

## Little Dome C

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

Situation Report 12, 8. December 2023

### Personnel @LDC:

Saverio Panichi (ENEA, Camp Leader), Olivier Alemany (CNRS), Philippe Possenti (CNRS), Matthias Hüther (AWI), Rémi Dallmayr (AWI), Gunther Lawer (AWI), Johannes Lemburg (AWI), Andrea Ceinini (ENEA), Federico Scoto (CNR), Tamara Gerber (UCPH), Iben Koldtoft (UCPH), Julien Westhoff (UCPH), James Veale (BAS), Michaela Mühl (UNIB), Fortunat Joos (UNIB), and Inès Gay (IPEV)

Weather at LDC 5 pm: sunny

Meteo at DC 5 pm: -27°C and 5 knts



Today we drilled our first two ice cores. It was a big event for all of us. We first drilled a 70 cm core and then a 96 cm core. Instead of trying to fit the emergency corer, we preferred to fit the short version of the AWI corer, which had already worked last year. In addition to these first cores, we continued processing last year's core, and finished installing the ventilation system designed to lower the temperature in the scientific trench.

What we did today at LDC:

- We set up the three meters long AWI drill;
- We drill the two first cores of the season;
- We finished setting up the ventilation to lower the science trench temperature;
- We are continued processing the last year`s core and finished another xx m in shifts;
- We tested the ice core scraper to scrape the surface of an ice core for stable water isotope measurements to determine the age of the ice in the field;
- We boarded up 2/3 of the entrance to the underground containers to further decrease the temperature.





Figure 2: Finishing the ventilation to cool the science trench: photo O. Alemany



Figure 1: The First core drilled this season: photo F. Scoto

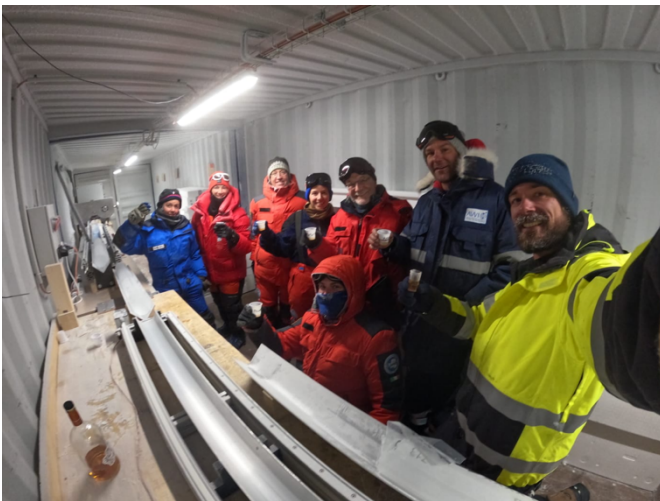


Figure 4: celebration of the first 100 processed meters in the science trench: photo J. Westhoff



Figure 3: Rémi testing the scraper for water isotopes: photo J. Westhoff

End of day statistics at 20h:

Driller's depth: 806.5 m

Logger's depth: NA

Current processing depth: 692 m, daily total: 40 m, season total: 84 m.

OA, MH, JW, and SP, 08.12.2023

