

Ground magnetic surveys were done with a Proton Precession magnetometer with a 2.5 m sensor height. Soil samples were taken with an auger at the maximum depth possible (C horizon) and sieved to -80#. Stream sediment surveys are -80# fractions unless otherwise specified.

10.2 INVESTIGATIONS COMPLETED

Liena South (4339/1) Aeromagnetic Anomaly

The anomaly is located approximately 5.5 km south of Liena on the east side of the Mersey River.

One east-west line (1120 m long) and two north-south lines (600 m, 1000 m) were cut over the anomaly.

The geology of the area shows the Dove Granite intruding Precambrian quartzites and possibly Moina Sandstone.

Ground magnetic traverses along the grid lines indicate two roughly circular 1500 nT anomalies, both approximately 300 m in diameter. The western anomaly is located over hematite-magnetite bearing, weakly greisenized granite and the eastern anomaly is situated over hornfelsed, partly granitized and brecciated quartzite (hematitic). The source of the anomalies appears to be disseminated magnetite within a granite cupola and an adjacent quartzite (and sandstone) roof pendant. Hematitic breccias occur within the contact metamorphosed quartzites. Magnetic susceptibility readings of around 3000×10^{-5} S.I. units are recorded. (Refer to plans D/MZ01/125, 126). Susceptibility readings on weathered granite exposed in road cuttings indicated susceptibilities up to 8000×10^{-6} cgs units. These were generally associated with magnetite veining. Background readings of $200 - 400 \times 10^{-6}$ cgs units are common in the granite.