CITY OF GALENA

Consumer Confidence Report – 2020 Covering Calendar Year – 2019



This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like to observe the decisionmaking process that affect drinking water quality, please call FLORA RENEE CHARLES at 620-783-5265.

Our drinking water is supplied from another water system through a Consecutive Connection (CC). Your water comes from 1 Ground Water Well(s):

| Buyer Name | Seller Name |
|----------------|--------------------|
| CITY OF GALENA | MO AMERICAN JOPLIN |

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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).

The sources of drinking water (both tap water and bottled water) included 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 sources water before we treat it include: <u>Microbial contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock operations and wildlife. <u>Inorganic contaminants</u>, 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.

<u>Pesticides and herbicides</u>, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.

<u>Radioactive contaminants</u>, which can be naturally occurring or the result of mining activity.

<u>Organic contaminants</u>, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

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

Our water system is required to test a minimum of 3 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2019 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2019. The state requires 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. Some of the data, though representative of the water quality, is more than one year old. The bottom line is that the water that is provided to you is safe.

Terms & Abbreviations

<u>Maximum Contaminant Level Goal (MCLG)</u>: the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

<u>Maximum Contaminant Level (MCL)</u>: the "Maximum Allowed" MCL is 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. <u>Secondary Maximum Contaminant Level (SMCL)</u>: recommended level for a contaminant that is not regulated and has no MCL.

Action Level (AL): the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

<u>Treatment Technique (TT)</u>: a required process intended to reduce levels of a contaminant in drinking water.

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

Non-Detects (ND): lab analysis indicates that the contaminant is not present.

Parts per Million (ppm) or milligrams per liter (mg/l)

Parts per Billion (ppb) or micrograms per liter (µg/l)

<u>Picocuries per Liter (pCi/L)</u>: a measure of the radioactivity in water.

<u>Millirems per Year (mrem/yr)</u>: measure of radiation absorbed by the body.

<u>Monitoring Period Average (MPA)</u>: An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Locational Running Annual Average (LRAA): Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Testing Results for: CITY OF GALENA

| Regulated Contaminants | Collection Date | Highest Value | Range (low/high) | Unit | MCL | MCLG | Турі | cal Source | |
|-------------------------------|----------------------|--------------------------------|---------------------|------|-----|------|------------|---------------------------------------|--|
| BARIUM | 1/14/2019 | 0.074 | 0.074 | ppm | 2 | 2 | Disch | harge from metal refineries | |
| NITRATE | 3/12/2019 | 0.45 | 0.26 - 0.45 | ppm | 10 | 10 | Runc | off from fertilizer use | |
| SELENIUM | 1/14/2019 | 1 | 1 | ppb | 50 | 50 | Eros | ion of natural deposits | |
| Disinfection Byproducts | Monitoring Period | Highest RAA | Range (low/high) | Unit | MCL | MCLG | Турі | Typical Source | |
| TOTAL HALOACETIC ACIDS (HAA5) | 2019 | 2 | 2.1 | ppb | 60 | 0 | Ву-рі | roduct of drinking water disinfection | |
| TTHM | 2019 | 11 | 11 | ppb | 80 | 0 | Ву-рі | roduct of drinking water chlorination | |
| Lead and Copper | Monitoring Period | 90 th Percentile | Range (low/high) | Unit | AL | | es r AL | Typical Source | |
| COPPER, FREE | 2017 - 2019 | 0.027 | 0.0038 - 0.035 | ppm | 1.3 | (|) | Corrosion of household plumbing | |
| LEAD | 2017 - 2019 | 1.2 | 1 - 3.3 | ppb | 15 | (|) | Corrosion of household plumbing | |

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. Your water system 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.

| Radiological Contaminants | Collection Date | Highest Value | Range (low/high) | Unit | MCL | MCLG | Typical Source |
|-------------------------------|--------------------|------------------|---------------------|-------|-----|------|-----------------------------|
| COMBINED RADIUM (-226 & -228) | 6/19/2017 | 1.3 | 1.3 | PCI/L | 5 | 0 | Erosion of natural deposits |

| Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established. | Collection Date | Highest Value | Range (low/high) | Unit | SMCL |
|--|-----------------|---------------|---------------------|-------------|------|
| ALKALINITY, TOTAL | 1/14/2019 | 150 | 150 | MG/L | 300 |
| CALCIUM | 1/14/2019 | 55 | 55 | MG/L | 200 |
| CHLORIDE | 1/14/2019 | 13 | 13 | MG/L | 250 |
| CONDUCTIVITY @ 25 C UMHOS/CM | 1/14/2019 | 440 | 440 | UMHO/ CM | 1500 |
| CORROSIVITY | 1/14/2019 | 0.28 | 0.28 | LANG | 0 |
| HARDNESS, TOTAL (AS CACO3) | 1/14/2019 | 220 | 220 | MG/L | 400 |
| IRON | 1/14/2019 | 0.032 | 0.032 | MG/L | 0.3 |
| MAGNESIUM | 1/14/2019 | 19 | 19 | MG/L | 150 |
| MANGANESE | 1/14/2019 | 0.0049 | 0.0049 | MG/L | 0.05 |
| PH | 1/14/2019 | 8 | 8 | PH | 8.5 |
| POTASSIUM | 1/14/2019 | 1.6 | 1.6 | MG/L | 100 |
| SILICA | 1/14/2019 | 10 | 10 | MG/L | 50 |
| SODIUM | 1/14/2019 | 12 | 12 | MG/L | 100 |
| SULFATE | 1/14/2019 | 62 | 62 | MG/L | 250 |
| TDS | 1/25/2016 | 240 | 240 | MG/L | 500 |
| ZINC | 1/14/2019 | 0.06 | 0.06 | MG/L | 5 |

During the 2019 calendar year, we had the below noted violation(s) of drinking water regulations.

| Ī | Compliance Period | Analyte | Comments |
|---|-------------------|--------------------|----------------------------|
| | 12/30/2019 | LEAD & COPPER RULE | LEAD CONSUMER NOTICE (LCR) |

There are no additional required health effects notices.

There are no additional required health effects violation notices.

Some or all of our drinking water is supplied from another water system. The table below lists all of the drinking water contaminants, which were detected during the 2019 calendar year from the water systems that we purchase drinking water from.

Please Note: Because of sampling schedules, results may be older than 1 year.

During the 2019 calendar year, the water systems that we purchase water from had the below noted violation(s) of drinking water regulations.



2019 Annual Water Quality Report

Joplin PWS ID: MO5010413



Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

A Message from the Missouri American Water President

To Our Valued Customers:

Nothing is more important than the safety and quality of the drinking water that we provide to you on a daily basis.

We are proud to share that Missouri American Water continues to meet or exceed all state and federal drinking water standards. Our scientists conduct more than 500,000 water quality tests each year to ensure we're in compliance with everincreasing health and environmental regulations, so you receive only the safest, highest-quality water.

In addition to complying with current regulations, our water quality experts are also at the forefront of research identifying and treating for emerging contaminants. These scientists work closely with the Missouri Department of Natural Resources and the U.S. Environmental Protection Agency (USEPA) as new standards and treatment techniques are developed.

We're especially proud of our recognition with the Partnership for Safe Water, which is a voluntary initiative developed by six prestigious drinking water organizations, including the USEPA and the American Water Works Association, to recognize water utilities that consistently surpass federal regulations. All six of Missouri American Water's surface-water treatment plants are recognized by the program, an honor achieved by less than 1% of all water utilities.

We hope you will take a few minutes to review the important information included in this water quality report. If you have any questions, please reach out to us on our website or by phone at (866) 430-0820.

Debbie Dewey President





Water Quality Statement

Once again, we are pleased to report that during the past year, the water delivered to your home or business complied with all state and federal drinking water requirements. For your information, we have compiled tables showing the most recent water quality data available. Although all the substances listed are under the Maximum Contaminant Level (MCL) set by the USEPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water. For additional information concerning our results, please contact our customer service department at (toll-free) (866) 430-0820. Monitoring is also done under the USEPA Unregulated Contaminant Monitoring Rule (UCMR). Data is available on the USEPA's web site.

There are many unforeseen and unpredictable factors that may introduce contaminants into our source water. The Missouri Department of Natural Resources (MDNR) routinely monitors all public water supplies to ensure public health is protected. Source Water Assessments have been assembled by the MDNR to evaluate the susceptibility of contamination to our drinking water sources. For more information about these assessments call the MDNR at (800) 361-4827.

What is a Water Quality Report?

To comply with MDNR and USEPA regulations, Missouri American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to let consumers know what contaminants, if any, are in their drinking water, as well as any related health effects. It also includes details about where your water comes from and the need to protect drinking water sources. We conduct tests for hundreds of contaminants. This report provides an overview of the most recent water quality data available.

We ask that landlords, employers, and anyone else who receives the water bill for other water users share this report with them.

