



Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2017 TO 12/31/2017

Griffith Treatment Plant Finished Water

Date Report Generated: 12/12/2017

Parameter	MCL ¹	Units ²	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Quant Limit ³
Aggressive Index Number		Units	11	11	11	11	11	-	11	11	11	11	11	-	N/A
Alkalinity, Bicarbonate		mg/L	69	56	54	46	58	-	64	62	59	76	72	-	0
Alkalinity, Carbonate		mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	-	0	0	0	0	0	-	0
Alkalinity, Total		mg/L	69	56	54	46	58	-	64	62	59	76	72	-	0
Bromate ⁴	10 P	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	5
Bromide		mg/L	0.02	0.02	0.02	0.01	0.01	-	0.01	0.01	0.01	0.02	0.02	-	0.01
Carbon Dioxide		mg/L	11	6	3	4	5	-	4	3	2	3	5	-	N/A
Chloride	250 S	mg/L	67.5	62.4	62.0	60.3	59.6	-	38.9	37.0	33.0	43.0	45.2	-	5.0
Chlorine, Free ⁴		mg/L	0.2	0.2	0.2	3.3	3.0	-	0.2	0.3	0.2	0.3	0.2	-	0.0
Chlorine, Total ⁴		mg/L	3.3	3.3	3.3	3.6	3.3	-	3.3	3.3	3.6	3.6	3.6	-	0.0
Color	15 S	Units	0	0	0	0	0	-	0	0	0	0	0	-	0
Dissolved Oxygen		mg/L	21.5	18.8	19.9	22.7	20.4	-	15.9	13.4	15.7	15.9	17.1	-	0.0
Fluoride	4.0 P / 2.0 S	mg/L	0.7	0.6	0.6	0.7	0.7	-	BQL**	BQL**	0.7	0.7	0.7	-	0.2
Hardness, Calcium		mg/L	95	78	73	51	60	-	57	55	48	73	78	-	10
Hardness, Total		mg/L	125	97	96	72	85	-	79	73	66	98	103	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	-	BQL	-	-	-	-	0.05
N, Ammonia (Ammonia as N) ⁴		mg/L	0.67	0.70	0.63	BQL	BQL	-	0.89	0.65	0.81	0.74	0.73	-	0.20
N, Nitrate (Nitrate as N)	10 P	mg/L	1.53	1.14	1.16	0.87	0.91	-	1.32	0.92	1.04	1.69	1.61	-	0.20
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	0.01
pH	6.5 - 8.5 S	Units	7.1	7.3	7.6	7.4	7.4	-	7.5	7.6	7.8	7.7	7.5	-	N/A
Phosphate as Phosphorous		mg/L	0.45	0.46	0.47	0.47	0.50	-	0.45	0.45	0.48	0.47	0.48	-	0.10
Orthophosphate as PO ₄		mg/L	1.38	1.39	1.42	1.45	1.53	-	1.37	1.37	1.46	1.42	1.48	-	0.31
Solids, Total		mg/L	295	254	254	213	203	-	185	174	167	229	225	-	1
Solids, Total Dissolved	500 S	mg/L	-	238	252	178	201	-	219	205	222	238	234	-	1
Solids, Total Suspended		mg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	1
Specific Conductivity		µmhos/cm	505	426	409	355	388	-	328	320	285	393	413	-	0
Sulfate	250 S	mg/L	57.6	39.9	37.1	23.8	28.8	-	25.3	23.8	19.6	34.5	41.3	-	5.0
Taste		Units	1	2	2	2	2	-	2	2	2	2	2	-	1
Temperature		°C	13.9	14.4	14.5	17.4	18.8	-	24.1	22.9	21.9	22.2	19.3	-	N/A
Threshold Odor Number	3 S	Units	11	7	8	7	5	-	7	8	1	6	2	-	0
Total Organic Carbon		mg/L	2.0	2.3	2.3	2.4	2.3	-	2.2	2.1	2.0	2.3	2.1	-	0.5
Turbidity	≤ 5 P	NTU	0.05	0.05	0.05	0.05	0.05	-	0.05	0.05	0.05	0.05	0.05	-	0.05

BQL = The lowest quantitation limit of all analyses for the particular parameter: Below Quantitation Limit

¹Environmental 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

²mg/L = milligrams per liter, µg/L = micrograms per liter, µmhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

³Quant Limit = Quantitation Limit : lowest level of measurement, N/A = not applicable

⁴Monthly result composed from an average of parameter results for finished water points of entry to distribution system

- Not sampled

* Analysis pending

** Fluoride off for maintenance



Water Quality Laboratory

Metal Analyses

Period of 01/01/2017 TO 12/31/2017

Griffith Treatment Plant Finished Water

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Parameter	MCL ¹	Units ²	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Quant Limit ³
Aluminum	50 - 200 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0
Antimony	6 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Arsenic	10 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Barium	2000 P	µg/L	36.4	-	-	BQL	-	-	29.0	-	-	36.7	-	-	25.0
Beryllium	4 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Cadmium	5 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Calcium		mg/L	37.8	-	-	20.9	-	-	22.4	-	-	30.0	-	-	1.0
Chromium	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	25.0
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	25.0
Lead	15 AL	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Magnesium		mg/L	8.5	-	-	5.7	-	-	5.7	-	-	6.8	-	-	1.0
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	25.0
Mercury	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	0.50
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium		mg/L	5.6	-	-	3.5	-	-	4.2	-	-	5.4	-	-	1.0
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon		mg/L	3.1	-	-	3.4	-	-	3.6	-	-	3.9	-	-	1.0
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium		mg/L	40.8	35.7	34.7	38.3	36.8	-	31.1	28.7	27.8	35.0	33.9	-	1.0
Thallium	2 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	2.0
Zinc	5000 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	25.0

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