

Annual Drinking Water Quality Report for 2017
City of Ishpeming
February 22, 2018

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Wells in the N. Carp River Aquifer and the Cooper Lake Road Aquifer are the primary sources of our drinking water. Negaunee/Ishpeming Water Authority (NIWA) treats the water through chemical clarification, filtration for the removal of manganese and iron, and adjusts the pH for lead and copper corrosion control. The water treatment plant is operated by certified treatment plant operators employed by NIWA.

We have completed a source water protection plan, which provides detailed information on groundwater flow and potential sources of contamination. This plan is available for review at the water treatment plant.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact **Carl Petersen, DPW Director at 486-9371**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first **Wednesday of the month at 7:00 p.m. at the City Hall**. To learn more about the water treatment process, you can attend NIWA's regular meetings conducted on the third **Wednesday of the month at 4:00 PM at the water treatment plant located at 1800 North Road, Ishpeming, Michigan**.

The City of Ishpeming and water treatment plant staff routinely monitors for regulated and unregulated contaminants in your drinking water according to Federal and State laws. Unregulated contaminant sampling for NIWA was completed in 2009. A large facility requirement, mandated by the EPA and the Safe Drinking Water act. The water quality data gathered through the unregulated sampling requirement is used in the development of future drinking water quality standards. Copies of the unregulated sampling test results are available for review at the water plant. The following table shows the results of our regulated monitoring for the period of January 1st to December 31st, 2017. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Picocurie per liter (pCi/L) is a measure of radioactivity in the water

Parts per billion (ppb) or Micrograms per liter (ug/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level - (AL) the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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 Contaminant Level Goal - The “Goal” (MCLG) is 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 Residual Disinfectant Level - (MRDL) The highest level of a disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal - (MRDLG) The level of a drinking water disinfectant below which there is no known or expected risk to health.

TEST RESULTS						
<u>Regulated Contaminant</u>	Violation Yes/No	Level Detected	Range	MCLG or MRDLG	MCL, TT or MRDL	Likely Source of Contaminant
Microbiological Contaminants						
Total Coliform Bacteria	No	ND		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform and <i>E.coli</i>	No	ND		0	a routine sample and repeat sample are total coliform positive, and one is <i>E. coli</i> positive	Human and animal fecal waste
Inorganic Contaminants						
Cyanide (ppb)	No	ND		N/A	10	Erosion of natural deposits; drilling waste discharges.
Nitrate (as Nitrogen) (ppm)	No	.4		10	10	Erosion of natural deposits Fertilizer use, leaching from septic tanks, sewage.

Lead (ppb); <i>20 samples grabbed with no samples exceeding the action level</i>	No	4.0		0	AL= 15	Corrosion of Household Plumbing products. Erosion of natural deposits.
Copper (ppm); <i>20 samples grabbed with no samples exceeding the action level.</i>	No	0.6		1.3	AL= 1.3	Corrosion of Household Plumbing products, Erosion of Natural deposits, Wood preservatives.
Fluoride (ppm)	No	.67		4	4	Erosion of natural deposits; Water additive promotes strong teeth; Discharge from fertilizer and aluminum factories
Disinfectant, Disinfection By-Products & Volatile Organic Contaminants						
Total Trihalomethane (TTHM) (ppb) Locational Running Annual Average (LRAA) based on quarterly samples, 3rd. quarter 2017 missed.	No	40	Range: 36.8 - 43	0	80	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb) LRAA based on quarterly samples, 3rd. quarter 2017 missed.	No	22	Range: 18.9 - 24	0	60	By-product of drinking water chlorination
Chlorine Residual (ppm) <i>Running Annual Average of all measurements taken each month.</i>	No	Avg: .38	Range: .05 - 1.0	4.0	4.0	Water Additive used to control microbes in drinking water

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water is SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the 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 at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply that meets Federally Mandated Safe drinking Water act requirements we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as a rate structure adjustment.

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, 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Contaminants	Susceptible Vulnerable Subpopulation	Level of Concern
Fecal Coliform/E. Coli	Infants, young children, elderly and people with severely compromised immune systems	Confirmed presence (any confirmed detect)
Copper	People with Wilson's Disease	1.3 mg/l (ppm)
Fluoride	Children	4.0 mg/l (ppm)
*Lead	Infants and children	15.0 ug/l (ppb)
Nitrate	Infants below the age of 6 months.	10.0 mg/l (ppm)
Nitrite	Infants below the age of 6 months	1.0 mg/l (ppm)
Barium	People with high blood pressure	2.0 mg/l (ppm)
Notes:		
<ul style="list-style-type: none"> • Confirmed presence means that the routine distribution sample or the repeat sample was total coliform positive or E.coli positive and the other routine or repeat sample was E.coli-positive. • ppm (parts per million); ppb (parts per billion) 		

* 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. Ishpeming 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may 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: 1-800-426-4791 or at <http://www.epa.gov/drink/info/lead/index.cfm>.

We at the City of Ishpeming and NIWA work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Individual copies of this Report will NOT be mailed. Individual copies may be obtained from the Ishpeming Department of Public Works at 208 South Lake Street, Ishpeming, Michigan or at Ishpeming City Hall at 100 E Division Street, Ishpeming, Michigan.