

Total Dissolved Gas Saturation(%) - Average of 12 Highest Hours, 24 Hours Average and 24 Hours High

Total Dissolved Gas Data at Upper Columbia Sites

Date	Hungry H. Dnst				Boundary				Grand Coulee				Grand C. Tlwr				Chief Joseph				Chief J. Dnst				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
07/06									110.8	111.2	111.6	24	112.5	113.2	115.2	24	113.2	113.4	113.8	24	112.6	113.0	113.7	24	07/06
07/07									109.5	110.0	110.6	24	112.0	112.6	114.1	24	113.2	113.4	113.8	24	112.6	112.8	113.1	24	07/07
07/08									109.0	109.5	109.9	24	112.6	113.8	115.6	24	112.7	113.1	113.6	24	112.1	112.5	112.8	24	07/08
07/09									109.7	109.9	110.4	24	111.5	112.3	114.5	24	112.0	112.7	113.3	24	111.7	112.2	112.4	24	07/09
07/10									108.8	109.0	109.5	24	110.8	111.3	112.1	24	111.8	112.1	112.4	24	111.3	111.6	112.1	24	07/10
07/11									109.0	109.3	109.5	24	110.0	110.6	113.1	24	110.9	111.2	111.4	24	110.5	111.0	111.5	24	07/11
07/12									109.0	109.6	110.1	24	110.2	110.7	112.2	24	110.5	111.1	111.6	24	110.0	110.5	110.9	24	07/12
07/13									109.8	110.2	110.5	24	110.3	110.8	111.7	24	110.7	111.2	111.6	24	110.2	110.8	111.4	24	07/13
07/14									109.4	109.7	109.9	24	109.9	110.5	111.1	24	109.3	109.5	109.7	24	109.0	109.5	110.0	24	07/14
07/15									109.3	109.5	109.7	24	109.7	110.2	111.1	24	109.2	109.7	110.1	24	108.7	109.4	110.0	24	07/15
07/16									109.5	109.8	110.1	24	109.3	109.6	110.9	24	109.6	110.3	110.9	24	109.2	110.0	110.4	24	07/16
07/17									110.0	110.2	110.4	24	109.3	109.6	110.5	24	110.0	110.6	111.0	24	109.5	110.1	110.6	24	07/17
07/18									109.5	110.1	110.4	24	109.6	110.0	110.8	24	109.5	109.8	110.0	24	111.7	115.5	125.5	24	07/18
07/19									109.6	109.8	110.1	23	109.8	110.2	110.8	23	109.2	109.6	110.0	23	119.5	129.2	138.7	23	07/19

