

8. DISCUSSION

8.1. The sequence and distribution of rock units at GAP are indicative of intermittent to rapid deposition of sedimentary and volcanic rocks in a complex trough-like basin, the margins of which were probably fault controlled. Shelf-type, shallow water rock types such as carbonate, chert and quartzite, which characterises the Renison Mine area, have not been found in outcrop on the property. The Renison rock sequence may, however, underlie the turbiditic sequence, but probably at a depth exceeding 1000m. But deep seated magnetic anomalies along the faulted anticlinal structure could reflect Renison type rocks faulted into the sequence at a shallower depth.

The carbonate beds at the Renison Mine form an ideal host for stanniferous-sulphide replacement mineralisation. The rocks were porous, permeable and chemically reactive to the acid hydrothermal metalliferous solutions which were transported along adjacent fault conduits. If carbonates are absent in the rock sequence, other rock units with similar physiochemical properties might be expected to be mineralised, but at a lower concentration of metals. Essentially then, at GAP, we are looking for hydrothermal mineralisation within different rock units from those mineralised at Renison, but similar to that in the hanging wall rocks of the Bassett-Federal Fault (Appendix III). The potential targets are stanniferous replacement type ore deposits in basalt, greywacke, lithicwacke, conglomerate and ultramafite adjacent to fault conduits which, if sufficiently open, may also contain ore grade mineralisation.

8.2. The zone of metasomatised and hornfelsed rocks, which comprises the Argillite Sequence in the south-west sector of GAP, may be traced southwards into costeans excavated by Longreach Metals in 1971-1972. Here metasomatised arenite units containing pyrite, chalcopyrite and pyrrotite weather to goethite gossans from where a grab sample (T 3951) analysed as follows:

Element:	Pb	Zn	Sn	Cr	Mn	As	Cu	Bi	Ag	Sb
(ppm)	300	500	800	80	200	>1%	8000	500	70	100