Disinfectant						
Contaminant	**Violation Y/N**	**Level Detected**	**Unit of Measure**	**MRDLG**	**MRDL**	**Likely Source of Contamination**
Chlorine	N	RAA 1.07 Range 0.3-2.4	ppm	4	4	Water additive used to control microbes

Disinfection Byproducts	Violation Y/N	Highest LRAA	Range (low/high)	Unit of measure	MCLG	MCL	Likely source of Contamination
Haloacetic acids (HAA5) 1628 E. Main St.	N	43.25	15 / 60	ppb	NA	60	By-product of drinking water disinfection
Haloacetic acids (HAA5) 2265 W. Main St	Y	59	N/A one sample	ppb	NA	60	By-product of drinking water disinfection
Total trihalomethanes (TTHMs) 70 Liberty St.	N	75.175	35 / 70	ppb	NA	80	By-product of drinking water chlorination
Total trihalomethanes (TTHMs) 2625 W. Main St	Y	230	161 / 230	ppb	NA	80	By-product of drinking water chlorination

*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or nervous system, and may have an increased risk of cancer.

Lead and Copper - Copper and Lead samples were collected from 20 area residences on June 28th and October 27th 2022

Contaminant	Monitoring Period	90th Percentile	Range	Unit of Measure	AL	Sites Over AL	Likely Source of Contamination
Copper, Free	2022	0.0395	0.0036- 0.0804	ppm	1.3	0	Corrosion of household plumbing systems; erosion of natural deposits.
Lead	2022	2.9	<0.5 – 18.2	ppb	15	1	Corrosion of household plumbing systems; erosion of natural deposits

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. **The Salem Water Board** 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 drinking 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 at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

During the 2022 calendar year, we had the below noted violation(s) of drinking water regulations.

Date Issued	Number	Code / Type	Monitoring Period
2/15/2023	728667	27 / Monitoring, Routine (DBP), Major (HAA5)	10/1/2022-12/31/2022
12/6/2022	728666	02 / MCL, LRAA (TTHM)	10/1/2022-12/31/2022
5/13/2022	728664	35 / Failure to Submit OEL Report (TTHM)	4/1/2022-6/7/2022
5/13/2022	728665	66/ Lead Consumer Notice (LCR)	4/1/2022-6/6/2022
2/15/2022		75 / Public Notice Rule linked to Violation	2/13/2022-7/11/2022
2/16/2022	728662	53 / Water Quality Parameter M/R (LCR)	7/1/2021-12/31/2021

The system operation specialists **have made every effort and taken every precaution to return to compliance.**

The Salem Water Board had *one Significant Deficiencies* on the last Sanitary Survey performed by the West Virginia Bureau for Public Health on June 14th, 2022.

1. Unaccounted for water loss was higher than the recommended maximum of 15%. (significant)

The Salem Water Board has made every effort to return to compliance in a timely manner.

The Salem Water Board is working towards identifying service line materials throughout the water distribution supply. The service line inventory is required to be submitted to the state by October 16, 2024. The most up to date inventory is located in the Town Hall, if you have any questions about our inventory, please contact the office.

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Some or all of our drinking water is supplied from another water system. The tables below list some of the drinking water contaminants which were detected in 2022. The entire list can be found at www.clarksburgwater.com/

The results of these tests are in the tables below.

EPA's surface water treatment rules require conventional water treatment plants like the Clarksburg Water Board to monitor Turbidity**.** The NTU must never exceed 1.0 at any time. The samples for turbidity must be less than or equal to 0.3 NTU in at least 95% of the samples in one month. Clarksburg Water Board's turbidity samples are in the table below. EPA considers these limits as a TT or Treatment Technique. A Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

Turbidity				**CLARKSBURG**
Monthly % < 0.3 NTU	Yearly High	Month of Highest Reading	Likely Source of Contaminant	Violation
100 %	0.10 NTU	June	Soil runoff	No
NTU	Nephelometric Turbidity Unit, used to measure cloudiness in water			

The removal of Total Organic Carbon (TOC) is an important process to help control Disinfection By Products created when Chlorine is used as a disinfectant. TOC testing measures the level of organic molecules or contaminants present. TOC tests will not determine which compounds are present, but only the amount of compounds. Specific ultraviolet absorbance (SUVA) provides a general characterization of the nature of natural organic matter (NOM) in a water sample and is typically performed for the purpose of determining disinfection by-product (DBP) formation potential.

