ABSTRACT

This study aims to produce a technical design of planned mining progress to meet the company's production targets. In this research case study conducted at PT. Holcim Beton Maloko located in Mount Maloko, Cipinang Village and Sukasari Village, Rumpin District, Bogor Regency, West Java Province.

The agitation of mining at PT. Holcim Concrete is divided into two categories: short term and long term activities. Short term activity is the planning activities of mine design for each month. The length of short term activities at PT. Holcim Beton is 21 months old, while the long term activities are planning activities of the mine for each year. Long term activities end at mine closure.

This research is focused on short term mining design, that is the leveling of hill activity using side hill type quarrel method with final limit at 90 mdpl elevation and preparation of pit opening with pit type queuing method with final limit at elevation 75 mdpl with the remaining reserve amount is amounted to 4,425,074 tons. Loading equipment used by PT. Holcim Beton is Caterpillar EX385 C with 5.8 m3 bucket capacity and the means of transportation used is Caterpillar DT 771 C with 40 ton capacity.

Based on the remaining reserves, production targets and recommendations from the company to carry out the preparation of the pit opening, it can be seen that the mine's age is 1 year 9 months.

Geometry level used in accordance with the recommendation of the company is a high level of 15 m, width of 20 m level, single slope level 80º, and the overall slope of 40º. While the width of the haul road on a straight road is 18 m, and the haul road width is 21 m. The road grade used on the climb is 8%.

Benefits of this thesis is to be used as a reference by the company in short-term mining activities so that mining activities can be run effectively and efficiently.