



City of Canton Water Department 2010

WATER QUALITY REPORT



For more information about your drinking water contact the EPA Safe Drinking Water Hotline at 800-426-4791; or contact the Northeast District Office of Ohio EPA at (330) 963-1200.

**From Glacial aquifer to you...
Canton delivers exceptional quality,
value and service to our consumers.**

The City of Canton Water Department is pleased to present, to you, our twelfth Annual Water Quality Report. The City of Canton is fortunate to have an abundant, dependable source of high quality drinking water. We are proud to announce that our water continues to meet or exceed all federal and state Environmental Protection Agency (EPA) standards set for water quality. We have a current, unconditional license to operate our water system. Our goal is and always has been to provide our consumers with a safe, dependable supply of drinking water and top-notch customer service at a minimum of cost for you today, your children tomorrow and your grandchildren years from now.

TASTE TIP:

If you feel Canton drinking water has a chlorine taste, try leaving an open pitcher of it in your refrigerator overnight. The chlorine will be reduced by morning.

www.cantonohio.gov/water

IMPORTANT QUESTIONS

What to expect from your drinking water? 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 can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

What are sources of contamination to drinking water? 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 animals or from human activity.

Contaminants that may be present in source water include: **(A) Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. In July 2009, Canton applied for and received approval to treat for viruses; **(B) Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; **(C) Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; **(D) 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 storm water runoff, and septic systems; and **(E) Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

How do the EPA and the FDA fit in? In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Who needs to take special precautions? Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/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 (1-800-426-4791).

What is the source of Canton's drinking water? The Canton Water Department obtains 100% of its water from underground wells. Our wells extend hundreds of feet deep into sand and gravel aquifers that were created long ago by glacial activity. These natural aquifers provide Canton with more than 7,293,824,000 gallons of water in 2009. We have three separate well fields that supply water to our three water treatment plants. The first is referred to as our Northeast Well Field, which is located in the northeast section in Canton. The second is referred to as our Northwest Well Field, which is located in the northwest section in Canton. Finally, our Sugarcreek Well Field is located southwest of Canton. The Source Water Assessment reports have been completed for all three well fields. The report indicates the well fields are potentially susceptible to contamination due to the physical nature and location of the respective aquifers. We have taken protective measures to avoid contamination. More information can be obtained by calling the Safe Drinking Water Hotline (1-800-426-4791).

Backup Measures: Should the need ever arise, we have several protective backup systems built into our utility that enable us to ensure a dependable flow of drinking water to our consumers. As previously mentioned, Canton has three separate water treatment plants and well fields. If one plant is taken off-line, the other two plants can make up the difference in water production. The NW Plant underwent a 7.2 million dollar renovation and was taken offline in April 2009. No interruption of service has occurred. The city also has nearly 30 million gallons of drinking water stored in enclosed reservoirs acting as a protective reserve of water. Another backup system includes diesel generators at our Sugarcreek and Northwest Water Treatment Plants. These powerful generators can provide enough electricity to operate our Sugarcreek and Northwest Plants in the event of a widespread power outage. We also have two interconnections with the North Canton Water System which are normally kept in a closed position. In an emergency, however, these valves could be opened and potable water supplied to our system or vice versa depending on the need. All of the redundant and overlapping "backup" systems described ensure that the Canton Water Department can provide a dependable supply of drinking water to all of our consumers.

ABOUT OUR WATER...

What's in Canton's drinking water? The EPA requires regular sampling of the City's water supply to ensure drinking water safety. In 2009 alone we ran over 30,000 tests for more than 100 different substances. The good news is that **none** of the contaminants that we detected exceed EPA established Maximum Contaminant Levels or resulted in a violation of drinking water standards. Only a very small percentage of the contaminants tested for exist in our water at detectable levels. The tables on the back page identify the contaminants that were detected. *The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though accurate, are more than one year old.*

The Canton Water Department has been involved in three Federal studies: Lead and Copper Monitoring, Disinfectants/Disinfection ByProduct Evaluation and Unregulated Contaminate Monitoring Regulation II.

Lead: 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. Canton Water Department 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 or at <http://www.epa.gov/safewater/lead>.

Disinfectant/Disinfection ByProducts: Under the Stage 2 Disinfectant/Disinfection ByProduct Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 D/DBPR, beginning in 2012. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and from when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfection byproducts in drinking water, including both THMs and HAAs. For compliance purposes we currently sample for Stage I compliance at Maximum Residence Sites. You will see data for both the Stage I and Stage II D/DBPR included in the following charts.

Unregulated Contaminate Monitoring Regulation II: None of the Unregulated Contaminates tested in this study were found in detectable levels. There will be no mention of these contaminants in the following charts as none were detected.

How do I participate in decisions concerning my drinking water? Public participation and comments are encouraged at regular meetings of the City Council which meets every Monday at 7:30 PM in City Hall Council Chambers. During the summer months of June, July and August, the Council meets every other week.

What is hard water? Canton's water contains the naturally occurring mineral calcium, which is better known as hardness. Water was described as "hard" when people found it *hard* to make soap suds or lather from the water. The presence of calcium in the water is not a health concern but rather somewhat of a nuisance that is very costly to remove on a large scale. Some individuals use a water softener to remove unwanted hardness. Calcium buildup can be removed from spigots and coffee pots using vinegar.

Why do I occasionally see discolored water leaving my tap? Discolored water is usually due to the presence of rust (iron). Rust in drinking water can be caused by corrosion in the pipes that carry the water from the treatment plant to your home or corrosion in your home's plumbing, including the hot water heater. Rust is typically not dangerous in terms of health but it can stain laundry. Do not heat-dry laundry washed in rusty water. Call us at (330) 489-3315 and we will deliver a laundry aid to remove rust from your clothes. Problems with discolored water usually clear themselves within a day. If you have a prolonged discolored water problem, please notify us.

