

Annual Drinking Water Quality Report for 2022
City of Negaunee Water Utility
February 27, 2023

The City of Negaunee is 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. The City of Negaunee purchases its water from the Negaunee/Ishpeming Water Authority uses ground water production wells in the North Carp River Aquifer and the Cooper Lake Road Aquifer as the primary sources of our drinking water. We have six wells in the North Carp River Aquifer and three in the Cooper Lake Road Aquifer. Negaunee/Ishpeming Water Authority (NIWA) treats the water through chemical clarification and 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.

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'm pleased to report that our drinking water is safe and meets federal and state requirements. Because the City purchases water produced by the Negaunee/Ishpeming Water Authority, questions regarding quality can best be addressed by **Jake Forchini, Plant Manager at (906) 486-8399**. 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 third Wednesday of the month at 4:00 PM at the water treatment plant's conference room located at 1800 North Road, Ishpeming, Michigan.** Questions about water distribution within the City, utility policies, and rates should be directed to the **Negaunee City Manager at 475-7700 Ext. 11** or the Negaunee City Council which meets the second Thursday of each month at the Negaunee Senior Center, 410 Jackson Street.

The water treatment plant staff and City of Negaunee 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. (unregulated contaminant sampling is required if the Volatile Organic Compounds (VOC) or Synthetic Organic Compounds (SOC) are present in a sample.) 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, 2022.

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 can dissolve naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity. 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:

Not applicable (N/A)

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) - $1 \text{ ug/L} = .001 \text{ mg/L}$
One part per billion corresponds to one minute in 2,000 years or one penny in \$10,000,000

Parts per trillion (ppt) or Nanogram per Liter (ng/L) - $1 \text{ ng/L} = .000 \text{ 001 mg/L}$
One part per trillion corresponds to one minute in 2,000,000 years or one penny in \$10,000,000,000

Parts per quadrillion (ppq) or Picogram per Liter (pg/L) - $1 \text{ pg/L} = .000 \text{ 000 001 mg/L}$
One part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000

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

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.

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

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

Maximum residual disinfectant level goal (MRDLG)- 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. ·

Maximum residual disinfectant level (MRDL)- 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.

Regulated Contaminant	Violation Yes/No	Level Detected	MCLG MRDLG	MCL TT MRDL	Year Sampled ¹	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria (Total number or % of positive samples/month)	No	N/A	N/A	N/A	2022	Naturally present in the environment
Fecal coliform and <i>E. coli</i> ²	No	N/A	N/A	TT	2022	Human and animal fecal waste
Inorganic & Synthetic Organic Chemicals						
Nitrate (as Nitrogen) (ppb)	No	50	1000	1000	2022	Erosion of natural deposits Fertilizer use, leaching from septic tanks, sewage.
Synthetic Organic Chemicals (SOC) (ppm)	No	ND	0	0.0001-0.5	2022	Fertilizers, Carbamates, Herbicides, and Pesticides
Fluoride (ppb)	No	62	400	400	2022	Erosion of natural deposits; water additive promotes strong teeth; discharge from fertilizer and aluminum factories
Sodium ³ (ppm)	No	69	N/A	N/A	2022	Erosion of natural deposits. Special diets may require water of low sodium content; All persons on severely restricted sodium diets should consult with their physician regarding continued use of the water supply
Per- and Polyfluoroalkyl Substance (PFAS)						
PFAS (ppt)	No	ND	0	N/A	2022	Discharge and Waste from Industrial Facilities; Firefighting Foam
Dioxins ⁴						
Dioxins (ppq)	No	ND	0	30	2021	Combustion of fossil fuels and wood; Incineration of municipal and industrial wastes processes; Manufacturing of some herbicides and pesticides

Chlorine Residual (ppm)	2021											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Shell Gas Station (Ishpeming)	0.36	0.40	0.43	0.38	0.46	0.40	0.27	0.28	0.27	0.31	0.42	0.40
Holiday Gas Station (Negaunee)	0.31	0.33	0.37	0.30	0.39	0.30	0.29	0.23	0.22	0.25	0.38	0.33
Average of all measurements taken in the month	0.34	0.37	0.40	0.34	0.43	0.35	0.28	0.26	0.25	0.28	0.40	0.37
Chlorine Residual (ppm)	2022											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Shell Gas Station (Ishpeming)	0.42	0.37	0.37	0.37	0.30	0.37	0.32	0.32	0.36	0.37	0.38	0.34
Holiday Gas Station (Negaunee)	0.34	0.30	0.25	0.27	0.21	0.26	0.19	0.18	0.18	0.18	0.18	0.22
Average of all measurements taken in the month	0.38	0.34	0.31	0.32	0.26	0.32	0.26	0.25	0.27	0.28	0.28	0.28
RAA calculated quarterly of 12 monthly averages ⁵	0.33 (Highest RAA)			0.31			0.31			0.30		

¹ The data presented in the report are from the most recent testing done in accordance with drinking water regulations.

² *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*.

³ Sodium is not a regulated contaminant.

⁴ Dioxin sampling was conducted regarding an updated sampling survey to evaluate whether certain contaminants are emerging as a concern. AECOM conducted sampling.

⁵ Chlorine Residual based on a running annual average (RAA), calculated quarterly using monthly averages from the last 12 months. Highest RAA highlighted in yellow.

Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water ^[1]	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	1	0 - 4	2022	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.9	0.1-1.6	2022	1	Corrosion of household plumbing systems; Erosion of natural deposits

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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 manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. Drinking water, including bottled water, may 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 (800-426-4791).

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharge, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 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.

^[1] Ninety (90) percent of the samples collected were at or below the level reported for our water.

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

To ensure that tap water is safe to drink, EPA prescribes regulations which limit the number of certain contaminants in the water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for human health.

Thank you for allowing us to continue providing your family with clean, quality water this year. 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 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 person 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 fecal-positive or E. Coli-positive and the other sample (routine distribution system sample or repeat sample) was fecal-positive or E. Coli-positive. • ppm parts per million; ppb parts per billion • Health effects language is found in R325.10405 		

* 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 Cities of Ishpeming and Negaunee are 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 have a lead service line, it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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>.

We at the City Of Negaunee and Negaunee Ishpeming Water Authority 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.