

**ANALISIS PERUBAHAN KADAR BIJIH NIKEL PRODUKSI (ETO)
DAN PENGAPALAN (BARGING) SITE PULAU PAKAL
PT. ANEKA TAMBANG Tbk KECAMATAN MABA,
KABUPATEN HALMAHERA TIMUR,
PROVINSI MALUKU UTARA**

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ABSTRAK

Pada proses penambangan terdapat permasalahan seperti perbedaan kadar nikel dari data hasil produksi penambangan dengan data hasil pengapalan/barging, sehingga berpengaruh terhadap kadar nikel yang akan diekspor apakah sudah sesuai dengan permintaan buyer. Permasalahan ini harus segera diidentifikasi dan dicarikan solusi, karena apabila hal ini dibiarkan maka ketidaksesuaian ini dapat terjadi berulang dan akan menyebabkan kerugian terhadap perusahaan. Pelaksanaan penelitian analisis kadar hasil blending dilakukan pada PT. Antam Tbk yang berlokasi di site Pulau Pakal, Kecamatan Maba, Kabupaten Halmahera Timur, Provinsi Maluku Utara. Waktu pelaksanaan, dilaksanakan dari bulan Agustus sampai dengan bulan September 2023. Metode yang digunakan merupakan metode penelitian kuantitatif. Metode kuantitatif adalah metode yang hasilnya bisa diberi nilai dan dihitung. Metode yang digunakan dalam pelaksanaan penelitian ini adalah melakukan analisis perubahan kadar Ni dan Fe dari data produksi (ETO) dan kadar sampel pengapalan (Barging), kemudian menghitung selisih perubahan kadar dan melakukan analisis korelasi pearson untuk mengetahui hubungan dari tumpukan material kadar produksi. Kemudian menganalisis faktor penyebab terjadinya perubahan antara kadar produksi (ETO) dan kadar pengapalan (barging). Pada kapal MK23126 diketahui kadar Ni produksi 2.07%, dan kadar kapal 1.95 dengan persentase perubahan 5.80%, kadar Fe produksi 14.05%, dan kadar Fe kapal dengan nilai 13.77%, persentase perubahannya yaitu 1.99%. Selisih perubahan antara kadar Ni produksi dan pengapalan 0.12 serta Fe produksi dan pengapalan 0.28. Korelasi pada kapal Bintang timur cukup tinggi dengan nilai $r = 0.85$. Pada kapal MK23140 diketahui kadar Ni produksi 2.44%, dan kadar kapal 2.23% dengan persentase perubahan 8.61%, dan kadar Fe produksi 14.35%, dan kadar Fe kapal dengan nilai 12.75%, persentase perubahannya yaitu 11.15%. Selisih perubahan antara kadar Ni produksi dan pengapalan 0.21 serta Fe produksi dan pengapalan 1.6. Korelasi pada kapal Bintang timur 01 sangat rendah dengan nilai $r = 0.16$. Pada kapal MK23173 diketahui kadar Ni produksi 2.45%, dan kadar kapal 2.41% dengan persentase perubahan 1.63%, kadar Fe produksi 13.78%, dan kadar Fe kapal 13.10% persentase

perubahannya yaitu 4.93%. Selisih perubahan antara kadar Ni produksi dan pengapalan 0.04 serta Fe produksi dan pengapalan 0.68. Korelasi pada kapal Ayu Astri sangat rendah dengan nilai r 0.20. Faktor yang menjadi potensi perubahan kadar yaitu berat sampel yang diambil pada ETO tidak merata, posisi sampling produksi pada tumpukan yang terlalu dibawah, banyak tumpahan sampel produksi pada saat pengisian, masih terdapat material sisa pada DT, sampel kapal yang diambil terlalu sedikit (tidak sampai 1/3 dari ember), bak sampel kotor dan masih terdapat kekeliruan dalam melakukan preparasi kering sampel pengapalan.

Kata Kunci: Kadar Produksi, Kadar Pengapalan, Persentase Perubahan, PT.Aneka Tambang Tbk.

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ABSTRACT

In the mining process there are problems such as differences in nickel levels from mining production data with data from shipping/barging results, thus affecting the level of nickel to be exported whether it is in accordance with the buyer's request. This problem must be immediately identified and found a solution, because if this is left unchecked, this discrepancy can occur repeatedly and will cause losses to the company. The implementation of research on the analysis of the level of blending results was carried out at PT Antam Tbk, located at the Pakal Island site, Maba District, East Halmahera Regency, North Maluku Province. The implementation time, carried out from August to September 2023. The method used is a quantitative research method. Quantitative methods are methods whose results can be given values and calculated. The method used in the implementation of this research is to analyze changes in Ni and Fe levels from production data (ETO) and shipping sample levels (Barging), then calculate the difference in changes in levels and perform Pearson correlation analysis to determine the relationship of the pile of material production levels. Then analyze the factors causing changes between production levels (ETO) and shipping levels (barging). On the MK23126 ship, it is known that the production Ni content is 2.07%, and the ship content is 1.95 with a percentage change of 5.80%, the production Fe content is 14.05%, and the ship Fe content is 13.77%, the percentage change is 1.99%. The difference in change between production and shipment Ni content is 0.12 and production and shipment Fe content is 0.28. The correlation on the Bintang Timur ship is quite high with an r value of 0.85. On MK23140 ship, it is known that the production Ni content is 2.44%, and the ship content is 2.23% with a percentage change of 8.61%, and the production Fe content is 14.35%, and the ship Fe content with a value of 12.75%, the percentage change is 11.15%. The difference in change between production and shipment Ni content is 0.21 and production and shipment Fe content is 1.6. The correlation on the Bintang Timur 01 ship is very low with an r value of -0.16. On ship MK23173, it is known that the production Ni content is 2.45%, and the ship content is 2.41% with a percentage change of 1.63%, the production Fe content is 13.78%, and the ship Fe content is 13.10%,

the percentage change is 4.93%. The difference in change between production and shipment Ni content is 0.04 and production and shipment Fe content is 0.68. The correlation on board the Ayu Astri is very low with an r value of 0.20. Factors that become potential changes in levels are the uneven weight of samples taken at ETO, the position of production sampling in the pile that is too low, a lot of spilled production samples at the time of filling, there is still residual material in DT, the ship samples taken are too small (not up to 1/3 of the bucket), dirty sample tubs and there are still mistakes in dry preparation of shipping samples.

Keywords: *Production Rate, Shipment Rate, Percentage Change, PT. Aneka Tambang Tbk.*