

South of Newton Creek significant sericitic alteration occurs in the upper 200m of the feldspar-phyric unit (see figure 55). Eastoe, C.E. (pers. com) considers the alteration to be characteristic of hydrothermal alteration of the host horizon of volcanogenic deposits akin to Rosebery.

At Howard's Anomaly the upper part of the feldspar-phyric unit within the sericitised alteration zone, consists of chaotically interbedded sequence of carbonate, hematite and fine-grained cleaved, sericitised, andesitic tuff associated with sporadic disseminated mineralisation (in particular Ag) (figure 54). This hematite - carbonate unit has not been located on strike within the East Tyndall - Basin Lake areas (see Figure 57). However, a correlated unit in the same stratigraphic horizon occurs at Comstock (see section 2.4.7). The most significant base metal mineralisation of the Comstock (pyrite, chalcopyrite) and the Tasman Crown (Pb-Zn) orebodies occurs stratigraphically below the hematite-carbonate horizon, indicating that this horizon may also be the most prospective within the East Tyndall - Basin Lake Areas.

Tyndall Group Boundary

At Comstock (DDH C50), hematite developed above cleaved and mineralised andesitic volcanics is overlain by limestone. The contact between the hematite and andesitic volcanics is interpreted as a probable unconformity and defined as the base of the Tyndall Group. (Jago et al, 1972; Corbett et al, 1974).

However, relogging of DDH C50 showed the limestone is also overlain by cleaved andesitic volcanics interbedded with reworked tuff and grey shale. A gradational contact occurs between the shale and green to pale pink rhyolitic agglomerates and crystal tuffs of the Comstock Tuff Sequence.

In the East Tyndall - Basin Lake area no unconformity can be inferred, but a hiatus in explosive volcanic activity is indicated by the fining up-sequence of andesitic tuff, and at Howard's Anomaly a local accumulation of exhalative (?) hematite and carbonate. The top of the unit is indicated by a variable but minor unit of reworked tuff and grey shale. Sericitisation is pervasive throughout. As at Comstock a gradational contact between the shale, and the agglomerates and crystal tuffs of the Comstock Tuff, is indicated by an increase of chilled rhyolitic fragments within the fine grained tuffs and shales.

The Tyndall Group as defined by Corbett (1974) is inadequate for correlation in the East Tyndall - Basin Lake Areas. It is suggested that the base of the Tyndall Group be defined as the more readily mapable quartz-phyric volcanics (agglomerates, tuffs and lavas) of the Comstock Tuff.

Tyndall Group

At Newton Creek the 500m+ sequence consists of quartz-phyric ashflow agglomerates, volcanoclastic conglomerates, rhyolitic lavas and minor cherts, overlain by the hematitic volcanoclastic Jukes Breccia. At Basin Lake the Tyndall Group rocks are probably faulted out against the Great Lyell Fault. The relationships within the Tyndall Group were not mapped in detail as the unit does not appear to be prospective.