Water-Data Report 2013

06478690 WEST FORK VERMILLION RIVER NEAR PARKER, SD

Lewis and Clark Lake Basin
Vermillion Subbasin

LOCATION.--Lat 43°24'56.3", long 97°12'17.5" referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.10, T.99 N., R.54 W., Turner County, SD, Hydrologic Unit 10170102, on right bank 10 ft downstream from bridge, 3.7 mi northwest of Parker, and 13.9 mi upstream from confluence with East Fork Vermillion River.

DRAINAGE AREA.--378 mi^2.

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WDR SD-10-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,340 ft above NGVD of 1929, from topographic map. Prior to Oct. 11, 1973, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite data-collection platform at station. Water temperature and specific conductance measured with each discharge measurement.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 06478690, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/06478690.2013.pdf

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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	0.04	0.70	0.58	e0.24	e0.23	e0.55	e20	30	210	43	1.9	1.3
2	0.04	0.64	0.59	e0.25	e0.25	e0.50	14	23	152	34	1.9	1.2
3	0.06	0.67	0.61	e0.25	e0.28	e0.60	11	20	120	27	2.0	1.1
4	0.10	0.69	0.62	e0.25	e0.33	e0.80	9.4	20	126	22	1.8	1.4
5	0.09	0.75	0.59	e0.23	e0.33	e0.70	7.8	19	103	17	1.8	1.6
6	0.06	0.80	0.62	e0.25	e0.36	e0.80	7.7	17	81	12	1.8	1.5
7	0.05	0.61	0.60	e0.27	e0.33	e2.0	8.6	14	67	8.9	1.6	1.8
8	0.07	0.61	e0.55	e0.30	e0.32	e4.0	11	16	67	7.5	1.7	1.7
9	0.07	0.63	e0.50	e0.31	e0.35	e10	16	19	361	9.2	1.9	1.6
10	0.08	0.70	e0.44	e0.32	e0.30	e40	17	18	440	7.1	4.0	1.2
11	0.06	e0.65	e0.46	e0.30	e0.27	e485	15	15	269	7.8	121	1.0
12	0.09	e0.60	e0.48	e0.28	e0.30	e270	e14	11	171	6.0	81	0.93
13	0.11	e0.60	e0.46	e0.24	e0.36	e180	e13	9.6	116	5.0	26	0.83
14	0.08	0.61	e0.44	e0.23	e0.27	e150	e12	8.7	87	6.1	12	0.75
15	0.08	0.58	e0.44	e0.24	e0.24	e120	e12	8.0	72	6.0	5.2	0.63
16	0.17	0.56	e0.42	e0.26	e0.28	e80	14	7.9	60	5.8	4.0	0.73
17	0.29	0.56	e0.42	e0.29	e0.35	e40	18	9.5	50	6.4	3.2	1.0
18	0.69	0.61	e0.40	e0.33	e0.31	e30	e18	7.6	40	5.3	2.8	1.1
19	1.0	0.64	e0.40	e0.31	e0.27	e20	e17	7.6	32	4.8	2.3	1.1
20	0.64	0.58	e0.34	e0.27	e0.28	e9.0	e16	7.5	25	4.2	2.2	0.91
21	0.58	0.61	e0.32	e0.23	e0.28	e10	22	7.4	22	3.9	2.0	0.77
22	0.47	e0.60	e0.32	e0.20	e0.27	e12	24	7.0	96	3.8	2.0	0.67
23	0.59	e0.50	e0.30	e0.22	e0.28	e15	27	6.3	219	3.6	1.8	0.63
24	0.59	e0.46	e0.27	e0.20	e0.30	e15	29	5.9	134	2.7	1.7	0.68
25	0.69	e0.50	e0.27	e0.23	e0.38	e13	29	5.7	107	2.5	1.7	0.67
26	0.61	e0.48	e0.27	e0.26	e0.42	e17	40	985	70	2.4	1.5	0.68
27	0.60	e0.50	e0.26	e0.28	e0.50	e20	55	1,430	49	2.1	1.5	0.66
28	0.65	e0.52	e0.24	e0.32	e0.55	e25	61	812	42	2.0	1.4	0.79
29	0.65	e0.53	e0.22	e0.32	---	e29	46	353	46	1.9	1.3	0.75
30	0.64	e0.54	e0.24	e0.28	---	e30	34	405	46	2.0	1.2	0.65
31	0.66	---	e0.24	e0.25	---	e25	---	325	---	1.9	1.2	---
Total	10.60	18.03	12.91	8.21	8.99	1,654.95	638.5	4,630.7	3,480	273.9	297.4	30.33
Mean	0.34	0.60	0.42	0.26	0.32	53.4	21.3	149	116	8.84	9.59	1.01
Max	1.0	0.80	0.62	0.33	0.55	485	61	1,430	440	43	121	1.8
Min	0.04	0.46	0.22	0.20	0.23	0.50	7.7	5.7	22	1.9	1.2	0.63
Ac-ft	21	36	26	16	18	3,280	1,270	9,180	6,900	543	590	60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10.1	11.0	3.15	1.74	15.9	139	138	69.9	112	60.0	18.4	16.0
Max	106	156	33.4	15.3	267	820	1,112	550	1,345	1,081	485	324
(WY)	(1996)	(1999)	(1999)	(2007)	(1983)	(2010)	(2001)	(1995)	(1984)	(1993)	(2010)	(1986)
Min	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00
(WY)	(1975)	(1982)	(1965)	(1965)	(1975)	(1981)	(1990)	(1990)	(1981)	(1989)	(1989)	(1989)

