.5	220	180	5.6	410	910	2340	3.18	.10
17...	7.9	7.1	198	162	8.0	550	730	2260	3.07	.00
28...	4.4	6.8	173	142	11	160	250	822	1.12	.66
MAY										
10...	3.3	6.7	149	122	2.4	100	150	510	.69	1.0
12...	6.6	9.7	227	186	5.8	210	500	1350	1.84	.55
22...	9.8	9.5	229	188	4.6	290	860	1910	2.60	.27
JUN										
01...	4.7	11	184	151	7.4	140	250	778	1.06	1.2
11...	10	11	226	185	9.1	290	810	1950	2.65	.31
26...	9.6	11	229	188	15	440	900	2320	3.16	1.0
JUL										
04...	11	12	233	191	15	420	900	2280	3.10	.77
AUG										
06...	5.4	11	231	189	12	180	320	995	1.35	.86
08...	5.8	12	258	212	8.2	180	380	1080	1.47	.44
09...	6.6	15	180	148	3.6	360	530	1480	2.01	1.8
SEP										
16...	.9	7.7	140	115	3.6	67	37	298	.41	.59
18...	4.7	9.3	191	157	3.8	450	450	1540	2.09	.15

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
SEP										
27...	1025	.90	3130	8.0	790	640	200	71	370	50

DATE	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
SEP										
27...	5.7	6.6	185	152	3.0	600	630	2040	2.77	1.7

ARKANSAS RIVER BASIN

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	2900	3080	3250	3270	3590	1130	1380	---	---	---
2		---	3060	3320	3250	3220	3640	1340	1560	3570	---	---
3		---	3030	3300	3120	3230	3620	1690	1890	3370	---	---
4		2860	3110	3050	3190	3290	3520	1900	2250	3820	1880	---
5		3070	3170	2890	3580	2520	3490	2100	2510	2930	1400	---
6		3100	3210	---	---	3220	3530	1820	2770	3340	1810	---
7		3270	3190	---	3570	3150	3560	2560	2850	---	1790	---
8		3290	3180	---	3320	3120	3550	---	2920	3730	1820	---
9		3260	3200	---	3040	3090	3600	---	3070	3620	2240	---
10		3200	3140	---	2980	3260	3480	922	3180	3500	2340	---
11		3300	3160	3280	3180	3520	3500	1670	3280	3410	---	---
12		3390	3050	3290	3290	3280	3550	2270	3370	3530	---	---
13		3260	3050	3230	3320	3470	3450	2310	---	---	---	---
14		3310	3030	3490	3300	3460	3410	2690	3370	3510	---	---
15		2230	3110	2470	3210	3420	3380	3110	3090	3380	---	2990
16		3200	3300	3720	3310	3320	3350	---	3340	3340	---	492
17		3140	3300	2360	3230	3150	3830	3210	---	3290	---	1120
18		3110	3340	2470	3270	3610	3750	3210	---	---	---	2420
19		2870	3220	2640	3310	3530	4190	---	---	---	---	---
20		2910	2980	2730	3320	3680	2550	3240	3720	---	---	---
21		3140	3020	3270	3360	2620	2930	3230	---	---	---	---
22		3080	2930	2980	3420	3600	---	3280	3730	---	---	---
23		3420	3000	2840	3300	3950	3000	3180	---	---	---	---
24		3220	3150	3170	3210	3800	2820	3110	---	---	---	---
25		2870	3120	3160	3360	3750	2880	2890	---	---	---	---
26		2700	3120	3570	3390	3730	2820	2460	3840	---	---	---
27		2980	3070	3250	3380	3670	2480	2940	3650	---	---	3130
28		3160	3100	3160	3320	3690	1360	2430	---	---	---	---
29		2620	3120	3040	3250	3620	2360	1040	3620	---	---	3120
30		2830	3200	3120	---	3600	---	1040	3610	---	---	3120
31		---	3190	3220	---	3700	---	1190	---	---	---	---
MONTH		3070	3120	3080	3290	3400	3260	2290	---	---	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	4.0	4.0	10.0	8.0	12.5	14.0	25.0	---	---	---
2		13.5	8.5	0.0	8.0	8.5	15.5	14.0	21.5	25.0	---	---
3		13.5	9.0	---	7.0	5.5	15.0	16.5	23.5	20.5	---	---
4		15.0	8.0	---	1.0	4.0	15.0	12.5	23.0	27.0	28.0	---
5		15.0	6.0	---	0.5	3.5	16.0	14.5	19.0	30.0	26.5	---
6		14.5	5.0	---	---	5.5	17.5	17.0	21.0	32.0	26.5	---
7		15.0	7.0	---	7.5	4.5	16.5	17.0	25.0	---	25.0	---
8		13.5	10.5	---	9.0	4.5	16.5	---	28.0	25.0	24.5	---
9		10.5	10.5	---	1.5	8.5	17.0	---	24.5	25.5	23.0	---
10		7.5	10.0	---	11.5	11.0	18.5	17.5	26.0	25.0	23.0	---
11		7.5	4.0	1.0	12.5	11.5	19.0	22.0	28.5	25.0	---	---
12		3.5	4.0	0.0	6.0	6.0	18.5	19.5	22.5	23.0	---	---
13		4.0	4.0	0.0	13.5	5.5	20.5	15.5	---	---	---	---
14		6.5	2.0	0.0	13.5	7.5	22.0	20.5	26.5	25.5	---	---
15		7.0	2.0	0.5	15.5	6.0	20.0	17.0	25.5	27.0	23.0	29.0
16		8.0	0.5	2.0	8.5	6.5	21.0	---	20.0	33.0	25.0	28.5
17		8.0	0.0	6.5	5.0	5.0	12.0	23.0	17.5	32.0	24.0	20.0
18		4.0	0.5	8.0	9.5	13.0	16.0	23.5	25.0	---	24.5	20.5
19		1.0	0.0	4.0	12.0	13.0	16.5	---	20.5	---	23.0	---
20		11.0	3.0	5.0	14.0	8.5	13.0	23.5	22.0	---	21.5	---
21		0.5	0.5	0.0	6.0	8.0	16.0	24.0	---	---	---	---
22		2.0	2.5	6.5	0.0	12.5	---	30.0	27.0	---	---	---
23		0.5	0.5	0.0	3.5	12.0	25.0	28.0	27.0	---	---	---
24		0.5	0.0	8.0	11.5	15.0	20.0	23.0	28.0	---	---	---
25		0.5	---	1.5	0.5	16.0	16.0	18.0	25.5	---	---	---
26		---	4.0	2.0	5.5	11.5	11.5	17.0	30.0	---	---	---
27		---	1.0	2.0	9.5	11.0	12.0	21.0	29.0	---	---	---
28		0.0	1.5	7.5	11.5	12.0	12.0	24.0	---	---	---	---
29		8.0	2.0	8.0	8.0	12.0	12.5	24.0	27.0	---	---	---
30		6.5	---	4.0	---	10.5	---	24.5	30.0	---	---	---
31		---	5.0	8.0	---	12.0	---	25.5	---	---	---	---
MONTH		7.5	4.0	---	8.0	9.0	16.5	20.0	24.5	---	---	---

ARKANSAS RIVER BASIN

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07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

DISSOLVED SULFATE (SO4), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	260	270	290	290	370	120	140	---	---	---
2		---	270	290	290	290	390	140	160	360	---	---
3		---	270	290	280	290	380	170	180	300	---	---
4		260	280	270	280	290	340	180	210	460	180	---
5		270	280	260	360	230	330	200	230	260	140	---
6		280	280	---	---	290	350	180	250	290	180	---
7		290	280	---	360	280	360	230	260	---	180	---
8		290	280	---	290	280	350	---	260	420	180	---
9		290	280	---	270	280	370	---	270	380	210	---
10		280	280	---	270	290	330	110	280	330	220	---
11		290	280	290	280	340	330	170	290	300	---	---
12		300	270	290	290	290	350	210	300	350	---	---
13		290	270	290	290	320	320	220	---	---	---	---
14		290	270	330	290	320	300	240	300	340	---	---
15		210	280	230	280	300	300	280	280	300	---	270
16		280	290	420	290	290	300	---	290	290	---	75
17		280	290	220	290	280	460	280	---	290	---	120
18		280	290	230	290	380	430	280	---	---	---	220
19		260	290	240	290	350	600	---	---	---	---	---
20		260	270	250	290	400	230	290	420	---	---	---
21		280	270	290	300	240	260	290	---	---	---	---
22		270	260	270	300	370	---	290	420	---	---	---
23		300	270	260	290	500	270	280	---	---	---	---
24		290	280	280	280	450	250	280	---	---	---	---
25		260	280	280	300	430	260	260	---	---	---	---
26		250	280	360	300	420	250	230	460	---	---	---
27		270	270	290	300	400	230	260	390	---	---	280
28		280	280	280	290	410	140	220	---	---	---	---
29		240	280	270	290	380	220	120	380	---	---	280
30		260	280	280	---	370	---	120	380	---	---	280
31		---	280	290	---	410	---	130	---	---	---	---
MONTH		270	280	280	290	340	320	210	---	---	---	---

DISSOLVED SULFATE (SO4), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	57.6	35.0	33.7	33.7	3.80	1560	94.9	---	---	---
2		---	45.9	31.3	33.7	39.9	2.32	427	76.5	1.65	---	---
3		---	40.8	27.4	33.3	40.7	1.85	221	67.1	1.62	---	---
4		39.3	40.1	19.7	34.8	41.5	1.65	171	61.2	26.1	7.78	---
5		54.7	37.8	14.0	23.3	51.5	1.96	132	55.3	8.42	19.7	---
6		31.8	31.8	---	---	70.5	1.51	363	51.3	6.26	9.72	---
7		25.1	28.7	---	27.2	71.1	2.92	308	45.6	---	3.06	---
8		21.1	28.0	---	36.0	68.0	1.89	---	42.8	1.47	4.52	---
9		14.1	28.0	---	106	79.4	1.80	---	40.1	.43	.96	---
10		10.6	29.5	---	64.2	89.3	1.43	573	36.3	.21	.32	---
11		9.40	31.8	18.8	37.0	92.7	1.16	352	30.5	0	---	---
12		8.91	29.2	17.2	32.9	62.6	1.04	213	22.7	0	---	---
13		6.11	29.2	17.2	32.9	44.9	1.12	166	---	---	---	---
14		6.89	34.3	41.9	32.9	40.6	1.21	117	28.3	0	---	---
15		7.94	35.5	72.7	31.8	33.2	8.02	101	24.9	0	---	.39
16		11.3	38.4	189	35.2	18.0	23.5	---	21.9	0	---	3.44
17		18.9	31.3	133	36.8	12.1	138	56.7	---	0	---	.55
18		22.7	20.4	77.6	36.8	12.3	157	56.7	---	---	---	.44
19		29.5	22.7	49.9	35.2	9.45	180	---	---	---	---	---
20		51.2	24.1	39.8	33.7	8.10	173	48.5	15.9	---	---	---
21		85.4	51.0	41.5	32.4	3.63	321	43.8	---	---	---	---
22		23.3	33.2	38.6	31.6	4.30	---	47.8	17.0	---	---	---
23		17.0	51.0	33.7	36.8	5.40	215	57.5	---	---	---	---
24		73.6	43.1	34.0	39.3	4.62	153	93.0	---	---	---	---
25		28.1	37.0	33.3	37.3	4.41	110	93.4	---	---	---	---
26		13.5	45.4	36.9	32.4	4.65	95.8	143	10.7	---	---	---
27		18.2	38.6	20.4	29.2	3.78	117	345	7.79	---	---	.68
28		22.7	35.5	37.8	30.5	3.32	767	498	---	---	---	---
29		25.9	34.0	52.5	32.9	4.21	879	671	2.87	---	---	.56
30		118	34.0	43.1	---	3.80	---	319	1.74	---	---	.56
31		---	35.5	36.8	---	3.87	---	151	---	---	---	---
MONTH		29.5	36.6	45.9	37.1	31.1	120	271	---	---	---	---

ARKANSAS RIVER BASIN

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	640	690	740	750	850	190	260	---	---	---
2		---	690	770	740	740	860	250	300	840	---	---
3		---	680	760	710	740	860	330	380	780	---	---
4		630	700	680	730	760	830	380	470	920	380	---
5		690	720	640	840	540	820	430	540	650	260	---
6		700	730	---	---	740	830	360	600	770	360	---
7		750	730	---	840	710	840	550	620	---	360	---
8		760	720	---	770	710	830	---	650	890	360	---
9		750	730	---	680	700	850	---	690	860	470	---
10		730	710	---	660	750	810	140	720	820	490	---
11		760	720	750	720	830	820	330	750	790	---	---
12		790	680	760	760	750	830	480	780	830	---	---
13		750	680	740	770	810	800	490	---	---	---	---
14		760	680	820	760	810	790	580	780	820	---	---
15		470	700	530	730	800	780	700	700	780	---	670
16		730	760	890	760	770	770	---	770	770	---	35
17		710	760	500	740	710	920	730	---	760	---	190
18		700	770	530	750	850	890	730	---	---	---	510
19		630	740	570	760	830	1000	---	---	---	---	---
20		640	660	590	770	870	550	740	890	---	---	---
21		710	680	750	780	560	650	740	---	---	---	---
22		690	650	660	800	850	---	750	890	---	---	---
23		800	670	620	760	950	670	720	---	---	---	---
24		740	710	720	730	910	620	700	---	---	---	---
25		630	710	720	780	890	630	640	---	---	---	---
26		580	710	840	790	890	620	520	920	---	---	---
27		660	690	740	780	870	530	650	860	---	---	710
28		720	700	720	770	880	250	520	---	---	---	---
29		560	710	680	740	860	500	170	860	---	---	710
30		620	730	710	---	850	---	170	850	---	---	710
31		---	730	740	---	880	---	210	---	---	---	---
MONTH		690	710	700	760	790	750	490	---	---	---	---

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	142	89.4	85.9	87.1	8.72	2470	176	---	---	---
2		---	117	83.2	85.9	102	5.11	763	143	3.86	---	---
3		---	103	71.8	84.3	104	4.18	429	142	4.21	---	---
4		95.3	100	49.6	90.7	109	4.03	361	137	52.2	16.4	---
5		140	97.2	34.6	54.4	121	4.87	284	130	21.1	36.5	---
6		79.4	82.8	---	---	180	3.59	726	123	16.6	19.4	---
7		64.8	74.9	---	63.5	180	6.80	737	109	---	6.12	---
8		55.4	71.9	---	95.6	173	4.48	---	107	3.12	9.04	---
9		36.4	72.9	---	268	198	4.13	---	102	.98	2.16	---
10		27.6	74.8	---	157	231	3.50	730	93.3	.53	.71	---
11		24.6	81.6	48.6	95.3	226	2.88	683	79.0	0	---	---
12		23.5	73.4	45.1	86.2	162	2.47	487	59.0	0	---	---
13		15.8	73.4	44.0	87.3	114	2.81	369	---	---	---	---
14		18.1	86.3	104	86.2	103	3.20	283	73.7	0	---	---
15		17.8	88.8	167	82.8	88.6	20.8	253	62.4	0	---	.98
16		29.6	101	401	92.3	47.8	60.3	---	58.2	0	---	1.61
17		47.9	82.1	302	93.9	30.7	276	148	---	0	---	.87
18		56.7	54.1	179	95.2	27.5	324	148	---	---	---	1.02
19		71.4	57.9	119	92.3	22.4	300	---	---	---	---	---
20		126	58.8	94.0	89.4	17.6	413	124	33.6	---	---	---
21		217	129	107	84.2	8.47	802	112	---	---	---	---
22		59.6	158	94.4	84.2	9.87	---	124	36.0	---	---	---
23		48.4	127	80.4	96.4	10.3	534	148	---	---	---	---
24		188	109	87.5	102	9.34	378	232	---	---	---	---
25		68.0	93.9	85.5	96.9	9.13	265	230	---	---	---	---
26		31.3	115	86.2	85.3	9.85	238	324	21.4	---	---	---
27		44.5	98.7	51.9	75.8	8.22	269	862	17.2	---	---	1.73
28		58.3	88.8	97.2	81.1	7.13	1370	1180	---	---	---	---
29		60.5	86.3	132	83.9	9.52	2000	950	6.50	---	---	1.42
30		281	88.7	109	---	8.72	---	452	3.90	---	---	1.42
31		---	92.6	93.9	---	8.32	---	244	---	---	---	---
MONTH		73.5	92.9	110	95.6	78.2	261	513	---	---	---	---

ARKANSAS RIVER BASIN

83

07157740 CIMARRON RIVER NEAR BUTTERMILK, KS--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	1690	1830	1960	1980	2220	653	797	---	---	---
2		---	1820	2020	1960	1940	2260	774	901	2210	---	---
3		---	1790	2000	1860	1950	2240	977	1090	2050	---	---
4		1660	1860	1810	1920	1990	2170	1100	1300	2400	1090	---
5		1820	1900	1690	2210	1460	2150	1210	1450	1720	809	---
6		1850	1930	---	---	1940	2180	1050	1600	2030	1050	---
7		1980	1920	---	2210	1890	2200	1480	1660	---	1030	---
8		1990	1910	---	2020	1860	2190	---	1710	2330	1050	---
9		1970	1920	---	1800	1840	2230	---	1820	2240	1290	---
10		1920	1880	---	1760	1970	2140	533	1910	2150	1350	---
11		2000	1890	1980	1910	2170	2150	965	1980	2080	---	---
12		2070	1810	1990	1990	1980	2190	1310	2050	2180	---	---
13		1970	1810	1950	2020	2130	2110	1330	---	---	---	---
14		2010	1790	2150	2000	2120	2080	1550	2050	2160	---	---
15		1290	1860	1430	1930	2090	2060	1860	1840	2060	---	1760
16		1920	2000	2320	2010	2020	2040	---	2030	2030	---	284
17		1880	2000	1360	1950	1890	2410	1930	---	1990	---	647
18		1860	2030	1430	1980	2240	2340	1930	---	---	---	1400
19		1670	1940	1530	2010	2180	2680	---	---	---	---	---
20		1700	1760	1580	2020	2290	1470	1950	2320	---	---	---
21		1880	1790	1980	2050	1510	1720	1950	---	---	---	---
22		1830	1720	1760	2090	2230	---	1980	2330	---	---	---
23		2090	1770	1650	2000	2500	1770	1910	---	---	---	---
24		1940	1890	1900	1930	2380	1630	1860	---	---	---	---
25		1670	1860	1890	2050	2340	1680	1690	---	---	---	---
26		1560	1860	2210	2070	2330	1630	1420	2410	---	---	---
27		1760	1820	1960	2060	2280	1430	1730	2270	---	---	1870
28		1890	1850	1890	2020	2300	786	1400	---	---	---	---
29		1510	1860	1800	1960	2240	1360	601	2240	---	---	1860
30		1640	1920	1860	---	2230	---	601	2240	---	---	1860
31		---	1920	1940	---	2310	---	688	---	---	---	---
MONTH		1830	1860	1840	1990	2080	1980	1350	---	---	---	---

DISSOLVED SOLIDS (TUNS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	374	237	228	230	22.8	8500	540	---	---	---
2		---	310	218	228	267	13.4	2360	431	10.1	---	---
3		---	271	189	221	274	10.9	1270	406	11.1	---	---
4		251	266	132	238	285	10.5	1050	379	136	47.1	---
5		369	256	91.3	143	327	12.8	800	348	55.7	114	---
6		210	219	---	---	471	9.42	2120	328	43.8	56.7	---
7		171	197	---	167	480	17.8	1980	291	---	17.5	---
8		145	191	---	251	452	11.8	---	282	8.18	26.4	---
9		95.7	192	---	710	522	10.8	---	270	2.54	5.92	---
10		72.6	198	---	418	606	9.24	2780	248	1.39	1.97	---
11		64.8	214	128	253	592	7.55	2000	208	0	---	---
12		61.5	195	118	226	428	6.50	1330	155	0	---	---
13		41.5	195	116	229	299	7.41	1000	---	---	---	---
14		47.8	227	273	227	269	8.42	757	194	0	---	---
15		48.8	236	452	219	231	55.1	673	164	0	---	2.57
16		77.8	265	1050	244	125	160	---	153	0	---	13.0
17		127	216	823	247	81.6	722	391	---	0	---	2.97
18		151	143	483	251	72.6	853	391	---	---	---	2.80
19		189	152	318	244	58.9	803	---	---	---	---	---
20		335	157	252	235	46.4	1100	326	87.7	---	---	---
21		574	338	283	221	22.8	2120	295	---	---	---	---
22		158	418	252	220	25.9	---	326	94.4	---	---	---
23		119	335	214	254	27.0	1410	392	---	---	---	---
24		492	291	231	271	24.4	995	618	---	---	---	---
25		180	246	225	255	24.0	708	607	---	---	---	---
26		84.2	301	227	224	25.8	625	886	56.0	---	---	---
27		119	260	138	200	21.5	726	2290	45.4	---	---	4.54
28		153	235	255	213	18.6	4310	3170	---	---	---	---
29		163	226	350	222	24.8	5430	3360	16.9	---	---	3.72
30		744	233	286	---	22.9	---	1600	10.3	---	---	3.72
31		---	244	246	---	21.8	---	801	---	---	---	---
MONTH		194	245	292	252	206	721	1560	---	---	---	---

ARKANSAS RIVER BASIN

07157940 BLUFF CREEK NEAR BUTTERMILK, KS

LOCATION.--Lat. 37°01'55", long. 99°28'45", NW 1/4 sec.3, T.35 S., R.20 W., Comanche County, Kansas, near left bank of county road bridge, 2.2 mi (3.5 km) north of Kansas-Oklahoma State line, 11.3 mi (18.2 km) southwest of Buttermilk, and at mile 0.3 (.5 km).

DRAINAGE AREA.--657 mi² (1,702 km²), of which 76 mi² (197 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,700.33 ft (518.261 m) above mean sea level.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) Sept. 26, 1973, gage height, 14.35 ft (4.374 m); minimum daily, 0.80 ft³/s (.023 m³/s) Sept. 7, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

DATE	TIME	DISCHARGE		GAGE HEIGHT		DATE	TIME	DISCHARGE		GAGE HEIGHT	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Apr. 20	1515	1,520	43.0	8.41	2.563	Sept. 15	2215	1,350	38.2	8.12	2.475
Apr. 28	2230	*2,290	64.9	9.75	2.972						

Minimum daily discharge, 0.80 ft³/s (.023 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	14	13	24	34	24	16	245	52	7.6	.97	.82
2	3.0	22	15	19	33	25	17	180	48	8.0	1.1	.92
3	2.9	27	14	21	35	24	17	140	45	7.7	1.0	.88
4	2.6	22	14	15	34	31	17	125	42	7.4	1.0	.88
5	2.5	18	14	19	29	35	17	116	39	7.2	.86	.86
6	2.6	18	13	16	25	33	17	374	37	6.4	.96	.81
7	2.5	16	13	12	27	32	18	182	36	5.8	.92	.80
8	2.8	16	14	15	36	33	17	107	34	5.4	.89	1.1
9	2.7	14	18	17	47	34	18	92	32	4.6	1.0	.93
10	2.7	13	24	18	34	40	17	467	29	4.4	1.1	1.0
11	3.0	12	25	23	29	40	17	222	27	4.4	1.2	1.0
12	2.9	12	25	26	27	31	16	159	24	4.3	1.3	1.0
13	3.0	10	26	29	27	28	17	141	23	3.8	1.2	1.3
14	3.2	14	27	33	27	25	17	103	21	3.8	1.2	1.1
15	3.6	14	25	33	27	22	19	90	19	3.7	1.2	372
16	3.9	14	26	47	27	19	42	78	18	4.0	1.0	427
17	4.4	14	22	58	26	18	57	70	17	3.8	1.2	59
18	4.6	15	19	49	24	18	51	65	16	3.3	1.1	28
19	5.1	16	21	41	24	18	49	60	15	3.1	1.0	16
20	5.2	17	23	57	23	16	849	55	15	3.2	.99	11
21	5.1	13	26	37	19	16	305	54	14	3.0	.89	8.7
22	4.9	13	28	38	20	17	132	60	13	3.0	.89	7.0
23	5.1	13	26	38	23	16	92	68	12	2.8	.86	6.0
24	5.2	13	24	37	24	16	70	83	12	2.8	.84	5.3
25	5.4	11	23	36	21	16	57	67	12	2.5	.95	8.8
26	8.2	8.3	25	35	20	15	51	78	11	2.4	.86	48
27	9.7	10	25	32	20	16	51	96	9.6	1.5	.85	14
28	10	13	24	39	22	16	1050	91	8.5	1.7	.84	7.6
29	11	19	24	39	23	16	796	156	8.0	1.5	.84	5.7
30	11	19	23	37	---	17	359	92	7.6	1.2	.91	4.7
31	12	---	26	34	---	17	---	59	---	1.1	.88	---
TOTAL	154.6	450.3	665	954	787	724	4270	3975	696.9	125.4	30.80	1042.20
MEAN	4.99	15.0	21.5	30.8	27.1	23.4	142	128	23.2	4.05	.99	34.7
MAX	12	27	28	58	47	40	1050	467	52	8.0	1.3	427
MIN	2.5	8.3	13	12	19	15	16	54	7.8	1.1	.84	.80
AC=FT	307	893	1320	1890	1560	1440	8470	7880	1380	249	61	2070
CAL YR 1975	TOTAL	20811.90	MEAN	57.0	MAX	2470	MIN	2.4	AC=FT	41280		
WTR YR 1976	TOTAL	13875.20	MEAN	37.9	MAX	1050	MIN	.80	AC=FT	27520		

ARKANSAS RIVER BASIN

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1973 to current year.

WATER TEMPERATURE: August 1973 to current year.

INSTRUMENTATION.--Water quality monitor since August 1973.

REMARKS.--In addition to water quality monitor, samples were collect4d by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,760 micromhos Aug. 26, 1976; minimum daily, 273 micromhos Oct. 11, 1973.

WATER TEMPERATURE: Maximum, 34.0°C July 20, 1974; minimum, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,760 micromhos Aug. 26; minimum daily, 290 micromhos Apr. 28.

WATER TEMPERATURE: Maximum daily, 32.5°C July 16, 30; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
NOV										
20...	1400	16	812	7.4	360	130	110	21	40	19
26...	1230	10	1300	8.3	550	340	160	37	67	21
28...	1140	16	945	8.6	420	210	120	29	44	18
DEC										
01...	1400	14	964	8.3	400	180	120	25	55	23
14...	1730	27	664	8.4	290	82	88	17	36	21
24...	0930	24	805	8.3	340	110	100	21	35	18
JAN										
04...	1550	25	1010	8.4	420	210	120	29	45	19
12...	1730	26	702	8.3	290	76	85	20	30	18
21...	0922	38	809	8.3	320	130	90	24	36	19
FEB										
02...	1823	34	814	8.1	330	140	93	23	37	20
07...	1538	33	925	8.3	360	180	110	25	43	20
15...	1620	28	747	8.1	320	130	91	22	37	20
MAR										
05...	1410	32	892	8.1	380	170	110	26	44	20
11...	1520	42	641	8.2	270	88	82	17	28	18
22...	1717	12	839	8.1	330	160	92	24	44	22
APR										
03...	1325	17	815	7.9	340	160	95	25	43	21
10...	1250	17	838	8.0	380	180	110	26	47	21
28...	1735	1612	291	7.9	120	25	37	7.2	11	16
MAY										
10...	1840	579	386	8.1	170	74	48	11	14	15
13...	1313	138	861	8.1	390	190	110	28	41	18
15...	1203	91	976	8.1	420	210	120	30	45	19
JUN										
07...	2042	35	948	8.2	410	230	110	33	49	20
16...	2120	18	1240	--	510	330	140	39	70	23
29...	1015	8.4	1780	8.0	810	600	230	56	99	21
JUL										
02...	2058	8.0	1650	7.4	710	550	200	52	100	23
15...	1800	3.7	2120	7.6	850	690	240	62	150	27
27...	1805	1.4	2480	7.4	870	690	240	66	220	35
AUG										
02...	2020	.98	2460	7.8	880	680	250	62	210	34
05...	1115	.98	2300	7.9	790	650	220	59	190	34
26...	1730	.70	2760	7.6	840	660	230	64	280	42
SEP										
02...	1645	.84	2640	7.2	850	660	240	62	250	39

ARKANSAS RIVER BASIN

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
NOV										
20...	.9	4.5	283	232	18	150	--	562	.76	.43
26...	1.2	5.2	261	214	2.1	390	66	890	1.21	.45
28...	.9	4.5	259	212	1.0	230	36	625	.85	.67
DEC										
01...	1.2	3.7	276	226	2.2	220	46	647	.88	.66
14...	.9	4.2	253	208	1.6	110	--	431	.59	1.2
24...	.8	3.6	271	222	2.2	150	33	528	.72	.96
JAN										
04...	1.0	3.9	261	214	1.7	220	40	667	.91	.91
12...	.8	3.2	267	219	2.1	110	26	444	.60	.97
21...	.9	3.5	237	194	1.9	160	32	513	.70	.81
FEB										
02...	.9	3.9	234	192	3.0	160	35	501	.68	.75
07...	1.0	3.7	240	197	1.9	210	38	594	.81	.76
15...	.9	3.9	235	193	3.0	150	34	492	.67	.83
MAR										
05...	1.0	3.9	262	215	3.3	200	36	514	.70	.78
11...	.7	3.6	228	187	2.3	110	22	423	.58	2.0
22...	1.1	4.0	209	171	2.7	180	37	514	.70	1.2
APR										
03...	1.0	4.0	222	182	4.5	190	38	527	.72	.46
10...	1.0	4.4	246	202	5.0	190	40	533	.72	.46
28...	.4	5.2	118	97	1.9	45	8.5	188	.26	1.6
MAY										
10...	.5	5.1	111	91	1.4	76	13	225	.31	.65
13...	.9	5.9	250	205	3.2	200	33	567	.77	.43
15...	1.0	5.0	266	218	3.4	230	37	654	.89	.36
JUN										
07...	1.1	4.7	215	176	2.2	260	44	649	.88	.38
16...	1.3	5.1	225	185	--	370	71	822	1.12	.11
29...	1.5	5.6	256	210	4.1	630	130	1220	1.66	.15
JUL										
02...	1.6	5.9	200	164	13	580	120	1250	1.70	.31
15...	2.2	6.5	196	161	7.9	690	210	1600	2.18	.15
27...	3.2	6.6	219	180	14	620	340	1740	2.37	.07
AUG										
02...	3.1	6.0	248	203	6.3	620	350	1710	2.33	.33
05...	2.9	5.3	172	141	3.5	600	310	1540	2.09	.12
26...	4.2	6.8	222	182	8.9	610	460	1830	2.49	.48
SEP										
02...	3.7	6.3	232	190	23	620	430	1790	2.43	.42
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	HARD- NESS (CA, MG)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
SEP										
08...	1830	1.1	2420	7.8	790	590	220	59	210	36
16...	1430	228	336	7.7	150	50	44	8.7	8.4	10
DATE	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
SEP										
08...	3.2	5.1	251	206	6.4	510	370	1650	2.24	.11
16...	.3	9.2	117	96	3.7	55	7.7	222	.30	.91

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	1120	971	838	819	857	751	661	916	1740	2560	2440
2	1390	1570	915	954	827	851	796	784	965	1590	2410	2640
3	1390	896	902	978	763	877	799	831	978	1790	2400	2510
4	1450	879	923	1080	839	847	776	914	1030	1680	2520	2540
5	1460	930	982	960	893	892	764	899	1010	1720	2460	2560
6	1540	984	980	777	940	837	793	610	927	1840	2610	2530
7	1710	998	931	936	880	839	845	737	956	1920	2500	2660
8	1630	1230	739	1100	734	826	857	832	955	1870	2470	2330
9	1830	1160	792	1110	803	832	860	834	983	2120	2450	2490
10	1860	1030	650	930	835	646	876	521	1030	1930	2430	2390
11	1430	1240	677	748	796	641	845	727	990	2030	2420	2640
12	1500	995	682	698	776	678	822	811	1080	2350	2450	2660
13	1940	1130	685	718	800	726	851	902	1180	2010	2370	2490
14	---	908	673	690	780	---	800	940	1070	2010	2480	2550
15	---	888	741	774	757	803	841	974	1180	2080	2550	1130
16	---	881	711	763	790	805	758	963	1190	2020	2600	343
17	---	888	787	770	791	664	727	925	1340	2120	2570	665
18	---	868	894	766	836	669	654	931	1390	2070	2660	954
19	---	842	830	782	804	821	796	1010	1380	2250	2690	1150
20	---	836	746	848	824	901	392	1150	1410	2210	2620	1060
21	---	981	811	825	863	868	492	844	1480	2220	2600	1160
22	---	962	794	823	796	892	675	977	1560	2330	2590	1230
23	1870	996	814	800	865	863	769	839	1540	2170	2500	1270
24	2030	973	815	825	896	874	831	844	1540	2270	2460	1330
25	1990	885	825	825	875	813	850	934	1510	2410	2590	1190
26	1830	1330	802	798	820	875	893	971	1620	2410	2760	569
27	1500	1170	806	862	868	790	869	886	1610	2420	2650	992
28	1370	948	805	786	845	859	451	909	1720	2440	2550	1080
29	1300	819	840	834	827	861	336	922	1820	2410	2630	1170
30	1170	934	866	790	---	838	506	918	1780	2390	2480	1210
31	1230	---	814	801	---	846	---	966	---	2260	2430	---
MONTH	---	1010	813	845	826	813	743	870	1270	2100	2530	1730
YEAR	MAX	2760	MIN	336	MEAN	1260						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	7.0	4.5	10.0	9.0	14.5	15.0	24.0	---	25.0	20.0
2	---	---	9.0	1.0	8.0	12.0	19.0	14.5	20.0	25.0	24.0	30.0
3	14.0	9.0	0.0	0.0	6.0	9.0	18.0	17.0	22.5	20.0	27.5	30.0
4	15.0	8.0	0.0	0.0	2.5	5.0	---	13.0	22.0	27.5	26.0	---
5	---	14.5	7.5	1.0	---	7.0	20.0	15.0	19.0	29.5	25.0	23.0
6	---	15.5	6.0	1.0	---	5.0	22.5	16.0	24.5	31.5	25.0	22.0
7	---	14.5	7.0	0.0	5.0	5.5	17.0	17.0	24.0	---	24.0	22.0
8	---	---	9.5	0.0	7.5	6.0	19.0	---	27.0	24.5	25.0	20.0
9	10.0	9.0	0.0	0.0	3.0	9.0	20.5	---	24.5	24.0	26.0	15.0
10	11.5	9.5	2.0	11.0	13.5	23.5	18.0	26.5	23.5	20.0	14.5	
11	---	11.0	5.0	2.0	12.0	14.0	---	22.0	29.5	24.0	21.0	19.5
12	---	8.0	5.0	1.0	6.0	8.0	21.5	19.5	21.5	22.5	19.5	28.5
13	---	10.5	4.5	1.0	12.5	9.5	16.0	15.5	---	---	19.0	25.5
14	---	12.0	4.0	0.0	12.5	---	22.5	19.0	25.0	24.0	---	20.0
15	---	9.5	4.0	2.5	14.5	7.0	18.5	16.5	25.0	26.0	26.5	21.0
16	---	12.5	0.0	5.0	6.0	8.0	18.0	---	21.5	32.5	28.5	23.5
17	---	14.0	1.0	8.5	6.5	8.0	14.0	23.0	18.0	30.0	29.5	21.5
18	---	14.5	0.0	9.0	9.5	18.5	15.0	23.0	25.5	23.0	29.5	21.5
19	---	13.0	2.5	5.0	11.5	10.0	15.5	---	19.0	24.0	26.5	23.0
20	---	12.0	4.5	5.5	13.0	12.0	12.5	23.0	23.0	25.0	25.0	---
21	---	1.0	3.5	0.0	7.0	13.0	---	23.0	---	23.0	30.5	---
22	---	7.0	3.5	7.0	1.0	14.5	---	25.5	27.5	29.0	28.0	---
23	---	1.0	1.5	0.5	3.5	10.0	24.0	25.0	25.0	21.5	31.0	---
24	---	1.5	1.5	8.0	11.0	18.5	20.0	25.0	27.5	29.5	29.0	---
25	---	0.0	---	2.5	13.0	18.0	17.0	18.0	23.5	26.0	29.5	---
26	---	2.0	4.5	1.5	4.5	11.5	12.5	17.0	30.0	31.0	30.0	---
27	---	---	2.5	0.0	4.0	16.0	12.0	21.0	26.0	30.0	24.0	---
28	---	1.0	2.5	6.5	---	14.5	11.5	24.0	---	28.0	24.5	---
29	---	8.0	3.0	8.0	9.0	14.5	13.0	25.0	24.0	---	27.0	---
30	---	8.0	---	4.0	---	---	---	26.0	30.0	32.5	18.0	---
31	---	---	5.5	8.0	---	8.0	---	25.0	---	20.0	18.5	---
MONTH	---	9.5	5.0	3.0	8.0	11.0	17.5	20.0	24.5	26.0	25.5	---
YEAR	MAX	32.5	MIN	0.0	MEAN	15.5						

ARKANSAS RIVER BASIN

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	290	230	180	180	190	150	120	210	83	390	340
2	350	210	210	230	180	190	170	160	230	200	330	420
3	350	200	210	240	150	200	170	180	240	91	330	370
4	300	200	210	270	180	190	160	210	260	130	380	380
5	290	220	240	230	200	200	150	210	250	98	350	390
6	230	240	240	160	220	180	170	96	220	110	410	380
7	110	240	220	220	200	180	190	140	230	140	370	430
8	170	330	140	280	140	180	190	180	230	120	360	300
9	110	300	170	290	170	180	190	180	240	220	350	360
10	120	260	110	220	180	110	200	69	260	150	340	320
11	320	340	120	150	170	110	190	140	240	180	340	420
12	260	240	120	130	160	120	180	170	270	310	350	430
13	150	290	120	140	170	140	190	210	310	180	320	360
14	---	210	120	130	160	---	170	220	270	180	360	390
15	---	200	150	160	150	170	180	230	310	200	390	290
16	---	200	130	150	160	170	150	230	320	180	410	35
17	---	200	160	160	160	120	140	220	370	220	400	120
18	---	190	200	160	180	120	110	220	350	200	430	230
19	---	180	180	160	170	180	170	250	350	270	440	300
20	---	180	150	190	180	210	44	300	330	250	410	270
21	---	240	170	180	190	190	63	180	280	260	410	300
22	---	230	170	180	170	200	120	240	220	300	400	330
23	120	240	170	170	190	190	160	180	230	240	370	350
24	180	230	170	180	200	200	180	180	230	280	350	370
25	170	200	180	180	200	170	190	220	260	330	400	320
26	110	370	170	170	180	200	200	230	170	330	470	80
27	260	310	170	190	190	160	190	200	180	340	430	240
28	360	220	170	160	190	190	55	210	98	340	390	270
29	360	180	160	180	180	190	33	210	100	330	420	310
30	310	220	190	160	---	160	66	210	87	320	360	320
31	330	---	170	170	---	190	---	230	---	270	340	---
MONTH	---	240	170	190	180	170	150	190	240	220	380	310
YEAR	MAX	470	MIN	33	MEAN	220						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.85	11.0	8.07	11.7	16.5	12.3	7.29	79.4	29.5	1.70	1.02	.75
2	2.83	12.5	8.50	11.8	16.0	12.8	7.80	77.8	29.8	4.32	.98	1.04
3	2.74	14.6	7.94	13.6	14.2	13.0	7.80	68.0	29.2	1.89	.89	.88
4	2.11	11.9	7.94	10.9	16.5	15.9	7.34	70.9	29.5	2.60	1.03	.90
5	1.96	10.7	9.07	11.8	15.7	18.9	6.88	65.8	26.3	1.91	.81	.91
6	1.61	11.7	8.42	6.91	14.9	16.0	7.80	96.9	22.0	1.90	1.06	.83
7	.74	10.4	7.72	7.13	14.6	15.6	9.23	68.8	22.4	2.19	.92	.93
8	1.29	14.3	5.29	11.3	13.6	16.0	8.72	52.0	21.1	1.75	.87	.89
9	.80	11.3	8.26	13.3	21.6	16.5	9.23	44.7	20.7	2.73	.94	.90
10	.87	9.13	7.13	10.7	16.5	11.9	9.18	87.0	20.4	1.78	1.01	.86
11	2.59	11.0	8.10	9.31	13.3	11.9	8.72	83.9	17.5	2.14	1.10	1.13
12	2.04	7.78	8.10	9.13	11.7	10.0	7.78	73.0	17.5	3.60	1.23	1.16
13	1.21	7.83	8.42	11.0	12.4	10.6	8.72	79.9	19.3	1.85	1.04	1.26
14	---	7.94	8.75	11.6	11.7	---	7.80	61.2	15.3	1.85	1.17	1.16
15	---	7.56	10.1	14.3	10.9	10.1	9.23	55.9	15.9	2.00	1.26	291
16	---	7.56	9.13	19.0	11.7	8.72	17.0	48.4	15.6	1.94	1.11	40.4
17	---	7.56	9.50	25.1	11.2	5.83	21.5	41.6	17.0	2.26	1.30	19.1
18	---	7.69	10.3	21.2	11.7	5.83	15.1	38.6	15.1	1.78	1.28	17.4
19	---	7.78	10.2	17.7	11.0	8.75	22.5	40.5	14.2	2.26	1.19	13.0
20	---	8.26	9.31	19.0	11.2	9.07	101	44.5	13.4	2.16	1.10	8.02
21	---	8.42	11.9	18.0	9.75	8.21	51.9	26.2	10.6	2.11	.99	7.05
22	---	8.07	12.9	18.5	9.18	9.18	42.8	38.9	7.72	2.43	.86	6.24
23	1.65	8.42	11.9	17.4	11.8	8.21	39.7	33.0	7.45	1.81	.96	5.67
24	2.53	8.07	11.0	18.0	13.0	8.64	34.0	40.3	7.45	2.12	.79	5.29
25	2.71	5.94	11.2	17.5	11.3	7.34	29.2	39.8	8.42	2.23	1.03	7.60
26	2.44	8.29	11.5	16.1	9.72	8.10	27.5	48.4	5.05	2.14	1.09	10.4
27	6.81	8.37	11.5	16.4	10.3	6.91	26.2	51.8	4.67	1.38	.99	9.07
28	9.72	7.72	11.0	16.8	11.3	8.21	156	51.6	2.25	1.56	.88	5.54
29	10.7	9.23	11.7	19.0	11.2	8.21	70.9	88.5	2.16	1.34	.95	4.77
30	9.21	11.3	11.8	16.0	---	8.26	64.0	52.2	1.83	1.04	.88	4.06
31	10.7	---	11.9	15.6	---	8.72	---	36.6	---	.80	.81	---
MONTH	---	9.41	9.63	14.7	12.9	10.7	28.1	57.6	15.6	2.05	1.01	15.6
YEAR	MAX	291	MIN	.74	MEAN	15.4						

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	60	46	34	32	35	28	23	41	130	400	350
2	85	100	41	44	33	35	30	29	45	100	330	430
3	85	39	40	47	28	37	30	33	47	140	330	380
4	91	37	42	56	34	34	29	41	52	120	380	390
5	92	42	47	45	39	39	28	39	50	130	350	400
6	99	47	47	29	43	33	30	20	42	150	420	380
7	130	49	42	43	37	34	34	27	45	170	370	440
8	110	70	27	58	27	32	35	33	45	160	360	300
9	150	64	30	59	30	33	36	33	47	210	350	370
10	150	52	23	42	33	22	37	16	52	170	340	320
11	89	71	24	27	30	22	34	26	48	190	340	430
12	96	48	24	25	29	24	32	31	56	310	350	440
13	170	61	24	26	30	26	35	40	66	180	320	370
14	---	40	24	24	29	---	30	43	55	180	360	390
15	---	38	27	29	28	30	34	46	66	200	390	61
16	---	38	26	28	29	30	28	45	67	180	410	7.2
17	---	38	29	28	30	23	26	42	81	210	400	23
18	---	36	39	28	33	23	23	42	85	190	440	44
19	---	34	33	29	30	32	30	50	84	260	450	63
20	---	33	27	34	32	39	9.6	63	87	250	420	54
21	---	47	31	32	36	36	15	34	94	250	410	64
22	---	45	30	32	30	39	24	47	100	300	410	70
23	160	48	31	30	36	36	28	34	99	230	370	74
24	190	46	31	32	39	37	33	34	99	270	350	80
25	180	38	32	32	37	31	35	43	97	330	410	67
26	150	80	30	30	32	37	39	46	110	330	480	18
27	96	65	31	36	36	29	36	38	110	340	430	48
28	83	44	30	29	34	36	13	40	130	350	390	56
29	77	32	34	33	33	36	6.8	41	150	330	430	65
30	65	43	36	29	---	34	15	41	140	320	360	68
31	70	---	31	30	---	34	---	46	---	270	340	---
MONTH	---	50	33	35	33	32	28	38	76	220	380	210
YEAR	MAX	480	MIN	6.8	MEAN	100						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	2.27	1.61	2.20	2.94	2.27	1.36	15.2	5.76	2.67	1.05	.77
2	.69	5.94	1.66	2.26	2.94	2.36	1.38	14.1	5.83	2.16	.98	1.07
3	.67	2.84	1.51	2.66	2.65	2.40	1.38	12.5	5.71	2.91	.89	.90
4	.64	2.20	1.59	2.27	3.12	2.85	1.33	13.8	5.90	2.40	1.03	.93
5	.62	2.04	1.78	2.31	3.05	3.69	1.29	12.2	5.26	2.53	.81	.93
6	.69	2.28	1.65	1.25	2.90	2.94	1.38	20.2	4.20	2.59	1.09	.83
7	.88	2.12	1.47	1.39	2.70	2.94	1.65	13.3	4.37	2.66	.92	.95
8	.83	3.02	1.02	2.35	2.62	2.85	1.61	9.53	4.13	2.33	.87	.89
9	1.09	2.42	1.46	2.71	3.81	3.03	1.75	8.20	4.06	2.61	.94	.93
10	1.09	1.83	1.49	2.04	3.03	2.38	1.70	20.2	4.07	2.02	1.01	.86
11	.72	2.30	1.62	1.68	2.35	2.38	1.56	15.6	3.50	2.26	1.10	1.16
12	.75	1.56	1.62	1.75	2.11	2.01	1.38	13.3	3.63	3.60	1.23	1.19
13	1.38	1.65	1.68	2.04	2.19	1.97	1.61	15.2	4.10	1.85	1.04	1.30
14	---	1.51	1.75	2.14	2.11	---	1.38	12.0	3.12	1.85	1.17	1.16
15	---	1.44	1.82	2.58	2.04	1.78	1.74	11.2	3.39	2.00	1.26	61.3
16	---	1.44	1.83	3.55	2.11	1.54	3.18	9.48	3.26	1.94	1.11	8.30
17	---	1.44	1.72	4.38	2.11	1.12	4.00	7.94	3.72	2.15	1.30	3.66
18	---	1.46	2.00	3.70	2.14	1.12	3.17	7.37	3.67	1.69	1.31	3.33
19	---	1.47	1.87	3.21	1.94	1.56	3.97	8.10	3.40	2.18	1.21	2.72
20	---	1.51	1.68	3.40	1.99	1.68	22.0	9.36	3.52	2.16	1.12	1.60
21	---	1.65	2.18	3.20	1.85	1.56	12.4	4.96	3.55	2.02	.99	1.50
22	---	1.58	2.27	3.28	1.62	1.79	8.55	7.61	3.51	2.43	.99	1.32
23	2.20	1.68	2.18	3.08	2.24	1.56	6.96	6.24	3.21	1.74	.86	1.20
24	2.67	1.61	2.01	3.20	2.53	1.60	6.24	7.62	3.21	2.04	.79	1.14
25	2.87	1.13	1.99	3.11	2.10	1.34	5.39	7.78	3.14	2.23	1.05	1.59
26	3.32	1.79	2.02	2.83	1.73	1.50	5.37	9.69	3.27	2.14	1.11	2.33
27	2.51	1.75	2.09	3.11	1.94	1.25	4.96	9.85	2.85	1.38	.99	1.81
28	2.24	1.54	1.94	3.05	2.02	1.56	36.9	9.83	2.98	1.61	.88	1.15
29	2.29	1.64	2.20	3.47	2.05	1.56	14.6	17.3	3.24	1.34	.98	1.00
30	1.93	2.21	2.24	2.90	---	1.56	14.5	10.2	2.95	1.04	.88	.86
31	2.27	---	2.18	2.75	---	1.56	---	7.33	---	.80	.81	---
MONTH	---	1.97	1.81	2.70	2.37	1.99	5.82	11.2	3.88	2.10	1.02	3.62
YEAR	MAX	61.3	MIN	.61	MEAN	3.38						

ARKANSAS RIVER BASIN

07157940 BLUFF CREEK NEAR BUTTERMILK, KS--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	813	748	641	545	531	558	482	417	601	1190	1770	1700
2	943	1070	600	628	537	554	514	506	636	1090	1680	1790
3	943	587	591	646	491	573	517	540	646	1230	1670	1750
4	986	574	606	719	545	551	500	599	683	1150	1750	1760
5	993	611	649	633	584	584	491	589	669	1180	1710	1770
6	1050	650	647	501	618	544	512	360	609	1270	1780	1760
7	1170	660	612	615	575	545	550	472	630	1320	1740	1800
8	1120	827	473	734	470	536	558	540	629	1290	1720	1620
9	1260	777	512	741	519	540	561	542	649	1470	1710	1740
10	1280	683	409	611	543	406	572	316	683	1330	1690	1660
11	971	834	429	480	514	403	550	465	654	1400	1690	1790
12	1020	658	432	444	500	429	533	525	719	1630	1710	1600
13	1340	755	434	458	517	464	554	591	791	1390	1650	1740
14	---	595	426	438	503	---	517	618	712	1390	1730	1760
15	---	581	475	499	486	519	547	643	791	1440	1760	755
16	---	576	453	491	510	521	487	635	798	1400	1780	202
17	---	581	508	496	511	419	465	607	907	1470	1770	420
18	---	566	585	493	543	423	412	612	943	1430	1800	628
19	---	548	539	504	520	532	514	669	935	1560	1810	770
20	---	543	478	552	535	590	231	770	957	1530	1780	705
21	---	648	525	535	563	566	295	549	1010	1540	1780	777
22	---	634	513	534	514	584	427	645	1070	1620	1780	827
23	1290	659	527	517	564	563	495	545	1050	1500	1740	856
24	1400	642	528	535	587	571	540	549	1050	1580	1710	899
25	1380	579	535	535	571	527	553	614	1030	1680	1780	798
26	1260	899	519	516	532	571	584	641	1110	1680	1830	351
27	1020	784	522	562	566	510	567	579	1100	1690	1790	656
28	928	624	521	507	550	560	266	596	1180	1700	1760	719
29	878	531	546	542	537	561	198	605	1250	1680	1790	764
30	784	614	565	510	---	545	305	602	1220	1660	1730	813
31	627	---	527	518	---	550	---	637	---	1570	1690	---
MONTH	---	668	527	550	536	527	477	568	857	1450	1740	1180
YEAR	MAX	1830	MIN	198	MEAN	844						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.24	28.3	22.5	35.3	48.7	36.2	23.4	276	84.4	24.4	4.64	3.76
2	7.64	63.6	24.3	32.2	47.8	37.4	23.6	246	82.4	23.5	4.99	4.45
3	7.38	42.8	22.3	36.6	46.4	37.1	23.7	204	78.5	25.6	4.51	4.16
4	6.92	34.1	22.9	29.1	50.0	46.1	22.9	202	77.5	23.0	4.72	4.18
5	6.70	29.7	24.5	32.5	45.7	55.2	22.5	184	70.4	22.9	3.97	4.11
6	7.37	31.6	22.7	21.6	41.7	48.5	23.5	384	60.8	21.9	4.61	3.85
7	7.90	28.5	21.5	19.9	41.9	47.1	26.7	232	61.2	20.7	4.32	3.89
8	8.47	35.7	17.9	29.7	45.7	47.8	25.6	156	57.7	18.8	4.13	4.81
9	9.19	29.4	24.9	34.0	65.9	49.6	27.3	135	56.1	18.3	4.62	4.37
10	9.33	24.0	26.5	29.7	49.8	43.8	26.3	398	53.5	15.8	5.02	4.48
11	7.87	27.0	29.0	29.8	40.2	43.5	25.2	279	47.7	16.6	5.48	4.83
12	7.99	21.3	29.2	31.2	36.4	35.9	23.0	225	46.6	18.9	6.00	4.86
13	10.9	20.4	30.5	35.9	37.7	35.1	25.4	225	49.1	14.3	5.35	6.11
14	---	22.5	31.1	39.0	36.7	---	23.7	172	40.4	14.3	5.61	5.23
15	---	22.0	32.1	44.5	35.4	30.8	28.1	156	40.6	14.4	5.70	758
16	---	21.8	31.8	62.3	37.2	26.7	55.2	134	38.8	15.1	4.81	233
17	---	22.0	30.2	77.7	35.9	20.4	71.6	115	41.6	15.1	5.73	66.9
18	---	22.9	30.0	65.2	35.2	20.6	56.7	107	40.7	12.7	5.35	47.5
19	---	23.7	30.6	55.8	33.7	25.9	68.0	108	37.9	13.1	4.89	33.3
20	---	24.9	29.7	55.1	33.2	25.5	530	114	38.8	13.2	4.76	20.9
21	---	22.7	36.9	53.4	28.9	24.5	243	80.0	38.2	12.5	4.28	18.3
22	---	22.3	38.8	54.8	27.8	26.8	152	104	37.6	13.1	4.28	15.6
23	17.8	23.1	37.0	53.0	35.0	24.3	123	100	34.0	11.3	4.04	13.9
24	19.7	22.5	34.2	53.4	38.0	24.7	102	123	34.0	11.9	3.88	12.9
25	22.0	17.2	33.2	52.0	32.4	22.8	85.1	111	33.4	11.3	4.57	19.0
26	27.9	20.1	35.0	48.8	28.7	23.1	80.4	135	33.0	10.9	4.25	45.5
27	26.7	21.2	35.2	48.6	30.6	22.0	78.1	150	28.5	6.84	4.11	24.8
28	25.1	21.9	33.8	53.4	32.7	24.2	754	146	27.1	7.80	3.99	14.8
29	26.1	27.2	35.4	57.1	33.3	24.2	426	255	27.0	6.80	4.06	12.1
30	23.3	31.5	35.1	50.9	---	25.0	296	150	25.7	5.38	4.25	10.3
31	26.8	---	37.0	47.6	---	25.2	---	101	---	4.66	4.02	---
MONTH	---	26.9	29.9	44.2	39.1	32.7	116	178	47.4	15.0	4.67	47.0
YEAR	MAX	758	MIN	3.76	MEAN	50.5						

ARKANSAS RIVER BASIN

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07157950 CIMARRON RIVER NEAR BUFFALO, OK

LOCATION.--Lat 36°55'28", long 99°23'56", in NW 1/4 SW 1/4 sec.7, T.28 N., R.20 W., Harper County, on left bank 800 ft (244 m) downstream from unnamed tributary, 6 miles (9.7 km) upstream from Keno Creek, 7 mi (11.3 km) upstream from bridge on U.S. Highway 64, 14 mi (22.5 km) northeast of Buffalo, and at mile 296.0 (476.3 km).

DRAINAGE AREA.--11,930 mi² (30,900 km²), of which 4,813 mi² (12,466 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,650 ft (502.9 m), from river profile map.

REMARKS.--Records good. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--16 years, 157 ft³/s (4.446 m³/s), 113,700 acre-ft/yr (140 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s (748 m³/s) Sept. 26, 1973, gage height, 5.57 ft (1.698 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

DATE	TIME	DISCHARGE		GAGE HEIGHT		DATE	TIME	DISCHARGE		GAGE HEIGHT	
		(ft ³ /s)	(m ³ /s)	(ft)	(m)			(ft ³ /s)	(m ³ /s)	(ft)	(m)
Apr. 28	2400	4,760	135	3.81	1.161	May 10	1215	4,800	136	3.83	1.167
Apr. 30	2245	*6,000	170	4.00	1.219	May 29	1145	3,160	89.5	3.53	1.076

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	35	83	87	107	60	25	4730	391	11		0
2	1.3	65	80	86	104	61	26	1250	287	18		0
3	.92	65	79	83	101	64	25	421	228	18		0
4	.41	51	79	79	101	82	25	192	194	16		0
5	.16	50	79	85	97	94	25	131	167	15		0
6	.07	50	79	83	83	87	25	575	149	13		0
7	0	47	79	101	77	87	23	592	140	12		0
8	0	44	79	119	81	108	23	264	126	9.4		21
9	0	41	80	108	101	115	22	177	114	7.8		.09
10	0	39	84	94	107	97	22	2670	109	5.8		0
11	0	37	87	85	98	91	22	1570	90	3.9		0
12	0	33	94	79	90	87	21	584	77	2.7		0
13	0	35	97	79	87	82	21	506	65	2.0		.91
14	0	35	101	77	85	79	20	279	69	1.3		0
15	0	37	94	77	85	77	35	212	55	.71		95
16	0	39	91	79	82	77	82	149	47	.22		905
17	0	41	89	97	82	74	148	127	43	0		95
18	.01	46	88	111	80	71	183	123	36	0		40
19	.51	64	81	108	77	67	119	115	30	0		24
20	.75	62	82	108	77	56	280	108	27	0		16
21	.37	79	87	103	70	46	373	109	26	0		12
22	.75	75	188	106	64	36	172	117	26	0		8.8
23	1.1	64	127	108	63	33	120	150	25	0		6.0
24	1.1	67	111	111	66	33	92	171	23	0		4.7
25	1.7	76	115	108	65	32	71	181	23	0		51
26	2.2	72	119	117	62	27	67	283	21	0		68
27	2.8	63	119	125	60	27	77	488	20	0		42
28	3.9	63	111	111	60	26	2660	779	18	0		26
29	3.6	70	104	111	60	26	3440	1870	16	0		18
30	5.4	86	91	115	---	25	2620	1170	13	0		13
31	8.3	---	85	111	---	25	---	587	---	0		---
TOTAL	36.45	1631	2962	3051	2372	1952	10864	20680	2655	136.83	0	1446.50
MEAN	1.18	54.4	95.5	98.4	81.8	63.0	362	667	88.5	4.41	0	48.2
MAX	8.3	86	188	125	107	115	3440	4730	391	18	0	905
MIN	0	33	79	77	60	25	20	108	13	0	0	0
AC=FT	72	3240	5880	6050	4700	3870	21550	41020	5270	271	0	2870
CAL YR 1975	TOTAL	51064.65		MEAN 140	MAX 2800	MIN 0	AC=FT 101300					
WTR YR 1976	TOTAL	47786.78		MEAN 131	MAX 4730	MIN 0	AC=FT 94790					

ARKANSAS RIVER BASIN

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1961-63, 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1968 to current year.

WATER TEMPERATURE: July 1968 to current year.

INSTRUMENTATION.--Water quality monitor since July 1968.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 93,500 micromhos July 2, 1976; minimum daily, 1,020 micromhos July 2, 1975.

WATER TEMPERATURE: Maximum, 38.0°C Aug. 14, 1974; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 93,500 micromhos July 2; minimum daily, 2,530 micromhos Sept. 17.

WATER TEMPERATURE: Maximum daily, 32.0°C July 16; minimum daily, 0.0°C Nov. 21, Jan. 29, Feb. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV												
02...	--	--	1345	62	65400	8.9	11.0	--	--	1300	1200	350
13...	--	--	1030	36	7550	8.6	4.0	1	--	680	480	190
13...	1028	9740	1031	36	5000	8.6	4.0	--	--	--	--	--
13...	--	--	1330	36	7710	8.6	10.0	--	--	680	500	180
26...	--	--	1345	74	5960	8.2	1.0	--	--	610	380	160
DEC												
04...	--	--	1200	79	5930	8.0	--	--	--	510	310	130
10...	--	--	1400	85	7750	8.3	11.0	--	--	540	340	130
10...	1028	9740	1401	85	5500	8.4	11.0	--	51	--	--	--
15...	--	--	1700	94	5560	8.1	--	--	--	460	260	120
23...	--	--	1130	127	7770	7.9	--	--	--	450	250	110
JAN												
05...	--	--	1600	85	9330	8.0	--	--	--	600	430	150
15...	--	--	1115	77	5890	8.1	--	--	--	440	310	110
20...	--	--	1200	108	4000	8.0	1.5	90	--	420	220	110
20...	1028	9740	1201	108	4000	8.0	2.0	--	12	--	--	--
25...	--	--	0930	108	6280	8.1	--	--	--	500	290	130
FEB												
06...	--	--	1315	77	12900	8.0	2.0	--	--	630	460	150
10...	--	--	1500	108	5400	8.4	13.0	100	--	470	280	110
10...	1028	9740	1501	108	5400	8.9	13.0	--	29	--	--	--
16...	--	--	1030	82	8050	8.1	9.0	--	--	480	310	120
25...	--	--	1500	64	4000	8.0	15.0	--	--	420	260	100
MAR												
05...	--	--	1515	94	12800	8.5	--	--	--	520	400	120
10...	--	--	0800	94	7600	7.9	9.5	47	--	500	300	120
15...	--	--	1200	82	6560	8.1	--	--	--	510	340	120
25...	--	--	1520	30	9940	8.3	--	--	--	560	410	140
APR												
05...	--	--	1315	25	7180	8.1	--	--	--	540	360	140
14...	--	--	0900	21	13000	8.8	21.0	3	--	650	480	170
14...	1028	9740	0901	21	13000	8.8	21.0	--	80	--	--	--
17...	--	--	1310	42	45400	7.7	--	--	--	970	860	230
25...	--	--	1715	64	4180	8.0	--	--	--	440	230	110
MAY												
11...	--	--	1000	1680	3500	8.4	15.0	350	--	330	220	80
11...	1028	9740	1001	1680	3500	8.4	15.0	--	--	--	--	--
22...	--	--	1350	119	21300	8.0	--	--	--	770	590	190
24...	--	--	1930	188	6460	7.9	--	--	--	550	350	130
31...	--	--	1900	504	3070	7.7	--	--	--	310	150	83
JUN												
01...	--	--	1720	372	2820	7.7	--	--	--	310	160	85
09...	--	--	1400	115	4000	8.3	26.0	450	--	490	320	120
09...	1028	9740	1401	27	4000	8.3	26.0	--	68	--	--	--
20...	--	--	1310	27	4920	7.5	--	--	--	690	470	180
30...	--	--	1115	13	8410	7.6	--	--	--	810	670	210

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPE- RATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
JUL												
05...	--	--	1635	16	6700	7.5	--	--	--	780	640	200
13...	--	--	0900	2.3	17500	7.9	21.0	2	--	1100	970	320
13...	1028	9740	0901	2.3	17500	7.9	21.0	--	97	--	--	--
15...	--	--	1430	.75	22200	7.8	--	--	--	1300	1200	390
SEP												
17...	--	--	1430	77	2530	8.1	--	--	--	210	110	59
25...	--	--	1530	56	11800	8.1	--	--	--	700	560	190
26...	--	--	1650	71	22700	7.9	--	--	--	830	710	220
28...	--	--	1400	26	--	8.5	16.0	10	--	920	760	240
28...	1028	9740	1401	26	--	8.5	16.0	3	--	--	--	--
	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CA CO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
NOV												
02...	110	18000	97	215	18	113	93	.2	810	28000	--	--
13...	49	1400	82	23	7.6	236	194	.9	430	2200	--	.6
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	55	1400	82	23	7.5	212	174	.9	490	2200	--	--
26...	52	1100	79	19	8.2	280	230	2.8	380	1600	--	--
DEC												
04...	44	1100	82	21	7.4	238	195	3.8	290	1700	--	--
10...	53	1600	86	30	7.0	250	205	2.0	310	2500	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
15...	38	1000	82	20	6.7	240	197	3.1	260	1600	--	--
23...	43	1500	88	31	7.3	240	197	4.8	270	2300	--	--
JAN												
05...	54	1300	82	23	8.1	205	168	3.3	420	2100	--	--
15...	40	990	83	21	4.8	155	127	2.0	290	1600	--	--
20...	36	670	77	14	5.9	246	202	3.9	210	1000	--	.8
20...	--	--	--	--	--	--	--	--	--	--	--	--
25...	43	1100	82	21	6.3	253	208	3.2	270	1800	--	--
FEB												
06...	62	2500	89	43	9.2	207	170	3.3	320	4100	--	--
10...	47	900	80	18	6.8	235	193	1.5	240	1400	--	.9
10...	--	--	--	--	--	--	--	--	--	--	--	--
16...	44	1500	87	30	7.9	213	175	2.7	270	2400	--	--
25...	41	620	76	13	7.4	190	156	3.0	250	1000	--	--
MAR												
05...	54	2500	91	48	7.7	155	127	.8	340	4200	--	--
10...	46	1500	87	29	7.3	244	200	4.9	270	2300	--	.8
15...	50	1100	82	21	7.0	199	163	2.5	280	1800	--	--
25...	51	1900	88	35	8.0	184	151	1.5	410	3000	--	--
APR												
05...	45	1300	84	24	6.7	209	171	2.7	360	2100	--	--
14...	55	2800	90	48	9.5	208	171	.5	410	4500	--	.6
14...	--	--	--	--	--	--	--	--	--	--	--	--
17...	96	11000	96	154	16	139	114	4.4	610	17000	--	--
25...	40	710	77	15	8.6	254	208	4.1	240	1100	--	--
MAY												
11...	31	630	80	15	8.2	136	112	.9	180	990	--	.3
11...	--	--	--	--	--	--	--	--	--	--	--	--
22...	72	4600	93	72	12	220	180	3.5	380	7600	--	--
24...	54	1200	82	22	9.2	239	196	4.8	290	1800	--	--
31...	25	510	77	13	11	196	161	6.3	130	800	--	--
JUN												
01...	24	450	75	11	11	183	150	5.8	160	720	--	--
09...	46	680	75	13	9.5	204	167	1.6	310	1100	--	.8
09...	--	--	--	--	--	--	--	--	--	--	--	--
20...	58	770	70	13	12	261	214	13	470	1200	--	--
30...	69	1500	80	23	11	164	135	6.6	610	2400	--	--
JUL												
05...	69	1200	77	19	9.8	180	148	9.1	630	1800	--	--
13...	82	3300	86	43	12	199	163	4.0	1100	5000	--	.6
13...	--	--	--	--	--	--	--	--	--	--	--	--
15...	79	4800	89	58	11	163	134	4.1	1100	7400	--	--
SEP												
17...	15	440	81	13	11	118	97	1.5	140	680	--	--
25...	54	2300	88	38	11	163	134	2.1	530	3700	--	--
26...	69	5100	93	77	13	149	122	3.0	550	7900	--	--
28...	77	4100	91	59	13	191	157	1.0	630	6300	--	.5
28...	--	--	--	--	--	--	--	--	--	--	.4	--

ARKANSAS RIVER BASIN

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N03) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV											
02...	--	39100	--	53.2	6550	--	.73	--	--	--	--
13...	17	5120	4410	6.96	498	.01	--	.39	.40	1.8	.02
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	4510	--	6.13	438	--	.02	--	--	--	--
26...	--	3460	--	4.71	691	--	.66	--	--	--	--
DEC											
04...	--	3450	--	4.69	736	--	.60	--	--	--	--
10...	--	4710	--	6.41	1080	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	1.7	--	--
15...	--	3180	--	4.32	807	--	.80	--	--	--	--
23...	--	4460	--	6.07	1530	--	1.1	--	--	--	--
JAN											
05...	--	4350	--	5.92	998	--	.82	--	--	--	--
15...	--	3250	--	4.42	676	--	.70	--	--	--	--
20...	16	2200	2170	2.99	642	.92	--	1.2	2.1	9.4	.13
20...	--	--	--	--	--	--	--	--	2.3	--	--
25...	--	3570	--	4.86	1040	--	.76	--	--	--	--
FEB											
06...	--	7600	--	10.3	1580	--	.72	--	--	--	--
10...	18	2990	2840	4.07	872	1.1	--	1.4	2.5	11	.37
10...	--	--	--	--	--	--	--	--	1.2	--	--
16...	--	4620	--	6.28	1020	--	.62	--	--	--	--
25...	--	2270	--	3.09	392	--	.50	--	--	--	--
MAR											
05...	--	7480	--	10.2	1900	--	2.3	--	--	--	--
10...	14	4530	4380	6.16	1150	.27	--	3.5	3.8	17	.08
15...	--	3760	--	5.11	832	--	.18	--	--	--	--
25...	--	5840	--	7.94	473	--	.08	--	--	--	--
APR											
05...	--	4110	--	5.59	277	--	.00	--	--	--	--
14...	14	8270	8060	11.2	469	.00	--	.22	.22	.97	.01
14...	--	--	--	--	--	--	--	--	<1.0	--	--
17...	--	29100	--	39.6	3300	--	.82	--	--	--	--
25...	--	2400	--	3.26	415	--	1.7	--	--	--	--
MAY											
11...	10	2030	2000	2.76	9210	.31	--	3.7	4.0	18	.60
11...	--	--	--	--	--	--	--	--	.90	--	--
22...	--	13300	--	18.1	4270	--	.18	--	--	--	--
24...	--	3740	--	5.09	1900	--	.32	--	--	--	--
31...	--	1710	--	2.33	2330	--	1.7	--	--	--	--
JUN											
01...	--	1570	--	2.14	1580	--	1.4	--	--	--	--
09...	19	2540	2390	3.45	789	.01	--	1.3	1.3	5.8	.36
09...	--	--	--	--	--	--	--	--	.70	--	--
20...	--	2940	--	4.00	214	--	2.8	--	--	--	--
30...	--	5060	--	6.88	178	--	1.1	--	--	--	--
JUL											
05...	--	4090	--	5.56	177	--	.55	--	--	--	--
13...	20	10300	9930	14.0	64.0	.07	--	.23	.30	1.3	.02
13...	--	--	--	--	--	--	--	--	1.3	--	--
15...	--	14100	--	19.2	28.6	--	.12	--	--	--	--
SEP											
17...	--	1410	--	1.92	293	--	.49	--	--	--	--
25...	--	6970	--	9.48	1050	--	.03	--	--	--	--
26...	--	13900	--	18.9	2670	--	.33	--	--	--	--
28...	14	11200	11500	15.2	786	.06	--	.38	.44	1.9	.07
28...	--	--	--	--	--	--	--	--	.70	--	--

ARKANSAS RIVER BASIN

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07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCUCCI (COL- UNIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
UCT											
15...	--	--	1430	--	--	--	--	--	--	115	29
NOV											
13...	--	--	1030	36	10.8	89	--	--	--	--	--
13...	1028	9740	1031	36	--	--	--	--	--	--	--
DEC											
10...	1028	9740	1401	85	--	--	--	--	--	--	--
JAN											
20...	--	--	1200	108	13.6	104	--	--	--	579	21
20...	1028	9740	1201	108	13.6	--	--	--	--	--	--
FEB											
10...	--	--	1500	108	8.7	89	--	--	11	421	93
10...	1028	9740	1501	108	8.7	--	--	--	--	--	--
MAR											
10...	--	--	0800	94	10.1	96	200	812500	--	--	--
APR											
14...	--	--	0900	21	7.8	95	22	--	--	--	--
14...	1028	9740	0901	21	--	--	--	--	--	--	--
MAY											
11...	--	--	1000	1680	9.0	98	5600	M14000	21	--	--
11...	1028	9740	1001	1680	--	--	--	--	--	--	--
JUN											
09...	--	--	1400	115	7.2	95	130	--	--	--	--
09...	1028	9740	1401	27	--	--	--	--	--	--	--
JUL											
13...	--	--	0900	2.3	8.3	101	--	370	4.5	--	--
13...	1028	9740	0901	2.3	--	--	--	--	--	--	--
SEP											
28...	1028	9740	1401	26	--	--	--	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
NOV										
13...	--	--	1030	36	4	1	3	<10	<8	2
13...	1028	9740	1031	36	--	--	--	--	--	--
DEC										
10...	1028	9740	1401	85	--	--	--	--	--	--
JAN										
20...	1028	9740	1201	108	--	--	--	--	--	--
FEB										
10...	--	--	1500	108	7	4	3	--	--	1
10...	1028	9740	1501	108	--	--	--	--	--	--
APR										
14...	1028	9740	0901	21	--	--	--	--	--	--
MAY										
11...	--	--	1000	1680	21	18	3	<10	<10	0
11...	1028	9740	1001	1680	--	--	--	--	--	--
JUN										
09...	1028	9740	1401	27	--	--	--	--	--	--
JUL										
13...	--	--	0900	2.3	2	1	1	20	19	1
13...	1028	9740	0901	2.3	--	--	--	--	--	--
SEP										
28...	--	--	1400	26	5	1	4	40	39	1
28...	1028	9740	1401	26	--	--	--	--	--	--

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENED LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENED MERCURY (HG) (UG/L)
NOV									
13...	60	200	180	22	130	0	150	.0	.0
13...	--	--	--	--	--	--	--	--	--
DEC									
10...	--	--	--	--	75	--	--	--	--
JAN									
20...	--	--	--	--	140	--	--	--	--
FEB									
10...	20	<100	<92	8	370	360	10	.0	.0
10...	--	--	--	--	--	--	--	--	--
APR									
14...	--	--	--	--	75	--	--	--	--
MAY									
11...	160	<100	<99	1	760	760	0	.0	.0
11...	--	--	--	--	--	--	--	--	--
JUN									
09...	--	--	--	--	270	--	--	--	--
JUL									
13...	30	100	100	0	600	0	610	.1	.1
13...	--	--	--	--	--	--	--	--	--
SEP									
28...	20	100	98	2	150	30	120	--	--
28...	--	--	--	--	137	--	--	--	--

[illegible]

07157950 CIMARRON RIVER NEAR BUFFLAO, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling Method</u>
Oct. 15	1430	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus			
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Amphora			
		Naviculaceae			Sediment sampler
		Navicula	1,500	46	
		Nitzschiaceae			
		Nitzschia	1,800	54	
		TOTAL	3,400		
Nov. 13	1030	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus	240	12	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	790	38	
		Rhizosoleniaceae			Sediment sampler
		Rhizosolenia	60	3	
		Pennales			
		Naviculaceae			
		Amphipleura	60	3	
		Navicula	120	6	
		Nitzschiaceae			
		Nitzschia	790	38	
		TOTAL	2,000		
Jan. 20	1200	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum		0	
		Occystaceae			
		Trochiscia		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	610	5	
		Phacotaceae			Sediment sampler
		Phacotus	300	2	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Biddulphiaceae			
		Biddulphia		0	
		Coscinodiscaceae			
		Cyclotella	300	2	
		Pennales			
		Cymbellaceae			Sediment sampler
		Amphora	610	5	
		Cymbella		0	
		Ephithemia		0	
		Rhopalodia	300	2	
		Diatomaceae			
		Opephora	4,600	36	
		Fragilariaceae			
		Fragilaria		0	
		Gomphonemataceae			
		Gomphonema	300	2	
		Naviculaceae			Sediment sampler
		Amphiprora	300	2	
		Caloneis	300	2	
		Diploneis	300	2	
		Gyrosigma		0	
		Navicula	3,700	29	
		Stauroneis		0	
		Tropidoneis		0	
		Nitzschiaceae			
		Hantzschia	610	5	
		Nitzschia	610	5	
		Surirellaceae			Sediment sampler
		Surirella		0	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		TOTAL	13,000		

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling Method</u>
Feb. 10	1500	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Cymbella	120	1	
		Fragilariaceae			
		Fragilaria	250	3	
		Naviculaceae			
		Navicula	1,500	15	
		Pinnularia		0	
		Stauroneis	120	1	
		Nitzschiaceae			
		Nitzschia	120	1	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	7,800	79	
		TOTAL	9,900		
Mar. 10	0800	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella		0	
		Pennales			
		Cymbellaceae			
		Amphora		0	
		Rhopalodia		0	
		Diatomaceae			
		Diatoma	110	2	
		Fragilariaceae			
		Fragilaria		0	
		Synedra		0	
		Gomphonemataceae			
		Gomphonema	220	4	
		Naviculaceae			
		Amphiprora	450	8	
		Caloneis		0	
		Diploneis		0	
		Gyrosigma		0	
		Mastogloia	220	4	
		Navicula	2,100	38	
		Neidium		0	
		Nitzschiaceae			
		Hantzschia		0	
		Nitzschia	2,500	44	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum		0	
		Oscillatoriales			
		Nostocaceae			
		Anabaena		0	
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	5,600		
Apr. 14	0900	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus		0	
		Westella	70	6	
		Scenedesmaceae			
		Scenedesmus	140	12	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	140	12	
		Pennales			
		Cymbellaceae			
		Cymbella	35	3	

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling Method</u>
Apr. 14	0900	Fragilariaceae			Sediment sampler
		Synedra	35	3	
		Gomphonemataceae			
		Gomphonema			
		Naviculaceae			
		Amphiprora	70	6	
		Navicula	450	38	
		Nitzschiaceae			
		Nitzschia	240	21	
		Chrysophyceae			
		Chrysomonadales			
		Chromulinaceae			
		Chrysococcus		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis		0	
		TOTAL	1,200		
May 11	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	84	4	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Pennales			
		Diatomaceae			
		Diatoma	42	2	
		Fragilariaceae			
		Synedra	42	2	
		Gomphonemataceae			
		Gomphonema	42	2	
		Naviculaceae			
		Gyrosigma		0	
		Navicula	210	9	
		Nitzschiaceae			
		Hantzschia	42	2	
		Nitzschia	130	5	
		Achnantheaceae			
		Rhoicosphenia	42	2	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,700	73	
		TOTAL	2,300		
June 9	1400	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	190	13	
		Occystaceae			
		Ankistrodesmus		0	
		Dictyosphaerium	97	6	
		Scenedesmaceae			
		Scenedesmus	530	35	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	170	11	
		Pennales			
		Gomphonemataceae			
		Gomphonema	49	3	
		Naviculaceae			
		Navicula	150	10	
		Nitzschiaceae			
		Nitzschia	320	21	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas	24	2	
		TOTAL	1,500		

ARKANSAS RIVER BASIN

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling Method</u>
July 13	0800	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	100	2	
		Dictyosphaerium		0	
		Kirchneriella	51	1	
		Scenedesmaceae			
		Scenedesmus	51	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	460	8	
		Pennales			
		Cymbellaceae			
		Cymbella	51	1	
		Naviculaceae			
		Navicula	51	1	
		Nitzschiaceae			
		Nitzschia	1,100	20	
		Surirellaceae			
		Surirella	51	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	810	15	
		Oscillatoriales			
		Nostocaceae			
		Anabaena	610	11	
		Oscillatoriaceae			
		Oscillatoria	2,200	39	
		TOTAL	5,500		
Sept. 28	1400	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	45	7	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	68	11	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	230	36	
		Pennales			
		Fragilariaceae			
		Synedra	11	2	
		Naviculaceae			
		Navicula	68	11	
		Nitzschiaceae			
		Nitzschia	170	27	
		Xanthophyceae			
		Heterococcales			
		Chlorotheciaceae			
		Ophiocytium		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	45	7	
		TOTAL	630		

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	37400	3710	7490	4780	6060	10300	3600	2820	9140	---	---
2	---	53000	4320	6430	5970	7580	8820	3250	2900	93500	---	---
3	---	37400	5590	7390	5370	6040	9320	2840	3510	24600	---	---
4	---	27600	5960	7790	6740	52400	8970	3500	3500	13200	---	---
5	---	17500	6060	7600	8880	13300	7550	4290	---	6700	---	---
6	---	20800	7350	8870	12200	7290	10600	9450	3470	5700	---	---
7	---	22000	4440	11100	9120	7910	11800	4220	3850	6550	---	---
8	---	18200	5440	13400	7900	20400	12400	4880	4030	7980	---	---
9	---	12300	4820	15600	6340	13700	11200	5670	4840	9550	6030	---
10	---	15100	5340	17700	5040	8300	10200	9650	3630	11700	---	---
11	---	8220	4920	20700	4890	6370	11400	4630	3520	13600	---	---
12	---	8500	4800	10300	4570	6840	11200	9290	4070	15300	---	---
13	---	7510	5250	12100	6440	4880	10300	5230	4290	18300	4320	---
14	---	7470	21900	7800	5270	4980	7480	5660	3930	18800	---	---
15	---	6800	5510	5730	6200	6560	17900	6850	4200	22200	4090	---
16	---	7740	4860	6030	8740	8650	38100	6080	4100	15300	3430	---
17	---	7770	6430	4010	6500	8140	45000	5270	4070	---	2530	---
18	---	5340	7550	4110	6470	10200	14700	4880	4710	---	3530	---
19	---	5740	5800	6180	4880	10900	8190	5060	4890	---	5080	---
20	---	11000	6360	3900	9060	10100	19800	4650	4680	---	6620	---
21	---	5250	5140	5080	9100	6780	8960	5180	5290	---	9160	---
22	19500	4210	6760	4690	4610	5750	5350	21300	5650	---	10800	---
23	27400	4930	7760	7010	4100	6170	3600	16500	5480	---	12300	---
24	20700	6180	6860	6690	5220	6760	8000	6460	5910	---	13600	---
25	23400	6290	8820	6660	4200	9300	4290	5950	5940	---	11800	---
26	29800	5780	6890	5890	4680	8120	4460	15800	5660	---	22700	---
27	31200	20500	6820	6140	4550	8480	6590	8580	5760	---	21500	---
28	22400	19800	6740	7650	6450	6480	9320	5740	6970	---	19000	---
29	25300	10300	6640	5880	7350	---	4050	4630	8230	---	18000	---
30	31900	4230	6610	6010	---	---	4670	3250	8410	---	18200	---
31	26800	---	7200	7810	---	5790	---	3070	---	---	---	---
MONTH	---	14200	6540	8190	6400	9800	11500	6630	4770	---	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	17.0	3.0	4.5	7.5	13.0	19.0	12.5	28.0	30.0	---	---
2	---	10.0	5.0	2.5	7.5	14.0	11.5	16.0	22.5	25.0	---	---
3	---	10.5	7.0	1.5	6.5	11.5	13.0	14.5	28.0	24.0	---	---
4	---	14.5	8.0	2.0	4.5	11.5	16.5	15.0	27.5	26.0	---	---
5	---	17.0	11.5	2.0	2.5	9.0	14.0	16.0	24.0	28.0	---	---
6	---	13.0	6.0	1.5	1.5	11.0	12.0	13.5	27.5	31.0	---	---
7	---	18.5	2.0	1.0	3.5	11.0	15.0	13.5	27.0	30.0	---	---
8	---	17.0	9.5	1.5	6.0	10.5	14.0	12.5	29.0	30.5	10.5	---
9	---	13.5	12.5	1.5	10.0	15.0	12.0	15.0	24.5	28.0	15.5	---
10	---	9.5	11.0	1.5	14.0	18.5	14.5	18.0	20.0	31.0	---	---
11	---	9.0	8.0	1.5	13.0	18.5	14.5	23.0	20.0	29.0	---	---
12	---	5.0	6.5	1.5	14.0	11.0	14.5	20.0	20.0	27.5	---	---
13	---	6.0	7.5	1.5	14.0	10.5	16.0	17.0	20.5	29.0	---	---
14	---	9.0	9.0	3.0	14.5	13.0	19.0	14.0	20.5	29.0	---	---
15	---	10.0	5.5	3.0	16.5	12.0	16.5	23.0	18.5	30.0	---	---
16	---	11.0	4.5	4.5	16.0	12.0	13.5	24.0	17.5	32.0	26.0	---
17	---	13.5	3.5	4.5	13.0	17.5	14.5	24.0	18.5	---	28.0	---
18	---	15.0	3.5	5.5	12.0	22.0	20.5	15.0	18.0	---	29.0	---
19	---	14.0	2.5	5.0	12.0	21.0	20.0	25.0	19.0	---	28.0	---
20	---	2.5	4.5	4.0	11.5	15.0	14.0	24.0	18.5	---	18.0	---
21	---	3.5	4.0	4.0	6.5	14.5	17.5	23.0	17.5	---	23.0	---
22	22.5	3.0	4.0	5.0	10.0	13.0	19.0	25.0	19.5	---	27.0	---
23	18.5	3.5	3.0	8.0	5.0	19.5	21.0	26.0	20.5	---	29.0	---
24	12.0	3.5	3.0	6.5	11.5	25.0	21.0	24.0	20.0	---	28.0	---
25	11.5	2.0	3.5	5.0	13.5	26.0	20.5	20.0	20.5	---	25.0	---
26	13.0	2.5	4.0	3.5	13.5	17.5	14.0	18.0	20.0	---	22.5	---
27	17.5	2.0	4.0	3.5	14.5	19.0	14.0	18.5	22.0	---	16.0	---
28	14.5	2.0	5.0	5.0	16.5	19.0	19.5	23.0	22.0	---	23.5	---
29	14.0	7.0	4.5	8.0	15.0	19.0	12.0	26.5	22.0	---	17.5	---
30	14.0	4.0	3.5	8.0	---	18.0	20.5	20.0	24.0	---	26.5	---
31	18.0	---	4.5	7.0	---	18.0	---	26.5	---	---	---	---
MONTH	---	9.0	5.5	4.0	10.5	15.5	16.0	19.5	22.0	---	---	---

ARKANSAS RIVER BASIN

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

DISSOLVED SULFATE (SO4), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	760	190	350	240	290	470	190	150	420	---	---
2	---	690	220	310	290	350	410	170	160	1100	---	---
3	---	760	270	350	260	290	430	150	180	1000	---	---
4	---	960	290	360	320	680	410	180	180	650	---	---
5	---	1100	290	350	410	660	350	220	---	320	---	---
6	---	1100	340	410	550	340	480	430	180	270	---	---
7	---	1100	220	500	420	370	530	210	200	310	---	---
8	---	1200	260	670	370	1100	570	240	200	370	---	---
9	---	560	240	910	300	700	510	270	240	440	---	290
10	---	850	260	1100	250	380	460	440	190	530	---	---
11	---	380	240	1100	240	300	510	230	180	690	---	---
12	---	390	240	470	230	320	510	430	210	870	---	---
13	---	350	260	540	310	240	470	250	220	1200	---	220
14	---	350	1100	360	260	240	350	270	200	1100	---	---
15	---	320	270	280	300	310	1100	320	210	1100	---	210
16	---	360	240	290	400	400	750	290	210	870	---	180
17	---	360	310	200	310	380	610	260	210	---	---	140
18	---	260	350	210	310	460	810	240	230	---	---	180
19	---	280	280	290	240	490	380	250	240	---	---	250
20	---	500	300	200	420	460	1100	230	230	---	---	310
21	---	260	250	250	420	320	410	250	260	---	---	420
22	1100	210	320	230	230	280	260	1100	270	---	---	490
23	970	240	360	330	210	290	190	1000	270	---	---	560
24	1100	290	320	320	250	320	370	310	280	---	---	690
25	1100	300	410	310	210	430	220	290	280	---	---	530
26	920	280	320	280	230	380	220	930	270	---	---	1100
27	890	1100	320	290	230	390	310	400	280	---	---	1100
28	1100	1100	320	360	310	310	430	280	330	---	---	1100
29	1000	470	310	280	340	---	210	230	380	---	---	1200
30	880	210	310	290	---	---	230	170	390	---	---	1200
31	980	---	340	360	---	280	---	160	---	---	---	---
MONTH	---	570	310	400	310	410	470	340	240	---	---	---

DISSOLVED SULFATE (SO4), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	71.8	42.6	82.2	69.3	47.0	31.7	2430	158	12.5	---	---
2	---	121	47.5	72.0	81.4	57.6	28.8	574	124	53.5	---	---
3	---	133	57.6	78.4	70.9	50.1	29.0	171	111	48.6	---	---
4	---	132	61.9	76.8	87.3	151	27.7	93.3	94.3	28.1	---	---
5	---	148	61.9	80.3	107	168	23.6	77.8	---	13.0	---	---
6	---	148	72.5	91.9	123	79.9	32.4	668	72.4	9.48	---	---
7	---	140	46.9	136	87.3	86.9	32.9	336	75.6	10.0	---	---
8	---	143	55.5	215	80.9	321	35.4	171	68.0	9.39	---	---
9	---	62.0	51.8	265	81.8	217	30.3	129	73.9	9.27	---	.07
10	---	89.5	59.0	279	72.2	99.5	27.3	3170	55.9	8.30	---	---
11	---	38.0	56.4	252	63.5	73.7	30.3	975	43.7	7.27	---	---
12	---	34.7	60.9	100	55.9	75.2	28.9	678	43.7	6.34	---	---
13	---	33.1	68.1	115	72.8	53.1	26.6	342	38.6	6.48	---	.54
14	---	33.1	300	74.8	59.7	51.2	18.9	203	37.3	3.86	---	---
15	---	32.0	68.5	58.2	68.8	64.4	104	183	31.2	2.11	---	53.9
16	---	37.9	59.0	61.9	88.6	83.2	166	117	26.6	.52	---	440
17	---	39.9	74.5	52.4	68.6	75.9	244	89.2	24.4	---	---	35.9
18	---	32.3	83.2	62.9	67.0	88.2	400	79.7	22.4	---	---	19.4
19	---	48.4	61.2	84.6	49.9	88.6	122	77.6	19.4	---	---	16.2
20	---	83.7	66.4	58.3	87.3	69.6	832	67.1	16.8	---	---	13.4
21	---	55.5	58.7	69.5	79.4	39.7	413	73.6	18.3	---	---	13.6
22	2.23	42.5	162	65.8	39.7	27.2	121	347	19.0	---	---	11.6
23	2.88	41.5	123	96.2	35.7	25.8	61.6	405	18.2	---	---	9.07
24	3.27	52.5	95.9	95.9	44.5	28.5	91.9	143	17.4	---	---	8.76
25	5.05	61.6	127	90.4	36.9	37.2	42.2	142	17.4	---	---	73.0
26	5.46	54.4	103	88.5	38.5	27.7	39.8	711	15.3	---	---	202
27	6.73	187	103	97.9	37.3	28.4	64.4	527	15.1	---	---	125
28	11.6	187	95.9	108	50.2	21.8	3090	589	16.0	---	---	77.2
29	9.72	88.8	87.0	83.9	55.1	---	1950	1160	16.4	---	---	58.3
30	12.8	48.8	76.2	90.0	---	---	1630	537	13.7	---	---	42.1
31	22.0	---	78.0	108	---	18.9	---	254	---	---	---	---
MONTH	---	80.7	82.7	106	67.6	77.8	326	501	45.0	---	---	---

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13000	1000	2200	1400	1700	3200	990	750	2700	---	---
2	---	19000	1200	1900	1700	2200	2600	880	770	35000	---	---
3	---	13000	1600	2200	1500	1700	2800	750	960	8100	---	---
4	---	9300	1700	2300	2000	19000	2700	960	960	4200	---	---
5	---	5400	1700	2200	2600	4200	2200	1200	---	1900	---	---
6	---	6600	2100	2600	3800	2100	3300	2800	950	1600	---	---
7	---	7100	1200	3400	2700	2300	3700	1200	1100	1900	---	---
8	---	5600	1600	4300	2300	6500	3900	1400	1100	2300	---	---
9	---	3900	1400	4900	1800	4400	3500	1600	1400	2900	---	1700
10	---	4800	1500	5500	1400	2400	3100	2900	1000	3700	---	---
11	---	2400	1400	6600	1400	1800	3600	1300	960	4300	---	---
12	---	2500	1400	3200	1300	2000	3500	2800	1100	4800	---	---
13	---	2200	1500	3800	1900	1400	3200	1500	1200	5700	---	1200
14	---	2200	7100	2300	1500	1400	2200	1600	1100	5800	---	---
15	---	2000	1600	1600	1800	1900	5500	2000	1200	7200	---	1100
16	---	2300	1400	1700	2600	2600	13000	1800	1100	4800	---	940
17	---	2300	1900	1100	1900	2400	16000	1500	1100	---	---	660
18	---	1500	2200	1100	1900	3100	4600	1400	1300	---	---	970
19	---	1600	1700	1800	1400	3400	2400	1400	1400	---	---	1400
20	---	3400	1800	1100	2700	3100	6200	1300	1300	---	---	1900
21	---	1500	1500	1400	2700	2000	2700	1500	1500	---	---	2700
22	6100	1200	2000	1300	1300	1700	1500	6800	1600	---	---	3300
23	9200	1400	2300	2000	1100	1800	990	5100	1600	---	---	3900
24	6600	1800	2000	1900	1500	2000	2300	1900	1700	---	---	4300
25	7600	1800	2600	1900	1200	2800	1200	1700	1700	---	---	3700
26	10000	1700	2000	1700	1300	2400	1300	5000	1600	---	---	7400
27	11000	6500	2000	1800	1300	2500	1900	2500	1700	---	---	6900
28	7200	6200	2000	2200	1900	1900	2800	1600	2000	---	---	5900
29	8400	3200	1900	1700	2100	---	1100	1300	2400	---	---	5600
30	11000	1200	1900	1700	---	---	1300	880	2500	---	---	5600
31	9000	---	2100	2300	---	1700	---	820	---	---	---	---
MONTH	---	4600	1900	2400	1900	3000	3600	1900	1300	---	---	---

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1230	224	517	404	275	216	12600	792	80.2	---	---
2	---	3330	259	441	477	362	183	2970	597	1700	---	---
3	---	2280	341	493	409	294	189	853	591	394	---	---
4	---	1280	363	491	545	4210	182	498	503	181	---	---
5	---	729	363	505	681	1070	148	424	---	76.9	---	---
6	---	891	448	583	852	493	223	4350	382	56.2	---	---
7	---	901	256	927	561	540	230	1920	416	61.6	---	---
8	---	665	341	1380	503	1900	242	998	374	58.4	---	---
9	---	432	302	1430	491	1370	208	765	431	61.1	---	.41
10	---	505	340	1400	404	629	184	20900	294	57.9	---	---
11	---	240	329	1510	370	442	214	5510	233	45.3	---	---
12	---	223	355	683	316	470	198	4420	229	35.0	---	---
13	---	208	393	811	446	310	181	2050	211	30.8	---	2.95
14	---	208	1940	478	344	299	119	1210	205	20.4	---	---
15	---	200	406	333	413	395	520	1140	178	13.8	---	282
16	---	242	344	363	576	541	2880	724	140	2.85	---	2300
17	---	255	457	288	421	480	6390	514	128	---	---	169
18	---	186	523	330	410	594	2270	465	126	---	---	105
19	---	276	372	525	291	615	771	435	113	---	---	90.7
20	---	569	399	321	561	469	4690	379	94.8	---	---	82.1
21	---	320	352	389	510	248	2720	441	105	---	---	87.5
22	12.4	243	1020	372	225	165	697	2150	112	---	---	78.4
23	27.3	242	789	583	187	160	321	2070	108	---	---	63.2
24	19.6	326	599	569	267	178	571	877	106	---	---	54.6
25	34.9	369	807	554	211	242	230	831	106	---	---	509
26	59.4	330	643	537	218	175	235	3820	90.7	---	---	1360
27	83.2	1110	643	607	211	182	395	3290	91.8	---	---	782
28	75.8	1050	599	659	308	133	20100	3370	97.2	---	---	414
29	81.6	605	534	509	340	---	10200	6560	104	---	---	272
30	160	279	467	528	---	---	9200	2780	87.7	---	---	197
31	202	---	482	689	---	115	---	1300	---	---	---	---
MONTH	---	657	506	639	412	598	2160	2920	243	---	---	---

NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

ARKANSAS RIVER BASIN

07157950 CIMARRON RIVER NEAR BUFFALO, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	23900	2170	4380	2800	3540	6030	2110	1650	5350	---	---
2	---	34000	2530	3760	3490	4430	5160	1900	1700	48700	---	---
3	---	23900	3270	4320	3140	3530	5450	1660	2050	15600	---	---
4	---	17600	3490	4560	3940	33600	5250	2050	2050	7720	---	---
5	---	10600	3540	4450	5190	7780	4420	2510	---	3920	---	---
6	---	13100	4300	5190	7140	4260	6200	5530	2030	3330	---	---
7	---	14000	2600	6490	5330	4630	6900	2470	2250	3830	---	---
8	---	11100	3180	7840	4620	12800	7250	2850	2360	4670	---	---
9	---	7200	2820	9170	3710	8010	6550	3320	2830	5590	---	3530
10	---	8830	3120	10700	2950	4860	5970	5640	2120	6840	---	---
11	---	4810	2880	13000	2860	3730	6670	2710	2060	7960	---	---
12	---	4970	2810	6030	2670	4000	6550	5430	2380	8950	---	---
13	---	4390	3070	7080	3770	2850	6030	3060	2510	11200	---	2530
14	---	4370	13900	4560	3080	2910	4380	3310	2300	11600	---	---
15	---	3980	3220	3350	3630	3840	10900	4010	2460	14100	---	2390
16	---	4530	2840	3530	5110	5060	24400	3560	2400	8950	---	2010
17	---	4550	3760	2350	3800	4760	28800	3080	2380	---	---	1480
18	---	3120	4420	2400	3780	5970	8600	2850	2760	---	---	2060
19	---	3360	3390	3620	2850	6380	4790	2960	2860	---	---	2970
20	---	6430	3720	2280	5300	5910	12300	2720	2740	---	---	3870
21	---	3070	3010	2970	5320	3970	5240	3030	3090	---	---	5360
22	12100	2460	3950	2740	2700	3360	3130	13400	3310	---	---	6320
23	17500	2880	4540	4100	2400	3610	2110	9850	3210	---	---	7200
24	13000	3620	4010	3910	3050	3950	4680	3780	3460	---	---	7960
25	14900	3680	5160	3900	2460	5440	2510	3480	3470	---	---	6900
26	19000	3380	4030	3450	2740	4750	2610	9320	3310	---	---	14400
27	19900	12800	3990	3590	2660	4960	3850	5020	3370	---	---	13600
28	14200	12300	3940	4480	3770	3790	5450	3360	4080	---	---	11700
29	16100	6030	3880	3440	4300	---	2370	2710	4810	---	---	11000
30	20400	2470	3870	3520	---	---	2730	1900	4920	---	---	11100
31	17100	---	4210	4570	---	3390	---	1800	---	---	---	---
MONTH	---	8710	3660	4830	3740	5860	6910	3920	2790	---	---	---

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2260	486	1030	809	573	407	26900	1740	159	---	---
2	---	5970	546	873	980	730	362	6410	1320	2370	---	---
3	---	4190	697	968	856	610	368	1890	1260	758	---	---
4	---	2420	744	973	1070	7440	354	1060	1070	534	---	---
5	---	1430	755	1020	1360	1970	298	886	---	159	---	---
6	---	1770	917	1160	1600	1000	418	8590	817	117	---	---
7	---	1780	555	1770	1110	1090	428	3950	850	124	---	---
8	---	1320	678	2520	1010	3730	450	2030	803	119	---	---
9	---	797	609	2670	1010	2490	389	1590	871	118	---	.86
10	---	930	708	2720	852	1270	355	40700	624	107	---	---
11	---	481	677	2980	757	916	396	11500	501	83.8	---	---
12	---	443	713	1290	649	940	371	8560	495	65.2	---	---
13	---	415	804	1510	886	631	342	4180	441	60.5	---	6.22
14	---	413	3790	948	707	621	237	2490	428	40.7	---	---
15	---	398	817	696	833	798	1030	2300	365	27.0	---	613
16	---	477	698	753	1130	1050	5400	1430	305	5.32	---	4910
17	---	504	904	615	841	951	11500	1060	276	---	---	380
18	---	388	1050	719	816	1140	4250	946	268	---	---	222
19	---	581	741	1060	593	1150	1540	919	232	---	---	192
20	---	1080	824	665	1100	894	9300	793	200	---	---	167
21	---	655	707	826	1010	493	5280	892	217	---	---	174
22	24.5	498	2010	784	467	327	1450	4230	232	---	---	150
23	52.0	498	1560	1200	408	322	684	3990	217	---	---	117
24	38.6	655	1200	1170	544	352	1160	1750	215	---	---	101
25	68.4	755	1600	1140	432	470	481	1700	215	---	---	950
26	113	657	1290	1090	459	346	472	7120	188	---	---	2640
27	150	2180	1280	1210	431	362	800	6610	182	---	---	1540
28	150	2090	1180	1340	611	266	39100	7070	198	---	---	821
29	156	1140	1090	1030	697	---	22000	13700	208	---	---	535
30	297	574	951	1090	---	---	19300	6000	173	---	---	390
31	383	---	966	1370	---	229	---	2850	---	---	---	---
MONTH	---	1260	1020	1260	829	1140	4300	5940	514	---	---	---

ARKANSAS RIVER BASIN

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07157960 BUFFALO CREEK NEAR LOVEDALE, OK

LOCATION.--Lat 36°46'08", long 99°21'58", in NW 1/4 NW 1/4 sec.4, T.26 N., R.20 W., Harper County, near center of channel on downstream side of pier of bridge on State Highway 34, 1.2 mi (1.9 km) east of Lovedale, 1.3 mi (2.1 km) upstream from Sleeping Bear Creek, and at mile 7.6 (12.2 km).

DRAINAGE AREA.--408 mi² (1,057 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,602.56 ft (488.460 m) above mean sea level (State Highway Department bench mark).

REMARKS.--Records good.

AVERAGE DISCHARGE.--10 years, 10.8 ft³/s (0.306 m³/s), 7,820 acre-ft/yr (9.64 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s (447 m³/s) Aug. 9, 1967 gage height, 14.80 ft (4.511 m), extended above 7,000 ft³/s (198 m³/s); no flow each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,170 ft³/s (61.5 m³/s) at 0430 May 10, gage height, 10.71 ft (3.264 m), no other peak above base of 1,000 ft³/s (28.3 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		.04	1.9	2.0	1.4	1.2	1.1	48	21	.37		0
2		2.6	1.9	1.8	1.4	1.3	1.1	33	17	1.4		0
3		2.1	1.7	1.7	1.4	1.2	.98	25	14	1.1		0
4		1.6	1.8	1.7	1.3	1.9	.98	19	12	5.9		0
5		1.5	1.7	1.8	1.3	2.0	1.0	15	11	3.6		0
6		1.5	1.6	1.7	1.2	2.0	1.0	106	9.7	2.4		0
7		1.5	1.5	1.3	1.4	2.0	1.0	109	8.8	1.7		0
8		1.5	1.5	.96	1.4	2.1	1.2	52	7.8	1.2		0
9		1.5	1.5	1.0	1.6	2.2	1.3	41	7.1	.83		0
10		1.4	1.5	1.4	1.5	2.1	1.3	1180	6.3	.59		0
11		1.4	1.5	1.6	1.3	2.0	1.2	183	5.3	.46		0
12		1.3	1.5	1.9	1.3	1.8	1.1	82	4.6	.45		0
13		1.4	1.6	2.0	1.3	1.5	1.2	58	4.0	.34		0
14		1.5	2.2	2.0	1.3	1.5	1.2	45	3.3	.23		0
15		1.6	2.1	2.1	1.3	1.4	1.4	36	2.9	.18		.30
16		1.7	2.1	2.1	1.3	1.4	3.1	29	2.6	.35		1.6
17		1.7	1.9	2.1	1.3	1.4	30	23	2.1	.45		.36
18		1.6	1.7	2.0	1.3	1.4	38	20	1.8	.25		1.2
19		1.9	1.7	1.8	1.2	1.3	23	17	1.6	0		1.6
20		1.6	1.8	1.6	1.2	1.2	69	15	1.6	0		1.6
21		1.5	1.7	1.6	1.1	1.1	61	14	1.5	0		1.4
22		1.6	2.0	1.6	.99	1.1	34	15	1.5	0		1.2
23		1.7	1.9	1.7	1.1	1.1	20	188	1.4	0		.76
24		1.8	1.9	1.6	1.1	1.0	12	124	1.3	0		.54
25		1.6	1.9	1.5	1.0	1.1	8.6	49	1.2	0		.40
26		1.7	1.9	1.4	1.0	.94	6.7	343	.97	0		.35
27		1.6	1.9	1.4	1.1	.99	6.0	203	.77	0		.30
28		2.1	2.0	1.4	1.2	1.0	254	91	.57	0		.26
29		2.1	1.8	1.4	1.2	1.0	255	50	.42	0		.23
30		2.0	1.9	1.4	---	.98	80	34	.37	0		.20
31		---	1.9	1.4	---	1.0	---	26	---	0		---
TOTAL	0	48.64	55.5	50.96	36.49	44.21	917.46	3273	154.50	21.80	0	12.30
MEAN	0	1.62	1.79	1.64	1.26	1.43	30.6	106	5.15	.70	0	.41
MAX	0	2.6	2.2	2.1	1.6	2.2	255	1180	21	5.9	0	1.6
MIN	0	.04	1.5	.96	.99	.94	.98	14	.37	0	0	0
AC=FT	0	96	110	101	72	88	1820	6490	306	43	0	24
CAL YR 1975	TOTAL	3351.06	MEAN	9.18	MAX	236	MIN	0	AC=FT	6650		
WTR YR 1976	TOTAL	4614.86	MEAN	12.6	MAX	1180	MIN	0	AC=FT	9150		

07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURE: October 1973 to current year.

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analysis were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 6,990 micromhos July 6, 1974; minimum, 349 micromhos, Sept. 2, 1974.

WATER TEMPERATURE: Maximum, 34.0°C June 18, 1974, July 6, 1975; minimum, -1.0°C Feb. 16, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,240 micromhos Apr. 4; minimum daily, 485 micromhos May 10.

WATER TEMPERATURE: Maximum daily, 31.0°C June 13, 29; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
NOV												
03...	--	--	1400	--	2.0	3250	8.0	--	--	--	--	--
18...	1028	9740	1600	1.6	--	9000	8.4	15.0	2	9.2	99	51
30...	--	--	1245	2.0	2.0	3620	8.1	--	--	--	--	--
DEC												
01...	--	--	0900	1.9	1.9	3700	7.9	--	--	--	--	--
09...	1028	9740	1530	1.5	--	3000	8.2	12.0	2	16.5	--	21
18...	--	--	1325	--	1.7	3900	7.9	--	--	--	--	--
22...	--	--	1115	--	2.0	3590	7.8	--	--	--	--	--
JAN												
04...	--	--	1120	--	1.5	3920	7.9	--	--	--	--	--
06...	1028	9740	1515	1.7	--	4000	9.1	.0	1	13.6	101	19
18...	--	--	0900	--	2.0	3310	8.0	--	--	--	--	--
31...	--	--	1940	--	1.4	3520	7.9	--	--	--	--	--
FEB												
03...	1028	9740	1430	1.4	--	7200	8.1	8.0	2	11.2	104	25
09...	--	--	1645	--	1.6	3480	8.1	--	--	--	--	--
14...	--	--	0825	--	1.2	3640	8.0	--	--	--	--	--
28...	--	--	0915	--	1.2	3790	8.0	--	--	--	--	--
MAR												
02...	1028	9740	1545	1.3	--	3200	7.8	16.0	1	10.2	115	--
09...	--	--	1130	--	2.2	3430	7.8	--	--	--	--	--
19...	--	--	0810	--	1.3	3730	7.5	--	--	--	--	--
28...	--	--	1040	--	1.0	4040	7.7	--	--	--	--	--
APR												
02...	--	--	1440	--	1.1	4220	7.7	--	--	--	--	--
07...	1028	9740	1200	1.0	--	4400	7.8	18.5	6	7.4	87	71
17...	--	--	1430	--	12	5020	7.5	--	--	--	--	--
29...	--	--	1415	--	180	1110	7.0	--	--	--	--	--
MAY												
05...	1028	9740	1145	15	--	2000	8.2	17.0	10	7.4	85	35
10...	--	--	1040	--	1630	485	8.0	--	--	--	--	--
13...	--	--	1850	--	54	1680	8.2	--	--	--	--	--
21...	--	--	1645	--	15	2710	7.8	--	--	--	--	--
JUN												
01...	--	--	1355	--	21	2160	8.1	--	--	--	--	--
04...	--	--	1730	--	12	2520	7.9	--	--	--	--	--
30...	1028	9740	1215	.37	--	4100	8.1	25.5	100	7.0	89	23
30...	--	--	1220	--	.42	3940	7.6	--	--	--	--	--
JUL												
07...	--	--	2135	--	1.4	2840	8.0	--	--	--	--	--
17...	--	--	1050	--	.30	3720	7.7	--	--	--	--	--
SEP												
18...	--	--	1630	--	2.9	2000	7.6	--	--	--	--	--
22...	--	--	1545	--	1.2	2720	7.9	--	--	--	--	--
27...	--	--	1300	--	.30	3070	8.0	--	--	--	--	--
28...	1028	9740	1515	.26	--	3000	8.0	17.5	3	8.7	95	18

07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
NOV												
03...	1800	1700	--	530	--	120	--	140	14	1.4	12	183
18...	--	--	--	--	--	--	--	--	--	--	--	--
30...	2000	1800	--	600	--	120	--	180	16	1.8	8.4	193
DEC												
01...	2000	1800	--	570	--	130	--	180	17	1.8	8.0	188
09...	--	--	--	--	--	--	--	--	--	--	--	--
18...	2100	1900	--	590	--	140	--	190	17	1.8	7.7	186
22...	1900	1800	--	570	--	120	--	170	16	1.7	7.2	194
JAN												
04...	2100	1900	--	610	--	140	--	230	19	2.2	6.7	195
06...	--	--	--	--	--	--	--	--	--	--	--	--
18...	1700	1600	--	490	--	120	--	180	19	1.9	5.1	134
31...	1900	1800	--	540	--	130	--	170	16	1.7	5.6	136
FEB												
03...	--	--	--	--	--	--	--	--	--	--	--	--
09...	1900	1800	--	530	--	140	--	170	16	1.7	5.7	101
14...	2000	1900	--	560	--	140	--	190	17	1.9	6.5	134
28...	2000	1900	--	590	--	130	--	190	17	1.8	7.0	182
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
09...	1900	1800	--	540	--	130	--	170	16	1.7	6.1	155
19...	2000	1900	--	570	--	140	--	190	17	1.9	6.4	171
28...	2200	2100	--	610	--	160	--	210	17	2.0	6.9	147
APR												
02...	2200	2100	--	630	--	160	--	210	17	1.9	7.1	172
07...	--	--	--	--	--	--	--	--	--	--	--	--
17...	2000	1900	--	540	--	150	--	180	17	1.8	7.8	130
29...	500	400	--	120	--	49	--	46	16	.9	11	118
MAY												
05...	--	--	--	--	--	--	--	--	--	--	--	--
10...	220	130	--	72	--	10	--	10	9	.3	7.2	114
13...	830	680	--	210	--	75	--	69	15	1.0	9.9	188
21...	1500	1300	--	380	--	130	--	120	15	1.4	8.9	253
JUN												
01...	1100	910	--	280	--	97	--	91	15	1.2	8.0	230
04...	1300	1200	--	340	--	120	--	110	15	1.3	8.2	228
30...	--	--	--	--	--	--	--	--	--	--	--	--
30...	2000	1900	--	570	--	150	--	240	20	2.3	8.8	211
JUL												
07...	1600	1400	--	460	--	98	--	120	14	1.3	9.8	158
17...	1800	1700	--	540	--	120	--	220	21	2.2	9.6	176
SEP												
18...	1100	990	--	350	--	49	--	45	8	.6	9.0	101
22...	1400	1300	--	470	--	64	--	120	15	1.4	8.5	122
27...	1700	1600	--	540	--	91	--	120	13	1.3	7.6	186
28...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CA(O3) (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV												
03...	0	150	2.9	1600	220	--	2920	3.97	15.8	.32	--	--
18...	--	--	--	--	--	.4	--	--	--	--	1.0	.06
30...	0	158	2.5	1700	280	--	3250	4.42	17.5	.19	--	--
DEC												
01...	0	154	3.8	1800	290	--	3330	4.53	17.1	.22	--	--
09...	--	--	--	--	--	.3	--	--	--	--	.10	.01
18...	0	153	3.7	1900	280	--	3560	4.84	16.3	.09	--	--
22...	0	159	4.9	1800	240	--	3240	4.41	17.5	.31	--	--
JAN												
04...	0	160	3.9	1900	290	--	3600	4.90	14.6	.13	--	--
06...	--	--	--	--	--	.4	--	--	--	--	.30	<.01
18...	0	110	2.1	1600	230	--	3000	4.08	16.2	.31	--	--
31...	0	112	2.7	1700	240	--	3220	4.38	12.2	2.5	--	--
FEB												
03...	--	--	--	--	--	.4	--	--	--	--	.40	.01
09...	0	83	1.3	1800	240	--	3180	4.32	13.7	.17	--	--
14...	0	110	2.1	1800	260	--	3280	4.46	10.6	.11	--	--
28...	0	149	2.9	1900	270	--	3510	4.77	11.4	.10	--	--
MAR												
02...	--	--	--	--	--	.4	--	--	--	--	1.1	<.01
09...	0	127	3.9	1700	260	--	3280	4.46	19.5	.16	--	--
19...	0	140	8.7	1900	270	--	3490	4.75	12.2	.15	--	--
28...	0	121	4.7	2000	310	--	3690	5.02	9.96	.10	--	--

ARKANSAS RIVER BASIN

07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
APR												
02...	0	141	5.5	1900	310	--	3730	5.07	11.1	.16	--	--
07...	--	--	--	--	--	.3	--	--	--	--	.60	<.10
17...	0	107	6.6	--	250	--	3260	4.43	106	.41	--	--
29...	0	97	19	450	50	--	805	1.09	391	1.3	--	.76
MAY												
05...	--	--	--	--	--	.4	--	--	--	--	.80	<.08
10...	0	94	1.8	120	17	--	302	.41	1330	1.9	--	--
13...	0	154	1.9	670	98	--	1320	1.80	192	.43	--	--
21...	0	208	6.4	1200	160	--	2180	2.96	88.3	.12	--	--
JUN												
01...	0	189	2.9	920	130	--	1730	2.35	98.1	.19	--	--
04...	0	187	4.6	1200	140	--	2200	2.99	71.3	.16	--	--
30...	--	--	--	--	--	.4	--	--	--	--	1.1	.20
30...	0	173	8.5	1900	350	--	3520	4.79	3.99	.34	--	--
JUL												
07...	0	130	2.5	1400	170	--	2490	3.39	9.41	.24	--	--
17...	0	144	5.6	1700	320	--	3300	4.49	2.67	.33	--	--
SEP												
18...	0	83	4.1	990	72	--	1780	2.42	13.9	.62	--	--
22...	0	100	2.5	1400	190	--	2350	3.20	7.61	.20	--	--
27...	0	153	3.0	1600	180	--	2800	3.81	2.27	.18	--	--
28...	--	--	--	--	--	.3	--	--	--	--	1.2	<.09

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV												
03...	--	--	--	--	--	--	--	--	--	--	--	--
18...	4	3	33	4	500	28	205	--	9	--	3	6
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
01...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	100	--	120	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	100	--	140	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
03...	<1	2	5	3	300	22	160	--	9	--	3	31
09...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	--	--	--	--	600	--	330	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	400	--	360	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	3	1	8	45	200	10	120	<.5	11	2	4	4
10...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	500	--	459	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
07...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
18...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	400	--	428	--	--	--	--	--

07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	3700	3590	3550	3800	3910	1260	2200	4030		---
2		3430	3790	3560	3590	3790	4080	1460	2400	3530		---
3		3090	3720	4130	3540	3740	4220	1750	2410	3460		---
4		3810	3680	3900	3570	3600	4240	1860	2490	3740		---
5		3540	3660	3880	3570	3600	4030	1800	2580	3350		---
6		3600	3710	3800	3670	3660	4020	1890	2620	2940		---
7		3700	3710	3670	3600	3640	4100	1150	2590	2810		---
8		3800	3670	3870	3560	3580	4040	1280	2720	2900		---
9		3690	3690	3950	3450	3470	4040	1420	2880	2870		---
10		3680	3720	3940	3540	3530	3990	664	2930	3150		---
11		3710	3720	3900	3540	3650	4080	712	2970	3110		---
12		3730	3600	3790	3570	3540	4110	1250	2990	---		---
13		3760	3620	3720	3600	3590	4210	1680	3040	---		---
14		3800	3670	3670	3310	3630	4210	1980	3060	---		---
15		3790	3820	3580	3600	3650	4140	2100	3100	---		---
16		3750	3800	3390	3340	3630	3940	2250	3150	3530		---
17		4190	3670	3370	3630	3640	3580	2400	3100	3660		2350
18		4030	3900	3270	3650	3720	2840	2510	3270	---		2200
19		3870	3640	3480	3570	3750	2290	2520	3420	---		2300
20		3650	3800	3400	3480	3830	1970	2680	3410	---		2650
21		3520	3730	3360	3640	3830	1890	2700	3440	---		2640
22		3450	3620	3390	3770	3900	1640	2700	3550	---		2690
23		3380	3580	3780	3730	3920	2050	1800	3540	---		3040
24		3270	3730	3480	3660	4030	2110	1330	3570	---		2840
25		3380	3570	3520	3760	4020	2260	1120	3850	---		3130
26		3520	3620	3710	3700	4010	3010	765	3840	---		3270
27		3620	4040	3740	3770	4060	2540	1130	3960	---		3070
28		3490	4000	3520	3780	4110	1780	1220	4000	---		3060
29		3930	3960	3470	3760	3990	1090	1750	3880	---		3020
30		3620	3640	3580	---	4000	1140	1870	3900	---		3000
31		---	3680	3500	---	4000	---	1990	---	---		---
MONTH		3650	3730	3640	3600	3770	3190	1710	3160	---		---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	3.5	5.0	9.0	9.5	9.5	12.0	26.0	26.0	30.0	---
2		14.0	6.0	4.0	6.5	11.5	18.0	17.0	29.0	26.5	---	---
3		14.0	7.0	2.0	---	10.0	19.0	20.5	27.5	---	---	---
4		17.0	6.0	3.0	---	9.5	15.0	15.0	29.0	26.5	---	---
5		16.0	10.0	---	2.0	3.0	14.0	16.0	27.5	---	---	---
6		16.0	7.0	2.0	2.0	6.0	---	19.0	24.0	23.0	---	---
7		18.0	7.0	---	---	7.0	9.0	17.5	28.0	23.0	---	---
8		14.0	---	---	4.0	---	18.0	21.0	29.5	28.5	---	---
9		13.5	7.0	---	12.0	7.0	18.0	19.5	29.0	25.0	---	---
10		12.0	8.0	---	12.0	---	27.0	7.0	28.0	26.0	---	---
11		12.0	5.5	---	13.0	11.0	---	10.5	22.0	27.0	---	---
12		9.0	4.5	---	14.0	7.5	17.0	19.0	30.0	---	---	---
13		6.0	5.0	2.0	13.5	4.0	21.0	17.5	31.0	---	---	---
14		9.5	7.0	4.0	11.5	11.0	23.0	20.0	---	---	---	---
15		10.5	---	2.5	13.5	8.0	19.0	21.0	25.0	---	---	---
16		9.5	---	4.0	12.0	4.0	---	21.0	21.0	28.0	---	---
17		---	---	7.0	11.5	12.5	19.0	22.0	---	26.0	---	25.0
18		---	3.0	5.5	12.0	10.0	12.5	24.0	26.0	---	---	27.0
19		---	3.0	6.0	11.5	12.0	18.0	21.0	27.5	---	---	26.5
20		5.0	4.5	6.0	12.0	12.0	15.0	26.0	24.0	---	---	27.0
21		---	5.0	6.5	6.0	12.5	14.0	29.0	25.0	---	---	25.0
22		---	5.0	5.0	5.0	15.0	15.0	24.5	27.0	---	---	23.0
23		---	4.0	10.0	11.0	13.0	24.0	24.0	27.0	---	---	24.0
24		4.0	4.0	7.0	12.0	19.0	22.5	24.0	27.5	---	---	20.0
25		2.0	3.5	5.0	13.5	19.0	19.0	19.5	26.0	30.0	---	---
26		2.5	4.0	4.5	10.0	12.0	13.5	16.5	27.0	---	---	---
27		1.5	4.0	4.0	10.0	10.0	14.0	22.0	27.0	---	---	18.0
28		5.0	---	7.5	11.0	12.0	13.0	25.0	29.0	---	---	18.0
29		7.5	---	4.5	12.0	13.0	12.5	26.5	31.0	---	---	18.5
30		3.5	---	7.0	---	8.0	---	21.5	25.0	---	---	21.0
31		---	5.0	9.0	---	10.0	---	25.0	---	---	---	---
MONTH		---	---	---	10.0	10.5	17.0	20.0	27.0	---	---	---

ARKANSAS RIVER BASIN

07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	1800	1800	1800	1900	1900	500	970	2000		---
2		1700	1900	1800	1800	1900	2000	600	1100	1800		---
3		1600	1900	2000	1800	1900	2100	750	1100	1700		---
4		1900	1800	1900	1800	1800	2100	800	1200	1900		---
5		1800	1800	1900	1800	1800	2000	770	1200	1700		---
6		1800	1800	1900	1800	1800	2000	820	1300	1500		---
7		1800	1800	1800	1800	1800	2000	450	1300	1400		---
8		1900	1800	1900	1800	1800	2000	510	1300	1500		---
9		1800	1800	2000	1700	1700	2000	580	1500	1500		---
10		1800	1900	2000	1800	1800	2000	210	1500	1600		---
11		1800	1900	1900	1800	1800	2000	230	1500	1600		---
12		1900	1800	1900	1800	1800	2000	500	1500	---		---
13		1900	1800	1900	1800	1800	2100	710	1500	---		---
14		1900	1800	1800	1700	1800	2100	860	1500	---		---
15		1900	1900	1800	1800	1800	2000	920	1600	---		---
16		1900	1900	1700	1700	1800	2000	1000	1600	1800		---
17		2100	1800	1700	1800	1800	1800	1100	1600	1800		1100
18		2000	1900	1600	1800	1900	1400	1200	1600	---		970
19		1900	1800	1700	1800	1900	1000	1200	1700	---		1000
20		1800	1900	1700	1700	1900	860	1300	1700	---		1300
21		1800	1900	1700	1800	1900	820	1300	1700	---		1300
22		1700	1800	1700	1900	1900	690	1300	1800	---		1300
23		1700	1800	1900	1900	1900	900	770	1800	---		1500
24		1600	1900	1700	1800	2000	930	540	1800	---		1400
25		1700	1800	1800	1900	2000	1000	430	1900	---		1600
26		1800	1800	1800	1800	2000	1500	260	1900	---		1600
27		1800	2000	1900	1900	2000	1200	440	2000	---		1600
28		1700	2000	1800	1900	2000	760	480	2000	---		1500
29		2000	2000	1700	1900	2000	420	750	1900	---		1500
30		1800	1800	1800	---	2000	440	810	1900	---		1500
31		---	1800	1800	---	2000	---	870	---	---		---
MONTH		1800	1900	1800	1800	1900	1500	740	1600	---		---

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	9.23	9.72	6.80	6.16	5.64	64.8	55.0	2.00		---
2		11.9	9.75	8.75	6.80	6.67	5.94	53.5	50.5	6.80		---
3		9.07	8.72	9.18	6.80	6.16	5.56	50.6	41.6	5.05		---
4		8.21	8.75	8.72	6.32	9.23	5.56	41.0	38.9	30.3		---
5		7.29	8.26	9.23	6.32	9.72	5.40	31.2	35.6	16.5		---
6		7.29	7.78	8.72	5.83	9.72	5.40	235	34.0	9.72		---
7		7.29	7.29	6.32	6.80	9.72	5.40	132	30.9	6.43		---
8		7.69	7.29	4.92	6.80	10.2	6.48	71.6	27.4	4.86		---
9		7.29	7.29	5.40	7.34	10.1	7.02	64.2	28.8	3.36		---
10		6.80	7.69	7.56	7.29	10.2	7.02	669	25.5	2.55		---
11		6.80	7.69	8.21	6.32	9.72	6.48	114	21.5	1.99		---
12		6.67	7.29	9.75	6.32	8.75	5.94	111	18.6	---		---
13		7.18	7.78	10.3	6.32	7.29	6.80	111	16.2	---		---
14		7.69	10.7	9.72	5.97	7.29	6.80	104	13.4	---		---
15		8.21	10.8	10.2	6.32	6.80	7.56	89.4	12.5	---		---
16		8.72	10.8	9.64	5.97	6.80	16.7	78.3	11.2	1.70		---
17		9.64	9.23	9.64	6.32	6.80	146	68.3	9.07	2.19		1.07
18		8.64	8.72	8.64	6.32	7.18	144	64.8	7.78	---		3.14
19		9.75	8.26	8.26	5.83	6.67	62.1	55.1	7.34	---		4.32
20		7.78	9.23	7.34	5.51	6.16	160	52.6	7.34	---		5.62
21		7.29	8.72	7.34	5.35	5.64	135	49.1	6.88	---		4.91
22		7.34	9.72	7.34	5.08	5.64	63.3	52.6	7.29	---		4.21
23		7.80	9.23	8.72	5.64	5.64	48.6	391	6.80	---		3.08
24		7.78	9.75	7.34	5.35	5.40	30.1	181	6.32	---		2.04
25		7.34	9.23	7.29	5.13	5.94	23.2	56.9	6.16	---		1.73
26		8.26	9.23	6.80	4.86	5.08	27.1	241	4.98	---		1.51
27		7.78	10.3	7.18	5.64	5.35	19.4	241	4.16	---		1.30
28		9.64	10.8	6.80	6.16	5.40	521	118	3.08	---		1.05
29		11.3	9.72	6.43	6.16	5.40	289	101	2.15	---		.93
30		9.72	9.23	6.80	---	5.29	95.0	74.4	1.90	---		.81
31		---	9.23	6.80	---	5.40	---	61.1	---	---		---
MONTH		8.21	8.95	8.03	6.12	7.14	62.5	124	18.1	---		---

ARKANSAS RIVER BASIN

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07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	270	250	250	280	290	58	120	310		---
2		230	280	250	250	280	320	68	140	240		---
3		200	270	320	250	270	330	83	140	230		---
4		280	260	290	250	250	340	89	140	270		---
5		250	260	290	250	250	310	86	150	220		---
6		250	270	280	260	260	310	91	160	180		---
7		270	270	260	250	260	320	52	150	170		---
8		280	260	290	250	250	310	59	160	180		---
9		260	260	300	230	240	310	66	180	180		---
10		260	270	300	250	240	300	26	180	200		---
11		270	270	290	250	260	320	29	190	200		---
12		270	250	280	250	250	320	57	190	---		---
13		270	260	270	250	250	330	80	190	---		---
14		280	260	260	220	260	330	99	200	---		---
15		280	280	250	250	260	320	110	200	---		---
16		270	280	230	220	260	300	120	200	240		---
17		330	260	220	260	260	250	140	200	260		130
18		310	290	210	260	270	180	150	210	---		120
19		290	260	240	250	270	130	150	230	---		130
20		260	280	230	240	280	98	160	230	---		160
21		240	270	220	260	280	91	160	230	---		160
22		230	260	230	280	290	77	160	250	---		160
23		220	250	280	270	290	110	86	250	---		190
24		210	270	240	260	310	110	61	250	---		180
25		220	250	240	270	310	120	50	290	---		200
26		240	260	270	270	310	190	32	280	---		210
27		260	310	270	280	310	150	51	300	---		200
28		240	310	240	280	320	85	55	310	---		200
29		300	300	240	270	300	49	83	290	---		190
30		260	260	250	---	310	51	89	290	---		190
31		---	260	240	---	310	---	100	---	---		---
MONTH		260	270	260	250	280	230	87	210	---		---

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	1.39	1.35	.94	.91	.86	7.52	6.80	.31		---
2		1.61	1.44	1.21	.94	.98	.95	6.06	6.43	.91		---
3		1.13	1.24	1.47	.94	.87	.87	5.60	5.29	.68		---
4		1.21	1.26	1.33	.88	1.28	.90	4.57	4.54	4.30		---
5		1.01	1.19	1.41	.88	1.35	.84	3.48	4.45	2.14		---
6		1.01	1.17	1.29	.84	1.40	.84	26.0	4.19	1.17		---
7		1.09	1.09	.91	.94	1.40	.86	15.3	3.56	.78		---
8		1.13	1.05	.75	.94	1.42	1.00	8.28	3.37	.58		---
9		1.05	1.05	.81	.99	1.43	1.09	7.31	3.45	.40		---
10		.98	1.09	1.13	1.01	1.36	1.05	82.8	3.06	.32		---
11		1.02	1.09	1.25	.88	1.40	1.04	14.3	2.72	.25		---
12		.95	1.01	1.44	.88	1.21	.95	12.6	2.36	---		---
13		1.02	1.12	1.46	.88	1.01	1.07	12.5	2.05	---		---
14		1.13	1.54	1.40	.77	1.05	1.07	12.0	1.78	---		---
15		1.21	1.59	1.42	.88	.98	1.21	10.7	1.57	---		---
16		1.24	1.59	1.30	.77	.98	2.51	9.40	1.40	.23		---
17		1.51	1.33	1.25	.91	.98	20.2	8.69	1.13	.32		.13
18		1.34	1.33	1.13	.91	1.02	18.5	8.10	1.02	---		.39
19		1.49	1.19	1.17	.81	.95	8.07	6.88	.99	---		.56
20		1.12	1.36	.99	.78	.91	18.3	6.48	.99	---		.69
21		.97	1.24	.95	.77	.83	15.0	6.05	.93	---		.60
22		.99	1.40	.99	.75	.86	7.07	6.48	1.01	---		.52
23		1.01	1.28	1.29	.80	.86	5.94	43.7	.94	---		.39
24		1.02	1.39	1.04	.77	.84	3.56	20.4	.88	---		.26
25		.95	1.28	.97	.73	.92	2.79	6.61	.94	---		.22
26		1.10	1.33	1.02	.73	.79	3.44	29.6	.73	---		.20
27		1.12	1.59	1.02	.83	.83	2.43	28.0	.62	---		.16
28		1.36	1.67	.91	.91	.86	58.3	13.5	.48	---		.14
29		1.70	1.46	.91	.87	.81	33.7	11.2	.33	---		.12
30		1.40	1.33	.94	---	.82	11.0	8.17	.29	---		.10
31		---	1.33	.91	---	.84	---	7.02	---	---		---
MONTH		1.16	1.30	1.14	.85	1.03	7.51	14.5	2.27	---		---

ARKANSAS RIVER BASIN

07157960 BUFFALO CREEK NEAR LOVEDALE, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	3430	3320	3280	3530	3650	957	1800	3770		---
2		3160	3520	3290	3320	3520	3820	1140	1990	3260		---
3		2810	3450	3870	3270	3470	3960	1400	2000	3190		---
4		3540	3410	3640	3300	3330	3980	1500	2070	3470		---
5		3270	3390	3620	3300	3330	3770	1440	2150	3080		---
6		3330	3440	3530	3400	3390	3760	1520	2190	2610		---
7		3430	3440	3400	3330	3370	3840	859	2160	2370		---
8		3530	3400	3610	3290	3310	3780	975	2280	2540		---
9		3420	3420	3690	3180	3200	3780	1100	2500	2480		---
10		3410	3450	3680	3270	3260	3730	425	2590	2870		---
11		3440	3450	3640	3270	3380	3820	467	2660	2830		---
12		3460	3330	3520	3300	3270	3850	948	2700	---		---
13		3490	3350	3450	3330	3320	3950	1330	2760	---		---
14		3530	3400	3400	3040	3360	3950	1600	2780	---		---
15		3520	3550	3310	3330	3380	3880	1710	2820	---		---
16		3480	3530	3120	3070	3360	3680	1850	2870	3260		---
17		3930	3400	3100	3360	3370	3310	1990	2820	3390		1940
18		3770	3640	2990	3380	3450	2420	2090	2990	---		1800
19		3610	3370	3210	3300	3480	1890	2100	3150	---		1900
20		3380	3530	3130	3210	3560	1600	2240	3140	---		2210
21		3250	3460	3090	3370	3560	1520	2260	3170	---		2200
22		3180	3350	3120	3500	3640	1300	2260	3280	---		2250
23		3110	3310	3510	3460	3660	1670	1440	3270	---		2760
24		2990	3460	3210	3390	3770	1720	1020	3300	---		2420
25		3110	3300	3250	3490	3760	1860	832	3590	---		2850
26		3250	3350	3440	3430	3750	2730	515	3580	---		2990
27		3350	3780	3470	3500	3800	2110	841	3700	---		2790
28		3220	3800	3250	3510	3850	1420	921	3740	---		2780
29		3670	3700	3200	3490	3730	805	1400	3620	---		2740
30		3350	3370	3310	---	3740	850	1500	3640	---		2720
31		---	3410	3230	---	3740	---	1610	---	---		---
MONTH		3380	3460	3370	3330	3500	2880	1360	2840	---		---

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	17.6	17.9	12.4	11.4	10.8	124	102	3.77		---
2		22.2	18.1	16.0	12.5	12.4	11.3	102	91.3	12.3		---
3		15.9	15.8	17.8	12.4	11.2	10.5	94.5	75.6	9.47		---
4		15.3	16.6	16.7	11.6	17.1	10.5	76.9	67.1	55.3		---
5		13.2	15.6	17.6	11.6	18.0	10.2	58.3	63.9	29.9		---
6		13.5	14.9	16.2	11.0	18.3	10.2	435	57.4	16.9		---
7		13.9	13.9	11.9	12.6	18.2	10.4	253	51.3	10.9		---
8		14.3	13.8	9.36	12.4	18.8	12.2	137	48.0	8.23		---
9		13.9	13.9	9.96	13.7	19.0	13.3	122	47.9	5.56		---
10		12.9	14.0	13.9	13.2	18.5	13.1	1350	44.1	4.57		---
11		13.0	14.0	15.7	11.5	18.3	12.4	231	38.1	3.51		---
12		12.1	13.5	18.1	11.6	15.9	11.4	210	33.5	---		---
13		13.2	14.5	18.6	11.7	13.4	12.8	208	29.8	---		---
14		14.3	20.2	18.4	10.7	13.6	12.8	194	24.8	---		---
15		15.2	20.1	18.8	11.7	12.8	14.7	166	22.1	---		---
16		16.0	20.0	17.7	10.8	12.7	30.8	145	20.1	3.08		---
17		18.0	17.4	17.6	11.8	12.7	268	124	16.0	4.12		1.89
18		16.3	16.7	16.1	11.9	13.0	248	113	14.5	---		5.83
19		18.5	15.5	15.6	10.7	12.2	117	96.4	13.6	---		8.21
20		14.6	17.2	13.5	10.4	11.5	298	90.7	13.6	---		9.55
21		13.2	15.9	13.3	10.0	10.6	250	85.4	12.8	---		8.32
22		13.7	18.1	13.5	9.36	10.8	119	91.5	13.3	---		7.29
23		14.3	17.0	16.1	10.3	10.9	90.2	731	12.4	---		5.66
24		14.5	17.7	13.9	10.1	10.2	55.7	341	11.6	---		3.53
25		13.4	16.9	13.2	9.42	11.2	43.2	110	11.6	---		3.08
26		14.9	17.2	13.0	9.26	9.52	49.4	477	9.38	---		2.83
27		14.5	19.4	13.1	10.4	10.2	34.2	461	7.69	---		2.26
28		18.3	20.5	12.3	11.4	10.4	974	226	5.76	---		1.95
29		20.8	18.0	12.1	11.3	10.1	554	189	4.11	---		1.70
30		18.1	17.3	12.5	---	9.90	184	138	3.64	---		1.47
31		---	17.5	12.2	---	10.1	---	113	---	---		---
MONTH		15.2	16.7	14.9	11.3	13.3	116	235	32.2	---		---

ARKANSAS RIVER BASIN

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07157980 CIMARRON RIVER AT FREEDOM, OK
(Formerly published as Cimarron River near Freedom)

LOCATION.--Lat 36°45'18", long 99°06'58", in SE 1/4 SE 1/4 sec.3, T.26 N., R.18 W., Woodward County, near right bank of State Highway 50, 1.0 mi (1.6 km) south of Freedom, 1.1 mi (1.8 km) upstream from unnamed tributary and at mile 272.4 (438 km).

DRAINAGE AREA.--12,706 mi² (32,909 km²), of which 4,813 mi² (12,466 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Nonrecording gage. Datum of gage is 1,503.99 ft (458.416 m) above mean sea level (State Highway Department bench mark).

REMARKS.--Records poor. Extensive diversions for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) Oct. 10, 1973, gage height, 9.25 ft (2.819 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s (312 m³/s) May 1, gage height, 8.73 ft (2.661 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	43	35	102	66	23	6160	346	11		0
2		43	35	15	105	79	22	1300	306	81		0
3		55	30	13	105	71	21	820	266	19		0
4		29	29	25	99	70	20	428	242	15		0
5		23	30	32	83	80	19	274	218	13		0
6		19	28	22	68	128	18	445	198	19		0
7		19	29	15	68	150	17	996	162	16		0
8		18	25	12	66	180	19	425	141	12		0
9		17	33	10	89	146	18	330	105	2.7		0
10		16	28	38	128	123	17	6370	86	.84		0
11		16	32	38	95	146	15	2000	83	.60		0
12		15	33	38	83	92	18	1300	66	0		0
13		14	33	40	73	95	18	996	55	0		6.0
14		13	64	45	79	76	19	820	43	0		2.8
15		12	32	59	79	73	19	462	45	0		35
16		11	35	99	79	68	55	354	32	5.7		654
17		11	23	168	89	55	114	226	25	1.9		110
18		13	22	250	89	62	62	174	24	0		13
19		52	23	162	83	57	48	156	22	0		5.5
20		23	21	128	86	48	60	141	22	0		8.6
21		17	21	114	83	38	820	146	21	0		3.4
22		23	52	114	83	43	485	290	20	0		3.2
23		23	47	110	83	40	250	322	19	0		1.5
24		14	43	114	83	38	137	306	18	0		.84
25		14	35	105	79	36	83	266	17	0		2.2
26		13	35	76	68	34	66	764	16	0		30
27		13	38	73	67	32	68	764	15	0		11
28		18	36	99	66	30	1680	672	14	0		8.3
29		28	36	95	68	28	3310	746	13	0		2.8
30		20	33	119	---	26	1040	1680	12	0		2.5
31		---	32	114	---	24	---	864	---	0		---
TOTAL	0	602	1036	2377	2428	2234	8561	30997	2652	197.74	0	900.64
MEAN	0	20.1	33.4	76.7	83.7	72.1	285	1000	88.4	6.38	0	30.0
MAX	0	55	64	250	128	180	3310	6370	346	81	0	654
MIN	0	0	21	10	66	24	15	141	12	0	0	0
AC=FT	0	1190	2050	4710	4820	4430	16980	61480	5260	392	0	1790
CAL YR 1975	TOTAL	61132.10	MEAN 167	MAX 4220	MIN 0	AC=FT 121300						
WTR YR 1976	TOTAL	51985.38	MEAN 142	MAX 6370	MIN 0	AC=FT 103100						

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953, 1974 to current year.

PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURE: October 1973 to current year.

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 176,000 micromhos Aug. 15, 1976; minimum daily, 4,930 micromhos June 10, 1975.

WATER TEMPERATURE: Maximum, 37.0°C June 14, 1974; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 176,000 micromhos Aug. 15; minimum daily, 5,570 micromhos May 9.

WATER TEMPERATURE: Maximum daily, 30.0°C June 28, July 3, 7, 8; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
NOV											
05...	--	--	1730	23	32100	8.0	--	--	--	--	--
13...	--	--	1310	14	65800	7.9	--	--	--	--	--
18...	1028	9740	1500	10	60500	8.1	17.0	1	8.0	101	980
23...	--	--	1005	23	>70000	8.3	--	--	--	--	--
DEC											
01...	--	--	1655	43	20600	8.3	--	--	--	--	--
09...	1028	9740	1600	33	30000	8.3	11.5	8	--	--	807
09...	--	--	1745	33	31300	8.3	--	--	--	--	--
22...	--	--	1815	52	58400	7.8	--	--	--	--	--
JAN											
06...	1028	9740	1600	22	60000	7.9	.5	5	13.1	98	1088
11...	--	--	1015	38	80600	7.7	3.0	--	--	--	--
18...	--	--	0900	250	15200	8.0	2.0	--	--	--	--
23...	--	--	1810	110	29000	8.2	8.0	--	--	--	--
FEB											
03...	1028	9740	1530	105	29000	8.2	12.0	3	12.0	122	759
11...	--	--	1640	95	17700	8.3	--	--	--	--	--
16...	--	--	1340	79	42600	7.7	--	--	--	--	--
22...	--	--	1000	83	26700	8.3	--	--	--	--	--
MAR											
02...	1028	9740	1650	79	30000	8.2	16.0	1	10.9	121	--
08...	--	--	1815	180	41200	7.7	--	--	--	--	--
13...	--	--	1840	95	19500	8.3	--	--	--	--	--
29...	--	--	1900	28	64000	8.1	--	--	--	--	--
APR											
07...	1028	9740	1100	19	69300	8.1	16.5	1	8.9	100	442
16...	--	--	1800	55	60800	7.4	--	--	--	--	--
17...	--	--	1805	114	15900	7.4	--	--	--	--	--
29...	--	--	1750	3310	9470	7.3	--	--	--	--	--
MAY											
05...	1028	9740	1000	274	8500	8.6	15.0	>100	9.1	100	118
07...	--	--	1720	996	8870	8.2	--	--	--	--	--
13...	--	--	1645	996	11500	7.8	--	--	--	--	--
22...	--	--	1425	290	33100	8.5	--	--	--	--	--
JUN											
01...	--	--	1825	346	9140	7.6	--	--	--	--	--
15...	--	--	1545	45	19000	7.7	--	--	--	--	--
30...	1028	9740	1400	12	61000	8.4	30.0	5	9.4	127	633
JUL											
02...	--	--	1820	81	111000	7.4	--	--	--	--	--
05...	--	--	2040	13	88200	7.9	--	--	--	--	--
08...	--	--	1820	12	79200	8.3	--	--	--	--	--
AUG											
15...	--	--	1900	3.1	176000	7.4	--	--	--	--	--
SEP											
14...	--	--	1720	2.8	142000	7.3	--	--	--	--	--
17...	--	--	1815	110	24400	7.0	--	--	--	--	--
26...	--	--	0930	30	77400	7.6	--	--	--	--	--
28...	1028	9740	1700	5.3	70000	8.2	21.5	7	9.1	107	129

07157980 CIMARRON RIVER AT FREEDOM, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SUMP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)
NOV											
05...	920	760	220	91	7200	94	103	11	206	0	169
13...	1800	1600	410	180	17000	95	176	26	196	0	161
18...	--	--	--	--	--	--	--	--	--	--	--
23...	2600	2400	610	250	29000	96	250	38	143	0	117
DEC											
01...	700	520	170	68	4500	93	74	9.9	222	0	182
09...	--	--	--	--	--	--	--	--	--	--	--
09...	920	730	220	89	7000	94	101	12	222	0	182
22...	1300	1200	320	130	15000	96	179	19	201	0	165
JAN											
06...	--	--	--	--	--	--	--	--	--	--	--
11...	1900	1700	430	190	21000	96	212	29	216	0	177
18...	570	390	140	54	3100	92	56	8.5	220	0	180
23...	860	670	210	82	6300	94	93	12	237	0	194
FEB											
03...	--	--	--	--	--	--	--	--	--	--	--
11...	640	450	150	64	3500	92	60	10	227	0	186
16...	1000	880	250	100	10000	95	135	12	191	0	157
22...	860	670	200	88	6000	94	89	12	236	0	194
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
08...	1100	910	250	110	10000	95	133	15	202	0	166
13...	710	530	170	70	4200	93	68	10	226	0	185
29...	1500	1400	340	160	16000	96	179	22	178	0	146
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
16...	1600	1500	410	140	16000	96	174	22	147	0	121
17...	970	880	310	47	3200	88	45	10	111	0	91
29...	490	350	130	40	1700	88	33	15	174	0	143
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
07...	460	250	120	38	1800	89	37	11	254	0	208
13...	650	480	170	55	2300	88	39	11	207	0	170
22...	1000	890	260	91	7900	94	107	15	169	0	139
JUN											
01...	490	340	130	41	1700	88	33	13	185	0	152
15...	830	670	190	86	4100	91	62	16	190	0	156
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	2300	2200	610	190	34000	97	308	30	128	0	105
05...	2300	2200	530	240	25000	96	226	33	154	0	126
08...	2200	2100	470	240	22000	96	206	32	116	0	95
AUG											
15...	4300	4200	1000	440	70000	97	464	70	100	0	82
SEP											
14...	3400	3300	850	300	48000	97	361	46	87	0	71
17...	530	420	130	50	5500	96	104	15	136	0	112
26...	1500	1400	340	160	20000	97	224	26	79	0	65
28...	--	--	--	--	--	--	--	--	--	--	--
DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
05...	3.3	560	11000	--	20300	27.6	1260	.59	--	--	--
13...	3.9	1200	26000	--	48300	65.7	1830	.17	--	.04	--
18...	--	--	--	.6	--	--	--	--	.40	.04	3
23...	1.1	1600	47000	--	79000	107	4910	.67	--	--	--
DEC											
01...	1.8	440	7200	--	12700	17.3	1470	1.1	--	--	--
09...	--	--	--	--	--	--	--	--	1.4	.01	--
09...	1.8	580	11000	--	20000	27.2	1780	.87	--	--	--
22...	5.1	790	25000	--	42100	57.3	5910	.76	--	--	--
JAN											
06...	--	--	--	.6	--	--	--	--	.50	.04	--
11...	6.9	1100	34000	--	61500	83.6	6310	.77	--	--	--
18...	3.5	360	4900	--	8970	12.2	6060	1.2	--	--	--
23...	2.4	550	10000	--	17800	24.2	5290	.80	--	--	--
FEB											
03...	--	--	--	.8	--	--	--	--	.70	.01	2
11...	1.8	--	12000	--	10600	14.4	2720	.80	--	--	--
16...	6.1	630	16000	--	28000	38.1	5970	.16	--	--	--
22...	1.9	510	9400	--	16400	22.3	3680	.18	--	--	--
MAR											
02...	--	--	--	.8	--	--	--	--	.80	<.01	--
08...	6.4	660	16000	--	26500	36.0	12900	.23	--	--	--
13...	1.8	430	6800	--	11800	16.0	3030	.15	--	--	--
29...	2.3	970	27000	--	44300	60.2	3350	.20	--	--	--

ARKANSAS RIVER BASIN

07157980 CIMARRON RIVER AT FREEDOM, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
APR											
07...	--	--	--	.5	--	--	--	--	.30	<.10	--
16...	9.4	1100	25000	--	44300	60.2	6580	.60	--	--	--
17...	7.1	800	5000	--	9740	13.2	3000	1.2	--	--	--
29...	14	410	2600	--	5180	7.04	46300	1.2	--	--	--
MAY											
05...	--	--	--	.7	--	--	--	--	.70	.11	24
07...	2.6	220	2800	--	5180	7.04	13900	.04	--	--	--
13...	5.3	430	3700	--	6840	9.30	18400	.38	--	--	--
22...	.9	660	13000	--	21200	28.8	16600	.16	--	--	--
JUN											
01...	7.4	280	2600	--	5330	7.25	4980	1.2	--	--	--
15...	6.1	580	6300	--	11500	15.6	1400	.26	--	--	--
30...	--	--	--	.6	--	--	--	--	1.1	<.08	--
JUL											
02...	8.2	1000	57000	--	90500	123	19800	.73	--	--	--
05...	3.1	1200	37000	--	66300	90.2	2330	.11	--	--	--
08...	.9	1300	33000	--	58100	79.0	1880	.16	--	--	--
AUG											
15...	6.4	960	110000	--	161000	219	1350	.33	--	--	--
SEP											
14...	7.0	2300	77000	--	131000	178	990	.43	--	--	--
17...	22	280	9000	--	14800	20.1	4400	1.1	--	--	--
26...	3.2	22	34000	--	44500	60.5	3600	.41	--	--	--
28...	--	--	--	.3	--	--	--	--	1.3	<.09	--
DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
18...	7	9	34	200	52	--	--	123	--	6	1
23...	--	--	--	--	--	--	--	--	--	--	--
DEC											
01...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	300	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
JAN											
06...	--	--	--	200	--	100	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
FEB											
03...	12	6	8	600	21	--	--	57	--	6	3
11...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	500	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
APR											
07...	--	--	--	300	--	110	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	7	59	75	1200	30	430	<.5	120	12	7	185
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	700	--	365	--	--	--	--	--
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
AUG											
15...	--	--	--	--	--	--	--	--	--	--	--
SEP											
14...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	1100	--	142	--	--	--	--	--

07157980 CIMARRON RIVER AT FREEDOM, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	20600	34200	27100	30600	64800	8830	8620	---		---
2		70100	23800	33300	27400	33100	61100	7480	9920	111000		---
3		103000	32100	41800	25900	27700	67700	7120	11000	55600		---
4		92200	31900	47100	27200	---	67600	8410	11600	83800		---
5		95200	35200	50700	30600	---	64300	9540	11900	88200		---
6		83100	32100	60100	36000	29200	68300	18600	12800	67000		---
7		79000	35800	64800	36500	36000	69000	8520	14600	66700		---
8		77800	35200	72900	37200	43300	68900	8190	11800	79200		---
9		80600	31600	78200	39300	44900	66900	5570	15700	---		---
10		81100	35000	79700	18300	30100	71300	9390	18600	---		---
11		73500	32800	80800	17700	21700	77700	7140	18200	---		---
12		66100	28700	64100	24500	19500	76800	10300	19500	---		---
13		67900	31700	64000	26800	20100	77800	11600	19600	---		130000
14		65400	37300	45700	26800	23100	79400	13200	22700	---		142000
15		67700	36200	48100	34400	27700	84300	14800	18300	---		75700
16		66200	31000	27100	42600	29700	62200	13600	22000	---		50700
17		63400	27300	19400	28600	34700	22100	13700	20900	---		23000
18		70800	37000	17000	25500	39300	34800	13500	23100	---		32600
19		54800	44800	17400	24800	44900	21100	13100	23700	---		52200
20		56100	34700	19400	26700	49300	39900	13800	27300	---		68500
21		65500	31000	23200	27600	41200	16900	14800	32100	---		---
22		48100	49700	26300	26600	42700	13000	30000	32000	---		---
23		31600	30000	29000	26700	45000	14900	14100	---	---		---
24		41600	31000	28500	27100	51300	13300	14800	---	---		---
25		---	33400	28800	17700	60600	14000	12300	---	---		98900
26		---	31800	28100	24100	62500	14400	22000	---	---		77400
27		79700	28000	31600	31400	57800	17800	13900	---	---		61500
28		60500	30000	32900	31100	64800	19100	11300	---	---		64700
29		53100	27400	26900	32900	59100	11800	11000	---	---		89100
30		56400	30400	22600	---	58900	15400	8920	---	---		95200
31		---	31800	24300	---	54700	---	7360	---	---		---
MONTH		68500	32600	40900	28600	40800	46600	12200	---	---		---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	7.0	0.0	5.5	5.5	12.5	13.0	24.5	24.5		---
2		14.0	9.0	0.0	4.0	13.0	15.5	15.0	25.5	22.5		---
3		13.5	7.5	---	4.0	8.0	15.0	13.5	25.0	24.0		---
4		15.5	7.5	---	---	3.5	14.5	14.0	23.5	22.0		---
5		16.5	10.0	0.0	---	3.0	15.5	15.5	22.5	25.0		---
6		15.5	5.0	0.0	---	6.0	16.5	16.0	22.5	25.0		---
7		16.0	4.0	---	---	4.5	15.5	14.0	23.0	26.5		---
8		15.0	5.0	---	---	4.5	15.5	15.5	22.0	29.0		---
9		11.5	5.5	---	10.0	9.0	15.0	15.5	23.0	29.5		---
10		8.5	6.5	4.0	8.5	12.0	16.5	13.5	23.5	28.5		---
11		8.5	5.0	3.0	7.5	12.0	18.0	17.5	24.0	27.5		---
12		4.5	3.5	5.0	8.0	5.0	16.0	17.5	24.0	---		---
13		4.0	8.5	4.0	8.5	9.0	19.0	14.5	26.0	---		22.0
14		6.5	5.0	3.0	8.5	7.5	21.0	14.5	27.0	---		22.5
15		8.5	3.0	8.0	9.0	6.5	17.0	17.0	22.5	---		27.0
16		9.5	5.0	5.0	9.5	6.0	15.0	16.0	25.0	27.5		23.0
17		11.5	0.0	6.0	8.5	10.5	14.0	17.5	27.0	28.0		24.5
18		13.0	0.0	5.5	8.0	13.0	15.0	19.0	21.0	---		25.0
19		10.0	5.0	3.5	8.0	13.0	15.0	19.0	22.5	---		24.5
20		4.0	4.0	3.0	7.5	9.5	12.5	20.5	24.0	---		23.0
21		4.5	0.0	5.0	5.5	8.5	14.5	20.5	25.5	---		11.0
22		5.0	2.0	8.0	5.0	11.0	19.5	24.0	27.0	---		---
23		0.5	2.0	5.0	6.0	11.0	21.0	23.0	27.0	---		---
24		4.0	3.0	4.0	6.5	14.5	17.0	21.5	25.0	---		---
25		---	0.0	0.0	13.0	15.5	14.5	18.5	25.0	---		24.0
26		---	5.0	1.0	9.5	11.0	10.0	17.0	28.5	---		18.0
27		0.0	5.0	5.0	12.0	11.0	11.5	18.5	29.5	---		16.0
28		0.0	2.5	4.0	8.5	13.0	12.0	21.5	30.0	---		19.0
29		14.0	5.0	5.5	10.5	12.5	11.5	23.5	28.0	---		20.0
30		0.0	4.0	5.5	---	8.5	11.5	22.5	25.5	---		28.0
31		---	6.0	5.0	---	10.5	---	22.5	---	---		---
MONTH		8.5	4.5	4.0	8.0	9.5	15.5	18.0	25.0	---		---

ARKANSAS RIVER BASIN

07157980 CIMARRON RIVER AT FREEDOM, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	440	620	520	570	1000	280	280	---		---
2		1100	480	600	530	600	960	260	290	1800		---
3		1600	590	720	510	530	1000	260	310	890		---
4		1400	580	790	520	---	1000	270	320	1200		---
5		1400	630	830	570	---	1000	290	320	1300		---
6		1200	590	950	640	550	1100	410	330	1000		---
7		1200	640	1000	650	640	1100	280	360	1000		---
8		1200	630	1100	650	740	1100	270	320	1200		---
9		1200	580	1200	680	760	1000	240	370	---		---
10		1200	630	1200	410	560	1100	290	410	---		---
11		1100	600	1200	400	450	1200	260	400	---		---
12		1000	540	1000	490	420	1200	300	420	---		---
13		1000	580	1000	520	430	1200	320	420	---		2200
14		1000	660	770	520	470	1200	340	460	---		2400
15		1000	640	800	620	530	1300	360	410	---		1100
16		1000	570	520	730	560	970	340	450	---		830
17		990	520	420	540	620	460	340	440	---		470
18		1100	650	390	500	680	620	340	470	---		590
19		880	760	390	490	760	440	340	480	---		850
20		900	620	420	520	810	690	350	520	---		1100
21		1000	570	470	530	710	390	360	590	---		---
22		800	820	510	520	730	340	560	590	---		---
23		580	560	550	520	760	360	350	---	---		---
24		710	570	540	520	840	340	360	---	---		---
25		---	600	540	400	950	350	330	---	---		1500
26		---	580	530	480	980	350	450	---	---		1200
27		1200	530	580	580	920	400	350	---	---		970
28		950	560	600	570	1000	420	310	---	---		1000
29		860	530	520	600	940	320	310	---	---		1300
30		900	570	460	---	930	370	280	---	---		1400
31		---	580	480	---	880	---	260	---	---		---
MONTH		1100	590	700	540	700	780	320	---	---		---

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	51.1	58.6	143	102	62.1	4660	262	---		---
2		128	45.4	24.3	150	128	57.0	913	240	394		---
3		238	47.8	25.3	145	102	56.7	576	223	45.7		---
4		110	45.4	53.3	139	---	54.0	312	209	48.6		---
5		86.9	51.0	71.7	128	---	51.3	215	188	45.6		---
6		61.6	44.6	56.4	118	190	53.5	493	176	51.3		---
7		61.6	50.1	40.5	119	259	50.5	753	157	43.2		---
8		58.3	42.5	35.6	116	360	56.4	310	122	38.9		---
9		55.1	51.7	32.4	163	300	48.6	214	105	---		---
10		51.8	47.6	123	142	186	50.5	4990	95.2	---		---
11		47.5	51.8	123	103	177	48.6	1400	89.6	---		---
12		40.5	48.1	103	110	104	58.3	1050	74.8	---		---
13		37.8	51.7	108	102	110	58.3	861	62.4	---		35.6
14		35.1	114	93.6	111	96.4	61.6	753	53.4	---		18.1
15		32.4	55.3	127	132	104	66.7	449	49.8	---		104
16		29.7	53.9	139	156	103	144	325	38.9	---		1470
17		29.4	32.3	191	130	92.1	142	207	29.7	---		140
18		38.6	38.6	263	120	114	104	160	30.5	---		20.7
19		124	47.2	171	110	117	57.0	143	28.5	---		12.6
20		55.9	35.2	145	121	105	112	133	30.9	---		25.5
21		45.9	32.3	145	119	72.8	863	142	33.5	---		---
22		49.7	115	157	117	84.8	445	438	31.9	---		---
23		36.0	71.1	163	117	82.1	243	304	---	---		---
24		26.8	66.2	166	117	86.2	126	297	---	---		---
25		---	56.7	153	85.3	92.3	78.4	237	---	---		8.91
26		---	54.8	109	88.1	90.0	62.4	928	---	---		97.2
27		42.1	54.4	114	105	79.5	73.4	722	---	---		28.8
28		46.2	54.4	160	102	81.0	1910	562	---	---		22.4
29		65.0	51.5	133	110	71.1	2860	624	---	---		9.83
30		48.6	50.8	148	---	65.3	1040	1270	---	---		9.45
31		---	50.1	148	---	57.0	---	607	---	---		---
MONTH		62.3	53.6	116	121	125	303	808	---	---		---

ARKANSAS RIVER BASIN

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07157980 CIMARRON RIVER AT FREEDOM, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	7000	12000	9400	11000	27000	2700	2600	---		---
2		29000	8200	12000	9500	12000	25000	2200	3100	54000		---
3		47000	11000	16000	8900	9600	28000	2100	3500	22000		---
4		40000	11000	18000	9400	---	28000	2600	3700	36000		---
5		41000	13000	20000	11000	---	26000	3000	3800	38000		---
6		35000	11000	24000	13000	10000	28000	6300	4200	28000		---
7		33000	13000	27000	13000	13000	29000	2600	4800	27000		---
8		33000	13000	30000	14000	16000	29000	2500	3800	33000		---
9		34000	11000	33000	15000	17000	28000	1500	5200	---		---
10		34000	13000	34000	6200	10000	30000	2900	6300	---		---
11		31000	11000	34000	5900	7400	33000	2100	6100	---		---
12		27000	10000	26000	8400	6600	32000	3200	6600	---		---
13		28000	11000	26000	9300	6800	33000	3700	6600	---		71000
14		27000	14000	18000	9300	7900	33000	4300	7800	---		81000
15		28000	13000	19000	12000	9600	36000	4900	6200	---		32000
16		27000	11000	9400	16000	10000	25000	4400	7500	---		20000
17		26000	9500	6600	9900	12000	7600	4500	7100	---		7900
18		29000	13000	5700	8800	15000	12000	4400	7900	---		11000
19		22000	17000	5800	8500	17000	7200	4300	8100	---		21000
20		22000	12000	6800	9200	19000	15000	4500	9500	---		28000
21		27000	11000	8000	9600	15000	5700	4900	11000	---		---
22		19000	19000	9100	9200	16000	4200	10000	11000	---		---
23		11000	10000	10000	9200	17000	4900	4600	---	---		---
24		16000	11000	9900	9400	20000	4300	4900	---	---		---
25		---	12000	10000	5900	25000	4600	4000	---	---		43000
26		---	11000	9800	8300	25000	4700	7500	---	---		33000
27		34000	9700	11000	11000	25000	6000	4600	---	---		25000
28		25000	10000	12000	11000	27000	6500	3600	---	---		27000
29		21000	9500	9300	12000	24000	3800	3500	---	---		38000
30		23000	11000	7700	---	24000	5100	2700	---	---		41000
31		---	11000	8400	---	22000	---	2200	---	---		---
MONTH		28500	11500	15800	10100	15400	18700	3900	---	---		---

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	813	1130	2590	1960	1680	44900	2430	---		---
2		3370	775	486	2690	2560	1490	7720	2560	11800		---
3		6980	891	562	2520	1840	1590	4650	2510	1130		---
4		3130	861	1220	2510	---	1510	3000	2420	1460		---
5		2550	1050	1730	2470	---	1330	2220	2240	1330		---
6		1800	832	1430	2390	3460	1360	7570	2250	1440		---
7		1690	1020	1090	2390	5260	1330	6990	2100	1170		---
8		1600	877	972	2490	7780	1490	2870	1450	1070		---
9		1560	980	891	3600	6700	1360	1340	1470	---		---
10		1470	983	3490	2140	3320	1380	49900	1460	---		---
11		1340	950	3490	1510	2920	1340	11300	1370	---		---
12		1090	891	2670	1880	1640	1560	11200	1180	---		---
13		1060	980	2810	1830	1740	1600	9950	980	---		1150
14		948	2420	2190	1980	1620	1690	9520	906	---		612
15		907	1120	3030	2560	1890	1850	6110	753	---		3020
16		802	1040	2510	3410	1840	3710	4210	648	---		35300
17		772	590	2990	2380	1780	2340	2750	479	---		2350
18		1020	772	3850	2110	2510	2010	2070	512	---		386
19		3090	1060	2540	1900	2620	933	1810	481	---		312
20		1370	680	2280	2140	2460	2430	1710	564	---		650
21		1240	624	2460	2150	1540	12600	1930	624	---		---
22		1180	2670	2800	2060	1860	5500	7830	594	---		---
23		683	1270	2970	2060	1840	3310	4000	---	---		---
24		605	1280	3050	2110	2050	1590	4050	---	---		---
25		---	1130	2840	1260	2430	1030	2870	---	---		255
26		---	1040	2010	1520	2300	838	15500	---	---		2670
27		1190	995	2170	1990	1990	1100	9490	---	---		742
28		1220	972	3210	1960	2190	29500	6530	---	---		605
29		1590	923	2390	2200	1810	34000	7050	---	---		287
30		1240	980	2470	---	1680	14300	12200	---	---		277
31		---	950	2590	---	1430	---	5130	---	---		---
MONTH		1690	1050	2270	2230	2590	4590	8660	---	---		---

ARKANSAS RIVER BASIN

07157980 CIMARRON RIVER AT FREEDOM, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	12500	21600	16600	18900	46900	4870	4730	---		---
2		51300	14500	20900	16800	20700	43900	4000	5570	94100		---
3		84400	19900	27900	15900	17000	49300	3770	6270	39300		---
4		71400	19700	32300	16700	---	49200	4600	6650	62600		---
5		75000	22400	35300	18900	---	46500	5330	6850	66500		---
6		62100	19900	43000	23100	18000	49800	11200	7430	48700		---
7		56700	22900	46900	23500	23100	50400	4670	8590	48500		---
8		57700	22400	53600	24100	29100	50300	4460	6780	58800		---
9		60000	19500	58000	25800	30500	48700	2770	9300	---		---
10		60400	22300	59200	11000	18600	52300	5230	11200	---		---
11		54100	20500	60200	10600	13200	57600	3780	10900	---		---
12		48000	17700	46300	15000	11700	56900	5820	11700	---		---
13		49500	19600	46300	16400	12100	57700	6650	11800	---		117000
14		47400	24200	31100	16400	14100	59000	7680	13800	---		131000
15		49300	23300	33100	21800	17000	63100	8720	11000	---		55900
16		48100	19200	16600	28600	18300	44800	7940	13400	---		35300
17		45800	16800	11700	17600	22000	13400	8010	12600	---		14000
18		51900	23900	10100	15600	25800	22100	7860	14100	---		20300
19		36700	30400	10400	15200	30500	12800	7620	14500	---		36500
20		39700	22000	11700	16400	34100	26300	8070	16400	---		50000
21		47500	19200	14100	17000	27400	10100	8720	19900	---		---
22		33100	34400	16100	16300	28600	7560	18500	19800	---		---
23		19500	18500	17900	16400	30600	8780	8260	---	---		---
24		27700	19200	17500	16600	35800	7750	8720	---	---		---
25		---	21000	17700	10600	43500	8200	7100	---	---		79500
26		---	19700	17300	14700	45000	8460	13400	---	---		57300
27		59200	17200	19500	19400	41100	10600	8140	---	---		44200
28		43400	18500	20500	19200	46900	11500	6460	---	---		46800
29		37300	16800	16500	20500	42200	6780	6270	---	---		67600
30		40000	18600	13700	---	42000	9100	4930	---	---		75000
31		---	19700	14800	---	38600	---	3920	---	---		---
MONTH		50400	20500	27800	17800	27500	33000	7020	---	---		---

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	1450	2040	4570	3370	2910	81000	4420	---		---
2		5960	1370	846	4760	4420	2610	14000	4600	20600		---
3		12500	1610	979	4510	3260	2800	8350	4500	2020		---
4		5590	1540	2180	4460	---	2660	5320	4350	2540		---
5		4660	1810	3050	4240	---	2390	3940	4030	2330		---
6		3190	1500	2550	4240	6220	2420	13500	3970	2500		---
7		3010	1790	1900	4310	9360	2310	12600	3760	2100		---
8		2800	1510	1740	4290	14100	2580	5120	2580	1910		---
9		2750	1740	1570	6200	12000	2370	2470	2640	---		---
10		2610	1690	6070	3800	6180	2400	90000	2600	---		---
11		2340	1770	6180	2720	5200	2330	20400	2440	---		---
12		1940	1580	4750	3360	2910	2770	20400	2080	---		---
13		1870	1750	5000	3230	3100	2800	17900	1750	---		1900
14		1660	4180	3780	3500	2890	3030	17000	1600	---		990
15		1600	2010	5270	4650	3350	3240	10900	1340	---		5280
16		1430	1810	4440	6100	3360	6650	7590	1160	---		62300
17		1360	1040	5310	4230	3270	4120	4890	850	---		4160
18		1820	1420	6820	3750	4320	3700	3700	914	---		713
19		5430	1890	4550	3410	4690	1660	3210	861	---		542
20		2470	1250	4040	3810	4420	4260	3070	998	---		1160
21		2180	1090	4340	3810	2810	22400	3440	1130	---		---
22		2060	4830	4960	3650	3320	9900	14500	1070	---		---
23		1210	2350	5320	3680	3300	5930	7180	---	---		---
24		1050	2230	5390	3720	3670	2870	7200	---	---		---
25		---	1980	5020	2260	4230	1840	5100	---	---		472
26		---	1860	3550	2700	4130	1510	27600	---	---		4640
27		2080	1760	3840	3510	3550	1950	16800	---	---		1310
28		2110	1800	5480	3420	3800	52200	11700	---	---		1050
29		2820	1630	4230	3760	3190	60600	12600	---	---		511
30		2160	1680	4400	---	2950	25600	22400	---	---		506
31		---	1700	4560	---	2500	---	9140	---	---		---
MONTH		2990	1860	4010	3950	4620	8160	15600	---	---		---

07158000 CIMARRON RIVER NEAR WAYNOKA, OK

LOCATION.--Lat 36°31'02", long 98°52'45", near center of sec.35, T.24 N., R.16 W., Woods County, near left bank on downstream side of bridge on U.S. Highway 281, 0.8 mi (1.39 km) downstream from Main Creek, 5 mi (8.0 km) south of Waynoka, and at mile 247.0 (397 km).

