2. Dipole-dipole I.P.

Dipole-dipole I.P. was conducted on line 152N, 3500'W-1500'W (Figure 29) to test for a depth extension to mineralisation exposed in the new road at about 2600'W. A dipole spacing of 200 ft. (61 m) was used. The survey was carried out by Scintrex Pty. Ltd. on 9th March, 1982, with an IPR-8 receiver.

A weak, broad 20-30 mV/V chargeability anomaly was detected, centred at about 2200'W and extending to depth. There was no definite resistivity anomaly associated with it. A low resistivity-negative chargeability anomaly west of 3000'W was due to peaty swamps.

3. Ground Magnetics

Two total field ground magnetics surveys were conducted over lines 104N-136N and 192N-248N (Table 12, Figure 30). The surveys were carried out by Scintrex Pty. Ltd. on 5th, 6th, 9th and 10th December, 1981, and 29th January, 1982, using Scintrex MP-2 proton precession magnetometers. The station interval was 10 m and base station was at Rolleston Camp (62 480 gammas). Old grid lines west of the baseline were read at 10 m intervals on the basis that the 100 ft. pegging interval was equivalent to 30 m.

The corrected data was plotted in profile form at a horizontal scale of 1:10 000 and a vertical scale of 1 cm = 500 gammas. The profiles were smoothed by hand and contours taken from the smoothed profiles. Background values were around 62 250 gammas over the Lower Cambrian sediments and 62 700 gammas over the Owen Conglomerate.

On the northern extension two major anomalous zones were found:

(i) From line 240N, 050 mE to 192N, 410 mE, associated with felsic lavas west of the Eastern Pyritic Zone.

(ii) From line 224N, 440 mE to 192N, 630 mE associated with felsic lavas east of the Eastern Pyrite Zone.

The anomaly at 248N, 100 mE would correlate with zone (ii) on geological grounds although the contouring shows it to be connected to zone (i).

The detailed survey over lines 104N-136N showed that the magnetics pattern is much more complex than was evident from the 1970-71 fluxgate survey (see Meares, et al, 1981, Figure 42). The NW-trending faults in the area (Figure 15) have truncated and offset major magnetic anomalies, especially between the two halves of line 124N.

In both survey areas anomalous magnetic highs are underlain by volcanic rocks containing magnetite as disseminated grains and/or veinlets. Hematite also is a common constituent of these rocks. There is no direct relationship between pyrite mineralisation and magnetic response.