

2019 WATER QUALITY REPORT

MO1010399

We are pleased to present to you this year's Annual Drinking Water Quality Report. Our water comes from 42 wells that pump water from the Missouri River alluvial aquifer. In an effort to protect the drinking water quality for the Water Department customers, a Wellhead Protection Plan was implemented in 1999. This plan included installation of 67 monitoring wells that allow us to know the water quality of the water that will reach our wells within the next 10 years. These monitoring wells can detect emerging contaminants (down to the parts per trillion range) long before they could reach the Courtney Bend Water Treatment Plant. This year we are also performing a risk and resilience assessment of our water utility in response to the EPA Americas Water Infrastructure Act (AWIA). This regulation requires water suppliers to evaluate vulnerabilities from physical threat, natural disaster and cybersecurity for all aspects of the operation including plant, distribution system, customer service and financial systems. After the evaluation is complete, we will update our emergency response plan.

Today, the Courtney Bend Water Plant has the capability of supplying a maximum of 48 million gallons of water per day. We supply water to approximately 250,000 people including residents of Independence and 12 wholesale customers. We also maintain and manage 766 miles of water main (ranging in size from 2" to 36" in diameter), over 5,000 fire hydrants and handle customer service for over 50,000 electric, water and sewer utility customers.

Thanks to the efforts of our hard-working and dedicated employees, you can be confident that you will continue to have clean, safe, reliable and award-winning drinking water at your tap. If you ever have any questions or concerns, please do not hesitate to reach out to us.

Dan Montgomery, Water Systems Director

Important Water Customer Information

325-SERV(7378) is a 24 hour automated account information service from the City of Independence Utilities. Dial 325-7378, and use your customer and account number found on the upper right corner of the City Utilities Bill to access account information.

Utilities Online is a feature of the City of Independence Internet site. Use this service to access and update account information or submit a service request.

Access Utilities Online at www.independencemo.org. Upon first log-in, the customer number and utility account number will be required to access an account where the customer will assign a user name and password. These will be required for future access. Call Utilities Customer Service at 325-7930 for more information during regular business hours, 8am-5pm, Monday through Friday.

Other important information is available at the City of Independence Water Department Internet site. Additional water quality information, updates on current projects, and other helpful information can be found at www.independencemo.org



WATER DEPARTMENT CONSUMER CONFIDENCE REPORT

We hope the information in this drinking water report is helpful to you. If you would like to observe the decision making process that affects drinking water quality, or if you have any questions, please do not hesitate to contact us at (816) 325-7700 to inquire about scheduled meetings or contact persons.

Este informe contiene información muy importante. Tradúscalo o preguntele a alguien que lo entienda bien.

This report may be found online at www.independencemo.org/ccr

To request a written copy of this report, please call us at 816-325-7698

Substances Expected to be in Drinking Water

The sources of drinking water (both tap 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 a health risk.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Lead in Drinking Water

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 Independence Water Department 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 (800-426-

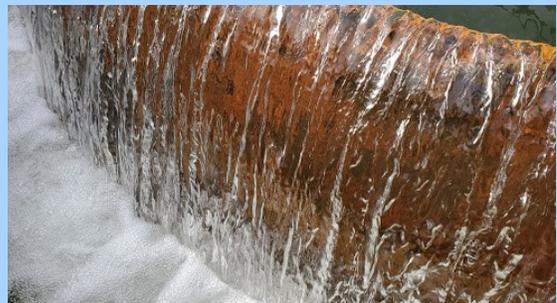


4791) or at [water.epa.gov/drink/info/lead/index.cfm](https://www.water.epa.gov/drink/info/lead/index.cfm).

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 result from urban storm water 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 storm water runoff and residential uses.
- ◆ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- ◆ Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the MO Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. MO Department of Health regulations establish limits for contaminants in bottled water, which must provide the same protection to the public.



Consumer Confidence Report from the City of Independence Water Department

The City of Independence supplies water to about 250,000 people, including residents of Independence and 12 wholesale customers. The water is supplied from 42 wells located at the Courtney Bend Water Treatment Plant. The wells receive water from the Missouri River Alluvial Aquifer, classified as a groundwater source. The well water is softened and disinfected at the treatment plant, and meets or exceeds all federal and state quality regulations.

The City of Independence Water Department has not violated maximum contaminant levels, monitoring requirements, or treatment techniques for the 2019 year. The following shows chemicals we find in detectable limits in our drinking water.

