

marked antipathy to serpentinite; highest values occur adjacent to and downslope from the Colebrook workings and are probably due to contamination.

The strongest Pb-Zn soil anomaly is on the western end of line 1N outside the E.L. and adjacent to some old workings. A strong Pb-Zn anomaly (up to 1,000ppm Pb, 1,200ppm Zn) approx. 1,300' wide occurs on line 6N over the serpentinite from 1,300W to 2,600W. Slightly weaker, narrower anomalies occur on adjacent lines to the north and south. It is unlikely that these anomalies are wholly due to contamination from the Lynton Mine or nearby workings and thus further work is required to determine the cause of this anomalous zone. The scattered anomalous values (up to 235ppm Cu, 255ppm Pb, 800ppm Zn) on line 00 between 00W and 1,000W warrant follow-up work, being the best anomaly not related to serpentinite.

Tin assays are virtually all in the range of 0.02-0.09% (200-900ppm) which is exceptionally high for soils (assuming there has been no consistent typing error). The higher values are mostly erratically distributed and show no apparent lithological affinity. Small clusters of higher values lie near the eastern end of line 1N, and over the serpentinite on line 4N. These warrant following-up as neither is associated with the Olympic and/or Athenic workings. The additional soil sampling recommended for the Colebrook area will provide a broad check on the validity of the Sn assays within the Colebrook Grid.

8.3. ROCK CHIPS

54 rock chip samples were taken during the Texins stream sediment survey (Johnson, 1974) and assayed for Cu, Pb and Zn. Assays are presented in Discala (1974) but no record of sample location is apparent.

9. GEOPHYSICS

9.1. I.P. (Fig. 5)

Between 1960 and 1962, McPhar carried out a dipole-dipole frequency domain I.P. survey on the Natone Grid. All lines were initially done using 400' dipoles and most anomalies were re-surveyed using 300', 200' and/or 100' dipoles. Results appear as apparent resistivity and metal factor pseudo-sections; P.F.E.'s have now been calculated. Comments by McPhar on the results are given in Hallof (1961a, 1961b and 1972).

The pseudo-sections show two distinct zones of interest. Within the Stitt Quartzite to the east of Natone Creek, extending from line 25S to line 58S is a N-S trending zone with a moderate to a strong I.P. response. This orientation is parallel to lithological strike. No further work has been done to test this anomaly.

To the west of Natone Creek, within the Westcott Argillite, is an approximately N-S trending zone of very low resistivity. It extends from line 25S to line 180S although its apparent width varies considerably. On a number of lines a weak to strong I.P. anomaly is associated with this feature. Diamond drill holes NP 104 (line 100S) and NP 107 (line 83S) tested moderate and very strong I.P. anomalies respectively from this zone. The first hole intersected 6m of 11% pyrite with minor Zn in brecciated black shales, while NP 107 intersected 15m averaging 12% pyrite in black shales and minor sandstone. These intersections give encouragement for further work in this zone.