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# Geophysical exploration in orthomagmatic mineral deposits: multimethod approach

**Isla Fernandez**[1], Andrea Viezzoli[1], Gianluca Fiandaca[2], Kari Moisio[3], Elena kozlovskaya[3], and Shenghong Yang[3]

[1]Gaia Exploración, Valverde del Camino, Spain
[2]The EEMteam for Hydro & eXploration, Università degli Studi di Milano "A. Desio", Milano, Italy
[3]Oulu Mining School, University of Oulu, Oulu, Finland

In the Akaanvara area in Northern Finland, during the SEMACRET project, several geophysical campaigns have been carried out, which together with the information provided by the campaigns previously carried out in the area have been used to define procedures for the choice of methodologies, processing and modelling suitable for the exploration of the mineralisations in the study area.

AEM and Flight Magnetometry, AMT and Passive Seismic campaigns have completed the existing information consisting of gravimetric and magnetic data. The different methodologies have been analysed in detail, applying in each case the most resolute and precise processing and modelling techniques, as well as novel in some cases, which although they have been applied in other areas of the world have not been tested in geological environments of the characteristics of Akaanvara, with the challenges of working in an area with very high resistivities.

This paper aims to analyse in detail how the different methodologies and the different processes and modelling applied to the measured and collected data, and their integration, can be applied to the geological environment of Akaanvara. The results of the analysis of the different methods, as well as the treatment that has been applied to them, together with the integration of all the layers of information have provided very interesting conclusions.