

not possible. A° sampling, although having limitations, is the most cost effective soil sampling technique at present.

9. DISCUSSION OF RESULTS

In an area where the target is a massive sphalerite deposit with minor galena, chalcopryrite and pyrite, the use of geophysics as a prospecting technique is of limited value. Experience has shown that dipole dipole IP is the most effective method, but it must be realised that only the pyritic halo can be detected. The case history presented by S. Webster and H. Skey on the Que River deposit shows that only the copper rich S lens and the northern and southern extremities of P lens respond to IP.

The highly leached organic soils over most of the area will not give very high values, and therefore techniques such as factor analysis should be used to highlight geochemically anomalous areas.

Geological mapping and costeaning must be used in conjunction with geochemistry and geophysics to give an integrated approach to prospecting.

Diamond drilling targets need not necessarily have high geochemical values and geophysical response. Budgets should allow provision for stratigraphic drilling in geologically favourable environments.

The Que Syncline and Burns Peak Syncline are both favourable environments for volcanogenic deposits and should be vigorously prospected.

Diamond drilling at Pinnacles has shown that >3% Zn is present at the base of a shale lens over a strike length of 600m. The sediments below the Owen Shear are black pyritic shales with visible sphalerite, galena and chalcopryrite, indicating that these rocks may host a massive base metal deposit.

10. RECOMMENDATIONS

10.1. The interbedded tuffs and shales in the Que and Burns Peak Synclines should be prospected by grid line cutting, followed by soil sampling, IP and geological mapping.