

2023 WATER QUALITY REPORT FOR SLATER MUNI WATER DEPT

This report contains important information regarding the water quality in our water system. The source of our water is groundwater and groundwater under the influence of surface water. Some of the water is purchased. Purchased water comes from BOONE WATER WORKS. Our water quality testing shows the following results:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation Yes/No	Source
		Type	Value & (Range)			
Total Trihalomethanes (ppb) [TTHM]	80 (N/A)	LRAA	70.00 (60 - 84)	12/31/2023	No	By-products of drinking water chlorination
Total Haloacetic Acids (ppb) [HAA5]	60 (N/A)	LRAA	23.00 (17 - 29)	09/30/2023	No	By-products of drinking water disinfection
Lead (ppb)	AL=15 (0)	90th	1.10 (ND - 3)	2022	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	AL=1.3 (1.3)	90th	0.515 (0.0086 - 0.706)	2022	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
950 - DISTRIBUTION SYSTEM						
Chlorine (ppm)	MRDL=4.0 (MRDLG=4.0)	RAA	2.4 (ND - 3.5)	12/31/2023	No	Water additive used to control microbes
Fluoride (ppm)	4 (4)	RAA	0.60 (0.500 - 0.600)	06/30/2023	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrite [as N] (ppm)	1 (1)	SGL	0.420 (ND - 0.420)	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
03 - AFTER WTP AND XENIA (BOONE)						
Fluoride (ppm)	4 (4)	SGL	(.32-1.63)	2023	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Selenium (ppb)	50 (50)	SGL	1.60	10/18/2022	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Barium (ppm)	2 (2)	SGL	0.509	10/18/2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Arsenic (ppb)	10 (0)	SGL	1.00	10/18/2022	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes
Sodium (ppm)	N/A (N/A)	SGL	196	10/10/2023	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	1.000	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [as N] (ppm)	1 (1)	SGL	0.570 (ND - 0.570)	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

DEFINITIONS

- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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.
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units

GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. SLATER MUNI WATER DEPT 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>.

ADDITIONAL HEALTH INFORMATION

Nitrite in drinking water at levels above 1 ppm is a health risk for infants of less than six months of age. High nitrite levels in drinking water can cause blue baby syndrome. Nitrite 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 advice from your health care provider.

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains its water from the buried sand and gravel of the Buried Sand and Gravel aquifer. The Buried Sand and Gravel aquifer was determined to have low susceptibility to contamination because the characteristics of the aquifer and overlying materials provide natural protection from contaminants at the land surface. The Buried Sand and Gravel wells will have low susceptibility to surface contaminants such as leaking underground storage tanks, contaminant spills, and excess fertilizer application.

A detailed evaluation of your source water was completed by the Iowa Department of Natural Resources, and is available from the Water Operator at 515-228-3339 .

This water supply obtains some or all of its water from another public water supply. It is a consecutive water supply, where an originating parent supply provides drinking water to one or more downstream supplies.

Original Supply ID	Original Supply Name
IA0819033	BOONE WATER WORKS

OTHER INFORMATION

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

CONTACT INFORMATION

For questions regarding this information or how you can get involved in decisions regarding the water system, please contact SLATER MUNI WATER DEPT at 515-228-3339.

PURCHASED WATER INFORMATION

Our water system purchases water from the system(s) shown below. Their water quality is as follows:

CONTAMINANT	MCL - (MCLG)	Compliance		Date	Violation	Source
		Type	Value & (Range)			
0819033 - BOONE WATER WORKS						
01 - WLS #12,13,16,19-29 AFTR TRTMNT						
Fluoride (ppm)	4 (4)	SGL	0.57	09/18/2023	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A (N/A)	SGL	30	09/18/2023	No	Erosion of natural deposits; Added to water during treatment process
Nitrate [as N] (ppm)	10 (10)	SGL	3.8 (ND - 3.8)	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Dalapon (ppb)	200 (200)	SGL	0.60	10/04/2021	No	Runoff from herbicide used on rights of way
Turbidity (NTU)	N/A (N/A)	TT	Enter highest single measurement and the lowest monthly percentage of samples meeting turbidity limits here.			Soil runoff

2023 WATER QUALITY REPORT FOR Xenia Rural Water District – Boone System

This report contains important information regarding the water quality in our water system. All water provided by Xenia Rural Water District in this system is purchased from Boone Water Works. The source of Boone's water is groundwater and groundwater under the influence of surface water. Our water quality testing shows the following results:

