



**AKRON**  
Water Supply Bureau  
Your Clean Water Resource.

AKRON WATER SUPPLY BUREAU

# DRINKING WATER QUALITY REPORT

JUNE 2015

DONALD L. PLUSQUELLIC,  
MAYOR, THE CITY OF AKRON



## THREE REASONS YOU CAN COUNT ON THE AKRON WATER SUPPLY BUREAU FOR FRESH, CLEAN WATER

- 1 Watershed Protection**  
Our experts routinely inspect the water source to help ensure the water supply is clean and safe.
- 2 Water Treatment**  
Our certified operating professionals provide an ample supply of high-quality drinking water while striving to exceed all regulatory requirements.
- 3 24/7 System Maintenance**  
A skilled team is available days, nights, weekends and holidays to maintain the water mains and reservoirs so you have water when you need it.



## ADDITIONAL INFORMATION

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).







## AKRON'S WATER MEETS ALL OHIO ENVIRONMENTAL PROTECTION AGENCY STANDARDS. COURTESY OF THE AKRON WATER SUPPLY BUREAU.

### National Primary Drinking Water Regulation Compliance

Water provided by the Akron Water Supply Bureau meets the current United States Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (OEPA) regulatory requirements by a wide margin.

The City of Akron Public Water System met all regulations for treating, testing and reporting the quality of its drinking water in 2014.

### Water Source

Three impounding reservoirs take surface water from the Upper Cuyahoga River. Water is stored and released from Wendell R. LaDue Reservoir and East Branch Reservoir, both in Geauga County. These reservoirs supplement Lake Rockwell, located in Franklin Township, Portage County, 2.5 miles north of Kent, Ohio. Water from Lake Rockwell is treated at the nearby water supply plant, pumped 11 miles to Akron through three force mains into equalizing reservoirs and distributed to more than 80,000 households. Because 21 percent of the system is at higher elevations, eight districts are supplied by additional pump stations and tanks.



### Source Water Contamination

While the source water for the City of Akron Public Water System is considered susceptible to contamination, historically, the City of Akron Public Water System has effectively treated this source water to meet drinking water quality standards.

Potential sources of contamination include agricultural runoff, failing on-site wastewater treatment systems (septic systems), municipal wastewater treatment discharges and non-point sources. In addition, the source water is susceptible to contamination through derailments, motor vehicle accidents or spills at sites where the corridor zone is crossed by roads and rail lines, or at fuel storage and vehicle service areas located adjacent to the corridor zone.

Please note that this assessment is based on data available and may not reflect current conditions. Water quality, land uses and other potential sources of contamination may change over time.

For more information about the source water assessment program, go to [www.epa.ohio.gov/ddagw/swap.aspx](http://www.epa.ohio.gov/ddagw/swap.aspx). For further information regarding Akron's source water assessment, please write to Akron Water Supply at 1570 Ravenna Road, Kent, OH 44240-6111.

### Required Health Information

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal or human activity.

### Contaminants that may be present in source water include:

**1. Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**2. Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**3. Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

**4. Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff and septic systems.

**5. Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.



# HOW TO READ THE FOLLOWING TABLES

This report is based on tests conducted in 2014 by the Akron Water Supply Bureau. Terms used in the Water Quality Table and in other parts of this report are defined here.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level (MRDL):**  
The highest residual disinfectant level allowed.

**Maximum Residual Disinfectant Level Goal (MRDLG):**  
The level of residual disinfectant below which there is no known or expected health risk.

**Detected Level:** The average level detected of a contaminant for comparison against the acceptance levels for each parameter. These levels could be the highest single measurement or an average of values, depending on the contaminant.

**Range:** The range of all values for samples tested for each contaminant.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

Key to Tables
<b>MCL</b> = Maximum Contaminant Level
<b>MCLG</b> = Maximum Contaminant Level Goal
<b>MRDL</b> = Maximum Residual Disinfectant Level
<b>MRDLG</b> = Maximum Residual Disinfectant Level Goal
<b>NTU</b> = Nephelometric Turbidity Units
<b>ppm</b> = Parts per million, or milligrams per liter (mg/L)
<b>ppb</b> = Parts per billion, or micrograms per liter (µg/L)
<b>TT</b> = Treatment Technique
<b>NA</b> = Not Applicable

## NOT UNDER OHIO EPA REGULATION BUT OF GENERAL INTEREST

	Average Detected Level	Range
Alkalinity	75 mg/L	51 - 108 mg/L
Hardness (metric units)	109 mg/L	68 - 146 mg/L
Hardness (English units)	6 grains per gallon	4 - 9 grains per gallon
pH	7.19 units	6.77 - 7.56 units
Sodium	48 mg/L	NA, one test, in 2013
Temperature (metric units)	12.8° C	1.1° - 24.8° C
Temperature (English units)	55° F	34° - 77° F
Total Organic Carbon	3.06 mg/L	2.13 - 4.29 mg/L
Total solids	264 mg/L	220 - 307 mg/L

