



**WATER QUALITY LABORATORY
INORGANIC ANALYSES
PERIOD OF 01/01/2012 TO 12/31/2012
Occoquan Reservoir – Griffith Water Treatment Plant Source**

Parameter	Units ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit ²	# of Tests
Aggressive Index Number	Units	11	11	11	11	10	10	--	11	11	11	10	--	11	11	10	-	10
Alkalinity, Bicarbonate	mg/L	45	46	56	54	32	45	--	70	76	76	30	--	53	76	30	-	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	45	46	56	54	32	45	--	70	76	76	30	--	53	76	30	-	10
Bromide	mg/L	0.02	0.02	0.03	0.03	0.01	0.02	0.02	0.04	0.04	0.04	BQL	0.02	0.02	0.04	BQL	0.01	12
Carbon Dioxide	mg/L	4	5	6	7	8	7	--	7	12	8	6	--	7	12	4	-	10
Chloride	mg/L	17.2	27.1	38.4	31.7	11.4	16.1	--	29.5	31.9	33.8	10.2	--	24.7	38.4	10.2	5.0	10
Color	Units	77	--	37	24	93	48	--	31	46	18	113	--	54	113	18	0	9
Dissolved Oxygen	mg/L	11.8	11.6	11.1	7.1	4.9	6.0	--	6.0	4.4	4.7	7.4	--	7.5	11.8	4.4	0.0	10
Fluoride	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	0.3	0.3	0.4	BQL	--	BQL	0.4	BQL	0.2	10
Hardness, Calcium	mg/L	47	54	71	62	29	40	--	79	80	94	26	--	58	94	26	-	10
Hardness, Total	mg/L	67	77	101	89	41	56	--	107	112	121	38	--	81	121	38	-	10
Methylene Blue Activated Substances	mg/L	--	--	--	--	--	--	BQL	--	--	--	--	--	BQL	BQL	BQL	0.05	1
N, Ammonia (Ammonia as N)	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	--	BQL	BQL	--	BQL	BQL	BQL	0.20	9
N, Nitrate (Nitrate as N)	mg/L	1.0	1.0	1.0	0.7	0.6	0.4	--	0.7	0.5	1.6	0.5	--	0.8	1.6	0.4	0.2	10
N, Nitrite (Nitrite as N)	mg/L	BQL	BQL	BQL	0.02	0.01	0.02	--	0.10	0.09	0.02	BQL	--	0.03	0.10	BQL	0.01	10
pH	Units	7.3	7.3	7.3	7.2	6.9	7.1	--	7.3	7.1	7.3	7.0	--	7.2	7.3	6.9	-	10
Phosphate as Phosphorous	mg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	0.10	10
Solids, Total	mg/L	110	171	180	182	114	120	--	228	209	232	107	--	165	232	107	1	10
Solids, Total Dissolved	mg/L	50	150	246	214	110	90	--	272	158	228	88	--	161	272	50	1	10
Solids, Total Suspended	mg/L	2	3	8	23	5	3	--	4	3	3	13	--	7	23	2	1	10
Specific Conductivity	µmhos/cm	203	256	290	265	137	184	--	343	381	403	125	--	259	403	125	0	10
Sulfate	mg/L	20.4	24.4	33.3	28.9	10.8	16.4	--	40.1	42.6	51.2	10.2	--	27.8	51.2	10.2	5.0	10
Temperature	°C	7.0	6.1	8.2	14.6	21.8	25.0	--	25.2	23.5	18.2	10.4	--	16.0	25.2	6.1	-	10
Threshold Odor Number	Units	5	11	6	3	5	8	--	12	10	6	9	--	8	12	3	0	10
Total Organic Carbon	mg/L	5.0	3.6	3.8	4.1	7.7	6.6	--	5.5	5.6	4.7	7.1	--	5.4	7.7	3.6	0.5	10
Turbidity	NTU	15	7.6	14	2.4	15	3.2	--	4.7	3.3	2.9	29	--	9.7	29	2.4	0.00	10

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

¹ mg/L = milligrams per liter, µg/L = micrograms per liter, µmhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

² Quant Limit = Quantitation Limit = lowest level of measurement



**WATER QUALITY LABORATORY
METAL ANALYSES
PERIOD OF 01/01/2012 TO 12/31/2012
Occoquan Reservoir – Griffith Water Treatment Plant Source**

Parameter	Units ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	Max	Min	Quant Limit ²	# of Tests
Aluminum	µg/L	710	--	--	59.9	--	--	--	BQL	--	59.8	--	--	207	710	BQL	25.0	4
Antimony	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Arsenic	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Barium	µg/L	31.8	--	--	33.0	--	--	--	36.9	--	47.1	--	--	37.2	47.1	31.8	25.0	4
Beryllium	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Cadmium	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Calcium	mg/L	19.8	--	--	24.8	--	--	--	32.1	--	39.2	--	--	29.0	39.2	19.8	1.0	4
Chromium	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Copper	µg/L	BQL	BQL	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	BQL	--	BQL	BQL	BQL	25.0	10
Iron	µg/L	799	492	606	132	866	221	--	274	326	138	1320	--	517	1320	132	25.0	10
Lead	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Magnesium	mg/L	5.4	--	--	6.2	--	--	--	6.4	--	7.3	--	--	6.3	7.3	5.4	1.0	4
Manganese	µg/L	88.3	87.5	67.9	50.0	47.6	147	--	335	520	143	60.2	--	155	520	47.6	25.0	10
Mercury	µg/L	BQL	--	--	--	--	BQL	--	--	--	--	--	--	BQL	BQL	BQL	0.50	2
Nickel	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Potassium	mg/L	3.0	--	--	3.2	--	--	--	6.0	--	6.4	--	--	4.7	6.4	3.0	1.0	4
Selenium	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Silicon	mg/L	5.8	--	--	3.8	--	--	--	3.3	--	3.5	--	--	4.1	5.8	3.3	1.0	4
Silver	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	5.0	4
Sodium	mg/L	13.2	17.3	23.1	19.7	8.8	11.3	--	22.7	26.0	27.0	7.0	--	17.6	27.0	7.0	1.0	10
Thallium	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	2.0	4
Zinc	µg/L	BQL	--	--	BQL	--	--	--	BQL	--	BQL	--	--	BQL	BQL	BQL	25.0	4

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

¹ mg/L = milligrams per liter, µg/L = micrograms per liter

² Quant Limit = Quantitation Limit = lowest level of measurement