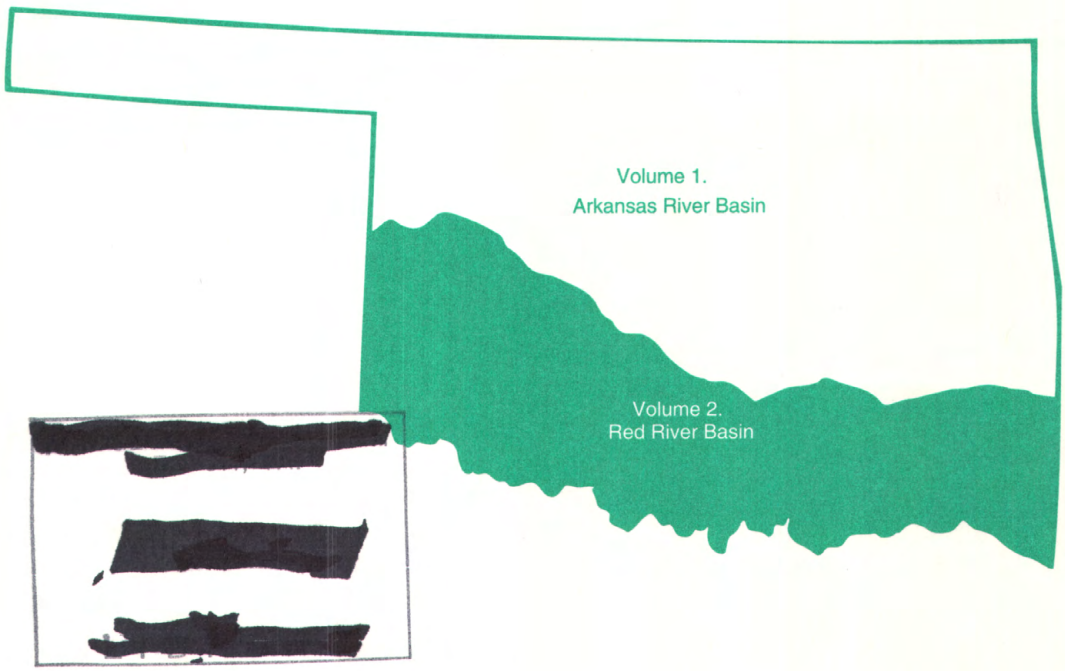
Water Resources Data Oklahoma Water Year 1995

Volume 2. Red River Basin and ground water wells



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OK-95-2
Prepared in cooperation with the State of Oklahoma and with other agencies

CALENDAR FOR WATER YEAR 1995

1994

OCTOBER

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1995

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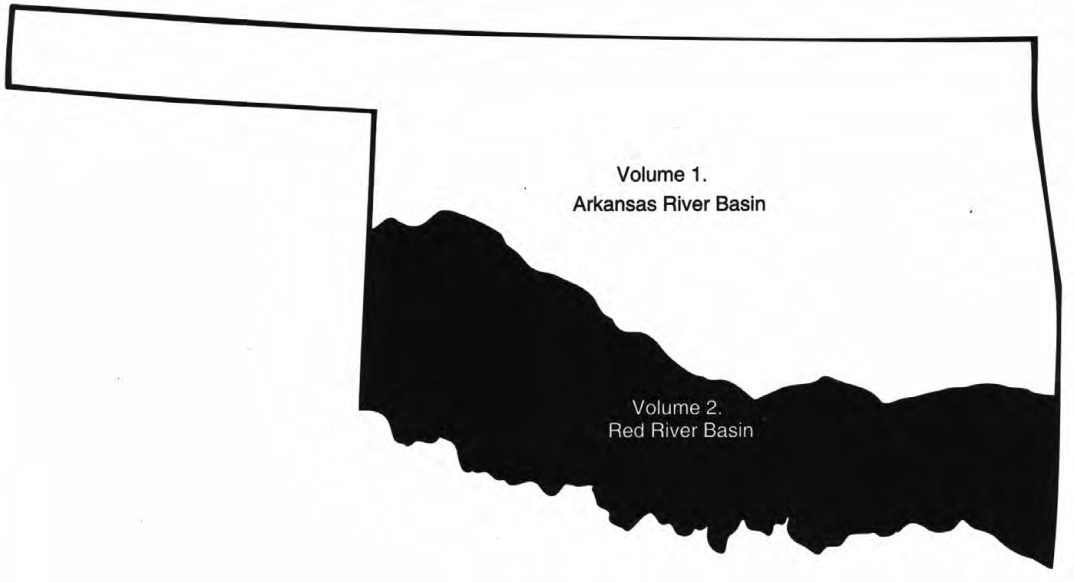
Water Resources Data Oklahoma Water Year 1995

Volume 2. Red River Basin and ground water wells

by R.L. Blazs, D.M. Walters, T.E. Coffey, D.K. White, D.L. Boyle, and J.F. Kerestes



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OK-95-2
Prepared in cooperation with the State of Oklahoma and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, ***Secretary***

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

For information on the water program in Oklahoma write to
District Chief, Water Resources Division
U.S. Geological Survey
202 N.W. 66 St., Building 7
Oklahoma City, Oklahoma 73116

1996

PREFACE

This hydrologic-data report for Oklahoma is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface-water and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

The data were collected, computed, and processed by the following personnel:

D.L. Adams	R.D. Gist	J.K. Kurklin	E.W. Smith
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C.R. Bullock	R.E. Johnson	M.L. Phillips	D.M. Walters
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T.E. Coffey	J.F. Kerestes	M.L. Schneider	

L.A. Alf typed the text of the report.

This report was prepared in cooperation with the State of Oklahoma and with other agencies under the general supervision of Robert L. Blazs, Hydrologic Records Section Chief, and Kathy D. Peter, District Chief.

Data for Oklahoma are in three volumes as follows:
Volume 1. Arkansas River Basin
Volume 2. Red River Basin and Ground-Water Records

REPORT DOCUMENTATION PAGE

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13. ABSTRACT *(Maximum 200 words)*

Volumes 1 and 2 of the water resources data for the 1995 water year for Oklahoma consists of record of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes or reservoirs; and water levels of ground-water wells. This report contains discharge records for 114 gaging stations; stage and contents for 9 lakes or reservoirs and 2 gage height stations; water quality for 47 gaging stations; 17 partial-record or miscellaneous streamflow stations and 28 ground-water sites. Also included are lists of discontinued surface-water discharge and water-quality sites. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Oklahoma.

14. SUBJECT TERMS
*Oklahoma, *Hydrologic data, *Surface water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperature, Sampling sites, Water analyses, Ground water, Gage height

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UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UL

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ILLUSTRATIONS

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

[Letters after station names designate type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature, (e) elevation, gage heights, or contents]

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

[Letters after station names designate type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature, (e) elevation, gage heights, or contents]

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

[Letters after station names designate type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature, (e) elevation, gage heights, or contents]

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (gaging stations) in Oklahoma have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station. Discontinued project stations with less than 2 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Sandy Creek near Eldorado, OK	07299710	280	1960-63
Turkey Creek at Olustee, OK	07301100	317	1960-63
North Fork Red River near Sayre, OK	07301481	2,159	1978-87
North Fork Red River near Granite, OK	07302000	2,494	1904-08, 1938-44
Elm Fork of North Fork Red River near Reed, OK	07303420	579	1965-67
Elk Creek near Hobart, OK	07304500	549	1904-08, 1950-93
Elm Fork of North Fork Red River near Mangum, OK	07303500	838	1905-08, 1930-31, 1938-47, 1965-67, 1968-76
Otter Creek at Mountain Park, OK	07306500	164	1946-51
East Cache Creek near Elgin, OK	07309000	248	1956-58
Little Medicine Bluff Creek near Lawton, OK	07310000	7.00	1913-19
Medicine Bluff Creek near Lawton, OK	07310500	101	1913-19
Little Beaver Creek near Duncan, OK	07313000	158	1949-64
Beaver Creek near Waurika, OK	07313500	563	1953-93
Cow Creek at Waurika, OK	07313600	193	1966-70
Walnut Bayou near Burneyville, OK	07315900	314	1961-63, 1969-71
Sandstone Creek subwater shed 16A near Cheyenne, OK	07317500	8.78	1952-71
Sandstone Creek subwater shed 16 near Cheyenne, OK	07318000	20.3	1953-69
Sandstone Creek subwater shed 14 near Cheyenne, OK	07318500	1.02	1953-70
Sandstone Creek subwater shed 17 near Cheyenne, OK	07319000	10.1	1953-70
Sandstone Creek near Berlin, OK	07319500	44.9	1953-72
Sandstone Creek subwater shed 10A near Elk City, OK	07320000	2.87	1952-70
Sandstone Creek subwater shed 6 near Elk City, OK	07320500	6.46	1953-70
Sandstone Creek subwater shed 5 near Elk City, OK	07321000	3.89	1953-70

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Sandstone Creek subwater shed 3 near Elk City, OK	07321500	0.62	1953-70
Sandstone Creek subwater shed 9 near Elk City, OK	07322000	3.50	1952-70
East Branch Sandstone Creek near Elk City, OK	07322500	23.0	1951-72
Sandstone Creek near Cheyenne, OK	07323000	87.1	1952-74
Sandstone Creek subwater shed 1 near Cheyenne, OK	07324000	5.33	1952-70
Barnitz Creek near Arapaho, OK	07324500	243	1946-63
Lake Creek near Eakly, OK	07325850	52.0	1970-78
Willow Creek near Albert, OK	07325860	28.0	1971-78
Sugar Creek near Gracemont, OK	07327000	208	1956-74
Spring Creek near Gracemont	07327050	34.4	1991-94
Chetonia Creek Tributary below Cyril, OK	07327445	3.35	1990-91
Little Washita River near Ninnekah, OK	07327490	208	1964-85
Little Washita River at Ninnekah, OK	07327500	227	1952-63
Washita River near Tabler, OK	07328000	4,706	1940-52
Winter Creek near Alex, OK	07328070	33.0	1965-87
Washington Creek near Pauls Valley	07328550	7.56	1991-94
Rush Creek at Purdy	07329000	145	1940-54 1982-94
Rush Creek near Maysville, OK	07329500	206	1955-76
Wildhorse Creek near Hoover, OK	07329700	604	1970-93
Antelope Spring at Sulphur, OK	07329849	0	1986-89
Outflow from Vendome Well at Sulphur, OK	07329851	0	1986-89
Rock Creek at Dougherty, OK	07329900	138	1957-67
Washita River near Berwyn, OK	07330000	6,815	1924-26
Caddo Creek near Ardmore, OK	07330500	298	1937-50
Mill Creek near Ravia, OK	07331250	89.2	1969-71
Red River at Denison Dam near Denison, TX	07331600	39,720	1959-89
Red River near Colbert, OK	07332000	39,777	1924-59
Blue River near Connerville, OK	07332390	162	1977-79
Blue River at Milburn, OK	07332400	203	1966-87
Coal Creek near Lehigh, OK	07332900	8.10	1978-81
Muddy Boggy Creek at Atoka, OK	07332950	445	1979-81
North Boggy Creek near Stringtown, OK	07333000	136	1956-59

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Chickasaw Creek near Stringtown, OK	07333500	32.7	1956-68
McGee Creek near Stringtown, OK	07333800	86.6	1956-68
McGee Creek near Farris, OK	07333910	176	1978-82
Clear Boggy Creek near Wapanucka, OK	07334500	516	1940-43
Clear Boggy Creek near Caney, OK	07335000	720	1943-89
Tenmile Creek near Miller, OK	07336000	68	1956-70
Kiamichi River near Belzoni, OK	07336500	1,423	1926-72
Little River near Wright City, OK	07337500	645	1930-31, 1945-89
Little River near Idabel, OK	07338000	1,173	1930-46

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations are discontinued surface-water-quality discontinued stations. Stations with one year's record or less are not included. information regarding these stations may be obtained from the District Office at address given on back of title page of this report.

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Prairie Dog Town Fork Red River near Lakeview, TX	07299495	6,794	1987-88
Prairie Dog Town Fork Red River at Estelline, TX	07299505	7,293	1987-88
Jonah Creek near Newlin, TX	07299510	46.3	1987-88
Jonah Creek near Estelline, TX	07299512	57.1	1987-88
Prairie Dog Town Fork Red River near Childress, TX	07299540	7,725	1987-88
Salt Creek near Childress, TX	07299542	113	1987-88
Buck Creek at Loco, TX	07299545	175	1987-88
Buck Creek near Loco, TX	07299548	205	1987-88
Buck Creek near Childress, TX	07299550	222	1987-88
Red River near Hollis, OK	07299565	8,154	1986-88
Red River near Quanah, TX	07299570	8,321	1986-88
Groesbeck Creek near Quanah, TX	07299580	322	1986-88
Bitter Creek near Hollis, OK	07299705	10.4	1986-88
Sandy Creek near Gould, OK	07299707	169	1987-88
Sandy Creek near Louis, OK	072997087	224	1987-88
Tributary to Sandy Creek near Lincoln, OK	07299709	6.32	1987-88
Sandy Creek at Lincoln, OK	072997092		1986-88
Sandy Creek near Lincoln, OK	072997095	255	1987-88
Sandy Creek near Eldorado, OK	07299710	280	1986-88
Sandy Creek at Eldorado, OK	07299712	297	1987-88
Sandy Creek South of Eldorado, OK, formerly published as Sandy Creek in Eldorado Township, OK	07299714	312	1987-88
Sandy Creek Southeast of Eldorado, OK, formerly published as Sandy Creek near OKlahoma-Texas State-line	07299716	320	1986-88
Wanderers Creek near Odell, TX	07299732	156	1986, 1988
Gypsum Creek North of Eldorado, OK, formerly published as Tributary to Gypsum Creek near Jackson Co Line, OK	07299760	2.12	1986-88
Gypsum Creek near Duke, OK	07299764	14	1986-88
Tributary to Gypsum Creek near Eldorado, OK	07299766	4.53	1986-88
Gypsum Creek near Prairie Hill, OK	07299768	28.1	1987-88

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Gypsum Creek at Creta, OK	07299770	34.6	1987-88
Gypsum Creek near Creta, OK	07299775	56.1	1987-88
Gypsum Creek near Olustee, OK	07299780	99.2	1986-88
Salt Fork Red River near Wellington, TX	07300000	1,222	1987-88
Panther Creek near Wellington, TX	07300005	4.61	1987-88
Salt Fork Red River near Dodson, TX	07300120	1,297	1987-88
Tributary to Salt Fork Red River near Madge, OK	07300140	4.79	1986-88
Salt Fork Red River near Madge, OK	07300145	1,388	1986-88
Bear Creek near Vinson, OK	07300150	7.24	1987-88
Salt Fork Red River near Vinson, OK	07300400	14.21	1959-63, 1976-78, 1987-88
Cave Creek near Reed, OK	07300470	46.7	1986-88
Mulberry Creek near Mangum, OK	07300485	9.3	1986-88
Fish Creek near Mangum, OK	07300495	5.3	1987-88
Salt Fork Red River at Mangum, OK	07300500	1,566	1938-51, 1953-56, 1959-70, 1972, 1974-79, 1986-89
Bitter Creek near Altus, OK	07300600		1986-88
Turkey Creek near McQueen, OK	07300960	51.5	1987-88
Turkey Creek Near Gould, OK, formerly published asTurkey Creek at Jackson-Harmon County-line, OK	07300965	76.9	1987-88
Turkey Creek near Duke, OK	07300970	84.8	1986-88
Tributary to Turkey Creek near Duke, OK	07300975	56.5	1987-88
Turkey Creek at U.S. Highway 62 near Duke, OK	07300980	148	1986-88
Cottonwood Creek near Duke, OK	07300985	54.5	1986-88
Spring Branch at Duke, OK	07300990	14	1986-88
Turkey Creek near Prairie Hill, OK	07300995	238	1987-88
Tributary to Turkey Creek near Prairie Hill, OK	07300997	13.7	1987-88
Horse Branch near Victory, OK	07301020	25.3	1986-88
Tributary to Horse Branch Northwest of Victory, OK, (formerly published as Trib to Horse Branch in Duke Twnp near Victory, OK)	07301030	8.39	1986-88

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Tributary to Horse Branch at Victory, OK	07301040	0.23	1986, 1988
Turkey Creek near Altus, OK	07301050	309	1986-88
Turkey Creek at Olustee, OK	07301100	317	1986-88
Tributary to Salt Fork Red River near Elmer, OK	07301105		1986-88
Salt Fork Red River near Elmer,OK	07301110	1,878	1979-94
Red River near Elmer, OK	07301150	16,459	1986-88
North Fork Red River near Texola, OK	07301315	1,284	1976-77
Sweetwater Creek near Sweetwater, OK	07301420	424	1986-90
North Fork Red River near Erick, OK	07301450		1960-63
North Fork Red River near Sayre, OK	07301481	2,159	1987-90
North Fork Red River near Carter, OK	07301500	2,337	1948-53, 1959-63, 1968-80, 1985-90
North Fork Red River near Granite, OK	07302000	2,494	1938-44
Altus Canal Blw Lake Altus near Lugert, OK	07302510		1949-50
North Fork Red River Blw Altus Dam near Lugert, OK	07303000	2,515	1962-63, 1975-80, 1987-88
Elm Fork North Fork Red R at Salton Crossing, OK	07303395		1959-61, 1973-79
Fish Creek near Vinson, OK	07303402	31.5	1978-79
Salt Creek near Vinson, OK	07303404	5.64	1978-79
Elm Fork N Fork Red Rvr near Vinson, OK	07303406	428	1978-81
Elm Fork of North Fork Red River near Reed, OK	07303420	579	1978, 1981-82
Elm Fork of North Fork Red River near Mangum, OK	07303500	838	1938-47, 1951, 1960-65, 1968-80
Elk Creek near Hobart, OK	07304500	549	1949-51, 1955, 1958-63, 1969-90
North Ford Red River near Headrick, OK	07305000	4,244	1951-57, 1958-63, 1968-93

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
West Otter Creek at Snyder Lk near Mt. Park, OK	07305500	132	1947, 1960, 1988
Otter Creek near Snyder, OK	07307010	217	1959-63, 1987-89
North Fork Red River near Tipton, OK	07307028	4,691	1960, 1985-89
East Cache Creek near Elgin, OK	07309000	248	1975-80
East Cache Creek near Walters, OK	07311000	675	1947, 48, 1951-55, 1958-63, 1970-93
Deep Red Run near Randlett, OK	07311500	617	1987-90
Beaver Creek near Lawton, OK	07312900		1947-48, 1961
Little Beaver Creek near Duncan, OK	07313000	158	1947-51, 1955, 1960, 1962-63
Beaver Creek near Waurika, OK	07313500	563	1986-90
Mud Creek near Courtney, OK	07315700	572	1985-90
Washita River near Reydon, OK	07316350	498	1949, 1977
Washita River near Cheyenne, OK	07316500	794	1938-40, 1942-47, 1950, 1960-61, 1969-73, 1985-90
Sandstone Creek SWS 17 near Cheyenne, OK	07319000	10.1	1968-70
Sandstone Creek SWS 10a near Elk City, OK	07320000	2.87	1975, 1979
Sandstone Creek SWS 1 near Cheyenne, OK	07324000	5.33	1968-70, 1979
Washita River near Moorewood, OK	07324150		1969-71
Quartermaster Creek near Hammon, OK	07324190		1969-71
Washita River near Hammon, OK	07324200	1,387	1969-87, 1989-90

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Washita River near Foss, OK	07324400	1,551	1928, 1946-48, 1950-51, 1956-57, 1969-87, 1989-90
Barnitz Creek near Arapaho, OK	07324500	243	1947-49, 1951-52, 1955
Washita River near Clinton, OK	07325000	1,977	1938-45, 1947-50, 1959-63, 1975, 1987-90
Washita River at Carnegie, OK	07325500	3,129	1942-51, 1955-90
Spring Creek near Eakly, OK	07325753		1960-61
Cobb Creek near Eakly, OK	07325800	132	1987-90
Cobb Creek near Fort Cobb, OK	07326000	313	1943-48, 1950-51, 1959-60, 1962-63, 1986-90
Washita River at Anadarko, OK	07326500	3,656	1954, 1962-80, 1987-90
Tonkawa Creek near Anadarko, OK	07326720	26	1967-71
Sugar Creek near Gracemont, OK	07327000	208	1949-50, 1960, 1962-74
Delaware Creek near Anadarko, OK No. 131	07327040	40.1	1962-77
Salt Creek near Chickasha, OK	07327150	23.8	1967-77
Washita River near Chickasha, OK	07327300		1959-61
West Salt Creek near Chickasha, OK	07327320	22	1967-71
West Bitter Creek near Tabler, OK	07327420	59.4	1960-61, 1964-71
Spring Creek near Blanchard, OK	07327432	1	1968-71
Spring Creek near Tabler, OK	07327435	2	1967-71
Spring Creek Trib near Middleberg, OK	07327437		1968-71
East Bitter Creek near Tabler, OK	07327440	35.2	1960-61, 1964-77

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Little Washita River near Ninnekah, OK	07327490	208	1948-52, 1954-55, 1963-78
Little Washita River at Ninnekah, OK	07327500	227	1960-63
Washita River near Tabler, OK	07328000	4,706	1942-53
Winter Creek near Alex, OK	07328070	33	1985-87
Washita River at Alex, OK	07328100	4,787	1962-80, 1986, 1989-90
Finn Creek near Payne, OK	07328250		1960-61
Washington Creek near Pauls Valley	07328550	7.56	1991-94
Rush Creek at Purdy, OK	07329000	145	1938-53, 1985-90
Rush Creek near Maysville, OK	07329500	206	1938-39, 1944, 1953-75, 1977
Wildhorse Creek near Hennepin, OK	07329660		1949-50
Wildhorse Creek near Hoover, OK	07329700	604	1954-55, 1962-63, 1969-71, 1985-90
Honey Creek near Turner Falls, OK	07329790		1949, 1951
Honey Creek near Davis, OK	07329810	18.7	1953, 1955-56
Rock Creek N of Sulphur, OK	07329843		1958-60
Outflow from Vendome Well at Sulphur, OK	07329851		1985-90
Rock Creek S of Platt Natl Pk near Sulphur, OK	07329853		1959-60
Rock Creek at Dougherty, OK	07329900	138	1951-57, 1960-63
Caddo Creek near Ardmore, OK	07330500	298	1936-40, 1942, 1944-50
Mill Creek near Ravia, OK	07331250	89.2	1968-69
Washita River near Tishomingo, OK	07331290		1953-55

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Pennington Creek near Reagan, OK	07331300	65.7	1951-55, 1957-59
Butcher Pen Creek near Tishomingo, OK	07331450		1960-61
Red River at Denison Dam near Denison, TX	07331600	39,720	1942-43, 1945-49, 1959-85
Red River near Colbert, OK	07332000	39,777	1930-31, 1936-62
Blue River at Connerville, OK	07332350		1951-56, 1961-62, 1977-79
Blue River near Connerville, OK	07332390	162	1977-79
Blue River at Armstrong, OK	07332450	224	1976-77
Blue River near Blue, OK	07332500	476	1936, 1938-42, 1944-50, 1953-80
Muddy Boggy Creek near Coalgate, OK	07332850		1961-62
Coal Creek near Lehigh, OK	07332900	8.1	1905, 1977-81
Muddy Boggy Creek at Atoka, OK	07332950	445	1978-81
Chickasaw Creek near Stringtown, OK	07333500	32.7	1955-58, 1960
Mcgee Creek near Farris, OK	07333910	176	1908, 1976-82
Muddy Boggy Creek near Farris, OK	07334000	1,087	1938-81
Byrds Mill Spring near Fittstown, OK	07334200		1953, 1955, 56, 1990-93
Clear Boggy Creek near Tupelo, OK	07334400	248	1957-58, 1960-62, 1983
Leader Creek at Tupelo, OK	07334420	64.3	1958, 1960
Clear Boggy Creek near Wapanucka, OK	07334500	516	1940-42
Clear Boggy Creek Abv Caney Creek near Caney, OK	07334800		1976-77
Clear Boggy Creek near Caney, OK	07335000	720	1943-80
Muddy Boggy Creek near Unger, OK	07335300	2273	1961-62, 1985-90
Red River at Arthur City, TX	07335500	44,531	1938-80, 1982

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record
RED RIVER BASIN			
Kiamichi River near Clayton, OK	07335790	708	1976-77
Kiamichi River near Antlers, OK	07336200	1,138	1962, 1972-81
Kiamichi River near Belzoni, OK	07336500	1,423	1938-40, 1943-72
Kiamichi River near Sawyer, OK	07336700		1961-62, 1975, 1977-80
Red River near Valliant, OK	07336730		1921, 1923, 1970-76
Red River near Millerton, OK	07336760		1970-76
Little River near Cloudy, OK	07337100	324	1976-80
Little River near Ringold, OK	07337200		1961-62
Little River near Wright City, OK	07337500	645	1945-47, 1949, 1961-73, 1975-77
Glover River near Glover, OK	07337900	315	1961-80
Little River Blw Lukfata Creek, near Idabel, OK	07338500	1,226	1930-31, 1938-40, 1944-54, 1960-80
Mountain Fork near Smithville, OK	07338840		1976-80
Mountain Fork near Eagletown, OK	07339000	787	1938-40, 1944-45, 1947-48, 1960-70, 1973, 1975-80
Mountain Fork Blw Eagletown, OK	07339010		1960-63
Little River near Cerrogordo, Ar	07339100		1976, 1978
Blue R at Pexton Ranch near Milburn, OK	341835096342901		1976, 1978
Coal Ck Trib near Lehigh	342652096152202		1977-81
Coal Ck Tributary	342743096154701		1977-81
Little Blue Creek at Pontotoc, OK	342914096370701	11.6	1977-78
Blue River at Ford, OK	343554096250801		1976-77

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Oklahoma each water year (Oct. 1 to Sept. 30). These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Oklahoma."

Volumes 1 and 2 of this report includes records on both surface water and ground water in the State. Specifically they contain: (1) Discharge records for 114 streamflow-gaging stations, and 17 partial-record or miscellaneous streamflow stations, (2) stage and content records for 9 lakes , reservoirs and gage height records for 2 stations; (3) water-quality records for 47 streamflow-gaging stations; (4) water-level records for 28 observation wells.

This series of annual reports for Oklahoma began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to include, in one volume, data on quantity and quality of surface water levels. Data on ground-water levels were added to this format from 1975-79 and 1990 to present.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Oklahoma were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface Water Supply of the United States, Parts 7A and 7B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 under the title "Ground-Water Levels in the United States," and 1980 to 1989 under the title "Ground-Water Levels in Observation Wells in Oklahoma." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report OK-95-2" For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

COOPERATION

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

Oklahoma Water Resources Board.

Oklahoma Conservation Commission

Oklahoma City Water Utilities Trust.

City of Tulsa.

Oklahoma State University

Oklahoma Geological Survey.

The following Federal agencies assisted in the data collection program by providing funds or services:

Corps of Engineers, U.S. Army

Bureau of Reclamation, U.S. Department of Interior

Assistance in the form of funds or services was rendered by the following organizations through the **Oklahoma Water Resources Board: Grand River Dam Authority; Central Oklahoma Master Conservancy District; Fort Cobb Reservoir Master Conservancy District; Lugert-Altus Irrigation District; Foss Reservoir Master Conservancy District; Mountain Park Master Conservancy District; Oklahoma Gas and Electric Company; the cities of Ada and Lawton.**

Organizations that supplied data are acknowledged in the station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Large variations in streamflow characterize hydrologic conditions in Oklahoma. In the extreme southeastern part of the State, mean annual precipitation exceeds 52 inches and mean annual runoff exceeds 20 inches. In the southeast, stream channels are deeply incised in mountainous terrain, and streamflow generally is perennial.

In the extreme northwestern part of the Panhandle, mean annual precipitation is less than 16 inches and mean annual runoff is less than 0.1 inch. In northwestern Oklahoma, streams generally have shallow, poorly defined channels and ephemeral flow.

Precipitation data from monthly reports of the Oklahoma Climatological Survey, averaged over the State, indicated that monthly precipitation was below normal during February of the water year. Monthly totals were above normal in November, January, April through July, and September. October, December, August, and March totals were about average.

Precipitation was not spread uniformly across the State. Generally precipitation was far above normal (12 to 16 inches above average) in all regions of the State except the Panhandle, which was about normal. Oklahoma experienced the 5th wettest November in its recorded history in 1994, with every region recording about or greater than twice normal precipitation except the Panhandle. In January, Wilburton recorded greatest monthly snowfall in station history, 15.7 inches. February was very dry, 8th lowest since 1892. Heavy rains in May caused significant street flooding in northeastern Oklahoma towns of Cleveland, Sperry, Sapulpa, and northern Tulsa County; and the central Oklahoma cities of Minco, Norman, and Seminole. June was extremely wet with 6 inches falling during the first 10 days of the month. These June rains seriously delayed and diminished the wheat harvest. August was unusually wet due to moisture associated with former tropical storm Dean. Extensive and frequent rains occurred during September in the southwestern and south-central areas of the State, bringing statewide January- September precipitation totals to the 7th largest since 1892. The cumulative effect of an extremely cool and wet May through September in southwestern Oklahoma ruined the cotton crop, among the worst ever in Oklahoma.

A comparison of daily, monthly, and annual streamflow for the 1995 water year with the period of record at eight selected stations (fig. 1-8) reflected below-average conditions in northwestern Oklahoma, and above-average streamflow for the rest of Oklahoma. These stations were selected at representative locations within Oklahoma. Three locations are affected to some degree by regulation: Arkansas River at Ralston, the Washita River near Dickson, and North Canadian River at Woodward.

Drought effects during the 1995 water year were minimal for the State. Streamflow was below normal in streams during most of the water year in northwestern Oklahoma (fig. 1). For the rest of the State, streamflow was above average most of the water year (fig. 2-8). In southwestern, north-central, and northeastern Oklahoma, there were high flows in November (fig. 2-3, 6). In east-central south-central, and southeastern Oklahoma flows were high from November through January (fig. 4-5, 7-8). East-central and southeastern Oklahoma had peak flows March through July (fig. 4, 8). In north-central, northeastern, central, southwestern, and south-central Oklahoma, streamflow was high during May through August (fig. 2-3, 5-7). Several streams had record monthly flows for June (fig. 2-3, 7) and August (fig. 6-7). The southern third of Oklahoma had high September flows (fig. 5-8). Overall the streamflow was below normal in western Oklahoma, and above normal in the rest of the State, with all annual peak flows in the medium to high flow range, except in the northwestern part of the State, which was in the low flow range.

The most serious flooding occurred during June affecting western and central Oklahoma on June 3-5, inundating about a quarter of Davidson (southwest), and June 7-9 in southwestern, central, north-central and northeastern Oklahoma, where most areas received more than 7 inches of rain. Towns of Guthrie, Kingfisher (central), and Miami and Bartlesville (northeastern) were flooded. Kingfisher and Cottonwood Creeks in central Oklahoma and the Salt Fork and Chickaskia rivers flooded in north-central Oklahoma. Heavy rains over most of the state in the beginning of August caused widespread local flooding except the northwestern, east-central and southeastern part of the State. Stillwater received over 5 inches in one day, Interstate Highway 35 was closed west of Tonkawa (north-central) for 15 hours when the Salt Fork of the Arkansas River covered the bridge and its approaches. Flooding along the Cimarron, Canadian and Washita rivers closed several highways in west-central Oklahoma. three people died from flood-related accidents

The average discharge streamflow statistic for the 1995 water year also illustrates the above-normal runoff conditions in all areas of Oklahoma, except the Panhandle, which was below normal. Most streamflow stations show about two

times the average streamflow for the period of record.

The following table presents a comparison of streamflow for the 1995 water year with streamflow for the period of record at the eight selected stations:

STATION IDENTIFICATION	Statistics of discharge during 1995 water year (cubic feet per second)			Statistics of discharge during period of record (cubic feet per second)		
	Maximum instantaneous	Minimum mean daily	Average	Maximum instantaneous	Minimum mean daily	Average
ARKANSAS RIVER BASIN						
07152500 Arkansas River at Ralston	82,900	86	10,430	211,000	14	4,826
				(Prior to regulation 1926-75)		
				174,000	52	5,892
				(Since regulation by Kaw Lake 1977-95)		
07185000 Neosho River near Commerce	71,000	66	6,229	267,000	0	3,788
						(1940-95)
07197000 Baron Fork at Eldon	18,800	39	500	50,600	1.8	325
						(1949-95)
07231500 Canadian River at Calvin	92,100	96	3,227	174,000	0	1,798
				(1906, 1939-42, 1945-1995)		
07237500 North Canadian River at Woodward	505	1.5	39.1	42,000	0	194
				(Prior to regulation 1939-78)		
				3,090	0	94.3
				(Since regulation by Optima Lake 1979-95)		
RED RIVER BASIN						
07300500 Salt Fork Red River near Mangum	14,200	0	188	72,000	0	87.0
						(1938-95)
07331000 Washita River near Dickson	52,100	275	4,307	98,000	0	1,573
				(Prior to regulation 1929-58)		
				118,000	0.10	1,833
				(Since regulation by Fort Cobb Reservoir 1962-95)		
07332500 Blue River near Blue	10,200	57	606	65,200	0	328
						(1937-95)

Conservation storage in four selected reservoirs in the State indicates that conservation storage was increased when comparing the start of the water year to the end of the water year.

The following table presents a comparison of conservation storage capacity for the start and end of the 1995 water year for the four selected reservoirs:

	Conservation Storage Capacity			
	Start of 1995 water year		End of 1995 water year	
STATION IDENTIFICATION	(acre-feet)	(percent)	(acre-feet)	(percent)
ARKANSAS RIVER BASIN				
07190000 Lake O' the Cherokees at Langely	1,492,000	100	1,496,000	100
07229900 Lake Thunderbird near Norman	108,400	55	116,500	59
RED RIVER BASIN				
07302500 Lake Altus at Lugert	25,460	19	129,500	96
07324300 Foss Reservoir near Foss	154,200	35	177,100	41

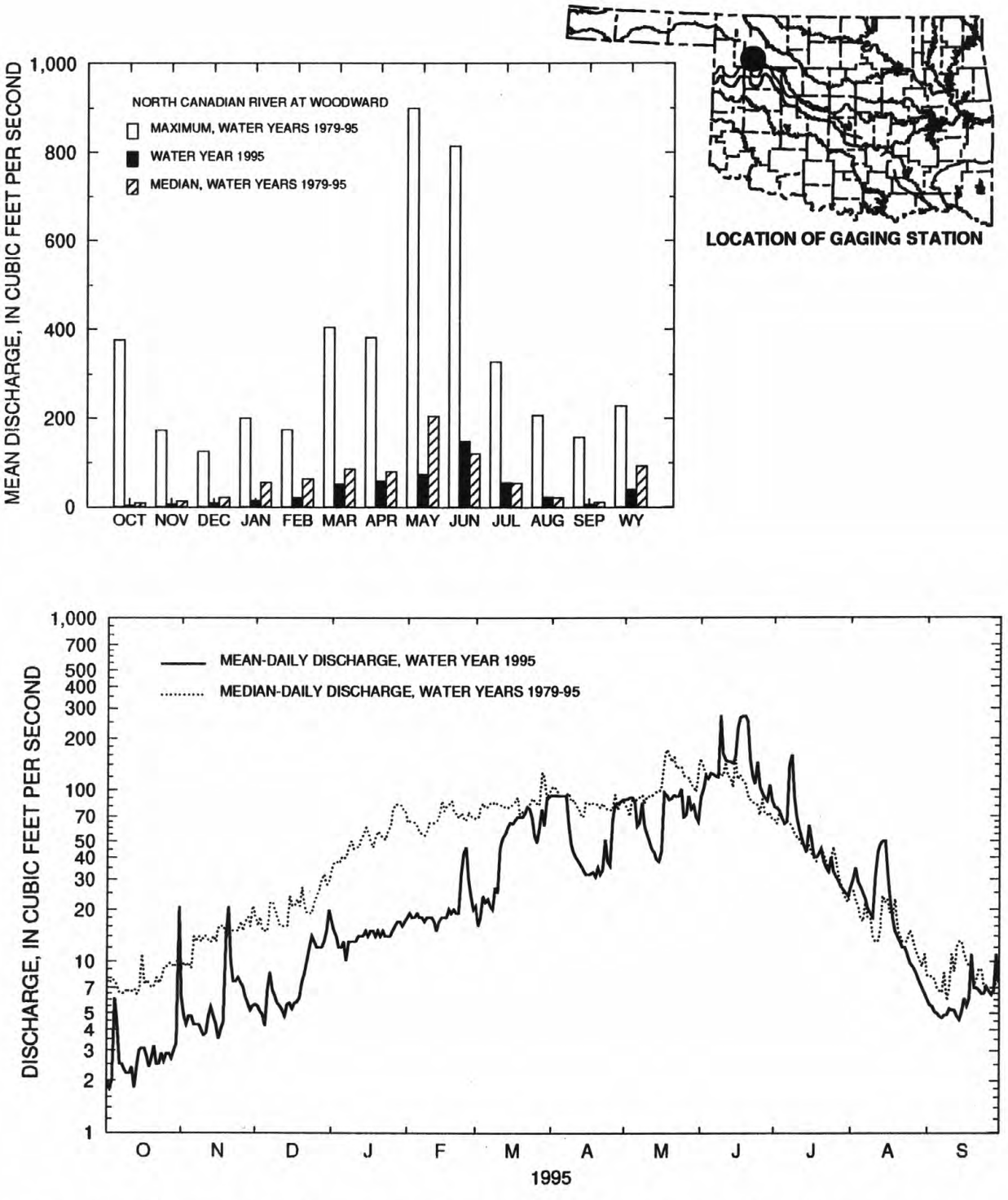


Figure 1. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for North Canadian River at Woodward, Oklahoma.

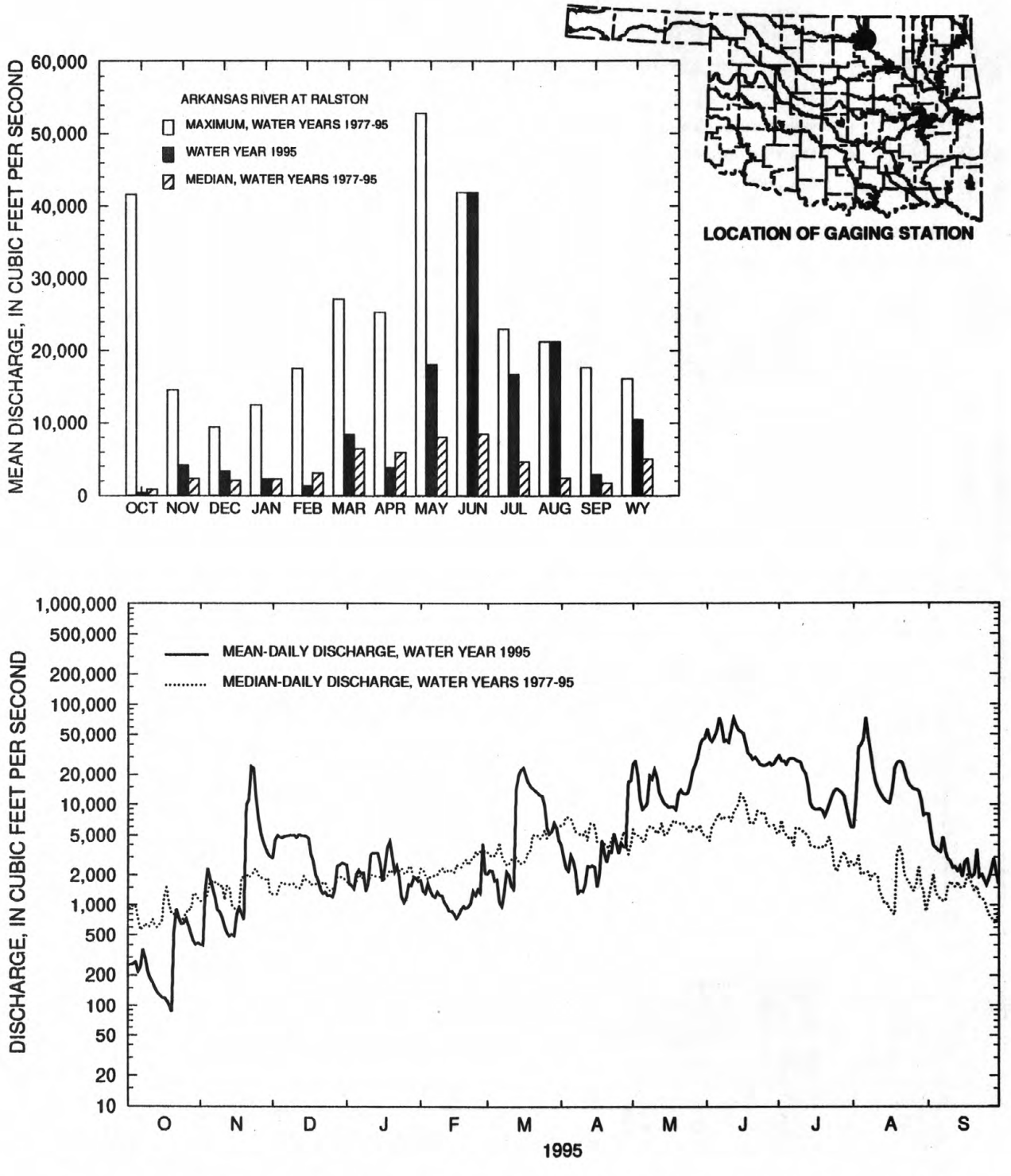


Figure 2. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Arkansas River at Ralston, Oklahoma.

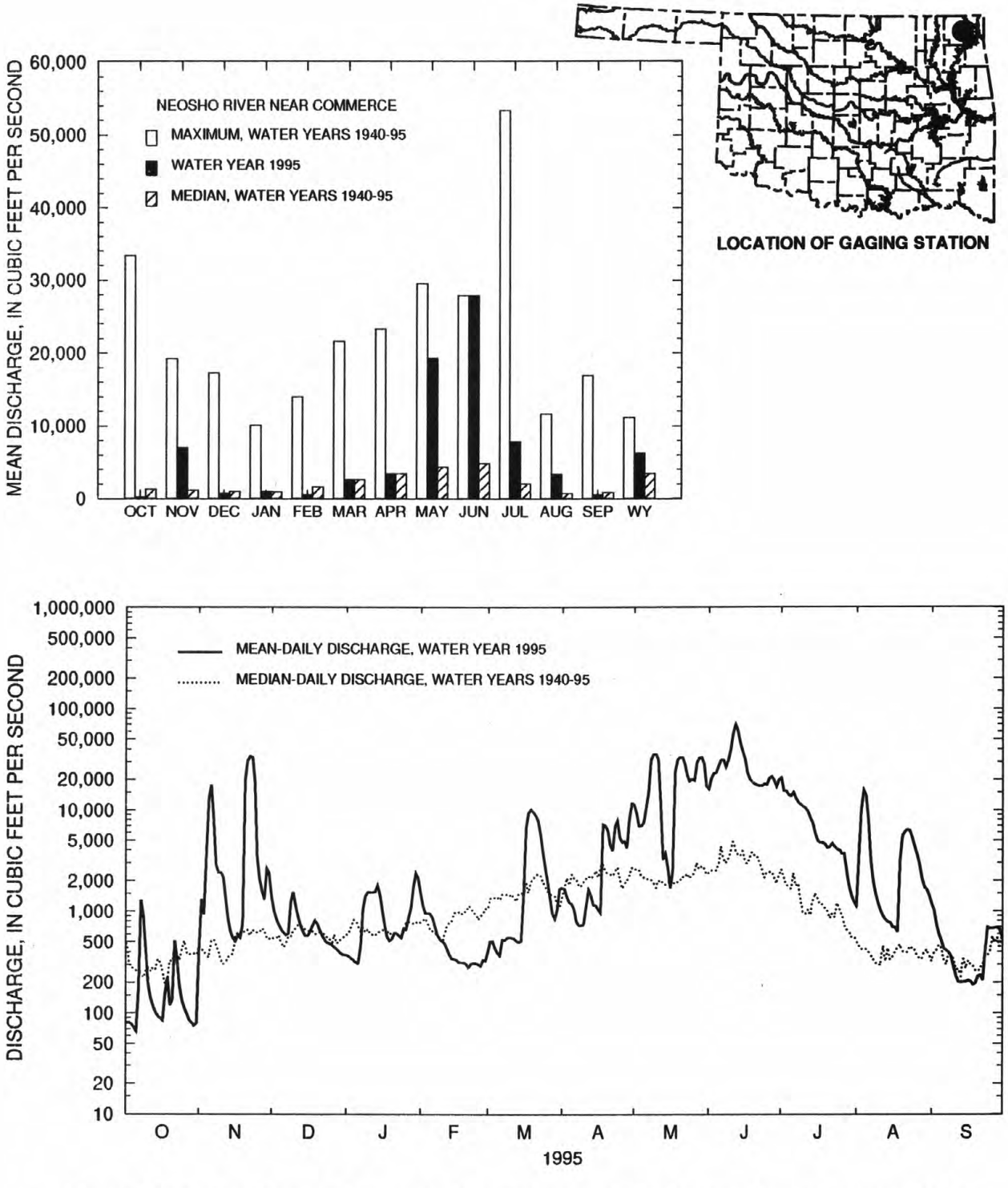


Figure 3. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Neosho River near Commerce, Oklahoma.

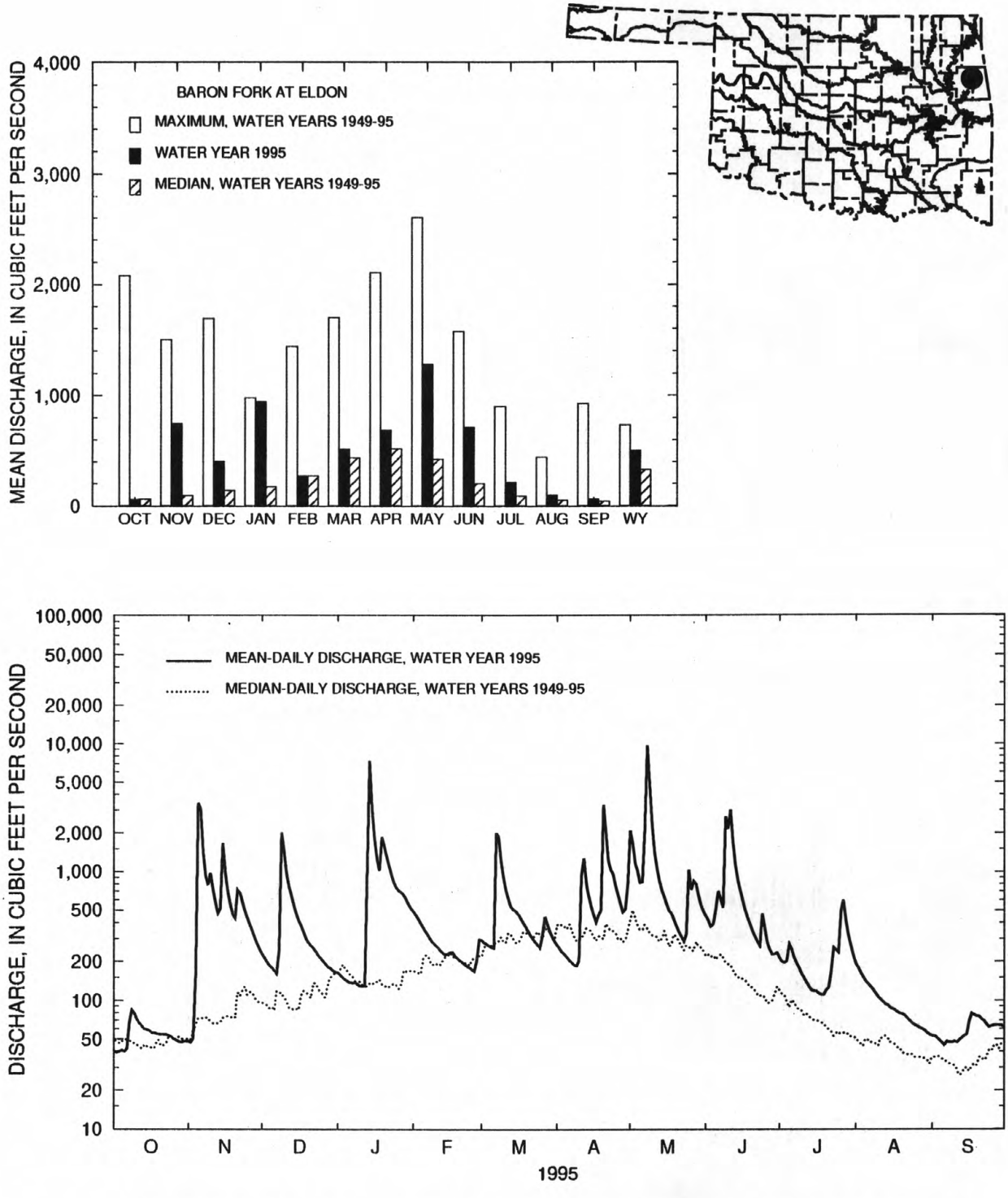


Figure 4. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Baron Fork at Eldon, Oklahoma.

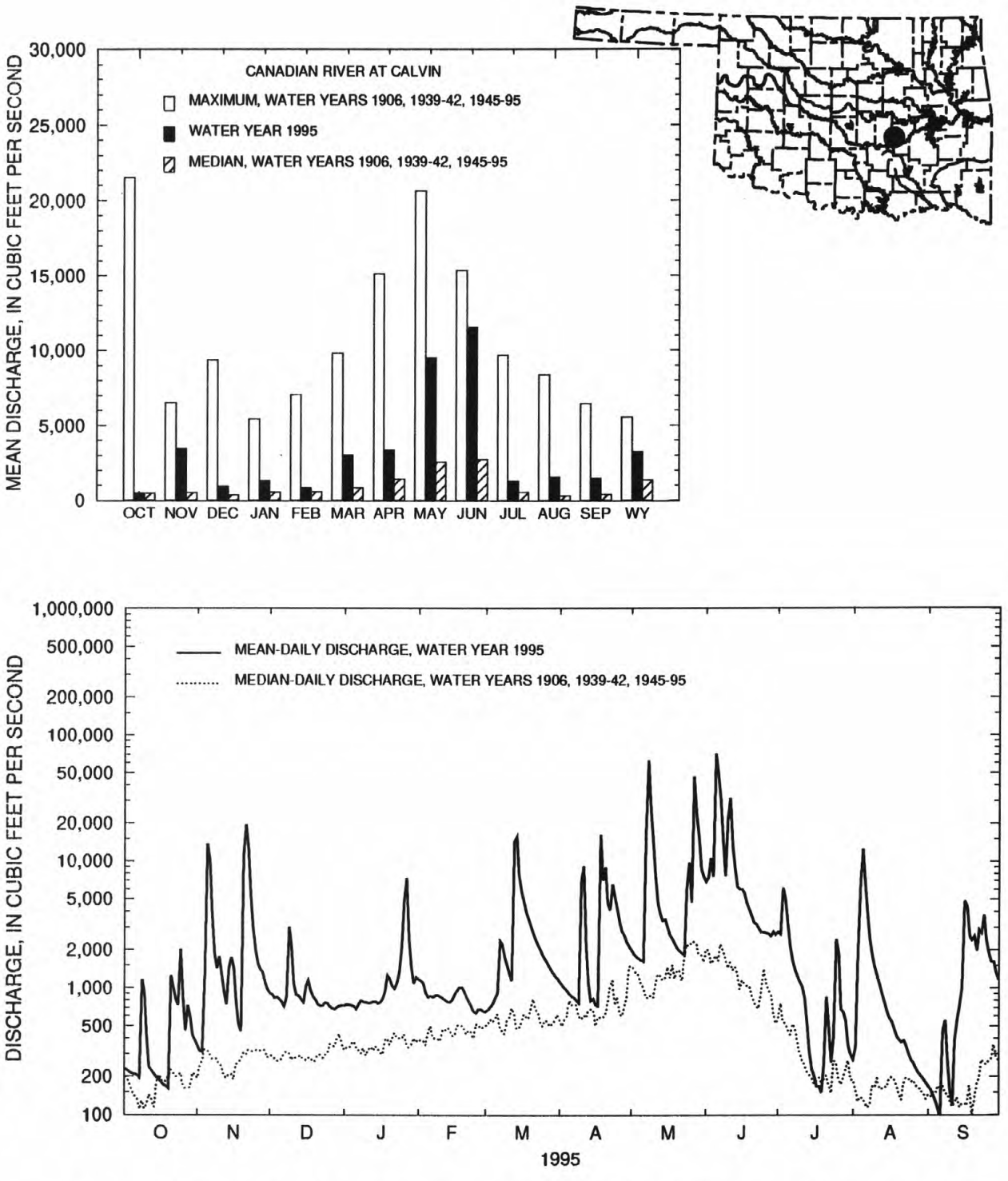


Figure 5. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Canadian River at Calvin, Oklahoma.

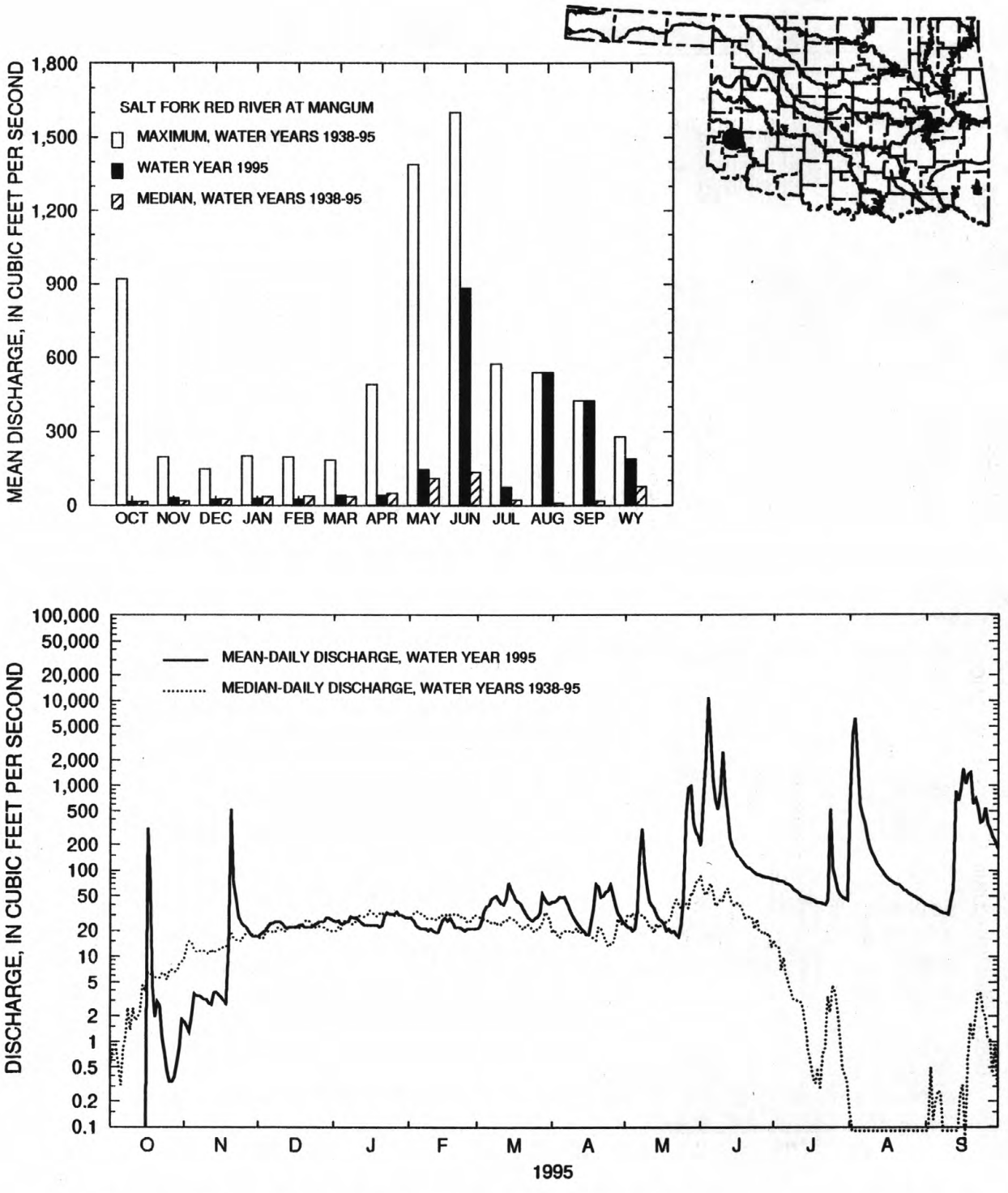


Figure 6. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Salt Fork Red River at Mangum, Oklahoma.

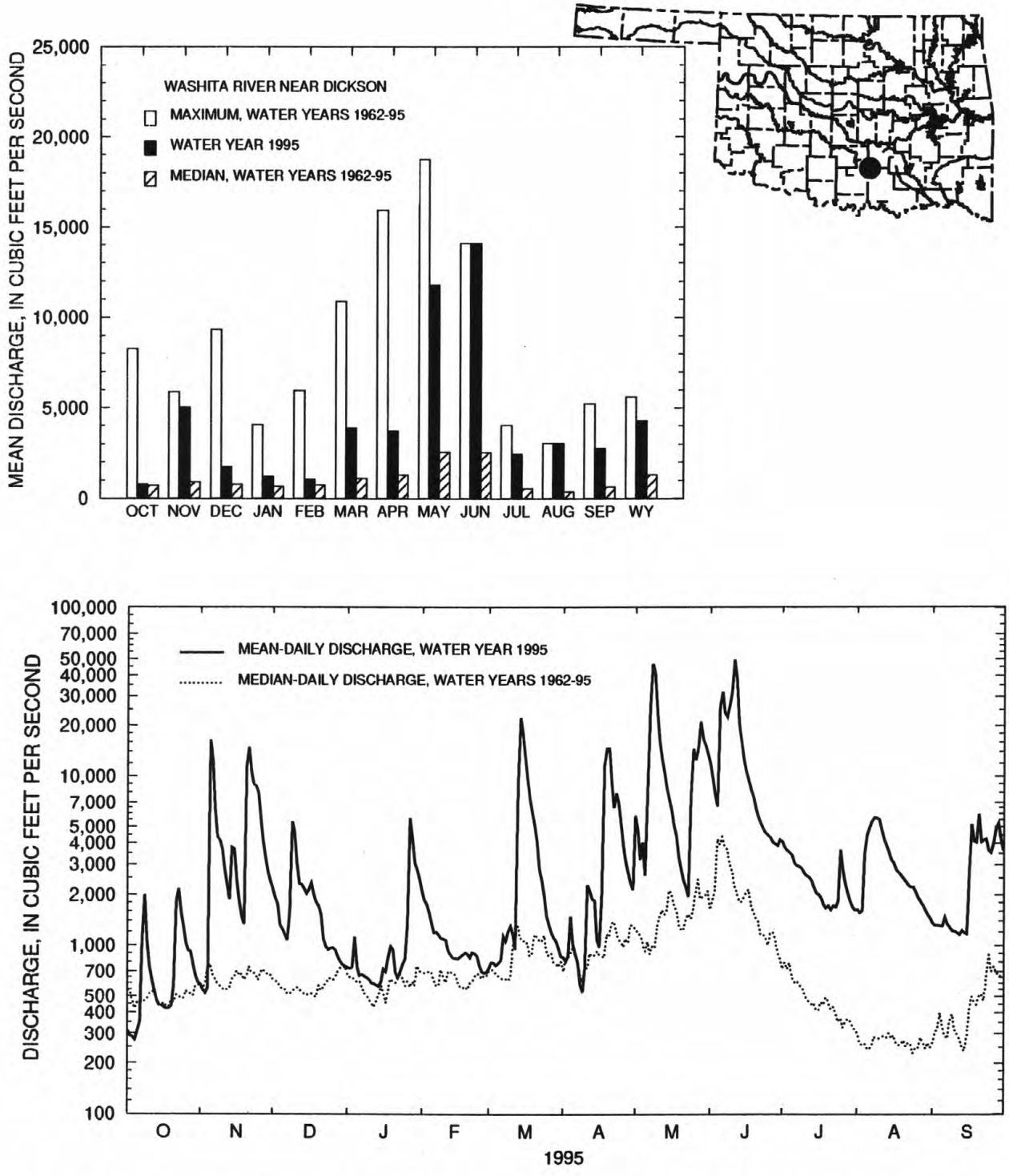


Figure 7. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Washita River near Dickson, Oklahoma.

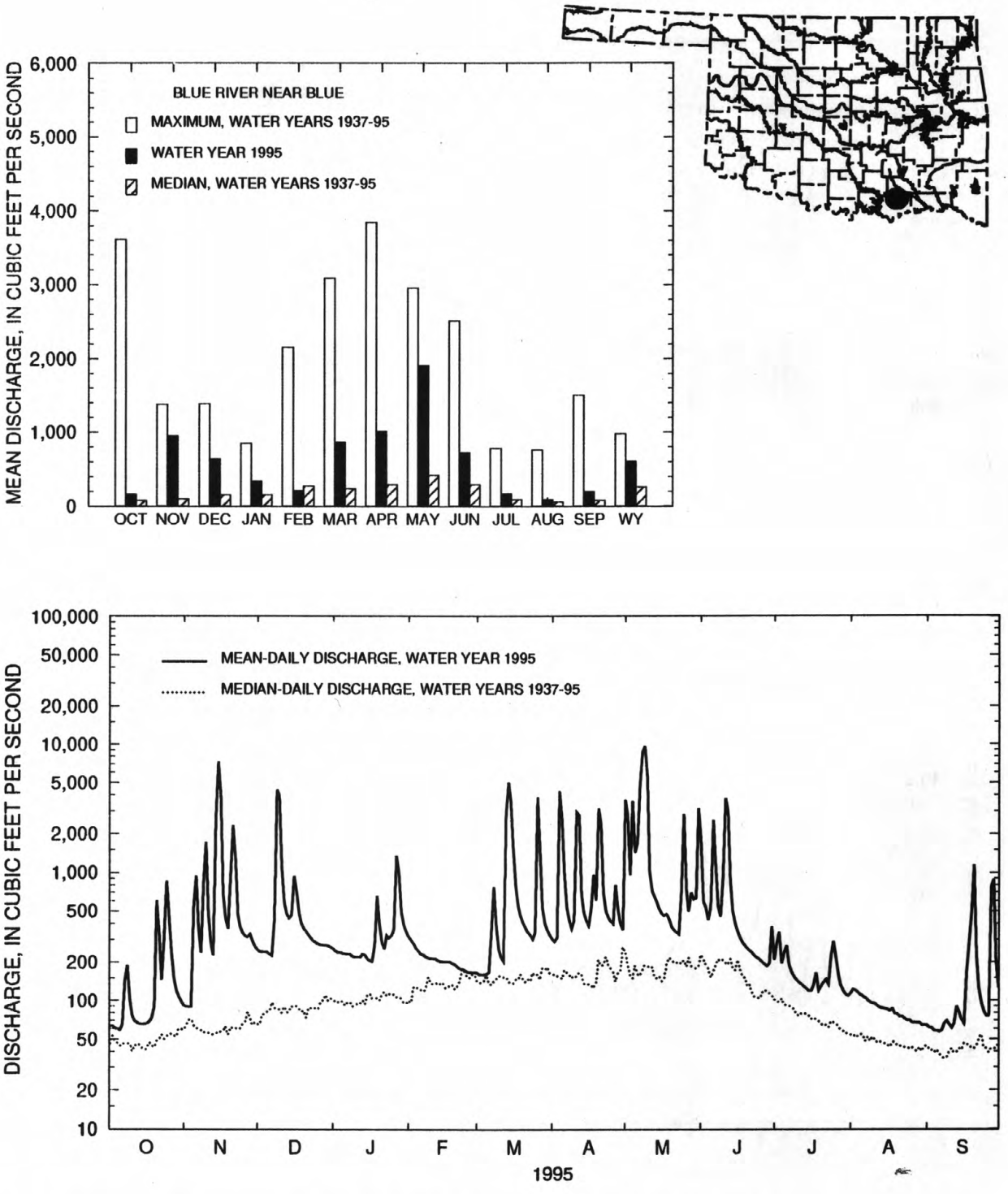


Figure 8. Comparison of daily, monthly, and annual discharges for water year 1995 and period of record for Blue River near Blue, Oklahoma.

Chemical Quality of Streamflow

The concentrations of selected dissolved chemical constituents measured at surface-water sampling stations in the State during the 1995 water year were generally within the ranges measured during previous years. The minimum values for the selected constituents for all stations were larger for the 1995 water year than the minimum values for the 1970 through 1990 water years. The maximum values for these same constituents were smaller for all stations for the 1995 water year than the maximum values for the 1970 through 1990 water years. Concentrations of dissolved solids, chloride, sulfate, and suspended sediment are shown in the following graphs for sampling sites on selected principal streams (fig. 9) in the State. Maximum and minimum concentrations of these constituents for the 1995 water year are compared to maximum and minimum concentrations for the 1970 through 1990 water years.

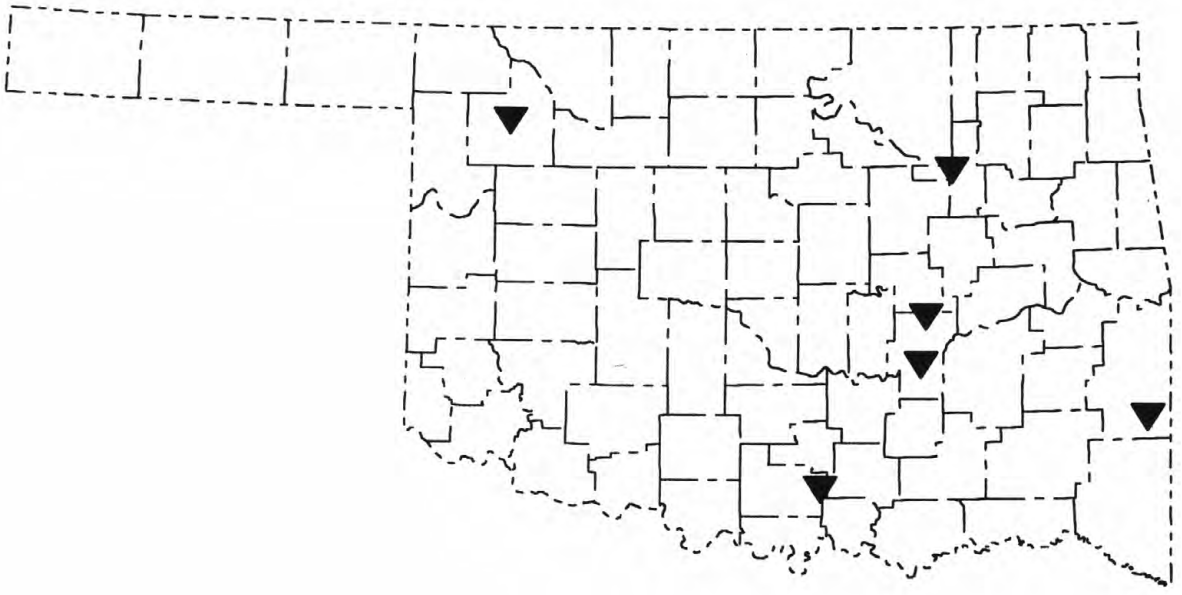


Figure 9.—Location of water-quality stations on selected principal streams.

The maximum dissolved-solids concentration measured in these streams in 1995 was 2,050 milligrams per liter (mg/L) in the North Canadian River at Woodward. The minimum concentrations for 1995 are larger than the 20-year minimum concentrations. The maximum concentrations for 1995 are smaller than the 20-year maximum concentrations. Dissolved-solids concentrations, in mg/L, are shown in the following graphs:

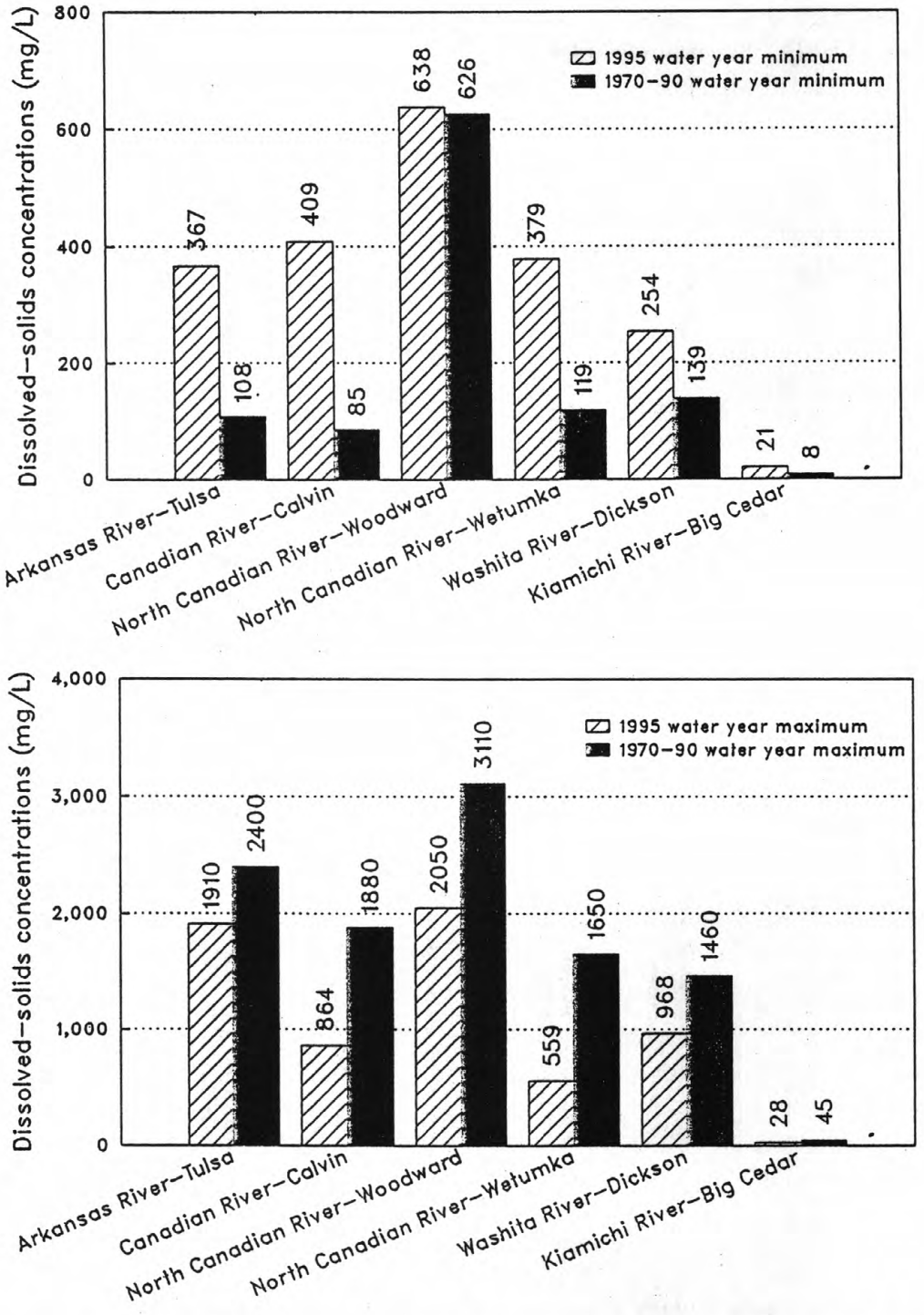


Figure 10.—Comparisons of minimum and maximum dissolved-solids concentrations, in milligrams per liter (mg/L), for water year 1995 and water years 1970-90.

The maximum dissolved-chloride concentration measured at the selected stations in 1995 was 910 mg/L in the Arkansas River at Tulsa. The minimum chloride concentrations for 1994 were larger than the 20-year minimum concentrations. The maximum concentrations for 1995 were smaller than the 20-year maximum concentrations. Dissolved-chloride 1995 concentrations, in mg/L, are shown in the following graphs:

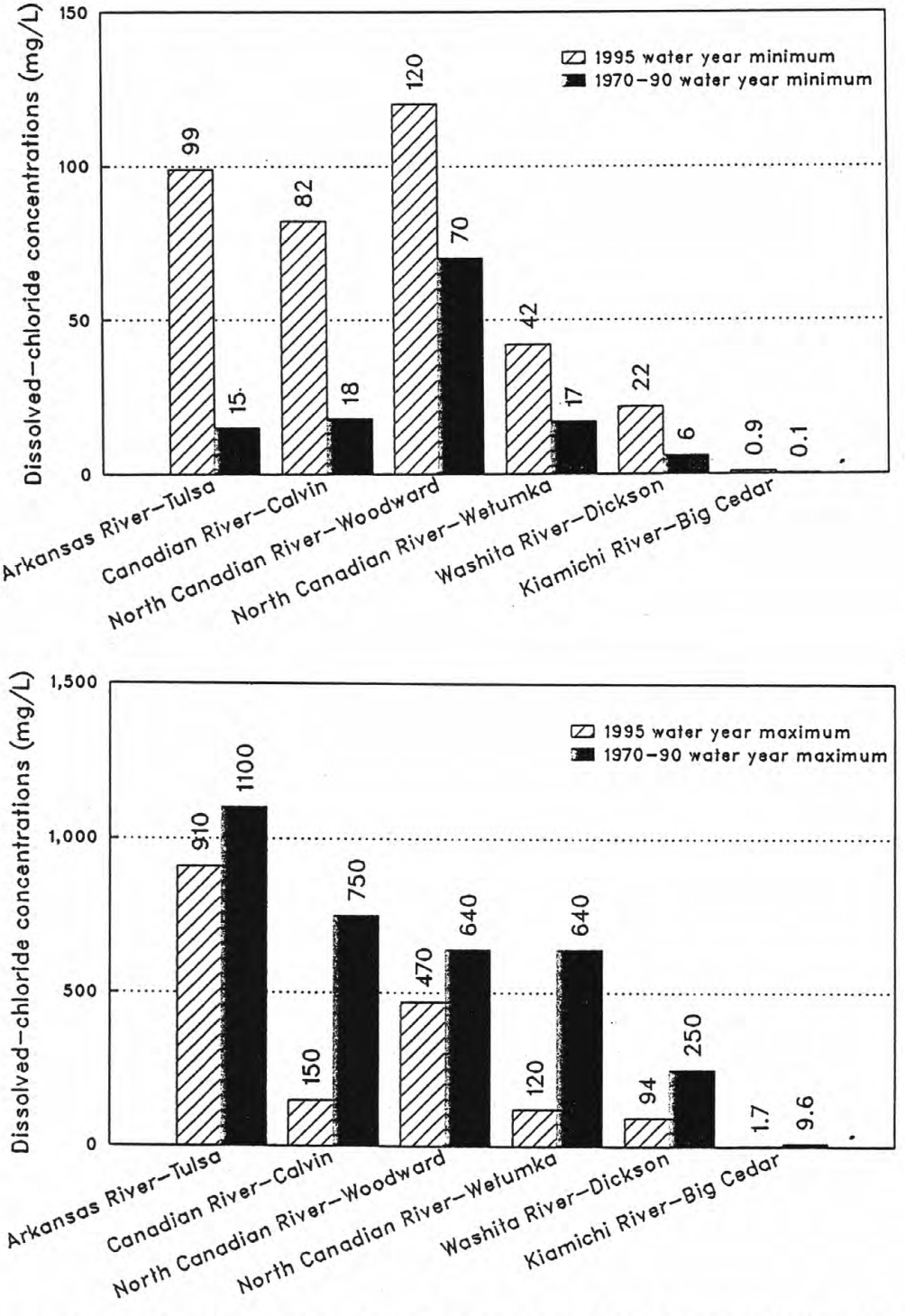


Figure 11.—Comparisons of minimum and maximum dissolved-chloride concentrations, in milligrams per liter (mg/L), for water year 1995 and water years 1970-90.

The maximum dissolved-sulfate concentration measured at the selected stations in 1995 was 620 mg/L in the North Canadian River at Woodward. The minimum concentrations for 1995 are larger than the 20-year mnimum concentrations. The maximum concentrations for 1995 are smaller than the 20-year maximum concentrations. Dissolved-sulfate 1995 concentrations, in mg/L, are shown in the following graphs:

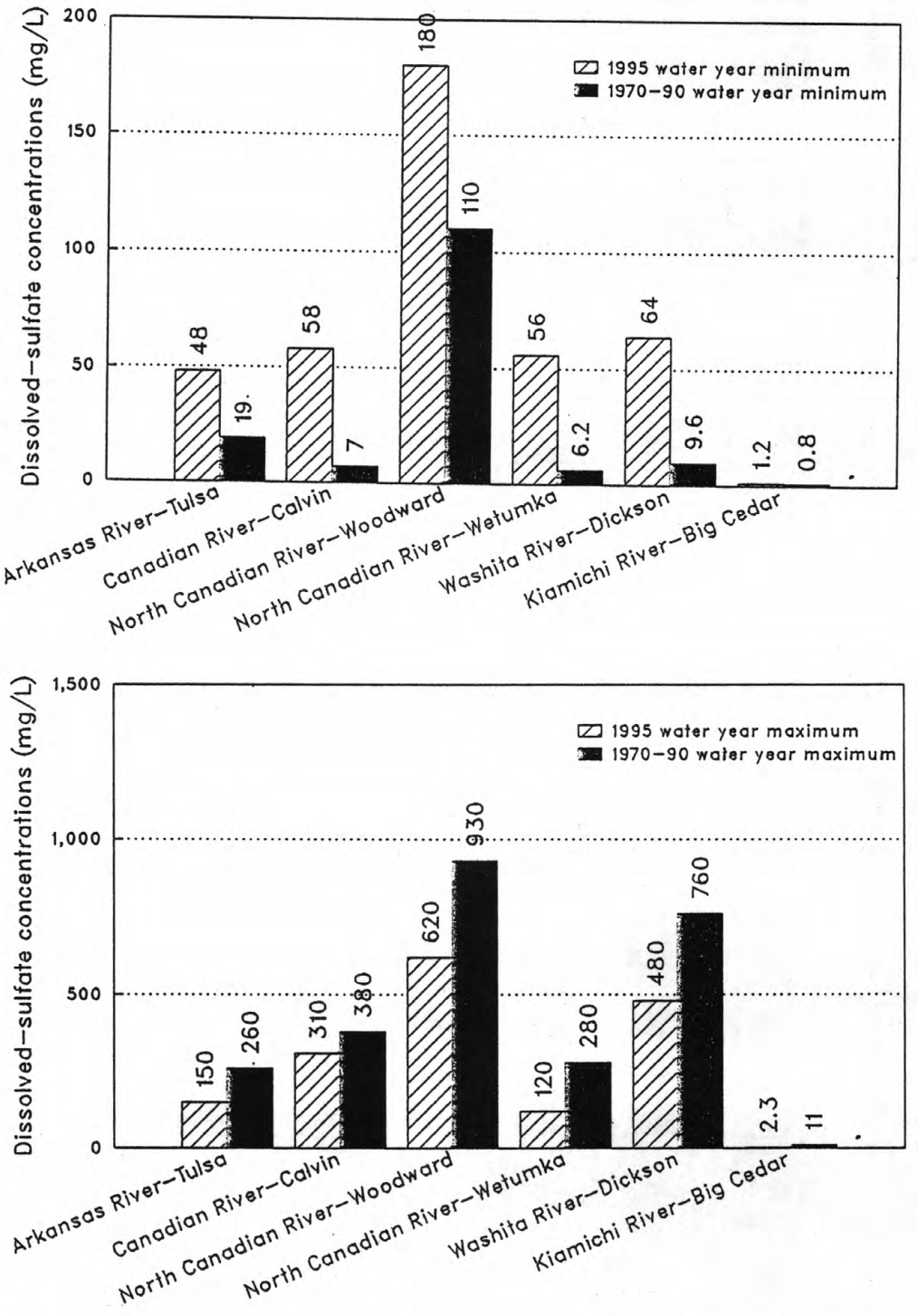


Figure 12.—Comparisons of minimum and maximum dissolved-sulfate concentrations, in milligrams per liter (mg/L), for water year 1995 and water years 1970-90.

The maximum suspended-sediment concentration measured at the selected stations in 1995 was 17,000 mg/L in the Washita River near Dickson. The minimum suspended-sediment concentrations for 1995 were larger than the 20-year values. The maximum concentrations were smaller than the 20-year maximum concentrations. Suspended-sediment concentrations, in mg/L, are shown in the following graphs:

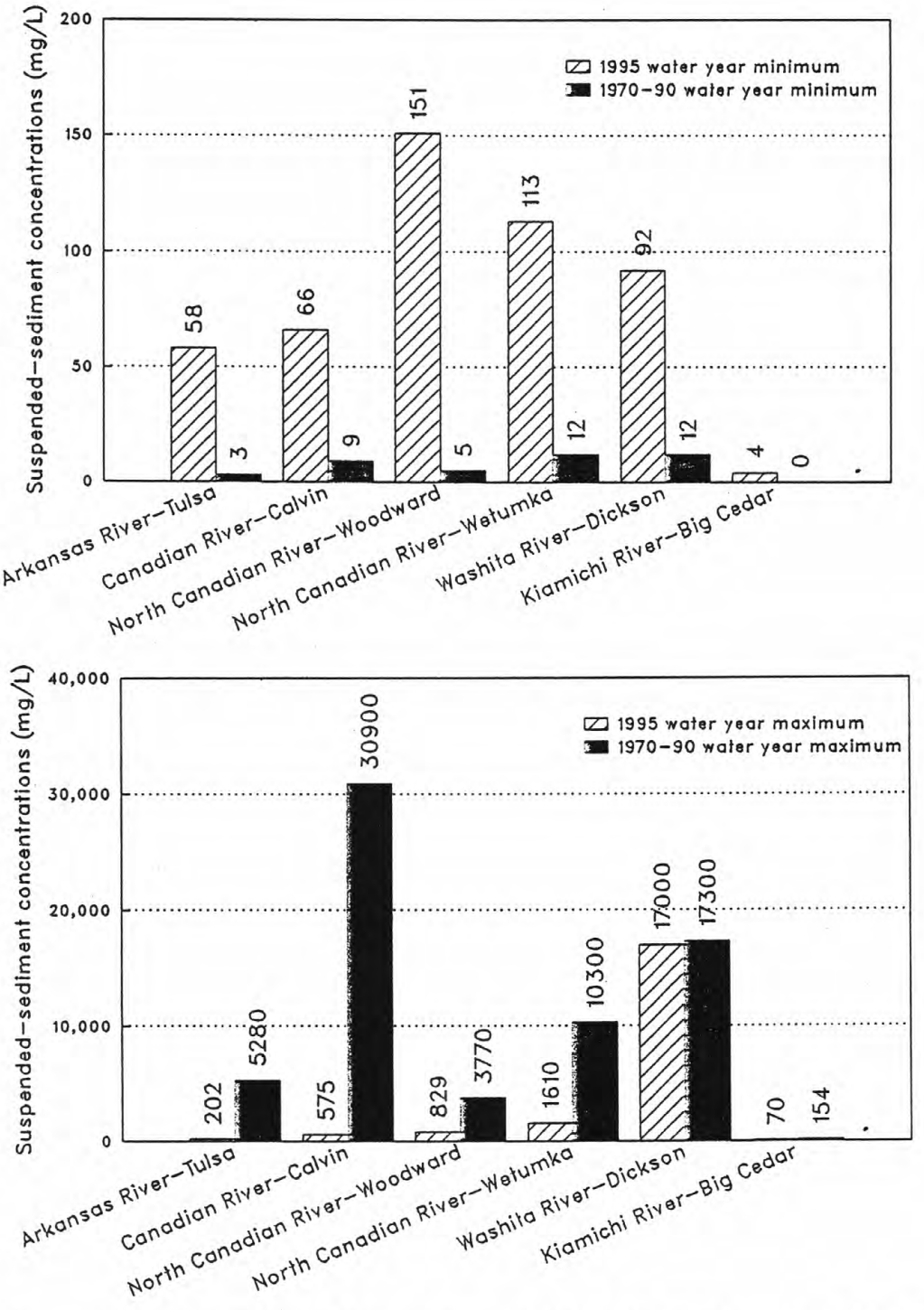


Figure 13.—Comparisons of minimum and maximum suspended-sediment concentrations, in milligrams per liter (mg/L), for water year 1995 and water years 1970-90.

Ground Water

Ground-water levels at 28 sites are part of a network of sites that are measured quarterly, monthly, or are equipped with continuous recorders.

Figures 14-18 show 3-year hydrographs for 5 of the network sites throughout the State. The hydrograph of the Idabel GW Well (McCurtain County) (fig. 14) is representative of seasonal variations in water levels in a shallow well in an irrigated area.

The hydrographs of the Texhoma GW Well (Texas County) (fig. 15) and the Sharon GW well (Woodward County) (fig. 16) are indicative of the long-term decline of water levels in the Ogallala aquifer. The Texhoma well was the only reporting well that recorded a new low water level of record. The Sharon well continued its decline of nearly one foot per year for the first eight months then had a reversal in the last four.

Conversely, the Taloga GW well (Dewey County) (fig. 17) hydrograph shows rising water levels for the last three years. The Taloga well was one of only two reporting wells that recorded a new highest water level of record.

The hydrograph for the Fittstown GW well (Pontotoc County) (fig. 18) indicates water levels that respond rapidly to precipitation and slowly recede. Water levels show a rise over last year.

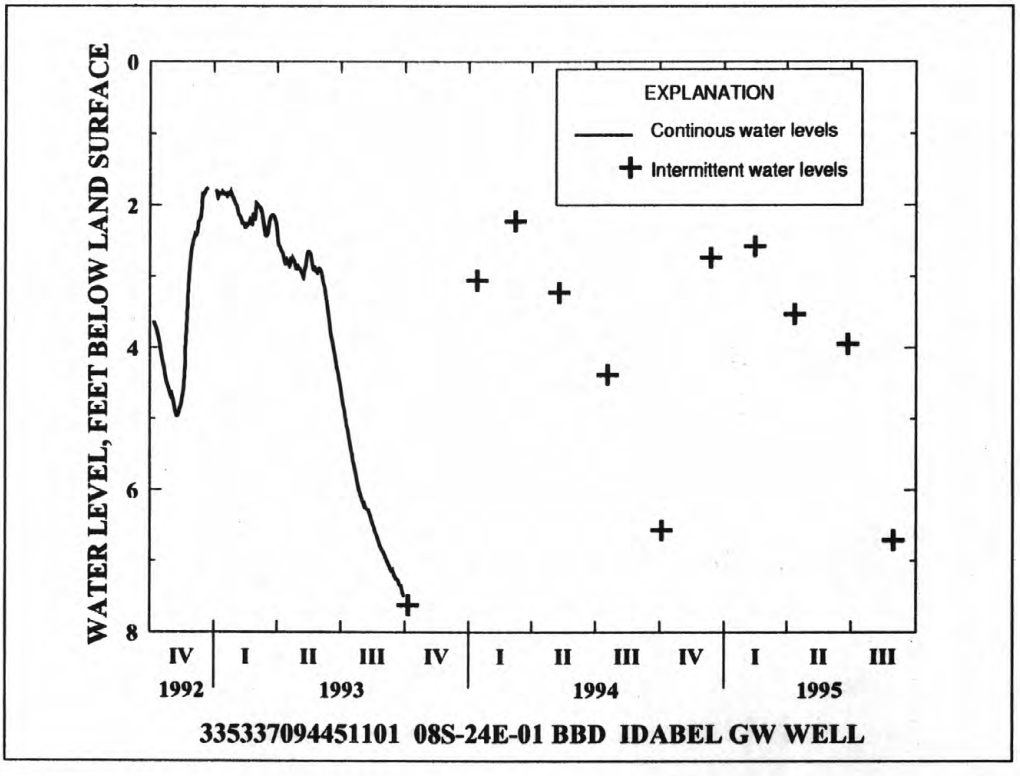


Figure 14.—Hydrograph for well 08S-24E-01 BBD 1 (Idabel GW Well, 335337094451101) for water years 1993-95.

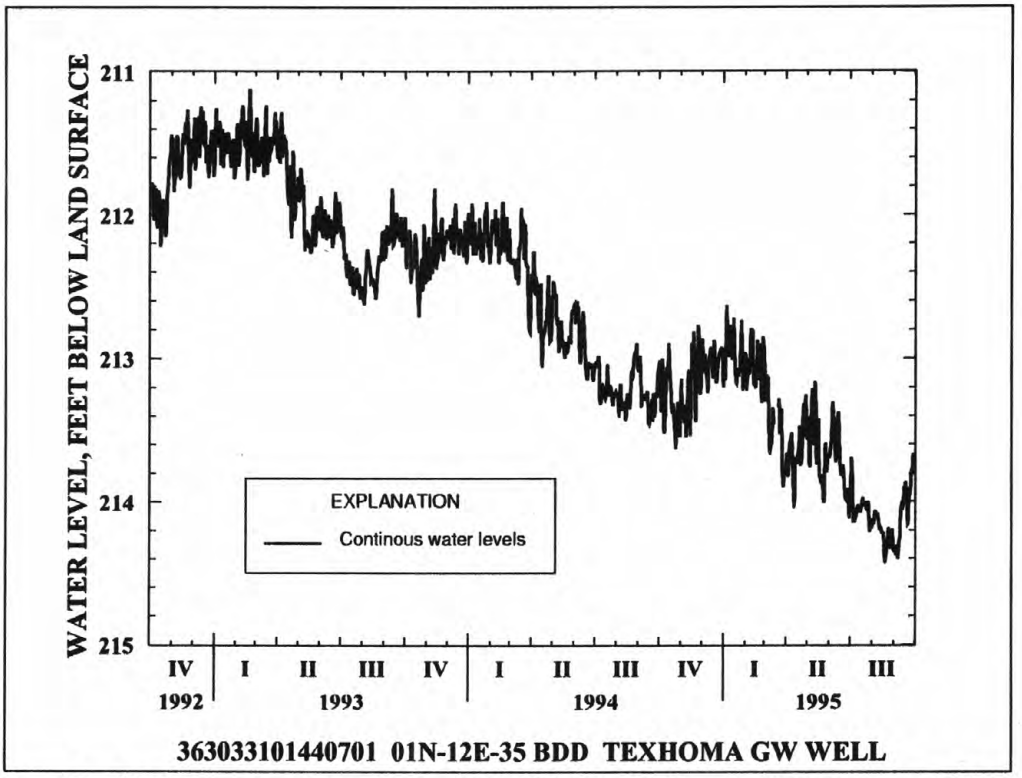


Figure 15.—Hydrograph for well 01N-12E-35 BBD 1 (Texhoma GW Well, 363033101440701) for water years 1993-95.

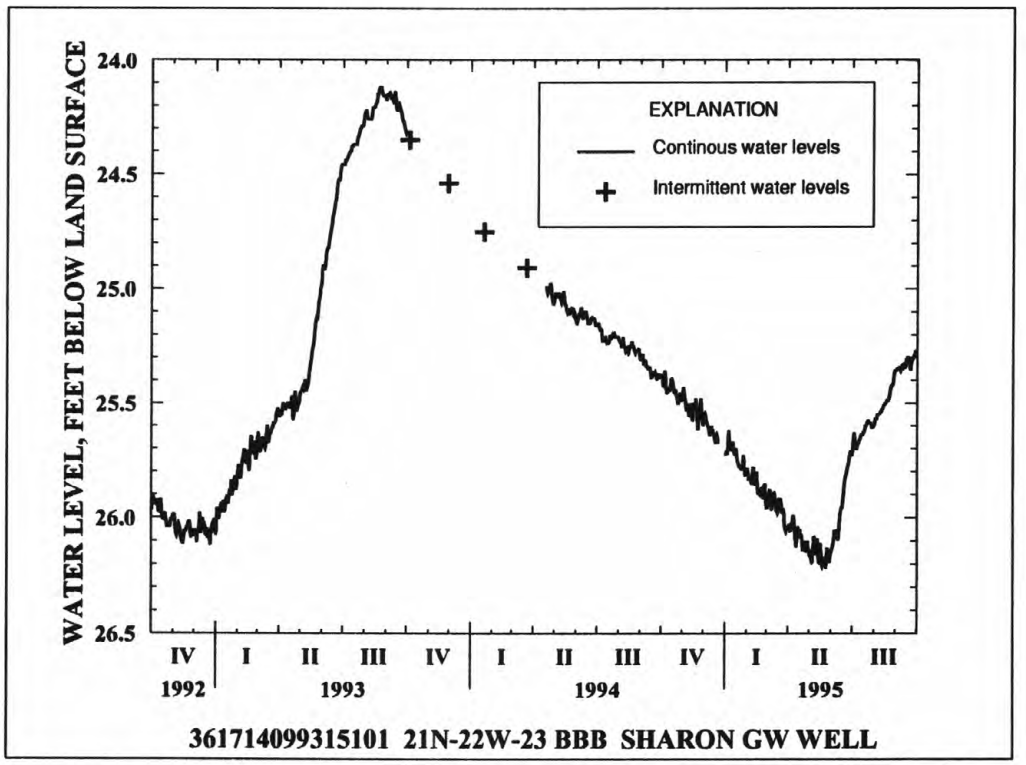


Figure 16.—Hydrograph for well 21N-22W-23 BBB 1 (Sharon GW Well, 361714099315101) for water years 1993-95.

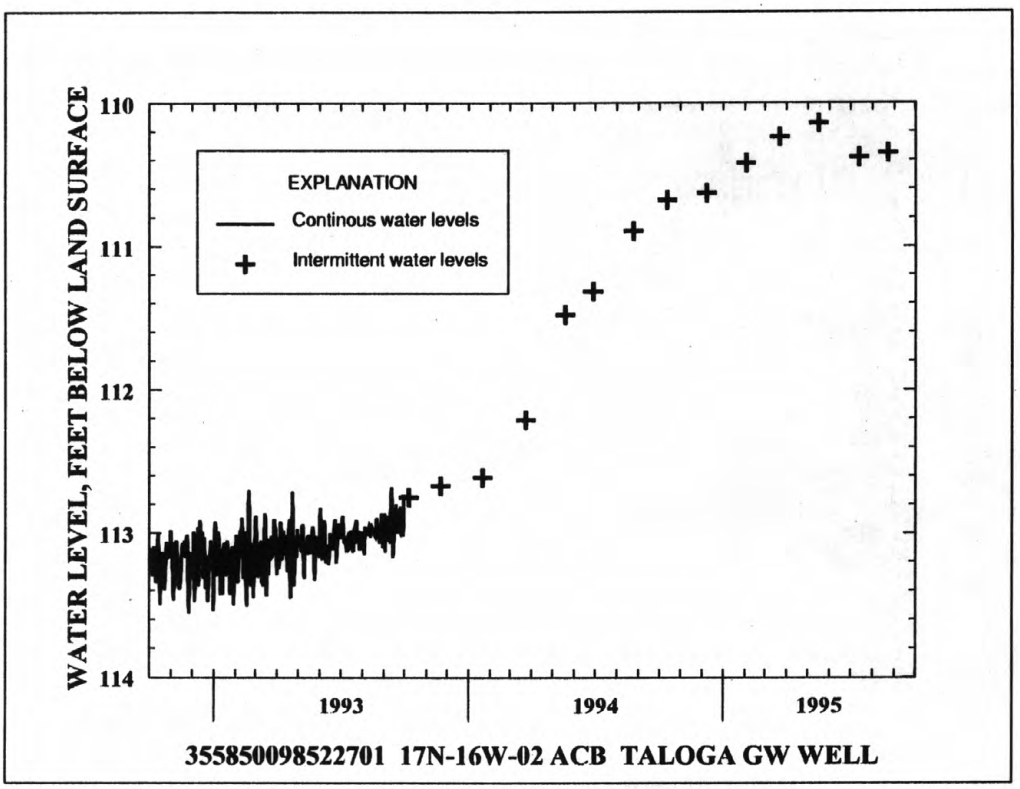


Figure 17.—Hydrograph for well 17N-16W-02 ACB 1 (Taloga GW Well, 355850098522701) for water years 1993-95.

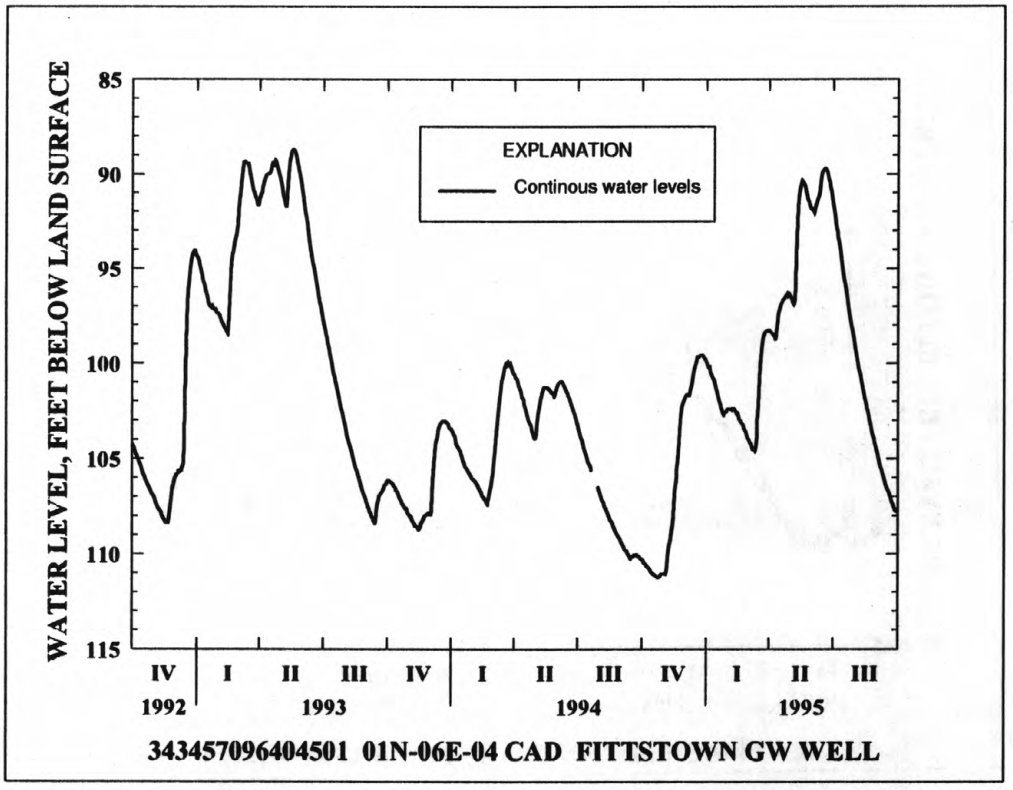


Figure 18.—Hydrograph for well 01N-06E-04 CAD 1 (Fittstown GW Well, 343457096404501) for water years 1993-95.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream-Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a network of stations for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in about two-thirds of the study units and ultimately will be conducted in 60 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

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

EXPLANATION OF THE RECORDS

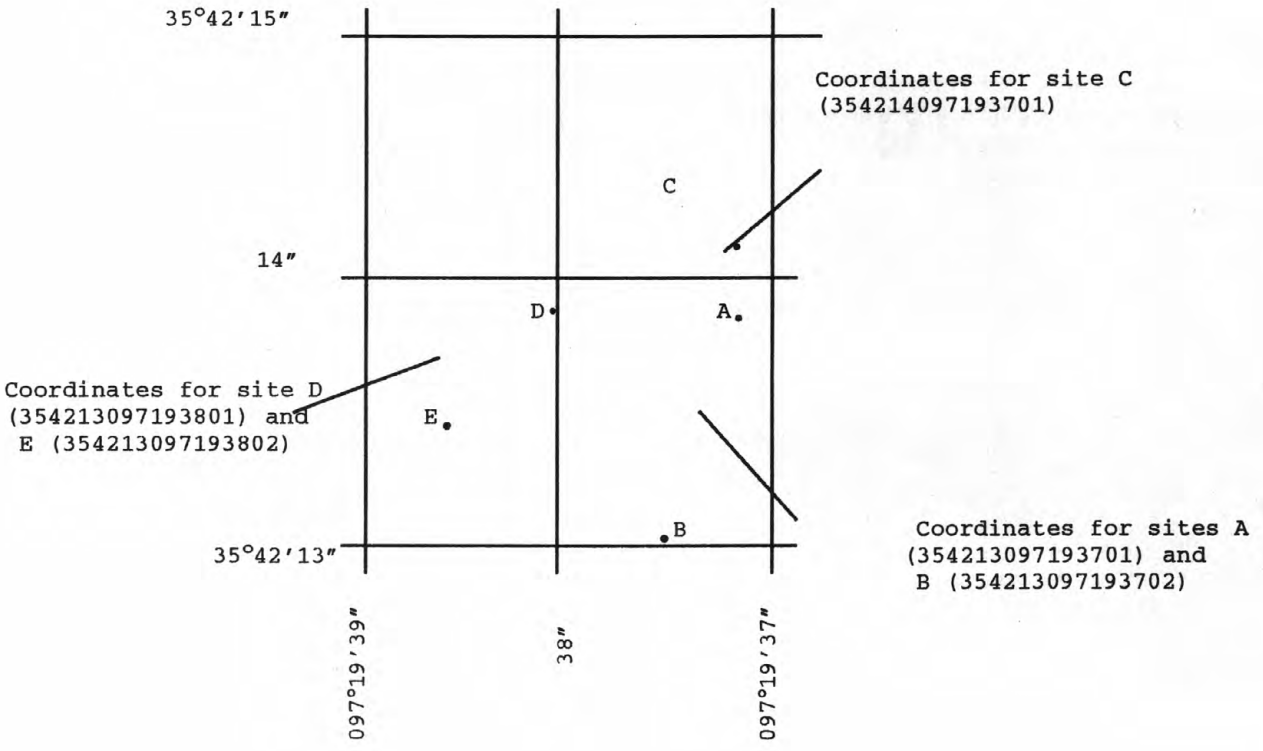
The surface-water and ground-water records published in this report are for the 1995 water year that began Oct. 1, 1994, and ended Sept. 30, 1995. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface water and water levels for ground water. The locations of the stations where the data were collected are shown in figures 19-21. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water wells sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Oklahoma, for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

Since Oct. 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank



System for numbering miscellaneous and ground-water sites (latitude and longitude)

of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete number for each station, such as 07152500, which appears just to the left of the station name, includes the two-digit Part number "07" plus the up to 13-digit downstream-order number "152500." The Part number designates the major river basin; for example, part "07" is the Lower Mississippi River basin.

Latitude-Longitude System

The identification numbers for wells and springs are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In instances where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure above.)

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharge may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They

may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Location of all complete-record, crest-stage partial-record, and low-flow partial-record stations for which data are given in this report are shown in figure 19.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals or with electronic data loggers. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society with the American society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. It is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

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

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

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

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data

reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a program to reformat the annual water-data report to most current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of five parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; a summary statistics table that includes statistical data of annual daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and a hydrograph

Station Manuscript

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

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for most stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily discharge will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period or record and the current year; and possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity

table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the PEAK DISCHARGES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN.") or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of Monthly Mean Data

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

Summary Statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all the station record within the specified water years, inclusive, including complete months of record for partial water year, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data also are given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

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

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

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

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

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

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

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

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

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

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

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

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

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

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

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

10 PERCENT EXCEEDS.--The discharge is exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge is exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge is exceeded 90 percent of the time for the designated period.

Hydrograph

A hydrograph for the current year follows the table for most stations. Streamflow hydrographs are semi-log plot of mean daily values with no flow days showing as blanks. Lake hydrographs are rectangular plot of 2400-hour readings.

Data collected at partial-record stations follow the information for continuous-record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called miscellaneous sites.

Identifying Estimated Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated."

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft3/s; to the nearest tenth between 1.0 and 10 ft3/s; to whole numbers between 10 and 1,000 ft3/s; and to 3 significant figures for more than 1,000 ft3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Oklahoma District office. Also, most of the daily mean discharges are in computer-readable form.

Records of Surface-Water Quality

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

Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 20.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are detailed in TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey District Office whose address is given on the back of the title page of this report.

Water Temperature

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

Sediment

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

Suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

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

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, Colo. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI, Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetic method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values for those years have not been corrected for this bias.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, and water temperature then follow in sequence.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

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

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remarks Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT	REMARK
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (nonideal colony count).
L	Biological organism count less than 0.5 percent (organisms may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

NOTE: Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's and 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at all stations in the water year 1994.

Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Oklahoma are shown in figure 21.

Although, in this report, records of water levels are presented for fewer than 100 wells, records are obtained through cooperative efforts of many Federal, State, and local agencies for several hundred observation wells throughout Oklahoma and are placed in computer storage. Information about the availability of the data in the water-level file may be obtained from the District chief, Oklahoma District. (See address on back of front page.)

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability. Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or punched tape of the water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in each well description.

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

Data Presentation

Each well record consists of two parts, the station description and the data table of mean daily water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-

identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; the distance and direction from a geographic point of reference.

AQUIFER.--This entry designates by name the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision depending on the method determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It is used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

An abbreviated table of mean daily water levels follows the station description for each well equipped with a digital recorder. For wells with no recorder, actual measurements are listed. Water levels are reported in feet below land-surface datum. A rectangular hydrograph of mean daily water levels for the last three years follows the table for recorder wells. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by blanks in place of the water level.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National WATer Data STOrage and REtrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- Station Header File - contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- Daily Values File - Contains more than 220 million daily values of streamflows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- Water-Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.
- Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data include site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disc; and as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports also will be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be

available for sale by the Books and Open-File Reports Section, U.S Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITIONS OF TERMS

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

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

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

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

Aroclor is the registered trade mark for a group of polychlorinated biphenyls which were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific four-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

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

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

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

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

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

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

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500oC for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m3), and periphyton and benthic organisms in grams per square meter (g/m2).

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

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

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

Bottom material: See Bed material.

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

usually milliliters (mL) or liters (L).

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

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

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

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

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

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

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] or CFSM is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

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

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a 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 above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

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

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO3).

HWM is a high-water mark or flood mark.

Hydrologic Benchmark Network is a network of sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material

analyzed.

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

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

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a network of stations for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

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

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

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

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

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

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

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

(disintegrations per minute).

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

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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [mg C/m3.time)] for periphyton and macrophytes and [mg C/(m3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O/(m3.time)] for periphyton and macrophytes and [mg O/m3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

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

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

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected

on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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

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

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

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

Tons per day (T/DAY) is the quantity of a 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 both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

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

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, Oct. 1 through Sept. 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending Sept. 30, 1995, is called the "1995 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3-A12. *Fluorometric procedures for dye tracing,* Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 pages.

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

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

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

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

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

3-A19. *Levels at streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers,* by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.

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

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

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

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

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

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

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

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.

