

Water Quality Report for the City of Wakefield

This report covers the drinking water quality for the City of Wakefield for the 2016 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2016. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

Your water comes from 2 wells located on the north side of Sunday Lake at the Chicago Mine. Well #1 is 410 feet deep and Well #2 is 412 feet deep. Both wells are drilled into a spring fed reservoir in the old Chicago Mine workings. The water from each well is disinfected with chlorine in the pump house. After being approved by a vote of the people of Wakefield, fluoride is added to the water. In 1999, the Chicago Mine pump house was replaced with a new facility approximately 100 feet to the east of the old facility. This project was completed with the cooperation of the Gogebic Range Water Authority (GRWA) and the City of Wakefield.

The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is rated moderately high.

Is my water safe?

Last year, your tap water met all U.S. Environmental Protection Agency (EPA) and State drinking water health standards. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to EPA and Michigan water quality standards. The City is committed to providing you with quality water and related information, because informed customers are our best allies.

- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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 and their presence in 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 **EPA's Safe Drinking Water Hotline (800-426-4791)**.

- **Vulnerability of sub-populations:** 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 systems disorders, some elderly, and infants can be particularly at risk from infections. 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 (800-426-4791).
- Contaminants that may be present in source water include:
 - T **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
 - T **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.
 - T **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
 - T **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
 - T **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.

STATEMENT ABOUT 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.

The City of Wakefield 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>.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2016 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 – December 31, 2016. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All of the data is representative of the water quality, but some are more than one year old.

Terms and abbreviations used below:

- **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):** means the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** means the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **N/A:** Not applicable **ND:** not detectable at testing limit **ppb:** parts per billion or micrograms per liter **ppm:** parts per million or milligrams per liter **pCi/l:** picocuries per liter (a measure of radioactivity).
- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Regulated Contaminant	MCL	MCLG	Your Water	Sample Date	Violation Yes / No	Typical Source of Contaminant
Arsenic (ppb)	10	0	ND	9/11	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Selenium (ppm)	0.05	0.05	0.001	3/08	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppm)	10		0.10	8/16		
Fluoride (ppm)	4	4	.94	Daily	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
TTHM - Total Trihalomethanes (ppb)	80	N/A	11	8/16	No	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	2.0	8/16	No	Byproduct of drinking water disinfection
Chlorine (ppm)	MRDL	MRDLG	0.64 avg (0.37 to 0.91)	Daily	No	Water additive used to control microbes
	4	4				
Radioactive Contaminant	MCL	MCLG	Your Water	Sample Date	Violation Yes / No	Typical Source of Contaminant
Alpha emitters (pCi/L)	15	0	0	2015	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	0	2015	No	Erosion of natural deposits
Special Monitoring and Unregulated Contaminant ***			Your Water	Sample Date	Typical Source of Contaminant	
Sodium (ppm)			28	8/16	Erosion of natural deposits	
Contaminant Subject to AL	Action Level	MCLG	90% of Samples ≤ This Level	Sample Date	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	4	2015	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppb)	1300	1300	478	2015	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	1 positive monthly sample (5% of monthly samples positive)	0	0	No	Naturally present in the environment

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. We will publish this report in the Wakefield News. If you would like a copy of the report contact us at City Hall or at the Department of Public Works.

We invite public participation in decisions that affect drinking water quality. For more information about your water, or the contents of this report, contact City Hall at 229-5131. or view our website, www.cityofwakefield.org For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/.