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Geology of Southern Palawan-Balabac Area: Results of Marine Geophysical Studies in Northwest Sulu Sea and in South China Sea

According to our interpretation, two major terranes are superimposed in the Balabac-south Palawan area. An autochthonous Palawan continental terrane extends from the Dangerous Grounds and Reed Bank to beneath the islands of Palawan and Balabac, and parts of the Sulu Sea. An allochthonous imbricated terrane covers an area of approximately 170 × 350 km between the southwestern prolongation of the Cagayan Ridge in the Sulu Sea and the Palawan Trough in the South China Sea, including southern and central Palawan and the Balabac Island. This originally accreted terrane formed outside the Balabac-southern Palawan area, but has been thrust onto the Palawan continental terrane since the early Miocene. If the allochthonous terrane is underlain by the continuation of the Palawan continental terrane, as we believe, new possibilities for hydrocarbon exploration will develop.