Total Dissolved Gas Data at Upper Columbia Sites

Date	Wells				Wells Dwnstrm				Rocky Reach				Rocky R. Tlwr				Rock Island				Rock I. Tlwr				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
07/06	112.8	113.4	113.9	24	114.5	115.7	118.2	24	113.9	114.4	114.6	24	115.2	116.5	117.0	21	112.6	113.4	114.8	21	116.0	116.7	117.4	21	07/06
07/07	111.9	112.4	113.0	24	114.2	114.9	116.9	24	113.1	113.3	113.7	24	115.1	115.7	116.4	23	113.0	113.4	113.9	23	116.4	116.9	117.1	21	07/07
07/08	112.6	113.7	114.5	24	113.9	114.9	115.5	24	113.7	114.7	115.3	24	114.7	115.4	116.0	23	112.5	113.2	114.0	23	116.2	116.8	117.1	23	07/08
07/09	112.8	113.7	114.4	24	114.7	116.3	119.3	24	114.3	114.6	115.2	24	116.0	117.1	117.7	20	113.6	114.2	115.2	22	117.5	118.2	119.0	20	07/09
07/10	111.3	111.7	111.9	24	112.6	113.2	113.5	24	112.9	113.4	114.1	24	115.9	116.2	116.9	22	111.6	112.6	113.4	23	116.8	117.0	118.5	19	07/10
07/11	111.0	111.9	112.3	24	112.8	114.6	115.9	24	113.0	113.4	113.9	24	115.1	116.0	116.7	20	112.1	113.2	114.3	23	116.4	116.6	117.7	16	07/11
07/12	111.5	112.1	112.6	24	113.2	113.9	114.5	24	112.6	112.9	113.3	23	114.8	115.4	116.2	22	112.6	113.1	113.6	24	116.7	117.1	117.6	22	07/12
07/13	111.2	111.8	112.6	24	112.9	113.8	115.3	24	114.1	114.5	114.8	24	116.0	116.8	117.8	21	113.1	114.1	115.1	21	116.8	117.6	118.5	20	07/13
07/14	110.1	110.7	111.2	24	112.0	112.7	114.3	24	112.1	112.5	113.4	24	114.6	115.2	116.1	22	112.7	113.1	114.2	23	116.9	117.2	118.3	22	07/14
07/15	110.3	111.3	111.8	24	113.3	115.8	120.1	24	112.0	112.6	112.9	23	114.2	115.3	115.8	20	111.7	112.3	113.0	23	116.4	116.6	117.1	18	07/15
07/16	110.4	111.0	111.5	24	112.1	113.0	116.1	24	111.9	112.2	112.4	23	115.1	115.5	116.1	18	112.2	112.7	113.3	21	116.9	117.4	117.9	19	07/16
07/17	110.9	111.6	112.2	24	112.0	112.8	113.3	24	113.9	115.0	115.9	24	115.7	116.6	117.5	22	112.7	114.3	116.2	23	117.4	118.3	119.5	21	07/17
07/18	110.6	111.2	111.6	24	112.0	112.5	113.1	24	111.4	111.8	112.7	24	114.4	114.7	115.4	21	112.0	112.4	114.0	24	117.0	117.4	118.4	20	07/18
07/19	109.8	110.5	111.3	23	111.1	111.8	112.5	23	111.1	111.3	111.7	21	113.8	114.4	114.9	19	110.7	111.3	112.2	20	115.8	116.3	116.8	19	07/19

Total Dissolved Gas Saturation(%) - Average of 12 Highest Hours, 24 Hours Average and 24 Hours High

Total Dissolved Gas Data at Upper and Mid-Columbia Sites

Date	Wanapum				Wanapum Tlwr				Priest Rapids				Priest R. Dnstr				Pasco				Date	
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr		
07/06	112.6	112.8	113.3	24	113.1	113.5	113.9	24	111.7	111.9	112.5	24	111.8	111.9	112.2	24						07/06
07/07	112.5	113.1	114.0	24	113.3	113.5	114.0	24	110.9	111.7	112.4	24	111.2	111.6	111.8	24						07/07
07/08	113.6	115.5	116.6	24	113.1	113.4	113.7	24	112.4	112.9	113.5	24	111.6	111.9	112.1	24						07/08
07/09	114.0	114.7	115.5	24	114.2	114.6	115.3	24	112.6	112.7	113.1	24	111.8	112.1	112.3	24						07/09
07/10	110.6	111.7	113.6	24	112.0	112.5	114.2	24	110.8	111.2	111.6	24	112.3	113.5	114.9	24						07/10
07/11	111.8	114.1	115.6	24	112.2	112.8	113.2	24	110.0	110.9	111.9	24	109.9	110.5	110.8	24						07/11
07/12	113.7	114.6	115.3	24	113.3	113.5	113.6	24	112.0	112.6	113.2	24	111.5	112.0	112.4	24						07/12
07/13	114.3	114.9	116.1	24	114.1	114.5	114.8	24	113.0	113.4	114.1	24	112.2	112.5	112.6	24						07/13
07/14	112.0	112.9	113.4	24	113.4	113.8	114.6	24	111.7	112.3	112.7	24	111.1	111.3	111.8	24						07/14
07/15	113.2	114.2	115.1	24	113.9	114.2	114.5	24	112.2	112.7	113.0	24	111.3	111.5	111.7	24						07/15
07/16	114.4	115.5	116.0	24	114.7	115.1	115.6	24	113.5	114.1	114.5	24	112.9	113.3	114.1	24						07/16
07/17	114.1	114.9	116.2	24	114.3	114.6	114.9	24	113.5	113.9	114.7	24	112.5	112.7	112.8	24						07/17
07/18	111.6	112.5	114.2	24	113.1	113.6	113.8	24	112.1	112.9	116.5	24	111.2	111.2	111.8	8						07/18
07/19	111.3	112.0	112.5	24	112.7	113.2	113.8	24	110.9	111.6	112.4	24				0						07/19

