TAS/2/1498 to TAS/2/1517) and in profiles. Only the gross characteristics of the soil geochemical patterns are discussed under this heading. The finer points are discussed along with geology and geophysical properties in Section 8.

Pattern recognition is difficult at GAP. The problems are compounded by the somewhat geochemical inertness of cassiterite. It does not leach or dissolve, and unless it comes to surface is not seen in the soil sampling. Also there is an absence of universally consistent pathfinder elements associated with primary tin deposits. Again, the small size and irregular, unpredictable shapes of many tin deposits present problems in pattern interpretation.

6.2.2. Orientation

A small orientation programme of geochemical sampling was carried out at Costean 1000N. 15 sites were chosen in the costean to measure and sample the soil-rock profile by carefully channel sampling the costean walls, from the A^o to the C horizon, for comparison with the values in the bedrock. The work was carried out in order to find which soil horizon in residual soils was most appropriate when sampling the grid.

The results of the work programme are shown on plan TAS/2/1563, and the values in bedrock are shown on plan TAS/2/1558. Contamination was suspected at one site which is down the wall of an old water race (profile 00). Copper, arsenic and tin are seen to be relatively depleted in the A^o, A^1 and B horizons, and there is a tendency for the value to improve with depth. Zinc, nickel and manganese are less noticeably depleted in the humic layers, but do tend to be more concentrated in the C horizon relative to the A and B horizons. In marked contrast, lead is relatively enriched in the A^o horizon.

It does appear, however, that both A^o and C soil horizon data patterns direct attention to the same localities. Auger samples were collected from lines 3200N northwards, but a problem arose with interpretation in that most of the samples were of till, well above the till-bedrock interface. In addition, due to budgetry restrictions,

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