



US Army Corps
of Engineers
Baltimore District



Washington Aqueduct

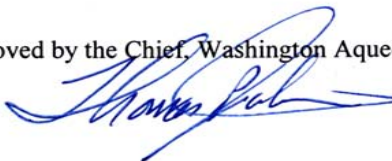
U.S. ARMY Corps of Engineers

Annual Report of Water Analysis 2008

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Approved by the Chief, Washington Aqueduct

 27 MAR 2009





WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS
ANNUAL REPORT OF WATER ANALYSIS (2008)

Potomac River Raw Water Supply

	Miscellaneous Physical Parameters									Inorganic Ions									Microorganisms						
	pH	ALKALINITY	CONDUCTIVITY	DISSOLVED SOLIDS	SUSPENDED SOLIDS	TEMPERATURE	TOTAL HARDNESS	TOTAL ORG. CARBON	TOTAL SOLIDS	TURBIDITY	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	IODIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - PO4	PERCHLORATE	SULFATE	ALGAE COUNT	TOTAL COLIFORM	E. COLI	GIARDIA	CRYPTOSPORIDIUM
	ppm	uS/cm	ppm	ppm	F	ppm	ppm	ppm	NTU	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppb	ppm	org/mL	MPN/100mL	MPN/100mL	cysts/L	oocysts/L	
Jan	8.1	78	346	182	4	53	120	2.52	186	9	0.04	0.03	30	0.11	28.0	2.15	ND	0.31	ND	32	245	2144	73	ND	ND
Feb	7.9	64	313	236	86	54	100	3.24	322	18	0.06	0.03	33	0.07	----	2.43	0.02	0.21	ND	27	229	3356	56	ND	ND
Mar	7.9	66	295	209	66	58	100	2.33	275	65	0.04	ND	26	0.05	----	2.06	ND	0.08	ND	25	262	4023	296	ND	ND
Apr	7.8	71	265	146	7	64	105	4.58	153	32	0.05	0.03	22	0.09	6.5	1.46	0.02	0.12	ND	22	260	4081	715	ND	ND
May	7.6	67	229	104	64	66	90	3.53	168	31	0.04	0.03	15	0.10	----	1.53	ND	0.33	ND	23	595	25530	1570	ND	ND
Jun	7.9	90	334	212	11	78	125	2.61	223	11	0.04	0.03	21	0.11	----	1.67	0.02	0.10	0.6	31	390	12449	242	ND	ND
Jul	8.1	105	376	182	6	81	147	2.73	188	3	0.05	0.04	25	0.13	5.2	1.22	ND	0.27	0.6	40	437	3910	22	ND	ND
Aug	8.6	92	354	155	46	78	139	3.04	201	3	0.04	0.05	25	0.14	----	0.57	ND	0.11	ND	46	494	4311	47	ND	ND
Sep	8.4	95	367	155	3	76	136	3.28	158	4	0.04	0.04	29	0.19	----	1.00	ND	0.17	ND	44	440	4450	51	ND	ND
Oct	8.5	102	383	298	3	66	150	4.98	301	3	0.04	0.04	27	0.22	4.4	0.91	ND	0.43	ND	44	320	1087	36	ND	ND
Nov	8.3	119	487	256	1	57	171	3.53	257	1	0.04	0.04	34	0.23	----	1.25	0.02	0.21	0.8	52	216	280	27	ND	ND
Dec	7.8	78	341	224	ND	50	121	3.58	224	19	0.05	0.03	27	0.17	----	1.93	0.02	0.20	ND	37	224	7194	260	ND	ND
Avg	8.1	86	341	197	25	65	125	3.33	221	17	0.04	0.03	26	0.13	11.0	1.51	ND	0.21	ND	35	343	6068	283	ND	ND
Max	8.6	119	487	298	86	81	171	4.98	322	65	0.06	0.05	34	0.23	28.0	2.43	0.02	0.43	0.8	52	595	25530	1570	ND	ND
Min	7.6	64	229	104	ND	50	90	2.33	153	1	0.04	ND	15	0.05	4.4	0.57	ND	0.08	ND	22	216	280	22	ND	ND

