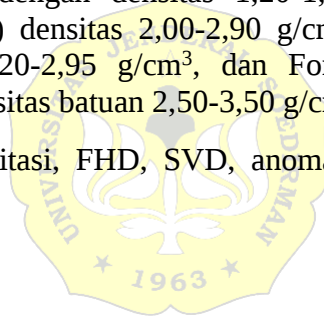


ABSTRAK

Penelitian metode gravitasi telah dilaksanakan di wilayah Subang Jawa Barat. Penelitian ini bertujuan mengetahui keberadaan serta jenis sesar dan hasil interpretasi struktur bawah permukaan patahan di daerah Subang menggunakan analisis *derivative First Horizontal Derivative* (FHD) dan *Second Vertical Derivative* (SVD) serta hasil pemodelan 2 dimensi. Data yang digunakan dalam penelitian ini berjumlah 21.304 titik data dengan luas area penelitian sekitar 1.034,16 km². Proses pada penelitian dilakukan dengan mengakses data sekunder dari *website* GGMPlus 2013, pengolahan data mencakup koreksi metode gravitasi, reduksi ke bidang datar, pemisahan anomali regional dan anomali residual metode *upward continuation*, analisis *derivative First Horizontal Derivative* (FHD) dan *Second Vertical Derivative* (SVD) dari anomali residual yang sebelumnya telah dipisahkan untuk mengetahui keberadaan serta jenis sesar, interpretasi grafik dari kedua analisis *derivative*, dan pemodelan 2D. Hasil penelitian mengidentifikasi pada daerah Subang terdapat sesar naik, memiliki orientasi barat-timur. Kemudian, hasil interpretasi pemodelan 2 dimensi menunjukkan daerah Subang tersusun atas 4 formasi batuan, yaitu Formasi Batuan Sedimen Neogen (Tnsb) dengan densitas 1,20-1,32 g/cm³, Formasi Batuan Gunung Api Holosen (Qv) densitas 2,00-2,90 g/cm³, Formasi Batuan Miosen Akhir (Tmsb) densitas 2,20-2,95 g/cm³, dan Formasi Batuan Gunung Api Plistosen (Qpv) dengan densitas batuan 2,50-3,50 g/cm³.

Kata kunci: anomali gravitasi, FHD, SVD, anomali residual, pemodelan 2D, subang



ABSTRACT

Gravity method research has been conducted in the Subang area of West Java. This study aims to determine the existence and type of faults and the results of the interpretation of the subsurface structure of faults in the Subang area based on the derivative analysis of the First Horizontal Derivative (FHD) and Second Vertical Derivative (SVD) as well as the results of 2D modeling. The data used in this study amounted to 21,304 data points with a research area of approximately 1,034.16 km². The process in the study was carried out by accessing secondary data from the GGMPlus 2013 website, data processing included correction of the gravity method, reduction to a flat plane, separation of regional anomalies and residual anomalies using the upward continuation method, derivative analysis of the First Horizontal Derivative (FHD) and Second Vertical Derivative (SVD) from residual anomalies that had previously been separated to determine the existence and type of faults, graphic interpretation of both derivative analyses, and 2D modeling. The results of the study identified that in the Subang area there is a reverse fault, having a west-east orientation. Then, the results of the 2-dimensional modeling interpretation show that the Subang area is composed of four rock formations: the Neogene Sedimentary Rock Formation (Tnsb) with a density of 1.20-1.32 g/cm³, the Holocene Volcanic Rock Formation (Qv) with a density of 2.00-2.90 g/cm³, the Late Miocene Rock Formation (Tmsb) with a density of 2.20-2.95 g/cm³, and the Pleistocene Volcanic Rock Formation (Qpv) with a rock density of 2.50-3.50 g/cm³.

Keywords: gravity anomaly, FHD, SVD, residual anomaly, 2D modeling, Subang