



**WATER QUALITY LABORATORY  
INORGANIC ANALYSES  
PERIOD OF 01/01/2005 TO 12/31/2005  
Distribution Site Representing Lorton Treatment Plants**

Parameter	MCL <sup>1</sup>	Units <sup>2</sup>	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	11	--	11	11	11	--	11	11	11	11	-	9
Alkalinity, Bicarbonate		mg/L	--	35	51	35	54	53	--	60	69	42	--	58	51	69	35	-	9
Alkalinity, Carbonate		mg/L	--	0	0	0	0	0	--	0	0	0	--	0	0	0	0	-	9
Alkalinity, Hydroxyl		mg/L	--	0	0	0	0	0	--	0	0	0	--	0	0	0	0	-	9
Alkalinity, Phenolphthalein		mg/L	--	0	0	0	0	0	--	0	0	0	--	0	0	0	0	-	9
Alkalinity, Total		mg/L	--	35	51	35	54	53	--	60	69	42	--	58	51	69	35	-	9
Bromate	10 P	µg/L	--	--	--	--	--	--	--	--	--	BQL	--	--	BQL	BQL	BQL	10	1
Bromide		mg/L	--	BQL	0.02	BQL	0.01	--	--	BQL	BQL	BQL	--	BQL	BQL	0.02	BQL	0.01	8
Carbon Dioxide		mg/L	--	2	2	4	8	3	--	8	7	2	--	9	5	9	2	-	9
Chloride	250.0 S	mg/L	--	25.3	58.6	27.4	34.0	29.2	--	36.6	38.3	27.4	--	34.7	34.6	58.6	25.3	5.0	9
Chlorine, Free		mg/L	--	0.2	0.1	2.8	3.2	2.8	--	0.5	0.4	0.3	--	0.2	1.2	3.2	0.1	0.0	9
Chlorine, Total		mg/L	--	4.1	3.9	3.2	3.3	3.0	--	3.7	3.5	4.0	--	3.9	3.6	4.1	3.0	0.0	9
Color	15 S	Units	--	2	0	0	0	2	--	3	3	2	--	3	2	3	0	0	9
Dissolved Oxygen		mg/L	--	10.6	12.0	9.3	8.6	4.0	--	3.2	3.4	3.8	--	9.2	7.1	12.0	3.2	0.0	9
Fluoride	4.0/2.0 P/S	mg/L	--	0.7	0.7	0.7	0.8	1.1	--	1.1	1.1	1.0	--	1.0	0.9	1.1	0.7	0.2	9
Hardness, Calcium		mg/L	--	62	83	62	82	80	--	92	102	69	--	86	80	102	62	-	9
Hardness, Total		mg/L	--	80	116	89	106	106	--	118	129	89	--	113	105	129	80	-	9
Methylene Blue Activated Substances	0.5 S	mg/L	--	--	--	--	0.054	BQL	--	--	--	--	--	--	BQL	0.054	BQL	0.050	2
N, Ammonia (Ammonia as N)		mg/L	--	1.06	1.02	--	BQL	BQL	--	0.80	1.13	--	--	0.92	0.70	1.13	BQL	0.05	7
N, Nitrate (Nitrate as N)	10 P	mg/L	--	1.0	1.2	0.7	1.2	1.2	--	1.1	1.8	1.2	--	2.8	1.4	2.8	0.7	0.2	9
N, Nitrite (Nitrite as N)	1 P	mg/L	--	BQL	0.01	--	BQL	BQL	--	BQL	--	BQL	--	BQL	BQL	0.01	BQL	0.01	7
pH	6.5-8.5 S	Units	--	7.5	7.8	7.3	7.1	7.6	--	7.2	7.3	7.6	--	7.1	7.4	7.8	7.1	-	9
Phosphate as Phosphorous		mg/L	--	0.45	0.44	0.30	0.41	--	--	0.47	0.47	0.44	--	0.55	0.44	0.55	0.30	0.20	8
Solids, Fixed		mg/L	--	120	--	127	165	152	--	168	207	156	--	140	154	207	120	1	8
Solids, Total		mg/L	--	182	--	245	240	256	--	224	319	234	--	271	246	319	182	1	8
Solids, Total Dissolved	500 S	mg/L	--	--	--	181	151	200	--	202	224	128	--	197	183	224	128	1	7
Solids, Total Suspended		mg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	--	BQL	--	BQL	BQL	BQL	BQL	1	8
Solids, Volatile		mg/L	--	62	--	118	75	104	--	--	112	78	--	131	97	131	62	1	7
Specific Conductivity		µmhos/cm	--	233	387	238	305	277	--	332	369	240	--	327	301	387	233	0	9
Sulfate	250.0 S	mg/L	--	29.1	39.4	30.7	33.9	33.0	--	38.0	45.5	22.6	--	40.6	34.8	45.5	22.6	5.0	9
Taste		Units	--	2	2	3	2	2	--	3	4	5	--	3	3	5	2	1	9
Temperature		°C	--	13.9	16.3	18.3	19.8	24.3	--	28.5	24.2	21.7	--	16.0	20.3	28.5	13.9	-	9
Threshold Odor Number	3 S	Units	--	3	2	11	9	4	--	3	1	3	--	6	5	11	1	1	9
Total Organic Carbon		mg/L	--	2.3	1.8	2.1	2.3	2.6	--	3.0	3.0	3.8	--	3.2	2.7	3.8	1.8	0.5	9
Turbidity	≤5 P	NTU	--	0.20	0.15	0.15	0.10	0.15	--	0.20	0.20	0.20	--	0.15	0.17	0.20	0.10	0.00	9

