

TR20-135-138

15. Geophysical test traverses, Claude Road prospect, Mt Roland.

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A geochemical survey across the northern slopes of Mt Roland near Claude Road has revealed a number of narrow, but possibly significant, copper anomalies. Cambrian rocks of unknown sequence and association occur in the region and are overlain by talus and scree from the Roland conglomerate.

In order to gain further information on the geochemical anomalies and to establish if any significant dissemination is present or whether the anomalous zones are narrow electrically a limited IP, SP and resistivity survey was undertaken.

Only two lines, 700 and 1400 (fig.38) have been examined in this feasibility test. The equipment used was a Hew-200 time domain prospecting unit. A simple Wenner electrode configuration with a spacing of 20 m for electrodes and observation points was employed throughout.

The results of the test traverses are presented in Figures 39, 40.

Line 700

Self-potential. Small differences not regarded as significant.

Resistivity. Fairly flat response on the Cambrian rocks, but begins to rise rapidly over the scree.

Normalised IP. A broad swell across part of the Cambrian succession which, between 0-100 m west is unrelated to SP or resistivity responses. The lack of mirror correlations shows that the polarisable unit is less conductive and thus not a mudstone or shear zone. The possibility of some disseminated mineralisation is very real.

Line 1400

Behaviour of SP, IP and resistivity responses are all very erratic. However, correlations do exist between resistivity and IP results which suggest the presence of clay or shear zones (e.g. 0-20 W, 70-90 W).

The test results do not offer any great increase in confidence or optimism in the prospect. The two lines selected have the more interesting geochemical anomalies and yet there is no direct correlation between geochemical and IP results. In the case of Line 700 the chemically anomalous zone is east of the centre lines whereas the polarisable zone is west of it.

[6 January 1975]

