ANNUAL YIELD AND SELECTED HYDROLOGIC DATA FOR THE ARKANSAS RIVER BASIN COMPACT ARKANSAS-OKLAHOMA 1993 WATER YEAR

By J.E. Porter and C.S. Barks

U.S. GEOLOGICAL SURVEY

Open-File Report 94-364

Prepared in cooperation with the

ARKANSAS RIVER COMPACT COMMISSION ARKANSAS-OKLAHOMA

Little Rock, Arkansas
1994

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

For additional information
write to:

District Chief
U.S. Geological Survey
2301 Federal Office Building
700 West Capitol Avenue
Little Rock, Arkansas 72201

Copies of this report can be
purchased from:

U.S. Geological Survey
Earth Science Information Center
Open-File Reports Section
Box 25286, MS 517
Denver Federal Center
Denver, Colorado 80225

CONTENTS

ILLUSTRATIONS

TABLES

CONVERSION FACTORS

Multiply	By	To obtain
inch (in)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
acre	4,047	square meter
	0.004047	square kilometer
square mile (mi^2)	2.590	square kilometer
cubic foot (ft^3)	0.02832	cubic meter
acre-foot (acre-ft)	1,233	cubic meter
	1.233×10^{-6}	cubic kilometer
cubic foot per second (ft^3/s)	28.32	liter per second
	0.02832	cubic meter per second
ton per day (ton/d)	0.9072	megagram per day

Temperature in degrees Celsius (°C) can be converted to degrees Fahrenheit (°F) as follows:

$$°F = 1.8 \times °C + 32$$

ANNUAL YIELD AND SELECTED HYDROLOGIC DATA FOR THE ARKANSAS RIVER BASIN COMPACT ARKANSAS-OKLAHOMA 1993 WATER YEAR

By J.E. Porter and C.S. Barks

ABSTRACT

The computed annual yield and deficiency of the subbasins as defined in the Arkansas River Basin Compact, Arkansas-Oklahoma, are given in tables for the 1993 water year. Actual runoff from the subbasins and depletion caused by major reservoirs in the compact area also are given in tabular form. Monthly maximum, minimum, and mean discharges are shown for the 14 streamflow stations used in computing annual yield. Water-quality data are shown for 12 water-quality stations sampled in the Arkansas River Basin.

INTRODUCTION

In 1955, the Congress of the United States granted consent to Arkansas and Oklahoma to enter into a compact for the apportionment of the waters of the Arkansas River and its tributaries as they affect the two states. An Arkansas-Oklahoma Arkansas River Compact committee was created with a Federal Representative acting as chairman. After research and deliberate negotiations had been completed, both States approved the Arkansas River Basin Compact, Arkansas-Oklahoma, 1972. To meet the requirements of the Compact, stateline yields of the Arkansas River Basin are determined at the end of each year.

This report was prepared by the U.S. Geological Survey in cooperation with the Arkansas River Basin Compact Commission, Arkansas-Oklahoma. Streamflow data and water-quality data were furnished by the U.S. Geological Survey. The U.S. Army Corps of Engineers, Tulsa District furnished data from the Webbers Falls, Tenkiller Ferry, Robert S. Kerr, Wister, and Fort Gibson Lakes.

PURPOSE AND SCOPE

The purpose of this report is to present the annual yields and deficiencies computed for the 1993 water year for subbasins in the Arkansas River Basin as defined in the Arkansas River Basin Compact, Arkansas-Oklahoma, 1972. The report includes data from 14 streamflow stations and 12 water-quality stations sampled in the Arkansas River Basin during the 1993 water year. The area included in the Compact is shown on figure 1.

DEFINITION OF TERMS

The following terms used in this report are taken from Article II of the Arkansas River Basin Compact, Arkansas-Oklahoma, 1972.

The term "Arkansas River Basin" means all of the drainage basin of the Arkansas River and its tributaries from a point immediately downstream from the confluence of the Neosho River with the Arkansas River (fig. 1) to a point immediately downstream from the confluence of Lee Creek with the Arkansas River, together with the drainage basin of Spavinaw Creek in Arkansas (fig. 1), but excludes that part of the drainage basin of the Canadian River upstream from Lake Eufaula Dam.

The term "Spavinaw Creek Subbasin" means the drainage area of Spavinaw Creek in the State of Arkansas.

The term "Illinois River Subbasin" means the drainage area of the Illinois River in the State of Arkansas.

The term "Lee Creek Subbasin" means the drainage area of Lee Creek in the State of Arkansas and in the State of Oklahoma.

The term "Poteau River Subbasin" means the drainage area of the Poteau River in the State of Arkansas.

The term "Arkansas River Subbasin" means all areas of the Arkansas River Basin except the four subbasins described previously.

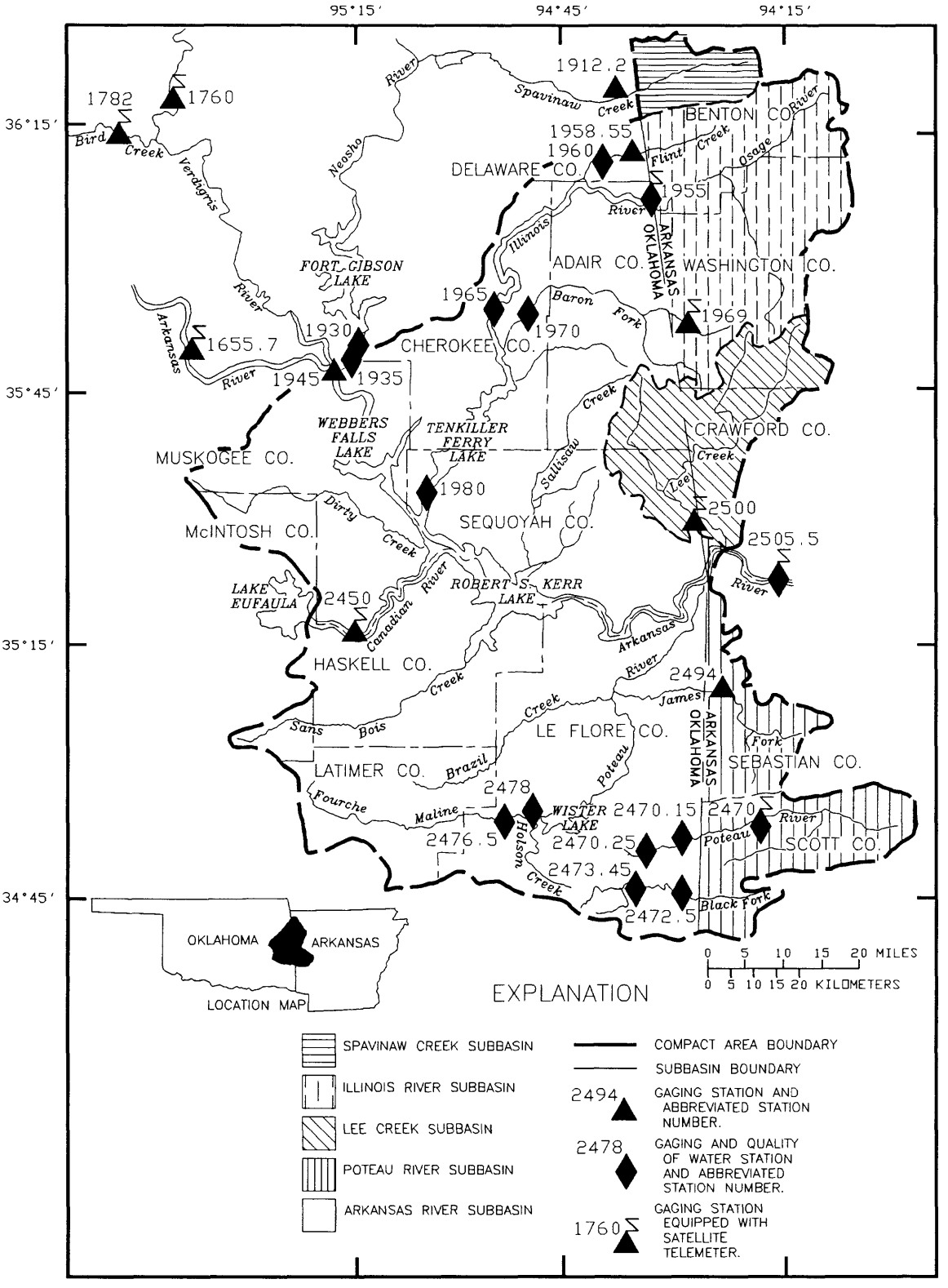

Figure 1.--Arkansas-Oklahoma Arkansas River Basin Compact area and subbasins.

The term "water year" means a 12-month period beginning on October 1 and ending September 30.

The term "annual yield" means the computed annual gross runoff from any specified subbasin. The runoff would have passed any certain point on a stream and would have originated within any specified area under natural conditions without any manmade depletion or accretion during the water year.

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below.

Acre-foot is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet.

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.

Fecal coliform bacteria 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 the organisms that produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters (mL) of sample.

Fecal streptococcal bacteria also are present in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as grampositive, cocci bacteria that are capable of growth in brain-heart infusion broth. These bacteria also are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF-streptococcus agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Code numbers have been assigned for agencies collecting and analyzing samples, and are listed in water-quality tables of this report as follows:

1028 Oklahoma District, Water Resources Division (WRD), U.S. Geological Survey
80513 Arkansas District, WRD, U.S. Geological Survey
80020 National Water Quality Laboratory, WRD, U.S. Geological Survey.

Contents are 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.

Cubic foot per second is the rate of discharge representing a volume of 1 cubic foot passing a specified point during 1 second.

Discharge is the volume of water that passes a given point within a given period of time.

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

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

Dissolved refers to the material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen content of water in equilibrium with air is a function of atmospheric pressure and temperature and the dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant effect. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water of some streams.

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

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 ($CaCO_3$).

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.

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

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 by milligrams per liter by 0.0027.

Sodium-absorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. Water varies, in respect to sodium hazard, from that which can be used for irrigation on almost all soils to that which generally is unsatisfactory for irrigation.

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

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

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

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating that the sample consists of a water-suspended-sediment mixture and that the analytical method determines all of the constituent in the sample.)

COMPUTATION OF ANNUAL YIELDS

The annual yield and deficiency (table 1) for each subbasin were computed as described in Appendix I to the Arkansas River Basin Compact Arkansas-Oklahoma, 1972, supplement No. 1. Actual runoff for the subbasins (table 2) was computed as described in the Compact except for the stations Arkansas River at Muskogee, which has been discontinued, Arkansas River at Van Buren, which has been moved 7.9 miles downstream, and Lee Creek near Van Buren, which has been moved 3.2 miles upstream to near Short, Oklahoma.

Table 1.--*Annual yield and deficiency for the subbasins for the 1993 water year, as defined in the Arkansas River Basin Compact Arkansas-Oklahoma*

[Flow in cubic feet per second]

Subbasin	Actual runoff from the subbasins	Total depletions or accretions (-)	Annual yield	[a]Percent depletion allowed	Minimum required flow	[b]Deficiency
Spavinaw Creek	232	[c]0.1	232	50	116	0
Illinois River	1,520	[c]565	2,055	60	822	0
Lee Creek (Okla.)	873	[c]15.7	889	100	0	0
Lee Creek (Ark.)	873	[c]0	873	100	0	0
Poteau River	804	[c]2.4	806	60	322	0
Arkansas River	8,427	[d]218	8,645	60	3,458	0

[a]Defined in the Arkansas River Basin Compact, Arkansas-Oklahoma, 1972.
[b]The amount the actual runoff is less than the minimum required flow.
[c]Based on 1992 water year water-use data.
[d]Based on 1992 water-use data and 1993 direct diversions from lake storage.

