Report on Exploration Licence 900
Northern Territory
Third Quarter 6-11-74 to 6-2-75

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Statistical Summary

Area covered by exploration: nil
No of samples collected: nil
Drill core: nil
Staff: 1 geologist, 2 field assistants for the first two weeks of the quarter
Total Expenditure: $23,440.35

Details of Expenditure

Total Expenditure for the third quarter amounted to $23,440.35

Details are provided below:

- General and Administration: $12,145.47
- Field Expenses: $1,006.27
- Camp Expenses: $466.77
- Geological: $6,702.98
- Geophysical: $507.13
- Geochemical: $2,611.73

$ 23,440.35
Introduction

Active field exploration during the quarter was not carried out due to the onset of the northern wet season. Field and camp equipment was removed to storage in Darwin at the start of the quarter.

Work in the area during the period was restricted to the compilation of reports and data, the preparation of maps and the appraisal of field work done earlier in the year. 108 samples which had previously been assayed for copper, lead and zinc were assayed for an additional 12 elements.

Progress of Exploration

The areas mapped and sampled in detail are indicated on the attached geology and location map.

Work completed during the 1974 field season included.

(a) The follow up sampling and mapping of several anomalies in Block I soil Grid located initially in 1973.

(b) The soil sampling and detailed mapping of several other areas (designated Block IV to IX) located to follow up the results of the stream sediment sampling programme.

(c) The stream sediment sampling and reconnaissance mapping of the remaining 10% of the area.

Detailed maps of all aspects of these programmes are being prepared and will be submitted along with the annual report.
Results

Many geochemically anomalous areas have been delineated most of which though technically interesting are not of economic interest.

The most spectacular anomaly, a copper anomaly in Anomalous Zone 4 of Block I soil grid has been traced to a syngenetically formed copper enriched body within a recrystallised ferruginous dolomite. The geological and geochemical evidence suggests that the ferruginous dolomite contains in the order of several hundred ppm copper which has been locally concentrated with iron in fracture fillings during recrystallization. The structural evidence has restricted the possible size of this body to below a viable low grade mining volume.

Several lead zinc anomalies are associated with a dolomitic sandstone unit within the Leila Sandstone Member of the Toogalinic Formation, and several anomalies are associated with a dolomite - siltstone sequence immediately overlying the Leila Sandstone Member. Most of these anomalies are due to a locally increased background of lead and zinc rather than to any significant mineralization.

Several other anomalies are associated with narrow beds of iron manganese cherts and siltstones and these anomalies are thought to be due to the scavenging of base metals by manganese.

A copper-lead anomaly in Block VII is at present the most important anomaly that requires further investigation, and further work will be done in this area at the start of the dry field season.