



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2005 TO 12/31/2005
Occoquan Treatment Plant Finished Water**

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	--	11	11	11	11	11	--	11	11	11	--	11	11	11	11	-	9
Alkalinity, Bicarbonate		mg/L	--	39	52	37	57	54	--	66	72	41	--	59	53	72	37	-	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	--	39	52	37	57	54	--	66	72	41	--	59	53	72	37	-	9
Bromate	10 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	10	4
Bromide		mg/L	--	BQL	0.02	BQL	0.01	--	--	BQL	BQL	BQL	--	BQL	BQL	0.02	BQL	0.01	8
Carbon Dioxide		mg/L	--	4	5	4	7	3	--	8	9	4	--	5	5	9	3	-	9
Chloride	250.0 S	mg/L	--	21.7	55.9	22.7	32.4	25.3	--	34.5	35.2	17.6	--	28.9	30.5	55.9	17.6	5.0	9
Chlorine, Free		mg/L	--	0.2	0.2	4.0	4.0	3.7	--	0.4	0.5	0.1	--	0.1	1.5	4.0	0.1	0.0	9
Chlorine, Total		mg/L	--	3.9	3.4	4.6	4.2	3.8	--	2.6	3.9	4.1	--	3.1	3.7	4.6	2.6	0.0	9
Color	15 S	Units	--	3	2	0	3	8	--	13	11	4	--	4	5	13	0	0	9
Dissolved Oxygen		mg/L	--	10.7	9.5	6.8	7.7	4.6	--	2.7	2.9	3.8	--	9.1	6.4	10.7	2.7	0.0	9
Fluoride	4.0/2.0 P/S	mg/L	--	0.8	0.8	0.9	1.0	1.0	--	0.8	1.0	0.6	--	0.8	0.9	1.0	0.6	0.2	9
Hardness, Calcium		mg/L	--	75	89	61	83	88	--	106	108	74	--	91	86	108	61	-	9
Hardness, Total		mg/L	--	96	119	87	114	113	--	132	137	96	--	121	113	137	87	-	9
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	0.059	BQL	--	--	--	--	--	--	BQL	0.059	BQL	0.050	2
N, Ammonia (Ammonia as N)		mg/L	--	1.15	1.19	0.06	BQL	0.08	--	0.78	1.08	--	--	0.95	0.66	1.19	BQL	0.05	8
N, Nitrate (Nitrate as N)	10 P	mg/L	--	1.3	1.2	0.7	1.2	1.3	--	1.1	1.8	1.2	--	2.7	1.4	2.7	0.7	0.2	9
N, Nitrite (Nitrite as N)	1 P	mg/L	--	BQL	0.01	--	BQL	BQL	--	BQL	--	BQL	--	BQL	BQL	0.01	BQL	0.01	7
pH	6.5-8.5 S	Units	--	7.3	7.3	7.3	7.2	7.5	--	7.2	7.2	7.3	--	7.4	7.3	7.5	7.2	-	9
Phosphate as Phosphorous		mg/L	--	0.81	0.40	0.37	0.62	--	--	0.58	0.57	0.54	--	0.27	0.52	0.81	0.27	0.20	8
Solids, Fixed		mg/L	--	135	--	153	143	181	--	161	208	123	--	174	160	208	123	1	8
Solids, Total		mg/L	--	227	299	294	219	278	--	259	237	174	--	276	251	299	174	1	9
Solids, Total Dissolved	500 S	mg/L	--	--	215	152	148	193	--	228	231	136	--	208	189	231	136	1	8
Solids, Total Suspended		mg/L	--	BQL	BQL	BQL	BQL	1	--	BQL	--	BQL	--	BQL	BQL	1	BQL	1	8
Solids, Volatile		mg/L	--	92	204	141	76	97	--	--	29	51	--	102	99	204	29	1	8
Specific Conductivity		µmhos/cm	--	258	393	232	320	286	--	350	375	242	--	329	309	393	232	0	9
Sulfate	250.0 S	mg/L	--	39.5	45.6	33.3	41.6	42.8	--	48.7	50.7	38.8	--	50.6	43.5	50.7	33.3	5.0	9
Taste		Units	--	1	2	3	2	2	--	3	4	4	--	2	3	4	1	1	9
Temperature		°C	--	11.8	13.5	16.4	18.8	21.9	--	28.0	24.5	18.3	--	11.2	18.3	28.0	11.2	-	9
Threshold Odor Number	3 S	Units	--	3	1	9	11	5	--	5	6	1	--	2	5	11	1	1	9
Total Organic Carbon		mg/L	--	2.2	1.5	2.1	2.1	2.3	--	2.9	3.0	3.7	--	2.6	2.5	3.7	1.5	0.5	9
Turbidity	≤5 P	NTU	--	0.30	0.25	0.25	0.60	1.00	--	1.50	1.40	0.40	--	0.45	0.68	1.50	0.25	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 Treatment Plant Finished Water**

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	50-200 S	µg/L	--	81	--	--	33	--	--	48	--	--	--	--	54	81	33	20	3
Antimony	6 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Arsenic	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	3
Barium	2000 P	µg/L	--	72	--	--	38	--	--	30	--	--	--	--	47	72	30	2	3
Beryllium	4 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Cadmium	5 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Calcium		mg/L	--	29.0	--	--	34.3	--	--	44.4	--	--	--	--	35.9	44.4	29.0	0.5	3
Chromium	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Copper	1300 AL	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	4	3	3	--	BQL	BQL	4	BQL	2	9
Iron	300 S	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	20	9
Lead	15 AL	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.37	3
Magnesium		mg/L	--	4.5	--	--	5.7	--	--	5.3	--	--	--	--	5.2	5.7	4.5	0.5	3
Manganese	50 S	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	29	BQL	17	--	3	5	29	BQL	2	9
Mercury	2 P	µg/L	--	--	BQL	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	5	3
Potassium		mg/L	--	3.1	--	--	2.8	--	--	4.8	--	--	--	--	3.6	4.8	2.8	0.5	3
Selenium	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Silicon		mg/L	--	5	--	--	BQL	--	--	4	--	--	--	--	3	5	BQL	1	3
Silver	100 S	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.5	3
Sodium		mg/L	--	11.4	25.6	11.1	17.7	14.0	--	17.7	20.9	8.2	--	17.0	16.0	25.6	8.2	1.0	9
Thallium	2 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	3
Zinc	5000 S	µg/L	--	267	--	--	174	--	--	198	--	--	--	--	213	267	174	25	3

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