

## **Analysis Of Magnetic Anomaly Data For Identification Subsurface Structure Geothermal Manifestations Area Candi Umbul, Grabag, Magelang, Central Java Province, Indonesia**

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**Abstract :** Acquisition of geomagnetic field has been done at Geothermal manifestation Candi Umbul, Grabag, Magelang, Central Java Province on 10-12 May 2013. The purpose of this research to study sub-surface structure condition and the structure which control the hot springs manifestation. The research area have size of 1,5 km x 2 km and measurement spacing of 150 m. Total magnetic field data, the position, and the north pole direction have acquired by Proton Precession Magnetometer (PPM), Global Positioning System (GPS), and of geology compass, respectively. The raw data has been processed and performed using IGRF (International Geomagnetism Reference Field) correction to obtain total field magnetic anomaly. Upward continuation was performed at 100 meters height using software Magpick. Analysis conclude horizontal position of the body causing anomaly which is located at hot springs manifestation, and it stretch along Northeast - Southwest, which later interpreted as normal fault. This hot springs manifestation was controlled by the downward fault which becomes a weak zone where hot water from underground the geothermal reservoir leakage

**Keywords :** PPM, Geothermal, Fault, Grabag

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020