Facilities and Equipment

Archive
Our \(-40^\circ C\) archive room currently contains 1.4 km of ice predominantly from the Canadian high Arctic, including core samples from the Penny Ice Cap, Devon Ice Cap, Prince of Wales Icefield, and Agassiz Ice Cap. The archive also includes ice core samples from Mount Logan, Yukon Territory, the highest mountain in the country.

Working Freezer
Our \(-25^\circ C\) working freezer houses bandsaws, chop saws, a horizontal saw, planar, and two ice core scanning systems (an Intermediate Layer Core Scanner, and a Large Area Scan Macroscope), both designed specifically for the digital scanning of ice.

Analytical Lab
The room-temperature analytical lab houses various instruments and systems for measuring the chemical and isotopic composition of liquid ice core samples (e.g., ion chromatography (ICS-5000), cavity ringdown spectroscopy (Picarro L2140-i), fluorescence spectroscopy (Horiba Scientific Aqualog), particle size analysis (Beckman Coulter Multisizer 4e coulter counter).

Ice Coring Field Equipment
We have an inventory of ice core drills and related field equipment available for use and collaboration. This includes two Eclipse ice coring drills, a shallow coring Kovacs Mark II system with 30m of fiberglass extensions, a drill shelter (floorless Weatherhaven series 4A), and much more.

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