

13334300 SNAKE RIVER NEAR ANATONE, WA

Lower Snake Basin Lower Snake-Asotin Subbasin

LOCATION.--Lat 46°05'50", long 116°58'36" referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.12, T.7 N., R.46 E., Asotin County, WA, Hydrologic Unit 17060103, on left bank 1.2 mi downstream from Grande Ronde River, 7.8 mi east of Anatone, 22 mi south of Clarkston, and at mile 167.2.

DRAINAGE AREA.--92.960 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1958 to current year.

REVISED RECORDS.--WDR WA-76-1: 1974 and 1975.

GAGE.--Water-stage recorder. Datum of gage is 806.78 ft above NGVD of 1929.

REMARKS.--Records good. Diversions upstream from station for irrigation of about 4,090,000 acres, of which about 750,000 acres are irrigated by withdrawals from ground water. Flow regulated by many reservoirs upstream from station with a total usable capacity of more than 10,000,000 acreft, the most effective of which is Brownlee Reservoir, 117.8 mi upstream. Diurnal fluctuations caused by Hells Canyon powerplant. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD. --51 years (water years 1958-2009), 34,560 ft3/s, 25,040,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195,000 ft³/s, June 18, 1974, gage height, 24.45 ft; minimum discharge, 6,010 ft³/s, Sept. 2, 1958, gage height, 1.29 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 126,000 ft³/s, June 7, gage height, 17.66 ft; minimum discharge, 12,800 ft³/s, Dec. 18, gage height, 3.36 ft.

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009 DAILY MEAN VALUES

[e, estimated]

						le, estimate	uj					
Day	0ct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	21,900	14,300	15,600	15,500	19,500	19,300	28,400	50,800	108,000	53,600	22,300	16,900
2	20,500	14,500	15,800	17,100	17,300	19,300	31,300	48,000	104,000	50,600	20,600	15,600
3	21,600	15,000	15,700	19,400	19,700	23,800	32,000	49,400	97,700	49,300	18,400	18,700
4	17,800	15,600	15,600	19,800	19,100	28,100	31,800	53,000	95,000	49,300	21,100	17,900
5	16,000	16,100	15,200	21,400	18,100	31,800	34,900	57,700	98,700	46,600	17,900	15,600
6	15,800	15,700	14,700	20,900	21,300	31,200	36,600	70,800	111,000	43,400	18,300	15,200
7	16,800	15,300	14,500	21,100	19,000	30,400	e32,000	71,100	120,000	44,200	16,500	14,800
8	17,000	15,000	14,700	29,800	19,500	27,000	e38,000	70,700	115,000	44,200	18,300	16,000
9	20,900	15,300	14,700	33,200	20,800	24,700	46,000	65,500	98,800	42,400	19,200	17,800
10	22,700	15,500	14,700	29,400	22,000	27,500	47,200	56,900	88,700	39,200	19,800	18,800
11	18,000	15,600	14,600	26,500	20,900	28,300	47,000	49,900	75,900	36,000	20,500	19,300
12	20,800	15,900	14,500	23,800	22,700	26,600	49,200	51,900	74,900	33,700	20,800	19,200
13	19,100	17,300	14,400	28,100	21,900	25,600	52,400	53,700	69,500	32,200	19,400	18,900
14	14,500	21,000	14,300	28,700	17,100	20,300	53,600	59,500	70,600	34,200	17,100	19,000
15	14,600	19,900	18,300	29,800	15,000	19,600	49,500	60,000	73,100	34,400	15,800	19,000
16	14,600	18,300	16,200	27,700	14,700	21,800	49,000	60,700	73,200	33,500	16,200	20,600
17	14,600	17,300	16,600	27,000	17,100	24,700	49,100	62,600	71,100	32,800	16,600	20,500
18	14,600	16,600	16,500	24,400	17,900	22,100	49,200	70,700	69,600	32,600	19,300	20,000
19	14,600	16,200	17,300	21,200	19,800	26,000	52,100	87,000	70,800	31,100	20,700	20,100
20	14,600	16,000	19,800	23,700	20,200	26,200	56,400	105,000	63,900	29,800	22,100	17,800
21	14,600	15,800	20,300	23,100	16,500	27,900	65,900	109,000	62,500	27,300	23,300	15,300
22	14,500	15,700	16,200	22,900	14,900	31,000	77,700	98,400	66,200	26,900	21,300	19,000
23	14,400	15,500	18,200	23,200	15,000	30,800	86,400	93,700	76,000	25,500	19,900	19,600
24	14,200	15,100	15,800	20,500	16,500	30,800	86,600	97,000	71,000	23,700	17,700	19,800
25	14,300	14,800	15,200	21,100	18,100	27,700	79,300	107,000	60,800	22,300	17,600	18,900
26	14,300	14,500	15,200	21,300	20,100	28,800	71,300	106,000	62,000	23,400	19,900	18,500
27	14,300	14,300	15,200	23,100	23,100	30,400	63,900	99,700	58,600	23,800	20,500	19,400
28	14,300	14,300	15,300	21,500	20,700	29,200	55,700	101,000	60,000	23,300	19,100	18,000
29	14,200	14,400	14,700	17,800		30,600	53,400	105,000	58,100	25,300	15,800	16,400
30	14,200	14,800	15,300	20,100		32,000	51,000	104,000	56,300	23,200	15,300	15,100
31	14,300		15,400	21,700		30,500		109,000		22,600	15,000	
otal	508,600	475,600	490,500	724,800	528,500	834,000	1,556,900	2,384,700	2,381,000	1,060,400	586,300	541,700
M ean	16,410	15,850	15,820	23,380	18,880	26,900	51,900	76,930	79,370	34,210	18,910	18,060
Иaх	22,700	21,000	20,300	33,200	23,100	32,000	86,600	109,000	120,000	53,600	23,300	20,600
V lin	14,200	14,300	14,300	15,500	14,700	19,300	28,400	48,000	56,300	22,300	15,000	14,800
\c-ft	1,009,000	943,400	972,900	1,438,000	,	,	,					

