



CASEVILLE WATER TREATMENT PLANT

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VOLUME 19, ISSUE 1

WATER SUPPLY SERIAL # 1190

MARCH 7, 2017

This report covers the drinking water quality for the City of Caseville Water Treatment Plant, for the calendar year of 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. Caseville Water Treatment Plant has buried intake located in Saginaw Bay.

The State performed an assessment of our source water in 2003. The source water area for the Caseville intake includes numerous listed potential contaminants sources in the Pigeon River watershed. Based on this the intake has a high degree of susceptibility to potential contaminant sources. The final assessment report is available for review at the Caseville City Hall.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hot Line (1-800-426-4791).

Vulnerability of sub-populations: 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 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. The 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 Treatment Plant treats surface water that comes from Saginaw Bay. 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 your water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural live- stock 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 discharges, oil and gas production, mining or farming.

Pesticides and herbicides may come from a variety of sources such as agriculture and residential uses.

Radioactive contaminants are naturally occurring.

Organic chemical contaminants, including synthetic and volatile organic chemicals which are by-products of industrial process 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 which 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. Is our water system meeting other rules that govern our operations? The State and EPA require us to test our water on a regular basis to ensure its safety. We passed all the reporting and monitoring requirements for 2016.

Customers with questions or concerns about your water, or the contents of this report, contact Troy Hartz, Superintendent at 989-856-4407 or 989-963-0124. 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 City Council meetings. They are held in the Conference room, at the City/Township Hall on the second Monday of each month at 6:30 p.m.

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 present in this table is done January 1 through 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 data is more than one year old.

Terms and abbreviations used in chart 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.
-  Action Level (AL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
-  ppb: Parts per Billion or Micrograms per Liter: One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
-  ppm: Parts per Million or Milligrams per Liter: One part per million corresponds to one minute in two years or a single penny in \$10,000.
-  N/A: Not Applicable
-  Treatment Technique (TT): A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
-  pCi/L: picocuries per liter: Strength of radiation emitted.

| CONTAMINANT | MCL | MCLG | OUR WATER | RANGE OF DETECTION | VIOLATION | TYPICAL SOURCE OF CONTAMNANT |
|----------------------------------|--------------|-----------|-----------|---------------------|-----------|--|
| TURBIDITY * | .30 NTU | .30 NTU | .05 NTU | .04 to .05 NTU | N | Soil run off. Daily Testing |
| FLUORIDE 9/20/2016 | 4 ppm | 4 ppm | .11 ppm | N/A | N | Erosion of natural deposits; water additives which promotes strong teeth. |
| LEAD 6/14/2016 | AL=15 ppb | N/A | 2 ppb | 0 to 3 ppb ** | N | Corrosion of household plumbing systems. |
| COPPER 6/14/2016 | AL= 1300 ppb | N/A | 570 ppb | 0 to 570 ppb *** | N | Corrosion of household plumbing systems. |
| TOTAL TRIHALOMETHANE | 80 ppb | 0 ppb | 74 ppb | 43 to 100 ppb | N | By-product of drinking water chlorination. 2016 Collections 2/4, 5/23, 8/29, 11/9 |
| TOTAL (5 TOTAL) HALOACETIC ACIDS | 60 ppb | 0 ppb | 24 ppb | 13 to 41 ppb | N | By-product of drinking water chlorination. 2016 Collections 2/4, 5/23, 8/30, 11/99 |
| BARIUM | 2000 ppb | 0 ppb | 20 ppb | N/A | N | Erosion of natural deposits. 3/07/2012 |
| SELENIUM | 50 ppb | 0 ppb | 0 ppb | N/A | N | Erosion of natural deposits. 3/07/2012 |
| ARSENIC | 10 ppb | 0 ppb | 0 ppb | N/A | N | Erosion of natural deposits. 3/07/2012 |
| NITRATE | 10 ppm | 0 ppm | N/D | N/A | N | Run off from fertilizer use. 9/20/2016 |
| RADIOLOGICAL | | | | | | |
| Gross Alpha | 15 pCi / L | 0 pCi / L | ND | N/A | N | Erosion of natural deposits. 8/25/2014 |
| RADIUM 226 – 228 | | | | | | |
| COMBINED | 5 pCi / L | 0 pCi / L | ND | N/A | N | Erosion of natural deposits. 8/25/2014 |
| NOT REGULATED | | | | | | |
| SODIUM | N/A | N/A | 12 ppm | N/A | N | Erosion of natural deposits. 9/20/2016 |

| | | | | | | |
|-------------------------------|-----|-----|--------|-----|---|--|
| CHLORIDE | N/A | N/A | 21 ppm | N/A | N | Erosion of natural deposits. 9/20/2016 |
| SULFATE | N/A | N/A | 33 ppm | N/A | N | Naturally occurring. 9/20/2016 |
| MICROBIAL CONTAMINANTS | | | | | | |
| NONE DETECTED IN 2016 | | | | | | |

*** 100% OF NTU SAMPLES ANALYZED MET THE CRITERIA FOR THE MCL LEVELS**

**** TEN LEAD SAMPLES WERE TAKEN AND NO SAMPLES EXCEEDED THE ACTION LEVEL. : THE 90TH PERCENTILE RESULT WAS 2 ppb**

***** TEN COPPER SAMPLES WERE TAKEN AND NO SAMPLES EXCEEDED THE ACTION LEVEL: THE 90TH PERCENTILE RESULT WAS 570ppb**

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. City of Caseville 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

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. City of Caseville will be conducting additional testing to acquire more information about copper concentrations in our water.

We at the Caseville Water Treatment Plant are committed to providing you safe, reliable, and healthy water to every tap. We ask that all our customers help protect our water sources, which are the heart of our community, our way of life and our children's future. We are pleased to provide you with this information to keep you fully informed about your water quality. We will be updating this report annually, and we will also keep you informed of any problems that may occur throughout the year, or as they happen.