

## ABSTRACT

Bukit Asam Co. is one of a state-owned enterprise that established of coal mining field in Indonesia. Drilling and blasting activity runs in two locations. First location is at Air Laya Mine ( Tambang Air Laya-TAL) front work Bucket Wheel Excavator ( BWE ) line system 3, 4 and 5 to make BWE's tool easier in digging; second at Pre Bench Tambang Air Laya are for drilling and blasting of interburden B2C.

Based on actual analyze at Pre-Bench location, blasting production is about 8.160–12.622,5 BCM, while the target company is about 13.625,705 BCM. So that, there is a lack of 1.003,25–5.645,75 BCM. To deal with the situation it is necessary to review of the drilling and blasting geometry also the blasting area so that the target production blasting overburden can be achieved.

In connection with the theoretical calculations were performed using the method of RL Ash (1967) to get the best drilling and blasting geometry, also evaluating among the blasting area. So it will get a technical design of drilling and blasting that deal with company's production targets.

By the calculation of burden's length is 4–5 m recently, be adapted with the theoretical calculation of 3,2 m. From the geometry of the proposal and the additional number blast holes 80–100 to 154 holes will increase for 14.784 – 15.769,6 BCM. With an increased number of blasted volume and the addition of blasting area to 699 m<sup>2</sup>/blasting, then it is expected to gain blasting production targets by the Company