UCTEL: Ultra Clean Trace Element Laboratory, University of Manitoba

The UCTEL is a Class 100 Laboratory focused on the study of environmental chemistry and biogeochemistry of trace elements.

Lab Capacity:

* Trace Metals with ICP-MS (Agilent 8900 and Perkin Elmer DRCII): we focus on trace elements such as Fe, Se, Cd, Ni, Co, Cr, As, Pb, V, Be, Mn, Cu, Zn, Rb, Ag, Sr, Ba, U with a detection limit (DL) in the 1-100 ppt range.
* Agilent 6410 ESI-QQQ-MS for identification of organometallic/organic compounds of molecules up to 2000 Daltons. Sample introduction is an Agilent 1200 LC for speciation analysis that can be split between the MS and a DAD for UV absorbing compounds.
* Total Mercury Analyzer (Tekran CVAFS): for THg analysis in water (DL 0.05 ng/L)
* Methyl Mercury Analyzer (Brooks Rand LC-AFS): we can analyze biota, sediments and water for Methyl Mercury (DL 0.008 ng/L).
* Liquid Chromatography Mass Spectrometry for inorganic compounds .
* Major Ions – High Pressure Ion Chromatography DIONEX 5000+ for major cations and anions.
* MARS5 Microwave Digestion: To acid digest samples.

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