

Water-Data Report 2013

07183000 NEOSHO RIVER NEAR IOLA, KS

Neosho Basin
Upper Neosho Subbasin

LOCATION.--Lat 37°55'20", long 95°25'39" referenced to North American Datum of 1927, in NW ¼ SE ¼ SE ¼ sec.9, T.25 S., R.18 E., Allen County, KS, Hydrologic Unit 11070204, on right bank upstream side of State Highway 54 bridge, 1.0 mi west of State Street in Iola, and at mile 282.1.

DRAINAGE AREA.--3,723 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1895 to December 1903 (published as "at Iola"), October 1917 to current year. Monthly discharge only for some periods, published in WSP 1311. Figures of daily discharge for August 1895 to January 1898, published in previous reports, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1037: 1819-24, 1926-29, 1935(M). WSP 1117: Drainage area. WSP 1311: 1895-98. WSP 1391: 1896(M), 1899, 1901-02(M), 1903-04.

GAGE.--Water-stage recorder. Datum of gage is 928.92 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1917, nonrecording gage at tailgate of flume at mill dam, 4.8 mi upstream at datum 12.2 ft higher. Oct. 1, 1917 to May 9, 2005, at site 5.3 mi downstream at a datum 14.15 ft lower.

REMARKS.--Records fair. Considerable regulation since 1963 by John Redmond Reservoir (station 07182450), 54.0 mi upstream. Satellite telemeter at station.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	40	35	31	23	61	70	981	218	979	902	257	9,240
2	38	35	32	24	46	66	372	191	314	706	492	9,120
3	37	31	33	23	39	72	213	226	165	353	8,560	8,970
4	39	31	33	23	37	333	155	371	117	129	4,310	8,810
5	38	43	32	20	33	971	118	550	191	315	2,290	8,660
6	35	44	32	21	30	597	95	507	526	328	6,060	8,470
7	38	42	32	20	40	292	124	364	279	324	7,160	8,290
8	38	41	31	21	53	206	201	341	759	320	5,440	8,020
9	36	42	32	23	75	182	115	983	1,360	316	13,900	7,810
10	31	38	30	28	73	311	184	690	1,360	276	12,700	7,490
11	31	59	29	29	69	403	587	470	867	111	4,780	6,080
12	38	59	30	26	58	251	408	489	765	59	4,060	5,670
13	106	53	30	21	49	139	237	428	735	48	5,940	5,340
14	303	40	31	20	44	97	164	397	711	48	10,900	3,040
15	123	34	39	19	38	76	128	367	876	62	11,800	3,110
16	68	34	37	20	34	66	134	339	1,580	73	11,000	3,050
17	53	33	35	19	30	59	124	329	4,670	63	10,900	1,850
18	49	32	33	19	30	56	204	319	6,580	57	10,800	1,100
19	45	35	31	20	28	49	415	321	1,090	56	10,800	1,020
20	39	37	38	19	27	45	199	2,130	912	54	10,800	999
21	39	35	31	17	43	41	134	2,900	1,120	56	10,800	983
22	45	35	28	17	44	41	112	676	1,050	62	10,600	980
23	43	32	25	17	41	46	698	444	994	59	10,500	966
24	40	30	23	17	37	64	1,170	364	962	56	10,500	959
25	37	31	23	18	37	69	666	397	941	57	10,200	949
26	28	30	16	20	49	67	440	593	936	73	10,100	939
27	31	29	18	21	61	86	1,170	590	925	81	10,100	933
28	37	31	22	24	71	375	771	583	963	83	9,890	876
29	40	31	21	56	---	1,350	508	573	930	85	9,730	694
30	39	32	20	149	---	2,000	322	711	910	822	9,590	664
31	37	---	23	100	---	3,870	---	1,340	---	728	9,420	---
Mean	52.9	37.1	29.1	28.8	45.6	398	372	619	1,152	218	8,528	4,169
Max	303	59	39	149	75	3,870	1,170	2,900	6,580	902	13,900	9,240
Min	28	29	16	17	27	41	95	191	117	48	257	664
Ac-ft	3,250	2,210	1,790	1,770	2,530	24,500	22,110	38,090	68,560	13,410	524,400	248,100

