

Annual Drinking Water Quality Report for 2012
City of Ishpeming
March 18, 2013

We are 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/distribution 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 Aquifer are the primary sources of our drinking water. We purchase our water from the Negaunee/Ishpeming Water Authority (NIWA), which treats the water through chemical clarification and filtration for the removal of manganese and iron, and with pH adjustment for lead and copper corrosion control. The water treatment plant is operated by certified treatment plant operators employed by NIWA.

NIWA has 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 am 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 **Jon Kangas, DPW Director at 486-9371**. We want our valued customers to be informed about their water utility. If you want to learn more about your drinking water source, please attend any of NIWA's regularly scheduled meetings. They are held on the third **Wednesday of the month at 4:00 PM at the water treatment plant's conference room located at 1800 North Road, Ishpeming, Michigan**.

The water treatment plant staff, on behalf of the City of Ishpeming, 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, the sampling is 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, 2012. 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.

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 - 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.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	N	ND		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform and <i>E.coli</i>	N	ND		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
Inorganic Contaminants						
Arsenic	N	ND	ppm	N/A	10	Erosion of natural deposits; drilling waste discharges.
Nitrate (as Nitrogen)	N	0.4	ppm	10	10	Erosion of natural deposits Fertilizer use, leaching from septic tanks, sewage.
Copper	N	ND (2014 requirement)	ppm	1.3	AL=1.3	Corrosion of household plumbing erosion of natural deposits; leaching from wood preservative
Fluoride	N	0.96	ppm	4	4	Erosion of natural deposits; water additive promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	N	ND (2014 requirement)	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Volatile Organic Contaminants						
TTHM [Total trihalomethanes]	N	70 Range: 63 – 80	ppb	0	80	By-product of drinking water chlorination
HAA5 [Haloacetic Acid]	N	15 Range: 3 – 27	ppb	0	60	By-product of drinking water chlorination

We are 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 individuals such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons 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, 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)

* 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 Ishpeming Water Utility 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 or at <http://www.epa.gov/safewater/lead>.

We at the City of Ishpeming 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.