Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2008 TO 12/31/2008
Griffith 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	10	11	10	10	10	11	10	11	11	11	11	11	10	-	12
Alkalinity, Bicarbonate		mg/L	77	70	50	57	35	43	61	73	35	61	56	60	57	77	35	-	12
Alkalinity, Carbonate		mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	12
Alkalinity, Total		mg/L	77	70	50	57	35	43	61	73	35	61	56	60	57	77	35	-	12
Bromate	10 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5	12
Bromide		mg/L	0.03	0.02	0.02	BQL	BQL	BQL	0.02	0.02	BQL	BQL	0.02	0.02	0.01	0.03	BQL	0.01	12
Carbon Dioxide		mg/L	5	4	10	9	14	5	10	9	9	6	3	3	7	14	3	-	12
Chloride	250.0 S	mg/L	61.6	75.2	67.4	59.3	26.2	26.8	32.0	38.9	23.7	33.2	31.4	35.8	42.6	75.2	23.7	5.0	12
Chlorine, Free		mg/L	0.1	0.2	0.1	3.5	2.9	2.2	0.3	0.4	0.3	0.3	0.2	0.2	0.9	3.5	0.1	0.0	12
Chlorine, Total		mg/L	2.9	3.8	2.9	3.7	3.2	2.4	3.3	3.5	3.2	3.2	3.3	3.0	3.2	3.8	2.4	0.0	12
Color	15 S	Units	0	0	0	0	1	1	1	1	0	0	2	1	1	2	0	0	12
Cyanide (as free cyanide)	0.2 P	mg/L	--	--	--	--	--	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.025	1
Dissolved Oxygen		mg/L	21.1	27.9	18.5	--	14.4	--	12.8	18.2	10.9	10.7	22.7	20.5	17.8	27.9	10.7	0.0	10
Fluoride	4.0/2.0 P/S	mg/L	1.0	0.9	1.1	1.1	1.0	1.0	1.1	1.0	0.8	1.1	1.1	1.1	1.0	1.1	0.8	0.2	12
Hardness, Calcium		mg/L	96	90	68	70	33	58	46	64	30	60	52	62	61	96	30	-	12
Hardness, Total		mg/L	125	120	90	72	45	61	70	90	44	78	72	98	80	125	44	-	12
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	0.81	1.15	--	BQL	BQL	BQL	0.79	1.18	--	--	0.80	0.93	0.63	1.18	BQL	0.20	9
N, Nitrate (Nitrate as N)	10 P	mg/L	1.6	1.6	1.4	1.5	0.8	0.9	0.8	0.8	0.6	1.0	1.0	1.2	1.1	1.6	0.6	0.2	12
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	BQL	0.02	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	0.01	BQL	0.02	BQL	0.01	12
pH	6.5-8.5 S	Units	7.5	7.6	7.0	7.1	6.7	7.2	7.1	7.2	6.9	7.3	7.6	7.6	7.2	7.6	6.7	-	12
Phosphate as Phosphorous		mg/L	0.57	0.60	0.64	0.60	0.59	0.57	0.62	0.61	0.48	0.60	--	0.55	0.58	0.64	0.48	0.20	11
Solids, Total		mg/L	301	304	244	223	145	168	159	198	102	174	190	196	200	304	102	1	12
Solids, Total Dissolved	500 S	mg/L	287	267	226	215	116	151	152	197	101	173	167	205	188	287	101	1	12
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	1	11
Specific Conductivity		µmhos/cm	481	490	402	388	191	212	278	360	178	311	--	335	330	490	178	0	11
Sulfate	250.0 S	mg/L	64.2	47.2	33.4	34.6	14.7	15.6	21.9	32.6	15.9	29.3	28.9	37.9	31.4	64.2	14.7	5.0	12
Taste		Units	2	2	2	2	2	2	2	2	2	3	3	2	2	3	2	1	12
Temperature		°C	13.3	14.5	15.9	17.5	19.8	21.5	25.7	23.7	22.8	21.0	19.2	17.3	19.4	25.7	13.3	-	12
Threshold Odor Number	3 S	Units	4	3	3	6	6	4	4	3	1	7	6	6	4	7	1	0	12
Total Organic Carbon		mg/L	2.7	2.6	2.7	2.8	2.1	2.2	2.5	2.4	1.9	2.3	2.4	2.5	2.4	2.8	1.9	0.5	12
Turbidity	≤5 P	NTU	0.05	0.10	0.05	0.10	0.10	0.10	0.05	0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.05	0.00	12

* = 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
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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	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	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	34.0	--	--	32.2	--	--	27.4	--	--	25.7	--	--	29.8	34.0	25.7	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	38.4	--	--	27.4	--	--	19.8	--	--	21.6	--	--	26.8	38.4	19.8	4.0	4
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	BQL	BQL	25.0	12
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	60	12
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	7.8	--	--	6.8	--	--	4.8	--	--	5.0	--	--	6.1	7.8	4.8	4.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	25.0	12
Mercury	2 P	µg/L	BQL	BQL	--	--	--	--	--	--	--	--	BQL	--	BQL	BQL	BQL	0.50	3
Nickel	100 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Potassium		mg/L	8.6	--	--	4.1	--	--	4.4	--	--	5.7	--	--	5.7	8.6	4.1	0.5	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	BQL	--	--	BQL	--	--	5	--	--	BQL	--	--	BQL	5	BQL	4	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	46.4	47.6	42.2	37.2	19.6	21.2	27.9	31.7	18.3	28.6	27.9	29.0	31.5	47.6	18.3	5.0	12
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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