Total Organic Carbon (TOC) & Dissolved Organic Carbon (DOC) CLARKSBURG

Contaminant	RAA	Range (low/high)	Unit	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contaminant
TOC (Source)	2.63	1.8/3.6	Ppm	N/A	TT	Naturally occurring in the environment
DOC (Source)	3.11	1.8/7.6	Ppm	N/A	TT	Naturally occurring in the environment
SUVA (Source)	3.38	1.4/6.3	L/mg-m	N/A	TT	Naturally occurring in the environment
UV Absorbance @254 nm (Source)	0.1	0.025/0.14	Cm^{-1}	N/A	TT	Naturally occurring in the environment
TOC (Finished)	1.9	1.4/2.6	Ppm	N/A	TT	Naturally occurring in the environment
DOC (Finished)	2.19	1.3/3.3	Ppm	N/A	TT	Naturally occurring in the environment
SUVA (Finished)	1.59	<0/2.5	L/mg-m	N/A	TT	Naturally occurring in the environment
UV Absorbance @254 nm (Finished)	0.04	<0/0.058	Cm^{-1}	N/A	TT	Naturally occurring in the environment
Cm^{-1}	An energy unit equal to the energy of a photon with a wavelength of 1 cm.					
L/mg-m	A unit used to measure SUVA and is calculated by dividing the UV absorbance at 254 nm (cm^{-1}) by the DOC, dissolved organic carbon, (mg/L) of a water sample.					
ppm	parts per million or milligrams per liter **(mg/l)**					
RAA	Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCL's.					
TT	Treatment Technique					

Disinfectant						**CLARKSBURG**
Contaminant	RAA	Range (low/high)	Maximum Goal (MRDLG)	Maximum Level Allowed (MRDL)	Likely Source of Contaminant	Violation
Chlorine (water plant)	1.5 ppm	1.2 / 1.8	4	4	Water additive used to control microbes	No
Chlorine (Distribution)	1.4 ppm	1.2 / 1.6	4	4	Water additive used to control microbes	No
RAA	Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCL's.					
MRDLG	Maximum Residual Disinfectant Level Goal, or the level of drinking water disinfectant below which there is no known or expected risk to health.					
MRDL	Maximum Residual Disinfectant Level**,** or the highest level of disinfectant allowed in drinking water.					
ppm	parts per million or milligrams per liter **(mg/l)**					

*Some people who drink water containing trihalomethanes above the MCL over many years may experience problems with their liver, kidneys, or nervous system, and may have an increased risk of cancer.
** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of cancer.

Disinfection Byproducts						**CLARKSBURG**
Contaminant	Location	Highest LRAA	Range (low/high)	Highest Level Allowed (MCL)	Likely Source of Contaminant	Violation
Haloacetic acids (HAA5)	Rich Oil	47.88 ppb	22 / 55 ppb	60 ppb	By-product of drinking water disinfection	No
*Total trihalomethanes (TTHMs)	Rich Oil	50.4 ppb	20 / 97 ppb	80 ppb	By-product of drinking water disinfection	Yes
**Haloacetic acids (HAA5)	Tri County Pit	47.75 ppb	26 / 69 ppb	60 ppb	By-product of drinking water disinfection	Yes
*Total trihalomethanes (TTHMs)	Tri County Pit	77 ppb	27 / 146 ppb	80 ppb	By-product of drinking water disinfection	Yes
**Haloacetic acids (HAA5)	FBI	44.5 ppb	21 / 69 ppb	60 ppb	By-product of drinking water disinfection	Yes
*Total trihalomethanes (TTHMs)	FBI	64.5 ppb	25 / 130 ppb	80 ppb	By-product of drinking water disinfection	Yes
**Haloacetic acids (HAA5)	Mtn. State Electric	45 ppb	18 / 67 ppb	60 ppb	By-product of drinking water disinfection	Yes
*Total trihalomethanes (TTHMs)	Mtn. State Electric	73.75 ppb	28 / 140 ppb	80 ppb	By-product of drinking water disinfection	Yes

