

## ABSTRAK

Penelitian menggunakan metode gravitasi citra satelit telah dilakukan di daerah Lebak, Banten. Gravitasi citra satelit menghasilkan data anomali gravitasi yang telah terkoreksi hingga udara bebas. Pemodelan geologi bertujuan untuk mengetahui model bawah permukaan dan mengidentifikasi kedalaman dan ketebalan formasi pembawa batubara. Pengolahan data meliputi koreksi bouguer, koreksi medan, reduksi ke bidang datar, serta pemisahan anomali regional dan residual. Data anomali residual dimodelkan menggunakan software *Geosoft Oasis Montaj 8.4*. Hasil pemodelan bawah permukaan di daerah penelitian memiliki rentang densitas 1,81-2,81 gram/cm<sup>3</sup>. Batuan penyusun bawah permukaan berasal dari beberapa formasi batuan yaitu anggota konglomerat Formasi Bayah, anggota batulempung Formasi Bayah, anggota batupasir Formasi Cijengkol, aluvium, anggota tuf Formasi Citarate, anggota batugamping Formasi Citarate, basalt, Formasi Cikotok dan batuan alas (andesit tua). Identifikasi pendugaan formasi pembawa batubara berada pada kedalaman 0 - 1.683,34 meter dengan ketebalan sebesar 1.683,34 meter. Formasi-formasi yang diidentifikasi sebagai pembawa batubara yaitu Formasi Bayah dan Formasi Cijengkol.

**Kata kunci:** metode gravitasi, Formasi Bayah, Formasi Cijengkol.

## ***ABSTRACT***

Research using the satellite image gravity method has been carried out in the Lebak area, Banten. Gravity satellite imagery produces gravity anomaly data that has been corrected to free air. Geological modeling aims to determine the subsurface model and identify the depth and thickness of coal-bearing formations. Data processing includes Bouguer correction, terrain correction, reduction to plane, as well as discounting of regional anomalies and residuals. Residual anomaly data was modeled using Geosoft Oasis Montaj 8.4 software. The results of subsurface modeling in the research area have a density range of 1,81 – 2,81 grams/cm<sup>3</sup>. The rocks that make up the subsurface come from several rock formations, namely conglomerate members of the Bayah Formation, mudstone members of the Bayah Formation, sandstone members of the Cijengkol Formation, alluvium, tuff members of the Citarate Formation, limestone members of the Citarate Formation, basalt, Cikotok Formation and bedrock (old andesite). The estimated identification of the coal-bearing formation is at a depth of 0-1.683,34 meters with a thickness of 1.683,34 meters. The formations identified as coal carriers are the Bayah Formation and the Cijengkol Formation.

**Key words:** gravity method, Bayah Formation, Cijengkol Formation.