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

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

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

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

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

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

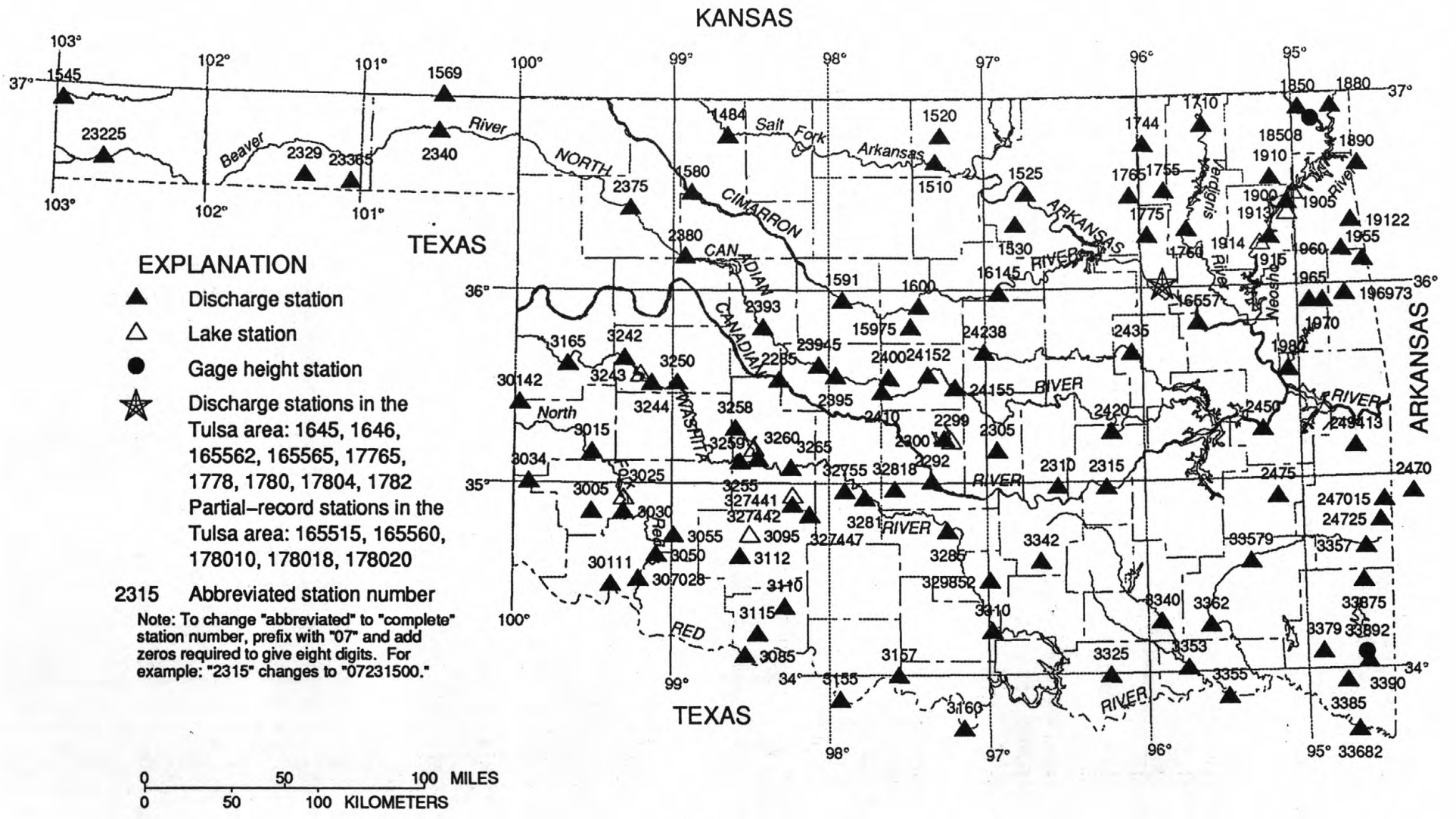


Figure 19.—Locations of continuous and partial–record surface–water stations, water year 1995

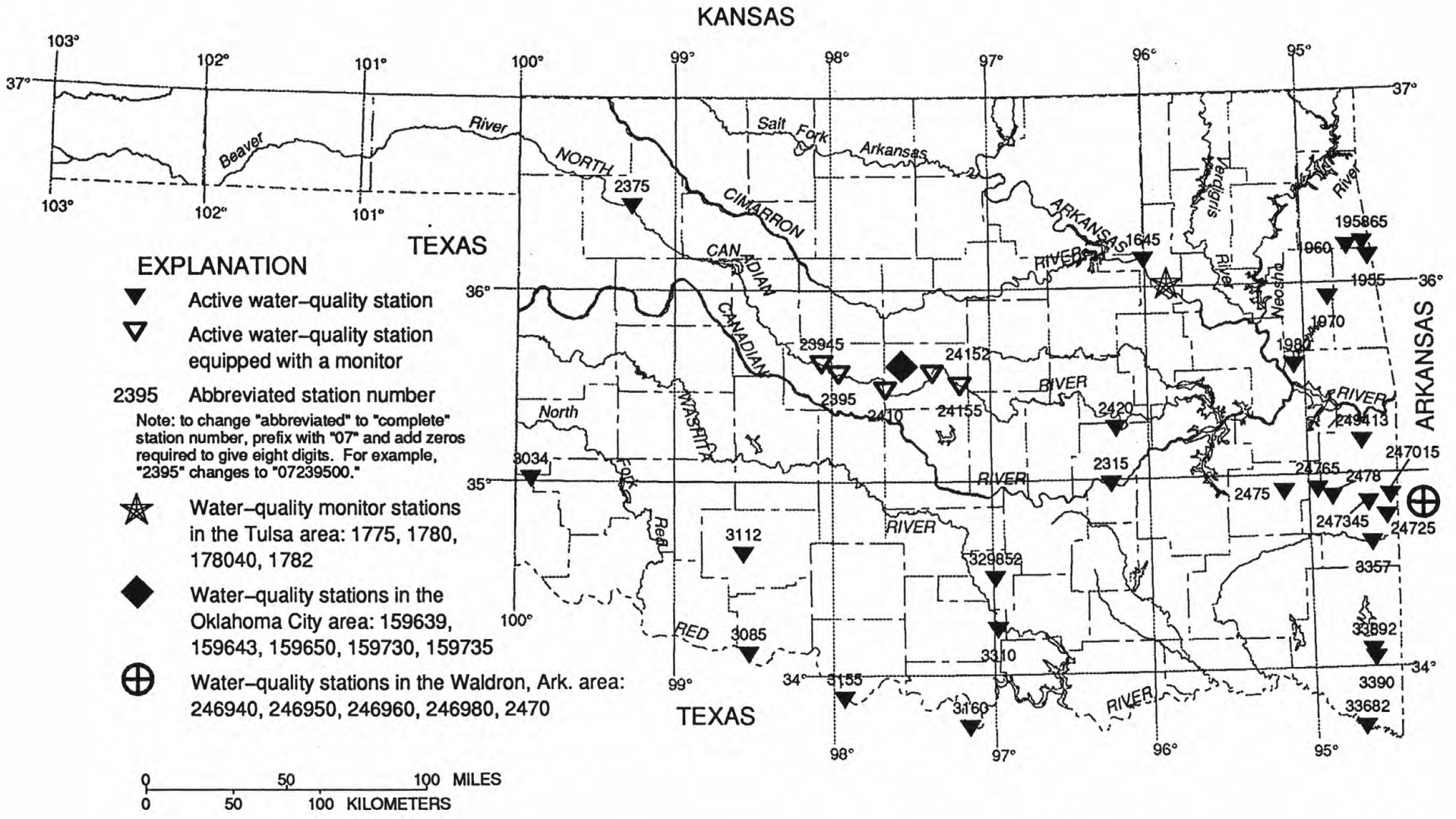


Figure 20.--Locations of water-quality stations, water year 1995

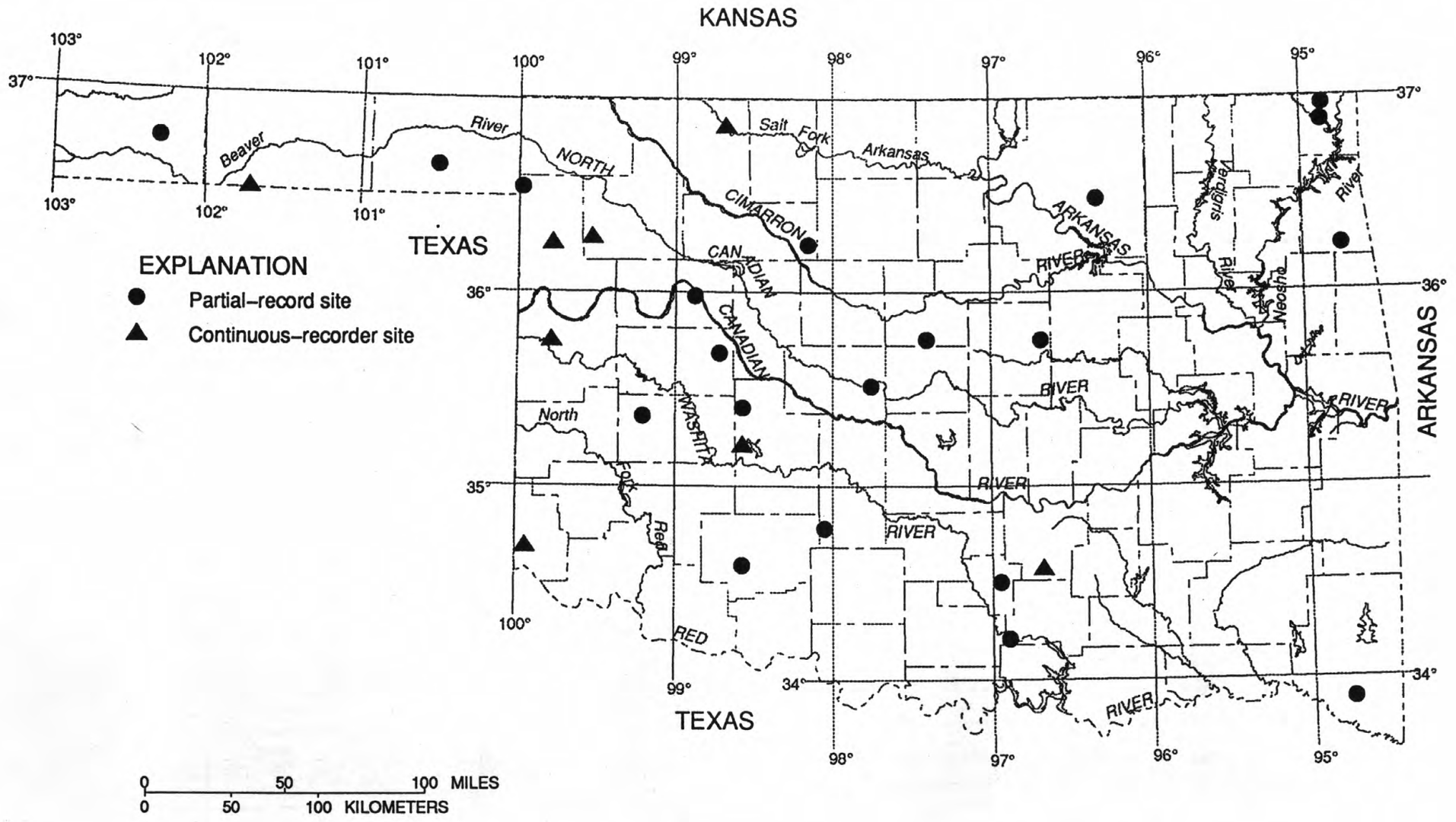
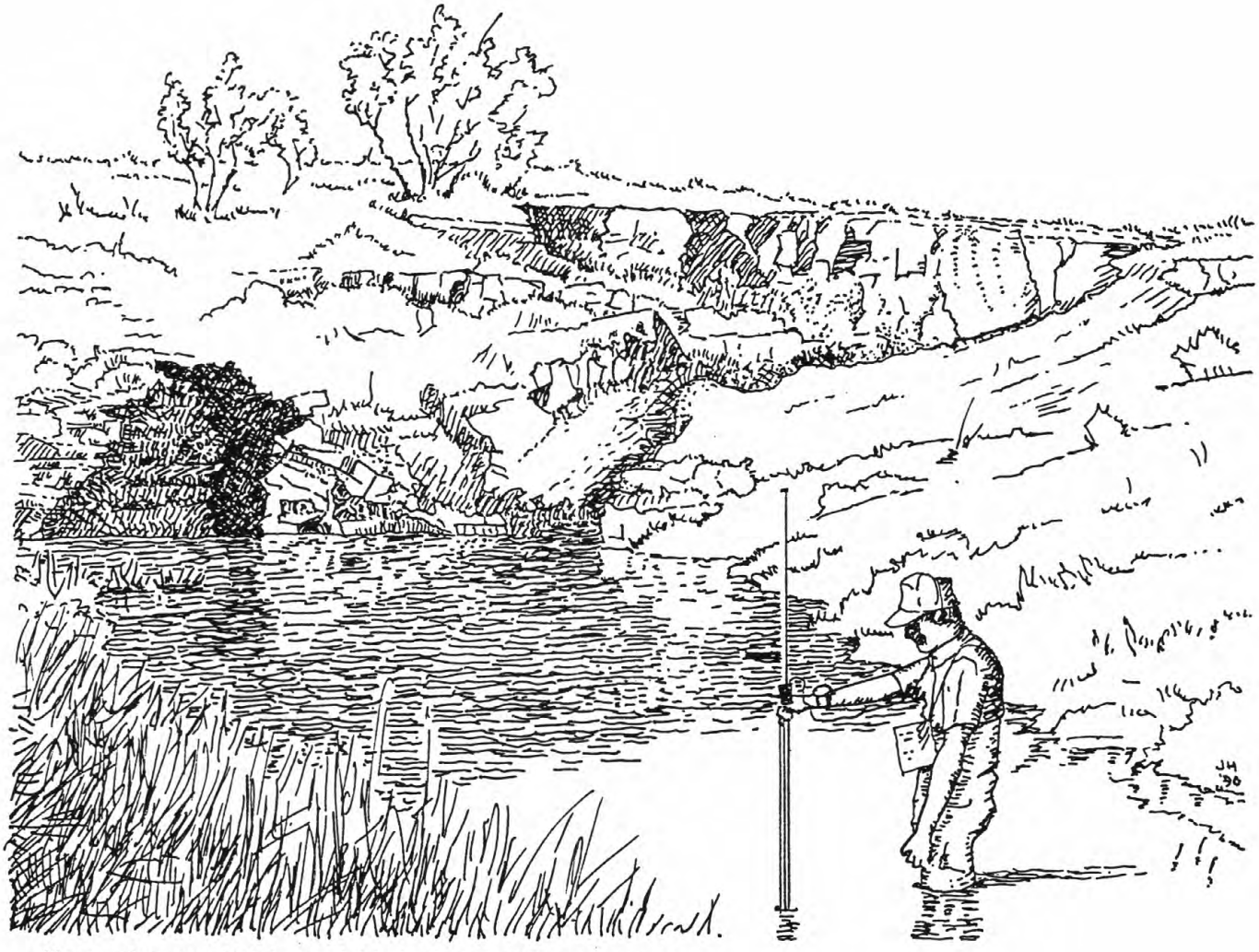


Figure 21.––Locations of network ground–water wells, water year 1995



Measuring runoff into a sinkhole in the Blaine aquifer

07300500 SALT FORK RED RIVER AT MANGUM, OK

LOCATION.--Lat 34°51'30", long 99°30'30", in SW 1/4 SE 1/4 sec.34. T.5 N, R.22 W., Greer County, Hydrologic Unit 11120202, near left bank on downstream side of pier of bridge on State Highway 34, 0.5 mi south of Mangum, 13.0 mi downstream from Fish Creek, and at mile 35.5.

DRAINAGE AREA.--1,566 mi^2, of which 209 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1905 to June 1906, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1938.

GAGE.--Water-stage recorder. Datum of gage is 1,490.87 ft above sea level (levels by U.S. Bureau of Reclamation). Apr. 11, 1905 to June 30, 1906, nonrecording gage at site 0.2 mi upstream at different datum. Oct. 1, 1937 to Nov. 8, 1938, nonrecording gage at present site and datum.

REMARKS.--Records fair.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 4	1530	14,200	12.88	Aug. 3	0300	13,800	12.72
June 10	0915	6,520	9.51				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.7	17	26	28	21	43	24	196	e79	696	e40
2	.00	1.5	18	25	28	e22	43	22	679	e78	4100	e39
3	.00	1.3	19	26	26	26	45	22	1880	e76	6270	e38
4	.00	2.0	20	24	23	34	49	20	11000	e75	2090	e37
5	.00	3.6	22	24	22	38	48	21	3570	e74	e600	e36
6	.00	3.4	24	25	21	39	49	34	1150	e70	e450	e34
7	.00	3.4	24	25	21	46	43	145	678	e69	e370	e33
8	.00	3.3	25	29	21	48	37	313	526	e66	e250	e32
9	.00	3.1	25	28	20	50	31	112	856	e60	e190	e32
10	.00	3.1	25	28	21	45	28	66	2540	e58	e160	e31
11	.00	2.8	24	27	20	41	25	44	834	e55	e140	e45
12	.00	2.7	22	25	19	40	23	39	469	e50	e120	e60
13	.00	3.7	21	24	19	46	21	36	e240	e49	e110	864
14	.00	3.8	22	23	23	72	20	30	e190	e48	e100	661
15	.00	3.5	22	23	27	60	18	27	e170	e47	e90	875
16	.01	3.3	22	23	28	52	18	26	e150	e46	e83	1590
17	315	3.0	22	23	26	45	25	24	e140	e45	e78	1030
18	85	2.8	23	23	28	43	36	20	e130	e43	e75	1350
19	4.4	14	23	23	25	41	69	21	e117	e42	e72	1440
20	1.9	530	22	22	22	36	65	19	e109	e42	e69	600
21	2.9	71	22	23	22	32	49	20	e106	e41	e68	693
22	2.6	47	22	30	22	29	50	18	e100	e40	e64	559
23	1.1	29	22	32	21	27	56	17	e94	e45	59	366
24	.74	25	23	31	20	26	58	23	e90	530	e58	388
25	.45	23	24	31	21	28	68	49	e88	105	e54	544
26	.34	22	25	31	21	29	52	475	e86	e80	e52	e350
27	.34	20	25	33	21	32	40	936	e84	59	e50	e300
28	.39	18	25	30	21	53	32	994	e83	e52	e48	e245
29	.56	17	28	30	---	46	29	364	e82	e48	e46	e220
30	.85	17	28	29	---	42	25	280	e80	e47	e44	e180
31	1.8	---	27	28	---	41	---	254	---	e45	e42	---
TOTAL	418.38	885.0	713	824	637	1230	1195	4495	26517	2264	16698	12712
MEAN	13.5	29.5	23.0	26.6	22.7	39.7	39.8	145	884	73.0	539	424
MAX	315	530	28	33	28	72	69	994	11000	530	6270	1590
MIN	.00	1.3	17	22	19	21	18	17	80	40	42	31
AC-FT	830	1760	1410	1630	1260	2440	2370	8920	52600	4490	33120	25210

e Estimated

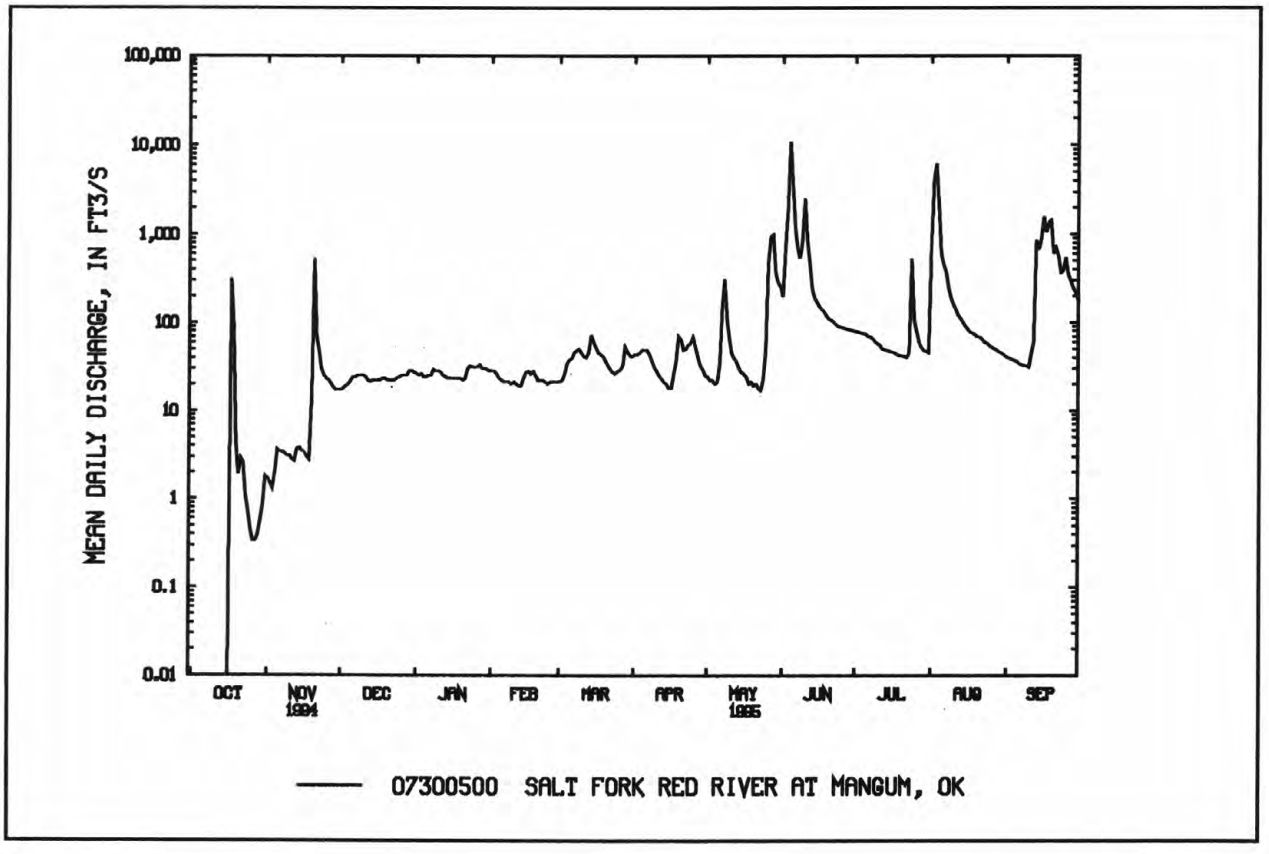
07300500 SALT FORK RED RIVER AT MANGUM, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	78.3	28.2	35.2	45.2	51.4	48.3	85.4	271	245	63.7	40.1	50.9
MAX	919	196	148	199	196	183	490	1389	1602	575	539	424
(WY)	1961	1987	1992	1960	1949	1969	1973	1957	1941	1953	1995	1995
MIN	.000	.000	.000	.000	.000	.12	.000	.000	.000	.000	.000	.000
(WY)	1941	1940	1940	1940	1953	1971	1955	1953	1952	1963	1943	1939

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1938 - 95	
ANNUAL TOTAL	12496.82		68588.38			
ANNUAL MEAN	34.2		188		87.0	
HIGHEST ANNUAL MEAN					277	1941
LOWEST ANNUAL MEAN					12.3	1940
HIGHEST DAILY MEAN	530	Nov 20	11000	Jun 4	22600	May 28 1978
LOWEST DAILY MEAN	.00	Aug 10	.00	Oct 1-15	[a].00	Oct 2 1937
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 22	.00	Oct 1	.00	Aug 14 1938
INSTANTANEOUS PEAK FLOW			14200	Jun 4	72000	May 16 1957
INSTANTANEOUS PEAK STAGE			12.88	Jun 4	14.70	Jun 16 1938
ANNUAL RUNOFF (AC-FT)	24790		136000		63000	
10 PERCENT EXCEEDS	61		365		120	
50 PERCENT EXCEEDS	23		32		16	
90 PERCENT EXCEEDS	.00		3.1		.00	

[a]No flow at times in most years.



07301110 SALT FORK RED RIVER NEAR ELMER, OK

LOCATION.--Lat 34°28'44", long 99°22'55", in NW 1/4 NE 1/4 sec.15, T.1 S., R.21 W., Jackson County, Hydrologic Unit 11120202, on right bank at bridge on State Highway 5, 1.7 mi west of Elmer, and at mile 3.5.

DRAINAGE AREA.--1,878 mi^2, of which 209 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,258.55 ft above sea level.

REMARKS.--Records poor. Low flows sustained at times by irrigation returns from Lake Altus.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 5	0530	29,700	14.35 (HWM)	Aug. 3	1030	36,000	15.60 (HWM)
June 10	2000	18,700	11.88				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	19	54	41	43	42	59	34	304	213	655	181
2	8.2	18	52	40	42	44	64	31	231	190	7290	181
3	8.0	18	51	39	41	44	69	30	469	175	28200	194
4	6.4	21	50	37	38	49	75	29	17800	166	e7000	185
5	6.5	47	49	37	38	52	71	29	26500	156	e1400	180
6	6.1	33	48	39	36	55	70	510	8820	150	e600	183
7	8.3	31	47	39	36	61	68	404	1830	138	e500	192
8	8.2	29	47	40	35	63	65	645	786	126	e450	164
9	7.1	59	45	40	36	67	55	361	593	113	e410	165
10	7.4	57	44	40	36	72	52	214	11200	102	e380	172
11	7.6	35	44	41	36	77	47	141	9100	120	e350	203
12	7.2	27	46	38	35	76	42	106	2250	117	e330	255
13	7.1	26	43	34	34	73	39	79	777	132	e310	338
14	5.6	25	44	32	34	81	38	57	522	148	e290	248
15	8.9	23	43	32	35	100	38	49	410	165	e280	179
16	10	25	43	32	37	e140	76	45	343	368	e270	666
17	12	26	43	30	40	e120	578	38	295	226	e265	2330
18	375	25	43	30	41	e110	233	30	270	321	e250	1460
19	186	35	43	29	41	e100	90	26	251	682	e248	1200
20	75	1570	42	29	41	e90	84	24	234	254	e245	1940
21	128	907	41	28	39	e80	89	23	224	224	e240	1090
22	31	277	40	31	37	e70	92	22	218	236	233	1040
23	25	159	38	35	36	e64	93	20	206	209	236	678
24	22	113	39	40	35	e57	80	23	210	1990	235	429
25	19	94	39	42	34	e49	68	61	217	1110	218	478
26	18	85	39	41	36	e56	66	153	214	391	214	1040
27	17	73	38	43	36	e76	57	1520	199	275	214	996
28	17	65	39	42	37	e60	49	1490	196	221	210	520
29	18	61	43	43	---	57	44	1230	209	186	209	389
30	18	57	42	43	---	66	37	451	212	165	202	396
31	18	---	42	43	---	63	---	344	---	156	188	---
TOTAL	1099.6	4040	1361	1150	1045	2214	2588	8219	85090	9225	52122	17672
MEAN	35.5	135	43.9	37.1	37.3	71.4	86.3	265	2836	298	1681	589
MAX	375	1570	54	43	43	140	578	1520	26500	1990	28200	2330
MIN	5.6	18	38	28	34	42	37	20	196	102	188	164
AC-FT	2180	8010	2700	2280	2070	4390	5130	16300	168800	18300	103400	35050

e Estimated

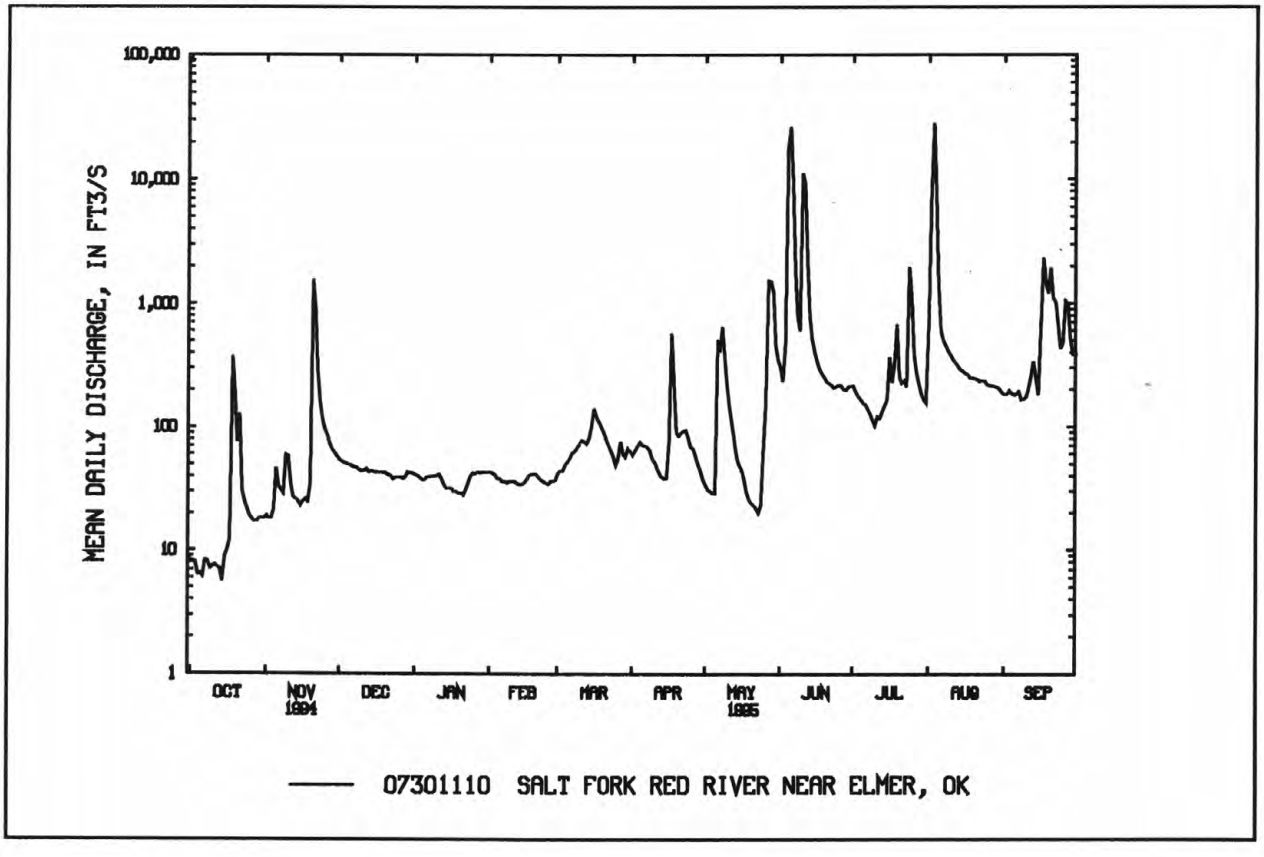
07301110 SALT FORK RED RIVER NEAR ELMER, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	278	135	129	123	129	159	191	616	759	163	245	182
MAX	1828	680	701	362	520	423	457	2566	2836	641	1681	950
(WY)	1987	1987	1992	1993	1987	1988	1993	1980	1995	1993	1995	1986
MIN	3.79	4.72	16.5	13.3	13.7	21.1	13.9	7.51	61.1	9.25	4.19	7.90
(WY)	1985	1985	1983	1981	1981	1982	1982	1984	1994	1981	1981	1981

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1980 - 95	
ANNUAL TOTAL	41362.9		185825.6			
ANNUAL MEAN	113		509		260	
HIGHEST ANNUAL MEAN					591	1987
LOWEST ANNUAL MEAN					71.2	1983
HIGHEST DAILY MEAN	1570	Nov 20	28200	Aug 3	28200	Aug 3 1995
LOWEST DAILY MEAN	5.6	Oct 14	5.6	Oct 14	.08	Sep 4 1981
ANNUAL SEVEN-DAY MINIMUM	7.1	Oct 4	7.1	Oct 4	.12	Aug 30 1981
INSTANTANEOUS PEAK FLOW			36000	Aug 3	44900	Oct 20 1983
INSTANTANEOUS PEAK STAGE			[a]15.60	Aug 3	[a]16.06	May 29 1987
ANNUAL RUNOFF (AC-FT)	82040		368600		188000	
10 PERCENT EXCEEDS	223		544		430	
50 PERCENT EXCEEDS	67		64		75	
90 PERCENT EXCEEDS	16		25		12	

[a]From high-water mark.



07301420 SWEETWATER CREEK NEAR SWEETWATER, OK

LOCATION.--Lat 35°25'20", long 99°58'08", in NW 1/4 NE 1/4 sec.20, T.11 N, R.26 W., Roger Mills-Beckham County line, Hydrologic Unit 11120302, on right bank downstream bridge piling of State Highway 152, 0.4 mi downstream from Freezeout Creek, 3.3 mi west of Sweetwater, and at mile 16.0.

DRAINAGE AREA.--424 mi^2, of which 20 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,087.76 ft above sea level.

REMARKS.--Records good, except for ice effected winter periods, which are poor. U.S. Bureau of Reclamations' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.37	4.2	11	14	15	23	19	65	19	45	7.4
2	.00	1.2	4.3	e8.5	14	e14	21	18	54	19	208	7.0
3	.00	1.8	4.5	e10	14	e15	21	18	553	19	185	6.5
4	.02	2.1	4.8	e8.5	14	18	22	18	646	18	145	6.1
5	.11	3.1	4.9	e9.0	14	21	21	17	592	16	92	5.9
6	.02	3.8	5.2	e10	14	23	20	25	316	15	68	5.7
7	.04	4.5	6.2	e8.5	15	21	19	40	173	15	50	5.3
8	.06	4.1	7.1	e12	14	22	19	47	121	14	39	5.2
9	.03	3.5	6.5	12	14	23	19	51	99	13	32	5.9
10	.07	3.9	6.1	12	15	22	18	34	92	12	28	6.4
11	.08	3.8	5.7	11	15	20	17	26	84	12	25	7.4
12	.08	4.2	5.8	11	e14	19	17	22	71	11	23	8.6
13	.15	4.7	6.2	10	e14	18	17	21	62	11	21	8.5
14	.16	5.7	6.6	10	e16	19	17	19	54	10	20	7.5
15	.36	5.7	6.8	9.7	17	23	16	17	48	9.6	19	7.9
16	.35	5.8	7.2	9.8	18	25	16	16	43	9.4	18	9.5
17	.35	6.1	7.2	9.4	17	23	17	16	38	9.7	17	11
18	.34	6.8	7.2	9.1	17	20	17	20	35	14	16	10
19	.22	10	7.2	8.7	17	19	17	18	33	31	15	35
20	.22	9.2	7.5	8.6	16	17	18	16	31	36	14	27
21	.32	13	7.4	8.6	16	16	19	17	29	22	14	30
22	.29	8.8	7.2	9.7	16	16	20	18	28	18	13	30
23	.24	6.1	7.2	11	15	15	26	20	26	30	12	27
24	.25	5.6	7.4	14	15	14	28	29	25	26	12	23
25	.24	5.7	7.7	15	16	36	23	32	28	22	11	23
26	.27	6.0	7.8	16	15	28	20	44	23	17	11	24
27	.26	5.9	8.0	16	16	23	19	69	22	15	10	23
28	.31	6.0	8.3	16	15	21	19	107	22	12	9.7	22
29	.37	5.0	8.4	14	---	22	19	68	20	11	9.3	27
30	.40	4.3	8.6	13	---	24	18	51	19	10	8.8	28
31	.59	---	9.5	14	---	24	---	58	---	9.6	8.0	---
TOTAL	6.20	156.77	208.7	346.1	427	636	583	991	3452	506.3	1198.8	450.8
MEAN	.20	5.23	6.73	11.2	15.2	20.5	19.4	32.0	115	16.3	38.7	15.0
MAX	.59	13	9.5	16	18	36	28	107	646	36	208	35
MIN	.00	.37	4.2	8.5	14	14	16	16	19	9.4	8.0	5.2
AC-FT	12	311	414	686	847	1260	1160	1970	6850	1000	2380	894

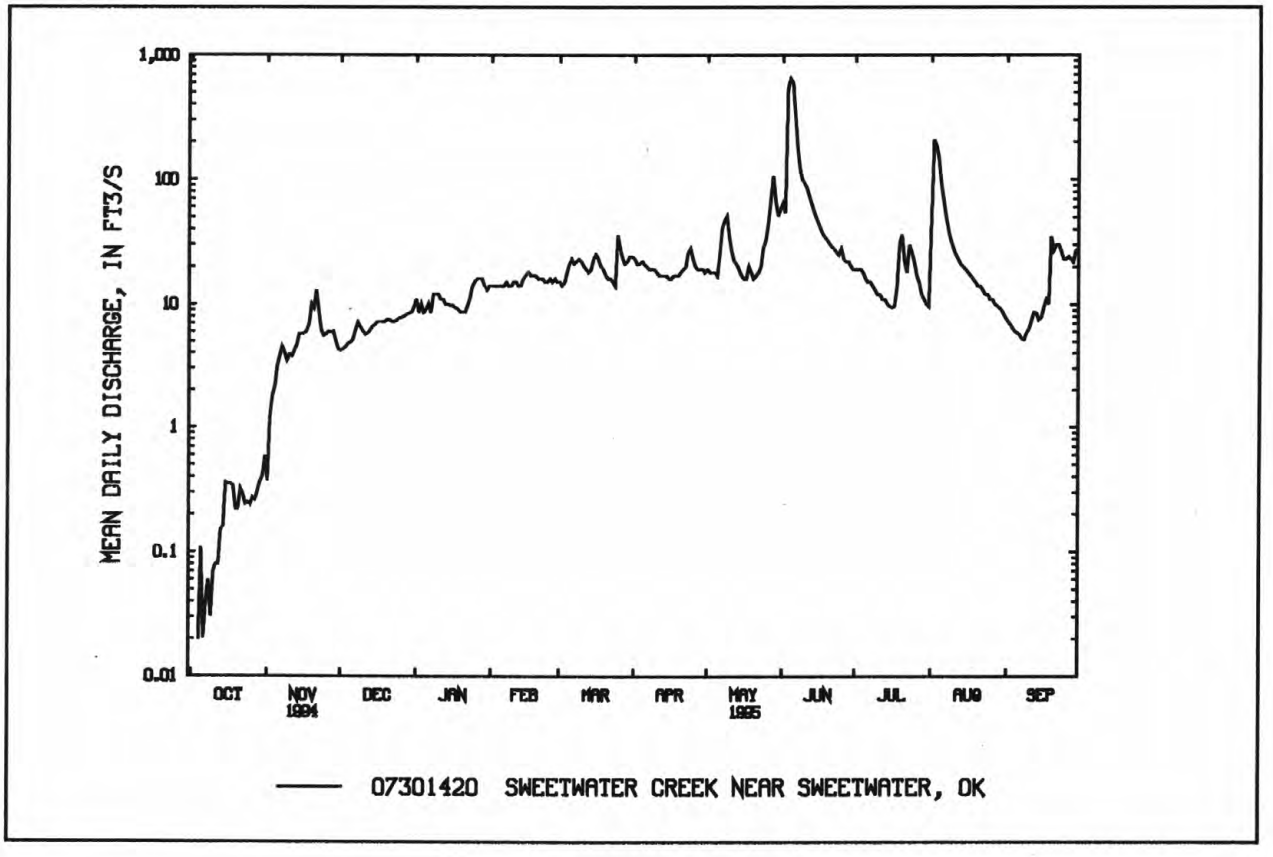
c Estimated

07301420 SWEETWATER CREEK NEAR SWEETWATER, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	14.4	19.4	22.2	26.2	28.5	35.2	29.4	31.9	37.2	10.3	7.56	11.1
MAX	72.2	61.1	37.9	41.1	51.3	73.0	45.0	47.9	115	17.4	38.7	51.6
(WY)	1987	1987	1987	1987	1987	1987	1988	1987	1995	1989	1995	1988
MIN	.20	5.23	6.73	11.2	15.2	17.9	16.2	18.1	7.08	.97	.080	.084
(WY)	1995	1995	1995	1995	1995	1991	1991	1991	1994	1994	1994	1994

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1986 - 95	
ANNUAL TOTAL	3620.92		8962.67			
ANNUAL MEAN	9.92		24.6		23.0	
HIGHEST ANNUAL MEAN					41.4	1987
LOWEST ANNUAL MEAN					10.9	1994
HIGHEST DAILY MEAN	67	Apr 30	646	Jun 4	646	Jun 4 1995
LOWEST DAILY MEAN	.00	Aug 27	.00	Oct 1-3	.00	at times
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 28	.03	Oct 1	.00	Sep 28 1994
INSTANTANEOUS PEAK FLOW			1940	Jun 3	1940	Jun 3 1995
INSTANTANEOUS PEAK STAGE			15.89	Jun 3	15.89	Jun 3 1995
INSTANTANEOUS LOW FLOW					.00	Aug 27 1994
ANNUAL RUNOFF (AC-FT)	7180		17780		16640	
10 PERCENT EXCEEDS	20		35		43	
50 PERCENT EXCEEDS	7.2		15		18	
90 PERCENT EXCEEDS	.06		3.3		1.6	



07301500 NORTH FORK RED RIVER NEAR CARTER, OK

LOCATION.--Lat 35°10'05", long 99°30'25", in NW 1/4 SE 1/4 sec.15, T.8 N., R.22 W., Beckham County, Hydrologic Unit 11120302, on left bank on downstream side of roadway on State Highway 34, 3.0 mi south of Carter, 10.8 mi downstream from Timber Creek, and at mile 110.5.

DRAINAGE AREA.--2,337 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1944 to September 1962. Annual maximum and occasional low-flow measurements, water years 1963-64. August 1964 to current year.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,673.71 ft above sea level.

REMARKS.--Records fair. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 4	1800	34,800	15.08	Aug. 3	0800	10,200	11.67

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.0	9.1	15	29	21	79	38	629	166	219	48
2	.00	2.1	9.1	15	27	25	77	36	512	149	2110	43
3	.00	1.6	9.5	15	25	28	79	37	3780	145	7210	40
4	.00	2.8	9.8	15	22	27	79	35	17300	145	1810	36
5	.00	6.5	9.6	15	23	35	79	33	12000	141	1050	34
6	.00	4.6	11	16	23	45	74	49	4620	127	723	30
7	.00	3.8	11	16	22	62	65	89	e1500	114	447	28
8	.00	3.2	11	15	19	62	55	262	e700	105	267	25
9	.00	3.2	11	16	19	64	e46	285	e500	98	255	24
10	.00	2.4	10	16	19	69	e42	204	e460	91	283	25
11	.00	2.4	9.6	18	18	69	38	149	e350	86	308	27
12	.00	3.3	10	20	18	65	35	117	280	80	275	28
13	.00	5.4	11	19	19	270	32	92	247	72	247	28
14	.00	4.9	11	17	18	169	29	75	245	62	232	26
15	.00	3.8	11	16	19	110	28	63	263	56	217	33
16	.00	3.4	11	16	21	89	27	61	257	51	206	57
17	14	3.8	11	16	24	82	31	68	271	45	189	60
18	13	3.4	11	16	24	77	61	68	243	57	170	69
19	9.5	12	11	16	33	69	68	65	242	63	151	158
20	3.2	100	11	16	31	62	59	81	230	68	131	288
21	6.4	149	11	16	26	57	52	106	211	77	116	278
22	6.4	44	12	18	25	50	51	111	201	119	103	242
23	3.2	18	12	19	25	46	57	131	196	104	96	217
24	1.8	16	12	19	22	41	72	343	251	102	89	211
25	1.3	16	13	20	21	39	85	381	290	136	81	189
26	.95	15	13	28	21	43	78	484	237	119	76	174
27	.89	13	13	39	21	155	64	1120	208	100	73	163
28	.95	12	15	43	21	104	52	940	194	87	68	160
29	.98	10	16	41	---	88	47	684	193	73	62	156
30	2.3	9.2	16	38	---	81	40	567	176	62	57	156
31	4.3	---	16	34	---	78	---	757	---	56	52	---
TOTAL	69.17	477.8	357.7	639	635	2282	1681	7531	46786	2956	17373	3053
MEAN	2.23	15.9	11.5	20.6	22.7	73.6	56.0	243	1560	95.4	560	102
MAX	14	149	16	43	33	270	85	1120	17300	166	7210	288
MIN	.00	1.6	9.1	15	18	21	27	33	176	45	52	24
AC-FT	137	948	709	1270	1260	4530	3330	14940	92800	5860	34460	6060

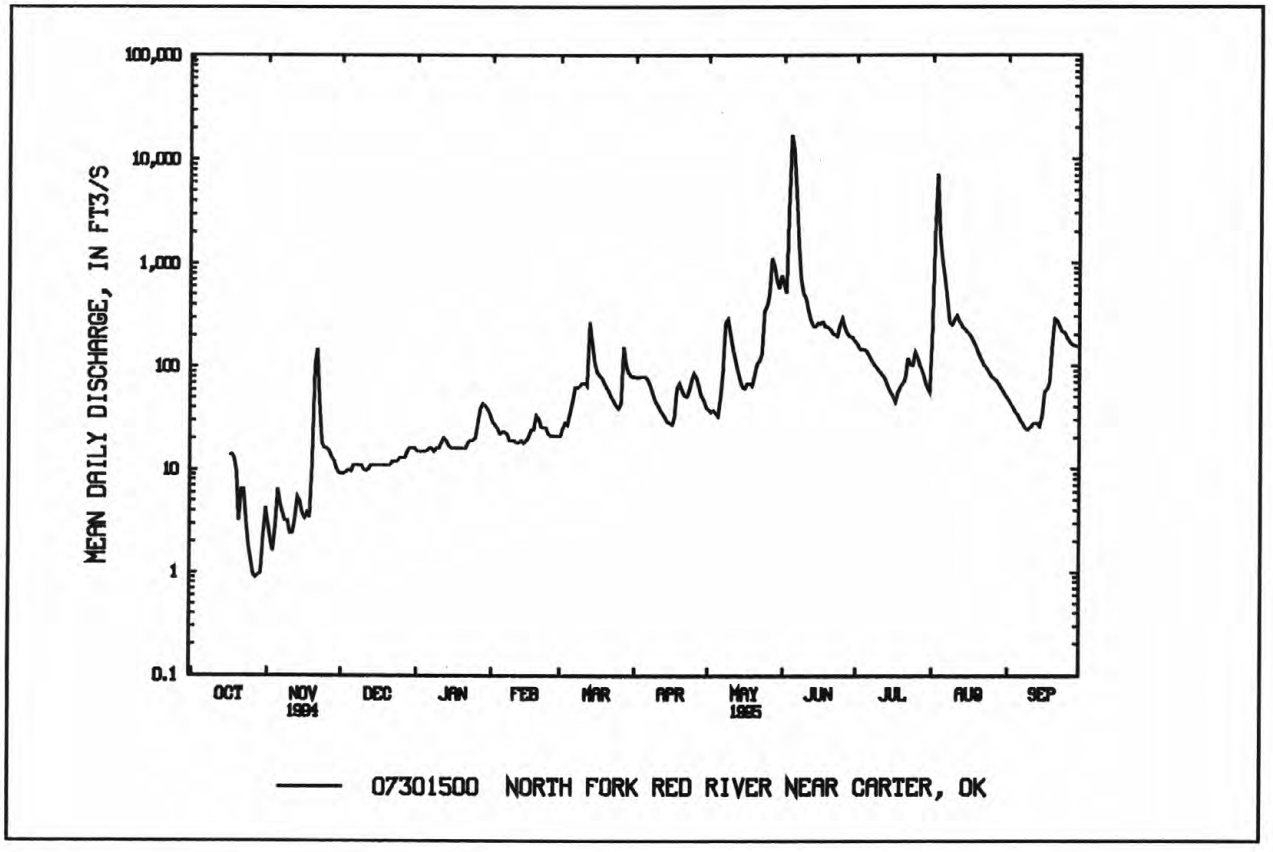
e Estimated

07301500 NORTH FORK RED RIVER NEAR CARTER, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	91.1	50.3	57.0	69.8	92.4	100	125	413	290	72.1	47.2	49.8
MAX	1195	360	271	319	365	465	683	2713	1560	828	560	368
(WY)	1987	1987	1960	1960	1960	1987	1973	1977	1995	1950	1995	1962
MIN	.000	.000	.000	.000	.000	.000	.079	.000	.60	.000	.000	.000
(WY)	1946	1946	1953	1953	1953	1955	1971	1971	1966	1954	1952	1945

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1945 - 95	
ANNUAL TOTAL	13262.82		83840.67			
ANNUAL MEAN	36.3		230		122	
HIGHEST ANNUAL MEAN					356	1987
LOWEST ANNUAL MEAN					12.9	1981
HIGHEST DAILY MEAN	313	Apr 30	17300	Jun 4	20700	May 26 1959
LOWEST DAILY MEAN	.00	Jul 8	.00	Oct 1-16	.00	most years
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 13	.00	Oct 1	.00	May 24 1945
INSTANTANEOUS PEAK FLOW			34800	Jun 4	53400	May 26 1959
INSTANTANEOUS PEAK STAGE			15.08	Jun 4	15.08	Jun 4 1995
ANNUAL RUNOFF (AC-FT)	26310		166300		88170	
10 PERCENT EXCEEDS	89		265		203	
50 PERCENT EXCEEDS	13		43		33	
90 PERCENT EXCEEDS	.00		3.6		.00	



07302500 LAKE ALTUS AT LUGERT, OK

LOCATION.--Lat 34°53'08", long 99°17'43", in SW 1/4 SE 1/4 sec.22, T.5 N., R.20 W., Kiowa County, Hydrologic Unit 11120302, on upstream face of Altus Dam on North Fork Red River, 1.0 mi west of Lugert, 2.6 mi upstream from Elm Fork of North Fork, and at mile 73.5.

DRAINAGE AREA.--2,515 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--December 1943 to September 1950 (monthly records only), October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to Nov. 19, 1948, nonrecording or float gage at same site and datum.

REMARKS.--Reservoir is formed by concrete and coursed masonry dam. Storage began in December 1943. Capacity, 134,500 acre-ft at elevation 1,559.0 ft, crest of uncontrolled spillway, and 72,400 acre-ft at elevation 1,547.0 ft, crest of controlled spillway. Dead storage, 1,660 acre-ft below elevation 1,517.5 ft, sill of headgate at irrigation canal. Figures given herein represent total contents. Reservoir is used for flood control, municipal water supply for city of Altus, and irrigation of about 48,000 acres. Revised capacity table used since Jan. 1, 1969. From 1927 to 1943, a dam to form reservoir for municipal water supply was at same site. Elevation of crest was 1,514.31 ft. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 170,600 acre-ft, May 19, 1951, elevation 1,562.10 ft; minimum after initial storage, 4,690 acre-ft, Aug. 25, 1944, elevation, 1,520.2 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 145,800 acre-ft, Aug. 4, elevation 1,560.76 ft; minimum, 25,150 acre-ft, Oct. 31, elevation, 1,532.17 ft.

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

1520	3,844	1540	46,780
1525	10,710	1548	76,580
1529	18,130	1559	134,500
1534	29,620	1563	161,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25480	25530	28270	29220	30970	32190	36510	40110	54400	138000	128000	120600
2	25600	25700	28440	29270	31100	32220	36480	40020	54890	137600	135400	119700
3	25460	25580	28570	29300	31100	32220	36870	40290	57630	137300	142700	118700
4	25530	25840	28640	29300	31150	32380	37040	40320	67810	137500	145300	118000
5	25380	25820	28620	29270	31130	32430	37070	40550	99480	137300	141900	116900
6	25410	25720	28770	29450	31210	32720	37270	40640	126000	137000	138100	116000
7	25510	25700	28690	29270	31260	32640	37240	41150	134200	136900	135900	115000
8	25530	25790	28770	29470	31180	32300	37470	41580	137400	136800	135400	114100
9	25460	25820	28720	29500	31310	32320	37580	42180	140000	136400	136100	113500
10	25460	25740	28720	29570	31340	32300	37660	42520	144000	135600	136300	113000
11	25440	25720	28520	29520	31360	32770	37660	42730	144600	134700	136600	113000
12	25410	25580	28720	29620	31340	33220	37720	43100	144500	133700	136400	113800
13	25390	25860	28720	29670	31360	33590	37640	43160	144100	132500	136300	113100
14	25320	25890	28790	29700	31410	34180	37580	43380	143600	131100	136200	113300
15	25410	25790	28820	29600	31540	34460	37720	43040	142900	129800	135600	114500
16	25200	25630	28820	29770	31570	34650	37840	43500	142400	128800	135000	115700
17	25670	25770	28870	29850	31620	34790	38240	43560	142100	128000	134100	116800
18	25740	25770	28740	29850	31600	34760	38420	43620	141500	127400	133400	118800
19	25700	26050	28890	29880	31700	34950	38530	43650	140800	127100	132600	122000
20	25720	27630	28920	29930	31800	35060	38650	43870	140500	127200	131500	122900
21	25740	27980	28940	29980	31780	35090	38760	43870	140000	127100	130500	124400
22	25770	28200	28970	30180	31850	35290	39050	44090	139700	126200	129400	125300
23	25670	28270	28990	30210	31980	35340	39080	44220	139600	126300	128300	126000
24	25840	28340	28990	30260	31980	35310	39230	44430	139500	127700	127200	126800
25	25770	28420	29020	30330	31980	35700	39100	45150	138900	127700	126100	127500
26	25720	28490	29050	30440	32060	35730	39610	46430	138700	127500	125200	128000
27	25630	28470	29070	30560	32140	35780	39670	49690	138800	127700	124400	128400
28	25560	28540	29150	30690	32140	36030	39610	51410	138500	127700	123700	128900
29	25700	28520	29200	30740	---	36170	39930	52350	138400	127700	122900	129100
30	25700	28440	29170	30770	---	36340	40230	53080	138200	127500	122000	129500
31	25720	---	29320	30870	---	36390	---	53600	---	127400	121400	---

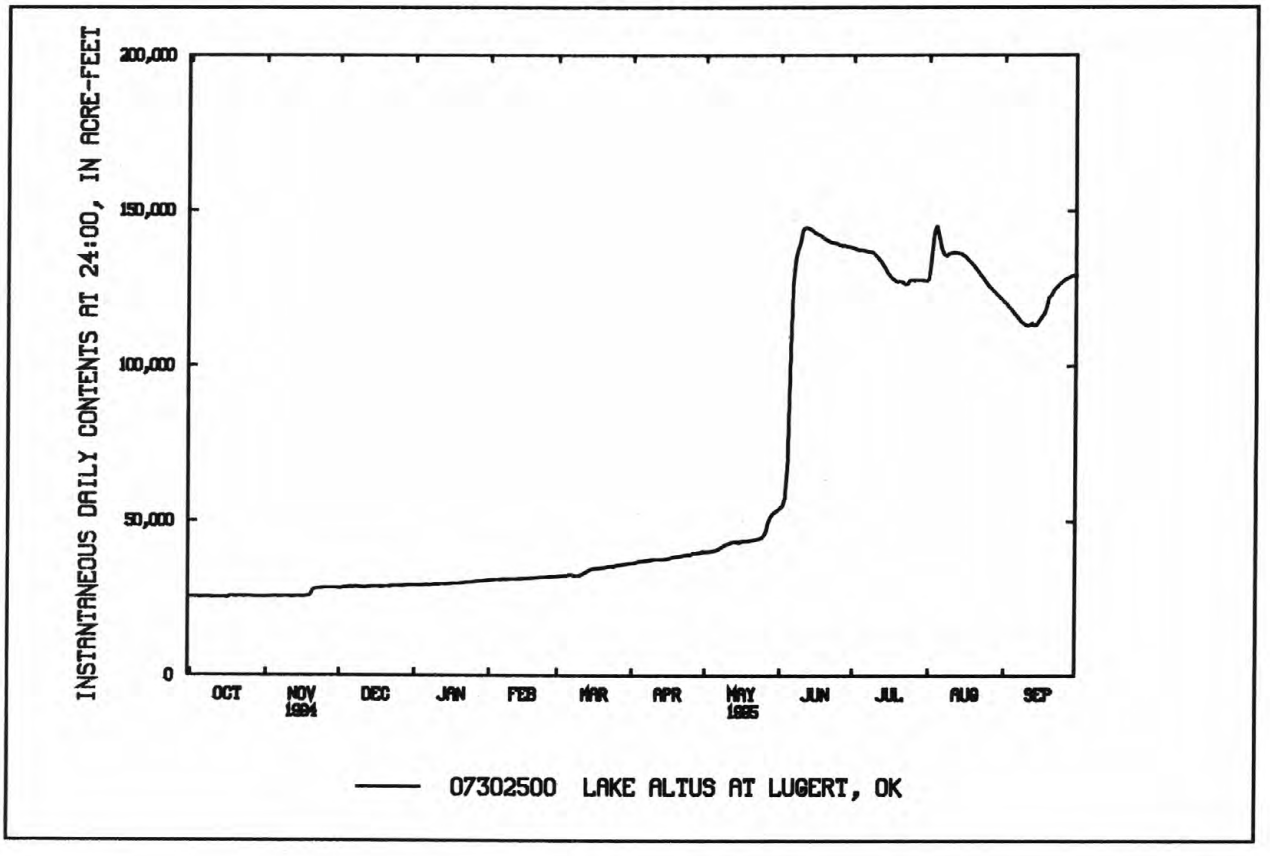
07302500 LAKE ALTUS AT LUGERT, OK--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MAX	25840	28540	29320	30870	32140	36390	40230	53600	144600	138000	145300	129500
MIN	25200	25530	28270	29220	30970	32190	36480	40020	54400	126200	121400	113000
(‡)	1537.41	1533.53	1533.88	1534.49	1534.98	1536.55	1537.88	1542.04	1559.58	1557.85	1556.84	1558.19
(‡‡)	+260	+2,720	+880	+1,550	+1,270	+4,250	+3,840	+13,370	+84,600	-10,800	-6,000	+8,100

CAL YR 1994	MAX 106600	MIN 25200	(‡‡) -50,710
WTR YR 1995	MAX 145300	MIN 25200	(‡‡) +104,000

(‡) ELEVATION, IN FEET, AT END OF MONTH

(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET



07303000 NORTH FORK RED RIVER BELOW ALTUS DAM, NEAR LUGERT, OK

LOCATION.--Lat 34°53'26", long 99°18'22", in SW 1/4 sec.22, T.5 N., R.20 W., Greer County, Hydrologic Unit 11120303, on right bank at State Highway 44A bridge, 3,500 ft downstream from Altus Dam, 1.9 mi upstream from Elm Fork of North Fork, 2.0 mi west of Lugert, and at mile 72.8.

DRAINAGE AREA.--2,515 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--March 1930 to December 1932 (published as "at Lugert Dam"), December 1943 to September 1950 (published as spill from Lake Altus), October 1950 to September 1962, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,471.81 ft above sea level. Mar. 19, 1930 to Dec. 21, 1932, nonrecording gage at former Lugert Dam, 0.7 mi upstream at datum 1,504.31 ft National Geodetic Vertical Datum of 1929, unadjusted.

REMARKS.--Records fair. Some regulation at low flow by Lugert Lake prior to December 1943, capacity 13,500 acre-ft and completely regulated thereafter by Lake Altus (station 07302500). Diversions at Lake Altus bypass most of streamflow. Seepage from Altus Dam not included for period February 1953 to September 1977.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft^3/s, May 18, 1951, gage height, 12.70 ft, maximum gage height, 16.37 ft, May 21, 1977 (backwater from Elm Fork of the North Fork Red River); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 16, 1928, reached a stage of 14.5 ft, site and datum in use 1930-32, discharge, 14,300 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,810 ft^3/s, Aug. 4, gage height, 11.79 ft ; no flow at times.

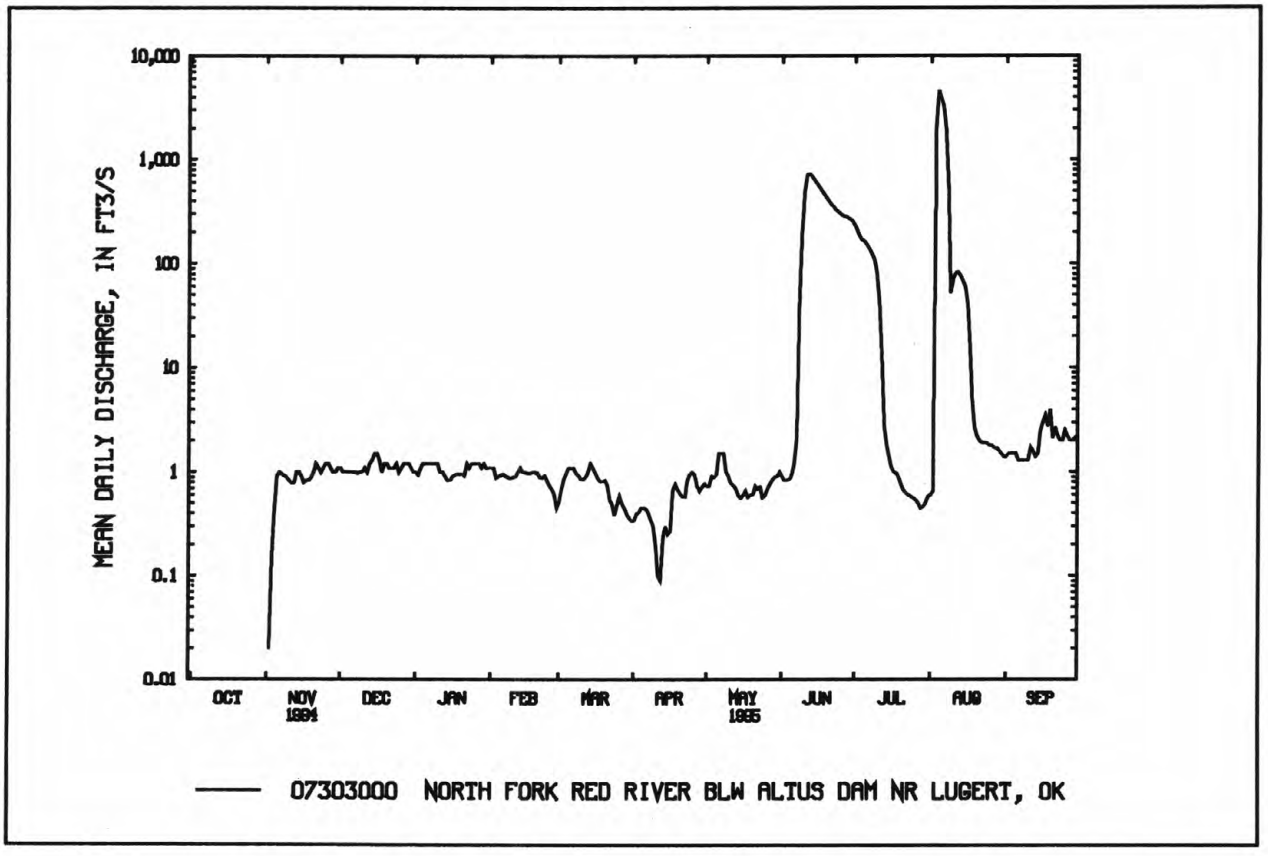
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.1	1.0	1.1	.52	.34	.73	.91	223	e.60	1.4
2	.00	.02	1.0	.95	1.1	.68	.39	.74	.83	196	e.65	1.5
3	.00	.15	1.0	1.1	.89	.86	.41	.91	e.83	175	2080	1.5
4	.00	.43	1.0	1.2	.91	.97	.45	.89	e.85	167	4640	1.5
5	.00	.92	1.0	1.2	.94	1.1	.45	.95	e.95	159	3890	1.5
6	.00	1.0	1.0	1.2	.96	1.1	.44	1.5	1.2	146	3290	1.3
7	.00	.97	1.0	1.2	.92	1.1	.40	1.5	2.1	134	1980	1.3
8	.00	.92	.98	1.2	.90	.98	.34	1.5	43	120	592	1.3
9	.00	.90	1.0	1.2	.87	.94	.30	1.0	204	105	52	1.3
10	.00	.82	1.0	1.2	.90	.87	.19	.91	489	76	71	1.3
11	.00	.78	1.1	1.0	.91	.86	.10	.78	712	39	81	1.7
12	.00	.79	1.0	1.0	1.0	.90	.09	.74	724	12	83	1.6
13	.00	1.0	1.2	.92	1.1	1.0	.23	.70	686	2.8	77	1.4
14	.00	1.0	1.3	.84	1.0	1.2	.30	.60	641	1.8	68	1.5
15	.00	.92	1.5	.83	1.0	1.1	.25	.56	592	1.4	60	2.5
16	.00	.79	1.5	.91	.98	.98	.27	.60	548	1.1	41	3.0
17	.00	.84	1.3	.93	.98	.88	.67	.66	504	1.0	17	3.5
18	.00	.83	1.0	.96	1.0	.82	.76	.57	465	.98	5.0	2.7
19	.00	e.90	1.2	.97	1.0	.81	.68	.60	429	.88	2.7	4.0
20	.00	e1.0	1.2	.97	.99	.83	.62	.60	397	.75	2.2	2.1
21	.00	1.2	1.1	.93	.90	.75	.58	.73	371	.66	2.0	2.7
22	.00	1.1	1.1	1.2	.88	.54	.58	.69	348	.63	1.9	2.2
23	.00	1.0	1.1	1.1	.93	.49	.84	.72	325	e.60	1.9	2.0
24	.00	1.1	1.2	1.2	.83	.38	.96	.56	314	e.58	1.9	2.0
25	.00	1.2	1.0	1.2	.74	.48	1.0	.59	298	e.56	1.8	2.5
26	.00	1.2	1.1	1.2	.69	.59	.94	e.68	285	e.54	1.8	2.2
27	.00	1.1	1.2	1.2	.61	.50	.73	e.76	283	e.50	1.7	2.0
28	.00	1.0	1.2	1.1	.45	.45	.66	e.84	271	.44	1.7	2.0
29	.00	1.0	1.2	1.2	---	.40	.72	.90	265	.46	1.6	2.1
30	.00	1.1	1.1	1.1	---	.36	.77	.91	248	.50	1.5	2.2
31	.00	---	1.0	1.1	---	.34	---	1.0	---	.58	1.4	---
TOTAL	0.00	25.98	34.68	33.31	25.48	23.78	15.46	25.42	9449.67	1568.76	17052.35	59.8
MEAN	.000	.87	1.12	1.07	.91	.77	.52	.82	315	50.6	550	1.99
MAX	.00	1.2	1.5	1.2	1.1	1.2	1.0	1.5	724	223	4640	4.0
MIN	.00	.00	.98	.83	.45	.34	.09	.56	.83	.44	.60	1.3
AC-FT	.00	52	69	66	51	47	31	50	18740	3110	33820	119

CAL YR 1994 TOTAL 323.62 MEAN .89 MAX 8.8 MIN .00 AC-FT 642
WTR YR 1995 TOTAL 28314.69 MEAN 77.6 MAX 4640 MIN .00 AC-FT 56160

e Estimated

07303000 NORTH FORK RED RIVER BELOW ALTUS DAM, NEAR LUGERT, OK--Continued



07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK

LOCATION.--Lat 35°00'42", long 99°54'12", in SW 1/4 NW 1/4 sec.12, T.6 N., R.26 W., Harmon County, Hydrologic Unit 11120304, near left bank on downstream side of pier of bridge on State Highway 30, 4.0 mi northeast of Carl, and at mile 54.0.

DRAINAGE AREA.--416 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to September 1979, October 1994 to current year.

REVISED RECORDS.--WSP 1731: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,714.95 ft above sea level, Oklahoma State Highway Department datum.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,300 ft^3/s, June 3, 1995, gage height, 18.80 ft; no flow Sept. 4, 1964.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
June 3	1610	62,300	18.80	Aug. 2	1800	5,920	8.16

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	10	12	14	15	13	16	13	40	68	130	30
2	5.2	11	12	15	13	e12	15	13	25	76	1980	29
3	5.1	9.8	12	15	12	e13	16	13	17100	76	879	28
4	5.3	10	12	15	11	15	16	12	3070	67	230	28
5	6.0	12	12	e14	11	15	16	13	844	57	189	28
6	5.7	10	12	e15	11	18	16	42	486	51	175	28
7	7.4	10	12	16	11	21	14	64	317	46	156	26
8	6.4	9.8	12	17	12	19	13	70	239	43	144	25
9	5.3	9.4	12	16	13	18	13	29	204	40	136	28
10	5.9	9.5	11	16	13	16	14	21	431	37	125	29
11	6.2	9.5	11	15	13	15	12	18	247	34	111	32
12	6.2	9.6	11	15	e12	41	12	17	203	31	96	31
13	6.2	11	11	15	e13	117	11	15	183	29	83	30
14	6.2	10	12	15	14	46	11	14	175	28	73	27
15	8.3	10	13	14	14	33	11	13	159	27	69	39
16	8.8	9.6	13	15	13	25	11	13	152	27	70	54
17	16	9.7	13	14	13	21	68	14	144	26	65	49
18	10	9.5	13	14	14	19	34	13	136	65	62	54
19	9.3	18	13	14	14	17	24	11	126	87	64	614
20	8.5	109	13	14	13	15	20	11	116	46	58	158
21	7.8	52	14	14	12	15	17	11	108	44	51	126
22	9.2	22	14	16	11	14	21	12	101	77	42	133
23	9.7	17	14	16	10	13	20	229	96	46	40	116
24	9.5	14	14	17	10	13	19	119	93	288	39	106
25	9.2	13	14	16	11	15	17	76	88	88	37	98
26	8.7	13	14	17	11	20	15	106	83	56	36	92
27	8.6	12	14	16	11	20	15	152	94	45	35	80
28	9.3	12	15	16	12	17	14	66	96	38	34	75
29	9.5	12	14	15	---	16	14	50	84	33	33	85
30	9.5	12	14	15	---	16	14	39	75	31	33	77
31	12	---	15	16	---	16	---	44	---	31	31	---
TOTAL	246.1	486.4	398	472	343	684	529	1333	25315	1738	5306	2355
MEAN	7.94	16.2	12.8	15.2	12.2	22.1	17.6	43.0	844	56.1	171	78.5
MAX	16	109	15	17	15	117	68	229	17100	288	1980	614
MIN	5.1	9.4	11	14	10	12	11	11	25	26	31	25
AC-FT	488	965	789	936	680	1360	1050	2640	50210	3450	10520	4670

e Estimated

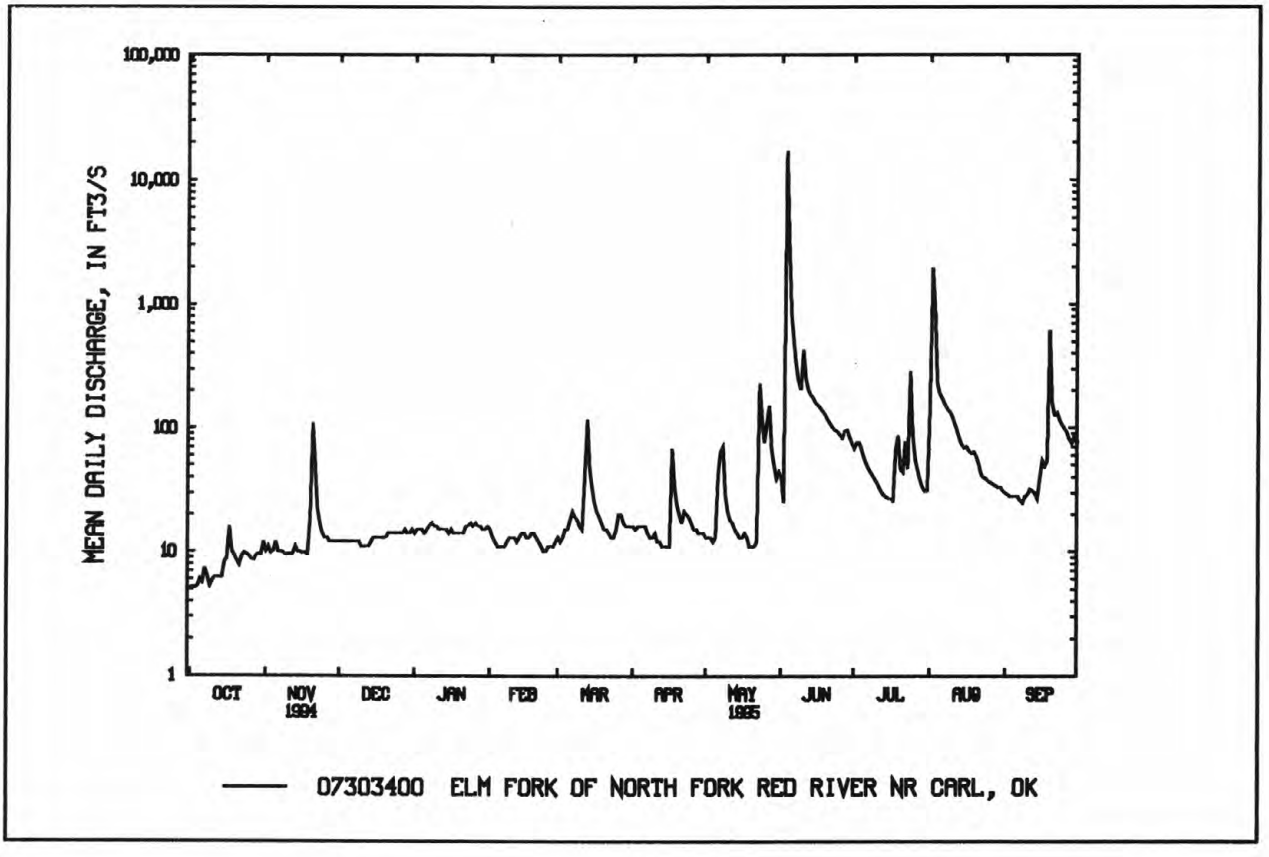
07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

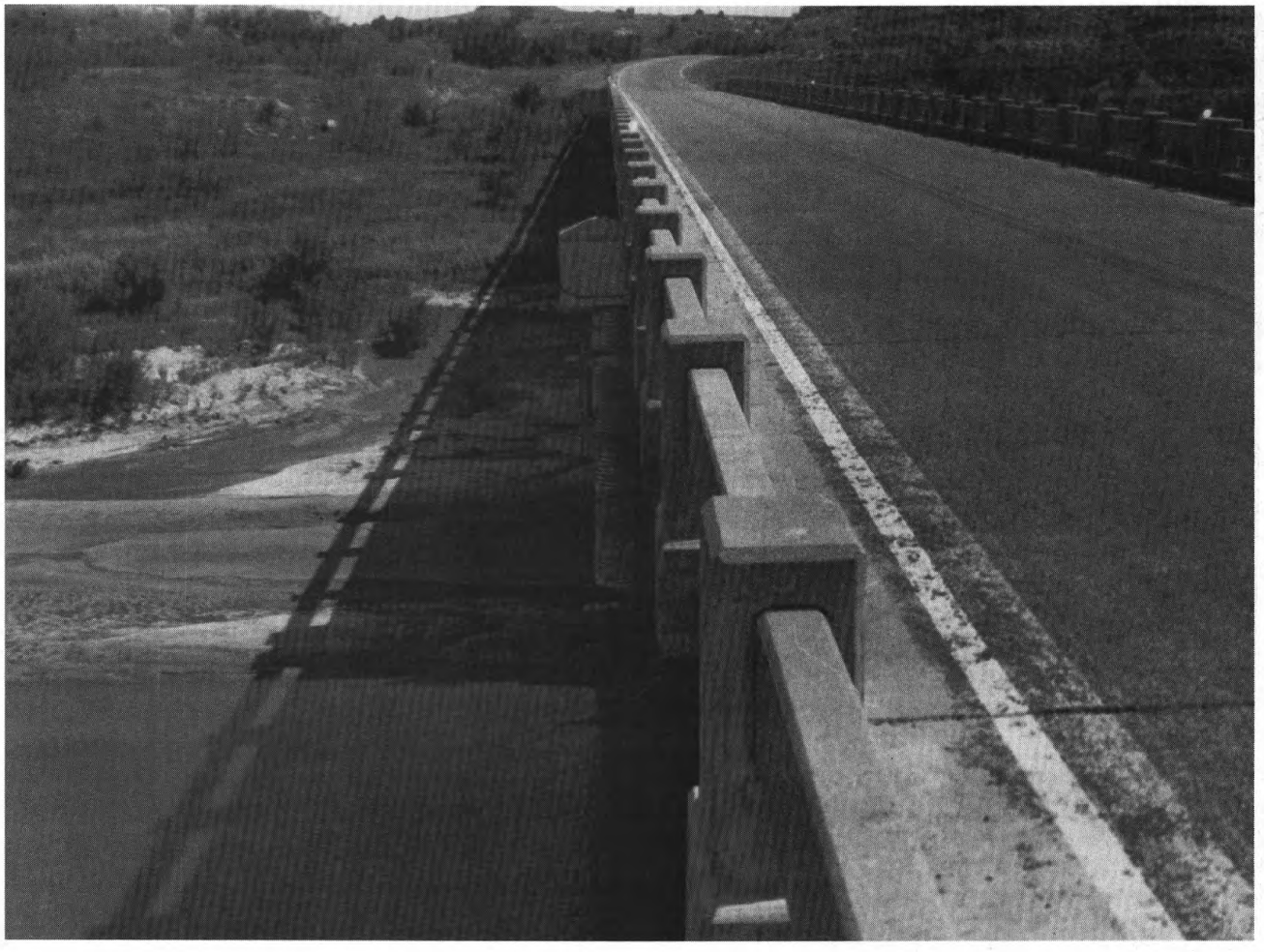
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	36.3	25.9	20.1	18.9	21.7	27.7	53.5	91.4	121	29.6	41.1	52.2
MAX	208	91.0	54.9	39.4	55.8	78.9	247	662	844	133	171	125
(WY)	1961	1975	1960	1960	1960	1973	1973	1977	1995	1968	1995	1962
MIN	2.61	5.97	7.95	10.0	8.97	7.29	5.77	7.39	4.11	.30	.48	.98
(WY)	1971	1971	1971	1971	1972	1972	1971	1965	1970	1970	1976	1970

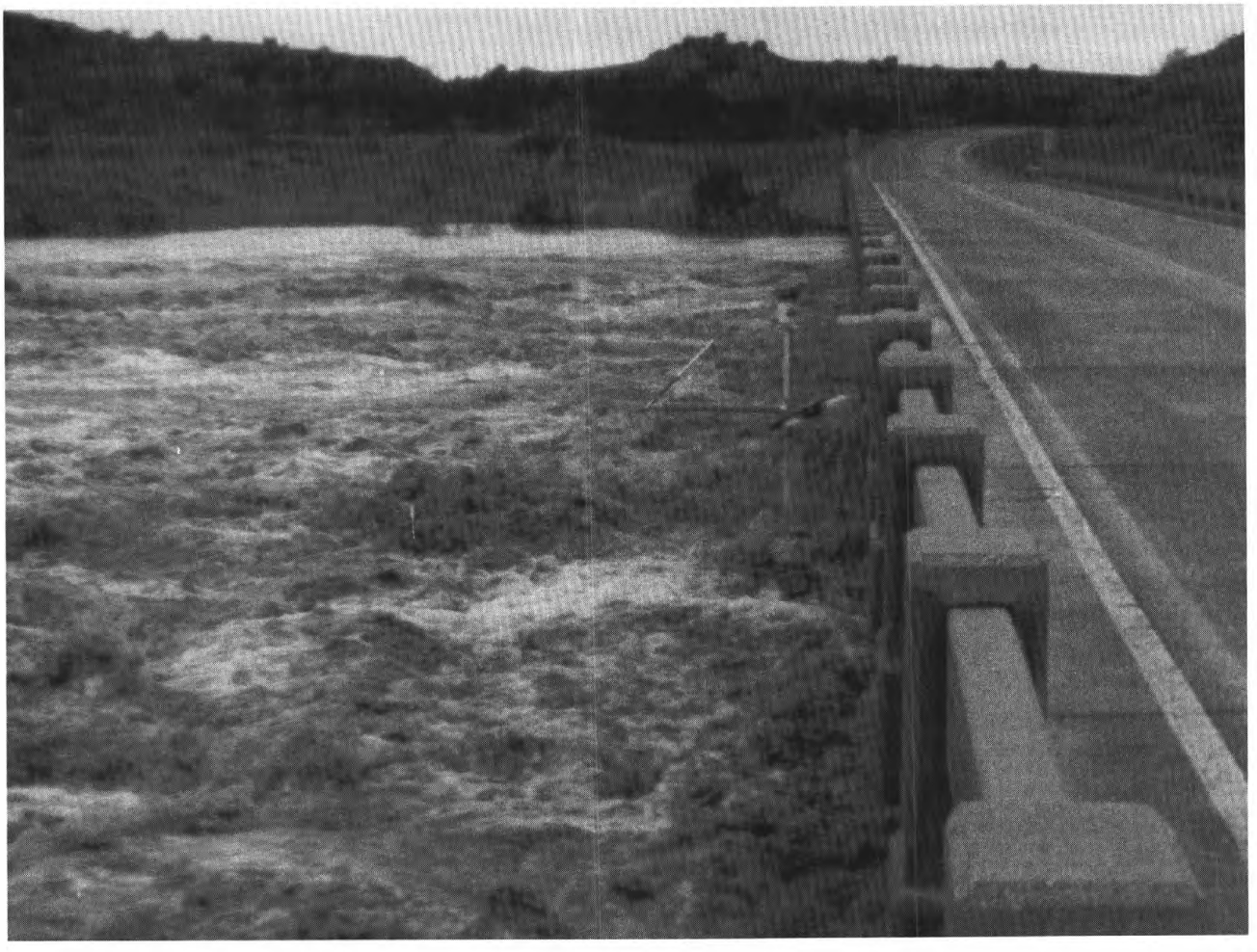
SUMMARY STATISTICS	1995 WATER YEAR		WATER YEARS 1960 - 95	
ANNUAL TOTAL	39205.5			
ANNUAL MEAN	107		44.9	
HIGHEST ANNUAL MEAN			107	1995
LOWEST ANNUAL MEAN			10.6	1970
HIGHEST DAILY MEAN	17100	Jun 3	17100	Jun 3 1995
LOWEST DAILY MEAN	5.1	Oct 1,3	[a].02	Jul 17 1971
ANNUAL SEVEN-DAY MINIMUM	5.7	Oct 1	.02	Jul 16 1971
INSTANTANEOUS PEAK FLOW	62300	Jun 3	62300	Jun 3 1995
INSTANTANEOUS PEAK STAGE	18.80	Jun 3	18.80	Jun 3 1995
ANNUAL RUNOFF (AC-FT)	77760		32520	
10 PERCENT EXCEEDS	116		53	
50 PERCENT EXCEEDS	16		15	
90 PERCENT EXCEEDS	9.8		4.6	

[a]No flow Sept. 4, 1964.





07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK. PRIOR TO JUNE 3, 1995. AT LOW FLOW.



07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK. JUNE 3, 1995. NEAR PEAK.

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1959 to September 1963, July 1968 to September 1982, October 1994 to September 1995.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1968 to September 1982, October 1994 to September 1995.
WATER TEMPERATURE: July 1968 to September 1982, October 1994 to September 1995.

INSTRUMENTATION.--Water-quality monitor October 1971 to September 1982, October 1994 to September 1995.

REMARKS.--Interruptions in record were due to malfunctions of the recording instruments. Samples were collected monthly and specific conductance, pH, water temperature, dissolved oxygen, and alkalinity were determined in the field.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE:Maximum, 224,000 microsiemens Sept. 15, 1971; minimum, 2,190 microsiemens June 2, 1973.
WATER TEMPERATURE:Maximum, 39.0°C June 22, 1969, Aug. 17, 1970; minimum, 0.0°C on several days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE:Maximum, 65,100 microsiemens Oct. 7; minimum, 3,630 microsiemens Aug. 3.
WATER TEMPERATURE:Maximum recorded, 36.5°C July 10; minimum 0.0°C several days during winter period.

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	GAGE HEIGHT (FEET) (00065)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)
JUL 1995											
18...	1115	3.00	28.0	722	1028	1028	32	2.13	19500	7.6	8.0
18...	1119	6.00	28.0	722	1028	1028	32	2.13	19500	7.7	8.0
18...	1122	9.00	28.0	722	1028	1028	32	2.13	19500	7.7	8.0
18...	1124	12.0	28.5	722	1028	1028	32	2.13	19500	7.7	8.0
18...	1126	15.0	28.5	722	1028	1028	32	2.13	19600	7.7	8.0
18...	1130	18.0	28.5	722	1028	1028	32	2.13	19800	7.8	8.0

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT 1994											
31...	1230	1028	80020	12	35800	8.0	16.0	15.0	36	724	9.5
NOV											
22...	1300	1028	80020	22	17900	8.0	6.0	6.5	19	730	11.2
DEC											
20...	1300	1028	80020	13	26900	8.1	16.0	8.5	3.6	722	11.0
JAN 1995											
19...	1330	1028	80020	14	26200	8.0	10.5	6.0	1.6	724	11.6
FEB											
15...	1400	1028	80020	14	25600	8.1	6.5	9.0	1.0	720	9.7
MAR											
09...	1100	1028	80020	18	22700	8.0	9.0	4.0	0.80	728	12.7
APR											
25...	1100	1028	80020	18	23000	8.0	19.0	14.0	18	721	9.4
MAY											
23...	2300	1028	80020	150	4100	7.7	15.0	16.5	380	--	--
JUN											
03...	1715	1028	80020	60800	6400	7.6	--	17.5	1000	--	--
JUL											
18...	1200	1028	80020	32	19500	8.0	32.0	28.0	2.1	722	7.7
AUG											
17...	1400	1028	80020	63	11700	8.0	32.5	30.5	16	720	7.7
SEP											
07...	1300	1028	80020	28	19800	8.1	23.5	23.0	1.0	724	7.9

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	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 PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
OCT 1994											
31...	114	2400	2300	600	210	7600	87	68	2.4	126	0
NOV											
22...	102	1700	1500	480	110	3500	82	37	16	135	0
DEC											
20...	110	2200	2100	590	180	5400	84	50	15	176	0
JAN 1995											
19...	109	2200	2100	590	180	5400	84	50	17	176	0
FEB											
15...	98	2100	2000	570	170	5400	85	51	16	167	0
MAR											
09...	111	2100	2000	560	170	4700	83	45	16	167	0
APR											
25...	105	2000	1800	520	160	4400	83	43	2.1	151	0
MAY											
23...	--	1100	990	340	50	460	48	6	9.6	76	0
JUN											
03...	--	600	570	220	13	1100	80	19	4.4	43	0
JUL											
18...	111	2100	2000	550	170	--	15	2	15	146	0
AUG											
17...	113	1900	1800	550	130	--	13	1	11	156	0
SEP											
07...	104	2200	2100	640	150	3600	78	33	12	145	0

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, 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 CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)
OCT 1994									
31...	103	1600	13000	0.30	9.7	24100	23100	32.8	748
NOV									
22...	111	1300	5600	0.30	12	11600	11100	15.8	695
DEC									
20...	144	1500	8700	0.30	12	18200	16500	24.8	634
JAN 1995									
19...	144	1400	8900	0.40	11	17200	16600	23.4	659
FEB									
15...	137	1400	8900	0.40	12	17100	16600	23.3	660
MAR									
09...	137	1600	8000	0.40	9.6	15300	15100	20.8	752
APR									
25...	124	1500	7500	0.30	4.1	14900	14200	20.3	740
MAY									
23...	62	980	750	0.30	8.2	2910	2640	3.96	1180
JUN									
03...	35	530	1800	0.10	6.2	3820	3690	5.20	627000
JUL									
18...	120	1700	5800	0.30	13	12500	8490	17.0	1080
AUG									
17...	128	1700	3000	0.50	12	7850	5610	10.7	1340
SEP									
07...	119	1800	6000	0.40	14	13200	12300	18.0	987

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT 1994												
31...	1.08	1.08	4.8	0.020	0.07	1.10	1.10	0.360	0.46	<0.20	<0.010	<0.010

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	58000	53900	55500	37600	34600	36200	28200	26100	27100	26100	25200	25600
2	60600	55900	58400	37400	34700	35400	28600	27500	28200	27400	25100	26000
3	58100	55500	57000	36200	34700	35400	28500	28000	28200	26800	25100	26200
4	60700	55200	57400	40000	35100	37000	28400	28000	28200	27000	25600	26300
5	57000	51600	54200	36900	31300	33600	28500	28000	28300	31000	25900	28300
6	54600	53000	53700	32200	30500	31600	30800	27000	28700	28100	25500	27000
7	65100	47100	54000	31700	30700	31200	28600	27100	27600	26600	24600	25600
8	61000	47900	53000	34800	31200	33100	28000	26900	27500	25700	23400	24900
9	57700	47900	51400	34400	33200	33700	28800	27000	27900	25100	24400	24800
10	49700	44200	47100	34300	32600	33300	28200	26000	27400	26300	25100	25600
11	46300	41700	44300	32600	31800	32100	28300	26600	27300	26600	25500	26100
12	---	---	e47000	33800	32200	33200	28300	25500	27200	26500	25400	26000
13	---	---	e46500	34800	32500	33900	27000	26400	26700	27000	25400	26100
14	---	---	e52100	32500	28400	30700	27700	26700	27300	27000	24400	25800
15	---	---	e47300	29700	28700	29200	27600	26800	27200	26700	25200	25800
16	---	---	e41600	29900	28600	29400	28100	26300	27200	26800	26000	26400
17	---	---	e42400	31700	29700	31000	27500	27100	27200	27000	26000	26600
18	40000	37600	38900	31400	30100	30700	27600	26800	27200	27600	26400	26900
19	44800	39900	41500	34600	18000	29800	29300	27300	28200	28500	26100	27200
20	48100	41300	44100	32500	7360	14500	28400	26100	27400	28100	27200	27500
21	49200	45700	47500	14400	8600	11400	27100	25300	26100	28600	26600	27600
22	46700	34900	39600	21600	14400	17700	26400	25100	25800	30100	25400	27400
23	38600	34800	37300	22900	20000	21500	26800	26000	26300	26500	23500	25200
24	38100	36600	37600	24800	22900	24300	26900	26300	26500	25700	24900	25300
25	39400	37500	38100	25400	24400	25200	27100	26400	26700	25700	25200	25400
26	40300	37900	39400	27200	25200	25700	27300	26500	26700	28900	25400	26300
27	40800	38700	39700	27300	25300	26300	27300	26500	26800	26900	25400	26200
28	40100	38300	39000	26000	25100	25600	27900	26600	27300	26700	24600	25500
29	38400	36700	37500	26400	24700	25500	27100	26000	26600	26800	25200	25700
30	36900	34700	36200	26600	25900	26100	26700	25900	26200	27000	25200	26300
31	40900	33800	37300	---	---	---	26700	25300	26000	26700	23300	25000
MONTH	---	---	45700	40000	7360	28800	30800	25100	27200	31000	23300	26100

e Estimated

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	25700	24800	25100	31700	28900	29800	24200	22300	23100	30200	26700	28200
2	26200	24300	25100	37600	28800	31300	24400	22500	23600	30700	27800	28700
3	28000	23400	25400	33000	27000	29200	27700	23700	24700	30100	28600	29400
4	30000	25400	27500	---	---	e27700	23900	22900	23300	31300	28100	29700
5	29100	26500	27800	---	---	e26300	27600	22300	24500	35400	27500	30600
6	28800	27700	28000	---	---	e25000	29300	27000	27900	29000	10700	18900
7	28500	24900	26600	---	---	e22200	32400	29000	30400	18700	9000	11400
8	28600	26200	27200	---	---	e23000	32300	29600	31200	12900	7780	9770
9	30000	27900	28700	24900	21700	23000	32700	26400	30700	20800	12900	17800
10	30000	26400	28600	25200	23900	24600	29200	25500	26400	26000	20800	23000
11	28500	27100	27700	26800	25200	25800	31600	27900	29400	28200	25400	26700
12	30900	23200	27000	31500	6620	24000	31000	29000	29600	30100	28000	28900
13	27600	26800	27200	11400	6780	8910	32700	29700	31000	29900	28100	29100
14	27900	27300	27700	20300	10200	13500	36900	31900	34300	29000	25900	27800
15	28000	25500	27100	22400	19100	20300	38000	33900	35300	30200	28200	29100
16	27800	26100	26800	22900	19900	21400	40300	34700	36700	32600	28200	29900
17	29200	25900	26600	22400	21300	21900	63300	6930	28400	34200	25600	30200
18	27500	26100	26600	24100	22100	22900	25400	10200	19000	34700	31000	32800
19	27200	25000	26200	26500	24100	25100	27000	19200	21800	34700	32500	33500
20	27900	25800	26500	28000	25900	26700	28400	19100	23000	35700	32700	33900
21	30600	22200	26500	27800	26700	27200	34600	24300	28200	36900	34000	35500
22	29900	27600	28700	28300	23100	27200	30000	17500	23900	38800	20500	35700
23	31400	28300	29500	27300	25100	26500	24500	21500	22800	23400	4160	15300
24	31400	28500	29900	29900	23100	27200	23100	20200	21300	10500	4480	5850
25	31100	29600	30400	28600	22800	25700	25900	22200	23800	11500	7480	9160
26	31100	29700	30400	26400	16100	20000	26400	23100	25400	9270	6990	7890
27	30100	28600	29300	22200	17600	19400	27300	24200	25800	---	---	e8210
28	29400	25600	27700	26500	22100	23800	29600	27100	28200	---	---	e12000
29	---	---	---	27300	23100	25800	29200	26000	28200	---	---	e16000
30	---	---	---	25000	23400	24300	28400	27300	27800	---	---	e18600
31	---	---	---	24800	22800	24000	---	---	---	---	---	e17500
MONTH	31400	22200	27600	---	---	24000	63300	6930	27000	---	---	22900

e Estimated

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e19000	16500	15000	15800	22700	10500	16300	17300	15600	16300
2	---	---	e21500	16700	14600	15600	11900	3700	7570	17600	16200	16800
3	---	---	e8300	16100	14000	14800	5790	3630	4550	19200	16900	17700
4	---	---	e2000	16600	15000	15700	7060	5500	6310	19100	17400	18200
5	---	---	e3840	17400	15900	16500	7400	6330	6840	19000	17300	17900
6	7490	5130	6500	18200	16600	17100	8400	6970	7690	20300	17200	18400
7	8830	7440	8170	18700	17100	17900	9970	8140	8550	22400	18200	19700
8	9590	8720	9190	19800	17800	18500	9610	8460	9040	22500	19500	20800
9	---	---	e8500	20100	19100	19600	9870	9020	9430	22600	19100	20800
10	---	---	e6440	20800	19100	19900	10600	9400	10100	19300	18200	18700
11	---	---	e9000	21600	19800	20600	11000	9890	10400	19400	17500	18400
12	---	---	e8810	22100	20100	20900	11600	10300	10900	18600	16500	17200
13	---	---	e10000	22500	19500	20700	12000	10900	11400	17500	15800	16500
14	12000	11100	11400	22900	19600	21000	12200	11200	11700	16800	16100	16500
15	12100	11200	11600	22600	19400	21000	12400	11100	11800	---	---	e17600
16	14600	11200	12000	22500	20200	20700	12000	10900	11400	---	---	e17000
17	15400	12900	14100	22600	19500	20300	12500	11200	11900	---	---	e16500
18	13800	12200	13000	21400	11700	18700	12900	11900	12400	---	---	e16000
19	12300	11900	12100	15800	10600	12600	13000	12400	12700	---	---	e4540
20	12300	12000	12100	17500	14500	15900	13400	12500	12900	---	---	e4550
21	12500	12000	12200	24100	17000	17900	13800	12900	13200	---	---	e6040
22	12700	12200	12400	19800	12500	15300	14300	13200	13700	8230	6420	7110
23	12900	12200	12500	28700	14200	19400	14700	13400	14000	10300	8230	9370
24	12900	12400	12700	17800	6210	8660	14700	13600	14100	10700	10100	10500
25	12700	12300	12500	14300	8310	11400	14900	13800	14200	11000	10000	10600
26	12800	12200	12500	17700	13900	15700	14700	14100	14400	11100	10200	10600
27	12600	11700	12200	19200	16700	17700	14700	14100	14400	11900	11000	11400
28	13100	11500	12100	20200	18400	19300	15300	14400	14800	12500	11500	11900
29	13900	12400	13100	22300	19100	20500	15600	14700	15100	13200	10700	11500
30	14600	13100	13700	22600	19600	20900	16100	15000	15500	12100	11000	11500
31	---	---	---	22900	20600	21700	16400	14900	15800	---	---	---
MONTH	---	---	11100	28700	6210	17800	22700	3630	11700	---	---	14400

e Estimated

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	29.0	15.0	21.0	19.0	8.5	13.0	11.0	1.0	5.5	6.5	.0	2.5
2	30.0	17.0	22.0	18.0	9.5	13.5	12.5	4.0	8.0	5.0	.0	2.0
3	30.0	16.0	22.0	23.0	12.5	16.5	15.0	8.0	10.5	3.0	.0	1.5
4	23.0	17.5	20.5	17.0	11.5	14.5	14.0	6.5	9.0	2.5	.0	1.0
5	28.5	19.0	23.0	19.5	8.5	13.0	8.5	6.0	7.0	.5	.0	.0
6	26.0	18.5	22.5	19.0	8.0	13.0	9.0	6.5	7.0	6.0	.0	2.0
7	21.5	14.0	17.0	20.0	9.0	14.0	10.0	4.0	6.5	5.5	.0	1.5
8	22.0	12.0	16.0	19.5	12.5	15.5	6.5	4.0	5.5	10.5	.5	4.5
9	24.5	9.5	16.0	16.0	8.0	11.5	8.5	1.0	4.0	10.0	1.0	5.0
10	24.5	9.5	15.5	16.0	5.0	9.5	7.5	1.0	3.5	11.0	2.0	6.0
11	25.0	9.5	16.0	10.0	6.5	8.0	5.5	.0	2.0	11.5	2.5	7.0
12	24.5	9.5	16.0	11.5	7.0	9.5	6.0	.0	2.5	10.5	5.0	7.5
13	24.5	10.0	16.5	18.5	10.5	13.0	6.0	2.5	4.0	10.5	3.0	6.5
14	17.5	13.5	15.5	14.0	6.5	9.5	11.5	2.5	6.5	10.5	1.0	5.0
15	18.0	14.0	16.0	13.0	3.0	7.0	7.0	5.5	6.5	9.0	1.5	5.0
16	21.0	17.0	18.5	11.5	1.5	6.0	10.5	3.5	6.5	7.5	4.5	6.0
17	26.5	16.5	21.0	13.5	5.0	8.5	10.0	1.0	5.0	9.5	1.5	5.0
18	24.5	14.0	18.0	10.5	1.0	5.5	10.0	1.0	5.0	9.0	2.5	5.0
19	24.5	12.0	17.5	12.0	7.5	9.0	12.0	3.0	7.0	9.0	.0	3.5
20	26.0	14.0	18.5	11.0	7.0	9.0	11.0	4.0	7.0	9.5	.5	4.5
21	26.5	15.0	20.0	13.0	5.5	8.5	10.0	1.5	5.0	6.5	2.5	4.5
22	25.5	12.0	17.5	8.0	4.5	6.5	9.0	.5	4.5	5.0	1.0	3.0
23	24.0	13.5	18.0	8.5	2.5	5.5	8.0	1.0	4.5	9.0	.0	3.0
24	18.0	13.0	15.5	12.0	5.0	8.0	11.0	3.0	6.0	9.5	.0	4.5
25	17.5	10.0	12.5	8.5	7.5	8.0	9.5	.5	4.5	11.5	2.0	6.0
26	19.0	6.5	11.5	13.0	8.0	10.0	9.5	.5	4.5	10.5	5.0	7.0
27	20.0	10.5	14.0	12.0	5.0	8.5	9.5	2.5	6.0	13.5	4.0	8.0
28	16.0	10.5	12.5	10.5	1.5	5.0	8.5	7.0	7.5	10.0	5.0	7.0
29	17.0	11.5	13.5	9.0	1.0	4.5	11.5	5.5	7.5	6.5	2.5	4.5
30	17.0	13.0	15.0	9.5	.0	4.0	8.5	6.0	7.0	10.5	.0	4.0
31	20.0	11.0	14.5	---	---	---	9.0	2.0	6.5	11.0	.0	4.5
MONTH	30.0	6.5	17.2	23.0	.0	9.6	15.0	.0	5.9	13.5	.0	4.4

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	1.5	6.5	.5	.0	.0	23.5	7.5	15.0	25.0	11.5	17.5
2	16.0	3.5	9.0	1.5	.0	.0	23.5	9.5	16.0	18.5	11.0	13.5
3	13.0	5.0	8.0	6.5	.0	2.0	17.0	13.0	15.0	29.0	11.0	18.0
4	13.5	1.0	6.5	5.5	1.0	3.5	23.0	12.0	17.0	28.0	13.0	19.5
5	13.5	2.5	7.0	7.5	5.0	6.0	24.5	11.0	17.0	18.0	13.0	14.5
6	14.0	2.0	7.0	11.5	.0	7.0	26.0	13.0	18.0	22.5	13.5	17.5
7	12.0	3.0	6.5	10.5	.0	3.5	29.0	14.5	20.0	23.0	17.0	19.0
8	11.5	.0	4.5	12.5	.0	5.0	27.5	13.5	19.0	23.0	14.0	18.0
9	13.5	1.0	6.5	15.5	.0	7.0	27.0	12.0	17.5	28.0	14.5	20.0
10	12.5	2.5	6.5	5.5	2.0	4.0	18.0	6.0	12.5	26.5	12.5	19.0
11	3.5	.0	1.5	21.0	6.0	12.0	20.5	2.5	10.5	27.0	14.0	20.0
12	.0	.0	.0	20.5	6.0	13.5	25.5	7.5	15.5	27.5	15.0	20.5
13	1.5	.0	.5	12.0	6.0	10.0	26.5	10.0	17.5	30.5	14.5	22.0
14	3.5	.0	1.5	16.0	9.0	12.0	26.5	12.5	18.5	29.5	15.0	21.5
15	9.5	2.5	5.0	18.0	11.5	14.0	24.5	12.5	18.0	29.0	16.0	22.0
16	7.0	1.5	3.5	22.5	9.5	15.5	28.5	17.0	21.0	25.0	17.0	21.0
17	13.0	.0	4.5	22.5	9.0	15.5	18.0	14.0	15.5	27.0	16.5	21.5
18	11.5	.0	5.0	24.0	10.0	16.0	25.0	10.5	16.5	26.5	10.0	18.0
19	16.5	2.5	8.5	21.5	11.0	16.0	17.0	11.5	13.5	29.5	12.0	20.0
20	18.0	3.0	9.5	23.5	10.0	16.0	25.5	8.5	16.0	26.5	14.5	20.0
21	18.0	4.5	10.5	25.5	9.5	17.0	24.5	11.0	16.0	29.5	15.5	21.5
22	19.5	7.0	12.0	22.5	12.0	16.5	11.5	7.0	8.5	31.5	17.5	22.5
23	17.5	7.5	11.5	23.0	10.0	15.5	17.0	6.0	10.5	20.5	16.0	18.5
24	18.0	5.0	10.5	24.5	11.5	17.0	19.5	7.0	12.0	16.0	14.5	15.0
25	19.0	6.0	12.0	23.0	16.0	19.0	23.5	8.0	15.0	16.0	12.5	14.5
26	21.0	11.5	15.5	21.5	10.0	15.0	19.0	10.0	14.0	21.5	14.5	17.5
27	13.0	8.5	11.5	22.5	7.5	14.0	23.5	7.5	14.0	26.0	16.5	20.5
28	8.5	.5	4.0	12.0	7.0	8.5	22.0	11.0	15.5	27.0	17.0	21.5
29	---	---	---	10.0	6.5	7.5	26.0	13.0	18.5	21.0	16.0	18.0
30	---	---	---	11.0	7.0	8.5	18.5	14.5	16.0	28.0	16.0	20.5
31	---	---	---	22.5	6.0	13.0	---	---	---	26.5	16.0	20.5
MONTH	21.0	.0	7.0	25.5	.0	10.6	29.0	2.5	15.6	31.5	10.0	19.1

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	31.0	16.5	23.5	29.0	20.5	24.5	26.5	21.5	23.0	35.0	24.0	29.0
2	26.5	19.0	23.0	30.0	21.5	25.5	22.0	21.0	21.5	32.5	23.5	28.0
3	22.5	17.5	19.0	31.5	22.0	26.5	27.5	22.0	24.0	32.0	23.5	27.5
4	---	---	---	30.5	22.5	26.5	29.5	24.5	26.5	33.0	23.5	28.0
5	---	---	---	33.0	23.0	28.0	32.0	24.5	28.0	34.5	24.0	29.0
6	26.0	18.5	22.0	33.5	24.0	28.5	33.0	25.5	29.0	33.0	24.5	28.5
7	28.5	21.0	24.5	34.0	25.0	29.0	34.0	25.5	29.0	28.0	22.5	25.0
8	29.0	23.0	25.5	34.0	25.5	29.5	33.5	25.5	29.0	24.0	20.5	22.0
9	27.0	23.5	25.0	35.0	24.5	29.5	32.0	25.0	28.0	21.0	19.0	20.0
10	25.0	18.5	21.0	36.5	26.0	31.0	33.0	24.0	27.5	24.0	19.0	21.0
11	24.5	17.0	20.5	35.5	26.5	30.5	32.5	24.0	28.0	25.0	20.0	22.0
12	25.0	18.0	21.5	35.0	25.5	30.0	33.5	24.5	28.5	30.5	20.0	24.5
13	28.5	20.0	24.0	34.5	25.5	29.5	33.5	25.5	29.0	31.0	21.0	25.5
14	29.0	21.5	25.0	33.5	26.0	29.5	33.5	25.5	29.0	---	---	---
15	29.5	21.5	25.0	33.5	25.5	29.0	32.0	26.0	28.0	---	---	---
16	29.0	21.5	25.0	35.5	26.0	30.0	33.5	26.0	29.0	---	---	---
17	---	---	---	33.0	26.5	29.0	33.5	25.5	29.0	---	---	---
18	---	---	---	29.5	24.5	27.0	34.0	24.0	28.5	---	---	---
19	---	---	---	31.0	23.5	26.5	32.5	24.5	28.5	---	---	---
20	---	---	---	31.0	25.0	28.0	36.0	25.0	29.5	---	---	---
21	---	---	---	35.0	25.0	29.5	36.0	26.0	30.5	---	---	---
22	---	---	---	34.5	24.0	28.5	35.0	25.5	29.5	19.0	11.5	14.0
23	---	---	---	34.0	24.0	28.0	35.0	25.0	29.5	21.0	10.5	15.0
24	---	---	---	31.5	22.0	26.5	34.5	24.5	29.0	16.5	13.0	15.0
25	---	---	---	34.5	25.5	29.5	33.5	23.5	28.0	21.5	14.5	16.5
26	---	---	---	34.5	26.0	30.0	34.5	24.5	29.0	23.5	14.0	18.0
27	---	---	---	34.5	25.5	30.0	35.0	25.0	29.5	24.0	17.0	19.5
28	33.0	24.0	28.5	36.5	25.0	30.5	35.0	25.0	29.5	29.0	18.5	23.0
29	28.5	23.5	26.0	34.5	27.5	30.5	34.0	24.5	29.0	29.0	20.5	24.0
30	27.0	21.0	23.5	32.0	26.0	29.0	34.0	24.5	28.5	26.5	20.0	23.0
31	---	---	---	29.0	26.0	27.5	34.0	24.5	28.5	---	---	---
MONTH	---	---	---	36.5	20.5	28.6	36.0	21.0	28.2	---	---	---

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OK

LOCATION.--Lat 34°38'04", long 99°05'47", in NW 1/4 NE 1/4 sec.21, T.2 N., R.18 W., Tillman County, Hydrologic Unit 11120303, near left bank on downstream side of pier of bridge on old U.S. Highway 62, 2.5 mi east of Headrick, 12.9 mi upstream from Otter Creek, and at mile 33.0.