Table 2.--*Actual runoff from the subbasins for the 1993 water year*

[In cubic feet per second; D.A. = drainage area; mi^2 = square mile; acre-ft = acre-feet]

Month	Spavinaw Creek [a]D.A. = 135 mi^2	Illinois River [b]D.A. = 744 mi^2	Lee Creek D.A. = 426 mi^2	Poteau River [c]D.A. = 536 mi^2	Arkansas River [d]D.A., = 4,591 mi^2
October	23	212	25.6	71.2	282
November	170	1,630	788	635	6,231
December	594	3,040	1,660	1,890	19,464
January	231	2,040	1,180	2,210	19,076
February	239	1,760	1,020	851	10,261
March	215	1,490	1,040	372	10,436
April	265	2,290	2,130	1,270	19,173
May	377	2,420	1,340	1,890	4,762
June	308	1,460	997	351	8,508
July	97.2	454	119	34.6	9.4
August	45.9	273	8.52	34.8	0
September	219	1,150	187	23.4	3,210
1993 water year	232	1,520	873	804	8,427
1993 water year (acre-ft)	168,000	1,101,000	632,000	582,000	6,105,000

[a]Includes 31 mi^2 ungaged.
[b]Includes 63 mi^2 ungaged.
[c]Includes 125 mi^2 ungaged.
[d]Computed by subtracting drainage area at Arkansas River at Muskogee, Canadian River near Whitefield, Illinois River Subbasin, Lee Creek Subbasin, and Poteau River Subbasin from drainage area at Arkansas River at Jams W. Trimble Dam near Van Buren, Arkansas.

Annual depletion caused by major reservoirs (table 3) was computed for the four major reservoirs in the basin as described in Appendix I to the Compact. Depletions caused by small reservoirs and minor diversions for municipal and agricultural use are considered by subbasins in table 1.

A compilation of the areas and capacities of lakes and ponds in Arkansas, updated in 1981, conducted by the Arkansas Soil and Water Conservation Commission was used to evaluate depletions caused by small reservoirs in the Poteau River, Lee Creek, Spavinaw Creek, and Illinois River subbasins. Analysis indicated that their impact on the depletions in any subbasin, except Illinois River, was probably insignificant. Information on depletions continue to be gathered in order to re-evaluate their present impact.

Streamflow data used in the computations are given in hydrologic station records (p. 8 to 61). 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 of the actual discharge, "good" means within 10 percent, and "fair" means within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Table 3.--Annual depletion caused by major reservoirs for the 1993 water year

[acre-ft = acre-feet; ft^3/s = cubic feet per second]

Reservoir	Year-end contents (acre-ft)	Change in contents in water year (acre-ft)	[a]Precipitation on reservoir surface (inches)	[b]Evaporation from reservoir (inches)	[a]Diversions (acre-ft)	Depletion (acre-ft)	Depletion (ft^3/s)
Webbers Falls	170,100	+12,500	44.93	45.46	0	25,000	+34.5
Tenkiller Ferry	660,500	+12,900	58.00	36.16	6,920	23,520	+32.4
Robert S. Kerr	495,900	-28,900	47.75	44.41	0	+13,700	+18.9
Wister	62,200	-39,800	47.66	35.28	8,750	-28,400	-39.2

[a]From U.S. Corps of Engineers, Tulsa District.

[b]Adjusted for pan coefficient of 0.70 (from Wisler and Brater, 1949).

SELECTED REFERENCES

Arkansas River Compact Committee, 1972, Arkansas River Basin Compact Arkansas-Oklahoma, 1972, with Supplemental Interpretive Comments, Supplement No. 1: Austin, Texas, 31 p.

Arkansas Soil and Water Conservation Commission, 1981, Arkansas State Water Plan - Lakes of Arkansas, 157 p.

Wisler, C.D., and Brater, E.F., 1949, Hydrology: New York, John Wiley & Sons, Inc., 150 p.

HYDROLOGIC STATION RECORDS

07165570 ARKANSAS RIVER NEAR HASKELL, OKLAHOMA

LOCATION.--Lat 35°49'15", long 95°38'19", in SW1/4NW1/4, sec.32, T.16 N., R.16 E., Wagoner County, near left downstream abutment of old bridge downstream from State Highway 104, 2.0 mi east of Haskell, 23.5 mi upstream from Verdigris River, and at mile 483.7.

DRAINAGE AREA.--75,473 mi^2, of which 12,541 mi^2 probably is noncontributing.

AVERAGE DISCHARGE.--21 years, 10,110 ft^3/s.

EXTREMES.--June 1972 to current year: Maximum discharge, 259,000 ft^3/s Oct. 5, 1986; minimum daily, 87 ft^3/s Sept. 13, 1988.

REMARKS.--Records fair, except for 858 mi^2 intervening area. Flow regulated by Keystone Lake, 55.1 mi upstream. Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	41,863	5,780	230	1,350	83,040
November	314,398	33,400	699	10,480	623,600
December	617,710	32,500	3,130	19,930	1,225,000
January	667,600	27,800	13,100	21,540	1,324,000
February	715,000	32,300	17,800	25,540	1,418,000
March	609,840	30,700	9,140	19,670	1,210,000
April	540,200	27,500	11,100	18,010	1,071,000
May	2,652,200	146,000	31,000	85,550	5,261,000
June	1,113,600	53,600	19,100	37,120	2,209,000
July	830,100	34,100	15,000	26,780	1,647,000
August	588,800	28,800	11,100	18,990	1,168,000
September	312,830	18,400	1,870	10,430	620,500
Water year 1993	9,004,141	146,000	230	24,670	17,860,000

07176000 VERDIGRIS RIVER NEAR CLAREMORE, OKLAHOMA

LOCATION.--Lat 36°18'26", long 95°41'52", in NE1/4NW1/4, sec.15, T.21 N., R.15 E., Rogers County, on left bank on downstream side of bridge on State Highway 20, 2.3 mi downstream from Caney River, 4.5 mi west of Claremore, 12.4 mi upstream from Bird Creek, and at mile 76.0.

DRAINAGE AREA.--6,534 mi^2.

AVERAGE DISCHARGE.--27 years (water years 1936-62), 3,723 ft^3/s; 29 years (water years 1965-93), 4,476 ft^3/s.

EXTREMES.--October 1935 to current year: Maximum discharge, 182,000 ft^3/s May 21, 1943; no flow at times in 1936, 1939-40, 1956.

REMARKS.--Records fair. Flow regulated since May 1963 by Oologah Lake 14.3 mi upstream; some regulation by dams in Kansas since 1949 and by Hulah Lake since 1950. Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	8,891	1,580	92	287	17,640
November	224,125	16,300	103	7,471	444,600
December	503,620	23,000	6,710	16,250	998,900
January	491,200	22,700	11,100	15,850	974,300
February	251,350	17,800	3,670	8,977	498,600
March	283,990	16,900	3,260	9,161	563,300
April	223,300	16,500	2,310	7,443	442,900
May	518,120	28,800	4,370	16,710	1,028,000
June	592,540	25,800	5,740	19,750	1,175,000
July	194,740	9,320	2,440	6,282	386,300
August	62,052	11,900	99	2,002	123,100
September	66,131	15,100	75	2,204	131,200
Water year 1993	3,420,059	28,800	75	9,370	6,784,000

07178200 BIRD CREEK AT STATE HIGHWAY 266 NEAR CATOOSA, OKLAHOMA

LOCATION.--Lat 36°13'23", long 95°49'09", in SE1/4SE1/4, sec.9, T.20 N., R.14 E., Tulsa County,, near left on downstream abutment of bridge, 2.3 mi downstream from Elm Creek, 5 mi northwest of Catoosa High School, and at mile 9.5.

DRAINAGE AREA.--1,103 mi^2.

AVERAGE DISCHARGE.--5 years, 1,015 ft^3/s.

EXTREMES.--August 1988 to current year: Maximum discharge, 18,500 ft^3/s Mar. 14, 1990, gage height, 28.39 ft; minimum daily discharge, 70 ft^3/s, Oct. 23, 28, 1992.

REMARKS.--Records good. Some regulation by Skiatook Lake (station 07177400). Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	5,213	415	70	168	10,340
November	29,620	4,790	80	987	58,750
December	57,488	14,300	148	1,854	114,000
January	72,809	6,650	274	2,349	144,400
February	44,229	6,700	213	1,580	87,730
March	42,419	4,580	297	1,368	84,140
April	70,229	6,330	604	2,341	139,300
May	149,867	25,900	528	4,834	297,300
June	87,211	6,850	259	2,907	173,000
July	13,910	2,390	189	449	27,590
August	8,365	1,320	169	270	16,590
September	21,919	4,410	188	731	43,480
Water year 1993	603,279	25,900	70	1,653	1,197,000

07191220 SPAVINAW CREEK NEAR SYCAMORE, OKLAHOMA

LOCATION.--Lat 36°20'07", long 94°38'27", in NE1/4NW1/4, sec.4, T.21 N., R.25 E., Delaware County, on right bank 1.8 mi upstream from Cherokee Creek, 4.8 mi northeast of Row, 6.5 mi southeast of Sycamore, and at mile 35.0.

DRAINAGE AREA.--133 mi^2.

AVERAGE DISCHARGE.--32 years, 113 ft^3/s.

EXTREMES.--October 1961 to current year: Maximum discharge, 39,800 ft^3/s July 27, 1975; minimum, 1.2 ft^3/s Aug. 9, 1964.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	715	27	21	23.1	1,420
November	5,018	967	29	167	9,950
December	18,144	4,230	80	585	35,990
January	7,061	384	148	228	14,010
February	6,573	855	97	235	13,040
March	6,576	478	102	212	13,040
April	7,815	557	126	260	15,500
May	11,493	1,620	95	371	22,800
June	9,117	568	135	304	18,080
July	2,978	183	51	96.1	5,910
August	1,404	76	27	45.3	2,780
September	6,483	2,250	27	216	12,860
Water year 1993	83,377	4,230	21	228	165,400

07193000 FORT GIBSON LAKE NEAR FORT GIBSON, OKLAHOMA

LOCATION.--Lat 35°51'15", long 95°13'45", in sec.19, T.16 N., R.19 E., Cherokee County, at Fort Gibson Dam, 5 mi north of Fort Gibson, and at mile 7.7.

DRAINAGE AREA.--12,492 mi^2.

Monthly and yearly discharge

Month	Total (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	58,320	1,881	115,700
November	675,740	22,524	1,340,000
December	1,370,579	44,212	2,719,000
January	877,693	28,312	1,741,000
February	466,154	16,648	924,600
March	594,110	19,164	1,178,000
April	629,126	20,970	1,248,000
May	856,835	27,639	1,700,000
June	1,135,729	37,857	2,253,000
July	795,111	25,648	1,577,000
August	465,931	15,030	924,200
September	684,524	22,817	1,358,000
Water year 1993	8,609,852	23,588	17,078,500

ARKANSAS RIVER BASIN

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE NEAR FORT GIBSON, OKLAHOMA

(National stream-quality accounting network station)

LOCATION.--Lat 35°51'10", long 95°13'44", in NW1/4NW1/4, sec.19, T.16 N., R.20 E., Cherokee County, Hydrologic Unit 11070209, on left bank 1.1 mi downstream from Fort Gibson Dam, 3.5 mi north of Fort Gibson, and at mile 6.6.

DRAINAGE AREA.--12,495 mi^2.

PERIOD OF RECORD.--Water years 1952 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1951 to September 1963, October 1973 to January 1982.

WATER TEMPERATURE: October 1951 to September 1963, October 1973 to January 1982.

