ABSTRAK

Proeses penghancuran batu andesit di PT Bukit Labu Mining yang terletak di Kabupaten Sintang menggunakan mesin *crushing plant* menghasilkan kebisingan. Penelitian ini bertujuan untuk memetakan sebaran kebisingan, mengkaji dampak serta upaya pengendalian untuk meminimalisir efek dari kebisingan. Teknik pengambilan sampling menggunakan metode *purposive sampling* dengan analisis kuantitatif korelasi *Rank Spearman*. Pengukuran kebisingan menggunakan alat *Sound Level Meter* didasarkan pada SNI 7231 tahun 2009 selama 10 menit pembacaan tiap 5 detik. Berdasarkan Kepmen Lingkungan Hidup No 49 tahun 1996 NAB kebisingan kawasan industri adalah 70 dB.

Hasil penelitian kebisingan sumber *jaw crusher 1, jaw crusher 2* dan *cone crusher* menghasilkan kebisingan sebesar 95 dB – 103 dB dengan waktu pajanan selama 0.65 jam – 0.10 jam. Sedangkan kebisingan titik diperoleh dua kondisi yaitu, kondisi berlawanan arah angin pada titik B – titik D dijarak 35 meter masih melebihi NAB yaitu sebesar (73 dB – 76 dB), kondisi searah angin di titik A pada jarak 35 meter sudah sesuai dengan NAB yaitu sebesar 68 dB. Hasil analisi uji bivariat didapat hasil analisis berupa H0 ditolak dan H1 diterima artinya terdapat hubungan antara penanggulangan terhadap dampak dan masa kerja terhadap gangguan pendengaran, dilihat dari nilai *rho* (ρ) apabila -0.538 $\geq$ *coefficient correlation* $\geq$ 0.538 dengan nilai signifikansi (α) < 0.05. Nilai *rho* (ρ) pada penanggulangan terhadap dampak sebesar -0.538 $\geq$ 0.661 $\geq$ 0.538 dengan nilai signifikansi (α) sebesar 0.010 < 0.05, sedangkan nilai *rho* (ρ) pada masa kerja terhadap gangguan pendengaran sebesar -0.538 $\geq$ 0.561 $\geq$ 0.538 dengan nilai signifikansi (α) sebesar 0.037 < 0.05.

Kata kunci : *Crushing Plant*, Gangguan Pendengaran, Kebisingan

ABSTRACT

The crushing process of andesite at PT Bukit Labu Mining which is located in Sintang Regency using a crushing plant produces noise. This study aims to map the distribution of noise, assess the impact, and control efforts to minimize the effects of noise. The sampling technique used a purposive sampling method with quantitative analysis of Rank Spearman correlation. Noise measurement using a Sound Level Meter is based on SNI 7231 of 2009 for 10 minutes reading every 5 seconds. Based on the Decree of the Minister of Environment No. 49 of 1996, the NAV of industrial area noise is 70 dB.

The results of the research on noise sources for jaw crusher 1, jaw crusher 2, and cone crusher produce noise of 95 dB – 103 dB with an exposure time of 0.65 – 0.10 hours. While the point noise is obtained by two conditions, namely, the windward condition at point B – point D at a distance of 35 meters still exceeds the NAV which is equal to (73 dB – 76 dB), the wind direction condition at point A at a distance of 35 meters is in accordance with the NAV which is equal to 68 dB. The results of the bivariate test analysis obtained the results of the analysis in the form of H0 are rejected and H1 is accepted, meaning that there is a relationship between coping with the impact and length of service on hearing loss, seen from the value of rho (ρ) if $-0.538 \geq$ coefficient correlation ≥ 0.538 with a significance value (α) < 0.05. The rho value (ρ) in mitigating the impact is $-0.538 \geq 0.661 \geq 0.538$ with a significance value (α) of $0.010 < 0.05$, while the value of rho (ρ) during the working period for hearing loss is $-0.538 \geq 0.561 \geq 0.538$ with a significance value (α) of $0.037 < 0.05$.

Keywords : *Crushing Plant*, Hearing Disorders, Noise