Total Dissolved Gas Data at Snake and Clearwater Sites

Date	Dworshak				Clrwr Peck				Anatone				Clrwr-Lewiston				Lower Granite				Lower G. Tlwr				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
07/06	102.9	105.3	107.8	24	103.2	104.8	106.5	24	102.6	103.4	104.2	24	103.4	105.3	106.6	24	99.3	99.6	99.8	24	114.5	115.1	115.9	24	07/06
07/07	100.7	101.0	101.3	24	102.4	103.4	104.2	24	102.6	103.8	104.9	24	103.9	106.1	107.9	24	99.9	100.5	101.0	24	114.3	114.7	115.7	24	07/07
07/08	100.8	101.1	101.5	24	102.7	103.8	104.6	24	102.8	104.1	105.2	24	103.9	106.5	108.4	24	101.4	102.0	102.6	24	114.3	114.8	115.3	24	07/08
07/09	104.8	108.9	110.1	24	104.8	107.7	109.4	24	102.8	104.2	105.3	24	104.3	106.8	108.7	24	101.8	102.2	102.4	24	114.6	115.0	115.5	24	07/09
07/10	108.6	109.0	109.3	24	107.2	108.2	108.9	24	102.5	103.6	104.7	24	105.8	108.2	109.9	24	100.4	100.8	101.3	24	114.4	114.8	115.7	24	07/10
07/11	108.8	109.1	109.4	23	107.4	108.4	109.2	24	102.8	104.3	106.5	24	106.1	108.7	110.5	24	102.6	103.2	103.7	24	114.8	115.4	115.9	24	07/11
07/12	108.9	109.2	109.5	24	107.7	108.8	109.6	24	103.0	104.5	105.6	24	106.4	109.1	111.0	24	103.1	103.3	103.4	24	115.2	115.5	116.1	24	07/12
07/13	109.0	109.4	110.2	24	108.1	109.0	109.8	24	103.2	104.7	106.1	24	106.7	109.5	111.4	24	103.3	103.5	103.6	24	115.6	115.8	116.4	24	07/13
07/14	108.6	108.9	109.2	24	107.8	108.8	109.6	24	102.7	104.1	105.4	24	106.4	109.1	111.0	24	103.1	103.5	103.7	24	115.2	115.5	116.0	24	07/14
07/15	108.9	109.4	109.6	24	108.1	109.2	110.0	24	102.5	104.0	105.4	24	106.1	108.8	110.4	24	103.4	103.7	103.9	24	115.3	115.7	116.5	24	07/15
07/16	109.0	109.2	109.5	24	107.8	108.5	109.3	24	102.1	103.5	104.5	24	105.5	107.8	109.8	24	104.8	105.4	105.8	24	115.2	115.6	116.6	24	07/16
07/17	109.1	109.4	109.7	24	108.1	109.2	110.1	24	102.6	104.2	105.5	24	106.4	109.2	111.1	24	105.4	105.7	105.9	24	115.5	115.9	116.7	24	07/17
07/18	109.0	109.3	109.6	24	108.1	109.2	110.0	24	102.3	103.7	105.0	24	106.3	108.9	110.7	24	104.1	104.3	105.0	24	115.3	115.6	116.4	24	07/18
07/19	107.2	109.1	110.0	23	107.1	108.8	110.3	23	102.4	103.8	105.1	23	106.4	109.2	111.4	23	102.9	103.1	103.3	23	115.1	115.4	116.6	23	07/19

