

Grafton Drinking Water Quality Report 2019

Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Your local Water Department vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Do I need to take special precautions?

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 and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

The City of Grafton uses surface water from either the Red River or the Park River.

Source water assessment and its availability –

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.

A Source Water Assessment Report is available for viewing. For more information, contact Tom Dusek or Sheena Schmeets at 701-352-2101.

Why are there contaminants in my drinking water?

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 the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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.

Contaminates that may be present in source water:

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 by-products of industrial 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 and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribed 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 much provide the same protection for public health.

Total Organic Carbon

Total Organic Carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAA5).

Lead Information

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 Grafton Water Treatment Plant 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 your 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, 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>.

How can I obtain a Water Quality Report?

The Grafton Water Quality Report may be obtained at City Hall Monday thru Friday during office hours 8:00 a.m. to 5:00 p.m. or by calling 701-352-1561 to request a copy. You may also view the report at www.graftongov.com/ccr.

For Additional Information

If you have questions regarding this report, please call Tom Dusek or Sheena Schmeets at 701-352-2101. Questions will also be answered at our regularly scheduled city utility board meeting which is held at City Hall the first Monday of each month at 5:30 p.m. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Tom Dusek or Sheena Schmeets at the number listed above. If you own or manage an apartment complex or have renters, we encourage you to share this report with them.

Water Quality Data Table
City of Grafton – ND5000408
Safe Drinking Water Act Chemical/Radiological Detected Results from 2015-2019

The table below lists all the drinking water contaminants that we detected from 2015-2019. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			

Disinfectants & Disinfection By-Products

(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)

Disinfectants

Chloramine (ppm)	MRDLG = 4.0	MRDL = 4.0	2.0	1.84	2.56	2/28/2019	No	Chlorine and ammonia additive used to control microbes
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State 2 Disinfection By-Products (TTHM/HAA5)

Haloacetic Acids (HAA5) (ppb)	NA	60	39	17.85	48.57	12/31/2019	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	NA	80	57	26.86	71.56	12/31/2019	No	By-product of drinking water chlorination

Total Organic Carbon Removal

Alkalinity – Source MG/L	NA	NA	299	105	299	2/28/2019	No	Naturally present in the environment
Carbon, Total Organic (TOC) – Finished MG/L	NA	NA	6.39	4.45	6.39	8/31/2019	No	Naturally present in the environment
Carbon, Total Organic (TOC) – Source MG/L	NA	NA	11.6	8.09	11.60	8/31/2019	No	Naturally present in the environment

Inorganic Contaminants	MCLG	MCL	High Comp.	Range		Sample Date	Violation	Typical Source
				Low	High			
Nitrate - Nitrite (ppm)	10	10	0.509	NA	0.509	5/13/2019	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium (ppm)	2	2	0.00933	NA	0.00933	5/1/2017	No	Discharge of drilling wastes, discharge from oil refineries and erosion of natural deposits.
Fluoride (ppm)	4	4	0.712	NA	0.712	5/1/2017	No	Erosion of natural deposits, water additive which promotes strong teeth and discharge from fertilizer and aluminum factories.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Synthetic Organic Contaminants including Pesticides and Herbicides -								
Pentachlorophenol (ppb)	0	1	0.02	NA	0.02	5/22/2017	No	Discharge from wood preserving factories.

Volatile Organic Contaminants								
Xylenes, Total (ppm)	10	10	0.00517	NA	0.00517	5/22/2017	No	Discharge from petroleum factories. Discharge from chemical factories.

Lead and Copper - (* - No samples exceeded the action level)							
	Date	Number Samples	Action Level (AL)	90 th Percentile	Samples Exceed AL	95 th Percentile	Typical Source
Copper 90 th Percentile (ppm)	8/14/2018	20	1.3	0.0433	*	N/A	Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives.
Lead 90 th Percentile (ppb)	8/14/2018	20	15	9.94	1	N/A	Corrosion of household plumbing systems; Erosion of natural deposits.

Surface Water Treatment Rule Monitoring Data		
Turbidity Limits	Typical Source	Health Effects Language
<p>Lowest Monthly Percentage of Samples Meeting Turbidity Limits of 0.30 NTU or less = 100%</p> <p>A value less than 95% constitutes a TT violation.</p> <p>Highest Single Measurement = 0.2 NTU</p>	Soil runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Unit Descriptions	
Term	Definition
ug/L	ug/L : Number of micrograms of substance in one liter of water
mg/L	Milligram per liter, or ppm: parts per million
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water and it is a good indicator of the effectiveness of the filtration system.
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
gr/gal	grains per gallon
ppt	Parts per trillion or nanograms per liter
ppq	Parts per quadrillion or picograms per liter
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

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
MFL	MFL: million fibers per liter
Mrem/year	Mrem/year: millirems per year (a measure of radiation absorbed by the body)
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
Highest Compliance Level	The highest level of that contaminant used to determine compliance with a National Primacy Drinking Water Regulation.
Range of Detections	The lowest to the highest result value recorded during the required monitoring timeframe for systems with multiple entry points.

Tap Water Profile – 2019

- Average Total Hardness was 156 ppm as CaCO₃ (9.12 gr/gal)
- Average Total Alkalinity was 89 ppm as CaCO₃ (5.20 gr/gal)
- Average pH of the tap water was 9.38
- A 0.95 ppm dose of fluoride was maintained for dental health
- Total water treated for the year was 159,362,845 gallons
- Average daily water treated was 436,611 gallons

For more information please contact:

Grafton Water Department

Address:

P.O. Box 578

Grafton, ND 58237

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