Mont Terri Project Underground Rock Laboratory

Report period: January 19–25, 2026

Assembled and edited by swisstopo, St-Ursanne

Spotlight of the week: From Tuesday to Thursday, January 20-22, the sampling course for the DEBORAH crew took place. Under the lead from D. Rufer and L. Aschwanden (Uni Bern) the participants learned how to triage, scan, seal and document the samples coming from BDB-B1. Many things had to be discussed and logistics needed to be organized, but by Thursday evening most things were settled and the crew is ready for the adventure of the DEBORAH borehole. Drilling will probably start on February 16 (Fig. S. Schefer, swisstopo).

CL (CO2LPIE-CO2 Long-Term Periodic Injection) experiment

- On Monday, January 19, J. Windisch (swisstopo) took two water samples from BCL-11 and J. Gisiger (Solexperts) remotely increased the pressure in the circuit to 14 bar.
- On Thursday, January 22, J. Windisch (swisstopo) took two water samples from BCL-11.

DB-B (Deep Borehole to resolve the Mont Terri Anticline Hydrogeology) experiment

- From Monday to Thursday, January 19–22, Zuber Sàrl finished the drilling cellar and fixed the steel rails for the drilling rig (**Figure 1**).
- On Wednesday, January 21, D. Jaeggi and J. Windisch (swisstopo) took water samples at the pump station, the Combe Chavat river and the two tuff springs to measure different cations concentration, conductivity and pH.
- On Thursday, January 22, I. Dimcea (Stump BTE) and s. Schefer (swisstopo) inspected the drill site and discussed final details for the installation.

DR-C (Diffusion in a Thermal Gradient) experiment

- On Monday, January 19, S. Schefer (swisstopo) took sample #3 from sampler 2 from BDR-C1 and BDR-C6. Contamination tests showed no activities above background.
- On Friday, January 23, S. Schefer (swisstopo) inserted two new vials in both sampling circuits from BDR-C1 and BDR-C6.

DR-D (Heterogeneity of Sandy Facies by Geophysical Characterization and Diffusion Studies) experiment

- On Monday, January 19, S. Schefer (swisstopo) took sample #3 from sampler #2 from BDR-D3. The sample was taken sing a vial from the DR-C experiment.
- On Friday, January 23, S. Schefer (swisstopo) inserted a new vial into sampler #2 from BDR-D3.

FE-G (Monitoring the Gas Composition within the FE Experiment) experiment

- On Tuesday, January 20, Y. Lettry (Solexperts) dismantled the gas module. All equipment was prepared for storage in 3 boxes. Lines were disconnected from the cabinet, labelled and closed with 2-way valves and caps. Y. Tomonaga (Entracers) and E. Stopelli (Nagra) supported the procedure.

FE-M (Long-Term Monitoring of the Full-Scale Emplacement Experiment) experiment

- On Wednesday, January 21, S. Schefer, R. Nicol and J. Windisch (swisstopo) removed the GmuG-sensors from the two tubes GT1 and GT2 and performed a camera run in preparation for the active logging.
- On Thursday, January 22, S. Schefer (swisstopo) replaced the 12 V converter for the CR3000 in the FE-A cabinet 1 on behalf of Sixense.
- On Friday, January 23, the yearly active logging inside GT-1 and GT-2 took place. S. Kuemmel and K. Stekolschikow (BLM) performed gamma-gamma and neutron-neutron measurements for density and water content. E. Manukyan (Nagra) supervised the measurements and S. Schefer (swisstopo) was on site for radio protection and security (**Figure 2**).

HT (Hydrogen Transfer in Opalinus Clay) experiment

- On Tuesday, January 20, S. Schefer (swisstopo) emptied the Tedlar bag and checked the interrupted internet connection. It's due to a broken switch in niche MA-A that needs replacement.

PF-A (Progressive Evolution of Structurally-Controlled Overbreaks: Long-term monitoring, hydromechanical simulation and rock testing) experiment

- On Tuesday, January 20, M. Ziegler (swisstopo) performed a photogrammetric survey of BPF-7 after the installation of the new FO- sensor cables and new geodetic targets.
- On Tuesday, January 20, M. Ziegler (swisstopo) connected the FO-strain sensor cables (X1-X10) to channels 2-6 at the Neubrex interrogator optical switch.
- On Friday, January 23, S. Schefer (swisstopo) performed geodetic measurements for the photogrammetry inside BPF-7.

SW-A (Large-Scale Sandwich Seal in Opalinus Clay) experiment

- On Thursday, January 22, J. Windisch (swisstopo) refilled the HPT of shaft 1.

Varia

- On Friday, January 23, the Piaggio Porter arrived in St-Ursanne! This micro-lorry will serve in the next months as a transport vehicle for the drill cores of the DEBORAH borehole (**Figure 3**).

Figures

Figure 1: DB-B: The rails are in place, the concrete of the cellar still drying (S. Schefer, swisstopo).

Figure 2: FE-M: Logging inside GT-2 (S. Schefer, swisstopo).

Figure 3: Varia: The tiny lorry with some cool features (J. Windisch, swisstopo).