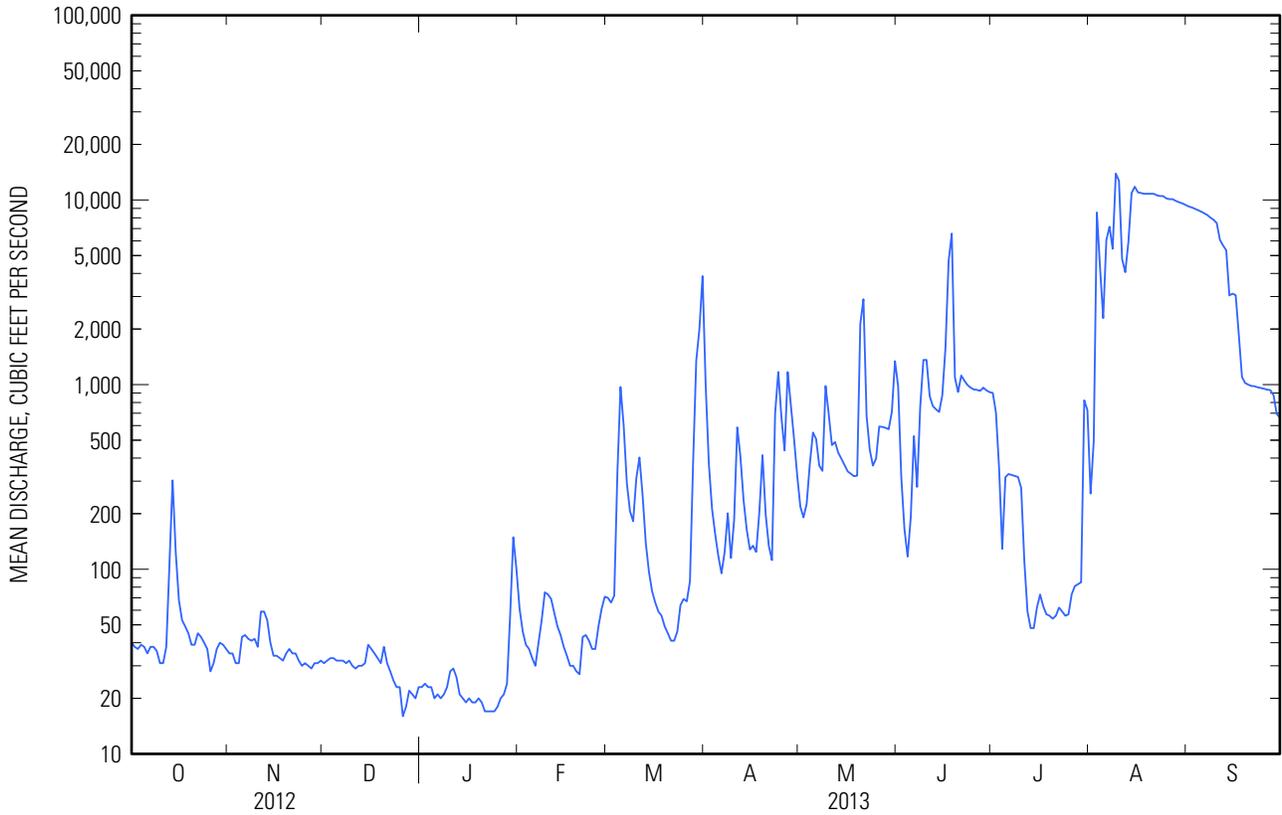
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,443	1,364	936	813	1,045	1,995	2,842	3,081	3,775	2,662	1,232	1,431
Max	15,890	18,520	9,116	4,773	6,994	11,010	19,580	14,270	15,390	43,540	10,700	11,140
(WY)	(1942)	(1999)	(1993)	(1993)	(1949)	(1973)	(1944)	(1938)	(1995)	(1951)	(1993)	(1951)
Min	0.21	0.52	1.39	1.33	3.24	11.4	19.8	82.3	43.5	10.8	1.10	0.64
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1981)	(1967)	(2012)	(1954)	(1936)	(1956)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1899 - 2013	
Annual mean	513		1,313		1,886	
Highest annual mean					6,635	1951
Lowest annual mean					141	1956
Highest daily mean	9,780	Mar 20	13,900	Aug 9	344,000	Jul 13, 1951
Lowest daily mean	16	Dec 26	16	Dec 26	0.00	Aug 19, 1936
Annual seven-day minimum	20	Dec 24	18	Jan 19	0.00	Aug 19, 1936
Maximum peak flow			21,600	Aug 9	436,000	Jul 13, 1951
Maximum peak stage			14.57	Aug 9	43.00	Jul 13, 1951
Instantaneous low flow			14	Dec 26	0.00	at times
Annual runoff (ac-ft)	372,400		950,700		1,366,000	
10 percent exceeds	943		5,780		5,440	
50 percent exceeds	46		100		408	
90 percent exceeds	31		28		36	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 2013 to September 2013.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 2007 to April 2011, March 2013 to September 2013.

