

## **THE CHAPECÓ AND PALMAS ACIDIC VOLCANIC MEMBERS OF SERRA GERAL FORMATION: PARANÁ BASIN, BRAZIL.**

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The Paraná Basin is set on the southern region of South America Platform and was strongly affected by a voluminous volcanic event at  $132 \pm 1$  m.a. with an effusion rate of  $1\text{km}^3\text{yr}^{-1}$ , generating  $790,000\text{ km}^3$  of lava flows which covers an area of  $1,200,000\text{ km}^2$  or 75% of the total surface of Paraná Basin. These lava flows, grouped in the Serra Geral Formation, are represented by dominant tholeiitic basalts overlaid by scarce acidic volcanics. The acidic volcanics are represented by two different rock types, defining homonymous stratigraphical members named Palmas (aphyric with granophyric groundmass rocks) and Chapecó (strongly porphyritic rocks). The geological mapping of Serra Geral Formation, revealed that Palmas Member are concentrated in the central-southern region of Paraná Basin and covers an area of  $47,351\text{ km}^2$ . The mean thickness of this lithostratigraphic unit is 200 m, corresponding a mean volume of  $9,470\text{ km}^3$ . In the south region, the maximum thickness observed is 400 m and in the central ones, 240 m. The Chapecó Member, covers an area of  $7,194,33\text{ km}^2$  spreaded out from central to north region of Paraná Basin, with a mean thickness of 138 m and a mean volume of  $1,079\text{ km}^3$ . In the central region, the maximum thickness observed for this unit is 250 m while in north region, is 150 m. These new values allow us to estimate a new volumetric contribution of acidic rocks as 1.5% of the total amount of volcanics of Serra Geral Formation, a half of initial estimated values.