

**City of Dayton**      **2009 Water Quality Averages & Pumping Data Summary**

Sheet 1 of 2 sheets

<b>Chemical Analysis mg/l</b>	<b>Mad River Well Field</b>	<b>Ottawa Water Plant Effluent</b>	<b>Miami Well Field</b>	<b>Miami Water Plant Effluent</b>	<b>Distribution System<sup>1</sup></b>
Total Hardness as CaCO3	343.20	161.70	342.80	151.20	157 <sup>2</sup>
P. Alk. as CaCO3	0.0	7.4	0.0	3.9	5.6
Total Alk. as CaCO3	271.10	85.80	270.30	74.70	72.9
NonCarb. Hard. as CaCO3	72.00	76.00	72.50	76.40	78.2
CO2 as CaCO3	17.05	0.00	19.20	0.00	0.0
Ca. Hard. as CaCO3	211.50	63.50	219.10	72.20	68.9
Mg. Hard. as CaCO3	131.20	98.00	123.60	79.00	88.0
Calcium	84.60	25.40	87.60	28.90	27.6
Magnesium	31.90	23.80	30.00	19.20	21.4
Sulfate	51.30	49.00	60.90	55.30	53.4
Chloride	57.00	58.20	56.10	55.70	57.0
Nitrate & Nitrite	0.99	1.00	0.54	0.38	0.82
Nitrite	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium	29.6	28.5	28.2	28.5	29.0
Potassium	3.19	3.10	4.68	2.68	2.8
Chlorine - Free		1.53		1.54	1.08
Chlorine - Total		1.66		1.75	1.17
Total Organic Carbon	0.76	0.62	0.95	0.77	0.66
Fluoride	0.26	0.98	0.32	0.99	0.96
Cyanide	<0.01	<0.01	<0.01	<0.01	<0.01
Phenol	<0.05	<0.05	<0.05	<0.05	<0.05
Silica	8.82	8.65	8.52	7.40	8.21
<b>Physical Tests</b>					
Turbidity, NTU	2.32	0.05	1.27	0.04	0.08
pH, S.U.	7.54	8.81	7.47	8.63	8.56
Temperature, Co	14.5	14.4	16.6	14.7	15.6
Total Solids, mg/L	453	281	456	269	268
Conductivity, umhos/cm2	815	477	806	462	475
<b>Microbiological</b>					
Total Coliform, % Positive	60.00	0.00	17.00	0.00	0.13
E. coli, % Positive		0.00		0.00	0.00
HPC colonies/100ml	477.7	6.2	208.9	1.4	26.6
Cryptosporidium & Giardia	Not detected	Not detected	Not detected	Not 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)

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

<sup>2</sup> 157 mg/l hardness is equivalent to 9 grains per gallon.

	<u>Ottawa WTP</u>	<u>Miami WTP</u>	<u>Combined</u>
<u>Treated Water Pumping</u>			
<u>Max. Daily Plant Flow</u>			72.27 MG-June 25
<u>Avg. Daily Plant Flow</u>	30.65 MG (million gallons)	25.82 MG	56.47 MG
<u>Avg. Daily Treated</u>	38.59 MG	27.23 MG	65.82 MG MG

In 2009 Dayton pumped 20.6 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: phil.vanatta@cityofdayton.org

**City of Dayton Division of Water Supply & Treatment  
2009 Water Quality Data Averages - Continued**

<b>Metal Analysis:</b>	<b>Mad River Well Field</b>	<b>Ottawa Plant Eff.</b>	<b>Miami Well Field</b>	<b>Miami Plant Eff.</b>	<b>Distribution System</b>
<b>ppm</b>					
<b>Barium</b>	<b>0.135</b>	<b>0.045</b>	<b>0.103</b>	<b>0.032</b>	<b>0.042</b>
<b>Boron</b>	<0.050	<0.050	0.084	0.063	0.059
<b>Iron</b>	<b>0.292</b>	<0.025	<b>0.216</b>	<0.025	<0.025
<b>Lead</b>	< <b>0.003</b>	< <b>0.003</b>	< <b>0.003</b>	< <b>0.003</b>	<0.003
<b>Manganese</b>	<0.025	<0.025	<b>0.036</b>	<0.025	<0.025
<b>Molybdenum</b>	<b>0.002</b>	<b>0.002</b>	<b>0.002</b>	<b>0.002</b>	<b>0.003</b>
<b>Strontium</b>	<b>0.559</b>	<b>0.346</b>	<b>1.036</b>	<b>0.466</b>	<b>0.413</b>

ppm = parts per million < =Less than (indicated) detection limits

**Radiological**

<b>Alpha</b>		<3 pCi/L		<3 pCi/L	
<b>Ra-228</b>		<1 pCi/L		<1 pCi/L	

pCi/l = picocuries per liter (a measure of radioactivity) < =Less than (indicated) detection limits

<b>Volatile Organic Chemicals, [VOC] including THMs, ppb</b>	<b>&lt;0.25</b>	<b>3.3</b>	<b>&lt;0.25</b>	<b>3.49</b>	<b>20.09</b>

**Total Trihalogenated Methanes (THMs) ppb** **20.09**

**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, Tin, 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 2009. During the most recent Lead and Copper Rule compliance period (2008) ninety (90%) of the samples collected in "worst case scenario" (not flushed) were below 3 ug/L for lead, and below 55 ug/L for copper. All of the samples were below the lead action level, 15 ug/l.**

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