

## FACIES AND DEPOSITIONAL SETTING OF DEPOSITS OF RESENDE FORMATION IN THE TAUBATÉ BASIN AT JACAREÍ, SÃO PAULO.

Braga, L.F.Q.F.<sup>1</sup>; Ramos, R.R.C.<sup>2</sup>; Iró, A<sup>1</sup>.; Aguiar, L.G.S.<sup>1</sup>; Fagundes, T.R.P.<sup>1</sup>

<sup>1</sup>Universidade Federal do Rio de Janeiro; <sup>2</sup>Museu Nacional-UFRJ

**ABSTRACT:** The Resende Formation has great importance in what is called the Southeast Continental Brazilian Rift (RCSB), being of great sedimentological importance in Taubaté, Resende and Volta Redonda basins as it is **represented** in all those basins. The Taubate basin is the largest basin of the RCSB, showing an area of 3.200 km<sup>2</sup>, a length of 170 km and a maximum width of 20 km. In this basin, the Resende Formation best outcrops can be observed in the western part, in road cuts of Dom Pedro I Highway (SP-065), between Governador Carvalho Pinto Highway (SP-070) at the south, and Presidente Dutra Highway (BR-116), at the north, at Jacarei, São Paulo. However, these outcrops have never been a subject of detailed work. The aim of this project is to characterize the depositional facies and its changes, searching for a better understanding of the depositional model of this sector of the basin. To aid this goal, graphic logs were produced in a 1:20 scale, and ~~use of~~ photomosaics **used** to understand the geometry of the beds. The deposits are mainly composed by conglomerates and arkosic arenites with low textural and compositional maturity occurring as lens of channels deposits, with sizes in order of meters, containing sedimentary structures as trough cross bedding and planar cross bedding. Intercalated with, thick layers of massive mudstones, those are significative throughout the area. The channels are approximately oriented N-S and paleocurrents with indicating NNW directions. These deposits are interpreted as being part of a distributary fluvial system where highly mobile channels migrated laterally, above wide flood plain areas. Events of flooding were ~~toe~~ present **too**, creating crevasse splays deposits, **where the absence of** and these do not show sedimentary structures that could be a result of bioturbation ~~that destroyed these features~~. The low compositional maturity of these rocks, especially **attested by** the high content of feldspar and clay minerals, indicates a drier, arid weather, ~~which is another feature of this fluvial system~~. The **abundance** of mudstones could be explained by a previous humid climate that weathered the surrounding crystalline basement. Comparing these ~~correlated~~ deposits **with those from in the** Resende and Volta Redonda basins, there are much more similarities with the last one, regarding the sandstone/mudstone ratio.

**Comentado [U1]:** Need a new redaction. Of difficult understand.

**Comentado [U2]:** idem

**Comentado [U3]:** not necessary

**Comentado [U4]:** not necessary

**Comentado [U5]:** basal?

**KEYWORDS:** RESENDE FORMATION, TAUBATÉ BASIN, SEDIMENTOLOGY.