ABSTRACT

PT. Bina Sarana Sukses is a company engaged in the mining industry as mining contractors. Location of research conducted in the Village Idamanggala, District Lokpaikat, Tapin District, Banjarmasin, South Kalimantan. The problems that occur in the Pit Warutte MS 03 PT. Bina Sarana Sukses is still a lot of puddles on the floor there is work that occupies the rest of the mining basins. This is because the loss of open channels on the work floor due to mining activities as well as the dimensions of the existing wells are not able to accommodate water runoff that results in a puddle of mining location in the event of rain. Therefore it is necessary to do an assessment of the existing system drainage on the Pit Warutte MS 03.

The main source of mine water at the mine site is rainwater. After an analysis of rainfall data obtained in 2001-2010 rainfall of 102.9 mm with a plan with a rainfall intensity of 35.67 mm/hour on the return period rainfall for 3 years. Hydrological risks that occur at 86.83%. From the observation in the field there is a rain catchment area runoff coefficient 0.13 km2 with a total of 0.7 consisting of topography coefficient(Ct) 0.26, soil coefficient (Cs) 0.16, and the vegetation coefficient (Cv) 0.28.

Discharge runoff water entering the mine flowed into the wells with open tubes placed in the south pit. Details of the proposed open channel dimensions are: length of the channel (a) 0.9 m, water depth (h) 0.7 m, width of the channel bottom (b) 0.8 m, width of the channel (t) 1.7 m, channel depth (d) 0.8 m, and high-surveillance (f) 0.1 m.

Existing wells in the coal mine PT. Bina Sarana Sukses of the basin that occurs because the rest of mine workings in the lowest elevation of the pit bottom. Known volumes of wells prior to 2025 m^3 of research on the water surface elevation 60 masl. By using water discharge into the mining area can be searched then the dimension of the wells, old pumping. From the calculation results obtained from wells which dimensions of length 38 m, width 31 m and a depth of 5 m with a capacity of 5090 m^3. When pumping the calculation results for 13 hoursper day.

For dimensions of pool precipitation is sufficient to accommodate the water from the wells with a length of 66 m, width of 35 meters and a depth of 5 feet as much as three compartments. However, the need for a schedule of dredging mud deposition carried out to the pool every 42 days.