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2009, BY WATER YEAR (WY)

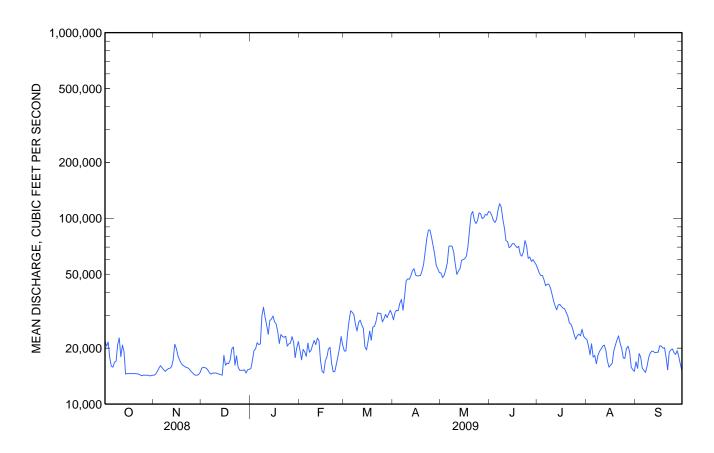
	0ct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	20,500	21,100	23,840	28,420	31,870	38,270	48,020	66,620	69,660	29,950	17,820	18,990
Max	31,540	36,960	41,630	71,930	72,520	90,400	92,900	118,700	134,200	63,860	29,140	31,730
(WY)	(1985)	(1985)	(1965)	(1997)	(1965)	(1972)	(2006)	(1984)	(1984)	(1982)	(1997)	(1997)
Min	13,060	12,720	12,940	16,140	15,540	18,490	18,880	20,610	16,850	12,830	9,765	10,180
(WY)	(2004)	(2004)	(2003)	(2001)	(2005)	(2005)	(1977)	(1977)	(1992)	(1977)	(1992)	(1992)

Water-Data Report 2009

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

SUMMARY STATISTICS

	Calendar Y	ear 2008	Water Yea	ar 2009	Water Yea	rs 1958 - 2009
Annual total	11,397,400		12,073,000			
Annual mean	31,140		33,080		34,560	
Highest annual mean					59,030	1997
Lowest annual mean					18,050	1992
Highest daily mean	131,000	May 21	120,000	Jun 7	191,000	Jun 18, 1974
Lowest daily mean	13,900	Sep 21	14,200	Oct 24	6,630	Sep 1, 1958
Annual seven-day minimum	14,300	Oct 24	14,300	Oct 24	7,150	Aug 28, 1958
Annual runoff (ac-ft)	22,610,000		23,950,000		25,040,000	
10 percent exceeds	69,900		70,900		72,400	
50 percent exceeds	21,900		21,100		25,000	
90 percent exceeds	14,700		14,800		14,800	



13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD .--

WATER TEMPERATURE: Water years 1973 to May 1984, October 1985 to current year.

