Type deposits of primary gold mineralization in the Central Belt of Peninsular Malaysia

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A study of gold mineralization of the Central Belt of Peninsular Malaysia was made, based on fluid inclusion, mineralogy and field observations. The gold mineralizations in the Central Belt can be divided into three types, viz., gold mineralization in quartz veins, gold mineralization in massive sulphides and gold mineralization in skarn. Of the three types, gold mineralization in the quartz veins is the most dominant and being actively mined while the others are limited and of less economic importance. Gold mineralization in quartz veins is distributed from Batu Melintang, Panggung Lalat in Kelantan, through Tersang, Selinsing, Kecau Tui, Penjom and Raub in Pahang to Gunung Ledang in Johor. This mineralization has two styles, viz., gold together with sulphides and gold together with base-metal and carbonate. Fluid inclusion studies indicate that gold –bearing quartz veins in Central Pahang are formed at 50–1,500 m depth, at a temperature range of 100–350°C and salinity of 0.5-4.8 wt% Gold-bearing quartz veins are steeply dipping fault and shear zones trending roughly north-south. Common associated sulphide minerals are pyrite and arsenopyrite while galena, chalcopyrite, sphalerite, tetrahedrite, stibnite and cinnabar are occasionally observed at certain localities. Gold mineralization in massive sulphide is found in Manson's Lode, Sokor, Kelantan and Tasik Chini in Pahang and its common associated minerals are galena, pyrite, sphalerite, chalcopyrite, pyrrhotite and hematite. This type of gold mineralization was once mined and is regarded as a Kuroko-type massive sulphide, formed in an underwater marine environment. Gold mineralization in skarn is not economically important and has been traced in Sungai Sok, Kelantan. The types of primary gold mineralization in the Central Belt are exemplified.

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