

Water-Data Report 2007

**06172310 MILK RIVER AT TAMPICO, MT**

Milk Basin  
Lower Milk Subbasin

LOCATION.--Lat 48°18'29", long 106°49'19" referenced to North American Datum of 1927, 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 National Geodetic Vertical Datum of 1929.

REMARKS.--Records are good except those for estimated daily discharges, 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 Several unpublished observations of water temperature and specific conductance were made during the year.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**  
**CALENDAR YEAR JANUARY TO DECEMBER 2007**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1			e50	9.5	422	1,260	348	15	23	56		
2			e50	9.2	405	1,750	256	16	23	58		
3			e50	13	376	2,180	154	17	25	58		
4			e50	139	348	1,850	100	17	26	58		
5			e50	180	314	1,420	99	17	26	61		
6			e50	176	410	1,440	65	18	29	72		
7			e50	221	324	1,580	40	17	32	75		
8			e50	237	325	1,760	29	20	33	73		
9			e50	197	300	1,840	23	26	31	73		
10			e60	174	246	1,460	16	30	32	68		
11			e80	154	218	1,220	14	37	47	68		
12			e300	125	203	1,090	14	35	79	71		
13			e600	106	195	990	14	34	83	68		
14			e900	90	208	1,020	18	37	62	68		
15			e1,300	75	167	887	23	48	47	66		
16			e1,700	57	144	731	26	48	38	64		
17			1,480	37	122	1,130	36	39	31	66		
18			1,260	34	114	2,170	60	35	27	69		
19			1,010	34	75	2,550	45	31	25	68		
20			673	42	65	1,840	32	34	25	67		
21			404	93	93	1,310	30	39	128	67		
22			e250	527	119	1,060	29	37	243	64		
23			e150	410	626	1,110	29	31	207	24		
24			e90	220	2,140	1,190	29	28	195	11		
25			e60	218	2,340	1,090	29	26	185	109		
26			e40	236	1,940	895	29	27	173	146		
27			e20	243	1,100	669	26	28	151	143		
28			9.8	231	759	522	22	27	128	143		
29			7.5	315	776	444	18	25	77	142		
30			7.5	457	949	433	16	24	65	145		
31			9.3	---	1,130	---	16	23	---	143		
<b>Total</b>			10,861.1	5,059.7	16,953	38,891	1,685	886	2,296	2,464		
<b>Mean</b>			350	169	547	1,296	54.4	28.6	76.5	79.5		
<b>Max</b>			1,700	527	2,340	2,550	348	48	243	146		
<b>Min</b>			7.5	9.2	65	433	14	15	23	11		
<b>Ac-ft</b>			21,540	10,040	33,630	77,140	3,340	1,760	4,550	4,890		

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 – 1994 AND SEASONS 1995 – 2007\***

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Mean</b>	211	178	979	706	531	577	441	181	154	171	217	152
<b>Max</b>	791	433	3,809	3,911	4,555	1,852	2,515	769	903	906	710	363
<b>(WY)</b>	(1974)	(1974)	(1994)	(1996)	(1975)	(1974)	(1991)	(1993)	(1993)	(1994)	(1976)	(1976)
<b>Min</b>	55.2	49.3	46.6	3.35	6.59	11.7	8.35	4.63	6.52	29.1	90.0	66.9
<b>(WY)</b>	(1989)	(1989)	(2002)	(1992)	(2001)	(1977)	(1977)	(1988)	(1988)	(2002)	(1989)	(1989)

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

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SUMMARY STATISTICS

	2007 Season		Seasons 1995 - 2007		Water Years 1974 - 1994*	
Annual mean					400	
Highest annual mean					998	1975
Lowest annual mean					84.6	1988
Highest daily mean	2,550	Jun 19	<sup>a</sup> 11,000	Mar 27, 1997	8,180	May 26, 1974
Lowest daily mean	7.5	Mar 29	1.8	Jun 7, 2002	0.00	Aug 28, 1988
Annual seven-day minimum					0.00	Sep 7, 1988
Maximum peak flow	2,680	Jun 19	<sup>a</sup> 11,000	Mar 27, 1997	<sup>c</sup> 8,210	May 26, 1974
Maximum peak stage	11.44	Jun 19	<sup>b</sup> 27.64	Mar 27, 1997	25.40	Jul 4, 1991
Instantaneous low flow					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> Estimated daily discharge, ungaged bypass flow.

<sup>b</sup> Backwater from ice.

<sup>c</sup> Gage height, 23.65 ft.

