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EL 2588

WEST CHILDARA AREA

ANNUAL AND RELINQUISHMENT REPORTS FOR THE PERIOD 26/3/99 TO 25/3/2000

Submitted by

Grenfell Resources Ltd
2001

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PRIMARY INDUSTRIES AND RESOURCES SA

GRENFELL RESOURCES LIMITED

ANNUAL TECHNICAL STATUTARY REPORT

ON EXPLORATION ACTIVITIES

for

"West Childara"

EL 2588

SOUTH AUSTRALIA

For the period
26th March 1999 to 25th March 2000

Author: G.W.MCCONACHY & CO

Date: December, 2000

Volumes: VOLUME 1 OF 1

Copies to: 1. PIRSA, Adelaide, (2 copies)
2. Grenfell Resources, Perth
3. Grenfell Resources, Adelaide

1. Summary

Grenfell Resources Limited reviewed the multi-element geochemical results from the regional (1500mx1500m)-calcrete geochemistry completed by Placer Exploration in conjunction with a regional aeromagnetic interpretation.

Data interpretation suggests that variations in the low-level geochemical results were directly related to the quality of sample sites within the sand dune dominant regolith. The higher element values occur with the progressive development of pedogenic calcrete within the dune systems.

Weakly elevated copper-nickel geochemical results are defined in the southern-central portion of the tenement and elevated linear nickel zone occurs in the southern portion of the tenement.

No fieldwork was undertaken.

2. INTRODUCTION

2.1 Location and Access

Exploration Licence 2588 is located within the Yellabinna Regional Reserve in the west Childara region of the Gawler Craton (Childara SH53-14, 250,000-map sheet). The historic Tarcoola goldfields are approximately 90km to the northeast and Ceduna is approximately 100 km south (Figure 1).

The terrain is dominated by sand dunes and is vegetated with mulga and blue bush.

Access into the regional reserve is extremely difficult. Googs Track passes through the eastern portion of the licence area.

2.2 Tenement Status

Exploration Licence 2588 of 798 km^2 was granted to Grenfell Resources N.L. on the 26th March 1999 for a one-year period. The tenement has been subsequently renewed for another year.

3. GEOLOGICAL SETTING

Exploration Licence 2588 covers portion of the central Western Gawler Craton. The craton, which underlies the greater part of central South Australia, comprises the Kenella Gneiss - part of the Archaean Mulgathing Complex and the Meso-Palaeoproterozoic Nuyts gneisses. This crystalline basement has been subjected to at least 3 major tectonothermal events, the Sleafordian, Kimban and Kararan Orogenies. Hiltaba aged intrusives are interpreted throughout this region. These major tectonic events and their associated magmatic intrusives are considered to control both gold and base metal mineralisation.

Although an extensive surficial sand cover hinders an understanding of the geology for this region, the high-resolution aeromagnetic data collected by MESA over the craton allows for more iterative interpretations.
This data has allowed the recognition of dominant structures and the mapping of complex FeO rich mafic and alteration phases that were previously unknown within the craton (Figure 2).

Exploration within the craton has focussed on the search for Mesoproterozoic intrusives since the discovery of the world class Olympic Dam Cu-U-Au deposit

and more recently for shear controlled, Archaean greenstone hosted Ni-mineralisation.

4. EXPLORATION COMPLETED

Grenfell has completed review of the multi-element geochemistry provided by Placer's first pass regional gridded (1500mx1500m)-calcrete sampling programme (Figure 2). This has been the only exploration method used in this sand-hidden terrain.

This data has been merged with regional scale interpretations of the aeromagnetic images that has recognised dominant structures and complex intrusive phases that were previously unknown throughout the craton.

There is no anomalous gold in the historic calcrete geochemical results.

Weakly elevated geochemical responses in copper and nickel are noted in the central west of the tenement. These results are coincident with the development of calcareous sands and the associate higher Ca% values, within the dune systems. The elevated nickel results in the southern portion of the tenement show some affinity with a major NE-SW lineament defined by the aeromagnetic data.

