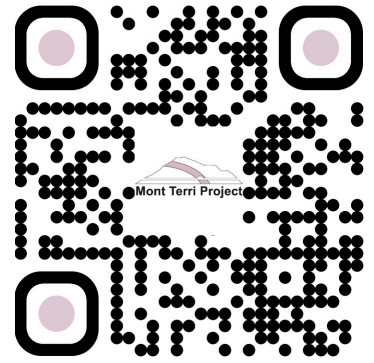


Mont Terri Project Underground Rock Laboratory



Report period: April 14–27, 2025

Assembled and edited by swisstopo, St-Ursanne

CIGSS 2026 - IMPORTANT DATES

31 MAY 2025

ABSTRACT SUBMISSION DEADLINE

30 JUNE 2025

ABSTRACT ACCEPTANCE NOTIFICATION

30 JUNE 2025

REGISTRATION OPENS

31 AUGUST 2025

EXTENDED ABSTRACT SUBMISSION DEADLINE

31 OCTOBER 2025

EXTENDED ABSTRACT REVISION DEADLINE

30 NOVEMBER 2025

REGISTRATION CLOSES

Spotlight of the week: REMINDER The deadline for submitting abstracts for the second edition of CIGSS in January 2026 is 31 May 2025. This means that those interested in submitting an abstract have just over a month to upload it via the CIGSS website at the following address: <https://www.cigss.ch/submission-of-contributions/>.

BN (Bitumen-Nitrate-Clay Interaction) experiment

- On Thursday, April 17, the third water vial of interval #2 has been taken by T. Theurillat (swisstopo) and stored in the fridge regarding the instructions received from J. Mathjis (SCK.CEN).

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

- On Thursday, April 24, S. Schefer (swisstopo) restarted the psychrometric measurements.

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

- On Wednesday, April 23, M. Abdelouhabi, M. Ziegler and D. Jaeggi (swisstopo) cut and sealed about 85 rock samples from BCL-09. The samples will be shipped to various laboratories for hydromechanical, chemical and mineralogical analyses and tests. Some core sections were CT scanned at EPFL prior to subsampling.
- On Friday, April 25, M. Ziegler (swisstopo) restarted the seismic DAS at CL, after monitoring stop on April 23rd, to continue seismic monitoring and conduct active seismic transmission surveys.

DR-C (Diffusion in a Thermal Gradient) experiment

- On Tuesday, April 22, K. Kontar and A. Jakupi (Solexperts) performed maintenance on the heater, saturated the circuit and tried to restart the heating but with no success. They removed the heating cabinet for repair at Solexperts.
- On Thursday, April 24, K. Kontar (Solexperts) and T. Theurillat (swisstopo) connected the backup heater element and restarted the heating and the pump. The temperature is at 40 deg and will be adjusted over time. All packers have been adapted to be at 10 bar.

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

- On Thursday, April 24, 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 1**).
- On Friday, April 25, L. Keller and D. Kündig (roXplore) performed crosshole seismic measurements between GT1 and GT2 after the active logging campaign and re-installed the sensors for the permanent monitoring. E. Manukyan (Nagra) supervised the measurements and assisted during the installation (**Figure 2**).

FS-B (Imaging the Long-Term Loss of Faulted Host Rock Integrity) experiment

- From Monday to Thursday, April 14–17, S. Braunschweig and F. Durulan (Eul GmbH) installed the rig below the Main Fault and started drilling of BFS-B16. The reached a depth of 28.4 m by Thursday and stopped for the Easter break.
- From Friday to Saturday, April 25–26, A. Eul, S. Braunschweig and F. Durulan (Eul GmbH) drilled BFS-B13 down to its final depth of 69.8 m and cleaned the borehole. It is now ready for logging on Monday.

HT (Hydrogen Transfer in Opalinus Clay) experiment

- On Monday, April 14, T. Theurillat (swisstopo) emptied the Tedlar bag of the experiment while the scale displayed 992 g (tara 87g).

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

- On Wednesday, April 23, M. Ziegler (swisstopo) moved the seismic DAS from CL to PF-A to conduct active seismic transmission surveys. The automated transmissions did, as in February 2025, not run smoothly so that the shots from senders 1-12 were manually started.
- On Friday, April 25, M. Ziegler (swisstopo) performed a photogrammetric survey of BPF-7 (**Figure 3**).

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

- On Thursday, April 17, T. Theurillat (swisstopo) refilled the high pressure tank attached to the pit BSW-A1.
- On Friday, April 25, S. Schefer (swisstopo) refilled the HPT of shaft 1.

Visits

Day	Date	Group Name	Group Size	Visitors Guide
Mon	14.4.2025	CECG Madame De Staël, Genève	18	J.-P. Meusy (freelance)
Thu	17.4.2025	ETH Zürich, Hansruedi Maurer	31	M. Ziegler (swisstopo)
Wed	23.4.2025	Gymnasium Köniz-Lerbermatt	26	L. Oesch (Nagra)
Wed	23.4.2025	Männerriege Wohlen-Uetligen	14	L. Oesch (Nagra)
Fri	25.4.2025	ARTE, Buffard Ghislaine	2	C. Nussbaum (swisstopo)
Sat	26.4.2025	SIS Calabri	16	G. Brusatin (freelance)

Figures



Figure 1: FE-M: Measuring density inside GT-1 (S. Schefer, swisstopo).



Figure 2: FE-M: roXplore during the seismic measurements (S. Schefer, swisstopo).



Figure 3: PF-A: 1 out of 6240 images taken with a 9 mm lens camera of the photogrammetric survey system inside the experiment borehole BPF-7. Image width is about 50 cm. The image shows a portion of the borehole wall with fixations (grey) of a FO-strain sensor cable (blue). These sensors and the photogrammetric 3D model produced from all 6240 images are used to assess the temporal and spatial evolution of borehole deformation and damage such as borehole radial convergence, displacement of discrete tectonic faults, borehole breakouts as well as induced cracks as seen in the image (M. Ziegler, swisstopo).