1984/64. Interim regional geological map of the Ross-Woodbury-Western Tiers area, Interlaken Quadrangle

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Abstract

A preliminary compilation of incomplete mapping in part of the Interlaken Quadrangle is presented.

INTRODUCTION

The geological map (Appendix 1) is a compilation of incomplete regional geological mapping of the Interlaken Quadrangle and presents the data available up to September 1984 for the area east of the Western Tiers scarp between Ross and Woodbury. Rock distribution is shown for mapped areas and inferred for unmapped areas and areas covered by thin Quaternary deposits (where possible). Mapped faults and some inferred faults are shown.

BRIEF NOTES ON GEOLOGY

Lower Parmeener Super-Group

The sequence is essentially the same as that in the adjoining Oatlands Quadrangle. Above the richly fossiliferous marine impure limestone and siltstone sequence (Pl) the sequence bears strong resemblance to the Bogan Gap Group at Poatina.

Upper Parmeener Super-Group

The sequence is broadly similar to the sequence in the Oatlands Quadrangle (Forsyth *et al.*, 1976; Forsyth, 1984).

The Cygnet Coal Measures correlate (Pj) has been recognised in the Ross area where it is thinner than in the Oatlands Quadrangle but has proved difficult to recognise along the Western Tiers scarp.

Quartz arenite (Rp) appears similar to and has been equated with the Early Triassic quartz arenite (Rp of the Oatlands Quadrangle). A micaceous lutite-rich interval with distinctive silicified bioturbated, fossiliferous sandstone (Rpa) occurs near or at the top of the quartz arenite (Rp) and is comparable to a similar interval (Rm) in the Oatlands Quadrangle.

Sections through the middle portion of the Upper Parmeener are poorly exposed. It is clear however that overlying the quartz arenite (Rp) or the interval with silicified sandstone (Rpa) occur distinctive laminated quartz arenite (Rsq) and quartz-rich lithic arenite and lutite (Rsf). Similar rocks occur in isolated fault blocks in which the underlying rocks are not exposed. Generally the association of rock types or the presence of *Dicroidium odontopteroides* or similar fossil leaves indicate these rocks belong to the middle part of the Upper Parmeener Super-Group. The middle part of the Upper Parmeener Super-Group is similar to Rs of the Oatlands Quadrangle. Recent work has shown the informal divisions of Rs, Rsf lower and Rsq' and possibly Rsq (Forsyth, 1984) are present in the York Plains area and therefore may be applicable to part, at least, of the Interlaken Quadrangle. Problems still exist in separating Rsf from volcanic lithic arenite Rg in poor exposures although this may be done palynologically.

Volcanic lithic arenite (Rg) is distinctive in good exposures. This unit is present south of Tunbridge and may be present near Bells Lagoon

and 10 km due west from Ross. The unit is present east of Verwood concealed beneath 0? - > 130 m of Tertiary rocks.

Jurassic dolerite

The Central Plateau (Western Tiers) sheet intrudes slightly above the Lower/Upper Parmeener Super-Group boundary, rising in certain areas to higher horizons within the quartz arenite (Rp). West of Ross the dolerite intrusion, in its sill-like portion, intrudes within Rp and may unite with the Central Plateau sheet to the west. For ?seven kilometres east and west of the Midland Highway at Sorell Springs a major sheet intrudes near the Rs/Rg boundary. It is not known if this sheet is an extension of the Central Plateau sheet or a separate intrusion. Minor sheets intrude Rg. The extent of thin sills in the Bells Lagoon area is difficult to determine. Possible extensions towards Tunbridge may be the fine grained upper surface of a major intrusion.

REFERENCES

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N.B. MAP NOT REPRODUCED