Water-Data Report 2008

07152000 CHIKASKIA RIVER NEAR BLACKWELL, OK

Arkansas-Keystone Basin
Chikaskia Subbasin

LOCATION.--Lat 36°48′41″, long 97°16′37″ referenced to North American Datum of 1927, in NE ¼ NW ¼ sec.23, T.27 N., R.1 W., Kay County, OK, Hydrologic Unit 11060005, near left bank on downstream side of State Highway 11 bridge at northeast edge of Blackwell, 0.1 mi downstream from Bitter Creek,and at mile 28.3.

DRAINAGE AREA.--1,859 mi^2.

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 967.41 ft above NGVD of 1929. See WSP 1921 for history of changes prior to April, 1952.

REMARKS.--Records good. Some regulation at low flow by Lake Blackwell, capacity 3,600 acre-ft, 12.6 mi upstream from station. Small diversion made from reservoir for municipal supply of city of Blackwell. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 10, 1923, reached a stage of about 34 ft, present site and datum, from information provided by local residents, discharge 100,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 18	1300	10,700	21.85
Apr 11	0400	9,260	20.34
May 23	2330	9,910	21.36
May 25	0300	12,200	23.67
May 27	1030	45,700	33.61
Jun 2	1130	16,000	26.56
Jun 6	1030	17,200	27.34
Jun 10	0000	10,500	22.03
Jun 17	2100	12,900	24.22
Sep 14	0530	*66,500	*35.36

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	91	149	161	e261	227	372	473	317	2,780	476	545	85
2	101	147	177	e250	203	362	603	375	14,100	392	326	88
3	105	145	171	e203	259	1,970	419	474	5,670	345	226	84
4	103	145	172	e203	311	2,070	359	329	2,480	310	173	82
5	101	149	172	317	610	925	338	287	1,810	289	148	80
6	98	144	168	800	1,360	584	332	297	14,700	266	127	159
7	100	142	168	976	638	470	310	801	7,990	247	291	221
8	106	143	174	1,010	468	410	347	3,850	1,840	237	730	247
9	102	146	181	1,010	418	387	1,030	3,460	7,120	326	280	184
10	117	150	175	468	366	371	4,870	3,530	8,010	501	166	152
11	106	153	309	347	325	360	7,780	1,610	2,370	407	239	202
12	98	158	1,180	308	299	347	2,680	909	1,150	473	210	7,550
13	94	151	1,300	285	281	334	1,230	645	1,630	1,040	175	45,500
14	96	147	634	271	277	326	834	520	5,370	439	172	56,000
15	426	140	431	259	256	327	657	485	2,230	301	195	11,600
16	354	140	358	259	262	313	562	444	4,340	244	240	3,060
17	2,020	143	309	e230	2,270	602	504	395	10,700	219	206	2,170
18	9,350	148	329	e188	4,240	3,090	463	360	8,570	200	182	1,720
19	3,430	151	376	e171	1,530	2,800	433	330	7,070	195	178	1,420
20	697	156	415	e169	754	1,130	412	306	3,530	201	178	1,200
21	353	154	381	e172	547	703	390	274	2,250	202	164	1,030
22	695	143	347	e174	455	538	365	257	1,380	175	153	891
23	950	141	e200	e215	449	461	348	3,770	1,050	160	144	786
24	333	143	215	e205	484	413	385	8,620	850	145	128	705
25	220	148	284	e281	768	398	661	8,720	715	133	116	640
26	187	156	396	e232	1,220	381	669	5,710	601	118	111	593
27	172	162	459	273	661	381	471	35,100	551	112	113	554
28	161	166	407	317	459	368	385	15,500	985	117	109	520
29	158	162	331	313	402	360	348	3,380	637	462	99	489
30	155	159	e250	263	---	357	326	1,820	621	616	100	460
31	154	---	267	266	---	409	---	1,280	---	751	91	---
Total	21,233	4,481	10,897	10,696	20,799	22,319	28,984	104,155	123,100	10,099	6,315	138,472
Mean	685	149	352	345	717	720	966	3,360	4,103	326	204	4,616
Max	9,350	166	1,300	1,010	4,240	3,090	7,780	35,100	14,700	1,040	730	56,000
Min	91	140	161	169	203	313	310	257	551	112	91	80
Ac-ft	42,120	8,890	21,610	21,220	41,250	44,270	57,490	206,600	244,200	20,030	12,530	274,700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	566	506	277	271	402	775	836	1,093	1,195	598	344	515
Max	5,244	5,880	1,649	1,659	3,732	5,342	4,748	8,589	6,894	5,129	2,467	4,616
(WY)	(1960)	(1999)	(1945)	(1949)	(1949)	(2000)	(1944)	(1993)	(2007)	(1951)	(1995)	(2008)
Min	0.90	1.08	1.34	4.35	10.3	30.7	29.4	27.1	26.1	6.17	0.55	0.64
(WY)	(1957)	(1955)	(1955)	(1957)	(1957)	(1957)	(1955)	(1956)	(1972)	(1954)	(1936)	(1956)