WATER TEMPERATURE: February 2007 to April 2011, March 2013 to September 2013.

TURBIDITY (YSI 6136 sensor): February 2007 to April 2011, March 2013 to September 2013.

INSTRUMENTATION.--Multiparameter water-quality monitor.

REMARKS.--Records good. Interruptions in record are due to ice conditions or malfunction of the recording instrument or sensors. Instruments used to measure turbidity conform to ISO 7027 standards and were made using Yellow Springs Instrument (YSI) 6136 sensor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 574 microsiemens/cm, June 9, 2013; minimum, 96 microsiemens/cm, Aug. 9, 2013.

WATER TEMPERATURE: Maximum, 31.7°C, July 19, 2013; minimum, 4.7°C, Mar. 7, 2013.

TURBIDITY (YSI 6136 sensor): Maximum, 710 FNU, June 17, 2013; minimum, 3.7 FNU, July 23, 2013.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 574 microsiemens/cm, June 9; minimum, 96 microsiemens/cm, Aug. 9.

WATER TEMPERATURE: Maximum, 31.7°C, July 19; minimum, 4.7°C, Mar. 7.

TURBIDITY (YSI 6136 sensor): Maximum, 710 FNU, June 17; minimum, 3.7 FNU, July 23.

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
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07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

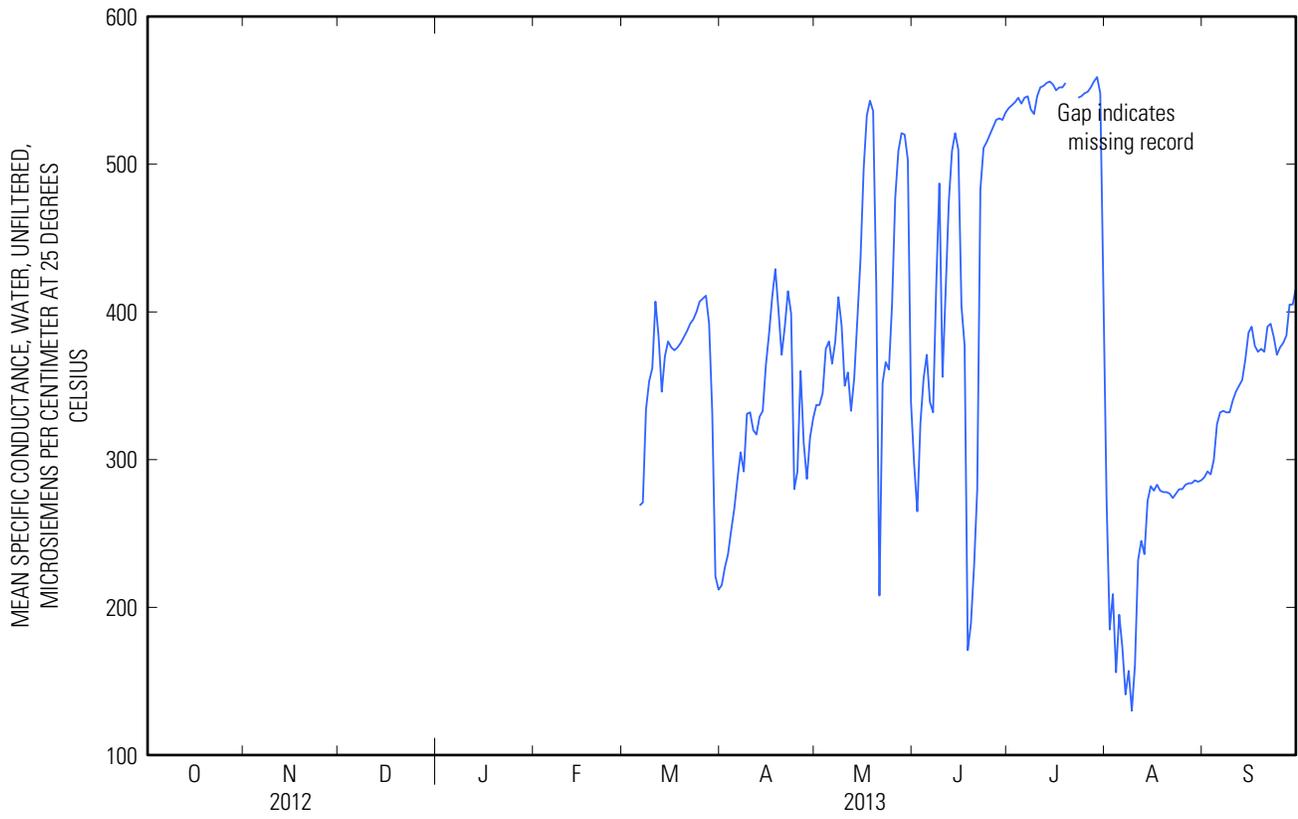
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	228	202	215	337	336	337
2	---	---	---	---	---	---	229	227	227	341	335	337
3	---	---	---	---	---	---	243	229	236	355	341	345