REMARKS.--Samples were collected bimonthly and specific conductance, pH, water temperature, dissolved oxygen, and alkalinity were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbitidy units; MG/L, milligrams per liter; ML, milliliter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT 1992											
06...	1230	1028	80020	6,380	248	7.9	21.0	4.5	8.0	90	K3
DEC											
02...	1215	1028	80020	53,900	248	8.0	10.5	12	11.8	106	89

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (09410)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)
OCT 1992											
06...	K12	96	15	31	4.4	6.5	12	0.3	3.9	81	0
DEC											
02...	49	110	21	34	5.2	6.3	11	.3	4.1	86	0

DATE	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG.C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)
OCT 1992										
06...	99	81	25	6.7	0.20	4.3	136	132	2,340	0.18
DEC										
02...	104	85	28	6.8	.10	6.3	148	145	21,500	.20

07193500 NEOSHO RIVER BELOW FORT GIBSON LAKE NEAR FORT GIBSON, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)
OCT 1992										
06...	0.310	--	<0.010	<0.010	0.310	0.320	<0.010	<0.010	0.50	0.50
DEC										
02...	.590	.570	.010	.020	.600	.590	.030	.020	.27	.30

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS0 PHORUS ORTHO TOTAL (MG/L AS C) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)
OCT 1992										
06...	0.81	.090	0.060	0.060	0.050	<10	51	<3	6	<4
DEC										
02...	.90	.090	.070	.060	.060	--	--	--	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01075)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1992										
06...	1	<10	2	<1	<1.0	150	<6	--	--	--
DEC										
02...	--	--	--	--	--	--	--	45	6,510	95

07194500 ARKANSAS RIVER NEAR MUSKOGEE, OKLAHOMA

LOCATION.--Lat 35°46'10", long 95°17'55", in NW1/4, sec.21, T.15 N., R.19 E., Muskogee County, at bridge on U.S. Highway 62, 1.7 mi downstream from Neosho River, 3.5 mi northeast of Muskogee.

DRAINAGE AREA.--96,674 mi^2 of which 12,541 mi^2 probably is noncontributing.

REMARKS.--Gaging station discontinued Sept. 30, 1970, due to backwater conditions. Streamflow computed by combining flow at station 07165570 Arkansas River near Haskell, station 07176000 Verdigris River near Claremore, station 07178200 Bird Creek at State Highway 266 near Catoosa, station 07193000 Fort Gibson Lake Discharge near Fort Gibson, and estimating the flow for the ungaged intervening drainage area.

Monthly and yearly discharge

Month	Mean (ft^3/s)	Runoff (acre-feet)
October	3,847	236,500
November	42,416	2,524,000
December	84,046	5,168,000
January	70,334	4,325,000
February	54,278	3,014,000
March	50,692	3,117,000
April	51,037	3,037,000
May	139,428	8,573,000
June	100,469	5,978,000
July	59,599	3,665,000
August	36,549	2,247,000
September	36,890	2,195,000
Water year 1993	60,886	44,080,000

07195500 ILLINOIS RIVER NEAR WATTS, OKLAHOMA

LOCATION.--Lat 36°07'48", long 94°34'19", in NW1/4NE1/4, sec.18, T.19 N., R.26 E., Adair County, near right bank on downstream side of bridge on U.S. Highway 59, 1.5 mi north of Watts, 4.5 mi downstream from Cincinnati Creek, and at mile 106.2.

DRAINAGE AREA.--635 mi^2.

AVERAGE DISCHARGE.--38 years, 621 ft^3/s.

EXTREMES.--August 1955 to current year: Maximum discharge, 68,000 ft^3/s July 25, 1960; minimum, 8.6 ft^3/s Oct. 26, 1955, Sept. 19, Oct. 14, 1956.

REMARKS.--Records good. Since July 2, 1957, small diversion above station for municipal water supply for city of Siloam Springs, Arkansas. Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	6,013	332	156	194	11,930
November	42,884	8,580	247	1,429	85,060
December	79,488	16,000	525	2,564	157,700
January	43,225	3,460	714	1,394	85,740
February	39,898	5,670	524	1,425	79,140
March	37,010	3,680	633	1,194	73,410
April	55,852	8,630	888	1,862	110,800
May	63,783	13,700	647	2,058	126,500
June	33,838	4,550	606	1,128	67,120
July	13,175	863	255	425	26,130
August	8,233	881	168	266	16,330
September	31,929	6,490	164	1,064	63,330
Water year 1993	455,328	16,000	156	1,247	903,100

ILLINOIS RIVER BASIN

07195500 ILLINOIS RIVER NEAR WATTS, OKLAHOMA

PERIOD OF RECORD.--October 1989 to current year.

REMARKS.--Samples were collected bi-monthly and specific conductance, pH, water temperature, dissolved oxygen, and alkalinity were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidityunits; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)
OCT 1992											
07...	1041	1028	80020	185	325	8.0	17.0	--	10.0	107	--
DEC											
09...	1257	1028	80020	1,510	264	7.9	7.0	3.6	14.2	122	120
MAR 1993											
09...	1100	1028	80020	841	233	7.9	11.0	--	11.7	110	--
JUN											
30...	1030	1028	80020	1,120	236	8.0	23.0	6.8	6.8	81	99
AUG											
04...	1440	1028	80020	242	288	7.6	26.5	14	7.8	99	120
SEP											
02...	1400	1028	80020	177	301	7.3	25.0	15	8.7	109	120
09...	1230	1028	80020	645	262	7.3	21.0	27	8.4	97	100
14...	1330	1028	80020	9,100	137	7.0	19.0	450	8.0	88	52

DATE	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (09410)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
OCT 1992											
07...	--	--	--	--	--	--	--	--	0	150	123
DEC											
09...	36	44	1.9	6.7	11	0.3	2.7	100	0	100	82
MAR 1993											
09...	--	--	--	--	--	--	--	--	0	112	92
JUN											
30...	5	37	1.7	5.9	11	.3	3.0	91	0	115	94
AUG											
04...	14	45	1.8	10	15	.4	3.3	112	0	129	106
SEP											
02...	11	47	1.8	11	16	.4	2.1	115	0	139	114
09...	11	39	1.6	11	18	.5	3.6	98	0	114	94
14...	9	19	1.2	3.3	11	.2	4.4	59	0	53	43

07195500 ILLINOIS RIVER NEAR WATTS, OKLAHOMA—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)
OCT 1992											
07...	--	--	--	--	--	--	--	--	1.80	--	<0.010
DEC											
09...	10	--	0.10	7.4	180	--	--	--	3.19	3.08	0.010
MAR 1993											
09...	--	--	--	--	--	--	--	--	2.78	2.78	--
JUN											
30...	6.9	7.0	.10	10	130	139	393	0.18	2.40	--	--
AUG											
04...	8.5	11	<.10	9.8	174	163	114	.24	2.10	--	--
SEP											
02...	10	13	<.10	10	174	172	83.2	.24	1.90	--	--
09...	10	12	<.10	8.3	154	151	268	.21	2.00	--	--
14...	5.7	4.5	<.10	6.0	82	79	2,010	.11	1.78	1.78	--

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1992											
07...	<0.010	1.80	1.80	0.040	0.040	--	--	<0.20	--	--	0.220
DEC											
09...	.020	3.20	3.10	.050	.040	0.15	--	.20	3.4	--	.140
MAR 1993											
09...	.020	--	2.80	--	.030	.17	--	.20	3.0	--	.090
JUN											
30...	<.010	--	2.40	--	.030	--	--	<.20	--	<.20	.140
AUG											
04...	<.010	--	2.10	--	.050	.25	0.25	.30	2.4	.30	.250
SEP											
02...	<.010	--	1.90	--	.060	--	--	<.20	--	<.20	.180
09...	<.010	--	2.00	--	.050	.35	--	.40	2.4	<.20	.300
14...	.020	--	1.80	--	.090	.51	.41	.60	2.4	.50	.400

07195500 ILLINOIS RIVER NEAR WATTS, OKLAHOMA—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
OCT 1992											
07...	0.210	0.190	0.170	--	--	--	--	--	--	--	--
DEC											
09...	.090	.100	.090	20	<1	43	<0.5	<1.0	5	<3	<10
MAR 1993											
09...	.060	--	.060	--	--	--	--	--	--	--	--
JUN											
30...	.130	--	.120	30	1	48	.6	<1.0	<5	<3	<10
AUG											
04...	.210	--	.190	20	1	51	<.5	<1.0	<5	<3	<10
SEP											
02...	.190	--	.180	30	<1	52	<.5	<1.0	<5	<3	<10
09...	.250	--	.240	40	1	44	<.5	<1.0	<5	<3	<10
14...	.310	--	.320	20	<1	29	<.5	<1.0	<5	<3	<10

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 1992											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
09...	<3	<10	<4	97	0.2	<10	<10	<1.0	50	<6	<3
MAR 1993											
09...	--	--	--	--	--	--	--	--	--	--	--
JUN											
30...	7	<10	<4	32	<.1	<10	<10	<1.0	47	<6	<3
AUG											
04...	<3	<10	<4	53	1.6	<10	<10	<1.0	52	<6	5
SEP											
02...	<3	<10	<4	63	<.1	<10	<10	<1.0	52	<6	<3
09...	15	<10	<4	30	<.1	<10	<10	1.0	43	<6	<3
14...	34	<10	<4	83	.3	<10	<10	<1.0	26	<6	5

07195500 ILLINOIS RIVER NEAR WATTS, OKLAHOMA—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDYRIFOS TOTAL RECOVER (UG/L) (38932)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DEF, TOTAL (UG/L) (39040)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN, TOTAL (UG/L) (39380)	DISYSTON, TOTAL (UG/L) (39011)
OCT 1992											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
09...	--	--	--	--	--	--	--	--	--	--	--
MAR 1993											
09...	--	--	--	--	--	--	--	--	--	--	--
JUN											
30...	<0.1	<0.010	<0.1	<0.01	<0.010	<0.010	<0.010	<0.01	<0.01	<0.010	<0.01
AUG											
04...	<.1	<.010	<.1	<.01	<.010	<.010	<.010	<.01	<.01	<.010	<.01
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE, TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)	MIREX, TOTAL (UG/L) (39755)	PARATHION, TOTAL (UG/L) (39540)
OCT 1992											
07...	--	--	--	--	--	--	--	--	--	--	--
DEC											
09...	--	--	--	--	--	--	--	--	--	--	--
MAR 1993											
09...	--	--	--	--	--	--	--	--	--	--	--
JUN											
30...	<0.010	<0.010	<0.01	<0.01	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01
AUG											
04...	<.010	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01	<.01
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	PERTHANE, TOTAL (UG/L) (39034)	PHORATE, TOTAL (UG/L) (39023)	SILVEX, TOTAL (UG/L) (39760)	TOTAL TRITHION (UG/L) (39786)	TOXAPHENE, TOTAL (UG/L) (39400)	2,4-DP, TOTAL (UG/L) (82183)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T, TOTAL (UG/L) (39740)
OCT 1992								
07...	--	--	--	--	--	--	--	--
DEC								
09...	--	--	--	--	--	--	--	--
MAR 1993								
09...	--	--	--	--	--	--	--	--
JUN								
30...	<0.1	<0.01	<0.01	<0.01	<1	<0.01	<0.01	<0.01
AUG								
04...	<.1	<.01	--	<.01	<1	--	--	--
SEP								
02...	--	--	<.01	--	--	<.01	<.01	<.01
09...	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--

07195855 FLINT CREEK NEAR WEST SILOAM SPRINGS, OKLAHOMA

LOCATION.--Lat 36°12'58", long 94°36'15", in NE1/4NE1/4, sec.14, T.20 N., R.25 E., Delaware County, on left bank 180 ft downstream from county bridge, 2.5 mi from Arkansas-Oklahoma State line, northwest of Siloam Springs, Oklahoma.

