If you want a paper copy, please call our Customer Service at 311 or 616.456.3000.

Additional Information for Lead

Lead is a heavy metal that can be harmful to your health, especially for infants and young children. Exposure to lead can cause serious health problems, such as delayed cognitive development, attention deficit hyperactivity disorder, or behavior problems. Radon is a colorless, odorless, and tasteless gas that can enter homes through cracks in the foundation or floors, or through gaps around windows or doors. Radon can cause lung cancer in smokers and people who work in mining or other radon-related industries. If you want a paper copy, please call our Customer Service at 311 or 616.456.3000.
To ensure tap water is safe to drink, the EPA has regulations that limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report, unless otherwise noted. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. 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. In this table, you may find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions.

**Disinfectants & Disinfection By-Products**

There is concern when a disinfectant, such as chlorine, is added to the water it may be a disinfectant is necessary for control of microbial contaminants.

- **Chlorine (as O3)** (ppm) 4 4 1.06 ND 1.59 2021 No Water additive used to control microbes.
- **Halocarbon Aces Group (HACAs)** (ppb) NA 60 32 11.2 39.9 2021 No By product of drinking water chlorination.
- **Total Trihalomethanes (TTMAs)** (ppb) NA 80 61 28.6 85.1 2021 No By product of drinking water chlorination.

**Inorganic Contaminants**

- **Barium** (ppm) 2 2 0.019 NA NA 2018 No Discharge of drilling wastes, discharge of metal refineries, emission of natural deposits.
- **Fluoride** (ppm) 4 4 0.59 NA NA 2021 No Emission of natural deposits; discharge of aluminum refineries.
- **Sodium** (ppm) NA NA 11 NA 2021 No Emission of natural deposits.

**Organic Contaminants**

Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

- **Brominated Halocarbon Aces Group (HACA)** (ppb) NA MNR 11.6 6.08 17.63 2019 No By product of drinking water chlorination.
- **Brominated Halocarbon Aces Group (HACA)** (ppb) NA MNR 81.7 19.22 77.73 2019 No By product of drinking water chlorination.
- **Manganese** (ppb) NA MNR 0.446 ND 0.446 2019 No Naturally occurring element; used in steel production, fertilizer, batteries and fireproof, essential nutrient.

**Microbiological Contaminants**

- **Turbidity (NTU)** NA 0.3 100% ND NA 2021 No Soil runoff

100% of the samples were below the FT value of 0.3. A value less than 0.1 constitutes a FT violation. The highest single measurement was 0.17B. Any measurement in excess of 1 is a violation of these criteria approved by the State.

**Per and Polyfluorinated Substance/Chemicals**

- **Hexafluoroiodopropyl oxide dimide acid (HFPO-DA)** (ppb) 370 NA ND NA NA 2021 No Discharge and waste from industrial facilities utilizing the Gen X chemical process.
- **Perfluorononylufo sulfuric acid (PFNS)** (ppb) 420 NA ND NA NA 2021 No Discharge and waste from industrial facilities. Stain resistant treatments.
- **Perfluorooctane sulfonic acid (PFOS)** (ppb) 51 NA ND NA NA 2021 No Firefighting foam, Discharge and waste from industrial facilities.
- **Perflurobutane sulfonic acid (PFBS)** (ppb) 400,000 NA ND NA NA 2021 No Firefighting foam, Discharge and waste from industrial facilities.
- **Perfluorooctanoic acid (PFOS)** (ppb) 6 NA ND NA NA 2021 No Discharge and waste from industrial facilities, breakdown of precursor compounds.
- **Perfluorooctanoic acid (PFOS)** (ppb) 16 NA 2 NA NA 2021 No Firefighting foam, Discharge from electroplating facilities, Discharge and waste from industrial facilities.
- **Perfluorooctanoic acid (PFOS)** (ppb) 8 NA ND NA NA 2021 No Discharge and waste from industrial facilities. Stain resistant treatments.

**Inorganic Contaminants**

- **Copper (action level at consumer taps)** (ppm) 1.3 1.3 9 0.01 0.1 2021 0 Corrosion of household plumbing systems, erosion of natural deposits.
- **Lead (action level at consumer taps)** (ppm) 0 15 10 ND 41 2021 1 Lead services lines, corrosion of household plumbing including fitting fixtures, erosion of natural deposits.

These 2021 sample results are from 50 homes selected as high risk for lead and copper contamination.

**Voluntary Monitoring**

Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

- **Arsenic** (ppb) 8 10 ND NA NA 2021 No Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production waste.
- **Chlorine (as HCl)** (ppb) NA MNR ND NA NA 2021 No Erosion of natural deposits, runoff from orchards.
- **Cryotoponin** (ppb) 8 ND ND ND NA 2021 No Contaminated rivers and lakes.
- **Gardane (methyl)** (ppb) 0 ND ND NA NA 2021 No Contaminated rivers and lakes.
- **Mercury (inorganic)** (ppb) 2 2 ND ND NA 2021 No Erosion of natural deposits, discharge from refineries and factories, runoff from orchards, runoff from commercial.

**Important Drinking Water Definitions & Units**

- **90th Percentile:** The minimum level of contamination found in the highest 10 percent of samples collected.
- **AL (Action Level):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.
- **MCLG (Maximum Contaminant Level Goal):** 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.
- **MNR:** Monitored Not Regulated.
- **MRDL (Maximum Residual Disinfectant Level):** 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.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** 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 disinfection to control microbial contaminants.
- **NTU (Nephelometric Turbidity Units):** 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.
- **NA:** Not applicable.
- **ND:** Not detected.
- **NR:** Monitoring not required but recommended.
- **ppm (parts per million):** Number of milligrams of substance in one liter of water (mg/L).
- **ppb (parts per billion):** Number of micrograms of substance in one liter of water (μg/L).
- **ppt (parts per trillion):** Number of nanograms of substance in one liter of water (ng/L).
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

**Source Water Assessment**

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) completed a Source Water Assessment for the City of Grand Rapids water supply in 2003. This report found that our water supply has a moderately high susceptibility to contaminants. Source water contamination is not likely to occur if potential contaminants are properly used and managed. The Grand Rapids Water Treatment Plant routinely and continuously monitors the water for a variety of chemicals to ensure safe drinking water. The Grand Rapids Water System continues to be involved in and supports watershed protection efforts. This report is available. For a copy, please call our Customer Service at 311 or 616.456.3000.