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Water-Data Report 2012

12323670 MILL CREEK NEAR ANACONDA, MT

Pend Oreille Basin
Upper Clark Fork Subbasin

LOCATION.--Lat 46°04'59", long 112°55'02" referenced to North American Datum of 1983, in NW ¼ NE ¼ SW ¼ sec.24, T.4 N., R.11 W., Deer Lodge County, MT, Hydrologic Unit 17010201, on right bank 500 ft downstream from private road bridge, 0.1 mi downstream from Cabbage Gulch, 1.0 mi downstream from Silver Creek, 2.8 mi southeast of Anaconda, and at river mile 6.7.

DRAINAGE AREA.--34.4 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2004 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,470 ft, referenced to the National Geodetic Vertical Datum of 1929.

REMARKS.--Records are good except for estimated daily discharges, which are poor. No regulation or diversion occurs upstream from station. U.S. Geological Survey satellite telemeter is located at the station.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 12323670, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/12323670.2012.pdf

12323670 MILL CREEK NEAR ANACONDA, MT—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13	14	e11	e11	9.7	e9.0	39	77	112	55	22	15
2	13	12	e11	12	9.6	e9.0	30	70	181	54	22	15
3	13	14	e11	11	9.6	9.1	26	63	230	50	21	15
4	14	14	e10	11	e9.0	9.9	25	58	204	48	21	15
5	17	14	e8.0	11	e9.0	10	24	56	262	46	20	14
6	16	e12	e9.0	11	9.6	9.7	23	50	245	44	20	15
7	16	e13	e11	e10	9.5	e9.5	20	48	154	42	20	15
8	15	14	e11	11	e9.0	9.8	20	49	130	42	19	14
9	15	13	11	11	9.5	9.9	20	54	119	41	19	13
10	15	13	11	11	9.5	11	21	64	106	41	19	13
11	17	13	12	e9.0	9.5	11	27	64	93	43	19	13
12	15	13	11	e9.0	9.4	11	36	64	87	42	19	13
13	15	13	e10	e10	9.4	11	35	66	104	42	17	13
14	15	13	11	e11	9.3	10	33	75	103	43	17	13
15	16	13	11	10	9.3	12	32	92	93	48	17	12
16	18	e12	11	e9.0	e9.0	15	30	120	87	43	18	12
17	17	e11	11	e7.0	9.3	14	30	140	91	46	17	12
18	16	e12	11	e8.0	9.3	13	29	120	97	39	17	12
19	15	e10	11	e10	9.8	12	29	103	82	35	16	12
20	15	e12	11	e10	9.9	12	30	95	71	33	16	11
21	15	e13	11	11	9.3	13	39	101	67	31	17	11
22	15	13	e9.0	10	e9.5	16	50	162	73	29	19	11
23	15	13	e9.0	10	9.6	16	64	125	78	28	17	11
24	16	13	e10	e9.0	9.7	14	82	102	81	27	16	11
25	15	13	11	e10	9.4	15	96	97	79	26	16	11
26	14	e12	11	10	e9.5	17	136	87	76	25	16	11
27	15	e12	11	e10	e9.0	17	151	84	66	32	15	11
28	14	12	12	e10	e8.5	17	124	84	57	29	16	10
29	14	12	14	10	e9.0	17	100	84	55	26	15	11
30	14	12	14	10	---	23	88	86	54	24	15	10
31	14	---	e11	9.9	---	32	---	88	---	23	15	---
Total	467	380	337.0	312.9	271.7	414.9	1,489	2,628	3,337	1,177	553	375
Mean	15.1	12.7	10.9	10.1	9.37	13.4	49.6	84.8	111	38.0	17.8	12.5
Max	18	14	14	12	9.9	32	151	162	262	55	22	15
Min	13	10	8.0	7.0	8.5	9.0	20	48	54	23	15	10
Ac-ft	926	754	668	621	539	823	2,950	5,210	6,620	2,330	1,100	744

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2005 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	14.1	13.5	10.8	9.74	8.89	11.0	26.6	97.6	144	64.1	20.6	14.3
Max	15.9	16.3	12.2	11.8	10.6	16.5	49.6	126	277	175	34.1	20.0
(WY)	(2010)	(2007)	(2009)	(2009)	(2009)	(2007)	(2012)	(2011)	(2011)	(2011)	(2011)	(2010)
Min	12.1	11.7	8.26	7.77	7.09	8.11	15.6	46.3	90.5	29.0	12.6	11.2
(WY)	(2008)	(2005)	(2010)	(2010)	(2010)	(2010)	(2005)	(2010)	(2006)	(2007)	(2006)	(2007)

