

APPENDIX B
USGS PRELIMINARY DATA AND 2013 WATER YEAR SUMMARY

APPENDIX B - TABLE B-1
OTTER CREEK MINE BASELINE REPORT 325A
PRELIMINARY DAILY DISCHARGE AT THE ASHLAND GAUGING STATION

Rosebud County, Montana
 Hydrologic Unit Code 10090102
 Latitude 45°35'18.20", Longitude 106°15'18.20" NAD83
 Drainage area 707 square miles
 Contributing drainage area 707.00 square miles
 Gage datum 2,916.5 feet above NGVD29

Daily Mean Discharge, cubic feet per second													
DATE	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014	Jun 2014	Jul 2014	Aug 2014	Sep 2014
1		3.1 ^A	4.8 ^P	4.5 ^P	Ice ^P	Ice ^P	Ice ^P	23 ^P	13 ^P	7.9 ^P	6.4 ^P	3.0 ^P	4.3 ^P
2		3.3 ^A	4.8 ^P	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	23 ^P	13 ^P	8.0 ^P	6.3 ^P	3.0 ^P	4.1 ^P
3		4.0 ^A	4.7 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	22 ^P	12:00 PM	8.1 ^P	6.2 ^P	2.9 ^P	4.2 ^P
4		5.0 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	23 ^P	12:00 PM	8.1 ^P	6.1 ^P	2.8 ^P	4.0 ^P
5		5.1 ^A	4.9 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	22 ^P	12:00 PM	8.3 ^P	5.7 ^P	2.9 ^P	4.1 ^P
6		5.0 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	21 ^P	12:00 PM	8.5 ^P	5.3 ^P	3.1 ^P	4.0 ^P
7		4.7 ^A	4.9 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	21 ^P	14 ^P	8.5 ^P	4.8 ^P	2.9 ^P	3.8 ^P
8		4.6 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	19 ^P	14 ^P	8.4 ^P	4.7 ^P	3.0 ^P	3.7 ^P
9		4.7 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	Ice ^P	19 ^P	13 ^P	8.2 ^P	4.5 ^P	2.8 ^P	3.5 ^P
10		5.2 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	650 ^{e P}	18 ^P	14 ^P	8.2 ^P	4.6 ^P	2.8 ^P	3.6 ^P
11		5.2 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	458 ^P	17 ^P	14 ^P	9.3 ^P	4.3 ^P	2.9 ^P	3.8 ^P
12		5.1 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	335 ^P	17 ^P	14 ^P	11:00 PM	4.0 ^P	2.9 ^P	4.2 ^P
13		4.9 ^A	4.8 ^P	Ice ^P	Ice ^P	Ice ^P	219 ^P	16 ^P	14 ^P	9.1 ^P	3.8 ^P	2.8 ^P	4.1 ^P
14		4.9 ^A	5.1 ^P	Ice ^P	Ice ^P	Ice ^P	114 ^P	16 ^P	14 ^P	8.4 ^P	3.8 ^P	2.8 ^P	4.1 ^P
15		4.8 ^A	5.1 ^P	Ice ^P	Ice ^P	Ice ^P	83 ^P	15 ^P	13 ^P	8.5 ^P	3.7 ^P	2.9 ^P	4.4 ^P
16		4.8 ^A	4.9 ^P	Ice ^P	Ice ^P	Ice ^P	66 ^P	15 ^P	13 ^P	8.1 ^P	3.6 ^P	2.9 ^P	4.4 ^P
17		4.7 ^A	5.0 ^P	Ice ^P	Ice ^P	Ice ^P	60 ^P	14 ^P	13 ^P	7.7 ^P	3.6 ^P	3.0 ^P	4.4 ^P
18		4.7 ^A	5.3 ^P	Ice ^P	Ice ^P	Ice ^P	52 ^P	14 ^P	13 ^P	7.9 ^P	3.6 ^P	2.7 ^P	4.4 ^P
19		6.0 ^A	5.2 ^P	Ice ^P	Ice ^P	Ice ^P	43 ^P	15 ^P	12:00 PM	8.1 ^P	3.4 ^P	2.7 ^P	3.9 ^P
20		6.5 ^A	5.1 ^P	Ice ^P	Ice ^P	Ice ^P	39 ^P	14 ^P	12:00 PM	11:00 PM	3.3 ^P	2.7 ^P	4.2 ^P
21		5.0 ^A	4.5 ^{e P}	Ice ^P	Ice ^P	Ice ^P	42 ^P	14 ^P	11:00 PM	9.3 ^P	3.6 ^P	2.8 ^P	4.4 ^P
22		5.1 ^P	3.5 ^{e P}	Ice ^P	Ice ^P	Ice ^P	39 ^P	13 ^P	11:00 PM	7.6 ^P	4.1 ^P	3.1 ^P	4.3 ^P
23		5.0 ^P	3.5 ^{e P}	Ice ^P	Ice ^P	Ice ^P	33 ^P	13 ^P	10:00 PM	7.1 ^P	3.9 ^P	4.8 ^P	4.4 ^P
24		5.0 ^P	4.0 ^{e P}	Ice ^P	Ice ^P	Ice ^P	29 ^P	13 ^P	9.9 ^P	6.6 ^P	3.7 ^P	6.1 ^P	4.2 ^P
25		5.0 ^P	4.1 ^P	Ice ^P	Ice ^P	Ice ^P	27 ^P	12:00 PM	11:00 PM	7.1 ^P	3.7 ^P	6.6 ^P	4.2 ^P
26	2.7 ^A	4.9 ^P	4.0 ^P	Ice ^P	Ice ^P	Ice ^P	26 ^P	12:00 PM	12:00 PM	7.4 ^P	3.6 ^P	7.0 ^P	4.4 ^P
27	2.8 ^A	4.9 ^P	4.1 ^P	Ice ^P	Ice ^P	Ice ^P	25 ^P	12:00 PM	11:00 PM	7.6 ^P	3.4 ^P	5.7 ^P	
28	2.9 ^A	4.8 ^P	4.2 ^P	Ice ^P	Ice ^P	Ice ^P	24 ^P	12:00 PM	9.7 ^P	7.5 ^P	3.3 ^P	4.9 ^P	
29	3.0 ^A	4.9 ^P	4.2 ^P	Ice ^P	Ice ^P		24 ^P	12:00 PM	8.5 ^P	6.7 ^P	3.2 ^P	4.6 ^P	
30	2.9 ^A	4.9 ^P	4.3 ^P	Ice ^P	Ice ^P		23 ^P	12:00 PM	8.3 ^P	6.3 ^P	3.2 ^P	4.6 ^P	
31		4.8 ^P		Ice ^P	Ice ^P		24 ^P		8.2 ^P		3.1 ^P	4.5 ^P	
COUNT	5	31	30	31			31	30	31	30	31	31	26
MAX	3	6.5	5.3	4.8			650	23	14	11	6.4	7	4.4
MIN	2.7	3.1	3.5	Ice			Ice	12	8.2	6.3	3.1	2.7	3.5

