

The survey over lines 2N to 8N located a broad chargeable zone centred on line 6N, (75W-75E), 100 m below surface diminishing in strength to the north and south. The shape of the anomaly indicates either a broad zone of disseminated sulphide (probably pyrite) or a series of closely spaced geophysical sources (e.g. black shales interbedded with tuffs, disseminated or syngenetic sulphides interbedded with tuffs or a combination of both).

Diamond drill hole Tyndall 2, on line 4N, drilled east through a steeply east dipping volcanoclastic sediment and andesitic sequence intersecting a zone of disseminated pyrite in tuff and pyritic black shales (see Figure 24). This pyritic zone only appears to partially explain the geophysical anomaly encountered on line 4N and a second geophysical source to the west not intersected by the drill hole is suggested. The second source itself may not be significant but lends credence to the idea of multiple geophysical sources for the anomaly located on line 6N. Detailed geological mapping and geochemical sampling is needed over this area before a commitment to further drilling is made.

The survey on lines 15N to 18N located a strong source anomaly centred on line 16N (150E and 250E). The anomaly weakens to the north and south. It becomes more distinctly a two source anomaly on line 17N (to the north) and disappears on line 18N. Although the survey has not sufficiently covered the anomaly on line 15N it indicates a weakening of the anomaly to the south.

Diamond drill hole Tyndall 3, located on line 16N (see Figure 23) drilled east through a steeply east dipping sequence of andesitic tuffs and thin interbedded crystal tuffs and black pyritic shales. The black shales at the end of the hole will only partially explain the chargeability anomaly. This indicates the hole has not been drilled far enough to the east to cover the anomalous zone. Computer modelling is planned to determine the position and strength of the more eastern geophysical source.

2.2.5 Geology

Updating of geological mapping in the area covered by the East Tyndall Grid is yet to be completed and for the purpose of this report the geological mapping completed in this area during the 1980-81 season is treated in section 2.1.6.

2.2.6 Conclusions

1. The Tyndall Mine has proved to be limited in extent and no further work is recommended.
2. The hematite-carbonate rich, Ag bearing unit found in Tyndall Creek shows a facies variation to the north and south with a decrease in carbonate and hematite content. Ag content may also decrease. However, sampling has not been thorough enough to disprove the lack of Ag within this facies variation.
3. A zone of silicified partially leached pyritic crystal lithic tuffs outcropping in the line 30N pit area was located. The rocks are slightly anomalous in base metals and silver but the soils above these outcrops show a limited geochemical response. Other techniques may be needed to delineate the potential of this zone (e.g. costeaning, geophysics).
4. New information and re-analysis of old data has shown drill holes Tyndall 2 and Tyndall 3 inadequate in fully testing their respective geophysical targets.