Xenia Rural Water Districts Water Quality Results:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Chlorine (ppm) Boone (east) 950	MRDLG =4.0	MRDL=4.0	2.6	12/31/2023 RAA	1.6 – 3.0	No	Water additive used to control microbes
Chlorine (ppm) Boone (west) 952	MRDLG =4.0	MRDL=4.0	1.1	12/31/2023 RAA	0.86 – 1.25	No	Water additive used to control microbes
Lead (ppb)	0	AL=15	0.00 90 th	2022	ND – 9	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3	AL=1.3	0.0133 90 th	2022	ND – 0.0278	No	Corrosion of household plumbing systems; Erosion of natural deposits
TTHM (ppb) [Total trihalomethanes] Boone Distribution (east) 950	N/A	80	76.7 LRAA	8/29/2023	59.2 – 96.2	No	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb) Boone Distribution (east) 950	N/A	60	21.9 LRAA	2/2/2023	15.1 – 18.1	No	By-products of drinking water disinfection
TTHM (ppb) [Total trihalomethanes] Boone Distribution (west) 952	N/A	80	87.8 LRAA	8/29/2023	59.6 - 109	Yes	By-products of drinking water disinfection
Haloacetic Acids (HAA5) (ppb) Boone Distribution (west) 952	N/A	60	24.8 LRAA	2/2/2023	18.4 – 24.8	No	By-products of drinking water disinfection

Water Quality Results Provided by Boone Waterworks (Supply ID ia0819033)

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Turbidity (NTU)	N/A	TT	0.12 100% met requirements	2023	0.02 – 0.12	No	Soil runoff
Fluoride (ppm)	4	4	0.57	2023	0.49 – 1.10	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate [as N] (ppm)	10	10	3.8	2023	ND – 3.8	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Dalapon (ppb)	200	200	0.60	10/04/2021	N/A	No	Runoff from herbicide used on rights of way
Sodium (ppm)	N/A	N/A	30	9/18/2023	N/A	No	Erosion of natural deposits; Added to water during treatment process
Total Organic Carbon (TOC) (ppm)	N/A	TT	% Removal Range 12 – 38	2023	% Removal Required 15	No	Naturally present in the environment

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

The city of Boone participated in the EPA Unregulated Contaminant Monitoring Rule 5 (UCMR5), which included samples for Lithium and PFAS. There were no PFAS compounds detected in the water. Lithium levels were:

Lithium (ug/L) 11 – 58

Contaminant Violation

Violation Type	Contaminant	Begin Date	End Date
Our water system violated a drinking water standard for Total Trihalomethanes (TTHM). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.			
MCL(Chem-Rad), Average	Total Trihalomethanes (TTHM)	7/01/2023	9/30/2023

DEFINITIONS

- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND – Not Detected
- RAA – Running Annual Average
- LRAA – Locational Running Annual Average
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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.
- SGL – Single Sample Result
- RTCR – Revised Total Coliform Rule
- NTU – Nephelometric Turbidity Units

GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects 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 microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. Xenia Rural Water District 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>.

SOURCE WATER ASSESSMENT INFORMATION

This water supply obtains some or all of its water from another public water supply. It is a consecutive water supply, where an originating parent supply provides drinking water to one or more downstream supplies.

Original Supply ID	Original Supply Name
IA0819033	Boone Water Works

This water supply obtains water from one or more surface waters. Surface water sources are susceptible to sources of contamination within the drainage basin.

Surface Water Name	Susceptibility
Des Moines river	High

OTHER INFORMATION

Turbidity is an indicator of treatment filter performance and is regulated as a treatment technique.

Our water utility is making every effort to protect the water system from potential security threats. You, as customers, can also help. If you see any suspicious activity near the water tower, pump stations, meter vaults, treatment plant, wells or fire hydrants, please contact us at 1-888-355-2619 or the local police/sheriff department. We appreciate your assistance in protecting the water system.

CONTACT INFORMATION

For questions regarding this information, please contact Dominic Hayden (Treatment Manager) at 1-888-355-2619 during the following hours: 8am-4:30pm Monday thru Friday or attend any of the regular monthly board meetings typically held on Thursday of the third full week of the month.