4	---	---	---	---	---	---	262	243	252	387	355	375
5	---	---	---	---	315	---	273	262	267	389	366	380
6	---	---	---	315	249	269	303	273	287	369	363	365
7	---	---	---	305	249	271	312	293	305	395	369	380
8	---	---	---	350	305	334	322	259	292	422	395	410
9	---	---	---	354	350	353	334	322	331	424	328	391
10	---	---	---	381	352	362	335	327	332	360	332	350
11	---	---	---	427	381	407	353	301	320	362	352	359
12	---	---	---	416	348	383	324	309	317	352	325	333
13	---	---	---	357	341	346	334	324	329	387	337	355
14	---	---	---	380	357	370	346	327	333	399	385	395
15	---	---	---	381	377	380	377	346	364	475	398	436
16	---	---	---	377	375	376	397	377	385	516	475	497
17	---	---	---	375	374	374	419	397	410	541	516	533
18	---	---	---	377	374	376	439	418	429	544	541	543
19	---	---	---	381	377	379	436	372	401	542	528	536
20	---	---	---	385	381	383	377	368	371	528	221	417
21	---	---	---	390	385	387	403	377	390	307	165	208
22	---	---	---	394	390	392	420	403	414	370	307	352
23	---	---	---	398	394	395	420	321	399	369	360	366
24	---	---	---	406	398	400	321	234	280	380	354	361
25	---	---	---	409	405	407	337	239	292	438	380	405
26	---	---	---	411	408	409	369	337	360	499	437	477
27	---	---	---	416	407	411	353	290	311	520	499	509
28	---	---	---	407	379	392	305	275	287	525	518	521
29	---	---	---	379	234	332	320	305	315	525	516	520
30	---	---	---	269	193	221	336	318	328	523	457	503
31	---	---	---	234	178	212	---	---	---	457	308	339
Month	---	---	---	---	---	---	439	202	326	544	165	408

