

TEST EXPLANATIONS for VARIOUS WATER QUALITY PARAMETERS

Definitions (as used below)

MCL = Maximum contaminant level. This is maximum allowable amount for public water systems.

mg/L = Milligrams per liter. 1 mg/L is equivalent to one ppm.

ppm = Parts per million. 1 ppm is equivalent to one mg/L.

mg CaCO₃/L = milligrams calcium carbonate per liter.

g/gal = Grains per gallon.

µS/cm – Microseimens per centimeter.

Nitrate – The MCL for nitrate is 10 mg/L (ppm). If your concentration is above this level there is reason to be concerned. Please contact your local Health Department for more information.

Nitrite – The MCL for nitrite is 1 mg/L (ppm). If your concentration is above this level there is reason to be concerned. Please contact your local Health Department for more information.

Alkalinity – Alkalinity is a measure of the buffering, or acid-neutralizing capacity of water. It is reported to a designated pH which is recorded (The alkalinity to pH ____ = ____ mg CaCO₃/L) to indicate the endpoint used for the test. The range for drinking water alkalinity is wide with typical ranges from 0-500 mg CaCO₃/L depending on the source of the water.

Total and Calcium Hardness – Total hardness is a measure of the concentrations of calcium and magnesium in water. Calcium hardness is just the calcium fraction. Hard water may be responsible for staining of fixtures or build up of deposits within household plumbing. The units for these are mg CaCO₃/L. This can be converted to grains per gallon (g/gal). One g/gal equals 17.5 mg CaCO₃/L Hardness. Hardness is typically removed with water softeners that use salt in an ion exchange process.

<u>Classification</u>	<u>mg/L</u>	<u>g/gal</u>
Soft	0-17	0-1
Slightly Hard	18-60	1-3.5
Moderately Hard	61-120	3.6-7.0
Hard	121-180	7.1-10.5
Very Hard	>180	>10.5

Fluoride – Fluoride is a naturally occurring element in many groundwaters. It is also added to some public water systems (including MVWA) at a dose of 0.7 mg/L to reduce dental caries. The MCL for fluoride in New York State is 2.2 mg/L. Fluoride levels in excess of 4 mg/L have been known to cause mottling of teeth.

Chloride – Chloride is one of the major anions found in water. The MCL for chloride is 250 mg/L. If your concentration is above this level there may be reason to be concerned. Please contact your local Health Department for more information.

Conductivity – Conductivity is the ability of a water to carry a current. This depends on the number of ions in the water. The units are µS/cm and typical drinking water ranges are wide, ranging from zero to over 1000 µS/cm.