

ANALISA FASIES DAN STUDI PALEOGEOGRAFI FORMASI NGRAYONG LAPANGAN ‘STARK’ CEKUNGAN JAWA TIMUR UTARA MENGGUNAKAN SIKUEN STRATIGRAFI BERDASARKAN DATA *WIRELINE LOG, CUTTING, SWC, BIOSTRATIGRAFI DAN PETROGRAFI*

Muhammad Rabbani*, Ir. Pontjomojono Kundarmudoro, Msc.*, Ir. Sugeng Widada, Msc.
Universitas Pembangunan Nasional “Veteran” Yogyakarta

ABSTRACT

The researches area are located in one of the PT. Pertamina exploration field in North East Java Basin. Fields "STARK" included in the North East Java Basin, Central Java, where the focus of the research was the determination of facies and depositional environment Ngrayong Formation. The study was conducted using data owned by PT. Pertamina EP., Including seismic and well log data as the main data and *Sidewall Core* data, *mud log*, petrographic section, and biostratigraphy as additional data. The well data that we used for this research is well M-001 445-771 TVD, well M-002 860-1253 TVD and well M-003 1584 – 1835 TVD. Stratigraphic features of this researches are the top Ngrayong Formation above by an unconformity underlying the Bulu Formation and the bottom of Ngrayong Formation unconformably the Tawun Formation. The geological structure is evolving STARK Field anticline and inversion fault. Based on data biostratigraphic age Ngrayong Formations are N9-N13. Lithology in Ngrayong Fromation comprises predominantly by clastic limestone wackestone - packestone, shale, calcareous sandstone, and siltstone. Facies and depositional environment that developed in Ngrayong Formation, Fields "STARK" consists of carbonate mixture of sediments onshore or mix carbonate terrigenous shoreline facies which is Skeletal Limestone, laminated limestone and interlaminated limestone facies and the paleoenvironment that develops is lagoon, tidal flats, tidal channels, offshore bars. Ngrayong Formation through 3 sequences phases. The first sequence developed LST 1, TST 1 and HST 1. Second, developing TST 2 and HST 2. And final phase LST3, TST3 and HST 3.

Key word : sequence stratigraphy, wireline log, biostratigraphy, Ngrayong Formation