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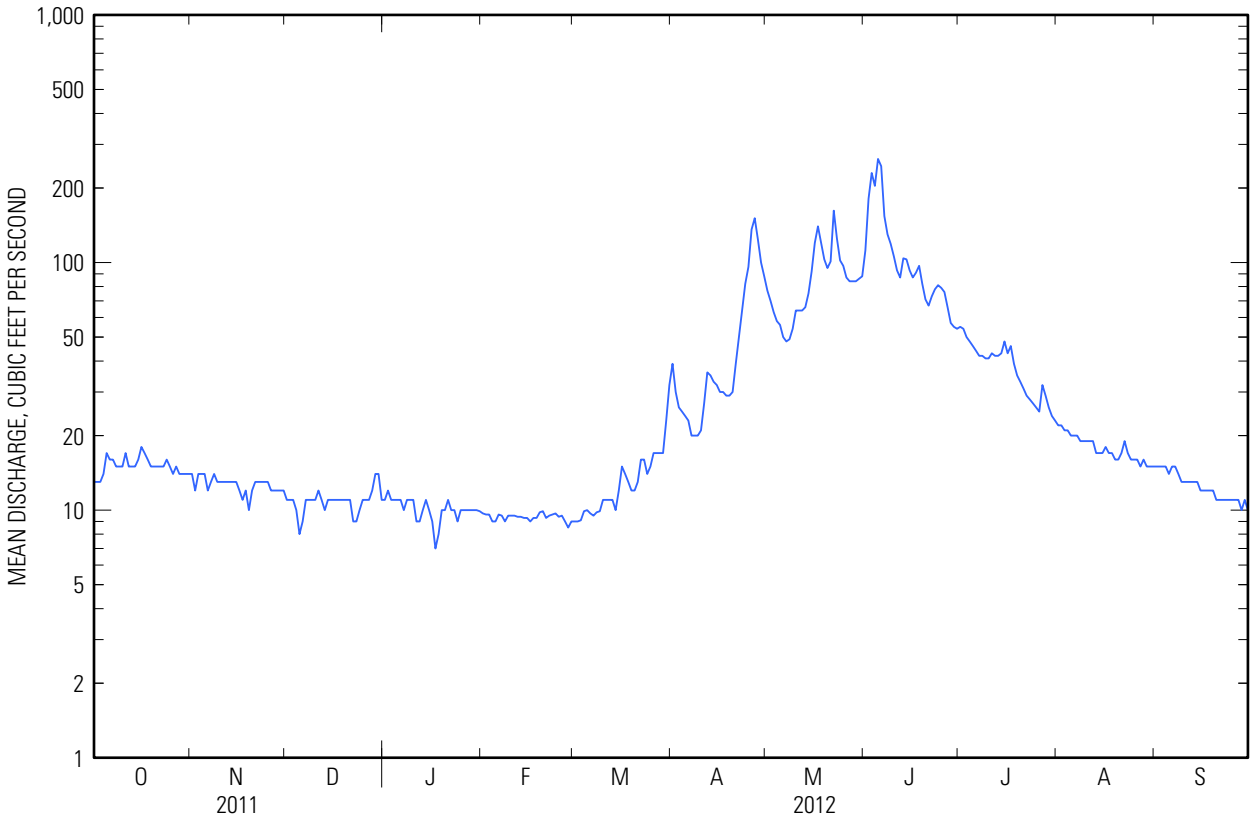
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 2005 - 2012	
Annual total	21,857.0		11,742.5			
Annual mean	59.9		32.1		36.3	
Highest annual mean					60.0	2011
Lowest annual mean					29.2	2006
Highest daily mean	400	Jun 9	262	Jun 5	400	Jun 9, 2011
Lowest daily mean	6.0	Feb 24	7.0	Jan 17	5.5	Feb 17, 2006
Annual seven-day minimum	7.6	Feb 22	9.0	Feb 26	6.7	Feb 13, 2006
Maximum peak flow			300	Jun 6	432	Jun 9, 2011
Maximum peak stage			3.53	Jun 6	3.98	Jun 9, 2011
Annual runoff (ac-ft)	43,350		23,290		26,300	
10 percent exceeds	232		87		105	
50 percent exceeds	16		15		14	
90 percent exceeds	10		9.6		8.9	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 2004 to current year.

PERIOD OF DAILY RECORD.--
TURBIDITY: June 2006 to current year (seasonal records).

INSTRUMENTATION.--Turbidity monitor was installed in June 2006.

REMARKS.--Daily turbidity records are rated good to fair except for Aug 29 to Sept 2, which are poor. There are 35 days of deleted record due to excessive fouling; April 22-23, June 6-8, 22-24, 26, July 15-17, Aug 6-7, 11-13, and Sept 3-20. Several unpublished observations of specific conductance and water temperature were made during the year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
TURBIDITY (seasonal records): Maximum, 67 formazin nephelometric units (FNU), June 24, 2011 minimum, 0.5 FNU, many days in 2006-2011.

EXTREMES FOR CURRENT YEAR.--
TURBIDITY: During period of seasonal operation, maximum, 62 formazin nephelometric units (FNU) July 27, 2012; minimum, 0.5 FNU July 14, 2012.