DRAINAGE AREA.--13,334 mi² (34,535 km²), of which 4,830 mi² (12,510 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1903 to December 1905 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 897: 1939. WSP 1341: Drainage area. WSP 1731: 1950(M). WSP 1921: 1960.

GAGE.--Water-stage recorder. Datum of gage is 1,367.50 ft (416.814 m) above mean sea level (levels by Corps of Engineers). September 1903 to December 1905, nonrecording gage at The Atchison, Topeka and Santa Fe Railway Co. bridge 5 mi (8.0 km) upstream at different datum. Feb. 4, to Mar. 3, 1938, nonrecording gage and Mar. 4, 1938, to Oct. 24, 1956, water-stage recorder, on former highway bridge 50 ft (15.2 m) downstream at present datum.

REMARKS.--Records good. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--39 years (water years 1938-76), 351 ft³/s (9.940 m³/s), 254,300 acre-ft/yr (314 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,500 ft³/s (2,676 m³/s) May 16, 1957, gage height, 15.10 ft (4.602 m), from rating curve extended above 45,000 ft³/s (1,274 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of about 14 ft (4.3 m) occurred probably in 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10,000 ft³/s (283 m³/s) and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)	DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)
May 2	0545	16,400 464	8.59 2.618	May 10	1100	*18,500 524	8.72 2.658

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	57	93	88	73	35	5280	494	10		0
2		531	73	90	81	76	34	8580	300	26		0
3		339	71	76	78	73	27	1850	212	71		0
4		126	64	46	74	79	26	1030	190	53		0
5		63	62	50	74	128	24	637	180	36		0
6		52	61	54	74	122	25	831	160	29		0
7		48	60	45	69	114	26	1090	150	25		0
8		44	59	35	71	137	29	1200	130	21		0
9		40	58	39	70	151	29	755	110	18		0
10		36	59	45	75	132	25	7200	90	14		0
11		33	59	53	107	125	22	5650	80	9.7		0
12		31	65	60	97	118	21	2540	73	6.2		0
13		28	70	63	86	98	23	2270	61	3.6		0
14		27	94	63	77	92	23	1180	53	1.9		0
15		27	122	65	77	84	26	785	46	.85		3.2
16		27	89	68	83	82	93	551	43	0		36
17		28	87	83	86	77	1640	425	39	0		132
18		29	77	150	85	70	605	340	43	5.7		88
19		44	68	163	82	62	234	280	43	1.3		59
20		80	69	130	84	55	307	250	38	.63		33
21		58	73	111	80	49	1240	206	33	0		29
22		47	80	99	76	47	742	331	29	0		11
23		46	97	93	74	45	378	302	27	0		1.0
24		51	115	92	74	43	193	412	24	0		0
25		46	104	88	73	40	134	346	22	1.0		5.4
26		40	98	84	73	35	106	459	21	2.4		122
27		45	94	77	75	35	92	862	19	0		122
28		54	99	78	72	31	307	737	17	0		62
29		57	98	82	72	33	5070	712	14	0		37
30		66	96	79	---	30	2270	1370	12	0		28
31		---	93	93	---	34	---	1020	---	0		---
TOTAL	0	2143	2471	2447	2287	2370	13806	49481	2753	336.28	0	768.6
MEAN	0	71.4	79.7	78.9	78.9	76.5	460	1596	91.8	10.8	0	25.6
MAX	0	531	122	163	107	151	5070	8580	494	71	0	132
MIN	0	0	57	35	69	30	21	206	12	0	0	0
AC-FT	0	4250	4900	4850	4540	4700	27380	98150	5460	667	0	1520
CAL YR 1975	TOTAL	99148.22	MEAN 272	MAX 7700	MIN 0	AC-FT 196700						
WTR YR 1976	TOTAL	78862.88	MEAN 215	MAX 8580	MIN 0	AC-FT 156400						

ARKANSAS RIVER BASIN

07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-63, 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1968 to current year.

WATER TEMPERATURE: July 1968 to current year.

INSTRUMENTATION.--Water quality monitor since July 1968.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 102,000 micromhos Oct. 10, 1970; minimum, 1,260 micromhos May 11, 1973.

WATER TEMPERATURE: Maximum daily, 34.5°C July 22, 1969; minimum daily, -1.0°C Nov. 26, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 75,200 micromhos Sept. 16; minimum daily, 5,370 micromhos

May 13.

WATER TEMPERATURE: Maximum daily, 32.0°C June 26, 29; minimum daily, -1.0°C Nov. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
NOV												
04...	1028	9740	1720	126	--	--	8.1	18.0	32	9.4	108	368
05...	--	--	1845	--	58	54100	7.7	--	--	--	--	--
15...	--	--	0720	--	27	32700	8.1	--	--	--	--	--
25...	--	--	1455	--	45	40000	7.9	--	--	--	--	--
DEC												
05...	--	--	1835	--	64	30600	8.4	--	--	--	--	--
09...	1028	9740	1300	58	--	32500	8.3	7.5	4	--	--	352
15...	--	--	1730	--	106	37700	7.8	--	--	--	--	--
25...	--	--	0810	--	104	28500	8.2	--	--	--	--	--
JAN												
05...	--	--	1800	--	66	32300	8.1	--	--	--	--	--
06...	1028	9740	1300	54	--	40000	8.2	4.0	4	13.4	111	328
15...	--	--	1330	--	66	43200	8.0	--	--	--	--	--
25...	--	--	1800	--	86	28300	8.2	--	--	--	--	--
FEB												
03...	1028	9740	1230	78	--	30000	8.2	9.0	2	13.6	131	253
05...	--	--	0920	--	72	27600	8.1	--	--	--	--	--
15...	--	--	1745	--	79	27600	8.0	--	--	--	--	--
25...	--	--	0800	--	74	30200	8.3	--	--	--	--	--
MAR												
02...	1028	9740	1330	76	--	31000	8.2	16.0	5	10.4	116	--
05...	--	--	1825	--	133	39500	8.1	--	--	--	--	--
15...	--	--	1730	--	84	22300	8.3	--	--	--	--	--
25...	--	--	1015	--	43	36200	7.8	--	--	--	--	--
APR												
05...	--	--	0715	--	23	43900	8.2	--	--	--	--	--
07...	1028	9740	1400	26	--	36000	8.2	16.0	1	9.4	104	267
15...	--	--	1030	--	25	48100	8.2	--	--	--	--	--
25...	--	--	1600	--	123	14900	7.9	--	--	--	--	--
MAY												
05...	1028	9740	1345	637	--	7500	8.5	17.0	43	9.0	102	129
13...	--	--	0900	--	2230	5370	7.7	--	--	--	--	--
23...	--	--	1720	--	235	24500	7.7	--	--	--	--	--
29...	--	--	2010	--	747	12000	7.9	--	--	--	--	--
JUN												
01...	--	--	0710	--	546	6570	7.7	--	--	--	--	--
16...	--	--	0740	--	43	24700	7.9	--	--	--	--	--
28...	--	--	2315	--	16	40300	7.8	--	--	--	--	--
30...	1028	9740	1530	12	--	42000	8.4	32.0	0	9.4	132	--
JUL												
02...	--	--	2115	--	43	20600	7.7	--	--	--	--	--
18...	--	--	1725	--	5.0	53500	7.6	--	--	--	--	--
SEP												
15...	--	--	1955	--	3.5	58000	7.4	--	--	--	--	--
26...	--	--	1245	--	172	14500	7.1	--	--	--	--	--
30...	1028	9740	1645	26	--	55000	8.3	28.5	3	9.3	124	63

07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	1600	1500	410	140	13000	95	141	18	172	0	141
15...	1300	1100	370	84	7500	93	92	20	220	0	180
25...	1400	1200	390	110	10000	94	115	18	259	0	212
DEC											
05...	1000	960	260	97	7000	93	94	13	106	0	87
09...	--	--	--	--	--	--	--	--	--	--	--
15...	970	840	250	83	9300	95	130	17	152	0	125
25...	970	780	250	85	6400	93	89	12	234	0	192
JAN											
05...	1300	1100	310	120	7200	92	88	11	238	0	195
06...	--	--	--	--	--	--	--	--	--	--	--
15...	1500	1300	360	140	10000	94	113	12	215	0	176
25...	1000	830	240	100	6300	93	86	10	219	0	180
FEB											
03...	--	--	--	--	--	--	--	--	--	--	--
05...	940	750	230	88	6200	93	88	11	232	0	190
15...	910	760	220	87	6100	94	88	12	186	0	153
25...	1000	850	250	99	6800	93	92	12	224	0	184
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
05...	1000	850	240	97	9700	95	134	16	179	0	147
15...	830	650	200	80	5000	93	76	12	223	0	183
25...	1300	1100	310	120	9000	94	110	17	199	0	163
APR											
05...	1400	1300	360	130	11000	94	126	19	206	0	169
07...	--	--	--	--	--	--	--	--	--	--	--
15...	1500	1400	370	150	12900	95	144	21	171	0	140
25...	710	540	180	64	3100	90	51	14	213	0	175
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	500	390	150	31	920	80	18	8.1	135	0	111
23...	920	770	240	78	5900	93	85	13	178	0	146
29...	680	500	170	61	2300	88	39	11	220	0	180
JUN											
01...	1100	930	260	110	5400	91	71	18	212	0	174
16...	450	290	120	37	1200	85	25	11	193	0	158
28...	1400	1300	340	140	9900	94	114	24	164	0	135
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	800	690	210	67	4600	92	71	12	137	0	112
18...	1700	1600	430	160	14000	95	146	28	118	0	97
SEP											
15...	1600	1400	400	140	15000	95	164	22	193	0	158
26...	790	690	250	39	3000	89	47	11	120	0	98
30...	--	--	--	--	--	--	--	--	--	--	--
DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
04...	--	--	--	.3	--	--	--	--	1.1	.11	6
05...	5.5	99	21000	--	34800	47.3	5450	.41	--	--	--
15...	2.8	750	12000	--	20600	28.0	1500	.76	--	--	--
25...	5.2	830	16000	--	--	--	--	.09	--	--	--
DEC											
05...	.7	720	11000	--	19600	26.7	3390	.11	--	--	--
09...	--	--	--	.5	--	--	--	--	1.3	.03	--
15...	3.9	510	15000	--	24900	33.9	7130	.06	--	--	--
25...	2.4	650	10000	--	18200	24.8	5110	.53	--	--	--
JAN											
05...	3.0	790	11000	--	19700	26.8	3510	.51	--	--	--
06...	--	--	--	.6	--	--	--	--	1.7	.01	--
15...	3.4	960	16000	--	27300	37.1	4870	.32	--	--	--
25...	2.2	640	9600	--	17300	23.5	4020	.70	--	--	--
FEB											
03...	--	--	--	.7	--	--	--	--	.60	.01	2
05...	2.9	650	9900	--	17100	23.3	3320	.40	--	--	--
15...	3.0	620	9800	--	17100	23.3	3650	.44	--	--	--
25...	1.8	710	11000	--	19700	26.8	3940	.04	--	--	--
MAR											
02...	--	--	--	.7	--	--	--	--	1.4	1.2	--
05...	2.3	720	15000	--	25500	34.7	9160	.15	--	--	--
15...	1.8	610	7800	--	13900	18.9	3150	.11	--	--	--
25...	5.0	950	14000	--	26100	35.5	3030	.00	--	--	--

ARKANSAS RIVER BASIN

07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO ₂) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
APR											
05...	2.1	1000	17000	--	29100	39.6	1810	.00	--	--	--
07...	--	--	--	.5	--	--	--	--	.50	.10	--
15...	1.7	1100	19400	--	32800	44.6	2210	.03	--	--	--
25...	4.3	490	5000	--	8970	12.2	2980	1.0	--	--	--
MAY											
05...	--	--	--	.8	--	--	--	--	.80	.21	5
13...	4.3	330	1500	--	3110	4.23	18700	1.3	--	--	--
23...	5.7	540	9100	--	15800	21.5	10000	.22	--	--	--
29...	4.4	500	3500	--	6860	9.33	13800	.46	--	--	--
JUN											
01...	6.8	540	8400	--	15500	21.1	22900	.21	--	--	--
16...	3.9	260	1800	--	3820	5.20	444	2.0	--	--	--
28...	4.2	780	15000	--	26500	36.0	1150	.14	--	--	--
30...	--	--	--	.5	--	--	--	--	.90	<.08	--
JUL											
02...	4.4	490	6900	--	12700	17.3	1470	.62	--	--	--
18...	4.7	1200	23000	--	38100	51.8	514	.17	--	--	--
SEP											
15...	12	1000	23000	--	59800	54.1	376	.29	--	--	--
26...	15	620	4800	--	8120	11.0	3770	1.0	--	--	--
30...	--	--	--	.4	--	--	--	--	12	<.08	--
DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
04...	17	10	23	3300	20	45	--	62	--	12	--
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	200	--	60	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JAN											
05...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	100	--	75	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
03...	10	5	9	500	17	53	--	32	--	5	<1
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	600	--	61	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	200	--	80	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	3	11	8	400	10	200	<.5	13	<2	3	26
13...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	300	--	153	--	--	--	--	--
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	600	--	69	--	--	--	--	--

07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	42000	30700	25100	31700	46800	13000	6570	39700		---
2		13400	34400	32100	26400	31800	47300	8090	9340	20600		---
3		57000	25200	32900	28000	30400	47500	7090	9630	23800		---
4		58100	27400	33500	28300	31200	50400	6890	11000	48600		---
5		55000	27300	32800	27500	39500	43900	7920	12200	44800		---
6		53300	31500	36200	28700	54200	43200	7540	12900	40800		---
7		56500	33400	47600	30200	40300	45000	15400	13900	45300		---
8		56500	33200	44900	39100	23500	46000	6650	15400	48100		---
9		54100	30600	49400	35500	48400	46600	8500	---	47000		---
10		55100	33400	47400	35900	47600	47600	6340	17600	48300		---
11		54100	32600	41600	35100	41000	49400	8680	19600	45400		---
12		52200	33200	44700	21800	26900	48500	6560	20500	44800		---
13		45000	31400	47000	21900	25800	47900	5370	23100	42900		---
14		38800	29400	44800	26200	23600	48600	10100	24200	---		---
15		30700	35900	43200	27600	22900	48100	10000	23200	---		58000
16		29800	33800	40900	26500	25600	40800	12700	24700	---		75200
17		38900	33100	39600	27500	26700	44700	12800	25200	---		68900
18		48900	31700	23900	37400	25700	10600	12900	27500	---		22600
19		42600	30400	18900	28900	24900	24300	13300	26700	---		21600
20		41700	32100	18100	26700	35600	16900	14000	27100	---		31500
21		49300	36000	19400	27800	38900	30400	13500	29000	---		42800
22		49000	33100	21900	29300	39000	12400	10300	31100	---		48300
23		46300	31000	24300	29100	38700	10300	24600	34000	---		47900
24		46500	36700	26700	27900	37900	14000	19300	35400	---		---
25		40700	29000	28400	30200	38200	14900	15800	37700	---		45800
26		36300	31300	30000	30800	39400	15300	12100	38800	---		14500
27		34000	31700	28200	28500	39900	15800	20400	48400	---		38100
28		39300	32100	29000	27500	42100	---	17600	40300	---		50900
29		50700	34400	29200	28800	44200	21600	12000	40200	---		54700
30		49300	26400	29300	---	43800	9030	---	40100	---		53100
31		---	28100	28400	---	44400	---	6340	---	---		---
MONTH		45600	32000	33700	29100	35600	34100	11500	25000	---		---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	1.0	3.5	7.0	14.0	17.0	16.5	16.0	27.5		---
2		16.0	7.5	1.0	6.0	14.5	19.0	19.5	28.0	24.5		---
3		15.0	10.0	0.0	6.0	5.5	19.0	19.0	22.0	22.0		---
4		15.5	8.0	0.0	1.0	7.0	23.0	19.5	---	28.0		---
5		17.5	13.5	5.0	0.0	9.5	18.0	19.5	26.0	26.0		---
6		17.0	5.5	4.5	0.5	4.0	22.5	16.0	28.0	30.5		---
7		18.0	5.5	1.0	0.0	6.0	15.5	15.5	27.0	19.0		---
8		17.0	7.0	1.5	12.0	10.5	11.5	16.0	28.5	22.0		---
9		13.5	7.5	1.0	7.0	16.5	18.0	16.0	20.0	22.5		---
10		11.0	9.0	0.5	14.5	16.0	12.0	16.5	20.0	27.0		---
11		10.5	6.5	0.5	7.0	13.0	16.0	19.0	29.5	22.0		---
12		7.0	5.5	1.0	10.0	14.5	11.0	18.5	24.0	24.5		---
13		6.5	10.5	0.0	16.0	15.5	24.0	16.0	24.0	24.0		---
14		8.0	8.5	2.5	15.0	13.5	28.0	15.5	26.0	25.0		---
15		11.5	2.5	4.5	17.5	12.0	18.0	18.5	18.0	24.0		26.0
16		12.0	---	6.5	9.5	13.0	15.0	17.5	18.0	27.5		27.5
17		13.5	---	8.0	13.0	12.0	17.0	16.5	29.0	25.0		22.0
18		16.5	---	7.5	8.0	11.0	13.0	18.0	26.0	30.0		27.5
19		13.5	---	6.0	6.5	14.0	15.0	18.5	26.0	23.5		24.0
20		3.0	3.5	3.0	12.0	16.0	13.5	20.5	25.5	24.0		26.0
21		4.0	2.5	4.5	6.0	10.0	11.0	12.0	24.5	---		16.0
22		3.5	4.0	5.5	12.0	16.5	18.5	29.5	26.5	---		21.0
23		4.0	2.0	7.0	9.0	17.0	18.5	29.0	27.5	---		21.0
24		3.0	2.5	6.5	4.5	21.5	21.0	26.0	27.5	---		---
25		4.0	3.0	2.5	5.5	18.0	21.0	18.0	27.5	26.0		21.5
26		1.0	4.0	1.0	9.5	11.5	13.0	18.5	28.5	25.0		20.0
27		0.5	3.5	1.0	11.0	5.0	14.5	16.0	30.0	16.0		16.0
28		0.0	3.5	5.0	14.0	19.0	14.0	18.0	30.0	17.5		17.5
29		13.5	2.5	7.5	13.0	15.0	12.0	26.0	26.5	25.0		25.0
30		4.5	3.0	8.0	---	16.0	12.5	---	30.0	24.5		24.5
31		---	3.5	6.5	---	15.0	---	24.0	---	---		---
MONTH		9.5	5.5	3.5	8.5	13.0	16.5	19.0	25.5	24.5		---

ARKANSAS RIVER BASIN

07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

DISSOLVED SULFATE (SO4), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	950	700	580	720	1100	530	470	900		---
2		530	780	730	610	730	1100	500	520	540		---
3		1300	580	750	640	690	1100	480	520	550		---
4		1300	630	760	650	710	1100	480	520	1100		---
5		1200	630	750	630	890	990	500	530	1000		---
6		1200	720	820	660	1200	980	490	530	920		---
7		1300	760	1100	690	910	1000	530	530	1000		---
8		1300	760	1000	890	550	1000	470	530	1100		---
9		1200	700	1100	810	1100	1100	510	---	1100		---
10		1200	760	1100	820	1100	1100	460	540	1100		---
11		1200	740	940	800	930	1100	510	540	1000		---
12		1200	760	1000	550	620	1100	470	540	1000		---
13		1000	720	1100	550	590	1100	440	550	970		---
14		880	670	1000	600	550	1100	520	560	---		---
15		700	820	980	630	550	1100	520	550	---		1300
16		680	770	930	610	590	920	530	570	---		1700
17		880	750	900	630	610	1000	530	580	---		1500
18		1100	720	550	850	590	520	530	630	---		550
19		960	690	540	660	570	560	530	610	---		550
20		940	730	540	610	810	540	530	620	---		720
21		1100	820	540	640	880	690	530	660	---		970
22		1100	750	550	670	880	530	520	710	---		1100
23		1000	710	560	670	880	520	570	770	---		1100
24		1000	830	610	640	860	530	540	800	---		---
25		920	660	650	690	870	530	530	850	---		1000
26		820	710	690	700	890	530	530	880	---		530
27		770	720	650	650	900	530	540	1100	---		860
28		890	730	660	630	950	---	540	910	---		1100
29		1100	780	670	660	1000	550	530	910	---		1200
30		1100	610	670	---	990	520	---	910	---		1200
31		---	640	650	---	1000	---	460	---	---		---
MONTH		1000	730	780	670	810	850	510	650	---		---

DISSOLVED SULFATE (SO4), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	146	176	138	142	104	7560	627	24.3		---
2		760	154	177	133	150	101	11600	421	37.9		---
3		1190	111	154	135	136	80.2	2400	298	105		---
4		442	109	94.4	130	151	77.2	1330	267	157		---
5		204	105	101	126	308	64.2	860	258	97.2		---
6		168	119	120	132	395	66.1	1100	229	72.0		---
7		168	123	134	129	280	70.2	1560	215	67.5		---
8		154	121	94.5	171	203	78.3	1520	186	62.4		---
9		130	110	116	153	448	86.1	1040	---	53.5		---
10		117	121	134	166	392	74.2	8940	131	41.6		---
11		107	118	135	231	314	65.3	7780	117	26.2		---
12		100	133	162	144	198	62.4	3220	106	16.7		---
13		75.6	136	187	128	156	68.3	2700	90.6	9.43		---
14		64.2	170	170	125	137	68.3	1660	80.1	---		---
15		51.0	270	172	131	125	77.2	1100	68.3	---		11.2
16		49.6	185	171	137	131	231	788	66.2	---		165
17		66.5	176	202	146	127	4430	608	61.1	---		535
18		86.1	150	223	195	112	849	487	73.1	---		131
19		114	127	238	146	95.4	354	401	70.8	---		87.6
20		203	136	190	138	120	448	358	63.6	---		64.2
21		172	162	162	138	116	2310	295	58.8	---		76.0
22		140	162	147	137	112	1060	465	55.6	---		32.7
23		124	186	141	134	107	531	465	56.1	---		2.97
24		138	258	152	128	99.8	276	601	51.8	---		---
25		114	185	154	136	94.0	192	495	50.5	---		14.6
26		88.6	188	156	138	84.1	152	657	49.9	---		175
27		93.6	183	135	132	85.0	132	1260	56.4	---		283
28		130	195	139	122	79.5	---	1070	41.8	---		184
29		169	206	148	128	89.1	7530	1020	34.4	---		120
30		196	158	143	---	80.2	3190	---	29.5	---		90.7
31		---	161	163	---	91.8	---	1270	---	---		---
MONTH		194	157	155	142	166	787	2150	5	---		---

ARKANSAS RIVER BASIN

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07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	16000	11000	8800	11000	18000	4100	1800	15000		---
2		4200	13000	12000	9300	11000	18000	2400	2800	7000		---
3		23000	8800	12000	9900	11000	19000	2000	2900	8300		---
4		23000	9700	12000	10000	11000	20000	2000	3400	19000		---
5		22000	9600	12000	9700	15000	17000	2300	3800	17000		---
6		21000	11000	13000	10000	22000	17000	2200	4100	15000		---
7		23000	12000	19000	11000	15000	17000	4900	4400	18000		---
8		23000	12000	17000	15000	8100	18000	1900	4900	19000		---
9		22000	11000	19000	13000	19000	18000	2500	---	18000		---
10		21000	12000	18000	13000	19000	19000	1800	5800	19000		---
11		22000	12000	16000	13000	16000	19000	2600	6600	18000		---
12		21000	12000	17000	7500	9500	19000	1800	7000	17000		---
13		17000	11000	18000	7500	9000	19000	1400	8000	16000		---
14		15000	10000	17000	9200	8200	19000	3100	8400	---		---
15		11000	13000	17000	9800	7900	19000	3000	8000	---		23000
16		11000	12000	15000	9300	9000	15000	4000	8600	---		31000
17		15000	12000	15000	9700	9400	17000	4000	8800	---		28000
18		19000	11000	8300	14000	9000	3300	4100	9700	---		7800
19		18000	11000	6300	10000	8700	8500	4200	9400	---		7400
20		16000	12000	6000	9400	13000	5500	4400	9600	---		11000
21		19000	13000	6500	9800	15000	11000	4300	10000	---		16000
22		19000	12000	7500	10000	15000	3900	3100	11000	---		19000
23		18000	11000	8500	10000	14000	3100	8600	12000	---		19000
24		18000	14000	9400	9900	14000	4400	6500	13000	---		---
25		15000	10000	10000	11000	14000	4800	5100	14000	---		18000
26		13000	11000	11000	11000	15000	4900	3800	15000	---		4600
27		12000	11000	10000	10000	15000	5100	6900	19000	---		14000
28		15000	12000	10000	9700	16000	---	5800	15000	---		20000
29		20000	13000	10000	10000	17000	7400	3700	15000	---		22000
30		19000	9300	10000	---	17000	2700	---	15000	---		21000
31		---	10000	10000	---	17000	---	1800	---	---		---
MONTH		17700	11500	12400	10400	13300	12800	3600	8900	---		---

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	2460	2760	2090	2170	1700	58400	2400	405		---
2		6020	2560	2920	2030	2260	1650	55600	2270	491		---
3		21100	1690	2460	2080	2170	1390	9990	1660	1590		---
4		7820	1680	1490	2000	2350	1400	5560	1740	2720		---
5		3740	1610	1620	1940	5180	1100	3960	1850	1650		---
6		2950	1810	1900	2000	7250	1150	4940	1770	1170		---
7		2980	1940	2310	2050	4620	1190	14400	1780	1220		---
8		2730	1910	1610	2880	3000	1410	6160	1720	1080		---
9		2380	1720	2000	2460	7750	1410	5100	---	875		---
10		2040	1910	2190	2630	6770	1280	35000	1410	718		---
11		1960	1910	2290	3760	5400	1130	39700	1430	471		---
12		1760	2110	2750	1960	3030	1080	12300	1380	285		---
13		1290	2080	3060	1740	2380	1180	8580	1320	156		---
14		1090	2540	2890	1910	2040	1180	9880	1200	---		---
15		802	4280	2980	2040	1790	1330	6360	994	---		199
16		802	2880	2750	2080	1990	3770	5950	998	---		3010
17		1130	2820	3360	2250	1950	75300	4590	927	---		9980
18		1490	2290	3360	3210	1700	5390	3760	1130	---		1850
19		1900	2020	2770	2210	1460	5370	3180	1090	---		1180
20		3460	2240	2110	2130	1930	4560	2970	985	---		980
21		2980	2560	1950	2120	1980	36800	2390	891	---		1250
22		2410	2590	2000	2050	1900	7810	2770	861	---		564
23		2240	2880	2130	2000	1700	3160	7010	875	---		51.3
24		2480	4350	2330	1980	1630	2290	7230	842	---		---
25		1860	2810	2380	2170	1510	1740	4760	832	---		262
26		1400	2910	2490	2170	1420	1400	4710	850	---		1520
27		1460	2790	2080	2030	1420	1270	16100	975	---		4610
28		2190	3210	2110	1890	1340	---	11500	688	---		3350
29		3080	3440	2210	1940	1510	101000	7110	567	---		2200
30		3390	2410	2130	---	1380	16500	---	486	---		1590
31		---	2510	2510	---	1560	---	4960	---	---		---
MONTH		3140	2480	2380	2200	2730	9860	12200	1240	---		---

ARKANSAS RIVER BASIN

07158000 CIMARRON RIVER NEAR WAYNOKA, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	28100	19700	15500	20400	31600	7570	3890	26400		---
2		7800	22400	20700	16500	20500	32000	4760	5480	12200		---
3		39200	15600	21300	17700	19500	32100	4190	5640	14600		---
4		40000	17200	21800	17900	20000	34300	4070	6430	33000		---
5		37700	17200	21200	17300	26200	29500	4660	7110	30100		---
6		36400	20300	23800	18200	37100	28900	4450	7510	27200		---
7		38800	21700	32200	19300	26800	30300	8940	8080	30500		---
8		38800	21500	30200	25900	14300	31000	3940	8940	32600		---
9		37000	19600	33500	23200	32800	31500	5000	---	31800		---
10		36300	21700	32100	23500	32200	32200	3760	10200	32700		---
11		37000	21100	27800	22900	27300	33500	5100	11400	30600		---
12		35600	21500	30100	13100	16900	32900	3890	12100	30100		---
13		30300	20200	31800	13200	16000	32400	3210	14000	28700		---
14		25700	18700	30100	16300	14400	33000	5910	14900	---		---
15		19700	23500	28900	17400	13900	32600	5850	14100	---		39900
16		19000	22000	27200	16600	15900	27200	7400	15200	---		52700
17		25800	21500	26300	17300	16700	30100	7450	15600	---		48000
18		33200	20400	14600	24600	16000	6200	7510	17300	---		13700
19		28500	19500	10900	18300	15400	14900	7740	16700	---		12900
20		27800	20700	10500	16700	23300	9800	8140	17000	---		20300
21		33500	23600	11300	17500	25800	19500	7850	18400	---		28700
22		33300	21500	13200	18600	25800	7230	6020	20000	---		32700
23		31200	19900	14900	18500	25600	6020	15200	22100	---		32400
24		31400	24100	16700	17600	25000	8140	11200	23200	---		---
25		27100	18400	18000	19300	25200	8660	9170	24900	---		30900
26		23800	20100	19200	19800	26100	8880	7050	25700	---		8430
27		22100	20400	17800	18000	26500	9170	12000	32800	---		25200
28		26100	20700	18400	17300	28100	---	10200	26800	---		34700
29		34500	22400	18600	18300	29700	12900	7000	26700	---		37500
30		33500	16500	18600	---	29400	5300	---	26600	---		36300
31		---	17700	18000	---	29800	---	3760	---	---		---
MONTH		30700	20600	21900	18500	23300	22500	6770	15800	---		---

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	4320	4950	3680	4020	2990	108000	5190	713		---
2		11200	4420	5030	3610	4210	2940	110000	4440	856		---
3		35900	2990	4370	3730	3840	2340	20900	3230	2800		---
4		13600	2970	2710	3580	4270	2410	11300	3300	4720		---
5		6410	2880	2860	3460	9050	1910	8010	3460	2930		---
6		5110	3340	3470	3640	12200	1950	9980	3240	2130		---
7		5030	3520	3910	3600	8250	2130	26300	3270	2060		---
8		4610	3420	2850	4970	5290	2430	12800	3140	1850		---
9		4000	3070	3530	4380	13400	2470	10200	---	1550		---
10		3530	3460	3900	4760	11500	2170	73100	2480	1240		---
11		3300	3360	3980	6620	9210	1990	77800	2460	801		---
12		2980	3770	4880	3430	5380	1870	26700	2380	504		---
13		2290	3820	5410	3070	4230	2010	19700	2310	279		---
14		1870	4750	5120	3390	3580	2050	18800	2130	---		---
15		1440	7740	5070	3620	3150	2290	12400	1750	---		345
16		1390	5290	4990	3720	3520	6830	11000	1760	---		5120
17		1950	5050	5890	4020	3470	133000	8550	1640	---		17100
18		2600	4240	5910	5650	3020	10100	6890	2010	---		3260
19		3390	3580	4800	4050	2580	9410	5850	1940	---		2050
20		6000	3860	3690	3790	3460	8120	5490	1740	---		1810
21		5250	4650	3390	3780	3410	65300	4370	1640	---		2250
22		4230	4640	3530	3820	3270	14500	5380	1570	---		971
23		3880	5210	3740	3700	3110	6140	12400	1610	---		87.5
24		4320	7480	4150	3520	2900	4240	12500	1500	---		---
25		3370	5170	4280	3800	2720	3130	8570	1480	---		451
26		2570	5320	4350	3900	2470	2540	8740	1460	---		2780
27		2690	5180	3700	3650	2500	2280	27900	1680	---		8300
28		3810	5530	3880	3360	2350	---	20300	1230	---		5810
29		5310	5950	4120	3560	2650	177000	13500	1010	---		3750
30		5970	4280	3970	---	2380	32500	---	862	---		2740
31		---	4440	4520	---	2740	---	10400	---	---		---
MONTH		5450	4440	4220	3930	4780	17600	23600	2270	---		---

ARKANSAS RIVER BASIN

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07158400 SALT CREEK NEAR OKEENE, OK

LOCATION.--Lat 36°06'11", long 98°11'36", in SW 1/4 sec.20, T.19 N., R.9 W., Kingfisher County, near left bank on downstream wingwall of county bridge, 2.2 mi (3.5 km) downstream from Spring Creek, 7.0 mi (11.3 km) east of Okeene, and at mile 2.2 (3.5 km).

DRAINAGE AREA.--196 mi² (508 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1961 to September 1967, December 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,085.25 ft (330.784 m) above mean sea level.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--8 years (water years 1962-67, 1975-76) 44.6 ft³/s (1.263 m³/s), 32,310 acre-ft/yr (39.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s (360 m³/s) Sept. 19, 1974, gage height, 16.90 ft (5.151 m); minimum daily, 0.90 ft³/s (0.003 m³/s) July 13, 14, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,430 ft³/s (68.8 m³/s) at 1945 May 26, gage height, 11.48 ft (3.499 m), no other peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 4.2 ft³/s (0.12 m³/s) Aug. 23-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	36	12	17	13	10	9.7	31	109	66	4.3	5.3
2	8.1	314	11	17	13	9.9	9.9	23	46	18	4.3	5.3
3	8.1	58	11	14	13	9.3	9.4	18	33	13	7.1	5.3
4	8.1	24	11	10	12	9.5	9.1	16	28	12	6.2	4.8
5	7.6	21	11	12	12	9.3	9.5	15	25	11	6.2	4.8
6	7.8	24	11	13	9.0	8.9	10	15	23	11	5.9	4.5
7	7.1	15	11	10	10	9.4	10	14	22	10	6.1	4.5
8	7.1	13	11	7.4	14	13	11	13	21	9.9	5.5	9.1
9	7.2	13	11	10	14	15	10	13	19	9.6	5.0	12
10	7.4	11	12	13	13	12	8.7	734	18	7.8	4.8	5.8
11	7.4	11	12	15	13	12	8.4	111	16	8.1	4.8	5.2
12	7.1	10	12	18	11	29	9.0	45	16	8.1	4.8	4.8
13	7.2	10	12	21	11	12	46	77	15	7.8	4.8	6.6
14	7.2	10	12	18	11	10	16	35	14	7.1	4.5	13
15	14	10	13	16	11	9.0	69	28	14	6.5	4.7	7.5
16	10	10	12	14	11	8.7	212	24	13	13	4.8	7.1
17	8.4	10	12	12	11	9.1	143	22	13	10	4.8	11
18	7.8	10	11	11	11	9.3	55	21	182	8.5	4.7	7.9
19	8.1	49	12	11	11	9.4	22	19	47	8.1	4.5	6.6
20	8.1	51	13	10	11	9.4	910	19	22	6.5	4.5	6.6
21	8.1	16	13	11	11	9.3	189	18	18	6.0	4.5	6.2
22	7.7	13	13	10	11	8.8	48	18	16	5.7	4.5	5.9
23	7.4	12	14	11	10	9.4	31	86	15	5.1	4.2	5.6
24	7.4	12	14	11	10	10	26	24	15	4.8	4.2	5.7
25	7.4	12	16	11	10	10	21	19	14	5.4	4.2	6.2
26	7.4	10	15	12	9.8	9.8	19	1960	13	5.4	4.2	98
27	7.4	12	16	13	9.8	9.7	19	412	13	4.8	4.2	12
28	7.4	12	16	13	10	9.5	177	90	12	4.8	4.2	9.4
29	7.9	13	16	13	10	9.5	104	57	11	4.6	4.2	8.4
30	8.0	13	19	13	---	9.7	33	72	11	4.3	4.2	8.1
31	8.0	---	18	12	---	9.7	---	644	---	4.3	4.9	---
TOTAL	246.2	835	403	399.4	326.6	329.6	2254.7	4693	834	307.2	149.8	303.2
MEAN	7.94	27.8	13.0	12.9	11.3	10.6	75.2	151	27.8	9.91	4.83	10.1
MAX	14	314	19	21	14	29	910	1960	182	66	7.1	98
MIN	7.1	10	11	7.4	9.0	8.7	8.4	13	11	4.3	4.2	4.5
AC=FT	488	1660	799	792	648	654	4470	9310	1650	609	297	601

CAL YR 1975 TOTAL 38963.7 MEAN 107 MAX 5540 MIN 7.1 AC=FT 77280
WTR YR 1976 TOTAL 11081.7 MEAN 30.3 MAX 1960 MIN 4.2 AC=FT 21980

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURE: October 1973 to current year.

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 51,600 micromhos Sept. 9, 1976; minimum daily, 373 micromhos Nov. 3, 1974.

WATER TEMPERATURE: Maximum, 35.0°C July 14, 1974; minimum, 0.0°C on several days during January 1974.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 51,600 micromhos Sept. 9; minimum daily, 810 micromhos July 1.

WATER TEMPERATURE: Maximum daily, 34.5°C July 31; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
06...	--	--	1215	--	7.8	7490	7.9	--	--	--	--	--
16...	--	--	1815	--	9.4	26800	7.9	--	--	--	--	--
22...	--	--	1815	--	7.4	8800	8.1	--	--	--	--	--
NOV												
07...	--	--	1700	--	15	17900	8.2	--	--	--	--	--
13...	--	--	1720	--	10	10200	8.0	--	--	--	--	--
18...	1028	9740	1100	10	--	9000	8.3	15.0	24	9.8	101	86
19...	--	--	1730	--	94	3140	7.9	--	--	--	--	--
DEC												
03...	--	--	1405	--	11	9330	7.8	--	--	--	--	--
17...	1028	9740	1145	12	--	20500	--	2.0	7	12.0	91	8
20...	--	--	1715	--	13	11700	7.8	--	--	--	--	--
31...	--	--	1630	--	18	25800	7.7	--	--	--	--	--
JAN												
01...	--	--	1730	--	18	17800	8.0	8.0	--	--	--	--
05...	--	--	1450	--	18	11300	8.0	2.0	--	--	--	--
21...	1028	9740	1400	11	--	21000	8.2	8.0	16	--	--	312
26...	--	--	1610	--	12	13100	7.9	--	--	--	--	--
FEB												
13...	--	--	1730	--	12	16200	7.9	--	--	--	--	--
14...	--	--	1745	--	11	22800	8.1	--	--	--	--	--
18...	1028	9740	1200	11	--	14200	7.7	8.5	1	12.4	114	82
29...	--	--	1430	--	10	9570	7.7	--	--	--	--	--
MAR												
09...	1028	9740	1440	15	--	24000	8.3	14.5	89	15.4	162	301
09...	--	--	1800	--	12	34200	7.8	--	--	--	--	--
24...	--	--	1815	--	9.4	10000	8.3	--	--	--	--	--
27...	--	--	1630	--	10	13400	8.1	--	--	--	--	--
APR												
03...	--	--	1800	--	8.1	28400	6.8	--	--	--	--	--
13...	1028	9740	1300	46	--	28000	7.5	20.0	>1000	6.5	77	333
15...	--	--	1805	--	113	9680	7.6	--	--	--	--	--
20...	--	--	1830	--	897	1090	7.5	--	--	--	--	--
MAY												
01...	--	--	1930	--	30	20600	7.7	--	--	--	--	--
11...	1028	9740	1345	100	--	2100	7.9	22.0	>1000	--	--	20
16...	--	--	1645	--	24	9050	--	--	--	--	--	--
31...	--	--	1930	--	770	1750	7.1	--	--	--	--	--
JUN												
01...	--	--	1930	--	59	3270	7.6	--	--	--	--	--
13...	--	--	2000	--	15	7210	8.0	--	--	--	--	--
16...	1028	9740	--	13	--	7000	8.1	30.0	13	10.2	--	194
26...	--	--	1900	--	13	8270	7.6	--	--	--	--	--
JUL												
01...	--	--	1915	--	144	810	7.4	--	--	--	--	--
07...	1028	9740	1200	10	--	9000	8.2	30.0	19	7.7	104	269
16...	--	--	1920	--	16	19000	7.5	--	--	--	--	--
27...	--	--	2045	--	7.1	10100	7.7	--	--	--	--	--

ARKANSAS RIVER BASIN

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07158400 SALT CREEK NEAR OKEENE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
AUG												
02...	--	--	2000	--	4.6	9030	8.0	--	--	--	--	--
04...	1028	9740	1400	6.2	--	9800	8.1	27.0	105	7.7	103	24
07...	--	--	1850	--	6.0	16000	8.0	--	--	--	--	--
21...	--	--	1830	--	4.6	12300	8.2	--	--	--	--	--
SEP												
05...	--	--	1800	--	4.8	9750	7.7	--	--	--	--	--
08...	1028	9740	1330	9.0	--	12500	7.9	23.5	10	10.7	134	19
09...	--	--	1800	--	7.1	51600	7.0	--	--	--	--	--
21...	--	--	1930	--	6.2	20800	7.3	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT												
06...	830	640	--	250	--	51	--	1300	77	20	4.5	235
16...	1500	1300	--	450	--	100	--	5800	89	64	9.9	241
22...	980	800	--	290	--	63	--	1600	78	22	5.4	228
NOV												
07...	1300	1100	--	390	--	87	--	3600	85	43	9.4	249
13...	1100	890	--	310	--	72	--	2000	80	27	6.4	222
18...	--	--	--	--	--	--	--	--	--	--	--	--
19...	460	340	--	130	--	32	--	510	70	10	7.5	146
DEC												
03...	1100	920	--	330	--	74	--	1600	75	21	5.3	255
17...	--	--	--	--	--	--	--	--	--	--	--	--
20...	1200	1000	--	350	--	81	--	2200	80	28	5.2	207
31...	1600	1500	--	440	--	130	--	5500	88	59	9.3	186
JAN												
01...	1400	1200	--	370	--	110	--	3600	85	42	8.5	160
05...	1100	940	--	290	--	86	--	2100	81	28	5.5	171
21...	--	--	--	--	--	--	--	--	--	--	--	--
26...	1200	1100	--	330	--	85	--	2400	82	30	5.9	113
FEB												
13...	1300	1200	--	370	--	95	--	3200	84	38	8.5	189
14...	1500	1400	--	420	--	120	--	4700	87	52	6.4	216
18...	--	--	--	--	--	--	--	--	--	--	--	--
29...	1100	950	--	310	--	83	--	2000	80	26	5.8	200
MAR												
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	2100	1900	--	580	--	150	--	7600	89	73	6.3	172
24...	1100	950	--	300	--	80	--	1900	79	25	6.7	162
27...	1200	1100	--	340	--	92	--	2600	82	32	6.9	174
APR												
03...	1600	1500	--	470	--	100	--	6200	89	68	31	130
13...	--	--	--	--	--	--	--	--	--	--	--	--
15...	850	710	--	260	--	48	--	1800	82	27	7.5	166
20...	160	91	--	47	--	9.3	--	150	67	5.2	3.9	79
MAY												
01...	1500	1400	--	450	--	100	--	4300	86	48	11	205
11...	--	--	--	--	--	--	--	--	--	--	--	--
16...	1100	920	--	320	--	81	--	1600	75	21	8.3	258
31...	240	160	--	71	--	15	--	270	71	7.6	5.2	98
JUN												
01...	710	590	--	220	--	40	--	440	57	7.2	8.2	150
13...	1000	870	--	300	--	72	--	1200	71	16	8.0	213
16...	--	--	--	--	--	--	--	--	--	--	--	--
26...	1100	930	--	330	--	74	--	1500	74	19	8.6	237
JUL												
01...	160	80	--	48	--	10	--	100	57	3.4	4.7	99
07...	--	--	--	--	--	--	--	--	--	--	--	--
16...	1500	1300	--	450	--	93	--	4100	85	46	11	201
27...	900	730	--	250	--	66	--	2000	83	29	7.8	204
AUG												
02...	740	600	--	200	--	59	--	1700	83	27	5.9	178
04...	--	--	--	--	--	--	--	--	--	--	--	--
07...	1300	1100	--	360	--	85	--	3100	84	38	8.8	202
21...	970	790	--	270	--	72	--	2400	84	34	6.2	220
SEP												
05...	900	710	--	250	--	67	--	1900	82	28	6.1	227
08...	--	--	--	--	--	--	--	--	--	--	--	--
09...	2700	2600	--	840	--	150	--	13000	91	109	22	151
21...	1300	1200	--	370	--	91	--	4400	88	53	10	127

ARKANSAS RIVER BASIN

07158400 SALT CREEK NEAR OKEENE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT												
06...	0	193	4.7	790	1900	--	4490	6.11	94.6	1.1	--	--
16...	0	198	4.9	1100	8800	--	17100	23.3	434	.86	--	--
22...	0	187	2.9	850	2300	--	5450	7.41	109	.73	--	--
NOV												
07...	0	204	2.5	960	6000	--	11100	15.1	450	1.7	--	--
13...	0	182	3.6	1100	2900	--	6420	8.73	173	1.9	--	--
18...	--	--	--	--	--	.5	--	--	--	--	3.2	.14
19...	0	120	2.9	410	700	--	1920	2.61	487	.72	--	--
DEC												
03...	0	209	6.5	1000	2500	--	5820	7.92	173	2.4	--	--
17...	--	--	--	--	--	.3	--	--	--	--	3.6	.05
20...	0	170	5.3	1100	3500	--	7310	9.94	257	2.3	--	--
31...	0	153	5.9	1200	9100	--	16800	22.8	816	1.9	--	--
JAN												
01...	0	131	2.6	1000	5700	--	11300	15.4	549	1.9	--	--
05...	0	140	2.7	1200	3200	--	7040	9.57	342	1.9	--	--
21...	--	--	--	--	--	.6	--	--	--	--	1.1	.08
26...	0	93	2.3	1000	3800	--	8190	11.1	265	1.9	--	--
FEB												
13...	0	155	3.8	1200	4900	--	9910	13.5	321	1.3	--	--
14...	0	177	2.7	1200	7900	--	14100	19.2	419	1.4	--	--
18...	--	--	--	--	--	.5	--	--	--	--	2.2	<.10
29...	0	164	6.4	1100	3100	--	6740	9.17	182	.99	--	--
MAR												
09...	--	--	--	--	--	.5	--	--	--	--	1.6	.02
09...	0	141	4.4	1400	12000	--	22200	30.2	719	1.3	--	--
24...	0	133	1.3	1100	2900	--	6300	8.57	160	1.0	--	--
27...	0	143	2.2	1200	4100	--	8450	11.5	228	1.1	--	--
APR												
03...	0	107	33	1200	10000	--	18600	25.6	411	2.2	--	--
13...	--	--	--	--	--	.3	--	--	--	--	1.1	1.1
15...	0	136	27	610	2900	--	5820	7.92	1780	1.0	--	1.7
20...	0	65	4.0	110	210	--	598	.81	1450	1.2	--	--
MAY												
01...	0	168	6.5	910	7200	--	13000	17.7	1050	1.5	--	--
11...	--	--	--	--	--	.4	--	--	--	--	1.1	.63
16...	0	212	--	1100	2500	--	5720	7.78	371	1.1	--	--
31...	0	80	12	170	410	--	1010	1.37	2100	1.1	--	--
JUN												
01...	0	123	6.0	620	660	--	2050	2.79	327	.67	--	--
13...	0	175	3.4	1200	1700	--	4660	6.34	189	.52	--	--
16...	--	--	--	--	--	.3	--	--	--	--	1.7	<.08
26...	0	194	9.5	1000	2100	--	5290	7.19	186	.94	--	--
JUL												
01...	0	81	6.3	100	130	--	478	.65	186	1.8	--	--
07...	--	--	--	--	--	.3	--	--	--	--	1.8	<.09
16...	0	165	10	1100	6600	--	12100	16.5	523	.59	--	--
27...	0	167	6.5	950	2900	--	6340	8.62	122	.80	--	--
AUG												
02...	0	146	2.8	890	2400	--	5510	7.49	68.4	.63	--	--
04...	--	--	--	--	--	.2	--	--	--	--	1.6	<.12
07...	0	166	3.2	1100	5000	--	9990	13.6	162	.53	--	--
21...	0	180	2.2	900	3700	--	7540	10.3	93.6	.49	--	--
SEP												
05...	--	186	7.2	960	2700	--	5960	8.11	77.2	.60	--	--
08...	--	--	--	--	--	.4	--	--	--	--	1.6	<.08
09...	0	124	24	1700	21000	--	35600	48.4	662	1.2	--	--
21...	0	104	10	950	7100	--	12800	17.4	214	.25	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

ARKANSAS RIVER BASIN

07158400 SALT CREEK NEAR OKEENE, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6960	8550	16900	17900	13200	9600	18200	6800	3270	1410	9430	9830
2	7850	8660	14600	16900	13500	10900	13200	13700	4240	4230	12000	10600
3	8170	5830	8730	17000	12400	13600	11800	10700	6240	9780	10400	10500
4	8110	13100	9220	14000	12000	12200	14900	7260	6560	5930	9200	10300
5	7210	9720	10700	11500	13200	12100	10400	8730	6740	7620	14200	9750
6	7740	9340	11000	13200	12900	13900	11000	7150	6840	8520	14600	10600
7	7120	16400	13400	11700	13600	15900	11900	8150	6350	8220	16000	11700
8	7400	15000	10800	10600	15400	20500	12600	8700	7240	8310	13800	11600
9	8280	12000	8950	12500	21200	34000	11800	9320	8730	8100	14800	51600
10	7700	12500	10900	12500	18300	42000	11700	7160	7690	7350	14900	32600
11	5380	11200	10900	12400	16300	26500	17300	2470	6980	7850	15200	27700
12	8100	11500	12200	13400	13700	18200	15200	4460	7390	7560	14100	24900
13	9060	9240	11900	13900	14100	17800	17500	9360	7410	7270	13400	21500
14	8940	8150	12100	14800	21800	16600	20200	6400	7120	7100	12900	45600
15	10200	7300	13900	15200	15600	13400	22800	8490	7250	7320	11800	35800
16	27100	6740	16000	11900	15000	9100	8980	9000	6250	7030	11500	29700
17	19000	7240	16400	12400	12500	10500	5790	9510	5450	19400	12100	23600
18	13100	6990	14900	12700	15100	14400	5480	8930	6480	14600	11600	33000
19	9360	6490	13100	12200	14500	12100	8000	8460	6730	13600	11000	27400
20	8410	16300	11600	13700	14600	11600	2660	7980	5550	15000	11500	24000
21	8410	11300	11000	13300	14100	12300	3210	7090	7470	14300	12300	20800
22	8600	10800	12200	12300	10200	10900	3420	9100	6860	13300	13000	17900
23	8230	8510	11800	13200	12900	11100	5920	18700	7760	12000	12600	16500
24	8810	7760	18800	12800	15700	10200	6110	10900	7470	10300	12500	15300
25	8890	7890	17400	13000	12200	10700	6530	11300	8170	9700	12300	13300
26	8910	8070	23600	12800	7600	10200	8060	11900	7870	8800	11900	21300
27	8990	9130	19300	13100	11800	9200	7060	1850	7510	8000	11500	15200
28	8620	12400	18500	13400	10100	11200	7440	3920	7530	10400	---	16800
29	7840	9750	17700	12200	8170	12600	3260	4300	7490	8500	11000	15700
30	10700	13000	17100	12200	---	10300	5860	3680	6720	8020	10600	14700
31	10600	---	25400	13300	---	11400	---	1750	---	10800	9450	---
MONTH	9480	10000	14200	13300	13900	14700	10300	7970	6850	9370	12400	21000
YEAR	MAX	51600	MIN	1410	MEAN	11900						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	17.0	8.0	8.0	11.0	16.5	17.5	21.5	25.0	23.0	32.5	29.5
2	---	17.5	12.0	3.0	10.0	17.5	21.0	21.5	28.0	25.5	27.5	28.0
3	21.5	16.0	10.0	1.5	0.5	7.0	20.0	23.0	26.0	---	30.5	28.5
4	21.5	17.0	15.0	5.0	0.0	7.0	20.5	23.5	28.0	27.0	31.0	28.0
5	22.5	18.0	16.0	2.0	---	12.0	22.0	21.0	27.0	31.0	31.0	31.0
6	17.0	20.0	9.0	6.0	0.0	11.0	21.0	21.0	28.0	30.5	33.0	28.0
7	22.5	21.0	---	0.0	---	8.0	19.5	21.5	26.0	30.5	32.0	29.0
8	23.0	21.0	11.0	0.0	10.0	---	22.0	24.0	29.0	30.0	28.5	26.0
9	23.5	16.0	11.0	0.0	14.0	16.5	21.5	20.0	29.0	30.0	28.0	27.5
10	24.5	15.0	12.0	0.0	13.0	20.0	23.0	18.0	27.5	29.0	32.0	23.5
11	24.0	15.0	12.0	0.0	14.0	15.5	25.0	25.0	30.0	28.0	34.0	27.0
12	25.0	11.0	6.0	0.5	16.0	13.5	22.0	19.0	30.0	29.0	31.0	26.0
13	24.0	11.0	13.0	0.5	15.0	15.0	22.5	18.0	30.0	29.0	32.0	24.5
14	21.5	13.5	8.0	0.0	14.5	---	25.0	23.5	30.0	30.0	32.0	27.5
15	18.0	---	---	5.5	15.0	7.5	19.5	22.0	26.5	28.0	30.0	28.0
16	20.0	16.0	8.0	6.0	18.0	17.0	16.5	23.0	23.5	30.0	33.0	26.5
17	19.0	17.0	4.0	9.0	18.0	19.5	17.0	23.0	---	32.0	32.0	29.5
18	21.5	18.5	---	10.0	16.0	---	24.0	27.5	20.0	29.5	30.5	27.0
19	---	15.0	7.0	6.0	15.5	21.0	21.0	26.0	---	30.0	29.0	25.5
20	23.0	6.5	9.5	9.0	15.0	18.0	13.5	26.0	---	29.0	29.0	25.0
21	23.0	6.5	6.0	9.0	9.0	18.0	19.0	26.0	26.0	31.5	29.0	24.0
22	21.0	9.0	6.0	10.0	13.0	19.5	24.0	28.0	27.0	31.5	30.0	24.0
23	22.0	8.5	4.5	11.5	15.0	19.0	24.5	24.0	28.0	28.5	30.5	25.5
24	17.0	7.0	5.0	8.0	12.0	23.0	21.5	25.5	28.0	33.5	31.5	26.5
25	15.0	3.5	7.5	0.5	17.0	22.0	21.0	21.5	28.5	29.5	30.5	24.5
26	17.0	2.0	8.5	0.5	16.0	18.0	19.5	18.0	32.0	31.0	29.5	24.0
27	21.0	5.0	7.0	7.0	16.5	20.0	17.5	19.0	33.0	28.0	29.0	18.5
28	18.0	10.0	6.0	10.0	20.0	19.0	14.0	25.0	31.0	30.5	---	20.0
29	17.0	10.5	4.0	11.0	17.5	18.5	15.0	---	30.0	31.0	30.0	21.5
30	18.0	5.5	8.0	11.5	---	19.0	15.5	24.0	29.0	30.0	27.0	23.0
31	19.0	---	8.0	10.5	---	17.0	---	19.0	---	34.5	25.0	---
MONTH	21.0	12.5	8.5	5.0	13.0	16.5	20.0	22.5	28.0	29.5	30.5	26.0
YEAR	MAX	34.5	MIN	0.0	MEAN	19.5						

07158400 SALT CREEK NEAR OKEENE, OK--Continued

DISSOLVED SULFATE (SO4), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	690	840	1100	1100	1000	940	1100	670	340	170	920	960
2	770	850	1000	1100	1000	990	1000	1000	430	430	1000	980
3	800	580	860	1100	1000	1000	1000	980	620	950	980	980
4	800	1000	900	1000	1000	1000	1000	720	650	590	900	980
5	710	950	980	990	1000	1000	980	860	670	750	1000	950
6	760	910	990	1000	1000	1000	990	710	680	840	1000	980
7	700	1100	1000	1000	1000	1000	1000	800	630	810	1000	1000
8	730	1000	980	980	1000	1100	1000	850	720	820	1000	990
9	810	1000	880	1000	1100	990	1000	910	860	800	1000	320
10	760	1000	990	1000	1100	680	1000	710	760	730	1000	1000
11	540	990	990	1000	1100	1200	1100	270	690	770	1000	1200
12	800	990	1000	1000	1000	1100	1000	450	730	750	1000	1200
13	890	900	1000	1000	1000	1100	1100	910	730	720	1000	1100
14	880	800	1000	1000	1100	1100	1100	640	700	700	1000	550
15	980	720	1000	1000	1000	1000	1100	830	720	720	1000	920
16	1200	670	1000	1000	1000	890	880	880	620	700	990	1200
17	1100	720	1100	1000	1000	980	580	930	550	1100	1000	1100
18	1000	690	1000	1000	1000	1000	550	870	640	1000	990	1000
19	910	650	1000	1000	1000	1000	790	830	670	1000	990	1200
20	830	1100	990	1000	1000	990	290	790	560	1000	990	1100
21	830	990	990	1000	1000	1000	340	700	740	1000	1000	1100
22	840	980	1000	1000	980	990	360	890	680	1000	1000	1100
23	810	850	1000	1000	1000	990	590	1100	760	1000	1000	1100
24	860	760	1100	1000	1000	980	610	990	740	980	1000	1000
25	870	780	1100	1000	1000	980	650	990	800	950	1000	1000
26	870	790	1100	1000	750	980	790	1000	770	860	1000	1100
27	880	890	1100	1000	1000	900	700	210	740	790	990	1000
28	850	1000	1100	1000	980	990	730	400	740	980	---	1100
29	770	950	1100	1000	800	1000	340	440	740	830	990	1000
30	980	1000	1100	1000	---	980	590	380	670	790	980	1000
31	980	---	1200	1000	---	990	---	200	---	980	920	---
MONTH	850	880	1000	1000	1000	990	810	740	680	820	990	1000
YEAR	MAX	1200	MIN	170	MEAN	900						

DISSOLVED SULFATE (SO4), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.1	81.6	35.6	50.5	35.1	25.4	28.8	56.1	100	30.3	10.7	13.7
2	16.8	721	29.7	50.5	35.1	26.5	26.7	62.1	53.4	20.9	11.6	14.0
3	17.5	90.8	25.5	41.6	35.1	25.1	25.4	47.6	55.2	33.3	18.8	14.0
4	17.5	64.6	26.7	27.0	32.4	25.6	24.6	31.1	49.1	19.1	15.1	12.7
5	15.0	53.9	29.1	32.1	32.4	25.1	25.1	34.8	45.2	22.3	16.7	12.3
6	16.0	59.0	29.4	35.1	24.3	24.0	26.7	28.8	42.2	24.9	15.9	11.9
7	13.4	44.5	29.7	27.0	27.0	25.4	27.0	30.2	37.4	21.9	16.5	12.2
8	14.0	35.1	29.1	19.6	37.8	38.6	29.7	29.8	40.8	21.9	14.9	24.3
9	15.7	35.1	26.1	27.0	41.6	40.1	27.0	31.9	44.1	20.7	13.5	10.4
10	15.2	29.7	32.1	35.1	38.6	22.0	23.5	1410	36.9	15.4	13.0	15.7
11	10.8	29.4	32.1	40.5	38.6	38.9	24.9	80.9	29.8	16.8	13.0	16.8
12	15.3	26.7	32.4	48.6	29.7	86.1	24.3	54.7	31.5	16.4	13.0	15.6
13	17.3	24.3	32.4	56.7	29.7	35.6	137	189	29.6	15.2	13.0	19.6
14	17.1	21.6	32.4	48.6	32.7	29.7	47.5	60.5	26.5	13.4	12.2	19.3
15	37.0	19.4	35.1	43.2	29.7	24.3	205	62.7	27.2	12.6	12.7	18.6
16	32.4	18.1	32.4	37.8	29.7	20.9	504	57.0	21.8	24.6	12.8	23.0
17	24.9	19.4	35.6	32.4	29.7	24.1	224	55.2	19.3	29.7	13.0	32.7
18	21.1	18.6	29.7	29.7	29.7	25.1	81.7	49.3	314	22.9	12.6	21.3
19	19.9	86.0	32.4	29.7	29.7	25.4	46.9	42.6	85.0	21.9	12.0	21.4
20	18.2	151	34.7	27.0	29.7	25.1	713	40.5	33.3	17.5	12.0	19.6
21	18.2	42.8	34.7	29.7	29.7	25.1	174	34.0	36.0	16.2	12.2	18.4
22	17.5	34.4	35.1	27.0	29.1	23.5	46.7	43.3	29.4	15.4	12.2	17.5
23	16.2	26.9	37.8	29.7	27.0	25.1	49.4	255	30.8	13.8	11.3	16.6
24	17.2	24.6	41.6	29.7	27.0	26.5	42.8	64.2	30.0	12.7	11.3	15.4
25	17.4	25.3	47.5	29.7	27.0	26.5	36.9	50.8	30.2	13.9	11.3	16.7
26	17.4	21.3	44.5	32.4	19.8	25.9	40.5	5290	27.0	12.5	11.3	291
27	17.6	28.8	47.5	35.1	26.5	23.6	35.9	234	26.0	10.2	11.2	32.4
28	17.0	32.4	47.5	35.1	26.5	25.4	349	97.2	24.0	12.7	---	27.9
29	16.4	33.3	47.5	35.1	21.6	25.6	95.5	67.7	22.0	10.3	11.2	22.7
30	21.2	35.1	56.4	35.1	---	25.7	52.6	73.9	19.9	9.17	11.1	21.9
31	21.2	---	58.3	32.4	---	25.9	---	348	---	11.4	12.2	---
MONTH	18.3	64.5	36.1	35.2	30.4	28.8	107	291	46.6	18.1	12.9	27.7
YEAR	MAX	5290	MIN	9.17	MEAN	59.9						

ARKANSAS RIVER BASIN

07158400 SALT CREEK NEAR OKEENE, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	2200	5300	5700	3900	2600	5800	1500	670	240	2500	2600
2	1900	2200	4400	5300	4000	3000	3900	4100	900	900	3500	2900
3	2000	1300	2200	5300	3600	4100	3400	3000	1400	2600	2900	2900
4	2000	3900	2400	4200	3500	3500	4500	1700	1400	1300	2400	2800
5	1700	2600	3000	3300	3900	3500	2900	2200	1500	1800	4300	2600
6	1900	2500	3100	3900	3800	4200	3100	1600	1500	2100	4400	2900
7	1600	5100	4000	3300	4100	4900	3400	2000	1400	2000	5000	3300
8	1700	4600	3000	2900	4700	6700	3700	2200	1700	2100	4100	3300
9	2100	3500	2300	3600	6900	12000	3400	2400	2200	2000	4500	21000
10	1800	3600	3000	3600	5800	16000	3300	1600	1800	1700	4500	11000
11	1200	3200	3000	3600	5100	8900	5400	490	1600	1900	4700	9400
12	2000	3300	3500	4000	4100	5800	4700	950	1700	1800	4200	8300
13	2300	2400	3400	4200	4200	5600	5500	2500	1700	1700	4000	7000
14	2300	2000	3500	4500	7100	5200	6500	1400	1600	1600	3800	18000
15	2800	1700	4200	4700	4800	4000	7500	2100	1700	1700	3400	13000
16	9100	1500	5000	3400	4600	2400	2300	2300	1400	1600	3300	10000
17	6100	1700	5100	3600	3600	2900	1300	2500	1200	6200	3500	7800
18	3900	1600	4500	3700	4600	4400	1200	2300	1400	4400	3300	11000
19	2500	1400	3900	3500	4400	3500	2000	2100	1500	4100	3100	9200
20	2100	5100	3500	4100	4400	3300	530	1900	1200	4600	3300	8000
21	2100	3200	3100	3900	4200	3600	660	1600	1800	4300	3600	6800
22	2200	3000	3500	3600	2800	3000	710	2400	1500	3900	3800	5700
23	2000	2100	3400	3900	3800	3100	1300	6000	1900	3500	3700	5100
24	2300	1900	6000	3800	4600	2800	1300	3000	1800	2800	3600	4700
25	2300	1900	5500	3800	3500	3000	1400	3200	2000	2600	3600	3900
26	2300	2000	7800	3800	1800	2800	2000	3400	1900	2300	3400	7000
27	2300	2400	6200	3900	3400	2400	1600	340	1800	2000	3300	4700
28	2200	3600	5900	4000	2700	3200	1700	820	1800	2900	---	5300
29	1900	2600	5600	3500	2000	3700	670	910	1800	2100	3100	4800
30	3000	3800	5400	3500	---	2800	1300	770	1500	2000	2900	4500
31	2900	---	8500	3900	---	3200	---	320	---	3000	2500	---
MONTH	2500	2700	4300	3900	4100	4500	2900	2100	1600	2500	3600	7000
YEAR	MAX	21000	MIN	240	MEAN	3500						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.0	214	172	262	137	70.2	152	126	197	42.8	29.0	37.2
2	41.6	1870	131	243	140	80.2	104	255	112	43.7	40.6	41.5
3	43.7	204	65.3	200	126	103	86.3	146	125	91.3	55.6	41.5
4	43.7	253	71.3	113	113	89.8	111	73.4	106	42.1	40.2	36.3
5	35.8	147	89.1	107	126	87.9	74.4	89.1	101	53.5	72.0	33.7
6	40.0	162	92.1	137	92.3	101	83.7	64.8	93.1	62.4	70.1	35.2
7	30.7	207	119	89.1	111	124	91.8	75.6	83.2	54.0	82.3	40.1
8	32.6	161	89.1	57.9	178	235	110	77.2	96.4	56.1	60.9	81.1
9	40.8	123	68.3	97.2	261	486	91.8	84.2	113	51.8	60.7	680
10	36.0	107	97.2	126	204	518	77.5	3170	87.5	35.8	58.3	172
11	24.0	95.0	97.2	146	179	288	122	147	69.1	41.6	60.9	132
12	38.3	89.1	113	194	122	454	114	115	73.4	39.4	54.4	108
13	44.7	64.8	110	238	125	181	683	520	68.8	35.8	51.8	125
14	44.7	54.0	113	219	211	140	281	132	60.5	30.7	46.2	632
15	106	45.9	147	203	143	97.2	1400	159	64.3	29.8	43.1	263
16	246	40.5	162	129	137	56.4	1320	149	49.1	56.2	42.8	192
17	138	45.9	165	117	107	71.3	502	148	42.1	167	45.4	232
18	82.1	43.2	134	110	137	110	178	130	688	101	41.9	235
19	54.7	185	126	104	131	88.8	119	108	190	89.7	37.7	164
20	45.9	702	116	111	131	83.8	1300	97.5	71.3	80.7	40.1	143
21	45.9	138	109	116	125	90.4	337	77.8	87.5	69.7	43.7	114
22	45.7	105	123	97.2	83.2	71.3	92.0	117	64.8	60.0	46.2	90.8
23	40.0	68.0	129	116	103	78.7	109	1390	76.9	48.2	42.0	77.1
24	46.0	61.6	227	113	130	75.6	91.3	194	72.9	36.3	40.8	72.3
25	46.0	61.6	238	113	94.5	81.0	79.4	164	75.6	37.9	40.8	65.3
26	46.0	54.0	316	123	47.6	74.1	103	18000	66.7	33.5	38.6	1850
27	46.0	77.8	268	137	90.0	62.9	82.1	378	64.2	25.9	37.4	152
28	44.0	117	255	140	72.9	82.1	812	199	58.3	37.6	---	135
29	40.5	91.3	242	123	54.0	94.9	188	140	53.5	26.1	35.2	109
30	64.8	133	277	123	---	73.3	116	150	44.5	23.2	32.9	98.4
31	62.6	---	413	126	---	83.8	---	556	---	34.8	33.1	---
MONTH	55.9	191	157	140	128	140	300	878	105	52.9	47.5	206
YEAR	MAX	18000	MIN	23.2	MEAN	201						

07158400 SALT CREEK NEAR OKEENE, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4280	5260	10600	11200	8130	5910	11400	4180	2010	868	5600	6050
2	4830	5330	9050	10600	8330	6710	8130	8460	2610	2600	7380	6520
3	5030	3590	5370	10600	7630	8390	7260	6580	3840	6020	6400	6460
4	4990	8070	5670	8650	7380	7510	9240	4470	4040	3650	5660	6340
5	4440	5980	6580	7080	8130	7450	6400	5370	4150	4690	8790	6000
6	4760	5750	6770	8130	7940	8590	6770	4400	4210	5240	9050	6520
7	4380	10200	8260	7200	8390	9900	7320	5020	3910	5060	9960	7200
8	4550	9310	6650	6520	9570	12900	7750	5350	4460	5110	8520	7140
9	5100	7380	5510	7690	13400	22600	7260	5740	5370	4980	9180	35600
10	4740	7690	6710	7690	11500	28500	7200	4410	4730	4520	9240	21600
11	3310	6890	6710	7630	10200	17100	10800	1520	4300	4830	9440	17900
12	4980	7080	7510	8260	8460	11400	9440	2740	4550	4650	8720	15900
13	5580	5690	7320	8590	8720	11100	10900	5760	4560	4470	8260	13600
14	5500	5020	7450	9180	13600	10400	12700	3940	4380	4370	7940	31200
15	6280	4490	8590	9440	9700	8260	14400	5220	4460	4500	7260	23900
16	17500	4150	9960	7320	9310	5600	5530	5540	3850	4330	7080	19400
17	11900	4460	10200	7630	7690	6460	3560	5850	3350	12200	7450	14900
18	8070	4300	9240	7820	9370	8920	3370	5500	3990	9050	7140	21900
19	5760	3990	8070	7510	8980	7450	4920	5210	4140	8390	6770	17700
20	5180	10200	7140	8460	9050	7140	1640	4910	3420	9310	7080	15200
21	5180	6950	6770	8200	8720	7570	1980	4360	4600	8850	7570	13100
22	5290	6650	7510	7570	6280	6710	2100	5600	4220	8200	8000	11200
23	5060	5240	7260	8130	7940	6830	3640	11700	4780	7380	7750	10300
24	5420	4780	11800	7880	9770	6280	3760	6710	4600	6340	7690	9510
25	5470	4860	10900	8000	7510	6580	4020	6950	5030	5970	7570	8200
26	5480	4970	14900	7880	4680	6280	4960	7320	4840	5420	7320	13400
27	5530	5620	12100	8070	7260	5660	4340	1140	4620	4920	7080	9440
28	5300	7630	11600	8260	6220	6890	4580	2410	4630	6400	---	10500
29	4820	6000	11100	7510	5030	7750	2010	2650	4610	5230	6770	9770
30	6580	8000	10700	7510	---	6340	3610	2260	4140	4940	6520	9110
31	6520	---	16200	8200	---	7020	---	1080	---	6650	5820	---
MONTH	5860	6180	8850	8210	8590	9230	6370	4910	4210	5780	7640	13500
YEAR	MAX	35600	MIN	868	MEAN	7440						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93.6	511	343	514	285	160	299	350	592	155	67.3	86.6
2	106	4520	269	487	292	179	217	525	324	126	85.7	93.3
3	110	562	159	401	268	211	184	320	342	211	123	92.4
4	109	523	168	234	239	193	227	193	305	118	94.7	82.2
5	93.5	339	195	229	263	187	164	217	280	139	147	77.8
6	100	373	201	285	193	206	183	178	261	156	144	79.2
7	84.0	413	245	194	227	251	198	190	232	137	164	87.5
8	87.2	327	198	130	362	453	230	188	253	137	127	175
9	99.1	259	164	208	507	915	196	201	275	129	124	1150
10	94.7	228	217	270	404	923	169	8740	230	95.2	120	338
11	66.1	205	217	309	358	554	245	456	186	106	122	251
12	95.5	191	243	401	251	893	229	333	197	102	113	206
13	108	154	237	487	259	360	1350	1200	185	94.1	107	242
14	107	136	241	446	410	281	549	372	166	83.8	96.5	1100
15	237	121	302	408	288	201	2680	395	169	79.0	92.1	484
16	472	112	323	277	277	132	3170	359	135	152	91.8	372
17	270	120	330	247	228	159	1370	347	118	329	96.6	443
18	170	116	274	232	278	224	500	312	1960	208	90.6	467
19	126	528	261	223	267	189	292	267	525	183	82.3	315
20	113	1400	251	228	269	181	4030	252	203	163	86.0	271
21	113	300	238	244	259	190	1010	212	224	143	92.0	219
22	110	230	264	204	187	159	272	272	182	126	97.2	178
23	101	170	274	241	214	173	305	2720	194	102	87.9	156
24	108	155	446	234	264	170	264	435	186	82.2	87.2	146
25	109	157	471	238	203	178	228	357	190	87.0	85.8	137
26	109	134	603	255	124	166	254	38700	170	79.0	83.0	3550
27	110	162	523	283	192	148	223	1270	162	63.8	80.3	306
28	106	247	501	290	168	177	2190	586	150	82.9	---	266
29	103	211	480	264	136	199	564	408	137	65.0	76.8	222
30	142	281	549	264	---	166	322	439	123	57.4	73.9	199
31	141	---	787	266	---	184	---	1880	---	77.2	77.0	---
MONTH	129	440	322	290	265	283	737	2020	289	125	101	393
YEAR	MAX	38700	MIN	57.4	MEAN	451						

ARKANSAS RIVER BASIN

07159100 CIMARRON RIVER NEAR DOVER, OK

LOCATION.--Lat 35°57'06", long 97°54'51", in SW 1/4 NE 1/4 sec.14, T.17 N., R.7 W., Kingfisher County, near right bank on downstream bridge on U.S. Highway 81, 1.0 mi (1.6 km) downstream from Turkey Creek, 2.0 mi (3.2 km) south of Dover, 2.5 mi (4.0 km) upstream from Kingfisher Creek, and at mile 160.6 (258.4 km).

DRAINAGE AREA.--15,713 mi² (40,697 km²), of which 4,926 mi² (12,758 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 999.10 ft (304.526 m) above mean sea level.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,000 ft³/s (1,760 m³/s) Oct. 11, 1973, gage height, 21.81 ft (6.648 m) from high-water mark; minimum daily, 24 ft³/s (0.68 m³/s) July 28, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,520 ft³/s (270 m³/s) May 27, gage height, 15.82 ft (4.822 m); no peak above base of 12,000 ft³/s (340 m³/s); minimum daily, 12 ft³/s (0.34 m³/s) Aug. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	54	165	176	173	142	129	3160	2400	144	67	56
2	58	53	218	162	173	147	132	2310	1720	362	69	38
3	57	203	167	165	185	137	127	4710	1210	380	52	33
4	55	213	160	144	188	139	127	2880	908	309	62	28
5	54	496	152	130	188	139	132	1910	713	262	76	22
6	54	317	154	132	185	144	132	1420	634	258	66	18
7	54	229	147	91	147	149	137	1060	584	206	56	14
8	54	179	139	95	194	203	144	949	541	179	57	15
9	54	147	136	116	191	255	142	1000	501	152	44	24
10	55	132	137	122	182	265	134	1880	470	136	35	58
11	55	120	131	149	182	293	129	5080	434	127	25	42
12	56	106	127	154	179	313	127	6830	424	120	19	32
13	57	102	133	149	170	282	127	4540	390	112	18	37
14	67	102	133	179	200	252	170	5380	348	107	19	40
15	310	102	131	182	203	248	194	3220	317	105	26	47
16	194	99	139	162	197	235	339	1820	343	126	51	47
17	93	99	143	160	182	225	513	1360	348	110	39	50
18	77	100	160	160	167	219	571	1040	322	107	31	45
19	71	112	149	152	167	209	1060	837	2560	99	25	42
20	69	199	149	157	170	191	1950	672	1710	95	21	36
21	70	187	149	216	154	179	2540	559	777	75	20	132
22	64	169	144	245	149	167	1220	470	490	86	17	194
23	58	179	142	235	149	165	1280	974	357	83	18	120
24	57	162	149	216	149	162	1300	2790	272	81	17	86
25	57	142	154	194	142	162	876	2540	206	79	16	73
26	55	120	165	188	139	144	666	4160	200	76	15	310
27	55	109	179	185	137	132	553	8840	185	71	13	262
28	55	125	176	185	139	139	565	5100	167	71	12	945
29	55	137	173	191	142	132	1150	2770	149	71	12	498
30	55	133	179	188	---	125	2600	1830	137	70	12	225
31	55	---	179	173	---	125	---	1720	---	64	41	---
TOTAL	2239	4627	4759	5153	4923	5819	19266	83811	19817	4323	1051	3569
MEAN	72.2	154	154	166	170	188	642	2704	661	139	33.9	119
MAX	310	496	218	245	203	313	2600	8840	2560	380	76	945
MIN	54	53	127	91	137	125	127	470	137	64	12	14
AC-FT	4440	9180	9440	10220	9760	11540	38210	166200	39310	8570	2080	7080
CAL YR 1975	TOTAL	395115	MEAN	1083	MAX	24700	MIN	53	AC-FT	783700		
WTR YR 1976	TOTAL	159357	MEAN	435	MAX	8840	MIN	12	AC-FT	316100		

07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years, 1951, 1953, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to current year.

WATER TEMPERATURE: October 1973 to current year

INSTRUMENTATION.--Water quality monitor since October 1973.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 33,100 micromhos Sept. 21, 1976; minimum daily, 1,160 micromhos Nov. 4, 1974.

WATER TEMPERATURE: Maximum daily, 34.0°C July 29, Aug. 6, 13, 1976; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 33,100 micromhos Sept. 21; minimum daily, 1,690 micromhos May 27.

WATER TEMPERATURE: Maximum daily, 34.0°C July 29, Aug. 6, 13; minimum daily, 0.0°C Jan. 3, 7, Feb. 6, 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
UCT											
03...	--	--	0900	57	6900	8.3	--	--	--	--	--
16...	--	--	1100	194	2180	7.7	--	--	--	--	--
22...	--	--	0900	64	16300	7.1	--	--	--	--	--
NOV											
04...	--	--	1700	213	4140	8.6	--	--	--	--	--
07...	--	--	1700	229	22600	8.4	--	--	--	--	--
17...	1028	9740	1500	99	13000	8.0	14.0	3	9.4	97	161
17...	--	--	1700	99	13100	8.0	--	--	--	--	--
DEC											
03...	--	--	--	167	13800	8.2	--	--	--	--	--
07...	--	--	--	147	20300	8.1	--	--	--	--	--
17...	1028	9740	0830	143	15000	--	.0	10	17.5	126	99
30...	--	--	--	179	17000	8.1	--	--	--	--	--
JAN											
13...	--	--	--	149	13200	8.1	--	--	--	--	--
21...	1028	9740	1045	216	20000	9.2	7.5	6	--	--	44
22...	--	--	--	245	23600	8.2	--	--	--	--	--
31...	--	--	--	173	17000	8.1	--	--	--	--	--
FEB											
03...	--	--	--	185	17100	8.2	--	--	--	--	--
15...	--	--	--	203	20900	8.1	--	--	--	--	--
18...	--	--	--	167	15400	8.2	--	--	--	--	--
18...	1028	9740	1300	162	15000	8.2	11.0	3	11.2	109	82
MAR											
05...	--	--	--	139	16300	8.0	--	--	--	--	--
09...	1028	9740	1245	255	20000	8.4	11.5	2	12.2	119	138
15...	--	--	--	248	25900	8.1	--	--	--	--	--
24...	--	--	--	162	17700	8.2	--	--	--	--	--
APR											
10...	--	--	--	133	12200	7.5	--	--	--	--	--
13...	1028	9740	1100	127	16000	8.2	19.0	10	9.7	113	103
19...	--	--	--	1060	29700	7.4	--	--	--	--	--
21...	--	--	--	2540	2900	7.6	--	--	--	--	--
MAY											
01...	--	--	--	3160	16200	7.5	--	--	--	--	--
11...	1028	9740	1200	5080	3400	8.0	19.0	>1000	--	--	65
17...	--	--	--	1360	8380	7.8	--	--	--	--	--
27...	--	--	--	8850	1690	7.6	--	--	--	--	--
JUN											
15...	--	--	--	317	12700	7.7	--	--	--	--	--
16...	1028	9740	1450	343	12900	8.2	28.0	120	8.8	116	470
19...	--	--	--	2560	9940	7.6	--	--	--	--	--
20...	--	--	--	1710	3590	7.8	--	--	--	--	--
JUL											
01...	--	--	--	144	11700	7.6	--	--	--	--	--
03...	--	--	--	380	4670	7.5	--	--	--	--	--
07...	1028	9740	1400	206	10500	8.4	29.0	200	7.8	104	387
09...	--	--	--	152	15800	7.6	--	--	--	--	--

ARKANSAS RIVER BASIN

07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
AUG											
04...	--	--	--	62	11800	7.9	--	--	--	--	--
04...	1028	9740	1000	62	12000	8.4	25.0	36	7.6	97	25
16...	--	--	--	51	13800	7.4	--	--	--	--	--
31...	--	--	--	41	9760	7.6	--	--	--	--	--
SEP											
08...	1028	9740	1145	15	11000	8.2	22.5	18	8.8	107	25
10...	--	--	--	58	11200	7.6	--	--	--	--	--
21...	--	--	1800	132	33100	8.0	--	--	--	--	--
28...	--	--	1830	945	2140	7.7	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)
UCT											
03...	560	330	140	51	1300	83	24	5.2	276	0	226
16...	310	62	80	27	300	67	7.4	6.2	303	0	249
22...	1200	880	310	100	3300	86	42	8.4	372	0	305
NOV											
04...	410	210	100	39	720	79	15	6.3	222	10	199
07...	930	770	270	63	4700	91	67	16	196	0	161
17...	--	--	--	--	--	--	--	--	--	--	--
17...	800	590	210	68	2700	88	41	7.9	261	0	214
DEC											
03...	800	590	210	67	2600	87	40	8.6	258	0	212
07...	950	730	250	78	4200	91	59	9.9	266	0	218
17...	--	--	--	--	--	--	--	--	--	--	--
30...	850	630	220	73	3500	90	52	8.4	269	0	221
JAN											
13...	790	570	200	70	2500	87	39	6.3	266	0	218
21...	--	--	--	--	--	--	--	--	--	--	--
22...	1000	850	260	96	5200	91	70	8.6	241	0	198
31...	890	690	210	88	3500	89	51	7.6	234	0	192
FEB											
03...	880	690	220	81	3700	90	54	8.1	231	0	189
15...	950	760	240	86	4600	91	65	9.2	237	0	194
18...	840	640	210	76	3200	89	48	8.3	244	0	200
18...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	820	660	200	79	3300	90	50	7.9	196	0	161
09...	--	--	--	--	--	--	--	--	--	--	--
15...	1000	840	260	92	5600	92	76	10	225	0	185
24...	990	790	250	88	3800	89	53	8.9	238	0	195
APR											
10...	660	500	190	44	2300	88	39	8.8	194	0	159
13...	--	--	--	--	--	--	--	--	--	--	--
19...	1300	1100	360	93	6700	92	81	15	248	0	203
21...	260	150	80	15	--	--	--	4.9	131	0	107
MAY											
01...	730	550	200	56	3400	91	55	11	218	0	179
11...	--	--	--	--	--	--	--	--	--	--	--
17...	650	490	180	48	1600	84	27	11	187	0	153
27...	180	91	54	11	280	76	9.1	5.8	109	0	89
JUN											
15...	860	690	210	82	2500	86	37	11	205	0	168
16...	--	--	--	--	--	--	--	--	--	--	--
19...	760	610	210	57	1900	84	30	9.9	185	0	152
20...	490	380	150	29	570	71	11	8.9	136	0	112
JUL											
01...	840	690	220	71	2300	85	35	10	191	0	157
03...	390	280	110	29	840	82	18	7.3	144	0	118
07...	--	--	--	--	--	--	--	--	--	--	--
09...	840	680	220	71	3200	89	48	12	193	0	158
AUG											
04...	670	500	160	65	2300	88	39	7.9	204	0	167
04...	--	--	--	--	--	--	--	--	--	--	--
16...	720	580	180	66	2900	90	47	9.2	170	0	139
31...	590	440	150	52	1900	87	34	6.4	187	0	153
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--
10...	720	550	190	59	2200	87	36	7.5	204	0	167
21...	1200	1000	320	95	7700	93	97	16	193	0	158
28...	250	150	74	16	350	75	9.6	5.6	125	0	103

ARKANSAS RIVER BASIN

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07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
03...	2.2	370	1900	--	3990	5.43	614	.41	--	--	--
16...	9.7	120	420	--	1170	1.59	613	.26	--	--	--
22...	47	420	5200	--	10000	13.6	1730	.21	--	--	--
NOV											
04...	1.0	270	1100	--	2380	3.24	1370	.99	--	--	--
07...	1.2	720	7700	--	15400	20.9	9520	.78	--	--	--
17...	--	--	--	.5	--	--	--	--	2.0	.10	5
17...	4.2	570	4200	--	7860	10.7	2100	.71	--	--	--
DEC											
03...	2.6	540	4300	--	8150	11.1	3680	1.1	--	--	--
07...	3.4	630	6700	--	12100	16.5	4800	.76	--	--	--
17...	--	--	--	.4	--	--	--	--	.90	.08	--
30...	3.4	650	5600	--	10100	13.7	4880	.70	--	--	--
JAN											
13...	3.4	520	4000	--	7860	10.7	3160	1.2	--	--	--
21...	--	--	--	.2	--	--	--	--	4.3	.03	--
22...	2.4	690	7900	--	14700	20.0	9720	.40	--	--	--
31...	3.0	550	5500	--	10300	14.0	4810	.32	--	--	--
FEB											
03...	2.3	610	5900	--	10600	14.4	5300	.24	--	--	--
15...	3.0	720	7100	--	13200	18.0	7240	.42	--	--	--
18...	2.5	640	5000	--	9390	12.8	4230	.40	--	--	--
18...	--	--	--	.7	--	--	--	--	.80	<.10	4
MAR											
05...	3.1	680	5400	--	9920	13.5	3720	.26	--	--	--
09...	--	--	--	.2	--	--	--	--	1.5	<.14	--
15...	2.9	680	9200	--	16700	22.7	11200	.26	--	--	--
24...	2.4	610	5900	--	11100	15.1	4860	.27	--	--	--
APR											
10...	9.8	580	3600	--	7210	9.81	2590	1.6	--	--	--
13...	--	--	--	.5	--	--	--	--	.60	.11	--
19...	16	870	11000	--	18700	25.4	53500	.16	--	--	--
21...	5.3	210	800	--	1670	2.27	11500	2.0	--	--	--
MAY											
01...	11	470	5300	--	9770	13.3	83400	1.5	--	--	--
11...	--	--	--	.4	--	--	--	--	1.1	1.4	9
17...	4.7	490	2500	--	4950	6.73	18200	.81	--	--	--
27...	4.4	96	410	--	891	1.21	21300	.65	--	--	--
JUN											
15...	6.5	650	4100	--	7680	10.4	6570	.36	--	--	--
16...	--	--	--	.5	--	--	--	--	1.6	<.08	--
19...	7.4	480	3200	--	5850	7.96	40400	.89	--	--	--
20...	3.4	570	770	--	2020	2.75	9330	.92	--	--	--
JUL											
01...	7.7	53	4100	--	7140	9.71	2780	.35	--	--	--
03...	7.3	290	1300	--	2630	3.58	2700	.63	--	--	--
07...	--	--	--	.4	--	--	--	--	1.9	.13	--
09...	7.8	650	5000	--	9480	12.9	3890	.32	--	--	--
AUG											
04...	4.1	500	3700	--	6900	9.38	1160	.44	--	--	--
04...	--	--	--	.2	--	--	--	--	1.7	.13	9
16...	11	610	4400	--	8300	11.3	1140	.66	--	--	--
31...	7.5	380	2900	--	5620	7.64	622	.57	--	--	--
SEP											
08...	--	--	--	.4	--	--	--	--	2.9	.12	--
10...	8.2	580	3400	--	6660	9.06	1040	.67	--	--	--
21...	3.1	330	13000	--	21300	29.0	7590	.59	--	--	--
28...	4.0	230	470	--	1370	1.86	3500	1.6	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
17...	5	7	9	--	31	97	--	21	--	6	4
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	200	--	100	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JAN											
13...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	<100	--	50	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
FEB											
03...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	10	7	7	600	50	106	--	40	--	6	3
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	200	--	68	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
APR											
10...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	600	--	190	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--
11...	4	126	60	700	61	770	.7	90	5	8	270
17...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
15...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	1200	--	255	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	2800	--	308	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	7	13	15	100	40	12	<.5	33	<3	10	13
16...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	--	--	--	300	--	198	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--

07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6910	8010	15400	17300	17200	17500	16400	16200	6240	11700	12100	7730
2	6850	7410	13600	18800	17000	17100	16000	10500	8310	6660	---	10700
3	6880	7080	13800	18400	17200	16800	16000	12200	6460	3720	12300	11900
4	6870	4590	17400	---	18000	17100	16100	9160	6540	5280	11800	11600
5	6810	9930	18400	16200	17300	16400	16000	8190	7190	3710	11600	10800
6	6720	20700	19800	16600	16400	16500	16100	7700	8150	8300	11400	10600
7	6800	22600	21100	18300	15400	17000	15700	7450	8920	10400	11700	11000
8	6800	---	16000	---	16300	17600	15600	7650	9650	14800	10500	10400
9	6750	18500	15700	---	16400	19000	15800	7820	10200	15700	11200	10900
10	6860	16900	16800	---	16400	24800	15500	7360	10600	14800	11300	11200
11	6940	15800	16200	---	16400	23200	15400	5340	11000	14200	12300	6550
12	6930	15400	16200	13500	15500	18100	14500	6490	11700	14000	11800	13900
13	6990	15100	16700	13200	16400	17800	16000	6540	12100	13600	12200	12000
14	6570	14800	15700	14300	17700	24100	17300	4140	12200	13300	11800	12300
15	2220	14800	17100	15200	20000	26300	16200	4010	12700	13400	12200	13900
16	2050	13500	16600	16700	18500	23000	14100	5750	9960	10700	13600	13300
17	4360	13000	16400	17300	17100	20100	8750	8380	10300	12400	11600	---
18	5650	12600	18300	17800	15500	18200	5590	8560	9900	12300	11100	13200
19	8340	11200	18200	18700	16000	17700	---	9920	10000	12100	10900	---
20	7980	9400	18200	18100	17000	16200	11000	10700	3390	13300	11400	---
21	7800	10400	19900	21700	17300	17700	5910	10800	5520	12800	11700	33100
22	17600	11900	16900	23800	17800	17700	9940	10600	5460	11800	11800	8480
23	12400	13000	16600	16300	18400	17600	10900	11000	6660	12500	11600	12500
24	11400	15000	15600	14600	18900	17700	21800	4030	8600	12500	---	13800
25	9970	18400	15500	14600	19000	18000	14600	3870	9780	12500	12200	14000
26	9450	19800	17700	14900	18300	17800	10700	3070	10300	13400	12300	10000
27	8760	19500	18800	15200	17500	17600	11600	1690	10900	12500	12500	8710
28	8600	21300	18600	15700	17000	17100	11100	3190	11200	12100	12200	2140
29	8610	20000	19300	16700	17200	17000	8220	4080	11000	12300	12000	5960
30	8390	19400	17000	17000	---	16900	11200	11200	12200	12800	---	6330
31	7980	---	16700	17100	---	16800	---	10200	---	12500	9760	---
MONTH	7650	14500	17100	16800	17200	18600	13600	7670	9240	11700	11700	11400
YEAR	MAX	33100	MIN	1690	MEAN	13100						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	17.5	---	4.0	5.0	16.5	18.0	11.5	25.0	28.0	29.0	21.0
2	14.0	18.0	---	3.0	9.5	18.0	15.0	17.0	28.0	26.0	29.0	31.0
3	14.0	15.5	10.5	0.0	5.0	7.0	13.0	17.0	27.0	23.0	29.5	31.0
4	14.0	17.0	14.0	---	3.5	10.5	11.0	20.0	25.0	23.0	29.5	23.0
5	14.5	16.0	17.0	1.0	2.0	5.0	18.5	18.0	22.0	25.0	31.0	27.0
6	16.0	18.0	6.0	5.0	0.0	3.0	22.0	18.0	22.0	30.0	34.0	24.0
7	16.0	18.5	9.0	0.0	0.0	6.0	19.0	17.5	25.0	30.0	23.0	29.0
8	15.5	---	10.0	---	1.0	7.0	20.0	13.5	22.5	31.0	28.0	27.0
9	18.0	17.0	10.0	---	12.0	14.0	21.0	19.0	22.0	30.0	30.0	23.5
10	18.0	15.0	12.0	---	13.0	17.0	13.0	20.0	21.0	22.0	31.0	25.0
11	18.0	11.0	9.0	---	13.5	15.0	15.0	21.5	21.0	29.0	30.0	17.0
12	19.0	10.0	7.0	5.0	13.0	11.0	23.0	18.0	22.0	30.0	32.0	26.0
13	19.5	10.0	9.0	6.0	14.5	4.0	23.0	18.5	32.0	30.0	34.0	25.0
14	18.5	11.0	10.0	7.0	11.0	9.0	25.0	19.0	22.0	29.0	28.0	29.0
15	17.0	10.0	6.0	8.0	12.0	11.0	19.0	17.0	27.0	28.0	28.0	30.0
16	15.0	16.0	7.0	7.5	18.0	14.0	20.0	19.0	25.0	27.0	31.0	28.0
17	18.0	17.0	4.0	4.0	15.0	17.0	17.0	22.0	20.0	23.0	33.0	30.0
18	13.0	18.0	1.0	10.5	12.0	18.0	14.5	23.5	21.0	24.0	32.0	22.5
19	13.5	14.0	4.0	7.5	15.0	20.0	20.0	23.0	21.0	31.0	30.0	---
20	14.0	7.0	2.0	7.0	14.5	11.0	15.0	25.0	22.0	30.0	29.0	---
21	17.0	6.0	5.0	9.0	4.0	12.0	12.0	26.0	25.0	30.0	21.0	26.0
22	17.0	4.0	4.0	5.0	2.0	18.0	23.0	20.0	28.0	31.0	20.0	25.0
23	17.0	---	4.0	11.5	14.0	18.0	23.5	21.5	27.0	31.0	31.0	27.0
24	15.0	---	3.5	5.0	9.0	20.5	18.0	24.0	28.0	23.0	30.5	28.0
25	10.0	---	3.0	4.0	15.0	23.5	18.5	21.0	30.0	---	32.0	21.0
26	15.0	---	7.0	2.0	15.0	18.0	17.0	20.0	22.0	25.0	30.5	21.0
27	14.5	---	4.0	---	17.0	10.0	17.0	18.0	27.0	31.0	29.0	17.5
28	15.0	---	4.0	6.0	11.0	11.0	14.0	22.0	33.0	31.0	21.0	17.0
29	17.0	---	4.5	10.0	14.0	18.0	15.0	20.0	33.0	34.0	27.0	18.0
30	17.0	---	7.0	7.0	---	16.0	14.0	24.0	30.0	32.0	25.0	23.0
31	18.0	---	6.0	6.0	---	16.0	---	22.0	---	23.0	23.0	---
MONTH	16.0	---	7.0	5.5	10.0	13.5	18.0	20.0	25.0	28.0	28.5	24.5
YEAR	MAX	34.0	MIN	0.0	MEAN	18.0						

ARKANSAS RIVER BASIN

07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	410	630	650	650	650	640	640	340	540	550	400
2	370	390	610	670	650	650	640	500	420	360	---	500
3	370	370	610	670	650	650	640	560	350	250	560	550
4	370	290	650	---	660	650	640	450	360	310	540	540
5	370	480	670	640	650	640	640	410	380	250	540	510
6	360	690	680	640	640	640	640	400	410	420	530	500
7	360	720	700	660	630	650	630	340	440	490	540	520
8	360	---	640	---	640	660	630	400	470	620	500	490
9	360	670	630	---	640	670	630	400	490	630	520	510
10	370	650	650	---	640	740	630	380	500	620	530	520
11	370	630	640	---	640	720	630	310	520	610	560	360
12	370	630	640	610	630	660	620	350	540	610	540	610
13	370	620	640	590	640	660	640	360	550	610	560	550
14	360	620	630	610	660	740	650	270	560	600	540	560
15	150	620	650	630	690	760	640	260	580	600	560	610
16	130	610	640	640	670	720	610	330	480	500	610	600
17	280	590	640	650	650	690	430	420	490	570	540	---
18	320	570	660	660	630	660	320	430	480	560	520	590
19	420	520	660	670	640	660	610	480	480	550	510	---
20	410	460	660	660	650	640	520	500	240	600	530	---
21	400	490	680	710	650	660	330	510	320	580	540	850
22	660	550	650	730	660	660	480	500	320	540	540	430
23	570	590	640	640	670	660	510	520	360	570	540	570
24	640	630	630	620	670	660	710	270	430	570	---	610
25	480	670	630	620	670	660	620	260	470	570	560	610
26	460	680	660	620	660	660	500	230	490	600	560	480
27	440	680	670	630	650	660	540	95	510	570	570	430
28	430	910	670	630	650	650	520	240	520	550	560	140
29	430	690	680	640	650	650	420	270	520	560	550	330
30	420	680	650	650	---	650	520	520	560	580	---	350
31	410	---	640	650	---	650	---	490	---	570	470	---
MONTH	390	590	650	650	650	670	580	390	450	530	540	510
YEAR	MAX	910	MIN	95	MEAN	550						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.9	59.8	281	309	304	249	223	5460	2200	210	99.5	60.5
2	57.9	55.6	359	293	304	258	228	3120	1950	352	---	51.3
3	56.9	203	275	298	325	240	219	7120	1140	256	78.6	49.0
4	54.9	167	281	---	335	244	219	3500	883	259	90.4	40.8
5	53.9	643	275	225	330	240	228	2110	732	177	111	30.3
6	52.5	591	283	228	320	249	228	1530	702	293	94.4	24.3
7	52.5	445	278	162	276	261	233	1120	694	273	81.6	19.7
8	52.5	---	240	---	335	362	245	1020	687	300	76.9	19.8
9	52.5	266	231	---	330	461	242	1080	663	259	61.6	33.0
10	54.9	232	240	---	314	529	228	1930	634	228	50.1	81.4
11	54.9	204	226	---	314	570	219	4250	609	209	37.8	40.8
12	55.9	180	219	254	304	558	213	6450	618	198	27.7	52.7
13	56.9	171	230	237	294	503	219	4410	579	184	27.2	54.9
14	65.1	171	226	295	356	503	298	3920	526	173	27.7	60.5
15	126	171	230	310	378	509	335	2260	496	170	39.3	77.4
16	68.1	163	240	280	356	457	558	1620	445	170	84.0	76.1
17	70.3	158	247	281	319	419	596	1540	460	169	56.9	---
18	66.5	154	265	285	284	390	493	1210	417	162	43.5	71.7
19	80.5	157	266	275	289	372	2320	1080	3320	147	34.4	---
20	76.4	247	266	280	298	330	2740	907	1110	154	30.1	---
21	75.6	247	274	414	270	319	2260	770	671	117	29.2	303
22	114	251	253	483	266	298	1580	634	423	125	24.8	225
23	89.3	285	245	406	270	294	1760	1370	347	128	26.2	185
24	98.5	276	253	362	270	289	2490	2030	316	125	---	142
25	73.9	257	262	325	257	289	1470	1780	261	122	24.2	120
26	68.3	220	294	315	248	257	899	2580	265	123	22.7	402
27	65.3	200	324	315	240	235	806	2270	255	109	20.0	304
28	63.9	307	318	315	244	244	793	3300	234	105	18.1	357
29	63.9	255	318	330	249	232	1300	2020	209	107	17.8	444
30	62.4	244	314	330	---	219	3650	2570	207	110	---	213
31	60.9	---	309	304	---	219	---	2280	---	98.5	52.0	---
MONTH	67.9	241	269	304	299	342	910	2490	735	181	49.6	131
YEAR	MAX	7120	MIN	17.8	MEAN	513						

ARKANSAS RIVER BASIN

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07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2200	2500	5100	5700	5700	5800	5400	5300	1900	3800	3900	2400
2	2100	2300	4400	6200	5600	5600	5300	3400	2600	2100	---	3500
3	2100	2200	4500	6100	5700	5500	5300	4000	2000	1100	4000	3900
4	2100	1400	5600	---	6000	5600	5300	2900	2000	1600	3800	3800
5	2100	3200	6100	5300	5700	5400	5300	2600	2300	1100	3800	3500
6	2100	7000	6600	5500	5400	5400	5300	2400	2600	2600	3700	3400
7	2100	7800	7200	6100	5100	5600	5200	2300	2800	3400	3600	3600
8	2100	---	5300	---	5400	5800	5100	2400	3100	4900	3400	3400
9	2100	6100	5200	---	5400	6300	5200	2500	3300	5200	3600	3500
10	2100	5600	5500	---	5400	8800	5100	2300	3400	4900	3700	3600
11	2200	5200	5300	---	5400	8100	5100	1600	3600	4700	4000	2000
12	2200	5100	5300	4400	5100	6000	4800	2000	3800	4600	3600	4600
13	2200	5000	5500	4300	5400	5900	5300	2000	3900	4400	4000	3900
14	2000	4900	5200	4700	5900	8500	5700	1200	4000	4300	3600	4000
15	550	4900	5600	5000	6700	9400	5300	1200	4100	4400	4000	4600
16	490	4400	5500	5500	6100	8000	4600	1800	3200	3500	4400	4300
17	1300	4200	5400	5700	5600	6800	2800	2700	3300	4000	3600	---
18	1700	4100	6100	5900	5100	6000	1700	2700	3200	4000	3600	4300
19	2600	3600	6000	6200	5300	5900	11000	3200	3200	3900	3500	---
20	2500	3000	6000	6000	5600	5300	3600	3500	950	4300	3700	---
21	2500	3400	6700	7500	5700	5900	1600	3500	1700	4200	3600	13000
22	5800	3900	5600	8400	5900	5900	3200	3400	1700	3800	3600	2700
23	4000	4200	5500	5400	6100	5800	3500	3600	2100	4100	3800	4100
24	5500	5000	5100	4800	6300	5900	7500	1200	2700	4100	---	4500
25	3200	6100	5100	4800	6300	6000	4800	1100	3100	4100	4000	4600
26	3000	6600	5900	4900	6100	5900	3500	840	3300	4400	4000	3200
27	2800	6500	6200	5000	5800	5800	3800	370	3500	4100	4100	2800
28	2700	16000	6200	5200	5600	5600	3600	880	3600	3900	4000	520
29	2700	6700	6400	5500	5700	5600	2600	1200	3600	4000	3900	1800
30	2700	6500	5600	5600	---	5600	3600	3600	4000	4200	---	2000
31	2500	---	5500	5600	---	5500	---	3300	---	4100	3100	---
MONTH	2500	5100	5700	5600	5700	6200	4700	2400	3000	3800	3800	3800
YEAR	MAX	16000	MIN	370	MEAN	4300						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	364	2270	2710	2660	2220	1880	45200	12300	1480	706	363
2	329	329	2590	2710	2620	2220	1890	21200	12100	2050	---	359
3	323	1210	2030	2720	2850	2030	1820	50900	6530	1130	562	347
4	312	805	2510	---	3050	2100	1820	22600	4900	1330	636	287
5	306	4290	2500	1860	2890	2030	1890	13400	4430	778	780	208
6	306	5990	2740	1960	2700	2100	1890	9200	4450	1810	659	165
7	306	4820	2860	1500	2230	2250	1920	6580	4420	1890	575	136
8	306	---	1990	---	2830	3180	1980	6150	4530	2370	523	138
9	306	2420	1910	---	2780	4340	1990	6750	4460	2130	428	227
10	312	2000	2030	---	2650	6300	1850	11700	4310	1800	350	564
11	327	1680	1870	---	2650	6410	1780	21900	4220	1610	270	227
12	333	1460	1820	1830	2460	5070	1650	36900	4350	1490	195	397
13	339	1380	1980	1730	2480	4490	1820	24500	4110	1330	194	390
14	362	1350	1870	2270	3190	5780	2620	17400	3760	1240	195	432
15	460	1350	1980	2460	3670	6290	2780	10400	3510	1250	281	584
16	257	1180	2060	2410	3240	5080	4210	8850	2960	1190	606	546
17	326	1120	2080	2460	2750	4130	3880	9910	3100	1190	400	---
18	353	1110	2640	2550	2300	3550	2620	7580	2780	1160	301	522
19	498	1090	2410	2540	2390	3330	31500	7230	22100	1040	236	---
20	466	1610	2410	2540	2570	2730	19000	6350	4390	1100	210	---
21	472	1720	2700	4370	2370	2850	12300	5280	3570	850	205	4630
22	1000	1780	2180	5560	2370	2660	10500	4310	2250	882	174	1410
23	626	2030	2110	3430	2450	2580	12100	9470	2020	919	185	1330
24	846	2190	2050	2800	2530	2580	26300	9040	1980	897	---	1040
25	492	2340	2120	2510	2420	2620	11400	7540	1720	875	173	907
26	445	2140	2630	2490	2290	2290	6290	9430	1780	903	162	2680
27	416	1910	3000	2500	2150	2070	5670	8830	1750	786	144	1980
28	401	5400	2950	2600	2100	2100	5490	12100	1620	748	130	1330
29	401	2480	2990	2840	2190	2000	8070	8970	1450	767	126	2420
30	401	2330	2710	2840	---	1890	25300	17800	1480	794	---	1220
31	371	---	2660	2620	---	1860	---	15300	---	708	343	---
MONTH	411	2060	2340	2650	2610	3260	7140	14600	4580	1240	348	920
YEAR	MAX	50900	MIN	126	MEAN	3580						

ARKANSAS RIVER BASIN

07159100 CIMARRON RIVER NEAR DOVER, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3950	4650	9370	10600	10500	10700	10000	9880	3520	7010	7260	4470
2	3910	4270	8220	11500	10400	10500	9750	6240	4840	3790	---	6370
3	3930	4060	8350	11300	10500	10300	9750	7320	3660	1920	7390	7130
4	3930	2470	10600	---	11000	10500	9810	5390	3710	2910	7070	6940
5	3890	5880	11300	9880	10600	10000	9750	4770	4130	1910	6940	6430
6	3830	12800	12200	10100	10000	10100	9810	4450	4740	4840	6810	6300
7	3880	14200	13100	11200	9370	10400	9560	4300	5230	6180	7010	6560
8	3880	---	9750	---	9940	10800	9490	4420	5700	8980	6240	6180
9	3850	11300	9560	---	10000	11700	9620	4530	6050	9560	6690	6500
10	3920	10300	10300	---	10000	15900	9430	4240	6300	8980	6750	6690
11	3970	9620	9880	---	10000	14700	9370	2950	6560	8600	7390	3720
12	3960	9370	9880	8150	9430	11100	8790	3680	7010	8470	7070	8410
13	4000	9170	10200	7960	10000	10900	9750	3710	7260	8220	7320	7200
14	3730	8980	9560	8660	10800	15400	10600	2180	7320	8030	7070	7390
15	959	8980	10500	9240	12300	17000	9880	2100	7640	8090	7320	8410
16	851	8150	10100	10200	11300	14500	8540	3210	5900	6370	8220	8030
17	2320	7840	10000	10600	10500	12400	5120	4890	6110	7450	6940	---
18	3150	7580	11200	10900	9430	11200	3110	5000	5860	7390	6620	7960
19	4860	6690	11200	11500	9750	10800	19700	5870	5920	7260	6500	---
20	4630	5540	11200	11100	10400	9880	6560	6370	1710	8030	6810	---
21	4520	6180	12200	13600	10600	10800	3310	6430	3060	7710	7010	21300
22	10800	7130	10300	15100	10900	10800	5880	6300	3030	7070	7070	4950
23	7450	7840	10100	9940	11300	10800	6500	6560	3790	7520	6940	7520
24	10200	9240	9490	8860	11600	10800	13600	2110	5030	7520	---	8350
25	5900	11300	9430	8860	11700	11000	8860	2010	5780	7520	7320	8470
26	5570	12200	10800	9050	11200	10900	6370	1500	6110	8090	7390	5920
27	5130	12000	11500	9240	10700	10800	6940	621	6500	7520	7520	5100
28	5030	23900	11400	9560	10400	10500	6620	1580	6690	7260	7320	908
29	5040	12300	11900	10200	10500	10400	4790	2150	6560	7390	7200	3340
30	4890	11900	10400	10400	---	10300	6690	6690	7320	7710	---	3580
31	4630	---	10200	10500	---	10300	---	6050	---	7520	5770	---
DNTH	4530	9170	10500	10300	10500	11500	8600	4440	5430	6990	7030	6820
YEAR	MAX	23900	MIN	621	MEAN	7960						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	629	678	4170	5040	4900	4100	3480	84300	22800	2730	1310	676
2	612	611	4840	5030	4860	4170	3470	38900	22500	3700	---	654
3	605	2230	3770	5030	5240	3810	3340	93100	12000	1970	1040	635
4	584	1420	4580	---	5580	3940	3360	41900	9100	2430	1180	525
5	567	7870	4640	3470	5380	3750	3470	24600	7950	1350	1420	382
6	558	11000	5070	3600	4990	3930	3500	17100	8110	3370	1210	306
7	566	8780	5200	2750	4100	4180	3540	12300	8250	3440	1060	248
8	566	---	3660	---	5210	5920	3690	11300	8330	4340	960	250
9	561	4480	3510	---	5160	8060	3690	12200	8180	3920	795	421
10	582	3670	3810	---	4910	11400	3410	21500	7990	3300	638	1050
11	590	3120	3490	---	4910	11600	3260	40500	7690	2950	499	422
12	599	2680	3390	3390	4560	9380	3010	67900	8030	2740	363	727
13	616	2530	3660	3200	4590	8300	3340	45500	7640	2490	356	719
14	675	2470	3430	4190	5830	10500	4870	31700	6880	2320	363	798
15	803	2470	3710	4540	6740	11400	5180	18300	6540	2290	514	1070
16	446	2180	3790	4460	6010	9200	7820	15800	5460	2170	1130	1020
17	583	2100	3860	4580	5160	7530	7090	18000	5740	2210	731	---
18	655	2050	4840	4710	4250	6620	4790	14000	5090	2130	554	967
19	932	2020	4510	4720	4400	6090	56400	13300	40900	1940	439	---
20	863	2980	4510	4710	4770	5100	34500	11600	7900	2060	386	---
21	854	3120	4910	7930	4410	5220	22700	9700	6420	1560	379	7590
22	1870	3250	4000	9990	4390	4870	19400	7990	4010	1640	325	2590
23	1170	3790	3870	6310	4550	4810	22500	17300	3650	1690	337	2440
24	1570	4040	3820	5170	4670	4720	47700	15900	3690	1640	---	1940
25	908	4330	3920	4640	4490	4810	21000	13800	3210	1600	316	1670
26	827	3950	4810	4590	4200	4240	11500	16800	3300	1660	299	4960
27	762	3530	5560	4620	3960	3850	10400	14800	3250	1440	264	3610
28	747	8070	5420	4780	3900	3940	10100	21800	3020	1390	237	2320
29	748	4550	5560	5260	4030	3710	14900	16100	2640	1420	233	4490
30	726	4270	5030	5280	---	3480	47000	33100	2710	1460	---	2170
31	688	---	4930	4900	---	3480	---	28100	---	1300	639	---
DNTH	757	3730	4330	4880	4830	6000	13100	26700	8430	2280	642	1650
YEAR	MAX	93100	MIN	233	MEAN	6570						

ARKANSAS RIVER BASIN

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07159750 COTTONWOOD CREEK AT SEWARD, OK

LOCATION.--Lat 35°47'43", long 97°29'32", in SW 1/4 sec.2, T.15 N., R.3 W., Logan County, on downstream right bank, 0.3 mi (0.5 km) west of Seward; 7.7 mi (12.4 km) southwest of Guthrie, and at mile 19.2 (30.9 km).

DRAINAGE AREA.--316 mi² (818 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 946.49 ft (288.490 m) above mean sea level.

REMARKS.--Records fair. Low flow sustained by part of sewage effluent from Oklahoma City.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,900 ft³/s (847 m³/s) Nov. 2, 1974 gage height, 23.99 ft (7.312 m); minimum daily, 6.1 ft³/s (0.17 m³/s) Aug. 15, 22, 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft³/s (30.6 m³/s) May 13, gage height, 14.40 ft (4.389 m), no peak above base of 3,000 ft³/s (85.0 m³/s); minimum daily, 6.1 ft³/s (0.17 m³/s) Aug. 15, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	41	80	58	39	36	40	58	46	16	11	11
2	31	41	69	55	39	39	40	59	36	16	12	12
3	31	42	56	47	40	59	35	51	34	17	9.0	12
4	31	43	54	43	40	42	35	45	39	17	8.3	12
5	30	48	52	43	42	51	40	43	36	60	8.1	9.5
6	29	54	52	47	51	47	42	43	32	30	8.1	8.6
7	30	60	50	46	51	41	43	45	30	22	10	7.6
8	29	57	53	49	44	42	32	45	28	20	12	8.0
9	28	51	55	44	42	112	27	41	26	17	14	9.3
10	29	49	55	42	46	134	29	45	24	15	13	17
11	30	47	54	44	52	72	29	78	22	15	7.4	12
12	30	46	54	47	53	56	36	455	22	15	7.5	10
13	32	44	54	48	55	54	53	642	20	15	7.0	10
14	32	43	54	47	57	44	56	180	20	15	6.2	20
15	148	44	55	45	50	42	38	95	21	15	6.1	18
16	391	44	55	44	40	41	46	63	22	29	6.3	30
17	136	44	54	43	39	40	60	47	21	52	6.6	236
18	96	46	53	42	43	38	57	41	21	24	7.8	46
19	136	46	50	41	44	39	76	38	23	18	9.5	20
20	131	55	52	42	44	40	426	34	24	16	7.8	20
21	73	79	51	44	37	39	288	31	21	14	6.5	21
22	54	63	51	45	35	37	105	35	19	13	6.1	16
23	47	54	50	39	38	35	71	38	19	10	6.1	13
24	45	50	50	40	38	36	59	42	19	10	7.8	11
25	44	50	50	46	37	40	51	38	26	10	9.8	9.6
26	42	59	73	46	37	37	43	52	21	9.6	9.8	9.7
27	41	70	75	44	37	35	45	193	19	8.6	9.6	9.7
28	41	74	66	40	37	34	49	82	19	9.5	8.3	10
29	43	80	62	39	36	36	115	50	19	11	7.5	11
30	43	83	61	40	---	40	83	40	18	12	7.8	12
31	41	---	63	39	---	42	---	48	---	12	9.1	---
TOTAL	1975	1607	1763	1379	1243	1480	2149	2797	747	563.7	266.1	652.0
MEAN	63.7	53.6	56.9	44.5	42.9	47.7	71.6	90.2	24.9	18.2	8.58	21.7
MAX	391	83	80	58	57	134	426	642	46	60	14	236
MIN	28	41	50	39	35	34	27	31	18	8.6	6.1	7.6
AC-FT	3920	3190	3500	2740	2470	2940	4260	5550	1480	1120	528	1290
CAL YR 1975	TOTAL	75645.0	MEAN 207	MAX 5950	MIN 23	AC-FT 150000						
WTR YR 1976	TOTAL	16621.8	MEAN 45.4	MAX 642	MIN 6.1	AC-FT 32970						

ARKANSAS RIVER BASIN

07159750 COTTONWOOD CREEK AT SEWARD, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1973 to current year.

WATER TEMPERATURE: February 1973 to current year.

REMARKS---Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,610 micromhos Jan. 3, 1974; minimum daily, 132 micromhos Nov. 4, 1974.

WATER TEMPERATURE: Maximum daily, 26.5°C July 22, 24-25, 1975; minimum daily, 0.0°C Jan. 7, 8, 9, 11, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,360 micromhos Apr. 11; minimum daily, 308 micromhos Sept. 18.

WATER TEMPERATURE: Maximum daily, 25.0°C on several days during summer months; minimum daily, 0.0°C Jan. 7, 8, 9, 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COLLECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	DISCHARGE (CFS)	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHUS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION
OCT											
09...	--	--	0715	--	27	1310	8.1	--	--	--	--
16...	--	--	0725	--	503	523	7.7	--	--	--	--
25...	--	--	0735	--	45	1090	8.3	--	--	--	--
NOV											
01...	--	--	0640	--	41	1220	8.9	--	--	--	--
05...	--	--	1045	--	47	1320	7.6	15.0	--	5.3	55
05...	1028	9740	1046	48	47	1320	7.6	15.0	30	5.3	55
09...	--	--	0700	--	52	1220	8.5	--	--	--	--
18...	--	--	--	--	50	1200	7.4	13.0	--	8.1	82
28...	--	--	0745	--	74	1070	8.4	--	--	--	--
DEC											
01...	--	--	0735	--	84	1050	8.7	--	--	--	--
03...	--	--	1030	--	57	1220	7.7	6.0	--	10.1	86
03...	1028	9740	1031	56	57	1220	7.7	6.0	12	10.1	86
07...	--	--	0810	--	50	1240	8.6	--	--	--	--
27...	--	--	0730	--	76	1270	7.9	--	--	--	--
JAN											
12...	--	--	0745	--	45	1280	8.6	--	--	--	--
13...	--	--	1500	--	48	1200	7.6	2.0	--	9.9	76
13...	1028	9740	1501	48	48	1200	7.6	2.0	5	9.9	76
29...	--	--	0730	--	39	1320	8.0	--	--	--	--
FEB											
05...	--	--	0725	--	40	1290	8.6	--	--	--	--
06...	--	--	1500	--	52	850	7.9	2.0	--	9.5	71
16...	--	--	0730	--	41	1260	8.3	--	--	--	--
17...	1028	9740	1200	--	39	1300	7.4	12.0	6	4.4	44
29...	--	--	0800	--	36	1330	8.1	--	--	--	--
MAR											
02...	--	--	0800	--	35	1350	8.2	--	--	--	--
05...	--	--	1500	--	52	1400	9.3	8.0	--	9.3	83
11...	1028	9740	1210	72	70	910	8.8	14.0	28	--	--
12...	--	--	0730	--	58	1030	8.1	--	--	--	--
22...	--	--	0700	--	39	1290	8.1	--	--	--	--
APR											
11...	--	--	0635	--	28	1360	7.3	--	--	--	--
17...	--	--	0725	--	56	1300	7.2	--	--	--	--
20...	--	--	0630	--	261	692	6.9	--	--	--	--
29...	1028	9740	1131	115	146	1090	7.3	13.0	54	8.5	85
MAY											
05...	--	--	0745	--	43	1140	8.5	--	--	--	--
11...	--	--	0730	--	73	1240	8.4	--	--	--	--
13...	--	--	0725	--	806	351	7.7	--	--	--	--
20...	--	--	1500	--	33	1100	--	17.0	--	5.4	59
27...	--	--	1130	--	208	1100	7.6	17.5	--	2.5	28
27...	1028	9740	1131	193	208	1100	7.6	17.5	66	2.5	28
JUN											
02...	--	--	0750	--	35	951	7.4	--	--	--	--
06...	--	--	0715	--	33	1220	7.0	--	--	--	--
21...	--	--	1600	--	20	1300	6.9	23.0	--	7.9	93
21...	1028	9740	1601	21	20	1300	6.9	23.0	40	7.9	93
28...	--	--	0605	--	19	1340	7.0	--	--	--	--

07159750 COTTONWOOD CREEK AT SEWARD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
JUL											
05...	--	--	0655	--	80	1290	7.7	--	--	--	--
12...	1028	9740	1531	15	15	1200	7.3	27.0	7	--	--
16...	--	--	0720	--	21	920	7.7	--	--	--	--
27...	--	--	0625	8.6	8.6	1110	7.5	--	--	--	--
AUG											
05...	--	--	0720	8.1	8.1	879	7.1	--	--	--	--
16...	--	--	0700	6.3	6.3	1190	7.6	--	--	--	--
18...	--	--	1030	7.8	7.8	1150	7.6	26.0	--	1.8	23
18...	1028	9740	1031	7.8	7.8	1150	7.6	26.0	80	1.8	23
28...	--	--	0655	--	8.4	1260	6.9	--	--	--	--
SEP											
04...	--	--	0645	--	12	1220	6.9	--	--	--	--
15...	--	--	1230	--	17	1200	7.4	21.5	--	2.5	28
15...	1028	9740	1231	18	17	1200	7.4	21.5	73	2.5	28
18...	--	--	0650	--	60	308	6.7	--	--	--	--
24...	--	--	0715	--	12	1030	6.7	--	--	--	--
DATE	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
UC1											
09...	--	400	130	96	39	130	41	2.8	7.9	333	0
16...	--	150	43	39	13	42	37	1.5	4.8	131	0
25...	--	350	90	84	33	94	37	2.2	7.0	312	0
NOV											
01...	--	380	110	90	37	110	38	2.5	8.4	304	9
05...	24	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
09...	--	380	110	92	37	110	38	2.5	8.0	308	10
16...	--	--	--	--	--	--	--	--	--	--	--
28...	--	360	120	87	34	94	36	2.2	6.3	287	0
DEC											
01...	--	350	120	89	32	90	35	2.1	7.0	259	13
03...	50	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	410	130	97	40	110	36	2.4	9.4	312	13
27...	--	380	130	90	38	120	40	2.7	7.0	307	0
JAN											
12...	--	420	140	97	42	120	38	2.6	5.8	321	8
13...	19	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
29...	--	410	140	93	44	120	38	2.6	6.6	331	0
FEB											
05...	--	410	140	92	43	120	39	2.6	7.1	311	8
06...	32	--	--	--	--	--	--	--	--	--	--
16...	--	370	120	84	39	120	41	2.7	8.2	303	0
17...	--	--	--	--	--	--	--	--	--	--	--
29...	--	410	130	93	44	120	38	2.6	7.7	340	0
MAR											
02...	--	430	140	98	45	120	37	2.5	6.6	348	0
05...	--	--	--	--	--	--	--	--	--	--	--
11...	28	--	--	--	--	--	--	--	--	--	--
12...	--	340	120	82	34	94	37	2.2	4.5	275	0
22...	--	410	120	94	43	140	42	3.0	5.6	350	0
APR											
11...	--	420	120	92	45	130	40	2.8	7.8	354	0
17...	--	390	130	84	43	130	42	2.9	8.2	308	0
20...	--	200	63	49	19	61	39	1.9	6.2	168	0
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	360	100	86	36	110	39	2.5	6.0	292	13
11...	--	370	130	87	38	130	42	2.9	7.4	300	0
13...	--	110	20	28	9.5	27	34	1.1	4.5	108	0
20...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	53	--	--	--	--	--	--	--	--	--	--
JUN											
02...	--	300	100	68	31	84	37	2.1	6.0	237	0
06...	--	340	120	75	37	130	45	3.1	9.1	270	0
21...	34	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
28...	--	330	120	80	31	140	47	3.4	10	249	0
JUL											
05...	--	310	110	68	33	150	51	3.7	11	238	0
12...	--	--	--	--	--	--	--	--	--	--	--
16...	--	260	76	58	29	98	44	2.6	7.2	230	0
27...	--	270	81	61	29	120	48	3.2	9.3	233	0

ARKANSAS RIVER BASIN

07159750 COTTONWOOD CREEK AT SEWARD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
AUG											
05...	--	200	77	46	20	120	56	3.7	8.7	146	0
16...	--	250	30	55	27	150	55	4.1	12	267	0
18...	71	--	--	--	--	--	--	--	--	--	--
18...	71	--	--	--	--	--	--	--	--	--	--
28...	--	250	92	53	28	150	55	4.1	13	190	0
SEP											
04...	--	230	97	49	26	150	57	4.3	13	161	0
15...	--	--	--	--	--	--	--	--	--	--	--
15...	48	--	--	--	--	--	--	--	--	--	--
18...	--	91	43	23	8.1	26	37	1.2	4.3	58	0
24...	--	240	97	53	25	120	51	3.4	11	168	0
	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	
OCT											
09...	273	4.2	200	130	--	821	1.12	59.9	5.1	--	
16...	107	4.2	72	38	--	281	.38	382	1.6	--	
25...	256	2.5	180	93	--	672	.91	81.6	3.1	--	
NOV											
01...	264	.7	180	120	--	769	1.05	85.1	4.9	--	
05...	--	--	--	--	--	--	--	--	--	--	
05...	--	--	--	--	.5	--	--	--	--	4.7	
09...	269	1.7	190	120	--	774	1.05	109	3.8	--	
18...	--	--	--	--	--	--	--	--	--	--	
28...	235	1.8	200	83	--	697	.95	139	3.7	--	
DEC											
01...	234	.9	190	84	--	684	.93	155	3.4	--	
03...	--	--	--	--	--	--	--	--	--	--	
03...	--	--	--	--	.6	--	--	--	--	4.0	
07...	278	1.4	200	120	--	794	1.08	107	4.9	--	
27...	252	6.2	210	130	--	805	1.09	165	7.5	--	
JAN											
12...	277	1.4	190	110	--	815	1.11	99.0	6.9	--	
13...	--	--	--	--	--	--	--	--	--	--	
13...	--	--	--	--	.5	--	--	--	--	7.3	
29...	271	5.3	190	120	--	828	1.13	87.2	7.1	--	
FEB											
05...	268	1.3	200	130	--	813	1.11	87.8	6.9	--	
06...	--	--	--	--	--	--	--	--	--	--	
16...	249	2.4	170	130	--	775	1.05	85.8	8.4	--	
17...	--	--	--	--	.6	--	--	--	--	10	
29...	279	4.3	200	130	--	830	1.13	80.7	5.8	--	
MAR											
02...	285	3.5	--	130	--	860	1.17	81.3	5.6	--	
05...	--	--	--	--	--	--	--	--	--	--	
11...	--	--	--	--	.5	--	--	--	--	2.8	
12...	226	3.5	190	97	--	655	.89	103	3.2	--	
22...	287	4.4	220	130	--	822	1.12	86.6	4.0	--	
APR											
11...	290	28	210	140	--	848	1.15	64.1	6.2	--	
17...	253	31	200	140	--	819	1.11	124	5.9	--	
20...	138	34	76	76	--	410	.56	289	2.9	--	
29...	--	--	--	--	.6	--	--	--	--	5.6	
MAY											
05...	261	1.6	190	110	--	718	.98	83.4	5.0	--	
11...	250	1.9	190	130	--	761	1.04	150	7.1	--	
13...	89	3.4	35	32	--	207	.28	450	2.3	--	
20...	--	--	--	--	--	--	--	--	--	--	
27...	--	--	--	--	--	--	--	--	--	--	
27...	--	--	--	--	.5	--	--	--	--	10	
JUN											
02...	194	15	130	89	--	566	.77	53.5	4.3	--	
06...	221	43	170	150	--	745	1.01	66.4	8.3	--	
21...	--	--	--	--	--	--	--	--	--	--	
21...	--	--	--	--	.7	--	--	--	--	6.7	
28...	204	40	200	150	--	778	1.06	39.9	10	--	
JUL											
05...	195	7.6	180	170	--	824	1.12	178	12	--	
12...	--	--	--	--	.6	--	--	--	--	7.0	
16...	189	7.3	94	130	--	540	.73	30.6	4.5	--	
27...	191	12	160	130	--	684	.93	15.9	7.4	--	

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	TOTAL LEAD (PB)	DIS- SOLVED LEAD (PB)	TOTAL MAN- GANESE (MN)	DIS- SOLVED MAN- GANESE (MN)	TOTAL MERCURY (HG)	TOTAL NICKEL (NI)	TOTAL SELE- NIUM (SE)	TOTAL SILVER (AG)	TOTAL ZINC (ZN)	DIS- SOLVED ZINC (ZN)
DATE	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
OCT										
09...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
NOV										
01...	--	--	--	--	--	--	--	--	--	--
05...	--	2	--	610	--	--	--	--	--	4
05...	18	--	700	--	--	9	--	2	20	--
09...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
DEC										
01...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	140	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
JAN										
12...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	280	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
FEB										
05...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	380	--	--	--	--	--	10
16...	--	--	--	--	--	--	--	--	--	--
17...	11	--	1825	--	--	10	--	2	5	--
29...	--	--	--	--	--	--	--	--	--	--
MAR										
02...	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--
11...	--	--	525	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
APR										
11...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
29...	--	--	710	--	--	--	--	--	--	--
MAY										
05...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	22	4	790	380	<.5	18	3	2	45	100
JUN										
02...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	818	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	--	--	--	--	--	--	--	--	--	--
12...	--	--	646	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
AUG										
05...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
18...	20	--	5390	--	<.5	12	3	2	20	--
28...	--	--	--	--	--	--	--	--	--	--
SEP										
04...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	359	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRG- MIUM (CR) (UG/L)	DIS- SOLVED CHRG- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)
AUG										
05...	5.1	--	--	--	--	--	--	--	--	--
10...	7.6	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
18...	--	12	2	--	19	--	8	--	1100	--
28...	8.8	--	--	--	--	--	--	--	--	--
SEP										
04...	8.2	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	1000	--
18...	.88	--	--	--	--	--	--	--	--	--
24...	5.1	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL PCB (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)
NOV											
05...	1045	.0	.00	.0	.00	.00	.00	.03	.00	.00	.00
FEB											
06...	1000	.0	.00	.0	.00	.00	.00	.06	.01	.00	.00
MAY											
27...	1130	.0	.00	.0	.00	.00	.00	.15	.01	.00	.00
JUL											
12...	1530	.0	.00	.0	.00	.00	.00	.04	.00	.00	.00

DATE	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
NOV											
05...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
FEB											
06...	.00	.01	.00	.00	.00	--	0	--	.01	.00	.00
MAY											
27...	.00	.01	.00	.00	.00	--	0	--	.60	.11	.05
JUL											
12...	.00	.00	.00	.00	.00	.00	0	.00	.04	.04	.06

ARKANSAS RIVER BASIN

07159750 COTTONWOOD CREEK AT SEWARD, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	1220	1050	1200	1300	1330	1340	1120	1020	1260	1190	1180
2	1290	1240	1140	1180	1300	1350	1340	1100	951	1240	1200	1200
3	1300	1240	1180	1170	1290	1320	1330	1100	1060	1260	---	1160
4	1300	1230	1240	1190	1300	1320	1310	1120	1160	1270	1250	1220
5	1290	1240	1200	1210	1290	1340	1340	1140	1210	1290	879	1190
6	1300	1230	1230	1240	1300	1350	1340	1160	1220	1040	980	1170
7	1290	1240	1240	1280	1290	1320	1310	1180	1230	1060	1110	1210
8	1290	1210	1250	1290	1290	1300	1300	1190	1200	1050	1170	1190
9	1310	1220	1260	1320	1290	1290	1320	1230	1220	1100	1200	1170
10	1300	1200	1230	1270	1290	1210	1350	1220	1200	1100	---	1160
11	1310	1200	1200	1270	1290	1050	1360	1240	1220	1140	1210	1210
12	1310	1220	1250	1280	1300	1040	1340	1210	1220	1160	1220	1220
13	1300	1230	---	1260	1290	1100	1250	351	1230	1210	1230	1180
14	1300	1230	---	1300	1280	1130	1320	797	1250	1210	1210	1110
15	1130	1240	---	1260	1270	1130	1320	842	1270	1230	---	1200
16	523	1250	---	1270	1260	1170	1280	914	1290	920	1190	1090
17	651	1260	---	1290	1280	1200	1300	997	---	1150	1200	501
18	756	1260	---	1280	1310	1210	1250	1060	---	989	1180	308
19	728	1270	---	1290	1320	1230	1220	1110	---	953	---	830
20	763	1240	---	1310	1290	1260	692	1140	---	986	1190	807
21	813	1210	---	1310	1280	1280	743	1150	1320	1010	---	890
22	910	1260	1220	1280	1320	1290	860	1190	---	1020	1220	691
23	992	1190	1260	1280	1280	1280	921	1190	1290	1050	1230	703
24	1050	1200	1270	1280	1280	1310	992	1220	1280	1050	1210	1030
25	1090	1190	1250	1300	1290	1300	1050	1220	---	1080	1230	1040
26	1130	1210	1260	1320	1310	1310	1100	1200	1310	1090	---	1040
27	1160	1190	1270	1310	1330	1320	1120	1040	1330	1110	1240	1030
28	1180	1070	1240	1320	1320	1340	1110	776	1340	1110	1260	1040
29	1220	1060	1200	1320	1330	1320	962	849	1180	1130	1240	1080
30	1240	1060	1200	1310	---	1350	962	917	1260	1150	1250	1120
31	1240	---	1220	1310	---	1340	---	1010	---	1170	1260	---
MONTH	1120	1210	---	1270	1300	1260	1180	1060	1220	1120	1190	1030
YEAR	MAX	1360	MIN	308	MEAN	1180						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	15.5	5.0	4.0	5.0	15.0	10.0	14.0	18.0	22.0	25.0	23.0
2	15.5	15.0	5.0	3.0	5.0	17.0	12.0	14.0	18.0	22.0	25.0	22.5
3	15.0	15.0	5.0	2.0	5.0	15.0	13.0	14.0	19.0	24.0	24.0	22.5
4	14.5	15.0	5.5	3.0	5.0	10.0	12.0	14.0	19.0	24.0	25.0	23.0
5	15.0	15.0	10.0	2.0	3.0	9.0	12.0	15.0	19.0	22.0	24.0	24.0
6	15.5	15.0	10.0	3.0	3.0	8.0	12.0	15.0	20.0	22.0	24.0	23.5
7	16.0	15.0	5.5	0.0	2.0	8.0	15.0	14.0	20.0	21.0	24.0	23.5
8	16.0	15.0	5.0	0.0	2.0	7.0	14.0	13.0	20.0	21.0	24.0	23.0
9	18.0	15.5	5.0	0.0	4.0	7.0	15.0	15.0	21.0	22.0	24.0	22.5
10	18.5	11.0	5.5	1.0	5.0	9.0	14.0	15.0	21.0	22.0	21.0	20.0
11	18.0	10.5	6.0	0.0	6.0	11.0	17.0	16.0	21.0	22.0	25.0	20.0
12	19.0	10.0	5.0	1.0	7.0	12.0	16.0	17.0	22.0	22.0	25.0	20.0
13	20.0	10.0	6.0	1.0	9.0	8.0	17.0	16.0	22.0	23.0	25.0	20.5
14	21.0	5.0	10.0	2.0	10.0	7.0	17.0	15.0	22.0	23.0	25.0	20.5
15	19.5	5.5	5.5	2.0	11.0	10.0	18.0	15.0	22.0	23.0	25.0	20.5
16	18.0	6.0	5.0	2.0	11.0	8.0	16.0	16.0	21.0	22.0	25.0	21.0
17	16.5	10.0	4.0	2.0	12.0	8.0	17.0	16.0	21.0	23.0	25.0	21.0
18	15.0	10.0	5.0	3.0	11.0	10.0	15.0	15.0	21.0	23.0	25.0	21.0
19	---	10.5	3.0	2.0	11.0	12.0	16.0	16.0	20.0	22.0	25.0	21.0
20	---	10.0	5.0	2.0	12.0	16.0	15.0	17.0	19.0	23.0	24.0	21.0
21	---	5.5	3.0	3.0	10.0	10.0	14.0	17.0	20.0	23.0	24.0	21.0
22	15.5	5.0	4.0	3.0	8.0	12.0	15.0	17.0	21.0	24.0	24.0	19.0
23	15.5	5.0	4.0	4.0	8.0	14.0	16.0	18.0	22.0	24.0	24.0	19.5
24	15.0	5.0	4.0	5.0	9.0	16.0	17.0	18.0	22.0	24.0	24.0	20.0
25	10.5	5.0	4.0	5.0	10.0	14.0	15.0	18.0	20.0	24.0	23.0	21.5
26	15.0	3.0	3.0	4.0	10.0	17.0	14.0	18.0	22.0	24.0	23.0	21.0
27	11.0	3.0	4.0	3.0	10.0	17.0	14.0	18.0	22.0	24.0	24.0	20.0
28	15.0	3.0	4.0	3.0	15.0	12.0	14.0	17.0	22.0	24.0	23.0	19.0
29	11.0	5.5	4.0	3.0	15.0	14.0	14.0	18.0	23.0	24.0	23.0	17.0
30	15.5	5.5	4.0	4.0	---	12.0	14.0	17.0	23.0	24.0	23.0	17.0
31	16.0	---	3.0	4.0	---	11.0	---	18.0	---	25.0	23.0	---
MONTH	16.0	9.5	5.0	2.5	8.0	11.5	14.5	16.0	21.0	23.0	24.0	21.0
YEAR	MAX	25.0	MIN	0.0	MEAN	14.5						

ARKANSAS RIVER BASIN

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07160000 CIMARRON RIVER NEAR GUTHRIE, OK

LOCATION.--Lat 35°55'10", long 97°25'35", in NE 1/4 SE 1/4 sec.29, T.17 N., R.2 W., Logan County, on left bank 125 ft (38.1 m) upstream from the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.2 mi (1.9 km) downstream from Cottonwood Creek, 2.5 mi (4.0 km) north of Guthrie, 6.5 mi (10.5 km) upstream from Skeleton Creek, and at mile 121.8 (196.0 km).

DRAINAGE AREA.--16,892 mi² (43,750 km²), of which 4,926 mi² (12,758 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year (discontinued). Monthly discharge only for some periods, published in WSP's 1311 and 1731.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 900.50 ft (274.472 m) above mean sea level (Corps of Engineers bench mark). Prior to Mar. 19, 1939, nonrecording gage at railway bridge 125 ft (38.1 m) downstream at same datum. Since Sept. 14, 1967, supplementary water-stage recorder, at site 2,000 ft (609.6 m) downstream and at datum 4.00 ft (1.219 m) lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--39 years, 889 ft³/s (25.18 m³/s), 644,100 acre-ft/yr (794 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158,000 ft³/s (4,475 m³/s) May 17, 1957, gage height, 18.58 ft (5.663 m); minimum 0.1 ft³/s (.003 m³/s) Nov. 2, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,900 ft³/s (337 m³/s) May 28, gage height, 6.39 ft (1.948 m), no peak above base of 16,000 ft³/s (453 m³/s); minimum daily, 18 ft³/s (.51 m³/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	170	310	401	365	218	207	1820	1430	198	59	68
2	130	170	307	393	363	215	206	1760	1670	188	74	86
3	129	174	348	385	361	239	203	1290	1150	249	76	83
4	127	367	353	300	362	263	199	3310	910	385	82	71
5	124	366	345	250	373	246	201	1550	763	313	73	63
6	123	525	332	220	370	248	202	1680	680	320	69	55
7	120	575	325	200	371	248	206	821	628	282	69	47
8	116	422	326	230	364	263	214	690	584	254	64	39
9	112	343	321	280	365	308	205	655	546	205	57	43
10	112	316	322	320	362	396	196	731	507	177	51	43
11	112	294	320	374	358	381	190	1350	465	156	42	57
12	112	266	321	377	354	398	225	6820	426	144	36	93
13	108	248	321	387	347	441	309	5990	399	135	36	82
14	108	236	323	375	337	413	220	3860	372	128	32	78
15	188	227	328	386	342	353	238	4130	345	125	28	74
16	954	220	339	387	346	336	265	1860	321	167	29	134
17	705	217	340	380	333	324	347	1030	297	168	47	261
18	370	216	334	369	316	304	639	832	297	184	53	212
19	310	222	349	361	305	291	812	716	297	161	49	133
20	294	238	346	357	299	273	1120	651	1290	132	43	113
21	274	265	343	357	294	263	2070	603	1000	112	39	93
22	233	400	349	377	285	254	2270	533	768	104	33	90
23	201	339	347	419	278	241	1050	520	484	92	31	165
24	183	323	351	417	271	229	947	737	406	85	28	171
25	177	317	362	406	256	226	928	1610	365	79	25	141
26	177	313	366	395	251	218	695	1540	331	75	24	132
27	174	303	374	385	245	213	575	6280	303	69	24	152
28	174	297	383	378	237	221	556	9530	273	77	28	244
29	172	298	392	376	226	223	570	3650	239	76	20	404
30	170	307	397	375	---	208	872	1760	212	67	18	394
31	170	---	400	373	---	207	---	1090	---	62	35	---
TOTAL	6593	8974	10674	10990	9336	8661	16937	69399	17758	4969	1374	3821
MEAN	213	299	344	355	322	279	565	2239	592	160	44.3	127
MAX	954	575	400	419	373	441	2270	9530	1670	385	82	404
MIN	108	170	307	200	226	207	190	520	212	62	18	39
AC-FT	13080	17800	21170	21800	18520	17180	33590	137700	35220	9860	2730	7580
CAL YR 1975 TOTAL	551650			1511	MAX 34900	MIN 108	AC-FT 1094000					
WTR YR 1976 TOTAL	169486			463	MAX 9530	MIN 18	AC-FT 336200					

ARKANSIS RIVER BASIN

07160000 CIMARRON RIVER NEAR GUTHRIE, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1953-63, November 1975 to September 1976.

REMARKS.--Samples were collected in open mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV 05...	115	284	49	850	10	2353	.4	--	2.9	.69	30
DEC 03...	--	525	--	--	--	3553	.5	7227	2.2	.13	--
JAN 16...	210	449	61	1800	8.5	3040	.4	5330	2.4	.26	--
FEB 03...	226	494	70	1900	9.0	3498	.4	4448	2.1	.61	2
MAR 02...	140	444	69	2000	10	3548	.4	7033	1.2	.44	--
APR 06...	--	--	64	--	8.5	1210	.4	1811	1.0	.78	--
MAY 05...	400	--	50	1900	142	4118	.7	6060	.50	.10	70
JUN 02...	142	346	41	1000	12	1686	.3	3227	.90	.26	--
JUL 13...	213	541	69	2300	12	4004	.5	7180	1.9	.33	--
AUG 18...	172	398	72	1760	19	3260	.5	6139	2.5	.60	10
SEP 15...	107	300	42	900	9.7	1781	.4	3360	2.2	.97	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV 05...	1028	9740	0900	366	6000	8.1	15.0	200	8.4	88	70	440
DEC 03...	1028	9740	1200	348	12000	--	7.5	30	12.0	106	122	777
JAN 16...	1028	9740	0900	387	11000	7.9	3.0	7	15.2	120	287	1101
FEB 03...	1028	9740	1115	361	13000	8.6	6.0	3	12.9	102	63	644
MAR 02...	1028	9740	1115	215	--	8.2	17.0	2	10.3	114	155	1043
APR 06...	1028	9740	1000	202	3500	--	16.0	3	11.4	124	47	86
MAY 05...	1028	9740	0945	2350	10000	8.0	16.0	>1000	8.3	90	263	--
JUN 02...	1028	9740	1045	1670	5750	8.0	23.0	>1000	7.4	91	84	516
JUL 13...	1028	9740	1225	135	12000	8.4	29.5	50	8.9	122	865	846
AUG 18...	1028	9740	1200	53	10000	8.7	31.0	18	13.6	186	42	641
SEP 15...	1028	9740	1130	74	5500	8.3	25.0	25	10.7	130	35	321

ARKANSAS RIVER BASIN

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07160000 CIMARRON RIVER NEAR GUTHRIE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
05...	4	27	26	18300	20	300	--	36	--	4	50
DEC											
03...	--	--	--	200	--	36	--	--	--	--	--
JAN											
16...	--	--	--	200	--	87	--	--	--	--	--
FEB											
03...	<1	8	14	500	35	140	--	36	--	5	2
MAR											
02...	--	--	--	300	--	210	--	--	--	--	--
APR											
06...	--	--	--	200	--	160	--	--	--	--	--
MAY											
05...	6	125	125	17000	60	3300	<.5	190	--	10	400
JUN											
02...	--	--	--	2900	--	599	--	--	--	--	--
JUL											
13...	--	--	--	800	--	234	--	--	--	--	--
AUG											
18...	18	71	18	300	23	221	<.5	22	2	9	9
SEP											
15...	--	--	--	500	--	247	--	--	--	--	--

ARKANSAS RIVER BASIN

07160500 SKELETON CREEK NEAR LOVELL, OK

LOCATION.--Lat 36°03'36", long 97°35'05", in NW 1/4 SW 1/4 sec.1, T.18 N., R.4 W., Logan County, near right bank on downstream side of pier of bridge on State Highway 74, 2 mi (3.2 km) upstream from Otter Creek, 2.8 mi (4.5 km) east of Lovell, and at mile 14.6 (23.5 km).

DRAINAGE AREA.--410 mi² (1,062 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 914.76 ft (278.819 m) above mean sea level (State Highway Department bench mark). Prior to Dec. 5, 1949, nonrecording gage at site 60 ft (18.3 m) downstream at datum 0.30 ft (91.4 mm) lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--27 years, 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (106 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,200 ft³/s (2,130 m³/s) May 16, 1957, gage height, 34.58 ft (10.540 m); no flow at times in 1953-54, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 17, 1932, reached a stage of 32.0 ft (9.75 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s (62.0 m³/s) May 27, gage height, 15.01 ft (4.575 m), no peak above base of 2,300 ft³/s (65.1 m³/s); minimum daily, 1.1 ft³/s (0.031 m³/s) Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	12	19	24	26	12	13	53	54	16	3.3	6.0
2	11	25	22	22	23	13	14	41	54	18	3.5	5.7
3	11	300	17	18	20	15	14	33	50	35	7.1	8.1
4	11	100	16	18	18	16	15	26	45	50	44	5.3
5	12	55	16	15	20	14	14	22	39	32	13	5.0
6	13	40	15	16	20	15	15	22	38	18	9.8	4.7
7	13	30	17	22	20	13	14	20	35	14	7.3	4.5
8	13	25	17	16	18	15	13	19	34	13	13	5.7
9	12	20	17	13	23	28	16	21	35	11	7.7	6.0
10	10	18	17	14	22	35	18	24	33	9.9	4.8	5.5
11	15	17	17	20	20	30	17	45	31	9.7	4.1	5.0
12	12	16	17	20	21	60	17	175	28	9.4	3.4	6.5
13	12	15	18	24	18	64	17	917	29	8.9	2.9	6.0
14	79	15	18	21	18	36	18	680	28	8.7	2.0	5.6
15	1270	14	18	22	19	23	22	110	26	8.7	3.2	5.0
16	75	14	18	21	19	20	56	65	25	40	3.0	5.0
17	30	14	18	20	19	21	91	47	27	11	19	9.0
18	16	14	19	23	19	20	196	37	26	7.3	7.0	8.0
19	12	15	15	22	19	19	133	34	25	5.9	3.8	7.5
20	12	19	13	19	15	18	71	33	30	5.5	2.2	7.0
21	12	50	18	21	15	17	371	34	23	4.9	1.3	6.5
22	12	27	16	18	15	17	165	32	21	4.4	1.1	6.0
23	12	18	16	21	16	15	57	40	19	5.7	1.6	5.8
24	12	17	19	18	17	15	37	44	19	4.0	3.3	5.6
25	12	13	19	20	15	16	28	45	21	3.6	2.5	9.6
26	14	15	19	19	14	16	26	200	19	5.7	3.0	1080
27	15	12	22	19	16	15	24	1500	18	5.0	3.7	582
28	13	13	17	19	14	14	31	1090	18	4.9	2.8	49
29	12	18	19	19	14	14	239	170	18	4.7	2.9	22
30	12	15	21	24	---	13	122	90	16	3.1	3.3	11
31	12	---	24	23	---	14	---	65	---	2.8	4.3	---
TOTAL	1786.5	976	554	611	533	653	1884	5734	884	380.8	193.9	1898.6
MEAN	57.6	32.5	17.9	19.7	18.4	21.1	62.8	185	29.5	12.3	6.25	63.3
MAX	1270	300	24	24	26	64	371	1500	54	50	44	1080
MIN	9.5	12	13	13	14	12	13	19	16	2.8	1.1	4.5
AC-FT	3540	1940	1100	1210	1060	1300	3740	11370	1750	755	385	3770

CAL YR 1975 TOTAL 104626.5 MEAN 287 MAX 8560 MIN 9.5 AC-FT 207500
WTR YR 1976 TOTAL 16088.8 MEAN 44.0 MAX 1500 MIN 1.1 AC-FT 31910

ARKANSAS RIVER BASIN

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07160500 SKELETON CREEK NEAR LOVELL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-55, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1950 to September 1955.

WATER TEMPERATURE: October 1950 to September 1955.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV												
17...	1028	9740	1400	14	2700	7.6	13.0	13	9.5	96	63	840
DEC												
17...	1028	9740	1330	18	2700	--	4.0	--	10.6	84	23	--
JAN												
21...	1028	9740	1500	21	1900	8.5	4.0	7	--	--	52	697
FEB												
18...	1028	9740	1430	19	2200	8.9	11.5	7	16.4	161	82	475
MAR												
09...	1028	9740	1115	28	2400	8.2	9.0	4	10.8	98	92	540
APR												
13...	1028	9740	0945	17	2700	7.9	18.5	20	5.7	65	49	540
MAY												
11...	1028	9740	1000	45	2400	7.8	19.0	69	--	--	28	468
JUN												
16...	1028	9740	1600	25	2600	8.8	29.0	41	14.8	200	45	515
JUL												
07...	1028	9740	1530	14	1100	7.9	32.0	100	7.2	100	32	312
SEP												
08...	1028	9740	1045	5.7	2600	8.1	22.5	68	7.6	93	58	569

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACU3 (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
17...	220	546	50	375	17	453	1.0	1620	6.3	1.9	8
DEC											
17...	180	320	54	300	14	--	--	--	4.4	--	--
JAN											
21...	180	442	48	260	11	390	.9	1602	9.1	1.8	--
FEB											
18...	170	298	46	160	11	394	1.3	1337	6.2	1.2	7
MAR											
09...	160	340	48	260	18	400	1.6	1630	1.3	1.3	--
APR											
13...	150	350	47	400	13	480	2.2	1700	1.4	1.2	--
MAY											
11...	132	298	45	300	11	580	1.6	1401	1.5	1.1	7
JUN											
16...	146	354	41	310	14	349	1.3	1464	1.9	.59	--
JUL											
07...	84	190	26	136	11	149	.7	712	2.9	1.3	--
SEP											
08...	190	424	40	405	11	413	.9	2067	4.6	1.0	--

ARKANSAS RIVER BASIN

07160500 SKELETON CREEK NEAR LOVELL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
17...	2	20	8	1500	28	4985	--	25	--	3	15
DEC											
17...	--	--	--	400	--	500	--	--	--	--	--
JAN											
21...	--	--	--	300	--	470	--	--	--	--	--
FEB											
18...	2	6	7	300	32	730	--	16	--	2	10
MAR											
09...	--	--	--	400	--	570	--	--	--	--	--
APR											
13...	--	--	--	2000	--	1400	--	--	--	--	--
MAY											
11...	4	22	10	700	30	608	<.5	24	5	6	32
JUN											
16...	--	--	--	500	--	290	--	--	--	--	--
JUL											
07...	--	--	--	5400	--	1010	--	--	--	--	--
SEP											
08...	--	--	--	900	--	403	--	--	--	--	--

ARKANSAS RIVER BASIN

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07161000 CIMARRON RIVER AT PERKINS, OK

LOCATION.--Lat 35°57'32", long 97°01'49", in SW 1/4 SW 1/4 sec.7, T.17 N., R.3 E., Payne County, near right bank at downstream side of bridge on U.S. Highway 177, 1.0 mi (1.6 km) south of Perkins, 1.5 mi (2.4 km) upstream from Dugout Creek, 4.0 mi (6.4 km) downstream from Wildhorse Creek, and at mile 87.3 (140.5 km).

DRAINAGE AREA.--17,852 mi² (46,237 km²) of which 4,926 mi² (12,758 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at same site since 1927 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 819.88 ft (249.899 m) above mean sea level (levels by Corps of Engineers). Prior to June 26, 1940, and Jan. 9, to Apr. 7, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--37 years, 1,194 ft³/s (33.81 m³/s), 865,100 acre-ft/yr (1.07 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 149,000 ft³/s (4,220 m³/s) May 17, 1957, gage height, 19.53 ft (5.953 m); minimum, 0.8 ft³/s (0.023 m³/s) Dec. 8, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 5, 1926, reached a stage of 17.0 ft (5.18 m) from floodmarks, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,400 ft³/s (379 m³/s) May 28, gage height, 9.21 ft (2.807 m), no peak above base of 16,000 ft³/s (453 m³/s); minimum daily, 34 ft³/s (0.96 m³/s) Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	221	338	352	301	270	234	1130	1690	274	74	54
2	192	219	320	342	293	274	231	2150	2100	272	96	61
3	188	231	307	331	292	280	224	1660	2010	253	76	72
4	187	252	356	280	294	306	219	1920	1460	274	75	80
5	184	503	374	250	304	312	213	2960	1170	455	78	74
6	181	515	317	250	311	291	213	1630	988	381	97	62
7	178	707	287	188	316	288	215	1260	868	372	84	51
8	175	695	290	250	319	304	220	1040	776	318	74	42
9	175	520	294	300	318	337	224	871	709	291	72	42
10	170	421	277	329	314	360	213	846	652	257	64	43
11	169	374	277	325	318	444	207	931	599	230	60	40
12	164	338	271	337	319	456	263	2920	557	209	56	39
13	158	310	265	320	317	502	405	8850	519	192	54	66
14	157	297	265	322	306	544	365	5830	490	180	49	83
15	668	294	265	315	303	487	266	4640	467	172	42	83
16	2000	290	310	321	303	423	263	4000	436	218	36	109
17	1560	300	310	323	315	390	282	2380	406	204	34	182
18	886	300	289	316	305	367	379	1830	407	205	39	215
19	541	297	289	306	295	346	656	1520	433	199	49	254
20	411	304	302	292	295	322	1380	1320	401	176	58	231
21	360	284	296	289	292	303	1410	1160	1340	151	50	175
22	334	334	302	287	274	298	2580	1030	1020	134	43	112
23	287	485	311	303	275	290	2090	951	639	123	39	91
24	265	393	315	345	268	278	1240	907	493	115	39	114
25	258	370	326	345	260	272	1160	1360	419	106	40	167
26	236	352	328	328	253	266	1040	2370	389	99	39	192
27	236	338	327	322	264	257	831	4530	375	88	39	715
28	229	307	340	313	273	254	754	11700	336	80	39	659
29	222	329	358	304	273	261	765	7000	299	104	40	403
30	220	329	359	301	---	251	823	3420	280	98	39	453
31	217	---	355	301	---	238	---	2140	---	79	48	---
TOTAL	11404	10909	9620	9487	8570	10271	19365	86256	22728	6309	1722	4964
MEAN	368	364	310	306	296	331	646	2782	758	204	55.5	165
MAX	2000	707	374	352	319	544	2580	11700	2100	455	97	715
MIN	157	219	265	188	253	238	207	846	280	79	34	39
AC-FT	22620	21640	19080	18820	17000	20370	38410	171100	45080	12510	3420	9850
CAL YR 1975	TOTAL	898686	MEAN	2462	MAX	45000	MIN	157	AC-FT	1783000		
WTR YR 1976	TOTAL	201605	MEAN	551	MAX	11700	MIN	34	AC-FT	399900		

ARKANSAS RIVER BASIN

07161000 CIMARRON RIVER AT PERKINS, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years, 1950, 1953-63, 1965 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1952 to September 1963, June 1965 to current year.

WATER TEMPERATURE: October 1962 to September 1963, June 1965 to current year.

INSTRUMENTATION.--Water quality monitor since June 1965.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 32,400 micromhos Mar. 18, 1957; minimum, 353 micromhos Apr. 30, 1970.

WATER TEMPERATURE: Maximum, 39.0°C June 18, 1974; minimum, -1.0°C Jan. 19-20, 1970.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 17,600 micromhos Sept. 26; minimum daily, 763 micromhos Sept. 16.

