



Mont Terri Rock Laboratory

Field report: April 25–May 1, 2022 (Phase 27)

BN (Bitumen-Nitrate-Clay Interaction) Experiment

- On Monday, T. Theurillat (swisstopo) took water samples from intervals 1 and 2 and measured the volumes of the gas traps.

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

- On Thursday and Friday, S. Costabel and G. Willkommen (BGR) completed the seasonal nuclear magnetic resonance measurements (NMR) inside the Niche Closed Twin (**Figure 1**).
- They also installed the single-sided NMR-device for the permanent moisture monitoring on the wall inside of Niche Open Twin.

CI-D (Diffusion across 10-year old Concrete/Claystone Interface) Experiment

- On Thursday, S. Schefer (swisstopo) took a water sample and sent it to PSI for analysis.

CS-E (Mini-Fracturing and Sealing) experiment

- On Friday, A. Zappone, A. Rinaldi (ETHZ), J. Gisiger and A. Ammon (Solexperts) installed a new circulation module for fluid and gas sampling for borehole BCS-D2.

DR-B (Long-Term Diffusion) Experiment

- On Monday, A. Degiacomi, T. Steffen and S. Schefer (swisstopo) moved the XRF-probe into BDR-B6 and tried to start a measurement.
- On Tuesday, Thursday and Friday, S. Schefer repeatedly started measurements without success, the last one on Friday afternoon. May it be successful... ☺

HS (Hydrogeological Survey of the Mont Terri Anticline)

- On Tuesday, D. Jaeggi and T. Theurillat (swisstopo) took water samples from BHS-1 and sent them to F. Quinto (KIT) and C. Ostertag-Henning (BGR) who will analyze the composition.
- On Thursday and Friday, W. Stadtherr (Hydroisotop) was on site to collect water and gas samples from interval 2 of BHS-1 (**Figure 2**). The water was taken from an IBC that was constantly being filled during the last 2 weeks. The 1000 l pore water were degassed using a vacuum pump and collected in metal containers for krypton groundwater dating.

Varia:

- Information:** On Thursday and Friday, May 26–27, the lab will stay closed due to the holiday.
- Friday marked the last day of Tim Steffen's civil service at Mont Terri. We thank Tim very much for all the work and the many beautiful pictures in the weekly report! Enjoy your holiday...

Visits

Thu	28.04.2022	Alte Kantonsschule Aarau	23	H. Sager
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D. Jaeggi and S. Schefer, April 29, 2022



Figure 1: CD-A: S. Costabel and G. Willkommen during the measurements inside Niche Closed Twin (Photo: S. Schefer, swisstopo).



Figure 2: HS: Degassing and sampling for geochronology of pore water coming from interval 2 of BHS-1 (Photo: A. Degiacomi, swisstopo).