Identifikasi Akuifer Menggunakan Metode *Mapping* dan VES Studi Kasus Desa Rejomulyo, Kecamatan Jati Agung, Kabupaten Lampung Selatan"

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ABSTRAK

Pengukuran geolistrik telah dilakukan di Desa Rejomulyo, Kec. Jati Agung, Lampung Selatan dengan menggunakan metode *Mapping* dan VES (*Vertical Electrical Sounding)* untuk mengidentifikasi lapisan akuifer. Konfigurasi yang digunakan untuk pengukuran *Mapping* konfigurasi *Wenner* dengan 3 lintasan spasi 10 m dengan panjang lintasan 200 m dan pengukuran VES konfigurasi *Schlumberger* dengan 2 titik dan jarak MN/2 dari 0,5 meter hingga 25 meter, serta AB/2 dari 2 meter hingga 100. Hasil pengolahan data *Mapping* dan VES dikorelasikan sehingga model litologi bawah permukaan, daerah penelitian memiliki 4 perlapisan dan 3 jenis batuan. Lapisan pertama terdapat batuan pasir tuffan dengan nilai rentang resistivitas 20 – 80 Ωm, batuan ini disebut sebagai lapisan akuifer. Lapisan kedua batuan lempung tuffan yang memiliki nilai resistivitas lebih kecil dari 30 Ωm. Lapisan ketiga terdapat batuan tuff yang memiliki nilai resistivitas yang tinggi yaitu 62 – 261 Ωm, sedangkan lapisian keempat terdapat batuan pasir tuffan. Berdasarkan hasil pengolahan data *mapping* dan VES lapisan akuifer Desa Rejomulyo ke arah Barat di kedalaman 2,5 – 22 m termasuk dalam jenis akuifer bebas (*unconfined aquifer)*. Sedangkan pada kedalaman 23 – 40 m terdapat jenis akuifer tertekan (*confined aquifer)* di sebelah Timur.

Kata kunci: *Mapping*, VES (*Vertical Electrical Sounding*), akuifer.

Aquifer Identification Using Mapping and VES Methods Case Study of Rejomulyo Village, Jati Agung District, South Lampung Regency

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ABSTRACT

Geoelectricity measurement had been done in Rejomulyo Village, Jatiagung Sub-District, South Lampung by using Mapping and VES (Vertical Electrical Sounding) method to identify aquifer layer. The configuration was used for mapping measurement is Wenner configuration that consist of three lines, the space is 10 m and the length of line is 200 m. VES measurement was used Schlumberger configuration with two points, the range distance of MN/2 is from 0.5 m until 25 m and the range of AB/2 is from 2 m until 100 m. Then the result of processing data map and VES were correlated so lithology sub surface model obtained. Research location have 4 layers and 3 types of rock. In the first layer was found tuffaceous sandstone with the resistivity range is from 20 until 80 Ωm, this rock named as aquifer layer. In the second layer was found tuffaceous claystone with the resistivity range is less than 30 Ωm. In the third layer was found tuffaceous with the resistivity range is from 62 until 261 Ωm. While in the fourth layer was found tuffaceous sandstone. Based on the result of processing data mapping and VES in Rejomulyo Village, the location of aquifer layer is in West, the depth is from 2.5 until 22 m and named as unconfined aquifer. While in the depth from 23 until 40 m was found confined acquifer in the East.

Keyword: Mapping, VES (Vertical Electrical Sounding), aquifer.