

Little Dome C

Beyond EPICA Oldest Ice Drilling Site (75.29917 °S, 122.44516 °E)

Situation Report 20, 06. December 2024

Personnel @LDC:

Lisa Ardoin (ULB), Marie Bouchet (CNRS), Ailsa Chung (CNRS), Danilo Collino (ENEA, Camp Leader), Inès Gay (IPEV), Matthias Hüther (AWI, Chief Driller), Manuela Krebs (AWI), Gunther Lawer (AWI), Johannes Lemburg (AWI), Martin Leonhardt (AWI), Michele Scalet (ENEA), Federico Scoto (CNR), Barbara Seth (UNIBE), Lison Soussaintjean (UNIBE), Julien Westhoff (UCPH, Chief Scientist), Frank Wilhelms (AWI, PI in the field)

Weather at LDC 5 pm: sunny

Weather at DC 5 pm: temperature: -29.5°C , wind 3 knts



Boring. We did 6 runs between 19:30 yesterday and 19:30 today. The morning shift passed 2200 m. We got more spare drill heads ready, to be able to kick them in, in case the one we run is damaged. Today, processing continued with 31 m. We attempted to process the brittle ice, which has been stored at -50°C since last year. The ice is still very brittle and shatters easily. We will therefore leave the ice un-cut, and store it as full cores at Concordia until future projects require it. This will give the ice a few more years to relax. On Daniele's suggestion, we merged both PICARROs (referred to as PICARRI), where one PICARRO is controlling the autosampler and the vaporizer and the other PICARRO is performing the actual analysis. The temperatures in the drill tent rose to -15°C , and in the science trench, they approached -29°C .



The morning shift passing 2200 m. Credit: B. Seth ©PNRA/IPEV

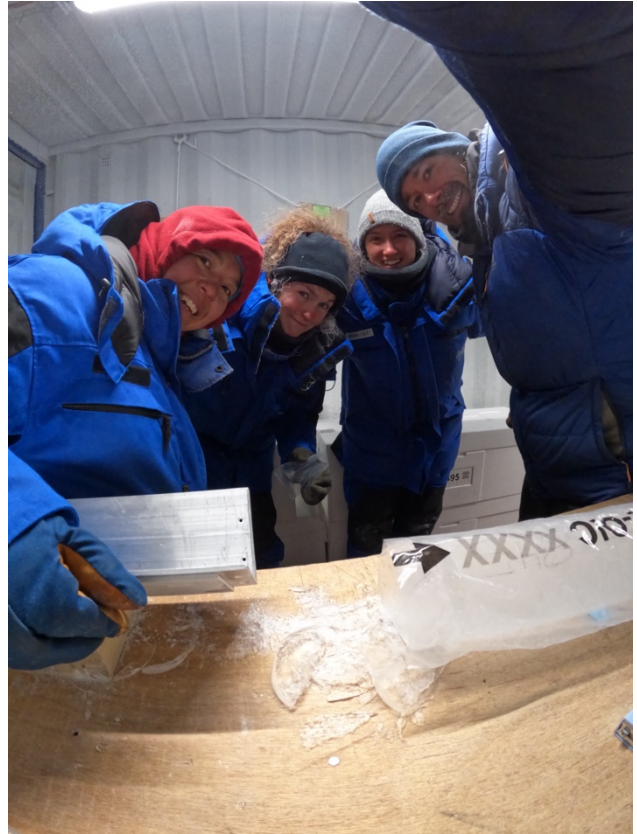


The PICARRI setup. Credit: F. Wilhelms ©PNRA/IPEV





Coronation with a freshly prepared drill head.
Credit: L. Soussaintjean ©PNRA/IPEV



Attempt to process the brittle ice from last year.
Credit: J. Westhoff ©PNRA/IPEV

End of day statistics at 19:30:

- Driller's depth: 2210.80 m;
- we did 6 runs between 19h30 and 19h30. The length of these cores was: 4.52, 4.475, 4.495, 4.51, 4.51, 4.52 (driller length, last run #752), for a total of 27.03 m;
- Logger's depth: 2208.71 m
- Current processing depth: 2163 m; daily total: 31 m; season total: 466 m.

FW, JW, MH, 06.12.2024

