



sourced anomaly and modelling of the 1000N line data is given in Figure A4. However the incomplete profile means that interpretation of this data is poorly constrained. Further, the difference between the airborne and ground interpretations suggests an inadequate model. A more positive interpretation can be made following an extension of the ground coverage to the east.

A residual contour map of the Mines Dept's Zeehan gravity survey is shown in Figure A5. Although the coverage is poor, a 'low' trends north-south through the western part of the E.L.. Two minima in the trough apparently coincide with the Serpentine Hill and Razorback ultramafics. This is unexpected since basic rocks are usually more dense (eg, the 2.72gm/cc for the pyroxenite sample listed in Table 1; Telford et al (1976) quote an average value of 3.17gm/cc from a range of 2.93-3.34gm/cc for pyroxenite). However serpentinites cover a wide range of densities (2.4-3.1gm/cc in Telford) and a larger number of measurements are required before a representative density can be ascribed to the ultramafics in this area. Density measurements of these, and of the other rock types in the E.L. (and some more gravity readings), would enable a quantitative interpretation of the gravity to be made. Such a study would be useful not only to provide structural information, but might also be applied (with more detailed coverage) directly to ore search.

#### VLF

A VLF survey was carried out in March, 1984. Both the NWC and Japanese (JPN) transmitters were recorded on the Carbine Hill grid, but only NWC was used on the Black Hill grid. The survey details and recording/plotting conventions are described in the Appendix.

Strong anomalies were obtained over both grids, but not all of the known faults responded; eg, the Grand Prize Fault showed a very poor anomaly for most of its length. Correlation of anomalies from line to line (at a spacing of 200m) was difficult and often ambiguous, and Komysan's maps (Figures 24 and 25) have drawn heavily on his geological mapping.

Although VLF anomalies in isolation should be given little importance in an exploration program, the causes of several of the larger responses should, perhaps, be ascertained. For example, to see if they are due to mineralised faults, which may in turn have acted as feeders for economic mineralisation at depth. (Whilst VLF responses with associated geochemical anomalies are obviously the most prospective, presumably a fault which has acted as the plumbing system for a cassiterite-pyrrhotite body at depth, may have barren (and hence geochemically 'dead') pyrrhotite or pyrite at the surface.)

The raw dip angle values and the processed data (a smoothed derivative) are shown in the 1:2000 scale composite profiles (Figures 26 to 61). The stronger VLF anomalies have been listed