



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2007 TO 12/31/2007
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	11	-	10
Alkalinity, Bicarbonate		mg/L	52	50	32	37	39	53	77	77	75	75	--	--	57	77	32	-	10
Alkalinity, Carbonate		mg/L	0	0	0	0	0	0	0	0	0	0	--	--	0	0	0	-	10
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	0	0	0	0	0	--	--	0	0	0	-	10
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	0	0	0	0	0	--	--	0	0	0	-	10
Alkalinity, Total		mg/L	52	50	32	37	39	53	77	77	75	75	--	--	57	77	32	-	10
Bromate	10 P	µg/L	BQL	--	--	--	--	--	--	--	--	--	--	--	BQL	BQL	BQL	10	1
Bromide		mg/L	BQL	BQL	BQL	BQL	0.01	0.01	0.02	0.02	0.02	0.02	--	--	0.01	0.02	BQL	0.01	10
Carbon Dioxide		mg/L	5	3	2	4	2	5	6	8	9	8	--	--	5	9	2	-	10
Chloride	250.0 S	mg/L	24.8	23.0	41.3	39.5	26.4	34.0	48.7	56.9	59.9	60.0	--	--	41.5	60.0	23.0	5.0	10
Chlorine, Free		mg/L	0.0	0.0	0.0	3.8	3.5	3.2	0.1	0.0	0.1	0.1	--	--	1.1	3.8	0.0	0.0	10
Chlorine, Total		mg/L	3.5	3.8	3.5	3.8	3.5	3.2	3.2	3.1	2.2	4.0	--	--	3.4	4.0	2.2	0.0	10
Color	15 S	Units	4	6	7	4	5	1	9	0	1	2	--	--	4	9	0	0	10
Dissolved Oxygen		mg/L	13.1	12.0	--	9.7	7.0	4.5	4.9	2.5	2.1	3.5	--	--	6.6	13.1	2.1	0.0	9
Fluoride	4.0/2.0 P/S	mg/L	0.9	0.9	0.8	1.0	0.9	0.9	1.0	0.9	1.1	0.9	--	--	0.9	1.1	0.8	0.2	10
Hardness, Calcium		mg/L	82	77	68	79	75	87	133	159	140	139	--	--	104	159	68	-	10
Hardness, Total		mg/L	107	98	88	101	93	109	157	182	168	172	--	--	128	182	88	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	1.05	1.02	1.18	BQL	--	0.07	1.25	0.86	0.35	0.92	--	--	0.74	1.25	BQL	0.05	9
N, Nitrate (Nitrate as N)	10 P	mg/L	1.6	1.2	0.7	0.7	0.5	0.6*	0.4	0.2	0.4	0.8	--	--	0.7	1.6	0.2	0.2	11
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	0.02	--	--	BQL	BQL	0.01	BQL	0.02	--	--	BQL	0.02	BQL	0.01	8
pH	6.5-8.5 S	Units	7.3	7.5	7.4	7.3	7.5	7.3	7.4	7.3	7.2	7.3	--	--	7.4	7.5	7.2	-	10
Phosphate as Phosphorous		mg/L	0.91	0.88	0.73	0.80	0.52	0.55	0.32	0.38	0.37	0.58	--	--	0.60	0.91	0.32	0.20	10
Solids, Total		mg/L	184	181	226	230	178	191	308	322	337	354	--	--	251	354	178	1	10
Solids, Total Dissolved	500 S	mg/L	188	170	221	--	167	224	--	306	338	353	--	--	246	353	167	1	8
Solids, Total Suspended		mg/L	BQL	BQL	--	BQL	--	BQL	--	BQL	BQL	BQL	--	--	BQL	BQL	BQL	1	7
Specific Conductivity		µmhos/cm	282	288	312	329	255	321	470	506	548	553	--	--	386	553	255	0	10
Sulfate	250.0 S	mg/L	43.6	43.2	38.7	47.8	44.0	48.5	71.9	85.5	94.6	94.9	--	--	61.3	94.9	38.7	5.0	10
Taste		Units	2	2	2	4	2	1	2	3	2	3	--	--	2	4	1	1	10
Temperature		°C	6.2	8.4	10.5	13.1	13.5	21.4	25.5	26.4	23.2	20.7	--	--	16.9	26.4	6.2	-	10
Threshold Odor Number	3 S	Units	6	4	8	8	7	3	1	3	4	8	--	--	5	8	1	0	10
Total Organic Carbon		mg/L	2.4	2.6	2.5	2.7	2.7	2.1	2.9	2.8	2.7	2.8	--	--	2.6	2.9	2.1	0.5	10
Turbidity	≤5 P	NTU	0.15	0.30	0.45	0.20	0.40	0.25	1.20	0.25	0.10	0.25	--	--	0.36	1.20	0.10	0.00	10

* = Monthly result composed from an average of parameter results.

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 01/01/2007 TO 12/31/2007
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	31.6	--	--	28.2	--	--	35.1	--	--	39.8	--	--	33.7	39.8	28.2	25.0	4
Antimony	6 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Arsenic	10 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Barium	2000 P	µg/L	26.2	--	--	26.8	--	--	38.9	--	--	45.2	--	--	34.3	45.2	26.2	25.0	4
Beryllium	4 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Cadmium	5 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Calcium		mg/L	--	--	--	34.2	--	--	55.2	--	--	56.6	--	--	48.7	56.6	34.2	0.5	3
Chromium	100 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	--	BQL	BQL	BQL	25.0	10
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	--	BQL	BQL	BQL	60	10
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	5.6	--	--	4.5	--	--	6.8	--	--	7.4	--	--	6.1	7.4	4.5	0.5	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	26.2	BQL	BQL	BQL	BQL	BQL	--	--	BQL	26.2	BQL	25.0	10
Mercury	2 P	µg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.50	1
Nickel	100 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Potassium		mg/L	3.5	--	--	2.7	--	--	5.9	--	--	10.1	--	--	5.6	10.1	2.7	0.5	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	4	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	4	BQL	4	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	12.8	11.5	19.5	18.6	12.6	16.3	24.7	32.6	33.9	39.2	--	--	22.2	39.2	11.5	5.0	10
Thallium	2 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Zinc	5000 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	25.0	4

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