DRAINAGE AREA.--4,244 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1905 to March 1908, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to July 1905, published as near Snyder.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1905-07.

GAGE.--Water-stage recorder. Datum of gage is 1,294.83 ft above sea level. Prior to July 18, 1905, nonrecording gage at site 0.2 mi downstream at different datum. July 18, 1905, to Mar. 30, 1908, nonrecording gage at Navajo damsite 10.4 mi upstream at different datum. Oct. 1, 1937, to Jan. 29, 1969, water-stage recorder at present site at datum 5.0 ft higher.

REMARKS.--Records fair. Flow regulated since December 1943 by storage and diversion at Lake Altus, 39.5 mi upstream from station (station 07302500). Diversions for irrigation of about 48,000 acres upstream from station; some return flow may re-enter at Stinking Creek, 16 mi downstream from station. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 21.1 ft, present datum, occurred sometime prior to 1927, from information provided by Oklahoma State Highway Department.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	29	94	60	64	46	53	48	645	561	276	249
2	12	28	88	59	60	48	51	45	500	524	1060	241
3	12	28	83	63	56	54	52	50	383	487	8470	234
4	12	28	78	64	54	55	52	62	7750	459	14600	227
5	12	33	74	60	59	53	49	46	32400	439	23500	221
6	11	29	74	63	62	53	47	192	36100	421	9280	214
7	13	27	73	62	55	53	47	205	13200	394	5130	209
8	16	25	73	61	51	52	46	322	3810	368	2950	203
9	14	34	70	61	52	52	43	414	2730	343	1650	203
10	14	28	71	63	51	55	42	477	5530	322	1210	203
11	13	24	68	61	51	54	40	234	11100	292	1070	212
12	12	23	69	60	50	55	41	161	7870	256	928	251
13	12	23	67	59	53	73	45	126	2200	222	e730	243
14	12	23	66	57	56	74	41	103	e1700	196	e670	217
15	15	21	64	57	56	81	39	89	e1500	183	612	230
16	15	20	65	57	55	104	37	82	e1300	192	e560	457
17	17	20	63	58	54	95	274	78	e1200	177	e540	2180
18	114	19	62	56	55	86	180	67	e1100	176	e500	2320
19	342	31	64	55	54	72	91	62	e960	181	e470	5340
20	176	1290	63	55	52	64	71	58	861	162	e430	9040
21	96	2060	60	54	51	59	82	58	e800	214	e410	3070
22	84	670	59	63	49	55	84	57	e760	193	385	2530
23	197	379	59	66	48	51	84	56	e730	181	365	2070
24	126	238	60	64	48	48	87	63	e700	492	346	1230
25	70	182	59	63	47	53	75	154	e685	1040	330	1140
26	52	152	59	63	48	65	64	436	672	944	314	1280
27	43	132	59	62	49	88	60	1960	637	464	301	1150
28	37	119	61	61	46	78	57	3330	624	340	289	849
29	34	110	62	60	---	64	52	1120	716	277	277	708
30	31	102	61	61	---	57	50	603	608	241	267	628
31	32	---	61	63	---	58	---	481	---	216	257	---
TOTAL	1658	5927	2089	1871	1486	1955	2036	11239	139771	10957	78177	37349
MEAN	53.5	198	67.4	60.4	53.1	63.1	67.9	363	4659	353	2522	1245
MAX	342	2060	94	66	64	104	274	3330	36100	1040	23500	9040
MIN	11	19	59	54	46	46	37	45	383	162	257	203
AC-FT	3290	11760	4140	3710	2950	3880	4040	22290	277200	21730	155100	74080

e Estimated

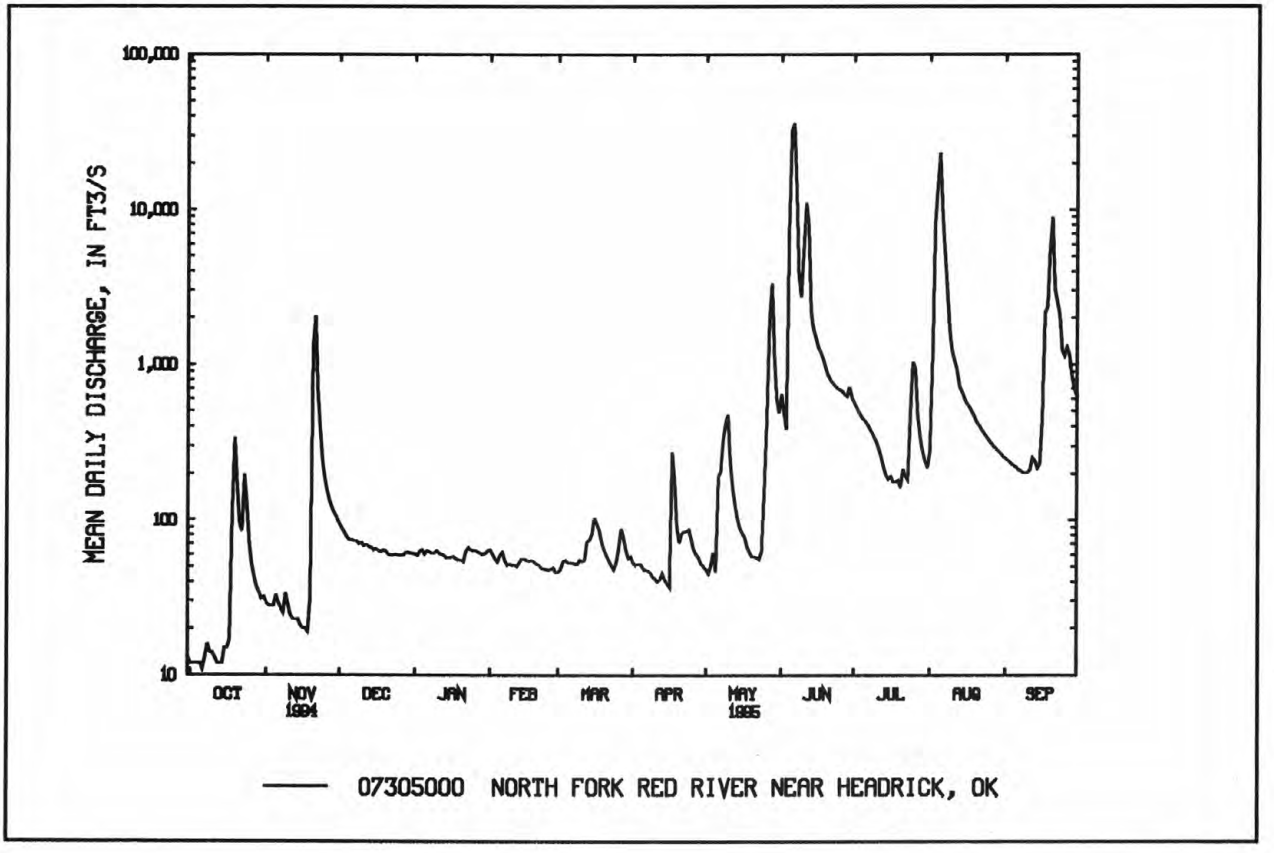
07305000 NORTH FORK RED RIVER NEAR HEADRICK, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	368	144	109	97.9	133	187	244	1016	827	245	155	254
MAX	5608	1743	838	792	1162	1634	1448	6104	4659	2016	2522	1675
(WY)	1987	1987	1992	1987	1960	1987	1973	1977	1995	1950	1995	1965
MIN	.000	.000	.20	.84	4.06	4.27	.64	.31	10.3	.25	.000	.000
(WY)	1953	1953	1955	1953	1953	1955	1971	1953	1966	1970	1952	1952

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1945 - 95	
ANNUAL TOTAL	38385		294515			
ANNUAL MEAN	105		807		[a]316	
HIGHEST ANNUAL MEAN					1562	1987
LOWEST ANNUAL MEAN					50.0	1970
HIGHEST DAILY MEAN	2060	Nov 21	36100	Jun 6	41600	May 10 1993
LOWEST DAILY MEAN	11	Oct 6	11	Oct 6	[b].00	Aug 2 1946
ANNUAL SEVEN-DAY MINIMUM	12	Sep 30	12	Oct 1	.00	Aug 2 1946
INSTANTANEOUS PEAK FLOW			52700	Jun 5	59000	Oct 4 1986
INSTANTANEOUS PEAK STAGE			17.49	Jun 5	19.07	Oct 4 1986
INSTANTANEOUS LOW FLOW					.00	Aug 2 1946
ANNUAL RUNOFF (AC-FT)	76140		584200		228800	
10 PERCENT EXCEEDS	168		1140		516	
50 PERCENT EXCEEDS	84		73		58	
90 PERCENT EXCEEDS	19		33		5.7	

[a]Prior to regulation water years 1906-07, 1938-43 455 ft^3/s.
[b]No flow at times in most years.



07305500 WEST OTTER CREEK AT SNYDER LAKE, NEAR MOUNTAIN PARK, OK

LOCATION.--Lat 34°44'02", long 98°59'10", in SE 1/4 sec.16, T.3 N., R.17 W., Kiowa County, Hydrologic Unit 11120303, near east end of Snyder Dam, 0.8 mi upstream from small tributary, 3 mi northwest of Mountain Park, and at mile 26.0.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--April 1903 to March 1908, October 1951 to September 1971, July 1972 to current year. Published as Otter Creek near Mountain Park 1903-8 and as Otter Creek at Snyder Lake, near Mountain Park 1951-60. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1731: 1960 (M). WSP 1920: 1959-60. WDR OK-78-2: 1977.

GAGE.--Water-stage recorder and broad-crested masonry spillway. Datum of gage is 1,361.06 ft above sea level. April 1903 to March 1908, nonrecording gage at site 1.8 mi downstream at different datum. October 1951 to September 1971 at intake tower at same site and datum. July 1972 to August 1976, 700 ft downstream at datum 1,344.00 ft.

REMARKS.--No estimated daily discharges. Records good. The city of Snyder diverted about 130 acre-ft annually prior to October 1958 and none thereafter. Flow completely regulated since June 1975 by Tom Steed Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	35	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.58	.00	33	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	50	.00	10	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	20	.00	1.2	.00
6	.00	.00	.00	.00	.00	.00	.00	16	3.4	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	18	.24	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.93	.00	.00	63	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	20	.00	152	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	5.5	.00	205	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	207	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	205	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	207	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	204	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	206	.00
17	.00	.00	.00	.00	.00	.00	5.7	.00	.00	.00	207	.00
18	.00	.00	.00	.00	.00	.00	7.3	.00	.00	.00	206	8.2
19	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	206	19
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	207	85
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	209	181
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	208	185
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	209	188
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	209	190
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	191	181
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	163	160
27	.00	.00	.00	.00	.00	.00	.00	3.3	.00	.00	165	194
28	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	93	196
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	1.8	190
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	190
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	13.15	51.37	99.91	0.00	3803.00	1967.20
MEAN	.000	.000	.000	.000	.000	.000	.44	1.66	3.33	.000	123	65.6
MAX	.00	.00	.00	.00	.00	.00	7.3	18	50	.00	209	196
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	26	102	198	.00	7540	3900

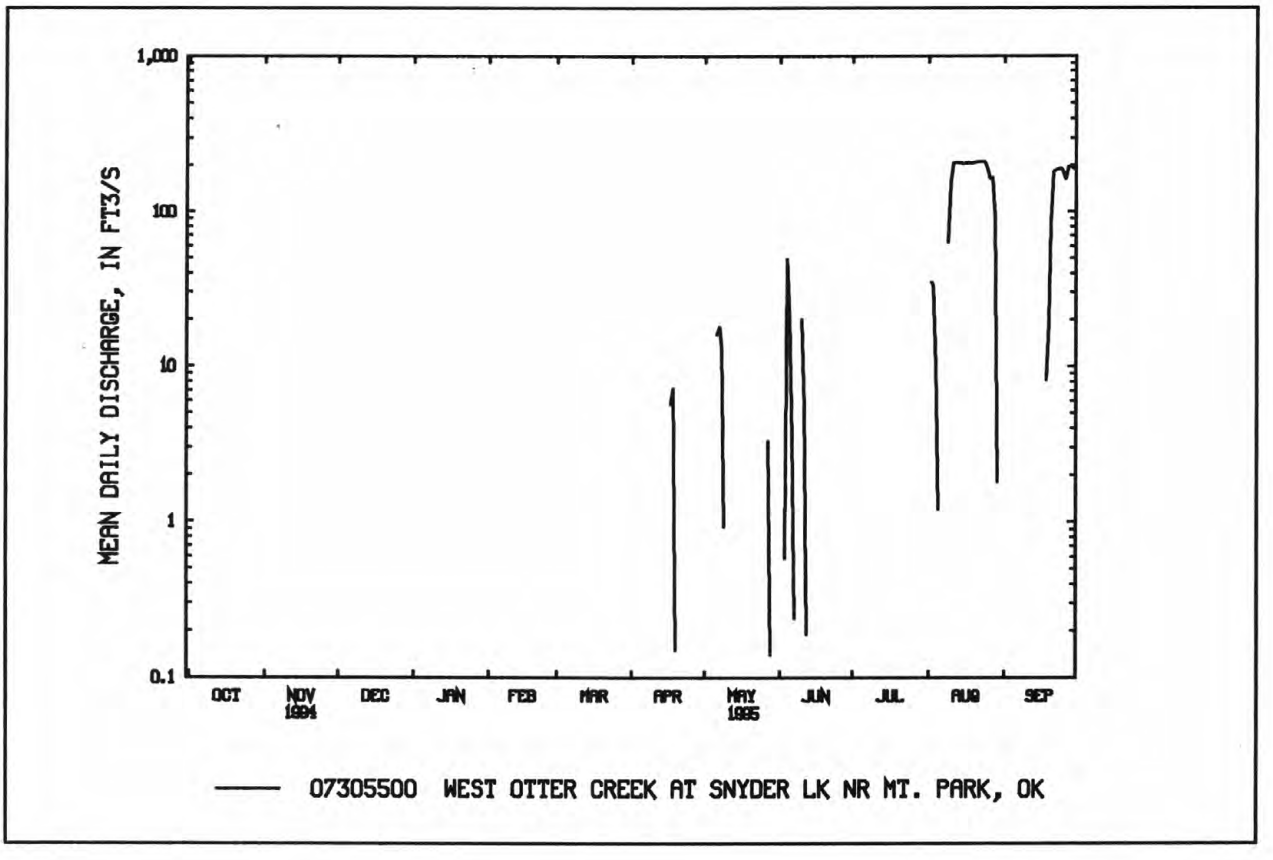
07305500 WEST OTTER CREEK AT SNYDER LAKE, NEAR MOUNTAIN PARK, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.84	17.9	12.2	3.68	12.4	12.3	4.18	40.3	52.8	5.68	6.39	4.76
MAX	105	252	143	61.9	180	165	29.5	384	421	71.6	123	65.6
(WY)	1987	1987	1993	1993	1987	1988	1988	1987	1987	1982	1995	1995
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1976	1976	1976	1976	1977	1977	1977	1979	1988	1976	1976	1976

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1976 - 95	
ANNUAL TOTAL	.00		5934.63			
ANNUAL MEAN	.00		16.3		[a]14.9	
HIGHEST ANNUAL MEAN					125	1987
LOWEST ANNUAL MEAN					.000	1994
HIGHEST DAILY MEAN	.00		209	Aug 21	3480	May 28 1987
LOWEST DAILY MEAN	.00	Jan 1	.00	at times	.00	at times
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			238	Jun 4	[b]4300	May 29 1987
INSTANTANEOUS PEAK STAGE			12.77	Jun 4	[c]15.44	May 29 1987
ANNUAL RUNOFF (AC-FT)	.00		11770		10810	
10 PERCENT EXCEEDS	.00		19		3.4	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

[a]Prior to regulation water years 1904-07, 1951-71, 1973-74, 23.0 ft^3/s.
[b]Maximum discharge for period of record, 14,200 ft^3/s, June 6, 1953, from rating curve extended above 1,600 ft^3/s on basis of contracted opening and flow over dam measurments of peak flow.
[c]Maximum gage height for period of record, 19.50 ft, from flood marks, June 6, 1953.



07307028 NORTH FORK RED RIVER NEAR TIPTON, OK

LOCATION.--Lat 34°30'25", long 99°12'28", in NW 1/4 NE 1/4 sec.5. T.1 S, R.19 W., Tillman County, Hydrologic Unit 11120303, near left bank on downstream side of bridge pier on State Highway 5, 3.8 mi west of intersection of State Highways 5 and 5C in Tipton, 4.8 mi downstream from Otter Creek, and at mile 15.3.

DRAINAGE AREA.--4,691 mi^2, of which 399 mi^2 is probably noncontributing.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,234.45 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since December 1943 by storage and diversion at Lake Altus 54.2 mi upstream (station 07302500). Diversions for irrigation of about 48,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

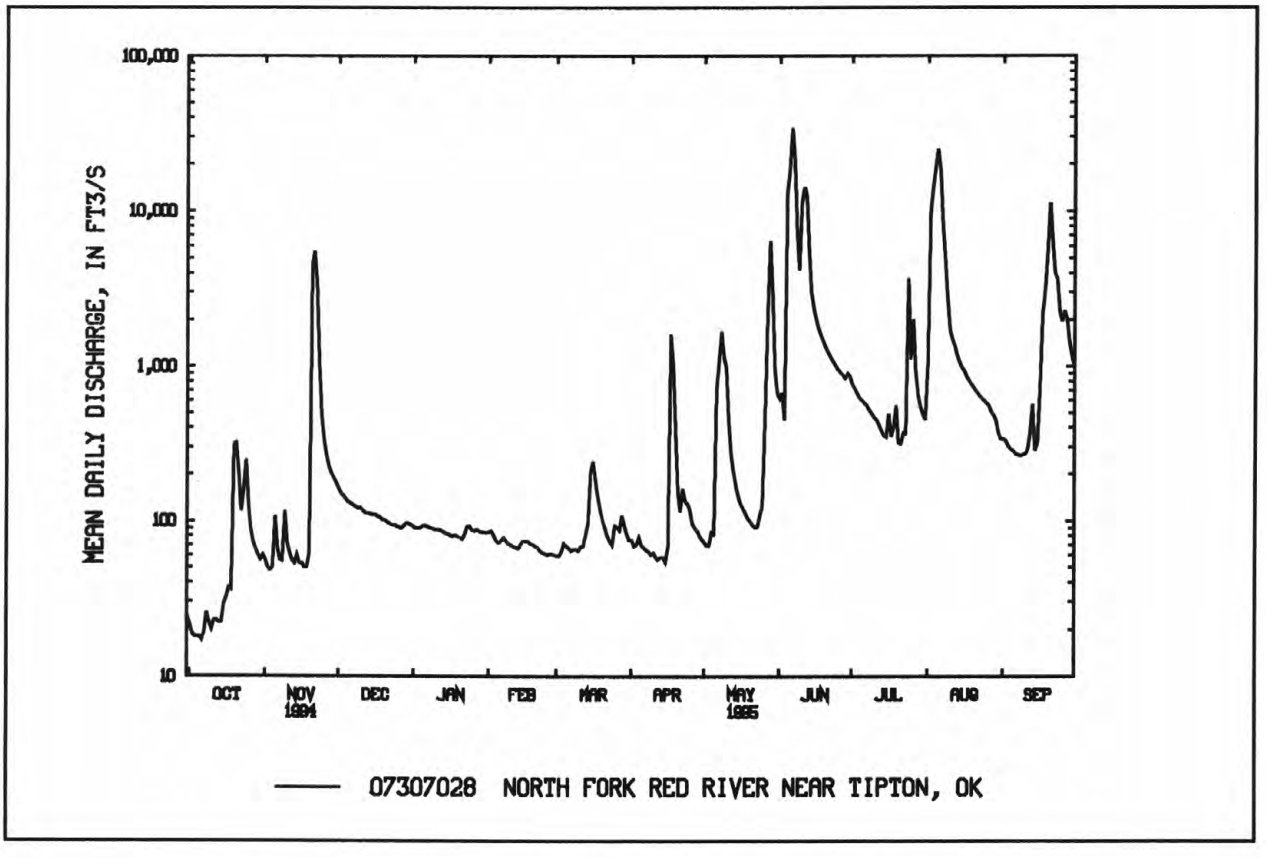
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	56	161	91	84	59	75	73	617	760	1050	338
2	19	50	150	90	86	59	69	69	678	715	9970	331
3	18	48	145	90	80	63	70	69	449	669	14400	306
4	18	50	139	91	74	71	78	84	13100	623	19300	291
5	18	107	132	93	72	69	70	82	18600	598	25100	285
6	17	67	130	93	74	67	67	719	34300	581	18300	274
7	19	56	126	91	78	64	65	1060	20800	553	8320	267
8	26	55	123	90	74	65	63	1680	7550	520	4950	265
9	22	116	120	89	71	65	60	1140	4190	493	2770	267
10	20	71	121	87	70	64	62	984	11300	468	1730	271
11	23	62	116	88	68	68	58	445	14300	449	1500	289
12	23	55	112	87	67	68	56	271	12300	417	1360	370
13	22	53	112	85	66	81	58	211	5370	381	1180	568
14	22	60	110	83	70	97	58	171	3010	355	1060	286
15	29	53	109	82	74	203	54	145	2370	350	980	318
16	32	53	109	81	74	244	68	128	2000	495	932	736
17	37	50	107	79	74	182	1620	120	1750	351	857	2190
18	36	50	105	81	71	142	1020	111	1570	399	802	3090
19	314	61	102	79	70	118	398	104	1440	557	761	5400
20	321	4530	101	77	69	99	158	99	1320	318	721	11300
21	204	5540	98	76	67	90	114	94	1230	315	683	6650
22	115	3340	96	82	64	79	161	91	1140	370	651	3990
23	159	1030	94	92	62	74	135	92	1070	366	624	3680
24	250	480	94	92	61	70	129	109	1010	3720	600	2260
25	130	331	92	87	60	93	118	122	950	1110	583	1930
26	89	266	91	86	61	91	97	455	914	2010	557	2280
27	74	228	90	88	61	87	90	2100	878	904	510	2020
28	66	204	93	85	60	108	87	6430	835	649	481	1450
29	60	188	97	84	---	93	80	2950	899	550	444	1170
30	56	176	96	84	---	82	76	956	863	492	371	1010
31	60	---	94	83	---	75	---	667	---	450	339	---
TOTAL	2321	17486	3465	2666	1962	2890	5314	21831	166803	20988	121886	53882
MEAN	74.9	583	112	86.0	70.1	93.2	177	704	5560	677	3932	1796
MAX	321	5540	161	93	86	244	1620	6430	34300	3720	25100	11300
MIN	17	48	90	76	60	59	54	69	449	315	339	265
AC-FT	4600	34680	6870	5290	3890	5730	10540	43300	330900	41630	241800	106900

07307028 NORTH FORK RED RIVER NEAR TIPTON, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	861	448	349	252	296	597	417	1320	1802	335	508	597
MAX	5784	2276	1287	742	1500	2401	1250	5347	5560	738	3932	1796
(WY)	1987	1987	1992	1987	1987	1987	1993	1993	1995	1993	1995	1995
MIN	15.1	30.8	84.6	68.2	70.1	54.8	49.3	62.6	115	49.3	39.5	13.5
(WY)	1985	1985	1986	1986	1995	1986	1986	1984	1994	1984	1985	1984

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1984 - 95	
ANNUAL TOTAL	60994		421494			
ANNUAL MEAN	167		1155		649	
HIGHEST ANNUAL MEAN					1987	1987
LOWEST ANNUAL MEAN					132	1994
HIGHEST DAILY MEAN	5540	Nov 21	34300	Jun 6	39100	May 30 1987
LOWEST DAILY MEAN	17	Oct 6	17	Oct 6	3.7	Sep 7 1985
ANNUAL SEVEN-DAY MINIMUM	19	Oct 1	19	Oct 1	4.7	Sep 6 1985
INSTANTANEOUS PEAK FLOW			40700	Jun 6	57200	Oct 5 1986
INSTANTANEOUS PEAK STAGE			18.41	Jun 6	19.18	May 10 1993
ANNUAL RUNOFF (AC-FT)	121000		836000		470400	
10 PERCENT EXCEEDS	234		2050		1170	
50 PERCENT EXCEEDS	105		116		154	
90 PERCENT EXCEEDS	40		59		54	



07308500 RED RIVER NEAR BURKBURNETT, TX

LOCATION.--Lat 34°06'36", long 98°31'53", Cotton County, Okla., Hydrologic Unit 11130102, on left bank at downstream side of bridge on U.S. Highways 277 and 281, 2.5 mi northeast of Burkburnett, and at mile 933.

DRAINAGE AREA.--20,570 mi^2, of which 5,936 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1924 to August 1925 (monthly discharge only), December 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 952.57 ft above National Geodetic Vertical Datum of 1929. July 11, 1924, to Aug. 31, 1925, nonrecording gage at site 1,000 ft downstream at same datum. Dec. 16, 1959, to Jan. 11, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good through June 5 then poor from June 6 to September 30. There are many small diversions upstream from station for irrigation, but total amounts are unknown.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 3, 1957, reached a stage of 13.54 ft, from floodmarks. According to local residents, higher stages occurred in 1891 and June 1941.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 18	1400	9,000	8.40	June 10	1800	113,000	a13.43
May 7	1530	10,800	8.66	Aug. 3	2300	101,000	a13.95
May 29	1430	9,610	8.50	Sep. 18	Unknown	14,000	a7.48
June 6	0730	174,000	16.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	259	435	266	227	164	270	367	3130	e3190	e30400	1000
2	26	237	398	264	225	171	268	341	3550	e3050	e70900	914
3	26	217	384	262	204	179	258	334	4470	e2940	e74500	860
4	40	923	359	259	200	190	282	300	6910	e2710	e39500	784
5	24	2810	339	253	189	196	302	318	87200	e2450	e20100	712
6	20	1320	332	250	177	206	327	1210	e144000	e2020	e13500	646
7	68	739	323	250	166	205	320	7390	e98600	e1680	e9100	584
8	100	630	322	248	160	205	305	9310	e40900	e1470	e7500	527
9	76	528	338	241	163	208	383	6920	e26100	e1060	e6350	518
10	63	543	314	243	162	208	397	4820	e88300	e840	e5350	555
11	51	486	304	236	156	213	386	4010	e90700	e700	e4650	594
12	45	613	293	233	157	217	333	3240	e41400	e610	e4050	736
13	43	547	290	230	163	273	323	2110	e23600	e500	e3750	1210
14	39	468	288	223	182	358	329	1430	e15000	e468	e3250	2090
15	46	403	282	211	187	463	350	1150	e9810	e445	e2910	3170
16	52	378	287	205	189	788	459	830	e6730	e423	e2690	3970
17	66	377	279	203	236	530	718	664	e5310	e507	e2560	e9930
18	79	364	279	227	275	519	5050	536	e4560	e427	e2450	e12300
19	e107	412	275	244	242	444	4300	452	e4230	e540	e2330	e13100
20	e1270	519	270	232	221	349	2740	418	e4000	e1640	e2230	e10800
21	e1650	e4600	262	208	200	310	1670	434	e3770	e1360	e2200	e9500
22	e1820	e3210	257	208	183	289	1150	359	e3710	e756	e2050	e7620
23	e1940	e2180	254	220	171	279	1700	333	e3630	e773	e2000	e6030
24	e1730	e1640	254	231	161	266	1700	349	e3570	e1600	e1960	e4920
25	1220	e1230	249	230	162	268	975	459	e3500	e2550	e1880	e4040
26	968	e890	246	245	159	298	667	1550	e3480	e3550	e1810	e3860
27	692	e797	248	254	158	279	529	4300	e3410	e2880	e1690	e4050
28	519	e671	252	242	159	279	486	7650	e3350	e1130	e1520	e4090
29	416	549	271	234	---	270	449	8870	e3300	e646	e1310	e3730
30	342	485	271	235	---	278	391	5470	e3250	e625	e1220	e3240
31	294	---	268	229	---	279	---	3960	---	e653	1120	---
TOTAL	13861	29025	9223	7316	5234	9181	27817	79884	743470	44193	326830	116080
MEAN	447	967	298	236	187	296	927	2577	24780	1426	10540	3869
MAX	1940	4600	435	266	275	788	5050	9310	144000	3550	74500	13100
MIN	20	217	246	203	156	164	258	300	3130	423	1120	518
AC-FT	27490	57570	18290	14510	10380	18210	55180	158400	1475000	87660	648300	230200

a From floodmark
e Estimated

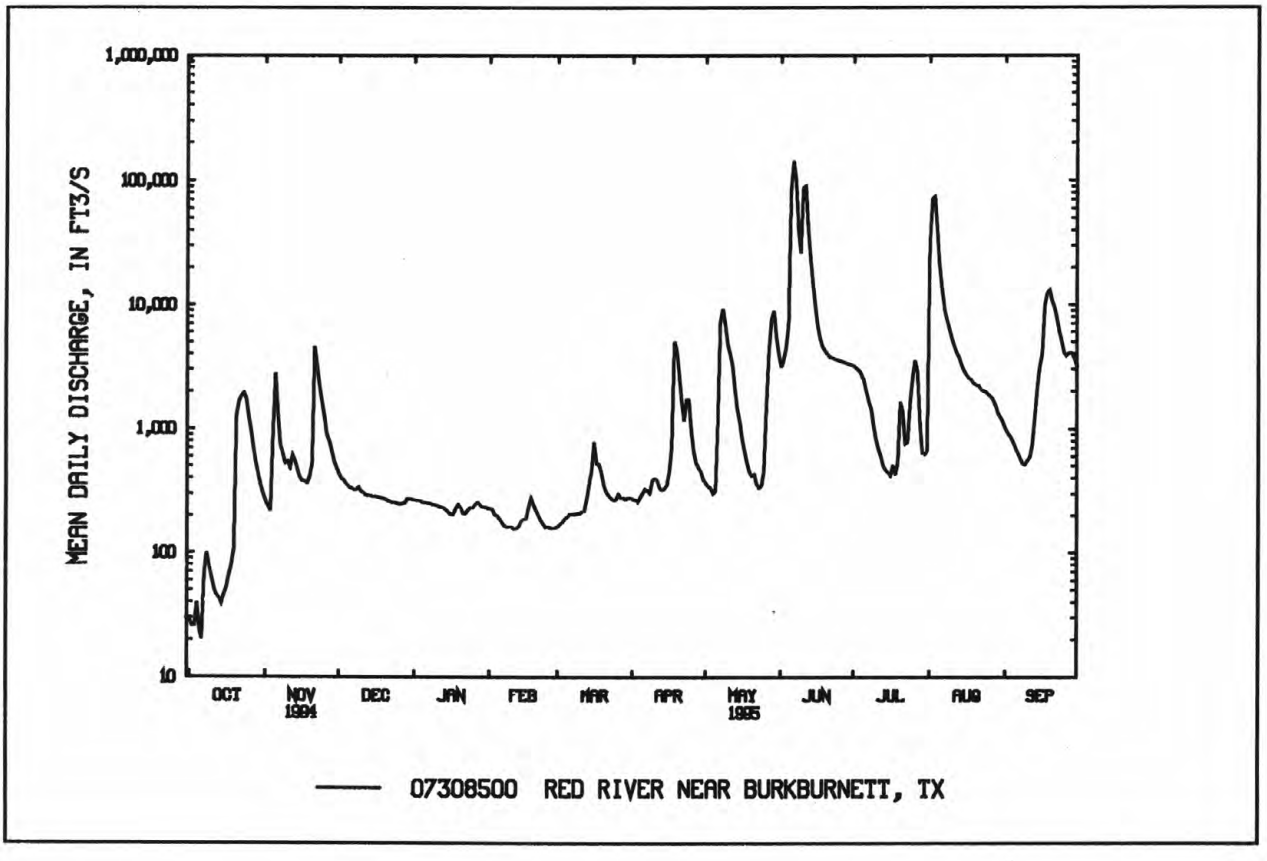
07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1593	688	515	453	546	719	812	2343	3652	850	811	1230
MAX	14900	4960	4435	2040	3024	3552	5987	12470	24780	5947	10540	4244
(WY)	1987	1987	1992	1992	1987	1987	1973	1977	1995	1975	1995	1965
MIN	21.9	.96	2.98	5.53	8.37	7.97	.15	11.4	148	.058	1.29	32.2
(WY)	1971	1971	1971	1971	1971	1971	1971	1971	1970	1970	1964	1983

SUMMARY STATISTICS

	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1960 - 95	
ANNUAL TOTAL	267847		1412114			
ANNUAL MEAN	734		3869		1188	
HIGHEST ANNUAL MEAN					4424	1987
LOWEST ANNUAL MEAN					178	1964
HIGHEST DAILY MEAN	7650	May 27	144000	Jun 6	144000	Jun 6 1995
LOWEST DAILY MEAN	20	Oct 6	20	Oct 6	.00	Jul 19 1964
ANNUAL SEVEN-DAY MINIMUM	28	Sep 30	33	Oct 1	.00	Jul 19 1964
INSTANTANEOUS PEAK FLOW			174000	Jun 6	174000	Jun 6 1995
INSTANTANEOUS PEAK STAGE			16.61	Jun 6	16.90	Oct 21 1983
ANNUAL RUNOFF (AC-FT)	531300		2801000		860400	
10 PERCENT EXCEEDS	1830		5330		2290	
50 PERCENT EXCEEDS	332		468		287	
90 PERCENT EXCEEDS	88		181		50	



07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: May 1968 to current year. Biochemical analyses: October 1974 to August, 1994. Pesticide analyses: October 1973 to September 1982.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE:July 1968 to September 1981, October 1994 to September 1995.
WATER TEMPERATURE:July 1968 to September 1981, October 1994 to September 1995.

INSTRUMENTATION.--From December 1968 to September 1979, specific conductance was continuously recorded at this station. From October 1994 to September 1995 specific conductance and water temperature were continuously recorded at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE:Maximum, 17,400 microsiemens July 30, 1972; minimum, 889 microsiemens Sept. 24, 1970.
WATER TEMPERATURE:Maximum, 35.5°C June 29, 1980; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE:Maximum recorded, 10,800 microsiemens Jan. 22; minimum, 1,620 microsiemens Aug. 8.
WATER TEMPERATURE:Maximum recorded, 33.0°C Aug. 20,21,27,28, Sept. 2; minimum 0.0°C Mar. 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC										
05...	1010	340	6760	8.6	10.0	--	1200	1000	330	94
JAN										
12...	1045	237	9280	8.2	11.0	--	1500	1400	400	130
MAR										
09...	1227	216	9080	8.1	9.0	15.1	1600	1400	410	140
APR										
20...	0955	2660	1470	7.4	15.0	9.7	280	190	76	21
MAY										
31...	1420	3920	3400	7.9	20.5	7.6	660	560	200	39
JUL										
07...	1026	1800	9600	7.9	27.5	7.2	1500	1400	410	110

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO AS K)	POTAS-SIUM, DIS-SOLVED (MG/L (MG/L)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 AS SO4)	SULFATE DIS-SOLVED (MG/L AS CL)	CHLO-RIDE, DIS-SOLVED (MG/L AS F)	FLUO-RIDE, DIS-SOLVED (MG/L SIO2)	SILICA, DIS-SOLVED (MG/L AS (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED
DEC									
05...	1100	14	9.9	200	890	1600	0.80	12	4160
JAN									
12...	1500	17	8.3	150	1200	2400	0.40	3.9	5740
MAR									
09...	1400	15	9.2	170	1300	2200	0.40	3.7	5560
APR									
20...	170	4	6.9	83	200	330	0.30	6.7	861
MAY									
31...	500	8	9.6	96	460	730	0.40	10	2010
JUL									
07...	1600	18	12	120	1200	2500	0.40	11	5920

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCTANCE (MICRO-SIEMENS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1994	13861	5380	3360	126000	1200	45500	920	34400	1100
NOV.	1994	29025	3740	2330	183000	800	62700	680	53600	780
DEC.	1994	9223	7290	4570	114000	1800	43900	1100	28100	1300
JAN.	1995	7316	8820	5540	109000	2200	44400	1200	24600	1500
FEB.	1995	5234	8500	5330	75400	2100	30200	1200	17300	1400
MAR.	1995	9181	6950	4350	108000	1700	41500	1100	26800	1300
APR.	1995	27817	4010	2500	188000	890	66800	700	52600	810
MAY	1995	79884	2870	1790	386000	600	128800	540	117300	620
JUNE	1995	743470	3370	2100	4221E3	720	1454100	610	1233500	700
JULY	1995	44193	6760	4240	506000	1700	196900	1000	122800	1200
AUG.	1995	326830	2920	1820	1604E3	610	536100	550	486500	630
SEPT	1995	116080	3040	1890	593000	630	199000	570	179300	650
TOTAL		1412114	**	**	8213000	**	2850000	**	2377000	**
WTD.AVG.		3869	3450	2150	**	750	**	620	**	720

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	e6200	---	---	e6700	---	---	e5400	---	---	e8600
2	---	---	e6300	---	---	e6750	---	---	e5960	---	---	e8700
3	---	---	e6400	---	---	e6800	---	---	e6150	---	---	8770
4	---	---	e5500	---	---	e6750	---	---	e6300	9770	8980	9320
5	---	---	e5800	---	---	e3800	---	---	e6480	10200	9770	10000
6	---	---	e6000	---	---	e2950	---	---	e6550	10600	9630	9920
7	---	---	e5400	---	---	e3200	---	---	e6700	9630	9190	9360
8	---	---	e4800	---	---	e3500	---	---	e6800	9190	8990	9050
9	---	---	e5400	---	---	e3750	---	---	e7000	9000	8900	8970
10	---	---	e6100	---	---	e4000	---	---	e7200	8900	8740	8860
11	---	---	e6230	---	---	e4800	---	---	e7300	8900	8630	8720
12	6540	6150	6310	---	---	e4600	---	---	e7400	9140	8900	9070
13	6920	6540	6740	---	---	e4400	---	---	e7550	9120	8820	8980
14	7070	6920	7010	---	---	e4900	---	---	7650	8820	8620	8700
15	7020	6840	6910	---	---	e5300	7660	7560	7620	8620	8350	8520
16	6930	6820	6840	---	---	e5550	7690	7600	7660	8350	7850	8110
17	6930	6720	6820	---	---	e5700	---	---	7680	7850	7530	7680
18	6720	6520	6630	---	---	e5900	---	---	e7650	7540	6740	6970
19	6890	6430	6560	---	---	e6000	---	---	e7620	6800	6490	6600
20	---	---	e6200	---	---	e5600	---	---	e7700	6570	6230	6340
21	---	---	e4690	---	---	e2300	---	---	e7780	6310	6250	6290
22	---	---	e4300	---	---	e2900	---	---	e7800	10800	6210	9350
23	---	---	e4000	---	---	e2500	---	---	e7900	10400	10200	10300
24	---	---	e5260	---	---	e3400	---	---	e7980	10200	9540	9880
25	---	---	e6150	---	---	e3800	---	---	e8000	9540	8860	9370
26	---	---	e6210	---	---	e4000	---	---	e8050	9030	8510	8690
27	---	---	e6290	---	---	e4200	---	---	e8150	8990	8410	8600
28	---	---	e6400	---	---	e4350	---	---	e8250	9240	8820	9110
29	---	---	e6510	---	---	e4600	---	---	e8400	9800	9230	9460
30	---	---	e6600	---	---	e4900	---	---	e8480	10600	9800	10300
31	---	---	e6680	---	---	---	---	---	e8500	10700	10100	10400
MONTH	7070	6150	6040	---	---	4600	7690	7560	7410	10800	6210	8810

e Estimated

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10100	9500	9750	8360	8230	8300	6530	6370	6440	---	---	e6300
2	9520	9320	9420	8300	8000	8240	6620	6490	6550	---	---	e7170
3	9790	9470	9610	8460	8240	8310	6620	6250	6560	7270	7140	7190
4	9950	9760	9870	8640	8460	8560	6270	5550	5970	7420	7270	7310
5	9800	9500	9660	8670	8620	8650	5550	5080	5280	7530	7140	7430
6	9550	9240	9430	8650	8470	8590	5800	5220	5530	7220	2750	5420
7	9250	9040	9160	8770	8530	8670	5780	5270	5600	---	---	1920
8	9070	8900	8990	8890	8690	8760	5610	5200	5350	---	---	e1710
9	8900	8750	8830	9350	8890	9100	5370	4790	5100	---	---	e2600
10	8800	8690	8750	9990	9100	9520	5900	4920	5280	---	---	e2800
11	8810	8700	8760	10200	9980	10100	5630	4440	4980	---	---	e3600
12	8700	8550	8610	10200	6370	9040	7480	4090	5550	---	---	e3950
13	8570	8400	8500	8070	6960	7580	7590	7360	7500	---	---	e4050
14	8410	8050	8240	7590	6620	7230	7520	6700	7090	---	---	e4510
15	8440	8340	8380	7070	6540	6710	7520	6730	7090	---	---	e4750
16	8440	8190	8310	7540	3470	5490	10200	6620	7370	---	---	e4810
17	8260	7700	8030	4680	3310	4040	9870	7610	9400	---	---	e4980
18	7850	7180	7620	4730	4300	4540	7610	3310	5650	---	---	e5240
19	7670	7240	7390	5660	4280	4580	---	---	e2000	---	---	e5300
20	8100	7670	7940	7620	5650	6550	---	---	e1470	---	---	e5450
21	8190	8070	8130	8860	7190	8000	---	---	e1800	---	---	e5560
22	8500	8150	8380	8860	7770	8320	---	---	e2350	---	---	e5600
23	8570	8260	8430	8020	7360	7750	---	---	e2200	---	---	e5610
24	8600	5210	6470	7960	6750	7640	---	---	e3000	---	---	e5620
25	8570	5110	6800	7850	6780	7540	---	---	e3800	---	---	e4650
26	8430	7890	8140	7410	6710	7030	---	---	e4600	---	---	e2850
27	8210	7900	8070	7000	6480	6580	---	---	e4900	---	---	e1700
28	8250	8090	8170	6480	6180	6270	---	---	e5300	---	---	e1430
29	---	---	---	6250	6180	6210	---	---	e5700	---	---	e2650
30	---	---	---	6330	6220	6270	---	---	e6000	---	---	e3110
31	---	---	---	6430	6280	6340	---	---	---	---	---	e3400
MONTH	10100	5110	8490	10200	3310	7440	10200	3310	5180	7530	2750	4470

e Estimated

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	e5200	---	---	e7800	5500	4930	5170	6030	5930	5970
2	---	---	e5550	---	---	e8050	---	---	3460	6220	6030	6130
3	---	---	e3650	---	---	e8300	---	---	e1960	6350	6220	6280
4	---	---	e2250	---	---	e8500	---	---	e1740	6400	6320	6370
5	---	---	e2100	---	---	e8850	---	---	e1650	6390	6310	6350
6	---	---	e1990	---	---	e9400	---	---	e1460	6400	6310	6360
7	---	---	e1630	---	---	e9600	---	---	1640	6680	5890	6480
8	---	---	e1530	---	---	e9610	2550	1620	2160	6660	6180	6490
9	---	---	e2200	---	---	e9600	2900	2080	2600	6470	5600	6120
10	---	---	e3940	---	---	e9610	3480	2740	3120	---	---	3600
11	---	---	e5400	---	---	e9630	3740	3380	3560	---	---	e2800
12	---	---	e5500	---	---	e9650	4280	3180	3710	---	---	e3200
13	---	---	e5510	---	---	e9670	---	---	e3800	---	---	e4600
14	---	---	e5510	---	---	e9690	---	---	e3900	---	---	4900
15	---	---	e5520	---	---	e9710	---	---	e4000	5220	4190	4680
16	---	---	e5510	---	---	e9720	---	---	e4050	5360	3120	4450
17	---	---	e5520	---	---	e7380	---	---	e4210	---	---	e2100
18	---	---	e5500	---	---	e7490	---	---	e4350	---	---	e1850
19	---	---	e5510	---	---	e6100	---	---	e4470	---	---	e1600
20	---	---	e5600	---	---	e3250	---	---	4590	---	---	e1950
21	---	---	e5610	---	---	e4000	5080	4350	4690	---	---	e2750
22	---	---	e5700	---	---	e4300	4720	4180	4390	---	---	e2960
23	---	---	e5720	---	---	e4600	4590	4080	4280	---	---	e3210
24	---	---	e5850	---	---	e5000	4630	4210	4420	---	---	e3460
25	---	---	e5890	---	---	e4500	5790	4310	4800	---	---	e3610
26	---	---	e5940	---	---	2440	5880	5710	5800	---	---	e3690
27	---	---	e6450	---	---	e3850	5880	5520	5790	---	---	3760
28	---	---	e6840	---	---	e4600	5730	5540	5640	3690	3170	3340
29	---	---	e7250	---	---	e4890	5830	5630	5720	4220	3170	3780
30	---	---	e7600	---	---	e5210	5950	5790	5860	4850	4130	4570
31	---	---	---	---	---	5500	5990	5920	5960	---	---	---
MONTH	---	---	4930	---	---	7110	5990	1620	3970	6680	3120	4250
YEAR	10800	1620	6050									

e Estimated

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	7.0	3.0	5.5
2	---	---	---	---	---	---	---	---	---	5.5	1.5	4.0
3	---	---	---	---	---	---	---	---	---	5.0	1.5	3.5
4	---	---	---	---	---	---	---	---	---	---	---	---
5	28.5	20.0	23.5	---	---	---	---	---	---	---	---	---
6	27.0	17.5	21.5	---	---	---	---	---	---	7.5	2.0	4.0
7	21.0	16.0	18.5	---	---	---	---	---	---	6.5	1.0	4.0
8	21.5	14.5	17.5	---	---	---	---	---	---	11.0	3.0	6.5
9	23.0	12.5	17.0	---	---	---	---	---	---	11.5	4.5	8.0
10	24.0	12.5	17.5	---	---	---	---	---	---	13.5	7.0	10.0
11	23.5	13.0	18.0	---	---	---	---	---	---	13.5	7.0	10.5
12	23.5	12.5	17.5	---	---	---	---	---	---	14.0	9.0	11.0
13	23.0	14.5	18.5	---	---	---	---	---	---	13.0	8.5	10.5
14	19.0	15.5	17.0	---	---	---	---	---	---	12.5	6.0	9.0
15	17.0	14.5	15.5	---	---	---	8.5	8.0	8.5	12.5	6.0	9.0
16	22.0	16.5	19.0	---	---	---	12.0	8.0	9.5	12.5	7.5	10.0
17	24.5	19.5	21.5	---	---	---	---	---	---	14.0	9.0	11.5
18	27.0	20.0	22.5	---	---	---	---	---	---	10.0	6.5	8.0
19	26.5	18.0	22.0	---	---	---	---	---	---	10.0	4.0	7.0
20	---	---	---	---	---	---	13.0	8.5	10.5	11.5	4.0	7.5
21	---	---	---	---	---	---	11.5	6.5	9.0	8.5	6.5	7.5
22	---	---	---	---	---	---	10.5	5.5	8.0	6.5	2.5	4.5
23	---	---	---	---	---	---	9.5	5.0	7.5	8.5	.5	4.0
24	---	---	---	---	---	---	9.0	5.5	7.0	9.0	2.5	6.0
25	---	---	---	---	---	---	9.5	3.5	6.5	12.0	5.0	8.5
26	---	---	---	---	---	---	10.0	4.0	7.0	12.5	8.5	10.5
27	---	---	---	---	---	---	10.0	5.0	7.5	15.0	8.5	11.5
28	---	---	---	---	---	---	9.5	8.5	9.0	11.5	7.5	9.0
29	---	---	---	---	---	---	12.5	8.0	10.0	7.5	4.0	5.5
30	---	---	---	---	---	---	10.5	6.5	9.0	10.0	2.0	5.5
31	---	---	---	---	---	---	12.0	7.0	9.5	11.0	3.5	7.0
MONTH	28.5	12.5	19.0	---	---	---	13.0	3.5	8.5	15.0	.5	7.5

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	5.0	9.0	4.5	.0	2.0	18.0	12.5	15.0	18.5	17.0	17.5
2	16.0	7.5	12.0	---	---	---	18.5	14.5	16.5	18.0	10.5	16.0
3	14.0	8.5	11.0	---	---	---	17.5	15.0	16.0	22.0	14.5	17.5
4	13.5	6.5	10.0	6.0	3.0	4.5	19.0	15.0	16.5	26.5	17.5	21.5
5	13.0	6.0	9.5	10.0	6.0	7.5	18.0	15.0	16.5	21.5	17.0	18.5
6	15.0	6.0	10.5	14.0	7.0	10.0	19.5	15.5	17.0	21.0	16.5	18.5
7	11.0	7.0	9.0	9.5	1.5	5.5	21.0	16.5	18.5	20.5	19.0	20.0
8	11.5	3.5	7.0	11.5	.5	6.0	22.0	18.0	20.0	20.5	18.0	19.5
9	13.5	5.0	9.0	13.5	3.5	8.0	22.5	18.0	20.0	22.5	17.5	19.5
10	10.0	7.0	8.5	15.0	5.0	9.5	21.5	13.5	18.0	22.5	19.0	21.0
11	7.5	2.0	4.5	17.0	8.5	12.5	15.0	10.0	12.5	23.5	19.5	21.0
12	---	---	---	16.5	13.0	14.5	20.0	11.5	15.0	24.0	19.5	21.5
13	2.5	.5	1.5	14.5	13.0	14.0	23.5	13.5	18.0	28.5	22.0	25.0
14	5.5	1.5	3.0	15.0	12.0	13.5	22.0	15.5	18.5	28.5	23.5	25.5
15	10.0	5.5	7.5	18.0	13.0	15.5	24.0	15.5	19.5	28.0	22.5	25.0
16	6.0	3.5	4.5	20.5	15.0	17.5	26.5	19.5	22.0	26.0	22.0	23.5
17	11.5	1.0	6.0	23.0	15.5	19.0	24.5	18.5	21.5	27.0	22.0	24.0
18	11.5	4.5	8.0	23.0	16.0	19.5	21.0	16.5	19.0	23.5	16.5	20.0
19	15.0	6.5	10.5	23.0	16.0	19.0	19.0	15.0	16.0	27.0	17.0	21.5
20	17.5	8.0	12.5	23.0	15.0	19.0	20.0	13.0	17.0	26.0	19.5	22.5
21	18.5	9.5	14.0	24.5	15.0	19.5	23.0	16.0	19.0	27.0	19.5	23.0
22	18.0	10.5	14.0	24.0	17.5	21.0	18.0	12.5	13.5	28.5	20.5	24.0
23	19.0	12.0	15.0	23.0	15.0	19.0	13.0	11.0	12.0	25.5	21.5	23.5
24	18.0	9.5	13.5	24.0	15.5	19.0	16.0	12.5	14.0	21.5	19.0	20.0
25	15.5	11.0	13.5	20.0	18.0	19.0	17.5	15.0	16.0	19.0	16.0	17.0
26	20.5	13.5	16.5	22.0	15.5	18.0	17.5	15.5	16.5	22.0	16.5	19.0
27	17.0	12.0	15.5	19.0	12.0	15.5	17.0	14.0	15.5	23.5	19.5	21.5
28	12.0	4.5	7.5	16.0	11.0	13.0	18.0	15.0	16.5	24.5	20.5	22.5
29	---	---	---	12.5	10.5	11.5	20.0	17.5	18.5	23.5	19.5	21.0
30	---	---	---	14.0	10.0	11.5	19.5	17.5	18.0	22.5	19.0	20.0
31	---	---	---	16.5	10.5	13.5	---	---	---	22.0	20.0	21.0
MONTH	20.5	.5	9.5	24.5	.0	13.5	26.5	10.0	17.0	28.5	10.5	21.0

07308500 RED RIVER NEAR BURKBURNETT, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	20.0	22.5	---	---	---	27.0	24.5	25.5	32.5	27.0	29.5
2	---	---	---	---	---	---	---	---	---	33.0	27.5	30.0
3	---	---	---	---	---	---	---	---	---	32.0	27.5	29.5
4	---	---	---	---	---	---	---	---	---	30.5	26.5	28.5
5	---	---	---	---	---	---	---	---	---	32.0	27.0	29.0
6	---	---	---	---	---	---	---	---	---	31.0	26.5	28.5
7	---	---	---	---	---	---	---	---	---	28.5	25.0	26.5
8	---	---	---	---	---	---	30.5	28.0	29.5	26.5	22.0	24.0
9	---	---	---	---	---	---	30.0	27.5	29.0	23.0	21.0	22.0
10	---	---	---	---	---	---	29.5	26.5	28.0	24.5	21.0	22.5
11	---	---	---	---	---	---	30.5	27.5	29.0	24.0	22.5	23.0
12	---	---	---	---	---	---	30.5	28.0	29.5	27.0	23.0	24.5
13	---	---	---	---	---	---	30.5	28.0	29.0	28.5	23.0	25.5
14	---	---	---	---	---	---	31.0	27.5	29.0	27.5	25.5	26.5
15	---	---	---	---	---	---	29.5	27.0	28.5	26.5	24.5	25.5
16	---	---	---	---	---	---	30.5	27.0	28.5	27.0	24.0	25.0
17	---	---	---	---	---	---	30.5	27.0	28.5	26.5	25.0	26.0
18	---	---	---	---	---	---	31.0	27.0	29.0	26.5	24.0	25.0
19	---	---	---	---	---	---	32.5	28.0	30.0	24.0	23.0	23.5
20	---	---	---	---	---	---	33.0	29.0	31.0	23.0	21.5	22.0
21	---	---	---	---	---	---	33.0	29.5	31.0	21.5	16.0	19.0
22	---	---	---	---	---	---	32.0	28.0	30.0	16.5	14.5	15.5
23	---	---	---	---	---	---	32.0	28.5	30.0	17.5	14.5	16.0
24	---	---	---	---	---	---	31.5	27.5	29.5	18.0	15.5	16.5
25	---	---	---	---	---	---	31.0	27.0	29.0	17.0	16.0	16.5
26	---	---	---	31.0	27.0	29.0	32.5	27.5	29.5	19.0	15.5	17.0
27	---	---	---	---	---	---	33.0	28.5	30.5	22.0	18.0	19.5
28	---	---	---	---	---	---	33.0	28.5	31.0	25.0	21.0	23.0
29	---	---	---	---	---	---	32.5	28.5	30.0	26.0	23.0	24.5
30	---	---	---	---	---	---	31.5	27.5	29.0	26.0	23.0	24.0
31	---	---	---	---	---	---	31.5	26.5	28.5	---	---	---
MONTH	26.0	20.0	22.5	31.0	27.0	29.0	33.0	24.5	29.5	33.0	14.5	23.5
YEAR	33.0	.0	17.									

07309500 LAKE LAWTONKA NEAR LAWTON, OK

LOCATION.--Lat 34°44'10", long 98°30'11", in NE 1/4 NW 1/4 sec.18, T.3 N., R.12 W., Comanche County, Hydrologic Unit 11130202, near left end of dam on Medicine Creek, northwest of Medicine Park and at mile 12.2.

DRAINAGE AREA.--93 mi^2.

PERIOD OF RECORD.--October 1994 to current year.

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

REMARKS.--Reservoir is formed by concrete dam. Storage began in 1905. Capacity, 85,660 acre-ft at elevation 1,355.55 ft, top of dam; and 59,590 acre-ft at elevation 1,345.55 ft, top of gates; 38,980 acre-ft at elevation 1,335.55 ft, top of spillway. Reservoir is used for municipal water supply and recreation. Satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 63,500 acre-ft, June 4, elevation 1,347.24 ft; minimum, 47,700 acre-ft, Nov. 1,2,4, elevation, 1,340.18 ft.

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

1300	1,540	1340	47,300
1310	7,190	1345	58,300
1325	22,900	1350	69,800
1335	37,950	1355	83,990

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e49600	47800	55600	54700	53700	53000	54900	56900	58700	58400	55600	55000
2	e49500	47800	55600	54700	53800	52900	54800	56900	58500	58300	56200	54900
3	49300	47800	55600	54600	53700	52800	54900	56900	58400	58200	57100	54700
4	49500	47800	55600	54500	53700	52800	54900	56900	61800	58100	57400	54500
5	e49400	47900	55600	54500	53600	52800	54800	57000	60300	58000	57500	54400
6	e49200	48000	55600	54500	53600	53000	54800	57500	59800	57900	57500	54300
7	49100	48100	55500	54300	53600	52800	54800	58400	59700	57800	57500	54100
8	e49100	48100	55600	54300	53500	52800	54800	59100	59600	57700	57400	53900
9	e49000	48100	55600	54300	53500	52700	54700	59400	59600	57600	57400	53800
10	49000	48100	55500	54200	53500	52700	54800	59400	59800	57500	57300	53700
11	48900	48100	55400	54100	53400	52700	54700	59300	59600	57300	57200	53900
12	48800	48200	55400	54200	53400	52700	54700	59200	59600	57200	57100	53900
13	48700	48100	55300	54100	53300	52800	54600	58900	59600	57000	57000	53800
14	48600	48100	55300	54100	53300	53700	54500	58700	59600	56900	56900	53800
15	e48600	48200	55300	54000	53300	54200	54500	58500	59600	56700	56800	53900
16	e48500	48200	55300	54000	53400	54500	54500	58400	59600	56700	56700	53900
17	48500	48200	55300	53900	53300	54700	55400	58400	59500	56600	56600	55700
18	48500	48300	55200	53900	53300	54700	55800	58300	59500	56600	56500	56000
19	48500	48400	55200	53800	53300	54900	56000	58200	59500	56500	56400	57200
20	48600	53200	55200	53800	53200	54900	56100	58200	59400	56400	56300	57400
21	48700	55400	55100	53800	53200	54900	56200	58300	59300	56300	56200	57800
22	e48600	55600	55100	53900	53200	54900	56400	58300	59300	56000	56100	58000
23	e48600	55700	55000	53800	53100	54900	56600	58700	59200	56100	56000	58100
24	48500	55700	55000	53800	53100	54900	56800	58700	59200	56200	55900	58200
25	48500	55800	55000	53800	53100	55000	56800	58800	59000	56100	55800	58700
26	48400	55800	54900	53800	53000	55100	56900	59000	58900	55900	55700	59000
27	48200	55800	54900	53800	53000	55000	56900	59100	58800	55800	55600	58900
28	e48100	55700	54900	53800	53000	55000	56900	59100	58700	55700	55500	58700
29	e48100	55700	54900	53800	---	55000	57000	59100	58600	55600	55400	58600
30	e48000	55700	54800	53700	---	55000	57000	59100	58500	55500	55300	58500
31	48000	---	54800	53800	---	54900	---	58900	---	55400	55200	---

e Estimated

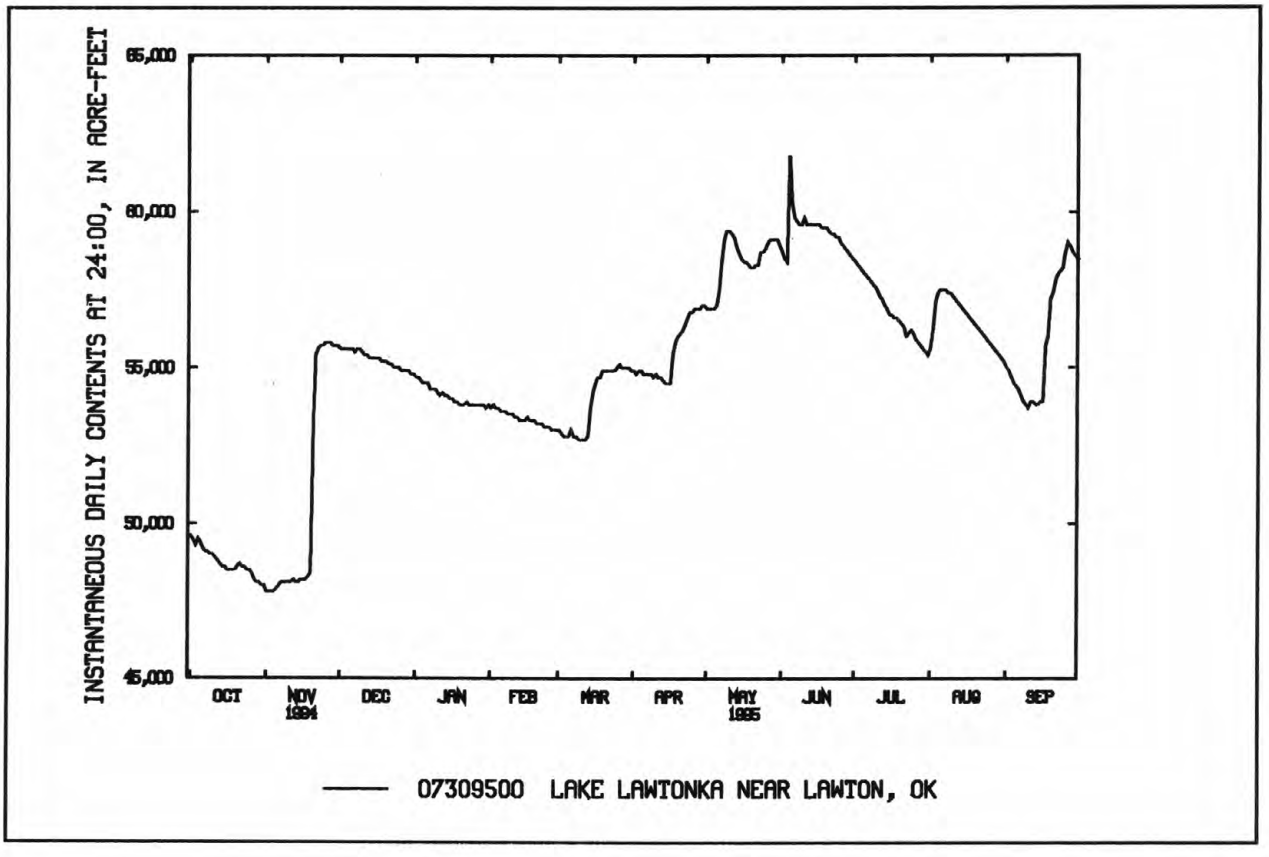
07309500 LAKE LAWTONKA NEAR LAWTON, OK--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MAX	49600	55800	55600	54700	53800	55100	57000	59400	61800	58400	57500	59000
MIN	48000	47800	54800	53700	53000	52700	54500	56900	58400	55400	55200	53700
(‡)	1340.30	1343.80	1343.40	1342.92	1342.57	1343.45	1344.38	1345.25	1345.09	1343.67	1343.56	1345.07
(‡‡)	-1,600	+7,700	-900	-1,000	-800	+1,900	+2,100	+1,900	-400	-3,100	-200	+3,300

WTR YR 1995 MAX 61800 MIN 47800 +8,900

(‡) ELEVATION, IN FEET, AT END OF MONTH

(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET



07311000 EAST CACHE CREEK NEAR WALTERS, OK

LOCATION.--Lat 34°21'44", long 98°16'56", on south line of SE 1/4 SE 1/4 sec.19, T.2 S., R.10 W., Cotton County, Hydrologic Unit 11130202, at right bank on downstream side of bridge on State Highway 53, 1.8 mi east of Walters, 12.2 mi upstream from West Cache Creek, and at mile 19.7.

DRAINAGE AREA.--675 mi^2.

PERIOD OF RECORD.--May 1938 to December 1963; October 1969 to current year. Prior to October 1969, published as Cache Creek near Walters.

GAGE.--Water-stage recorder. Datum of gage is 938.2 ft above sea level (Oklahoma State Highway Department). Prior to Jan. 8, 1939, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow partly regulated by Lake Lawtonka, capacity, 42,300 acre-ft on Medicine Creek prior to late 1953, and 63,000 acre-ft thereafter by Lake Thomas, capacity 8,300 acre-ft on Little Medicine Creek; and since March 1961 by Lake Ellsworth, capacity 94,500 acre-ft on East Cache Creek. Low flow sustained by sewage effluent from cities of Lawton and Walters.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1906 reached an approximate stage of 29.7 ft, information from local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e13	46	35	34	43	161	292	204	436	91	24	97
2	e12	69	35	34	40	122	289	223	427	87	316	42
3	16	61	35	34	40	158	296	197	384	82	1060	31
4	17	456	35	32	39	162	286	185	466	78	1080	27
5	17	636	34	33	37	162	125	191	7870	73	503	26
6	17	390	34	33	37	161	72	994	12100	65	199	32
7	48	94	34	33	37	155	64	3340	8060	51	142	32
8	97	50	36	33	37	184	60	8300	2740	48	103	32
9	102	40	37	33	35	99	57	8380	950	46	88	31
10	34	52	72	34	34	53	55	1930	7100	46	180	29
11	25	51	51	34	34	78	56	388	7320	52	185	31
12	23	38	37	34	34	160	60	283	2590	50	187	42
13	22	36	32	34	34	273	52	437	848	49	182	58
14	22	34	30	34	33	856	50	460	555	48	178	58
15	23	34	30	33	27	705	50	425	629	46	179	44
16	22	34	31	25	25	426	49	405	620	43	182	68
17	25	35	39	22	36	240	321	379	584	33	208	421
18	33	35	39	23	77	126	2790	345	558	46	186	415
19	83	36	38	22	48	260	2800	396	536	46	170	560
20	40	58	37	23	39	343	881	391	519	58	159	1770
21	197	522	36	21	37	337	315	379	502	43	156	348
22	57	201	36	20	73	334	200	405	489	33	154	205
23	40	70	35	20	171	212	1800	196	476	45	150	268
24	22	47	34	29	174	301	1600	513	438	441	147	128
25	32	39	34	38	170	332	311	1290	218	442	150	86
26	44	36	34	42	168	374	184	606	140	119	151	105
27	77	40	33	43	168	361	222	1380	127	60	152	176
28	51	39	32	49	165	326	230	2660	113	46	159	203
29	39	37	32	49	---	319	217	857	102	40	153	323
30	37	37	33	45	---	304	206	299	102	36	145	315
31	41	---	34	44	---	295	---	278	---	25	134	---
TOTAL	1328	3353	1124	1017	1892	8379	13990	36716	57999	2468	7162	6003
MEAN	42.8	112	36.3	32.8	67.6	270	466	1184	1933	79.6	231	200
MAX	197	636	72	49	174	856	2800	8380	12100	442	1080	1770
MIN	12	34	30	20	25	53	49	185	102	25	24	26
AC-FT	2630	6650	2230	2020	3750	16620	27750	72830	115000	4900	14210	11910

e Estimated

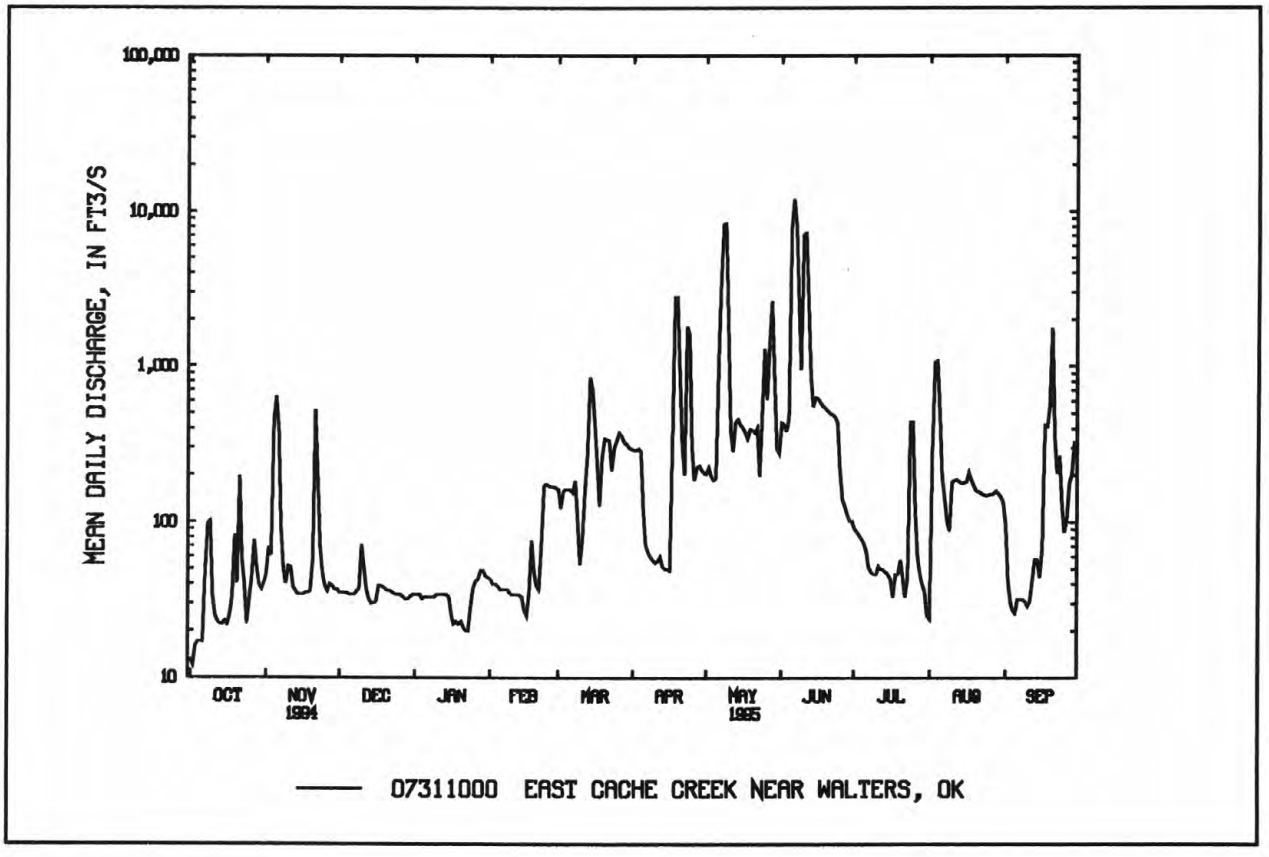
07311000 EAST CACHE CREEK NEAR WALTERS, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	241	105	135	91.6	139	240	232	618	483	101	58.0	144
MAX	2738	898	1796	640	1356	1538	1243	2654	2619	483	285	1637
(WY)	1984	1987	1992	1987	1987	1990	1990	1987	1962	1975	1971	1986
MIN	.000	.15	.15	.63	2.20	2.09	7.81	5.13	12.6	9.25	3.75	.000
(WY)	1940	1940	1940	1940	1940	1940	1939	1939	1939	1954	1954	1939

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1938 - 95	
ANNUAL TOTAL	41606		141431			
ANNUAL MEAN	114		387		217	
HIGHEST ANNUAL MEAN					911	1987
LOWEST ANNUAL MEAN					12.6	1939
HIGHEST DAILY MEAN	2620	May 26	12100	Jun 6	34600	Oct 21 1983
LOWEST DAILY MEAN	11	Aug 4	12	Oct 2	[a].00	Jul 24 1939
ANNUAL SEVEN-DAY MINIMUM	12	Jul 31	20	Oct 1	.00	Aug 1 1939
INSTANTANEOUS PEAK FLOW			15000	Jun 5	50900	Oct 21 1983
INSTANTANEOUS PEAK STAGE			28.49	Jun 5	30.66	Oct 21 1983
ANNUAL RUNOFF (AC-FT)	82530		280500		157400	
10 PERCENT EXCEEDS	260		544		400	
50 PERCENT EXCEEDS	36		72		34	
90 PERCENT EXCEEDS	17		32		10	

[a]No flow at times in 1939-40.



07311200 BLUE BEAVER CREEK NEAR CACHE, OK

(Hydrologic benchmark station)

LOCATION.--Lat 34°37'24", long 98°33'48", in NE 1/4 NE 1/4 sec.28, T.2 N., R.13 W., Comanche County, Hydrologic Unit 11130203, on downstream side of right bank pier on old U.S. Highway 62, 3,000 ft upstream from St. Louis-San Francisco Railway Co. bridge, 4.0 mi east of Cache, and at mile 12.0.

DRAINAGE AREA.--24.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,215.26 ft above sea level.

REMARKS.--Records fair. Minor regulation by Lake Rush, Lake Jed Johnson, and Lake Ketch, combined surface-area 132 acres.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since about 1907, that of Aug. 28, 1977, according to local resident.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s.

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 20	1045	1,260	10.94	May 7	2200	1,270	10.96
Apr. 17	2100	625	9.85	June 4	0615	5,410	14.48

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	e.00	1.4	2.5	1.2	4.7	11	16	1.7	.67	.09
2	.00	.00	e.00	1.7	2.2	2.0	4.2	11	13	1.5	50	.03
3	.00	.00	e.00	2.3	1.8	2.0	4.0	9.5	11	1.3	177	.00
4	.00	.00	e.00	1.9	2.1	2.0	3.6	8.2	1840	1.0	91	.00
5	.00	e.00	e.00	1.8	2.4	1.9	3.3	7.6	538	.78	42	.00
6	.00	e.00	e.00	1.7	2.0	1.8	3.2	91	143	.62	25	.00
7	.00	e.00	e.00	1.4	1.6	3.2	2.9	320	70	.44	16	.00
8	.00	e.00	e42	1.3	1.5	3.7	2.8	333	44	.31	12	.00
9	.00	e.00	e21	1.3	1.6	3.5	2.6	79	33	.24	8.7	.07
10	.00	e.00	e12	1.3	1.7	3.1	3.2	42	52	.17	6.7	.07
11	.00	e.00	e7.4	1.1	1.4	2.8	3.0	28	51	.06	5.4	.22
12	.00	e.00	e5.4	.97	1.3	2.6	2.9	22	32	.02	4.4	.21
13	.00	e.00	4.0	.89	1.3	7.0	2.5	19	25	.00	3.6	.26
14	.00	e.00	3.9	.89	1.4	28	2.2	15	20	.00	2.8	.01
15	.00	.00	3.5	.85	1.4	68	2.0	13	16	.00	2.9	.10
16	.00	e.00	3.5	.77	2.1	46	2.4	12	13	.00	3.0	1.0
17	.00	e.00	3.2	.74	2.3	29	101	11	11	2.2	2.1	91
18	.00	e.00	3.2	.74	2.6	22	145	9.1	9.6	1.1	1.6	51
19	.00	e.00	3.2	.74	2.4	17	50	8.2	8.4	.90	1.2	124
20	.00	e495	3.1	.63	2.2	14	35	7.6	7.5	.29	.99	60
21	.00	e1.0	2.6	.59	2.1	12	24	7.8	6.3	.33	.79	56
22	.00	e.00	2.6	1.0	2.0	9.6	102	6.6	5.7	.15	.67	68
23	.00	e.00	2.6	.94	1.7	8.4	76	6.4	4.8	.29	.65	35
24	.00	e.00	2.4	.78	1.3	8.4	42	61	4.3	4.6	.54	23
25	.00	e.00	2.3	.60	1.3	8.2	29	28	3.7	.67	.45	59
26	.00	e.00	2.2	.76	1.4	8.3	23	41	3.2	.64	.39	63
27	.00	e.00	1.9	.89	1.3	6.7	18	128	2.8	.48	.33	38
28	.00	e.00	1.9	1.4	1.1	6.6	14	53	2.5	.32	.27	27
29	.00	e.00	1.8	2.4	---	5.9	12	28	2.2	.19	.21	21
30	.00	e.00	1.5	2.7	---	5.6	11	23	2.0	.14	.17	17
31	.00	---	1.5	2.8	---	5.1	---	19	---	.14	.11	---
TOTAL	0.00	496.00	138.70	39.28	50.0	345.6	731.5	1459.0	2991.0	20.58	461.64	735.06
MEAN	.000	16.5	4.47	1.27	1.79	11.1	24.4	47.1	99.7	.66	14.9	24.5
MAX	.00	495	42	2.8	2.6	68	145	333	1840	4.6	177	124
MIN	.00	.00	.00	.59	1.1	1.2	2.0	6.4	2.0	.00	.11	.00
AC-FT	.00	984	275	78	99	685	1450	2890	5930	41	916	1460

e Estimated

07311200 BLUE BEAVER CREEK NEAR CACHE, OK--Continued

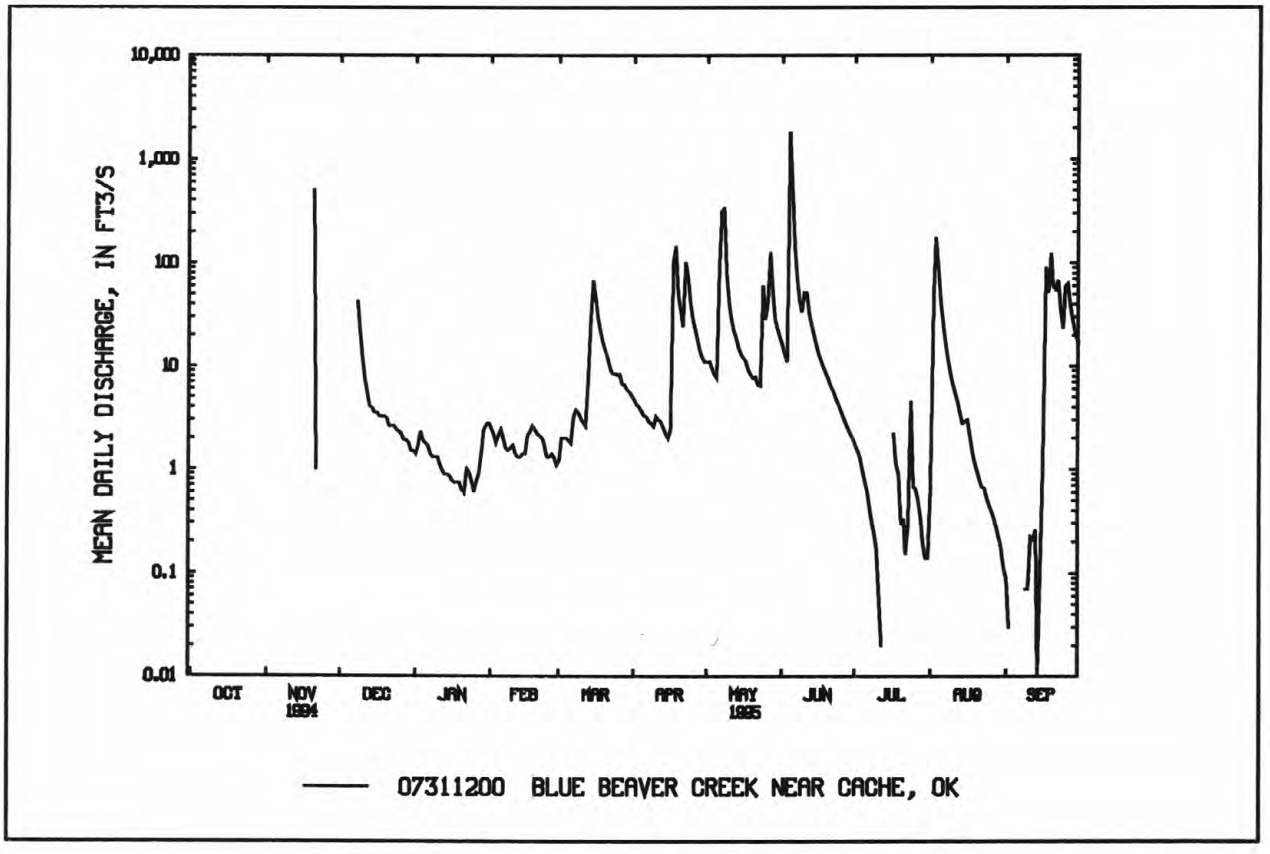
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.6	8.07	9.45	7.84	12.1	21.8	18.4	37.2	23.1	1.33	1.58	6.39
MAX	193	61.1	108	53.2	67.1	95.0	88.0	176	125	12.6	27.5	50.9
(WY)	1987	1987	1992	1973	1987	1990	1990	1982	1989	1975	1977	1991
MIN	.000	.000	.000	.000	.000	.000	.017	.026	.012	.000	.000	.000
(WY)	1965	1966	1966	1966	1966	1966	1971	1971	1971	1964	1964	1964

SUMMARY STATISTICS

	1994 CALENDAR YEAR		FOR 1 WATER YEAR		WATER YEARS 1964 - 95	
ANNUAL TOTAL	2809.62		7468.36			
ANNUAL MEAN	7.70		20.5		13.6	
HIGHEST ANNUAL MEAN					47.8	1987
LOWEST ANNUAL MEAN					.48	1966
HIGHEST DAILY MEAN	495	Nov 20	1840	Jun 4	2600	Oct 20 1983
LOWEST DAILY MEAN	.00	Jul 27	[a].00	Oct 1	[a].00	Jul 1 1964
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 27	.00	Oct 1	.00	Jul 1 1964
INSTANTANEOUS PEAK FLOW			5410	Jun 4	[b]13600	Oct 28 1977
INSTANTANEOUS PEAK STAGE			14.48	Jun 4	[c]18.02	Oct 28 1977
ANNUAL RUNOFF (AC-FT)	5570		14810		9860	
10 PERCENT EXCEEDS	11		42		24	
50 PERCENT EXCEEDS	.99		2.0		1.0	
90 PERCENT EXCEEDS	.00		.00		.00	

[a]Many days.
[b]From rating curve extended above 4,000 ft^3/s on basis of contracted opening.
[c]From high-water mark.



07311200 BLUE BEAVER CREEK NEAR CACHE, OK--Continued

(Hydrologic benchmark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1964 to current year.

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

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	GAGE HEIGHT (FEET) (00065)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)
MAY											
02...	1230	1.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1231	2.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1232	3.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1233	4.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1234	5.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1235	6.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1236	7.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1237	8.00	14.5	735	1028	1028	10	7.06	136	9.7	7.8
02...	1238	9.00	14.5	735	1028	1028	10	7.06	135	9.7	7.8
02...	1239	10.0	14.5	735	1028	1028	10	7.06	135	9.7	7.8
02...	1240	11.0	14.5	735	1028	1028	10	7.06	135	9.7	7.8
02...	1241	12.0	14.5	735	1028	1028	10	7.06	135	9.7	7.8
02...	1242	13.0	14.5	735	1028	1028	10	7.06	135	9.7	7.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)
NOV											
15...	1145	1028	80020	<0.01	403	7.4	14.0	14.0	1.5	740	6.5
FEB											
07...	1400	1028	80020	1.5	161	8.0	11.0	10.0	1.0	743	10.9
MAY											
02...	1200	1028	80020	10	136	7.8	12.0	14.5	4.2	735	9.7
JUL											
26...	1100	1028	80020	0.74	220	7.8	31.5	27.5	3.1	735	6.3

07311200 BLUE BEAVER CREEK NEAR CACHE, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	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 PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
NOV											
15...	65	16	16	140	51	39	9.3	21	25	0.8	1.1
FEB											
07...	99	30	21	52	1	15	3.5	10	29	0.6	1.0
MAY											
02...	98	200	150	49	0	14	3.3	9.0	28	0.6	1.0
JUL											
26...	83	120	73	72	0	21	4.7	12	26	0.6	1.7

DATE	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)
NOV											
15...	104	0	86	71	15	0.50	17	234	226	0.32	--
FEB											
07...	62	0	51	14	5.5	0.40	12	103	92	0.14	0.42
MAY											
02...	63	0	52	8.9	4.0	0.30	12	83	84	0.11	2.24
JUL											
26...	93	0	76	10	6.8	0.40	16	129	119	0.18	0.26

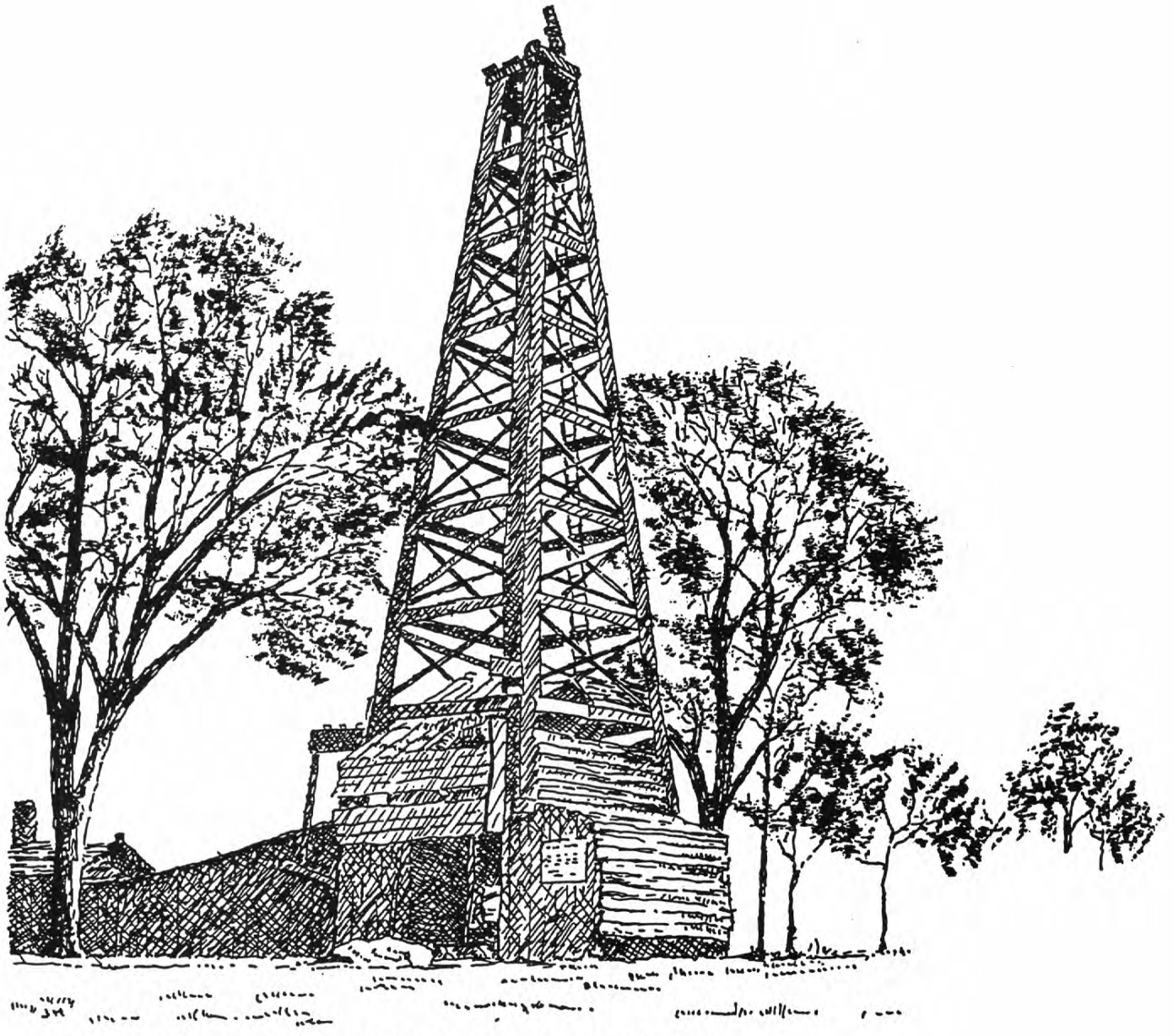
DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
NOV											
15...	--	<0.010	--	--	<0.050	<0.015	--	--	<0.20	--	0.010
FEB											
07...	--	0.010	0.03	--	<0.050	0.020	0.03	--	<0.20	--	<0.010
MAY											
02...	--	<0.010	--	--	<0.050	<0.015	--	0.30	0.30	0.30	<0.010
JUL											
26...	0.060	<0.010	--	0.060	0.060	<0.015	--	0.20	0.20	0.26	<0.010

07311200 BLUE BEAVER CREEK NEAR CACHE, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	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)	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)
NOV											
15...	<0.010	<0.010	--	<10	91	<3	270	<4	150	<10	<1
FEB											
07...	<0.010	0.010	0.03	40	49	<3	56	<4	8	<10	<1
MAY											
02...	<0.010	<0.010	--	120	49	<3	95	<4	9	<10	<1
JUL											
26...	<0.010	<0.010	--	30	67	3	110	<4	27	10	<1

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	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)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	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)
NOV											
15...	<1	<1.0	170	<6	--	--	--	--	2	--	85
FEB											
07...	<1	<1.0	62	<6	0.16	0.030	0.05	<1.0	7	0.03	59
MAY											
02...	<1	<1.0	58	<6	0.09	0.030	0.07	0.0	16	0.43	95
JUL											
26...	<1	<1.0	87	<6	--	--	--	--	17	0.03	89



Oklahoma's first commercial oil well near Bartlesville

07311500 DEEP RED CREEK NEAR RANDLETT, OK

(Formerly published as Deep Red Run near Randlett)

LOCATION.--Lat 34°13'15", long 98°27'10", in SW 1/4 SW 1/4 sec.10, T.4 S., R.12 W., Cotton County, Hydrologic Unit 11130203, near right bank on downstream side of pier of bridge on U.S. Highway 277, 2.8 mi north of Randlett, and at mile 4.8.

DRAINAGE AREA.--617 mi^2.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1993, published as Deep Red Run near Randlett.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1631: 1956. WSP 1920: 1951.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 924.49 ft above sea level (Oklahoma State Highway Department). Prior to Nov. 10, 1949, nonrecording gage at same site and datum.

REMARKS.--Records poor. Some regulation by numerous flood-retarding structures.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1908 reached a stage somewhat exceeding 27 ft, from information provided by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Apr. 19	2115	3,480	21.82	June 5	1345	39,300	28.79
Apr. 24	0430	2,130	19.01	June 10	1845	42,500	29.07
May 8	1215	8,180	23.74	Aug. 4	0830	14,000	25.09
May 29	0445	2,160	19.10	Sept. 20	1830	2,850	20.93

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.1	e15	e10	5.5	7.5	4.8	13	38	170	36	44	2.6
2	e1.1	e13	e9.2	5.7	7.2	4.8	11	34	108	32	1510	2.6
3	e1.0	e12	e10	5.5	6.6	4.5	10	33	76	29	5420	2.5
4	e1.0	e11	e9.2	6.0	6.2	4.3	9.5	29	70	27	12300	2.5
5	e1.1	e450	e8.4	6.2	6.0	4.2	8.7	25	20600	26	7140	2.5
6	e1.1	e100	e7.6	5.8	5.4	4.2	9.2	416	19100	23	3000	2.4
7	e1.0	e45	e8.4	5.1	5.4	4.2	9.8	3850	8590	26	1370	2.4
8	e30	e30	e9.0	5.1	5.8	4.2	9.4	7910	3290	22	1110	2.4
9	e80	e25	e20	4.8	6.0	4.3	8.7	5630	1360	19	827	2.3
10	e30	e30	e50	4.8	5.9	4.6	8.1	2170	30700	17	499	2.3
11	e24	e23	e25	4.5	5.3	4.8	6.9	453	29800	17	307	2.3
12	e21	e21	19	4.3	4.8	5.3	6.8	233	13700	16	199	2.3
13	e19	e19	e16	4.3	4.4	12	6.3	151	5880	15	138	2.3
14	e18	e17	e14	4.3	4.1	75	5.3	104	1860	14	99	103
15	e19	e20	e20	4.6	4.1	381	4.8	80	884	14	71	30
16	e18	e18	e15	4.3	4.3	867	6.1	66	644	13	57	294
17	e20	e16	e13	4.3	4.1	255	12	59	e500	14	48	1220
18	e25	e14	e10	5.3	30	94	1390	48	e450	28	44	1170
19	e55	e12	e8.8	5.2	42	57	3150	40	e400	119	38	676
20	e35	e30	7.7	5.5	26	42	2250	36	380	42	33	2440
21	e120	e250	6.9	5.7	18	33	482	32	e300	29	29	1480
22	e45	e80	5.4	6.2	15	27	237	26	e200	22	24	327
23	e25	e40	5.5	5.8	13	24	1310	24	e130	29	17	319
24	e17	e25	5.7	5.6	10	21	1720	25	e100	92	14	139
25	e14	e22	5.7	6.0	7.6	20	352	55	e85	547	13	84
26	12	e19	5.2	7.7	6.3	26	157	399	e70	383	8.9	66
27	e50	e17	4.8	7.2	6.0	30	87	865	e56	118	7.3	66
28	e25	e15	4.8	7.9	5.2	20	63	1660	e46	50	3.7	48
29	e20	e13	4.8	9.5	---	19	50	1650	e40	33	2.6	36
30	e16	e11	5.0	8.8	---	18	43	306	35	25	2.6	26
31	e18	---	5.5	8.0	---	16	---	230	---	17	2.6	---
TOTAL	763.4	1413	349.6	179.5	272.2	2091.2	11436.6	26677	139624	1894	34378.7	8555.4
MEAN	24.6	47.1	11.3	5.79	9.72	67.5	381	861	4654	61.1	1109	285
MAX	120	450	50	9.5	42	867	3150	7910	30700	547	12300	2440
MIN	1.0	11	4.8	4.3	4.1	4.2	4.8	24	35	13	2.6	2.3
AC-FT	1510	2800	693	356	540	4150	22680	52910	276900	3760	68190	16970

e Estimated

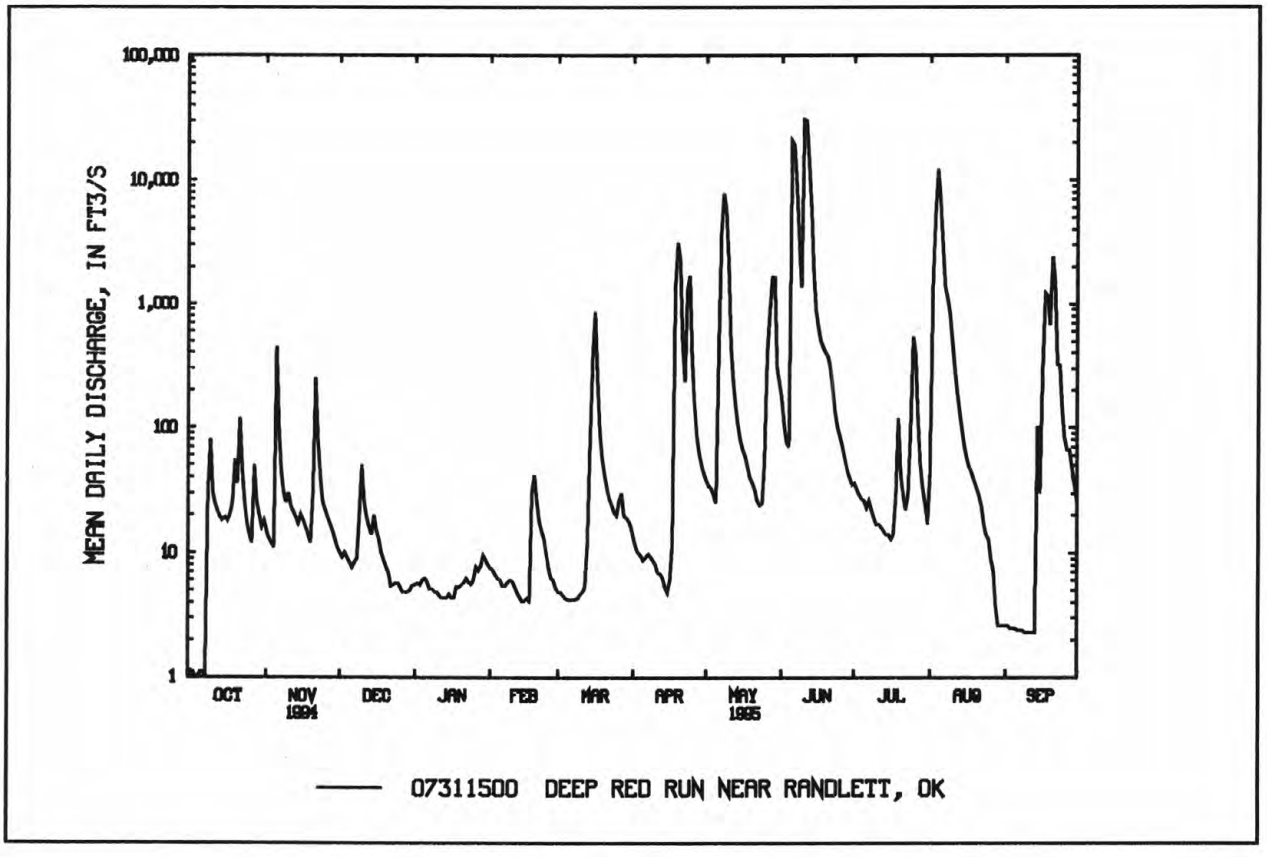
07311500 DEEP RED CREEK NEAR RANDLETT, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	275	91.7	73.6	50.1	73.3	118	135	510	475	65.9	69.5	188
MAX	3345	994	1493	563	1020	1134	1398	2800	4654	795	1109	1453
(WY)	1984	1987	1992	1985	1987	1990	1990	1987	1995	1991	1995	1969
MIN	.000	.000	.000	.000	.022	.10	.003	.061	.000	.000	.000	.000
(WY)	1953	1955	1955	1953	1981	1980	1955	1971	1966	1964	1952	1952

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1950 - 95	
ANNUAL TOTAL	27021.23		227634.6			
ANNUAL MEAN	74.0		624		177	
HIGHEST ANNUAL MEAN					904	1987
LOWEST ANNUAL MEAN					15.8	1953
HIGHEST DAILY MEAN	3670	May 27	30700	Jun 10	46300	Oct 20 1983
LOWEST DAILY MEAN	.36	Aug 31	1.0	Oct 3,4,7	.00	Sep 28 1951
ANNUAL SEVEN-DAY MINIMUM	.51	Aug 25	1.1	Oct 1	.00	Oct 3 1951
INSTANTANEOUS PEAK FLOW			42500	Jun 10	72300	Oct 20 1983
INSTANTANEOUS PEAK STAGE			27.07	Jun 10	[a]29.58	May 29 1987
ANNUAL RUNOFF (AC-FT)	53600		451500		128500	
10 PERCENT EXCEEDS	81		736		192	
50 PERCENT EXCEEDS	9.2		20		4.5	
90 PERCENT EXCEEDS	1.6		4.3		.00	

[a]Due to backwater from West Cache Creek.



07315500 RED RIVER NEAR TERRAL, OK

LOCATION.--Lat 33°52'43", long 97°56'03", Jefferson County, Hydrologic Unit 11130201, on left bank at downstream side of bridge abutment on U.S. Highway 81, 0.5 mi downstream from Chicago, Rock Island, and Railroad Co. bridge, 1.2 mi south of Terral, 3.6 mi downstream from Little Wichita River, and at mile 872.

DRAINAGE AREA.--28,723 mi^2, of which 5,936 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 770.31 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 12, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. There are many small diversions upstream from station for irrigation, oil field operations, and for municipal uses. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1935, reached a stage of 27.2 ft, although floods in 1891 and on May 1, 1908, are reported to have reached about the same stage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 21,000 ft^3/s.

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 8	0930	45,700	17.38	June 11	2100	187,000	28.78
May 28	2000	35,400	16.38	Aug. 4	1730	96,500	24.53
June 7	1130	236,000	30.56				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	588	871	468	701	422	803	2210	9380	7050	e579	3270
2	151	523	795	451	700	430	e786	2180	8910	6780	2060	3230
3	148	397	751	453	693	462	774	1760	8070	6540	46300	3110
4	137	362	697	440	639	469	e1190	1120	8130	6190	90200	2810
5	129	7410	651	436	535	474	e965	1030	28300	6000	86000	2380
6	127	9340	615	433	509	500	e942	1530	107000	5820	51000	e1910
7	161	4900	591	433	503	513	783	9860	215000	5800	30800	e1740
8	217	3490	606	425	465	500	624	43300	99200	5770	18000	e1610
9	409	2630	984	428	382	510	578	40000	43500	5340	13900	e1530
10	516	2250	1200	425	367	511	630	22300	35900	4880	11900	e1500
11	414	1820	1120	420	359	505	746	12200	141000	3650	10500	e1780
12	340	1600	947	416	351	458	576	6490	146000	2530	9210	e1840
13	267	1500	785	410	346	474	519	5160	60900	e1940	7300	1570
14	215	1630	599	397	344	862	497	4490	31100	e1640	6440	1590
15	202	1910	556	396	348	3020	469	4370	17600	e1450	6240	1950
16	183	1680	550	391	351	4050	476	4390	13700	e1200	5760	2830
17	185	792	532	382	355	e4470	1080	4090	10900	e981	5290	3680
18	278	492	516	393	360	e3370	2380	3830	9470	e861	4870	11100
19	302	449	503	399	374	e2370	12000	3810	8590	1490	4620	12700
20	264	590	494	410	440	e1830	e11400	3810	8440	1380	4410	13600
21	606	4120	475	464	480	e1370	e10000	3730	8320	e1050	4350	15900
22	2520	13200	465	426	430	e1180	5530	3650	8120	2230	4250	13200
23	2560	9090	455	408	396	e1010	4300	3610	7850	1860	4090	8030
24	1820	5430	449	407	368	e928	6640	4070	7640	1230	3980	6910
25	2000	3230	443	400	406	e827	8250	5050	7460	1440	3860	6440
26	1810	2280	440	450	448	e838	4930	7890	7380	3510	3700	5220
27	1120	1730	435	543	453	e843	3640	13300	7090	3340	3530	5100
28	1040	1380	436	593	437	894	3210	25700	7000	1780	3440	5550
29	879	1130	453	571	---	896	2780	29500	7300	1490	3360	5800
30	718	969	460	506	---	857	2330	21300	7700	937	3320	4880
31	636	---	467	538	---	826	---	10500	---	e636	3280	---
TOTAL	20504	86912	19341	13712	12540	36669	89828	306230	1086950	96795	456539	152760
MEAN	661	2897	624	442	448	1183	2994	9878	36230	3122	14730	5092
MAX	2560	13200	1200	593	701	4470	12000	43300	215000	7050	90200	15900
MIN	127	362	435	382	344	422	469	1030	7000	636	579	1500
AC-FT	40670	172400	38360	27200	24870	72730	178200	607400	2156000	192000	905500	303000

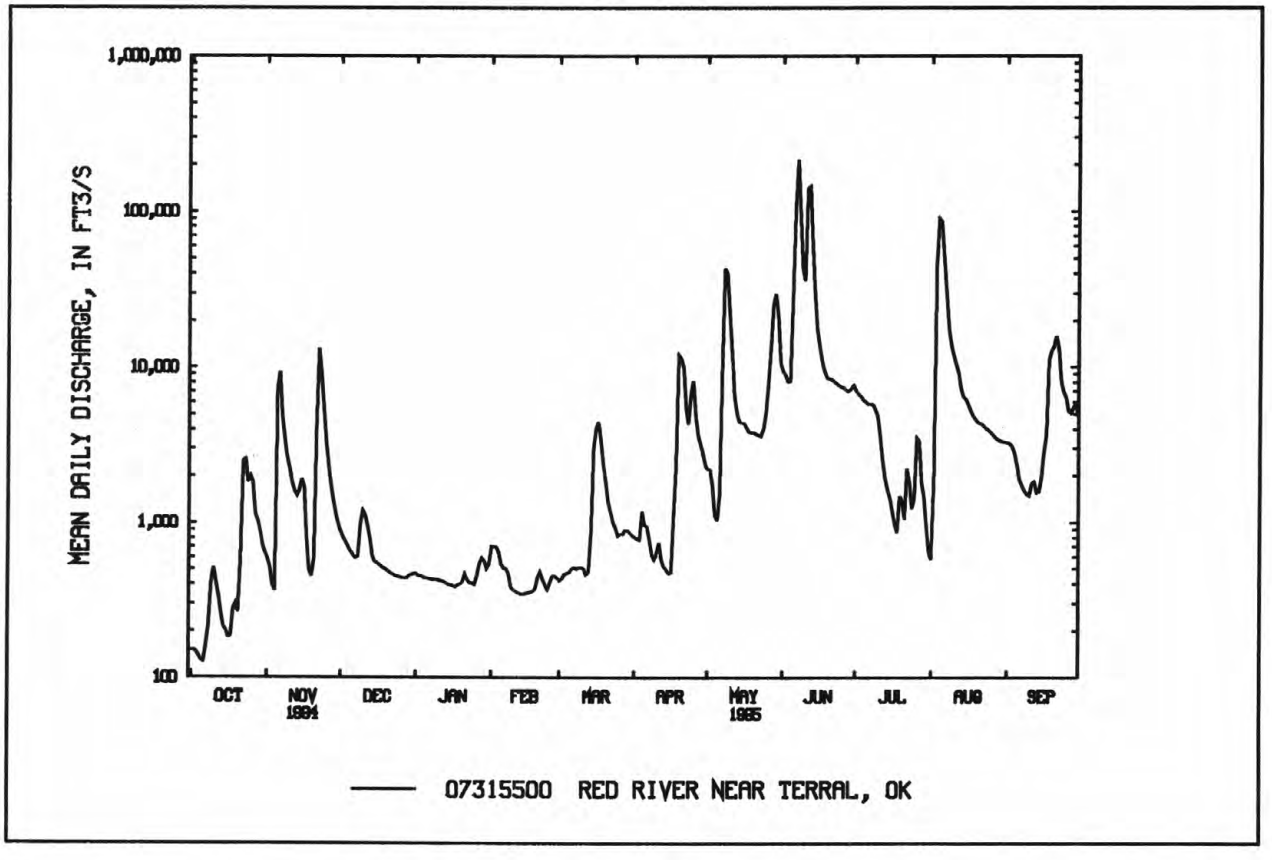
e Estimated

07315500 RED RIVER NEAR TERRAL, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3093	1513	1111	886	1241	1806	2492	6836	6545	1689	1324	2014
MAX	23900	9713	11810	5306	9320	12560	18080	43580	37460	8077	14730	9653
(WY)	1987	1987	1992	1992	1987	1990	1990	1957	1941	1950	1995	1986
MIN	108	102	91.2	76.5	136	66.1	142	134	517	158	155	109
(WY)	1953	1940	1939	1940	1953	1940	1971	1971	1966	1964	1970	1956

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1938 - 95	
ANNUAL TOTAL	479862		2378780			
ANNUAL MEAN	1315		6517		2546	
HIGHEST ANNUAL MEAN					8925	1987
LOWEST ANNUAL MEAN					523	1953
HIGHEST DAILY MEAN	20200	May 28	215000	Jun 7	215000	Jun 7 1995
LOWEST DAILY MEAN	127	Oct 6	127	Oct 6	46	Mar 20 1940
ANNUAL SEVEN-DAY MINIMUM	142	Sep 30	143	Oct 1	47	Mar 18 1940
INSTANTANEOUS PEAK FLOW			236000	Jun 7	236000	Jun 7 1995
INSTANTANEOUS PEAK STAGE			30.56	Jun 7	33.60	Oct 22 1983
ANNUAL RUNOFF (AC-FT)	951800		4718000		1844000	
10 PERCENT EXCEEDS	3220		11000		5560	
50 PERCENT EXCEEDS	525		1490		578	
90 PERCENT EXCEEDS	218		397		174	



07315500 RED RIVER NEAR TERRAL, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to current year.
WATER TEMPERATURE: October 1967 to current year.

