



zoning pattern?). There is insufficient ground coverage for a confident quantitative interpretation, but a depth to the top of the source of the order of 200m is expected.

All of the eastern half of the Carbine Hill grid has been covered by a Dighem survey (survey in 1982 by CSR/EZ; anomalies shown in Figure 64). There were no anomalies over the Great Northern area (the nearest responses were some 300m to the south) suggesting that any conductive material must lie at depths well below 100m. (This survey also suggests that there no conductors (again within say the top 100m) in areas of geological interest such as the 'alteration zone', between 2000N and 2600N.)

The Grand Prize -NW Extn area is particularly interesting since the Grand Prize fault (and adjacent faults) trend towards the magnetic anomaly; ie, this region may be similar to Renison, where mineralised faults extend laterally away from the replacement body. The partial ground magnetic coverage suggests that the aeromagnetic anomaly is due to more than one source. (There have been no EM surveys over this area.)

If other types of tin deposits are considered worthwhile targets, then IP is probably the appropriate technique (assuming disseminated sulphides occur with the tin), but geological noise (ie, unwanted responses) is likely to be high. (Investigation for stockwork tin deposits would require a knowledge of the granite contact. This would be best obtained from a combination of geophysical techniques plus some control points provided by drilling. It is possible that the proposed BMR work in the Zeehan-Rosebery area could be applicable.)

RECOMMENDATIONS

The magnetic, VLF and geochemical coverage of the Grand Prize -NW Extn aeromagnetic anomaly should be completed and the magnetic coverage of the Great Northern anomaly extended further to the east. The presence of a deep-seated conductor at the latter site (and possibly also the former) could be investigated by using a large fixed loop TEM system such as UTEM.

Lines 1000W, 1200W and 1400W should be extended to the north so that the strong, end-of-line VLF anomalies can be completed (there is some geochemical encouragement in this area).

It is recommended that the Carbine Hill magnetic anomalies at 00N/500E - 400N/700E and at 2200N/1375E (the latter in the 'alteration zone') be resurveyed with the sensor at a height of ≈ 3 m to reduce near surface noise and then be reinterpreted.

The causes of the coincident magnetic/VLF anomalies at 1800W/1875S and 2000N/900E and of the shallow magnetic anomalies at 2800N/1450E and between 3400N and 3600N should be further investigated.