

Annual Drinking Water Quality Report

JAMESTOWN WATER DEPARTMENT

2014

We're pleased to present to you this year's **Annual Drinking Water Quality Report**. This report is designed to inform you about the safe clean water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are wells drawing ground water from the Jamestown Aquifer underlying the James River Valley in McElroy park. We have a wellhead protection plan available from our office that provides more information, such as, potential sources of contamination.

This report shows our water quality and what it means. This report is in the format and contains the required language as prescribed by the EPA regulations. If you have any questions about this report or concerning your water utility, please contact **Steve Suko, Director of Utility Operations at 252-5131**. We want our valued customers to be informed about their water utility. The Jamestown Water Department operates under the Direction of the City Engineer and the Jamestown City Council. If you want to learn more, please attend any of our regularly scheduled council meetings. They are held on the 1st Monday of each month at 5 PM at Jamestown City Hall. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call **Steve Suko** at the number listed above.

Our public water system, in cooperation with the North Dakota Department of Health, has completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, the North Dakota Department of Health has determined that our source water is moderately susceptible to potential contaminants.

The **Jamestown Water Department** would appreciate it if large volume water customers post copies of the CCR in conspicuous locations or distribute them to tenants, residents, patients, students, and/or employees, so individuals who consume the water, but do not receive a water bill can learn about our water system.

The **Jamestown Water Department** routinely monitors for contaminants and minerals in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2014. As authorized and approved by EPA, the state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data [e.g., for organic contaminants], though representative, is more than one year old.

Drinking water, including bottled water, may be reasonably 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 effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap 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.

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

At Arsenic Levels > 5ug/L, but < 10 ug/L

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.

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 Jamestown Water Department** is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. Use water from the cold tap for drinking and cooking. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing the tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, test 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>.

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/Centers for Disease Control (CDC) and prevention guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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.

Please call our office if you have questions.

The **Jamestown Water Department** works 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.

In the following table you will find many terms and abbreviations you might not be familiar with.

To help you better understand these terms we've provided the following definitions:

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

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 stormwater run off, 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 stormwater runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Non-Detects (ND) - laboratory analysis indicates that the contaminant is not present.

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

Parts per billion (ppb) or Micrograms per liter (g/l)- one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

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

(MCLG) Maximum Contaminate Level Goal: The level of a contaminate in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

(MCL) Maximum Contaminate Level: The highest level of a contaminate that is allowed in drinking water. MCL's are set close to the MCLG's as feasible using the best available treatment technology.

(MRDL) Maximum Residual Disinfection Level: The Highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Highest Compliance Level: The highest level of that contaminate used to determine compliance with a National Primacy Drinking Water Regulation.

Range of Detection: The lowest to the highest result value recorded during the required monitoring timeframe for a systems with multiple entry points.

Abbreviations: ppb – parts per billion or microgram per liter, ppm – parts per million or milligrams per liter, ppt – parts per trillion or nanograms per liter, ppq – parts per quadrillion or pictograms per liter, NA- not applicable, ND- none detected, pCi/L – picocuries per liter (a measure of radioactivity), umho/cm = micromhos per centimeter (a measure of conductivity), obsvns = observations/field at 100 power, IDSE = Initial Distribution System Evaluation

Bacteriological Monitoring Data Total Coliform Data: June had the highest number of Total Coliform Samples. Total Coliform Positive for June was 2.

