METALS	
Test Description	Determination of metals in water.
Test Use	Useful for evaluating drinking and non-drinking waters. May be applied to other aqueous matrices as well.
Test Department	Inorganic Chemistry: Phone 860-920-6666/6667 Fax 860-920-6670
Methodology	EPA Method 200.7: ICP/AES; EPA Method 200.8: ICP/MS
Availability	Year-round
Sample Requirements	One (1) sample collected in a pre-cleaned acid-washed plastic bottle
Container type /Preservative	500 mL plastic yellow top bottle. ~1.5 mL 1:1 Nitric Acid preservative to achieve pH < 2.
Collection Instructions (Note 1)	For taps, remove aerators and let water run 4-5 minutes. For outdoor locations, sampling location should be in accordance with a preapproved quality assurance project plan.
Sample Holding Time & Transport	Samples must be preserved within 14 days of collection. Preserved samples must be analyzed within 6 months of collection.
Unacceptable Conditions	Incomplete requisition form. Insufficient sample volume. Samples received beyond the 14-day/6-month holding time.
Requisition Form	Use the Inorganic Chemistry form (Drinking Water, Stream Survey, or Non-Potable Water) as appropriate to the type of water collected.
Required Information	Fill out entire requisition form.
Limitations	
Additional Comments	To avoid the hazards of strong acids in the field, transport restrictions, and possible contamination, samples may be returned to the laboratory within 14 days of collection and acid preserved upon receipt in the laboratory. As a general rule of thumb, EPA Method 200.8 can be used to achieve lower detection limits. See Table 1 for list of metals which the CT PHL can determine using these methods. Hardness is calculated from Calcium and Magnesium results (SM2340B).

Note 1: See *New England States Environmental Sampling Guide*, latest edition.
https://www.epa.gov/sites/production/files/2015-06/documents/NE-States-Sample-Collection-Manual.pdf

Table 1. Metals Determinable by EPA Methods 200.7 and 200.8

Metal Analyte	200.7	200.8
Aluminum	X	X
Antimony	X	X
Arsenic	X	X
Barium	X	X
Beryllium	X	X
Cadmium	X	X
Calcium	X	
Chromium	X	X
Cobalt	X	
Copper	X	X
Lead	X	X
Magnesium	X	
Manganese	X	
Molybdenum	X	
Nickel	X	X
Potassium	X	
Selenium	X	X
Silver	X	X
Sodium	X	
Thallium	X	X
Tin	X	X
Titanium	X	
Uranium		X
Vanadium	X	
Zinc	X	
Zirconium	X	