

MINERALOGICAL VARIATION IN CLAY SEDIMENTS FROM CORUMBATAÍ FORMATION IN RIO CLARO-(SP), BRAZIL

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Brazilian's ceramic industry, last year, produced about 400 million sqm of floor and wall tiles. In the region of Rio Claro (SP), Brazil, ceramic industry is an important activity because the city is located in the most important ceramic pole of the São Paulo State, where the raw material comes mainly from Corumbataí Formation, sited in the northeastern side of the Paraná Basin.

In this paper, five mines along the municipal district of Rio Claro were selected. The work consisted on describing the characteristics of the profile and sampling the different levels, using X-Ray Diffraction. It was observed that four of them are very similar, presenting local variations caused by post-sedimentation processes such as weathering and basic intrusions, and strongly affected by tectonic activities, presenting topographical variations of the order of 150m. The fifth mine is more uniform and it's mineralogy shows high amounts of expansive minerals, unlikely the other mines, where these minerals can be found as irregular mixed layers. Another clay minerals are illite, often present, and kaolinite in variable amounts or even absent. It was also observed quartz, feldspar, calcite and hematite on all mines.