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**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	370	211	297	540	536	538	312	224	273	292	286	288
2	301	218	265	543	538	540	224	156	185	297	288	292
3	341	301	325	546	541	542	283	163	209	294	289	290
4	367	341	355	550	542	545	173	147	156	309	294	300
5	385	356	371	548	537	541	254	159	195	329	309	324
6	393	287	339	547	541	545	254	114	173	338	326	332
7	364	305	332	547	544	546	161	125	141	338	327	333
8	465	364	418	548	529	537	165	144	157	334	330	332
9	574	377	487	542	528	534	173	96	130	333	331	332
10	389	335	356	551	542	546	238	114	161	345	333	340
11	447	389	415	554	548	552	241	227	232	347	345	346
12	499	447	475	554	550	553	256	241	245	357	343	350
13	517	499	509	557	553	555	267	202	236	366	346	354
14	525	517	521	558	555	556	287	223	272	377	365	368
15	531	430	510	558	539	554	287	277	282	391	377	386
16	447	370	404	553	547	550	281	277	279	392	386	390
17	446	228	377	554	549	552	286	279	283	389	369	377
18	228	159	171	557	548	552	280	277	279	378	368	373
19	208	169	189	558	552	555	279	277	278	379	371	375
20	253	208	228	560	---	---	280	277	278	377	370	373
21	410	252	280	---	---	---	279	275	277	398	375	390
22	509	410	483	---	544	---	276	271	274	396	389	392
23	514	508	511	547	544	545	280	273	277	392	373	383
24	517	513	515	549	544	546	282	276	280	374	369	371
25	521	517	520	551	546	548	282	276	280	378	372	376
26	530	521	525	552	547	549	285	279	283	385	373	379
27	533	528	530	554	550	552	287	279	284	401	379	384
28	533	525	531	559	554	556	286	280	284	412	400	405
29	533	525	530	562	553	559	288	282	286	411	400	405
30	538	532	535	556	529	548	287	284	285	419	411	416
31	---	---	---	541	312	413	288	284	286	---	---	---
Month	574	159	410	---	---	---	312	96	243	419	286	359

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued



07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
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07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

