Drinking Water Quality Report
PWSID #00136
City of Belgrade
91 East Central Avenue
Belgrade, MT 59714

Potable water is one of the most vital services provided to community residents. All of us depend on water for drinking, cooking, washing, carrying away wastes, and other domestic needs. For the most part, we don't think about how drinking water gets to our homes or where that water comes from. We just want to be sure that our water is safe and keeps flowing to our taps.

The goal of the **C**ity of **B**elgrade is to provide you with a safe and dependable supply of drinking water. Because of our commitment to ensuring the quality of your drinking water, we want to keep you informed about the activities and testing we do to assure that your water is safe. We are pleased to present to you this year's Water Quality Report.

WATER SOURCE

Our water is taken from six wells located throughout the city. If you have any questions about this report or concerning your water utility, please contact Steve Klotz at (406) 388-3760. We want our valued customers to be informed about their water utility.

MONITORING

The City of Belgrade routinely monitors for constituents in your drinking water according to Federal and State regulations. The State of Montana requires monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some data in the tables, though representative, may be more than one year old. Our sampling frequency complies with EPA and State regulations. The table includes the contaminants detected by our monitoring for the period of January 1st to December 31st, **2007**.

In the following tables, you may find many terms and abbreviations with which you might not be familiar. To help you better understand these terms, we have provided the following definitions:

ppm = *Parts per million* - one part per million corresponds to one minute in two years or a single penny in $10,000.
ppb = *Parts per billion* - 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
MCL = *Maximum Contaminant Level* – The highest allowable amount of a contaminant that is allowed in drinking water
MCLG = *Maximum Contaminant Level Goal* - The level of a contaminant in drinking water below which there is no known or expected risk to health
MFL = *Million Fibers per Liter* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Picocuries per liter (pCi/L) = picocuries per liter is a measure of the radioactivity in water.
Waivers = reduction or exclusion of monitoring requirements for certain compounds. Waivers are granted by the State of Montana, based on a water system's previous monitoring history.
90th Percentile Value = The concentration of lead or copper in tap water exceeded by 10 percent of the sites sampled during a monitoring period.
< = Less than

Test Results

Contaminant	Violation Y/N	Sample Date	Level Detected	MCLG	MCL	Likely Source of Contamination
Nitrate (as Nitrogen) –						
Well #1	No	12/27/2007	2.48 ppm			
Well #2	No	12/27/2007	0.87 ppm			
Well #3	No	12/27/2007	1.05 ppm	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Well #4	No	12/27/2007	1.22 ppm			
Well #5	No	12/27/2007	1.31 ppm			
Well #6	No	12/27/2007	0.83 ppm			
Barium						
Well #3	No	12/27/2007	0.108 ppm	2 ppm	2 ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Well # 6	No	12/27/2007	0.052 ppm			
Arsenic						
Well #1		12/27/2007	0.001 ppm			
Well #2		12/27/2007	0.002 ppm			
Well #3	No	12/27/2007	0.001 ppm	n/a	50	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Well #4		12/27/2007	0.001 ppm			
Well #5		12/27/2007	0.001 ppm			
Fluoride						
Well #3	No	12/27/2007	0.11 ppm	4 ppm	4 ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Alpha emitters						
Well #5	No	4/26/2007	2.70 pCi/L	0 pCi/L	15 pCi/L	Erosion of natural deposits
Lead	No	9/27/2007	**90th Percentile** 1 ppb	0 ppb	Action Limit: 15 ppb	Corrosion of household plumbing; erosion of natural deposits
Copper	No	9/27/2007	**90th Percentile** 0.22 ppm	1.3 ppm	1.3 ppm	Corrosion of household plumbing; erosion of natural deposits; leaching of wood preservatives

Bacteriological Contaminants: We monitor our water for total coliform bacteria on a monthly basis. Total coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Our monitoring detected no Total Coliforms in any samples taken in **2007**.

Inorganic Compounds (IOCs) - Testing done on all wells during **2007** included compounds such as Antimony, Arsenic, Nickel, and Thallium. Beryllium, Barium, Cadmium, Chromium, Fluoride, Mercury and Selenium were sampled in **2007** for Well #3 and Well #5. Fluoride was detected in Well #3 only. Our water system has waivers for some inorganic compounds.

Volatile Organic Compounds (VOCs) - VOCs are petroleum byproducts, including fuels such as gasoline and diesel; lighter fluid; fuel additives; solvents such as benzene and toluene; cleaning compounds such as dry cleaning solution, degreasers, refrigerants and adhesives. The EPA regulates the amount of certain VOCs in drinking water, while the EPA and the State monitor for the presence of other VOCs in drinking water. Over 60 additional organic compounds were tested in all wells in **2007**. No volatile organics were detected in our water system.

Synthetic Organic Compounds (SOCs) - SOCs encompass a wide range of organic compounds, including pesticides and herbicides used for crops and lawns; wood preservatives; PCBs from electrical transformers; and byproducts from PVC and other plastics, including phthalates and adipates. SOCs may be released during manufacturing processes, runoff from fields where herbicides or pesticides have been used, and disposal of industrial wastes. Nearly 40 different compounds were tested in **2007** for all wells, and none was detected in our water system.

Radionuclides: Alpha emitters are certain minerals which are radioactive and which may emit a form of radiation known as alpha radiation. Radium 226/228 is a naturally occurring radioactive contaminant that occurs primarily in ground water. Testing was done for radionuclides in **2007**.

INTERPRETATION

We continually monitor for various constituents in the water supply to meet all regulatory requirements. Some constituents have been detected in our water, as described above. If you would like more information about these contaminants, you may contact EPA's Safe Drinking Water Hotline (800-426-4791. We did not monitor for Volatile Organic Compounds in Wells #5 and #6 in 2006, and we also did not send out a Consumer Confidence Report (this report) in a timely manner last year. These are considered monitoring violations but do not affect the quality of our water. We missed monitoring for Radionuclides but have since completed sampling for them.

Did you know…?
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 (800-426-4791).

For your information….

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents 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.

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 from human activity.

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 mining activities.*

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

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Thank you for allowing us to continue providing your family with clean, quality water this year. We at the City of Belgrade are committed to ensuring the quality of your water, and work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

This report will not be mailed, however copies are available at Belgrade City Hall, 91 E. Central, Belgrade, MT 59714. Please call the Public Works Director Steve Klotz at (406) 388-3760 if you have any questions.

Prepared by Department of Public Health and Human Services / Environmental Laboratory / (406) 444-2642