- A Approved for publication -- Processing and review completed.
- P Provisional data subject to revision.
- e Value has been estimated.

**APPENDIX B - TABLE B-2
 OTTER CREEK MINE BASELINE REPORT 325A
 OTTER CREEK ASHLAND STATION 2013 WATER YEAR SUMMARY**

**WATER DATA REPORT 2013
 06307740 OTTER CREEK AT ASHLAND, MT**

SUMMARY STATISTICS			
	Calendar Year 2012	Water Year 2013	Water Years 1973–2013*
Annual total	2,941.40	2,419.6	
Annual mean	8.04	6.63	^a 4.75
Highest annual mean			19.0 1975
Lowest annual mean			0.60 1992
Highest daily mean	90 Mar 9	130 Jun 1	350 Mar 6, 1994
Lowest daily mean	1.0 Sep 19	1.6 Oct 1	^b 0.00 Oct 14, 1976
Annual seven-day minimum	1.1 Sep 15	1.8 Oct 1	0.00 Jun 24, 1977
Maximum peak flow		138 May 31	^c 425 Mar 21, 1978
Maximum peak stage		3.90 May 31	^d 9.08 Mar 6, 1994
Annual runoff (ac-ft)	5,830	4,800	3,440
10 percent exceeds	15	9.0	8.5
50 percent exceeds	5.1	4.8	2.0
90 percent exceeds	1.8	2.4	0.40

*During periods of operation (1973-85, 1988-95, October 2003 to current year)

^aMedian of yearly mean discharge, 3.46 ft³/s, 2,510 ac-ft/yr

^bNo flow at times most years

^cGage height, 8.65 ft; backwater from ice and beaver dam, previous site and datum

^dBackwater from ice and beaver dam, previous site and datum