Water-Data Report 2012

07160000 CIMARRON RIVER NEAR GUTHRIE, OK

Lower Cimarron Basin
Lower Cimarron-Skeleton Subbasin

LOCATION.--Lat 35°55′14″, long 97°25′32″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.29, T.17 N., R.2 W., Logan County, OK, Hydrologic Unit 11050002, on downstream side left bank of State Highway 77 bridge, 1.6 mi downstream from Cottonwood Creek, 2.5 mi north of Guthrie, 6.1 mi upstream from Skeleton Creek, and at mile 121.4.

DRAINAGE AREA.--17,006 mi² of which 4,074 mi² probably is noncontributing, revised. From automated delineation using 10-meter National Elevation Dataset digital elevation model data dated 10/01/2006 and Watershed Boundary Dataset dated 10/01/2006, using Albers Equal-Area Projection, North American Datum 1983.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1937 to September 1976, October 1983 to current year. Monthly discharge only for some periods, published in WSP's 1311 and 1731.

REVISED RECORDS.--WSP 1341: Drainage area, WDR 2012: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 891.50 ft above NGVD of 1929 (U.S. Army Corps of Engineers' bench mark). Prior to Mar. 19, 1939, nonrecording gage at railway bridge 1,200 ft upstream at datum 9.00 ft higher. From Mar. 19, 1939, to Sept. 21, 1967, the datum was 9.00 ft higher, from Sept. 21, 1967, to Sept. 30, 1976, the datum was 7.00 ft higher at recording gage 125 ft upstream from railway bridge. From Sept. 14, 1967, to Sept. 30, 1976, supplementary water-stage recorder at present site datum 5.00 ft higher. From Sept. 14, 1967 to Sept. 24, 2012, the datum was 5.00 ft higher.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Nov 9	0130	*16,500	*13.14

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 07160000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/07160000.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	29	75	163	234	171	382	e395	3,060	587	e65	e38	e50
2	28	70	157	222	160	e370	e389	7,290	439	e59	e36	43
3	27	68	174	211	410	349	e383	4,170	399	e56	e32	41
4	28	67	279	207	4,780	331	e460	2,290	e427	e59	e32	37
5	24	66	314	205	7,650	e310	470	1,330	e403	e57	e37	37
6	20	69	265	204	4,190	292	e397	930	414	e49	e35	37
7	22	79	268	198	2,040	288	e392	713	376	e48	e36	e42
8	29	4,940	233	199	1,250	328	e408	e601	e379	e54	e37	e45
9	120	10,200	205	194	933	469	e480	e512	e351	e58	50	38
10	953	2,020	191	189	e792	432	e480	e482	e329	55	46	37
11	692	1,010	183	183	750	393	e435	e459	286	69	43	36
12	298	664	e186	174	710	548	e2,490	e439	e261	76	43	34
13	210	431	e191	173	695	e476	e1,940	e506	244	e86	41	e36
14	187	316	e189	166	e678	e414	5,680	e443	e237	e68	e42	e54
15	139	264	183	160	e670	e381	7,600	e401	724	e60	e48	e64
16	112	208	185	156	632	e360	4,710	e371	2,680	e49	e42	54
17	98	177	179	157	582	e346	2,380	e357	946	e51	e37	e47
18	86	166	176	157	553	e340	1,540	e337	e491	e49	44	e48
19	65	158	193	155	539	e428	1,710	e332	348	e48	51	e47
20	59	155	396	151	536	2,910	1,130	e325	e175	e47	e62	39
21	57	e153	1,070	e145	511	e2,000	888	e342	171	e46	e56	38
22	57	e259	1,100	144	486	e1,580	e722	e355	212	e42	52	e37
23	62	393	987	145	e458	1,550	e621	e354	e148	e44	49	33
24	63	247	653	146	e432	1,200	e566	e345	118	e42	45	33
25	59	196	500	e249	402	e986	e511	e322	105	e43	e45	31
26	57	193	416	655	381	e819	e463	e281	96	e44	e108	32
27	70	293	349	e340	382	e663	e426	e264	e85	e44	213	75
28	126	265	309	270	393	e565	e393	e249	e81	43	103	261
29	128	211	283	220	388	e503	e761	e946	e71	e42	82	131
30	91	181	264	191	---	e443	861	e487	e71	e40	e55	e106
31	82	---	248	181	---	e410	---	e1,140	---	e39	e54	---
Total	4,078	23,594	10,489	6,381	32,554	20,866	40,081	30,433	11,654	1,632	1,694	1,643
Mean	132	786	338	206	1,123	673	1,336	982	388	52.6	54.6	54.8
Max	953	10,200	1,100	655	7,650	2,910	7,600	7,290	2,680	86	213	261
Min	20	66	157	144	160	288	383	249	71	39	32	31
Ac-ft	8,090	46,800	20,800	12,660	64,570	41,390	79,500	60,360	23,120	3,240	3,360	3,260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,062	846	542	502	709	1,258	1,557	2,408	2,281	975	682	864
Max	13,800	8,748	2,874	2,266	4,063	6,603	9,372	20,630	14,860	9,542	4,182	3,988
(WY)	(1987)	(1999)	(1993)	(1993)	(1987)	(1998)	(1999)	(1993)	(1995)	(2007)	(1995)	(1989)
Min	0.79	0.70	1.39	6.38	21.7	24.7	66.5	63.0	58.6	9.58	26.1	8.03
(WY)	(1953)	(1955)	(1955)	(1940)	(1957)	(1955)	(1956)	(1971)	(1953)	(1954)	(1943)	(1954)

