Water-Data Report 2013

06164510 MILK RIVER AT JUNEBERG BRIDGE, NEAR SACO, MT

Milk Basin
Beaver Subbasin

LOCATION.--Lat 48°30'33", long 107°13'08" referenced to North American Datum of 1983, in NE ¼ NE ¼ sec.30, T.32 N., R.35 E., Phillips County, MT, Hydrologic Unit 10050014, on left bank 25 ft upstream from Juneberg bridge on Phillips County road, 1.5 mi downstream from Frenchman River, 6.9 mi northeast of Saco, and at river mile 152.3.

DRAINAGE AREA.--17,670 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,130 ft., referenced to the North American Vertical Datum of 1988.

REMARKS.--Records are good except for estimated daily discharges, which are poor. Flow increased during irrigation season by water from St. Mary Canal which diverts water from the St. Mary River near Babb (station number 05017500) into the Milk River. Flow is regulated by Fresno Reservoir (station number 06136500), two reservoirs in Lodge Creek basin in Saskatchewan (station numbers 06144260 and 06144360 and four reservoirs in Frenchman River basin in Saskatchewan. There are many small dams for the diversion of irrigation canals upstream. U.S. Army Corps of Engineers satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

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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	89	225	e150	e135	e123	e178	e463	936	323	1,910	513	458
2	88	244	e150	e130	e122	e190	644	1,040	1,270	1,590	604	478
3	91	236	e150	e130	e121	e185	704	1,040	2,160	1,390	654	504
4	92	225	e150	e130	e120	e180	1,370	861	3,580	1,170	630	550
5	96	203	e145	e130	e121	e168	1,410	811	5,870	946	616	607
6	99	198	e140	e140	e121	e111	1,260	779	6,840	721	600	754
7	97	198	e135	e140	e124	e67	1,090	705	7,310	793	596	860
8	93	205	e135	e150	e128	e70	903	652	7,630	808	662	889
9	90	e195	e130	e150	e134	e84	800	584	7,870	908	678	874
10	89	e165	e130	e150	e139	e94	609	510	7,650	1,200	645	961
11	89	e120	e135	e145	e143	e97	479	437	6,720	1,320	656	951
12	89	e100	e140	e140	e147	e100	371	346	5,990	1,170	732	941
13	91	e100	e140	e135	e148	e110	196	353	5,560	1,090	717	918
14	90	e110	e135	e135	e147	e172	226	360	5,360	1,050	748	918
15	89	e110	e135	e140	e146	e421	447	287	5,080	959	864	911
16	90	e120	e135	e145	e146	e616	529	391	4,610	894	789	915
17	93	e130	e140	e150	e146	e764	714	501	4,000	838	841	796
18	92	e140	e140	e150	e146	e736	1,110	395	3,360	774	839	580
19	89	e155	e135	e145	e147	e605	949	349	2,920	683	804	469
20	119	e155	e135	e140	e159	e440	698	268	2,630	600	718	449
21	149	e150	e135	e140	e172	e306	655	218	2,360	507	599	503
22	168	e150	e135	e140	e181	e183	738	181	2,160	449	527	416
23	173	e145	e130	e140	e185	e138	694	150	2,090	467	445	388
24	173	e140	e125	e140	e183	e119	583	158	2,020	499	402	403
25	171	e140	e125	e145	e178	e122	482	158	2,080	608	360	393
26	175	e140	e125	e150	e174	e115	527	155	2,420	613	348	393
27	176	e140	e125	e150	e170	e115	538	166	2,540	578	343	390
28	192	e145	e125	e145	e169	e125	311	181	2,500	508	376	386
29	207	e145	e130	e140	---	e132	404	172	2,290	503	391	384
30	206	e145	e130	e135	---	e154	760	178	2,110	509	394	380
31	205	---	e135	e135	---	e309	---	227	---	467	448	---
Total	3,850	4,774	4,205	4,370	4,140	7,206	20,664	13,549	119,303	26,522	18,539	18,819
Mean	124	159	136	141	148	232	689	437	3,977	856	598	627
Max	207	244	150	150	185	764	1,410	1,040	7,870	1,910	864	961
Min	88	100	125	130	120	67	196	150	323	449	343	380
Ac-ft	7,640	9,470	8,340	8,670	8,210	14,290	40,990	26,870	236,600	52,610	36,770	37,330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	145	144	125	123	198	820	826	594	825	447	243	239
Max	881	320	406	291	1,758	4,075	7,329	4,847	7,295	1,844	693	1,517
(WY)	(1994)	(2012)	(1987)	(2011)	(1996)	(1979)	(2011)	(2011)	(2011)	(1991)	(1993)	(1986)
Min	24.9	60.1	44.8	33.1	49.1	47.4	35.9	56.4	103	29.6	9.35	22.7
(WY)	(2002)	(1978)	(1986)	(1985)	(2002)	(2002)	(2008)	(1989)	(2001)	(1984)	(1984)	(1984)

