

2024 Water Quality Report for NSF Redzikowo

This report covers the 2024 calendar year drinking water quality for NSF Redzikowo, Main Base Drinking Water System (DWS). This information is a snapshot of the quality of the water that we provided to you in 2024. Included are details about where your water comes from and what it contains. The Maximum Contamination Levels are based on the Final Governing Standard (FGS) Poland and DoDM 4715.05: Overseas Environmental Baseline Guidance Documents (OEBGD).

Your water comes from two groundwater wells, each over 185 ft/56m. There are no significant sources of contamination that effect our water supply. We are making efforts to protect our drinking water wells. The wellhead protection Plan was developed and implemented in 2023.

If you would like to know more about this report, please contact: Jędrzej "NJ" Cichosz at Public Works Department, or call 597-714-306.

Contaminants and their presence in 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 U.S. Environmental Protection Agency EPA Safe Drinking Water Hotline (800-426-4791).

Vulnerability of sub-populations: 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 systems 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. U.S. EPA and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Sources of drinking water: The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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.

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 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 and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.
- **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 storm water runoff, and septic systems.

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2024 calendar year. The presence of these 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 **January 1 through December 31, 2024**. The FGS and OEBGD allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Terms and abbreviations used below:

- 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 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 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 contaminants.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- N/A: Not applicable
- ND: not detectable at testing limit
- ppm: parts per million or milligrams per liter
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Level 1 Assessment: A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- FGS: Final Governing Standard Poland November 2020
- OEBGD - DODMANUAL 4715.05 Overseas Environmental Baseline Guidance Documents, June 2020
- EPA: Environmental Protection Agency
- CDC: Center for Disease Control

Monitoring Data for Regulated Contaminants

FGS Poland Regulated Contaminant	MCL, TT, or MRDL (FGS Poland)	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Barium (ppm)	2	2	0.0119	N/A	2024	No	Erosion of natural deposits Discharge of drilling wastes; Discharge of metal refineries.
Boron (ppm)	1	1	0.01	N/A	2024	No	Natural sources, such as leaching from rocks and soils containing borates and borosilicates, as well as from human activities like wastewater discharge and agricultural runoff.
Sulfur (ppm)	200	200	11.1	N/A	2024	No	Naturally, it can originate from minerals in soil and rocks that leach into groundwater. Other sources include industrial discharges, mining operations, and the use of fertilizers.
Iron (ppm)	0.2	0.2	0.01	N/A	2024	No	Dissolve from soil and rocks as water percolates through.
Nickel (ppm)	0.02	0.02	0.0009	N/A	2024	No	Natural geological occurrences and, more commonly, leaching from metals like pipes and fittings in contact with the water.
Sodium (ppm)	200	N/A	11.3	N/A	2024	No	Erosion of natural deposits
Chlorine (ppm)	0.2 - 4	0.2 - 4	0.79 ¹	0.42 - 1,24	2024	No	Water additive used to control microbes
Mercury (ppm)	0.001	0.001	0.0034	N/A	2024	Yes ²	Atmospheric deposition, industrial discharges, and mining activities.
Trihalomethanes (TTHM) Total (ppm)	0.08	N/A	0.0163	N/A	2024	No ³	Byproduct of drinking water disinfection.
Xylene (ppm)	10	10	0.0025	N/A	2024	No	Through leaks or spills from industrial sites, such as petroleum refineries, or from the breakdown of xylene in the air or soil, which can then leach into groundwater

¹ The chlorine “Level Detected” was calculated using a running annual average.

² A Public Notification was released on 15FEB24. The laboratory has not been able to provide sufficient documentation to prove, the exceedance was caused by a laboratory error. Subsequent sampling (4 quarters) has not detect the presence of mercury.

³ TTHMs has been tested by the Wessling Laboratory – the authorization letter for that laboratory has been pending at a time. Due to a sampling mistake, the FGS regulated TTHMs bromoform and dibromochloromethane, was not tested in 2024. Though there was a discrepancy in the testing process of TTHM in 2024, there were no previous exceedances in 2022, or 2023.

Monitoring Data for Regulated Contaminants – Lead and Copper.

Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water ⁴	Range of Results	Year Sampled	Number of Samples Above AL ⁵	Violation Yes/No	Typical Source of Contaminant
Lead (ppm)	0.01	0	0.0016	0.0004-0.0043	2024	0	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.97	0.0103-1.53	2024	2	No	Corrosion of household plumbing systems; Erosion of natural deposits

⁴ Ninety (90) percent of the samples collected were at or below the level reported for our water. The value is the average based on the results of 25 samples at 10 locations at Main Base distribution system.

⁵ 2 out of total 25 samples – during 2024 two rounds of sampling followed by resampling and additional Pb/Cu sampling, due to the insufficient number of location.

Information about Health Effects of lead in Drinking Water:

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. Public Works Department (PWD) 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 PWD Environmental Jędrzej NJ Cichosz at 597 714 306 . 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>

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Lead Service Line Inventory

The Lead Service Line Inventory for a Main Base Distribution System was completed by PWD in 2024. There is no lead pipes at NSF Redzikowo. If you would like to see a copy of final report contact: PWD, Environmental Jędrzej “NJ” Cichosz at desk phone number 597-714-306.

Information about Health Effects of mercury in Drinking Water:

Neurological: High levels of mercury can damage the brain, causing symptoms like tremors, irritability, vision and hearing changes, and memory problems.

Kidney Damage: Long-term exposure to mercury can lead to kidney damage, especially at levels above the Maximum Contaminant Level (MCL).

Developmental Issues: Mercury can cross the placenta and affect the developing fetus, potentially causing neurodevelopmental problems and birth defects.

Other Symptoms: In severe cases, exposure to mercury can cause respiratory failure, death, and other health issues.

Additional Sampling Notes

Since there were errors in the results for mercury, we have conducted 4 quarterly consecutive sampling for mercury. No detection has confirmed that it was most likely laboratory error. There is no possible source of mercury in our system.

Due to our TTHM sampling error, we will resample for TTHMs upcoming quarter (JULY-SEP 2025). BOSC has confirmed they will use the authorized laboratory.

A copy of this CCR and previous year reports are available at:

<https://cnreurafcenr.cnic.navy.mil/Operations-and-Management/Water-Quality-Information/>