

Annual Drinking Water Quality Report

Town of Iron Gate

INTRODUCTION

This Annual Drinking Water Quality Report for calendar year 2023 is designed to provide you with valuable information about your drinking water quality. We are committed to providing you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water meets all state and federal requirements administered by the Virginia Department of Health (VDH).

If you have questions about this report, want additional information about any aspect of your drinking water, or want to know how to participate in decisions that may affect the quality of your drinking water, please contact:

Mr. Gary Craig, Mayor – (540) 862-0770
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GENERAL INFORMATION

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Substances (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban stormwater runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater may or may not have any treatment.

All drinking water, including bottled drinking 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 can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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).

SOURCES AND TREATMENT OF YOUR DRINKING WATER

Your drinking water is purchased from the Town of Clifton Forge. Clifton Forge has a water treatment plant that filters surface water from Smith Creek. Clifton Forge chlorinates and fluoridates the water prior to distribution. Water is distributed throughout the Iron Gate system by a storage tank and the distribution piping.

SOURCE WATER ASSESSMENTS

A source water assessment for the Town of Clifton Forge Water Treatment Plant was completed by the VDH. This assessment determined that the Town's water source may be susceptible to contaminants at varying concentrations and changing hydrologic, hydraulic, and atmospheric conditions that promote migration of contaminants from land use activities of concern within the assessment area. More specific information may be obtained by contacting the water system representative listed above. Our water source, Smith Creek, is unique in

that there is no upstream industry, agriculture or populated areas. This ensures a water supply on the highest possible quality.

QUALITY OF YOUR DRINKING WATER

Your drinking water is routinely monitored according to Federal and State Regulations for a variety of contaminants. The tables that follow show the results of Clifton Forge's monitoring for the period of January 1, 2023 through December 31, 2023. State Regulations require that we test for bacteriological and lead and copper contaminants. The data in the Microbiological and Lead and Copper tables that follow was collected by the Town of Iron Gate.

The results in the table are from testing done in 2020, 2021, 2022 and 2023. However, the state allows water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though accurate, is more than one year old.

DEFINITIONS

In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

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

Maximum Contaminant Level (MCL): 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.

Maximum Contaminant Level Goal (MCLG): 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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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 contamination.

Nephelometric Turbidity Unit (NTU) - A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-detects (ND): The substance was not found by laboratory analysis.

Parts per billion (ppb) or Micrograms per liter ($\mu\text{g}/\text{L}$): One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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.

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Variances and exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

WATER QUALITY RESULTS

PWSID 2005480 - Iron Gate

DISINFECTION BYPRODUCTS						
Contaminant (Unit)	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination
Total Trihalomethanes (ppb)	NA	80	22	No	2023	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NA	60	11	No	2023	By-product of drinking water chlorination
DISINFECTION RESIDUAL						
Contaminant (Unit)	MRDLG	MRDL	Level Found (Range)	Violation	Date of Sample	Typical Source of Contamination
Chlorine (ppm)	4	4	0.80 (0.45 – 0.80)	No	Monthly	By-product of drinking water chlorination
LEAD AND COPPER						
Contaminant (Unit)	MCLG	MCL	Level Found	Exceedance	Date of Sample	Typical Source of Contamination
Lead (ppb)	0	AL=15	3.3 No samples exceeded the AL.	No	2021	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	0.058 No samples exceeded the AL.	No	2021	Corrosion of household plumbing systems; Erosion of natural deposits

WATER QUALITY RESULTS

PWSID 2560100 – Clifton Forge

INORGANIC CONTAMINANTS							
Contaminant (Unit)	MCLG	MCL	Level Found	Exceedance	Date of Sample	Typical Source of Contamination	
Barium (ppm)	2	2	0.016 to 0.017	No	2023	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
Nitrates (ppm)	10	10	0.074	No	2023	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	
Fluoride (ppm)	4	4	0.28 to 0.71	No	Monthly	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	
RADIOLOGICAL CONTAMINANTS							
Contaminant (Unit)	MCLG	MCL	Level Found	Violation	Date of Sample	Typical Source of Contamination	
Alpha emitters (pCi/L)	0	15	0.16	No	2020	Erosion of natural deposits	
Beta emitters (pCi/L)	0	50*	-0.49	No	2020	Decay of natural and man-made deposits	
Combined Radium (pCi/L)	0	5	0.20	No	2020	Erosion of natural deposits	
TURBIDITY¹							
Contaminant (Unit)	MCLG	MCL	Highest Level Found	Lowest Monthly % <0.3 NTU	Violation	Date of Sample	Typical Source of Contamination
Turbidity (NTU)	NA	TT	0.4	All monthly samples < 0.3 NTU 95 % of the time	No	Daily	Soil runoff
TOTAL ORGANIC CARBON							
Contaminant	MCLG	MCL	Level Range	Violation	Date of Sample	Typical Source of Contamination	
Total Organic Carbon	NA	TT	ND	No	Monthly	Naturally present in the environment	
UNREGULATED CONTAMINANT							
Contaminant (Unit)	MCLG	MCL	Level Found	Exceedance	Date of Sample	Typical Source of Contamination	
Sodium (ppm)	NA	NA	1.62	NA	2023	Erosion of natural deposits; De-icing salt runoff; Water softeners	

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of our water quality and the effectiveness of the filtration process.

* The MCL for beta particles is 4 mrem/yr. EPA considers 50 pCi/L to be the level of concern for beta particles.

RESULTS INFORMATION

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The table lists only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

Maximum Contaminant Levels (MCLs) are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards, EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

Sodium - There is presently no established standard for sodium in drinking water. An EPA advisory recommends water containing 30 to 60 mg/L should not be used as drinking water due to esthetics such as taste and color. Water containing more than 20 mg/L should not be used by persons whose physician has placed them on severely restricted sodium diets.

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 Town of Iron Gate 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

VIOLATION INFORMATION

Monitoring and Reporting Violations – None

Water Quality Violations – None

Variance – The Town of Clifton Forge operates with a continuing variance to the Virginia *Waterworks Regulations*. This variance waives Clifton Forge from the requirement of having two operators at the plant when it is in actual operation. A cell phone is provided, so the on duty operator can check in with the operator in responsible charge or the police department.

This Drinking Water Quality Report was prepared by the Town with the assistance and approval of the Virginia Department of Health. Please call if you have questions.

Signature: ER Gilbert

Date: 5/17/2024