

RINGKASAN

Penelitian dilakukan di PT. Berau Coal, site Lati Mine Operation (LMO). PT. Berau Coal merupakan perusahaan tambang batubara yang memiliki daerah operasi di Kabupaten Berau, Kalimantan Timur. Dengan luas Ijin Usaha Pertambangan (IUP) 118.400Ha. Pada saat ini telah beroperasi di tiga lokasi (*site*), yaitu *Lati Mine Operation* (LMO), *Binungan Mine Operation* (BMO), dan *Sambarata Mine Operation* (SMO). Sistem penambangan batubara di PT. Berau Coal termasuk sistem tambang terbuka (*surface mining*).

Penelitian ini melakukan kajian terhadap metode pemuatan alat gali muat dan alat angkut di area *front loading* tanah penutup maupun batubara. Pada PT. Berau Coal sendiri menggunakan metode loading seperti pada umumnya yang banyak digunakan setiap perusahaan tambang yakni metode *single front loading* atau yang lebih dikenal dengan metode *top loading*. Pada metode pemuatan yang digunakan perusahaan sekarang diperoleh;

Pemuatan tanah penutup (*Overburden*);

- ✓ Produksi alat gali muat (Pm) = 879,020m³/jam
- ✓ Produksi alat angkut (Pa) = 729,763m³/jam

Pemuatan batubara (*coal*);

- ✓ Produksi alat gali muat (Pm) = 31,053m³/jam
- ✓ Produksi alat angkut (Pa) = 25,311m³/jam

Dari data awal yang diperoleh peneliti mencoba mengkaji metode pemuatan yang digunakan perusahaan sekarang dengan metode pemuatan yang baru, yang memungkinkan dapat digunakan pada *loading overburden* maupun *coal*. Adapun metode pemuatan baru yang dikaji yakni metode *single front loading* dengan *spotting* truk 45° dan metode *drive by loading*. Dari kedua metode tersebut diperoleh hasil sebagai berikut;

Pemuatan tanah penutup (*Overburden*);

- ✓ Produksi alat gali muat (Pm) = 1023,385m³/jam
- ✓ Produksi alat angkut (Pa) = 800,053m³/jam

Pemuatan batubara (*coal*);

- ✓ Produksi alat gali muat (Pm) = 33,823m³/jam
- ✓ Produksi alat angkut (Pa) = 25,724m³/jam

ABSTRACT

This research was conducted at PT. Berau Coal, on site Lati Mine Operation (LMO). PT Berau Coal is one of coal mining company that has operation area in Kabupaten Berau, Kalimantan Timur. With an area of Mining Business Permit (IUP) 118.400Ha. This time PT Berau Coal operates in three locations (sites), namely Lati Mine Operation (LMO), Binungan Mine Operation (BMO), and Sambarata Mine Operation (SMO). PT. Berau Coal was included in open systems (surface mining) Coal mining system.

This research was observing about the method of loading and unloading excavator and conveyance on the area front loading overburden or coal. PT. Berau Coal itself used method as in general loading mining companies use it. The method was called single front loading or known as top loading method. In the loading method used by the company obtained:

Loading overburden

- ✓ Production excavator load (Pm) = 879,020m³/ h
- ✓ Production of transport equipment (Pa) = 729,763m³/ h

Loading of coal

- ✓ Production excavator load (Pm) = 31,053m³/ hour
- ✓ Production of transport equipment (Pa) = 25,311m³/ hour

From previous data, the researcher tried to compare the both processes loading method used by the company with the new one that probably can use on overburden or coal. The new loading method that studied by the researcher was called single front loading with 45 ° and spotting trucks drive by loading methods. From both methods obtained the following result;

Loading overburden.

- ✓ Production excavator load (Pm) = 1023,385m³/ h
- ✓ Production of transport equipment (Pa) = 800,053m³/ h

Loading of coal.

- ✓ Production excavator load (Pm) = 33,823m³/ hour
- ✓ Production of transport equipment (Pa) = 25,724m³/ hour