This interpretation and iteration of geochemical and aeromagnetic data within the tenement has focussed on the Mesoproterozoic intrusives since the discovery of the world class Olympic Dam Cu-U-Au deposit and for shear controlled, Archaean greenstone hosted Ni-mineralisation. The absolute low tenure of calcrete geochemistry results coupled with the access difficulties compared with those in other tenements currently down grades the prospectivity of the Yellabinna Reserve.
No fieldwork was undertaken during this reporting period.

5. CONCLUSIONS AND RECOMMENDATIONS

Interpretation of geochemical results from Placer's 1500mx1500m-spaced calcrete samples defined a small number of weakly elevated copper and nickel values. Because of the low Ca assay values it is assumed that near surface calcrete was only very poorly developed and only very rarely sampled. The previous geochemical programme did not effectively evaluate the tenement.

The relative low tenor of these results coupled with the access difficulties into the regional reserve, down graded the priority of the area during the past 12 months.

A gridded auger-sampling programme is required to obtain a valid calcrete data set that may define potential drill targets.

GRENFELL RESOURCES
EXPLORATION LICENCE 2588 (CHILDARA SH53-14)

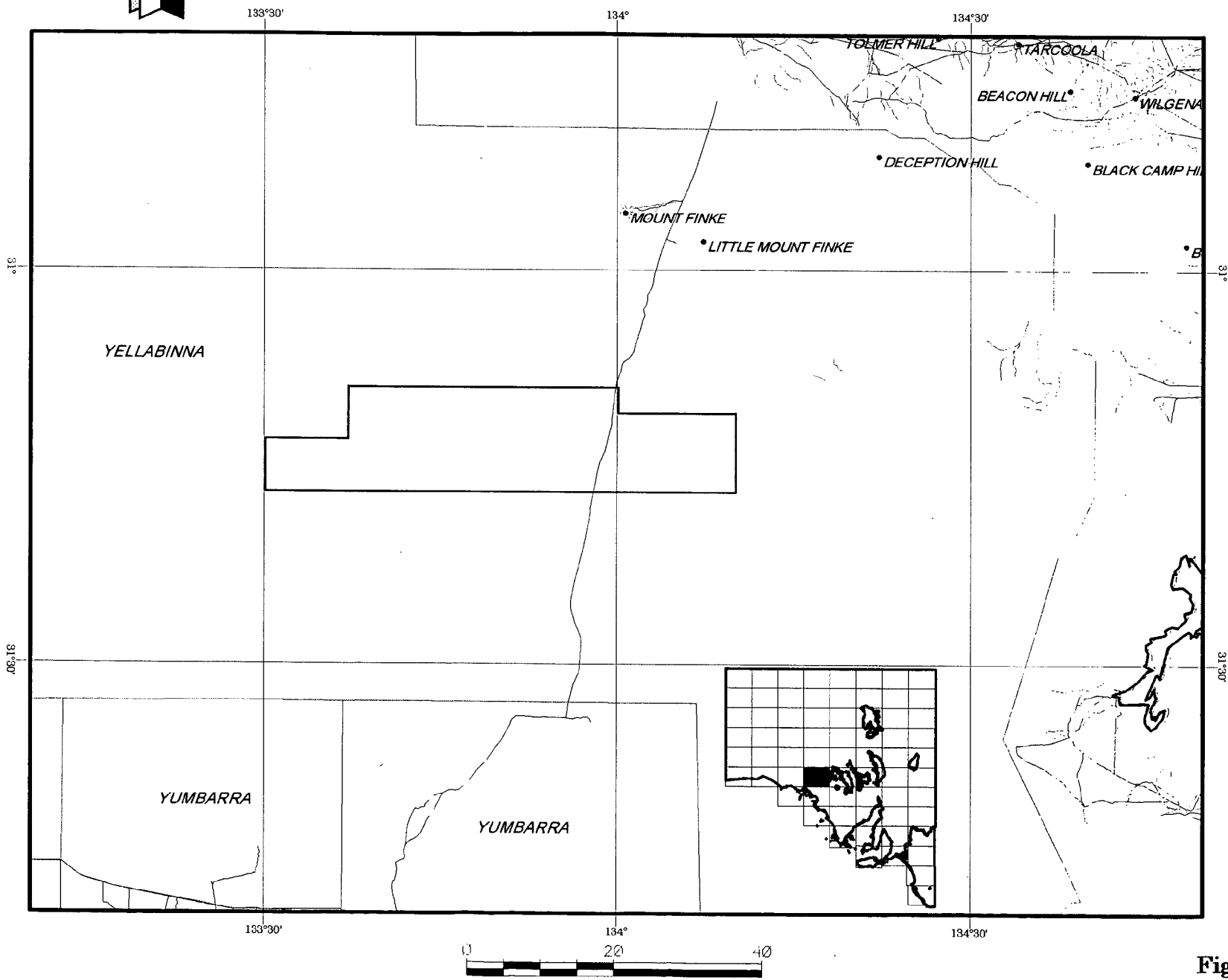
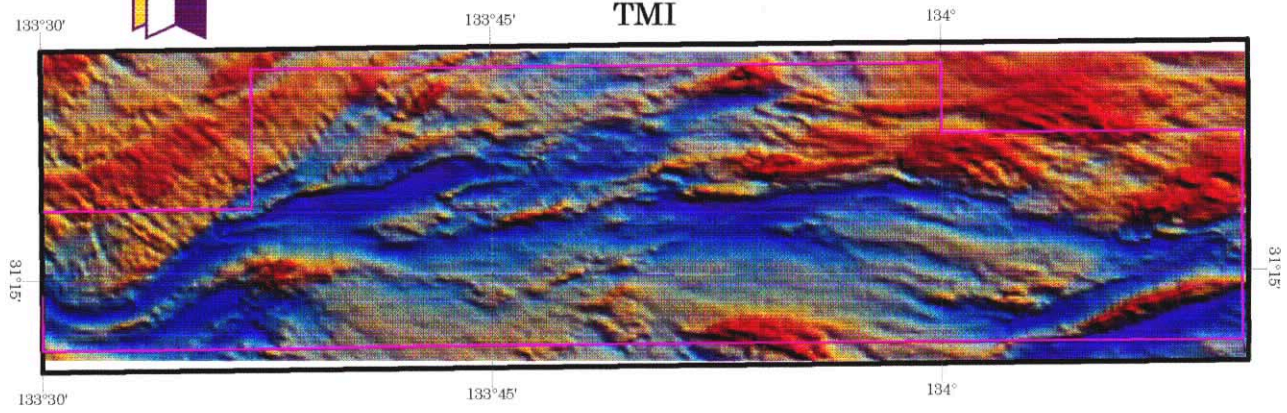


