Lake Superior water is very soft (Hardness: 42 ppm or 2.45 grains per gallon) and naturally corrosive, as can be the water from the city's filtration plant. Left uncorrected, it can cause increased lead levels in households with copper plumbing and lead/tin solder joints. (Lake Superior water has a natural pH of 7.29) We have corrected the problem by increasing the pH of the water to around 8.2, therefore making it less corrosive. In 2014, the city collected 30 samples for lead and copper analyses. The lead concentrations in those samples ranged from non-detectable levels to 8 ppb and a 90th percentile level of 8.0 ppb. Because none of the samples exceeded the 15 ppb action level, the city does not need to sample again until September 2017. Copper concentrations in those samples ranged from Non-detectable to 160 ppb and a 90th percentile level of 130 ppb; below the 1300 ppb action level.

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 Marquette 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.

Aside from the monitoring listed in the table on the reverse side of this page, the city water department routinely monitors the water quality in the distribution system. Last year over 300 samples were collected from the distribution system and analyzed for coliform bacteria. None of the samples collected contained coliform bacteria.

Chlorine and fluoride concentrations are also measured when the bacteriological samples are collected. The maximum concentration of chlorine leaving the filtration plant was 1.08 ppm (0.83 average), and distribution system monitoring ranged from 0.18 to 0.84 ppm. While there is no maximum level set for chlorine, it has always been the source of most of our water quality complaints as some people are more sensitive to its odor. Our practice has always been to add just enough chlorine to the water to maintain a minimal level throughout the distribution system. The fluoride concentration in your drinking water is typically 1.02 ppm. Your drinking water contains chloride at 6.0 ppm this year, and a sodium concentration of 6.0 ppm. There are no established health limits for chloride or sodium. Nitrate and Nitrite were below detectable levels, as were Iron and Sulfate.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 EPA's Safe Drinking Water Hotline 1-800-426-4791.

Contaminant	Susceptible Vulnerable Sub-Population	Level of Concern
Fecal Coliform/ E. Coli	Infants, young children, and people with Severely compromised immune systems	Confirmed presence (any Confirmed detect)
Lead	Infants and children	15.0 ppb
Copper	People with Wilson's Disease	1300 ppb
Fluoride	Children	4.0 ppm
Nitrate	Infants below the age of 6 months	10.0 ppm
Nitrite	Infants below the age of 6 months	1.0 ppm

If you have any questions about this report or concerning your water utility, please contact Curt Goodman, Superintendent of Water & Wastewater at 906-225-4055. This 2014 Annual Water Quality Report is also posted on the City of Marquette web site, www.mqtcty.org.

MARQUETTE SOURCE WATER ASSESSMENT

In order to help protect Public Water Supplies, Congress amended the Safe Drinking Water Act in 1996 and provided resources for state agencies to conduct Source Water Assessments (SWA). The SWAs analyze the "sensitivity" of the surface water source to natural conditions, conduct contaminant source inventories and determine the "susceptibility" of the source to potential contamination. Sensitivity is determined from the natural setting of the source water, and indicates natural protection afforded the source water. Susceptibility identifies factors within the community's source water area that may pose a risk to the water supply. The Source Water Assessments were completed for every surface water supply source in Michigan. It is a requirement of the Michigan Department of Natural Resources and Environment (MDNRE) that we share the findings of the Source Water Assessment with the public. The Marquette Source Water Assessment was completed in 2003.

If you have any questions concerning the Source Water Assessment, do not hesitate to contact us at the Water Filtration Plant. You can view the assessment at our website, **www.mqtcty.org**.