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# FIELD RELATION AND PETROGRAPHY OF PEDDAVURA SCHIST BELT, EASTERN DHARWAR CRATON, SOUTH INDIA

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## Abstract

Greenstone belts in general in Dharwar Craton host economic mineral deposit in Kolar, Hutti, Chitradurga, Ramagiri etc especially gold mineralization while a few other greenstone belts are devoid of mineralisation. Lithological units of Peddavura schist belt (PSB) are mostly metabasalt (Dharwarian chlorite-sericite-actinolite/amphibole schists) in a granitic basement,with sharp contacts with rhyolite, traversed by numerous dolerite dykes at irregular intervals and associated with banded magnetite quartzite (BMQ) of variable thickness and showing shear zones, alteration and younger intrusive veins of quartz, epidote and pegmatite. The PSB contains granitic/ granite gneisses exposures of late Archaean age with chloritized, sericitized alteration zones and gneissosity. Microscopic observations show alternate quartz and magnetite rich layers with the amphibole minerals grunerite and hornblende in BMQ. Hornblende and biotite alter to chlorite. Dolerite dykes are composed of euhedral phenocrysts of plagioclase and olivine with actinolite in a tremolitic groundmass. The Rb-Sr isochron age of BBA group rocks is 2551± 19Ma. Metavolcanic rocks of PSB are rhyolite, basalts, basaltic-andesite, andesite (BBA group).

*Keywords:* Peddavura schist belt, Eastern Dharwar craton, Field relation, Petrography, Geochemistry

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