

## **Geology of the southern portion of Roraima State, Brazil - Guiana Shield**

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Two large structural domains occur in the southern portion of Roraima State, Guiana Shield: Central Guiana and Anauá – Jatapu. The Central Guiana Domain, NE-SW belt consists of orthogneisses of upper amphibolite facies, with subordinated granulitic lenses and metasediments, intruded by granitoid bodies. The Anauá-Jatapu Domain is predominantly formed by a great variety of granitoids and volcanic rocks. In that portion, the Transamazonian Orogenic Cycle has not yielded isotopic ages older than Paleoproterozoic. The oldest rocks are metatonalites, metadiorites and granulitic gneisses (Anauá Complex, 2.03Ga) with similar characteristics similar to TTG terrane. Supracrustal rocks named Cauarane Group (greenschist and amphibolite facies) rest over the basement. The high-grade orthogneisses are related to Rio Urubu Suite (1.96-1.91Ga). Sinterectonic peraluminous granites (Igarapé Azul Granite, 1.96-1.94Ga) and post-tectonic calc-alkaline granitoids (Água Branca Suite) are intrusive in the Anauá-Jatapu Domain. Calc-alkaline volcanic rocks related to Iricoumé Group are probably coeval with Água Branca Suite. Within plate granitoid bodies are related to Mapuera (1.81Ga), Serra da Prata (1.56Ga) and Abonari Suites (1.53Ga). Sedimentary rocks from Urupi Formation overlies volcanic and granitic rocks, and is itself intruded by Quarenta Ilhas Dolerite. Several small and isolated basic intrusions (Caracarái Gabro) occur everywhere. Alkaline basalts are originally referred to as Seringa Formation of Neoproterozoic age. Some alkaline stocks and dykes (syenites and phonolites) are of Cretaceous age. Quaternary sediments cover most of the Rio Branco basin. Mineral occurrences in the area include gold, tin, columbite-tantalite and amethyst.