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

<sup>1</sup> 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.

<sup>2</sup> mg/L=milligrams per liter, µg/L=micrograms per liter



**WATER QUALITY LABORATORY  
METAL ANALYSES  
PERIOD OF 01/01/2005 TO 12/31/2005  
Distribution Site Representing Lorton Treatment Plants**

Parameter	MCL <sup>1</sup>	Units <sup>2</sup>	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	--	52	--	--	31	--	--	28	--	--	--	--	37	52	28	20	3
Antimony	6 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Arsenic	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	3
Barium	2000 P	µg/L	--	70	--	--	32	--	--	36	--	--	--	--	46	70	32	2	3
Beryllium	4 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Cadmium	5 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Calcium		mg/L	--	25.6	--	--	30.9	--	--	37.7	--	--	--	--	31.4	37.7	25.6	0.5	3
Chromium	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	1	3
Copper	1300 AL	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	34	14	14	--	12	8	34	BQL	2	9
Iron	300 S	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	20	9
Lead	15 AL	µg/L	--	BQL	--	--	0.53	--	--	0.78	--	--	--	--	0.44	0.78	BQL	0.37	3
Magnesium		mg/L	--	4.1	--	--	5.6	--	--	5.0	--	--	--	--	4.9	5.6	4.1	0.5	3
Manganese	50 S	µg/L	--	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	3	--	BQL	BQL	3	BQL	2	9
Mercury	2 P	µg/L	--	--	BQL	--	BQL	--	--	--	--	--	--	--	BQL	BQL	BQL	0.5	2
Nickel	100 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	5	3
Potassium		mg/L	--	3.1	--	--	2.8	--	--	4.9	--	--	--	--	3.6	4.9	2.8	0.5	3
Selenium	50 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	4	3
Silicon		mg/L	--	5	--	--	BQL	--	--	4	--	--	--	--	3	5	BQL	1	3
Silver	100 S	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	0.5	3
Sodium		mg/L	--	10.1	24.6	12.3	17.8	14.7	--	18.6	21.3	10.2	--	18.0	16.4	24.6	10.1	1.0	9
Thallium	2 P	µg/L	--	BQL	--	--	BQL	--	--	BQL	--	--	--	--	BQL	BQL	BQL	2	3
Zinc	5000 S	µg/L	--	143	--	--	118	--	--	167	--	--	--	--	143	167	118	25	3

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

<sup>1</sup> 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.

<sup>2</sup> mg/L=milligrams per liter, µg/L=micrograms per liter