

Sequence Stratigraphic Characteristics of the Tertiary Reefs in the Cenozoic Basins of the South China Sea

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The Tertiary reefs mainly developed in the Cenozoic depositional basins situated in the northern, southern and western margins of the South China Sea, which is of special tectonic sitting. The locations of these reefs were distinctly controlled by paleostructures and were of an individual forming time series from east to west and, from north to south as well. The reefs in the northern margin obviously distributed along the positive structural zones trending NE; in the western, they exist roughly on the upper sides of the large strike-slip extensional faults; and in the southern, their developments were concerned in feature of variant basements. The growth and the distribution of reefs were also influenced by the large river system in that time.

The sequence stratigraphic study of the various typical Tertiary reefs indicates that they always Chang the formative types and keep the balance with the eustacy to maintain the optimum growth environment for themselves, giving rise to aggrading, prograding, retrograding reefs. There are various formative types in an individual reef body because the reef-flanks such as the bachreef and the reef-front suffer from different oceanogenic energy. During the terms of the reef growth, quantities of primary and secondary pores formed in the high water system tracts and the low water system tracts, which are good reef reservoir beds.