

City of Dayton 2021 Water Quality Averages & Pumping Data Summary

Sheet 1 of 2 sheets

Chemical Analysis mg/l	Mad River Well Field	Ottawa Water Plant Effluent	Miami Well Field	Miami Water Plant Effluent	Distribution System ¹
Total Hardness as CaCO ₃	323.12	154.38	317.39	141.20	144.63
P. Alk. as CaCO ₃		7.95		6.20	6.76
Total Alk. as CaCO ₃	277.03	101.36	264.83	83.41	89.11
NonCarb. Hard. as CaCO ₃	46.09	52.31	52.56	57.78	55.51
CO ₂ as CaCO ₃	19.47		20.96		
Ca. Hard. as CaCO ₃	205.64	59.38	204.10	70.83	68.20
Mg. Hard. as CaCO ₃	117.51	94.98	113.13	70.37	76.43
Calcium	82.26	23.75	81.64	28.33	27.28
Magnesium	28.55	23.08	27.49	17.10	18.57
Sulfate	38.004	37.184	49.285	48.460	45.25
Chloride	52.000	51.583	50.083	52.500	56.00
Nitrate	1.00	1.06	0.39	0.46	0.71
Nitrite	<0.1	<0.1	<0.1	<0.1	<0.1
Sodium	26.84	25.72	26.95	26.39	27.59
Potassium	2.65	2.45	3.01	2.80	2.79
Chlorine - Free		1.60	1.55		1.22
Chlorine - Total		1.71	1.65		1.30
Total Organic Carbon	0.71	0.54	0.88	0.66	0.59
Fluoride	0.25	0.90	0.37	0.92	0.90
Cyanide	<0.005	<0.005	<0.005	<0.005	<0.005
Phenol	<0.01	<0.01	0.01	0.01	<0.01
Silica	10.11	9.81	9.74	7.96	8.65

PHYSICAL TESTS

Turbidity, NTU	2.76	0.02	1.18	0.03	0.07
pH, S.U.	7.47	8.67	7.52	8.61	8.60
Temperature, Co	15.31	15.80	16.65	15.98	16.44
Total Solids, mg/L	415.33	245.92	427.25	244.75	244.00
Conductivity, umhos/cm ²	727.33	446.42	720.08	441.33	458.92

MICROBIOLOGICAL

Total Coliform, % Positive	70.37	0.00	8.33	0.00	0.067
E. coli, % Positive	2.66	0.00	0.00	0.00	0.000
HPC colonies/100ml	806.06	23.76	324.62	18.62	20.348
pg CATP/mL	8.79	0.26	3.89	0.22	0.244
Cryptosporidium & Giardia	None Detected		None Detected		

The Mad River Well Field provides water to the Ottawa Water Treatment Plant. The Miami Well Field provides water to the Miami Water Treatment Plant.

NTU = Nephelometric Turbidity Units (measure of "cloudiness") S.U. = Standard Units

< = less than (indicated) detection limit HPC = Heterotrophic Plate Count

mg/l = milligrams per liter (or parts per million)

¹ Distribution System data averages are for samples collected at sites throughout the water distribution system.

² 156 mg/l hardness is equivalent to 9.12 grains per gallon.

Treated Water Pumping	Ottawa WTP	Miami WTP	Combined
Max. Daily Plant Flow	47.67 MGD	39.75 MGD	76.22 MGD Jul-6.
Avg. Daily Plant Flow	38.47 MGD	22.72 MGD	59.06 MGD

In 2021 Dayton pumped 22.98 billion gallons of treated water into the distribution system.

For more information: City of Dayton Water Lab, 3210 Chuck Wagner Lane, Dayton OH 45414
phone: 937-333-6093 or email: Brandon.Turner@daytonohio.gov

**City of Dayton Division of Water Supply & Treatment
2021 Water Quality Data Averages - Continued**

METAL ANALYSES:	Mad River Well Field	Ottawa Plant Eff.	Miami Well Field	Miami Plant Eff.	Distribution System
ppm					
Barium	0.162	0.052	0.147	0.071	0.062
Boron	0.035	0.033	0.053	0.043	0.041
Iron	0.317	0.028	0.537	<0.025	<0.025
Lead	<0.003	<0.003	<0.003	<0.003	<0.003
Manganese	0.027	<0.025	0.099	<0.025	<0.025
Molybdenum	0.004	0.004	0.005	0.004	0.004
Strontium	0.562	0.301	1.074	0.603	0.511
ppm = parts per million					

VOLATILE ORGANIC CHEMICALS, [VOC] including THMs, ppb	<0.50	4.099	<0.50	5.12	16.503
TOTAL TRIHALOGENATED METHANES (THMs) ppb					27.571

Note: THMs are created when chlorine reacts with natural organics.
ppb = parts per billion

Not detected for flushed samples: Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Cobalt, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Titanium, Vanadium, Zinc, Nitrogen/Phosphorus Pesticides, Acid Extractable & Base Neutral Compounds, Alpha Radiation.

Lead and copper were not detected in most of the samples collected at residences in 2020. During the most recent Lead and Copper Rule compliance period (2020) ninety (90%) of the samples collected in "worst case scenario" (not flushed) were below 4.1 ug/L for lead, and below 60 ug/L for copper. All of the samples were below the lead action level, 15 ug/l.

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