TOTAL DISSOLVED GAS: April to September 2009 (seasonal records only). Seasonal records from April 2003 to September 2008, available in files of the U.S. Geological Survey Kennewick Field Office (U.S. Army Corps of Engineers Walla Walla has data for April 1999 to September 2002)

PERIOD OF DAILY RECORD .--

WATER TEMPERATURE: October 1959 to May 1984, April 1986 to current year.

TOTAL DISSOLVED GAS: April to September 2009 (seasonal records only).

INSTRUMENTATION.--Temperature recorder since October 1959. Total dissolved gas monitor with a 1-hour logging interval since 1999.

REMARKS.--Temperature and total dissolved gas records good. Prior to Oct. 1990, temperature records furnished by U.S. Army Corps of Engineers. Prior to Oct. 2003, temperature records were rounded to nearest half degree.

EXTREMES FOR PERIOD OF DAILY RECORD .--

WATER TEMPERATURE: Maximum, 25.5°C (rounded), Aug. 26, 28, 1991, Aug. 2-4, 1994, Aug. 14, 1998; minimum, 0.0°C, several days during some winter months.

TOTAL DISSOLVED GAS: Maximum recorded, 109 percent saturation, several days in May and June 2009; minimum, 98 percent saturation Sept. 30, 2009, but may have been higher or lower during periods of missing record.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 24.3°C, Aug. 17; minimum, 0.8°C, Jan. 27.

TOTAL DISSOLVED GAS: Maximum recorded, 109 percent saturation, several days in May and June; minimum, 98 percent saturation Sept. 30, but may have been higher or lower during periods of missing record.

