Fairfax Water

WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2012 TO 12/31/2012
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 [3]	# of Tests
Aggressive Index Number		Units	11	11	11	11	10	11	--	11	11	11	10	--	11	11	10	-	10
Alkalinity, Bicarbonate		mg/L	45	48	56	54	41	51	--	71	76	77	34	--	55	77	34	-	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	45	48	56	54	41	51	--	71	76	77	34	--	55	77	34	-	10
Bromate	10 P	µg/L	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL *	BQL	BQL	BQL	5	36
Bromide		mg/L	0.01	0.02	0.02	0.02	BQL	BQL	--	0.02	0.02	0.03	BQL	--	0.01	0.03	BQL	0.01	10
Carbon Dioxide		mg/L	4	2	2	7	4	5	--	7	8	6	4	--	5	8	2	-	10
Chloride	250.0 S	mg/L	28.0	36.2	45.4	39.9	26.2	26.7	--	42.8	48.2	44.0	31.0	--	36.8	48.2	26.2	5.0	10
Chlorine, Free		mg/L	0.1 *	0.1 *	0.1 *	2.8 *	2.7 *	2.3 *	--	0.2 *	0.3 *	0.3 *	0.1 *	--	0.9	3.0	0.0	0.0	30
Chlorine, Total		mg/L	2.6 *	3.2 *	2.9 *	3.1 *	3.1 *	2.6 *	--	2.7 *	3.8 *	3.7 *	3.6 *	--	3.1	3.9	2.3	0.0	30
Color	15 S	Units	0	--	1	2	0	0	--	0	1	1	0	--	1	2	0	0	9
Dissolved Oxygen		mg/L	21.2	25.0	19.7	15.1	13.0	18.3	--	13.1	13.3	14.3	17.2	--	17.0	25.0	13.0	0.0	10
Fluoride	4.0/2.0 P/S	mg/L	0.6	0.6	0.6	0.6	BQL	0.6	--	0.7	0.6	0.6	0.7	--	0.6	0.7	BQL	0.2	10
Hardness, Calcium		mg/L	46	55	71	62	30	38	--	79	87	92	27	--	59	92	27	-	10
Hardness, Total		mg/L	68	79	98	89	41	54	--	102	114	120	38	--	80	120	38	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.05	1
N, Ammonia (Ammonia as N)		mg/L	0.64 *	0.74 *	0.75 *	BQL *	BQL *	BQL *	--	0.74 *	--	0.80 *	0.84 *	--	0.50	0.99	BQL	0.20	27
N, Nitrate (Nitrate as N)	10 P	mg/L	1.0	1.0	0.9	0.8	0.7	0.6	--	1.0	0.9	1.6	0.6	--	0.9	1.6	0.6	0.2	10
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	0.01	0.02	--	BQL	0.02	BQL	0.01	10
pH	6.5-8.5 S	Units	7.4	7.6	7.7	7.2	7.3	7.3	--	7.3	7.3	7.4	7.2	--	7.4	7.7	7.2	-	10
Phosphate as Phosphorous		mg/L	0.61	0.46	0.30	0.26	0.36	0.33	--	0.31	0.31	0.32	0.38	--	0.36	0.61	0.26	0.10	10
Solids, Total		mg/L	114	184	180	198	119	135	--	239	238	252	103	--	176	252	103	1	10
Solids, Total Dissolved	500 S	mg/L	88	158	182	192	124	106	--	290	188	248	76	--	165	290	76	1	10
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	1	10
Specific Conductivity		µmhos/cm	248	299	315	293	208	238	--	396	443	447	210	--	310	447	208	0	10
Sulfate	250.0 S	mg/L	20.4	26.3	32.5	29.9	12.6	16.3	--	41.2	46.5	52.3	12.7	--	29.1	52.3	12.6	5.0	10
Taste		Units	3	2	2	2	2	3	--	2	3	2	3	--	2	3	2	1	10
Temperature		°C	13.9	12.0	13.3	17.5	21.6	23.3	--	24.6	23.2	20.0	15.3	--	18.5	24.6	12.0	-	10
Threshold Odor Number	3 S	Units	4	3	1	5	6	7	--	5	3	3	1	--	4	7	1	0	10
Total Organic Carbon		mg/L	2.2	2.0	2.1	2.2	2.5	2.6	--	2.5	2.6	2.6	2.9	--	2.4	2.9	2.0	0.5	10
Turbidity	≤ 5 P	NTU	0.05	0.15	0.50	0.35	0.10	0.25	--	0.10	0.10	0.10	0.10	--	0.18	0.50	0.05	0.00	10

* = Monthly result composed from an average of parameter results for Griffith Treatment Plant finished water points of entry to distribution system.

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 at points of entry to the water distribution system
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, µmhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

[3] Quant Limit = Quantitation Limit = lowest level of measurement

Report No: 012813122327

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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 [3]	# 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	25.0	--	--	31.7	--	--	--	29.6	--	33.4	--	--	29.9	33.4	25.0	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	18.6	--	--	24.6	--	--	--	30.1	--	38.3	--	--	27.9	38.3	18.6	1.0	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	25.0	10
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	25.0	10
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	5.1	--	--	6.2	--	--	--	6.0	--	7.1	--	--	6.1	7.1	5.1	1.0	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	25.0	10
Mercury	2 P	µg/L	BQL	--	--	--	--	BQL	--	--	--	--	--	--	BQL	BQL	BQL	0.50	2
Nickel	100 P	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Potassium		mg/L	2.9	--	--	3.3	--	--	--	6.2	--	6.5	--	--	4.7	6.5	2.9	1.0	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	4.9	--	--	3.5	--	--	--	3.0	--	3.3	--	--	3.7	4.9	3.0	1.0	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	20.8	24.7	27.4	25.7	22.5	22.4	--	31.3	35.8	34.9	22.3	--	26.8	35.8	20.8	1.0	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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