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TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
SEASON APRIL 2012 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		April			May			June			July	
1	---	---	---	5.5	4.5	5.0	7.0	4.0	5.0	3.5	2.0	2.5
2	---	---	---	5.5	4.0	4.5	22	5.0	9.0	3.5	2.0	2.5
3	7.5	5.0	6.0	5.5	4.0	4.5	26	5.5	11	3.5	2.0	2.5
4	7.0	5.0	5.5	5.0	4.0	4.5	9.5	5.0	7.0	3.0	2.0	2.5
5	6.5	4.5	5.5	4.5	3.5	4.0	18	6.0	10	4.0	2.0	2.5
6	5.5	4.5	5.0	4.5	3.5	4.0	---	---	---	3.0	1.5	2.0
7	5.5	4.0	5.0	4.5	3.0	4.0	---	---	---	3.0	1.5	2.0
8	5.0	4.0	4.5	4.5	3.0	3.5	---	---	---	3.0	1.5	2.0
9	5.5	3.5	4.0	5.0	2.5	3.5	5.0	3.5	4.0	3.5	1.5	2.0
10	5.0	3.5	4.5	5.0	2.5	4.0	4.5	3.5	4.0	3.0	2.0	2.5
11	8.0	4.0	5.0	4.5	2.5	4.0	4.5	3.5	3.5	3.5	2.0	2.5
12	8.0	5.5	6.5	4.5	2.0	3.5	4.5	3.0	3.5	3.0	1.5	2.0
13	8.5	5.0	6.5	5.0	3.0	4.0	6.0	3.0	4.0	3.5	1.5	2.5
14	7.0	4.5	5.5	6.5	2.5	4.0	4.5	3.0	3.5	6.0	0.5	2.5
15	6.5	5.0	5.5	7.0	3.5	5.0	4.0	3.0	3.0	---	---	---
16	6.5	5.0	5.5	9.5	4.0	6.0	5.0	2.5	3.0	---	---	---
17	6.0	4.5	5.0	10	4.5	6.5	4.0	2.0	3.0	---	---	---
18	6.0	5.0	5.5	5.5	3.5	4.5	4.5	2.0	3.0	4.5	3.0	3.5
19	6.5	4.5	5.0	5.0	3.5	4.0	4.0	2.0	3.0	5.0	3.0	3.5
20	8.0	3.5	5.0	4.5	3.5	4.0	4.5	2.5	3.5	4.5	2.5	3.0
21	18	5.5	7.5	5.5	3.5	4.0	5.5	3.5	4.5	4.0	2.5	3.0
22	---	---	---	12	5.0	8.0	---	---	---	3.5	2.5	3.0
23	---	---	---	6.5	3.5	4.5	---	---	---	3.5	2.5	3.0
24	28	8.5	14	4.5	3.0	3.5	---	---	---	4.0	2.0	3.0
25	17	7.0	10	4.5	3.0	3.5	13	3.5	6.5	4.0	2.5	3.0
26	33	9.5	17	4.0	3.0	3.5	---	---	---	3.5	2.0	3.0
27	24	8.0	12	4.0	3.0	3.5	9.5	1.5	4.0	62	2.5	13
28	9.0	6.0	7.0	4.5	3.5	3.5	2.5	1.0	1.5	12	3.0	5.5
29	8.0	5.5	6.0	5.0	3.5	4.0	3.5	1.5	2.5	3.5	2.0	2.5
30	6.5	5.0	5.5	5.0	3.5	4.0	3.5	2.0	2.5	3.0	2.0	2.5
31	---	---	---	5.0	3.5	4.0	---	---	---	2.5	1.5	2.0
Month	---	---	---	12	2.0	4.3	---	---	---	---	---	---

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TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS SEASON APRIL 2012 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean
		August			September	
1	2.5	1.0	1.5	4.0	3.0	3.5
2	2.0	1.0	1.5	4.0	3.0	3.5
3	2.5	1.0	1.5	---	---	---
4	2.5	1.0	2.0	---	---	---
5	3.0	0.5	2.0	---	---	---
6	---	---	---	---	---	---
7	---	---	---	---	---	---
8	2.5	1.0	1.5	---	---	---
9	3.0	1.0	2.0	---	---	---
10	4.0	1.0	2.5	---	---	---
11	---	---	---	---	---	---
12	---	---	---	---	---	---
13	---	---	---	---	---	---
14	2.5	1.0	1.5	---	---	---
15	2.5	1.5	2.0	---	---	---
16	3.0	1.0	2.0	---	---	---
17	2.5	1.0	1.5	---	---	---
18	3.0	1.0	2.0	---	---	---
19	2.5	1.5	2.0	---	---	---
20	3.0	1.5	2.0	---	---	---
21	3.5	2.0	2.5	3.5	2.5	3.0
22	3.5	2.0	2.5	3.5	2.5	3.0
23	3.0	1.5	2.0	4.0	2.5	3.0
24	3.0	1.5	2.0	4.0	2.5	3.0
25	2.5	1.5	2.0	3.5	2.0	2.5
26	3.0	2.0	2.5	3.5	1.5	2.0
27	3.0	2.0	2.0	2.0	1.5	1.5
28	2.5	1.5	2.0	2.5	1.5	2.0
29	2.5	1.5	2.0	2.5	1.5	2.0
30	2.5	1.5	2.0	2.5	1.5	2.0
31	4.0	2.0	3.0	---	---	---
Month	---	---	---	---	---	---