

Jurassic dolerite forms the main topographic highs to the south - Mt. Nicholas/St. Patrick's Head.

Extensive alluviation of the Scamander/St. Helens area occurred during Tertiary, Quaternary and Recent times. Several stages of alluviation, uplift and erosion have resulted in a complex alluvial stratigraphy (Table 4). Placer tin is concentrated in Quaternary and Recent sediments. Five metres of Quaternary gravel in the Thureau's Lead area west of St. Helens has been extensively worked for alluvial cassiterite. Pockets of tin-bearing alluvium/eluvium are common in the Scamander licence (Plan D/LH 02/527R). The occurrence of alluvial tin has complicated the interpretation of stream sediment sampling results in the search for hardrock tin.

3.0 AEROMAGNETICS

3.1 Survey Results

A helicopter borne magnetic survey of some 1200 line kilometres was carried out by GEOEX for BHP in mid 1979. East-west lines were flown 300 metres apart at a mean sensor terrain clearance of 90 metres.

The aims of the survey were to provide information to assist geological mapping and to detect any magnetic or pyrrhotite associated mineralization.

A contour map (Plan D/LH 02/570R) with a 5 nT contour interval was produced from the digitally recorded data by BHP's exploration computing section.

The data shows that the exposed granitic intrusives are non-magnetic while many discrete and generally low amplitude (less than 100 nT) anomalies are widely distributed through the areas mapped as Mathinna Beds. Several of these anomalous zones are in close (geographic) association with mapped occurrences of mineralization including tin, copper, molybdenum and tungsten.