

RADIOMETRIC FEATURES OF REE-BEARING PEGMATITES IN THE ALKALINE COMPLEX OF PEIXE, TOCANTINS STATE, BRAZIL.

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In the alkaline complex of Peixe, are found mesoproterozoic miaskitic alkaline rocks chiefly represented by nepheline sienites, sienites and granites. Those rocks are crossed by several bodies of granitic/sienitic pegmatites which are associated with allanite and monazite ore minerals. In spite of the significantly content in radioactive elements, radiometric survey never took place in this area. In the present work we propose to apply the gamma ray spectrometry technique to improve the mapping of these pegmatites. Besides determining the radiometric signature of these rocks it will aid mineral exploration of similar occurrences in the area. The terrestrial gamma ray spectrometry essentially doesn't have penetration in geologic materials. Only the top meter of the earth's surface may be investigated. Thus other information about the overburden covering the bedrock is important to achieve good interpretations because overburden normally reflects bedrock compositions. Mineralogical and geochemical investigations of soil and altered rocks of the weathering mantle within a well defined geomorphic framework establishes basis for the interpretation of radiometric anomalies and your relationship with lateral and vertical mobilization of rare metals associated. The preliminary radiometric data (K%, eUppm, eThppm, and ratios between them), presented here give an outlook of the possible correlations with dispersion of rare metals in the surficial environment.