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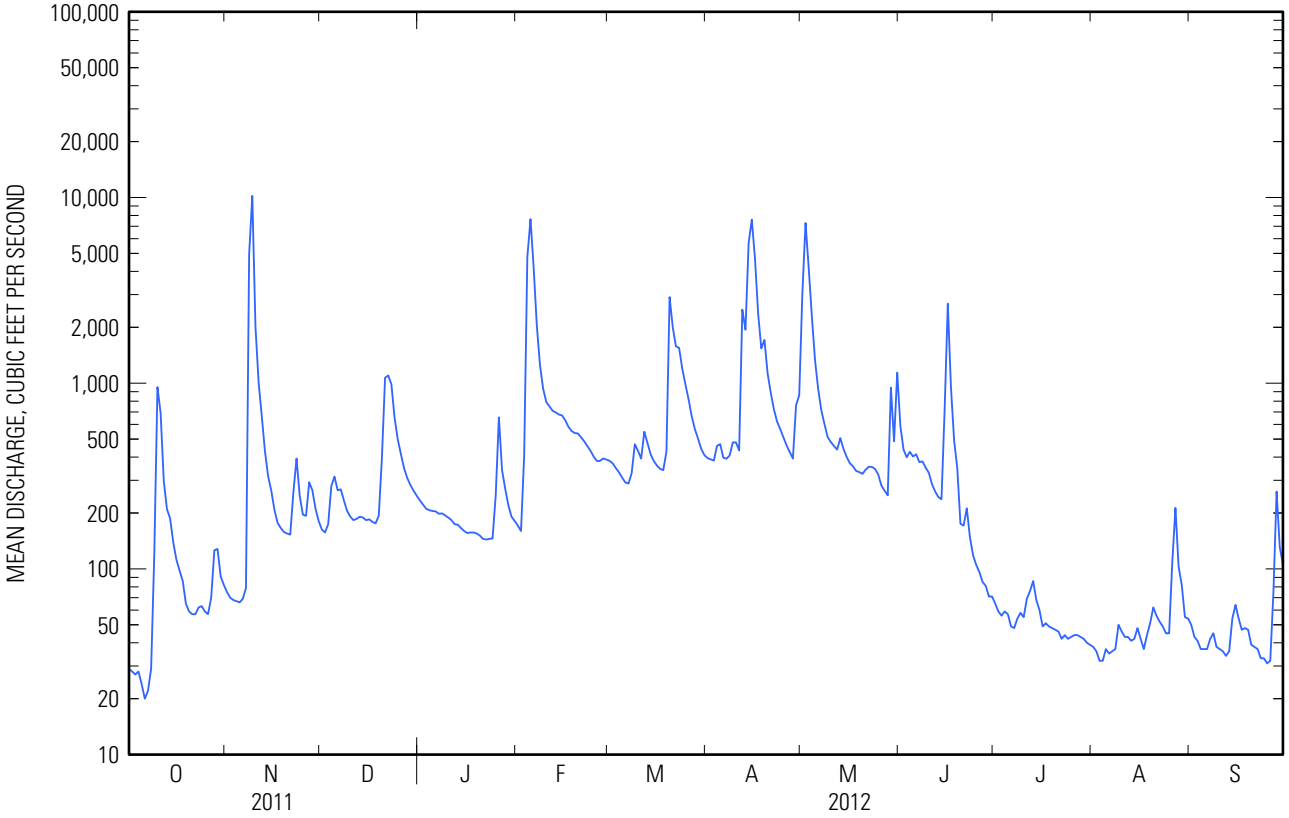
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1938 - 2012	
Annual total	99,242		185,099			
Annual mean	272		506		1,137	
Highest annual mean					3,901	1987
Lowest annual mean					192	1953
Highest daily mean	10,200	Nov 9	10,200	Nov 9	112,000	May 17, 1957
Lowest daily mean	13	Aug 9	20	Oct 6	0.30	Oct 20, 1939 [a]
Annual seven-day minimum	16	Aug 3	25	Oct 1	0.39	Oct 19, 1939
Maximum peak flow			16,500	Nov 9	158,000	May 17, 1957
Maximum peak stage			[b] 13.14	Nov 9	[b] 27.58	May 17, 1957
Annual runoff (ac-ft)	196,800		367,100		823,900	
10 percent exceeds	394		946		2,190	
50 percent exceeds	153		210		360	
90 percent exceeds	24		42		62	

[a] Also Oct. 21-22, Nov. 2, 1939.
[b] Present datum.