WATER TEMPERATURE: Maximum daily, 27.0°C July 25, 26, 30, Aug. 1; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
UCT												
05...	--	--	0730	183	4900	8.5	--	--	--	500	260	120
09...	--	--	0915	177	4590	8.9	20.0	15	--	470	250	110
16...	--	--	0730	2390	763	7.8	--	--	--	160	32	44
25...	--	--	0730	51	3500	8.3	--	--	--	390	150	100
NOV												
05...	--	--	0700	644	4320	8.0	15.5	--	--	480	230	120
15...	--	--	0700	300	9290	8.2	7.5	--	--	620	360	170
25...	--	--	0730	436	4790	9.2	1.5	--	--	580	320	150
DEC												
04...	--	--	0800	356	9220	8.3	--	--	--	630	370	160
15...	--	--	0730	265	9110	8.4	--	--	--	690	610	180
16...	1028	9740	1401	347	8000	8.7	4.0	--	155	--	--	--
25...	--	--	0730	324	9710	8.1	--	--	--	660	400	170
30...	--	--	1000	360	9500	8.6	3.0	7	--	680	390	170
JAN												
05...	--	--	0745	284	10000	8.0	--	--	--	700	430	180
15...	--	--	0740	317	8740	8.2	--	--	--	680	410	170
16...	--	--	1100	329	8750	8.2	5.0	7	--	650	370	170
16...	1028	9740	1101	329	8750	8.2	5.0	--	165	--	--	--
25...	--	--	0730	342	12400	8.1	--	--	--	770	530	190
FEB												
04...	--	--	1130	297	11000	9.2	3.0	8	--	670	430	160
04...	1028	9740	1131	297	11000	9.2	3.0	--	922	--	--	--
05...	--	--	0750	297	10100	8.4	--	--	--	670	430	160
16...	--	--	0730	300	9740	8.2	--	--	--	670	430	160
25...	--	--	0730	258	11000	8.6	--	--	--	740	490	180
MAR												
02...	--	--	1730	277	9000	9.0	19.0	9	--	670	440	160
05...	--	--	0730	520	10100	8.1	--	--	--	680	440	160
15...	--	--	0930	490	14300	8.3	--	--	--	700	480	170
25...	--	--	0730	271	10900	8.4	--	--	--	710	470	170
APR												
04...	--	--	0730	214	9360	7.9	--	--	--	640	400	140
06...	--	--	1700	218	3400	--	22.5	5	--	650	430	150
06...	1028	9740	1701	218	3400	--	23.0	--	77	--	--	--
15...	--	--	0730	268	4470	7.6	--	--	--	390	190	90
25...	--	--	0730	1090	6460	7.8	--	--	--	540	420	150
MAY												
03...	--	--	1500	1550	14000	8.0	16.0	1200	--	660	500	170
03...	1028	9740	1501	1550	14000	8.0	17.0	--	158	--	--	--

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
MAY												
05...	--	--	0730	3430	10800	7.3	--	--	--	520	340	140
17...	--	--	0730	2510	3050	7.8	--	--	--	280	170	79
25...	--	--	0730	870	7930	8.0	--	--	--	640	460	170
JUN												
10...	--	--	0730	666	6800	8.0	--	--	--	630	420	170
20...	--	--	0730	406	9940	8.0	--	--	--	750	560	190
21...	--	--	1300	1790	10200	8.0	23.0	250	--	710	570	180
21...	1028	9740	1301	1790	10250	8.0	23.0	--	94	--	--	--
24...	--	--	0730	510	3620	7.5	--	--	--	520	390	150
JUL												
07...	--	--	0730	397	4740	7.7	--	--	--	390	250	100
09...	--	--	1200	294	5200	8.6	28.0	120	--	490	300	130
09...	1028	9740	1201	294	5200	8.9	28.0	--	222	--	--	--
14...	--	--	0730	180	10200	7.8	--	--	--	780	550	200
23...	--	--	0730	123	8070	7.9	--	--	--	620	400	150
AUG												
02...	--	--	0730	129	6070	7.5	--	--	--	440	290	110
15...	--	--	0730	42	8690	7.7	--	--	--	660	440	160
24...	--	--	1030	40	7700	8.7	27.0	15	--	650	420	160
24...	1028	9740	1031	35	5600	8.7	27.0	--	40	--	--	--
25...	--	--	0730	40	8400	7.5	--	--	--	670	440	160
SEP												
05...	--	--	0730	76	7810	7.7	--	--	--	570	380	140
19...	--	--	0730	281	3180	7.3	--	--	--	290	160	72
22...	--	--	1200	112	4240	8.5	21.5	75	--	370	210	94
22...	1028	9740	1201	112	48000	8.5	22.0	--	49	--	--	--
26...	--	--	1130	170	17600	7.5	--	--	--	810	650	200
DATE	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT												
05...	49	830	78	16	6.4	265	242	1.5	280	1200	--	--
09...	48	860	80	17	6.3	270	221	.5	280	1300	--	.4
16...	11	89	55	3.1	4.5	150	123	3.8	52	130	--	--
25...	34	580	76	13	6.7	287	235	2.3	210	860	--	--
NOV												
05...	44	690	75	14	6.5	304	249	4.9	240	1100	--	--
15...	48	1800	86	31	7.8	320	262	3.2	410	2700	--	--
25...	49	800	75	15	6.8	318	261	.3	360	1200	--	--
DEC												
04...	57	1900	87	33	6.9	321	263	2.6	370	3000	--	--
15...	59	1600	83	26	7.8	104	85	.7	220	2800	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
25...	57	1700	85	29	7.7	320	262	4.1	380	2700	--	--
30...	61	1600	84	27	6.4	324	287	1.4	18	2700	--	.4
JAN												
05...	62	1900	85	31	6.6	334	274	5.3	410	3000	--	--
15...	63	1600	83	27	5.6	335	275	3.4	400	2600	--	--
16...	54	1700	85	29	5.7	339	278	3.4	380	2600	--	.5
16...	--	--	--	--	--	--	--	--	--	--	--	--
25...	72	2300	87	36	6.5	292	240	3.7	500	3900	--	--
FEB												
04...	65	1900	86	32	7.4	276	235	.3	430	3200	--	.4
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	65	1900	86	32	6.4	292	240	1.9	450	3100	--	--
16...	65	1900	86	32	7.4	288	236	2.9	470	3100	--	--
25...	70	2200	87	35	7.5	286	246	1.2	460	3500	--	--
MAR												
02...	66	2100	87	35	7.6	278	236	.5	400	3200	--	.5
05...	67	1900	86	32	7.2	284	233	3.6	400	--	--	--
15...	67	2900	90	48	8.0	268	220	2.2	440	4600	--	--
25...	69	2100	86	34	7.5	271	234	1.8	420	3400	--	--
APR												
04...	70	1800	86	31	9.8	284	233	5.7	390	2900	--	--
06...	68	1700	85	29	8.3	273	224	--	480	2700	--	.5
06...	--	--	--	--	--	--	--	--	--	--	--	--
15...	41	800	81	18	6.8	252	207	10	210	1200	--	--
25...	41	1200	83	22	7.9	150	123	3.8	370	1900	--	--
MAY												
03...	58	2800	90	47	9.4	194	159	3.1	480	4400	--	.5
03...	--	--	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED MAG- NE- SIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS-SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CAO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)
MAY												
05...	41	2100	90	40	9.4	220	180	18	350	3300	--	--
17...	21	550	80	14	6.6	137	112	3.5	210	820	--	--
25...	53	1500	83	26	9.0	223	183	3.6	410	2400	--	--
JUN												
10...	50	1200	80	21	10	259	212	4.1	300	2000	--	--
20...	68	1900	84	30	10	239	196	3.8	400	3000	--	--
21...	63	2000	86	33	10	174	143	2.8	560	3100	--	.6
21...	--	--	--	--	--	--	--	--	--	--	--	--
24...	36	560	70	11	9.3	157	129	7.9	430	870	--	--
JUL												
07...	35	860	82	19	8.1	174	143	5.6	300	1300	--	--
09...	40	910	80	18	9.2	229	188	.9	300	1400	--	.5
09...	--	--	--	--	--	--	--	--	--	--	--	--
14...	68	2100	85	33	12	274	225	6.9	470	3200	--	--
23...	59	1600	85	28	9.8	270	221	5.4	390	2400	--	--
AUG												
02...	40	1100	84	23	7.6	180	148	9.1	260	1700	--	--
15...	64	1700	85	29	10	277	227	8.8	390	2600	--	--
24...	60	1500	83	26	10	278	228	.9	410	2200	--	.6
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	65	1600	84	27	10	281	230	14	390	2400	--	--
SEP												
05...	54	1400	84	25	9.3	232	190	7.4	350	2300	--	--
19...	26	540	80	14	7.7	151	124	12	170	820	--	--
22...	32	750	81	17	7.5	189	155	1.0	230	1200	--	.5
22...	--	--	--	--	--	--	--	--	--	--	--	--
26...	75	3600	91	55	11	191	157	9.7	530	6000	--	--

DATE	DIS-SOLVED SILICA (SIU2) (MG/L)	DIS-SOLVED (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO3) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
UOT											
05...	--	2740	--	3.73	1350	--	.88	--	--	--	--
09...	5.5	2710	2740	3.69	1300	.01	--	2.1	2.1	9.3	.29
16...	--	417	--	.57	2690	--	1.3	--	--	--	--
25...	--	1900	--	2.58	262	--	.54	--	--	--	--
NOV											
05...	--	2460	--	3.35	4280	--	.99	--	--	--	.69
15...	--	5230	--	7.11	4240	--	.94	--	--	--	.43
25...	--	2780	--	3.78	3270	--	1.2	--	--	--	.38
DEC											
04...	--	5770	--	7.85	5550	--	1.3	--	--	--	.32
15...	--	5390	--	7.33	3860	--	1.2	--	--	--	.37
16...	--	--	--	--	--	--	--	--	1.9	--	--
25...	--	5420	--	7.37	4740	--	1.2	--	--	--	.29
30...	8.8	5320	4740	7.24	5170	1.1	--	.48	1.6	7.0	.41
JAN											
05...	--	5930	--	8.06	4550	--	1.5	--	--	--	.41
15...	--	5130	--	6.98	4390	--	1.5	--	--	--	.34
16...	8.3	5060	5090	6.88	4500	1.1	--	.89	2.0	8.8	.35
16...	--	--	--	--	--	--	--	--	2.5	--	--
25...	--	7400	--	10.1	6830	--	.67	--	--	--	.25
FEB											
04...	3.0	5990	5910	8.15	4800	.03	--	.86	.89	3.9	.22
04...	--	--	--	--	--	--	--	--	1.0	--	--
05...	--	5880	--	8.00	4720	--	.35	--	--	--	.21
16...	--	5680	--	7.72	4600	--	1.1	--	--	--	.42
25...	--	6450	--	8.77	4490	--	.48	--	--	--	.30
MAR											
02...	.9	6260	6080	8.51	4680	.01	--	1.2	1.2	5.4	.43
05...	--	5860	--	7.97	5060	--	.62	--	--	--	.42
15...	--	8530	--	11.6	11300	--	1.0	--	--	--	.28
25...	--	6320	--	8.60	4620	--	.66	--	--	--	--
APR											
04...	--	5500	--	7.48	3180	--	.55	--	--	--	--
06...	.1	5280	5240	7.18	3110	.01	--	1.1	1.1	4.9	.51
06...	--	--	--	--	--	--	--	--	2.0	--	--
15...	--	2520	--	3.43	1820	--	1.1	--	--	--	--
25...	--	3890	--	5.29	11400	--	2.7	--	--	--	--
MAY											
03...	8.3	8270	8020	11.2	34600	1.2	--	4.8	6.0	27	1.1
03...	--	--	--	--	--	--	--	--	.50	--	--

ARKANSAS RIVER BASIN

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07161000 CIMARRON RIVER AT PERKINS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N03) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
MAY											
05...	--	6250	--	6.50	57900	--	3.5	--	--	--	4.8
17...	--	1710	--	2.33	11600	--	1.2	--	--	--	1.1
25...	--	4600	--	6.26	10800	--	.49	--	--	--	.35
JUN											
10...	--	3990	--	5.43	7180	--	.87	--	--	--	.22
20...	--	5900	--	8.02	6470	--	.45	--	--	--	.46
21...	11	6010	6010	8.17	29000	--	--	--	--	--	.61
21...	--	--	--	--	--	--	--	--	1.0	--	--
24...	--	2130	--	2.90	2930	--	.86	--	--	--	1.3
JUL											
07...	--	2720	--	3.70	2920	--	1.5	--	--	--	.59
09...	6.4	2970	2910	4.04	2360	.64	--	1.2	1.2	5.5	.73
09...	--	--	--	--	--	--	--	--	2.8	--	--
14...	--	6360	--	8.65	3090	--	.69	--	--	--	.54
23...	--	4710	--	6.41	1560	--	.74	--	--	--	.78
AUG											
02...	--	3460	--	4.71	1210	--	1.4	--	--	--	.47
15...	--	5090	--	6.92	577	--	.83	--	--	--	.50
24...	8.8	4690	4490	6.38	507	.01	--	1.3	1.3	5.8	.67
24...	--	--	--	--	--	--	--	--	3.2	--	--
25...	--	4810	--	6.54	519	--	1.1	--	--	--	.86
SEP											
05...	--	4540	--	6.17	932	--	1.2	--	--	--	.90
19...	--	1790	--	2.43	1360	--	4.0	--	--	--	1.6
22...	6.3	2370	2410	3.22	717	.25	--	1.8	2.1	9.1	.80
22...	--	--	--	--	--	--	--	--	2.6	--	--
26...	--	10600	--	14.4	4870	--	1.1	--	--	--	.59

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
UCT											
09...	--	--	0915	177	8.2	93	--	1130	--	--	--
DEC											
16...	--	--	1400	347	--	--	--	--	--	38	36
16...	1028	9740	1401	347	--	--	--	--	--	--	--
30...	--	--	1000	360	13.8	106	--	--	--	--	--
JAN											
16...	--	--	1100	329	15.2	126	--	--	--	28	83
16...	1028	9740	1101	329	15.2	126	--	--	--	--	--
FEB											
04...	--	--	1130	297	10.8	84	--	--	4.8	--	--
04...	1028	9740	1131	297	10.8	84	--	--	--	--	--
MAR											
02...	--	--	1730	277	12.3	141	--	890	--	--	--
APR											
06...	--	--	1700	218	11.9	145	--	--	--	--	--
06...	1028	9740	1701	218	11.9	145	--	--	--	--	--
MAY											
03...	--	--	1500	1550	9.7	104	1000	430	31	2400	94
03...	1028	9740	1501	1550	9.5	104	--	--	--	--	--
JUN											
21...	--	--	1300	1790	8.8	110	1400	1000	--	--	--
21...	1028	9740	1301	1790	--	--	--	--	--	--	--
JUL											
09...	--	--	1200	294	12.5	160	6200	3500	24	208	75
09...	1028	9740	1201	294	--	--	--	--	--	--	--
AUG											
24...	--	--	1030	40	9.6	123	--	52	--	134	80
24...	1028	9740	1031	35	9.6	123	--	--	--	--	--
SEP											
22...	--	--	1200	112	10.5	125	>600	121	9.3	155	78
22...	1028	9740	1201	112	10.5	125	>600	121	--	--	--

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COLLECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)
DEC 16...	1028	9740	1401	347	--	--	--	--	--	--
JAN 16...	1028	9740	1101	329	--	--	--	--	--	--
FEB 04...	--	--	1130	297	3	0	3	10	9	1
04...	1028	9740	1131	297	--	--	--	--	--	--
APR 06...	1028	9740	1701	218	--	--	--	--	--	--
MAY 03...	--	--	1500	1550	32	30	2	20	17	3
03...	1028	9740	1501	1550	--	--	--	--	--	--
JUN 21...	1028	9740	1301	1790	--	--	--	--	--	--
JUL 09...	--	--	1200	294	6	0	6	10	9	1
09...	1028	9740	1201	294	--	--	--	--	--	--
AUG 24...	1028	9740	1031	35	--	--	--	--	--	--
SEP 22...	--	--	1200	112	14	5	9	<10	<10	0
22...	1028	9740	1201	112	--	--	--	--	--	--

DATE	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUSPENDED COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
DEC 16...	--	--	--	--	--	--	--	--	--	100
JAN 16...	--	--	--	--	--	--	--	--	--	200
FEB 04...	0	0	0	50	50	0	20	17	3	240
04...	--	--	--	--	--	--	--	--	--	--
APR 06...	--	--	--	--	--	--	--	--	--	100
MAY 03...	60	50	10	100	100	0	70	62	8	46000
03...	--	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--	--
JUL 09...	10	10	0	<50	<50	0	30	24	6	4300
09...	--	--	--	--	--	--	--	--	--	1500
AUG 24...	--	--	--	--	--	--	--	--	--	--
SEP 22...	10	0	10	100	100	0	<10	<5	5	4300
22...	--	--	--	--	--	--	--	--	--	900

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)
DEC 16...	--	--	--	--	55	--	--	--	--
JAN 16...	--	--	--	--	93	--	--	--	--
FEB 04...	10	<100	<98	2	110	0	130	.0	.0
04...	--	--	--	--	--	--	--	--	--
APR 06...	--	--	--	--	45	--	--	--	--
MAY 03...	60	200	200	4	2300	2300	10	.1	.1
03...	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--
JUL 09...	10	<100	<96	4	300	290	10	1.3	1.0
09...	--	--	--	--	302	--	--	--	--
AUG 24...	--	--	--	--	--	--	--	--	--
SEP 22...	20	<100	<98	2	290	280	10	--	--
22...	--	--	--	--	272	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 9	0915	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	8,500	5	
		Dictyosphaerium	71,000	42	
		Kirchneriella	4,500	3	
		Scenedesmaceae			
		Scenedesmus	23,000	14	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	2,200	1	
		Volvocaceae			
		Pandorina	9,000	5	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	37,000	22	
		Pennales			
		Naviculaceae			
		Navicula	2,800	2	
		Nitzschiaceae			
		Nitzschia	6,800	4	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	3,900	2	
		TOTAL	170,000		
Dec. 30	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	61	3	
		Scenedesmaceae			
		Crucigenia		0	
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	490	28	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Amphora	61	3	
		Naviculaceae			
		Amphiprora	61	3	
		Gyrosigma		0	
		Navicula	970	55	
		Stauroneis		0	
		Nitzschiaceae			
		Nitzschia	120	7	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena			
		TOTAL	1,800		
Jan. 16	1100	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,400	13	
		CHROSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Naviculaceae			
		Navicula	9,200	87	
		Tropidoneis		0	
		Nitzschiaceae			
		Nitzschia		0	
		TOTAL	11,000		

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Feb. 4	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	720	7	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Naviculaceae			
		Navicula	9,400	93	
		TOTAL	10,000		
Mar. 2	1730	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus		0	
		Dictyosphaerium		0	
		Kirchneriella	180	2	
		Oocystis		0	
		Scenedesmaceae			
		Scenedesmus	370	4	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	2,800	27	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	920	9	
		Pennales			
		Fragilariaceae			
		Synedra		0	
		Naviculaceae			
		Amphiprora	2,300	23	
		Caloneis		0	
		Gyrosigma		0	
		Navicula	1,700	16	
		Nitzschiaceae			
		Nitzschia	180	2	
		Chrysophyceae			
		Chrysomonadales			
		Chromulinaceae			
		Chrysococcus	92	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum		0	
		Anacystis	740	7	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	1,000	10	
		TOTAL	10,000		
Apr. 6	1700	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	3,300	7	
		Selenastrum	440	1	
		Volvocales			
		Volvocaceae			
		Gonium	1,700	4	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	24,000	51	
		Melosira	870	2	
		Pennales			
		Naviculaceae			
		Amphiprora	1,300	3	
		Navicula	3,500	8	
		Nitzschiaceae			
		Hantzschia		0	
		Nitzschia	1,100	2	

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Apr. 6	1700	CYANOPHYTA			Sediment sampler
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	8,700	19	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,500	3	
		TOTAL	46,000		
May 3	1500	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	4,300	9	
		Pennales			
		Achnanthaceae			
		Achnanthes	2,200	5	
		Cymbellaceae			
		Cymbella	8,600	18	
		Fragilariaceae			
		Synedra	2,200	5	
		Gomphonemataceae			
		Gomphonema	2,200	5	
		Naviculaceae			
		Caloneis	4,300	9	
		Navicula	8,600	18	
		Nitzschiaceae			
		Nitzschia	15,000	32	
		TOTAL	48,000		
June 21	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	850	3	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	10,000	33	
		Melosira	1,100	4	
		Pennales			
		Naviculaceae			
		Amphiprora	280	1	
		Nitzschiaceae			
		Nitzschia	14,000	43	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Anabaena	4,800	15	
		PYRRHOPHYTA			
		Dinophyceae			
		Gymnodiniales			
		Gymnodiniaceae			
		Gymnodinium	280	1	
		TOTAL	31,000		
July 9	1200	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum	2,300	12	
		Occystaceae			
		Ankistrodesmus	860	4	
		Dictyosphaerium		0	
		Oocystis	2,300	12	
		Selenastrum	580	3	
		Scenedesmaceae			
		Scenedesmus	8,100	42	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	1,700	9	
		Pennales			
		Naviculaceae			
		Navicula	1,200	6	
		Nitzschiaceae			
		Nitzschia	580	3	

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
July 9	1200	CYANOPHYTA			Sediment sampler
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas			
		Euglenophyceae	580	3	
		Euglenales			
		Euglenaceae			
		Euglena	580	3	
		Trachelomonas	290	1	
		PYRRHOPHYTA			Sediment sampler
		Dinophyceae			
		Gymnodiniales			
		Gymnodiniaceae			
		Gymnodinium	290	1	
		TOTAL	19,000		
Aug. 24	1030	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	1,700	1	
		Kirchneriella		0	
		Tetraedron		0	
		Scenedesmaceae			
		Scenedesmus	1,700	1	
		Tetrastrum	1,700	1	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas		0	
		CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	3,800	1	
		Pennales			
		Naviculaceae			
		Diploneis		0	
		Navicula	7,200	3	
		Nitzschaceae			
		Nitzschia	9,700	4	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	27,000	11	
		Oscillatoriales			Sediment sampler
		Nostocaceae			
		Anabaenopsis	3,800	1	
		Oscillatoriaceae			
		Oscillatoria	200,000	77	
		PYRRHOPHYTA			
		Dinophyceae			
		Peridinales			
		Glenodiniaceae			
		Glenodinium		0	
		TOTAL	260,000		
Sept. 22	1200	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	1,100	1	
		Dictyosphaerium	4,500	3	
		Oocystis	2,800	2	
		Scenedesmaceae			
		Scenedesmus	9,100	6	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,700	1	

ARKANSAS RIVER BASIN

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Sept. 22	1200	CHRYSTOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	66,000	44	
		Pennales			
		Naviculaceae			
		Navicula	2,800	2	
		Nitzschiaceae			
		Nitzschia	7,400	5	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Anabaenopsis	7,400	5	
		Oscillatoriaceae			
		Lyngbya	40,000	26	
		Rivulariaceae			
		Raphidiopsis	7,400	5	
		TOTAL	150,000		

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5110	4810	7830	10300	9630	11400	9760	6840	4220	8980	8700	7490
2	4770	4670	8100	10800	9940	10900	9630	6130	8800	8560	6070	7260
3	4870	4480	8950	10200	10100	10500	9430	14100	6230	8280	8630	7490
4	4880	4300	9080	10100	10400	9800	9360	11400	6460	8440	8720	7580
5	4910	4390	9190	9990	10100	10100	---	10800	6850	8850	8890	7810
6	4850	6160	7230	9910	10200	9210	---	9660	5730	5870	9280	7870
7	4650	4330	7320	10500	10300	9440	9000	8380	5340	4710	6710	6880
8	4810	6440	8650	11000	10600	9380	8750	7670	5670	5170	6410	6930
9	4760	9210	10400	11400	10500	8470	8610	7190	6190	5570	7690	6810
10	4890	11200	11200	10800	10500	8910	8410	6670	6800	6410	8310	6900
11	4890	12500	11000	7540	10000	9170	8660	6970	7130	7490	8520	6910
12	4850	12600	10600	8580	10000	9030	8850	6570	7540	8890	8600	7100
13	4960	10800	9200	9120	9910	10500	6240	5670	7940	8680	8370	7400
14	4670	9800	8790	8660	10000	12000	7010	3920	9070	11200	8760	7770
15	3920	9100	9000	8740	10000	14300	4470	4200	8930	10900	8890	7920
16	876	8300	8660	8520	9740	9940	6440	3560	9250	8200	9060	5220
17	2610	7950	7740	8390	9740	10300	6980	4860	9280	8470	9100	3880
18	1100	7900	8910	8470	11100	13400	7310	3300	9000	8780	9020	3850
19	1020	7020	8910	8720	12400	14400	9380	5050	9290	7980	9060	3180
20	1390	7270	8590	9010	13000	14800	3390	6670	10500	6170	9370	2660
21	1950	6950	9480	9350	11800	14000	2490	6800	8100	7390	9450	2570
22	2250	6990	10200	9660	10500	12200	13200	6760	4990	7880	8920	3750
23	2540	7040	10600	9910	10200	11600	3850	7510	4680	8010	8010	5210
24	3000	6010	10100	10300	10300	11400	3090	8250	4120	9290	7910	6260
25	3610	5160	9710	12400	11000	10900	6460	7930	5650	9650	8400	7210
26	3640	8690	9820	14800	11200	10700	9810	4900	6610	9990	8480	17600
27	3710	8690	9140	12900	10900	10900	16700	2010	6180	10400	8770	2820
28	4970	7750	9880	10200	11400	10100	12000	3140	6760	8590	8860	1160
29	5600	8700	8440	9260	11500	10100	8510	2150	8230	7740	8730	5060
30	5250	9040	10200	9210	---	---	7130	2050	8980	8460	8750	4730
31	5040	---	10200	9330	---	---	---	2510	---	8420	8520	---
MONTH	3880	7610	9260	9940	10600	11000	8030	6250	7150	8170	8490	6180
YEAR	MAX	17600	MIN	876	MEAN	8020						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	15.5	3.0	0.5	5.5	12.0	10.0	13.0	21.0	23.0	27.0	21.0
2	14.0	17.0	4.0	---	5.0	16.0	12.5	16.0	23.5	23.0	23.0	22.0
3	14.0	15.0	6.5	0.0	4.0	11.5	10.0	15.0	24.0	24.5	22.0	23.0
4	15.0	14.0	8.0	0.0	4.5	6.5	13.0	15.0	23.5	23.5	23.0	25.0
5	15.0	15.5	14.0	0.0	0.0	3.0	13.0	17.0	23.5	23.0	23.5	26.0
6	16.0	15.0	9.0	0.0	0.0	10.0	15.0	16.5	23.0	23.0	25.0	24.5
7	16.5	15.5	6.0	0.0	0.0	6.5	16.0	14.5	22.5	25.5	25.0	23.0
8	17.0	16.0	6.5	8.5	1.0	7.5	16.0	14.0	23.0	24.0	24.5	22.0
9	18.5	17.5	6.0	0.0	5.0	6.0	15.0	16.0	23.0	25.0	26.0	21.0
10	20.0	12.5	6.0	0.0	10.0	10.0	14.0	17.5	23.0	25.0	25.5	17.5
11	21.0	12.0	8.0	0.0	9.0	13.5	17.0	19.5	24.0	24.0	25.0	19.0
12	21.0	9.5	8.0	0.0	10.0	11.0	16.0	21.0	25.0	24.0	24.5	20.0
13	20.0	6.0	10.0	3.0	14.0	5.5	17.5	18.0	25.0	25.0	24.5	21.0
14	20.0	6.5	15.0	2.5	12.5	7.0	20.0	17.0	23.0	25.0	26.0	21.0
15	19.0	7.5	4.5	3.0	13.0	11.0	20.0	18.0	23.0	24.5	25.0	24.0
16	16.5	10.0	3.0	4.0	15.0	6.0	15.5	18.0	22.0	25.0	25.0	23.0
17	16.0	13.0	2.0	3.0	12.5	9.0	19.0	17.0	22.5	24.0	26.0	23.0
18	14.0	13.5	0.0	4.0	9.5	11.5	15.0	17.5	23.5	25.0	26.5	23.0
19	14.0	15.0	0.0	6.5	9.0	14.0	18.0	18.5	22.0	25.0	24.0	24.0
20	15.0	6.0	2.0	3.0	10.0	14.0	16.0	20.0	21.0	25.0	23.0	22.0
21	16.5	2.5	2.0	3.5	7.5	10.0	14.0	21.0	23.5	24.5	24.0	18.0
22	18.0	2.5	3.0	4.0	2.5	11.5	17.0	22.5	22.0	25.0	23.5	19.0
23	18.0	3.0	4.0	6.0	2.5	11.5	19.5	23.0	23.5	25.0	24.0	20.0
24	17.5	3.5	4.0	6.0	7.5	13.0	20.0	23.5	23.5	26.5	23.0	21.0
25	11.5	1.5	3.5	6.0	7.5	15.5	17.0	21.5	24.0	27.0	23.0	23.0
26	10.0	0.0	1.5	1.0	8.5	17.5	14.0	20.5	24.5	27.0	24.0	22.0
27	12.5	0.0	2.5	0.0	10.0	11.5	14.5	19.0	26.0	26.0	25.0	20.0
28	15.5	2.0	3.5	2.5	13.0	13.0	14.0	18.0	26.5	25.0	25.0	16.5
29	13.5	12.5	3.0	4.0	14.0	13.5	13.0	19.5	25.0	25.0	23.5	16.0
30	12.0	7.5	2.0	5.0	---	9.0	15.0	22.0	25.0	27.0	24.0	16.0
31	13.0	---	2.5	5.5	---	10.0	---	23.0	---	26.0	22.0	---
MONTH	16.0	9.5	5.0	2.5	7.5	10.5	15.5	18.5	23.5	25.0	24.5	21.0
YEAR	MAX	27.0	MIN	0.0	MEAN	15.0						

ARKANSAS RIVER BASIN

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

DISSOLVED SULFATE (SU4), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	280	370	410	400	420	400	360	240	390	390	370
2	270	270	360	410	400	420	400	350	390	380	350	370
3	280	260	390	410	410	410	400	460	350	380	390	370
4	280	250	390	410	410	400	400	420	360	380	390	370
5	280	250	390	400	410	410	---	410	360	390	390	370
6	280	350	370	400	410	390	---	400	330	330	390	380
7	270	250	370	410	410	400	390	380	310	270	360	360
8	280	360	390	420	410	400	390	370	320	300	360	360
9	270	390	410	420	410	380	390	370	350	320	370	360
10	280	420	420	410	410	390	380	360	360	360	380	360
11	280	440	420	370	400	390	390	360	370	370	380	360
12	280	440	410	380	400	390	390	360	370	390	390	370
13	280	410	390	390	400	410	350	320	380	390	380	370
14	270	400	390	390	400	430	360	230	390	420	390	370
15	230	390	390	390	400	460	260	240	390	420	390	380
16	58	380	390	380	400	400	360	210	390	380	390	300
17	150	380	370	380	400	410	360	280	390	380	390	220
18	71	380	390	380	420	450	370	190	390	390	390	220
19	66	360	390	390	440	460	400	290	390	380	390	190
20	87	370	390	390	440	470	200	360	410	350	400	160
21	120	360	400	400	430	460	150	360	380	370	400	150
22	130	360	410	400	410	430	450	360	290	380	390	220
23	150	360	410	400	410	430	220	370	270	380	380	300
24	180	340	410	410	410	420	180	380	240	390	380	350
25	210	300	400	440	420	420	360	380	320	400	380	370
26	210	390	400	470	420	410	400	280	360	400	380	510
27	220	390	390	440	420	420	490	120	350	410	390	170
28	280	370	400	410	420	410	430	180	360	390	390	74
29	320	390	380	390	420	410	380	150	380	370	390	290
30	300	390	410	390	---	---	370	120	390	380	390	270
31	290	---	410	390	---	---	---	150	---	380	380	---
MONTH	220	360	390	400	410	420	360	310	350	370	380	310
YEAR	MAX	510	MIN	58	MEAN	360						

DISSOLVED SULFATE (SU4), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	167	338	390	325	306	253	1100	1100	289	77.9	53.9
2	140	160	328	379	316	311	249	2030	2210	279	90.7	60.9
3	142	162	323	366	323	310	242	2060	1900	260	80.0	71.9
4	141	170	375	310	325	330	237	2180	1420	281	79.0	79.9
5	139	340	394	270	337	345	---	3260	1140	479	82.1	73.9
6	137	487	317	270	344	306	---	1760	880	339	102	63.6
7	130	477	287	208	350	311	226	1290	727	271	81.6	49.6
8	132	676	305	283	353	328	232	1040	670	258	71.9	40.8
9	128	548	325	340	352	346	236	870	670	251	71.9	40.8
10	129	477	314	364	348	379	219	822	634	250	65.7	41.8
11	128	444	314	325	343	468	218	905	598	230	61.6	38.9
12	124	402	300	346	345	480	277	2840	556	220	59.0	39.0
13	119	343	279	337	342	556	383	7650	532	202	55.4	65.9
14	114	321	279	339	330	632	355	3620	516	204	51.6	82.9
15	415	310	279	332	327	605	187	3010	492	195	44.2	85.2
16	313	298	326	329	327	457	256	2270	459	224	37.9	88.3
17	632	308	310	331	340	432	274	1800	428	209	35.8	108
18	170	308	304	324	346	446	379	939	429	216	41.1	128
19	96.4	289	304	322	350	430	708	1190	456	204	51.6	130
20	96.5	304	318	307	350	409	745	1260	444	166	62.6	99.8
21	117	276	320	312	339	376	571	1130	1370	151	54.0	70.9
22	117	325	334	310	303	346	3130	1000	799	137	45.3	66.5
23	116	471	344	327	304	337	1240	950	466	126	40.0	73.7
24	129	361	349	382	297	315	603	931	319	121	40.0	108
25	146	300	352	410	295	308	1130	1400	362	114	41.0	167
26	134	371	354	416	287	294	1120	1790	378	107	40.0	264
27	140	356	344	383	299	291	1100	1470	354	97.4	41.1	328
28	173	307	367	346	310	281	875	5690	327	84.2	41.1	132
29	192	346	367	320	310	289	785	2460	307	104	42.1	316
30	178	346	397	317	---	---	822	1110	295	101	41.1	330
31	170	---	393	317	---	---	---	867	---	81.1	49.2	---
MONTH	167	348	330	333	328	380	609	1960	708	202	57.4	110
YEAR	MAX	7650	MIN	35.8	MEAN	462						

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	1200	2300	3200	2900	3500	3000	2000	1000	2700	2600	2200
2	1200	1200	2400	3300	3000	3400	2900	1700	2600	2600	1700	2100
3	1200	1100	2700	3100	3100	3200	2900	4500	1700	2500	2700	2200
4	1200	1000	2700	3100	3200	3000	2800	3500	1800	2500	2600	2200
5	1300	1100	2800	3100	3100	3100	---	3300	2000	2700	2700	2300
6	1200	1700	2100	3000	3100	2800	---	2900	1600	1600	2800	2300
7	1200	1000	2100	3200	3200	2900	2700	2500	1400	1200	1900	2000
8	1200	1800	2600	3400	3300	2800	2600	2200	1500	1400	1800	2000
9	1200	2800	3200	3500	3200	2500	2600	2100	1700	1500	2300	1900
10	1200	3500	3500	3300	3200	2700	2500	1900	1900	1800	2500	2000
11	1200	3900	3400	2200	3100	2800	2600	2000	2100	2200	2500	2000
12	1200	4000	3300	2600	3100	2700	2700	1900	2200	2700	2600	2000
13	1300	3300	2800	2800	3000	3200	1700	1500	2300	2600	2500	2200
14	1200	3000	2600	2600	3100	3800	2000	890	2700	3500	2600	2300
15	890	2700	2700	2600	3100	4600	1100	990	2700	3400	2700	2300
16	210	2500	2600	2500	3000	3000	1800	810	2800	2400	2700	1400
17	600	2300	2300	2500	3000	3200	2000	1200	2800	2500	2700	880
18	260	2300	2700	2500	3400	4200	2100	750	2700	2600	2700	880
19	240	2000	2700	2600	3900	4600	2800	1300	2800	2400	2700	730
20	330	2100	2600	2700	4100	4800	770	1900	3200	1700	2800	610
21	450	2000	2900	2800	3700	4500	570	1900	2400	2100	2900	590
22	520	2000	3100	2900	3200	3800	4200	1900	1300	2300	2700	860
23	580	2000	3300	3000	3100	3600	880	2200	1200	2400	2400	1400
24	690	1700	3100	3200	3200	3500	710	2400	960	2800	2300	1800
25	820	1400	3000	3900	3400	3400	1800	2300	1500	2900	2500	2100
26	830	2600	3000	4800	3500	3300	3000	1300	1900	3100	2500	6000
27	850	2600	2800	4100	3400	3400	5600	470	1700	3200	2600	650
28	1300	2300	3000	3100	3500	3100	3800	720	1900	2600	2700	280
29	1500	2600	2500	2800	3600	3100	2500	500	2400	2300	2600	1300
30	1400	2700	3100	2800	---	---	2100	470	2700	2500	2600	1200
31	1300	---	3100	2800	---	---	---	580	---	2500	2500	---
MONTH	960	2200	2800	3000	3300	3400	2400	1800	2000	2400	2500	1800
YEAR	MAX	6000	MIN	210	MEAN	2400						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	688	716	2100	3040	2360	2550	1900	6100	4560	2000	519	321
2	622	710	2070	3050	2370	2520	1810	9870	14700	1910	441	346
3	609	686	2240	2770	2440	2420	1750	20200	9230	1710	554	428
4	606	680	2600	2340	2540	2480	1660	18100	7100	1850	526	475
5	646	1490	2830	2090	2540	2610	---	26400	6320	3320	569	460
6	586	2360	1800	2030	2600	2200	---	12800	4270	1650	733	385
7	577	1910	1630	1620	2730	2260	1570	8500	3280	1210	431	275
8	567	3380	2040	2300	2840	2300	1540	6180	3140	1200	360	227
9	567	3930	2540	2840	2750	2270	1570	4940	3250	1180	447	215
10	551	3980	2620	2930	2710	2620	1440	4340	3340	1250	432	232
11	548	3940	2540	1930	2660	3360	1450	5030	3400	1370	405	216
12	531	3650	2410	2370	2670	3320	1920	15000	3310	1520	393	211
13	555	2760	2000	2420	2570	4340	1860	35800	3220	1350	364	392
14	509	2410	1860	2260	2560	5580	1970	14000	3570	1700	344	515
15	1610	2140	1930	2210	2540	6050	790	12400	3400	1580	306	515
16	1130	1960	2180	2170	2450	3430	1280	8750	3300	1410	262	412
17	2530	1860	1930	2180	2550	3370	1520	7710	3070	1380	248	432
18	622	1860	2110	2130	2800	4160	2150	3710	2970	1440	284	511
19	351	1600	2110	2150	3110	4300	4960	5340	3270	1290	357	501
20	366	1720	2120	2150	3270	4170	2870	6770	3460	808	438	360
21	437	1530	2320	2180	2920	3680	2170	5950	8680	856	391	279
22	469	1800	2530	2250	2370	3060	29300	5260	3580	832	313	260
23	449	2620	2770	2450	2300	2820	4970	5650	2070	797	253	344
24	494	1800	2640	2980	3320	2630	2380	5880	1280	869	242	554
25	571	1400	2640	3630	2390	2500	5640	8450	1700	830	270	947
26	529	2470	2660	4250	2390	2370	8420	8320	2000	829	263	3110
27	542	2370	2470	3560	2420	2360	12600	5750	1720	760	274	1250
28	804	1910	2750	2620	2580	2130	7740	22700	1720	562	284	498
29	899	2310	2420	2300	2650	2180	5160	9450	1940	646	281	1410
30	832	2400	3000	2280	---	---	4670	4340	2040	661	274	1470
31	762	---	2970	2280	---	---	---	3350	---	533	324	---
MONTH	695	2150	2350	2510	2600	3100	4180	10200	3960	1270	374	586
YEAR	MAX	35800	MIN	211	MEAN	2830						

ARKANSAS RIVER BASIN

07161000 CIMARRON RIVER AT PERKINS, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2980	2810	4530	5940	5560	6620	5630	3970	2470	5190	5030	4340
2	2780	2730	4690	6250	5740	6310	5560	3560	5090	4950	3530	4210
3	2840	2620	5170	5890	5830	6060	5450	8300	3620	4790	5100	4340
4	2850	2510	5250	5830	6000	5660	5410	6620	3750	4880	5040	4390
5	2860	2570	5310	5770	5830	5830	---	6250	3970	5110	5140	4520
6	2830	3580	4190	5720	5890	5320	---	5580	3330	3410	5360	4550
7	2710	2530	4240	6060	5940	5450	5200	4850	3110	2750	3890	3990
8	2810	3740	5000	6370	6120	5420	5060	4440	3300	3010	3720	4020
9	2780	5320	6000	6620	6060	4900	4980	4170	3590	3240	4450	3950
10	2850	6500	6500	6250	6060	5150	4860	3870	3940	3720	4810	4000
11	2850	7310	6370	4370	5770	5300	5010	4040	4130	4340	4930	4010
12	2830	7370	6120	4960	5770	5220	5110	3810	4370	5140	4970	4110
13	2890	6250	5310	5270	5720	6060	3620	3300	4590	5020	4840	4290
14	2730	5660	5080	5010	5770	6990	4060	2300	5240	6500	5060	4500
15	2300	5260	5200	5050	5770	8430	2610	2460	5160	6310	5140	4580
16	558	4800	5010	4930	5620	5740	3740	2090	5340	4740	5230	3040
17	1550	4600	4480	4850	5620	5940	4050	2830	5360	4900	5260	2270
18	686	4570	5150	4900	6440	7870	4230	1940	5200	5070	5210	2260
19	640	4070	5150	5040	7240	8490	5420	2940	5370	4620	5230	1870
20	851	4210	4970	5210	7620	8740	1990	3870	6060	3580	5410	1580
21	1170	4030	5470	5400	6870	8240	1480	3940	4690	4280	5460	1530
22	1340	4050	5890	5580	6060	7120	7740	3920	2910	4560	5150	2200
23	1510	4080	6120	5720	5890	6750	2260	4350	2730	4630	4630	3030
24	1770	3490	5830	5940	5940	6620	1820	4770	2410	5370	4580	3630
25	2120	3010	5610	7240	6370	6310	3750	4590	3290	5570	4860	4180
26	2140	5020	5670	8740	6500	6190	5660	2860	3830	5770	4900	10500
27	2180	5020	5280	7550	6310	6310	9920	1210	3590	6000	5070	1670
28	2900	4490	5700	5890	6620	5830	6990	1850	3920	4970	5120	720
29	3260	5030	4880	5350	6680	5830	4920	1290	4760	4480	5050	2950
30	3060	5220	5890	5320	---	---	4130	1230	5190	4890	5060	2760
31	2940	---	5890	5390	---	---	---	1490	---	4870	4930	---
MONTH	2280	4420	5350	5760	6120	6370	4670	3640	4140	4730	4910	3600
YEAR	MAX	10500	MIN	558	MEAN	4650						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1580	1680	4130	5650	4520	4830	3560	12100	11300	3840	1000	633
2	1440	1610	4050	5770	4540	4670	3470	20700	28900	3640	915	693
3	1440	1630	4290	5260	4600	4580	3300	37200	19600	3270	1050	844
4	1440	1710	5050	4410	4760	4680	3200	34300	14800	3610	1020	948
5	1420	3490	5360	3890	4790	4910	---	50000	12500	6280	1080	903
6	1380	4980	3590	3860	4950	4180	---	24600	8880	3510	1400	762
7	1300	4830	3290	3080	5070	4240	3020	16500	7290	2760	882	549
8	1330	7020	3920	4300	5270	4450	3010	12500	6910	2580	743	456
9	1310	7470	4760	5360	5200	4460	3010	9810	6870	2550	865	448
10	1310	7390	4860	5550	5140	5010	2790	8840	6940	2580	831	464
11	1300	7380	4760	3830	4950	6350	2800	10200	6680	2700	799	433
12	1250	6730	4480	4510	4970	6430	3630	30000	6570	2900	751	433
13	1230	5230	3800	4550	4900	8210	3960	78900	6430	2600	706	764
14	1160	4540	3630	4360	4770	10300	4000	36200	6930	3160	669	1010
15	4150	4180	3720	4300	4720	11100	1870	30800	6510	2930	583	1030
16	3010	3760	4190	4270	4600	6560	2660	22600	6290	2790	508	895
17	6530	3730	3750	4230	4780	6250	3080	18200	5880	2700	483	1120
18	1640	3700	4020	4180	5300	7800	4330	9590	5710	2810	549	1310
19	935	3260	4020	4160	5770	7930	9600	12100	6280	2480	692	1280
20	944	3460	4050	4110	6070	7600	7410	13800	6560	1700	847	985
21	1140	3090	4370	4210	5420	6740	5630	12300	17000	1740	737	723
22	1210	3650	4800	4320	4480	5730	53900	10900	8010	1650	598	665
23	1170	5340	5140	4680	4370	5290	12800	11200	4710	1540	488	744
24	1270	3700	4960	5530	4300	4970	6090	11700	3210	1670	482	1120
25	1480	3010	4940	6740	4470	4630	11700	16900	3720	1590	525	1880
26	1360	4770	5020	7740	4440	4450	15900	18300	4020	1540	516	5440
27	1390	4580	4660	6560	4500	4380	22300	14800	3630	1430	534	3220
28	1790	3720	5230	4980	4880	4000	14200	58400	3560	1070	539	1280
29	1950	4470	4720	4390	4920	4110	10200	24400	3840	1260	545	3210
30	1820	4640	5710	4320	---	---	9180	11400	3920	1290	533	3380
31	1720	---	5650	4380	---	---	---	8610	---	1040	639	---
MONTH	1690	4290	4480	4760	4880	5820	8240	22200	8120	2490	726	1250
YEAR	MAX	78900	MIN	433	MEAN	5740						

07163000 COUNCIL CREEK NEAR STILLWATER, OK

LOCATION.--Lat 36°07'07", long 96°52'00", in SE 1/4 SW 1/4 sec.15, T.19 N., R.4 E., Payne County, on right bank 200 ft (61.8 m) upstream from bridge on State Highway 51, 10.0 mi (16.1 km) east of Stillwater, and at mile 10.0 (16.1 km).

DRAINAGE AREA.--31 mi² (80.3 km²).

PERIOD OF RECORD.--March 1934 to current year.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 838.28 ft (255.077 m) above mean sea level, adjustment of 1912. Prior to May 4, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--42 years, 11.2 ft³/s (0.317 m³/s), 4.91 in/yr (125 mm/yr), 8,110 acre-ft/yr (10.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s (708 m³/s) Oct. 2, 1959, gage height, 18.9 ft (5.76 m), from floodmarks, from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of slope-area measurements at gage heights 13.4 ft (4.08 m) and 17.5 ft (5.33 m); no flow at times in each year except 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 27, 1912, reached a stage of 16.6 ft (5.06 m) at gage, based on fl-odmarks set by local resident at site 900 ft (274 m) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 695 ft³/s (19.7 m³/s) Apr. 12, gage height, 4.27 ft (1.301 m), no peak above base of 1,200 ft³/s (34.0 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.43	.78	.95	1.5	.87	.90	2.9	.73	0	0	0
2	.35	.48	.68	.79	1.5	.78	.66	2.2	.57	0	.80	0
3	.35	.70	.68	.68	2.1	.95	.65	1.8	.39	0	.11	0
4	.39	.77	.68	.58	1.5	1.4	.68	1.5	.22	0	.01	0
5	.42	2.7	.90	.62	.88	1.3	.69	1.6	.19	0	0	0
6	.33	.89	.81	.71	.78	1.0	.72	1.8	.19	0	0	0
7	.20	.72	.68	.53	.72	1.1	1.1	1.6	.18	0	0	0
8	.19	.68	.68	.34	.80	1.8	1.2	1.2	.17	0	0	0
9	.20	.69	.68	.38	.87	1.1	1.2	1.3	.13	0	0	0
10	.26	.64	.68	.70	.91	3.9	1.1	2.2	.11	0	0	0
11	.26	.65	.69	.81	1.0	2.7	1.1	2.1	.08	0	0	0
12	.32	.59	.68	.81	.91	2.8	1.7	2.1	.06	0	0	0
13	.18	.50	.69	.86	.87	1.9	.97	3.2	.06	0	0	0
14	.32	.56	.80	.77	1.2	1.6	4.4	1.8	.04	0	0	0
15	20	.66	.81	.77	1.3	1.6	3.2	1.6	.04	0	0	0
16	1.5	.68	.75	.72	1.3	1.5	4.0	1.9	.03	.57	0	0
17	.63	.68	.65	.74	.91	1.4	1.1	1.4	.03	.07	0	3.9
18	.39	.68	.60	.77	.73	1.3	34	1.1	.06	.01	0	.05
19	.44	2.7	.65	1.1	.70	1.2	5.6	.96	.05	0	0	0
20	.37	1.8	.69	1.5	.86	1.1	81	.91	.03	0	0	.01
21	.38	.86	.68	1.4	1.0	.87	7.2	.91	.01	0	0	0
22	.36	.62	.87	1.4	.99	.90	3.4	.91	0	0	0	0
23	.35	.60	.97	1.5	.97	.87	2.4	.98	0	0	0	0
24	.46	.61	1.2	1.6	.93	.89	2.0	1.2	.01	0	0	0
25	.59	.61	1.6	1.6	.95	1.0	1.8	1.2	.01	0	0	0
26	.48	.67	1.2	1.5	.96	1.1	2.1	2.4	0	0	0	0
27	.43	.65	.92	1.3	.97	.97	2.0	2.6	0	0	0	0
28	.51	.72	.88	1.4	.99	1.3	12	1.3	0	0	0	0
29	.50	2.7	.97	1.5	.92	2.2	5.1	.87	0	0	0	0
30	.44	2.4	.97	1.7	---	1.7	2.7	.75	0	0	0	0
31	.42	---	.97	1.5	---	1.0	---	.72	---	0	0	---
TOTAL	32.37	28.64	25.49	31.53	30.02	54.00	407.90	49.01	3.39	.65	.92	3.96
MEAN	1.04	.95	.82	1.02	1.04	1.74	13.6	1.58	.11	.021	.030	.13
MAX	20	2.7	1.6	1.7	2.1	11	117	3.2	.73	.57	.80	3.9
MIN	.18	.43	.60	.34	.70	.78	.65	.72	0	0	0	0
CFSM	.03	.03	.03	.03	.03	.06	.44	.05	.003	0	0	.004
IN	.04	.03	.03	.04	.04	.06	.49	.06	.004	.0008	.001	.005
AC=FT	64	57	51	63	60	107	809	97	6.7	1.3	1.8	7.9

CAL YR 1975 TOTAL 8476.23 MEAN 23.2 MAX 912 MIN .12 CFSM .75 IN 10.17 AC=FT 16610
WTR YR 1976 TOTAL 667.88 MEAN 1.82 MAX 117 MIN 0 CFSM .06 IN .80 AC=FT 1320

07164200 KEYSTONE LAKE NEAR SAND SPRINGS, OK

LOCATION.--Lat 36°09'05", long 96°15'05", in SW 1/4 SE 1/4 sec.4, T.19 N., R.10 E., Tulsa County, in stair tower of intake structure near left end of Keystone Dam on Arkansas River, 8.5 mi (13.7 km) west of Sand Springs, and at mile 538.8 (866.9 km).

DRAINAGE AREA.--74,506 mi² (192,971 km²), of which 12,541 mi² (32,481 km²) is probably noncontributing.

PERIOD OF RECORD.--September 1964 to current year. Prior to October 1970 published as Keystone Reservoir near Sand Springs.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Nov. 1, 1964, nonrecording gage nearby at same datum.

REMARKS.--Reservoir is formed by rolled-fill earth dam. Spillway is concrete ogee weir controlled by 18 40-foot (12.2 m) taintor gates. Outlet works consist of nine sluices. Regulated storage began Sept. 11, 1964; power pool was first filled Nov. 20, 1964. Capacity, 1,836,000 acre-ft (2.26 km³), at elevation 754.0 ft (229.82 m), top of flood control pool, 618,000 acre-ft (762 hm³), at elevation 723.0 ft (220.37 m) top of power pool, 520,700 acre-ft (642 hm³) at elevation 719.0 ft (219.15 m), crest of controlled spillway, and 287,500 acre-ft (354 hm³) at elevation 706.0 ft (215.19 m), minimum power pool. Figures given herein represent total contents. Reservoir is designed for flood control, power development, and conservation. Revised capacity table, based on survey in 1969, used since Oct. 1, 1972.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,886,000 acre-ft (2.33 km³) Nov. 6, 1974, elevation, 754.86 ft (230.081 m); minimum since power pool was first filled, 297,800 acre-ft (367 hm³) Jan. 19, 1965, elevation, 705.07 ft (214.905 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 719,800 acre-ft (888 hm³) July 17, elevation, 726.68 ft (221.492 m); minimum, 446,300 acre-ft (550 hm³) Sept. 13, elevation, 715.46 ft (218.072 m).

Capacity table (elevation, in feet, and contents, in acre-ft)

715	437,400	721	567,600
717	477,400	724	644,400
719	520,700	727	729,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503300	496600	474900	528800	528600	536900	560400	602000	688100	533700	621600	486500
2	503700	499800	476400	529800	521900	537200	558000	618500	679700	534600	615700	484600
3	505900	499800	479100	537500	522600	537400	560100	620600	670700	543200	613600	485600
4	506500	498300	479700	535300	523700	539300	562300	622400	661300	559000	610000	486300
5	508700	495800	485200	528800	521400	535800	556100	625600	650900	580400	603600	477000
6	509200	493900	489500	526700	519600	538800	542300	627400	639800	601500	596400	452800
7	509200	495400	494500	517700	522800	542000	532300	627900	630300	613000	587100	450200
8	511400	498600	497500	505400	526000	546200	526700	627100	630300	625000	583600	451000
9	511800	504300	499000	498800	526000	552100	519100	625300	624500	644700	572500	451600
10	514100	503900	494100	501300	526700	558200	519800	626600	619300	661900	561300	448300
11	514100	503700	496200	503700	527000	561100	521900	625800	612300	680800	551400	448500
12	516100	502400	490700	504300	525400	565200	520700	625500	607700	702700	540200	448700
13	512300	499400	493500	506300	526300	571500	520500	628200	609200	710800	528400	446900
14	510700	493900	500000	508300	529500	576700	519300	641700	603800	715100	529800	447500
15	510700	494300	497900	511600	532800	579400	516600	652300	597000	717800	531100	447100
16	509200	497100	486900	511800	533700	577900	513900	660800	586800	719200	520500	449500
17	509600	500000	481400	513900	533900	577900	522300	662700	582100	718100	513400	451800
18	515700	500700	482700	517000	533700	573700	525600	664600	577100	714900	511200	453800
19	521000	502800	484800	518400	530700	565200	545500	664100	581600	708200	512500	456000
20	518000	498600	489000	518900	531800	571300	563300	661300	585800	703900	511200	453800
21	514300	492200	492600	519600	535800	572500	576900	657200	579100	695800	512300	456000
22	511000	494100	495400	518900	536800	568100	579900	656700	573000	688700	513400	453800
23	506500	496900	497500	520300	536700	566600	591400	650700	570000	684800	507800	455400
24	502800	492600	500000	524000	534600	565700	607700	640100	565900	680200	502400	453800
25	499200	479500	504800	528400	534600	567600	609200	634000	559700	680200	499200	455600
26	500900	472600	506500	526300	533900	565400	599000	635300	558700	677400	495400	457600
27	497300	475300	511000	525600	533000	568300	590600	638500	562300	667700	488400	455200
28	493500	469700	515000	525100	535500	571700	589400	641200	556300	660800	490300	457000
29	495000	475800	517000	524700	538800	572500	591400	673800	550400	652600	490900	457000
30	496600	479500	518900	524000	---	566400	588900	694400	543000	645200	488200	460000
31	494700	---	523000	525400	---	563300	---	694400	---	634000	485900	---
MAX	521000	504300	523000	537500	538800	579400	609200	694400	688100	719200	621600	486500
MIN	493500	469700	474900	498800	519600	535800	513900	602000	543000	533700	485900	446900
†	717.82	717.10	719.10	719.20	719.78	720.82	721.86	725.80	719.96	723.61	717.40	716.15
‡	-11,400	-15,200	+43,500	+24,400	+13,400	+24,500	+25,600	+105,500	-151,400	+91,000	-148,100	-25,900

CAL YR 1975 MAX 1,047,000 MIN 493,500 ‡ -233,500
WTR YR 1976 MAX 719,200 MIN 446,900 ‡ -46,100

† Elevation, in feet, at end of month

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

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07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK
(National stream-quality accounting network station)

LOCATION.--Lat 36°07'22", long 96°07'23", in NW 1/4 SW 1/4 sec.14, T.19 N., R.11 E., Tulsa County, Hydrologic Unit 11110101, at bridge on State Highway 97 in Sand Springs, 5.1 mi (8.2 km) downstream from Keystone Dam, and 10 mi (16.1 km) upstream from gaging station at Tulsa.

DRAINAGE AREA.--74,615 mi² (193,253 km²) upstream from gaging station, of which 12,541 mi² (32,481 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1946 to current year.

WATER TEMPERATURE: October 1946 to current year.

INSTRUMENTATION.--Water quality monitor since July 1969.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 21,200 micromhos Oct. 19, 1956; minimum daily, 269 micromhos Nov. 21, 1964.

WATER TEMPERATURE: Maximum daily, 36.0°C Aug. 7, 1947; minimum 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,240 micromhos May 13; minimum daily, 1,090 micromhos July 19, Aug. 25.

WATER TEMPERATURE: Maximum daily, 29.0°C Aug. 25; minimum daily, 0.0°C Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
UCT												
05...	--	--	1100	900	1560	8.1	17.0	--	--	260	97	73
16...	--	--	0755	2990	1550	8.3	13.0	--	--	280	120	77
21...	--	--	1300	3270	1510	8.1	20.0	3	--	270	100	74
25...	--	--	1145	3020	1590	8.2	14.5	--	--	280	120	78
NOV												
04...	--	--	1215	1600	1400	8.5	16.0	9	--	260	92	72
04...	1028	9740	1216	1600	1400	8.5	16.0	--	--	--	--	--
05...	--	--	1150	1930	1580	8.3	16.5	--	--	270	98	74
15...	--	--	0925	2950	1600	8.2	12.0	--	--	270	100	75
25...	--	--	1215	6650	1740	8.8	7.0	--	--	280	99	74
DEC												
02...	--	--	1300	2700	1700	8.1	14.0	10	--	290	110	78
05...	--	--	1130	1690	1690	8.0	13.5	--	--	290	110	82
15...	--	--	1140	1640	1960	8.0	7.5	--	--	310	120	87
25...	--	--	1215	1210	2810	8.0	6.0	--	--	350	160	95
JAN												
05...	--	--	1135	1870	2780	7.8	1.5	--	--	350	150	95
13...	1028	9740	1216	1870	3000	8.7	6.0	--	75	--	--	--
15...	--	--	1150	1190	2850	8.0	4.0	--	--	340	160	93
25...	--	--	1040	341	2750	8.0	6.0	--	--	350	150	97
FEB												
05...	--	--	1245	3660	2960	8.2	3.0	--	--	360	160	94
10...	--	--	1230	2070	3330	8.4	9.0	4	--	370	170	96
10...	1028	9740	1231	2070	--	--	9.0	--	21	--	--	--
15...	--	--	1110	391	2840	8.3	13.0	--	--	370	160	98
25...	--	--	1200	2360	3000	8.4	9.0	--	--	360	160	96
MAR												
05...	--	--	1150	2780	2850	8.0	6.0	--	--	340	150	89
10...	--	--	0945	1100	2400	--	9.0	4	--	350	150	95
10...	1028	9740	0946	1100	2400	--	9.0	--	28	--	--	--
15...	--	--	1150	2390	2550	7.8	11.5	--	--	340	150	91
25...	--	--	0715	986	2770	7.9	12.0	--	--	360	170	98
APR												
05...	--	--	1140	2230	2880	8.1	15.0	--	--	350	170	91
14...	--	--	1000	3470	2300	--	16.0	8	--	350	160	92
14...	1028	9740	1001	3470	2300	--	16.0	--	30	--	--	--
15...	--	--	1255	3080	3230	7.8	16.0	--	--	350	160	92
25...	--	--	1045	1220	2620	7.8	13.0	--	--	360	160	100
MAY												
05...	--	--	0900	3970	3210	7.8	15.5	--	--	350	170	89

ARKANSAS RIVER BASIN

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
MAY												
10...	--	--	1200	8210	3000	8.3	17.5	13	--	370	200	99
10...	1028	9740	1201	8210	3000	8.3	17.0	--	73	--	--	--
15...	--	--	1510	8580	3790	7.6	--	--	--	330	170	84
25...	--	--	1005	8610	2900	7.6	--	--	--	290	140	74
JUN												
05...	--	--	0945	13000	2540	7.9	--	--	--	290	150	78
08...	--	--	1030	6750	2350	--	21.0	9	--	280	150	76
08...	1028	9740	1031	6750	2300	--	21.0	--	42	--	--	--
15...	--	--	0850	5910	2170	8.0	20.0	--	--	270	140	72
25...	--	--	2200	5590	2340	8.1	24.0	--	--	270	140	72
JUL												
03...	--	--	0850	3290	2670	7.8	23.0	--	--	290	160	78
12...	--	--	1840	6960	1560	7.6	26.5	--	--	220	100	63
13...	--	--	1130	12500	1410	7.9	26.0	10	--	210	88	61
13...	1028	9740	1131	12500	1400	7.9	26.0	--	13	--	--	--
19...	--	--	1855	12800	1110	7.9	25.0	--	--	180	71	51
AUG												
09...	--	--	1915	4900	1590	7.8	27.0	--	--	210	84	58
10...	--	--	1230	6140	1350	8.0	26.0	7	--	210	87	60
10...	1028	9740	1231	6140	1350	8.0	26.0	--	12	--	--	--
12...	--	--	1455	5650	1340	7.9	25.5	--	--	190	72	56
25...	--	--	1455	3100	1140	8.0	27.0	--	--	170	51	49
SEP												
05...	--	--	1015	764	1380	8.1	26.0	--	--	200	33	56
08...	--	--	1100	1610	1200	8.2	22.5	10	--	190	64	54
08...	1028	9740	1101	1610	1200	6.5	23.0	--	10	--	--	--
15...	--	--	1440	564	1290	8.3	24.5	--	--	210	69	59
25...	--	--	0940	1390	1280	7.8	22.0	--	--	220	71	63

DATE	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACU3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT											
05...	20	210	63	5.6	6.7	205	168	2.6	94	330	--
16...	21	210	61	5.5	6.1	197	162	1.6	98	320	--
21...	20	200	61	5.3	6.7	203	167	2.6	100	320	.4
25...	21	210	61	5.5	6.5	201	165	2.0	99	330	--
NOV											
04...	20	220	64	5.9	6.4	208	171	1.1	110	330	.4
04...	--	--	--	--	--	--	--	--	--	--	--
05...	20	220	64	5.9	6.4	206	169	1.7	110	320	--
15...	21	210	62	5.5	6.8	207	170	2.1	100	340	--
25...	22	230	64	6.0	6.6	199	177	.5	120	370	--
DEC											
02...	22	280	68	7.2	6.4	219	180	2.8	130	410	.3
05...	21	260	65	6.6	6.4	219	180	3.5	100	420	--
15...	22	270	65	6.7	6.2	235	193	3.8	130	430	--
25...	28	430	71	10	17	231	189	3.7	150	700	--
JAN											
05...	27	410	71	9.6	6.1	224	197	6.1	140	670	--
13...	--	--	--	--	--	--	--	--	--	--	--
15...	27	430	73	10	6.1	211	186	3.6	140	710	--
25...	27	400	71	9.3	5.6	225	205	4.0	140	660	--
FEB											
05...	31	470	73	11	6.4	245	201	2.5	160	740	--
10...	31	530	75	12	6.3	244	200	1.6	160	830	.4
10...	--	--	--	--	--	--	--	--	--	--	--
15...	30	440	72	10	6.5	254	208	2.0	140	700	--
25...	30	450	73	10	6.5	248	203	1.6	160	730	--
MAR											
05...	29	450	74	11	5.9	234	192	3.7	160	700	--
10...	28	420	72	9.7	6.5	241	198	--	140	680	.4
10...	--	--	--	--	--	--	--	--	--	--	--
15...	27	390	71	9.2	6.0	225	185	5.7	140	610	--
25...	29	440	72	10	6.0	238	195	4.8	150	680	--
APR											
05...	29	450	73	11	6.0	221	181	2.8	160	720	--
14...	30	460	73	11	6.8	240	197	--	140	760	.5
14...	--	--	--	--	--	--	--	--	--	--	--
15...	29	570	78	13	6.0	229	188	5.8	160	850	--
25...	26	410	71	9.4	5.8	237	194	6.0	140	670	--
MAY											
05...	30	570	78	13	5.9	218	179	5.5	160	850	--

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)
MAY											
10...	31	650	79	15	6.3	213	175	1.7	190	1100	.5
10...	--	--	--	--	--	--	--	--	--	--	--
15...	29	660	81	16	6.1	198	162	8.0	170	1000	--
25...	25	460	77	12	5.8	185	152	7.4	150	730	--
JUN											
05...	22	390	74	10	6.1	163	134	3.3	140	640	--
08...	22	360	73	9.4	5.5	165	135	--	130	590	.4
08...	--	--	--	--	--	--	--	--	--	--	--
15...	21	340	73	9.1	6.1	156	128	2.5	130	560	--
25...	21	380	75	10	6.3	157	129	2.0	150	580	--
JUL											
03...	22	450	77	12	6.8	157	129	4.0	150	660	--
12...	16	230	68	6.7	6.1	146	120	5.9	100	340	--
13...	15	220	68	6.5	6.1	154	126	3.1	94	330	.4
13...	--	--	--	--	--	--	--	--	--	--	--
19...	13	150	63	4.9	5.8	134	110	2.7	74	220	--
AUG											
09...	15	240	71	7.3	5.9	150	123	3.8	92	370	--
10...	14	220	69	6.6	6.0	147	121	2.4	100	350	.3
10...	--	--	--	--	--	--	--	--	--	--	--
12...	13	190	67	5.9	5.6	148	121	3.0	71	290	--
25...	12	160	66	5.3	5.6	147	121	2.4	64	240	--
SEP											
05...	15	180	65	5.5	5.8	205	168	2.6	69	270	--
08...	13	180	67	5.7	5.9	152	125	1.5	75	270	.3
08...	--	--	--	--	--	--	--	--	--	--	--
15...	14	180	65	5.5	5.9	166	136	1.3	69	270	--
25...	15	190	65	5.6	6.0	180	148	4.6	79	290	--
DATE	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT											
05...	--	857	--	1.17	2080	--	.43	--	--	--	--
16...	--	851	--	1.16	6870	--	.49	--	--	--	.08
21...	4.2	940	825	1.28	8300	.43	--	.68	1.1	4.9	.08
25...	--	870	--	1.18	7090	--	.44	--	--	--	--
NOV											
04...	2.9	873	864	1.19	3770	.68	--	.66	1.3	5.9	.06
04...	--	--	--	--	--	--	--	--	2.0	--	--
05...	--	881	--	1.20	4590	--	.46	--	--	--	.07
15...	--	892	--	1.21	7110	--	.45	--	--	--	.06
25...	--	966	--	1.31	17300	--	.46	--	--	--	.81
DEC											
02...	3.3	1030	1040	1.40	7510	.46	--	.49	.95	4.2	.07
05...	--	1050	--	1.43	4790	--	.56	--	--	--	.05
15...	--	1090	--	1.48	4830	--	.41	--	--	--	.05
25...	--	1570	--	2.14	5130	--	.46	--	--	--	.07
JAN											
05...	--	1540	--	2.09	7780	--	1.2	--	--	--	.06
13...	--	--	--	--	--	--	--	--	2.1	--	--
15...	--	1580	--	2.15	5080	--	.77	--	--	--	.08
25...	--	1520	--	2.07	1400	--	.55	--	--	--	.06
FEB											
05...	--	1630	--	2.22	16100	--	.55	--	--	--	.10
10...	3.7	1860	1780	2.53	10400	--	.45	--	--	--	--
10...	--	--	--	--	--	--	--	--	.60	--	--
15...	--	1580	--	2.15	1670	--	.41	--	--	--	.07
25...	--	1650	--	2.24	10500	--	.65	--	--	--	.12
MAR											
05...	--	1560	--	2.12	11700	--	.66	--	--	--	.06
10...	3.3	1560	1490	2.12	4630	.33	--	.00	.33	1.5	.09
10...	--	--	--	--	--	--	--	--	1.0	--	--
15...	--	1380	--	1.88	8910	--	.38	--	--	--	.02
25...	--	1450	--	1.97	3860	--	.57	--	--	--	.08
APR											
05...	--	1620	--	2.20	9750	--	.67	--	--	--	.08
14...	1.2	1700	1610	2.31	15900	.14	--	.69	.83	3.7	.07
14...	--	--	--	--	--	--	--	--	.60	--	--
15...	--	1810	--	2.46	15100	--	.42	--	--	--	.04
25...	--	1460	--	1.99	4810	--	.63	--	--	--	.03
MAY											
05...	--	1840	--	2.50	19700	--	.37	--	--	--	.04

ARKANSAS RIVER BASIN

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO3) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
MAY											
10...	2.2	2190	2180	2.98	48500	.26	--	1.1	1.4	6.0	.08
10...	--	--	--	--	--	--	--	--	1.5	--	--
15...	--	2100	--	2.86	48600	--	.58	--	--	--	.07
25...	--	1630	--	2.22	37900	--	.65	--	--	--	.07
JUN											
05...	--	1400	--	1.90	49100	--	.51	--	--	--	.11
08...	5.0	1290	1270	1.75	23500	.34	--	.37	.71	3.1	.11
08...	--	--	--	--	--	--	--	--	.80	--	--
15...	--	1190	--	1.62	19000	--	.61	--	--	--	.13
25...	--	1290	--	1.75	19500	--	.55	--	--	--	.16
JUL											
03...	--	1490	--	2.03	13200	--	.55	--	--	--	.15
12...	--	865	--	1.18	16300	--	.77	--	--	--	.16
13...	5.1	834	808	1.13	28100	.55	--	.45	1.0	4.4	.15
13...	--	--	--	--	--	--	--	--	1.6	--	--
19...	--	612	--	.83	21200	--	1.1	--	--	--	.18
AUG											
09...	--	867	--	1.18	11500	--	.37	--	--	--	.15
10...	5.4	800	828	1.09	13300	.51	--	.53	1.0	4.6	.15
10...	--	--	--	--	--	--	--	--	5.7	--	--
12...	--	727	--	.99	11100	--	.42	--	--	--	.14
25...	--	616	--	.84	5160	--	.37	--	--	--	.12
SEP											
05...	--	697	--	.95	1440	--	.43	--	--	--	.11
08...	5.1	677	678	.92	2940	.44	--	.40	.84	3.7	.16
08...	--	--	--	--	--	--	--	--	2.0	--	--
15...	--	691	--	.94	1050	--	.35	--	--	--	.10
25...	--	736	--	1.00	2760	--	.25	--	--	--	.09

DATE	CODE FOR AGENCY CUL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL CULI- FORM (CUL. PER 100 ML)	STREP- TOCUGCI (CUL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
UCT											
07...	--	--	1600	1080	12.2	147	813	26	.6	--	--
21...	--	--	1300	3270	9.2	106	8167	--	6.5	116	53
NOV											
04...	--	--	1215	1600	10.3	97	--	60.	5.0	16	72
04...	1028	9740	1216	1600	10.3	--	--	--	--	--	--
DEC											
02...	--	--	1300	2700	10.2	102	831	48	--	--	--
JAN											
13...	--	--	1215	1870	11.6	95	--	--	5.7	--	--
13...	1028	9740	1216	1870	11.6	--	--	--	--	--	--
FEB											
10...	--	--	1230	2070	11.3	104	--	--	5.3	30	12
10...	1028	9740	1231	2070	11.3	--	--	--	--	--	--
MAR											
10...	--	--	0945	1100	9.6	86	264	116	--	7	53
10...	1028	9740	0946	1100	9.6	--	--	--	--	--	--
APR											
14...	--	--	1000	3470	8.9	96	--	--	--	168	6
14...	1028	9740	1001	3470	8.9	--	--	--	--	--	--
MAY											
10...	--	--	1200	8210	8.5	93	--	--	6.2	551	3
10...	1028	9740	1201	8210	8.5	--	--	--	--	--	--
JUN											
08...	--	--	1030	6750	6.4	74	--	--	--	9	89
08...	1028	9740	1031	6750	6.4	--	--	--	--	--	--
JUL											
13...	--	--	1130	12500	5.8	74	--	105	--	--	--
13...	1028	9740	1131	12500	5.8	--	--	--	--	--	--
AUG											
10...	--	--	1230	6140	7.6	95	84	630	--	--	--
10...	1028	9740	1231	6140	7.6	--	--	--	--	--	--
SEP											
08...	--	--	1100	1610	6.5	77	810	59	4.8	7	83
08...	1028	9740	1101	1610	6.2	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDED LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDED MERCURY (HG) (UG/L)
OCT									
07...	--	100	--	--	--	--	--	.0	--
21...	--	0	--	--	--	--	--	.0	--
NOV									
04...	0	0	0	0	130	110	20	--	--
04...	--	--	--	--	--	--	--	--	--
JAN									
13...	--	<100	--	--	--	--	--	.0	--
13...	--	--	--	--	96	--	--	--	--
FEB									
10...	110	100	86	14	120	30	90	.2	.2
10...	--	--	--	--	--	--	--	--	--
MAR									
10...	--	--	--	--	2	--	--	--	--
APR									
14...	--	--	--	--	95	--	--	--	--
MAY									
10...	80	<100	<99	1	100	90	10	.1	.1
10...	--	--	--	--	--	--	--	--	--
JUN									
08...	--	--	--	--	88	--	--	--	--
JUL									
13...	--	--	--	--	82	--	--	--	--
AUG									
10...	--	--	--	--	--	--	--	--	--
SEP									
08...	10	<100	<93	7	80	40	40	.0	.0
08...	--	--	--	--	60	--	--	--	--

[illegible]

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 21	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	110	9	
		Occystaceae			
		Ankistrodesmus	56	4	
		Kirchneriella	14	1	
		Scenedesmaceae			
		Scenedesmus	140	11	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	370	29	
		Melosira	14	1	
		Pennales			
		Achnanthaceae			
		Achnanthes	14	1	
		Cymbellaceae			
		Amphora	14	1	
		Naviculaceae			
		Navicula	220	18	
		Neidium	14	1	
		Nitzschiaceae			
		Nitzschia	85	7	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	110	9	
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya	110	9	
		TOTAL	1,200		
Nov. 4	1215	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	85	6	
		Scenedesmaceae			
		Scenedesmus	110	8	
		Tetrastrum	110	8	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	710	50	
		Pennales			
		Achnanthaceae			
		Achnanthes	28	2	
		Cymbellaceae			
		Amphora	28	2	
		Naviculaceae			
		Gyrosigma			
		Navicula	170	12	
		Nitzschiaceae			
		Nitzschia	170	12	
		TOTAL	1,400		
Dec. 2	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum	170	17	
		Occystaceae			
		Ankistrodesmus	170	17	
		Dictyosphaerium	84	9	
		Oocystis	84	9	
		Selenastrum	21	2	
		Scenedesmaceae			
		Scenedesmus	42	4	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	100	11	
		Pennales			
		Naviculaceae			
		Navicula	100	11	
		Nitzschiaceae			
		Nitzschia	42	4	

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Dec. 2	1300	CYANOPHYTA			Sediment sampler
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	130	13	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	21	2	
		TOTAL	960		
Jan. 13	1215	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Oocystaceae			
		Ankistrodesmus	27	3	
		Oocystis	110	13	
		Scenedesmaceae			
		Crucigenia		0	
		Scenedesmus	210	27	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	270	33	
		Melosira	80	10	
		Pennales			
		Achnanthaceae			
		Rhoicosphenia		0	
		Naviculaceae			
		Navicula	80	10	
		Nitzschiaceae			
		Nitzschia	27	3	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Aphanizomenon		0	
		TOTAL	800		
Feb. 10	1230	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Oocystaceae			
		Ankistrodesmus	94	3	
		Kirchneriella	71	3	
		Oocystis	380	14	
		Scenedesmaceae			
		Scenedesmus		0	
		Tetrastrum	94	3	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	94	3	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	470	17	
		Melosira		0	
		Pennales			
		Cymbellaceae			
		Cymbella		0	
		Fragilariaceae			
		Fragilaria	47	2	
		Gomphonemataceae			
		Gomphonema	24	1	
		Naviculaceae			
		Amphiprora		0	
		Navicula	94	3	
		Nitzschiaceae			
		Nitzschia	140	5	
		Achnanthaceae			
		Rhoicosphenia		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	1,100	42	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas	24	1	
		Euglenophyceae			

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Mar. 10	0945	Euglenales			
		Euglenaceae			
		Euglena	24	1	
		PYRRHOPHYTA			
		Dinophyceae			
		Peridinales			
		Glenodiniaceae			
		Glenodinium	24	1	
		TOTAL	2,700		
		CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	230	12	
		Oocystis	71	4	
		Selenastrum	110	5	
		Westella	71	4	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	18	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	160	8	
		Melosira	830	42	
		Pennales			
		Fragilariaceae			
		Synedra	35	2	
		Naviculaceae			
		Navicula	280	14	
		Nitzschiaceae			
		Nitzschia	71	4	
		Surirellaceae			
		Surirella	35	2	
		Achnanthaceae			
		Rhoicosphenia		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	35	2	
		PYRRHOPHYTA			
		Dinophyceae			
		Peridinales			
		Glenodiniaceae			
		Glenodinium	18	1	
		TOTAL	2,000		
Apr. 14	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	47	2	
		Oocystis	190	9	
		Scenedesmaceae			
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas		0	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	1,500	74	
		Melosira		0	
		Pennales			
		Achnanthaceae			
		Achnanthes		0	
		Cymbellaceae			
		Cymbella		0	
		Naviculaceae			
		Amphiprora		0	
		Navicula	140	7	
		Nitzschiaceae			
		Nitzschia	94	5	
		Achnanthaceae			
		Rhoicosphenia		0	

ARKANSAS RIVER BASIN

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
May 10	1200	EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas		0	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Lepocinclis	47	2	
		TOTAL	2,000		
		CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	100	2	
		Chodatella	110	2	
		Kirchneriella	110	2	
		Oocystis	2,300	38	
		Scenedesmaceae			
		Crucigenia	630	11	
		Scenedesmus	690	12	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	630	11	
June 8	1030	Pennales			
		Naviculaceae			
		Navicula	53	1	
		Nitzschiaceae			
		Nitzschia	53	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis			
		Oscillatoriales	950	16	
		Oscillatoriaceae			
		Oscillatoria	320	5	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Phacus	53	1	
		TOTAL	6,000		
		CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	230	2	
		Kirchneriella	110	1	
		Scenedesmaceae			
		Scenedesmus	910	10	
		Ulotrichales			
		Ulotrichaceae			
		Ulothrix	230	2	
July 13	1130	CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	4,300	47	
		Melosira	1,400	15	
		Pennales			
		Naviculaceae			
		Navicula	110	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	1,800	20	
		TOTAL	9,100		
		CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	130	2	
		Kirchneriella	130	2	

ARKANSAS RIVER BASIN

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07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Aug. 10	1230	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	5,100	86	
		Pennales			
		Naviculaceae			
		Navicula	130	2	
		Nitzschiaceae			
		Nitzschia	400	7	
		TOTAL	5,900		
		CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
Sep. 8	1100	Characiaceae			Sediment sampler
		Schroederia	22	1	
		Occystaceae			
		Ankistrodesmus	44	3	
		Dictyosphaerium		0	
		Oocystis	66	4	
		Scenedesmaceae			
		Scenedesmus	130	8	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	66	4	
		Melosira	690	40	
		Pennales			
		Achnanthaceae			
		Achnanthes	22	1	
		Naviculaceae			
		Navicula	44	3	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	180	10	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	440	26	
		TOTAL	1,700		
		CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Oocystis	32	4	
		Scenedesmaceae			
		Scenedesmus	440	54	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	320	38	
		Pennales			
		Nitzschiaceae			
		Nitzschia	32	4	
		TOTAL	820		

ARKANSAS RIVER BASIN

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	1620	2290	2630	2720	2680	2810	2710	2570	2440	1260	1270
2	1540	1580	1930	2550	3030	2970	2800	2640	2600	2620	1150	1290
3	1570	1490	1970	3050	2770	3010	2860	3050	2620	2640	1120	1240
4	1540	1600	1980	2950	3080	2840	2740	2800	2610	2390	1460	1320
5	1570	1590	1850	3040	2950	2800	3130	3320	2550	2190	1300	1390
6	1520	1580	1940	3180	2910	2680	3210	3320	2490	2050	1410	1160
7	1580	1690	1840	2960	2720	2580	3210	3120	2360	1800	1220	1260
8	1600	1720	1730	2530	2580	2660	3440	3060	2330	1680	---	1290
9	1550	1510	2090	2730	2910	2870	3340	3790	2380	1760	1590	1350
10	1590	1610	2300	2830	3240	2890	3100	3670	2330	1730	1490	1390
11	1550	1580	2180	2610	3220	2920	3330	3860	2390	1620	1350	1210
12	1620	1680	2400	2700	3160	3060	3100	4030	2250	1520	1340	1370
13	1580	1700	2390	2780	3140	2860	3130	4240	2280	1430	1410	1340
14	1680	1680	2110	2610	3130	2650	3050	3710	2470	1420	1220	1200
15	1560	1670	1960	2830	2840	2840	3230	3720	2160	1280	1430	1280
16	1560	1690	2420	2820	3030	3280	3360	3570	2070	1240	---	1160
17	1580	1570	2280	2860	3310	3520	3180	3270	2090	1150	1180	1110
18	1550	1570	2040	2940	3320	3150	2350	3210	2150	1230	1170	1140
19	1510	1710	2170	2920	3220	3110	2020	3170	2210	1090	1280	1250
20	1490	1610	2250	3100	3250	3010	2000	3420	2270	1180	1420	1210
21	1540	1820	2080	3490	3130	2880	2490	3270	2300	1180	1250	1180
22	1540	1710	1940	3170	2940	2820	2810	3260	2320	1150	1390	1210
23	1530	1680	2560	3170	2930	2830	2750	3300	2550	1160	1390	1230
24	1620	1620	2780	3020	3030	2820	2770	3040	2570	1190	1160	1300
25	1600	1990	2760	2720	3000	2740	2620	2970	2400	1170	1090	1290
26	1570	1980	2490	2840	2900	2860	2740	2980	2250	1290	1160	1320
27	1550	1770	2830	2980	2800	2900	2700	2890	2410	1200	1180	1320
28	1570	1730	2480	2920	2750	2680	2740	2670	2470	1190	1170	1240
29	1580	2140	2530	2950	2650	3140	2900	2760	2550	1200	1360	1290
30	1640	1680	2700	3000	---	2980	2790	2660	2510	1230	1420	1220
31	1610	---	2480	2880	---	2860	---	2500	---	1360	1240	---
MONTH	1570	1690	2250	2900	2990	2900	2890	3230	2380	1540	1300	1260
YEAR	MAX	4240	MIN	1090	MEAN	2240						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	17.0	7.5	6.0	4.5	12.5	11.5	19.5	19.5	22.5	26.5	23.5
2	19.0	16.5	7.5	3.5	4.5	13.0	12.5	16.5	20.0	22.5	25.0	23.0
3	19.5	16.0	9.5	1.5	3.5	9.0	13.0	16.5	20.0	23.5	25.0	23.5
4	19.0	17.0	10.0	0.0	3.0	8.0	14.0	16.5	20.0	23.5	24.5	25.0
5	19.0	17.0	13.5	1.0	3.0	6.5	14.0	15.5	20.0	23.5	27.0	26.0
6	19.5	17.0	8.5	3.0	1.0	7.5	12.5	15.0	20.0	23.5	27.5	24.5
7	19.0	17.5	7.5	0.0	1.0	8.0	12.5	15.0	20.5	23.5	25.0	23.0
8	19.0	17.5	8.0	0.5	4.0	8.0	13.0	15.0	20.0	24.0	---	23.0
9	20.5	17.5	7.5	1.0	6.0	8.5	12.0	15.5	20.5	24.5	27.0	23.0
10	20.5	14.5	7.0	3.0	6.5	10.5	12.0	16.0	21.0	24.0	27.0	21.0
11	22.0	17.0	8.0	4.5	5.5	11.5	15.5	16.5	21.0	24.0	25.0	21.0
12	21.0	11.5	7.5	4.0	6.0	9.0	15.0	15.5	21.0	24.5	28.5	22.0
13	21.0	10.5	10.5	4.5	7.5	7.0	14.5	16.0	23.0	24.5	28.0	21.0
14	19.5	11.0	13.5	3.5	6.0	9.5	16.5	16.0	21.5	25.0	25.0	20.0
15	19.0	12.0	7.0	3.0	12.5	10.0	16.0	15.5	21.0	24.5	25.0	24.5
16	17.5	12.5	6.0	3.0	12.5	8.0	15.0	16.5	21.5	25.0	---	24.0
17	14.5	15.0	5.5	2.0	8.5	9.0	16.5	16.5	21.5	25.0	26.5	24.5
18	17.0	15.5	3.5	3.0	7.0	10.0	19.0	16.5	21.5	25.0	25.0	22.5
19	16.5	14.0	5.0	4.0	6.5	11.5	18.0	16.5	22.0	25.0	24.5	23.5
20	17.0	11.5	5.5	2.5	7.0	12.5	16.0	17.0	23.0	25.0	25.0	23.5
21	18.0	9.0	5.0	3.0	5.0	11.0	14.5	17.5	23.0	25.0	24.0	23.5
22	18.5	8.5	4.5	3.5	3.5	11.5	20.0	17.5	21.5	25.0	25.0	21.0
23	18.5	7.0	5.5	4.0	6.5	10.5	21.0	18.0	22.5	25.5	26.0	24.0
24	17.5	6.5	5.5	4.5	6.0	11.0	19.0	18.0	22.5	26.0	27.0	22.5
25	15.5	7.0	5.0	4.5	7.5	14.0	13.0	17.5	23.0	26.0	29.0	22.0
26	15.0	7.0	4.5	2.0	8.0	14.5	17.0	17.0	23.5	26.0	24.5	23.0
27	15.0	6.5	4.5	1.5	8.5	12.5	14.5	17.0	25.5	26.0	24.5	21.0
28	17.5	7.0	5.5	2.5	11.0	12.0	15.0	18.5	26.0	25.5	25.0	19.0
29	16.5	7.5	5.0	3.5	13.0	12.0	16.5	18.5	23.0	26.5	23.0	18.5
30	16.0	7.5	4.5	4.0	---	10.5	15.0	18.5	23.0	27.0	23.0	18.5
31	16.5	---	4.5	4.0	---	11.0	---	19.0	---	26.0	23.0	---
MONTH	18.0	12.5	7.0	3.0	6.5	10.5	15.0	17.0	21.5	24.5	25.5	22.5
YEAR	MAX	29.0	MIN	0.0	MEAN	15.5						

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	100	140	150	150	150	150	150	150	140	75	75
2	97	100	130	150	150	150	150	150	150	150	66	77
3	99	93	130	150	150	150	150	150	150	150	63	73
4	97	100	130	150	150	150	150	150	150	140	90	79
5	99	100	120	150	150	150	150	160	150	140	78	85
6	95	100	130	150	150	150	150	160	150	140	86	67
7	100	110	120	150	150	150	150	150	140	120	71	75
8	100	110	110	150	150	150	160	150	140	110	---	77
9	97	94	140	150	150	150	160	160	140	110	100	82
10	100	100	140	150	150	150	150	160	140	110	93	85
11	97	100	140	150	150	150	160	160	140	100	82	71
12	100	110	140	150	150	150	150	170	140	95	81	83
13	100	110	140	150	150	150	150	170	140	88	86	81
14	110	110	140	150	150	150	150	160	140	87	71	70
15	98	110	130	150	150	150	150	160	140	76	88	76
16	98	110	140	150	150	160	160	160	140	73	---	67
17	100	99	140	150	160	160	150	160	140	66	68	63
18	97	99	140	150	160	150	140	150	140	72	67	65
19	94	110	140	150	150	150	130	150	140	61	76	74
20	93	100	140	150	150	150	130	160	140	68	87	71
21	97	120	140	160	150	150	150	160	140	68	74	68
22	97	110	130	150	150	150	150	160	140	66	85	71
23	96	110	150	150	150	150	150	160	150	67	85	72
24	100	100	150	150	150	150	150	150	150	69	67	78
25	100	130	150	150	150	150	150	150	140	67	61	77
26	99	130	150	150	150	150	150	150	140	77	67	79
27	97	110	150	150	150	150	150	150	140	70	68	79
28	99	110	150	150	150	150	150	150	140	69	67	73
29	100	140	150	150	150	150	150	150	150	70	82	77
30	100	110	150	150	---	150	150	150	150	72	87	71
31	100	---	150	150	---	150	---	150	---	82	73	---
MONTH	98	110	140	150	150	150	150	160	140	93	77	75
YEAR	MAX	170	MIN	61	MEAN	120						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	302	1190	137	338	632	1360	1270	5220	2330	1520	338
2	521	69.7	723	94.8	757	830	1150	130	5220	1620	1160	99.8
3	347	259	558	385	2040	956	397	1890	5220	1330	716	240
4	64.4	432	541	142	709	992	100	3210	5220	4950	753	41.2
5	241	521	548	757	1480	1130	903	3010	5260	4990	786	175
6	55.7	775	269	2050	1260	445	2720	3390	5260	4910	1110	2320
7	292	650	98.5	1680	409	132	2990	3180	4910	4210	1150	632
8	348	184	268	2730	171	551	1770	3410	2550	3830	---	335
9	60.2	58.1	488	2360	575	984	2000	3870	3030	3620	1320	50.3
10	316	198	1550	1030	838	445	964	3550	2340	1870	1540	50.0
11	61.0	586	782	215	863	656	471	3400	2900	2920	1310	372
12	316	769	1020	437	1110	749	952	4550	2260	1790	1240	52.7
13	275	838	1080	757	980	331	1430	4190	1430	2970	1390	69.5
14	882	1090	173	319	376	177	1410	3550	1600	3010	681	232
15	828	876	576	482	158	757	1250	3710	2230	2650	70.3	116
16	791	208	1990	506	571	1230	1910	4270	2330	2520	---	260
17	953	66.6	2220	514	886	1140	607	4000	2430	2280	892	62.3
18	537	50.5	911	378	963	1800	262	3300	2250	2470	407	157
19	64.0	257	484	547	1180	2250	224	3410	1340	2110	351	36.6
20	316	956	446	786	1190	850	1320	4490	166	1910	53.8	56.6
21	856	1460	139	838	482	220	1220	3420	1060	1850	226	222
22	864	526	92.3	919	159	1320	980	3030	2110	1550	47.3	113
23	858	93.3	402	786	798	1170	1500	3430	2190	1340	259	251
24	1030	373	466	324	1200	1070	996	4410	2280	1240	545	37.5
25	815	2330	490	138	956	399	494	3490	2110	1040	511	300
26	495	2310	139	806	915	794	3240	3540	1430	258	423	43.7
27	161	704	405	1130	984	765	3150	3690	953	1190	545	116
28	944	647	135	1130	405	215	3160	5260	1090	1420	409	306
29	626	1140	362	1130	145	806	3030	4050	2360	1100	52.0	151
30	75.9	136	298	1130	---	1070	3130	4000	2270	1120	88.6	295
31	308	---	437	656	---	1450	---	5510	---	1470	290	---
MONTH	467	629	622	816	790	849	1500	3540	2700	2320	684	251
YEAR	MAX	5510	MIN	36.6	MEAN	1270						

ARKANSAS RIVER BASIN

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	350	530	640	670	650	690	660	620	580	270	270
2	330	340	420	610	760	740	690	640	630	630	240	280
3	340	320	430	770	680	760	710	770	630	640	240	260
4	330	350	440	740	780	700	670	690	630	560	320	280
5	340	350	410	770	740	690	790	850	610	500	280	300
6	330	340	430	810	730	650	820	850	590	460	300	250
7	340	370	400	740	670	620	820	790	550	390	260	270
8	350	380	380	610	620	650	890	770	540	370	---	280
9	340	330	470	670	730	710	860	1000	560	380	350	290
10	350	350	530	700	830	720	790	960	540	380	320	300
11	340	340	500	630	820	730	860	1000	560	350	290	260
12	350	370	570	660	800	770	790	1100	520	330	290	290
13	340	370	560	680	800	710	790	1100	530	310	300	290
14	370	370	470	630	790	640	770	980	590	310	260	260
15	340	360	430	700	700	700	830	980	490	270	310	270
16	340	370	570	700	760	840	870	930	460	260	---	250
17	340	340	530	710	850	920	810	840	470	240	250	230
18	340	340	450	740	850	800	550	820	490	260	250	240
19	330	370	490	730	820	790	450	810	510	230	270	270
20	320	350	520	790	830	760	440	890	520	250	310	260
21	330	400	470	910	790	720	590	840	530	250	270	250
22	330	370	430	810	740	700	690	840	540	240	300	260
23	330	370	620	810	730	700	680	850	610	250	300	260
24	350	350	680	760	760	700	680	770	620	250	250	280
25	350	440	680	670	750	670	630	740	570	250	230	280
26	340	440	590	700	720	710	670	750	520	280	250	280
27	340	390	700	750	690	720	660	720	570	260	250	280
28	340	380	590	730	680	650	670	650	590	250	250	260
29	340	480	610	740	640	800	720	680	610	260	290	280
30	360	370	660	750	---	750	690	650	600	260	310	260
31	350	---	590	720	---	710	---	600	---	290	260	---
MONTH	340	370	520	720	750	720	720	820	560	340	280	270
YEAR	MAX	1100	MIN	230	MEAN	540						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	587	1060	4520	586	1510	2740	6280	5580	21600	9650	5490	1220
2	1770	237	2340	385	3840	4100	5310	555	21900	6790	4220	363
3	1190	890	1850	1980	9240	4840	1880	9710	21900	5690	2730	856
4	219	1510	1830	699	3690	4630	449	14800	21900	19800	2680	146
5	826	1820	1870	3890	7310	5180	4760	16000	21400	17800	2630	619
6	193	2630	890	11000	6150	1930	14900	18000	20700	16100	3860	8640
7	991	2190	328	8270	1830	544	16300	16700	19300	13700	4200	2270
8	1220	634	928	11100	705	2390	9830	17500	9840	12900	---	1220
9	211	204	1640	10500	2800	4660	10800	24200	12100	12500	4630	178
10	1110	695	5870	4820	4640	2140	5080	21300	9010	6440	5300	177
11	214	1990	2790	905	4720	3190	2530	21200	11600	10200	4620	1360
12	1110	2590	4140	1920	5900	3850	5010	29400	8400	6200	4420	184
13	936	2820	4320	3430	5230	1570	7550	27100	5390	10500	4850	249
14	2970	3680	581	1340	1980	755	7210	21700	6720	10700	2490	863
15	2870	2870	1900	2250	739	3530	6900	22700	7820	9400	248	411
16	2740	699	8100	2360	2890	6440	10400	24800	7650	8990	---	972
17	3240	229	8410	2430	4700	6580	3280	21000	8150	8290	3280	227
18	1880	174	2930	1870	5120	9590	1030	18100	7860	8920	1520	579
19	225	866	1690	2660	6440	11800	774	18400	4870	7950	1250	133
20	1090	3350	1660	4140	6610	4310	4470	25000	618	7020	192	207
21	2910	4860	468	4770	2540	1060	4790	18000	4010	6820	824	817
22	2940	1770	305	4960	785	6140	4510	15900	8140	5620	167	412
23	2950	314	1660	4240	3880	5460	6790	18200	8910	4980	915	906
24	3590	1300	2110	1640	6090	4990	4520	22700	9440	4480	2030	135
25	2850	7900	2220	617	4780	1780	2080	17200	8600	3870	1930	1090
26	1700	7820	548	3760	4390	3760	14500	17700	5320	937	1580	155
27	565	2500	1890	5630	4530	3670	13900	17700	3880	4420	2000	411
28	3240	2240	532	5480	1830	934	14100	22800	4590	5140	1530	1090
29	2130	3900	1470	5550	619	4300	14500	18400	9590	4090	184	550
30	273	457	1310	5630	---	5350	14400	17300	9090	4060	316	1080
31	1080	---	1720	3150	---	6840	---	22000	---	5210	1030	---
MONTH	1610	2140	2350	3930	3980	4160	7290	18800	10700	8360	2460	917
YEAR	MAX	29400	MIN	133	MEAN	5580						

07164400 ARKANSAS RIVER AT SAND SPRINGS BRIDGE NEAR TULSA, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	884	1260	1450	1500	1480	1550	1500	1420	1350	682	687
2	839	862	1060	1410	1680	1640	1550	1460	1440	1450	620	699
3	856	811	1080	1690	1530	1670	1580	1690	1450	1460	603	670
4	839	873	1090	1630	1710	1570	1520	1550	1440	1320	794	715
5	856	867	1010	1680	1630	1550	1730	1840	1410	1210	704	755
6	828	862	1060	1760	1610	1480	1780	1840	1370	1130	766	625
7	862	924	1010	1640	1500	1420	1780	1730	1300	986	659	682
8	873	941	946	1400	1420	1470	1910	1700	1280	918	---	699
9	845	822	1150	1510	1610	1590	1850	2110	1310	963	867	732
10	867	879	1270	1570	1800	1600	1720	2040	1280	946	811	755
11	845	862	1200	1440	1790	1620	1850	2150	1320	884	732	653
12	884	918	1320	1490	1750	1700	1720	2240	1240	828	727	744
13	862	929	1320	1540	1740	1580	1730	2360	1260	777	766	727
14	918	918	1160	1440	1730	1460	1690	2060	1360	772	659	648
15	851	913	1080	1570	1570	1570	1790	2070	1190	693	777	693
16	851	924	1330	1560	1680	1820	1860	1980	1140	670	---	625
17	862	856	1260	1580	1840	1950	1760	1810	1150	620	637	597
18	845	856	1120	1630	1840	1750	1300	1780	1180	665	631	614
19	822	935	1190	1620	1790	1720	1110	1760	1220	586	693	676
20	811	879	1240	1720	1800	1670	1100	1900	1250	637	772	653
21	839	997	1140	1940	1730	1590	1370	1810	1270	637	676	637
22	839	935	1060	1760	1630	1560	1550	1810	1280	620	755	653
23	834	918	1410	1760	1620	1570	1520	1830	1410	625	755	665
24	884	884	1540	1670	1680	1560	1530	1680	1420	642	625	704
25	873	1090	1530	1500	1660	1520	1450	1640	1320	631	586	699
26	856	1090	1370	1570	1610	1580	1520	1650	1240	699	625	715
27	845	969	1570	1650	1550	1610	1490	1600	1330	648	637	715
28	856	946	1370	1620	1520	1480	1520	1480	1360	642	631	670
29	862	1180	1400	1630	1460	1740	1610	1530	1410	648	738	699
30	896	918	1490	1660	---	1650	1540	1470	1390	665	772	659
31	879	---	1370	1590	---	1580	---	1380	---	738	670	---
MONTH	856	921	1240	1600	1650	1600	1600	1790	1310	841	702	682
YEAR	MAX	2360	MIN	586	MEAN	1240						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1460	2670	10800	1330	3380	6230	14100	12700	49500	22500	13900	3100
2	4510	600	5900	891	8480	9080	11900	1270	50200	15600	10900	906
3	3000	2260	4640	4330	20800	10600	4180	21300	50500	13000	6850	2210
4	557	3770	4530	1540	8080	10400	1020	33100	50200	46700	6650	373
5	2080	4520	4610	8480	16100	11600	10400	34600	49500	43100	7110	1560
6	485	6680	2200	24000	13600	4400	32300	39000	48100	39700	9870	21600
7	2510	5460	829	18300	4090	1250	35500	36700	45600	34600	10700	5750
8	3040	1570	2310	25500	1610	5400	21100	38600	23300	32000	---	3040
9	525	508	4010	23800	6170	10400	23100	51000	28400	31700	11500	449
10	2740	1740	14100	10800	10100	4750	11100	45200	21400	16000	13400	444
11	532	5050	6710	2070	10300	7090	5440	45600	27400	25800	11700	3420
12	2790	6420	9590	4340	12900	8490	10900	59900	20000	15600	11100	472
13	2370	7070	10200	7780	11400	3490	16500	58100	12800	26200	12400	624
14	7360	9120	1430	3060	4340	1720	15800	45700	15500	26700	6320	2150
15	7190	7270	4780	5040	1660	7930	14900	48000	19000	24100	621	1060
16	6870	1750	18900	5260	6400	14000	22200	52800	19000	23200	---	2430
17	8220	575	20000	5420	10200	14000	7130	45300	19900	21400	8360	590
18	4680	437	7290	4110	11100	21000	2430	39200	18900	22800	3830	1480
19	559	2190	4110	5900	14100	25800	1910	40100	11700	20300	3200	334
20	2760	8400	3950	9010	14300	9470	11200	53400	1490	17900	477	520
21	7410	12100	1140	10200	5560	2330	11100	38700	9600	17400	2060	2080
22	7480	4470	753	10800	1730	13700	10100	34300	19300	14500	420	1030
23	7450	778	3780	9220	8620	12300	15200	39200	20600	12500	2300	2320
24	9070	3290	4780	3610	13500	11100	10200	49400	21600	11500	5080	338
25	7120	19600	5000	1380	10600	4050	4780	38100	19900	9760	4900	2720
26	4280	19400	1270	8440	9820	8360	32800	38900	12700	2340	3950	396
27	1400	6200	4240	12400	10200	6220	31300	39300	9050	11000	5110	1050
28	8160	5570	1240	12200	4100	2130	32000	51900	10600	13200	3850	2800
29	5400	9590	3380	12200	1410	9350	32500	41300	22200	10200	468	1370
30	680	1130	2960	12500	---	11800	32100	39200	21100	10400	786	2740
31	2710	---	3990	6950	---	15200	---	50700	---	13300	2660	---
MONTH	4050	5340	5590	8740	8780	9210	16200	40700	25000	20800	6220	2310
YEAR	MAX	59900	MIN	334	MEAN	12800						

07164500 ARKANSAS RIVER AT TULSA, OK

LOCATION.--Lat 36°08'37", long 96°00'13", in NW 1/4 sec.11, T.19 N., R.12 E., Tulsa County, near left bank on downstream side of pier of bridge on U.S. Highway 66 in Tulsa, 10.1 mi (16.3 km) upstream from Polecat Creek, 15.1 mi (24.3 km) downstream from Keystone Dam, and at mile 523.7 (842.6 km).

DRAINAGE AREA.--74,615 mi² (193,253 km²), of which 12,541 mi² (32,481 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1904 are published in reports of the U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 615.23 ft (187.522 m) above mean sea level (Corps of Engineers bench mark). Prior to Feb. 2, 1939, nonrecording gage and Feb. 2, 1939, to Sept. 30, 1952, water-stage recorder at datum 3.00 ft (0.914 m) higher.

REMARKS.--Records fair. Except for 109 mi² (282 km²) intervening area, flow completely regulated by Keystone Lake (station 07164200) since September 1964. Prior minor regulation by John Martin Lake in Colorado and by Great Salt Plains Lake (station 07150000).

COOPERATION.--Gage height record and 10 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--(Prior to regulation by Keystone Lake) 39 years (water years 1926-64), 6,554 ft³/s (185.6 m³/s), 4,745,000 acre-ft/yr (5.85 km³/yr); (Since regulation by Keystone Lake) 12 years (water years 1965-76), 7,325 ft³/s (207.4 m³/s), 5,307,000 acre-ft/yr (6.54 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 246,000 ft³/s (6,970 m³/s) Oct. 5, 1959, gage height, 22.00 ft (6.706 m); minimum, 27 ft³/s (0.76 m³/s) Oct. 12, 13, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1904, 22.8 ft (6.949 m) June 13, 1923, present datum, from reports of U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,300 ft³/s (490 m³/s) May 30, gage height, 5.59 ft (1.704 m); minimum daily, 178 ft³/s (5.04 m³/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	639	1120	3160	339	834	1560	3370	3130	12900	6160	7530	1670
2	1990	258	2060	234	1870	2050	2850	321	12900	3990	6510	480
3	1300	1030	1590	950	5030	2360	980	4670	12900	3290	4210	1220
4	246	1600	1540	350	1750	2450	248	7920	12900	13100	3100	193
5	900	1930	1690	1870	3660	2780	2230	6970	13000	13200	3740	764
6	217	2870	767	5050	3120	1100	6720	7850	13000	13000	4770	12800
7	1080	2190	304	4140	1010	325	7380	7850	13000	13000	5990	3120
8	1290	618	904	6740	421	1360	4090	8410	6750	12900	3370	1610
9	230	229	1290	5830	1420	2430	4630	8960	8020	12200	4900	227
10	1170	735	4100	2550	2070	1100	2380	8210	6180	6280	6140	218
11	233	2170	2070	532	2130	1620	1090	7860	7680	10800	5900	1940
12	1170	2590	2690	1080	2730	1850	2350	9910	5980	6960	5650	235
13	1020	2820	2860	1870	2420	817	3540	9120	3770	12500	5990	318
14	2970	3680	458	788	929	437	3470	8210	4220	12800	3550	1230
15	3130	2950	1640	1190	391	1870	3080	8580	5910	12900	296	564
16	2990	700	5260	1250	1410	2840	4420	9880	6160	12800	2600	1440
17	3530	249	5880	1270	2050	2650	1500	9260	6420	12800	4860	366
18	2050	189	2410	934	2230	4440	693	8160	5940	12700	2250	893
19	252	867	1280	1350	2910	5550	637	8430	3540	12800	1710	183
20	1260	3540	1180	1940	2950	2100	3760	10400	440	10400	229	295
21	3270	4500	369	1940	1190	543	3010	7920	2800	10100	1130	1210
22	3300	1770	263	2270	393	3250	2420	7020	5580	8680	206	587
23	3310	314	992	1940	1970	2890	3700	7940	5410	7380	1130	1290
24	3800	1380	1150	800	2970	2640	2460	10900	5640	6630	3010	178
25	3020	6650	1210	341	2360	986	1220	8610	5590	5730	3100	1440
26	1850	6580	344	1990	2260	1960	7990	8740	3790	1240	2340	205
27	615	2370	1000	2780	2430	1890	7790	9100	2520	6290	2970	543
28	3530	2180	334	2780	999	532	7800	13000	2880	7610	2260	1550
29	2320	3010	894	2780	358	1990	7470	10000	5820	5820	235	727
30	261	457	737	2780	---	2640	7720	9880	5610	5780	377	1540
31	1140	---	1080	1620	---	3570	---	13600	---	6650	1470	---
TOTAL	54103	61546	51506	62278	56265	64580	110998	260811	207250	286490	101523	39036
MEAN	1745	2052	1661	2009	1940	2083	3700	8413	6908	9242	3275	1301
MAX	3800	6650	5880	6740	5030	5550	7990	13600	13000	13200	7530	12800
MIN	217	189	263	234	358	325	248	321	440	1240	206	178
AC-FT	107300	122100	102200	123500	111600	128100	220200	517300	411100	568300	201400	77430

CAL YR 1975 TOTAL 4250755 MEAN 11650 MAX 61100 MIN 189 AC-FT 8431000
WTR YR 1976 TOTAL 1356386 MEAN 3706 MAX 13600 MIN 178 AC-FT 2690000

07165000 HEYBURN LAKE NEAR HEYBURN, OK

LOCATION.--Lat 35°56'52", long 96°17'55", in SE 1/4 sec.13, T.17 N., R.9 E., Creek County, at intake structure at right abutment of Heyburn Dam on Polecat Creek, 2.5 mi (4.0 km) northwest of Heyburn, 3.4 mi (5.5 km) upstream from bridge on U.S. Highway 66, 11.0 mi (17.7 km) southwest of Sapulpa, and at mile 48.6 (28.2 km).

DRAINAGE AREA.--123 mi² (318.6 km²).

PERIOD OF RECORD.--October 1950 to current year. October 1970 to September 1975 published as Heyburn Lake near Heyburn.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by an earth dam. Outlet works consist of an 8.25 ft (2.515 m) diameter concrete conduit extending from an uncontrolled concrete drop inlet at the upstream side of dam to a concrete stilling basin near downstream toe of dam and three 36-inch (.91 m) gated low-flow pipes which drain into the conduit below the drop inlet. Spillway is 200-foot (61.0 m) channel in a natural saddle about 1,000 ft (304.8 m) west of right abutment. Storage began Sept. 29, 1950; conservation pool was first filled Mar. 10, 1951. Capacity, 144,800 acre-ft (179 hm³), at elevation 802.0 ft (244.45 m) maximum pool, 55,030 acre-ft (67.9 hm³), at elevation 784.0 ft (238.96 m), spillway crest and top of flood-control pool, and 6,620 acre-ft (8.2 hm³) at elevation 761.5 (232.11 m), conservation pool. Dead storage, 226 acre-ft (3,280 m³) below elevation 740.0 ft (225.55 m), invert of low-flow sluices. Reservoir was designed for flood control and conservation. Figures given herein represent total contents. Revised capacity table, based on survey in 1971, used since Oct. 1, 1972.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,210 acre-ft (39.7 hm³), Nov. 4, 1974, elevation, 776.85 ft (236.784 m); minimum since conservation pool was first filled, 5,780 acre-ft (7.13 hm³), Aug. 23, 1972, elevation 758.66 ft (231.240 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,790 acre-ft (12.1 hm³) Apr. 21, elevation, 764.47 ft (233.010 m); minimum, 5,910 acre-ft (7.29 hm³) Sept. 15, elevation, 760.67 ft (231.852 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

760	5,420	763	8,130
761	6,180	764	9,240
762	7,090	765	10,430

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6410	6140	6560	6730	6640	6620	6680	7030	7210	6500	6030	6160
2	6390	6160	6560	6720	6630	6630	6660	6980	7110	6570	6940	6160
3	6380	6180	6570	6690	6620	6690	6670	6950	7020	6560	6880	6160
4	6360	6160	6570	6680	6620	6720	6660	6890	6960	6550	6850	6150
5	6340	6200	6600	6680	6640	6720	6660	6860	6920	6540	6820	6130
6	6350	6210	6600	6660	6640	6720	6650	6850	6870	6540	6800	6110
7	6330	6210	6600	6650	6640	6740	6650	6820	6840	6530	6760	6080
8	6310	6210	6610	6640	6640	6940	6640	6800	6810	6490	6720	6070
9	6290	6210	6600	6640	6650	7320	6640	6770	6780	6470	6690	6050
10	6280	6200	6600	6640	6660	7220	6630	6790	6760	6460	6650	6020
11	6270	6180	6610	6640	6680	7200	6630	6780	6730	6440	6640	5980
12	6260	6160	6610	6650	6690	7180	6660	6820	6710	6420	6600	5950
13	6240	6130	6620	6650	6680	6980	6720	6840	6690	6390	6580	5940
14	6240	6120	6660	6650	6680	6810	6730	6830	6680	6380	6560	5930
15	6320	6110	6660	6650	6690	6700	6760	6860	6660	6350	6540	5950
16	6320	6110	6650	6650	6690	6640	6760	6850	6640	6370	6500	6020
17	6310	6110	6640	6640	6680	6640	7070	6830	6620	6350	6470	7190
18	6290	6110	6620	6650	6670	6640	7780	6810	6660	6330	6460	7130
19	6280	6210	6620	6650	6660	6640	8080	6780	6640	6310	6450	7030
20	6270	6210	6620	6650	6670	6640	9750	6770	6630	6290	6410	6960
21	6260	6180	6620	6650	6670	6640	9050	6760	6600	6270	6390	6890
22	6250	6170	6640	6650	6660	6640	8380	6750	6600	6250	6360	6840
23	6240	6160	6640	6650	6650	6620	7940	6740	6600	6220	6330	6790
24	6230	6160	6670	6660	6640	6640	7630	6730	6600	6210	6320	6770
25	6210	6160	6710	6660	6640	6640	7480	6700	6590	6180	6290	6750
26	6200	6160	6710	6640	6640	6640	7230	6930	6560	6160	6270	6750
27	6190	6150	6720	6640	6630	6630	7120	7110	6530	6150	6270	6730
28	6190	6140	6730	6650	6620	6680	7190	7050	6530	6130	6260	6710
29	6160	6420	6730	6650	6640	6710	7150	6990	6520	6110	6220	6680
30	6160	6550	6730	6640	---	6690	7100	7090	6510	6100	6160	6670
31	6150	---	6730	6640	---	6680	---	7340	---	6070	6160	---
MAX	6410	6550	6730	6730	6690	7320	9750	7340	7210	6570	6940	7190
MIN	6150	6110	6560	6640	6620	6620	6630	6700	6510	6070	6030	5930
†	760.96	761.43	761.62	761.53	761.52	761.57	762.01	762.25	761.38	760.87	760.98	761.56
‡	-270	+400	+180	-90	0	+40	+420	+240	-830	-440	+90	+510

CAL YR 1975 MAX 11,160 MIN 6,110 ‡ -460
WTR YR 1976 MAX 9,750 MIN 5,930 ‡ +230

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

07165500 POLECAT CREEK BELOW HEYBURN LAKE, NEAR HEYBURN, OK

LOCATION.--35°56'42", 96°17'39", in NW 1/4 NW 1/4 sec.19, T.17 N., R.10 E., Creek County, on right bank of outlet channel, 1,100 ft (335 m) downstream from Heyburn dam, 3.2 mi (5.1 km) upstream from bridge on U.S. Highway 66, 11 mi (17.7 km) southwest of Sapulpa, and at mile 48.4 (77.9 km).

DRAINAGE AREA.--123 mi² (319 km²).

PERIOD OF RECORD.--October 1943 to current year. Prior to October 1956, published as Polecat Creek at Heyburn and October 1970 to September 1975 as Polecat Creek below Heyburn Lake near Heyburn.

REVISED RECORDS.--WSP 1411: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 718.00 ft (218.846 m) above mean sea level. Prior to Feb. 22, 1949, nonrecording gage and Feb. 22, 1949, to Feb. 16, 1956, water-stage recorder at site 3.2 mi (5.1 km) downstream at datum 706.47 ft (215.332 m). Mar. 8, 1958 to Sept. 30, 1971, water-stage recorder at intake structure at right abutment of Heyburn Dam 1,100 ft (335 m) upstream at datum 760.00 ft (231.648 m), present site used supplementary gage.

REMARKS.--Records fair. Flow regulated since September 1950 by Heyburn Reservoir (station 07165000) with occasional prior regulation from March 1950 by lake construction operations.

COOPERATION.--Gage-height record, 12 discharge measurements and 5 observations of no flow furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--(prior to regulation by Heyburn Dam) 7 years (water years 1944-50) 66.9 ft³/s (1.895 m³/s), 48,470 acre-ft/yr (59.8 hm³/yr), (since regulation by Heyburn Dam) 26 years (water years 1951-76) 50.2 ft³/s (1.422 m³/s), 36,370 acre-ft/yr (44.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s (490 m³/s) June 23, 1948 and May 19, 1949, from rating curve extended above 6,100 ft³/s (173 m³/s); maximum gage height, 28.53 ft (8.696 m) May 19, 1949, site and datum then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 4, 1940, reached a stage of 31.5 ft (9.60 m), from flood mark, at former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 760 ft³/s (21.5 m³/s) Apr. 21, gage height, 8.22 ft (2.505 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	0	.36	4.6	4.4	0	.93	35	63	1.4	.65	.80
2	.14	0	.06	5.5	4.1	.01	.57	28	46	1.3	11	.90
3	0	0	0	4.8	.75	1.8	.86	22	35	1.4	16	1.0
4	0	0	0	2.3	1.6	2.9	.69	17	26	1.3	11	.90
5	0	0	.26	1.9	2.7	5.2	.36	14	20	1.2	7.7	.85
6	.66	0	2.1	3.8	2.9	2.4	.23	13	15	1.2	5.6	.85
7	.11	.02	.11	10	.88	2.2	.16	10	12	1.1	3.4	.85
8	0	.11	.44	1.6	.42	5.6	.20	8.0	9.6	1.1	2.2	.85
9	6.4	.59	.23	.59	.35	54	.22	6.2	6.6	1.1	1.1	.80
10	0	.32	0	.50	.62	66	.06	5.3	4.2	1.1	.88	.80
11	0	.18	.18	.46	1.7	52	.13	5.4	2.1	1.0	.89	.80
12	0	1.2	.33	.45	1.4	86	.45	5.7	1.4	.90	.83	.80
13	0	4.4	.03	3.0	6.2	102	.89	9.5	1.1	.90	.98	.78
14	0	.08	1.7	1.1	1.0	78	1.9	10	.30	.88	1.1	.80
15	0	0	2.7	1.0	1.0	67	3.7	9.8	1.3	1.1	1.4	.91
16	0	0	.26	5.8	1.6	25	5.0	13	.13	1.0	1.1	1.0
17	.01	0	2.4	.92	1.8	.05	7.8	12	.01	.90	1.1	23
18	0	0	.63	.71	2.2	0	148	9.1	1.8	.81	1.1	60
19	0	0	.03	2.0	.79	0	191	6.5	1.4	.87	1.0	45
20	0	1.9	.93	.95	.52	3.7	542	4.8	.40	.80	1.0	33
21	0	.78	.19	1.0	11	.70	670	3.7	.15	.80	1.0	24
22	0	.18	.01	.81	2.0	.66	430	2.8	.30	.80	1.0	18
23	0	0	0	.70	.45	.06	268	2.5	.80	.75	1.0	12
24	.07	0	.01	.89	.30	0	166	1.9	1.1	.75	1.2	8.8
25	0	0	2.3	4.1	.97	0	102	1.2	1.0	.70	.86	5.9
26	0	.04	3.7	2.5	.20	4.8	65	6.2	1.1	.70	.85	7.5
27	0	.09	3.4	.78	7.3	.34	47	36	1.0	.70	.85	4.9
28	0	0	3.4	.62	.01	.10	41	37	.99	.70	.85	2.6
29	0	.50	3.9	.59	0	2.4	44	29	1.9	.65	.80	1.2
30	0	3.8	4.0	.45	---	4.7	40	28	1.1	.65	.80	.09
31	0	---	4.0	3.2	---	1.2	---	78	---	.65	.80	---
TOTAL	8.13	14.19	37.66	67.62	59.16	568.82	2778.15	470.6	256.78	29.21	80.04	259.68
MEAN	.26	.47	1.21	2.18	2.04	18.3	92.6	15.2	8.56	.94	2.58	8.66
MAX	6.4	4.4	4.0	10	11	102	670	78	63	1.4	16	60
MIN	0	0	0	.45	0	0	.06	1.2	.01	.65	.65	.09
AC=FT	16	28	75	134	117	1130	5510	933	509	58	159	515

CAL YR 1975 TOTAL 26245.74 MEAN 71.9 MAX 1170 MIN 0 AC=FT 52060
WTR YR 1976 TOTAL 4630.04 MEAN 12.7 MAX 670 MIN 0 AC=FT 9180

ARKANSAS RIVER BASIN

197

07165570 ARKANSAS RIVER NEAR HASKELL, OK

LOCATION.--Lat 35°49'23", long 95°38'39", in NE 1/4 sec.31, T.16 N., R.16 E., Muskogee County, near right bank on downstream side of bridge on State Highway 104, 2 mi (3.2 km) east of Haskell, 23.5 mi (37.8 km) upstream from Verdigris River, and at mile 483.7 (778.3 km).

DRAINAGE AREA.--75,473 mi² (195,475 km²), of which 12,541 mi² (32,481 km²) probably is noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 530.00 ft (161.544 m) above mean sea level.

REMARKS.--Records fair. Flow regulated by Keystone Lake (station 07164200), 55.1 mi (88.7 km) upstream.

COOPERATION.--Gage-height record and 27 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 108,000 ft³/s (3,060 m³/s) Nov. 6, 1974, gage height, 17.30 ft (5.273 m); minimum daily, 531 ft³/s (15.0 m³/s) Sept. 30, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,900 ft³/s (705 m³/s) May 31, gage height, 10.66 ft (3.249 m); minimum daily, 309 ft³/s (8.75 m³/s) Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	565	1270	854	1940	670	3370	8320	12800	4890	6530	1050
2	660	1480	2190	593	1250	488	3220	4470	12000	5250	7950	1250
3	1750	729	2410	315	980	1670	2870	1500	11800	3470	7560	547
4	1220	690	1600	547	3960	2220	2010	4920	11600	4170	4280	956
5	593	1300	1580	584	1850	2460	739	8140	11700	12400	3450	472
6	759	1770	1600	811	2620	2560	1150	7180	11600	12500	3960	660
7	480	2350	1380	3920	2780	1990	6690	7800	11500	12500	4570	9680
8	780	1960	641	3370	1740	864	7260	7860	10700	12200	5460	3180
9	1090	1140	480	7150	670	1510	4520	8420	6650	11900	3450	1780
10	538	547	1140	5630	456	3100	4840	8800	7440	10100	4770	729
11	811	336	3080	2990	1510	2020	3410	8140	6080	7410	5740	480
12	488	1400	2440	980	1690	1050	1630	8040	6970	9880	5460	1270
13	832	2010	2480	593	1940	1930	2250	9470	5360	7230	5410	690
14	575	2240	2900	1270	2170	1480	4010	9200	3410	11800	5650	432
15	2480	2970	710	1210	1450	690	3760	8420	4260	11900	3390	980
16	2970	2690	760	897	504	709	3550	8770	5390	12900	932	832
17	2710	1200	4940	1070	309	2240	4380	9070	5440	12600	1990	1860
18	3060	556	5410	1090	1300	2420	2910	9230	5680	12200	3550	1380
19	2420	424	2990	843	1550	3870	2190	8290	5310	12200	2190	1080
20	621	739	1470	749	2070	5280	9610	8450	3260	12000	1450	650
21	593	2710	1210	1520	2580	3330	13900	9680	1090	10100	593	400
22	2640	3960	719	1710	1880	1040	9540	8140	2410	9780	780	992
23	2930	2190	440	1910	563	1940	7030	6870	4720	8640	488	602
24	3080	729	621	1990	530	2850	5390	8040	4770	7380	408	1210
25	3490	801	1090	1350	2140	2670	3870	10200	4970	6930	2020	612
26	2890	6290	1260	547	2140	1970	2200	8420	4920	5360	2270	1040
27	2090	6050	709	641	1740	1160	8230	9200	3410	2970	1720	670
28	710	2990	699	2250	1890	2440	8420	9540	2440	6170	2090	393
29	2600	2300	690	2350	1580	1120	8570	11800	2760	8080	2120	1260
30	2480	3720	440	2390	---	1200	8110	9270	4940	6260	530	749
31	719	---	980	2420	---	2510	---	15000	---	5650	356	---
TOTAL	50769	58836	50329	54544	47782	61451	149629	260650	195380	276820	101117	37886
MEAN	1638	1961	1624	1759	1648	1982	4988	8408	6513	8930	3262	1263
MAX	3490	6290	5410	7150	3960	5280	13900	15000	12800	12900	7950	9680
MIN	480	336	440	315	309	488	739	1500	1090	2970	356	393
AC-FT	100700	116700	99830	108200	94780	121900	296800	517000	387500	549100	200600	75150
CAL YR 1975 TOTAL	4509778	MEAN	12360	MAX	60000	MIN	336	AC-FT	8945000			
WTR YR 1976 TOTAL	1345193	MEAN	3675	MAX	15000	MIN	309	AC-FT	2668000			

ARKANSAS RIVER BASIN

07165570 ARKANSAS RIVER NEAR HASKELL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Beginning November 11, samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Beginning November 11, samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT												
08...	--	--	1300	--	1100	1500	7.8	20.0	1	7.5	87	14
22...	--	--	0730	--	2800	1550	8.2	17.0	3	10.0	109	17
NOV												
11...	--	--	1200	--	310	1480	8.1	15.0	3	--	--	20
11...	1028	9740	1201	394	--	1600	8.1	15.0	--	--	--	--
DEC												
30...	1028	9740	1400	513	400	--	7.9	8.0	15	11.0	98	--
JAN												
27...	1028	9740	1500	572	350	--	7.9	6.0	2	--	--	--
FEB												
24...	1028	9740	1430	592	260	2500	8.4	10.5	3	12.2	115	--
MAR												
24...	1028	9740	1430	2580	1900	2650	8.3	12.0	1	10.4	101	--
APR												
28...	1028	9740	0830	8150	5220	2500	8.3	13.0	25	11.4	114	--
MAY												
26...	1028	9740	1300	8320	8640	2070	7.5	17.5	21	8.6	96	--
JUN												
23...	1028	9740	--	4750	--	2200	8.2	27.0	43	--	--	--
JUL												
28...	1028	9740	1530	6390	7260	1080	--	29.5	17	11.6	161	--
AUG												
10...	1028	9740	1515	5220	5600	1200	8.8	29.0	19	13.0	173	--
SEP												
14...	1028	9740	1300	554	400	1400	8.5	23.0	7	11.8	142	--
DATE	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT												
08...	--	--	--	--	--	--	--	--	--	--	--	808
22...	--	--	--	--	--	--	--	--	--	--	--	836
NOV												
11...	--	--	74	19	190	6.1	246	202	95	490	--	829
11...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
30...	57	312	86	23	230	6.9	--	--	--	445	.5	--
JAN												
27...	20	410	120	27	400	7.7	--	--	--	583	.5	--
FEB												
24...	36	350	120	31	330	8.4	--	--	--	610	.4	--
MAR												
24...	35	340	98	28	400	6.7	--	--	--	680	.4	--
APR												
28...	69	360	92	25	380	5.3	--	--	--	680	.4	--
MAY												
26...	53	304	86	24	410	7.3	--	--	--	720	.4	--
JUN												
23...	20	237	81	20	320	7.1	--	--	--	523	.5	--
JUL												
28...	13	181	61	13	175	6.9	--	--	--	253	.4	--
AUG												
10...	21	194	63	15	194	7.7	--	--	--	295	.3	--
SEP												
14...	18	298	71	17	175	7.2	--	--	--	297	.4	--

ARKANSAS RIVER BASIN

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07165570 ARKANSAS RIVER NEAR HASKELL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)
OCT												
08...	--	1.10	16	.12	.30	1.4	1.7	1.8	8.1	.30	4	10
22...	--	1.14	24	.53	.13	.97	1.1	1.6	7.2	.26	4	<10
NOV												
11...	676	1.13	5	.67	.22	.98	1.2	1.9	8.3	.28	4	<10
11...	876	--	--	--	--	--	--	1.7	--	--	--	--
DEC												
30...	1022	--	--	--	--	--	--	.50	--	.35	--	--
JAN												
27...	1376	--	--	--	--	--	--	2.2	--	.18	--	--
FEB												
24...	1440	--	--	--	--	--	--	1.1	--	--	2	1
MAR												
24...	1500	--	--	--	--	--	--	.90	--	.20	--	--
APR												
28...	1430	--	--	--	--	--	--	1.4	--	.15	--	--
MAY												
26...	1060	--	--	--	--	--	--	1.6	--	.19	3	2
JUN												
23...	1213	--	--	--	--	--	--	1.0	--	.14	--	--
JUL												
28...	663	--	--	--	--	--	--	1.6	--	.21	--	--
AUG												
10...	797	--	--	--	--	--	--	6.8	--	.15	3	4
SEP												
14...	766	--	--	--	--	--	--	2.3	--	.27	--	--

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT												
08...	120	--	130	200	--	.0	--	--	--	20	4.7	0
22...	14	--	390	<100	--	.0	--	--	--	10	5.2	0
NOV												
11...	55	10	220	<100	100	.2	10	--	--	50	15	0
11...	--	10	--	--	100	--	10	--	1	--	--	--
DEC												
30...	--	--	300	--	150	--	--	--	--	--	--	--
JAN												
27...	--	--	100	--	160	--	--	--	--	--	--	--
FEB												
24...	30	5	500	20	140	--	10	--	2	10	--	--
MAR												
24...	--	--	200	--	70	--	--	--	--	--	--	--
APR												
28...	--	--	600	--	140	--	--	--	--	--	--	--
MAY												
26...	16	11	700	15	115	<.5	14	2	2	14	--	--
JUN												
23...	--	--	<100	--	14	--	--	--	--	--	--	--
JUL												
28...	--	--	300	--	61	--	--	--	--	--	--	--
AUG												
10...	20	12	300	20	58	2.0	27	<2	2	19	--	--
SEP												
14...	--	--	200	--	78	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07171000 VERDIGRIS RIVER NEAR LENAPAH, OK

LOCATION.--Lat 36°51'05", long 95°35'06", at center of sec.3, T.27 N., R.16 E., Nowata County, near right bank on downstream side of pier of county road bridge, 2.8 mi (4.5 km) east of Lenapah, 4.5 mi (7.2 km) upstream from Cedar Creek, and at mile 144.6 (232.7 km).

DRAINAGE AREA.--3,639 mi² (942.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 977: 1942(M). WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 644.89 ft (196.562 m) above mean sea level.

REMARKS.--Records fair. Some regulation, by dams in Kansas, since April 1949.

COOPERATION.--Gage-height record and 22 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--(prior to regulation) 11 years (water years 1939-49), 2,599 ft³/s (73.60 m³/s), 1,883,000 acre-ft/yr (2.32 km³/yr); (since regulation) 10 years (water years 1967-76), 2,780 ft³/s (78.7 m³/s), 2,014,000 acre-ft/yr (2.48 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 137,000 ft³/s (3,880 m³/s) May 20, 1943, gage height, 40.44 ft (12.326 m), from floodmarks; no flow at times in 1939-40, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78,400 ft³/s (2,220 m³/s) at 0700 July 4, gage height, 38.60 ft (11.765 m), no other peak above base of 23,000 ft³/s (651 m³/s); minimum daily, 26 ft³/s (0.74 m³/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	46	499	338	63	49	127	4850	3010	1690	126	53
2	54	46	218	317	63	47	120	5590	1390	8110	103	53
3	48	49	184	287	61	53	108	5340	641	36100	94	49
4	48	51	245	258	58	780	101	5100	819	70900	92	47
5	42	49	267	219	63	3180	95	4930	709	47700	85	47
6	42	47	287	166	59	1290	90	3310	579	40700	216	45
7	38	51	256	120	58	610	87	2370	353	32100	174	42
8	37	54	238	95	55	422	84	1520	243	14400	123	43
9	38	332	225	75	56	3330	80	796	196	11800	102	41
10	36	303	215	67	55	1690	76	416	169	12900	90	37
11	33	179	211	66	56	860	73	277	148	13600	80	34
12	33	111	207	67	54	966	72	266	131	13700	73	31
13	30	78	209	69	52	1280	70	338	118	13600	70	29
14	32	63	213	70	50	1160	68	366	105	13400	73	27
15	4430	54	215	73	49	691	67	469	97	12700	77	26
16	1260	49	1390	74	50	452	67	878	97	12400	74	29
17	326	45	1050	73	49	359	70	702	83	12100	122	32
18	181	43	550	73	47	316	96	572	138	11100	141	32
19	128	47	445	75	47	274	188	404	282	10000	100	36
20	102	70	355	75	44	261	823	285	164	9900	82	89
21	83	92	299	74	43	212	2460	216	116	9230	71	103
22	73	87	282	72	56	189	1960	182	93	8370	63	102
23	66	79	286	72	210	167	1320	171	80	6440	57	103
24	99	72	289	71	127	150	1090	754	71	3040	55	95
25	206	65	292	70	83	146	1310	1440	2270	1800	59	88
26	124	64	292	68	67	137	1280	1670	1830	1750	236	96
27	82	63	291	67	60	133	1010	5990	620	1060	187	117
28	66	62	285	66	55	131	3320	6960	307	236	106	116
29	59	67	301	66	50	137	7830	3780	247	150	78	103
30	52	965	399	64	---	143	6500	3140	1180	376	65	92
31	47	---	380	64	---	141	---	2950	---	189	58	---
TOTAL	7949	3383	10875	3411	1840	19756	30642	66032	16286	431541	3132	1837
MEAN	256	113	351	110	63.4	637	1021	2130	543	13920	101	61.2
MAX	4430	965	1390	338	210	3330	7830	6960	3010	70900	236	117
MIN	30	43	184	64	43	47	67	171	71	150	55	26
AC=FT	15770	6710	21570	6770	3650	39190	60780	131000	32300	856000	6210	3640

CAL YR 1975 TOTAL 981761 MEAN 2690 MAX 22800 MIN 28 AC=FT 1947000
WTR YR 1976 TOTAL 596684 MEAN 1630 MAX 70900 MIN 26 AC=FT 1184000

ARKANSAS RIVER BASIN

07171000 VERDIGRIS RIVER NEAR LENAPAH, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-64, December 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1964.

WATER TEMPERATURE: October 1951 to September 1964.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
DEC												
17...	1028	9740	0815	1050	400	6.7	5.5	28	11.2	90	16	204
JAN												
20...	1028	9740	1130	75	550	7.6	2.0	3	11.0	85	12	227
FEB												
19...	1028	9740	1050	47	640	9.0	11.0	3	14.2	134	45	216
MAR												
16...	1028	9740	1120	452	580	8.3	10.0	25	9.0	83	5	220
APR												
13...	1028	9740	1115	70	500	8.3	19.0	4	10.6	119	11	190
MAY												
17...	1028	9740	1130	702	500	7.9	18.0	29	6.9	96	35	167
JUN												
15...	1028	9740	0900	97	420	8.0	25.0	32	6.4	80	19	181
JUL												
21...	1028	9740	0950	9230	220	7.7	27.0	53	6.4	81	14	96
AUG												
18...	1028	9740	0830	141	410	8.2	28.0	16	6.4	83	37	149
SEP												
15...	1028	9740	0745	26	500	7.8	23.0	17	6.3	75	23	--

ARKANSAS RIVER BASIN

07171000 VERDIGRIS RIVER NEAR LENAPAH, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
DEC											
17...	71	166	9.0	28	2.8	39	.2	237	1.0	.12	--
JAN											
20...	78	194	10	25	4.7	42	.3	265	2.6	.35	--
FEB											
19...	95	178	11	41	5.1	60	1.6	378	1.1	.24	4
MAR											
16...	87	180	10	21	3.6	39	.3	318	.70	.20	--
APR											
13...	72	150	10	36	3.5	92	.6	320	1.3	.17	--
MAY											
17...	58	127	8.7	20	3.1	60	.5	295	.60	.11	3
JUN											
15...	55	148	7.3	20	3.3	43	.6	247	1.5	.21	--
JUL											
21...	32	71	4.1	--	3.0	13	.2	193	1.7	.19	--
AUG											
18...	56	149	7.2	23	4.2	37	.6	268	1.9	.12	5
SEP											
15...	71	--	10	29	4.6	95	.4	368	2.7	.19	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC											
17...	--	--	--	700	--	130	--	--	--	--	--
JAN											
20...	--	--	--	200	--	110	--	--	--	--	--
FEB											
19...	<1	4	9	500	16	220	--	7	--	1	18
MAR											
16...	--	--	--	400	--	120	--	--	--	--	--
APR											
13...	--	--	--	200	--	290	--	--	--	--	--
MAY											
17...	2	8	5	1100	10	106	.8	6	<2	3	28
JUN											
15...	--	--	--	600	--	130	--	--	--	--	--
JUL											
21...	--	--	--	1600	--	790	--	--	--	--	--
AUG											
18...	<1	15	3	300	8	92	<.5	<3	<3	<1	8
SEP											
15...	--	--	--	400	--	105	--	--	--	--	--

ARKANSAS RIVER BASIN

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07171300 OOLOGAH LAKE NEAR OOLOGAH, OK

LOCATION.--Lat 36°25'19", long 95°40'43", in NE 1/4 NW 1/4 sec.2, T.22 N., R.15 E., Rogers County, in gage tower 1,000 ft (304.8 m) from left end of dam on Verdigris River, 2.0 mi (3.2 km) southeast of Oologah, and at mile 90.3 (145.3 km).

DRAINAGE AREA.--4,339 mi² (11,238 km²).

PERIOD OF RECORD.--May 1963 to current year. Prior to October 1970 published as Oologah Reservoir near Oologah.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by earth dam with concrete outlet structure and emergency spillway. Storage began May 15, 1963; conservation pool was first filled Apr. 4, 1964. Capacity, 1,020,000 acre-ft (1,260 hm³) at elevation 651.0 ft (198.42 m), crest of uncontrolled spillway and 442,800 acre-ft (546 hm³) at elevation 634.0 ft (193.24 m), conservation pool, revised. Dead storage, 9,260 acre-ft (11.4 hm³) below elevation 592.0 ft (180.44 m). Figures given herein represent total contents. Reservoir is used for flood control and conservation.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,426,000 acre-ft (1.76 km³) Apr. 26, 1973, elevation, 659.33 ft (200.964 m); minimum since conservation pool first filled 33,750 acre-ft (41.6 hm³) Aug. 28, Oct. 27, 1969, elevation, 602.87 ft (183.755 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 969,800 acre-ft (1.20 km³) July 8, elevation, 649.81 ft (198.062 m); minimum, 494,100 acre-ft (609 hm³) Sept. 15, elevation, 635.92 ft (193.828 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

635	469,400	643	712,200
637	524,700	646	819,400
640	614,200	650	977,800

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	529800	529800	521800	548000	551400	550500	527500	616300	576100	543600	531300	500600
2	529600	530400	523200	548500	550800	555100	527000	624000	566600	555700	512000	500100
3	529000	531900	522900	549700	552000	557200	528700	625800	550500	645000	508000	499200
4	528400	531900	522700	547700	552000	557700	527500	627100	535300	728900	506600	499500
5	528100	531300	531300	545700	553400	564200	527000	632300	526400	832000	509400	499200
6	528100	531000	528100	552600	552000	565700	526700	635900	527300	909300	510900	498700
7	527800	531300	527500	550000	551100	567600	526100	633300	527300	957600	510300	498200
8	527000	529000	528400	548800	551400	572200	526700	630000	527500	964300	509100	497600
9	527800	531900	528400	548000	550500	576800	525500	625500	526700	946600	506000	497100
10	527000	531600	527000	549100	553400	581700	524700	619400	526400	928000	505400	496300
11	525500	531600	529600	549100	552300	582000	526400	609900	526100	910500	505100	494900
12	525200	531300	529300	548500	552000	589600	524700	604300	524700	893500	505700	494900
13	524100	530100	525200	549700	553400	587800	525000	596400	522400	877300	505700	494900
14	525800	527500	531900	549100	551400	589900	524700	589000	522900	860200	506000	494700
15	533300	528400	531600	551400	552000	595800	524100	583500	526100	841600	506800	494900
16	536200	528100	538800	549700	553400	593300	524700	576800	525000	823900	506600	495300
17	535900	526100	537600	550000	552800	593300	526100	568800	524700	803500	506600	496600
18	535600	520900	534700	547700	552800	592700	527000	560300	533300	780600	506600	495800
19	534700	516900	536700	550500	553100	590900	529600	552800	532700	755700	506000	498700
20	533300	521800	538500	549400	553100	587500	544500	545100	532400	744200	505400	499200
21	532400	522100	537900	550500	553400	570300	554000	536500	531900	730700	504800	498200
22	532700	520600	539600	549700	553400	553400	558300	527800	531000	719900	504000	496800
23	529800	518900	539600	551100	552600	536700	559700	524100	529800	705300	504000	496600
24	535300	520900	540800	552300	552800	529800	566000	528100	531900	685700	503700	496600
25	533300	520900	541900	552800	553100	523200	569100	524600	533900	661300	502800	496300
26	531000	519500	542500	551400	553400	527500	571200	543600	538200	637500	502200	499000
27	530100	519500	542500	549100	553100	526700	572500	563300	538200	618100	502200	499000
28	535000	516600	546200	551100	553100	528100	587500	575800	538800	601900	502600	497600
29	532700	519500	545400	551100	553100	527500	604000	573100	541100	584400	501700	497100
30	529600	522100	545900	551400	---	529000	613500	568200	541100	565700	501100	496800
31	529300	---	547400	550500	---	527500	---	573700	---	549100	500300	---
MAX	536200	531900	547400	552800	553400	595800	613500	635900	576100	964300	531300	500600
MIN	524100	516600	521800	545700	550500	523200	524100	524100	522400	543600	500300	494700
†	637.16	636.91	637.79	637.90	637.99	637.10	639.98	638.68	637.57	637.85	636.15	636.02
‡	-3,400	-7,200	+25,300	+3,100	+2,600	-25,600	+86,000	-39,800	-32,600	+8,000	-48,800	-3,500

CAL YR 1975 MAX 764,700 MIN 498,400 ‡ -175,600
WTR YR 1976 MAX 964,300 MIN 494,700 ‡ -35,900

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

07171400 VERDIGRIS RIVER NEAR OOLOGAH, OK

LOCATION.--Lat 36°25'17", long 95°41'01", in NW 1/4 sec.2, T.22 N., R.15 E., Rogers County, on right bank 0.3 mi (0.48 km) downstream from Oologah Dam, 1.2 mi (1.9 km) upstream from Fourmile Creek, 2 mi (3.2 km) southeast of Oologah, and at mile 90.0 (144.8 km).

DRAINAGE AREA.--4,339 mi² (11,238 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 552.00 ft (168.250 m) above mean sea level.

REMARKS.--Records fair. Some regulation by several dams in Kansas prior to May 1963 and completely regulated thereafter by Oologah Lake (station 07171300).

COOPERATION.--Gage-height record and 15 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--(since regulation by Oologah Lake) 12 years (water years 1965-76), 3,024 ft³/s (85.64 m³/s), 2,191,000 acre-ft/yr (2.70 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) May 16, 1973, gage height, 38.05 ft (11.598 m); no flow at times in 1967, 1969, 1975-76.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 65.2 ft (19.87 m), from floodmarks. Flood of May 9, 1961, reached a stage of 52.8 ft (16.09 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,700 ft³/s (728 m³/s) July 9, gage height, 34.01 ft (10.366 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	83	20	8.6	0	3.3	106	3260	2750	24	9930	14
2	.26	86	20	8.2	0	3.1	106	3260	7500	25	9090	14
3	.21	86	21	8.2	0	4.2	105	3250	9450	1590	3750	13
4	0	87	21	7.7	.31	5.7	105	3260	9400	8630	124	13
5	0	86	19	7.2	1.0	4.3	104	3270	4990	13600	134	13
6	.21	85	18	7.2	1.0	4.8	106	3260	26	16600	130	12
7	.30	85	18	7.2	1.0	5.0	106	3250	23	19600	130	12
8	106	86	18	6.4	1.0	6.3	58	3230	21	22100	129	12
9	129	86	18	6.4	1.0	16	12	3230	19	23700	130	13
10	87	85	18	6.4	1.0	6.9	12	4260	20	25400	75	13
11	85	87	16	6.2	1.1	5.9	11	5020	21	25300	21	12
12	85	87	14	6.2	1.1	6.3	11	5010	21	25300	13	12
13	86	88	12	6.2	1.1	5.5	11	4990	22	25100	12	12
14	86	85	13	5.6	1.2	5.4	11	4980	21	24900	18	12
15	84	85	13	5.0	1.5	5.5	10	4980	22	24700	17	12
16	81	84	9.5	4.0	1.9	5.2	9.6	4980	22	24600	19	13
17	81	1270	9.3	3.5	1.6	5.3	9.7	4960	22	24400	18	13
18	83	2950	10	3.0	1.9	5.5	10	4960	23	24300	19	12
19	83	1110	11	2.5	2.1	6.7	10	4960	24	24100	19	18
20	83	34	10	2.0	2.1	4160	10	4940	22	20400	19	12
21	83	31	9.5	1.7	1.9	8750	11	4930	22	15100	17	12
22	83	29	10	1.5	1.6	9350	12	4920	23	15000	17	11
23	83	29	10	1.3	2.2	8510	12	2030	24	14900	17	11
24	83	29	9.5	1.2	2.4	5060	11	29	25	14800	17	12
25	82	29	10	1.1	2.3	1880	12	22	24	14700	16	12
26	80	29	9.5	1.0	2.5	109	12	25	24	14600	16	13
27	80	28	9.5	.50	2.2	107	11	42	24	12000	15	13
28	83	24	9.5	0	2.9	108	12	1510	25	10100	15	12
29	84	22	10	0	3.5	110	12	6050	26	10100	14	12
30	83	20	11	0	---	107	2060	7560	25	10000	14	12
31	83	---	9.5	0	---	106	---	75	---	9970	14	---
TOTAL	2067.10	7005	416.8	126.00	43.41	38467.9	3088.3	110503	34661	515639	23969	377
MEAN	66.7	234	13.4	4.06	1.50	1241	103	3565	1155	16630	773	12.6
MAX	129	2950	21	8.6	3.5	9350	2060	7560	9450	25400	9930	18
MIN	0	20	9.3	0	0	3.1	9.6	22	19	24	12	11
AC-FT	4100	13890	827	250	86	76300	6130	219200	68750	1023000	47540	748
CAL YR 1975	TOTAL	1281799.59	MEAN	3512	MAX	19700	MIN	0	AC-FT	2542000		
WTR YR 1976	TOTAL	736363.51	MEAN	2012	MAX	25400	MIN	0	AC-FT	1461000		

07171400 VERDIGRIS RIVER NEAR OOLOGAH, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-63, 1965 to current year.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
DEC 17...	1028	9740	0930	9.3	320	6.4	6.5	--	12.4	105	--	--
JAN 20...	1028	9740	1300	2.0	380	8.3	5.5	5	12.8	100	4	171
FEB 19...	1028	9740	1245	2.1	300	8.1	10.0	2	11.2	102	16	150
MAR 16...	1028	9740	1245	5.2	380	8.3	10.0	3	10.2	94	18	167
APR 13...	1028	9740	1600	11	400	7.9	16.0	8	6.9	73	<4	157
MAY 17...	1028	9740	1315	4960	400	8.3	18.0	2	9.3	101	23	149
JUN 15...	1028	9740	0800	22	405	7.4	21.0	18	6.8	79	8	196
JUL 21...	1028	9740	1100	15100	220	7.6	27.0	40	16.2	198	14	115
AUG 18...	1028	9740	0930	19	260	7.8	25.0	48	6.3	77	30	101
SEP 15...	1028	9740	0900	12	260	7.5	23.0	27	6.0	71	13	--

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
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DEC 17...	--	--	--	--	--	--	--	--	--	--	--
JAN 20...	57	140	8.0	18	2.3	24	.2	182	1.5	.01	--
FEB 19...	68	121	9.3	12	3.0	28	.3	233	.70	<.10	<1
MAR 16...	42	120	8.0	10	3.0	28	.2	216	.40	<.08	--
APR 13...	59	140	8.2	12	3.1	71	.2	232	.70	<.08	--
MAY 17...	52	125	8.3	10	2.6	31	.4	240	.80	<.08	<1
JUN 15...	54	156	8.8	20	3.1	43	.4	251	1.0	.08	--
JUL 21...	28	69	4.4	2.0	2.9	17	.2	163	1.9	.10	--
AUG 18...	33	99	4.6	8.0	3.4	22	.3	173	2.7	.13	30
SEP 15...	34	--	4.7	6.0	3.2	--	.6	200	1.7	.17	--
DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (MG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)

DEC 17...	--	--	--	--	--	--	--	--	--	--	--
JAN 20...	--	--	--	400	--	30	--	--	--	--	--
FEB 19...	<1	<1	3	<100	12	29	--	2	--	<1	3
MAR 16...	--	--	--	300	--	48	--	--	--	--	--
APR 13...	--	--	--	200	--	150	--	--	--	--	--
MAY 17...	3	3	2	200	8	31	.5	6	2	3	3
JUN 15...	--	--	--	300	--	691	--	--	--	--	--
JUL 21...	--	--	--	700	--	169	--	--	--	--	--
AUG 18...	<1	143	4	600	10	361	<.5	5	<3	2	16
SEP 15...	--	--	--	700	--	134	--	--	--	--	--

07172500 HULAH LAKE NEAR HULAH, OK

LOCATION.--Lat 36°55'44", long 96°05'18", in SE 1/4 sec.2, T.28 N., R.11 E., Osage County, in stair tower at right end of Hulah Dam on Caney River, 0.5 mi (.80 km) downstream from Hickory Creek, 2.0 mi (3.2 km) west of Hulah, 15.7 mi (25.3 km) upstream from Little Caney River, and at mile 96.2 (154.8 km).

DRAINAGE AREA.--732 mi² (1,896 km²).

PERIOD OF RECORD.--April 1950 to current year. Prior to October 1970 published as Hulah Reservoir near Hulah.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Feb. 15, 1951, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by an earth dam. Spillway is 472-ft (143.9 m) concrete ogee-type weir controlled by 10 taintor gates. Outlet works consist of nine rectangular sluices, two 24-inch (0.61 m) gated pipes, and one 10-inch (254 mm) water-supply pipe. Closure for diversion made Feb. 6, 1950; regulated storage began Oct. 25, 1950; conservation pool was first filled Sept. 24, 1951. Capacity, 292,600 acre-ft (624,000 m³) below elevation 706.0 ft (215.19 m), crest of spillway, and 34,660 acre-ft (42.7 hm³) at herein represent total contents. Reservoir is used for flood control, conservation, and municipal water supply. Revised capacity table, based on survey in 1958, used since Oct. 1, 1958.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 293,400 acre-ft (362 hm³) June 23, 1957, elevation, 764.87 ft (233.132 m); minimum since conservation pool was first filled, 11,250 acre-ft (13.9 hm³) Mar. 20, 1957, elevation, 723.22 ft (220.437 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 125,400 acre-ft (155 hm³) July 9, elevation, 749.05 ft (228.310 m); minimum, 29,880 acre-ft (36.8 hm³) Mar. 3, elevation, 731.60 ft (222.992 m).

Capacity table (elevation, in feet, an contents, in acre-feet)

731	27,900	741	71,020
734	38,360	745	95,540
737	50,860	750	133,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34480	32680	31460	31200	30800	29980	34920	47260	39960	37550	34400	34400
2	34400	32680	31460	31130	30870	29910	34880	44350	38920	45050	34290	34290
3	34290	32680	31430	31040	30840	30540	34840	41110	37840	87950	34180	34180
4	34180	32650	31360	31000	30800	31000	34620	39060	37140	108400	34030	34070
5	34100	32590	31460	30940	30600	31000	34810	37770	37100	114600	34220	33920
6	33990	32590	31330	31200	30740	31100	34770	36290	37030	119200	37400	33740
7	33920	32550	31300	31100	30670	31200	34770	35550	36990	123000	37510	33550
8	33810	32450	31200	31100	30570	31530	34730	35250	36880	125200	37510	33400
9	33700	32450	31100	31070	30510	32490	34660	34920	36770	122600	37470	33290
10	33620	32360	31070	31100	30410	32750	34620	34550	36700	117300	37400	33150
11	33480	32290	31000	31100	30410	34510	34590	34360	36620	110900	37250	32950
12	33360	32190	30970	31100	30440	39170	34550	34440	36510	104200	37140	32750
13	33250	32020	30870	31130	30470	39800	34360	34400	36440	97260	36950	32750
14	33770	31960	30970	31130	30410	40210	34400	34510	36400	89730	36950	32620
15	33920	31960	30870	31130	30540	40660	34510	34770	36580	82130	36920	32620
16	33850	31930	30800	31130	30340	40860	34590	34920	36550	74210	36810	32550
17	33770	31860	30700	31130	30380	41070	35400	35030	37100	66290	36660	32420
18	33700	31790	30940	31070	30180	41190	37690	35100	37180	58370	36510	32320
19	33590	32090	30970	31130	30110	40170	38100	35140	37100	50640	36320	32290
20	33550	32060	30940	31100	30540	38540	41030	35140	37060	45250	36180	32190
21	33480	31830	30900	31100	30280	36580	40860	35250	37060	42050	36030	32020
22	33440	31730	30800	30970	30140	35140	37990	35250	37030	38800	36920	31860
23	33360	31660	30840	30970	30080	34730	37140	35220	37030	37140	35770	31760
24	33290	31560	30900	30900	30110	34810	36510	35220	36990	36360	35580	31660
25	33180	31530	30940	30940	30110	34730	35510	35180	37210	35580	35470	31700
26	33080	31460	30840	31040	29980	34840	34920	37690	37320	35100	35290	31630
27	33020	31400	30800	30970	30010	34840	34730	40290	37400	34920	35070	31530
28	32980	31330	30800	30940	30110	34880	46600	41070	37440	34920	34990	31460
29	32880	31600	30840	30900	30080	34990	50280	40620	37550	34840	34640	31330
30	32780	31530	31130	30870	---	34960	49780	39840	37550	34620	34660	31200
31	32750	---	31130	30870	---	34960	---	40170	---	34550	34550	---
MAX	34480	32680	31460	31200	30870	41190	50280	47260	39960	125200	37510	34400
MIN	32750	31330	30700	30870	29980	29910	34360	34360	36400	34550	34030	31200
†	732.47	732.10	731.98	731.90	731.66	738.08	736.76	734.48	733.78	732.97	732.97	732.00
‡	-1,840	-1,220	-400	-260	-790	+4,880	+14,820	-9,610	-2,620	-3,000	0	-3,350
CAL YR 1975	MAX	95,210	MIN	30,700	‡	-29,050						
WTR YR 1976	MAX	125,200	MIN	29,910	‡	-3,390						

† Elevation, in feet, at end of month.

‡ Change, in contents, in acre-ft.

07173000 CANEY RIVER NEAR HULAH, OK

LOCATION.--Lat 36°55'06", long 96°04'15", in NW 1/4 SE 1/4 sec.12, T.28 N., R.11 E., Osage County, or left bank 1,000 ft (304.8 m) downstream from the Atchison, Topeka, and Santa Fe Railway Co. bridge, 0.9 mi (1.4 km) downstream from Hulah Dam, 1.5 mi (2.4 km) upstream from Opossum Creek, 2.5 mi (4.0 km) west of Hulah, and at mile 95.3 (153.3 km).

DRAINAGE AREA.--736 mi² (1,906 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 681.96 ft (207.861 m), above mean sea level. Prior to Feb. 18, 1939, nonrecording gage and Feb. 18, 1959, to Sept. 30, 1948, water-stage recorder, at county road bridge, 0.8 mi (1.3 km) upstream at datum 3.00 ft (.914 m) higher.

REMARKS.--Records good. Flow completely regulated since February 1950 by Hulah Lake (see sta. 07172500). About 5 to 9 ft³/s (0.14 to 0.25 m³/s) is diverted above station by city of Bartlesville for municipal water supply.

COOPERATION.--Gage-height record and 18 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--(Prior to regulation by Hulah Dam) 13 years (water years 1938-50), 413 ft³/s (11.70 m³/s), 299,200 acre-ft/yr (369 hm³/yr); (since regulation by Hulah Dam) 26 years (water years 1951-76), 334 ft³/s (9.459 m³/s), 242,000 acre-ft/yr (298 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s (1,444 m³/s) Apr. 10, 1944, gage height, 39.45 ft (12.024 m), former site and datum; no flow at times in 1939-40, 1946, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 40.2 ft (12.25 m) occurred at former site and datum, date unknown, from floodmark, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,300 ft³/s (122 m³/s) July 14, gage height, 8.97 ft (2.734 m); minimum daily, 0.76 ft³/s (0.022 m³/s) Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	24	26	5.5	8.0	9.7	7.1	2100	318	11	35	34
2	24	24	26	5.4	8.3	9.7	7.1	2080	626	28	34	34
3	24	24	26	5.4	9.0	16	7.1	2060	624	52	34	34
4	24	25	26	5.4	12	19	7.1	1480	367	69	34	34
5	24	25	26	4.9	12	19	7.1	1130	80	70	36	34
6	24	25	26	5.3	12	19	7.1	1120	80	64	45	34
7	24	25	26	5.5	13	19	7.1	661	80	64	45	34
8	24	25	26	5.4	13	19	7.1	385	80	474	45	35
9	24	24	26	4.9	13	20	7.1	385	81	2370	46	34
10	24	24	26	4.7	13	13	7.1	387	83	4020	40	34
11	24	24	26	4.6	13	11	7.1	271	37	3980	35	34
12	24	24	26	4.6	13	13	7.1	123	10	3910	35	34
13	24	24	26	4.6	13	12	7.1	123	11	3840	35	35
14	25	24	26	4.7	13	12	7.1	80	11	4040	35	35
15	25	24	26	5.1	12	12	7.1	49	13	4240	36	35
16	24	24	26	5.3	11	12	7.0	47	13	4150	35	35
17	24	24	26	5.4	11	12	7.3	46	14	4040	35	35
18	24	24	18	5.8	10	12	7.9	46	9.9	3940	35	35
19	24	24	7.2	5.9	10	507	7.1	47	8.9	3830	35	35
20	9.6	23	7.1	5.9	11	983	7.3	48	8.9	2680	35	34
21	2.2	23	7.1	5.9	10	973	253	48	9.2	1550	35	34
22	.76	23	6.9	6.0	10	742	629	48	9.3	1520	35	34
23	10	24	6.6	5.5	10	187	629	48	9.3	842	35	34
24	24	24	6.6	5.4	10	6.9	616	47	9.9	382	35	34
25	24	24	6.6	4.2	10	6.9	613	47	11	377	35	34
26	24	24	6.3	3.7	10	6.9	442	49	12	206	35	34
27	24	24	5.9	4.2	10	7.1	170	48	12	60	34	34
28	24	24	5.7	5.1	10	7.1	89	315	12	34	35	34
29	25	24	5.6	8.0	9.7	7.1	85	624	13	35	35	34
30	24	25	5.6	8.0	---	7.1	1150	592	12	35	34	34
31	24	---	5.6	8.0	---	7.1	---	51	---	35	34	---
TOTAL	673.56	723	542.8	168.3	320.0	3707.6	4819.1	14585	2665.4	50948	1127	1028
MEAN	21.7	24.1	17.5	5.43	11.0	120	161	470	88.8	1643	36.4	34.3
MAX	25	25	26	8.0	13	983	1150	2100	626	4240	46	35
MIN	.76	23	5.6	3.7	8.0	6.9	7.0	46	8.9	11	34	34
AC-FT	1340	1430	1080	334	635	7350	9560	26930	5290	101100	2240	2040

CAL YR 1975 TOTAL 200842.46 MEAN 550 MAX 2830 MIN .76 AC-FT 398400
WTR YR 1976 TOTAL 81507.76 MEAN 222 MAX 4240 MIN .76 AC-FT 161300

ARKANSAS RIVER BASIN

07173000 CANEY RIVER NEAR HULAH, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-53, 1956, 1958, 1960, 1963-64, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 05...	1028	9740	0900	25	380	8.5	15.5	32	9.6	99	<4	152
DEC 03...	1028	9740	0845	26	410	8.7	3.0	12	13.8	104	<4	210
JAN 14...	1028	9740	1215	4.7	480	8.8	4.0	6	12.8	98	<4	173
FEB 11...	1028	9740	1500	13	400	6.0	7.0	4	12.0	102	8	149
MAR 09...	1028	9740	1600	20	400	8.8	10.0	4	11.5	107	9	160
APR 13...	1028	9740	1245	7.1	420	--	16.5	35	9.7	103	15	160
MAY 11...	1028	9740	1200	271	390	8.2	16.5	61	8.8	96	39	158
JUN 07...	1028	9740	1630	80	400	7.5	21.0	87	7.2	83	27	187
JUL 12...	1028	9740	1430	3910	290	7.7	24.0	47	7.5	94	12	113
AUG 24...	1028	9740	1000	35	320	7.6	26.0	58	7.3	92	9	113
SEP 08...	1028	9740	1115	35	300	7.9	24.5	46	7.6	95	16	111

ARKANSAS RIVER BASIN
07173000 CANEY RIVER NEAR HULAH, OK--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO ₃ (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
05...	62	113	11	38	2.1	32	.3	290	2.1	.14	2
DEC											
03...	57	130	12	13	2.8	28	.3	241	1.1	.01	--
JAN											
14...	63	157	10	18	2.3	53	.3	208	1.0	.03	--
FEB											
11...	74	129	--	15	3.0	32	.3	--	1.0	<.10	<1
MAR											
09...	59	140	9.8	11	2.4	32	8.0	296	.70	<.14	--
APR											
13...	66	140	9.2	19	2.3	66	.2	252	.40	<.08	--
MAY											
11...	64	125	8.3	8.0	4.0	29	.3	272	1.2	.09	2
JUN											
07...	54	148	8.2	16	2.6	41	.3	260	1.0	.09	--
JUL											
12...	35	88	5.1	6.0	2.8	23	.3	180	1.7	<.09	--
AUG											
24...	45	108	6.1	7.0	3.5	11	.3	203	1.4	<.08	15
SEP											
08...	47	111	6.2	6.0	4.2	17	.3	248	2.3	.09	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CUPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
05...	1	9	--	2800	15	180	--	10	--	2	20
DEC											
03...	--	--	--	500	--	40	--	--	--	--	--
JAN											
14...	--	--	--	200	--	150	--	--	--	--	--
FEB											
11...	<1	2	3	200	4	50	--	8	--	1	3
MAR											
09...	--	--	--	600	--	73	--	--	--	--	--
APR											
13...	--	--	--	100	--	120	--	--	--	--	--
MAY											
11...	1	8	5	3600	13	177	<.5	10	<2	1	18
JUN											
07...	--	--	--	1500	--	439	--	--	--	--	--
JUL											
12...	--	--	--	900	--	68	--	--	--	--	--
AUG											
24...	<1	44	3	800	9	407	<.5	6	2	1	14
SEP											
08...	--	--	--	600	--	204	--	--	--	--	--

ARKANSAS RIVER BASIN

07174200 LITTLE CANEY RIVER BELOW COTTON CREEK NEAR COPAN, OK

LOCATION.--Lat 36°53'42", long 95°58'09", in W 1/2 sec.19, T.28 N., R.13 E., Washington County, near right bank on downstream side of pier of bridge on State Highway 10, 2 mi (3.2 km) west of Copan, 4.2 mi (6.8 km) downstream from Cotton Creek, and at mile 8.8 (14.2 km).

DRAINAGE AREA.--502 mi² (1,300 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year. Prior to October 1962, published as Caney Creek below Cotton Creek, near Copan.

GAGE.--Water-stage recorder. Datum of gage is 672.23 ft (204,900 m) above mean sea level. Since Nov. 16, 1962, auxiliary water-stage recorder 6.0 mi (9.7 km) downstream, at datum 10 ft (3.048 m) lower.

REMARKS.--Records fair.

COOPERATION.--Gage-height record and 21 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--18 years, (275 ft³/s (7.788 m³/s), 199,200 acre-ft/yr (246 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) May 9, 1961, gage height, 24.94 ft (7.602 m); no flow at times in 1962-66, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 1944 reached a stage of 29.3 ft (8.93 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,760 ft³/s (248 m³/s) at 0100 July 4, gage height, 23.35 ft (7.117 m), no other peak above base of 5,000 ft³/s (142 m³/s); minimum daily, 0.15 ft³/s (0.004 m³/s) Sept. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.80	31	8.8	5.0	1.2	14	683	86	56	16	1.5
2	1.7	1.4	23	8.5	3.6	1.5	13	459	65	1190	13	1.6
3	.85	1.6	18	8.0	2.9	8.6	12	307	51	5810	11	1.6
4	.69	1.9	14	6.9	4.1	306	10	220	41	8330	11	1.4
5	.65	2.1	12	6.0	3.8	163	8.6	169	35	7170	9.2	1.3
6	.69	2.4	11	6.0	3.3	53	7.3	138	30	6280	13	.77
7	.59	3.6	10	5.8	3.3	25	7.7	111	26	5190	17	.70
8	.41	2.5	11	5.0	4.2	18	8.2	90	30	3370	15	.50
9	.58	1.6	11	4.4	4.9	356	7.2	77	27	2000	13	.35
10	1.8	1.6	9.8	4.7	5.1	154	6.0	64	23	1290	11	.30
11	3.1	1.8	8.4	4.5	4.1	52	5.5	57	20	846	10	.25
12	3.2	2.1	14	5.0	4.0	222	4.8	50	17	503	9.0	.23
13	2.9	2.0	17	5.3	4.5	464	5.2	67	14	316	8.0	.21
14	5.5	1.8	17	5.0	4.4	190	5.1	62	11	201	7.2	.19
15	376	2.0	18	5.5	4.0	114	5.4	55	12	136	6.5	.18
16	75	1.9	11	5.1	4.9	81	5.2	57	14	142	6.1	.17
17	15	2.1	10	5.0	5.3	61	6.9	60	15	101	5.7	.16
18	5.9	2.2	13	5.2	4.3	48	70	50	115	76	5.4	.15
19	4.0	3.0	11	5.1	3.7	41	255	42	165	58	5.0	.15
20	3.6	5.3	9.2	6.1	3.6	36	171	35	55	47	4.7	10
21	3.3	8.6	8.6	6.7	6.2	30	180	29	30	40	4.4	130
22	1.1	6.3	14	6.1	26	27	202	25	21	34	4.1	90
23	.72	5.4	19	5.9	20	23	139	21	16	29	3.8	50
24	.83	4.6	16	5.7	10	21	116	20	18	26	3.6	35
25	.86	3.9	10	5.6	6.6	20	175	17	28	23	3.4	20
26	.72	3.8	9.5	4.8	4.1	18	172	77	22	21	3.2	10
27	.48	3.9	9.1	5.0	2.9	16	118	335	7.8	19	3.0	15
28	.48	3.7	8.9	6.2	1.8	16	990	248	3.5	18	2.8	25
29	1.1	4.6	9.8	5.8	1.4	17	2080	221	3.8	16	2.6	15
30	.72	33	11	5.3	---	16	1150	162	148	15	2.4	10
31	.64	---	9.9	5.1	---	16	---	117	---	17	2.1	---
TOTAL	515.61	121.50	405.2	178.1	162.0	2615.3	5950.1	4125	1150.1	43370	232.2	421.71
MEAN	16.6	4.05	13.1	5.75	5.59	84.4	198	133	38.3	1399	7.49	14.1
MAX	376	33	31	8.8	26	464	2080	683	165	8330	17	130
MIN	.41	.80	8.4	4.4	1.4	1.2	4.8	17	3.5	15	2.1	.15
AC-FT	1020	241	804	353	321	5190	11800	8180	2280	86020	461	836

CAL YR 1975 TOTAL 133122.67 MEAN 365 MAX 6000 MIN .41 AC-FT 264000
WTR YR 1976 TOTAL 59246.82 MEAN 162 MAX 8330 MIN .15 AC-FT 117500

ARKANSAS RIVER BASIN

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07174200 LITTLE CANEY RIVER BELOW COTTON CREEK NEAR COPAN, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1966 to September 1968.

