

## ABSTRACT

PT. Bukit Asam (Persero) Tbk is one of the State Owned Enterprise engaged in coal mining. In the mining business, PT Bukit Asam (Persero) Tbk is located in Tanjung Enim, Lawang Kidul District, Muara Enim, Province of South Sumatera. In this case, the quality of coal to be used is the quality coal 6300 kcal/kg on the expansion of the West Pit 3 “Banko Barat”, for requirements contracts with coal fired steam power plant surabaya as mixing with coal quality 5900 kcal/kg. In 2013, PT Bukit Asam (Persero) Tbk is targeting coal production quality of 6300 kcal/kg amounted to 5.5 million tonnes, but the actual production of coal amounted to only 4.6 million tonnes. Production target is not achieved caused the number of coal deposits a bit. In 2014, PTBA still make a number for production target at 5.5 million tonnes to meet the demand of the buyers. PTBA’s one way to reach the target is looking for a new coal deposits. In 2014, the West Pit 3 is planned to be extended towards the south to meet production targets in 2014.

Of the existing problems, required a study on the legal aspects, technical aspects and cost aspects to be able to determine whether the West Pit 3 deserves expanded to the south or not. Planned production targets in West Pit 3 in 2014 amounted to 700.000 tons to meet the production target quality coal company 6300 kcal/kg of 5.500.000 tons. Based on the results of research and calculation of reserve estimates, the volume of overburden that is obtained is 778.909 bcm and coal tonnage obtained amounting to 807.647 tonnes by stripping ratio of 1 : 1. Tool used to excavate the overburden is Excavator Caterpillar 320 D 1 unit and 4 units Scania Dump Truck P380. The tools used to excavate coal is 1 unit Excavator Caterpillar 320 D and 4 units Scania P380 Dump Truck with working hours of 14 hours a day (2 shifts a day). Planned with 24 operators who operate heavy equipment which is divided into 2 shifts. 1 ton of coal price of Rp 747.321/ton in order to get coal per quarterly sales of Rp 150.945.664.647. Total operating expenses amounted to Rp 64.657.021.365 per quarterly. Profit before tax gained Rp 75.722.446.756 and profit after tax Rp 56.791.835.067. Net Present Value (NPV) of Rp 170.383.780.440.

All study on regulations related to the expansion of the West Pit 3 with a minimum limit of the river, with a minimum limit of residential areas, and mining procedures have followed the standards applicable regulations. From the results of the study on regulations, technical and economic feasibility calculation ( $NPV > 0$ ) then the expansion plan of Pit 4 West deserves to be considered/implemented.