Figure 1

GRENFELL RESOURCES
EXPLORATION LICENCE 2588
TMI



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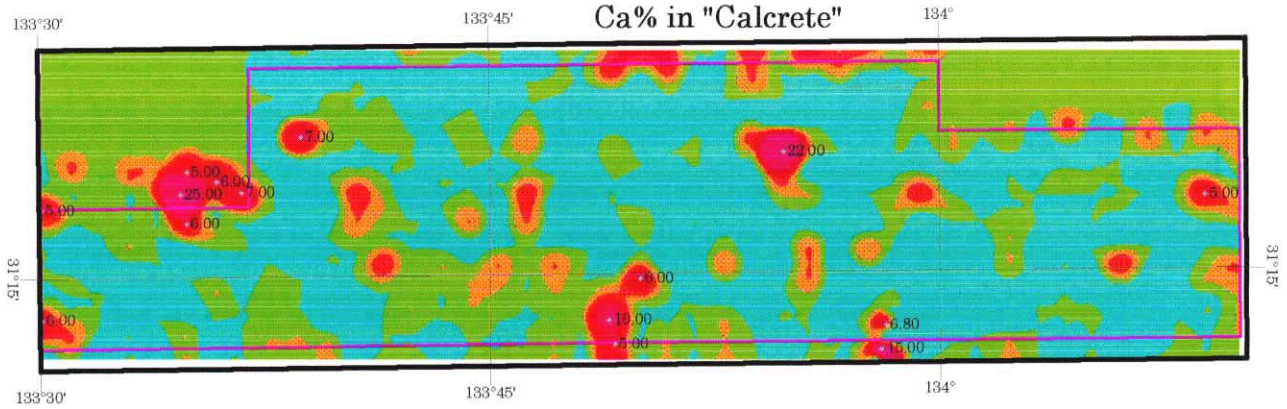

