

ABSTRACT

PT. KPC is a company located in the town of Sangatta, East Kutai Regency. PT. KPC has 3 large pit departments, namely the bintang department (Pit Bendili), the Pit Jupiter department (Pit Pinang South), and the Hateri department. The research location is located in the Pit Bendili Pit, department of Bintang. In the implementation of mining activities at Pit Bendili, stripping the overburden was carried out by drilling and blasting, this was because the overburden in the Bendili Pit was quite thick. Drilling activities at Pit Bendili were carried out using a Sandvik D55SP drilling machine with a type of tricone bit drill bit with a diameter of $7\frac{7}{8}$ inch (200.025 mm).

Research has been carried out by focusing on stemming material. Stemming used is drill cutting and aggregate type material. When this is found in the aggregate of trucks and aggregates of materials, it is therefore necessary to aggregate materials with aggregate yields. Alternatives are tried by using a funnel with a type of drill cutting material. To obtain an aggregation alternative, it is necessary to analyze the level of slumming of the cutting material, aggregate, and drill cuttings using a funnel, and then the results are compared to seeing the value of each type of material

Keywords: Stemming type of aggregate material, cutting drill, drill cutting using funnel, stemming resistance value.

Based on the analysis, it is found that the greatest resistance value is stemming drill cutting of 18.130.472,73 N, this is influenced by stemming column length, ejection speed, and the type of fine drilling cutting characteristics. The largest value of aggregate stemming resistance is 21.776.210,25 N, this is influenced by the size of the material larger than the drill cutting and the material resistance in resisting blasting energy. In the drill cutting type material using a funnel, the highest stemming resistance value is 28.613.148,98 N, this is influenced by the controlled energy of the blasting by the funnel, so that the time for energy distributed to the surface becomes slow. It can be concluded that there is an increase in the resistance value in the funnel function with drill cutting type material, so that the aggregate material can be replaced by a funnel.

Keyword : Resistance of Stemming