

ABSTRAK

IDENTIFIKASI ZONA MINERALISASI BERDASARKAN METODE GEOLITRIK *INDUCED POLARIZATION* KONFIGURASI *DIPOLE-DIPOLE* DI DAERAH “Z”

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Penelitian metode *Induced Polarization* konfigurasi *dipole-dipole* yang berada di daerah “Z” Pulau Sulawesi dilakukan untuk mengetahui persebaran litologi dan keberadaan zona mineralisasi logam berdasarkan nilai resistivitas dan nilai chargeabilitas. Kaveling penelitian memiliki ukuran 1,3 km x 1,5 km dengan jumlah lintasan sebanyak 14 lintasan. Panjang lintasan mencapai 580 meter dengan jarak antar elektroda sebesar 20 meter dan menggunakan n (bilangan pengali) 10. Data penelitian diolah menggunakan beberapa *software* seperti *software RES2DINV*, *Mapinfo Discover*, *Oasis Montaj*, *Surfer*.

Rentang nilai resistivitas dari hasil penelitian dikategorikan menjadi nilai rendah, sedang, dan tinggi dan chargeabilitas dikategorikan menjadi nilai rendah, dan tinggi. Nilai resistivitas rendah dan chargeabilitas tinggi yaitu $<25 \Omega m$ dan >50 ms diinterpretasikan sebagai zona alterasi argilik. Nilai resistivitas sedang $25 \Omega m - 100 \Omega m$ dan chargeabilitas tinggi >50 ms diinterpretasikan sebagai zona alterasi propilitik. Nilai resistivitas tinggi dan chargeabilitas tinggi yaitu $>100 \Omega m$ dan >50 ms diinterpretasikan sebagai zona alterasi potasik. Nilai chargeabilitas tinggi menunjukkan keterdapatan zona mineralisasi logam pada daerah penelitian dengan nilai >50 ms yang terdapat dibagian bawah permukaan dengan kedalaman yang lebih dalam.

Kata kunci: *Induced Polarization*, Resistivitas, Chargeabilitas, Zona Mineralisasi Logam

ABSTRACT

IDENTIFICATION OF MINERALIZATION ZONE BASED ON THE INDUCED POLARIZATION GEOELECTRICAL METHOD OF DIPOLE-DIPOLE CONFIGURATION IN THE “Z” AREA

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Induced Polarization (IP) survey using the dipole-dipole configuration in the “Z” area of Sulawesi Island is conducted to identify the lithological distribution and the presence of metallic mineralization zones based on resistivity and chargeability values. The research area has dimensions of 1.3 km x 1.5 km, with a total of 14 survey lines. The length of each survey line reaches to 580 meters, with electrode space 20 meters, with n (separation factor) is about 10. The data collected then processed using several software programs, like RES2DINV, Mapinfo Discover, Oasis Montaj, and Surfer.

The range of resistivity values from the research results is categorized into low, medium, and high values, while chargeability is categorized into low and high values. Low Resistivity and high chargeability values are about less than 25 Ωm and more than 50 ms are interpreted as argillic alteration zones. Medium resistivity values between 25 Ωm and 100 Ωm while high chargeability values more than 50 ms are interpreted as propylitic alteration zones. High resistivity and high chargeability values that more than 100 Ωm and 50 ms are interpreted as potassic alteration zones. High chargeability values indicate the presence of metallic mineralization zones in the study area, with more than 50 ms is found in the deeper subsurface layers.

Keywords: Induced Polarization, Resistivity, Chargeability, Metal Mineralization Zones