## **ABSTRACT**

PT. Cahaya Batu Limau exploration to determine the presence of iron ore in its mining license. Iron ore is generally in the form of intrusion and boulders, so that a suitable research method used is the method of geoelectric resistivity 2D and Geomagnetic.

geoelectric resistivity 2D can give a general subsurface soil without excavation. Investigation of geoelectric resistivity using the Wenner-Schlumberger configuration. Geomagnetic useful method to determine the presence of magnetic objects beneath the earth surfaces by catching a wave beam magnetic anomalies. Geolectric measurements using a resistivity model of ARES (Automatic

Geolectric measurements using a resistivity model of ARES (Automatic Resistivity). Data processed measurement results Res2DInv Program. Data processing is done by entering data into the program and then get the drawing for 2D modeling in the form of vertical trajectory geoelectric section. Geomagnetic using GEMSISTEM and data processing combined with results obtained geoelectric effect results in the form of iron ore region.

Having in mind the existence of iron ore to the method followed by the 3-dimensional modeling to determine the form of the spread of the iron ore. Race is considered the prospects for further investigation by core drilling (coring) or test pit is track pit 1, pit 2.