

GEOPHYSICS

Geophysical investigations carried out by Geopeko Limited - L.A. Richardson and Associates during the 1976-77 field season consisted of V.L.F. (E.M.) follow up of airborne electromagnetic anomalies resulting from the Geoex (1975) electromagnetic and aeromagnetic survey flown for the Broken Hill Proprietary Company. Ground surveys involving magnetics and Gradient Array induced polarization were also carried out on reconnaissance tape and compass traverses over zones of known mineralization, namely Voyager 1. A detailed report on all aspects of the 1976-77 geophysical survey is presented by Deakin, (1977).

During the 1977-78 field season geophysical investigations carried out by Geopeko Limited - L.A. Richardson and Associates consisted of systematic prospect evaluation surveys on prepared grids. The techniques utilized comprised V.L.F. (E.M.), magnetics, S.P. Dipole - Dipole induced polarization and Schlumberger vertical depth soundings. Detailed geophysical reports on all aspects of these surveys are presented by Mudge (1978).

V.L.F. (E.M.) (Very Low Frequency - Electro Magnetics.)

A Geonics E.M. 16 instrument was utilized as an easily portable rapid reconnaissance technique for ground follow up location of airborne electromagnetic anomalies. Anomalies comparable in strength and character to case history anomalies over known orebodies both in Tasmania and elsewhere were recorded, however the V.L.F. (E.M.) method is unable to discriminate between conductor types or define the geometry of the anomalous body.

The results need to be considered with the following points in mind.

- Any E.M. method is unable to discriminate between ionic and electronic conductors. In this S.W. Tasmanian environment