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COGITO-MIN seismic reflection study in Polvijärvi: first results

Abstract

The COGITO-MIN project of seismic reflection study in Polvijärvi – coordinated by the University of Helsinki – is developing cost-effective geophysical mineral exploration techniques, with main emphasis on seismic methods. Project partners from Poland and Finland, representing both academia and industry, are working together in the project with the aim to develop new seismic data acquisition, processing and interpretation techniques. The seismic data in the Kylylahti area were acquired along two, almost parallel ca. 6 km long profiles. Geopartner Ltd., an industrial partner of the COGITO-MIN project, provided the wireless recording system and vibroseis sources used in the project. Acquisition of the high resolution 2D seismic profiles was done within two weeks in August-September 2016. Locally, the goal is to achieve a better understanding of the subsurface structures in the vicinity of the Kylylahti (Cu-Au-Zn) mine, in Polvijärvi, Eastern Finland. As part of this project, new 2D reflection seismic data have been acquired.