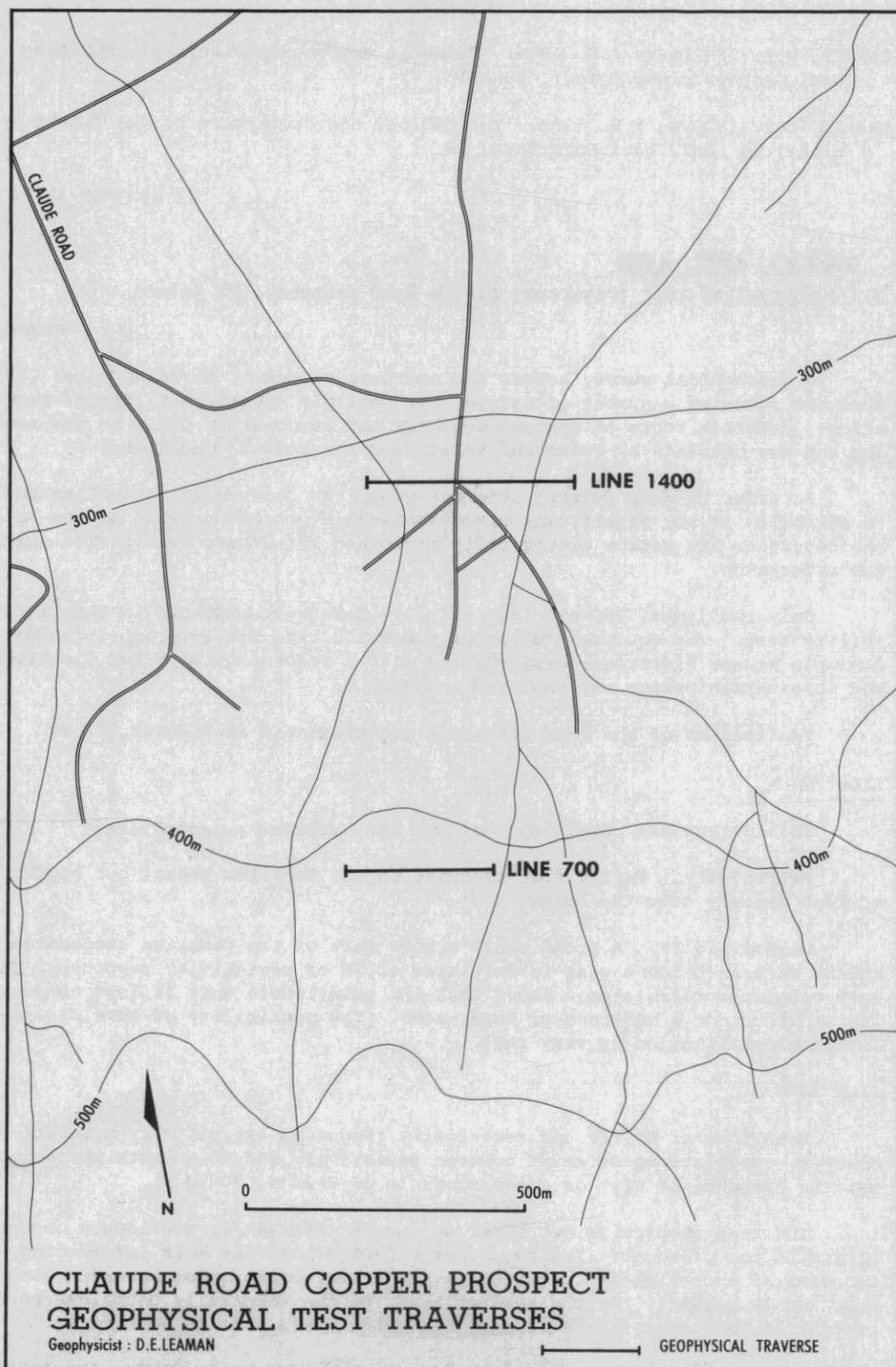


Figure 38.

GEOPHYSICAL TEST TRAVERSES, CLAUDE ROAD PROSPECT, MT ROLAND
LINE 700

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Electrode separation 20m. 1P Pulse duration 2s