	Metals																										
	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	LITHIUM	MAGNESIUM	MANGANESE	MOLYBDENUM	NICKEL	POTASSIUM	SELENIUM	SILVER	SODIUM	STRONTIUM	THALLIUM	THORIUM	URANIUM	VANADIUM	ZINC
	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppm	ppb	ppb	ppb	ppm	ppb	ppb	ppm	ppb	ppb	ppb	ppb	ppb	ppb
Jan	358	ND	ND	32.3	ND	ND	35	ND	ND	2.2	250	ND	1.8	8	31	ND	2.3	2.5	ND	ND	20.0	126	ND	ND	ND	0.8	5.1
Feb	273	ND	ND	37.0	ND	ND	29	ND	ND	1.6	126	ND	2.6	7	29	0.8	2.1	----	ND	ND	----	181	ND	ND	ND	ND	4.8
Mar	1060	ND	0.7	44.9	ND	ND	30	2.0	1.1	3.3	1176	1.7	2.6	6	78	ND	3.5	----	ND	ND	----	117	ND	ND	ND	2.8	10.7
Apr	225	ND	ND	36.3	ND	ND	28	ND	ND	1.7	243	ND	2.1	7	120	0.7	2.0	2.9	ND	ND	18.0	145	ND	ND	ND	0.8	4.1
May	308	ND	0.5	35.0	ND	ND	29	ND	ND	2.4	377	1.6	1.6	6	59	ND	2.0	----	ND	ND	----	103	ND	ND	ND	1.0	4.3
Jun	366	ND	0.6	38.2	ND	ND	38	0.7	ND	2.8	414	0.6	2.0	7	70	0.6	2.6	----	ND	ND	----	121	ND	ND	ND	1.4	4.7
Jul	195	ND	0.7	51.9	ND	ND	42	ND	ND	2.2	129	ND	3.4	10	61	1.0	2.5	3.2	ND	ND	14.0	217	ND	ND	ND	1.2	2.7
Aug	230	ND	1.0	50.0	ND	ND	33	ND	ND	2.3	137	ND	3.5	13	71	1.1	2.4	----	ND	ND	----	227	ND	ND	ND	1.4	2.8
Sep	206	ND	0.8	45.3	ND	ND	37	ND	ND	1.9	105	ND	4.2	11	38	1.2	2.3	----	ND	ND	----	243	ND	ND	ND	1.0	2.7
Oct	220	ND	1.0	38.9	ND	ND	41	0.5	ND	3.1	245	ND	2.1	12	39	0.9	2.3	4.1	ND	ND	19.0	178	ND	ND	ND	2.0	5.2
Nov	229	ND	0.5	44.4	ND	ND	49	2.9	ND	1.8	74	ND	3.2	12	19	0.9	2.3	----	ND	ND	----	249	ND	ND	ND	1.4	2.9
Dec	304	ND	ND	33.3	ND	ND	35	2.0	ND	2.0	86	ND	2.2	8	17	0.8	2.1	----	ND	ND	----	187	ND	ND	ND	1.0	2.3
Avg	331	ND	ND	40.6	ND	ND	35	0.7	ND	2.3	280	ND	2.6	9	53	0.7	2.4	3.2	ND	ND	17.8	175	ND	ND	ND	1.2	4.4
Max	1060	ND	1.0	51.9	ND	ND	49	2.9	1.1	3.3	1176	1.7	4.2	13	120	1.2	3.5	4.1	ND	ND	20.0	249	ND	ND	ND	2.8	10.7
Min	195	ND	ND	32.3	ND	ND	28	ND	ND	1.6	74	ND	1.6	6	17	ND	2.0	2.5	ND	ND	14.0	103	ND	ND	ND	ND	2.3

ppb = Parts Per Billion

ppm = Parts Per Million

ND = Not Detected



WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS
ANNUAL REPORT OF WATER ANALYSIS (2008)