Inorganic Contaminants						**CLARKSBURG**
Contaminant	RAA	Level Detected or Range	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contaminant	Violation
Barium	Single Sample on 1/6/2022	0.027 ppm	2	2	Discharge from drilling wastes, discharge from metal refineries, erosion of natural deposits.	No
Chromium	Single Sample on 1/6/2022	0.27 ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits	No
Fluoride	Single Sample on 1/6/2022	0.63 ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from aluminum and fertilizer plants	No
Nitrate	Single Sample on 10/11/2022	0.26 ppm	10	10	Runoff from fertilizer use; erosion of natural deposits	No
Selenium	Single Sample on 1/6/2022	0.39 ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	No
RAA	Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCL's.					
ppm	parts per million or milligrams per liter **(mg/l)**					
ppb	parts per billion or micrograms per liter **(µg/l)**					

Lead & Copper - samples were collected from 60 area residences in 2022 CLARKSBURG
1st set on 2/6/22 and the 2nd set on 11/15/22

Contaminant	90% of Test Levels Were Less Than	Ideal Goal (MCLG)	EPA's Action Level	Number of Tests With Levels Above EPA's Action Level	Typical Sources	Violation
Copper, Free	0.0679 ppm	1.3 ppm	90% of homes less than 1.3 ppm	0 - out of 120	Corrosion of household plumbing	No
Lead	6.1 ppb	0 ppb	90% of homes less than 15 ppb	0 - out of 120	Corrosion of household plumbing	No
ppm	parts per million or milligrams per liter **(mg/l)**					
ppb	parts per billion or micrograms per liter **(µg/l)**					

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. The **Clarksburg Water Board** 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 drinking 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 at 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

National Secondary Drinking Water Regulations are non-enforceable guidelines regarding contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.

Secondary Contaminants			**CLARKSBURG**
Contaminant	Level Detected	Unit of Measure	SMCL
Sulfate	84.5	ppm	250
PH	Range 8.16 - 8.8	SU	6.5-8.5
ppm	parts per million or milligrams per liter **(mg/l)**		
SU	Standard Unit		

Unregulated Contaminants					**CLARKSBURG**
Contaminant	Date Collected	High	Range Low/High	Highest Level Allowed (MCL)	Likely Source of Contamination
Alkalinity, Total	8/3/2022	94 ppm	45/94	10000	Erosion of natural deposits
Calcium	6/13/2022	63.6 ppm	31.2/63.6	N/A	N/A
Calcium Hardness	6/13/2022	159 ppm	78/159	N/A	N/A
Conductivity @25C	8/26/2022	414 µmhos/cm	0.212/414	N/A	N/A
Cryptosporidium	3/20/2018	1	0-1	N/A	N/A
Giardia Lamblia	9/18/2018	1	0-1	N/A	1
Hardness, Calcium Magnesium	7/12/2021	133 ppm	78/133	N/A	N/A
Nickle	1/6/2022	0.46 ppb	One Sample Taken	100	Erosion of natural deposits
Sodium	1/6/2022	10.4 ppm	One Sample Taken	1000	Erosion of natural deposits
Temperature	7/24/2022	81 F	34/81	N/A	N/A
ppm	parts per million or milligrams per liter **(mg/l)**				
ppb	parts per billion or micrograms per liter **(µg/l)**				
µmhos/cm	one millionth of an Ohm (Electrical measurement of conductivity) per centimeter. US rivers range from 50 to 1500 µmhos/cm				

In the 2022 calendar year, Clarksburg Water Board had the below noted violation(s) of drinking water regulations.

Date	Number	Type / Name	Compliance Period
11/16/2022	133645	03 / Monitoring, Routine Major (Sampling)	1/1/2022-12/31/2022

Clarksburg Water Board has made every effort and taken every precaution to return to compliance.

Additional Information

All other water test results for the reporting year 2022 were all non-detects.

PLEASE SHARE THIS REPORT WITH OTHER PEOPLE WHO DRINK THIS WATER, ESPECIALLY THOSE WHO DO NOT RECEIVE THIS INFORMATION DIRECTLY. (FOR EXAMPLE, RESIDENTS IN APARTMENT BUILDINGS, NURSING HOMES, SCHOOLS, AND BUSINESSES).

This report will not be mailed. A copy will be provided to you upon request at our office during regular business hours.