

3. REGIONAL PROJECT

3.1 Introduction

Exploration of the licence to date has resulted in virtual complete coverage of the QHV by soil geochemistry, UTEM, ground magnetics and geological mapping with the conclusion now evident that the probability of near surface deposits being discovered is extremely low and that future targets will be deep (>200m) blind systems.

To aid in defining deep conceptual targets, structural and lineament studies, further geological mapping in poorly understood areas and investigations into geochemical vectors for blind mineralised systems were undertaken during the reporting period.

Progress is also being made in an attempt to systematically organise the vast amount of geochemical, isotopic and geological data generated by over 10 years of intensive exploration of the Que River and Hellyer deposits and environs.

3.2 Geology

3.2.1 Research

Three research projects into aspects of the geology and geochemistry of the Mackintosh district are currently being supported they are:-

- i) A PhD project on the volcanology and sedimentology of the Que-Hellyer volcanics. This project, initiated in 1988, is being undertaken by J. Waters under the supervision of Dr. R. Cas, Monash University. Two progress reports were issued during the reporting period (appendix 2). Work was concentrated on an E-W cross section of the Que-Hellyer volcanics, lithologies in the immediate vicinity of the Que River deposit and textural and geochemical variations of the 'mixed sequence' dacites.
- ii) The style and palaeoenvironment of the upper rhyolitic sequence (Southwell Sub-group) is being studied as an M.Sc. project by G.A. Lees, also under the supervision of Dr. R. Cas. One progress report was issued during the reporting period (appendix 3) and details work both proximal (DDH HL40,62) and distal (MAC-22) to the Hellyer area.