WATER TEMPERATURE: October 1966 to September 1968.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
05...	1028	9740	1015	2.1	425	7.8	17.0	8	5.5	58	15	163
DEC												
03...	1028	9740	0930	18	720	8.3	4.5	14	10.4	81	36	258
JAN												
14...	1028	9740	1245	5.0	960	8.3	3.0	3	13.4	101	28	302
FEB												
11...	1028	9740	1415	4.1	875	8.0	8.5	5	10.4	94	13	252
MAR												
09...	1028	9740	1630	356	400	--	8.5	80	10.2	93	69	138
APR												
13...	1028	9740	1320	5.2	600	--	19.0	25	5.5	62	23	210
MAY												
11...	1028	9740	1230	57	470	7.7	18.0	43	7.4	82	39	166
JUN												
07...	1028	9740	1715	26	450	8.0	24.0	25	6.7	82	27	154
JUL												
12...	1028	9740	1530	503	300	7.9	25.5	54	6.5	83	13	98
AUG												
11...	1028	9740	1400	12	510	8.0	27.5	30	8.0	101	--	189
SEP												
08...	1028	9740	1000	.50	720	7.9	22.0	17	5.4	64	16	220

ARKANSAS RIVER BASIN

07174200 LITTLE CANEY RIVER BELOW COTTON CREEK NEAR COPAN, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV 05...	59	117	9.2	34	5.2	63	.2	340	1.8	.24	3
DEC 03...	84	201	15	48	6.6	92	.4	420	1.5	.37	--
JAN 14...	99	224	13	90	5.5	204	.3	503	1.2	.12	--
FEB 11...	120	232	--	72	4.8	155	.3	361	.90	.16	1
MAR 09...	35	104	8.4	34	4.8	69	2.5	356	2.4	.26	--
APR 13...	92	180	10	47	3.4	120	.3	423	<1.0	.12	--
MAY 11...	74	153	7.4	20	3.4	42	.3	279	1.1	.11	2
JUN 07...	57	146	6.8	26	3.0	49	.3	259	.80	<.08	--
JUL 12...	34	84	4.3	9.0	3.2	26	.3	178	1.9	<.09	--
AUG 11...	68	187	8.0	30	3.9	58	.8	--	<.10	<.08	2
SEP 08...	87	195	12	54	3.3	112	.4	516	2.0	.10	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 05...	1	3	5	600	15	340	--	5	--	<1	11
DEC 03...	--	--	--	900	--	160	--	--	--	--	--
JAN 14...	--	--	--	200	--	140	--	--	--	--	--
FEB 11...	<1	3	4	500	11	164	--	9	--	1	4
MAR 09...	--	--	--	--	--	--	--	--	--	--	--
APR 13...	--	--	--	900	--	380	--	--	--	--	--
MAY 11...	1	7	4	1100	15	156	.6	6	<2	1	18
JUN 07...	--	--	--	1000	--	182	--	--	--	--	--
JUL 12...	--	--	--	2200	--	257	--	--	--	--	--
AUG 11...	1	11	5	800	41	133	<.5	9	<2	<1	13
SEP 08...	--	--	--	300	--	131	--	--	--	--	--

ARKANSAS RIVER BASIN

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07174600 SAND CREEK AT OKESA, OK

LOCATION.--Lat 36°43'10", long 96°07'56", in NW 1/4 NW 1/4 sec.21, T.26 N., R.11 E., Osage County, on downstream side of left abutment of county road bridge, 0.5 mi (0.80 km) northeast of Okesa, 9 mi (14.5 km) southwest of Bartlesville, and at mile 17.2 (27.7 km).

DRAINAGE AREA.--139 mi² (360 km²).

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 689.20 ft (210.068 m) above mean sea level. Prior to May 25, 1960, nonrecording gage at same site and datum.

REMARKS.--Records good.

COOPERATION.--Gage height record, 17 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--17 years, 71.9 ft³/s (2.036 m³/s), 52,090 acre-ft/yr (64.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s (416 m³/s) Sept. 13, 1961, gage height, 27.7 ft (8.44 m), from floodmarks; no flow at times in each year except 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	(m ³ /s)	GAGE HEIGHT (ft)	(m)	DATE	TIME	DISCHARGE (ft ³ /s)	(m ³ /s)	GAGE HEIGHT (ft)	(m)
Apr. 28	1715	3,070	86.9	11.39	3.472	July 2	1715	4,990	141	14.30	4.359
May 26	2045	5,910	167	15.54	4.737	July 3	1700	*10,800	306	21.01	6.404

No flow Aug. 28 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	1.1	3.5	7.7	3.6	6.7	17	116	29	3.4	1.4	
2	.54	1.1	3.8	7.1	3.4	6.1	14	99	22	1740	1.0	
3	.65	1.3	4.1	6.9	3.2	7.0	12	63	18	5240	.88	
4	.68	1.9	4.2	6.8	3.3	91	11	44	16	1150	.62	
5	.63	1.8	4.4	6.5	3.1	114	9.7	36	13	199	.78	
6	.64	1.9	4.5	6.3	3.1	63	9.2	33	12	124	75	
7	.66	2.0	31	5.6	3.3	35	8.4	30	10	81	98	
8	.78	1.7	23	5.2	3.8	26	8.0	27	9.1	57	36	
9	.84	2.1	15	4.7	4.1	225	7.5	23	7.9	44	19	
10	.98	2.1	11	4.9	3.8	156	7.1	21	6.7	35	12	
11	1.1	2.0	8.9	4.8	3.8	74	7.0	19	5.7	28	7.7	
12	1.2	1.7	8.0	4.8	3.6	955	6.7	20	4.9	23	5.5	
13	1.3	1.5	7.5	4.8	3.6	173	6.9	24	4.4	18	3.8	
14	1.5	1.4	6.7	4.5	3.8	86	8.0	25	3.7	15	2.6	
15	4.2	1.4	6.5	4.5	3.8	66	9.8	27	3.3	14	2.7	
16	31	1.7	7.0	4.1	3.6	53	11	34	3.0	13	2.5	
17	24	1.5	6.5	4.0	3.0	44	13	39	2.6	11	1.6	
18	13	1.7	5.8	4.3	3.2	37	6.1	35	305	10	.99	
19	8.2	2.5	5.5	4.2	3.3	32	191	25	97	9.5	.89	
20	5.9	3.3	5.2	4.1	3.2	28	264	17	37	8.0	.61	
21	4.7	3.5	5.0	4.2	15	24	246	14	19	6.3	.36	
22	3.9	3.6	4.9	4.2	35	20	98	12	13	5.6	.32	
23	3.3	3.5	4.9	4.2	19	16	57	10	8.7	4.7	.31	
24	3.0	2.6	5.0	4.1	17	15	40	8.2	6.6	3.8	.23	
25	2.4	2.3	5.2	3.9	14	14	36	7.3	5.0	3.4	.20	
26	1.7	2.0	5.2	4.0	11	14	32	1750	3.5	2.9	.11	
27	1.4	1.7	5.4	3.6	9.1	13	24	813	2.6	2.3	.01	
28	1.9	1.5	5.4	3.6	7.7	13	1170	148	2.3	2.1	0	
29	1.8	2.4	5.8	3.7	7.4	14	435	79	3.5	3.0	0	
30	1.5	3.3	6.9	3.8	---	13	146	49	3.8	2.4	0	
31	1.2	---	7.7	3.5	---	17	---	38	---	1.8	0	---
TOTAL	125.03	62.1	233.5	148.6	204.8	2450.8	3596.3	3685.5	678.3	8861.2	275.11	0
MEAN	4.03	2.07	7.53	4.79	7.06	79.1	120	119	22.6	286	8.87	0
MAX	31	3.6	31	7.7	35	955	1170	1750	305	5240	98	0
MIN	.43	1.1	3.5	3.5	3.0	6.1	6.7	7.3	2.3	1.8	0	0
AC-FT	248	123	463	295	406	4860	7130	7310	1350	17580	546	0

CAL YR 1975 TOTAL 36690.08 MEAN 101 MAX 3790 MIN .11 AC-FT 72770
WTR YR 1976 TOTAL 20321.24 MEAN 55.5 MAX 5240 MIN 0 AC-FT 40310

ARKANSAS RIVER BASIN

07174700 CANEY RIVER NEAR OCHELATA, OK

LOCATION.--Lat 36°38'26", long 95°56'02", in SW 1/4 SW 1/4 sec.16, T.25 N., R.13 E., Washington County, near right bank on downstream side of pier of bridge on U.S. Highway 75, 3.5 mi (5.6 km) upstream from Fish Creek, 4.0 mi (6.4 km) northeast of Ochelata, 8.0 mi (12.9 km) southeast of Bartlesville, and at mile 53.8 (86.6 km).

DRAINAGE AREA.--1,753 mi² (4,540 km²).

PERIOD OF RECORD.--April 1956 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 611.98 ft (186.532 m), above mean sea level.

REMARKS.--Records good. Some regulation by Hulah Lake 42.4 mi (68.2 km) upstream. (See sta. 07172500).

COOPERATION.--Gage-height record 14 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--20 years, 985 ft³/s (27.90 m³/s), 713,600 acre-ft/yr (880 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,800 ft³/s (957 m³/s) June 13, 1957, gage height, 38.82 ft (11.832 m); minimum, 0.4 ft³/s (.011 m³/s) Sept. 28, 29, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,000 ft³/s (396 m³/s) at 1245 July 4, gage height, 33.22 ft (10.125 m), no other peak above base of 7,500 ft³/s (212 m³/s); minimum, 25 ft³/s (0.71 m³/s) Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	40	127	51	26	34	53	2810	273	136	66	46
2	34	44	106	46	28	35	54	3010	459	1240	64	46
3	34	45	83	43	28	43	50	2710	706	9150	64	47
4	35	44	73	40	30	353	46	2460	680	13500	63	47
5	34	42	70	36	32	872	41	1600	399	11300	63	47
6	33	42	64	35	34	366	40	1230	158	8930	114	45
7	32	46	58	36	35	204	38	1170	143	6950	142	47
8	29	44	77	32	35	163	36	635	131	5240	147	45
9	31	44	77	31	34	869	35	423	129	4070	105	44
10	32	44	67	31	35	1220	32	406	126	4510	87	42
11	32	42	62	30	36	414	32	389	119	5070	78	41
12	32	42	57	30	35	967	33	298	99	4770	73	45
13	32	42	56	30	34	1230	32	229	49	4420	68	43
14	34	43	64	30	34	583	32	235	39	4210	63	45
15	141	44	66	30	33	305	33	215	42	4290	58	55
16	479	44	65	30	33	220	38	201	41	4370	53	80
17	182	45	62	30	32	176	46	198	36	4290	51	57
18	104	46	55	30	31	145	703	178	486	4160	47	50
19	70	48	56	30	31	123	1040	154	474	4040	48	48
20	59	75	52	31	30	594	774	132	253	3920	47	48
21	51	54	40	30	31	1030	1260	113	123	2640	46	57
22	39	49	35	31	59	1020	811	101	76	1710	46	213
23	31	50	37	30	89	730	993	89	54	1650	48	149
24	42	50	44	30	76	255	897	81	40	756	46	109
25	44	49	51	30	56	75	861	77	35	398	46	87
26	42	50	45	30	46	61	887	666	31	387	48	78
27	41	49	40	31	40	56	625	5020	30	232	47	63
28	42	49	40	30	38	52	1870	1150	29	129	45	56
29	39	69	43	29	36	58	5070	833	143	129	45	71
30	36	319	50	28	---	57	2700	977	115	80	46	65
31	38	---	53	26	---	53	---	802	---	70	47	---
TOTAL	1939	1694	1875	1007	1117	12363	19162	28592	5518	116747	2011	1916
MEAN	62.5	56.5	60.5	32.5	38.5	399	639	922	184	3766	64.9	63.9
MAX	479	319	127	51	89	1230	5070	5020	706	13500	147	213
MIN	29	40	35	26	26	34	32	77	29	70	45	41
AC-FT	3850	3360	3720	2000	2220	24520	38010	56710	10940	231600	3990	3800
CAL YR 1975	TOTAL	477277	MEAN	1308	MAX	10500	MIN	29	AC-FT	946700		
WTR YR 1976	TOTAL	193941	MEAN	530	MAX	13500	MIN	26	AC-FT	384700		

ARKANSAS RIVER BASIN

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07175500 CANEY RIVER NEAR RAMONA, OK

LOCATION.--Lat 36°30'31", long 95°50'36", in NE 1/4 NW 1/4 sec.5, T.23 N., R.14 E., Washington County, near left bank on downstream side of pier of county road bridge, 1 mi (1.6 km) upstream from Buck Creek, 2.2 mi (3.5 km) downstream from Double Creek, 4.5 mi (7.2 km) southeast of Ramona, and at mile 32.0 (51.5 km).

DRAINAGE AREA.--1,955 mi² (5,063 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to February 1939 (published as "near Collinsville"), September 1945 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1241: 1939.

GAGE.--Water-stage recorder. Datum of gage is 586.43 ft (178.744 m) above mean sea level. Dec. 4, 1935, to Feb. 28, 1939, nonrecording gage at site 16.2 mi (26.1 km) downstream at datum 21.41 ft (6.526 m) lower. Sept. 1, 1945, to Feb. 15, 1946, nonrecording gage at present site and datum.

REMARKS.--Records fair. Some regulation since February 1950 by Hulah Lake (station 07172500).

COOPERATION.--Gage-height record and 15 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--34 years, 959 ft³/s (27.16 m³/s), 694,800 acre-ft/yr (856 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,500 ft³/s (1,090 m³/s) Oct. 3, 1945, gage height, 30.12 ft (9.181 m); no flow Aug. 9 to Sept. 15, 1936, Sept. 11 to Nov. 3, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,500 ft³/s (326 m³/s) at 1845 July 5, gage height, 27.84 ft (8.486 m) no other peak above base of 7,500 ft³/s (212 m³/s); minimum, 16 ft³/s (0.45 m³/s) Feb. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	26	255	51	17	35	61	2510	268	209	67	36
2	36	28	139	51	17	33	59	2960	252	643	63	36
3	35	34	105	47	18	35	58	2720	678	5270	62	34
4	34	36	86	41	20	62	52	2410	752	9010	62	31
5	35	36	85	36	26	834	47	2000	633	11200	61	31
6	34	35	82	34	26	545	42	1340	235	10200	148	31
7	33	33	72	32	24	281	40	1170	164	8360	115	30
8	32	33	65	24	27	180	37	899	143	6630	192	29
9	29	34	81	26	27	861	35	424	215	4980	145	28
10	25	32	77	27	28	1370	33	392	215	4220	108	28
11	26	29	69	28	30	712	32	389	209	5200	93	27
12	27	29	64	27	30	456	32	364	200	4770	82	30
13	29	28	57	26	32	1460	51	262	159	4440	69	36
14	28	28	57	26	31	811	38	231	106	4190	64	37
15	55	28	66	26	31	404	34	231	89	4140	64	47
16	383	29	67	26	31	269	33	228	89	4220	64	60
17	315	32	66	26	31	208	37	197	87	4260	60	66
18	145	33	61	24	31	169	221	170	630	4370	53	43
19	93	38	55	25	31	142	1370	148	709	4040	49	39
20	71	48	54	25	31	225	1630	120	471	3790	48	37
21	52	68	50	25	32	944	3100	112	298	2540	48	34
22	45	50	37	25	28	989	1080	94	197	1640	45	101
23	33	44	31	27	72	890	1100	87	151	1530	44	180
24	23	44	32	28	105	459	1000	77	123	1110	43	129
25	26	44	42	29	88	154	947	61	96	449	43	94
26	37	45	47	27	65	81	914	92	85	403	40	82
27	33	45	43	25	52	67	1000	4180	78	365	40	71
28	34	44	36	27	44	63	1700	2520	75	173	39	58
29	33	45	37	25	40	63	4910	899	98	238	35	53
30	33	237	39	22	---	70	3620	1270	262	109	33	---
31	29	---	48	19	---	68	---	985	---	76	33	---
TOTAL	1881	1315	2105	907	1065	12940	23313	29542	7767	112775	2112	1604
MEAN	60.7	43.8	67.9	29.3	36.7	417	777	953	259	3638	68.1	53.5
MAX	383	237	255	51	105	1460	4910	4180	752	11200	192	180
MIN	23	26	31	19	17	33	32	61	75	76	33	27
AC=FT	3730	2610	4180	1800	2110	25670	46240	58600	15410	223700	4190	3180
CAL YR 1975	TOTAL	516102	MEAN	1414	MAX	9240	MIN 23	AC=FT	1024000			
WTR YR 1976	TOTAL	197326	MEAN	539	MAX	11200	MIN 17	AC=FT	391400			

ARKANSAS RIVER BASIN

07175500 CANEY RIVER NEAR RAMONA, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952-53, 1955-62, 1965 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1966 to current year.

WATER TEMPERATURE: October 1966 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples at or near the 5th, 15th and 25th of the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,880 micromhos Feb. 5, 1967; minimum daily, 114 micromhos Oct. 20, 1973.

WATER TEMPERATURE: Maximum, 35.0°C Aug 6, 1970, Aug. 26, 1971, July 21, 1974; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,840 micromhos Mar. 6; minimum daily, 144 micromhos July 4.

WATER TEMPERATURE: Maximum daily, 30.0°C on several days during summer months; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
05...	--	--	0830	--	35	837	8.0	--	--	--	--	--
15...	--	--	1300	--	48	862	8.5	--	--	--	--	--
25...	--	--	0930	--	17	845	8.0	--	--	--	--	--
NOV												
05...	1028	9740	1230	36	--	580	8.0	18.0	12	9.2	100	45
06...	--	--	1300	--	35	622	8.2	--	--	--	--	--
15...	--	--	0900	--	28	702	8.0	--	--	--	--	--
25...	--	--	1530	--	44	925	7.8	--	--	--	--	--
DEC												
03...	1028	9740	1030	105	--	900	8.3	6.0	25	10.8	88	24
05...	--	--	1130	--	87	909	7.3	--	--	--	--	--
15...	--	--	1000	--	67	849	8.0	--	--	--	--	--
25...	--	--	0900	--	41	858	7.7	--	--	--	--	--
JAN												
05...	--	--	1130	--	36	893	8.0	--	--	--	--	--
14...	1028	9740	1030	26	--	1000	8.3	1.0	3	14.4	103	24
15...	--	--	1330	--	26	994	7.7	--	--	--	--	--
25...	--	--	1000	--	29	1040	7.8	--	--	--	--	--
FEB												
05...	--	--	1330	--	26	1040	8.0	--	--	--	--	--
11...	1028	9740	1245	30	--	1050	8.3	6.0	4	18.0	150	13
15...	--	--	0930	--	31	1110	8.1	--	--	--	--	--
25...	--	--	1300	--	87	1210	8.4	--	--	--	--	--
MAR												
05...	--	--	1300	--	1012	1200	7.9	--	--	--	--	--
09...	1028	9740	1415	861	--	625	8.5	8.5	30	9.5	86	46
15...	--	--	1300	--	377	472	7.8	--	--	--	--	--
23...	--	--	1700	--	834	456	8.4	--	--	--	--	--
APR												
05...	--	--	1400	--	47	690	7.3	--	--	--	--	--
13...	1028	9740	1115	51	--	700	--	18.0	10	9.4	104	49
15...	--	--	0830	--	35	658	7.3	--	--	--	--	--
25...	--	--	1000	--	924	460	7.7	--	--	--	--	--
MAY												
05...	--	--	1410	--	2280	377	7.8	--	--	--	--	--
11...	1028	9740	1015	390	--	495	7.8	17.5	60	8.2	90	42
15...	--	--	0900	--	313	486	7.9	--	--	--	--	--
25...	--	--	1330	--	115	629	7.7	--	--	--	--	--
JUN												
07...	1028	9740	1515	164	--	430	8.0	26.0	50	7.1	90	27
12...	--	--	2030	--	194	498	7.9	--	--	--	--	--
20...	--	--	0930	--	498	329	7.5	--	--	--	--	--
30...	--	--	1000	--	307	633	7.5	--	--	--	--	--
JUL												
05...	--	--	0945	--	11400	153	7.4	--	--	--	--	--
12...	1028	9740	1645	4770	--	270	7.8	25.0	37	7.1	90	16
15...	--	--	1430	--	4140	247	7.5	--	--	--	--	--
24...	--	--	0850	--	1340	295	7.5	--	--	--	--	--
AUG												
05...	--	--	1600	--	58	481	7.5	--	--	--	--	--
11...	1028	9740	1230	93	--	570	8.1	27.5	27	10.2	129	17
15...	--	--	0900	--	64	549	7.7	--	--	--	--	--
25...	--	--	1430	--	43	674	7.7	--	--	--	--	--

ARKANSAS RIVER BASIN

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07175500 CANEY RIVER NEAR RAMONA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
SEP												
05...	--	--	1300	--	31	647	7.9	--	--	--	--	--
07...	1028	9740	1530	30	--	600	8.6	28.0	5	13.9	183	29
19...	--	--	1000	--	39	671	7.5	--	--	--	--	--
28...	--	--	1330	--	56	580	7.9	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACU3 (MG/L)	
OCT												
05...	270	100	87	13	64	34	1.7	4.1	207	0	170	
15...	250	88	80	13	67	36	1.8	4.5	194	4	166	
25...	250	110	82	12	68	36	1.9	4.5	172	0	141	
NOV												
05...	--	--	--	--	--	--	--	--	--	--	--	
06...	170	44	53	9.2	54	40	1.8	5.6	154	0	126	
15...	190	54	61	9.7	58	39	1.8	6.4	168	0	138	
25...	260	86	81	14	77	39	2.1	5.6	212	0	174	
DEC												
03...	--	--	--	--	--	--	--	--	--	--	--	
05...	250	140	81	11	77	40	2.1	5.8	136	0	112	
15...	250	89	80	13	70	37	1.9	4.4	200	0	164	
25...	260	79	81	14	68	36	1.8	5.0	221	0	181	
JAN												
05...	270	80	84	14	70	36	1.9	4.1	228	0	187	
14...	--	--	--	--	--	--	--	--	--	--	--	
15...	290	120	90	15	80	37	2.1	4.4	208	0	171	
25...	290	110	91	15	87	39	2.2	4.0	224	0	184	
FEB												
05...	300	100	94	16	88	38	2.2	5.2	239	0	196	
11...	--	--	--	--	--	--	--	--	--	--	--	
15...	320	120	100	16	92	38	2.3	4.9	242	0	198	
25...	340	140	110	17	100	38	2.3	5.4	239	4	203	
MAR												
05...	320	140	100	18	110	42	2.7	4.8	226	0	185	
09...	--	--	--	--	--	--	--	--	--	--	--	
15...	130	49	39	8.2	42	40	1.6	3.4	100	0	82	
23...	170	26	51	9.8	26	25	.9	2.7	165	4	142	
APR												
05...	220	77	67	13	49	32	1.4	3.5	175	0	144	
13...	--	--	--	--	--	--	--	--	--	--	--	
15...	200	65	61	11	49	35	1.5	3.9	162	0	133	
25...	150	26	46	9.1	30	29	1.1	3.0	154	0	126	
MAY												
05...	150	29	50	7.0	18	20	.6	2.6	152	0	125	
11...	--	--	--	--	--	--	--	--	--	--	--	
15...	180	45	58	8.5	29	26	.9	2.8	165	0	135	
25...	200	54	62	10	44	32	1.4	3.1	173	0	142	
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	
12...	190	49	59	11	27	23	.8	3.1	175	0	144	
20...	110	41	33	6.7	21	29	.9	3.3	84	0	69	
30...	210	72	66	11	46	32	1.4	3.6	168	0	138	
JUL												
05...	51	20	16	2.8	10	28	.6	3.7	39	0	32	
12...	--	--	--	--	--	--	--	--	--	--	--	
15...	110	19	36	5.4	14	21	.6	3.1	113	0	93	
24...	130	18	40	6.3	12	17	.5	3.4	131	0	107	
AUG												
05...	160	21	51	7.4	28	27	1.0	4.1	167	0	137	
11...	--	--	--	--	--	--	--	--	--	--	--	
15...	180	36	57	8.7	36	30	1.2	4.1	173	0	142	
25...	220	54	70	10	48	32	1.4	4.3	198	0	162	
SEP												
05...	200	57	62	10	49	35	1.5	4.6	170	0	139	
07...	--	--	--	--	--	--	--	--	--	--	--	
19...	210	54	68	10	48	33	1.4	4.6	191	0	157	
28...	200	51	63	9.4	38	29	1.2	4.1	177	0	145	

ARKANSAS RIVER BASIN

07175500 CANEY RIVER NEAR RAMONA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	TOTAL FLUOR- IDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
05...	3.3	41	140	--	473	.64	44.7	1.3	--	--	--
15...	1.0	28	150	--	489	.67	63.4	1.0	--	--	--
25...	2.8	41	140	--	490	.67	22.5	.50	--	--	--
NOV											
05...	--	--	--	.3	--	--	--	--	2.8	.10	<1
06...	1.6	25	99	--	369	.50	34.9	1.1	--	--	--
15...	2.7	30	100	--	402	.55	30.4	1.4	--	--	--
25...	5.4	29	150	--	543	.74	64.5	1.6	--	--	--
DEC											
03...	--	--	--	.5	--	--	--	--	2.3	.42	--
05...	1	91	150	--	560	.76	132	2.4	--	--	--
15...	3.2	36	140	--	486	.66	87.9	1.5	--	--	--
25...	7.1	33	140	--	485	.66	53.7	1.7	--	.37	--
JAN											
05...	3.6	33	150	--	512	.70	49.8	2.0	--	--	--
14...	--	--	--	.3	--	--	--	--	3.0	.32	--
15...	6.6	60	160	--	595	.81	41.8	2.3	--	--	--
25...	5.7	50	180	--	601	.82	47.1	1.6	--	--	--
FEB											
05...	3.8	60	180	--	582	.79	40.9	2.0	--	--	--
11...	--	--	--	.3	--	--	--	--	2.7	.36	1
15...	3.1	71	190	--	644	.88	53.9	2.7	--	--	--
25...	1.6	71	220	--	729	.99	171	2.2	--	--	--
MAR											
05...	4.6	46	230	--	746	1.01	2040	2.7	--	.62	--
09...	--	--	--	.3	--	--	--	--	2.3	.15	--
15...	2.5	30	75	--	273	.37	278	.76	--	.13	--
23...	1.1	25	39	--	260	.35	585	.53	--	.11	--
APR											
05...	14	46	98	--	383	.52	48.6	.91	--	--	--
13...	--	--	--	.3	--	--	--	--	1.1	.24	--
15...	13	49	95	--	372	.51	35.2	.64	--	--	--
25...	4.9	28	50	--	266	.36	664	1.0	--	--	--
MAY											
05...	3.9	23	30	--	240	.33	1480	.66	--	--	--
11...	--	--	--	.3	--	--	--	--	1.5	.17	3
15...	3.3	30	55	--	272	.37	230	.51	--	--	--
25...	5.5	38	90	--	352	.48	109	.50	--	--	--
JUN											
07...	--	--	--	.4	--	--	--	--	1.2	.20	--
12...	3.5	30	50	--	277	.38	145	1.1	--	--	--
20...	4.3	25	38	--	175	.24	235	.80	--	--	--
30...	8.5	24	98	--	338	.46	280	.60	--	--	--
JUL											
05...	2.5	8.9	20	--	105	.14	3230	.45	--	--	--
12...	--	--	--	.3	--	--	--	--	2.0	.13	--
15...	5.7	12	12	--	149	.20	1670	.42	--	--	--
24...	6.6	12	21	--	181	.25	655	.40	--	--	--
AUG											
05...	8.5	21	52	--	277	.38	43.4	.83	--	--	--
11...	--	--	--	.2	--	--	--	--	1.4	.15	3
15...	5.5	21	69	--	319	.43	55.1	.67	--	--	--
25...	6.3	23	98	--	393	.53	45.6	.48	--	--	--
SEP											
05...	3.4	20	100	--	384	.52	32.1	.89	--	--	--
07...	--	--	--	.4	--	--	--	--	2.6	.10	--
19...	9.7	20	94	--	387	.53	40.8	1.5	--	--	--
28...	3.6	15	75	--	341	.46	51.6	1.3	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
NOV											
05...	2	7	17	1500	13	380	--	11	--	2	30
06...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	1200	--	160	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JAN											
05...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	500	--	400	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
05...	--	--	--	--	--	--	--	--	--	--	--
11...	1	3	4	600	9	318	--	9	--	1	10
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	7500	--	840	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	1800	--	640	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
11...	2	7	6	1500	20	240	<.5	7	3	1	47
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	2100	--	360	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	3000	--	278	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--
11...	2	20	6	1000	28	241	<.5	10	2	1	30
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	400	--	156	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07175500 CANEY RIVER NEAR RAMONA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	836	723	894	856	1010	---	560	309	435	558	351	681
2	851	648	837	853	1040	---	582	387	469	475	390	682
3	854	635	880	847	1050	1240	600	386	484	374	441	672
4	848	628	801	858	1050	1260	654	386	445	144	454	668
5	837	615	909	893	1040	1200	690	377	426	153	481	647
6	849	622	1510	896	1050	1840	699	397	429	171	557	668
7	864	638	1010	924	1060	825	691	403	441	190	454	680
8	869	657	885	917	1070	756	718	402	446	195	486	685
9	881	653	852	952	1070	839	718	411	451	214	682	678
10	881	674	869	994	1080	750	721	436	467	223	573	686
11	889	719	852	1040	1080	626	726	454	492	227	614	686
12	892	714	856	1040	1080	548	708	455	498	234	630	686
13	887	707	851	1030	1070	389	697	457	516	245	555	691
14	885	702	824	991	1090	485	640	477	526	252	530	673
15	862	702	849	994	1110	472	658	486	543	246	549	671
16	855	700	851	1020	1140	596	708	519	552	253	584	668
17	746	698	843	1090	1120	642	735	516	563	268	612	652
18	761	706	863	1120	1100	708	726	619	459	265	623	680
19	782	712	881	1140	1100	656	479	591	586	267	634	671
20	834	736	888	1150	1110	645	518	645	329	284	650	673
21	1030	767	878	1140	1110	607	351	650	464	288	660	668
22	1170	817	857	1110	1100	461	405	625	444	301	666	671
23	1020	866	847	1100	1110	456	640	606	473	302	675	648
24	883	905	846	1070	1120	464	504	610	495	295	678	646
25	845	925	858	1040	1210	476	460	629	533	---	674	641
26	776	917	872	1010	1200	483	510	637	563	---	670	645
27	780	910	860	1010	1200	491	484	390	594	---	675	586
28	902	898	---	1010	1200	---	410	376	624	---	671	580
29	907	893	858	1020	1180	---	394	362	606	---	674	588
30	875	898	877	1010	---	---	269	633	633	---	679	593
31	801	---	858	1010	---	---	---	411	---	---	680	---
MONTH	869	746	887	1000	1100	717	589	485	500	---	589	659
YEAR	MAX	1840	MIN	144	MEAN	708						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	10.0	1.0	5.0	5.0	13.0	9.0	9.0	17.0	22.0	28.0	20.0
2	10.0	13.0	4.0	5.0	7.0	7.0	13.0	10.0	19.0	20.0	23.0	19.0
3	10.0	11.0	4.0	3.0	7.0	7.0	14.0	10.0	18.0	17.0	24.0	22.0
4	10.0	11.0	3.0	2.0	5.0	7.0	15.0	12.0	17.0	17.0	23.0	20.0
5	10.0	12.0	5.0	3.0	5.0	6.0	18.0	11.0	18.0	19.0	25.0	30.0
6	10.0	13.0	4.0	5.0	5.0	5.0	15.0	11.0	20.0	18.0	20.0	30.0
7	10.0	12.0	4.0	2.0	2.0	4.0	14.0	11.0	20.0	20.0	20.0	27.0
8	11.0	15.0	9.0	1.0	5.0	5.0	15.0	12.0	21.0	21.0	30.0	22.0
9	13.0	12.0	8.0	2.0	9.0	5.0	15.0	12.0	20.0	22.0	30.0	20.0
10	14.0	13.0	4.0	2.0	5.0	5.0	16.0	15.0	22.0	20.0	20.0	20.0
11	14.0	10.0	5.0	1.0	3.0	5.0	16.0	10.0	20.0	22.0	25.0	15.0
12	15.0	9.0	3.0	5.0	5.0	6.0	16.0	14.0	20.0	20.0	30.0	20.0
13	15.0	8.0	10.0	4.0	6.0	5.0	15.0	14.0	23.0	20.0	25.0	15.0
14	15.0	7.0	6.0	5.0	6.0	6.0	17.0	15.0	23.0	20.0	---	20.0
15	15.0	5.0	3.0	5.0	6.0	6.0	15.0	13.0	22.0	20.0	23.0	20.0
16	13.0	12.0	3.0	5.0	10.0	7.0	17.0	13.0	28.0	20.0	20.0	18.0
17	14.0	10.0	2.0	3.0	7.0	13.0	15.0	13.0	22.0	20.0	30.0	20.0
18	14.0	10.0	0.0	3.0	10.0	15.0	15.0	15.0	18.0	19.0	25.0	18.0
19	10.0	10.0	0.0	5.0	10.0	18.0	14.0	16.0	17.0	21.0	25.0	18.0
20	13.0	5.0	0.0	2.0	7.0	13.0	13.0	18.0	22.0	20.0	25.0	17.0
21	14.0	5.0	0.0	3.0	5.0	15.0	12.0	18.0	20.0	23.0	20.0	20.0
22	13.0	4.0	4.0	5.0	7.0	15.0	15.0	16.0	20.0	25.0	20.0	20.0
23	15.0	3.0	5.0	4.0	13.0	14.0	16.0	18.0	21.0	23.0	20.0	18.0
24	14.0	2.0	3.0	4.0	5.0	14.0	15.0	17.0	18.0	23.0	23.0	20.0
25	10.0	2.0	4.0	5.0	12.0	15.0	12.0	17.0	23.0	---	23.0	18.0
26	15.0	0.0	4.0	5.0	14.0	13.0	12.0	15.0	20.0	---	25.0	18.0
27	10.0	5.0	4.0	5.0	12.0	10.0	13.0	14.0	20.0	---	18.0	18.0
28	12.0	5.0	---	5.0	12.0	6.0	10.0	14.0	20.0	---	20.0	18.0
29	12.0	5.0	4.0	6.0	14.0	17.0	10.0	14.0	23.0	---	24.0	17.0
30	12.0	2.0	5.0	6.0	---	10.0	9.0	15.0	20.0	---	30.0	15.0
31	13.0	---	5.0	5.0	---	10.0	---	17.0	---	---	20.0	---
MONTH	12.5	8.0	4.0	4.0	7.5	9.5	14.0	14.0	20.5	---	24.0	20.0
YEAR	MAX	30.0	MIN	0.0	MEAN	13.0						

ARKANSAS RIVER BASIN

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07176000 VERDIGRIS RIVER NEAR CLAREMORE, OK

LOCATION.--Lat 36°18'26", long 95°41'52", in SE 1/4 SW 1/4 sec.10, T.21 N., R.15 E., Rogers County, near left bank on downstream side of pier of bridge on State Highway 20, 2.3 mi (3.7 km) downstream from Caney River, 4.5 mi (7.2 km) west of Claremore, 12.4 mi (20.0 km) upstream from Bird Creek, and at mile 76.0 (122.3 km).

DRAINAGE AREA.--6,534 mi² (16,923 km²).

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 538.62 ft (164.171 m) above mean sea level. Prior to Feb. 24, 1939, and May 17 to Aug. 24, 1967, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since May 1963 by Oologah Lake 14.3 mi (23.0 km) upstream (station 07171300); some regulation by dams in Kansas since 1949 and by Hulah Lake since 1950. (station 07172500).

COOPERATION.--Gage-height record and 14 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--27 years (water years 1936-62), 3,723 m³/s (105.4 m³/s), 2,695,000 acre-ft/yr (3.32 km³/yr), 12 years (water years 1965-76), 4,225 m³/s (119.7 m³/s), 3,061,000 acre-ft/yr (3.77 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 182,000 ft³/s (5,150 m³/s) May 21, 1943, gage height, 55.05 ft (16.779 m); no flow at times in 1936, 1939-40, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,700 ft³/s (841 m³/s) at 0315 July 8, gage height, 27.61 ft (8.416 m), no other peak above base of 24,000 ft³/s (680 m³/s); minimum, 27 ft³/s (0.76 m³/s) Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	122	247	104	37	55	166	6640	3010	199	10300	62
2	42	125	251	102	35	51	160	6530	7650	182	9870	64
3	42	138	166	97	31	51	157	6620	10400	3650	5160	65
4	42	134	143	89	29	62	154	6320	10600	16500	257	65
5	40	131	134	82	36	157	149	6050	7830	21900	198	63
6	39	131	138	74	41	869	145	5260	660	25600	622	60
7	39	130	123	68	41	486	140	4860	300	27300	369	60
8	37	127	111	65	40	304	135	4730	225	29500	282	60
9	172	127	105	62	41	391	69	4100	204	28400	319	56
10	126	131	108	60	44	1410	49	4680	187	28700	276	55
11	122	128	115	60	47	1290	45	5910	180	28600	166	56
12	120	125	108	59	50	614	44	5890	174	29000	130	56
13	120	125	97	59	49	979	76	5840	165	28800	113	56
14	123	125	95	59	48	1250	120	5730	142	28300	98	56
15	142	124	136	58	48	685	77	5720	119	28000	89	59
16	142	123	125	58	49	407	62	5750	98	28000	89	72
17	478	556	113	58	47	301	56	5690	90	27900	89	96
18	359	2800	107	52	44	244	60	5650	313	27700	84	105
19	237	1700	100	46	42	197	792	5610	833	27500	77	147
20	188	118	95	46	42	2920	3320	5570	641	25500	71	114
21	162	92	92	42	48	9470	6290	5530	408	19300	69	73
22	145	98	89	40	48	11000	2550	5490	244	17700	69	66
23	137	97	83	40	48	10700	1170	3370	166	16800	68	106
24	136	88	74	40	56	6910	1120	208	148	16700	67	201
25	127	84	74	40	104	3230	1010	169	121	15800	67	162
26	117	86	85	40	101	269	913	207	98	15400	67	150
27	123	85	91	40	83	187	900	1870	85	13500	65	130
28	127	84	92	39	70	172	879	6080	77	10800	66	108
29	123	92	99	39	60	175	4300	7430	83	10600	66	96
30	125	136	121	38	---	166	6940	9630	92	10500	64	86
31	124	---	113	38	---	164	---	3020	---	10400	62	---
TOTAL	4098	8162	3632	1794	1459	55166	32048	156154	45343	618731	29389	2605
MEAN	132	272	117	57.9	50.3	1780	1068	5037	1511	19960	948	86.8
MAX	478	2800	251	104	104	11000	6940	9630	10600	29500	10300	201
MIN	37	84	74	38	29	51	44	169	77	182	62	55
AC-FT	8130	16190	7200	3560	2890	109400	63570	309700	89940	1227000	58290	5170
CAL YR 1975	TOTAL	1833660	MEAN	5024	MAX	20600	MIN	37	AC-FT	3637000		
WTR YR 1976	TOTAL	958581	MEAN	2619	MAX	29500	MIN	29	AC-FT	1901000		

ARKANSAS RIVER BASIN

07176500 BIRD CREEK NEAR AVANT, OK

LOCATION.--Lat 36°29'11", long 96°03'45", in NW 1/4 sec.7, T.23 N., R.12 E., Osage County, near left bank on downstream side of pier of county road bridge at Avant, 1.5 mi (2.4 km) upstream from Candy Creek, and at mile 54.2 (87.2 km).

DRAINAGE AREA.--364 mi² (943 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 651.28 ft (198.510 m) above mean sea level.

REMARKS.--Records good. Small diversions above station for municipal water supply of cities of Pawhuska and Barnsdall.

COOPERATION.--Gage-height record, 15 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--31 years, 200 ft³/s (5.664 m³/s), 144,900 acre-ft/yr (179 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s (918 m³/s), Oct. 2, 1959, gage height, 31.40 ft (9.571 m); no flow at times in most years.

EXTREMES FOR CUPRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

DATE	TIME	DISCAHRGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)	DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)
May 27	unknown	7,000 198	unknown	July 4	0115	*11,000 312	17.60 5.364
July 2	2300	6,330 179	10.06 3.066				

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.9	73	30	14	11	29	407	500	58	2.4	0
2	11	10	60	30	14	13	29	298	200	1930	1.9	0
3	11	12	39	27	14	16	26	173	100	6090	1.8	0
4	11	14	29	25	14	53	24	111	60	6210	1.4	0
5	11	14	27	23	16	228	22	83	45	1610	1.5	0
6	11	14	26	21	16	122	22	67	35	749	1.5	0
7	12	14	23	20	15	62	21	57	30	453	1.3	.19
8	13	14	21	17	14	60	20	52	27	312	1.0	.30
9	14	14	21	17	14	839	19	45	25	228	.90	.30
10	14	14	22	17	15	534	19	43	23	190	.70	.30
11	14	13	21	17	15	141	19	41	20	171	.65	.22
12	15	13	19	17	15	1320	22	41	18	159	.60	.04
13	17	13	19	17	15	544	69	48	17	149	.60	0
14	19	13	19	17	15	184	46	59	16	138	.57	0
15	43	12	21	17	15	112	35	62	15	134	.98	0
16	152	12	19	17	14	80	33	66	14	119	1.2	.12
17	75	12	19	17	14	64	50	92	13	51	1.3	32
18	38	13	19	17	14	55	2030	80	226	25	1.2	15
19	26	16	19	17	14	47	1430	55	142	17	1.0	6.0
20	20	22	19	16	13	43	1970	42	50	13	.90	3.5
21	17	25	18	16	12	38	1440	35	31	11	.71	2.6
22	15	27	18	16	48	33	458	31	23	8.8	.54	2.2
23	13	22	19	16	51	28	238	30	19	7.5	.49	2.0
24	14	20	19	17	28	27	156	27	17	6.0	.30	1.9
25	13	18	21	17	20	26	120	24	15	4.7	.22	1.8
26	12	17	22	15	17	26	94	1040	14	4.3	.08	6.0
27	11	16	23	15	15	25	78	3500	13	3.8	0	4.2
28	11	16	24	15	14	25	1870	500	13	3.7	0	3.5
29	11	22	26	15	13	7	2070	200	14	4.4	0	2.9
30	11	250	28	15	---	8	781	100	49	3.4	0	2.8
31	11	---	29	14	---	0	---	1500	---	3.0	0	---
TOTAL	677	701.9	782	567	508	4841	13240	8909	1784	18866.6	25.74	87.87
MEAN	21.8	23.4	25.2	18.3	17.5	156	441	287	59.5	609	.83	2.93
MAX	152	250	73	30	51	1320	2070	3500	500	6210	2.4	32
MIN	11	9.9	18	14	12	11	19	24	13	3.0	0	0
AC=FT	1340	1390	1550	1120	1010	9600	26260	17670	3540	37420	51	174
CAL YR 1975	TOTAL	134620.70	MEAN 369	MAX 9870	MIN 8.5	AC=FT	267000					
WTR YR 1976	TOTAL	50990.11	MEAN 139	MAX 6210	MIN 0	AC=FT	101100					

ARKANSAS RIVER BASIN

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07176500 BIRD CREEK AT AVANT, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-66, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
05...	1028	9740	1400	14	560	7.9	17.0	6	7.4	78	7	185
DEC												
03...	1028	9740	1200	39	560	8.2	7.5	120	11.2	95	28	153
JAN												
14...	1028	9740	1415	17	640	8.1	5.0	12	13.4	106	20	212
FEB												
11...	1028	9740	1200	15	600	8.2	7.0	3	9.2	79	44	180
MAR												
09...	1028	9740	1315	839	580	12.4	10.0	35	10.5	98	32	170
APR												
13...	1028	9740	1445	69	400	--	18.0	20	6.2	70	34	140
MAY												
11...	1028	9740	1345	41	380	8.9	19.5	34	9.9	112	42	136
JUN												
07...	1028	9740	1430	30	340	8.5	23.5	10	8.3	101	27	120
JUL												
12...	1028	9740	1745	159	360	8.2	29.0	12	7.6	101	13	109
AUG												
11...	1028	9740	1115	.65	365	8.2	27.5	13	8.5	108	14	156
SEP												
07...	1028	9740	1400	.19	360	7.9	25.5	11	8.1	104	22	139

ARKANSAS RIVER BASIN

07176500 BIRD CREEK AT AVANT, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHURUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
05...	77	134	15	31	3.5	101	.2	460	1.7	.08	<1
DEC											
03...	40	98	14	43	5.5	96	.3	285	1.6	.19	--
JAN											
14...	63	159	13	48	4.0	116	.2	294	1.2	.01	--
FEB											
11...	82	149	13	36	3.6	78	.2	286	1.0	.10	<1
MAR											
09...	36	120	11	43	3.6	110	.2	424	.90	<.14	--
APR											
13...	52	97	8.5	30	2.9	83	.2	267	1.1	.13	--
MAY											
11...	52	102	7.6	18	3.2	44	.2	221	.80	.10	2
JUN											
07...	37	110	6.7	14	3.2	37	.2	201	1.3	<.08	--
JUL											
12...	33	104	6.4	14	2.8	32	.3	197	1.9	<.09	--
AUG											
11...	49	124	7.9	14	2.5	32	.2	249	1.4	<.08	2
SEP											
07...	49	139	8.1	19	3.7	38	.3	258	1.7	<.08	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
05...	<1	3	2	600	10	170	--	4	--	<1	10
DEC											
03...	--	--	--	4000	--	140	--	--	--	--	--
JAN											
14...	--	--	--	<100	--	170	--	--	--	--	--
FEB											
11...	1	3	4	300	14	160	--	9	--	<1	6
MAR											
09...	--	--	--	2000	--	210	--	--	--	--	--
APR											
13...	--	--	--	600	--	210	--	--	--	--	--
MAY											
11...	1	6	3	1100	9	130	.5	6	<2	1	9
JUN											
07...	--	--	--	300	--	94	--	--	--	--	--
JUL											
12...	--	--	--	500	--	82	--	--	--	--	--
AUG											
11...	1	9	6	200	7	67	<.5	7	<2	1	11
SEP											
07...	--	--	--	400	--	146	--	--	--	--	--

ARKANSAS RIVER BASIN

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07176800 CANDY CREEK NEAR WOLCO, OK

LOCATION.--Lat 36°32'06", long 96°02'54", in NW 1/4 NW 1/4 sec.29, T.29 N., R.12 E., Osage County, 1.3 mi (2.1 km) east of Wolco, 3.3 mi (5.3 km) northeast of Avant, and at mile 5.6 (9.0 km).

DRAINAGE AREA.--30.6 mi² (79.3 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 673.00 ft (205.130 m) above mean sea level.

REMARKS.--Records good.

COOPERATION.--Gage-height record, 14 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 32.8 ft³/s (0.929 m³/s), 23,760 acre-ft/yr (29.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,520 ft³/s (270 m³/s) Mar. 10, 1974, gage height, 18.16 ft (5.535 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,440 ft³/s (69.1 m³/s) July 3, gage height, 9.75 ft (2.972 m), no peak above base of 2,500 ft³/s (70.8 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.11	11	2.6	.44	.47	3.7	20	5.0	.44	0	
2	.11	.13	5.4	2.6	.44	.37	3.1	13	4.0	289	0	
3	.12	.22	3.2	2.6	.44	.55	2.8	7.4	3.0	484	0	
4	.11	.25	2.5	2.3	.33	58	2.8	4.8	2.4	76	0	
5	.18	.33	2.4	1.5	.33	50	2.8	3.5	1.9	29	0	
6	.11	.38	1.6	1.4	.33	15	2.8	3.0	1.7	16	.05	
7	.11	.44	.88	1.2	.33	8.7	2.7	2.8	1.3	9.5	.11	
8	.11	.44	.88	.94	.25	20	2.5	2.3	1.1	6.4	.11	
9	.11	.44	.77	.84	.38	270	2.3	2.0	.88	4.8	.64	
10	.11	.44	.73	.77	.44	38	2.1	1.8	.66	3.8	1.2	
11	.06	.34	.48	.77	.44	19	1.8	1.7	.45	3.0	1.0	
12	0	.22	.33	.77	.42	57	1.9	1.5	.29	2.5	.71	
13	0	.22	.22	.77	.55	23	2.8	1.6	.16	2.1	.61	
14	.04	.14	.17	.77	.55	14	2.8	1.7	0	2.1	.47	
15	.10	.11	0	.77	.54	12	3.0	3.0	0	3.7	.21	
16	.13	.11	0	.77	.33	9.8	2.9	27	0	4.1	.05	
17	.22	.05	0	.77	.31	8.5	2.7	13	0	2.6	0	
18	.22	.04	0	.77	.33	7.2	196	6.5	102	2.0	0	
19	.19	.30	0	.77	.27	6.5	201	4.0	15	1.5	0	
20	.15	.66	0	.77	.27	5.3	258	2.8	5.9	1.2	0	
21	.11	.66	0	.77	.33	5.0	62	2.1	3.4	.87	0	
22	.11	.66	0	.77	.44	4.6	24	1.6	2.3	.68	0	
23	.11	.66	0	.77	.37	4.1	13	1.2	1.6	.49	0	
24	.11	.66	0	.77	.22	3.9	9.2	.96	1.2	.38	0	
25	.11	.66	0	.77	.29	3.7	7.7	.88	.97	.19	0	
26	.11	.66	0	.77	.22	3.4	6.1	347	.65	.05	0	
27	.11	.66	0	.77	.33	3.0	4.5	292	.50	0	0	
28	.11	.66	0	.77	.44	3.0	231	44	.29	0	0	
29	.11	2.0	0	.77	.44	3.5	68	19	.72	0	0	
30	.11	60	.17	.70	---	3.9	27	9.7	.57	0	0	
31	.11	---	2.0	.46	---	3.9	---	5.9	---	0	0	---
TOTAL	3.65	72.65	32.73	32.54	10.80	665.39	1153.0	847.74	157.94	946.40	5.16	0
MEAN	.12	2.42	1.06	1.05	.37	21.5	38.4	27.3	5.26	30.5	.17	0
MAX	.26	.60	11	2.6	.55	270	258	347	102	484	1.2	0
MIN	0	.04	0	.46	.22	.37	1.8	.88	0	0	0	0
AC-FT	7.2	144	65	65	21	1320	2290	1680	313	1880	10	0
CAL YR 1975	TOTAL	10429.80	MEAN 28.6	MAX 801	MIN 0	AC-FT 20690						
WTR YR 1976	TOTAL	3928.00	MEAN 10.7	MAX 484	MIN 0	AC-FT 7790						

ARKANSAS RIVER BASIN

07177000 HOMINY CREEK NEAR SKIATOOK, OK

LOCATION.--Lat 36°20'55", long 96°06'35", in SW 1/4 SE 1/4 sec.27, T.22 N., R.11 E., Osage County, near left bank on downstream side of pier of bridge on State Highway 20, 1.0 mi (1.6 km) upstream from Tall Chief Creek, 6.0 mi (9.7 km) west of Skiatook, and at mile 16.7 (26.9 km).

DRAINAGE AREA.--340 mi² (881 km²).

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 619.66 ft (188.872 m) above mean sea level. Prior to May 26, 1945, nonrecording gage and May 26, 1945, to Sept. 30, 1958, water-stage recorder at site 600 ft (182.9 m) upstream at same datum.

REMARKS.--Records good.

COOPERATION.--Gage-height record and 17 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--32 years, 189 ft³/s (5.352 m³/s), 136,900 acre-ft/yr (169 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,600 ft³/s (1,010 m³/s) Oct. 3, 1959, gage height, 38.82 ft (11.832 m); no flow at times in 1946, 1952-58, 1963-66.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 35.0 ft (10.67 m) from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,010 ft³/s (114 m³/s) Apr. 21, gage height, 22.54 ft (6.870 m), no peak above base of 5,000 ft³/s (142 m³/s); minimum daily, 0.06 ft³/s (0.002 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	5.5	219	25	8.1	9.0	22	170	271	5.1	6.3	.27
2	5.5	5.7	67	21	8.1	8.3	21	150	100	22	6.4	.22
3	5.2	6.3	43	18	8.0	8.9	19	111	60	1880	5.8	.18
4	5.0	6.4	30	16	7.9	9.3	16	80	39	2010	4.7	.20
5	4.5	6.8	31	14	9.4	322	15	65	26	249	4.3	.21
6	3.9	7.7	70	13	9.6	143	13	57	21	108	4.1	.21
7	3.4	8.6	40	12	9.6	88	12	53	19	63	4.3	.14
8	3.1	7.8	26	12	10	73	12	52	17	36	3.8	.12
9	2.9	7.5	21	12	11	1710	11	50	15	27	3.1	.20
10	2.4	6.9	18	11	11	962	11	49	13	22	2.7	.23
11	2.3	7.1	16	10	12	207	10	46	12	18	2.3	.20
12	2.1	6.4	15	9.9	11	717	9.6	43	11	15	1.9	.13
13	2.1	6.2	14	9.5	11	483	202	44	10	13	1.7	.06
14	2.1	6.1	13	9.6	11	155	236	54	8.4	11	1.5	.12
15	175	5.9	12	9.9	11	105	102	64	7.6	10	1.4	.27
16	203	5.7	11	10	11	86	111	68	7.6	10	1.3	.55
17	57	5.9	11	10	10	71	115	107	7.5	9.1	1.1	.66
18	26	6.4	11	10	9.7	58	2500	79	28	8.4	.98	.22
19	17	5.0	11	9.7	9.2	48	1980	49	98	7.8	.81	.32
20	12	14	11	9.5	9.3	42	2520	39	42	7.2	.69	.18
21	9.6	17	11	9.2	9.5	37	2490	31	19	6.6	.56	.11
22	8.2	16	11	8.9	125	31	387	27	14	5.9	.44	.7.3
23	7.5	13	11	8.9	60	24	190	22	11	5.4	.32	.4.9
24	7.0	11	11	8.7	28	22	130	19	9.4	5.0	.27	.3.8
25	6.7	10	14	8.5	17	21	92	17	7.7	4.6	.30	.3.2
26	6.5	9.5	17	8.3	13	20	67	75	6.6	4.3	.27	.4.8
27	6.5	8.9	20	8.3	12	18	49	1970	5.7	4.0	.24	.17
28	6.2	8.6	20	8.3	11	18	492	457	5.1	4.0	.28	.23
29	5.5	9.3	20	8.4	9.9	19	1850	145	6.7	5.3	.62	.12
30	5.6	519	22	8.5	---	23	322	97	5.4	7.4	1.9	.7.5
31	5.8	---	26	8.3	---	23	---	840	---	8.5	.71	---
TOTAL	615.9	760.2	873	346.4	483.3	5645.2	14006.6	5130	903.7	4592.6	65.09	170.47
MEAN	19.9	25.3	28.2	11.2	16.7	182	467	165	30.1	148	2.10	5.68
MAX	203	519	219	25	125	1710	2520	1970	271	2010	6.4	.32
MIN	2.1	5.0	11	8.3	7.9	8.3	9.6	17	5.1	4.0	.24	.06
AC=FT	1220	1510	1730	687	959	11200	27780	10180	1790	9110	129	338

CAL YR 1975 TOTAL 115577.70 MEAN 317 MAX 9000 MIN 2.1 AC=FT 229200
WTR YR 1976 TOTAL 33592.46 MEAN 91.8 MAX 2520 MIN .06 AC=FT 66630

07177500 BIRD CREEK NEAR SPERRY, OK

LOCATION.--Lat 36°16'42", long 95°57'14", in NW 1/4 NW 1/4 sec.29, T.21 N., R.13 E., Tulsa County, on downstream side of right pier of county road bridge, 1.5 mi (2.4 km) upstream from Delaware Creek, 2.4 mi (3.9 km) downstream from Hominy Creek, 2.5 mi (4.0 km) southeast of Sperry, and at mile 25.0 (40.2 km).

DRAINAGE AREA.--905 mi² (2,344 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1921: 1943.

GAGE.--Water-stage recorder. Datum of gage is 579.43 ft (176.610 m) above mean sea level.

REMARKS.--Records good.

COOPERATION.--Gage-height record and 16 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--38 years, 500 ft³/s (14.16 m³/s), 362,200 acre-ft/yr (447 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft³/s (2,550 m³/s) Oct. 3, 1959, gage height, 32.60 ft (9.936 m), from rating curve extended above 49,000 ft³/s (1,390 m³/s); no flow at times in 1939, 1954-57, 1964-66, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 31.68 ft (9.656 m), discharge 72,200 ft³/s (2,040 m³/s). Flood in 1915 reached a stage similar to flood of Oct. 31, 1941, 30.14 ft (9.187 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,870 ft³/s (251 m³/s) July 4, gage height, 21.11 ft (6.434 m), no peak above base of 11,000 ft³/s (312 m³/s); minimum, 0.75 ft³/s (0.021 m³/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	25	786	75	36	35	73	817	1030	64	16	2.2
2	27	25	242	78	37	32	72	586	302	83	15	3.8
3	27	26	149	73	32	31	69	455	178	3880	15	3.4
4	27	29	103	64	33	34	61	308	130	7810	13	2.7
5	27	32	89	56	34	378	56	226	101	5950	19	2.5
6	27	33	92	51	35	484	53	177	83	937	21	1.8
7	27	34	117	50	35	281	46	150	78	499	13	1.8
8	27	37	80	42	35	184	46	135	65	367	11	1.8
9	27	37	63	44	36	1110	43	122	58	269	9.7	1.6
10	27	35	56	44	40	2730	40	111	52	215	8.7	1.4
11	27	31	53	42	38	835	40	102	48	188	7.9	1.3
12	24	30	49	40	40	745	41	95	44	170	7.3	1.0
13	21	30	43	40	41	1910	53	102	41	161	6.3	1.4
14	20	30	42	40	40	651	476	117	38	153	5.6	1.5
15	39	30	44	40	38	336	247	152	37	149	5.2	1.5
16	316	30	44	40	36	238	149	172	36	156	5.1	2.0
17	286	31	40	40	36	192	198	217	34	122	4.6	4.2
18	151	31	40	40	35	162	1820	261	91	66	4.6	28
19	90	35	40	40	34	137	4510	184	377	41	4.6	36
20	60	44	40	40	32	120	4580	128	232	30	4.3	38
21	45	46	40	40	44	109	6070	97	113	24	4.2	22
22	37	61	40	40	39	95	2150	79	71	21	4.1	13
23	33	61	40	38	169	83	699	67	51	19	3.7	8.5
24	30	56	40	38	130	73	428	60	53	16	3.5	6.0
25	29	51	42	37	79	67	308	55	39	15	3.1	4.8
26	28	44	46	38	58	61	251	78	31	13	3.1	4.1
27	28	41	51	37	48	58	204	3620	29	12	3.1	3.7
28	28	41	57	35	41	58	416	3470	26	31	4.1	8.6
29	26	44	61	37	37	61	4270	841	32	43	3.1	25
30	25	144	63	35	---	67	2220	647	30	19	2.2	17
31	25	---	67	35	---	72	---	2270	---	15	1.8	---
TOTAL	1640	1224	2759	1389	1370	11429	29689	15901	3530	21538	233.1	250.6
MEAN	52.9	40.8	89.0	44.8	47.2	369	990	513	118	695	7.52	8.35
MAX	316	144	786	78	169	2730	6070	3620	1030	7810	21	38
MIN	20	25	40	35	32	31	40	55	26	12	1.8	1.0
AC-FT	3250	2430	5470	2760	2720	22670	58890	31540	7000	42720	462	497
CAL YR 1975	TOTAL	295362.0	MEAN	809	MAX	15200	MIN	20	AC-FT	585900		
WTR YR 1976	TOTAL	90952.7	MEAN	249	MAX	7810	MIN	1.0	AC-FT	180400		

ARKANSAS RIVER BASIN

07177500 BIRD CREEK NEAR SPERRY, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1953, 1960-62, 1965 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1953, October 1964 to September 1976.

WATER TEMPERATURE: October 1951 to September 1953, October 1964 to September 1976.

REMARKS. Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples at or near 5th, 15th and 25th of the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,600 micromhos Mar. 24, 1972; minimum daily, 82 micromhos Sept. 5-8, 1971.

WATER TEMPERATURE: Maximum daily, 36.0°C June 24, 1971; minimum, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,410 micromhos Sept. 20; minimum daily, 172 micromhos May 31.

WATER TEMPERATURE: Maximum daily, 31.0°C July 27, Aug. 17, 18; minimum daily, 0.0°C Jan. 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
06...	--	--	1510	--	28	702	8.4	--	--	--	--	--
15...	--	--	1725	--	44	766	8.2	--	--	--	--	--
24...	--	--	1631	--	30	663	7.9	--	--	--	--	--
NOV												
04...	1028	9740	1745	29	--	650	7.8	17.0	--	7.2	76	--
05...	--	--	1705	--	33	748	8.0	15.0	--	--	--	--
15...	--	--	1100	--	30	797	7.7	14.0	--	--	--	--
25...	--	--	1612	--	49	894	7.9	--	--	--	--	--
DEC												
02...	1028	9740	1630	242	--	750	8.1	8.5	110	10.6	99	24
05...	--	--	0900	--	82	726	7.7	--	--	--	--	--
15...	--	--	1620	--	44	638	7.5	--	--	--	--	--
25...	--	--	0900	--	43	714	7.6	--	--	--	--	--
JAN												
05...	--	--	1704	--	54	820	7.8	--	--	--	--	--
14...	1028	9740	0900	40	--	825	8.7	1.0	8	12.6	90	16
15...	--	--	1620	--	40	827	7.6	--	--	--	--	--
25...	--	--	1600	--	37	886	7.5	--	--	--	--	--
FEB												
05...	--	--	1130	--	34	897	8.2	--	--	--	--	--
10...	1028	9740	1600	40	--	925	8.7	6.0	6	11.2	95	13
15...	--	--	0730	--	38	920	8.2	--	--	--	--	--
25...	--	--	1020	--	80	1010	8.3	--	--	--	--	--
MAR												
05...	--	--	0900	--	78	826	8.0	--	--	--	--	--
09...	1028	9740	1200	1110	--	1050	7.7	9.0	35	9.7	88	--
15...	--	--	1730	--	301	451	7.3	--	--	--	--	--
25...	--	--	1840	--	65	562	7.3	--	--	--	--	--
APR												
04...	--	--	0700	--	62	626	7.5	--	--	--	--	--
13...	1028	9740	1545	53	--	625	--	20.0	15	7.6	88	23
15...	--	--	1658	--	207	617	8.1	--	--	--	--	--
24...	--	--	0936	--	442	330	7.8	--	--	--	--	--
MAY												
10...	1028	9740	1545	111	--	500	8.6	18.0	39	7.7	86	42
15...	--	--	0930	--	143	518	7.7	--	--	--	--	--
24...	--	--	1715	--	60	696	7.9	--	--	--	--	--
31...	--	--	0910	--	2680	172	8.1	--	--	--	--	--
JUN												
05...	--	--	2100	--	94	355	7.6	--	--	--	--	--
07...	1028	9740	1315	78	--	425	7.9	24.0	45	6.4	78	31
12...	--	--	0844	--	44	524	7.6	--	--	--	--	--
27...	--	--	0900	--	29	613	7.4	--	--	--	--	--
JUL												
05...	--	--	1138	--	6470	202	7.8	--	--	--	--	--
12...	1028	9740	1845	170	--	360	7.9	28.0	35	8.0	105	10
15...	--	--	1800	--	143	425	7.8	--	--	--	--	--
25...	--	--	0940	--	15	568	7.6	--	--	--	--	--
AUG												
05...	--	--	1650	--	26	735	7.7	--	--	--	--	--
11...	1028	9740	1000	7.9	--	640	8.0	25.0	18	4.5	54	16
18...	--	--	1650	--	5.0	894	8.0	--	--	--	--	--
25...	--	--	1710	--	3.5	1020	7.6	--	--	--	--	--

ARKANSAS RIVER BASIN

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07177500 BIRD CREEK NEAR SPERRY, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
SEP												
05...	--	--	0830	--	3.0	1070	7.9	--	--	--	--	--
07...	1028	9740	1230	1.8	--	940	7.6	24.5	4	3.5	44	22
15...	--	--	1611	--	1.5	1270	8.1	--	--	--	--	--
23...	--	--	1630	--	8.2	766	7.8	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	
UCT												
06...	200	63	59	13	65	41	2.0	3.5	168	0	138	
15...	200	51	55	14	70	43	2.2	4.2	176	0	144	
24...	180	43	51	13	59	41	1.9	4.2	168	0	138	
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	
05...	200	53	58	13	63	40	1.9	4.1	177	0	145	
15...	220	61	64	14	66	39	1.9	3.8	191	0	157	
25...	230	72	67	16	79	42	2.3	4.2	197	0	162	
DEC												
02...	--	--	--	--	--	--	--	--	--	--	--	
05...	170	67	50	12	70	46	2.3	4.7	131	0	107	
15...	160	56	46	12	58	43	2.0	4.3	132	0	108	
25...	180	53	49	14	63	43	2.0	4.0	155	0	127	
JAN												
05...	210	70	60	15	70	41	2.1	3.5	173	0	142	
14...	--	--	--	--	--	--	--	--	--	--	--	
15...	230	76	64	16	70	40	2.0	3.4	183	0	150	
25...	240	82	68	17	76	40	2.1	3.2	193	0	158	
FEB												
05...	240	86	69	17	80	41	2.2	3.1	191	0	157	
10...	--	--	--	--	--	--	--	--	--	--	--	
15...	260	95	74	18	86	42	2.3	3.2	200	0	164	
25...	290	110	80	22	89	40	2.3	3.7	225	0	185	
MAR												
05...	230	99	67	16	69	39	2.0	3.3	164	0	135	
09...	--	--	--	--	--	--	--	--	--	--	--	
15...	140	49	40	9.2	35	35	1.3	3.0	108	0	89	
25...	160	59	47	11	44	37	1.5	2.9	126	0	103	
APR												
04...	180	60	52	13	56	39	1.8	3.1	151	0	124	
13...	--	--	--	--	--	--	--	--	--	--	--	
15...	170	67	45	13	55	41	1.9	3.4	121	0	99	
24...	100	28	28	7.3	29	38	1.3	3.0	88	0	72	
MAY												
10...	--	--	--	--	--	--	--	--	--	--	--	
15...	170	53	50	11	36	31	1.2	2.9	143	0	117	
24...	210	77	62	14	53	35	1.6	3.0	165	0	135	
31...	46	17	13	3.2	13	36	.8	3.3	35	0	29	
JUN												
05...	110	37	33	7.6	27	33	1.1	3.3	94	0	77	
07...	--	--	--	--	--	--	--	--	--	--	--	
12...	150	47	45	10	42	37	1.5	3.4	130	0	107	
27...	170	58	48	12	53	40	1.8	3.7	136	0	112	
JUL												
05...	66	20	19	4.6	15	32	.8	3.3	56	0	46	
12...	--	--	--	--	--	--	--	--	--	--	--	
15...	150	30	46	8.2	27	28	1.0	3.0	145	0	119	
25...	170	39	52	10	50	38	1.7	3.2	161	0	132	
AUG												
05...	190	48	56	13	66	42	2.1	3.8	177	0	145	
11...	--	--	--	--	--	--	--	--	--	--	--	
18...	220	69	62	16	87	46	2.5	4.6	185	0	152	
25...	240	76	67	17	100	47	2.8	4.2	197	0	162	
SEP												
05...	250	92	72	18	110	48	3.0	4.0	198	0	162	
07...	--	--	--	--	--	--	--	--	--	--	--	
15...	280	120	78	20	140	52	3.7	4.2	194	0	159	
23...	230	58	65	16	56	34	1.6	3.5	208	0	171	

ARKANSAS RIVER BASIN

07177500 BIRD CREEK NEAR SPERRY, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO ₂) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
UCT											
06...	1.1	24	120	--	378	.51	28.6	.38	--	--	--
15...	1.8	18	130	--	408	.55	48.5	.29	--	--	--
24...	3.4	21	110	--	353	.48	28.6	.32	--	--	--
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	2.8	25	130	--	411	.56	36.6	.46	--	--	--
15...	6.1	25	140	--	444	.60	36.0	.27	--	--	--
25...	4.0	27	160	--	473	.64	62.6	.20	--	--	--
DEC											
02...	--	--	--	.3	--	--	--	--	1.8	.10	--
05...	4.2	22	150	--	409	.56	90.6	.48	--	--	--
15...	6.7	23	120	--	346	.47	41.1	.63	--	--	--
25...	6.2	24	130	--	385	.52	44.7	.53	--	--	--
JAN											
05...	4.4	27	150	--	435	.59	63.4	.36	--	--	--
14...	--	--	--	.2	--	--	--	--	1.2	.07	--
15...	7.4	33	150	--	433	.59	46.8	.31	--	--	--
25...	9.8	32	160	--	472	.64	47.2	.26	--	--	--
FEB											
05...	1.9	33	170	--	486	.66	44.6	.38	--	--	--
10...	--	--	--	.2	--	--	--	--	1.0	.10	<1
15...	2.0	30	170	--	488	.66	50.1	.33	--	--	--
25...	1.8	35	190	--	551	.75	119	.48	--	--	--
MAR											
05...	2.6	38	150	--	446	.61	93.9	.48	--	--	--
09...	--	--	--	.2	--	--	--	--	--	--	--
15...	8.7	38	62	--	281	.38	228	2.1	--	--	--
25...	10	31	90	--	339	.46	59.5	1.9	--	--	--
APR											
04...	7.6	45	98	--	347	.47	58.1	.31	--	--	--
13...	--	--	--	.2	--	--	--	--	<.10	.11	--
15...	1.5	31	110	--	333	.45	186	.37	--	.04	--
24...	2.2	24	48	--	202	.27	241	1.1	--	--	--
MAY											
10...	--	--	--	.2	--	--	--	--	1.1	.15	3
15...	4.6	28	72	--	289	.39	112	.32	--	--	--
24...	3.3	32	110	--	365	.50	59.1	.32	--	--	--
31...	.4	14	25	--	99	.13	716	.76	--	--	--
JUN											
05...	3.8	20	54	--	202	.27	51.3	.50	--	--	--
07...	--	--	--	.3	--	--	--	--	1.1	.09	--
12...	5.2	22	87	--	295	.40	35.0	.29	--	--	--
27...	8.7	24	100	--	338	.46	26.5	.37	--	--	--
JUL											
05...	1.4	17	26	--	140	.19	2450	.65	--	.33	--
12...	--	--	--	.3	--	--	--	--	1.7	.11	--
15...	3.7	22	48	--	238	.32	91.9	.19	--	--	--
25...	6.5	22	93	--	314	.43	12.7	.22	--	--	--
AUG											
05...	5.7	20	130	--	417	.57	29.3	.44	--	--	--
11...	--	--	--	.2	--	--	--	--	2.2	<.08	2
18...	3.0	19	180	--	497	.68	6.71	.14	--	--	--
25...	7.9	19	210	--	574	.78	5.42	.15	--	--	--
SEP											
05...	4.0	17	230	--	591	.80	4.79	.17	--	--	--
07...	--	--	--	.3	--	--	--	--	2.4	<.08	--
15...	2.5	18	280	--	706	.96	2.86	.42	--	--	--
23...	5.3	25	120	--	432	.59	9.56	.88	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07177500 BIRD CREEK NEAR SPERRY, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE=DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	675	682	1000	751	---	---	602	288	250	681	634	1080
2	705	724	771	740	904	---	599	304	308	348	681	1100
3	---	719	750	784	939	1060	607	307	308	348	739	1050
4	727	745	724	788	905	1050	626	335	352	255	764	1040
5	728	748	726	820	897	826	---	359	355	202	735	1070
6	702	735	670	840	896	830	---	382	406	263	743	1060
7	729	740	---	845	906	742	---	399	410	266	727	1060
8	724	740	654	844	897	916	657	412	---	277	690	1120
9	705	760	654	823	897	894	657	454	---	---	689	1120
10	703	759	667	832	910	543	---	458	525	303	723	1140
11	704	771	---	830	907	511	698	480	513	---	721	1140
12	728	786	---	835	917	509	699	493	524	347	---	1180
13	751	782	637	834	926	452	712	549	---	350	---	1210
14	764	794	640	830	919	425	835	534	---	365	765	1280
15	766	797	638	827	920	451	617	518	---	425	779	1270
16	---	800	669	---	922	501	---	538	---	424	845	---
17	755	---	670	821	924	---	648	604	---	442	852	1240
18	756	807	688	822	942	---	656	604	---	428	894	1240
19	594	810	698	852	958	516	418	621	---	444	862	986
20	599	---	715	---	974	516	271	633	---	465	---	1410
21	639	803	716	864	1010	520	227	633	---	506	---	---
22	635	802	714	848	991	528	---	633	---	508	---	946
23	662	796	715	893	1240	540	331	663	---	523	989	766
24	663	798	715	894	1030	548	330	696	---	524	1000	871
25	---	894	714	866	1010	562	374	692	---	568	1020	972
26	---	898	732	884	1040	572	377	692	---	570	1020	969
27	678	---	714	886	1040	571	381	399	613	585	1030	1000
28	676	---	---	885	1040	577	314	365	621	581	1000	972
29	712	930	---	891	1040	587	314	318	---	574	1030	1120
30	714	1010	675	907	---	608	317	---	---	610	1030	1120
31	688	---	744	902	---	603	---	172	---	573	1050	---
MONTH	699	793	708	843	961	628	511	485	---	440	847	1090
YEAR	MAX	1410	MIN	172	MEAN	717						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE=DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	15.0	6.0	5.0	---	13.0	15.0	13.0	20.0	25.0	30.0	23.0
2	18.0	16.0	7.0	4.0	5.0	13.0	17.0	18.0	20.0	23.0	28.0	24.0
3	---	16.0	7.0	4.0	6.0	13.0	15.0	17.0	23.0	23.0	29.0	24.0
4	18.0	16.0	7.0	1.0	5.0	13.0	13.0	17.0	23.0	21.0	27.0	24.0
5	17.0	15.0	9.0	1.0	2.0	10.0	17.0	16.0	23.0	22.0	27.0	24.0
6	18.0	16.0	8.0	1.0	2.0	10.0	18.0	16.0	22.0	22.0	28.0	27.0
7	18.0	16.0	---	1.0	1.0	9.0	18.0	16.0	25.0	25.0	25.0	25.0
8	18.0	15.0	7.0	0.0	2.0	9.0	19.0	14.0	---	26.0	29.0	24.0
9	19.0	16.0	7.0	0.0	3.5	8.0	19.0	16.0	---	---	29.0	24.0
10	19.0	16.0	7.0	1.0	6.0	6.0	---	18.0	25.0	25.0	29.0	24.0
11	19.0	15.0	---	1.0	6.0	8.0	19.0	20.0	25.0	---	29.0	26.0
12	21.0	15.0	---	2.0	8.0	9.0	20.0	19.0	24.0	28.0	---	20.0
13	22.0	12.0	7.0	2.0	8.0	9.0	19.0	19.0	---	28.0	---	22.0
14	21.0	14.0	7.0	3.0	9.5	11.0	19.0	19.0	---	28.0	27.0	20.0
15	20.0	14.0	8.0	2.5	11.0	10.0	20.0	18.0	---	27.0	---	24.0
16	---	10.0	7.0	---	11.0	10.0	---	16.0	---	27.0	30.0	---
17	17.0	---	5.0	3.0	12.0	10.0	19.0	19.0	---	25.0	31.0	24.0
18	15.0	13.0	4.0	3.0	12.0	12.0	18.0	19.0	---	27.0	31.0	22.0
19	16.0	13.0	3.0	2.5	13.0	12.0	16.0	20.0	---	29.0	28.0	22.0
20	17.0	---	4.0	---	12.0	15.0	16.0	22.0	---	30.0	---	23.0
21	18.0	9.0	3.0	3.0	10.0	14.0	16.0	23.0	---	30.0	---	---
22	18.0	6.0	3.0	3.5	8.0	15.0	---	22.0	---	30.0	---	22.0
23	18.0	7.0	4.0	4.0	8.0	15.0	18.0	22.0	---	29.0	27.0	23.0
24	18.0	6.0	4.0	5.0	7.0	15.0	18.0	23.0	---	27.0	27.0	23.0
25	---	---	3.0	5.0	9.0	15.0	18.0	23.0	---	28.0	28.0	21.0
26	---	3.0	3.0	4.5	9.0	17.0	18.0	20.0	---	30.0	27.0	20.0
27	14.0	---	2.0	4.0	9.0	15.0	17.0	17.0	25.0	31.0	28.0	19.0
28	15.0	---	---	5.5	11.0	14.0	18.0	18.0	29.0	27.0	25.0	20.0
29	16.0	5.0	---	4.0	12.0	15.0	14.0	17.0	---	28.0	27.0	20.0
30	16.0	5.0	4.0	5.0	---	15.0	13.0	---	---	29.0	24.0	20.0
31	16.0	---	4.0	5.0	---	15.0	---	20.0	---	27.0	23.0	---
MONTH	18.0	12.0	5.5	3.0	8.0	12.0	17.5	18.5	---	27.0	27.5	22.5
YEAR	MAX	31.0	MIN	0.0	MEAN	16.0						

	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT											
15...	--	--	0825	503	8.1	20.0	--	--	--	--	160
NOV											
04...	1028	9740	1630	540	7.6	18.0	22	6.7	73	29	--
18...	--	--	1245	498	8.0	14.5	--	--	--	--	170
DEC											
02...	1028	9740	1530	900	7.9	11.0	55	9.4	88	28	--
JAN											
13...	1028	9740	1700	750	8.1	6.5	5	10.7	90	51	--
FEB											
10...	1028	9740	1430	850	7.6	10.0	7	7.4	69	37	--
MAR											
09...	1028	9740	1800	680	--	10.0	3	8.9	83	28	--
23...	--	--	0845	585	8.2	11.0	--	--	--	--	170
APR											
13...	1028	9740	1630	520	--	19.0	50	4.2	48	53	--
MAY											
10...	1028	9740	1630	560	7.5	19.5	43	6.2	71	54	--
JUN											
07...	1028	9740	1845	520	7.6	25.0	20	5.5	69	61	--
18...	--	--	0900	603	8.3	--	--	--	--	--	210
JUL											
12...	1028	9740	1930	400	7.5	28.0	36	5.7	75	16	--
AUG											
11...	1028	9740	0830	560	7.5	26.0	19	--	--	42	--
20...	--	--	1000	570	6.6	31.0	--	--	--	--	180
SEP											
08...	1028	9740	0845	510	7.3	24.5	4	.5	6	53	--
	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LILITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT											
15...	58	50	9.3	53	40	1.8	8.2	128	0	105	1.6
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
18...	64	54	9.7	--	--	--	8.2	135	0	111	2.2
DEC											
02...	--	--	--	--	--	--	--	--	--	--	--
JAN											
13...	--	--	--	--	--	--	--	--	--	--	--
FEB											
10...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
23...	73	50	11	47	37	1.6	4.7	119	0	98	1.2
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
MAY											
10...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
18...	58	66	11	45	31	1.4	5.1	186	0	153	1.5
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
AUG											
11...	--	--	--	--	--	--	--	--	--	--	--
20...	78	58	9.6	57	39	1.8	7.6	130	0	107	52
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07178050 BIRD CREEK NEAR CATOOKSA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SU4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)
OCT										
15...	44	--	--	375	--	9.1	--	3.7	--	--
NOV										
04...	--	--	.5	--	--	--	6.4	4.8	3	9
18...	76	--	--	308	--	2.8	--	1.7	--	--
DEC										
02...	--	--	.3	--	--	--	3.2	.95	--	--
JAN										
13...	--	--	.5	--	--	--	12	3.0	--	--
FEB										
10...	--	--	.5	--	--	--	2.3	2.9	1	5
MAR										
09...	--	--	.4	--	--	--	2.3	.47	--	--
23...	42	81	--	329	.45	4.8	--	2.0	--	--
APR										
13...	--	--	.5	--	--	--	6.1	1.3	--	--
MAY										
10...	--	--	.4	--	--	--	3.7	1.3	3	4
JUN										
07...	--	--	.5	--	--	--	3.7	1.2	--	--
18...	77	70	--	385	.52	--	--	.90	--	--
JUL										
12...	--	--	.4	--	--	--	4.4	1.3	--	--
AUG										
11...	--	--	.5	--	--	--	1.7	1.8	4	4
20...	51	57	--	323	.44	8.0	--	4.7	--	--
SEP										
08...	--	--	.6	--	--	--	10	2.0	--	--

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT										
15...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	21	38	3800	53	880	--	45	--	2	120
18...	--	--	--	--	--	--	--	--	--	--
DEC										
02...	--	--	2600	--	320	--	--	--	--	--
JAN										
13...	--	--	400	--	570	--	--	--	--	--
FEB										
10...	10	14	800	26	445	--	29	--	1	70
MAR										
09...	--	--	5400	--	500	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
APR										
13...	--	--	1600	--	470	--	--	--	--	--
MAY										
10...	11	11	1700	25	335	<.5	18	<2	2	33
JUN										
07...	--	--	1300	--	330	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	1600	--	186	--	--	--	--	--
AUG										
11...	14	16	800	29	321	<.5	22	<2	2	37
20...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	--	--	500	--	423	--	--	--	--	--

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued
(National stream-quality accounting network station)

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1971 to September 1976 (discontinued).

WATER TEMPERATURE: December 1971 to September 1976 (discontinued).

INSTRUMENTATION.--Water quality monitor since December 1971.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 892 micromhos Apr. 22, 1972; minimum, 107 micromhos Nov. 5, 1974.

WATER TEMPERATURE: Maximum, 31.5°C July 23, 1974; minimum, 0.0°C on Jan. 10-14, 1973.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 759 micromhos Mar. 13; minimum daily, 213 micromhos July 16, Aug. 12.

WATER TEMPERATURE: Maximum daily, 28.0°C Aug. 19, 20; minimum daily, 1.0°C Jan. 8, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT												
05...	--	--	0900	69	522	8.2	--	--	--	160	41	51
08...	--	--	1030	209	500	8.2	18.5	20	--	160	36	49
15...	--	--	0900	481	478	8.3	--	--	--	150	30	46
25...	--	--	0900	152	515	8.1	17.0	--	--	160	50	46
NOV												
05...	--	--	0900	172	584	7.8	16.5	--	--	170	57	51
15...	--	--	0900	161	619	8.0	13.0	--	--	190	66	57
19...	--	--	1130	170	600	8.1	18.5	10	--	200	61	60
19...	1028	9740	1131	170	600	8.1	18.5	--	--	--	--	--
25...	--	--	0900	136	588	7.8	9.0	--	--	180	53	53
DEC												
05...	--	--	0900	242	491	8.5	--	--	--	180	49	55
15...	--	--	0900	177	512	8.4	--	--	--	170	46	50
25...	--	--	0900	138	472	8.2	--	--	--	140	46	42
29...	--	--	1600	193	589	8.3	6.0	10	--	170	60	49
JAN												
05...	--	--	0900	131	558	8.4	--	--	--	170	63	49
15...	--	--	0900	103	603	8.3	--	--	--	180	70	52
21...	1028	9740	0900	84	550	8.7	3.0	25	20	170	65	51
25...	--	--	0900	82	569	8.5	--	--	--	170	64	51
FEB												
05...	--	--	0900	80	578	8.0	--	--	--	190	81	55
15...	--	--	0900	89	629	7.9	--	--	--	190	76	56
19...	--	--	1200	78	650	8.9	12.0	10	--	200	70	59
19...	1028	9740	1201	78	650	--	12.0	--	45	--	--	--
25...	--	--	0900	167	676	7.8	--	--	--	200	81	60
MAR												
05...	--	--	0900	1420	690	7.8	--	--	--	210	81	61
15...	--	--	0900	677	592	7.5	--	--	--	170	79	47
25...	--	--	0900	346	410	8.7	--	--	--	160	29	49
APR												
05...	--	--	0900	406	428	7.5	--	--	--	170	48	53
15...	--	--	0900	221	418	7.4	--	--	--	170	44	51
25...	--	--	0900	1220	281	6.6	--	--	--	86	30	25
MAY												
05...	--	--	0900	5710	386	8.0	--	--	--	160	42	52
15...	--	--	0900	6220	414	7.8	--	--	--	160	31	49
25...	--	--	0900	299	422	7.8	--	--	--	170	39	53
27...	1028	9740	1300	10000	420	8.1	9.0	3	23	160	29	47
JUN												
04...	--	--	0900	8330	403	8.2	--	--	--	160	38	48
15...	--	--	0900	141	435	8.0	--	--	--	200	70	61
25...	--	--	0900	135	450	7.8	--	--	--	170	50	53
JUL												
05...	--	--	0900	27900	295	7.5	--	--	--	99	21	31
14...	--	--	0900	29600	266	8.0	--	--	--	110	19	33
25...	--	--	0900	16200	239	7.7	--	--	--	94	13	31
27...	--	--	1300	11400	220	--	25.0	50	--	96	20	31
27...	1028	9740	1301	11400	--	--	--	--	13	--	--	--
AUG												
05...	--	--	0900	675	235	7.9	--	--	--	94	13	30
15...	--	--	0900	99	245	7.7	--	--	--	98	12	31
25...	--	--	0900	74	256	8.0	--	--	--	110	19	33
25...	--	--	1100	74	220	8.3	29.0	20	--	100	22	31
25...	1028	9740	1101	74	220	8.3	29.0	--	9	--	--	--

ARKANSAS RIVER BASIN

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
SEP												
05...	--	--	0900	65	263	7.5	--	--	--	110	29	35
15...	--	--	0900	78	274	7.5	--	--	--	110	28	35
27...	--	--	0900	122	323	8.1	--	--	--	120	24	36
29...	1028	9740	0950	108	305	8.1	21.0	35	14	120	19	37
DATE	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	
OCT												
05...	9.0	37	32	1.3	3.8	151	124	1.5	36	60	--	
08...	8.8	33	31	1.1	3.5	149	122	1.5	35	57	.3	
15...	8.6	32	31	1.1	3.7	147	121	1.2	18	52	--	
25...	10	41	36	1.4	4.5	129	106	1.6	48	71	--	
NOV												
05...	10	54	39	1.8	12	136	112	3.4	45	87	--	
15...	11	48	35	1.5	4.6	148	121	2.4	56	87	--	
19...	12	57	38	1.8	4.7	168	138	2.1	51	88	.3	
19...	--	--	--	--	--	--	--	--	--	--	--	
25...	11	43	34	1.4	4.9	152	125	3.9	47	67	--	
DEC												
05...	10	29	26	.9	3.7	144	130	.8	43	48	--	
15...	10	34	30	1.1	4.4	146	120	.9	50	51	--	
25...	9.3	35	34	1.3	4.1	119	98	1.2	33	63	--	
29...	11	48	38	1.6	2.5	131	107	1.1	41	85	.3	
JAN												
05...	11	42	35	1.4	4.4	125	104	.8	48	74	--	
15...	12	42	33	1.4	4.7	133	109	1.1	48	77	--	
21...	11	43	34	1.4	4.5	131	107	.4	53	72	.3	
25...	11	40	33	1.3	4.4	132	108	.7	56	66	--	
FEB												
05...	12	43	33	1.4	4.4	129	106	2.1	68	69	--	
15...	12	50	36	1.6	4.5	138	113	2.8	70	77	--	
19...	13	51	--	1.6	--	160	131	.3	62	80	.3	
19...	--	--	--	--	--	--	--	--	--	--	--	
25...	13	50	34	1.5	4.4	149	122	3.8	72	86	--	
MAR												
05...	14	49	33	1.5	4.5	157	129	4.0	73	81	--	
15...	12	49	38	1.7	3.5	107	88	5.4	48	96	--	
25...	8.5	20	21	.7	2.9	156	128	.5	44	28	--	
APR												
05...	9.7	21	21	.7	3.1	151	124	7.6	48	31	--	
15...	9.8	20	20	.7	3.1	151	124	9.6	46	28	--	
25...	5.8	20	33	.9	3.2	69	57	28	30	32	--	
MAY												
05...	7.9	19	20	.6	2.9	147	121	2.4	37	33	--	
15...	9.6	20	21	.7	3.2	159	130	4.0	43	28	--	
25...	9.1	19	19	.6	3.1	159	130	4.0	48	29	--	
27...	9.5	20	21	.7	3.0	155	127	2.0	40	26	.3	
JUN												
04...	9.1	19	20	.7	3.2	145	119	1.5	37	26	--	
15...	11	20	18	.6	3.2	156	128	2.5	66	29	--	
25...	9.9	23	22	.8	3.5	150	123	3.8	46	35	--	
JUL												
05...	5.3	19	29	.8	3.2	95	78	4.8	27	31	--	
14...	5.5	18	26	.8	3.0	105	86	1.7	31	120	--	
25...	4.1	9.9	18	.4	3.2	99	81	3.2	21	16	--	
27...	4.4	8.4	16	.4	3.1	92	75	--	20	11	.3	
27...	--	--	--	--	--	--	--	--	--	--	--	
AUG												
05...	4.6	8.9	17	.4	3.2	98	80	2.0	20	14	--	
15...	5.0	9.6	17	.4	3.3	105	86	3.4	21	13	--	
25...	5.6	10	17	.4	3.2	106	87	1.7	24	14	--	
25...	5.7	9.9	17	.4	3.1	96	79	.8	24	14	.3	
25...	--	--	--	--	--	--	--	--	--	--	--	
SEP												
05...	5.8	11	17	.5	3.5	100	82	5.1	26	15	--	
15...	5.9	12	18	.5	3.3	102	84	5.2	23	15	--	
27...	6.5	17	23	.7	3.8	113	93	1.4	22	24	--	
29...	6.4	16	22	.6	3.8	122	100	1.6	27	21	.3	

ARKANSAS RIVER BASIN

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07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO ₃) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT											
05...	--	306	--	.42	57.0	--	1.5	--	--	--	--
08...	5.8	284	266	.39	160	1.2	--	1.2	2.4	11	.20
15...	--	285	--	.39	370	--	1.4	--	--	--	--
25...	--	287	--	.39	118	--	1.5	--	--	--	--
NOV											
05...	--	335	--	.46	156	--	2.3	--	--	--	--
15...	--	343	--	.47	149	--	2.4	--	--	--	--
19...	4.0	369	360	.50	169	1.6	--	.95	2.6	11	.33
19...	--	--	--	--	--	--	--	--	2.4	--	--
25...	--	333	--	.45	122	--	2.2	--	--	--	--
DEC											
05...	--	295	--	.40	193	--	1.4	--	--	--	.27
15...	--	304	--	.41	145	--	3.3	--	--	--	.71
25...	--	279	--	.38	104	--	1.9	--	--	--	.44
29...	4.0	344	305	.47	179	2.2	--	.59	2.8	12	.34
JAN											
05...	--	298	--	.41	105	--	2.1	--	--	--	.33
15...	--	328	--	.45	91.2	--	2.4	--	--	--	.49
21...	3.6	330	303	.45	74.8	2.3	--	1.8	4.1	18	.71
25...	--	309	--	.42	68.4	--	2.2	--	--	--	.43
FEB											
05...	--	346	--	.47	74.7	--	2.5	--	--	--	.51
15...	--	369	--	.50	88.7	--	2.8	--	--	--	.55
19...	.3	386	344	.53	81.3	2.6	--	1.3	3.9	17	.70
19...	--	--	--	--	--	--	--	--	2.5	--	--
25...	--	385	--	.52	174	--	2.8	--	--	--	.60
MAR											
05...	--	400	--	.54	1530	--	2.6	--	--	--	.52
15...	--	345	--	.47	631	--	1.6	--	--	--	.10
25...	--	243	--	.33	227	--	.67	--	--	--	.13
APR											
05...	--	230	--	.31	252	--	.64	--	--	--	.16
15...	--	227	--	.31	135	--	.46	--	--	--	.16
25...	--	172	--	.23	567	--	.89	--	--	--	.44
MAY											
05...	--	228	--	.31	3520	--	.59	--	--	--	.20
15...	--	239	--	.33	4010	--	.34	--	--	--	.12
25...	--	243	--	.33	196	--	.32	--	--	--	.08
27...	.7	270	223	.37	7290	.15	--	--	.80	--	--
JUN											
04...	--	221	--	.30	4970	--	.43	--	--	--	.17
15...	--	247	--	.34	94.0	--	.34	--	--	--	.08
25...	--	247	--	.34	90.0	--	.68	--	--	--	.09
JUL											
05...	--	187	--	.25	14100	--	1.0	--	--	--	.20
14...	--	353	--	.48	28200	--	1.0	--	--	--	.13
25...	--	140	--	.19	6120	--	.58	--	--	--	.13
27...	6.8	135	130	.18	4160	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	1.7	--	--
AUG											
05...	--	137	--	.19	250	--	1.3	--	--	--	.11
15...	--	155	--	.21	41.4	--	.65	--	--	--	.11
25...	--	160	--	.22	32.0	--	.39	--	--	--	.08
25...	6.2	126	142	.17	25.2	.43	--	.69	1.1	5.0	.38
25...	--	--	--	--	--	--	--	--	1.1	--	--
SEP											
05...	--	167	--	.23	29.3	--	.53	--	--	--	.12
15...	--	173	--	.24	36.4	--	1.2	--	--	--	.09
27...	--	198	--	.27	65.2	--	.93	--	--	--	.11
29...	4.4	192	176	.26	56.0	.95	--	.00	.95	4.2	.17

ARKANSAS RIVER BASIN

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCUCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	--	--	1030	209	5.8	67	82220	82050	--	--	--
NOV 19...	--	--	1130	170	9.2	101	--	--	8.3	261	54
19...	1028	9740	1131	170	9.2	101	--	--	--	--	--
DEC 29...	--	--	1600	193	10.5	89	65	100	--	--	--
JAN 21...	1028	9740	0900	84	11.5	88	--	82	--	875	76
FEB 19...	--	--	1200	78	--	--	--	--	6.8	28	71
19...	1028	9740	1201	78	--	--	--	--	--	--	--
MAY 27...	1028	9740	1300	10000	9.1	100	120	850	--	--	--
JUN 26...	--	--	1045	--	7.9	100	--	--	--	--	--
28...	--	--	1500	121	7.7	--	460	1300	4.0	--	--
JUL 27...	--	--	1300	11400	7.8	100	140	89	--	34	95
27...	1028	9740	1301	11400	--	100	--	--	--	--	--
AUG 25...	--	--	1100	74	7.3	95	340	150	4.5	137	89
25...	1028	9740	1101	74	--	95	--	--	--	--	--
SEP 29...	1028	9740	0950	108	7.1	84	--	--	--	--	--

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDE SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDE ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV 19...	.1	--	0	0	0	--	40	20	20
19...	--	8	--	--	--	1	--	--	--
JAN 21...	--	--	--	--	--	--	--	--	--
FEB 19...	--	--	0	--	--	--	20	--	--
19...	--	5	--	--	--	1	--	--	--
MAY 27...	--	36	--	--	--	1	--	--	--
JUL 27...	.0	--	0	0	0	--	80	80	0
27...	--	--	--	--	--	--	--	--	--
AUG 25...	.0	--	0	0	0	--	210	210	0
25...	--	4	--	--	--	<1	--	--	--
SEP 29...	--	--	--	--	--	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
NOV 19...	--	--	1130	170	1	0	1	<10	<9	1
19...	1028	9740	1131	170	--	--	--	--	--	--
JAN 21...	1028	9740	0900	84	--	--	--	--	--	--
FEB 19...	--	--	1200	78	1	--	--	<10	--	--
19...	1028	9740	1201	78	--	--	--	--	--	--
MAY 27...	1028	9740	1300	10000	--	--	--	--	--	--
JUL 27...	--	--	1300	11400	2	1	1	<10	<9	1
27...	1028	9740	1301	11400	--	--	--	--	--	--
AUG 25...	--	--	1100	74	2	1	1	<10	<9	1
25...	1028	9740	1101	74	--	--	--	--	--	--
SEP 29...	1028	9740	0950	108	--	--	--	--	--	--

ARKANSAS RIVER BASIN

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07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CHROMIUM (CR) (UG/L)	SUS- PENDEED CHROMIUM (CR) (UG/L)	DIS- SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	SUS- PENDEED COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDEED COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV										
19...	10	0	<10	<50	<49	1	20	15	5	1100
19...	--	--	--	--	--	--	--	--	--	--
JAN										
21...	--	--	--	--	--	--	--	--	--	900
FEB										
19...	0	--	--	<50	--	--	10	--	--	900
19...	--	--	--	--	--	--	--	--	--	--
MAY										
27...	--	--	--	--	--	--	--	--	--	--
JUL										
27...	0	0	0	<50	<50	0	30	23	7	3500
27...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	0	0	0	<50	<50	0	10	6	4	1600
25...	--	--	--	--	--	--	--	--	--	--
SEP										
29...	--	--	--	--	--	--	--	--	--	400

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDEED LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDEED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDEED MERCURY (HG) (UG/L)
NOV									
19...	30	<100	<97	3	130	120	10	.2	.1
19...	--	--	--	--	--	--	--	--	--
JAN									
21...	--	--	--	--	360	--	--	--	--
FEB									
19...	--	<100	--	--	150	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
MAY									
27...	--	--	--	--	--	--	--	--	--
JUL									
27...	40	<100	<98	2	140	130	10	.1	.1
27...	--	--	--	--	--	--	--	--	--
AUG									
25...	20	<100	<99	1	100	100	0	.1	.1
25...	--	--	--	--	--	--	--	--	--
SEP									
29...	--	--	--	--	80	--	--	--	--

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Nov. 19	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum		0	
		Occystaceae			
		Ankistrodesmus	55	1	
		Kirchneriella	110	2	
		Selenastrum		0	
		Scenedesmaceae			
		Crucigenia	890	14	
		Scenedesmus	550	9	
		Tetrastrum		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	390	6	
		Melosira	1,400	23	
		Pennales			
		Nitzschiaceae			
		Nitzschia	440	7	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,900	31	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonidales			
		Cryptomonadaceae			
		Cryptomonas	220	4	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	170	3	
		Phacus		0	
		TOTAL	6,200		
Dec. 29	1600	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus		0	
		Dictyosphaerium	1,100	13	
		Volvocales			
		Volvocaceae			
		Pandorina		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	1,000	12	
		Melosira	5,800	68	
		Pennales			
		Naviculaceae			
		Gyrosigma		0	
		Navicula	140	2	
		Nitzschiaceae			
		Nitzschia		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Phacus	140	2	
		Trachelomonas	140	2	
		PYRRHOPHYTA			
		Dinophyceae			
		Peridinales			
		Glenodiniaceae			
		Glenodinium	140	2	
		TOTAL	8,500		

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of data</u>	<u>Sampling method</u>
Jan. 21	0900	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Dictyosphaerium		0	
		Oocystis		0	
		Scenedesmaceae			
		Scenedesmus	2,400	11	
		Tetrastrum	1,900	9	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	8,500	41	
		Melosira	8,000	39	
		Pennales			
		Surirellaceae			
		Surirella		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas		0	
		TOTAL	21,000		
Mar. 24	0930	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	1,500	35	
		Melosira	2,700	63	
		Pennales			
		Fragilariaceae			
		Synedra	100	2	
		Naviculaceae			
		Gyrosigma		0	
		Nitzschaceae			
		Nitzschia		0	
		Surirellaceae			
		Cymatopleura		0	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Aphanizomenon		0	
		TOTAL	4,400		
Apr. 27	1645	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	100	5	
		Occystaceae			
		Ankistrodesmus	50	3	
		Selenastrum	150	8	
		Scenedesmaceae			
		Crucigenia		0	
		Scenedesmus	100	5	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	450	23	
		Melosira	660	33	
		Pennales			
		Fragilariaceae			
		Synedra	100	5	
		Naviculaceae			
		Diploneis	50	3	
		Navicula	150	8	
		Nitzschaceae			
		Nitzschia	150	8	
		TOTAL	2,000		

ARKANSAS RIVER BASIN

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
June 28	1500	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Characiaceae			
		Schroederia	110	1	
		Coelastraceae			
		Coelastrum	340	4	
		Hydrodictyaceae			
		Pediastrum	110	1	
		Occystaceae			
		Ankistrodesmus	170	2	
		Treubaria	56	1	
		Scenedesmaceae			
		Scenedesmus	1,200	14	
		Tetrastrum	1,200	15	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	170	2	
		Volvocaceae			
		Pandorina	450	5	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	2,400	28	
		Melosira	1,200	14	
		Pennales			
		Fragilariaceae			
		Fragilaria	110	1	
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Diploneis	56	1	
		Navicula	110	1	
		Nitzschiaceae			
		Nitzschia	450	5	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	230	3	
		TOTAL	8,300		
July 27	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	44	6	
		Volvocales			
		Phacotaceae			
		Pteromonas	15	2	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	130	18	
		Melosira	290	40	
		Pennales			
		Naviculaceae			
		Gyrosigma	15	2	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	230	32	
		TOTAL	730		
Aug. 25	1100	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	260	6	
		Occystaceae			
		Ankistrodesmus	40	1	
		Tetraedron		0	

07178620 NEWT GRAHAM LOCK AND DAM (VERDIGRIS RIVER) NEAR INOLA, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

Date	Time	Organism	Count (cells/ml)	Percent of total	Sediment sampler
Aug. 25	1100	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	79	2	
		Melosira	470	11	
		Pennales			
		Naviculaceae			
		Navicula		0	
		Nitzschiaceae			
		Nitzschia	140	3	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya	450	10	
		Oscillatoria	2,900	66	
		TOTAL	4,400		
Sept. 29	0950	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Oocystaceae			
		Oocystis	95	4	
		Scenedesmaceae			
		Scenedesmus	63	3	
		Tetrastrum	130	6	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	220	10	
		Melosira	630	29	
		Pennales			
		Naviculaceae			
		Navicula	32	1	
		Nitzschiaceae			
		Nitzschia	32	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	950	44	
		TOTAL	2,100		

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	519	561	580	570	562	667	423	625	252	431	229	258
2	530	574	553	565	568	666	427	387	318	454	228	256
3	530	578	515	555	573	669	439	357	396	358	229	262
4	529	591	509	558	574	688	427	371	405	548	231	263
5	522	588	588	560	580	667	429	384	412	294	234	263
6	506	591	444	571	585	700	433	385	414	284	263	264
7	505	599	440	601	590	681	437	390	414	301	233	264
8	495	611	453	608	596	670	429	393	414	337	257	266
9	497	614	463	615	599	574	430	397	417	320	287	267
10	489	613	482	605	602	650	436	401	417	322	243	270
11	478	618	486	607	614	633	436	402	428	307	242	270
12	461	623	494	606	619	667	430	403	449	297	213	272
13	462	622	496	607	620	739	434	401	438	259	245	274
14	488	615	507	605	635	613	424	411	452	442	246	275
15	473	621	516	603	629	598	422	413	433	425	241	274
16	451	619	520	592	630	604	436	409	429	213	246	275
17	488	620	498	597	644	598	435	411	436	266	247	276
18	444	644	488	598	646	588	434	415	428	260	251	282
19	459	626	487	587	649	560	493	415	424	254	251	289
20	471	602	456	576	650	601	515	418	427	237	253	292
21	476	590	454	577	645	512	315	419	417	266	257	299
22	486	589	456	576	654	533	263	422	450	236	256	305
23	487	590	463	574	672	418	248	423	453	240	256	307
24	480	588	468	573	669	410	269	422	447	240	257	315
25	519	587	475	567	679	403	285	425	448	239	256	314
26	529	575	492	563	683	415	297	429	441	232	261	317
27	533	585	552	566	688	424	308	421	439	227	258	323
28	534	585	576	564	687	421	350	440	438	228	260	323
29	540	586	581	564	675	427	426	418	427	249	259	326
30	544	590	601	559	---	414	424	392	441	258	262	327
31	554	---	584	561	---	419	---	250	---	227	263	---

ARKANSAS RIVER BASIN

07178620 NEWT GRAHAM LOCK & DAM NEAR INOLA, OK--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	18.0	9.0	6.0	5.5	12.0	14.0	15.0	19.5	25.5	27.0	26.0
2	19.5	18.0	8.5	5.5	5.5	13.0	14.0	15.5	21.0	26.0	27.0	26.0
3	19.5	18.5	8.5	5.0	5.5	13.0	14.5	16.0	21.0	25.0	20.0	21.5
4	19.0	18.5	9.0	4.5	5.5	13.0	15.5	16.0	21.0	25.0	27.0	25.0
5	19.0	18.5	9.5	4.0	5.0	12.5	15.0	16.5	21.0	22.0	27.0	25.0
6	19.0	18.5	9.5	4.0	4.5	12.5	15.0	16.5	21.5	25.0	24.5	25.0
7	19.0	19.0	9.0	3.0	4.0	12.5	15.5	16.0	21.5	22.5	25.5	25.0
8	20.0	19.0	9.0	1.5	4.0	12.0	16.0	16.0	21.5	24.5	26.0	25.0
9	20.0	19.5	8.5	2.0	4.5	11.5	16.0	16.5	21.5	24.5	26.5	25.0
10	20.0	18.5	8.5	2.5	5.5	11.0	16.5	17.5	22.0	24.0	24.5	24.0
11	20.0	18.0	9.0	3.0	6.0	11.0	17.5	18.0	22.0	24.0	24.5	23.5
12	20.5	17.0	9.0	3.0	6.5	11.0	17.5	18.0	22.0	24.0	26.5	23.5
13	21.0	15.5	9.5	3.5	8.5	10.0	17.5	17.5	22.5	24.0	24.5	23.5
14	21.0	15.0	10.5	3.5	8.5	10.5	18.0	17.0	22.5	24.0	27.0	23.5
15	21.0	14.5	9.5	4.0	9.0	10.5	18.5	17.5	22.5	24.0	27.0	19.5
16	21.0	14.5	9.0	4.0	10.0	10.5	18.0	17.0	23.0	23.0	24.5	19.5
17	20.5	15.0	8.0	3.5	10.5	11.0	18.5	17.0	22.5	22.5	27.0	20.0
18	20.0	15.0	7.5	4.0	11.0	11.5	18.5	17.5	22.5	25.0	24.0	20.0
19	19.5	15.0	7.0	4.0	10.5	13.5	19.0	18.5	23.0	23.0	24.0	25.0
20	19.5	14.0	6.5	4.0	11.0	13.0	18.0	19.0	23.0	25.0	23.5	25.0
21	19.5	12.5	6.5	4.0	10.0	13.0	17.0	19.0	23.5	23.5	23.5	22.0
22	19.5	12.0	6.5	4.5	10.0	12.0	17.0	19.5	23.0	25.0	26.5	22.0
23	19.5	11.5	6.5	5.0	10.0	13.0	18.0	20.0	22.5	25.0	26.0	19.0
24	19.5	10.5	6.5	5.5	10.0	13.0	18.0	20.5	22.5	26.0	26.0	21.0
25	18.5	10.0	6.5	5.0	10.0	13.5	18.0	20.0	23.0	26.0	26.5	18.0
26	18.0	9.0	6.0	4.5	10.5	13.5	17.5	19.5	23.0	26.0	26.0	18.0
27	17.5	8.0	6.0	4.5	11.0	13.5	17.5	19.0	23.5	26.0	26.0	22.0
28	18.0	8.0	6.0	4.5	11.5	13.5	17.5	17.0	23.0	26.5	26.5	22.0
29	18.5	9.0	6.0	5.0	11.5	14.0	17.5	18.5	25.0	23.5	26.0	21.0
30	19.0	9.5	6.0	5.0	---	14.0	16.0	19.0	25.0	26.0	25.5	21.0
31	18.0	---	5.5	5.5	---	14.0	---	19.0	---	27.0	25.5	---
MONTH	19.5	14.5	8.0	4.0	8.0	12.5	17.0	17.5	22.5	24.5	25.5	22.5
YEAR	MAX	27.0	MIN	1.5	MEAN	16.5						

DISSOLVED SULFATE (SO4), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	43	45	43	43	67	46	56	25	47	23	25
2	45	43	44	43	43	67	46	40	29	50	23	25
3	45	44	46	44	43	68	46	35	41	35	23	25
4	45	48	47	44	43	73	46	37	43	44	23	25
5	46	47	47	43	45	67	47	40	44	28	23	25
6	47	48	49	43	46	76	47	40	44	27	25	26
7	47	50	48	50	47	71	48	40	44	28	23	26
8	48	53	50	52	49	68	47	41	44	32	25	26
9	47	54	50	54	50	43	47	42	45	30	27	26
10	48	53	48	51	51	63	48	42	45	30	24	26
11	49	55	48	52	54	59	48	42	46	29	24	26
12	50	56	48	52	55	67	47	43	50	28	22	26
13	50	56	47	52	55	86	47	42	48	25	24	26
14	48	54	47	51	59	53	46	44	50	49	24	26
15	49	55	46	51	58	49	45	44	47	46	24	26
16	50	55	46	48	58	51	48	43	47	22	24	26
17	48	55	47	49	61	49	48	44	48	26	24	26
18	49	61	48	49	62	47	47	44	46	25	25	27
19	50	57	48	47	63	43	48	44	46	25	25	27
20	49	51	50	44	63	50	46	45	46	24	25	28
21	49	47	50	44	62	46	29	45	45	26	25	28
22	48	47	50	44	64	45	25	45	50	24	25	28
23	48	47	50	43	69	45	24	46	50	24	25	29
24	48	47	49	43	68	44	26	45	49	24	25	29
25	46	47	49	43	71	43	27	46	50	24	25	29
26	45	43	48	43	72	44	28	47	48	23	25	29
27	45	46	44	43	73	46	29	45	48	23	25	30
28	45	46	44	43	73	45	34	48	48	23	25	30
29	45	46	45	43	69	46	46	45	46	24	25	30
30	44	47	50	44	---	44	46	41	48	25	25	31
31	44	---	46	43	---	45	---	25	---	23	25	---
MONTH	47	50	48	46	58	55	42	43	45	29	24	27
YEAR	MAX	86	MIN	22	MEAN	43						

07178620 NEWT GRAHAM LOCK & DAM NEAR INOLA, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	71	76	74	72	91	28	84	14	29	12	14
2	61	74	69	73	73	91	29	25	19	37	11	14
3	61	75	57	69	74	91	32	23	26	23	12	14
4	61	77	55	70	74	95	29	24	27	67	12	14
5	59	77	77	71	76	91	29	25	27	17	12	14
6	54	77	34	74	76	97	30	25	28	16	14	15
7	53	79	32	79	77	94	31	26	28	18	12	15
8	50	81	36	81	76	92	29	26	28	21	14	15
9	51	82	40	82	79	74	29	26	28	19	17	15
10	48	81	46	80	79	88	31	26	28	20	13	15
11	45	82	47	80	82	85	31	27	29	18	13	15
12	39	83	50	80	83	91	29	27	35	17	10	15
13	39	83	50	80	83	100	30	26	32	14	13	15
14	48	82	54	80	85	81	28	27	36	33	13	16
15	43	83	57	80	84	79	28	28	30	29	13	15
16	36	83	58	78	84	80	31	27	29	10	13	16
17	48	83	51	79	87	79	31	27	31	15	13	16
18	34	87	48	79	87	77	30	28	29	14	13	16
19	38	84	47	77	88	71	49	28	28	14	13	17
20	42	79	37	75	88	79	57	28	29	12	14	17
21	44	77	37	75	87	56	19	28	28	15	14	18
22	47	77	37	75	89	62	14	28	35	12	14	18
23	47	77	40	74	92	28	13	28	36	12	14	18
24	45	77	41	74	91	27	15	28	35	12	14	19
25	58	77	44	73	93	27	16	29	35	12	14	19
26	61	75	49	72	94	28	17	29	33	12	14	19
27	62	76	68	73	95	28	18	28	32	11	14	20
28	63	76	75	72	95	28	22	32	32	11	14	20
29	65	77	76	72	93	29	29	28	29	13	14	20
30	66	77	79	71	---	28	28	26	33	14	14	20
31	69	---	76	71	---	28	---	13	---	11	14	---
MONTH	51	79	53	76	84	68	28	28	30	19	13	16
YEAR	MAX	100	MIN	10	MEAN	45						

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297	322	333	327	323	386	239	361	154	244	138	159
2	303	330	317	324	326	385	241	223	201	258	137	157
3	303	332	294	318	329	387	248	219	224	219	138	161
4	303	340	291	320	330	399	241	221	228	314	139	162
5	299	338	338	321	333	386	242	223	232	184	141	162
6	289	340	252	328	336	406	245	223	233	177	162	163
7	288	345	249	346	339	394	247	224	233	189	141	163
8	282	352	257	350	343	388	242	224	233	215	158	164
9	283	354	263	355	345	330	243	225	235	203	179	165
10	279	353	274	349	347	376	247	226	235	204	148	167
11	272	356	277	350	354	365	247	226	242	193	147	167
12	262	359	282	349	357	386	243	227	255	186	126	169
13	262	359	283	350	358	429	245	226	248	159	149	170
14	278	355	289	349	367	353	239	232	256	250	150	171
15	269	358	295	347	363	344	238	233	245	240	146	170
16	256	357	297	341	364	348	247	230	242	126	150	171
17	278	358	284	344	372	344	246	232	247	164	151	171
18	252	372	278	344	373	338	245	234	242	160	154	176
19	261	361	277	338	375	321	281	234	239	156	154	181
20	268	347	259	331	376	346	294	236	241	144	155	183
21	271	339	258	332	373	292	199	236	235	164	158	188
22	277	339	259	331	378	305	162	238	255	143	157	192
23	277	339	263	330	389	236	151	239	257	146	157	193
24	273	338	266	329	387	231	166	238	253	146	158	199
25	297	338	270	326	393	227	178	240	254	145	157	198
26	303	330	280	323	396	234	186	242	250	140	161	201
27	305	336	317	325	399	239	194	238	248	136	159	205
28	306	336	331	324	398	238	218	249	248	137	160	205
29	309	337	334	324	391	241	241	236	241	152	159	207
30	312	339	346	321	---	233	239	224	250	159	161	208
31	318	---	336	322	---	236	---	153	---	136	162	---
MONTH	285	345	289	334	363	327	230	233	239	180	152	178
YEAR	MAX	429	MIN	126	MEAN	262						

ARKANSAS RIVER BASIN

07185000 NEOSHO RIVER NEAR COMMERCE, OK

LOCATION.--Lat 36°55'43", long 94°57'26", in SW 1/4 SE 1/4 sec.5, T.28 N., R.22 E., Ottawa County, on downstream side of left pier of county road bridge, 1.3 mi (2.1 km) upstream from Mud Creek, 2.2 mi (3.5 km) downstream from Four Mile Creek, 4.5 mi (7.2 km) west of Commerce, and at mile 153.4 (246.8 km).

DRAINAGE AREA.--5,376 mi² (15,219 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft (228.286 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Records good. Flow regulated to some extent since 1963 by John Redmond Reservoir in Kansas, 190 mi (306 km) upstream.

AVERAGE DISCHARGE.--37 years, 3,574 ft³/s (101.2 m³/s), 2,589,000 acre-ft/yr (3.19 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 267,000 ft³/s (7,560 m³/s) July 15, 1951, computed by flood-routing methods from hydrograph defined at Miami, mile 144.2 (232.0 km), by several discharge measurements, gage-height record, and by comparison with computed inflow into Lake O' The Cherokees; maximum gage height, 34.03 ft (10.327 m) July 16, 1951, from floodmark; no flow at times in 1953-54, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 58,400 ft³/s (1,650 m³/s) at 1730 July 4, gage height, 21.72 ft (6.620 m), no other peak above base of 20,000 ft³/s (566 m³/s); minimum, 39 ft³/s (1.10 m³/s) Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	184	615	666	333	106	200	5870	2410	12200	266	78
2	270	180	410	604	235	101	172	6370	2000	12700	264	74
3	229	186	359	551	181	109	178	8870	2210	32300	325	69
4	238	187	347	514	160	242	175	9420	4930	51200	221	64
5	246	186	304	443	261	2570	160	9380	5450	52100	161	69
6	223	187	350	295	292	4620	149	9210	5120	42100	152	76
7	202	182	512	279	285	3800	132	8780	4110	19700	162	71
8	186	185	757	250	233	1900	125	8150	3810	3480	186	63
9	182	178	2090	220	181	1630	127	6970	3390	1490	206	61
10	178	177	2090	200	151	2800	122	4910	2090	2090	277	52
11	157	173	2050	179	142	1760	111	4390	1690	4480	233	41
12	165	169	1980	153	130	1240	111	4210	1620	4520	186	40
13	165	163	1920	226	127	1260	116	4070	1300	4210	170	44
14	159	149	1880	241	127	1560	117	3710	1010	3780	169	47
15	3520	157	1700	227	129	1090	114	3450	1000	3380	158	48
16	3520	163	4490	213	126	752	104	2600	1000	3200	327	53
17	1230	164	2850	204	121	596	107	2150	900	3000	586	55
18	622	166	1870	198	116	483	144	2080	739	3020	443	48
19	403	173	1340	192	113	433	165	2020	606	3020	352	44
20	304	184	801	186	111	407	894	1870	568	2840	257	49
21	251	169	622	182	119	347	1650	1740	513	2610	202	53
22	225	174	571	180	117	301	2230	1360	369	1860	160	49
23	212	156	555	178	112	263	1490	995	431	1070	139	52
24	219	150	519	200	115	232	859	1050	3220	566	115	54
25	272	141	419	495	137	201	694	1720	12300	374	100	55
26	282	138	312	804	144	187	692	2700	10200	307	90	69
27	254	134	261	810	131	192	682	6190	3390	281	85	77
28	243	130	244	801	118	175	1240	4020	1630	268	80	77
29	221	135	417	777	109	199	5790	2500	1220	288	78	80
30	194	244	642	710	---	216	9000	1810	6050	559	78	79
31	176	---	708	525	---	221	---	2130	---	330	77	---
TOTAL	15100	5064	33985	11703	4656	29993	27850	134695	85276	273323	6305	1791
MEAN	487	169	1096	378	161	968	928	4345	2843	8817	203	59.7
MAX	3520	244	4490	810	333	4620	9000	9420	12300	52100	586	80
MIN	157	130	244	153	109	101	104	995	369	268	77	40
AC-FT	29950	10040	67410	23210	9240	59490	55240	267200	169100	542100	12510	3550
CAL YR 1975	TOTAL	1404045	MEAN	3847	MAX	28900	MIN	130	AC-FT	2785000		
WTR YR 1976	TOTAL	629741	MEAN	1721	MAX	52100	MIN	40	AC-FT	1249000		

ARKANSAS RIVER BASIN

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07185000 NEOSHO RIVER NEAR COMMERCE, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-54, 1960-73, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1947 to September 1954.

WATER TEMPERATURE: November 1947 to September 1954.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
11...	1028	9740	1330	173	560	8.1	17.5	15	9.0	98	--	--
DEC												
16...	1028	9740	1545	4490	610	8.5	7.0	--	11.8	102	--	--
JAN												
20...	1028	9740	1000	186	540	8.4	2.0	5	13.8	99	16	283
FEB												
19...	1028	9740	0930	113	540	8.2	12.0	7	8.2	79	25	290
MAR												
16...	1028	9740	1000	752	480	8.0	9.5	45	8.9	81	9	210
APR												
13...	1028	9740	1000	116	620	8.2	19.0	25	6.9	78	19	270
MAY												
17...	1028	9740	1030	2150	340	8.1	17.5	59	9.2	99	39	169
JUN												
15...	1028	9740	1025	1000	450	8.6	26.0	43	7.6	96	19	224
JUL												
20...	1028	9740	0810	2840	500	8.1	27.0	35	7.2	91	9	230
AUG												
17...	1028	9740	0925	586	480	7.8	29.5	18	7.0	95	14	214
SEP												
14...	1028	9740	0830	47	550	7.5	22.0	12	7.1	84	13	321

ARKANSAS RIVER BASIN

07185000 NEOSHO RIVER NEAR COMMERCE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO ₃ (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
11...	87	--	22	29	4.0	--	.2	--	1.4	--	<1
DEC											
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	86	208	21	24	4.0	42	.3	314	1.0	.03	--
FEB											
19...	107	195	25	16	4.2	39	.3	445	.70	<.10	1
MAR											
16...	45	130	13	15	4.2	28	.2	305	2.9	.28	--
APR											
13...	81	200	190	28	4.1	76	.3	450	1.0	.44	--
MAY											
17...	51	129	11	16	3.6	19	.2	--	1.2	.22	4
JUN											
15...	67	175	13	10	4.0	25	.3	293	--	.16	--
JUL											
20...	59	140	73	10	4.3	15	.2	278	1.7	.11	--
AUG											
17...	69	182	18	19	4.8	24	.2	347	1.6	<.08	5
SEP											
14...	70	298	18	19	4.2	95	.6	360	1.7	.11	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
11...	>0	4	10	700	10	95	--	10	--	>0	10
DEC											
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
20...	--	--	--	400	--	120	--	--	--	--	--
FEB											
19...	1	3	4	600	15	210	--	8	--	1	20
MAR											
16...	--	--	--	2000	--	210	--	--	--	--	--
APR											
13...	--	--	--	700	--	160	--	--	--	--	--
MAY											
17...	2	17	6	1900	15	217	.8	9	<2	4	23
JUN											
15...	--	--	--	700	--	218	--	--	--	--	--
JUL											
20...	--	--	--	1500	--	230	--	--	--	--	--
AUG											
17...	<1	24	5	400	13	178	<.5	5	<3	<1	11
SEP											
14...	--	--	--	400	--	154	--	--	--	--	--

07188000 SPRING RIVER NEAR QUAPAW, OK

LOCATION.--Lat 36°56'04", long 94°44'45", in NE 1/4 SW 1/4 sec.5, T.28 N., R.24 E., Ottawa County, near center of span on downstream side of pier of county road bridge, 0.1 mi (0.2 km) upstream from Rock Creek, 3.0 mi (48 km) southeast of Quapaw, and at mile 13.9 (22.4 km). Records include flow of Rock Creek.

DRAINAGE AREA.--2,510 mi² (6,501 km²), includes that of Rock Creek.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 746.25 ft (227.457 m) above mean sea level. Nonrecording gage on right bank at same datum used May 20 to Nov. 16, 1943.

REMARKS.--Records good. Low and medium flow regulated by Riverton Hydroelectric plant, 15 mi (24 km) above station.

AVERAGE DISCHARGE.--37 years, 1,968 ft³/s (55.73 m), 10.65 in/yr (271 mm/yr), 1,426,000 acre-ft/yr (1.76 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 190,000 ft³/s (5,380 m³/s) May 19, 1943, gage height, 43.4 ft (13.23 m), from floodmark, from rating curve extended above 54,000 ft³/s (1,530 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 5.8 ft³/s (0.16 m³/s) July 8, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 18,000 ft³/s (510 m³/s) and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	(m ³ /s)	GAGE HEIGHT (ft)	(m)	DATE	TIME	DISCHARGE (ft ³ /s)	(m ³ /s)	GAGE HEIGHT (ft)	(m)
Apr. 21	1300	18,700	530	15.81	4.819	July 4	1000	*104,000	2,950	32.94	10.040
June 25	0215	22,900	649	17.60	5.364						

Minimum discharge, 306 ft³/s (8.67 m³/s) Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	393	1180	1980	484	464	1280	3440	1970	2020	1090	470
2	1160	387	1640	1460	464	453	1130	2910	1820	4170	1030	484
3	888	379	1260	1230	460	458	1020	2330	1650	56600	946	470
4	768	373	961	1090	454	1030	948	2040	1470	99100	889	460
5	684	367	964	974	449	2790	890	1950	1360	65200	847	444
6	624	361	1430	888	470	2900	842	1820	1280	31600	960	455
7	578	358	1530	832	463	2040	811	1720	1200	9600	950	435
8	548	352	1760	822	455	1510	784	1610	1140	4690	899	404
9	504	356	1390	761	455	2620	750	1490	1080	3790	847	384
10	467	354	1180	737	460	4330	728	1440	1020	3290	787	365
11	450	352	1050	727	468	3660	707	1400	867	2980	753	359
12	436	337	968	696	480	2470	640	1400	665	2700	727	356
13	422	335	900	675	503	2040	458	1560	827	2480	763	353
14	406	337	846	657	483	1840	492	1580	794	2300	741	507
15	614	335	1100	639	458	1630	560	1490	766	2160	742	655
16	1230	333	1210	606	442	1300	569	1480	752	2020	859	505
17	794	333	1360	588	432	1250	610	1380	724	1740	956	437
18	681	326	1350	578	415	1230	898	1280	736	1780	852	410
19	569	343	1150	575	402	1180	2130	1180	706	1590	740	396
20	495	333	1010	602	405	1100	9590	1120	670	1530	691	382
21	453	325	927	592	461	1030	17300	1070	637	1470	660	370
22	425	333	869	574	507	960	11600	913	574	1390	625	362
23	412	337	822	563	533	888	6290	1070	5260	1330	599	357
24	402	330	797	558	609	845	4430	1950	21000	1270	564	353
25	422	331	789	547	570	828	4210	2400	16100	1220	564	344
26	467	328	799	544	541	801	3460	3550	4020	1150	548	346
27	500	325	797	535	510	827	3130	6250	3060	1090	521	339
28	467	331	787	518	489	886	4230	4520	2390	1040	502	334
29	454	353	1070	517	474	1000	7050	2970	2080	1010	490	334
30	443	662	2310	512	---	1160	4750	2510	1890	1060	465	334
31	418	---	2640	506	---	1300	---	2230	---	1050	447	---
TOTAL	18671	10699	36846	23083	13796	46820	92287	64053	78508	314420	23054	12204
MEAN	602	357	1189	745	476	1510	3076	2066	2617	10140	744	407
MAX	1490	662	2640	1980	609	4330	17300	6250	21000	99100	1090	655
MIN	402	325	787	506	402	453	458	913	574	1010	447	334
CFSM	.24	.14	.47	.30	.19	.60	1.23	.82	1.04	4.04	.30	.16
IN.	.28	.16	.55	.34	.20	.69	1.37	.95	1.16	4.66	.34	.18
AC-FT	37030	21220	73080	45790	27360	92670	183100	127000	155700	623700	45730	24210

CAL YR 1975	TOTAL	895987	MEAN	2455	MAX	27700	MIN	325	CFSM	.98	IN	13.28	AC-FT	1777000
WTR YR 1976	TOTAL	734441	MEAN	2007	MAX	99100	MIN	325	CFSM	.80	IN	10.88	AC-FT	1457000

ARKANSAS RIVER BASIN

07188000 SPRING RIVER NEAR QUAPAW, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-58, 1960-63, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1947 to September 1949.

WATER TEMPERATURE: October 1947 to September 1949.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
11...	1028	9740	1500	352	340	8.1	17.0	6	9.7	104	--	--
DEC												
16...	1028	9740	1445	1210	360	7.3	9.0	20	10.8	97	--	175
JAN												
20...	1028	9740	0900	602	360	7.4	3.0	4	11.6	85	--	211
FEB												
19...	1028	9740	0845	402	460	7.9	11.0	3	8.2	77	12	190
MAR												
16...	1028	9740	0900	1300	360	7.8	9.0	25	8.8	80	9	190
APR												
13...	1028	9740	0915	458	380	8.1	18.0	5	9.6	108	8	160
MAY												
17...	1028	9740	0945	1380	310	7.9	16.5	5	8.5	89	27	167
JUN												
15...	1028	9740	1110	766	350	8.0	25.0	12	7.4	92	--	181
JUL												
20...	1028	9740	0900	1530	340	7.7	26.0	2	6.7	82	3	177
AUG												
17...	1028	9740	1000	956	360	7.9	29.0	5	6.6	87	4	162
SEP												
14...	1028	9740	0905	507	320	7.8	23.0	4	6.7	82	5	--

ARKANSAS RIVER BASIN

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07188000 SPRING RIVER NEAR QUAPAW, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO ₃ (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
11...	80	--	6.5	11	2.1	--	.2	--	2.0	--	<1
DEC											
16...	61	164	5.0	8.0	2.8	33	.2	211	5.1	.42	--
JAN											
20...	73	192	7.0	11	2.3	13	<.1	223	3.7	.40	--
FEB											
19...	91	170	8.8	11	2.4	22	.3	262	.70	.40	<1
MAR											
16...	--	160	1.8	3.0	2.4	15	.2	244	1.5	.23	--
APR											
13...	70	150	5.2	12	1.8	34	.2	252	.60	.30	--
MAY											
17...	58	139	6.0	9.0	1.6	19	.2	241	1.4	.22	<1
JUN											
15...	58	146	4.2	7.0	1.6	24	.2	215	--	.19	--
JUL											
20...	56	144	4.8	6.0	1.6	9.0	.1	219	1.6	.17	--
AUG											
17...	60	160	4.5	9.0	2.4	22	.3	243	1.9	.16	<1
SEP											
14...	61	--	4.4	4.0	1.8	--	.5	223	2.0	.21	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (MG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
11...	>0	4	10	200	20	98	--	10	--	>0	350
DEC											
16...	--	--	--	300	--	130	--	--	--	--	--
JAN											
20...	--	--	--	200	--	120	--	--	--	--	--
FEB											
19...	>0	4	10	200	20	110	--	10	--	>0	640
MAR											
16...	--	--	--	400	--	250	--	--	--	--	--
APR											
13...	--	--	--	200	--	160	--	--	--	--	--
MAY											
17...	3	4	3	300	20	200	<.5	10	<2	4	460
JUN											
15...	--	--	--	200	--	182	--	--	--	--	--
JUL											
20...	--	--	--	100	--	62	--	--	--	--	--
AUG											
17...	2	8	3	100	20	76	<.5	7	<3	<1	310
SEP											
14...	--	--	--	100	--	69	--	--	--	--	--

ARKANSAS RIVER BASIN

07189000 ELK RIVER NEAR TIFF CITY, MO

LOCATION.--Lat 36°37'50", long 94°35'12", in NE 1/4 sec.22, T.22 N., R.34 W., McDonald County, on downstream side of right pier of bridge on State Highway 43, 0.8 mi (1.3 km) downstream from Blackfoot Branch, 2.8 mi (4.5 km) upstream from Buffalo Creek, 3.0 mi (4.8 km) southeast of Tiff City, and at mile 15.8 (25.4 km).

DRAINAGE AREA.--872 mi² (2,258 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 927: 1940. WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 750.61 ft (228.786 m) above mean sea level (levels by Corps of Engineers). Sept. 6, 1960 to Aug. 24, 1961, at site 100 ft (30.5 m) downstream.

REMARKS.--Records good.

AVERAGE DISCHARGE.--37 years, 812 ft³/s (23.00 m³/s), 12.64 in/yr (321 mm/yr), 588,300 acre-ft/yr (725 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 137,000 ft³/s (3,880 m³/s) Apr. 19, 1941, gage height, 28.4 ft (8.66 m), from floodmark, from rating curve extended above 60,000 ft³/s (1,700 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 5.1 ft³/s (0.14 m³/s), Sept. 5, 6, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,000 ft³/s (255 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 21	0415	23,900 677	17.47 5.325	July 4	1400	*25,100 711	18.91 5.764
June 24	0830	22,700 643	18.08 5.511				

Minimum discharge, 131 ft³/s (3.71 m³/s) Sept. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	211	2010	715	209	195	1070	1350	1420	1140	661	181
2	258	205	1430	1090	204	196	964	1230	1220	3030	591	183
3	243	204	1100	715	200	209	858	1110	1070	15600	526	182
4	224	217	892	649	197	231	771	1020	943	23000	474	179
5	209	211	939	617	198	259	702	927	851	9480	439	173
6	200	202	4520	599	197	293	645	899	787	4130	446	166
7	192	193	4160	587	191	337	594	855	726	2800	439	158
8	183	190	2450	557	187	367	548	772	675	2180	409	152
9	180	186	1850	528	187	693	505	711	633	1830	379	145
10	177	187	1510	511	184	1250	463	667	595	1600	353	140
11	173	180	1270	489	184	1310	433	671	561	1400	332	137
12	167	174	1100	443	181	1180	409	663	531	1240	312	135
13	164	170	954	390	181	1040	385	919	505	1110	321	131
14	158	166	845	370	176	924	369	1270	472	991	374	320
15	162	160	785	349	178	828	352	1240	442	898	434	304
16	163	159	762	329	175	759	339	1130	417	820	456	232
17	156	158	723	317	175	698	344	1010	386	749	433	217
18	153	157	691	304	180	644	1240	886	381	688	388	233
19	150	162	636	298	188	599	3950	794	366	630	343	328
20	147	192	623	298	176	558	16200	711	337	587	314	305
21	145	216	605	285	194	518	17400	645	309	540	294	292
22	148	218	587	268	200	477	6560	596	290	500	278	255
23	146	209	557	255	204	445	3820	773	1380	460	263	225
24	179	203	540	252	250	422	2850	998	14800	427	256	204
25	234	201	528	256	234	408	2540	868	3930	401	246	187
26	241	203	517	248	231	391	2180	1010	2490	377	233	181
27	240	203	511	238	228	380	1890	2580	1960	345	221	175
28	236	201	511	228	220	362	1710	3220	1710	325	211	169
29	224	251	528	224	204	487	1600	2660	1500	416	202	175
30	221	1520	599	219	---	989	1460	2020	1300	991	189	175
31	220	---	701	215	---	1180	---	1660	---	844	183	---
TOTAL	5936	7109	35434	12843	5715	18629	73151	35865	42987	79529	11000	6039
MEAN	191	237	1143	414	197	601	2438	1157	1433	2565	355	201
MAX	258	1520	4520	1090	250	1310	17400	3220	14800	23000	661	328
MIN	145	157	511	215	175	195	339	596	290	325	183	131
CFSM	.22	.27	1.31	.47	.23	.69	2.80	1.33	1.64	2.94	.41	.23
IN.	.25	.30	1.51	.55	.24	.79	3.12	1.53	1.83	3.39	.47	.26
AC-FT	11770	14100	70280	25470	11340	36950	145100	71140	85260	157700	21820	11980

CAL YR 1975	TOTAL	349186	MEAN 957	MAX 8610	MIN 128	CFSM 1.10	IN 14.90	AC-FT 692600
WTR YR 1976	TOTAL	334237	MEAN 913	MAX 23000	MIN 131	CFSM 1.05	IN 14.26	AC-FT 663000

ARKANSAS RIVER BASIN

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07189000 ELK RIVER NEAR TIFF CITY, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-49, 1951-58, 1960-61, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1947 to September 1949.

WATER TEMPERATURE: October 1947 to September 1949.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV												
11...	1028	9740	1630	180	270	7.6	16.5	1	11.6	123	--	--
DEC												
16...	1028	9740	1320	762	280	6.6	9.0	4	11.4	104	4	145
JAN												
19...	1028	9740	1330	298	280	7.7	6.0	0	12.2	98	<4	152
FEB												
18...	1028	9740	1245	180	260	6.9	13.0	1	11.8	118	12	130
MAR												
15...	1028	9740	1400	828	260	8.2	12.0	1	10.7	105	5	130
APR												
14...	1028	9740	1330	369	260	8.3	19.0	2	10.5	117	4	120
MAY												
18...	1028	9740	1330	886	270	8.1	18.0	0	9.5	103	12	119
JUN												
14...	1028	9740	1345	472	250	8.0	26.0	2	8.4	108	4	136
JUL												
20...	1028	9740	1010	587	270	6.8	24.0	0	7.4	90	<1	140
AUG												
17...	1028	9740	1110	433	260	8.0	27.0	1	8.1	102	<3	126
SEP												
14...	1028	9740	1020	320	230	7.5	22.0	13	6.4	76	8	--

ARKANSAS RIVER BASIN

07189000 ELK RIVER NEAR TIFF CITY, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
11...	62	--	3.6	4.0	1.3	--	.1	--	1.7	--	<1
DEC											
16...	56	136	3.0	3.0	1.4	9.0	<.1	168	3.7	.01	--
JAN											
19...	56	140	3.0	3.0	1.0	4.0	<.1	129	4.2	.07	--
FEB											
18...	70	175	2.4	2.0	1.2	11	.1	154	.40	1.0	<1
MAR											
15...	44	130	3.1	2.0	1.8	11	<.1	145	.30	<.08	--
APR											
14...	40	120	2.5	7.0	1.4	--	<.1	160	.30	<.08	--
MAY											
18...	48	113	2.5	3.0	1.3	19	<.1	156	.90	<.08	<1
JUN											
14...	47	121	2.3	3.0	1.4	22	.2	156	.60	<.08	--
JUL											
20...	45	129	2.4	1.0	1.2	11	<.1	163	1.3	.03	--
AUG											
17...	50	126	2.4	3.0	1.9	11	.1	167	1.1	<.08	<1
SEP											
14...	41	--	2.0	<2.0	2.2	--	.3	160	1.6	.16	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
11...	>0	2	>0	100	10	10	--	>0	--	>0	10
DEC											
16...	--	--	--	<100	--	6	--	--	--	--	--
JAN											
19...	--	--	--	<100	--	<5	--	--	--	--	--
FEB											
18...	>0	2	>0	<100	10	12	--	>0	--	>0	>0
MAR											
15...	--	--	--	<100	--	6	--	--	--	--	--
APR											
14...	--	--	--	<100	--	10	--	--	--	--	--
MAY											
18...	1	3	1	<100	6	<5	.5	5	<2	3	2
JUN											
14...	--	--	--	<100	--	10	--	--	--	--	--
JUL											
20...	--	--	--	<100	--	<1	--	--	--	--	--
AUG											
17...	<9	9	<3	<100	9	8	<.5	<3	<3	<1	3
SEP											
14...	--	--	--	100	--	23	--	--	--	--	--

07190000 LAKE O' THE CHEROKEES AT LANGLEY, OK

LOCATION.--Lat 36°28'17", long 95°02'19", in SW 1/4 sec.14, T.23 N., R.21 E., Mayes County, on upstream side of pier at intake structure near right end of Pensacola Dam on Neosho River at Langley, 9.9 mi (15.9 km) upstream from Big Cabin Creek, and at mile 77.0 (123.9 km).

DRAINAGE AREA.--10,298 mi² (26,672 km²).

PERIOD OF RECORD.--March 1940 to current year. Prior to October 1940, published as Grand Lake at Langley.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft (0.335 m) above mean sea level (Corps of Engineers bench mark). Prior to Nov. 14, 1941, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by multiple-arch concrete dam, with top of taintor-type spillway gates at gage height 755.0 ft (230.12 m). Storage began Mar. 21, 1940; power-pool was first filled Apr. 19, 1941. Capacity between gage heights 682.0 ft (207.87 m), sill of powerhouse penstock, and 745.0 ft (227.08 m), maximum power pool is 1,492,000 acre-ft (1,840 hm³). Capacity between gage heights 745.0 ft (227.08 m), and 755.0 ft (230.12 m) is 525,000 acre-ft (647 hm³) and is reserved for flood control. Dead storage below gage height 682.0 ft (207.87 m) is 180,200 acre-ft (222 hm³). Figures given herein represent total contents. Reservoir is utilized for power development and flood control.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,213,000 acre-ft (2,730 hm³), May 25, 1957, gage height, 755.27 ft (230.206 m), minimum since power-pool was first filled, 642,900 acre-ft (793 hm³) Sept. 28, 1954, gage height, 713.41 ft (217.447 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,051,000 acre-ft (2.53 km³) July 6, elevation, 752.48 ft (229.356 m); minimum, 1,241,000 acre-ft (1.53 km³) Feb. 6, elevation, 734.56 ft (223.894 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

734	1,221,000	745	1,672,000
737	1,332,000	749	1,866,000
741	1,494,000	753	2,080,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1360000	1258000	1258000	1415000	1273000	1276000	1324000	1600000	1642000	1672000	1549000	1435000
2	1349000	1258000	1266000	1399000	1266000	1274000	1329000	1599000	1641000	1735000	1552000	1430000
3	1337000	1256000	1270000	1379000	1261000	1278000	1334000	1600000	1645000	1887000	1553000	1422000
4	1338000	1257000	1275000	1359000	1257000	1280000	1338000	1600000	1652000	2000000	1554000	1418000
5	1339000	1258000	1285000	1339000	1247000	1286000	1340000	1601000	1655000	2050000	1551000	1420000
6	1328000	1257000	1299000	1318000	1241000	1302000	1336000	1607000	1656000	2037000	1545000	1416000
7	1316000	1257000	1314000	1297000	1242000	1310000	1335000	1605000	1654000	1992000	1548000	1410000
8	1304000	1259000	1322000	1276000	1244000	1306000	1332000	1603000	1651000	1929000	1548000	1401000
9	1292000	1262000	1331000	1254000	1244000	1313000	1332000	1598000	1648000	1884000	1542000	1400000
10	1282000	1261000	1338000	1248000	1249000	1321000	1330000	1589000	1649000	1853000	1534000	1399000
11	1282000	1258000	1345000	1250000	1250000	1322000	1330000	1578000	1649000	1826000	1524000	1399000
12	1282000	1256000	1349000	1252000	1247000	1320000	1327000	1589000	1652000	1801000	1513000	1399000
13	1282000	1254000	1355000	1252000	1247000	1314000	1329000	1594000	1654000	1778000	1506000	1389000
14	1280000	1253000	1366000	1254000	1246000	1319000	1329000	1601000	1652000	1754000	1508000	1391000
15	1283000	1254000	1366000	1256000	1250000	1312000	1329000	1604000	1654000	1727000	1512000	1382000
16	1299000	1255000	1375000	1259000	1252000	1302000	1333000	1604000	1651000	1712000	1503000	1372000
17	1303000	1256000	1371000	1250000	1253000	1291000	1337000	1595000	1645000	1699000	1494000	1364000
18	1305000	1257000	1368000	1249000	1254000	1283000	1348000	1583000	1650000	1685000	1486000	1355000
19	1307000	1252000	1366000	1247000	1257000	1279000	1382000	1576000	1651000	1670000	1483000	1356000
20	1306000	1255000	1373000	1247000	1261000	1283000	1469000	1574000	1654000	1655000	1481000	1352000
21	1305000	1257000	1377000	1250000	1262000	1288000	1548000	1579000	1656000	1639000	1481000	1353000
22	1299000	1256000	1382000	1252000	1263000	1290000	1582000	1585000	1650000	1623000	1479000	1349000
23	1295000	1257000	1385000	1254000	1263000	1293000	1590000	1594000	1668000	1607000	1474000	1341000
24	1296000	1255000	1390000	1257000	1262000	1299000	1598000	1601000	1710000	1599000	1463000	1332000
25	1295000	1250000	1394000	1260000	1267000	1301000	1600000	1611000	1718000	1598000	1452000	1321000
26	1296000	1247000	1398000	1263000	1269000	1304000	1597000	1630000	1712000	1590000	1443000	1323000
27	1294000	1249000	1401000	1262000	1271000	1306000	1587000	1660000	1700000	1581000	1430000	1313000
28	1289000	1249000	1406000	1267000	1273000	1309000	1584000	1665000	1686000	1575000	1432000	1306000
29	1282000	1253000	1409000	1269000	1275000	1312000	1591000	1663000	1677000	1572000	1433000	1294000
30	1273000	1261000	1416000	1268000	---	1318000	1601000	1657000	1666000	1563000	1433000	1293000
31	1263000	---	1416000	1270000	---	1320000	---	1650000	---	1560000	1434000	---
MAX	1360000	1262000	1416000	1415000	1275000	1322000	1601000	1665000	1718000	2050000	1554000	1435000
MIN	1263000	1247000	1258000	1247000	1241000	1274000	1324000	1574000	1641000	1560000	1430000	1293000
†	735.17	735.12	739.12	735.35	735.48	736.69	743.45	744.53	744.87	742.53	739.55	735.97
‡	-108,000	-2,000	+155,000	-146,000	+5,000	+45,000	+281,000	+49,000	+16,000	-106,000	-126,000	-141,000

CAL YR 1975 MAX 1,863,000 MIN 1,247,000 ‡ -87,000
WTR YR 1976 MAX 2,050,000 MIN 1,241,000 ‡ -78,000

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

07190500 NEOSHO RIVER NEAR LANGLEY, OK
(Below Spring River, known locally as Grand River)

LOCATION.--Lat 36°26'15", long 95°02'44", in SE 1/4 sec.27, T.23 N., R.21 E., Mayes County, on hillside of left bank, 0.5 mi (0.80 km) upstream from bridge on State Highway 82, 1.5 mi (2.4 km) south of Langley, 3.6 mi (5.8 km) downstream from Pensacola Dam, 6.3 mi (10.1 km) upstream from Big Cabin Creek, and at mile 73.4 (118.1 km).

DRAINAGE AREA.--10,335 mi² (26,768 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 607.65 ft (185.212 m) above mean sea level (Corps of Engineers bench mark). Prior to Feb. 16, 1940, nonrecording gage at site 0.1 mile (0.2 km) upstream at same datum. Feb. 10, 1954, to Sept. 30, 1963, water-stage recorder at site 0.5 mi (0.8 km) downstream at same datum. Feb. 10, 1954, to Sept. 30, 1963, water-stage recorder at site 0.5 mi (0.8 km) downstream at same datum. Auxiliary water-stage recorders at sites 2.0 and 3.0 mi (3.2 and 4.8 km) upstream at same datum.

REMARKS.--Records good. Low flow values of 15 ft³/s (0.42 m³/s) consist of estimated base flow (since July 1964). Flow regulated since 1940 by Lake O' The Cherokees (station 07190000).

AVERAGE DISCHARGE.--37 years, 7,079 ft³/s (200.5 m³/s), 5,129,000 acre-ft/yr (6.32 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300,000 ft³/s (8,500 m³/s) May 20, 1943, gage height, 45.5 ft (13.87 m), from floodmarks, from computation of outflow from Lake O' The Cherokees; minimum daily, 9 ft³/s (0.25 m³/s), Mar. 25, 1940 (caused by closure of Pensacola Dam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) July 5, gage height, 31.64 ft (9.644 m); minimum daily, 15 ft³/s (0.42 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6860	3330	4910	3590	15	15	1150	12100	12000	12300	7120	15
2	7410	803	582	10700	3650	1400	15	12300	6700	12200	544	3440
3	7340	3010	296	12200	4450	1290	183	12300	3020	44800	15	4330
4	48	340	15	12200	3370	1790	15	12400	4290	102000	18	2840
5	23	15	476	12200	5620	2090	1030	12400	6390	114000	6190	123
6	7230	1190	15	12300	4090	1110	4240	12400	6720	108000	3780	1690
7	7050	602	15	12200	15	1470	2130	12400	7360	80600	135	2440
8	6470	15	1750	12200	15	7060	2700	12400	7230	42600	638	5130
9	6560	18	1110	12000	252	3190	958	12400	6680	25800	4040	360
10	6310	849	1500	5670	15	6780	1720	12500	2220	18800	5250	15
11	15	1230	1540	15	15	6770	2420	12500	3280	18000	5850	15
12	15	1580	2100	1710	2340	8100	2470	5170	120	17500	6620	15
13	969	1300	15	446	1670	7680	15	4870	824	17300	6080	6320
14	1810	1050	15	15	15	2630	1270	4430	4620	17400	1020	6410
15	15	15	3800	551	15	7330	84	6140	1560	17900	160	6300
16	15	15	3810	15	15	8190	41	6020	3870	16100	6160	5910
17	1050	324	5570	5870	15	7690	381	8910	4890	13000	6550	5860
18	15	15	4470	703	15	7180	15	12100	1250	12500	5300	5210
19	15	1240	3770	3490	15	3650	351	7560	15	12400	2420	2300
20	1540	515	15	574	23	780	6150	4960	71	12400	1740	2720
21	1810	1290	15	278	395	18	4940	324	15	12400	858	15
22	1850	15	15	145	120	1150	7430	318	4790	12400	1670	2310
23	2230	15	15	15	964	15	9940	1710	5880	12300	3760	5430
24	2420	1850	15	15	15	15	9120	71	27000	6390	5880	5010
25	257	2940	15	15	15	15	8400	15	30000	2410	6250	6390
26	15	1460	15	15	15	139	9620	779	24000	5510	5560	26
27	1630	15	15	983	15	1180	11700	11000	15000	6120	6360	5960
28	4240	15	15	156	15	1510	12000	12500	12300	4160	41	3470
29	3960	78	1520	15	15	109	12000	11900	12400	5450	102	6430
30	5140	15	1210	2180	---	1280	12300	11900	12400	6730	15	1150
31	5360	---	5180	15	---	1110	---	11100	---	4520	15	---
TOTAL	89672	25149	43804	122481	27199	92736	124788	257877	226895	793990	100141	97634
MEAN	2893	838	1413	3951	938	2991	4160	8319	7563	25610	3230	3254
MAX	7410	3330	5570	12300	5620	8190	12300	12500	30000	114000	7120	6430
MIN	15	15	15	15	15	15	15	15	15	2410	15	15
AC-FT	177900	49880	86890	242900	53950	183900	247500	511500	450000	1575000	198600	193700
CAL YR 1975	TOTAL	3026851	MEAN	8293	MAX	37500	MIN	15	AC-FT	6004000		
WTR YR 1976	TOTAL	2002366	MEAN	5471	MAX	114000	MIN	15	AC-FT	3972000		

ARKANSAS RIVER BASIN

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07190500 NEOSHO RIVER NEAR LANGLEY, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-59, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1954, May 1956 to September 1959.

WATER TEMPERATURE: October 1951 to September 1954, May 1956 to September 1959.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
12...	54	--	8.3	10	2.8	--	.2	--	1.5	--	<1
DEC											
17...	50	120	7.0	12	2.8	9.0	.2	133	.60	.04	--
JAN											
19...	49	122	7.0	9.0	2.3	11	.2	147	1.3	.04	--
FEB											
18...	61	105	7.3	10	3.0	15	.3	141	.50	<.10	<1
MAR											
15...	54	110	6.6	8.0	3.0	13	.2	166	.60	<.08	--
APR											
13...	56	130	6.7	12	2.8	51	.2	194	.50	.82	--
MAY											
17...	49	115	6.5	10	2.4	21	.2	212	1.4	<.08	<1
JUN											
15...	47	134	6.2	10	2.6	29	.3	197	.80	<.08	--
JUL											
21...	27	79	3.6	4.0	2.6	11	.2	154	1.6	.22	--
AUG											
17...	31	88	4.0	4.0	3.8	15	.3	179	1.6	<.08	2
SEP											
14...	32	--	3.9	<2.0	2.7	85	.4	--	2.2	.12	--

ARKANSAS RIVER BASIN
07190500 NEOSHO RIVER NEAR LANGLEY, OK--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CUPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
12...	<1	3	3	300	8	140	--	6	--	<1	10
DEC											
17...	--	--	--	100	--	40	--	--	--	--	--
JAN											
19...	--	--	--	<100	--	28	--	--	--	--	--
FEB											
18...	<1	1	3	100	12	26	--	5	--	1	9
MAR											
15...	--	--	--	<100	--	21	--	--	--	--	--
APR											
13...	--	--	--	<100	--	38	--	--	--	--	--
MAY											
17...	1	2	5	<100	9	20	<.5	3	<2	1	12
JUN											
15...	--	--	--	100	--	70	--	--	--	--	--
JUL											
21...	--	--	--	500	--	54	--	--	--	--	--
AUG											
17...	<1	23	6	200	6	93	<.5	16	<3	<1	38
SEP											
14...	--	--	--	400	--	216	--	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICHO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
12...	1028	9740	1030	1580	300	7.7	12.5	9	8.2	79	--	--
DEC												
17...	1028	9740	1215	5570	280	8.1	10.0	8	11.4	102	8	130
JAN												
19...	1028	9740	1515	3490	240	6.7	5.0	3	11.4	90	8	147
FEB												
18...	1028	9740	1415	15	280	8.6	11.0	2	11.8	110	16	132
MAR												
15...	1028	9740	1530	7330	250	8.4	9.0	2	10.1	94	14	140
APR												
13...	1028	9740	0745	15	330	8.4	14.0	2	9.5	97	8	130
MAY												
17...	1028	9740	0800	8910	320	8.1	16.5	1	8.2	82	20	147
JUN												
15...	1028	9740	1300	1560	320	7.9	20.0	3	8.0	93	11	150
JUL												
21...	1028	9740	0745	12400	200	6.8	22.0	3	4.0	46	12	102
AUG												
17...	1028	9740	0745	6550	210	6.9	24.0	18	4.4	53	10	92
SEP												
14...	1028	9740	0700	6410	220	7.1	22.0	16	6.2	74	13	--

07191000 BIG CABIN CREEK NEAR BIG CABIN, OK

LOCATION.--Lat 36°34'06", long 95°09'07", in NE 1/4 NE 1/4 sec.15, T.24 N., R.20 E., Craig County, on downstream side of right bank end of county road bridge, 4.9 mi (7.9 km) northeast of Big Cabin, 0.9 mi (1.5 km) downstream from White Oak Creek, 6.8 mi (10.9 km) upstream from Mustang Creek and at mile 13.0 (20.9 km).

DRAINAGE AREA.--450 mi² (1,165 km²).

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 622.00 ft (189.586 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 30, 1972, water-stage recorder at site 4.5 mi (7.2 km) downstream at same datum and present site used as auxiliary gage.

REMARKS.--Records good. Low flow sustained by sewage from City of Vinita.

AVERAGE DISCHARGE.--29 years, 331 ft³/s (9.374 m³/s), 9.65 in/yr (245 mm), 239,800 acre-ft/yr (296 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,000 ft³/s (1,470 m³/s) Oct. 3, 1959, gage height, 34.55 ft (10.531 m), at former site; maximum gage height, 44.58 ft (13.588 m) Nov. 4, 1974; minimum, 0.10 ft³/s (2.83 l/s) at times in 1954, 1956 and 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 34.96 ft (10.656 m) at former site, discharge, 63,000 ft³/s (1,780 m³/s), by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,000 ft³/s (255 m³/s) and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)	DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)
May 27	1045	9,370 265	31.38 9.565	July 4	0600	25,600 725	40.50 12.344

Minimum discharge, 1.7 ft³/s (0.048 m³/s) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	3.7	147	172	8.0	36	51	276	520	61	11	20
2	96	3.7	59	114	8.3	25	35	205	244	951	11	21
3	32	4.0	42	77	12	88	23	137	150	11500	10	22
4	12	7.0	29	56	19	662	18	95	102	21700	9.7	21
5	6.6	7.4	20	48	9.6	443	17	74	75	3880	9.4	12
6	4.8	4.7	418	38	10	244	16	66	61	377	16	4.2
7	3.5	3.6	144	31	10	129	16	59	50	236	16	2.1
8	2.8	3.2	48	22	10	110	15	51	42	166	18	1.8
9	2.3	3.2	30	18	10	1520	14	41	33	121	21	2.0
10	3.0	3.9	24	20	10	693	14	30	24	91	20	2.1
11	3.4	5.6	21	20	11	280	13	24	20	72	19	2.1
12	3.4	4.8	17	18	11	248	12	34	18	58	17	2.1
13	3.0	4.2	14	16	12	182	12	778	15	47	15	2.2
14	2.8	3.9	13	15	13	131	13	294	13	38	15	6.5
15	3.8	3.8	873	14	13	97	13	162	12	36	24	3.5
16	5.2	3.5	528	14	13	82	13	434	12	41	27	2.5
17	3.8	3.2	286	13	12	74	13	272	12	32	21	2.5
18	3.4	3.0	118	13	12	64	256	139	15	25	19	2.5
19	2.6	3.2	56	13	11	57	644	82	20	21	17	2.5
20	2.4	5.5	40	13	13	48	4800	54	29	20	16	2.5
21	2.3	6.7	34	13	256	37	2890	41	20	18	16	2.5
22	2.3	5.2	27	13	109	30	621	29	16	17	16	2.5
23	2.3	4.0	22	13	52	27	285	22	27	16	15	2.3
24	2.4	3.5	25	13	34	25	234	1010	373	15	15	2.1
25	3.1	3.0	63	13	21	24	407	317	89	14	16	2.1
26	3.3	3.2	163	18	19	24	216	1220	44	13	16	2.1
27	3.1	3.5	97	24	32	27	129	7800	25	13	16	2.8
28	2.8	3.8	65	29	37	28	1170	1200	18	13	17	3.5
29	2.8	6.9	670	19	38	113	1770	400	17	14	17	3.5
30	3.3	640	742	9.7	---	118	438	364	92	15	18	3.8
31	3.7	---	308	8.1	---	70	---	2910	---	12	18	---
TOTAL	493.2	764.9	5143	917.8	825.9	5736	14168	18620	2188	39633	512.1	164.3
MEAN	15.9	25.5	166	29.6	28.5	185	472	601	72.9	1278	16.5	5.48
MAX	265	640	873	172	256	1520	4800	7800	520	21700	27	22
MIN	2.3	3.0	13	8.1	8.0	24	12	22	12	12	9.4	1.8
CFSM	.03	.06	.36	.06	.06	.40	1.03	1.32	.16	2.80	.04	.01
IN.	.04	.06	.42	.07	.07	.47	1.15	1.52	.18	3.23	.04	.01
AC-FT	978	1520	10200	1820	1640	11380	28100	36930	4340	78610	1020	326

CAL YR	1975	TOTAL	116574.7	MEAN	319	MAX	11200	MIN	1.1	CFSM	.70	IN	9.49	AC-FT	231200
WTR YR	1976	TOTAL	89166.2	MEAN	244	MAX	21700	MIN	1.8	CFSM	.53	IN	7.26	AC-FT	176900

ARKANSAS RIVER BASIN

07191220 SPAVINAW CREEK NEAR SYCAMORE, OK

LOCATION.--Lat 36°19'57", long 94°38'24", in NE 1/4 SW 1/4 sec.4, T.21 N., R.25 E., Delaware County, on right bank 1.8 mi (2.9 km) upstream from Cherokee Creek, 4.8 mi (7.7 km) northeast of Row, 6.5 mi (10.5 km) southeast of Sycamore, and at mile 35.0 (56.3 km).

DRAINAGE AREA.--133 mi² (344 km²).

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WSP 2121: 1965(M).

GAGE.--Water-stage recorder. Altitude of gage is 875 ft (266.7 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--15 years, 116 ft³/s (3.285 m³/s), 11.84 in/yr (301 mm/yr), 84,040 acre-ft/yr (104 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,800 ft³/s (1,130 m³/s), July 25, 1975, gage height, 22.07 ft (6.727 m); minimum, 1.2 ft³/s (34.0 l/s) Aug. 9, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--According to local residents, a flood of approximately the same magnitude as the July 27, 1975 flood occurred in the early 1880's.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,480 ft³/s (184 m³/s) at 0700 Apr. 20, gage height, 12.40 ft (3.780 m), no other peak above base of 2,500 ft³/s (70.8 m³/s); minimum, 22 ft³/s (0.62 m³/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	39	142	170	48	44	106	198	189	86	58	26
2	77	38	124	158	47	43	100	181	161	79	56	26
3	72	38	119	144	47	43	92	162	141	86	52	26
4	68	38	118	130	46	43	86	149	124	346	48	26
5	65	37	450	118	46	44	80	138	114	228	45	27
6	63	37	745	110	45	46	75	137	106	167	43	26
7	60	37	529	104	45	47	70	131	99	132	40	26
8	58	37	431	99	44	50	66	123	94	109	39	26
9	57	37	336	91	44	97	63	116	89	94	38	25
10	54	37	267	85	43	238	62	111	84	86	37	24
11	53	37	215	82	42	235	61	107	79	81	35	24
12	52	37	174	80	42	204	60	106	75	75	35	23
13	50	37	150	76	42	172	60	109	72	70	33	23
14	49	36	134	73	41	150	60	118	69	65	32	23
15	47	36	126	70	41	134	59	121	67	62	32	23
16	46	35	120	67	41	121	58	118	63	59	32	24
17	45	35	118	65	41	112	64	112	61	57	33	25
18	44	35	113	62	40	104	361	106	61	55	33	26
19	43	35	108	61	40	96	801	102	59	53	33	27
20	43	35	104	59	40	90	3720	99	58	50	32	26
21	42	36	100	58	41	84	1410	94	55	48	32	29
22	42	37	96	56	42	80	819	89	53	46	31	29
23	41	39	90	55	44	75	565	84	88	44	31	30
24	41	40	86	54	45	71	443	330	254	42	30	29
25	40	41	86	54	46	69	361	346	203	40	29	28
26	40	40	86	54	46	67	295	247	163	39	29	27
27	40	37	85	53	46	65	249	416	133	38	28	27
28	40	39	85	51	45	64	231	397	112	37	28	27
29	39	196	93	50	45	71	226	325	101	37	28	27
30	39	229	114	49	---	94	215	269	92	40	27	27
31	39	---	168	49	---	107	---	224	---	55	26	---
TOTAL	1572	1467	5714	2487	1265	2960	10918	5365	3119	2506	1105	784
MEAN	50.7	48.9	184	80.2	43.6	95.5	364	173	104	80.8	35.6	26.1
MAX	83	229	745	170	48	238	3720	416	254	346	58	30
MIN	39	35	85	49	40	43	58	84	53	37	26	23
CFSM	.38	.37	1.38	.60	.33	.72	2.74	1.30	.78	.61	.27	.20
IN.	.44	.41	1.60	.70	.35	.83	3.05	1.50	.87	.70	.31	.22
AC-FT	3120	2910	11330	4930	2510	5870	21660	10640	6190	4970	2190	1560
CAL YR 1975	TOTAL	71493	MEAN 196	MAX	11700	MIN 35	CFSM 1.47	IN 20.00	AC-FT	141800		
WTR YR 1976	TOTAL	39262	MEAN 107	MAX	3720	MIN 23	CFSM .80	IN 10.98	AC-FT	77880		

ARKANSAS RIVER BASIN

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07191400 LAKE HUDSON NEAR LOCUST GROVE, OK

LOCATION.--Lat 36°13'54", long 95°11'36", in SE 1/4 NW 1/4 sec.9, T.20 N., R.20 E., Mayes County, at left side of Robert S. Kerr dam, 2.0 mi (3.2 km) northwest of Locust Grove, 3.5 mi (5.6 km) downstream from Salina Creek, and at mile 47.3 (76.1 km).

DRAINAGE AREA.--11,534 mi² (29,873 km²).

PERIOD OF RECORD.--October 1964 to current year.

REMARKS.--Reservoir is formed by earth dam and gated concrete spillway. Storage began Nov. 12, 1963; power pool first filled June 12, 1964. Capacity, 444,500 acre-ft (548 hm³) at elevation 636.0 ft (193.85 m), top of taintor gates, 200,300 acre-ft (247 hm³) at elevation 619.0 ft (188.67 m) power pool, and 48,630 acre-ft (60.0 hm³) at elevation 599.0 ft (182.58 m), top of spillway crest. Figures given herein represent total contents. Reservoir was designed for flood control and power development.

COOPERATION.--Records furnished by Grand River Dam Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 436,300 acre-ft (538 hm³) Nov. 9, 1974, elevation, 635.56 ft (193.719 m); minimum since power pool first filled, 183,100 acre-ft (226 hm³) Dec. 24, 1967, elevation, 617.38 ft (188.177 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 337,200 acre-ft (416 hm³) July 5, elevation, 629.65 ft (191.917 m); minimum, 189,200 acre-ft (233 hm³) Apr. 30, elevation, 617.96 ft (188.354 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	619.58	206,700	--
Oct. 31.....	619.65	207,400	+700
Nov. 30.....	619.36	204,200	-3,200
Dec. 31.....	619.80	209,000	+4,800
CAL YR 75.....	--	--	+4,500
Jan. 31.....	619.02	200,400	-8,600
Feb. 28.....	619.40	204,700	+4,300
Mar. 31.....	619.48	205,600	+900
Apr. 30.....	617.96	189,200	-16,400
May 31.....	618.83	198,400	+9,200
June 30.....	619.11	201,500	+3,100
July 31.....	620.09	212,400	+10,900
Aug. 31.....	618.17	191,400	-21,000
Sept. 30.....	619.38	204,500	+13,100
WTR YR 76.....	--	--	-2,200

ARKANSAS RIVER BASIN

07191500 NEOSHO RIVER NEAR CHOUTEAU, OK

LOCATION.--Lat 36°13'45", long 95°10'59", in SE 1/4 NW 1/4 sec.9, T.20 N., R.20 E., Mayes County, on left bank, 300 ft (91.4 m) downstream from Robert S. Kerr Dam, 2.2 mi (3.5 km) northwest of Locust Grove, and 10 mi (16.1 km) northeast of Chouteau, and at mile 47.2 (75.9 km).

DRAINAGE AREA.--11,534 mi² (29, 873 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to September 1950, October 1963 to current year.

