DISTRIBUTION OF CARBONATE BUILD-UPS IN STANVAC'S SOUTH SUMATRA AREA

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Two Mesozoic deformation phases account for the configuration of the pre-Tertiary basement in South Sumatra. The first, occurring during the middle Mesozoic, created a system of major northwest-southeast trending right-lateral stike-slip faults. The second phase, during the Upper Cretaceous, brought about a fault system which was of similar type, but north-south in trend. Interference of the two systems together with associated differential uplift resulted in an asymmetric, broken up, Tertiary basin in the east and a platform in the west. The basin itself consisted of several asymmetric sub-basins bounded by the above fault systems.

A micritic-detrital carbonate overlying a Tertiary clastic wedge was deposited on the basin flank during a period of marine quiescence at the end of the early Miocene. Several carbonate reefal build-ups were able to grow on the flank of the basin. These reefal build-ups occurred particularly in the shallower marine environments. Towards the basin deep, the micritic-detrital carbonates grade laterally into monotonous shales of the lower member of the Telisa sequence.

A detrital-micritic carbonate onlaps the Pre-Tertiary basement in the Platform area. Some low relief carbonate reefal build-ups developed on this onlapping carbonate.

The eastern edge of the platform is sharp, being cut off from the depocentre of the basin (the Benakat Gulley) by a distinct north-south Upper Cretaceous fault. On its northern side, the platform slopes gradually towards the Pigi Trough. The carbonates, here overlying the lower Tertiary clastic wedge, are similar in development to those in the eastern basin.

The reefal build-ups on the platform slope and on basement highs are highly prospective in Stanvac's concession area. Six reefs located on the basin slope have been drilled. Five resulted in gas and oil discoveries and one was dry but had oil shows. Four reefs developed on basement highs were drilled, two found gas and two were dry.

THE BATURAJA FORMATION OF THE SUNDA SUB-BASIN AREA

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The Sunda sub-basinal area lies immediately west of the Seribu platform, within the present day Java Sea. Within this region the Baturaja Formation consists of a Lower Miocene transgressive sequence of limestones, secondary dolomites, claystones and shales conformably overlying the Oligocene Talang Akar Formation.