

ABSTRACT

CV . Cintapuri Pratama is a company engaged in coal mining . CV mining sites . Cintapuri Cintapuri Primary in the village , Banjar Baru , South Kalimantan.

The problem faced by CV . Primary Cintapuri one of which is a problem because there is no draft mine draining system which will result in many puddles on the work area occur mainly during the rainy season . It is very disturbing and working conditions affect production . The main source of mine water in the coal mining area by CV . Primary Cintapuri is rainwater . Plan 123 mm rainfall / day with rainfall intensity of 20.38 mm / h and rainfall return period (PUH) 5 (five) years.

Location mine draining not have an adequate system . Areas which become providers rain water and run off water on site mining plan is divided into 6 Catchment Area .

- a.Catchment Area I, area = 0.5247 km²
- b.Catchment Area II , area = 0.1152 km²
- c.Catchment Area III , area = 0.0049 km²
- d.Catchment Area IV , area = 0.0093 km²
- e.Catchment Area V , area = 0.0287 km²
- f.Catchment Area VI , area = 0.0453 km²

The volume of water that enters the mine at 2.3987 m³/second . Open Channel planned is a combination of mine drainage and mine dewatering . Mine Drainage channel made in the KP boundary in order to prevent the ingress of water from outside the mine site , namely :

- a. Open Channel 1 : a = 0.7 m , b = 0.7 m , B = 1.3 m , $\theta = 60^\circ$
With diameter of culvert is 1,2 m

Runoff water that flowed through the channel and then get into the sinks . Sinks are made with dimensions of length 118 m , width 60 m , and a depth of sinks is 5 m . After the water is pumped into settling ponds . Pumps are needed as much as 1 unit vertical centrifugal pump type pump with a maximum discharge of 540 m³/second pump . In the flow of run off water itself contained dissolved material was 121 mg / l , and the percent solid on settling ponds at 1.35 % . With such a large percent of the solid , long deposition of material required for 3 days . The dimensions of the settling ponds is 28 m long , 12 m wide , and a depth of settling ponds is 4 m with a volume of 1152 m³ settling ponds . Ultimately expected after discharge from the settling ponds , the water that comes out will not pollute the environment around the mine .