City of Dayton — 2016 Water Quality Averages & Pumping Data Summary

Chemical Analyis mg/l	Mad River Well Field	Ottawa Water Plant Effluent	Miami Well Field	Miami Water Plant Effluent	Distribution System[1]
Total Hardness as CaCO3	345.89	151.44	335.76	140.05	**145**
P. Alk. as CaCO3		7.41		5.85	**6.4**
Total Alk. as CaCO3	278.48	85.35	272.43	73.16	**78.9**
NonCarb. Hard. as CaCO3	67.41	66.09	63.33	66.89	**66.3**
CO2 as CaCO3	20.77		25.77		
Ca. Hard. as CaCO3	217.51	48.21	217.65	66.07	**56.2**
Mg. Hard. as CaCO3	128.26	103.17	118.09	73.95	**89.0**
Calcium	87.01	19.29	87.06	26.43	**22.5**
Magnesium	31.17	25.07	28.70	17.97	**21.6**
Sulfate	45.40	42.26	51.86	51.53	**46.5**
Chloride	64.50	60.75	61.67	60.17	**62.9**
Nitrate	1.114	1.182	0.328	0.357	**0.9**
Nitrite	0.01	0.00	0.01	0.00	**0.0**
Sodium	29.78	28.36	30.96	28.73	**26.2**
Potassium	3.09	2.98	3.53	3.28	**3.1**
Chlorine - Free		1.58		1.53	**1.11**
Chlorine - Total		1.71		1.65	**1.2**
Total Organic Carbon	0.77	0.61	0.96	0.71	**0.63**
Fluoride	0.27	0.91	0.34	0.90	**0.89**
Cyanide	0.00	0.00	0.00	0.00	**<0.01**
Phenol	0.00	0.00	0.00	0.00	**<0.05**
Silica	9.88	8.85	9.62	7.08	**8.66**
PHYSICAL TESTS					
Turbidity, NTU	2.03	0.03	1.92	0.04	**0.12**
pH, S.U.	7.44	8.71	7.33	8.52	**8.63**
Temperature, Co	15.87	16.14	17.33	16.12	**16.74**
Total Solids, mg/L	452.17	249.92	459.58	249.58	**256.08**
Conductivity, umhos/cm2	803.92	454.75	780.83	448.08	**433.50**
MICROBIOLOGICAL					
Total Coliform, % Positive	70.92	0.46	21.13	0.00	**0.60**
E. coli, % Positive	1.06	0.00	0.00	0.00	**0.00**
HPC colonies/100ml	189.17	12.99	141.11	6.98	**28.39**
Cryptosporidum & 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	63.38	42.1	86.22 MG-Aug 5th
Avg. Daily Plant Flow	40.59 MG	25.04 MG	62.21 MG
Avg. Daily Treated	39.90 MG	20.16 MG	66.92 MG

In 2016 Dayton pumped 23.9 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: keshia.kinney@cityofdayton.org

City of Dayton Division of Water Supply & Treatment
2016 Water Quality Data Averages - Continued

METAL ANALYSES: ppm	Mad River Well Field	Ottawa Plant Eff.	Miami Well Field	Miami Plant Eff.	Distribution System
Barium	0.168	0.057	0.137	0.041	0.058
Boron	<0.100	<0.100	<0.100	<0.100	<0.100
Iron	0.174	0.028	0.491	<0.025	<0.025
Lead	<0.003	<0.003	<0.003	<0.003	<0.003
Manganese	<0.025	<0.025	0.083	<0.025	<0.025
Molybdenum	0.004	0.005	0.005	0.005	0.005
Strontium	0.577	0.337	1.324	0.52	0.431

ppm = parts per million

VOLATILE ORGANIC CHEMICALS, [VOC] including THMs, ppb	<0.25	3.69	0.224	4.59	23.15
TOTAL TRIHALOGENATED METHANES (THMs) ppb					23.12

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, Beta Radiation.

Lead and copper were not detected in most of the samples collected at residences in 2016. During the most recent Lead and Copper Rule compliance period (2016) 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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