

07149000 MEDICINE LODGE RIVER NEAR KIOWA, KS

Arkansas-Keystone Basin
 Medicine Lodge Subbasin

LOCATION.--Lat 37°02'20", long 98°28'14" referenced to North American Datum of 1927, in NW ¼ SE ¼ SW ¼ sec.36, T.34 S., R.11 W., Barber County, KS, Hydrologic Unit 11060003, on right bank at downstream side of bridge on Kansas Highway 14, 200 ft downstream from the Atchison, Topeka and Santa Fe Railway County bridge, 1.5 mi northeast of Kiowa, and at mile 22.2.

DRAINAGE AREA.--903 mi².

SURFACE-WATER RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,286.99 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). May 1895 to October 1896, nonrecording gage at site 2.0 mi upstream at different datum. Feb. 11 to Mar. 2, 1938, nonrecording gage and Mar. 3, 1938, to Sept. 30, 1944, water-stage recorder at present site and datum 3.00 ft higher. Oct. 1, 1944, to Sept. 30, 1950, and Oct. 1, 1954, to Sept. 30, 1955, water-stage recorder at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite telemeter at station.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug 9	2100	*522	*2.83

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.01	0.00	30	e26	57	90	70	73	67	4.4	0.16	16
2	0.00	0.00	30	e31	57	88	72	79	64	3.5	0.24	13
3	0.00	0.00	31	e39	58	86	76	78	55	2.8	0.04	11
4	0.00	0.00	30	e46	57	92	80	75	50	1.9	0.18	9.2
5	0.00	0.00	30	e49	56	103	80	70	58	1.1	1.6	7.6
6	0.00	0.00	31	e51	56	111	78	70	57	0.76	27	5.7
7	0.00	0.00	31	e51	56	106	76	69	56	0.35	10	4.3
8	0.00	0.00	32	e56	57	102	73	73	66	0.15	83	3.1
9	0.00	0.00	33	60	57	127	73	85	64	0.08	295	2.1
10	0.00	0.00	24	68	59	203	90	88	51	0.05	363	2.1
11	0.00	2.4	32	73	59	166	98	106	44	0.11	253	2.1
12	0.00	13	e35	69	60	137	95	110	39	0.04	173	1.8
13	0.00	14	39	61	60	120	90	91	34	0.02	172	1.8
14	0.00	14	40	e54	59	110	86	80	29	1.4	138	2.0
15	0.00	16	40	e59	58	102	80	74	25	0.42	116	1.7
16	0.00	17	39	e63	58	99	76	70	23	0.40	101	2.1
17	0.00	18	40	e64	58	91	76	66	25	0.50	94	2.2
18	0.00	18	40	71	58	87	79	66	25	0.54	85	2.1
19	0.00	19	40	70	56	86	88	70	22	0.00	104	3.6
20	0.00	20	38	64	e56	82	101	110	21	0.00	91	24
21	0.00	21	37	62	e57	83	91	115	19	0.32	74	5.0
22	0.00	22	40	62	e65	83	86	96	17	0.00	66	2.5
23	0.00	21	41	61	e76	82	86	80	15	0.00	59	1.8
24	0.00	23	e41	61	e86	83	85	71	12	0.00	53	1.3
25	0.00	24	e30	60	e106	79	81	66	10	0.00	47	0.76
26	0.00	25	e20	59	114	76	79	60	8.1	1.4	41	0.40
27	0.00	25	e32	59	116	75	83	55	7.7	0.00	36	0.40
28	0.00	28	e28	59	96	75	81	51	8.1	0.00	32	4.5
29	0.00	29	e20	59	---	74	79	48	6.9	2.6	28	1.7
30	0.00	29	e35	58	---	74	75	51	5.4	5.6	23	0.98
31	0.00	---	e32	57	---	72	---	74	---	1.6	20	---
Mean	0.00	13.3	33.6	57.5	66.7	98.2	82.1	76.5	32.8	0.97	83.4	4.56
Max	0.01	29	41	73	116	203	101	115	67	5.6	363	24
Min	0.00	0.00	20	26	56	72	70	48	5.4	0.00	0.04	0.40
Ac-ft	0.02	790	2,060	3,530	3,710	6,040	4,890	4,700	1,950	60	5,130	271

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	135	115	103	107	134	180	220	254	230	107	98.7	103
Max	1,083	627	334	322	913	932	1,032	1,549	1,226	588	970	887
(WY)	(1942)	(1997)	(1997)	(1998)	(1949)	(1987)	(1973)	(1938)	(1949)	(1996)	(1996)	(1949)
Min	0.00	0.00	2.45	0.00	31.0	42.5	38.6	26.5	9.26	0.03	0.00	0.00
(WY)	(1940)	(1940)	(1940)	(1940)	(1955)	(1955)	(1955)	(1963)	(2011)	(2011)	(1946)	(1939)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1938 - 2013	
Annual mean	59.2		45.8		147	
Highest annual mean					494	1949
Lowest annual mean					36.5	1964
Highest daily mean	1,340	Feb 4	363	Aug 10	9,660	Oct 22, 1941
Lowest daily mean	0.00	Jul 14	0.00	Oct 2	0.00	Jul 7, 1939
Annual seven-day minimum	0.00	Jul 14	0.00	Oct 2	0.00	Jul 7, 1939
Maximum peak flow			522	Aug 9	16,000	Oct 22, 1941
Maximum peak stage			2.83	Aug 9	12.10	Oct 12, 1973
Instantaneous low flow			0.00	Oct 1	0.00	at times
Annual runoff (ac-ft)	43,010		33,130		106,600	
10 percent exceeds	129		91		256	
50 percent exceeds	31		40		86	
90 percent exceeds	0.00		0.00		12	