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

1	Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
2 18.6 18.0 18.4 11.6 11.3 11.4 7.5 7.3 7.4 2.7 1.0 2.0 3 11.4 10.9 11.2 7.5 7.2 7.4 1.8 1.2 1.5 4 10.4 10.9 11.2 7.5 7.2 7.4 1.8 1.2 1.5 5 10.4 19.9 10.2 6.3 5.9 6.0 2.0 1.6 1.8 6 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.4 10.0 10.2 6.4 6.1 6.3 3.9 4.0 10 10.6 10.4 10.5 6.5 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.4 6.1 6.3 <th></th> <th></th> <th>October</th> <th></th> <th></th> <th>Novembe</th> <th>r</th> <th></th> <th>Decembe</th> <th>r</th> <th></th> <th>January</th> <th></th>			October			Novembe	r		Decembe	r		January	
2 18.6 18.0 18.4 11.6 11.3 11.4 7.5 7.3 7.4 2.7 1.0 2.0 3 11.4 10.9 11.2 7.5 7.2 7.4 1.8 1.2 1.5 4 10.4 10.9 11.2 7.5 7.2 7.4 1.8 1.2 1.5 5 10.4 19.9 10.2 6.3 5.9 6.0 2.0 1.6 1.8 6 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.6 10.4 10.5 6.5 6.3 6.4 4.3 3.8 4.1 9 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.6 10.2 10.4 6.4 6.1 6.3	1	19.0	17.9	18.4	11 4	11.0	11.2	7.6	7.2	7 4	2.7	26	26
3 11.4 10.9 11.2 7.5 7.2 7.4 1.8 1.2 1.5 4 10.9 10.4 10.8 7.2 6.3 6.8 1.8 1.4 1.6 5 10.4 9.9 10.2 6.3 5.9 6.0 2.0 1.6 1.8 6 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.6 10.4 10.5 6.5 6.3 6.4 4.3 3.8 4.1 9 10.6 10.2 10.4 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.3 6.0 6.1 4.2 3.9 4.0 11 10.6 10.2													
4 10.9 10.4 10.8 7.2 6.3 6.8 1.8 1.4 1.6 5 10.4 9.9 10.2 6.3 5.9 6.0 2.0 1.6 1.8 6 10.0 9.8 10 6.3 5.9 6.1 3.0 2.0 2.4 7 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.5 10.4 10.4 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.6 10.2 10.4 6.3 6.0 6.1 4.2 3.9 4.0 12													
5 10.4 9.9 10.2 6.3 5.9 6.0 2.0 1.6 1.8 6 10.0 9.8 10 6.3 5.9 6.1 3.0 2.0 2.4 7 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.6 10.4 10.5 6.5 6.3 6.4 4.3 3.8 4.1 9 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
7 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.6 10.4 10.5 6.5 6.3 6.4 4.3 3.8 4.1 9 10.5 10.4 10.4 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 <													
7 10.4 10.0 10.2 6.4 6.1 6.3 4.0 3.0 3.6 8 10.6 10.4 10.5 6.5 6.3 6.4 4.3 3.8 4.1 9 10.5 10.4 10.4 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6	6				10.0	9.8	10	6.3	5.9	6.1	3.0	2.0	2.4
8 10.6 10.4 10.5 6.5 6.3 6.4 4.3 3.8 4.1 9 10.5 10.4 10.4 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.2 9.8 10 6.2 5.8 6.1 4.3 3.7 4.0 12 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 <													
9 10.5 10.4 10.4 6.3 6.0 6.1 4.2 3.9 4.0 10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 -9.3 8.5 8.9 5.2 4.0 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.2 3.3 3.6 15 13.3 12.6 8.6 7.8 8.2													
10 10.6 10.2 10.4 6.4 6.1 6.3 3.9 3.6 3.7 11 10.2 9.8 10 6.2 5.8 6.1 4.3 3.7 4.0 12 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 15 13.2 12.6 12.8 8.5 7.9 8.2 4.2 3.5 4.0 3.3 3.6 15 13.2 12.5 12.6 8.1 7.8 7.9 4.0 3.2 3.6 3.1 2.6 2.9 17 13.0 12.3													
12 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 15 13.2 12.6 12.8 8.5 7.9 8.2 4.2 3.5 4.0 3.4 3.0 3.3 16 12.9 12.5 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.3	10												
12 10.1 9.7 9.9 5.8 5.6 5.7 4.7 4.1 4.4 13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 15 13.2 12.6 12.8 8.5 7.9 8.2 4.2 3.5 4.0 3.4 3.0 3.3 16 12.9 12.5 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.3	11				10.2	9.8	10	6.2	5.8	6.1	4.3	3.7	4.0
13 10.4 9.3 10.0 5.7 5.2 5.5 4.5 4.0 4.2 14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 15 13.2 12.6 12.8 8.5 7.9 8.2 4.2 3.5 4.0 3.4 3.0 3.3 16 12.9 12.5 12.6 8.1 7.8 7.9 4.0 3.2 3.6 3.1 2.6 2.9 17 13.0 12.3 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.3													
14 9.3 8.5 8.9 5.2 4.0 4.5 4.0 3.3 3.6 15 13.2 12.6 12.8 8.5 7.9 8.2 4.2 3.5 4.0 3.4 3.0 3.3 16 12.9 12.5 12.6 8.1 7.8 7.9 4.0 3.2 3.6 3.1 2.6 2.9 17 13.0 12.3 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.4 20 13.3 12.9 13.1 8.6 8.2 8.4 3.8 2.8 3.4 2.4 2.0 2.3													
15 13.2 12.6 12.8 8.5 7.9 8.2 4.2 3.5 4.0 3.4 3.0 3.3 16 12.9 12.5 12.6 8.1 7.8 7.9 4.0 3.2 3.6 3.1 2.6 2.9 17 13.0 12.3 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.4 20 13.3 12.9 13.1 8.6 8.2 8.4 3.8 2.8 3.4 2.6 2.0 2.3 21 13.2 12.3 12.8 8.3 7.7 8.1 3.7 2.2 3.3 2.5 2.0 2.3 22 12.4 11.8 12.1 7.7 7.3 7.6 2.6<													