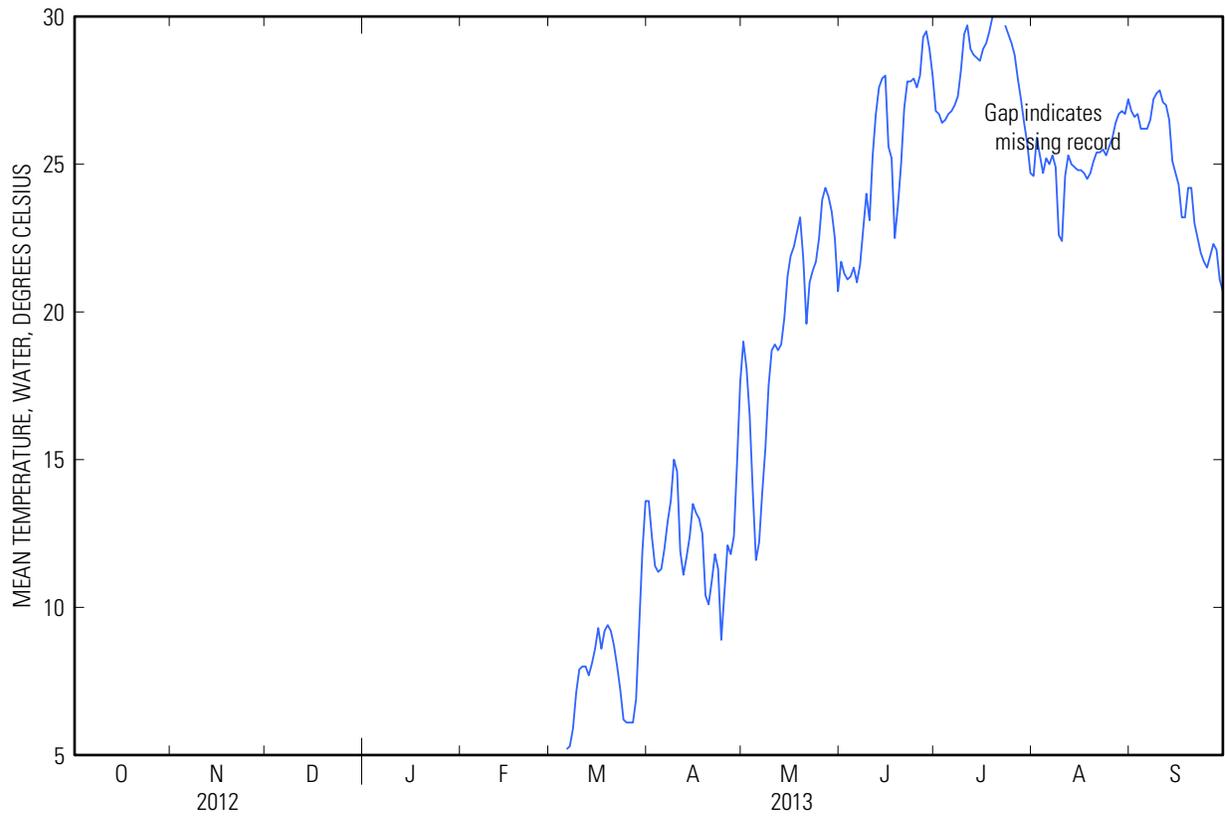
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	14.1	13.1	13.6	21.0	18.2	19.0
2	---	---	---	---	---	---	13.1	12.0	12.4	19.1	16.8	18.1
3	---	---	---	---	---	---	12.0	11.0	11.4	16.8	15.7	16.5
4	---	---	---	---	---	---	12.0	10.6	11.2	15.7	12.2	13.9
5	---	---	---	6.0	---	---	11.9	11.0	11.3	12.2	11.2	11.6
6	---	---	---	5.6	4.9	5.2	13.6	11.4	12.0	13.2	11.2	12.2
7	---	---	---	5.8	4.7	5.3	13.5	12.5	12.9	15.2	12.9	13.9
8	---	---	---	6.6	5.4	5.9	14.7	12.8	13.6	16.2	14.9	15.4
9	---	---	---	7.6	6.6	7.1	15.6	14.4	15.0	18.5	16.0	17.5
10	---	---	---	8.0	7.6	7.9	15.6	13.9	14.6	19.0	18.5	18.7
11	---	---	---	8.4	7.6	8.0	13.9	10.6	11.9	19.5	18.6	18.9
12	---	---	---	8.4	7.6	8.0	11.8	10.4	11.1	19.5	18.3	18.7
13	---	---	---	8.1	7.3	7.7	12.6	10.9	11.7	19.8	18.2	18.9
14	---	---	---	9.4	7.5	8.1	13.7	11.4	12.4	20.8	18.9	19.8
15	---	---	---	9.6	8.1	8.6	13.6	13.4	13.5	21.9	20.5	21.2
16	---	---	---	9.6	8.9	9.3	13.6	12.9	13.2	22.3	21.7	21.9
17	---	---	---	8.9	8.5	8.6	13.5	12.8	13.0	22.9	21.9	22.2
18	---	---	---	9.9	8.7	9.2	13.0	11.6	12.5	23.1	22.4	22.7
19	---	---	---	10.0	9.2	9.4	11.6	9.8	10.4	23.7	22.8	23.2
20	---	---	---	9.7	8.6	9.2	10.8	9.4	10.1	23.3	18.9	21.8
21	---	---	---	9.3	8.3	8.7	11.8	10.4	10.9	20.7	18.5	19.6
22	---	---	---	8.3	7.6	8.0	12.2	11.5	11.8	21.6	20.5	21.0
23	---	---	---	7.6	6.6	7.2	12.2	9.4	11.3	21.9	21.0	21.4
24	---	---	---	6.6	5.8	6.2	9.4	8.7	8.9	22.5	21.1	21.7
25	---	---	---	6.4	5.8	6.1	11.8	9.1	10.5	23.4	21.8	22.5
26	---	---	---	7.2	5.5	6.1	12.2	11.8	12.1	24.4	23.2	23.8
27	---	---	---	6.7	5.5	6.1	12.1	11.7	11.8	24.6	24.0	24.2
28	---	---	---	8.0	6.0	6.9	13.6	11.6	12.4	24.1	23.6	23.9
29	---	---	---	11.2	7.9	9.4	16.3	13.6	14.9	23.6	23.1	23.4
30	---	---	---	13.1	11.2	11.9	18.8	16.3	17.6	23.1	21.4	22.5
31	---	---	---	14.2	12.8	13.6	---	---	---	21.7	19.5	20.7
Month	---	---	---	---	---	---	18.8	8.7	12.3	24.6	11.2	19.7

