

## Gold Mineralization in the Quadrilátero Ferrífero, Minas Gerais, Brazil

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The Quadrilátero Ferrífero (QF) was the most important Brazilian gold district until the late 1970's and represents one of the major gold provinces in the world. To date the Quadrilátero Ferrífero historical gold production amounts to over 1,000 t of gold, roughly 40% of the total gold production of Brazil.

Based on the age and nature of their host rocks, the gold deposits in the QF can be classified into four main groups:

(1) The Archean basement-hosted deposits include prospects and occurrences associated with quartz veins in the granitic-gnaissic rocks.

(2) The Archean greenstone-hosted deposits comprise (i) stratabound, replacement-dominated, (ii) shear zone-hosted and (iii) shear related quartz-vein type gold mineralization hosted by metavolcanics, BIF, metacherts and metasediments.

(3) The Proterozoic sediment-hosted deposits are represented by (i) Witwatersrand-type conglomerates; (ii) *Bugre*-type mineralization, constituted by weathered quartz carbonate veins in dolomites; (iii) *Jacutinga*-type mineralization, an uncommon type of palladium-bearing gold mineralization hosted by Superior-type iron-formations; and (iv) shear zone-hosted deposits associated with quartz veins and tourmalinites

(4) The Cenozoic alluvial, laterite-hosted deposits comprise placers, paleoplacers and supergene gold mineralization related to Archean and Proterozoic primary mineralization.