

ABSTRAK

STRATEGI *SEQUENCE* PENAMBANGAN BULANAN PADA BATUBARA JENIS 3A BERBASIS METODE *BATTERBLOCK* DAN TRIANGULASI

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Hingga akhir Maret 2025, capaian produksi kumulatif PT Antareja Mahada Makmur (PT AMM) di *job site* PT Perkasa Inakakerta (PT PIK) baru mencapai 92% dari sasaran tahunan. Untuk mendorong peningkatan capaian tersebut pada akhir April, diperlukan strategi penjadwalan penambangan yang tepat tanpa mengabaikan sasaran produksi bulanan. Penelitian ini bertujuan untuk merancang urutan penambangan (*mine sequence*) bulan April dengan fokus pada batubara jenis 3A yang mendominasi 50% area *pit* utama, yaitu *Pit* 81W. Selain itu, dilakukan evaluasi kesesuaian jumlah dan jenis alat mekanis terhadap sasaran produksi sebesar 162.907 ton, termasuk 79.545 ton di antaranya merupakan batubara jenis 3A. Metode yang digunakan dalam penelitian ini bersifat kuantitatif dengan pendekatan analisis teknis, dimulai dari perhitungan cadangan menggunakan metode *batterblock* dengan bantuan perangkat lunak MineScape MoU S-AM/UPNVY/C-001/I24, 004/UN62/HK 07.00/2025, yang kemudian dijadikan dasar dalam penjadwalan penambangan menggunakan Spry, serta pembuatan desain tambang dan perhitungan cadangan dengan metode triangulasi. Hasil penelitian menunjukkan bahwa rancangan *sequence* yang disusun mampu memenuhi sasaran produksi bulanan dengan total produksi batubara sebesar 123.481 ton, yang mana 93.695 ton merupakan batubara jenis 3A. Capaian ini secara signifikan berkontribusi terhadap peningkatan produksi kumulatif, yang telah mencapai 90% dari sasaran tahunan dan masih berpotensi meningkat seiring dengan kontribusi suplai batubara dari dua *pit* lainnya yang juga beroperasi di wilayah kerja PT AMM. Selain itu, jumlah dan spesifikasi alat mekanis yang digunakan dalam rancangan dinilai telah sesuai dan mendukung tercapainya sasaran produksi secara optimal.

Kata Kunci : Strategi Penjadwalan, Metode *Batterblock*, Triangulasi, Sasaran Produksi, MineScape

ABSTRACT

MONTHLY MINING SEQUENCE STRATEGY FOR TYPE 3A COAL BASED ON BATTERBLOCK AND TRIANGULATION

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By the end of March 2025, the cumulative production achievement of PT Antareja Mahada Makmur (PT AMM) at the PT Perkasa Inakakerta (PT PIK) job site had only reached 92% of the annual coal production target. To improve this performance by the end of April, a well-planned mine scheduling strategy was needed without neglecting the monthly production target. This study aimed to develop the April mining sequence with a focus on 3A-type coal, which dominated approximately 50% of the main pit area, namely Pit 81W. In addition, an evaluation was conducted to assess the adequacy of the number and type of mechanical equipment in supporting the production target of 162,907 tons, of which 79,545 tons consisted of 3A-type coal. A quantitative method with a technical analysis approach was used in this study. Reserve estimation was carried out using the batterblock method supported by MineScape software, based on a cooperation agreement (MoU S-AM/UPNVY/C-001/I24, 004/UN62/HK 07.00/2025). The data obtained served as the foundation for mine scheduling using Spry, while pit design and reserve calculation were also performed using the triangulation method. The results showed that the proposed mining sequence successfully met the monthly production target, generating a total of 123,481 tons of coal, including 93,695 tons of 3A-type coal. This outcome significantly contributed to cumulative production, which had reached 90% of the annual target and was projected to increase further through additional coal supply from two other active pits within the PT AMM operational area. Moreover, the quantity and specifications of the mechanical equipment used in the plan were considered suitable and effectively supported the achievement of the production target.

Keywords : Scheduling Strategy, Batterblock Method, Triangulation, Production Target, MineScape