



DEPARTMENT OF CORRECTIONS
Montana State Prison - Maintenance Department

600 Conley Lake Road
Deer Lodge, MT. 59722

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Date: May 30, 2019

To: All Department Heads

From: Facility Maintenance Manager

SUBJECT: Consumer Confidence Report

As part of the Safe Drinking Water Act of 1996, a Consumer Confidence Report must be made available to all consumers of a public water system. A copy of the 2017 CCR report for the public water system that provides safe drinking water to Montana State Prison, MCE and MSCTC is attached.

The interpretation for the annual report is that although our monitoring and testing did detect some constituents they are within parameters as set forth by the EPA for safe drinking water.

The MSP water supply system is SAFE and meets or exceeds State, Federal and EPA standards.
Please see complete report.

This report must be made available to all customers / users. The Water Distribution Manager will be posting copies of the report for all employees, inmates, and users of the public water system at Montana State Prison in the main pertinent buildings as well as emailing an electronic version to all department heads. This letter head and the PDF copy of the report will be posted on the inmate TV system for two weeks. The hard copies posted on public bulletin boards, staff E-mail with the cover letter and CCR report ran on the inmate TV system meets DEQ requirements for notification. Inmates with ADA disabilities will be told/contacted appropriately by units based on ADA needs and documented.

Buildings to be posted in: MSCTC, WRC, Dairy, High Kitchen, Warehouse, Food Factory, RAC, MDIU, Security Services, High Support, Canteen, Wallace, Rothe, Infirmary, A, B, C, D, HSU1, HSU2, LHU1, LHU2, Laundry, Tin Cup and Ranch Office.

Daniel L. Calcaterra
MSP Maintenance Manager



Annual Drinking Water Quality Report
PWSID #MT0000198
MONTANA STATE PRISON
400 Conley Lake Road
Deer Lodge, MT 59722



Potable water is one of the most vital services we receive. 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.

Our goal at Montana State Prison 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. If you would like more information about your water system, please contact Maintenance Service Manager (406)-846-1320 ext. 2246.

WATER SOURCE

The Montana State Prison - Deer Lodge public water supply uses 3 wells that are located west and up-valley of the main prison complex. These wells are installed into alluvium and glacial outwash materials, and they withdraw water from what appears to be a confined aquifer. Well #1, also known as Entry Point 503 (EP503), is located ½ mile west of the Prison, along Conley Lake Road. Well #2 is 1 mile northwest of the Prison, north of Conley Lake Road, and Well #3 is located ½ mile west of Well # 2. Wells #2 and #3 together are also known as Entry Point 504 (EP504).

SOURCE WATER ASSESSMENT

A Source Water Assessment was performed in 2003. Montana State Prison PWS has no identified significant potential contaminant sources within the spill response region and therefore, the source water has low or very low susceptibility to all sources of regulated contaminants. The State website to view the full Source Water Assessment is: <https://svc.mt.gov/deq/dst/#/app/swp>

Susceptibility Assessment Results

Montana State Prison - Deer Lodge PWS – Inventory Region

Source	Contaminant	Hazard	Hazard Rating	Barriers	Susceptibility	Management Recommendations
Cropland, within and around the Inventory Region	SOC, Nitrate	Pesticides and fertilizer applied to crops in excess of need and potential spills that may reach surface water or groundwater.	Low Hazard	Assumption is made that the cropland is not actively irrigated. Grazing of livestock is managed to maintain low concentrations within the Inventory Region	Low Susceptibility	Coordination with the managers of the prison ranch to protect the wellheads, keep concentration of livestock low in the Inventory Regions, keep livestock away from the creek.
Large Capacity Septic System –associated with the boot camp facilities	Nitrate, pathogens, other contaminants	Waste water discharged to drain fields that may contain improperly disposed chemicals or may not completely eliminate nitrate and pathogens from the effluent	Low Hazard	Tin Cup Joe Creek is between the septic drain field and the wells. The drain field is located outside of the Inventory Regions for the wells and is remote from the regions of Well 2 (WL003) and Well 1 (WL002)	Very Low Susceptibility	Design and installation of an advanced septic system, education with posters and placards at the facility to reduce improper disposal of chemicals

Note: Well 3 is the most vulnerable of the PWS wells, as it has the shallowest screen zone. Extra care should be taken to reduce animal and cropping activity within the Inventory Region of Well 3 (WL004). That is, prioritize the control of human and animal activity within 1,000 feet of the well.

MONITORING

The Montana State Prison Water System 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 tables include the results of our monitoring for the period of

January 1st to December 31st, 2018.

In the results table and the following information, you may find terms and abbreviations with which you might not be familiar. To help you better understand these terms, we've provided the following definitions:

<p>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. MFL (Million Fibers per Liter): The measure of the presence of asbestos fibers that are longer than 10 micrometers. pCi/L (Picocuries per liter): A measure of the radioactivity in 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. MCL (Maximum Contaminant Level): The highest allowable amount of a contaminant that is allowed in drinking water. AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. 90th Percentile Value: The concentration of lead or copper in tap water exceeded by 10 percent of the sites sampled during a monitoring period. 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. EP (Entry Point): The point at which water is discharged into the distribution system from a well, storage tank, pressure tank, or water treatment plant.</p>
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TEST RESULTS