About Missouri American Water

Missouri American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 1.5 million people.

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to more than 15 million people in 46 states. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit amwater.com and follow American Water on Twitter, Facebook, and Linkedin.

How to Contact Us

For more information regarding this report or any of the other services provided by Missouri American Water, please call our Customer Service Center at (toll-free) (866) 430-0820, or you may visit us at www.missouriamwater.com.

Partnership for Safe Drinking Water Program

We are especially proud of our recognition with the Partnership for Safe Water, which is a voluntary initiative developed by six prestigious drinking water organizations, including the USEPA and the American Water Works Association, to recognize water utilities that consistently surpass federal regulations. Less than 1% of water utilities in the U.S. have achieved this recognition.

Source Water Information

Missouri American Water supplies quality drinking water to residential, commercial and industrial customers in and around the City of Joplin that consists of a combination of surface water and groundwater. The primary source is Shoal Creek, which is supplemented by a system of deep wells. More information on your source water is available at http://drinkingwater.missouri.edu. To access the information for your water system you will need the state-assigned identification (PWSID), which is printed at the top of this report.

Source Water Protection Program

Missouri American Water worked with a team of community stakeholders to develop a Source Water Protection Plan. The plan identifies ways to reduce the risk of potential contamination to the ground and surface water resources the Joplin community relies upon for its drinking water supply. As providers of high quality, affordable water, our responsibility is to not only protect one of our most precious resources but to improve the environment.

Water Information Sources

Missouri American Water

www.missouriamwater.com

Missouri Department of Natural Resources www.dnr.mo.gov

United States Environmental Protection Agency www.epa.gov/safewater

Safe Drinking water Hotline (800) 426-4791

Centers for Disease Control and Prevention www.cdc.gov

American Water Works Association www.drinktap.org

Water Quality Association

www.wqa.org

National Library of Medicine / National Institute of Health

www.medlineplus.gov/drinkingwater.html



Protecting Our Water Quality at the Source

It takes a community effort to protect our drinking water at its source. We all live in a watershed – an area of land that drains to a waterway. When it rains or snows, water travels across the ground on its journey to a river or stream. Along the way, it picks up any pollutants that may be found on lawns, streets, and farmland.

Working together, we can minimize these pollutants and protect our rivers with these eight simple steps:

- Recycle don't litter
- Remember that storm inlets drain to rivers dispose of household chemicals, oils, and paints at proper waste collection sites
- · Plant native plants. They support wildlife, help preserve our natural diversity and require no fertilizer or herbicides
- Clean up after your pets and limit the use of fertilizers and pesticides
- Check for leaks from automobiles and heating fuel tanks and clean with absorbent materials like cat litter
- Plant a rain garden to capture runoff from rainwater
- Join a local stream clean-up team
- Do not flush or pour pharmaceuticals down the drain please dispose at dedicated collection sites



Substances Expected to be in Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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.

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 health risk.

In order to ensure tap water is safe to drink, the MDNR prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Missouri Department of Health and Senior Services regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 may 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, urban stormwater runoff, and residential uses.

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.

Radioactive Contaminants, which can be naturally occurring or be the result of energy production and mining activities.

For more information about the contaminants and potential health effects, call the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

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. Missouri American Water 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. Steps are taken to reduce the potential for lead to leach from your pipes into the water. This is accomplished by maintaining the quality of your water leaving the treatment facilities. There are steps that you can take to reduce your household's exposure to lead in drinking water. For more information, please review our Lead and Drinking Water Fact Sheet https://amwater.com/moaw/water-quality/lead-and-drinking-water. 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 https://www.epa.gov/safewater/lead.

How to Read the Tables

Missouri American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The most recent results of our monitoring are reported in the following tables. Certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting these tables, see the "Definitions of Terms" section.

- **1.** Starting with a **Substance**, read across
- 2. Year Sampled is most recent test year
- 3. MCL shows the highest level of substance (contaminant) allowed
- 4. MCLG is the goal level for that substance (this may be lower than what is allowed)
- 5. Average Amount Detected represents the measured amount (less is better)
- 6. Range tells the highest and lowest amounts measured
- 7. A Yes under Compliance Achieved means the amount of the substance met government requirements
- 8. Typical Source tells where the substance usually originates

Definitions of Terms

AL (Action Level): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

HAA5: Haloacetic Acids (mono-, di-, and tri-chloroacetic acid, and mono- and di-bromoacetic acid) as a group.

