

## ABSTRACT

*Central Lampung Regency is located in Lampung Province on the island of Sumatra. This study aims to carry out subsurface interpretation based on the distribution of its density values, identifying the presence and potential of coal. The method used is the gravity method which is based on the variation in mass density due to the density between rocks. The data used is secondary data obtained from the GGMplus satellite in the form of gravity disturbance data and ERTM2160 in the form of elevation data of the research area. Modeling is done by inversion using Grablox software. The data used in inversion modeling is residual anomaly data that has been reduced to a flat plane. In inversion modeling, a 2D density cross-sectional model was obtained on the x-axis, y-axis, and z-axis incisions displayed using Surfer software. Based on the results of the inversion, the subsurface interpretation of the research area based on the distribution of density values consists of several types of constituent rocks, namely sandstone and claystone. In inversion modeling, it can be estimated the existence of sandstone and clay with a density of 2.6-2.7 g/cm<sup>3</sup>, and also gravel and sand with a density of 2.05-2.3 g/cm<sup>3</sup> located in the southern region of the study which includes North Raman District, Seputih Many and Way Bungur.*

**Keywords :** *Central Lampung, Gravity Method, GGMPlus, Geophysics.*