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	21.9	21.1	21.7	27.1	26.4	26.8	25.3	24.2	24.6	27.3	26.4	26.8
2	21.6	21.1	21.3	27.2	26.3	26.7	27.0	25.0	25.9	27.5	25.8	26.6
3	21.4	20.8	21.1	27.3	25.9	26.4	27.3	23.8	25.3	27.1	26.4	26.7
4	21.5	20.9	21.2	27.4	26.0	26.5	24.9	24.5	24.7	26.6	25.9	26.2
5	22.4	21.0	21.5	27.4	26.1	26.7	26.5	24.6	25.2	26.5	25.9	26.2
6	22.0	20.5	21.0	27.1	26.6	26.8	26.5	23.9	25.0	26.4	26.0	26.2
7	22.8	20.7	21.6	27.5	26.6	27.0	25.5	25.1	25.3	27.3	26.0	26.5
8	24.0	21.6	22.8	27.9	26.8	27.3	25.2	24.4	24.9	27.8	26.7	27.2
9	24.7	22.9	24.0	29.1	27.6	28.2	24.4	21.4	22.6	27.9	27.1	27.4
10	24.2	22.3	23.1	30.5	28.7	29.4	23.8	21.4	22.4	27.8	27.4	27.5
11	26.3	24.2	25.3	30.4	29.1	29.7	25.5	23.8	24.6	27.4	26.7	27.1
12	27.7	26.0	26.7	29.5	28.5	28.9	26.0	24.9	25.3	27.4	26.8	27.0
13	28.4	27.1	27.6	29.4	28.3	28.7	25.9	24.3	25.0	27.4	25.9	26.5
14	28.6	27.4	27.9	29.2	28.2	28.6	25.1	24.7	24.9	25.9	24.8	25.1
15	28.7	26.5	28.0	29.1	28.1	28.5	25.0	24.6	24.8	25.0	24.3	24.7
16	26.6	24.9	25.6	29.8	28.4	28.9	25.1	24.5	24.8	24.9	23.8	24.3
17	26.3	22.9	25.2	29.5	28.6	29.1	24.9	24.6	24.7	23.8	23.0	23.2
18	23.4	21.8	22.5	31.0	28.8	29.5	24.6	24.3	24.5	23.7	22.9	23.2
19	24.2	23.1	23.6	31.7	29.0	30.0	25.1	24.4	24.7	24.5	23.7	24.2
20	26.2	24.1	25.0	---	---	---	25.6	24.7	25.1	24.6	23.5	24.2
21	27.7	26.2	26.9	---	---	---	25.8	25.0	25.4	23.5	22.7	23.0
22	28.0	27.7	27.8	---	---	---	25.8	25.1	25.4	22.7	22.1	22.5
23	28.0	27.6	27.8	31.0	29.0	29.7	26.0	25.1	25.5	22.2	21.7	22.0
24	28.2	27.6	27.9	30.3	28.5	29.4	25.6	25.0	25.3	21.9	21.4	21.7
25	27.7	27.4	27.6	29.4	28.8	29.1	26.2	25.1	25.6	21.8	21.3	21.5
26	28.6	27.4	28.0	29.5	28.2	28.7	26.5	25.4	25.9	22.2	21.5	21.9
27	29.8	28.5	29.3	28.4	27.6	27.9	27.1	25.8	26.4	22.7	21.9	22.3
28	29.9	29.2	29.5	27.7	26.9	27.2	27.2	26.2	26.7	22.4	21.4	22.1
29	29.2	28.2	28.9	26.9	26.0	26.4	27.1	26.4	26.8	21.5	20.8	21.1
30	28.2	27.1	28.0	26.0	25.0	25.7	27.4	26.1	26.7	21.0	20.3	20.7
31	---	---	---	25.2	24.1	24.7	28.0	26.7	27.2	---	---	---
Month	29.9	20.5	25.3	---	---	---	28.0	21.4	25.2	27.9	20.3	24.5