HAA6Br: Haloacetic Acids (mono-, di-, and tri-bromoacetic acid, bromochloroacetic acid, bromodicloroacetic acid, chlorodibromoacetic acid) as a group.

HAA9: Haloacetic Acids from HAA5 and HAA6Br as a group.

MCL (Maximum Contaminant Level): 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.

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.

MRDL (Maximum Residual Disinfectant Level): The highest level of 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 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 contamination.

NA: Not applicable

ND: Not detected

pCi/L (picocuries per liter): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

ppb (parts per billion): One-part substance per billion parts water, or micrograms per liter.

ppm (parts per million): One-part substance per million parts water, or milligrams per liter.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

TTHM: Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.

90th Percentile Value: Of the samples taken, 90% were below the level indicated in the table.

Water Quality Results

Regulated Substances (Water Entering the Distribution System)

| Substance (units) | Year Sampled ¹ | MCL | MCLG | Highest Result | Range Low-High | Compliance Achieved | Typical Source |
|----------------------------|------------------------------|-----|------|-------------------|-------------------|------------------------|---|
| 2,4-D (ppb) | 2019 | 70 | 70 | 0.3 | 0.3 | Yes | Runoff from herbicide used on row crops |
| Alpha emitters (pCi/L) | 2017 | 15 | 0 | 6.6 | 6.6 | Yes | Erosion of natural deposits |
| Atrazine (ppb) | 2019 | 3 | 3 | 0.7 | 0.7 | Yes | Runoff from herbicide used on row crops |
| Barium (ppm) | 2019 | 2 | 2 | 0.2 | 0.2 | Yes | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chloramine (ppm) | 2019 | TT | NA | 3.5 | 1.0 – 3.5 | Yes | Water additive used to control microbes |
| Combined Radium (pCi/L) | 2017 | 5 | 0 | 3.1 | 3.1 | Yes | Erosion of natural deposits |
| Fluoride (ppm) | 2019 | 4 | 4 | 0.9 | ND - 0.9 | Yes | Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nitrate [N] (ppm) | 2019 | 10 | 10 | 3.4 | 0.1 – 3.4 | Yes | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Total Organic Carbon (ppm) | 2019 | TT | NA | 2.0 | 0.8 – 2.0 | Yes | Naturally present in the environment |

Turbidity – A Measure of the Clarity of the Water (Water Entering the Distribution System)

| Substance (units) | Year Sampled | MCL | MCLG | Highest Single Measurement | Compliance Achieved | Typical Source |
|-------------------|--------------|-----|------|----------------------------|---------------------|----------------|
| Turbidity (NTU) | 2019 | TT | NA | 0.07 | Yes | Soil runoff |

Bacterial Results (In the Distribution System)

| Substance | Year Sampled | MCL | MCLG | Highest Percentage Detected | Compliance Achieved | Typical Source |
|----------------|-----------------|-----|------|--------------------------------|------------------------|--------------------------------------|
| E. coli | 2019 | ТТ | 0 | 0% | Yes | Human and animal fecal waste |
| Total Coliform | 2019 | ТТ | NA | 0% | Yes | Naturally present in the environment |

Regulated Substances (In the Distribution System)

| Substance (units) | Year Sampled | MCL | MCLG | Highest Result | Range Low-High | Compliance Achieved | Typical Source |
|-------------------------------------|-----------------|----------|-----------|-------------------|-------------------|------------------------|---|
| Chloramine (ppm) | 2019 | MRDL = 4 | MRDLG = 4 | 2.8 | 2.4 – 2.8 | Yes | Water additive used to control microbes |
| Haloacetic Acids (HAA5) (ppb) | 2019 | 60 | NA | 39.0 ² | 7.5 – 107.7 | Yes | By-product of drinking water disinfection |
| TTHMs [Total trihalomethanes] (ppb) | 2019 | 80 | NA | 41.0 ² | 11.6 – 93.2 | Yes | By-product of drinking water disinfection |

Lead and Copper Results (In the Distribution System)

| | • | | | | | | |
|-------------------|-----------------|-----------------|------|----------------------|--------------------|--------------------------------------|--|
| Substance (units) | Year Sampled | Action Level | MCLG | Number of Samples | 90th Percentile | Number of Samples Above Action Level | Typical Source |
| Copper (ppm) | 2017 | AL = 1.3 | 1.3 | 30 | ND | 0 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Lead (ppb) | 2017 | AL = 15 | 0 | 30 | 4 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |

