2022 Drinking Water Quality Report

(CCR Data for Wholesale Customers)

Substance (Units)	MCL or {MRDL}	MCLG or {MRDLG}	SMCL	HAL	Level Found	Range/ Comments	Year Test	Violation	Typical Source of Contaminant		
Microbiological Results †											
Total Coliform Bacteria (% positive)	< 5% of monthly samples	0	N/A	N/A	0%	0%	2022	No	Naturally present in the environment; E.coli is a type of coliform that is present in human and animal waste.		
Disinfection Results †											
Free Chlorine* (ppm)	{4}	{4}	N/A	N/A	1.13	0.89 – 1.44	2022	No	Drinking water disinfectant		
Haloacetic Acids (ppb)	60	0	N/A	N/A	10.6 (avg.)	8.0 - 14.0	2022	No	By-product of drinking water chlorination		
Tot. Trihalomethanes (ppb)	80	0	N/A	N/A	24.4 (avg.)	12.5 – 45.6	2022	No	By-product of drinking water chlorination		
Bromodichloromethane (ppb)	80	0	N/A	N/A	7.78	4.4 – 13.0	2022	No	By-product of drinking water chlorination		
Bromoform (ppb)	80	0	N/A	N/A	0.58	0.18 – 1.4	2022	No	By-product of drinking water chlorination		
Chloroform (ppb)	80	0	N/A	N/A	11.6	3.7 – 25.0	2022	No	By-product of drinking water chlorination		
Dibromochloromethane (ppb)	80	0	N/A	N/A	4.34	3.1 – 7.0	2022	No	By-product of drinking water chlorination		
† - Microbiological and Disinfect	tion Results	are for KW	J's distri	bution sys	stem, provided	as an informatio	onal item	1. These res	sults are not applicable to other distribution systems.		
Cryptosporidium	TT	0	N/A	N/A	0	0	2017	No	Microbial parasite found in surface water throughout the USA		
Regulated Inorganic Results											
Antimony (ppb)	6	6	N/A	N/A	ND	ND	2020	No	Discharge from petroleum refineries, fire retardants, ceramics, electronics, solder		
Arsenic (ppb)	10	0	N/A	N/A	0.52	0.52	2020	No	Erosion of natural deposits; runoff from orchards , runoff from glass and electronics production wastes		
Barium (ppm)	2	2	N/A	N/A	0.021	0.021	2020	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits		
Beryllium (ppb)	4	4	N/A	N/A	ND	ND	2020	No	Discharge from metal refineries and coal burning factories; discharge from electrical, aerospace, and defense industries		
Cadmium (ppb)	5	5	N/A	N/A	ND	ND	2020	No	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints		
Chromium (ppb)	100	100	N/A	N/A	ND	ND	2020	No	Erosion of natural deposits, Discharge from steel and pulp mills		
Copper (ppm)	1.3 (AL)	1.3	N/A	N/A	0.17 (90 <sup>th</sup> percentile)	0.002 - 0.43	2020	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		
Cyanide (ppb)	200	200	N/A	N/A	ND	ND	2020	No	Discharge from steel/metal factories; discharge from plastic and fertilizer factories		
Fluoride (ppm)	4	4	N/A	N/A	0.74 (avg.)	0.66 - 0.85	2022	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories		
Lead (ppb)	15 (AL)	0	N/A	N/A	7.80 (90 <sup>th</sup> percentile)	0.62 – 11.0	2020	No	Corrosion of household plumbing systems; erosion of natural deposits		
Mercury (ppb)	2	2	N/A	N/A	ND	ND	2020	No	Erosion of natural deposits; Discharge from Refineries and factories ; runoff from landfills and croplands		
Nickel (ppb)	100	N/A	N/A	N/A	0.8	0.8	2020	No	Occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products		
Nitrate as N (ppm)	10	10	N/A	N/A	0.27	0.27	2022	No	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits		

2022 Drinking Water Quality Report

(CCR Data for Wholesale Customers)

