

Gemological resources of Rio Grande do Sul State, Brazil

BRANCO, P. de M. Geological Survey of Brazil, Porto Alegre, Brazil.

Rio Grande do Sul is the most important rough and cut gem exporter state in Brazil, reaching US\$ 10,175,000 and US\$ 18,622,000 respectively in 1997. This wealth is provided mostly by agate and amethyst which occur in volcanic rocks distributed along the whole northern half of the state, mainly in the Cretaceous basalts of the Serra Geral Formation. A comprehensive survey of the State's gemological resources and recorded hundreds of occurrences of 14 different gems and delineated 4 types of areas in the State: *very favorable*, *favorable*, *less favorable* and *non-favorable*. Tens of outcrops where collection minerals occur, mainly zeolites, calcite and apophyllite, were also recorded. This surveying also revealed that mining has a wider distribution than it was thought and that, although rare, natural citrine is present in the State.

Outstanding among the collection minerals are selenite, which occurs in geodes up to hundreds of kilograms in Planalto, and zeolite of which very beautiful and quite large crystals can be obtained. In the German mineralogist Herbert Pölmann's opinion, a quarry in Morro Reuter, 50 kilometers north of the State capital of Porto Alegre, there is an unique deposit in the world, for the amount of scolecite, stilbite, heulandite that may be found there.