

## Barberton, March 12, 2022

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Frohes Forschen! Christoph Heubeck, Nic Beukes and the BASE onsite team

As the rig at Site 2 was nearing completion and is due to move to Sites 5A and 5B, we checked out site access and locations of the two boreholes to be drilled there. Site 5, located in lower Moodies strata of the Stolzburg Syncline, will investigate by two offset, 45°inclined boreholes a ca. 500 m thick coastal plain–lagoonal– shoreline–delta–prodelta transgressive sequence. It will be drilled top-down through steeply inclined siltstones and sandstones. Thick jaspilites (Mdl1) crop out in the grasslands along the drillpath, and we also expect abundant rhythmites. As the photo shows, we reached agreement in what direction to drill. Note the diverse field attires!

We continue to receive visits from Elementary and High School groups large and small at our workplace in downtown Barberton. Phumi organizes these visits and introduces the groups to the topics, followed by a tour of the core processing stations. Depending on the age group, we emphasize fundamental or advanced aspects, ranging from rocks and drilling to metabolisms and planetology. It is difficult to judge how much will stick - but one never knows! The kids are lively and clearly enjoy the visit: Cylindrical rocks, cameras, hand lenses, rock hammers etc. The main attraction is, of course, the rock saw. Can you see the core in its tray? How many heads ?

Rig MDX901 at Site 2 terminated at the end of the shift on March 10 in pebbly sandstones of unit A at 367.4 m. The borehole reached all its objectives and exceeded our expectations. It had drilled through a bewildering range of sedimentary rocks, ranging from cobble conglomerates to laminated black shales, along with several tuffs, thin lava flows and vadose-zone structures. The new rig was on its first deployment; it drilled ahead of plan and delivered reliably >15 m of excellent-quality core daily. Logging will now take place on Monday, after which the site will be rehabilitated while the rig will make the 41 km long trip to Site 5.

The leadership team of the University of Mpumalanga visited us for half a day on March 10, touring the hall and visiting drilling operations at Site 2. UMP, located in nearby Nelspruit, is only a few years old. Geology is taught there by a small staff within the BSc in Science and BSc in Env. Sci. degree programs. We explained to the vice-presidents and deans the relevance of the World Heritage Site in which we drill and the significance of greenstone belt geology for early-life studies, and discussed the contribution UMP could make through its proximity to the BGB in the present political and environmental setting.

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