Contaminant	Violation Y/N	Sample Date	Result	Units	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	N	09/06/2018	Coliforms Present		0	one positive monthly sample	Naturally present in the environment
Nitrate (as Nitrogen) EP 503 EP 504	N N	01/23/2018 01/23/2018	1.02 0.316	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium EP 503 EP 504	N N	09/30/2011 11/18/2013	0.088 0.145	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride EP 503 EP 504	N N	09/30/2011 11/18/2013	0.32 0.34	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Arsenic EP 503 EP 504	N N	08/09/2017 08/09/2017	<0.001 2	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Lead	N	08/15/2018	90 th Percentile 2 ppb	ppb	0	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits
Copper	N	08/15/2018	90 th Percentile Value 0.267	ppm	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Alpha emitters (excluding Radon and Uranium) EP 503 EP 504	N N	11/15/2018 07/12/2018	ND 2	pCi/L	0	15	Erosion of natural deposits
Combined Radium EP 503 EP 504 EP 504 EP 504 EP 504	N N N N N	09/06/2018 01/09/2017 04/05/2017 07/25/2017 10/05/2017	2.1 1.4 < 1.1 < 0.8 2.0	pCi/L	0	5	Erosion of natural deposits
Uranium EP 503 EP 504	N N	11/15/2018 07/12/2018	0.007 0.004	ppm	0	0.030	Erosion of natural deposits

Bacteriological Monitoring: Our system monitors monthly for total coliform and E. coli bacteria in our water. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, we always perform special follow-up tests to determine if harmful bacteria are present in the water supply. The table shows that coliform bacteria were detected in one sample in the month of **September**. Follow-up samples showed **no contamination in our water system from coliform or other harmful bacteria**.

Nitrate – Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you may wish to ask advice from your health care provider. In **2018** testing, Nitrate was detected in our water system but in concentrations less than the Maximum Contamination Level set by the EPA.

Inorganic Compounds (IOCs) – The following compounds were tested in **2011** at **EP503** and in **2013** at **EP504**. The heavy metals Cadmium, Chromium, Selenium and Mercury were not detected in our water system. Barium and Fluoride were detected at both entry points but in concentrations less than the Maximum Contamination Level set by the EPA. Both entry points currently have waivers for monitoring these six compounds through **2019**. Testing in **2018** at both entry points included Beryllium, Nickel, Antimony, and Thallium; these compounds were not detected in our water system.

Arsenic in Drinking Water – The US EPA has recently revised the regulations governing the amount of arsenic allowable in public drinking water supplies. Beginning January 23, 2006, the MCL for arsenic changed to 10 ppb and the MCLG changed to 0 ppb. In **2017** testing, Arsenic was not detected at **EP503** and was detected at **EP504**, but in concentrations less than the Maximum Contamination Level set by the EPA. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Lead and Copper – **Lead:** 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. Montana State Prison 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>. **Copper:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink that water contains copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. In **2018** testing, Lead and Copper were detected in our system but below the Action Level set by the EPA.

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 volatile organic compounds were tested for at each Entry Point in **2018**, and none were detected in our

water system.

Synthetic Organic Compounds (SOCs) – SOC's 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. SOC's may be released during manufacturing processes, runoff from fields where herbicides or pesticides have been used, and disposal of industrial wastes. The EPA regulates certain SOC's and the State and EPA monitor others. Nearly 40 synthetic organic compounds were tested for at each Entry Point in **2018** and none were 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 and Radium-228 are naturally occurring radioactive contaminants that occur primarily in ground water. In **2018** EP503 testing, combined Radium-226+228 and Alpha emitters were detected but in concentrations less than the Maximum Contamination Level set by the EPA. EP504 was tested for Alpha emitters in **2018**, which were detected but below the MCL. EP504 was tested quarterly in **2017** for Radium-226+228, which was detected but below the MCL.

Uranium is a naturally-occurring element found at low levels in virtually all rock, soil, and water. Significant concentrations of uranium occur in some substances such as phosphate rock deposits, and minerals such as uraninite in uranium-rich ores. Uranium can enter the body when it is inhaled or swallowed in water or food. In **2018** testing, uranium was detected at both entry points but in concentrations less than the Maximum Contamination Level set by the EPA.

Asbestos is a broad term that applies to numerous fibrous mineral silicates composed of silicon, oxygen, hydrogen, and metal cations such as sodium, magnesium, calcium, or iron. There are two major groups of asbestos, serpentine (chrysotile) and amphibole. Chrysotile is the major type of asbestos used in the manufacture of asbestos products. These products include asbestos cement pipe, flooring products, paper products (e.g., padding), friction materials (e.g., brake linings and clutch facings), roofing products, and coating and patching compounds. Asbestos fibers may enter the environment from natural sources such as erosion of asbestos-containing ores, but the primary source of asbestos in the environment is through the wear or breakdown of asbestos-containing materials. We monitored for asbestos in **2013**, and no asbestos fibers were detected. We currently have a waiver for testing for asbestos through **2019**.

INTERPRETATION

We constantly monitor for various constituents in the water supply to meet all regulatory requirements. We're proud that your drinking water meets or exceeds all Federal and State requirements. Although our monitoring and testing did detect some constituents, the EPA has determined that your water **IS SAFE** at these levels. If you would like more information about these contaminants, you may contact EPA's Safe Drinking Water Hotline (800-426-4791).

Montana State Prison's goal is to provide high-quality water to all consumers. We at Montana State Prison work around the clock to provide top quality water to every tap. Thank you for helping us protect our water sources.

About Drinking Water....

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.

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.

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.

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).

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