

Abstract

PT Indonesia Riau Sri Avantika (IRSA) has an Ijin Usaha Pertambangan (IUP) production operations in Indonesia since 2010, covering an area of 823.90 ha located in the district of Napal Putih, North Bengkulu, Bengkulu Province. PT IRSA has made coal mining activities covering 8.98 ha at the time of the study in May 2013 but does not have the open pit mine plan design. The mine plan design of PT IRSA classified a long-range mine planning, uses open pit system of open cast mining method the type of block-cut contour mining, on the final pit design covering material overburden 9.203.800 bcm, 1.7043.200 tons of coal reserves and overall stripping ratio (sr) of 1: 5. Coal which has mined is seam A, having a thickness between 0.5 - 4 m and has strike N 120 ° E and dip 5 °. Stages of mining is divided into three periods, each period lasts for 6 months and the mine site is divided into two blocks, namely Block Y and Block O.

1st period lasts from June 2013 to November 2013 in Block Y, the direction of mining stage N 120° E, mined coal 315.650 ton, 1.610.394 bcm of overburden material, and SR 1: 5 at elevation of 85-100 m. Dismantle the overburden material with 5 backhoe CAT 330 BL and 30 dump trucks Hino FM 260 JM with details 1 backhoe serves 6 dump truck. Equipment uses for mining coal are 3 backhoe Komatsu PC 300 and 12 dump trucks Hino FM 260 JD with details 1 backhoe serves 4 dumptruck.

2nd period lasts from December 2014 to May 2014 in Block Y and Block O, mined coal 300.646 ton, casted 1.625.343 bcm overburden material and has SR 1: 5 at elevation of 85-95 m. Direction of mining stages at Blok Y N 120° E, Dismantle the overburden material with 3 backhoe CAT 330 BL and 18 dump trucks Hino FM 260 JM with details 1 backhoe serves 6 dump truck. Equipment uses for mining coal are 3 backhoe Komatsu PC 300 and 9 dump truck Hino FM 260 JD with details 1 backhoe serves 3 dumptruck. Block O only casts overburden, mining direction in N 320° E. Dismantle the overburden material with 2 backhoe CAT 330 BL and 12 dump truck Hino FM 260 JM with details 1 backhoe serves 6 dump truck.

3rd period lasts from June 2014 to November 2014, towards the mining phase of N 320° E, 425.429 tonnes of coal mined, casted overburden 2.159.927 bcm. and has SR 1: 5 at elevation 72 to 100 m. Dismantle the overburden material with 6 CAT 330 BL backhoe and 36 dump truck Hino FM 260 JM with details 1 backhoe serves 6 dump truck. Equipment uses for mining coal are 5 backhoe Komatsu PC 300 and 16 dump trucks Hino FM 260 JD with details 1 backhoe serves 3 dump truck.