REVISED RECORDS.--WSP 1117: Drainage area

GAGE.--Water-stage recorder. Datum of gage is 554.00 ft (168.859 m) above mean sea level (levels by Corps of Engineers). Prior to Apr. 3, 1941 nonrecording gage at bridge on State Highway 33, 8.2 mi (13.2 km) downstream, at datum 17.63 ft (5.374 m) lower. Apr. 3, 1941 to Sept. 30, 1950; Oct. 1963 to Apr. 6, 1964 at site 2.5 mi (4.0 km) downstream at datum 2.17 ft (0.661 m) lower (now used as auxiliary gage). Supplemental water-stage recorder Oct. 4, 1963, to July 10, 1973 at site 8.2 mi (13.2 km) downstream.

REMARKS.--Records good. Flow regulated since 1940 by Lake O' The Cherokees (station 07190000), and completely regulated since 1963 by Lake Hudson (station 07191400).

AVERAGE DISCHARGE.--(since regulation by Lake Hudson), 13 years (water years 1964-76), 8,274 ft³/s (234.3 m³/s), 5,995, 000 acre-ft/yr (7.39 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400,000 ft³/s (11,328 m³/s) May 20, 1943, gage height 45.00 ft (13.716 m), site and datum then in use, from rating curve extended above 140,000 ft³/s (3,965 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 12 ft³/s (.32 m³/s) Nov. 13, 1963 (caused by closure of Robert S. Kerr Dam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 129,000 ft³/s (3,650 m³/s) July 6, gage height, 29.90 ft (9.114 m); minimum daily, 98 ft³/s (2.78 m³/s) Apr. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8130	4620	4780	6270	143	106	108	9990	13900	14700	2460	164
2	8920	126	790	15500	1790	1200	391	11600	2540	14300	225	156
3	8570	4430	2210	10100	4620	1640	516	11000	667	39600	194	4880
4	1050	137	162	8230	2490	1510	176	12200	5800	92700	731	184
5	172	113	155	14300	6560	5320	673	14000	8690	114000	10200	176
6	6700	115	6810	7760	3780	797	5910	11300	297	122000	203	177
7	5470	113	4120	18400	137	1000	2510	15400	11900	87000	180	7730
8	8540	114	5500	9260	130	6310	2900	12000	7230	56000	180	6700
9	7250	115	3680	9410	126	4340	1820	10700	4860	38400	6950	177
10	7650	153	1390	3770	113	8860	1480	9510	5500	28200	5620	168
11	214	156	1440	143	111	10900	1810	10100	2550	23400	4240	164
12	149	4690	4700	1950	1590	10100	5240	5060	131	22900	5990	163
13	335	1420	208	412	912	8490	143	7020	122	24700	7270	162
14	256	274	143	2740	110	1440	441	3460	2290	24200	199	8230
15	178	166	8400	141	112	8480	158	8410	5360	27300	180	4140
16	163	163	3470	643	115	10600	98	3360	125	25600	8820	4550
17	497	160	8470	6460	108	5210	632	14900	4650	27200	5720	4880
18	1900	163	4900	231	107	5890	109	10600	955	11000	3000	6380
19	419	174	1740	3160	105	5120	10400	4740	125	14700	1980	186
20	1930	138	146	153	109	1370	18500	4800	124	10200	2050	1830
21	2320	507	145	401	392	213	23300	381	124	12100	217	2120
22	2470	146	143	148	439	803	22700	4630	4190	13600	1270	1610
23	2170	149	145	148	2390	113	14600	130	9720	11400	3220	4050
24	3680	148	149	339	175	108	14800	128	17400	5910	3960	5200
25	162	5690	151	2740	114	108	12500	127	30900	265	8540	4300
26	138	1270	151	155	109	109	14500	1310	23500	6890	5400	174
27	139	152	155	352	111	994	17200	17500	14000	1420	9240	10700
28	3080	150	157	165	109	2020	20400	21900	12500	3430	198	191
29	2480	158	3960	1140	106	729	18500	13700	11500	5530	177	5290
30	5000	155	151	2180	---	3040	19200	10100	8590	7410	173	187
31	7700	---	6640	143	---	477	---	15800	---	3910	169	---
TOTAL	97832	26065	75161	126944	27213	107397	231715	275856	210240	889965	98956	85021
MEAN	3156	869	2425	4095	938	3464	7724	8899	7008	28710	3192	2834
MAX	8920	5690	8470	18400	6560	10900	23300	21900	30900	122000	10200	10700
MIN	138	113	143	141	105	106	98	127	122	265	169	158
AC-FT	194000	51700	149100	251800	53980	213000	459600	547200	417000	1765000	196300	168600
CAL YR 1975	TOTAL	3474731	MEAN	9520	MAX	34900	MIN	113	AC-FT	6892000		
WTR YR 1976	TOTAL	2252365	MEAN	6154	MAX	122000	MIN	98	AC-FT	4468000		

AKRNASAS RIVER BASIN

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07191500 NEOSHO RIVER NEAR CHOUTEAU, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-58, 1960, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1950 to September 1951.

WATER TEMPERATURE: October 1950 to September 1951.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV 19...	1028	9740	1430	174	260	9.0	17.0	3	13.4	142	4	128
DEC 17...	1028	9740	1330	8470	270	8.0	6.0	7	11.6	101	4	130
JAN 20...	1028	9740	1500	153	350	8.2	4.0	3	12.4	95	4	157
FEB 19...	1028	9740	1430	105	320	8.4	12.0	2	11.6	113	12	119
MAR 15...	1028	9740	0745	8480	320	7.9	10.0	2	8.7	81	5	160
APR 14...	1028	9740	0730	441	260	7.6	17.0	3	6.1	67	<4	130
MAY 18...	1028	9740	0730	10600	310	7.6	14.0	1	8.0	78	16	149
JUN 14...	1028	9740	0730	2290	300	7.5	24.0	10	6.2	76	11	140
JUL 20...	1028	9740	1550	10200	200	7.7	26.0	44	6.8	85	9	92
AUG 17...	1028	9740	1620	5720	220	7.6	27.0	28	6.0	75	4	95
SEP 14...	1028	9740	1525	8230	220	7.5	25.0	18	7.3	90	13	--

ARKANSAS RIVER BASIN

07191500 NEOSHO RIVER NEAR CHOUTEAU, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
19...	52	98	7.5	9.0	2.4	11	.3	165	.90	.05	--
DEC											
17...	47	102	6.0	4.0	2.8	--	.2	139	.70	.04	--
JAN											
20...	49	124	5.0	13	3.0	27	.2	159	1.1	.04	--
FEB											
19...	55	94	6.2	11	3.0	22	.3	154	.50	<.10	<1
MAR											
15...	68	150	7.2	5.0	2.4	15	.2	170	.40	<.08	--
APR											
14...	53	110	5.9	10	2.5	45	.2	207	.60	<.08	--
MAY											
18...	53	133	5.9	6.0	2.1	19	.1	217	1.1	<.08	<1
JUN											
14...	46	128	6.0	9.0	2.5	27	.3	192	.60	<.08	--
JUL											
20...	28	75	4.1	6.0	2.5	--	.2	159	1.6	.14	--
AUG											
17...	31	90	4.0	6.0	3.1	15	.3	151	1.6	<.08	2
SEP											
14...	33	--	4.0	3.0	2.5	--	.4	162	1.4	<.08	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
19...	--	--	--	200	--	50	--	--	--	--	--
DEC											
17...	--	--	--	100	--	52	--	--	--	--	--
JAN											
20...	--	--	--	<100	--	31	--	--	--	--	--
FEB											
19...	<1	1	3	100	4	30	--	<1	--	<1	4
MAR											
15...	--	--	--	<100	--	300	--	--	--	--	--
APR											
14...	--	--	--	100	--	20	--	--	--	--	--
MAY											
18...	1	3	2	100	11	28	.5	3	--	3	6
JUN											
14...	--	--	--	100	--	48	--	--	--	--	--
JUL											
20...	--	--	--	700	--	121	--	--	--	--	--
AUG											
17...	1	11	4	400	9	115	<.5	5	<2	<1	33
SEP											
14...	--	--	--	300	--	87	--	--	--	--	--

07193000 FORT GIBSON LAKE NEAR FORT GIBSON, OK

LOCATION.--Lat 35°52'16", long 95°13'43", in NW 1/4 NW 1/4 sec.18, T.16 N., R.20 E., Cherokee County, in control tower near left end of Fort Gibson Dam on Neosho River, 4.0 mi (6.4 km) north of Fort Gibson, and at mile 7.7 (12.4 km).

DRAINAGE AREA.--12,492 km² (32,354 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1970 published as Fort Gibson Reservoir near Fort Gibson.

REVISED RECORDS.--WSP 1731: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Jan. 13, 1950, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-gravity and earth-fill dam. Regulated storage began Sept. 5, 1949; power pool was first maintained in 1953. Capacity, 1,284,000 acre-ft (1,583 hm³) at elevation 582.0 ft (177.39 m), flood-control pool, 365,200 acre-ft (450 hm³) at elevation 554.0 ft (168.86 m), maximum power pool, and 311,300 acre-ft (384 hm³) at elevation 551.0 ft (167.94 m) (minimum power pool). Figures given herein represent total contents. Reservoir was designed for flood control and power development.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,278,000 acre-ft (1.58 km³) May 12, 1961, elevation, 581.88 ft (177.357 m); minimum since first use of power pool, 303,800 acre-ft (375 hm³) May 26, 1955, elevation, 550.56 ft (167.811 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 761,300 acre-ft (939 hm³) July 8, elevation, 569.52 ft (173.590 m); minimum, 328,300 acre-ft (405 hm³) Mar. 24, elevation, 551.99 ft (168.247 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

551	331,300	561	516,600
554	365,200	565	622,100
557	425,400	570	777,500

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376600	377200	361400	383300	358900	352700	340900	406500	415500	383500	364800	361600
2	380900	374700	360800	399900	360600	355900	340900	400100	393900	387500	354800	361000
3	382900	375100	360800	400500	364600	353400	343100	390700	374900	418700	354000	369000
4	371800	370500	358000	395500	364400	357800	344000	386700	376800	485500	354800	369000
5	355700	361200	372800	403700	370900	354500	344300	391900	384700	575700	371700	367900
6	354000	353600	398300	400900	366300	357400	349900	389700	377000	685100	367100	365600
7	358900	350600	403900	417600	360800	361600	341100	394700	390500	746700	361400	368400
8	366000	350300	410500	404500	361400	366900	342500	395100	393700	754300	362000	371800
9	368000	352300	403300	391500	358400	369000	339500	390300	382900	724100	367700	369000
10	368400	349600	386500	376600	359300	378900	342000	384500	372600	671200	367900	364800
11	358900	348300	377000	361200	358200	387900	342900	382900	365400	614300	363300	364400
12	356800	351900	373000	351400	359100	389100	350500	378700	357200	557100	363700	363900
13	353800	351400	370500	349600	359700	384900	346000	376600	354800	507500	366700	362400
14	351900	345800	370900	351900	359100	374300	343300	368400	351000	464100	366000	372800
15	352100	346100	374700	351200	359900	381100	342500	375300	362500	426000	366000	372800
16	347800	346500	369800	351400	360100	388300	342900	374700	356100	399500	371300	370900
17	347800	343100	374500	355700	359500	384300	346300	346100	358900	403700	371300	373200
18	350300	342900	369800	355700	358000	376000	352800	389300	360800	395500	363500	378700
19	349900	342700	359500	355300	356600	367400	396700	382900	358200	393500	353400	370900
20	351900	343800	356800	353400	356300	359300	480400	384500	358600	388500	351900	364600
21	354200	342200	357600	351900	355700	347800	481600	373200	351200	395700	350100	363900
22	356600	342200	356300	349900	356500	333000	463400	372800	351900	392500	351500	364800
23	359100	342200	355900	351000	357600	329600	431700	369000	360600	392500	348100	371800
24	363100	341500	357400	351000	354600	328300	408600	358900	373900	384300	350100	375600
25	362200	348300	359900	358200	355700	328500	390100	350100	403900	370100	359500	372900
26	361500	350800	361200	355900	354400	330500	384900	347900	408800	373900	360800	367100
27	357200	351200	362900	355700	353600	333400	385500	365200	397300	365200	371100	381500
28	355700	354500	364800	354400	354000	337100	399100	394300	386500	367100	367100	372800
29	353200	351400	373200	354900	354400	341500	406500	399500	386300	368400	366500	373600
30	358000	356100	366700	358000	---	346300	414900	400900	397300	369000	363300	364800
31	368400	---	373200	358400	---	340000	---	408800	---	369000	363100	---
MAX	382900	377200	410500	417600	370900	389100	481600	408800	415500	754300	371700	381500
MIN	347800	341500	355900	349600	353600	328300	339500	347900	351000	365200	348100	361000
†	554.17	553.52	554.42	553.64	553.43	552.64	556.50	556.21	555.64	554.20	553.89	553.98
‡	-6,900	-12,300	+17,100	-14,800	-4,000	-14,400	+74,900	-6,100	-11,500	-28,300	-5,900	+1,700
CAL YR 1975	MAX	590,500	MIN	320,500	‡	-6,300						
WTR YR 1976	MAX	754,300	MIN	328,300	‡	-10,500						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK

LOCATION.--Lat 35°51'15", long 95°13'45", in SE 1/4 NW 1/4 sec.19, T.16 N., R.20 E., Cherokee County, on left bank 1.1 mi (1.8 km) downstream from Fort Gibson Dam, 4.5 mi (7.2 km) north of Fort Gibson, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--12,495 mi² (32,362 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Prior to October 1970 published as Neosho River below Fort Gibson Reservoir, near Fort Gibson.

GAGE.--Water-stage recorder. Datum of gage is 483.75 ft (147.447 m) above mean sea level. May 11, 1950, to Aug. 20, 1951, nonrecording gage and Aug. 21, 1951, to June 11, 1952, water-stage recorder, at site 4.4 mi (7.1 km) downstream at datum 8.00 ft (2.438 m) lower and used as auxiliary gage since June 10, 1971.

REMARKS.--Records good. Flow completely regulated by Fort Gibson Lake (station 07193000).

COOPERATION.--Gage-height record and 14 discharge measurements furnished by Corps of Engineers, records computed by Geological Survey.

AVERAGE DISCHARGE.--26 years, 7,894 ft³/s (223.6 m³/s), 5,719,000 acre-ft/yr (7.05 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 223,000 ft³/s (6,320 m³/s) May 26, 1957, gage height, 37.60 ft (11.460 m); minimum, 12 ft³/s (0.34 m³/s), Oct. 10, 1957, Aug. 23, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1943 reached a stage of 43.0 ft (13.11 m), from high-water profile by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63,900 ft³/s (1,810 m³/s) July 6, gage height, 19.21 ft (5.855 m); minimum daily, 15 ft³/s (0.42 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6760	237	3620	2380	15	1190	1010	16300	13900	12400	5380	890
2	6630	2590	2330	8550	1070	543	451	16300	15200	11400	5250	350
3	6970	5990	3060	11200	3040	3830	60	16200	10700	20900	490	780
4	7490	2930	1970	11300	3260	2390	15	13200	4530	51000	15	15
5	8740	5150	2090	11600	4050	4800	474	13000	4920	58200	2800	990
6	6830	4450	5330	11800	5890	2230	3900	13000	5500	57000	3400	1360
7	3250	2130	4130	11500	2550	25	7330	12900	3950	52000	2770	5600
8	4760	486	4790	13500	35	6920	2740	13000	6330	51000	27	5800
9	6750	468	7740	18600	1480	7530	2990	13000	11100	50400	4350	1940
10	6950	1500	11600	14400	1070	7080	142	12900	11000	50600	5710	1800
11	5460	1160	7690	8670	520	8050	1890	11800	7560	49400	6150	40
12	1180	2470	7050	7330	1830	12200	1090	9890	4680	52100	6470	38
13	1740	1270	2420	2190	976	12100	3800	8510	1850	53800	6420	1000
14	1640	2790	2300	2030	77	8990	2030	8630	3030	50400	73	3490
15	343	15	6580	929	180	7430	189	5140	995	47300	15	5390
16	2650	15	7520	756	577	7400	1150	4970	3310	42000	6220	5850
17	502	1850	7520	5070	822	8120	196	9050	3310	25300	6200	5420
18	15	348	7650	41	787	11600	99	11400	4100	16700	6450	4550
19	698	758	6180	4470	1040	9880	6940	7920	2440	14300	7800	4650
20	502	1030	1820	1180	947	7530	12700	5020	20	14400	2150	5780
21	1230	1050	16	1420	2020	7400	33000	6410	4100	13200	1640	2310
22	1240	15	1280	1430	24	9390	36900	5320	2910	11100	16	1000
23	892	15	761	548	2010	2250	34200	2880	4810	11300	5610	636
24	3230	867	34	15	1870	1160	29500	5210	11700	10800	3230	3810
25	151	1880	15	15	366	222	24000	4760	17600	7800	4160	6240
26	232	695	65	1030	767	385	19500	2960	22100	5800	4100	3860
27	2660	15	70	418	632	54	16200	7340	22000	5750	4900	3200
28	4800	2940	15	1260	89	338	16300	11300	19000	4820	1950	5130
29	3640	15	2120	1300	83	716	16300	11200	13100	4480	21	4870
30	2720	15	5450	1200	---	891	16200	11200	13000	6000	1540	5070
31	3220	---	4920	15	---	5190	---	11000	---	4800	37	---
TOTAL	103875	45144	120136	156147	38077	157834	291296	301710	248745	866450	105344	91859
MEAN	3351	1505	3875	5037	1313	5091	9710	9733	8292	27950	3398	3062
MAX	8740	5990	11600	18600	5890	12200	36900	16300	22100	58200	7800	6240
MIN	15	15	15	15	15	25	15	2860	20	4480	15	15
AC-FT	206000	89540	238300	309700	75530	313100	577800	598400	493400	1719000	208900	182200

CAL YR 1975 TOTAL 3944454 MEAN 10810 MAX 43300 MIN 15 AC-FT 7824000
WTR YR 1976 TOTAL 2526617 MEAN 6903 MAX 58200 MIN 15 AC-FT 5012000

ARKANSAS RIVER BASIN

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07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE NEAR FORT GIBSON, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.

PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: October 1951 to September 1963, October 1973 to current year.

WATER TEMPERATURE: October 1951 to September 1963, October 1973 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Additional samples were collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 496 micromhos Sept. 7, 1975; minimum daily, 188 micromhos Oct. 18, 1974.

WATER TEMPERATURE: Maximum daily, 31.5°C July 31, Aug. 1, 1955, minimum, 0.0°C Jan. 23-25, 1962.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 421 micromhos Jan. 25; minimum daily, 233 micromhos Aug. 20, Sept. 17.

WATER TEMPERATURE: Maximum daily, 28.5°C Aug. 20, 21, 23; minimum daily, 4.0°C Jan. 7, 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
UCT												
22...	--	--	1030	1240	258	7.9	18.0	6	--	110	19	34
NOV												
11...	--	--	1400	1160	290	8.7	16.0	7	--	110	19	37
11...	1028	9740	1401	1160	290	8.7	16.0	--	--	--	--	--
DEC												
30...	--	--	1200	5450	280	8.5	6.0	8	--	110	19	35
30...	1028	9740	1201	5450	240	8.3	6.0	--	19	--	--	--
JAN												
28...	--	--	1530	1260	220	8.1	7.3	9	--	96	6	31
28...	1028	9740	1531	1260	220	8.1	8.0	--	8	--	--	--
FEB												
25...	--	--	1000	366	280	8.4	8.0	4	--	120	24	39
25...	1028	9740	1001	366	280	8.4	8.0	--	<4	--	--	--
MAR												
23...	--	--	1530	2250	287	7.6	12.0	11	--	120	29	38
APR												
28...	--	--	1030	16300	240	7.5	15.0	15	--	110	26	33
28...	1028	9740	1031	16300	240	7.5	15.0	--	27	--	--	--
MAY												
28...	--	--	1000	11300	400	7.8	19.0	2	--	120	23	38
28...	1028	9740	1001	11300	406	7.8	19.0	--	8	--	--	--
JUN												
29...	--	--	1130	13100	290	7.8	25.0	6	--	120	32	40
29...	1028	9740	1131	13100	--	--	--	--	6	--	--	--
JUL												
28...	--	--	1130	4820	240	--	24.0	15	--	98	21	32
28...	1028	9740	1131	4820	--	--	--	--	15	--	--	--
AUG												
24...	--	--	1000	3230	200	8.3	27.0	--	--	98	24	29
24...	1028	9740	1001	3230	--	8.2	27.0	--	12	--	--	--
SEP												
28...	--	--	1245	5130	230	8.2	20.0	10	--	100	24	34
28...	1028	9740	1246	5130	--	--	--	--	12	--	--	--

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE NEAR FORT GIBSON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT											
22...	5.4	8.0	14	.3	2.7	107	88	2.2	22	10	.2
NOV											
11...	5.0	11	17	.5	2.6	115	94	.4	26	14	.2
11...	--	--	--	--	--	--	--	--	--	--	--
DEC											
30...	5.2	9.2	15	.4	2.5	109	89	.6	24	9.4	.1
30...	--	--	--	--	--	--	--	--	--	--	--
JAN											
26...	4.6	7.8	15	.3	2.7	110	90	1.4	23	7.5	.1
28...	--	--	--	--	--	--	--	--	--	--	--
FEB											
25...	5.8	8.3	13	.3	2.6	118	97	.8	29	9.9	.2
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
23...	6.7	9.9	15	.4	2.5	114	94	4.6	31	11	.2
APR											
28...	6.7	7.8	13	.3	2.6	103	84	5.2	27	11	.2
28...	--	--	--	--	--	--	--	--	--	--	--
MAY											
28...	6.1	9.4	14	.4	2.6	118	97	3.0	34	8.4	.2
28...	--	--	--	--	--	--	--	--	--	--	--
JUN											
29...	5.9	9.1	13	.4	2.5	113	93	2.9	36	10	.3
29...	--	--	--	--	--	--	--	--	--	--	--
JUL											
28...	4.3	9.7	17	.4	2.8	93	76	--	29	8.1	.2
28...	--	--	--	--	--	--	--	--	--	--	--
AUG											
24...	6.2	7.1	13	.3	2.7	90	74	.7	27	8.1	.2
24...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	4.5	7.1	13	.3	2.9	97	80	1.0	24	7.5	.2
28...	--	--	--	--	--	--	--	--	--	--	--
DATE	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT											
22...	3.0	147	138	.20	492	.28	--	.42	.70	3.1	.05
NOV											
11...	1.5	156	154	.21	489	.21	--	.67	.88	3.9	.04
11...	--	--	--	--	--	--	--	--	3.7	--	--
DEC											
30...	2.1	145	141	.20	2130	.54	--	.85	1.4	6.2	.02
30...	--	--	--	--	--	--	--	--	.20	--	--
JAN											
28...	1.1	138	132	.19	469	.36	--	.78	1.1	5.0	.03
28...	--	--	--	--	--	--	--	--	1.2	--	--
FEB											
25...	.1	153	153	.21	151	.33	--	.24	.57	2.5	.03
25...	--	--	--	--	--	--	--	--	.70	--	--
MAR											
23...	.5	165	156	.22	1000	.48	--	.95	1.4	6.3	.03
APR											
28...	2.7	156	142	.21	6870	.43	--	.77	1.2	5.3	.05
28...	--	--	--	--	--	--	--	--	.80	--	--
MAY											
28...	1.9	194	159	.26	5920	.48	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	.70	--	--
JUN											
29...	4.2	208	164	.28	7360	.35	--	.49	.84	3.7	.06
29...	--	--	--	--	--	--	--	--	1.2	--	--
JUL											
28...	5.4	143	137	.19	1860	.55	--	.60	1.2	5.1	.10
28...	--	--	--	--	--	--	--	--	1.9	--	--
AUG											
24...	4.9	117	130	.16	1020	.19	--	.38	.57	2.5	.01
24...	--	--	--	--	--	--	--	--	1.1	--	--
SEP											
28...	4.4	143	132	.19	1980	.38	--	.00	.38	1.7	.13
28...	--	--	--	--	--	--	--	--	<.10	--	--

ARKANSAS RIVER BASIN

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07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE NEAR FORT GIBSON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- UNIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
UCT											
22...	--	--	1030	1240	9.4	104	851	--	--	--	--
NOV											
11...	1028	9740	1401	1160	--	--	--	--	--	--	--
DEC											
30...	--	--	1200	5450	11.8	101	47	63	--	--	--
30...	1028	9740	1201	5450	--	--	--	--	--	--	--
JAN											
28...	--	--	1530	1260	--	--	--	--	--	20	48
28...	1028	9740	1531	1260	--	--	--	--	--	--	--
FEB											
25...	--	--	1000	366	11.2	99	--	--	--	--	--
25...	1028	9740	1001	366	11.2	99	--	--	--	--	--
MAR											
23...	--	--	1530	2250	9.8	95	--	--	--	--	--
APR											
28...	--	--	1030	16300	10.2	107	--	--	--	19	81
28...	1028	9740	1031	16300	10.2	107	--	--	--	--	--
MAY											
28...	--	--	1000	11300	9.2	102	--	85	--	--	--
28...	1028	9740	1001	11300	--	--	--	--	--	--	--
JUN											
29...	--	--	1130	13100	8.1	102	--	16	7.2	26	90
29...	1028	9740	1131	13100	--	--	--	--	--	--	--
JUL											
28...	--	--	1130	4820	8.6	109	71	180	--	--	--
28...	1028	9740	1131	4820	--	--	--	--	--	--	--
AUG											
24...	--	--	1000	3230	7.6	99	70	110	3.5	10	79
24...	1028	9740	1001	3230	--	--	--	--	--	--	--
SEP											
28...	--	--	1245	5130	7.7	88	--	837	--	15	93
28...	1028	9740	1246	5130	--	--	--	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
NOV										
11...	--	--	1400	1160	4	0	4	<10	<10	0
11...	1028	9740	1401	1160	--	--	--	--	--	--
DEC										
30...	1028	9740	1201	5450	--	--	--	--	--	--
JAN										
28...	1028	9740	1531	1260	--	--	--	--	--	--
FEB										
25...	--	--	1000	366	0	0	0	10	9	1
25...	1028	9740	1001	366	--	--	--	--	--	--
APR										
28...	1028	9740	1031	16300	--	--	--	--	--	--
MAY										
28...	1028	9740	1001	11300	--	--	--	--	--	--
JUN										
29...	1028	9740	1131	13100	--	--	--	--	--	--
JUL										
28...	--	--	1130	4820	1	0	1	<10	<9	1
28...	1028	9740	1131	4820	--	--	--	--	--	--
AUG										
24...	--	--	1000	3230	1	0	1	<10	<10	0
24...	1028	9740	1001	3230	--	--	--	--	--	--
SEP										
28...	1028	9740	1246	5130	--	--	--	--	--	--

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE NEAR FORT GIBSON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDED LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDED MERCURY (HG) (UG/L)
NOV									
11...	0	<100	<98	2	50	50	5	.0	.0
11...	--	--	--	--	--	--	--	--	--
DEC									
30...	--	--	--	--	50	--	--	--	--
JAN									
28...	--	--	--	--	58	--	--	--	--
FEB									
25...	30	<100	<98	2	80	70	10	.0	.0
25...	--	--	--	--	--	--	--	--	--
APR									
28...	--	--	--	--	80	--	--	--	--
MAY									
28...	--	--	--	--	--	--	--	--	--
JUN									
29...	--	--	--	--	75	--	--	--	--
JUL									
28...	70	<100	<98	2	130	90	40	.2	.2
28...	--	--	--	--	--	--	--	--	--
AUG									
24...	40	<100	<98	2	30	30	0	.0	.0
24...	--	--	--	--	--	--	--	--	--
SEP									
28...	--	--	--	--	90	--	--	--	--

[illegible]

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 22	1030	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	1,800	34	
		Scenedesmaceae			
		Tetrastrum	460	9	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	110	2	
		CHRYSTOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	580	11	
		Melosira	2,400	45	
		TOTAL	5,500		
Nov. 11	1400	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus		0	
		Closteriopsis		0	
		Kirchneriella		0	
		Oocystis	110	1	
		Scenedesmaceae			
		Crucigenia	110	1	
		Volvocales			Sediment sampler
		Phacotaceae			
		Phacotus		0	
		Zygnematales			
		Desmidiaceae			
		Euastrum		0	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	340	4	
		Melosira	650	8	
		Rhizosoleniaceae			
		Rhizosolenia		0	
		Pennales			Sediment sampler
		Fragilariaceae			
		Synedra		0	
		Naviculaceae			
		Navicula		0	
		Nitzschiaceae			
		Nitzschia		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	6,300	73	
		Anacystis	850	10	
		EUGLENOPHYTA			Sediment sampler
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas	110	1	
		TOTAL	8,600		
Dec. 30	1200	CHRYSTOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	1,000	28	
		Melosira	2,000	55	
		Pennales			
		Nitzschiaceae			
		Nitzschia	68	2	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	540	15	
		TOTAL	3,600		

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Jan. 28	1530	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	82	1	
		Dictyosphaerium	650	9	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	82	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	4,500	61	
		Melosira	1,600	22	
		Stephanodiscus	240	3	
		Pennales			
		Fragilariaceae			
		Synedra	82	1	
		Naviculaceae			
		Navicula		0	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonidales			
		Cryptomonadaceae			
		Cryptomonas	82	1	
		TOTAL	7,300		
Feb. 25	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	710	38	
		Dictyosphaerium		0	
		Kirchneriella		0	
		Oocystis	25	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	480	26	
		Melosira	530	28	
		Pennales			
		Diatomaceae			
		Diatoma	25	1	
		Fragilariaceae			
		Asterionella		0	
		Synedra	25	1	
		Naviculaceae			
		Navicula	51	3	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas	25	1	
		TOTAL	1,900		
Mar. 23	1530	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	35	2	
		Scenedesmaceae			
		Crucigenia	420	24	
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	490	28	
		Melosira	730	42	
		Stephanodiscus		0	
		Pennales			
		Achnanthaceae			
		Achnanthes		0	
		Naviculaceae			
		Navicula	35	2	
		Nitzschaceae			
		Nitzschia		0	

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Mar. 23	1530	EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas	35	2	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Phacus		0	
Apr. 28	1030	TOTAL	1,700		
		CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	160	3	
		Chodatella	55	1	
		Kirchneriella	270	5	
		Scenedesmaceae			
		Scenedesmus	330	5	
		Tetrastrum	220	4	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	3,500	59	
		Melosira	710	12	
		Pennales			
		Fragilariaceae			
		Asterionella	55	1	
		Naviculaceae			
		Navicula	55	1	
		Nitzschiaceae			
		Nitzschia	55	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	600	10	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas		0	
June 29	1130	TOTAL	6,100		
		CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum		0	
		Occystaceae			
		Dictyosphaerium	330	14	
		Oocystis	100	4	
		Scenedesmaceae			
		Scenedesmus	460	20	
		Tetrallantos	100	4	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	26	1	
		Volvocaceae			
		Gonium	280	12	
		Pandorina	410	18	
		Zygnematales			
		Desmidiaceae			
		Euastrum	51	2	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	510	22	
		Pennales			
		Nitzschiaceae			
		Nitzschia	26	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Trachelomonas	26	1	
		TOTAL	2,300		

ARKANSAS RIVER BASIN

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
July 28	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Tetraedron	44	2	
		Scenedesmaceae			
		Actinastrum	360	15	
		Scenedesmus	530	22	
		Volvocales			
		Volvocaceae			
		Pandorina		0	
		Zygnematales			
		Desmidiaceae			
		Euastrum	44	2	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	620	26	
		Melosira	130	6	
		Pennales			
		Nitzschiaceae			
		Nitzschia	310	13	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	360	15	
		TOTAL	2,400		
Aug. 24	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	1,200	41	
		Occystaceae			
		Ankistrodesmus	36	1	
		Dictyosphaerium	500	17	
		Quadricoccus	390	13	
		Treubaria	36	1	
		Scenedesmaceae			
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	110	4	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	180	6	
		Melosira	180	6	
		Pennales			
		Naviculaceae			
		Navicula	71	2	
		Nitzschiaceae			
		Nitzschia	71	2	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Aphanizomenon	110	4	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	36	1	
		TOTAL	2,900		
Sept. 28	1245	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	140	3	
		Zygnematales			
		Desmidiaceae			
		Euastrum	70	1	

ARKANSAS RIVER BASIN

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07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Sept. 28	1245	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	560	11	
		Melosira	1,600	32	
		Pennales			
		Nitzschiaceae			
		Nitzschia	140	3	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya	1,800	36	
		Rivulariaceae			
		Raphidiopsis	700	14	
		TOTAL	5,000		

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE, NEAR FORT GIBSON, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	255	253	258	---	281	284	243	318	301	234	237
2	240	248	261	258	---	300	285	245	317	306	235	235
3	242	253	260	259	272	292	---	245	313	---	235	238
4	241	254	261	260	272	273	---	248	317	---	237	248
5	240	256	261	263	270	272	---	250	317	301	236	237
6	245	257	257	271	271	276	---	258	320	285	239	237
7	246	255	258	265	280	277	282	253	323	283	239	237
8	246	262	264	268	275	273	283	306	288	257	237	238
9	251	---	260	268	292	275	283	271	318	293	243	237
10	248	261	---	274	277	273	288	281	317	---	235	237
11	248	257	---	286	270	271	---	285	315	---	234	237
12	250	259	255	268	275	277	290	261	314	---	236	269
13	253	258	---	264	272	278	284	279	312	284	234	---
14	250	260	---	285	273	286	285	280	314	279	272	237
15	252	261	266	264	266	283	286	281	309	269	263	239
16	252	---	270	265	279	284	290	286	310	267	235	236
17	251	273	267	268	---	288	321	286	310	256	234	233
18	267	269	266	270	292	287	398	290	309	246	235	239
19	---	282	265	268	275	285	268	301	---	239	234	235
20	275	259	---	264	270	---	260	302	305	243	233	237
21	257	261	---	264	---	288	280	304	297	244	234	238
22	256	266	---	266	268	286	273	306	306	---	236	238
23	254	---	262	266	270	283	255	308	314	---	236	240
24	249	---	265	270	272	288	252	310	306	237	237	242
25	253	262	297	---	272	287	254	307	305	---	236	236
26	---	264	---	---	275	294	---	287	304	---	235	236
27	254	272	---	---	279	368	256	306	307	---	237	---
28	252	263	---	269	---	396	251	316	302	245	241	238
29	256	262	271	267	---	---	250	302	302	241	237	236
30	255	268	260	266	---	---	246	306	300	240	258	238
31	253	---	260	---	---	---	---	314	---	236	236	---
MONTH	251	261	---	267	275	290	279	284	310	---	239	239
YEAR	MAX	398	MIN	233	MEAN	269						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	18.0	9.5	9.0	9.0	16.0	14.0	16.5	21.0	23.5	27.5	25.0
2	---	17.5	10.5	8.0	12.0	17.0	14.5	16.5	21.5	23.5	25.5	24.5
3	21.0	17.5	11.0	7.5	9.0	15.5	14.0	16.5	21.5	24.0	27.5	24.5
4	21.0	18.0	10.0	6.5	11.0	13.0	14.5	16.0	21.5	24.0	27.5	25.0
5	21.0	18.0	10.5	6.0	5.5	13.0	16.0	15.5	21.5	24.0	27.5	26.0
6	21.0	18.5	10.5	6.5	5.0	13.0	16.5	16.5	21.5	23.5	27.5	26.5
7	21.0	19.0	10.0	4.0	5.0	14.0	17.0	16.5	21.0	23.5	27.5	27.0
8	21.0	19.0	10.0	4.5	6.0	14.0	16.0	16.5	22.0	23.0	27.0	27.0
9	22.0	19.0	14.5	4.0	10.5	14.0	15.0	17.0	22.0	23.5	26.0	26.5
10	22.0	18.0	10.5	5.0	9.5	15.0	15.5	17.5	22.0	24.0	27.5	26.5
11	22.0	17.0	11.0	5.0	11.0	13.0	---	18.0	22.0	24.0	27.5	26.5
12	22.0	15.5	10.0	5.0	10.0	15.0	17.0	18.0	21.5	24.0	27.0	26.5
13	23.0	15.0	10.5	7.0	11.0	12.5	17.0	18.0	22.0	24.5	26.5	---
14	22.0	15.5	11.0	7.0	12.0	13.0	16.0	17.5	22.5	24.5	27.0	---
15	21.5	15.5	9.5	5.5	14.0	13.0	16.5	17.0	22.5	24.0	27.0	---
16	21.0	16.0	9.5	8.0	14.0	13.5	16.0	17.0	22.5	25.0	27.5	---
17	21.0	16.0	9.0	8.0	14.0	---	16.5	18.5	22.5	25.0	27.5	---
18	20.0	16.5	9.0	8.0	15.5	---	16.5	18.5	22.0	25.0	27.5	---
19	20.0	15.5	9.0	9.5	15.5	---	16.0	18.5	---	25.5	28.0	26.0
20	21.0	14.0	9.5	9.0	15.5	---	16.0	18.5	22.5	26.0	28.5	25.0
21	20.0	12.0	9.0	7.0	---	---	17.0	19.0	23.5	26.5	28.5	24.0
22	21.0	12.0	9.0	7.5	15.0	12.5	17.0	19.0	24.0	26.5	28.0	24.0
23	22.0	12.0	9.5	8.0	12.0	13.0	17.5	19.0	24.0	26.5	28.5	25.0
24	20.0	9.0	8.5	8.5	11.5	---	16.5	19.0	24.0	26.5	28.0	25.0
25	19.0	9.5	7.0	8.0	12.0	---	16.0	18.5	24.5	26.5	28.0	24.5
26	18.0	9.0	7.5	8.5	15.5	---	17.0	18.0	24.5	27.0	28.0	24.0
27	17.0	8.5	8.0	7.0	14.0	---	17.0	18.5	24.5	27.0	28.0	---
28	18.5	9.5	7.5	7.5	14.5	---	15.0	20.0	24.5	27.0	28.0	22.5
29	18.5	9.5	8.0	7.0	15.0	14.0	15.5	21.0	24.0	27.5	27.5	23.0
30	19.0	10.0	8.0	8.0	---	13.5	15.5	20.0	24.0	28.0	27.0	23.5
31	18.0	---	7.5	8.5	---	13.5	---	21.0	---	28.0	25.0	---
MONTH	20.5	14.5	9.5	7.0	11.5	---	16.0	18.0	22.5	25.0	27.5	---
YEAR	MAX	28.5	MIN	4.0	MEAN	17.5						

ARKANSAS RIVER BASIN

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07194500 ARKANSAS RIVER NEAR MUSKOGEE, OK

PERIOD OF RECORD.--Water years 1957, 1962-63, January 1976 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
JAN 28...	1028	9740	1230	--	850	8.1	6.5	3	--	--	20	208
FEB 25...	1028	9740	1100	--	1280	8.7	12.0	3	11.0	107	55	200
MAR 23...	1028	9740	1430	--	440	7.7	12.5	7	9.9	97	20	140
APR 28...	1028	9740	1500	--	1420	8.2	14.0	30	11.0	112	12	240
MAY 26...	1028	9740	1100	--	2080	8.1	18.0	24	8.3	94	49	308
JUN 23...	1028	9740	--	--	1400	9.0	27.0	14	--	--	13	250
JUL 28...	1028	9740	1000	--	240	--	26.0	50	8.6	173	10	88
SEP 14...	1028	9740	1345	--	860	8.9	28.0	23	11.8	155	23	--

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CaCO3 (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
JAN 28...	75	136	13	140	5.3	238	.3	648	1.4	.33	--
FEB 25...	77	147	14	140	5.4	297	.3	823	.80	.26	2
MAR 23...	67	120	9.0	20	3.7	41	.3	274	1.0	.18	--
APR 28...	72	170	16	180	4.4	410	.4	849	1.0	.11	--
MAY 26...	80	208	23	486	6.7	751	.4	1644	1.2	.17	2
JUN 23...	64	150	14	169	5.1	263	.4	681	.80	<.09	--
JUL 28...	32	67	4.7	10	3.3	17	.2	170	1.7	.12	--
SEP 14...	54	--	11	100	5.6	191	.4	541	2.2	.24	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN 28...	--	--	--	200	--	54	--	--	--	--	--
FEB 25...	<1	5	4	400	21	93	--	8	--	1	9
MAR 23...	--	--	--	1300	--	180	--	--	--	--	--
APR 28...	--	--	--	500	--	120	--	--	--	--	--
MAY 26...	2	9	12	600	17	116	.5	14	3	2	12
JUN 23...	--	--	--	<100	--	15	--	--	--	--	--
JUL 28...	--	--	--	900	--	134	--	--	--	--	--
SEP 14...	--	--	--	300	--	129	--	--	--	--	--

ARKANSAS RIVER BASIN

07195500 ILLINOIS RIVER NEAR WATTS, OK

LOCATION.--Lat 36°07'48", long 94°34'12", in NE 1/4 sec.18, T.19 N., R.26 E., Adair County, near right bank on downstream side of pier of bridge on U.S. Highway 59, 1.5 mi (2.4 km) north of Watts, 4.5 mi (7.2 km) downstream from Cincinnati Creek, and at mile 106.2 (170.9 km).

DRAINAGE AREA.--635 mi² (1,645 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 893.78 ft (272.424 m) above mean sea level.

REMARKS.--Records good. Some regulations at low flow by Lake Francis Dam, 0.8 mile (1.29 km) above station. Since July 2, 1957, small diversion above station for municipal water supply for city of Siloam Springs, Ark.

COOPERATION.--Gage-height record and 17 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--21 years, 618 ft³/s (17.50 m³/s), 13.23 in/yr (336 mm/yr), 447,700 acre-ft/yr (552 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,000 ft³/s (1,930 m³/s) July 25, 1960, gage height, 25.96 ft (7.913 m), from rating curve extended above 51,000 ft³/s (1,440 m³/s); minimum, 8.6 ft³/s (0.24 m³/s) Oct. 26, 1955, Sept. 19, Oct. 14, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,700 ft³/s (898 m³/s) at 2000 Apr. 20, gage height, 22.38 ft (6.821 m), no other peak above base of 6,500 ft³/s (184 m³/s); minimum daily, 19 ft³/s (0.54 m³/s) Nov. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	213	1590	783	257	238	755	918	879	342	207	126
2	409	220	1030	696	252	227	622	811	691	328	190	129
3	370	208	810	627	253	214	541	724	587	378	180	142
4	343	228	661	573	242	250	479	662	517	973	178	165
5	328	293	801	525	247	229	444	620	476	544	180	161
6	310	314	4930	488	247	342	417	749	437	491	207	147
7	301	278	2860	466	245	309	393	800	408	432	190	130
8	299	370	1670	473	239	396	368	646	384	381	180	124
9	279	462	1240	445	248	2270	346	571	365	344	165	124
10	273	370	1000	400	232	1710	334	530	350	317	159	135
11	265	290	849	393	242	1130	312	515	334	296	155	143
12	262	288	722	381	251	1050	302	504	420	270	151	145
13	253	262	680	369	236	1030	314	682	447	258	150	132
14	251	189	615	363	250	790	326	767	445	252	148	142
15	244	164	610	356	234	681	346	610	257	252	151	151
16	241	123	638	338	232	616	312	635	57	252	159	154
17	237	19	572	331	234	554	344	601	86	240	165	162
18	238	19	531	335	224	510	860	532	190	227	155	152
19	234	36	487	308	234	484	1460	474	283	218	142	151
20	228	59	462	316	258	423	19400	429	270	216	140	144
21	225	243	444	312	234	408	12100	399	252	214	138	137
22	234	277	419	309	304	373	3960	378	250	209	134	138
23	233	247	404	302	304	358	2640	362	291	205	134	136
24	245	220	398	297	288	349	1800	474	1520	203	137	130
25	388	213	419	288	262	358	1550	1110	1090	199	146	132
26	367	214	454	283	243	334	1220	746	726	193	140	133
27	288	217	484	278	245	332	1040	912	527	186	135	138
28	250	212	509	272	250	354	1010	1500	454	182	131	145
29	241	1030	673	268	245	692	1350	1060	402	375	128	141
30	234	2260	911	264	---	1670	1060	825	370	390	121	132
31	229	---	877	261	---	974	---	991	---	260	121	---
TOTAL	8703	9538	28750	12100	7232	19655	56405	21537	13765	9627	4817	4221
MEAN	281	318	927	390	249	634	1880	695	459	311	155	141
MAX	409	2260	4930	783	304	2270	19400	1500	1520	973	207	165
MIN	225	19	398	261	224	214	302	362	57	162	121	124
CFSM	.44	.50	1.46	.61	.39	1.00	2.96	1.09	.72	.49	.24	.22
IN.	.51	.56	1.68	.71	.42	1.15	3.30	1.26	.81	.56	.28	.25
AC-FT	17260	18920	57030	24000	14340	38990	111900	42720	27300	19100	9550	8370

CAL YR 1975 TOTAL 317418 MEAN 870 MAX 11400 MIN 19 CFSM 1.37 IN 18.60 AC-FT 629600
WTR YR 1976 TOTAL 196350 MEAN 536 MAX 19400 MIN 19 CFSM .84 IN 11.50 AC-FT 389500

ARKANSAS RIVER BASIN

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07195500 ILLINOIS RIVER NEAR WATTS, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-61, 1963, 1969-73, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV 12...	1028	9740	1530	288	260	7.6	10.5	29	10.7	98	--	--
DEC 16...	1028	9740	1015	638	210	6.3	9.5	15	10.8	95	4	100
JAN 19...	1028	9740	1100	308	200	7.9	6.0	4	11.4	93	<4	147
FEB 18...	1028	9740	1015	224	250	7.4	13.0	7	9.6	94	16	106
MAR 15...	1028	9740	1130	681	200	7.8	11.0	19	10.2	99	<4	93
APR 14...	1028	9740	1045	326	250	8.2	19.0	--	8.5	96	8	100
MAY 18...	1028	9740	1045	532	200	7.9	17.0	14	9.9	104	23	99
JUN 14...	1028	9740	1210	445	240	8.3	26.0	20	7.8	103	8	120
JUL 20...	1028	9740	1245	216	230	8.6	28.0	70	8.1	104	7	123
AUG 17...	1028	9740	1330	165	240	8.4	29.0	14	6.8	89	16	119
SEP 14...	1028	9740	1250	142	210	8.0	23.0	15	6.6	88	15	--

ARKANSAS RIVER BASIN

07195500 ILLINOIS RIVER NEAR WATTS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUU- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
12...	51	--	2.0	6.0	2.1	--	.1	--	2.7	--	2
DEC											
16...	41	64	2.0	--	1.9	9.0	<.1	114	3.4	.12	--
JAN											
19...	47	112	2.0	5.0	1.6	9.0	<.1	108	2.0	.17	--
FEB											
18...	60	106	1.4	10	1.8	17	.1	157	1.2	.12	<1
MAR											
15...	--	93	--	1.0	1.8	11	<.1	123	.40	.18	--
APR											
14...	48	100	1.5	5.0	1.8	--	<.1	157	.40	.15	--
MAY											
18...	37	72	1.5	7.0	1.8	17	.1	144	.90	.12	2
JUN											
14...	42	110	1.6	5.0	1.9	20	.2	125	.90	.18	--
JUL											
20...	37	102	1.7	2.0	2.3	11	<.1	158	1.7	.10	--
AUG											
17...	41	110	1.6	7.0	3.2	24	.1	148	2.2	<.08	3
SEP											
14...	45	--	1.6	5.0	2.6	--	.3	177	1.7	.19	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
12...	1	3	5	1200	1300	190	--	4	--	1	10
DEC											
16...	--	--	--	800	--	59	--	--	--	--	--
JAN											
19...	--	--	--	100	--	30	--	--	--	--	--
FEB											
18...	<1	2	4	300	19	62	--	2	--	<1	6
MAR											
15...	--	--	--	300	--	48	--	--	--	--	--
APR											
14...	--	--	--	300	--	63	--	--	--	--	--
MAY											
18...	1	9	2	800	8	101	<.5	7	--	3	8
JUN											
14...	--	--	--	300	--	160	--	--	--	--	--
JUL											
20...	--	--	--	200	--	137	--	--	--	--	--
AUG											
17...	<1	8	3	200	8	144	<.5	<3	<3	<1	3
SEP											
14...	--	--	--	400	--	188	--	--	--	--	--

ARKANSAS RIVER BASIN

281

07196000 FLINT CREEK NEAR KANSAS, OK

LOCATION.--Lat 36°11'54", long 94°42'30", in SW 1/4 sec.24, T.20 N., R.24 E., Delaware County, near left bank on downstream side of pier of bridge on State Highway 33, 6.0 mi (9.7 km) southeast of Kansas, 6.0 mi (9.7 km) downstream from Sager Creek, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--110 mi² (285 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1955 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 854.59 ft (260.479 m) above mean sea level.

REMARKS.--Records good. Small diversion above station for irrigation.

COOPERATION.--Gage-height record and 17 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--21 years, 121 ft³/s (3.427 m³/s), 14.93 in/yr (379 mm/yr), 87,660 acre-ft/yr (108 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,600 ft³/s (668 m³/s) Aug. 14, 1961, gage height, 15.66 ft (4.773 m), from rating curve extended above 7,200 ft³/s (204 m³/s); minimum daily, 0.6 ft³/s (0.017 m³/s) Oct. 11-13, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,970 ft³/s (197 m³/s) at 0745 Apr. 20, gage height, 10.68 ft (3.255 m), no other peak above base of 2,500 ft³/s (70.8 m³/s); minimum daily, 29 ft³/s (0.82 m³/s) Aug. 30, Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	53	513	195	65	59	109	226	116	67	50	31
2	101	52	367	183	66	59	102	200	107	65	47	33
3	92	54	293	166	66	60	96	178	98	67	46	35
4	87	62	240	152	66	62	89	163	91	171	44	35
5	81	63	305	140	66	65	83	153	87	104	44	35
6	76	58	1210	130	65	63	80	162	81	84	55	33
7	75	56	528	122	64	60	77	141	76	77	52	32
8	73	55	373	112	63	75	73	127	72	70	47	32
9	70	54	300	104	62	226	70	118	68	65	45	32
10	68	56	257	98	63	247	67	116	65	60	43	32
11	65	55	220	95	65	214	65	112	62	56	41	31
12	61	53	195	90	63	191	62	107	60	53	40	30
13	59	52	171	88	62	164	66	117	57	51	39	29
14	57	51	157	85	61	145	71	107	55	50	37	33
15	57	51	159	80	60	133	66	103	56	49	36	37
16	57	49	149	77	59	122	66	102	57	51	48	36
17	56	49	138	73	59	113	73	95	54	48	42	46
18	55	49	130	71	60	105	938	90	60	46	36	60
19	53	52	123	70	59	100	1110	86	58	44	36	46
20	52	72	118	73	59	94	3900	82	53	44	34	45
21	53	70	112	70	68	87	1600	80	50	43	33	40
22	53	62	107	69	66	82	651	76	50	42	31	36
23	52	58	106	68	63	79	527	72	89	41	31	34
24	57	56	102	69	62	78	444	86	216	41	33	32
25	90	55	109	68	61	79	361	86	171	40	33	31
26	69	56	111	67	61	77	300	89	121	39	32	31
27	62	57	112	68	61	74	262	168	101	39	31	33
28	60	57	117	67	60	71	275	135	88	38	30	35
29	58	662	146	68	59	92	277	122	82	77	31	35
30	56	1130	199	67	---	117	249	116	74	68	29	36
31	54	---	203	67	---	110	---	128	---	54	30	---
TOTAL	2069	3359	7370	2952	1814	3303	12409	3703	2475	1844	1210	1066
MEAN	66.7	112	238	95.2	62.6	107	414	119	82.5	59.5	39.0	35.5
MAX	108	1130	1210	195	68	247	3900	226	216	171	55	60
MIN	52	49	102	67	59	59	62	72	50	38	29	29
CFSM	.61	1.02	2.16	.87	.57	.97	3.76	1.08	.75	.54	.35	.32
IN.	.70	1.14	2.49	1.00	.61	1.12	4.20	1.25	.84	.62	.41	.36
AC=FT	4100	6660	14620	5860	3600	6550	24610	7340	4910	3660	2400	2110
CAL YR 1975	TOTAL	73280	MEAN 201	MAX 3570	MIN 49	CFSM 1.83	IN 24.78	AC=FT	145400			
WTR YR 1976	TOTAL	43574	MEAN 119	MAX 3900	MIN 29	CFSM 1.08	IN 14.74	AC=FT	86430			

ARKANSAS RIVER BASIN

07196000 FLINT CREEK NEAR KANSAS, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955-61, 1963, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 12...	1028	9740	1430	53	220	8.1	12.0	1	11.0	104	--	--
DEC 16...	1028	9740	1130	149	180	7.4	8.0	4	11.6	104	4	83
JAN 19...	1028	9740	1145	70	160	7.4	7.0	0	11.4	95	14	89
FEB 18...	1028	9740	1100	60	200	6.7	10.0	0	9.3	89	<4	88
MAR 15...	1028	9740	1215	133	200	8.0	12.0	1	8.9	87	<4	86
APR 14...	1028	9740	1130	71	210	7.9	17.0	2	7.9	89	<4	93
MAY 18...	1028	9740	1145	90	200	7.8	17.0	0	8.5	89	16	85
JUN 14...	1028	9740	1130	55	210	7.8	23.0	1	7.4	91	4	97
JUL 20...	1028	9740	1150	44	250	7.7	24.0	0	7.4	90	<1	136
AUG 17...	1028	9740	1255	42	240	7.9	26.5	2	7.8	97	<4	108
SEP 14...	1028	9740	1210	33	230	7.5	22.0	9	7.1	86	2	--

ARKANSAS RIVER BASIN

283

07196000 FLINT CREEK NEAR KANSAS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACU3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
12...	47	--	2.2	5.0	1.8	--	.1	--	9.2	--	<1
DEC											
16...	35	81	1.0	5.0	1.8	7.0	<.1	--	3.2	.11	--
JAN											
19...	38	89	1.0	4.0	1.6	7.0	.6	121	2.0	.10	--
FEB											
18...	49	88	1.2	8.0	1.8	13	.9	144	.30	<.10	<1
MAR											
15...	40	86	1.7	--	1.8	15	<.1	125	.40	.16	--
APR											
14...	44	88	1.3	5.0	1.7	38	<.1	143	.30	.13	--
MAY											
18...	34	79	1.2	7.0	1.2	19	<.1	114	.80	.10	<1
JUN											
14...	36	97	1.2	5.0	1.6	24	.1	121	.50	.10	--
JUL											
20...	38	104	1.5	2.0	2.2	11	<.1	152	1.4	.18	--
AUG											
17...	41	108	1.5	5.0	2.6	19	.2	143	1.4	.12	2
SEP											
14...	40	--	1.4	--	2.1	--	.3	196	1.4	.06	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CUPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
12...	1	2	4	<100	18	6	--	6	--	<1	10
DEC											
16...	--	--	--	<100	--	<1	--	--	--	--	--
JAN											
19...	--	--	--	<100	--	2	--	--	--	--	--
FEB											
18...	<1	1	1	<100	7	4	--	2	--	<1	1
MAR											
15...	--	--	--	<100	--	2	--	--	--	--	--
APR											
14...	--	--	--	<100	--	8	--	--	--	--	--
MAY											
18...	2	3	1	<100	4	<5	<.5	3	--	1	1
JUN											
14...	--	--	--	100	--	2	--	--	--	--	--
JUL											
20...	--	--	--	<100	--	3	--	--	--	--	--
AUG											
17...	<1	12	4	<100	11	5	<.5	5	<3	<1	8
SEP											
14...	--	--	--	<100	--	8	--	--	--	--	--

ARKANSAS RIVER BASIN

07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OK

LOCATION.--Lat 35°55'17", long 94°55'15", in SE 1/4 sec.26, T.17 N., R.22 E., Cherokee County, near center of span on downstream side of pier of bridge 0.2 mi (0.3 km) downstream from U.S. Highway 62, 2.2 mi (3.5 km) northeast of Tahlequah, 6.5 mi (10.5 km) upstream from Barren Fork, and at mile 55.8 (89.8 km).

DRAINAGE AREA.--959 mi² (2,482 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 664.14 ft (202.430 m) above mean sea level (Corps of Engineers bench mark). Prior to Feb. 23, 1939, nonrecording gage.

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years, 915 ft³/s (25.913 m³/s), 12.96 in/yr (329 mm/yr), 662,900 acre-ft/yr (817 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s (4,250 m³/s) May 10, 1950, gage height, 27.94 ft (8.516 m), from rating curve extended above 77,000 ft³/s (2,180 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.1 ft³/s (2.8 l/s) Oct. 10-14, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1916 reached a stage of about 26 ft (7.9 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,000 ft³/s (935 m³/s) at 1845 Apr. 21, gage height, 18.52 ft (5.645 m), no other peaks above base of 9,000 ft³/s (255 m³/s); minimum, 173 ft³/s (4.90 m³/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	646	323	3980	1320	396	372	1450	1590	1380	532	397	179
2	607	316	2740	1230	390	365	1190	1390	1270	488	342	178
3	590	318	1890	1110	387	355	1020	1220	1050	479	300	183
4	557	332	1490	1000	383	351	890	1090	900	515	275	185
5	520	345	1360	920	377	364	795	998	794	934	260	194
6	490	355	3970	849	373	354	725	958	732	915	293	208
7	465	404	7480	788	373	391	669	974	681	713	301	209
8	446	391	4710	728	369	475	626	1040	632	610	307	198
9	434	392	2810	678	364	700	588	912	591	540	283	187
10	420	507	2100	656	363	2430	553	821	555	483	263	179
11	403	512	1710	638	362	2300	525	757	525	441	246	174
12	391	426	1440	620	360	1790	495	722	498	410	234	178
13	380	390	1220	599	366	1580	480	723	511	380	227	181
14	369	373	1090	576	362	1490	487	768	552	354	222	191
15	359	362	997	560	361	1230	491	951	596	341	222	191
16	353	335	941	544	360	1040	490	860	506	337	217	214
17	342	293	915	519	352	922	491	833	362	331	221	234
18	335	247	854	509	345	831	1190	803	281	324	224	240
19	331	209	793	503	342	777	4010	744	248	313	221	255
20	327	204	738	489	343	732	10800	680	315	298	212	246
21	322	199	698	476	359	681	25800	626	361	284	204	234
22	316	230	669	469	368	651	16200	586	357	274	199	221
23	315	358	642	461	376	610	5800	558	347	266	194	210
24	328	379	617	454	417	581	3690	530	404	260	191	204
25	329	364	623	450	413	560	2720	554	1390	255	189	199
26	384	354	651	440	398	549	2280	1050	1360	249	192	196
27	471	346	688	429	376	534	1900	1030	1050	242	194	193
28	420	344	701	422	372	506	1700	1080	605	235	191	193
29	373	470	757	414	370	625	1630	1640	677	284	187	198
30	346	2360	943	406	---	924	1820	1390	595	322	182	203
31	333	---	1270	401	---	1810	---	1310	---	441	181	---
TOTAL	12702	12438	51467	19658	10777	26880	91505	29188	20325	12850	7371	6055
MEAN	410	415	1660	634	372	867	3050	942	678	415	238	202
MAX	646	2360	7480	1320	417	2430	25800	1640	1390	934	397	255
MIN	315	199	617	401	342	351	480	530	248	235	181	174
CFSM	.43	.43	1.73	.66	.39	.90	3.18	.98	.71	.43	.25	.21
IN.	.49	.48	2.00	.76	.42	1.04	3.55	1.13	.79	.50	.29	.23
AC-FT	25190	24670	102100	38990	21380	53320	181500	57890	40310	25490	14620	12010

CAL YR 1975 TOTAL 491777 MEAN 1347 MAX 11500 MIN 199 CFSM 1.40 IN 19.08 AC-FT 975400
WTR YR 1976 TOTAL 301216 MEAN 823 MAX 25800 MIN 174 CFSM .86 IN 11.68 AC-FT 597500

ARKANSAS RIVER BASIN

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07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-61, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV 12...	1028	9740	0900	426.	230	6.9	12.0	4	--	--	--	--
DEC 16...	1028	9740	0815	941	190	6.8	9.0	8	10.4	92	<4	92
JAN 19...	1028	9740	0930	503	190	8.0	6.0	2	13.2	108	<4	94
FEB 18...	1028	9740	0815	345	220	7.2	11.0	1	8.2	79	4	92
MAR 15...	1028	9740	0945	1230	160	7.8	11.0	7	8.8	85	<4	84
APR 14...	1028	9740	0845	487	210	7.7	17.0	10	7.4	81	4	88
MAY 18...	1028	9740	0900	803	200	7.9	17.0	2	8.1	84	12	87
JUN 14...	1028	9740	0845	552	200	7.5	24.0	2	5.6	69	4	97
JUL 20...	1028	9740	1435	298	220	7.9	28.0	35	8.2	106	--	115
AUG 17...	1028	9740	1500	221	160	7.7	28.5	3	8.2	107	<4	97
SEP 14...	1028	9740	1415	191	220	7.6	24.0	3	7.4	91	4	--

ARKANSAS RIVER BASIN

07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
12...	47	--	1.6	5.0	1.8	--	.1	--	1.7	--	<1
DEC											
16...	36	83	2.0	2.0	2.1	2.2	<.1	98	.70	.07	--
JAN											
19...	40	89	2.0	4.0	1.6	9.0	<.1	81	1.8	.05	--
FEB											
10...	50	88	1.6	5.0	1.8	13	.8	130	.30	<.10	<1
MAR											
15...	26	79	1.3	3.0	1.8	11	<.1	105	.50	.12	--
APR											
14...	40	88	1.5	6.0	1.8	51	<.1	137	.40	<.08	--
MAY											
18...	34	75	1.5	4.0	1.6	17	<.1	121	1.7	<.08	<1
JUN											
14...	35	88	1.5	5.0	1.9	20	.1	105	.60	<.08	--
JUL											
20...	35	100	1.7	3.0	2.2	11	<.1	152	1.9	.13	--
AUG											
17...	37	95	1.8	4.0	2.0	17	.2	137	1.3	<.08	<1
SEP											
14...	38	--	1.7	<2.0	2.2	74	.3	--	1.3	<.08	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRU- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SEL- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
12...	<1	3	3	300	8	25	--	<1	--	<1	10
DEC											
16...	--	--	--	<100	--	20	--	--	--	--	--
JAN											
19...	--	--	--	<100	--	20	--	--	--	--	--
FEB											
18...	<1	10	2	100	11	15	--	1	--	<1	4
MAR											
15...	--	--	--	100	--	19	--	--	--	--	--
APR											
14...	--	--	--	200	--	30	--	--	--	--	--
MAY											
18...	1	2	2	100	5	11	.5	6	--	2	10
JUN											
14...	--	--	--	<100	--	23	--	--	--	--	--
JUL											
20...	--	--	--	100	--	14	--	--	--	--	--
AUG											
17...	1	17	2	100	<5	28	<.5	7	<2	<1	8
SEP											
14...	--	--	--	100	--	16	--	--	--	--	--

ARKANSAS RIVER BASIN

287

07197000 BARON FORK AT ELDON, OK

LOCATION.--Lat 35°55'16", long 94°50'18", in SE 1/4 sec.27, T.17 N., R.23 E., Cherokee County, on downstream side of left pier of bridge on State Highway 51, 0.4 mi (0.6 km) southeast of Eldon, 6.0 mi (9.7 km) downstream from Tyner Creek, and at mile 8.8 (14.2 km).

DRAINAGE AREA.--307 mi² (795 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1948 to current year. Prior to October 1970 published as Barren Fork at Eldon.

GAGE.--Water-stage recorder. Datum of gage is 701.14 ft (213.707 m) above mean sea level (levels by Corps of Engineers). Prior to Dec. 14, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--28 years, 301 ft³/s (8.524 m³/s), 13.30 in/yr (338 mm/yr), 218,100 acre-ft/yr (269 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft³/s (1,070 m³/s) Apr. 3, 1957, gage height, 20.33 ft (6.197 m), maximum gage height, 22.73 ft (6.928 m), Apr. 20, 1976; minimum, 1.7 ft³/s (0.048 m³/s) Oct. 25, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 15, 1945, reached a stage of 23.8 ft (7.25 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,400 ft³/s (1,030 m³/s) at 1345 Apr. 20, gage height, 22.73 ft (6.928 m), no other peaks above base of 6,000 ft³/s (170 m³/s); minimum, 22 ft³/s (0.62 m³/s) Sept. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	65	941	376	102	99	487	503	631	123	49	27
2	94	64	679	342	99	99	431	453	436	112	48	27
3	91	65	538	312	97	97	385	415	354	112	46	28
4	86	72	447	284	95	99	346	379	306	245	44	28
5	83	83	450	258	95	98	311	352	271	269	42	27
6	79	88	2740	241	93	126	280	429	244	183	48	27
7	77	89	1500	224	92	136	254	460	247	144	47	26
8	75	87	994	210	91	160	230	374	220	124	46	26
9	72	85	780	192	90	1600	212	329	196	109	45	26
10	70	87	643	183	90	1120	197	301	176	99	44	26
11	68	88	547	175	90	775	185	281	161	91	42	25
12	67	90	475	170	88	852	174	265	149	86	40	24
13	65	89	418	164	88	823	168	289	138	80	39	23
14	63	86	378	158	87	648	165	343	128	76	37	24
15	63	82	349	152	87	548	164	359	123	75	38	25
16	63	79	334	145	87	477	162	452	118	76	38	27
17	62	76	305	140	86	419	170	479	112	73	36	31
18	61	74	280	136	86	377	974	418	126	69	35	33
19	60	75	259	133	86	336	1850	364	132	66	34	35
20	60	95	240	130	88	304	16700	322	123	62	32	36
21	59	213	225	127	95	273	6120	289	111	59	31	36
22	58	178	212	125	112	244	2680	258	103	57	30	34
23	60	147	203	123	131	225	1670	235	97	53	29	32
24	67	127	194	120	122	213	1190	221	123	51	29	31
25	83	114	199	118	115	206	961	208	611	50	29	29
26	85	108	207	115	109	199	771	198	366	46	28	29
27	82	102	215	113	106	192	640	198	242	44	27	31
28	78	98	232	111	103	185	573	213	189	42	26	36
29	74	253	261	108	102	281	640	213	160	56	26	35
30	70	1080	372	106	---	631	564	192	139	57	25	34
31	67	---	397	104	---	560	---	756	---	52	25	---
TOTAL	2245	4039	16014	5395	2812	12402	39654	10548	6532	2841	1135	878
MEAN	72.4	135	517	174	97.0	400	1322	340	218	91.6	36.6	29.3
MAX	103	1080	2740	376	131	1600	16700	756	631	269	49	36
MIN	58	64	194	104	86	97	162	192	97	42	25	23
CFSM	.24	.44	1.68	.57	.32	1.30	4.31	1.11	.71	.30	.12	.10
IN.	.27	.49	1.94	.65	.34	1.50	4.80	1.28	.79	.34	.14	.11
AC-FT	4450	8010	31760	10700	5580	24600	78650	20920	12960	5640	2250	1740
CAL YR 1975	TOTAL	137855	MEAN 378	MAX	4500	MIN 47	CFSM 1.23	IN 16.70	AC-FT	273400		
WTR YR 1976	TOTAL	104495	MEAN 286	MAX	16700	MIN 23	CFSM .93	IN 12.66	AC-FT	207300		

ARKANSAS RIVER BASIN

07197000 BARON FORK AT ELDON, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 12...	1028	9740	1000	90	150	6.8	15.0	0	--	--	--	--
DEC 16...	1028	9740	0910	334	170	6.3	8.0	4	11.0	96	<4	79
JAN 19...	1028	9740	0915	133	180	7.7	7.0	0	10.2	87	<4	84
FEB 18...	1028	9740	0900	86	210	6.9	10.0	1	4.2	87	25	77
MAR 15...	1028	9740	1020	548	170	7.6	12.0	2	4.3	91	9	68
APR 14...	1028	9740	0930	165	180	7.5	16.0	2	8.5	91	<4	77
MAY 18...	1028	9740	0945	418	140	7.8	16.0	0	8.7	87	16	81
JUN 14...	1028	9740	0920	128	170	7.6	23.0	1	7.3	90	<4	88
JUL 20...	1028	9740	1350	62	190	7.8	27.0	0	8.0	101	--	123
AUG 17...	1028	9740	1425	36	190	7.3	26.0	0	7.9	100	<4	79
SEP 14...	1028	9740	1345	24	180	7.7	24.0	0	7.8	96	3	--

ARKANSAS RIVER BASIN

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07197000 BARON FORK AT ELDON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CAC/13 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHURUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
12...	42	--	1.3	2.0	.8	--	.1	--	1.2	--	<1
DEC											
16...	33	75	2.0	5.0	1.0	7.0	<.1	--	1.8	.01	--
JAN											
19...	34	82	1.0	2.0	1.0	7.0	<.1	--	1.1	--	--
FEB											
18...	41	70	.6	2.0	1.2	11	.8	115	.40	<.10	<1
MAR											
15...	34	68	1.8	1.0	1.8	13	<.1	98	.40	.09	--
APR											
14...	36	77	1.3	5.0	1.0	--	<.1	119	.30	<.08	--
MAY											
18...	29	71	1.3	5.0	1.0	17	<.1	103	.90	.08	<1
JUN											
14...	31	78	1.3	3.0	1.1	24	.2	96	.50	<.08	--
JUL											
20...	31	81	1.5	1.0	1.3	4.0	<.1	111	1.1	<.08	--
AUG											
17...	33	--	1.5	<2.0	1.0	15	.3	126	1.1	<.08	1
SEP											
14...	32	--	1.4	<2.0	1.3	--	.3	139	1.3	<.08	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CUPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
12...	<1	2	4	100	5	4	--	1	--	<1	10
DEC											
16...	--	--	--	<100	--	<1	--	--	--	--	--
JAN											
19...	--	--	--	100	--	<1	--	--	--	--	--
FEB											
18...	<1	1	2	100	4	13	--	4	--	<1	3
MAR											
15...	--	--	--	<100	--	11	--	--	--	--	--
APR											
14...	--	--	--	100	--	<5	--	--	--	--	--
MAY											
18...	1	2	2	<100	8	<5	<.5	2	--	1	1
JUN											
14...	--	--	--	<100	--	5	--	--	--	--	--
JUL											
20...	--	--	--	<100	--	4	--	--	--	--	--
AUG											
17...	1	18	1	<100	6	7	<.5	<8	<2	<1	6
SEP											
14...	--	--	--	<100	--	<5	--	--	--	--	--

07197500 TENKILLER FERRY LAKE NEAR GORE, OK

LOCATION.--Lat 35°35'43", long 95°02'57", in SE 1/4 SW 1/4 sec.14, T.13 N., R.21 E., Sequoyah County, at gage tower on right bank, 0.6 mile (1.0 km) upstream from Tenkiller Ferry Dam on Illinois River, 6.0 mi (9.7 km) northeast of Gore, and at mile 12.8 (20.6 km).

DRAINAGE AREA.--1,610 mi² (4,170 km²).

PERIOD OF RECORD.--July 1952 to current year. Prior to October 1970 published as Tenkiller Ferry Reservoir near Gore.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Apr. 5, 1953, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth dam. Spillway consists of 590-ft (179.8 m) concrete modified ogee weir in right abutment controlled by 10 taintor gates. Outlet works consist of a 19-foot (5.8 m) diameter tunnel in right abutment controlled by two vertical-left gates. A similar tunnel conducts water to two hydroelectric turbines. Closure was made for diversion in July 1950 and regulated storage began in July 1952; conservation pool was first filled Apr. 9, 1953. Capacity, 1,231,000 acre-ft (1,520 hm³) at elevation 667.0 ft (203.302 m), flood-control pool, 791,900 acre-ft (976 hm³) at elevation, 642.0 ft (195.68 m), spillway crest, 628,700 acre-ft at elevation 630.0 ft (192.02 m), maximum power pool, and 283,100 acre-ft (349 hm³) at elevation 594.5 ft (181.20 m), conservation and minimum power pool. Figures given herein represent total contents. Reservoir is used for flood control and for power development.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,217,600 acre-ft (1,500 hm³) June 5, 1957, elevation, 666.36 ft (203.107 m); minimum since conservation pool was first filled, 305,700 acre-ft (377 hm³) Oct. 21, 1954, elevation, 597.50 ft (182.118 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 811,200 acre-ft (1.00 km³) Apr. 23, elevation, 643.31 ft (196.081 m); minimum, 545,200 acre-ft (672 hm³) Sept. 30, elevation, 623.00 ft (189.890 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

623	545,200	635	693,400
627	591,800	639	748,600
631	641,000	644	821,300

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	658400	617400	620600	657500	631800	596200	640400	731500	657100	643400	621400	572800
2	656100	616200	625600	657900	629900	595600	640100	721500	657400	643400	623300	572100
3	653600	618200	627100	660600	627000	592500	639400	711100	657400	645500	622900	571500
4	654500	617600	629400	663100	623700	590800	637700	702700	656300	646500	622800	569600
5	655700	617300	635300	661700	620300	588700	634200	697500	657800	647900	624400	569600
6	653100	616400	649500	660000	617100	587300	631200	692100	658400	648300	621800	567600
7	650200	615500	667500	657100	617600	589200	628500	686200	657100	648900	619800	565700
8	647600	616400	677400	653600	618600	591300	625600	681900	655800	649100	618600	563200
9	644900	617800	681300	650400	616500	593900	624400	677700	653600	648600	616500	562500
10	642500	616900	681300	647400	615800	601000	622300	673600	652100	649600	614700	561500
11	641800	616200	680400	648900	614600	606800	620300	669400	650800	650400	613100	561200
12	641700	615200	678700	647600	613600	615200	617400	668900	651700	649500	610900	561000
13	639400	613900	677700	647800	611700	620700	615900	666400	651100	648700	608800	556600
14	637200	612300	677800	646900	612500	626100	613300	664800	650000	647000	607500	558200
15	635200	612300	676100	646000	613400	630400	611700	664600	649100	646900	607400	557800
16	632300	612800	674700	645300	612300	631900	609800	663900	647300	646500	605300	556400
17	629300	611600	672800	642600	609400	634600	612100	662900	645100	646800	602000	555300
18	627800	610400	670300	643200	606600	637600	614300	661400	644300	647000	598900	553500
19	626200	609500	668000	643400	605700	638500	608100	660300	644500	645100	595700	553700
20	626100	608200	665600	643800	604100	640500	729100	658700	645100	643000	594100	553800
21	624800	606700	663300	643200	605300	642800	702900	656700	642700	641100	592500	553900
22	623900	605300	660600	643000	605900	642600	810600	654500	640600	638700	592700	553300
23	622800	604100	658200	642200	602400	642700	808800	652500	638400	636800	590100	552700
24	623900	602900	656100	640100	599200	642600	800700	649900	640900	637100	587300	551600
25	622400	601400	655500	640300	598600	641900	789300	647900	641400	634800	585400	549700
26	621000	600200	653400	638900	597200	639600	775700	647600	642300	632500	582500	550500
27	620100	600800	653200	638000	595700	639300	765700	646900	644300	629800	580300	547500
28	619500	599500	654100	636900	596600	638400	758100	646800	643600	627200	579300	546400
29	618600	605900	652300	635600	597300	638700	749600	646700	642700	625300	576700	545500
30	617400	612300	650800	634800	---	638200	741100	652800	642300	622900	574500	545200
31	617000	---	653600	632000	---	639400	---	656100	---	623400	573500	---
MAX	658400	618200	681300	663100	631800	642800	810600	731500	658400	650400	624400	572800
MIN	617000	599500	620600	632000	595700	587300	609800	646800	638400	622900	573500	545200
†	629.05	628.67	631.96	630.27	627.45	630.87	638.46	632.15	631.10	629.57	625.44	623.00
‡	-43,500	-4,700	+41,300	-21,600	-34,700	+42,100	+101,700	-85,000	-13,800	-18,900	-49,900	-28,300
CAL YR 1975	MAX	733,900	MIN	599,500	‡	-44,400						
WTR YR 1976	MAX	810,600	MIN	545,200	‡	-115,300						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

07198000 ILLINOIS RIVER NEAR GORE, OK

LOCATION.--Lat 35°34'23", long 95°04'07", in NE 1/4 SW 1/4 sec.27, T.13 N., R.21 E., Sequoyah County, on right bank 4.3 mi (6.9 km) downstream from Tenkiller Ferry Dam, 4.5 mi (7.2 km) northeast of Gore, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--1,626 mi² (4,211 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1924 to April 1926, April 1939 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 473.00 ft (144.170 m) above mean sea level. See WSP 1921 for history of changes prior to Feb. 19, 1952.

REMARKS.--Records good. Except for 16 mi² (41 km²) intervening area, flow completely regulated since July 1952 by Tenkiller Ferry Lake (station 07197500).

COOPERATION.--Gage-height record and 24 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--38 years (water years 1924-25, 1939-76), 1,575 ft³/s (44.60 m³/s), 1,141,000 acre-ft/yr (1.41 km³/yr) adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 180,000 ft³/s (5,100 m³/s) May 11, 1950, gage height, 29.6 ft (9.02 m), present site and datum, from floodmark, from rating curve extended above 42,000 ft³/s (1,190 m³/s) by velocity-area studies; minimum, 2.0 ft³/s (0.057 m³/s) Sept. 16, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft³/s (309 m³/s) Apr. 21, gage height, 12.03 ft (3.667 m); minimum daily, 70 ft³/s (1.98 m³/s) Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	93	1090	122	724	1080	1850	7370	1680	197	1390	718
2	1870	70	1490	1480	1420	897	1940	7360	1690	659	639	710
3	1870	888	2040	266	2140	2010	2100	7400	1680	190	478	629
4	153	1020	1090	158	2270	1530	2160	6050	1800	174	266	1210
5	117	716	1290	1920	2280	1610	3100	5140	624	447	792	285
6	1840	994	212	2110	2120	1080	2730	5120	751	1050	1360	1100
7	1920	921	324	2220	158	102	2430	5070	1710	635	1360	1250
8	1830	85	1780	2790	103	1910	2350	4280	1710	713	1060	1470
9	1810	74	2070	2330	1570	2140	1390	3770	1620	820	1290	453
10	1820	936	3000	2510	1130	760	2010	3940	1630	191	1210	564
11	801	1000	3010	291	1160	539	1860	3830	1350	183	1050	244
12	597	965	3000	1430	1030	390	2120	3510	305	876	1270	114
13	1560	961	2240	851	1560	217	1690	3840	837	888	1220	1270
14	1560	1140	2160	1220	120	110	1940	2910	1280	1330	997	525
15	1570	461	2230	1130	103	247	1470	2270	1340	610	216	637
16	1810	77	2230	1220	1090	1110	1880	2240	1470	741	1210	1300
17	1820	994	2130	2000	2050	313	430	2200	1580	307	1710	1280
18	1160	1020	2300	336	2010	171	581	2260	1780	169	1760	1160
19	1170	1030	2270	780	1010	840	2120	2040	248	1220	1740	446
20	402	1030	2160	571	1220	304	3240	2010	177	1210	923	335
21	910	1010	2260	934	113	89	6590	2080	1500	1300	982	176
22	894	1090	2230	789	171	1140	10400	2140	1530	1510	126	472
23	908	1110	2270	1110	2110	909	10300	2130	1540	1230	1330	476
24	1050	1010	2190	1660	2070	1140	10200	2020	1440	213	1550	801
25	1060	1190	1460	716	911	1210	10100	1910	1450	1360	1140	1190
26	1110	1180	2100	1230	1290	2020	10000	1540	1470	1440	1610	198
27	927	105	1210	971	1270	1130	8470	1810	602	1540	1240	1490
28	910	1100	939	1290	106	1390	7490	1420	1440	1490	763	824
29	957	160	2140	1280	96	1810	7440	889	1520	1370	1380	482
30	973	350	2180	1090	---	2200	7400	146	955	1350	1290	478
31	514	---	580	1910	---	2150	---	831	---	219	832	---
TOTAL	37603	22780	57675	38715	33405	32548	127781	99526	38709	25632	34184	22287
MEAN	1213	759	1860	1249	1152	1050	4259	3211	1290	827	1103	743
MAX	1920	1190	3010	2790	2280	2200	10400	7400	1800	1540	1760	1490
MIN	117	70	212	122	96	89	430	146	177	169	126	114
AC=FT	74590	45180	114400	76790	66260	64560	253500	197400	76780	50840	67800	44210
CAL YR 1975 TOTAL	831546	MEAN	2278	MAX	11800	MIN	18	AC=FT	1649000			
WTR YR 1976 TOTAL	570845	MEAN	1560	MAX	10400	MIN	70	AC=FT	1132000			

07198000 ILLINOIS RIVER NEAR GORE, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years, 1948, 1952, 1954 to current year.

PERIOD OF DAILY RECORD. --

SPECIFIC CONDUCTANCE: October 1947 to September 1948, October 1953 to September 1963.

WATER TEMPERATURE: October 1947 to September 1948, October 1953 to September 1963.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

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07198000 ILLINOIS RIVER NEAR GORE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (C(13) (MG/L)	ALKA- LITY AS CAC(13 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
UCT												
01...	--	76	--	9.3	--	--	125	.17	14.2	.69	--	--
15...	0	66	2.1	10	--	--	115	.16	531	.44	--	--
NOV												
12...	--	--	--	--	--	.1	--	--	--	--	2.8	.04
DEC												
10...	--	--	--	--	--	.1	--	--	--	--	1.3	.04
16...	0	68	2.1	8.0	4.7	--	101	.14	774	1.4	--	--
JAN												
13...	--	--	--	--	--	.2	--	--	--	--	.30	.03
15...	0	66	1.0	9.0	4.5	--	99	.13	821	.35	--	--
FEB												
04...	--	--	--	--	--	<.1	--	--	--	--	.20	<.01
17...	0	72	1.4	8.7	6.1	--	100	.14	907	.01	--	--
MAR												
03...	--	--	--	--	--	.1	--	--	--	--	.50	.01
15...	0	66	1.0	8.5	6.6	--	96	.13	48.2	.76	--	--
APR												
01...	0	66	1.3	7.3	6.6	--	99	.13	532	.44	--	--
07...	--	--	--	--	--	.1	--	--	--	--	.40	<.10
MAY												
05...	--	--	--	--	--	.1	--	--	--	--	.40	<.09
JUN												
01...	0	63	7.8	7.8	4.5	--	87	.12	456	.18	--	--
02...	--	--	--	--	--	.1	--	--	--	--	.80	<.08
JUL												
08...	--	--	--	--	--	.1	--	--	--	--	1.4	<.09
AUG												
13...	--	--	--	--	--	.2	--	--	--	--	1.6	<.08
SEP												
15...	--	--	--	--	--	.3	--	--	--	--	3.9	.13

DATE	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
UCT												
01...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
12...	1	<1	2	4	400	<1	150	--	1	--	<1	10
DEC												
10...	--	--	--	--	<100	--	50	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
13...	--	--	--	--	100	--	59	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
04...	<1	<1	2	1	<100	2	21	--	2	--	<1	2
17...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
03...	--	--	--	--	100	--	57	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	<100	--	25	--	--	--	--	--
MAY												
05...	<1	<1	2	2	<100	5	50	<.5	3	<2	<1	2
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	100	--	32	--	--	--	--	--
JUL												
08...	--	--	--	--	100	--	235	--	--	--	--	--
AUG												
13...	1	1	10	62	<100	6	99	1.0	<5	<2	<1	5
SEP												
15...	--	--	--	--	600	--	500	--	--	--	--	--

07228500 CANADIAN RIVER AT BRIDGEPORT, OK

LOCATION.--Lat 35°34'00", long 98°22'45", in SE 1/4 SW 1/4 sec.28, T.13 N., R.11 W., Blaine County, on downstream side of left abutment of Chicago, Rock Island and Pacific Railroad Co. bridge, 1.0 mi (1.6 km) north of Bridgeport, 2.8 mi (4.5 km) upstream from Lumpmouth Creek, and at mile 267.1 (429.8 km).

DRAINAGE AREA.--25,229 mi² (65,343 km²), of which 4,801 mi² (12,435 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to September 1964; October 1969 to current year.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,384.25 ft (421.919 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1947, at site 0.2 mi (0.3 km) downstream at same datum. Oct. 1, 1947, to Sept. 30, 1948, nonrecording gage at present site and datum.

REMARKS.--Records fair. Occasional slight regulation by Conchas Reservoir in New Mexico, and by Lake Meredith in Texas since 1964.

AVERAGE DISCHARGE.--27 years, 410 ft³/s (11.61 m³/s), 297,000 acre-ft/yr (366 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 150,000 ft³/s (4,250 m³/s) June 23, 1948, gage-height, 14.60 ft (4.450 m), from floodmarks, from rating curve extended above 50,000 ft³/s (1,420 m³/s), no flow at times in 1946, 1951-56, 1964, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1914 reached a stage of about 19.4 ft (5.91 m), a higher stage probably occurred during flood in October 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)	DATE	TIME	DISCHARGE (ft ³ /s) (m ³ /s)	GAGE HEIGHT (ft) (m)
May 26	1815	7,680 217	8.49 2.588	Aug. 6	0015	*9,710 275	8.77 2.673

Minimum daily, 5.0 ft³/s (0.14 m³/s) Aug. 23-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	27	57	68	132	95	64	601	2120	17	7.3	8.3
2	29	364	56	65	135	95	64	466	659	66	7.6	8.6
3	30	150	56	65	139	103	60	327	333	29	8.0	8.3
4	35	90	56	65	139	110	59	252	276	44	12	8.3
5	31	65	54	65	148	105	61	252	252	48	595	7.6
6	29	90	54	68	147	100	65	271	218	36	2200	7.6
7	28	80	54	70	117	102	74	223	231	44	130	7.0
8	27	75	53	72	180	131	102	206	227	46	54	11
9	27	73	54	74	183	169	79	203	177	42	31	310
10	27	70	54	76	177	169	67	507	223	39	20	48
11	26	68	53	80	196	187	62	554	248	45	15	21
12	26	68	53	85	194	279	63	252	271	47	12	16
13	27	66	53	90	196	183	105	252	266	44	10	53
14	44	65	51	95	195	170	105	235	344	42	9.0	34
15	288	64	51	100	181	179	367	214	192	38	8.5	26
16	71	63	52	110	169	179	675	180	227	85	8.0	24
17	43	62	52	115	143	164	704	150	227	40	7.5	28
18	38	63	52	125	149	157	1660	137	1270	25	7.0	34
19	34	60	52	130	130	138	1170	133	223	20	8.5	25
20	32	70	52	135	126	119	2980	124	102	20	12	23
21	30	60	52	140	120	105	991	121	63	18	7.5	22
22	30	60	52	143	115	101	638	121	45	17	6.0	21
23	29	59	52	137	107	95	472	195	38	16	5.0	18
24	29	59	52	145	97	88	402	276	49	14	5.0	16
25	29	60	55	141	103	82	300	235	33	13	5.0	15
26	28	59	65	138	95	77	215	4110	27	9.8	5.0	15
27	28	59	70	129	94	73	221	2580	21	9.2	5.0	14
28	27	59	70	129	93	69	406	1640	17	7.9	5.0	13
29	27	57	70	129	93	70	625	1830	15	9.4	5.8	12
30	27	57	70	131	---	64	564	1670	16	8.8	6.7	10
31	27	---	70	131	---	64	---	2230	---	8.1	7.6	---
TOTAL	1235	2342	1747	3246	4093	3822	13420	20547	8410	948.2	3226.0	864.7
MEAN	39.8	78.1	56.4	105	141	123	447	663	280	30.6	104	28.8
MAX	288	364	70	145	196	279	2980	4110	2120	85	2200	310
MIN	26	27	51	65	93	64	59	121	15	7.9	5.0	7.0
AC=FT	2450	4650	3470	6440	8120	7580	26620	40750	16680	1880	6400	1720

CAL YR 1975	TOTAL	137502.0	MEAN 377	MAX 11700	MIN 26	AC=FT 272700
WTR YR 1976	TOTAL	63900.9	MEAN 175	MAX 4110	MIN 5.0	AC=FT 126700

07228500 CANADIAN RIVER AT BRIDGEPORT, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-61, 1964, 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1948 to September 1960, October 1969 to current year.

WATER TEMPERATURE: October 1948 to September 1960, October 1969 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,830 micromhos June 11, 1975; minimum daily, 223 micromhos Aug. 16, 1973.

WATER TEMPERATURE: Maximum daily, 40.0°C July 9, 22, 1973; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,300 micromhos May 4, 5, 6; minimum daily, 486 micromhos Sept. 11.

WATER TEMPERATURE: Maximum daily, 30.0°C June 1; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
14...	--	--	0945	--	49	1280	8.3	--	--	--	--	--
17...	--	--	1015	--	45	1080	7.7	--	--	--	--	--
31...	--	--	0935	--	38	1330	8.2	--	--	--	--	--
NOV												
03...	--	--	1130	--	294	1150	7.7	--	--	--	--	--
19...	1028	9740	1000	80	--	1420	8.5	15.0	3	--	--	--
20...	--	--	1015	--	61	1410	8.3	--	--	--	--	--
30...	--	--	1140	--	57	1520	7.9	--	--	--	--	--
DEC												
04...	--	--	0925	--	56	1410	8.1	--	--	--	--	--
14...	--	--	1030	--	51	1600	8.0	--	--	--	--	--
16...	1028	9740	1231	52	--	1650	--	5.0	7	13.6	115	--
28...	--	--	1130	--	70	1860	8.2	--	--	--	--	--
JAN												
13...	--	--	1030	--	90	1490	8.2	--	--	--	--	--
20...	--	--	1030	--	135	2020	8.1	--	--	--	--	--
20...	1028	9740	1201	135	--	1400	8.3	8.5	23	--	--	20
24...	--	--	1000	--	147	1830	8.2	--	--	--	--	--
FEB												
01...	--	--	1040	--	129	1960	8.2	--	--	--	--	--
19...	1028	9740	1001	130	--	2000	8.3	11.0	2	--	--	29
19...	1028	9740	1100	--	--	2000	8.3	11.0	1	--	--	29
20...	--	--	1045	--	124	2030	8.3	--	--	--	--	--
29...	--	--	1030	--	95	1790	8.2	--	--	--	--	--
MAR												
09...	--	--	1115	--	170	1730	8.1	--	--	--	--	--
10...	1028	9740	1400	169	--	1900	8.3	16.5	2	11.1	123	23
15...	--	--	0930	--	180	2280	8.3	--	--	--	--	--
25...	--	--	1030	--	84	1950	8.2	--	--	--	--	--
APR												
14...	1028	9740	1200	105	--	1600	8.3	23.5	24	8.7	110	23
16...	--	--	0930	--	694	1260	8.0	--	--	--	--	--
21...	--	--	0945	--	894	1760	7.9	--	--	--	--	--
26...	--	--	0945	--	210	2280	7.7	--	--	--	--	--
MAY												
05...	--	--	1015	--	26	2300	8.0	--	--	--	--	--
12...	1028	9740	1145	252	--	1800	8.2	20.5	86	--	--	32
20...	--	--	0935	--	127	1910	8.0	--	--	--	--	--
25...	--	--	0920	--	239	1430	8.0	--	--	--	--	--
JUN												
07...	1028	9740	--	231	--	1520	8.7	31.0	20	9.4	--	15
08...	--	--	0915	--	257	1720	8.2	--	--	--	--	--
21...	--	--	1000	--	66	1370	7.7	--	--	--	--	--
22...	--	--	0925	--	46	1380	8.2	--	--	--	--	--
JUL												
03...	--	--	0945	--	30	1200	8.0	--	--	--	--	--
08...	1028	9740	1000	46	--	1100	9.2	28.0	54	7.6	99	90
18...	--	--	0935	--	26	748	8.2	--	--	--	--	--
19...	--	--	0930	--	21	1040	8.1	--	--	--	--	--
AUG												
03...	--	--	0930	--	8.3	1020	8.1	--	--	--	--	--
05...	1028	9740	0800	595	--	950	8.7	21.0	3	9.3	113	24
15...	--	--	0830	--	8.5	756	8.1	--	--	--	--	--
25...	--	--	0845	--	68	857	8.2	--	--	--	--	--

ARKANSAS RIVER BASIN

07228500 CANADIAN RIVER AT BRIDGEPORT, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
SEP												
08...	--	--	1000	--	13	817	7.7	--	--	--	--	--
09...	1028	9740	1400	310	--	610	7.2	19.0	>1000	4.8	55	60
11...	--	--	1045	--	19	486	7.5	--	--	--	--	--
25...	--	--	0930	--	15	1070	8.0	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TIUM RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	
OCT												
14...	630	400	190	38	40	12	.7	4.0	277	0	227	
17...	500	350	150	30	42	15	.8	6.9	180	0	148	
31...	680	440	200	43	44	12	.7	4.0	284	0	233	
NOV												
03...	540	360	160	35	35	12	.7	5.1	226	0	185	
19...	--	--	--	--	--	--	--	--	--	--	--	
20...	710	480	210	46	52	14	.8	3.7	282	0	231	
30...	750	580	210	55	57	14	.9	3.7	207	0	170	
DEC												
04...	660	530	180	51	56	16	1.0	3.5	156	0	124	
14...	770	550	220	54	65	15	1.0	3.2	267	0	219	
16...	--	--	--	--	--	--	--	--	--	--	--	
28...	820	590	230	59	110	23	1.7	4.7	280	0	230	
JAN												
13...	590	510	150	53	81	23	1.4	3.6	100	0	82	
20...	710	590	180	64	150	31	2.4	5.6	150	0	123	
20...	--	--	--	--	--	--	--	--	--	--	--	
24...	610	500	150	57	150	35	2.6	5.9	133	0	109	
FEB												
01...	750	540	200	60	150	30	2.4	6.7	250	0	205	
19...	--	--	--	--	--	--	--	--	--	--	--	
19...	--	--	--	--	--	--	--	--	--	--	--	
20...	750	560	200	62	160	31	2.5	7.0	236	0	194	
29...	750	540	200	60	110	24	1.8	4.9	247	0	203	
MAR												
09...	720	510	200	53	99	23	1.6	4.4	250	0	205	
10...	--	--	--	--	--	--	--	--	--	--	--	
15...	710	540	180	63	210	39	3.4	8.5	204	0	167	
25...	730	530	190	61	150	31	2.4	6.2	242	0	198	
APR												
14...	--	--	--	--	--	--	--	--	--	--	--	
16...	580	420	160	45	52	16	.9	2.9	202	0	166	
21...	490	310	120	46	180	44	3.5	8.5	217	0	178	
26...	650	430	160	62	250	45	4.3	9.7	280	0	230	
MAY												
05...	690	470	170	64	240	43	4.0	8.7	263	0	216	
12...	--	--	--	--	--	--	--	--	--	--	--	
20...	850	650	230	67	130	25	1.9	5.9	245	0	201	
25...	580	440	160	45	80	23	1.4	5.8	171	0	140	
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	
08...	630	430	160	55	180	38	3.1	8.8	234	0	192	
21...	540	390	150	39	90	26	1.7	8.0	172	0	141	
22...	560	410	160	40	78	23	1.4	7.9	185	0	152	
JUL												
03...	560	400	160	38	52	17	1.0	4.9	195	0	160	
08...	--	--	--	--	--	--	--	--	--	--	--	
18...	310	190	94	19	34	19	.8	5.7	145	0	119	
19...	520	330	160	29	37	13	.7	4.9	227	0	186	
AUG												
03...	470	290	140	28	41	16	.8	3.9	211	0	173	
05...	--	--	--	--	--	--	--	--	--	--	--	
15...	320	180	94	20	36	20	.9	5.0	172	0	141	
25...	370	200	110	22	39	19	.9	4.4	204	0	167	
SEP												
08...	340	210	100	22	39	20	.9	4.2	163	0	134	
09...	--	--	--	--	--	--	--	--	--	--	--	
11...	220	150	70	11	16	13	.5	5.1	89	0	73	
25...	520	330	160	30	37	13	.7	3.9	231	0	189	

ARKANSAS RIVER BASIN

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07228500 CANADIAN RIVER AT BRIDGEPORT, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
UCT											
14...	2.2	420	21	--	959	1.30	127	.76	--	--	--
17...	5.7	390	37	--	779	1.06	94.6	1.1	--	--	--
31...	2.9	500	28	--	1010	1.37	104	.88	--	--	--
NOV											
03...	7.2	410	18	--	870	1.18	691	1.4	--	--	--
19...	--	--	--	9.0	--	--	--	--	1.9	.30	4
20...	2.3	530	38	--	1100	1.50	181	1.3	--	--	--
30...	4.2	620	42	--	1200	1.63	185	1.3	--	--	--
DEC											
04...	2.0	570	50	--	1080	1.47	163	1.5	--	--	--
14...	4.3	610	63	--	1250	1.70	172	1.1	--	--	--
16...	--	--	--	.4	--	--	--	--	3.7	.23	--
28...	2.8	630	140	--	1370	1.86	259	.98	--	--	--
JAN											
13...	1.0	510	82	--	1060	1.44	258	1.5	--	--	--
20...	1.9	600	190	--	1390	1.89	507	.92	--	--	--
20...	--	--	--	.7	--	--	--	--	1.5	.11	--
24...	1.3	570	200	--	1240	1.69	492	1.1	--	--	--
FEB											
01...	2.5	580	190	--	1420	1.93	495	.95	--	--	--
19...	--	--	--	.9	--	--	--	--	1.1	.10	--
19...	--	--	--	--	--	--	--	--	1.3	.10	4
20...	1.9	570	210	--	1440	1.96	482	.60	--	--	--
29...	2.5	590	130	--	1330	1.81	341	.81	--	--	--
MAR											
09...	3.2	540	110	--	1260	1.71	578	.67	--	--	--
10...	--	--	--	.5	--	--	--	--	1.4	<.14	--
15...	1.6	560	300	--	1570	2.14	763	.51	--	--	--
25...	2.4	580	190	--	1390	1.89	315	.59	--	--	--
APR											
14...	--	--	--	.5	--	--	--	--	1.1	.31	--
16...	3.2	440	54	--	960	1.31	1800	.59	--	--	--
21...	4.4	420	230	--	1160	1.58	2800	1.6	--	--	--
26...	8.9	490	330	--	1530	2.08	868	2.3	--	--	--
MAY											
05...	4.2	560	320	--	1590	2.16	112	.45	--	--	--
12...	--	--	--	.6	--	--	--	--	1.5	.36	13
20...	3.9	660	170	--	1410	1.92	483	.59	--	--	--
25...	2.7	490	91	--	1050	1.43	678	.57	--	--	--
JUN											
07...	--	--	--	.4	--	--	--	--	1.6	.32	--
08...	2.4	490	230	--	1320	1.80	916	.44	--	--	--
21...	5.5	460	79	--	987	1.34	176	.45	--	--	--
22...	1.9	440	95	--	1010	1.37	125	.52	--	--	--
JUL											
03...	3.1	440	42	--	891	1.21	72.2	.46	--	--	--
08...	--	--	--	.1	--	--	--	--	1.8	.09	--
18...	1.5	240	28	--	510	.69	35.8	1.0	--	--	--
19...	2.9	360	22	--	764	1.04	43.3	.96	--	--	--
AUG											
03...	2.7	360	27	--	741	1.01	16.6	.45	--	--	--
05...	--	--	--	.2	--	--	--	--	1.7	.34	9
15...	2.2	240	24	--	511	.70	11.7	.25	--	--	--
25...	2.1	270	22	--	585	.80	107	.46	--	--	--
SEP											
08...	5.2	270	22	--	579	.79	20.3	.45	--	--	--
09...	--	--	--	.4	--	--	--	--	--	.54	--
11...	4.5	170	6.6	--	310	.42	15.9	2.5	--	--	--
25...	3.7	390	22	--	792	1.08	32.1	.72	--	--	--

07228500 CANADIAN RIVER AT BRIDGEPORT, OK--Continued
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
UCT											
14...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
NOV											
03...	--	--	--	--	--	--	--	--	--	--	--
19...	1	7	4	300	12	50	--	8	--	2	6
20...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	200	--	65	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JAN											
13...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	300	--	100	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
FEB											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	1	5	5	600	25	58	--	11	--	2	3
19...	1	5	5	600	25	58	--	11	--	2	3
20...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
MAR											
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	200	--	64	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
APR											
14...	--	--	--	900	--	150	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
12...	4	25	16	900	40	418	<.5	25	2	8	45
20...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	200	--	71	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
03...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	1900	--	1500	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
AUG											
03...	--	--	--	--	--	--	--	--	--	--	--
05...	2	9	3	<100	13	--	<.5	8	<3	1	7
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
SEP											
08...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	6800	--	2550	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--

07228500 CANADIAN RIVER NEAR BRIDGEPORT, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	---	1640	1760	1960	1780	1680	---	1280	---	944	802
2	1280	---	1540	---	1970	1740	---	2060	1300	1190	974	785
3	1280	1150	1610	1910	1980	1740	1600	2180	1450	1200	1020	---
4	1280	1360	1410	1900	1970	---	1560	2300	1640	1180	918	807
5	1290	1490	1510	1790	1860	---	1520	2300	1210	1100	---	808
6	1290	1460	1550	1780	1890	---	1510	2300	1740	---	870	---
7	1210	1410	1540	1830	1860	---	1450	2260	1800	---	864	802
8	1150	1450	1530	1780	1810	1680	1480	2160	---	1160	831	817
9	1160	1440	1480	1890	1880	1730	---	2220	---	1100	780	863
10	1180	1430	1570	1980	1940	1770	1460	1870	---	1060	767	739
11	1210	1420	1580	1960	1960	---	1460	1640	1930	1060	937	486
12	1230	1440	1540	1940	1970	1920	1480	1590	1840	1050	918	489
13	1260	1450	1550	1490	1990	2020	1440	1510	1730	1060	893	780
14	1280	1380	1600	1520	1980	2110	1440	1510	1740	1050	888	709
15	1200	1400	1570	1590	1990	2280	1460	1610	1610	1060	756	698
16	1140	1400	1600	1610	1990	2260	1260	1920	---	882	773	739
17	1080	1390	1590	1640	---	2210	2080	1940	1180	---	806	912
18	1150	1390	1640	1710	2000	2140	2020	1970	715	748	802	907
19	1260	1230	1620	1800	2000	2190	2080	1950	819	1040	788	775
20	1300	1410	1580	2020	2030	2170	1980	1910	1120	1040	878	912
21	1290	1520	---	1970	2000	2090	1760	1910	634	886	873	910
22	1300	1520	1590	1770	2020	2090	2160	1840	1380	---	890	926
23	1320	1520	1590	1910	1980	2080	2090	1850	1400	973	832	928
24	1280	1520	1650	1830	1890	2040	2170	1500	1330	---	839	---
25	1290	1530	---	1840	1900	1950	2270	1430	1320	981	857	1070
26	1290	1530	1730	1820	1910	1930	2280	---	1270	---	848	919
27	1280	1500	1760	---	1930	1890	2250	1490	1250	---	817	929
28	---	1490	1860	---	1850	1850	2270	1560	1210	989	821	941
29	---	1510	---	1910	1790	1780	2190	---	1200	981	836	---
30	1270	1520	---	1940	---	1860	2020	---	---	976	828	957
31	1330	---	1780	1940	---	1730	---	1450	---	963	815	---
MONTH	1250	1440	1600	1820	1940	1960	1800	1860	1360	---	855	823
YEAR	MAX	2300	MIN	486	MEAN	1480						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.5	---	5.5	1.0	5.0	10.0	7.0	---	30.0	---	25.0	23.0
2	17.5	---	5.0	---	4.0	12.0	---	15.0	29.0	23.0	21.0	24.0
3	13.5	13.0	5.5	1.0	3.0	7.0	10.0	14.0	24.0	23.0	21.0	---
4	15.5	11.0	5.5	2.0	0.0	---	11.0	13.0	25.0	24.0	20.0	25.0
5	14.5	12.0	6.0	0.0	0.0	---	10.0	15.0	24.0	25.0	---	25.0
6	11.5	11.0	5.5	0.0	0.0	---	12.0	16.0	24.0	---	24.0	---
7	12.5	11.0	5.5	0.0	3.0	---	14.0	13.0	24.0	---	23.0	26.0
8	12.5	13.0	5.5	0.0	6.0	10.0	12.0	14.0	23.0	23.0	24.0	22.0
9	14.5	8.0	5.5	0.0	8.0	11.0	---	15.0	25.0	23.0	24.0	20.0
10	13.5	9.0	5.5	0.0	7.0	12.0	15.0	17.0	25.0	25.0	23.0	18.0
11	14.5	11.0	5.5	0.0	6.0	---	14.0	18.0	26.0	26.0	24.0	20.0
12	10.5	8.0	5.5	1.0	8.0	11.0	12.0	15.0	25.0	24.0	24.0	20.0
13	15.0	9.0	5.5	1.0	10.0	10.0	14.0	18.0	25.0	25.0	24.5	22.0
14	16.0	10.0	5.0	0.0	7.0	11.0	15.0	17.0	20.0	25.0	25.0	21.0
15	13.0	6.0	5.0	0.0	8.0	5.0	14.0	17.0	23.0	23.0	24.0	21.0
16	11.0	8.0	5.0	3.0	9.0	5.0	10.0	18.0	---	26.0	26.0	21.0
17	10.0	10.0	5.0	2.0	---	9.0	12.0	17.0	25.0	---	26.0	22.0
18	11.0	9.5	5.0	2.0	10.0	10.0	14.0	18.0	20.0	25.0	25.0	23.0
19	13.0	8.0	5.0	2.0	9.0	12.0	13.0	17.0	22.0	25.0	25.0	23.0
20	14.0	7.0	5.0	3.0	10.0	12.0	13.0	19.0	23.0	27.0	26.0	20.0
21	16.0	7.0	---	4.0	5.0	13.0	14.0	20.0	21.0	23.0	24.0	21.0
22	16.0	5.0	5.0	2.0	7.0	10.0	19.0	25.0	22.0	---	25.0	17.0
23	15.0	4.0	5.0	5.0	5.0	11.0	20.0	26.0	23.0	23.0	24.0	19.0
24	16.0	3.0	5.0	4.0	5.0	13.0	17.0	25.0	22.0	---	24.0	---
25	15.0	2.0	---	0.0	7.0	14.0	15.0	20.0	26.0	25.0	22.0	20.0
26	12.0	5.0	5.0	0.0	5.0	13.0	14.0	---	26.0	---	23.0	18.0
27	12.5	10.0	5.0	---	8.0	10.0	12.0	25.0	26.0	---	25.0	12.0
28	---	3.0	5.5	---	10.0	11.0	12.0	24.0	27.0	24.0	26.0	13.0
29	---	11.0	---	5.0	11.0	10.0	14.0	---	25.0	25.0	25.0	---
30	14.0	5.0	---	5.0	---	11.0	15.0	---	25.0	26.0	23.0	12.0
31	15.0	---	5.0	6.0	---	10.0	---	29.0	---	27.0	22.0	---
MONTH	14.0	8.0	5.5	2.0	6.5	10.5	13.5	18.5	24.5	---	24.0	20.5
YEAR	MAX	30.0	MIN	0.0	MEAN	14.0						

ARKANSAS RIVER BASIN

07229200 -CANADIAN RIVER AT PURCELL, OK

LOCATION.--Lat 35°00'50", long 97°20'50", in NW 1/4 sec.7, T.6 N., R.1 W., McClain County, Hydrologic Unit 11090202, at bridge on U.S. Highway 77, 0.5 mi (0.8 km) east of Purcell, 1 mi (1.6 km) upstream from Walnut Creek, and at mile 184.9 (297.5 km).

DRAINAGE AREA.--25,939 mi² (67,182 km²) of which 4,801 mi² (12,434 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1952-53, 1957-58, 1960-63, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1974 to September 1975.

WATER TEMPERATURE: May 1974 to September 1975.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 25...	1028	9740	0930	1000	6.4	1.0	38	--	--	23	630
DEC 23...	1028	9740	0900	1500	8.5	3.5	10	14.8	118	4	632
JAN 28...	1028	9740	1300	1700	8.8	6.0	8	13.4	115	20	655
FEB 24...	1028	9740	1230	1500	--	11.0	0	13.2	126	41	640
MAR 24...	1028	9740	1230	1800	8.8	16.5	13	10.6	115	31	588
APR 28...	1028	9740	1200	2000	8.9	16.5	83	10.0	108	35	640
MAY 26...	1028	9740	1245	1450	7.9	20.5	32	10.0	118	53	556
JUN 22...	1028	9740	1110	850	9.5	25.0	175	9.0	110	12	327
JUL 27...	1028	9740	1540	750	9.8	35.0	3	6.8	100	38	145
AUG 25...	1028	9740	1100	900	9.7	22.5	10	11.1	134	37	63
SEP 28...	1028	9740	1400	880	9.0	24.0	8	10.4	126	43	--

ARKANSAS RIVER BASIN

301

07229200 CANADIAN RIVER AT PURCELL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO ₃ (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
25...	139	340	41	55	5.9	54	.6	707	2.9	1.1	4
DEC											
23...	190	403	49	92	4.2	70	.5	--	3.6	.86	--
JAN											
28...	190	459	50	120	6.0	155	.6	--	7.5	.69	--
FEB											
24...	190	403	--	130	8.4	181	.7	1284	2.4	--	4
MAR											
24...	140	384	59	180	7.7	--	.3	440	.90	<.08	--
APR											
28...	160	378	54	200	8.7	297	.8	1394	2.8	.65	--
MAY											
26...	137	327	51	120	8.3	139	.5	--	<.10	1.1	8
JUN											
22...	98	219	26	56	7.8	61	.5	546	1.2	.90	--
JUL											
27...	38	90	17	120	10	77	.7	502	3.1	.43	--
AUG											
25...	20	54	7.7	138	11	76	.8	504	3.1	.54	20
SEP											
28...	22	--	15	140	13	72	.8	--	3.6	1.9	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
25...	2	9	6	500	16	62	--	7	--	2	9
DEC											
23...	--	--	--	100	--	27	--	--	--	--	--
JAN											
28...	--	--	--	200	--	43	--	--	--	--	--
FEB											
24...	1	6	6	500	21	70	--	8	--	3	6
MAR											
24...	--	--	--	<100	--	<5	--	--	--	--	--
APR											
28...	--	--	--	300	--	10	--	--	--	--	--
MAY											
26...	2	14	12	800	20	172	<.5	15	3	2	18
JUN											
22...	--	--	--	1400	--	362	--	--	--	--	--
JUL											
27...	--	--	--	100	--	14	--	--	--	--	--
AUG											
25...	<2	18	5	100	5	17	<.5	8	104	<1	5
SEP											
28...	--	--	--	100	--	18	--	--	--	--	--

LOCATION.--Lat 34°59'56", long 97°22'00", in NW 1/4 NW 1/4 sec.13, T.6 N., R.2 W., McClain County, on downstream side of right bank pier of bridge on U.S. Highway 77, at south edge of Purcell, and at mile 1.0 (1.6 km).

WATER-DISCHARGE RECORDS

REMARKS. - - Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,200 ft³/s (770 m³/s) May 23, 1975, gage height, 16.80 ft (5.121 m), from rating curve extended above 8,200 ft³/s (232 m³/s) on basis of slope-area measurement at gage height, 16.80 ft (5.121 m); no flow at times in 1966-67.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft³/s (40.8 m³/s) July 15, gage height, 7.18 ft (2.188 m), no peak above base of 3,000 ft³/s (85.0 m³/s); minimum daily, 0.33 ft³/s (0.009 m³/s) Aug. 19-23.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	29	26	26	23	22	25	39	18	5.6	3.0	15
2	19	29	26	24	23	21	23	30	14	5.2	2.1	23
3	19	30	26	21	23	21	22	26	12	4.8	1.8	6.0
4	19	29	25	19	23	28	22	23	11	4.8	2.4	3.8
5	19	29	32	24	26	25	22	23	10	4.8	3.0	3.1
6	20	31	32	28	26	22	22	28	11	4.8	57	2.3
7	19	31	27	20	28	30	22	27	18	3.6	17	1.9
8	19	30	26	14	26	151	24	25	14	3.0	4.8	1.6
9	19	29	26	18	25	133	23	24	11	2.8	3.4	145
10	19	28	24	25	25	58	22	26	10	2.6	3.2	28
11	20	28	24	26	24	40	22	30	8.4	2.4	2.9	7.0
12	19	28	25	29	24	51	21	28	7.8	2.8	2.5	4.1
13	19	27	25	28	22	36	21	31	7.5	2.6	2.1	129
14	18	27	25	26	21	31	20	29	8.2	5.6	1.8	36
15	38	28	24	25	22	31	25	27	12	212	1.2	5.9
16	35	28	26	25	21	29	35	27	8.6	362	1.0	3.6
17	29	28	25	24	21	28	41	25	7.2	53	1.0	3.3
18	28	27	28	25	20	27	42	22	8.2	33	.67	3.3
19	28	30	26	25	20	27	167	19	10	21	.33	3.9
20	28	37	27	24	20	26	243	15	8.4	15	.33	3.7
21	27	30	25	24	22	25	83	15	6.9	11	.33	3.5
22	27	27	26	24	20	24	49	16	6.2	8.5	.33	3.1
23	26	28	27	24	20	24	36	20	7.0	6.7	.33	2.8
24	26	28	30	24	20	24	32	24	130	6.0	1.0	2.6
25	26	26	37	24	19	26	28	19	45	5.1	7.1	2.6
26	26	28	36	24	18	26	27	45	22	4.1	2.1	2.6
27	27	28	32	23	19	25	27	77	17	3.4	1.4	2.7
28	27	29	31	23	20	27	96	29	11	3.2	1.1	3.1
29	27	30	32	23	21	46	87	21	8.0	92	3.5	3.3
30	27	30	30	22	---	32	44	18	6.0	14	3.2	3.3
31	28	---	28	23	---	27	---	22	---	5.4	6.5	---
TOTAL	747	867	859	734	642	1143	1373	830	474.4	910.8	138.42	459.1
MEAN	24.1	28.9	27.7	23.7	22.1	36.9	45.8	26.8	15.8	29.4	4.47	15.3
MAX	38	37	37	29	28	151	243	77	130	362	57	145
MIN	18	26	24	14	18	21	20	15	6.0	2.4	.33	1.6
AC-FT	1480	1720	1700	1460	1270	2270	2720	1650	941	1810	275	911
CAL YR 1975	TOTAL	42834.00	MEAN	117	MAX	12000	MIN	18	AC-FT	84960		
WTR YR 1976	TOTAL	9177.72	MEAN	25.1	MAX	362	MIN	.33	AC-FT	18200		

ARKANSAS RIVER BASIN

07229300 WALNUT CREEK AT PURCELL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-55, 1958-62, November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 25...	1028	9740	0900	26	850	8.8	2.0	--	--	--	--	--
DEC 23...	1028	9740	0800	27	900	8.3	4.0	17	15.0	121	44	454
JAN 28...	1028	9740	1200	23	900	8.7	5.5	7	11.6	97	8	482
FEB 24...	1028	9740	1330	20	800	--	12.0	3	12.5	122	5	407
MAR 24...	1028	9740	1330	24	800	8.9	20.0	10	9.5	110	8	350
APR 28...	1028	9740	1330	96	800	8.7	18.0	27	9.7	108	12	361
MAY 26...	1028	9740	1330	45	750	8.4	23.0	9	8.9	108	19	357
JUN 22...	1028	9740	1014	6.2	875	8.4	23.0	2	8.2	98	7	333
JUL 27...	1028	9740	1600	3.4	675	8.5	35.5	5	7.0	103	9	277
AUG 25...	1028	9740	1200	7.1	825	8.1	24.0	14	8.0	108	23	290
SEP 28...	1028	9740	1130	3.1	860	7.7	19.0	3	10.0	110	11	--

ARKANSAS RIVER BASIN

07229300 WALNUT CREEK AT PURCELL, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- RAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
25...	--	--	--	--	--	--	--	--	1.7	--	--
DEC											
23...	82	173	57	35	1.0	39	.4	--	.80	.01	--
JAN											
28...	78	176	57	39	1.7	42	.3	--	2.1	.03	--
FEB											
24...	82	147	63	33	1.8	47	.4	509	.50	--	3
MAR											
24...	57	140	60	40	1.8	45	.4	480	1.2	.08	--
APR											
28...	58	150	60	40	2.5	53	.5	465	.90	<.08	--
MAY											
26...	54	139	59	39	1.7	64	.3	454	.80	<.08	5
JUN											
22...	49	104	58	46	2.7	55	.4	457	.80	<.09	--
JUL											
27...	44	92	53	43	5.1	45	.4	457	1.9	.10	--
AUG											
25...	--	146	54	59	5.8	69	.4	498	2.1	.12	12
SEP											
28...	41	167	57	49	5.0	62	.4	--	1.2	<.09	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
25...	--	--	--	--	--	--	--	11	--	1	--
DEC											
23...	--	--	--	200	--	82	--	--	--	--	--
JAN											
28...	--	--	--	500	--	62	--	--	--	--	--
FEB											
24...	<1	2	5	300	7	56	--	5	--	1	3
MAR											
24...	--	--	--	100	--	40	--	--	--	--	--
APR											
28...	--	--	--	<100	--	--	--	--	--	--	--
MAY											
26...	1	5	7	100	5	49	<.5	10	<2	5	5
JUN											
22...	--	--	--	200	--	49	--	--	--	--	--
JUL											
27...	--	--	--	<100	--	35	--	--	--	--	--
AUG											
25...	2	27	<3	200	10	82	<.5	<3	2	<1	5
SEP											
28...	--	--	--	100	--	32	--	--	--	--	--

ARKANSAS RIVER BASIN

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07229900 LAKE THUNDERBIRD NEAR NORMAN, OK

LOCATION.--Lat 35°13'15", long 97°13'05", in NW 1/4 SE 1/4 sec.29, T.9 N., R.1 E., Cleveland County, near center of dam on Little River, just downstream from Hog Creek and 13 mi (20.9 km) east of Norman, and at mile 96.4 (115.1 km).

DRAINAGE AREA.--256 mi² (663 km²).

RESERVOIR CONTENTS RECORDS

PERIOD OF RECORD.--March 1965 to current year.

REMARKS.--Reservoir is formed by an earth dam. Regulated storage began Mar. 1, 1965; minimum conservation pool first filled September 1965. Capacity, 196,200 acre-ft (242 hm³) at elevation 1,049.4 ft (319.86 m), crest of drop inlet; 119,600 acre-ft (147 hm³) at elevation 1,039.0 ft (316.687 m), top of conservation pool; 13,640 acre-ft (16.8 hm³) at elevation 1,010.0 ft (307.848 m), minimum conservation pool. Dead storage, 1,200 acre-ft (1.50 hm³) below elevation 997.0 ft (303.886 m), sill of gated outlet. Figures given herein represent total contents. Reservoir is used for flood control, irrigation (inactive), and municipal water supplies exported to Del City, Midwest City, and Norman.

COOPERATION.--Elevations and data on diversions furnished by Central Oklahoma Master Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 147,100 acre-ft (181 hm³) May 30, 1975, elevation, 1,043.20 ft (317.967 m), minimum since conservation pool first reached 15,370 acre-ft (19.0 hm³) Nov. 30, 1965, elevation, 1,011.0 ft (308.153 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 122,500 acre-ft (151 hm³) June 1, elevation, 1,039.48 ft (316.834 m); minimum, 109,800 acre-ft (135 hm³) Sept. 30, elevation, 1,037.37 ft (316.190 m).

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Diversions (acre-feet)
Sept. 30	1,038.32	115,500	--	--
Oct. 31	1,037.92	113,100	-2,400	645
Nov. 30	1,037.75	112,100	-1,000	529
Dec. 31	1,037.80	112,400	+300	694
CAL YR 75	--	--	-9,000	8,890
Jan. 31	1,037.64	111,400	-1,000	810
Feb. 28	1,037.50	110,600	-800	763
Mar. 31	1,037.98	113,500	+2,900	671
Apr. 30	1,038.64	117,400	+3,900	800
May 31	1,039.45	122,300	+4,900	921
June 30	1,038.88	118,900	-3,400	975
July 31	1,038.57	117,000	-1,900	1,150
Aug. 31	1,037.92	113,100	-3,900	1,211
Sept. 30	1,037.37	109,800	-3,300	1,035
WTR YR 76	--	--	-5,700	10,204

ARKANSAS RIVER BASIN

07229900 LAKE THUNDERBIRD NEAR NORMAN, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT 17...	1250	114400	405	7.9	20.0	3	170	3	33	21	19	19
NOV 13...	1032	112900	407	8.5	15.0	1	170	4	34	21	18	18
DEC 15...	1500	112000	422	--	--	--	--	--	--	--	--	--
JAN 07...	1415	112300	410	8.6	8.0	10	170	0	32	21	18	19
FEB 06...	1430	111500	644	7.9	--	1	200	0	43	23	83	47
APR 02...	1330	113400	428	8.2	14.0	10	180	7	35	23	18	17
MAY 21...	1345	119100	434	--	--	--	--	--	--	--	--	--
JUN 21...	1200	118600	428	8.3	25.0	--	--	--	--	--	--	--
JUL 22...	1900	118500	420	--	28.0	--	--	--	--	--	--	--
AUG 16...	1825	114500	415	8.3	30.5	20	180	11	31	24	18	18

DATE	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (MG/L)	CAR- BONATE (MG/L)	ALKA- LITY AS CACU3 (MG/L)	CARBON DIOXIDE (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)
OCT 17...	.6	5.0	202	0	166	4.1	10	27	229	.31	.24
NOV 13...	.6	5.7	200	2	167	1.0	9.9	25	215	.29	.47
DEC 15...	--	--	--	--	--	--	--	--	--	--	--
JAN 07...	.6	4.8	212	0	174	.9	9.5	26	228	.31	.87
FEB 06...	2.5	2.4	255	0	209	5.1	51	87	364	.50	.74
APR 02...	.6	4.5	213	0	175	2.2	16	28	233	.32	.32
MAY 21...	--	--	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--	--	--
JUL 22...	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	.6	4.6	202	0	166	1.6	8.3	30	228	.31	.19

07230000 LITTLE RIVER BELOW LAKE THUNDERBIRD, NEAR NORMAN, OK

LOCATION.--Lat 35°13'14", long 97°13'00", in NE 1/4 SE 1/4 sec.29, T.9 N., R.1 E., Cleveland County, at right bank of outlet channel, 170 ft (51.8 m) upstream from State Highway 9, 1,200 ft (365.8 m) downstream from Lake Thunderbird, 1.0 mi (1.6 km) upstream from Prairie Creek, 13.0 mi (20.9 km) east of Norman, and at mile 96.2 (154.8 km).

DRAINAGE AREA.--257 mi² (666 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1964, published as Little River below Hog Creek near Norman.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 965.62 ft (294.321 m) above mean sea level. Prior to Nov. 28, 1956, nonrecording gage 800 ft (243.8 m) downstream at same datum. Nov. 28, 1956, to Oct. 14, 1964, water-stage recorder at site 800 ft (243.8 m) downstream at same datum. Oct. 15, 1964, to Sept. 1, 1965, nonrecording gage at site 170 ft (51.8 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Lake Thunderbird since March 1965 (station 07229900). In prior years occasional small diversions above station for irrigation.

AVERAGE DISCHARGE.--12 years, (water years 1952-64), 58.9 ft³/s (1.668 m³/s), 42,640 acre-ft/yr (52.6 hm³/yr); 11 years, (water years 1966-76), 19.2 ft³/s (0.544 m³/s), 13,910 acre-ft/yr (17.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,600 ft³/s (980 m³/s) May 25, 1957, gage height, 28.85 ft (8.793 m), from high-water mark, at site then in use, from rating curve extended above 15,000 ft³/s (425 m³/s); no flow at times in 1954-56, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 279 ft³/s (7.90 m³/s) June 2, gage height, 4.68 ft (1.426 m); minimum daily, 0.68 ft³/s (0.019 m³/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.78	.78	.79	.74	.84	.83	.78	15	.78	.78	.81
2	1.2	.79	.78	.78	.76	.84	.82	.80	150	.78	.78	.78
3	1.2	.78	.78	.78	.78	.93	.78	.78	277	.78	.78	.78
4	1.2	.78	.78	.80	.78	.90	.78	.78	263	.80	.83	.78
5	1.1	.95	.79	.81	.81	.85	.78	.78	2.7	.82	.86	.78
6	1.0	.79	.73	.85	.72	.87	.78	.78	2.5	.78	.78	.78
7	1.0	.79	.78	1.0	.78	1.1	.78	.78	2.2	.78	.78	.78
8	.97	.78	.78	3.6	.78	1.5	.78	.78	1.4	.78	.78	.78
9	.97	.78	.78	.78	.78	.92	.78	.78	.78	.78	.78	.78
10	.97	.78	.78	.82	.78	.87	.78	.94	.78	.78	.78	.78
11	.97	.78	.78	.78	.78	1.1	.78	.80	.78	.78	.78	.78
12	.99	.71	.79	.78	.78	.91	.80	1.2	.78	.78	.78	.78
13	.97	.78	.86	.79	.78	.92	.79	.86	.78	.78	3.4	.78
14	.97	.78	.80	.78	.91	.89	.78	.85	.78	.78	.78	.78
15	1.2	.78	.74	.84	.93	.87	.90	.94	.77	1.3	.78	.78
16	.97	.78	.78	.82	.97	.85	.81	1.6	.78	2.9	.78	.86
17	.88	.78	.77	.87	.92	.90	.97	1.8	.83	2.9	.80	.82
18	.78	.78	.78	.87	.78	.78	.81	2.0	.95	1.3	.82	.78
19	.78	.84	.78	.88	.78	.78	1.4	2.2	.78	1.2	.87	.81
20	.78	.68	.76	.87	.83	.74	1.0	2.4	.76	1.0	.87	.78
21	.78	.71	.78	.87	.71	.77	.76	2.0	.77	.78	.87	.78
22	.78	.77	.80	.87	.77	.76	.77	3.0	.78	.78	.87	.78
23	.78	.78	.77	.87	.83	.78	1.2	4.1	1.2	.78	.87	.78
24	.78	.73	.91	.87	.87	.83	.75	5.1	.79	.78	.87	.78
25	.78	.78	.85	.86	.87	.78	.78	5.8	.78	.78	1.0	.78
26	.78	.72	.78	.82	.89	.77	.78	7.3	.77	.78	1.1	.78
27	.78	.78	.78	.87	.89	.87	.77	8.3	.78	.78	1.1	.78
28	.78	.78	.80	.84	.84	.88	.99	8.2	.78	.78	1.1	.78
29	.78	.85	.84	.78	.86	.85	.79	8.2	.76	.78	1.2	.78
30	.78	.75	.87	.78	---	.79	.81	8.1	.79	.78	.83	.78
31	.78	---	.84	.73	---	.84	---	8.1	---	.78	1.0	---
TOTAL	28.68	23.32	24.62	28.45	23.70	27.28	25.33	90.83	731.53	30.16	29.40	23.58
MEAN	.93	.78	.79	.92	.82	.88	.84	2.93	24.4	.97	.95	.79
MAX	1.2	.95	.91	3.6	.97	1.5	1.4	8.3	277	2.9	3.4	.86
MIN	.78	.68	.73	.73	.71	.74	.75	.78	.76	.78	.78	.78
AC-FT	57	46	49	56	47	54	50	180	1450	60	58	47
CAL YR 1975	TOTAL	29549.47	MEAN	81.0	MAX	931	MIN	.68	AC-FT	58610		
WTR YR 1976	TOTAL	1086.88	MEAN	2.97	MAX	277	MIN	.68	AC-FT	2160		

ARKANSAS RIVER BASIN

07230000 LITTLE RIVER BELOW LAKE THUNDERBIRD NEAR NORMAN, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1953-65, December 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1953 to September 1964.

WATER TEMPERATURE: October 1953 to September 1964.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
DEC 23...	1028	9740	--	.77	--	--	--	20	--	--	<4	253
JAN 28...	1028	9740	1400	.84	750	8.0	8.0	4	11.8	105	8	219
FEB 24...	1028	9740	1100	.87	750	--	10.5	--	10.4	98	23	--
MAR 24...	1028	9740	1030	.83	700	7.9	14.5	2	9.0	93	43	217
APR 27...	1028	9740	1000	.77	725	8.2	15.5	22	8.9	94	<4	222
MAY 26...	1028	9740	1000	7.3	775	7.2	18.5	19	6.7	75	11	212
JUN 22...	1028	9740	1206	.78	700	7.4	24.0	16	7.8	96	5	227
JUL 27...	1028	9740	1250	.78	680	7.7	29.0	16	7.2	97	9	210
AUG 12...	1028	9740	1640	.78	750	7.7	31.0	18	7.9	105	--	248
SEP 15...	1028	9740	1700	.78	600	7.3	27.5	9	9.1	121	10	--

ARKANSAS RIVER BASIN

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07230000 LITTLE RIVER BELOW LAKE THUNDERBIRD NEAR NORMAN, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CaCO ₃ (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
DEC 23...	60	138	23	68	2.1	85	.3	--	1.7	<.01	--
JAN 28...	60	150	23	65	3.0	88	.3	1188	1.6	.01	--
FEB 24...	--	--	--	--	--	--	.3	--	--	<.10	<1
MAR 24...	51	136	23	65	2.8	88	.3	415	1.9	<.08	--
APR 27...	56	128	23	74	2.3	138	.3	405	.60	<.08	--
MAY 26...	54	123	23	59	2.5	94	.3	612	1.1	<.08	1
JUN 22...	60	125	21	55	2.6	125	.4	372	.60	<.09	--
JUL 27...	59	126	23	66	3.8	79	.3	411	1.4	<.08	--
AUG 12...	60	140	26	66	2.7	--	.2	458	2.1	<.08	1
SEP 15...	56	--	25	64	3.1	106	.4	431	1.6	<.08	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC 23...	--	--	--	600	--	780	--	--	--	--	--
JAN 28...	--	--	--	500	--	680	--	--	--	--	--
FEB 24...	<1	3	4	700	9	710	--	6	--	<1	7
MAR 24...	--	--	--	400	--	510	--	--	--	--	--
APR 27...	--	--	--	--	--	--	--	--	--	--	--
MAY 26...	<1	7	8	600	3	414	<.5	10	<2	<1	15
JUN 22...	--	--	--	400	--	218	--	--	--	--	--
JUL 27...	--	--	--	500	--	296	--	--	--	--	--
AUG 12...	1	12	4	300	10	266	<.5	5	<2	1	5
SEP 15...	--	--	--	400	--	325	--	--	--	--	--

ARKANSAS RIVER BASIN

07230500 LITTLE RIVER NEAR TECUMSEH, OK

LOCATION.--Lat 35°10'25", long 96°55'55", near northwest corner sec.18, T.8 N., R.4 E., Pottawatomie County, on downstream side of center pier of bridge on U.S. Highway 177, 1.5 mi (2.4 km) downstream from Dance Creek, 5.0 mi (8.0 km) south of Tecumseh, and at mile 77.2 (124.2 km).

DRAINAGE AREA.--456 mi² (1,181 km²).

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 898.52 ft (273.869 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records fair. Flow regulated or diverted since 1965 by Lake Thunderbird, 19.2 mi (30.9 km) upstream. (station 07229900).

AVERAGE DISCHARGE.--21 years (water years 1944-64), 149 ft³/s (4.22 m³/s), 107,900 acre-ft/yr (133.0 hm³/yr); 12 years (water years 1965-76), 83.2 ft³/s (2.356 m³/s), 60,280 acre-ft/yr (74.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s (918 m³/s) May 25, 1957, gage height, 18.84 ft (5.742 m); maximum gage height, 19.68 ft (5.998 m) May 18, 1949; no flow at times in several years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1932 reached a stage of 25.58 ft (7.797 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,690 ft³/s (76.2 m³/s) Apr. 20, gage height, 13.8 ft (4.21 m), no peak above base of 5,000 ft³/s (142 m³/s); no flow Aug. 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.3	18	16	13	14	17	21	50	9.9	4.8	20
2	11	11	16	15	13	14	18	18	217	11	4.8	16
3	11	11	15	12	13	14	17	15	224	9.2	4.8	14
4	11	10	17	11	13	19	16	13	220	9.1	4.8	13
5	11	14	16	8.4	15	27	15	13	40	9.5	4.8	12
6	11	15	15	6.8	15	17	14	14	19	8.4	9.4	11
7	11	13	14	10	15	17	14	13	17	7.5	6.5	10
8	11	11	15	12	15	236	13	12	15	6.8	4.8	8.4
9	10	10	15	13	15	136	13	11	13	6.4	4.3	10
10	10	9.6	15	18	15	46	12	30	12	6.4	4.1	12
11	10	9.5	15	20	14	32	12	33	11	5.9	3.2	10
12	9.9	9.1	15	17	14	75	12	118	10	6.6	2.5	6.5
13	9.5	9.0	15	16	14	31	11	103	11	5.5	1.8	5.1
14	9.6	9.3	15	15	14	23	11	39	9.4	5.5	5.8	10
15	19	9.7	16	15	14	21	11	28	9.3	47	2.7	12
16	16	9.9	15	15	15	20	18	25	8.8	507	1.1	20
17	11	10	15	14	15	18	17	20	8.2	45	.45	27
18	9.9	9.9	18	15	13	18	210	18	10	19	.23	13
19	9.8	38	17	14	12	19	350	16	9.9	15	.20	13
20	9.8	32	15	14	14	18	1400	16	7.8	11	0	9.8
21	9.7	17	15	14	18	16	800	15	7.2	9.4	0	9.1
22	9.2	15	17	14	16	16	200	15	6.7	8.6	0	5.7
23	9.4	15	16	14	14	16	42	17	7.2	8.1	0	3.7
24	9.3	15	24	14	13	17	37	20	90	7.8	2.7	3.1
25	8.7	15	30	14	13	18	30	18	28	7.4	19	2.8
26	9.0	15	21	13	13	18	26	311	16	7.4	12	2.6
27	9.6	15	20	14	13	16	23	227	13	6.5	7.4	2.5
28	9.9	16	19	14	13	21	20	53	11	5.8	26	7.8
29	9.5	20	18	14	13	26	30	28	10	6.1	18	5.2
30	9.3	33	17	14	---	20	25	28	9.2	5.8	15	3.4
31	9.0	---	17	14	---	17	---	133	---	5.1	24	---
TOTAL	325.1	456.3	526	430.2	407	1016	3434	1441	1120.7	829.7	195.18	298.7
MEAN	10.5	14.5	17.0	13.9	14.0	32.8	114	46.5	37.4	26.8	6.30	9.96
MAX	19	38	30	20	18	236	1400	311	224	507	26	27
MIN	8.7	9.0	14	6.8	12	14	11	11	6.7	5.1	0	2.5
AC=FT	645	865	1040	853	807	2020	6810	2860	2220	1650	387	592
CAL YR 1975	TOTAL	56249.50	MEAN	154	MAX	3790	MIN	8.0	AC=FT	111600		
WTR YR 1976	TOTAL	10459.88	MEAN	28.6	MAX	1400	MIN	0	AC=FT	20750		

ARKANSAS RIVER BASIN

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07231000 LITTLE RIVER NEAR SASAKWA, OK

LOCATION.--Lat 34°59'02", long 96°33'01", in NE 1/4 sec.22, T.6 N., R.7 E., Seminole County, near left abutment on downstream side of county road bridge, 2.8 mi (4.5 km) northwest of Sasakwa, 8.7 mi (14.0 km) downstream from Salt Creek, and at mile 24.1 (38.8 km).

DRAINAGE AREA.--865 mi² (2,240 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1942 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 749.21 ft (228.359 m) above mean sea level (levels by Corps of Engineers). Prior to Apr. 11, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Lake Thunderbird 72.3 mi (116.3 km) upstream since March 1965 (station 07229900).

AVERAGE DISCHARGE.--(Prior to regulation by Lake Thunderbird) 23 years (water years 1943-65), 398 ft³/s (11.27 m³/s), 288,400 acre-ft/yr (356 hm³/yr); (Since regulation by Lake Thunderbird) 11 years (water years 1966-76), 278 ft³/s (7.87 m³/s), 201,400 acre-ft/yr (248 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,600 ft³/s (1,260 m³/s) May 11, 1950, gage height, 33.48 ft (10.205 m); no flow at times most years after 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,200 ft³/s (119 m³/s) Apr. 20, gage height, 13.66 ft (4.164 m), no peak above base of 5,000 ft³/s (142 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	41	32	27	20	36	249	186	53	2.2	.93
2	16	16	36	30	26	19	34	214	183	38	1.8	.45
3	17	22	30	29	26	19	32	172	129	32	1.4	.28
4	15	22	28	26	28	22	31	144	120	26	1.0	.12
5	14	21	30	22	25	23	30	128	162	23	.94	.04
6	14	44	30	18	27	22	29	125	183	21	1.8	0
7	14	35	27	15	24	24	28	118	148	19	.94	0
8	14	30	25	12	25	610	28	109	87	19	.64	0
9	13	27	22	17	25	892	27	102	66	19	.52	0
10	12	26	22	24	24	442	27	96	53	17	.40	0
11	12	23	22	27	24	363	26	109	43	18	.40	0
12	12	21	22	27	24	376	34	1240	37	20	.40	0
13	12	19	22	25	24	206	36	2520	34	16	.40	0
14	11	18	22	25	23	151	30	868	30	14	.36	0
15	15	17	25	25	24	130	30	619	28	18	.32	0
16	20	16	26	25	24	107	46	486	28	156	.20	.20
17	19	16	24	24	23	89	38	310	27	130	.20	.40
18	16	16	21	24	22	73	466	206	26	265	.28	.40
19	18	19	21	24	22	64	595	160	36	236	.12	.81
20	20	28	22	24	22	56	3600	129	28	139	0	.57
21	19	29	23	23	22	47	3600	114	23	96	0	.40
22	17	24	22	23	24	43	2030	101	20	64	0	.28
23	15	33	23	23	22	39	1150	94	20	43	0	.12
24	15	29	25	23	19	34	650	100	121	25	0	0
25	14	28	34	23	18	34	408	127	81	18	.32	0
26	13	26	51	23	18	34	283	93	63	14	.24	0
27	13	26	48	23	19	33	222	331	61	9.6	0	0
28	13	27	41	23	19	34	244	488	49	7.7	.04	0
29	12	27	39	32	19	60	502	552	40	5.0	.36	0
30	13	70	37	27	---	43	285	300	42	3.7	.87	0
31	12	---	35	27	---	36	---	220	---	2.9	1.1	---
TOTAL	458	767	896	745	669	4165	14577	10624	2154	1567.9	17.25	5.00
MEAN	14.8	25.6	28.9	24.0	23.1	134	486	343	71.8	50.6	.56	.17
MAX	20	70	51	32	28	892	3600	2520	186	265	2.2	.93
MIN	11	12	21	12	18	19	26	93	20	2.9	0	0
AC-FT	908	1520	1780	1480	1330	8260	28910	21070	4270	3110	34	9.9

CAL YR 1975 TOTAL 160620.00 MEAN 440 MAX 5600 MIN 11 AC-FT 318600
WTR YR 1976 TOTAL 36645.15 MEAN 100 MAX 3600 MIN .00 AC-FT 72690

ARKANSAS RIVER BASIN

07231000 LITTLE RIVER NEAR SASAKWA, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1955 to current year.

WATER TEMPERATURE: October 1955 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples at or near 5th, 15th and 25th of the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 138,000 micromhos Oct. 31, 1956; minimum daily, 134 micromhos Sept. 22, 1972.

WATER TEMPERATURE: Maximum daily, 38.0°C July 20, 27, 28, 30, 1961; minimum, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 5,720 micromhos Oct. 17; minimum daily, 191 micromhos May 12.

WATER TEMPERATURE: Maximum daily, 37.0°C July 31; minimum daily, 0.0°C Jan. 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
UCT												
05...	--	--	0920	--	14	3220	--	--	--	--	--	--
15...	--	--	1730	--	15	2830	8.2	--	--	--	--	--
25...	--	--	1815	--	14	2630	8.0	--	--	--	--	--
NOV												
04...	--	--	1450	--	22	3860	7.9	--	--	--	--	--
15...	--	--	1445	--	17	2370	8.1	--	--	--	--	--
20...	1028	9740	1330	28	--	2300	8.3	7.0	49	12.2	103	67
24...	--	--	1105	--	29	1930	8.2	--	--	--	--	--
DEC												
05...	--	--	1240	--	30	1680	8.3	--	--	--	--	--
15...	--	--	1450	--	26	2600	8.2	--	--	--	--	--
17...	1028	9740	1600	24	--	2500	8.3	4.0	12	--	--	36
25...	--	--	1215	--	34	2890	8.3	--	--	--	--	--
JAN												
06...	--	--	1425	--	18	2480	8.1	--	--	--	--	--
15...	--	--	1144	--	25	2820	8.1	--	--	--	--	--
20...	1028	9740	1045	24	--	2400	8.6	2.5	2	12.8	97	16
24...	--	--	1345	--	23	2500	8.1	--	--	--	--	--
FEB												
05...	--	--	1704	--	18	2480	7.9	--	--	--	--	--
15...	--	--	1340	--	24	2320	8.1	--	--	--	--	--
18...	1028	9740	1125	22	--	1700	--	13.5	5	--	--	53
25...	--	--	1810	--	18	2260	8.0	--	--	--	--	--
MAR												
05...	--	--	1335	--	23	2560	8.1	--	--	--	--	--
15...	--	--	1605	--	112	1360	8.0	--	--	--	--	--
16...	1028	9740	1130	114	--	1100	--	11.0	78	11.1	105	26
25...	--	--	1242	--	46	2250	8.1	--	--	--	--	--
APR												
05...	--	--	1815	--	30	2630	7.9	--	--	--	--	--
15...	--	--	1625	--	30	2490	8.0	--	--	--	--	--
21...	1028	9740	1530	3600	--	320	--	15.5	--	--	--	57
25...	--	--	1920	--	356	1120	7.8	--	--	--	--	--
MAY												
10...	--	--	1923	--	96	2120	8.1	--	--	--	--	--
12...	--	--	1600	--	2390	191	7.9	--	--	--	--	--
18...	1028	9740	1530	206	--	1300	8.4	23.5	45	7.6	92	51
19...	--	--	1830	--	160	1580	8.1	--	--	--	--	--
JUN												
02...	--	--	1857	--	183	884	7.8	--	--	--	--	--
12...	--	--	1715	--	37	1870	8.0	--	--	--	--	--
17...	1028	9740	1406	27	--	3000	7.8	27.5	24	8.2	106	37
24...	--	--	1655	--	121	4000	7.5	--	--	--	--	--
JUL												
03...	--	--	1618	--	32	1510	7.8	--	--	--	--	--
11...	--	--	1930	--	18	2590	8.1	--	--	--	--	--
19...	--	--	1953	--	236	496	7.8	--	--	--	--	--
21...	1028	9740	1200	96	--	570	8.0	28.0	225	7.4	97	11
AUG												
12...	1028	9740	1400	.39	--	1500	8.0	34.0	21	8.7	124	5
12...	--	--	1650	--	.39	1760	8.1	--	--	--	--	--
31...	--	--	1555	--	3.1	1440	8.4	--	--	--	--	--

ARKANSAS RIVER BASIN

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07231000 LITTLE RIVER NEAR SASAKWA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
SEP												
05...	--	--	1647	--	.20	2070	7.8	--	--	--	--	--
15...	1028	9740	1300	.02	--	1900	8.1	23.5	33	11.1	137	26
15...	--	--	1713	--	.04	2180	7.7	--	--	--	--	--
25...	--	--	1645	--	.12	2110	7.8	--	--	--	--	--
DATE	HARD- NESS (CA, MG)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- RAS- SIUM (K) (MG/L)	PHOS- PHATE (HCO3) (MG/L)
OCT												
05...	500	270	--	110	--	55	--	430	65	8.4	5.6	283
15...	490	240	--	100	--	59	--	390	63	7.6	6.3	304
25...	470	210	--	94	--	58	--	330	60	6.6	5.7	326
NOV												
04...	570	350	--	120	--	66	--	560	68	10	6.9	268
15...	440	180	--	86	--	54	--	290	59	6.0	5.6	315
20...	--	--	--	--	--	--	--	--	--	--	--	--
24...	390	120	--	76	--	48	--	230	56	5.1	5.4	326
DEC												
05...	350	130	--	77	--	39	--	210	56	4.9	4.8	276
15...	480	240	--	100	--	56	--	370	62	7.3	5.0	287
17...	--	--	--	--	--	--	--	--	--	--	--	--
25...	520	300	--	120	--	53	--	400	62	7.7	5.9	265
JAN												
06...	460	210	--	92	--	55	--	310	59	6.3	3.5	297
15...	470	270	--	89	--	60	--	370	63	7.4	4.1	247
20...	--	--	--	--	--	--	--	--	--	--	--	--
24...	460	220	--	88	--	58	--	320	60	6.5	3.5	295
FEB												
05...	440	210	--	77	--	60	--	320	61	6.6	3.4	283
15...	430	190	--	77	--	58	--	290	59	6.1	3.6	292
18...	--	--	--	--	--	--	--	--	--	--	--	--
25...	450	180	--	83	--	59	--	270	56	5.5	3.5	331
MAR												
05...	470	240	--	93	--	57	--	320	60	6.4	4.2	276
15...	310	120	--	66	--	35	--	160	53	4.0	4.2	233
16...	--	--	--	--	--	--	--	--	--	--	--	--
25...	480	220	--	100	--	57	--	260	54	5.1	4.6	328
APR												
05...	480	230	--	88	--	63	--	330	60	6.6	4.6	301
15...	470	200	--	92	--	58	--	320	59	6.4	4.8	322
21...	--	--	--	--	--	--	--	--	--	--	--	--
25...	270	110	--	61	--	29	--	140	52	3.7	4.1	203
MAY												
10...	460	210	--	99	--	52	--	280	57	5.7	4.5	306
12...	76	19	--	22	--	5.1	--	11	23	.6	2.5	70
18...	--	--	--	--	--	--	--	--	--	--	--	--
19...	330	130	--	73	--	37	--	190	55	4.5	4.3	249
JUN												
02...	220	58	--	50	--	22	--	93	48	2.8	3.7	192
12...	400	170	--	80	--	48	--	230	55	5.0	5.0	274
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	540	380	--	120	--	59	--	580	70	11	6.5	198
JUL												
03...	310	130	--	69	--	34	--	190	57	4.7	4.1	228
11...	490	270	--	100	--	58	--	330	59	6.5	5.7	269
19...	130	32	--	30	--	14	--	49	44	1.9	3.2	123
21...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	360	120	--	70	--	46	--	230	57	5.2	4.9	294
31...	250	60	--	47	--	33	--	190	62	5.2	3.6	235
SEP												
05...	370	130	--	66	--	49	--	290	63	6.6	4.9	291
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	360	120	--	62	--	49	--	300	64	6.9	5.0	285
25...	360	130	--	65	--	49	--	300	64	6.8	4.8	283

ARKANSAS RIVER BASIN

07231000 LITTLE RIVER NEAR SASAKWA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACU3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT												
05...	--	232	--	22	870	--	1740	2.37	65.8	.01	--	--
15...	0	249	3.1	27	740	--	1530	2.08	62.0	.22	--	--
25...	0	267	5.2	41	620	--	1400	1.90	52.9	.18	--	--
NOV												
04...	0	220	5.4	32	1100	--	2130	2.90	127	.15	--	--
15...	0	258	4.0	30	580	--	1220	1.66	56.0	.04	--	--
20...	--	--	--	--	--	.5	--	--	--	--	1.4	.04
24...	0	267	3.3	34	440	--	1050	1.43	82.2	.06	--	--
DEC												
05...	0	226	2.2	30	400	--	906	1.23	73.4	.75	--	--
15...	0	235	2.9	31	720	--	1420	1.93	99.7	.28	--	--
17...	--	--	--	--	--	.2	--	--	--	--	.50	.01
25...	0	217	2.1	30	810	--	1640	2.23	151	.35	--	--
JAN												
06...	0	244	3.8	29	600	--	1320	1.80	64.2	.16	--	--
15...	0	203	3.1	31	720	--	1510	2.05	102	.20	--	--
20...	--	--	--	--	--	.3	--	--	--	--	1.9	<.01
24...	0	242	3.8	32	610	--	1290	1.75	80.1	.01	--	--
FEB												
05...	0	232	5.7	47	640	--	1320	1.80	64.2	.07	--	--
15...	0	240	3.7	43	600	--	1230	1.67	79.7	.14	--	--
18...	--	--	--	--	--	.4	--	--	--	--	.40	<.10
25...	0	271	5.3	28	540	--	1210	1.65	58.8	.14	--	--
MAR												
05...	0	226	3.5	30	670	--	1410	1.92	87.6	.14	--	--
15...	0	191	3.7	22	300	--	747	1.02	226	.31	--	--
16...	--	--	--	--	--	.2	--	--	--	--	1.0	.20
25...	0	269	4.2	24	560	--	1230	1.67	153	.17	--	--
APR												
05...	0	247	6.1	31	680	--	1470	2.00	119	.00	--	--
15...	0	264	5.2	30	640	--	1390	1.89	113	.11	--	--
21...	--	--	--	--	--	--	--	--	--	--	2.0	--
25...	0	167	5.1	18	270	--	616	.84	592	.33	--	--
MAY												
10...	0	251	3.9	28	550	--	1130	1.54	293	.14	--	--
12...	0	57	1.4	13	17	--	106	.14	684	.57	--	--
18...	--	--	--	--	--	.4	--	--	--	--	1.1	.22
19...	0	204	3.2	21	380	--	874	1.19	378	.27	--	--
JUN												
02...	0	157	4.9	19	170	--	468	.64	231	.24	--	--
12...	0	225	4.4	23	440	--	1000	1.36	99.9	.24	--	--
17...	--	--	--	--	--	.4	--	--	--	--	--	.18
24...	0	162	10	30	1100	--	2230	3.03	729	.41	--	--
JUL												
03...	0	187	5.8	23	350	--	817	1.11	70.6	.30	--	--
11...	0	221	3.4	27	680	--	1410	1.92	68.5	.26	--	--
19...	0	101	3.1	20	87	--	268	.36	171	.64	--	--
21...	--	--	--	--	--	.3	--	--	--	--	2.5	.15
AUG												
12...	--	--	--	--	--	.2	--	--	--	--	3.0	<.08
12...	0	241	3.7	19	410	--	958	1.30	1.01	.19	--	--
31...	0	193	1.5	13	330	--	765	1.04	6.40	.47	--	--
SEP												
05...	0	239	7.4	26	500	--	1150	1.56	.62	.50	--	--
15...	--	--	--	--	--	.3	--	--	--	--	2.7	.09
15...	0	234	9.1	15	520	--	1200	1.63	.13	.51	--	--
25...	0	232	7.2	19	540	--	1120	1.52	.36	.36	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

ARKANSAS RIVER BASIN

07231000 LITTLE RIVER NEAR SASAKWA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2480	2580	1950	2270	2430	2550	2710	1450	941	1310	1400	1960
2	2830	2580	---	2330	2350	2560	2670	1420	884	1230	---	2020
3	3440	2690	---	2360	2320	2410	2600	1440	962	1510	1470	2060
4	3170	3860	1950	2340	2360	2490	2540	1620	931	1650	1520	2060
5	3220	2870	1680	2320	2480	2560	2630	1630	898	1890	1570	2070
6	3060	3280	2620	2480	2540	3280	2690	1860	951	2110	1580	2080
7	2990	2080	2470	2930	2650	2800	2770	2030	948	2280	1650	2140
8	3040	2110	2320	2460	2900	1470	2840	1970	1100	2500	1710	2170
9	3130	2290	2150	2970	2440	965	3000	2070	1300	2510	1730	2180
10	3140	2190	2300	2430	2610	1180	2880	2120	1460	2570	---	2200
11	3200	2270	2370	2620	2620	1000	2850	2970	1680	2590	1750	---
12	3260	2260	2420	3740	2440	1240	2830	191	1870	2450	1780	---
13	3340	2280	2450	3730	2390	1200	1840	631	2020	2370	1810	2200
14	3320	2260	2440	2690	2350	1240	2170	863	2340	2390	1870	2200
15	2830	2370	2600	2820	2320	1950	2490	1030	2250	2470	1850	2180
16	2990	2520	2400	2530	2340	2010	3790	1240	2590	1930	1910	2180
17	5720	2580	5220	2510	2440	2030	2320	1230	2470	1690	1850	2290
18	3460	2780	2630	2600	2390	1980	1160	1380	2110	681	1890	2230
19	3220	2780	2380	2450	2240	2080	1130	1580	3310	496	1920	2250
20	3120	2520	2390	2580	2250	2240	509	1750	3320	533	1940	2140
21	2350	3020	2720	2560	2260	2010	512	1980	2990	595	1980	2110
22	2440	2540	---	2560	3100	2040	551	2150	3000	659	2030	2130
23	2440	1820	---	2520	2630	2000	700	2330	2740	700	---	2140
24	2410	1930	2660	2500	2240	2090	854	2050	4000	782	---	2130
25	2630	2340	2930	---	2260	2250	1120	2190	1960	849	1990	2110
26	2720	2350	2940	---	2280	2550	1160	2310	1700	916	2010	2110
27	2550	2940	2410	---	2590	2700	1340	1710	1240	960	2020	2080
28	2630	2220	---	2480	2280	2360	1370	867	1190	1500	1980	2070
29	2770	2140	---	2550	2310	2990	---	657	1230	1460	1840	2060
30	2820	2180	2290	2500	---	2940	---	782	1160	1370	---	2050
31	2780	---	2300	2600	---	2300	---	1440	---	1400	1440	---
MONTH	3020	2490	2440	2620	2440	2110	2000	1580	1850	1560	1790	2130
YEAR	MAX	5720	MIN	191	MEAN	2170						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	15.0	5.0	8.0	10.5	21.0	20.0	19.5	27.5	25.0	36.5	27.5
2	15.0	19.0	9.0	5.0	9.5	22.5	22.0	21.0	27.5	29.0	31.0	29.0
3	14.5	17.0	9.0	6.0	10.5	14.5	19.0	20.5	27.5	29.0	33.5	29.0
4	12.0	17.0	7.0	1.5	8.5	16.0	22.0	20.0	27.5	28.0	30.0	30.0
5	12.0	19.0	15.0	1.5	5.0	12.5	21.0	19.5	27.0	30.5	33.0	29.0
6	15.0	17.0	12.0	4.5	2.5	14.5	22.0	20.5	27.0	30.5	35.0	33.0
7	15.0	20.0	10.0	0.5	3.0	11.0	20.0	18.5	28.0	31.0	33.0	27.5
8	15.0	19.0	9.0	0.0	10.0	9.5	21.5	21.5	28.5	32.5	31.0	27.0
9	24.0	19.0	7.0	1.5	11.5	10.5	22.5	22.5	28.5	30.0	32.5	25.0
10	24.0	16.0	6.0	2.0	13.5	13.0	23.5	23.0	29.0	31.0	32.5	24.5
11	21.0	16.0	13.0	2.0	12.5	14.0	25.5	25.5	30.5	31.0	33.5	---
12	23.0	14.0	10.0	5.5	14.0	14.5	25.0	18.0	29.0	34.5	33.0	---
13	21.0	8.0	12.0	5.5	19.0	10.5	22.5	19.5	31.0	34.0	31.0	25.0
14	21.0	10.0	16.0	5.5	16.5	12.5	25.0	19.5	28.5	30.5	33.5	27.0
15	21.0	13.0	10.0	4.0	19.0	12.5	24.5	18.5	28.5	27.0	31.0	27.0
16	17.0	15.0	8.0	5.5	20.0	14.0	22.0	21.5	29.0	27.0	33.5	26.0
17	15.5	16.0	5.0	6.0	17.5	15.5	20.5	22.5	24.5	30.5	34.5	28.5
18	16.0	16.0	4.0	6.0	16.5	16.5	19.0	23.5	25.0	30.0	32.5	26.5
19	---	16.0	6.0	7.0	16.0	21.0	18.0	24.5	27.5	29.0	33.0	25.0
20	15.0	10.0	4.0	6.0	17.0	20.0	17.0	25.0	30.0	31.0	30.0	25.0
21	17.0	7.0	5.0	7.5	10.0	18.0	17.5	26.0	30.0	32.0	30.0	25.5
22	19.0	7.0	4.0	9.0	12.0	17.0	20.5	25.5	29.0	31.5	29.5	24.0
23	19.0	5.0	6.0	10.5	14.0	18.0	22.5	27.0	30.0	31.5	---	25.0
24	20.0	9.0	5.0	9.5	12.5	17.5	23.0	26.0	24.0	33.0	31.0	25.5
25	15.0	10.0	6.0	7.0	15.5	19.0	21.0	24.0	27.5	33.5	28.0	25.5
26	12.0	5.0	4.0	5.5	17.0	20.0	20.0	21.5	29.5	34.0	29.5	25.0
27	19.0	5.0	6.0	6.0	19.0	21.5	19.5	19.0	30.5	34.0	29.5	24.0
28	21.0	5.0	6.0	5.0	20.5	15.0	17.0	22.0	32.5	32.5	29.0	21.5
29	19.0	17.0	5.0	9.0	19.5	19.5	18.0	24.5	33.0	33.5	27.5	21.0
30	19.0	10.0	8.0	10.5	---	17.5	18.0	25.5	30.0	35.5	30.0	21.5
31	15.0	---	7.0	9.0	---	17.0	---	27.0	---	37.0	24.0	---
MONTH	18.0	13.0	7.5	5.5	13.5	16.0	21.0	22.5	28.5	31.5	31.5	26.0
YEAR	MAX	37.0	MIN	0.0	MEAN	19.5						

07231500 CANADIAN RIVER AT CALVIN, OK

LOCATION.--Lat 34°58'32", long 96°14'24", in NE 1/4 SW 1/4 sec.22, T.6 N., R.10 E., Hughes County, near left bank on downstream side of pier of bridge on U.S. Highway 75, 0.5 mi (0.8 km) northeast of Calvin, 2.4 mi (3.9 km) upstream from Shawnee Creek, 8.5 mi (13.7 km) downstream from Little River, and at mile 93.9 (151.1 km).

DRAINAGE AREA.--27,952 mi² (72,396 km²), of which 4,801 mi² (12,435 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1905 to December 1908 (gage heights and discharge measurements only except for period July 1905 to December 1906), October 1938 to September 1942, July 1944 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1904 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1391: 1941.

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 684.72 ft (208.703 m) above mean sea level. January 1905 to December 1908, nonrecording gage at site 0.8 mi (1.3 km) upstream at datum 2.00 ft (0.611 m) higher. Oct. 1, 1938, to Aug. 12, 1944, nonrecording gage at present site and datum.

REMARKS.--Records poor. Occasional slight regulation by dams in New Mexico and Texas.

COOPERATION.--Gage height record and 28 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--37 years (water years 1906, 1939-42, 1945-76), 1,625 ft³/s (46.02 m³/s), 1,177,000 acre-ft/yr (1.45 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174,000 ft³/s (4,930 m³/s) May 11, 1950, gage height, 17.35 ft (5.288 m); maximum gage height, 21.00 ft (6.401 m), Aug. 7, 1906, from floodmark, site and datum then in use; no flow at times in 1939, 1954, 1956, 1966-67.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,000 ft³/s (765 m³/s) at 0700 Apr. 20, gage height, 6.69 ft (2.039 m), no other peak above base of 25,000 ft³/s (708 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	126	528	353	243	219	300	1790	2110	534	14	33
2	129	233	457	340	283	203	316	1680	1910	766	8.4	30
3	126	257	379	372	257	217	278	1750	2320	371	6.9	29
4	108	247	322	353	219	260	252	1530	1710	220	9.6	28
5	108	257	353	311	199	268	238	1240	1250	141	6.1	27
6	118	813	512	294	199	273	224	1220	973	108	9.2	22
7	108	520	394	294	199	311	182	971	814	86	7.8	17
8	99	353	322	262	247	2640	159	758	575	72	5.7	7.0
9	94	366	316	214	273	3160	150	537	403	57	253	3.0
10	91	322	294	278	294	1660	144	420	317	47	221	0
11	90	289	238	294	273	1360	139	406	288	38	122	0
12	90	266	228	340	247	1580	199	2950	259	35	84	0
13	91	243	219	316	247	1080	196	7830	217	29	62	0
14	90	206	238	243	268	882	185	2510	172	25	45	31
15	94	189	262	233	268	599	179	1560	248	31	37	24
16	91	179	262	252	311	599	196	1400	200	52	26	32
17	90	172	243	289	311	617	247	1190	166	1210	20	42
18	94	171	258	305	300	545	1620	958	185	730	18	66
19	406	166	206	300	294	480	2510	695	225	581	9.0	77
20	322	306	243	311	294	413	15000	599	214	340	8.0	65
21	268	270	262	247	294	366	10300	512	173	238	5.0	59
22	210	290	262	224	300	406	5500	420	168	157	3.0	65
23	150	305	278	219	328	366	3220	366	203	109	3.0	47
24	175	329	294	233	311	311	1920	334	301	83	2.0	23
25	192	323	406	268	283	316	1540	379	336	64	3.0	12
26	159	316	496	283	247	334	1400	695	665	57	3.0	7.0
27	159	316	480	322	233	300	1190	1490	351	59	3.0	2.0
28	153	268	520	311	224	328	1080	3700	266	41	3.0	0
29	133	366	537	294	219	322	1260	2800	205	31	3.0	0
30	133	726	457	257	---	406	1960	1750	428	25	2.0	0
31	126	---	386	233	---	366	---	1930	---	19	12	---
TOTAL	4423	9192	10657	8845	7665	21227	52084	46370	17654	6356	1014.7	748.0
MEAN	143	306	344	285	264	685	1736	1496	588	205	32.7	24.9
MAX	406	813	537	372	328	3160	15000	7830	2320	1210	253	77
MIN	90	126	206	214	199	203	139	334	166	19	2.0	0
AC-FT	8770	18230	21140	17540	15200	42100	103300	91970	35020	12610	2010	1480
CAL YR 1975	TOTAL	752804.0	MEAN	2062	MAX	29500	MIN	90	AC-FT	1493000		
WTR YR 1976	TOTAL	186235.7	MEAN	509	MAX	15000	MIN	.00	AC-FT	369400		

07231500 CANADIAN RIVER AT CALVIN, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-53, 1960-61, 1965 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1965 to current year.

WATER TEMPERATURE: July 1965 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples at or near 5th, 15th and 25th of the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 11,400 micromhos Nov. 17, 1966; minimum daily, 205 micromhos Nov. 1, 1972.

WATER TEMPERATURE: Maximum daily, 34.0°C July 7, 1975; minimum, 0.0°C on many days during the winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,020 micromhos Aug. 27; minimum daily, 436 micromhos Apr. 20.

