

**ANALISIS STOK KARBON ORGANIK DAN KANDUNGAN
MERKURI (Hg) PADA LAHAN BEKAS TAMBANG EMAS
BERDASARKAN UMUR PASCA PENAMBANGAN DI
KABUPATEN DHARMASRAYA**

Oleh:



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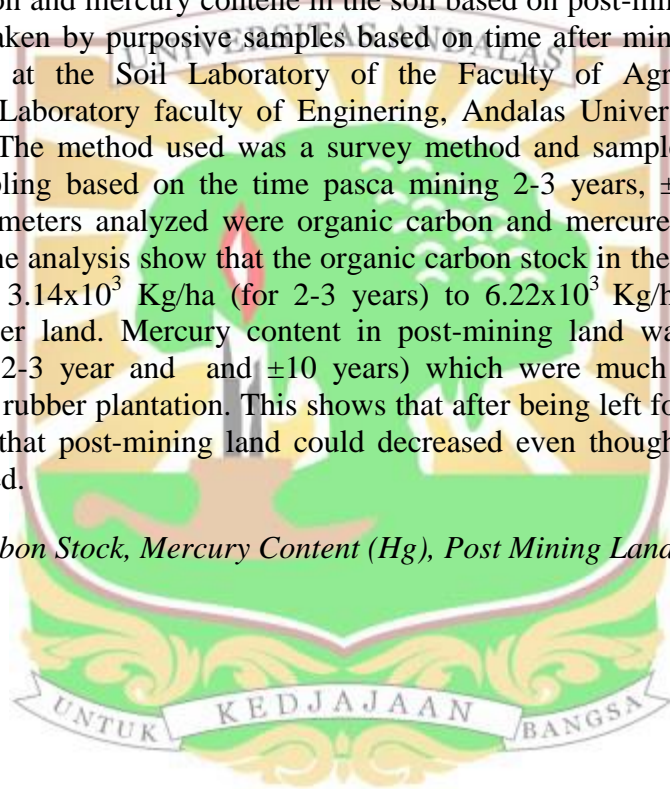
**PROGRAM STUDI ILMU TANAH
FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2022**

ANALYSIS OF ORGANIC CARBON STOCK AND MERCURY (Hg) CONTENT IN EX-GOLD MINING LAND BASED ON POST MINING AGE IN DHARMASRAYA REGENCY

ABSTRACT

Gold mining causes damage to the physical, chemical, and biological properties of the soil as well as to the environment. A research conducted in Nagari Tebing Tinggi, Pulau Punjung District, Dharmasraya Regency was aimed to determine stock of organic carbon and mercury content in the soil based on post-mining age. The soil samples were taken by purposive samples based on time after mining. The samples were analyzed at the Soil Laboratory of the Faculty of Agriculture and the Environmental Laboratory faculty of Engineering, Andalas University from July to October 2021. The method used was a survey method and samples were taken by purposive sampling based on the time pasca mining 2-3 years, ± 10 years, rubber plant. The parameters analyzed were organic carbon and mercury content of soils. The results of the analysis show that the organic carbon stock in the post-mining land increased from 3.14×10^3 Kg/ha (for 2-3 years) to 6.22×10^3 Kg/ha and 15.56×10^3 Kg/ha for rubber land. Mercury content in post-mining land was 13.81ppm and 13.10ppm (for 2-3 year and ± 10 years) which were much higher than that (5.9ppm) under rubber plantation. This shows that after being left for up to 10 years, the C-stock of that post-mining land could decrease even though the soil organic content increased.

Keywords : Carbon Stock, Mercury Content (Hg), Post Mining Land.



ANALISIS STOK KARBON ORGANIK DAN KANDUNGAN MERKURI (Hg) PADA LAHAN BEKAS TAMBANG EMAS BERDASARKAN UMUR PASCA PENAMBANGAN DI KABUPATEN DHARMASRAYA

ABSTRAK

Penambangan emas mengakibatkan rusaknya sifat fisik, kimia dan biologi tanah serta adanya kerusakan ekologis dan lingkungan sehingga penting mengetahui stok karbon organik dan merkuri tanah berdasarkan umur pasca penambangan. Penelitian ini telah dilaksanakan di Laboratorium Tanah Fakultas Pertanian dan Laboratorium Teknik Lingkungan, Universitas Andalas pada bulan Juli hingga Oktober 2021. Metoda yang digunakan adalah metode survei dan sampel diambil secara *purposive sampling*. Sampel tanah yang diambil berupa sampel tanah terganggu. Hasil analisis menunjukkan bahwa kandungan stok karbon organik pada lahan pasca tambang 2-3 tahun $3,14 \times 10^3 \times 10^3$, pada lahan pasca tambang ± 10 tahun $6,22 \times 10^3$ dan pada lahan karet $15,56 \times 10^3$ dan kandungan merkuri pada lahan pasca tambang 2-3 tahun 13,81ppm, pada lahan pasca tambang ± 10 tahun 13,10 dan pada lahan hutan karet 5,9. Hal ini menunjukkan bahwa setelah ditinggal lama lahan pasca tambang tidak mengalami perbaikan.

Kata kunci : Kandungan Merkuri (Hg), Lahan Pasca Tambang, Stok Karbon,

