ABSTRACT

Administratively research area include Tambang Air Laya, Lawang Kidul Sub-District, Muara Enim District, South Sumatera Province or include on research area of PT. Bukit Asam Tbk. Research area geographically situated in coordinate 3°43'94,4" - 3°45'030" LS and 103°45'25,4" – 103°45'25,3" BTX, in coordinate located at UTM 361659 mE - 363730 mE and 9585353 mE - 9587573 mE, with projection UTM WGS84 48S, with scale of map 1:10.000, with extents territory 4,14 km^2 .

Drainage pattern of research area is radial and dendritic. Primary form of research area have divided into three (3) units: Denudasional (D), Vulcanic (V) and Fluvial (F), and landform of research area have divided into six (6) units : Vulcanic Hills (V24), mine openings valley (D14), The shelter water the results of mine (D15) The land area of pile (D16) The flood plain (F7 and The body of the river (F22). Stratigraphy of research area have divided into three (3) units unformal litostratighraphy units and depositional alluvial unit with arranged from oldest until youngest are sandstone units of Muaraenim Formation (Early Miocene), claystone units or Muaraenim Formation (Middle Miocene) and lithodemic andesitic. The third age of the rock unit In the analysis using fossil spore and polen (palynology) with sandstone units of Muaraenim there presences fossil Florschuetzia levipoli and Florschuetzia semilobata marked age of Early Miocene and claystone unots of Muaraenim there presnces fossil Florschuetzia meridionalis marked age of Middle Miocene. Depositional environment of research area deposited in the environment Lower Delta Plain or Backmangrove-Mangrove. Structure located in the area of research in the form of Anticline folds Balong Ijo, shear fracture Balong Ijo 1, shear fracture Balong Ijo 2, shear fracture MT4, shear fracture Karantina, Balong Ijo fault with force direction southeast-northwest.

Based on analysis of physic, chemistry, and biology aspect of depositional environment coal bearing strata of Muaraenim Formation in research area deposited in the environment Lower Delta Plain with Depositional environment of coal strata form Bog wich shaped like the dome. Moor deposited at limnic (Low Moor).

Kata Kunci : Lower Delta Plain, Subdendritic, Radial, Limnic, Marsh, Bog