

**EVALUATION OF SOIL CHEMICAL FERTILITY LEVELS ON  
RECLAMATION LAND IN THE IUP BANKO WEST PT. BUKIT ASAM Tbk  
MUARA ENIM DISTRICT SOUTH SUMATRA**

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**ABSTRACT**

*PT Bukit Asam Tbk is one of the State-Owned Enterprises (BUMN) operating in the field of Indonesian coal mining located in Tanjung Enim Muara Enim Regency, South Sumatra. The purpose of this study was to determine the chemical properties of soil, and determine the status of soil chemical fertility. The research was conducted from April 22 to June 12, 2024 using a survey method and soil sample points were determined purposively based on the age of planting or revegetation age (2023, 2021, 2020, 2019, and 2018) and forest land. Soil sampling consisted of 6 fields (5 revegetated fields and 1 forest field), each field was taken 3 points to represent each area so that there were 18 soil sample points. Soil chemical parameters analyzed based on the Soil Research Center (1995) include: Cation Exchange Capacity (CEC), Base Saturation (BS), P<sub>2</sub>O<sub>5</sub> content, K<sub>2</sub>O content, C-Organic, and soil pH. The results of the analysis show that the value of Cation Exchange Capacity (CEC) of soil 13.27 - 26.82 me/100g is classified as low to high, Base Saturation (BS) of soil 6.42 - 10.34% is classified as very low, P<sub>2</sub>O<sub>5</sub> content 10.09 - 62.74 mg/100g is classified as low to very high, K<sub>2</sub>O content 27.39 - 43.56 mg/100g is classified as medium to very high, soil C-Organic 1.61% - 5.40% is classified as low to very high, and soil pH 3.83 - 4.52 is classified as very acidic. Soil chemical fertility status at the research location obtained one class of fertility status, namely low. Factors that limit or influence low soil fertility are Cation Exchange Capacity (CEC), Base Saturation (BS), P<sub>2</sub>O<sub>5</sub>, and low C-organic.*

**Keywords:** *Liming, revegetation, soil chemistry, soil fertility status.*