# Mont Terri Project Underground Rock Laboratory

Report period: March 10-23, 2025

Assembled and edited by swisstopo, St-Ursanne





**Spotlight of the week:** CD-A experiment: Convergences are measured inside both Twin Niches with different techniques. One of them is precision laser scanning. These measurements are performed twice a year (end of winter and end of summer) and are very helpful for the overall convergence in space, especially for the walls and the drift of the niches. The invert, however, is always covered in dust and shows a lot of artefacts over time. This is why the laser scans are always accompanied by precision levelling (with respect to Ga18) allowing for a precise information of the invert movements. The levelling will take place next week.

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

- On Monday, March 17, S. Schefer (swisstopo) restarted the CD-A computer and all the measurements.
- On Friday, March 21, N. Philipossian, Q. Bobillier and G. Vuilleumier (Sigeom) were onsite to perform the laser scanning in both Twin Niches.

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

- On Tuesday, March 11, M. Abdelouhabi (swisstopo) prepared samples for pycnometry analysis. Samples have been dried, final mass have been measured and the rock pieces have been transferred into 50mL plastic containers. The oven in the chemical room has been turned off.
- From Wednesday to Friday, March 12–14, M. Abdelouhabi (swisstopo) performed pycnometry analyses on samples from BCL-09 and BCL-10 at Uni Bern.
- On Wednesday, March 19, D. Jaeggi (swisstopo) disconnected the pressure distributor from the intervals of borehole BCL-5 to BCL-8. The pressure was set to 10 bar and is now dropping again to hydrostatic equilibrium.

### DR-C (Diffusion in a Thermal Gradient) experiment

- On Wednesday, March 12, Y. Lettry (Solexperts) reversed the heating circuit flow path for a better homogeneisation of the heating fluid. Further increases of heating temperature setup were performed up to 72.5 °C.
- On Tuesday, March 18, Y. Lettry (Solexperts) increased the heating temperature setup up to 85 °C in BDR-C1.

### FM-D (Evaporation Logging) experiment

 On Thursday, March 20, T. Takemura (Nihon University) checked all the sensors in the FM-D niche (temperature, relative humidity, air pressure and moisture) and retrieved data from the SD cards.

#### MA-A (Modular Platform for Microbial Studies) experiment

 On Wednesday, March 12, T. Theurillat (swisstopo) turned off the glove-box and its pump on Wednesday afternoon, regarding the instruction received from C. Rolland (EPFL). This experiment will be continued in one of the EPFL laboratories.

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

- On Wednesday, March 12, T. Theurillat (swisstopo) refilled the HPT attached to the pit BSW-A1.
- On Friday, March 21, T. Theurillat (swisstopo) refilled the HPT attached to shaft 1.

#### **Visits**

Day	Date	Group Name	Group Size	Visitors Guide
Tue	11.3.2025	EPFL	50	JP. Meusy (freelance) M. Abdelouhabi (swisstopo) R. Nicol (swisstopo)
Thu	13.3.2025	University Of Bristol, School Of Geographical Sciences	2	R. Nicol (swisstopo)
Fri	14.3.2025	ECA-VD, Groupement Des Instructeurs Radioprotection	12	T. Theurillat (swisstopo)
Sat	15.3.2025	KLAR! E.V. Singen	33	H. Sager (Nagra) R. Nicol (swisstopo)
Mon	17.3.2025	60+ Volleyball Muttenz	14	R. Nicol (swisstopo)
Thu	20.3.2025	Bundesgesellschaft Für Endlagerung (BGE)	11	M. Ziegler (swisstopo)
Thu	20.3.2025	Männertreff FMG Laufenthal	18	H. Sager (Nagra)
Fri	21.3.2025	Université De Lausanne, Géologie De L'ingénieur	9	R. Nicol (swisstopo)
Fri	21.3.2025	Gymnasium Oberwil	14	H. Sager (Nagra)
Fri	21.3.2025	Collège Voltaire, Genève	6	R. Nicol (swisstopo)