

**Scientists' Cliffs Water Association**  
**PWSID 004-0014**  
**Annual Drinking Water Quality Report**  
**for CY 2023 distributed April 2024**

This Annual Consumer Confidence Report contains valuable information about the quality of drinking water provided to you by the central water system that serves the Scientists' Cliffs community and is operated by the Scientists' Cliffs Association. Please read this report carefully, as it contains vital information about your community water supply. This report was designed to comply with the requirements of the Safe Drinking Water Act (SDWA) of 1996, which is administered by the United States Environmental Protection Agency and is enforced by the Maryland Department of the Environment.

If you ever have questions regarding the information supplied in this report please do not hesitate to contact Steve Dean, SCA Community Manager at 410-586-0602

All of the water supplied to you as drinking water in Scientists' Cliffs is groundwater. The groundwater was pumped from any one of our three wells. In June 2016 Well #6 (supplied from the Piney Point/Nanjemoy Aquifer) was placed into service and listed as Active with Maryland Department of the Environment.

Wells #5 and #6 pump water from the Piney Point/Nanjemoy Aquifer, which is generally located in our area at a depth of 275-400 feet. Well #4 pumps water from the Aquia Aquifer, which is generally located in our area at a depth of 500-600 feet. Both of the two aquifers that provide our water supply are confined aquifers, which means, that they are less vulnerable to contamination than a surface water source. Both the Piney Point/Nanjemoy and Aquia aquifers are well known and documented by local geologists, and are commonly used as a water supply by much of the population of Southern Maryland.

We have a source water protection plan available from our office that provides more information such as potential sources of contamination. This plan is also available from Maryland Department of the Environment (MDE) or at the Calvert County Public Library. For more information call 1-800-633-6101

We are pleased to report that our drinking water is safe and meets Federal and State requirements. The following report is provided in compliance with Federal and State regulations and is provided annually. This report outlines the quality of our finished drinking water and what that quality means.

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).

Scientists' Cliffs Association routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2023. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

In this 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:

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

*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* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Parts per trillion (ppt) or Microgram per liter-* one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is 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*– The “Goal” (MCLG) is 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.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Radioactive Contaminants</b>						
Beta/photon emitters (average) (2020)	N	10.9	pCi/l	0	50	Decay of natural and man-made deposits
<b>Inorganic Contaminants</b>						
Copper (Distribution) (2020)	N	<0.05	ppm	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (Distribution) (2020)	N	1	ppb	0	AL= 15	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride (average) (2023)	N	0.27	ppm	4	4	Erosion of natural deposits: water additive which promotes strong teeth: discharge from fertilizers and aluminum factories
Barium (2022)	N	0.0253	ppm	2	2	Discharge from Drilling waste; Discharge from metal refineries; Erosion of natural deposits.
Chromium (2022)	N	4.9	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Arsenic (2023) Range Highest level detected	N	3.19–7.5 7	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
<b>Volatile Organic Contaminants &amp; Disinfectants</b>						
TTHM(distribution)(2023) [Total trihalomethanes]	N	6.9	ppb	0	80	By-product of drinking water chlorination
HAA5 [Haloacetic Acids] (distribution)(2020)	N	1	ppb	0	60	By-product of drinking water chlorination
Chlorine (2023)	N	0.7	ppm	4	4	Water Additive used to control microbes

Note: Test results are for 2023 unless otherwise noted; these are the most recent available results. All contaminants are not required to be tested for annually.

**NOTE: As can be seen by results listed in the above tables, lead, which is tested for triennially (every 3 years) in Scientists’ Cliff’s distribution system, has been detected in our most recently collected samples in 2020.**

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. Scientist Cliffs is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the

lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Scientist Cliffs at 410-586-0602. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

PFAS – short for per- and polyfluoroalkyl substances – refers to a large group of more than 4,000 human-made chemicals that have been used since the 1940s in a range of products, including stain- and water-resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater, and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

The Maryland Department of the Environment (MDE) conducted a PFAS monitoring program for Community Water Systems from 2020 to 2022. The results are available on MDE's website: <https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx>.

The Environmental Protection Agency (EPA) finalized regulations for 6 PFAS compounds in drinking water in April 2024. The MCLs for PFOA and PFOS are each 4.0 parts per trillion (ppt). The MCLs for PFNA, PFHxS, and HFPO-DA (GenX chemicals) are each 10 ppt. Additionally, a mixture of two or more of the following chemicals (PFNA, PFHxS, HFPO-DA, and PFBS) will be regulated with a Hazard Index of 1 (unitless) to determine if the combined levels of these PFAS pose a risk and require action.

The 5<sup>th</sup> Unregulated Contaminant Monitoring Rule (UCMR5) began testing for 29 PFAS compounds and lithium in 2023, and testing will run through 2025. The UCMR5 should test all community water systems with populations of at least 3300 people. Three randomly selected systems in Maryland with populations less than 3300 people will also be tested under the UCMR5. Detections greater than the minimum reporting levels for each constituent should be reported in the CCR.

While your drinking water meets EPA's standards for arsenic, it does contain low levels of arsenic. The EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low level 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." (40 CFR 141.154(b))

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 Maryland Rural Water Association's State Circuit Rider assisted with the completion of this report.

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.