17 13.0 12.3 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.4 20 13.3 12.9 13.1 8.6 8.2 8.4 3.8 2.8 3.4 2.4 2.0 2.3 21 13.2 12.3 12.8 8.3 7.7 8.1 3.7 2.2 3.3 2.5 2.0 2.3 22 12.4 11.8 12.1 7.7 7.3 7.6 2.6 2.0 2.3 2.8 2.2 2.5 23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1<		13.2	12.6	12.8									
17 13.0 12.3 12.6 8.6 7.8 8.2 4.0 2.9 3.6 2.9 2.5 2.7 18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.4 20 13.3 12.9 13.1 8.6 8.2 8.4 3.8 2.8 3.4 2.4 2.0 2.3 21 13.2 12.3 12.8 8.3 7.7 8.1 3.7 2.2 3.3 2.5 2.0 2.3 22 12.4 11.8 12.1 7.7 7.3 7.6 2.6 2.0 2.3 2.8 2.2 2.5 23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1<	16	12.9	12.5	12.6	8.1	7.8	7.9	4.0	3.2	3.6	3.1	2.6	2.9
18 13.3 12.6 12.9 8.5 8.1 8.3 4.2 3.5 3.9 2.8 2.3 2.6 19 13.6 12.8 13.2 8.4 8.0 8.2 3.8 2.9 3.4 2.6 2.0 2.4 20 13.3 12.9 13.1 8.6 8.2 8.4 3.8 2.8 3.4 2.4 2.0 2.3 21 13.2 12.3 12.8 8.3 7.7 8.1 3.7 2.2 3.3 2.5 2.0 2.3 22 12.4 11.8 12.1 7.7 7.3 7.6 2.6 2.0 2.3 2.8 2.2 2.5 23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1 2.5 2.8 2.7 2.2 2.5 25 12.4 11.6 12.0 6.9 6.2 6.5 3.0<	17	13.0						4.0	2.9		2.9	2.5	
20 13.3 12.9 13.1 8.6 8.2 8.4 3.8 2.8 3.4 2.4 2.0 2.3 21 13.2 12.3 12.8 8.3 7.7 8.1 3.7 2.2 3.3 2.5 2.0 2.3 22 12.4 11.8 12.1 7.7 7.3 7.6 2.6 2.0 2.3 2.8 2.2 2.5 23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1 2.5 2.8 2.7 2.5 2.6 25 12.4 11.6 12.0 6.5 6.0 6.2 3.1 2.5 2.8 2.7 2.2 2.5 26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3<	18	13.3	12.6	12.9	8.5	8.1	8.3	4.2	3.5	3.9	2.8	2.3	2.6
21 13.2 12.3 12.8 8.3 7.7 8.1 3.7 2.2 3.3 2.5 2.0 2.3 22 12.4 11.8 12.1 7.7 7.3 7.6 2.6 2.0 2.3 2.8 2.2 2.5 23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1 2.5 2.8 2.7 2.5 2.6 25 12.4 11.6 12.0 6.5 6.0 6.2 3.1 2.5 2.8 2.7 2.5 2.6 25 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.8 2.7 2.2 2.5 26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3<	19	13.6	12.8	13.2	8.4	8.0	8.2	3.8	2.9	3.4	2.6	2.0	2.4
22 12.4 11.8 12.1 7.7 7.3 7.6 2.6 2.0 2.3 2.8 2.2 2.5 23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1 2.5 2.8 2.7 2.5 2.6 25 12.4 11.6 12.0 6.5 6.0 6.2 3.1 2.5 2.8 2.7 2.2 2.5 26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2<	20	13.3	12.9	13.1	8.6	8.2	8.4	3.8	2.8	3.4	2.4	2.0	2.3
23 12.0 11.4 11.7 7.3 6.6 7.0 3.0 1.8 2.6 2.8 2.4 2.7 24 11.9 11.3 11.6 6.7 6.3 6.5 3.1 2.5 2.8 2.7 2.5 2.6 25 12.4 11.6 12.0 6.5 6.0 6.2 3.1 2.5 2.8 2.7 2.2 2.5 26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9<	21	13.2	12.3	12.8	8.3	7.7	8.1	3.7	2.2	3.3	2.5	2.0	2.3
24 11.9 11.3 11.6 6.7 6.3 6.5 3.1 2.5 2.8 2.7 2.5 2.6 25 12.4 11.6 12.0 6.5 6.0 6.2 3.1 2.5 2.8 2.7 2.2 2.5 26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7<	22	12.4	11.8	12.1	7.7	7.3	7.6	2.6	2.0	2.3	2.8	2.2	2.5
25 12.4 11.6 12.0 6.5 6.0 6.2 3.1 2.5 2.8 2.7 2.2 2.5 26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7 2.6 2.6 2.6 2.7 2.1 2.4	23	12.0	11.4	11.7	7.3	6.6	7.0	3.0	1.8	2.6	2.8	2.4	2.7
26 12.3 11.7 12.0 6.9 6.2 6.5 3.0 2.5 2.7 2.2 1.4 1.9 27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7 2.6 2.6 2.6 2.7 2.1 2.4	24	11.9	11.3	11.6	6.7	6.3	6.5	3.1	2.5	2.8	2.7	2.5	2.6
27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7 2.6 2.6 2.7 2.1 2.4	25	12.4	11.6	12.0	6.5	6.0	6.2	3.1	2.5	2.8	2.7	2.2	2.5
27 11.9 11.3 11.6 7.0 6.5 6.8 3.3 2.9 3.1 1.4 0.8 1.1 28 11.4 10.9 11.2 7.0 6.8 6.9 3.4 2.9 3.1 1.7 1.1 1.3 29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7 2.6 2.6 2.6 2.7 2.1 2.4	26	12.3	11.7	12.0	6.9	6.2	6.5	3.0	2.5	2.7	2.2	1.4	1.9
29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7 2.6 2.6 2.6 2.7 2.1 2.4	27	11.9	11.3	11.6	7.0	6.5	6.8	3.3	2.9	3.1	1.4	0.8	
29 11.3 10.8 11.0 7.2 6.8 7.0 3.2 2.9 3.1 2.1 1.6 1.8 30 11.2 10.7 10.9 7.6 7.2 7.4 2.9 2.6 2.8 2.5 2.0 2.2 31 11.2 10.8 11.0 2.7 2.6 2.6 2.6 2.7 2.1 2.4	28	11.4	10.9	11.2	7.0	6.8	6.9	3.4	2.9	3.1	1.7	1.1	1.3
31 11.2 10.8 11.0 2.7 2.6 2.6 2.7 2.1 2.4	29	11.3	10.8				7.0				2.1	1.6	
	30	11.2	10.7	10.9	7.6	7.2	7.4	2.9	2.6	2.8	2.5	2.0	2.2
Month 11.6 6.0 8.8 7.6 1.8 4.6 4.7 0.8 2.7	31	11.2	10.8	11.0				2.7	2.6	2.6	2.7	2.1	2.4
	Month				11.6	6.0	8.8	7.6	1.8	4.6	4.7	0.8	2.7

