

## ABSTRACT

Investigation to determine the spread of marsh sediment was conducted in the village of Gunung Daeng, Bunyu Island, Bulungan, East Kalimantan. Bunyu Island is geographically located at  $3^{\circ} 25'10''\text{N}$  -  $3^{\circ} 36'27''\text{N}$  and  $117^{\circ} 42'39''\text{E}$  -  $117^{\circ} 53'21''$  longitude.

From previous, the company suffered a big loss, because at some mining exploration drill holes spaced coal seams but there is no marsh sediment. The research problem is to obtain resistivity values of each layer of rock through which the trajectory geoelectric vertically and horizontally, so that the suspect can spread marsh sediment in the area.

One method that can provide an overview of the general subsurface soil without excavation is a geophysical method. Research Methods Geolistrik is done with resistance type (Resistivity) 2-Dimensional with Wenner-Schlumberger configuration. The resistivity data retrieval using tools Naniura NRD-22S models. Processing of the measured data using RES2DINV program.

Data processing is done by entering data into the program and then get a 2-Dimensional modeling is a trajectory geoelectric section. Interpretation of the model and then performed the resistance value of each type of rock on the cross section. Marsh sediment resistivity value specified is  $<10$  ohm.m. After the retrieval, processing and interpretation of the data then there is 12 tracks of 20 measured track suspected that there are deposits of bog track 1, 2, 3, 4, 7, 8, 10, 16, 17, 18, 19 and 20.