REMARKS.--Mean monthly and annual concentrations and loads for selected chemical constituents have been computed using the daily (or continuous) records of specific conductance and regression relationships between each chemical constituent and specific conductance. Regression equations developed for this station may be obtained from the Geological Survey Texas District office upon request.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 13,000 microsiemens June 15, 1984; minimum daily, 255 microsiemens Jan. 1, 1985.
WATER TEMPERATURE: Maximum daily, 35.0°C Aug. 13, 16, 17, 1983; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,380 microsiemens Jan. 10; minimum daily, 621 microsiemens June 11.
WATER TEMPERATURE: Maximum daily, 33.5°C July 12: minimum daily, 3.0°C Jan. 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC										
13...	1130	808	3470	8.1	6.5	--	630	460	160	56
JAN										
06...	1112	432	6060	8.5	5.5	--	1100	880	270	93
MAR										
08...	1421	503	4790	8.3	8.0	15.2	910	750	230	82
APR										
19...	1438	17400	1830	7.9	18.0	5.6	330	240	88	26
JUN										
09...	1011	50800	1200	7.6	26.0	7.6	300	200	89	18
AUG										
23...	0956	4130	4800	8.0	28.5	--	910	800	240	75

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO AS K)	POTAS-SIUM, DIS-SOLVED (MG/L (MG/L)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 AS SO4)	SULFATE DIS-SOLVED (MG/L AS CL)	CHLO-RIDE, DIS-SOLVED (MG/L AS F)	FLUO-RIDE, DIS-SOLVED (MG/L SIO2)	SILICA, DIS-SOLVED (MG/L AS (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED
DEC									
13...	460	8	6.4	170	420	770	0.40	7.8	1980
JAN									
06...	910	12	6.9	180	790	1400	0.40	3.9	3580
MAR									
08...	690	10	7.7	160	660	1000	0.40	2.6	2770
APR									
19...	280	7	6.1	83	210	350	0.30	6.8	1020
JUN									
09...	120	3	6.8	95	210	170	0.30	12	683
AUG									
23...	670	10	7.9	110	740	1100	0.30	11	2910

07315500 RED RIVER NEAR TERRAL, OK--Continued

MONTH	YEAR	DISCHARGE (CFS-DAYS)	SPECIFIC CONDUCT-ANCE (MICRO-SIEMENS)	DIS-SOLVED SOLIDS (MG/L)	DIS-SOLVED SOLIDS (TONS)	DIS-SOLVED CHLORIDE (MG/L)	DIS-SOLVED CHLORIDE (TONS)	DIS-SOLVED SULFATE (MG/L)	DIS-SOLVED SULFATE (TONS)	HARDNESS (CA,MG) (MG/L)
OCT.	1994	20504	2830	1610	88900	580	32400	400	22000	510
NOV.	1994	86912	1570	861	202000	300	71200	220	51600	290
DEC.	1994	19341	4090	2420	126000	910	47800	570	30000	720
JAN.	1995	13712	5420	3320	123000	1300	47900	760	28200	930
FEB.	1995	12540	5000	3030	103000	1200	39500	700	23800	860
MAR.	1995	36669	3030	1740	173000	640	63700	430	42100	540
APR.	1995	89828	1520	839	204000	300	72100	210	51800	280
MAY	1995	306230	1340	724	599000	250	208600	190	154900	250
JUNE	1995	1086950	1320	717	2103E3	250	735300	180	541800	240
JULY	1995	96795	3710	2160	566000	810	211400	520	136100	650
AUG.	1995	456539	1790	1000	1233E3	360	442800	250	309100	320
SEPT	1995	152760	2810	1600	661000	590	241600	390	162600	500
TOTAL		2378780	**	**	6179000	**	2214000	**	1554000	**
WTD.AVG.		6517	1730	962	**	340	**	240	**	310

RED RIVER BASIN
07315500 RED RIVER NEAR TERRAL, OK--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY EQUIVALENT MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4740	3110	e3270	e5210	3740	4690	e3540	e2140	1900	e3610	e3500	e4530
2	e4760	3110	3590	5200	3940	e4700	e3600	e2320	2120	e3800	3480	e4540
3	e4770	4290	e3810	5210	4160	e4710	3650	2500	e2400	e4010	965	e4550
4	4780	4410	e4030	5300	e4350	e4710	2320	3240	e1800	e4150	1180	e4570
5	4720	805	4240	5410	e4550	e4720	2980	3290	1710	e4210	1170	e4580
6	4780	e765	4370	5600	4730	4730	3090	3050	1340	e4230	e1230	e4600
7	e2200	724	e4460	e5790	4800	4760	3320	1560	1290	e4250	e1290	e4620
8	e2580	831	4560	e5980	e5270	4630	e3850	876	1170	e4270	1350	e4630
9	e2950	899	2840	e6180	5730	4750	e4150	765	1260	e4250	1590	e4640
10	3310	1150	e2970	6380	5910	4880	3970	771	1670	e4260	e1650	e4630
11	2230	1450	3100	6090	e5830	e5040	e4140	836	621	e4280	e1700	e3100
12	2580	3480	3250	5990	e5740	e5200	4300	1290	687	e4270	e2150	e2550
13	3010	e2000	e3650	5930	5650	5390	4780	1730	815	e4280	e2810	e3000
14	3220	e1900	4050	e6040	5630	4490	e4800	e1670	1070	e4300	e3250	e3110
15	e3280	1820	4380	6140	5620	2340	e4820	1600	1360	e4310	e3410	e3200
16	e3340	1750	4740	e6080	5430	1630	e3150	1600	1800	e4330	e3690	e3300
17	3390	e2900	e4820	e6000	5500	1830	2160	1560	e2130	e4340	e3850	e3250
18	2400	4040	e4900	5920	e5640	e2160	1860	e1500	e2470	e4350	e4000	e2250
19	2670	e4450	4970	e5860	e5780	e2490	1610	1450	2800	e2500	e4200	e2100
20	3640	e3820	5060	5800	5910	2820	1000	e1480	2830	e2700	e4400	e1900
21	1540	e2100	5170	e5680	e4500	3520	785	e1500	e2970	e3110	e4600	e1520
22	e1990	e1400	e5110	e5560	4810	3160	868	1530	3110	e1910	e4700	e1800
23	e2440	e1600	5060	5440	5150	3610	e990	1700	3170	e2210	e4800	e2950
24	2880	e1800	e5130	5280	5430	3820	1030	1720	3210	e2510	4390	e3010
25	2550	e1900	e5200	5230	5770	3670	966	1570	e3180	e2100	e4400	e3060
26	2940	e2150	e5270	e4810	e5100	3940	1170	1130	3150	e1850	e4450	3170
27	4370	e2340	5330	4620	4690	3430	1530	993	3330	e2000	e4460	3200
28	3170	e2480	5310	e3300	4610	3600	1710	e1200	3430	e2410	e4470	3220
29	2710	2610	5270	e4020	---	3210	e1840	1770	3580	e2850	e4500	3290
30	2780	2950	5230	4720	---	3450	1960	2410	3510	e3240	e4510	3400
31	3280	---	---	5330	---	3490	---	2030	---	e3410	e4530	---
MEAN	3230	2300	4440	5490	5140	3860	2660	1700	2200	3490	3250	3410
MAX	4780	4450	5330	6380	5910	5390	4820	3290	3580	4350	4800	4640
MIN	1540	724	2840	3300	3740	1630	785	765	621	1850	965	1520

WTR YR 1995 MEAN 3420 MAX 6380 MIN 621

e Estimated

07315500 RED RIVER NEAR TERRAL, OK--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	16.5	---	---	11.0	5.0	---	---	24.0	---	---	---
2	---	18.5	10.5	6.0	13.5	---	---	---	25.0	---	28.5	---
3	---	22.5	---	4.0	12.5	---	17.5	18.0	---	28.0	26.0	---
4	28.5	19.5	---	3.0	---	---	19.0	23.0	---	---	27.5	---
5	27.5	17.0	12.5	3.5	---	---	18.0	20.0	22.5	29.0	29.5	---
6	26.5	---	15.5	6.5	12.5	13.0	21.0	20.0	24.5	30.0	---	---
7	---	16.0	---	---	10.0	9.0	23.5	19.5	25.5	30.0	---	---
8	---	19.0	9.5	---	---	10.0	---	20.0	27.0	---	---	---
9	---	15.5	7.5	---	12.5	11.5	---	20.5	27.0	---	30.0	---
10	21.0	15.0	---	12.5	10.5	13.0	18.0	21.5	24.5	31.0	---	---
11	21.0	15.5	6.5	13.0	---	---	---	23.0	21.0	---	---	---
12	21.0	16.0	6.5	13.5	---	---	20.0	21.5	22.5	33.5	---	---
13	22.0	---	---	12.0	3.5	14.5	22.0	25.0	24.5	---	---	---
14	19.0	---	5.0	---	4.5	14.5	---	---	26.0	---	---	---
15	---	15.0	8.5	12.5	8.0	15.0	---	25.5	26.0	---	---	---
16	---	14.5	10.5	---	5.5	17.0	---	24.0	26.0	---	---	---
17	23.5	---	---	---	10.0	17.5	23.0	25.0	---	32.5	---	---
18	24.0	13.0	---	8.0	---	---	22.0	---	---	33.0	---	---
19	25.5	---	11.5	---	---	---	18.0	23.0	27.0	33.0	---	---
20	24.5	---	12.5	10.0	15.0	20.0	19.5	---	28.0	---	---	---
21	23.0	---	11.5	---	---	21.5	19.5	---	---	31.0	---	---
22	---	---	---	---	16.0	22.0	15.5	25.0	29.0	---	---	---
23	---	---	10.0	7.5	18.0	21.5	---	24.0	29.0	---	28.5	---
24	19.5	---	---	8.0	17.0	21.5	15.5	22.0	29.0	---	32.0	---
25	16.5	---	---	10.5	15.0	20.0	16.5	20.0	---	---	---	---
26	16.0	---	---	---	---	19.5	19.0	21.5	29.0	---	---	17.0
27	16.0	---	10.0	12.5	18.5	19.0	19.0	22.5	25.0	---	---	18.0
28	17.0	---	9.5	---	9.5	13.5	20.0	---	29.0	---	---	18.0
29	16.5	9.5	11.5	---	---	14.5	---	22.5	27.5	---	---	23.0
30	19.0	9.5	10.5	8.5	---	15.0	18.0	22.0	26.0	---	---	24.0
31	17.0	---	---	9.5	---	17.5	---	23.0	---	---	---	---
MEAN	21.2	15.8	10.0	8.9	11.7	15.9	19.2	22.2	26.0	31.1	28.9	20.0
MAX	28.5	22.5	15.5	13.5	18.5	22.0	23.5	25.5	29.0	33.5	32.0	24.0
MIN	16.0	9.5	5.0	3.0	3.5	5.0	15.5	18.0	21.0	28.0	26.0	17.0

WTR YR 1995 MEAN 18.4 MAX 33.5 MIN 3.0

07315700 MUD CREEK NEAR COURTNEY, OK

LOCATION.--Lat 34°00'15", long 97°34'00", in NW 1/4 SE 1/4 sec.25, T.6 S., R.4 W., Jefferson County, Hydrologic Unit, 11130201, on downstream side of bridge on State Highway 89, 4.0 mi downstream from North Mud Creek, 6.0 mi northwest of Courtney, and at mile 11.5.

DRAINAGE AREA.--572 mi^2.

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

REVISED RECORDS.--WDR OK-78-2: Maximum gage height.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 727.72 ft above sea level. Prior to Oct. 1, 1968, auxiliary water-stage recorder 2.0 mi downstream from base gage.

REMARKS.--Records poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1957, reached a stage of 30.6 ft.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 8	0200	3,270	24.03	Mar. 16	1500	3,520	24.36
Nov. 15	0400	1,790	21.04	Apr. 21	0600	2,590	22.97
Nov. 21	1700	3,350	24.13	May 8	1900	11,000	27.43
Dec. 10	0400	2,130	21.98	May 30	1200	2,110	21.94
Jan. 27	1500	1,410	19.73	June 12	1100	15,900	28.46

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	18	47	44	162	30	40	49	624	e51	e16	e3.2
2	3.2	15	44	42	107	29	38	48	213	75	e15	e3.2
3	2.4	13	43	42	77	28	44	91	133	e66	129	e3.2
4	2.4	12	43	40	60	29	438	69	100	e55	597	e3.1
5	2.4	202	45	39	50	30	370	129	100	e48	836	e3.1
6	2.0	1020	45	41	44	31	109	413	411	e43	498	e3.1
7	2.5	2130	43	38	42	34	60	4510	500	e38	79	e3.0
8	2.7	2780	63	39	39	33	47	8280	146	e34	e47	e2.9
9	233	488	1230	40	37	32	41	9540	82	e30	e37	e2.9
10	146	368	1610	39	36	29	63	6620	259	e28	e31	e2.9
11	48	141	401	39	35	28	463	3830	5590	e25	e28	e2.9
12	31	82	164	38	35	27	238	1460	12900	e23	e26	e2.8
13	22	58	99	37	34	128	94	278	e6900	e22	e24	e2.7
14	17	917	74	37	33	1470	53	208	3860	e20	e22	e2.7
15	14	1170	64	36	33	2560	41	158	1940	e19	e20	e2.7
16	12	171	62	35	34	3320	37	267	271	e18	e18	e2.7
17	10	81	92	35	36	2470	513	244	187	e17	16	3.3
18	11	57	123	37	36	377	1170	143	145	e17	11	82
19	11	49	88	39	35	191	1320	113	112	e16	8.0	46
20	8.6	907	67	40	34	136	1920	84	92	76	6.5	241
21	187	2860	58	43	32	105	2380	67	82	72	5.6	593
22	276	2110	53	43	31	86	784	57	e75	e59	4.7	186
23	272	498	49	42	31	75	211	52	e71	e47	4.2	55
24	128	153	46	46	30	64	560	145	e67	e40	3.9	41
25	195	96	45	47	29	55	393	593	e64	e34	3.6	28
26	542	73	46	77	29	53	133	737	e61	e28	e3.5	23
27	217	65	48	1180	28	51	87	921	e58	e25	e3.5	26
28	66	60	46	1160	29	50	67	1730	e56	e23	e3.4	51
29	40	57	45	444	---	45	56	1830	e54	e21	e3.4	31
30	29	51	44	217	---	42	51	2000	e52	e19	e3.3	21
31	22	---	44	228	---	41	---	794	---	e18	e3.2	---
TOTAL	2558.8	16702	4971	4304	1238	11679	11821	45460	35205	1107	2506.8	1474.4
MEAN	82.5	557	160	139	44.2	377	394	1466	1173	35.7	80.9	49.1
MAX	542	2860	1610	1180	162	3320	2380	9540	12900	76	836	593
MIN	2.0	12	43	35	28	27	37	48	52	16	3.2	2.7
AC-FT	5080	33130	9860	8540	2460	23170	23450	90170	69830	2200	4970	2920

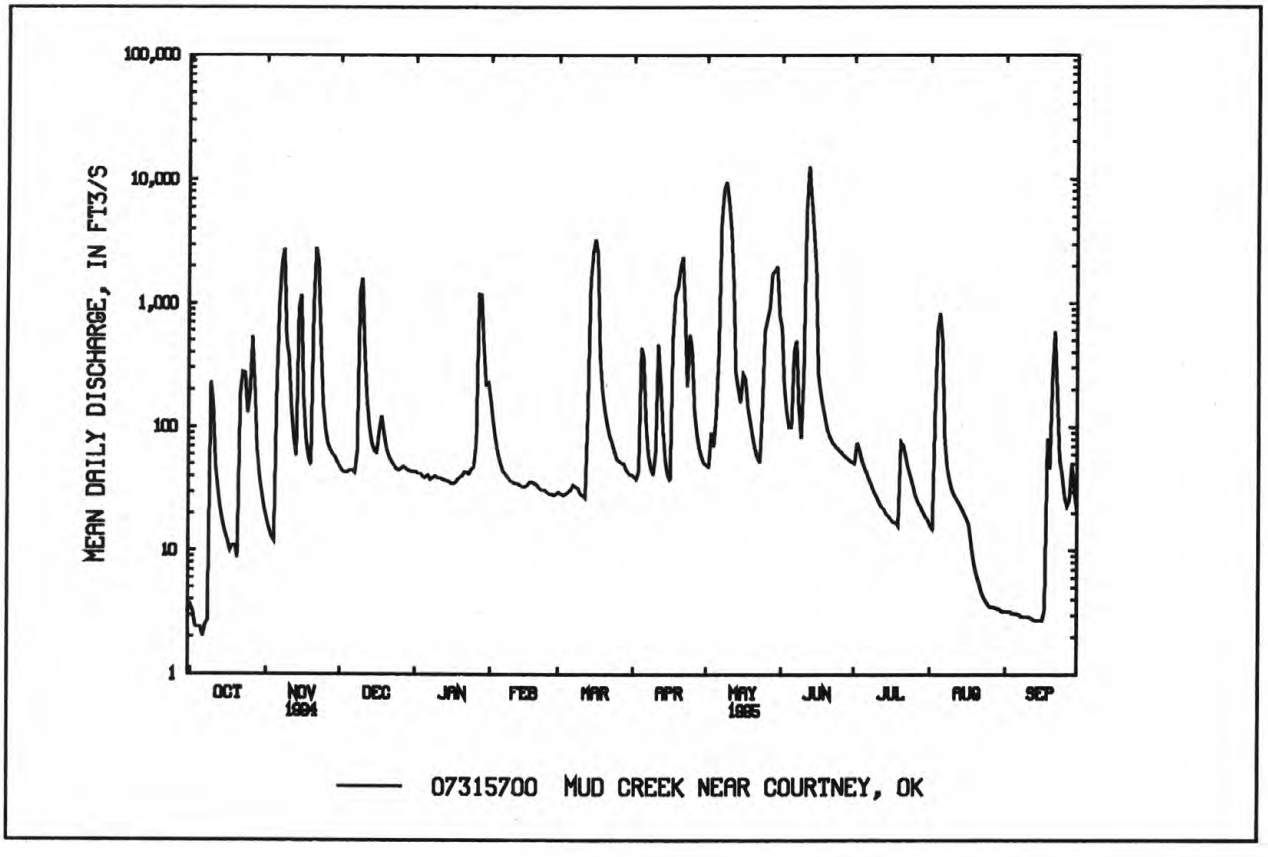
e Estimated

07315700 MUD CREEK NEAR COURTNEY, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	105	119	164	95.5	153	280	300	587	384	45.6	25.3	119
MAX	1216	854	1766	898	1122	1468	3075	3670	1859	279	293	571
(WY)	1982	1974	1992	1985	1987	1990	1990	1982	1989	1975	1964	1989
MIN	.000	.000	.009	.000	.16	.001	.16	3.44	.021	.000	.000	.000
(WY)	1964	1978	1979	1964	1967	1980	1980	1971	1972	1964	1980	1963

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1961 - 95	
ANNUAL TOTAL	59624.47		139027.0			
ANNUAL MEAN	163		381		198	
HIGHEST ANNUAL MEAN					614	1990
LOWEST ANNUAL MEAN					19.1	1971
HIGHEST DAILY MEAN	2860	Nov 21	12900	Jun 12	37800	May 3 1990
LOWEST DAILY MEAN	.46	Sep 1	2.0	Oct 6	.00	Nov 19 1960
ANNUAL SEVEN-DAY MINIMUM	.91	Aug 28	2.5	Oct 2	.00	Jul 28 1961
INSTANTANEOUS PEAK FLOW			15900	Jun 12	49600	May 3 1990
INSTANTANEOUS PEAK STAGE			28.46	Jun 12	33.14	May 29 1987
INSTANTANEOUS LOW FLOW			2.4	Oct 6		
ANNUAL RUNOFF (AC-FT)	118300		275800		143600	
10 PERCENT EXCEEDS	494		811		279	
50 PERCENT EXCEEDS	30		48		8.0	
90 PERCENT EXCEEDS	6.1		6.1		.00	



07316000 RED RIVER NEAR GAINESVILLE, TX

LOCATION.--Lat 33°43'40", long 97°09'35", in SW 1/4 sec.36, T.9 S., R.1 E., Love County, OK, Hydrologic Unit 11130201, on downstream right bank at end of bridge on Interstate 35, 0.2 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 5.0 mi downstream from Fish Creek, 4.5 mi southwest of Thackerville, OK, 7.0 mi north of Gainesville, and at mile 791.5.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--30,782 mi^2 of which 5,936 mi^2 probably is noncontributing.

PERIOD OF RECORD.--May 1936 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 627.91 ft above sea level. Prior to Jan. 17, 1939, and Feb. 13, 1965 to Nov. 14, 1966, nonrecording gage at same site and datum.

REMARKS.--Records poor. Flow slightly regulated by Lake Kemp (station 07312000 in Texas), since 1943 by Lake Altus (station 07302500 in Oklahoma), since 1946 by Lake Kickapoo (station 07314000 in Texas), since 1967 by Lake Arrowhead (station 07314800 in Texas) and Moss Lake (station 07315950 in Texas). U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 24,000 ft^3/s.

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 9	1700	52,600	22.46	June 13	1500	169,000	36.63
May 29	1600	27,600	18.29	Aug. 6	1230	99,800	29.65
June 9	0830	159,000	36.03	Sept. 22	1230	34,600	19.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	477	e1100	2170	1110	1430	740	e1320	3430	14900	12700	3820	4270
2	465	924	2000	1090	1260	746	e1300	2930	12800	12000	3390	4150
3	453	e850	1870	1090	1340	769	e1270	2820	12100	11100	4390	4070
4	449	e775	1770	1090	1310	786	3060	3300	10600	10500	55100	3940
5	448	e750	1680	1060	1240	815	e4000	2920	9980	9970	85000	3730
6	437	2690	1600	1050	1190	841	3100	2610	37100	9550	97700	3230
7	498	9440	1530	1050	1060	930	2030	5580	69500	9200	72500	2650
8	854	7280	1820	1020	1060	938	1630	28000	118000	8970	51300	2220
9	766	6850	3760	1010	1030	870	1330	47500	146000	9020	38000	1950
10	599	4970	5820	989	1020	873	1290	44500	80200	8750	31300	1780
11	806	3500	5400	973	951	833	1370	24200	61800	7980	26500	1640
12	1030	2680	3710	968	880	832	1790	15900	111000	7000	22500	1650
13	960	2140	2680	953	834	3310	1750	10100	159000	5080	19000	1660
14	842	3790	2260	930	826	5180	1250	8170	116000	3980	14600	1600
15	764	8890	1970	910	798	5420	1010	6860	61900	3460	12200	1670
16	712	6890	1740	902	734	5870	916	6120	40400	3180	12200	1720
17	652	3910	1600	900	722	7970	1510	5960	30500	2960	10100	2280
18	628	2450	1490	892	712	8640	2640	5660	23000	2750	8740	3840
19	630	1540	1450	950	713	e6000	4510	4840	18400	2810	7740	14000
20	721	3050	1390	979	708	4440	14300	4420	15700	2550	7090	24000
21	4140	7370	1310	957	690	3010	16700	4310	14400	3840	6600	27800
22	4640	9010	1240	946	713	2440	14700	4130	14000	3950	6280	33600
23	2860	14400	1200	980	802	2040	9820	3940	13300	3730	6150	26100
24	3780	11500	1160	1020	792	1800	6290	3920	12800	5540	5860	16600
25	3890	8730	1130	971	713	1630	7060	5300	12200	4840	5630	13500
26	e3100	5970	1100	1040	689	1560	10700	6510	11700	4160	5430	12100
27	e2650	4510	1080	1350	691	e1500	9130	9840	11600	5090	5170	9430
28	e2250	3520	1080	2190	728	e1450	5980	17400	11100	9080	4880	8140
29	e1500	2850	1100	2450	---	e1400	4700	24700	11000	6780	4650	8070
30	e1300	2410	1120	1940	---	e1370	4080	26200	12800	5040	4510	9650
31	e1200	---	1120	1650	---	e1350	---	21600	---	4560	4370	---
TOTAL	44501	144739	60350	35410	25636	76353	140536	363670	1273780	200120	642700	251040
MEAN	1436	4825	1947	1142	916	2463	4685	11730	42460	6455	20730	8368
MAX	4640	14400	5820	2450	1430	8640	16700	47500	159000	12700	97700	33600
MIN	437	750	1080	892	689	740	916	2610	9980	2550	3390	1600
AC-FT	88270	287100	119700	70240	50850	151400	278800	721300	2527000	396900	1275000	497900

e Estimated

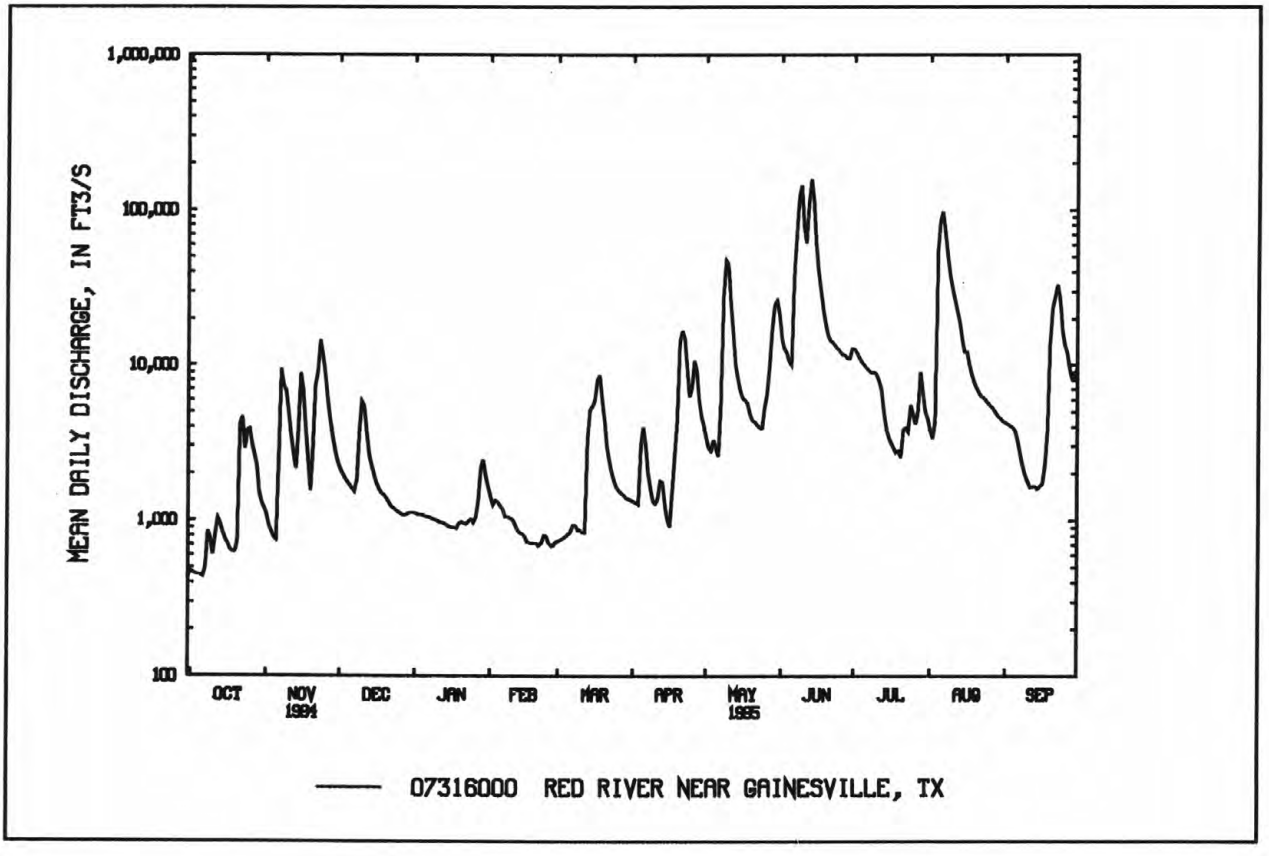
07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3883	1989	1595	1190	1677	2618	3425	8312	8652	2213	1611	2416
MAX	31080	14020	14990	7152	9984	14690	27400	47780	43510	9857	20730	12880
(WY)	1942	1942	1992	1985	1987	1987	1990	1957	1941	1950	1995	1986
MIN	119	137	125	82.4	151	90.5	153	204	640	166	163	108
(WY)	1953	1955	1940	1940	1953	1940	1971	1971	1966	1964	1970	1956

SUMMARY STATISTICS 1994 CALENDAR YEAR 1995 WATER YEAR WATER YEARS 1937 - 95

ANNUAL TOTAL	865380		3258835			
ANNUAL MEAN	2371		8928		3302	
HIGHEST ANNUAL MEAN					11890	1987
LOWEST ANNUAL MEAN					651	1953
HIGHEST DAILY MEAN	20200	May 29	159000	Jun 13	232000	May 31 1987
LOWEST DAILY MEAN	437	Oct 6	437	Oct 6	48	Jan 18 1940
ANNUAL SEVEN-DAY MINIMUM	453	Sep 30	461	Oct 1	48	Jan 18 1940
INSTANTANEOUS PEAK FLOW			169000	Jun 13	265000	May 31 1987
INSTANTANEOUS PEAK STAGE			36.63	Jun 13	40.08	May 31 1987
INSTANTANEOUS LOW FLOW			48	Jan 18 1940		
ANNUAL RUNOFF (AC-FT)	1716000		6464000		2392000	
10 PERCENT EXCEEDS	5890		17000		7250	
50 PERCENT EXCEEDS	1140		3060		816	
90 PERCENT EXCEEDS	600		811		213	



07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1994 to September 1995

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1994 to September 1995.
WATER TEMPERATURE: October 1994 to September 1995.

INSTRUMENTATION.--Water-quality monitor since October 1994.

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

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 4,630 microsiemens Aug. 26; minimum, 402 microsiemens Nov. 14.
WATER TEMPERATURE: Maximum, 34.0°C July 13; minimum, 4.0°C Mar. 3.

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	GAGE HEIGHT (FEET) (00065)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)
JUL											
13...	1328	530	32.5	749	1028	1028	5180	10.99	3730	7.3	8.4
13...	1333	500	32.5	749	1028	1028	5180	10.99	3710	7.3	8.4
13...	1338	470	32.5	749	1028	1028	5180	10.99	3730	7.4	8.4
13...	1343	410	32.5	749	1028	1028	5180	10.99	3720	7.3	8.4
13...	1348	380	32.5	749	1028	1028	5180	10.99	3740	7.4	8.4
13...	1353	300	32.5	749	1028	1028	5180	10.99	3730	7.4	8.4
13...	1408	260	32.5	749	1028	1028	5180	10.99	3740	7.4	8.4
13...	1413	180	32.5	749	1028	1028	5180	10.99	3740	7.2	8.4
13...	1418	80.0	32.5	749	1028	1028	5180	10.99	3730	7.2	8.4
13...	1423	40.0	32.5	749	1028	1028	5180	10.99	3730	7.5	8.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)
OCT										
19...	1115	1028	80020	635	2240	8.4	23.5	21.0	14	747
NOV										
15...	1045	1028	80020	9160	745	7.9	12.5	15.5	310	756
DEC										
13...	1230	1028	80020	2740	1310	8.1	7.5	7.0	83	755
JAN										
10...	1130	1028	80020	976	3220	8.4	21.0	10.5	1.0	744
FEB										
10...	1300	1028	80020	1020	3330	8.3	13.0	11.5	2.5	739
MAR										
22...	1145	1028	80020	2400	1670	8.2	30.0	21.0	72	736
APR										
19...	1115	1028	80020	4550	1510	7.9	17.5	20.5	430	740
MAY										
10...	1255	1028	80020	46600	597	7.8	22.0	20.5	720	742
JUN										
09...	1045	1028	80020	155000	1340	7.5	31.5	26.5	700	743
JUL										
13...	1245	1028	80020	5180	3800	8.3	35.5	32.0	48	749
AUG										
24...	1200	1028	80020	5850	4140	8.1	32.0	30.0	82	745
SEP										
20...	1130	1028	80020	24400	2740	7.8	20.0	24.0	680	750

DATE	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	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)
OCT										
19...	9.5	109	470	340	120	42	300	58	6	6.2
NOV										
15...	8.6	87	180	66	51	13	62	42	2	3.8
DEC										
13...	10.9	91	290	130	81	21	140	51	4	6.6
JAN										
10...	12.8	119	650	460	160	60	450	60	8	5.3
FEB										
10...	10.5	100	610	430	150	57	480	63	8	5.4
MAR										
22...	9.3	108	340	200	87	29	210	57	5	7.0
APR										
19...	6.2	71	280	160	69	26	190	59	5	5.6
MAY										
10...	5.0	57	130	53	38	9.4	61	49	2	5.3
JUN										
09...	4.5	58	280	180	84	16	150	53	4	6.9
JUL										
13...	7.3	103	660	520	170	58	550	64	9	7.4
AUG										
24...	7.1	97	820	690	200	77	570	60	9	7.5
SEP										
20...	6.4	78	400	300	130	36	380	67	8	6.6

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 19...	156	5	136	280	460	0.40	5.0	1380	1300
NOV 15...	140	0	115	70	90	0.20	7.8	393	367
DEC 13...	190	0	156	140	220	0.20	10	708	712
JAN 10...	213	5	183	400	760	0.40	5.4	2020	1950
FEB 10...	214	0	175	380	770	0.30	4.3	2030	1950
MAR 22...	171	0	140	200	320	0.30	6.1	1010	943
APR 19...	148	0	121	150	290	0.20	5.8	870	809
MAY 10...	98	0	80	56	92	0.20	8.3	351	318
JUN 09...	115	0	94	200	220	0.20	9.6	768	743
JUL 13...	173	0	142	490	820	0.30	8.2	2350	2190
AUG 24...	154	0	126	680	870	0.40	11	2610	2490
SEP 20...	117	0	96	370	620	0.20	9.5	1640	1580

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)
OCT 19...	1.88	2370	<0.010	<0.050	<0.015	0.30	<0.010	0.010	0.03
NOV 15...	0.53	9720	--	--	--	--	--	--	--
DEC 13...	0.96	5240	--	--	--	--	--	--	--
JAN 10...	2.75	5320	--	--	--	--	--	--	--
FEB 10...	2.76	5590	--	--	--	--	--	--	--
MAR 22...	1.37	6540	--	--	--	--	--	--	--
APR 19...	1.18	10700	--	--	--	--	--	--	--
MAY 10...	0.48	44200	--	--	--	--	--	--	--
JUN 09...	1.04	321000	--	--	--	--	--	--	--
JUL 13...	3.20	32900	--	--	--	--	--	--	--
AUG 24...	3.55	41200	--	--	--	--	--	--	--
SEP 20...	2.23	108000	--	--	--	--	--	--	--

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3710	3240	3520	2190	1930	2050	1810	1720	1770	2970	2930	2950
2	3730	3330	3530	2110	1990	2050	1890	1810	1840	3050	2970	3010
3	3680	3380	3520	2260	2040	2140	2020	1890	1960	3080	3040	3060
4	3720	3300	3530	2330	2260	2300	2160	2020	2090	3080	3030	3060
5	3630	3360	3500	2290	2040	2140	2320	2160	2240	3080	3030	3050
6	3760	3480	3600	3120	1790	2160	2430	2320	2390	3090	3030	3060
7	3900	3610	3740	1790	863	1040	2520	2430	2490	3150	3080	3120
8	3990	2620	3350	865	747	832	2560	1510	2240	3170	3120	3140
9	3030	2670	2880	747	514	570	2210	1350	1640	3210	3170	3170
10	2790	2500	2650	678	542	629	1570	1350	1440	3290	3170	3210
11	3930	2650	3220	727	669	686	1350	1240	1260	3360	3230	3290
12	3940	2740	3210	896	727	809	1240	1200	1220	3460	3360	3410
13	3800	3120	3430	1060	896	975	1530	1210	1340	3580	3460	3530
14	3540	3300	3460	1270	402	746	1850	1530	1700	3670	3580	3630
15	3300	2460	2900	836	627	708	1930	1850	1900	3670	3570	3620
16	2460	2170	2300	705	611	636	1950	1900	1920	3590	3530	3560
17	2270	2160	2200	952	705	844	2020	1890	1920	3540	3460	3490
18	2410	2140	2200	1190	952	1110	2300	2020	2170	3560	3490	3520
19	2320	2170	2240	1180	1130	1150	2470	2300	2430	3510	3330	3420
20	2540	1770	2180	1320	501	867	2530	2470	2510	3360	3270	3300
21	2160	717	1120	1160	791	962	2590	2510	2540	3500	3360	3440
22	1120	736	871	1450	759	885	2710	2590	2670	3540	3480	3510
23	1240	784	1020	2320	1450	1840	2800	2690	2740	3570	3520	3560
24	1900	1210	1340	1510	1470	1480	2860	2800	2840	3580	3520	3540
25	2070	1650	1900	1490	1350	1440	2900	2840	2880	3580	3420	3520
26	1650	1570	1600	1350	1260	1280	2940	2900	2920	3420	2850	3140
27	1840	1480	1610	1360	1260	1320	2900	2870	2880	2930	2470	2660
28	1790	1490	1560	1410	1350	1370	2880	2860	2870	2970	2240	2610
29	1820	1500	1690	1570	1410	1500	2870	2860	2860	2240	1480	1700
30	2580	1820	2150	1720	1490	1640	2880	2860	2870	2130	1550	1810
31	2610	2030	2390	---	---	---	2930	2870	2890	2470	2130	2340
MONTH	3990	717	2530	3120	402	1270	2940	1200	2240	3670	1480	3140

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2630	2470	2540	4090	3960	4020	3010	2780	2920	1450	1330	1380
2	2740	2630	2680	4160	4010	4120	2820	2740	2770	1610	1450	1550
3	3510	2730	3040	4010	3710	3850	3040	2390	2880	1790	1630	1700
4	3740	2980	3380	3710	3510	3600	2390	1740	1930	1650	1370	1490
5	3100	2970	3020	3520	3440	3490	2080	1360	1580	1540	1240	1460
6	3320	3100	3250	3480	3380	3440	2070	1680	1950	1370	921	1190
7	3350	2880	3230	3700	3100	3350	2020	1580	1720	1350	1000	1220
8	3050	2850	2890	3480	3130	3280	2130	1740	1920	934	707	849
9	3320	3050	3250	3590	3280	3420	2160	2050	2120	808	599	673
10	3410	3300	3360	3750	3590	3690	2390	916	1990	635	558	602
11	3410	3290	3360	3820	3620	3700	2450	2140	2290	745	577	625
12	3290	3230	3260	3820	3640	3810	2640	2310	2500	694	602	646
13	3390	3170	3230	3640	718	1300	2510	2360	2440	759	681	709
14	3680	3390	3570	1580	1440	1510	2430	1960	2250	1100	759	917
15	4170	3670	3860	1460	1320	1380	2180	1980	2060	1410	1100	1270
16	4200	4140	4170	1890	1430	1620	2620	2120	2410	1590	1410	1500
17	4150	4040	4100	2000	1350	1740	2660	2060	2270	1820	1510	1640
18	4080	4000	4040	1350	1160	1290	2180	1480	1800	1510	1410	1440
19	4050	3950	4010	1760	1170	1360	2030	617	1410	1490	1430	1460
20	4040	3910	3980	2130	1760	1970	1550	992	1330	1490	1430	1470
21	3970	3840	3920	2050	1600	1780	1510	917	1150	1490	1450	1470
22	3960	3890	3930	2070	1570	1710	917	769	837	1480	1410	1440
23	3940	3740	3870	2530	1950	2260	769	681	724	1630	1420	1470
24	3920	3800	3890	2790	2530	2680	779	681	723	1620	1430	1470
25	3920	3890	3910	2860	1410	2520	1000	771	854	1620	1320	1460
26	3910	3720	3810	2740	2290	2600	1030	924	966	1830	1370	1460
27	3730	3580	3680	2930	2740	2840	939	803	891	1830	1600	1700
28	3960	3700	3880	3030	2910	2980	989	777	849	1650	1230	1360
29	---	---	---	3170	3000	3040	1220	989	1120	1500	1090	1230
30	---	---	---	3250	2920	3100	1350	1220	1290	1850	1400	1550
31	---	---	---	3010	2900	2960	---	---	---	1990	1830	1870
MONTH	4200	2470	3540	4160	718	2720	3040	617	1730	1990	558	1300

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2560	1990	2380	3590	3470	3530	2660	2400	2490	4270	4180	4220
2	2530	2150	2290	3620	3540	3580	2970	2660	2860	4250	4160	4210
3	2190	1980	2140	3690	3520	3610	3320	2950	3130	4200	4150	4170
4	---	---	e2200	3700	3560	3630	3110	1050	1620	4180	4140	4160
5	---	---	e2400	3790	3630	3710	1240	1080	1170	4140	4110	4130
6	---	---	e2200	3790	3560	3690	1220	1200	1220	4150	4100	4110
7	1820	1700	1750	3720	3550	3630	1200	1160	1180	4140	4040	4090
8	1840	1160	1610	3710	3550	3630	1290	1170	1220	4230	4070	4160
9	1640	956	1250	3730	3560	3650	1380	1290	1340	4320	4190	4250
10	1540	956	1290	3750	3560	3650	1610	1380	1500	4450	4320	4380
11	1530	927	1310	3750	3570	3660	1720	1610	1680	4510	4430	4460
12	1010	615	786	3780	3610	3700	1750	1700	1720	4530	4420	4480
13	714	594	656	3820	3610	3720	1840	1750	1810	4420	4280	4340
14	823	714	755	3800	3590	3710	2000	1830	1890	4380	4300	4360
15	1020	823	916	3790	3660	3730	2180	2000	2090	4530	4320	4400
16	1260	1020	1120	3810	3540	3690	2480	2180	2350	4560	4480	4530
17	1600	1260	1420	3690	3480	3590	2930	2470	2670	4610	4130	4440
18	1920	1600	1760	3610	3370	3510	3250	2930	3080	4470	3620	4060
19	2290	1920	2090	3580	3430	3510	3520	3250	3370	4170	2770	3700
20	2600	2290	2460	3570	3360	3480	3690	3520	3600	3360	2660	2870
21	2870	2600	2730	3530	3390	3440	3900	3690	3830	3550	2550	3070
22	2990	2870	2950	3510	3300	3410	3980	3900	3940	2560	1910	2200
23	3120	2950	3020	3430	3260	3360	4070	3930	3980	1920	1720	1820
24	3230	3120	3190	3420	3230	3320	4250	4080	4140	1790	1700	1730
25	3310	3230	3260	3330	3100	3230	4620	4250	4500	2060	1790	1930
26	3390	3250	3320	3240	3030	3150	4630	4390	4510	2190	2060	2120
27	3400	3310	3360	3170	2970	3080	4400	4270	4340	2420	2180	2260
28	3470	3280	3380	3090	2930	3010	4300	4210	4270	2920	2420	2750
29	3380	3290	3350	3010	2860	2940	4280	4210	4250	2920	2510	2770
30	3490	3310	3420	2980	2610	2860	4230	4180	4210	2820	2640	2730
31	---	---	---	2610	2400	2470	4300	4190	4230	---	---	---
MONTH	---	---	2160	3820	2400	3450	4630	1050	2840	4610	1700	3560

e Estimated

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	27.5	23.0	25.0	16.5	14.0	15.0	10.0	8.0	9.0	11.5	8.5	9.5
2	28.0	22.5	25.0	18.0	14.0	16.0	10.5	9.0	9.5	8.5	7.0	8.0
3	27.0	23.5	25.5	21.5	17.5	19.5	13.0	10.5	11.5	8.0	6.5	7.5
4	28.5	23.0	25.5	21.5	18.5	20.5	15.0	13.0	14.0	6.5	5.0	6.0
5	27.5	23.5	25.5	18.5	15.5	17.0	14.5	13.0	13.5	6.0	4.5	5.5
6	25.5	22.5	24.0	17.5	14.0	15.0	15.0	13.0	14.0	8.5	5.0	6.5
7	24.0	20.5	22.5	16.0	14.5	15.0	14.5	12.5	13.5	7.5	5.0	6.0
8	21.5	19.0	20.0	16.5	15.0	16.0	13.0	10.0	11.5	9.5	5.5	7.5
9	21.0	16.5	19.0	17.0	15.0	16.5	10.0	8.5	9.0	10.5	7.0	8.5
10	21.5	16.0	18.5	15.0	13.5	14.5	8.5	7.5	8.0	13.0	9.5	11.0
11	20.5	16.0	18.5	15.0	13.5	14.0	7.5	6.5	7.0	13.0	10.0	11.5
12	20.5	16.0	18.5	14.0	13.0	13.5	7.5	5.5	6.5	14.5	11.5	13.0
13	21.5	18.5	20.0	15.0	13.5	14.0	7.0	6.5	7.0	13.5	11.0	12.5
14	20.0	18.5	19.0	16.5	15.0	16.0	8.0	7.0	7.5	11.5	9.0	10.5
15	18.5	17.5	17.5	16.0	15.0	15.5	9.0	8.0	8.5	11.0	8.5	10.0
16	20.0	17.5	18.5	15.5	14.0	14.5	11.0	9.0	10.0	12.0	9.0	10.5
17	21.5	20.0	20.5	14.5	13.5	14.0	11.0	8.5	9.5	13.0	11.5	12.0
18	23.0	20.5	21.5	14.0	12.5	13.5	11.0	8.5	9.5	11.5	8.5	10.0
19	25.0	21.0	22.5	14.5	14.0	14.5	10.5	8.5	9.5	10.0	7.5	8.5
20	23.5	22.0	22.5	15.5	14.5	15.0	12.5	10.0	11.0	10.0	7.0	8.5
21	22.5	18.5	21.0	14.5	13.5	14.0	12.0	9.5	10.5	9.5	8.0	8.5
22	22.5	20.0	21.0	13.5	13.0	13.5	11.0	9.0	10.0	9.0	6.5	8.0
23	22.0	19.5	21.0	13.0	11.5	12.0	10.5	8.5	9.5	8.5	5.0	6.5
24	21.0	19.0	20.0	11.5	10.5	11.0	10.5	8.5	9.5	9.0	5.5	7.5
25	19.5	16.5	18.0	10.5	10.5	10.5	10.0	8.0	9.0	11.0	7.5	9.0
26	17.5	15.0	16.5	12.0	10.5	11.5	10.0	7.5	9.0	11.5	10.0	10.5
27	16.5	14.5	15.5	14.0	12.0	13.0	10.5	8.0	9.0	14.0	11.0	12.5
28	16.5	14.5	15.5	12.5	11.0	11.5	10.5	10.0	10.0	12.5	10.0	11.5
29	17.5	15.0	16.0	11.0	9.5	10.5	11.0	10.0	10.5	10.0	7.5	8.5
30	19.5	16.5	18.0	10.0	8.5	9.0	12.5	10.0	11.0	9.0	7.0	8.0
31	18.5	16.0	17.5	---	---	---	12.5	11.0	11.5	10.0	7.0	8.5
MONTH	28.5	14.5	20.3	21.5	8.5	14.2	15.0	5.5	10.0	14.5	4.5	9.1

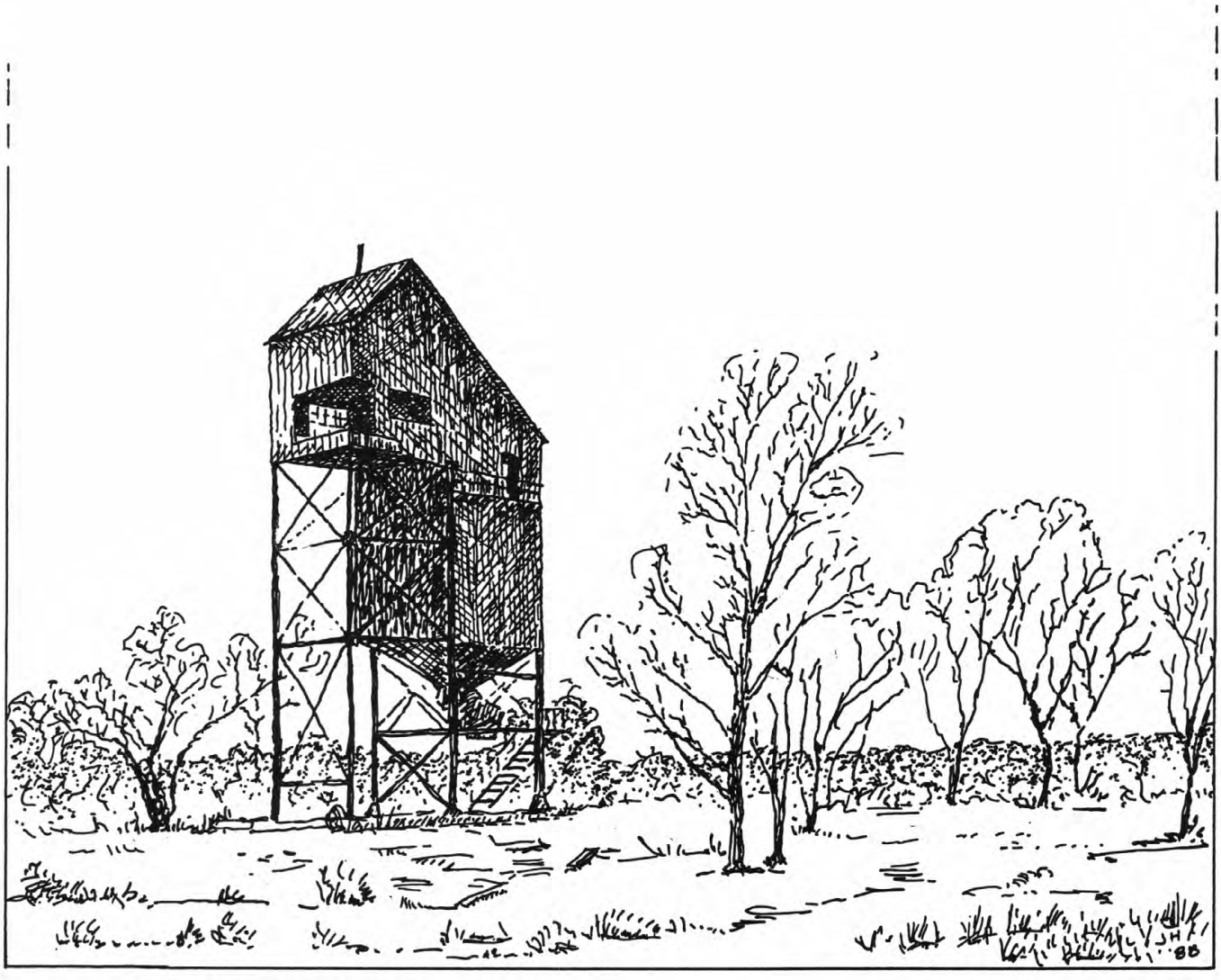
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.5	8.5	10.0	10.5	6.5	8.0	18.5	13.5	16.0	21.5	20.0	20.5
2	13.0	9.5	11.5	6.5	4.5	5.0	19.0	15.0	17.0	20.5	18.5	19.5
3	13.0	11.0	12.0	5.5	4.0	4.5	18.0	16.0	17.0	19.0	17.5	18.0
4	12.5	10.0	11.5	6.5	5.5	6.0	18.0	15.5	16.5	21.5	17.5	19.0
5	12.0	10.0	11.0	9.0	6.5	8.0	17.5	16.5	17.0	21.0	19.0	20.0
6	12.0	9.0	10.5	11.5	8.5	9.5	19.0	16.0	17.5	20.5	18.0	19.0
7	11.5	9.0	10.0	11.5	7.0	8.5	21.0	17.0	19.0	20.0	18.0	19.0
8	10.5	7.0	8.5	10.0	5.0	7.0	23.5	19.0	21.0	20.0	18.5	19.0
9	12.0	8.0	10.0	11.5	6.5	9.0	25.0	20.5	22.5	20.5	19.5	20.0
10	12.0	10.5	11.0	12.5	8.5	10.5	23.5	16.5	20.0	21.5	20.5	21.0
11	11.0	7.0	9.0	14.0	10.0	12.0	17.5	13.5	15.5	22.0	20.5	21.5
12	7.0	5.5	6.0	15.0	13.5	14.0	19.0	14.5	16.5	22.0	21.0	21.5
13	6.0	5.0	5.5	15.0	12.5	13.5	21.0	16.0	18.5	25.0	22.0	23.0
14	6.0	4.5	5.0	14.5	13.5	14.0	22.5	18.0	20.0	27.0	24.5	26.0
15	8.0	6.0	7.5	15.0	14.0	14.5	23.5	18.5	21.0	27.5	26.0	26.5
16	7.5	6.5	7.0	17.0	14.0	15.5	23.5	21.5	22.5	27.0	25.5	26.0
17	10.0	5.5	7.5	17.5	15.5	16.5	23.0	21.5	22.0	26.5	24.5	25.5
18	10.5	7.0	8.5	18.5	16.5	17.5	24.0	20.0	22.0	25.5	22.0	23.5
19	12.5	8.5	10.0	20.0	17.5	18.5	22.5	17.0	20.0	24.0	20.5	22.0
20	14.5	9.5	12.0	20.5	18.0	19.5	20.5	18.0	19.0	24.5	21.5	23.0
21	16.0	11.5	13.5	21.5	18.0	19.5	20.5	18.5	19.5	25.5	22.5	24.0
22	15.0	12.5	14.0	22.5	19.5	21.0	20.0	17.5	18.5	26.5	23.5	25.0
23	17.5	13.5	15.5	22.5	20.0	21.0	17.5	15.5	16.5	25.5	24.0	24.5
24	17.0	14.0	15.5	21.0	18.5	19.5	18.0	14.5	16.0	25.5	23.5	24.5
25	15.5	13.0	14.5	19.0	17.5	18.0	19.0	16.5	17.5	24.5	22.0	23.0
26	17.0	14.0	15.0	19.0	17.5	18.0	18.5	17.0	18.0	23.5	21.0	22.0
27	19.0	16.0	17.5	18.5	15.0	16.5	19.0	17.0	18.0	24.5	22.0	23.0
28	18.0	10.5	13.5	17.0	13.5	15.0	20.0	18.0	19.0	24.5	23.0	24.0
29	---	---	---	14.5	12.5	13.5	23.0	19.5	21.0	24.5	22.5	23.5
30	---	---	---	15.5	12.0	13.5	22.0	21.0	21.5	23.0	22.5	22.5
31	---	---	---	16.0	13.0	14.5	---	---	---	23.5	22.0	23.0
MONTH	19.0	4.5	10.8	22.5	4.0	13.6	25.0	13.5	18.9	27.5	17.5	22.3

07316000 RED RIVER NEAR GAINESVILLE, TX--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.0	23.0	24.0	27.5	25.5	26.5	28.5	27.0	27.5	32.0	29.0	30.5
2	26.0	24.5	25.0	27.0	26.0	26.5	28.5	26.5	27.5	32.5	29.5	31.0
3	26.5	25.0	26.0	28.0	25.5	26.5	29.0	27.0	28.0	32.0	29.5	30.5
4	27.5	26.0	26.5	28.0	26.5	27.0	28.0	26.0	26.5	30.5	29.0	29.5
5	27.0	25.5	26.0	28.0	26.0	27.0	28.0	26.5	27.0	30.0	28.0	29.0
6	25.5	23.0	24.0	29.5	26.5	28.0	29.0	28.0	28.5	30.0	27.5	29.0
7	24.5	23.5	24.0	30.5	28.0	29.0	30.0	29.0	29.5	30.0	27.5	28.5
8	26.0	24.5	25.0	31.5	29.0	30.0	30.0	29.0	29.5	28.5	26.0	27.0
9	27.0	26.0	26.5	31.5	29.0	30.5	30.0	29.0	29.5	27.0	24.5	25.5
10	27.0	26.0	26.5	32.5	30.0	31.0	30.0	29.0	29.5	26.5	24.5	25.5
11	26.0	22.5	24.5	33.0	30.5	31.5	30.0	29.0	29.5	25.5	24.5	24.5
12	22.5	21.5	22.0	33.0	30.5	32.0	30.5	29.0	30.0	24.5	23.0	23.5
13	23.5	22.0	22.5	34.0	31.0	32.0	30.5	29.5	30.0	26.5	23.0	24.5
14	24.5	23.5	24.0	33.0	30.5	31.5	30.5	29.5	30.0	27.0	24.5	25.5
15	25.5	24.5	25.0	31.5	30.0	30.5	30.0	29.0	29.0	27.5	26.0	26.5
16	26.5	25.0	25.5	32.0	29.0	30.5	29.5	28.5	29.0	29.0	26.0	27.0
17	27.0	25.5	26.0	32.0	29.5	31.0	30.5	28.5	29.5	29.0	26.0	27.5
18	27.0	26.0	26.5	33.0	30.0	31.0	31.0	29.0	30.0	28.0	26.0	26.5
19	27.5	26.0	27.0	31.5	29.5	30.5	32.0	29.5	31.0	26.0	22.0	25.5
20	28.5	26.5	27.0	31.5	29.0	30.0	32.5	30.0	31.5	25.5	21.0	24.5
21	28.5	26.5	27.5	31.0	28.5	29.5	33.0	30.5	31.5	24.0	20.5	22.5
22	29.5	27.5	28.5	31.0	28.5	29.5	32.5	30.5	31.5	20.5	18.5	19.5
23	30.0	28.0	28.5	30.5	28.5	29.5	32.0	30.0	31.0	18.5	17.5	17.5
24	30.0	28.0	29.0	30.0	28.0	29.0	31.5	24.0	30.5	18.0	16.5	17.5
25	29.0	27.5	28.5	31.5	28.5	30.0	31.0	29.0	30.0	18.0	17.5	17.5
26	29.0	27.0	28.0	32.0	29.0	30.5	31.0	29.0	30.0	18.5	17.5	17.5
27	28.5	27.5	27.5	32.0	29.5	30.5	32.5	29.5	31.0	20.5	18.0	19.0
28	29.0	26.5	27.5	32.0	29.5	31.0	32.5	30.0	31.0	23.0	20.5	21.5
29	28.5	27.5	28.0	32.5	30.5	31.5	32.0	30.0	31.0	24.5	22.5	23.5
30	27.5	26.0	27.0	32.5	30.0	31.0	31.5	29.5	30.5	24.5	23.5	24.0
31	---	---	---	31.0	28.0	29.5	31.5	28.5	30.0	---	---	---
MONTH	30.0	21.5	26.1	34.0	25.5	29.8	33.0	24.0	29.7	32.5	16.5	24.7
YEAR	34.0	4.0	19.2									



Ore loader in the Tar Creek area

07316500 WASHITA RIVER NEAR CHEYENNE, OK

LOCATION.--Lat 35°37'35", long 99°40'05", in SE 1/4 sec.5, T.13 N., R.23 W., Roger Mills County, Hydrologic Unit 11130301, on left bank on downstream side of bridge on U.S. Highway 283, 0.5 mi downstream from Sergeant Major Creek, 1.0 mi north of Cheyenne, 5.2 mi upstream from Dead Indian Creek, and at mile 543.9.

DRAINAGE AREA.--794 mi^2.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,900.98 ft above sea level. May 1, 1938, to Nov. 16, 1946, and Oct. 1, 1947, to Jan. 11, 1948, nonrecording gage at site 50 ft upstream and datum 5.00 ft higher. Jan. 12, 1948 to Dec. 31, 1976, at site 50 ft upstream and datum 5.00 ft higher. Jan. 1, 1977, to Dec. 20, 1979, at site 50 ft upstream at same datum.

REMARKS.--Records good. Flow regulated since 1961 by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 3, 1934, reached a stage of 1.0 ft lower than that in 1954, at site on upstream side of highway fill (at old bridge site).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	2.4	4.0	e2.0	11	12	61	21	21	3.9
2	.00	.00	.00	e2.0	4.1	e2.1	10	11	53	21	136	3.5
3	.00	.00	.00	e2.4	3.8	e3.3	11	11	334	20	241	3.3
4	.00	.00	.00	e1.8	3.6	4.3	11	11	364	18	119	3.2
5	.00	.00	.00	e1.6	3.4	4.7	10	11	499	16	85	3.1
6	.00	.00	.00	e2.3	3.4	e4.5	9.4	28	363	15	67	2.8
7	.00	.00	.00	e2.2	3.2	e4.3	9.5	36	255	13	55	2.6
8	.00	.00	.00	e3.0	3.1	e4.8	9.1	44	164	12	41	2.6
9	.00	.00	.00	3.7	3.3	6.1	8.6	30	118	10	32	3.4
10	.00	.00	.00	3.5	3.3	5.4	7.9	24	109	9.2	25	4.4
11	.00	.00	.06	4.0	3.2	4.9	6.9	20	135	8.4	20	4.3
12	.00	.00	.19	3.6	e2.8	4.8	7.2	17	142	7.7	17	10
13	.00	.00	.52	3.2	e2.4	4.6	6.6	16	101	7.0	15	8.9
14	.00	.00	.67	3.2	e2.4	4.7	5.7	14	83	6.3	14	6.0
15	.00	.00	.52	3.2	e3.6	5.1	5.1	13	70	6.1	13	6.2
16	.00	.00	.85	3.2	3.8	5.6	4.9	12	61	6.1	13	9.9
17	.00	.00	.96	3.2	3.6	5.5	6.3	13	55	6.7	11	8.2
18	.00	.00	1.0	3.1	3.6	5.1	8.4	13	50	7.2	10	7.4
19	.00	4.0	1.0	3.0	3.6	4.3	8.7	11	46	7.5	9.3	22
20	.00	27	.86	3.0	3.6	3.6	8.6	9.6	43	8.3	8.9	14
21	.00	3.7	.79	2.9	3.3	3.5	8.5	28	40	7.9	8.3	23
22	.00	.77	.73	3.5	3.0	3.7	11	24	37	6.8	7.1	21
23	.00	.09	1.0	3.5	2.8	3.0	14	20	35	7.4	6.8	14
24	.00	.00	1.4	3.8	2.9	3.1	13	25	33	7.5	6.6	11
25	.00	.00	2.5	4.4	2.3	119	13	36	32	6.9	6.1	12
26	.00	.00	2.3	4.7	2.3	28	12	49	30	6.2	5.7	12
27	.00	.00	2.1	5.1	2.4	14	11	80	27	5.5	5.5	11
28	.00	.00	2.0	4.7	2.1	11	11	93	26	4.9	5.2	10
29	.00	.00	2.0	4.3	---	11	11	134	24	4.5	4.8	29
30	.00	.00	2.1	4.2	---	11	10	82	22	3.9	4.3	20
31	.00	---	2.3	4.0	---	11	---	76	---	3.7	4.0	---
TOTAL	0.00	35.56	25.85	102.7	88.9	308.0	280.4	1003.6	3412	291.7	1017.6	292.7
MEAN	.000	1.19	.83	3.31	3.17	9.94	9.35	32.4	114	9.41	32.8	9.76
MAX	.00	27	2.5	5.1	4.1	119	14	134	499	21	241	29
MIN	.00	.00	.00	1.6	2.1	2.0	4.9	9.6	22	3.7	4.0	2.6
AC-FT	.00	71	51	204	176	611	556	1990	6770	579	2020	581

e Estimated

07316500 WASHITA RIVER NEAR CHEYENNE, OK--Continued

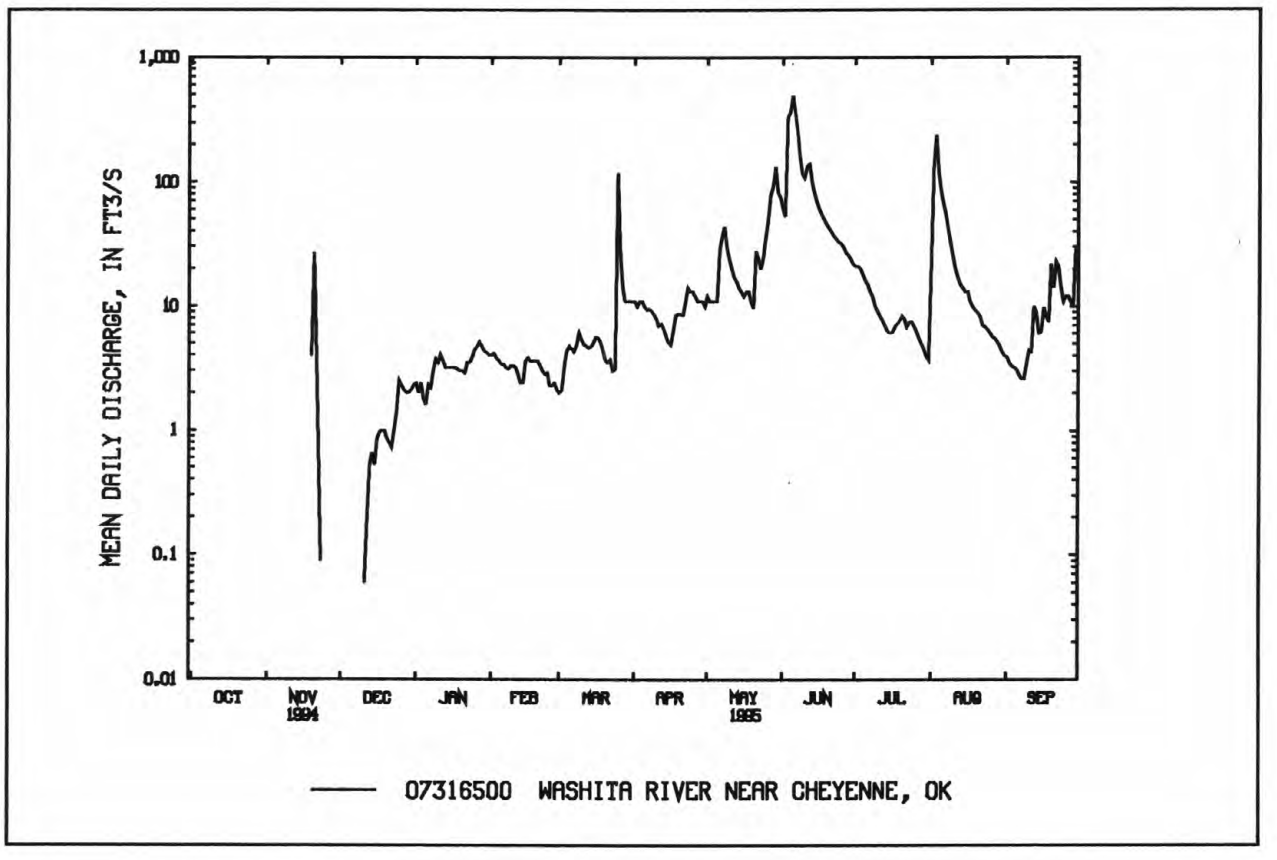
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.99	7.48	9.08	12.1	16.2	21.7	26.7	45.4	37.8	6.84	3.62	4.13
MAX	72.9	64.3	33.8	46.8	46.5	74.8	131	348	203	61.7	32.8	35.3
(WY)	1987	1987	1987	1987	1987	1987	1990	1977	1982	1982	1995	1962
MIN	.000	.000	.000	.026	1.50	2.22	1.08	.000	.005	.000	.000	.000
(WY)	1964	1964	1964	1973	1973	1967	1971	1971	1970	1964	1963	1964

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	2933.55		6859.01			
ANNUAL MEAN	8.04		18.8		[a]16.5	
HIGHEST ANNUAL MEAN					57.1	1982
LOWEST ANNUAL MEAN					2.60	1972
HIGHEST DAILY MEAN	72	Apr 30	499	Jun 5	1560	Apr 23 1990
LOWEST DAILY MEAN	.00	Jun 25	.00	at times	.00	most years
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 13	.00	Oct 1	.00	Oct 1 1961
INSTANTANEOUS PEAK FLOW			585	Jun 5	[b]7250	Apr 22 1990
INSTANTANEOUS PEAK STAGE			10.90	Jun 5	16.60	Apr 22 1990
ANNUAL RUNOFF (AC-FT)	5820		13600		11940	
10 PERCENT EXCEEDS	21		38		34	
50 PERCENT EXCEEDS	1.0		4.8		5.8	
90 PERCENT EXCEEDS	.00		.00		.00	

[a]Prior to regulation, water years 1938-60, 41.7 ft^3/s.

[b]Maximum discharge for period of record 69,800 ft^3/s, Apr. 29, 1954, from rating curve extended above 27,000 ft^3/s on basis of contracted opening.



07324200 WASHITA RIVER NEAR HAMMON, OK

LOCATION.--Lat 35°39'23", long 99°18'21", on west line of sec.26, T.14 N., R.20 W., Custer County, Hydrologic Unit 11130301, on right bank near county road bridge, 2.2 mi downstream from Quartermaster Creek, 4.7 mi northeast of Hammon, and at mile 494.5.

DRAINAGE AREA.--1,387 mi^2.

PERIOD OF RECORD.--October 1969 to September 1987, October 1989 to current year.

REVISED RECORD.--OK-92-2: 1987.

GAGE.--Water-stage recorder. Datum of gage is 1,643.22 ft above sea level.

REMARKS.--Records good except for estimated winter periods, which are poor. Flow regulated since 1961 by numerous flood-retarding structures.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	2.1	6.2	5.7	10	7.3	39	20	118	69	38	29
2	.12	1.9	5.8	e4.5	9.7	e6.2	36	20	102	65	283	28
3	.13	1.7	5.7	e5.0	9.1	e7.5	38	20	544	63	1000	28
4	.13	1.5	5.4	e4.5	8.5	9.5	43	20	1270	60	832	27
5	.18	1.6	5.4	e4.2	8.3	9.8	41	18	1290	54	607	25
6	.21	1.6	5.3	e5.5	8.2	11	37	25	1410	50	427	25
7	.22	1.5	5.4	e5.5	8.2	12	28	43	1160	47	294	24
8	.20	1.5	5.0	e6.0	8.3	e14	27	69	871	45	209	23
9	.19	1.4	4.8	e6.6	9.8	16	25	73	699	42	154	24
10	.19	1.3	4.6	6.9	9.2	15	23	57	574	40	122	25
11	.20	1.3	4.4	7.5	8.5	15	22	45	498	39	104	27
12	.21	1.3	4.6	7.6	e7.8	17	21	38	466	36	92	43
13	.23	1.4	4.9	7.3	e7.0	24	18	34	450	33	81	47
14	.23	1.4	4.8	7.0	e8.0	19	17	30	389	31	74	35
15	.32	1.3	4.7	6.9	9.1	18	16	26	319	29	68	34
16	.39	1.3	4.7	6.6	8.5	17	15	24	273	28	64	42
17	98	1.4	4.6	6.5	8.7	16	19	25	231	29	62	81
18	15	1.3	4.6	6.3	8.6	16	24	22	199	31	58	74
19	6.0	43	4.7	6.2	8.8	15	23	20	169	30	55	96
20	4.2	456	4.7	6.3	8.8	14	22	19	148	30	52	107
21	3.3	90	4.4	6.5	8.2	14	20	24	134	30	49	155
22	2.9	30	4.5	8.0	8.3	13	20	41	124	28	47	229
23	2.4	20	4.5	8.9	8.4	11	26	45	114	28	44	134
24	2.0	15	4.4	9.3	7.7	10	31	50	106	33	42	104
25	1.6	13	4.5	9.3	7.5	11	29	64	101	37	40	93
26	1.3	11	4.7	9.5	7.8	178	26	100	96	27	39	87
27	1.2	9.3	4.8	11	8.4	152	24	244	90	24	38	79
28	1.1	7.7	4.6	11	7.6	63	23	169	84	22	36	74
29	1.1	6.7	4.7	11	---	50	22	123	79	20	35	79
30	1.1	6.3	5.1	10	---	45	20	137	75	19	33	95
31	2.8	---	5.5	10	---	41	---	138	---	18	32	---
TOTAL	147.25	734.8	152.0	227.1	237.0	867.3	775	1783	12183	1137	5111	1973
MEAN	4.75	24.5	4.90	7.33	8.46	28.0	25.8	57.5	406	36.7	165	65.8
MAX	98	456	6.2	11	10	178	43	244	1410	69	1000	229
MIN	.10	1.3	4.4	4.2	7.0	6.2	15	18	75	18	32	23
AC-FT	292	1460	301	450	470	1720	1540	3540	24160	2260	10140	3910

e Estimated

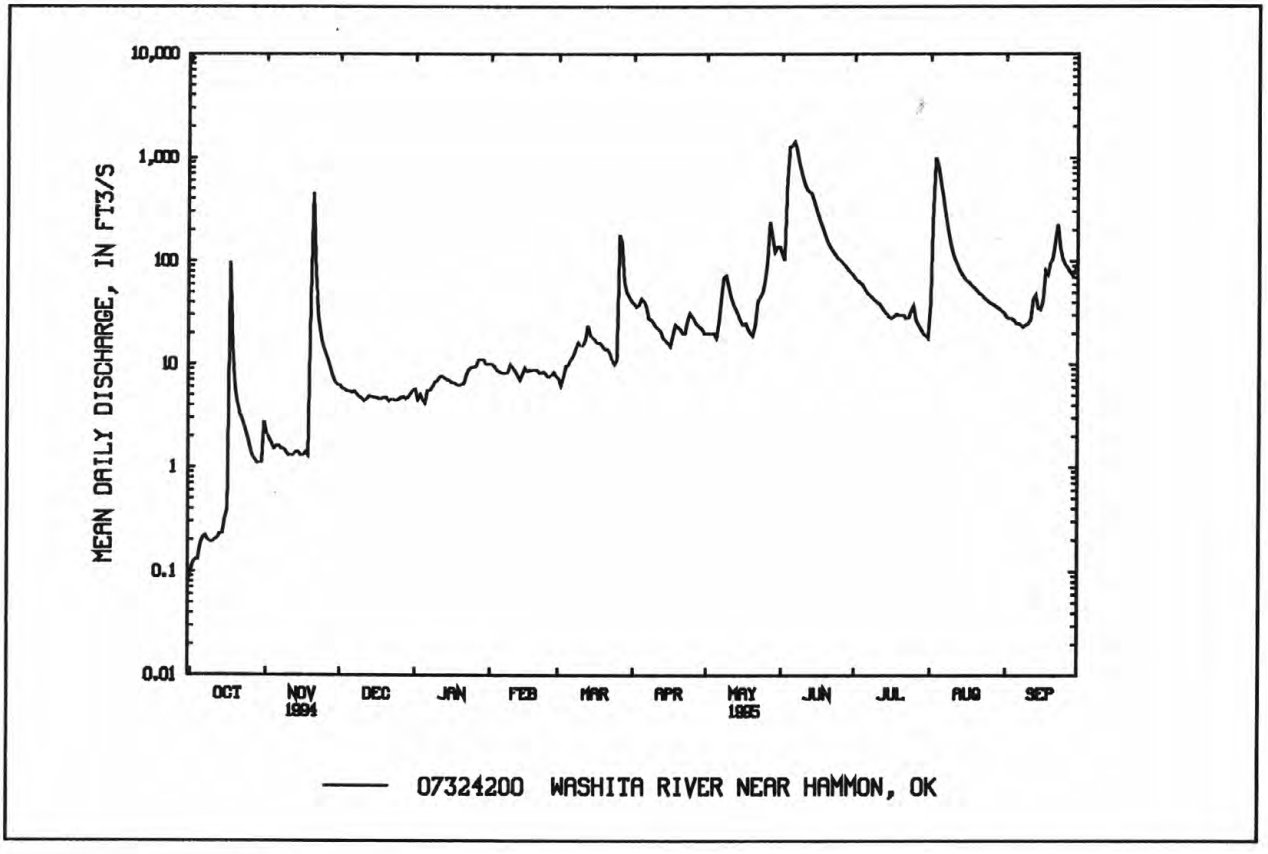
07324200 WASHITA RIVER NEAR HAMMON, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.3	24.7	18.7	24.0	31.3	47.3	58.8	133	114	28.3	20.2	13.2
MAX	384	253	114	130	175	364	292	755	406	138	165	65.8
(WY)	1987	1987	1987	1987	1987	1987	1990	1982	1995	1987	1995	1995
MIN	.000	.000	.000	.000	.000	.000	.000	.012	.001	.028	.000	.001
(WY)	1973	1972	1973	1973	1972	1972	1972	1971	1972	1970	1972	1976

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1970 - 95	
ANNUAL TOTAL	7408.69		25327.45			
ANNUAL MEAN	20.3		69.4		44.9	
HIGHEST ANNUAL MEAN					212	1987
LOWEST ANNUAL MEAN					.49	1972
HIGHEST DAILY MEAN	456	Nov 20	1410	Jun 6	4340	May 17 1982
LOWEST DAILY MEAN	.07	Sep 21	.10	Oct 1	.00	at times
ANNUAL SEVEN-DAY MINIMUM	.08	Sep 19	.16	Oct 1	.00	Jul 13 1970
INSTANTANEOUS PEAK FLOW			1590	Jun 5	[a]6000	May 17 1982
INSTANTANEOUS PEAK STAGE			18.00	Jun 5	23.44	May 17 1982
ANNUAL RUNOFF (AC-FT)	14700		50240		32520	
10 PERCENT EXCEEDS	49		134		91	
50 PERCENT EXCEEDS	9.5		20		15	
90 PERCENT EXCEEDS	.20		1.6		.00	

[a]From rating curve extended above 2,500 ft^3/s on basis of slope-area measurement.



07324300 FOSS RESERVOIR NEAR FOSS, OK

LOCATION.--Lat 35°32'20", long 99°11'09", in S 1/2 sec.2, T.12 N., R.19 W., Custer County, Hydrologic Unit 11130301, near right end of dam on Washita River, 0.5 mi upstream from Oak Creek, 3.5 mi west of Stafford, 6.0 mi north of Foss, and at mile 474.4.

DRAINAGE AREA.--1,496 mi^2.

PERIOD OF RECORD.--February 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to October, 1961, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earth dam. Outlet consists of four 6- by 7-foot, 6-inch high pressure gates and one uncontrolled spillway. Storage began Feb. 13, 1961. Capacity, 436,500 acre-ft, at elevation 1,668.6 ft, crest of drop inlet and 177,900 acre-ft, at elevation 1,642.0 ft, conservation pool. Dead storage, 12,420 acre-ft below elevation 1,597.2 ft, sill of gated outlet. Figures given herein represent total contents. Reservoir is designed for flood control, municipal water supply, and irrigation release. Revised capacity table used after Sept. 30, 1964. U.S. Army Corps of Engineers' telemeter at station.

COOPERATION.--Elevations and data on diversions provided by Foss Reservoir Master Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 217,300 acre-ft, June 18, 1989, elevation, 1,647.35 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 190,100 acre-ft, Aug. 8, 9, elevation, 1,643.74 ft; minimum, 150,700 acre-ft, Mar. 1, 2, elevation, 1,637.74 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)*	Contents (acre-feet)	Change in contents (acre-feet)	Diversions (acre-feet)
Sept. 30	1638.31	154,200	-	-
Oct. 31	1638.11	153,000	-1,200	189
Nov. 30	1638.34	154,400	+1,400	174
Dec. 31	1637.97	152,100	-2,300	192
CAL YR 94	-	-	-7,000	2,484
Jan. 31	1638.10	152,900	+800	186
Feb. 28	1637.70	150,500	-2,400	175
Mar. 31	1638.32	154,300	+3,800	181
Apr. 30	1638.62	156,100	+1,800	175
May 31	1639.61	162,300	+6,200	279
June 30	1642.24	179,600	+17,300	203
July 31	1641.89	177,200	-2,400	285
Aug. 31	1641.63	175,400	-1,800	209
Sept. 30	1641.88	177,100	+1,700	184
WTR YR 95	-	-	+22,900	2,432

* Elevation at 0800 on the following day.

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OK. JUNE 3, 1995. ROAD OVERFLOW NEAR PEAK.

07324400 WASHITA RIVER NEAR FOSS, OK

LOCATION.--Lat 35°32'20", long 99°10'10", in SW 1/4 SW 1/4 sec.1, T.12 N., R.19 W., Custer County, Hydrologic Unit 11130302, on right bank at downstream side county road bridge, 0.4 mi downstream from Oak Creek, 0.9 mi downstream from Foss Dam, 2.5 mi west of Stafford, 6.0 mi north of Foss, and at mile 473.5.

DRAINAGE AREA.--1,551 mi^2.

PERIOD OF RECORD.--March 1956 to April 1957, February to December 1958, July 1961 to September 1987, October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft above sea level, from topographic map.

REMARKS.--Records fair. Flow completely regulated since 1961 by Foss Reservoir (station 07324300), except for 55 mi^2 intervening area.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1959 reached a stage of 23.4 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	4.3	4.6	4.8	4.8	e4.7	4.9	5.1	e11	363	73	148
2	4.1	4.4	4.9	4.6	5.0	e5.4	5.0	5.1	e10	363	549	148
3	4.4	4.6	4.8	4.8	4.9	e5.0	5.4	5.1	e300	365	726	148
4	4.3	4.7	4.9	5.1	4.9	e4.8	5.1	5.1	e700	365	334	150
5	4.1	4.7	4.9	5.1	4.6	e4.8	5.1	5.3	e500	364	313	73
6	4.1	4.7	4.5	5.2	4.3	e4.7	5.2	11	370	365	292	14
7	4.3	4.6	4.4	5.1	4.2	e5.0	5.3	31	311	366	271	13
8	4.3	4.9	4.6	5.0	4.2	e4.8	5.3	36	288	364	198	13
9	4.4	4.8	4.1	4.9	4.2	e4.7	5.1	12	274	361	400	12
10	4.2	5.0	4.5	4.8	4.4	e4.7	5.0	8.5	253	359	496	13
11	4.3	4.9	4.0	4.7	4.8	e4.6	4.6	7.7	230	231	479	13
12	4.2	5.0	4.0	4.7	4.7	e4.6	4.9	7.2	214	50	464	18
13	4.0	5.3	3.9	4.8	e4.4	e5.0	4.9	6.8	182	10	454	12
14	3.9	5.1	4.1	4.8	e4.5	e5.8	5.0	6.0	131	9.7	441	12
15	4.2	5.2	4.0	4.9	e4.5	e5.4	5.1	6.2	142	9.9	434	15
16	4.1	5.4	4.2	4.8	e4.6	5.2	5.9	6.7	234	9.4	429	65
17	4.3	5.4	4.3	5.2	e4.6	4.9	7.2	6.9	222	8.0	422	248
18	4.2	5.4	4.1	4.8	e4.7	4.9	5.9	6.7	215	7.8	420	e110
19	4.2	61	4.1	4.8	4.7	4.9	5.3	6.4	274	8.0	419	e200
20	4.1	121	4.4	4.8	4.4	4.9	5.4	6.4	383	7.7	416	e120
21	4.2	17	4.6	4.7	4.5	4.9	5.0	9.4	380	7.7	413	e275
22	4.4	11	4.8	5.2	4.5	4.8	5.9	7.9	380	7.8	412	e160
23	4.5	8.7	5.1	5.2	4.6	4.8	5.6	6.9	381	8.0	412	e100
24	4.5	7.4	4.6	5.2	4.4	4.6	5.5	9.2	381	12	411	e80
25	4.2	6.5	4.6	5.1	4.5	4.9	5.3	20	373	8.3	412	e65
26	4.5	5.7	4.7	4.9	4.7	4.9	5.3	e50	371	7.9	412	e150
27	4.5	5.3	4.8	4.9	e4.7	4.8	5.1	e60	368	7.9	409	e310
28	4.5	4.8	4.9	5.0	e4.6	4.8	4.9	e25	369	7.5	407	e350
29	4.6	4.8	5.0	4.8	---	4.9	5.2	e15	366	7.5	406	e352
30	4.4	4.6	5.2	4.6	---	4.9	5.1	e13	365	7.3	407	e348
31	4.9	---	5.1	4.6	---	4.9	---	e12	---	7.0	241	---
TOTAL	133.5	346.2	140.7	151.9	127.9	152.0	158.5	419.6	8978	4075.4	12372	3735
MEAN	4.31	11.5	4.54	4.90	4.57	4.90	5.28	13.5	299	131	399	124
MAX	4.9	121	5.2	5.2	5.0	5.8	7.2	60	700	366	726	352
MIN	3.9	4.3	3.9	4.6	4.2	4.6	4.6	5.1	10	7.0	73	12
AC-FT	265	687	279	301	254	301	314	832	17810	8080	24540	7410

e Estimated

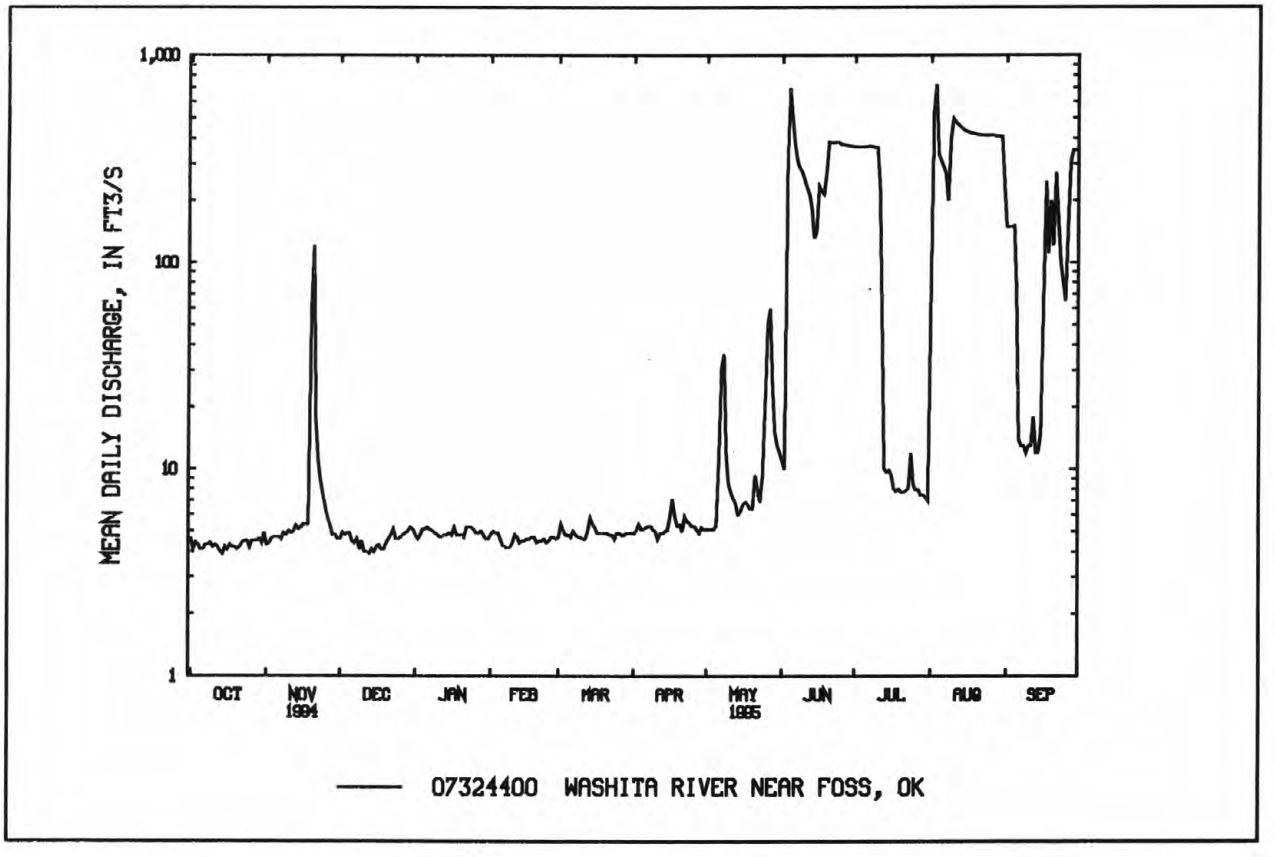
07324400 WASHITA RIVER NEAR FOSS, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.3	16.1	8.74	17.3	18.4	24.3	32.0	70.1	125	48.9	37.6	13.3
MAX	309	218	75.3	215	128	236	316	447	763	343	399	124
(WY)	1978	1987	1987	1987	1993	1987	1987	1982	1982	1987	1995	1995
MIN	.15	.28	.36	.56	.60	.57	1.62	1.08	1.28	2.27	3.12	.46
(WY)	1968	1968	1968	1968	1968	1968	1967	1967	1966	1967	1973	1966

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	2045.8		30790.7			
ANNUAL MEAN	5.60		84.4		36.5	
HIGHEST ANNUAL MEAN					233	1987
LOWEST ANNUAL MEAN					3.87	1963
HIGHEST DAILY MEAN	121	Nov 20	726	Aug 3	1300	Jun 11 1983
LOWEST DAILY MEAN	2.9	Jul 22	3.9	Oct 14	[a].06	Oct 2 1967
ANNUAL SEVEN-DAY MINIMUM	3.7	Jul 22	4.1	Dec 11	.08	Sep 28 1967
INSTANTANEOUS PEAK FLOW			1360	Aug 2	[b]3010	Aug 26 1969
INSTANTANEOUS PEAK STAGE			20.01	Aug 2	21.56	Oct 3 1986
ANNUAL RUNOFF (AC-FT)	4060		61070		26440	
10 PERCENT EXCEEDS	6.1		367		65	
50 PERCENT EXCEEDS	4.7		5.2		6.6	
90 PERCENT EXCEEDS	4.0		4.4		1.6	

[a]Minimum daily discharge for period of record, no flow at times in 1956.
[b]Maximum discharge for period of record 14,000 ft^3/s, Apr. 19, 1957, from rating curve extended above 3,600 ft^3/s, on basis of velocity-area study.



07325000 WASHITA RIVER NEAR CLINTON, OK

LOCATION.--Lat 35°31'51", long 98°58'00", in SW 1/4 NE 1/4 sec.11, T.12 N., R.17 W., Custer County, Hydrologic Unit 11130302, on downstream side of pier of bridge on U.S. Highway 183, 0.5 mi north of Clinton, 0.8 mi upstream from Beaver Creek, 4.8 mi downstream from Barnitz Creek, and at mile 447.4.

DRAINAGE AREA.--1,977 mi^2.

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

REVISED RECORDS.--WSP 1221: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,467.44 ft above sea level. See WSP 1920 for history of changes prior to Mar. 19, 1941.

REMARKS.--Records good. Flow regulated since February 1961 by Foss Reservoir (station 07324300) and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 3-4, 1934, reached a stage of 33.9 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	14	32	25	30	e24	36	32	154	448	346	267
2	5.5	18	31	25	30	e23	34	32	115	440	1140	246
3	5.8	14	29	e24	29	e24	35	32	1520	436	5020	236
4	5.3	13	28	e22	28	29	35	32	3270	431	4300	228
5	5.7	13	27	e22	27	31	36	31	3450	421	2290	222
6	5.7	13	27	e24	27	35	34	54	3000	417	1640	116
7	5.9	12	28	e24	26	36	37	146	1810	412	1430	93
8	6.2	12	28	e27	25	39	36	437	1370	405	1240	86
9	6.2	12	27	27	25	39	34	165	1220	399	1120	84
10	6.2	12	26	26	25	37	31	91	1050	395	1150	83
11	6.3	12	25	26	25	35	30	69	953	387	1010	82
12	6.2	12	25	26	25	34	29	58	805	187	935	121
13	6.1	12	25	26	24	38	28	52	691	90	866	133
14	6.2	12	25	25	25	59	26	46	590	71	800	97
15	7.1	12	25	25	25	64	25	41	474	66	734	122
16	7.5	12	25	25	26	58	24	40	493	75	668	245
17	241	12	25	25	26	50	28	39	473	62	624	764
18	174	12	24	25	25	45	55	37	424	60	601	503
19	72	236	25	24	25	39	51	35	397	59	582	638
20	63	879	24	24	25	36	42	32	496	56	567	510
21	51	302	24	24	25	35	40	36	517	52	560	772
22	34	129	24	26	25	35	38	39	505	50	550	960
23	21	91	24	28	25	32	44	37	493	57	543	543
24	18	68	25	31	25	29	56	47	486	77	543	385
25	16	59	24	32	25	52	47	73	479	70	537	341
26	16	54	24	33	25	53	40	125	468	55	531	317
27	15	47	24	36	25	41	37	1300	459	48	527	545
28	13	41	24	40	25	37	34	624	453	44	521	578
29	13	38	25	36	---	37	32	371	458	43	514	573
30	13	34	25	33	---	38	31	240	455	41	509	584
31	12	---	25	31	---	37	---	205	---	40	484	---
TOTAL	869.3	2207	799	847	723	1201	1085	4598	27528	5894	32882	10474
MEAN	28.0	73.6	25.8	27.3	25.8	38.7	36.2	148	918	190	1061	349
MAX	241	879	32	40	30	64	56	1300	3450	448	5020	960
MIN	5.3	12	24	22	24	23	24	31	115	40	346	82
AC-FT	1720	4380	1580	1680	1430	2380	2150	9120	54600	11690	65220	20780

e Estimated

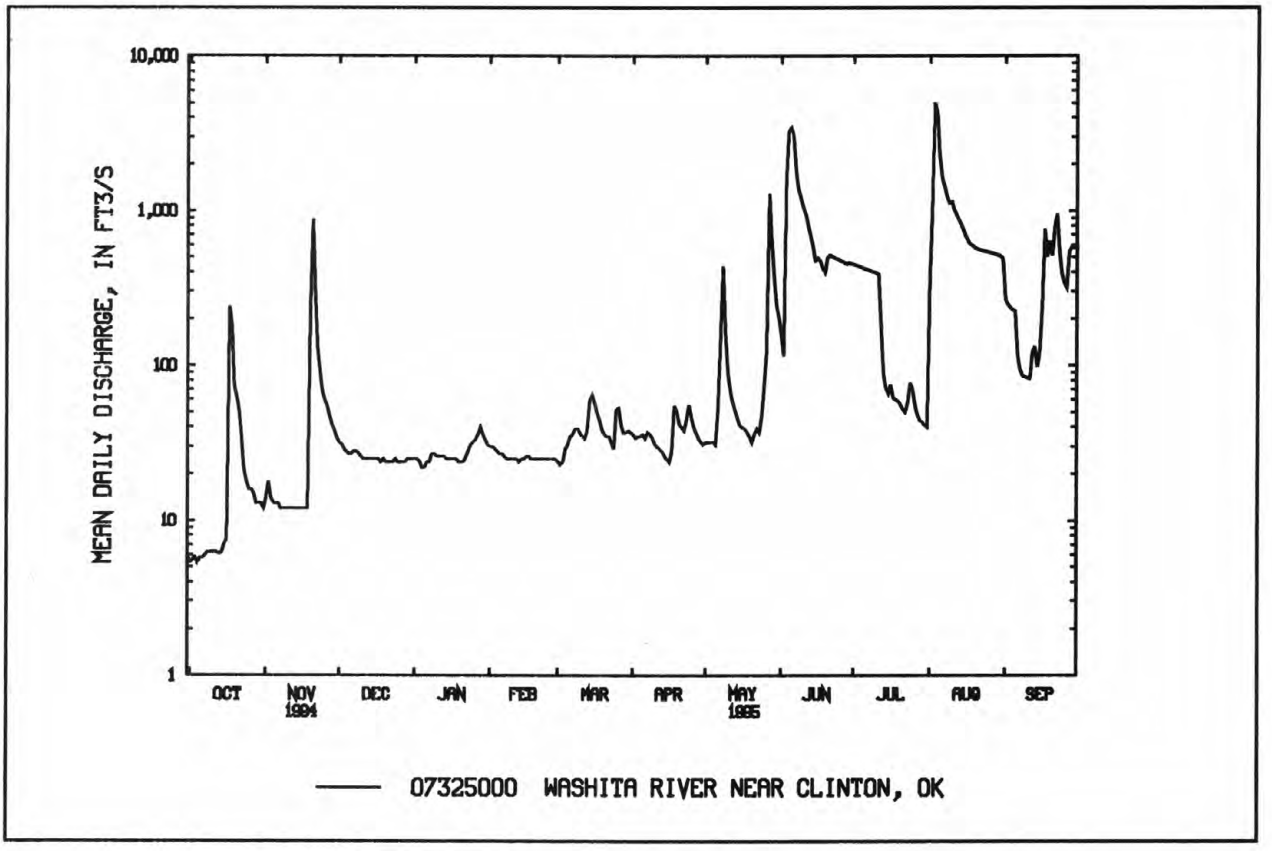
07325000 WASHITA RIVER NEAR CLINTON, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	81.8	59.5	36.8	48.6	55.8	72.9	79.0	189	242	101	92.5	79.8
MAX	1477	494	212	300	335	418	406	1175	1169	705	1061	349
(WY)	1987	1987	1987	1987	1988	1987	1987	1982	1989	1989	1995	1995
MIN	3.30	4.23	5.68	4.78	7.00	6.24	9.64	4.10	4.44	6.42	6.01	5.87
(WY)	1967	1964	1964	1971	1967	1968	1971	1967	1966	1966	1965	1964

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	13440.4		89107.3			
ANNUAL MEAN	36.8		244		[a]95.0	
HIGHEST ANNUAL MEAN					504	1987
LOWEST ANNUAL MEAN					13.8	1967
HIGHEST DAILY MEAN	879	Nov 20	5020	Aug 3	7710	Oct 3 1986
LOWEST DAILY MEAN	4.8	Aug 28	5.3	Oct 4	[b].00	Jul 26 1964
ANNUAL SEVEN-DAY MINIMUM	5.2	Aug 24	5.6	Oct 1	.04	Jul 23 1964
INSTANTANEOUS PEAK FLOW			9100	Aug 3	[c]10600	Oct 3 1986
INSTANTANEOUS PEAK STAGE			25.43	Aug 3	[d]25.93	Oct 3 1986
ANNUAL RUNOFF (AC-FT)	26660		176700		68800	
10 PERCENT EXCEEDS	59		586		223	
50 PERCENT EXCEEDS	29		37		27	
90 PERCENT EXCEEDS	6.4		14		7.3	

[a]Prior to regulation, water years 1936-60, 146 ft^3/s.
[b]Also occurred at times in 1952-56, 1964, 1966.
[c]Maximum discharge for period of record, 66,800 ft^3/s, May 16, 1951, from rating curve extended above 22,800 ft^3/s, by contracted-opening measurement of peak flow.
[d]Maximum gage height for period of record, 31.09 ft, May 16, 1951.



07325500 WASHITA RIVER AT CARNEGIE, OK

LOCATION.--Lat 35°07'02", long 98°33'49", in NW 1/4 NW 1/4 sec.3, T.7 N., R.13 W., Caddo County, Hydrologic Unit 11130302, on downstream side of right pier of bridge on State Highway 9, 1,300 ft upstream from Running Creek, 2.7 mi east of Carnegie, and at mile 353.9. Records include flow of Running Creek.

DRAINAGE AREA.--3,129 mi^2, includes that of Running Creek.

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

REVISED RECORDS.--WSP 1087: 1938. WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,244.23 ft above sea level. Prior to October 1942, water-stage recorder at site 8.0 mi upstream at datum 24.57 ft higher. Prior to Aug. 7, 1985, datum 5.00 ft higher.

REMARKS.--Records good. Some diversion for irrigation upstream from station. October 1942 to May 1949, occasional fluctuation caused by powerplant at Carnegie, 7.5 mi upstream from station. Flow regulated by Foss Reservoir since February 1961 (station 07324300), and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1903, reached a stage of about 29 ft, at former site and datum, from information provided by local resident; flood of May 18, 1949, reached a stage of 20.9 ft, from floodmark, at that site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	84	295	e138	137	107	171	158	1640	757	177	627
2	40	82	273	e137	133	108	165	154	1150	711	677	596
3	39	81	260	e135	139	108	161	150	926	684	2460	465
4	39	78	251	136	130	111	161	150	14300	659	4640	426
5	105	89	244	133	124	114	164	149	28500	634	5450	409
6	61	92	232	134	122	117	165	269	16300	615	5380	398
7	46	94	209	134	120	119	158	713	12600	593	5240	384
8	46	92	e174	134	118	120	155	1040	10500	571	3770	333
9	46	101	156	136	116	119	151	1380	10000	554	2710	286
10	45	109	160	133	115	119	153	987	9280	539	2290	277
11	45	110	158	135	114	119	151	595	7370	528	2090	278
12	46	92	153	134	114	134	146	427	5560	514	1950	286
13	45	89	148	133	114	315	142	317	4250	494	1730	326
14	45	84	146	131	116	388	139	255	3560	383	1540	426
15	50	86	146	129	116	600	136	223	3050	302	1360	377
16	53	101	146	127	119	581	135	203	2670	275	1230	1020
17	57	95	149	125	119	432	153	190	2280	327	1120	1370
18	826	86	146	124	117	334	341	181	2020	293	1000	1550
19	669	118	143	122	116	288	353	170	1700	267	923	3130
20	367	3400	137	120	116	233	232	163	1440	253	876	3400
21	200	5830	141	119	115	202	213	162	1300	247	827	2300
22	183	4420	e139	126	112	184	210	166	1300	235	796	2410
23	194	1790	e138	130	108	173	274	169	1210	229	769	2730
24	150	1140	e140	133	108	165	341	264	1210	231	746	1780
25	142	830	e139	136	107	161	263	456	1100	265	730	1410
26	112	644	e138	141	106	226	225	2960	1020	239	709	1820
27	98	522	e135	146	108	401	203	5000	976	227	693	1650
28	90	435	e137	147	109	310	180	5720	926	203	686	1230
29	87	364	e138	149	---	218	169	4600	856	188	676	1200
30	86	316	e140	147	---	189	162	2390	828	176	660	1150
31	84	---	e140	143	---	178	---	1870	---	170	643	---
TOTAL	4136	21454	5251	4147	3288	6973	5772	31631	149822	12363	54548	34044
MEAN	133	715	169	134	117	225	192	1020	4994	399	1760	1135
MAX	826	5830	295	149	139	600	353	5720	28500	757	5450	3400
MIN	39	78	135	119	106	107	135	149	828	170	177	277
AC-FT	8200	42550	10420	8230	6520	13830	11450	62740	297200	24520	108200	67530

e Estimated

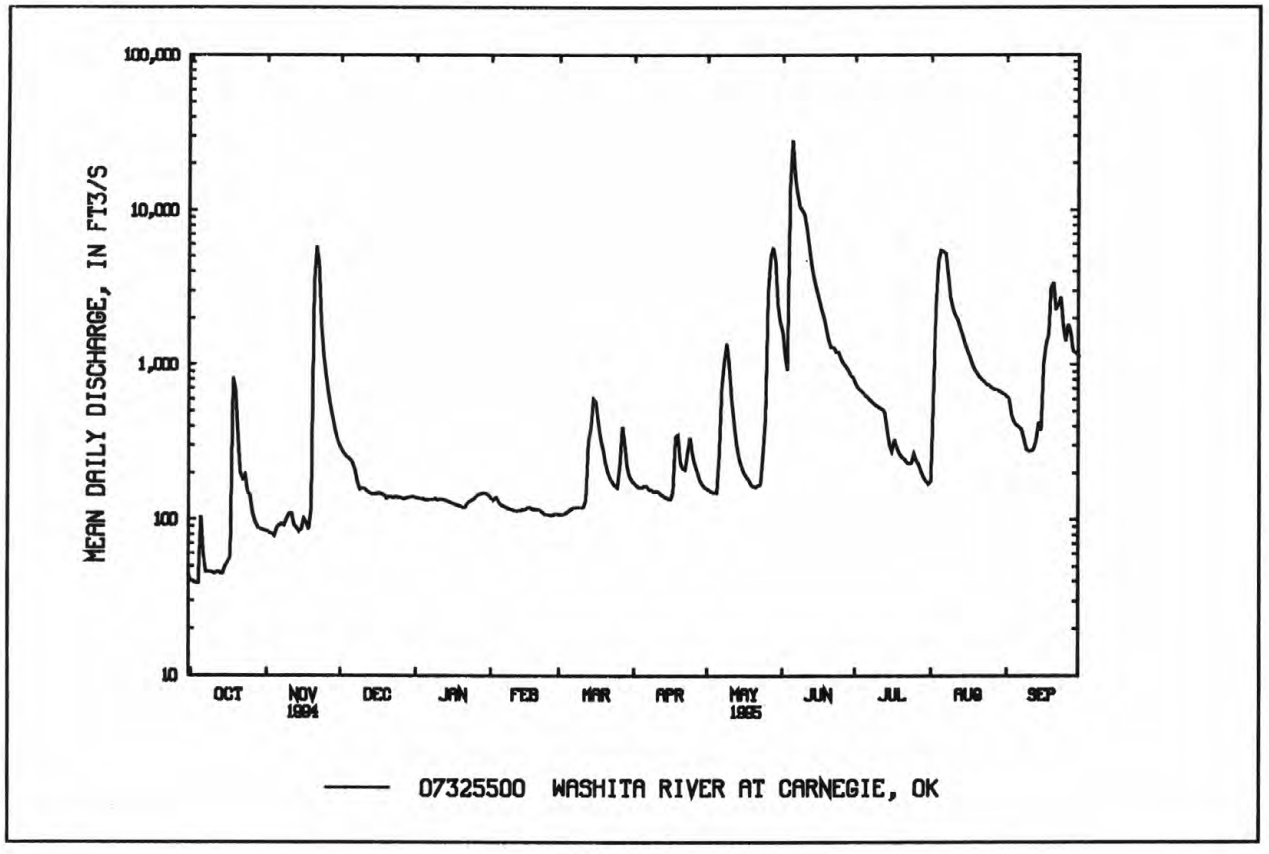
07325500 WASHITA RIVER AT CARNEGIE, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	404	272	187	178	185	301	294	802	844	261	216	326
MAX	5311	1471	1032	713	853	1680	1270	5356	4994	1150	1760	1588
(WY)	1987	1987	1993	1988	1987	1988	1973	1993	1995	1975	1995	1965
MIN	21.8	27.3	33.6	36.0	36.6	34.2	11.1	10.0	94.0	7.10	14.6	15.6
(WY)	1973	1971	1964	1971	1971	1971	1971	1971	1984	1964	1972	1984

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	82250		333429			
ANNUAL MEAN	225		914		[a]356	
HIGHEST ANNUAL MEAN					1432	1987
LOWEST ANNUAL MEAN					72.8	1967
HIGHEST DAILY MEAN	5830	Nov 21	28500	Jun 5	28500	Jun 5 1995
LOWEST DAILY MEAN	29	Aug 29	39	Oct 3,4	[b].00	Jul 20 1964
ANNUAL SEVEN-DAY MINIMUM	35	Aug 26	45	Oct 8	.00	Jul 20 1964
INSTANTANEOUS PEAK FLOW			40200	Jun 5	[c]40600	Oct 20 1983
INSTANTANEOUS PEAK STAGE			31.50	Jun 5	31.70	Oct 20 1983
INSTANTANEOUS LOW FLOW			.00	Jul 20 1964		
ANNUAL RUNOFF (AC-FT)	163100		661400		258000	
10 PERCENT EXCEEDS	358		2050		739	
50 PERCENT EXCEEDS	139		194		125	
90 PERCENT EXCEEDS	47		101		34	

[a]Prior to regulation, water years 1938-60, 314 ft^3/s.
[b]Also occurred at times 1956 and 1964.
[c]Maximum discharge for period of record, 50,000 ft^3/s, May 18, 1949, from rating curve extended above 35,000 ft^3/s on basis of contracted-opening measurement.



