



# 2023 Drinking Water Quality Report North Pole, Alaska PWSID# 310675



We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services 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 source is two wells located at 791 Clearwater Court off of S. Blanket Blvd. We pump the water through six greensand filters to remove naturally occurring iron and manganese. Iron and Manganese are naturally occurring elements that may cause discoloration of cloths and fixtures over prolonged exposure. Sodium Carbonate is then added to adjust the pH as a method of controlling corrosion in our distribution system, for the Moose Creek System, Zinc based Orthophosphate is also added for corrosion control. Treated water is then pumped to our two 400,000 gallon storage tanks for use.

If you have any questions concerning this report or your water utility, please contact City Services at 907-488-6111. We want our valued customers to be informed about their water utility. If you would like to learn more, please attend our regularly scheduled City Council meetings held on the first and third Monday of every month at City Hall.

We routinely monitor for contaminants in your drinking water according to State and Federal laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup>, 2023 to December 31<sup>st</sup>, 2023 or the most recent monitoring results. 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. The presence of these 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 EPA 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 people with cancer undergoing chemotherapy, people 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/Center for Disease Control (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).

In this table, you will find many terms and abbreviations with which you might not be familiar. To help you better understand these terms we have provided the following definitions:

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

***Parts per million (ppm) or Milligrams per liter (mg/l)*** - corresponds to one part per million parts.

***Parts per billion (ppb) or Micrograms per liter (ug/l)*** - corresponds to one part per billion parts.

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

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

***Maximum Contaminant Level*** - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL 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.

Contaminant	Sample Date	MCL Violation	Level Detected	Unit Measurement	MCLG	MCL	Likely source of contamination to the best of our present knowledge
Barium	2022	NO	80	ppb		2000	Erosion of natural deposits
Chromium	2022	NO	1.2	ppb		100	Erosion of natural deposits
Nickel	2022	NO	<1.0	ppb			Erosion of natural deposits
Lead	2023	NO	0.0078	ppm		0.015	Corrosion of household plumbing
Copper	2023	NO	0.57	ppm		1.3	Corrosion of household plumbing
Arsenic	2022	NO	<1.0	ppb		50	Erosion of natural deposits
Fluoride	2022	NO	130	ppb	4000	4000	Erosion of natural deposits
Sulfolane	2023	NO	0.0	ppb			Petroleum Refining

**Maximum Residual Disinfectant Level (MRDL) - The highest residual disinfectant level allowed**

**Waivers and/or non-detects:** There are many regulations pertaining to sampling and monitoring of our water system. Since we had a waiver for Synthetic Organic Contaminants, Asbestos, and other Organic Contaminants, we did not test for them during the time period covered by this report. We tested for Total Coliform Bacteria monthly and none were detected in our water system.

As you can see by the table, our water system had violation of the MCLs. Homes that have hooked up to city water recently may take time for our corrosion control measures to reduce lead and copper levels in household plumbing. The number of sites that exceeded for Pb and Cu based on the last round of sampling is 0 of 40 exceeded the allowable level for lead and 5 of 40 exceeded for copper. We have learned through our monitoring and testing that some contaminants have been detected as indicated in the table above. Since we have sampled regularly during the last monitoring period, we were able to reduce the frequency of monitoring per ADEC guidelines. As a result, the last monitoring results are from many years ago and are listed in the table above.

**Lead and Copper information:**

During 1993, our Lead and Copper monitoring results were above the action limits set by EPA. We developed a corrosion control plan to reduce the lead and copper levels in the water and have resumed monitoring for these contaminants. A small number of the households in our area are tested for lead and copper periodically. It is possible that lead or copper levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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 water containing 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. If you are concerned about elevated lead or copper levels in your home's water, you may wish to have your water tested, and flush your tap for 30 seconds to 2 minutes before consuming tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

At North Pole Utilities, we work to provide top quality water to every tap. We ask that all customers help us protect our water sources, which are the heart of our community and way of life.

**Source Water Assessment Report Executive Summary Data**

The public water system for North Pole Utilities (Primary) is a Class A water system consisting of 2 source intake(s). The water system is located in North Pole and the intake for this PWSID is a groundwater well. The wellhead received a susceptibility of "low" and the aquifer received a susceptibility rating of "high". Combining these scores produces a natural susceptibility of "low" for the source. In addition, this water system has received a vulnerability rating of "medium" for bacteria/viruses, "medium" for nitrates/nitrites, "high" for volatile organic chemicals, "medium" for heavy metals, "medium" for other organic chemicals, and "high" for synthetic organic chemicals.

**DISCLAIMER:** Information provided on this page is automatically generated from a database of Source Water Assessment information. For additional details, please view the actual Executive Summary contained in the Source Water Assessment Report.

## **Sulfolane Information:**

Sulfolane, or tetrahydrothiophene 1, 1-dioxide, is a man-made industrial solvent, commonly used in gas production and oil refining. Sulfolane is also used in other manufacturing industries such as plastics, textiles, pharmaceuticals, and electronics. Despite its widespread use, the U.S. Environmental Protection Agency does not regulate sulfolane levels in drinking water. The City of North Pole has been sampling the City's drinking water supply since November of 2009. The samples are being analyzed by the DEC's Environmental Health Lab. The raw water from the City's old supply wells have consistently shown very low levels of sulfolane, between 4 and 7 parts per billion (ppb). The two new wells are located out side of the contamination plume and were placed on-line in March of 2011. The treated water going to consumers continues to show no sulfolane in it.

The health effects of sulfolane have not been studied in humans. What we know about the health effects of sulfolane comes from animal studies (e.g. rats, guinea pigs, mice). The Alaska Division of Public Health asked the federal Agency for Toxic Substances and Disease Registry (ATSDR) to help review the health effects research and advise on a recommended limit for sulfolane in drinking water. The ATSDR released their report on February 9, 2010, recommending 25 parts per billion sulfolane as the most protective level for drinking water. The report, along with a companion document prepared by the Alaska Division of Public Health can be found at the DEC website: <http://dec.alaska.gov/spar/csp/sites/north-pole-refinery/healthenv.htm>. The Alaska Division of Public Health is also preparing a health consultation, which will explain the implications of sulfolane consumption at the levels found in drinking water and recommendations for using water for other purposes. The DEC Drinking Water Program is working with the City of North Pole on long term monitoring and treatment options to ensure the long term protection of the city water supply.



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