

## RINGKASAN

PT Bukit Asam (Persero) Tbk. merupakan salah satu perusahaan pertambangan batubara terbesar di Indonesia yang berlokasi di Tanjung Enim, Kecamatan Lawang Kidul, Kabupaten Muara Enim, Provinsi Sumatera Selatan. Pada bulan Agustus 2015, pengiriman batubara dari Banko Barat direncanakan sebesar 565.338 ton. Setiap harinya, akan dilakukan pengiriman batubara sebesar 18.236,71 ton/hari selama 31 hari.

Untuk memenuhi permintaan *Market Brand* BA-61, diperlukan pencampuran batubara (*blending*). Pencampuran ini menggunakan 3 (tiga) jenis batubara yaitu TE-59, TE-63 LS dan TE-63 HS. Kriteria permintaan konsumen untuk *Market Brand* BA-61 yaitu *inherent moisture*  $\leq 12\%$ , *calorific value*  $\geq 6.100$  Kkal/kg dan *total sulfur*  $\leq 0,8\%$ . Karena hasil *blending* yang saat ini dilakukan oleh perusahaan masih belum dapat memenuhi kriteria permintaan konsumen, maka akan dilakukan perhitungan kembali menggunakan *software QM for Windows*. Dari perhitungan tersebut, didapatkan tonase batubara untuk pengiriman sebesar 18.236,71 ton/hari yaitu TE-59 sebesar 3.288,58 ton, TE-63 LS sebesar 8.539,12 ton dan TE-63 HS sebesar 6.409,01 ton dengan proporsi perbandingan 1 : 2,5 : 2. Dari perbandingan tonase tersebut, didapatkan nilai *inherent moisture* 12%, *calorific value* 6.109,62 Kkal/kg dan *total sulfur* 0,8%.

Kapasitas *live stockpile* saat ini dengan 2 (dua) timbunan batubara TE-63 LS dan BA-61 menyebabkan *stock* batubara habis saat dilakukan pengiriman ketika dilakukan perawatan pada unit penerimaan fasilitas penanganan batubara. Oleh karena itu, *live stockpile* harus dapat menimbun *stock* batubara minimal untuk 3 (tiga) hari pengiriman. *Live stockpile* saat ini memiliki kapasitas sebesar 42.537,42 ton sehingga hanya dapat menimbun *stock* batubara selama 2,33 hari. Untuk mengatasi hal tersebut, maka *live stockpile* direncanakan hanya ada 1 (satu) timbunan batubara BA-61 sehingga kapasitas *live stockpile* meningkat menjadi 56.058,71 ton dan dapat menimbun *stock* batubara selama 3,07 hari.

## ABSTRACT

PT Bukit Asam (Persero) Tbk. is one of the largest coal mining companies in Indonesia which is located in Tanjung Enim, Lawang Kidul District, Muara Enim Regency, South Sumatra Province. In August 2015, coal shipments from Banko Barat were planned about 565.338 tonnes. Everyday, there are coal shipments about 18.236,71 tons/day for 31 days.

To fulfil the demand Market Brand BA-61, coal blending required. This blending involves three types of coal i.e. TE-59, TE-63 LS and TE-63 HS. The consumer's criteria for Market Brand BA-61 are inherent moisture  $\leq 12\%$ , calorific value  $\geq 6.100$  kcal/kg and total sulfur  $\leq 0.8\%$ . Since the blending results currently undertaken by the company still does not meet the criteria of consumer demand, it will be recalculated using QM for Windows software. From these calculations, the tonnage of coal for shipments gains 18.236,71 tons/day including TE-59 about 3.288,8 tons, TE-63 LS about 8.539,12 tons and TE-63 HS about 6.409,01 tons, with the proportion of 1: 2,5: 2. From the tonnage proportion, it obtains the value of inherent moisture 12%, calorific value 6.109,62 kcal/kg and total sulfur 0,8%.

The current live stockpile capacity with two coal piles i.e. TE-63 LS and BA-61 makes the coal stock run out during the shipment while performed maintenance of entrance unit in coal handling facilities. Therefore, live stockpile should be able to store the coal stock at least three days of delivery. The live stockpile currently has a capacity of 42.537,42 tons that can only store the coal stocks for 2,33 days. To overcome this problem, the live stockpile is planned to have only one pile BA-61, so the live stockpile capacity increases to 56.058,71 tons and can accommodate a stock of coal for 3,07 days.