07325800 COBB CREEK NEAR EAKLY, OK

LOCATION.--Lat 35°17'26", long 98°35'38", in NW 1/4 NE 1/4 sec.5, T.9 N., R.13 W., Caddo County, Hydrologic Unit 11130302, near left downstream abutment of bridge, on State Highway 152, 0.5 mi downstream from Fivemile Creek, 2.4 mi southwest of Eakly, 3.0 mi upstream from Fort Cobb Reservoir, and at mile 22.9.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,369.70 ft above sea level. Oct. 29, 1980, to Aug. 11, 1982, gage at site 0.5 mi downstream at same datum.

REMARKS.--Records fair. Flow regulated since 1957 by numerous floodwater-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	16	26	22	22	17	e23	19	74	42	156	13
2	8.3	15	25	22	20	17	e22	19	47	38	e430	13
3	8.2	15	25	21	18	18	e23	19	43	35	880	13
4	9.2	15	25	21	19	20	e25	18	2850	29	263	12
5	9.5	19	24	21	18	20	e22	18	1520	28	127	12
6	9.9	19	23	22	18	20	e22	256	545	27	73	11
7	10	17	25	22	18	21	e21	127	389	26	53	11
8	11	16	25	21	17	19	e21	140	352	25	42	12
9	11	15	25	21	17	17	e19	57	384	24	36	12
10	11	16	25	22	17	17	21	44	328	22	32	13
11	11	16	24	22	17	17	22	38	295	20	29	14
12	11	15	24	22	17	20	19	35	278	19	25	18
13	11	16	23	22	16	41	18	33	267	17	23	18
14	13	19	24	21	17	e72	18	31	253	16	23	17
15	12	18	24	21	18	e55	18	29	216	13	23	21
16	14	17	24	21	18	e41	18	29	132	16	25	70
17	99	17	24	22	17	e33	25	28	101	25	24	88
18	218	17	23	22	17	e30	26	27	81	17	23	492
19	103	153	23	21	17	e28	22	26	67	17	23	275
20	50	1040	23	20	17	e25	21	25	54	18	23	69
21	35	303	23	20	17	e24	20	27	48	17	24	151
22	26	e205	23	22	17	e23	27	27	e39	36	21	90
23	21	145	23	25	17	e21	34	25	e41	26	17	56
24	18	101	23	24	17	e22	25	33	e45	87	17	47
25	17	71	23	24	17	e24	22	35	e51	30	16	68
26	16	51	22	23	17	e26	21	174	e48	22	15	56
27	15	42	22	26	17	e30	20	439	e48	18	15	45
28	15	37	22	24	17	e28	19	102	e49	15	15	41
29	15	32	23	23	---	e26	18	61	48	12	14	39
30	15	29	23	23	---	e23	18	47	48	10	14	46
31	15	---	23	22	---	e22	---	167	---	10	13	---
TOTAL	846.4	2507	734	685	491	817	650	2155	8741	757	2514	1843
MEAN	27.3	83.6	23.7	22.1	17.5	26.4	21.7	69.5	291	24.4	81.1	61.4
MAX	218	1040	26	26	22	72	34	439	2850	87	880	492
MIN	8.2	15	22	20	16	17	18	18	39	10	13	11
AC-FT	1680	4970	1460	1360	974	1620	1290	4270	17340	1500	4990	3660

c Estimated

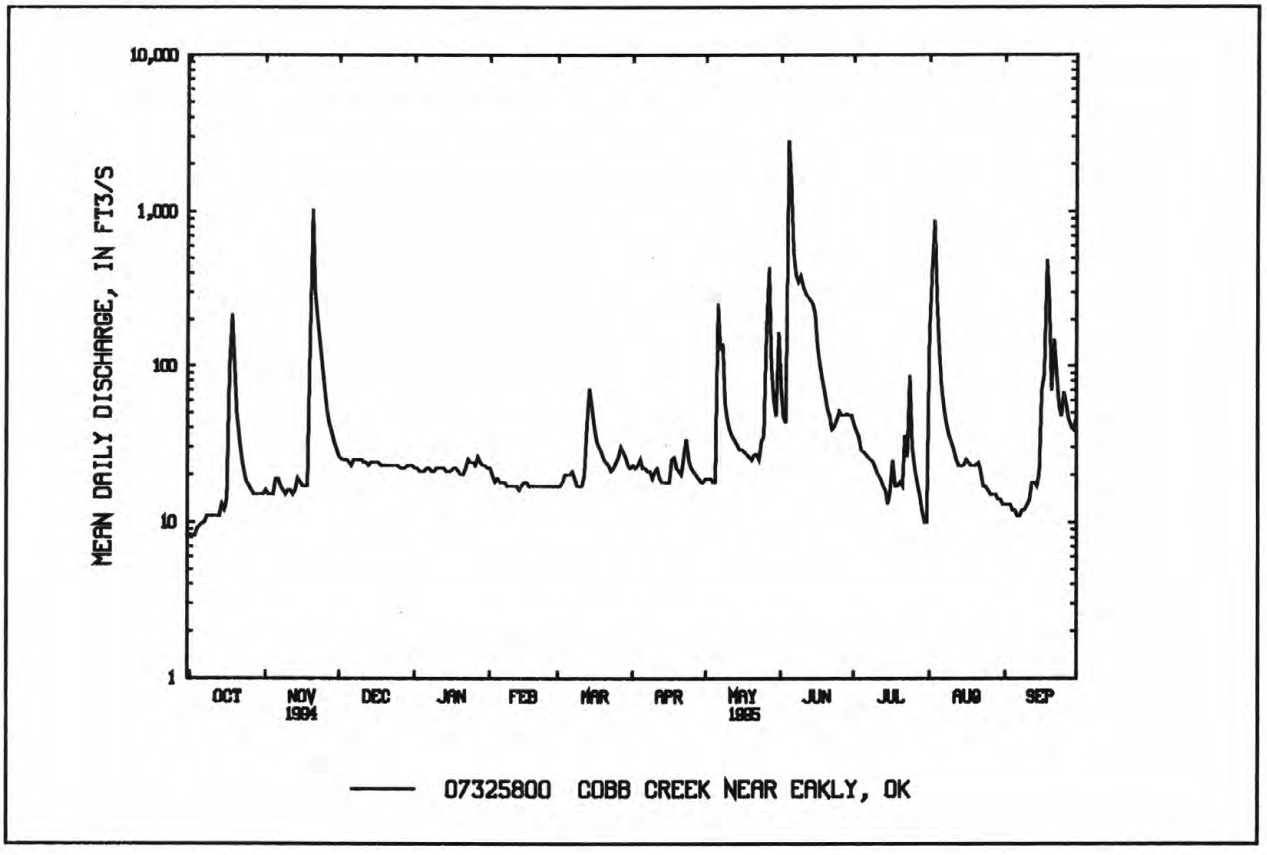
07325800 COBB CREEK NEAR EAKLY, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.6	26.0	21.5	19.3	18.4	27.5	23.6	62.5	51.2	14.8	16.8	22.0
MAX	317	104	84.9	50.2	39.5	112	84.2	303	291	85.1	86.0	161
(WY)	1987	1993	1993	1993	1993	1973	1973	1993	1995	1975	1974	1986
MIN	4.34	6.11	4.88	8.78	8.99	8.38	5.27	2.79	7.84	1.01	.90	2.15
(WY)	1973	1979	1979	1981	1981	1971	1971	1971	1984	1974	1972	1972

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1969 - 95	
ANNUAL TOTAL	11446.3		22740.4			
ANNUAL MEAN	31.4		62.3		27.8	
HIGHEST ANNUAL MEAN					91.0	1987
LOWEST ANNUAL MEAN					10.1	1979
HIGHEST DAILY MEAN	1040	Nov 20	2850	Jun 4	3750	Sep 29 1986
LOWEST DAILY MEAN	5.7	Aug 30	8.2	Oct 3	[a].00	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	6.6	Aug 24	9.1	Oct 1	.04	May 24 1971
INSTANTANEOUS PEAK FLOW			12000	Jun 4	12000	Jun 4 1995
INSTANTANEOUS PEAK STAGE			22.05	Jun 4	24.38	Sep 29 1986
ANNUAL RUNOFF (AC-FT)	22700		45110		20150	
10 PERCENT EXCEEDS	43		101		35	
50 PERCENT EXCEEDS	23		23		13	
90 PERCENT EXCEEDS	8.5		15		4.4	

[a]No flow Aug. 18-19, 1970, and May 26-30, 1971.



07325900 FORT COBB RESERVOIR NEAR FORT COBB, OK

LOCATION.--Lat 35°09'58", long 98°27'23", in SE 1/4 NW 1/4 sec.22, T.8 N., R.12 W., Caddo County, Hydrologic Unit 11130302, in control house at right center of dam on Cobb Creek, 4.0 mi northwest of Fort Cobb, and at mile 7.5.

DRAINAGE AREA.--304 mi^2.

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by U.S. Bureau of Reclamation). Prior to October, 1961, nonrecording gage at same datum.

REMARKS.--Reservoir is formed by earth dam. Outlet consists of two sets of controlled 5- by 5-foot steel gates and an uncontrolled concrete spillway. Storage began Mar. 30, 1959. Conservation pool was first filled in June 1962. Capacity, 143,700 acre-ft at elevation 1,354.8 ft, crest of drop inlet, 80,010 acre-ft at elevation 1,342.0 ft, conservation pool, and 1,664 acre-ft at elevation 1,300.0 ft, crest of gated outlet. Figures given herein represent total contents. Reservoir is used for flood control, for municipal and industrial water supply, and for irrigation releases. Revised capacity table used since May 1993. U.S. Army Corps of Engineers' satellite telemeter at station.

COOPERATION.--Elevations and data on diversions provided by Fort Cobb Reservoir Master Conservancy District.

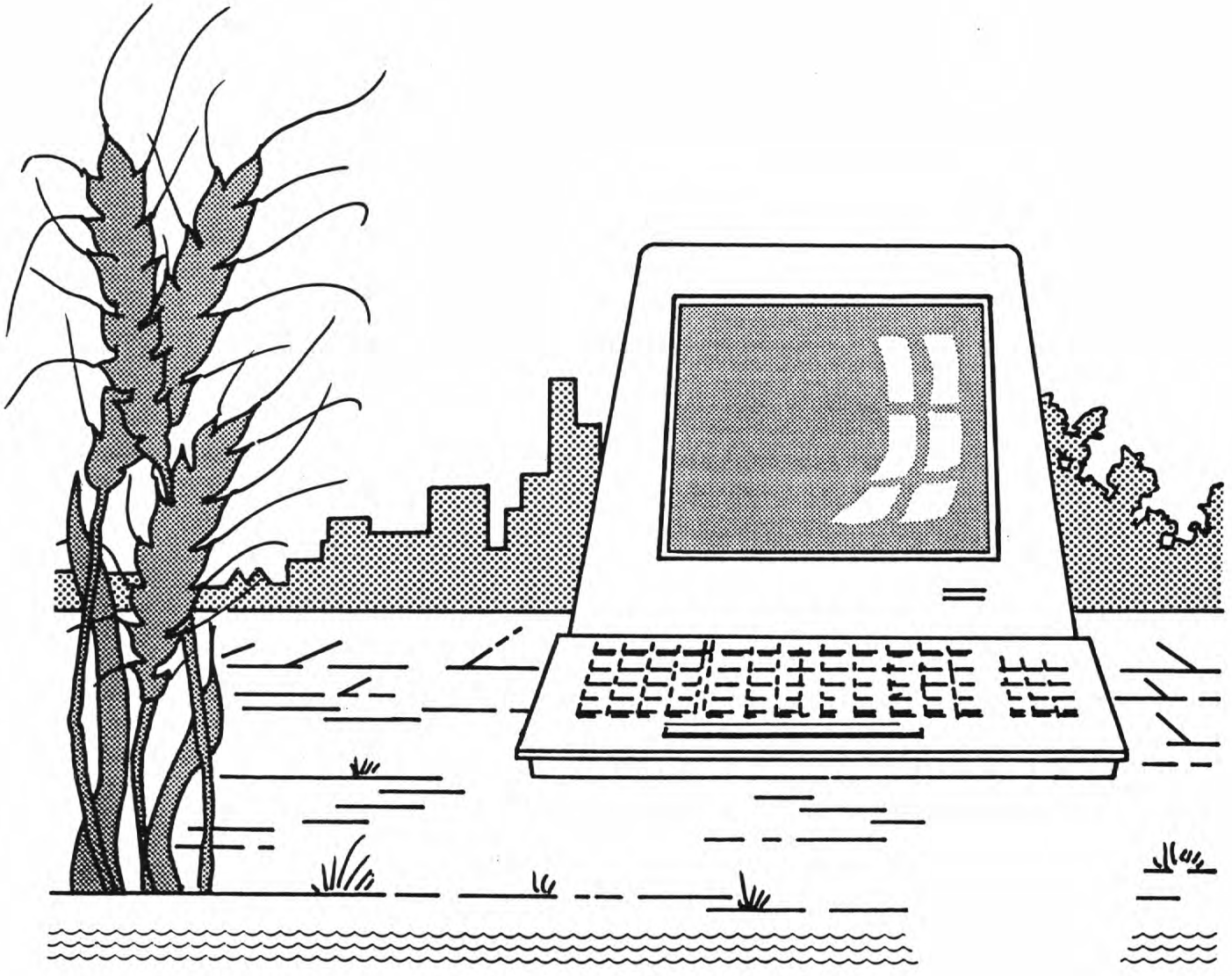
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 121,400 acre-ft, June 13, 1995, elevation, 1,352.25 ft; minimum since conservation pool was first filled, 54,650 acre-ft, Oct. 19, 1972, elevation 1,335.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 121,400 acre-ft, June 13, elevation, 1,352.25 ft; minimum, 66,920 acre-ft, Nov. 2, elevation 1,340.10 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

Date	Elevation (feet)*	Contents (acre-feet)	Change in contents (acre-feet)	Diversions (acre-feet)
Sept. 30	1,340.49	73,990	-	-
Oct. 31	1,341.13	72,590	-1,400	1,015
Nov. 30	1,342.58	76,090	+3,500	1,275
Dec. 31	1,342.13	74,340	-1,750	4,025
CAL YR 94	-	-	-5,710	14,013
Jan. 31	1,342.01	73,870	-470	3,146
Feb. 28	1,341.96	73,680	-190	2,201
Mar. 31	1,342.03	73,950	+270	5,706
Apr. 30	1,342.14	74,380	+430	2,198
May 31	1,343.94	81,550	+7,170	7,209
June 30	1,345.80	89,560	+8,010	39,267
July 31	1,342.52	75,860	-13,700	14,718
Aug. 31	1,342.14	74,380	-1,480	11,000
Sept. 30	1,342.07	74,100	-280	7,127
WTR YR 95	-	-	+110	98,887

* Elevation at 2400



07326000 COBB CREEK NEAR FORT COBB, OK

LOCATION.--(REVISED) Lat 35°08'37", long 98°26'33", in NE 1/4 NE 1/4 sec.27, T.8 N., R.12 W., Caddo County, Hydrologic Unit 11130302, on left bank 10 ft upstream from county road bridge, 0.3 mi upstream from Punjo Creek, 1.2 mi downstream from Fort Cobb Dam, 3.0 mi north of Fort Cobb, and at mile 5.8.

DRAINAGE AREA.--307 mi^2. Area at site used prior to Oct. 1, 1969, 319 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1960, published as Pond Creek near Fort Cobb.

REVISED RECORDS.--WSP 1087: 1938. WDR OK-94-2: 1993 (M) drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,254.49 ft above sea level (levels by U.S. Bureau of Reclamation). Oct.1, 1939, to Aug. 29, 1940, nonrecording gage and Aug. 30, 1940, to Sept. 30, 1969, water-stage recorder at site 0.8 mi downstream at datum 1.92 ft lower. Oct. 16, 1969, to Sept. 30, 1982, gage at same site and datum 5.00 ft higher.

REMARKS.--Records poor. Flow regulated since March 1959, by Fort Cobb Reservoir (station 07325900).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 15, 1937, reached a stage of 19.3 ft, site and datum used in 1939, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.5	113	3.1	5.4	22	3.3	2.0	381	1030	7.1	e6.9
2	2.4	2.4	110	3.1	5.3	4.6	3.3	1.9	439	927	e7.0	e6.8
3	2.3	2.4	108	3.1	14	4.5	3.3	1.9	e615	795	e6.8	e6.8
4	2.3	2.5	107	3.1	36	4.1	3.2	86	e233	792	e6.6	e6.7
5	2.4	2.7	106	3.1	36	3.4	3.1	189	e4.5	788	e6.6	e6.7
6	2.1	2.5	105	3.2	36	3.1	3.1	194	e2.8	688	e6.5	6.5
7	2.3	2.4	104	3.3	36	2.9	3.1	150	e2.6	607	e6.4	6.5
8	2.3	2.6	104	3.3	21	2.7	3.0	3.8	e2.6	609	e6.4	6.3
9	2.2	2.7	105	59	4.7	2.5	3.0	2.7	e2.6	612	e85	6.5
10	2.3	2.5	105	187	4.5	2.4	3.0	2.4	e2.6	489	e305	6.8
11	2.3	2.5	105	131	4.4	2.3	2.8	99	e2.5	304	e365	e6.8
12	2.3	2.4	56	79	4.3	2.2	2.8	185	e2.5	249	e400	6.8
13	2.3	2.6	3.4	79	4.3	e2.2	2.8	194	e104	109	e400	6.8
14	2.3	2.6	2.9	42	4.3	e2.2	2.8	194	e285	9.8	e400	6.9
15	2.5	2.5	2.8	5.7	4.3	65	2.8	195	e940	8.3	e399	7.0
16	2.4	2.5	2.7	5.4	4.3	216	2.8	197	1110	7.8	e399	e7.0
17	2.3	2.6	2.5	5.2	4.3	329	3.3	197	1090	7.7	e398	e7.0
18	2.3	2.6	2.5	5.1	4.3	330	131	91	1070	7.1	e398	e7.0
19	2.2	e2.6	49	4.9	4.3	331	264	3.0	1060	6.8	e398	e7.0
20	2.2	e2.6	101	5.0	4.2	237	187	2.7	1050	6.8	e398	e7.0
21	2.3	e2.6	102	5.0	4.2	147	87	2.7	1050	6.7	e270	118
22	2.2	e2.6	54	5.3	37	96	4.8	2.4	1040	6.6	e155	351
23	2.3	e2.6	3.7	5.0	74	48	3.9	2.6	1030	7.1	e8.7	440
24	2.3	e2.5	3.4	5.0	68	47	3.4	2.9	871	6.9	e8.4	441
25	2.3	e2.5	3.3	5.0	39	26	3.1	2.4	1040	6.6	e7.7	444
26	2.3	e2.5	3.3	5.0	39	3.9	2.4	2.4	1030	6.5	e7.4	450
27	2.3	e2.5	3.3	5.0	39	3.7	2.2	e2.4	1030	6.5	e7.1	450
28	2.3	e2.5	3.3	76	38	3.5	2.2	e2.4	1030	6.1	e7.0	450
29	2.3	58	3.3	159	---	3.5	2.1	e2.4	1040	6.1	e6.8	272
30	2.3	120	3.3	77	---	3.5	2.0	201	1040	6.1	e6.8	2.2
31	2.4	---	3.3	5.7	---	3.4	---	389	---	6.2	e6.9	---
TOTAL	71.4	249.0	1581.0	986.6	580.1	1954.6	746.6	2604.0	18600.7	8124.7	4890.2	3554.0
MEAN	2.30	8.30	51.0	31.8	20.7	63.1	24.9	84.0	620	262	158	118
MAX	2.5	120	113	187	74	331	264	389	1110	1030	400	450
MIN	2.1	2.4	2.5	3.1	4.2	2.2	2.0	1.9	2.5	6.1	6.4	2.2
AC-FT	142	494	3140	1960	1150	3880	1480	5170	36890	16120	9700	7050

e Estimated

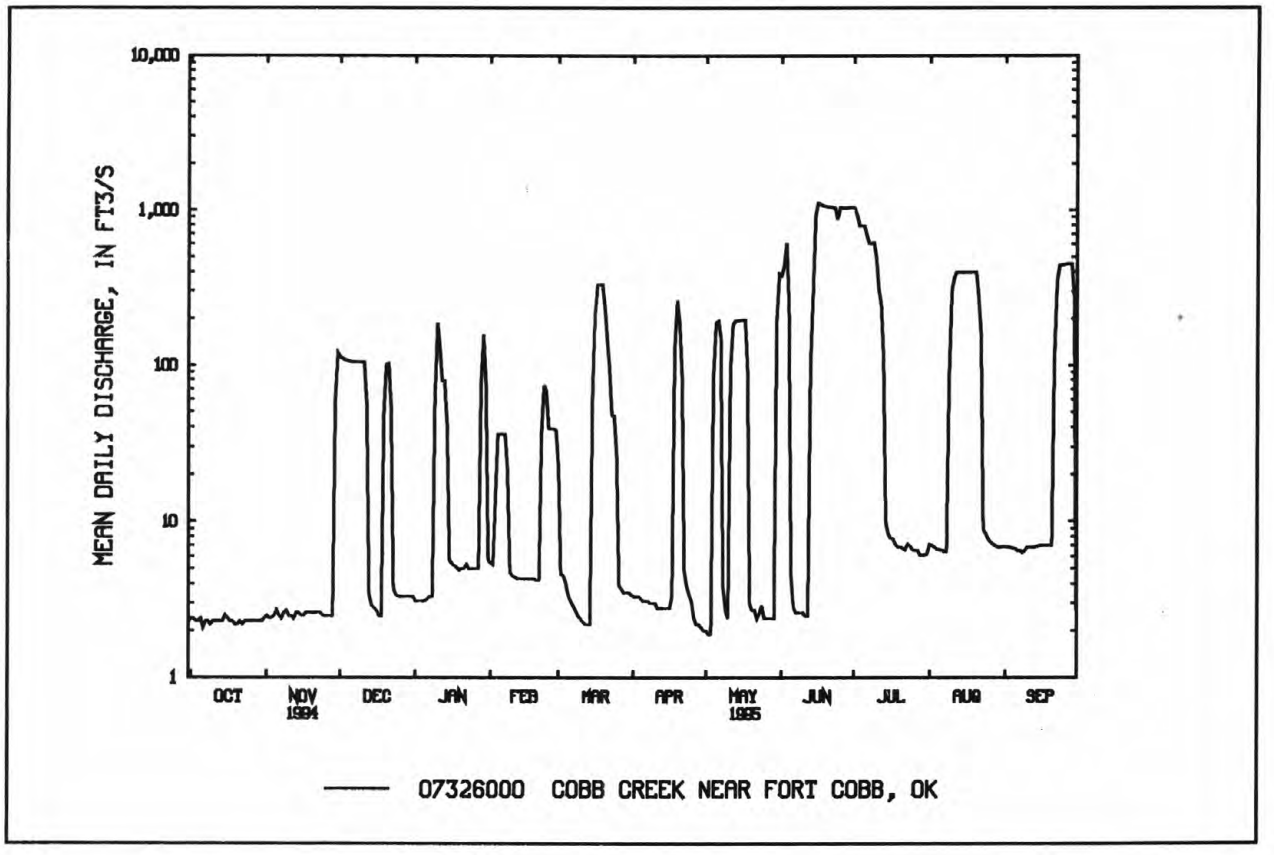
07326000 COBB CREEK NEAR FORT COBB, OK--Conyinued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.5	31.7	21.4	24.9	21.6	35.0	25.9	46.6	131	35.2	19.8	20.8
MAX	345	538	194	139	131	312	169	429	779	262	211	157
(WY)	1987	1987	1993	1969	1975	1990	1990	1993	1987	1995	1975	1965
MIN	1.41	1.62	1.57	1.99	2.14	2.12	2.01	1.50	1.90	.78	1.48	1.60
(WY)	1985	1973	1973	1977	1981	1977	1985	1985	1972	1985	1981	1978

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1963 - 95	
ANNUAL TOTAL	16695.2		43942.9			
ANNUAL MEAN	45.7		120		[a]36.6	
HIGHEST ANNUAL MEAN	176		1987			
LOWEST ANNUAL MEAN	2.34		1981			
HIGHEST DAILY MEAN	666	May 5	1110	Jun 16	1270	Jun 23 1987
LOWEST DAILY MEAN	2.1	Aug 8	1.9	May 2-3	.20	[b]Jul 20 1981
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 7	2.0	Apr 27	.20	Jul 20 1981
INSTANTANEOUS PEAK FLOW			1130	Jun 16	[c]1280	Jun 23 1987
INSTANTANEOUS PEAK STAGE			[d]20.50	Jun 4	[d]20.50	Jun 4 1995
ANNUAL RUNOFF (AC-FT)	33110		87160		26490	
10 PERCENT EXCEEDS	111		400		74	
50 PERCENT EXCEEDS	4.3		6.1		2.9	
90 PERCENT EXCEEDS	2.3		2.3		1.9	

[a]Prior to regulation by Fort Cobb Reservoir, water years 1940-58, 50.2 ft^3/s.
[b]Also occurred Sept. 20, 24-26, 1956.
[c]Maximum discharge for period of record, 35,000 ft^3/s, May 17, 1949, from rating curve extended above 4,300 ft^3/s on basis of contracted opening measurement.
[d]Occurred during backwater from Punjo Creek.



07326500 WASHITA RIVER AT ANADARKO, OK

LOCATION.--Lat 35°05'03", long 98°14'35", in NW 1/4 sec.15, T.7 N., R.10 W., Caddo County, Hydrologic Unit 11130302 on right downstream bank at bridge on U.S. Highway 281 at north edge of Anadarko, 8.1 mi upstream from Sugar Creek, and at mile 305.2.

DRAINAGE AREA.--3,656 mi^2.

PERIOD OF RECORD.--October 1902 to September 1908; June 1924 to June 1925, published as "near Anadarko", October 1935 to February 1938; October 1963 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1903, 1907-08, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,150.00 ft above sea level. October 26, 1902, to June 30, 1908, nonrecording gage at former bridge 125 ft downstream at datum estimated to be 2.8 ft higher. May 25, 1924, to June 30, 1925, nonrecording gage at county road bridge 14 mi downstream at different datum. Jan. 10, 1936, to Mar. 7, 1938, non-recording gage on upstream side of bridge on U.S. Highway 281 at datum 1.88 ft higher. October 1963 to March 1989 gage located 100 ft upstream at same datum.

REMARKS.--Records fair. Flow regulated by low-water dams upstream and since March 1959, by Fort Cobb Reservoir (station 07325900), since February 1961, by Foss Reservoir (station 07324300), and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1949, reached an elevation of 1,176.7 ft, from floodmark, at right bank on downstream side of bridge on U.S. Highway 281.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e67	108	423	e180	179	190	237	228	2340	2090	411	e670
2	e66	107	395	e180	175	187	235	226	1970	1990	654	e650
3	e65	105	377	e175	173	176	232	223	1610	1730	1580	e600
4	64	106	359	e170	177	174	233	222	5040	1600	3690	e530
5	e63	109	346	e170	187	174	232	250	11600	1610	5170	e480
6	69	110	337	165	187	174	230	366	27400	1630	5800	e450
7	108	112	327	165	185	185	237	647	17000	1510	5770	e420
8	91	109	320	164	184	178	237	1010	14000	1440	5490	e395
9	e89	120	314	165	181	175	239	1140	11900	1420	4050	e375
10	e85	119	312	176	173	173	240	1300	11200	1400	3430	e370
11	e83	119	308	249	173	173	241	927	10700	1230	3050	e370
12	e81	128	303	230	172	174	240	703	7760	1080	2860	e365
13	e80	118	281	198	172	215	240	624	5620	e1000	2630	e365
14	e79	113	232	196	173	423	240	540	e4500	e900	2350	e360
15	e78	110	223	188	172	358	241	478	e4000	e800	2090	670
16	e77	108	e218	166	173	585	240	439	e3700	e700	1890	992
17	e76	111	e210	163	173	768	241	412	e3200	e600	1730	1360
18	e75	116	e203	161	176	731	261	391	e2900	499	1640	1570
19	444	119	e197	161	176	652	451	313	e2800	551	1580	1800
20	620	1230	214	161	176	606	605	243	e2700	486	1510	3630
21	356	5110	260	160	179	467	420	238	2600	419	1480	3280
22	212	5830	e250	162	181	363	339	234	2460	361	1330	2550
23	176	3850	e235	165	188	307	288	233	2470	343	1210	3140
24	182	1690	e220	164	207	260	301	254	2280	330	1030	3050
25	164	1070	e210	165	207	254	335	302	2320	292	e1000	2290
26	151	778	e205	167	198	245	291	1100	2340	e285	e980	2040
27	141	609	e200	169	196	244	265	4510	2270	e275	e960	2500
28	123	500	e195	175	193	370	253	5000	2240	e265	e940	2160
29	116	433	e190	194	---	319	241	5390	2250	e255	e930	1820
30	110	415	e190	244	---	260	233	3940	2130	e250	928	1580
31	110	---	e185	220	---	242	---	2650	---	343	e750	---
TOTAL	4301	23662	8239	5568	5086	9802	8318	34533	175300	27684	68913	40832
MEAN	139	789	266	180	182	316	277	1114	5843	893	2223	1361
MAX	620	5830	423	249	207	768	605	5390	27400	2090	5800	3630
MIN	63	105	185	160	172	173	230	222	1610	250	411	360
AC-FT	8530	46930	16340	11040	10090	19440	16500	68500	347700	54910	136700	80990

e Estimated

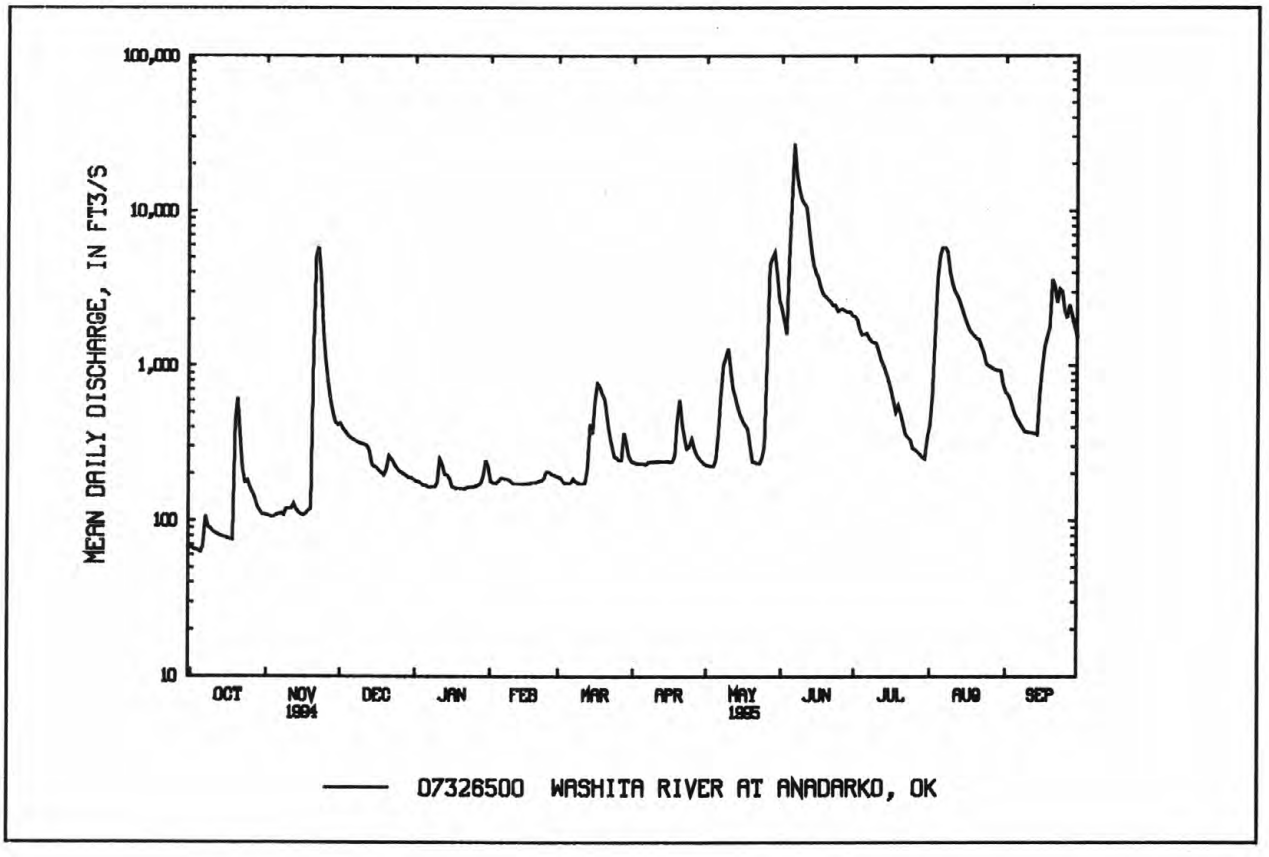
07326500 WASHITA RIVER AT ANADARKO, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	470	341	250	243	247	381	378	903	1096	365	283	360
MAX	5480	2205	1352	955	1089	1903	1471	5601	5843	1459	2223	1450
(WY)	1987	1987	1993	1988	1987	1990	1973	1993	1995	1989	1995	1965
MIN	21.2	37.0	41.6	52.0	55.4	50.6	16.7	9.57	85.7	12.6	19.7	32.2
(WY)	1973	1971	1971	1971	1971	1971	1971	1971	1967	1964	1972	1984

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1964 - 95	
ANNUAL TOTAL	114120		412238			
ANNUAL MEAN	313		1129		[a]443	
HIGHEST ANNUAL MEAN					1788	1987
LOWEST ANNUAL MEAN					72.7	1971
HIGHEST DAILY MEAN	5830	Nov 22	27400	Jun 6	37700	Oct 21 1983
LOWEST DAILY MEAN	63	Oct 5	63	Oct 5	.00	Aug 1 1964
ANNUAL SEVEN-DAY MINIMUM	66	Sep 29	72	Oct 1	.77	Jul 19 1964
INSTANTANEOUS PEAK FLOW			52800	Jun 6	52800	Jun 6 1995
INSTANTANEOUS PEAK STAGE			25.37	Jun 6	25.37	Jun 6 1995
ANNUAL RUNOFF (AC-FT)	226400		817700		321300	
10 PERCENT EXCEEDS	549		2740		1000	
50 PERCENT EXCEEDS	229		291		163	
90 PERCENT EXCEEDS	81		119		48	

[a]Prior to regulations, water years 1903-08, 1936-37, 595 ft^3/s.



07327441 SCS POND NO. 26 NEAR CYRIL, OK

LOCATION.--Lat 34°54'09", long 98°14'22", in SW 1/4 SE 1/4 sec.15, T.5 N., R.10 W., Caddo County, Hydrologic Unit 11130302, on north face of dam, on Little Washita River, 2.2 mi west of Cyril, and at mile 28.4.

DRAINAGE AREA.--6.64 mi^2 (Agricultural Research Service).

PERIOD OF RECORD.--November 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (Agricultural Research Service).

REMARKS.--Reservoir is formed by earthen dam. Emergency spillway elevation is 1,347.8 ft, contents 1,520 acre-ft; principal spillway elevation is 1,325.2 ft, contents 142 acre-ft; drain value elevation 1,291.5 ft. Figures herein represent total contents. Reservoir is used for flood control.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 676 acre-ft, June 4, 1995, elevation 1,336.29 ft; minimum after initial storage, 143 acre-ft, at times, elevation 1,315.02 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 676 acre-ft, June 4, elevation 1,336.29 ft; minimum, 143 acre-ft, at times, elevation 1,315.03 ft.

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

1313	115.0	1316	155.0
1314	130.0	1317	170.0
1315	142.5	1318	185.0

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	144	145	145	145	145	146	e146	147	145	150	145
2	143	144	145	145	145	145	146	e146	147	145	152	144
3	143	144	145	145	144	145	146	e146	147	145	155	144
4	143	148	144	144	144	145	146	e146	555	145	148	144
5	143	145	144	144	144	145	e147	e146	e515	145	147	144
6	143	144	145	144	144	153	e146	e150	e423	145	147	144
7	144	144	145	144	144	147	e146	e154	e328	144	146	144
8	143	144	146	144	144	145	e146	e153	e245	144	146	144
9	143	144	145	144	144	145	e146	e152	160	144	146	145
10	143	144	145	144	144	145	e147	e148	156	144	146	145
11	143	144	145	144	144	145	e146	e146	151	144	146	145
12	143	144	145	144	144	145	e146	e146	149	144	146	145
13	143	144	145	144	144	161	e146	e146	148	144	145	145
14	143	144	145	144	145	152	e146	e146	148	144	145	145
15	144	144	145	144	144	148	e146	e146	148	144	146	145
16	143	144	145	144	145	147	e146	e146	147	144	145	145
17	143	144	145	144	145	146	e149	e146	147	144	145	145
18	144	144	145	144	144	146	e148	146	147	144	145	145
19	143	146	145	144	144	146	e147	146	147	144	145	146
20	144	153	145	144	145	146	e147	146	147	143	145	145
21	147	147	145	144	145	146	e146	146	147	143	145	147
22	144	146	145	145	144	146	e148	146	147	144	145	145
23	144	146	145	145	144	146	e147	151	147	144	145	145
24	145	145	145	145	144	146	e146	149	147	144	145	145
25	144	145	145	145	145	147	e146	147	147	143	145	147
26	144	145	145	145	144	146	e146	154	146	143	145	146
27	144	145	145	145	144	146	e146	149	146	143	145	146
28	144	145	145	145	144	146	e146	147	146	143	145	145
29	144	145	145	145	---	146	e146	147	146	143	145	145
30	144	145	145	145	---	146	e146	147	146	143	145	145
31	144	---	145	145	---	146	---	151	---	143	145	---

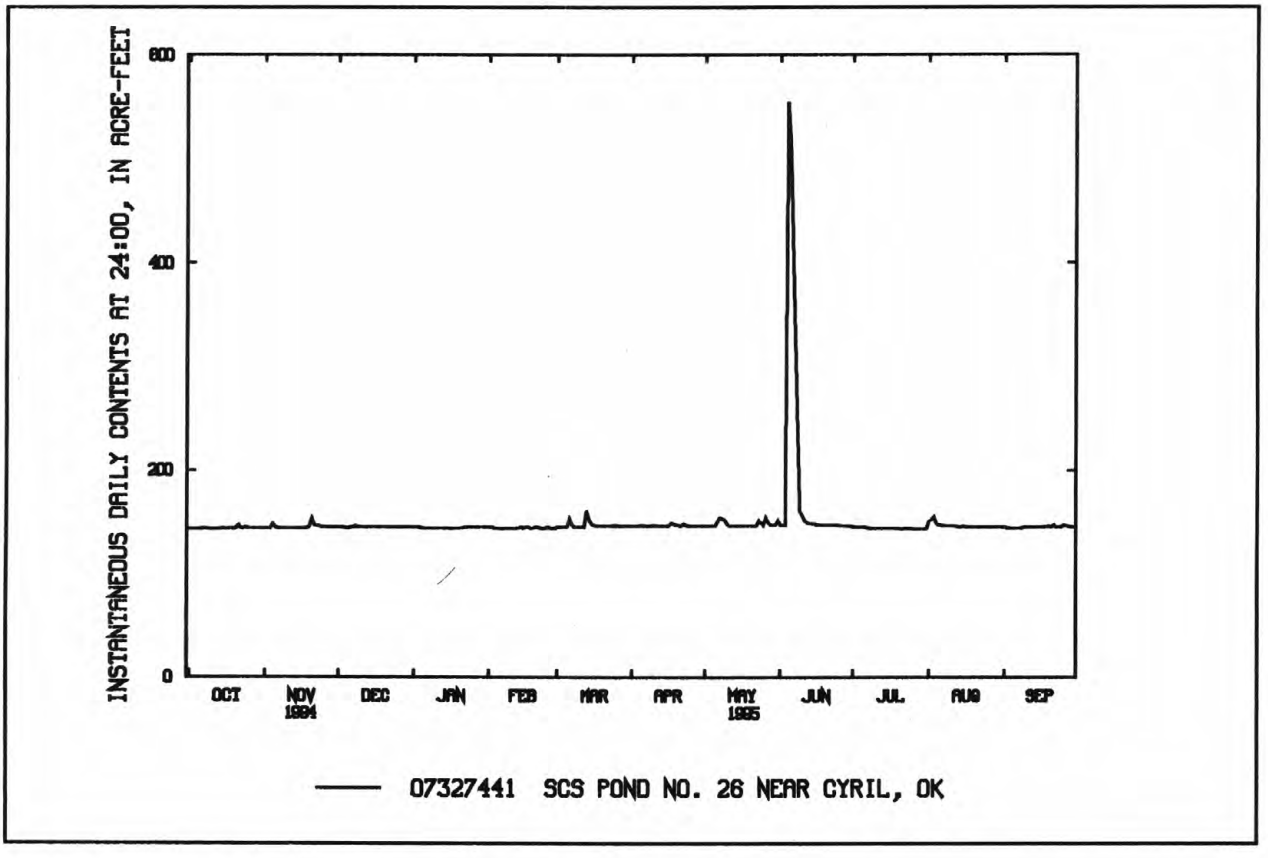
e Estimated

07327441 SCS POND NO. 26 NEAR CYRIL, OK--Continued

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MAX	147	153	146	145	145	161	149	154	555	145	155	147
MIN	143	144	144	144	144	145	146	146	146	143	145	144
(‡)	1315.12	1315.17	1315.18	1315.17	1315.15	1315.26	--	--	1315.26	1315.04	1315.17	1315.21
(‡‡)	+1	+1	0	0	-1	+2	0	+5	-5	-3	+2	0

CAL YR 1994 MAX 157 MIN 143 +1
WTR YR 1995 MAX 555 MIN 143 +2

(‡) ELEVATION, IN FEET, AT END OF MONTH
(‡‡) CHANGE IN CONTENTS, IN ACRE-FEET



07327442 LITTLE WASHITA RIVER NEAR CYRIL, OK

LOCATION.-- Lat 34° 53′ 32", long 98° 13′ 58", in SW 1/4 NW 1/4 sec. 23, T.5N., R.10W., Caddo County, Hydrologic Unit 11130302, on left bank 300 ft downstream from county road, 1.7 mi west of Cyril, 6.8 mi east of Apache, and at mile 28.0.

DRAINAGE AREA.--11.6 mi^2.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,255.2 above sea level, from topographic map.

REMARKS.--Records fair. Flow affected by numerous flood retention reservoirs. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	1.1	4.7	4.0	3.3	3.4	4.7	4.9	6.6	e8.4	7.9	4.2
2	.51	.96	4.7	4.2	3.2	3.5	4.7	4.8	5.8	e8.3	29	4.2
3	.49	.92	4.7	4.0	3.2	3.4	4.9	4.8	5.7	e8.1	32	4.2
4	.48	2.2	4.6	3.8	3.1	3.5	4.9	4.7	364	e8.0	15	4.1
5	.49	3.8	4.5	4.0	3.1	3.5	4.8	4.8	116	e7.8	8.5	4.3
6	.48	1.6	4.6	4.0	3.1	6.1	4.7	14	87	e7.7	7.4	4.2
7	.70	1.2	4.6	3.9	3.0	10	4.6	42	80	e7.6	6.7	4.2
8	.71	1.1	9.9	3.7	3.1	4.1	4.5	46	73	e7.5	6.3	4.3
9	.57	1.2	5.7	3.7	3.1	3.5	4.4	9.9	69	e7.2	6.0	4.4
10	.52	1.1	5.2	3.6	3.1	3.3	4.8	7.4	31	e7.1	5.8	4.5
11	.49	1.1	5.1	3.6	3.1	3.3	4.5	6.7	19	e6.9	5.6	5.5
12	.49	1.0	5.0	3.5	3.1	3.3	4.4	6.4	17	e6.8	5.6	5.1
13	.47	1.1	4.9	3.5	3.2	21	4.3	6.1	16	6.6	5.5	4.6
14	.48	1.1	4.9	3.4	3.2	18	4.2	5.7	14	6.7	5.4	4.4
15	.59	1.0	4.8	3.4	3.3	12	4.1	5.7	14	6.9	5.7	4.9
16	.59	1.0	4.9	3.3	3.5	7.1	4.1	5.7	13	6.9	5.7	6.0
17	.59	1.0	4.7	3.3	3.4	6.1	21	5.6	12	6.9	5.2	5.3
18	.64	1.0	4.5	3.3	3.3	5.7	25	5.5	12	7.0	5.0	4.9
19	.59	2.2	4.5	3.3	3.2	5.4	6.9	5.5	12	6.9	5.0	6.5
20	.56	60	4.4	3.3	3.2	5.2	5.6	5.5	11	6.8	4.9	5.4
21	15	9.9	4.4	3.2	3.1	5.1	5.1	5.6	11	6.7	4.7	6.4
22	1.6	6.5	4.3	3.8	3.2	4.9	16	5.4	11	6.6	4.6	6.6
23	1.0	6.0	4.3	3.5	3.3	4.8	10	6.9	10	7.4	4.5	5.7
24	5.7	6.0	4.2	3.4	3.2	4.7	6.4	16	9.9	7.8	4.6	5.7
25	1.5	5.7	4.4	3.4	3.2	5.1	5.7	7.5	9.6	7.3	4.6	8.5
26	1.1	5.4	4.4	3.6	3.2	5.1	5.4	20	9.3	6.8	4.5	7.3
27	.96	5.0	4.2	3.6	3.2	4.8	5.2	15	8.8	6.5	4.4	6.8
28	.92	4.9	4.2	3.5	3.3	4.9	5.1	7.3	8.7	6.5	4.3	6.3
29	.93	4.8	4.1	3.5	---	4.9	5.0	6.5	8.3	6.3	4.3	5.8
30	.92	4.8	4.0	3.4	---	4.8	4.9	6.3	8.6	6.3	4.4	5.7
31	1.2	---	4.0	3.3	---	4.8	---	9.2	---	6.5	4.4	---
TOTAL	41.78	144.68	147.4	111.0	89.5	185.3	199.9	307.4	1073.3	220.8	227.5	160.0
MEAN	1.35	4.82	4.75	3.58	3.20	5.98	6.66	9.92	35.8	7.12	7.34	5.33
MAX	15	60	9.9	4.2	3.5	21	25	46	364	8.4	32	8.5
MIN	.47	.92	4.0	3.2	3.0	3.3	4.1	4.7	5.7	6.3	4.3	4.1
AC-FT	83	287	292	220	178	368	397	610	2130	438	451	317

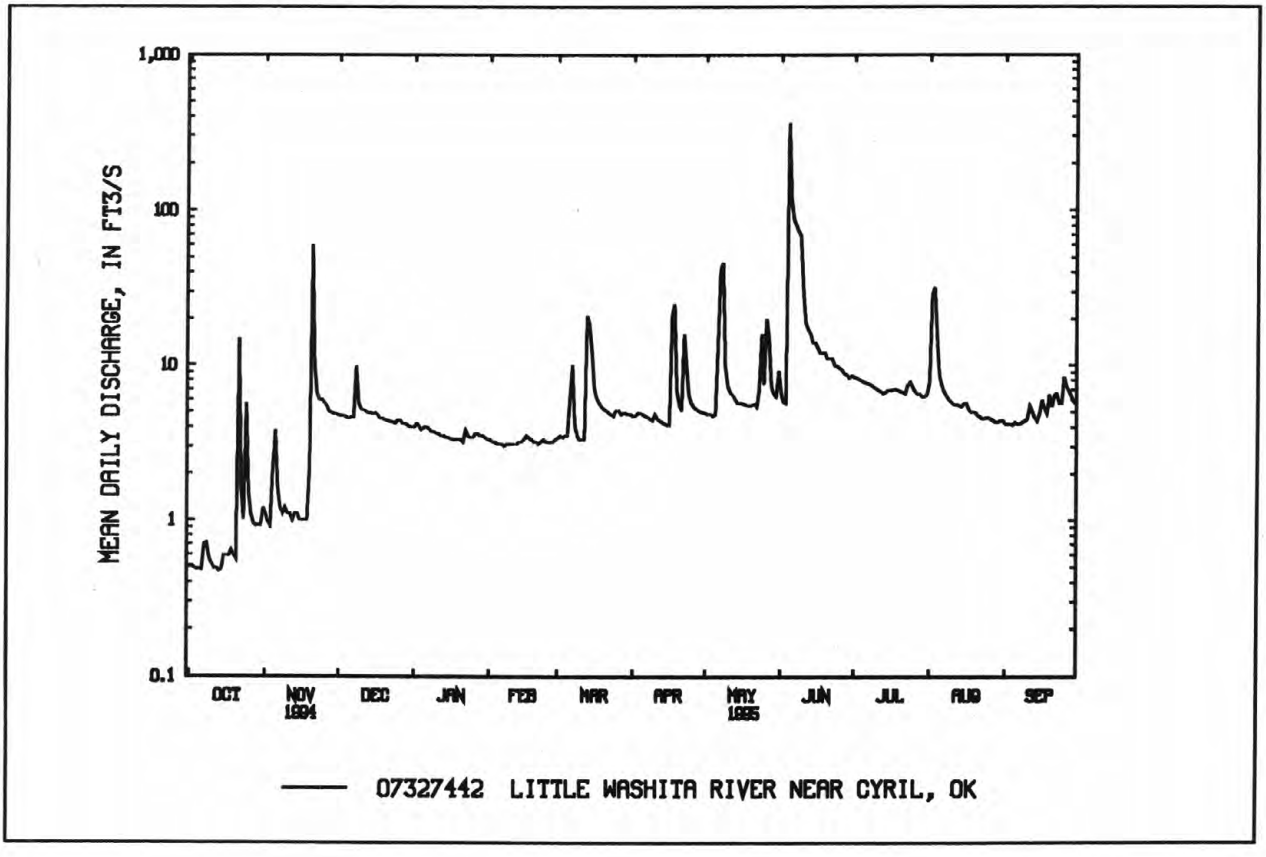
e Estimated

07327442 LITTLE WASHITA RIVER NEAR CYRIL, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.82	6.79	9.42	6.92	7.58	9.21	9.47	13.5	19.0	4.99	4.10	3.17
MAX	6.87	11.6	19.5	14.2	15.4	16.0	17.3	26.2	35.8	7.12	7.34	5.33
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1995	1995	1995	1995
MIN	1.35	4.00	4.06	3.00	3.20	5.62	4.45	4.48	2.52	2.16	1.10	.69
(WY)	1995	1994	1994	1994	1995	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1993 - 95	
ANNUAL TOTAL	1186.53		2908.56			
ANNUAL MEAN	3.25		7.97		8.16	
HIGHEST ANNUAL MEAN					13.2	1993
LOWEST ANNUAL MEAN					3.29	1994
HIGHEST DAILY MEAN	60	Nov 20	364	Jun 4	364	Jun 4 1995
LOWEST DAILY MEAN	.47	Oct 13	.47	Oct 13	.47	Oct 13 1994
ANNUAL SEVEN-DAY MINIMUM	.50	Sep 30	.52	Oct 9	.50	Sep 30 1994
INSTANTANEOUS PEAK FLOW			1530	Jun 4	1530	Jun 4 1995
INSTANTANEOUS PEAK STAGE			16.67	Jun 4	16.67	Jun 4 1995
ANNUAL RUNOFF (AC-FT)	2350		5770		5910	
10 PERCENT EXCEEDS	4.8		10		15	
50 PERCENT EXCEEDS	2.7		4.8		4.5	
90 PERCENT EXCEEDS	.69		1.1		1.6	



07327447 LITTLE WASHITA RIVER NEAR CEMENT, OK

LOCATION.--Lat 34°50'16", long 98°07'27", in NW 1/4 NW 1/4 sec.11, T.4 N., R.9 W., Comanche County, Hydrologic Unit 11130302, on left bank near downstream side of county road bridge, 5 mi south of Cement, 7 mi east northeast of Fletcher, 8 mi northeast of Sterling, and at mile 23.7

DRAINAGE AREA.--61.9 mi^2.

PERIOD OF RECORD.--February 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,183.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Flow affected by numerous flood retention reservoirs. U.S. Geological Survey's satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

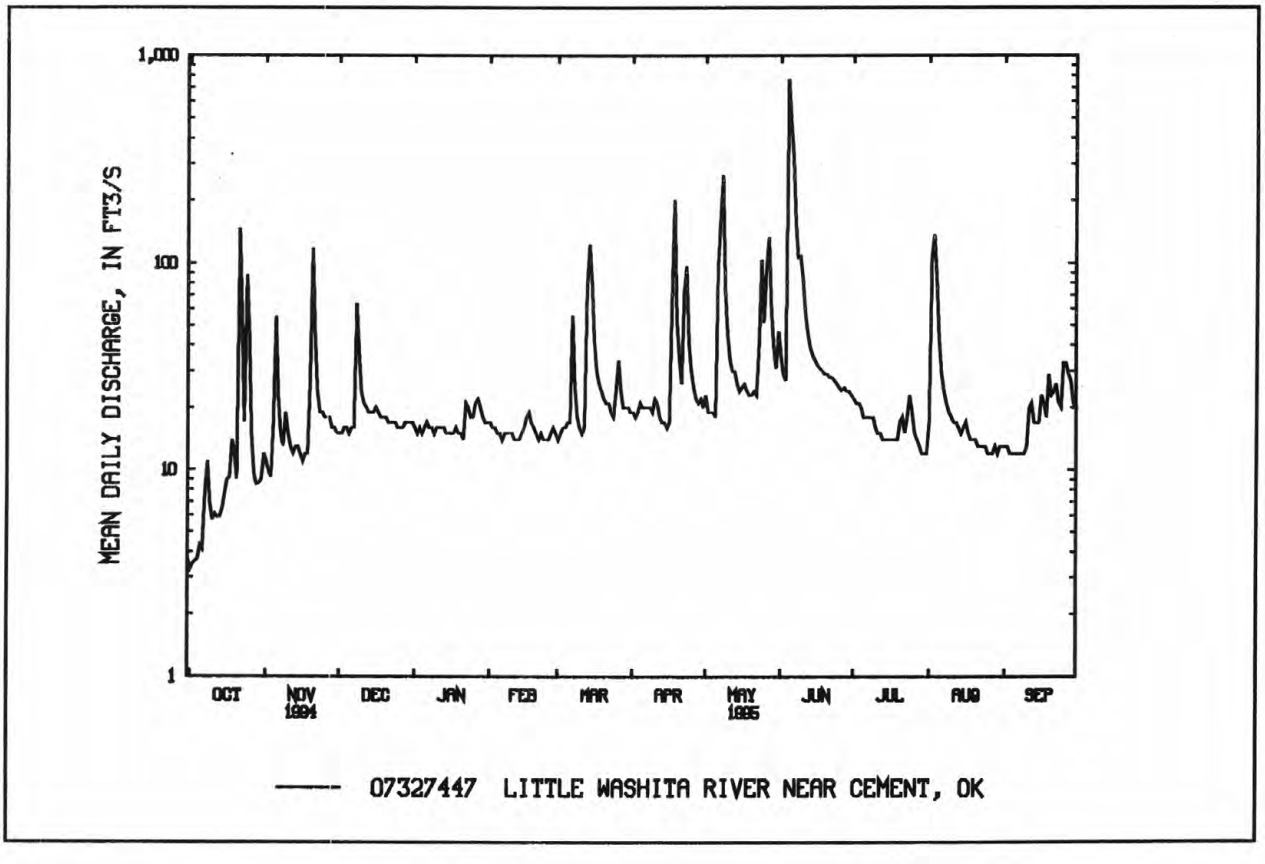
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	11	15	16	17	14	19	23	35	22	17	13
2	3.5	9.7	15	15	16	15	18	19	29	21	106	13
3	3.6	9.2	16	16	16	16	19	19	27	21	137	12
4	3.7	17	16	15	15	16	21	19	771	20	83	12
5	4.3	55	15	16	15	17	20	18	476	18	43	12
6	4.1	22	16	17	14	17	20	96	316	18	29	12
7	7.8	15	16	16	15	56	20	160	154	18	24	12
8	11	13	64	16	15	25	20	266	106	18	21	12
9	6.9	19	37	15	15	18	19	74	108	18	19	12
10	5.7	15	24	16	15	16	22	45	84	16	18	13
11	6.1	13	21	16	14	15	21	34	57	15	17	20
12	5.9	12	20	16	14	16	18	30	46	15	17	21
13	5.9	13	19	16	14	76	17	30	39	14	16	17
14	6.4	13	19	15	15	123	17	26	36	14	15	17
15	7.6	12	19	15	16	80	16	24	34	14	16	17
16	9.0	11	20	15	18	42	17	25	32	14	17	23
17	9.1	12	19	15	19	30	64	26	31	14	15	21
18	14	12	18	16	17	26	203	24	30	14	14	18
19	12	27	18	15	16	24	53	23	29	14	14	29
20	9.0	118	18	15	15	22	35	23	29	17	14	23
21	147	45	17	14	14	21	26	24	28	18	13	24
22	55	24	17	21	15	21	73	23	28	15	13	26
23	17	19	17	20	14	19	97	41	27	18	13	21
24	88	19	17	18	14	18	41	104	26	23	13	20
25	44	18	16	18	14	24	30	51	25	19	12	33
26	15	18	16	21	15	34	25	95	24	15	12	33
27	9.5	18	16	22	16	24	22	133	25	14	12	29
28	8.5	16	17	20	15	20	21	59	24	13	13	27
29	8.6	16	17	18	---	20	22	39	24	12	12	21
30	9.0	15	17	17	---	20	20	31	23	12	13	20
31	12	---	17	17	---	19	---	47	---	12	13	---
TOTAL	552.5	636.9	609	518	428	904	1036	1651	2723	506	791	583
MEAN	17.8	21.2	19.6	16.7	15.3	29.2	34.5	53.3	90.8	16.3	25.5	19.4
MAX	147	118	64	22	19	123	203	266	771	23	137	33
MIN	3.3	9.2	15	14	14	14	16	18	23	12	12	12
AC-FT	1100	1260	1210	1030	849	1790	2050	3270	5400	1000	1570	1160

07327447 LITTLE WASHITA RIVER NEAR CEMENT, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.0	24.9	38.2	27.4	31.5	39.0	46.7	64.5	62.6	27.2	20.7	17.6
MAX	19.6	37.4	77.1	51.2	62.2	61.0	68.1	124	90.8	57.5	38.7	31.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1995	1992	1992	1992
MIN	13.5	16.0	17.7	14.2	15.3	28.7	22.2	26.8	11.8	13.0	4.91	4.11
(WY)	1994	1994	1994	1994	1995	1992	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1992 - 95	
ANNUAL TOTAL	6567.6		10938.4			
ANNUAL MEAN	18.0		30.0		32.9	
HIGHEST ANNUAL MEAN					51.6	1993
LOWEST ANNUAL MEAN					17.0	1994
HIGHEST DAILY MEAN	205	Mar 8	771	Jun 4	802	May 9 1993
LOWEST DAILY MEAN	2.5	Sep 21	3.3	Oct 1	2.5	Sep 21 1994
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 15	4.3	Oct 1	3.0	Sep 15 1994
INSTANTANEOUS PEAK FLOW			1860	Jun 4	1860	Jun 4 1995
INSTANTANEOUS PEAK STAGE			16.59	Jun 4	16.59	Jun 4 1995
ANNUAL RUNOFF (AC-FT)	13030		21700		23800	
10 PERCENT EXCEEDS	29		46		61	
50 PERCENT EXCEEDS	15		18		21	
90 PERCENT EXCEEDS	4.3		12		11	



07327550 LITTLE WASHITA RIVER EAST OF EAST NINNEKAH, OK

LOCATION.--Lat 34°57'48", long 97°53'57", in NW 1/4 SW 1/4 sec.25, T.6 N., R.7 W., Grady County, Hydrologic Unit 11130302, on downstream right bank at bridge on county road 1.5 mi northeast of Ninnekah.

DRAINAGE AREA.--236 mi^2.

PERIOD OF RECORD.--February 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,041.16 ft.

REMARKS.--Records poor. Flow regulated by numerous flood retarding structures.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	47	46	42	51	41	53	82	152	43	25	19
2	9.8	42	46	41	50	42	51	72	128	42	112	19
3	9.4	40	46	41	48	44	51	68	118	43	359	17
4	11	87	47	40	47	49	55	64	3370	39	249	17
5	11	226	45	43	45	48	55	62	2390	34	138	16
6	9.6	111	46	44	44	50	53	316	958	32	98	16
7	26	75	46	42	43	119	52	923	579	30	76	15
8	40	62	101	41	43	77	51	1740	412	29	65	15
9	25	66	97	41	43	59	48	421	371	28	56	16
10	19	64	62	41	41	54	90	225	350	26	50	17
11	17	56	53	41	40	51	84	164	266	23	46	34
12	17	52	49	40	39	51	62	144	188	21	43	41
13	17	51	47	39	40	105	56	129	139	20	41	32
14	17	51	55	47	42	253	53	111	116	19	40	28
15	20	48	58	49	43	191	50	99	100	18	38	31
16	22	46	60	50	48	133	50	94	88	17	38	44
17	25	45	53	49	58	95	159	91	81	17	35	70
18	33	45	51	43	52	78	716	81	76	18	33	45
19	39	85	51	42	48	71	223	75	73	18	31	70
20	29	165	49	39	46	64	144	72	70	20	30	61
21	235	147	48	39	44	61	104	77	70	30	29	58
22	157	86	51	46	43	60	232	74	66	22	27	62
23	75	71	52	53	41	56	356	358	62	28	27	49
24	94	66	52	52	40	54	177	740	58	62	26	42
25	133	64	52	58	40	56	122	276	54	48	25	72
26	73	63	52	75	42	70	96	314	51	30	24	82
27	51	62	52	81	42	63	82	609	49	22	23	74
28	45	59	53	64	41	56	77	288	49	18	22	69
29	42	e50	54	56	---	54	73	194	45	16	21	55
30	41	45	53	55	---	53	68	164	45	15	20	46
31	44	---	47	55	---	53	---	170	---	15	20	---
TOTAL	1396.7	2177	1674	1489	1244	2311	3543	8297	10574	843	1867	1232
MEAN	45.1	72.6	54.0	48.0	44.4	74.5	118	268	352	27.2	60.2	41.1
MAX	235	226	101	81	58	253	716	1740	3370	62	359	82
MIN	9.4	40	45	39	39	41	48	62	45	15	20	15
AC-FT	2770	4320	3320	2950	2470	4580	7030	16460	20970	1670	3700	2440

e Estimated

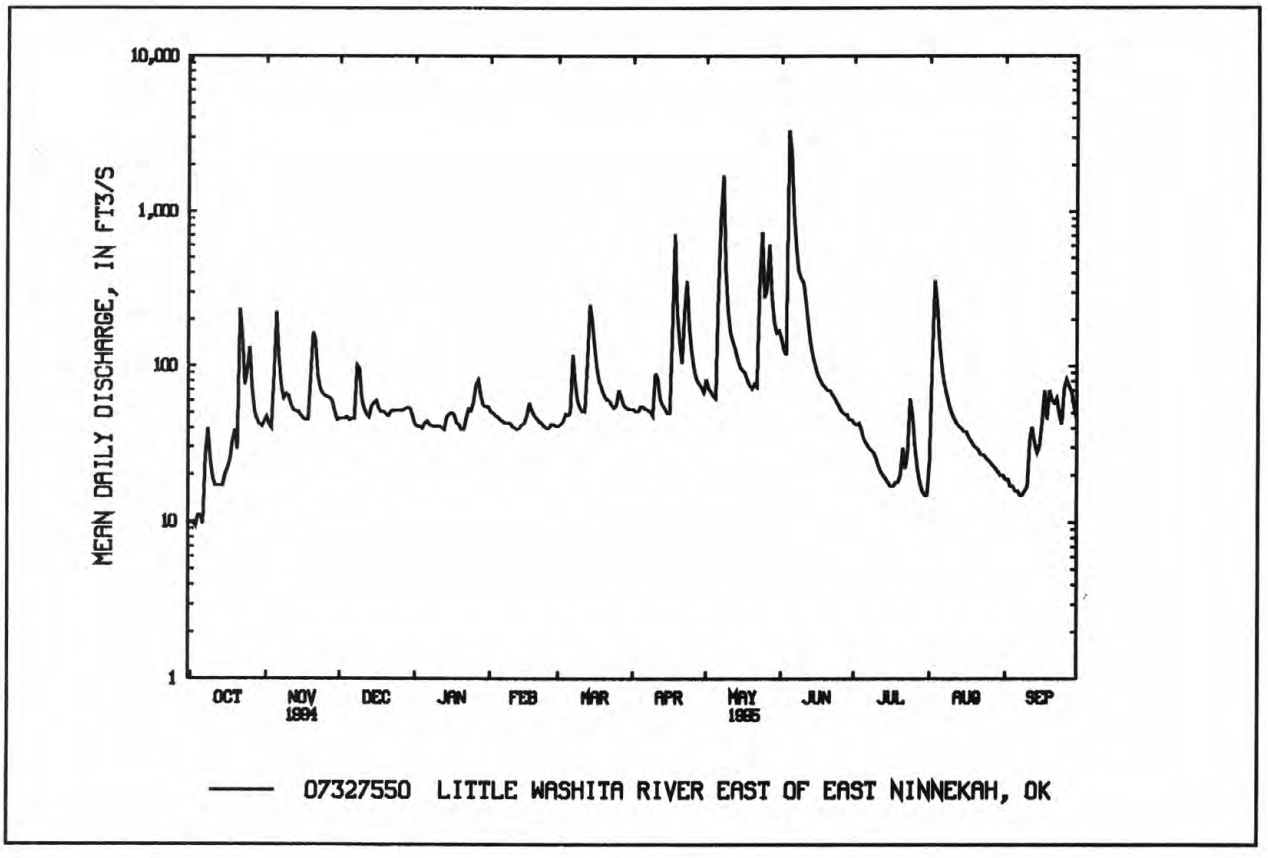
07327550 LITTLE WASHITA RIVER EAST OF EAST NINNEKAH, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	38.8	74.6	99.0	82.9	101	103	126	201	191	68.6	53.6	51.4
MAX	45.1	105	185	150	196	156	175	325	352	126	92.7	85.4
(WY)	1995	1993	1993	1993	1993	1993	1993	1993	1995	1992	1992	1992
MIN	30.0	46.6	54.0	48.0	44.4	74.5	58.3	97.6	36.6	27.2	9.63	15.0
(WY)	1994	1994	1995	1995	1995	1995	1994	1994	1994	1995	1994	1994

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1992 - 95	
ANNUAL TOTAL	21104.8		36647.7			
ANNUAL MEAN	57.8		100		97.5	
HIGHEST ANNUAL MEAN					137	1993
LOWEST ANNUAL MEAN					54.7	1994
HIGHEST DAILY MEAN	1190	Jul 9	3370	Jun 4	3370	Jun 4 1995
LOWEST DAILY MEAN	5.2	Aug 16	9.4	Oct 3	5.2	Aug 16 1994
ANNUAL SEVEN-DAY MINIMUM	6.5	Aug 24	12	Oct 1	6.5	Aug 24 1994
INSTANTANEOUS PEAK FLOW			5930	Jun 4	[a]9920	May 9 1993
INSTANTANEOUS PEAK STAGE			17.12	Jun 4	[b]20.70	May 9 1993
ANNUAL RUNOFF (AC-FT)	41860		72690		70660	
10 PERCENT EXCEEDS	95		161		180	
50 PERCENT EXCEEDS	48		51		59	
90 PERCENT EXCEEDS	11		21		23	

[a]From rating extended above 1,500 ft^3/s.
[b]From high-water mark on crest-stage gage.



07328100 WASHITA RIVER AT ALEX, OK

LOCATION.--Lat 34°55'33", long 97°46'25", in NW 1/4 sec.7, T.5 N., R.5 W., Grady County, Hydrologic Unit 11130303, near right bank on downstream side of county road bridge, 1.0 mi north of Alex, 3.8 mi downstream from Winter Creek, and at mile 226.5.

DRAINAGE AREA.--4,787 mi^2.

PERIOD OF RECORD.--October 1964 to September 1986, October 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 995.00 ft above sea level. Prior to Oct. 1, 1988, datum 5.00 ft higher.

REMARKS.--Records poor. Some regulation since March 1959 by Fort Cobb Reservoir (station 07325900), since February 1961 by Foss Reservoir (07324300), and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telementer at station.

COOPERATION.--Records furnished by Agricultural Research Service prior to January 1978.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e133	e335	e841	e338	e510	e395	497	e605	e5800	e2720	e905	737
2	e124	e318	e715	e329	e525	e387	456	e550	e4800	e2630	e920	733
3	e115	e300	e625	e327	e455	e383	427	e520	e4000	e2570	e1370	712
4	e106	e295	e565	e326	e405	e390	417	e490	e3900	e2470	e2170	688
5	e102	1030	e505	e323	e375	e403	414	e470	e18000	e2370	e3100	634
6	98	932	e460	e320	e363	367	411	e750	e12300	e2270	e4400	553
7	e200	e750	e415	e318	e348	496	402	e3100	e17100	e2190	e5150	513
8	e545	e678	e1230	e317	e333	571	398	8600	22400	e2100	e5220	485
9	e400	e640	e1300	e318	324	491	392	e6600	15300	e1990	e4850	485
10	e310	e614	e860	e318	e313	436	551	e4900	15800	e1920	e4270	477
11	e267	e580	e710	e319	e305	400	647	e4550	e10000	e1810	e3870	458
12	e230	e545	e615	e310	e295	380	476	e3300	e8450	e1700	e3520	456
13	e212	e505	e560	e300	e287	565	428	e2300	e7300	e1620	e3080	454
14	e190	e470	e515	e400	e284	1140	397	e1850	e6200	e1480	e2950	447
15	e177	e453	e477	e395	e296	1340	368	e1570	e5500	e1340	e2550	444
16	e184	e445	e460	e372	e320	1160	352	e1380	e4800	e1230	e2370	601
17	e202	e435	e440	e353	e333	1090	560	e1230	e4350	e1140	e2250	e1180
18	e221	e420	e420	e329	e363	1170	e3100	e1120	e3920	e1090	e2040	e1710
19	e270	e412	e408	e319	e377	1180	e1950	e1040	e3570	e1060	e1860	e2030
20	e520	1660	e405	e312	e380	1060	1400	e990	3240	e1140	e1700	e2540
21	1040	e2050	e385	e308	e377	980	e1270	e940	e3150	e1170	e1570	3050
22	1150	e2320	e380	e323	e371	892	e1310	e900	e3070	e1160	e1480	2370
23	911	e2180	e374	e345	e355	758	e1450	e850	e2980	e1060	1390	2030
24	e690	e2040	e398	e368	e343	677	e1200	e4400	e2960	e1950	e1320	2150
25	e590	e2240	e402	e410	e337	588	e980	e3600	e2920	e1670	e1260	2210
26	e480	e1680	e385	e470	e330	573	e870	e3300	e2850	e1410	e1210	1890
27	e415	e1420	e357	e690	e380	600	e790	e10000	e2810	e1270	e1180	1780
28	e383	e1270	e348	e635	e433	524	e710	e9900	e2790	e1130	e1020	1950
29	e373	e1000	e348	e560	---	551	e670	e8600	e2750	e1070	e1070	1940
30	e368	e930	e350	e505	---	655	e645	e7700	e2930	e1000	e1030	1780
31	e360	---	e345	e490	---	573	---	e7500	---	e940	1000	---
TOTAL	11366	28947	16598	11747	10117	21175	23938	103605	205940	50670	72075	37487
MEAN	367	965	535	379	361	683	798	3342	6865	1635	2325	1250
MAX	1150	2320	1300	690	525	1340	3100	10000	22400	2720	5220	3050
MIN	98	295	345	300	284	367	352	470	2750	940	905	444
AC-FT	22540	57420	32920	23300	20070	42000	47480	205500	408500	100500	143000	74360

e Estimated

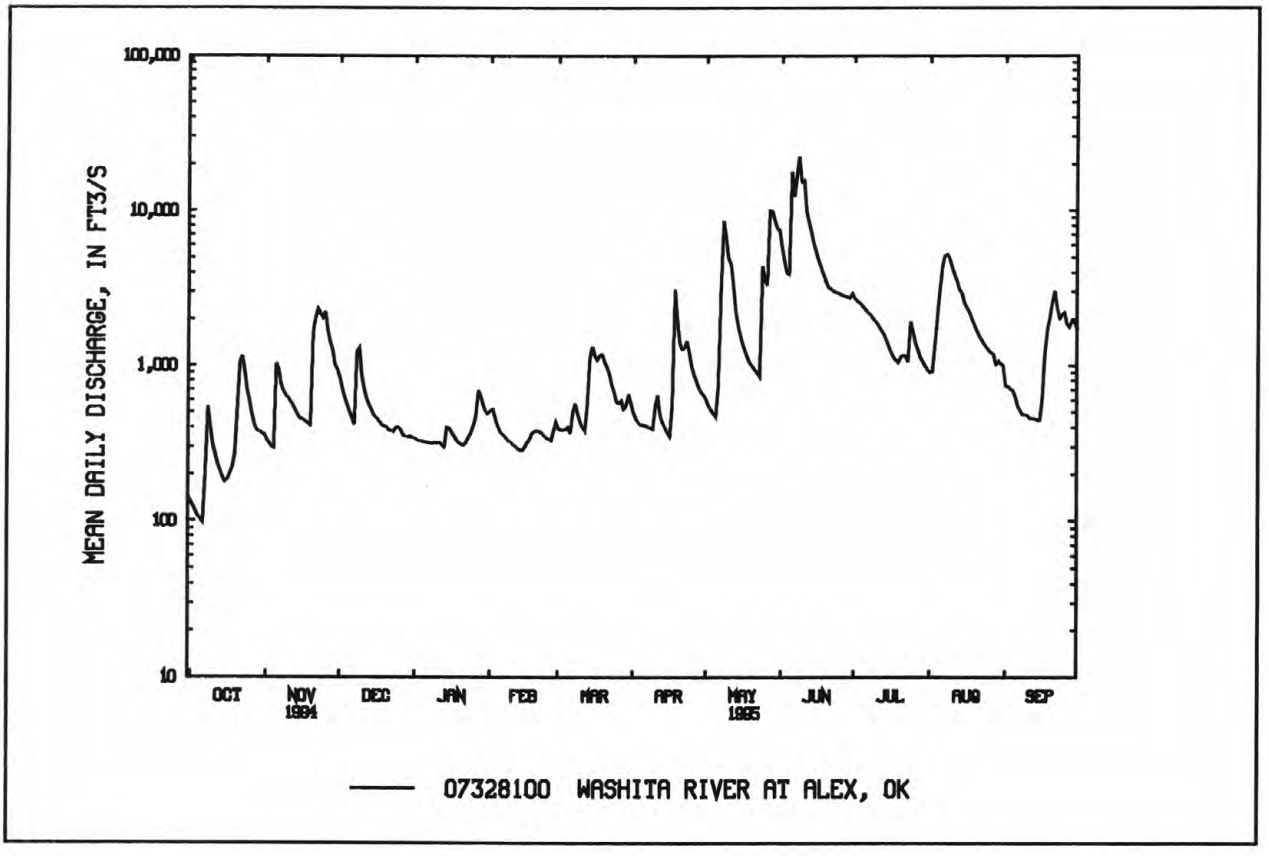
07328100 WASHITA RIVER AT ALEX, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	503	442	414	351	373	571	599	1311	1491	493	368	479
MAX	4441	1672	2615	1615	1783	3362	2165	6916	6865	1678	2325	1638
(WY)	1984	1993	1993	1993	1993	1990	1993	1993	1995	1975	1995	1991
MIN	61.1	52.9	64.5	77.3	86.1	73.8	23.9	22.9	96.9	13.9	3.88	40.0
(WY)	1979	1971	1968	1971	1967	1971	1971	1971	1967	1970	1972	1972

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1965 - 95	
ANNUAL TOTAL	207135		593665			
ANNUAL MEAN	567		1626		615	
HIGHEST ANNUAL MEAN					1902	1993
LOWEST ANNUAL MEAN					120	1971
HIGHEST DAILY MEAN	2320	Nov 22	22400	Jun 8	22500	Oct 21 1983
LOWEST DAILY MEAN	98	Oct 6	98	Oct 6	.00	[a]Aug 13 1970
ANNUAL SEVEN-DAY MINIMUM	116	Aug 11	125	Oct 1	.01	Aug 12 1970
INSTANTANEOUS PEAK FLOW			25000	Jun 8	25000	Jun 8 1985
INSTANTANEOUS PEAK STAGE			17.28	Jun 8	[b]28.70	Oct 21 1983
ANNUAL RUNOFF (AC-FT)	410900		1178000		445600	
10 PERCENT EXCEEDS	1060		3540		1410	
50 PERCENT EXCEEDS	468		678		267	
90 PERCENT EXCEEDS	150		320		69	

[a]No flow Aug. 13, 18, 1970, Aug. 30 to Sept. 1, 1971.
[b]Present datum.



07328180 NORTH CRINER CREEK NEAR CRINER, OK

LOCATION.--Lat 34°58'17", long 97°35'04", in SE 1/4 SE 1/4 sec.23, T.6 N., R.4 W., McClain County, Hydrologic Unit 11130303, near left bank on downstream side of county road bridge, 1.2 mi west of Criner, and at mile .83.

DRAINAGE AREA.--7.33 mi^2

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

GAGE.--Water-stage recorder. Datum of gage is 1023.66 ft above sea level.

REMARKS.--Records poor. U.S. Geological Survey's satellite telemeter at station. Flow partially regulated by retention ponds 1.5 mi northwest of gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.02	.54	1.3	.78	1.2	1.5	.93	1.6	2.6	3.2	.94	.06
2	e.02	.47	2.3	e.76	1.3	1.6	.90	1.2	1.9	2.7	4.2	.06
3	e.02	.44	1.2	e.73	1.1	1.8	1.0	1.1	1.5	2.5	10	.04
4	e.01	7.4	1.1	e.64	.76	2.0	1.3	1.0	24	2.4	7.6	.03
5	e.01	17	1.0	.52	1.3	2.0	1.3	.88	e30	2.1	5.1	.04
6	.23	7.8	.85	.76	1.1	2.1	1.5	19	e20	1.8	3.7	.03
7	11	4.3	.98	e.55	.99	2.7	1.4	35	13	1.5	2.8	.00
8	5.2	2.9	1.2	.38	.82	2.1	1.2	7.7	10	1.3	2.1	.07
9	1.6	2.6	1.1	.79	.85	1.8	1.2	e5.8	9.9	1.1	1.7	.09
10	1.2	1.6	1.7	.54	.93	1.8	2.8	e5.1	11	1.1	1.2	.11
11	.97	1.3	.99	.61	.97	1.8	2.4	e4.6	11	.95	.92	.47
12	.88	1.1	1.4	.50	.80	2.1	1.6	4.3	8.8	.60	.80	.80
13	.76	1.0	.86	.62	.73	12	1.3	3.4	7.5	.52	.81	.33
14	.73	.97	.66	1.4	.79	9.5	1.1	2.3	6.6	.48	.73	.27
15	.73	.88	1.2	3.8	1.4	5.8	.90	1.7	5.9	.34	.69	.39
16	.73	.61	1.5	2.5	e2.0	3.0	2.9	1.5	5.4	.23	.62	1.1
17	.78	.58	1.2	2.2	e1.8	1.7	53	1.7	5.1	.33	.53	.30
18	2.2	.58	.88	1.8	e1.6	1.3	39	1.4	4.7	.38	.54	.30
19	2.3	3.5	1.3	1.6	1.5	1.1	12	1.1	4.3	.32	.48	9.8
20	1.7	4.4	.96	1.7	1.5	.89	7.9	.95	3.9	.34	.44	.86
21	12	2.5	.78	e1.3	1.5	.72	4.8	1.6	3.7	.62	.39	1.3
22	2.7	1.7	.63	1.1	1.6	.68	8.7	1.4	3.4	.63	.33	.37
23	1.5	1.7	.61	1.1	1.6	.58	10	4.6	3.3	.62	.31	.20
24	1.7	1.3	.57	1.2	1.5	.58	5.3	28	3.3	1.9	.24	.10
25	1.0	1.0	.93	1.1	1.5	.65	3.9	5.8	3.6	1.2	.22	3.6
26	.60	1.1	.74	6.4	1.8	.79	2.6	19	4.1	.69	.20	e1.8
27	.51	1.1	.66	4.0	2.0	.75	1.9	7.0	3.4	.32	.17	e.88
28	.43	1.0	.62	2.9	1.8	.66	1.5	e5.5	2.9	.11	.09	e.66
29	.36	.99	.73	2.1	---	.69	1.4	4.0	2.6	e.10	.06	e.53
30	.34	1.5	.70	1.6	---	.79	1.3	2.1	3.3	e.08	.10	e.45
31	.57	---	.65	1.4	---	.89	---	7.4	---	e.05	.07	---
TOTAL	52.80	73.86	31.30	47.38	36.74	66.37	177.03	187.73	220.7	30.51	48.08	25.04
MEAN	1.70	2.46	1.01	1.53	1.31	2.14	5.90	6.06	7.36	.98	1.55	.83
MAX	12	17	2.3	6.4	2.0	12	53	35	30	3.2	10	9.8
MIN	.01	.44	.57	.38	.73	.58	.90	.88	1.5	.05	.06	.00
AC-FT	105	147	62	94	73	132	351	372	438	61	95	50

e Estimated

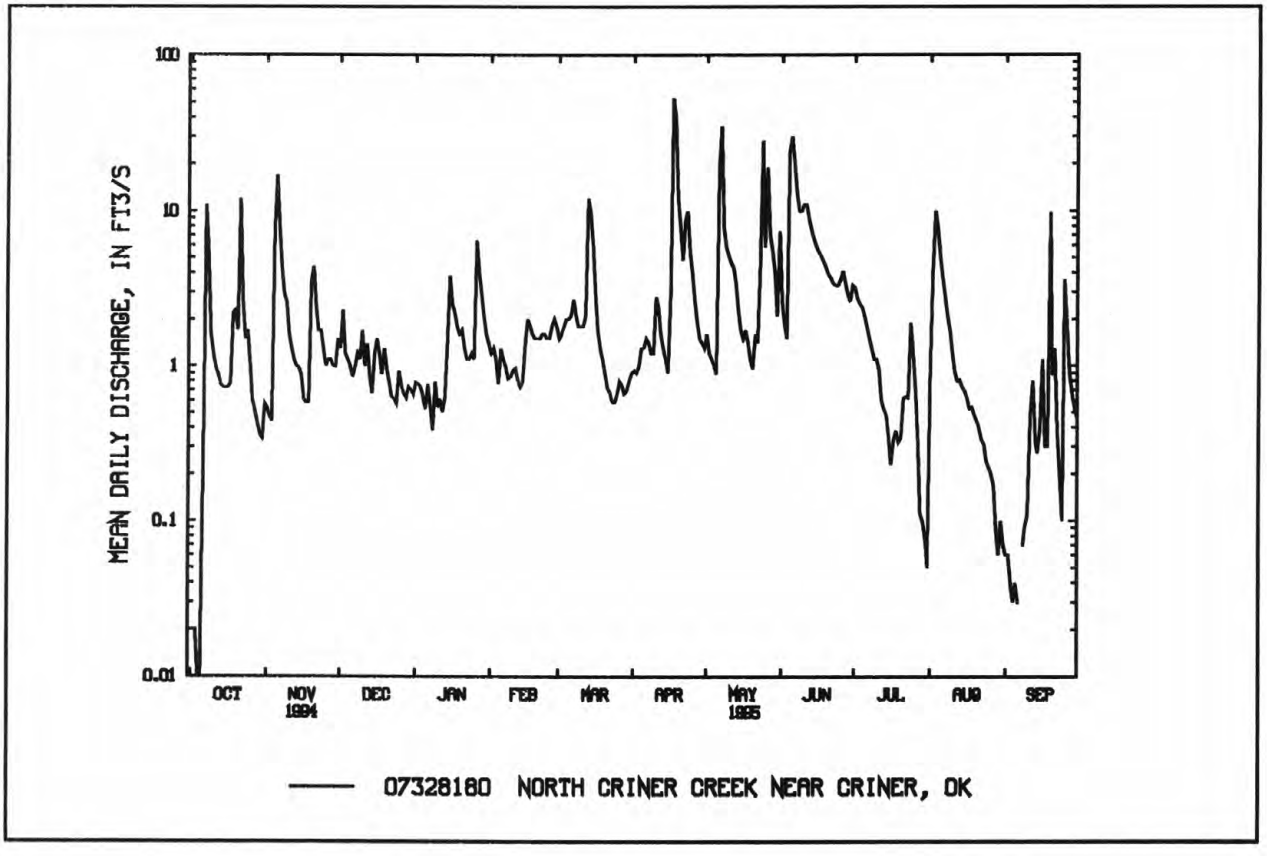
07328180 NORTH CRINER CREEK NEAR CRINER, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.22	2.12	3.40	2.64	3.13	4.26	5.81	9.92	4.31	1.79	1.53	1.34
MAX	1.70	3.67	9.59	7.37	9.67	9.97	14.7	23.1	9.93	5.98	4.40	2.21
(WY)	1995	1992	1993	1993	1993	1990	1990	1993	1992	1992	1992	1992
MIN	.65	.65	.33	.88	.89	.86	.97	1.02	.42	.44	.40	.58
(WY)	1991	1991	1991	1994	1991	1991	1991	1994	1994	1991	1994	1990

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1990 - 95	
ANNUAL TOTAL	444.90		997.54			
ANNUAL MEAN	1.22		2.73		3.46	
HIGHEST ANNUAL MEAN					6.65	1993
LOWEST ANNUAL MEAN					1.08	1991
HIGHEST DAILY MEAN	38	Sep 8	53	Apr 17	151	May 2 1990
LOWEST DAILY MEAN	.00	Jun 18	.00	Sep 7	[a].00	Jun 18 1994
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 21	.04	Sep 1	.00	Jun 21 1994
INSTANTANEOUS PEAK FLOW			360	Apr 17	605	May 23 1993
INSTANTANEOUS PEAK STAGE			9.14	Apr 17	11.24	May 23 1993
ANNUAL RUNOFF (AC-FT)	882		1980		2510	
10 PERCENT EXCEEDS	1.9		5.8		7.2	
50 PERCENT EXCEEDS	.81		1.2		1.3	
90 PERCENT EXCEEDS	.00		.32		.33	

[a]Several days in 1994 and Sept. 7, 1995.



07328500 WASHITA RIVER NEAR PAULS VALLEY, OK

LOCATION.--Lat 34°45'17", long 97°15'04", in NE 1/4, SE 1/4 sec.1. T.3 N., R.1 W., Garvin County, Hydrologic Unit 11130303, on downstream right bank near end of bridge on U.S. Highway 77, 2.0 mi northwest of Pauls Valley, 6.0 mi downstream from Owl Creek, 7.0 mi upstream from Washington Creek, and at mile 146.5.

DRAINAGE AREA.--5,330 mi^2.

PERIOD OF RECORD.--May to December 1899 (gage heights only), October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "at Pauls Valley, Indian Territory" in 1899.

GAGE.--Water-stage recorder. Datum of gage is 854.61 ft above sea level. During 1899, nonrecording gage at site 9 mi downstream, at different datum. Mar. 29, 1938, to Jan. 25, 1939, nonrecording gage and Jan. 26, 1939, to Oct. 6, 1948, water-stage recorder at site 0.7 mi upstream, at datum 1.53 ft higher. Mar. 11, 1975, to Jan. 26, 1981, water-stage recorder at site 200 ft upstream, and at same datum.

REMARKS.--Records fair. Some diversion for irrigation upstream from station. Some regulation since March 1959, by Fort Cobb Reservoir (station 07325900); since February 1961, by Foss Reservoir (station 07324300); and by numerous flood-retarding structures. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stream is reported to have receded to no flow in 1882 and in 1897 (information provided by local resident).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	412	e980	450	562	434	692	e800	6090	3150	1010	1360
2	145	395	e900	445	627	409	632	e775	5040	3030	1030	1330
3	137	402	e820	435	569	408	598	e750	4120	2980	2040	1280
4	131	2070	e740	433	475	425	588	e725	4150	2900	3500	1220
5	137	2720	e700	431	444	440	611	706	18500	2680	4410	1230
6	138	1900	e680	424	464	445	622	1460	17100	2560	5230	1190
7	294	1300	e660	428	454	472	e620	3400	16800	2480	5820	1150
8	1160	1030	e1850	417	433	503	e550	13600	24700	2410	6090	1040
9	565	869	e1710	409	418	563	e501	9970	27400	2270	6160	1020
10	457	783	e1490	406	406	484	616	5900	25600	2210	5490	1020
11	389	755	e1080	420	389	418	782	4640	24000	2150	4390	1040
12	316	736	e910	417	387	393	712	4540	17200	2110	4050	1060
13	266	678	e780	415	374	1550	599	3510	14500	1960	3750	1030
14	243	669	671	508	369	3210	569	2170	11400	1800	3580	998
15	231	632	657	508	374	2670	567	1820	8960	1710	3330	1000
16	239	600	632	492	398	2170	547	1540	7340	1580	3000	1160
17	250	571	587	485	422	1690	699	1360	6450	1370	2810	2000
18	276	536	575	475	445	1500	4030	1210	5960	1260	2600	2040
19	322	865	550	443	440	1390	3370	1120	5460	1110	2420	2560
20	376	1180	517	396	442	1290	2330	1030	5060	1130	2280	2790
21	1370	2690	489	385	433	1130	1710	e975	4660	1250	2200	3120
22	1630	3850	457	411	433	1030	1670	e918	4260	1140	2110	4180
23	1190	3310	459	434	416	939	e2150	918	3980	1150	e1980	3820
24	886	3420	529	466	402	852	1860	6940	3850	2200	1840	3420
25	705	3370	530	505	382	808	1600	5280	3720	1890	1770	3910
26	698	2580	499	888	374	730	1280	3620	3540	1630	1620	3750
27	543	1980	442	1260	421	679	1140	11200	3510	1470	1520	3370
28	456	e1500	420	951	459	709	1060	11600	3410	1310	1490	3260
29	437	e1200	424	762	---	655	932	8700	3300	1220	1470	3260
30	439	e1100	431	655	---	644	839	7870	3570	1120	1420	2860
31	433	---	443	573	---	737	---	7750	---	1060	1380	---
TOTAL	15013	44103	22612	16127	12212	29777	34476	126797	293630	58290	91790	62468
MEAN	484	1470	729	520	436	961	1149	4090	9788	1880	2961	2082
MAX	1630	3850	1850	1260	627	3210	4030	13600	27400	3150	6160	4180
MIN	131	395	420	385	369	393	501	706	3300	1060	1010	998
AC-FT	29780	87480	44850	31990	24220	59060	68380	251500	582400	115600	182100	123900

e Estimated

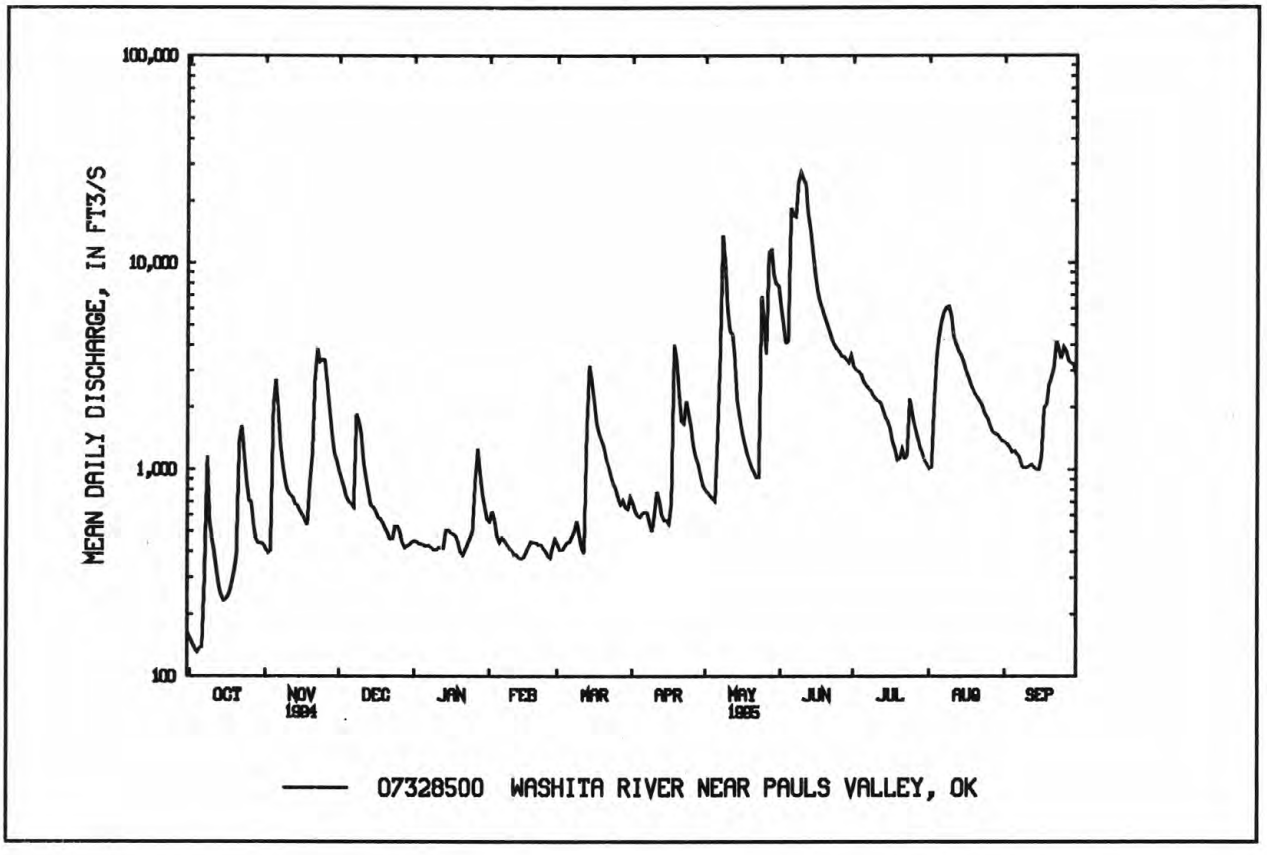
07328500 WASHITA RIVER NEAR PAULS VALLEY, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	862	712	595	546	630	930	901	1880	2026	657	423	578
MAX	7934	3608	3347	2145	3149	4552	3949	10690	9788	3174	2961	2082
(WY)	1987	1987	1992	1993	1987	1990	1990	1993	1995	1987	1995	1995
MIN	35.2	61.7	69.6	91.3	87.8	78.9	58.9	38.1	151	16.3	.28	23.6
(WY)	1964	1968	1968	1967	1967	1967	1982	1971	1966	1964	1972	1972

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	265018		807295			
ANNUAL MEAN	726		2212		[a]895	
HIGHEST ANNUAL MEAN					3661	1987
LOWEST ANNUAL MEAN					181	1967
HIGHEST DAILY MEAN	3850	Nov 22	27400	Jun 9	41700	May 29 1987
LOWEST DAILY MEAN	120	Aug 30	131	Oct 4	[b].00	Jul 21 1964
ANNUAL SEVEN-DAY MINIMUM	135	Aug 24	162	Oct 1	.00	Jul 21 1964
INSTANTANEOUS PEAK FLOW			29100	Jun 9	43600	May 29 1987
INSTANTANEOUS PEAK STAGE			19.68	Jun 9	[c]28.72	May 29 1987
ANNUAL RUNOFF (AC-FT)	525700		1601000		648700	
10 PERCENT EXCEEDS	1430		4460		2010	
50 PERCENT EXCEEDS	523		1030		379	
90 PERCENT EXCEEDS	192		410		82	

[a]Prior to regulation, water years 1938-50, 829 ft^3/s.
[b]No flow in 1956, 1964, 1966, 1967, 1970, 1972.
[c]Maximum gage height for period of record, 29.08 ft, May 11, 1950.



07329852 ROCK CREEK AT SULPHUR, OK

LOCATION.--Lat 34°29'43", long 96°59'18", in SE 1/4 SE 1/4 sec.4, T.1 S., R.3 E., Murray County, Hydrologic Unit 11130303, 80 ft west of campsite 69 in Rock Creek Campground, in the Chickasaw National Park at Sulphur, OK, and at mile 11.0.

DRAINAGE AREA.--44.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1, 1989 to current year.

REVISED RECORDS.--WDR OK-94-2: 1993.

GAGE.--Water-stage recorder. Datum of gage is 896.97 ft above sea level.

REMARKS.--Records fair. Flow regulated by numerous flood-retarding structures.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.4	7.5	23	21	33	21	39	120	88	24	14	13
2	e4.4	7.7	23	20	30	21	36	67	60	22	18	13
3	e4.3	7.7	23	20	30	21	56	59	48	20	17	13
4	e4.3	15	23	20	28	22	114	57	98	20	15	12
5	4.2	20	23	20	28	23	66	58	1100	19	15	12
6	4.6	11	23	21	28	28	53	498	339	20	15	12
7	7.7	7.8	22	21	27	107	47	1120	246	17	15	12
8	5.6	6.6	246	20	26	44	44	1250	138	15	15	12
9	5.1	12	440	20	26	34	42	407	88	15	15	12
10	5.1	6.8	147	20	27	29	860	329	812	14	15	12
11	5.1	5.9	85	21	27	29	424	263	816	13	15	14
12	5.1	5.8	60	21	25	30	333	158	387	13	15	15
13	5.3	25	46	21	25	1000	227	121	241	13	15	13
14	5.8	136	41	20	25	474	149	89	128	13	15	13
15	5.8	36	39	20	27	399	100	87	94	13	15	13
16	5.9	17	54	20	27	241	82	67	82	13	15	43
17	6.1	11	43	22	27	150	82	57	72	16	14	e58
18	6.4	9.1	36	22	25	108	80	48	64	14	14	e38
19	6.9	10	33	24	25	88	120	40	58	13	15	e95
20	7.4	810	32	22	24	72	284	37	53	13	15	e55
21	9.7	311	29	21	24	59	115	38	48	20	14	e49
22	7.6	162	27	23	24	56	76	38	45	15	14	e35
23	7.4	97	27	25	23	51	71	54	41	14	14	e27
24	7.7	55	25	24	23	47	65	182	37	38	13	e22
25	8.9	43	24	24	22	48	61	102	35	21	13	e34
26	7.5	38	23	88	23	53	60	87	33	16	13	e24
27	7.3	36	23	111	23	48	62	777	32	13	13	e22
28	7.3	30	23	53	23	44	56	195	29	13	13	e20
29	7.3	26	23	40	---	43	54	101	27	13	13	e20
30	7.6	24	23	36	---	42	51	229	24	14	13	e19
31	8.3	---	23	34	---	41	---	194	---	14	13	---
TOTAL	196.1	1989.9	1732	895	725	3473	3909	6929	5363	511	448	752
MEAN	6.33	66.3	55.9	28.9	25.9	112	130	224	179	16.5	14.5	25.1
MAX	9.7	810	440	111	33	1000	860	1250	1100	38	18	95
MIN	4.2	5.8	22	20	22	21	36	37	24	13	13	12
AC-FT	389	3950	3440	1780	1440	6890	7750	13740	10640	1010	889	1490

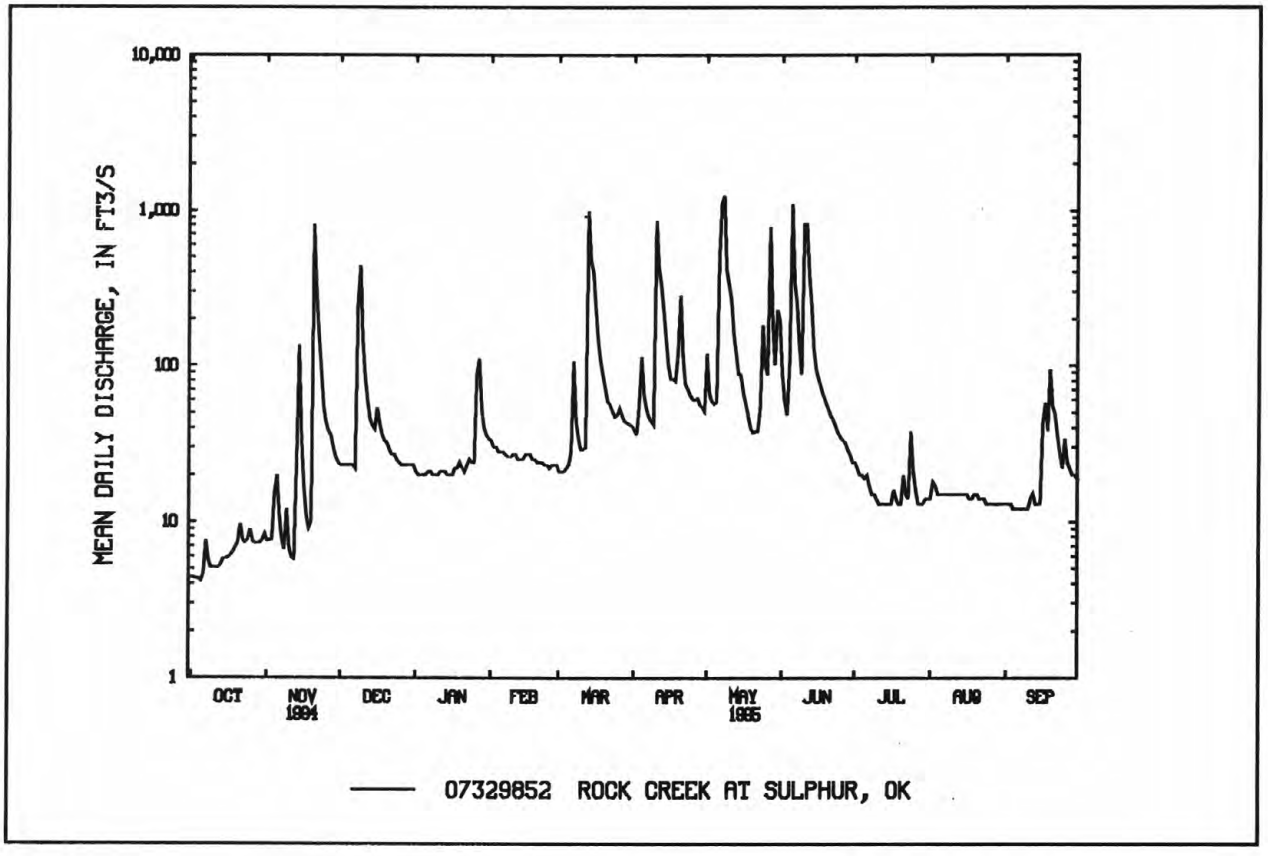
e Estimated

07329852 ROCK CREEK AT SULPHUR, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.4	48.4	84.9	54.6	55.5	143	133	166	110	39.3	17.4	77.2
MAX	64.5	115	210	88.7	151	261	390	406	211	121	22.6	213
(WY)	1990	1992	1992	1990	1993	1990	1990	1990	1991	1992	1993	1993
MIN	6.33	20.1	11.9	20.0	25.9	28.0	32.6	32.3	30.9	12.2	9.90	8.69
(WY)	1995	1993	1990	1994	1995	1991	1994	1992	1993	1993	1994	1994

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1990 - 95	
ANNUAL TOTAL	16038.5		26923.0			
ANNUAL MEAN	43.9		73.8		79.6	
HIGHEST ANNUAL MEAN					129	1990
LOWEST ANNUAL MEAN					42.1	1994
HIGHEST DAILY MEAN	1010	May 26	1250	May 8	3450	May 2 1990
LOWEST DAILY MEAN	4.2	Oct 5	4.2	Oct 5	4.2	Oct 5 1994
ANNUAL SEVEN-DAY MINIMUM	4.3	Sep 29	4.8	Oct 1	4.3	Sep 29 1994
INSTANTANEOUS PEAK FLOW			4610	May 7	10400	Apr 26 1990
INSTANTANEOUS PEAK STAGE			14.24	May 7	19.65	May 26 1994
INSTANTANEOUS LOW FLOW			4.2	Oct 4	4.2	Oct 4 1994
ANNUAL RUNOFF (AC-FT)	31810		53400		57700	
10 PERCENT EXCEEDS	76		142		150	
50 PERCENT EXCEEDS	20		24		28	
90 PERCENT EXCEEDS	7.3		8.1		13	



07329852 ROCK CREEK AT SULPHUR, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1990 to September 1995 (discontinued).

