Mont Terri Project
Underground Rock Laboratory

Mont Terri Rock Laboratory

Field report: March 1st- March 7, 2021 (Phase 26)

CD-A (Influence of Humidity on Cyclic and Long-Term Deformations) experiment
- On Tuesday, D. Jaeggi, V. Regard, P. Steiner and S. Schefer (swisstopo) started the mapping of the cracks in Niche Open Twin along the scan line (Figure 1).
- Wednesday and Thursday, V. Regard and P. Steiner finished the first mapping of the cracks along the scan line. This measurements will be repeated every 4-6 months.

CS-A (Well Leakage Simulation and Remediation Experiment) experiment
- From Monday to Thursday, A. Eul, H. Gutgesell and H. W. Sassmannshausen (Schützeichel) installed the drilling rig and performed a reaming of the first 4.5 m with a diameter of 454 mm (Figure 2).
- On Thursday, C. Minnig (swisstopo) was on site to supervise the activities and fine tune the upcoming overcoring.

FS-B (Imaging the Long Term Loss of Faulted Host Rock Integrity) experiment
- On Tuesday, P. Steiner (swisstopo) performed a pulse test in BFS-B2 at 35 bars (Figure 3).

FE-M (Long-Term Monitoring of the Full-Scale Emplacement Experiment) experiment
- On Thursday, March 4, E. Manukyan (Nagra) and B. Rinderknecht (BR Technik) repaired the nitrogen leakage and inserted the sensors back into GT1 and GT2 (Figure 4).

SM-C (Permanent Nanoseismic Monitoring) experiment
- On Friday, P. Steiner and S. Schefer (swisstopo) replaced the sensors of SNS-1 with the newly calibrated sensors of SNS-2.
- P. Steiner and V. Regard (swisstopo) collected the remaining 8 sensors from SNS-3 and SNS-4. All the sensors are now sent to Germany for recalibration.

SW-A (Large-Scale Sandwich Seal in Opalinus Clay) experiment
- Monday to Wednesday, S. Zejeni and D. Durmisi (VSH) drilled the eight anchor boreholes to fix the cover of the shaft BSW-A1 (Figure 5).

Varia
- Since Monday, March 1st, Vincent Regard has joined our team as trainee (Figure 6). He has a Master of Geology from the University of Geneva and will stay with us for one year. We welcome Vincent and are looking forward to a good collaboration!
- Next week, installation works in the Security Gallery will be carried out by the company Arnold. The gallery will be blocked on March 9, 10, 11 and 12 from 08:00 to 11:00 and from 13:30 to 16:30.
• Pre announcement: In the framework of the MH experiment, geodetic measurements will be carried out in the Security Gallery. **During the weeks May 17–21 and May 31–June 4, access to the rock laboratory will be limited and partly not possible with vehicles.**

**Visits**

• There were no visits this week due to COVID-19 restrictions. We will keep you informed about any development.

D. Jaeggi and S. Schefer, March 8, 2021

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**Figure 1:** CD-A: V. Regard during the mapping of the cracks (Photo: S. Schefer, swisstopo).
Figure 2: CS-A: Ready to start the overcoring! (Photo: S. Schefer, swisstopo).

Figure 3: FS-B: P. Steiner sweating during the pulse test (Photo: S. Schefer, swisstopo).
Figure 4: FE-M: E. Manukyan and B. Rinderknecht inserting the repaired seismic sensors into GT-2 (Photo: P. Steiner, swisstopo).

Figure 5: SW-A: S. Zejeni is preparing the hole to attack the anchor drilling (Photo: S. Schefer, swisstopo).
Figure 6: Varia: Our new trainee Vincent Regard. Welcome! (Photo: S. Schefer, swisstopo).