



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2007 TO 12/31/2007
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	10	10	10	11	11	11	11	11	--	11	11	10	-	11
Alkalinity, Bicarbonate		mg/L	54	46	33	36	32	52	75	81	83	80	75	--	59	83	32	-	11
Alkalinity, Carbonate		mg/L	0	0	0	0	0	0	0	0	0	0	0	--	0	0	0	-	11
Alkalinity, Hydroxyl		mg/L	0	0	0	0	0	0	0	0	0	0	0	--	0	0	0	-	11
Alkalinity, Phenolphthalein		mg/L	0	0	0	0	0	0	0	0	0	0	0	--	0	0	0	-	11
Alkalinity, Total		mg/L	54	46	33	36	32	52	75	81	83	80	75	--	59	83	32	-	11
Bromate	10 P	µg/L	BQL	BQL	BQL *	BQL	BQL	BQL	BQL	--	--	--	BQL	--	BQL	BQL	BQL	5	27
Bromide		mg/L	BQL	0.02	BQL	BQL	0.01	0.01	0.02	0.02	0.03	0.03	0.03	--	0.02	0.03	BQL	0.01	11
Carbon Dioxide		mg/L	8	5	3	4	5	6	6	8	8	10	15	--	7	15	3	-	11
Chloride	250.0 S	mg/L	31.2	32.4	51.3	48.9	32.6	38.5	50.3	57.6	61.3	68.1	65.6	--	48.9	68.1	31.2	5.0	11
Chlorine, Free		mg/L	0.1	0.3	0.1	3.9	3.1	3.1	0.2	0.2	0.2	0.1	0.3	--	1.1	3.9	0.1	0.0	11
Chlorine, Total		mg/L	4.0	3.9	4.0	4.0	3.2	3.1	3.6	3.0	3.0	3.7	4.2	--	3.6	4.2	3.0	0.0	11
Color	15 S	Units	0	3	1	4	0	3	0	0	0	0	0	--	1	4	0	0	11
Cyanide (as free cyanide)	0.2 P	mg/L	--	--	--	--	--	--	--	--	BQL	--	--	--	BQL	BQL	BQL	0.025	1
Dissolved Oxygen		mg/L	23.4	21.0	--	22.3	21.7	16.0	14.2	17.6	10.4	20.1	15.2	--	18.2	23.4	10.4	0.0	10
Fluoride	4.0/2.0 P/S	mg/L	1.0	1.0	0.8	0.9	1.0	0.9	0.9	1.2	1.0	1.0	1.0	--	1.0	1.2	0.8	0.2	11
Hardness, Calcium		mg/L	62	48	36	45	34	46	82	87	101	109	94	--	68	109	34	-	11
Hardness, Total		mg/L	82	68	52	54	40	69	102	112	117	128	126	--	86	128	40	-	11
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	1.07	0.86	1.27	BQL	--	BQL	1.07	1.10	1.06	0.98	1.03	--	0.84	1.27	BQL	0.05	10
N, Nitrate (Nitrate as N)	10 P	mg/L	1.9	1.2	0.8	0.8	0.6	0.8	0.7	0.6	0.7	0.8	1.8	--	1.0	1.9	0.6	0.2	12
N, Nitrite (Nitrite as N)	1 P	mg/L	BQL	--	BQL	--	--	BQL	BQL	BQL	BQL	0.01	0.01	--	BQL	0.01	BQL	0.01	8
pH	6.5-8.5 S	Units	7.1	7.3	7.3	7.2	7.1	7.2	7.4	7.3	7.3	7.2	7.0	--	7.2	7.4	7.0	-	11
Phosphate as Phosphorous		mg/L	0.69	0.77	0.77	0.78	0.76	0.69	0.70	0.73	0.71	0.80	0.71	--	0.74	0.80	0.69	0.20	11
Solids, Total		mg/L	173	158	199	201	116	150	247	261	292	311	310	--	220	311	116	1	11
Solids, Total Dissolved	500 S	mg/L	169	148	202	--	122	174	--	272	288	317	288	--	220	317	122	1	9
Solids, Total Suspended		mg/L	BQL	BQL	--	BQL	--	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	1	8
Specific Conductivity		µmhos/cm	276	265	297	289	199	282	415	457	493	519	499	--	363	519	199	0	11
Sulfate	250.0 S	mg/L	26.9	23.6	14.8	16.6	12.2	21.9	40.5	51.0	58.2	60.4	68.0	--	35.8	68.0	12.2	5.0	11
Taste		Units	1	2	2	2	2	1	3	2	2	2	2	--	2	3	1	1	11
Temperature		°C	13.9	11.7	13.1	15.0	18.1	21.6	24.3	25.9	23.6	22.3	19.7	--	19.0	25.9	11.7	-	11
Threshold Odor Number	3 S	Units	1	5	5	9	9	3	2	2	2	1	0	--	4	9	0	0	11
Total Organic Carbon		mg/L	2.2	2.1	2.4	2.3	2.5	2.2	2.4	2.3	2.3	2.2	2.4	--	2.3	2.5	2.1	0.5	11
Turbidity	≤5 P	NTU	0.25	0.05	0.45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	--	0.14	0.45	0.05	0.00	11

* = 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



**WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2007 TO 12/31/2007
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
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	BQL	--	--	BQL	--	--	34.1	--	--	26.1	--	--	BQL	34.1	BQL	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	--	--	--	14.8	--	--	31.9	--	--	37.7	--	--	28.1	37.7	14.8	0.5	3
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	25.0	11
Iron	300 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	60	11
Lead	15 AL	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium		mg/L	5.6	--	--	4.4	--	--	6.6	--	--	7.2	--	--	6.0	7.2	4.4	0.5	4
Manganese	50 S	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	25.0	11
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	3.8	--	--	3.0	--	--	6.0	--	--	10.4	--	--	5.8	10.4	3.0	0.5	4
Selenium	50 P	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon		mg/L	4	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	4	BQL	4	4
Silver	100 S	µg/L	BQL	--	--	BQL	--	--	BQL	--	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium		mg/L	22.1	20.2	30.0	28.8	22.9	26.2	36.8	44.1	44.7	51.8	53.4	--	34.6	53.4	20.2	5.0	11
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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