

## Little Dome C

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

### Situation Report #61, 16<sup>th</sup> January 2026

#### Personnel @LDC:

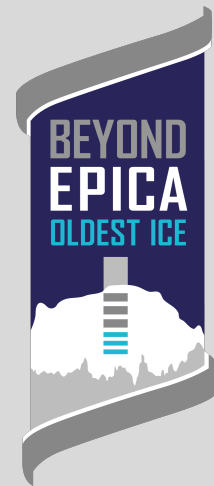
Gianluca Bianchi Fasani (ENEA, Camp Leader), Katrin Ederer (AWI), Matthias Hüther (AWI, Chief Driller), Iben Koldtoft (UCPH), Gunther Lawer (AWI), Johannes Lemburg (AWI), Barbara Seth (UNIBE, PI in the field), Henrique Traeger (UNIBE), Mohammad Vafadarmianvelayat (AWI), Sergio Zannini (ENEA)

#### Personnel @DC:

Marion Lahuec (IPEV), Philippe Possenti (CNRS)

**Weather at LDC:** sunny, less windy, cold

**Meteo at DC 6:50 pm:** T = -30.4 °C, Wind speed = 5.7 kt, Windchill T = -40 °C, Humidity = 67 %



We finished filtering the bore hole yesterday! Hence, the pig had all night for heating (melting the chips), and since this morning we continued with the drill fluid management. We had to empty the pig into buckets, because with the Estisol-140 and -165 mixture it seems impossible to see the separation level of drill fluid to water in the pig. These buckets with the Estisol-water mixture need time to freeze out the water, before the Estisol can then be transferred to the recycle IBC tanks.

In the morning, we loaded all our ice core boxes onto the Sfusi sledge and Gianluca moved the full sledge to Concordia, where it was unloaded and moved back to LDC. Meanwhile, we had Angelo and Marion visiting with a Pistenbully taking the medical equipment from the +4°C container to Concordia.

We filled the bore hole with a combination of Estisol-165 and the liquid from the recycled IBC tanks. The liquid level is for now at 73 m depth, and it will be topped up with the remaining recycled liquid tomorrow.

The winch control cabinet was disassembled. We left the antitorque connected to the cable on the horizontally positioned tower.

The trench got a final cleaning today and the camera for the bore hole lid was removed. The tower and extraction table have been cleaned, the drillers' cabin has been emptied from all the electronical equipment, and drilling tent has generally been cleaned. Before dinner, we built the scaffold and closed the roof of the drilling tent (the opening for the tower) using the respective plywood.

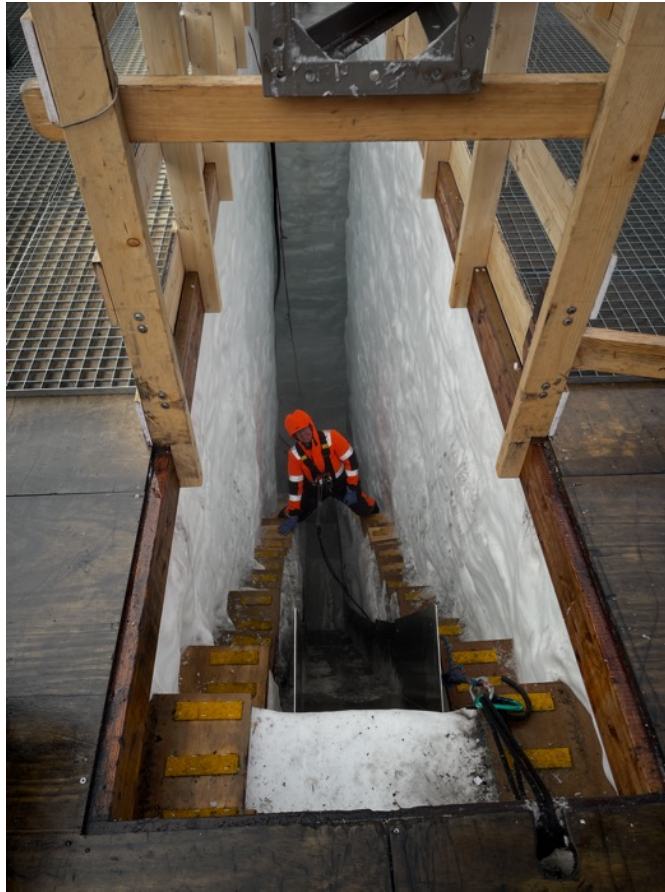
In the afternoon, Iben and Henrique finally had the chance to do the radar operation. They used the Skidoo and were accompanied by Sergio with the Pistenbully. They stopped after five kilometres to check the system and realised that the power was off as one of the banana plugs fell out due to vibration. They fixed it and continued for another five kilometres. At this point, the hard disk was full saying 'out of memory'. They downloaded all the data to a USB stick and deleted the memory. They decided to go back and redo the first five kilometres. When they returned to camp, the hard disk was full again. However, there is some data which will be checked tomorrow. Overall, we concluded that the system was too unstable to do the long profile between LDC and Concordia given the limited amount of time we have left in camp.





The Sfusi sledge was loaded with our ice core boxes and pulled to Concordia. Photos by B. Seth and G. Lawer





Final trench cleaning. Photo by B. Seth



The scaffold is needed for closing the roof of the drilling tent. Photos by B. Seth





Iben, Henrique and Sergio on the radar mission. Photos by B. Seth

#### Season end statistics:

Drillers' end depth: 2071.20 m;

Loggers' end depth: 28.23 m;

CB, GBF, BS & MH; LDC, 16.1.2026