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
Day	IVIGA			IVIAA		MICAII	IVIAA		MICAII	IVIAA		IAICAII
		February			March			April			May	
1	2.3	1.8	2.1	3.8	3.2	3.5	5.8	5.0	5.4	10.5	9.3	9.9
2	2.2	1.8	1.9	4.8	3.7	4.2	6.6	5.2	5.8	10.5	9.9	10.2
3	2.5	1.8	2.1	5.5	4.5	4.9	6.5	5.6	6.1	10.2	9.8	10
4	2.7	1.8	2.2	5.3	4.4	4.8	7.5	6.1	6.7	10.3	9.4	9.9
5	2.4	2.0	2.2	4.6	4.0	4.4	7.9	6.4	7.1	10.2	9.7	10
6	3.1	2.3	2.7	4.2	3.5	3.8	8.5	7.0	7.7	10.1	9.4	9.6
7	3.4	2.5	2.9	3.5	3.0	3.3	8.9	7.4	8.1	10.0	9.2	9.6
8	3.0	2.3	2.6	4.1	3.1	3.6	9.0	8.0	8.5	10.0	9.1	9.5
9	2.7	2.3	2.4	4.0	3.4	3.7	8.3	7.7	8.1	10.5	9.4	9.9
10	2.6	2.0	2.3	3.9	3.2	3.5	8.5	7.4	7.9	11.3	10.0	10.6
11	2.9	2.2	2.4	3.5	2.7	3.0	8.4	7.7	7.9	12.0	10.7	11.3
12	2.7	2.1	2.4	3.5	2.5	2.9	8.2	7.2	7.8	11.6	9.7	10.9
13	2.6	1.9	2.2	3.9	2.8	3.2	8.6	7.8	8.2	10.5	9.1	9.8
14	2.7	1.9	2.3	4.3	3.4	3.8	7.8	7.2	7.4	11.1	10.3	10.7
15	2.5	2.0	2.2	4.9	4.0	4.4	7.7	6.8	7.3	11.2	10.3	10.8
16	2.7	2.0	2.3	4.7	4.4	4.6	8.6	7.4	7.9	11.9	10.9	11.4
17	3.3	2.4	2.8	5.2	4.2	4.7	8.5	8.0	8.3	12.9	11.7	12.3
18	3.6	2.8	3.1	5.9	5.0	5.3	9.5	8.1	8.8	13.2	12.4	12.8
19	3.8	2.9	3.3	5.6	5.0	5.3	9.5	8.8	9.2	12.8	11.1	12.2
20	3.6	2.8	3.2	6.3	5.2	5.7	9.9	9.1	9.5	11.2	10.5	10.9
21	3.6	2.8	3.2	7.2	6.3	6.7	9.9	9.2	9.6	11.2	10.5	10.8
22	3.4	2.9	3.1	6.9	6.2	6.5	9.9	9.4	9.7	11.8	10.9	11.3
23	4.1	3.0	3.5	6.8	5.5	6.1	9.7	8.9	9.5	12.4	11.6	12.0
24	4.7	3.9	4.3	6.5	5.6	6.1	9.0	8.4	8.7	12.8	12.2	12.4
25	4.8	4.5	4.7	6.4	5.9	6.2	9.2	8.5	8.8	12.4	11.8	12.1
26	4.8	3.8	4.5	6.5	5.2	5.9	9.6	8.7	9.1	12.4	11.8	12.1
27	3.8	3.0	3.3	6.7	5.4	6.0	9.6	9.0	9.3	12.8	11.9	12.3
28	3.4	2.7	3.0	6.9	6.2	6.5	9.4	8.8	9.2	13.2	12.3	12.8
29				6.6	5.6	6.0	9.6	8.7	9.1	13.4	12.8	13.0
30				6.2	4.9	5.6	10.0	8.9	9.5	13.6	12.6	13.1
31				5.9	5.4	5.6				13.5	12.9	13.2
lonth	4.8	1.8	2.8	7.2	2.5	4.8	10.0	5.0	8.2	13.6	9.1	11.2

