

GEOLOGY AND EVOLUTION OF THE CAUTO-ANA MARIA BASIN, CUBA

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ABSTRACT

The Cauto-Ana Maria basin extends for almost 300 km on the southern part of Cuba. It developed as a result of a complex multi-stage process. The basin conditions were established in the Cenomanian in a back-arc setting, lying over Aptian-Albian rocks, related to the formation of the Cuban Zaza volcanic arc. This condition prevailed until the Santonian. In the Campanian-Maastrichtian the volcanic arc started to collide with the southern continental margin of North America and the Cauto-Ana Maria region was transformed into a hinterland basin.

However, in the Paleogene the Turquino volcanic arc was formed to the south and the basin underwent back-arc conditions again. At the end of the middle Eocene the Cayman-Bartlett transform fault opened, ending the subduction and volcanism, and from that time on the basin has developed in a strike-slip pull apart mode.