Parameter	Possible Source	Units	Value Range	Indep Avg	MCL	MCLG
Inorganic Compounds						
Barium	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	ppm	0.05	0.05	2	2
Chloramine	Water additive used to control microbes	ppm	1.60-2.37	2.11	4	4
Chromium	Discharge from steel and pulp mills; erosion of natural deposits	ppb	.88	.88	100	100
Copper	Corrosion of household plumbing systems; erosion of natural deposits	ppm	0.00066	0.00066	1.3	1.3
Fluoride	Erosion of natural deposits; discharge from fertilizer and aluminum factories	ppm	0.16	0.16	4	4
Nitrate—Nitrite	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	ppm	.18-.39	.28	10	10
Selenium	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	ppb	0.6	0.6	50	50
Radiological						
Gross Alpha	Erosion of natural deposits	pCi/L	1.4	1.4	15	0
Gross Beta	Decay of natural and man-made deposits	pCi/L	5.7	5.7	50	0
Radon 222	Erosion of natural deposits	pCi/L	109	109	300	0
Uranium	Erosion of natural deposits	pCi/L	.36	.36	30	0
Microbiological Quality						
Total Coliform Bacteria	Naturally present in the environment	No samples returned as positive			<5%	0
Lead and Copper Rule Testing					Action Level	Sites over Action Level
Lead	Corrosion of household plumbing systems	ppb	90% of samples less than 0.6 ppb		AL = 15	0
Copper	Corrosion of household plumbing systems	ppb	90% of samples less than 4.4 ppb		AL = 1300	0

Important Definitions:

- HAA5-Haloacetic Acids** (Mono-, di-, and tri-chloroacetic acid and mono- and di-bromoacetic acid) as a group.
- LRAA—Locational Running Annual Average:** The locational average of sample analytical results for samples taken during the previous four calendar quarters.
- Maximum Contaminant Level (MCL):** The highest level of a compound that is allowed in drinking water.
- Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health.
- Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water.
- Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health.
- Milligram per Liter (mg/L):** Part per million (ppm).
- Microgram per Liter (ug/L):** Part per billion (ppb).
- Picocuries per Liter (pCi/L):** A measure of the radioactivity in water.
- Treatment Technique (TT):** 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.

Disinfection By-Products Testing						
Disinfection By-products/ Sample Point	Possible Source	Unit	Value Range	Highest LRAA	MCL	MCLG
HAA5 - Sample Point 3	By-product of drinking water disinfection	ppb	0-11.7	5	60	0
HAA5 - Sample Point 4	By-product of drinking water disinfection	ppb	0-12.5	3	60	0
TTHM - Sample Point 3	By-product of drinking water disinfection	ppb	0-3.89	3	80	0
TTHM - Sample Point 4	By-product of drinking water disinfection	ppb	0-3.77	3	80	0

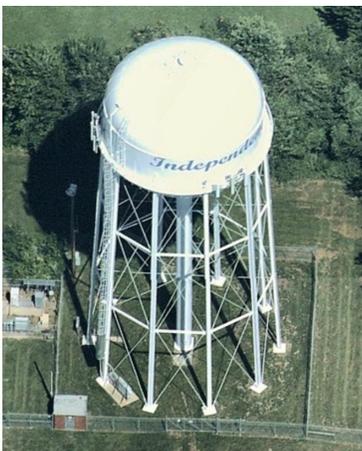
Additional Parameters

Compound	Average Result
Alkalinity, Total (mg/L)	57
Calcium (mg/L)	16.1
Hardness, Total (mg/L as Calcium Carbonate)	120 or 7 grains/gallon
Magnesium (mg/L)	18
pH (S.U.)	9.3 - 10.1
Potassium (mg/L)	6.2
Silica (mg/L)	17
Sodium (mg/L)	40

Note to People with Special Health Concerns

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 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 EPA Safe Drinking Water Hotline (1-800-426-4791).



Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source.

Assessment maps and summary information sheets are available on the internet at drinkingwater.missouri.edu/swip/swipmaps/pwssid.htm.

To access the maps for your water system you will need the state-assigned identification code, which is printed at the top of this report. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

Radon

Radon is a radioactive gas that you cannot see, taste or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. It can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. (You should pursue radon removal for your home if the level of radon in your air is 4 picocuries per liter (pCi/L) of air or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your state radon program, the EPA Safe Drinking Water Act Hotline (1-800-426-4791) or call the EPA's Radon Hotline (1-800-SOS-RADON).