

SUMMARY

PT. Wahana Bandhawa Kencana as a contractor company from PT. Bara Natural Main is a company that operates in the field of coal mining with open mining system (surface mining) and strip mine method that is located in Merapi West district, Lahat District, South Sumatera Province. The use of open mining systems with the strip mining method is due to coal deposits that are close to the surface with a relatively flat bend (<30). Prior to the excavation of coal, there is a need for top soil and overloading activities with free digging methods due to relatively soft material conditions. Overloading using a block system. This excavated overload will be stored in the previous mining land on the previous block (back filling method) to be used as a complaint activity. Based on observations in the field of load patterns applied in PT. WBK seen from the Dump Truck position when loaded is top loading. Top loading is a loading position where the height or position of the loading device is higher than that of the transport tool (the loading tool is above the pile of material or above the slope).

For loading patterns based on the number of transportation equipment placement is to use a single backup pattern, that is, the first transportation device positioning itself to be loaded in one place, while the next transportation tool waiting for the first vehicle loaded until full. After the loading is completed, the first vehicle departs to the dumping point then the second vehicle performs a manoeuvre and retreats to be loaded. This is the Caterpillar 6020B excavator. In overloading activities, mechanical tools such as loading and transportation tools are needed. The target product set for cargo and transport vehicles is 800 BCM/hour with a distance of 4.8 km. However, the actual results obtained have not reached the productivity target due to the production of the CAT 777E carrier that has not met the target of 615.6 bcm/hour (23.05% not achieved). Production capacity based on field research and after calculation for the combination of 1 Caterpillar 6020B Excavator load unit of 826.65 bcm/hour and 8 Caterpillar 777E Dump Truck cargo unit of 615.6 bcm /hour. Efforts to increase production can be made by increasing the number of units of transportation equipment, reducing work barriers that can be avoided by using mode time below average (mean). After repairs, the number of units of transportation equipment increased to 11, the efficient working time of the loading gear increased. That means that the production of loading equipment rose to 991.26 bcm/hour (a 16% increase) and transportation gear production increases to 725.80 bcm / hour (a 15.1% increase).