

## ABSTRAK

PT. ABC merupakan perusahaan tambang emas yang berlokasi di Kalimantan Utara. Metode pengolahan emas yang diterapkan di PT. ABC adalah metode *heap leaching*. Emas yang diproduksi bersifat fluktuatif dan berada dibawah target produksi yang ditentukan sehingga menimbulkan kerugian bagi perusahaan. Aktual produksi emas yang di bawah target produksi dapat disebabkan oleh kesalahan peramalan persentase ekstraksi emas. Analisis lebih lanjut diperlukan untuk memperbaiki peramalan persentase ekstraksi emas sehingga didapatkan metode peralaman terbaik. Metode peramalan yang digunakan yaitu Regresi Linier, *Moving Average 3 Bulan*, *Moving Average 5 Bulan*, dan siklus. Dengan membandingkan metode peramalan tersebut, didapatkan metode peramalan terbaik yaitu metode peramalan siklus, karena mempunyai nilai kesalahan peramalan paling kecil, dengan nilai MAPE = 0,2307 , MAD = 1,8775 , MSE = 4,8758 , MFE = -0,005. Berdasarkan uji validitas dengan menggunakan *moving range* diketahui bahwa metode siklus valid, terlihat dari nilai-nilai dari pengujian validitas *moving range* yang berada dalam batas kendali 7,54231 dan -7,54231.

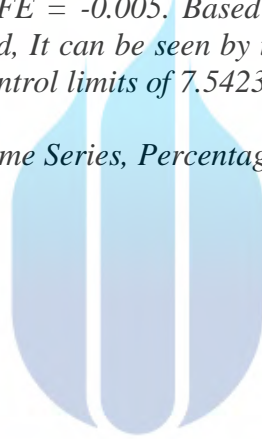
**Kata Kunci :** Peramalan, *Time Series*, Persentase Ekstraksi Emas, *Moving Range*



## **ABSTRACT**

*PT. ABC is a gold mining company located in North Kalimantan. Gold processing method applied in PT. ABC is heap leaching. Gold produced is fluctuates and under budget term so it could be losses for the company. Gold produced is fluctuates and under company production target. It causes losses to the company. Actual gold production under a target production can be caused by error at forecasting the percentage of gold extraction. Further analysis is needed to improve the forecasting percentage of gold extraction so the best forecasting method is obtained. Forecasting methods used are Linear, Moving Average 3 Month, Moving Average 5 Month, and cycle. By comparing the forecasting method, the best forecasting method obtained is cycle forecasting method, because it has the lowest forecasting error value, by MAPE = 0.2307, MAD = 1.8778, MSE = 4.8758, MFE = -0.005. Based on the validity test using moving range, cycle method is valid, It can be seen by the values of validity testing using moving range within the control limits of 7.54231 and -7.54231.*

**Keywords :** *Forecasting, Time Series, Percentage of gold extraction, Moving Range*



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