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

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	GAGE HEIGHT (FEET) (00065)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)
MAY											
03...	1120	4.00	15.5	740	1028	1028	64	5.90	580	10.4	8.2
03...	1122	8.00	15.5	740	1028	1028	64	5.90	580	10.4	8.2
03...	1124	12.0	15.5	740	1028	1028	64	5.90	580	10.5	8.2
03...	1126	16.0	15.5	740	1028	1028	64	5.90	580	10.5	8.3
03...	1128	20.0	15.5	740	1028	1028	64	5.90	580	10.5	8.3
03...	1130	24.0	15.5	740	1028	1028	64	5.90	580	10.6	8.3
03...	1132	28.0	15.5	740	1028	1028	64	5.90	580	10.6	8.3
03...	1134	32.0	15.5	740	1028	1028	64	5.90	580	10.6	8.3
03...	1136	36.0	15.5	740	1028	1028	64	5.90	580	10.6	8.3
AUG											
23...	1900	3.00	27.0	742	1028	1028	13	5.70	773	8.4	8.9
23...	1902	6.00	27.0	742	1028	1028	13	5.70	773	8.5	8.9
23...	1904	9.00	27.0	742	1028	1028	13	5.70	774	8.7	8.9
23...	1906	12.0	27.0	742	1028	1028	13	5.70	774	8.8	8.9
23...	1908	15.0	27.0	742	1028	1028	13	5.70	775	8.8	8.9
23...	1910	18.0	27.0	742	1028	1028	13	5.70	775	8.8	8.9
23...	1912	21.0	27.0	742	1028	1028	13	5.70	775	8.8	8.9
23...	1914	24.0	27.0	742	1028	1028	13	5.70	776	8.8	8.9
23...	1916	27.0	27.0	742	1028	1028	13	5.70	776	8.8	8.9
23...	1918	30.0	27.0	742	1028	1028	13	5.70	774	8.6	8.9
23...	1920	33.0	27.0	742	1028	1028	13	5.70	774	8.2	8.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)
NOV											
16...	1140	1028	80020	17	524	8.4	18.0	12.5	742	11.0	107
FEB											
22...	1130	1028	80020	24	701	8.4	21.0	13.5	745	13.0	128
MAY											
03...	1030	1028	80020	63	582	8.4	14.5	15.5	740	10.4	107
AUG											
23...	1800	1028	80020	13	770	9.1	33.5	27.0	742	8.5	110

DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLVED (MG/L AS CACO3) (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)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV											
16...	210	20	55	17	29	23	0.9	3.3	228	*0	187
FEB											
22...	280	11	71	25	39	23	1	2.2	328	*0	269
MAY											
03...	250	7	71	18	22	16	0.6	2.0	298	*0	244
AUG											
23...	260	28	49	33	58	33	2	2.6	260	10	229

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 AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV											
16...	15	42	0.20	8.8	297	283	0.40	13.6	0.070	<0.010	0.070
FEB											
22...	16	60	0.20	6.5	376	381	0.51	24.4	--	<0.010	--
MAY											
03...	12	31	0.20	6.3	329	309	0.45	56.0	--	<0.010	--
AUG											
23...	17	93	0.20	10	401	401	0.55	14.1	0.120	<0.010	0.120

* Filtered pH <8.3 units for alkalinity titration; therefore, no carbonate value.

07329852 ROCK CREEK AT SULPHUR, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV										
16...	0.070	0.030	0.04	0.27	0.30	0.37	0.020	0.020	0.06	<1
FEB										
22...	<0.050	<0.015	--	--	<0.20	--	<0.010	<0.010	--	<1
MAY										
03...	<0.050	<0.015	--	--	<0.20	--	<0.010	<0.010	--	<1
AUG										
23...	0.120	0.020	0.03	0.18	0.20	0.32	0.030	<0.010	--	<1

DATE	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	SELENIUM, TOTAL (UG/L AS SE) (01147)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
NOV										
16...	70	<1	<1	<1	37	<1	26	0.10	<1	<10
FEB										
22...	80	<1	<1	<1	9	<1	13	<0.10	<1	<10
MAY										
03...	50	<1	<1	<1	15	<1	16	<0.10	<1	<10
AUG										
23...	100	<1	<1	1	8	<1	4	<0.10	<1	<10


U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

07331000 WASHITA RIVER NEAR DICKSON, OK

LOCATION.--Lat 34°14'00", long 96°58'32", in SW 1/4 SE 1/4 sec.3, T.4 S., R.3 E., Carter County, Hydrologic Unit 11130303, on right bank on downstream side of bridge on U.S. Highway 177, 1.3 mi downstream from Caddo Creek, 3.2 mi north of Dickson, 12.0 mi northeast of Ardmore, and at mile 63.4.

DRAINAGE AREA.--7,202 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to Oct. 1, 1979, published as Washita River near Durwood.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1281: 1935 (M).

GAGE.--Water-stage recorder. Datum of gage is 650.57 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Feb. 16, 1939, nonrecording gage, at same site and datum. Dec. 15, 1950, to Feb. 19, 1952, nonrecording gage, at site 500 ft upstream, at same datum. Apr. 24, 1975, to May 8, 1986, water-stage recorder, at site 500 ft upstream, at same datum.

REMARKS.--Records fair. Some diversions for irrigation upstream from station. Flow regulated by Fort Cobb Reservoir (station 07325900) since March 1959; by Foss Reservoir (station 07324300) since February 1961; and by numerous flood-retarding structures. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e335	587	2160	741	2110	740	850	5820	12000	4090	1630	e1350
2	e310	541	1910	729	1860	794	809	4760	9850	3780	1570	e1320
3	e290	523	1750	745	1760	789	869	3200	7890	3630	1610	e1320
4	e285	558	1320	1120	1570	760	1490	4070	6600	3530	3500	e1310
5	e275	16500	1240	745	1360	785	1010	2590	26300	3420	4510	e1300
6	e310	12200	1150	662	1190	813	887	8330	31900	3050	4940	e1470
7	350	6360	1070	672	1200	1130	798	25500	23800	2960	5400	e1340
8	1090	4320	1600	657	1150	1060	593	46900	22500	2920	5660	e1280
9	2000	4160	5380	643	1100	1200	528	41100	26600	2840	5630	e1220
10	1040	3710	4610	627	1090	1300	730	23400	31500	2680	5540	e1210
11	756	2800	3040	600	1070	1170	2280	16100	49500	2590	e4800	e1190
12	623	2280	2320	594	925	945	2100	12600	37700	2530	e4200	e1160
13	540	1860	2280	582	876	8990	1870	10500	20500	2430	e3900	e1220
14	471	3770	2160	574	844	22400	1850	8490	15900	2220	e3550	e1190
15	441	3690	2030	609	837	17900	1080	7280	12500	2050	3190	e1170
16	441	2380	2150	724	835	12900	977	6300	10600	2000	e3070	2620
17	427	1830	2340	701	856	9430	2020	5120	9450	1910	2800	5170
18	423	1490	1990	857	879	7320	11800	4440	8260	1740	e2690	4120
19	422	1330	1800	982	904	6060	14700	3330	7530	1670	e2600	4060
20	440	11600	1710	945	891	5110	14700	2820	6450	1720	e2490	5950
21	579	14900	1530	692	849	4120	9490	2430	5720	1630	e2380	4070
22	1810	10600	1090	645	906	2830	6460	2220	5270	1720	e2280	4190
23	2160	8870	983	694	895	2430	7940	1940	4890	1690	e2210	4240
24	1600	8710	940	773	864	1980	6920	7570	4620	1830	2220	3640
25	1300	7930	961	830	761	1510	5220	14600	4480	3670	e2070	3550
26	1030	5510	968	1300	698	1330	3860	12500	4320	2740	e1920	4020
27	930	4100	936	5640	686	1190	3130	14700	4080	2310	e1820	4910
28	913	3270	856	4300	692	1110	2700	21100	3980	2030	e1730	5240
29	767	2710	798	3070	---	1060	2350	16700	3890	1820	e1620	4280
30	658	2400	771	2810	---	959	2140	15300	4190	1690	e1520	3650
31	605	---	750	2470	---	864	---	13700	---	1620	e1450	---
TOTAL	23621	151489	54593	37733	29658	120979	112151	365410	422770	76510	94500	82760
MEAN	762	5050	1761	1217	1059	3903	3738	11790	14090	2468	3048	2759
MAX	2160	16500	5380	5640	2110	22400	14700	46900	49500	4090	5660	5950
MIN	275	523	750	574	686	740	528	1940	3890	1620	1450	1160
AC-FT	46850	300500	108300	74840	58830	240000	222500	724800	838600	151800	187400	164200

e Estimated

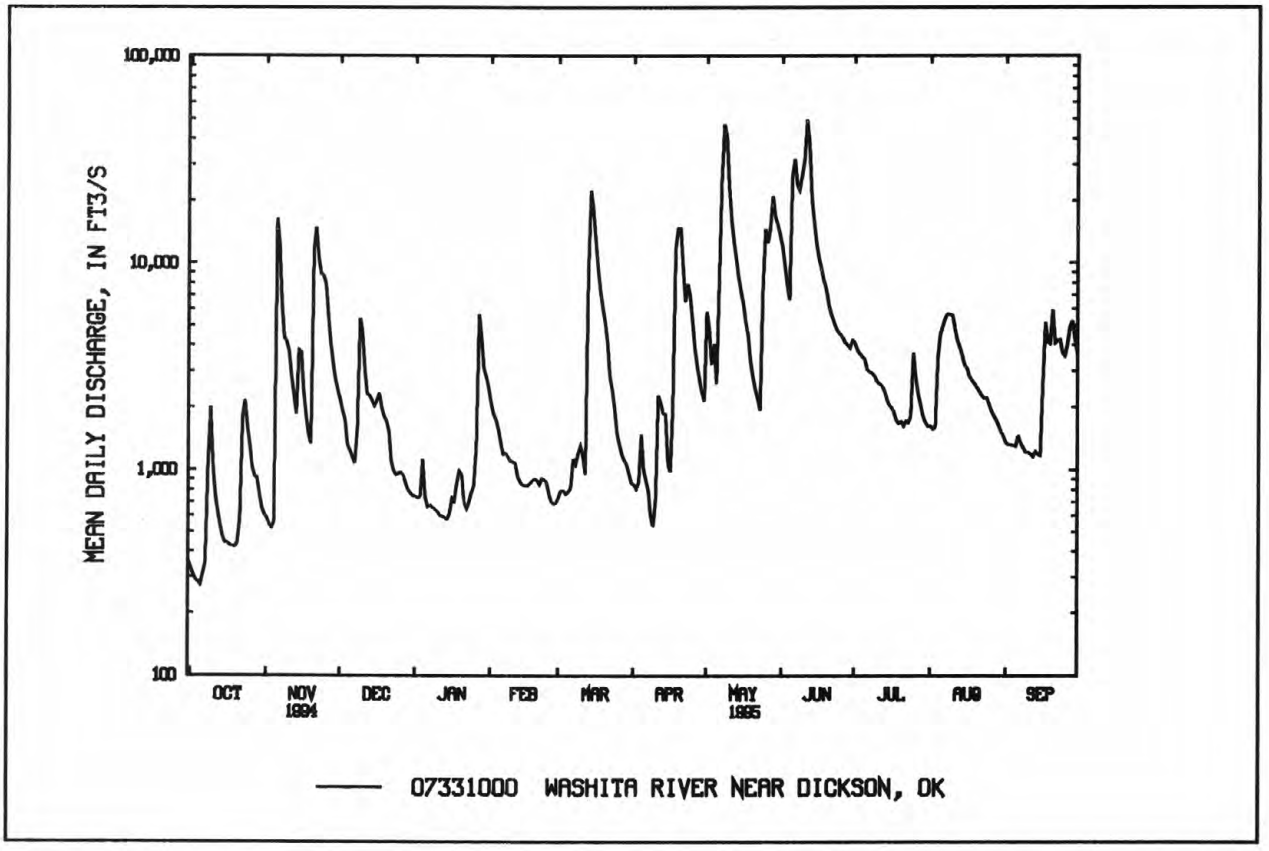
07331000 WASHITA RIVER NEAR DICKSON, OK

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1483	1560	1371	1067	1330	2306	2268	4293	3675	994	556	1093
MAX	8274	5879	9324	4081	5980	10890	15940	18720	14090	4042	3048	5236
(WY)	1987	1987	1992	1985	1993	1990	1990	1993	1995	1987	1995	1991
MIN	30.4	73.5	103	103	93.6	78.4	210	249	158	31.4	12.8	42.1
(WY)	1964	1964	1967	1967	1967	1967	1971	1971	1966	1964	1972	1972

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	870845		1572174			
ANNUAL MEAN	2386		4307		[a]1833	
HIGHEST ANNUAL MEAN					5644	1987
LOWEST ANNUAL MEAN					340	1964
HIGHEST DAILY MEAN	25000	May 26	49500	Jun 11	94400	May 3 1990
LOWEST DAILY MEAN	160	Aug 30	275	Oct 5	[b].10	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	191	Aug 24	308	Oct 1	.30	Aug 8 1964
INSTANTANEOUS PEAK FLOW			[c]52100	May 8	[d]118000	May 3 1990
INSTANTANEOUS PEAK STAGE			30.92	Jun 11	45.24	May 30 1987
ANNUAL RUNOFF (AC-FT)	1727000		3118000		1328000	
10 PERCENT EXCEEDS	5830		10600		4180	
50 PERCENT EXCEEDS	983		2000		645	
90 PERCENT EXCEEDS	301		680		124	

[a]Prior to regulation, water years 1929-58, 1,573 ft^3/s.
[b]No flow Aug. 28, Sept. 14, to Oct. 1, 7-12, 1956.
[c]Gage height was 30.03 ft.
[d]Gage height was 44.26 ft.



07331000 WASHITA RIVER NEAR DICKSON, OK--Continued

(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1944 to September 1995 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1944 to January 1982, February 1984 to April 1990.
WATER TEMPERATURE: April 1947 to January 1982, February 1984 to April 1990.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,120 microsiemens, Nov. 15, 1963; minimum daily, 95 microsiemens, Nov. 2, 1951.
WATER TEMPERATURE: Maximum daily, 38.0°C, July 16, 1985; minimum daily, 0.0°C on many days during winter periods.

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	GAGE HEIGHT (FEET) (00065)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SEDIMENT, SUSPENDED (MG/L) (80154)
JUL												
12...	1315	20.0	32.5	748	1028	1028	2550	11.85	1290	6.8	8.3	722
12...	1319	40.0	32.5	748	1028	1028	2550	11.85	1290	7.2	8.2	1890
12...	1323	60.0	32.5	748	1028	1028	2550	11.85	1290	7.1	8.2	2240
12...	1327	80.0	32.0	748	1028	1028	2550	11.85	1300	7.2	8.2	3480
12...	1331	100	32.0	748	1028	1028	2550	11.85	1300	7.2	8.2	2520
12...	1335	120	32.0	748	1028	1028	2550	11.85	1300	7.1	8.2	4840
12...	1339	140	32.5	748	1028	1028	2550	11.85	1300	7.1	8.2	3050
12...	1343	160	32.5	748	1028	1028	2550	11.85	1300	6.9	8.2	2980
12...	1347	180	32.5	748	1028	1028	2550	11.85	1300	6.4	8.2	1590
12...	1350	200	32.5	748	1028	1028	2550	11.85	1290	6.3	8.2	880

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT											
05...	1330	1028	80020	335	1240	8.2	32.0	26.0	6.0	743	9.2
DEC											
12...	1330	1028	80020	2260	705	8.3	9.0	6.0	150	750	11.7
APR											
18...	1345	1028	80020	19200	*460	7.8	23.5	19.5	2200	740	5.6
JUN											
28...	1230	1028	80020	4040	1040	8.3	32.0	26.5	470	747	7.4
AUG											
24...	1030	1028	80020	2460	1300	8.2	29.0	27.5	350	748	7.4

*SPECIFIC CONDUCTANCE, LAB (µs/cm)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	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)
OCT											
05...	117	50	64	490	310	110	53	87	28	2	4.7
DEC											
12...	95	>2000	K9600	310	120	85	23	28	16	0.7	3.9
APR											
18...	63	55000	52000	160	--	39	14	21	22	0.7	2.9
JUN											
28...	94	110	--	460	270	120	39	39	15	0.8	5.0
AUG											
24...	96	170	470	600	430	150	55	48	15	0.9	5.8

DATE	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)
OCT											
05...	222	0	182	350	94	0.80	5.9	842	817	1.15	762
DEC											
12...	223	0	183	130	33	0.20	9.3	420	425	0.57	2560
APR											
18...	--	--	*138	64	22	0.20	6.5	254	254	0.35	13200
JUN											
28...	230	0	189	300	36	0.30	10	732	666	1.0	7980
AUG											
24...	208	0	171	480	39	0.40	12	968	898	1.32	6430

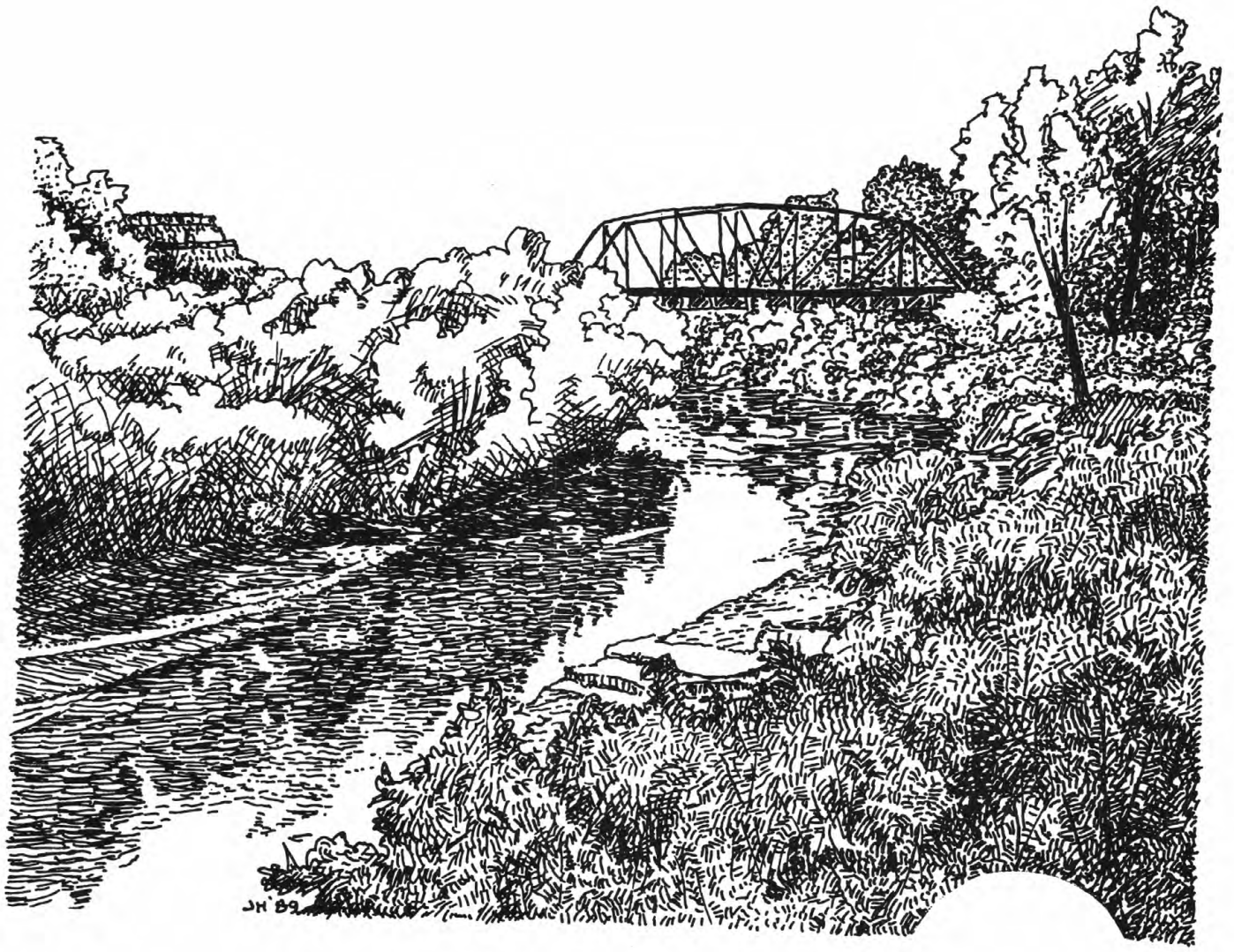
DATE	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3) (71851)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2) (71856)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT											
05...	0.060	0.060	0.27	0.010	0.03	0.070	0.070	<0.015	--	1.3	1.3
DEC											
12...	0.390	0.390	1.7	0.010	0.03	0.400	0.400	0.070	0.09	0.33	0.40
APR											
18...	0.370	0.370	1.6	0.020	0.07	0.390	0.390	0.070	0.09	2.2	2.3
JUN											
28...	0.530	0.530	2.3	0.010	0.03	0.540	0.540	0.030	0.04	0.67	0.70
AUG											
24...	0.850	--	--	<0.010	--	0.850	0.850	<0.015	--	1.5	1.5

* ALKALINITY, LAB (MG/L AS $CaCO_3$)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4) (00660)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	COBALT, DISSOLVED (UG/L AS CO) (01035)	IRON, DISSOLVED (UG/L AS FE) (01046)	LITHIUM DISSOLVED (UG/L AS LI) (01130)
OCT										
05...	1.4	0.120	0.030	0.010	0.03	30	210	<3	15	19
DEC										
12...	0.80	0.070	0.040	0.050	0.15	20	120	<3	19	<4
APR										
18...	2.7	0.780	<0.010	0.020	0.06	--	--	--	--	--
JUN										
28...	1.2	0.240	0.060	0.050	0.15	<10	230	<3	<3	12
AUG										
24...	2.4	0.620	0.070	0.070	0.21	20	250	<3	<3	20

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT										
05...	11	<10	1	<1	<1.0	1500	8	92	83	7
DEC										
12...	6	10	11	<1	<1.0	650	<6	351	2140	85
APR										
18...	--	--	--	--	--	--	--	17000	881000	60
JUN										
28...	<1	<10	<1	13	<1.0	1200	10	3820	41700	65
AUG										
24...	<1	<10	<1	<1	<1.0	1700	21	2120	14100	70


JH '89

07332500 BLUE RIVER NEAR BLUE, OK

LOCATION.--Lat 33°59'49", long 96°14'27", on line between sec.27 and 34, T.6 S., R.10 E., Bryan County, Hydrologic Unit 11140102, on left bank on downstream side near end of bridge on U.S. Highway 70, 1.0 mi west of Blue, 7.0 mi east of Durant, 7.7 mi upstream from Caddo Creek, and at mile 38.8.

DRAINAGE AREA.--476 mi^2.

PERIOD OF RECORD.--June 1936 to current year. Monthly discharge only for some periods, published in WSP 1311, 1731.

REVISED RECORDS.--WSP 957: 1938. WSP 1241: 1936, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 503.60 ft above sea level. Prior to Mar. 13, 1945, nonrecording gage and Mar. 13, 1945, to Feb. 2, 1960, water-stage recorder at site 1.2 mi downstream at datum 5.00 ft lower.

REMARKS.--No estimated daily discharges. Records good. Some regulation at low flow by a State fish hatchery, 16.0 mi upstream from station. Small diversion for municipal water supply for city of Durant upstream from station. U.S. Army Corps of Engineers' satellite telemeter at station. No flow also occurred Aug. 4, 1936, result of regulation at fish hatchery, and no flow Sept. 19 to Oct. 16, 1956.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 15	1300	7,600	21.57	May 1	1800	5,250	18.50
Dec. 9	2000	5,030	18.18	May 4	1300	4,540	17.39
Mar. 14	2200	5,240	18.48	May 8	1900	10,200	24.06
Mar. 26	1000	4,670	17.61	May 25	0500	4,520	17.36
Apr. 4	1400	5,230	18.47	June 11	1800	4,080	16.63

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	91	249	254	316	165	305	3680	1760	207	114	64
2	63	89	241	244	298	160	291	2760	589	282	122	61
3	63	89	240	238	280	159	312	956	535	343	120	61
4	61	89	240	238	258	159	4320	3630	426	194	115	58
5	60	547	239	234	244	161	2540	1440	539	237	111	58
6	59	940	231	232	232	166	953	1700	2570	269	108	57
7	65	372	225	232	229	349	542	4570	1130	190	105	58
8	143	235	431	230	221	776	425	8700	545	166	100	66
9	189	855	4400	222	216	383	367	9650	450	154	97	69
10	102	1730	3990	219	213	253	425	5440	911	145	95	65
11	76	475	1100	219	213	218	2930	1020	3810	138	94	61
12	69	284	582	218	213	203	2800	725	2950	134	90	66
13	67	225	473	231	206	2790	678	645	863	129	88	90
14	65	2560	440	228	202	5030	487	589	495	124	87	80
15	65	7300	464	212	202	3570	422	516	399	119	86	71
16	65	3920	938	205	202	1490	387	475	346	119	85	66
17	66	674	724	202	202	790	518	460	309	132	83	165
18	68	439	494	268	201	550	970	474	284	165	86	284
19	73	364	399	654	195	460	605	431	268	120	79	474
20	89	920	365	396	191	407	3150	378	255	129	78	1140
21	601	2330	347	289	184	371	2340	357	245	138	75	222
22	331	1250	325	253	178	345	693	343	235	146	75	124
23	145	467	306	323	177	327	503	332	224	134	72	96
24	308	375	293	309	172	303	449	689	215	215	70	82
25	860	338	284	323	168	343	417	2840	210	290	70	76
26	453	320	277	360	166	3850	401	741	200	219	67	76
27	234	314	272	1350	166	1390	802	493	192	161	67	782
28	150	332	271	986	166	534	512	695	186	131	67	877
29	120	292	271	491	---	402	398	620	194	119	67	206
30	107	265	268	396	---	356	357	629	382	112	64	125
31	98	---	262	347	---	326	---	3160	---	109	64	---
TOTAL	4979	28481	19641	10603	5911	26786	30299	59138	21717	5270	2701	5780
MEAN	161	949	634	342	211	864	1010	1908	724	170	87.1	193
MAX	860	7300	4400	1350	316	5030	4320	9650	3810	343	122	1140
MIN	59	89	225	202	166	159	291	332	186	109	64	57
AC-FT	9880	56490	38960	21030	11720	53130	60100	117300	43080	10450	5360	11460

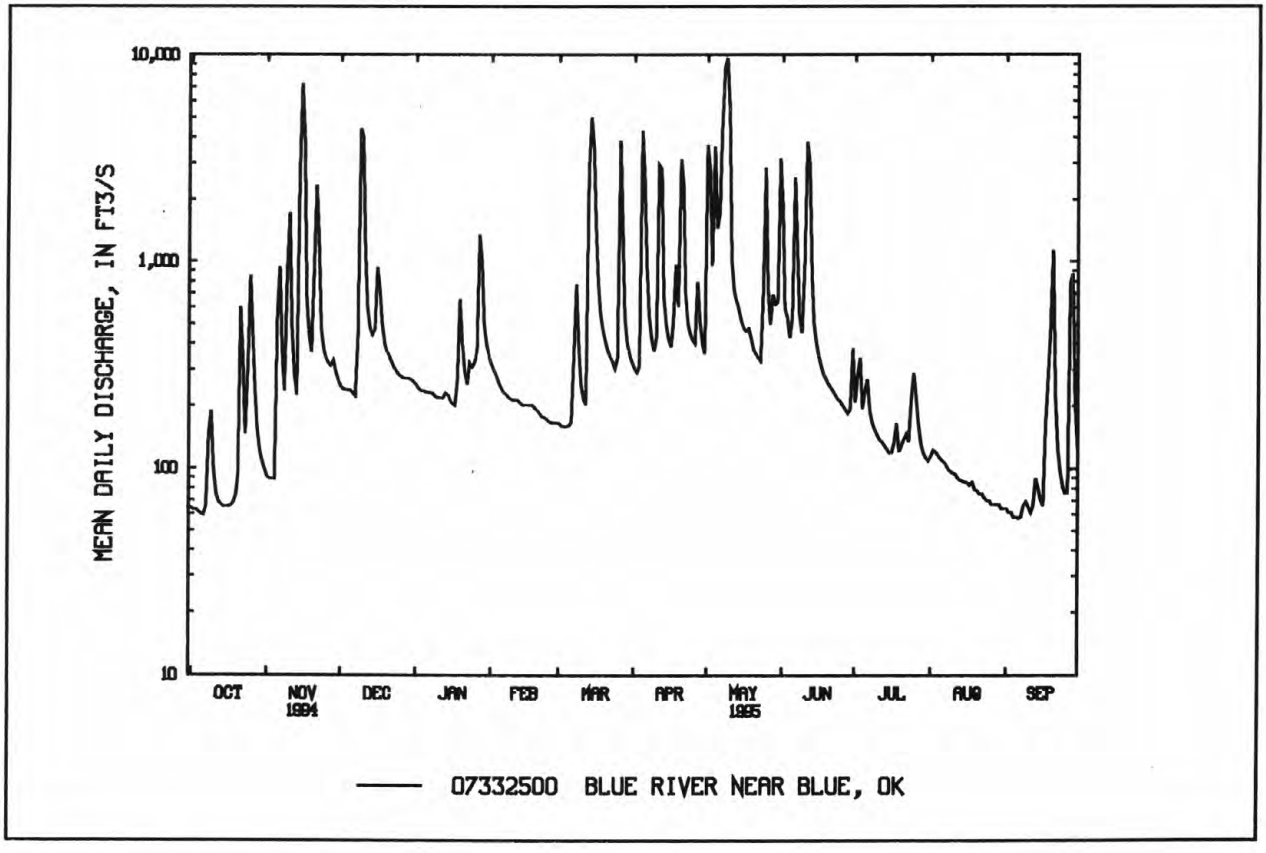
07332500 BLUE RIVER NEAR BLUE, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	244	259	260	223	377	465	590	674	453	154	77.1	163
MAX	3613	1371	1384	849	2156	3089	3846	2953	2510	780	755	1501
(WY)	1982	1975	1972	1968	1938	1945	1990	1990	1945	1950	1950	1957
MIN	4.37	11.3	17.8	18.1	27.0	22.8	51.5	33.2	24.2	5.23	.94	.42
(WY)	1940	1940	1940	1940	1967	1940	1956	1939	1939	1956	1956	1956

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1936 - 95	
ANNUAL TOTAL	155674		221306			
ANNUAL MEAN	427		606		328	
HIGHEST ANNUAL MEAN					972	1945
LOWEST ANNUAL MEAN					30.8	1956
HIGHEST DAILY MEAN	7360	May 3	9650	May 9	45500	Oct 14 1981
LOWEST DAILY MEAN	55	Aug 30	57	Sep 6	[a].00	Aug 3 1936
ANNUAL SEVEN-DAY MINIMUM	60	Aug 24	60	Sep 1	.00	Sep 19 1956
INSTANTANEOUS PEAK FLOW			10200	May 8	65200	Oct 14 1981
INSTANTANEOUS PEAK STAGE			24.06	May 8	[b]44.20	Oct 14 1981
ANNUAL RUNOFF (AC-FT)	308800		439000		237700	
10 PERCENT EXCEEDS	747		1180		552	
50 PERCENT EXCEEDS	164		255		89	
90 PERCENT EXCEEDS	71		72		27	

[a]Result of regulation at fish hatchery and no flow Sept. 19 to Oct. 16, 1956.
[b]From high-water mark.



07334000 MUDDY BOGGY CREEK NEAR FARRIS, OK

LOCATION.--Lat 34°16'17", long 95°54'43", in NE 1/4 NW 1/4 sec.26, T.3 S., R.13 E., Atoka County, Hydrologic Unit 11140103, on downstream left bank of bridge on State Highway 3, 1.3 mi downstream from McGee Creek, 2.8 mi northwest of Farris, and at mile 57.7.

DRAINAGE AREA.--1,087 mi^2.

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 439.58 ft above sea level. Prior to Mar. 13, 1945, nonrecording gage, and Mar. 13, 1945, to Sept. 30, 1961, water-stage recorder at same site at datum 7 ft higher. Prior to Oct. 1, 1989, water-stage recorder at same site and datum 5 ft higher.

REMARKS.--No estimated daily discharges. Records good. Some regulation since June 1959 by Atoka Reservoir, drainage area, 176 mi^2; pipeline diversions to Oklahoma City since November 1963, and since April 1987 by McGee Creek Lake, drainage area 178 mi^2. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	59	756	125	811	102	941	1720	902	181	77	17
2	30	53	561	125	636	114	858	1500	1150	129	92	18
3	28	50	163	132	523	88	914	1470	1290	132	85	17
4	27	50	137	124	460	71	3140	1120	1830	113	74	17
5	26	1530	127	129	347	66	3960	900	1760	96	55	17
6	25	4150	121	139	407	68	2440	2080	4850	145	51	17
7	85	3630	116	137	506	623	1580	5500	4920	88	50	17
8	265	1060	637	132	359	2830	955	15800	2590	78	46	16
9	417	1350	7870	123	180	1730	799	18600	1370	74	42	16
10	344	2760	9360	123	153	838	1050	16100	1160	61	38	16
11	184	1830	6670	118	137	408	8440	12100	1910	53	35	18
12	118	873	2360	136	166	309	6430	5460	2920	48	33	71
13	85	641	1210	602	137	6570	3940	1920	1920	45	32	104
14	67	3830	1260	690	117	14900	2030	1380	896	42	30	203
15	58	11200	1600	894	112	14900	1350	1340	596	39	29	209
16	55	9640	2200	829	107	13400	1150	1880	620	37	26	135
17	51	6360	2630	726	116	9500	1210	1950	531	36	23	747
18	49	2870	2250	638	114	3960	1730	1970	469	36	23	2010
19	48	2220	1840	2560	110	2600	1610	2070	636	35	21	2540
20	62	2350	1450	2920	107	2120	4960	2060	964	36	22	4450
21	79	4880	1060	1710	101	1900	5510	1980	950	181	25	1180
22	82	4520	680	1020	94	1750	4500	1930	796	284	22	599
23	80	2480	484	1020	89	1770	1650	1900	515	333	21	477
24	73	1510	272	1580	85	1700	2170	1650	505	168	20	446
25	95	1280	227	2410	78	1330	2310	984	497	147	19	423
26	110	1180	193	2710	78	5520	1720	245	321	572	19	391
27	236	1140	169	4790	78	4550	1290	266	73	242	19	351
28	210	1160	152	6020	70	2560	924	287	64	137	19	410
29	123	1030	141	5340	---	2120	572	574	214	93	19	321
30	87	826	139	2270	---	1920	409	977	455	81	18	137
31	69	---	131	1360	---	1500	---	1180	---	66	18	---
TOTAL	3300	76512	46966	41632	6278	101817	70542	108893	37674	3808	1103	15390
MEAN	106	2550	1515	1343	224	3284	2351	3513	1256	123	35.6	513
MAX	417	11200	9360	6020	811	14900	8440	18600	4920	572	92	4450
MIN	25	50	116	118	70	66	409	245	64	35	18	16
AC-FT	6550	151800	93160	82580	12450	202000	139900	216000	74730	7550	2190	30530

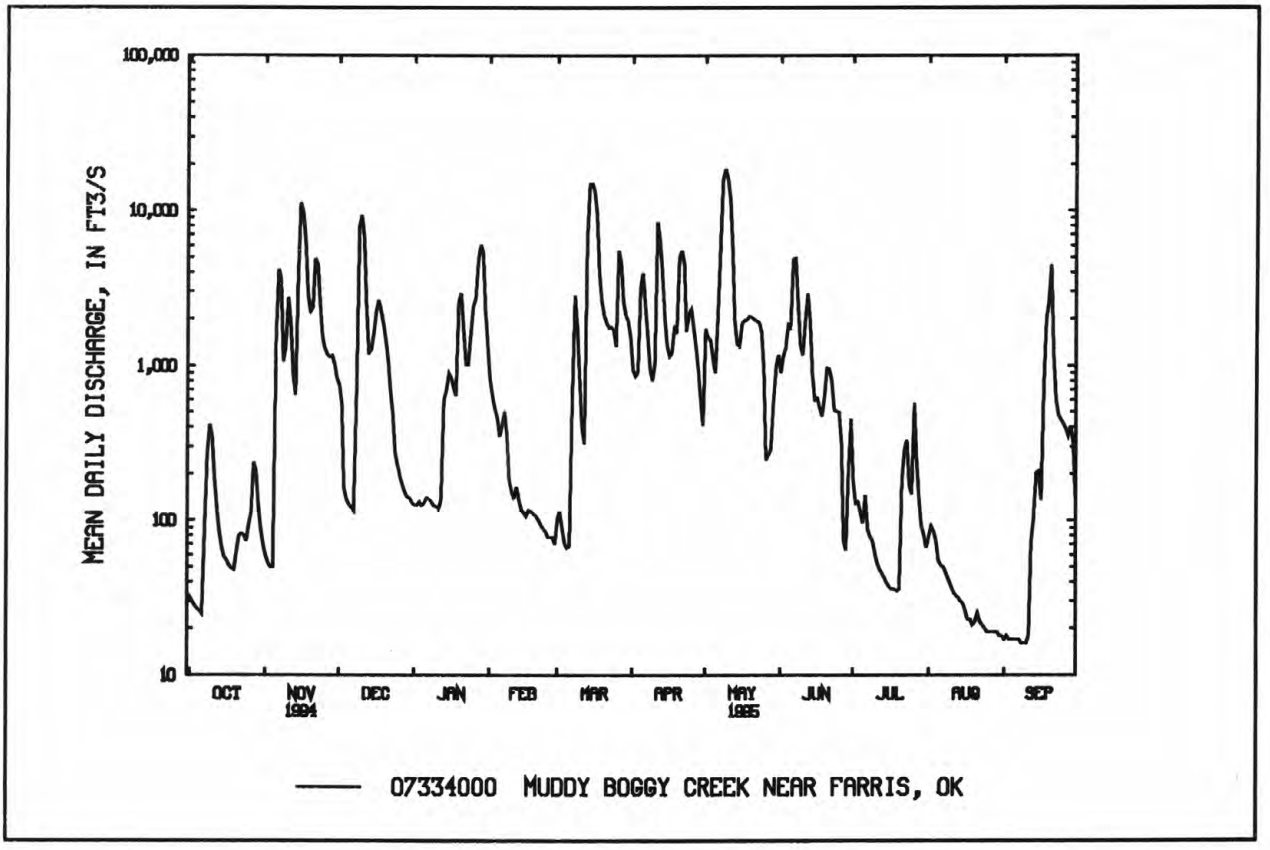
07334000 MUDDY BOGGY CREEK NEAR FARRIS, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	287	985	1911	1077	1228	2297	1987	3140	1530	355	290	563
MAX	1489	2550	4223	1563	2830	4541	6622	8384	2764	1854	1525	1026
(WY)	1992	1995	1992	1991	1993	1990	1990	1990	1991	1992	1992	1992
MIN	15.9	27.6	25.5	276	124	1020	484	34.7	25.0	26.8	15.3	13.8
(WY)	1989	1990	1990	1994	1991	1991	1988	1988	1988	1988	1988	1988

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1988 - 95	
ANNUAL TOTAL	392128		513915			
ANNUAL MEAN	1074		1408		[a]1305	
HIGHEST ANNUAL MEAN					2145	1990
LOWEST ANNUAL MEAN					682	1988
HIGHEST DAILY MEAN	14300	May 3	18600	May 9	45700	May 5 1990
LOWEST DAILY MEAN	16	Jul 29	16	Sep 8	9.9	Nov 9 1988
ANNUAL SEVEN-DAY MINIMUM	20	Jul 25	17	Sep 4	[b]11	Oct 18 1991
INSTANTANEOUS PEAK FLOW			19000	May 9	[c]49800	May 5 1990
INSTANTANEOUS PEAK STAGE			40.61	May 9	[d]48.73	May 5 1990
ANNUAL RUNOFF (AC-FT)	777800		1019000		945500	
10 PERCENT EXCEEDS	2680		3870		3210	
50 PERCENT EXCEEDS	179		446		267	
90 PERCENT EXCEEDS	37		33		22	

[a]Prior to regulation, water years 1938-86, 880 ft^3/s.
[b]No flow at times in many years prior to regulation.
[c]Maximum discharge for period of record 61,900 ft^3/s, June 17, 1945, from rating curve above 37,000 ft^3/s.
[d]Maximum gage height for period of record 51.94 ft, June 17, 1945, present datum.



07334200 BYRDS MILL SPRING NEAR FITTSTOWN, OK

LOCATION.--Lat 34°35'40", long 96°39'55", in SW 1/4 SW 1/4 sec.34, T.2 N., R.6 E., Pontotoc County, Hydrologic Unit 11140104, upstream from weir outlet of spring, 0.5 mi upstream from Big Spring Creek, 2.0 mi west of Fittstown, and 12.0 mi south of Ada.

PERIOD OF RECORD.--Creek only, April 1959 to current year. Combined flow from December 1989 to current year.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 1,021.17 ft above sea level. Flow meters on diversion pipe and wells, to City of Ada.

REMARKS.--Records fair. Prior to December 1989 records do not include diversion of about 6 to 10 ft^3/s by City of Ada for municipal water supply, a part of which is discharged as effluent to Sandy Creek, tributary to Canadian River. Records of zero flow do not include seepage of up to 0.10 ft^3/s. Satellite telemeter at station.

AVERAGE DISCHARGE.--Creek only: 36 years, 8.95 ft^3/s. Combined spring flow: 5 years, 22.0 ft^3/s.

EXTREMES FOR PERIOD OF RECORD.--Combined flow: maximum daily discharge, 43 ft^3/s, May 4, 5, 1990; minimum daily discharge, 13 ft^3/s, several days in 1990.

EXTREMES FOR CURRENT YEAR.--Combined flow: maximum daily discharge, 27 ft^3/s, May 16-18, June 13-30; minimum daily discharge, 15 ft^3/s, Oct. 3-24.

DISCHARGE, CUBIC FEET PER SECOND, CREEK FLOW, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	9.4	17	18	16	15	18	19	19	18	16	9.4
2	9.3	9.4	17	18	16	15	18	18	19	18	16	9.4
3	9.2	9.4	17	18	16	15	18	19	19	18	17	9.4
4	9.0	9.4	17	18	16	15	18	18	19	18	17	9.4
5	9.0	9.8	17	18	16	15	18	18	20	18	16	9.2
6	9.0	10	17	18	16	15	18	18	20	18	16	9.2
7	9.0	10	17	18	16	14	18	19	20	18	16	9.6
8	9.0	11	17	18	16	14	18	21	20	18	16	9.8
9	9.0	11	18	17	16	14	18	21	20	18	15	9.8
10	9.0	11	18	17	16	14	18	21	20	18	14	9.6
11	9.0	11	18	17	16	14	19	21	20	18	13	9.4
12	9.0	11	18	17	16	14	18	21	20	18	13	9.4
13	10	11	18	17	16	15	18	21	21	17	13	9.4
14	8.9	11	18	17	16	15	19	21	21	16	13	9.4
15	9.0	13	18	16	16	16	19	21	21	16	13	9.6
16	8.9	14	18	16	16	16	19	22	21	16	13	9.8
17	8.9	14	18	16	15	17	19	22	21	16	13	9.8
18	8.8	14	18	16	15	17	19	22	21	16	13	9.8
19	8.6	14	18	16	15	17	19	21	21	15	13	9.7
20	8.6	14	18	16	15	17	19	21	21	15	13	9.5
21	8.8	15	18	16	15	17	19	21	21	15	12	9.4
22	8.7	15	18	16	15	18	19	21	21	15	11	9.4
23	8.5	15	18	16	15	18	19	20	20	15	8.9	9.4
24	9.1	15	18	16	15	18	19	20	19	16	8.6	9.4
25	9.3	16	18	16	15	18	19	20	19	17	9.3	11
26	9.4	16	18	16	15	18	19	19	19	17	9.9	13
27	9.4	17	18	16	15	18	19	20	19	17	9.8	12
28	9.4	17	19	16	15	19	19	20	19	16	9.8	12
29	9.4	17	18	16	---	18	19	19	19	16	9.7	12
30	9.4	16	18	16	---	18	19	19	19	16	9.5	12
31	9.4	---	18	16	---	18	---	19	---	16	9.4	---
TOTAL	281.3	386.4	551	518	436	502	558	623	599	519	396.9	300.2
MEAN	9.07	12.9	17.8	16.7	15.6	16.2	18.6	20.1	20.0	16.7	12.8	10.0
MAX	10	17	19	18	16	19	19	22	21	18	17	13
MIN	8.5	9.4	17	16	15	14	18	18	19	15	8.6	9.2
AC-FT	558	766	1090	1030	865	996	1110	1240	1190	1030	787	595

CAL YR 1994	TOTAL 4799.3	MEAN 13.1	MAX 19	MIN 3.1	AC-FT 9520
WTR YR 1995	TOTAL 5670.8	MEAN 15.5	MAX 22	MIN 8.5	AC-FT 11250

07334200 BYRDS MILL SPRING NEAR FITTSTOWN, OK--Continued

DISCHARGE, CUBIC FEET PER SECOND, COMBINED FLOW, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	22	23	21	20	23	24	25	26	22	19
2	16	16	22	23	21	20	23	23	25	26	22	19
3	15	16	22	23	21	20	23	24	25	26	23	19
4	15	16	22	23	21	20	23	23	25	26	23	19
5	15	16	22	23	21	20	23	23	26	26	22	19
6	15	16	22	23	21	20	23	23	26	26	22	19
7	15	16	22	23	21	19	23	24	26	26	22	19
8	15	17	22	23	21	19	23	26	26	26	22	19
9	15	17	23	22	21	19	23	26	26	26	22	19
10	15	17	23	22	21	19	23	26	26	26	22	19
11	15	17	23	22	21	19	24	26	26	26	21	19
12	15	17	23	22	21	19	23	26	26	26	21	19
13	15	17	23	22	21	20	23	26	27	25	21	19
14	15	17	23	22	21	20	24	26	27	25	21	18
15	15	18	23	21	21	21	24	26	27	25	21	18
16	15	19	23	21	21	21	24	27	27	25	21	18
17	15	19	23	21	20	22	24	27	27	25	21	18
18	15	19	23	21	20	22	24	27	27	25	21	18
19	15	19	23	21	20	22	24	26	27	24	21	18
20	15	19	23	21	20	22	24	26	27	24	21	18
21	15	20	23	21	20	22	24	26	27	24	20	18
22	15	20	23	21	20	23	24	26	27	24	20	18
23	15	20	23	21	20	23	24	26	27	24	20	18
24	15	20	23	21	20	23	24	26	27	24	19	18
25	16	21	23	21	20	23	24	26	27	24	20	18
26	16	21	23	21	20	23	24	25	27	24	20	18
27	16	22	23	21	20	23	24	26	27	24	20	18
28	16	22	24	21	20	23	24	26	27	23	20	18
29	16	22	23	21	---	23	24	25	27	23	20	18
30	16	21	23	21	---	23	24	25	27	23	19	18
31	16	---	23	21	---	23	---	25	---	23	19	---
TOTAL	474	553	706	673	576	656	708	787	794	770	649	553
MEAN	15.3	18.4	22.8	21.7	20.6	21.2	23.6	25.4	26.5	24.8	20.9	18.4
MAX	16	22	24	23	21	23	24	27	27	26	23	19
MIN	15	16	22	21	20	19	23	23	25	23	19	18
AC-FT	940	1100	1400	1330	1140	1300	1400	1560	1570	1530	1290	1100

CAL YR 1994	TOTAL 7057	MEAN 19.3	MAX 24	MIN 15	AC-FT 14000
WTR YR 1995	TOTAL 7899	MEAN 21.6	MAX 27	MIN 15	AC-FT 15670

07335300 MUDDY BOGGY CREEK NEAR UNGER, OK

LOCATION.--Lat 34°01'36", long 95°45'00", in SE 1/4 SE 1/4 sec.17, T.6 S., R.15 E., Choctaw County, Hydrologic Unit 11140103, at bridge on U.S. Highway 70, 3.5 mi west of Soper, 1.8 mi east of Unger and at mile 18.6.

DRAINAGE AREA.--2,273 mi^2.

PERIOD OF RECORD.--August 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 392.72 ft above sea level. Prior to Sept. 19, 1985, gage 500 ft downstream at same datum.

REMARKS.--Records fair. Some regulation by Atoka and McGee Creek Reservoirs. U.S. Army Corp of Engineers' telemeter at site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	255	1480	e570	e7500	423	2640	3170	e2700	e1100	210	59
2	92	221	1330	e560	e5000	416	1890	5670	e2100	e605	228	57
3	87	205	1090	e580	e3000	450	1690	5870	e2800	e400	253	56
4	84	219	735	e560	e1900	443	5230	6540	e4500	e300	264	53
5	82	2850	640	e570	e1400	439	7320	6050	e5800	e470	e220	51
6	79	3860	606	e590	e1100	436	8270	5550	e7000	e1800	e195	50
7	77	6180	577	e610	984	595	8460	7050	e9000	e970	e180	51
8	140	6610	701	e580	1050	2350	6810	10700	7800	e650	e165	55
9	507	4530	3810	561	914	3680	3130	16400	7130	e530	e148	65
10	673	4250	7600	529	727	1790	2310	24200	4580	e430	e140	139
11	585	5640	9360	511	668	812	4980	26100	4500	e380	e132	174
12	357	5000	11600	513	631	417	7660	23800	5560	e330	e122	176
13	243	2740	12000	1010	615	1630	9020	22500	6330	310	e118	213
14	188	3940	9990	1690	595	5410	10100	21000	5960	254	e110	249
15	160	8470	6870	1500	568	e11100	9740	15800	4340	220	e102	249
16	148	10100	5470	1420	556	e16500	7440	11600	e2000	199	e98	342
17	146	12900	5420	1280	535	18200	3940	7740	e1600	180	96	312
18	177	14300	5120	1460	520	e17900	4520	4480	e1100	172	88	1010
19	199	13600	4200	2950	510	e16400	5560	3710	e1300	158	85	2840
20	176	11500	3300	4670	496	e16000	6210	3510	e1400	155	90	4280
21	484	9070	2780	4580	479	e13300	7470	3240	e1400	175	83	5000
22	665	7940	e2350	2950	468	e8000	8460	3010	e1300	221	90	e3150
23	491	7880	e1900	2150	456	e6000	9220	2860	e1100	380	86	e2050
24	327	7440	e1430	2090	442	e4000	9010	3030	e1020	455	79	e1250
25	295	4930	e1000	2810	427	e3000	7450	5950	e1010	432	73	e900
26	426	2850	e770	4140	420	e11000	5000	3370	e1000	385	70	e680
27	626	2370	e675	5900	430	e10000	3550	1450	e530	720	68	e600
28	693	2150	e635	6910	427	8530	2790	982	e410	540	66	543
29	610	2070	e590	7660	---	8460	2180	e1300	e290	338	63	604
30	421	1780	e575	8240	---	6220	1600	e1450	e281	243	61	587
31	316	---	e570	7850	---	3670	---	e1800	---	204	60	---
TOTAL	9651	165850	105174	77994	32818	197571	173650	259882	95841	13706	3843	25845
MEAN	311	5528	3393	2516	1172	6373	5788	8383	3195	442	124	861
MAX	693	14300	12000	8240	7500	18200	10100	26100	9000	1800	264	5000
MIN	77	205	570	511	420	416	1600	982	281	155	60	50
AC-FT	19140	329000	208600	154700	65090	391900	344400	515500	190100	27190	7620	51260

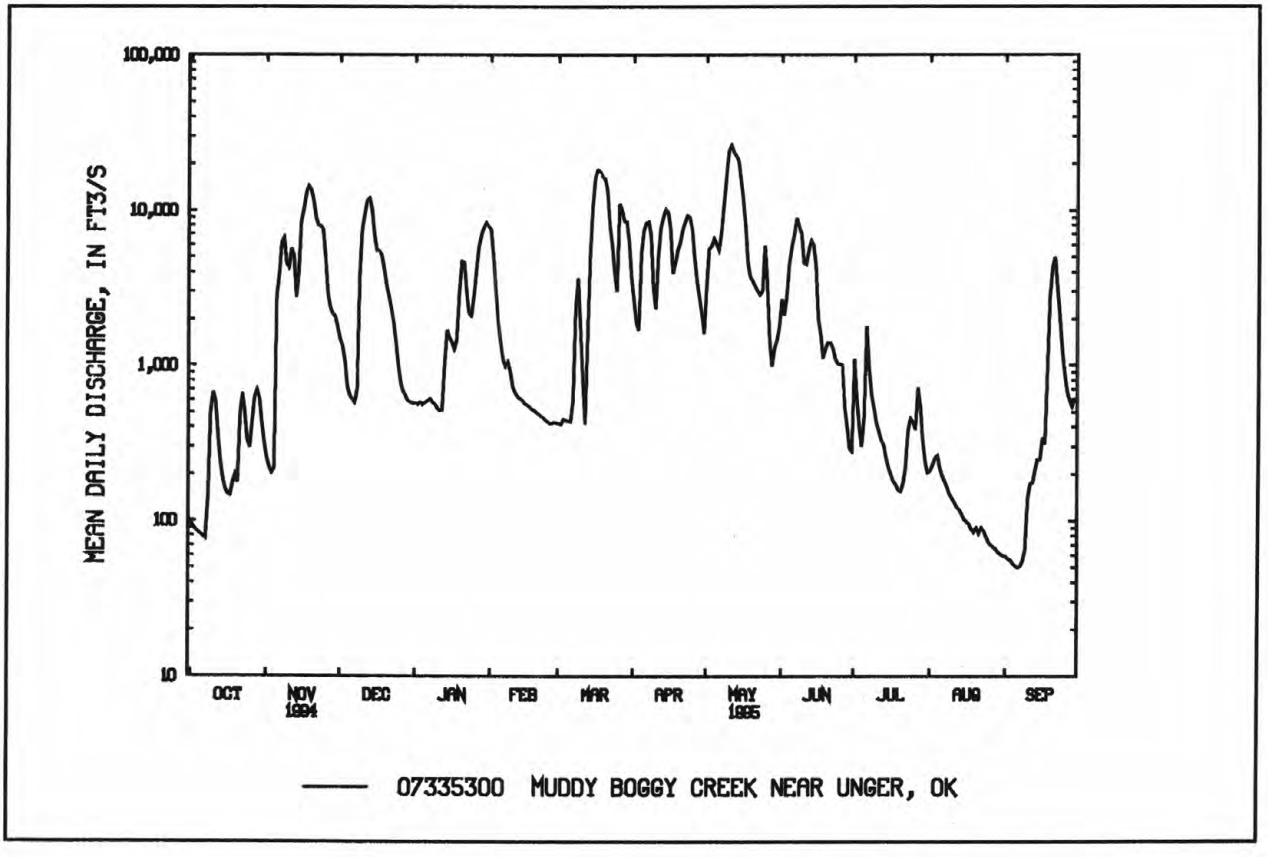
c Estimated

07335300 MUDDY BOGGY CREEK NEAR UNGER, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	741	1999	3122	2003	2782	4165	3902	5957	2978	687	359	772
MAX	3713	6596	9832	3568	5911	10970	14270	21720	7293	4536	2517	1922
(WY)	1985	1992	1992	1992	1993	1990	1990	1990	1991	1992	1992	1992
MIN	34.0	84.0	76.3	177	451	677	480	92.3	49.8	58.4	28.7	26.6
(WY)	1989	1989	1990	1984	1984	1986	1987	1988	1988	1984	1988	1988

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1983 - 95	
ANNUAL TOTAL	863954		1161825			
ANNUAL MEAN	2367		3183		2454	
HIGHEST ANNUAL MEAN					4951	1990
LOWEST ANNUAL MEAN					520	1984
HIGHEST DAILY MEAN	23700	May 5	26100	May 11	76000	May 6 1990
LOWEST DAILY MEAN	77	Oct 7	50	Sep 6	1.8	Sep 8 1984
ANNUAL SEVEN-DAY MINIMUM	85	Oct 1	53	Sep 2	2.6	Sep 3 1984
INSTANTANEOUS PEAK FLOW			28200	May 11	76700	May 6 1990
INSTANTANEOUS PEAK STAGE			43.72	May 11	55.27	May 6 1990
ANNUAL RUNOFF (AC-FT)	1714000		2304000		1778000	
10 PERCENT EXCEEDS	7800		8460		7450	
50 PERCENT EXCEEDS	604		1050		593	
90 PERCENT EXCEEDS	148		128		53	



07335500 RED RIVER AT ARTHUR CITY, TX

LOCATION.--Lat 33°52'30", long 95°30'06", in NW 1/4 sec.11, T.8 S., R.17 E., Choctaw County, OK, Hydrologic Unit 11140101, on right downstream bank of bridge on U.S.4 Highway 271 at Arthur City, 10.6 mi downstream from Muddy Boggy River, 26.0 mi upstream from Kiamichi River, and at mile 633.1.

DRAINAGE AREA.--44,531 mi^2, of which 5,936 mi^2 probably is noncontributing.

PERIOD OF RECORD.--January to September 1905 (gage heights and discharge measurements only), October 1905 to December 1911, July 1936 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at same site since 1891 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1241: Drainage area. WSP 1311: 1906-11.

GAGE.--Water-stage recorder. Datum of gage is 380.07 ft above sea level. From 1905-11 nonrecording gage at St. Louis-San Francisco Railway Co. bridge 200 ft upstream at same datum. July 1, 1936, to Mar. 24, 1940, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated since October 1943 by Lake Texoma (station 07331500), 92.8 mi upstream from station. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5200	2910	19800	10600	13100	3930	16300	15800	45200	48700	8440	6990
2	4740	3160	16500	7210	9410	6530	13600	25300	44200	46000	9110	6920
3	5250	2990	15700	8850	10100	4640	12100	29000	44500	45800	10400	6900
4	3710	2560	13100	7290	9880	3710	19900	31200	46600	45600	11600	6860
5	3070	11100	11200	7420	9590	3490	35400	43100	41600	46300	28500	6770
6	2980	23500	10800	7580	9280	3410	32100	36100	41200	45500	38100	6760
7	2360	23400	10300	6960	9100	2710	25400	38600	44600	40400	38300	6880
8	2250	18100	8800	5070	9090	6030	22700	61200	49800	33600	38000	7030
9	2260	12800	13700	3920	9280	13300	18400	71000	52100	28400	37700	6950
10	2430	11400	30800	3500	8600	13400	15900	56600	53700	24000	37600	6870
11	1820	19900	37100	3690	8000	6950	20200	50100	55300	21100	37700	6010
12	1310	23000	31100	4180	7640	4840	26600	42600	53100	15300	37700	6030
13	928	16300	25700	7160	6110	3970	25500	40900	51700	12900	37600	6590
14	729	14000	27200	7780	8450	32700	23900	51300	51600	12300	36500	6770
15	623	48500	25400	6500	8080	37900	23000	55400	53000	10300	29500	6600
16	592	49200	22500	5020	4890	34300	21600	55600	52300	9430	21500	6640
17	570	39800	25800	4530	3720	34100	17900	55700	51700	8260	17800	7100
18	550	35000	21200	5420	4160	34500	16900	53000	51500	7980	15800	6980
19	863	31800	15100	12000	3660	33700	17200	50600	51200	7950	15200	9480
20	1710	30300	14100	16600	3110	31700	17100	50400	51100	8300	15100	14100
21	4810	30900	14400	15000	2730	28600	23300	50100	51100	8240	14900	19400
22	15500	33200	15500	9330	2740	24900	27400	49900	51200	8810	14600	16100
23	16000	37800	14500	7530	2690	19700	23700	49600	51100	8330	12800	12800
24	8210	36600	13800	8970	2640	16700	22400	47600	50700	5930	12200	11700
25	4940	34000	13200	8740	2810	16000	21100	64000	50300	5130	10400	11500
26	7330	30900	12900	9700	3440	18800	18700	69200	49900	6130	9890	11500
27	8470	30200	12700	14300	3770	33900	17100	40100	49700	7070	8180	12200
28	5640	29700	12600	18500	4140	31400	16700	18700	49600	8930	7360	16200
29	3910	28600	11100	18000	---	23700	15300	22800	49000	8470	7200	17800
30	4160	23600	11000	16100	---	21000	14300	35100	49800	8450	7110	16700
31	3780	---	12200	16000	---	17700	---	39400	---	8060	7040	---
TOTAL	126695	735220	539800	283450	180210	568210	621700	1400000	1488400	601670	633830	291130
MEAN	4087	24510	17410	9144	6436	18330	20720	45160	49610	19410	20450	9704
MAX	16000	49200	37100	18500	13100	37900	35400	71000	55300	48700	38300	19400
MIN	550	2560	8800	3500	2640	2710	12100	15800	41200	5130	7040	6010
AC-FT	251300	1458000	1071000	562200	357400	1127000	1233000	2777000	2952000	1193000	1257000	577500

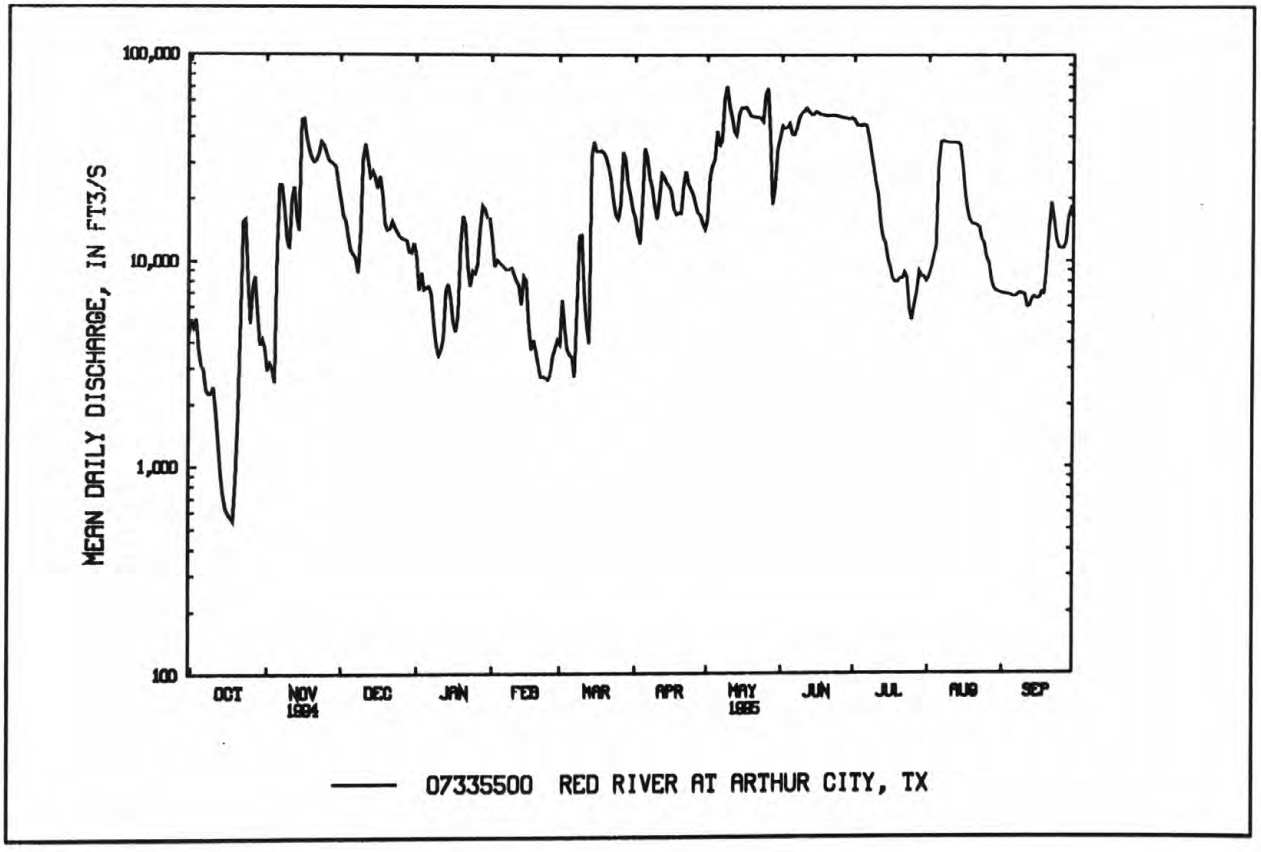
07335500 RED RIVER AT ARTHUR CITY, TX--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7032	7376	7174	6536	8226	10420	11470	17650	19070	8050	4942	4771
MAX	40240	37170	32340	39930	24200	38610	55500	103900	83820	27700	34840	19010
(WY)	1982	1975	1992	1992	1946	1987	1990	1990	1957	1989	1950	1950
MIN	263	242	894	1126	1138	1118	1343	2837	2074	1586	1108	859
(WY)	1957	1957	1957	1964	1959	1967	1956	1980	1956	1956	1972	1988

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1945 - 95	
ANNUAL TOTAL	4230205		7470315			
ANNUAL MEAN	11590		20470		[a]9388	
HIGHEST ANNUAL MEAN					23290	1990
LOWEST ANNUAL MEAN					2754	1964
HIGHEST DAILY MEAN	49200	Nov 16	71000	May 9	269000	May4 1990
LOWEST DAILY MEAN	550	Oct 18	550	Oct 18	134	[b]Dec 11 1956
ANNUAL SEVEN-DAY MINIMUM	694	Oct 13	694	Oct 13	134	Dec 11 1956
INSTANTANEOUS PEAK FLOW			75100	May 25	[c]275000	May4 1990
INSTANTANEOUS PEAK STAGE			18.10	May 25	[d]34.21	May4 1990
ANNUAL RUNOFF (AC-FT)	8391000		14820000		6802000	
10 PERCENT EXCEEDS	28100		49600		24600	
50 PERCENT EXCEEDS	6690		15000		4270	
90 PERCENT EXCEEDS	3190		3750		1340	

[a]Prior to regulation, water years 1906-11, 1937-43, 9,266 ft^3/s.
[b]Also occurred Dec. 12, 1956.
[c]Maximum discharge for period of record, 400,000 ft^3/s, May 28, 1908.
[d]Maximum gage height for period of record, 43.2 ft, May 28, 1908.



07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK

(Hydrologic benchmark station)

LOCATION.--Lat 34°38'18", long 94°36'45", in SW 1/4 SE 1/4 sec.18, T.2 N., R.26 E., Le Flore County, Hydrologic Unit 11140105, in Ouachita National Forest, on downstream side of right bank pier of bridge on State Highway 63, 0.2 mi upstream from Rattlesnake Creek, 1.1 mi upstream from Big Branch, 2.1 mi east of Big Cedar, and at mile 157.6.

DRAINAGE AREA.--40.1 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 886.97 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 5	0500	19,100	17.51	May 1	0600	2,960	10.06
Jan. 13	2100	5,520	12.17	May 8	0500	6,230	12.58

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	21	48	36	102	26	43	1070	22	2.9	3.2	.00
2	.05	20	43	32	89	25	41	334	175	3.0	2.8	.00
3	.02	23	39	30	77	27	41	199	209	2.8	2.6	.00
4	.00	246	34	29	67	27	154	146	98	2.7	2.5	.00
5	.00	3400	30	26	62	28	116	110	69	5.5	2.1	.00
6	.00	379	27	43	56	28	100	164	55	5.7	2.0	.00
7	50	188	24	48	52	79	85	202	43	4.1	1.8	.00
8	492	130	95	44	46	88	73	2370	35	3.2	1.7	.00
9	144	532	789	43	43	81	65	478	29	2.5	1.4	.00
10	76	383	544	44	42	72	68	230	35	2.1	1.2	.00
11	53	203	267	45	39	65	696	156	66	1.8	1.0	.00
12	41	141	177	55	36	59	297	118	58	1.2	.76	.00
13	32	108	131	2440	33	63	182	102	47	1.0	.55	.00
14	25	538	120	1580	32	101	133	83	37	.82	.37	.00
15	21	521	97	400	34	105	105	68	30	.63	.27	.00
16	20	281	352	232	34	103	92	59	24	.42	.18	.00
17	21	185	245	171	32	92	117	53	19	.38	.11	.00
18	28	135	168	175	29	81	198	51	16	.62	.03	.00
19	54	105	128	227	27	72	222	42	12	.47	.00	.00
20	52	116	154	213	26	65	318	36	9.6	.34	.00	.04
21	55	109	153	179	26	56	204	32	7.5	4.4	.00	.07
22	58	89	130	160	25	51	147	28	6.2	4.6	.00	.09
23	52	78	111	136	24	47	124	24	5.6	3.8	.00	.03
24	47	68	93	126	23	43	101	23	5.5	4.7	.00	.00
25	44	59	79	135	22	40	83	24	4.5	4.1	.00	.00
26	39	55	66	152	23	49	70	22	3.8	3.9	.00	.00
27	34	84	57	278	28	60	63	24	3.1	3.7	.00	.00
28	30	64	50	222	27	52	54	21	2.8	3.5	.00	.00
29	27	57	51	172	---	50	120	17	2.6	2.9	.00	.00
30	23	51	45	144	---	49	124	15	2.6	2.2	.00	.00
31	23	---	40	119	---	46	---	16	---	2.4	.00	---
TOTAL	1541.17	8369	4387	7736	1156	1830	4236	6317	1132.8	82.38	24.57	0.23
MEAN	49.7	279	142	250	41.3	59.0	141	204	37.8	2.66	.79	.008
MAX	492	3400	789	2440	102	105	696	2370	209	5.7	3.2	.09
MIN	.00	20	24	26	22	25	41	15	2.6	.34	.00	.00
AC-FT	3060	16600	8700	15340	2290	3630	8400	12530	2250	163	49	.5
CFSM	1.24	6.96	3.53	6.22	1.03	1.47	3.52	5.08	.94	.07	.02	.00
IN.	1.43	7.76	4.07	7.18	1.07	1.70	3.93	5.86	1.05	.08	.02	.00

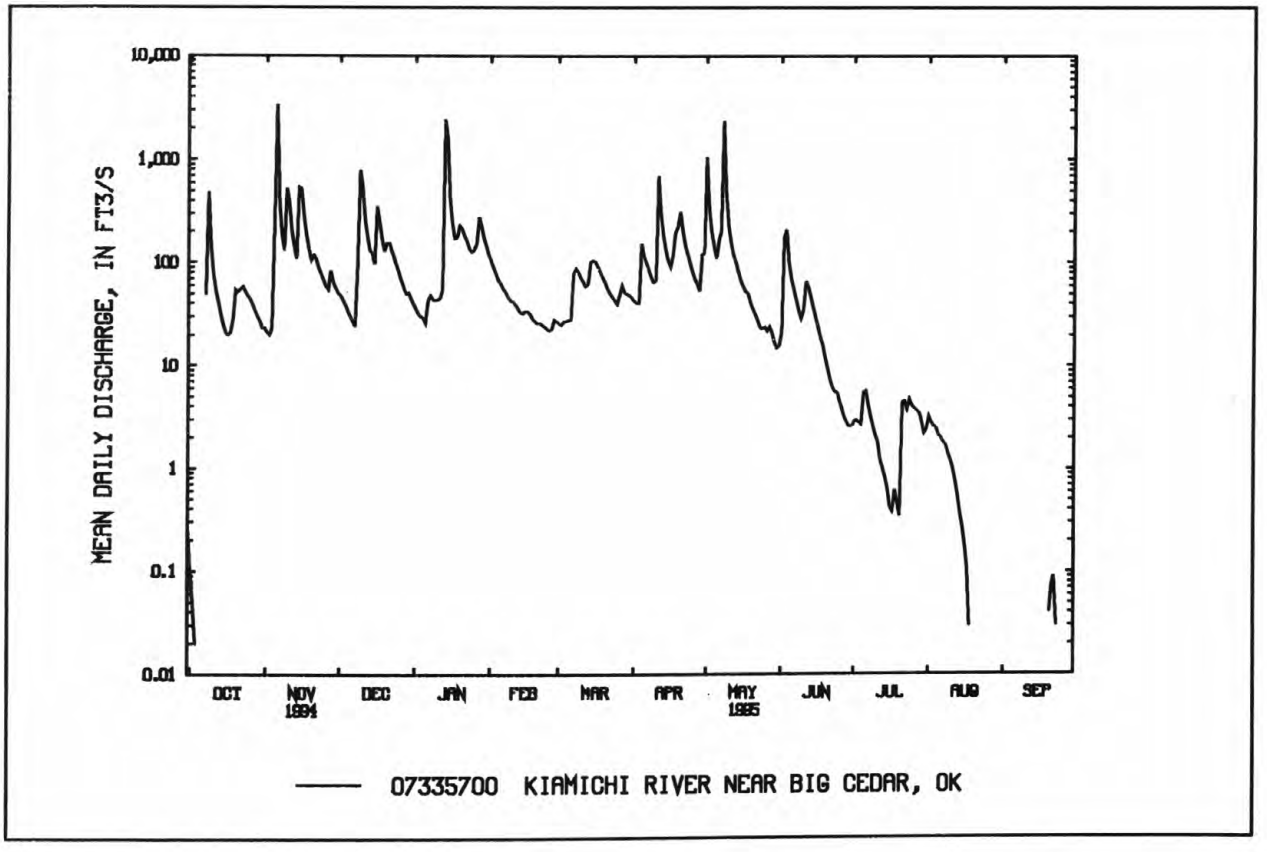
07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	60.4	93.9	130	97.3	113	150	133	145	57.5	22.2	7.78	21.4
MAX	514	361	445	250	340	362	362	614	178	128	51.0	283
(WY)	1985	1986	1972	1995	1989	1973	1991	1990	1973	1991	1988	1992
MIN	.000	.000	.92	2.50	6.12	28.8	34.5	6.97	.078	.000	.000	.000
(WY)	1984	1967	1967	1967	1967	1967	1972	1977	1988	1988	1972	1983

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1966 - 95	
ANNUAL TOTAL	33654.22		36812.15			
ANNUAL MEAN	92.2		101		85.9	
HIGHEST ANNUAL MEAN					152	1985
LOWEST ANNUAL MEAN					33.9	1978
HIGHEST DAILY MEAN	3400	Nov 5	3400	Nov 5	5960	May 13 1982
LOWEST DAILY MEAN	.00	Oct 4	[a].00	Oct 4	[b].00	Jul 15 1966
ANNUAL SEVEN-DAY MINIMUM	.06	Sep 30	.00	Aug 19	.00	Oct 16 1966
INSTANTANEOUS PEAK FLOW			19100	Nov 5	[c]27400	May 19 1990
INSTANTANEOUS PEAK STAGE			17.51	Nov 5	19.60	May 19 1990
ANNUAL RUNOFF (AC-FT)	66750		73020		62240	
ANNUAL RUNOFF (CFSM)	2.30		2.52		2.14	
ANNUAL RUNOFF (INCHES)	31.22		34.15		29.11	
10 PERCENT EXCEEDS	240		198		177	
50 PERCENT EXCEEDS	31		41		26	
90 PERCENT EXCEEDS	.68		.00		.18	

[a]No flow at times during the year.
[b]No flow at times in most years.
[c]From rating curve extended above 9,000 ft3/s.



07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK--Continued

(Hydrologic benchmark station)

WATER-QUALITY RECORDS

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

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 AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)
NOV											
01...	1530	1028	80020	21	23	6.9	17.0	12.5	4.1	742	11.2
FEB											
14...	1030	1028	80020	32	20	6.5	-0.5	3.5	3.8	745	12.8
MAY											
09...	0930	1028	80020	506	19	6.6	21.0	15.0	7.2	738	11.1
AUG											
16...	1300	1028	80020	<0.01	35	7.0	34.5	30.0	3.0	744	5.1

DATE	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	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)
NOV											
01...	108	25	--	--	--	4.3	0.77	1.8	21	0.2	0.80
FEB											
14...	99	20	22	5	1	0.85	0.64	1.4	37	0.3	0.40
MAY											
09...	114	120	210	4	0	0.68	0.58	1.2	35	0.3	0.60
AUG											
16...	69	6	1500	11	0	2.1	1.4	2.1	27	0.3	1.2

07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)
NOV											
01...	8	0	6	2.1	1.4	<0.10	8.0	25	--	--	--
FEB											
14...	4	0	3	2.3	1.4	<0.10	7.1	21	16	0.03	1.81
MAY											
09...	5	0	4	1.8	0.90	<0.10	7.3	22	16	0.03	30.1
AUG											
16...	18	0	14	1.2	1.7	<0.10	4.5	28	24	0.04	--

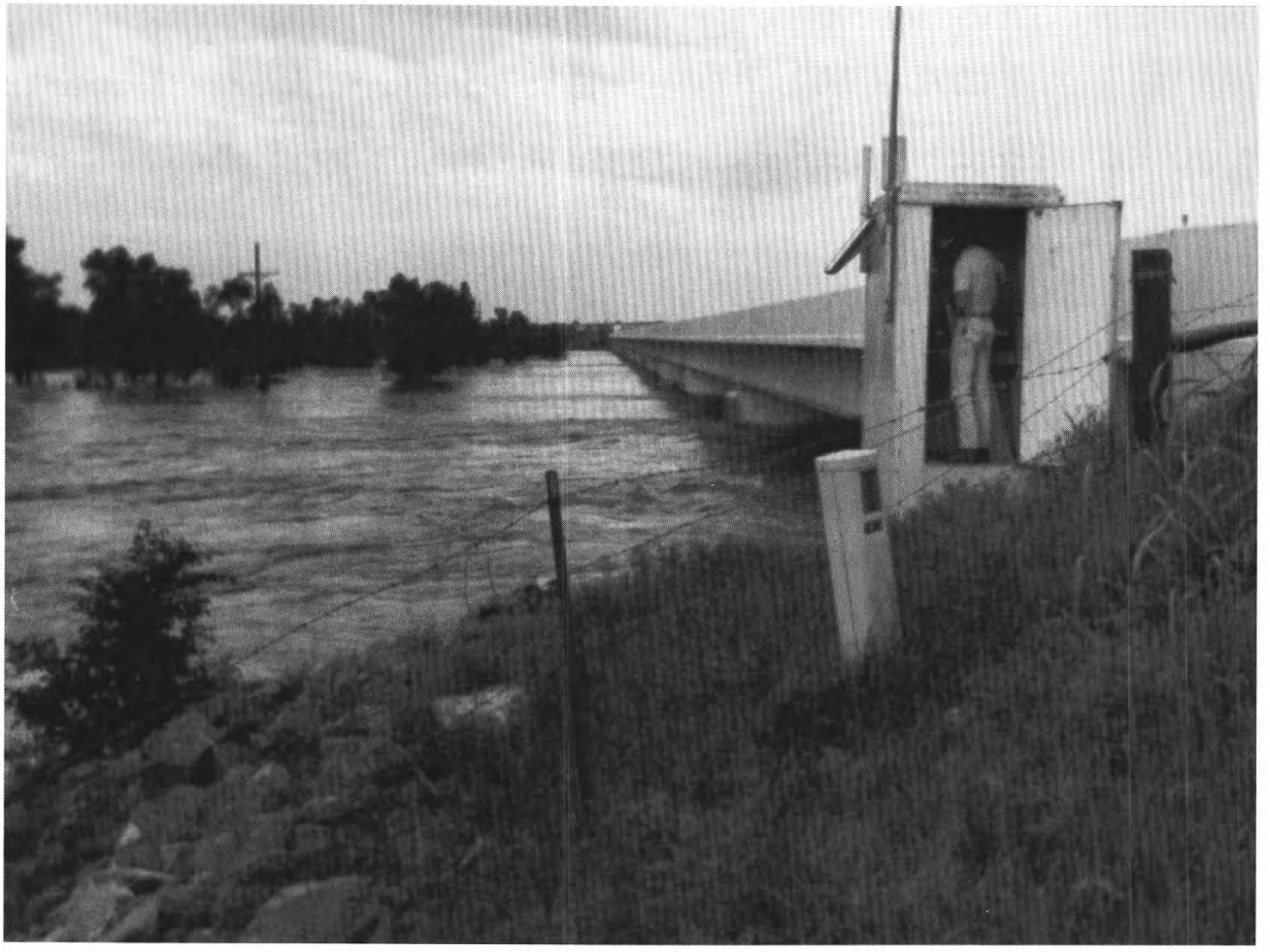
DATE	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4) (71846)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
NOV											
01...	--	<0.010	--	<0.050	<0.015	--	0.30	0.30	0.30	0.060	0.030
FEB											
14...	--	<0.010	--	<0.050	<0.015	--	--	<0.20	--	<0.010	<0.010
MAY											
09...	0.070	<0.010	0.070	0.070	<0.015	--	--	<0.20	--	0.020	0.020
AUG											
16...	--	<0.010	--	<0.050	0.040	0.05	0.16	0.20	0.20	0.030	0.010

07335700 KIAMICHI RIVER NEAR BIG CEDAR, OK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	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)	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) (01145)
NOV											
01...	<0.010	--	220	<2	<3	180	<4	<1	<10	<1	<1
FEB											
14...	<0.010	--	60	9	<3	78	<4	3	<10	2	<1
MAY											
09...	<0.010	--	260	11	<3	98	<4	5	<10	1	<1
AUG											
16...	0.010	0.03	10	21	<3	350	<4	25	<10	<1	<1

DATE	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)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	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)
NOV										
01...	<1.0	3	<6	--	--	--	--	4	0.23	82
FEB										
14...	<1.0	6	<6	0.11	0.020	<0.01	<1.0	4	0.35	60
MAY										
09...	<1.0	7	<6	0.04	0.010	0.02	0.0	70	96	100
AUG										
16...	<1.0	20	<6	--	--	--	--	26	--	66



07301481 NORTH FORK RED RIVER NEAR SAYER, OK. JUNE 4, 1995. NEAR PEAK.

07335790 KIAMICHI RIVER NEAR CLAYTON, OK

LOCATION.--Lat 34°34'32", long 95°20'26", in NE 1/4 SE 1/4 sec.7, T.1 N., R.19 E., Pushmataha County, Hydrologic Unit 11140105, on right bank near downstream bridge abutment on U.S. Highway 271, approximately 1 mi southeast of Clayton, and at mile 101.6.

DRAINAGE AREA.--708 mi^2.

PERIOD OF RECORD.--November 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 520.00 ft above sea level.

REMARKS.--Records fair. Some regulation since December 1982 by Sardis Lake (station 07335775), on Jackfork Creek 4.5 mi upstream. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	16	534	454	1350	464	318	3690	1690	41	20	1.2
2	.87	15	542	410	1180	286	280	6050	1990	39	19	1.0
3	.71	15	516	353	980	86	256	2810	3920	36	15	.61
4	.66	536	435	347	595	83	1150	1910	1990	34	14	.38
5	.49	7620	385	312	513	85	1840	1130	1970	34	13	.24
6	.33	10600	331	395	494	99	1790	1020	2320	30	12	.09
7	1.2	2340	315	781	444	1800	1260	2310	2280	27	10	1.7
8	7.4	1380	605	592	406	2550	520	12300	2120	24	9.3	3.6
9	699	3470	5050	818	361	1590	447	12300	1790	24	8.3	1.4
10	436	8250	5600	1110	332	637	439	3690	2370	24	7.4	.71
11	174	3010	2470	768	325	515	1360	2200	3020	22	6.5	.44
12	97	2080	2410	409	257	450	2440	2310	1630	20	5.9	2.1
13	63	1790	3440	4910	225	420	2500	2290	1080	18	5.4	3.2
14	45	8030	3340	12900	207	1010	1650	2110	1300	19	4.7	2.4
15	34	12600	3270	12200	208	1870	584	2650	2090	16	4.2	2.7
16	28	4970	2720	2860	546	1890	505	3390	2060	14	3.9	23
17	23	4370	2390	3370	508	1500	834	3030	2030	14	3.3	19
18	20	3930	1890	3500	173	1170	1740	1960	2020	14	3.0	12
19	19	3580	1310	6110	152	1100	2330	1380	2300	13	2.7	47
20	23	3590	1220	4350	139	749	8550	1040	1620	13	2.6	48
21	24	3830	1990	3310	129	404	3870	1050	130	18	2.5	30
22	19	3440	1560	3060	118	356	2850	999	86	20	2.4	27
23	25	3230	1090	2980	111	318	2460	997	73	26	2.3	19
24	28	3150	776	2830	101	274	2320	979	71	50	4.8	16
25	35	2480	662	2640	91	242	1670	596	309	78	5.4	13
26	32	1670	582	2290	86	450	771	176	211	138	4.5	11
27	29	1800	789	2290	88	1170	482	141	110	78	3.7	9.3
28	27	1990	940	1980	217	1620	422	435	81	55	2.9	7.8
29	23	1200	855	1660	---	1180	359	959	58	40	2.3	6.5
30	21	606	590	1920	---	696	382	e1100	46	29	1.9	5.4
31	19	---	533	1820	---	367	---	1390	---	24	1.4	---
TOTAL	1955.66	105588	49140	83729	10336	25431	46379	78392	42765	1032	204.3	315.77
MEAN	63.1	3520	1585	2701	369	820	1546	2529	1425	33.3	6.59	10.5
MAX	699	12600	5600	12900	1350	2550	8550	12300	3920	138	20	48
MIN	.33	15	315	312	86	83	256	141	46	13	1.4	.09
AC-FT	3880	209400	97470	166100	20500	50440	91990	155500	84820	2050	405	626

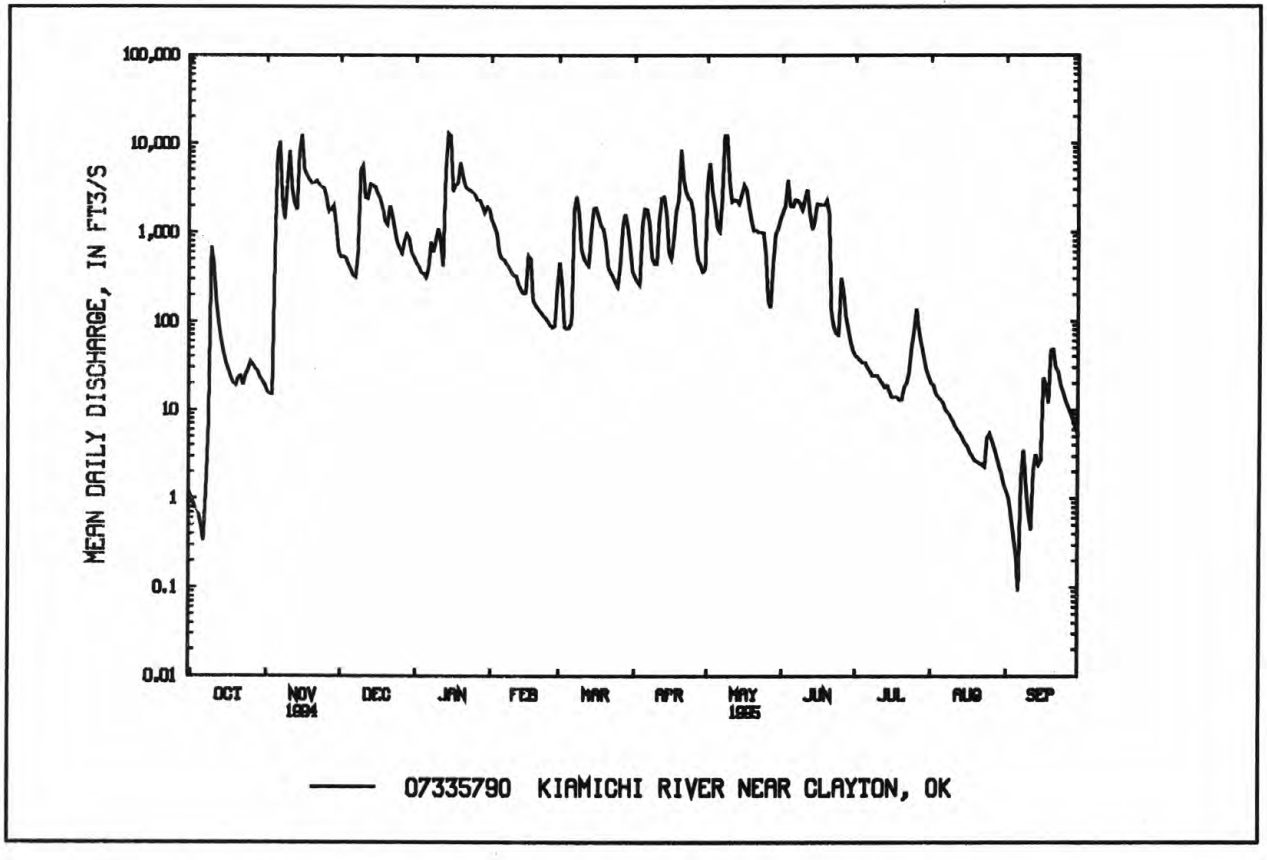
e Estimated

07335790 KIAMICHI RIVER NEAR CLAYTON, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	777	1511	1623	1245	1596	1591	1584	2305	1031	217	229	309
MAX	4628	4837	3376	2701	4196	3184	2935	7658	2288	984	1268	2735
(WY)	1985	1985	1988	1995	1990	1990	1991	1990	1986	1992	1992	1992
MIN	3.12	6.17	24.5	88.3	231	595	226	53.7	7.33	10.2	5.42	2.35
(WY)	1984	1990	1990	1986	1991	1986	1982	1988	1988	1993	1984	1983

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1982 - 95	
ANNUAL TOTAL	435291.06		445267.73			
ANNUAL MEAN	1193		1220		1165	
HIGHEST ANNUAL MEAN					1967	1990
LOWEST ANNUAL MEAN					547	1984
HIGHEST DAILY MEAN	12600	Nov 15	12900	Jan 14	36800	May 4 1990
LOWEST DAILY MEAN	.33	Oct 6	.09	Sep 6	.00	Oct 3-18 1983
ANNUAL SEVEN-DAY MINIMUM	.75	Sep 30	.70	Aug 31	.00	Oct 3 1983
INSTANTANEOUS PEAK FLOW			14500	May 8	40200	May 4 1990
INSTANTANEOUS PEAK STAGE			14.82	May 8	22.23	May 4 1990
ANNUAL RUNOFF (AC-FT)	863400		883200		844300	
10 PERCENT EXCEEDS	3580		3180		3270	
50 PERCENT EXCEEDS	307		435		287	
90 PERCENT EXCEEDS	5.3		4.4		5.3	



07336200 KIAMICHI RIVER NEAR ANTLERS, OK

LOCATION.--Lat 34°14'55", long 95°36'18", in SW 1/4 sec.35, T.3 S., R.16 E., Pushmataha County, Hydrologic Unit 11140105, on right bank, 50 ft downstream from bridge on U.S. Highway 271 and State Highway 2, 2.0 mi northeast of Antlers, 7.7 mi downstream from Tenmile Creek, 5.4 mi upstream from Cedar Creek and at mile 59.6.

DRAINAGE AREA.--1,138 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 419.82 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Some regulation since December 1982 by Sardis Lake (station 07335775), located on Jackfork Creek, 42.0 miles upstream from station. Small diversion for municipal water supply for city of Antlers upstream from station. U.S. Army Corps of Engineers' satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	58	585	531	2370	178	570	1720	5240	94	64	3.1
2	5.1	54	499	481	1780	445	484	7250	3050	114	59	3.0
3	4.5	53	442	447	1530	396	464	5160	8540	84	60	2.7
4	4.4	58	396	400	1110	203	3630	3360	4970	71	63	2.6
5	4.0	3900	361	376	795	167	3590	2150	4410	65	51	2.7
6	3.8	10000	332	403	690	163	3110	1960	5580	58	45	3.3
7	5.7	7860	300	648	615	930	2600	6510	3900	53	37	4.7
8	21	2120	452	930	546	3680	1410	19400	3060	47	31	5.2
9	64	2270	7910	722	490	3180	798	23100	2630	41	28	5.2
10	415	8180	11100	1050	447	1440	949	11100	3510	37	25	4.8
11	508	6980	6040	1230	412	802	4720	3500	9500	32	21	4.0
12	286	3210	3180	758	374	646	3760	3110	4860	29	18	43
13	194	2500	4010	2390	343	711	3900	3100	2230	26	16	29
14	146	8650	4480	12300	317	2500	3360	2860	1300	25	16	39
15	119	24200	4340	13700	303	3770	1560	2650	2080	22	14	36
16	103	15200	4860	8670	296	3650	829	4010	2500	20	11	184
17	89	6150	4080	4610	640	2820	1040	4210	2380	17	10	1800
18	81	5470	3120	4610	599	1940	2640	3220	2290	21	9.2	713
19	77	4850	2390	8340	274	1580	3630	1860	2240	21	12	403
20	81	4700	1460	7620	240	1410	12200	1270	2830	29	11	785
21	75	5440	2100	5350	227	845	9870	950	1140	43	8.4	589
22	96	4900	2400	4570	211	547	4950	912	265	37	7.0	307
23	105	4320	1680	4520	199	480	3900	880	162	34	6.3	214
24	83	4040	1180	4620	189	420	3380	892	132	33	5.3	175
25	70	3860	912	4440	175	372	3030	984	171	34	4.6	139
26	67	2400	784	4250	168	1760	1600	619	157	48	4.3	114
27	74	1970	682	5660	167	2800	992	255	216	71	4.2	96
28	79	2190	861	4490	165	2660	720	198	158	124	4.1	88
29	77	2170	985	3180	---	2240	602	283	119	106	3.9	77
30	68	995	842	2690	---	1430	507	1560	97	81	3.5	65
31	64	---	609	3080	---	939	---	5540	---	66	3.4	---
TOTAL	3074.7	148748	73372	117066	15672	45104	84795	124573	79717	1583	656.2	5937.3
MEAN	99.2	4958	2367	3776	560	1455	2826	4018	2657	51.1	21.2	198
MAX	508	24200	11100	13700	2370	3770	12200	23100	9500	124	64	1800
MIN	3.8	53	300	376	165	163	464	198	97	17	3.4	2.6
AC-FT	6100	295000	145500	232200	31090	89460	168200	247100	158100	3140	1300	11780

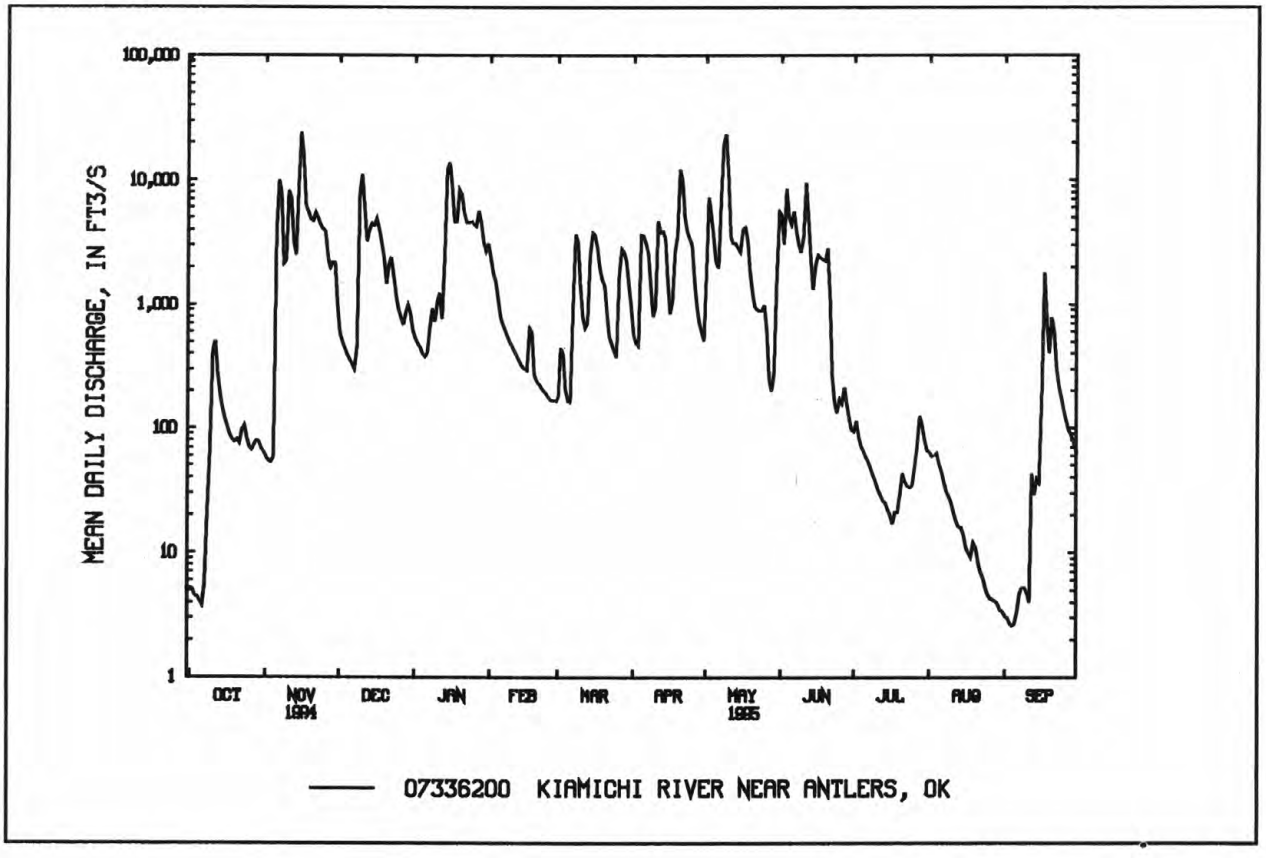
07336200 KIAMICHI RIVER NEAR ANTLERS, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1158	2367	2531	1914	2422	2835	2894	3690	1697	352	339	470
MAX	7763	6872	5288	3776	6316	5601	6400	12700	3784	1704	2017	2960
(WY)	1985	1985	1993	1995	1990	1990	1990	1990	1992	1992	1992	1992
MIN	10.8	5.19	7.84	154	427	1061	456	77.9	21.5	35.1	9.26	11.0
(WY)	1990	1990	1990	1986	1991	1986	1987	1988	1988	1993	1984	1985

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1984 - 95	
ANNUAL TOTAL	640084.6		700298.2			
ANNUAL MEAN	1754		1919		[a]1886	
HIGHEST ANNUAL MEAN					3184	1990
LOWEST ANNUAL MEAN					786	1984
HIGHEST DAILY MEAN	24200	Nov 15	24200	Nov 15	57000	May 4 1990
LOWEST DAILY MEAN	3.8	Oct 6	2.6	Sep 4	[b].50	Sep 8 1984
ANNUAL SEVEN-DAY MINIMUM	4.6	Sep 30	3.0	Aug 31	1.5	Sep 3 1984
INSTANTANEOUS PEAK FLOW			27300	May 8	62300	May 3 1990
INSTANTANEOUS PEAK STAGE			27.48	May 8	42.65	May 3 1990
ANNUAL RUNOFF (AC-FT)	1270000		1389000		1366000	
10 PERCENT EXCEEDS	5230		4880		5050	
50 PERCENT EXCEEDS	394		589		468	
90 PERCENT EXCEEDS	22		16		12	

[a]Prior to regulation by Sardis Lake, 1973-82, 1,484 ft^3/s.
[b]Prior to regulation by Sardis Lake, no flow many years.



07336820 RED RIVER NEAR DE KALB, TX

LOCATION .--Lat 33°40'59", long 94°41'39", Bowie County, Hydrologic Unit 11140106, on right bank at downstream side of bridge on U.S. Highway 259, 4.8 mi upstream from North Mill Creek, 13 mi north of De Kalb, and at mile 556.9.

DRAINAGE AREA.--47,348 mi^2, of which 5,936 mi^2 probably is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 302.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. At times, flood peaks may be affected by Lake Texoma (station 07331500) located approximately 169 mi upstream, and low flows may be affected by releases for the generation of electric power. Storage and/or releases from Lake Hugo on the Kiamichi River, a tributary to the Red River about 45 mi upstream, may also affect flows. Satellite telemeter and rain gage at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1957, 205,000 ft^3/s June 1957 (gage height, 32.2 ft), from rating curve extended above 186,500 ft^3/s. The greatest flood since 1936 occurred in February 1938, stage unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

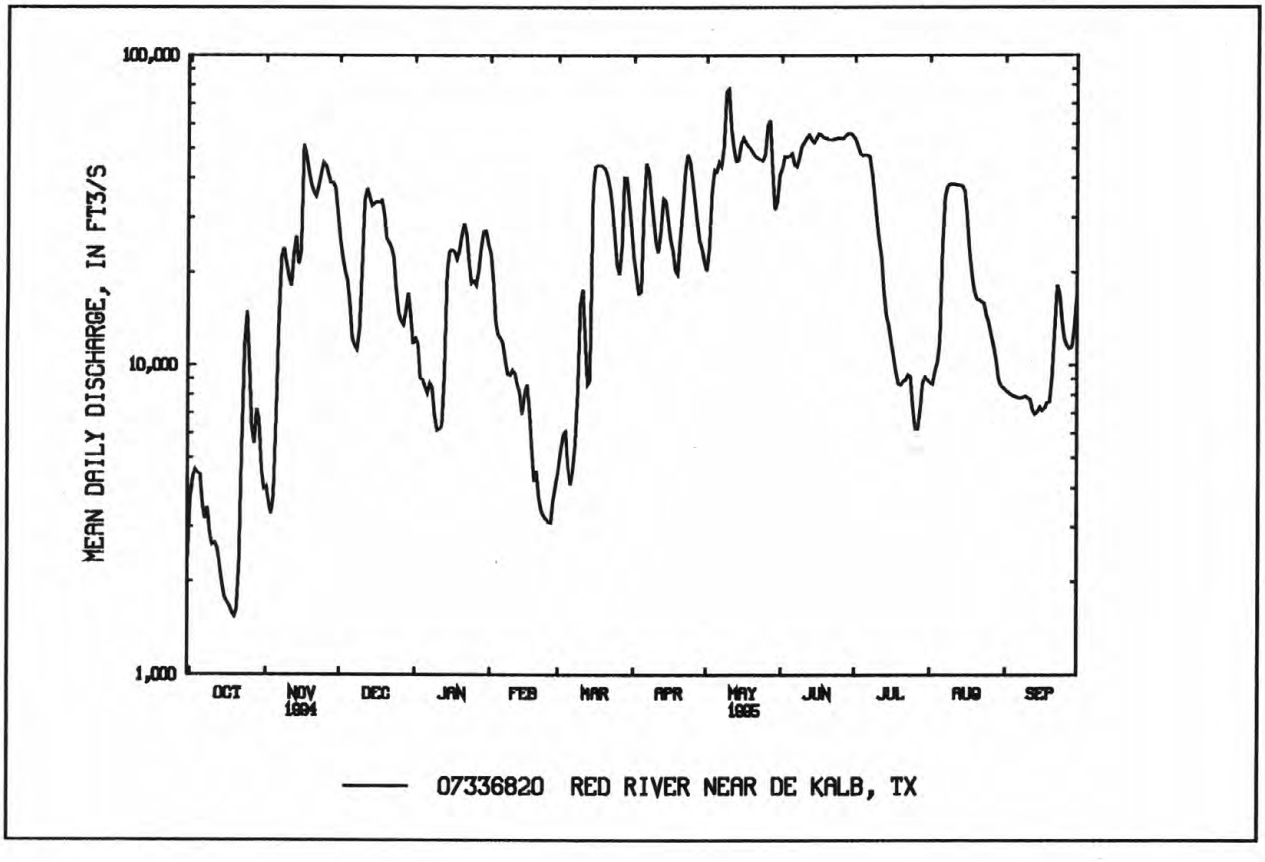
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3680	4050	25500	12200	23000	4600	22100	20200	43000	53700	8780	8290
2	4330	3590	22400	11800	18700	5290	19400	23800	47000	51200	8660	8200
3	4580	3280	20200	9060	13800	5940	17000	36000	46900	48200	9530	8050
4	4460	3770	18700	8980	12500	6090	17300	42600	47100	47300	10200	7970
5	4410	6730	15800	8540	12200	4700	31800	42100	48100	47600	11900	7900
6	3590	14000	12300	8140	11800	4080	44700	45000	44300	47500	24300	7860
7	3150	22300	11600	8730	10400	4510	42200	43800	43700	47000	35100	7820
8	3470	24000	11200	8430	9370	5580	34900	50700	46400	41700	37800	7870
9	2870	21300	13100	6860	9270	8250	29400	76000	51000	35200	38300	7940
10	2620	19400	20500	6170	9600	15600	24800	77800	52400	29500	38500	7850
11	2670	18000	34000	6210	9370	17600	23100	57800	54100	25200	38300	7750
12	2570	23100	37200	6330	8620	12200	26900	49900	55300	22300	38100	7180
13	2270	26100	34800	9310	8150	8660	34400	45600	53500	17300	38100	6920
14	1980	21100	32700	20300	6880	8950	33900	45800	52300	14500	37800	7090
15	1770	23400	33400	23400	8050	36800	29300	51700	53900	13500	36600	7320
16	1710	51600	33700	23600	8670	43500	25400	54100	55700	12000	30100	7140
17	1670	47500	33500	23300	7170	44100	23600	52100	55400	10700	23400	7270
18	1590	42200	34100	22000	5470	44100	20300	50900	54300	9520	19800	7610
19	1540	38400	30700	23500	4200	43700	19700	49800	54000	8720	17400	7610
20	1620	36200	25700	26400	4550	42900	25600	48200	53500	8620	16400	9330
21	2320	35200	24800	28700	3730	40600	32400	47000	53400	8890	16200	13100
22	5640	37500	24000	26200	3380	37300	41900	46400	53500	8910	16000	18200
23	11600	41100	22200	21300	3240	32400	47700	45900	53700	9280	15800	16900
24	14900	44900	17500	18300	3180	26200	45300	45700	54100	9180	14500	13800
25	10000	44200	14800	18700	3100	21200	39600	47700	54000	7310	13700	12100
26	6340	41300	13900	18100	3090	19600	33900	59200	54000	6230	12500	11600
27	5540	38800	13500	20500	3690	24200	28900	61900	54900	6220	11500	11300
28	7220	38800	15100	24300	4130	40200	25100	42600	56000	7200	10400	11400
29	6590	37500	17100	27000	---	40000	23700	31800	56100	8790	8980	13300
30	4580	31100	14400	27100	---	33200	21500	33900	55100	9110	8590	16900
31	3970	---	11700	24400	---	27500	---	41100	---	8950	8430	---
TOTAL	135250	840420	690100	527860	229310	709550	885800	1467100	1556700	681330	655670	293570
MEAN	4363	28010	22260	17030	8190	22890	29530	47330	51890	21980	21150	9786
MAX	14900	51600	37200	28700	23000	44100	47700	77800	56100	53700	38500	18200
MIN	1540	3280	11200	6170	3090	4080	17000	20200	43000	6220	8430	6920
AC-FT	268300	1667000	1369000	1047000	454800	1407000	1757000	2910000	3088000	1351000	1301000	582300

07336820 RED RIVER NEAR DE KALB, TX

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9037	14290	14470	11590	14470	20180	18880	26150	27660	9913	5743	5718
MAX	39980	53170	45440	49500	31000	48590	62330	125500	67360	35030	21150	24010
(WY)	1982	1975	1972	1992	1969	1987	1990	1990	1987	1982	1995	1974
MIN	1783	2105	1608	1699	2876	2492	3005	4707	2909	2598	1418	1368
(WY)	1979	1980	1978	1981	1976	1980	1981	1972	1988	1972	1972	1988

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1968 - 95	
ANNUAL TOTAL	5419190		8672660			
ANNUAL MEAN	14850		23760		14780	
HIGHEST ANNUAL MEAN					30100	1990
LOWEST ANNUAL MEAN					4690	1980
HIGHEST DAILY MEAN	51600	Nov 16	77800	May 10	278000	May 7 1990
LOWEST DAILY MEAN	1540	Oct 19	1540	Oct 19	254	Nov 29 1979
ANNUAL SEVEN-DAY MINIMUM	1700	Oct 14	1700	Oct 14	529	Aug 31 1972
INSTANTANEOUS PEAK FLOW			84200	May 9	279000	May 6 1990
INSTANTANEOUS PEAK STAGE			25.80	May 9	34.42	May 6 1990
ANNUAL RUNOFF (AC-FT)	10750000		17200000		10710000	
10 PERCENT EXCEEDS	38000		49800		41000	
50 PERCENT EXCEEDS	8390		19800		7100	
90 PERCENT EXCEEDS	3980		4530		2170	



07336820 RED RIVER NEAR DE KALB, TX--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical and biochemical analyses: January 1968 to current year. Pesticide analyses: October 1970 to July 1981. Sediment analyses: November 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1968 to September 1991.
WATER TEMPERATURE: January 1968 to September 1991.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,140 microsiemens July 13, 1980; minimum daily, 114 microsiemens Oct. 31, 1984.
WATER TEMPERATURE (1968-89): Maximum daily, 4.0°C on several days during July and August of 1969 and 1970; minimum daily, 0.0°C Jan. 11, 1977.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
13...	1200	2290	871	8.4	17.5	7.8	83	2.3	260	98	68
DEC											
06...	1230	12400	804	7.9	14.0	9.8	96	0.4	210	110	54
JAN											
24...	1130	18400	256	8.0	7.0	11.7	96	0.6	78	21	23
MAR											
15...	1402	40000	412	8.3	14.0	9.8	96	2.8	130	34	37
MAY											
11...	1128	58500	205	7.6	19.5	8.2	91	2.2	81	7	26
JUN											
22...	1027	51500	945	8.0	26.5	7.1	89	0.8	210	110	61

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT											
13...	22	84	2	4.3	160	110	120	0.2	6.5	512	--
DEC											
06...	18	78	2	3.6	100	120	120	0.20	7.2	463	0.180
JAN											
24...	4.9	17	0.8	2.2	57	26	23	0.1	6.9	138	0.100
MAR											
15...	8.8	31	1	3.1	95	46	41	0.2	5.8	232	0.330
MAY											
11...	3.8	7.9	0.4	2.8	74	12	8.2	0.1	6.2	113	0.160
JUN											
22...	15	96	3	4.6	110	120	140	0.2	6.7	510	0.330

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	SEDIMENT, SUSPENDED (MG/L)
OCT											
13...	--	0.0	--	<0.050	<0.015	--	0.3	<0.010	<0.010	--	25
DEC											
06...	0.180	0.0	0.190	0.19	0.0	0.28	0.3	0.0	0.0	0.06	263
JAN											
24...	--	<0.010	0.100	0.1	0.0	0.17	0.2	0.0	0.0	0.03	199
MAR											
15...	0.330	0.020	0.350	0.350	0.070	0.43	0.50	0.030	0.010	0.03	--
MAY											
11...	0.160	0.0	0.170	0.17	0.0	0.46	0.5	0.0	0.0	0.06	993
JUN											
22...	--	<0.010	0.330	0.33	0.0	0.26	0.3	0.1	0.1	0.18	--

DATE	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
OCT											
13...	155	98	--	--	--	--	--	--	--	--	--
DEC											
06...	8830	72	--	--	--	--	--	--	--	--	--
JAN											
24...	9890	47	<1	42	<0.5	<1	<5	<3	<10	110	10
MAR											
15...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	157000	73	1	51	<0.5	<1	<5	<3	<10	57	<10
JUN											
22...	--	--	1	160	<0.5	<1	<5	<3	<10	9	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
OCT										
13...	--	--	--	--	--	--	--	--	--	--
DEC										
06...	--	--	--	--	--	--	--	--	--	--
JAN										
24...	<4	6	<0.1	<10	20	<1	<1	160	<6	5
MAR										
15...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	<4	2	<0.1	<10	<10	<1	<1	170	<6	6
JUN										
22...	10	3	0.2	10	<10	<1	<1	590	<6	12

07337900 GLOVER RIVER NEAR GLOVER, OK

LOCATION.--Lat 34°05'51", long 94°54'07", in NW 1/4 NE 1/4 sec.28, T.5 S., R.23 E., McCurtain County, Hydrologic Unit 11140107, on right downstream end of bridge on State Highways 3 and 7, 2.0 mi north of Glover, 11.0 mi northwest of Broken Bow, and at mile 9.2.