EPA MCL*	Inorganic Ions										Metals																											
	TOTAL AMMONIA - N	BROMIDE	CHLORIDE	FLUORIDE	IODIDE	NITRATE - N	NITRITE - N	ORTHOPHOSPHATE - P04	PERCHLORATE	SULFATE	ALUMINUM	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CALCIUM	CHROMIUM	COBALT	COPPER	IRON	LEAD	LITHIUM	MAGNESIUM	MANGANESE	MERCURY	MOLYBDENUM	NICKEL	POTASSIUM	SELENIUM	SILVER	SODIUM	STRONTIUM	THALLIUM	THORIUM	URANIUM	VANADIUM	ZINC
	4				10		1				6	10	2000	4	5		100										2		50				2		30			
Dalecarlia Water Treatment Plant Finished Water																																						
Jan	0.82	ND	34	0.74	99.0	2.17	ND	2.46	ND	45	42	ND	ND	38	ND	ND	41	1.0	ND	5.2	ND	ND	2.5	7	0.9	ND	0.9	1.9	2.4	ND	ND	22.0	182	ND	ND	ND	ND	2.0
Feb	0.75	ND	44	0.72	---	2.33	ND	2.45	ND	42	22	ND	ND	35	ND	ND	37	2.1	ND	1.2	ND	ND	2.6	7	0.8	ND	0.8	2.1	---	0.7	ND	---	192	ND	ND	ND	0.7	2.5
Mar	0.77	ND	33	0.73	---	2.05	ND	2.49	ND	41	29	ND	ND	33	ND	ND	38	1.3	ND	1.3	ND	ND	2.5	6	1.0	ND	0.5	1.9	---	0.7	ND	---	132	ND	ND	ND	ND	2.2
Apr	0.19	ND	29	0.74	9.0	1.50	ND	2.40	ND	40	22	ND	ND	35	ND	ND	39	1.7	ND	0.9	ND	ND	1.7	7	1.0	ND	0.6	1.9	2.3	0.6	ND	12.0	152	ND	ND	ND	0.7	1.2
May	0.57	ND	21	0.83	---	1.51	ND	2.43	ND	39	34	ND	ND	32	ND	ND	37	1.8	ND	1.2	ND	ND	1.5	6	0.8	ND	ND	1.7	---	ND	ND	---	107	ND	ND	ND	0.8	0.8
Jun	0.88	ND	27	0.90	---	1.65	ND	2.46	ND	48	38	ND	ND	38	ND	ND	46	1.6	ND	1.1	ND	ND	2.4	7	1.2	ND	0.7	1.9	---	0.8	ND	---	147	ND	ND	ND	0.9	1.7
Jul	0.86	ND	30	1.00	5.6	1.19	ND	2.45	ND	60	51	ND	ND	46	ND	ND	50	2.6	ND	1.6	ND	ND	3.1	10	2.0	ND	1.0	2.1	2.9	0.8	ND	14.0	213	ND	ND	ND	1.4	0.9
Aug	0.89	ND	32	1.01	---	0.66	ND	2.45	ND	67	62	ND	0.7	45	ND	ND	45	2.6	ND	1.7	ND	ND	3.2	13	1.5	ND	1.1	2.5	---	1.3	ND	---	220	ND	ND	ND	1.5	1.0
Sep	0.83	ND	33	0.96	---	0.91	ND	2.55	ND	63	48	ND	0.6	45	ND	ND	45	1.7	ND	1.3	ND	ND	3.8	11	1.9	ND	1.1	2.2	---	1.0	ND	---	252	ND	ND	ND	1.1	0.8
Oct	0.85	ND	33	0.89	5.3	1.01	ND	2.47	ND	62	33	ND	ND	37	ND	ND	49	1.5	ND	1.6	ND	ND	2.9	11	1.2	ND	1.1	2.1	3.9	0.7	ND	18.0	178	ND	ND	ND	1.2	1.2
Nov	0.86	ND	38	0.88	---	1.26	ND	2.55	0.8	70	25	ND	ND	42	ND	ND	55	2.3	ND	1.2	ND	ND	3.0	12	0.8	ND	0.8	2.4	---	1.0	ND	---	243	ND	ND	ND	1.0	1.6
Dec	0.88	ND	31	0.82	---	1.98	ND	2.46	ND	52	20	ND	ND	33	ND	ND	44	1.6	ND	1.2	ND	ND	2.8	9	0.7	ND	0.8	2.2	---	0.8	ND	---	220	ND	ND	ND	0.7	1.5
Avg	0.76	ND	32	0.85	29.7	1.52	ND	2.47	ND	52	35	ND	ND	38	ND	ND	44	1.8	ND	1.6	ND	ND	2.7	9	1.2	ND	0.8	2.1	2.9	0.7	ND	16.5	186	ND	ND	ND	0.8	1.4