DRAINAGE AREA.--59.8 mi^2.

AVERAGE DISCHARGE.--14 years, 49.4 ft^3/s.

EXTREMES.--June 1979 to current year: Maximum discharge, 6,650 ft^3/s May 3, 1990; minimum daily, 0.40 ft^3/s Aug. 7, 1980.

REMARKS.--Records good.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	579	24	16	18.7	1,150
November	2,785	442	29	92.8	5,520
December	6,779	1,470	53	219	13,450
January	2,784	121	68	89.8	5,520
February	2,972	321	61	106	5,890
March	3,075	154	64	99.2	6,100
April	3,701	210	78	123	7,340
May	4,682	564	68	151	9,290
June	3,952	384	69	132	7,840
July	1,537	102	33	49.6	3,050
August	611	32	11	19.7	1,210
September	1,566	300	7	52.2	3,110
Water year 1993	35,023	1,470	7	96	69,470

ILLINOIS RIVER BASIN

07196000 FLINT CREEK NEAR KANSAS, OKLAHOMA

LOCATION.--Lat 36°11'11", long 94°42'24", in SW1/4NW1/4, sec. 25, T.20 N., R.24 E., Deleware County, Hydrologic Unit 11110103, at U.S. Highway 412 bridge, 6.0 mi southeast of Kansas, and at mi 2.2.

DRAINAGE AREA.--110 mi^2.

PERIOD OF RECORD.--Water years 1955-61, 1963, 1975-80, July 1991 to current year.

REMARKS.--Samples were collected bi-monthly and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; MM, millimeter; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1992											
06...	1405	1028	80020	30	303	8.1	20.5	10.0	115	0	137
DEC											
08...	1057	1028	80020	80	246	7.8	8.0	13.3	115	0	105
FEB 1993											
10...	1405	1028	80020	99	240	8.1	10.0	11.7	108	0	102
JUN											
30...	1700	1028	80020	184	221	7.8	25.0	7.9	99	0	105
AUG											
04...	1130	1028	80020	43	262	7.6	24.5	8.9	108	0	113
SEP											
03...	1630	1028	80020	39	288	7.3	26.5	8.3	106	0	115
14...	1800	1028	80020	1,810	154	7.1	18.0	8.1	88	0	56

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1992										
06...	113	1.70	--	<0.010	<0.010	1.70	1.70	<0.010	<0.010	--
DEC										
08...	86	3.09	--	.010	<.010	3.10	3.10	.010	<.010	--
FEB 1993										
10...	83	2.28	2.28	--	.020	--	2.30	--	.020	--
JUN										
30...	86	1.90	--	--	<.010	--	1.90	--	.020	--
AUG										
04...	93	1.40	--	--	<.010	--	1.40	--	.030	--
SEP										
03...	94	1.50	--	--	<.010	--	1.50	--	.030	--
14...	46	2.09	2.09	--	.010	--	2.10	--	.070	0.93

07196000 FLINT CREEK NEAR KANSAS, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT 1992								
06...	--	<0.20	--	--	0.120	0.120	0.120	0.120
DEC								
08...	--	<.20	--	--	.120	.100	.120	.110
FEB 1993								
10...	--	<.20	--	--	.090	.070	--	.080
JUN								
30...	--	<.20	--	<0.20	.100	.120	--	.100
AUG								
04...	--	<.20	--	<.20	.120	.120	--	.100
SEP								
03...	--	<.20	--	<.20	.110	.120	--	.110
14...	0.53	1.0	3.1	.60	.460	.350	--	.340

ARKANSAS RIVER BASIN

07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OKLAHOMA

LOCATION.--Lat 35°55'22", long 94°55'24", in SE1/4NE1/4, sec.26, T.17 N., R.22 E., Cherokee County, Hydrologic Unit 11110103, near center of channel on downstream side of pier of bridge, 0.2 mi downstream from U.S. Highway 62, 2.2 mi northeast of Tahlequah, 6.5 mi upstream from Baron Fork, and at mile 55.8.

DRAINAGE AREA.--959 mi^2.

PERIOD OF RECORD.--Water years 1960-61, 1975-79, 1989 to current year.

REMARKS.--Samples were collected on a bimonthly schedule and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; ML, milliliter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1992											
14...	1230	1028	80020	203	265	8.0	19.0	--	9.6	106	--
DEC											
08...	1400	1028	80020	760	242	8.1	7.0	2.4	12.3	103	--
FEB 1993											
22...	1800	1028	80020	5,110	169	7.8	8.0	--	11.4	98	--
APR											
29...	1100	1028	80020	1,680	189	7.9	18.0	3.8	5.6	61	1,100
JUN											
23...	1000	1028	80020	1,300	205	8.2	13.0	--	5.1	50	150
SEP											
01...	0930	1028	80020	253	270	7.6	24.0	1.8	6.2	76	80
14...	1510	1028	80020	1,140	199	7.5	22.0	8.7	7.3	84	--
22...	0945	1028	80020	997	232	7.7	21.0	3.1	7.2	83	580

07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OKLAHOMA—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
OCT 1992												
14...	--	--	--	--	--	--	--	--	--	0	134	110
DEC												
08...	--	110	--	41	2.0	6.3	11	0.3	2.6	--	--	--
FEB 1993												
22...	--	--	--	--	--	--	--	--	--	0	66	54
APR												--
29...	310	87	14	32	1.6	4.5	10	.2	2.3	0	89	73
JUN												
23...	460	--	--	--	--	--	--	--	--	0	113	92
SEP												
01...	170	110	9	41	1.9	8.1	13	.3	3.2	0	124	102
14...	--	79	--	29	1.6	6.0	14	.3	2.9	--	--	--
22...	250	100	15	37	1.8	5.8	11	.3	2.5	0	103	85

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)
OCT 1992												
14...	--	--	--	--	--	--	--	--	0.720	0.740	<0.010	0.020
DEC												
08...	9.4	8.1	<0.10	8.0	141	144	289	0.19	2.68	2.67	.020	.030
FEB 1993												
22...	--	--	--	--	--	--	--	--	1.38	1.38	--	.020
APR												
29...	7.4	5.8	<.10	5.8	144	111	653	.20	1.70	--	--	<.010
JUN												
23...	--	--	--	--	--	--	--	--	1.50	--	--	<.010
SEP												
01...	9.6	11	<.10	9.9	147	150	100	.20	.990	--	--	<.010
14...	8.1	8.0	<.10	7.7	114	--	--	--	.960	--	--	<.010
22...	8.6	7.3	<.10	9.5	133	134	358	.18	2.40	--	--	<.010

07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1992										
14...	0.740	0.760	<0.010	0.010	--	--	<0.20	--	--	0.070
DEC										
08...	2.70	2.70	.010	<.010	--	--	<.20	--	--	.100
FEB 1993										
22...	--	1.40	--	.030	0.27	--	.30	1.7	--	.140
APR										
29...	--	1.70	--	.010	.29	--	.30	2.0	<0.20	.080
JUN										
23...	--	1.50	--	.030	.27	--	.30	1.8	<.20	.130
SEP										
01...	--	.990	--	.030	--	--	<.20	--	<.20	.090
14...	--	.960	--	.030	.17	0.17	.20	1.2	.20	.110
22...	--	2.40	--	.020	--	--	<.20	--	<.20	.090

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
OCT 1992											
14...	0.060	0.050	0.050	--	--	--	--	--	--	--	--
DEC											
08...	.080	.090	.080	<1	37	<0.5	20	<1.0	<5	<3	<10
FEB 1993											
22...	.090	--	.090	--	--	--	--	--	--	--	--
APR											
29...	.060	--	.060	<1	36	<.5	20	<1.0	<5	<3	<10
JUN											
23...	.110	--	.120	--	--	--	--	--	--	--	--
SEP											
01...	.090	--	.080	<1	46	<.5	40	3.0	<5	<3	<10
14...	.100	--	.100	<1	34	<.5	20	<1.0	<5	<3	<10
22...	.100	--	.100	<1	44	<.5	30	<1.0	<5	<3	<10

07196500 ILLINOIS RIVER NEAR TAHLEQUAH, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/l AS ZN) (01090)
OCT 1992											
14...	--	--	--	--	--	--	--	--	--	--	--
DEC											
08...	<3	<10	<4	4	<0.1	<10	<10	<1.0	48	<6	<3
FEB 1993											
22...	--	--	--	--	--	--	--	--	--	--	--
APR											
29...	10	<10	<4	6	<.1	<10	<10	<1.0	40	<6	5
JUN											
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
01...	5	<10	<4	8	.1	<10	<10	2.0	49	<6	<3
14...	29	<10	<4	7	<.1	<10	<10	<1.0	37	<6	4
22...	6	<10	<4	5	<.1	<10	<10	<1.0	44	<6	<3

07196900 BARON FORK AT DUTCH MILLS, ARKANSAS

LOCATION.--Lat 35°52'48", long 94°29'11", on line between secs.21 and 22, T.14 N., R.33 W., Washington County, near right bank on downstream side of bridge on State Highway 59 at Dutch Mills, 2.2 mi downstream from Fly Creek, and 2.9 mi upstream from Arkansas-Oklahoma State line.

DRAINAGE AREA.--40.6 mi^2.

AVERAGE DISCHARGE.--35 years, 44.4 ft^3/s.

EXTREMES.--April 1958 to current year: Maximum discharge, 20,900 ft^3/s, Nov. 18, 1985; no flow at times.

REMARKS.--Records good.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	188.7	15	4.4	6.09	374
November	2,677.2	891	5.3	89.2	5,310
December	5,723	2,170	23	185	11,350
January	7,509	3,800	50	242	14,890
February	3,618	845	38	129	7,180
March	3,446	560	15	111	6,840
April	5,182	1,730	40	173	10,280
May	4,578	1,470	37	148	9,080
June	3,335	1,720	13	111	6,610
July	271.6	29	2.5	8.76	539
August	150.9	74	1.3	4.87	299
September	1,430.2	548	2.4	47.7	2,840
Water year 1993	38,110	3,800	1.3	104	75,590

ILLINOIS RIVER BASIN

07197000 BARON FORK AT ELDON, OKLAHOMA

LOCATION.--Lat 35°55'16", long 94°50'18", in NE1/4SE1/4, sec.27, T.17 N., R.23 E., Cherokee County, Hydrologic Unit 11110103, on downstream left abutment of bridge on State Highway 51, 0.4 mi southeast of Eldon, 6.0 mi downstream from Tyner Creek, and at mile 8.8.

DRAINAGE AREA.--307 mi^2.

PERIOD OF RECORD.--1948, 1958-60, 1991 to current year.

