

Little Dome C

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

Situation Report , 1 . January 2024

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) and Inès Gay (IPEV)

Personnel @MZS

Fortunat Joos (UNIB), Michaela Mühl (UNIB)

Weather at LDC 1 pm: cloudy and windy; temp -21.9° C and wind speed: 7.5 m/s



Today we continued the shift drilling.

In the morning we processed the last ice cores for this season. Processing stopped at 1,695 meters, resulting in 1367 m processed throughout the season :) The cores that will be drilled in the next three days, will be logged, and stored for next season. The processing team began packing up the scientific trench this afternoon. Tomorrow we will move the last ice core boxes from LDC to Concordia.

At the same time, we carried out some more test down to 30-meter with the IGE's 300-meter corer (F2G).

The -50°C refrigerated container was unloaded from the Laura Bassi boat and transported to MZS today. This container will transport our temperature sensitive cores (b-cuts) back to Europe

What we did today at LDC:

- Drilling in shift;
- Processed the final 27 ice cores;
- Started packing the science trench;
- Started packing the camp;
- Drilled a 30 meters core just outside of camp.





Figure 1: arrival of the -50°C (and its spare) container at MZS : photo : F. Joos

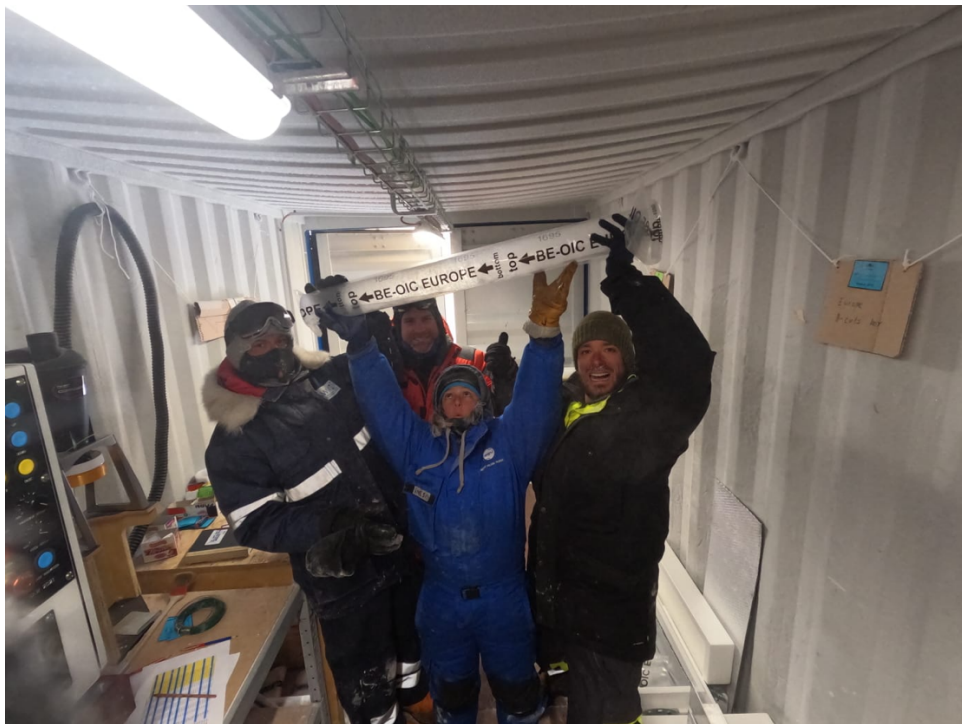


Figure 2: celebrating the last processed ice core of the season : photo J. Westhoff



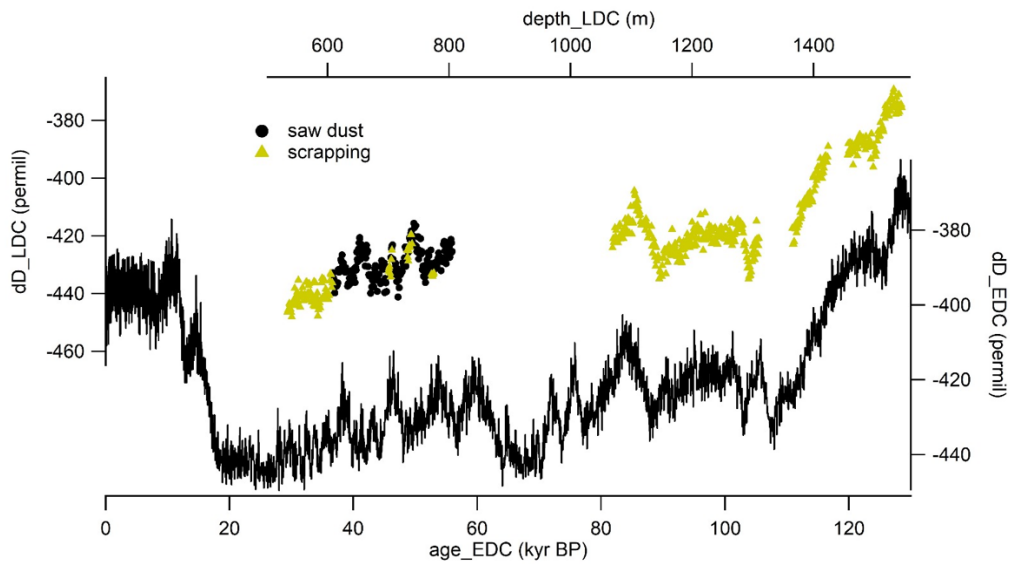


Figure 3: stable water isotope plot of EPICA and Beyond EPICA – note the peak of MIS 5e (the last interglacial): A. Landais

End of day statistics at 19h30

Driller's depth: 1735.99 m. we made 7 drilling runs between yesterday 19h30 and 19h30 today. The length of the cores was: 4.51, 4.54, 4.48, 4.49, 4.5, 4.44 and 0.22 (driller length), for a total of 27.18 meters.

Logger's depth: 1735.77 m

Current processing depth: 1695m; daily total: 27m, season total: 1367m.

OA, MH, JW, and SP 15.01.2024

