

**AAPG International Conference
Barcelona, Spain
September 21-24, 2003**

Flavio Luis Fernandes¹, Hung Kiang Chang¹, Sidnei Pires Rostirolla², Nilo Chagas de Azambuja Filho³ (1) State University of São Paulo - Brazil, Rio Claro, Brazil (2) Federal University of Parana, Curitiba, Brazil (3) PETROBRAS, Rio de Janeiro, Brazil

Tectonic-Stratigraphic Evolution of the Namorado Oilfield Area - Campos Basin - Brazil

Based on Geologic Section Restoration techniques (GSR), we interpreted the tectonic-stratigraphic evolution of the Namorado-Cherne-Bagre oilfields area, Campos Basin, Brazil. Restoration processing was applied on 15 E-W parallel geological sections that crosscut the main structures of the area.

Our interpretation was based on restored maps constructed using interpolation of the horizons taken from the geologic sections. We conclude that the Aptian salt diapirs started to move in the Early Albian and stopped in the Eocene, maintaining their NNE-SSW strike direction during the entire tectonic evolution. The diapirs orientation is interpreted to be related the presence of NE-SW faults of the rift phase. During the Cenomanian, turbidite sandstones were deposited, representing the principal reservoir in the area. However, the main sandstone thickness is displaced from the Cenomanian depocenter. During the Turonian, the Campos Basin underwent a marine transgression that prevented significant sedimentary loading, leading to relative halokynesis quiescence. During the Santonian, large NNW-SSE depocenters were formed in the central portion of the area, resulting in a thick sedimentary section. At the end of Cretaceous, a large elongate N-S depocenter was formed in the western portion of the basin, but the central-northern area was also active.

The main phase of halokynesis activity ended in the Eocene, when the central area exhibited great subsidence, resulting in a large N-S depocenter. The paleo-structural maps for the Eocene and Oligocene illustrate that the oilfield structures had already closed at that time, being the main oil generation-migration phase in that portion of Campos Basin.