REMARKS.--Samples were collected bimonthly and specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data;K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITs) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
OCT 1992										
13...	1730	1028	80020	69	196	7.9	20.0	--	9.9	112
DEC										
07...	1630	1028	80020	258	186	7.7	10.0	--	10.9	98
FEB 1993										
22...	1645	1028	80020	1,340	156	7.9	10.5	--	11.5	105
APR										
28...	1600	1028	80020	461	167	8.2	16.5	0.80	10.1	105
JUN										
30...	0845	1028	80020	746	173	7.8	22.0	1.2	7.2	84
AUG										
31...	1600	1028	80020	62	195	7.6	25.0	.30	8.6	107
SEP										
14...	1236	1028	80020	4,530	114	7.6	19.0	390	7.8	85

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PER-CENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
OCT 1992											
13...	--	--	--	--	--	--	--	--	0	101	82
DEC											
07...	--	--	--	--	--	--	--	--	0	83	68
FEB 1993											
22...	--	--	--	--	--	--	--	--	0	67	55
APR											
28...	76	14	28	1.4	2.6	7	0.1	1.6	0	75	61
JUN											
30...	79	6	29	1.5	2.5	6	.1	2.2	0	89	73
AUG											
31...	87	7	32	1.6	2.8	6	.1	2.0	0	97	79
SEP											
14...	47	--	17	.99	1.7	7	.1	3.0	--	--	--

07197000 BARON FORK AT ELDON, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT 1992												
13...	--	--	--	--	--	--	--	--	0.710	--	<0.010	<0.010
DEC												
	--	--	--	--	--	--	--	--	1.98	1.98	<.010	.020
FEB 1993												
22...	--	--	--	--	--	--	--	--	1.28	1.28	--	.020
APR												
28...	5.6	3.6	<0.10	6.3	92	91	115	0.13	1.20	--	--	<.010
JUN												
30...	4.9	3.2	<.10	9.0	96	101	193	.13	1.10	--	--	<.010
AUG												
31...	4.8	4.7	<.10	10	106	108	17.8	.14	.490	.490	--	.030
SEP												
14...	4.1	2.6	<.10	6.6	62	67	758	.08	1.59	1.59	--	.010

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT 1992											
13...	0.710	0.740	0.020	0.020	--	--	<0.20	--	--	0.030	0.030
DEC											
	2.00	2.00	.010	.020	--	--	<.20	--	--	.030	.010
FEB 1993											
22...	--	1.30	--	.030	--	--	<.20	--	--	.040	.030
APR											
28...	--	1.20		.010	--	-	<.20	--	<0.20	.030	.030
JUN											
30...	--	1.10	--	.020	--	--	<.20	--	<.20	.050	.050
AUG											
31...	--	.520	--	.040	--	0.16	<.20	--	.20	.030	.040
SEP											
14...	--	1.60	--	.040	0.36	.26	.40	2.0	.30	.230	.170

07197000 BARON FORK AT ELDON, OKLAHOMA—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT 1992											
13...	0.020	0.020	--	--	--	--	--	--	--	--	--
DEC											
	.030	.030	--	--	--	--	--	--	--	--	--
FEB 1993											
22...	--	.030	--	--	--	--	--	--	--	--	--
APR											
28...	--	.020	<1	27	<0.5	20	2.0	<5	<3	<10	5
JUN											
30...	--	.050	2	32	<.5	20	<1.0	<5	<3	<10	9
AUG											
31...	--	.020	<1	32	<.5	20	<1.0	<5	<3	<10	<3
SEP											
14...	--	.170	<1	22	<.5	20	<1.0	<5	<3	<10	78

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/l AS ZN) (01090)
OCT 1992										
13...	--	--	--	--	--	--	--	--	--	--
DEC										
	--	--	--	--	--	--	--	--	--	--
FEB 1993										
22...	--	--	--	--	--	--	--	--	--	--
APR										
28...	<10	<4	4	<0.1	<10	<10	<1.0	36	<6	7
JUN										
30...	<10	<4	9	<.1	<10	<10	1.0	39	<6	4
AUG										
31...	<10	<4	6	<.1	<10	<10	<1.0	40	<6	<3
SEP										
14...	<10	<4	12	<.1	<10	<10	<1.0	23	<6	<3

07198000 ILLINOIS RIVER NEAR GORE, OKLAHOMA

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, October 1992 to September 1993.

REMARKS.--Samples were collected bimonthly and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field. Prior to October 1992 records of continuous water temperature were collected 4.2 mi upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily 396 microsiemens, Aug. 12, 1956; minimum daily 123 microsiemens, July 14, 1957.
WATER TEMPERATURE: Maximum 24.0°C, Sept. 28-30, Oct. 1, 2, 1958, Aug. 29, 1993; minimum 4.5°C several days in winter months.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum 24.0°C, Aug. 29; minimum 4.5°C, Feb. 13, 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1992											
06...	1500	1028	80020	20	301	8.1	21.0	2.2	9.6	109	110
DEC											
16...	1345	1028	80020	190	166	7.3	9.0	--	11.1	98	--
FEB 1993											
09...	1430	1028	80020	3,660	165	7.7	7.5	8.3	11.1	95	66
MAR											
31...	1015	1028	80020	3,870	174	8.0	8.0	--	11.7	101	--
JUN											
09...	1030	1028	80020	8,200	184	7.5	17.0	100	8.8	93	76
AUG											
10...	1130	1028	80020	398	184	7.3	18.0	2.0	9.5	102	82

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PER-CENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1992											
06...	6	39	2.6	17	25	0.7	2.8	0	124	102	4.9
DEC											
16...	--	--	--	--	--	--	--	0	55	45	--
FEB 1993											
09...	1	24	1.4	3.5	10	.2	2.5	0	79	65	7.0
MAR											
31...	--	--	--	--	--	--	--	0	83	68	--
JUN											
09...	13	28	1.5	3.4	9	.2	2.3	0	77	63	7.3
AUG											
10...	13	30	1.6	3.8	9	.2	2.4	0	84	69	5.8

07198000 ILLINOIS RIVER NEAR GORE, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 1992											
06...	32	<0.10	176	161	9.27	0.24	0.130	0.130	0.020	0.030	0.150
DEC											
16...	--	--	--	--	--	--	.310	.310	.040	.040	.350
FEB 1993											
09...	5.0	<.10	95	87	939	.13	.940	.940	--	.020	--
MAR											
31...	--	--	--	--	--	--	1.28	1.28	--	.020	--
JUN											
09...	4.9	<.10	107	90	2,370	.15	1.09	1.09	--	.010	--
AUG											
10...	4.8	.10	100	93	107	.14	.730	.730	--	.020	--

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT 1992												
06...	0.160	0.600	0.610	0.50	--	1.1	1.2	--	0.120	0..030	0.020	0.020
DEC												
16...	.350	.020	.020	.18	--	.20	.55	--	--	.060	.030	.030
FEB 1993												
09...	.960	--	.010	.19	--	.20	1.2	<0.20	.070	.050	--	.030
MAR												
31...	1.30	--	.010	.19	0.19	.20	1.5	.20	.060	.030	--	.020
JUN												
09...	1.10	--	.040	--	--	<.20	--	<.20	--	.100	--	.050
AUG												
10...	.750	--	.170	.33	.33	.50	1.2	.50	.120	.060	--	.020

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLAHOMA

LOCATION.--Lat 35°15'50", long 95°14'21", in SE1/4SE1/4, sec.12, T.9 N., R.19 E., Haskell County, on left downstream bank at end of bridge, on State Highway 2, 0.8 mi north of Whitefield, 5.5 mi upstream from Taleka (Snake) Creek, 8.2 mi downstream from Eufaula Dam, and at mile 18.8.

DRAINAGE AREA.--47,576 mi^2, of which 9,700 mi^2 is probably noncontributing.

AVERAGE DISCHARGE.--25 years (water years 1939-63), 6,005 ft^3/s; 26 years (water years 1968-93), 6,813 ft^3/s.

EXTREMES.--July 1938 to current year: Maximum discharge, 281,000 ft^3/s May 10, 1943; minimum daily, 0.4 ft^3/s Oct. 8, 1956.

REMARKS.--Records fair. Prior to February 1964, occasional slight regulation by Conchas Lake in New Mexico and except for 54 mi^2 of intervening area, completely regulated thereafter by Eufaula Lake. Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	105,760	11,500	695	3,412	209,800
November	326,814	23,400	954	10,890	648,200
December	917,480	43,500	4,080	29,600	1,820,000
January	541,260	36,900	6,240	17,460	1,074,000
February	545,370	36,700	6,080	19,480	1,082,000
March	589,200	45,400	10,700	19,010	1,169,000
April	639,090	43,800	9,810	21,300	1,268,000
May	879,168	52,400	518	28,360	1,744,000
June	498,650	31,200	4,560	16,620	989,100
July	127,850	8,780	2,500	4,124	253,600
August	50,848	3,100	139	1,640	100,900
September	327,272	29,200	100	10,910	649,100
Water year 1993	5,548,762	52,400	100	15,200	11,010,000

07247000 POTEAU RIVER AT CAUTHRON, ARKANSAS

LOCATION.--Lat 34°55'08", long 94°17'55", in NW1/4SW1/4, sec.16, T.3 N., R.31 W., Scott County, on right bank at downstream side of highway bridge at Cauthron, 2.9 mi downstream from Cross Creek, 7.8 mi downstream from Jones Creek, and at mile 109.0.

DRAINAGE AREA.--203 mi^2.

AVERAGE DISCHARGE.--54 years, 227 ft^3/s.

EXTREMES.--February 1939 to current year: Maximum discharge, 32,200 ft^3/s May 20, 1960; no flow at times in most years.

REMARKS.--Records good. As of September 1974, flow from 92.2 mi^2 above this station is controlled by 16 floodwater-detention reservoirs with a total combined capacity of 39,082 acre-ft below the flood spillway crests, of which 33,524 acre-ft is flood-detention capacity, 2,100 acre-ft is water-supply storage, and 3,458 acre-ft is sediment-storage capacity.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	876.6	55	4.4	28.3	1,740
November	7,179	2,370	28	239	14,240
December	24,594	8,460	89	793	48,780
January	28,130	7,000	203	907	55,800
February	7,836	1,400	63	280	15,540
March	3,209	767	11	104	6,370
April	12,734.9	1,680	6.4	424	25,260
May	24,180	6,440	183	780	47,960
June	5,230	889	31	174	10,370
July	296.1	75	1.5	9.55	587
August	550.7	261	1.7	17.8	1,090
September	267.2	123	1.8	8.91	530
Water year 1993	115,084	8,460	1.5	315	228,300

POTEAU RIVER BASIN

07247000 POTEAU RIVER AT CAUTHRON, ARKANSAS

PERIOD OF RECORD.--Water years 1945-61, 1975-79, December 1991 to current year.

REMARKS.--Samples were collected on a six-week schedule and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
NOV 1992											
18...	0800	1028	[1]80020	36	115	7.3	11.5	7.6	71	0	34
JAN 1993											
06...	0855	1028	[1]80020	1,420	41	7.0	7.0	10.7	89	0	9
FEB											
09...	1545	1028	[1]80020	68	72	7.5	11.0	11.5	106	0	20
MAR											
31...	1430	1028	[1]80020	57	85	7.4	1.0	8.5	61	0	18
MAY											
06...	0830	1028	[1]80020	350	58	7.2	19.5	7.4	82	0	13
JUN											
16...	1515	1028	[1]80020	85	64	7.7	28.0	8.2	106	0	14
JUL											
28...	1025	1028	80020	1.5	100	7.2	29.5	4.1	55	0	26
AUG											
25...	0845	1028	80020	2.1	161	7.6	28.5	4.6	60	0	36

[1] Trace elements and common constituents were analyzed by the Oklahoma State Department of Environmental Quality, formerly the Oklahoma State Department of Health.

