

Controversies on the Tectonic Evolution of the Recôncavo-Tucano-Jatobá Rift

¹MAGNAVITA, LUCIANO P., ¹PETROBRAS, E&P-BA, Salvador, Brazil.

This paper attempts to contribute in clarifying some of the most disputed issues on the tectonic evolution of the Recôncavo-Tucano-Jatobá Rift, an aborted branch of the Lower Cretaceous Eastern Brazilian margin. In the last two decades, reflecting similar controversies worldwide, the following points have been debated in the literature:

- (1) the degree of basement control on the rift architecture, not fully understood along some major faults;
- (2) the time of rifting onset, placed at or before the deposition of a thick wedge piled up near the main rift border;
- (3) the direction of rift opening, if oblique or orthogonal to the main structural trends of the rift;
- (4) the kinematics along the main transfer zones, an issue where the controversy increases according to the amount of data;
- (5) the sense of propagation of the rift border, if toward or away from the footwall;
- (6) the existence of a basal detachment beneath the rift, which has not been imaged on a recently shot deep seismic line ;
- (7) the significance of inverse faulting, related either to inversion tectonics or transpression along transfer faults;
- (8) the genesis of the unconformity between syn-rift and post-rift; generally correlated to the break up unconformity;
- (9) the mechanism of uplift that led to the present level of rift exhumation.