WATER TEMPERATURE: Maximum daily, 25.5°C on several days during summer months; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COLLECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	pH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARDNESS (CA, MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT												
21...	--	--	1700	208	1100	--	23.0	30	--	360	190	75
NOV												
20...	--	--	0945	225	1200	8.6	6.0	40	--	340	130	78
20...	1028	9740	0946	--	850	8.8	2.0	--	--	--	--	--
DEC												
17...	--	--	1500	243	1400	8.7	5.0	7	--	420	170	100
17...	1028	9740	1501	--	1400	8.7	5.0	--	4	--	--	--
JAN												
20...	--	--	1230	312	1600	--	6.0	10	--	490	220	120
20...	1028	9740	1231	--	1600	8.6	6.0	--	28	--	--	--
FEB												
16...	--	--	1245	300	1200	--	--	9	--	450	230	98
18...	1028	9740	1246	--	1200	--	15.0	--	29	--	--	--
MAR												
05...	--	--	0700	258	1620	8.4	--	--	--	440	230	97
15...	--	--	0700	600	1120	8.1	--	--	--	340	130	81
16...	--	--	1300	600	1250	--	12.0	56	--	350	120	80
16...	1028	9740	1301	563	1250	--	12.0	--	21	--	--	--
25...	--	--	0700	323	1630	8.0	--	--	--	450	250	100
APR												
20...	--	--	1300	15400	520	--	17.0	1400	--	180	50	49
20...	1028	9740	1301	--	520	--	17.0	--	111	--	--	--
MAY												
19...	--	--	1015	497	1180	8.3	22.6	50	--	350	160	84
19...	1028	9740	1016	758	1180	8.3	25.0	--	39	--	--	--
JUN												
03...	--	--	0700	2700	1330	7.8	--	--	--	370	190	95
17...	--	--	1130	120	1700	--	27.0	4	--	380	210	82
17...	1028	9740	1131	--	1700	--	27.0	--	74	--	--	--
23...	--	--	0700	225	1720	8.1	--	--	--	520	340	120
30...	--	--	0700	300	620	--	--	--	--	160	57	41
JUL												
07...	--	--	0700	90	1030	7.6	--	--	--	260	86	63
15...	--	--	0700	22	1840	7.6	--	--	--	390	180	88
21...	--	--	1030	253	590	8.5	27.5	190	--	140	29	34
21...	1028	9740	1031	--	590	8.5	28.0	--	11	--	--	--
24...	--	--	0700	88	716	--	--	--	--	200	50	49
AUG												
16...	--	--	1100	19	1300	8.4	33.0	65	--	350	130	85
18...	1028	9740	1101	--	1300	8.3	33.0	--	17	--	--	--
SEP												
14...	1028	9740	1316	--	1080	8.6	31.0	--	8	--	--	--
14...	--	--	1400	6.3	1080	8.6	31.0	25	--	210	39	39

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	TOTAL FLUOR- IDE (F) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)
OCT												
21...	42	120	42	2.8	5.5	212	174	--	210	170	--	.3
NOV												
20...	35	100	39	2.4	4.4	257	211	1.0	140	160	--	.3
20...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
17...	42	140	42	3.0	4.2	306	251	1.0	160	220	--	.3
17...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
20...	46	130	36	2.6	4.1	324	266	--	230	190	--	.4
20...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
18...	50	140	--	2.9	--	264	217	--	260	190	--	.4
18...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	49	170	45	3.5	4.8	250	210	1.6	230	280	--	--
15...	34	120	43	2.8	4.9	257	211	3.3	150	160	--	--
16...	36	93	36	2.2	4.3	279	229	--	160	380	--	.4
16...	--	--	--	--	--	--	--	--	--	--	--	--
25...	49	170	45	3.5	5.6	248	203	4.0	290	250	--	--
APR												
20...	14	45	35	1.5	3.5	158	130	--	53	68	--	.3
20...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
19...	33	120	43	2.8	4.6	223	183	1.8	150	200	--	.7
19...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	32	130	--	2.9	--	214	176	5.4	200	180	--	--
17...	43	180	50	4.0	6.5	212	174	--	190	290	--	.5
17...	--	--	--	--	--	--	--	--	--	--	--	--
23...	54	170	--	3.2	--	219	180	2.8	380	230	--	--
30...	15	72	--	2.4	--	131	107	--	63	100	--	--
JUL												
07...	25	120	--	3.2	--	212	174	8.5	66	180	--	--
15...	41	240	--	5.3	--	259	212	10	38	460	--	--
21...	14	48	41	1.8	3.9	138	113	.7	36	76	--	.4
21...	--	--	--	--	--	--	--	--	--	--	--	--
24...	20	69	--	2.1	--	169	155	--	51	110	--	--
AUG												
18...	53	150	48	3.5	7.2	267	219	1.7	81	280	--	.4
18...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	27	170	63	5.1	7.4	208	171	.8	88	230	--	.5
DATE	DIS- SOLVED SILICA (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO3) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	
UCT												
21...	5.7	768	733	1.04	431	.02	--	2.1	2.1	9.4	.14	
NOV												
20...	9.1	685	654	.93	416	.02	--	.90	.92	4.1	.18	
20...	--	--	--	--	--	--	--	--	1.7	--	--	
DEC												
17...	8.1	868	825	1.18	569	.01	--	.59	.60	2.7	.14	
17...	--	--	--	--	--	--	--	--	1.0	--	--	
JAN												
20...	7.7	945	888	1.29	796	.55	--	1.1	1.7	7.3	.19	
20...	--	--	--	--	--	--	--	--	2.1	--	--	
FEB												
18...	3.8	916	872	1.25	742	.17	--	.67	.84	3.7	.17	
18...	--	--	--	--	--	--	--	--	1.0	--	--	
MAR												
05...	--	1000	--	1.36	697	--	.37	--	--	--	.12	
15...	--	671	--	.91	1090	--	1.1	--	--	--	.12	
16...	8.3	859	900	1.17	1390	.36	--	1.1	1.5	6.5	.17	
16...	--	--	--	--	--	--	--	--	1.5	--	--	
25...	--	1000	--	1.36	872	--	.65	--	--	--	.16	
APR												
20...	6.4	300	317	.41	12500	.61	--	6.8	7.4	33	1.1	
20...	--	--	--	--	--	--	--	--	4.9	--	--	
MAY												
19...	8.8	736	711	1.00	988	.01	--	1.0	1.0	4.5	.18	
19...	--	--	--	--	--	--	--	--	<1.0	--	--	

ARKANSAS RIVER BASIN

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL- NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO ₃) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
JUN											
03...	--	784	--	1.07	5720	--	.88	--	--	--	--
17...	11	984	908	1.34	319	.00	--	1.5	1.5	6.6	.13
17...	--	--	--	--	--	--	--	--	2.5	--	--
23...	--	1090	--	1.48	662	--	.78	--	--	--	--
30...	--	370	--	.50	300	--	.79	--	--	--	--
JUL											
07...	--	592	--	.81	144	--	.80	--	--	--	--
15...	--	972	--	1.32	57.7	--	.43	--	--	--	--
21...	6.9	315	287	.43	215	.59	--	1.2	1.8	7.9	.24
21...	--	--	--	--	--	--	--	--	2.5	--	--
24...	--	377	--	.51	89.6	--	.52	--	--	--	--
AUG											
18...	12	797	781	1.08	40.9	.38	--	1.1	1.5	6.6	.15
18...	--	--	--	--	--	--	--	--	2.0	--	--
SEP											
14...	--	--	--	--	--	--	--	--	2.0	--	--
14...	3.8	662	668	.90	11.3	.08	--	.91	.99	4.4	.33

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL CULI- FORM (COL. PER 100 ML)	STREP- TOCUCCI (COL- ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDEd SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT											
21...	--	--	1700	208	10.8	133	26	128	--	110	81
NOV											
20...	--	--	0945	225	13.4	112	--	>2000	16	--	--
20...	1028	9740	0946	--	--	--	--	--	--	--	--
DEC											
17...	--	--	1500	243	--	--	--	--	--	47	68
17...	1028	9740	1501	--	--	--	--	--	--	--	--
JAN											
20...	--	--	1230	312	13.2	110	--	823	--	54	51
20...	1028	9740	1231	--	13.2	110	--	--	--	--	--
FEB											
18...	1028	9740	1246	--	--	--	--	--	--	--	--
MAR											
16...	--	--	1300	600	12.2	117	48	85	--	--	--
16...	1028	9740	1301	563	10.4	117	--	--	--	--	--
APR											
20...	--	--	1300	15400	7.4	81	811600	21500	--	--	--
20...	1028	9740	1301	--	7.4	81	--	--	--	--	--
MAY											
19...	--	--	1015	497	8.8	105	--	--	5.0	628	17
19...	1028	9740	1016	758	8.8	105	--	--	--	628	17
JUN											
17...	--	--	1130	120	9.4	120	835	821	--	36	76
17...	1028	9740	1131	--	9.4	120	--	--	--	--	--
JUL											
21...	--	--	1030	253	7.1	92	132	118	8.2	314	84
21...	1028	9740	1031	--	7.1	--	--	--	--	--	--
AUG											
18...	--	--	1100	19	--	--	150	120	7.0	90	80
18...	1028	9740	1101	--	--	--	--	--	--	--	--
SEP											
14...	1028	9740	1316	--	7.7	104	--	--	--	--	--
14...	--	--	1400	6.3	7.7	104	62	103	13	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDEO ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDEO CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
NOV										
20...	--	--	0945	225	5	2	3	<10	<10	0
20...	1028	9740	0946	--	--	--	--	--	--	--
DEC										
17...	1028	9740	1501	--	--	--	--	--	--	--
JAN										
20...	1028	9740	1231	--	--	--	--	--	--	--
FEB										
18...	--	--	1245	300	2	--	--	<10	--	--
18...	1028	9740	1246	--	--	--	--	--	--	--
MAR										
16...	1028	9740	1301	563	--	--	--	--	--	--
APR										
20...	1028	9740	1301	--	--	--	--	--	--	--
MAY										
19...	--	--	1015	497	3	1	2	2	0	2
19...	1028	9740	1016	758	--	--	--	--	--	--
JUN										
17...	1028	9740	1131	--	--	--	--	--	--	--
JUL										
21...	--	--	1030	253	8	7	1	<10	<7	3
21...	1028	9740	1031	--	--	--	--	--	--	--
AUG										
18...	--	--	1100	19	6	1	5	<10	<9	1
18...	1028	9740	1101	--	--	--	--	--	--	--
SEP										
14...	1028	9740	1316	--	--	--	--	--	--	--

[illegible]

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDED LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (UG/L)	SUS- PENDE MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE MERCURY (HG) (UG/L)
NOV									
20...	50	<100	<97	3	60	50	10	.0	.0
20...	--	--	--	--	--	--	--	--	--
DEC									
17...	--	--	--	--	90	--	--	--	--
JAN									
20...	--	--	--	--	76	--	--	--	--
FEB									
18...	--	<100	--	--	100	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
MAR									
16...	--	--	--	--	143	--	--	--	--
APR									
20...	--	--	--	--	2600	--	--	--	--
MAY									
19...	120	18	10	8	170	170	0	--	--
19...	--	--	--	--	--	--	--	--	--
JUN									
17...	--	--	--	--	150	--	--	--	--
JUL									
21...	20	<100	<95	5	260	260	0	.1	.1
21...	--	--	--	--	222	--	--	--	--
AUG									
18...	270	<100	<98	2	280	280	0	.0	.0
18...	--	--	--	--	--	--	--	--	--
SEP									
14...	--	--	--	--	243	--	--	--	--

[illegible]

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 21	1700	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyceae			
		Pediastrum			
		Micractiniaceae			
		Micractinium	8,900	6	
		Occystaceae			
		Ankistrodesmus	9,800	7	
		Dictyosphaerium	62,000	41	
		Kirchneriella	3,500	2	
		Scenedesmaceae			
		Scenedesmus	28,000	19	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,700	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	17,000	11	
		Pennales			
		Naviculaceae			
		Navicula			
		Nitzschiaceae			
		Nitzschia	4,400	3	
		Surirellaceae			
		Surirella			
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	14,000	9	
		TOTAL	150,000		
Nov. 20	0945	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyceae			
		Pediastrum		0	
		Occystaceae			
		Ankistrodesmus	800	3	
		Dictyosphaerium	1,600	5	
		Kirchneriella	400	1	
		Oocystis		0	
		Scenedesmaceae			
		Actinastrum		0	
		Scenedesmus	1,600	5	
		Tetrastrum		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	9,200	29	
		Volvocaceae			
		Gonium	1,600	5	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	8,000	25	
		Melosira	2,000	6	
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Navicula	400	1	
		Nitzschiaceae			
		Nitzschia	6,000	19	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonidales			
		Cryptomonodaceae			
		Cryptomonas		0	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	32,000		

ARKANSAS RIVER BASIN

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Dec. 17	1500	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Characiaceae			
		Schroederia		0	
		Hydrodictyaceae			
		Pediastrum		0	
		Occystaceae			
		Ankistrodesmus	170	1	
		Scenedesmaceae			
		Scenedesmus	450	3	
		Tetrasporales			
		Palmellaceae			
		Sphaerocystis		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	5,700	43	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	170	1	
		Pennales			
		Naviculaceae			
		Navicula		0	
		Nitzschiaceae			
		Nitzschia	170	1	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	6,500	49	
		TOTAL	13,000		
Jan. 20	1230	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Characiaceae			
		Schroederia	73	1	
		Occystaceae			
		Ankistrodesmus	73	1	
		Scenedesmaceae			
		Scenedesmus	150	3	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,200	23	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	870	16	
		Pennales			
		Naviculaceae			
		Navicula	290	5	
		Nitzschiaceae			
		Nitzschia	950	18	
		Surirellaceae			
		Surirella	290	5	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,300	24	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	73	1	
		PYRRHOPHYTA			
		Dinophyceae			
		Peridinales			
		Peridiniaceae			
		Peridinium	73	1	
		TOTAL	5,400		

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Feb. 18	1245	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyceae			
		Pediastrum		0	
		Micractiniaceae			
		Micractinium	11,000	24	
		Occystaceae			
		Ankistrodesmus	390	1	
		Dictyosphaerium	13,000	28	
		Scenedesmaceae			
		Actinastrum	780	2	
		Scenedesmus	9,000	19	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas		0	
		Volvocaceae			
		Gonium		0	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	7,800	17	
		Pennales			
		Fragilariaceae			
		Fragilaria		0	
		Synedra		0	
		Naviculaceae			
		Caloneis		0	
		Navicula		0	
		Neidium		0	
		Nitzschiaceae			
		Nitzschia	3,700	8	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Gomphosphaeria		0	
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya		0	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas		0	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Trachelomonas		0	
		TOTAL	47,000		
Mar. 16	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium		0	
		Occystaceae			
		Dictyosphaerium	950	9	
		Radiooccus	2,600	23	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	470	4	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	4,000	36	
		Pennales			
		Fragilariaceae			
		Synedra		0	
		Naviculaceae			
		Caloneis		0	
		Navicula		0	
		Nitzschiaceae			
		Nitzschia	2,600	23	
		Surirellaceae			
		Surirella	240	2	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	240	2	
		TOTAL	11,000		

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Apr. 20	1300	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Pennales			
		Achnantheae	720	7	
		Naviculaceae			
		Caloneis	720	7	
		Navicula	2,200	21	
		Nitzschiaceae			
		Nitzschia	6,500	64	
		TOTAL	10,000		
May 19	1015	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum	6,800	6	
		Hydrodictyaceae			
		Pediastrum	9,000	9	
		Micractiniaceae			
		Micractinium	6,800	6	
		Occystaceae			
		Ankistrodesmus	3,100	3	
		Dictyosphaerium	7,000	7	
		Oocystis		0	
		Selenastrum	2,500	2	
		Scenedesmaceae			
		Actinastrum	3,100	3	
		Scenedesmus	56,000	54	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	840	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	2,800	3	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	4,200	4	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	2,300	2	
		TOTAL	100,000		
July 21	1030	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	1,900	3	
		Occystaceae			
		Dictyosphaerium	31,000	42	
		Scenedesmaceae			
		Actinastrum	11,000	14	
		Scenedesmus	2,600	4	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	650	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	430	1	
		Pennales			
		Cymbellaceae			
		Cymbella	430	1	
		Naviculaceae			
		Navicula		0	
		Nitzschiaceae			
		Nitzschia	1,300	2	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	860	1	
		Oscillatoriales			
		Nostocaceae			
		Anabaena	7,400	10	
		Oscillatoriaceae			
		Oscillatoria	15,000	21	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Trachelomonas	860	1	

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
July 21	1030	PYRRHOPHYTA			Sediment sampler
		Dinophyceae			
		Gymnodiniales			
		Gymnodiniaceae			
		Gymnodinium		0	
		TOTAL	74,000		
Aug. 18	1100	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyceae			
		Pediastrum	3,600	3	
		Occystaceae			
		Ankistrodesmus		0	
		Dictyosphaerium	950	1	
		Scenedesmaceae			
		Scenedesmus	1,400	1	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,400	1	
		Volvocaceae			
		Pandorina		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Nitzschia	6,200	6	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	15,000	14	
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya	5,900	6	
		Oscillatoria	72,000	67	
		TOTAL	110,000		
Sept. 14	1400	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus		0	
		Dictyosphaerium	460,000	70	
		Scenedesmaceae			
		Crucigenia	36,000	5	
		Scenedesmus	8,400	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	17,000	3	
		Anacystis	15,000	2	
		Oscillatoriales			
		Nostocaceae			
		Anabaena	52,000	8	
		Aphanizomenon	31,000	5	
		Oscillatoriaceae			
		Lyngbya	31,000	5	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas	4,200	1	
		PYRRHOPHYTA			
		Dinophyceae			
		Peridinales			
		Peridiniaceae			
		Peridinium		0	
		TOTAL	660,000		

ARKANSAS RIVER BASIN

07231500 CANADIAN RIVER AT CALVIN, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1280	1220	1430	1540	1620	1740	1230	1160	731	1330	1580
2	1270	---	1230	1410	---	1600	1590	1470	1410	775	1330	---
3	1270	1090	1280	1420	1520	1600	1620	1570	1330	770	1410	1360
4	1250	1240	1310	1470	1580	1570	1450	---	1270	772	1460	1310
5	1290	1420	1300	1470	1590	1620	1520	---	1180	---	1500	1300
6	1260	1030	1220	1490	1600	1740	1570	1610	1150	---	1460	1320
7	1260	1150	1280	1620	1570	1430	1630	1770	1130	1030	1470	1330
8	1370	1370	1310	---	1560	938	1660	1680	---	1110	1610	1280
9	1410	1290	1280	---	1520	814	1650	---	1210	1220	1180	1490
10	1390	1140	1340	1570	1520	728	1630	---	1280	1430	992	---
11	1420	1110	1470	1610	1550	836	1480	1660	1330	1420	817	---
12	1450	1110	1400	1530	1550	667	1480	1690	1400	1790	807	---
13	1360	1320	1400	1540	1520	920	1570	566	1510	1840	834	---
14	1380	1300	1370	1560	1530	1040	1880	671	1580	---	869	1380
15	1380	1320	1380	1560	1510	1120	1690	997	1550	1840	866	1110
16	1400	1300	1330	1520	1500	---	1630	1040	1580	1690	1060	944
17	1560	1320	1400	1620	1500	1260	1710	1110	1590	1550	1180	1280
18	1550	1320	1420	1520	---	1360	463	1140	1650	836	1580	964
19	1110	1290	1400	1530	1520	1400	---	1240	1430	1100	1510	783
20	1300	1210	1470	1520	1540	1360	436	1260	1560	570	1580	779
21	1300	1350	1420	1530	1540	---	640	1290	1610	532	1740	997
22	1240	1350	1430	1520	1630	1640	892	1310	---	584	1740	881
23	1860	1220	1440	1510	1620	1570	866	1390	1720	642	1840	952
24	1860	1250	1420	1490	1660	1510	890	1460	1420	723	1960	1030
25	1180	1370	1300	1520	1620	1630	1230	1500	---	820	1990	1110
26	1320	1420	1330	1490	1640	1610	1350	1680	1500	816	1960	1250
27	1270	---	1310	1450	1630	1610	1400	1020	1300	1060	2020	---
28	1220	1320	1420	---	1690	1530	1460	1070	1100	---	2100	---
29	1220	1230	1400	1600	---	---	1420	958	---	---	---	---
30	1280	994	1340	1630	---	1720	1360	770	622	1100	2110	---
31	1310	---	1440	1630	---	1540	---	828	---	1150	2100	---
MONTH	1360	1250	1360	1530	1570	1360	1380	1260	1370	1070	1470	---
YEAR	MAX	2110	MIN	436	MEAN	1350						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	15.0	4.0	6.0	5.0	15.0	11.0	14.0	23.0	23.0	25.5	21.5
2	14.0	---	4.0	4.5	---	16.5	12.5	15.0	23.0	21.0	24.0	---
3	13.0	15.0	5.0	0.0	3.0	10.0	13.0	15.0	23.0	24.0	20.5	22.5
4	14.0	15.0	8.0	0.5	3.0	7.0	14.0	15.0	25.5	24.0	21.0	24.0
5	13.5	16.0	13.5	0.0	4.0	5.0	15.0	17.0	22.0	22.5	21.5	21.0
6	14.0	16.5	10.0	1.0	0.0	5.5	14.0	16.0	22.5	22.0	23.0	20.0
7	15.0	16.0	7.0	1.0	3.0	9.0	14.5	15.0	23.0	22.5	23.0	19.5
8	16.5	15.5	7.5	---	4.0	8.5	14.5	16.0	23.0	23.0	24.0	20.0
9	19.0	18.0	6.0	---	5.0	7.5	15.0	16.0	22.0	24.0	24.0	22.0
10	20.5	12.0	5.5	0.0	10.0	8.0	14.5	18.5	22.5	24.0	24.0	---
11	20.5	11.0	8.0	2.0	10.0	11.5	16.0	18.5	22.0	24.5	24.0	---
12	21.0	9.0	9.0	1.0	10.5	12.0	18.0	20.5	23.0	24.5	23.5	---
13	20.0	6.0	11.0	4.5	13.0	7.0	19.0	14.5	24.0	24.0	23.5	---
14	19.0	5.5	14.0	3.0	14.0	7.0	19.0	17.0	22.0	---	24.0	19.5
15	19.0	7.0	6.5	5.0	12.0	10.5	19.0	18.0	20.5	24.0	25.0	21.0
16	16.0	10.0	4.0	5.0	15.5	---	16.0	17.0	19.5	23.0	23.5	21.5
17	14.0	12.0	3.0	3.5	12.0	8.5	19.0	17.0	21.5	23.0	24.0	22.0
18	12.0	13.0	0.0	4.0	---	10.0	15.5	17.5	23.0	25.0	24.0	23.5
19	12.0	10.5	0.0	6.0	9.5	13.0	---	18.5	20.0	25.0	20.0	23.5
20	13.0	6.0	1.5	3.0	10.5	15.0	16.0	19.0	19.5	24.5	22.0	23.0
21	15.0	3.0	1.5	3.0	9.0	---	15.0	21.5	21.0	24.5	21.0	16.0
22	16.5	2.0	3.5	4.0	7.5	13.5	15.5	21.0	21.0	25.0	21.0	20.0
23	17.0	3.0	4.0	6.0	6.0	12.0	18.0	22.0	22.0	25.0	20.5	20.0
24	19.0	3.0	5.0	7.0	7.5	12.5	19.5	22.0	23.0	25.5	19.5	19.5
25	11.0	5.0	1.0	6.0	8.0	15.0	15.0	22.0	---	25.5	21.0	21.0
26	8.5	1.5	1.0	1.0	9.0	15.5	15.0	19.5	24.0	25.0	21.0	21.5
27	13.0	---	2.0	0.0	11.0	15.5	15.0	17.0	25.0	25.5	22.5	---
28	15.0	---	5.0	---	13.0	16.0	16.5	16.0	25.0	25.5	23.0	---
29	15.5	---	6.5	4.0	---	---	14.0	19.0	---	25.5	---	---
30	12.0	---	4.0	5.0	---	12.0	15.5	19.5	23.5	25.5	22.0	---
31	13.0	---	3.0	5.0	---	10.0	---	21.5	---	25.0	21.0	---
MONTH	15.5	10.0	5.5	3.5	8.5	11.0	15.5	18.0	22.5	24.0	22.5	---
YEAR	MAX	25.5	MIN	0.0	MEAN	15.0						

ARKANSAS RIVER BASIN

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07232009 BLUE CREEK TRIBUTARY NEAR BLOCKER, OK

WATER-QUALITY RECORDS

LOCATION.--Lat 35°02'26", long 95°34'21", SW 1/4 NW 1/4 sec.36, T.7 N., R.16 E., Pittsburg County,
at bridge on State Highway 31, 1.5 mi (2.4 km) south of Blocker, and at mile 0.0 (0.0 km).

DRAINAGE AREA.--0.22 mi² (.56 km).

PERIOD OF RECORD.--March to September 1976.

REMARKS.--No flow was observed on July 21, August 10 and September 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ID- ITY (NTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL ACIDITY AS H+	TOTAL ACIDITY AS CACO3 (MG/L)
MAR 17...	1200	60	6.4	55	24	7.2	77	23	15	.1	5.0
APR 21...	0945	52	6.2	35	12	--	--	18	9	.1	5.0
MAY 18...	0730	90	7.5	30	15	7.6	76	23	16	.0	.0
JUN 16...	1130	100	5.5	15	10	5.6	67	22	19	.0	.0
JUL 21...	0845	169	7.3	45	11	4.4	54	74	52	.1	5.0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TIUM RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKAL- INITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
MAR 17...	5.8	2.1	4.0	27	.4	.8	10	0	8	12	4.8
APR 21...	4.3	1.8	3.8	30	.4	.8	11	0	9	11	3.7
MAY 18...	4.6	2.8	5.9	34	.5	1.1	8	0	7	19	5.3
JUN 16...	5.1	2.3	5.4	33	.5	1.1	4	0	3	16	9.4
JUL 21...	18	7.1	12	25	.6	1.9	27	0	22	39	13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (NO2) (MG/L)	DIS- SOLVED PLUS NITRATE (N) (MG/L)
MAR 17...	.1	6.6	41	41	.06	.00	.00	.00	.00	.00
APR 21...	.0	7.4	46	39	.06	.03	.13	.01	.03	.04
MAY 18...	--	9.4	71	52	.10	.00	.00	.00	.00	.00
JUN 16...	.1	9.7	68	52	.09	.18	.80	.01	.03	.19
JUL 21...	.1	4.7	94	110	.13	.01	.00	.00	.00	.01

ARKANSAS RIVER BASIN

07232009 BLUE CREEK TRIBUTARY NEAR BLOCKER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)
APR 21...	0945	--	50	--	0	--	20	--	1	--
MAY 18...	0730	600	0	0	0	30	0	0	0	10
JUN 16...	1130	--	50	--	--	--	160	--	0	--
JUL 21...	0845	250	20	1	0	80	30	<10	4	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
APR 21...	10	--	2	--	110	--	4	--	10	--
MAY 18...	0	3	1	670	10	0	0	40	10	.0
JUN 16...	0	--	0	--	110	--	0	--	140	--
JUL 21...	0	<10	4	580	100	<100	24	180	140	.3

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MU) (UG/L)	DIS- SOLVED MOLYB- DENUM (MU) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
APR 21...	.0	--	0	--	7	--	--	--	0
MAY 18...	.0	0	0	10	0	0	0	10	0
JUN 16...	.1	--	0	--	4	--	0	--	20
JUL 21...	.0	0	0	<50	2	--	--	0	10

ARKANSAS RIVER BASIN

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07232010 BLUE CREEK NEAR BLOCKER, OK

LOCATION.--Lat 34°02'26", long 95°34'21", in SW 1/4, NW 1/4 sec.36, T.7 N., R.16 E., Pittsburg County,
Hydrologic Unit 11090204 on right bank at downstream side of bridge on State Highway 31, 1.5 mi (2.4 km)
south of Blocker and at mile 3.9 (6.3 km).

DRAINAGE AREA.--12.1 mi² (31.3 km²).

PERIOD OF RECORD.--January 1976 to September 1976.

GAGE.--Water-stage recorder. Datum of gage is 592.47 ft (180.585 m) above mean sea level (Oklahoma
State Highway Department bench mark).

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, 6,170 ft³/s (175 m³/s)
Apr. 19, gage height, 8.41 ft (2.563 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	.29	.15	5.0	2.3	2.7	.02		
2				---	.34	.13	3.3	1.2	.75	.02		
3				---	.29	.07	2.6	.55	.51	.02		
4				---	.25	.02	2.0	.34	.33	.02		
5				---	.25	.02	1.5	37	.15	.02		
6				---	.21	.02	1.3	49	.15	.02		
7				---	.18	.03	1.0	11	.15	.01		
8				---	.18	187	.87	5.5	.10	.01		
9				---	.18	82	.55	3.3	.06	.01		
10				---	.15	16	.40	1.5	.02	.01		
11				---	.18	27	.34	.67	.01	.01		
12				---	.21	51	.29	233	.01	0		
13				---	.21	11	.29	110	.01	0		
14				---	.15	7.3	.29	24	.01	0		
15				---	.15	5.0	.21	45	.01	0		
16				---	.15	4.1	.21	29	.01	0		
17				---	.13	2.9	1.2	11	.01	0		
18				---	.13	2.3	622	6.1	.15	0		
19				---	.13	2.0	507	3.3	.05	0		
20				---	.15	1.5	1190	1.5	.02	0		
21				---	.34	1.2	38	.67	.02	0		
22				---	.34	.87	14	.47	.02	0		
23				---	.25	.65	8.5	.29	.01	0		
24				---	.25	.55	5.5	.25	9.7	0		
25				---	.18	.65	3.3	.25	2.6	0		
26				---	.25	1.2	1.7	70	.21	0		
27				---	.24	2.3	1.2	16	.09	0		
28				---	.25	2.0	5.5	7.3	.04	0		
29				.18	.15	78	7.3	3.9	.03	0		
30				.25	---	16	3.6	14	.02	0		
31				.25	---	8.5	---	6.5	---	0		---
TOTAL				---	6.21	511.46	2428.95	695.29	17.95	.17	0	0
MEAN				---	.21	16.5	81.0	22.4	.60	.006	0	0
MAX				---	.34	187	1190	233	9.7	.02	0	0
MIN				---	.13	.02	.21	.25	.01	0	0	0
AC=FT				---	12	1010	4820	1380	36	.3	0	0

ARKANSAS RIVER BASIN

07232010 BLUE CREEK NEAR BLOCKER, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March to September 1976.

REMARKS.--No flow was observed on July 21, August 10 and September 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (NTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
MAR											
17...	1300	6.6	100	6.9	70	27	8.6	89	30	12	.1
APR											
21...	0945	29	54	--	70	26	--	--	17	1	.1
MAY											
18...	0730	6.6	100	7.4	60	20	8.5	88	25	7	.0
JUN											
16...	1130	.09	195	6.8	15	3	5.5	66	41	22	.0
DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
MAR											
17...	5.0	5.9	3.6	7.5	34	.6	1.4	21	0	17	9.9
APR											
21...	5.0	3.7	1.9	3.8	31	.4	1.2	19	0	16	9.4
MAY											
18...	.0	5.9	2.4	5.5	31	.5	1.4	22	0	18	13
JUN											
16...	.0	8.3	5.0	15	43	1.0	1.8	24	0	20	32
DATE	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIU2) (MG/L)	DIS- SOLVED RESI- DUE AT 180 C (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (NO2) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
MAR											
17...	3.9	.1	6.2	65	49	.09	.00	.00	.00	.00	.00
APR											
21...	3.6	.1	7.1	54	41	.07	.05	.22	.01	.03	.06
MAY											
18...	3.2	.2	8.5	62	51	.08	.00	.00	.00	.00	.00
JUN											
16...	13	.1	7.6	118	95	.16	.05	.22	.01	.03	.06

ARKANSAS RIVER BASIN

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07232010 BLUE CREEK NEAR BLOCKER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	
DATE	TIME										
MAR 17...	1300	6.6	--	--	--	--	--	--	--	--	
APR 21...	0945	29	--	60	--	0	--	20	--	1	
MAY 18...	0730	6.6	430	0	0	0	20	0	0	0	
JUN 16...	1130	.09	--	40	--	1	--	70	--	0	
		TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
DATE											
MAR 17...	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	0	--	2	--	120	--	4	--	30	--
MAY 18...	10	0	3	1	1100	40	0	0	40	0	0
JUN 16...	--	0	--	0	--	0	--	0	--	130	--
		TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DATE											
MAR 17...	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	.1	--	0	--	6	--	--	--	0	--
MAY 18...	.0	.0	0	0	6	0	0	0	0	0	0
JUN 16...	--	.1	--	0	--	3	--	0	--	10	--

ARKANSAS RIVER BASIN

07232029 MATHULDY CREEK NEAR CROWDER, OK

WATER-QUALITY RECORDS

LOCATION.--Lat 35°04'17", long 95°36'47", NE 1/4 NE 1/4 sec.21, T.7 N., R.16 E., Pittsburg County, on county road bridge 4.3 miles (6.9 km) southeast of Crowder, and at mile 6.7 (10.8 km).

DRAINAGE AREA.--541 mi² (14.01 km²).

PERIOD OF RECORD.--March to September 1976.

REMARKS.--No flow was observed on August 10 and September 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHUS)	PH (UNITS)	COLOR (PLATINUM-COBALT UNITS)	TURBIDITY (NTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	HARDNESS (CA, MG)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
MAR 17...	1445	1.2	150	6.7	80	27	9.6	101	41	26	.1
APR 21...	1154	16	700	6.5	75	32	--	--	27	12	.1
MAY 18...	0930	4.2	125	7.8	50	25	8.8	94	33	15	.0
JUN 16...	1227	--	290	7.0	15	10	7.7	99	64	25	.0
JUL 20...	1510	--	314	7.9	25	21	11.0	155	86	27	.1

DATE	TOTAL ACIDITY AS CACU3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG)	DISSOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACU3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
MAR 17...	5.0	8.7	4.7	12	38	.8	1.5	18	0	15	37
APR 21...	5.0	6.3	2.8	5.2	28	.4	1.8	19	0	16	17
MAY 18...	.0	7.8	3.2	8.0	34	.6	1.2	21	0	17	25
JUN 16...	.0	14	7.0	19	38	1.0	2.4	47	0	39	57
JUL 20...	5.0	19	9.4	29	41	1.4	3.2	72	0	59	65

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIU2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TUNSPER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE (NO2) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)
MAR 17...	12	.1	6.3	113	91	.15	.00	.00	.00	.00	.00
APR 21...	3.6	.1	7.3	82	54	.11	.09	.40	.01	.03	.10
MAY 18...	7.0	.2	7.2	80	70	.11	.01	.04	.00	.00	.01
JUN 16...	9.9	.2	2.4	146	135	.20	.01	.04	.00	.00	.01
JUL 20...	16	.1	.1	180	178	.24	.08	.40	.00	.00	.08

ARKANSAS RIVER BASIN

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07232029 MATHULDY CREEK NEAR CROWDER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)
APR 21...	1154	--	0	--	1	--	30	--	0	--
MAY 18...	0930	850	0	0	0	90	0	0	1	10
JUN 16...	1227	--	30	--	1	--	40	--	0	--
JUL 20...	1510	300	10	1	1	80	60	<10	1	0

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
APR 21...	20	--	2	--	150	--	2	--	10	--
MAY 18...	0	4	4	1200	40	0	0	80	60	.0
JUN 16...	0	--	2	--	10	--	0	--	40	--
JUL 20...	0	10	4	410	20	<100	4	160	40	.0

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
APR 21...	.0	--	0	--	2	--	--	--	0
MAY 18...	.0	2	2	5	0	0	0	10	0
JUN 16...	.1	--	0	--	0	--	0	--	10
JUL 20...	.0	0	0	<50	2	--	--	10	10

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON, OK
(Headwater of the North Canadian River)

LOCATION.--Lat 36°43'24", long 101°29'30", in NW 1/4 SW 1/4 sec.18, T.3 N., R.15 E., Texas County, near center of span on downstream side of pier of bridge on U.S. Highway 64 at Dry Sand Draw, 1.2 mi (1.9 km) upstream from Goff Creek, 2.5 mi (4.0 km) north of Guymon, and at mile 650.7 (1,047.0 km). Records include flow of Dry Sand Draw.

DRAINAGE AREA.--2,139 mi² (5,540 km²) includes that of Dry Sand Draw, of which 964 mi² (2,497 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1970 published as North Canadian River near Guymon.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,970.93 ft (905.539 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good.

AVERAGE DISCHARGE.--39 years, 25.5 ft³/s (0.722 m³/s); 18,480 acre-ft/yr (22.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,400 ft³/s (1,570 m³/s) June 15, 1964, gage height, 13.68 ft (4.170 m); maximum gage height, 13.82 ft (4.212 m), Sept. 23, 1941, from floodmark; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,110 ft³/s (173 m³/s) at 1315 Apr. 28, gage height, 11.47 ft (3.496 m), no other peak above base of 2,400 ft³/s (68.0 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	3.7	.50	1.5	4.5	5.5	27	31	0		0
2		0	2.6	.68	1.5	4.7	5.2	18	17	.31		0
3		0	1.4	.95	1.6	4.5	5.2	6.3	29	0		0
4		0	1.2	3.1	1.0	6.8	5.4	4.7	16	.01		0
5		0	1.1	5.8	1.0	6.9	5.5	5.1	13	.28		0
6		0	1.0	4.6	1.4	7.4	5.6	8.7	17	.75		0
7		0	1.1	1.4	2.4	7.8	5.3	62	15	0		0
8		0	1.1	3.1	2.2	8.3	5.5	19	12	0		0
9		0	1.1	8.8	2.3	7.5	5.5	15	8.9	0		0
10		0	1.1	9.2	2.0	6.7	5.1	13	6.6	0		0
11		0	1.1	3.4	2.3	6.3	4.8	12	5.1	0		0
12		0	1.2	1.6	2.4	5.6	4.8	13	4.1	0		0
13		0	1.3	1.3	2.5	5.5	4.3	10	3.6	0		0
14		0	1.2	1.2	2.8	5.5	3.6	9.6	2.9	0		0
15		0	.77	1.2	2.9	5.2	9.0	9.4	2.6	0		0
16		0	1.4	1.1	3.1	5.5	15	8.3	2.5	0		0
17		0	.95	1.0	3.1	5.3	11	9.5	1.8	0		84
18		0	1.1	.86	3.2	5.0	8.6	8.0	1.6	0		69
19		.19	2.4	.68	3.4	5.0	8.7	7.0	2.0	0		9.2
20		0	1.4	.50	2.8	4.7	13	7.2	1.6	0		.05
21		0	2.2	.45	2.8	4.8	8.4	6.8	1.2	0		0
22		0	2.2	.59	2.8	4.9	7.3	11	.88	0		0
23		0	1.3	.95	3.4	5.0	6.1	55	8.3	0		0
24		.71	1.4	.77	4.2	4.8	5.4	8.3	13	0		0
25		.33	1.2	.50	3.4	4.9	5.3	7.0	5.2	0		0
26		.22	1.4	.68	3.4	4.7	5.5	95	2.7	0		0
27		.30	1.2	1.1	3.7	4.7	5.6	29	1.1	0		38
28		.69	1.3	1.1	4.3	4.8	1780	18	.20	0		24
29		2.6	1.2	1.9	4.3	4.8	628	13	.05	0		9.0
30		.66	1.0	1.7	---	4.9	70	13	.02	0		1.9
31		---	1.3	1.5	---	5.8	---	40	---	0		---
TOTAL	0	5.70	43.92	62.21	77.7	172.8	2658.2	568.9	225.95	1.35	0	235.15
MEAN	0	.19	1.42	2.01	2.68	5.57	88.6	18.4	7.53	.044	0	7.84
MAX	0	2.6	3.7	9.2	4.3	8.3	1780	95	31	.75	0	84
MIN	0	0	.77	.45	1.0	4.5	3.6	4.7	.02	0	0	0
AC-FT	0	11	87	123	154	343	5270	1130	448	2.7	0	466
CAL YR 1975	TOTAL	1451.06	MEAN	3.98	MAX	432	MIN	0	AC-FT	2880		
WTR YR 1976	TOTAL	4051.88	MEAN	11.1	MAX	1780	MIN	0	AC-FT	8040		

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON. OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SIU2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CUNSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (MG3) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
DEC											
11...	--	--	--	--	--	--	--	--	.80	--	--
JAN											
20...	20	310	300	.42	2.59	.67	--	.31	.98	4.3	.03
20...	--	--	--	--	--	--	--	--	2.2	--	--
FEB											
11...	24	339	326	.46	2.20	.60	--	.69	1.3	5.7	.03
11...	--	--	--	--	--	--	--	--	4.5	--	--
APR											
14...	19	285	294	.39	2.54	.14	--	.57	.71	3.1	.04
14...	--	--	--	--	--	--	--	--	<1.0	--	--
MAY											
12...	17	937	900	1.27	35.4	.01	--	1.1	1.1	4.9	.11
12...	--	--	--	--	--	--	--	--	.80	--	--
JUN											
09...	27	322	323	.44	8.69	.37	--	.80	1.2	5.2	.17
09...	--	--	--	--	--	--	--	--	1.1	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL CULI- FORM (COL. PER 100 ML)	STREP- TOCUCCI (COL- UNIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
DEC										
11...	1028	9740	--	1.1	--	--	--	--	--	--
JAN										
20...	--	--	1600	--	11.2	88	--	--	--	--
20...	1028	9740	1601	3.1	11.2	88	--	--	--	--
FEB										
11...	--	--	1530	2.4	10.0	94	--	2.7	138	10
11...	1028	9740	1531	2.4	10.0	94	--	--	--	--
APR										
14...	--	--	1730	3.3	7.8	99	1540	--	32	86
14...	1028	9740	1731	3.3	7.8	99	--	--	--	--
MAY										
12...	--	--	0800	14	9.0	105	490	960	--	--
12...	1028	9740	0801	14	9.0	105	--	--	--	--
JUN										
09...	--	--	0800	10	8.1	100	69	--	147	95
09...	1028	9740	0801	10	8.1	100	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
DEC									
11...	1028	9740	--	1.1	--	--	--	--	--
JAN									
20...	1028	9740	1601	3.1	--	--	--	--	--
FEB									
11...	--	--	1530	2.4	4	4	<10	<9	1
11...	1028	9740	1531	2.4	--	--	--	--	--
APR									
14...	1028	9740	1731	3.3	--	--	--	--	--
MAY									
12...	1028	9740	0801	14	--	--	--	--	--
JUN									
09...	1028	9740	0801	10	--	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Jan. 20	1600	CHRYSOPHYTA			Sediment sampler
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Cymbella	350	10	
		Gomphonemataceae			
		Gomphonema	530	14	
		Naviculaceae			
		Navicula	1,800	48	
		Neidium	180	5	
		Nitzschiaceae			Sediment sampler
		Denticula		0	
		Nitzschia	880	24	
Feb. 11	1530	CHLOROPHYTA			
		Chlorophyceae			
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Achnanthaceae			
		Achnanthes	62	6	
		Cymbellaceae			
		Cymbella	120	12	
		Fragilariaceae			
		Fragilaria	62	6	
		Synedra	62	6	
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Amphiprora		0	
		Caloneis		0	
		Navicula	250	24	
		Nitzschiaceae			
		Nitzschia	460	45	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	1,000		Sediment sampler
Mar. 10	1530	CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Quadrigula	1,900	4	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	950	2	
		Pennales			
		Fragilariaceae			
		Synedra	480	1	
		Naviculaceae			
		Amphiprora	24,000	52	
		Caloneis	1,900	4	
		Diploneis	950	2	
		Navicula	950	2	
		Nitzschiaceae			
		Nitzschia	950	2	
		Surirellaceae			
		Surirella	480	1	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	14,000	30	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	47,000		

072325000 BEAVER RIVER NEAR GUYMON, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Apr. 14	1730	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus	1,200	19	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	89	1	
		Pennales			
		Cymbellaceae			
		Cymbella	1,800	29	
		Fragilariaceae			
		Synedra	89	1	
		Gomphonemataceae			
		Gomphonema	180	3	
		Meridionaceae			
		Meridion	89	1	
		Naviculaceae			
		Caloneis	89	1	
		Nitzschiaceae			
		Denticula	89	1	
		Nitzschia	1,900	30	
		CYANOPHYTA			Sediment sampler
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	710	12	
		TOTAL	6,100		
May 12	0800	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	2,800	18	
		Scenedesmaceae			
		Scenedesmus	1,900	12	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	470	3	
		Pennales			
		Cymbellaceae			
		Rhopalodia	940	6	
		Naviculaceae			
		Navicula	940	6	
		Nitzschiaceae			
		Nitzschia	8,900	56	
		TOTAL	16,000		
June 9	0800	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	130	4	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Cymbella		0	
		Fragilariaceae			
		Fragilaria	250	8	
		Synedra		0	
		Naviculaceae			
		Caloneis	63	2	
		Navicula	1,200	37	
		Nitzschiaceae			
		Denticula	63	2	
		Nitzschia	1,500	45	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Phacus	63	2	
		TOTAL	3,200		

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	535	508	416	367			---
2					---	535	513	420	522			---
3					---	535	472	555	464			---
4					---	538	468	566	374			---
5					---	566	488	574	372			---
6					---	552	489	558	366			---
7					---	556	494	268	537			---
8					---	550	485	274	536			---
9					---	557	491	558	544			---
10					---	540	508	569	543			---
11					544	538	504	569	542			---
12					540	551	497	559	537			---
13					539	546	499	577	560			---
14					534	543	495	575	553			---
15					546	536	507	578	552			---
16					545	519	511	541	540			---
17					543	523	567	546	528			---
18					524	510	568	544	530			---
19					530	516	568	544	516			426
20					542	525	642	538	513			421
21					553	513	645	531	516			---
22					568	519	573	517	525			---
23					545	498	537	513	362			---
24					557	497	539	516	345			---
25					542	503	524	227	---			---
26					528	502	525	292	---			---
27					529	503	520	292	468			---
28					530	508	---	490	467			---
29					536	504	---	495	---			385
30					---	510	---	371	---			397
31					---	499	---	367	---			---
MONTH					---	527	524	482	488			---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	---	20.0	13.0	25.0			---
2					---	14.0	19.0	15.0	27.0			---
3					---	11.0	17.0	20.0	26.0			---
4					---	8.0	15.0	19.0	25.0			---
5					---	8.0	20.5	20.0	22.5			---
6					---	9.0	22.0	18.0	20.0			---
7					---	7.0	22.5	19.0	26.0			---
8					---	7.0	23.0	18.5	27.0			---
9					---	8.0	21.0	20.0	26.0			---
10					---	14.0	21.0	25.0	30.0			---
11					12.0	16.0	21.5	24.0	30.0			---
12					14.0	14.0	20.0	16.0	29.0			---
13					14.0	9.0	23.0	15.0	31.0			---
14					8.0	7.0	25.0	19.0	27.0			---
15					7.0	12.0	16.0	16.0	25.0			---
16					12.0	11.0	16.5	22.0	27.0			---
17					10.0	19.0	17.0	25.0	27.5			---
18					10.0	19.5	19.0	23.0	26.0			---
19					10.0	15.0	20.0	24.0	26.0			22.0
20					11.0	10.0	17.0	26.0	29.5			26.0
21					1.0	16.0	20.5	26.0	31.0			---
22					8.0	15.0	25.0	24.0	32.0			---
23					14.0	18.0	23.0	23.0	30.0			---
24					14.0	21.5	20.0	22.0	25.0			---
25					16.0	19.5	20.5	21.0	28.0			---
26					15.0	12.0	15.0	22.0	30.0			---
27					17.0	11.0	19.0	---	31.0			---
28					10.0	11.0	7.0	22.0	33.0			---
29					---	9.0	9.0	20.0	---			21.0
30					---	14.5	11.0	23.0	---			23.0
31					---	19.5	---	21.0	---			---
MONTH					---	13.0	19.0	20.5	27.5			---

ARKANSAS RIVER BASIN

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07234000 BEAVER RIVER AT BEAVER, OK
(Headwater of the North Canadian River)

LOCATION.--Lat 36°49'20", long 100°31'05", in SW 1/4 sec.7, T.4 N., R.24 E., Beaver County, near right bank on downstream side of pier of bridge on U.S. Highway 270 at Beaver, 1.5 mi (2.4 km) downstream from Home Creek, 5 mi (8.0 km) upstream from Clear Creek, and at mile 576.0 (926.8 km).

DRAINAGE AREA.--7,955 mi² (20,603 km²), of which 4,270 mi² (11,059 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1904 to December 1905 (gage heights only), October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Beaver Creek at Beaver 1904-5, and October 1937 to September 1970 as North Canadian River at Beaver.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,368.16 ft (721.815 m) above mean sea level (levels by Corps of Engineers). Mar. 29, 1904, to Dec. 31, 1905, nonrecording gage in same vicinity at different datum. Mar. 1, 1938, to Sept. 30, 1946, water-stage recorder at present site at datum 3.0 ft (9.1 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--39 years, 107 ft³/s (3.030 m³/s); 77,520 acre-ft/yr (95.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,000 ft³/s (1,980 m³/s) Oct. 8, 1946, by slope-area measurement of peak flow in overflow section and extension of rating curve for main channel above 42,000 ft³/s (1,190 m³/s); maximum gage height, 14.55 ft (4.435 m) Oct. 8, 1946; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 574 ft³/s (16.3 m³/s) Apr. 20, gage height, 5.14 ft (1.570 m), no peak above base of 4,000 ft³/s (113 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.07	.12	0	.09	0	124	117	.06		
2		0	.10	.01	0	.13	0	177	93	.81		
3		0	.13	0	0	.08	0	149	79	.22		
4		0	.15	0	0	.57	0	124	81	.12		
5		0	.15	.01	0	.92	0	102	62	.09		
6		0	.09	.07	.01	.54	.13	91	53	.01		
7		0	.09	.04	.05	.49	.13	81	50	0		
8		0	.13	.04	.09	1.3	.13	81	47	0		
9		0	.14	.04	.17	1.9	.13	81	34	0		
10		0	.18	.04	.13	1.4	0	81	24	0		
11		0	.18	.07	.04	1.3	0	75	16	0		
12		0	.15	.18	.07	.80	0	74	11	0		
13		0	.19	.19	.02	.57	0	72	8.4	0		
14		0	.31	.19	.01	.48	0	72	6.3	0		
15		0	.27	.18	.04	.44	6.3	72	3.5	0		
16		0	.28	.13	.08	.43	20	72	2.5	0		
17		0	.17	.15	.06	.52	20	72	1.5	0		
18		0	.06	.15	.03	.41	16	72	1.0	0		
19		0	.05	.07	0	.13	20	72	.70	0		
20		0	.10	0	0	0	319	63	.50	0		
21		0	.15	.01	0	0	149	63	.30	0		
22		0	.18	.02	0	0	104	63	.20	0		
23		0	.18	.04	0	0	104	119	.15	0		
24		0	.18	.04	0	0	144	85	.09	0		
25		.01	.13	.02	0	0	79	85	.03	0		
26		0	.13	0	0	0	66	85	0	0		
27		.07	.13	0	0	0	100	85	0	0		
28		.18	.13	.01	.01	0	267	85	0	0		
29		.27	.10	.04	.04	0	149	85	0	0		
30		.13	.10	.04	---	0	113	85	0	0		
31		---	.13	0	---	.16	---	106	---	0		---
TOTAL	0	.66	4.53	1.90	.85	12.66	1676.82	2753	692.17	1.31	0	0
MEAN	0	.022	.15	.061	.029	.41	55.9	88.8	23.1	.042	0	0
MAX	0	.27	.31	.19	.17	1.9	319	177	117	.81	0	0
MIN	0	0	.05	0	0	0	0	63	0	0	0	0
AC-FT	0	1.3	9.0	3.8	1.7	25	3330	5460	1370	2.6	0	0
CAL YR 1975	TOTAL	3869.67	MEAN 10.6	MAX 485	MIN 0	AC-FT 7680						
WTR YR 1976	TOTAL	5143.90	MEAN 14.1	MAX 319	MIN 0	AC-FT 10200						

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1958-59, 1962-63, 1968 to current year.

PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: October 1967 to current year.

WATER TEMPERATURE: October 1967 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 5,960 micromhos June 20, 1976; minimum daily, 286 micromhos July 31, 1971.

WATER TEMPERATURE: Maximum daily, 36.0°C July 12, 14, 1970, July 27, 1972, June 27, 1973: minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 5,960 micromhos June 20; minimum daily, 883 micromhos May 31.

WATER TEMPERATURE: Maximum daily, 34.0°C July 9; minimum daily, 0.0°C Nov. 25, Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
DEC												
05...	--	--	1750	.14	4650	8.1	--	--	--	810	580	160
15...	--	--	1705	.24	4550	8.2	3.0	--	--	770	640	160
25...	--	--	1500	.14	4460	8.3	10.5	--	--	730	460	150
JAN												
13...	--	--	1730	.19	4140	7.9	6.0	--	--	690	430	150
25...	--	--	1630	.04	2980	7.6	4.0	--	--	1100	860	250
FEB												
09...	--	--	1730	.19	2400	7.8	12.0	--	--	890	690	190
11...	--	--	1230	.04	4500	8.5	14.0	7	--	1100	820	240
11...	1028	9740	1231	.04	4500	8.5	14.0	--	27	--	--	--
15...	--	--	1700	.04	4350	7.9	14.0	--	--	980	800	210
MAR												
05...	--	--	1800	.78	4170	7.7	5.0	--	--	1000	790	220
10...	--	--	1300	1.5	950	8.3	13.0	3	--	280	61	77
10...	1028	9740	1301	1.5	950	8.3	13.0	--	12	--	--	--
15...	--	--	1800	.46	4710	7.2	4.0	--	--	820	600	180
25...	--	--	1730	.24	4900	7.2	15.0	--	--	950	750	200
APR												
05...	--	--	1800	.14	3940	7.8	16.0	--	--	1200	1000	260
14...	--	--	1400	.14	4500	8.5	24.0	14	--	1000	860	220
18...	--	--	1830	3.7	5510	7.9	19.0	--	--	770	600	150
24...	--	--	1930	95	1190	7.4	17.0	--	--	250	97	63
MAY												
05...	--	--	1900	202	2040	7.5	18.0	--	--	410	200	99
11...	--	--	1430	74	1600	8.5	19.0	18	--	340	130	81
11...	1028	9740	1431	74	1600	8.5	19.0	--	12	--	--	--
16...	--	--	2000	72	3340	8.9	15.0	--	--	530	310	120
25...	--	--	1800	85	2070	8.3	17.0	--	--	330	190	73
JUN												
05...	--	--	1730	60	2320	8.2	27.5	--	--	400	200	95
09...	--	--	1000	36	3000	8.5	23.0	20	--	480	290	110
09...	1028	9740	1001	36	3000	8.5	23.0	--	41	--	--	--
15...	--	--	1900	3.5	5690	7.7	20.0	--	--	1500	1300	350
JUL												
05...	--	--	1800	.04	4830	7.5	26.5	--	--	1100	970	240

07234000 BEAVER RIVER AT BEAVER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	TOTAL FLUOR- IDE (F) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)
DEC												
05...	100	640	.63	9.8	10	288	236	3.7	640	1000	--	--
15...	89	640	.64	10	8.9	139	126	1.5	620	990	--	--
25...	86	670	.66	11	8.8	323	265	2.6	600	980	--	--
JAN												
13...	77	610	.65	10	9.0	318	261	6.4	560	860	--	--
25...	120	240	.32	3.1	5.0	318	261	13	690	480	--	--
FEB												
09...	100	170	.29	2.5	5.4	239	196	6.1	650	290	--	--
11...	110	540	.53	7.2	7.8	288	236	1.5	610	960	--	.9
11...	--	--	--	--	--	--	--	--	--	--	--	--
15...	110	520	.53	7.2	7.8	221	181	4.5	650	960	--	--
MAR												
05...	110	550	.54	7.6	8.8	255	209	8.1	650	920	--	--
10...	22	88	.40	2.3	3.9	270	221	2.2	65	150	--	.7
10...	--	--	--	--	--	--	--	--	--	--	--	--
15...	91	690	.64	10	10	269	221	27	570	1100	--	--
25...	110	690	.61	9.7	12	245	201	25	--	--	--	--
APR												
05...	140	420	.43	5.2	6.9	267	219	6.8	890	730	--	--
14...	120	640	.57	8.6	9.1	229	188	1.2	680	1100	--	.8
18...	97	860	.70	13	12	216	177	4.4	520	1500	--	--
24...	23	140	.53	3.8	12	189	155	12	110	210	--	--
MAY												
05...	39	280	.59	6.0	9.8	253	208	13	250	400	--	--
11...	33	200	.55	4.7	9.0	240	204	1.3	160	310	--	1.0
11...	--	--	--	--	--	--	--	--	--	--	--	--
16...	56	520	.68	9.8	11	264	217	.5	280	810	--	--
25...	35	290	.65	7.0	7.5	168	138	1.3	210	460	--	--
JUN												
05...	39	320	.63	7.0	12	236	194	2.4	200	500	--	--
09...	51	420	.65	8.3	10	238	195	1.2	240	690	--	1.2
09...	--	--	--	--	--	--	--	--	--	--	--	--
15...	160	690	.49	7.7	10	273	224	8.7	1000	1200	--	--
JUL												
05...	130	640	.55	8.3	11	204	167	10	720	1200	--	--

DATE	DIS- SOLVED SILICA (SIU2) (MG/L)	DIS- SOLVED (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SULFIDS (TONS PER AC-FT)	DIS- SOLVED SULFIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO3) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
DEC											
05...	--	2930	--	3.98	1.11	--	.15	--	--	--	--
15...	--	2860	--	3.89	1.85	--	.15	--	--	--	--
25...	--	2820	--	3.84	1.07	--	.03	--	--	--	--
JAN											
13...	--	2590	--	3.52	1.33	--	.58	--	--	--	--
25...	--	2120	--	2.88	.23	--	1.0	--	--	--	--
FEB											
09...	--	1620	--	2.20	.83	--	.29	--	--	--	--
11...	23	2860	2630	3.89	.31	.02	--	.58	.60	2.7	.02
11...	--	--	--	--	--	--	--	--	1.1	--	--
15...	--	2780	--	3.78	.30	--	.39	--	--	--	--
MAR											
05...	--	2660	--	3.62	5.60	--	.03	--	--	--	--
10...	25	582	565	.79	2.36	.00	--	.14	.14	.62	.04
10...	--	--	--	--	--	--	--	--	.40	--	--
15...	--	2850	--	3.88	3.54	--	.47	--	--	--	--
25...	--	3210	--	4.37	2.08	--	.92	--	--	--	--
APR											
05...	--	2740	--	3.73	1.04	--	.38	--	--	--	--
14...	24	3150	2910	4.28	1.19	.01	--	.41	.42	1.9	.01
18...	--	3380	--	4.60	33.8	--	.35	--	--	--	--
24...	--	704	--	.96	181	--	3.0	--	--	--	--
MAY											
05...	--	1210	--	1.65	660	--	.77	--	--	--	--
11...	17	962	933	1.31	192	.00	--	.89	.89	3.9	.05
11...	--	--	--	--	--	--	--	--	.60	--	--
16...	--	1970	--	2.68	383	--	.17	--	--	--	--
25...	--	1190	--	1.62	273	--	.11	--	--	--	--
JUN											
05...	--	1350	--	1.84	219	--	.19	--	--	--	--
09...	20	1820	1660	2.48	177	.00	--	.59	.59	2.6	.08
09...	--	--	--	--	--	--	--	--	1.1	--	--
15...	--	3790	--	5.15	35.8	--	.91	--	--	--	--
JUL											
05...	--	3290	--	4.47	.36	--	.54	--	--	--	--

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- UNIES PER 100 ML)	TOTAL ORGANIC CARBON (C)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
FEB											
11...	--	--	1230	.04	13.8	131	--	--	5.0	199	17
11...	1028	9740	1231	.04	13.8	131	--	--	--	--	--
MAR											
10...	--	--	1300	1.5	9.7	102	813	887	--	7	74
10...	1028	9740	1301	1.5	9.7	102	--	--	--	--	--
APR											
14...	--	--	1400	.14	8.0	102	39	69	--	44	74
14...	--	--	1401	.14	8.0	102	--	--	--	--	--
MAY											
11...	--	--	1430	74	9.1	105	120	480	15	66	97
11...	1028	9740	1431	74	9.1	105	--	--	--	--	--
JUN											
09...	--	--	1000	36	8.0	102	120	--	--	55	90
09...	1028	9740	1001	36	8.0	102	--	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)
FEB										
11...	--	--	1230	.04	3	0	3	--	--	2
11...	1028	9740	1231	.04	--	--	--	--	--	--
MAR										
10...	1028	9740	1301	1.5	--	--	--	--	--	--
MAY										
11...	--	--	1430	74	6	3	3	<10	<10	0
11...	1028	9740	1431	74	--	--	--	--	--	--
JUN										
09...	1028	9740	1001	36	--	--	--	--	--	--

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDE CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CU) (UG/L)	SUS- PENDE COBALT (CU) (UG/L)	DIS- SOLVED COBALT (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
FEB										
11...	0	0	0	--	--	0	30	27	3	--
11...	--	--	--	--	--	--	--	--	--	--
MAR										
10...	--	--	--	--	--	--	--	--	--	200
MAY										
11...	0	0	0	<50	<50	0	10	9	1	340
11...	--	--	--	--	--	--	--	--	--	--
JUN										
09...	--	--	--	--	--	--	--	--	--	500

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDE LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDE MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE MERCURY (HG) (UG/L)
FEB									
11...	20	<100	<90	10	490	70	420	.0	.0
11...	--	--	--	--	--	--	--	--	--
MAR									
10...	--	--	--	--	31	--	--	--	--
MAY									
11...	0	<100	<100	0	40	40	0	.0	.0
11...	--	--	--	--	--	--	--	--	--
JUN									
09...	--	--	--	--	63	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Feb. 11	1230	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Crucigenia		0	
		Scenedesmus	130	7	
		Volvocales			
		Chlamydomonadaceae			
		Carteria	66	3	
		Chlamydomonas	230	12	
		Zygnematales			
		Zygnemataceae			
		Mougeotia	66	3	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Pennales			
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Amphiprora	600	31	
		Caloneis	33	2	
		Navicula	130	7	
		Pinnularia	33	2	
		Nitzschiaceae			
		Nitzschia	100	5	
		Chrysophyceae			
		Chrysomonadales			
		Chromulinaceae			
		Chrysococcus	33	2	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	530	27	
		TOTAL	2,000		
Mar. 10	1300	CHRYSTOPHYTA			Sediment sampler
		Bacillariophyceae			
		Pennales			
		Achnanthaceae			
		Achnanthes	33	18	
		Fragilariaceae			
		Synedra	11	6	
		Naviculaceae			
		Caloneis	11	6	
		Diploneis		0	
		Navicula	88	47	
		Nitzschiaceae			
		Nitzschia	44	24	
		TOTAL	190		
Apr. 14	1400	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Kirchneriella		0	
		Scenedesmaceae			
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	140	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	140	1	
		Pennales			
		Cymbellaceae			
		Amphora		0	
		Rhopalodia	140	1	
		Fragilariaceae			
		Fragilaria	1,100	10	
		Synedra		0	
		Naviculaceae			
		Caloneis	820	7	
		Diploneis		0	
		Mastogloia	3,200	28	
		Navicula	410	4	
		Nitzschiaceae			
		Nitzschia	140	1	
		Nitzschia	820	7	

07234000 BEAVER RIVER AT BEAVER, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Apr. 14	1400	CYANOPHYTA			Sediment sampler
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	4,400	39	
		Oscillatoriales			
		Nostocaceae			
		Anabaena		0	
		Oscillatoriaceae			
		Oscillatoria		0	
		TOTAL	11,000		
May 11	1430	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	760	6	
		Occystaceae			
		Ankistrodesmus	1,200	9	
		Dictyosphaerium	1,400	11	
		Kirchneriella	560	4	
		Oocystis	350	3	
		Tetraedron	350	3	
		Scenedesmaceae			
		Actinastrum	2,600	21	
		Scenedesmus	1,500	12	
		Tetrastrum	350	3	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	620	5	
		Pennales			
		Fragilariaceae			
		Synedra	2,000	16	
		Nitzschiaceae			
		Nitzschia	69	1	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,000	8	
		TOTAL	13,000		
June 9	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	810	3	
		Occystaceae			
		Ankistrodesmus	410	2	
		Dictyosphaerium	1,400	5	
		Tetraedron		0	
		Scenedesmaceae			
		Actinastrum	5,300	20	
		Scenedesmus	1,800	7	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	7,700	29	
		Pennales			
		Fragilariaceae			
		Fragilaria	1,200	5	
		Naviculaceae			
		Navicula		0	
		Nitzschiaceae			
		Hantzschia		0	
		Nitzschia	1,700	7	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	610	2	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	4,900	18	
		Rivulariaceae			
		Raphidiopsis	200	1	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	26,000		

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	4560	4430	---	4420	---	2100	1260	4900		
2		---	4600	2470	---	4470	---	1330	1510	5830		
3		---	4690	---	---	4640	---	1180	1780	5670		
4		---	4730	---	---	4270	---	1150	2060	4910		
5		---	4650	4260	---	4170	---	2040	2320	4830		
6		---	4640	2510	2770	4390	3510	1370	2560	5570		
7		---	4720	2260	2800	4190	3660	1600	2440	---		
8		---	4610	2240	2560	4130	4100	1790	2670	---		
9		---	4660	4210	2400	4380	3760	2000	3080	---		
10		---	4690	2670	4330	4460	---	2340	3510	---		
11		---	4630	2590	4340	4730	---	2600	3770	---		
12		---	4590	3900	4520	4900	---	2760	3900	---		
13		---	4610	4140	4310	4680	---	3020	4250	---		
14		---	4530	---	4180	4550	---	2990	4480	---		
15		---	4550	---	4350	4710	4040	2920	5690	---		
16		---	4590	2530	4430	4040	4390	3340	2800	---		
17		---	4520	2510	4500	4790	5020	3510	4860	---		
18		---	4300	2520	4470	4980	5510	3780	4370	---		
19		---	4520	2620	---	5050	5050	3770	4360	---		
20		---	4520	---	---	---	1030	4080	5960	---		
21		---	4530	4210	---	---	2990	4220	5810	---		
22		---	4540	2730	---	---	3260	4120	5090	---		
23		---	4510	4180	---	---	1730	3460	4730	---		
24		---	4350	2750	---	---	1190	3740	5010	---		
25		4180	4460	2980	---	---	1680	2070	5200	---		
26		---	4440	---	---	---	2200	2880	---	---		
27		4420	4460	---	---	---	2630	1750	---	---		
28		4560	4380	3880	4380	---	1430	2080	---	---		
29		4760	---	2620	3200	---	3080	1600	---	---		
30		4300	---	4170	---	---	2690	1130	---	---		
31		---	4360	---	---	---	---	883	---	---		
MONTH		---	4550	---	---	---	---	2500	3740	---		

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	10.0	5.0	---	10.0	---	20.0	27.0	27.5		
2		---	11.5	2.0	---	9.0	---	17.0	25.5	29.5		
3		---	---	---	---	5.0	---	17.0	24.5	26.0		
4		---	---	---	---	4.0	---	20.0	24.5	26.5		
5		---	---	7.0	---	5.0	---	18.0	27.5	26.5		
6		---	---	1.0	1.0	15.0	17.0	18.0	21.5	29.0		
7		---	---	0.0	11.0	5.0	16.0	17.0	23.5	---		
8		---	---	2.0	11.0	5.0	16.0	20.0	25.5	---		
9		---	---	2.0	12.0	13.0	15.0	20.0	28.0	---		
10		---	12.5	3.0	10.0	16.0	---	24.0	24.0	---		
11		---	5.5	4.0	9.0	10.0	---	23.0	26.5	---		
12		---	5.0	6.0	14.0	6.0	---	18.0	29.0	---		
13		---	12.0	6.0	14.0	8.0	---	15.0	24.5	---		
14		---	2.5	4.0	11.0	10.0	---	22.0	27.0	---		
15		---	3.0	7.0	14.0	4.0	16.0	20.0	20.0	---		
16		---	4.0	8.0	15.0	8.0	18.0	15.0	22.0	---		
17		---	2.5	7.0	4.0	16.0	14.0	25.0	25.0	---		
18		---	5.5	8.0	14.0	17.0	19.0	15.0	23.5	---		
19		---	10.5	4.0	---	12.0	17.0	19.0	26.0	---		
20		---	13.0	---	---	---	14.0	21.0	24.0	---		
21		---	9.5	8.0	---	---	19.0	24.0	23.5	---		
22		---	7.0	8.0	---	---	23.0	26.0	22.0	---		
23		---	5.0	10.0	---	---	22.0	24.0	30.0	---		
24		---	7.0	5.0	---	---	17.0	23.0	20.0	---		
25		0.0	10.5	4.0	---	---	18.0	17.0	19.0	---		
26		---	11.5	---	---	---	12.0	17.0	---	---		
27		7.5	14.0	---	---	---	14.0	25.0	---	---		
28		8.5	5.5	6.0	14.0	---	12.0	24.0	---	---		
29		12.5	---	7.0	8.0	---	12.0	26.0	---	---		
30		6.0	---	11.0	---	---	15.0	26.0	---	---		
31		---	9.0	---	---	10.0	---	22.0	---	---		
MONTH		---	---	5.5	---	---	---	20.5	24.5	---		

ARKANSAS RIVER BASIN

351

07234100 CLEAR CREEK NEAR ELMWOOD, OK

LOCATION.--Lat 36°38'42", long 100°30'07", in SW 1/4 SW 1/4 sec.8, T.2 N., R.24 E., Beaver County, on downstream side of right pile bent of county road bridge, 1,000 ft (304.8 m) downstream from small irrigation dam, 2.8 mi (4.5 km) northeast of Elmwood, and at mile 16.9 (27.2 km).

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--October 1965 to current year.

REVISED RECORDS.--WSP 2121: 1966.

GAGE.--Water-stage recorder. Altitude of gage is 2,550 ft (777 m), from topographic map.

REMARKS.--Records good. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--11 years, 8.41 ft³/s (0.238 m³/s), 6,090 acre-ft/yr (7.51 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s (566 m³/s) Oct. 16, 1969, gage height, 13.97 ft (4.258 m), from floodmark, from rating curve extended above 12,500 ft³/s (343 m³/s) on basis of slope-area measurement at gage height 13.15 ft (4.008 m); no flow part of July 14, 18, 19, 1970, and Oct. 5, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 462 ft³/s (13.1 m³/s) Apr. 20, gage height, 5.22 ft (1.591 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum daily, .02 ft³/s (0.001 m³/s) Aug. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.6	2.2	2.2	2.6	2.5	2.7	4.0	2.7	1.4	.06	2.2
2	1.3	2.6	2.3	2.2	2.7	2.6	2.3	3.7	2.5	1.9	.04	1.6
3	.65	2.7	2.4	2.2	2.8	2.5	2.4	3.5	2.3	1.6	.04	.64
4	.73	2.1	2.3	2.2	2.8	3.0	2.3	3.4	12	1.6	.25	.53
5	.94	2.0	2.3	2.3	2.8	2.5	2.3	3.9	4.7	1.7	.13	.51
6	.62	2.0	2.3	2.3	2.6	2.5	2.0	3.8	2.3	1.6	.13	1.7
7	.58	2.1	2.3	2.3	2.9	2.6	2.6	3.3	1.9	1.6	.27	2.1
8	.85	2.0	2.4	2.3	2.9	2.9	2.5	3.2	1.7	1.4	.83	2.3
9	.64	2.0	2.4	2.4	2.9	2.7	2.4	3.5	1.6	.73	.72	2.3
10	.59	2.0	2.3	2.6	2.8	2.5	2.5	3.2	1.4	.10	.15	2.1
11	.95	2.0	2.4	2.5	2.7	2.5	2.8	3.1	1.4	.46	.25	2.0
12	.92	2.1	2.4	2.4	2.8	2.5	3.2	2.9	1.4	.10	.12	1.8
13	1.3	2.0	2.5	2.3	2.7	2.5	3.7	2.8	1.4	.11	.12	1.6
14	1.4	2.1	2.7	2.2	2.9	2.5	3.8	2.8	1.5	.09	.20	2.1
15	1.4	2.2	2.4	2.2	3.0	2.5	5.2	2.8	1.6	.08	.70	2.2
16	1.3	2.2	2.5	2.2	2.9	2.5	5.4	2.5	1.6	.11	.70	2.6
17	1.4	2.2	2.5	2.3	2.9	2.5	4.3	2.5	1.6	.70	.45	2.4
18	1.4	2.2	2.3	2.3	2.8	2.5	4.0	2.5	1.8	.70	.45	2.1
19	1.5	3.1	2.1	2.3	2.7	2.8	4.7	2.4	2.0	.45	.02	2.2
20	1.5	2.6	2.0	2.2	2.6	2.8	120	2.4	2.0	.70	.02	36
21	1.5	2.3	1.9	2.4	2.7	2.9	26	2.4	1.9	.40	.08	8.2
22	1.4	2.3	2.0	2.4	2.5	3.0	12	2.5	2.0	.51	1.7	2.0
23	1.4	2.4	2.0	2.4	2.5	3.1	7.6	3.3	2.2	.10	1.6	1.4
24	1.4	2.3	2.2	2.5	2.5	3.3	6.0	2.5	2.3	.10	1.7	1.3
25	1.4	2.3	2.2	2.7	2.4	3.3	5.2	2.8	2.0	.84	1.8	1.4
26	1.5	2.4	2.2	2.5	2.5	3.6	4.7	3.8	1.7	.44	1.6	1.6
27	1.6	2.4	2.2	2.5	2.5	3.5	4.5	2.7	1.6	1.6	.31	1.4
28	1.5	2.4	2.2	2.5	2.5	3.2	12	2.5	1.4	1.9	1.0	1.5
29	1.7	2.3	2.3	2.5	2.7	3.0	4.7	2.4	1.4	1.9	.34	1.3
30	1.6	2.2	2.3	2.7	---	3.0	4.6	2.4	1.3	2.0	1.6	1.2
31	1.9	---	2.3	2.7	---	2.7	---	6.4	---	1.6	1.9	---
TOTAL	38.37	68.1	70.8	73.7	78.6	86.5	268.4	95.9	67.2	28.52	19.28	92.48
MEAN	1.24	2.27	2.28	2.38	2.71	2.79	8.95	3.09	2.24	.92	.62	3.08
MAX	1.9	3.1	2.7	2.7	3.0	3.6	120	6.4	12	2.0	1.9	36
MIN	.58	2.0	1.9	2.2	2.4	2.5	2.0	2.4	1.3	.08	.02	.51
AC-FT	76	135	140	146	156	172	532	190	133	57	38	183

CAL YR 1975 TOTAL 827.16 MEAN 2.27 MAX 22 MIN .58 AC-FT 1640
WTR YR 1976 TOTAL 987.85 MEAN 2.70 MAX 120 MIN .02 AC-FT 1960

ARKANSAS RIVER BASIN

07236000 WOLF CREEK NEAR FARGO, OK

LOCATION.--Lat 36°23'57", long 99°37'22", in SE 1/4 NE 1/4 sec.11, T.22 N., R.23 W., Ellis County, near right bank on downstream side of pier of county road bridge, 800 ft (243.8 m) downstream from Boggy Creek, 1.2 mi (1.9 km) downstream from Sixteen Mile Creek, 1.5 mi (2.4 km) north of Fargo, and at mile 18.7 (30.1 km).

DRAINAGE AREA.--1,624 mi² (4,206 km²), of which 258 mi² (616 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1942 to September 1976 (discontinued). Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,044.35 ft (623.118 m) above mean sea level (levels by Corps of Engineers). Piror to Oct. 1, 1962, at same site at datum 10.00 ft (3,048 m) higher.

REMARKS.--Records good.

AVERAGE DISCHARGE.--34 years, 65.3 ft³/s (1.849 m³/s), 47,310 acre-ft/yr (58.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,600 ft³/s (2,310 m³/s) June 23, 1957, gage height, 20.0 ft (6.096 m), present datum, from floodmarks, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1913, that of June 23, 1957, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 244 ft³/s (6.91 m³/s) May 26, gage height, 10.47 ft (3.191 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 0.31 ft³/s (0.009 m³/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	6.0	14	17	23	23	24	54	45	11	1.6	.63
2	2.2	13	15	14	24	23	23	49	42	12	1.6	.58
3	2.1	14	14	12	24	23	22	44	39	12	1.6	.58
4	1.6	13	13	11	24	26	22	41	38	11	1.5	.41
5	1.5	12	14	14	21	26	23	39	35	11	1.5	.37
6	1.3	12	14	13	17	26	23	38	33	10	1.6	.36
7	1.0	12	13	12	19	28	22	40	33	9.5	1.5	.31
8	1.0	11	14	10	29	31	23	39	33	9.1	1.2	.59
9	1.1	12	15	14	27	31	22	41	32	8.1	1.2	.72
10	1.4	12	16	20	26	30	22	42	31	7.2	.96	.56
11	1.3	11	15	27	25	27	22	39	28	6.8	1.0	.57
12	1.3	12	15	19	24	26	21	38	26	6.3	1.1	.51
13	1.4	11	15	21	24	26	21	38	25	5.9	1.3	.92
14	2.5	11	17	20	23	26	21	37	22	5.5	1.3	.94
15	2.2	12	16	21	23	27	22	37	21	5.1	.97	.93
16	2.4	12	16	24	23	27	33	35	21	5.1	.77	2.2
17	2.5	12	16	23	23	26	97	34	20	4.7	.73	21
18	2.8	12	13	22	23	26	87	34	23	4.4	.66	8.1
19	2.9	14	15	21	23	26	48	31	22	3.7	.62	3.3
20	2.9	15	18	20	23	25	57	30	20	3.7	.58	2.6
21	3.2	13	17	21	23	25	63	30	18	3.4	.57	1.5
22	3.3	13	17	22	23	26	50	31	18	2.7	.54	.88
23	3.5	14	17	22	24	26	43	32	18	2.7	.50	.56
24	3.6	14	17	22	23	25	39	35	17	2.7	.62	.55
25	4.0	13	17	22	23	25	37	41	16	2.7	.69	1.5
26	4.2	14	17	18	24	23	36	100	15	2.3	.47	1.5
27	4.1	14	17	20	24	24	36	95	14	2.0	.44	1.6
28	3.9	14	17	24	24	23	74	48	12	2.3	.43	1.5
29	3.8	18	17	24	24	23	83	45	11	1.8	.51	1.3
30	4.0	16	17	23	---	23	57	51	11	1.5	.73	1.3
31	4.1	---	17	23	---	24	---	46	---	1.5	.72	---
TOTAL	79.3	382.0	485	596	680	796	1173	1334	739	177.7	29.53	58.37
MEAN	2.56	12.7	15.6	19.2	23.4	25.7	39.1	43.0	24.6	5.73	.95	1.95
MAX	4.2	18	18	27	29	31	97	100	45	12	1.6	21
MIN	1.0	6.0	13	10	17	23	21	30	11	1.5	.43	.31
AC=FT	157	758	962	1180	1350	1580	2330	2650	1470	352	59	116
CAL YR 1975	TOTAL	9078.00	MEAN 24.9	MAX 280	MIN 1.0	AC=FT 18010						
WTR YR 1976	TOTAL	6529.90	MEAN 17.8	MAX 100	MIN .31	AC=FT 12950						

07236500 FORT SUPPLY LAKE NEAR FORT SUPPLY, OK

LOCATION.--Lat 36°33'14", long 99°34'16", in NE 1/4 SE 1/4 sec.17, T.24 N., R.22 W., Woodward County, in control tower at left end of Fort Supply Dam on Wolf Creek, 2.0 mi (3.2 km) southeast of Fort Supply and at mile 5.5 (8.8 km).

DRAINAGE AREA.--1,735 mi² (4,494 km²), of which 241 mi² (624 km²) is probably noncontributing.

PERIOD OF RECORD.--June 1942 to current year. Prior to October 1970, published as Fort Supply Reservoir near Fort Supply.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by an earth dam. Regulated storage began May 4, 1942; conservation pool first filled in June 1942. Capacity, 100,700 acre-ft (124 hm³) at elevation 2,028.0 ft (618.134 m), crest of spillway and 13,890 acre-ft (17.1 hm³) at elevation 2,004.0 ft (610.819 m), conservation pool, designated in 1965. No storage below elevation 1,987.0 ft (605.688 m). Figures given herein represent total contents. Reservoir is used for flood control and conservation. Revised capacity table, based on survey in 1969, used since Oct. 1, 1972.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 99,500 acre-ft corrected (123 hm³), June 25, 1957, elevation, 2,026.97 ft (617.820 m) corrected, from capacity table then in use; no contents at times November 1942 to January 1943.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,200 acre-ft (18.7 hm³) May 28, elevation, 2,004.68 ft (611.026 m); minimum, 10,120 acre-ft (12.5 hm³) Sept. 30, elevation, 2,001.80 ft (610.15 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2001	8,930	2004	13,890
2002	10,430	2005	15,830
2003	12,080		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11060	10340	10620	11370	12170	12990	14150	14500	14150	13390	11980	10670
2	11040	10540	10640	11370	12190	12970	13980	14480	14060	13390	11950	10650
3	11030	10540	10670	11390	12190	13000	13950	14480	14000	13370	11910	10640
4	11010	10560	10670	11400	12200	13080	13950	14560	13980	13330	11880	10590
5	10960	10570	10670	11440	12240	13150	13970	14420	14000	13310	11799	10540
6	10910	10560	10700	11440	12290	13180	13950	14400	14060	13280	11780	10530
7	10910	10560	10730	11440	12330	13260	13890	14360	14080	13240	11740	10460
8	10810	10560	10750	11420	12380	13350	13890	14400	14120	13200	11640	10370
9	10800	10540	10770	11440	12430	13480	13670	14520	14170	13180	11570	10350
10	10810	10530	10800	11440	12430	13460	13830	14560	14170	13110	11500	10350
11	10810	10490	10770	11470	12500	13550	13810	14590	14120	13080	11500	10340
12	10800	10460	10930	11490	12560	13520	13870	14580	14020	13000	11450	10340
13	10730	10480	10940	11520	12560	13650	13970	14560	14000	12930	11440	10240
14	10690	10460	10930	11560	12640	13630	13980	14560	13950	12890	11400	10240
15	10640	10460	10980	11610	12720	13650	14270	14500	13910	12820	11440	10260
16	10570	10460	10910	11640	12700	13740	14310	14500	13930	12810	11400	10310
17	10570	10490	10980	11690	12700	13740	14520	14480	13830	12770	11340	10310
18	10570	10470	10990	11780	12720	13780	14630	14480	13830	12720	11290	10310
19	10540	10490	10990	11760	12790	13800	14750	14420	13830	12680	11240	10290
20	10540	10480	11030	11790	12750	13780	14790	14360	13810	12570	11220	10260
21	10530	10480	11110	11830	12730	13800	14650	14350	13800	12520	11160	10240
22	10530	10540	11090	11860	12750	13830	14420	14460	13740	12470	11110	10270
23	10380	10490	11120	11880	12820	13850	14120	14460	13660	12380	11040	10170
24	10380	10540	11160	11910	12880	13870	13850	14460	13660	12340	11010	10150
25	10400	10530	11190	11930	12810	13890	13850	14710	13650	12330	10990	10230
26	10400	10560	11210	11980	12840	13890	13910	14870	13630	12260	10980	10210
27	10320	10560	11240	12000	12890	13910	13930	15100	13610	12190	10830	10170
28	10240	10570	11240	12030	13000	13950	14230	15080	13550	12190	10780	10170
29	10240	10590	11320	12050	12930	13930	14380	14770	13420	12170	10770	10150
30	10340	10620	11350	12080	---	13970	14480	14480	13400	12120	10730	10120
31	10230	---	11350	12120	---	14020	---	14310	---	12030	10700	---
MAX	11060	10620	11350	12120	13000	14020	14790	15100	14170	13390	11980	10670
MIN	10230	10340	10620	11370	12170	12970	13610	14310	13400	12030	10700	10120
†	2,001.87	2,002.12	2,002.57	2,003.02	2,003.48	2,004.07	2,004.31	2,004.22	2,003.74	2,002.97	2,002.17	2,001.80
‡	-840	+390	+730	+770	+810	+1,090	+460	-170	-910	-1,370	-1,330	-580

CAL YR 1975 MAX 16,540 MIN 10,230 † -2,690
WTR YR 1976 MAX 15,100 MIN 10,120 ‡ -950

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

07237000 WOLF CREEK NEAR FORT SUPPLY, OK

LOCATION.--Lat 36°34'00", long 99°33'05", in SE 1/4 SE 1/4 sec.9, T.24 N., R.22 W., Woodward County, near left bank on downstream side of pier of bridge on U.S. Highway 270, 1.0 mi (1.6 km) southeast of Fort Supply, 1.6 mi (2.6 km) downstream from Fort Supply Dam, and at mile 3.9 (6.3 km).

DRAINAGE AREA.--1,739 mi² (4,504 km²), of which 241 mi² (624 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1937 to current year. Prior to Oct. 1, 1941, published at "near Supply".

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,958.38 ft (596.914 m) above mean sea level (levels by Corps of Engineers). See WSP 1921 for history of changes prior to Sept. 30, 1962.

REMARKS.--Records fair. Flow completely regulated since May 1942 by Fort Supply Lake (station 07236500).

AVERAGE DISCHARGE.--(Prior to regulation by Fort Supply Dam) 5 years (water years 1938-42), 104 ft³/s (2.95 m³/s), 73,350 acre-ft/yr (92.9 hm³/yr); (Since regulation by Fort Supply Dam) 34 years (water years 1943-1976) 58.9 ft³/s (1.67 m³/s), 42,670 acre-ft/yr (52.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s (402 m³/s) June 24, 1939, gage height, 15.60 ft (4.775 m), present datum, from rating curve extended above 8,000 ft²/s (227 m³/s); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 19.6 ft (5.97 m), present datum, was reached prior to October 1937, from information by State Highway Department.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 194 ft³/s (5.49 m³/s) May 28, 29, gage height, 6.83 ft (2.082 m); no flow Aug. 8-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	1.3	.18	1.3	.56	1.0	7.4	59	137	1.3	.70	.21
2	.72	2.0	.54	1.2	.56	1.0	18	58	68	1.3	.63	.21
3	.65	1.3	.67	1.2	.56	1.0	18	58	66	1.3	.63	.09
4	.65	.88	.90	1.3	.63	1.3	18	58	39	1.3	.56	.07
5	.67	1.0	1.0	1.3	.70	1.1	18	59	2.5	1.3	.49	.07
6	.79	1.2	.97	1.3	.63	1.0	18	59	1.3	1.3	.49	.07
7	.82	1.3	.97	1.4	.56	1.0	18	44	1.3	1.3	.42	.04
8	.83	1.2	1.0	1.3	.70	1.3	18	32	1.3	1.3	.42	0
9	.80	1.2	1.1	1.2	.63	1.2	18	34	1.3	1.2	.42	0
10	.86	1.2	1.1	1.0	.63	1.0	18	33	1.3	1.2	.35	0
11	.84	1.2	1.1	1.0	.78	1.1	18	32	1.3	1.1	.35	0
12	.80	1.2	1.0	1.1	.78	1.0	12	32	1.3	1.1	.35	0
13	.82	1.0	1.0	1.1	.78	.94	3.0	32	1.3	1.2	.35	.10
14	.88	1.0	1.6	.93	.78	1.0	2.6	31	1.3	1.1	.42	.14
15	.89	1.1	1.1	1.3	.93	1.0	2.7	31	1.3	1.1	.70	.63
16	.91	1.1	.56	.86	.86	1.1	10	31	1.3	1.1	.70	1.1
17	.92	1.1	.49	.70	.86	1.0	21	31	1.3	1.0	.63	.87
18	.92	1.1	.49	.70	.78	1.1	18	30	1.3	1.0	.63	.78
19	.98	1.5	.56	.56	.86	1.2	41	30	1.3	1.1	.63	.77
20	1.0	1.0	.63	.70	.70	1.2	101	30	1.3	1.0	.56	.81
21	.93	.85	.94	.70	1.1	.94	159	18	1.3	1.0	.56	.77
22	.92	.93	1.3	.86	1.0	1.0	187	8.9	1.3	.94	.56	.70
23	.92	.87	1.3	.78	1.0	1.2	166	8.2	1.3	.93	.50	.70
24	.87	.76	1.3	.78	1.0	1.3	138	8.1	1.2	.88	.49	.70
25	.85	.92	1.3	.78	1.0	1.4	83	8.9	1.3	.93	.49	.75
26	.89	.93	1.2	.63	1.0	1.3	4.6	18	1.3	.90	.44	.80
27	.92	.74	1.3	.63	.93	1.3	3.4	42	1.3	.86	.35	.78
28	.90	.53	1.3	.63	.93	1.3	4.7	133	1.3	.86	.34	.78
29	.93	.56	.94	.56	.93	1.3	20	194	1.3	.86	.28	.71
30	1.0	.08	1.1	.42	---	1.3	59	192	1.3	.78	.28	.70
31	1.1	---	1.3	.56	---	1.5	---	148	---	.70	.22	---
TOTAL	26.67	31.05	30.24	28.78	23.16	35.38	1223.4	1583.1	344.9	33.24	14.94	13.35
MEAN	.86	1.04	.98	.93	.80	1.14	40.8	51.1	11.5	1.07	.48	.45
MAX	1.1	2.0	1.6	1.4	1.1	1.5	187	194	137	1.3	.70	1.1
MIN	.65	.08	.18	.42	.56	.94	2.6	8.1	1.2	.70	.22	0
AC=FT	53	62	60	57	46	70	2430	3140	684	66	30	26
CAL YR 1975	TOTAL	7973.66	MEAN	21.8	MAX	245	MIN	.08	AC=FT	15820		
WTR YR 1976	TOTAL	3388.21	MEAN	9.26	MAX	194	MIN	0	AC=FT	6720		

LOCATION.--Lat 36°26'18", long 99°16'40", in SE 1/4 SE 1/4 sec.25, T.23 N., R.20 W., Woodward County, near right bank on downstream side of pier of bridge on State Highway 15, 200 ft (61.0 m) downstream from The Archison, Topeka and Santa Fe Railway Co. bridge, 6.0 mi (9.7 km) east of Woodward, 7.2 mi (11.6 km) upstream from Indian Creek, 27.5 mi (44.2 km) downstream from Wolf Creek, and at mile 460.2 (740.5 km).

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,830.43 ft (557.915 m) above mean sea level. Prior to July 1906, nonrecording gage at railway bridge 200 ft (61.0 m) upstream at different datum. Oct. 1, 1938, to Oct. 26, 1943, nonrecording gage and Oct. 27, 1943, to July 12, 1951, water-stage recorder, at site 7.8 mi (12.6 km) upstream at datum 37.01 ft (11.281 m) higher than present datum.

REMARKS.--Records good except for winter periods, which are fair. Some regulation since May 1942 by Fort Supply Lake on Wolf Creek 33 mi (53 km) upstream (station 07236500).

AVERAGE DISCHARGE.--38 years (water years 1939-76), 200 ft³/s (5.664 m³/s), 144,900 acre-ft/yr (179 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,000 ft³/s (1,190 m³/s) Oct. 10, 1946, gage height, 9.80 ft (2.987 m), site and datum then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1923, reached a stage of 11.0 ft (3.35 m), site and datum then in use; from reports of U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR. - Maximum discharge, 524 ft³/s (14.8 m³/s) June 18, gage height, 5.55 ft (1.692 m), no peak above base of 3,500 ft³/s (99.1 m³/s); no flow at times.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	7.9	11	13	12	8.2	9.9	203	300	9.9	1.2	0
2	2.2	64	13	12	11	8.5	9.8	201	257	17	1.0	0
3	3.1	20	13	9.0	12	7.6	8.7	207	184	26	1.3	0
4	3.5	14	13	7.0	11	10	14	202	146	14	.56	0
5	3.4	13	13	9.0	11	9.4	17	168	128	22	.27	0
6	3.2	13	12	10	10	9.2	19	174	89	92	.06	0
7	1.8	12	13	8.0	11	9.8	19	228	82	49	0	0
8	1.4	11	13	6.0	12	13	21	225	74	29	0	0
9	.86	11	13	10	12	13	22	227	64	22	0	0
10	.90	11	13	14	12	11	21	310	54	17	0	0
11	1.1	11	13	17	10	10	21	240	46	14	0	0
12	.91	10	13	18	10	9.6	21	196	40	12	.15	0
13	1.0	9.9	14	13	9.5	8.6	22	167	36	9.9	.02	8.0
14	4.7	10	17	13	9.3	8.6	19	149	32	8.8	.69	3.3
15	2.5	12	14	13	9.3	8.8	17	139	29	8.4	2.3	2.0
16	1.6	13	13	13	9.3	9.5	44	121	26	8.3	1.3	6.2
17	1.6	13	12	14	9.1	9.3	74	106	29	6.5	.16	3.5
18	1.3	13	12	14	8.7	9.0	39	98	169	5.8	0	2.3
19	1.6	16	14	13	8.2	8.8	41	91	34	5.3	0	1.8
20	1.4	15	13	12	8.2	8.2	54	84	25	4.8	0	4.9
21	2.2	12	13	12	8.2	7.9	69	77	22	4.4	0	2.3
22	2.6	13	14	12	7.5	8.0	128	79	21	4.0	0	1.8
23	2.6	11	13	12	7.8	8.3	212	71	21	3.5	0	1.4
24	2.5	10	13	12	7.9	8.4	219	61	19	3.2	0	1.3
25	2.7	11	13	12	6.8	8.5	159	62	18	2.7	0	5.1
26	3.1	13	13	12	6.5	8.5	158	124	17	2.4	0	9.6
27	3.4	13	13	12	7.4	9.0	72	144	15	2.0	0	4.1
28	3.1	12	13	12	7.7	8.5	107	210	13	2.0	0	3.1
29	2.6	14	13	12	7.9	8.2	77	213	11	1.7	0	2.5
30	1.6	14	13	12	---	8.3	101	337	10	1.6	0	2.3
31	1.8	---	14	12	---	8.8	---	356	---	1.2	0	---
TOTAL	69.77	422.8	407	370.0	273.3	282.5	1815.4	5270	2011	410.4	9.01	65.5
MEAN	2.25	14.1	13.1	11.9	9.42	9.11	60.5	170	67.0	13.2	.29	2.18
MAX	4.7	64	17	18	12	13	219	356	300	92	2.3	9.6
MIN	.86	7.9	11	6.0	6.5	7.6	8.7	61	10	1.2	0	0
AC=FT	138	839	807	734	542	560	3600	10450	3990	814	18	130
CAL YR 1975	TOTAL	18702.23	MEAN	51.2	MAX	497	MIN	.77	AC=FT	37100		
WTR YR 1976	TOTAL	11406.68	MEAN	31.2	MAX	356	MIN	0	AC=FT	22630		

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955, 1958-59, 1961-63, 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURE: October 1974 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,760 micromhos Nov. 27, 1975; minimum daily, 540 micromhos July 7, 1976.

WATER TEMPERATURE: Maximum daily, 35.5°C Aug. 12, 1976; minimum daily, 0.0°C Nov. 19, 20, 1975, Feb. 6, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,760 micromhos Nov. 27; minimum daily, 540 micromhos July 7.

WATER TEMPERATURE: Maximum daily, 35.5°C Aug. 12; minimum daily, 0.0°C Nov. 19, 20, Feb. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAN- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT												
16...	--	--	1000	1.8	3540	8.6	9.5	2	--	970	730	280
16...	1028	9740	1001	1.8	3540	8.6	9.5	--	--	--	--	--
NOV												
13...	--	--	1330	10	3000	8.3	10.0	1	--	970	730	280
13...	1028	9740	1331	10	3000	8.3	10.0	--	--	--	--	--
DEC												
10...	1028	9740	1601	13	2600	8.6	11.0	--	39	--	--	--
JAN												
06...	1028	9740	--	--	--	7.3	1.0	--	23	--	--	--
FEB												
10...	--	--	1300	11	2700	9.1	16.0	7	--	720	510	210
10...	1028	9740	1301	11	2700	9.1	16.0	--	71	--	--	--
MAR												
09...	--	--	1600	12	2600	8.7	17.0	5	--	730	520	210
09...	1028	9740	1601	12	2600	8.7	17.0	--	--	--	--	--
APR												
13...	--	--	1400	27	1950	9.2	24.5	5	--	480	290	120
13...	1028	9740	1401	27	1950	9.2	25.0	--	42	--	--	--
MAY												
11...	--	--	0630	257	1400	8.7	20.0	35	--	310	150	81
11...	1028	9740	0631	257	1400	8.7	20.0	--	16	--	--	--
JUN												
10...	--	--	0800	56	1850	8.6	25.0	30	--	450	260	110
10...	1028	9740	0801	56	1850	8.6	25.0	--	23	--	--	--
JUL												
12...	--	--	1500	11	1700	8.8	30.0	1	--	450	270	130
12...	1028	9740	1501	11	1700	8.8	30.0	--	17	--	--	--
SEP												
29...	--	--	0900	2.7	2400	8.3	12.0	3	--	690	490	200
29...	1028	9740	0901	2.7	2400	8.3	12.0	--	31	--	--	--

ARKANSAS RIVER BASIN

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07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MAG- NE- SIUM (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- LAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT												
16...	66	420	48	5.9	6.3	288	236	1.2	800	580	--	.8
16...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
13...	66	430	49	6.0	5.0	289	237	2.3	750	600	--	.8
13...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
06...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
10...	48	290	46	4.7	7.8	260	213	.3	510	440	--	.7
10...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
09...	51	290	46	4.7	6.8	256	210	.8	540	410	--	.7
09...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
13...	44	240	52	4.8	7.6	217	190	.2	320	340	--	.9
13...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
11...	25	140	49	3.5	6.6	195	160	.6	190	210	--	.7
11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	42	210	50	4.3	7.5	224	184	.9	250	320	--	.9
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	31	180	46	3.7	9.7	--	185	--	290	260	--	.6
12...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
29...	46	300	48	5.0	7.4	245	201	2.0	530	430	--	.7
29...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT											
16...	24	2330	2320	3.17	11.3	.20	--	1.2	1.4	6.2	1.4
16...	--	--	--	--	--	--	--	--	--	--	--
NOV											
13...	22	2900	2300	3.94	78.3	.39	--	1.3	1.7	7.5	1.4
13...	--	--	--	--	--	--	--	--	--	--	--
DEC											
10...	--	--	--	--	--	--	--	--	2.4	--	--
JAN											
06...	--	--	--	--	--	--	--	--	1.3	--	--
FEB											
10...	22	1780	1660	2.42	52.9	3.3	--	4.3	7.6	34	2.3
10...	--	--	--	--	--	--	--	--	1.1	--	--
MAR											
09...	21	1760	1660	2.39	57.0	.55	--	4.4	5.0	22	1.4
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
13...	14	1280	1200	1.74	93.3	.29	--	1.5	1.8	7.9	.65
13...	--	--	--	--	--	--	--	--	1.4	--	--
MAY											
11...	13	761	763	1.04	528	.23	--	1.3	1.5	6.8	.19
11...	--	--	--	--	--	--	--	--	.30	--	--
JUN											
10...	21	1110	1070	1.51	168	.23	--	.88	1.1	4.9	.29
10...	--	--	--	--	--	--	--	--	1.2	--	--
JUL											
12...	19	1170	1030	1.59	34.7	.86	--	1.8	2.7	12	1.0
12...	--	--	--	--	--	--	--	--	2.7	--	--
SEP											
29...	24	1730	1660	2.35	12.6	1.3	--	1.4	2.7	12	1.6
29...	--	--	--	--	--	--	--	--	1.8	--	--

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- UNIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
UCT											
16...	--	--	1000	1.8	11.4	108	210	560	--	91	74
16...	1028	9740	1001	1.8	11.4	108	--	--	--	--	--
NOV											
13...	--	--	1330	10	10.4	99	--	--	--	--	--
13...	1028	9740	1331	10	10.4	99	--	--	--	--	--
DEC											
10...	1028	9740	1601	13	--	--	--	--	--	--	--
JAN											
06...	1028	9740	--	--	--	--	--	--	--	--	--
FEB											
10...	--	--	1300	11	19.2	216	--	--	9.7	18	81
10...	1028	9740	1301	11	19.2	216	--	--	--	--	--
MAR											
09...	--	--	1600	12	9.1	97	1610	227	--	8	78
09...	1028	9740	1601	12	9.1	97	--	--	--	--	--
APR											
13...	--	--	1400	27	18.4	240	24000	9300	--	60	84
13...	1028	9740	1401	27	18.4	240	--	--	--	--	--
MAY											
11...	--	--	0630	257	8.6	104	4800	850	7.4	102	98
11...	1028	9740	0631	257	8.6	104	--	--	--	--	--
JUN											
10...	--	--	0800	56	9.0	115	600	--	--	131	97
10...	1028	9740	0801	56	9.0	115	--	--	--	--	--
JUL											
12...	--	--	1500	11	19.0	270	42000	6100	13	--	--
12...	1028	9740	1501	11	19.0	270	--	--	--	--	--
SEP											
29...	--	--	0900	2.7	11.8	119	540	1200	8.1	15	52
29...	1028	9740	0901	2.7	11.8	119	--	--	--	--	--
DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDE ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	SUS- PENDE CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	
UCT											
16...	1028	9740	1001	1.8	--	--	--	--	--	--	
NOV											
13...	--	--	1330	10	3	0	3	<10	<10	0	
13...	1028	9740	1331	10	--	--	--	--	--	--	
DEC											
10...	1028	9740	1601	13	--	--	--	--	--	--	
JAN											
06...	1028	9740	--	--	--	--	--	--	--	--	
FEB											
10...	--	--	1300	11	2	0	2	10	9	1	
10...	1028	9740	1301	11	--	--	--	--	--	--	
MAR											
09...	1028	9740	1601	12	--	--	--	--	--	--	
APR											
13...	1028	9740	1401	27	--	--	--	--	--	--	
MAY											
11...	--	--	0630	257	4	1	3	<10	<9	1	
11...	1028	9740	0631	257	--	--	--	--	--	--	
JUN											
10...	1028	9740	0801	56	--	--	--	--	--	--	
JUL											
12...	--	--	1500	11	9	3	6	<10	<9	1	
12...	1028	9740	1501	11	--	--	--	--	--	--	
SEP											
29...	--	--	0900	2.7	4	1	3	<10	<9	1	
29...	1028	9740	0901	2.7	--	--	--	--	--	--	

ARKANSAS RIVER BASIN

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07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CHROMIUM (CR) (UG/L)	SUS- PENDE CHROMIUM (CR) (UG/L)	DIS- SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CU) (UG/L)	SUS- PENDE COBALT (CU) (UG/L)	DIS- SOLVED COBALT (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDE COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT										
16...	--	--	--	--	--	--	--	--	--	--
NOV										
13...	15	5	10	150	150	1	<10	<10	0	100
13...	--	--	--	--	--	--	--	--	--	--
DEC										
10...	--	--	--	--	--	--	--	--	--	200
JAN										
06...	--	--	--	--	--	--	--	--	--	100
FEB										
10...	0	0	0	<50	<48	2	10	8	2	490
10...	--	--	--	--	--	--	--	--	--	--
MAR										
09...	--	--	--	--	--	--	--	--	--	--
APR										
13...	--	--	--	--	--	--	--	--	--	200
MAY										
11...	10	0	10	<50	<50	0	10	3	7	2600
11...	--	--	--	--	--	--	--	--	--	--
JUN										
10...	--	--	--	--	--	--	--	--	--	500
JUL										
12...	10	10	0	<50	<50	0	20	17	3	190
12...	--	--	--	--	--	--	--	--	--	<100
SEP										
29...	10	10	0	100	100	0	<10	<6	4	80
29...	--	--	--	--	--	--	--	--	--	<100

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDE LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUS- PENDE MANGANESE (MN) (UG/L)	DIS- SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDE MERCURY (HG) (UG/L)
OCT									
16...	--	--	--	--	--	--	--	--	--
NOV									
13...	20	<100	<97	3	160	10	150	.0	.0
13...	--	--	--	--	--	--	--	--	--
DEC									
10...	--	--	--	--	100	--	--	--	--
JAN									
06...	--	--	--	--	9	--	--	--	--
FEB									
10...	20	<100	<96	4	30	0	280	.0	.0
10...	--	--	--	--	--	--	--	--	--
MAR									
09...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	110	--	--	--	--
MAY									
11...	40	<100	<100	0	120	110	10	.0	.0
11...	--	--	--	--	--	--	--	--	--
JUN									
10...	--	--	--	--	89	--	--	--	--
JUL									
12...	40	<100	<98	2	70	50	20	.0	.0
12...	--	--	--	--	43	--	--	--	--
SEP									
29...	30	<100	<97	3	60	20	40	4.0	4.0
29...	--	--	--	--	50	--	--	--	--

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 16	1000	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	1,500	14	
		Occystaceae			
		Ankistrodesmus	140	1	
		Selenastrum	140	1	
		Scenedesmaceae			
		Scenedesmus	4,000	37	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	72	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	72	1	
		Pennales			
		Cymbellaceae			
		Cymbella	140	1	
		Naviculaceae			
		Navicula	72	1	
		Nitzschiaceae			
		Nitzschia	280	3	
Nov. 13	1330	CYANOPHYTA			Sediment sampler
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	4,500	41	
		TOTAL	11,000		
		CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	160	5	
		Scenedesmaceae			
		Scenedesmus	640	19	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae	800	24	
		Pennales			
		Cymbellaceae			
		Cymbella			
		Naviculaceae			
		Navicula	370	11	
		Nitzschiaceae			
		Nitzschia	1,300	41	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum			
Feb. 11	1300	TOTAL	3,300		Sediment sampler
		CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,300	6	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Amphora		0	
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Amphiprora		0	
		Caloneis		0	
		Navicula	950	4	
		Nitzschiaceae			
		Nitzschia	2,900	13	
		Surirellaceae			
		Surirella	190	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum		0	

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Feb. 11	1300	Oscillatoriales Oscillatoriaceae Oscillatoria		0	Sediment sampler
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	16,000	75	
		TOTAL	21,000		
Mar. 9	1600	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum		0	
		Scenedesmaceae			
		Scenedesmus		0	
		Volvocales			
		Chlamydomonadaceae			
		Carteria		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Amphora	81	2	
		Fragilariaceae			
		Synedra		0	
		Naviculaceae			
		Amphiprora		0	
		Anomeoneis	240	6	
		Caloneis	81	2	
		Navicula	1,100	27	
		Nitzschiaceae			
		Nitzschia	2,200	53	
		Surirellaceae			
		Surirella	81	2	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	320	8	
		TOTAL	4,100		
Apr. 13	1400	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum		0	
		Occystaceae			
		Ankistrodesmus	230	1	
		Dictyosphaerium	300	2	
		Kirchneriella	380	2	
		Oocystis	300	2	
		Scenedesmaceae			
		Crucigenia	3,600	18	
		Scenedesmus	1,200	6	
		Tetrastrum	300	2	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	380	2	
		Pennales			
		Fragilariaceae			
		Synedra		0	
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Mastogloia		0	
		Navicula	450	2	
		Nitzschiaceae			
		Nitzschia	3,500	18	
		Surirellaceae			
		Surirella		0	
		CYAONPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	300	2	
		Gomphosphaeria	7,700	39	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	900	5	

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Apr. 13	1400	EUGLENOPHYTA			Sediment sampler
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas		0	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	20,000		
May 11	0630	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	750	3	
		Occystaceae			
		Ankistrodesmus	1,900	7	
		Dictyosphaerium	750	3	
		Oocystis	2,100	7	
		Scenedesmaceae			
		Crucigenia	3,000	11	
		Scenedesmus	4,900	17	
		Tetrasporales			
		Palmellaceae			
		Sphaerocystis	4,500	16	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	940	3	
		Melosira	380	1	
		Pennales			
		Achnanthaceae			
		Achnanthes	190	1	
		Fragilariaceae			
		Synedra	560	2	
		Naviculaceae			
		Navicula	940	3	
		Nitzschiaceae			
		Nitzschia	7,500	26	
		TOTAL	28,000		
June 10	0800	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	460	6	
		Dictyosphaerium		0	
		Kirchneriella	180	2	
		Scenedesmaceae			
		Actinastrum	4,200	55	
		Tetrasporales			
		Coccomyxaceae			
		Elakatothrix	180	2	
		Zygnematales			
		Desmidiaceae			
		Cosmarium	92	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	270	4	
		Melosira	1,100	14	
		Pennales			
		Cymbellaceae			
		Amphora	92	1	
		Nitzschiaceae			
		Nitzschia	370	5	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	730	10	
		TOTAL	7,700		

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
July 12	1500	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	3,600	5	
		Occystaceae			
		Ankistrodesmus	2,100	3	
		Dictyosphaerium	550	1	
		Kirchneriella	4,300	6	
		Oocystis	550	1	
		Scenedesmaceae			
		Actinastrum	6,100	8	
		Scenedesmus	3,100	4	
		Tetrastrum	550	1	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	6,500	9	
		Volvocaceae			
		Gonium		0	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	3,500	5	
		Melosira	970	1	
		Pennales			
		Achnanthaceae			
		Achnanthes		0	
		Naviculaceae			
		Navicula	3,200	4	
		Nitzschaceae			
		Nitzschia	10,000	14	
		Xanthophyceae			
		Heterococcales			
		Chlorotheciaceae			
		Ophiocytium		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	4,400	6	
		Anacystis			
		Anacystis Incerta	2,800	4	
		Anacystis	12,000	16	
		Oscillatoriales			
		Nostocaceae			
		Anabaena	1,400	2	
		Oscillatoriaceae			
		Oscillatoria	7,800	10	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas		0	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas		0	
		TOTAL	74,000		
Sept. 29	0900	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	890	2	
		Micractiniaceae			
		Micractinium	2,000	5	
		Occystaceae			
		Ankistrodesmus	380	1	
		Polydriopsis		0	
		Tetraedron	250	1	
		Scenedesmaceae			
		Actinastrum	510	1	
		Scenedesmus	5,700	14	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	320	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella		0	
		Melosira		0	
		Pennales			

ARKANSAS RIVER BASIN

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07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Sept. 29	0900	Nitzschiaceae			Sediment sampler
		Nitzschia	510	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	11,000	25	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	19,000	45	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonodaceae			
		Cryptomonas	2,000	5	
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	42,000		

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2530	---	3340	2800	2740	2760	2710	1070	---	3140	---	---
2	3480	---	2800	2810	2710	2860	2830	1040	1590	3050	2300	---
3	2590	2510	2760	3020	2670	2780	2900	1250	1600	1200	2320	---
4	2520	3090	2840	---	2660	2620	3020	1360	1650	---	2270	---
5	2410	3380	2940	2810	2600	3070	2470	1640	1620	---	2270	---
6	2440	3340	2780	---	2880	2690	2300	1710	1640	584	2190	---
7	3220	3450	2780	---	2910	---	2240	1630	1660	540	---	---
8	3540	3480	2810	---	---	2610	2180	1470	1710	758	---	---
9	3660	3530	2800	2770	---	2690	2090	1340	1850	988	---	---
10	3580	3520	2790	---	2740	2730	2110	1280	---	---	---	---
11	3650	3560	2890	2590	2680	2550	2080	1350	1960	1480	---	---
12	3690	3560	2820	2670	2610	2980	2020	1440	2120	1680	3160	---
13	3640	3480	2870	2660	2660	---	2080	1510	2160	1840	2970	2870
14	1920	3460	2810	2700	2700	---	2220	1620	2240	2100	2510	2160
15	3430	2920	---	2780	2890	---	2250	1660	2320	2180	2300	2580
16	3540	2870	2810	2740	2770	---	1590	1740	2340	2280	1980	---
17	3540	2830	2840	2650	2740	2800	1470	1790	2290	2140	2140	2540
18	3550	2880	2970	2670	2780	2620	2050	1810	1470	2320	---	2700
19	3560	2730	3000	2710	2700	2590	1660	1820	2080	2480	---	2810
20	3600	2820	2840	2640	2950	2880	1670	1850	2290	2550	---	2430
21	2770	2810	2800	---	3060	2690	1530	1840	2360	2550	---	---
22	---	2820	---	---	---	2670	1490	1750	2460	2610	---	---
23	2620	3340	2750	2800	---	2700	1450	1850	---	2580	---	---
24	2580	3580	2840	2710	2800	2920	1450	1820	---	2640	---	---
25	2600	---	2850	2760	3110	---	1450	1600	---	---	---	---
26	2650	---	2860	2780	3140	2790	1360	1540	2610	2720	---	---
27	2700	3760	2780	---	2770	2580	---	1500	2650	2490	---	2080
28	2570	3490	2840	---	2790	2610	---	1150	2710	---	---	2390
29	2540	3200	2860	2650	2770	2700	1550	1330	2870	2490	---	---
30	3420	3060	2790	2750	---	2640	1570	1460	3160	2580	---	---
31	3450	---	2870	2750	---	2710	---	1530	---	---	---	---
MONTH	3070	3210	2850	---	2800	2730	1990	1540	2140	2080	---	---

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	---	8.5	6.5	12.0	11.0	20.0	17.5	---	28.0	---	---
2	10.5	---	11.0	4.0	11.5	15.0	11.0	19.5	27.5	21.5	31.0	---
3	10.0	4.0	11.5	1.0	11.5	10.0	20.5	18.5	23.5	21.5	30.0	---
4	10.0	7.0	11.0	---	5.0	4.0	21.0	20.0	22.0	---	32.0	---
5	12.0	7.0	10.5	3.0	5.0	1.5	22.5	18.5	25.0	---	27.0	---
6	13.0	5.0	8.5	---	0.0	14.0	22.0	14.5	25.0	23.5	31.0	---
7	10.5	8.0	8.5	---	3.0	---	21.0	13.5	27.0	23.0	---	---
8	14.0	7.0	9.5	---	14.0	8.0	20.5	20.0	27.0	25.0	---	---
9	17.0	1.0	11.0	5.0	14.0	16.0	15.0	18.0	26.0	24.0	---	---
10	14.0	1.0	12.0	---	15.0	19.0	23.0	19.0	---	---	---	---
11	13.0	2.0	6.0	2.0	13.5	11.0	22.5	22.5	22.5	25.0	---	---
12	14.0	2.0	5.5	7.0	7.5	12.0	21.0	20.5	28.0	22.0	35.5	---
13	13.5	1.0	13.0	8.0	8.0	14.0	23.0	15.5	29.0	25.0	21.5	23.0
14	8.0	2.5	7.0	7.0	16.0	16.0	26.0	15.0	29.5	22.0	34.0	28.0
15	6.0	2.0	---	3.0	17.0	9.0	17.0	22.0	28.0	22.0	33.0	30.5
16	9.0	3.0	8.0	10.0	16.5	16.5	12.0	18.0	28.0	23.0	29.0	---
17	7.0	5.0	4.0	11.5	14.0	19.5	16.0	21.0	18.0	23.0	33.0	27.5
18	9.0	6.0	2.0	12.0	15.0	11.0	21.0	22.0	19.0	26.0	---	32.0
19	9.0	0.0	0.5	8.0	4.5	20.5	17.0	23.0	28.0	25.0	---	28.5
20	6.0	0.0	7.0	8.0	6.0	16.0	12.0	18.5	28.5	25.0	---	27.0
21	12.0	6.0	6.0	9.0	10.0	16.5	20.5	19.5	29.0	25.0	---	---
22	---	7.0	---	11.5	12.5	20.0	15.0	26.0	31.0	22.5	---	---
23	10.5	7.0	8.0	3.5	16.5	20.5	18.0	25.0	---	25.0	---	---
24	5.0	6.0	6.5	10.0	14.0	20.0	22.0	24.5	20.0	22.0	---	---
25	3.0	---	7.5	5.0	15.5	---	20.0	20.5	20.0	---	---	---
26	4.5	---	8.0	5.0	5.0	16.5	13.0	17.0	32.0	22.5	---	---
27	8.0	1.0	9.0	8.0	5.0	17.5	---	15.0	34.0	32.0	---	17.0
28	5.0	2.0	6.0	11.0	19.5	20.0	---	18.0	34.0	---	---	23.0
29	5.0	12.0	7.0	13.0	15.5	15.0	11.5	25.0	35.0	23.0	---	27.0
30	6.0	6.0	9.0	11.0	---	17.0	12.0	26.0	31.5	24.0	---	23.0
31	8.0	---	8.0	11.0	---	16.0	---	22.5	---	---	---	---
MONTH	9.0	4.5	8.0	7.5	11.0	14.5	18.5	20.0	27.0	24.0	---	---
YEAR	MAX	35.5	MIN	0.0	MEAN	15.5						

ARKANSAS RIVER BASIN

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07238000 NORTH CANADIAN RIVER NEAR SEILING, OK

LOCATION.--Lat 36°11'06", long 98°55'15", in NW 1/4 sec.28, T.20 N., R.16 W., Major County, near center of span on downstream side of pier of bridge on U.S. Highway 60, 2.0 mi (3.2 km) upstream from Seiling Creek, 2.2 mi (3.5 km) north of Seiling, 2.8 mi (4.5 km) downstream from Deep Creek, and at mile 422.6 (680.0 km).

DRAINAGE AREA.--12,261 mi² (31,756 km²), of which 4,847 mi² (12,554 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,675.42 ft (510.668 m) above mean sea level (levels by Corps of Engineers). July 1, 1946, to Aug. 17, 1964, at site 60 ft (18.3 m) downstream and prior to Oct. 1, 1954, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good. Some regulation by Fort Supply Lake on Wolf Creek 70.6 mi (113.6 km) upstream. (station 07236500).

AVERAGE DISCHARGE.--30 years, 221 ft³/s (6.259 m³/s); 160,100 acre-ft/yr (197 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s (935 m³/s) May 19, 1951, gage height, 15.61 ft (4.758 m), present datum; maximum gage height, 16.00 ft (4.877 m) Oct. 11, 1946, present datum; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,480 ft³/s (70.2 m³/s) May 10, gage height, 10.26 ft (3.127 m), no peaks above base of 3,500 ft³/s (99.1 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	8.0	32	39	40	36	30	149	502	27	.55	0
2	4.0	45	34	36	40	36	30	194	333	28	.45	0
3	3.9	74	34	30	40	35	29	199	273	27	.36	0
4	3.9	59	34	30	40	35	28	182	251	34	.30	0
5	3.8	49	35	35	41	35	28	187	220	31	.25	0
6	3.6	43	34	40	39	37	28	167	184	26	.12	0
7	3.1	37	33	40	35	38	30	152	159	51	.07	0
8	3.1	34	34	40	43	43	31	192	135	67	.05	0
9	3.1	31	34	43	44	46	32	288	102	45	.03	0
10	3.1	29	35	45	44	47	32	1510	96	34	.01	0
11	3.0	29	35	47	42	46	32	406	76	28	0	0
12	3.1	28	34	51	41	43	32	351	65	25	0	0
13	3.1	28	35	54	40	38	34	276	55	20	.01	.04
14	3.2	26	36	52	38	37	34	225	46	18	.05	.02
15	3.3	27	34	46	38	37	38	204	40	16	.09	.03
16	3.4	28	36	44	39	37	50	189	34	16	0	.09
17	3.6	28	35	43	38	37	368	172	31	14	0	.57
18	3.8	28	30	42	38	37	196	149	96	13	0	.03
19	3.8	35	33	41	38	36	149	130	288	11	0	.05
20	3.9	56	39	39	38	35	125	119	137	8.7	0	.09
21	3.9	41	37	38	38	33	130	112	85	6.8	0	.01
22	4.1	36	37	39	35	32	108	108	68	5.5	0	.01
23	4.4	34	38	39	35	32	119	112	58	4.5	0	0
24	4.5	33	38	39	35	32	157	106	51	3.8	0	0
25	4.5	33	38	39	35	32	170	96	45	3.2	0	.08
26	5.1	25	38	37	35	32	144	217	41	2.8	0	.12
27	5.9	30	38	37	34	30	137	230	36	2.3	0	.42
28	6.2	38	38	39	35	30	137	225	33	1.6	0	.41
29	6.2	39	37	41	36	31	189	217	28	1.3	0	.34
30	6.2	34	37	41	---	30	154	240	26	1.0	0	.32
31	7.1	---	38	40	---	29	---	685	---	.74	0	---
TOTAL	127.9	1065.0	1100	1266	1114	1114	2801	7789	3594	573.24	2.34	2.63
MEAN	4.13	35.5	35.5	40.8	38.4	35.9	93.4	251	120	18.5	.076	.088
MAX	7.1	74	39	54	44	47	368	1510	502	67	.55	.57
MIN	3.0	8.0	30	30	34	29	28	96	26	.74	0	0
AC=FT	254	2110	2180	2510	2210	2210	5560	15450	7130	1140	4.6	5.2

CAL YR 1975 TOTAL 37950.00 MEAN 104 MAX 2590 MIN 3.0 AC=FT 75270
WTR YR 1976 TOTAL 20549.11 MEAN 56.1 MAX 1510 MIN 0 AC=FT 40760

07238000 NORTH CANADIAN RIVER NEAR SEILING, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1953-59, 1968-71, 1974 to current year.

REMARKS.--Beginning November 4, samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Beginning November 4, samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)
OCT												
10...	--	--	1100	--	3.1	1800	7.9	17.0	1	8.1	90	15
21...	--	--	1200	--	4.2	2000	8.1	22.5	1	9.7	121	14
NOV												
04...	--	--	1530	--	58	1425	7.8	15.0	10	9.5	102	22
04...	1028	9740	1531	--	58	1450	7.8	15.0	--	9.5	102	--
DEC												
09...	1028	9740	1130	34	--	1750	8.5	7.0	4	--	--	--
JAN												
06...	1028	9740	1145	40	--	2400	8.2	1.0	0	12.4	95	--
FEB												
03...	1028	9740	1130	40	--	1850	8.3	6.0	1	13.6	120	--
MAR												
02...	1028	9740	1215	36	--	2000	8.3	15.0	1	13.1	134	--
APR												
07...	1028	9740	1530	30	--	2800	8.4	16.0	2	9.7	108	--
MAY												
05...	1028	9740	1530	187	--	1400	8.5	18.0	11	10.4	122	--
JUN												
30...	1028	9740	1720	26	--	2210	8.5	31.5	1	8.7	122	--
JUL												
27...	1028	9740	1315	2.3	--	1950	8.8	32.0	3	13.8	200	--
SEP												
28...	1028	9740	1315	.41	--	2150	8.2	17.0	--	13.7	149	--
	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT												
10...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	1620
NOV												
04...	--	--	180	34	86	9.2	150	123	400	140	--	1030
04...	--	--	--	--	--	--	--	--	--	--	.4	--
DEC												
09...	16	785	320	180	150	4.8	--	--	--	202	.5	--
JAN												
06...	19	958	290	68	140	4.3	--	--	--	214	.6	--
FEB												
03...	34	837	300	66	130	--	--	--	--	197	.6	--
MAR												
02...	40	1110	710	66	140	5.4	--	--	--	215	.6	--
APR												
07...	28	1590	568	68	190	5.1	--	--	--	293	.5	--
MAY												
05...	43	812	250	48	--	--	--	--	--	--	.7	--
JUN												
30...	48	614	210	59	206	7.2	--	--	--	314	.7	--
JUL												
27...	20	682	210	67	169	6.7	--	--	--	194	.5	--
SEP												
28...	21	--	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

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07238000 NORTH CANADIAN RIVER NEAR SEILING, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL FILT- RABLE RESIDUE (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NUS) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)
OCT												
10...	--	--	0	--	--	--	--	--	--	.03	3	0
21...	--	2.20	0	--	--	--	--	--	--	.01	2	<10
NOV												
04...	--	1.40	28	.33	.02	1.8	1.8	2.1	9.4	.23	2	<10
04...	1250	--	--	--	--	--	--	1.9	--	--	--	--
DEC												
09...	1551	--	--	--	--	--	--	1.7	--	.18	--	--
JAN												
06...	1475	--	--	--	--	--	--	1.9	--	.36	--	--
FEB												
03...	1391	--	--	--	--	--	--	.90	--	.25	2	2
MAR												
02...	1518	--	--	--	--	--	--	.90	--	.18	--	--
APR												
07...	1693	--	--	--	--	--	--	.80	--	.26	--	--
MAY												
05...	--	--	--	--	--	--	--	1.5	--	.12	30	3
JUN												
30...	1583	--	--	--	--	--	--	.90	--	.15	--	--
JUL												
27...	1557	--	--	--	--	--	--	1.9	--	.11	--	--
SEP												
28...	--	--	--	--	--	--	--	1.3	--	--	--	--

DATE	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)
OCT												
10...	4	--	180	<100	--	.1	--	--	--	2	1.1	0
21...	4	--	150	100	--	.0	--	--	--	8	7.6	0
NOV												
04...	0	--	930	<100	--	.1	--	--	--	20	11	0
04...	--	17	3000	--	600	--	23	--	4	--	--	--
DEC												
09...	--	--	100	--	50	--	--	--	--	--	--	--
JAN												
06...	--	--	100	--	84	--	--	--	--	--	--	--
FEB												
03...	6	3	200	22	102	--	12	--	2	5	--	--
MAR												
02...	--	--	100	--	96	--	--	--	--	--	--	--
APR												
07...	--	--	<100	--	70	--	--	--	--	--	--	--
MAY												
05...	62	75	2000	25	1200	119	100	6	7	215	--	--
JUN												
30...	--	--	200	--	58	--	--	--	--	--	--	--
JUL												
27...	--	--	100	--	196	--	--	--	--	--	--	--
SEP												
28...	--	--	100	--	143	--	--	--	--	--	--	--

07238500 CANTON LAKE NEAR CANTON, OK

LOCATION.--Lat 36°05'03", long 98°36'05", in SE 1/4 NE 1/4 sec.32, T.19 N., R.13 W., Blaine County, near right end of Canton Dam on North Canadian River, 2.0 mi (3.2 km) northwest of Canton, and at mile 394.3 (634.4 km).

DRAINAGE AREA.--12,483 mi² (32,331 km²), of which 4,883 mi² (12,647 km²) is probably noncontributing.

RESERVOIR CONTENTS RECORDS

PERIOD OF RECORD.--April 1948 to current year. Prior to October 1970 published as Canton Reservoir near Canton.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by an earth dam. Regulated storage began Apr. 15, 1948; conservation pool was first filled July 4, 1948. Capacity, 383,800 acre-ft (473 hm³) at elevation 1,638.0 ft (499.26 m) (flood-control pool), 116,000 acre-ft (143 hm³) at elevation 1,615.2 ft (492.31 m) (Normal water-supply pool, designated in 1965), 99,400 acre-ft (123 hm³) at elevation 1,613.0 ft (492 m) (crest of spillway), and 18,460 acre-ft (22.8 hm³) at elevation 1,596.5 ft (486.61 m) (conservation pool). Dead storage, 4 acre-ft (4,930 m³) at elevation 1,582.0 ft (482.19 m) (invert of bypass gates). Figures given herein represent total contents. Reservoir was designed for flood control, irrigation, and conservation, but owing to a lack of facilities, it is not being used for irrigation at this time. Revised capacity table, based on survey in 1966, used since Oct. 1, 1967.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 258,600 acre-ft (319 hm³) May 25, 1951, elevation, 1,628.05 ft (496.230 m); minimum since conservation pool was first filled, 867 acre-ft (1.07 hm³) May 5, 1955, elevation, 1,585.66 ft (483.309 m), from capacity table then in use.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 103,000 acre-ft (127 hm³) June 25, elevation, 1,613.50 ft (491.795 m); minimum, 76,980 acre-ft (94.9 hm³) Jan. 10, elevation, 1,609.65 ft (490.621 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

1609	73,040	1612	92,320
1610	79,160	1613	99,400
1611	85,580	1614	106,800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101300	97580	98360	91900	78030	78410	78780	85320	99160	101900	97580	92250
2	101100	98220	98440	89650	78100	78410	78470	85380	99600	102100	97360	92110
3	101000	98440	98290	87640	78220	78410	78410	85580	99800	102200	97150	91970
4	100800	98440	98290	85250	78340	78410	78410	85710	100200	102200	96870	91770
5	100700	98510	99010	83040	78410	78340	78410	86040	100500	102100	96790	91630
6	100500	98580	98440	82010	78340	78340	78410	86510	100600	102100	96580	91420
7	100300	98580	98440	79280	78340	79280	78440	86570	100700	101800	96510	91150
8	100200	98580	98440	77410	78340	79410	78470	86770	100900	101600	96300	91220
9	100100	98580	98440	77040	78340	79280	78470	87100	100900	101500	96020	91420
10	100000	98150	98220	77040	78530	79410	78470	88570	100900	101400	95590	90860
11	99800	98290	98360	77040	78720	79220	78470	90260	100800	101300	95380	90540
12	99500	98150	98440	77170	78470	79850	78840	91220	100800	101000	95240	90600
13	99160	98010	98440	77230	78840	79350	79030	91900	99900	100800	95030	90880
14	99700	97930	98940	77290	78470	79470	79090	92250	99400	100600	94890	91420
15	99500	97860	98580	77350	78470	79980	79410	92800	99400	100700	94820	91220
16	99400	98860	98870	77410	78470	79530	79720	92800	99500	100600	94540	91080
17	99300	97790	98680	77540	78970	79470	80860	92940	101700	100600	94400	91010
18	99010	97720	98360	77290	78970	79470	80860	93080	102400	100500	94190	90740
19	98870	99500	98510	77660	78970	79220	81500	93150	102500	100200	94050	90880
20	98580	98650	98510	77540	79280	79530	82200	93420	102500	100000	93700	90400
21	98440	98440	98440	77720	79280	79410	82270	93630	102500	99700	93350	90400
22	98360	98150	98680	77600	78970	79410	82140	94190	102400	99500	93280	90260
23	98360	98220	98580	77910	78970	79090	82520	94610	102400	99400	93220	90060
24	98290	98080	98800	77970	78340	79090	82780	94680	102600	99300	93080	89920
25	98080	98440	98800	78030	78410	79090	82780	95100	102800	99160	93010	90060
26	97510	98010	98800	77910	78410	79090	82780	96160	102700	98940	92800	90190
27	97580	98080	98940	77850	78410	78970	83230	96510	102700	98800	92870	89040
28	97720	97720	99080	77970	78410	78840	84210	96580	102400	98440	92660	86440
29	97510	98440	98080	77910	78410	79090	84340	97010	102400	98220	92590	84080
30	97010	98290	95870	78340	---	79090	84860	97580	102200	97930	92450	81880
31	97010	---	93700	78160	---	79090	---	98220	---	97930	92450	---
MAX	101300	99500	99080	91900	79280	79980	84860	98220	102800	102200	97580	92250
MIN	97010	97580	93700	77040	78030	78340	78410	85320	99160	97930	92450	81880
†	1,612.67	1,612.85	1,612.20	1,609.84	1,609.88	1,609.99	1,610.89	1,612.84	1,613.39	1,612.80	1,612.02	1,610.43
‡	-4,690	+1,280	-4,590	-15,540	+250	+680	+5,770	+13,360	+3,980	-4,270	-5,480	-10,570

CAL YR 1975 MAX 116,400 MIN 64,900 ‡ +26,260
WTR YR 1976 MAX 102,800 MIN 77,040 ‡ -19,820

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

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07238500 CANTON LAKE NEAR CANTON, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-50, 1960-64, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	RESER- VOIR STORAGE (AC-FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM
OCT												
14...	1130	99700	1510	7.5	19.0	7	430	280	96	46	150	43
28...	0930	97720	1540	7.8	5.0	3	480	340	110	50	160	41
NOV												
18...	0900	97720	1540	8.4	--	10	440	290	99	46	150	42
DEC												
04...	0900	98290	1560	8.0	7.0	10	450	310	100	49	150	41
29...	1300	98080	1580	--	4.0	--	--	--	--	--	--	--
JAN												
16...	1245	77410	1570	8.3	2.5	9	460	310	110	46	150	41
FEB												
02...	1000	78100	1610	8.3	4.0	15	480	330	110	50	150	40
17...	0900	78970	1610	--	6.0	--	--	--	--	--	--	--
MAR												
01...	1130	78410	1640	8.2	11.0	30	480	320	110	49	150	40
15...	1330	79980	1660	--	8.0	--	--	--	--	--	--	--
APR												
20...	1000	82200	1650	8.2	16.0	40	480	320	110	51	150	40
MAY												
02...	1100	85380	1650	7.7	15.0	20	490	340	110	53	160	41
27...	1600	96510	1600	--	--	--	--	--	--	--	--	--
JUN												
16...	1600	99500	1600	7.7	24.0	10	490	340	110	52	150	40
JUL												
14...	1500	100600	1620	7.2	26.0	20	480	330	110	49	150	40
AUG												
06...	1620	96580	1650	8.0	28.0	9	500	360	110	54	160	41
16...	1600	94540	1660	--	--	--	--	--	--	--	--	--
SEP												
07...	1530	91150	1630	7.0	24.5	8	500	370	110	55	170	42
28...	1045	86440	1650	7.4	19.5	10	510	380	110	57	170	42

DATE	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACU3 (MG/L)	CARBON DIOXIDE (CU2) (MG/L)	DIS- SOLVED SULFATE (SU4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SULIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SULIDS (TONS PER AC-FT)	DIS- SOLVED NITRIT PLUS NITRATE (N) (MG/L)
OCT											
14...	3.2	8.2	178	0	146	9.0	330	200	972	1.32	.06
28...	3.2	8.9	172	0	141	4.4	400	200	984	1.34	.02
NOV											
18...	3.1	9.2	177	0	145	1.1	350	200	1000	1.36	.32
DEC											
04...	3.1	8.0	173	0	142	2.8	330	200	997	1.36	2.2
29...	--	--	--	--	--	--	--	--	--	--	--
JAN											
16...	3.0	7.5	187	0	153	1.5	350	200	1000	1.36	.58
FEB											
02...	3.0	7.7	189	0	155	1.5	340	210	1040	1.41	.45
17...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	3.0	7.6	196	0	161	2.0	360	210	1050	1.43	.27
15...	--	--	--	--	--	--	--	--	--	--	--
APR											
20...	3.0	7.5	196	0	161	2.0	380	210	1080	1.47	.21
MAY											
02...	3.1	7.9	186	0	153	5.9	370	210	1090	1.48	.18
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
16...	3.0	8.1	183	0	150	5.8	350	200	1050	1.43	.27
JUL											
14...	3.0	8.1	173	0	142	17	360	210	1050	1.43	.01
AUG											
06...	3.1	8.5	163	0	134	2.6	360	210	1070	1.46	.16
16...	--	--	--	--	--	--	--	--	--	--	--
SEP											
07...	3.3	8.9	164	0	135	26	450	220	1110	1.51	.00
28...	3.3	9.1	156	0	128	9.9	460	230	1130	1.54	.43

ARKANSAS RIVER BASIN

07239000 NORTH CANADIAN RIVER AT CANTON, OK

LOCATION.--Lat 36°04'45", long 98°35'25", in NE 1/4 SW 1/4 sec.33, T.19 N., R.13 W., Blain County, on right bank 2,700 ft (823.0 m) downstream from Canton Dam, 1.5 mi (2.4 km) northwest of Canton, 4.8 mi (7.7 km) upstream from Minnehaha Creek, and at mile 393.8 (633.6 km).

DRAINAGE AREA.--12,484 mi² (32,334 km²), of which 4,883 mi² (12,647 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1914 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,562.50 ft (476.250 m) above mean sea level (Corps of Engineers bench mark). Oct. 1, 1937, to Jan. 5, 1955, water-stage recorder at site 2.5 mi (4.0 km) downstream at datum 1.91 ft (0.582 m) lower prior to Oct. 1, 1950, and at datum 6.91 ft (2.106 m) lower thereafter.

REMARKS.--Records fair. Flow partly regulated by Fort Supply Lake (station 07236500) for period May 1942 to April 1948 and completely regulated thereafter by Canton Lake (station 07238500).

AVERAGE DISCHARGE.--(Prior to regulation by Canton Dam) 11 years (water years 1938-48), 256 ft³/s (7.250 m³/s), 185,500 acre-ft/yr (229 hm³/yr); (since regulation by Canton Dam) 28 years (water years 1949-76), 174 ft³/s (4.928 m³/s), 126,100 acre-ft/yr (155 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,800 ft³/s (702 m³/s) Oct. 12, 1946, gage height, 12.83 ft (3.911 m), site and datum then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 13, 1923, reached a stage of 16.8 ft (5.121 m), at site 300 ft (91.4 m) upstream from former site at datum 1.91 ft (0.582 m) lower than present datum, from reports of U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s (32.9 m³/s) Sept. 28, gage height, 9.90 ft (3.018 m); minimum daily, 2.4 ft³/s (0.068 m³/s) Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	17	14	1110	3.6	3.2	8.0	9.2	11	4.3	2.7	3.6
2	26	20	15	1090	3.5	3.2	8.0	9.0	11	4.1	2.7	3.8
3	13	19	15	1080	3.4	3.2	8.0	9.0	11	3.6	2.7	3.8
4	11	19	15	1070	3.3	3.3	8.0	9.0	11	3.4	2.7	3.8
5	10	19	14	1060	3.1	3.5	8.0	9.0	11	3.4	2.7	3.8
6	10	19	13	1050	2.9	4.0	8.4	9.0	12	3.3	3.3	3.8
7	11	19	13	1040	2.9	5.1	8.4	9.0	12	3.3	3.4	4.9
8	11	19	13	880	3.0	6.2	8.3	9.0	13	3.2	3.2	7.1
9	10	19	13	211	3.1	6.0	8.3	9.9	13	2.9	2.9	6.1
10	9.9	19	15	26	3.3	6.3	8.1	15	13	2.9	2.9	4.7
11	10	20	14	20	4.1	6.2	8.0	12	13	2.9	2.7	4.3
12	11	19	14	18	4.1	5.2	8.4	13	13	2.9	2.7	4.3
13	11	18	15	17	3.6	4.9	8.8	12	13	9.5	2.8	5.7
14	11	17	14	17	3.4	5.7	8.5	12	13	5.1	2.5	5.1
15	11	17	13	14	3.6	6.0	9.9	12	13	4.1	2.4	4.8
16	10	19	13	12	3.6	6.0	9.9	12	12	3.6	3.7	5.2
17	10	19	13	11	3.5	7.0	10	11	20	3.6	3.8	5.2
18	10	19	13	11	3.1	7.2	9.3	12	28	3.6	3.8	4.8
19	11	21	13	8.4	3.2	7.7	9.4	12	21	3.4	3.8	4.8
20	11	17	13	7.6	3.5	7.6	10	12	20	3.4	3.6	4.8
21	11	17	13	6.5	3.7	8.0	9.3	11	18	3.3	3.6	4.8
22	11	17	13	5.9	3.5	8.7	9.3	12	12	3.1	3.6	4.8
23	10	17	13	4.8	3.4	9.2	9.3	12	8.1	3.2	3.6	4.8
24	8.9	16	13	4.1	3.9	9.3	8.7	12	7.0	2.7	3.6	4.8
25	8.8	16	13	4.1	4.4	9.7	8.0	12	5.7	2.7	3.6	5.8
26	9.4	15	13	4.0	3.7	9.4	8.8	16	4.5	2.7	3.6	5.9
27	10	16	12	3.9	3.5	10	9.3	13	4.1	2.7	3.6	599
28	17	16	12	3.8	3.2	11	11	12	3.8	2.7	3.6	1160
29	18	15	503	3.7	3.2	9.5	9.3	11	3.6	2.7	3.4	1120
30	17	13	1130	3.6	---	8.2	9.3	11	4.1	2.7	3.4	1110
31	18	---	1130	3.6	---	8.3	---	12	---	2.7	3.4	---
TOTAL	388.0	533	3140	8801.0	100.3	208.8	266.0	351.1	354.9	107.7	100.0	4114.3
MEAN	12.5	17.8	101	284	3.46	6.74	8.87	11.3	11.8	3.47	3.23	137
MAX	31	21	1130	1110	4.4	11	11	16	28	9.5	3.8	1160
MIN	8.8	13	12	3.6	2.9	3.2	8.0	9.0	3.6	2.7	2.4	3.6
AC=FT	770	1060	6230	17460	199	414	528	696	704	214	198	8160

CAL YR 1975 TOTAL 21241.0 MEAN 58.2 MAX 1130 MIN 8.8 AC=FT 42130
WTR YR 1976 TOTAL 18465.1 MEAN 50.5 MAX 1160 MIN 2.4 AC=FT 36630

ARKANSAS RIVER BASIN

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07239000 NORTH CANADIAN RIVER AT CANTON, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-59, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1954.

WATER TEMPERATURE: October 1951 to September 1954.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
18...	1028	9740	1240	19	1500	8.2	16.0	11	9.0	99	39	454
DEC												
17...	1028	9740	1030	13	1820	8.0	3.0	15	12.0	95	8	524
JAN												
20...	1028	9740	1345	7.6	1500	7.2	5.5	2	--	--	24	604
FEB												
18...	1028	9740	1000	3.1	1550	7.6	7.0	2	10.6	96	16	438
MAR												
09...	1028	9740	1545	6.0	1750	8.3	13.0	2	17.4	181	51	500
APR												
13...	1028	9740	1430	8.8	1650	8.4	19.5	20	10.4	124	64	470
MAY												
11...	1028	9740	1500	12	1600	8.4	22.0	14	--	--	8	477
JUN												
16...	1028	9740	1845	12	1780	8.4	26.0	18	9.0	117	26	469
JUL												
07...	1028	9740	1030	3.3	1900	8.8	25.0	2	7.8	103	93	515
AUG												
04...	1028	9740	1530	2.7	1600	7.9	25.0	6	8.2	106	20	409
SEP												
08...	1028	9740	1500	7.1	1650	8.2	25.0	17	7.5	97	22	484

ARKANSAS RIVER BASIN

07239000 NORTH CANADIAN RIVER AT CANTON, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	TOTAL FLUG- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
18...	115	258	47	158	8.3	--	.7	829	1.7	.04	4
DEC											
17...	100	296	48	160	8.3	234	.6	965	1.1	.10	--
JAN											
20...	160	381	50	170	8.0	261	.7	1074	1.3	.07	--
FEB											
18...	160	276	42	140	5.4	242	1.0	--	.50	.18	6
MAR											
09...	140	290	48	140	6.6	250	.8	1150	.30	<.14	--
APR											
13...	120	290	47	160	6.3	250	.7	1020	<1.0	.17	--
MAY											
11...	123	--	49	158	7.1	214	.6	1037	1.5	.10	4
JUN											
16...	118	282	48	160	8.0	223	.8	1066	1.5	.10	--
JUL											
07...	108	265	57	203	8.2	249	.6	1250	2.1	.13	--
AUG											
04...	119	239	45	160	7.1	224	.5	1064	2.4	.20	8
SEP											
08...	115	274	54	171	9.9	216	.5	1219	2.4	.12	--
DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
18...	3	7	5	400	21	145	--	7	--	2	10
DEC											
17...	--	--	--	200	--	130	--	--	--	--	--
JAN											
20...	--	--	--	100	--	400	--	--	--	--	--
FEB											
18...	1	4	2	300	21	580	--	5	--	2	1
MAR											
09...	--	--	--	300	--	390	--	--	--	--	--
APR											
13...	--	--	--	600	--	190	--	--	--	--	--
MAY											
11...	2	9	5	200	22	170	3.6	8	<2	6	7
JUN											
16...	--	--	--	300	--	96	--	--	--	--	--
JUL											
07...	--	--	--	<100	--	73	--	--	--	--	--
AUG											
04...	2	17	4	100	18	16	<.5	10	<3	2	7
SEP											
08...	--	--	--	200	--	480	--	--	--	--	--

07239500 NORTH CANADIAN RIVER NEAR EL RENO, OK

LOCATION.--Lat 35°33'44", long 97°57'32", on east line of sec.32, T.13 N., R.7 W., Canadian County, near left bank on downstream side of pier of bridge on U.S. Highway 81, 2.0 mi (3.2 km) north of courthouse in El Reno, 2.2 mi (3.5 km) downstream from Target Creek, and at mile 307.4 (494.6 km).

DRAINAGE AREA.--13,042 mi² (33,779 km²), of which 4,899 mi² (12,688 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1902 to April 1908, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at site 1 mi (1.6 km) upstream March 1914 to March 1934 and at present site thereafter are contained in reports of U.S. Weather Bureau. Published as Canadian River (North Fork) near El Reno 1902-4.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,299.02 ft (395.941 m) above mean sea level (U.S. Weather Bureau bench mark). October 1902 to April 1908, nonrecording gage at site about 50 ft (15.2 m) downstream at different datum.

REMARKS.--Records good. Some regulation by Fort Supply Lake (see station 07236500) for period May 1942 to April 1948 and by Canton Lake (see station 07238500) thereafter.

AVERAGE DISCHARGE.--(Prior to regulation by Canton Lake) 16 years (water years 1903-7, 1938-48), 264 ft³/s (7.476 m³/s), 191,300 acre-ft/yr (236 hm³/yr); (Since regulation by Canton Lake) 28 years (water years 1949-76), 203 ft³/s (5.749 m³/s), 147,100 acre-ft/yr (181 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) Oct. 28, 1941, gage height, 15.98 ft (4.871 m); maximum gage height, 18.20 ft (5.547 m) Sept. 21, 1965; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1923, reached an elevation of 1,326.3 ft (404.256 m) above mean sea level at railroad bridge 1 mi (1.6 km) above station, from reports of U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft³/s (64.0 m³/s) June 1, gage height, 9.06 ft (2.761 m), no peak above base of 3,100 ft³/s (87.8 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	65	41	770	42	27	26	114	1550	25	2.7	2.0
2	29	90	40	807	40	27	25	90	667	24	2.6	1.3
3	29	120	37	858	39	30	24	80	307	23	2.5	.75
4	28	115	37	889	38	30	23	67	206	23	2.6	.18
5	28	105	36	915	38	28	23	58	159	21	2.7	0
6	29	115	35	899	37	27	23	55	128	21	2.6	0
7	24	107	35	905	36	26	23	52	106	19	2.0	0
8	22	100	35	900	35	29	24	48	97	17	1.6	.36
9	20	91	34	900	38	34	25	45	85	16	1.3	5.3
10	21	87	34	700	40	35	25	57	75	15	1.1	2.8
11	20	84	34	400	38	37	24	58	67	14	.83	.67
12	19	80	33	159	37	62	25	78	60	13	.61	0
13	18	78	34	120	37	56	30	76	54	12	.93	3.0
14	20	78	36	104	36	50	29	62	50	11	2.8	2.1
15	333	78	38	97	36	43	50	57	45	11	.98	1.2
16	238	80	38	89	35	40	116	55	42	12	.37	1.0
17	162	82	37	84	34	37	363	47	38	13	.27	8.3
18	113	82	38	80	32	36	398	42	42	18	.28	3.2
19	95	91	38	76	31	36	193	38	44	11	.11	1.5
20	85	102	33	75	31	34	546	34	171	9.0	.07	1.1
21	78	115	35	71	31	31	782	32	105	7.8	.13	.78
22	73	89	37	68	30	31	280	30	70	7.2	.05	.36
23	73	64	39	63	30	30	164	33	59	6.2	.33	.10
24	70	48	40	60	29	30	125	34	57	5.9	.06	.06
25	70	43	42	57	28	30	100	145	52	5.4	.10	.12
26	70	42	41	52	28	29	85	359	45	5.0	0	.71
27	68	40	41	48	28	28	75	1560	39	4.2	0	1.2
28	68	38	41	47	28	28	81	768	34	4.0	0	1.3
29	68	40	42	46	27	28	93	357	30	3.9	0	1.0
30	65	42	41	45	---	28	146	229	27	3.3	0	450
31	65	---	476	43	---	27	---	1030	---	2.9	1.3	---
TOTAL	2131	2391	1598	10427	989	1044	3946	5790	4511	383.8	30.92	490.39
MEAN	68.7	79.7	51.5	336	34.1	33.7	132	187	150	12.4	1.00	16.3
MAX	333	120	476	915	42	62	782	1560	1550	25	2.8	450
MIN	18	38	33	43	27	26	23	30	27	2.9	0	0
AC-FT	4230	4740	3170	20680	1960	2070	7830	11480	8950	761	61	973
CAL YR 1975	TOTAL	76135.00	MEAN	209	MAX	2340	MIN	18	AC-FT	151000		
WTR YR 1976	TOTAL	33732.11	MEAN	92.2	MAX	1560	MIN	.00	AC-FT	66910		

ARKANSAS RIVER BASIN

07239500 NORTH CANADIAN RIVER NEAR EL RENO, OK--Continued

PERIOD OF RECORD.--Water years 1950-51, 1953, 1955-57, 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1954 to September 1957, May 1974 to September 1975.

WATER TEMPERATURE: October 1954 to September 1957, May 1974 to September 1975.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV												
19...	1028	9740	1300	91	1720	8.4	15.0	3	--	--	27	550
DEC												
16...	1028	9740	1001	38	1720	8.2	2.0	5	16.0	124	12	580
JAN												
20...	1028	9740	1631	75	--	9.4	5.0	3	--	--	32	620
FEB												
19...	1028	9740	1301	31	1700	8.4	10.0	2	--	--	8	540
MAR												
10...	1028	9740	1500	35	1800	8.4	17.0	1	13.1	147	37	540
APR												
14...	1028	9740	1430	29	1900	8.5	26.5	8	11.1	148	30	520
MAY												
12...	1028	9740	1400	78	1600	8.4	20.5	17	--	--	16	462
JUN												
30...	1028	9740	2100	27	1720	8.7	29.0	1	6.6	88	36	727
JUL												
08...	1028	9740	0815	17	1900	8.7	23.5	2	8.5	102	35	521
AUG												
04...	1028	9740	1600	2.6	1700	8.7	33.0	2	9.1	132	31	435
SEP												
09...	1028	9740	1245	5.3	1500	8.3	19.5	3	10.6	123	27	404

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CaCO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
19...	140	440	53	167	7.1	330	--	--	.90	.21	3
DEC											
16...	120	330	54	170	6.6	230	.6	1060	1.1	.17	--
JAN											
20...	120	390	50	160	8.0	210	.7	1100	1.4	.14	--
FEB											
19...	170	310	57	140	7.2	210	.9	1340	.90	<.10	--
MAR											
10...	160	310	56	170	6.0	200	.7	1260	<.30	<.14	--
APR											
14...	130	330	58	190	6.2	270	.8	1210	<1.0	.33	--
MAY											
12...	125	268	58	178	6.9	200	.6	1104	1.2	.20	10
JUN											
30...	129	--	51	198	8.9	239	.8	1221	1.1	.20	--
JUL											
08...	109	308	57	208	7.5	245	.6	1244	1.9	.12	--
AUG											
04...	99	220	60	196	6.6	209	.3	1148	1.7	.39	6
SEP											
09...	85	199	54	180	6.8	--	.5	1091	2.7	<.08	--

ARKANSAS RIVER BASIN

377

07239500 NORTH CANADIAN RIVER NEAR EL RENO, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
19...	<10	8	<10	400	20	92	--	10	--	<10	10
DEC											
16...	--	--	--	100	--	55	--	--	--	--	--
JAN											
20...	--	--	--	<100	--	47	--	--	--	--	--
FEB											
19...	<10	4	<10	100	20	110	--	10	--	<10	<10
MAR											
10...	--	--	--	100	--	68	--	--	--	--	--
APR											
14...	--	--	--	200	--	130	--	--	--	--	--
MAY											
12...	4	9	5	300	26	165	<.5	8	<2	6	9
JUN											
30...	--	--	--	200	--	57	--	--	--	--	--
JUL											
08...	--	--	--	<100	--	79	--	--	--	--	--
AUG											
04...	2	11	5	<100	16	<5	.5	9	<3	3	6
SEP											
09...	--	--	--	100	--	152	--	--	--	--	--

ARKANSAS RIVER BASIN

07240000 LAKE HEFNER CANAL NEAR OKLAHOMA CITY, OK

LOCATION.--Lat 35°33'11", long 98°37'11", in SW 1/4 SW 1/4 sec.34, T.13 N., R.4 W., Oklahoma County, attached to left wing wall just downstream from outlet of inverted siphon, 2,600 ft (792.5 m) upstream from Lake Hefner, 3.0 mi (4.8 km) northeast of Bethany, and 7.6 mi (12.2 km) northwest of the State Capitol in Oklahoma City.

PERIOD OF RECORD.--March 1944 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,200.96 ft (336.053 m) above mean sea level. Prior to Apr. 8, 1947, nonrecording gage at site 2.7 mi (4.3 km) upstream at different datum. Apr. 8, 1947, to Apr. 30, 1950, water-stage recorder at site 3.0 mi (4.8 km) upstream at different datum. May 1, 1950, to May 19, 1954, water-stage recorder and concrete control at present site and datum. May 20, 1954, to Apr. 25, 1957, water-stage recorder and concrete control at site 2,500 ft (762.0 m) downstream at datum 2.80 ft (0.853 m) lower than present datum, also used as auxiliary gage after Apr. 25, 1957.

REMARKS.--Records good. Use of canal began in March 1944. Canal diverts water from North Canadian River just upstream from Lake Overholser (station. 07240500) and delivers water to Lake Hefner, capacity, 80,600 acre-ft (99.4 hm³), for municipal water supply of Oklahoma City. Subsequent to April 1950, small ground-water seepage, when head gates are closed, included in records.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,500 ft³/s (42.5 m³/s) May 28, 1955; no flow at times in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.17	0	0	90	887	0		
2				393	.18	0	0	121	838	0		
3				955	.21	0	0	138	70	1.3		
4				933	.08	0	0	135	231	.94		
5				961	.18	0	0	125	187	.02		
6				946	.06	0	0	40	160	0		
7				436	.19	0	0	17	70	0		
8				.93	.27	0	0	7.0	4.5	0		
9				.72	.16	0	0	2.5	3.2	0		
10				1.5	.16	0	0	1.2	2.5	0		
11				1.2	.12	0	0	.19	2.0	0		
12				1.2	.16	.05	0	.51	1.6	0		
13				1.2	.08	0	0	.39	1.3	0		
14				1.1	.01	0	0	.15	1.2	0		
15				1.1	0	0	0	.14	.89	0		
16				.95	0	0	0	.10	1.2	.53		
17				.85	0	0	0	.01	.78	.01		
18				.80	0	0	0	0	1.0	0		
19				.53	0	0	450	0	.84	0		
20				.59	0	0	318	0	.88	0		
21				.54	0	0	486	0	.72	0		
22				.59	0	0	482	0	.79	0		
23				.51	0	0	214	0	.78	0		
24				.37	0	0	150	0	1.1	0		
25				.31	0	0	109	0	.76	0		
26				.37	0	0	110	194	.70	0		
27				.34	0	0	81	755	.50	0		
28				.32	0	0	85	803	.28	0		
29				.15	0	0	86	445	.04	0		
30				.20	---	0	88	329	0	0		
31		---		.19	---	0	---	293	---	0		---
TOTAL	0	0	0	4640.56	2.03	.05	2659	3497.19	2470.56	2.80	0	0
MEAN	0	0	0	150	.070	.002	88.6	113	82.4	.090	0	0
MAX	0	0	0	961	.27	.05	486	803	887	1.3	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC=FT	0	0	0	9200	4.0	.10	5270	6940	4900	5.6	0	0
CAL YR 1975	TOTAL	8388.48	MEAN 23.0	MAX 1300	MIN 0	AC=FT 16640						
WTR YR 1976	TOTAL	13272.19	MEAN 36.3	MAX 961	MIN 0	AC=FT 26330						

ARKANSAS RIVER BASIN

379

07240500 LAKE OVERHOLSER NEAR OKLAHOMA CITY, OK

LOCATION.--Lat 35°29'11", long 97°39'58", on north line of SW 1/4 sec.30, T.12 N., R.4 W., Oklahoma County, at control tower at left end of dam on North Canadian River, 2.9 mi (4.7 km) upstream from Mustang Creek, 9.0 mi (14 km) west of State Capitol in Oklahoma City, and at mile 281.5 (452.9 km).

DRAINAGE AREA.--13,221 mi² (34,242 km²), of which 4,899 mi² (12,688 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Oklahoma City Water Department). Prior to Oct. 1, 1955, at same site at datum 1,065.77 ft (324.847 m) elevation. Oct. 1, 1955, to Sept. 30, 1962, water-stage recorder at same site and present datum.

REMARKS.--Reservoir is formed by Ambursen-type dam flanked by long earth-fill sections. Storage began in 1917. Dam was partly washed out in 1923 and rebuilt in 1924. Capacity, 17,100 acre-ft (21.1 hm³) below elevation 1,242.27 ft (378.644 m), top of spillway gates. Dead storage, 1,400 acre-ft (1.73 hm³) below elevation 1,229.77 ft (374.834 m), sill of outlet work. Figures given herein represent total contents. Water diverted for municipal water supply by Oklahoma City. Revised capacity table used since Oct. 1, 1950.

COOPERATION.--Elevations and capacity table furnished by Oklahoma City Water Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 20,900 acre-ft (25.8 hm³) June 14, 1944, elevation, 1,242.67 ft (378,766 m), from capacity table then in use; minimum observed, 1,870 acre-ft (2.31 hm³) May 14, 1955, elevation, 1,230.62 ft (375.093 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,700 acre-ft (20.6 hm³) Feb. 15, elevation, 1,242.00 ft (378.562 m); minimum, 4,880 acre-ft (6.02 hm³) Sept. 30, elevation, 1,233.90 ft (376.093 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-ft)
Sept. 30	1,238.80	11,820	--
Oct. 31	1,237.65	10,080	-1,740
Nov. 30	1,236.80	8,840	-1,240
Dec. 31	1,236.15	7,910	-930
CAL YR 75	--	--	-5,810
Jan. 31	1,241.50	15,940	+8,030
Feb. 28	1,240.90	15,020	-920
Mar. 31	1,240.40	14,250	-770
Apr. 30	1,240.25	14,020	-230
May 31	1,240.70	14,710	+690
June 30	1,240.00	13,640	-1,070
July 31	1,238.15	10,830	-2,810
Aug. 31	1,235.65	7,200	-3,630
Sept. 30	1,233.90	4,880	-2,320
WTR YR 76	--	--	-6,940

† Elevation at 0800 on following day.

ARKANSAS RIVER BASIN

07241000 NORTH CANADIAN RIVER BELOW LAKE OVERHOLSER, NEAR OKLAHOMA CITY, OK

LOCATION.--Lat 35°28'46", long 97°39'47", in southeast corner of SW 1/4 sec.30, T.12 N., R.4 W., Oklahoma County, on left bank 200 ft (61 m) upstream from bridge on State Highway 4, 0.5 mi (0.8 km) downstream from Lake Overholser, 2.4 mi (3.9 km) upstream from Mustang Creek, 9.1 mi (14.6 km) southwest of State Capitol in Oklahoma City, and at mile 281.0 (452.1 km).

DRAINAGE AREA.--13,222 mi² (34,245 km²), of which 4,899 mi² (12,688 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1952 to September 1968, October 1969 to September 1972, October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,194.66 ft (364.132 m) above mean sea level. Prior to Oct. 1, 1961, at datum 10.00 ft (3.048 m) higher and through Mar. 24, 1971 at site 200 ft (61 m) downstream.

REMARKS.--Records fair. Some regulation by Canton Lake (station 07238500) and Lake Overholser (station 07238500) and Lake Overholser (station 07240500). Diversions above station into Lake Overholser and Lake Hefner Canal (station 07240000).

AVERAGE DISCHARGE.--22 years, 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s (360 m³/s) Nov. 3, 1974, gage height, 29.18 ft (8.894 m); no flow at times in 1952-57.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) Dec. 31, gage height, 18.54 ft (5.651 m); minimum daily, 0.94 ft³/s (0.027 m³/s) Sept. 24-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	39	40	12	28	16	32	4.0	9.0	34	4.3	1.2
2	48	38	36	6.6	17	16	31	4.1	133	33	4.6	1.2
3	48	45	38	4.9	5.6	31	30	4.2	100	33	4.2	1.1
4	47	53	38	4.2	11	48	30	4.0	9.0	33	4.1	1.2
5	44	72	39	4.2	21	51	31	3.8	9.0	33	3.9	1.3
6	41	68	39	4.9	22	40	32	4.0	8.5	33	3.8	1.2
7	40	63	37	4.7	3.2	42	34	3.4	8.5	33	3.6	1.2
8	39	61	37	4.7	2.9	43	33	3.0	8.5	33	3.5	1.1
9	38	59	36	5.2	3.1	43	32	8.5	8.5	16	3.0	1.1
10	38	53	36	5.4	4.0	41	31	29	8.5	16	2.6	1.0
11	36	50	36	5.7	4.3	36	31	29	8.0	16	2.6	.98
12	36	50	36	6.1	3.6	48	30	20	8.0	16	2.5	1.0
13	37	50	36	6.2	5.2	41	29	11	8.0	16	2.5	1.5
14	37	50	37	6.3	3.9	39	28	11	8.0	16	2.5	1.2
15	81	50	37	6.4	3.9	54	29	11	8.0	16	2.3	1.1
16	148	50	37	6.6	8.7	38	28	11	13	16	2.2	1.1
17	98	51	37	5.8	75	32	28	11	34	10	1.8	1.0
18	76	51	37	6.0	103	30	28	11	34	8.0	1.8	1.0
19	60	32	37	12	59	30	23	11	34	7.0	1.8	1.1
20	53	16	37	7.3	60	36	21	10	34	6.0	1.7	1.1
21	48	12	38	6.9	333	31	5.4	10	34	5.0	1.5	1.0
22	45	13	38	6.4	29	31	4.5	10	34	4.9	1.4	1.0
23	46	14	38	6.4	14	31	4.4	10	34	4.8	1.4	.95
24	43	13	45	7.1	3.0	31	8.1	10	34	4.4	1.3	.94
25	41	13	59	30	5.7	31	4.0	10	34	4.2	1.4	.94
26	40	12	51	12	11	53	3.4	9.9	34	4.4	1.2	.94
27	42	12	42	8.5	15	35	3.4	9.9	34	4.5	1.2	.94
28	43	9.2	43	8.1	17	34	6.1	9.7	34	4.7	1.2	1.1
29	43	12	44	7.9	17	36	5.0	9.5	34	4.7	1.2	1.0
30	41	60	45	8.1	---	35	4.0	9.5	34	4.7	1.1	5.1
31	38	---	294	59	---	33	---	9.5	---	4.7	1.3	---
TOTAL	1564	1171.2	1480	285.6	689.1	1136	639.3	312.0	831.5	475.0	73.5	36.59
MEAN	50.5	39.0	47.7	9.21	30.7	36.6	21.3	10.1	27.7	15.3	2.37	1.22
MAX	148	72	294	59	333	54	34	29	133	34	4.6	5.1
MIN	36	9.2	36	4.2	2.9	16	3.4	3.0	8.0	4.2	1.1	.94
AC-FT	3100	2320	2940	566	1760	2250	1270	619	1650	942	146	73

CAL YR 1975 TOTAL 96996.20 MEAN 266 MAX 2940 MIN 9.0 AC-FT 192400
WTR YR 1976 TOTAL 8893.79 MEAN 24.3 MAX 333 MIN .94 AC-FT 17640

ARKANSAS RIVER BASIN

381

07241500 NORTH CANADIAN RIVER NEAR HARRAH, OK

LOCATION.--Lat 35°30'01", long 97°11'37", in SW 1/4 NW 1/4 sec.22, T.12 N., R.1 E., Oklahoma County, near left bank on downstream side of pier of county road bridge, 2.2 mi (3.5 km) northwest of Harrah, 3.8 mi (6.1 km) downstream from Choctaw Creek, and at mile 230.0 (370.1 km).

DRAINAGE AREA.--13,501 mi² (34,968 km²), of which 4,899 mi² (12,688 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,055.60 ft (321.774 m) above mean sea level.

REMARKS.--Records good. Some regulation by Canton Lake (station 07238500) and by Lake Overholser (station 07240500), where diversions are made into Lake Hefner Canal (station 07240000). Low flow sustained by part of sewage effluent from Oklahoma City.

