

## ABSTRACT

PT. Batu Mulyo Berjaya is an andesite mining company located in the Pesangrahan Village, Kesugihan Subdistrict, Cilacap District, Central Java Province. Materials of andesite sufficient the feed of the crusher gotten by directly mine in in the Ciwuni Village, Kesugihan Subdistrict, Cilacap District, Central Java Province

The process of andesite crushing at PT. Batu Mulyo Berjaya uses a Jaw Crusher PE 600 x 900 Shan-Bao then on the secondary use crushing Jaw Crusher PE 600 x 900 Shan-Bao. The product such as crushed stone with a size - 65 + 40 mm, , -40 + 30 mm, -30 + 10 mm, -10 + 5 mm and -5 mm.

In the crushing process has the problems in the crusher unit that is not fulfillment of the planned production target 317 tons/day total number of products. Nowadays the total production is 267,65 tons/day and production targets at fraction -30 + 10 mm is 77,77 tons/day that can not comply market request because it has increased. Therefore, it is expected thst the product of 30 + 10 mm can be increased and the product of -65 + 40 can be decreased

Nowadays the evaluation results of the value reduction ratio at 80% in the primary jaw crusher and secondary jaw crusher are 4,3 and 2,23, while the total feed is 34,14 tons/hour.

The alternative repairs is optimizing the effective working time by pushing the problems of employment in the production process crusher unit, add of a feed up to 45 tons/hour, the primary jaw crusher is installed closed setting of 100 mm, and secondary jaw crusher installed closed setting by 45 mm.

The result of calculation is the target production can be increased and it can be complied. The total production is 324,75 ton/day. Fraction of -30 + 10 mm can be increased to 159,13ton/day or 49%. Fraction of -65 + 40 mm can be decreased to 32,48 ton/day or 10%. It has matched with the totla product of every fraction hoped. The total product can be reached in 8 hour of working time or 7,24 of effective working time.