

CITY OF RONAN WATER DEPARTMENT

Montana Public Water Supply ID number 00318

2022 Water Quality Report

In a continuing effort to keep you informed about the quality of water and services we provide to you each day, we're once again pleased to provide you with our Annual Water Quality Report. This report is a snapshot of the quality of water we provided you last year. It includes details regarding the source of your water, what your water contains and how it compares to EPA and the State of Montana standards.

Our water comes from two wells and from Middle Crow Creek. The shop well is 454 feet deep and the north well is 380 feet deep. The water from Crow Creek is ultra-filtered and disinfected with a powerful ultraviolet light. Then we add a small amount of chlorine to maintain the disinfection in our distribution system. We currently have 991 service connections on our system. We added five new service connections last year. In a continuing effort to maintain and improve our system, we installed 1,000 feet of new water main to serve the SCKT Health Clinic last year. A sanitary survey inspection of our water system was conducted in September of last year. No significant deficiencies that may affect the quality of our drinking water were noted. Some online reporting issues were corrected. We will soon be conducting a survey of the lead and copper pipes in our water system to compile a list for the EPA.

We want you, our valued customers to be informed about your water utility. If you want to learn more, please attend any of our regularly scheduled meetings held on the second and fourth Wednesdays of each month at 6:00 p.m. at City Hall (207 Main Street SW Suite A). We are pleased to report that our drinking water is safe and meets all federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Daniel Miller, public works director, or Lorraine Bourdon, utilities clerk, at Ronan City Hall at (406) 676-4231. Dan Miller and Chris Atkinson, are our certified operator with 21 and 11 years of experience respectively. They attend periodic training sessions to meet continuing education requirements. The topics of their most recent training sessions included the lead and copper rule, SCADA operation, surface water treatment plants, and safety.

DID YOU KNOW? The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and in some cases radioactive elements. Water can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in water include:

- 1) Microbial contaminants such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 2) Inorganic contaminants, such as salts and metals which can be naturally occurring or result from urban storm water runoff, industrial or domestic waste water discharges, oil and gas production, mining and farming.
- 3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 4) Volatile organic chemicals, which are byproducts of industrial processes, petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- 5) 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 EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The City of Ronan routinely monitors for constituents in your drinking water according to Federal and State laws. We take all of our water samples to Montana Environmental Laboratory in Kalispell (406-755-2131). They are a private laboratory that is certified by the State of Montana and the EPA to analyze drinking water. .

Our sampling frequency complies with EPA and state drinking water regulations. The following tests were performed to identify possible contaminants in our system during the period of January 1 to December 31, 2022:

- 24 Coliform bacteria tests – all were coliform free.
- One nitrate plus nitrite test on each of our water sources – results were within EPA guidelines.
- 10 tests on the water from our customers' homes to determine the possible presence of lead and copper leaching out of the faucets and fixtures – results were within EPA guidelines.
- Arsenic tests on two of our water sources – results were within EPA standards.
- Tests on Middle Crow Creek (EP502) to determine the possible presence of 61 organic contaminants – none were detected.
- Tests on the water from our distribution system to determine the possible presence of 10 disinfection byproducts – none were detected.

Due to the purity of our water, we have applied for and been issued a monitoring waiver for ten inorganic contaminants on the shop well (EP503) and Crow Creek (EP502). This waiver allows our system to sample those water sources only once every nine years for these contaminants. Past sampling has shown that these contaminants are either not present in our water or occur in such small amounts that they do not warrant a health hazard. This waiver covers the period from 2020 to 2028.

The Montana Department of Environmental Quality requires that we test for asbestos in our drinking water. As our distribution system contains no asbestos cement pipe, we have applied for and been granted a monitoring waiver for asbestos. This waiver allows our system to not test for this contaminant. This waiver covers the period from 2020 to 2028.

The following table lists the contaminants detected during recent testing. Some of our data in the table is more than a year old, since certain chemical contaminants are monitored less than once a year.

Regulated Contaminants

CONTAMINANT	VIOLATION Y/N	SAMPLE DATE	HIGHEST LEVEL DETECTED	UNIT MEASURE-MENT	MCLG	MCL	LIKELY SOURCE OF CONTAMINATION
Alpha Emitters (Adjusted) EP505	N	10-17-17	3.2 +/- 1.6	pCi/L	0	15	Erosion of natural deposits
Arsenic EP505	N	9-21-22	1	ppb	0	10	Erosion of natural deposits; Runoff from orchards, Runoff from glass and electronics production wastes
Barium EP502 EP503 EP505	N	12-1-20	0.04 0.05 0.05	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	N	2022	0.4 (0.4 - 0.4)	ppm	MRDLG 4	MRDL 4	Water additive used to control microbes
Copper	N	9-21-22	90th % is 0.14	ppm	1.3	AL= 1.3	Corrosion of Household plumbing/ naturally occurring
Fluoride EP502 EP503 EP505	N	12-1-20	0.01 0.03 0.04	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth: Discharge from fertilizer and aluminum factories
Nitrate + Nitrate EP502 EP503 EP505	N	9-21-22	0.10 0.20 0.18	ppm	10	10	Naturally occurring at this level
Radium 228 EP502 EP505	N	10-17-17	1.1 +/- 0.6 1.9 +/- 0.8	pCi/L	0	5	Natural deposits
Turbidity Lowest Monthly % Meeting the Limit	N	2022	1 100%	NTU	N/A	TT 5.0	Soil runoff
Uranium EP505	N	8-29-17	1	ppb	0	30	Erosion of natural deposits

DEFINITIONS:

MCL - Maximum Contaminant Level - The “Maximum Allowed” 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.