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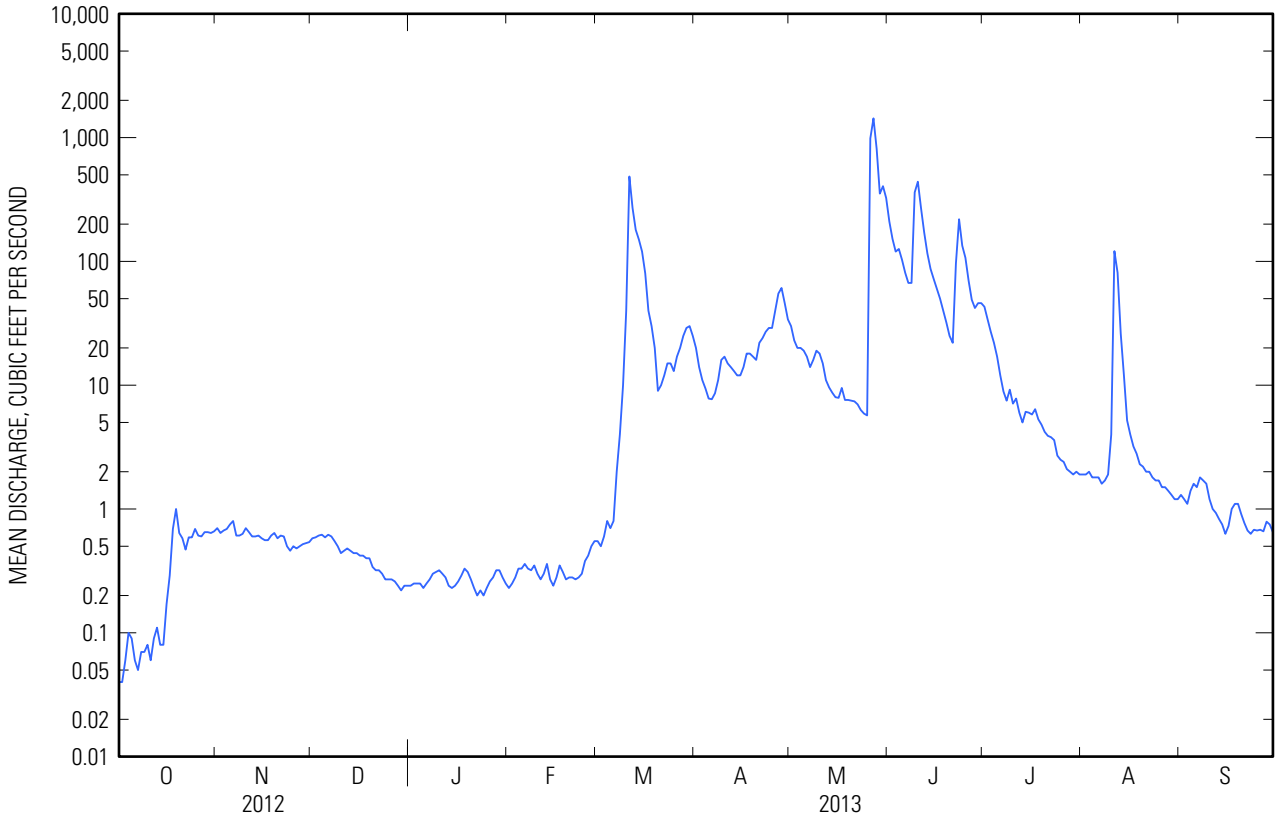
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1962 - 2013	
Annual total	6,662.65		11,064.52			
Annual mean	18.2		30.3		[a]49.6	
Highest annual mean					297	2010
Lowest annual mean					0.02	1981
Highest daily mean	984	May 9	1,430	May 27	4,410	Apr 23, 2001
Lowest daily mean	0.01	Sep 16	0.04	Oct 1	[b]0.00	Oct 6, 1961
Annual seven-day minimum	0.01	Sep 16	0.06	Oct 1	0.00	Nov 4, 1961
Maximum peak flow			1,520	May 27	[c]6,960	Jul 30, 2010
Maximum peak stage			8.19	May 27	[d]13.14	May 8, 1993
Annual runoff (ac-ft)	13,220		21,950		35,910	
10 percent exceeds	28		57		77	
50 percent exceeds	0.62		1.3		1.7	
90 percent exceeds	0.06		0.25		0.01	

[a] Median of annual mean discharges, 22 ft³/s.
[b] No flow for many days in some years.
[c] Gage height, 12.29 ft.
[d] Discharge, 6,300 ft³/s.



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WATER-QUALITY RECORDS

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[ft^3/s, cubic feet per second; °C, degrees Celsius; µS/cm, microsiemens per centimeter]

Date	Sample start time	Discharge, instantaneous, ft^3/s (00061)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, air, °C (00020)	Temperature, water, °C (00010)
10-16-2012	**0917**	0.07	2,230	13.0	5.5
10-16-2012	**0955**	0.33	2,230	13.0	5.5
12-18-2012	**1340**	0.40	2,910	-1.0	0.0
02-05-2013	**1152**	0.35	2,570	2.5	0.5
03-11-2013	**0947**	396	342	-6.0	0.0
03-14-2013	**1225**	126	429	5.0	1.0
03-28-2013	**0935**	26	879	1.5	0.0
04-03-2013	**1330**	11	1,120	18.0	8.5
04-15-2013	**1015**	13	1,420	3.0	2.0
05-02-2013	**1725**	21	1,660	11.0	13.8
05-28-2013	**1050**	774	661	19.0	17.0
06-18-2013	**1600**	39	2,140	27.0	27.6
08-02-2013	**1422**	2.1	2,000	17.0	21.0
09-04-2013	**1447**	1.6	1,640	26.0	24.0