**Total Dissolved Gas Saturation(%) - Average of
12 Highest Hours, 24 Hours Average and 24 Hours High**

Total Dissolved Gas Data at Lower Snake Sites

Little Goose				L. Goose Tlwr				Lower Mon.				Lwr. Mon. Tlwr				Ice Harbor				Tlwr Ice Harbor				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
07/06	107.9	108.2	108.9	24	112.3	112.5	112.6	24	109.5	109.9	110.2	24	116.1	116.5	117.0	24	111.1	111.4	111.7	24	113.0	114.2	115.3	24	07/06
07/07	107.9	108.4	108.8	24	112.2	112.5	112.8	24	110.4	110.7	111.3	24	115.8	116.3	116.7	24	111.1	111.3	111.6	24	111.7	112.1	113.0	24	07/07
07/08	110.5	111.8	113.4	24	113.1	113.5	113.7	24	111.2	111.4	111.7	24	115.8	116.4	116.7	24	112.6	113.0	113.5	24	111.5	112.0	112.6	24	07/08
07/09	111.9	112.1	112.3	24	113.4	113.7	113.9	24	111.3	111.5	112.0	24	116.1	116.6	117.3	24	112.9	113.3	113.6	24	112.5	113.6	114.4	24	07/09
07/10	110.5	110.8	111.3	24	112.5	112.8	113.1	24	111.0	111.3	111.5	24	116.4	117.4	118.4	24	112.5	112.8	113.2	24	112.9	114.1	114.7	24	07/10
07/11	109.9	110.1	110.3	24	113.0	113.4	113.6	24	111.4	111.7	111.9	24	116.3	116.7	117.1	24	112.5	112.7	112.8	24	111.7	112.1	112.6	24	07/11
07/12	109.7	110.0	110.5	24	113.3	113.5	113.8	24	111.5	111.6	111.8	24	116.3	116.7	117.1	24	112.4	112.5	112.7	24	111.1	111.6	112.0	24	07/12
07/13	109.7	110.2	110.9	24	113.2	113.4	113.6	24	111.8	112.2	113.0	24	116.2	116.8	117.3	24	112.4	113.1	113.6	24	111.5	112.5	113.0	24	07/13
07/14	109.9	110.4	110.7	24	112.9	113.2	113.4	24	112.2	112.5	113.0	24	116.0	117.1	117.7	24	113.5	114.1	114.2	24	111.1	112.2	112.7	24	07/14
07/15	112.1	113.1	113.6	24	113.6	114.0	114.3	24	113.1	113.5	113.9	24	116.4	116.9	117.5	24	114.7	115.5	116.0	24	112.4	113.4	114.0	24	07/15
07/16	112.7	113.1	113.7	24	113.2	113.5	113.7	24	112.9	113.1	113.3	24	116.5	117.1	117.6	24	114.3	114.7	115.3	24	111.7	112.3	112.7	24	07/16
07/17	112.7	113.2	114.1	24	113.2	113.5	113.7	24	112.5	113.1	113.7	24	116.2	116.7	117.0	24	113.8	114.1	114.2	24	111.7	112.4	113.3	24	07/17
07/18	111.8	112.0	112.3	24	112.8	113.0	113.1	24	113.3	113.8	117.1	24	116.6	117.1	117.6	24	113.4	113.5	113.7	24	112.0	112.8	113.4	24	07/18
07/19	110.5	110.9	111.4	23	114.2	115.6	123.0	23	112.7	112.9	113.1	23	114.8	115.9	116.5	23	112.4	112.6	113.2	23	112.2	112.8	113.3	23	07/19