MCLG - Maximum Contaminant Level Goal - The “Goal” is 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 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 disinfectants to control microbial contaminants.

PPM - Parts per million or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

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.

AL - Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

NTU - Nephelometric Turbidity Unit - A unit of measurement of the turbidity or "cloudiness" of water caused by suspended particles. We monitor it because it's a good indicator of water quality and the effectiveness of our filtration.

TT- Treatment Technique - a required process intended to reduce the level of a contaminant in drinking water.

EP - Entry Point - The point at which our water enters the distribution system.

pCi/L - Pico Curies per Liter - a very small unit of measurement of radioactivity.

What does this table tell us?

As you can see our system had no MCL violations. MCL's are set at very stringent levels. To understand the possible health effects of exceeding the MCL, a person would have to drink two liters of water every day at the MCL for a lifetime to have a one in a million chance of having any adverse health effects. Although we have learned through our monitoring and testing that some constituents have been detected, the EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by contaminants that are naturally occurring or manmade. Those contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. All 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791, or online at www.epa.gov/safewater.

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 microbiological contaminants are available from the Safe Drinking Water Hotline, or online at www.epa.gov/safewater.

Lead in drinking water comes primarily from materials and components of the service lines and home plumbing systems. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. Our water system is responsible for providing high quality drinking water, but we cannot control the variety of materials used in private home plumbing systems. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested by a certified laboratory like the one we send our samples to (Montana Environmental Laboratory, 406-755-2131). When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap until the water temperature has stabilized (usually for 30 seconds to 2 minutes) before you use the water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure to lead is available from the Safe Drinking Water Hotline 1-800-426-4791, or online at www.epa.gov/safewater/lead.

We are pleased to report that a June 2000 assessment of our aquifer by the Montana Department of Environmental Quality indicated that due to the natural conditions of the aquifer our wells are generally well protected from possible contamination. This report is available for review online at <https://deq.mt.gov/water/programs/dw#accordion1-collapse2>. This report can be summarized in the following table:

**Susceptibility assessment for significant potential contaminant sources
in the control zone and inventory region for the PWS wells.**

Source	Contaminant	Hazard	Hazard Rating	Barriers	Susceptibility	Management
Sanitary sewer main	Pathogens and Nitrates	Leak	Low	Clay rich soils; upward hydraulic gradient	Very low	Monitor integrity of sewer lines
Septic systems	Pathogens and Nitrates	Leak	Low	Clay rich soils; upward hydraulic gradient	Very low	Connect to sanitary sewer system
UST sites	Petroleum hydrocarbons	Spill, Leak	Low	Compliance with 1998 upgrades, Clay rich soils; upward hydraulic gradient	Very low	Monitor compliance results
LUST sites	Petroleum hydrocarbons	Ground water impacts	Low	Clay rich soils; upward hydraulic gradient	Very low	Monitor status of remediation
Machine and auto repair shops	Various chemicals	Spills	Low	Clay rich soils; upward hydraulic gradient	Very low	Educate shop owners and staff on BMP's in waste management and reduction
Lake County weed district	Pesticides and herbicides	Spills	Low	Clay rich soils; upward hydraulic gradient	Very low	Work with staff for BMPs for chemical use and storage
Ronan Public Works shop area	Petroleum hydrocarbons and other chemicals	Spills	Low	Clay rich soils; upward hydraulic gradient	Very low	Work with staff for BMPs for chemical use and storage
US HWY 93, and MT Hwy 211	Various	Spills	Low	Clay rich soils; upward hydraulic gradient	Very low	Develop emergency response protocols
Railroad lines	Various	Spills	Low	Clay rich soils; upward hydraulic gradient	Very low	Develop emergency response protocols
Agricultural land use	Pesticides and herbicides, Nitrates	Non point source, concentration	Low	Clay rich soils; upward hydraulic gradient	Very low	Educate community on BMPs for agriculture
Storm water urban land use	Various	Spills	Low	Clay rich soils; upward hydraulic gradient	Very low	Develop storm water management plan

Our water system is committed to providing our customers with safe, pure water and we are pleased that our water meets or exceeds all established state and federal standards. Thank you for reviewing this report.

Prepared by Montana Environmental Lab, LLC 4/23