# 2022 ANNUAL WATER QUALITY REPORT (CCR)

**PWS ID#: 7010001** **ARENDTSVILLE BOROUGH** **FOR: 2022**

**"Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.."**

**"This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it."**

## TO ALL RESIDENTS:

We are pleased to present to you this copy of the ***Water Quality Report*** or ***Consumer Confidence Report (CCR)*** for Arendtsville Borough**.** This report is designed to inform you about the water quality 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 to protect our water resources. We are committed to ensuring the quality of your drinking water.

In 1996 there was an amendment to the Federal Safe Drinking Water Act (SDWA), "the right to know requirement" which requires all Public Water Suppliers (PWS) to provide access (send/post) to each customer the **CONSUMER CONFIDENCE REPORT (CCR)**. This report provides a brief annual summary about the Borough's drinking water.

## WATER SYSTEM INFORMATION

This report shows our water quality and what it means. If you have any questions about this report,your water utility, or you require additional copies, please contact Mr. Ron Cooper at 717 / 677-9300; Arendtsville Borough

## SOURCE(S) OF WATER:

The Arendtsville Borough water supply is from the following groundwater sources: Well #001 and Well #002 as Entry Point ID #101, Yellow Hill Well (Well#003) as Entry Point ID #102 and Well #005 as Entry Point ID #103; all on property maintained and controlled by Arendtsville Borough personnel.

## DEFINITIONS AND ABBREVIATIONS:

***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 no reflect the benefits of the use of disinfectants to control microbial contaminants.

***Minimum Residual Disinfectant Level (minRDL):*** The minimum level of residual disinfectant required at the entry point to the distribution system.

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

***Mrem/year*** = millirems per year (a measure of Radiation absorbed by the body.

***pCi/l*** = picocuries per liter (a measure of radioactivity) (pCi/L x 1.49 = ppb)

***ppb*** = parts per billion, or micrograms per liter

***ppm*** = parts per million, or milligrams per liter (mg/l)

***ppq*** = parts per quadrillion, or picograms per liter

***ppt*** = parts per trillion, or nanograms per liter

## MONITORING YOUR WATER

Arendtsville Borough 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, 2022 to December 31, 2022**. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data may be from prior years, in accordance with the Safe Drinking Water Act. The data has been noted on the sampling results table.

## Chemical Contaminants

| Contaminant | Violation | Level Detected | Unit of Measure | RANGE | MCL | MCLG | Contaminant Source |
|---|---|---|---|---|---|---|---|
| Barium – EP#101 Annual in 2021 | N | 0.047 (10/26/2021) | PPM | ------- | 2 | 2 | Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits |
| Barium – EP#102 Annual in 2021 | N | 0.049 (10/26/2021) | PPM | ------- | 2 | 2 | Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits |
| Barium – EP#103 Annual in 2021 | N | 0.11 (10/26/2021) | PPM | ------- | 2 | 2 | Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits |
| Nitrate – EP#101 Quarterly in 2022 | N | 9.75 (09/14/2022) | PPM | 5.4 to 9.75 | 10 | 10 | Fertilizer use, septic tanks, Erosion of natural deposits |
| Nitrate – EP#102 Annual for 2022 **Late Sampling** | N | **0.46 (2/07/2023)** | PPM | - - - - | 10 | 10 | Fertilizer use, septic tanks Erosion of natural deposits |
| Nitrate – EP#103 Annual in 2022 **Late Sampling** | N | **3.62 (2/07/2023)** | PPM | - - - - | 10 | 10 | Fertilizer use, septic tanks Erosion of natural deposits |
| HaloAcetic Acid (HAA) **3rd Quarter 2022** | N | 1.0 (08/15/2022) | PPB | - - - - | 60 | N/A | By-products of drinking water disinfection. **Distribution sample** |
| Total Trihalomethanes (TTHM) **3rd Quarter 2022** Detected: Chloroform, Bromodichloromethane, Chlorodibromomethane | N | 4.43 (08/15/2022) | PPB | - - - - | 80 | N/A | By-products of drinking water disinfection. **Distribution sample** |

## Lead and Copper – Distribution Tap Location - Samples collected from 06/01/2022 to 09/30/2022

| Contaminant | Action Level (AL) | MCLG | 90th Percentile Value | Units | # of Sites Above AL of Total Sites | Violation of (TT) Treatment Technique Y/N | Sources of Contamination |
|---|---|---|---|---|---|---|---|
| Lead-2022 | 15 | 0 | 3 | PPB | 0 out of 10 | N | Corrosion of household plumbing, erosion of natural deposits |
| Copper-2022 | 1.3 | 1.3 | 0.47 | PPM | 0 out of 10 | N | |

## Residual Chlorine – Entry Point Tap Location - Minimum Residual Allowed at EPs = 0.4 mg/l

| Contaminant | Violation | Lowest Level Detected | Unit of Measure | RANGE | MCL | MCLG | Contaminant Source |
|---|---|---|---|---|---|---|---|
| Free Residual Chlorine EP #101 for 2022 | N | 0.44 (4/10/22) | PPM | 0.44 to 1.29 | MRDL = 4 | MRDLG = 4 | Water additive to control microbes. **NOTE:** Minimum Residual Level required at entry point is 0.4 ppm. |
| Free Residual Chlorine EP#102 for 2022 | N | 0.41 (06/23/22) | PPM | 0.41 to 1.62 | MRDL = 4 | MRDLG = 4 | Water additive to control microbes. **NOTE:** Minimum Residual Level required at entry point is 0.4 ppm. |
| Free Residual Chlorine EP #103 for 2022 | N | 0.45 (02/11/22) | PPM | 0.45 to 1.62 | MRDL = 4 | MRDLG = 4 | Water additive to control microbes. **NOTE:** Minimum Residual Level required at entry point is 0.4 ppm. |