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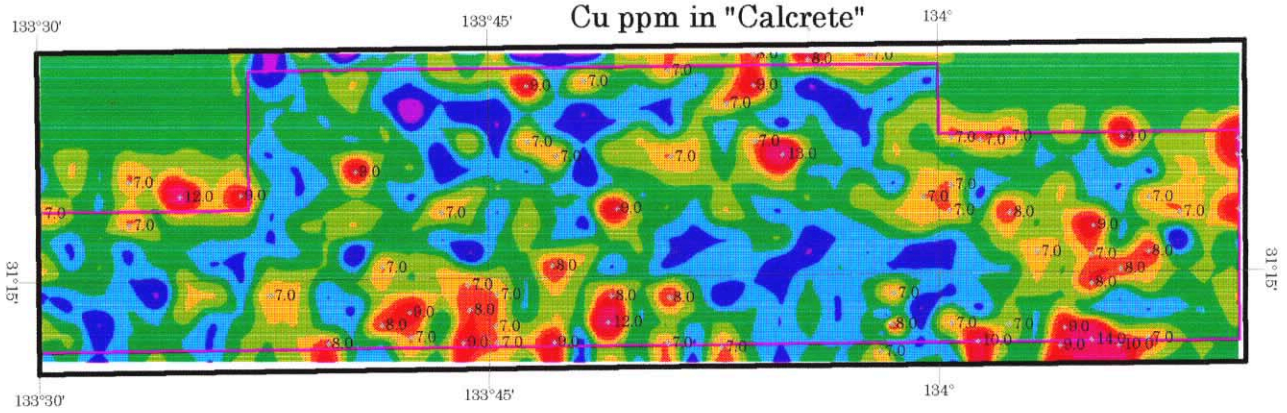

Ni ppm in "Calcrete"

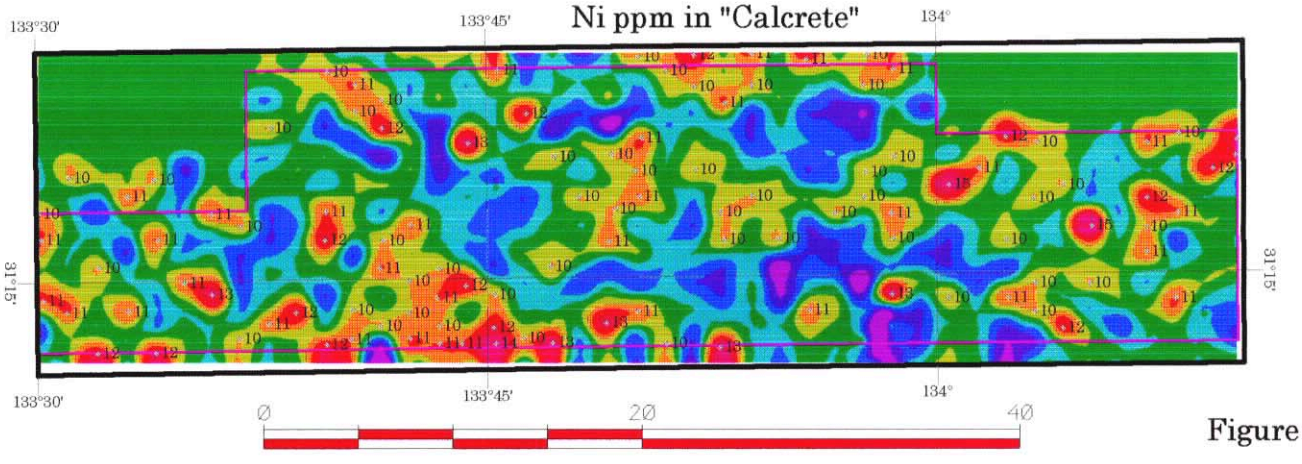

Figure 2

GRENFELL RESOURCES LIMITED

ANNUAL TECHNICAL STATUTARY REPORT

ON EXPLORATION ACTIVITIES

for

"West Childara"

EL 2588

SOUTH AUSTRALIA

For the period
26th March 1999 to 25th March 2001

Author: G.W.MCCONACHY & CO

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1. Summary

Grenfell Resources Limited reviewed the multi-element geochemical results from the regional 1500mx1500m calcrete geochemistry completed by Placer Exploration. An interpretation of the regional aeromagnetic data highlighted a number of potential structural and magmatic features that appeared anomalous but because of the lack of a coincident geochemical response these targets were downgraded.

