

**GEOLOGI DAN PENGARUH LINGKUNGAN  
PENGENDAPAN TERHADAP POTENSI AIR ASAM  
TAMBANG PADA LAPISAN NON BATUBARA FORMASI  
WARUKIN DAERAH JUMBANG DAN SEKITARNYA,  
KECAMATAN SATUI, KABUPATEN TANAH BUMBU,  
KALIMANTAN SELATAN**

**SARI**

Lokasi penelitian ini secara administrasi berada di daerah Desa Jumbang, Kecamatan Satui, Kabupaten Tanah bumbu, Provinsi Kalimantan Selatan. Secara geografis daerah penelitian termasuk pada zona 50S terletak pada X = 326402 – 331402 mE dan Y = 9585105 – 9590105 mN. Luas daerah penelitian dengan luas 5 km x 5 km dengan skala 1:12.500.

Daerah penelitian terdiri dari 3 bentuk asal dan 6 bentuklahan. Bentuk asal Struktural terdiri dari satuan bentuklahan perbukitan homoklin (S1) dan lereng homoklin (S2). Bentuk asal fluvial terdiri dari satuan bentuklahan dataran alluvial (F1), tubuh sungai (F2), dan dataran limpah banjir (F3). Bentuk asal anthropogenic terdiri atas satu bentuklahan yaitu lahan penambangan (H1) yang terbagi atas *sump* dan *open pit*. Stratigrafi daerah penelitian berdasarkan kesatuan ciri litologi yang dominan dapat dikelompokkan menjadi 3 satuan batuan tak resmi. Dari tua ke muda yaitu Satuan batulempung Warukin (Miosen Awal – Miosen Tengah), Satuan batupasir Warukin, (Miosen Awal – Miosen Tengah), dan satuan endapan alluvial (Holosen).

Satuan batulempung Warukin diendapkan pada lingkungan pengendapan *Transitional Lower Delta Plain*, dengan sub lingkungan pengendapan *interdistributary bay*, *swamp*, dan *crevasse splay*. Satuan batupasir Warukin diendapkan pada lingkungan pengendapan *Transitional Lower Delta Plain*, dengan sub lingkungan pengendapan *interdistributary bay*, *crevasse splay*, dan *swamp*.

Lapisan sedimen non batubara yang terendapkan di lingkungan pengendapan *Transitional Lower Delta Plain* secara keseluruhan tidak berpotensi menimbulkan Air Asam Tambang atau tergolong ke dalam NAF (*Non Acid Forming*). Walaupun pada beberapa lapisan terdapat PAF bahkan AF, hal ini dikarenakan pada lapisan tersebut mengandung unsur sulfur berupa material organik sisa – sisa tumbuhan.

Kata kunci : Formasi Warukin, *crevasse splay*, *interdistributary bay*, *swamp*, *transitional lower delta plain*, *non acid forming* (NAF).

***GEOLOGY AND EFFECT OF DEPOSITIONAL ENVIRONMENT  
TO ACID MINE DRAINAGE POTENTIAL IN NON COAL LAYER  
WARUKIN FORMATION  
JUMBANG AND SURROUNDING AREA , DISTRICT SATUI ,  
DISTRICT TANAH BUMBU,  
SOUTH KALIMANTAN***

***ABSTRACT***

*The location of this research is in the area of the village administration Jumbang, Satui subdistrict, Tanah seasoning, South Kalimantan. Geographically the study area including 50S zone located on the X = 326402-331402 mE and Y = 9585105-9590105 mN. The area of research with an area of 5 km x 5 km at a scale of 1: 12,500.*

*The study area consists of 3 primary forms and 6 landforms. Notching Structural origin consists of homoclin hills (S1) and homoclin slopes (S2). Formation of fluvial origin composed of alluvial landform (F1), channel (F2), and flood plain (F3). Formation of anthropogenic origin made up of mine landform (H1), divided into sump and open pit. Stratigraphy study area based on the unity of the dominant lithology characteristics can be classified into three lithologies unofficial. From oldest to youngest, namely claystone Warukin Unit (Early Miocene - Middle Miocene), Unit sandstone Warukin, (Early Miocene - Middle Miocene), and units of alluvial deposits (Holocene)*

*Claystone Warukin unit deposited on depositional environments Transitional Lower Delta Plain, with sub depositional environment interdistributary bay, swamp, and crevasse splay. Sandstones Warukin unit deposited on depositional environment Transitional Lower Delta Plain, with sub depositional environment interdistributary bay, crevasse splay, and swamp.*

*Non-coal sediments deposited in the deposition environment Transitional Lower Delta Plain as a whole is not potentially cause Acid Mine Drainage or belong to the NAF (Non Acid Forming). Although in several layers of PAF are even AF, this is due to the layer containing elemental sulfur in the form of residual organic material - the rest of the plant.*

*Keywords: Formation Warukin, crevasse splay, interdistributary bay, swamp, transitional lower delta plain, non-acid forming (NAF).*