

Mineralization associated to intermediate and basic rocks of the Tapajós Mineral Province, Amazon, Brazil

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The Tapajós Mineral Province (TMP) contains a variety of basic and intermediate rocks (gabbro, troctolite, diabase, andesite and lamprophyre) with distinct chronostratigraphic positioning. Such intrusions are known as: Ingarana Intrusive Suite (Paleoproterozoic), Crepori Diabase (Paleoproterozoic); Jamanxim Lamprophyre (Mesoproterozoic) and the Cachoeira Seca Intrusive Suite (Mesoproterozoic). In addition to these, there are diabase and andesite as dykes. Geological surveying has shown the presence of gold mineralization spatially associated with these basic and intermediate rocks. In the Ingarana Intrusive Suite, mineralization of the load-gold type is observed (Davi *garimpo*, and possibly at Mineração Crepori), and as stockworks and in lateritic crusts (Jutai *garimpo*). The model most frequently observed in dykes is the association with quartz and andesite and/or diabase in hydrothermalized dykes in faults (Mamoal, Joel, Serra Verde, Marupá, Ouro Mil and Conceição *garimpos*). No gold mineralization has yet been found associated with the Cachoeira Seca Intrusive Suite and the Crepori Diabase. The role of the basic and intermediate magmatism in the genesis of the Tapajós gold mineralization is seen as passive (as opposed to an active rolley, in which the basic magmas might have been responsible for the transfer and/or concentration of gold), but effective, given their frequent spatial association, and by the fact that these rocks are fairly reactive in relation to the gold transporting hydrothermal fluids.