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
NOV 1992											
18...	28	<20	--	--	0.020	<0.010	<0.050	<0.050	0.020	0.020	0.38
JAN 1993											
06...	7	<20	0.130	0.130	--	.020	--	.150	--	.030	.37
FEB											
09...	16	<20	.180	.180	--	.050	--	.230	--	.030	.37
MAR											
31...	14	<20	--	--	--	<.010	--	<.050	--	.030	.37
MAY											
06...	11	<20	.080	--	--	<.010	--	.080	--	.040	.26
JUN											
16...	12	<20	.088	--	--	<.010	--	.088	--	.040	.36
JUL											
28...	21	--	--	--	--	--	--	<.050	--	.060	.94
AUG											
25...	30	--	--	--	--	--	--	<.050	--	.070	.83

07247000 POTEAU RIVER AT CAUTHRON, ARKANSAS–CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC, DISSOLVED (UG/L AS AS) (01002)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD) (01027)
NOV 1992										
18...	--	0.40	0.40	--	0.090	0.090	0.060	0.060	<10	<5
JAN 1993										
06...	0.27	.40	.55	.30	.090	.060	--	.030	<10	<5
FEB										
09...	.27	.40	.63	.30	.210	.150	--	.160	<10	<5
MAR										
31...	.37	.40	.40	.40	.120	.080	--	--	<10	<5
MAY										
06...	.26	.30	.38	.30	.060	.060	--	.040	<60	<5
JUN										
16...	.26	.40	.49	.30	.120	.100	--	.080	<10	<5
JUL										
28...	--	1.0	1.0	--	.140	--	--	.110	--	--
AUG										
25...	--	.90	.90	--	.120	--	--	.070	--	--

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE SUSPENDED (T/DAY) (80155)
NOV 1992											
18...	<10	10	310	<45	60	<0.50	<25	<5	<5	17	1.7
JAN 1993											
06...	<10	<10	1,800	<45	84	<.50	<25	<5	8	13	117
FEB											
09...	<10	<10	800	<45	43	<.50	<25	<5	<5	7	1.3
MAR											
31...	<10	<10	790	<45	59	<.50	<25	<5	30	14	2.2
MAY											
06...	<10	<10	1,000	<45	71	<.50	<25	<70	8	21	20
JUN											
16...	<10	<10	660	<45	84	<.50	<25	<5	5	21	4.8
JUL											
28...	--	--	--	--	--	--	--	--	--	8	.03
AUG											
25...	--	--	--	--	--	--	--	--	--	65	.37

POTEAU RIVER BASIN

07247015 POTEAU RIVER AT LOVING, OKLAHOMA

LOCATION.--Lat 34°52'47", long 94°29'02", in SW1/4NW1/4, sec.29, T.5 N., R.27 E., LeFlore County, Hydrologic Unit 11110105, on right downstream bank of county road bridge, 0.6 mi northwest of Loving, 1.0 mi above Loving Creek, and at mile 93.6.

DRAINAGE AREA.--269 mi^2.

PERIOD OF RECORD.--Water years 1945-61, 1975-79, December 1991 to current year.

REMARKS.--Samples were collected on a six-week schedule and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data;K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1992											
13...	1445	1028	[1]80020	11	79	7.4	19.0	8.0	8.0	0	29
NOV											
18...	1010	1028	[1]80020	12	91	7.1	12.0	6.5	6.5	0	30
DEC											
14...	1530	1028	[1]80020	326	79	6.7	--	9.3	9.3	--	--
15...	1400	1028		7,410	47	6.8	9.0	9.9	9.9	0	8
15...	1640	1028	[1]80020	8,180	38	7.0	9.0	9.4	9.4	0	11
16...	1130	1028		4.490	37	6.7	7.5	10.4	10.4	0	8
16...	1430	1028	[1]80020	4,110	40	6.9	8.0	10.4	10.4	0	7
JAN 1993											
06...	1015	1028	[1]80020	1,640	[2]43	7.0	7.5	11.8	11.8	0	9
FEB											
10...	0810	1028	[1]80020	74	78	7.4	8.5	11.0	11.0	0	20
MAR											
31...	1530	1028	[1]80020	76	83	7.4	15.5	8.0	8.0	0	18
MAY											
06...	0930	1028	[1]80020	453	61	7.1	19.5	7.6	7.6	0	13
JUN											
17...	0815	1028	[1]80020	64	68	7.3	26.0	5.4	5.4	0	14
JUL											
28...	1130	1028	80020	1.1	96	7.3	30.0	5.7	5.7	0	25
AUG											
25...	1250	1028	80020	3.2	120	7.4	30.0	5.0	5.0	0	35

[1] Trace elements and common constituents were analyzed by the Oklahoma State Department of Environmental Quality, formerly the Oklahoma State Department of Health.

[2] Specific conductance, lab (µS/cm).

07247015 POTEAU RIVER AT LOVING, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, NITRATE TOTAL (MG/l AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1992											
13...	24	<20	--	--	<0.010	<0.010	<0.050	<0.050	0.030	0.040	0.37
NOV											
18...	24	<20	--	--	.010	.010	<.050	<.050	.020	.020	.28
DEC											
14...	--	<20	0.130	0.110	.030	.030	.160	.140	.050	.040	.35
15...	7	--	.120	.130	.040	.030	--	.160	.070	.040	.53
15...	9	--	.120	.130	.040	.030	--	.160	.080	.060	.82
16...	7	--	.170	.150	.030	.030	.200	.180	.040	.040	.46
16...	6	--	.180	.190	.030	.030	.210	.220	.050	.040	.55
JAN 1993											
06...	7	<20	.140	.140	--	.020	--	.160	--	.030	.37
FEB											
10...	16	<20	.060	.060	--	.060	--	.120	-	.020	.28
MAR											
31...	15	<20	--	--	--	<.010	--	<.050	--	.020	.28
MAY											
06...	11	<20	.092	--	--	<.010	--	.092	--	.040	.26
JUN											
17...	12	<20	.240	--	--	<.010	--	.240	--	.050	.45
JUL											
28...	21	--	--	--	--	--	--	<.050	--	.040	.96
AUG											
25...	28	--	.120	--	--	--	--	.120	--	.080	.62

07247015 POTEAU RIVER AT LOVING, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01002)	CADMIUM, TOTAL RECOV-ERABLE (UG/L AS CD) (01027)
OCT 1992										
13...	--	0.40	0.40	--	--	0.100	0.050	0.040	<10	<5
NOV										
18...	--	.30	.30	--	0.050	.060	.040	.030	<10	<5
DEC										
14...	--	.40	.56	--	.100	.020	.080	.020	<10	<5
15...	--	.60	.76	-	.220	.070	.110	.070	--	--
15...	-	.90	1.1	--	.350	.080	.120	.070	--	--
16...	-	.50	.70	--	.200	.130	.110	.090	--	--
16...	--	.60	.81	--	.190	.090	.100	.080	--	--
JAN 1993										
06...	0.27	.40	.56	0.30	.090	.060	--	.030	<10	<5
FEB										
10...	.18	.30	.42	.20	.100	.070	--	.060	<10	<5
MAR										
31...	.28	.30	.30	.30	.040	.040	--	.030	<10	<5
MAY										
06...	.26	.30	.39	.30	--	.070	--	.030	<60	<5
JUN										
17...	.45	.50	.74	.50	.120	.080	--	.070	<10	<5
JUL										
28...	--	1.0	1.0	--	.110	--	--	.020	--	--
AUG										
25...	--	.70	.82	--	.150	--	--	.130	--	--

07247015 POTEAU RIVER AT LOVING, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE SUSPENDED (T/DAY) (80155)	SED/ SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1992												
13...	<10	<10	620	<45	56	<0.50	<25	<5	<5	8	0.23	--
NOV												
18...	<10	<10	640	<45	73	<.50	<25	<5	40	50	1.7	--
DEC												
14...	<10	14	1,600	<45	54	<.50	<25	<5	20	--	--	--
15...	--	--	--	--	--	--	--	--	--	240	4,800	89
15...	-	--	--	--	--	--	--	--	--	287	6,350	90
16...	--	--	--	--	--	--	--	--	--	56	743	--
16...	--	--	--	--	--	--	--	--	--	54	594	--
JAN 1993												
06...	<10	<10	1,800	<45	100	<.50	<25	<5	7	49	218	--
FEB												
10...	<10	<10	900	<45	35	<.50	<24	<5	<5	6	1.2	--
MAR												
31...	<10	<10	880	52	52	<.50	<25	<5	20	14	2.9	--
MAY												
06...	<60	<10	1,600	<45	61	<.50	<25	<70	7	17	21	--
JUN												
17...	<10	<10	1,200	<45	83	<.50	<25	<5	6	15	2.6	--
JUL												
28...	--	--	--	--	--	--	--	--	--	37	.11	--
AUG												
25...	--	--	--	--	--	--	--	--	--	16	.14	--

ARKANSAS RIVER BASIN

07247250 BLACK FORK BELOW BIG CREEK NEAR PAGE, OKLAHOMA

LOCATION.--Lat 34°52'46", long 94°30'40", in NE1/4SW1/4, sec.31, T.4 N., R.27 E., LeFlore County, Hydrologic Unit 11110105, on downstream side of bridge pier of county road bridge, 2.2 mi above Haw Creek, 5.0 mi north of Page, and at mile 24.6.

DRAINAGE AREA.--74.4 mi^2.

PERIOD OF RECORD.--December 1991 to current year.

REMARKS.--Samples were collected on a six-week schedule and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1992											
15...	0915	1028	[1]80020	11	38	7.1	19.5	7.5	83	0	13
NOV											
18...	1130	1028	[1]80020	20	[2]36	7.0	13.5	9.5	92	0	10
DEC											
14...	1400	1028	[1]80020	829	37	6.6	12.0	9.4	90	--	--
14...	2130	1028	[1]80020	2,810	[2]27	6.1	11.0	10.4	97	0	5
15...	0700	1028	[1]80020	12,900	[2]21	6.3	9.5	10.0	91	0	4
15...	1630	1028	[1]80020	5,540	21	6.3	9.0	10.9	98	0	3
16...	0900	1028	[1]80020	1,390	22	6.5	8.0	11.1	96	0	5
JAN 1993											
06...	1230	1028	[1]80020	619	23	6.8	8.0	11.2	96	0	6
FEB											
10...	0930	1028	[1]80020	52	35	7.1	9.5	9.6	86	0	8
APR											
01...	0900	1028	[1]80020	82	28	7.1	12.0	7.0	66	0	4
MAY											
04...	1625	1028	[1]80020	640	28	7.0	17.5	10.5	112	0	4
JUN											
17...	0940	1028	[1]80020	20	36	7.3	26.5	6.0	75	0	10
JUL											
28...	1245	1028	80020	0.24	57	7.3	33.0	6.5	92	0	17
AUG											
25...	1430	1028	80020	1.2	58	7.3	31.5	7.4	103	0	17

[1] Trace elements and common constituents were analyzed by the Oklahoma State Department of Environmental Quality, formerly the Oklahoma State Department of Health.

[2] Specific conductance, lab (µS/cm).

