

SAMPLE NO: TK 650409

LOCATION: ~~East Kimberley~~

Thunderball
Extended Trench 1

SAMPLE TYPE: Rock Chip

SECTION TYPE: Polished Thin Section

FIELD IDENTIFICATION: Interbedded red argillite and arenite.

DESCRIPTION: The fine grained argillite unit comprises cryptocrystalline quartz associated with fine fibrous to scaly sericite paralleling a weakly crenulated schistosity. Fine, subangular to subrounded detrital quartz is distributed through the matrix. Stylolitic veins confirm ongoing deformation.

The coarser grained units contain unusual spheroidal quartz aggregates or ellipsoids in a scaly sericite matrix. The quartz ellipsoids contain platy muscovite and evidence of original sulphides, and may represent an exhalite horizon.

Another siliceous horizon comprises a fine anhedral to microcrystalline quartz mosaic associated with platy muscovite.

A quartz vein parallels bedding and comprises anhedral quartz associated with pale coloured, fine, prismatic and bladed tourmaline as well as goethite after original sulphides.

In reflected light, the quartz ellipsoids contain trace, anhedral pyrite and pyrrhotite as well goethite after original sulphides. Pyrite can exhibit simple intergrowths with pyrrhotite. The quartz – tourmaline vein contains trace pyrite and minor goethite after original sulphides.

CLASSIFICATION: *Weakly hydrothermally altered (sericite) argillite, containing weakly mineralised (pyrite, pyrrhotite) ellipsoids and a quartz – tourmaline – tr pyrite vein that parallels bedding.*