City of Jamestown - ND4700498

Lead/Copper	Date	# OF SAMPLES	Level (AL)	90th Percentile	samples Exceed AL	Units	
Copper 90th Percentile	9/26/2014	9	1.3	0.028	0	ppm	service lines and home plumbing
Lead 90th percentile	9/26/2014	9	15	0.12	0	ppb	service lines and home plumbing
Inorganic Contaminants	Date	MCL	MCLG	High Comp.	Units	Range	
Arsenic	5/19/2010	10	0	7.41	ppb	N/A	erosion of natural deposits, run off from orchards, run off from glass & electronic production wastes
Barium	3/16/2009	2	2	0.00273	ppm	N/A	discharge from drilling wastes, discharge from metal refineries, erosion of natural deposits.
Chromium	3/16/2009	100	100	1.41	ppb	N/A	discharge from steel and pulp mills, erosion of natural deposits
Fluoride	3/16/2009	4	4	1.06	ppm	N/A	erosion of natural deposits, water additive, which promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate-Nitrite	5/5/2014	10	10	0.09	ppm	N/A	tanks, erosion of natural deposits
Radioactive Contaminants							
Gross Alpha, Including RA Excluding RN & U	7/27/2009	15	15	0.66	pCi/l	N/A	erosion of natural deposits
Radium, Combined (226, 228)	7/27/2009	5		1.06	pCi/l	N/A	erosion of natural deposits
Uranium, Combined	7/27/2009	30		0.7	ppb	N/A	erosion of natural deposits
Stage 2 Disinfection byproducts(TTHM/HAA5)							
HAA5 System-Wide	9/30/2014	2/29/1900		3	ppb	ND to 12.3	byproduct of drinking water disinfection
TTHM System-Wide	9/30/2014	80		1	ppb	ND to 1.42	byproduct of drinking water disinfection
Disinfectants							
Chlorine	3/31/2014	MRDL= 4.0	MRDL=4	1.9	ppm	0 to 2.41	water additive used to control microbes

Violations

Type	Begin/End Dates	Analyte
Follow-up or Routine Tap M/R (LCR)	1/1/2012 - 12/31/2014	Lead and Copper Rule
MCL (TCR) Monthly	6/1/2014 - 6/30/2014	Coliform (TCR)
Monitoring, Routine (DBP), Major	10/1/2014 - 12/31/2014	Chlorine

Violation: Lead and Copper Rule-Failure to Monitor- Follow-up or Routine Tap during January-December 2014.

We are required to routinely monitor our drinking water for Lead and Copper. During the compliance period of January 1-December 31, 2014 we failed to take the required number of samples for Lead and Copper as required, and therefore cannot be sure of the Lead and Copper levels in your drinking water at that time. The City of Jamestown is taking steps to perform required monitoring in the future

Violation: Maximum Contaminant Level Exceedance (MCL) TCR, June 2014: June 2014 had the highest number of Total Coliform samples.

During the month of June 2014, coliforms were found in more samples than allowed and this was a warning of potential problems. Two samples tested positive for Total Coliform during the month of June 2014. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

Additional sampling was performed to further identify any problems and subsequent sampling has shown satisfactory results.

Violation Monitoring DBP (Chlorine/Chloramine) Routine Major-4th Quarter 2014. For the 4th quarter of 2014 including the months of October,

November and December 2014, the City of Jamestown failed to comply with the reporting requirements of the Disinfectants and Disinfection By-products Rule. This rule requires us to monitor monthly chlorine levels and report them to the State Health Department on a quarterly basis. Since the required sample was not taken or the report was not submitted on time, we are unsure of the level of disinfectant during that time. Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort. The City of Jamestown has taken steps to correct this violation of the Disinfectants and Disinfection By-products Rule by returning to a normal reporting schedule.

The City of Jamestown was selected by EPA to sample for twenty-one (21) unregulated contaminants during 2014. Samples were taken one (1) time from two (2) locations, both the entry point (Water Treatment Plant) and from within the distribution system.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Should you have any questions, please contact our office.

Unregulated Contaminant	Minimum Reporting Level (ug/l)	Average value at WTP (EP) Sampling Point (ug/l)	Average value at MRT Sampling Point (ug/l)	Range of Detection (ug/l)
Hexavalent Chromium	0.030	0.61	0.63	0.61 - 0.63
Chromium	0.20	0.63		0.63 - 0.63
Molybdenum	1.0	7.5	7	7.0 - 7.5
Strontium	0.30	170	150	150 - 170
Vanadium	0.20	3.8	3.4	3.4 - 3.8

ug/L = micrograms/Liter A common unit of measure used to express concentrations of substances in liquids.

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