

Charter and other prominent faults at the time of deposition. One problem (which has also been highlighted in Rattenbury's report) is that rapidly varying facies and thickness of different units make reliable development of balanced cross sections unlikely. An additional problem applies when significant wrench faulting occurs; provided sufficient geological control is available this can be handled by modern software for balancing sections. However this possibility has not been addressed by Rattenbury despite the recognition of several kilometers of post-Devonian strike slip displacement.

The significant changes which occurred with respect to structural interpretation and development of exploration opportunities in the Buchans district suggests that re-evaluation of the detailed structure of the Que River-Hellyer district is warranted as a prelude to any programme of deeper exploration. While a simplistic structural picture was assumed for the Buchans UMS deposit in Newfoundland in the mid-1970's, recent studies have now resolved a number of the structural paradoxes and are believed to have resulted in definition of new target areas, particularly through the major revision of the stratigraphy which resulted (Kirkham, 1987, Thurlow, 1988). Figure 1 compares the interpretations of the structural framework and stratigraphy at Buchans in 1975 and 1988. If there are any intraformational thrusts at Hellyer - Que River there may likewise be implications for exploration.

On the 200 km<sup>2</sup> scale, maps of the region are structurally dominated by the Rosebery and Henty Faults. Devonian compression has developed fold and thrust structures which have strongly influenced the evaluation of the Cambrian structural setting, however it is possible that these major fault systems are reactivated from an earlier strike slip system whose architecture controlled the development of strike slip or pull apart basins and localised UMS deposition.

This suggestion may be evaluated through a review of existing magnetic, gravity and satellite imagery on this scale. Exploration implications would include recognition of a possible (*fractal* ?) spacing relationship between centers of mineralisation controlled by the architecture of the fault arrays .

Aberfoyle maps of the district show an apparent structural repetition of parts of the stratigraphy: this is most prominent in the Upper Rhyolite Sequence, north-east of Hellyer. Examination of Mount Charter core showed that structural breaks may occur on the contacts in 4 out of 5 holes and this permits that thrusting may be more common than previously considered in