Water Sample Result Quick Reference Guide

Parameter	MCL, Standard or Action Level	Where MCL or Standard is Found	Likely Source of Parameter	Concern
Alkalinity	100 mg/l (as $CaCo_3$)	• NYS Appendix 75-C, Table 2.	Dissolving limestone or dolomite minerals in the aquifer.	A high Alkalinity level can reduce the effectiveness of chlorine disinfection; Causes a metallic-bitter taste.
Antimony	0.006 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Discharges from petroleum refineries; fire retardants; ceramics; electronics; solder.	Some people who drink water containing antimony well in excess of the MCL over may years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic	0.010 mg/l	• NYS Appendix 75-C, Table 1. • State Sanitary Code, Subpart 5-1, Table 1.	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Barium	2.0 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Beryllium	0.004 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Discharge from metal refineries and coal burning factories; Discharges from electrical, aerospace, and defense industries.	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.
Cadmium	0.005 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints.	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Calcium	N/A	N/A	Erosion of natural deposits such as limestone or dolomite.	Contributes to overall water hardness.

Chloride	250.0 mg/l	• State Sanitary Code, Subpart 5-1, Table 1	Septic Systems; Road salt; Fertilizer; Animal waste; Landfills; Naturally occurring mineral deposits.	Salty taste; Corrosion of metals.
Chromium	0.10 mg/l	• State Sanitary Code, Subpart 5-1, Table 1	Discharge from steel and pulp mills; Erosion of natural deposits.	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Copper	1.3 mg/l	• State Sanitary Code, Subpart 5-1.	Corrosion of household plumbing systems; Erosion of natural deposits.	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.
Cyanide	0.2 mg/l	• State Sanitary Code, Subpart 5-1, Table 1	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories.	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.

Fluoride	2.2 mg/l	• State Sanitary Code, Subpart 5-1, Table 1	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Hardness	150 mg/l (as $CaCO_3$)	• NYS Appendix 75-C, Table 2.	Dissolving limestone or dolomite minerals in the aquifer.	Mineral and soap deposits; reduces effectiveness of detergents.
Iron	0.3 mg/l *The sum of Iron and Manganese should not exceed 0/5 mg/l	• NYS Appendix 75-C, Table 2. • State Sanitary Code, Subpart 5-1.	Erosion of natural deposits; Corrosion of well casing.	Rust colored staining of plumbing fixtures and/or clothing.
Lead	0.015 mg/l	• NYS Appendix 75-C, Table 1. • State Sanitary Code, Subpart 5-1.	Corrosion of household plumbing systems. Erosion of natural deposits.	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Magnesium	N/A	N/A	Naturally occurring in the environment.	Contributes to overall water hardness.

Manganese	0.3 mg/l *The sum of Iron and Manganese should not exceed 0.5 mg/l.	• NYS Appendix 75-C, Table 2. • State Sanitary Code, Subpart 5-1, Table 1.	Naturally occurring in groundwater.	Children and adults who drink water with high levels of manganese for a long time may have problems with memory, attention, and motor skills. Infants (babies under one year old) may develop learning and behavior problems if they drink water with too much manganese in it.
Mercury	0.002 mg/l	• State Sanitary Code, Subpart 5-1, Table 1	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland.	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
Methyl Tert-Butyl Ether (MTBE)	0.010 mg/l	• State Sanitary Code, Subpart 5-1, Table 3	Gasoline spills; Improper disposal of gasoline; Gasoline leakage from underground storage tanks.	Irritation of the eyes and respiratory tract; Effects on the central nervous system including headaches, lightheadedness, stupor, dizziness, nausea and feelings of disorientation or confusion.
Nitrate (NO_3)	10 mg/l (as Nitrogen)	• NYS Appendix 75-C, Table 1. • State Sanitary Code, Subpart 5-1, Table 2.	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite (NO_2)	1 mg/l (as Nitrogen)	• NYS Appendix 75-C, Table 1 • State Sanitary Code, Subpart 5-1, Table 2.	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Nitrate/Nitrite Combined (NO_x)	10 mg/l as Nitrogen	• State Sanitary Code, Subpart 5-1, Table 2.	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
pH	6.5 – 8.5	• NYS Appendix 75-C, Table 2	-	Pipe corrosion (lead and copper); Metallic-bitter taste.
Phosphorus	N/A	N/A	Contamination from fertilizer and/or septic systems.	Algae growth.
Selenium	0.05 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Silver	0.1 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Naturally occurring.	Exposure to high levels of silver for a long period of time may result in a blue-gray discoloration of the skin.

Sodium	**No designated limit.** Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.	• NYS Appendix 75-C, Table 1 • State Sanitary Code, Subpart 5-1, Table 1.	Natural deposits; Road salt	Concern for individuals on restricted sodium diets due to high blood pressure or other medical issues.
Standard (Heterotrophic) Plate Count	500 colonies per milliliter	• State Sanitary Code, Subpart 5-1.	Naturally present in the environment.	Heterotrophic plate count has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.
Sulfate	250 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Naturally occurring.	High concentrations of Sulfate in drinking water can have a laxative effect.
Thallium	0.002 mg/l	• State Sanitary Code, Subpart 5-1, Table 1.	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories.	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.

Total Coliform Bacteria	Any Positive Result	• NYS Appendix 75-C, Table 1. • State Sanitary Code, Subpart 5-1, Table 6.	Naturally present in the environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.
Turbidity	5 NTU	• NYS Appendix 75-C, Table 1. • State Sanitary Code, Subpart 5-1, Table 5.	Soil runoff.	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.
Zinc	5.0 mg/l	• State Sanitary Code, Subpart 5.-1, Table 1.	-	Drinking water containing high levels of zinc can lead to stomach cramps, nausea and vomiting.