



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2006 TO 12/31/2006**

Distribution Site Representing Griffith and Lorton Treatment Plants

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	11	--	11	10	10	10	11	11	11	--	11	11	10	-	10
Alkalinity, Bicarbonate		mg/L	41	40	43	--	50	60	44	63	60	61	66	--	53	66	40	-	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	41	40	43	--	50	60	44	63	60	61	66	--	53	66	40	-	10
Bromate	10 P	µg/L	BQL	--	--	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	10	2
Bromide		mg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	0.01	0.02	0.02	0.02	--	BQL	0.02	BQL	0.01	10
Carbon Dioxide		mg/L	3	5	4	--	6	15	14	13	10	8	10	--	9	15	3	-	10
Chloride	250.0 S	mg/L	48.9	37.6	53.2	--	40.7	45.2	35.3	36.0	38.2	34.7	35.8	--	40.6	53.2	34.7	5.0	10
Chlorine, Free		mg/L	0.1	0.0	0.1	--	2.6	2.4	2.7	0.5	0.3	0.2	0.2	--	0.9	2.7	0.0	0.0	10
Chlorine, Total		mg/L	4.3	3.5	3.8	--	2.6	2.7	3.1	3.9	3.4	4.0	4.4	--	3.6	4.4	2.6	0.0	10
Color	15 S	Units	2	4	0	--	6	2	9	0	2	6	0	--	3	9	0	0	10
Dissolved Oxygen		mg/L	13.2	10.5	11.9	--	21.8	16.9	17.7	15.3	20.4	19.2	21.1	--	16.8	21.8	10.5	0.0	10
Fluoride	4.0/2.0 P/S	mg/L	0.8	0.7	0.8	--	1.0	1.1	1.0	1.0	0.9	1.0	0.9	--	0.9	1.1	0.7	0.2	10
Hardness, Calcium		mg/L	83	79	74	--	61	58	33	57	58	56	69	--	63	83	33	-	10
Hardness, Total		mg/L	99	94	97	--	72	81	45	75	78	80	94	--	82	99	45	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.050	1
N, Ammonia (Ammonia as N)		mg/L	1.08	1.00	0.96	--	BQL	BQL	--	1.17	--	1.08	1.08	--	0.80	1.17	BQL	0.05	8
N, Nitrate (Nitrate as N)	10 P	mg/L	2.0	1.4	1.8	--	1.3	1.3	0.6	0.6	1.3	1.6	2.4	--	1.4	2.4	0.6	0.2	10
N, Nitrite (Nitrite as N)	1 P	mg/L	0.01	0.01	0.01	--	BQL	BQL	BQL	0.03	--	--	0.01	--	BQL	0.03	BQL	0.01	8
pH	6.5-8.5 S	Units	7.4	7.2	7.3	--	7.2	6.9	6.8	7.0	7.1	7.2	7.1	--	7.1	7.4	6.8	-	10
Phosphate as Phosphorous		mg/L	0.38	0.69	0.58	--	0.53	0.48	0.48	0.44	0.30	0.50	0.55	--	0.49	0.69	0.30	0.20	10
Solids, Fixed		mg/L	153	135	174	--	133	133	128	152	154	--	152	--	146	174	128	1	9
Solids, Total		mg/L	223	159	212	--	231	196	176	200	250	--	221	--	208	250	159	1	9
Solids, Total Dissolved	500 S	mg/L	199	161	213	--	170	195	148	182	185	155	200	--	181	213	148	1	10
Solids, Total Suspended		mg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	1	10
Solids, Volatile		mg/L	70	24	38	--	98	63	48	48	96	--	69	--	62	98	24	1	9
Specific Conductivity		µmhos/cm	329	268	316	--	288	300	--	293	297	313	311	--	302	329	268	0	9
Sulfate	250.0 S	mg/L	29.2	27.8	32.4	--	22.2	25.4	11.0	22.6	29.8	26.3	28.8	--	25.6	32.4	11.0	5.0	10
Taste		Units	2	2	3	--	3	2	2	3	2	1	2	--	2	3	1	1	10
Temperature		°C	16.2	14.8	13.6	--	19.4	24.4	25.0	27.5	23.7	22.1	18.0	--	20.5	27.5	13.6	-	10
Threshold Odor Number	3 S	Units	7	5	3	--	9	6	1	1	2	2	2	--	4	9	1	1	10
Total Organic Carbon		mg/L	2.2	2.1	2.0	--	1.7	2.1	2.9	2.8	2.3	2.5	2.9	--	2.4	2.9	1.7	0.5	10
Turbidity	≤5 P	NTU	0.10	0.10	0.30	--	0.20	0.20	0.25	0.10	0.20	0.30	0.10	--	0.19	0.30	0.10	0.00	10

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 01/01/2006 TO 12/31/2006

Distribution Site Representing Griffith and Lorton Treatment Plants

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	--	25.2	--	--	BQL	BQL	--	38.9	--	BQL	--	--	BQL	38.9	BQL	25.0	5
Antimony	6 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Arsenic	10 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Barium	2000 P	µg/L	--	31.0	--	--	28.6	28.7	--	30.1	--	26.1	--	--	28.9	31.0	26.1	25.0	5
Beryllium	4 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Cadmium	5 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Calcium		mg/L	--	28.1	--	--	21.2	23.7	--	22.6	23.5	22.8	--	--	23.7	28.1	21.2	0.5	6
Chromium	100 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Copper	1300 AL	µg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	26	BQL	BQL	BQL	--	BQL	26	BQL	25.0	10
Iron	300 S	µg/L	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	60	10
Lead	15 AL	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Magnesium		mg/L	--	5.0	--	--	5.1	5.3	--	4.8	5.0	5.3	--	--	5.1	5.3	4.8	0.5	6
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	0.5	2
Nickel	100 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Potassium		mg/L	--	2.8	--	--	3.2	3.8	--	4.7	--	4.3	--	--	3.8	4.7	2.8	0.5	5
Selenium	50 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Silicon		mg/L	--	4	--	--	BQL	4	--	5	--	4	--	--	BQL	5	BQL	4	5
Silver	100 S	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	5
Sodium		mg/L	21.8	16.0	25.9	--	27.5	29.9	27.6	27.2	28.6	25.3	24.3	--	25.4	29.9	16.0	5.0	10
Thallium	2 P	µg/L	--	BQL	--	--	BQL	BQL	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	5
Zinc	5000 S	µg/L	--	216	--	--	147	139	--	114	--	125	--	--	148	216	114	25	5

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