Substance (Units)	MCL or {MRDL}	MCLG or {MRDLG}	SMCL	HAL	Level Found	Range/ Comments	Year Test	Violation	Typical Source of Contaminant
Selenium (ppb)	50	50	N/A	N/A	ND	ND	2020	No	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	N/A	N/A	N/A	N/A	7.7	7.7	2022	No	N/A
Thallium (ppb)	2	0.5	N/A	N/A	ND	ND	2020	No	Erosion of natural deposits; Leaching from ore processing sites
Regulated Synthetic Organic Resul	ts				•	•		•	
Atrazine (ppb)	3	0	N/A	N/A	0.036	0.036	2020	No	Herbicide – Agricultural Runoff
Dual (Metolachlor) (ppb)	N/A	0	N/A	N/A	0.012	0.012	2020	No	Herbicide – Agricultural Runoff
Radioactive result	1			1		, <u>-</u>	1		
Radioactivity, Gross Alpha (pCi/L)	15	0	N/A	N/A	ND	ND	2020	No	Erosion of natural deposits
Radium 226 (pCi/L)	5	0	N/A	N/A	ND	ND	2020	No	Erosion of natural deposits
Radium 228 (pCi/L)	5	0	N/A	N/A	ND	ND	2020	No	Erosion of natural deposits
Uranium (uɑ/l)	30	0	N/A	N/A	0.33	0.33	2020	No	Erosion of natural deposits
PFAS Contaminants		-							
PFBS (ppt)	N/A	N/A	N/A	450000	0.44	0.44	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.
PFHXS (ppt)	N/A	N/A	N/A	40	0.69	0.69	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.
PFHXA (ppt)	N/A	N/A	N/A	150000	1.71	1.71	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.
PFNA (ppt)	N/A	N/A	N/A	30	0.30	0.30	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.
PFOS (ppt)	N/A	N/A	N/A	20	1.06	1.06	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.
PFOA (ppt)	N/A	N/A	N/A	20	2.76	0.76	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.
PFHPA (ppt)	N/A	N/A	N/A	N/A	1.33	1.33	2022	No	Drinking water is one way that people can be exposed to PFAS. In Wisconsin, two-thirds of people use groundwater as their drinking water source. PFAS can get in groundwater from places that make or use PFAS and release from consumer products in landfills.

2022 Drinking Water Quality Report

(CCR Data for Wholesale Customers)

Substance (Units)	MCL or {MRDL}	MCLG or {MRDLG}	SMCL	HAL	Level Found	Range/ Comments	Year Test	Violation	Typical Source of Contaminant
UCMR-4									
10 Cyanotoxins	N/A	N/A	N/A	N/A	ND	ND	2018	N/A	Freshwater Cyanobacterial (Blue-Green Algae) Blooms
Germanium (ppb)	N/A	N/A	N/A	N/A	ND	ND	2018- 2019	N/A	Naturally-occuring element; commercially available in combination with other elements and minerals; a byproduct of zinc ore processing; used in infrared optics, fiber optics, electronics and solar applications.
Manganese (ppb)	N/A	N/A	N/A	N/A	0.67	N.D 0.67	2018- 2019	N/A	Naturally occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical.
8 Pesticides	N/A	N/A	N/A	N/A	ND	ND	2018- 2019	N/A	Agricultural/Residential Run-off (includes Insecticides, herbicides and fungicides.)
1 Pesticide Byproduct (ppb)	N/A	N/A	N/A	N/A	ND	ND	2018- 2019	N/A	Agricultural Run-off
3 Alcohols (ppb)	N/A	N/A	N/A	N/A	ND	ND	2018- 2019	N/A	Solvents, food additives, production of flavorings, consumer products such as synthetic cosmetics, perfumes, fragrances, hair preparations, and skin lotions.
3 Semi-Volatile Organic Compounds (ppb)	N/A	N/A	N/A	N/A	ND	ND	2018- 2019	N/A	Food addiitives (antioxidants), production of dyes, rubber, pharmaceuticals and pesticides. Used as pharmaceuticals, flavoring agents. Component of coal. Produced as chemical intermediates.
Total Organic Carbon (TOC) (ppb)	N/A	N/A	N/A	N/A	1850 (avg.)	1700 – 2000	2018- 2019	N/A	N/A
Bromide (ppb)	N/A	N/A	N/A	N/A	34.8 (avg.)	33 – 36	2018- 2019	N/A	Occurs naturally in the environment in low levels. Concentrated sources include wastewater discharges from fossil fuel production and coal fired power plants, mining operations, and pestcides.
3-Brominated Haloacetic Acid (HAA) Disinfection Byproduct Groups	N/A	N/A	N/A	N/A	See Below	See Below	2018- 2019	N/A	By-product of drinking water chlorination
HAA-5 (ppb)	N/A	N/A	N/A	N/A	13.8	9.0 – 18.7	2018- 2019	N/A	By-product of drinking water chlorination
HAA-6Br (ppb)	N/A	N/A	N/A	N/A	10.4	7.0 – 13.2	2018- 2019	N/A	By-product of drinking water chlorination
HAA-9 (ppb)	N/A	N/A	N/A	N/A	23	15.6 – 29.2	2018-2019	N/A	By-product of drinking water chlorination
Dichloroacetic acid (DCAA) (ppb)	N/A	N/A	N/A	N/A	6.3 (avg.)	3.0 – 9.5	2018-2019	N/A	By-product of drinking water chlorination
Monochloroacetic acid (MCAA) (ppb)	N/A	N/A	N/A	N/A	ND	ND	2018-2019	N/A	By-product of drinking water chlorination
Trichloroacetic acid (TCAA) (ppb)	N/A	N/A	N/A	N/A	6.3 (avg.)	4.0 - 8.4	2018-2019	N/A	By-product of drinking water chlorination
Bromochloroacetic acid (BCAA) (ppb)	N/A	N/A	N/A	N/A	3.3 (avg.)	1.7 - 4.2	2018-2019	N/A	By-product of drinking water chlorination
(ppb)	N/A	N/A	N/A	N/A	4.8 (avg.)	3.5 - 6.4	2018-	N/A	By-product of drinking water chlorination
Chlorodibromoacetic acid (CDBAA) (ppb)	N/A	N/A	N/A	N/A	1.2 (avg.)	0.96 – 1.6	2018-2019	N/A	By-product of drinking water chlorination
Tribromoacetic acid (TBAA) (ppb)	N/A	N/A	N/A	N/A	ND	ND	2018-2019	N/A	By-product of drinking water chlorination

