

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

Date 7/20/2018 4:15:09 PM

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	113.9	113.8	24	112.6	113.0	113.7	24	07/06
07/07									109.5	111.1	110.6	24	112.0	112.6	114.1	24	113.2	113.4	113.8	24	112.6	112.7	113.1	24	07/07
07/08									109.0	109.8	109.9	24	112.6	113.8	115.6	24	112.7	113.4	113.6	24	112.1	112.6	112.8	24	07/08
07/09									109.7	110.0	110.4	24	111.5	112.4	114.5	24	112.0	113.0	113.3	24	111.7	112.4	112.4	24	07/09
07/10									108.8	109.9	109.5	24	110.8	111.2	112.1	24	111.8	112.7	112.4	24	111.3	112.1	112.1	24	07/10
07/11									109.0	109.3	109.5	24	110.0	110.5	113.1	24	110.9	111.8	111.4	24	110.5	111.4	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	110.1	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	110.2	109.9	24	109.9	110.4	111.1	24	109.3	110.6	109.7	24	109.0	110.0	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	109.5	110.5	24	110.0	110.6	111.0	24	109.5	110.1	110.6	24	07/17
07/18									109.5	110.3	110.4	24	109.6	110.0	110.8	24	109.5	110.3	110.0	24	111.7	114.5	125.5	24	07/18
07/19									109.6	109.8	110.1	23	109.8	110.1	110.8	23	109.2	109.6	110.0	23	119.5	131.7	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	115.6	118.2	24	113.9	114.4	114.6	24	115.2	116.6	117.0	21	112.6	113.5	114.8	21	116.0	116.5	117.4	21	07/06
07/07	111.9	112.9	113.0	24	114.2	115.7	116.9	24	113.1	114.3	113.7	24	115.1	116.4	116.4	23	113.0	113.9	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	115.6	116.0	23	112.5	113.3	114.0	23	116.2	116.9	117.1	23	07/08
07/09	112.8	113.7	114.4	24	114.7	116.3	119.3	24	114.3	114.9	115.2	24	116.0	117.4	117.7	20	113.6	114.2	115.2	22	117.5	118.4	119.0	20	07/09
07/10	111.3	113.2	111.9	24	112.6	116.1	113.5	24	112.9	114.6	114.1	24	115.9	117.3	116.9	22	111.6	114.2	113.4	23	116.8	118.7	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	116.3	116.7	20	112.1	113.3	114.3	23	116.4	117.1	117.7	16	07/11
07/12	111.5	112.1	112.6	24	113.2	114.6	114.5	24	112.6	113.4	113.3	23	114.8	116.4	116.2	22	112.6	113.5	113.6	24	116.7	117.1	117.6	22	07/12
07/13	111.2	111.8	112.6	24	112.9	113.6	115.3	24	114.1	114.5	114.8	24	116.0	117.1	117.8	21	113.1	114.7	115.1	21	116.8	118.2	118.5	20	07/13
07/14	110.1	111.3	111.2	24	112.0	113.7	114.3	24	112.1	114.3	113.4	24	114.6	117.0	116.1	22	112.7	114.7	114.2	23	116.9	118.3	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	115.5	115.8	20	111.7	112.6	113.0	23	116.4	116.8	117.1	18	07/15
07/16	110.4	111.0	111.5	24	112.1	116.1	116.1	24	111.9	112.6	112.4	23	115.1	115.8	116.1	18	112.2	112.7	113.3	21	116.9	117.5	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	116.7	117.5	22	112.7	114.5	116.2	23	117.4	118.5	119.5	21	07/17
07/18	110.6	111.2	111.6	24	112.0	112.5	113.1	24	111.4	114.1	112.7	24	114.4	116.2	115.4	21	112.0	114.8	114.0	24	117.0	118.9	118.4	20	07/18
07/19	109.8	110.5	111.3	23	111.1	112.0	112.5	23	111.1	111.2	111.7	21	113.8	114.5	114.9	19	110.7	111.6	112.2	20	115.8	116.9	116.8	19	07/19