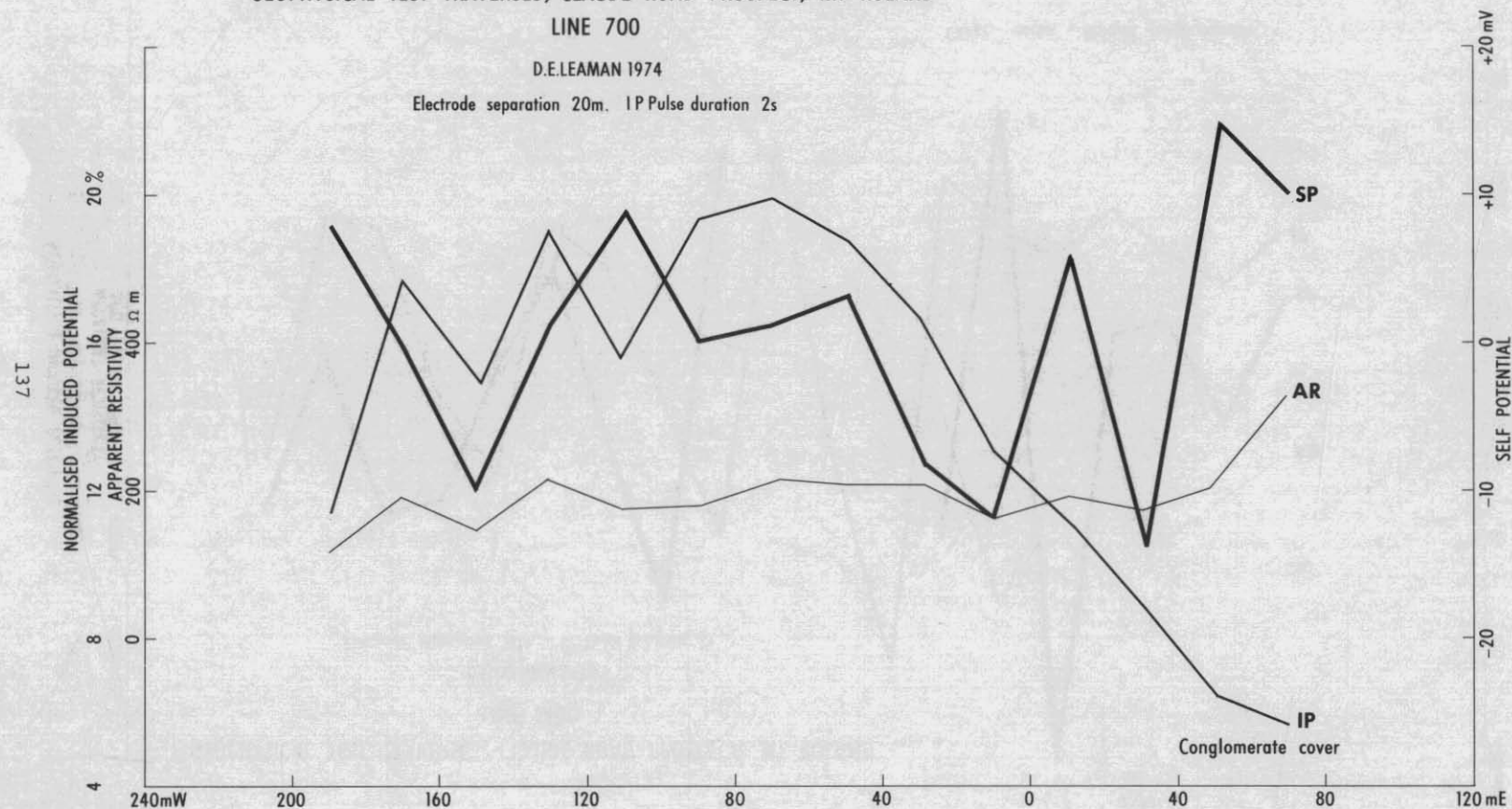


Figure 39.

5 cm

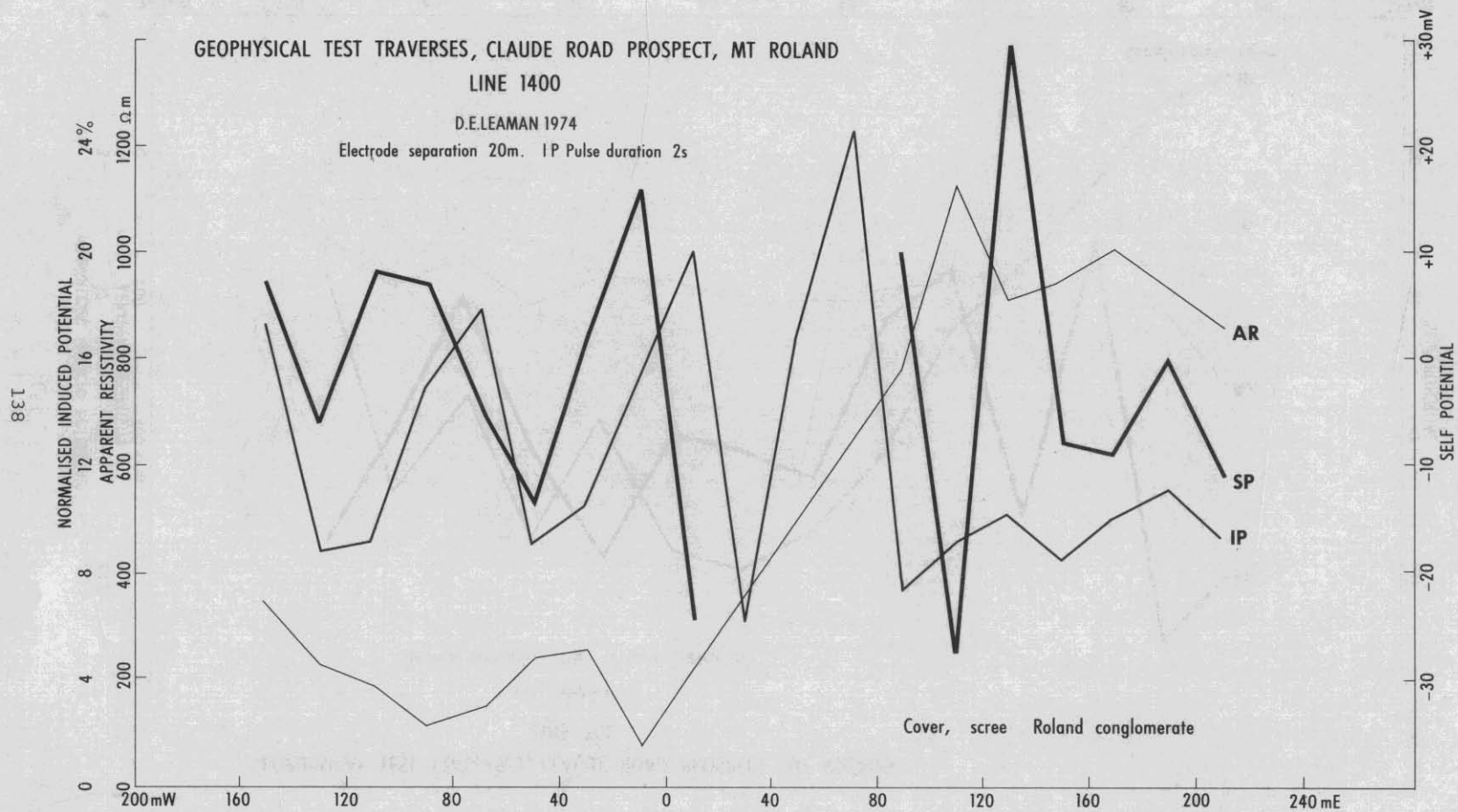


Figure 40.