Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2004 TO 12/31/2004
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	--	10	11	10	11	11	--	11	11	11	12	--	11	12	10	-	9
Alkalinity, Bicarbonate		mg/L	--	30	37	31	59	65	--	71	70	53	58	--	53	71	30	-	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	--	30	37	31	59	65	--	71	70	53	58	--	53	71	30	-	9
Bromate	10 P	µg/L	BQL *	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5	5
Bromide		mg/L	--	0.02	0.01	BQL	0.01	BQL	--	BQL	0.02	BQL	BQL	--	BQL	0.02	BQL	0.01	9
Carbon Dioxide		mg/L	--	5	1	5	4	3	--	6	4	2	2	--	4	6	1	-	9
Chemical Oxygen Demand		mg/L	--	5.2	--	--	--	5.5	--	--	--	--	--	--	5.4	5.5	5.2	5.0	2
Chloride	250.0 S	mg/L	--	72.7	38.3	22.1	28.6	32.2	--	35.0	34.4	22.4	25.5	--	34.6	72.7	22.1	5.0	9
Chlorine, Free		mg/L	--	0.0	0.1	3.7	3.5	3.7	--	0.2	0.7	0.0	0.3	--	1.4	3.7	0.0	0.0	9
Chlorine, Total		mg/L	--	3.5	3.5	3.8	3.4	3.8	--	3.4	3.9	2.7	4.1	--	3.6	4.1	2.7	0.0	9
Color	15 S	Units	--	4	2	3	9	6	--	6	11	0	--	--	5	11	0	0	8
Dissolved Oxygen		mg/L	--	14.2	13.6	9.0	4.7	4.3	--	2.7	4.1	4.3	9.1	--	7.3	14.2	2.7	0.0	9
Fluoride	4.0/2.0 P/S	mg/L	--	1.0	1.0	0.8	0.9	1.1	--	1.1	1.0	1.0	0.9	--	1.0	1.1	0.8	0.2	9
Hardness, Calcium		mg/L	--	63	67	66	95	95	--	104	99	78	88	--	84	104	63	-	9
Hardness, Total		mg/L	--	86	90	85	123	126	--	122	121	104	--	--	107	126	85	-	8
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	--	1.20	0.88	--	BQL	0.10	--	1.14	0.87	1.11	--	--	0.76	1.20	BQL	0.05	7
N, Nitrate (Nitrate as N)	10 P	mg/L	--	1.0	1.0	0.8	1.0	1.5	--	1.0	1.3	1.1	1.2	--	1.1	1.5	0.8	0.2	9
N, Nitrite (Nitrite as N)	1 P	mg/L	--	0.01	0.01	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	0.01	BQL	0.01	9
pH	6.5-8.5 S	Units	--	7.1	7.9	7.1	7.5	7.6	--	7.4	7.6	7.7	7.8	--	7.5	7.9	7.1	-	9
Phosphate as Phosphorous		mg/L	--	0.33	0.46	0.48	0.37	0.27	--	0.33	0.52	0.30	0.29	--	0.37	0.52	0.27	0.20	9
Solids, Fixed		mg/L	--	153	130	108	169	194	--	187	196	162	181	--	164	196	108	1	9
Solids, Total		mg/L	--	269	228	213	246	293	--	298	294	220	274	--	259	298	213	1	9
Solids, Total Dissolved	500 S	mg/L	--	186	169	130	171	209	--	208	218	150	141	--	176	218	130	1	9
Solids, Total Suspended		mg/L	--	BQL	BQL	BQL	1	BQL	--	1	1	BQL	BQL	--	BQL	1	BQL	1	9
Solids, Volatile		mg/L	--	116	98	105	77	99	--	111	98	58	--	--	95	116	58	1	8
Specific Conductivity		µmhos/cm	--	343	283	191	286	324	--	344	328	267	278	--	294	344	191	0	9
Sulfate	250.0 S	mg/L	--	27.6	32.3	34.8	34.5	38.3	--	43.1	43.2	34.4	40.1	--	36.5	43.2	27.6	5.0	9
Taste		Units	--	2	3	3	3	3	--	3	2	2	3	--	3	3	2	1	9
Temperature		°C	--	10.1	13.8	17.1	21.9	23.1	--	24.7	21.8	17.4	13.1	--	18.1	24.7	10.1	-	9
Threshold Odor Number	3 S	Units	--	9	9	23	4	6	--	5	7	5	3	--	8	23	3	1	9
Total Organic Carbon		mg/L	--	2.4	1.9	2.7	2.0	1.7	--	1.8	2.1	2.5	2.7	--	2.2	2.7	1.7	0.5	9
Turbidity	≤5 P	NTU	--	0.35	0.25	0.55	0.35	1.30	--	1.20	1.70	0.40	0.60	--	0.74	1.70	0.25	0.00	9

* = 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

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METAL ANALYSES
PERIOD OF 01/01/2004 TO 12/31/2004
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	--	55	--	--	51	--	--	44	--	--	--	--	50	55	44	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	2	2
Barium	2000 P	µg/L	--	55	--	--	--	--	--	54	--	--	--	--	55	55	54	10	2
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	--	26.0	--	--	38.4	--	--	40.0	--	--	35.0	--	34.9	40.0	26.0	0.5	4
Chromium	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Copper	1300 AL	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	40	9
Iron	300 S	µg/L	--	BQL	BQL	BQL	BQL	155	--	BQL	BQL	BQL	BQL	--	BQL	155	BQL	60	9
Lead	15 AL	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.29	3
Magnesium		mg/L	--	4.9	--	--	5.4	--	--	5.9	--	--	--	--	5.4	5.9	4.9	0.5	3
Manganese	50 S	µg/L	--	BQL	BQL	BQL	BQL	97	37	BQL	BQL	BQL	BQL	--	BQL	97	BQL	25	10
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	--	3.7	--	--	2.7	--	--	4.1	--	--	--	--	3.5	4.1	2.7	0.5	3
Selenium	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Silicon		mg/L	--	BQL	--	--	BQL	--	--	5	--	--	--	--	BQL	5	BQL	4	3
Silver	100 S	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.5	3
Sodium		mg/L	--	34.9	18.4	10.8	14.0	18.5	--	18.6	19.6	12.9	13.2	--	17.9	34.9	10.8	5.0	9
Thallium	2 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Zinc	5000 S	µg/L	--	80	--	--	98	--	--	115	--	--	--	--	98	115	80	25	3

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