

PHOTOGEOLOGICAL INVESTIGATION OF THE COMSTAFFTENEMENTS AND ADJACENT AREAS IN TASMANIAINTRODUCTION

Ninety 1:40 000 Scale aerial photographs (45 Stereo models) were interpreted to fully cover the Comstaff Tenements and adjacent areas. The southern portion of the area was also covered by an interpretation of the 1:500 000 Scale MSS Band 7 Landsat 1 image, which covers the north east of Tasmania. An initial interpretation was completed and compiled at photoscale this was then reduced to 1:50 000 as this is the scale of the topographic maps of the area. A ground reconnaissance was made of the area and the original interpretation modified. This has resulted in the production of 1:50 000 scale photogeological maps corresponding to the 1:50 000 topographic sheet layout. The photogeological maps show major fractures (faults?) photolinears (which may relate to bedding, jointing or faulting) and contacts between rock units of differing photogeological appearance. Photogeologically distinct rock units have been defined and where possible related to the rock units determined from ground checking and existing geological maps. The area is strongly dissected by streams and rivers which drain to the south, south west and west. Within the area soil cover is well developed and there are also glacial deposits which cover some parts of the area. The vegetation is undisturbed and is controlled by the major rock units, though it obscures minor geological differences.

The uniform vegetation cover, the soil/glacial cover and lack of distinct marker bands within the sedimentary units prevents the determination of the attitude of the rocks and consequently the location of fold axes in the east of the area. Though the major rock units can be distinguished on the Landsat image, its interpretation is of greater significance structurally.

Analysis of the major fractures density and trends have been made. A reduction of the photogeological interpretation to a scale of 1:250 000 accompanies this report and the 1:50 000 maps are available if required.

STRATIGRAPHY (PHOTOGEOLOGICAL) See Table 1 and TAS-2-786

Within the area there are nine main photogeological groups that can be distinguished excluding cover material such as alluvium, swamp and glacial till. These groups have been determined from 44 units which have distinct photogeological characteristics. The criteria for the classification of the units into the groups are differences in vegetation cover, results of field checking, and the locations and similarities between the units. On the maps contacts are shown within some of the units (mainly the sedimentary units) which indicate that the units are not homogeneous in composition and can be further subdivided.