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## ANALYSIS AND MODELLING OF A MAGNETOTELLURIC DATA SET IN A NS TRANSECT OF ARTESA DE SEGRE (SOUTH PYRENEAN FRONT)

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### Abstract

The studied area is in Artesa de Segre, located in the Sierras Marginales, being a sector affected by different thrust faults. In this area was applied the geophysical and passive method of magnetotelluric (MT), which is a cheap and easy technique to implement compared to other methods such as seismic, and also provides an advantage when image complex structures, in this case the Artesa de Segre anticline, whose core is composed of salts. In this work, the processing of the collected information was carried out, a MT model was generated, and the area under study was characterized in three parts according to its geoelectric characteristics: South, Central and North sectors, highlighting the diapir, the thrust fault and the conductive limestone respectively.

**Keywords:** Magnetotelluric method (MT), Artesa de Segre, geophysical passive method.