AVERAGE DISCHARGE.--8 years, 302 ft³/s (8.553 m³/s), 218,800 acre-ft/yr (270 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,920 ft³/s (196 m³/s) Nov. 5, 1974, gage height, 17.93 ft (5.465 m); minimum, 23 ft³/s (0.65 m³/s) Aug. 8, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,150 ft³/s (32.6 m³/s) Mar. 9, gage height, 9.56 ft (2.914 m), no peak above base of 4,000 ft³/s (113 m³/s); minimum daily, 38 ft³/s (1.08 m³/s) Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	132	132	259	132	104	147	185	194	108	68	225
2	70	130	173	298	132	106	141	169	143	110	80	130
3	70	130	149	155	134	132	132	124	128	118	87	92
4	68	138	145	134	124	388	126	114	225	122	80	80
5	64	173	155	124	110	215	122	114	147	141	71	73
6	57	405	231	120	143	187	126	110	196	104	73	62
7	59	215	149	80	171	163	128	126	145	102	98	59
8	59	165	138	73	145	365	130	110	116	102	77	64
9	57	147	136	113	114	915	128	102	108	102	66	141
10	55	136	141	169	108	365	126	104	104	102	66	151
11	52	136	139	138	106	223	122	324	100	92	70	91
12	45	130	139	120	106	217	120	227	102	80	68	73
13	38	126	139	118	108	210	132	494	96	80	66	66
14	41	126	136	116	100	196	143	253	116	82	64	163
15	153	126	126	116	102	169	139	157	185	89	62	114
16	381	120	134	112	94	163	276	132	112	274	57	91
17	317	116	136	110	94	183	223	114	98	392	59	91
18	267	118	136	110	110	159	229	114	102	143	64	80
19	206	126	134	104	253	157	208	110	128	104	64	75
20	173	305	138	102	215	153	771	104	114	92	64	68
21	161	169	134	112	187	145	400	100	106	85	64	70
22	151	153	132	108	347	145	217	100	106	82	59	73
23	147	106	138	104	285	141	165	100	110	80	55	70
24	141	94	149	104	215	141	143	194	120	78	62	70
25	139	94	257	104	163	143	126	122	219	73	87	68
26	136	98	257	100	136	141	122	151	138	68	210	66
27	132	100	200	134	124	134	118	869	116	70	92	62
28	136	94	171	114	118	155	147	338	106	73	77	64
29	134	92	167	106	112	189	455	187	104	77	70	70
30	132	91	217	106	---	231	212	229	104	85	66	71
31	132	---	179	104	---	161	---	496	---	71	78	---
TOTAL	3841	4291	4909	3867	4290	6498	5774	6173	3888	3381	2324	2673
MEAN	124	143	158	125	148	210	192	199	130	109	75.0	89.1
MAX	381	405	257	298	347	915	771	869	225	392	210	225
MIN	38	91	126	73	94	104	118	100	96	68	55	59
AC=FT	7620	8510	9740	7670	8510	12890	11450	12240	7710	6710	4610	5300

CAL YR 1975 TOTAL 169817 MEAN 465 MAX 4050 MIN 38 AC=FT 336800
WTR YR 1976 TOTAL 51909 MEAN 142 MAX 915 MIN 38 AC=FT 103000

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to current year.

WATER TEMPERATURE: October 1968 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,400 micromhos Oct. 2, 1968, Oct. 31, 1969; minimum daily, 262 micromhos June 9, 1974.

WATER TEMPERATURE: Maximum daily, 35.0°C July 11, Aug. 9, 1969; minimum, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,490 micromhos Jan. 11; minimum daily, 529 micromhos May 28.

WATER TEMPERATURE: Maximum daily, 34.0°C July 26; minimum daily, 1.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	PERCENT SATURATION (00301)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L) (00335)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L) (00310)	IMMEDIATE COLIFORM FURN PER 100 ML (31501)
UCT											
05...	1800	70	1840	8.2	--	--	--	--	--	--	--
09...	1520	70	1810	7.8	26.0	--	15.0	192	44	20	--
15...	0800	110	1820	8.2	--	--	--	--	--	--	--
23...	1500	144	1150	7.6	21.0	--	5.8	70	43	23	--
25...	0830	130	1750	8.1	--	--	--	--	--	--	--
NOV											
06...	1730	252	778	8.1	--	--	--	--	--	--	--
15...	0830	112	1860	8.0	--	--	--	--	--	--	--
20...	1600	377	1850	7.9	7.0	--	7.2	61	73	10	>80000
20...	1601	377	--	--	--	93	--	--	--	--	--
30...	0830	96	2170	8.2	--	--	--	--	--	--	--
DEC											
11...	0830	121	2020	8.0	--	--	--	--	--	--	--
16...	1030	125	1900	8.5	6.0	--	14.9	125	--	--	--
16...	1031	125	--	--	--	7	--	--	--	--	--
22...	0830	129	2230	8.4	--	--	--	--	--	--	--
27...	0800	177	1440	8.0	--	--	--	--	--	--	--
29...	1530	157	1500	8.1	5.0	--	9.6	79	32	--	--
JAN											
01...	0800	150	1610	8.5	--	--	--	--	--	--	--
07...	1400	97	2450	8.1	1.0	--	9.7	--	--	10	--
11...	0900	129	2490	7.2	--	--	--	--	--	--	--
19...	0800	112	1910	7.3	--	--	--	--	--	--	--
21...	1330	114	1750	8.2	7.0	--	9.8	83	45	8.8	4300
21...	1331	114	--	--	--	5	--	--	--	--	--
FEB											
07...	0900	145	2080	7.6	--	--	--	--	--	--	--
19...	0830	236	1700	8.5	--	--	--	--	--	--	--
19...	0835	236	--	8.9	11.0	7	14.2	135	45	26	--
19...	0836	236	--	--	--	--	--	--	--	--	--
23...	0900	242	1400	8.4	--	--	--	--	--	--	--
26...	1300	121	1520	7.9	13.0	--	9.1	91	49	--	>1600
26...	1301	121	--	--	--	17	--	--	--	--	--
MAR											
01...	0900	106	1800	8.3	--	--	--	--	--	--	--
04...	1130	387	800	8.9	9.0	--	--	--	130	38	--
10...	0900	345	534	7.8	--	--	--	--	--	--	--
19...	1415	157	1590	8.0	19.5	--	9.8	115	52	15	>8000
19...	1416	157	--	--	--	8	--	--	--	--	--
29...	0730	149	1510	8.1	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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ARKANSAS RIVER BASIN

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO3) (MG/L) (000445)	ALKA- LITY AS CACD3 (MG/L) (000410)	CARBON DIOXIDE (CO2) (MG/L) (000405)	DIS- SULVED SULFATE (SO4) (MG/L) (000945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (000940)	TOTAL FLUO- RIDE (F) (MG/L) (000951)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (TUNS PER AC-F1) (70303)	SUS- PENDE SOLIDS (MG/L) (70299)	VOLA- TILE FILT- RABLE RESIDUE (MG/L) (00520)	DIS- SOLVED NITRATE (N) (MG/L) (00618)
OCT											
05...	0	252	3.1	170	320	--	1070	1.46	--	--	--
09...	--	--	--	--	--	--	1060	1.44	28	94	2.3
15...	0	250	3.1	150	330	--	1060	1.44	--	--	--
23...	--	--	--	--	--	--	901	1.23	108	143	2.7
25...	0	240	3.7	140	310	--	1000	1.36	--	--	--
NOV											
06...	0	120	1.9	45	140	--	437	.59	--	--	--
15...	0	267	5.2	170	320	--	1100	1.50	--	--	--
20...	--	--	--	--	--	--	1120	1.52	175	171	3.8
20...	--	--	--	--	--	--	--	--	--	--	--
30...	0	262	3.2	120	450	--	1280	1.74	--	--	--
DEC											
11...	0	249	4.8	170	390	--	1170	1.59	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	.7	--	--	--	--
22...	0	257	2.0	170	440	--	1320	1.80	--	--	--
27...	0	194	3.8	150	240	--	840	1.14	--	--	--
29...	--	--	--	--	--	--	947	1.29	26	162	2.4
JAN											
01...	0	239	1.5	140	260	--	950	1.29	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
11...	0	218	27	120	560	--	1460	1.99	--	--	--
19...	0	240	23	130	350	--	1110	1.51	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	2.4
21...	--	--	--	--	--	--	.7	--	--	--	--
FEB											
07...	0	192	9.4	220	410	--	1220	1.66	--	--	--
19...	0	212	1.3	260	250	--	1060	1.44	--	--	--
19...	--	--	--	--	--	--	--	--	49	--	--
19...	--	--	--	--	--	1.0	--	--	--	--	--
23...	0	196	1.5	250	180	--	881	1.20	--	--	--
26...	--	--	--	--	--	--	941	1.28	34	236	2.5
26...	--	--	--	--	--	--	.7	--	--	--	--
MAR											
01...	0	241	2.4	170	320	--	1060	1.44	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
10...	0	109	3.4	58	56	--	305	.41	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	2.5
19...	--	--	--	--	--	--	.9	--	--	--	--
29...	0	244	3.8	220	200	--	927	1.26	--	--	--
APR											
05...	0	129	16	62	61	--	348	.47	--	--	--
06...	--	--	--	--	--	--	965	1.31	47	171	--
15...	--	--	--	140	260	--	982	1.34	--	--	--
21...	0	254	16	180	280	--	1040	1.41	--	--	--
22...	--	--	--	--	--	--	461	.63	2380	93	1.6
MAY											
04...	0	231	2.3	120	260	--	878	1.19	--	--	--
19...	--	--	--	--	--	--	--	--	49	--	--
20...	--	--	--	--	--	--	1000	1.36	50	88	1.4
21...	0	232	23	140	330	--	1040	1.41	--	--	--
28...	0	112	11	56	62	--	309	.42	--	--	--
JUN											
01...	0	128	6.3	68	94	--	415	.56	--	--	--
02...	--	--	--	--	--	--	720	.98	123	112	3.1
02...	--	--	--	--	--	--	.5	--	--	--	--
09...	6	221	1.7	130	310	--	948	1.29	--	--	--
15...	0	148	--	120	460	--	1130	1.54	--	--	--
17...	--	--	--	--	--	--	952	1.29	17	132	3.1
JUL											
05...	0	193	6.0	210	310	--	1060	1.44	--	--	--
13...	0	212	8.2	190	420	--	1260	1.71	--	--	--
16...	--	--	--	--	--	--	1100	1.50	23	186	2.7
16...	--	--	--	--	--	--	.9	--	--	--	--
25...	0	189	5.8	200	380	--	1160	1.58	--	--	--
29...	--	--	--	--	--	--	1180	1.60	17	202	2.5

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07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO3) (MG/L) (000445)	ALKA- LITY AS CACO3 (MG/L) (000410)	CARBON DIOXIDE (CO2) (MG/L) (000405)	DIS- SOLVED SULFATE (SO4) (MG/L) (000945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (000940)	TOTAL FLUO- RIDE (F) (MG/L) (000951)	DIS- SOLVED (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (TUNS PER AC-FT) (70303)	SUS- PENDE SOLIDS (MG/L) (70299)	VOLA- TILE FIL- KABLE RESIDUE (MG/L) (000520)	DIS- SOLVED NITRATE (N) (MG/L) (000618)
AUG											
01...	0	175	2.7	260	380	--	1230	1.67	--	--	--
06...	0	174	4.3	230	470	--	1340	1.62	--	--	--
11...	--	--	--	--	--	--	1170	1.59	36	--	2.6
11...	--	--	--	--	--	.5	--	--	--	--	--
26...	--	--	--	--	--	--	514	.70	57	70	.52
27...	0	111	2.7	120	180	--	616	.84	--	--	--
SEP											
04...	0	156	48	170	350	--	1030	1.40	--	--	--
10...	0	97	2.4	75	120	--	438	.60	--	--	--
16...	--	--	--	--	--	--	773	1.05	42	95	1.7
16...	--	--	--	--	--	.7	--	--	--	--	--
23...	0	131	3.2	230	460	--	1280	1.74	--	--	--
30...	--	--	--	--	--	--	1140	1.55	18	149	2.6

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (H) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
UCT										
05...	1800	70	--	--	--	--	--	--	--	--
09...	1520	70	--	--	--	--	--	--	--	--
15...	0800	110	--	--	--	--	--	--	--	--
23...	1500	144	--	--	--	--	--	--	--	--
25...	0830	130	--	--	--	--	--	--	--	--
NOV										
06...	1730	252	--	--	--	--	--	--	--	--
15...	0830	112	--	--	--	--	--	--	--	--
20...	1600	377	--	--	--	--	0	--	--	<10
20...	1601	377	--	7	--	--	--	--	57	--
30...	0830	96	--	--	--	--	6	--	--	--
DEC										
11...	0830	121	--	--	--	--	--	--	--	--
16...	1030	125	--	--	--	--	--	--	--	--
16...	1031	125	--	--	--	--	--	--	--	--
22...	0830	129	--	--	--	--	--	--	--	--
27...	0800	177	--	--	--	--	--	--	--	--
29...	1530	157	--	--	--	--	--	--	--	--
JAN										
01...	0800	150	--	--	--	--	--	--	--	--
07...	1400	97	--	--	--	--	--	--	--	--
11...	0900	129	--	--	--	--	--	--	--	--
19...	0800	112	--	--	--	--	--	--	--	--
21...	1330	114	--	--	--	--	--	--	--	--
21...	1331	114	--	--	--	--	--	--	--	--
FEB										
07...	0900	145	--	--	--	--	--	--	--	--
19...	0830	236	--	--	--	--	--	--	--	--
19...	0835	236	--	--	--	--	--	--	--	--
19...	0836	236	--	5	--	3	--	14	--	--
23...	0900	242	--	--	--	--	--	--	--	--
26...	1300	121	--	--	--	--	--	--	--	--
26...	1301	121	--	5	--	2	--	8	--	--
MAR										
01...	0900	106	--	--	--	--	--	--	--	--
04...	1130	387	--	--	--	10	--	70	--	--
10...	0900	345	--	--	--	--	--	--	--	--
19...	1415	157	0	--	2	310	--	0	--	0
19...	1416	157	--	--	--	--	--	--	--	--
29...	0730	149	--	--	--	--	--	--	--	--
APR										
05...	0900	126	--	--	--	--	--	--	--	--
06...	1130	128	--	--	--	--	--	--	--	--
15...	0800	139	--	--	--	--	--	--	--	--
21...	0730	408	--	--	--	--	--	--	--	--
22...	1300	172	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	TOTAL COPPER (CU) (UG/L) (01042)	SUS- PENDE CUPPER (CU) (UG/L) (01041)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)
NOV										
06...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
20...	--	--	7	--	30	--	5	--	560	--
20...	44	--	--	9500	--	150	--	1000	--	--
30...	--	--	--	--	--	--	--	--	--	--
DEC										
11...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	200	--	--	--	160	--	--
22...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JAN										
01...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	400	--	--	--	580	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	14	--	--	1500	--	31	--	140	--	--
23...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	7	--	--	300	--	24	--	187	--	--
MAR										
01...	--	--	--	--	--	--	--	--	--	--
04...	70	--	--	21000	--	450	--	1400	--	--
10...	--	--	--	--	--	--	--	--	--	--
19...	10	10	0	--	10	--	0	--	60	--
19...	--	--	--	200	--	--	--	230	--	--
29...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUN										
01...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	800	--	--	--	277	--	--
09...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
16...	--	--	2	--	10	--	0	--	40	--
16...	--	--	--	200	--	--	--	150	--	--
25...	--	--	--	--	--	--	--	--	--	--
29...	--	--	0	--	10	--	0	--	30	--
AUG										
01...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	9	--	--	400	--	28	--	113	--	<.5
11...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
SEP										
04...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
16...	--	--	2	--	80	--	2	--	40	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--

ARKANSAS RIVER BASIN

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)	TOTAL NICKEL (NI) (UG/L) (01067)	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL SILVER (AG) (UG/L) (01077)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	PHENOLS (UG/L) (32730)	TOTAL PCB (UG/L) (39516)	TOTAL ALDRIN (UG/L) (39330)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	20	--	--	--
20...	--	25	--	--	2	204	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
DEC										
11...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JAN										
01...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	18	--	--	3	39	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	16	--	--	3	31	--	--	--	--
MAR										
01...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	300	--	11	0	00
10...	--	--	--	--	--	--	--	--	--	--
19...	4	--	4	--	--	--	10	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUN										
01...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	0	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	0	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CHLOR- DANE (UG/L) (39350)	TOTAL DDD (UG/L) (39360)	TOTAL DDE (UG/L) (39365)	TOTAL DDT (UG/L) (39370)	TOTAL D1- ELDRIN (UG/L) (39380)	TOTAL ENDRIN (UG/L) (39390)	TOTAL ETHION (UG/L) (39398)	TOTAL HEPTA- CHLOR (UG/L) (39410)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L) (39420)	TOTAL LINDANE (UG/L) (39340)
APR										
05...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUN										
01...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
SEP										
04...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL METHYL TRI- THION (UG/L) (39790)	TOTAL TOX- APHENE (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)	TOTAL PHYTO- PLANK- TON (CELLS PER ML) (60050)	CHLORO- PHYLL A (UG/L) (32230)	CHLORO- PHYLL B (UG/L) (32231)
OCT									
05...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	23.0	5.20
15...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	31000	31.0	5.60
25...	--	--	--	--	--	--	--	--	--
NOV									
06...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	52000	--	--
20...	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--
DEC									
11...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	6700	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 23	1500	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyceae			
		Pediastrum	2,300	7	
		Occystaceae			
		Ankistrodesmus	2,300	7	
		Scenedesmaceae			
		Scenedesmus	6,900	22	
		Tetrastrum	2,300	7	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	580	2	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	6,900	22	
		Melosira	4,000	13	
		Pennales			
		Achnanthaceae			
		Cocconeis	580	2	
		Fragilariaceae			
		Fragilaria	580	2	
		Naviculaceae			
		Navicula	580	2	
		Nitzschiaceae			
		Nitzschia	3,500	11	
		Surirellaceae			
		Surirella	580	2	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Gomphosphaeria		0	
		TOTAL	31,000		
Nov. 20	1600	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	1,100	2	
		Scenedesmaceae			
		Crucigenia	2,200	4	
		Scenedesmus	2,200	4	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	2,800	5	
		Melosira	3,900	7	
		Pennales			
		Fragilariaceae			
		Synedra	1,100	2	
		Gomphonemataceae			
		Gomphonema	550	1	
		Naviculaceae			
		Amphiprora		0	
		Gyrosigma		0	
		Navicula	2,800	5	
		Nitzschiaceae			
		Nitzschia	24,000	47	
		Surirellaceae			
		Surirella		0	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Anabaena	11,000	21	
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		TOTAL	52,000		

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Dec. 29	1530	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	570	9	
		Oocystis	760	11	
		Selenastrum	95	1	
		Scenedesmaceae			
		Scenedesmus	1,100	17	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	190	3	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	2,500	37	
		Pennales			
		Gomphonemataceae			
		Gomphonema	190	3	
		Naviculaceae			
		Navicula	190	3	
		Nitzschiaceae			
		Nitzschia	670	10	
		Surirellaceae			
		Cymatopleura	95	1	
		Surirella	95	1	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	95	1	
		Trachelomonas	95	1	
		TOTAL	6,700		
Jan. 21	1330	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	2,300	22	
		Occystaceae			
		Ankistrodesmus	270	3	
		Kirchneriella	320	3	
		Oocystis	220	2	
		Scenedesmaceae			
		Crucigenia	860	8	
		Scenedesmus	810	8	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	490	5	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	700	7	
		Pennales			
		Fragilariaceae			
		Synedra	54	1	
		Gomphonemataceae			
		Gomphonema	54	1	
		Naviculaceae			
		Navicula	270	3	
		Tropidoneis	54	1	
		Nitzschiaceae			
		Nitzschia	920	9	
		Surirellaceae			
		Surirella	160	2	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	810	8	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,700	17	
		Rivulariaceae			
		Raphidiopsis		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	160	2	
		Phacus	54	1	
		TOTAL	10,000		

ARKANSAS RIVER BASIN

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Feb. 19	0830	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	3,500	6	
		Selenastrum	4,200	7	
		Scenedesmaceae			
		Scenedesmus	3,100	6	
		Tetrastrum	1,400	2	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	1,400	2	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	12,000	22	
		Melosira	700	1	
		Pennales			
		Naviculaceae			
		Navicula	2,400	4	
		Nitzschiaceae			
		Nitzschia	3,100	6	
		Surirellaceae			
		Surirella	350	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	23,000	41	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	700	1	
		TOTAL	56,000		
Feb. 26	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	14,000	32	
		Occystaceae			
		Ankistrodesmus	1,900	4	
		Dictyosphaerium	770	2	
		Kirchneriella	380	1	
		Selenastrum	380	1	
		Scenedesmaceae			
		Crucigenia		0	
		Scenedesmus	960	2	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	380	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	22,000	50	
		Pennales			
		Fragilariaceae			
		Synedra		0	
		Naviculaceae			
		Navicula	580	1	
		Nitzschiaceae			
		Nitzschia	1,200	3	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	1,500	3	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	380	1	
		TOTAL	45,000		

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Mar. 4	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Scenedesmaceae			
		Scenedesmus		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Pennales			
		Cymbellaceae			
		Epithemia		0	
		Gomphonemataceae			
		Gomphonema		0	
		Naviculaceae			
		Amphiprora		0	
		Caloneis	510	2	
		Gyrosigma	510	2	
		Navicula	6,200	27	
		Nitzschaceae			
		Nitzschia	13,000	58	
		Surirellaceae			
		Surirella	2,100	9	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	510	2	
		TOTAL	23,000		
Mar. 19	1415	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Golenkinia		0	
		Micractinium	110,000	86	
		Occystaceae			
		Ankistrodesmus	3,900	3	
		Scenedesmaceae			
		Scenedesmus	3,000	2	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	3,900	3	
		Pennales			
		Naviculaceae			
		Navicula		0	
		Stauroneis		0	
		Nitzschaceae			
		Nitzschia		0	
		Surirellaceae			
		Cymatopleura		0	
		Surirella		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	2,600	2	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria		0	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena	3,000	2	
		TOTAL	120,000		
Apr. 22	1300	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	300	7	
		Scenedesmaceae			
		Actinastrum	460	10	
		Scenedesmus	460	10	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	230	5	
		Melosira	230	5	

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Apr. 22	1300	Pennales			Sediment sampler
		Achnanthaceae			
		Cocconeis	76	2	
		Cymbellaceae			
		Amphora	76	2	
		Fragilariaceae			
		Synedra		0	
		Gomphonemataceae			
		Gomphonema	150	3	
		Naviculaceae			
		Navicula	530	12	
		Nitzschaceae			
		Nitzschia	1,500	33	
		Surirellaceae			
		Surirella	530	12	
		TOTAL	4,600		
May 20	1230	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Micractiniaceae			
		Micractinium	32,000	26	
		Occystaceae			
		Ankistrodesmus	9,300	8	
		Chodatella	2,000	2	
		Dictyosphaerium	4,900	4	
		Kirchneriella	4,700	4	
		Oocystis	2,700	2	
		Scenedesmaceae			
		Actinastrum	3,000	2	
		Scenedesmus	27,000	22	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	11,000	9	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	14,000	12	
		Rhizosoleniaceae			
		Rhizosolenis		0	
		Pennales			
		Nitzschaceae			
		Nitzschia	6,900	6	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	2,000	2	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	1,700	1	
		EUGLENOPHYTA			
		Cryptophyceae			
		Cryptomonadales			
		Cryptomonadaceae			
		Cryptomonas		0	
		EUGLENOPHYCEAE			
		Euglenales			
		Euglenaceae			
		Euglena	1,200	1	
		TOTAL	120,000		
June 3	1030	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	3,500	4	
		Chodatella	670	1	
		Kirchneriella	840	1	
		Oocystis	2,400	3	
		Quadricoccus	3,400	4	
		Scenedesmaceae			
		Actinastrum	1,300	2	
		Scenedesmus	22,000	27	
		Tetrastrum	670	1	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	4,200	5	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	26,000	32	
		Melosira	5,100	6	

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
June 3	1030	Pennales			Sediment sampler
		Nitzschiaceae			
		Nitzschia	1,300	2	
		Xanthophyceae			
		Heterococcales			
		Centritractaceae			
		Centritractus		0	
		Chlorotheciaceae			
		Ophiocytium		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	1,900	2	
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya	4,200	5	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Trachelomonas	2,400	3	
July 29	1100	TOTAL	80,000		Sediment sampler
		CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	570	1	
		Micractiniaceae			
		Micractinium	8,800	8	
		Occystaceae			
		Ankistrodesmus	25,000	22	
		Dictyosphaerium	7,700	7	
		Kirchneriella		0	
		Polydriopsis	570	1	
		Tetraedron		0	
		Westella	1,100	1	
		Scenedesmaceae			
		Actinastrum	1,100	1	
		Scenedesmus	23,000	20	
		Tetrasporales			
		Palmellaceae			
		Sphaerocystis	3,400	3	
		Volvocales			
		Volvocaceae			
		Pandorina		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	5,100	5	
		Pennales			
		Nitzschiaceae			
		Nitzschia	2,300	2	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	11,000	10	
		Oscillatoriales			
		Oscillatoriaceae			
		Oscillatoria	23,000	20	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Trachelomonas		0	
		TOTAL	110,000		
Aug. 11	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum	10,000	6	
		Hydrodictyaceae			
		Pediastrum		0	
		Micractiniaceae			
		Micractinium	14,000	8	
		Occystaceae			
		Ankistrodesmus	58,000	32	
		Dictyosphaerium	20,000	11	
		Kirchneriella	1,700	1	

ARKANSAS RIVER BASIN

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Aug. 11	1130	Oocystis	3,400	2	Sediment sampler
		Tetraedron	1,300	1	
		Scenedesmaceae			
		Scenedesmus	32,000	18	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Melosira		0	
		Pennales			
		Achnanthaceae			
		Cocconeis		0	
		Nitzschiaceae			
		Nitzschia		0	
		Xanthophyceae			
		Heterococcales			
		Chlorotheciaceae			
		Ophiocytium		0	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	10,000	6	
		Anacystis	28,000	15	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Euglena		0	
		Trachelomonas		0	
Sept. 16	1140	TOTAL	180,000		Sediment sampler
		CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus		0	
		Scenedesmaceae			
		Crucigenia	7,700	5	
		Scenedesmus	2,400	1	
		Volvocales			
		Volvocaceae			
		Gonium	4,800	3	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	6,000	4	
		Pennales			
		Naviculaceae			
		Gyrosigma		0	
		Navicula	890	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	3,000	2	
		Oscillatoriales			
		Nostocaceae			
		Anabaena	1,200	1	
		Oscillatoriaceae			
		Oscillatoria	140,000	83	
		EUGLENOPHYTA			
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas		0	
		TOTAL	160,000		

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	2010	2160	1610	1850	1800	1440	944	702	1820	2000	1790
2	1740	2100	1820	1680	1900	1740	1540	1420	1170	1720	1860	928
3	1780	2010	1640	1670	1580	1590	1630	1240	1530	1940	2030	1480
4	1770	1990	1780	1870	1460	1200	1710	1510	1780	1530	1730	1800
5	1840	1920	1790	2060	1480	762	1720	1610	1270	1770	2040	2020
6	1860	778	1870	2070	1650	1190	1730	1680	1510	1210	2260	2070
7	1900	1400	1740	2450	2080	1420	1650	1760	1080	1770	2160	2020
8	1870	1410	1720	2440	1490	1220	1690	1690	1510	1780	1840	1890
9	1860	1550	1760	2370	1510	646	1660	1690	1630	1930	2080	1920
10	1860	1540	1830	2250	1540	534	1690	1660	1900	1960	2100	794
11	1900	1670	2020	2490	1630	839	1740	1760	1950	2000	2210	1120
12	1920	1690	2080	2320	1720	1180	1770	849	1930	1990	2100	2030
13	1970	1720	2100	1950	1750	1470	1660	921	1940	2120	2120	2100
14	2000	1770	2000	2080	1780	1380	1580	553	1960	1980	2220	1980
15	1820	1860	2140	2010	1770	1430	1640	898	1970	1980	2140	1040
16	1310	1920	2130	1880	1740	1540	1740	1310	1250	1900	---	1280
17	1180	1970	2060	2000	1780	1550	1340	1540	1620	660	2040	1540
18	969	2020	2050	1980	1820	1480	1020	1640	1810	833	2140	1800
19	1180	1920	2120	1910	1700	1560	894	1680	1830	1140	2010	1810
20	1360	1740	2200	1860	1560	1620	1040	1780	1670	1670	2200	1870
21	1280	962	2120	1860	1730	1660	560	1800	1750	1870	2190	1990
22	1400	1420	2230	1830	1730	1690	726	1730	1810	2090	2040	1870
23	1530	1600	2180	1840	1400	1600	1060	1800	1730	2090	2140	2200
24	1650	1680	2080	1890	1410	1630	1420	1800	1830	1910	2180	2020
25	1750	1860	1870	2030	1460	1650	1680	1150	1830	1940	1800	1980
26	1800	2030	1500	1900	1600	1610	1790	1270	1250	1860	1230	1930
27	1960	2060	1440	1830	1690	1680	1740	630	1660	2040	1050	1880
28	2020	2060	1640	1680	1770	1700	1720	529	1760	2060	1950	1840
29	1950	2010	1630	1650	1810	1510	1040	771	1800	1860	1830	1890
30	1980	2170	1790	1640	---	1430	642	1040	1740	2030	2200	1880
31	1950	---	1970	1930	---	974	---	586	---	1970	2060	---
MONTH	1710	1760	1920	1970	1670	1400	1440	1330	1640	1790	2000	1760
YEAR	MAX	2490	MIN	529	MEAN	1700						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.5	16.5	4.0	7.5	7.0	14.0	11.0	12.5	22.0	23.5	26.5	21.5
2	14.0	18.0	5.0	5.0	7.0	16.0	13.0	15.5	22.5	23.0	25.5	23.0
3	14.5	16.0	7.5	3.0	5.5	12.0	15.0	14.0	23.0	25.0	22.0	23.5
4	14.5	15.0	9.0	1.0	6.0	14.0	14.0	15.0	23.0	24.5	23.0	27.0
5	21.0	16.5	15.0	1.0	3.0	6.0	14.5	17.0	23.0	23.5	23.0	25.0
6	16.0	17.0	11.0	4.0	1.0	7.0	15.5	17.0	23.0	23.5	27.5	23.0
7	17.0	28.0	7.0	1.0	1.0	8.0	15.0	14.0	23.0	24.0	25.0	22.0
8	17.0	21.0	8.0	1.0	4.0	9.0	15.5	14.0	22.5	23.5	25.0	22.0
9	19.0	20.0	7.0	1.0	7.0	8.0	17.0	16.0	22.0	29.0	25.5	21.5
10	20.0	13.0	8.0	1.0	11.5	7.5	15.0	18.5	22.0	25.0	25.5	19.0
11	24.5	16.0	10.0	1.5	9.5	13.5	17.0	20.0	22.5	24.5	25.0	19.0
12	20.5	14.0	9.0	2.5	11.0	11.5	17.5	21.0	24.0	24.0	24.5	19.0
13	20.5	7.0	12.0	4.0	14.0	8.0	19.0	16.5	24.0	25.0	24.5	22.0
14	20.0	11.0	15.0	3.5	14.0	7.5	21.0	17.0	23.0	29.0	25.5	21.5
15	19.5	9.0	6.0	3.0	14.0	11.0	20.0	18.0	22.5	28.0	25.0	23.0
16	17.0	11.0	5.0	4.5	15.5	7.0	15.0	17.5	21.5	24.0	33.5	24.0
17	15.5	14.0	4.0	4.0	11.5	8.5	19.0	15.5	22.5	24.0	26.0	23.5
18	14.0	14.0	4.0	5.0	11.0	12.0	15.0	17.0	24.0	25.0	25.0	24.5
19	12.5	15.0	2.5	7.5	11.0	15.0	18.5	18.0	21.0	22.5	26.0	23.5
20	15.0	8.5	3.5	3.5	13.0	14.5	23.0	19.0	20.5	25.5	21.5	22.0
21	16.0	6.5	5.5	4.0	10.0	11.5	14.0	20.5	21.5	25.0	23.0	16.0
22	18.0	4.0	5.0	5.0	6.0	12.0	17.0	24.5	22.5	25.0	23.0	19.5
23	18.0	4.5	5.0	6.5	7.0	10.5	20.0	21.5	24.0	25.5	23.0	19.0
24	16.5	4.0	5.5	6.5	9.0	14.0	20.0	23.0	23.5	25.5	23.0	21.0
25	12.0	3.5	4.0	6.5	10.0	16.0	16.0	21.0	23.0	26.5	23.0	22.5
26	10.5	2.5	4.0	2.0	10.0	19.0	14.5	19.0	24.5	34.0	24.0	21.5
27	13.5	5.0	4.0	1.0	10.5	18.0	15.0	17.5	26.5	26.0	25.0	19.5
28	16.0	8.0	6.0	4.0	14.0	14.0	15.0	23.0	26.0	26.0	25.5	16.0
29	14.5	14.0	5.0	5.0	14.0	14.5	14.0	20.0	26.0	31.5	23.0	14.5
30	14.0	7.0	5.0	7.0	---	12.5	15.5	21.5	26.0	26.0	24.0	15.5
31	14.5	---	4.5	7.0	---	11.5	---	21.5	---	26.5	22.0	---
MONTH	16.5	12.0	6.5	4.0	9.0	11.5	16.5	18.5	23.0	25.5	24.5	21.0
YEAR	MAX	34.0	MIN	1.0	MEAN	16.0						

ARKANSAS RIVER BASIN

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OK

LOCATION.--Lat 35°15'53", long 96°12'25", in center of SW 1/4 sec.12, T.9 N., R.10 E., Hughes County, near left bank on downstream side of pier of bridge on U.S. Highway 75, 2.3 mi (3.7 km) upstream from Wewoka Creek, 2.5 mi (4.0 km) northeast of Wetumka, and at mile 84.4 (135.8 km).

DRAINAGE AREA.--14,290 mi² (37,011 km²), of which 4,899 mi² (12,688 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 977: 1942. WSP 1341: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 683.28 ft (208.264 m) above mean sea level. Prior to Jan. 19, 1939, nonrecording gage at same site and datum.

REMARKS.--Records fair. Some regulation by Lake Overholser (station 07240500) and other dams upstream.

COOPERATION.--Gage-height record and 28 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--39 years, 684 ft³/s (19.37 m³/s), 495,600 acre-ft/yr (611 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,000 ft³/s (1,870 m³/s) Apr. 15, 1945, gage height, 26.40 ft (8.047 m); no flow Aug. 27 to Oct. 11, 1954, Aug. 25 to Oct. 22, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1923 reached a stage of 26.9 ft (8.20 m), from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,420 ft³/s (210 m³/s) at 1130 Apr. 20, gage height, 9.12 ft (2.780 m), no other peak above base of 5,000 ft³/s (142 m³/s); minimum, 41 ft³/s (1.16 m³/s) Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	172	312	254	151	191	211	450	3480	200	104	92
2	223	197	274	241	150	174	226	472	1660	200	104	86
3	212	223	237	236	145	167	268	483	1050	186	102	79
4	204	219	201	234	145	171	237	360	681	178	102	76
5	204	231	183	297	145	172	197	329	509	177	98	78
6	208	365	229	271	168	171	175	319	434	174	106	122
7	212	234	237	221	175	229	175	290	382	168	101	106
8	193	234	219	207	175	477	172	271	374	165	94	85
9	197	274	220	200	173	912	168	256	338	165	87	75
10	204	378	260	220	168	1180	168	248	329	165	79	62
11	204	299	236	223	193	1070	161	244	304	165	79	58
12	197	250	214	217	205	1150	168	327	278	168	81	55
13	186	219	205	238	196	798	186	2060	262	160	81	55
14	193	208	204	238	183	620	254	937	238	157	79	77
15	212	193	204	223	177	427	254	604	246	154	74	98
16	193	193	204	198	169	346	270	829	270	186	74	89
17	190	190	204	185	169	299	234	793	274	381	70	79
18	186	182	203	178	167	268	334	498	223	634	64	71
19	219	204	194	178	165	243	1230	385	227	363	62	92
20	321	223	188	178	163	227	5760	321	215	304	57	214
21	321	234	186	175	162	226	5900	281	197	374	56	139
22	299	254	186	176	166	209	2710	264	186	258	53	110
23	262	254	186	175	239	199	1520	250	186	209	51	89
24	238	308	190	171	258	193	959	237	329	182	48	76
25	223	272	219	171	236	196	660	230	681	167	51	70
26	200	233	231	168	312	198	503	240	450	152	53	65
27	193	207	248	168	300	191	413	2240	312	139	52	64
28	204	190	259	165	257	194	375	2580	231	125	51	62
29	197	195	336	161	217	218	431	1290	223	118	60	62
30	190	255	325	161	---	242	439	1110	227	118	85	62
31	172	---	286	159	---	219	---	2210	---	110	93	---
TOTAL	6688	7090	7080	6287	5529	11577	24758	21608	14796	6402	2351	2548
MEAN	216	236	228	203	191	373	825	697	493	207	75.8	84.9
MAX	321	378	336	297	312	1180	5900	2580	3480	634	106	214
MIN	172	172	183	159	145	167	161	230	186	110	48	55
AC=FT	13270	14060	14040	12470	10970	22960	49110	42860	29350	12700	4660	5050
CAL YR 1975	TOTAL	374864	MEAN	1027	MAX	7490	MIN	172	AC=FT	743500		
WTR YR 1976	TOTAL	116714	MEAN	319	MAX	5900	MIN	48	AC=FT	231500		

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1954 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1953 to current year.

WATER TEMPERATURE: October 1953 to current year.

REMARKS---Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples at or near 5th, 15th, and 25th of the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 37,100 micromhos Dec. 31, 1954; minimum daily, 156 micromhos Nov. 1, 1972.

WATER TEMPERATURE: Maximum daily, 39.0°C July 5, 1971; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,020 micromhos Sept. 20; minimum daily, 271 micromhos Apr. 22.

WATER TEMPERATURE: Maximum daily, 27.5°C July 26, 30, Aug. 1; minimum daily, 0.0°C on several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
05...	--	--	0715	204	204	1520	8.0	--	--	--	--	--
16...	--	--	0715	193	193	1490	7.3	--	--	--	--	--
25...	--	--	0715	223	223	1210	8.3	--	--	--	--	--
NOV												
05...	--	--	0730	231	231	1600	7.8	--	--	--	--	--
15...	--	--	0730	193	193	1480	7.4	--	--	--	--	--
20...	1028	9740	0830	223	215	1610	9.1	4.0	42	12.2	96	161
25...	--	--	0730	--	286	1670	8.9	--	--	--	--	--
DEC												
05...	--	--	0730	--	179	1310	8.5	--	--	--	--	--
15...	--	--	0730	--	204	1630	8.4	--	--	--	--	--
17...	1028	9740	1400	204	--	1500	9.1	5.5	70	--	--	64
25...	--	--	0730	--	219	1620	--	--	--	--	--	--
JAN												
05...	--	--	0730	--	258	1620	8.0	--	--	--	--	--
15...	--	--	0730	--	238	1760	8.1	--	--	--	--	--
20...	1028	9740	1545	179	179	1650	8.3	7.0	22	11.8	101	28
25...	--	--	0730	--	172	1600	7.9	--	--	--	--	--
FEB												
05...	--	--	0730	--	145	1520	8.4	--	--	--	--	--
15...	--	--	0730	--	179	1480	8.2	--	--	--	--	--
18...	1028	9740	1400	167	168	1450	--	13.5	7	--	--	99
25...	--	--	0730	--	234	1730	8.3	--	--	--	--	--
MAR												
05...	--	--	0730	--	172	1330	8.0	--	--	--	--	--
15...	--	--	0730	--	450	531	7.3	--	--	--	--	--
16...	1028	9740	1450	346	338	540	--	14.0	53	10.2	105	56
25...	--	--	0700	--	197	1220	7.2	--	--	--	--	--
APR												
06...	--	--	0700	175	175	1130	8.3	--	--	--	--	--
16...	--	--	0700	270	270	1360	7.8	--	--	--	--	--
20...	1028	9740	1750	5760	5590	800	--	16.0	100	--	--	111
25...	--	--	0700	--	699	525	7.4	--	--	--	--	--
MAY												
05...	--	--	0700	--	329	933	8.0	--	--	--	--	--
13...	--	--	0700	--	3070	397	7.1	--	--	--	--	--
18...	1028	9740	1107	498	501	750	7.8	20.0	74	8.5	97	59
25...	--	--	0730	--	231	1300	--	--	--	--	--	--
JUN												
02...	--	--	0730	--	1790	284	7.8	--	--	--	--	--
13...	--	--	0730	--	266	1500	8.0	--	--	--	--	--
16...	1028	9740	1459	270	282	1400	9.6	29.0	44	9.8	129	56
21...	--	--	0730	--	200	1090	8.4	--	--	--	--	--
JUL												
05...	--	--	0730	--	179	1350	7.8	--	--	--	--	--
15...	--	--	0730	--	155	1340	7.2	--	--	--	--	--
20...	1028	9740	1200	304	270	830	9.3	30.0	115	10.7	139	26
25...	--	--	0730	--	172	1000	7.9	--	--	--	--	--
AUG												
04...	--	--	0730	--	102	1580	7.6	--	--	--	--	--
12...	1028	9740	1100	81	84	1450	8.6	28.0	27	9.0	118	13
15...	--	--	0730	--	74	2000	7.6	--	--	--	--	--
25...	--	--	0730	--	53	1800	7.7	--	--	--	--	--

ARKANSAS RIVER BASIN

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
SEP												
05...	--	--	0730	--	77	1650	8.0	--	--	--	--	--
15...	--	--	0730	--	100	1810	7.3	--	--	--	--	--
15...	1028	9740	1015	98	100	1900	8.9	23.5	32	11.1	137	78
23...	--	--	0730	--	92	882	8.0	--	--	--	--	--
DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACU3 (MG/L)	
OCT												
05...	310	100	68	34	200	58	4.9	9.0	254	0	208	
16...	310	98	73	31	170	54	4.2	9.0	258	0	212	
25...	310	90	82	26	120	45	3.0	8.6	270	0	221	
NOV												
05...	380	120	99	32	180	50	4.0	9.2	320	0	262	
15...	350	110	92	29	160	49	3.7	9.0	296	0	243	
20...	--	--	--	--	--	--	--	--	--	--	--	
25...	410	120	110	33	180	48	3.9	9.3	353	0	290	
DEC												
05...	300	70	81	23	140	50	3.5	8.5	246	15	227	
15...	400	110	110	31	180	49	3.9	9.2	320	17	291	
17...	--	--	--	--	--	--	--	--	--	--	--	
25...	380	120	100	32	180	50	4.0	9.2	324	0	266	
JAN												
05...	410	140	110	32	170	47	3.7	8.3	329	0	270	
15...	400	120	110	30	200	52	4.4	8.5	343	0	281	
20...	--	--	--	--	--	--	--	--	--	--	--	
25...	370	91	100	28	180	51	4.1	8.2	334	0	274	
FEB												
05...	410	140	110	33	160	45	3.4	7.6	307	12	272	
15...	360	120	93	30	170	50	3.9	8.7	288	0	236	
18...	--	--	--	--	--	--	--	--	--	--	--	
25...	410	150	110	33	190	49	4.1	10	313	0	257	
MAR												
05...	330	98	77	34	140	47	3.3	7.5	286	0	235	
15...	160	54	46	12	45	37	1.5	4.8	135	0	111	
16...	--	--	--	--	--	--	--	--	--	--	--	
25...	290	94	64	31	150	52	3.9	7.3	236	0	194	
APR												
06...	240	80	48	28	150	57	4.3	7.5	189	0	155	
16...	340	82	85	32	150	48	3.5	8.4	320	0	262	
20...	--	--	--	--	--	--	--	--	--	--	--	
25...	150	29	41	12	45	38	1.6	4.8	150	0	123	
MAY												
05...	230	56	59	20	100	48	2.9	6.3	212	0	174	
13...	120	26	36	7.3	35	38	1.4	3.4	114	0	94	
18...	--	--	--	--	--	--	--	--	--	--	--	
25...	300	81	72	30	140	49	3.5	7.4	271	0	222	
JUN												
02...	110	15	33	6.2	15	22	.6	3.8	113	0	93	
13...	400	130	110	30	180	49	3.9	8.8	333	0	273	
16...	--	--	--	--	--	--	--	--	--	--	--	
21...	320	61	87	24	110	42	2.7	7.3	299	6	255	
JUL												
05...	290	110	70	29	170	55	4.3	9.3	227	0	186	
15...	310	110	76	28	160	52	4.0	8.9	242	0	198	
20...	--	--	--	--	--	--	--	--	--	--	--	
25...	250	68	67	21	110	48	3.0	8.0	227	0	186	
AUG												
04...	330	91	83	30	190	55	4.5	10	292	0	240	
12...	--	--	--	--	--	--	--	--	--	--	--	
15...	380	140	91	37	250	58	5.6	13	292	0	240	
25...	370	100	92	34	220	56	5.0	11	329	0	270	
SEP												
05...	310	140	73	31	210	58	5.2	12	204	0	167	
15...	320	160	72	34	240	61	5.8	13	201	0	165	
15...	--	--	--	--	--	--	--	--	--	--	--	
23...	200	83	52	18	96	49	2.9	8.2	147	0	121	

ARKANSAS RIVER BASIN

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07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SU4) (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	TOTAL FLUOR- IDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
05...	4.1	150	290	--	862	1.17	475	1.6	--	--	--
16...	21	110	260	--	829	1.13	432	1.3	--	--	--
25...	2.2	110	180	--	716	.97	431	2.5	--	2.1	--
NOV											
05...	8.1	110	280	--	905	1.23	564	1.6	--	--	--
15...	19	120	250	--	842	1.15	439	1.9	--	--	--
20...	--	--	--	.8	--	--	--	--	3.0	2.8	5
25...	.7	120	280	--	969	1.32	748	4.0	--	--	--
DEC											
05...	1.4	61	230	--	751	1.02	363	4.1	--	--	--
15...	2.3	110	290	--	953	1.30	525	4.0	--	--	--
17...	--	--	--	.2	--	--	--	--	4.9	2.1	--
25...	--	110	300	--	950	1.29	562	4.9	--	--	--
JAN											
05...	5.3	140	270	--	941	1.28	655	4.4	--	2.4	--
15...	4.4	85	340	--	1030	1.40	662	6.0	--	--	--
20...	--	--	--	.7	--	--	--	--	4.9	.82	--
25...	6.7	98	290	--	924	1.26	429	5.0	--	--	--
FEB											
05...	2.1	110	250	--	886	1.21	347	4.1	--	--	--
15...	2.9	120	260	--	843	1.15	407	3.2	--	--	--
18...	--	--	--	.9	--	--	--	--	4.1	.74	5
25...	2.5	140	290	--	1010	1.37	638	6.5	--	--	--
MAR											
05...	4.6	130	200	--	759	1.03	352	1.8	--	--	--
15...	11	46	64	--	326	.44	396	2.4	--	--	--
16...	--	--	--	.3	--	--	--	--	1.6	.99	--
25...	24	120	200	--	715	.97	380	1.5	--	--	--
APR											
06...	1.5	100	210	--	808	1.10	382	1.7	--	--	--
16...	8.1	120	210	--	795	1.08	580	2.9	--	--	--
20...	--	--	--	.2	--	--	--	--	3.9	.52	--
25...	9.6	30	67	--	306	.42	578	2.4	--	--	--
MAY											
05...	3.4	62	150	--	521	.71	463	2.9	--	--	--
13...	14	20	57	--	220	.30	1820	1.7	--	1.6	--
18...	--	--	--	.4	--	--	--	--	1.2	1.0	7
25...	--	75	230	--	765	1.04	477	2.4	--	1.1	--
JUN											
02...	2.9	14	28	--	160	.22	773	1.2	--	1.7	--
13...	5.3	89	300	--	890	1.21	639	1.5	--	1.0	--
16...	--	--	--	.4	--	--	--	--	1.4	.84	--
21...	2.0	70	190	--	627	.85	339	1.0	--	1.0	--
JUL											
05...	5.8	110	250	--	784	1.07	379	1.2	--	1.0	--
15...	24	110	240	--	763	1.04	319	1.2	--	1.2	--
20...	--	--	--	.4	--	--	--	--	3.8	.70	--
25...	4.6	80	150	--	576	.78	267	1.2	--	1.3	--
AUG											
04...	12	120	290	--	903	1.23	249	.96	--	--	--
12...	--	--	--	.4	--	--	--	--	2.6	.75	13
15...	12	170	390	--	1130	1.54	226	.94	--	--	--
25...	11	130	340	--	1030	1.40	147	.81	--	--	--
SEP											
05...	3.3	150	320	--	968	1.32	201	2.2	--	--	--
15...	16	140	370	--	1050	1.43	283	2.3	--	--	--
15...	--	--	--	.4	--	--	--	--	4.4	1.0	--
23...	2.4	100	140	--	531	.72	132	2.2	--	--	--

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1480	1560	917	1530	1630	1410	1320	1130	294	---	1570	1450
2	1530	1470	1180	1420	1560	1340	1340	1000	284	---	1520	1760
3	1540	1590	1330	1490	1600	1310	1360	1040	302	1310	1590	1550
4	1530	1650	1560	1550	1580	1290	1370	1400	677	1360	1580	1290
5	1520	1600	1310	1620	1520	1330	1370	930	562	1350	1620	1650
6	1540	1590	1510	1780	1470	1310	1130	877	647	1420	1440	1650
7	1520	1430	1530	1680	1500	1340	1070	992	732	1480	1560	1740
8	1460	1590	1780	1770	1620	1320	1200	1120	904	1460	1580	1690
9	1500	1620	1600	---	1680	1150	1270	1130	---	1510	1550	1280
10	1520	1570	1590	1670	1720	797	1300	1170	1220	1550	1560	1140
11	1610	1440	1660	1560	1750	624	1330	1230	1350	1520	1580	1540
12	1640	1150	1680	1530	1490	568	1340	867	1300	1510	1620	1550
13	1660	1280	1710	1570	1540	682	1300	397	1140	---	1560	1730
14	1630	1420	1730	1680	1630	561	1300	409	1210	---	1780	1730
15	---	1480	1630	1760	1480	531	1150	1270	1390	1340	2000	1810
16	1490	1480	1810	1940	1580	549	1360	898	1350	1510	1920	1980
17	1540	1430	1630	1830	1360	751	1270	640	1370	1490	1900	1860
18	1600	1460	---	1650	1630	951	979	780	1330	1410	1740	1500
19	1600	1490	---	1770	1620	1140	936	720	1600	949	1830	1490
20	1540	1480	1730	1720	1460	1110	438	771	1550	739	1860	2020
21	1730	1480	1600	1640	1450	1250	308	898	1600	1030	1850	927
22	1220	1550	1640	1650	1500	1240	271	1030	1530	893	1620	608
23	1290	1490	---	1650	1500	1230	308	1190	1360	898	1840	882
24	1130	1450	---	1620	1600	1230	586	1260	930	850	1800	1300
25	1210	1670	1730	1600	1730	1220	525	1300	702	1000	1800	1330
26	1290	1710	1600	1650	1550	1270	529	1350	1190	1080	1750	1650
27	1360	1630	1690	1660	1510	1260	618	1350	1330	1300	1820	1690
28	1380	1320	1630	1670	1640	1410	691	432	---	1520	1800	1690
29	1430	1190	---	1610	1420	1250	742	327	---	1560	1800	1660
30	1490	1310	1730	1580	---	1270	893	336	---	1590	1270	1700
31	1560	---	1920	1510	---	1240	---	348	---	1650	1260	---
MONTH	1480	1490	1590	1650	1560	1100	987	922	1070	1310	1680	1530
YEAR	MAX	2020	MIN	271	MEAN	1360						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	15.0	14.5	5.0	4.5	14.5	10.0	14.5	22.0	---	27.5	22.5
2	15.5	15.5	4.5	5.0	4.5	17.0	12.0	15.5	22.5	---	27.0	22.0
3	14.5	15.5	6.0	0.5	4.5	16.5	15.0	16.0	23.0	25.0	27.0	23.0
4	14.0	15.0	17.0	0.0	5.0	12.5	14.0	15.5	23.0	25.0	26.0	24.0
5	15.0	16.0	14.0	0.0	4.5	7.5	12.5	17.5	23.5	24.5	26.0	24.0
6	15.0	---	10.5	1.5	1.5	7.0	14.5	17.0	23.5	24.0	26.5	23.0
7	15.0	16.0	7.5	0.0	0.0	8.0	15.0	15.5	22.5	24.0	25.0	22.0
8	15.5	---	8.5	0.0	1.0	9.0	16.0	14.0	23.0	24.0	25.0	22.0
9	17.0	---	6.0	---	4.0	7.5	15.5	16.0	22.5	26.0	25.0	20.0
10	18.0	---	5.5	0.5	9.0	8.5	15.0	18.5	23.0	25.5	25.5	17.0
11	18.5	---	7.5	0.0	9.0	11.5	17.0	20.0	23.5	25.0	25.0	18.0
12	19.0	---	9.0	0.5	10.0	11.5	18.0	21.0	24.5	25.0	25.0	20.0
13	19.5	---	10.0	3.5	13.0	8.5	19.0	17.5	25.0	26.0	25.0	20.0
14	19.5	---	12.5	3.5	14.0	8.0	19.0	16.5	24.0	26.5	25.5	20.0
15	---	7.5	7.5	3.0	15.0	11.5	20.0	17.5	23.5	26.0	26.0	22.0
16	15.5	11.5	4.0	3.5	16.0	7.5	20.0	17.0	22.0	24.0	24.5	23.5
17	14.5	13.5	3.5	3.0	14.0	8.0	19.5	17.5	23.5	24.5	25.0	24.0
18	15.5	14.0	0.0	3.5	10.5	10.0	16.0	17.5	24.0	25.5	25.5	23.5
19	13.5	14.5	0.0	6.5	9.5	14.0	19.0	19.0	22.5	26.0	22.0	23.5
20	15.5	8.5	0.5	3.5	19.5	16.0	16.0	19.5	23.5	26.0	23.0	22.5
21	16.0	7.5	1.5	3.0	7.5	16.0	15.0	21.5	22.0	26.0	23.0	17.0
22	15.5	4.0	3.0	4.0	5.5	16.5	15.5	21.5	22.0	26.0	22.5	17.0
23	17.5	4.0	3.5	5.0	5.0	11.5	18.0	21.5	24.0	26.5	23.5	19.0
24	14.0	3.5	4.0	5.5	7.0	13.5	20.0	22.5	23.0	27.0	24.0	20.0
25	13.5	2.5	3.0	5.0	8.0	14.5	19.5	22.0	22.5	26.5	22.5	22.0
26	10.0	1.5	1.5	3.5	8.0	17.5	15.5	20.0	23.0	27.5	22.0	21.5
27	12.5	2.5	2.5	0.5	11.0	12.0	17.0	18.5	24.5	27.0	23.0	20.0
28	17.0	4.5	4.0	1.0	14.5	13.5	17.5	16.0	---	27.0	24.0	18.5
29	15.0	13.5	---	3.5	14.0	14.0	14.5	19.0	---	26.5	---	16.0
30	15.0	14.0	5.0	6.5	---	12.0	15.0	20.0	---	27.5	23.0	15.5
31	13.5	---	2.5	6.5	---	11.0	---	22.5	---	27.0	23.0	---
MONTH	15.5	---	6.0	3.0	8.5	12.0	16.5	18.5	23.0	26.0	24.5	21.0
YEAR	MAX	27.5	MIN	0.0	MEAN	15.5						

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OK

LOCATION.--Lat 35°38'58", long 97°21'00", on east line of NW 1/4 sec.31, T.14 N., R.1 W., Oklahoma County, on left bank at downstream side of county road bridge, 1.9 mi (3.1 km) southwest of Arcadia, 2.0 mi (3.2 km) upstream from Coffee Creek, and at mile 213.1 (342.9 km). Prior to Nov. 1, 1974, at site 0.3 mi (0.5 km) downstream.

DRAINAGE AREA.--105 mi² (272 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 941.65 ft (287.0 m), above mean sea level. Prior to Nov. 1, 1974 at site 0.3 mi (0.5 km) downstream at same datum.

REMARKS.--Records good. Low flow sustained by part of sewage effluent from Oklahoma City.

AVERAGE DISCHARGE.--7 years, 65.8 ft³/s (1.863 m³/s), 47,670 acre-ft/yr (58.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s (405 m³/s) Nov. 2, 1974, gage height, 27.9 ft (8.50 m) from floodmark; minimum daily, 14 ft³/s (0.40 m³/s) Oct. 30, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft³/s (33.7 m³/s) Apr. 19, gage height, 8.67 ft (2.643 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 18 ft³/s (0.51 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	26	34	40	28	24	30	71	41	24	25	56
2	29	26	33	36	29	22	30	40	37	23	24	32
3	28	28	31	35	28	89	29	34	33	22	25	30
4	28	29	31	34	28	74	29	31	31	24	26	28
5	27	60	35	36	30	37	27	29	30	30	62	27
6	27	53	31	37	36	25	27	31	52	29	35	24
7	27	45	29	36	25	24	27	28	75	28	32	26
8	27	33	32	49	27	125	26	27	48	26	30	33
9	28	32	31	40	26	128	26	25	47	25	27	123
10	27	32	31	38	26	32	26	71	38	23	26	28
11	26	31	32	36	27	23	25	40	37	24	26	22
12	26	29	29	34	23	41	25	76	29	26	26	25
13	26	30	31	32	19	24	62	114	30	26	26	88
14	29	30	29	31	19	19	33	51	65	26	26	40
15	147	30	28	31	18	23	84	38	44	200	30	25
16	59	30	30	30	18	25	77	32	39	160	28	34
17	44	29	30	29	18	23	52	29	36	100	27	94
18	39	29	28	30	19	23	58	27	42	45	26	27
19	39	64	29	30	18	23	277	26	39	35	25	21
20	35	88	29	31	19	23	188	26	33	32	25	21
21	35	41	31	29	20	22	68	25	24	31	25	19
22	35	44	31	28	18	23	48	24	19	29	24	18
23	31	34	32	29	18	23	42	46	20	28	24	18
24	26	34	46	28	19	23	42	30	61	28	40	18
25	26	33	100	27	19	27	42	27	34	27	60	20
26	26	33	75	28	20	25	39	156	24	27	27	22
27	27	32	48	29	21	25	32	91	22	26	21	21
28	27	30	43	29	21	28	123	52	21	35	20	24
29	26	31	62	30	22	70	68	42	20	30	22	24
30	27	41	57	29	---	43	47	105	25	28	20	24
31	28	---	57	29	---	32	---	53	---	26	64	---
TOTAL	1059	1107	1195	1010	659	1168	1709	1497	1096	1243	924	1012
MEAN	34.2	36.9	38.5	32.6	22.7	37.7	57.0	48.3	36.5	40.1	29.8	33.7
MAX	147	88	100	49	36	128	277	156	75	200	64	123
MIN	26	26	28	27	18	19	25	24	19	22	20	18
AC-FT	2100	2200	2370	2000	1310	2320	3390	2970	2170	2470	1830	2010
CAL YR 1975	TOTAL	32472	MEAN 89.0	MAX 1950	MIN 23	AC-FT 64410						
WTR YR 1976	TOTAL	13679	MEAN 37.4	MAX 277	MIN 18	AC-FT 27130						

ARKANSAS RIVER BASIN
07242350 DEEP FORK NEAR ARCADIA, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURE: October 1969 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,330 micromhos Nov. 19, 1975; minimum daily, 198 micromhos June 8, 1974.

WATER TEMPERATURE: Maximum daily, 29.0°C June 17-18, 1970, July 18-19, 1974, July 21, 23, Aug. 21, 1975; minimum, 0.0°C on several days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,330 micromhos Nov. 19; minimum daily, 389 micromhos July 16.

WATER TEMPERATURE: Maximum daily, 28.0°C July 26, 30, Aug. 10, 13, 20; minimum daily, 0.0°C Jan. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT											
10...	--	--	1135	--	30	1560	7.1	--	--	--	--
15...	--	--	1030	--	137	736	7.7	--	--	--	--
26...	--	--	0900	--	30	1240	7.9	--	--	--	--
NOV											
05...	--	--	1130	--	36	1175	7.8	17.0	--	12.5	132
05...	1028	9740	1131	--	36	1175	7.8	17.0	10	12.5	132
09...	--	--	0900	--	36	1350	7.6	--	--	--	--
18...	--	--	1300	--	30	1450	7.7	18.5	--	7.7	88
19...	--	--	1000	--	36	2330	7.2	--	--	--	--
20...	--	--	1000	--	78	576	7.7	--	--	--	--
DEC											
02...	--	--	1100	--	37	1300	7.5	--	--	--	--
03...	--	--	0830	--	33	1515	7.7	7.5	--	9.5	83
03...	1028	9740	0831	--	33	1515	7.7	7.5	6	9.5	83
15...	--	--	1000	28	--	1400	7.2	--	--	--	--
25...	--	--	0900	--	100	660	7.4	--	--	--	--
JAN											
10...	--	--	0900	38	--	1220	6.9	5.0	--	--	--
13...	--	--	1300	--	31	1450	7.8	12.0	--	8.9	88
13...	1028	9740	1301	--	31	1450	7.8	12.0	4	8.9	88
15...	--	--	0930	--	36	1350	7.4	--	--	--	--
24...	--	--	0900	--	46	1460	6.9	--	--	--	--
FEB											
05...	--	--	1000	--	28	1200	8.2	--	--	--	--
06...	--	--	1100	--	42	1620	8.2	--	--	--	--
06...	--	--	1200	--	38	1100	7.1	4.5	--	16.5	133
17...	1028	9740	1101	18	--	1250	8.0	11.0	6	11.6	114
29...	--	--	0900	--	25	1350	8.3	--	--	--	--
MAR											
05...	--	--	1100	37	--	1200	8.2	8.5	--	11.8	107
10...	--	--	1000	--	35	1000	7.0	--	--	--	--
11...	1028	9740	1001	23	--	900	8.5	14.0	--	--	--
21...	--	--	0900	--	27	1380	7.5	--	--	--	--
26...	--	--	1000	--	29	1680	7.6	--	--	--	--
APR											
07...	--	--	1200	--	31	1520	6.8	--	--	--	--
15...	--	--	1100	--	39	1240	6.7	--	--	--	--
20...	--	--	0900	--	219	486	6.9	--	--	--	--
29...	--	--	0945	--	57	700	7.9	13.5	--	9.0	91
29...	1028	9740	0946	--	57	700	7.9	13.5	60	9.0	91

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
MAY											
20...	--	--	1200	--	28	1200	--	20.5	--	6.7	79
21...	--	--	1100	--	30	1280	7.0	--	--	--	--
27...	--	--	1000	--	51	504	7.3	--	--	--	--
27...	--	--	1200	--	32	580	6.9	16.0	--	7.5	82
27...	1028	9740	1201	--	32	580	6.9	16.0	71	7.5	82
29...	--	--	0900	--	45	1150	6.8	--	--	--	--
JUN											
05...	--	--	0900	--	33	1290	7.0	--	--	--	--
07...	--	--	1100	--	60	718	7.8	--	--	--	--
19...	--	--	0930	--	45	1130	6.9	--	--	--	--
21...	--	--	1300	--	27	1200	8.2	23.5	--	12.3	146
21...	1028	9740	1301	--	27	1200	8.2	23.5	7	12.3	146
JUL											
06...	--	--	1100	29	--	1130	7.1	--	--	--	--
12...	--	--	1300	26	--	1250	7.7	27.5	--	10.4	--
12...	1028	9740	1301	26	--	1250	7.7	27.5	13	10.4	135
16...	--	--	1000	160	--	389	7.6	--	--	--	--
28...	--	--	1000	35	--	1330	6.7	--	--	--	--
AUG											
02...	--	--	1200	24	--	883	8.0	--	--	--	--
11...	--	--	0900	26	--	1300	7.9	24.5	--	7.4	94
11...	1028	9740	0901	26	--	1300	7.9	24.5	8	7.4	94
12...	--	--	1000	26	--	1600	6.8	--	--	--	--
15...	--	--	0900	30	--	1360	6.9	--	--	--	--
SEP											
03...	--	--	1100	--	34	1520	7.4	--	--	--	--
14...	--	--	1000	--	42	761	7.7	--	--	--	--
16...	--	--	1400	--	26	1400	7.9	26.0	--	8.4	105
16...	1028	9740	1401	--	26	1400	7.9	26.0	37	8.4	105
24...	--	--	1100	--	21	1210	7.1	--	--	--	--

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)
OCT											
10...	--	--	280	130	61	31	190	58	4.9	12	189
15...	--	--	210	46	48	21	65	40	2.0	7.5	195
26...	--	--	280	94	59	32	130	49	3.4	12	226
NOV											
05...	40	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	270	100	56	31	170	56	4.5	12	210
18...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	360	190	78	41	320	65	7.3	14	207
20...	--	--	160	43	36	16	53	41	1.8	7.2	137
DEC											
02...	--	--	260	93	56	29	150	54	4.1	11	203
03...	64	--	--	--	--	--	--	--	--	--	--
03...	--	53	--	--	--	--	--	--	--	--	--
15...	--	--	290	110	63	32	160	53	4.1	11	224
25...	--	--	180	52	44	18	58	40	1.9	6.4	161
JAN											
10...	--	--	280	110	57	34	120	47	3.1	11	212
13...	37	--	--	--	--	--	--	--	--	--	--
13...	--	75	--	--	--	--	--	--	--	--	--
15...	--	--	290	110	60	34	150	52	3.8	11	225
24...	--	--	290	120	62	33	160	53	4.1	12	213
FEB											
05...	--	--	280	130	57	34	150	52	3.9	11	191
06...	--	--	350	170	74	39	190	54	4.5	10	218
06...	70	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	290	120	60	35	160	53	4.1	12	209
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	280	110	60	31	110	45	2.9	8.0	204
11...	34	--	--	--	--	--	--	--	--	--	--
21...	--	--	300	130	60	36	160	53	4.0	12	207
26...	--	--	330	170	69	39	210	57	5.0	12	200
APR											
07...	--	--	300	140	61	36	190	57	4.8	12	201
15...	--	--	280	120	56	34	140	51	3.6	11	194
20...	--	--	150	34	38	14	34	32	1.2	5.0	145
29...	62	--	--	--	--	--	--	--	--	--	--
29...	--	62	--	--	--	--	--	--	--	--	--
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	300	120	61	37	140	49	3.5	11	226
27...	--	--	150	38	35	15	43	38	1.5	4.9	135
27...	41	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	280	120	59	32	120	47	3.1	10	194
JUN											
05...	--	--	290	160	64	32	130	48	3.3	13	157
07...	--	--	190	86	46	19	65	41	2.0	6.8	131
19...	--	--	260	120	57	29	130	51	3.5	11	175
21...	30	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
JUL											
06...	--	--	250	110	54	27	130	52	3.6	12	163
12...	56	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	120	27	32	10	30	34	1.2	4.3	115
28...	--	--	230	99	50	26	170	60	4.9	14	162
AUG											
02...	--	--	180	95	46	17	100	53	3.2	8.2	109
11...	74	--	--	--	--	--	--	--	--	--	--
11...	--	51	--	--	--	--	--	--	--	--	--
12...	--	--	260	140	59	27	220	63	6.0	16	140
15...	--	--	240	98	54	25	180	61	5.1	14	170
SEP											
03...	--	--	230	130	53	23	210	65	6.1	13	124
14...	--	--	160	82	38	16	86	52	3.0	7.4	96
16...	42	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	230	120	49	25	150	57	4.4	14	127

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CAR- BONATE (CO3) (MG/L)	ALKA- LINIT AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)
OCT											
10...	0	155	24	120	280	--	881	1.20	71.4	13	--
15...	0	160	6.2	74	86	--	399	.54	148	1.1	--
26...	0	185	4.6	110	170	--	707	.96	57.3	11	--
NOV											
05...	--	--	--	--	--	--	--	--	--	.73	--
05...	--	--	--	--	--	.6	--	--	--	--	19
09...	0	172	8.4	120	230	--	773	1.05	75.1	11	--
18...	--	--	--	--	--	--	--	--	--	--	--
19...	0	170	21	120	540	--	1320	1.80	128	11	--
20...	0	112	4.4	59	66	--	342	.47	72.0	2.9	--
DEC											
02...	0	167	10	100	210	--	745	1.01	74.4	13	--
03...	--	--	--	--	--	--	--	--	--	.76	--
03...	--	--	--	--	--	.8	--	--	--	--	7.2
15...	0	184	23	110	220	--	786	1.07	59.4	16	--
25...	0	132	10	56	77	--	367	.50	99.1	4.7	--
JAN											
10...	0	174	43	110	160	--	715	.97	73.4	11	--
13...	--	--	--	--	--	--	--	--	--	.76	--
13...	--	--	--	--	--	.7	--	--	--	--	15
15...	0	185	14	110	200	--	791	1.08	76.9	11	--
24...	0	175	43	110	220	--	834	1.13	104	13	--
FEB											
05...	0	157	1.9	120	200	--	790	1.07	59.7	15	--
06...	0	179	2.2	140	290	--	943	1.28	107	11	--
06...	--	--	--	--	--	--	--	--	--	.92	--
17...	--	--	--	--	--	.6	--	--	--	--	16
29...	0	171	1.7	140	210	--	790	1.07	53.3	13	--
MAR											
05...	--	--	--	--	--	--	--	--	--	--	--
10...	0	167	33	110	150	--	634	.86	59.9	9.2	--
11...	--	--	--	--	--	--	--	--	--	1.1	--
21...	0	170	10	170	200	--	823	1.12	60.0	12	--
26...	0	164	8.0	140	310	--	998	1.36	78.1	15	--
APR											
07...	0	165	51	150	260	--	908	1.23	76.0	14	--
15...	0	159	62	140	170	--	769	1.05	81.0	15	--
20...	0	119	29	53	44	--	272	.37	161	1.7	--
29...	--	--	--	--	--	--	--	--	--	.68	--
29...	--	--	--	--	--	.4	--	--	--	--	5.7
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	0	185	36	160	180	--	746	1.01	60.4	12	--
27...	0	111	11	52	59	--	288	.39	39.7	3.5	--
27...	--	--	--	--	--	--	--	--	--	.59	--
27...	--	--	--	--	--	.3	--	--	--	--	4.5
29...	0	159	49	150	140	--	671	.91	81.5	13	--
JUN											
05...	0	129	25	180	160	--	749	1.02	66.7	21	--
07...	0	107	3.3	93	80	--	409	.56	66.3	7.8	--
19...	0	144	35	170	150	--	658	.89	79.9	10	--
21...	--	--	--	--	--	--	--	--	--	1.9	--
21...	--	--	--	--	--	.7	--	--	--	--	7.8
JUL											
06...	0	134	21	150	150	--	665	.90	52.1	14	--
12...	--	--	--	--	--	--	--	--	--	1.3	--
12...	--	--	--	--	--	.6	--	--	--	--	13
16...	0	94	4.6	33	37	--	220	.30	95.0	1.6	--
28...	0	133	52	140	220	--	774	1.05	73.1	11	--
AUG											
02...	0	89	1.7	93	140	--	508	.69	32.9	4.9	--
11...	--	--	--	--	--	--	--	--	--	1.3	--
11...	--	--	--	--	--	.5	--	--	--	--	1.1
12...	0	115	36	180	290	--	934	1.27	65.6	13	--
15...	0	139	34	160	230	--	788	1.07	63.8	12	--
SEP											
03...	0	102	7.9	170	280	--	887	1.21	81.4	7.4	--
14...	0	79	3.1	69	120	--	443	.60	50.2	6.4	--
16...	--	--	--	--	--	--	--	--	--	1.7	--
16...	--	--	--	--	--	.6	--	--	--	--	13
24...	0	104	16	190	170	--	722	.98	40.9	.08	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

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07242350 DEEP FORK NEAR ARCADIA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL PCB (UG/L)	TOTAL ALDRIN (UG/L)	TOTAL CHLOR- DANE (UG/L)	TOTAL DDD (UG/L)	TOTAL DDE (UG/L)	TOTAL DDT (UG/L)	TOTAL DI- AZINON (UG/L)	TOTAL DI- ELDRIN (UG/L)	TOTAL ENDRIN (UG/L)	TOTAL HEPTA- CHLOR (UG/L)
OCT											
29...	1500	.0	.00	.0	.00	.00	.00	.20	.00	.00	.00
NOV											
05...	1130	.0	.00	.0	.00	.00	.00	.13	.00	.00	.00
DEC											
03...	0830	.0	.00	.0	.00	.00	.00	.39	.01	.00	.00
FEB											
06...	1200	.0	.00	.0	.00	.01	.00	.16	.01	.00	.00
MAR											
11...	1000	.0	.00	.1	.00	.00	.00	.41	.01	.00	.00
APR											
29...	--	.0	.00	.2	.00	.02	.00	.10	.03	.00	.01
MAY											
27...	1200	.0	.00	.2	.00	.00	.00	.10	.02	.00	.01
JUN											
21...	1300	.0	.00	.1	.00	.00	.00	.19	.01	.00	.00
JUL											
12...	1300	.0	.00	.1	.00	.01	.00	.41	.01	.00	.00
AUG											
11...	0900	.0	.00	.1	.00	.00	.00	.51	.01	.00	.00
SEP											
16...	1400	.0	.00	.0	.00	.00	.00	.11	.01	.00	.00

DATE	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	TOTAL LINDANE (UG/L)	TOTAL MALA- THION (UG/L)	TOTAL METHYL PARA- THION (UG/L)	TOTAL METHYL TRI- THION (UG/L)	TOTAL PARA- THION (UG/L)	TOTAL TOX- APHENE (UG/L)	TOTAL TRI- THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
UCT											
29...	.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
NOV											
05...	.00	.00	.00	.00	.00	.00	0	.00	.05	.02	.00
DEC											
03...	.00	.02	.00	.00	.00	.00	0	.00	.03	.13	.00
FEB											
06...	.00	.01	.13	.00	.00	.00	0	.00	.22	.02	.02
MAR											
11...	.00	.00	.00	.00	.00	.00	0	.00	.13	.02	.06
APR											
29...	.01	.01	.00	.00	.00	.00	0	.00	.00	.04	.10
MAY											
27...	.01	.01	.01	.00	.00	.00	0	.00	.06	.21	.06
JUN											
21...	.00	.00	.00	.00	.00	.00	0	.00	.01	.01	.00
JUL											
12...	.01	.04	.00	.00	.00	.00	0	.00	.08	.07	.00
AUG											
11...	.01	.03	.00	.00	.00	.00	0	.00	.05	.06	.00
SEP											
16...	.00	.01	.00	.00	.00	.00	0	.00	.00	.00	.00

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1390	1140	1320	1430	1320	1370	1040	1100	1090	1400	729
2	1330	1390	1300	1250	1340	1230	1420	1070	1160	1140	883	1330
3	1300	1300	1350	1240	1380	1260	1490	1180	1190	1150	1190	1520
4	1330	1360	1260	1270	1320	868	1360	1330	1200	469	1410	1470
5	1220	1100	1250	1310	1200	---	1430	1240	1290	791	1530	1780
6	1520	805	1230	1240	1620	1210	1360	1190	1240	1130	1500	1500
7	1330	986	1360	1340	1290	1220	1520	1330	718	1160	1510	1490
8	1200	1250	1330	1380	1450	1400	1420	1230	1170	1180	1470	1500
9	1200	1350	1320	1380	1320	658	1370	1210	1180	1090	1510	678
10	1560	1100	1230	1220	1330	543	1460	1160	1200	1160	1520	1000
11	1340	1120	1310	1250	1220	1040	1480	802	1220	1170	1360	1290
12	1360	1840	1360	1270	1410	1130	1420	1140	1270	1140	1600	1400
13	1210	1430	1340	1460	1360	1250	1160	529	1210	1190	1410	1380
14	1210	1460	1240	1370	1260	1480	1210	954	1100	1170	1360	761
15	736	1540	1400	1350	1290	1470	1240	1110	1090	1390	1360	1280
16	751	1350	1310	1400	1590	1260	942	1160	1180	389	1400	1280
17	1080	1170	1230	1390	1350	1570	1030	1200	1220	716	1430	499
18	1150	1420	1340	1330	1360	1510	854	1200	1240	1020	1390	1060
19	1140	2330	1260	1310	1310	1250	1130	1220	1130	1180	1380	1220
20	1200	576	1210	1350	1450	1520	486	1240	1170	1240	---	1120
21	1200	1170	1330	1440	1360	1380	819	1280	1220	1280	1390	1150
22	1150	1320	1260	1440	1340	1460	1170	1260	1160	1260	1260	1200
23	1180	1520	1300	1440	1360	1580	1200	1220	1170	1250	1160	1260
24	1190	1190	1160	1460	1350	1630	1220	1040	1050	1170	1210	1210
25	1230	1760	660	1390	1230	1320	1240	1250	793	1520	1220	1280
26	1240	1290	825	1330	1230	1680	1360	831	1020	1230	1120	1190
27	1210	1650	1020	1290	1250	1580	1390	504	1070	1340	1330	1180
28	1200	1480	---	1450	1240	1550	1070	974	1130	1330	1380	1220
29	1340	1120	---	1370	1350	1450	710	1150	1110	1280	1230	1210
30	1360	1900	1030	1400	---	1080	1130	1110	1080	1140	1240	1220
31	1400	---	1200	1290	---	1420	---	745	---	1280	1410	---
MONTH	1230	1360	1230	1350	1340	1310	1220	1090	1140	1130	1350	1210
YEAR	MAX	2330	MIN	389	MEAN	1250						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	17.0	5.0	8.0	7.0	15.0	11.0	14.0	24.0	21.0	26.0	21.0
2	15.0	19.0	9.0	5.0	8.0	17.0	17.0	16.0	23.0	25.0	26.0	21.0
3	15.0	16.0	11.0	4.0	6.0	11.0	15.0	16.0	23.0	25.0	24.0	25.0
4	14.0	16.0	12.0	3.0	6.0	8.0	17.0	17.0	24.0	25.0	24.0	25.0
5	15.0	17.0	13.0	5.0	4.0	---	13.0	18.0	21.0	22.0	24.0	25.0
6	18.0	15.0	10.0	6.0	3.0	8.0	14.0	22.0	22.0	25.0	26.0	24.0
7	11.0	16.0	6.0	1.0	3.0	8.0	15.0	16.0	23.0	22.0	24.0	24.0
8	18.0	16.0	10.0	5.0	5.0	10.0	18.0	13.0	24.0	24.0	25.0	20.0
9	20.0	19.0	10.0	2.0	11.0	11.0	16.0	15.0	25.0	27.0	22.0	22.0
10	21.0	17.0	10.0	5.0	13.0	10.0	14.0	19.0	24.0	25.0	28.0	19.0
11	21.0	16.0	12.0	4.0	12.0	15.0	18.0	18.0	25.0	24.0	26.0	20.0
12	21.0	10.0	10.0	7.0	12.0	11.0	21.0	19.0	24.0	27.0	26.0	20.0
13	22.0	9.0	12.0	6.0	15.0	7.0	20.0	17.0	24.0	27.0	28.0	22.0
14	21.0	10.0	11.0	7.0	13.0	8.0	20.0	18.0	23.0	25.0	25.0	21.0
15	19.0	10.0	6.0	6.0	12.0	13.0	19.0	17.0	24.0	21.0	26.0	24.0
16	16.0	13.0	6.0	7.0	14.0	10.0	17.0	17.0	21.0	25.0	27.0	23.0
17	15.0	16.0	5.0	6.0	13.0	16.0	17.0	18.0	24.0	24.0	27.0	23.0
18	13.0	16.0	3.0	7.0	17.0	12.0	17.0	18.0	25.0	25.0	27.0	23.0
19	12.0	17.0	5.0	9.0	11.0	17.0	20.0	19.0	21.0	22.0	24.0	22.5
20	15.0	10.0	7.0	3.0	13.0	15.0	17.0	22.0	19.0	26.0	28.0	22.0
21	18.0	6.0	3.0	7.0	7.0	10.0	16.0	23.0	23.0	27.0	23.0	23.0
22	18.0	7.0	13.0	8.0	5.0	14.0	19.0	21.0	22.0	27.0	23.0	20.0
23	19.0	3.0	9.0	10.0	10.0	14.0	21.0	21.0	25.0	27.0	26.0	20.0
24	17.0	7.0	8.0	8.0	10.0	14.0	19.0	21.0	23.0	26.0	24.0	21.0
25	12.0	6.0	7.0	8.0	11.0	14.0	15.0	19.0	24.0	23.0	23.0	23.0
26	10.0	3.0	6.0	4.0	12.0	18.0	16.0	17.0	23.0	28.0	25.0	24.0
27	15.0	4.0	3.5	2.0	14.0	11.0	17.0	18.0	25.0	27.0	27.0	20.0
28	17.0	10.0	---	6.0	14.0	14.0	15.0	20.0	27.0	27.0	25.0	16.0
29	17.0	11.0	---	7.0	14.0	15.0	---	19.0	27.0	26.0	27.0	14.0
30	14.0	6.0	6.0	9.0	---	12.0	16.0	21.0	25.0	28.0	24.0	16.0
31	17.0	---	5.0	7.0	---	11.0	---	20.0	---	26.0	21.0	---
MONTH	16.5	12.0	8.0	6.0	10.0	12.5	17.0	18.5	23.5	25.0	25.0	21.5
YEAR	MAX	28.0	MIN	1.0	MEAN	16.5						

ARKANSAS RIVER BASIN

417

07243000 DRY CREEK NEAR KENDRICK, OK

LOCATION.--Lat 35°46'55", long 96°51'20", in NW 1/4 NW 1/4 sec.14, T.15 N., R.4 E., Lincoln County, near left bank on downstream side of county road bridge, 1.0 mi (1.6 km) downstream from Beaver Creek and 4.5 mi (7.2 km) west of Kendrick.

DRAINAGE AREA.--69.0 mi² (178.7 km²).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 825 ft (251.5 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--21 years, 22.6 ft³/s (0.640 m³/s), 16,370 acre-ft/yr (20.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s (510 m³/s) Nov. 2, 1974, gage height, 19.20 ft (5.852 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 799 ft³/s (22.6 m³/s) Apr. 20, gage height, 6.27 ft (1.911 m), no peak above base of 2,000 ft³/s (56.6 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4.8	7.4	6.2	4.8	5.7	7.3	19	6.3	2.0	.30	
2	3.7	4.9	7.2	5.6	4.6	5.7	7.2	14	5.9	2.1	4.2	
3	3.8	5.8	7.5	6.0	4.6	11	7.0	11	5.3	9.5	.40	
4	3.9	6.0	7.5	6.0	4.5	27	6.9	11	5.0	8.2	.09	
5	3.8	8.7	12	6.2	5.3	14	6.9	11	4.8	3.2	.03	
6	3.6	6.8	6.5	6.7	5.6	6.8	7.0	9.9	4.9	2.8	0	
7	3.5	6.6	5.4	6.5	5.7	8.0	6.9	9.2	4.8	2.8	0	
8	3.5	6.0	5.6	6.5	5.6	113	6.7	9.1	4.5	2.5	0	
9	3.4	5.9	5.4	7.0	5.5	149	6.2	9.1	4.2	2.2	0	
10	3.5	5.4	5.4	9.3	5.3	21	6.2	11	3.9	2.1	0	
11	3.5	5.7	5.4	8.5	5.8	19	6.2	9.0	3.6	2.0	0	
12	3.4	5.5	5.0	7.4	5.4	30	29	130	3.4	2.0	0	
13	3.4	5.5	5.2	6.5	5.2	12	34	53	3.3	1.8	.01	
14	3.4	5.9	5.6	5.6	4.9	11	12	19	3.3	1.7	0	
15	15	6.2	4.8	5.5	5.0	11	14	15	3.1	2.8	0	
16	6.0	6.3	4.6	5.4	5.0	9.9	11	15	3.0	2.0	0	
17	5.0	6.4	4.4	5.1	4.9	9.5	75	11	2.8	2.0	0	
18	4.7	6.5	4.4	5.3	4.7	9.2	112	9.9	2.7	.99	0	
19	4.4	11	5.2	5.3	4.6	9.2	117	9.2	2.6	.95	0	
20	4.4	11	4.8	4.7	16	8.7	284	8.7	2.3	.87	0	
21	4.4	6.9	4.6	4.8	20	7.7	41	8.6	2.2	.82	0	
22	4.3	6.6	5.4	4.9	7.7	7.7	26	8.2	2.1	.73	0	
23	4.3	6.6	5.2	5.2	6.9	7.6	20	8.0	2.2	.68	0	
24	4.2	6.7	6.0	5.1	6.7	8.0	17	7.5	3.0	.64	0	
25	3.9	6.8	8.5	4.9	6.2	8.3	15	7.4	2.5	.59	0	
26	4.3	7.1	6.5	4.7	5.7	7.9	14	14	2.2	.54	0	
27	4.6	7.7	5.6	5.0	5.8	7.0	14	13	2.2	.45	0	
28	4.5	7.4	5.6	4.9	5.9	8.3	45	8.3	2.0	.45	0	
29	4.5	8.5	6.2	4.7	5.9	9.8	20	7.2	1.8	.45	0	
30	4.4	12	6.0	4.8	---	7.4	16	7.2	1.6	.38	0	
31	4.3	---	6.2	4.9	---	7.3	---	6.8	---	.34	0	---
TOTAL	137.2	207.2	185.1	179.2	183.8	577.7	990.5	490.3	101.5	78.58	5.03	0
MEAN	4.43	6.91	5.97	5.78	6.34	18.6	33.0	15.8	3.38	2.53	.16	0
MAX	15	12	12	9.3	20	149	284	130	6.3	20	4.2	0
MIN	3.4	4.8	4.4	4.7	4.5	5.7	6.2	6.8	1.6	.34	0	0
AC=FT	272	411	367	355	365	1150	1960	973	201	156	10.0	0
CAL YR 1975 TOTAL	21406.90			MEAN 58.6	MAX 1760	MIN 3.4	AC=FT 42460					
WTR YR 1976 TOTAL	3136.11			MEAN 8.57	MAX 284	MIN 0	AC=FT 6220					

ARKANSAS RIVER BASIN

07243500 DEEP FORK NEAR BEGGS, OK

LOCATION.--Lat 35°40'15", long 96°04'08", on line between secs. 19 and 20, T.14 N., R.12 E., Okmulgee County, near left bank on downstream side of pier of county road bridge, 3.0 mi (4.8 km) upstream from Adams Creek, 4.0 mi (6.4 km) south of Beggs, 8.0 mi (12.9 km) downstream from Flat Rock (Checkerboard) Creek, and at mile 85.0 (136.8 km).

DRAINAGE AREA.--2,018 mi² (5,277 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1938 to current year.

REVISED RECORDS.--WSP 957: 1941. WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 632.55 ft (192.801 m) above mean sea level. Prior to Aug. 29, 1939, nonrecording gage at site 450 ft (137.2 m) downstream at same datum. Aug. 29, 1939, to June 22, 1953, nonrecording gage at present site and datum.

REMARKS.--Records good.

COOPERATION.--Gage-height record and 18 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--38 years, 840 ft³/s (23.79 m³/s), 608,600 acre-ft/yr (750 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,800 ft³/s (1,890 m³/s) May 11, 1943, gage height, 34.55 ft (10.531 m); no flow at times in 1939, 1954, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,320 ft³/s (236 m³/s) at 0415 Apr. 24, gage height, 21.15 ft (6.447 m), no other peak above base of 3,000 ft³/s (85.0 m³/s); minimum, 9.4 ft³/s (0.27 m³/s) Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	78	345	197	114	121	226	942	2720	85	35	33
2	78	80	364	192	113	115	208	815	2260	73	139	33
3	82	85	273	179	111	111	193	735	1920	67	580	30
4	75	86	213	171	112	115	185	636	1810	61	489	27
5	60	94	175	161	113	138	177	561	1740	64	196	27
6	53	113	168	157	114	168	165	508	1420	65	123	35
7	56	129	169	149	112	201	156	454	968	73	109	48
8	59	132	160	127	117	358	149	403	722	127	76	43
9	63	126	146	120	119	1030	140	362	579	157	61	33
10	64	127	147	124	117	1460	133	328	474	122	51	25
11	65	141	147	102	127	1310	128	302	395	91	38	20
12	64	150	146	123	132	1280	125	467	333	75	31	17
13	62	145	143	128	136	1520	131	1620	287	64	27	14
14	63	135	137	131	134	1440	177	1870	240	54	26	13
15	68	122	133	138	139	1230	266	1190	204	61	23	32
16	71	115	143	143	136	945	298	952	174	340	22	51
17	82	106	149	145	134	695	296	993	157	270	23	45
18	81	98	138	145	132	568	445	845	146	300	22	96
19	91	96	132	138	126	493	2200	701	130	267	20	103
20	99	103	122	137	121	433	3860	590	118	255	17	85
21	112	138	114	132	128	385	5430	507	112	236	14	88
22	121	136	113	126	154	336	7430	431	97	214	12	108
23	115	140	116	124	146	299	7990	371	89	178	10	98
24	109	150	124	124	133	270	8140	324	88	130	13	76
25	102	143	138	124	153	246	7240	294	130	92	21	57
26	92	141	159	122	148	235	6060	332	135	71	28	46
27	86	138	185	118	144	222	4810	2000	101	59	18	35
28	83	135	188	115	136	214	3750	2600	92	51	15	28
29	82	130	186	114	126	228	1950	2120	87	45	21	24
30	79	162	189	114	---	274	1200	1240	94	41	28	21
31	78	---	193	115	---	261	---	2140	---	38	25	---
TOTAL	2470	3674	5255	4235	3727	16701	63658	27633	17822	3826	2313	1391
MEAN	79.7	122	170	137	129	539	2122	891	594	123	74.6	46.4
MAX	121	162	364	197	154	1520	8140	2600	2720	340	580	108
MIN	53	78	113	102	111	111	125	294	87	38	10	13
AC-FT	4900	7290	10420	8400	7390	33130	126300	54810	35350	7590	4590	2760
CAL YR 1975 TOTAL	539323			1478	MAX 11200	MIN 53	AC-FT 1070000					
WTR YR 1976 TOTAL	152705			417	MAX 8140	MIN 10	AC-FT 302900					

ARKANSAS RIVER BASIN
07243500 DEEP FORK NEAR BEGGS, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1951 to current year.

WATER TEMPERATURE: November 1951 to current year.

REMARKS.--Samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples at or near 5th, 15th, and 25th of the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 10,500 micromhos Jan. 12, 1955; minimum daily, 83 micromhos June 10, 1974.

WATER TEMPERATURE: Maximum daily, 38.5°C Aug. 8, 1970; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,060 micromhos Sept. 9; minimum daily, 185 micromhos Apr. 21.

WATER TEMPERATURE: Maximum daily, 38.0°C Aug. 26; minimum daily, 2.0°C Jan. 7, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
OCT												
05...	--	--	1730	--	57	1350	8.5	--	--	--	--	--
15...	--	--	1730	--	69	1360	8.6	--	--	--	--	--
25...	--	--	1700	--	100	1270	8.2	--	--	--	--	--
NOV												
05...	--	--	1600	--	93	1260	8.3	--	--	--	--	--
12...	1028	9740	--	150	--	1300	8.3	19.0	29	--	--	36
15...	--	--	1600	--	120	1100	8.4	--	--	--	--	--
25...	--	--	1600	--	142	1500	8.2	--	--	--	--	--
DEC												
05...	--	--	1600	--	169	774	7.6	--	--	--	--	--
15...	--	--	1600	--	133	1170	8.4	--	--	--	--	--
24...	--	--	1600	--	126	1220	8.0	--	--	--	--	--
30...	1028	9740	1600	189	--	1100	8.5	8.0	6	11.6	101	42
JAN												
05...	--	--	1600	159	159	1110	8.8	--	--	--	--	--
15...	--	--	1600	140	140	1230	8.5	--	--	--	--	--
25...	--	--	1600	125	125	1260	8.3	--	--	--	--	--
27...	1028	9740	1400	118	--	900	8.3	5.0	3	--	--	32
FEB												
05...	--	--	1600	--	113	1300	8.3	--	--	--	--	--
15...	--	--	1600	--	140	1260	8.3	--	--	--	--	--
25...	1028	9740	1300	153	--	1250	8.9	10.0	5	16.2	172	59
25...	--	--	1600	--	157	1330	8.7	--	--	--	--	--
MAR												
06...	--	--	1600	--	170	1210	8.5	--	--	--	--	--
15...	--	--	1600	--	1200	534	7.7	--	--	--	--	--
24...	1028	9740	1700	270	--	940	7.8	13.0	150	8.9	88	28
25...	--	--	1600	--	242	960	8.4	--	--	--	--	--
APR												
05...	--	--	1630	--	174	1160	7.8	--	--	--	--	--
15...	--	--	1630	--	284	1200	7.9	--	--	--	--	--
25...	--	--	1630	--	7050	221	7.9	--	--	--	--	--
28...	1028	9740	1630	3660	--	420	7.3	12.5	80	7.6	75	50
MAY												
11...	--	--	1730	--	298	976	7.6	--	--	--	--	--
22...	--	--	1730	--	416	728	7.2	--	--	--	--	--
26...	1028	9740	0830	294	--	860	7.9	19.5	76	6.9	80	42
28...	--	--	1730	--	2620	242	6.9	--	--	--	--	--
JUN												
05...	--	--	1730	--	1710	348	8.2	--	--	--	--	--
15...	--	--	1730	--	204	868	8.1	--	--	--	--	--
23...	1028	9740	--	89	--	1350	7.6	25.0	27	--	--	23
25...	--	--	1730	--	187	1280	7.8	--	--	--	--	--
JUL												
05...	--	--	1730	--	64	1330	8.1	--	--	--	--	--
15...	--	--	1730	--	61	1090	7.6	--	--	--	--	--
25...	--	--	1730	--	86	647	7.9	--	--	--	--	--
28...	1028	9740	--	51	--	675	--	29.0	110	6.8	93	20
AUG												
05...	--	--	1730	--	196	488	8.0	--	--	--	--	--
10...	1028	9740	1245	51	51	590	7.4	29.0	160	5.3	71	35
15...	--	--	1730	--	22	1160	8.2	--	--	--	--	--
25...	--	--	1730	--	24	1700	7.8	--	--	--	--	--

ARKANSAS RIVER BASIN

07243500 DEEP FORK NEAR BEGGS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)
SEP												
03...	--	--	1730	--	29	1600	8.1	--	--	--	--	--
09...	--	--	1730	--	28	2060	8.0	--	--	--	--	--
14...	1028	9740	1000	13	--	1850	7.8	22.0	47	6.6	78	36
19...	--	--	1730	--	94	696	7.9	--	--	--	--	--
DATE	HARD- NFSS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LITY AS CACO3 (MG/L)	
OCT												
05...	340	51	67	43	150	48	3.5	5.3	337	10	293	
15...	330	50	63	43	150	49	3.6	5.8	326	10	284	
25...	340	59	67	42	130	45	3.1	6.3	343	0	281	
NOV												
05...	350	71	70	43	130	44	3.0	5.6	343	0	281	
12...	--	--	--	--	--	--	--	--	--	--	--	
15...	290	46	55	38	110	44	2.8	5.7	286	8	248	
25...	380	110	82	43	170	49	3.8	6.0	333	0	273	
DEC												
05...	220	44	44	26	74	42	2.2	5.2	211	0	173	
15...	320	52	65	39	110	42	2.7	5.3	308	11	271	
24...	330	56	66	41	120	43	2.9	4.8	338	0	277	
30...	--	--	--	--	--	--	--	--	--	--	--	
JAN												
05...	310	57	63	38	100	41	2.5	4.2	278	17	256	
15...	340	57	66	42	120	43	2.8	4.3	324	9	281	
25...	340	60	67	42	120	43	2.8	4.5	342	0	281	
27...	--	--	--	--	--	--	--	--	--	--	--	
FEB												
05...	350	65	66	44	120	43	2.8	5.7	342	0	281	
15...	340	68	66	42	130	45	3.1	4.9	329	0	270	
25...	--	--	--	--	--	--	--	--	--	--	--	
25...	360	65	73	43	130	44	3.0	5.4	333	13	295	
MAR												
06...	310	69	67	35	130	46	3.2	12	296	0	243	
15...	150	42	30	18	45	39	1.6	3.8	130	0	107	
24...	--	--	--	--	--	--	--	--	--	--	--	
25...	280	69	59	33	87	40	2.3	4.5	261	0	214	
APR												
05...	330	67	65	40	120	44	2.9	4.6	317	0	260	
15...	320	69	62	39	120	45	2.9	4.7	301	0	247	
25...	66	10	15	7.0	16	33	.9	3.6	69	0	57	
28...	--	--	--	--	--	--	--	--	--	--	--	
MAY												
11...	310	89	65	35	90	39	2.2	4.4	265	0	217	
22...	230	46	45	28	62	37	1.8	3.9	221	0	181	
26...	--	--	--	--	--	--	--	--	--	--	--	
28...	67	15	15	7.2	23	41	1.2	3.4	63	0	52	
JUN												
05...	110	18	26	12	25	31	1.0	3.8	118	0	97	
15...	260	62	57	29	78	39	2.1	4.9	244	0	200	
23...	--	--	--	--	--	--	--	--	--	--	--	
25...	360	94	73	42	140	46	3.2	5.1	319	0	262	
JUL												
05...	330	75	70	38	140	47	3.3	5.2	312	0	256	
15...	270	79	56	31	130	51	3.5	5.5	230	0	189	
25...	180	36	39	21	61	41	2.0	4.9	180	0	148	
28...	--	--	--	--	--	--	--	--	--	--	--	
AUG												
05...	92	42	23	8.3	58	57	2.6	4.0	61	0	50	
10...	--	--	--	--	--	--	--	--	--	--	--	
15...	220	82	50	22	140	58	4.2	6.0	163	0	134	
25...	350	120	77	39	210	56	4.9	7.2	288	0	236	
SEP												
03...	370	130	76	43	190	52	4.3	7.2	287	0	235	
09...	410	140	83	50	270	58	5.8	9.5	334	0	274	
14...	--	--	--	--	--	--	--	--	--	--	--	
19...	120	56	28	13	85	59	3.3	5.1	82	0	67	

ARKANSAS RIVER BASIN

07243500 DEEP FORK NEAR BEGGS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED SOLIDS (TUNS PER DAY)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT											
05...	1.8	71	220	--	771	1.05	119	.71	--	--	--
15...	1.4	67	230	--	769	1.05	143	.62	--	--	--
25...	3.5	61	210	--	687	.93	185	1.3	--	--	--
NOV											
05...	2.8	62	200	--	701	.95	176	1.1	--	--	--
12...	--	--	--	.3	--	--	--	--	2.8	.39	4
15...	1.9	53	170	--	607	.83	197	1.3	--	--	--
25...	3.4	55	280	--	839	1.14	322	1.6	--	--	--
DEC											
05...	8.5	31	120	--	421	.57	192	2.0	--	--	--
15...	2.1	47	190	--	679	.92	244	2.1	--	--	--
24...	5.4	47	200	--	674	.92	229	1.5	--	--	--
30...	--	--	--	.4	--	--	--	--	2.4	.80	--
JAN											
05...	.8	39	170	--	602	.82	258	1.7	--	--	--
15...	1.7	44	200	--	655	.89	248	2.3	--	--	--
25...	2.7	53	200	--	684	.93	231	2.5	--	--	--
27...	--	--	--	.5	--	--	--	--	2.8	1.7	--
FEB											
05...	2.7	64	210	--	701	.95	214	2.5	--	--	--
15...	2.6	67	210	--	694	.94	262	2.7	--	--	--
25...	--	--	--	.4	--	--	--	--	1.8	.36	4
25...	1.1	56	210	--	735	1.00	312	2.3	--	--	--
MAR											
06...	1.5	46	220	--	699	.09	321	1.3	--	--	--
15...	4.2	25	83	--	289	.39	936	.81	--	--	--
24...	--	--	--	.4	--	--	--	--	1.6	.56	--
25...	1.7	49	150	--	524	.71	342	1.8	--	--	--
APR											
05...	8.0	62	180	--	692	.94	325	1.5	--	--	--
15...	6.1	--	180	--	648	.88	497	.85	--	--	--
25...	1.4	9.3	31	--	135	.18	2570	.34	--	--	--
28...	--	--	--	.3	--	--	--	--	1.7	.23	--
MAY											
11...	11	40	160	--	561	.76	451	1.2	--	--	--
22...	22	30	110	--	406	.55	456	.88	--	--	--
26...	--	--	--	.3	--	--	--	--	1.2	.49	8
28...	13	15	37	--	148	.20	1050	1.1	--	--	--
JUN											
05...	1.2	15	42	--	198	.27	914	.43	--	.64	--
15...	3.1	50	140	--	477	.65	263	1.6	--	.57	--
23...	--	--	--	.6	--	--	--	--	1.0	.16	--
25...	8.1	66	230	--	716	.97	362	.72	--	.44	--
JUL											
05...	4.0	59	210	--	747	1.02	129	.59	--	.27	--
15...	9.2	59	210	--	619	.84	102	1.6	--	.39	--
25...	3.6	39	92	--	366	.50	85.0	1.4	--	.71	--
28...	--	--	--	.4	--	--	--	--	1.7	.29	--
AUG											
05...	1.0	14	110	--	271	.37	143	.87	--	--	--
10...	--	--	--	.2	--	--	--	--	2.0	.09	8
15...	1.6	40	260	--	647	.88	38.4	.80	--	--	--
25...	7.3	84	360	--	968	1.32	62.7	.59	--	.18	--
SEP											
03...	3.6	91	310	--	896	1.22	70.2	.80	--	--	--
09...	5.3	140	430	--	1180	1.60	89.2	.71	--	--	--
14...	--	--	--	1.0	--	--	--	--	3.0	.24	--
19...	1.7	29	150	--	395	.54	100	1.8	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL CUPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
NOV											
05...	--	--	--	--	--	--	--	--	--	--	--
12...	1	3	6	100	5	120	--	8	--	<1	6
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	200	--	150	--	--	--	--	--
JAN											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	300	--	200	--	--	--	--	--
FEB											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	1	3	3	1000	3	295	--	6	--	<1	4
25...	--	--	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	1800	--	520	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	1200	--	290	--	--	--	--	--
MAY											
11...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
26...	1	18	13	3500	26	666	<.5	14	<2	<1	24
28...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	100	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	1800	--	360	--	--	--	--	--
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--
10...	2	24	11	2200	22	301	.6	47	<2	<1	30
15...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	1200	--	378	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

07243500 DEEP FORK NEAR BEGGS, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1270	1230	1540	1160	1280	1220	1130	656	450	1350	874	1310
2	1290	1250	770	1260	1300	---	1100	742	336	1300	862	1430
3	1290	1290	892	1240	1320	---	1080	738	282	1300	617	1600
4	1320	1320	852	1130	1310	1220	1140	788	339	1280	978	1590
5	1350	1260	774	1110	1300	1210	1160	802	348	1330	488	1580
6	1360	1300	840	1130	1290	1230	1190	801	392	1340	571	1610
7	1360	1390	934	1170	1320	1260	1240	821	440	1380	660	1790
8	1340	1280	1010	1200	1310	855	1230	871	510	1340	519	1990
9	1330	1270	1050	1210	1280	656	1210	918	618	1320	627	2060
10	1340	1260	1110	1230	1330	469	1200	942	620	1500	650	1860
11	1380	1330	1100	1260	1330	454	1220	976	767	1120	610	1840
12	1460	1200	1120	1290	1290	504	1250	677	705	925	649	1870
13	1470	1200	1140	1260	1290	489	1320	317	748	957	759	1870
14	1390	1190	1150	1250	1280	---	1280	400	839	917	1270	1790
15	1360	1100	1170	1230	1280	534	1200	499	868	1090	1160	1670
16	1370	1110	1130	1360	1270	567	1230	757	855	636	1060	1530
17	1400	1190	1180	1310	1280	634	1120	590	886	811	1050	1420
18	1420	1140	1380	1190	1300	694	1040	612	1080	817	---	1360
19	1400	1200	1150	1180	1300	730	491	614	983	839	1350	696
20	1410	1200	1250	---	1320	753	230	665	1050	735	1400	770
21	1420	1210	1220	1210	1320	791	185	695	1120	801	1550	887
22	1420	1260	1230	1190	1250	847	189	728	1410	662	1660	1010
23	1300	1140	---	1230	1250	898	190	782	1180	621	1610	1180
24	1250	1170	1220	1250	1260	927	186	835	1240	620	1650	1150
25	1270	1500	1290	1260	1330	960	221	875	1280	647	1700	986
26	1230	1240	1290	1280	1260	997	293	962	745	675	1560	951
27	1170	1160	1240	1270	1300	1020	375	277	942	704	1600	978
28	1130	1170	1180	1280	1230	1050	425	242	1140	732	1450	940
29	1120	1210	---	1290	1250	---	526	265	1270	---	1360	954
30	1120	1220	1200	1290	---	---	610	440	1320	893	1060	973
31	1180	---	1140	1300	---	---	---	269	---	853	976	---
MONTH	1320	1230	1120	1230	1290	839	842	663	825	983	1080	1390
YEAR	MAX	2060	MIN	185	MEAN	1070						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
UNCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	9.0	8.0	9.0	19.0	17.0	18.0	24.0	27.0	34.0	25.0
2	20.0	19.0	12.0	6.0	9.0	20.0	20.0	19.0	25.0	29.0	29.0	26.0
3	19.0	17.0	12.0	4.0	8.0	26.0	18.0	19.0	27.0	29.0	27.0	27.0
4	21.0	17.0	11.0	3.0	7.0	25.0	19.0	20.0	25.0	28.0	29.0	29.0
5	19.0	19.0	14.0	4.0	4.0	13.0	20.0	18.0	26.0	27.0	32.0	30.0
6	22.0	17.0	10.0	5.0	3.0	12.0	21.0	18.0	26.0	28.0	28.0	30.0
7	21.0	21.0	10.0	2.0	4.0	11.0	21.0	18.0	26.0	28.0	29.0	29.0
8	22.0	18.0	12.0	2.0	8.0	11.0	22.0	20.0	26.0	28.0	30.0	30.0
9	22.0	18.0	9.0	4.0	9.0	13.0	22.0	22.0	26.0	30.0	30.0	26.0
10	22.0	19.0	13.0	4.0	10.0	12.0	23.0	22.0	28.0	30.0	32.0	24.0
11	25.0	17.0	14.0	5.0	11.0	12.0	22.0	23.0	28.0	30.0	34.0	26.0
12	24.0	14.0	9.0	4.0	11.0	14.0	21.0	18.0	27.0	31.0	32.0	25.0
13	25.0	14.0	12.0	5.0	14.0	12.0	20.0	19.0	29.0	30.0	34.0	24.0
14	24.0	14.0	16.0	6.0	13.0	---	23.0	20.0	27.0	28.0	32.0	27.0
15	22.0	14.0	9.0	5.0	16.0	13.0	22.0	18.0	27.0	30.0	31.0	26.0
16	20.0	17.0	9.0	6.0	17.0	12.0	22.0	20.0	28.0	27.0	32.0	27.0
17	18.0	17.0	6.0	5.0	17.0	13.0	20.0	21.0	27.0	29.0	34.0	27.0
18	19.0	17.0	4.0	7.0	17.0	15.0	21.0	22.0	26.0	29.0	33.0	25.0
19	18.0	14.0	6.0	9.0	16.0	17.0	18.0	22.0	26.0	28.0	31.0	24.0
20	21.0	12.0	8.0	---	16.0	17.0	17.0	23.0	27.0	32.0	30.0	23.0
21	21.0	10.0	6.0	8.0	11.0	18.0	18.0	24.0	27.0	30.0	32.0	24.0
22	23.0	9.0	4.0	9.0	12.0	18.0	22.0	25.0	28.0	31.0	33.0	25.0
23	21.0	11.0	---	9.0	14.0	17.0	22.0	25.0	29.0	33.0	30.0	27.0
24	18.0	7.0	5.0	11.0	12.0	16.0	21.0	26.0	26.0	32.0	29.0	26.0
25	17.0	7.0	5.0	8.0	15.0	19.0	18.0	23.0	28.0	32.0	29.0	24.0
26	---	4.0	10.0	6.0	14.0	19.0	18.0	23.0	29.0	33.0	38.0	26.0
27	18.0	---	6.0	6.0	17.0	20.0	17.0	18.0	29.0	33.0	37.0	22.0
28	18.0	9.0	---	7.0	17.0	16.0	17.0	21.0	31.0	30.0	30.0	21.0
29	18.0	16.0	---	8.0	16.0	20.0	18.0	23.0	31.0	33.0	28.0	22.0
30	18.0	9.0	6.0	9.0	---	17.0	17.0	23.0	29.0	36.0	27.0	23.0
31	19.0	---	7.0	8.0	---	16.0	---	23.0	---	34.0	27.0	---
MONTH	20.5	14.5	9.0	6.0	12.0	16.0	20.0	21.0	27.5	30.0	31.0	25.5
YEAR	MAX	38.0	MIN	2.0	MEAN	19.5						

ARKANSAS RIVER BASIN

07244800 EUFAULA LAKE NEAR BROOKEN, OK

LOCATION.--Lat 35°18'25", long 95°21'45", in SW 1/4 sec.25, T.10 N., R.18 E., McIntosh County, in intake structure near left end of dam on Canadian River, 4.0 mi (6.4 km) northeast of Brooken and at mile 27.0 (43.4 km).

DRAINAGE AREA.--47,522 mi² (123,082 km²), of which 9,700 mi² (25,123 km²) is probably noncontributing.

PERIOD OF RECORD.--February 1964 to current year. Prior to October 1970 published as Eufaula Reservoir near Brooken.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by an earth dam having a gated, concrete, ogee-type spillway weir controlled by 11, 40-foot (12.2 m) taintor gates. Closure for diversion was made Feb. 1, 1963 and regulated sotrage began Feb. 10, 1964; minimum power pool was first filled June 17, 1964. Capacity, 3,798,000 acre-ft (4.68 km³) at elevation 597.0 ft (181.966 m), top of flood control pool, 2,329,000 acre-ft (2.87 km³) at elevation 585.0 ft (178.308 m), top of power pool, and 864,800 acre-ft (1.07 km³) at elevation 565.0 ft (172.212 m), bottom of power pool. Dead storage is negligible. Figures given herein represent total contents. Reservoir is used for flood control, sediment control, power development, and other water uses. Revised capacity table, based on survey 1969, used since Oct. 1, 1972.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,791,000 acre-ft (4.67 km³) Apr. 25, 1973, elevation, 596.95 ft (181.950 m); minimum since power pool first filled, 1,181,800 acre-ft (1,460 hm³) Nov. 4, 1964, elevation, 570.23 ft (173.806 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,567,000 acre-ft (3.17 km³) Apr. 24, elevation, 587.26 ft (178.997 m); minimum, 1,775,000 acre-ft (2.19 km³) Sept. 30, elevation, 579.03 ft (176.488 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

579	1,722,000	584	2,228,000
580	1,858,000	586	2,434,000
582	2,036,000	588	2,649,000

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2102000	1927000	1875000	1924000	1872000	1839000	2070000	2515000	2397000	2216000	2032000	1841000
2	2099000	1946000	1874000	1923000	1868000	1838000	2068000	2498000	2395000	2219000	2034000	1841000
3	2094000	1940000	1872000	1923000	1866000	1836000	2069000	2486000	2389000	2221000	2034000	1839000
4	2094000	1941000	1872000	1922000	1865000	1846000	2070000	2477000	2378000	2221000	2032000	1838000
5	2094000	1946000	1886000	1918000	1859000	1838000	2069000	2476000	2371000	2221000	2032000	1837000
6	2086000	1951000	1892000	1918000	1854000	1840000	2068000	2480000	2368000	2221000	2018000	1835000
7	2078000	1956000	1897000	1898000	1855000	1845000	2063000	2470000	2357000	2217000	2015000	1822000
8	2069000	1958000	1900000	1888000	1854000	1844000	2060000	2461000	2349000	2214000	2017000	1815000
9	2066000	1963000	1889000	1879000	1859000	1940000	2047000	2444000	2336000	2209000	2004000	1812000
10	2063000	1959000	1897000	1882000	1851000	1973000	2046000	2437000	2325000	2206000	1997000	1810000
11	2062000	1951000	1901000	1880000	1850000	1995000	2047000	2423000	2314000	2204000	1984000	1807000
12	2060000	1945000	1888000	1880000	1856000	2014000	2036000	2452000	2315000	2198000	1973000	1805000
13	2046000	1939000	1884000	1883000	1847000	2029000	2030000	2506000	2310000	2189000	1959000	1796000
14	2030000	1928000	1896000	1878000	1849000	2034000	2027000	2528000	2294000	2178000	1958000	1792000
15	2033000	1922000	1892000	1882000	1850000	2053000	2030000	2534000	2291000	2171000	1954000	1788000
16	2032000	1924000	1879000	1880000	1850000	2051000	2028000	2529000	2285000	2173000	1943000	1790000
17	2030000	1915000	1868000	1880000	1848000	2054000	2130000	2512000	2275000	2172000	1934000	1793000
18	2028000	1908000	1858000	1883000	1846000	2056000	2078000	2495000	2271000	2174000	1922000	1796000
19	2027000	1922000	1854000	1886000	1846000	2060000	2155000	2479000	2269000	2168000	1915000	1795000
20	2014000	1906000	1853000	1886000	1853000	2061000	2400000	2460000	2268000	2162000	1914000	1794000
21	2000000	1891000	1852000	1883000	1850000	2056000	2505000	2437000	2258000	2148000	1910000	1793000
22	1987000	1885000	1849000	1884000	1849000	2052000	2552000	2413000	2242000	2135000	1908000	1792000
23	1973000	1881000	1847000	1881000	1843000	2045000	2555000	2387000	2232000	2123000	1897000	1789000
24	1969000	1871000	1850000	1882000	1840000	2040000	2555000	2369000	2240000	2123000	1887000	1788000
25	1960000	1851000	1864000	1884000	1836000	2036000	2539000	2350000	2238000	2118000	1873000	1787000
26	1959000	1841000	1871000	1880000	1834000	2040000	2534000	2335000	2242000	2103000	1861000	1789000
27	1949000	1836000	1879000	1878000	1834000	2036000	2526000	2326000	2242000	2086000	1849000	1780000
28	1937000	1824000	1893000	1873000	1839000	2036000	2531000	2360000	2234000	2078000	1848000	1779000
29	1932000	1854000	1903000	1874000	1837000	2068000	2531000	2363000	2221000	2066000	1848000	1777000
30	1930000	1872000	1909000	1869000	---	2069000	2526000	2380000	2218000	2050000	1847000	1775000
31	1924000	---	1911000	1875000	---	2069000	---	2392000	---	2048000	1844000	---
MAY	2102000	1963000	1911000	1924000	1872000	2069000	2555000	2534000	2397000	2221000	2034000	1841000
MIN	1924000	1824000	1847000	1869000	1834000	1836000	2027000	2335000	2218000	2048000	1844000	1775000
†	580.76	580.16	580.61	580.20	579.76	582.35	586.88	585.60	583.89	582.12	579.84	579.03
‡	-182,000	-52,000	+39,000	-36,000	-38,000	+232,000	+457,000	-134,000	-174,000	-170,000	-204,000	-69,000
CAL YR 1975	MAX	2,778,000	MIN	1,824,000	‡	-540,000						
WTR YR 1976	MAX	2,555,000	MIN	1,775,000	‡	-331,000						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK

LOCATION.--Lat 35°15'45", long 95°14'19", in SE 1/4 SE 1/4sec.12, T.9 N., R.19 E., Haskell County, near right bank on downstream side of pier of bridge on State Highway 2, 0.8 mi (1.3 km) north of Whitefield, 5.5 mi (8.8 km) upstream from Taleka (Snake) Creek, 8.2 mi (13.2 km) downstream from Eufaula Dam, and at mile 18.8 (30.2 km).

DRAINAGE AREA.--47,576 mi² (123,222 km²), of which 9,700 mi² (25,123 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 478.16 ft (145.743 m) above mean sea level. Prior to Jan. 11, 1939, nonrecording gage and Jan. 11, 1939, to Dec. 10, 1941, June 12, 1947, to Sept. 30, 1948, water-stage recorder, all at site 2.1 mi (3.4 km) downstream at datum 2.80 ft (0.853 m) lower. Dec. 11, 1941, to June 11, 1947, water-stage recorder at present site and datum.

REMARKS.--Records good. Prior to February 1964, occasional slight regulation by Conchas Lake in New Mexico and, except for 54 mi² (140 km²) of intervening area, completely regulated thereafter by Eufaula Lake (station 07244800).

COOPERATION.--Gage height record and 27 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1939-63), 6,005 ft³/s (170.1 m³/s), 4,347,000 acre-ft/yr (5.36 km³/yr); 9 years (water years 1968-76), 6,233 ft³/s (176.5 m³/s), 4,516,000 acre-ft/yr (5.57 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 281,000 ft³/s (7,960 m³/s) May 10, 1943, gage height, 25.5 ft (7.77 m); minimum daily, 0.4 ft³/s (0.11 m³/s) Oct. 8, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1898, that of May 10, 1943, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,100 ft³/s (428 m³/s) May 12, gage height, 8.01 ft (2.441 m); minimum daily, 57 ft³/s (1.61 m³/s) Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2570	211	2760	100	81	343	1300	10200	5070	965	3910	2290
2	1440	94	3970	1310	1460	750	2100	9960	7280	151	1640	2430
3	1880	4120	1300	158	1080	113	957	8500	7660	118	445	1470
4	639	5410	1950	499	2630	169	117	6770	7720	473	243	678
5	74	2890	1930	2550	2680	1160	496	6000	6430	165	1650	106
6	2520	496	978	3230	2760	134	1150	7700	4850	433	3810	723
7	3490	845	215	5430	738	80	1960	7600	7080	938	1350	3920
8	3800	159	622	6070	97	720	2280	8320	5460	757	149	4290
9	2390	93	744	5740	1090	1510	7340	8670	6130	2100	3680	1070
10	1800	899	1750	1190	2200	222	2090	8040	5710	1360	4340	118
11	649	4250	513	150	673	134	611	7330	5520	109	4810	86
12	566	4530	4410	421	1770	209	4650	7920	1020	2040	5250	74
13	5470	931	1300	526	1890	116	5010	8390	2220	3750	4710	2680
14	7320	6010	131	1840	135	97	2940	7410	5930	4510	1110	2850
15	2140	2560	750	531	71	164	990	10200	3920	2610	1080	1570
16	619	206	5750	152	332	1160	1170	13200	2970	1030	3650	541
17	427	4220	4060	108	2320	2080	641	13300	4340	168	4090	101
18	127	2870	7840	98	1040	192	1020	12900	5320	109	4850	79
19	72	3760	2450	278	1080	3490	628	9750	1190	2560	2700	191
20	5500	4340	393	1560	854	929	3700	10800	193	3910	1020	688
21	6900	4170	130	1710	457	107	10800	13500	3270	5760	561	263
22	6690	2970	2480	496	72	2660	12600	13400	5450	6370	395	71
23	6910	1150	2350	1540	3750	4270	12900	13300	6560	5620	3480	57
24	7730	5780	485	593	3550	4340	13000	13400	7120	1430	5320	275
25	5120	8720	183	105	902	5120	13000	8750	4090	1620	5420	340
26	899	7920	335	915	1230	1690	13100	8290	745	5100	5320	65
27	4170	1540	203	2170	822	147	10700	7410	759	6850	5190	3340
28	8080	7490	150	2410	128	128	10300	6880	3770	5460	1700	676
29	1920	1900	995	1170	73	2500	10300	5970	5240	5820	146	152
30	313	456	191	743	---	2060	10300	4620	4180	5780	108	216
31	1900	---	117	321	---	2130	---	5300	---	1560	1700	---
TOTAL	94625	90990	51435	44114	36365	36924	158350	283780	137197	79626	83827	31410
MEAN	3052	3033	1659	1423	1254	1256	5278	9154	4573	2569	2704	1047
MAX	8080	8720	7840	6070	3750	5120	13100	13500	7720	6850	5420	4290
MIN	72	93	117	98	71	80	117	4620	193	109	108	57
AC-FT	187700	180500	102000	87500	72130	77210	314100	562900	272100	157900	166300	62300
CAL YR 1975 TOTAL		3130346	MEAN	8576	MAX	32700	MIN	51	AC-FT	6209000		
WTR YR 1976 TOTAL		1130643	MEAN	3089	MAX	13500	MIN	57	AC-FT	2243000		

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1944-64, 1967 to current year.

PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: September 1944 to February 1945, September 1946 to September 1964, October 1966 to current year.

WATER TEMPERATURE: September 1944 to February 1945, September 1946 to September 1964, October 1966 to current year.

INSTRUMENTATION.--Water quality monitor since October 1966.

REMARKS.--In addition to water quality monitor, samples were collected by a local observer on a daily basis. Partial analyses were made each month on those samples having maximum, minimum and mean specific conductance for the month. An additional sample was collected monthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Mean daily sulfate, chloride, and dissolved solids tables, and loads for those parameters were calculated from specific conductance values.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and selected parameters were analyzed by Oklahoma State Department of Health.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 22,900 micromhos Nov. 11, 1956; minimum daily, 57 micromhos Apr. 20, 1976.

WATER TEMPERATURE: Maximum daily, 31.0°C Sept. 4, 1944, Aug. 11, 19, 1973; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 710 micromhos June 1; minimum daily, 57 micromhos Apr. 20.

WATER TEMPERATURE: Maximum daily, 27.0°C July 19; minimum daily, 3.0°C Jan. 5, Feb. 6, 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
OCT												
05...	--	--	0845	74	480	8.5	--	--	--	150	24	41
15...	--	--	0730	2140	454	8.3	--	--	--	130	32	34
15...	--	--	1200	2140	490	7.8	20.0	3	--	130	25	33
25...	--	--	0900	5120	464	8.4	--	--	--	160	46	44
NOV												
05...	--	--	0845	2890	419	8.2	--	--	--	120	30	29
12...	--	--	1330	4530	460	8.0	16.0	14	--	140	42	36
12...	1028	9740	1331	4530	460	8.0	16.0	--	47	--	--	--
15...	--	--	0700	2560	468	8.3	--	--	--	140	42	39
25...	--	--	0900	8720	474	8.4	--	--	--	140	41	34
DEC												
05...	--	--	0700	1930	473	8.4	--	--	--	140	41	38
09...	--	--	1130	744	500	7.8	8.0	9	--	140	40	35
09...	1028	9740	1131	744	500	--	8.0	--	4	--	--	--
15...	--	--	0800	750	478	8.4	--	--	--	150	27	40
26...	--	--	0800	335	339	8.1	--	--	--	100	15	28
JAN												
05...	--	--	0930	2550	458	8.4	--	--	--	150	25	40
06...	1028	9740	1245	3230	--	7.9	5.0	--	8	--	--	--
15...	--	--	0800	531	477	8.5	--	--	--	140	33	35
25...	--	--	0900	105	485	8.6	--	--	--	140	28	38
FEB												
03...	--	--	1130	1080	520	8.0	6.0	4	--	150	36	39
03...	1028	9740	1131	1080	526	8.0	6.0	--	<4	--	--	--
05...	--	--	0830	2880	480	8.1	--	--	--	140	32	34
15...	--	--	0900	71	505	8.0	--	--	--	160	24	42
25...	--	--	0800	902	489	8.1	--	--	--	140	32	36
MAR												
02...	--	--	1330	750	500	8.2	14.0	7	--	150	41	39
05...	--	--	0800	1160	475	8.2	--	--	--	140	35	35
15...	--	--	0845	164	370	--	--	--	--	120	17	33
25...	--	--	0800	5120	480	7.8	--	--	--	140	35	35
APR												
05...	--	--	0800	496	477	7.8	--	--	--	140	34	37
06...	--	--	1200	1150	500	8.0	17.0	5	--	140	38	34
06...	1028	9740	1201	1150	500	8.0	17.0	--	16	--	--	--
15...	--	--	0800	990	484	7.8	--	--	--	140	38	33
20...	--	--	0900	3700	65	7.7	--	--	--	32	12	8.6
MAY												
04...	--	--	1330	6770	495	7.5	17.5	10	--	140	37	32

ARKANSAS RIVER BASIN

427

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
MAY												
04...	1028	9740	1331	6770	500	7.5	18.0	--	24	--	--	--
05...	--	--	0800	6000	467	8.2	--	--	--	140	37	35
15...	--	--	0830	10200	449	8.0	--	--	--	130	42	34
25...	--	--	0900	8750	481	8.0	--	--	--	150	47	37
JUN												
01...	--	--	0730	5070	452	7.9	--	--	--	130	40	34
03...	--	--	1309	7660	592	8.1	20.0	7	--	140	44	34
03...	1028	9740	1310	7660	600	8.1	20.0	--	8	--	--	--
05...	--	--	0800	6430	501	8.3	--	--	--	150	50	37
25...	--	--	0800	4090	406	7.9	--	--	--	120	39	31
JUL												
01...	--	--	0700	965	501	8.1	--	--	--	150	44	38
08...	--	--	1130	757	507	--	--	9	--	150	43	37
08...	1028	9740	1131	757	507	--	24.0	--	90	--	--	--
16...	--	--	0830	--	444	8.2	--	--	--	130	42	33
19...	--	--	0900	2560	540	8.3	--	--	--	190	35	50
AUG												
02...	--	--	0800	1640	472	8.7	--	--	--	130	50	34
04...	--	--	1100	243	500	7.6	22.5	3	--	180	43	51
04...	1028	9740	1101	243	500	7.6	23.0	--	8	--	--	--
11...	--	--	0900	4810	503	8.2	--	--	--	140	50	33
30...	--	--	0900	108	541	8.3	--	--	--	170	26	45
SEP												
05...	--	--	0700	106	513	7.8	--	--	--	160	40	41
09...	--	--	1100	1070	500	7.0	20.5	4	--	130	33	34
09...	1028	9740	1101	1070	500	7.7	21.0	--	11	--	--	--
15...	--	--	0900	1570	497	7.9	--	--	--	140	48	36
25...	--	--	0830	340	504	8.0	--	--	--	140	43	36

DATE	DIS- SOLVED MAG- NE- SIUM (MG)	DIS- SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SURP- TION RATIO	DIS- SOLVED PU- RAS- SIUM (K) (MG/L)	HICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACU3 (MG/L)	CARBON DIOXIDE (CU2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
UCT											
05...	12	34	32	1.2	3.3	156	128	.8	32	51	--
15...	11	36	37	1.4	3.6	120	98	1.0	36	57	--
15...	12	36	36	1.4	3.6	130	107	3.3	33	57	.2
25...	11	37	34	1.3	3.4	133	109	.8	37	59	--
NOV											
05...	11	34	38	1.4	3.7	107	88	1.1	29	57	--
12...	13	38	36	1.4	3.8	124	102	2.0	35	59	.3
12...	--	--	--	--	--	--	--	--	--	--	--
15...	11	38	36	1.4	3.6	123	101	1.0	36	63	--
25...	13	38	37	1.4	3.8	119	98	.8	33	61	--
DEC											
05...	12	37	35	1.3	4.0	126	103	.8	36	63	--
09...	13	37	36	1.4	3.7	123	101	3.1	36	59	.2
09...	--	--	--	--	--	--	--	--	--	--	--
15...	12	38	35	1.4	3.8	145	122	1.0	35	56	--
26...	8.4	23	32	1.0	2.9	109	89	1.4	28	32	--
JAN											
05...	13	36	33	1.3	3.6	148	128	1.0	35	55	--
06...	--	--	--	--	--	--	--	--	--	--	--
15...	13	38	36	1.4	3.7	131	107	.7	34	60	--
25...	12	34	33	1.2	3.3	138	117	.6	34	52	--
FEB											
03...	13	37	34	1.3	3.9	140	115	2.2	39	61	.2
03...	--	--	--	--	--	--	--	--	--	--	--
05...	13	38	37	1.4	3.8	130	107	1.7	34	62	--
15...	14	36	32	1.2	3.5	169	139	2.7	32	54	--
25...	12	40	38	1.5	3.9	131	107	1.7	34	62	--
MAR											
02...	12	38	35	1.4	3.9	129	106	1.3	40	63	.3
05...	13	39	37	1.4	3.9	129	106	1.3	37	61	--
15...	9.5	25	30	1.0	2.7	127	104	--	30	35	--
25...	13	39	37	1.4	3.9	129	106	3.3	37	59	--
APR											
05...	12	38	36	1.4	3.4	132	108	3.3	44	58	--
06...	14	39	37	1.4	3.7	127	104	2.0	39	60	.2
06...	--	--	--	--	--	--	--	--	--	--	--
15...	13	40	38	1.5	3.6	120	98	3.0	39	61	--
20...	2.6	3.8	19	.3	1.7	25	21	.8	11	2.2	--
MAY											
04...	14	44	40	1.6	3.6	123	101	6.2	48	70	.1

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED MAG- NE- SIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	DIS-SOLVED PU- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO- RIDE (CL) (MG/L)	DIS-SOLVED FLUO- RIDE (F) (MG/L)
MAY											
04...	--	--	--	--	--	--	--	--	--	--	--
05...	12	40	38	1.5	3.4	122	100	1.2	50	60	--
15...	12	38	37	1.4	3.4	113	93	1.8	43	61	--
25...	13	42	38	1.5	3.4	121	99	1.9	44	66	--
JUN											
01...	12	40	39	1.5	3.4	115	94	2.3	40	63	--
03...	13	45	41	1.7	3.5	115	94	1.5	43	68	.3
03...	--	--	--	--	--	--	--	--	--	--	--
05...	14	43	38	1.5	3.6	122	100	1.0	53	74	--
25...	11	35	38	1.4	3.3	102	84	2.1	38	57	--
JUL											
01...	13	43	38	1.5	3.5	127	104	1.6	56	67	--
08...	14	44	38	1.6	3.5	130	107	--	41	68	.3
08...	--	--	--	--	--	--	--	--	--	--	--
16...	12	40	39	1.5	3.2	110	90	1.1	44	60	--
19...	15	39	31	1.2	3.4	185	152	1.5	40	55	--
AUG											
02...	12	39	38	1.5	3.3	127	104	.4	40	63	--
04...	13	41	33	1.3	3.4	168	138	6.8	45	62	.3
04...	--	--	--	--	--	--	--	--	--	--	--
11...	13	44	41	1.6	3.6	129	106	1.3	40	68	--
30...	14	42	34	1.4	3.5	175	144	1.4	38	63	--
SEP											
05...	13	44	37	1.5	3.6	141	116	3.6	35	66	--
09...	12	44	41	1.7	3.4	123	101	20	36	68	.2
09...	--	--	--	--	--	--	--	--	--	--	--
15...	13	34	33	1.2	3.7	116	95	2.3	36	70	--
25...	13	43	39	1.6	3.6	122	100	2.0	44	67	--
DATE	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (NO3) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
UCT											
05...	--	264	--	.36	52.7	--	.14	--	--	--	--
15...	--	241	--	.33	1390	--	.15	--	--	--	--
15...	5.3	257	244	.35	1490	.05	--	.63	.68	3.0	.00
25...	--	257	--	.35	3550	--	.07	--	--	--	--
NOV											
05...	--	246	--	.33	1920	--	.17	--	--	--	--
12...	5.2	245	251	.33	3000	.14	--	1.3	1.4	6.4	.07
12...	--	--	--	--	--	--	--	--	3.5	--	--
15...	--	273	--	.37	1890	--	.13	--	--	--	--
25...	--	276	--	.38	6500	--	.17	--	--	--	--
DEC											
05...	--	256	--	.35	1330	--	.04	--	--	--	--
09...	5.2	257	250	.35	516	.29	--	.73	1.0	4.5	.08
09...	--	--	--	--	--	--	--	--	1.4	--	--
15...	--	270	--	.37	547	--	.23	--	--	--	--
26...	--	195	--	.27	176	--	.08	--	--	--	--
JAN											
05...	--	260	--	.35	1790	--	.17	--	--	--	--
06...	--	--	--	--	--	--	--	--	1.5	--	--
15...	--	251	--	.34	360	--	.14	--	--	--	--
25...	--	246	--	.33	69.7	--	.07	--	--	--	.00
FEB											
03...	4.9	268	267	.36	781	.18	--	.42	.60	2.7	.03
03...	--	--	--	--	--	--	--	--	.20	--	--
05...	--	257	--	.35	2000	--	.22	--	--	--	--
15...	--	278	--	.38	53.3	--	.20	--	--	--	--
25...	--	265	--	.36	645	--	.24	--	--	--	--
MAR											
02...	4.1	278	264	.38	563	.11	--	.38	.49	2.2	.04
05...	--	273	--	.37	855	--	.42	--	--	--	--
15...	--	217	--	.30	96.1	--	.18	--	--	--	--
25...	--	273	--	.37	3770	--	.29	--	--	--	--
APR											
05...	--	271	--	.37	363	--	.22	--	--	--	--
06...	3.5	256	256	.35	795	.04	--	.34	.38	1.7	.04
06...	--	--	--	--	--	--	--	--	.40	--	--
15...	--	270	--	.37	722	--	.87	--	--	--	--
20...	--	59	--	.08	589	--	1.2	--	--	--	--
MAY											
04...	.1	294	272	.40	5370	.19	--	.50	.69	3.1	.02

ARKANSAS RIVER BASIN

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07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
MAY											
04...	--	--	--	--	--	--	--	--	.50	--	--
05...	--	253	--	.34	4100	--	.19	--	--	--	--
15...	--	246	--	.33	6780	--	.23	--	--	--	--
25...	--	255	--	.35	6020	--	.21	--	--	--	--
JUN											
01...	--	256	--	.35	3500	--	.18	--	--	--	.04
03...	3.4	284	267	.39	5870	.14	--	.39	.53	2.3	.05
03...	--	--	--	--	--	--	--	--	.90	--	--
05...	--	279	--	.38	4840	--	.23	--	--	--	.03
25...	--	226	--	.31	2500	--	.24	--	--	--	.15
JUL											
01...	--	283	--	.38	737	--	.70	--	--	--	.02
08...	4.9	268	278	.36	548	.17	--	.32	.49	2.2	.04
08...	--	--	--	--	--	--	--	--	1.4	--	--
16...	--	259	--	.35	--	--	.15	--	--	--	--
19...	--	308	--	.42	2130	--	.10	--	--	--	.03
AUG											
02...	--	259	--	.35	1150	--	.19	--	--	--	--
04...	6.3	299	305	.41	196	.31	--	.40	.71	3.1	.04
04...	--	--	--	--	--	--	--	--	1.7	--	--
11...	--	282	--	.38	3660	--	.11	--	--	--	--
30...	--	304	--	.41	88.6	--	.09	--	--	--	--
SEP											
05...	--	296	--	.40	84.7	--	.29	--	--	--	--
09...	5.0	266	264	.36	768	.03	--	.25	.28	1.2	.08
09...	--	--	--	--	--	--	--	--	2.1	--	--
15...	--	281	--	.38	1190	--	.15	--	--	--	--
25...	--	289	--	.39	265	--	.29	--	--	--	--

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCO (COL- UNIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT											
15...	--	--	1200	2140	8.3	94	160	120	--	--	--
NOV											
12...	--	--	1330	4530	10.0	104	--	6120	16	152	24
12...	1028	9740	1331	4530	10.0	104	--	--	--	--	--
DEC											
09...	--	--	1130	744	12.0	105	--	--	--	--	--
09...	1028	9740	1131	744	12.0	105	--	--	--	--	--
JAN											
06...	1028	9740	1245	3230	11.2	92	--	--	--	--	--
FEB											
03...	--	--	1130	1080	12.8	108	82	87	5.0	24	42
03...	1028	9740	1131	1080	12.8	108	--	--	--	--	--
MAR											
02...	--	--	1330	750	13.6	139	820	812	--	76	40
APR											
06...	--	--	1200	1150	10.1	110	820	6100	--	--	--
06...	1028	9740	1201	1150	10.1	110	--	--	--	--	--
MAY											
04...	--	--	1330	6770	9.0	98	--	--	4.6	--	--
04...	1028	9740	1331	6770	9.0	98	--	--	--	--	--
JUN											
03...	--	--	1309	7660	8.0	91	--	--	--	--	--
03...	1028	9740	1310	7660	8.0	91	--	--	--	--	--
JUL											
08...	--	--	1130	757	7.0	--	--	--	--	7910	4
08...	1028	9740	1131	757	7.0	--	--	--	--	--	--
AUG											
04...	--	--	1100	243	9.2	104	--	30	--	--	--
04...	1028	9740	1101	243	9.2	104	--	--	--	--	--
SEP											
09...	--	--	1100	1070	7.4	83	617	75	4.8	9	86
09...	1028	9740	1101	1070	7.4	83	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CHROMIUM (CR) (UG/L)	SUS- PENDED CHROMIUM (CK) (UG/L)	DIS- SOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDED COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV							
12...	0	0	0	<50	<50	0	550
12...	--	--	--	--	--	--	--
DEC							
09...	--	--	--	--	--	--	<100
JAN							
06...	--	--	--	--	--	--	<100
FEB							
03...	0	0	0	<50	<50	0	200
03...	--	--	--	--	--	--	--
APR							
06...	--	--	--	--	--	--	<100
MAY							
04...	--	--	--	--	--	--	400
JUN							
03...	--	--	--	--	--	--	100
JUL							
06...	0	0	0	<50	<50	0	--
08...	--	--	--	--	--	--	100
AUG							
04...	--	--	--	--	--	--	100
SEP							
09...	10	10	0	<50	<50	0	340
09...	--	--	--	--	--	--	300

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Oct. 15	1200	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Characiaceae			
		Schroederia	30	1	
		Micractiniaceae			
		Micractinium	120	5	
		Occystaceae			
		Ankistrodesmus	30	1	
		Oocystis	120	5	
		Treubaria			
		Scenedesmaceae			
		Scenedesmus	550	24	
		Volvocales			
		Chlamydomonadaceae			
		Chlamydomonas	30	1	
		Zygnematales			
		Desmidiaceae			
		Cosmarium	30	1	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	92	4	
		Melosira	770	33	
		Pennales			
		Achnanthaceae			
		Achnanthes	30	1	
		Naviculaceae			
		Navicula	120	5	
		Pinnularia			
		Nitzschiaceae			
		Hantzschia	30	1	
		Nitzschia	92	4	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum			
		Oscillatoriales			
		Rivulariaceae			
		Raphiopsis	270	12	
		TOTAL	2,300		
Nov. 12	1330	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Kirchneriella	42	1	
		Scenedesmaceae			
		Scenedesmus			
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	85	2	
		Melosira	630	14	
		Pennales			
		Naviculaceae			
		Navicula	42	1	
		Pinnularia	42	1	
		Nitzschiaceae			
		Nitzschia	120	3	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	3,700	79	
		TOTAL	4,700		
Dec. 9	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Kirchneriella	92	9	
		Oocystis	92	9	
		Selenastrum	46	5	
		Scenedesmaceae			
		Crucigenia	370	36	
		Scenedesmus	92	9	
		CHRYSTOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	69	7	
		Melosira	180	18	
		Pennales			

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976,

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Dec. 9	1130	Naviculaceae			Sediment sampler
		Navicula	46	5	
		Nitzschia			
		Nitzschia	23	2	
		TOTAL	1,000		
Feb. 3	1130	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	150	12	
		Scenedesmaceae			
		Scenedesmus	150	12	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	890	71	
		Pennales			
		Naviculaceae			
		Navicula		0	
		Nitzschia			
		Nitzschia	74	6	
		TOTAL	1,300		
Mar. 2	1330	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Chodatella	120	1	
		Oocystis	500	3	
		Scenedesmaceae			
		Scenedesmus	250	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	14,000	81	
		Pennales			
		Cymbellaceae			
		Cymbella	250	1	
		Gomphonemataceae			
		Gomphonema	120	1	
		Nitzschia			
		Nitzschia	120	1	
		Achnanthaceae			
		Rhoicosphenia	120	1	
		CYANOPHYTA			
		Myxophyceae			
		Oscillatoriales			
		Nostocaceae			
		Anabaena	1,900	11	
		TOTAL	17,000		
Apr. 6	1200	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum	390	25	
		Micractiniaceae			
		Micractinium		0	
		Occystaceae			
		Ankistrodesmus	49	3	
		Kirchneriella	210	13	
		Zygnematales			
		Desmidiaceae			
		Closterium		0	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	170	11	
		Pennales			
		Achnanthaceae			
		Achnanthes	37	2	
		Cymbellaceae			
		Cymbella	25	2	
		Diatomaceae			
		Diatoma		0	
		Fragilariaceae			
		Synedra	12	1	
		Gomphonemataceae			
		Gomphonema	37	2	
		Naviculaceae			
		Navicula	150	10	
		Nitzschia			

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
Apr. 6	1200	Nitzschia	49	3	Sediment sampler
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	74	5	
		Oscillatoriales			
		Nostocaceae			
		Aphanizomenon	340	22	
		TOTAL	1,500		
May 4	1330	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	52	9	
		Kirchneriella	52	9	
		Scenedesmaceae			
		Scenedesmus	360	61	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	78	13	
		Pennales			
		Achnanthaceae			
		Cocconeis	13	2	
		Naviculaceae			
		Navicula	39	7	
		TOTAL	600		
June 3	1309	CHLOROPHYTA			Sediment sampler
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	40	2	
		Occystaceae			
		Ankistrodesmus	150	7	
		Dictyosphaerium	160	8	
		Kirchneriella	40	2	
		Scenedesmaceae			
		Scenedesmus	130	7	
		Tetrastrum	53	3	
		Occystaceae			
		Gloeactinium	150	7	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	210	11	
		Melosira	690	34	
		Pennales			
		Naviculaceae			
		Navicula	27	1	
		Nitzschiaceae			
		Nitzschia	27	1	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	330	17	
		TOTAL	2,000		Sediment sampler
July 8	1130	CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Occystaceae			
		Ankistrodesmus	160	5	
		Chodatella	26	1	
		Dictyosphaerium	52	2	
		Scenedesmaceae			
		Crucigenia	100	3	
		Scenedesmus	520	16	
		Volvocales			
		Phacotaceae			
		Phacotus	26	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	290	9	
		Melosira	130	4	
		Pennales			
		Achnanthaceae			
		Achnanthes	78	2	
		Fragilariaceae			

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count (cells/ml)</u>	<u>Percent of total</u>	<u>Sampling method</u>
July 8	1130	Synedra	52	2	Sediment sampler
		Naviculaceae			
		Navicula	78	2	
		Nitzschiaceae			
		Nitzschia	130	4	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Anacystis	520	16	
		Oscillatoriales			Sediment sampler
		Oscillatoriaceae			
		Oscillatoria	1,000	33	
		TOTAL	3,200		
Aug. 4	1100	CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Coelastraceae			
		Coelastrum		0	
		Micractiniaceae			
		Micractinium	50	1	
		Occystaceae			
		Ankistrodesmus	150	2	
		Tetraedron	50	1	Sediment sampler
		Scenedesmaceae			
		Crucigenia		0	
		Scenedesmus	700	9	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Cyclotella	50	1	
		Pennales			
		Naviculaceae			Sediment sampler
		Caloneis	50	1	
		Navicula	50	1	
		Nitzschiaceae			
		Nitzschia	500	6	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	990	12	
		Anacystis	3,500	43	Sediment sampler
		Oscillatoriales			
		Oscillatoriaceae			
		Lyngbya	250	3	
		Oscillatoria	1,800	22	
		TOTAL	8,100		
Sept. 9	1100	CHLOROPHYTA			
		Chlorophyceae			
		Chlorococcales			
		Hydrodictyaceae			
		Pediastrum	390	6	
		Occystaceae			
		Ankistrodesmus		0	
		Scenedesmaceae			
		Scenedesmus	49	1	
		Volvocales			Sediment sampler
		Chlamydomonadaceae			
		Chlamydomonas	49	1	
		CHRYSOPHYTA			
		Bacillariophyceae			
		Centrales			
		Coscinodiscaceae			
		Melosira	97	2	
		Pennales			
		Gomphonemataceae			
		Gomphonema		0	Sediment sampler
		Nitzschiaceae			
		Nitzschia	150	2	
		CYANOPHYTA			
		Myxophyceae			
		Chroococcales			
		Chroococcaceae			
		Agmenellum	3,900	60	
		Oscillatoriales			
		Nostocaceae			
		Aphanizomenon	240	4	Sediment sampler
		Oscillatoriaceae			
		Lyngbya	490	8	
		Oscillatoria	1,000	16	

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA,
WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

<u>Date</u>	<u>Time</u>	<u>Organism</u>	<u>Count</u> <u>(cells/ml)</u>	<u>Percent</u> <u>of total</u>	<u>Sampling</u> <u>method</u>
Sept. 9	1100	EUGLENOPHYTA			Sediment sampler
		Euglenophyceae			
		Euglenales			
		Euglenaceae			
		Trachelomonas		0	
		TOTAL	6,400		

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	476	326	361	497	512	479	482	710	484	519	492
2	449	504	473	460	512	483	478	478	482	517	472	480
3	452	492	475	469	483	490	475	480	485	518	497	482
4	450	465	475	477	482	505	477	482	496	517	520	489
5	460	419	473	458	480	475	480	467	501	512	512	513
6	497	422	390	475	474	492	480	359	506	520	494	526
7	453	428	321	474	480	509	479	415	498	498	527	495
8	454	460	398	476	507	466	477	464	496	---	526	494
9	455	471	470	476	508	457	479	450	501	---	496	501
10	454	470	474	474	478	369	480	450	486	490	---	519
11	454	463	475	479	485	374	484	468	426	515	503	536
12	486	464	473	483	502	408	480	468	376	529	494	547
13	459	470	383	476	479	364	463	259	523	497	492	547
14	456	468	474	478	494	300	484	330	505	---	490	499
15	454	468	478	477	505	368	484	449	478	494	517	497
16	474	478	476	482	512	466	483	461	477	444	494	496
17	473	496	473	493	492	479	479	470	474	509	490	513
18	476	469	476	497	485	478	94	482	457	524	---	515
19	502	468	474	501	482	479	254	487	369	540	493	524
20	509	472	344	477	490	471	57	473	525	494	492	504
21	468	476	498	480	475	470	415	488	540	---	518	500
22	465	480	494	480	498	484	442	486	510	492	499	535
23	464	476	477	479	504	478	465	490	482	493	519	524
24	463	477	484	478	484	475	464	470	457	522	494	533
25	464	474	482	485	489	480	473	481	443	---	492	504
26	470	473	339	507	493	470	476	499	476	494	493	515
27	495	474	297	480	493	494	476	482	506	492	---	497
28	462	494	245	476	492	494	480	416	502	---	---	495
29	462	473	280	478	510	467	478	495	472	---	522	514
30	493	228	242	485	---	201	481	425	475	---	541	517
31	442	---	316	478	---	499	---	435	---	488	491	---
MONTH	467	462	418	476	492	450	440	453	488	---	504	510
YEAR	MAX	710	MIN	57	MEAN	471						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	10.0	7.0	6.0	15.0	12.0	16.0	19.0	22.0	23.0	23.0
2	20.0	18.0	10.0	7.0	7.0	15.0	12.0	16.0	19.0	22.0	24.0	24.0
3	19.0	19.0	10.0	5.0	5.0	16.0	14.0	15.0	19.0	22.0	22.0	23.0
4	19.0	18.0	10.0	5.0	6.0	15.0	14.0	15.0	19.0	22.0	24.0	24.0
5	18.0	18.0	15.0	3.0	6.0	9.0	15.0	16.0	19.0	25.0	24.0	24.0
6	18.0	18.0	12.0	6.0	3.0	10.0	15.0	17.0	18.0	24.0	23.0	24.0
7	18.0	18.0	10.0	5.0	3.0	10.0	15.0	16.0	18.0	20.0	24.0	23.0
8	19.0	18.0	10.0	5.0	5.0	10.0	14.0	15.0	18.0	23.0	24.0	24.0
9	20.0	18.0	10.0	4.0	7.0	10.0	15.0	16.0	19.0	23.0	23.0	23.0
10	22.0	15.0	10.0	6.0	10.0	10.0	15.0	16.0	18.0	23.0	23.0	25.5
11	22.0	16.0	11.0	8.0	10.0	14.0	15.0	18.0	25.0	25.0	24.0	23.0
12	23.0	15.0	12.0	6.0	10.0	14.0	15.0	17.0	24.5	25.0	24.0	25.0
13	23.0	12.0	14.0	8.0	10.0	8.0	15.0	17.0	25.5	24.0	24.0	26.5
14	22.0	13.0	15.0	6.0	14.0	10.0	15.0	17.0	23.0	24.0	25.0	25.5
15	21.0	15.0	10.0	6.0	15.0	13.0	15.0	18.0	20.5	23.0	25.0	27.5
16	20.0	15.0	9.0	6.0	15.0	9.0	15.0	18.0	26.0	23.0	24.0	26.0
17	18.0	15.0	9.0	5.5	10.0	9.0	18.0	18.0	24.5	23.0	24.0	28.0
18	18.0	15.0	7.0	6.0	9.0	12.0	17.0	20.0	23.0	25.0	24.0	24.0
19	18.0	16.0	8.0	8.0	9.0	12.0	18.0	18.0	21.5	27.0	23.0	24.0
20	18.0	15.0	9.0	5.0	12.0	12.0	17.0	17.0	27.0	23.0	---	23.0
21	21.0	10.0	7.0	6.0	6.0	12.0	17.0	20.0	28.0	23.0	24.0	23.0
22	20.0	10.0	7.0	6.0	5.0	12.0	16.0	19.0	24.5	23.0	23.0	23.0
23	20.0	12.0	9.0	7.0	7.0	11.0	16.0	18.0	23.5	23.0	24.0	24.0
24	22.0	10.0	10.0	7.0	7.0	15.0	16.0	18.0	22.5	23.0	23.0	23.0
25	18.0	11.0	9.0	9.0	9.0	15.0	16.0	18.0	22.0	24.0	24.0	23.0
26	19.0	10.0	5.0	5.0	9.0	15.0	18.0	18.0	26.0	23.0	24.0	23.0
27	18.0	10.0	8.0	4.0	10.0	12.0	18.0	18.0	25.0	23.0	24.0	23.0
28	18.0	10.0	9.0	5.0	13.0	15.0	15.0	17.0	22.0	23.0	24.0	22.0
29	19.0	15.0	8.0	6.0	14.0	15.0	15.0	18.0	24.5	24.0	25.0	19.0
30	18.0	12.0	7.0	8.0	---	15.0	16.0	20.0	22.0	24.0	24.0	18.0
31	17.0	---	6.0	7.0	---	11.0	---	19.0	---	24.0	23.0	---
MONTH	19.5	14.5	9.5	6.0	8.5	12.5	15.5	17.5	22.0	23.5	24.0	23.5
YEAR	MAX	28.0	MIN	3.0	MEAN	16.5						

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

DISSOLVED SULFATE (SO₄), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	35	27	29	36	37	35	35	54	35	37	36
2	34	36	35	34	37	35	35	35	35	37	35	35
3	34	36	35	35	35	36	35	35	35	37	36	35
4	34	34	35	35	35	36	35	35	36	37	37	36
5	35	32	35	34	35	35	35	35	36	37	37	37
6	36	32	31	35	35	36	35	29	36	37	36	37
7	34	33	27	35	35	37	35	32	36	36	37	36
8	34	34	31	35	36	35	35	34	36	---	37	36
9	34	35	35	35	36	34	35	34	36	---	36	36
10	34	35	35	35	35	30	35	34	35	36	---	37
11	34	34	35	35	35	30	35	35	33	37	36	38
12	35	34	35	35	36	32	35	35	30	37	36	39
13	34	35	31	35	35	30	34	23	37	36	36	39
14	34	35	35	35	36	26	35	27	36	---	36	36
15	34	35	35	35	36	30	35	34	35	36	37	36
16	35	35	35	35	37	35	35	34	35	33	36	36
17	35	36	35	36	36	35	35	35	35	37	36	37
18	35	35	35	36	35	35	13	35	34	37	---	37
19	36	35	35	36	35	35	23	36	30	38	36	37
20	37	35	28	35	36	35	11	35	37	36	36	36
21	35	35	36	35	35	35	32	36	38	---	37	36
22	34	35	36	35	36	35	33	35	37	36	36	38
23	34	35	35	35	36	35	34	36	35	36	37	37
24	34	35	35	35	35	35	34	35	34	37	36	38
25	34	35	35	35	36	35	35	35	33	---	36	36
26	35	35	28	36	36	35	35	36	35	36	36	37
27	36	35	25	35	36	36	35	35	36	36	---	36
28	34	36	22	35	36	36	35	32	36	---	---	36
29	34	35	24	35	37	35	35	36	35	---	37	37
30	36	21	22	35	---	19	35	33	35	---	36	37
31	33	---	27	35	---	36	---	33	---	36	36	---
MONTH	35	34	32	35	36	34	33	34	36	---	36	37
YEAR	MAX	54	MIN	11	MEAN	35						

DISSOLVED SULFATE (SO₄), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	19.9	201	7.83	7.87	34.3	123	964	739	91.2	391	223
2	132	9.14	375	120	146	70.9	198	941	688	15.1	155	230
3	173	400	123	14.9	102	11.0	90.4	803	724	11.8	43.3	139
4	58.7	497	184	47.2	267	16.4	11.1	640	750	47.3	24.3	65.9
5	6.99	250	182	234	272	110	46.9	567	625	16.5	165	10.6
6	245	42.9	81.9	305	261	13.0	109	603	471	43.3	370	72.2
7	366	75.3	15.7	513	69.7	7.99	185	657	688	91.2	135	381
8	349	14.6	52.1	574	9.43	68.0	215	764	531	---	14.9	417
9	219	8.79	70.3	542	106	139	694	796	596	---	358	104
10	165	85.0	165	112	208	18.0	198	738	540	132	---	11.8
11	59.6	390	46.5	14.2	63.6	10.9	57.7	693	492	10.9	468	8.82
12	53.5	416	417	39.8	172	18.1	439	748	82.6	204	510	7.79
13	502	88.0	109	49.7	179	9.40	460	521	222	364	458	282
14	672	568	12.4	174	13.1	6.81	278	540	576	---	108	277
15	196	242	70.9	50.2	6.90	13.3	93.6	936	370	254	108	153
16	58.5	19.5	543	14.4	33.2	110	111	1210	281	91.8	355	52.6
17	40.4	410	384	10.5	226	197	60.6	1260	410	16.8	398	10.1
18	12.0	271	741	9.53	98.3	18.1	35.8	1220	488	10.9	---	7.89
19	7.00	355	232	27.0	102	330	39.0	948	96.4	263	262	19.1
20	549	410	29.7	147	83.0	87.8	110	1020	19.3	380	99.1	66.9
21	652	394	12.6	162	43.2	10.1	933	1310	336	---	56.0	25.6
22	614	281	241	46.9	7.00	251	1140	1270	544	619	38.4	7.28
23	634	109	222	146	364	404	1180	1290	620	546	348	5.69
24	710	546	45.8	56.0	335	410	1190	1270	654	143	517	28.2
25	470	824	17.3	9.92	87.7	484	1230	827	364	---	527	33.0
26	85.0	748	25.3	88.9	120	160	1240	806	70.4	496	517	6.49
27	405	146	13.7	205	79.9	14.3	1010	700	73.8	666	---	325
28	742	728	8.91	228	12.4	12.4	973	594	366	---	---	65.7
29	176	180	64.5	111	7.29	236	973	580	495	---	14.6	15.2
30	30.4	25.9	11.3	70.2	---	106	973	412	395	---	11.1	21.6
31	169	---	8.53	30.3	---	207	---	472	---	152	165	---
MONTH	283	285	152	134	120	116	480	842	444	---	245	102
YEAR	MAX	1310	MIN	5.69	MEAN	287						

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

DISSOLVED CHLORIDE (CL), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	60	30	34	61	62	60	60	75	60	63	61
2	58	62	60	59	62	60	60	60	60	63	60	60
3	58	61	60	60	60	61	60	60	61	63	61	60
4	58	59	60	60	60	62	60	60	61	63	63	61
5	60	56	60	59	60	60	60	59	62	62	62	62
6	61	56	46	60	60	61	60	34	62	63	61	63
7	58	57	30	60	60	62	60	56	61	61	63	61
8	59	59	53	60	62	59	60	59	61	---	63	61
9	59	60	60	60	62	59	60	58	62	---	61	62
10	59	60	60	60	60	35	60	58	61	61	---	63
11	59	59	60	60	61	35	60	59	57	63	62	64
12	61	59	60	60	62	56	60	59	36	63	61	65
13	59	60	39	60	60	34	59	23	63	61	61	65
14	59	59	60	60	61	27	60	31	62	---	61	61
15	59	59	60	60	62	35	60	58	60	61	63	61
16	60	60	60	60	62	59	60	59	60	58	61	61
17	60	61	60	61	61	60	60	60	60	62	61	62
18	60	60	60	61	61	60	5.5	60	59	63	---	63
19	62	59	60	62	60	60	23	61	35	64	61	63
20	62	60	32	60	61	60	1.5	60	63	61	61	62
21	59	60	61	60	60	60	56	61	64	---	63	62
22	59	60	61	60	61	60	58	61	62	61	61	64
23	59	60	60	60	62	60	59	61	60	61	63	63
24	59	60	60	60	60	60	59	60	59	63	61	64
25	59	60	60	61	61	60	60	60	58	---	61	62
26	60	60	32	62	61	60	60	61	60	61	61	63
27	61	60	27	60	61	61	60	60	62	61	---	61
28	59	61	22	60	61	61	60	56	62	---	---	61
29	59	60	25	60	62	59	60	61	60	---	63	62
30	61	20	21	61	---	17	60	57	60	---	64	63
31	58	---	29	60	---	61	---	57	---	61	61	---
MONTH	59	58	49	59	61	54	55	56	60	---	62	62
YEAR	MAX	75	MIN	1.5	MEAN	58						

DISSOLVED CHLORIDE (CL), TONS PER DAY, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976,
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	396	34.2	224	9.18	13.3	57.4	211	1650	1030	156	665	377
2	226	15.7	643	209	244	121	340	1610	1180	25.7	266	394
3	294	679	211	25.6	175	18.6	155	1380	1260	20.1	73.3	238
4	100	862	316	80.8	458	28.3	19.0	1100	1270	80.5	41.3	112
5	12.0	437	313	406	467	188	80.4	956	1080	27.6	276	17.7
6	415	75.0	121	523	447	22.1	186	707	812	73.7	628	123
7	625	130	17.4	880	120	13.4	318	1150	1170	154	230	646
8	605	25.3	89.0	983	16.2	115	369	1330	899	---	25.3	707
9	381	15.1	121	930	182	241	1190	1360	1030	---	606	179
10	287	146	283	193	356	21.0	339	1260	940	224	---	20.1
11	103	677	83.1	24.3	111	12.7	99.0	1170	850	18.5	805	14.9
12	93.2	722	714	68.2	296	31.6	753	1260	99.1	347	865	13.0
13	871	151	137	35.2	306	10.6	798	521	378	618	776	470
14	1170	957	21.2	298	22.2	7.07	476	620	993	---	183	469
15	341	408	121	86.0	11.9	15.5	160	1600	635	430	184	259
16	100	33.4	931	24.6	55.6	185	190	2100	481	161	601	89.1
17	69.2	695	658	17.8	382	337	104	2150	703	28.1	674	16.9
18	20.6	465	1270	16.1	171	31.1	15.1	2090	847	18.5	---	13.4
19	12.1	599	397	46.5	175	565	39.0	1610	112	442	445	32.5
20	921	703	34.0	253	141	150	15.0	1750	32.8	644	168	115
21	1100	676	21.4	277	74.0	17.3	1630	2220	565	---	95.4	44.0
22	1070	481	408	80.4	11.9	431	2000	2210	912	1050	65.1	12.3
23	1100	186	249	628	692	2050	2190	1060	926	592	674	9.70
24	1230	936	78.6	96.1	575	703	2070	2170	1130	243	876	47.5
25	616	1410	29.6	17.3	149	829	2110	1420	640	---	893	56.9
26	146	1280	28.9	153	203	274	2120	1370	121	840	876	11.1
27	687	249	14.8	352	135	24.2	1730	1200	127	1130	---	550
28	1290	1230	8.91	390	21.1	21.1	1670	1040	631	---	---	111
29	306	308	67.2	190	12.2	396	1670	983	849	---	24.8	25.4
30	51.6	24.6	10.8	122	---	94.6	1670	711	677	---	18.7	36.7
31	298	---	9.16	52.0	---	351	---	816	---	257	280	---
MONTH	488	487	250	230	205	194	819	1410	750	---	416	174
YEAR	MAX	2220	MIN	7.07	MEAN	485						

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OK--Continued

DISSOLVED SOLIDS (RESIDUE AT 180 DEG. C.), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	263	189	206	273	281	265	266	379	267	284	271
2	250	277	262	255	281	267	264	264	266	283	261	265
3	251	271	263	260	267	270	263	265	268	284	273	266
4	250	258	263	264	266	277	264	266	273	283	285	269
5	265	235	262	254	265	263	265	259	275	281	281	281
6	273	236	221	263	262	271	265	205	278	285	272	288
7	252	239	186	262	265	279	265	233	274	274	288	272
8	252	255	225	263	278	258	264	257	273	---	286	272
9	253	261	260	263	279	254	265	250	275	---	273	275
10	252	260	262	262	264	210	265	250	268	270	---	284
11	252	257	263	265	268	213	267	259	238	282	276	293
12	268	257	262	267	276	229	265	259	214	289	272	298
13	255	260	217	263	265	208	257	156	286	273	271	298
14	253	259	262	264	272	176	267	191	277	---	270	274
15	252	259	264	264	277	210	267	250	264	272	283	273
16	262	264	263	266	281	258	267	256	264	247	272	273
17	262	273	262	271	271	265	265	260	262	279	270	281
18	263	260	263	273	268	264	74	266	254	287	---	282
19	276	259	262	275	266	265	153	269	210	295	271	287
20	279	261	198	264	270	261	56	262	287	272	271	277
21	259	263	274	265	263	260	233	269	295	---	284	275
22	258	265	272	265	274	267	246	268	280	271	274	292
23	257	263	264	265	277	264	258	270	266	271	284	287
24	257	264	267	264	267	263	257	260	254	286	272	291
25	257	262	266	268	269	265	262	266	247	---	271	277
26	260	262	195	278	271	260	263	274	263	272	271	282
27	272	262	175	265	271	272	263	266	278	271	---	273
28	256	272	149	263	271	272	265	233	276	---	---	272
29	256	262	166	264	280	259	264	272	261	---	286	282
30	271	141	147	268	---	127	266	238	263	---	295	283
31	246	---	184	264	---	274	---	243	---	269	270	---
MONTH	258	256	234	263	271	250	245	252	269	---	277	280
YEAR	MAX	379	MIN	56	MEAN	260						

DISSOLVED SOLIDS (TONS PER DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	150	1410	55.6	59.7	260	930	7330	5190	696	3000	1680
2	972	70.3	2810	902	1110	541	1500	7100	5230	115	1160	1740
3	1270	3010	923	111	779	82.4	680	6080	5540	90.5	328	1060
4	431	3770	1380	356	2030	126	83.4	4860	5690	361	187	492
5	52.9	1830	1370	1750	2060	824	355	4200	4770	125	1250	80.4
6	1860	316	584	2290	1950	98.0	823	4260	3640	333	2800	562
7	2710	545	108	3840	528	60.3	1400	4780	5240	694	1050	2880
8	2590	109	378	4310	72.8	502	1630	5770	4020	---	116	3150
9	1630	65.5	522	4080	821	1040	5250	5850	4550	---	2710	794
10	1220	631	1240	842	1570	126	1500	5430	4130	991	---	90.5
11	442	2950	364	107	487	77.1	440	5130	3550	83.0	3580	68.0
12	410	3140	3120	303	1320	129	3330	5540	589	1590	3860	59.5
13	3770	654	762	374	1350	65.1	3480	3530	1710	2760	3450	2160
14	5000	4200	92.7	1310	99.1	46.1	2120	3820	4440	---	809	2110
15	1460	1790	535	378	53.1	93.0	714	6880	2790	1920	825	1160
16	438	147	4080	109	252	808	843	9120	2120	687	2680	399
17	302	3110	2870	79.0	1700	1490	459	9340	3070	127	2980	76.6
18	90.2	2010	5570	72.2	753	137	204	9260	3650	84.5	---	60.2
19	53.7	2630	1730	206	776	2500	259	7080	675	2040	1980	148
20	4140	3060	210	1110	623	655	559	7640	150	2870	746	515
21	4830	2960	96.2	1220	325	75.1	6790	9810	2600	---	430	195
22	4660	2130	1820	355	53.3	1920	8500	9700	4120	4660	292	56.0
23	4790	817	1680	1100	2800	3040	8990	9700	4710	4110	2670	44.2
24	5360	4120	350	423	2560	3080	9020	9410	4880	1100	3910	216
25	3550	6170	131	76.0	655	3660	9200	6280	2730	---	3970	254
26	631	5600	176	687	900	1190	9300	6130	529	3750	3890	49.5
27	3060	1090	59.9	1550	601	108	7600	5320	570	5010	---	2460
28	5580	5500	60.3	1710	93.7	94.0	7370	4330	2810	---	---	496
29	1330	1340	446	834	55.2	1750	7340	4380	3690	---	113	116
30	229	174	75.8	538	---	706	7400	2970	2970	---	86.0	165
31	1260	---	58.1	229	---	1580	---	3480	---	1130	1240	---
MONTH	2120	2140	1130	1010	912	867	3600	6270	3350	---	1860	778
YEAR	MAX	9810	MIN	44.2	MEAN	2150						

ARKANSAS RIVER BASIN

441

07245500 SALLISAW CREEK NEAR SALLISAW, OK

LOCATION.--Lat 35°27'52", long 94°51'43", in SW 1/4 sec.34, T.12 N., R.23 E., Sequoyah County, on downstream side of right pier of abandoned county road bridge, 300 ft (91.4 m) upstream from U.S. Highway 64, 400 ft (121.9 m) downstream from water-supply dam of city of Sallisaw, 3.5 mi (5.6 km) west of Sallisaw, 5 mi (8 km) upstream from Little Sallisaw Creek, and at mile 9.0 (14.5 km).

