MAGNETOTELLURIC AND RADIO-MAGNETOTELLURIC, AN EXAMPLE FROM MIDSOMMAR ISLAND, SWEDEN

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Electromagnetic methods are powerful and widespread geophysical methods that can be employed to delineate the electrical conductivity of Earth materials.
Magnetotelluric data and Radio-magnetotelluric data were collected in year 2000 at one site located on Midsommar Island, west of Stockholm. This work has been done under the coverage of Björkö Energy Project which has been designed to map the structure at depth with geophysical methods and by drilling. Combined data from Midsommar Island including RMT data which reflects the characteristics of the uppermost part of the earth and MT data reflecting the characteristics of the deeper parts of the earth's upper crust at the island are considered in this article. The inversion results of the data on Midsommar Island are correlated well with the information from a bore-hole drilled down to 964 m. The well-log shows a conductive zone at 900m depth extending to larger depths. This conductor is clearly predicted by MT data at this island.

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