dipole IP data. The zone is tested by holes YNC14 and YNC15; YNC14 showed strong to intense pyrite-sericite alteration on the eastern side of the fault.

Zone 7: This zone has a strike length of 1200 m and is best seen on Line 5359800N in depth slices at 200-300 m depth. The trend suffers from high noise (it runs parallel to, but 200 m distant from, a power line) which down-grades it. It has a weak, coincident IP trend, and is close to a mapped E-W fault. This locality is therefore a target for drilling and further study.

RE-INTERPRETATION OF McPHAR (1967) DIPOLE-DIPOLE IP DATA

The re-interpretation of dipole-dipole resistivity and chargeability data uses information from surveys conducted by McPhar Geophysics (1967). The data were digitised from original pseudo-sections provided by McPhar in 1967. All profiles studied used electrode spacings of a=300 ft (90 meters) and transmitter-receiver spacings in the range n=1 to n=4. The resistivity and IP data was inverted using the University of British Columbia 2D inversion software (Oldenburg et al, 1994).

The IP survey used the frequency-domain method, with the unit of IP being percent frequency effect (PFE). Conversion from PFE to chargeability (in millivolts/volt) is of order

chargeabilty = PFE*4 (Asten 1999, Appendix 1).

A base map at scale 1:5000, showing locations of the Lines on the Mt Tyndall East grid, as drawn by the MLM&R in 1982, was used as the primary geographic reference.

Pseudo-sections of field data, plus inversion sections for resistivity and IP were produced at a scale of 1:5000. The plots are included in this report in Appendix 3, reduced to A3 sheets. Note that the unit of distance in all these plots is feet.

The tracks used for the IP survey in 1967 used a highly irregular grid, in feet. The location of endpoints and the coordinate origin for each of the profile lines is shown on PLATE 8.

The lateral position and extent of all basement resistivity lows (ie conductors) and basement IP highs is shown in plan view in PLATE 8, and shown superimposed on CSAMT conductive trends, in PLATE 9. The trends of six polarisable zones, labelled P1 to P6, are identified for further discussion.

Zone P1: This is the zone of greatest interest, and is tested with holes SHD16, SHD21 and others, associated with the best drilling results on the prospect, so far.