

ABSTRACT

The research was conducted at PT. Bukit Makmur Mandiri Utama jobsite PT. Marunda Graha Mineral which is located in Laung Tuhup District, Murung Raya Regency, Central Borneo Province.

Stripping overburden used drilling and blasting methods. Blasting operation is said to work well if it meets several criterias, among others, fulfill production target, efficient use of explosives, and a minimal impact on the environment around the blasting area. Retrieval of data in the form of primary and secondary data such as rainfall, physical and mechanical properties of rocks, blasting acquisition value, cycle time drilling machine, drilling machine working efficiency, effective working time, the actual depth of the hole blasting, the blasting holes wet and dry, the powder factor, distance and size of fly rock throwing, and the percentage of Ammonium Nitrate and Fuel Oil to be able to assess the activities carried out blasting operations in November 2011 technically.

Based on those data processing, there are some facts which do not meet the criteria for blasting said to work well. Blasting production target was not met, which is only 14.600 BCM per day from 23.800 BCM per day or only reaches 63.26% which is caused by low production drilling and blasting recovery value was only 89.57% of 97% set by the company, and the mixing of Ammonium Nitrate and Fuel Oil that do not meet the principle of Zero Oxygen Balance.

To achieve the production target of blasting, the drilling production increased by increasing the capacity of dumping area, due to the limited volume affects the extent of the drilling site and increase the value of the blasting recovery by using emulsion explosives to increase resistance to water, the use of stemming material which is coarse and hard to increase the confinement of the explosives, and the measuring activities to make the filling of the varying depth of holes will be more proportional. Impact on the environment is not a problem because the current location of blasting away from human settlements and vital infrastructure, there is no private or government-owned property located in the vicinity of blasting area. Mixing of Ammonium Nitrate and Fuel Oil that do not meet the Zero Oxygen Balance is corrected by performing calibration of the mixer ANFO.