

# Water Quality Report

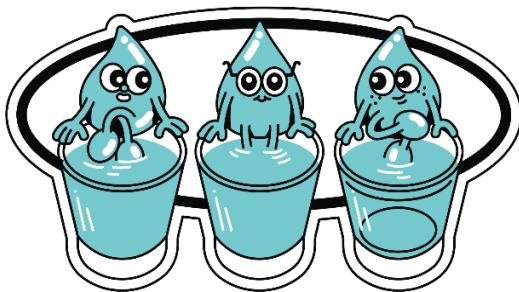
This report is a snapshot of the quality of the water provided to City of Wamego customers last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and State standards. We are committed to providing you with information because informed customers are our best allies. It is important that customers be aware of the efforts that are made continually to improve their water system.

First, note that the City of Wamego's water supply is entirely met by groundwater, pumped at five wells. Four wells tap the terrace deposits associated with the Kansas River and the fifth taps glacial deposits at a higher elevation. At each wellhead, the water is chlorinated to protect you against microbial contaminants. We also add a zinc phosphate compound that increases the Ph of the water, thereby reducing corrosion. This agent also provides a protective coating to pipes and sequesters contaminants such as lead, copper, and manganese. We have achieved significant reductions in these contaminants, and since adding the formulation, no corrective action has been required by the State.

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 healthcare 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 at 1-800-426-4791.

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include 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 human activity. Contaminants that may be present in source water before we treat it include:

**Microbial contaminants**, such as viruses and bacteria, may come from sewage treatment plants, septic systems, livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, can be naturally occurring or result from urban stormwater 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, stormwater runoff, and residential uses.

**Organic contaminants**, including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants** can be naturally occurring or the result of mining activity.

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. Wamego's water is treated according to these 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 five samples per month per the Revised 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 the drinking water contaminants detected during the 2022 calendar year. The presence of these contaminants does not necessarily mean that the water poses a health risk. Unless noted, the data presented in this table is from the testing done from January 1 – December 31, 2022. 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 provided to you is safe.**

The table lists regulated contaminants that were found in the Wamego water supply, the levels detected in the water, and how these levels compare with various standards. To use the table, you will need to know the following terms:

**Maximum Contaminant Level Goal or MCLG:** 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.

**Maximum Contaminant Level or MCL:** The highest level of any contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Secondary Maximum Contaminant Level or SMCL:** The recommended level for a contaminant that is not regulated and has no MCL.

**Action Level or AL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

**Monitoring Period Average or MPA:** An average of sample results obtained during a defined time frame. Common examples of monitoring periods are monthly, quarterly, and yearly.

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

**ppm:** parts per million, or milligrams per liter (MG/L).

**ppb:** parts per billion, or micrograms per liter (UG/L).

**Picocuries per Liter or PCi/L:** A measure of the radioactivity in water.

The Wamego water supply system is managed by the Wamego City Commission, which holds regular meetings on the first and third Tuesdays of each month, at 6:00 PM, in the City Commission room at the Wamego City Office; 430 Lincoln Ave. City customers and the public in general may attend the meetings and voice concerns about the system. Questions may be directed to Stacie Eichem, Wamego City Manager, at the City Office; call (785) 456-9119.

# Water Quality Data

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ARSENIC	4/21/2020	4.9	1.5 - 4.9	ppb	10	0	Erosion of natural deposits
BARIUM	4/21/2020	0.13	0.092 - 0.13	ppm	2	2	Discharge from metal refineries
CHROMIUM	4/21/2020	1.7	0 - 1.7	ppb	100	100	Discharge from steel and pulp mills
FLUORIDE	10/12/2021	0.31	0.16 - 0.31	ppm	4	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE	7/18/2022	3.1	1.7 - 3.1	ppm	10	10	Runoff from fertilizer use
SELENIUM	4/21/2020	4.3	1.8 - 4.3	ppb	50	50	Erosion of natural deposits
TRICHLOROETHYLENE	4/5/2022	1.9	0.52 - 1.9	ppb	5	0	Discharge from metal degreasing sites and other factories

Disinfection Byproducts	Monitoring Period	Highest RAA	Range (low/high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2022	3	2.7	ppb	60	0	A by-product of drinking water disinfection
TTHM	2022	8	8.3	ppb	80	0	A by-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 <sup>th</sup> Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2018 - 2020	0.81	0.0091 - 1	ppm	1.3	0	Corrosion of household plumbing
LEAD	2018 - 2020	0	0 - 57	ppb	15	1	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>.

Chlorine/Chloramines Maximum Disinfection Level	MPA	MPA Units	RAA	RAA Units
2022 - 2022	1.8000	MG/L	0.9	MG/L

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)	2/1/2022	1.1	1.1	PCi/L	5	0	Erosion of natural deposits
COMBINED URANIUM	10/19/2020	12	12	µg/l	30	0	Erosion of natural deposits
GROSS ALPHA, EXCL. RADON & U	10/19/2020	9.1	9.1	pCi/l	15	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	4/21/2020	240	200 - 240	MG/L	300
CALCIUM	4/21/2020	110	76 - 110	MG/L	200
CHLORIDE	4/21/2020	77	22 - 77	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	4/21/2020	920	500 - 920	UMHO/CM	1500
CORROSIVITY	4/21/2020	0.4	0.19 - 0.4	LANG	0
HARDNESS, TOTAL (AS CaCO3)	4/21/2020	350	240 - 350	MG/L	400
IRON	4/21/2020	0.4	0 - 0.4	MG/L	0.3
MAGNESIUM	4/21/2020	18	12 - 18	MG/L	150
MANGANESE	4/21/2020	0.15	0 - 0.15	MG/L	0.05
METHYL TERT-BUTYL ETHER	8/15/2022	0.87	0 - 0.87		
NICKEL	4/21/2020	0.013	0 - 0.013	MG/L	0.1
PH	4/21/2020	7.8	7.1 - 7.8	PH	8.5
PHOSPHORUS, TOTAL	4/21/2020	3.7	0.52 - 3.7	MG/L	5
POTASSIUM	4/21/2020	12	6.3 - 12	MG/L	100
SILICA	4/21/2020	37	33 - 37	MG/L	50
SODIUM	4/21/2020	57	41 - 57	MG/L	100
SULFATE	4/21/2020	98	10 - 98	MG/L	250
ZINC	4/21/2020	0.017	0.01 - 0.017	MG/L	5

**Please note: Because of sampling schedules, results may be older than 1 year. During the 2022 calendar year, we had no violation(s) of drinking water regulations.**

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).