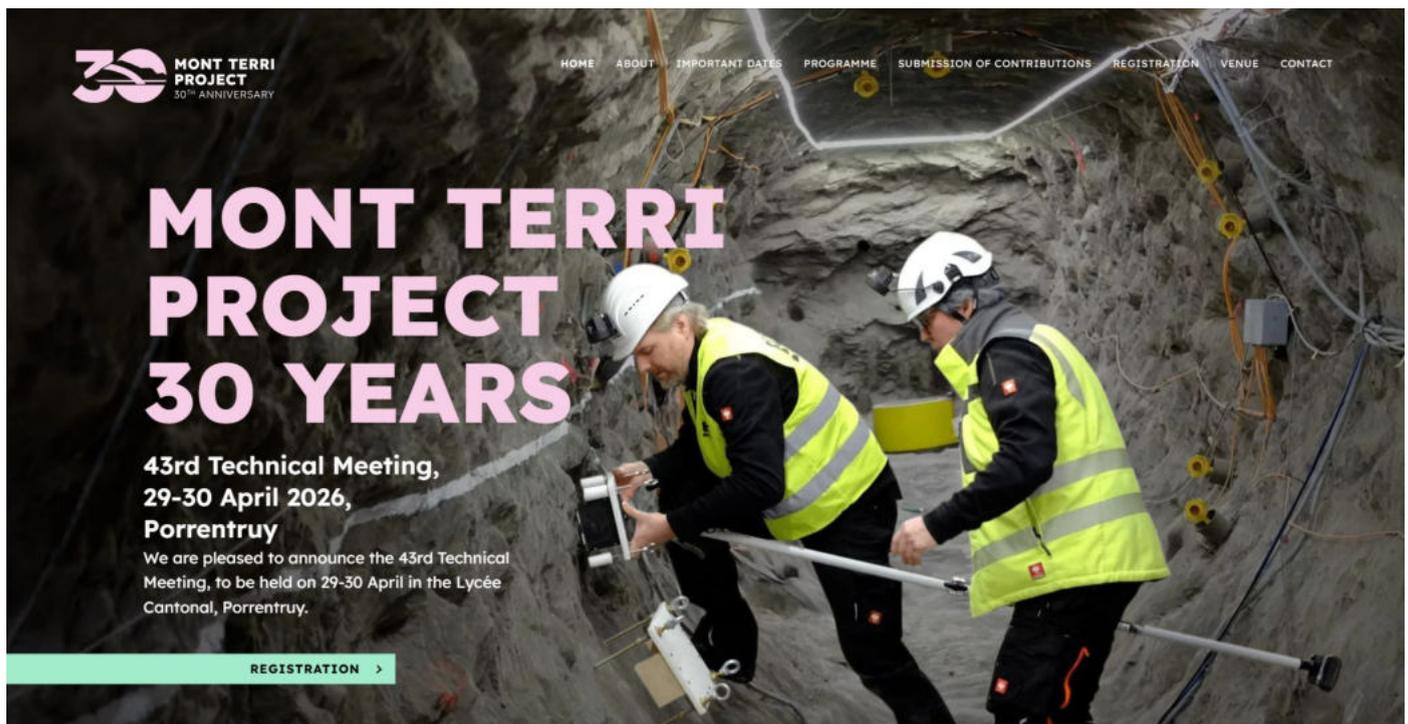
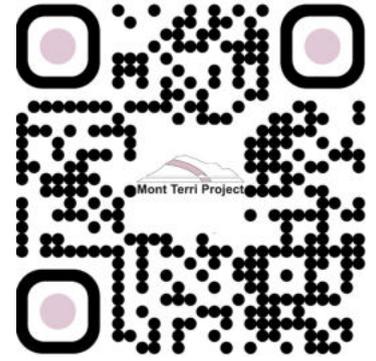


Mont Terri Project Underground Rock Laboratory

Report period: January 12–18, 2026

Assembled and edited by swisstopo, St-Ursanne



Spotlight of the week: We are pleased to announce the launch of our new website www.mont-terri-meeting.ch. This new platform will initially be used for the Technical Meeting marking the 30th anniversary of the rock laboratory this April, and then for Technical Meetings in the years to come. This new website is now available for you to submit conference papers (around fifty contributions have been announced, and we are delighted with the positive response to our call). It will also be used to register participants for the Technical Meeting on 29 and 30 April 2026. We hope you appreciate its design and the practical benefits it offers.

Important note

- On Friday, February 6, the electricity in the lab will be interrupted due to the installation of an additional transformer for the DEBORAH borehole. Backup generators will provide power to all the connected experiments and site management will use this day to control the proper operation during a power loss. If you have any questions, don't hesitate to contact us.

CD-A (Influence of Humidity on Cyclic and Long-Term Deformations) experiment

- On Friday, January 16, C. Etter (swisstopo) measured the lengths and the apertures of cracks in both twin niches to understand the cyclic deformation and possible deterioration of gallery walls.