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			Septembe	er
1	13.4	12.8	13.1	19.5	18.6	19.0	24.0	22.9	23.5	23.4	22.4	22.8
2	13.2	12.6	12.9	19.8	18.7	19.3	24.3	23.3	23.7	23.3	22.3	22.7
3	13.6	12.8	13.1	20.4	19.2	19.8	24.2	23.1	23.6	22.8	21.8	22.4
4	13.6	13.0	13.3	20.6	19.7	20.2	23.9	22.9	23.4	22.4	21.5	21.9
5	14.2	13.4	13.8	20.7	20.0	20.3	23.8	22.9	23.3	21.8	21.0	21.5
6	14.1	13.0	13.5	20.9	20.1	20.5	23.2	22.2	22.9	21.4	20.7	21.0
7	13.2	12.8	12.9	20.2	19.4	19.8	22.2	21.2	21.8	21.1	20.1	20.6
8	13.6	12.6	13.1	19.9	19.1	19.6	21.7	20.6	21.1	20.8	19.7	20.2
9	14.1	13.2	13.6	19.7	18.9	19.4	22.4	21.0	21.6	20.9	20.3	20.5
10	14.7	13.5	14.1	19.9	18.8	19.4	23.0	21.7	22.2	21.3	20.2	20.7
11	15.1	13.9	14.5	19.9	19.0	19.5	23.0	21.9	22.3	21.7	20.6	21.0
12	15.2	14.8	15.0	20.6	19.4	19.9	22.6	22.1	22.3	21.8	20.8	21.2
13	14.9	14.4	14.7	20.0	19.4	19.8	22.3	21.6	22.0	21.9	21.0	21.3
14	14.8	14.2	14.5	20.6	19.0	19.7	21.6	20.7	21.3	21.9	20.9	21.3
15	15.3	14.4	14.8	21.3	20.1	20.7	21.2	20.2	20.6	22.0	21.0	21.4
16	16.0	15.0	15.4	21.6	20.5	21.0	21.1	20.0	20.5	22.1	21.2	21.5
17	16.4	15.8	16.1	21.8	20.9	21.3	21.5	20.2	20.8	22.2	21.3	21.7
18	16.4	15.6	16.0	22.2	21.2	21.7	22.2	20.8	21.4	22.0	21.1	21.5
19	16.4	15.6	15.9	22.6	21.7	22.1	22.8	21.4	22.0	21.6	20.9	21.3
20	15.6	14.8	15.1	22.6	21.5	22.1	23.1	21.9	22.4	21.0	20.1	20.7
21	15.2	14.3	14.9	23.0	21.8	22.3	23.4	22.4	22.8	20.2	19.4	19.8
22	15.2	13.8	14.3	23.2	21.9	22.5	23.2	22.2	22.6	20.6	19.6	20.0
23	16.0	14.7	15.3	23.3	22.3	22.8	22.7	21.8	22.2	21.1	19.9	20.4
24	16.8	15.8	16.3	23.5	22.4	22.9	22.6	21.3	21.9	21.2	20.4	20.7
25	17.3	16.6	16.9	23.5	22.5	23.0	22.7	21.5	22.0	21.1	20.3	20.6
26	17.8	17.1	17.4	23.2	22.5	22.9	22.9	21.8	22.3	20.7	19.9	20.2
27	18.1	17.2	17.7	23.5	22.3	22.9	23.4	22.2	22.7	20.4	19.4	20.0
28	18.6	17.8	18.2	23.8	22.7	23.2	23.4	22.4	22.8	19.5	18.7	19.2
29	19.1	18.2	18.6	23.8	22.8	23.3	23.0	22.4	22.7	18.7	18.0	18.5
30	19.3	18.4	18.8	23.8	22.8	23.3	23.1	22.1	22.6	18.0	17.0	17.4
31				23.7	22.7	23.2	23.3	22.2	22.7			
/lonth	19.3	12.6	15.1	23.8	18.6	21.2	24.3	20.0	22.3	23.4	17.0	20.8