## Residual Chlorine – Distribution Tap Location

| Contaminant | Violation | Maximum Level Detected | Unit of Measure | RANGE | MCL | MCLG | Contaminant Source |
|---|---|---|---|---|---|---|---|
| Free Residual Chlorine Distribution Tap for 2022 | N | 0.90 (Mar 2022) | PPM | 0.65 to 0.90 | MRDL = 4 | MRDLG = 4 | Water additive to control microbes. |

## Microbial Contaminants – Distribution Tap Location

| Contaminant | Violation | Level Detected | Unit of Me | RANGE | MCL | MCLG | Contaminant Source |
|---|---|---|---|---|---|---|---|
| **Contaminant** | **Violation** | **# of Positive Samples and Month of occurrence** | | **MCL** | | **MCLG** | **Sources of Contamination** |
| Total Coliform Bacteria (TC) 2022 | NONE | NO POSITIVES; ALL SAMPLES IN COMPLIANCE | | >1 monthly samples are positive | | 0 | Naturally occurring in the environment |
| **Contaminant** | **Violation** | **# of Positive Samples and Month of occurrence** | | **MCL** | | **MCLG** | **Sources of Contamination** |
| Fecal Coliform Bacteria (FC) or E-coli 2022 | NONE | NO POSITVES, ALL SAMPLES IN COMPLIANCE | | Routine Sample and Repeat Sample are total coliform positive and one is also fecal coliform or E.coli Positive | | 0 | Human and animal fecal waste |

**VIOLATIONS**:

**May 2022** – **Late Reporting -** All monitoring results were in compliance with PaDEP.
Arendtsville Borough is required to report daily Entry Point tap disinfectant residuals and weekly Distribution tap disinfectant residual results, to PADEP monthly. During May 2022, these monitoring results were reported late to PaDEP; therefore, generating a late reporting violation.

**July 2022** – **Late Reporting -** All monitoring results were in compliance with PaDEP.
Arendtsville Borough is required to report daily Entry Point tap disinfectant residuals and weekly Distribution tap disinfectant residual results, to PADEP monthly. During July 2022, these monitoring results were reported late to PaDEP; therefore, generating a late reporting violation.

**September 2022** – **Late Reporting -** All monitoring results were in compliance with PaDEP.
Arendtsville Borough is required to report daily Entry Point tap disinfectant residuals and weekly Distribution tap disinfectant residual results, to PADEP monthly. During September 2022, these monitoring results were reported late to PaDEP; therefore, generating a late reporting violation.

**April to June 2022 – Failure to Monitor/Report -** Arendtsville Borough i**s** required to analyze their water supply quarterly, **at Entry Point 101**, for Nitrates and Nitrites. These 2nd quarter samples were collected and reported late to PaDEP. Samples were collected during July 2022, and all analyses were in compliance. However, since the sampling was not completed during 2nd quarter of 2022, this generated a "failure to monitor/report violation" and required public notification to all residents.

**January to December 2022 – Failure to Monitor/Report -** Arendtsville Borough i**s** required to analyze their water supply annually, **at Entry Point 102 and Entry Point 103**, for Nitrates and Nitrites. These annual samples were collected and reported late to PaDEP. Samples were collected February 2023, and all analyses were in compliance. However, since the sampling was not completed annually during 2022, this generated a "failure to monitor/report violation" and required public notification to all residents; **see attached notice**.

***MCL's are set at very stringent levels for health effects. 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. 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. USEPA/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).***

## EDUCATIONAL INFORMATION

Arendtsville Borough has provided safe water to all consumers for many years. The standards set by both the Pennsylvania Department of Environmental Protection (PADEP) and the United States Environmental Protection Agency (USEPA) was met without one violation. This was obtained by monitoring the water system daily, and having a PADEP State Certified Laboratory perform the testing to make sure that you the customer are provided with safe drinking water.

***All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. 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 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 animal or from human activity. Contaminants that may be present in source water can include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic tanks, agricultural activity, and wildlife.
- Inorganic contamination, such as salts and metals, which can be naturally-occurring or result from urban stormwater 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 stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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 the tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for the public health.

## HEALTH EFFECTS

**Arsenic:** Arsenic was not detected in the water supply. While your drinking water meets USEPA's standard for arsenic, it could contain low levels. USEPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. USEPA continues to research the health effects of low levels of 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.

**Nitrate and Nitrite:** Nitrate analysis is within the safe drinking water limits. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six month of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

**Lead** "If detected, 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. Arendtsville Borough 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 or at *http://www.epa.gov/safewater/lead*.".For more information about the Lead and Copper Rule revisions, refer to page 4 of the Winter 2009/2010 *Drinking Water News* at the following link:
http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-78204/3800-NL-DEP4193%20Winter%202009-2010.pdf

**Source Water Assessment** A Source Water Assessment of our water sources was completed by the PA Department of Environmental Protection (PADEP). Summary reports of the assessment are available on the PADEP website at www.depweb.state.pa.us (keyword: "source water"). Complete reports were distributed to municipalities, water suppliers, local planning agencies, and PADEP offices. Copies of the complete report are available for review at the PADEP South Central Regional Office, Records Management Unit at 717/705-4701.