

Water Quality Report for Chikaming Township

This report covers the drinking water quality for Chikaming Township for the 2015 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2015. 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 is supplied from a direct connection to Lake Township Water system, which processes water from Lake Michigan. The System also receives supplemental water from Well No. 2 in the Union Pier area which is 95' deep. Chlorine and Potassium permanganate are added to the water supplied from Well No. 2. Chlorine is used to kill bacteria and Potassium permanganate helps in the iron removal process. Polymerized phosphates are added to the water supply to provide corrosion, iron, manganese, and scale control. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is Moderately high for Well No. 2. The sensitivity is also Moderate.

If you would like to know more about the report please contact the Chikaming Township Water Department at 269-469-1676. You may also attend the monthly Utility Board meeting, which is held on the second Thursday of each month immediately following the Chikaming Township Board meeting at the Chikaming Township Meeting Room, 13535 Red Arrow Hwy, Harbert, MI 49115 or you can e-mail us at JSchroeder@Chikamingtownship.org. Our township website address is Chikamingtownship.org

- **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 (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 Safe Drinking Water Hotline (800-426-4791).

- **Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from wells and from Lake Michigan. 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:
 - T **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
 - T **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
 - T **Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.
 - T **Radioactive contaminants**, which are naturally occurring or be the result of oil and gas production and mining activities.
 - T **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.

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 2015 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, 2015. 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:

- **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 Goal (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 **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.

Regulated Contaminant	MCL	MCL G	Your Water	Sample Date	Violation Yes / No	Typical Source of Contaminant
Well No. 2 Arsenic (ppb)	10	2	N/D	2011	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
TTHM – Total Trihalomethanes (ppb)	80	N/A	Range 27 to 77 highest running annual average= 52	2015	NO	Byproduct of drinking water disinfection
HAA5 Haloacetic Acids (ppb)	60	N/A	Range 17 to 28 highest running annual average= 24	2015	NO	Byproduct of drinking water disinfection
Chlorine (ppm) RAA	4	4	1.02	2015	NO	Water additive used to control microbes
Special Monitoring and Unregulated Contaminant **			Your Water	Sample Date	Typical Source of Contaminant	
Well No. 2 Sodium			14	2015	Erosion of natural deposits	
Chloride (ppm)			18	2015	Erosion of natural deposits	
Hardness as CaCO3			144	2015	Erosion of natural deposits	
Sulfate			29	2015	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	N/D	2015	NONE	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	.08	2015	NONE	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

* Running Annual Average for Chlorine is an average for the previous 12 month period.

** Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

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. Chikaming Township 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>.

Microbial Contaminants	MCL	MCLG	Number Detected	Violation Yes / No	Typical Source of Contaminant
Total Coliform Bacteria	1 positive monthly sample (5% of monthly samples positive)	0	0	NO	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	Routine and repeat sample total coliform positive, and one is also fecal or <i>E. coli</i> positive	0	0	NO	Human and animal fecal waste

The state and the EPA require us to test our water on a regular basis to ensure its safety. We met all the monitoring and reporting requirements for 2015.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at the Chikaming Township Hall. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. You may attend the monthly Utility Board meeting, which is held on the second Thursday of each month immediately following the Chikaming Township Board meeting at the Chikaming Township Meeting Room, 13535 Red Arrow Hwy, Harbert, MI 49115. For more information about your water, or the contents of this report, contact the Chikaming Township Water Department at 269-469-1676 (JSchroeder@chikamingtownship.org). For more information about safe drinking water, visit the U.S. Environmental Protection Agency at www.epa.gov/safewater/ccr/index.html