DRAINAGE AREA.--315 mi^2.

PERIOD OF RECORD.--October 1961 to current year. Prior to October 1990, published as Glover Creek near Glover.

GAGE.--Water-stage recorder. Datum of gage is 378.70 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1961 reached a stage of 28.84 ft, from floodmark. Flood in 1908 was higher than in May 1961, from information provided by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s.

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 5	1200	21,800	15.01	May 8	1500	26,300	16.55(from HWM)
Jan. 14	0500	13,800	11.91				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	93	182	163	725	433	310	1050	275	174	26	1.8
2	4.7	77	146	148	628	368	253	1210	309	105	24	1.7
3	4.9	104	125	135	538	314	216	740	763	79	22	1.5
4	4.9	664	108	127	447	281	2540	673	594	68	19	1.3
5	5.4	9920	95	118	376	262	1600	515	428	106	17	.94
6	5.3	2610	82	129	327	255	906	742	345	102	15	.77
7	29	1110	68	451	282	461	638	4930	338	85	13	.86
8	127	711	227	542	244	663	481	13100	258	75	12	.77
9	725	1210	6270	469	208	550	386	4700	199	64	11	1.1
10	335	2780	4690	426	191	467	314	1900	246	57	10	1.6
11	170	1150	2190	354	177	400	335	1130	658	50	9.4	1.6
12	104	760	1210	316	162	348	466	831	707	42	8.7	3.3
13	73	572	833	6860	145	329	357	688	505	36	7.9	7.1
14	55	533	671	8760	131	485	267	590	354	30	7.3	11
15	45	3800	585	2670	134	938	204	493	251	24	6.5	8.2
16	40	1800	2440	1440	147	1180	166	401	192	22	5.7	5.9
17	39	1030	2200	1010	152	858	148	337	155	20	5.5	6.9
18	37	743	1150	920	136	680	501	297	130	19	4.9	5.0
19	40	578	794	1470	118	550	792	260	113	25	5.1	23
20	242	483	856	1120	105	462	1900	222	98	19	5.9	137
21	460	613	1570	868	96	386	1180	188	86	17	7.5	247
22	555	536	1020	724	89	322	742	164	78	16	7.3	167
23	458	434	760	688	83	270	548	149	71	14	6.3	116
24	293	348	602	639	78	225	434	141	69	13	5.0	88
25	217	281	484	608	71	189	348	180	67	25	4.1	68
26	225	239	397	626	84	303	257	178	67	39	3.7	55
27	343	233	327	1850	281	1710	265	166	88	37	3.2	46
28	255	372	263	1490	481	856	371	144	80	40	3.2	41
29	190	307	238	1020	---	607	228	138	76	36	2.9	36
30	148	231	237	950	---	482	187	221	249	33	2.5	32
31	116	---	199	816	---	387	---	212	---	31	2.2	---
TOTAL	5351.4	34322	31019	37907	6636	16021	17340	36690	7849	1503	283.8	1117.34
MEAN	173	1144	1001	1223	237	517	578	1184	262	48.5	9.15	37.2
MAX	725	9920	6270	8760	725	1710	2540	13100	763	174	26	247
MIN	4.7	77	68	118	71	189	148	138	67	13	2.2	.77
AC-FT	10610	68080	61530	75190	13160	31780	34390	72770	15570	2980	563	2220
CFSM	.55	3.63	3.18	3.88	.75	1.64	1.83	3.76	.83	.15	.03	.12
IN.	.63	4.05	3.66	4.48	.78	1.89	2.05	4.33	.93	.18	.03	.13

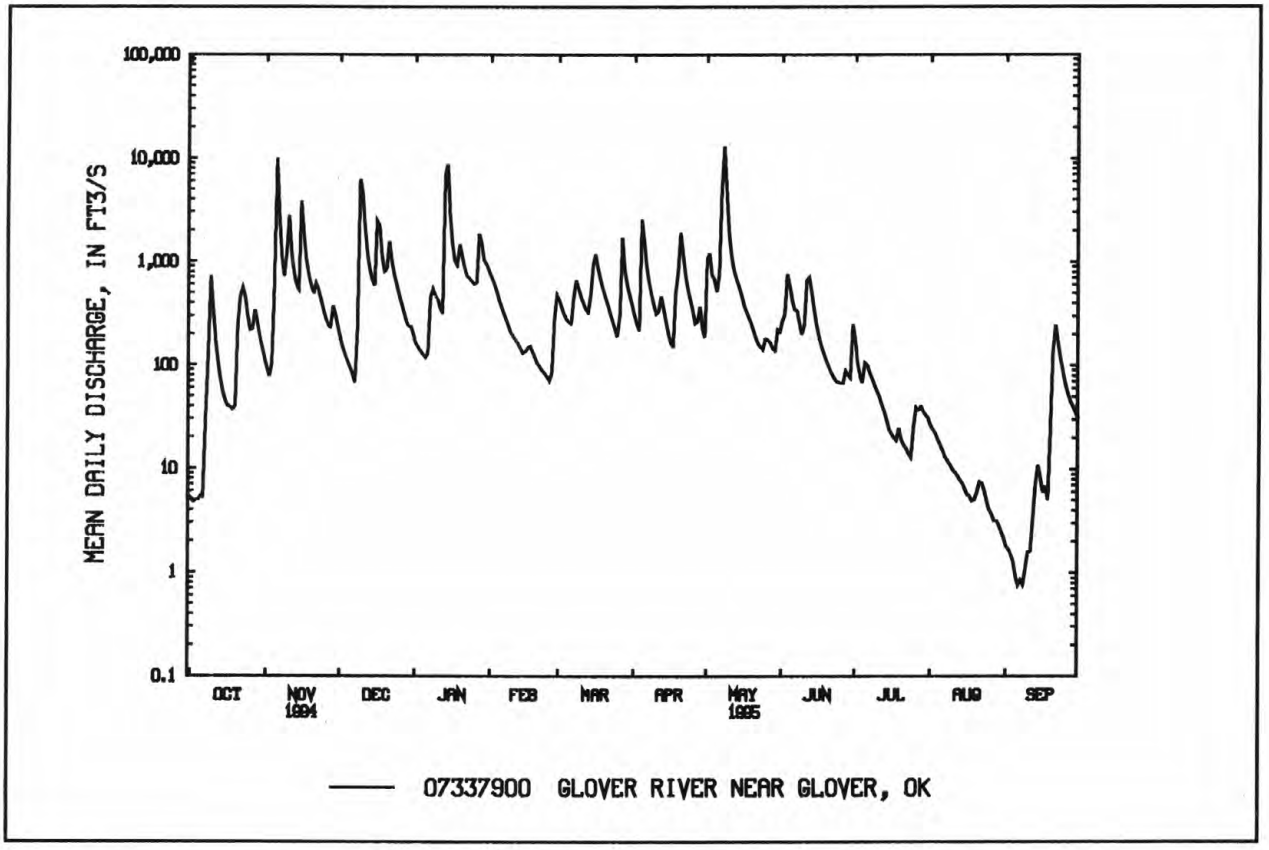
07337900 GLOVER RIVER NEAR GLOVER, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	373	542	730	503	657	849	737	902	350	86.8	75.0	207
MAX	2427	2146	3376	1223	1600	2506	2753	3503	1514	534	461	2690
(WY)	1985	1975	1972	1995	1989	1973	1991	1990	1973	1994	1992	1974
MIN	.000	.33	2.80	1.96	52.5	96.9	125	40.4	4.59	1.06	.000	.000
(WY)	1979	1964	1964	1964	1967	1980	1987	1988	1972	1966	1972	1972

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1962 - 95	
ANNUAL TOTAL	202091.7		196039.54			
ANNUAL MEAN	554		537		500	
HIGHEST ANNUAL MEAN					979	1973
LOWEST ANNUAL MEAN					169	1976
HIGHEST DAILY MEAN	9920	Nov 5	13100	May 8	53100	Dec 10 1971
LOWEST DAILY MEAN	4.7	Oct 2	.77	Sep 6,8	[a].00	Jul 19 1966
ANNUAL SEVEN-DAY MINIMUM	5.1	Sep 30	1.0	Sep 3	.00	Aug 4 1970
INSTANTANEOUS PEAK FLOW			26300	May 8	98600	Dec 10 1971
INSTANTANEOUS PEAK STAGE			[b]16.55	May 8	29.72	Dec 10 1971
ANNUAL RUNOFF (AC-FT)	400800		388800		362400	
ANNUAL RUNOFF (CFSM)	1.76		1.71		1.59	
ANNUAL RUNOFF (INCHES)	23.87		23.15		21.58	
10 PERCENT EXCEEDS	1200		1070		1050	
50 PERCENT EXCEEDS	182		227		126	
90 PERCENT EXCEEDS	13		7.0		3.6	

[a]No flow at times in several years.
[b]From high water mark.



07338500 LITTLE RIVER BELOW LUKFATA CREEK NEAR IDABEL, OK

LOCATION.--Lat 33°56'28", long 94°45'30", in SE 1/4 SE 1/4 sec.14, T.7 S., R.24 E., McCurtain County, Hydrologic Unit 11140107, on left bank at downstream side of bridge on U.S. Highway 70 just downstream from Lukfata Creek, 5.0 mi northeast of Idabel, and at mile 103.4.

DRAINAGE AREA.--1,226 mi^2.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 312.08 ft above sea level. Oct. 1, 1946, to Oct. 26, 1950, and for stages below 9.0 ft Oct. 26, 1950, to Oct. 10, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since June 1969 by Pine Creek Lake (station 07337300), 41.9 mi upstream. Small diversions for municipal use by City of Idabel at station and by Weyerhaeuser 41 miles above station. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1938 reached a stage of 39.7 ft, from information provided by local resident, discharge, 86,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	304	e2280	781	5480	1010	663	957	904	210	213	37
2	89	280	e1900	720	5370	1050	465	2900	899	230	309	37
3	60	280	e1380	689	4910	821	393	2900	2100	176	315	38
4	54	1460	e960	834	3170	615	1720	2880	1560	137	309	38
5	52	5040	e880	906	2080	586	3970	2620	1220	156	303	37
6	52	7960	800	977	1950	580	3450	2170	1770	238	301	36
7	54	6150	785	1340	1870	922	3680	5060	2020	201	296	37
8	123	4310	1020	1490	1210	1550	3290	8600	1920	158	291	39
9	383	4690	4300	1400	882	1450	2480	12500	1810	135	291	38
10	670	5460	9230	1570	857	1410	2320	12300	995	116	289	39
11	395	5340	9380	1640	756	1130	2430	8020	1470	105	285	36
12	254	5190	8550	1580	574	818	1640	4820	1700	97	265	43
13	198	4840	3860	4260	530	779	1790	3680	2450	94	125	61
14	318	4560	4630	13800	507	1020	1390	4010	2880	163	59	82
15	323	4330	4960	16800	691	1710	729	4830	2760	185	44	68
16	270	5150	4610	e10000	849	2730	588	5430	2060	182	40	65
17	280	5760	5670	e5000	651	2950	545	5690	779	180	38	83
18	239	5950	5940	3320	480	2280	646	5380	272	188	37	94
19	147	5840	5360	3670	447	1750	1820	4830	200	190	38	152
20	128	5660	5230	4130	421	1580	2490	4540	170	222	41	301
21	1430	5580	5640	4810	402	1460	3770	3920	150	211	45	396
22	2350	5540	5570	5070	384	967	3640	3750	137	201	42	697
23	1260	5400	5080	5050	372	720	3310	3340	128	191	39	740
24	1080	4370	3830	4970	363	613	3100	2810	134	181	37	683
25	918	3010	2640	4860	352	397	3490	2330	133	178	38	652
26	869	1400	2390	4840	360	368	3320	1750	118	179	39	634
27	786	e1230	2270	5030	546	1610	1700	1140	109	192	40	617
28	675	e1210	2180	4860	806	2430	1000	807	108	195	43	453
29	561	e1700	2150	5120	---	2060	848	767	111	189	41	212
30	395	e2150	1290	5010	---	1560	669	812	133	183	41	111
31	342	---	856	5290	---	1090	---	1440	---	179	40	---
TOTAL	14895	120144	115621	129817	37270	40016	61346	126983	31200	5442	4334	6556
MEAN	480	4005	3730	4188	1331	1291	2045	4096	1040	176	140	219
MAX	2350	7960	9380	16800	5480	2950	3970	12500	2880	238	315	740
MIN	52	280	785	689	352	368	393	767	108	94	37	36
AC-FT	29540	238300	229300	257500	73930	79370	121700	251900	61890	10790	8600	13000

e Estimated

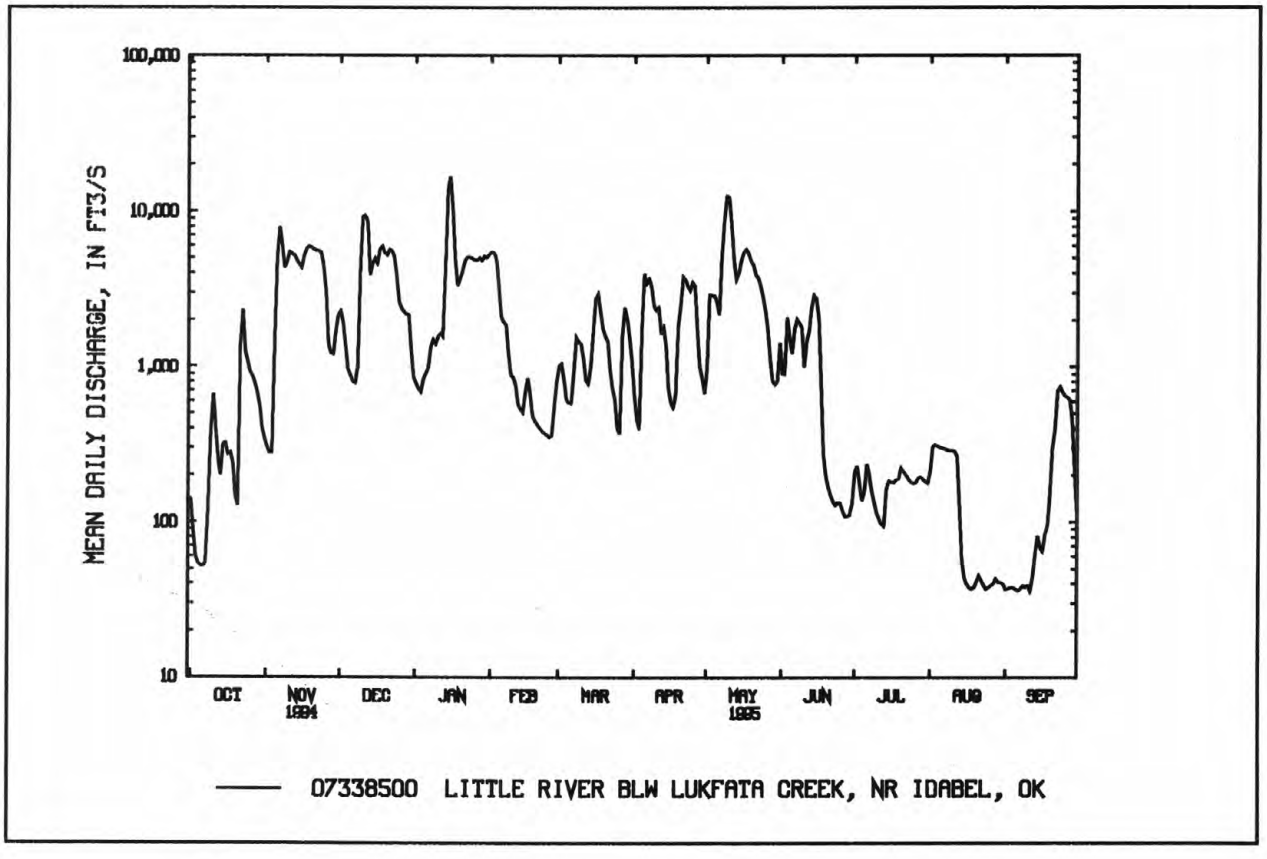
07338500 LITTLE RIVER BELOW LUKFATA CREEK NEAR IDABEL, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1092	2284	2889	2049	2489	2977	2430	3320	2070	413	315	658
MAX	4453	7887	10320	4902	5355	7730	6187	8976	6044	2058	2299	6992
(WY)	1985	1975	1972	1991	1990	1973	1973	1990	1973	1992	1992	1974
MIN	26.4	38.2	37.3	157	176	304	380	143	46.9	31.0	18.5	25.0
(WY)	1979	1990	1990	1981	1976	1980	1987	1988	1972	1977	1972	1972

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1971 - 95	
ANNUAL TOTAL	737547		693624			
ANNUAL MEAN	2021		1900		[a]1912	
HIGHEST ANNUAL MEAN					3424	1973
LOWEST ANNUAL MEAN					676	1976
HIGHEST DAILY MEAN	10300	May 8	16800	Jan 15	66800	Dec 11 1971
LOWEST DAILY MEAN	52	Oct 5	36	Sep 6,11	[b]7.8	Aug 14 1976
ANNUAL SEVEN-DAY MINIMUM	69	Oct 2	37	Sep 1	11	Oct 15 1972
INSTANTANEOUS PEAK FLOW			17000	Jan 15	103000	Dec 10 1971
INSTANTANEOUS PEAK STAGE			29.48	Jan 15	39.39	Dec 10 1971
ANNUAL RUNOFF (AC-FT)	1463000		1376000		1385000	
10 PERCENT EXCEEDS	5570		5100		5970	
50 PERCENT EXCEEDS	826		869		612	
90 PERCENT EXCEEDS	128		63		44	

[a]Prior to regulation, water years 1947-68, 1,622 ft^3/s.
[b]Minimum daily discharge for period of record, 0.4 ft^3/s, Sept. 15-16, 21 to Oct. 1, 1956.



07338750 MOUNTAIN FORK AT SMITHVILLE, OK

LOCATION.--Lat 34°27'44", long 94°38'06", in SE 1/4 SW 1/4 sec.13, T.1 S., R.25 E., McCurtain County, Hydrologic Unit 11140108, on right downstream abutment of bridge on Highway 4, .5 mi east of Smithville, 0.6 mi downstream from Rock Creek, 3.5 mi upstream from Big Eagle Creek, and at mi 55.6.

DRAINAGE AREA.--320 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 664.70 ft above sea level.

REMARKS.--No estimated daily dischrages. Records fair. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s.

Date	Time	Discharge (ft^3/s)	Gage Height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Nov. 5	0800	31,300	20.35	May 1	1200	12,600	14.22
Jan. 14	0400	10,600	13.50	May 8	1300	26,000	18.66
Apr. 11	1100	10,200	13.36				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	87	218	230	575	461	323	5540	112	90	12	.36
2	9.3	79	200	203	485	373	273	2700	955	141	14	.89
3	8.8	80	188	189	408	333	243	1420	1570	82	13	1.3
4	8.3	1080	176	192	343	309	1420	1000	715	61	11	1.2
5	7.0	19600	163	179	297	290	1180	634	440	614	10	1.1
6	7.4	3440	151	279	263	271	842	1270	392	528	8.5	.98
7	37	1530	143	636	237	1330	601	2700	315	265	31	1.0
8	509	960	436	553	214	1500	469	15300	228	151	62	1.2
9	444	3210	6020	473	191	1020	382	4660	174	101	44	1.2
10	206	3970	4810	408	183	723	335	1930	206	74	30	1.2
11	133	1760	2420	371	175	553	5940	1160	1220	57	23	1.2
12	101	1130	1480	384	159	453	3010	795	776	44	18	4.3
13	82	776	1040	5330	147	421	1510	617	504	35	15	6.7
14	70	1120	886	7080	141	611	991	494	359	29	13	7.2
15	62	2250	768	2630	160	685	647	349	257	23	16	7.5
16	61	1430	2740	1540	196	672	507	281	187	19	17	13
17	74	1010	2390	1120	176	594	771	242	142	16	12	63
18	90	726	1450	1080	152	495	1200	221	113	14	9.6	30
19	127	546	1020	1630	140	420	1150	197	92	11	8.5	45
20	144	506	1000	1330	133	361	1430	163	77	12	7.3	56
21	170	587	1410	1060	127	304	1040	140	67	36	6.6	40
22	188	443	1100	846	119	266	707	125	61	32	5.7	35
23	177	369	845	741	117	237	583	111	67	33	5.0	29
24	147	320	650	669	113	203	479	98	101	36	4.0	21
25	135	289	522	630	107	181	384	108	104	28	3.4	16
26	138	267	431	680	217	397	316	126	73	25	2.8	15
27	125	352	362	1880	786	2720	301	106	56	21	1.9	12
28	112	347	312	1590	604	1140	265	94	47	20	1.3	10
29	115	277	311	1150	---	712	223	90	45	18	.80	9.1
30	108	245	310	906	---	511	709	85	46	15	.20	8.0
31	97	---	256	692	---	397	---	78	---	11	.12	---
TOTAL	3702.6	48786	34208	36681	6965	18943	28231	42834	9501	2642	406.72	439.43
MEAN	119	1626	1103	1183	249	611	941	1382	317	85.2	13.1	14.6
MAX	509	19600	6020	7080	786	2720	5940	15300	1570	614	62	63
MIN	7.0	79	143	179	107	181	223	78	45	11	.12	.36
AC-FT	7340	96770	67850	72760	13820	37570	56000	84960	18850	5240	807	872

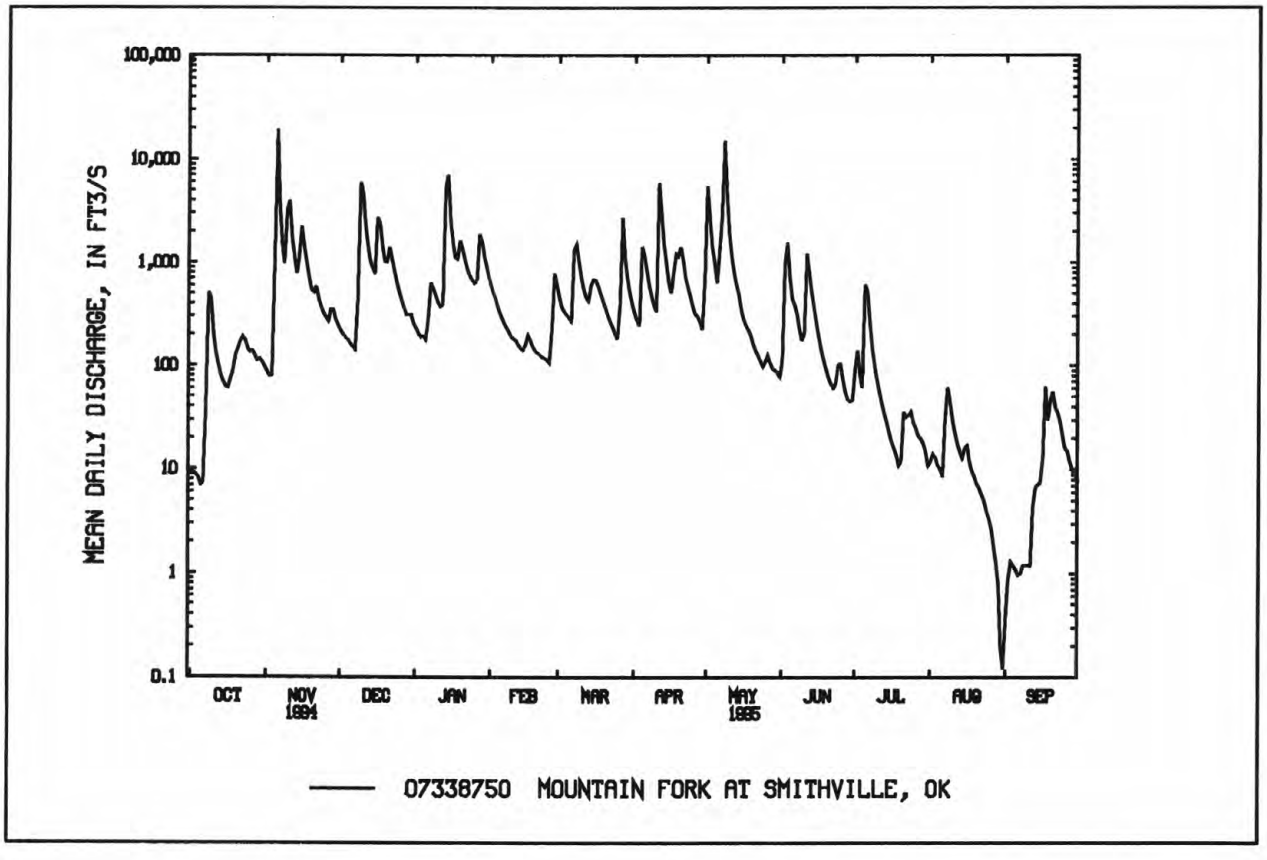
07338750 MOUNTAIN FORK AT SMITHVILLE, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	674	1197	1485	1053	605	808	617	945	309	206	60.7	416
MAX	1666	1626	1866	1402	841	1064	974	1397	649	549	156	1525
(WY)	1994	1995	1992	1994	1993	1993	1993	1993	1992	1994	1992	1992
MIN	86.5	884	1103	517	249	611	235	252	96.2	29.5	13.1	14.6
(WY)	1993	1993	1995	1992	1995	1995	1992	1992	1994	1993	1995	1995

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1992 - 95	
ANNUAL TOTAL	231154.6		233339.75			
ANNUAL MEAN	633		639		699	
HIGHEST ANNUAL MEAN					741	1994
LOWEST ANNUAL MEAN					639	1995
HIGHEST DAILY MEAN	19600	Nov 5	19600	Nov 5	23600	Oct 20 1993
LOWEST DAILY MEAN	7.0	Oct 5	.12	Aug 31	.12	Aug 31 1995
ANNUAL SEVEN-DAY MINIMUM	8.7	Sep 30	.70	Aug 29	.70	Aug 29 1995
INSTANTANEOUS PEAK FLOW			31300	Nov 5	37800	Oct 20 1993
INSTANTANEOUS PEAK STAGE			20.35	Nov 5	[a]22.58	Dec 15 1992
ANNUAL RUNOFF (AC-FT)	458500		462800		506700	
10 PERCENT EXCEEDS	1500		1420		1510	
50 PERCENT EXCEEDS	208		217		263	
90 PERCENT EXCEEDS	24		9.5		18	

[a]From high-water mark and during backwater from Big Eagle Creek.



07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK

LOCATION.--Lat 34°04'57", long 94°38'05", in NE 1/4 NE 1/4 sec.36, T.5 S., R.25 E., McCurtain County, Hydrologic Unit 11140108, on right downstream bank, 4.7 mi northwest of Eagletown, 9 mi downstream from Broken Bow Dam, and at mile 11.6.

DRAINAGE AREA.--767.2 mi^2.

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1994 to September 30, 1995.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above sea level.

REMARKS.--Records fair. Stage data for the period October 1992 to September 1994 is available upon request at the district office. Flow completely regulated by Broken Bow Lake (station 07338900) since October 1968 except for 33 mi^2 intervening area. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum gage height is 99.44 ft on Jan. 31. Minimum gage height is 84.72 ft on Nov. 2.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	91.29	88.55	89.55	---	---	---	90.21	87.60	88.51	89.23	87.81	88.32
2	89.52	88.00	88.52	---	---	---	89.49	86.81	87.62	---	---	---
3	93.23	87.75	88.83	87.95	86.69	87.33	89.07	87.37	88.03	---	---	---
4	91.85	88.62	89.75	89.37	85.70	86.72	87.37	86.28	86.84	---	---	---
5	89.66	88.19	88.81	93.30	89.06	91.06	92.26	85.88	88.83	---	---	---
6	---	---	---	89.26	87.63	88.28	89.24	87.41	88.11	---	---	---
7	91.42	87.76	88.71	96.71	87.03	89.64	89.82	86.62	87.52	---	---	---
8	90.13	87.96	88.77	96.25	91.55	93.87	93.16	88.17	89.37	87.84	86.88	87.35
9	89.55	87.67	88.37	96.44	90.85	92.99	92.48	89.18	90.17	91.46	86.08	87.25
10	90.96	87.17	88.26	99.39	89.71	94.46	---	---	---	93.30	89.18	92.07
11	89.80	87.71	88.45	99.39	92.09	96.69	---	---	---	93.30	93.30	93.30
12	88.86	87.11	87.54	99.36	91.72	96.24	---	---	---	98.85	92.95	94.38
13	88.86	87.52	88.05	99.39	91.89	96.56	---	---	---	96.78	93.26	94.22
14	89.06	86.92	87.44	99.38	92.46	96.64	99.37	99.14	99.30	93.26	90.80	91.88
15	89.00	87.58	88.11	99.39	90.67	95.44	99.39	92.39	97.46	90.80	89.91	90.29
16	87.58	86.97	87.26	99.09	91.94	96.15	94.38	89.39	90.72	97.38	89.63	91.98
17	89.20	86.43	87.00	99.22	91.84	96.12	99.38	94.38	97.71	99.36	97.38	98.80
18	89.12	87.62	88.18	99.19	91.09	94.91	---	---	---	99.39	90.70	96.13
19	89.11	87.16	87.79	99.09	91.76	95.81	99.38	97.64	98.75	97.52	89.45	92.19
20	88.71	87.76	88.07	99.37	91.31	95.87	99.39	97.65	98.95	99.38	97.52	98.99
21	---	---	---	97.79	92.42	95.81	99.41	97.60	98.92	99.36	99.16	99.32
22	---	---	---	99.33	91.23	95.71	99.40	99.35	99.38	99.36	99.28	99.33
23	---	---	---	99.09	91.96	96.38	99.41	97.34	98.74	99.35	97.91	98.86
24	---	---	---	99.08	91.75	95.58	97.34	92.86	95.33	99.40	97.91	98.85
25	---	---	---	96.28	89.95	92.50	---	---	---	99.43	99.32	99.36
26	---	---	---	93.96	88.09	89.92	---	---	---	99.40	96.91	98.83
27	---	---	---	88.09	86.95	87.49	96.89	92.00	94.80	96.91	90.89	93.58
28	---	---	---	91.29	86.09	87.42	96.57	91.69	94.56	97.70	96.38	97.28
29	---	---	---	91.23	88.01	89.32	94.59	88.71	90.74	99.06	97.70	98.24
30	---	---	---	91.24	87.97	89.24	90.78	87.99	89.14	99.42	98.60	99.29
31	---	---	---	---	---	---	89.79	87.78	88.67	99.44	96.72	98.98
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

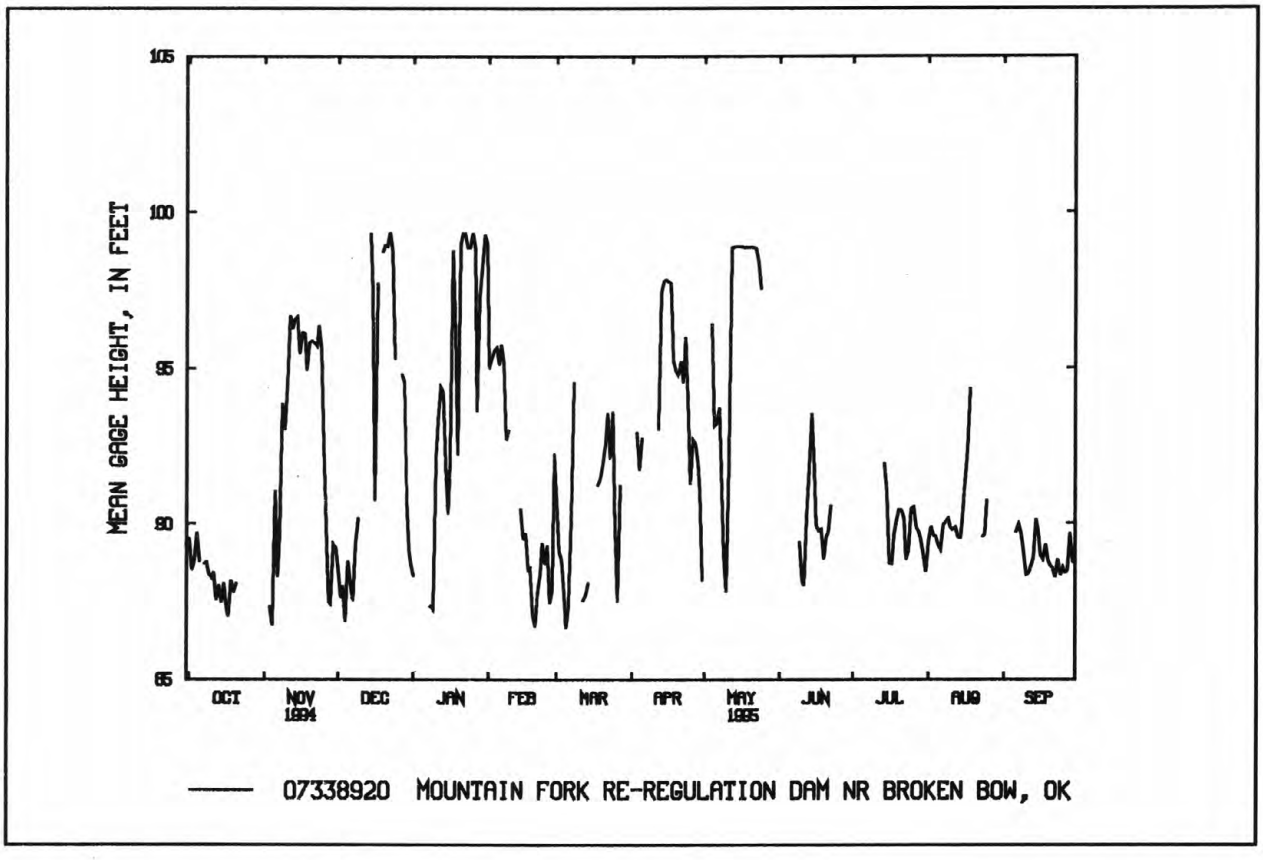
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	96.72	92.16	94.98	93.80	89.06	90.70	---	---	---	---	---	---
2	99.20	91.15	95.29	90.56	88.28	89.08	---	---	---	---	---	---
3	99.19	91.58	95.56	90.29	87.78	88.87	94.46	90.61	92.90	---	---	---
4	97.96	91.55	95.67	88.46	87.16	87.71	93.15	90.27	91.71	97.87	91.48	96.39
5	99.25	91.58	95.08	87.16	86.08	86.63	96.11	89.45	92.72	95.97	89.85	93.11
6	98.64	92.62	95.77	88.68	85.67	87.36	---	---	---	97.08	89.78	93.22
7	98.89	91.88	95.16	95.59	87.97	90.16	---	---	---	96.83	89.88	93.73
8	96.20	90.61	92.69	94.86	91.90	94.53	---	---	---	92.00	89.57	91.02
9	95.65	90.07	92.98	---	---	---	---	---	---	90.15	88.20	88.99
10	---	---	---	---	---	---	---	---	---	88.20	87.39	87.79
11	---	---	---	---	---	---	---	---	---	98.24	87.13	92.00
12	---	---	---	88.12	87.10	87.56	96.69	89.21	93.04	98.91	98.24	98.85
13	---	---	---	88.42	86.98	87.71	97.74	96.69	97.42	98.93	98.68	98.88
14	92.79	89.08	90.46	91.15	87.45	88.09	97.88	97.74	97.80	98.92	98.73	98.89
15	91.47	88.21	89.50	---	---	---	97.87	97.77	97.83	98.92	98.88	98.90
16	91.64	88.56	89.69	---	---	---	97.86	97.48	97.76	98.93	98.87	98.90
17	91.02	87.54	88.53	---	---	---	97.84	97.36	97.74	99.04	98.25	98.85
18	90.29	87.64	88.57	93.39	89.50	91.25	97.36	92.55	95.23	98.91	98.86	98.88
19	87.64	86.63	87.14	94.73	89.32	91.46	96.89	92.00	94.90	98.88	98.75	98.85
20	88.82	85.76	86.68	94.98	90.40	91.98	97.00	91.58	94.74	98.89	98.85	98.87
21	88.58	87.23	87.80	94.82	90.79	92.62	99.14	91.66	95.23	98.87	98.84	98.86
22	94.28	86.48	88.36	95.84	90.46	93.56	98.80	91.12	94.49	99.03	98.46	98.83
23	92.48	87.94	89.39	93.56	90.21	92.06	98.70	93.56	96.02	98.67	98.17	98.41
24	93.91	87.17	88.68	96.25	89.52	93.61	98.13	90.64	94.02	98.44	---	97.55
25	92.23	87.91	89.30	93.84	88.03	89.84	93.39	89.15	91.25	---	---	---
26	87.91	87.03	87.43	88.03	87.09	87.47	94.66	90.62	92.68	---	---	---
27	92.53	86.54	87.89	95.10	86.88	91.21	94.67	90.78	92.57	---	---	---
28	96.67	89.47	92.26	---	---	---	94.86	89.56	91.95	---	---	---
29	---	---	---	---	---	---	93.37	89.34	91.02	---	---	---
30	---	---	---	---	---	---	89.34	87.63	88.19	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	91.91	88.55	89.57	---	---	---	91.29	88.40	89.42	---	---	---
2	---	---	---	---	---	---	91.33	88.69	89.91	---	---	---
3	---	---	---	---	---	---	91.25	88.49	89.60	---	---	---
4	---	---	---	---	---	---	91.26	88.49	89.60	---	---	---
5	---	---	---	---	---	---	90.29	88.42	89.31	---	---	---
6	---	---	---	---	---	---	90.21	88.34	89.14	92.13	88.37	89.73
7	---	---	---	---	---	---	92.59	88.38	89.97	92.14	88.51	89.97
8	---	---	---	---	---	---	92.64	88.59	90.05	91.40	88.58	89.66
9	91.59	88.38	89.39	---	---	---	92.18	88.66	90.17	90.14	88.21	89.02
10	88.38	88.04	88.16	---	---	---	91.66	88.59	89.87	89.23	87.88	88.35
11	88.04	87.95	88.00	---	---	---	92.00	88.52	89.81	90.42	87.65	88.37
12	94.94	87.93	90.19	---	---	---	91.36	88.64	89.88	89.62	88.06	88.60
13	97.12	88.97	91.78	---	---	---	91.00	88.48	89.55	91.94	87.76	88.89
14	98.51	90.02	93.54	97.14	89.00	91.93	91.21	88.44	89.54	93.45	88.49	90.15
15	94.92	89.79	91.71	93.97	89.37	90.96	94.03	88.41	90.16	91.16	88.57	89.66
16	91.74	88.72	89.92	89.97	88.09	88.71	96.08	88.90	91.32	90.17	88.18	88.94
17	93.15	88.51	89.76	90.90	87.84	88.69	98.09	89.19	92.36	90.11	88.14	88.84
18	92.76	88.53	89.83	91.66	88.42	89.61	99.40	90.34	94.33	90.79	88.34	89.34
19	90.68	88.11	88.84	93.06	88.53	90.09	---	---	---	89.94	88.27	88.77
20	91.90	88.46	89.60	92.36	88.88	90.43	---	---	---	90.54	87.89	88.61
21	91.60	88.60	89.71	93.21	88.77	90.41	---	---	---	89.79	87.94	88.57
22	94.42	88.74	90.57	91.81	88.82	90.14	---	---	---	89.81	87.64	88.25
23	---	---	---	90.32	88.13	88.84	91.25	88.45	89.58	90.00	88.09	88.86
24	---	---	---	93.25	87.85	89.15	91.29	88.52	89.66	89.16	87.92	88.33
25	---	---	---	92.66	88.90	90.47	96.65	88.41	90.72	89.98	87.94	88.58
26	---	---	---	93.27	88.82	90.52	---	---	---	89.46	87.78	88.41
27	---	---	---	91.84	88.61	89.86	---	---	---	91.91	87.20	88.50
28	---	---	---	91.29	88.55	89.71	---	---	---	91.95	88.22	89.70
29	---	---	---	91.20	88.37	89.47	---	---	---	90.53	87.77	88.71
30	---	---	---	90.72	88.17	89.00	---	---	---	92.14	87.36	89.27
31	---	---	---	91.01	87.80	88.44	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued



07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1992 to September 1994 (unpublished data). October 1994 to September 1995.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1994 to September 1995. Data for the period October 1992 to September 1994 are available upon request at the district office.

INSTRUMENTATION.--Water-temperature recorder since Oct. 1992 provides continuous recordings.

REMARKS.--Interruptions in record were due to malfunctions of the recording instrument or the probes reading air tmperature during low-flow conditions. The water temperature probes are located at the following elevations: Top 386 ft msl, Mid 377 ft msl, and Low 363 ft msl. Water temperature data for the period October 1992 to September 1994 are available upon request at the district office.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Top Probe: maximum, 29.5°C July 10; minimum, 5.5°C Feb. 13.
Mid Probe: maximum, 21.5°C June 11, 12, July 5; minimum, 5.5°C Feb. 13.
Low Probe: maximum, 21.5°C June 11; minimum, 5.5°C Feb. 13.

TOP PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.0	18.0	19.0	---	---	---	11.5	10.5	11.0	10.0	9.0	9.5
2	20.5	19.0	20.0	---	---	---	12.0	9.5	11.0	9.0	9.0	9.0
3	21.0	19.0	20.0	15.5	15.0	15.5	12.0	11.0	11.5	---	---	---
4	21.5	19.0	20.0	---	---	---	13.0	11.0	11.5	---	---	---
5	21.0	19.5	20.0	16.5	16.0	16.5	12.0	11.5	12.0	---	---	---
6	20.0	19.0	20.0	16.0	15.5	16.0	12.5	12.5	12.5	---	---	---
7	20.5	19.5	20.0	16.0	14.5	15.5	14.5	12.5	13.5	8.0	7.5	7.5
8	20.0	19.0	20.0	15.5	15.0	15.5	13.0	12.5	12.5	8.5	7.0	7.5
9	20.0	19.0	19.5	16.0	15.0	15.5	12.5	12.0	12.0	7.5	5.0	6.5
10	21.0	17.5	18.5	15.5	14.5	15.0	12.0	11.5	11.5	8.5	7.0	7.5
11	18.5	17.5	18.0	15.5	15.0	15.5	---	---	---	9.0	8.0	8.5
12	18.0	17.5	17.5	15.0	14.5	15.0	---	---	---	9.5	8.5	9.0
13	18.0	17.5	17.5	15.0	14.0	15.0	---	---	---	9.0	8.5	8.5
14	18.0	17.0	17.5	15.0	15.0	15.0	11.0	10.5	11.0	9.5	8.5	9.0
15	17.5	17.0	17.0	15.5	15.0	15.0	11.0	10.5	11.0	11.0	8.5	10.0
16	17.5	17.0	17.0	15.0	15.0	15.0	11.0	11.0	11.0	10.0	9.0	9.5
17	18.0	17.0	17.5	15.0	14.0	14.5	11.0	10.5	10.5	9.0	8.0	8.5
18	17.5	17.0	17.5	14.5	14.0	14.5	11.0	10.5	10.5	8.5	8.0	8.0
19	19.0	17.5	18.0	15.0	14.0	14.5	10.5	10.5	10.5	8.0	8.0	8.0
20	19.0	18.0	18.5	14.5	14.0	14.0	10.5	10.0	10.0	8.5	8.0	8.0
21	---	---	---	14.0	13.5	14.0	10.5	10.0	10.0	8.0	8.0	8.0
22	---	---	---	14.5	13.5	14.0	10.5	10.0	10.0	8.0	7.5	8.0
23	---	---	---	14.0	13.5	13.5	10.5	10.0	10.0	8.0	7.5	7.5
24	---	---	---	14.0	13.0	13.5	10.0	10.0	10.0	8.0	7.5	7.5
25	---	---	---	13.5	13.0	13.5	10.0	9.5	10.0	8.0	7.5	7.5
26	---	---	---	13.0	13.0	13.0	10.0	9.5	10.0	8.0	7.5	7.5
27	---	---	---	15.5	12.0	13.5	10.0	9.0	9.5	8.5	8.0	8.0
28	---	---	---	13.0	11.0	11.5	10.0	9.5	10.0	8.5	7.5	8.0
29	---	---	---	13.5	12.0	12.5	10.0	10.0	10.0	7.5	7.5	7.5
30	---	---	---	12.0	11.5	12.0	10.0	9.5	10.0	8.0	7.5	7.5
31	---	---	---	---	---	---	10.0	9.5	10.0	8.0	7.5	7.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

TOP PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.0	7.5	8.5	8.5	8.5	12.5	11.5	12.0	---	---	---
2	8.0	7.5	7.5	8.5	8.0	8.5	---	---	---	---	---	---
3	8.5	8.0	8.0	8.5	8.0	8.0	12.0	10.0	11.0	---	---	---
4	8.0	7.5	7.5	8.0	7.0	7.5	12.0	10.5	11.0	13.5	12.5	13.0
5	8.0	7.5	7.5	9.5	7.0	8.0	12.0	10.0	11.5	14.5	13.5	14.0
6	8.0	7.5	7.5	---	---	---	11.5	10.0	11.0	14.5	13.0	14.0
7	8.0	7.5	8.0	9.0	7.5	7.5	12.0	10.5	11.5	13.5	13.0	13.5
8	8.0	7.5	7.5	7.5	6.5	7.0	12.0	10.5	11.5	15.0	13.0	14.0
9	7.5	7.0	7.5	---	---	---	12.0	10.0	11.0	21.5	15.0	17.5
10	7.5	7.5	7.5	---	---	---	12.0	10.5	11.0	22.5	18.5	20.5
11	8.0	7.5	8.0	8.5	7.5	8.0	13.0	10.5	11.5	20.5	14.0	17.5
12	8.0	6.0	7.0	9.0	8.5	8.5	13.0	12.0	12.5	14.5	14.0	14.0
13	7.0	5.5	6.0	9.5	8.5	9.0	12.5	11.0	12.0	14.5	14.0	14.5
14	7.0	6.5	6.5	10.5	9.5	10.0	12.5	11.5	11.5	15.0	14.5	14.5
15	7.0	6.5	6.5	---	---	---	12.5	10.5	11.5	15.0	14.5	14.5
16	7.5	6.5	7.0	9.0	8.0	8.5	11.5	11.0	11.5	15.0	14.5	15.0
17	8.5	7.0	7.5	9.5	8.5	9.0	12.0	11.5	11.5	15.0	14.5	14.5
18	8.0	7.0	7.5	10.5	9.5	9.5	12.5	11.0	12.0	15.5	14.5	15.0
19	11.0	6.5	8.5	11.0	9.5	10.0	13.0	11.5	12.5	16.0	14.5	15.5
20	---	---	---	11.5	9.0	10.5	13.0	12.5	12.5	16.0	15.0	15.5
21	9.5	9.0	9.0	11.0	9.0	10.0	13.5	12.0	12.5	15.5	15.0	15.0
22	11.5	8.0	9.0	11.0	9.0	10.0	13.5	12.5	13.0	16.0	15.0	15.5
23	11.0	8.5	9.5	11.5	9.5	10.0	13.5	13.0	13.5	16.0	13.5	14.5
24	11.5	7.5	10.0	11.0	9.5	10.5	14.0	13.0	14.0	15.0	14.0	14.5
25	9.0	8.5	9.0	11.0	10.0	10.5	14.0	13.0	13.5	---	---	---
26	9.5	8.5	9.0	12.0	11.0	11.5	14.0	12.0	13.5	---	---	---
27	14.0	8.5	10.0	12.0	10.5	11.5	15.0	12.0	13.5	---	---	---
28	10.5	8.5	9.0	12.0	11.5	11.5	15.0	13.0	14.5	---	---	---
29	---	---	---	12.0	11.5	11.5	14.5	13.0	14.0	---	---	---
30	---	---	---	12.0	11.0	11.5	15.0	13.0	14.0	---	---	---
31	---	---	---	12.5	11.5	12.0	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

TOP PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	17.5	18.5	20.5	17.5	18.5	22.5	20.0	21.0	22.0	20.0	20.5
2	---	---	---	20.5	18.0	18.5	21.5	17.5	19.0	21.0	19.5	20.0
3	---	---	---	21.5	17.5	19.5	22.0	17.0	19.5	21.0	18.0	19.0
4	---	---	---	21.5	18.0	20.0	23.5	18.5	21.0	20.0	17.0	18.5
5	---	---	---	22.0	20.5	21.5	23.5	18.0	20.5	20.5	17.5	18.5
6	---	---	---	25.5	20.5	22.0	22.5	17.5	20.5	20.5	17.5	19.0
7	---	---	---	23.0	20.0	21.5	22.0	17.5	19.5	20.5	17.5	19.0
8	18.0	16.5	17.0	28.0	21.5	24.0	19.5	16.5	17.5	20.5	17.5	19.0
9	20.5	17.0	18.0	27.0	21.5	24.0	22.0	16.5	18.0	21.0	18.5	19.0
10	21.5	20.5	21.0	29.5	21.0	25.5	22.0	17.5	19.0	21.0	19.0	19.5
11	22.0	21.0	21.0	25.0	19.0	22.0	21.5	17.0	19.0	21.0	18.5	20.0
12	21.5	18.0	20.5	22.5	17.0	19.5	21.0	16.5	18.5	20.5	19.5	20.0
13	22.5	17.0	19.0	23.0	16.0	19.0	22.5	16.5	19.5	21.0	18.0	19.5
14	17.5	16.5	17.0	18.5	15.5	16.5	20.5	17.0	19.0	19.5	17.5	18.5
15	19.5	17.0	17.5	20.5	18.0	19.0	20.5	17.0	19.0	20.5	18.5	19.5
16	20.5	16.5	18.5	22.5	19.5	20.5	20.0	17.5	19.0	23.5	20.5	21.5
17	20.5	17.0	18.5	25.5	22.0	24.0	20.5	18.5	19.5	21.0	19.5	20.0
18	21.0	16.0	17.5	23.5	19.0	21.5	20.5	18.0	20.0	21.5	18.5	20.0
19	22.5	18.5	21.0	20.0	16.5	18.0	---	---	---	20.5	18.5	19.0
20	25.0	17.5	21.5	20.0	16.0	17.0	---	---	---	21.0	19.0	20.0
21	23.5	16.5	20.0	17.5	15.5	16.5	---	---	---	20.5	19.0	19.5
22	20.5	16.5	18.5	18.5	15.5	16.0	---	---	---	20.0	18.0	19.0
23	19.5	16.0	17.0	19.5	17.0	18.0	21.5	17.5	19.0	18.0	17.0	17.5
24	21.0	16.0	17.5	24.5	19.0	22.0	24.0	17.0	20.5	18.0	17.0	17.5
25	21.5	17.5	20.0	19.0	16.0	16.5	21.5	17.0	19.5	18.0	17.5	17.5
26	22.5	19.5	20.5	20.0	16.0	17.5	---	---	---	19.5	17.5	18.0
27	21.0	19.5	20.0	21.0	16.0	16.5	---	---	---	19.0	17.0	18.0
28	23.5	18.5	21.0	22.0	16.0	19.0	---	---	---	19.0	17.5	18.0
29	24.0	21.0	22.5	21.0	16.0	17.5	21.0	20.0	20.5	19.5	18.5	19.0
30	22.5	18.0	20.0	21.5	17.5	19.5	20.5	18.5	19.0	20.0	18.5	19.5
31	---	---	---	22.5	20.0	21.0	20.0	19.0	19.5	---	---	---
MONTH	---	---	---	29.5	15.5	19.7	---	---	---	23.5	17.0	19.1

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

MID PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	17.0	17.5	---	---	---	11.5	11.0	11.0	10.0	9.0	9.5
2	19.0	17.5	18.5	14.5	14.0	14.5	11.0	10.5	11.0	---	---	---
3	19.5	18.0	19.0	15.0	14.5	15.0	11.0	11.0	11.0	---	---	---
4	19.5	18.5	18.5	16.0	15.0	15.5	11.5	11.0	11.5	---	---	---
5	19.0	18.5	19.0	16.5	15.5	16.0	12.5	11.0	11.5	---	---	---
6	19.5	18.5	19.0	16.0	15.5	16.0	12.5	12.0	12.0	---	---	---
7	20.0	19.0	19.5	16.0	15.5	15.5	13.0	12.5	12.5	8.0	7.0	7.5
8	20.0	18.5	19.5	16.0	15.0	15.5	13.0	12.0	12.5	8.0	7.0	7.0
9	19.5	18.5	19.0	16.0	15.0	15.5	12.5	11.5	12.0	7.5	7.0	7.0
10	19.0	17.5	18.0	15.5	14.5	15.0	---	---	---	8.5	7.0	7.5
11	18.0	17.5	17.5	15.5	15.0	15.5	---	---	---	8.5	8.0	8.5
12	17.5	17.0	17.5	15.5	15.0	15.0	---	---	---	9.0	8.0	8.5
13	17.5	17.0	17.0	15.0	14.5	15.0	11.0	11.0	11.0	9.0	8.5	8.5
14	17.0	17.0	17.0	15.0	15.0	15.0	11.0	11.0	11.0	9.5	8.5	9.0
15	17.0	16.5	17.0	15.5	15.0	15.0	11.0	11.0	11.0	9.0	8.5	9.0
16	17.0	17.0	17.0	15.5	15.0	15.0	11.0	11.0	11.0	9.5	8.5	9.0
17	17.0	16.5	17.0	15.0	14.0	14.5	11.0	10.5	11.0	9.0	8.0	8.5
18	17.0	17.0	17.0	15.0	14.0	14.5	11.0	10.5	11.0	8.5	8.0	8.0
19	17.5	17.0	17.0	15.0	14.5	14.5	11.0	10.5	10.5	8.0	8.0	8.0
20	18.5	17.0	17.5	14.5	14.0	14.5	10.5	10.0	10.5	8.5	8.0	8.0
21	---	---	---	14.5	13.5	14.0	10.5	10.5	10.5	8.5	8.0	8.0
22	---	---	---	14.5	13.5	14.0	10.5	10.0	10.5	8.5	8.0	8.0
23	---	---	---	14.0	13.5	14.0	10.5	10.0	10.5	8.0	7.5	8.0
24	---	---	---	14.0	13.5	13.5	10.5	10.0	10.0	8.0	7.5	8.0
25	---	---	---	13.5	13.0	13.5	10.0	9.5	10.0	8.0	7.5	8.0
26	---	---	---	13.0	13.0	13.0	10.0	9.5	10.0	8.0	8.0	8.0
27	---	---	---	14.0	13.0	13.5	10.0	9.5	9.5	8.5	8.0	8.0
28	---	---	---	13.5	12.5	13.0	10.0	9.5	10.0	8.5	7.5	8.0
29	---	---	---	13.0	12.0	12.5	10.0	10.0	10.0	7.5	7.5	7.5
30	---	---	---	12.0	11.5	11.5	10.0	9.5	9.5	8.0	7.5	7.5
31	---	---	---	---	---	---	9.5	9.5	9.5	8.0	7.5	7.5
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

MID PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.5	7.5	8.5	8.5	8.5	---	---	---	---	---	---
2	8.5	7.5	8.0	8.5	8.0	8.5	---	---	---	---	---	---
3	8.5	8.0	8.0	8.0	7.5	8.0	12.0	10.0	11.0	---	---	---
4	8.0	7.5	8.0	7.5	7.5	7.5	11.0	10.5	10.5	14.5	12.5	13.0
5	8.0	7.5	8.0	7.5	7.0	7.5	11.5	10.0	11.0	14.5	13.0	14.0
6	8.0	7.5	8.0	7.5	7.0	7.0	12.0	10.5	11.0	14.5	13.0	14.0
7	8.0	7.5	8.0	7.5	7.0	7.5	12.0	10.5	11.5	14.0	12.5	13.0
8	8.0	7.5	7.5	7.5	7.0	7.0	12.0	10.5	11.5	14.5	12.5	13.5
9	7.5	7.5	7.5	---	---	---	12.0	10.0	11.0	16.0	14.5	15.5
10	8.0	7.5	7.5	---	---	---	12.0	10.5	11.0	19.5	15.5	18.0
11	8.0	7.5	8.0	8.0	7.5	8.0	12.5	11.0	11.5	19.0	14.0	16.5
12	7.5	7.0	7.0	8.5	7.5	8.0	13.5	11.5	12.0	14.5	14.0	14.5
13	7.0	5.5	6.5	9.0	8.0	8.5	12.5	11.5	12.0	15.0	14.5	14.5
14	6.5	6.5	6.5	10.0	9.0	9.5	13.0	11.5	12.0	15.5	14.5	15.0
15	7.0	6.0	6.5	9.5	7.5	8.0	13.0	10.5	11.5	15.5	14.5	15.0
16	7.0	6.5	7.0	9.5	8.0	8.5	12.0	11.5	11.5	15.5	15.0	15.0
17	8.0	7.0	7.0	9.5	8.5	9.0	12.5	11.5	12.0	15.5	14.5	15.0
18	7.5	7.0	7.0	10.0	9.0	9.5	13.0	11.0	12.0	16.5	14.5	15.5
19	9.5	7.0	8.0	10.5	9.0	9.5	13.0	11.5	12.0	16.5	15.0	16.0
20	10.5	8.5	9.0	11.0	9.0	9.5	13.0	12.0	12.5	16.5	15.5	15.5
21	9.5	8.0	8.5	10.5	9.0	10.0	13.5	12.0	12.5	16.0	15.0	15.5
22	9.5	8.5	9.0	11.0	9.0	9.5	14.0	12.5	13.0	16.5	15.5	15.5
23	9.5	7.5	8.0	10.0	9.0	9.5	13.5	13.0	13.5	16.5	14.0	15.0
24	10.0	7.5	8.5	11.0	9.0	10.0	14.0	13.0	13.5	15.0	14.0	14.5
25	9.5	8.0	8.5	11.0	9.5	10.0	13.5	13.0	13.0	---	---	---
26	9.0	8.0	8.5	12.0	10.0	10.5	13.5	12.0	13.0	---	---	---
27	9.5	8.0	9.0	12.5	11.5	12.0	14.0	11.5	12.5	---	---	---
28	10.5	8.5	9.0	12.0	11.0	11.5	13.5	11.5	12.5	---	---	---
29	---	---	---	12.5	11.5	12.0	14.0	12.5	13.5	---	---	---
30	---	---	---	12.5	11.0	11.5	---	---	---	---	---	---
31	---	---	---	12.0	11.5	11.5	---	---	---	---	---	---
MONTH	10.5	5.5	7.8	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

MID PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.0	15.0	16.0	17.5	17.0	17.0	21.0	16.5	18.0	21.0	19.0	20.0
2	---	---	---	17.0	16.5	17.0	18.0	16.0	16.5	19.5	18.5	19.0
3	---	---	---	19.0	16.5	17.0	17.0	15.5	16.0	19.5	17.0	17.5
4	---	---	---	21.0	17.0	18.5	21.0	15.5	16.5	18.5	16.5	17.5
5	---	---	---	21.5	19.5	20.5	17.0	16.0	16.5	18.5	17.0	17.0
6	---	---	---	20.5	17.0	19.0	17.5	16.5	17.0	18.5	16.5	17.5
7	---	---	---	18.5	16.5	17.5	18.0	16.5	17.5	17.5	17.0	17.0
8	---	---	---	18.0	16.0	17.5	17.0	16.0	16.0	18.5	17.0	17.5
9	18.5	16.5	17.0	19.0	17.0	18.0	16.5	16.0	16.0	17.5	17.0	17.5
10	21.0	17.5	19.0	19.0	17.0	18.5	18.0	16.5	17.0	18.0	17.0	17.5
11	21.5	20.0	21.0	18.0	16.5	17.5	18.0	16.0	16.5	18.5	17.5	18.0
12	21.5	17.0	20.0	17.0	15.5	16.0	17.0	16.0	16.5	18.5	17.5	18.0
13	18.0	16.5	17.5	16.5	15.5	16.0	17.0	16.0	16.5	18.0	17.0	17.5
14	17.5	16.5	17.0	18.0	15.5	16.0	18.0	16.5	17.0	18.0	16.5	17.0
15	17.5	16.5	17.0	19.5	17.5	18.5	18.0	16.5	17.0	19.0	17.5	18.5
16	17.5	16.0	16.5	20.0	18.0	18.5	18.5	17.0	17.5	19.5	18.0	19.0
17	16.5	16.0	16.0	20.0	18.5	19.5	19.5	17.5	18.5	19.0	18.0	18.5
18	16.5	15.0	15.5	19.0	16.0	17.5	20.5	18.0	19.0	18.5	17.5	18.0
19	17.0	15.5	16.0	17.0	15.5	16.0	---	---	---	18.5	17.5	18.0
20	17.0	15.5	16.5	16.5	15.5	16.0	---	---	---	20.0	17.0	18.5
21	16.5	15.0	16.0	16.0	15.0	15.5	---	---	---	20.0	17.5	18.5
22	16.5	15.5	16.0	15.5	15.0	15.0	---	---	---	19.0	17.0	18.0
23	16.0	15.0	15.5	16.5	15.5	15.5	18.0	16.5	17.0	17.0	16.5	17.0
24	16.0	15.0	15.5	19.0	15.5	16.5	17.5	16.0	16.5	17.0	17.0	17.0
25	19.5	15.5	17.5	16.0	15.5	15.5	17.0	16.0	16.5	18.0	16.5	17.5
26	20.5	16.5	18.5	19.5	15.5	16.0	---	---	---	17.0	16.5	16.5
27	18.0	16.5	17.0	16.0	15.0	15.5	---	---	---	17.5	16.0	17.0
28	19.0	16.0	17.5	16.0	15.0	15.5	---	---	---	18.0	17.0	17.5
29	19.0	17.5	18.0	18.0	15.5	15.5	20.0	18.5	19.0	19.0	18.0	18.0
30	18.0	16.5	17.5	20.0	16.5	17.0	19.0	18.0	18.5	19.5	18.0	19.0
31	---	---	---	21.0	18.5	19.5	20.0	18.5	19.0	---	---	---
MONTH	---	---	---	21.5	15.0	17.1	---	---	---	21.0	16.0	17.8

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

LOW PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.5	17.0	17.0	---	---	---	11.5	11.0	11.5	10.0	9.5	9.5
2	18.0	17.0	17.5	14.5	14.5	14.5	11.0	11.0	11.0	---	---	---
3	18.5	17.5	18.0	15.0	14.5	15.0	11.0	11.0	11.0	---	---	---
4	19.0	18.0	18.5	15.5	14.5	15.0	11.5	11.0	11.0	---	---	---
5	19.0	18.5	19.0	17.0	15.5	16.0	12.0	11.0	11.5	---	---	---
6	19.5	18.5	19.0	16.0	16.0	16.0	12.0	11.5	12.0	---	---	---
7	19.5	18.5	19.0	16.0	15.5	15.5	13.0	12.0	12.5	7.5	7.0	7.5
8	20.0	18.5	19.0	16.0	15.5	15.5	13.0	12.0	12.5	7.5	7.0	7.0
9	19.0	18.0	18.5	16.0	15.5	15.5	12.5	12.0	12.0	7.5	7.0	7.0
10	18.0	17.5	18.0	15.5	14.5	15.0	12.0	11.5	11.5	8.5	7.5	7.5
11	17.5	17.5	17.5	15.5	15.0	15.5	---	---	---	8.5	8.5	8.5
12	17.5	17.0	17.5	15.5	15.0	15.0	---	---	---	9.0	8.5	8.5
13	17.0	17.0	17.0	15.0	15.0	15.0	11.5	11.0	11.0	9.0	8.5	8.5
14	17.0	17.0	17.0	15.5	15.0	15.0	11.0	11.0	11.0	9.5	8.5	9.0
15	17.0	16.5	17.0	15.5	15.5	15.5	11.0	11.0	11.0	9.0	9.0	9.0
16	17.0	17.0	17.0	15.5	15.0	15.5	11.0	11.0	11.0	9.0	9.0	9.0
17	17.0	17.0	17.0	15.0	14.5	15.0	11.0	10.5	11.0	9.0	8.5	8.5
18	17.0	17.0	17.0	15.0	14.5	14.5	11.5	10.5	11.0	8.5	8.5	8.5
19	17.0	17.0	17.0	15.0	14.5	15.0	11.0	10.5	11.0	8.5	8.0	8.0
20	17.5	17.0	17.0	14.5	14.0	14.5	10.5	10.5	10.5	8.5	8.0	8.5
21	---	---	---	14.5	14.0	14.0	10.5	10.5	10.5	8.5	8.0	8.5
22	---	---	---	14.5	14.0	14.0	11.0	10.5	10.5	8.5	8.0	8.0
23	---	---	---	14.5	13.5	14.0	10.5	10.5	10.5	8.0	8.0	8.0
24	---	---	---	14.0	13.5	14.0	10.5	10.0	10.5	8.5	7.5	8.0
25	---	---	---	13.5	13.0	13.5	10.5	10.0	10.0	8.0	8.0	8.0
26	---	---	---	13.0	13.0	13.0	10.0	9.5	10.0	8.0	8.0	8.0
27	---	---	---	14.0	13.0	13.5	10.0	9.5	10.0	9.0	8.0	8.0
28	---	---	---	13.5	13.0	13.0	10.0	10.0	10.0	8.5	8.0	8.0
29	---	---	---	13.0	12.0	12.5	10.0	10.0	10.0	8.0	8.0	8.0
30	---	---	---	12.0	11.5	12.0	10.0	9.5	10.0	8.0	7.5	8.0
31	---	---	---	---	---	---	10.0	9.5	9.5	8.0	7.5	8.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

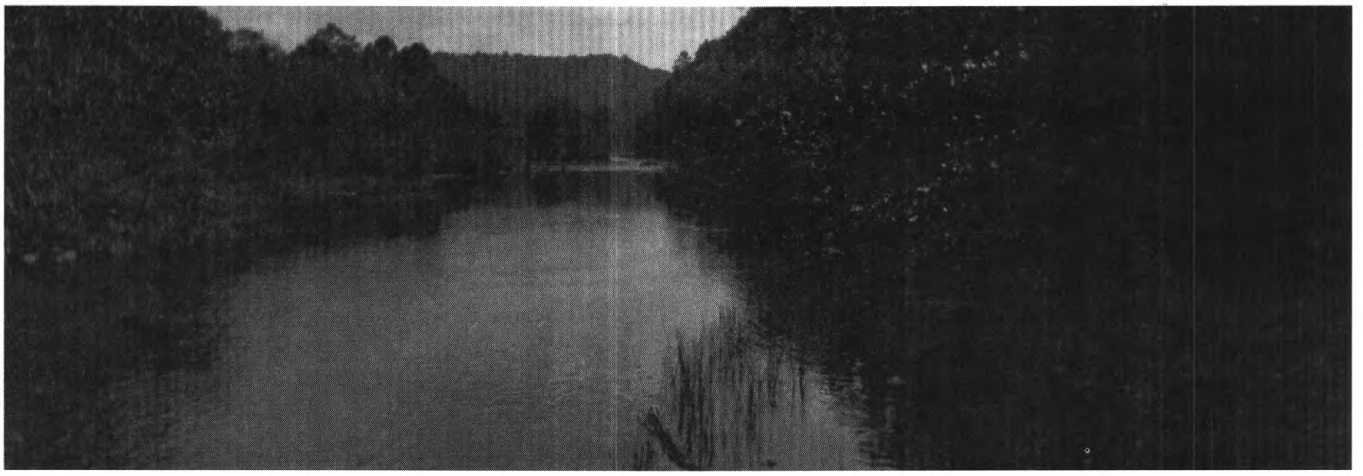
LOW PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

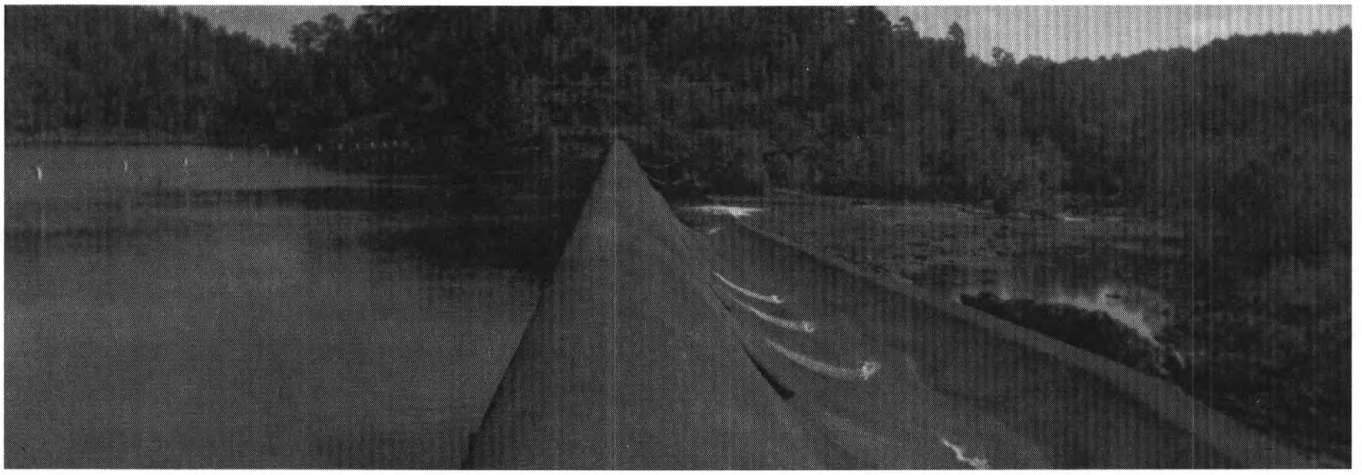
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.5	7.5	8.0	8.5	8.5	8.5	---	---	---	---	---	---
2	8.5	7.5	8.0	8.5	8.5	8.5	---	---	---	---	---	---
3	8.5	8.0	8.0	8.5	8.0	8.0	12.0	10.0	11.0	13.0	12.5	13.0
4	8.5	7.5	8.0	8.0	7.5	7.5	11.0	10.5	10.5	13.5	12.5	13.0
5	8.5	8.0	8.0	7.5	7.5	7.5	11.5	10.5	11.0	14.5	13.0	13.5
6	8.5	7.5	8.0	7.5	7.0	7.0	12.0	10.5	11.0	14.5	13.5	14.0
7	8.5	7.5	8.0	8.0	7.0	7.5	12.0	11.0	11.5	14.0	12.5	13.5
8	8.0	7.5	7.5	8.0	7.0	7.5	12.0	10.5	11.5	14.5	12.5	13.5
9	8.0	7.5	7.5	---	---	---	12.0	10.0	11.0	15.5	14.5	15.0
10	8.0	7.5	7.5	---	---	---	12.0	10.5	11.0	18.0	14.5	16.0
11	8.0	7.5	8.0	8.5	7.5	8.0	12.5	11.0	11.5	16.0	14.0	15.0
12	7.5	7.0	7.5	8.0	7.5	8.0	13.5	11.5	12.0	15.0	14.0	14.5
13	7.0	5.5	6.5	9.0	8.0	8.5	13.0	11.5	12.5	15.5	14.5	15.0
14	6.5	6.0	6.5	10.0	9.0	9.5	13.0	11.5	12.0	15.5	14.5	15.0
15	7.0	6.0	6.5	---	---	---	13.0	11.0	11.5	16.0	14.5	15.0
16	7.5	6.5	7.0	9.5	8.0	9.0	12.0	12.0	12.0	15.5	15.0	15.5
17	7.5	7.0	7.0	9.5	9.0	9.0	12.5	11.5	12.0	15.5	14.5	15.0
18	8.0	7.0	7.5	10.0	9.0	9.5	13.5	11.0	12.0	16.5	15.0	15.5
19	8.0	7.5	7.5	10.0	9.0	9.5	13.5	11.5	12.0	16.5	15.0	16.0
20	9.5	7.5	8.5	10.5	9.0	9.5	13.0	12.5	13.0	16.5	15.5	16.0
21	8.5	8.0	8.5	11.0	9.0	10.0	14.0	12.0	13.0	16.0	15.0	15.5
22	9.5	8.5	9.0	11.0	9.0	9.5	14.0	12.5	13.0	16.5	15.5	16.0
23	9.5	7.5	8.0	10.0	9.5	9.5	13.5	13.5	13.5	16.5	14.0	15.0
24	9.5	7.5	8.0	11.0	9.5	10.0	14.5	13.0	14.0	15.0	14.5	14.5
25	9.5	8.0	8.5	11.0	9.5	10.0	13.5	13.0	13.5	---	---	---
26	8.0	8.0	8.0	10.5	9.5	10.0	13.5	12.0	13.0	---	---	---
27	9.0	8.0	8.5	12.5	10.5	12.0	14.0	11.5	12.5	---	---	---
28	9.5	8.5	8.5	12.0	11.5	11.5	13.5	11.5	12.5	---	---	---
29	---	---	---	12.5	11.5	12.0	14.0	13.0	13.5	---	---	---
30	---	---	---	12.5	11.5	11.5	---	---	---	---	---	---
31	---	---	---	12.0	11.5	11.5	---	---	---	15.5	15.0	15.0
MONTH	9.5	5.5	7.8	---	---	---	---	---	---	---	---	---

07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK--Continued

LOW PROBE, WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	15.0	15.0	17.5	16.5	17.0	19.5	16.5	17.0	20.5	19.0	20.0
2	15.5	15.0	15.0	16.5	16.0	16.5	17.0	16.0	16.5	19.0	18.5	18.5
3	---	---	---	17.5	16.0	16.5	16.0	15.5	16.0	19.0	17.0	17.5
4	---	---	---	18.5	16.5	17.0	16.0	15.5	15.5	18.0	16.5	17.0
5	---	---	---	20.5	17.0	18.5	16.0	15.5	16.0	18.0	17.0	17.0
6	---	---	---	19.5	17.0	18.5	16.5	16.0	16.0	18.0	17.0	17.0
7	---	---	---	17.5	16.0	17.0	17.0	16.5	16.5	17.5	17.0	17.0
8	17.0	16.0	16.5	17.0	16.0	16.5	16.5	16.0	16.0	17.5	17.0	17.0
9	17.0	16.5	17.0	17.0	16.5	16.5	16.5	16.0	16.0	17.5	17.0	17.0
10	20.5	17.0	17.5	17.5	16.5	17.0	17.0	16.5	16.5	17.5	17.0	17.0
11	21.5	17.0	19.0	17.5	16.5	17.0	17.5	16.0	16.5	17.5	17.0	17.0
12	20.5	17.0	18.5	17.0	15.5	16.0	16.5	16.0	16.5	18.0	17.0	17.5
13	17.5	16.5	17.0	16.0	15.5	15.5	16.5	16.0	16.0	17.5	17.0	17.0
14	17.5	16.5	17.5	16.5	15.5	16.0	17.0	16.0	16.5	17.5	17.0	17.0
15	17.5	16.5	17.0	18.5	16.0	17.0	17.0	16.5	16.5	18.5	17.0	18.0
16	17.0	16.0	16.5	18.5	17.5	18.0	18.0	16.5	17.5	19.0	17.5	18.5
17	16.0	16.0	16.0	18.5	17.5	18.0	18.5	17.5	18.0	18.5	17.5	18.0
18	16.0	15.5	15.5	18.5	16.0	17.0	20.0	17.5	18.5	18.0	17.5	18.0
19	16.0	15.0	15.5	16.5	15.5	16.0	20.0	18.5	19.5	18.0	17.5	17.5
20	16.0	15.5	15.5	16.0	15.5	16.0	---	---	---	17.5	17.0	17.0
21	16.0	15.5	15.5	16.0	15.0	15.5	---	---	---	18.0	17.0	17.5
22	16.0	15.5	15.5	15.5	15.0	15.0	17.5	17.0	17.0	18.0	17.0	17.0
23	16.0	15.5	15.5	15.5	15.0	15.5	17.0	16.5	16.5	17.0	17.0	17.0
24	15.5	15.5	15.5	16.0	15.5	15.5	16.5	16.5	16.5	17.0	16.5	17.0
25	16.0	15.0	15.5	16.0	15.5	15.5	16.5	16.0	16.5	17.0	16.5	17.0
26	20.0	15.0	16.5	18.5	15.5	15.5	---	---	---	16.5	16.0	16.5
27	16.5	16.0	16.0	15.5	15.5	15.5	---	---	---	17.0	16.0	16.0
28	17.5	16.0	16.0	15.5	15.5	15.5	---	---	---	17.5	16.5	17.0
29	17.0	16.5	17.0	16.0	15.5	15.5	19.0	18.5	19.0	18.0	17.5	18.0
30	17.0	16.0	17.0	17.0	15.5	16.0	19.0	18.0	18.5	19.0	17.5	18.0
31	---	---	---	19.0	16.5	17.0	19.5	18.5	18.5	---	---	---
MONTH	---	---	---	20.5	15.0	16.4	---	---	---	20.5	16.0	17.4





07338920 MOUNTAIN FORK RE-REGULATION DAM NEAR BROKEN BOW, OK. OCTOBER, 1995.

07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK

LOCATION.--Lat 34°02'30", long 94°37'11", in SE 1/4 SE 1/4 sec.7, T.6 S., R.26 E., McCurtain County, Hydrologic Unit 11140108, on right downstream bank on U.S. Highway 70, 2.0 mi west of Eagletown, 10.7 mi downstream from Broken Bow Dam, and at mile 8.9.

DRAINAGE AREA.--787 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1924 to December 1925, October 1929 to current year. Published as Mountain Fork River near Broken Bow 1924-25 and as Mountain Fork River near Eagletown 1929-60. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1211: Drainage area. WSP 1241: 1924-26, 1930 (M), 1936-37 (M), 1938, 1939 (M) 1942 (M).

GAGE.--Water-stage recorder. Datum of gage is 333.87 ft above sea level. See WSP 1920 for history of changes prior to July 23, 1950.

REMARKS.--No estimated daily discharge. Records good. Flow completely regulated except for 33 mi^2 intervening area, since October 1968 by Broken Bow Lake (station 07338900). U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 18-19, 1915, reached a stage of 26.4 ft, from information provided by local resident, discharge, 92,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	661	128	385	341	2670	944	1380	1030	517	482	484	1080
2	378	124	142	541	2670	440	2200	1990	979	327	650	909
3	333	154	254	592	2830	366	1780	3400	1090	212	553	795
4	726	146	122	1140	2690	200	1370	3210	359	295	549	659
5	396	1590	485	1050	2660	125	1610	1820	1440	216	488	587
6	340	387	287	793	2850	174	2410	2050	3010	391	422	607
7	324	661	139	487	2600	792	2250	2540	3380	443	641	680
8	452	2190	529	175	1830	2320	2100	2070	1790	378	703	652
9	314	2020	1050	186	1680	2710	2070	685	612	316	763	404
10	246	2850	681	1130	1090	1300	2190	286	215	285	641	295
11	383	4130	336	1160	888	904	2140	1330	186	550	612	209
12	150	3670	2320	1300	174	183	1710	4490	724	669	665	356
13	235	3930	6070	2100	1330	205	3380	4590	1230	851	554	330
14	143	4070	7110	1020	821	252	3510	4610	2010	1390	533	748
15	258	3370	5100	360	596	3480	3520	4640	1410	1180	736	632
16	152	3150	1030	653	608	2250	3500	4640	623	387	1170	370
17	142	3260	4490	4740	278	1910	3490	4580	515	267	1530	364
18	273	2660	5610	4670	398	1100	2650	4600	743	525	2630	436
19	168	3090	5580	1390	140	1100	2510	4560	290	688	1380	399
20	263	3470	6200	6020	124	1350	2450	4590	483	844	445	249
21	378	2910	6030	6960	200	1610	2780	4580	553	808	422	346
22	613	3060	7140	6970	330	2150	2320	4570	815	773	536	177
23	184	3240	5590	6950	680	1390	2930	3820	868	431	543	333
24	138	2950	2810	6990	310	1930	2360	3540	611	359	576	260
25	251	1670	2340	7010	636	888	1030	1870	352	868	870	216
26	414	901	2530	6200	156	211	1600	2210	261	852	1120	290
27	255	175	2550	2330	239	1200	1640	1850	432	687	461	247
28	136	179	2390	3340	1480	1630	1360	884	259	576	882	584
29	130	488	1080	4020	---	2100	1100	1100	328	518	1340	416
30	123	465	491	6880	---	2120	319	798	565	472	1060	433
31	110	---	364	6880	---	1360	---	282	---	208	1190	---
TOTAL	9069	61088	81235	94378	32958	38694	65659	87215	26650	17248	25149	14063
MEAN	293	2036	2620	3044	1177	1248	2189	2813	888	556	811	469
MAX	726	4130	7140	7010	2850	3480	3520	4640	3380	1390	2630	1080
MIN	110	124	122	175	124	125	319	282	186	208	422	177
AC-FT	17990	121200	161100	187200	65370	76750	130200	173000	52860	34210	49880	27890

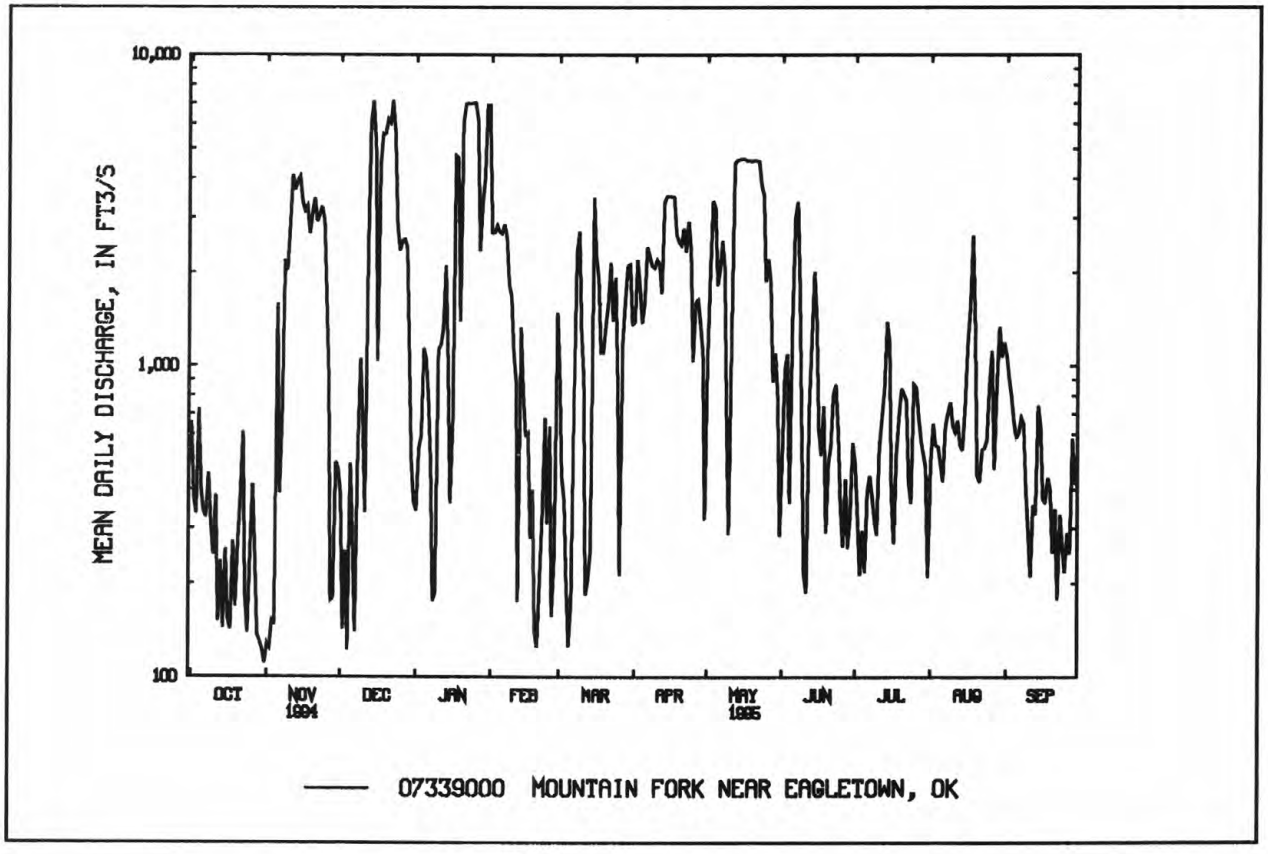
07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1995, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	673	1329	2048	1801	1850	2133	2201	2293	1691	871	743	618
MAX	2638	6897	5203	5121	4159	4123	4976	7264	6061	2645	1515	2300
(WY)	1994	1985	1985	1988	1989	1973	1979	1991	1990	1983	1983	1992
MIN	136	168	154	199	292	423	306	357	219	155	238	155
(WY)	1989	1990	1990	1981	1981	1986	1980	1988	1988	1988	1985	1989

SUMMARY STATISTICS	1994 CALENDAR YEAR		1995 WATER YEAR		WATER YEARS 1970 - 95	
ANNUAL TOTAL	553654		553406			
ANNUAL MEAN	1517		1516		[a]1519	
HIGHEST ANNUAL MEAN					2468	1973
LOWEST ANNUAL MEAN					651	1976
HIGHEST DAILY MEAN	7140	Dec 22	7140	Dec 22	11500	May 19 1991
LOWEST DAILY MEAN	110	Oct 31	110	Oct 31	[b]16	Dec 12 1971
ANNUAL SEVEN-DAY MINIMUM	129	Oct 28	129	Oct 28	90	Oct 10 1969
INSTANTANEOUS PEAK FLOW			7430	June 6	[c]18200	June 2 1990
INSTANTANEOUS PEAK STAGE			7.27	June 6	[d]11.58	June 2 1990
ANNUAL RUNOFF (AC-FT)	1098000		1098000		1100000	
10 PERCENT EXCEEDS	3840		3860		4100	
50 PERCENT EXCEEDS	816		798		714	
90 PERCENT EXCEEDS	246		210		164	

[a]Prior to regulation by Broken Bow Lake, 1925, 1930-68, 1,291 ft^3/s.
[b]No flow in several years prior to regulation by Broken Bow Lake.
[c]Maximum discharge for period of record, 101,000 ft^3/s May 20, 1960, from rating curve extended above 65,000 ft^3/s.
[d]Maximum gage-height for period of record, 26.73 ft May 20, 1960.



07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948, 1955, 1961-1963, October 1992 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1947 to September 1948, November 1960 to September 1963.

WATER TEMPERATURE: October 1947 to September 1948, March to September 1955, November 1960 to September 1963, October 1992 to current year.

REMARKS.--Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 128 microsiemens Nov. 19, 1947; minimum daily, 21 microsiemens Jan. 1, 1948.

WATER TEMPERATURE: Maximum daily, 34.5°C July 29, 1955; minimum daily, 0.0°C several days in winter months.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum 26.0°C July 10; minimum 7.0°C Feb. 13.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.5	20.5	21.0	16.0	14.5	15.5	13.0	11.5	12.0	11.5	9.5	10.5
2	22.0	20.0	21.0	16.0	15.0	15.5	12.0	11.5	11.5	10.0	9.0	9.5
3	22.5	21.5	22.0	18.0	16.0	17.0	13.5	11.5	12.5	10.0	9.0	9.5
4	23.0	21.5	22.0	19.0	18.0	18.5	13.5	13.0	13.0	9.5	8.5	9.0
5	22.5	21.0	22.0	18.5	17.5	18.0	13.5	13.0	13.0	9.0	8.5	9.0
6	23.0	21.0	21.5	17.5	16.5	17.0	14.0	13.0	13.5	9.0	8.5	9.0
7	22.5	21.5	22.0	17.5	16.5	17.0	14.5	14.0	14.5	9.0	8.0	8.5
8	21.5	20.0	21.0	17.0	16.5	17.0	14.0	13.5	14.0	9.0	8.0	8.5
9	20.5	19.0	20.0	17.5	16.5	17.0	13.5	13.0	13.5	9.5	7.5	8.5
10	20.5	19.0	19.5	16.5	16.0	16.0	13.0	12.0	12.5	9.5	9.0	9.0
11	19.5	18.5	19.0	16.5	16.5	16.5	12.0	10.0	11.0	11.0	9.5	10.0
12	19.0	18.5	19.0	16.5	16.0	16.5	12.0	9.5	10.0	11.0	10.5	10.5
13	18.5	18.5	18.5	16.5	16.5	16.5	12.5	12.0	12.0	10.5	10.0	10.5
14	19.0	18.5	19.0	16.5	16.5	16.5	12.5	12.0	12.5	10.5	9.5	10.0
15	19.0	18.5	18.5	17.0	16.5	16.5	12.5	12.0	12.0	10.5	9.5	10.0
16	18.5	18.5	18.5	17.0	16.0	16.5	12.5	12.0	12.0	11.0	10.0	10.5
17	19.0	18.5	19.0	16.0	15.5	16.0	12.5	11.5	12.0	10.5	9.5	10.0
18	19.5	19.0	19.0	16.0	15.5	16.0	12.5	11.5	12.0	10.0	9.5	9.5
19	20.0	19.0	19.5	16.0	15.5	16.0	12.5	11.5	12.0	10.0	9.0	9.5
20	19.5	19.0	19.5	16.0	15.5	15.5	12.0	11.5	11.5	10.0	9.0	9.5
21	20.0	19.5	19.5	15.5	15.0	15.5	12.0	11.5	11.5	9.5	9.5	9.5
22	20.5	19.5	20.0	15.5	15.0	15.5	12.0	11.5	11.5	9.5	9.0	9.5
23	20.5	19.0	20.0	15.5	15.0	15.0	12.0	11.5	11.5	9.5	9.0	9.0
24	19.0	18.0	18.5	15.0	14.5	15.0	11.5	11.0	11.5	9.5	9.0	9.0
25	18.0	17.0	18.0	14.5	14.5	14.5	12.0	11.0	11.0	9.5	9.0	9.0
26	18.0	16.0	17.0	14.5	14.0	14.5	11.5	11.0	11.0	9.5	9.5	9.5
27	17.5	15.5	16.5	16.0	14.0	15.0	11.5	11.0	11.0	10.5	9.5	9.5
28	17.0	15.5	16.0	15.0	13.5	14.0	11.5	11.0	11.0	10.0	9.0	9.5
29	17.5	15.0	16.0	14.0	12.5	13.5	11.5	11.0	11.5	9.0	9.0	9.0
30	18.0	16.0	17.0	13.0	12.0	12.5	11.5	10.5	11.0	9.5	9.0	9.0
31	17.5	15.5	16.5	---	---	---	11.5	11.0	11.5	9.5	9.0	9.0
MONTH	23.0	15.0	19.2	19.0	12.0	15.9	14.5	9.5	12.0	11.5	7.5	9.4

07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	9.0	9.0	10.5	10.0	10.5	---	---	---	16.0	15.5	15.5
2	10.0	9.0	9.5	10.5	9.5	10.0	---	---	---	16.5	14.5	15.5
3	10.0	9.0	9.5	9.5	9.0	9.5	13.5	12.5	13.0	15.0	14.0	14.5
4	9.5	9.0	9.5	9.0	9.0	9.0	14.0	12.5	13.0	15.5	14.0	14.5
5	10.0	9.0	9.5	9.5	9.0	9.0	13.5	12.5	13.0	16.5	14.5	15.5
6	10.0	9.0	9.5	10.5	9.5	10.0	14.0	12.0	13.0	16.0	15.0	16.0
7	9.5	9.0	9.5	11.0	9.0	10.0	14.5	13.0	13.5	15.5	15.0	15.0
8	9.5	8.5	9.0	---	---	---	14.5	13.0	13.5	16.5	15.5	16.0
9	9.0	8.5	8.5	---	---	---	14.5	13.0	13.5	19.5	15.5	17.5
10	9.5	8.5	9.0	---	---	---	13.5	12.5	13.0	20.0	18.0	19.0
11	9.0	8.5	9.0	---	---	---	14.0	12.5	13.0	20.0	17.0	19.0
12	8.5	7.5	8.0	12.0	11.0	11.5	15.5	13.0	14.0	17.0	15.5	16.0
13	7.5	7.0	7.0	12.5	11.0	12.0	15.0	13.5	14.0	17.0	16.0	16.0
14	7.5	7.5	7.5	13.0	11.5	12.0	14.0	13.5	13.5	17.0	16.5	16.5
15	8.5	7.5	8.0	---	---	---	14.0	12.5	13.5	17.0	16.5	16.5
16	9.0	8.5	8.5	11.5	10.0	10.5	13.5	13.0	13.5	17.0	16.5	17.0
17	10.0	8.0	9.0	12.0	11.0	11.0	14.0	13.0	13.5	16.5	16.0	16.5
18	10.0	8.5	9.5	13.0	11.0	12.0	15.0	13.5	14.0	17.0	16.0	16.5
19	11.0	9.0	10.0	14.0	12.0	12.5	14.0	13.5	14.0	17.5	16.5	17.0
20	12.0	9.5	10.5	14.0	12.0	13.0	15.0	13.5	14.5	17.5	17.0	17.5
21	12.0	10.5	11.0	13.5	11.0	12.0	15.5	14.0	14.5	17.0	17.0	17.0
22	12.5	10.5	11.5	13.5	12.0	12.5	15.0	14.0	14.5	18.0	17.0	17.0
23	12.5	11.0	11.5	13.5	11.5	12.5	15.0	14.5	15.0	17.5	16.0	17.0
24	13.0	11.5	12.0	13.0	12.0	12.0	16.5	14.5	15.5	16.5	16.0	16.0
25	12.0	10.5	11.0	13.5	12.5	13.0	16.5	14.5	15.5	18.5	16.0	17.0
26	12.0	11.0	11.5	14.5	13.5	14.0	16.5	14.5	15.5	18.0	17.0	17.0
27	13.0	11.0	12.0	14.5	13.5	14.0	15.5	14.5	15.0	17.5	16.5	17.0
28	12.5	10.5	11.5	14.0	13.0	13.5	16.5	15.0	15.5	19.5	16.5	18.0
29	---	---	---	14.0	13.0	13.5	16.0	15.0	15.5	19.0	17.5	18.0
30	---	---	---	14.0	13.5	13.5	16.0	15.0	15.5	18.0	17.0	17.5
31	---	---	---	14.5	13.0	13.5	---	---	---	19.0	17.5	18.0
MONTH	13.0	7.0	9.7	---	---	---	---	---	---	20.0	14.0	16.7

07339000 MOUNTAIN FORK NEAR EAGLETOWN, OK--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	18.0	19.5	21.5	20.0	21.0	23.5	20.5	22.5	23.5	21.5	22.0
2	20.5	18.5	20.0	21.5	19.5	20.5	23.0	20.5	22.0	24.0	21.0	22.5
3	21.0	18.5	19.5	22.5	20.5	21.5	23.5	20.5	22.0	23.5	20.5	22.0
4	22.5	18.5	20.5	23.5	20.0	22.0	24.0	20.5	22.0	22.5	19.5	21.0
5	22.5	18.5	21.5	23.0	21.0	22.0	23.0	20.5	22.0	22.0	19.0	20.5
6	20.0	17.5	18.5	24.0	21.0	22.0	23.5	21.0	22.0	23.0	20.0	21.0
7	18.5	17.0	17.5	24.5	22.0	23.0	23.0	20.0	21.5	21.0	20.0	20.5
8	20.0	17.0	18.5	24.5	22.0	23.5	21.5	18.5	20.0	21.0	19.5	20.0
9	22.0	19.0	20.0	24.5	22.5	23.5	21.5	18.5	20.0	21.0	19.5	20.5
10	22.0	20.5	21.0	26.0	24.0	24.5	22.0	19.0	20.5	21.5	19.5	20.5
11	21.0	20.0	20.5	25.5	22.5	24.0	22.5	19.0	20.5	21.5	20.0	21.0
12	22.5	19.5	20.5	24.0	21.5	23.0	22.0	19.0	20.5	20.5	19.5	20.0
13	22.5	19.5	20.5	24.0	20.5	22.0	22.0	19.0	20.5	20.5	19.5	20.0
14	21.0	18.5	19.5	22.0	19.0	20.0	22.0	18.0	20.0	21.5	19.5	20.0
15	20.5	18.5	19.0	23.0	20.0	21.0	---	---	---	21.5	19.5	20.5
16	22.5	19.5	20.5	24.0	20.5	22.0	---	---	---	23.0	20.5	21.5
17	22.0	19.5	20.5	24.0	22.5	23.5	---	---	---	22.5	21.5	22.0
18	21.5	20.0	20.5	25.0	22.0	23.5	---	---	---	23.0	20.0	21.5
19	21.5	19.5	20.5	23.0	20.0	22.0	---	---	---	21.0	19.5	20.0
20	23.0	20.5	22.0	20.5	19.5	20.0	---	---	---	20.5	19.5	20.0
21	23.0	20.5	21.5	20.5	18.0	19.5	---	---	---	20.0	19.0	20.0
22	22.5	20.0	21.0	21.5	18.0	19.5	24.0	21.0	22.5	19.5	18.0	18.5
23	20.5	19.0	19.5	22.5	18.5	20.5	23.5	20.0	22.0	19.5	17.5	18.5
24	21.0	18.5	20.0	22.5	21.5	22.0	23.0	19.5	21.0	19.0	16.5	18.0
25	21.0	19.0	20.0	22.5	19.5	21.0	23.0	20.0	21.0	18.5	18.0	18.5
26	22.0	20.0	21.0	21.5	19.0	20.5	23.0	19.5	21.5	19.5	17.5	18.5
27	22.0	20.0	21.0	22.0	19.0	20.0	23.5	21.5	22.5	19.5	18.0	18.5
28	24.0	21.5	22.0	23.0	19.0	21.0	24.5	21.5	22.5	20.5	18.5	19.5
29	22.5	20.5	21.5	23.0	20.0	22.0	24.0	20.5	22.0	21.5	19.0	20.0
30	22.5	21.5	22.0	24.0	19.5	22.0	23.0	21.0	22.0	22.0	20.5	21.0
31	---	---	---	23.5	21.5	22.0	23.5	20.5	21.5	---	---	---
MONTH	24.0	17.0	20.3	26.0	18.0	21.8	---	---	---	24.0	16.5	20.3

WELL-IDENTIFICATION NUMBER.--363853100311001. Local number 02N-24E-07 CCD 1.

LOCATION.--Lat 36°38'47", long 100°31'15" , Hydrologic Unit 11100201, 2 mi north of Elmwood.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled stock well, diameter 6 in., depth 95 ft.

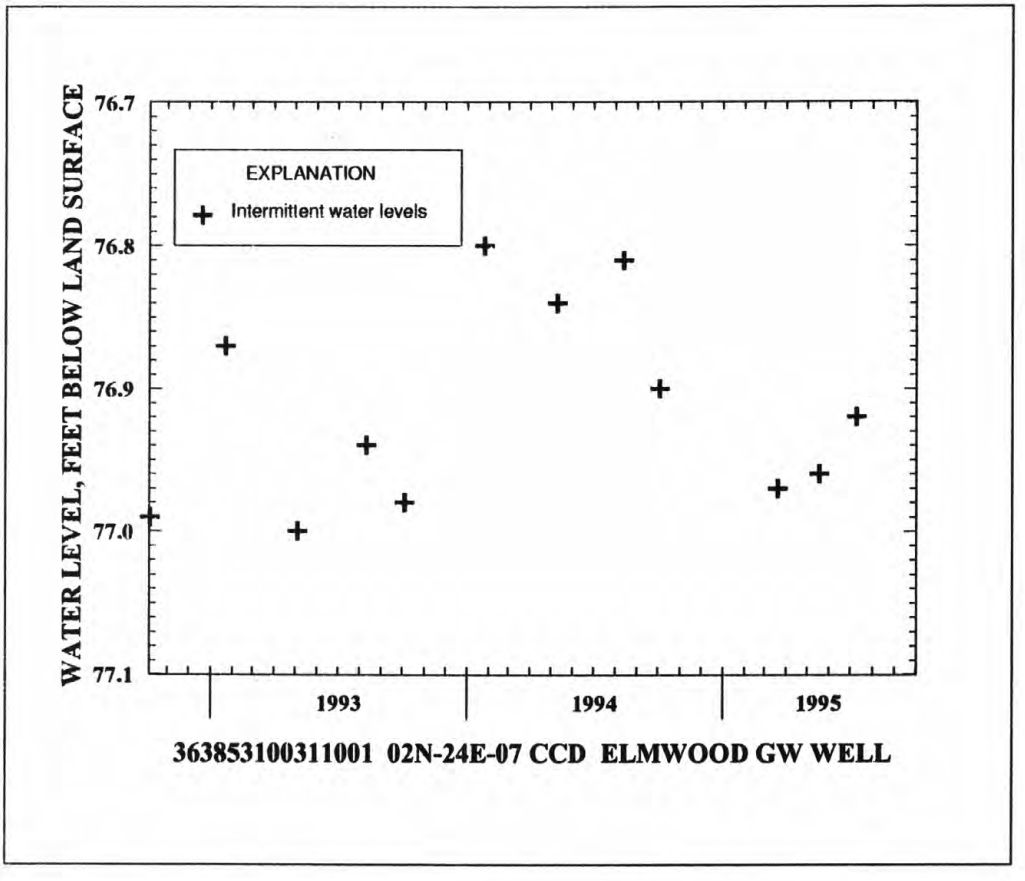
DATUM.--Altitude of land-surface datum is 2,625 ft. Measuring point: highest point on north side of casing .50 ft above land-surface datum.

PERIOD OF RECORD.--1946, 1967-90, 1992 to 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.96 below land-surface datum, Jan. 12, 1971; lowest water level, 77.98 ft below land-surface datum, July 26, 1979.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3, 1994	76.90	May 18, 1995	76.96
Mar. 20, 1995	76.97	July 10, 1995	76.92



WELL-IDENTIFICATION NUMBER.--351308098341601. Local number 09N-13W-28 DDD 1.

LOCATION.--Lat 35°13'08", long 098°34'16", Hydrologic Unit 11130302, 2.0 mi east of Alfalfa.

AQUIFER.--Rush Springs Formation.

WELL CHARACTERISTICS.--Drilled well, diameter 8 in., depth 335 ft.

DATUM.--Altitude of land-surface datum is 1,440 ft. Measuring point: top of casing 1.00 ft above land-surface datum.

PERIOD OF RECORD.--1948 to current year.

