

2016 Water Quality Report for the Village of Baraga

This report covers the drinking water quality for the Village of Baraga for the calendar year 2016. 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 Keweenaw Bay. We are a complete treatment plant that performs several steps to provide clean and safe drinking water. We add fluoride to help prevent tooth decay, soda ash to control corrosion in piping, and a chlorine disinfectant to kill harmful bacteria. During the plant operating hours, the water plant staff is constantly monitoring the treatment process to assure a supply of safe, potable water.

The State performed an assessment of our source water in 2003. The susceptibility for surface water sources ranges from very high for inland rivers to moderately low for deep lake intakes. Our source has been rated as highly susceptible. For more information, call the Baraga water treatment plant at 353-6795.

- **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 (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 **Hotline**.
- **Sources of 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:

- *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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture and residential uses.
- *Radioactive contaminants*, which are naturally occurring or are the result of oil and gas production and mining activities.
- *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. Baraga water treatment 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 at 1-800-426-4791 or on the USEPA Web site. (<http://www.epa.gov/safewater/lead>)

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

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:

Water Supplier: Define only the terms you use in the table below. Delete any you don't use.

- **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 (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 **NTU:** Nephelometric Turbidity Unit **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.
- **TT:** Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water.
- **Turbidity:** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Regulated Contaminant	MCL or MRDL	MCLG or MRDLG	Level Detected	Sample Date	Violation Yes / No	Typical Source of Contaminant
Fluoride (ppm)	4	4	0.53	2016	No	Erosion of natural deposits.
Nitrate (ppm)	10	10	0.5	2016	No	Erosion of natural deposits.
Chlorine (ppm)	4	4	1.05 avg. (0.65 – 1.40)	2016	No	Water additive used to control microbes.
Haloacetic acids (ppb)	60	N/A	27	2016	No	Byproduct of drinking water disinfection.
Total Trihalomethanes (ppb)	80	N/A	51.3	2016	No	Byproduct of drinking water disinfection.
Radioactive Contaminant						
Combined radium (pCi/L)	5	0	0.1	2012	No	Erosion of natural deposits.
Special Monitoring and Unregulated Contaminant			Level Detected	Sample Date	Typical Source of Contaminant	
Sodium (ppm)			8	2016	Erosion of natural deposits.	
Contaminant Subject to AL	Action Level	90% of Samples ≤ This Level	Sample Date	Number of Samples Above AL	Typical Source of Contaminant	
Lead (ppb)	15	2.6	2014	0	Corrosion of household plumbing systems.	
Copper (ppb)	1300	49	2014	0	Corrosion of household plumbing systems.	

Microbiological Contaminants	TT	Average	Min/Max	Violation	Typical Source of Contaminant
Turbidity* (NTU's)	1.0	0.06	0.05 - 0.14	No	Soil runoff.
100% of the samples were below the TT value of 0.3 NTU. A value less than 95% constitutes a TT violation. The highest single measurement was 0.16. Any measurement in excess of 1.0 is a violation unless otherwise approved by the State.					

* Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. This report is published in the L'Anse Sentinel and posted at villageofbaraga.com, and individual copies will not be mailed. Copies are available at the Village office and other locations in the area.

For more information, contact the Village of Baraga Water Plant, 100 Hemlock Street, Baraga, MI 49908; or contact Julie Dembraski or David Apger at (906) 353-6795 between 6 am and 12 noon. For more information about safe drinking water, visit the EPA website at www.epa.gov/safewater/.