

ABSTRACT

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Analisa Struktur Tahanan Jenis Daerah Prospek Geothermal Lapangan “Rdw” Menggunakan Data Magnetotellurik

One method that can be used in geophysical exploration of geothermal energy is magnetotellurik method (MT). In geothermal exploration, MT method utilizing konduktivitas properties contained in the rock-forming elements of a geothermal system (heat source, caprock, reservoir, fluid, and structure). In addition, the advantages of the MT method is its penetration deep enough, and the level of ambiguity is small compared to other methods also take advantage of the potential field of the earth. Measurement magnetotellurik (MT) was performed on 34 points trending from west to east is named the first measurement point MT 01 and the last MT 34. From geochemical data surface manifestations of geothermal prospect area "RDW" of fumarola and hot springs. Resistivity of $<10 \Omega m$ is estimated as the Caprock, which serves as the Caprock rock is altered rock dominated by clay, which is interpreted as a reservoir zone with resistivity values $\pm 15-75 \Omega m$. serve as reservoir rocks in the study area is a pyroclastic rock units, Interpretation of the results of the resistivity structure of the "RDW" can be recommended drilling target is 6 points RDW 1, RDW 2, RDW 3 and RDW 4, RDW 5, RDW 6.

Keywords: Magnetotelluric, Resistivity, Caprock, Reservoir