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

Date 7/20/2018 4:15:09 PM

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	115.4	113.3	24	113.1	113.6	113.9	24	111.7	113.1	112.5	24	111.8	112.7	112.2	24					07/06
07/07	112.5	113.1	114.0	24	113.3	113.7	114.0	24	110.9	111.7	112.4	24	111.2	111.7	111.8	24					07/07
07/08	113.6	115.5	116.6	24	113.1	113.3	113.7	24	112.4	112.9	113.5	24	111.6	111.9	112.1	24					07/08
07/09	114.0	115.5	115.5	24	114.2	114.6	115.3	24	112.6	113.1	113.1	24	111.8	112.0	112.3	24					07/09
07/10	110.6	114.6	113.6	24	112.0	114.5	114.2	24	110.8	112.4	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	111.0	110.8	24					07/11
07/12	113.7	114.6	115.3	24	113.3	113.5	113.6	24	112.0	112.5	113.2	24	111.5	112.0	112.4	24					07/12
07/13	114.3	114.9	116.1	24	114.1	114.4	114.8	24	113.0	113.3	114.1	24	112.2	112.4	112.6	24					07/13
07/14	112.0	114.8	113.4	24	113.4	114.4	114.6	24	111.7	113.3	112.7	24	111.1	112.4	111.8	24					07/14
07/15	113.2	114.2	115.1	24	113.9	114.2	114.5	24	112.2	112.5	113.0	24	111.3	111.5	111.7	24					07/15
07/16	114.4	115.5	116.0	24	114.7	114.9	115.6	24	113.5	114.1	114.5	24	112.9	113.3	114.1	24					07/16
07/17	114.1	115.5	116.2	24	114.3	114.8	114.9	24	113.5	114.3	114.7	24	112.5	113.0	112.8	24					07/17
07/18	111.6	114.4	114.2	24	113.1	114.3	113.8	24	112.1	113.6	116.5	24	111.2	112.5	111.8	8					07/18
07/19	111.3	112.1	112.5	24	112.7	113.5	113.8	24	110.9	111.5	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	103.8	104.2	24	103.4	105.9	106.6	24	99.3	100.4	99.8	24	114.5	115.2	115.9	24	07/06
07/07	100.7	104.1	101.3	24	102.4	104.5	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	102.3	102.4	24	114.6	114.9	115.5	24	07/09
07/10	108.6	109.0	109.3	24	107.2	108.2	108.9	24	102.5	103.8	104.7	24	105.8	108.2	109.9	24	100.4	101.9	101.3	24	114.4	114.6	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	115.4	116.1	24	07/12
07/13	109.0	109.2	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	103.4	103.6	24	115.6	115.8	116.4	24	07/13
07/14	108.6	109.0	109.2	24	107.8	108.8	109.6	24	102.7	104.2	105.4	24	106.4	109.1	111.0	24	103.1	103.5	103.7	24	115.2	115.8	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	115.6	116.5	24	07/15
07/16	109.0	109.2	109.5	24	107.8	108.8	109.3	24	102.1	103.5	104.5	24	105.5	108.2	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	105.6	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	103.8	105.0	24	106.3	108.9	110.7	24	104.1	105.6	105.0	24	115.3	115.7	116.4	24	07/18
07/19	107.2	109.1	110.0	23	107.1	108.7	110.3	23	102.4	103.8	105.1	23	106.4	109.2	111.4	23	102.9	103.8	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
(Washington Calculation)**

Total Dissolved Gas Data at Lower Snake Sites

Date	Little Goose				L. Goose Tlwr				Lower Mon.				Lwr. Mon. Tlwr				Ice Harbor				Tlwr Ice Harbor				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	107.9	108.2	108.9	24	112.3	112.8	112.6	24	109.5	109.9	110.2	24	116.1	116.5	117.0	24	111.1	111.3	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	111.4	111.6	24	111.7	113.3	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	112.1	112.6	24	07/08
07/09	111.9	112.1	112.3	24	113.4	113.7	113.9	24	111.3	111.4	112.0	24	116.1	116.4	117.3	24	112.9	113.3	113.6	24	112.5	113.6	114.4	24	07/09
07/10	110.5	111.9	111.3	24	112.5	113.7	113.1	24	111.0	111.4	111.5	24	116.4	117.3	118.4	24	112.5	113.3	113.2	24	112.9	114.1	114.7	24	07/10
07/11	109.9	110.3	110.3	24	113.0	113.4	113.6	24	111.4	111.6	111.9	24	116.3	116.9	117.1	24	112.5	112.7	112.8	24	111.7	113.8	112.6	24	07/11
07/12	109.7	110.0	110.5	24	113.3	113.5	113.8	24	111.5	111.7	111.8	24	116.3	116.7	117.1	24	112.4	112.7	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	116.7	117.3	24	112.4	113.1	113.6	24	111.5	112.5	113.0	24	07/13
07/14	109.9	110.3	110.7	24	112.9	113.3	113.4	24	112.2	112.4	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	113.4	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	113.0	113.7	24	113.2	113.9	113.7	24	112.9	113.5	113.3	24	116.5	117.1	117.6	24	114.3	115.6	115.3	24	111.7	113.2	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	116.9	117.0	24	113.8	114.3	114.2	24	111.7	112.4	113.3	24	07/17
07/18	111.8	113.0	112.3	24	112.8	113.5	113.1	24	113.3	113.8	117.1	24	116.6	117.1	117.6	24	113.4	113.9	113.7	24	112.0	112.8	113.4	24	07/18
07/19	110.5	111.7	111.4	23	114.2	115.9	123.0	23	112.7	113.5	113.1	23	114.8	117.1	116.5	23	112.4	113.3	113.2	23	112.2	112.9	113.3	23	07/19

