

Little Dome C

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

Situation Report #12, 13. December 2021

**Personnel @LDC:**

Saverio Panichi (ENEA, Camp Leader), Carlo Barbante (ISP-CNR, PI), Olivier Alemany (IGE), Giacomo Bonanno (ENEA), Olivier Delanoe (IPEV), Romain Duphil (IPEV), Matthias Hüther (AWI), Calogero Monaco (ENEA), Anthony Pauty (IPEV), Philippe Possenti (IPEV), Michele Scalet (ENEA), Jakob Schwander (unibe), Thomas Stocker (unibe), Remo Walther (unibe)

**Personnel @DC:**

Gregory Teste (IGE)

**Weather at LDC 9 am:** visibility low

**Meteo at DC 9 am:** T = -28°C, Wind = 23 knt, Wind Chill T = -51°C



Over the night the winds picked up considerably, and the entire morning and most parts of the afternoon we experienced high winds of about 23 knots. At a temperature of T = -28°C the perceived temperature was below -50°C – hardly bearable. Work outside was not possible and so progress today was essentially limited to work in the drilling tent. The high wind even affected our two heaters in the recreation tent. When the first of the team arrived for breakfast, they found a rather chilly tent as one of the petroleum ovens quit working overnight. However, Calogero and Michele fixed them so that by dinner, the tent was very warm.



Matthias working on the electrical installation in the drilling tent.

Photo: T. Stocker (Leica SL2, 90 mm, f4, 1/320, ISO 200)



Today, Olivier and Anthony, our two electricians, finished their work. A total of about 1 km of power cables were laid across the LDC camp to bring power to every location. Power and light are also available in the sleeping tents which is very convenient. A few loose ends will have to be fixed, but this requires parts from Dome C. Tomorrow Olivier and Anthony will return to Dome C.

The second step of the reaming was continued and almost completed today by Philippe, Romain and Carlo. More than 1 cubic meter of firn were hauled during this widening of the BEOIC bore hole. Mathias connected all the power sockets in the drilling tent with the main distribution box.

BEOIC drilling depth at the end of the day: 128.0 m

RADIX work was paused due to heavy winds. The RADIX firn drilling system consists of a drill head connected to a suction tube of about 130 m length. This requires guiding the tube outside the tent during the drilling. The high winds today, unfortunately prevented this work from proceeding.

Radix drilling depth: 50 m



Midday halo and “sun dogs” above the BEOIC drilling tent and EU flag flying in the stiff 23 knot wind at LDC.  
Photos: C. Barbante (Leica SL2-S, 26 mm, f22, 1/200, ISO 100) and T. Stocker (Leica SL2, 90 mm, f7.1, 1/1000, ISO 50)

TS & CB, 13.12.2021