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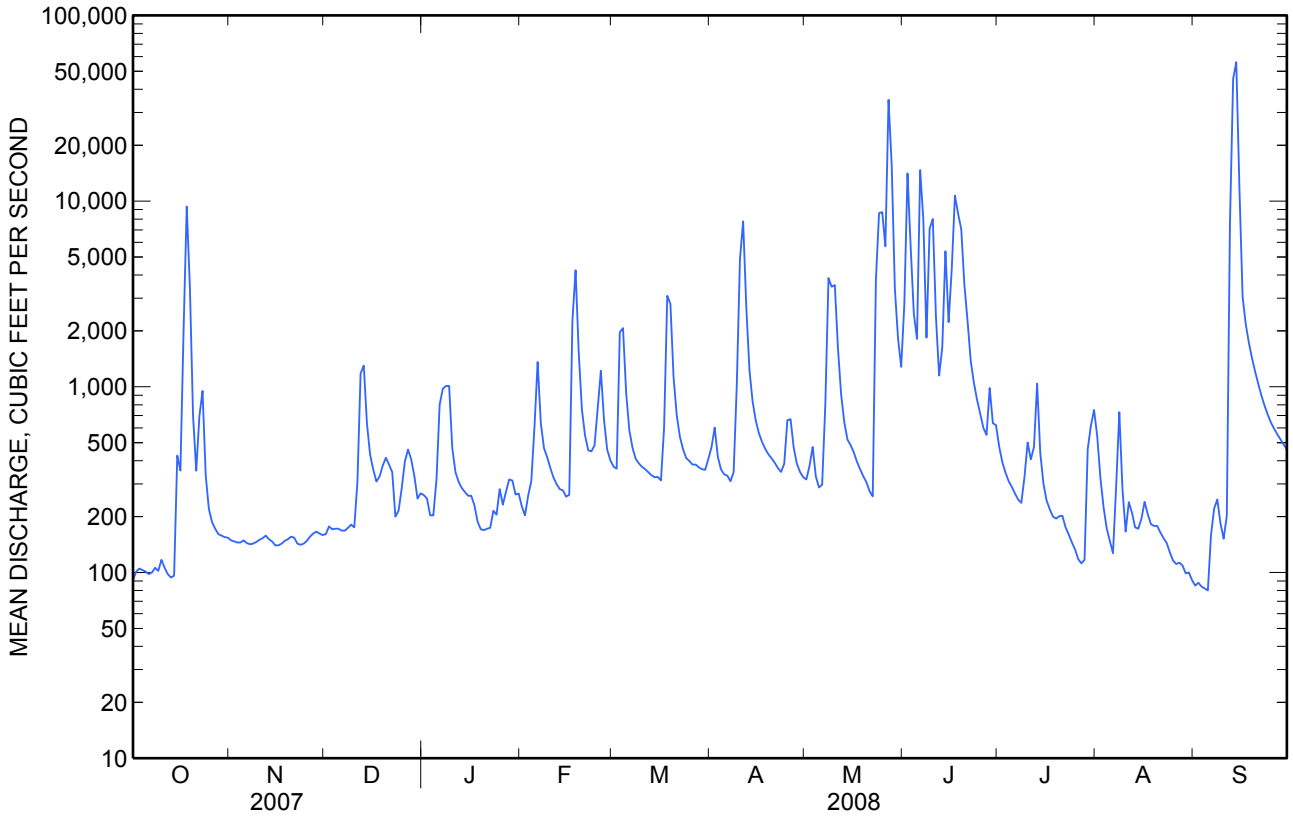
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1936 - 2008	
Annual total	588,970		501,550			
Annual mean	1,614		1,370		619	
Highest annual mean					1,993	1999
Lowest annual mean					71.0	1954
Highest daily mean	39,000	Jun 30	56,000	Sep 14	69,500	Jun 22, 1942
Lowest daily mean	90	Jan 17[b]	80	Sep 5	0.00	Jul 18, 1954[a]
Annual seven-day minimum	94	Sep 26	87	Aug 30	0.00	Aug 12, 1954
Maximum peak flow			66,500	Sep 14	85,000	Jun 22, 1942
Maximum peak stage			35.36	Sep 14	35.36	Sep 14, 2008
Annual runoff (ac-ft)	1,168,000		994,800		448,400	
10 percent exceeds	3,380		2,540		950	
50 percent exceeds	282		346		155	
90 percent exceeds	118		143		27	

[a] Also at times in 1954 and 1956.

[b] Also Sept. 28,29.