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aspect of the model can be tested at Hellyer it may provide important guides to the deep drilling at Mt Charter.

It should also be considered that not all basement faults have been re-activated sufficiently to produce folding in the cover sediments. If VMS have developed on such faults then strain in the cover sequence will provide no guide to finding such deposits. Assuming the faults will have significant normal displacements preserved they should be detectable by other means, such as gravity or possibly magnetics. Interpretation of such data sets should consider the style of response produced by the change in depth to basement or possibly the difference in thickness of units with growth onto the fault. In particular, the magnetics should map a relatively low frequency response associated with sediment thickness against the fault. It is important to note that if Hellyer and Que River do sit on a reactivated basement fault the original displacement on this structure has been reduced and would have less detectable expression.

5. PREVIOUS INTERPRETATIONS

The report by Peter Komyshan (internal memo September 1987) places the F1 and F2 fold events described in this report in the opposite order. The diagram illustrating the unfolding of the two events (Figure 3) shows that there is only one way of grouping the data onto two planes, i.e. the limbs of the latest fold event. ??

Suggestions presented in the paper by Rattenbury regarding the Mt Charter fault are contrary to the observations in this study that the fault is a late feature with predominantly normal movement. If the evidence for significant changes in thickness in stratigraphy suggests these are directly related to the fault then it may be that the fault has an early syn-depositional origin. However, the trace of this structure in the 1:10,000 scale interpretive geology, which is presumably more detailed than the mapping available in Rattenbury's work, indicate the fault is significantly less deformed than the adjacent stratigraphy. If related to an early structure then the present fault can only be the result of new faulting on a reactivated early structure, though there seems little need to invoke such processes in order to explain the observed geometries. Other observations in the Rattenbury paper are generally consistent with the structures described in this study, although his conclusions on their significance may differ.