GEOMETRY course

A new teaching borehole array is being created by Newcastle University hydrogeologists, reports Adler deWind

Newcastle University's School of Civil Engineering and Geosciences is constructing a borehole array as a practical teaching tool for their Applied Hydrogeology MSc course. The six boreholes, all 50m deep, are arranged in a cruciform pattern with each borehole set at a different distance from the central pumping well. Located on the University's farm at Cockle Park near Morpeth, the boreholes penetrate sandstone in the Stainmore Formation just below the Namurian/Coal Measures boundary. They have been arranged with one row running along the dip and the other along the strike to give geological variation. Geoff Parkin, Director of Post-Graduate Studies said: "In addition to providing facilities for demonstrating techniques of borehole design, construction and operation, the boreholes will also be used to study borehole and aquifer hydraulic behaviour and monitor the local groundwater environment".

The borehole array has been given the name GEOMETRY (Groundwater Engineering, Operation, Monitoring, Evaluation and Testing (L)aboratoRY) and is the latest addition to the School's series of full-scale Earth Systems Laboratories that include instrumented river catchments, an infrastructure embankment, mine water remediation sites, a sustainable urban development area and geodetic monitoring.

Rick Brassington, Visiting Professor of Hydrogeology said: "The GEOMETRY Project has only been made possible by the generous support of nine industrial sponsors that are involved in geoscience, groundwater and water supply industries. Work started in September with the aim of having the boreholes ready for students to use in the current academic year".

Farm-in

Banks Mining, a North-East based energy company, provided their in-house drilling team to construct the boreholes. Water-well casing was donated by Marton Geotechnical Services Ltd and headworks, casing and pipes were given by Blair Drilling Ltd. Dales Water Services Ltd has carried out a yield test and a submersible pump is being donated by Grundfos Pumps Ltd. The pump will be hung on Wellmaster rising main, donated by Angus Flexible Pipelines and will be installed by J.P. Whitter (Water Well Engineers) Ltd. The boreholes will be geophysically logged for detailed geological and groundwater related information by European Geophysical Services Ltd and will be instrumented using Diver groundwater level data loggers provided by Schlumberger Water Services.

Banks drilling rig at Cockle Farm

View showing line of boreholes along dip. Photos: Rick Brassington.

Funny old world

Unconsidered trifles, by 'Snapper'

Martyr dumb

Prof. Dick Selley, returning from a field trip to study the *vendange* on the *Côtes de Cornubia* (where a bumper vintage is forecast) reports reading *en route* a tourist brochure, urging trippers to "Visit the Jurassic World Heretic Coast". Presumably it was written by a creation scientist.

***Monitors**: Dick Selley. All contributions gratefully received. Please write to the Editor at Burlington House, or email* ted.nield@geolsoc.org.uk *marking your submission 'snapper".*

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