

Ppm - part per million , **Ppb** - part per billion , **MG/L** – milligrams per liter , **pCi/L** - picocuries per liter , **NTU** - nephelometric turbidity unit , **AL** - action level , **TT** - treatment technique , **MCL** - maximum contaminant level , **MCLG** - maximum contaminant level goal , **n/a** - not applicable , **MRDL** - maximum residual disinfectant level , **MRDLG** - maximum residual disinfectant level goal , **L/mg-m** - liters per milligram-meter, **Umho/cm** - micromhos per centimeter (a measure of conductivity), **obsvns** - ovservations/field at 100 Power, **IDSE** - Initial Distribution System Evaluation

CITY OF WASHBURN CHEMICAL/RADIOLOGICAL ANALYSIS

<u>Lead/Copper</u>	Date	# Samples	Action Level	9th Percentile	Samples Exceed AL	Units
Copper 9th Percentile	9/26/2019	10	1.3	0.0612	0	ppm
Lead 90th Percentile	9/26/2019	10	15	5.95	0	ppb

* Lead and Copper in drinking water originates from corrosion of household plumbing systems; Erosion of natural deposits

* Required action is taken if more than 10 percent of the samples have exceeded the AL. The City water sampling meets the requirements of 90 percent as 100 percent of the testing sites tested under the AL

	Violation?	Date	MCL	MCLG	Level Detected	Units	Major Sources in Water
<u>Inorganic Contaminates</u>							
BARIUM	No	3/9/2016	2	2	0.0461	ppm	Discharge of drilling waste and from metal refineries; Erosion of natural deposits
FLOURIDE	No	3/9/2016	4	4	1.07	ppm	Erosion of natural deposits; discharge from fertilizer and aluminum factories; Additive which promotes strong teeth
NITRATE-NITRITE	No	5/14/2019	10	10	0.058	ppm	Runoff from fertalizer; Leaching from septic tanks, sewage;Erosion of natural deposits.
SELENIUM	No	3/9/2016	50	50	1.03	ppb	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
<u>Disinfectants</u>							
CHLORAMINE	No	4/30/2019	MRDL=4.0	MRDLG=4	2.4	ppm	Water additive used to control microbes. Range of detection: 1.94 to 2.70
<u>Radioactive Contaminants</u>							
GROSS ALPHA, INC. RA, EXCLUDING RN & U	No	11/30/2017	15	15	0.12	pCi/l	Erosion of natural deposits.
RADIUM, COMBINED (226, 228)	No	11/30/2017	5	--	0.93	pCi/l	Erosion of natural deposits.
URANIUM, COMBINED	No	11/30/2017	30	--	0.61	ppb	Erosion of natural deposits.
<u>Unregulated Contaminants</u>							
BICARBONATE AS HCO3	N/A	12/17/2019			175	ppm	ND - 175
<u>Total Organic Carbon Removal</u>							
ALKALINITY - Source	N/A	2/28/2019			144	MG/L	Naturally present in the environment. Range of detection: 0.00 to 144.00
TOC - Finished Water	N/A	3/31/2019			4.3	MG/L	Range of detection: 2.34 to 4.30
TOC - Source Water	N/A	3/31/2019			6.31	MG/L	Naturally present in the environment. Range of detection: 2.93 to 6.31

	Violation?	Date	MCL	MCLG	Level Detected	Units	Major Sources in Water
Stage 2 Disinfecton Byproducts							
HAA5	No	12/31/2019	60	--	25	ppb	By-product of drinking water disinfection. Range of detection: 18.85 to 32.3
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TTHM	No	12/31/2019	80	--	41	ppb	By-product of drinking water disinfection. Range of detection: 32.13 to 52.93

Surface Water Treatment Rule Monitoring Data

Turbidity	No		--	--	0.08	NTU	Soil Runoff
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Lowest monthly percentage of samples meeting turbidity limits = 100%

* Turbidity is a measure of cloudiness of the water and is a good indicator of the effectiveness of our filtration system. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.