Total Dissolved Gas Data at Mid-Columbia Sites

McNary-Wash.				Tlwr McNary				John Day				Tlwr John Day				The Dalles				Dnstr T. Dalles				Date	
Date	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	Date
07/06	109.0	109.6	110.1	24	115.3	116.8	118.1	24	105.5	105.8	106.2	24	113.7	114.4	114.9	24	108.1	108.5	108.8	24	113.9	114.5	114.7	24	07/06
07/07	108.1	109.1	109.8	24	114.5	115.9	116.3	24	105.1	105.4	105.7	24	113.0	113.3	113.5	24	107.5	107.8	108.2	24	113.1	114.1	114.8	24	07/07
07/08	110.6	111.1	112.0	24	115.3	115.7	116.2	24	105.8	106.5	106.8	24	113.0	114.2	114.6	24	109.5	110.3	110.6	24	114.3	115.1	115.5	24	07/08
07/09	110.6	111.2	111.9	24	114.8	115.5	116.1	24	106.4	106.8	107.3	24	113.8	114.0	114.4	24	109.2	109.7	109.9	24	113.9	114.3	114.6	24	07/09
07/10	108.4	108.8	109.3	24	114.3	115.7	116.1	24	105.8	106.2	106.6	24	113.7	114.3	114.7	24	106.1	106.4	107.0	24	112.6	113.2	113.6	24	07/10
07/11	108.6	109.1	110.3	24	115.5	116.2	116.8	24	106.2	106.7	107.0	24	113.6	114.9	116.4	24	108.0	109.5	110.9	24	113.6	114.8	115.2	24	07/11
07/12	108.9	109.3	110.0	24	115.6	116.5	117.5	24	107.2	107.6	108.1	24	114.0	115.5	117.1	24	111.9	112.2	112.6	24	115.5	116.3	117.1	24	07/12
07/13	110.5	111.2	111.6	24	115.1	116.2	116.5	24	108.0	108.3	108.7	24	114.4	114.8	115.3	24	111.6	112.0	112.3	24	115.3	115.7	116.0	24	07/13
07/14	109.8	110.2	110.8	24	115.0	116.2	116.5	24	107.2	107.7	108.0	24	114.2	114.7	115.3	24	108.4	109.1	109.9	24	113.8	114.2	114.4	24	07/14
07/15	110.2	111.1	112.2	24	115.3	116.1	116.4	24	108.0	108.6	110.1	24	112.9	113.2	113.8	24	110.7	111.0	111.2	24	114.8	115.6	116.0	24	07/15
07/16	110.3	111.1	112.1	24	115.9	117.5	118.3	24	110.4	111.2	112.3	24	115.4	116.8	118.2	24	111.6	111.7	111.9	24	115.8	116.8	117.8	24	07/16
07/17	109.9	110.2	110.5	24	115.3	117.0	118.1	24	110.9	111.2	111.6	24	114.9	115.4	116.3	24	111.2	111.8	112.1	24	115.3	116.0	116.7	24	07/17
07/18	109.1	109.3	109.6	24	115.6	116.4	116.8	24	109.2	109.5	110.2	24	114.9	115.3	115.7	24	108.0	108.4	109.1	24	113.1	113.4	114.0	24	07/18
07/19	108.3	108.8	109.1	23	115.6	116.2	116.4	23	107.4	107.6	108.0	23	113.6	114.1	114.6	23	106.6	106.7	106.9	23	112.1	112.3	112.6	23	07/19

Total Dissolved Gas Saturation(%) - Average of 12 Highest Hours, 24 Hours Average and 24 Hours High

Total Dissolved Gas Data at Mid-Columbia Sites

Date	Bonneville				Warrendale				Camas\Washug.				Cascade Isld.				Date
	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	24 h Avg	12 h Avg	High	# Hr	
07/06	111.0	111.5	112.1	24	116.7	117.8	118.7	24	115.3	116.5	117.9	24				0	07/06
07/07	109.1	109.4	109.9	24	116.1	117.1	117.7	24	113.6	115.4	116.6	24				0	07/07
07/08	110.4	111.2	111.7	24	115.9	116.8	117.2	24	114.7	115.7	116.7	24				0	07/08
07/09	109.7	110.1	110.2	24	115.3	116.0	117.6	24	112.7	113.7	114.9	24				0	07/09
07/10	107.5	108.0	108.5	24	116.3	117.1	118.0	24	113.3	115.4	117.5	24				0	07/10
07/11	109.1	110.3	111.2	24	115.8	116.7	117.2	24	114.7	115.6	116.2	24	116.8	116.8	117.1	11	07/11
07/12	113.1	114.2	114.7	24	116.3	117.0	117.7	24	114.3	115.7	116.5	24	115.7	116.4	117.8	24	07/12
07/13	114.2	114.6	114.8	24	117.2	117.9	118.6	24	115.3	117.0	118.4	24	115.5	116.1	117.4	24	07/13
07/14	111.8	112.4	113.2	24	117.3	118.1	118.5	24	115.4	117.3	118.7	24	116.9	117.0	117.1	24	07/14
07/15	112.3	113.1	113.4	24	116.7	117.5	118.1	24	115.2	116.4	116.9	24	116.7	116.8	117.0	24	07/15
07/16	113.5	114.0	114.2	24	116.3	116.6	117.0	24	115.4	116.8	117.9	24	115.7	116.3	117.9	24	07/16
07/17	112.1	112.7	112.9	24	116.2	117.0	117.7	24	114.4	115.8	117.3	24	115.7	116.5	117.9	24	07/17
07/18	109.0	109.6	110.2	24	115.8	116.5	117.1	24	112.2	113.9	115.3	24	116.4	116.6	117.6	24	07/18
07/19	106.1	106.4	106.8	23	114.0	114.2	114.5	23	110.8	111.6	113.1	23	116.2	116.3	116.5	23	07/19

Hours used in calculating values:

24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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