The INPUT E-M and aeromagnetic surveys suggest possible extensions of the Colebrook Mine mineralisation to the north and south. This area therefore represents the greatest potential for economic mineralisation within the whole Natone area. No significant Sn mineralisation has been reported from this mine but only three samples appear to have been assayed for Sn, one of which was distinctly anomalous. The main hope lies however, in the possibility that the deposit is zoned and that any extensions are Sn-rich.

The lack of any other strong E-M and aeromagnetic anomalies (apart from the magnetic anomaly due to the Colebrook ultrabasic) downgrades the likelihood of other massive pyrrhotite-chalcopyrite (-cassiterite?) deposits, although the efficiency of Turair surveys in detecting this style of mineralisation is open to doubt. It is also possible that any undiscovered deposits are lacking in pyrrhotite and hence have little or no magnetic expression.

12. RECOMMENDED PROGRAMME AND BUDGET

Further exploration recommended for the Natone area can be subdivided into two phases but no time order is implied. The first involves detailed follow-up of anomalies of primary interest; these include the Colebrook Mine and possible extensions to the north and south, anomalous Pb-Zn soil values associated with serpentinite near line 6N of the Colebrook Grid, and the two anomalous I.P. zones adjacent to Natone Creek. Phase two is a regional exploration programme designed to evaluate the mineral potential of the entire study area. The recommended work for these phases is detailed in Tables 1 and 2, and budgeted in Tables 3 and 4 respectively.

PHASE ONE

To adequately explore the Colebrook workings and their environs the access track will require touching up with a bulldozer. Lines 12N, 13N and 14N of the Colebrook Grid should be re-established and extended eastwards, infill lines cut (12.5N and 13.5N) and the grid extended northwards (lines 14.5N, 15N, 15.5N, 16N, 17N, 18N)(see Fig. 8.). It is recommended that imperial co-ordinates be retained for the grid extension. Detailed mapping, soil sampling (Cu, Pb, Zn, As, Sn), ground magnetics and I.P. should be conducted over all lines not already covered. (If I.P. is ineffective in detecting the mineralisation a Pulse E-M survey could be carried out instead). The Colebrook and Clifton workings should be sampled in detail for Cu, Pb, Zn, As (Co), Sn. This Colebrook work is the first priority.

To follow-up the Pb-Zn soil anomaly within the Colebrook Grid, lines 5N, 6N and 7N must be re-established and intermediate lines 5.5N and 6.5N cut. Detailed mapping and rock chip sampling (Cu, Pb, Zn, Ni, Ba), with particular attention to the Lynton Mine is needed to determine the source of the anomaly. A short I.P. survey may also be required. A ground magnetic survey and soil sampling (Cu, Pb, Zn, Ni, As, Sn) should be conducted over the intermediate lines.

Further work on the two anomalous I.P. zones near Natone Creek will be hampered by glacial cover and non-geophysical exploration over the moraine south of NP 104 would be a waste of time and money. Access tracks and creeks near the two zones should be mapped in detail and outcrops chip-sampled where appropriate. East-west (AMG) grid lines should be cut where glacial cover is not a problem and mapping, soil sampling (Cu, Pb, Zn, As) and ground magnetics carried out (see Fig. 8). Further detailed I.P. should be employed if geochemical results are encouraging. The estimated budget for the exploration proposed for Phase One is $43,000-00 (see Table 3).