07247250 BLACK FORK BELOW BIG CREEK NEAR PAGE, OKLAHOMA—CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1992											
15...	11	<20	0.058	--	<0.010	<0.010	0.058	0.063	0.050	0.040	0.25
NOV											
18...	8	<20	.044	0.033	.020	.020	.064	.053	.020	.010	.18
DEC											
14...	--	<20	.210	.220	.030	.020	--	.240	--	.090	.41
14...	3	--	.090	.080	.020	.020	.110	.100	.040	.030	.36
15...	3	--	.080	.080	.030	.020	.110	.100	.040	.030	.66
15...	3	--	.090	.080	.020	.030	.110	.110	.030	.030	.17
16...	4	--	.130	.120	.010	.020	.140	.140	.020	.020	--
JAN 1993											
06...	5	<20	.100	.100	--	.020	--	.120	--	.010	--
FEB											
10...	7	<20	.080	.080	--	.060	--	.140	--	.030	--
APR											
01...	3	<20	--	--	--	<.010	--	<.050	--	.030	.27
MAY											
04...	3	<20	.050	--	--	<.010	--	.050	--	.040	.56
JUN											
17...	8	<20	--	--	--	<.010	--	<.050	--	.020	.18
JUL											
28...	14	--	--	--	--	--	--	<.050	--	.040	.46
AUG											
25...	14	--	--	--	-	--	--	<.050	--	.080	.42

07247250 BLACK FORK BELOW BIG CREEK NEAR PAGE, OKLAHOMA–CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC, DISSOLVED (UG/L AS AS) (01002)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 1992											
15...	--	0.30	0.36	--	0.020	0.030	<0.010	<0.010	<10	<5	<10
NOV											
18...	--	.20	.26	--	--	.020	.020	.010	<10	<5	<10
DEC											
14...	--	.50	.74	--	--	.080	--	.060	<10	<5	<10
14...	--	.40	.51	--	.050	.020	.020	.020	--	--	--
15...	--	.70	.81	--	.070	.020	.040	.010	--	--	--
15...	--	.20	.31	--	.030	.030	.020	.020	--	--	--
16...	--	<.20	--	--	.020	.010	<.010	<.010	--	--	--
JAN 1993											
06...	--	<.20	--	<0.20	<.010	<.010	--	<.010	<10	<5	<10
FEB											
10...	--	<.20	--	<.20	.010	.010	--	.010	<10	<5	<10
APR											
01...	0.27	.30	.30	.30	--	.020	--	.010	<10	<5	<10
MAY											
04...	.56	.60	.65	.60	.020	.040	--	<.010	<60	<5	<10
JUN											
17...	--	.20	.20	<.20	.030	.020	--	.010	<10	<5	<10
JUL											
28...	--	.50	.50	--	.040	--	--	.010	--	--	--
AUG											
25...	--	.50	.50	--	.060	--	--	.020	--	--	--

07247250 BLACK FORK BELOW BIG CREEK NEAR PAGE, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE SUS-PENDED (T/DAY) (80155)	SED/ SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1992											
15...	<10	420	<45	21	<0.50	<25	<5	<5	4	0.12	--
NOV											
18...	<10	510	<45	14	<.50	<25	<5	<5	13	.72	--
DEC											
14...	<10	1,100	<45	180	<.50	<25	<5	90	11	25	--
14...	--	--	--	--	--	--	--	--	42	319	--
15...	--	--	--	--	--	--	-	--	146	5,100	78
15...	--	--	--	--	--	--	--	--	38	568	--
16...	--	--	--	--	--	--	--	--	7	26	--
JAN 1993											
06...	<10	510	<45	14	<.50	<25	<5	6	9	15	--
FEB											
10...	<10	2,000	<45	68	<.50	<25	<5	<5	4	.56	--
APR											
01...	<10	350	<45	14	<.50	<25	<5	20	9	2.0	--
MAY											
04...	<10	670	<45	15	<.50	<25	<70	90	11	19	--
JUN											
17...	<10	330	<45	24	<.50	<25	<5	9	3	.16	--
JUL											
28...	--	--	--	--	--	--	--	--	4	.00	--
AUG											
25...	--	--	--	--	--	--	--	--	11	.03	--

ARKANSAS RIVER BASIN

07247345 BLACK FORK AT HODGEN, OKLAHOMA

LOCATION.--Lat 34°50'35", long 94°37'28", in SE1/4 SE1/4, sec. 01, T.4 N., R.25E., LeFlore County, Hydrologic Unit 11110105, at county road bridge .4 mi east of Hodgen, Oklahoma.

DRAINAGE AREA.--179 mi^2.

PERIOD OF RECORD.--December 1991 to current year.

REMARKS.--Samples were collected periodically, and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1992											
14...	1525	1028	[1]80020	19	48	7.2	19.5	8.3	92	0	13
NOV											
17...	1530	1028	[1]80020	34	52	7.3	13.5	9.2	89	0	15
JAN 1993											
06...	1430	1028	[1]80020	1,010	27	6.9	8.0	11.2	95	0	5
FEB											
10...	1045	1028	[1]80020	69	41	7.3	10.0	11.6	103	0	11
MAR											
30...	1145	1028	[1]80020	145	37	7.2	19.0	8.9	98	0	10
APR											
14...	1800	1028	[1]80020	1,690	50	6.7	16.5	8.3	88	0	12
14...	1900	1028	80020	1,550	56	6.7	16.0	8.1	84	0	9
15...	0950	1028	80020	5,860	32	6.6	13.0	9.6	94	0	8
15...	1400	1028	80020	4,180	32	6.6	12.5	9.9	94	0	5
15...	1530	1028	80020	3,860	22	6.6	12.0	10.1	95	0	6
MAY											
04...	1100	1028	[1]80020	1,420	30	6.8	18.0	10.0	107	0	7
JUN											
15...	1330	1028	[1]80020	[2]36	42	7.3	28.5	6.5	85	0	9
JUL											
27...	1430	1028	80020	0.16	59	7.3	34.0	4.9	71	0	16
AUG											
26...	1245	1028	80020	4.3	48	7.2	30.0	7.2	96	0	13

[1] Trace elements and common constituents were analyzed by the Oklahoma State Department of Environmental Quality, formerly the Oklahoma State Department of Health.

[2] Estimated instantaneous discharge in cubic feet per second.

07247345 BLACK FORK AT HODGEN, OKLAHOMA–CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1992											
14...	11	<20	--	--	<0.010	<0.010	<0.050	<0.050	0.010	0.020	--
NOV											
17...	12	<20	0.049	--	.020	.020	.069	<.050	.020	.020	0.18
JAN 1993											
06...	4	<20	.110	0.110	--	.020	--	.130	--	.020	--
FEB											
10...	9	<20	.040	.040	--	.060	--	.100	--	.020	--
MAR											
30...	8	<20	--	--	--	<.010	--	<.050	--	.040	.26
APR											
14...	10	<20	.110	--	--	<.010	--	.110	--	.030	.47
14...	7	--	.050	.050	--	.020	--	.070	--	.040	.66
15	6	--	.070	--	--	<.010	--	.070	--	.020	.78
15...	4	--	.069	--	--	<.010	--	.069	--	.020	.48
15...	5	--	.068	--	--	<.010	--	.068	--	.010	.39
MAY											
04...	5	<20	--	--	--	<.010	--	<.050	--	.030	.37
JUN											
15...	7	<20	--	--	--	<.010	--	<.050	--	.020	.28
JUL											
27...	13	--	--	--	--	--	--	<.050	--	.080	.42
AUG											
26...	11	--	--	--	--	--	--	<.050	--	.080	.42

07247345 BLACK FORK AT HODGEN, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC, DISSOLVED (UG/L AS AS) (01002)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 1992											
14...	--	<0.20	--	--	--	0.040	<0.010	<0.010	<10	<5	<10
NOV											
17...	--	.20	0.27	--	--	.020	.010	.010	<10	<5	<10
JAN 1993											
06...	--	<.20	--	<0.20	0.030	.030	--	<.010	<10	<5	<10
FEB											
10...	--	<.20	--	<.20	--	.020	--	<.010	<10	<5	<10
MAR											
30...	0.26	.30	.30	.30	--	.030	--	<.010	<10	<5	<10
APR											
14...	--	.50	.61	<.20	.090	.030	--	.020	<10	<5	19
14...	.36	.70	.77	.40	.130	.070	--	.030	--	--	--
15	.18	.80	.87	.20	.120	.020	--	.010	--	--	--
15...	--	.50	.57	<.20	.080	.030	--	.030	--	--	--
15...	--	.40	.47	<.20	.070	.020	--	.010	--	-	--
MAY											
04...	.17	.40	.40	.20	.030	.030	--	<.010	<60	<5	<10
JUN											
15...	--	.30	.30	<.20	.020	.010	--	.010	<10	<5	<10
JUL											
27...	--	.50	.50	--	.040	--	--	.020	--	--	--
AUG											
26...	--	.50	.50	--	.050	--	--	.030	--	--	--

07247345 BLACK FORK AT HODGEN, OKLAHOMA–CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE SUS-PENDED (T/DAY) (80155)	SED/ SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1992											
14...	<10	640	<45	33	<0.50	<25	<5	<5	5	0.26	--
NOV											
17...	<10	480	<45	23	<.50	<25	<5	<5	14	1.3	--
JAN 1993											
06...	<10	1,100	130	21	<.50	<25	<5	<5	10	27	--
FEB											
10...	<10	590	<45	22	<.50	<25	<5	<5	206	39	--
MAR											
30...	<10	380	<45	18	<.50	<25	<5	20	8	3.1	--
APR											
14...	<10	2,000	<45	98	<.50	<25	<5	7	65	296	77
14...	--	--	--	--	--	--	--	--	101	423	78
15	--	--	--	--	--	--	--	--	83	1,310	73
15...	--	--	--	--	--	--	--	--	57	644	79
15...	--	--	--	--	--	--	--	--	42	437	80
MAY											
04...	<10	940	<45	27	<.50	<25	<70	5	26	100	--
JUN											
15...	<10	390	<45	37	<.50	<25	<5	7	6	--	--
JUL											
27...	--	--	--	--	--	--	--	--	4	.00	--
AUG											
26...	--	--	--	--	--	--	--	--	6	.07	--

ARKANSAS RIVER BASIN

07247650 FOURCHE MALINE NEAR LEFLORE, OKLAHOMA

LOCATION.--Lat 34°55'11", long 94°56'43", in NE1/4SE1/4, sec.11, T.5 N., R.22 E., LeFlore County, Hydrologic Unit 11110105, at county road bridge 1.6 mi east of LeFlore, Oklahoma.

DRAINAGE AREA.--270 mi^2.

PERIOD OF RECORD.--December 1991 to current year.

REMARKS.--Samples were collected periodically, and specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1992											
14...	1200	1028	[1]80020	11	108	7.2	18.0	6.6	71	0	33
NOV											
17...	1330	1028	[1]80020	24	182	7.4	12.5	8.2	78	0	57
JAN 1993											
05...	1430	1028	[1]80020	900	[2]80	7.3	7.5	12.0	101	0	15
FEB											
08...	1315	1028	[1]80020	[3]150	139	7.4	10.5	10.0	91	0	25
APR											
01...	1100	1028	[1]80020	244	116	7.5	12.5	7.2	68	0	27
MAY											
04...	0900	1028	[1]80020	747	74	7.4	17.5	8.2	87	0	19
JUN											
15...	0915	1028	[1]80020	177	78	7.2	25.0	5.0	61	0	15
JUL											
27...	1030	1028	[1]80020	0.64	141	7.5	27.5	3.8	49	0	39
AUG											
26...	1000	1028	[1]80020	1.3	106	7.3	27.0	3.6	46	0	40

[1] Trace elements and common constituents were analyzed by the Oklahoma State Department of Environmental Quality, formerly the Oklahoma State Department of Health.

[2] Specific conductance, lab (µS/cm).

[3] Estimated instantaneous discharge in cubic feet per second.

