SARI

Arus turbidit merupakan arus sedimen yang menuruni lereng bawah laut (*continental slope*) dengan massa yang sangat besar dengan pasir dan lumpur yang terlepas karena suatu tenaga. Formasi Dolokapa terbentuk akibat tatanan tektonik yang pernah terjadi. Oleh karena itu, Penelitian ini bertujuan mengidentifikasi mekanisme arus turbidit serta permodelan geologi yang terjadi pada Formasi Dolokapa. Metode penelitian yang digunakan adalah pengukuran penampang stratigrafi (*measuring section)* menggunakan rentang tali yang dibagi kedalam tiga jalur lintasan pengamatan yaitu pada LPD (Sungai Dolokapa), LPS (Sungai Sipatana), dan LPM (Sungai Mooti). Setelah itu, akan dilakukan interpretasi pada empat klasifikasi arus turbidit. Berdasarkan hasil pengolahan dan analisis data, diperoleh lima karakteristik fasies turbidit laut dalam dari Formasi Dolokapa yang berkembang yaitu Fasies A; Batupasir wacke menghalus keatas, Fasies B; Batupasir wacke mengkasar keatas, Fasies C; Perselingan batulempung dan batupasir, Fasies D; Perselingan batupasir dan batulempung sisipan batulanau, dan Fasies E; Perselingan batupasir dan batulempung sisipan konglomerat. Mekanisme arus turbidit yang terbentuk yaitu *Slope Fan* (SF) dan *High Density Turbidity* (HDT) pada fasies B dengan terjadinya arus *tranction carpet*, kemudian *Slope Fan* (SF) dan *Low Density Turbidity* (LDT) pada Fasies A, Fasies C, dan Fasies D dengan terjadinya arus suspense, dan terakhir terjadinya arus *cohesive debris flow* pada Fasies E yang tipe endapan turbidit yang dihasilkan oleh *hyperconcentrated flow* yang mentrasnportasikan material berukuran butiran sampai kerikil (*High Density Turbidity Current*). Dengan karakteristik fasies yang didapatkan dari stratigrafi, bahwa mekanisme pembentukan fasies turbidit (sistem Pengendapan) di daerah penelitian yaitu pada **fasies *submarine fan*,** berdasarkan struktur sedimen.

Kata Kunci : Arus Turbidit, Permodelan Geologi, Formasi Dolokapa

ABSTRACT

Turbidite currents are sediment flows down the continental slope with a very large mass with sand and silt released due to a force. The Dolokapa Formation was formed as a result of a tectonic setting that had occurred. Therefore, this study aims to identify the mechanism of turbidite currents and geological modeling that occurs in the Dolokapa Formation. The research method used is the measuring section with a range of ropes divided into three observation paths, namely the LPD (Dolokapa River), LPS (Sipatana River), and LPM (Mooti River). After that, interpretation will be carried out on four turbidite current classifications. Based on the results of data processing and analysis, five deep sea turbidite facies characteristics of the developing Dolokapa Formation were obtained, namely Facies A; The wacke sandstones are finning upward, Facies B; Wacke sandstones are coarsened upwards, Facies C; Alternation of claystone and sandstone, Facies D; Alternations of sandstone and claystone with siltstone inserts, and Facies E; Alternation of sandstone and claystone with conglomerate inserts. The turbidity current mechanism that is formed is Slope Fan (SF) and High Density Turbidity (HDT) in facies B with the occurrence of tranction carpet currents, then Slope Fan (SF) and Low Density Turbidity (LDT) in Facies A, Facies C, and Facies D with the occurrence of suspension currents, and finally the occurrence of cohesive debris flows in Facies E which is a type of turbidite deposit produced by hyperconcentrated flows that transport granular to gravel-sized material (High Density Turbidity Current). With the facies characteristics obtained from stratigraphy, the mechanism for the formation of turbidite facies (Depositional system) on ***the submarine fan facies****, based on sedimentary structures.*

Keywords: Turbidite Current, Geological Modeling, Dolokapa Formation