



Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2015 TO 12/31/2015

Distribution Site Representing Griffith Treatment Plant

Date Report Generated: 12/28/2015

Parameter	MCL ¹	Units ²	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Quant Limit ³
Aggressive Index Number		Units	12	12	11	11	11	11	11	12	12	11	12	-	N/A
Alkalinity, Bicarbonate		mg/L	52	41	42	43	49	60	52	70	78	56	68	-	0
Alkalinity, Carbonate		mg/L	0	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	-	0
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	0	0	0	0	0	0	-	0
Alkalinity, Total		mg/L	52	41	42	43	49	60	52	70	78	56	68	-	0
Bromide		mg/L	0.02	0.02	0.04	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.02	-	0.01
Carbon Dioxide		mg/L	1	1	1	7	3	2	2	1	2	1	1	-	N/A
Chloride	250 S	mg/L	64.1	66.4	148.6	87.3	58.7	66.8	42.9	44.7	51.3	39.7	47.1	-	5.0
Chlorine, Free		mg/L	0.1	0.1	0.2	3.0	2.3	2.3	0.2	0.2	0.2	0.2	0.2	-	0.0
Chlorine, Total		mg/L	3.3	3.3	3.2	3.1	2.5	2.6	2.9	2.7	2.4	3.0	2.3	-	0.0
Color	15 S	Units	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0
Dissolved Oxygen		mg/L	15.4	20.4	15.9	16.9	15.3	12.1	15.1	14.4	12.7	17.5	12.5	-	0.0
Fluoride	4.0/2.0 P/S	mg/L	0.7	0.7	0.8	0.7	0.7	0.7	BQL	0.7	0.7	0.7	0.8	0.7	0.2
Hardness, Calcium		mg/L	65	53	77	60	63	63	44	55	75	57	74	-	10
Hardness, Total		mg/L	94	71	102	82	66	86	56	73	93	70	97	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	BQL	-	-	-	-	-	0.05
N, Ammonia (Ammonia as N)		mg/L	0.80	0.94	0.76	BQL	BQL	BQL	0.69	0.53	0.65	0.74	0.59	-	0.20
N, Nitrate (Nitrate as N)	10 P	mg/L	1.09	0.84	1.08	0.78	0.51	0.85	0.77	0.76	1.30	1.25	1.72	-	0.20
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	0.01
pH	6.5 - 8.5 S	Units	8.2	8.2	7.8	7.1	7.5	7.7	7.8	8.1	7.8	7.9	8.0	-	N/A
Phosphate as Phosphorus		mg/L	0.34	0.29	0.32	-	0.27	0.29	0.27	0.33	0.26	0.31	0.26	-	0.10
Orthophosphate as PO ₄		mg/L	1.02	0.89	0.97	-	0.83	0.87	0.84	1.01	0.80	0.95	0.80	-	0.31
Solids, Total		mg/L	237	187	343	245	191	-	164	192	239	182	234	-	1
Solids, Total Dissolved	500 S	mg/L	232	-	354	236	208	-	166	172	242	204	222	-	1
Solids, Total Suspended		mg/L	BQL	-	BQL	BQL	BQL	-	BQL	BQL	BQL	BQL	BQL	-	1
Specific Conductivity		µmhos/cm	404	350	662	437	368	406	286	341	437	324	406	-	0
Sulfate	250 S	mg/L	29.3	22.7	25.8	21.0	18.0	27.6	15.9	20.9	31.2	25.8	40.5	-	5.0
Taste		Units	2	2	2	2	3	2	2	2	2	2	2	-	1
Temperature		°C	15.9	15.8	14.8	17.2	19.6	22.9	25.1	25.3	27.1	22.7	20.9	-	N/A
Threshold Odor Number	3 S	Units	1	1	4	3	9	6	1	3	7	7	11	-	0
Total Organic Carbon		mg/L	1.9	1.9	-	1.8	2.3	2.1	2.2	2.3	2.2	2.0	2.4	-	0.5
Turbidity	≤ 5 P	NTU	0.05	0.05	0.05	0.10	0.10	0.05	0.05	0.25	0.05	0.10	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

- Not sampled

* Analysis pending



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Metal Analyses

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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	29.1	-	-	35.2	-	-	25.3	-	-	BQL	-	-	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	27.1	-	-	22.9	-	-	16.8	-	-	21.7	-	-	1.0
Chromium	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Copper	1300 AL	µg/L	BQL	BQL	BQL	BQL	25.5	27.7	BQL	BQL	BQL	BQL	BQL	-	25.0
Iron	300 S	µg/L	BQL	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	7.2	-	-	6.3	-	-	4.2	-	-	5.2	-	-	1.0
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	-	25.0
Mercury	2 P	µg/L	BQL	-	-	-	-	-	BQL	-	-	-	-	-	0.50
Nickel	100 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Potassium		mg/L	3.7	-	-	2.8	-	-	3.4	-	-	4.5	-	-	1.0
Selenium	50 P	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Silicon		mg/L	4.1	-	-	3.5	-	-	3.6	-	-	3.5	-	-	1.0
Silver	100 S	µg/L	BQL	-	-	BQL	-	-	BQL	-	-	BQL	-	-	5.0
Sodium		mg/L	39.0	37.7	82.8	47.7	37.6	40.5	29.2	33.5	37.3	29.5	33.0	-	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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