

Water Quality Laboratory

Inorganics Analyses

Period of 01/01/2016 TO 12/31/2016

Corbalis Treatment Plant Finished Water

Date Report Generated: 12/19/2016

Parameter	MCL ¹	Units ²	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Quant Limit ³
Aggressive Index Number		Units	11	11	11	11	11	11	11	11	11	11	12	-	N/A
Alkalinity, Bicarbonate		mg/L	76	53	71	68	58	83	96	101	83	96	167	-	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	76	53	71	68	58	83	96	101	83	96	167	-	0
Bromate ⁴	10 P	μg/L	BQL	6	BQL	BQL	BQL	5							
Bromide		mg/L	0.03	0.02	0.02	0.02	BQL	BQL	0.02	0.02	0.03	0.02	0.03	-	0.01
Carbon Dioxide		mg/L	8	3	6	9	7	7	10	10	8	10	11	-	N/A
Chloride	250 S	mg/L	21.3	75.4	39.5	47.5	17.5	22.0	23.6	30.1	37.1	29.7	33.1	-	5.0
Chlorine, Free ⁴		mg/L	0.2	0.2	0.2	3.4	3.4	3.4	0.3	0.3	0.4	0.2	0.2	-	0.0
Chlorine, Total ⁴		mg/L	3.6	3.6	3.7	3.7	3.5	3.6	3.6	3.9	3.9	3.8	4.0	-	0.0
Color	15 S	Units	0	0	0	0	0	0	0	0	0	0	0	-	0
Dissolved Oxygen		mg/L	15.2	15.3	13.3	17.1	14.1	12.5	12.4	10.9	10.1	10.3	10.1	-	0.0
Fluoride	4.0/2.0 P/S	mg/L	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.7	-	0.2
Hardness, Calcium		mg/L	83	59	71	72	54	71	99	108	87	107	123	-	10
Hardness, Total		mg/L	109	82	98	105	74	99	142	150	139	147	166	-	10
Methylene Blue Activated Substances	0.5 S	mg/L	-	-	-	-	-	-	BQL	-	-	-	-	-	0.05
N, Ammonia (Ammonia as N) ⁴		mg/L	0.81	0.81	0.78	BQL	BQL	BQL	0.80	0.86	0.84	0.83	0.90	-	0.20
N, Nitrate (Nitrate as N)	10 P	mg/L	1.62	1.12	1.42	0.65	0.79	1.11	0.74	0.85	0.48	1.02	0.68	0.85 4	0.20
N, Nitrite (Nitrite as N)	1 P	mg/L	0.02	0.01	BQL	0.01 4	0.01								
рН	6.5 - 8.5 S	Units	7.3	7.5	7.4	7.2	7.2	7.4	7.3	7.3	7.3	7.3	7.5	-	N/A
Phosphate as Phosphorous		mg/L	0.33	0.33	0.34	0.31	0.36	0.36	0.32	0.33	-	0.42	0.39	-	0.10
Orthophosphate as PO ₄		mg/L	1.01	1.01	1.04	0.95	1.11	1.09	0.98	1.00	-	1.28	1.19	-	0.31
Solids, Total		mg/L	184	230	206	200	129	146	230	260	262	236	278	-	1
Solids, Total Dissolved	500 S	mg/L	196	238	200	202	110	160	245	267	275	253	278	-	1
Solids, Total Suspended		mg/L	BQL	-	1										
Specific Conductivity		μmhos/cm	297	394	331	364	214	286	398	422	429	446	472	-	0
Sulfate	250 S	mg/L	34.8	15.6	22.9	30.9	18.3	18.2	52.7	55.8	58.6	56.5	60.9	-	5.0
Taste		Units	2	2	2	2	2	2	1	2	2	2	2	-	1
Temperature		°C	10.2	7.7	10.9	14.8	16.5	22.0	25.2	26.2	27.0	20.6	18.5	-	N/A
Threshold Odor Number	3 S	Units	4	6	11	8	11	6	7	-	8	6	3	-	0
Total Organic Carbon		mg/L	1.5	1.7	1.1	1.4	1.6	1.7	1.4	1.9	1.7	2.1	1.9	-	0.5
Turbidity	≤ 5 P	NTU	0.05	0.05	0.05	0.05	0.05	0.05	0.10	0.10	0.05	0.05	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

 $^{^{2}}$ mg/L = milligrams per liter, μ g/L = micrograms per liter, μ mhos/cm = micromhos per centimeter, NTU = Nephelometric Turbidity Units

 $^{^3}$ Quant Limit = Quantitation Limit : lowest level of measurement, N/A = not applicable

 $^{^4}$ Monthly result composed from an average of parameter results for finished water points of entry to distribution system

⁻ Not sampled

^{*} Analysis pending



Water Quality Laboratory

Metal Analyses

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Parameter	MCL ¹	Units ²	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Quant Limit ³
Aluminum	50 - 200 S	μg/L	BQL	-	-	BQL	-	-	40.7	-	-	BQL	-	-	25.0
Antimony	6 P	μg/L	BQL	=	=	BQL	=	=	BQL	=	-	BQL	=	=	2.0
Arsenic	10 P	μg/L	BQL	-	-	2.0									
Barium	2000 P	μg/L	27.3	-	-	39.2	-	-	49.0	-	1	36.0	-	-	25.0
Beryllium	4 P	μg/L	BQL	-	-	2.0									
Cadmium	5 P	μg/L	BQL	-	-	2.0									
Calcium		mg/L	32.7	-	-	28.6	-	-	41.7	-	-	43.1	-	-	1.0
Chromium	100 P	μg/L	BQL	=	=	5.0									
Copper	1300 AL	μg/L	BQL	-	25.0										
Iron	300 S	μg/L	BQL	=	25.0										
Lead	15 AL	μg/L	BQL	-	-	2.0									
Magnesium		mg/L	7.5	=	=	8.8	=	=	11.5	=	-	10.9	-	=	1.0
Manganese	50 S	μg/L	BQL	-	25.0										
Mercury	2 P	μg/L	BQL	=	=	=	=	=	BQL	=	-	BQL	-	=	0.50
Nickel	100 P	μg/L	BQL	-	-	5.0									
Potassium		mg/L	2.1	-	-	2.1	-	-	3.0	-	-	3.5	-	-	1.0
Selenium	50 P	μg/L	BQL	-	-	5.0									
Silicon		mg/L	3.0	-	-	1.9	-	-	2.6	-	-	2.2	-	-	1.0
Silver	100 S	μg/L	BQL	-	-	5.0									
Sodium		mg/L	12.8	38.4	20.0	24.1	10.5	13.0	16.3	20.6	27.0	20.5	23.4	=	1.0
Thallium	2 P	μg/L	BQL	-	-	2.0									
Zinc	5000 S	μg/L	BQL	-	-	25.0									

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 $^{^{2}}$ mg/L = milligrams per liter, μ g/L = micrograms per liter

³Quant Limit = Quantitation Limit : lowest level of measurement

⁻ Not sampled

^{*} Analysis pending