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued



07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	260	180	220	45	35	38
2	---	---	---	---	---	---	190	160	170	48	40	43
3	---	---	---	---	---	---	160	120	140	52	40	46
4	---	---	---	---	---	---	130	92	110	49	28	40
5	---	---	---	---	---	---	94	83	89	39	27	33
6	---	---	---	86	68	76	85	66	78	39	31	35
7	---	---	---	72	55	64	150	62	76	39	30	34
8	---	---	---	56	43	49	270	97	170	36	28	31
9	---	---	---	46	38	42	100	70	83	53	25	35
10	---	---	---	39	33	35	80	69	74	51	36	43
11	---	---	---	40	30	35	100	70	84	42	31	36
12	---	---	---	53	31	41	77	51	61	47	34	41
13	---	---	---	62	52	58	56	48	51	45	34	40
14	---	---	---	58	44	52	54	44	51	39	30	34
15	---	---	---	46	36	42	47	37	42	31	22	27
16	---	---	---	37	34	36	41	33	37	27	19	23
17	---	---	---	35	30	32	37	27	32	24	18	21
18	---	---	---	34	29	30	34	22	28	25	17	21
19	---	---	---	30	26	28	40	21	31	29	19	24
20	---	---	---	28	25	26	44	40	42	390	23	160
21	---	---	---	28	24	26	45	37	41	600	92	300
22	---	---	---	27	24	25	38	32	36	92	43	59
23	---	---	---	31	23	25	95	32	49	48	39	43
24	---	---	---	27	23	25	100	70	82	47	40	43
25	---	---	---	27	20	23	77	58	67	45	38	42
26	---	---	---	24	16	19	59	40	48	45	40	43
27	---	---	---	19	16	17	67	55	60	44	39	41
28	---	---	---	25	16	19	64	52	58	40	36	38
29	---	---	---	230	22	90	56	45	51	41	37	39
30	---	---	---	390	170	220	45	37	42	80	34	45
31	---	---	---	560	260	390	---	---	---	150	71	100
Month	---	---	---	---	---	---	270	21	73	600	17	52

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	190	64	110	29	22	25	59	46	51	27	25	26
2	140	60	87	27	22	24	80	49	60	29	24	26
3	66	49	58	25	18	20	550	60	360	28	23	26
4	54	37	46	21	14	17	360	99	210	27	24	26
5	63	31	42	21	15	19	130	45	87	26	22	24
6	85	48	62	22	16	18	300	44	160	27	24	25
7	55	30	39	20	16	18	210	130	160	29	25	26
8	44	32	37	21	16	18	220	130	170	28	24	26
9	76	31	42	20	14	17	460	99	200	28	24	26
10	85	54	74	20	14	16	240	110	170	30	24	28
11	55	41	45	16	12	13	110	85	94	32	25	28
12	41	32	38	17	10	14	85	73	79	33	26	30
13	34	29	31	17	10	13	230	72	140	32	24	28
14	36	30	33	16	9.6	12	490	130	290	31	22	26
15	120	29	48	15	9.6	12	210	80	120	34	31	32
16	120	86	100	14	7.9	11	80	66	74	35	29	32
17	710	53	260	11	7.6	9.1	68	53	60	34	20	27
18	610	180	360	12	7.8	9.7	55	48	52	30	19	25
19	180	84	110	13	6.0	10	49	42	45	32	22	28
20	85	74	79	12	---	---	46	39	43	34	23	28
21	80	48	72	---	---	---	42	36	39	38	26	33
22	48	26	36	---	6.4	---	41	35	37	36	25	32
23	30	22	27	8.3	3.7	6.2	38	32	35	42	32	37
24	26	20	23	8.4	3.8	5.9	34	30	32	46	35	41
25	26	18	22	10	5.5	7.3	35	29	31	48	39	43
26	24	17	20	12	6.2	8.6	33	28	30	48	31	40
27	25	17	22	12	6.1	8.2	32	28	30	50	33	38
28	28	21	25	12	7.2	9.9	33	28	30	64	43	54
29	29	23	26	16	9.3	11	32	28	30	55	38	43
30	28	22	25	34	8.9	20	29	26	28	63	43	49
31	---	---	---	74	23	50	30	25	27	---	---	---
Month	710	17	67	---	---	---	550	25	96	64	19	32

07183000 NEOSHO RIVER NEAR IOLA, KS—Continued