Hydrant flushing: During the warm summer months, you may see Water Department personnel flushing fire hydrants. We do this to remove the accumulation of iron sediment in the pipes, thereby reducing discolored water situations over the long term. Essentially, hydrant flushing is our way of cleaning our distribution system! Be aware, however, that hydrant flushing may temporarily cause discolored water and a drop in water pressure.

WATER TRIVIA: The average home water use is 50 gallons a day for each person in the USA. The average cost is about a penny for every 5 gallons of water, which totals about 10 cents per day for each person! In comparison, bottled water may cost \$1.00 to \$3.00 per gallon.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	Range of Detection	Date of Sample	MCL	Likely Source of Contamination
-------------	---------------	----------------	------------------	------	--------------------	----------------	-----	--------------------------------

INORGANIC CONTAMINANTS

Barium	No	0.09	ppm	2.0	0.06-0.09	6-19-07	2.0	Discharge from metal refineries; erosion of natural deposits
Chromium	No	5.0	ppb	100	2.0-5.0	6-19-07	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper	No	641	ppb	1300	ND-860 (0 out of 51 samples exceeded the AL)	2007	AL=1300	Corrosion of household plumbing systems
Fluoride	No	0.93	ppm	4.0	0.77 - 1.27	2009	4.0	Erosion of natural deposits; water additive which promotes strong teeth
Lead	No	5.0	ppb	0	ND-7.0 (0 out of 51 samples exceeded the AL)	2007	AL=15.0	Corrosion of household plumbing systems
Selenium	No	4.0	ppb	50	ND-4.0	6-19-07	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines

VOLATILE ORGANIC CONTAMINANTS

TTHM (Total Trihalomethanes Stage 1)	No	16.0	ppb	0	15.2-16.0	7-7-09	80	By-product of drinking water chlorination
---	----	------	-----	---	-----------	--------	----	---

RESIDUAL DISINFECTANTS

Total Chlorine	No	0.90	ppm	MRDLG = 4.0	0.20-1.54	2009	MRDL=4.0	Water additive to control microbes
----------------	----	------	-----	-------------	-----------	------	----------	------------------------------------

DISINFECTION BY-PRODUCTS

HAA (Haloacetic Acids Stage 1)	No	7.5	ppb	N/A	7.2-7.5	7-7-09	60	By-product of drinking water chlorination
-----------------------------------	----	-----	-----	-----	---------	--------	----	---

*UNREGULATED CONTAMINANTS

Contaminant	Level Detected (AVERAGE)	Unit Measurement	Range of Detection	Date of Sample	Contributing Source
Bromodichloromethane	5.7	ppb	5.6-5.8	7-7-09	By-product of drinking water chlorination
Bromoform	1.15	ppb	0.89-1.4	7-7-09	By-product of drinking water chlorination
Dibromochloromethane	4.75	ppb	3.9-5.6	7-7-09	By-product of drinking water chlorination
Chloroform	4.05	ppb	3.2-4.9	7-7-09	By-product of drinking water chlorination

**INITIAL DISTRIBUTION SYSTEM EVALUATION

TTHM (Total Trihalomethanes Stage II)	15.2	ppb	2.6-37.8	2008	By-product of drinking water chlorination
HAA5 (Haloacetic Acids) Stage II	10.8	ppb	6.0-17.7	2008	By-product of drinking water chlorination

*Unregulated contaminant monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

**The Initial Distribution System Evaluation sampling required by the Federal EPA is to determine the range of total trihalomethane and haloacetic acids in the system for future regulations. The samples are not used for compliance, and may have been collected under non-standard conditions. The Federal EPA requires the data to be reported here. Please contact your water system representative if you have any questions.

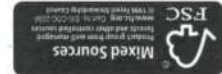
Definitions of some terms contained within this report. **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant that is allowed in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. **Maximum Contaminant Level (MCL):** The highest level of 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 level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. **Parts per Million (ppm) or Milligrams per Liter (mg/L):** are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11 days. **Parts per Billion (ppb) or Micrograms per Liter (ug/L):** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in about 32 years. **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. **ND:** Contaminant Not Detected. **How do I participate in decisions concerning my drinking water?** Public participation and comments are encouraged at regular meetings of the City Council which meets every Monday at 7:30 pM in City Hall Council Chambers. During the summer months of June, July and August, the Council meets every other week. **Who do I contact for more information?** For more information about your drinking water contact the EPA Safe Drinking Water Hotline at 800-426-4791; or contact the Northeast District Office of Ohio EPA at (330) 963-1200; or contact the Water Department Superintendent, Mr. Tyler S. Converse at (330) 489-3308.

The Canton City Water Department is proud of its commitment to protect the environment and to responsible forest management. For more information on the FSC visit www.fsc.org.

FSC is widely regarded as having the most rigorous standards.

FSC stands for Forest Stewardship Council which was founded by a diverse group of industry and environmental stakeholders to develop a consistent, serve biodiversity and support local communities. are purchased come from forests managed to ensure that the wood and paper products that Central to the certification efforts is a seal of approval that assures that they are universally recognized and to ensure that they are universally recognized. comprehensive and reliable set of third-party certification standards. (including the Rainforest Alliance)

The Canton City Water Department has long been known for its concern about quality. We have chosen to use FSC paper for our Water Quality Report to demonstrate our commitment to the environment.



Canton Water Department
2664 Harrisburg Road NE
Canton, OH 44705
www.cantonohio.gov



PERMIT NO. 207
CANTON, OH
PAID
U.S. POSTAGE
STANDARD
PRESORTED