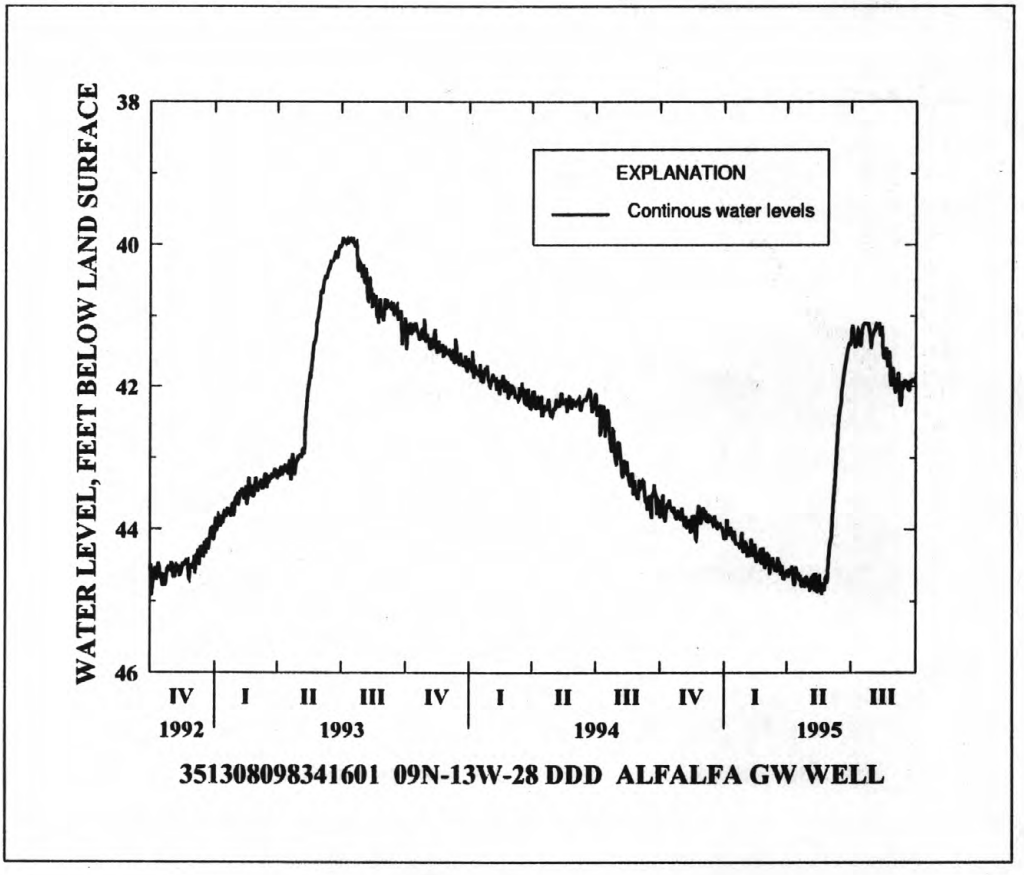
REVISED RECORDS.--WDR OK-91-1: 1985 (L).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.71 ft below land-surface datum, Aug. 1, 13, 1949; lowest water level, 52.69 ft below land-surface datum, Apr. 5, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.57	43.87	43.86	43.87	44.31	44.41	44.57	44.81	43.85	41.28	41.15	41.98
10	43.71	43.95	43.91	43.99	44.16	44.43	44.69	44.86	43.06	41.24	41.11	42.25
15	43.58	44.04	43.88	44.08	44.33	44.56	44.61	44.84	42.35	41.42	41.36	41.96
20	43.75	43.79	43.88	44.19	44.39	44.56	44.63	44.87	41.87	41.10	41.45	42.02
25	43.86	43.78	43.95	44.20	44.32	44.51	44.69	44.84	41.57	41.11	41.54	41.93
EOM	43.87	43.87	44.02	44.16	44.54	44.60	44.73	44.30	41.41	41.28	41.97	41.97
MAX	43.90	44.13	44.02	44.32	44.54	44.70	44.82	44.91	44.23	41.46	41.99	42.27
MIN	43.51	43.66	43.69	43.87	44.13	44.31	44.50	44.30	41.40	41.10	41.11	41.80



WELL-IDENTIFICATION NUMBER.--352423098341701. Local number 11N-13W-21 DDD 1.

LOCATION.--Lat 35°24'23", long 098°34'17", Hydrologic Unit, 11130302, 7 mi north of Eakly.

AQUIFER.--Rush Springs Formation.

WELL CHARACTERISTICS.--Unused industrial well, diameter 5 in., depth 210 ft.

DATUM.--Altitude of land-surface datum is 1,610 ft. Measuring point: instrument shelf 2.75 ft above land-surface datum.

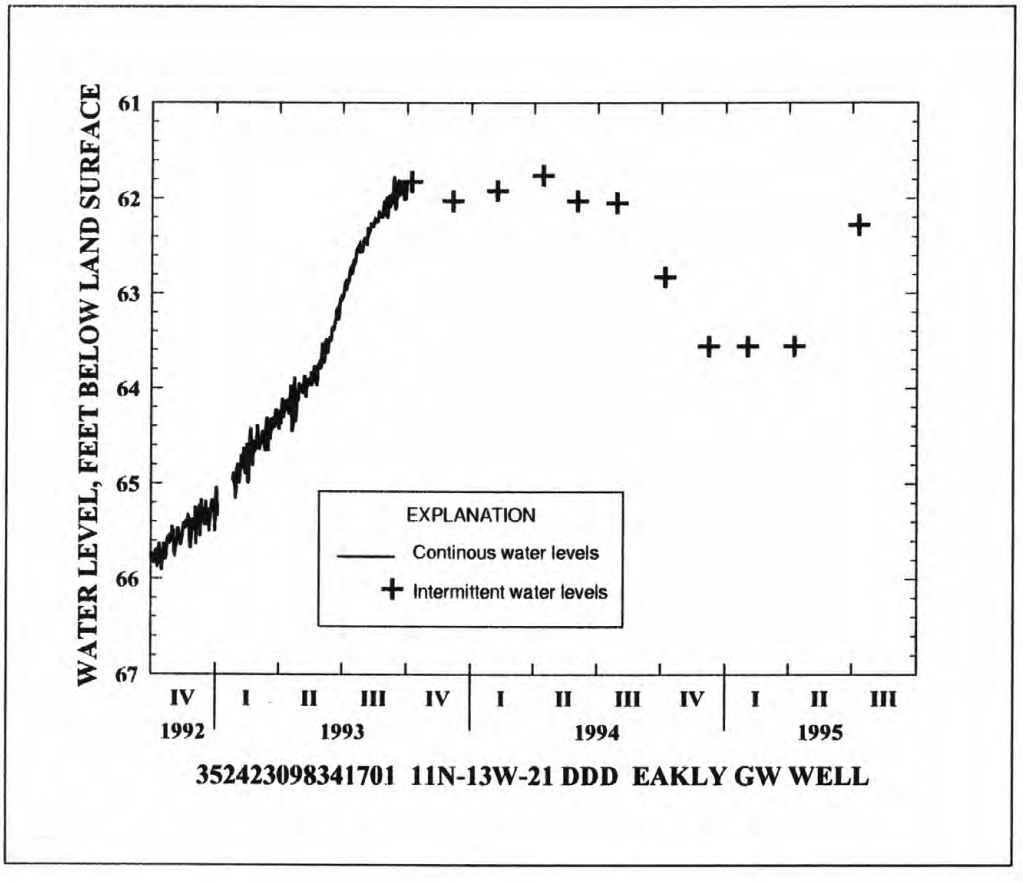
PERIOD OF RECORD.--1965 to 1981, 1983 to September 1995 (discontinued). Mean daily-water levels were published August 1983 to September 1993.

REVISED RECORDS.--WDR OK-91-1: 1985 (L). 1987.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.49 ft below land-surface datum, Feb. 17, 1966; lowest water level, 75.94 ft below land-surface datum, Nov. 21, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6, 1994	62.83	Apr. 10, 1995	63.56
Dec. 8, 1994	63.56	Jul. 10, 1995	62.28
Feb. 2, 1995	63.56		



WELL-IDENTIFICATION NUMBER.--353107097453701. Local number 12N-05W-18 ADA 1.

LOCATION.--Lat 35°31'07", long 097°45'37", Hydrologic Unit 11100301, 0.5 mi northwest of Yukon.

AQUIFER.--Terrace, low, deposits.

WELL CHARACTERISTICS.--Drilled abandoned city well, diameter 12 in., depth 47.2 ft.

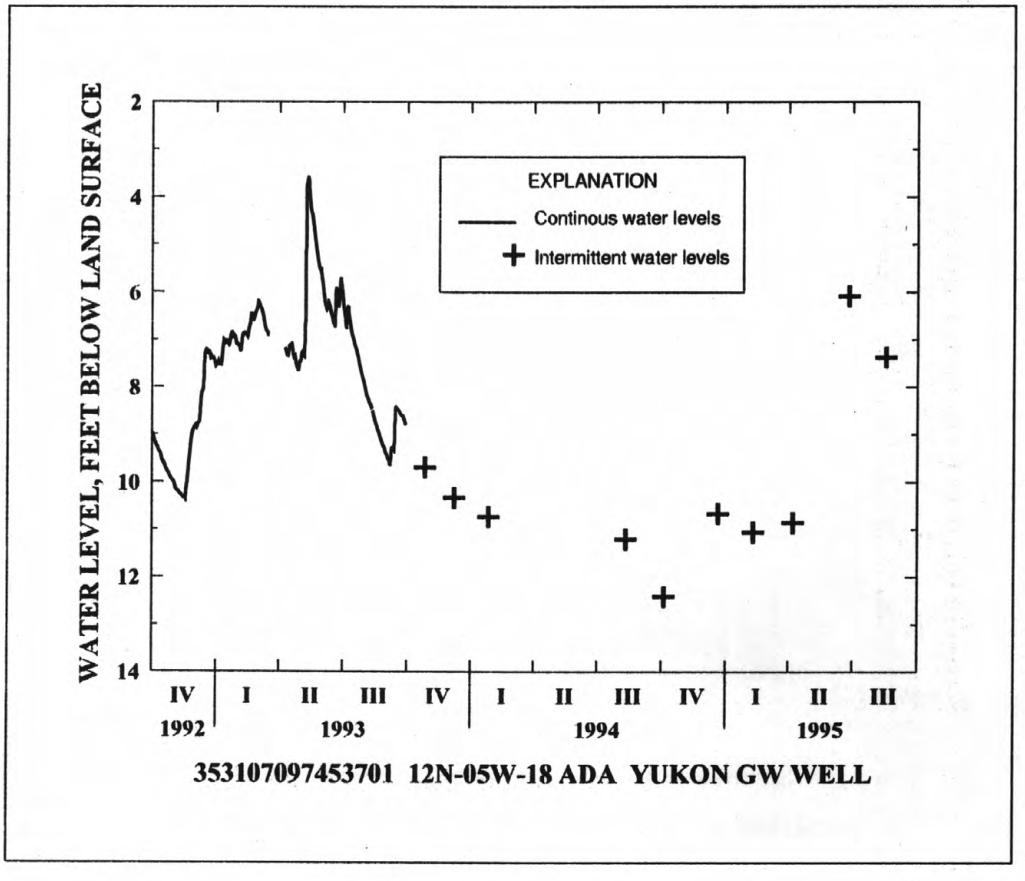
DATUM.--Altitude of land-surface datum 1,270 ft. Measuring point: top west edge of casing 0.80 ft above land-surface datum.

PERIOD OF RECORD.--1980 to 1995 (discontinued). Mean daily-water levels published May 1980 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.36 ft below land-surface datum, May 28, 1987: lowest water level, 15.31 ft below land-surface datum, Oct. 6, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 5, 1994	12.41	Apr. 7, 1995	10.85
Dec. 21, 1994	10.67	June 26, 1995	6.08
Feb. 10, 1995	11.05	Aug. 18, 1995	7.38



WELL-IDENTIFICATION NUMBER.--364450102190001. Local number 03N-07E-09 BBB 1.

LOCATION.--Lat 36°44'53", long 102°19'12" , Hydrologic Unit 11100101, 6 mi southwest of Keys.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused stock well, diameter 6 in., depth 61 ft.

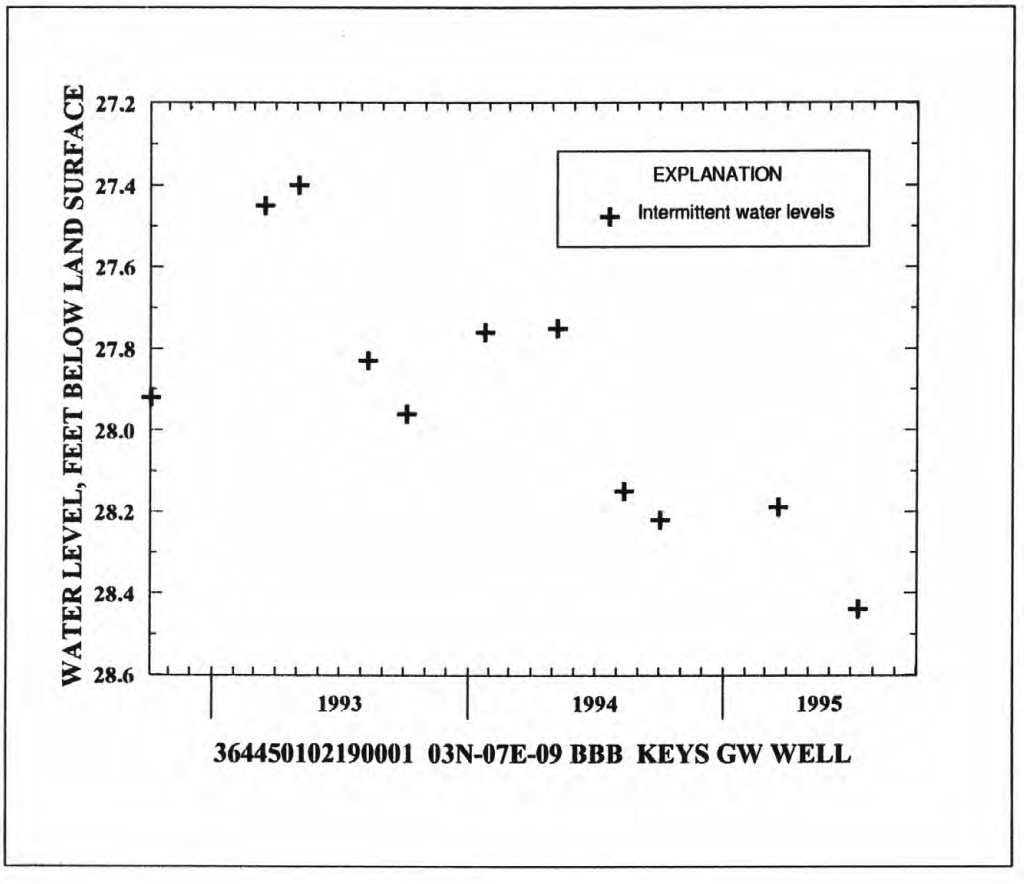
DATUM.--Altitude of land-surface datum is 3,965 ft. Measuring point: top of casing 3.50 ft above land-surface datum.

PERIOD OF RECORD.--1938-90, 1992 to 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.41 ft below land-surface datum, Nov. 28, 1989; lowest water level, 46.38 ft below land-surface datum, July 19, 1938.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3, 1994	28.22	July 11, 1995	28.44
Mar. 20, 1995	28.19		



WELL-IDENTIFICATION NUMBER.--343540098342001. Local number 01N-13W-04 BAA 1.

LOCATION.--Lat 34°35'36", long 098°34'22", Hydrologic Unit 11130203, 4 mi southeast of Cache.

AQUIFER.--Lower Arbuckle Group.

WELL CHARACTERISTICS.--Test well, diameter 6 in., depth 997 ft.

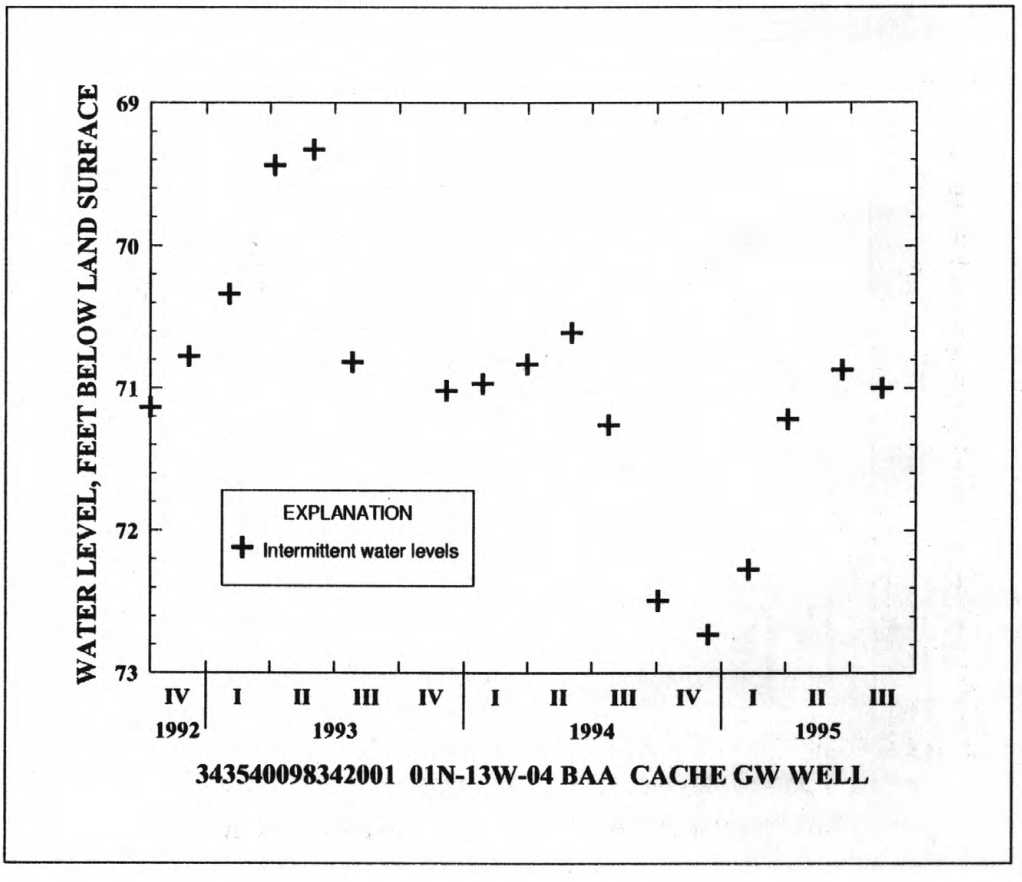
DATUM.--Altitude of land-surface datum is 1,200 ft. Measuring point: top of casing 1.8 ft above land-surface datum.

PERIOD OF RECORD.--1972 to September 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.33 ft below land-surface datum, June 1, 1993; lowest water level, 88.62 ft below land-surface datum, May 10, 1972.

DEPTH BELOW LAND SURFACE (WATER LEVEL)(FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3, 1994	72.49	Apr. 4, 1995	71.22
Dec. 13, 1994	72.73	June 20, 1995	70.87
Feb. 8, 1995	72.27	Aug. 15, 1995	71.00



WELL-IDENTIFICATION NUMBER.--354112098430601. Local number 14N-14W-17 CBD 1.

LOCATION.--Lat 35°41'12", long 098°43'06", Hydrologic Unit 11090201, 4 mi south of Thomas.

AQUIFER.--Rush Springs Formation.

WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 16 in., depth 320 ft.

DATUM.--Altitude of land-surface datum is 1,685 ft. Measuring point: shelter base 2.26 ft above land-surface datum.

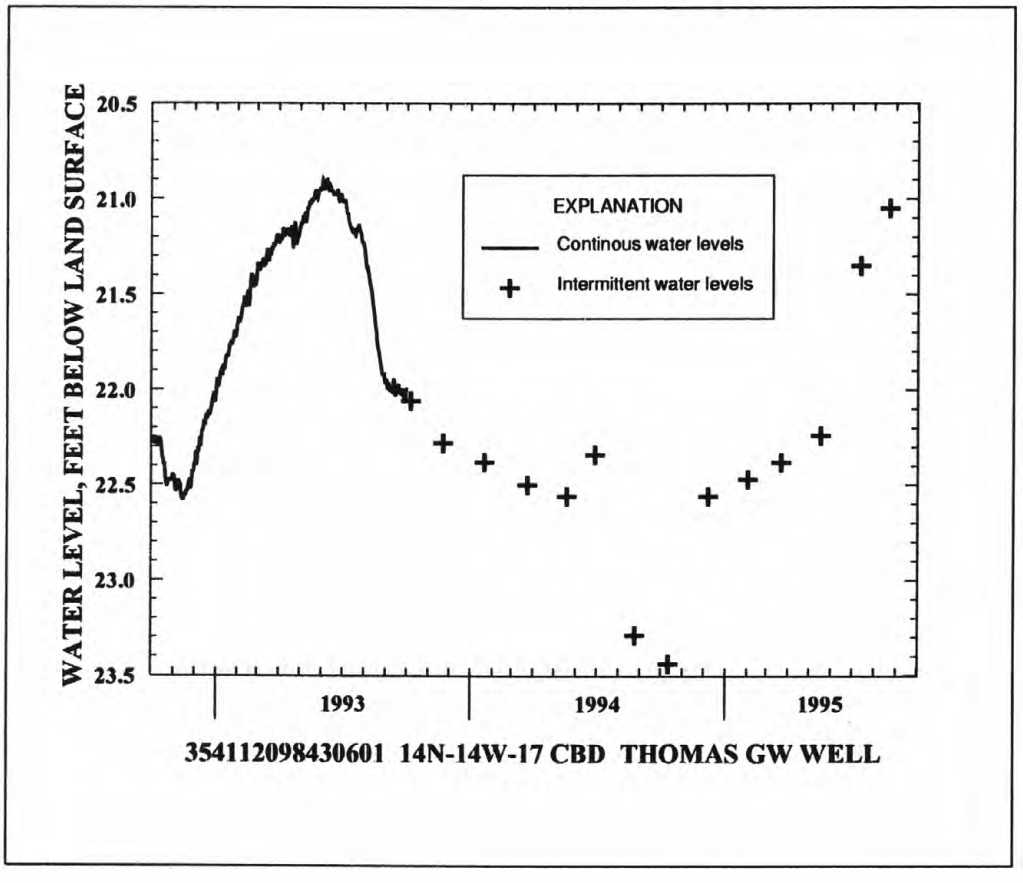
REMARKS.--Digital recorder installed May 20, 1981, mean daily-water levels published until September 1993.

PERIOD OF RECORD.--1971 to 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.88 ft below land-surface datum, June 1, 2, 8, 1993; lowest water level, 30.08 ft below land-surface datum Sept. 10, 1972.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 12, 1994	23.44	May 17, 1995	22.24
Dec. 8, 1994	22.56	July 13, 1995	21.35
Feb. 2, 1995	22.47	Aug. 23, 1995	21.05
Mar. 22, 1995	22.38		



WELL-IDENTIFICATION NUMBER.--361415094452501. Local Number, 20N-24E-04 DCA 1.

LOCATION.--Lat 36°14′07″, long 094°45′13″, Hydrologic Unit 11070209, 3.3 mi northeast of Kansas, OK.

AQUIFER.--Keokuk Limestone.

WELL CHARACTERISTICS.--Drilled unused stock well, diameter 6 in., depth 38 ft.

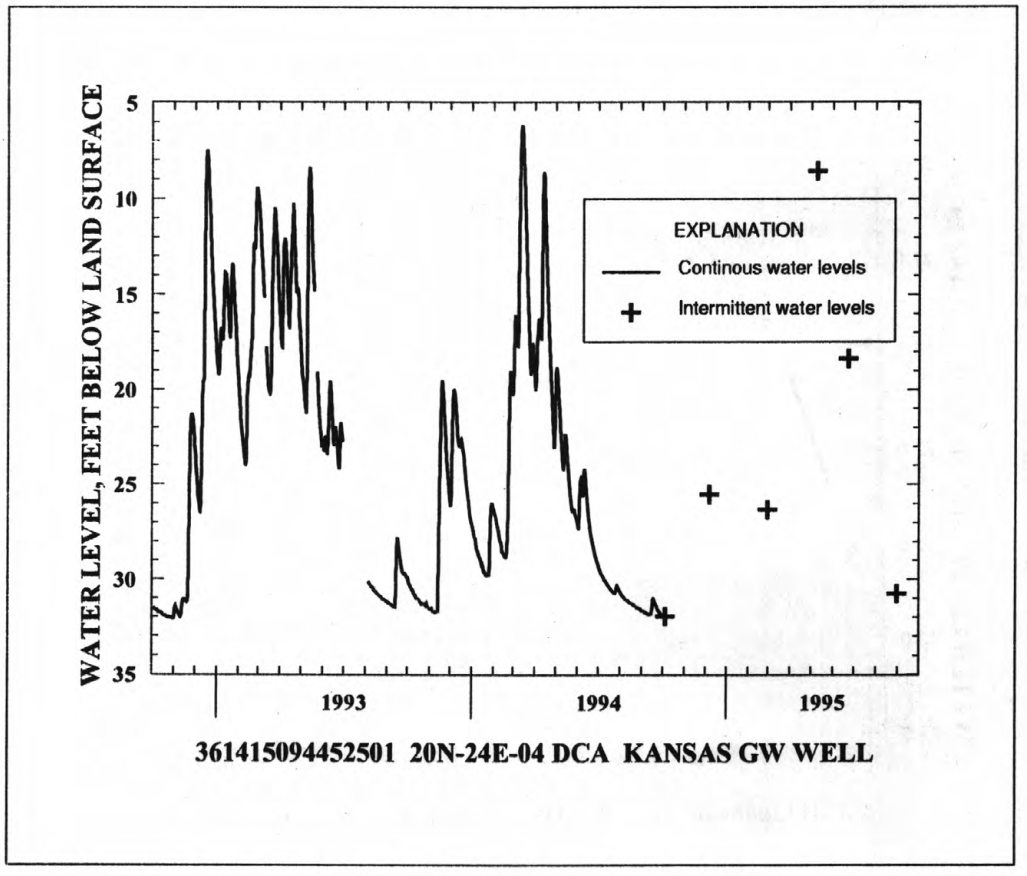
DATUM.--Altitude of land-surface datum is 1,150 ft. Measuring point: top of casing 1.85 ft above land-surface datum.

PERIOD OF RECORD.--1977 to 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.92 ft below land-surface datum, May 5, 1990; lowest, 33.52 ft below land-surface datum, Jan. 12, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 5, 1994	31.98	May 9, 1995	8.55
Dec. 7, 1994	25.54	Jun. 23, 1995	18.35
Feb. 28, 1995	26.33	Aug. 31, 1995	30.77



WELL-IDENTIFICATION NUMBER.--355850098522701. Local number 17N-16W-02 ACB 1.

LOCATION.--Lat 35°58'50", long 98°52'27", Hydrologic Unit 11090201, 6.5 miles southeast of Taloga.

AQUIFER.--Rush Springs.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 240 ft.

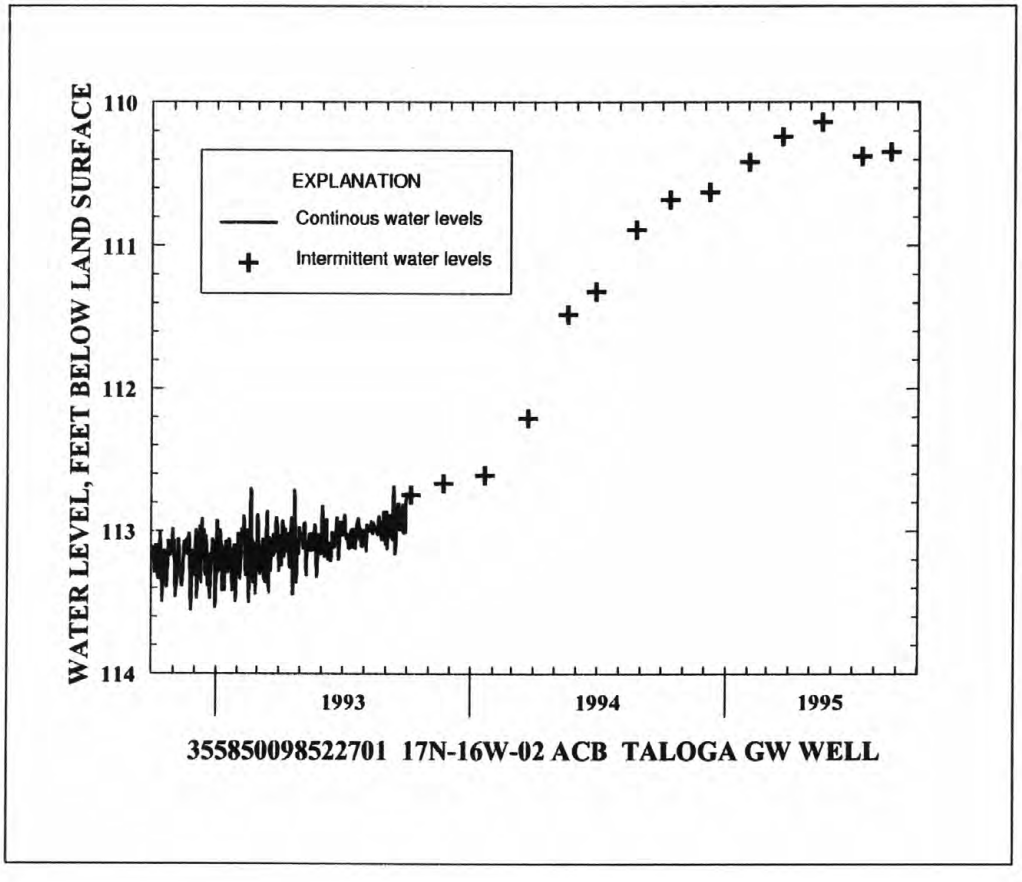
DATUM.--Altitude of land-surface datum is 1,810 ft. Measuring point: shelter base 2.89 ft above land-surface datum.

PERIOD OF RECORD.--April 1989 to September 1995 (discontinued). Mean daily-water levels published April 1989 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 110.14 ft below land-surface datum, May 17, 1995; lowest water level, 116.36 ft below land-surface datum, May 27, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 12, 1994	110.68	May 17, 1995	110.14
Dec. 8, 1994	110.63	July 13, 1995	110.38
Feb. 2, 1995	110.42	Aug. 23, 1995	110.35
Mar. 22, 1995	110.24		



WELL-IDENTIFICATION NUMBER.--361536099464601. Local number 21N-24W-33 BBB 1.

LOCATION.--Lat 36°15'35", long 099°46'59", Hydrologic Unit 11100203, 4 mi southwest of Gage.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused well, diameter 5 in., depth 205 ft.

DATUM.--Altitude of land-surface datum is 2,295 ft. Measuring point: top of wooden recorder base 3.10 ft above land-surface datum.

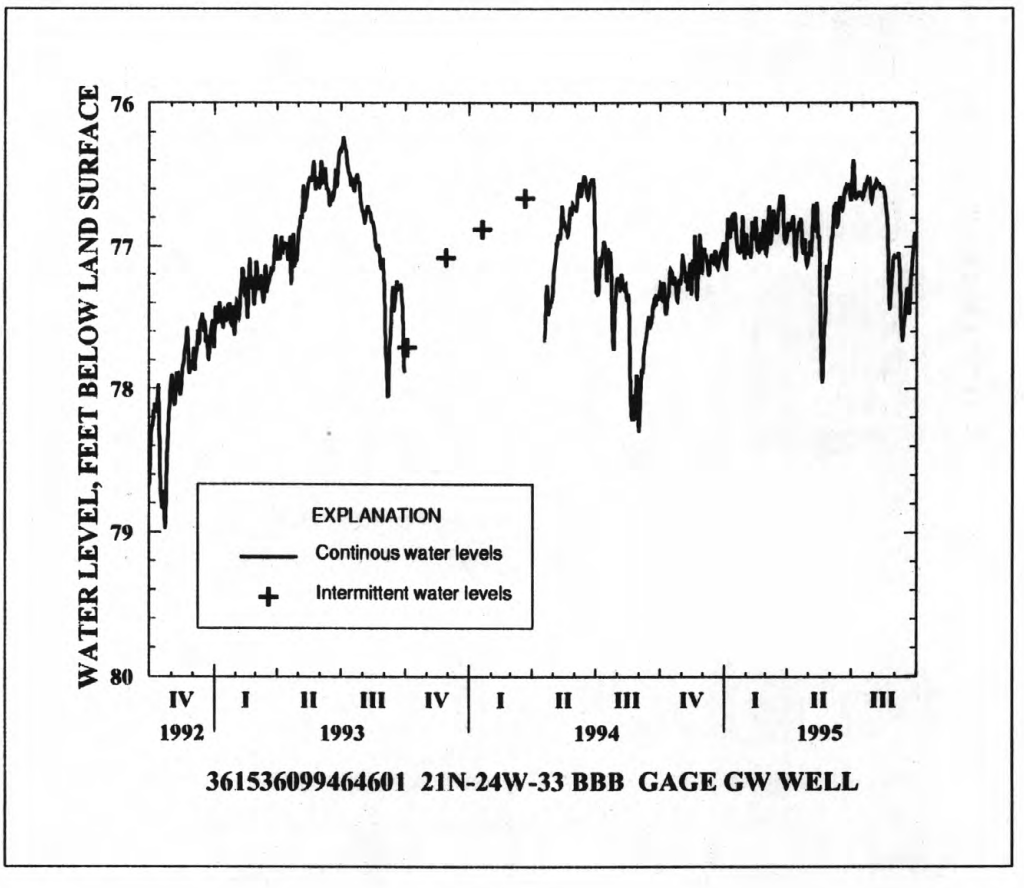
REMARKS.--Digital recorder installed June 2, 1981, mean-daily water levels published thereafter, except Oct. 5, 1993, to April 17, 1994, when bimonthly measurements were made.

PERIOD OF RECORD.--April 1977 to September 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 75.96 ft below land-surface datum, April 29, 1990; lowest water level, 84.40 ft below land-surface datum, May 15, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	77.38	77.15	77.08	77.02	77.05	76.80	76.87	77.07	76.86	76.50	76.57	77.07
10	77.47	77.31	77.21	76.89	76.82	76.90	76.83	76.87	76.78	76.65	76.57	77.53
15	77.18	77.34	77.08	76.86	76.79	76.88	76.89	76.94	76.65	76.64	76.58	77.50
20	77.27	76.92	77.03	77.01	77.03	76.73	76.80	77.85	76.66	76.58	76.76	77.47
25	77.37	77.18	77.10	77.03	76.94	76.64	77.01	77.49	76.59	76.55	77.45	77.17
EOM	77.25	77.20	76.97	76.98	76.96	76.94	77.12	77.12	76.67	76.66	77.07	76.90
MAX	77.47	77.38	77.21	77.17	77.08	77.05	77.13	77.96	77.07	76.68	77.45	77.67
MIN	77.16	76.91	76.97	76.76	76.79	76.64	76.78	76.69	76.56	76.39	76.54	76.90



WELL-IDENTIFICATION NUMBER.--363224099584601. Local number, 24N-26W-22 CCB 1.

LOCATION.--Lat 36°32'24", long 099°58'46", Hydrologic Unit 11100201, 3.5 mi northwest of Catesby.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 94 ft.

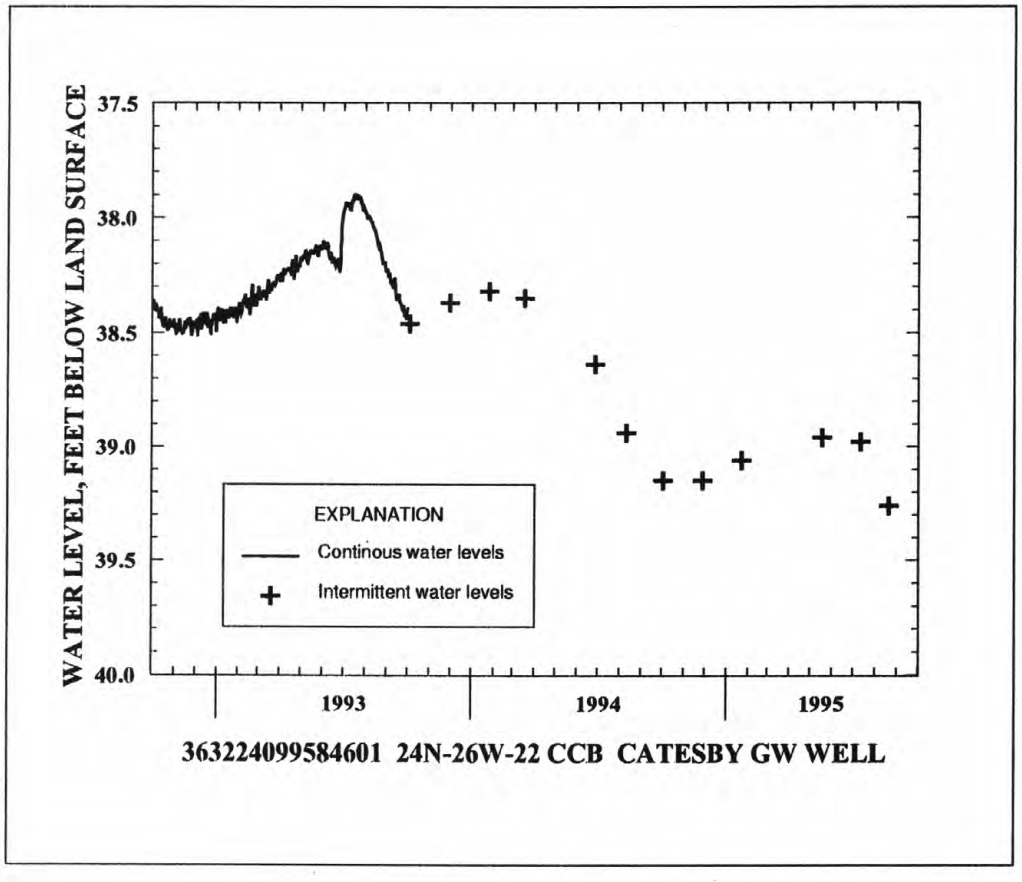
DATUM.--Altitude of land-surface datum is 2,340 ft. Measuring point: top edge of shelter base 2.40 ft above land-surface datum.

PERIOD OF RECORD.--1985 to 1995 (discontinued). Mean daily-water levels published until September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.29 ft below land-surface datum, May 29, 1990; lowest water level, 40.98 ft below land-surface datum, Sept. 10, 1985.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3, 1994	39.15	May 18, 1995	38.96
Nov. 29, 1994	39.15	July 12, 1995	38.98
Jan. 23, 1995	39.06	Aug. 21, 1995	39.26



WELL-IDENTIFICATION NUMBER.--344656098031401. Local number 04N-08W-33 BBB 1.

LOCATION.--Lat 34°46'56", long 098°03'14", Hydrologic Unit 11130208, 5.6 mi west of Rush Springs on Hwy 17.

AQUIFER.--Rush Springs Formation.

WELL CHARACTERISTICS.--Drilled test well, diameter 6 in., depth 254 ft.

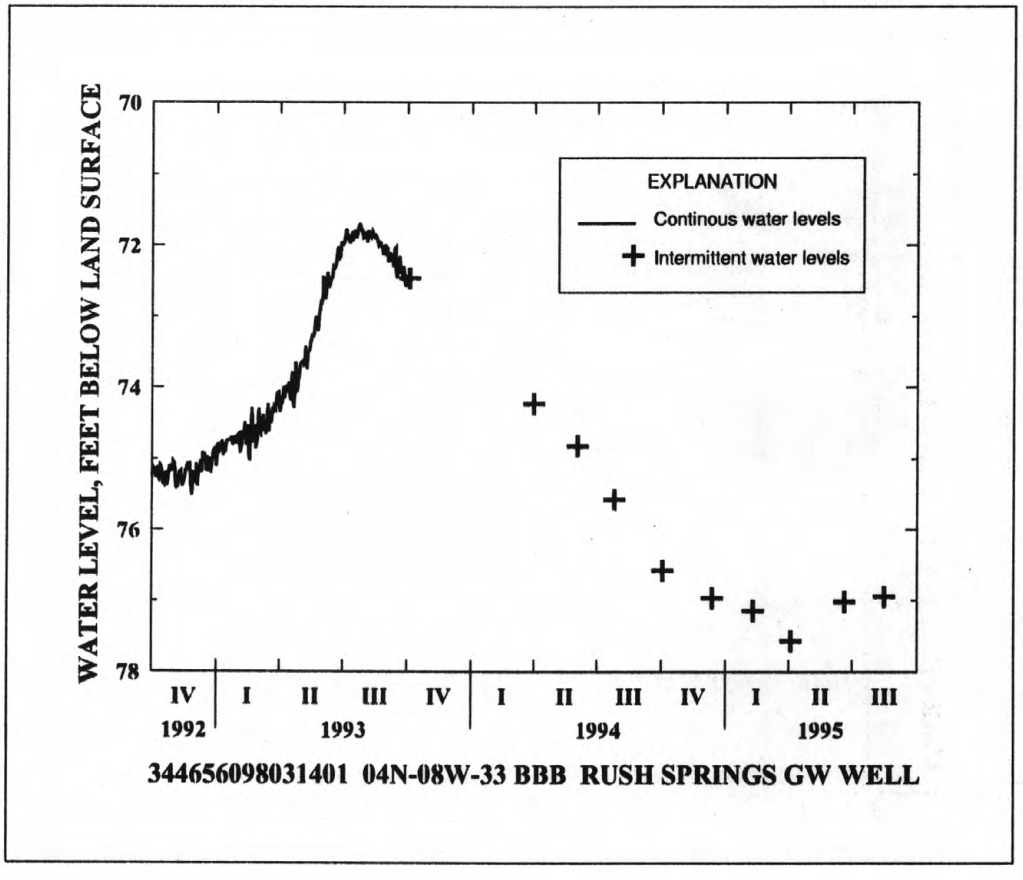
DATUM.--Altitude of land-surface datum is 1,360 ft. Measuring point: top of casing 3.98 ft above land-surface datum.

PERIOD OF RECORD.--1948 to September 1995 (discontinued). Mean daily-water levels were published October 1980 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.64 ft below land-surface datum, July 23, 1993; lowest water level, 85.67 ft below land-surface datum, Feb. 29, 1968.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 3, 1994	76.58	Apr. 4, 1995	77.57
Dec. 13, 1994	76.97	Jun. 20, 1995	77.02
Feb. 9, 1995	77.15	Aug. 15, 1995	76.95



WELL-IDENTIFICATION NUMBER.--344143099560601. Local number 03N-26W-33 ABA 1

LOCATION.--Lat 34°41'43", long 099°56'06", Hydrologic Unit 11130101, 1 mi northwest of Hollis.

AQUIFER.--Blaine Gypsum.

WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 16 in., depth 237 ft.

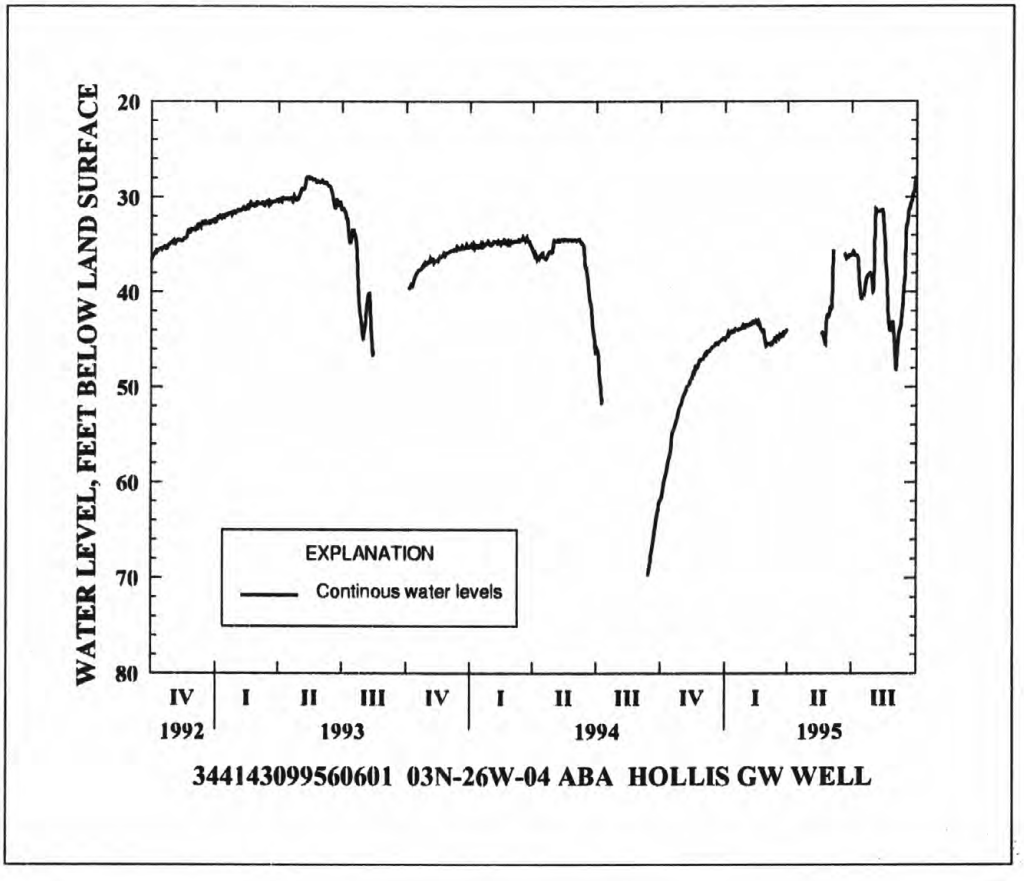
DATUM.--Altitude of land-surface datum is 1,640 ft. Measuring point: top of casing 1.53 ft above land-surface datum.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.68 ft below land-surface datum, Sept. 29, 1995; lowest water level, 114.58 ft below land-surface datum Sept. 6, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	60.63	50.58	46.50	44.43	43.44	45.45	---	---	35.51	36.00	31.33	45.08
10	58.66	49.80	46.20	44.16	43.08	45.36	---	---	---	36.57	31.41	42.29
15	57.00	49.13	45.70	43.99	43.03	44.87	---	---	---	40.83	32.10	37.82
20	54.48	47.66	45.33	43.95	43.40	44.60	---	44.16	35.89	39.14	39.06	31.26
25	53.27	47.40	45.12	43.74	43.85	44.20	---	45.37	36.35	38.13	43.01	30.10
EOM	51.70	47.03	44.77	43.45	45.19	44.13	---	41.74	36.14	39.85	45.87	28.09
MAX	61.86	51.33	46.83	44.90	45.19	45.62	---	---	---	40.83	45.87	48.34
MIN	51.70	47.03	44.77	43.43	42.98	43.96	---	---	---	35.74	31.26	28.07



WELL-IDENTIFICATION NUMBER.--341243096534501. Local number 04S-04E-16 BBC 1.

LOCATION.--Lat 34°12'45", long 096°53'51", Hydrologic Unit 11130304, 2.0 mi northwest of Mannsville.

AQUIFER.--Antlers Sand.

WELL CHARACTERISTICS.--Drilled unused well, diameter 4 in., depth 51.8 ft.

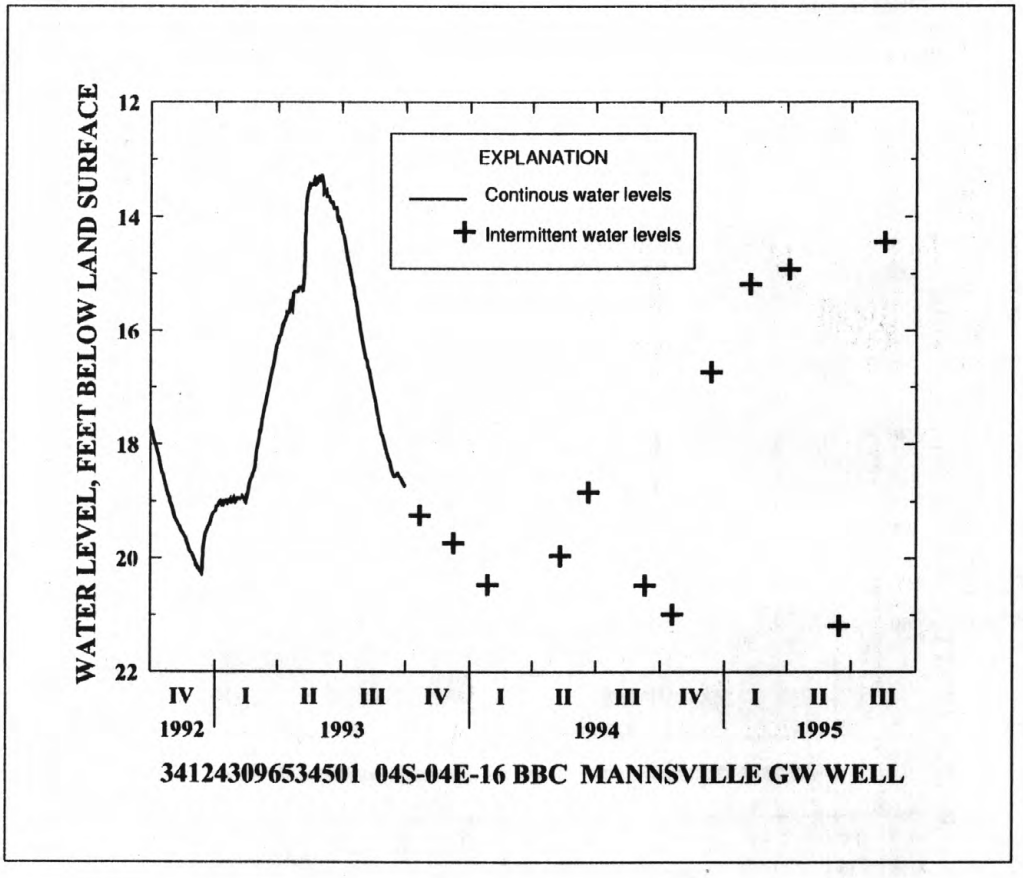
DATUM.--Altitude of land-surface datum is 745 ft. Measuring point: top of casing 1.00 ft above land-surface datum.

PERIOD OF RECORD.--1977 to September 1995 (discontinued). Mean daily-water levels published July 1983 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.65 ft below land-surface datum, Mar. 18, 1992; lowest water level, 31.05 ft below land-surface datum, Feb. 29, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 18, 1994	20.99	Apr. 4, 1995	14.92
Dec. 13, 1994	16.73	June 14, 1995	21.19
Feb. 7, 1995	15.18	Aug. 17, 1995	14.45



WELL-IDENTIFICATION NUMBER.--354442096400801. Local number 15N-06E-29 AAA 1.

LOCATION.--Lat 35°45'10", long 096°40'50", Hydrologic Unit 11100303, 1 mi west of junction of Hwy 99 and 66 in Stroud.

AQUIFER.--Vamoosa Formation.

WELL CHARACTERISTICS.--Drilled unused public supply well, diameter 6 in., depth 339 ft.

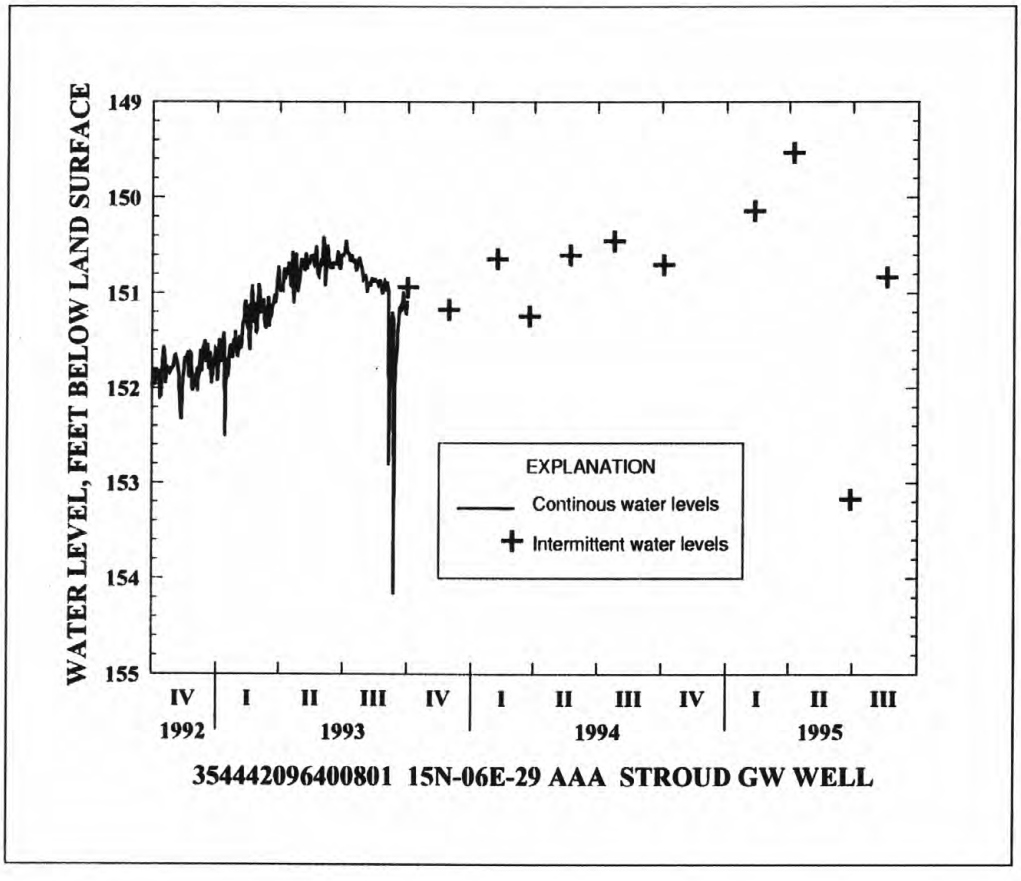
DATUM.--Altitude of land-surface datum is 950 ft. Measuring point: top of casing 1 ft above land-surface datum.

PERIOD OF RECORD.--1977 to current year. Mean daily-water levels were published May 1981 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 149.53 ft below land-surface datum, April 7, 1995; lowest water level, 184.01 ft below land-surface datum, Nov. 10, 1977.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 4, 1994	150.70	June 28, 1995	153.17
Feb. 10, 1995	150.14	Aug. 18, 1995	150.83
Apr. 7, 1995	149.53		



WELL-IDENTIFICATION NUMBER.--354525097242201. Local number 15N-02W-22 CCB 1.

LOCATION.--Lat 35°45'25", long 097°24'22", Hydrologic Unit 11050002, 4.0 mi east of Waterloo.

AQUIFER.--Garber Sandstone.

WELL CHARACTERISTICS.--Drilled unused domestic well, diameter 6 in., depth 146 ft.

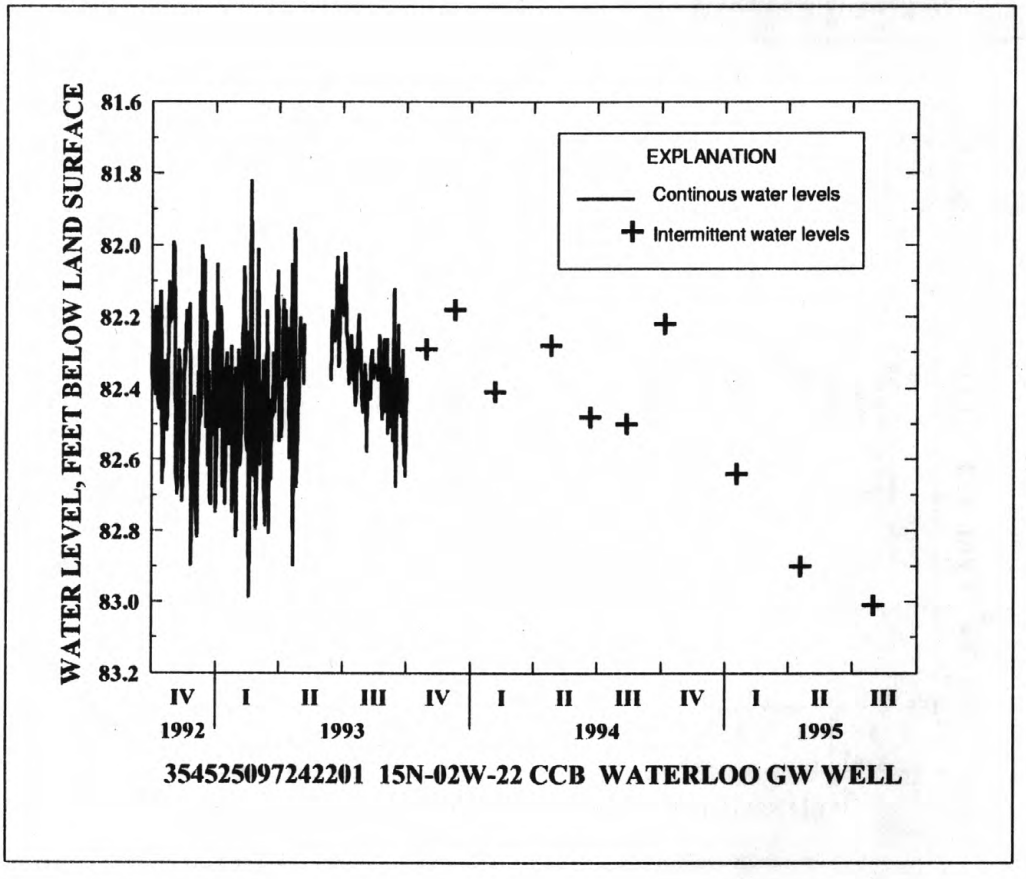
DATUM.--Altitude of land-surface datum is 1,225 ft. Measuring point: top of casing at land-surface datum.

PERIOD OF RECORD.--1983 to current year. Mean daily-water levels published August 1983 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest daily water level, 70.46 ft below land-surface datum, June 3, 1987; lowest daily water level, 88.58 ft below land-surface datum, May 8, 1984.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6, 1994	82.22	Apr. 18, 1995	82.90
Jan. 17, 1995	82.64	Jul. 31, 1995	83.01



WELL-IDENTIFICATION NUMBER.--361442098092801. Local number 20N-09W-04 AAA 1.

LOCATION.--Lat 36°14'42", long 098°09'28" , Hydrologic Unit 11050002, 1.5 mi east of Ames.

AQUIFER.--Cimarron Terrace.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth 60 ft.

DATUM.--Altitude of land-surface datum is 1,225 ft. Measuring point: shelter base 2.10 ft above land-surface datum.

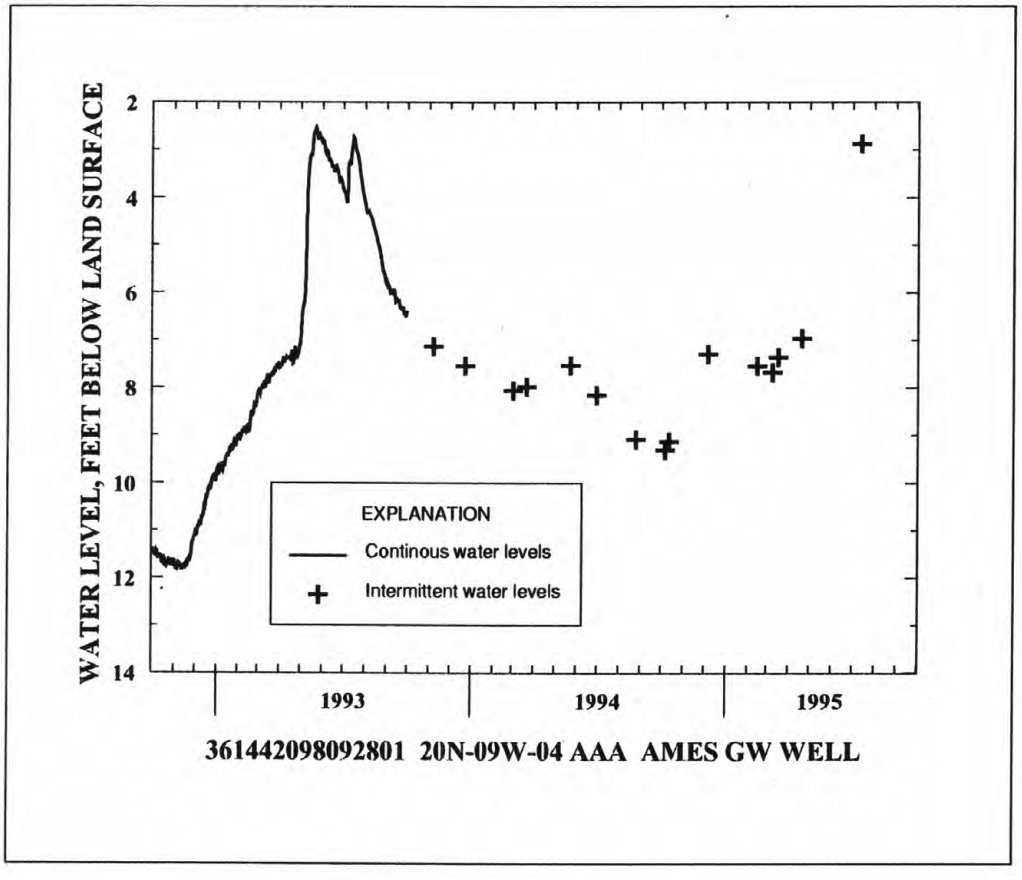
REMARKS.--Digital recorder installed Aug. 25, 1983, mean daily-water levels published until September 1993.

PERIOD OF RECORD.--1965 to 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.73 ft below land-surface datum, June 1, 1987; lowest water level, 25.97 ft below land-surface datum, Sept. 15, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 12, 1994	9.13	Mar. 17, 1995	7.35
Dec. 7, 1994	7.29	Apr. 20, 1995	6.96
Feb. 15, 1995	7.54	July 13, 1995	2.88
Mar. 9, 1995	7.67		



WELL-INDENTIFICATION NUMBER.--335337094451101. Local number 08S-24E-01 BBD 1.

LOCATION.--Lat 33°53'37", long 094°45'11", Hydrologic Unit 11140107, 3.0 mi east of Idabel.

AQUIFER.--Antlers Sand.

WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 6 in., depth 66 ft.

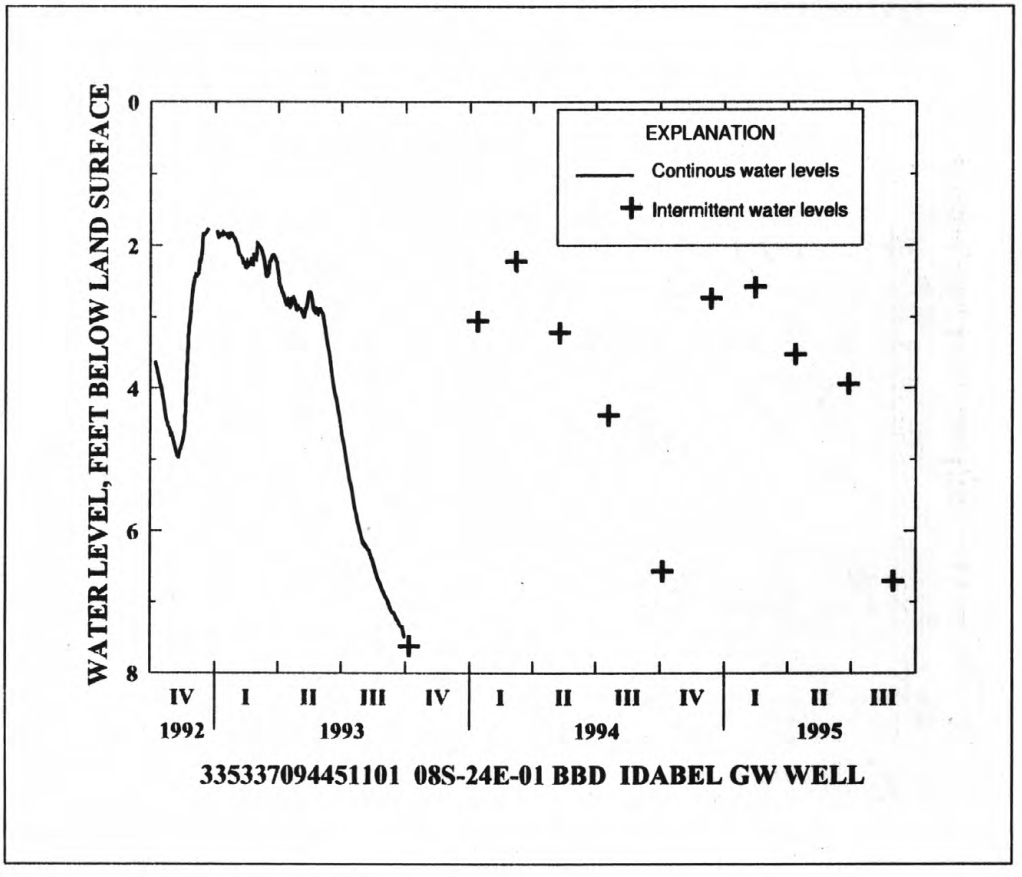
DATUM.--Altitude of land-surface datum is 408 ft. Measuring point: top of casing 1.50 ft above land-surface datum.

PERIOD OF RECORD.--1969 to 1971, 1983 to September 1995 (discontinued). Mean daily-water levels were published 1984 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.63 ft measured Dec. 22, 1991, below land-surface datum; lowest water level, 8.94 ft below land-surface datum, Oct. 3, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 4, 1994	6.57	Apr. 12, 1995	3.53
Dec. 13, 1994	2.74	Jun. 27, 1995	3.95
Feb. 14, 1995	2.58	Aug. 30, 1995	6.71



WELL-IDENTIFICATION NUMBER.--343022096565701. Local number 01S-03E-01 BBB 1.

LOCATION.--Lat 34°30'22", long 096°56'57", Hydrologic Unit 11130303, 1 mi south of Sulphur.

AQUIFER.--Arbuckle Group.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., drilled depth 436 ft.

DATUM.--Altitude of land-surface datum is 1,080 ft. Measuring point: top of casing at land-surface datum.

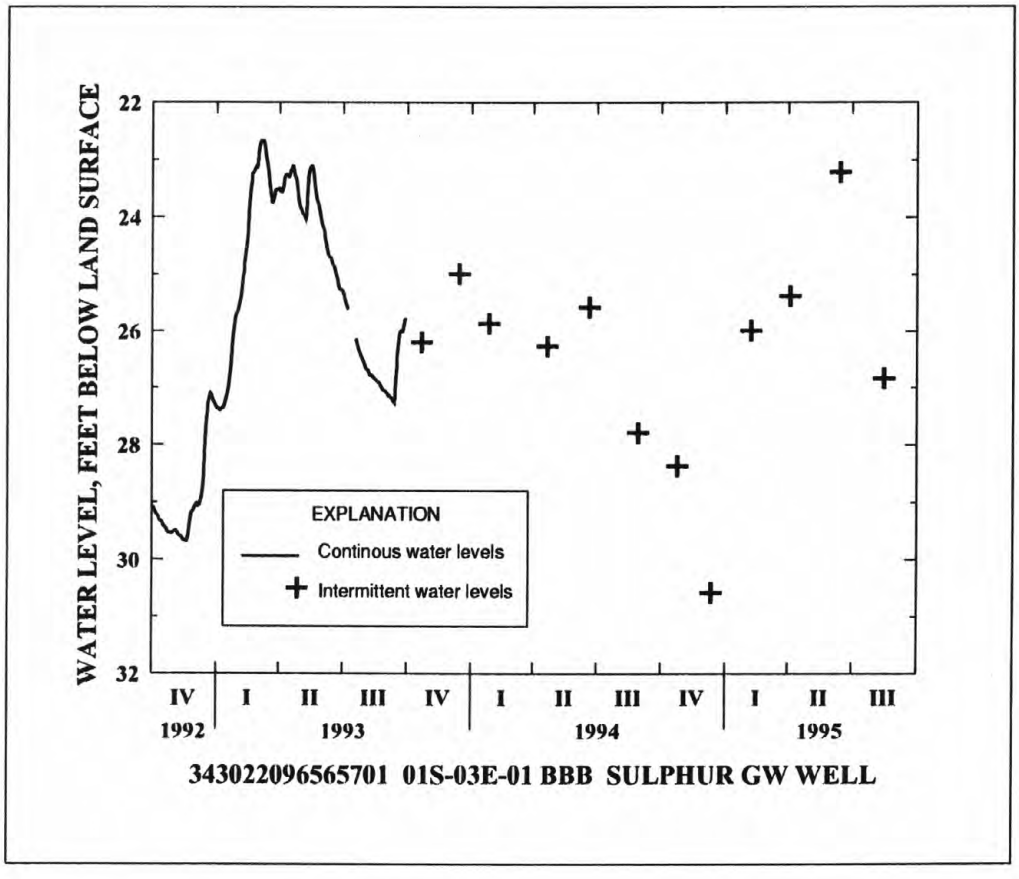
REMARKS.--West observation well, measured depth 99 ft, Feb. 6, 1992.

PERIOD OF RECORD.--August 1972 to September 1995 (discontinued). Records August 1972 to December 1985 provided by National Park Service. Mean-daily water levels were published January 1986 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.67 ft below land-surface datum, Mar. 4-9, 1993; lowest water level, 34.93 ft below land-surface datum, Sept. 1, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 25, 1994	28.36	Apr. 3, 1995	25.38
Dec. 12, 1994	30.58	June 14, 1995	23.21
Feb. 7, 1995	25.99	Aug. 16, 1995	26.83



WELL-IDENTIFICATION NUMBER.--362935096291501. Local number, 23N-09E-10 AAD 1.

LOCATION.--Lat 36°29'01", long 096°19'06", Hydrologic Unit 11070107, 4.2 mi southeast of Wynona.

AQUIFER.--Vamoosa Formation.

WELL CHARACTERISTICS.--Drilled unused well, diameter 13 in., depth 55 ft.

DATUM.--Altitude of land-surface datum is 835 ft. Measuring point: metal plate on top of casing 2.45 ft above land-surface datum.

REMARKS.--Digital recorder installed June 10, 1981, mean daily water levels to Aug. 9, 1995 when recorder was removed.

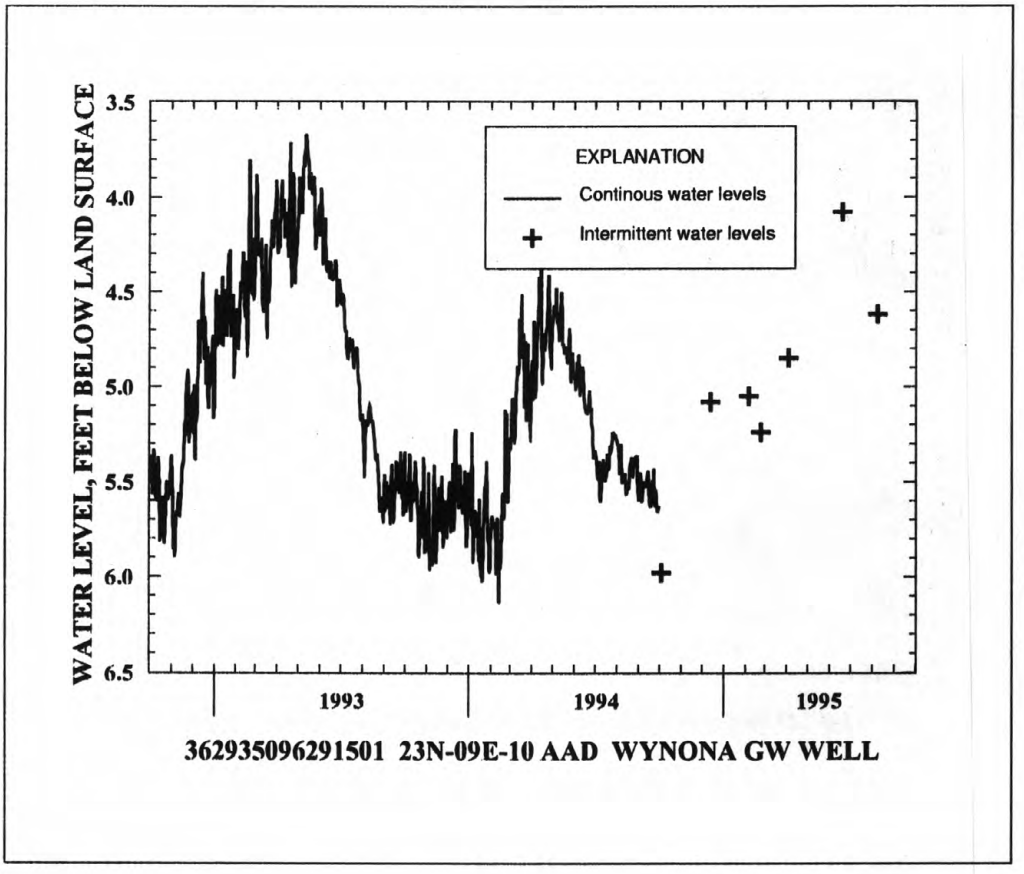
PERIOD OF RECORD.--1971 to September 1995 (discontinued).

REVISED RECORDS.--WDR OK-91-1: 1982 (H), 1981, 1982.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.52 ft below land-surface datum, Feb. 20, 1993; Lowest water level, 9.45 ft below land-surface datum, Oct. 6, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 4, 1994	5.98	Apr. 4, 1995	4.85
Dec. 13, 1994	5.08	Jun. 19, 1995	4.08
Feb. 6, 1995	5.05	Aug. 8, 1995	4.62
Feb. 23, 1995	5.24		



WELL-IDENTIFICATION NUMBER.--365229094520201. Local number 28N-23E-30 DBC 1.

LOCATION.--Lat 36°52'30", long 094°52'02", Hydrologic Unit 11070206, 200 ft northeast of the intersection of Central and I Streets in Miami.

AQUIFER.--Roubidoux Formation.

WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., reduced to 3.5 in., depth 1,490 ft.

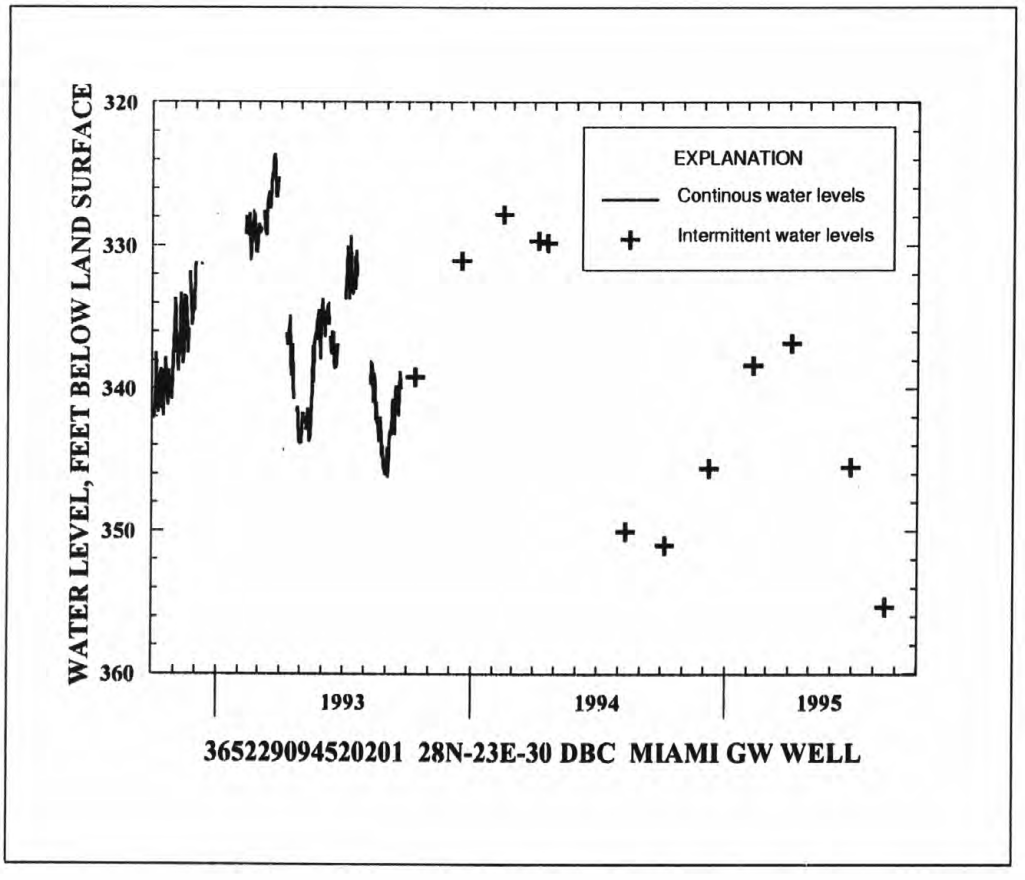
DATUM.--Altitude of land-surface datum 770 ft. Measuring point: top of 6 in. casing 1.00 ft below land-surface datum.

PERIOD OF RECORD.--1980 to current year. Mean daily-water levels published June 1980 to September 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 323.14 ft below land-surface datum, Mar. 23, 1993; lowest water level, 469.44 ft below land-surface datum, July 31 to Aug. 2, 1983.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6, 1994	351.02	Apr. 5, 1995	336.80
Dec. 8, 1994	345.58	Jun. 29, 1995	345.50
Feb. 9, 1995	338.34	Aug. 17, 1995	355.30



WELL-IDENTIFICATION NUMBER.--365732094513201. Local number, 29N-23E-30 CDD 1.

LOCATION.--Lat 36°57'34", long 094°51'27", Hydrologic Unit 11070206, 2.2 mi southeast of Picher.

AQUIFER.--Roubidoux Formation.

WELL CHARACTERISTICS.--Abandoned mine air shaft, diameter 8 in., depth 289 ft.

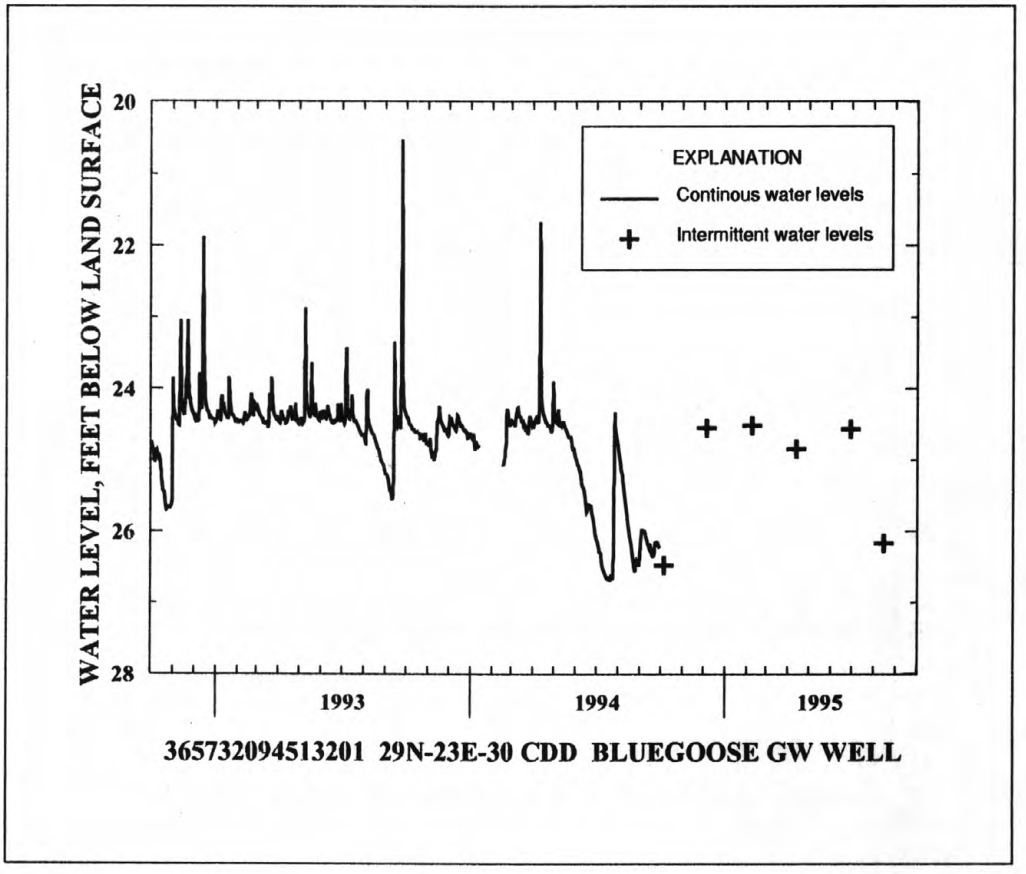
DATUM.--Altitude of land-surface datum is 820 ft. Measuring point: top of casing 1 ft above land-surface datum.

PERIOD OF RECORD.--1975 to current year. Mean daily-water levels published April 1979 to September 1994.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.23 ft below land-surface datum Sept. 25, 1993; lowest, 170.70 ft below land-surface datum, Sept. 9, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 6, 1994	26.48	Apr. 13, 1995	24.84
Dec. 6, 1994	24.55	Jun. 29, 1995	24.57
Feb. 9, 1995	24.51	Aug. 16, 1995	26.17



WELL-IDENTIFICATION NUMBER.--343457096404501. Local number 01N-06E-04 CAD 1.

LOCATION.--Lat 34°34'57", long 096°40'45", Hydrologic Unit 11140102, 3.3 mi southwest of Fittstown.

AQUIFER.--Arbuckle Group.

WELL CHARACTERISTICS.--Drilled oil test well, diameter 18 in., depth 396 ft.

DATUM.--Altitude of land-surface datum is 1,155 ft. Measuring point: base of recorder shelter 2.83 ft above land-surface datum.

REMARKS.--Well originally 1,707 ft deep.

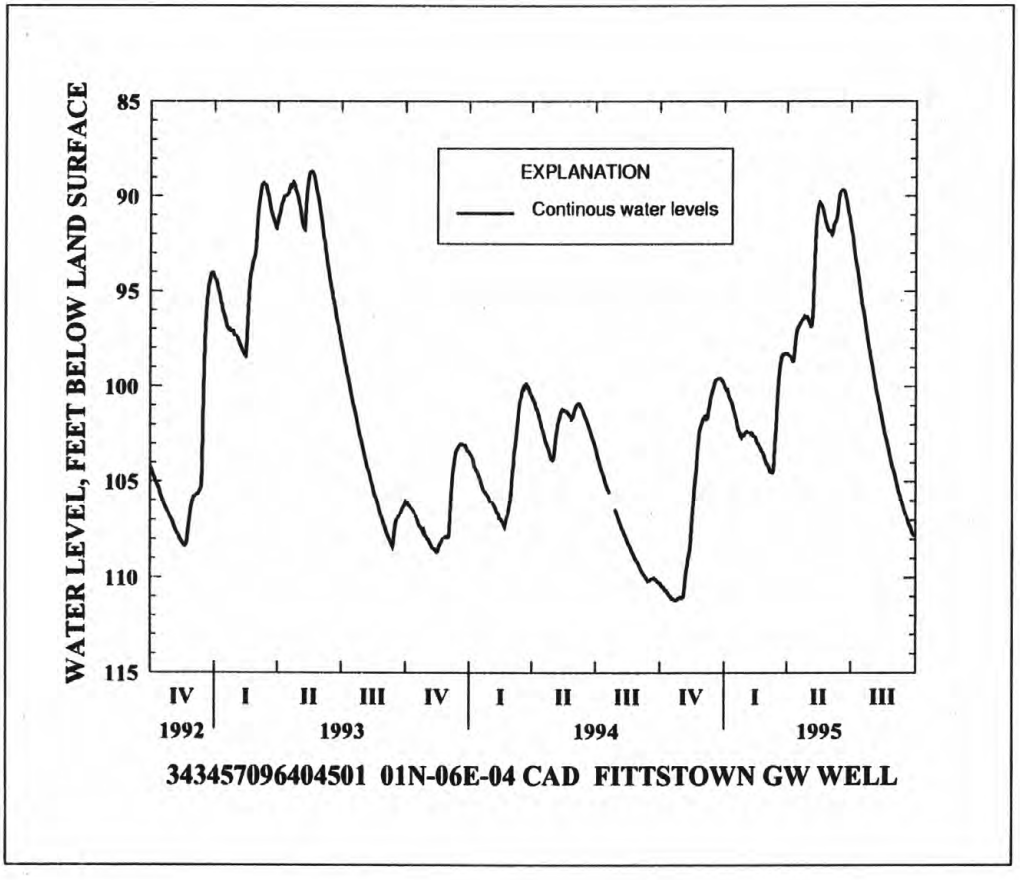
PERIOD OF RECORD.--1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest observed water level, 70.19 ft below land-surface datum, May 17, 1990; lowest water level, 128.23 ft below land-surface datum, Apr. 10, 1967.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	110.50	110.89	101.67	100.20	102.42	104.17	98.43	96.87	91.90	92.54	99.88	105.18
10	110.73	109.34	101.37	100.69	102.41	104.53	98.75	93.37	91.23	93.82	100.86	105.89
15	110.95	107.97	100.32	101.32	102.65	103.06	97.16	90.78	89.95	95.12	101.81	106.48
20	111.14	105.54	99.68	101.99	103.08	99.71	96.65	90.50	89.69	96.33	102.68	107.00
25	111.22	103.07	99.58	102.63	103.49	98.38	96.42	91.20	90.26	97.53	103.50	107.47
EOM	111.07	101.98	99.77	102.44	103.76	98.28	96.40	91.85	91.40	98.87	104.44	107.84
MAX	111.22	111.07	101.86	102.66	103.76	104.56	98.75	96.87	92.03	98.87	104.44	107.84
MIN	110.31	101.98	99.57	99.94	102.39	98.28	96.34	90.34	89.69	91.63	99.08	104.59



WELL-IDENTIFICATION NUMBER.--354527099470501. Local number 15N-24W-19 DDA 1.

LOCATION.--Lat 35°45'27", long 099°47'05", Hydrologic Unit 11130301, 4.5 mi southwest of Roll.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 12 in., depth 122 ft.

DATUM.--Altitude of land-surface datum is 2,315 ft. Measuring point: shelter base 2.28 ft above land-surface datum.

REMARKS.--Digital recorder installed May 19, 1981, mean-daily water levels published thereafter.

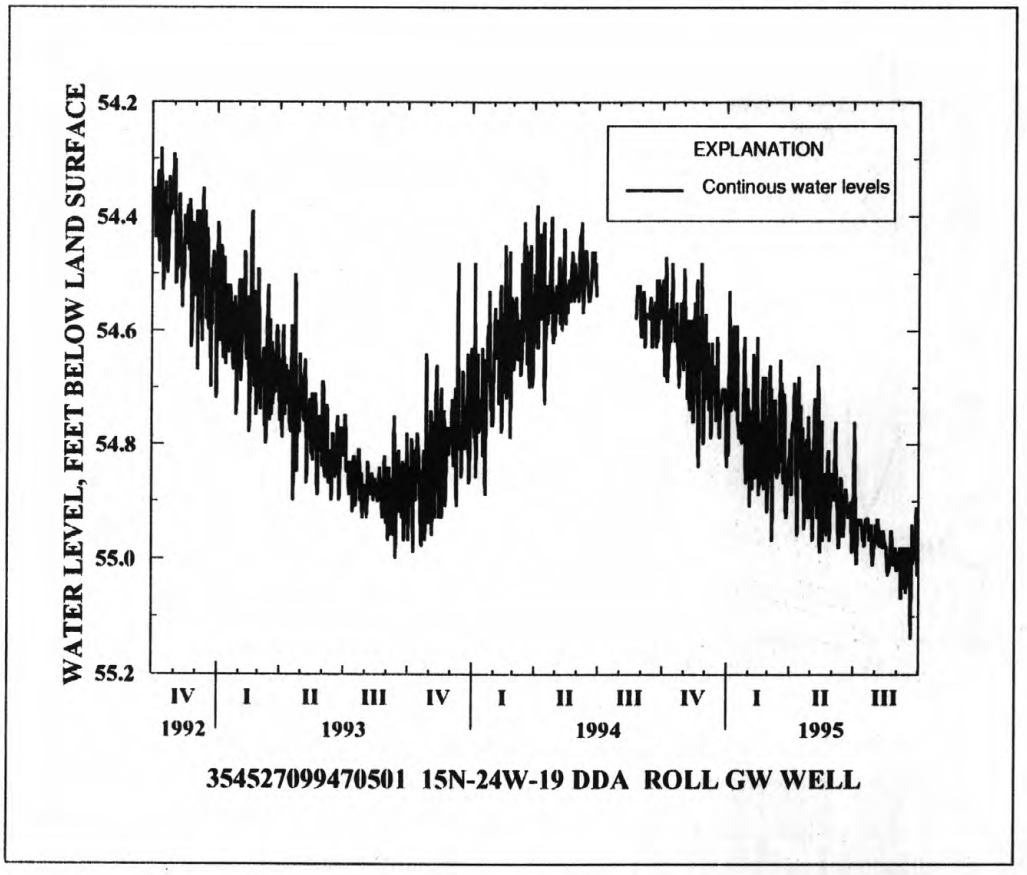
PERIOD OF RECORD.--1971 to September 1995 (discontinued).

REVISED RECORDS.--WDR OK-90-1; 1983, 1984.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.53 ft below land-surface datum, Mar. 2, 1989; lowest water level, 57.27 ft below land-surface datum, June 5, 1973.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	54.52	54.64	54.72	54.53	54.83	54.77	54.76	54.89	54.82	55.00	54.93	55.00
10	54.62	54.67	54.79	54.64	54.69	54.78	54.85	54.93	54.98	54.94	54.97	55.05
15	54.48	54.76	54.70	54.64	54.81	54.85	54.82	54.88	54.90	54.97	54.97	55.00
20	54.61	54.51	54.71	54.78	54.84	54.83	54.77	54.89	54.88	54.95	55.02	55.05
25	54.70	54.61	54.73	54.78	54.71	54.73	54.79	54.93	54.92	54.95	54.96	54.98
EOM	54.67	54.71	54.75	54.70	54.92	54.83	54.83	54.85	54.98	54.97	55.02	55.03
MAX	54.70	54.84	54.79	54.87	54.92	54.97	54.96	54.99	54.99	55.01	55.03	55.14
MIN	54.47	54.48	54.57	54.53	54.61	54.65	54.68	54.66	54.76	54.76	54.93	54.91



WELL-IDENTIFICATION NUMBER.--363033101440701. Local number 01N-12E-35 BDD 1.

LOCATION.--Lat 36°30'33", long 101°44'07", Hydrologic Unit 11100103, 2.5 mi east of Texhoma.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled well, diameter 7 in., depth 386 ft.

DATUM.--Altitude of land-surface datum is 3,430 ft. Measuring point: top of casing 1.70 ft above land-surface datum.

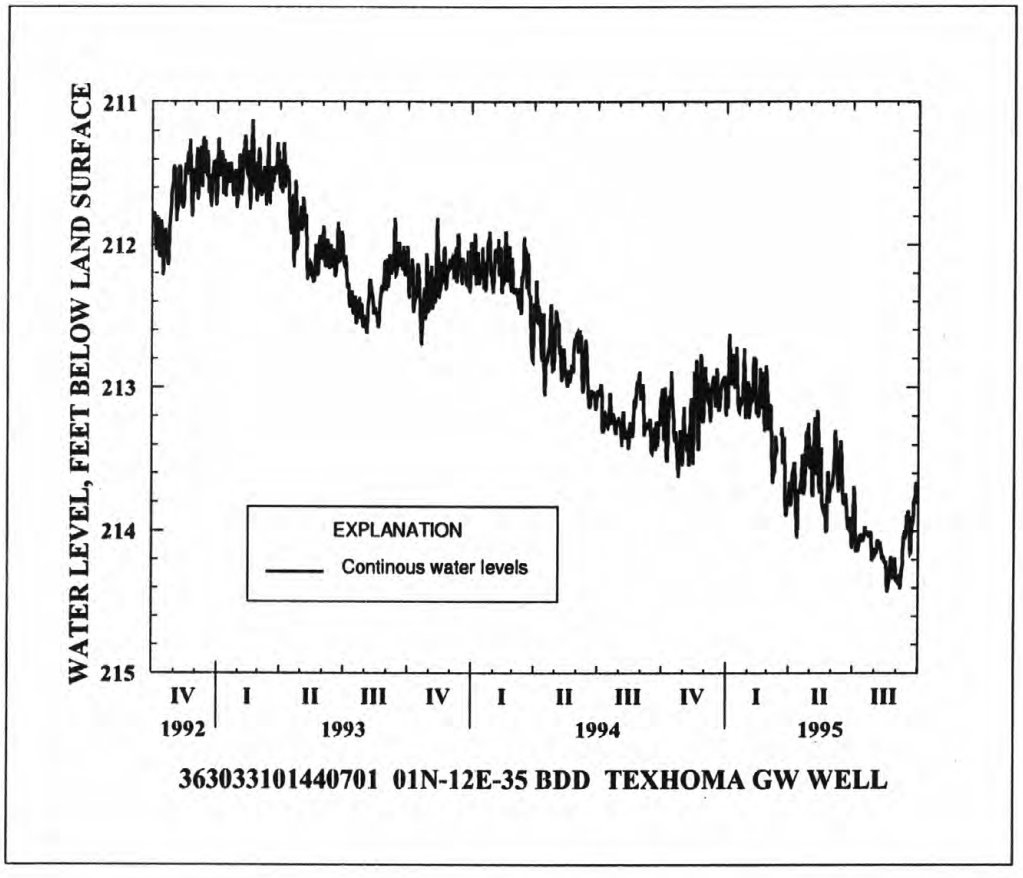
REMARKS.--Digital recorder installed Mar. 17, 1980, mean-daily water levels published thereafter.

PERIOD OF RECORD.--1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 188.80 ft below land-surface datum, May 20, 1959; lowest water level, 214.47 ft below land-surface datum, Aug. 19, Sept. 7, 1995

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	213.23	213.36	213.10	212.75	213.10	213.14	213.71	213.76	213.50	214.02	214.08	214.33
10	213.37	213.46	213.24	212.89	212.79	213.58	213.68	213.61	213.68	214.10	214.12	214.25
15	212.89	213.54	213.01	212.87	213.07	213.41	213.72	213.74	213.42	214.07	214.21	213.99
20	213.38	212.81	213.00	213.17	213.10	---	213.47	213.83	213.75	214.01	214.43	214.01
25	213.63	213.03	213.00	213.08	213.31	213.35	213.42	214.01	213.98	214.02	214.18	213.94
EOM	213.55	213.20	213.00	212.97	212.94	213.77	213.41	213.66	214.12	214.12	214.28	213.80
MAX	213.63	213.55	213.24	213.22	213.31	---	214.05	214.01	214.12	214.21	214.43	214.41
MIN	212.89	212.77	212.86	212.63	212.79	---	213.25	213.16	213.30	213.69	214.06	213.66



WELL-IDENTIFICATION NUMBER.--352142099122501. Local number 10N-19W-10 BBB 1.

LOCATION.--Lat 35°21'49", long 099°12'19", Hydrologic Unit 11130302, 2 mi west of Burns Flat.

AQUIFER.--Elk City Sandstone.

WELL CHARACTERISTICS.--Drilled unused well, diameter 8 in., depth 107 ft.

DATUM.--Altitude of land-surface datum is 1,920 ft. Measuring point: top of casing 1.35 ft above land-surface datum.

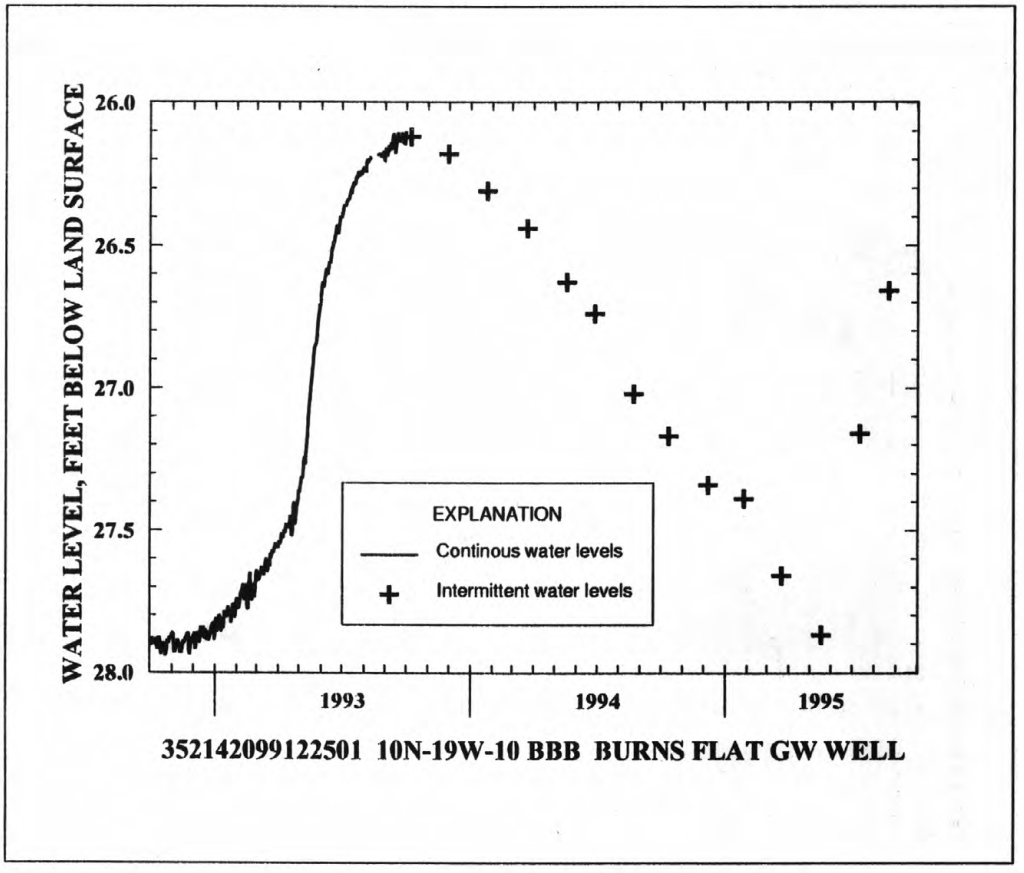
REMARKS.--Digital recorder installed May 20, 1981, mean daily-water levels published until September 1993.

PERIOD OF RECORD.--April 1979 to September 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.08 ft below land-surface datum Sept. 30, 1993; lowest water level, 34.87 ft below land-surface datum, Apr. 4, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	WATER LEVEL	DATE	WATER LEVEL
Oct. 12, 1994	27.17	May 18, 1995	27.87
Dec. 7, 1994	27.34	July 12, 1995	27.16
Jan. 27, 1995	27.39	Aug. 22, 1995	26.66
Mar. 22, 1995	27.66		



WELL-IDENTIFICATION NUMBER.--365143098404201. Local number 28N-14W-35 BCC 1.

LOCATION.--Lat 36°51'50", long 098°40'55", Hydrologic Unit 11060002, 4 mi north of Alva.

AQUIFER.--Cedar Hills Sandstone.

WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 13 in., depth 54 ft.

DATUM.--Altitude of land-surface datum is 1,360 ft. Measuring point: edge of large hole in steel plate 2.60 ft above land-surface datum.

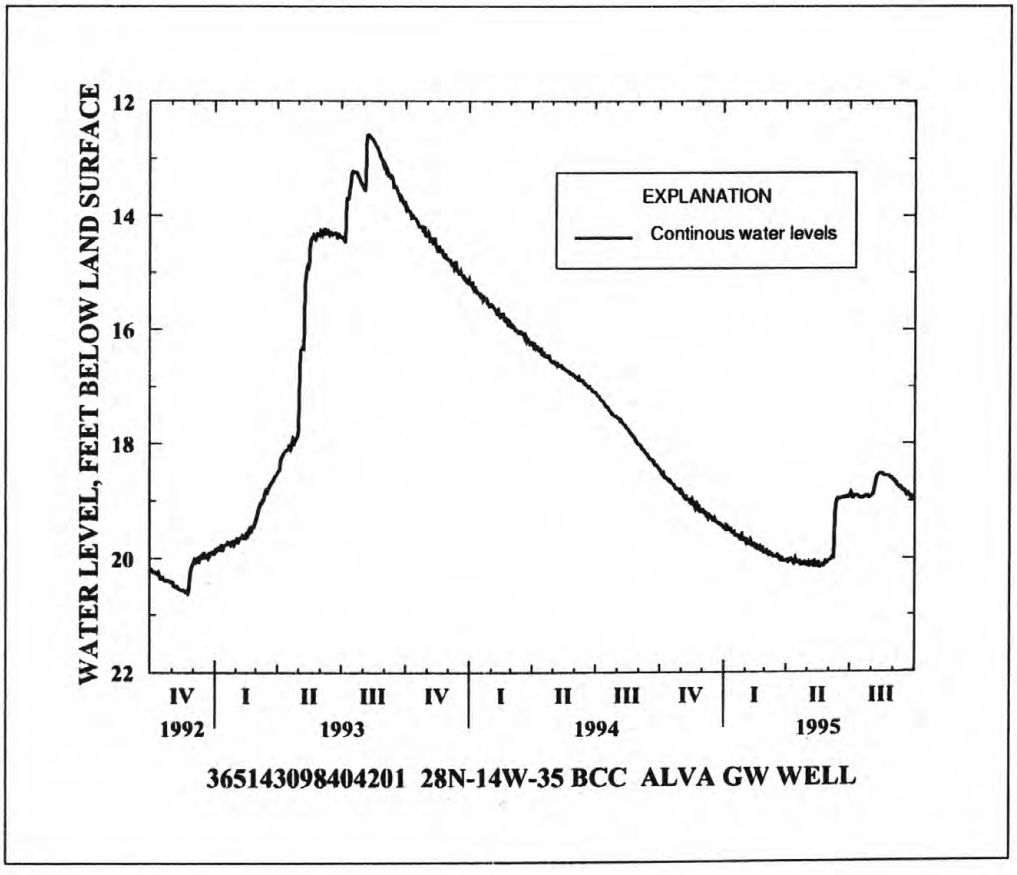
REMARKS.--Digital recorder installed July 30, 1980, mean-daily water levels published thereafter.

PERIOD OF RECORD.--1972 to September 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily water level, 12.56 ft below land-surface datum, Aug. 7, 8, 1993; lowest water level, 24.25 ft below land-surface datum, Mar. 15, 1979.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.50	18.90	19.21	19.42	19.72	19.90	20.02	20.13	20.00	18.93	18.81	18.69
10	18.60	18.97	19.28	19.49	19.73	19.92	20.06	20.13	19.27	18.91	18.56	18.77
15	18.62	19.03	19.29	19.54	19.78	19.97	20.05	20.13	18.95	18.94	18.53	18.81
20	18.71	19.00	19.34	19.60	19.83	19.98	20.05	20.12	18.94	18.94	18.56	18.88
25	18.79	19.10	19.38	19.64	19.81	19.99	20.08	20.13	18.93	18.91	18.56	18.91
EOM	18.84	19.18	19.44	19.65	19.90	20.03	20.09	20.04	18.93	18.92	18.63	18.98
MAX	18.84	19.18	19.44	19.68	19.90	20.04	20.12	20.14	20.04	18.95	18.92	18.98
MIN	18.45	18.81	19.15	19.42	19.68	19.87	20.01	20.04	18.92	18.86	18.52	18.64



WELL-IDENTIFICATION NUMBER.--361714099315101. Local number 21N-22W-23 BBB 1.

LOCATION.--Lat 36°17'25", long 099°31'58", Hydrologic Unit 11100203, 11 mi west of Sharon.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled test hole, diameter 6 in., depth 322 ft.

DATUM.--Altitude of land-surface datum is 2,335 ft. Measuring point: top of shelf 3 ft above land-surface datum.

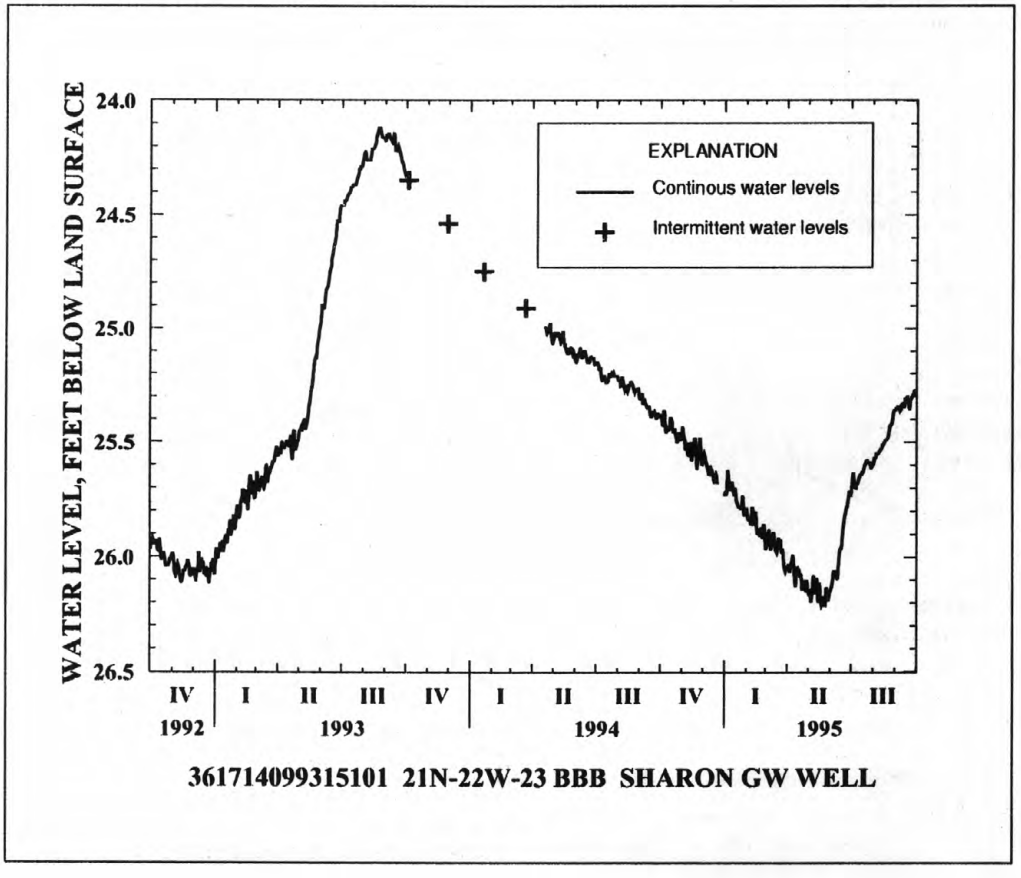
REMARKS.--Digital recorder installed Sept. 30, 1982, mean-daily water levels published thereafter, except Oct. 5, 1993, to Apr. 17, 1994, when bimonthly measurements were made.

PERIOD OF RECORD.--1957 to 1963, 1965 to September 1995 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest daily water level, 21.78 ft below land-surface datum, Nov. 15, 1987; lowest water level, 32.64 ft below land-surface datum, May 19, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.42	25.49	25.58	25.70	25.83	25.89	26.06	26.20	26.10	25.66	25.57	25.36
10	25.45	25.56	25.64	25.70	25.78	25.93	26.02	26.15	26.08	25.68	25.54	25.36
15	25.41	25.58	25.63	25.73	25.80	25.97	26.04	26.20	25.97	25.64	25.51	25.34
20	25.46	25.48	25.64	25.77	25.90	25.92	26.07	26.21	25.86	25.60	25.49	25.32
25	25.50	25.55	---	25.79	25.90	25.96	26.13	26.22	25.78	25.59	25.43	25.31
EOM	25.49	25.60	---	25.80	25.92	26.05	26.13	26.16	25.73	25.60	25.36	25.28
MAX	25.50	25.62	---	25.82	25.92	26.06	26.15	26.22	26.15	25.73	25.60	25.36
MIN	25.36	25.43	---	25.62	25.78	25.88	25.99	26.08	25.71	25.58	25.36	25.27



361714099315101 21N-22W-23 BBB SHARON GW WELL

*U.S. GOVERNMENT PRINTING OFFICE: 1996-746-141/40017

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

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

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