

## INTISARI

Keterdapatannya Formasi Tanjung sebagai formasi pembawa lapisan batubara yang sangat tebal dan terdistribusi secara lateral di Cekungan Barito menyebabkan cekungan ini menjadi salah satu cekungan penghasil batubara terbesar di Indonesia. Genesa batubara Eosen yang terbentuk di lingkungan darat dengan pengaruh dari air tawar dan invasi air laut menjadi ciri khas batubara ini dan menarik untuk diteliti tentang karakteristik maseral dan mikrofasies, dan evolusi *paleomire* yang berkembang khususnya *seam* AGM-B3, AGM-B4, AGM-B5, dan AGM-B6 di daerah Kandangan melalui analisis petrografi organik dan kandungan kimiawi batubara. Hasil petrografi batubara subbituminus menunjukkan kelimpahan *vitritine* dominan mencapai 56,36% - 80,36% vol, *liptinite* (15,27% - 39,45% vol), *inertinite* (0,55% - 15,18% vol), dan mineral (0,18% - 4,36% vol) yang didominasi oleh *pyrite*.

Berdasarkan asosiasi kelimpahan maseral, mikrofasies batubara dibagi menjadi empat grup: (1) *telovitrinite-rich group*, (2) *detrovitrinite-rich group*, (3) *telovitrinite-liptinite-rich group*, (4) *inertinite-rich group*. Bagian bawah *seam* AGM-B6 dicirikan *detrovitrinite-rich group* sedangkan AGM-B3, AGM-B4, dan AGM-B5 dicirikan *telovitrinite-rich group*. Bagian tengah hanya terdapat di *seam* AGM-B3 disusun *inertinite-rich group* dan bagian atas *seam* AGM-B3, AGM-B4, dan AGM-B5 dicirikan *telovitrinite-rich group*. Profil vertikal evolusi *paleomire* *seam* menunjukkan perulangan *topogenous mire* menjadi *ombrogenous mire* kemudian kembali *topogenous mire*. Tipe *paleomire* yang berkembang adalah *wet forest swamp*, *forested peatlands*, dan *intermittently dry forested swamp* dan kondisi lingkungan berupa *telmatic*. Korelasi antara tipe *paleomire* dan kelimpahan maseral batubara daerah Kandangan mencerminkan vegetasi asal berupa tumbuhan berkayu yang mengalami tingkat degradasi tinggi, tingkat gelifikasi menengah, dan proses oksidasi yang intensif.

**Kata kunci:** Formasi Tanjung, petrografi organik, kandungan geokimia, mikrofasies, *paleomire*

## ABSTRACT

*The occurrence of the Tanjung Formation as a coal-bearing formation that has thick coals and is laterally distributed along in Barito Basin causes it to be well-known as one of the biggest coal-producing basins in Indonesia. The genesis of Eocene coal formed in terrestrial depositional environment influenced by freshwater and marine transgression is the uniqueness of this coal and interesting to examine maceral's characteristic and its microfacies, and the evolution of paleomire seam AGM-B3, AGM-B4, AGM-B5, and AGM-B6 in Kandangan area by organic petrography's analysis and coal's chemical analysis. The result of subbituminous coal's petrography show vitrinite is the most abundant maceral ranging from 56,36% - 80,36% vol, liptinite (15,27% - 39,45% vol), inertinite (0,55% - 15,18% vol), and mineral matter (0,18% - 4,36% vol) which is dominated by pyrite.*

*Based on maceral's assemblages, coal's microfacies divided into four groups are (1) telovitrinite-rich group, (2) detrovitrinite-rich group, (3) telovitrinite-liptinite-rich group, (4) inertinite-rich group. The basal section of seam AGM-B6 is characterized by detrovitrinite-rich group while seam AGM-B3, AGM-B4, and AGM-B5 are characterized by telovitrinite-liptinite-rich group. The middle section only represented the inertinite-rich group in seam AGM-B3, and the top section of the coal seams, except AGM-B6, is typically represented by the telovitrinite-rich group. The vertical profile of paleomire evolution shows a repetition of topogenous mire changing into ombrogenous mire and then back to topogenous mire. The paleomire type developed includes wet forest swamp, forested peatlands, and intermittently dry forested swamp and the environmental conditions are telmatic. The correlation between paleomire's type and coal maceral's abundance in the Kandangan area reflects that the type of vegetation from woody plants that underwent high degradation, moderate gelification, and intensive oxidation processes.*

**Keyword:** *Tanjung Formation, organic petrography, coal's chemistry, microfacies, paleomire*