07247650 FOURCHE MALINE NEAR LEFLORE, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1992											
14...	27	<20	0.050	--	<0.010	<0.010	0.050	0.062	0.040	0.030	0.36
NOV											
17...	47	<20	--	--	.020	.020	<.050	<.050	.020	.020	.48
JAN 1993											
05...	12	<20	.070	0.070	--	.030	--	.100	--	.040	.46
FEB											
08...	20	<20	.080	.080	--	.060	--	.140	--	.040	--
APR											
01...	22	43	.078	--	--	<.010	--	.078	--	.020	.28
MAY											
04...	16	<20	.087	--	--	<.010	--	.087	--	.040	.36
JUN											
15...	13	<20	.160	--	--	<.010	--	.160	--	.060	.54
JUL											
27...	32	--	--	--	--	--	--	<.050	--	.080	.62
AUG											
26...	33	--	--	--	--	--	--	<.050	--	.130	.47

07247650 FOURCHE MALINE NEAR LEFLORE, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC, DISSOLVED (UG/L AS AS) (01002)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 1992											
14...	--	0.40	0.45	--	0.050	0.030	0.020	0.010	<10	<5	<10
NOV											
17...	--	.50	.50	--	--	.050	.020	.020	<10	<5	<10
JAN 1993											
05...	0.36	.50	.60	0.40	.070	.060	--	.010	<10	<5	<10
FEB											
08...	.46	--	--	.50	--	.110	--	<.010	<10	<5	<10
APR											
01...	.28	.30	.38	.30	.040	.040	--	<.010	<10	<5	<10
MAY											
04...	.36	.40	.49	.40	.050	.060	--	<.010	<60	<5	<10
JUN											
15...	.44	.60	.76	.50	.090	.060	--	.020	<10	<5	<10
JUL											
27...	--	.70	.70	--	.030	--	--	.030	--	--	--
AUG											
26...	--	.60	.60	--	.050	--	--	.020	--	--	--

07247650 FOURCHE MALINE NEAR LEFLORE, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE SUS-PENDED (T/DAY) (80155)
OCT 1992										
14...	<10	2,100	<45	97	<0.50	<25	<5	<5	13	0.38
NOV										
17...	<10	1,100	<45	53	<.50	<25	<5	<5	29	1.9
JAN 1993										
05...	<10	2,900	<45	100	<.50	<25	<5	8	57	139
FEB										
08...	<10	350	<45	11	<.50	<25	<5	<5	14	--
APR										
01...	<10	1,800	<45	91	<.50	<25	<5	9	25	17
MAY										
04...	<10	3,000	<45	130	<.50	<25	<70	8	73	144
JUN										
15...	<10	100	<45	120	--	<25	<5	7	28	13
JUL										
27...	--	--	--	--	--	--	--	--	21	.04
AUG										
26...	--	--	--	--	--	--	--	--	52	.18

ARKANSAS RIVER BASIN

07247800 HOLSON CREEK AT SUMMERFIELD, OKLAHOMA

LOCATION.--Lat 34°52'46", long 94°51'11", in SW1/4NW1/4, sec. 26, T.5 N., R.23 E., LeFlore County, Hydrologic Unit 11110105, at county road bridge, 1.4 mi east of Summerfield, Oklahoma.

DRAINAGE AREA.--71.6 mi^2.

PERIOD OF RECORD.--December 1991 to current year.

REMARKS.--Samples were collected periodically. Specific conductance, pH, water temperature, alkalinity, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[Five-digit numbers in parentheses are STORET parameter codes used for computer storage of data; K, ;non-ideal count; US/CM, microsiemens per centimeter at 25 degrees Celsius; NTU, nephelometric turbidity units; MG/L, milligrams per liter; MM, millimeters; UM-MF, micrometer membrane filter; AC-FT, acre-feet, UG/L, micrograms per liter; T/DAY, tons per day; --, no data available]

DATE	TIME	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1992											
14...	1340	1028	[1]80020	5.5	49	7.3	19.5	7.6	85	0	15
NOV											
18...	1450	1028	[1]80020	10	51	7.2	15.0	8.9	89	0	11
JAN 1993											
07...	0900	1028	[1]80020	136	38	6.9	8.0	11.0	93	0	6
FEB											
10...	1015	1028	[1]80020	17	42	7.3	9.0	10.2	89	0	10
MAR											
30...	1500	1028	[1]80020	16	44	7.1	1.0	9.4	68	0	9
MAY											
03...	1515	1028	[1]80020	177	42	7.0	16.0	8.0	84	0	12
JUN											
15...	1015	1028	[1]80020	10	53	7.4	27.0	7.2	91	0	12
JUL											
27...	1130	1028	80020	0.03	71	7.6	32.0	6.5	90	0	17
AUG											
26...	1130	1028	80020	1.2	64	7.3	29.5	6.8	90	0	18

[1] Trace elements and common constituents were analyzed by the Oklahoma State Department of Environmental Quality, formerly the Oklahoma State Department of Health.

07247800 HOLSON CREEK AT SUMMERFIELD, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1992										
14...	12	<20	--	<0.010	<0.010	<0.050	<0.050	0.020	0.020	--
NOV										
18...	9	<20	--	.020	<.010	<.050	<.050	.030	.020	-
JAN 1993										
07...	4	<20	--	--	.020	--	<.050	--	.020	--
FEB										
10...	8	<20	--	--	.040	--	<.050	--	.030	--
MAR										
30...	7	<20	--	--	<.010	--	<.050	--	.020	0.18
MAY										
03...	10	<20	--	--	<.010	--	<.050	--	.030	--
JUN										
15...	10	<20	--	--	<.010	--	<.050	--	.030	.27
JUL										
27...	14	--	0.078	--	--	--	.078	--	.070	.43
AUG										
26...	15	--	--	--	--	--	<.050	--	.070	.23

07247800 HOLSON CREEK AT SUMMERFIELD, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC, DISSOLVED (UG/L AS AS) (01002)	CADMIUM, TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 1992											
14...	--	<0.20	--	--	0.020	0.020	<0.010	0.010	<10	<5	<10
NOV											
18...	--	<.20	--	--	--	.050	<.010	.020	<10	<5	<10
JAN 1993											
07...	--	<.20	--	<0.20	.020	<.010	--	.010	<10	<5	<10
FEB											
10...	--	<.20	--	<.20	.020	.020	--	<.010	<10	<5	<10
MAR											
30...	0.18	.20	0.20	.20	--	.030	--	<.010	<10	<5	<10
MAY											
03...	.27	--	--	.30	.020	.020	--	<.010	<60	<5	<10
JUN											
15...	.17	.30	.30	.20	.020	.010	--	.020	<10	<5	<10
JUL											
27...	--	.50	.58	--	.030	--	--	.010	--	--	--
AUG											
26...	--	.30	.30	--	<.010	--	--	<.010	--	--	--

07247800 HOLSON CREEK AT SUMMERFIELD, OKLAHOMA--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY, TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE SUS-PENDED (T/DAY) (80155)
OCT 1992										
14...	<10	580	<45	20	<0.50	<25	<5	<5	9	0.13
NOV										
18...	<10	790	<45	21	<.50	<25	<5	7	12	.33
JAN 1993										
07...	<10	950	<45	17	<.50	<25	<5	<5	10	3.7
FEB										
10...	<10	730	<45	12	<.50	<25	<5	<5	3	.14
MAR										
30...	<10	410	<45	22	<.50	<25	--	30	4	.18
MAY										
03...	<10	1,500	<45	21	<.50	<25	<70	<5	7	3.3
JUN										
15...	15	370	<45	35	<.50	<25	<5	9	6	.17
JUL										
27...	--	--	--	--	--	--	--	--	5	.00
AUG										
26...	--	--	--	--	--	--	--	--	18	.06

07249400 JAMES FORK NEAR HACKETT, ARKANSAS

LOCATION.--Lat 35°09'45", long 94°04'25", 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 south of Hackett, 2.0 mi downstream from Elder Branch, 2.0 mi upstream from small tributary, and 3.6 mi upstream from Arkansas-Oklahoma State line.

DRAINAGE AREA.--147 mi^2.

AVERAGE DISCHARGE.--35 years, 142 ft^3/s.

EXTREMES.--April 1958 to current year: Maximum discharge, 30,000 ft^3/s May 14, 1968; no flow at times.

REMARKS.--Records good.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	548.3	31	9.5	17.7	1,090
November	5,259	2,490	27	175	10,430
December	12,896	4,750	62	416	25,580
January	16,152	3,680	85	521	32,040
February	8,049	1,660	61	287	15,970
March	4,662	471	56	150	9,250
April	12,636	2,500	42	421	25,060
May	13,440	5,330	39	434	26,660
June	1,275	296	19	42.5	2,530
July	392.1	19	7.8	12.6	778
August	103.93	7.5	.83	3.35	206
September	218.6	51	1.8	7.29	434
Water year 1993	75,632	5,330	.83	207	150,000

07249985 LEE CREEK NEAR SHORT, OKLAHOMA

(Formerly published as 07250000 Lee Creek near Van Buren, Arkansas)

LOCATION.--Lat 35°29'40", long 94°26'58", in SE1/4, sec.21, T.12 N., R.27 E., Indian Meridian, Sequoyah County, Okla., on right bank 300 ft west of Arkansas-Oklahoma State line, 3.2 mi downstream from Webbers Creek, 6.8 mi no^2.

AVERAGE DISCHARGE.--49 years (1930-36, 1950-93), 527 ft^3/s.

EXTREMES.--September 1930 to June 1937, October 1950 to current year: Maximum discharge, 80,600 ft^3/s May 6, 1960; no flow at times.

REMARKS.--Records good. Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	799	56	15	25.8	1,580
November	23,330	8,720	42	778	46,280
December	50,837	15,900	170	1,640	100,800
January	35,876	4,500	397	1,157	71,160
February	28,141	3,970	212	1,005	55,820
March	31,718	2,730	301	1,023	62,910
April	63,016	12,600	508	2,101	125,000
May	41,028	11,000	248	1,323	81,380
June	29,515	3,300	132	984	58,540
July	3,680	638	10	119	7,300
August	220.59	23	.24	7.12	438
September	5,586	1,060	12	186	11,080
Water year 1993	313,747	15,900	.24	860	622,300

07250550 ARKANSAS RIVER AT JAMES W. TRIMBLE LOCK AND DAM NEAR VAN BUREN, ARKANSAS

LOCATION.--Lat 35°20'56", long 94°17'54", in sec.28, T.8 N., R.31 W., Sebastian County, in James W. Trimble Lock and Dam control house on right bank, and at mile 308.9.

DRAINAGE AREA.--150,547 mi^2, of which 22,241 mi^2 is probably noncontributing.

AVERAGE DISCHARGE.--66 years, 33,580 ft^3/s.

EXTREMES.--October 1927 to current year: Maximum discharge, 850,000 ft^3/s May 12, 1943; no flow Nov. 2, 1975, Feb. 1, 1981, Oct. 17, 1987, Dec. 9, 1989.

REMARKS.--Records good. Prior to October 1969, published as 07250500 Arkansas River at Van Buren. Beginning Apr. 26, 1970, daily discharge computed from relation between discharge, head, and gate openings. Flow regulated by many locks, dams, and reservoirs upstream. Satellite telemeter at station.

Monthly and yearly discharge

Month	Total (ft^3/s)	Maximum daily (ft^3/s)	Minimum daily (ft^3/s)	Mean (ft^3/s)	Runoff (acre-feet)
October	243,348	33,600	720	7,850	482,700
November	1,877,600	129,000	6,160	62,590	3,724,000
December	4,331,500	207,000	76,700	139,700	8,592,000
January	3,482,300	165,000	73,400	112,300	6,907,000
February	2,454,100	139,000	61,100	87,650	4,868,000
March	2,574,200	128,000	48,200	83,040	5,106,000
April	2,916,100	153,000	58,300	97,200	5,784,000
May	5,525,600	265,000	80,700	178,200	10,960,000
June	3,852,800	152,000	69,800	128,400	7,642,000
July	1,994,400	94,800	59,200	64,340	3,956,000
August	1,177,700	61,000	23,100	37,990	2,336,000
September	1,571,000	113,000	13,500	52,370	3,116,000
Water year 1993	31,999,648	265,000	720	87,670	63,470,000

☆ U.S. GOVERNMENT PRINTING OFFICE: 1994—755-177/80049