Total Dissolved Gas Data at Mid-Columbia Sites

Date	McNary-Wash.				Tlwr McNary				John Day				Tlwr John Day				The Dalles				Dnstr T. Dalles				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	109.0	109.6	110.1	24	115.3	116.8	118.1	24	105.5	106.3	106.2	24	113.7	114.4	114.9	24	108.1	110.1	108.8	24	113.9	114.8	114.7	24	07/06
07/07	108.1	109.1	109.8	24	114.5	115.9	116.3	24	105.1	105.6	105.7	24	113.0	113.8	113.5	24	107.5	107.8	108.2	24	113.1	114.1	114.8	24	07/07
07/08	110.6	110.9	112.0	24	115.3	115.9	116.2	24	105.8	106.5	106.8	24	113.0	114.0	114.6	24	109.5	110.3	110.6	24	114.3	115.0	115.5	24	07/08
07/09	110.6	111.3	111.9	24	114.8	115.7	116.1	24	106.4	106.8	107.3	24	113.8	114.1	114.4	24	109.2	110.3	109.9	24	113.9	115.0	114.6	24	07/09
07/10	108.4	110.4	109.3	24	114.3	115.7	116.1	24	105.8	106.7	106.6	24	113.7	114.3	114.7	24	106.1	108.5	107.0	24	112.6	113.4	113.6	24	07/10
07/11	108.6	108.8	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	109.1	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	111.1	111.6	24	115.1	116.2	116.5	24	108.0	108.2	108.7	24	114.4	115.6	115.3	24	111.6	112.2	112.3	24	115.3	116.3	116.0	24	07/13
07/14	109.8	110.8	110.8	24	115.0	116.2	116.5	24	107.2	108.2	108.0	24	114.2	114.7	115.3	24	108.4	111.0	109.9	24	113.8	115.2	114.4	24	07/14
07/15	110.2	110.8	112.2	24	115.3	116.1	116.4	24	108.0	108.5	110.1	24	112.9	113.7	113.8	24	110.7	110.9	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	116.7	117.8	24	07/16
07/17	109.9	111.1	110.5	24	115.3	117.0	118.1	24	110.9	111.4	111.6	24	114.9	116.8	116.3	24	111.2	111.8	112.1	24	115.3	116.6	116.7	24	07/17
07/18	109.1	110.0	109.6	24	115.6	116.9	116.8	24	109.2	110.8	110.2	24	114.9	115.2	115.7	24	108.0	110.3	109.1	24	113.1	115.8	114.0	24	07/18
07/19	108.3	109.1	109.1	23	115.6	116.2	116.4	23	107.4	108.9	108.0	23	113.6	114.9	114.6	23	106.6	107.5	106.9	23	112.1	113.1	112.6	23	07/19

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

Date 7/20/2018 4:15:09 PM

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	112.3	112.1	24	116.7	117.8	118.7	24	115.3	116.3	117.9	24				0	07/06
07/07	109.1	111.1	109.9	24	116.1	117.1	117.7	24	113.6	116.2	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	111.2	110.2	24	115.3	116.0	117.6	24	112.7	115.6	114.9	24				0	07/09
07/10	107.5	109.4	108.5	24	116.3	116.8	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	115.9	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	115.6	116.5	24	115.7	116.9	117.8	24	07/12
07/13	114.2	114.5	114.8	24	117.2	117.6	118.6	24	115.3	117.0	118.4	24	115.5	116.5	117.4	24	07/13
07/14	111.8	113.9	113.2	24	117.3	118.0	118.5	24	115.4	117.3	118.7	24	116.9	116.9	117.1	24	07/14
07/15	112.3	113.1	113.4	24	116.7	117.5	118.1	24	115.2	117.6	116.9	24	116.7	116.9	117.0	24	07/15
07/16	113.5	114.0	114.2	24	116.3	117.4	117.0	24	115.4	116.8	117.9	24	115.7	116.7	117.9	24	07/16
07/17	112.1	113.5	112.9	24	116.2	117.0	117.7	24	114.4	116.8	117.3	24	115.7	116.5	117.9	24	07/17
07/18	109.0	111.4	110.2	24	115.8	116.3	117.1	24	112.2	115.6	115.3	24	116.4	116.7	117.6	24	07/18
07/19	106.1	108.4	106.8	23	114.0	115.5	114.5	23	110.8	113.9	113.1	23	116.2	116.3	116.5	23	07/19

Hours used in calculating values:

