BIOSTRATIGRAPHY OF CALCAREOUS NANNOPLANKTON OF THE GRAMAME FORMATION (MAASTRICHTIAN), PERNAMBUCO-PARAIBA BASIN - NE BRAZIL

(1) LIMA, F. H. O. And (2) KOUTSOUKOS, E. M. A. (1) PETROBRAS-E&P, Sao Mateus, Brazil, (2) PETROBRAS-CENPES, Rio de Janeiro, Brazil.

Outcrop samples collected from four measured quarry sections of the Gramame Formation (Maastrichtian) between Recife (PE) and João Pessoa (PB) are rich in calcareous nannoplankton. The Gramame Formation is composed of low-energy limestones-marl cycles that include extensive sub-horizontal beds characteristic of distal, pelagic-carbonate gravity flows. All Maastrichtian biozones defined by the international standard nannoplankton zonation occur in the Gramame Formation. In all quarries the calcareous nannoplankton assemblages are abundant and commonly well preserved. The older sections were identified near João Pessoa (CIMEPAR Quarry) by the occurrence of Tranolithus orionatus (CC23) and Reinhardtites levis (CC24) zones. In CIPASA and NASSAU quarries, between João Pessoa and Recife, the Arkhangelskiela cymbiformis Zone (CC25) is recorded. The youngest section (uppermost Maastrichtian) is exposed near Recife (POTY Quarry) with Nephrolithus frequens Zone (CC26), just below deposits interpreted to have been possibly induced by an impact-triggered tsunami event related to the Cretaceous-Tertiary (K/T) boundary.