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

- On Monday, January 12, J. Windisch (swisstopo) took two water samples from the circuit tank before circulation started into BCL-11 and 3 water samples from the circuit of BCL-9.
- On Tuesday, January 13, J. Gisiger (solexperts) was onsite to first reconnect the 50 l Pearson water tank to the circuit and to increase the interval pressure in the injection interval 2 of borehole BCL-11 to 12 bar. Soon after the pressure has stabilized, the CO₂ injection in the same interval was started using the Solexperts semipermeable membrane system SysMoG at 10 bar gas pressure. The works were supervised by D. Jaeggi (swisstopo). Initially the CO₂ flux was high but then reduced to a few ml/min.
- On Wednesday, January 14, D. Jaeggi (swisstopo) controlled the injection performance and switched the Eh and pH geochemical on-line sensors to the circuit. The sensors were set back to bypass in the evening in order to prevent degradation of these sensor types. Injection pressure of the fluid is constantly at 12 bar and the CO₂-gas pressure at 10 bar. Circulation speed is at 10 ml/min. Regular samples are taken from the injection circuit and sent to University of Bern for analysis.
- On Thursday, January 15, J. Windisch (swisstopo) took three water samples from BCL-11 after homogenization.

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

- From Tuesday to Friday, January 13–16, D. Zuber and O. Zuber (Zuber SA) started to excavate the drilling cellar of the future borehole DEBORAH (BDB-B1). The drilling cellar with dimensions of 1.5x1.5x2.0 m will finally host the top valve at the well head (Figure 1).
- On Thursday, January 15, S. Schefer and J. Windisch (swisstopo) unloaded the 12 palettes with core boxes and stored them in the safety gallery (Figure 2).

DR-C (Diffusion in a Thermal Gradient) experiment

- On Monday, January 12, G. Pochet, F. Bernier (FANC), Y. Lettry (Solexperts), F. Heberling, S. Ratnjake (KIT), A. Martin (Nagra) and S. Schefer (swisstopo) performed the first injection of the radionuclides (Cs-137, Co-60, Ba-133). A protocol for injection was previously prepared and validated by the team. By following the protocol, the vials containing the radionuclides solution were successfully connected to the circulation circuits of the BDR-C1 and BDR-C6 boreholes. Dose rate measurements were performed to verify the dilution of the radionuclides solution in the circulation circuits and no contamination was found (Figure 3).
- On Tuesday, January 13, Y. Lettry (Solexperts), F. Heberling (KIT) and S. Schefer (swisstopo) took sample #1 from the circulation circuits of BDR-C1 and BDR-C6, measured pH and prepared the samples for transport to KIT for radionuclide analysis. G. Pochet and F. Bernier (FANC) supervised the sampling.
- On Thursday, January 15, S. Schefer and J. Windisch (swisstopo) took sample #2 from sampler 3 from BDR-C3. Contamination tests showed no activities above background.

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

- On Monday, January 12, F. Heberling, S. Ratnjake (KIT), Y. Lettry (Solexperts) and S. Schefer (swisstopo) performed the first injection of the radionuclides (Cs-137, Co-60, Ba-133) into borehole BDR-D3 following strict radio protection protocol established for this task including dose rate measurements and contamination tests (Figure 4).
- On Tuesday, January 13, F. Heberling, S. Ratnjake (KIT), Y. Lettry (Solexperts) and S. Schefer (swisstopo) took sample #1 from BDR-D3, measured pH and prepared the sample for transport to KIT for radionuclide analysis (Figure 5).
- On Thursday, January 15, S. Schefer and J. Windisch (swisstopo) took sample #2 from sampler 3 from BDR-BC1 and BDR-C6. Contamination tests showed no activities above background.

DR-E (Long-Term Diffusion Experiment in the Main Fault-Zone) experiment

- On Thursday, January 15, S. Schefer (swisstopo) took samples #18 from the injection fluid on both boreholes BDR-E1 and BDR-E2.

LT (Long-Term Monitoring) experiment

- On Friday, January 16, C. Etter (swisstopo) measured the changes of the x/y/z axis of the joint meter in Niche EZ-B and at the main fault in Ga98.

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

- From Tuesday to Thursday, January 13–15, S. Schefer and M. Ziegler (swisstopo) pretensioned and fixed the new fibre-optical strain sensor cables of borehole BPF-7. They are grateful to A. Rinaldi (SED) for online support.

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

- On Thursday, January 15, J. Windisch (swisstopo) refilled the HPT of shaft 1.

Figures



Figure 1: DB-B: The first layers of geology are visible in the drill cellar (S. Schefer, swisstopo).



Figure 2: DB-B: Unloading the pallets with Aldibois (J. Windisch, swisstopo).



Figure 3: DR-C: The joint team of DR-C and DR-D after the successful injection (F. Bernier, FANC).



Figure 4: DR-D: Preparing the tracer and performing contamination tests (J. Windisch, swisstopo).



Figure 5: DR-D: Sampling for pH measurements (S. Schefer, swisstopo).