

Water-Data Report 2006

06172310 MILK RIVER AT TAMPICO, MT

Upper Missouri 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 mi².

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 Several unpublished observations of water temperature and specific conductance were made during the year.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 ft³/s.

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DISCHARGE, CUBIC FEET PER SECOND
CALENDAR YEAR JANUARY TO DECEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1			e170	2,020	175	83	33	41	35	46		
2			e150	2,060	154	67	32	38	27	44		
3			e160	1,930	141	57	32	37	23	43		
4			e150	1,590	139	54	32	37	20	39		
5			e150	1,210	163	52	32	41	19	12		
6			e160	823	180	49	37	39	19	7.2		
7			e170	674	165	47	42	37	18	8.5		
8			e200	541	152	44	43	36	15	7.8		
9			e205	446	115	46	42	36	17	32		
10			e300	459	83	46	40	36	19	65		
11			e600	125	69	45	36	33	14	74		
12			e500	441	66	44	35	30	13	71		
13			e800	585	86	45	36	26	12	66		
14			e750	405	122	55	37	23	12	60		
15			e450	321	111	107	38	23	13	58		
16			e350	319	77	182	36	22	11	59		
17			e300	353	63	167	32	22	15	57		
18			e290	456	55	158	32	23	13	54		
19			e270	907	49	180	30	21	13	55		
20			e260	810	46	174	28	20	12	55		
21			e260	666	47	103	30	18	17	62		
22			e250	477	45	59	32	20	108	133		
23			277	332	46	49	35	21	307	170		
24			255	221	41	45	37	21	306	175		
25			246	181	39	42	41	24	283	174		
26			247	167	38	39	44	27	250	171		
27			280	192	41	35	41	30	191	166		
28			546	186	47	35	40	32	65	160		
29			751	195	50	35	47	34	52	158		
30			1,060	182	63	33	54	38	49	168		
31			1,170	---	93	---	48	40	---	154		
Total			11,727	19,274	2,761	2,177	1,154	926	1,968	2,604.5		
Mean			378	642	89.1	72.6	37.2	29.9	65.6	84.0		
Max			1,170	2,060	180	182	54	41	307	175		
Min			150	125	38	33	28	18	11	7.2		
Ac-ft			23,260	38,230	5,480	4,320	2,290	1,840	3,900	5,170		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 – 1994 AND SEASONS 1995 – 2006*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	211	178	1,007	729	531	547	457	188	158	175	217	152
Max	791	433	3,809	3,911	4,555	1,852	2,515	769	903	906	710	363
(WY)	(1974)	(1974)	(1994)	(1996)	(1975)	(1974)	(1991)	(1993)	(1993)	(1994)	(1976)	(1976)
Min	55.2	49.3	46.6	3.35	6.59	11.7	8.35	4.63	6.52	29.1	90.0	66.9
(WY)	(1989)	(1989)	(2002)	(1992)	(2001)	(1977)	(1977)	(1988)	(1988)	(2002)	(1989)	(1989)

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

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SUMMARY STATISTICS

	2006 Season		Seasons 1995 - 2006		Water Years 1974 - 1994*	
Annual mean					400	
Highest annual mean					998	1975
Lowest annual mean					84.6	1988
Highest daily mean	2,060	Apr 2	^a 11,000	Mar 27, 1997	8,810	May 26, 1974
Lowest daily mean	7.2	Oct 6	1.8	Jun 7, 2002	0.00	Aug 28, 1988
Annual seven-day minimum					0.00	Sep 7, 1988
Maximum peak flow	2,120	Apr 1	^a 11,000	Mar 27, 1997	^c 8,210	May 26, 1974
Maximum peak stage	9.42	Apr 1	^b 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 period of operation (1974-77, 1987 to current year. Seasonal records beginning with 1995 water year).

^a Estimated daily discharge, ungaged bypass flow.

^b Backwater from ice.

^c Gage height, 23.65 ft.