DRAINAGE AREA.--182 mi² (471 km²).

PERIOD OF RECORD.--October 1942 to September 1976 (discontinued).

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 474.78 ft (142.713 m) above mean sea level. Prior to Aug. 20, 1953, and as supplementary gage since Feb. 21, 1958, water-stage recorder at site 400 ft (121.9 m) upstream at datum 15.22 ft (4.630 m) higher. Aug. 20, 1953, to Apr. 9, 1963, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. Small diversion above station for municipal water supply of city of Sallisaw.

COOPERATION.--Gage-height record and 27 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--34 years, 202 ft³/s (5.721 m³/s), 146,300 acre-ft/yr (180 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 110,000 ft³/s (3,115 m³/s) Apr. 15, 1945, gage height, 11.25 ft (3.429 m), site and datum then in use, from rating curve extended above 23,000 ft³/s (651 m³/s) on basis of contracted-opening measurements at gage heights 7.96 and 11.25 ft (2.462 and 3.429 m); no flow at times in 1943, 1954, 1956, 1960, 1963, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,300 ft³/s (235 m³/s) at 0945 Apr. 20, gage height, 12.48 ft (3.804 m), no other peak above base of 4,000 ft³/s (113 m³/s); minimum daily, 3.0 ft³/s (0.085 m³/s) Aug. 30, Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	10	240	267	42	48	222	427	144	44	6.8	4.3
2	19	10	176	220	40	46	196	323	100	35	74	5.1
3	17	13	129	186	39	44	177	248	79	40	18	6.5
4	16	16	103	157	37	51	160	218	62	157	12	5.2
5	16	22	310	138	35	68	144	216	55	231	10	5.0
6	15	24	1850	127	32	72	135	465	49	180	52	4.9
7	14	33	1010	116	30	74	122	374	52	97	47	4.3
8	13	29	768	103	30	706	108	294	49	59	30	4.2
9	13	29	618	95	29	1740	97	247	43	50	23	3.8
10	12	26	485	68	29	1160	89	278	39	48	19	3.5
11	11	25	383	86	29	764	80	272	36	47	15	3.4
12	11	25	277	82	30	1120	75	1040	33	40	12	3.3
13	11	22	210	78	30	822	75	1760	31	34	1	3.1
14	11	22	181	75	28	535	74	1150	29	30	9.8	3.1
15	11	20	158	70	28	431	70	1120	29	28	8.6	3.0
16	10	19	138	66	28	363	72	1110	30	28	7.9	4.3
17	10	18	124	61	30	308	94	875	28	24	7.3	14
18	9.9	17	100	58	31	280	665	698	51	22	6.3	12
19	9.7	19	89	56	30	246	1390	530	72	20	5.7	19
20	9.7	28	80	54	31	222	5700	374	64	18	5.1	45
21	9.5	40	72	51	41	196	2410	286	50	16	4.6	30
22	9.3	44	67	49	50	176	1880	231	39	14	4.2	21
23	9.2	40	62	45	59	159	1680	193	34	13	3.9	17
24	9.7	34	61	44	63	148	1540	170	65	12	3.7	14
25	12	32	75	46	62	139	1420	145	342	11	3.5	12
26	13	32	108	43	58	130	1260	128	235	11	3.4	12
27	13	30	118	41	55	121	1020	133	145	9.9	3.3	19
28	12	29	134	41	51	113	921	123	105	8.9	3.3	36
29	11	38	254	38	49	184	722	104	79	8.3	3.9	25
30	10	198	372	39	---	270	579	93	60	7.8	3.0	19
31	10	---	325	45	---	249	---	108	---	7.3	3.5	---
TOTAL	379.0	944	9077	2665	1126	10985	23177	13753	2229	1351.2	420.8	362.0
MEAN	12.2	31.5	293	86.0	38.8	354	773	444	74.3	43.6	13.6	12.1
MAX	21	198	1850	267	63	1740	5700	1780	342	231	74	45
MIN	9.2	10	61	38	28	44	70	93	28	7.3	3.0	3.0
AC-FT	752	1870	18000	5290	2230	21790	45970	27280	4420	2680	835	718

CAL YR 1975 TOTAL 98287.8 MEAN 269 MAX 2630 MIN 7.1 AC-FT 195000
WTR YR 1976 TOTAL 66469.0 MEAN 182 MAX 5700 MIN 3.0 AC-FT 131800

ARKANSAS RIVER BASIN

07246400 ROBERT S. KERR LOCK AND DAM (ARKANSAS RIVER) NEAR SALLISAW, OK

LOCATION.--Lat 35°21'57", long 94°46'43", in SE 1/4 sec.8, T.10 N., R.24 E., Sequoyah County, Hydrologic Unit 11110104, from lock wall at dam, 0.4 mi (0.6 km) upstream from gage on bridge on U.S. Highway 59, 3.5 mi (5.6 km) downstream from Sans Bois Creek, 7.5 mi (12.1 km) south of Sallisaw, and at mile 395.4 (636.2 km).

DRAINAGE AREA.--147,750 mi² (382,672 km²) of which 22,241 mi² (57,604 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07246400 ROBERT S. KERR LOCK AND DAM (ARKANSAS RIVER) NEAR SALLISAW, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CARBON DIOXIDE (CO ₂) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	DIS- SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (TUNS PER AC-FT)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
UCT											
16...	6.9	45	72	--	302	.41	--	--	--	--	--
NOV											
12...	5.2	38	69	--	285	.39	--	--	--	--	--
12...	--	--	--	.2	--	--	--	1.4	--	2	<1
DEC											
09...	3.4	40	82	--	303	.41	.19	--	--	--	--
09...	--	--	--	.2	--	--	--	2.9	.08	--	--
FEB											
04...	.2	44	71	--	280	.38	.13	--	--	--	--
04...	--	--	--	.2	--	--	--	.90	.02	<1	<1
MAR											
03...	--	--	--	.2	--	--	--	.60	.01	--	--
APR											
06...	.3	40	100	--	359	.49	.38	--	.05	--	--
06...	--	--	--	.2	--	--	--	<.30	.10	--	--
MAY											
04...	--	50	97	--	341	.46	.41	--	--	--	--
04...	--	--	--	.2	--	--	--	.70	<.08	1	<1
JUN											
02...	.7	74	290	--	740	1.01	--	--	--	--	--
02...	--	--	--	.3	--	--	--	1.2	<.08	--	--
JUL											
07...	1.6	46	76	--	305	.41	1.1	--	--	--	--
07...	--	--	--	.2	--	--	--	1.8	<.09	--	--
AUG											
12...	1.4	36	70	--	266	.36	.19	--	--	--	--
12...	--	--	--	.2	--	--	--	2.0	.09	4	<1
SEP											
15...	--	--	--	.4	--	--	--	2.3	.11	--	--

DATE	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
UCT										
16...	--	--	--	--	--	--	--	--	--	--
NOV										
12...	--	--	--	--	--	--	--	--	--	--
12...	5	6	1200	10	88	--	6	--	1	10
DEC										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	200	--	40	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
04...	5	5	300	10	38	--	6	--	<1	290
MAR										
03...	--	--	400	--	72	--	--	--	--	--
APR										
06...	--	--	--	--	--	--	--	--	--	--
06...	--	--	2800	--	120	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
04...	6	5	300	25	110	<.5	5	1	1	9
JUN										
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	300	--	57	--	--	--	--	--
JUL										
07...	--	--	--	--	--	--	--	--	--	--
07...	--	--	1200	--	127	--	--	--	--	--
AUG										
12...	--	--	--	--	--	--	--	--	--	--
12...	11	5	300	10	45	<.5	10	<2	<1	10
SEP										
15...	--	--	300	--	52	--	--	--	--	--

ARKANSAS RIVER BASIN

07247500 FOURCHE MALINE NEAR RED OAK, OK

LOCATION.--Lat 34°54'44", long 95°09'20", in NW 1/4 NW 1/4 sec.13, T.5 N., R.20 E., Latimer County, on downstream side of left abutment of county road bridge, 0.1 mi (0.2 km) downstream from Little Fourche Maline, 5.0 mi (8.0 km) southwest of Red Oak, and at mile 41.2 (66.3 km).

DRAINAGE AREA.--122 mi² (316 km²).

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1631: 1940.

GAGE.--Water-stage recorder. Datum of gage is 540.80 ft (164.836 m) above mean sea level. Prior to Apr. 25, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good. Some regulation by several flood retarding structures.

COOPERATION.--Gage-height record and 33 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--38 years, 131 ft³/s (3.710 m³/s), 14.58 in/yr (370 mm/yr), 94,910 acre-ft/yr (117 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,500 ft³/s (1,175 m³/s) May 19, 1960, gage height, 24.70 ft (7.556 m), from floodmarks, from rating curve extended above 25,000 ft³/s (709 m³/s); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1935 reached a stage of 25.4 ft (7.742 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,840 ft³/s (109 m³/s) at 1700 Apr. 20, gage height, 16.24 ft (4.950 m), no other peak above base of 3,000 ft (85.0 m³/s); minimum, 0.03 ft³/s (0.001 m³/s) Aug. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	1.5	50	90	6.1	8.2	77	75	33	7.3	.78	4.6
2	2.8	1.4	41	66	5.8	7.6	62	62	26	7.2	.79	5.0
3	2.9	4.6	31	50	5.7	7.2	52	52	20	7.3	.54	4.6
4	2.8	15	25	38	6.2	9.1	49	44	17	6.8	.38	2.8
5	2.4	42	24	30	6.2	17	43	44	14	6.3	.33	1.9
6	2.0	47	101	26	5.7	24	39	349	13	5.5	.33	1.5
7	1.9	32	95	23	5.1	24	34	311	13	4.9	.33	1.4
8	2.0	22	51	20	4.9	524	29	166	13	4.5	.47	1.1
9	2.1	16	35	17	5.1	1160	26	109	9.0	4.1	1.0	1.0
10	1.9	13	27	16	5.9	716	22	83	7.4	3.6	.86	1.0
11	2.0	15	21	16	6.9	330	20	64	6.4	3.4	.76	.82
12	2.1	11	18	16	7.1	221	18	161	5.7	3.3	.64	.62
13	2.0	8.7	15	16	7.4	153	16	1410	5.2	3.4	.42	.61
14	2.0	7.0	13	15	6.8	108	16	967	4.8	3.1	.1	.75
15	2.1	5.7	12	14	6.2	69	16	789	6.6	2.4	.00	.67
16	1.9	4.9	12	12	6.0	77	14	582	19	2.9	.06	.90
17	1.8	4.6	12	11	7.0	65	16	330	14	2.7	.20	1.0
18	2.5	4.3	11	10	6.9	57	289	196	58	2.3	2.7	1.1
19	1.8	4.3	9.4	11	7.2	50	529	122	97	2.0	7.2	1.2
20	1.2	5.8	6.4	10	7.0	45	3040	88	42	1.8	6.9	1.2
21	1.3	16	7.9	9.6	8.5	39	1970	70	23	1.5	8.0	1.2
22	1.6	14	6.9	10	14	33	1070	59	14	1.5	3.9	1.0
23	1.7	13	6.1	10	14	30	684	50	11	1.5	1.4	.83
24	2.0	12	6.5	9.9	14	26	767	42	12	1.4	.50	.74
25	2.3	10	9.1	9.6	12	24	542	36	13	1.3	.22	.66
26	3.1	9.2	46	9.3	9.6	23	220	32	16	1.3	.76	.66
27	2.8	8.3	111	8.6	6.1	20	90	88	16	1.2	1.8	1.0
28	2.4	8.2	97	8.0	7.5	19	72	115	13	1.1	4.6	1.3
29	2.1	7.8	149	8.2	7.3	49	109	73	10	1.1	4.3	1.5
30	2.0	8.6	214	7.5	---	165	96	49	8.5	.91	3.9	1.2
31	1.6	---	131	6.5	---	109	---	39	---	.82	4.3	---
TOTAL	66.5	372.9	1396.3	604.6	220.2	4229.1	10227	6662	560.6	94.43	54.01	44.04
MEAN	2.15	12.4	45.0	19.5	7.59	136	341	215	18.7	3.19	1.89	1.47
MAX	3.4	47	214	90	14	1160	3040	1410	97	7.3	8.0	5.0
MIN	1.2	1.4	6.1	6.5	4.9	7.2	14	32	4.6	.82	.06	.61
CFS#	.02	.10	.37	.16	.06	1.11	2.80	1.76	.15	.03	.02	.01
IN.	.02	.11	.43	.18	.07	1.29	3.12	2.03	.17	.03	.02	.01
AC-FT	152	740	2770	1200	437	8390	20290	13210	1110	196	116	.87
CAL YR 1975 TOTAL	60386.79			MEAN 165	MAX 1690	MIN .44	CFS# 1.35	IN 18.41	AC-FT 119800			
WIR YR 1976 TOTAL	24540.78			MEAN 67.1	MAX 3040	MIN .06	CFS# .55	IN 7.48	AC-FT 48680			

07248000 WISTER LAKE NEAR WISTER, OK

LOCATION.--Lat 34°56'10", long 94°43'10", in SE 1/4 NE 1/4 sec.1, T.5 N., R.24 E., LeFlore County, in control tower near right end of Wister Dam on Poteau River, 2.0 mi (3.2 km) south of Wister, 2.7 mi (4.3 km) upstream from Casten Creek, and at mile 60.9 (98.0 km).

DRAINAGE AREA.--993 mi² (2,572 km²).

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1970 published as Wister Reservoir near Wister.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by an earth dam. Regulated storage began Oct. 4, 1949, conservation pool was first filled Dec. 19, 1949. Capacity, 429,600 acre-ft (530 hm³) at elevation 502.5 ft (153.16 m) crest of spillway and 29,950 acre-ft (36.9 hm³) at elevation 471.6 ft (143.74 m) conservation pool. Figures given herein represent total contents. Reservoir is used for flood control and recreation. Revised capacity table used since Oct. 1, 1953.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 507,400 acre-ft (626 hm³) May 27, 1957, elevation, 505.73 ft (154.147 m); minimum since conservation pool was first filled, 4,020 acre-ft (5.0 hm³) Oct. 16, 1961, elevation, 456.97 ft (139.284 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 111,000 acre-ft (137 hm³) Apr. 23, elevation, 483.44 ft (147.353 m); minimum, 25,680 acre-ft (31.7 hm³) Apr. 16, elevation, 471.25 ft (143.637 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

471	24,720	477	55,360
473	33,080	480	78,210
475	43,240	484	117,000

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67250	61630	59830	43740	29240	28030	28940	74770	31270	46300	42250	38750
2	67100	62210	52740	41600	29410	27710	26900	68960	29790	46250	42250	38640
3	67020	63020	44190	39060	29320	27340	27550	63470	29240	46190	42140	44080
4	66940	63240	35690	36370	29070	27470	28120	57730	29150	46190	41920	46480
5	66860	64060	32250	33540	28690	27470	27990	53130	29240	46190	41760	46830
6	66790	64060	33350	30780	28200	27670	27260	49870	29360	46130	41710	46860
7	66710	63910	33400	29110	27790	28030	27020	46540	29410	45960	41490	46830
8	66560	63320	32750	28080	27380	42360	26940	43020	29450	45960	41440	46070
9	66560	62870	31800	27830	27510	67020	26900	39260	29620	45840	41220	44760
10	66480	62730	30390	28120	27300	76350	26660	37020	29660	45730	41060	43630
11	66480	63020	29150	28320	27430	77360	26550	35730	29700	45550	40900	42250
12	66250	63090	28200	28650	27550	73370	26270	35350	29750	45500	40740	40900
13	66250	63090	27590	28650	27470	67250	26270	38690	29750	45270	40580	39730
14	65870	63170	27060	28740	27550	66550	26110	41650	29660	45270	40370	38590
15	65870	63170	27060	28900	27630	53840	25920	45150	29960	45210	40310	37370
16	65790	63240	27260	28940	27550	47180	26110	47350	29960	45100	40150	36220
17	65640	63240	27380	28940	27990	40470	26860	48000	30000	44870	40470	36030
18	65490	63170	27470	29030	28200	35770	30000	47470	37520	44760	39730	35590
19	65340	64440	27550	28940	28940	30130	35930	46420	39060	44530	39630	34720
20	65340	64140	28120	28400	29360	28690	78890	45150	39630	44420	39470	33730
21	65260	63840	29110	27990	29670	27260	97160	43690	39890	44300	39320	32620
22	65190	63540	29620	27630	30390	27060	107600	41980	40000	44130	39110	31440
23	64140	63170	29700	27300	30780	27470	110200	40470	40260	44080	38950	30350
24	63470	62950	29530	27220	30740	27790	108100	39470	40470	43850	38850	29620
25	63090	62510	29530	27180	29960	28160	105600	37930	43690	43740	38800	29150
26	62650	62580	29360	27380	29280	28820	101900	36370	44810	43520	38690	28650
27	62210	62210	29490	27870	28820	29150	96770	36770	45500	43300	38640	28160
28	62070	61990	34100	28240	28570	29790	91870	36220	45840	43300	38950	27790
29	61920	62140	42470	28530	28320	32390	86120	35200	45900	42800	38800	27300
30	61770	62070	45730	28820	---	35540	86620	33960	46070	42690	38690	27060
31	61700	---	45270	29070	---	35200	---	32620	---	42470	38690	---
MAX	67250	64440	59830	43740	30780	77360	110200	74770	46070	46300	42250	46880
MIN	61700	61630	27060	27180	27300	27060	25920	32620	29150	42470	38640	27060
†	477.91	477.96	475.36	472.09	471.91	473.45	480.28	472.90	475.50	474.86	474.15	471.60
‡	-5,470	+370	-16,800	-16,200	-750	+6,880	+45,420	-48,000	+13,450	-3,600	-3,780	-11,630

CAL YR 1975 MAX 218,800 MIN 26,820 ‡ +6,520

WTR YR 1976 MAX 110,200 MIN 25,920 ‡ -40,110

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-ft.

ARKANSAS RIVER BASIN

07248500 POTEAU RIVER NEAR WISTER, OK

LOCATION.--Lat 34°56'15", long 94°42'54", in NW 1/4 NW 1/4 sec.6, T.5 N., R.25 E., LeFlore County, on left bank of outflow channel 700 ft (213.4 m) downstream from Wister Dam, 2.2 mi (3.5 km) southeast of Wister, 2.6 mi (4.2 km) upstream from Caston Creek, and at mile 60.8 (97.8 km).

DRAINAGE AREA.--993 mi² (2,572 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to May 21, 1951, records below about 500 ft³/s (14.2 m³/s) include flow from Caston Creek, drainage area, 70 mi² (181 km²).

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1241: 1939, 1943(M), 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 445.43 ft (135.767 m) above mean sea level. See WSP 1921 for history of changes prior to June 28, 1953.

REMARKS.--Records good. Flow completely regulated by Wister Lake since October 1949 (station 07248000).

COOPERATION.--Gage-height and 15 discharge measurements furnished by Corps of Engineers; records computed by Geological Survey.

AVERAGE DISCHARGE.--(prior to regulation by Wister Dam) 11 years (water years 1939-49, 1,325 ft³/s (37.52 m³/s), 960,000 acre-ft/yr (1.18 km³/yr), (since regulation by Wister Dam) 27 years (water years 1950-76), 1,068 ft³/s (30.25 m³/s), 773,800 acre-ft/yr (954 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,600 ft³/s (2,230 m³/s) May 16, 1945, gage height, 37.16 ft (11.326 m), site and datum then in use; no flow at times in 1938-39, 1943, 1947, 1953-54, 1961, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1935 reached a stage of 43.0 ft (13.11 m) at site and datum used in 1938, estimated as 38.5 ft (11.73 m) at site and datum used during 1939-47, on basis of fall determined for flood in 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,440 ft³/s (126 m³/s) Dec. 3, gage height, 6.48 ft (1.975 m); maximum gage height, 7.90 ft (2.408 m) Apr. 20 (backwater from Caston Creek); minimum daily discharge, 4.4 ft³/s (0.12 m³/s) Jan. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.9	969	1810	8.4	311	3510	2900	908	31	30	27
2	11	9.0	3170	1790	8.0	311	1770	2860	901	31	31	25
3	11	9.1	4200	1770	143	309	119	2810	434	31	31	26
4	11	8.8	4260	1740	265	204	118	2770	126	31	31	27
5	11	79	2300	1710	263	125	406	2500	125	31	31	27
6	11	137	930	1670	261	125	614	2240	125	31	31	27
7	11	257	937	1140	261	125	377	2220	125	31	31	27
8	12	398	930	728	258	128	229	2180	74	31	31	375
9	11	398	923	343	163	136	227	2150	30	31	30	606
10	11	154	917	98	70	987	227	1400	30	31	30	601
11	12	10	910	98	69	2620	226	770	30	31	30	598
12	12	11	669	97	69	3740	227	687	30	31	29	594
13	11	11	530	98	69	4230	227	592	30	34	29	592
14	10	11	525	98	69	4160	227	968	30	33	30	588
15	9.4	11	299	94	69	4080	224	978	30	33	29	585
16	9.4	10	118	101	69	3810	137	986	30	33	30	580
17	9.7	10	118	101	49	3910	72	988	29	33	31	578
18	10	10	118	100	7.2	3790	74	989	31	34	30	571
19	10	10	118	184	6.8	2610	76	989	30	34	30	568
20	10	10	118	348	227	985	80	985	30	34	29	566
21	11	90	116	317	362	969	84	981	31	32	28	563
22	11	139	379	260	354	439	85	974	32	31	28	559
23	454	136	568	216	349	79	1540	966	33	32	28	556
24	395	134	568	149	496	77	3080	962	31	33	27	381
25	140	133	562	147	628	76	3060	955	33	33	27	245
26	138	131	562	63	625	76	3040	941	30	34	28	244
27	137	129	557	4.4	443	76	3010	936	30	34	28	243
28	81	128	559	6.3	311	76	2980	928	30	34	27	244
29	36	127	578	7.4	311	76	2960	926	31	31	26	237
30	21	122	991	22	---	78	2930	917	31	30	26	115
31	9.1	---	1820	8.8	---	1050	---	915	---	30	27	---
TOTAL	1647.6	2831.8	30319	15318.9	6283.4	39768	31936	43363	3490	994	904	10975
MEAN	53.1	94.4	978	494	217	1283	1065	1399	116	32.1	29.2	366
MAX	454	398	4260	1810	628	4230	3510	2900	908	34	31	606
MIN	9.1	8.8	116	4.4	6.8	76	72	592	29	30	26	25
AC-FT	3270	5620	60140	30390	12460	78880	63350	86010	6920	1970	1790	21770

CAL YR 1975 TOTAL 482192.4 MEAN 1321 MAX 5370 MIN 5.0 AC-FT 956400
WTR YR 1976 TOTAL 187830.7 MEAN 513 MAX 4260 MIN 4.4 AC-FT 372600

ARKANSAS RIVER BASIN

447

07248500 POTEAU RIVER NEAR WISTER, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948, 1952, 1955-59, November 1975 to September 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1947 to September 1948.

WATER TEMPERATURE: October 1947 to September 1948.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV 11...	1028	9740	1610	10	68	7.7	17.0	7	10.4	113	--	--
DEC 09...	1028	9740	1400	906	75	--	9.5	20	13.6	124	8	67
JAN 14...	1028	9740	0956	98	70	8.3	7.0	45	--	--	<4	51
FEB 03...	1028	9740	1500	143	80	7.6	7.5	47	11.2	98	<4	11
MAR 02...	1028	9740	1800	311	70	7.0	15.0	25	12.1	126	14	11
APR 06...	1028	9740	1830	614	75	7.6	16.0	45	9.1	97	27	27
MAY 04...	1028	9740	1800	2770	60	--	18.0	37	9.1	102	27	50
JUN 02...	1028	9740	1530	901	65	8.0	21.0	55	7.3	86	15	27
AUG 11...	1028	9740	1530	30	100	7.9	31.5	--	7.2	99	10	20
SEP 23...	1028	9740	1500	556	70	6.5	25.0	50	7.6	94	12	13

ARKANSAS RIVER BASIN

07248500 POTEAU RIVER NEAR WISTER, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACU3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- IAS- SIUM (K) (MG/L)	DIS- SOLVED CHLU- RIDE (CL) (MG/L)	TOTAL FLUU- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
11...	5.4	--	2.6	5.0	1.3	--	.1	--	1.6	--	1
DEC											
09...	5.3	25	6.0	5.0	1.4	7.0	.1	38	1.3	.04	--
JAN											
14...	--	27	--	--	--	11	.1	53	.50	.06	--
FEB											
03...	7.5	9	3.8	10	1.4	9.0	.1	7	.90	.05	2
MAR											
02...	4.6	4	2.3	5.0	1.2	13	<.1	--	.80	.02	--
APR											
06...	3.2	16	1.7	5.0	1.3	--	--	--	.80	.14	--
MAY											
04...	3.9	35	1.3	3.0	1.5	--	.2	85	.80	.09	1
JUN											
02...	3.8	19	2.0	5.0	1.5	14	<.1	83	.90	.13	--
AUG											
11...	6.2	16	3.3	<2.0	1.2	11	.2	72	1.7	<.08	4
SEP											
23...	4.1	13	2.4	<5.0	1.3	8.0	.2	72	1.1	.35	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRI- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
11...	<1	3	4	900	2	300	--	3	--	<1	10
DEC											
09...	--	--	--	800	--	340	--	--	--	--	--
JAN											
14...	--	--	--	2300	--	250	--	--	--	--	--
FEB											
03...	<1	3	2	3300	4	550	--	4	--	<1	9
MAR											
02...	--	--	--	1300	--	620	--	--	--	--	--
APR											
06...	--	--	--	1300	--	440	--	--	--	--	--
MAY											
04...	<1	4	5	400	<5	190	<.5	5	<2	<1	7
JUN											
02...	--	--	--	1800	--	700	--	--	--	--	--
AUG											
11...	1	16	4	700	85	1210	<.5	7	<2	<1	15
SEP											
23...	--	--	--	1300	--	628	--	--	--	--	--

ARKANSAS RIVER BASIN

449

07249400 JAMES FORK NEAR HACKETT, AR

LOCATION.--Lat 35°09'45", long 94°24'25", in NW1/4NW1/4 sec.34, T.6 N., R.32 W., Sebastian County, near left bank on downstream side of bridge on State Highway 45, 1.7 mi (2.7 km) south of Hackett, 2.0 mi (3.2 km) downstream from Elder Branch, 2.0 mi (3.2 km) upstream from small tributary, and 3.6 mi (5.8 km) upstream from Arkansas-Oklahoma State line.

DRAINAGE AREA.--147 mi² (381 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1958 to current year.

REVISED RECORDS.--WRD Ark. 1970: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 459.71 ft (140.120 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--18 years, 132 ft³/s (3.74 m³/s), 12.19 in/yr (310 mm/yr), 95,630 acre-ft/yr (118 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) May 14, 1968, gage height, 23.00 ft (7.010 m), from rating curve extended above 20,000 ft³/s (566 m³/s); no flow Aug. 16 to Dec. 12, 1963, Sept. 14-21, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,270 ft³/s (64.6 m³/s) Apr. 20, gage height, 13.96 ft (4.255 m), no peak above base of 3,000 ft³/s (85 m³/s); minimum, 0.25 ft³/s (0.007 m³/s) July 29, 30, 31, gage height, 0.30 ft (0.091 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.4	1.1	1.5	62	11	8.9	60	38	6.9	13	.64	1.3		
2	1.3	1.1	12	51	11	12	52	36	6.5	15	6.3	.90		
3	1.3	1.3	8.8	45	8.7	19	48	30	15	19	11	1.5		
4	1.4	2.0	4.1	41	6.7	16	47	25	14	13	8.7	2.4		
5	2.4	2.4	3.2	39	5.9	20	49	20	20	7.1	4.2	12		
6	2.9	2.6	3.5	37	5.4	14	45	28	34	3.7	108	9.6		
7	3.2	2.9	3.2	34	5.4	14	43	37	23	2.3	42	13		
8	3.1	2.9	2.6	21	5.6	35.9	41	35	18	1.7	13	5.6		
9	3.0	2.8	2.5	22	5.4	752	38	34	10	1.6	6.9	2.5		
10	2.8	2.9	3.6	31	4.4	326	37	34	6.5	3.8	4.4	1.4		
11	3.0	4.5	4.6	27	4.4	238	36	33	5.0	3.7	3.0	1.0		
12	2.9	12	4.8	17	10	205	33	34	3.8	3.5	2.1	.80		
13	2.8	11	5.3	17	11	164	36	46	2.8	2.5	1.5	.64		
14	2.6	9.5	6.6	21	7.7	132	37	46	2.5	1.7	.98	.64		
15	2.4	8.5	8.5	16	6.3	108	35	58	2.5	1.4	.90	.64		
16	2.2	8.0	7.1	15	5.2	89	33	54	5.0	1.4	.90	1.5		
17	1.9	6.0	7.8	14	4.6	76	34	49	3.7	1.2	.90	2.4		
18	1.6	6.9	8.8	14	5.9	61	58	34	20	.90	.80	2.8		
19	2.8	7.3	9.3	13	7.1	52	82	31	25	.72	.72	19		
20	3.8	8.3	9.6	13	8.5	47	1240	36	21	.64	.56	14		
21	8.3	6.4	10	13	11	43	437	34	21	.56	.50	10		
22	5.4	5.0	11	13	30	41	228	33	22	.56	.44	8.5		
23	3.7	4.4	11	13	25	40	156	32	20	.44	.44	7.8		
24	2.8	3.8	11	12	21	39	117	31	25	.38	.50	7.6		
25	2.7	3.1	14	13	18	40	87	26	62	.44	.50	7.1		
26	4.6	2.6	16	11	18	40	67	15	30	.44	.44	6.7		
27	5.7	2.2	20	9.6	17	41	52	34	15	.50	.44	4.3		
28	10	1.6	98	11	13	40	43	19	16	.56	1.9	2.5		
29	4.1	1.2	466	12	10	69	41	12	15	.56	.72	1.6		
30	2.3	1.0	147	12	---	89	40	9.8	14	.44	.44	.97		
31	1.4	---	88	12	---	70	---	8.3	---	.44	.50	---		
TOTAL	99.8	135.3	1009.4	681.6	303.2	3264.9	3352	992.1	485.2	103.18	224.32	150.69		
MEAN	3.22	4.51	32.6	22.0	10.5	105	112	32.0	16.2	3.33	7.24	5.02		
MAX	10	12	466	62	30	752	1240	58	62	19	108	19		
MIN	1.3	1.0	1.5	9.6	4.4	8.9	33	8.3	2.5	.38	.44	.64		
CFSM	.02	.03	.22	.15	.07	.71	.76	.22	.11	.02	.05	.03		
IN.	.03	.03	.26	.17	.08	.83	.85	.25	.12	.03	.06	.04		
AC=FT	198	268	2000	1350	601	6480	6650	1970	962	205	445	299		
CAL YR 1975	TOTAL	64049.90	MEAN	175	MAX	4000	MIN	1.0	CFSM	1.19	IN	16.21	AC=FT	127000
WTR YR 1976	TOTAL	10801.69	MEAN	29.5	MAX	1240	MIN	.38	CFSM	.20	IN	2.73	AC=FT	21430

ARKANSAS RIVER BASIN

07249400 JAMES FORK NEAR HACKETT, AR--Continued

LOCATION.--Lat 35°09'45", long 94°24'25", in NW 1/4 NW 1/4 sec.34, T.6 N., R.32 W., Sebastain County, at bridge on State Highway 45, 1.7 mi (2.7 km) south of Hackett, 2.0 mi (3.2 km) downstream from Elder Branch, 2.0 mi (3.2 km) upstream from small tributary, and 3.6 mi (5.8 km) upstream from Arkansas-Oklahoma State line.

DRAINAGE AREA.--147 mi² (381 km²).

PERIOD OF RECORD.--Water years 1960, 1961, 1969 to current year.

REMARKS.--Some records furnished by Arkansas Department of Pollution Control and Ecology, Little Rock, AR. Discharge records are available from the USGS, Little Rock, AR.

COOPERATION.--Monthly samples were collected by the U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	DIS- SOLVED OXYGEN (MG/L)
UCT												
01...	9827	9827	--	--	1.4	452	7.5	21.0	15	10	--	6.6
22...	1028	1028	1035	--	5.5	--	--	15.0	--	--	--	--
29...	9827	9827	--	--	4.2	354	7.3	19.0	15	5	--	6.3
NOV												
11...	1028	9740	--	4.5	--	--	--	--	--	6	--	--
DEC												
03...	9827	9827	--	--	5.1	526	7.6	9.0	15	6	--	10.7
04...	1028	1028	1210	--	3.8	--	--	9.0	--	--	--	--
JAN												
07...	9827	9827	--	--	39	287	7.3	5.0	40	25	--	11.8
14...	1028	1028	0825	--	19	--	--	5.5	--	--	--	--
15...	1028	9740	--	16	--	--	--	--	--	45	--	--
FEB												
04...	9827	9827	--	--	8.9	400	7.6	10.0	15	5	--	11.4
24...	1028	1028	1240	--	21	--	--	10.5	--	--	--	--
MAR												
03...	9827	9827	--	--	20	335	7.3	21.0	10	10	--	7.6
17...	--	--	0900	76	--	210	7.6	9.0	70	37	--	9.9
17...	1028	9740	0901	76	--	--	--	--	--	58	--	--
31...	9827	9827	--	--	--	266	7.3	16.0	50	25	--	8.6
APR												
06...	1028	1028	1030	--	45	--	--	15.0	--	--	--	--
21...	--	--	0600	437	--	90	6.8	--	130	--	72	9.2
21...	1028	9740	0601	437	--	--	--	7.4	--	100	--	--
MAY												
05...	9827	9827	--	--	12	392	7.6	21.0	15	15	--	9.2
18...	1028	1028	0925	--	42	--	--	15.5	--	--	--	--
19...	--	--	0800	31	--	375	7.6	--	10	--	20	7.9
JUN												
02...	9827	9827	--	--	6.5	536	7.6	25.0	10	<25	--	6.2
16...	1028	1028	0830	--	5.4	--	--	22.0	--	--	--	--
16...	--	--	1415	5.0	--	550	7.3	--	12	--	25	5.2
16...	1028	9740	1416	5.0	--	--	--	--	--	42	--	5.2
JUL												
06...	9827	9827	0830	--	3.8	431	7.5	27.0	20	15	--	5.8
27...	1028	1028	0815	--	.49	--	--	25.0	--	--	--	--
AUG												
03...	9827	9827	0845	--	6.1	868	8.2	27.0	30	15	--	3.6
12...	--	--	0845	2.1	--	550	7.6	--	4	--	10	5.9
SEP												
07...	9827	9827	0825	--	15	414	7.7	24.0	20	7	--	5.2
07...	1028	1028	1015	--	14	--	--	23.5	--	--	--	--
23...	--	--	0900	7.8	--	410	7.3	19.0	--	--	--	5.2

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07249400 JAMES FORK NEAR HACKETT, AR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)
OCT										
01...	9827	9827	--	--	1.4	--	--	--	--	<10
22...	1028	1028	1035	--	5.5	--	--	--	--	--
29...	9827	9827	--	--	4.2	--	--	--	--	--
NOV										
11...	1028	9740	--	4.5	--	--	1	--	--	--
DEC										
03...	9827	9827	--	--	5.1	--	<3	--	--	<10
04...	1028	1028	1210	--	3.8	--	--	--	--	--
JAN										
07...	9827	9827	--	--	39	--	--	--	--	--
14...	1028	1028	0825	--	19	--	--	--	--	--
15...	1028	9740	--	16	--	--	--	--	--	--
FEB										
04...	9827	9827	--	--	8.9	--	--	--	--	--
24...	1028	1028	1240	--	21	--	--	--	--	--
MAR										
03...	9827	9827	--	--	20	--	--	--	--	--
17...	--	--	0900	76	--	90	1	0	50	--
17...	1028	9740	0901	76	--	--	--	--	--	--
31...	9827	9827	--	--	--	--	<3	--	--	<10
APR										
06...	1028	1028	1030	--	45	--	--	--	--	--
21...	1028	9740	0601	437	--	--	--	--	--	--
MAY										
05...	9827	9827	--	--	12	--	--	--	--	--
18...	1028	1028	0925	--	42	--	--	--	--	--
JUN										
02...	9827	9827	--	--	6.5	--	--	--	--	--
16...	1028	1028	0830	--	5.4	--	--	--	--	--
16...	1028	9740	1416	5.0	--	--	--	--	--	--
JUL										
06...	9827	9827	0830	--	3.8	--	<3	--	--	<10
27...	1028	1028	0815	--	.49	--	--	--	--	--
AUG										
03...	9827	9827	0845	--	6.1	--	--	--	--	--
SEP										
07...	9827	9827	0825	--	15	--	--	--	--	--
07...	1028	1028	1015	--	14	--	--	--	--	--
23...	--	--	0900	7.8	--	--	--	--	--	--

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[illegible]

07249400 JAMES FORK NEAR HACKETT, AR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

ARKANSAS RIVER BASIN

07249410 JAMES FORK NEAR WILLIAMS, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)
MAR 17...	1120	--	70	1	0	--	30	--	0	--
APR 21...	0830	--	210	--	1	--	40	--	0	--
MAY 19...	0900	400	30	0	0	50	50	0	0	<10
JUN 16...	1530	--	30	--	0	2700	20	--	0	--
AUG 10...	1630	--	0	--	0	--	40	--	1	--

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
MAR 17...	0	--	4	--	120	--	1	--	180	--
APR 21...	0	--	5	--	300	--	2	--	120	--
MAY 19...	0	3	2	1100	150	0	0	180	60	.0
JUN 16...	0	--	2	--	30	--	0	--	500	--
AUG 10...	0	--	1	--	60	--	4	--	330	--

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MU) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
MAR 17...	.0	--	0	--	7	--	--	--	0
APR 21...	.0	--	0	--	6	--	--	--	0
MAY 19...	.0	1	0	11	0	0	0	20	0
JUN 16...	.0	--	0	--	0	--	--	--	20
AUG 10...	.0	--	1	--	3	--	--	--	0

WATER-QUALITY RECORDS

DRAINAGE AREA.--1.26 mi² (3.26 km²).

PERIOD OF RECORD.--March to September 1976.

REMARKS.--No flow observed on June 16, July 21 and August 10.

DATE	TIME	INSTANTANEOUS DISE- CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO- MHOS)	PH (UNITS)	COLOR (PLATINUM- CUBALTY UNITS)	TURBIDITY (NTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+
MAR 23...	1145	--	175	7.3	90	31	9.2	87	39	2	.1
APR 21...	1125	3.5	82	6.9	80	31	9.5	97	25	2	.2
MAY 19...	1300	.04	120	7.9	120	55	9.1	105	31	0	.0
SEP 22...	1300	--	115	6.6	--	--	3.1	37	--	--	--

[illegible][illegible]

ARKANSAS RIVER BASIN

07249415 COAL CREEK TRIBUTARY NEAR BOKOSHE, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
APR 21...	0	--	5	--	350	--	0	--	80	--
MAY 19...	0	4	4	2800	320	3	0	70	40	.0

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CK) (UG/L)
APR 21...	1125	--	60	--	0	--	80	--	0	--
MAY 19...	1300	1300	150	1	0	30	30	0	0	<10

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
APR 21...	.0	--	0	--	3	--	--	--	0
MAY 19...	.0	1	0	11	0	0	0	10	10

ARKANSAS RIVER BASIN

07249419 COAL CREEK NEAR PANAMA, OK--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRU- MIUM (CR) (UG/L)
MAR										
17...	1430	--	200	2	1	--	40	--	1	--
APR										
21...	1030	--	150	--	1	--	50	--	0	--
MAY										
19...	1030	1000	210	1	0	110	50	0	1	20
JUN										
16...	1630	--	60	--	1	--	70	--	1	--

DATE	DIS- SOLVED CHRU- MIUM (CR) (UG/L)	TOTAL CUPPER (CU) (UG/L)	DIS- SOLVED CUPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
MAR										
17...	0	--	9	--	90	--	2	--	130	--
APR										
21...	10	--	4	--	340	--	0	--	60	--
MAY										
19...	0	3	3	2700	570	6	0	130	40	.0
JUN										
16...	0	--	3	--	220	--	10	--	400	--

DATE	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MU) (UG/L)	DIS- SOLVED MOLYB- DENUM (MU) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
MAR									
17...	.0	--	0	--	2	--	--	--	10
APR									
21...	.0	--	0	--	4	--	--	--	0
MAY									
19...	.0	1	1	7	0	0	0	0	0
JUN									
16...	.0	--	0	--	0	--	0	--	0

07249440 POTEAU RIVER NEAR FORT SMITH, AR

LOCATION.--Lat 35°20'43", long 94°27'09", in SE 1/4 SW 1/4 sec.9, T.10 N., R.27 E., LeFlore County, Hydrologic Unit 11110105, at bridge on State Highway 9, 1.2 mi (1.9 km) west of State line, and 2.0 mi (3.2 km) southwest of Fort Smith.

DRAINAGE AREA.--254 mi² (658 km²) at State line.

PERIOD OF RECORD.--January 1976 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Additional chemical analyses are published by Arkansas District.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health and

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COLLECTING SAMPLE	CODE FOR AGENCY ANALYZING SAMPLE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARDNESS (CA, MG) (MG/L)
JAN 14...	1028	9740	0705	75	--	3.0	45	--	--	4	71
FEB 04...	1028	9740	0830	130	7.4	5.0	39	10.8	88	<4	28
MAR 16...	1028	9740	1700	70	7.6	10.5	58	10.2	94	13	23
APR 20...	1028	9740	1545	70	7.4	16.5	100	7.7	84	53	35
MAY 18...	1028	9740	1730	100	7.9	20.5	39	8.1	95	19	24
JUN 16...	1028	9740	1315	175	7.7	24.5	42	4.4	55	11	47
JUL 21...	1028	9740	0800	225	6.9	27.5	33	6.2	82	13	71
AUG 12...	1028	9740	1145	190	6.7	28.0	--	2.9	37	10	50
SEP 15...	1028	9740	0900	90	7.4	24.0	56	5.8	71	17	--

DATE	TOTAL CALCIUM (CA) (MG/L)	CALCIUM AS CaCO ₃ (MG/L)	TOTAL MAGNESIUM (MG/L)	TOTAL SODIUM (NA) (MG/L)	TOTAL TASSIUM (K) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTERABLE RESIDUE (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
JAN 14...	6.0	22	2.0	6.0	1.6	11	.1	78	.50	.07	--
FEB 04...	160	--	34	10	1.2	9.0	.1	34	.90	.07	2
MAR 16...	--	16	--	<1.0	1.2	11	<.1	97	1.0	.21	--
APR 20...	6.6	15	2.4	4.8	2.3	11	.1	119	1.5	.16	--
MAY 18...	5.0	16	3.0	6.0	2.1	15	.1	90	<1.0	.10	1
JUN 16...	11	41	4.2	14	2.1	35	.1	102	.90	.15	--
JUL 21...	14	58	5.5	13	2.6	32	.2	181	1.9	<.08	--
AUG 12...	14	36	6.5	9.0	4.2	13	.3	138	2.0	<.08	3
SEP 15...	5.3	--	2.8	2.0	2.2	--	.3	--	2.7	.16	--

DATE	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN 14...	--	--	--	2200	--	230	--	--	--	--	--
FEB 04...	<1	3	2	3000	10	340	--	5	--	<1	8
MAR 16...	--	--	--	1300	--	390	--	--	--	--	--
APR 20...	--	--	--	1700	--	240	--	--	--	--	--
MAY 18...	1	25	4	1000	10	195	.8	4	<2	4	90
JUN 16...	--	--	--	1100	--	628	--	--	--	--	--
JUL 21...	--	--	--	800	--	644	--	--	--	--	--
AUG 12...	1	20	6	1500	9	1070	<.5	15	<2	<1	25
SEP 15...	--	--	--	1500	--	399	--	--	--	--	--

ARKANSAS RIVER BASIN

07249800 LEE CREEK NEAR SHORT, OK

LOCATION.--Lat 35°33'45", long 94°32'00", north edge sec. 34, T.13 N., R.26 E., Sequoyah County, Hydrologic Unit 11110104, at bridge on State Highway 101, 0.2 mi (.3 km) upstream from Little Lee Creek, 0.5 mi (0.8 km) west of Short.

DRAINAGE AREA.--236 mi² (611 km²).

PERIOD OF RECORD.--Water years 1958-61, January 1976 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG)
JAN 13...	1028	9740	1418	125	8.2	6.0	6	--	--	<4	61
FEB 04...	1028	9740	1030	115	7.3	6.0	2	17.2	144	<4	32
MAR 16...	1028	9740	1330	75	8.0	10.0	20	12.1	111	220	52
APR 20...	1028	9740	1430	--	6.8	14.5	100	9.9	103	65	44
MAY 18...	1028	9740	1400	73	8.0	17.0	17	9.2	101	<4	30
JUN 16...	1028	9740	1030	88	6.9	23.0	4	6.2	76	8	74
JUL 21...	1028	9740	1030	100	7.0	26.0	2	6.5	83	<1	63
AUG 12...	1028	9740	1615	120	6.9	31.0	--	6.9	93	3	36
SEP 15...	1028	9740	1130	120	7.7	24.0	9	7.8	95	7	--
DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
JAN 13...	22	51	1.0	2.0	1.0	11	<.1	60	.50	.07	--
FEB 04...	16	28	2.0	10	.6	11	<.1	40	<.10	.04	<1
MAR 16...	--	25	2.4	<1.0	.6	6.0	<.1	67	.30	.08	--
APR 20...	9.3	18	1.3	.8	1.5	11	<.1	125	2.3	.43	--
MAY 18...	9.1	24	1.3	<1.0	1.0	15	.1	71	1.5	<.08	<1
JUN 16...	11	41	1.4	3.0	.8	22	.1	121	1.1	<.08	--
JUL 21...	13	48	1.9	1.0	1.1	6.0	.1	75	1.4	<.08	--
AUG 12...	14	36	2.0	<2.0	1.0	9.0	.2	74	1.3	<.08	<1
SEP 15...	15	--	2.0	<2.0	1.6	32	.2	84	1.9	<.08	--
DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JAN 13...	--	--	--	300	--	16	--	--	--	--	--
FEB 04...	<1	1	1	<100	5	12	--	1	--	<1	7
MAR 16...	--	--	--	200	--	24	--	--	--	--	--
APR 20...	--	--	--	3000	--	1100	--	--	--	--	--
MAY 18...	1	4	2	700	9	30	<.5	5	<2	4	7
JUN 16...	--	--	--	100	--	65	--	--	--	--	--
JUL 21...	--	--	--	100	--	35	--	--	--	--	--
AUG 12...	<1	10	4	100	65	96	<.5	2	<2	<1	95
SEP 15...	--	--	--	300	--	98	--	--	--	--	--

ARKANSAS RIVER BASIN

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07250550 ARKANSAS RIVER AT DAM NO. 13 NEAR VAN BUREN, AR

LOCATION.--Lat 35°20'56", long 94°17'54", in sec. 28, T.8 N., R.31 W., Sebastian County, Hydrologic Unit, from lock wall at Dam No. 13 and at mile 308.9 (497.0 km).

DRAINAGE AREA.--150,547 mi² (389,917 km²), of which 22,241 mi² (57,604 km²) is probably noncontributing.

PERIOD OF RECORD.--November 1975 to September 1976.

REMARKS.--Samples were collected in open-mouthed samplers at a single point. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field. Additional streamflow and water-quality data are published by Arkansas District.

COOPERATION.--Samples were collected by U.S. Geological Survey and were analyzed by Oklahoma State Department of Health.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV												
12...	1028	9740	0630	5510	450	7.8	15.0	6	9.6	98	--	--
DEC												
10...	1028	9740	0700	13400	540	--	5.0	15	11.2	91	4	--
JAN												
13...	1028	9740	1700	10200	500	7.9	3.0	9	--	--	4	150
FEB												
04...	1028	9740	0700	7220	535	8.8	5.0	2	14.2	115	30	129
MAR												
16...	1028	9740	1545	24100	650	8.1	10.0	30	11.9	109	<4	120
APR												
20...	1028	9740	1645	118000	500	7.8	17.0	90	8.5	93	38	150
MAY												
18...	1028	9740	1600	48700	680	7.9	18.5	45	8.8	99	39	149
JUN												
16...	1028	9740	1230	17800	--	7.9	24.0	4	6.2	76	26	180
JUL												
21...	1028	9740	0915	40100	405	7.6	25.5	4	8.0	102	13	134
AUG												
12...	1028	9740	1230	14300	460	9.0	28.0	--	6.9	92	7	110
SEP												
14...	1028	9740	1530	9800	580	8.2	24.0	15	10.5	128	17	--

ARKANSAS RIVER BASIN

07250550 ARKANSAS RIVER AT DAM NO. 13 NEAR VAN BUREN, AR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PU- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
NOV											
12...	51	--	11	38	3.0	--	.2	--	2.8	--	2
DEC											
10...	52	--	28	40	3.5	--	.5	--	1.1	.04	--
JAN											
13...	48	110	9.0	53	3.5	99	.2	317	.50	.09	--
FEB											
04...	50	107	9.3	42	5.0	72	.2	--	1.1	<.01	3
MAR											
16...	--	86	--	63	3.0	120	.2	344	1.1	.11	--
APR											
20...	--	110	--	55	--	85	.2	304	1.5	.09	--
MAY											
18...	39	93	9.1	85	7.1	62	.2	399	1.2	.13	4
JUN											
16...	49	120	10	140	4.2	43	.1	--	.80	<.08	--
JUL											
21...	38	102	7.0	32	3.5	--	.8	--	1.9	<.08	--
AUG											
12...	38	95	7.7	30	3.8	73	.2	273	1.7	.10	4
SEP											
14...	43	--	9.1	67	4.0	127	.4	361	1.7	.09	--

DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV											
12...	1	4	6	1200	2	91	--	4	--	1	10
DEC											
10...	--	--	--	300	--	60	--	--	--	--	--
JAN											
13...	--	--	--	400	--	56	--	--	--	--	--
FEB											
04...	<1	7	3	2000	14	240	--	7	--	<1	10
MAR											
16...	--	--	--	600	--	120	--	--	--	--	--
APR											
20...	--	--	--	3000	--	540	--	--	--	--	--
MAY											
18...	1	9	4	1000	16	156	.8	12	--	5	14
JUN											
16...	--	--	--	300	--	91	--	--	--	--	--
JUL											
21...	--	--	--	600	--	69	--	--	--	--	--
AUG											
12...	1	18	4	300	11	440	<.5	5	<2	<1	12
SEP											
14...	--	--	--	300	--	62	--	--	--	--	--

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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As the number of streams on which stream flow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurement made at low-flow partial-record station during water year 1976

Discharge measurement made at low-flow partial record station during water year 1976						
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
Arkansas River Basin						
07148360	Greenwood Creek near Winchester	Lat 36°55'23", long 98°47'27", in SW 1/4 NW 1/4 sec.11, T.28 N., R.14 N., Woods County, at county road bridge 2.4 mi (3.9 km) south of Winchester and at mile 1.9 (3.1 km).	41.2	1972-76	04-12-76 07-06-76	1.58 2.10

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Arkansas River Basin							
07150870	Salt Fork Arkansas River tributary near Eddy, Okla.	Lat 36°41'42", long 97°25'30", in SW 1/4 SW 1/4 sec.28, T.26 N., R.2 W., Kay County, at culvert on U.S. Highway 60, 3.0 mi (4.8 km) southeast of Eddy.	2.35	1964-76	04-28-76	12.04	162
07154650	Tesesquite Creek near Kenton, Okla.	Lat 36°53'52", long 102°54'04", in NE 1/4 SE 1/4 sec.13, T.5 N., R.1 E., Cimarron County, at county road bridge, 3.9 mi (6.3 km) east of Kenton	25.4	1964-76	09-27-76	13.41	524
07155100	Cold Springs Creek near Wheelless, Okla.	Lat 36°46'20", long 102°48'16", in SE 1/4 NE 1/4 sec.35, T.4 N., R.2 E., Cimarron County, at county road multi-barrel culvert, 6.0 mi (9.7 km) northeast of Wheelless.	11.0	1964-76	07-21-76	11.96	229
07157550	West Fork Creek near Knowles, Okla.	Lat 36°52'30", long 100°07'20", in SE 1/4 SE 1/4 sec.22, T.5 N., R.27 E., Beaver County, at county road culvert, 4.2 mi (6.8 km) east of Knowles.	4.22	1964-76	07-04-76	11.70	36
07158500	Preacher Creek near Dover, Okla.	Lat 36°02'37", long 98°00'48", in NW 1/4 NW 1/4 sec.13, T.18 N., R.8 W., Kingfisher County, at county road bridge, 7.1 mi (11.4 km) northwest of Dover.	14.5	1952-57 1964-76	05-26-76	3.59	91
07158550	Turkey Creek tributary near Goltry, Okla.	Lat 36°28'40", long 98°08'05", in SE 1/4 SW 1/4 sec.11, T.23 N., R.9 W., Alfalfa County, at multi-barrel culvert on State Highway 45, 4.1 mi (6.6 km) south of Goltry.	5.08	1964-76	05-26-76	12.6	5,050
+07159200	Kingfisher Creek near Kingfisher, Okla.	Lat 35°50'03", long 98°03'57", in NW 1/4 SW 1/4 sec.28, T.16 N., R.8 W., Kingfisher County, at county road bridge, 7.6 mi (12.2 km) west of Kingfisher.	157	1967-70 1971-76	05-26-76	21.90	3,820
07159450	Bluff Creek at Oklahoma City, Okla.	Lat 35°32'26", long 97°35'56", in SW 1/4 sec.2, T.12 N., R.4 W., Oklahoma County at 68 St. and Northwest Highway in Oklahoma City.	1.64	1973-76	07-15-76	8.85	562
07160550	West Beaver Creek near Orlando, Okla.	Lat 36°08'45", long 97°28'05", in NW 1/4 NE 1/4 sec.12, T.19 N., R.3 W., Logan County, at county road bridge, 5.0 mi (8.0 km) west of Orlando.	13.9	1964-76	05-26-76	4.12	505
+07165550	Snake Creek near Bixby, Okla. (discontinued)	Lat 35°49'08", long 95°53'18", in NW 1/4 SW 1/4 sec.36, T.16 N., R.13 E., Okmulgee County, on right bank 5.5 mi (8.8 km) upstream from Duck Creek, 8.8 mi (14.2 km) south of Bixby, and at mile 11.0 (17.7 km).	50	1962-70 1971-76	04-20-76	15.28	1,810
07174720	Hogshooter Creek tributary near Bartlesville, Okla.	Lat 36°43'40", long 95°50'52", in SE 1/4 SE 1/4 sec.18, T.26 N., R.14 E., Washington County, at multi-barrel culvert on U.S. Highway 60, 4.9 mi (7.9 km) east of junction with U.S. Highway 75 southeast of Bartlesville.	.94	1965-76	07-03-76	7.42	219
07188140	Flint Branch near Peoria, Okla.	Lat 36°52'25", long 94°41'35", in SW 1/4 SW 1/4 sec.26, T.28 N., R.24 E., Ottawa County, at upstream side of dam, 3.2 mi (5.1 km) southwest of Peoria.	4.90	1964-76	07-03-76	11.92a	3,070
+07189700	Horse Creek at Afton, Okla.	Lat 36°41'50", long 94°57'20", in NE 1/4 NW 1/4 sec.33, T.26 N., R.22 E., Ottawa County, on downstream side of bridge on U.S. Highway 60 at east edge of Afton.	21.9	1966-76	07-03-76	13.58	2,690
07194515	Mill Creek near Park Hill, Okla.	Lat 35°48'37", long 95°04'07", in NE 1/4 NW 1/4 sec.3, T.15 N., R.21 E., Cherokee County, at multi-barrel culvert on U.S. Highway 62, 6.3 mi (10.1 km) southwest of junction with State Highway 82 near Park Hill.	2.57	1965-76	04-20-76	7.78	659

See footnotes at end of table, p. 466.

Annual maximum discharge at crest-stage partial-record stations.

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Dis-charge (cfs)
Arkansas River Basin--Continued							
07228290	Rough Creek near Thomas, Okla.	Lat 35°48'08", long 98°47'15", in NW 1/4 SW 1/4 sec.3, T.15 N., R.15 W., Custer County, at county road bridge, 4.7 mi (7.6 km) northwest of Thomas	10.4	1964-76		<4.32	<52
07229420	Julian Creek tributary near Asher, Okla.	Lat 34°59'09", long 96°58'48", in SW 1/4 SW 1/4 sec.15, T.6 N., R.3 E., Pottawatomie County, at multi-barrel culvert on State Highway 39, 3.4 mi (5.5 km) west of Asher.	2.28	1964-76	04-19-76	12.71	272
07231320	Leader Creek tributary near Atwood, Okla.	Lat 34°57'10", long 96°20'21", in NW 1/4 NW 1/4 sec.34, T.6 N., R.9 E., Hughes County, at multi-barrel culvert on State Highway 12, 0.7 mi (1.1 km) southwest of Atwood.	.72	1964-75	09-16-76	9.01	174
07231950	Pine Creek near Higgins, Okla.	Lat 34°47'40", long 95°20'50", in NW 1/4 NE 1/4 sec.30, T.4 N., R.19 E., Latimer County, at bridge on State Highway 63, 5.4 mi (8.7 km) east of Higgins.	9.99	1964-76	04-19-76	14.34	7,680
07232550	South Fork tributary near Guymon, Okla.	Lat 36°40'06", long 101°29'54", in SW 1/4 NE 1/4 sec.1, T.2 N., R.14 E., Texas County, at multiple culvert on Chicago, Rock Island, and Pacific Railroad, 1.8 mi (2.9 km) southwest of junction of U.S. Highways 54 and 64 at Guymon.	.26	1964-76		<6.00	<4
07234050	North Fork Clear Creek tributary near Balko, Okla.	Lat 36°37'01", long 100°39'50", in SW 1/4 SW 1/4 sec.23, T.2 N., R.22 E., Beaver County, at multi-barrel culvert on State Highway 3, 1.5 mi (2.4 km) southeast of Balko.	4.22*	1964-76	04-20-76	11.57	100
07234290	Clear Creek tributary near Catesby, Okla.	Lat 36°29'30", long 99°57'20", in SE 1/4 SW 1/4 sec.2, T.23 N., R.26 W., Ellis County, on downstream side of county road bridge, 0.1 mi (0.2 km) east of Catesby.	8.51*	1966-76		<3.00	<77
07237750	Cottonwood Creek near Vici, Okla.	Lat 36°08'45", long 99°12'00", in SE 1/4 SW 1/4 sec.2, T.19 N., R.19 W., Dewey County, at bridge on U.S. Highway 60, 5.4 mi (8.7 km) east of Vici.	11.8*	1964-76	04-18-76	8.12	832
+07237800	Bent Creek near Seiling, Okla.	Lat 36°11'26", long 99°00'36", in NW 1/4 SE 1/4 sec.21, T.20 N., R.17 W., Woodward County, at bridge on U.S. Highway 183 and 270, 6 mi (10 km) northwest of Seiling.	139	1967-70+ 1971-76	04-19-76	17.72	3,960
07241880	Sand Creek near Cromwell, Okla.	Lat 35°20'56", long 96°29'40", in SE 1/4 SE 1/4 sec.7, T.10 N., R.8 E., Seminole County, at bridge on State Highway 99A, 2.2 mi (3.5 km) west of Cromwell.	9.48	1964-76	09-17-76	10.41	822
07242180	Stidham Creek near Dustin, Okla. (discontinued)	Lat 35°17'16", long 96°03'05", in NW 1/4 NW 1/4 sec.3, T.9 N., R.12 E., Hughes County, at multi-barrel culvert on State Highway 84, 1.1 mi (1.8 km) north of Dustin.	2.56	1964-76	unknown	9.40	436
07242200	Deep Fork Portland Ave. at Oklahoma City, Okla.	Lat 35°30'06", long 97°34'58", in NW 1/4 sec.24, T.12 N., R.4 W., Oklahoma County at N.W. 31 St. and Portland in Oklahoma City	2.98	1973-76	07-15-76	9.20	980
07242220	Deep Fork Eastern Ave. at Oklahoma City, Okla.	Lat 35°32'05", long 97°28'35", on west line NW 1/4 sec.12, T.12 W., R.3 W., Oklahoma County, at bridge on Eastern Ave., 0.2 mi (.3 km) south of N.E. 63rd Street in Oklahoma City.	28.2	1975-76	07-15-76	17.22	2,830
07243550	Adams Creek near Beggs, Okla.	Lat 35°44'55", long 96°02'15", in NE 1/4 SE 1/4 sec.28, T.15 N., R.12 E., Okmulgee County, at county road bridge, 2.0 mi (3.2 km) northeast of Beggs.	5.90	1965-76	07-16-76	8.70	770
07246610	Pecan Creek near Spiro, Okla. (discontinued)	Lat 35°14'40", long 94°44'35", in NE 1/4 NE 1/4 sec.22, T.9 N., R.24 E., LeFlore County, at multi-barrel culvert on U.S. Highway 59, 4.2 mi (6.8 km) west of Junction with U.S. Highway 271 west of Spiro.	.90	1965-76	unknown	10.52	433

See footnotes at end of table, p. 466.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations.

Annual maximum discharge at crest-stage partial-record stations.							
Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Arkansas River Basin--Continued							
07246630	Big Black Fox Creek near Long, Okla.	Lat 35°31'15", long 94°37'10", in NE 1/4 NE 1/4 sec.14, T.12 N., R.25 E., Sequoyah County, at county road bridge, 2.3 mi (3.7 km) northwest of Long.	5.32	1964-76	08-02-76	9.58	1,310

Discharge measurements at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previous (water years)	Measurements	
					Date	Discharge (cfs)
Arkansas River Basin						
Spring Creek at Northwest Highway	Cimarron River	Lat 35°33'04", long 97°37'20", in NE 1/4 NE 1/4, sec.4, T.12 N., R.4 W., Oklahoma County, Hydrologic Unit 11100303, at Northwest Highway, Oklahoma City			11-02-74 04-19-76	2,060 35
07159600 Spring Creek at Lansbrook Lane	Cimarron River	Lat 35°33'42", long 97°37'53", in SE 1/4 NE 1/4 sec.30, T.13 N., R.4 W., Oklahoma County, Hydrologic Unit 11100303, at Lansbrook Lane, Oklahoma City			11-02-74b 04-19-76	3,400 75
Polecat Creek	Arkansas River	Lat 35°58'00", long 96°24'16", in SE 1/4 SE 1/4 NE 1/4 sec.12, T.17 N., R.8 E., Creek County, Hydrologic Unit 11110101, at bridge on State Highway 48, 10 mi (16 km) north of Bristow	49.6	1975	10-03-75 10-23-75 11-19-75 12-17-75 01-20-76 02-19-76 03-18-76 06-03-76 06-29-76 11-02-74b	.01 .03 1.30 1.51 2.42 1.60 3.25 1.96 .20 3,940
Deep Fork	North Canadian River	Lat 35°34'28", long 97°37'48", near center sec.24, T.12 N., R.4 W., Oklahoma County, Hydrologic Unit 11100303, at control structure at intersection of NW 34th and Independence St., 0.5 mi west of May Avenue, Oklahoma City			11-02-74b	4,100
Deep Fork	North Canadian River	Lat 35°30'40", long 97°33'25", NE corner NW 1/4 sec.19, T.12 N., R.3 W., Oklahoma County, Hydrologic Unit 11100303, at NW 39th St., Oklahoma City			04-18-76	17
07242219 Deep Fork tributary	Deep Fork	Lat 35°31'22", long 97°31'02", on south line sec.9, T.12 N., R.3 W., Oklahoma County, Hydrologic Unit 11100303, on NW 50th St., 0.3 mile west of Santa Fe Avenue, Oklahoma City				
Soldier Creek	Deep Fork	Lat 35°40'01", long 97°18'48", in SW 1/4 SE 1/4 SW 1/4 sec.21, T.14 N., R.1 W., Oklahoma County, Hydrologic Unit 11100303, at bridge on U.S. Highway 66, .7 mi (1.1 km) east of Arcadia		1975	01-21-76 04-09-76 06-07-76 07-01-76 07-27-76	.45 .94 .46 .63 .36
Wildhorse Creek	Deep Fork	Lat 35°39'59", long 97°11'06", in NW 1/4 NW 1/4 NE 1/4 sec.27, T.14 N., R.1 E., Oklahoma County, Hydrologic Unit 11100303, at bridge on U.S. Highway 66, 0.4 mi (0.6 km) northwest of Luther	17.6	1975	01-21-76 04-08-76 06-02-76 07-01-76 07-02-76	2.69 2.93 2.84 1.02 .85
Hillibey Creek	Deep Fork	Lat 35°37'27", long 96°32'03", in NW 1/4 NE 1/4 NE 1/4 sec.11, T.13 N., R.7 E., Okfuskee County, Hydrologic Unit 11100303, at upstream side of county road bridge 9 mi (14 km) northeast of Paden	41.4	1975	10-02-75 10-23-75 11-18-75 12-16-75 01-20-76 02-20-76 03-19-76 06-30-76	.01 .01 .40 1.25 .62 .50 4.16 .25

† Also a low-flow partial-record station.

†† Operated as a continuous-record station.

* Revised.

a Gage height at culvert 300 feet downstream from dam.

b Measurement of peak flow not previously published-

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

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Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

07146500 ARKANSAS RIVER AT ARKANSAS CITY, KS (LAT 37 03 23 LONG 97 03 32)

DATE	CODE FOR AGENCY COL- LECTING SAMPLE	CODE FOR AGENCY ANA- LYZING SAMPLE	TIME	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	HARD- NESS (CA,MG) (MG/L)
NOV 04...	1028	9740	1145	688	1620	8.1	17.0	80	10.1	106	55	310
DEC 02...	1028	9740	1130	2440	1350	7.8	5.0	150	11.0	88	120	240
DATE	TOTAL CAL- CIUM (CA) (MG/L)	CALCIUM AS CACO3 (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	
NOV 04...	110	220	23	240	8.3	360	.5	1400	6.8	2.6	8	
DEC 02...	--	170	--	--	--	260	.5	820	6.2	1.3	--	
DATE	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	
NOV 04...	<10	30	10	6800	30	580	--	20	--	<10	50	
DEC 02...	--	--	--	41000	--	1900	--	--	--	--	--	

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

07239450 NORTH CANADAIN RIVER NEAR FORT RENO, OK (LAT 35 36 59 LONG 98 03 57)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COL. PER 100 ML)
OCT 10...	1500	21	1650	8.1	23.5	1	7.6	94	19	18	177
26...	1640	70	1500	8.5	24.0	10	9.3	119	25	--	--
NOV 04...	1230	115	1650	--	15.0	35	10.1	107	52	--	--

DATE	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	TOTAL SODIUM (NA) (MG/L)	TOTAL POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (AC-FT) (TONS PER AC-FT)
OCT 10...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	991	1.35
NOV 04...	30	45	170	6.7	252	207	270	180	.6	921	1.25

DATE	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTERABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL NITROGEN (NO3) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ARSENIC (AS) (UG/L)
OCT 10...	--	4	.00	.03	.97	1.0	1.0	4.4	.19	5
26...	187	8	.00	.09	1.2	1.3	1.3	5.8	.26	7
NOV 04...	286	97	.22	.03	1.1	1.1	1.3	5.8	.30	4

DATE	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (MG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	OIL AND GREASE (MG/L)	CHLOROPHYLL A (UG/L)	CHLOROPHYLL B (UG/L)
OCT 10...	0	0	40	<100	.1	20	7.0	0	3.60	3.60
26...	0	24	820	<100	.0	6	7.8	0	--	--
NOV 04...	<10	10	690	<100	.0	140	--	0	--	--

GROUND-WATER LEVELS

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ALFALFA COUNTY

365342098175301. LOCAL NUMBER, 28N10W208DA 1.
 LOCATION.--LAT 36 53'42", LONG 098 17' 53", HYDROLOGIC UNIT 11060004,
 OWNER: BENNY WAGONER.
 AQUIFER.--TERRACE DEPOSITS.
 WELL CHARACTERISTICS.--DRILLED UNUSED STOCK WELL, DIAMETER 6 IN (0.15M),
 DEPTH 36 FT (11.0M).
 DATUM.--MEASURING POINT: TOP OF CASING 4.00 FT (1.22M) ABOVE LAND-SURFACE
 DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1967 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 4.80 FT (1.463M)
 BELOW LAND-SURFACE DATUM, MARCH 20, 1975; LOWEST, 16.95 FT (5.166M)
 BELOW LAND-SURFACE DATUM, JUNE 10, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	6.49	JAN. 10, 1976	6.87	MAY 15, 1976	7.23
OCT. 10	6.69	JAN. 15	6.90	JUNE 25	7.68
OCT. 15	6.77	JAN. 20	6.87	JUNE 30	7.73
OCT. 31	6.78	JAN. 25	6.87	JULY 5	7.60
NOV. 25	6.71	JAN. 31	6.87	JULY 10	7.65
NOV. 30	6.76	FEB. 5	6.87	JULY 15	7.70
DEC. 5	6.78	FEB. 10	6.87	JULY 20	7.74
DEC. 10	6.71	FEB. 15	6.87	JULY 25	7.80
DEC. 15	6.78	APR. 20	7.28	SEP. 10	8.24
DEC. 20	6.83	APR. 25	7.27	SEP. 15	8.23
DEC. 25	6.80	APR. 30	7.26	SEP. 20	8.23
DEC. 31	6.78	MAY 5	7.36	SEP. 25	8.25
JAN. 5, 1976	6.87	MAY 10	7.31	SEP. 30	8.26
WTR YEAR 1976 MAX 8.26 SEPT 30, 1976 MIN 6.49 OCT 5, 1975					

BEAVER COUNTY

363853100311001. LOCAL NUMBER, 02N24E07CCD 1.
 LOCATION.--LAT 36 38'53", LONG 100 31'10", HYDROLOGIC UNIT 11100201,
 OWNER: JAMES W. PARKER.
 AQUIFER.--OGALLALA FORMATION.
 WELL CHARACTERISTICS.--DRILLED STOCK WELL, DIAMETER 6 IN (0.15M),
 DEPTH 94 FT (28.7M).
 DATUM.--MEASURING POINT: HIGHEST POINT ON NORTH SIDE OF CASING 0.50 FT
 (0.15M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1946, 1967 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 71.96 FT (21.933M)
 BELOW LAND-SURFACE DATUM, JAN. 12, 1971; LOWEST, 78.00 FT (23.774M)
 BELOW LAND-SURFACE DATUM, JAN. 13, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1975	76.36	MAY 6, 1976	76.62	AUG. 18, 1976	76.69
JAN. 13, 1976	78.00				
WTR YEAR 1976 MAX 78.00 JAN 13, 1976 MIN 76.36 OCT 1, 1975					

GROUND-WATER LEVELS

CIMARRON COUNTY

364450102190001. LOCAL NUMBER, 03N07E09888 1.
 LOCATION.--LAT 36 44'50", LONG 102 19'00", HYDROLOGIC UNIT 11100101,
 OWNER: ELMER J. BEHRENDT.
 AQUIFER.--OGALLALA FORMATION.
 WELL CHARACTERISTICS.--DRILLED UNUSED STOCK WELL, DIAMETER 6 IN (0.15M),
 DEPTH 61 FT (18.6M).
 DATUM.--MEASURING POINT: TOP OF CASING ON SOUTH SIDE 3.50 FT (1.07M)
 ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1938 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 29.43 FT (8.970M)
 BELOW LAND-SURFACE DATUM, AUG. 19, 1976; LOWEST, 32.41 FT (9.879M)
 BELOW LAND-SURFACE DATUM, FEB. 13, 1969.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 2, 1975	30.92	APR. 29, 1976	30.28	AUG. 19, 1976	29.43
JAN. 13, 1976	31.10				

WTR YEAR 1976 MAX 31.10 JAN 13, 1976 MIN 29.43 AUG 16, 1976

CLEVELAND COUNTY

350136097203001. LOCAL NUMBER, 06N01W06DAD 1.
 LOCATION.--LAT 35 01'36", LONG 097 20'30", HYDROLOGIC UNIT 11090202,
 OWNER: U.S. GEOLOGICAL SURVEY.
 AQUIFER.--ALLUVIUM.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 1-1/4 IN (0.03M),
 DEPTH 23 FT (7.01M).
 DATUM.--MEASURING POINT: TOP OF CASING 1.40 FT (0.43M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1947 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 1.77 FT (0.539M)
 BELOW LAND-SURFACE DATUM, JAN. 25, 1960; LOWEST, 13.85 FT (4.221M)
 BELOW LAND-SURFACE DATUM, NOV. 8, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV. 3, 1975	9.81	APR. 30, 1976	9.38	AUG. 10, 1976	11.46
FEB. 2, 1976	10.41				

WTR YEAR 1976 MAX 11.46 AUG 10, 1976 MIN 9.38 APR 30, 1976

351222097245901. LOCAL NUMBER, 08N02W0988A 1.
 LOCATION.--LAT 35 12'22", LONG 097 24'59", HYDROLOGIC UNIT 11090202,
 OWNER: U.S. NAVY.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 13 IN (0.33M) REDUCED
 TO 11 IN (0.28M), DEPTH 545 FT (166M).
 DATUM.--MEASURING POINT: TOP OF CASING 0.40 FT (0.12M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1951-52, 1955 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 166.04 FT (50.609M)
 BELOW LAND-SURFACE DATUM, MAR. 25, 1952; LOWEST, 183.04 FT (55.791M)
 BELOW LAND-SURFACE DATUM, NOV. 30, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV. 3, 1975	180.05	APR. 30, 1976	180.06	AUG. 10, 1976	182.67
FEB. 2, 1976	179.32				

WTR YEAR 1976 MAX 182.67 AUG 10, 1976 MIN 179.32 FEB 2, 1976

GROUND-WATER LEVELS

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CLEVELAND COUNTY--Continued

350816097233101. LOCAL NUMBER, 08N02W27ACD 1.
 LOCATION.--LAT 35 08'16", LONG 097 23'31", HYDROLOGIC UNIT 11090202,
 OWNER: TOWN OF NOBLE.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 12 IN (0.30M) REDUCED
 TO 8 IN (0.20M), DEPTH 461 FT (141M).
 DATUM.--MEASURING POINT: TOP OF 1-IN (0.03M) PIPE CEMENTED OVER CASING
 1.40 FT (0.43M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--PERFORATIONS 235-245 FT (71.6M-74.7M) AND 415-455 FT (126M-139M)
 PERIOD OF RECORD.-- 1943 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 165.43 FT (50.423M)
 BELOW LAND-SURFACE DATUM, JULY 7, 1943; LOWEST, 221.74 FT (67.586M)
 BELOW LAND-SURFACE DATUM, DEC. 23, 1948.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV. 3, 1975	201.17	APR. 30, 1976	204.28	AUG. 10, 1976	203.07
FEB. 2, 1976	202.92				
WTR YEAR 1976 MAX 204.28 APR 30, 1976 MIN 201.17 NOV 3, 1975					

CREEK COUNTY

355510096293501. LOCAL NUMBER, 17N08E30CBB 1.
 LOCATION.--LAT 35 55'10", LONG 096 29'35", HYDROLOGIC UNIT 11100303,
 OWNER: EVERETT MATHERLY.
 AQUIFER.--VAMUOSA FORMATION.
 WELL CHARACTERISTICS.--DRILLED UNUSED STOCK WELL, DIAMETER 6 IN (0.15M),
 DEPTH 58 FT (17.7M).
 DATUM.--MEASURING POINT: BASE OF RECORDER SHELTER 1.00 FT (0.30M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--RECORDER SITE.
 PERIOD OF RECORD.--1969 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 34.30 FT (10.455M)
 BELOW LAND-SURFACE DATUM, JUNE 5, 1975; LOWEST, 42.77 FT (13.036M)
 BELOW LAND-SURFACE DATUM, MAY 12, 1970.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	36.47	FEB. 5, 1976	38.17	MAY 25, 1976	37.82
OCT. 10	36.51	FEB. 10	37.94	MAY 31	37.67
OCT. 15	36.66	FEB. 15	37.83	JUNE 5	37.97
OCT. 25	37.02	FEB. 20	37.60	JUNE 10	37.68
OCT. 31	36.74	FEB. 25	38.05	JUNE 15	37.71
NOV. 5	36.94	FEB. 29	37.75	JUNE 20	37.89
NOV. 10	37.18	MAR. 5	38.48	JUNE 25	37.70
NOV. 15	37.02	MAR. 10	37.98	JUNE 30	37.81
NOV. 20	37.10	MAR. 15	38.06	JULY 5	37.85
NOV. 25	37.10	MAR. 20	38.10	JULY 10	37.85
NOV. 30	37.55	MAR. 25	38.99	JULY 15	37.85
DEC. 5	37.30	MAR. 31	38.28	JULY 20	37.87
DEC. 10	37.00	APR. 5	38.20	JULY 25	37.87
DEC. 15	37.57	APR. 10	38.27	JULY 31	37.84
DEC. 20	37.71	APR. 15	38.09	AUG. 5	37.86
DEC. 25	37.24	APR. 20	37.90	AUG. 10	37.99
DEC. 31	37.15	APR. 25	38.21	AUG. 31	38.16
JAN. 5, 1976	37.76	APR. 30	38.10	SEP. 5	38.12
JAN. 10	37.52	MAY 5	37.80	SEP. 10	38.43
JAN. 15	37.76	MAY 10	37.94	SEP. 15	38.13
JAN. 20	38.12	MAY 15	37.73	SEP. 20	38.25
JAN. 25	37.83	MAY 20	37.96	SEP. 25	38.37
JAN. 31	37.84				
WTR YEAR 1976 MAX 38.99 MAR 25, 1976 MIN 36.47 OCT 5, 1975					

CUSTER COUNTY

354112098430601. LOCAL NUMBER, 14N14W17CBD 1.
 LOCATION.--LAT 35 41'12", LONG 098 43'06", HYDROLOGIC UNIT 11090201,
 OWNER: MELT HERRING.
 AQUIFER.--RUSH SPRINGS SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED IRRIGATION WELL, DIAMETER 16 IN
 (0.41M), DEPTH 320 FT (97.5M).
 DATUM.--MEASURING POINT: TOP OF WOOD RECORDER BASE 0.40 FT (0.12M)
 ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1971 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 24.59 FT (7.495M)
 BELOW LAND-SURFACE DATUM, JULY 5, 1975; LOWEST, 30.08 FT (9.168M)
 BELOW LAND-SURFACE DATUM, SEP. 10, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	25.06	JAN. 15, 1976	25.46	MAY 25, 1976	26.04
OCT. 10	25.09	JAN. 25	25.49	MAY 31	25.91
OCT. 15	25.13	JAN. 31	25.49	JUNE 5	25.83
OCT. 20	25.12	FEB. 5	25.55	JUNE 10	25.71
OCT. 25	25.20	FEB. 10	25.56	JUNE 15	25.69
OCT. 31	25.17	FEB. 15	25.58	JUNE 20	25.65
NOV. 5	25.21	FEB. 20	25.53	JUNE 25	25.61
NOV. 10	25.25	MAR. 10	25.74	JUNE 30	25.57
NOV. 15	25.20	MAR. 15	25.83	JULY 5	25.57
NOV. 20	25.25	MAR. 20	25.84	JULY 10	25.57
NOV. 25	25.23	MAR. 25	25.82	JULY 15	25.61
NOV. 30	25.32	MAR. 31	26.18	JULY 20	25.64
DEC. 5	25.34	APR. 5	26.32	JULY 25	26.16
DEC. 10	25.23	APR. 10	26.60	JULY 31	26.63
DEC. 15	25.33	APR. 15	26.41	AUG. 5	26.78
DEC. 20	25.37	APR. 20	26.17	AUG. 10	26.49
DEC. 25	25.32	APR. 25	26.12	AUG. 15	26.90
DEC. 31	25.29	APR. 30	26.05	AUG. 20	26.59
JAN. 5, 1976	25.38	MAY 15	26.00	AUG. 25	26.78
JAN. 10	25.40	MAY 20	26.03	AUG. 31	26.98

WTR YEAR 1976 MAX 26.98 AUG 31, 1976 MIN 25.06 OCT 5, 1975

ELLIS COUNTY

361235099474401. LOCAL NUMBER, 20N24W18DAA 1.
 LOCATION.--LAT 36 12'35", LONG 099 47'44", HYDROLOGIC UNIT 11100203,
 OWNER: M. HAMM.
 AQUIFER.--
 WELL CHARACTERISTICS.--DRILLED UNUSED DOMESTIC WELL, DIAMETER 6 IN
 (0.15M), DEPTH 78 FT (23.8M).
 DATUM.--MEASURING POINT: WEST EDGE OF HOLE IN SHELTER BASE 0.56 FT
 (0.17M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1972 TO CURRENT YEAR.
 BELOW LAND-SURFACE DATUM, JUNE 5, 1974; LOWEST, 57.00 FT (17.374M)
 BELOW LAND-SURFACE DATUM, MAR. 5, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	56.56	FEB. 25, 1976	56.84	JUNE 15, 1976	56.90
OCT. 10	56.63	FEB. 29	56.76	JUNE 20	56.78
OCT. 15	56.77	MAR. 5	57.00	JUNE 25	56.79
OCT. 20	56.58	MAR. 10	56.73	JUNE 30	56.80
OCT. 25	56.82	MAR. 15	56.92	JULY 5	56.77
OCT. 31	56.57	MAR. 20	56.91	JULY 10	56.76
NOV. 5	56.66	MAR. 25	56.70	JULY 15	56.82
NOV. 10	56.81	MAR. 31	56.84	JULY 20	56.79
NOV. 15	56.51	APR. 5	56.72	JULY 25	56.79
NOV. 20	56.78	APR. 10	56.80	JULY 31	56.80
NOV. 25	56.75	APR. 15	56.75	AUG. 5	56.83
NOV. 30	56.98	APR. 20	56.79	AUG. 10	56.85
DEC. 5	56.92	APR. 25	56.88	AUG. 15	56.85
DEC. 10	56.59	APR. 30	56.84	AUG. 20	56.81
DEC. 15	56.85	MAY 5	56.75	AUG. 25	56.87
DEC. 20	56.79	MAY 10	56.85	AUG. 31	56.81
DEC. 25	56.63	MAY 15	56.91	SEP. 5	56.87
DEC. 31	56.55	MAY 20	56.83	SEP. 10	56.92
JAN. 5, 1976	56.60	MAY 25	56.83	SEP. 15	56.91
FEB. 5	56.85	MAY 31	56.84	SEP. 20	56.90
FEB. 10	56.80	JUNE 5	56.79	SEP. 25	56.80
FEB. 15	56.76	JUNE 10	56.71	SEP. 30	56.89
FEB. 20	56.64				

WTR YEAR 1976 MAX 57.00 MAR 5, 1976 MIN 56.56 OCT 5, 1975

ELLIS COUNTY--Continued

363235099592801. LOCAL NUMBER, 24N26W21CA 1.
 LOCATION.--LAT 36 32'35", LONG 099 59'28", HYDROLOGIC UNIT 11100201,
 OWNER: HINER,
 AQUIFER.--OGALLALA FORMATION.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 5 IN (0.13M),
 DEPTH 120 FT (36.6M).
 DATUM.--MEASURING POINT: TOP EDGE OF PLYWOOD SHELTER BASE 1.50 FT (0.46M)
 ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1972 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 30.11 FT (9.178M)
 BELOW LAND-SURFACE DATUM, MAY 10, 1974; LOWEST, 33.25 FT (10.135M)
 BELOW LAND-SURFACE DATUM, OCT. 25, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	32.75	FEB. 25, 1976	32.58	JUNE 15, 1976	32.08
OCT. 10	32.78	FEB. 29	32.56	JUNE 20	32.13
OCT. 15	32.82	MAR. 5	32.55	JUNE 25	32.19
OCT. 20	32.84	MAR. 10	32.52	JUNE 30	32.25
OCT. 25	32.87	MAR. 15	32.52	JULY 5	32.29
OCT. 31	32.87	MAR. 20	32.52	JULY 10	32.29
DEC. 5	32.79	MAR. 25	32.50	JULY 15	32.33
DEC. 10	32.75	MAR. 31	32.50	JULY 20	32.36
DEC. 15	32.75	APR. 5	32.48	JULY 25	32.40
DEC. 20	32.73	APR. 10	32.47	JULY 31	32.47
DEC. 25	32.70	APR. 15	32.46	AUG. 5	32.54
DEC. 31	32.68	APR. 20	32.45	AUG. 10	32.60
JAN. 5, 1976	32.66	APR. 25	32.45	AUG. 15	32.68
JAN. 10	32.67	APR. 30	32.40	AUG. 20	32.75
JAN. 15	32.66	MAY 5	32.32	AUG. 25	32.82
JAN. 20	32.66	MAY 10	32.28	AUG. 31	32.87
JAN. 25	32.64	MAY 15	32.23	SEP. 5	32.95
JAN. 31	32.62	MAY 20	32.20	SEP. 10	32.99
FEB. 5	32.61	MAY 25	32.18	SEP. 15	33.04
FEB. 10	32.61	MAY 31	32.14	SEP. 20	33.08
FEB. 15	32.59	JUNE 5	32.11	SEP. 25	33.09
FEB. 20	32.57	JUNE 10	32.08	SEP. 30	33.12

WTR YEAR 1976 MAX 33.12 SEPT 30, 1976 MIN 32.08 JUNE 10,15, 1976

KAY COUNTY

364210097025401. LOCAL NUMBER, 26N02E26BD 1.
 LOCATION.--LAT 36 42'10", LONG 097 02'54", HYDROLOGIC UNIT 11060001,
 OWNER: CITY OF PONCA CITY.
 AQUIFER.--ALLUVIUM.
 WELL CHARACTERISTICS.--DUG PUBLIC SUPPLY WELL, NUMBER 5, DIAMETER 30 IN
 (0.76M), DEPTH 38 FT (11.6M).
 DATUM.--MEASURING POINT. BOTTOM OF NUMBER AT PUMP BASE OPENING 6.70 FT
 (2.04M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1948 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, +3.30 FT (+1.006M)
 BELOW AND ABOVE LAND-SURFACE DATUM, AUG. 11, 1976; LOWEST, 29.13 FT
 (8.879M) BELOW LAND-SURFACE DATUM, FEB. 24, 1955.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 1, 1975	5.80	FEB. 4, 1976	14.30	JUNE 9, 1976	3.10
OCT. 8	5.90	FEB. 11	14.00	JUNE 16	1.00
OCT. 15	5.92	FEB. 18	13.93	JUNE 23	1.30
OCT. 22	5.98	FEB. 25	13.84	JUNE 30	+ 2.40
OCT. 29	6.00	MAR. 1	15.10	JULY 7	+ 2.40
NOV. 5	6.10	MAR. 10	15.10	JULY 14	+ 2.20
NOV. 12	6.05	MAR. 17	14.60	JULY 21	+ 2.15
NOV. 19	6.00	MAR. 24	15.70	JULY 28	+ 2.15
NOV. 26	6.00	MAR. 31	17.20	AUG. 4	+ 3.15
DEC. 3	6.00	APR. 7	13.84	AUG. 11	+ 3.30
DEC. 10	5.80	APR. 14	14.60	AUG. 18	+ 3.10
DEC. 17	5.70	APR. 21	15.80	AUG. 25	+ 2.90
DEC. 24	5.90	APR. 28	16.70	SEP. 1	+ 3.15
DEC. 31	6.05	MAY 4	4.80	SEP. 8	+ 3.10
JAN. 7, 1976	14.00	MAY 11	4.70	SEP. 15	+ 3.10
JAN. 14	14.10	MAY 18	4.70	SEP. 22	+ 3.00
JAN. 21	14.20	MAY 25	4.60	SEP. 29	+ 3.00
JAN. 28	14.30	JUNE 2	4.90		

WTR YEAR 1976 MAX 17.20 MAR 31, 1976 MIN +3.30 AUG 11, 1976

GROUND-WATER LEVELS

MAJOR COUNTY

361442098092801. LOCAL NUMBER, 20N09W04AAA 1.
 LOCATION.--LAT 36 14'42", LONG 098 09'28", HYDROLOGIC UNIT 11050002,
 OWNER: ROSS M. STURGEON.
 AQUIFER.--TERRACE DEPOSITS.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 6 IN (0.15M),
 DEPTH 60 FT (18.3M).
 DATUM.--MEASURING POINT: 2.00 FT (0.61M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1965 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 6.54 FT (1.993M)
 BELOW LAND-SURFACE DATUM, JUNE 20, 1975; LOWEST, 25.97 FT (7.916M)
 BELOW LAND-SURFACE DATUM, SEPT. 15, 1971.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 10, 1975	10.97	FEB. 5, 1976	11.37	MAY 5, 1976	11.76
OCT. 15	10.94	FEB. 10	11.33	JUNE 25	13.80H
NOV. 25	10.81	APR. 10	12.79	SEP. 10	14.65
JAN. 15, 1976	11.18	APR. 15	12.19	SEP. 15	14.12
JAN. 20	11.20	APR. 20	11.97	SEP. 20	14.07
JAN. 25	11.30	APR. 25	11.90	SEP. 25	14.49
JAN. 31	11.14	APR. 30	11.79	SEP. 30	14.06

H TAPE MEASUREMENT ON RECORDER WELL.

WTR YEAR 1976 MAX 14.65 SEPT 10, 1976 MIN 10.81 NOV 25, 1975

MUSKOGEE COUNTY

354613095161001. LOCAL NUMBER, 15N19E1SDDD 1.
 LOCATION.--LAT 35 46'13", LONG 095 16'10", HYDROLOGIC UNIT 11110102,
 OWNER: U.S. GEOLOGICAL SURVEY.
 AQUIFER.--ALLUVIUM.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 1 1/4 IN (0.03M),
 DEPTH 29 FT (8.84M).
 DATUM.--MEASURING POINT: TOP OF PIPE 2.55 FT (0.78M) ABOVE LAND-SURFACE
 DATUM.
 REMARKS.--
 PERIOD OF RECORD.-- 1958, 1974 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 6.24 FT (1.902M)
 BELOW LAND-SURFACE DATUM, MAY 26, 1975; LOWEST, 10.98 FT (3.347M)
 BELOW LAND-SURFACE DATUM, AUG. 21, 1974.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 8, 1975	10.04	MAY 4, 1976	8.95	AUG. 12, 1976	9.22
FEB. 2, 1976	10.44				

WTR YEAR 1976 MAX 10.44 FEB 2, 1976 MIN 8.95 MAY 4, 1976

GROUND-WATER LEVELS

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OKFUSKEE COUNTY

353510096360001. LOCAL NUMBER, 13N07E20BHC 1.
 LOCATION.--LAT 35 35'10", LONG 096 36'00", HYDROLOGIC UNIT 11100303,
 OWNER: R.L. DUNCAN.
 AQUIFER.--VAMOUSA FORMATION.
 WELL CHARACTERISTICS.--DRILLED UNUSED DOMESTIC WELL, DIAMETER 6 IN
 (0.15M), DEPTH 52 FT (15.8M).
 DATUM.--MEASURING POINT: BASE OF RECORDER SHELTER 1.40 FT (0.43M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1969 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, .01 FT (0.0037M)
 BELOW LAND-SURFACE DATUM, OCT. 8, 1970; LOWEST, 46.20 FT (14.082M)
 BELOW LAND-SURFACE DATUM, OCT. 20, 1972,
 OCT. 25, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	41.52	JAN. 10, 1976	42.13	APR. 10, 1976	36.58
OCT. 10	41.56	JAN. 15	42.16	APR. 15	38.18
OCT. 15	41.65	JAN. 20	42.21	APR. 20	13.50
OCT. 25	41.39	JAN. 25	42.23	MAY 5	4.05
OCT. 31	41.46	JAN. 31	42.28	MAY 20	9.90
NOV. 5	41.52	FEB. 5	42.39	MAY 25	19.85
NOV. 10	41.56	FEB. 10	42.41	MAY 31	3.50
NOV. 15	41.72	FEB. 15	42.45	JUNE 25	35.05
NOV. 20	41.70	FEB. 20	42.47	JUNE 30	37.17
NOV. 25	42.12	FEB. 25	42.52	JULY 5	38.50
NOV. 30	42.19	FEB. 29	42.53	JULY 10	39.62
DEC. 5	42.27	MAR. 5	42.58	JULY 15	40.30
DEC. 10	42.37	MAR. 10	29.40	JULY 20	40.80
DEC. 15	42.46	MAR. 15	8.60	JULY 25	41.18
DEC. 20	42.48	MAR. 20	9.70	JULY 31	41.50
DEC. 25	42.52	MAR. 25	12.05	AUG. 5	41.71
DEC. 31	42.55	MAR. 31	27.55	AUG. 10	41.82
JAN. 5, 1976	42.13	APR. 5	33.20		
WTR YEAR 1976 MAX 42.58 MAR 5, 1976 MIN 3.50 MAY 31, 1976					

OKLAHOMA COUNTY

352750097223001. LOCAL NUMBER, 11N02W02ABA 1.
 LOCATION.--LAT 35 27'50", LONG 097 22'30", HYDROLOGIC UNIT 11100302,
 OWNER: MIDWEST CITY, WELL NO. 50.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 11 IN (3.35M),
 DEPTH 751 FT (229M).
 DATUM.--MEASURING POINT: TOP CONCRETE SLAB 1.5 FT (0.46M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS: MEASURE WITH AIRLINE GAGE, AIRLINE IS SET AT 580 FT (177M)
 BELOW LAND-SURFACE DATUM.
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 215.00 FT (65.53M)
 BELOW LAND-SURFACE, JAN. 21, 1976; LOWEST 275.00 FT (73.82M) BELOW
 LAND-SURFACE DATUM, JULY 16, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR. 16, 1976	250.00	JUNE 25, 1976	261.00	AUG. 25, 1976	238.00
APR. 14	222.00	JULY 16	275.00	SEP. 16	252.00
MAY 28	252.00	AUG. 4	217.00		
WTR YEAR 1976 MAX 275.00 JULY 16, 1976 MIN 217.00 AUG 4, 1976					

GROUND-WATER LEVELS

OKLAHOMA COUNTY--Continued

352725097224701. LOCAL NUMBER, 11N02W02BDD 1.
 LOCATION.--LAT 35 27'25", LONG 097 22'47", HYDROLOGIC UNIT 11100302,
 OWNER: MIDWEST CITY, WELL NO. 44.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 11 IN (3.35M),
 DEPTH 274 FT (83.5M).
 DATUM.--MEASURING POINT: TOP OF CONCRETE SLAB 1.5 FT (0.46M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS: MEASURE WITH AIRLINE GAGE; AIRLINE IS SET AT 562 FT (171M)
 BELOW LAND-SURFACE DATUM.
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 199.00 FT (61.26M)
 BELOW LAND-SURFACE DATUM, FEB. 19, 1976; LOWEST, 257.00 FT (78.33M)
 BELOW LAND-SURFACE DATUM, JULY 16, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR. 16, 1976	234.00	JUNE 25, 1976	243.00	AUG. 25, 1976	220.00
APR. 14	211.00	JULY 16	257.00	SEP. 16	234.00
MAY 28	234.00	AUG. 4	199.00		

WTR YEAR 1976 MAX 257.00 JULY 16, 1976 MIN 199.00 AUG 4, 1976

352448097263201. LOCAL NUMBER, 11N02W19DDA 1.
 LOCATION.--LAT 35 24'48", LONG 097 26'32", HYDROLOGIC UNIT 11100302,
 OWNER: OKLAHOMA CITY.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 8 IN (0.20M),
 DEPTH 304 FT (92.7M).
 DATUM.--MEASURING POINT: 1.0 FT (0.30M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 138.00 FT (42.06M)
 BELOW LAND-SURFACE DATUM, FEB. 29, 1976; LOWEST, 142.80 FT (43.53M)
 BELOW LAND-SURFACE DATUM, AUG. 31, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN. 25, 1976	138.57	APR. 15, 1976	138.49	JULY 10, 1976	140.68
JAN. 31	138.45	APR. 20	138.35	JULY 15	140.90
FEB. 5	138.39	APR. 25	138.52	JULY 20	141.03
FEB. 10	138.20	APR. 30	138.52	JULY 25	141.18
FEB. 15	138.08	MAY 5	138.42	AUG. 5	141.49
FEB. 20	138.07	MAY 10	138.51	AUG. 10	141.69
FEB. 25	138.20	MAY 15	138.33	AUG. 15	141.75
FEB. 29	138.00	MAY 20	138.42	AUG. 20	142.18
MAR. 5	138.26	MAY 25	139.42	AUG. 25	142.52
MAR. 10	138.19	MAY 31	139.32	AUG. 31	142.80
MAR. 15	138.50	JUNE 5	139.29	SEP. 5	142.62
MAR. 20	138.35	JUNE 10	138.98	SEP. 10	142.68
MAR. 25	138.45	JUNE 15	138.72	SEP. 15	142.40
MAR. 31	138.60	JUNE 25	140.00	SEP. 20	142.23
APR. 5	138.60	JUNE 30	140.20	SEP. 25	140.90
APR. 10	138.55	JULY 5	140.45	SEP. 30	140.75

WTR YEAR 1976 MAX 142.80 AUG 31, 1976 MIN 138.00 FEB 29, 1976

GROUND-WATER LEVELS

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OKLAHOMA COUNTY--Continued

352705097281201. LOCAL NUMBER, 11N03W01CDD 1.
 LOCATION.--LAT 35 27'05", LONG 097 28'12", HYDROLOGIC UNIT 11100302,
 OWNER: OKLAHOMA CITY.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 8 IN (0.20M),
 DEPTH 354 FT (108M).
 DATUM.--MEASURING POINT: TOP OF CASING 1.3 FT (0.40M) ABOVE LAND-SURFACE
 DATUM.
 REMARKS.--
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 208.82 FT (63.65M)
 BELOW LAND-SURFACE DATUM, JUNE 15, 1976; LOWEST, 215.22 FT (65.60M)
 BELOW LAND-SURFACE DATUM, AUG. 31, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN. 25, 1976	210.77	APR. 15, 1976	209.61	JUNE 30, 1976	210.60
JAN. 31	210.65	APR. 20	209.47	JULY 5	211.33
FEB. 5	210.65	APR. 25	209.69	JULY 10	211.70
FEB. 10	210.35	APR. 30	209.10	AUG. 5	212.42
FEB. 15	210.28	MAY 5	209.28	AUG. 10	212.52
FEB. 20	209.96	MAY 10	209.30	AUG. 15	212.84
FEB. 25	210.09	MAY 15	208.99	AUG. 20	214.02
FEB. 29	209.75	MAY 20	209.18	AUG. 25	214.85
MAR. 5	210.35	MAY 25	209.00	AUG. 31	215.22
MAR. 10	210.00	MAY 31	208.90	SEP. 5	214.75
MAR. 15	210.30	JUNE 5	209.03	SEP. 10	214.68
MAR. 20	211.40	JUNE 10	209.80	SEP. 15	214.00
MAR. 25	211.40	JUNE 15	208.82	SEP. 20	213.60
MAR. 31	211.60	JUNE 20	209.00	SEP. 25	213.10
APR. 5	210.40	JUNE 25	209.72	SEP. 30	212.85
APR. 10	210.50				

WTR YEAR 1976 MAX 215.22 AUG 31, 1976 MIN 208.82 JUNE 15, 1976

352449097293201. LOCAL NUMBER, 11N03W23BCD 1.
 LOCATION.--LAT 35 24'49", LONG 097 29'32", HYDROLOGIC UNIT 11100302,
 OWNER: OKLAHOMA CITY.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 8 IN (0.20M),
 DEPTH 26 FT (7.92M).
 DATUM.--MEASURING POINT: TOP OF CASING 0.5 FT (0.15M) ABOVE LAND-SURFACE
 DATUM.
 REMARKS.--
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 111.46 FT (33.97M)
 BELOW LAND-SURFACE DATUM, FEB. 20, 1976; LOWEST, 112.80 FT (34.38M)
 BELOW LAND-SURFACE DATUM, FEB. 29, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN. 25, 1976	112.18	APR. 5, 1976	112.20	JUNE 20, 1976	111.72
JAN. 31	112.19	APR. 10	112.20	JUNE 25	112.00
FEB. 5	112.42	APR. 15	111.90	JUNE 30	112.11
FEB. 10	112.10	APR. 20	111.87	JULY 5	112.18
FEB. 15	112.03	APR. 25	112.36	JULY 10	112.18
FEB. 20	111.46	APR. 30	112.20	JULY 15	112.28
FEB. 29	112.80	MAY 5	111.98	JULY 20	112.30
MAR. 5	112.61	MAY 10	112.08	JULY 25	112.28
MAR. 10	112.30	MAY 20	111.99	AUG. 25	112.46
MAR. 15	112.80	MAY 25	111.82	AUG. 31	112.31
MAR. 20	112.69	MAY 31	111.50	SEP. 5	112.28
MAR. 25	112.27	JUNE 5	111.95	SEP. 10	112.50
MAR. 31	112.74	JUNE 15	111.94		

WTR YEAR 1976 MAX 112.80 FEB 29, MIN 111.46 FEB 20, 1976
 MAR 15, 1976

GROUND-WATER LEVELS

OKLAHOMA COUNTY--Continued

352350097314001. LOCAL NUMBER, 11N03W26C8B 1.
 LOCATION.--LAT 35 23'50", LONG 097 31'40", HYDROLOGIC UNIT 11100302,
 OWNER: OKLAHOMA CITY.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 6 IN (0.15M),
 DEPTH 281 FT (85.6M).
 DATUM.--MEASURING POINT: TOP OF CASING 0.5 FT (0.15M) ABOVE LAND-SURFACE
 DATUM.
 REMARKS.--
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 151.06 FT (46.04M)
 BELOW LAND-SURFACE DATUM, JAN. 31, 1976; LOWEST, 151.86 FT (46.29M)
 BELOW LAND-SURFACE DATUM, MAR. 5, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB. 5, 1976	151.43	FEB. 25, 1976	151.60	MAR. 10, 1976	151.54
FEB. 10	151.24	FEB. 29	151.32	MAR. 15	151.74
FEB. 15	151.23	MAR. 5	151.86	APR. 10	M
FEB. 20	151.19				

M MEASUREMENTS DISCONTINUED.

WTR YEAR 1976 MAX 151.86 MAR 5, 1976 MIN 151.19 FEB 20, 1976

352910097232001. LOCAL NUMBER, 12N02W26C8B 1.
 LOCATION.--LAT 35 29'10", LONG 097 23'20", HYDROLOGIC UNIT 11100302,
 OWNER: MIDWEST CITY, WELL NO. 51.
 AQUIFER.--GARBER SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 11 IN (3.35M),
 DEPTH 748 FT (228M).
 DATUM.--MEASURING POINT: TOP OF CONCRETE SLAB 1.5 FT (0.46M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS: MEASURE WITH AIRLINE GAGE, AIRLINE IS SET AT 578 FT (176M)
 BELOW LAND-SURFACE DATUM.
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 201.00 FT (61.26M)
 BELOW LAND-SURFACE DATUM, FEB. 19, 1976; LOWEST, 263.00 FT (80.16M)
 BELOW LAND-SURFACE DATUM, JULY 16,
 AUG. 4, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR. 16, 1976	235.00	JUNE 25, 1976	235.00	AUG. 25, 1976	240.00
APR. 14	215.00	JULY 16	263.00	SEP. 16	240.00
MAY 28	217.00	AUG. 4	263.00		

WTR YEAR 1976 MAX 263.00 JULY 16,
 AUG 4, 1976 MIN 201.00 APR 14, 1976

GROUND-WATER LEVELS

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OKLAHOMA COUNTY--Continued

353100097400001. LOCAL NUMBER, 12N04W07CDD 1.
 LOCATION.--LAT 35 31'00", LONG 097 40'00", HYDROLOGIC UNIT 11100301,
 OWNER: CITY OF BETHANY.
 AQUIFER.--TERRACE DEPOSITS.
 WELL CHARACTERISTICS.--DRILLED MUNICIPAL WELL, DIAMETER 12 IN (0.30M),
 DEPTH 66 FT (20.1M).
 DATUM.--MEASURING POINT: 1.90 FT (0.58M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1973 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 26.41 FT (8.050M)
 BELOW LAND-SURFACE DATUM, JAN. 15, 1976; LOWEST, 36.91 FT (11.250M)
 BELOW LAND-SURFACE DATUM, JULY 5, 1973.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 10, 1975	30.22	DEC. 15, 1975	27.04	JULY 15, 1976	28.65
OCT. 15	30.47	DEC. 20	26.91	JULY 20	28.62
OCT. 20	30.24	JAN. 5, 1976	26.52	JULY 25	28.86
OCT. 25	30.85	JAN. 10	27.00	AUG. 20	31.84
OCT. 31	30.11	JAN. 15	26.41	AUG. 25	32.51
NOV. 5	30.23	JAN. 20	27.00	AUG. 31	32.94
NOV. 25	30.39	JUNE 25	27.32	SEP. 5	32.94
NOV. 30	28.28	JUNE 30	27.79	SEP. 10	33.00
DEC. 5	27.49	JULY 5	28.13	SEP. 15	32.90
DEC. 10	27.11	JULY 10	28.17		
WTR YEAR 1976 MAX 33.00 SEPT 10, 1976 MIN 26.41 JAN 15, 1976					

353530097172001. LOCAL NUMBER, 13N01E20ADD 1.
 LOCATION.--LAT 35 35'30", LONG 097 17'20", HYDROLOGIC UNIT 11100303,
 OWNER: T.E. BOOHER.
 AQUIFER.--GARBER-WELLINGTON FORMATION.
 WELL CHARACTERISTICS.--UNUSED ARTESIAN WELL, DIAMETER 6 IN (0.15M),
 DEPTH 153 FT (46.6M).
 DATUM.--MEASURING POINT: CHISLED ARROW AT NORTHWEST SIDE OF CASING
 0.10 FT (0.03M) ABOVE LAND-SURFACE DATUM.
 REMARKS: RECORDER INSTALLED 12-16-74.
 PERIOD OF RECORD.--CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 109.75 FT (33.452M)
 BELOW LAND-SURFACE DATUM, JAN. 25, 1976; LOWEST, 113.11 FT (34.476M)
 BELOW LAND-SURFACE DATUM, JAN. 20, 1975.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	110.04	FEB. 15, 1976	110.25	JUNE 30, 1976	110.47
OCT. 10	109.98	FEB. 20	110.11	JULY 31	110.43
OCT. 15	110.05	APR. 10	110.41	AUG. 5	110.62
OCT. 20	109.94	APR. 15	110.15	AUG. 10	110.56
JAN. 25, 1976	109.75	APR. 20	110.00	AUG. 15	110.48
JAN. 31	110.14	APR. 25	110.30	AUG. 20	110.67
FEB. 5	110.24	APR. 30	110.22	AUG. 25	110.63
FEB. 10	110.00	MAY 5	109.84		
WTR YEAR 1976 MAX 110.67 AUG 20, 1976 MIN 109.75 JAN 25, 1976					

GROUND-WATER LEVELS

OSAGE COUNTY

362935096291501. LOCAL NUMBER, 23N09E10A4D 1.
 LOCATION.--LAT 36 29'35", LONG 096 29'15", HYDROLOGIC UNIT 11070107,
 OWNER: LESLIE DRUMMOND.
 AQUIFER.--VAMOUSA FORMATION.
 WELL CHARACTERISTICS.--DRILLED UNUSED WELL, DIAMETER 13 IN (0.33M),
 DEPTH 55 FT (16.8M).
 DATUM.--MEASURING POINT: TOP OF CASING 2.40 FT (0.73M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1971 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 5.37 FT (1.637M)
 BELOW LAND-SURFACE DATUM, JUNE 10, 1975; LOWEST, 9.26 FT (2.822M)
 BELOW LAND-SURFACE DATUM, AUG. 20, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	6.95	FEB. 5, 1976	7.61	JUNE 5, 1976	6.41
OCT. 10	7.07	FEB. 10	7.42	JUNE 10	6.26
OCT. 15	7.13	FEB. 15	7.29	JUNE 15	6.50
OCT. 20	6.93	FEB. 20	7.22	JUNE 20	6.61
OCT. 25	7.29	FEB. 25	7.47	JUNE 25	6.62
OCT. 31	6.95	FEB. 29	7.20	JUNE 30	6.72
NOV. 5	7.06	MAR. 5	7.65	JULY 15	6.69
NOV. 10	7.30	MAR. 10	6.58	JULY 20	6.78
NOV. 15	7.04	MAR. 15	7.04	JULY 25	6.89
NOV. 20	7.13	MAR. 20	6.98	JULY 31	7.00
NOV. 25	7.14	MAR. 25	6.82	AUG. 5	7.02
NOV. 30	7.52	MAR. 31	7.10	AUG. 10	7.39
DEC. 5	7.16	APR. 10	6.98	AUG. 15	7.43
DEC. 10	7.03	APR. 15	6.58	AUG. 20	7.59
DEC. 15	7.40	APR. 20	6.18	AUG. 25	7.69
DEC. 20	7.32	APR. 25	6.55	AUG. 31	7.78
DEC. 25	7.06	APR. 30	6.36	SEP. 5	7.91
DEC. 31	6.94	MAY 5	6.14	SEP. 10	8.11
JAN. 10, 1976	7.12	MAY 10	6.35	SEP. 15	7.99
JAN. 15	7.44	MAY 15	6.24	SEP. 20	7.88
JAN. 20	7.60	MAY 20	6.45	SEP. 25	7.81
JAN. 25	7.42	MAY 25	6.43	SEP. 30	7.80
JAN. 31	7.41	MAY 31	6.24		
WTR YEAR 1976 MAX 8.11 SEPT 10, 1976 MIN 6.14 MAY 5, 1976					

PAYNE COUNTY

360245096562001. LOCAL NUMBER, 18N03E12CDC 1.
 LOCATION.--LAT 36 02'45", LONG 096 56'20", HYDROLOGIC UNIT 11050003,
 OWNER: J. WULF.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M),
 DEPTH 39 FT (11.9M).
 DATUM.--MEASURING POINT: TOP OF NORTH EDGE OF CASING 0.40 FT (0.12M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1951 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 7.40 FT (2.256M)
 BELOW LAND-SURFACE DATUM, APR. 1, 1975; LOWEST, 23.58 FT (7.187M)
 BELOW LAND-SURFACE DATUM, MAR. 1, 1957.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	15.10	JUNE 19, 1976	16.10	SEP. 27, 1976	16.40
APR. 3, 1976	15.30				
WTR YEAR 1976 MAX 16.40 SEPT 26, 1976 MIN 15.10 DEC 19, 1975					

GROUND-WATER LEVELS

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PAYNE COUNTY--Continued

360615097100501. LOCAL NUMBER, 19N01E23CDC 1.
 LOCATION.--LAT 36 06'15", LONG 097 10'05", HYDROLOGIC UNIT 11050003,
 OWNER: E.T. POOL.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 7 IN (0.18M),
 DEPTH 47 FT (14.3M).
 DATUM.--MEASURING POINT: TOP OF CASING 1.20 FT (0.37M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 18.10 FT (5.517M)
 BELOW LAND-SURFACE DATUM, DEC. 24, 1962; LOWEST, 28.70 FT (8.748M)
 BELOW LAND-SURFACE, MAR. 25, 1974.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	23.50	JUNE 19, 1976	23.70	SEP. 27, 1966	23.30
APR. 2, 1976	23.50				
WTR YEAR 1976 MAX 23.70 JUNE 19, 1976 MIN 23.30 SEPT 27, 1976					

360930096573001. LOCAL NUMBER, 19N03E028BA 1.
 LOCATION.--LAT 36 09'30", LONG 096 57'30", HYDROLOGIC UNIT 11050003,
 OWNER: W.O. SNYDER.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M),
 DEPTH 34 FT (10.4M).
 DATUM.--MEASURING POINT: TOP CASING 0.90 FT (0.27M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 6.73 FT (2.051M)
 BELOW LAND-SURFACE DATUM, APR. 27, 1942; LOWEST, 25.08 FT (7.644M)
 BELOW LAND-SURFACE DATUM, OCT. 26, 1956.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	19.30	JUNE 19, 1976	19.70	SEP. 27, 1976	21.10
APR. 3, 1976	19.60				
WTR YEAR 1976 MAX 21.10 SEPT 27, 1976 MIN 19.30 DEC 19, 1975					

360654097005401. LOCAL NUMBER, 19N03E208BB 1.
 LOCATION.--LAT 36 06'54", LONG 097 00'54", HYDROLOGIC UNIT 11050003,
 OWNER: C. FOCHT.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M)
 DEPTH 30 FT (9.14M).
 DATUM.--MEASURING POINT: TOP OF CASING 0.75 FT (0.23M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 1.75 FT (0.533M)
 BELOW LAND-SURFACE DATUM, JAN. 4, 1975; LOWEST, 26.52 FT (8.083M)
 BELOW LAND-SURFACE DATUM, MAR. 1, 1957.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	9.45	APR. 3, 1976	9.95	JUNE 19, 1976	L
L WELL DESTROYED.					
WTR YEAR 1976 MAX 9.95 APR 3, 1976 MIN 9.45 DEC 19, 1975					

GROUND-WATER LEVELS

PAYNE COUNTY--Continued

360515096564501. LOCAL NUMBER, 19N03E35AAB 1.
 LOCATION.--LAT 36 05'15", LONG 096 56'45", HYDROLOGIC UNIT 11050003,
 OWNER: LOVELL BROS.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M),
 DEPTH 49 FT (14.9M).
 DATUM.--MEASURING POINT: TOP OF CASING 2.47 FT (0.75M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 11.33 FT (3.453M)
 BELOW LAND-SURFACE DATUM, APR. 1, 1975; LOWEST, 39.73 FT (12.110M)
 BELOW LAND-SURFACE DATUM, MAY 24, 1939.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	22.33	JUNE 19, 1976	19.43	SEP. 27, 1976	22.93
APR. 3, 1976	22.03				
WTR YEAR 1976 MAX 22.93 SEPT 27, 1976 MIN 19.43 JUNE 19, 1976					

360725096521501. LOCAL NUMBER, 19N04E15CBB 1.
 LOCATION.--LAT 36 07'25", LONG 096 52'15", HYDROLOGIC UNIT 11050003,
 OWNER: V.G. PHELPS.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M),
 DEPTH 49 FT (14.9M).
 DATUM.--MEASURING POINT: TOP OF CASING 2.20 FT (0.67M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 1.00 FT (0.305M)
 BELOW LAND-SURFACE DATUM, APR. 1, 1975; LOWEST, 7.92 FT (2.414M)
 BELOW LAND-SURFACE DATUM, OCT. 26, 1956.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	4.80	JUNE 19, 1976	4.60	SEP. 27, 1976	5.80
APR. 3, 1976	4.50				
WTR YEAR 1976 MAX 5.80 SEPT 27, 1976 MIN 4.50 APR 3, 1976					

361120097055001. LOCAL NUMBER, 20N02E21CCD 1.
 LOCATION.--LAT 36 11'20", LONG 097 05'50", HYDROLOGIC UNIT 11050003,
 OWNER: A.L. SIMON.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M)
 DEPTH 41 FT (12.5M).
 DATUM.--MEASURING POINT: TOP OF CASING 1.30 FT (0.40M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 10.95 FT (3.338M)
 BELOW LAND-SURFACE DATUM, APR. 29, 1942; LOWEST, 36.29 FT (11.061M)
 BELOW LAND-SURFACE DATUM, APR. 5, 1937.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	19.10	JUNE 19, 1976	21.20	SEP. 27, 1976	21.70
APR. 2, 1976	19.60				
WTR YEAR 1976 MAX 21.70 SEPT 27, 1976 MIN 19.10 DEC 19, 1975					

GROUND-WATER LEVELS

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PAYNE COUNTY--Continued

361205096572501. LOCAL NUMBER, 20N03E23BA8 1.
 LOCATION.--LAT 36 12'05", LONG 096 57'25", HYDROLOGIC UNIT 11050003,
 OWNER: V.D. MESSER.
 AQUIFER.--ROCKS OF EARLY PERMIAN AGE.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 6 IN (0.15M)
 DEPTH 27 FT (8.23M).
 DATUM.--MEASURING POINT: TOP OF CASING 0.77 FT (0.23M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1934 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 1.20 FT (0.366M)
 BELOW LAND-SURFACE DATUM, MAY 27, 1943; LOWEST, 14.41 FT (4.392M)
 BELOW LAND-SURFACE DATUM, MAR. 1, 1957.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC. 19, 1975	8.93	JUNE 19, 1976	7.93	SEP. 27, 1976	10.13
APR. 3, 1976	8.73				
WTR YEAR 1976 MAX 10.13 SEPT 27, 1976 MIN 7.93 JUNE 19, 1976					

SEMINOLE COUNTY

351815096332001. LOCAL NUMBER, 10N07E27CDD 1.
 LOCATION.--LAT 35 18'15", LONG 096 33'20", HYDROLOGIC UNIT 11100302,
 OWNER: BOB MCDANIEL.
 WELL CHARACTERISTICS.--DRILLED UNUSED STOCK WELL, DIAMETER 6 IN (0.15M),
 DEPTH 113 FT (34.4M).
 DATUM.--MEASURING POINT: BASE OF RECORDER SHELTER 0.25 FT (0.08M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1972 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 26.35 FT (8.031M)
 BELOW LAND-SURFACE DATUM, JUNE 15, 1975; LOWEST, 30.89 FT (9.415M)
 BELOW LAND-SURFACE DATUM, OCT. 20, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	26.93	NOV. 10, 1975	26.89	APR. 5, 1976	28.25
OCT. 10	26.88	NOV. 15	27.00	APR. 10	28.21
OCT. 15	26.88	NOV. 20	26.99	APR. 15	28.49
OCT. 20	26.88	NOV. 25	27.06	APR. 20	28.53
OCT. 25	26.95	NOV. 30	27.13	APR. 25	28.98
OCT. 31	26.95	DEC. 5	27.15	APR. 30	M
NOV. 5	26.92	MAR. 31, 1976	28.22		
M MEASUREMENTS DISCONTINUED.					
WTR YEAR 1976 MAX 28.98 APR 25, 1976 MIN 26.88 OCT 10, 15, 20, 1975					

GROUND-WATER LEVELS

SEQUOYAH COUNTY

352419094270401. LOCAL NUMBER, 11N27E21CDD 1.
 LOCATION.--LAT 35 24'19", LONG 094 27'04", HYDROLOGIC UNIT 11110104,
 OWNER: U.S. GEOLOGICAL SURVEY.
 AQUIFER.--ALLUVIUM.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 8 IN (0.20M),
 DEPTH 48 FT (14.6M).
 DATUM.--MEASURING POINT: TOP OF RECORDER PLATFORM 2.60 FT (0.79M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1960 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 3.18 FT (0.969M)
 BELOW LAND-SURFACE DATUM, JUNE 20, 1973; LOWEST, 18.72 FT (5.706M)
 BELOW LAND-SURFACE DATUM, OCT. 10, 1967.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	8.03	JAN. 31, 1976	10.04	MAY 15, 1976	7.34
OCT. 10	8.27	FEB. 5	10.39	MAY 20	7.90
OCT. 15	8.47	FEB. 10	10.32	MAY 25	8.22
OCT. 20	8.61	FEB. 15	10.34	MAY 31	8.09
OCT. 25	8.94	FEB. 20	10.39	JUNE 5	8.42
OCT. 31	8.92	FEB. 25	10.50	JULY 15	9.42
NOV. 5	9.05	FEB. 29	10.39	JULY 20	9.54
NOV. 10	9.25	MAR. 5	10.83	JULY 25	9.65
NOV. 15	9.21	MAR. 10	10.28	JULY 31	9.84
NOV. 20	9.30	MAR. 15	10.16	AUG. 5	10.07
NOV. 25	9.35	MAR. 20	10.32	AUG. 10	10.08
NOV. 30	9.76	MAR. 25	10.32	AUG. 15	10.18
DEC. 5	9.46	MAR. 31	10.14	AUG. 20	10.51
DEC. 10	9.45	APR. 5	10.05	AUG. 25	10.91
DEC. 15	9.77	APR. 10	10.22	AUG. 31	11.20
DEC. 20	9.82	APR. 15	10.24	SEP. 5	11.29
DEC. 25	9.64	APR. 20	9.76	SEP. 10	11.39
DEC. 31	9.18	APR. 25	8.76	SEP. 15	11.38
JAN. 5, 1976	9.51	APR. 30	8.99	SEP. 20	11.15
JAN. 15	9.76	MAY 5	9.11	SEP. 25	11.22
JAN. 20	10.05	MAY 10	9.23	SEP. 30	11.41
JAN. 25	10.06				

WTR YEAR 1976 MAX 11.41 SEPT 30, 1976 MIN 7.34 MAY 15, 1976

GROUND-WATER LEVELS

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TEXAS COUNTY

363033101440701. LOCAL NUMBER, 01N12E35BDD 1.
 LOCATION.--LAT 36 30'33", LONG 101 44'07", HYDROLOGIC UNIT 11100103,
 OWNER: OTTO A. HARLAND.
 AQUIFER.--OGALLALA FORMATION.
 WELL CHARACTERISTICS.--DRILLED WELL, DIAMETER 7 IN (0.18M),
 DEPTH 386 FT (118M).
 DATUM.--MEASURING POINT: TOP OF FLOAT LINE HOLE ON NORTH SIDE
 3.15 FT (0.96M) ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1956 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 191.87 FT (58.482M)
 BELOW LAND-SURFACE DATUM, JAN. 10, 1971; LOWEST, 199.49 FT (60.805M)
 BELOW LAND-SURFACE DATUM, SEP. 10, 1976.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	198.14	FEB. 25, 1976	197.96	JUNE 15, 1976	198.10
OCT. 10	198.30	FEB. 29	197.91	JUNE 20	198.58
OCT. 15	197.91	MAR. 5	198.25	JUNE 25	198.62
OCT. 20	197.72	MAR. 10	197.87	JUNE 30	198.77
OCT. 25	198.02	MAR. 15	198.11	JULY 5	198.98
OCT. 31	197.78	MAR. 20	198.25	JULY 10	198.85
NOV. 5	197.97	MAR. 25	198.12	JULY 15	199.00
NOV. 10	198.13	MAR. 31	198.34	JULY 20	199.00
NOV. 15	197.90	APR. 5	198.27	JULY 25	199.23
NOV. 20	198.11	APR. 10	198.42	JULY 31	199.18
NOV. 25	197.55	APR. 15	198.32	AUG. 5	199.17
NOV. 30	197.77	APR. 20	198.26	AUG. 10	199.17
DEC. 5	197.75	APR. 25	198.57	AUG. 15	199.18
DEC. 15	197.94	APR. 30	198.69	AUG. 20	199.35
DEC. 20	197.78	MAY 5	198.44	AUG. 25	199.40
JAN. 15, 1976	197.76	MAY 10	198.44	AUG. 31	199.48
JAN. 20	197.98	MAY 15	198.47	SEP. 5	199.30
JAN. 25	197.84	MAY 20	198.46	SEP. 10	199.49
JAN. 31	197.76	MAY 25	198.42	SEP. 15	199.27
FEB. 5	197.89	MAY 31	198.05	SEP. 20	199.05
FEB. 10	197.80	JUNE 5	198.09	SEP. 25	198.82
FEB. 15	197.99	JUNE 10	197.95	SEP. 30	198.88
FEB. 20	197.85				

WTR YEAR 1976 MAX 199.49 SEPT 10, 1976 MIN 197.55 NOV 25, 1975

GROUND-WATER LEVELS

WOODS COUNTY

365143098404201. LOCAL NUMBER, 28N14W358CC 1.
 LOCATION.--LAT 36 51'43", LONG 098 40'42", HYDROLOGIC UNIT 11060002,
 OWNER: WILCOX.
 AQUIFER.--CEDAR HILLS SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED UNUSED MUNICIPAL WELL, DIAMETER 13 IN
 (0.33M), DEPTH 54 FT (16.5M).
 DATUM.--MEASURING POINT: EDGE OF LARGE HOLE IN STEEL PLATE 2.60 FT (0.79M)
 ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1972 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 18.77 FT (5.721M)
 BELOW LAND-SURFACE DATUM, JUNE 15, 1973; LOWEST, 24.05 FT (7.330M)
 BELOW LAND-SURFACE DATUM, DEC. 5, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	21.21	FEB. 5, 1976	22.14	JUNE 5, 1976	21.83
OCT. 10	21.27	FEB. 10	22.16	JUNE 10	21.75
OCT. 15	21.36	FEB. 15	22.13	JUNE 15	21.76
OCT. 20	21.35	FEB. 20	22.05	JUNE 20	21.73
OCT. 25	21.47	FEB. 25	22.17	JUNE 25	21.74
OCT. 31	21.44	FEB. 29	22.14	JUNE 30	21.78
NOV. 5	21.52	MAR. 5	22.27	JULY 5	21.76
NOV. 10	21.59	MAR. 10	22.16	JULY 10	21.79
NOV. 15	21.56	MAR. 15	22.17	JULY 15	21.88
NOV. 20	21.66	MAR. 20	22.29	JULY 20	21.89
NOV. 25	21.69	MAR. 25	22.20	JULY 25	21.95
NOV. 30	21.81	MAR. 31	22.31	JULY 31	22.04
DEC. 5	21.84	APR. 5	22.28	AUG. 5	22.10
DEC. 10	21.72	APR. 10	22.34	AUG. 10	22.15
DEC. 15	21.84	APR. 15	22.34	AUG. 15	22.17
DEC. 20	21.89	APR. 20	22.36	AUG. 20	22.21
DEC. 25	21.84	APR. 25	22.42	AUG. 25	22.25
DEC. 31	21.84	APR. 30	22.37	AUG. 31	22.29
JAN. 5, 1976	21.85E	MAY 5	22.28	SEP. 5	22.34
JAN. 10	21.97	MAY 10	22.28	SEP. 10	22.41
JAN. 15	21.97	MAY 15	22.16	SEP. 15	22.47
JAN. 20	22.04	MAY 20	22.07	SEP. 20	22.50
JAN. 25	22.07	MAY 25	21.95	SEP. 25	22.48
JAN. 31	22.09	MAY 31	21.87	SEP. 30	22.53

E ESTIMATED.

WTR YEAR 1976 MAX 22.53 SEPT 30, 1976 MIN 21.21 OCT 5, 1975

GROUND-WATER LEVELS

WOODWARD COUNTY

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361256099102101. LOCAL NUMBER, 20N19W13ABB 1.
 LOCATION.--LAT 36 12'56", LONG 099 10'21", HYDROLOGIC UNIT 11100301,
 OWNER: M. JAZEN.
 AQUIFER.--RUSH SPRINGS SANDSTONE.
 WELL CHARACTERISTICS.--DRILLED STUCK WELL, DIAMETER 6 IN (0.15M),
 DEPTH 40 FT (12.2M).
 DATUM.--MEASURING POINT: EDGE OF PLYWOOD SHELTER BASE 1.10 FT (0.34M)
 ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1972 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 11.41 FT (3.478M)
 BELOW LAND-SURFACE DATUM, APR. 20, 1976; LOWEST, 17.44 FT (5.316M)
 BELOW LAND-SURFACE DATUM, JULY 5, 1972.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 5, 1975	12.23	FEB. 10, 1976	11.90	JUNE 10, 1976	12.17
OCT. 10	12.34	FEB. 15	11.81	JUNE 15	12.44
OCT. 15	12.47	FEB. 20	11.67	JUNE 20	12.43
OCT. 20	12.25	FEB. 25	11.94	JUNE 25	12.48
OCT. 25	13.55	FEB. 29	11.76	JUNE 30	12.53
OCT. 31	13.20	MAR. 5	12.14	JULY 5	12.54
NOV. 5	13.37	MAR. 10	11.75	JULY 10	12.51
NOV. 10	13.43	MAR. 15	11.98	JULY 15	12.59
NOV. 15	13.09	MAR. 20	11.97	JULY 20	12.53
NOV. 20	13.22	MAR. 25	11.74	JULY 25	12.53
NOV. 25	13.08	MAR. 31	11.93	JULY 31	12.52
NOV. 30	13.36	APR. 5	11.82	AUG. 5	12.42
DEC. 5	13.22	APR. 10	11.81	AUG. 10	12.54
DEC. 10	12.70	APR. 15	11.79	AUG. 15	12.54
DEC. 15	13.11	APR. 20	11.41	AUG. 20	12.56
DEC. 20	13.01	APR. 25	12.06	AUG. 25	12.55
DEC. 25	12.76	APR. 30	12.01	AUG. 31	12.53
DEC. 31	12.66	MAY 5	11.81	SEP. 5	12.54
JAN. 5, 1976	12.80	MAY 10	12.05	SEP. 10	12.69
JAN. 10	12.93	MAY 15	12.06	SEP. 15	12.60
JAN. 15	12.90	MAY 20	12.08	SEP. 20	12.63
JAN. 20	13.08	MAY 25	12.14	SEP. 25	12.45
JAN. 25	12.97	MAY 31	12.19	SEP. 30	12.47
FEB. 5	12.00	JUNE 5	12.31		

WTR YEAR 1976 MAX 13.55 OCT 25, 1975 MIN 11.41 APR 20, 1976					

GROUND-WATER LEVELS

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WOODWARD COUNTY--Continued

361714099315101. LOCAL NUMBER, 21N22W2388B 1.
 LOCATION.--LAT 36 17'14", LONG 099 31'51", HYDROLOGIC UNIT 11100203,
 OWNER: U.S. GEOLOGICAL SURVEY.
 AQUIFER.--OGALLALA FORMATION.
 WELL CHARACTERISTICS.--DRILLED TEST HOLE, DIAMETER 6 IN (0.15M),
 DEPTH 322 FT (98.1M).
 DATUM.--MEASURING POINT: TOP OF PLYWOOD SHELF 2.00 FT (0.61M) ABOVE
 LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1957 TO 1963, 1965 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 27.32 FT (8.327M)
 BELOW LAND-SURFACE DATUM, SEPT. 5, 1961; LOWEST, 32.64 FT (9.949M)
 BELOW LAND-SURFACE DATUM, MAY 19, 1971.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 10, 1975	29.88	FEB. 10, 1976	29.74	JUNE 5, 1976	29.89
OCT. 15	29.79	FEB. 15	29.67	JUNE 10	29.81
OCT. 20	29.68	FEB. 20	29.62	JUNE 15	29.89
OCT. 25	29.78	FEB. 25	29.75	JUNE 20	29.86
OCT. 31	29.62	FEB. 29	29.68	JUNE 25	29.85
NOV. 5	29.69	MAR. 5	29.86	JUNE 30	29.85
NOV. 10	29.74	MAR. 10	29.70	JULY 5	29.86
NOV. 15	29.62	MAR. 15	29.81	JULY 10	29.84
NOV. 20	29.69	MAR. 20	29.81	JULY 20	29.82
NOV. 25	29.65	MAR. 25	29.74	JULY 25	29.86
NOV. 30	29.80	MAR. 31	29.83	JULY 31	29.81
DEC. 5	29.74	APR. 5	29.80	AUG. 5	29.80
DEC. 10	29.58	APR. 10	29.80	AUG. 10	29.90
DEC. 15	29.70	APR. 15	29.77	AUG. 15	29.83
DEC. 20	29.68	APR. 20	29.82	AUG. 20	29.88
DEC. 25	29.58	APR. 25	29.90	AUG. 25	29.88
DEC. 31	29.52	APR. 30	29.90	AUG. 31	29.82
JAN. 5, 1976	29.61	MAY 5	29.85	SEP. 5	29.83
JAN. 10	29.69	MAY 10	29.90	SEP. 10	29.95
JAN. 15	29.65	MAY 15	29.84	SEP. 15	29.91
JAN. 20	29.75	MAY 20	29.85	SEP. 20	29.91
JAN. 25	29.70	MAY 25	29.85	SEP. 25	29.85
JAN. 31	29.69	MAY 31	29.86	SEP. 30	29.93
FEB. 5	29.75				

WTR YEAR 1976 MAX 29.95 SEPT 10, 1976 MIN 29.52 DEC 31, 1975

362707099174201. LOCAL NUMBER, 23N20W19C8B 1.
 LOCATION.--LAT 36 27'07", LONG 099 17'42", HYDROLOGIC UNIT 11100301,
 OWNER: U.S. GEOLOGICAL SURVEY.
 AQUIFER.--ALLUVIUM.
 WELL CHARACTERISTICS.--DRILLED IRRIGATION WELL, DIAMETER 4 IN (0.10M),
 DEPTH 27 FT (8.23M).
 DATUM.--MEASURING POINT: TOP EDGE OF CASING ON NORTH SIDE 2.00 FT (0.61M)
 ABOVE LAND-SURFACE DATUM.
 REMARKS.--
 PERIOD OF RECORD.--1945 TO 1963, 1965 TO 1973, 1975 TO CURRENT YEAR.
 EXTREMES FOR PERIOD OF RECORD.--HIGHEST WATER LEVEL, 1.02 FT (0.311M)
 BELOW LAND-SURFACE DATUM, JULY 1, 1957; LOWEST, 6.94 FT (2.115M)
 BELOW LAND-SURFACE DATUM, OCT. 9, 1956.

WATER LEVEL IN FEET BELOW LAND SURFACE DATUM
 WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
 MEAN VALUE

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT. 3, 1975	3.95	APR. 15, 1976	4.96	JULY 8, 1976	4.99
FEB. 5, 1976	4.20				

WTR YEAR 1976 MAX 4.99 JULY 8, 1976 MIN 3.95 OCT 3, 1975

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	HARD- NESS (CA, MG) (MG/L)
CHEROKEE COUNTY											
370128094521201	--	76-04-27	1000	200	1295	7.6	15.0	--	--	1	620
	--	76-04-27	1005	205	1340	6.9	16.0	--	--	--	--
	--	76-04-27	1010	211	1800	6.2	16.0	--	--	--	--
	--	76-04-27	1200	222	2050	6.2	16.0	--	--	72	1100
	--	76-04-27	1400	230	2850	6.8	17.0	--	--	180	1300
	--	76-04-27	1430	259	2800	6.7	17.5	--	--	--	--
	--	76-04-27	1500	287	2850	6.7	17.5	--	--	--	--
	--	76-04-27	1600	298	2780	6.7	17.5	--	--	160	1200
CREEK COUNTY											
355744096353201	322VMOS	75-11-19	--	425	1020	--	--	--	--	--	390
365921096371601	322VMOS	75-10-30	--	538	654	--	--	--	--	--	32
LATIMER COUNTY											
345547095283401	--	76-05-25	1600	--	1450	5.5	17.0	10	--	30	430
LEFLORE COUNTY											
350831094333801	--	76-08-24	1000	80	634	8.4	19.5	--	--	1	160
350959094335301	--	76-08-24	1800	62	635	6.8	19.0	--	--	5	120
350754094324101	--	76-08-24	1500	89	1625	7.0	23.0	--	--	0	540
350948094324301	--	76-08-25	0930	109	930	8.7	18.5	--	--	0	24
350934094345601	--	76-08-24	1200	100	1200	6.9	20.0	--	--	38	480
350933094332201	--	76-08-24	1030	78	460	6.2	21.0	--	--	0	97
350902094343301	--	76-08-24	1200	105	1900	7.3	20.0	--	--	1	350
350850094334301	--	76-08-24	0830	--	1100	7.5	19.0	--	--	10	140
350756094344901	--	76-08-24	1430	21	780	8.7	23.0	--	--	5	130
350753094325401	--	76-08-24	1300	28	90	6.3	19.0	--	--	2	30
OTTAWA COUNTY											
365927094485901	--	76-04-20	0930	179	920	7.8	16.0	--	--	--	--
	--	76-04-20	1000	191	940	7.5	16.0	--	--	3	520
	--	76-04-21	1100	210	1040	7.2	15.5	--	--	--	--
	--	76-04-21	1200	227	1080	6.9	16.0	--	--	5	550
	--	76-04-21	1400	234	4600	4.8	16.0	--	--	72	2300
	--	76-04-21	1600	229	4420	5.0	16.0	--	--	88	2200
	--	76-08-25	1045	165	814	7.7	17.0	--	--	0	440
	--	76-08-25	1120	185	640	7.8	16.5	--	--	--	--
	--	76-08-25	1135	215	640	7.7	16.0	--	--	--	--
	--	76-08-25	1155	225	650	7.7	16.0	--	--	--	--
	--	76-08-25	1310	230	4670	5.3	16.0	--	--	140	1300
	--	76-08-25	1330	235	2400	5.0	16.0	--	--	--	--
365930094480001	--	76-04-23	1000	182	4390	5.3	15.0	--	--	72	2200
	--	76-04-23	1030	172	4200	5.2	15.5	--	--	--	--

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

[illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION	NUMBER	DATE OF SAMPLE	DIS- SOLVED MOLYB- DENUM (MU) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)
CHEROKEE COUNTY												
370128094521201	76-04-27	0	50	10	0	0	--	.1	830	640	--	--
	76-04-27	--	--	--	--	--	--	--	--	--	--	--
	76-04-27	--	--	--	--	--	--	--	--	--	--	--
	76-04-27	0	400	370	0	0	--	.9	3000	2900	--	--
	76-04-27	1	300	240	0	0	--	.9	9300	8100	--	--
	76-04-27	--	--	--	--	--	--	--	--	--	--	--
	76-04-27	--	--	--	--	--	--	--	--	--	--	--
	76-04-27	1	300	240	0	0	--	1.5	10000	8300	--	--
CREEK COUNTY												
355744096353201	75-11-19	--	--	--	--	--	--	--	--	--	--	--
365921096371601	75-10-30	--	--	--	--	--	--	--	--	--	--	--
LATIMER COUNTY												
345547095283401	76-05-25	0	--	34	--	--	0	--	--	--	20	--
LEFLORE COUNTY												
350831094333801	76-08-24	0	--	0	--	0	--	1.1	--	--	10	--
350959094335301	76-08-24	0	--	0	--	0	--	.0	--	--	0	--
350754094324101	76-08-24	1	--	1	--	4	--	.1	--	--	40	--
350948094324301	76-08-25	0	--	0	--	0	--	1.0	--	--	20	--
350934094345601	76-08-24	0	--	1	--	0	--	.7	--	--	20	--
350933094332201	76-08-24	0	--	1	--	0	--	.0	--	--	30	--
350902094343301	76-08-24	0	--	0	--	0	--	2.8	--	--	0	--
350850094334301	76-08-24	0	--	0	--	1	--	.2	--	--	20	--
350756094344901	76-08-24	0	--	0	--	0	--	9.0	--	--	70	--
350753094325401	76-08-24	0	--	1	--	0	--	.3	--	--	40	--
OTTAWA COUNTY												
365927094485901	76-04-20	--	--	--	--	--	--	--	--	--	--	--
	76-04-20	0	50	3	1	1	--	.1	3000	3200	--	--
	76-04-21	--	--	--	--	--	--	--	--	--	--	--
	76-04-21	0	50	32	1	1	--	.1	4000	4900	--	--
	76-04-21	0	3800	47	0	0	--	150	360000	380000	--	--
	76-04-21	0	3300	3400	0	0	--	150	280000	310000	--	--
	76-08-25	--	<50	10	--	--	--	.5	2200	2200	--	--
	76-08-25	--	--	--	--	--	--	--	--	--	--	--
	76-08-25	--	--	--	--	--	--	--	--	--	--	--
	76-08-25	--	--	--	--	--	--	--	--	--	--	--
	76-08-25	--	--	--	--	--	--	--	--	--	--	--
	76-08-25	--	3500	1500	--	--	--	--	300000	150000	--	--
	76-08-25	--	--	--	--	--	--	--	--	--	--	--
365930094480001	76-04-23	0	3900	3500	--	0	--	36	490000	490000	--	--
	76-04-23	--	--	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	TOTAL ORGANIC CARBON (C) (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
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CHEROKEE COUNTY

--	--	2.0	.00
--	--	--	--
--	--	--	--
--	--	8.0	.00
--	--	1.7	.00
--	--	--	--
--	--	--	--
--	--	1.7	.00

CREEK COUNTY

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LATIMER COUNTY

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LEFLORE COUNTY

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OTTAWA COUNTY

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QUALITY OF GROUND WATER
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION	NUMBER	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	PH (UNITS)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- CUBALT UNITS)	TUR- BID- ITY (JTU)	TUR- BID- ITY (NTU)	HARD- NESS (CA, MG) (MG/L)
OTTAWA COUNTY												
365930094480001	--		76-04-23	1130	175	4200	5.2	15.5	--	--	--	--
	--		76-04-23	1200	168	4100	5.2	16.0	--	--	80	2200
	--		76-08-25	1555	180	3840	5.8	16.0	--	--	140	1600
	--		76-08-25	1630	160	1060	7.2	16.0	--	--	0	540
	--		76-08-25	1655	173	2000	3.7	16.5	--	--	--	--
365754094493401	--		76-08-25	1740	167	2350	3.4	17.0	--	--	--	--
	--		76-04-29	1100	167	2520	7.6	16.0	--	--	--	--
	--		76-04-29	1200	174	2500	7.6	16.0	--	--	4	1600
	--		76-04-29	1230	179	2520	7.3	16.0	--	--	--	--
	--		76-04-29	1300	181	2520	6.6	16.0	--	--	--	--
	--		76-04-29	1330	183	2680	5.4	16.5	--	--	--	--
	--		76-04-29	1400	192	2520	4.8	17.0	--	--	10	1600
	--		76-04-29	1600	197	2850	4.9	17.5	--	--	38	1600
	--		76-08-26	1500	197	3840	3.8	17.5	--	--	11	1800
	--		76-08-26	1535	187	2850	7.0	18.0	--	--	3	2000
	--		76-08-26	1550	174	2200	--	18.0	--	--	--	--
	--		76-08-26	1600	160	2200	--	18.0	--	--	--	--
365738094495101	--		76-04-26	1200	165	2250	5.7	16.0	--	--	26	1300
365732094502701	--		76-04-28	1100	150	2340	5.5	14.5	--	--	--	--
	--		76-04-28	1200	160	3420	4.8	14.5	--	--	37	1700
	--		76-04-28	1300	170	3720	4.8	14.5	--	--	--	--
	--		76-04-28	1400	182	3680	3.9	15.0	--	--	10	1800
	--		76-04-28	1600	191	4230	4.7	15.0	--	--	12	1800
365817094510201	--		76-04-22	1000	178	1850	6.5	14.0	--	--	2	910
	--		76-04-22	1030	198	1850	6.5	14.0	--	--	--	--
	--		76-04-22	1115	204	1750	6.5	14.0	--	--	--	--
	--		76-04-22	1200	210	4210	6.1	14.0	--	--	180	2100
	--		76-04-22	1300	216	4630	5.6	14.0	--	--	--	--
	--		76-04-22	1400	222	4950	5.6	14.5	--	--	100	2200
	--		76-04-22	1500	230	4950	5.6	14.5	--	--	--	--
	--		76-08-26	1115	228	4770	5.8	15.0	--	--	160	2100
	--		76-08-26	1200	218	2800	5.9	15.0	--	--	--	--
	--		76-08-26	1220	205	877	6.9	14.0	--	--	0	450
	--		76-08-26	1300	190	795	6.9	14.0	--	--	--	--
	--		76-08-26	1330	170	760	6.9	14.0	--	--	--	--
PAYNE COUNTY												
355855096451001	322VMOS		75-10-15	1015	--	575	--	20.0	--	--	--	110
PITTSBURG COUNTY												
350104095333601	--		76-08-23	1700	74	970	7.0	19.5	--	--	3	320
350431095335902	--		76-08-19	1400	123	1390	7.0	19.5	--	--	2	620
350347095354102	--		76-08-19	1800	65	620	6.9	20.0	--	--	9	170
350304095340301	--		76-08-18	1430	72	470	8.8	25.0	--	--	0	12
350329095341101	--		76-08-18	1600	97	930	7.8	19.5	--	--	0	14
350331095344901	--		76-08-20	1100	30	2690	7.6	18.5	--	--	0	790
350331095344902	--		76-08-20	1200	--	149	7.1	28.0	--	--	4	48
350426095323101	--		76-08-19	1530	84	740	7.2	19.5	--	--	0	140
350330095323002	--		76-08-19	1130	102	660	7.9	19.0	--	--	1	69
350328095324801	--		76-08-19	1000	46	520	7.2	24.0	--	--	0	160
SEMINOLE COUNTY												
350930096380001	322VMOS		75-12-14	--	500	13000	7.5	27.0	--	--	--	2100
350930096375501	322VMOS		75-12-15	--	500	650	8.6	12.0	--	--	--	17

QUALITY OF GROUND WATER

503

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NON-CARBONATE HARDNESS (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CaCO3 (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CaCO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OTTAWA COUNTY												
2200	17	844	490	230	52	5	.5	2.7	8	0	7	81
1600	13	646	420	130	40	5	.4	3.8	1	0	1	2.5
460	.2	10	160	35	29	10	.5	3.7	107	0	88	11
--	--	--	--	--	--	--	--	--	--	--	--	--
1500	.8	40	430	130	29	4	.3	2.9	114	0	94	4.6
--	--	--	--	--	--	--	--	--	--	--	--	--
1600	4.6	228	490	82	28	4	.3	1.9	9	0	7	228
1600	5.9	293	500	86	28	4	.3	1.6	6	0	5	121
1800	15	743	510	130	36	4	.4	2.8	0	0	0	.0
1900	.4	20	520	170	34	4	.3	4.1	166	0	136	27
--	--	--	--	--	--	--	--	--	--	--	--	--
1200	2.5	124	450	38	22	4	.3	1.8	59	0	48	188
1700	17	844	470	120	45	6	.5	4.0	0	0	0	.0
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1800	23	1140	510	130	55	6	.6	4.5	0	0	0	.0
1800	20	993	520	120	53	6	.5	4.3	0	0	0	.0
600	2.6	129	300	39	57	12	.8	8.5	375	0	308	190
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2100	11	546	500	210	68	7	.6	4.5	59	0	48	67
2200	22	1090	480	250	87	8	.8	6.0	25	0	21	100
2100	25	1240	490	220	90	8	.8	9.2	1	0	1	2.5
250	.5	25	160	13	16	7	.3	4.0	246	0	202	50
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PAYNE COUNTY												
0	--	--	37	3.8	90	64	3.8	2.6	222	--	182	--
PITTSBURG COUNTY												
0	.4	20	68	36	82	36	2.0	1.6	399	0	327	64
270	.1	5.0	100	90	88	24	1.5	2.9	431	0	354	69
0	.2	10	51	9.5	67	47	2.3	1.0	262	0	215	53
0	.0	.0	3.7	.7	110	95	14	.4	292	0	240	.7
0	.1	5.0	2.6	1.8	220	97	26	.7	509	0	417	13
520	.2	10	120	120	330	47	5.1	3.5	337	0	276	14
6	.1	5.0	11	5.1	11	32	.7	2.3	52	0	43	6.6
0	.2	10	33	14	110	63	4.0	1.7	363	0	298	37
0	.0	.0	18	5.9	130	80	6.8	1.0	340	0	279	6.8
0	.2	10	31	19	61	46	2.1	1.5	313	0	257	32
SEMINOLE COUNTY												
1800	--	--	510	190	1900	66	18	25	306	0	251	15
0	--	--	3.6	2.0	160	95	17	.8	346	22	320	1.6

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OTTAWA COUNTY										
365930094480001	76-04-23	--	--	--	--	--	--	--	--	--
	76-04-23	3000	6.7	8.1	--	11	5150	--	4440	7.00
	76-08-25	2100	9.1	2.9	--	10	--	--	3090	4.20
	76-08-25	520	3.2	.4	--	6.8	864	--	821	1.18
	76-08-25	--	--	--	--	--	--	--	--	--
365754094493401	76-08-25	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	1800	4.5	1.0	--	9.3	2450	--	2480	3.33
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	2000	4.6	2.2	--	11	2750	--	2730	3.74
	76-04-29	2100	4.8	2.6	--	12	2930	--	2890	3.98
	76-08-26	2300	8.1	7.2	--	16	3670	--	3300	4.99
	76-08-26	1900	8.6	1.1	--	14	2990	--	2750	4.07
	76-08-26	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
365738094495101	76-04-26	1300	4.7	1.8	--	12	2120	--	1910	2.88
365732094502701	76-04-28	--	--	--	--	--	--	--	--	--
	76-04-28	2500	7.2	9.8	--	13	4080	--	3670	5.55
	76-04-28	--	--	--	--	--	--	--	--	--
	76-04-28	2900	8.0	15	--	17	4650	--	4250	6.32
	76-04-28	2700	7.8	14	--	16	4360	--	4050	5.93
365817094510201	76-04-22	810	10	.3	--	19	1580	--	1500	2.15
	76-04-22	--	--	--	--	--	--	--	--	--
	76-04-22	--	--	--	--	--	--	--	--	--
	76-04-22	2800	13	5.0	--	8.1	4380	--	4090	5.96
	76-04-22	--	--	--	--	--	--	--	--	--
	76-04-22	3000	16	9.2	--	7.6	5470	--	4670	7.44
	76-04-22	--	--	--	--	--	--	--	--	--
	76-08-26	3400	21	9.4	--	9.0	--	--	5080	6.91
	76-08-26	--	--	--	--	--	--	--	--	--
	76-08-26	320	3.8	.3	--	19	687	--	679	.93
	76-08-26	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
PAYNE COUNTY										
355855096451001	75-10-15	98	6.5	--	.1	--	370	--	--	.50
PITTSBURG COUNTY										
350104095333601	76-08-23	140	30	.3	--	18	588	--	574	.80
350431095335902	76-08-19	400	9.3	.5	--	19	983	--	923	1.34
350347095354102	76-08-19	56	35	.3	--	14	354	--	366	.48
350304095340301	76-08-18	7.8	3.4	.4	--	19	297	--	290	.40
350329095341101	76-08-18	18	47	.6	--	18	562	--	560	.76
350331095344901	76-08-20	870	190	.6	--	12	2010	--	1810	2.73
350331095344902	76-08-20	26	2.4	.5	--	4.9	97	--	89	.13
350426095323101	76-08-19	32	49	.3	--	22	434	--	442	.59
353330095323002	76-08-19	14	41	.4	--	20	397	--	398	.54
350328095324801	76-08-19	14	11	.5	--	20	303	--	313	.41
SEMINOLE COUNTY										
350930096380001	75-12-14	1	4400	--	2.6	--	7860	--	--	10.7
350930096375501	75-12-15	32	16	--	.1	--	406	--	--	.55

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DIS- SOLVED SOLIDS (TUNS PER AC=FT)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED NITRATE (NO3) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRITE (NO2) (MG/L)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	TOTAL AMMONIA (NH4) (MG/L)	DIS- SOLVED AMMONIA (NH4) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	PHOS- PHATE (PO4) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)
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OTTAWA COUNTY

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.12	.53	.00	.00	.12	.01	--	.01	--	--	30	0	0
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.03	.13	.00	.00	.03	.02	.03	.03	--	--	110	0	0
.01	.04	.00	.00	.01	.09	.12	.12	--	--	5400	1	0
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.00	.00	.00	.00	.00	.49	--	.63	--	--	29000	0	0
.04	.18	.00	.00	.04	.45	--	.58	--	--	26000	1	1
.15	.66	.00	.00	.15	.03	--	.04	--	--	10	14	0
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.01	.04	.01	.03	.02	.33	--	.43	--	--	2000	2	2
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.00	.00	.01	.03	.01	.49	--	.63	--	--	5700	8	7
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PAYNE COUNTY

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PITTSBURG COUNTY

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SEMINOLE COUNTY

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	TOTAL BARIUM (BA) (UG/L)	DIS- SOLVED BARIUM (BA) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CU) (UG/L)
OTTAWA COUNTY										
365930094480001	76-04-23	--	--	--	--	--	--	--	--	--
	76-04-23	0	0	220	200	880	900	20	20	580
	76-08-25	--	--	130	240	270	230	--	--	--
	76-08-25	--	--	110	90	60	60	--	--	--
	76-08-25	--	--	--	--	--	--	--	--	--
365754094493401	76-08-25	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	0	0	330	130	50	11	0	10	100
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--
	76-04-29	0	0	190	160	350	16	10	0	200
	76-04-29	0	0	190	180	360	130	20	20	250
	76-08-26	--	--	210	140	920	630	--	--	--
	76-08-26	--	--	90	70	50	10	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
365738094495101	76-04-26	0	0	1700	60	160	9	10	0	150
365732094502701	76-04-28	--	--	--	--	--	--	--	--	--
	76-04-28	0	0	130	120	980	10	20	30	400
	76-04-28	--	--	--	--	--	--	--	--	--
	76-04-28	0	0	400	150	860	13	60	60	600
	76-04-28	0	0	280	140	830	13	70	60	650
365817094510201	76-04-22	0	0	180	180	180	9	0	0	450
	76-04-22	--	--	--	--	--	--	--	--	--
	76-04-22	--	--	--	--	--	--	--	--	--
	76-04-22	0	0	240	180	400	420	10	10	600
	76-04-22	--	--	--	--	--	--	--	--	--
	76-04-22	0	0	250	220	460	490	10	10	850
	76-04-22	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	240	290	380	370	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	110	100	70	10	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--
PAYNE COUNTY										
355855096451001	75-10-15	--	--	--	--	--	--	--	--	--
PITTSBURG COUNTY										
350104095333601	76-08-23	--	0	--	90	--	3	--	0	--
350431095335902	76-08-19	--	0	--	80	--	4	--	0	--
350347095354102	76-08-19	--	200	--	50	--	2	--	0	--
350304095340301	76-08-18	--	0	--	90	--	1	--	0	--
350329095341101	76-08-18	--	0	--	220	--	3	--	10	--
350331095344901	76-08-20	--	0	--	110	--	1	--	0	--
350331095344902	76-08-20	--	0	--	30	--	7	--	0	--
350426095323101	76-08-19	--	100	--	100	--	5	--	0	--
353330095323002	76-08-19	--	100	--	100	--	8	--	0	--
350328095324801	76-08-19	--	100	--	80	--	3	--	0	--
SEMINOLE COUNTY										
350930096380001	75-12-14	--	--	--	--	--	--	--	--	--
350930096375501	75-12-15	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

507

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MU) (UG/L)
OTTAWA COUNTY												
--	--	--	--	--	--	--	--	--	--	--	--	--
550	50	36	110000	110000	300	79	250	5500	5600	.9	.7	0
--	--	--	110000	89000	300	40	120	12000	7400	--	--	--
--	--	--	240	210	<100	12	20	70	70	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
88	10	2	390	40	<100	11	50	310	310	.8	.4	1
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
0	50	17	2100	100	100	66	90	1300	1100	.3	.3	1
0	50	36	18000	20000	100	120	110	1300	1400	.5	.5	0
--	--	--	83000	67000	400	500	180	3500	2800	--	--	--
--	--	--	510	80	100	14	60	400	380	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	300	16	--	7800	6500	--	--	0
89	20	3	8900	140	100	1	60	620	670	.5	1.3	1
--	--	--	--	--	--	--	--	--	--	--	--	--
36	130	140	67000	76000	300	20	140	4800	4400	.2	.1	0
--	--	--	--	--	--	--	--	--	--	--	--	--
45	130	160	140000	130000	300	16	200	7800	6500	.1	.2	0
44	130	120	160000	130000	200	10	200	8400	6300	.0	.0	0
2	30	10	350	290	450	250	70	80	60	.3	.3	0
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
53	20	4	160000	150000	300	69	160	4800	5000	.3	.3	1
--	--	--	--	--	--	--	--	--	--	--	--	--
43	30	13	290000	270000	500	400	210	6100	5700	.3	.2	2
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	350000	330000	400	400	220	6600	6500	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	380	370	100	90	20	20	20	--	--	--
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PAYNE COUNTY												
--	--	--	--	10	--	--	--	--	--	--	--	--
PITTSBURG COUNTY												
0	--	0	--	840	--	20	30	--	240	--	.0	--
0	--	1	--	270	--	24	60	--	260	--	.0	--
2	--	0	--	1300	--	12	30	--	1100	--	.0	--
1	--	7	--	40	--	11	20	--	10	--	.0	--
1	--	0	--	70	--	30	40	--	10	--	.0	--
0	--	4	--	60	--	4	90	--	30	--	.0	--
0	--	0	--	20	--	38	0	--	40	--	.0	--
0	--	13	--	20	--	37	30	--	50	--	.0	--
0	--	0	--	20	--	49	30	--	20	--	.0	--
0	--	28	--	110	--	25	30	--	50	--	.0	--
SEMINOLE COUNTY												
--	--	--	--	30	--	--	--	--	--	--	--	--
--	--	--	--	60	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION	NUMBER	DATE OF SAMPLE	DIS- SOLVED MOLYB- DENUM (MG) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)
OTTAWA COUNTY												
365930094480001	76-04-23	--	--	--	--	--	--	--	--	--	--	--
	76-04-23	0	3700	3300	1	0	--	39	470000	490000	--	--
	76-08-25	--	2000	1800	--	--	--	--	340000	260000	--	--
	76-08-25	--	<50	50	--	--	--	.4	9200	9400	--	--
	76-08-25	--	--	--	--	--	--	--	--	--	--	--
365754094493401	76-08-25	--	--	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--	--	--
	76-04-29	1	200	150	0	0	--	.5	18000	16000	--	--
	76-04-29	--	--	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--	--	--
	76-04-29	--	--	--	--	--	--	--	--	--	--	--
	76-04-29	0	800	700	1	1	--	.7	110000	100000	--	--
	76-04-29	0	900	1000	1	1	--	2.7	110000	120000	--	--
	76-08-26	--	1800	1600	--	--	--	32	260000	200000	--	--
	76-08-26	--	100	91	--	--	--	.7	17000	17000	--	--
365738094495101	76-08-26	--	--	--	--	--	--	--	--	--	--	--
365732094502701	76-08-26	0	3800	3400	--	--	--	60	420000	420000	--	--
	76-04-26	0	600	500	0	0	--	.0	59000	47000	--	--
	76-04-28	--	--	--	--	--	--	--	--	--	--	--
	76-04-28	0	2000	2300	1	0	--	22	340000	390000	--	--
365817094510201	76-04-28	--	--	--	--	--	--	--	--	--	--	--
	76-04-28	0	3800	3400	1	1	--	60	420000	420000	--	--
	76-04-28	0	4000	3100	1	0	--	39	440000	430000	--	--
	76-04-22	0	100	47	3	3	--	2.1	68000	68000	--	--
	76-04-22	--	--	--	--	--	--	--	--	--	--	--
	76-04-22	--	--	--	--	--	--	--	--	--	--	--
	76-04-22	0	4000	3000	1	0	--	21	350000	280000	--	--
	76-04-22	--	--	--	--	--	--	--	--	--	--	--
	76-04-22	0	5400	4200	0	0	--	130	480000	490000	--	--
	76-04-22	--	--	--	--	--	--	--	--	--	--	--
	76-08-26	--	4600	5000	--	--	--	--	470000	450000	--	--
	76-08-26	--	--	--	--	--	--	--	--	--	--	--
	76-08-26	--	<50	17	--	--	--	.5	20000	20000	--	--
	76-08-26	--	--	--	--	--	--	--	--	--	--	--
	76-08-26	--	--	--	--	--	--	--	--	--	--	--
PAYNE COUNTY												
355855096451001	75-10-15	--	--	--	--	--	--	--	--	--	--	--
PITTSBURG COUNTY												
350104095333601	76-08-23	0	--	1	--	0	--	.7	--	30	--	--
350431095335902	76-08-19	0	--	0	--	0	--	.0	--	70	--	--
350347095354102	76-08-19	0	--	3	--	0	--	.6	--	330	--	--
350304095340301	76-08-18	0	--	0	--	0	--	1.7	--	10	--	--
350329095341101	76-08-18	0	--	0	--	0	--	1.5	--	0	--	--
350331095344901	76-08-20	0	--	1	--	1	--	4.0	--	60	--	--
350331095344902	76-08-20	0	--	11	--	0	--	.9	--	0	--	--
350426095323101	76-08-19	0	--	0	--	0	--	.0	--	60	--	--
353330095323002	76-08-19	0	--	2	--	0	--	.7	--	30	--	--
350328095324801	76-08-19	0	--	0	--	0	--	2.0	--	60	--	--
SEMINOLE COUNTY												
350930096380001	75-12-14	--	--	--	--	--	--	--	--	--	--	--
350930096375501	75-12-15	--	--	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

509

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DIS-	DIS-		METHY-
SOLVED	SOLVED		LENE
GROSS	GROSS	TOTAL	BLUE
BETA	BETA	ORGANIC	ACTIVE
AS	AS SH90	CARBON	SUB-
CS-137	/Y90	(C)	STANCE
(PC/L)	(PC/L)	(MG/L)	(MG/L)

OTTAWA COUNTY

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--	--	.0	.00
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--	--	3.4	.40
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--	--	--	--
--	--	3.6	.00
--	--	3.5	.00
--	--	--	--
--	--	--	--
--	--	--	--
--	--	.9	.00
--	--	--	--
--	--	1.8	.00
--	--	--	--
--	--	--	--
--	--	1.4	.00
--	--	1.6	.00
--	--	4.0	.10
--	--	--	--
--	--	--	--
--	--	2.2	.20
--	--	--	--
--	--	2.9	.80
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PAYNE COUNTY

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PITTSBURG COUNTY

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SEMINOLE COUNTY

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FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

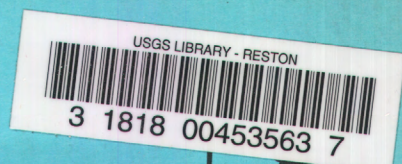
The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	*hectares (ha)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	**liters (l)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons (10 ⁶ gal)	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days [(ft ³ /s) · d]	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (l/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (l/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day (mgal/d)	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	tonnes (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

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