Weakly elevated copper-nickel geochemical results are defined in the southern-central portion of the tenement and elevated linear nickel zone occurs in the southern portion of the tenement.

No fieldwork was undertaken.

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Interpretation of geochemical results from Placer's 1500mx1500m-spaced calcrete samples defined a small number of weakly elevated copper and nickel values. Because of the low Ca assay values it is assumed that near surface calcrete was only very poorly developed and only very rarely sampled. It was concluded that the geochemical sampling programme did not effectively evaluate the tenement.

However the relative low tenor of these results coupled with the access difficulties into the regional reserve, down graded the priority of the area during the past 12 months.

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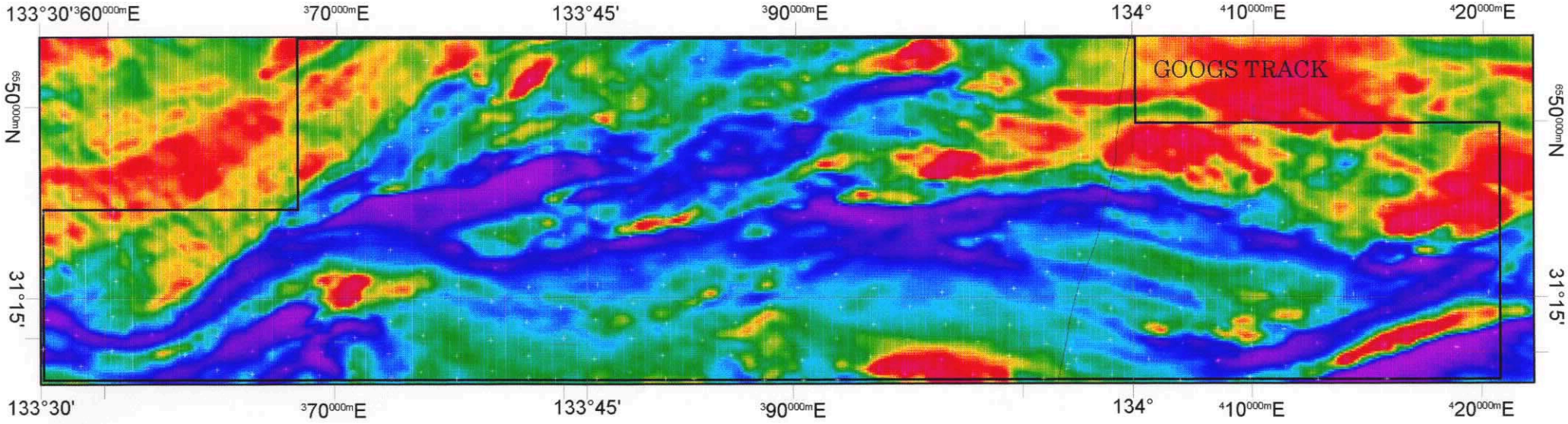
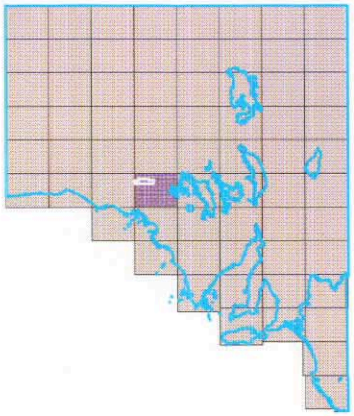
Annual Technical Report EL2588
Period Ending 25/3/2001





Calcrete Sample Locations
over
TMI

Annual Report EL 2588
March 2001
Figure 1