



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2005 TO 12/31/2005**

Occoquan Reservoir-Lorton/Occoquan Water Treatment Plant Source

Parameter	MCL ¹	Units ²	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aggressive Index Number		Units	--	10	11	10	10	10	--	10	10	10	--	11	10	11	10	-	9
Alkalinity, Bicarbonate		mg/L	--	35	49	33	51	46	--	57	65	31	--	54	47	65	31	-	9
Alkalinity, Carbonate		mg/L	--	0	0	0	0	0	--	0	0	0	--	0	0	0	0	-	9
Alkalinity, Hydroxyl		mg/L	--	0	0	0	0	0	--	0	0	0	--	0	0	0	0	-	9
Alkalinity, Phenolphthalein		mg/L	--	0	0	0	0	0	--	0	0	0	--	0	0	0	0	-	9
Alkalinity, Total		mg/L	--	35	49	33	51	46	--	57	65	31	--	54	47	65	31	-	9
Bromate		µg/L	--	--	--	BQL	--	--	--	--	--	BQL	--	--	BQL	BQL	BQL	10	2
Bromide		mg/L	0.02	0.01	0.03	0.02	0.03	0.02	0.03	0.03	0.03	BQL	0.02	0.03	0.02	0.03	BQL	0.01	12
Carbon Dioxide		mg/L	--	7	2	5	13	12	--	11	16	20	--	7	10	20	2	-	9
Chloride		mg/L	--	16.0	51.7	17.5	26.7	19.4	--	22.7	26.7	9.7	--	23.0	23.7	51.7	9.7	5.0	9
Color		Units	--	170	25	91	32	42	--	42	23	72	--	24	58	170	23	0	9
Dissolved Oxygen		mg/L	--	9.5	10.5	8.3	6.6	3.8	--	2.7	3.4	3.3	--	9.1	6.4	10.5	2.7	0.0	9
Fluoride		mg/L	--	BQL	0.2	BQL	0.2	BQL	--	0.2	BQL	BQL	--	0.2	BQL	0.2	BQL	0.2	9
Hardness, Calcium		mg/L	--	36	58	34	52	46	--	60	67	36	--	61	50	67	34	-	9
Hardness, Total		mg/L	--	59	90	51	75	72	--	83	94	46	--	86	73	94	46	-	9
Methylene Blue Activated Substances		mg/L	--	--	--	--	0.054	BQL	--	--	--	--	--	--	BQL	0.054	BQL	0.050	2
N, Ammonia (Ammonia as N)		mg/L	--	0.14	BQL	0.10	0.11	0.10	--	0.24	0.10	--	--	0.10	0.11	0.24	BQL	0.05	8
N, Nitrate (Nitrate as N)		mg/L	--	1.3	1.3	0.7	1.2	1.2	--	1.0	1.6	1.0	--	2.7	1.3	2.7	0.7	0.2	9
N, Nitrite (Nitrite as N)		mg/L	--	0.01	0.01	0.01	0.03	0.08	--	0.05	0.07	0.14	--	0.03	0.05	0.14	0.01	0.01	9
pH		Units	--	7.0	7.7	7.1	6.9	6.9	--	7.0	6.9	6.5	--	7.2	7.0	7.7	6.5	-	9
Phosphate as Phosphorous		mg/L	--	0.03	BQL	BQL	--	BQL	--	BQL	--	0.04	--	--	0.01	0.04	BQL	0.01	6
Solids, Fixed		mg/L	--	108	--	144	113	99	--	140	181	91	--	118	124	181	91	1	8
Solids, Total		mg/L	--	180	299	309	178	220	--	234	308	170	--	222	236	309	170	1	9
Solids, Total Dissolved		mg/L	--	139	208	129	112	157	--	135	198	76	--	165	147	208	76	1	9
Solids, Total Suspended		mg/L	--	4	4	35	5	4	--	7	--	12	--	3	9	35	3	1	8
Solids, Volatile		mg/L	--	72	198	165	65	121	--	--	127	79	--	104	116	198	65	1	8
Specific Conductivity		µmhos/cm	--	167	330	162	242	197	--	248	295	138	--	260	227	330	138	0	9
Sulfate		mg/L	--	15.1	24.2	13.4	20.7	17.7	--	23.7	29.4	12.3	--	28.4	20.5	29.4	12.3	5.0	9
Temperature		°C	--	7.4	7.8	13.9	17.4	20.9	--	26.7	24.2	17.4	--	8.1	16.0	26.7	7.4	-	9
Threshold Odor Number		Units	--	3	1	7	3	3	--	8	6	1	--	11	5	11	1	1	9
Total Organic Carbon		mg/L	--	5.7	3.2	5.0	4.1	5.3	--	4.8	4.5	8.6	--	5.1	5.1	8.6	3.2	0.5	9
Turbidity		NTU	--	34.00	6.20	55.00	4.90	4.90	--	7.00	4.20	16.00	--	3.50	15.08	55.00	3.50	0.00	9

BQL = The lowest quantitation limit of all analyses for the particular parameter, Below Quantitation Limit.

¹ Environmental Protection Agency/Virginia Department of Health established levels for drinking water

P=Primary-enforceable, S=Secondary-non-enforceable, AL=Action Level on specific taps, MCL=Maximum Contaminant Level.

² mg/L=milligrams per liter, µg/L=micrograms per liter



**WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2005 TO 12/31/2005**

Occoquan Reservoir-Lorton/Occoquan Water Treatment Plant Source

Parameter	MCL ¹	Units ²	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit	# of Tests
Aluminum		µg/L	--	1,586	--	--	BQL	--	--	BQL	--	--	--	--	529	1586	BQL	500	3
Antimony		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Arsenic		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	3
Barium		µg/L	--	--	--	--	--	--	--	36	--	--	--	--	36	36	36	2	1
Beryllium		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Cadmium		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Calcium		mg/L	--	13.2	--	--	21.3	--	--	23.0	--	--	--	--	19.2	23.0	13.2	0.5	3
Chromium		µg/L	--	--	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	2
Copper		µg/L	--	BQL	BQL	BQL	BQL	BQL	--	46	9	45	--	39	15	46	BQL	2	9
Iron		µg/L	--	1,812	333	1,332	184	267	--	333	120	560	--	220	573	1812	120	20	9
Lead		µg/L	--	BQL	--	--	BQL	--	--	10.22	--	--	--	--	3.41	10.22	BQL	0.37	3
Magnesium		mg/L	--	4.4	--	--	5.7	--	--	5.2	--	--	--	--	5.1	5.7	4.4	0.5	3
Manganese		µg/L	--	102	55	249	121	396	--	592	290	250	--	110	241	592	55	2	9
Mercury		µg/L	--	--	BQL	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	5	3
Potassium		mg/L	--	3.2	--	--	3.0	--	--	4.8	--	--	--	--	3.7	4.8	3.0	0.5	3
Selenium		µg/L	--	--	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	2
Silicon		mg/L	--	8	--	--	4	--	--	4	--	--	--	--	5	8	4	1	3
Silver		µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.5	3
Sodium		mg/L	--	10.7	26.8	11.4	18.0	14.0	--	18.0	21.0	7.9	--	17.0	16.1	26.8	7.9	1.0	9
Thallium		µg/L	--	BQL	--	--	--	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	2
Zinc		µg/L	--	BQL	--	--	BQL	--	--	60	--	--	--	--	BQL	60	BQL	25	3

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