2022 Drinking Water Quality Report

(CCR Data for Wholesale Customers)

Substance (Units)	MCL or {MRDL}	MCLG or {MRDLG}	SMCL	HAL	Level Found	Range/ Comments	Year Test	Violation	Typical Source of Contaminant		
Monobromoacetic acid (MBAA) (ppb)	N/A	N/A	N/A	N/A	0.5 (avg.)	N.D 0.65	2018- 2019	N/A	By-product of drinking water chlorination		
Dibromoacetic acid (DBAA) (ppb)	N/A	N/A	N/A	N/A	0.71 (avg.)	0.40 - 0.93	2018- 2019	N/A	By-product of drinking water chlorination		
Other Monitored Parameters											
Aluminum (ppm)	N/A	N/A	0.05	0.2	0.08	0.08	2020	N/A	Runoff/leaching from natural deposits		
Chloride (ppm)	N/A	N/A	250	N/A	15	15	202	N/A	Runoff/leaching from natural deposits, road salt, water softeners		
Sulfate (ppm)	N/A	N/A	250	N/A	26	26	2020	N/A	Runoff/leaching from natural deposits, industrial wastes		
Ortho-phosphate (ppm)	N/A	N/A	N/A	N/A	0.91 (avg.)	0.84 – 0.98	2022	N/A	Water additive to reduce corrosion of household plumbing systems		
Total Organic Carbon (ppm)	ΤТ	N/A	N/A	N/A	1.7 (avg.)	1.3 – 2.4	2022	N/A	N/A		
Turbidity (NTU)	< 0.30	N/A	N/A	N/A	0.034 (avg.)	0.025-0.060	2022	No	Erosion of natural deposits		
Alkalinity (ppm)	N/A	N/A	N/A	N/A	103(avg.)	93 – 107	2022	N/A	N/A		
Conductivity (µS/cm)	N/A	N/A	N/A	N/A	302 (avg.)	289-314	2022	N/A	N/A		
Total Hardness (ppm)	N/A	N/A	N/A	N/A	137 (avg.)	128 – 146	2022	N/A	N/A		
Temperature (°F)	N/A	N/A	N/A	N/A	51.3 (avg.)	35.0 - 70.0	2022	N/A	N/A		
pH (pH Units)	N/A	N/A	N/A	N/A	7.65(avg.)	7.48 - 7.83	2022	N/A	N/A		

AL: Action Level The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Action levels are reported at the 90th percentile from homes at greatest risk.

HAL: Health Advisory Level: The concentration of a contaminant which, if exceeded, poses a health risk and may require a system to post a public notice.

MCL: Maximum Contaminant Level 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.

MCLG: Maximum Contaminant Level Goal 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.

{MRDL}: Maximum Residual Disinfectant Level 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.

{MRDLG}: Maximum Residual Disinfectant Level Goal 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 contamination.

SMCL: Secondary Maximum Contaminant Level: Secondary drinking water standards for contaminants that affect taste, odor, or appearance of the drinking water. Yje SMCLs do not represent health standards. TT: Treatment Technique A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations:

avg: average μS/cm: microsiemens per centimeter N/A: Not Applicable ND: Not Detected NTU: Nephelometric Turbidity Units pCi/L: picocuries per liter ppb: parts per billion (μg/L) ppm: parts per trillion (ng/L) ppt: parts per trillion (ng/L)