Max	0.89	ND	44	1.01	99.0	2.33	ND	2.55	0.8	70	62	ND	0.7	46	ND	ND	55	2.6	ND	5.2	ND	ND	3.8	13	2.0	ND	1.1	2.5	3.9	1.3	ND	22.0	252	ND	ND	ND	1.5	2.5
Min	0.19	ND	21	0.72	5.3	0.66	ND	2.40	ND	39	20	ND	ND	32	ND	ND	37	1.0	ND	0.9	ND	ND	1.5	6	0.7	ND	ND	1.7	2.3	ND	ND	12.0	107	ND	ND	ND	ND	0.8
McMillan Water Treatment Plant Finished Water																																						
Jan	0.80	ND	34	0.80	69.0	2.24	ND	2.22	ND	48	19	ND	ND	38	ND	ND	39	1.2	ND	5.8	ND	ND	2.3	8	0.6	ND	0.8	2.0	2.3	ND	ND	14.0	178	ND	ND	ND	ND	1.6
Feb	0.83	ND	43	0.80	---	2.16	ND	2.34	ND	45	26	ND	ND	33	ND	ND	35	1.9	ND	3.4	ND	ND	2.2	7	0.6	ND	0.8	2.0	---	0.7	ND	---	169	ND	ND	ND	0.6	2.3
Mar	0.79	ND	37	0.80	---	2.13	ND	2.34	ND	42	27	ND	ND	31	ND	ND	34	1.2	ND	2.9	ND	ND	1.9	7	0.5	ND	ND	1.7	---	0.6	ND	---	132	ND	ND	ND	ND	1.2
Apr	0.20	ND	30	0.80	16.0	1.49	ND	2.28	ND	41	29	ND	ND	30	ND	ND	35	1.2	ND	2.3	ND	ND	1.4	7	ND	ND	ND	1.5	2.5	0.6	ND	14.0	128	ND	ND	ND	ND	0.8
May	0.51	ND	22	0.85	---	1.30	ND	2.30	ND	42	38	ND	ND	32	ND	ND	32	0.8	ND	3.1	ND	ND	2.0	6	0.7	ND	ND	1.6	---	ND	ND	---	112	ND	ND	ND	ND	1.5
Jun	0.79	ND	27	0.96	---	1.50	ND	2.39	ND	49	41	ND	ND	36	ND	ND	40	1.6	ND	4.6	ND	ND	2.1	8	1.2	ND	ND	1.7	---	0.6	ND	---	134	ND	ND	ND	0.8	0.6
Jul	0.72	ND	31	1.04	5.3	1.12	ND	2.36	ND	64	47	ND	ND	43	ND	ND	47	2.1	ND	6.0	ND	ND	2.3	10	1.3	ND	0.9	1.7	2.8	0.9	ND	14.0	197	ND	ND	ND	1.1	ND
Aug	0.76	ND	33	0.99	---	0.72	ND	2.48	ND	69	55	ND	0.6	41	ND	ND	45	1.6	ND	6.2	ND	ND	2.6	11	1.3	ND	1.1	2.0	---	1.4	ND	---	214	ND	ND	ND	0.9	ND
Sep	0.71	ND	34	0.99	---	0.78	ND	2.52	ND	65	35	ND	0.6	36	ND	ND	41	1.1	ND	7.2	ND	ND	3.1	11	1.4	ND	1.0	1.8	---	0.9	ND	---	211	ND	ND	ND	0.8	ND
Oct	0.77	ND	33	0.97	5.6	0.92	ND	2.43	ND	65	321	ND	ND	37	ND	ND	43	1.3	ND	8.0	17	ND	2.3	10	3.7	ND	1.2	2.4	3.9	0.9	ND	18.0	219	ND	ND	ND	0.8	2.1
Nov	0.87	ND	38	0.95	---	1.12	ND	2.70	ND	68	28	ND	ND	40	ND	ND	51	1.9	ND	5.2	ND	ND	2.4	13	0.5	ND	0.9	2.2	---	0.8	ND	---	226	ND	ND	ND	0.8	1.4
Dec	0.95	ND	28	0.94	---	2.02	ND	2.34	ND	49	96	ND	ND	29	ND	ND	38	2.0	ND	5.0	ND	ND	2.2	7	2.1	ND	ND	2.0	---	0.8	ND	---	137	ND	ND	ND	0.8	0.8
Avg	0.72	ND	33	0.91	24.0	1.46	ND	2.39	ND	54	63	ND	ND	36	ND	ND	40	1.5	ND	5.0	ND	ND	2.2	9	1.2	ND	0.6	1.9	2.9	0.7	ND	15.0	171	ND	ND	ND	0.6	1.0
Max	0.95	ND	43	1.04	69.0	2.24	ND	2.70	ND	69	321	ND	0.6	43	ND	ND	51	2.1	ND	8.0	17	ND	3.1	13	3.7	ND	1.2	2.4	3.9	1.4	ND	18.0	226	ND	ND	ND	1.1	2.3
Min	0.20	ND	22	0.80	5.3	0.72	ND	2.22	ND	41	19	ND	ND	29	ND	ND	32	0.8	ND	2.3	ND	ND	1.4	6	ND	ND	ND	1.5	2.3	ND	ND	14.0	112	ND	ND	ND	ND	ND