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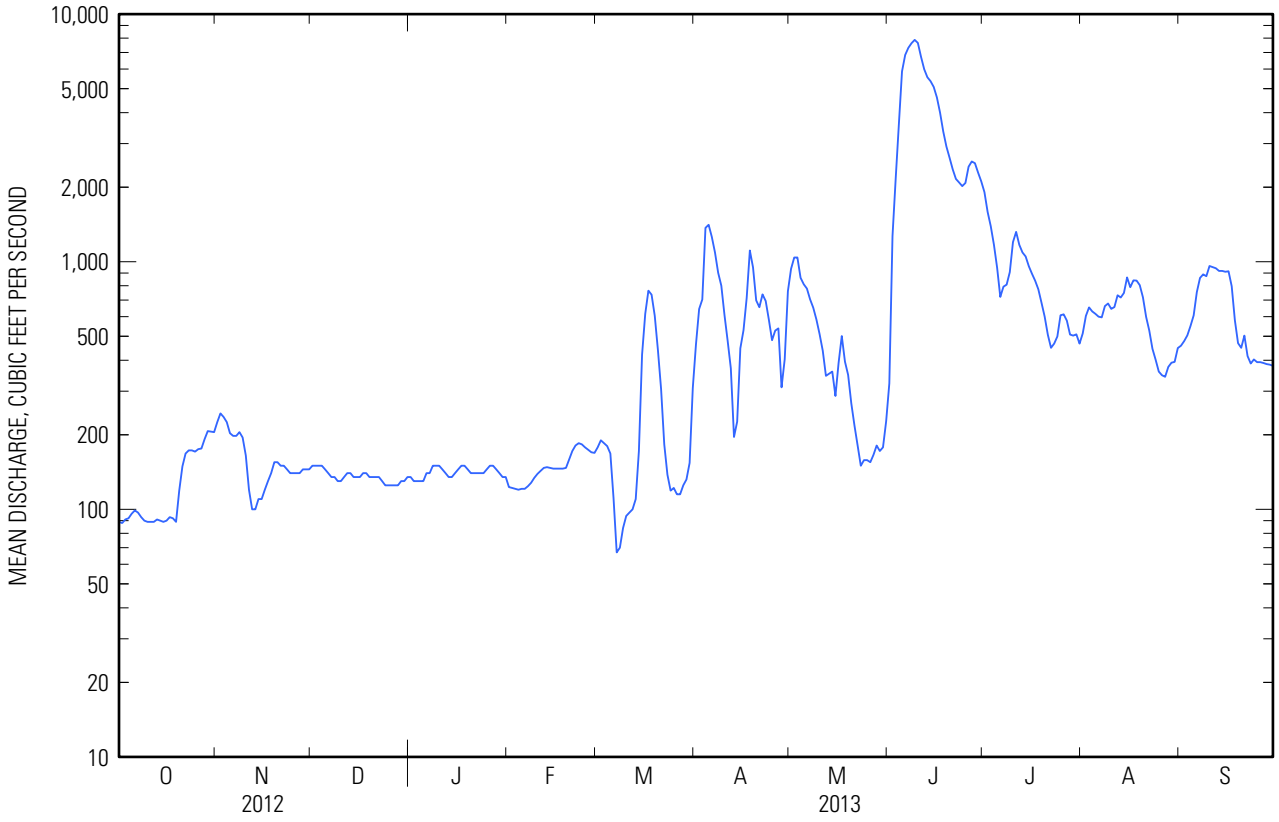
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1978 - 2013	
Annual total	118,233		245,941			
Annual mean	323		674		[a]393	
Highest annual mean					2,020	2011
Lowest annual mean					70.1	2001
Highest daily mean	1,860	Jun 1	7,870	Jun 9	12,300	Apr 3, 1978
Lowest daily mean	88	Oct 2	67	Mar 7	2.1	Aug 20, 1984
Annual seven-day minimum	90	Oct 9	89	Mar 7	4.0	Jul 27, 1984
Maximum peak flow			7,960	Jun 9	[b]12,400	Apr 3, 1978
Maximum peak stage			18.83	Jun 9	[c]26.70	Mar 4, 1986
Annual runoff (ac-ft)	234,500		487,800		284,500	
10 percent exceeds	732		1,220		697	
50 percent exceeds	220		225		149	
90 percent exceeds	120		120		53	

[a]Median of yearly mean discharge, 209 ft³/s, 151,400 ac-ft/yr.
[b]Gage height, 24.20 ft.
[c]Backwater from ice.