## UNREGULATED CONTAMINANT MONITORING RULE 3

	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled
Chlorate (ppb), plant tap	NA	NA	279	20 - 517	NO	2014
Chlorate (ppb), distribution system	NA	NA	571	420 - 854	NO	2014
Chromium (total) (ppb), plant tap	NA	NA	0.22	0.20 - 0.26	NO	2014
Chromium (total) (ppb), distribution system	NA	NA	0.27	0.20 - 0.31	NO	2014
Chromium-6 (ppb), plant tap	NA	NA	0.050	0.044 - 0.056	NO	2014
Chromium-6 (ppb), distribution system	NA	NA	0.088	0.056 - 0.13	NO	2014
Strontium (ppb), plant tap	NA	NA	75.6	70.0 - 84.9	NO	2014
Strontium (ppb), distribution system	NA	NA	74.8	66.4 - 83.0	NO	2014
Vanadium (ppb), plant tap	NA	NA	0.64	0.20 - 1.30	NO	2014
Vanadium (ppb), distribution system	NA	NA	0.57	0.20 - 1.1	NO	2014

### About Unregulated Contaminant Monitoring Rule 3

Our utility is committed to protecting public health and meets or surpasses all state and federal health standards for tap water. To help advance the science of drinking water, we have been collecting data for the EPA since the rule was enacted in January 2013. Collecting information about the occurrence of these compounds in water supplies is the first step in the EPA's efforts to determine whether they should be regulated. The presence of a compound does not necessarily equate to a health risk; the concentration of a compound is a far more important factor in determining whether there are health implications. We will closely monitor both the concentrations of these compounds and the EPA's health studies and will keep you informed of any developments. Should the EPA ultimately determine that regulation is warranted, we will take whatever steps are necessary to protect the health of our customers.

The EPA requires regular sampling to ensure drinking water safety. The City of Akron Water Supply Bureau conducted sampling for bacteria, inorganic, and volatile organic contaminants in 2014. Samples were tested for 117 different contaminants, most of which were not detected in the Akron water supply. Akron tap water met all EPA drinking water quality regulations. The EPA approves the City of Akron to operate a public water system under license #7700011-1007890-2015.

Listed below is information on those contaminants detected.

The complete listing of "2014 All Water Tests" performed on Akron drinking water is available at <http://www.akronohio.gov/cms/Water/CCR/index.html> or call 330.678.0077.

### WATER QUALITY TABLE FOR 2014

	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
<b>Microbiological Contaminants</b>							
Turbidity (NTU)	NA	TT	0.20	0.03 - 0.20	NO	2014	Soil runoff.
Turbidity (% meeting standard)	NA	TT	100.0%	100% - 100%	NO	2014	
Total Organic Carbon (compliance ratio)	NA	TT	1.49	1.34 - 1.81	NO	2014	Naturally present in the environment.
<b>Inorganic Contaminants</b>							
Barium (ppm)	2	2	0.037	NA	NO	2014	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chlorite (ppm), avg. of 3 samples in the distribution system	0.8	1.0	0.79	0.007 - 0.885	NO	2014	By-product of drinking water chlorination.
Copper (ppm)	1.3	Action Level = 1.3	0.220	NA	NO	2012	Corrosion of household plumbing systems. Erosion of natural deposits.
							Zero out of 50 samples were found to have copper levels in excess of the copper Action Level of 1.3 ppm.
Fluoride (ppm)	4	4	0.97	0.77 - 1.18	NO	2014	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead (ppb)	0	Action Level = 15	4.5	NA	NO	2012	Corrosion of household plumbing systems. Erosion of natural deposits.
							Zero out of 50 samples were found to have lead levels in excess of the lead Action Level of 15 ppb.
Nitrate (ppm)	10	10	0.55	0.02 - 0.55	NO	2014	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
<b>Residual Disinfectants</b>							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.35	1.26 - 1.31	NO	2014	Water additive used to control microbes.
Chlorine Dioxide (ppb)	MRDLG = 800	MRDL = 800	500	10 - 500	NO	2014	Water additive used to control microbes.
<b>Volatile Organic Chemicals</b>							
Haloacetic Acids HAA5 (ppb)	No goal for the total	60	47.6	15.5 - 84.2*	NO	2014	By-product of drinking water chlorination.
Total Trihalomethanes TTHMs (ppb)	No goal for the total	80	76.4	17.4 - 171*	NO	2014	By-product of drinking water chlorination.

\*The maximum Range of Detections is not a violation because individual samples are averaged with other samples before being compared with the maximum contaminant level. All water system averages were below the Ohio EPA's limits for these averages.

<b>Radioactive Contaminants</b>							
Alpha emitters (picocuries per liter)	0	15	1.4	NA	NO	2010	Erosion of natural deposits.
Radium-228 (picocuries per liter)	0	5 combined	0.12	NA	NO	2010	Erosion of natural deposits.
<b>Unregulated Contaminants</b>							
Bromodichloromethane (ppb)	NA	NA	5.5	NA	NO	2014	By-product of drinking water chlorination.
Chloroform (ppb)	NA	NA	12.7	NA	NO	2014	By-product of drinking water chlorination.
Dibromochloromethane (ppb)	NA	NA	0.9	NA	NO	2014	By-product of drinking water chlorination.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Akron Water Supply Bureau is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.



Photo: East Branch Reservoir



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