

## Occurrence of faults and water conducting features at 350m gallery of the Horonobe URL project

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In the Horonobe Underground Research Laboratory Project, methodology development for the investigation of geological structure in sedimentary rocks has been carried out through construction of underground facility. As part of the methodology development, hydrogeological models have been constructed and the geological structure associated with water-conducting features (WCFs) has been conceptualized on the basis of the surface-based investigations including geophysical survey, outcrop observation and borehole investigation. The horizontal gallery named ' 350m gallery ' and having approximately 740m long in total has been excavated at a depth of 350m below the surface by January 2014. This study presents the predictive distribution of geological structures contributing to WCFs in 350m gallery based on the surface-based investigations and the characteristics of geological structures observed in 350m gallery.

Keywords: Hydrogeological model, Fault, Water-conducting feature