

**EROSION PREDICTION USING THE MEASUREMENT STICK  
METHOD IN OPD (OUT PIT DUMP) C3 PT BERAU COAL SITE  
BINUNGAN 2 BLOK 8, BERAU DISTRICT, EAST KALIMANTAN**

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**ABSTRACT**

PT Berau Coal is an open pit coal mining area which has negative impacts, one of which is erosion. The aim of this study is to predict the amount of erosion and the level of erosion hazard that occurs in revegetated areas, areas that have not been revegetated and Disposal Overburden in OPD C3 and determine the direction of conservation management. The study was conducted from October to December 2021 using the measuring stick method to estimate the rate of erosion. Determination of the position of the measuring stick purposive on revegetated areas, areas not yet revegetated and Overburden Diposal in OPD C3 with an erosion measuring plot measuring 8x3 meters with an area of 24 m<sup>2</sup>. Rainfall data was obtained from the BMO 2 ARG site and the rain intensity was determined by the mononobe formula, soil texture determination was carried out in the field while the soil volume weight was in the BMO 2 laboratory. The results showed that the erosion value on disposal overburden 59,922 ton/ha, in areas that have not been revegetated 20,170 ton/ha and in revegetated areas 5,480 ton/ha. The erosion hazard level of the three observation locations has a very severe erosion hazard class. The form of conservation efforts that can be carried out can use the vegetative method, namely implementing system planting strip-cropping, planting cover crop by method hydroseeding by mixing plant seeds, plantation/mixed garden planting, and application grassed waterways. Recommendations for mechanical soil and water conservation methods are suggested to make drainage channels and making canal mounds covered with geomembrane.

*Keywords :Area opd c3, erosion, conservation, measuring stick method, level of erosion hazard*