Additional Water Quality Parameters of Interest (Water Leaving the Treatment Facility)

| Substance (units) | Year Sampled | Results | Range Low-High | Typical Source |
|------------------------------|--------------|---------|-------------------|--|
| Aluminum (ppm) | 2019 | 0.02 | ND - 0.2 | Naturally occurring |
| Calcium – Total (ppm) | 2019 | 48 | 24 – 48 | Naturally occurring |
| Chloride (ppm) | 2019 | 22 | 3 – 22 | Naturally occurring; Runoff from road de-icing, fertilizers, septic tanks, industrial uses |
| Magnesium – Total (ppm) | 2019 | 22 | 3 – 22 | Naturally occurring |
| Silica (ppm) | 2019 | 11 | ND – 11 | Naturally occurring |
| Sodium – Total (ppm) | 2019 | 14 | 3 – 14 | Naturally occurring |
| Sulfate (ppm) | 2019 | 16 | 9 – 16 | Naturally occurring; Mining or industrial waste |
| Total Dissolved Solids (ppm) | 2019 | 182 | 96 – 182 | Naturally occurring |

¹ The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Unregulated Contaminants Rule

Unregulated contaminants are those for which the USEPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the USEPA issues a new list of no more than 30 unregulated contaminants to be monitored. Information on all the contaminants that were monitored for, whether regulated or unregulated, can be obtained from this water system or MDNR.

Unregulated Contaminants Rule

| Substance (units) | Year Sampled | Results | Range Low-High | Typical Source |
|-------------------|--------------|---------|-------------------|--|
| Manganese (ppb) | 2019 | 4.7 | 0.4 – 4.7 | Used in synthetic cosmetics, perfumes, fragrances, hair preparations, and skin lotions |

Unregulated Contaminants (In the Distribution System)

| | | <u> </u> | | |
|---------------------------------|-----------------|-------------------|-------------------|---|
| Substance (units) | Year Sampled | Highest Result | Range Low-High | Typical Source |
| HAA6Br [Haloacetic Acids] (ppb) | 2019 | 5.9 | 17 – 5.9 | By-product of drinking water disinfection |
| HAA9 [Haloacetic Acids] (ppb) | 2019 | 110 | 11 – 110 | By-product of drinking water disinfection |

² This level represents the highest annual Locational Running Average calculated from the data collected

Substances Tested for But Not Detected (Water Leaving the Treatment Facility)

1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethene 1,2,4-Trichlorobenzene

1,2-Dibromo-3-chloropropane
1,2-Dibromoethane (EDB)
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,4-Dichlorobenzene

2,4,5-T

2,4,5-TP (Silvex)

2,4-DB

3,5-Dichlorobenzoic Acid3-Hydroxycarbofuran

Acifluorfen Alachlor Aldicarb

Aldicarb Sulfone
Aldicarb Sulfoxide
Antimony - Total
Arochlor-1016
Arochlor-1221
Arochlor-1232
Arochlor-1242
Arochlor-1248
Arochlor-1254
Arochlor-1260
Arsenic – Total
Bentazon

Benzo(a)pyrene Beryllium – Total Boron – Total Bromate Bromoform

Benzene

Cadmium - Total Carbaryl (Sevin) Carbofuran

Carbon tetrachloride Chlorobenzene Chromium - Total cis-1,2-Dichloroethene

Cobalt - Total Copper - Total Cyanide, Total Dacthal Dalapon

Di(2-ethylhexyl)adipate Di(2-ethylhexyl)phthalate Dibromoacetic Acid

Dicamba
Dichloroprop
Dinoseb
Diquat
Endothall
Endrin
Ethyl Benzene

Gamma-BHC (Lindane)

Glyphosate Heptachlor

Heptachlor epoxide Hexachlorobenzene

Hexachlorocyclopentadiene

Iron – Total Lead – Total Mercury – Total m,p-Xylene Methiocarb Methomyl Methoxychlor Methyl tert-Butyl ether (MTBE)

Methylene chloride Molybdenum – Total Monobromoacetic Acid Monochloroacetic Acid

Nickel - Total Nitrite – N Oxamyl (Vydate) o-Xylene

Pentachlorophenol

Picloram

Potassium - Total Selenium - Total Silver – Total Strontium - Total

Styrene Sulfate

Technical Chlordane Tetrachloroethene (PCE)

Thallium - Total Toluene

Total PCBs Toxaphene

trans-1,2-Dichloroethene Trichloroacetic Acid Trichloroethene (TCE) Vanadium - Total Vinyl chloride Xylene (total) Zinc – Total



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