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

TOTAL PARTIAL PRESSURE OF DISSOLVED GASES, WATER, UNFILTERED, PERCENT OF SATURATION WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean									
		October			Novembe	r		Decembe	r		January	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Month												

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

TOTAL PARTIAL PRESSURE OF DISSOLVED GASES, WATER, UNFILTERED, PERCENT OF SATURATION WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February	1		March			April			May	
1							102	100	101	104	101	103
2							104	101	102	103	101	102
3							102	100	101	102	101	101
4							103	100	101	103	101	102
5							104	100	102	102	101	102
6							104	101	102	103	101	102
7							104	101	102	103	101	102
8							103	101	102	104	101	102
9							103	100	102	104	101	102
10							103	101	102	104	101	103
11							102	100	101	104	101	102
12							103	100	101	104	101	102
13							103	101	101	104	101	102
14							102	101	101	103	101	102
15							102	101	101	104	101	102
16							103	100	101	104	102	103
17							103	101	102	105	102	103
18							103	101	102	105	102	104
19							103	101	102	105	103	104
20							104	101	102	108	104	106
21							104	101	103	109	106	107
22							104	102	103	108	106	107
23							104	102	103	107	105	106
24										107	105	106
25							104	103	103	109	106	108
26							104	102	103	109	107	108
27							104	102	103	109	106	107
28							103	101	102	109	106	107
29							103	101	102	108	106	107
30							103	101	102	109	107	108
31										109	107	108
Month										109	101	104

13334300 SNAKE RIVER NEAR ANATONE, WA—Continued

TOTAL PARTIAL PRESSURE OF DISSOLVED GASES, WATER, UNFILTERED, PERCENT OF SATURATION WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August		;	Septembe	r
1	109	107	108	105	102	103	105	100	102	104	100	102
2	109	107	108	105	102	103	105	101	102	104	99	101
3	108	106	107	105	102	103	105	100	102	103	100	101
4	108	106	107	104	102	103	105	100	102	104	99	101
5	109	106	107	104	102	103	105	100	102	103	100	101
6	108	106	107	104	102	103	103	100	101	102	99	100
7	108	107	108	104	101	103	102	99	100	103	99	100
8	109	107	108	104	101	102	104	99	101	104	99	101
9	108	106	107	103	101	102	104	100	102	103	100	101
10	107	106	106	104	101	103	104	100	102	103	99	101
11	107	105	106	104	102	103	104	100	102	104	100	101
12	106	105	105	104	102	103	102	100	101	104	100	102
13	106	104	105	102	101	102	103	100	101	104	100	102
14	106	104	105	104	101	102	102	100	101	103	100	101
15	106	104	105	104	101	103	103	99	101	103	99	101
16	107	104	105	104	101	102	103	100	101	104	101	102
17	106	104	105	104	101	102	104	100	102	103	100	101
18	107	104	105	104	101	103	105	100	102	104	100	102
19	105	104	105	104	101	102	105	100	102	102	100	101
20	106	104	104	104	101	102	105	100	102	102	99	100
21	104	103	104	105	101	103	104	100	102	103	99	101
22	105	103	104	105	101	102	104	100	102	104	100	101
23	107	104	106	104	101	102	103	100	101	104	100	102
24	107	105	106	104	100	102	104	99	101	104	100	101
25	105	103	104	104	100	102	104	99	101	103	100	101
26	105	103	104	104	100	102	104	100	102	103	100	101
27	106	103	104	105	100	102	105	100	102	103	99	101
28	105	103	104	105	101	103	105	100	102	103	100	101
29	105	103	104	105	101	102	103	100	101	101	99	100
30	104	102	103	105	100	102	104	100	102	101	98	99
31				105	100	102	105	100	102			
lonth	109	102	106	105	100	102	105	99	102	104	98	101