

Water-Data Report 2013

**06172310 MILK RIVER AT TAMPICO, MT**

Milk Basin  
Lower Milk Subbasin

LOCATION.--Lat 48°18'28", long 106°49'20" referenced to North American Datum of 1983, in SW ¼ SW ¼ SW ¼ sec.32, T.30 N., R.38 E., Valley County, MT, Hydrologic Unit 10050012, on right bank, at county bridge 0.8 miles downstream from Buggy Creek and 0.3 miles northeast of Tampico, and at river mile 98.7.

DRAINAGE AREA.--21,078 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1973 to September 1977, May 1987 to current year. Seasonal record beginning 1995 water year.

GAGE.--Water-stage recorder. Elevation of gage is 2,110 ft, referenced to the North American Vertical Datum of 1988.

REMARKS.--Records are good except for estimated daily discharge, which are poor. Flow increased during irrigation season by water from St. Mary Canal which diverts from the St. Mary River near Babb. Flow is regulated by Fresno and Nelson Reservoirs, five reservoirs in Lodge Creek basin in Saskatchewan, and four reservoirs in Frenchman River basin in Saskatchewan. Many small dams for the diversion of irrigation canals occur upstream, the closest being Vandalia Dam 19 mi upstream. Diversions occur upstream from station for irrigation of about 126,000 acres of which about 17,000 acres lies downstream from station. Bureau of Reclamation satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 17, 1952 reached an observed stage of 38.67 ft at gage 200 ft downstream from Vandalia Dam furnished by the U.S. Army Corps of Engineers; discharge about 45,000 ft<sup>3</sup>/s.

## 06172310 MILK RIVER AT TAMPICO, MT—Continued

**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	32					e280	e1,000	1,640	1,460	2,550	301	311
2	32					e280	e1,500	1,680	2,390	2,250	369	316
3	33					e300	e2,000	1,640	4,000	1,890	497	328
4	33					e260	e2,000	1,470	4,890	1,600	589	344
5	33					e250	e2,500	1,230	6,270	1,340	713	382
6	33					e260	e3,000	1,100	7,290	1,080	746	458
7	34					e300	e3,000	1,030	7,500	845	684	602
8	35					e290	e3,000	936	7,600	858	633	771
9	95					e300	1,530	866	7,750	962	645	852
10	346					e300	650	825	7,880	1,520	649	1,210
11	304					e300	1,050	768	7,890	1,620	611	1,190
12	260					e250	890	693	7,610	1,480	618	1,060
13	226					e210	713	579	7,170	1,190	696	978
14	198					e200	585	524	6,800	1,030	696	929
15	176					e230	665	444	6,670	964	726	879
16	174					e500	866	339	6,490	877	801	861
17	148					e500	883	438	5,980	775	775	870
18	162					e250	1,050	581	5,290	739	803	756
19	168					e260	1,370	571	4,430	663	787	568
20	117					e300	1,400	499	3,840	570	739	436
21	117					e400	1,570	354	3,710	482	659	498
22	154					e400	2,060	192	3,510	360	551	537
23	195					e350	2,020	127	3,130	291	471	463
24	208					e350	1,560	101	2,880	309	383	539
25	207					e350	1,070	100	2,400	370	331	349
26	199					e350	784	105	2,070	431	291	411
27	197					e380	939	109	2,870	408	265	407
28	198					e320	1,000	142	3,030	383	243	402
29	216					e260	1,120	246	2,960	336	283	391
30	236					e290	1,490	337	2,740	319	288	389
31	240					e700	---	634	---	326	286	---
<b>Total</b>	4,806					9,970	43,265	20,300	148,500	28,818	17,129	18,487
<b>Mean</b>	155					322	1,442	655	4,950	930	553	616
<b>Max</b>	346					700	3,000	1,680	7,890	2,550	803	1,210
<b>Min</b>	32					200	585	100	1,460	291	243	311
<b>Ac-ft</b>	9,530					19,780	85,820	40,270	294,500	57,160	33,980	36,670

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2013, BY WATER YEAR (WY)\***

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	186	217	152	211	178	912	1,018	763	1,183	493	189	192
<b>Max</b>	906	710	363	791	433	3,809	11,080	6,112	11,760	2,515	769	903
<b>(WY)</b>	(1994)	(1976)	(1976)	(1974)	(1974)	(1994)	(2011)	(2011)	(2011)	(1991)	(1993)	(1993)
<b>Min</b>	29.1	90.0	66.9	55.2	49.3	46.6	3.35	6.59	11.7	8.35	4.63	6.52
<b>(WY)</b>	(2002)	(1989)	(1989)	(1989)	(1989)	(2002)	(1992)	(2001)	(1977)	(1977)	(1988)	(1988)

\*During periods of operation (1974-77, 1987 to current year. Seasonal records beginning with 1995 water year).

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1974 – 2013*	
Annual mean					400	
Highest annual mean					998	1975
Lowest annual mean					84.6	1988
Highest daily mean	4,260	May 30	7,890	Jun 11	19,200	Apr 15, 2011
Lowest daily mean	27	Mar 23	32	Oct 1	0.00	Aug 28, 1988
Annual seven-day minimum					0.00	Sep 7, 1988
Maximum peak flow			7,940	Jun 11	<sup>b</sup> 19,700	Apr 15, 2011
Maximum peak stage			24.69	Jun 11	28.03	Apr 15, 2011
Instantaneous low flow			<sup>a</sup> 30	Oct 1	0.00	Aug 28, 1988
Annual runoff (ac-ft)					289,400	
10 percent exceeds					833	
50 percent exceeds					123	
90 percent exceeds					11	

\*During periods of operation (1974-77, 1987 to current year. Seasonal records beginning with 1995 water year).

<sup>a</sup>Gage height, 1.74 ft.

<sup>b</sup>Estimated daily discharge, ungauged bypass flow.