*EPA MCL = Environmental Protection Agency's Maximum Contaminant Level for regulated parameters.

ppb = Parts Per Billion

ppm = Parts Per Million

ND = Not Detected

"---" = No Analysis Required



WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS
ANNUAL REPORT OF WATER ANALYSIS (2008)

		Synthetic Organic Compounds																																																										
EPA	MCL*	ALDICARB SULFOXIDE	ALDRIN	ANTHRACENE	AROCHLOR 1016	AROCHLOR 1221	AROCHLOR 1232	AROCHLOR 1242	AROCHLOR 1248	AROCHLOR 1254	AROCHLOR 1260	ATRAZINE	BAYGON	BENTAZON	BENZ(a)ANTHRACENE	BENZO(b)FLUORANTHENE	BENZO(g,h,i)PERYLENE	BENZO(a)PYRENE	BENZO(k)FLUORANTHENE	alpha-BHC	beta-BHC	delta-BHC	BROMACIL	BUTACHLOR	BUTYLBENZYL PHTHALATE	CAFFEINE	CARBARYL	CARBOFURAN	alpha-CHLORDANE	gamma-CHLORDANE	CHLORDANE	CHLORPYRIFOS (DURSBAN)	CHLOROBENZILATE	CHLORONEB	CHLOROTHALONIL	CHRYSENE	2,4-D	DALAPON	2,4-DB	DCPA MONO & DIACID DEGRADATE	4,4'-DDD	4,4'-DDE	4,4'-DDT	DIBENZ(a,h)ANTHRACENE	DICAMBA															
		4			0.5	0.5	0.5	0.5	0.5	0.5	0.5	3						0.2									40		2								70	200																						
Dalecarlia Water Treatment Plant Finished Water																																																												
Jan	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND										
Feb	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---					
Mar	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
Apr	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
May	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
Jun	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
Jul	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
Aug	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
Sep	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
Oct	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Nov	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
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Avg	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Max	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Min	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
McMillan Water Treatment Plant Finished Water																																																												
Jan	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND					
Feb	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Mar	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Apr	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
May	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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Jul	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND			
Aug	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
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Oct	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Nov	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dec	ppb	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Avg	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Max	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Min	ppb	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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ppb = Parts Per Billion

ppm = Parts Per Million

ND = Not Detected

"---" = No Analysis Required



**WASHINGTON AQUEDUCT, US ARMY CORPS OF ENGINEERS
ANNUAL REPORT OF WATER ANALYSIS (2008)**

EPA MCL*	Synthetic Organic Compounds														Miscellaneous				Radionuclides					
	PENDIMETHALIN	PERMETHRIN	PENTACHLOROPHENOL	PHENANTHRENE	PICLORAM	PROPACHLOR	PYRENE	SIMAZINE	TERRACIL	TERBUTHYLAZINE	THIOBENCARB	TRIFLURALIN	TOXAPHENE	2,4,5-T	2,4,5-TP (SILVEX)	DIBROMOCHLOROPROPANE (DBCP)	ETHYLENE DIBROMIDE (EDB)	CYANIDE	DIOXIN	N-nitrosodimethylamine (NDMA)	GROSS ALPHA	GROSS BETA	RADIUM 226 /228	STRONTIUM 90
	1		500		4			3		50	0.2	50	0.2	30		15	50	5						
Dalecarlia Water Treatment Plant Finished Water																								
	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppt	ppm	pg/L	ppt	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	ND	ND	ND	ND
Feb	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Mar	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	ND	ND	ND	1.6	ND	ND
May	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND	----	----	----	----	----	----	----
Jun	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Jul	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aug	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Sep	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND
Nov	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Dec	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Avg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4	ND	ND
Max	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	ND	1.6	ND	ND
Min	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
McMillan Water Treatment Plant Finished Water																								
Jan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND	0.4	ND	ND
Feb	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Mar	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Apr	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	----	ND	2.1	ND	ND	ND	ND	768
May	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	ND	----	----	----	----	----	----	----
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Sep	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Oct	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.0	ND	4.2	ND	ND	ND
Nov	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
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Avg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	192
Max	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	4.2	0.4	ND	768
Min	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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