

## Water Quality Analysis

The chart that follows the definitions lists the highest recorded level in Michigan City in 2022 and the highest allowed by the USEPA. Michigan City water has met all EPA requirements.

### Definitions

**MCL:** Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water, if applicable.

**MCLG:** Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health, if applicable.

**MRDL:** Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.

**MRDLG:** Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected risk to health.

**AL:** Action level, the concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.

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

**NTU:** Nephelometric Turbidity Unit, is the measure of clarity of the water

**mg/l:** milligrams per liter, a measurement for concentration equivalent to ppm = one part per million

**ug/l:** micrograms per liter, measurement for concentration equivalent to ppb = one part per billion

**pCi/l:** picocuries per liter, a measurement of radiation

**P\*:** Potential violation, one that is likely to occur in the near future, subject to other applicable requirements.

**ND:** Not detected, the result was not detected at or below the analytical method detection level.

**TT\*\*:** **Special Note on Turbidity:** The turbidity treatment technique (TT) requires that at least 95% of the total combined effluent turbidity samples shall not exceed 0.3 NTU (1.0 NTU for slow sand and diatomaceous earth filtration systems). At least 95% is required to be in compliance. In addition, the maximum turbidity level cannot exceed 1.0 NTU at any time.

Date	Contaminant	MCL	MCLG	Unit	Result	Min	Max	Sites over AL	Violation	Likely Sources
2022	Barium	2	2	mg/L	0.021	0.021	0.021		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2022	Fluoride	4	4	mg/L	0.78	0.78	0.78		No	Water additive that promotes strong teeth; Erosion of natural deposits; Discharges from fertilizer and aluminum factories.
2022	Nitrate-Nitrite (as N)	10	10	mg/L	0.41	0.41	0.41		No	Erosion of natural deposits; Runoff from fertilizers; Leaching from septic systems and sewers.
2022	Sodium	N/A	N/A	mg/L	8.9				No	Metals; Erosion of natural deposits.
2022	Chromium	100	100	ug/L	0.94	0.94	0.94		No	Byproduct of drinking water chlorination
2022	Total Trihalomethanes	80	0	ug/L	12	5.9	17.4		No	Byproduct of drinking water chlorination
2022	Total Haloacetic Acids	60	0	ug/L	1	0	3.7		No	Byproduct of drinking water chlorination
2022	Chloramines	MRDL = 4	MRDLG = 4	mg/L	1	1	1		No	Water additive used to control microbes
2022	Total Organic Carbon	TT	TT	mg/L	1.34	0.684	1.55		No	Naturally present in the environment
2022	Turbidity (lowest percentage)	TT**	TT**	%	96.7%	96.7%	100%		No	Soil runoff
2022	Turbidity (Maximum level)	1	1	NTU	1.00	0.03	1.00		No	Soil runoff
Valid until 12/31/2023	Lead (90th percentile)	15 (AL)	0	ug/L	3	ND	9.1	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Valid until 12/31/2023	Copper (90th percentile)	1.3 (AL)	1.3	mg/L	0.23	ND	1.17	0	No	Erosion of natural deposits; Corrosion of household plumbing systems; Leaching from wood preservatives