ANNUAL REPORT
E.L. 2809
STIRLING STATION
N.T.

CONTENTS:
LOCATION
TOPOGRAPHY
GEOLOGY
MINING HISTORY
SAMPLING PROGRAM
CONCLUSION

APPENDIX:
FIGURE 1 - E.L. 2809 LOCATION
FIGURE 2 - E.L. SKETCH MAP OF GEOLOGY AND SAMPLE LOCATION.
ANALYTICAL REPORT -
TABLE 1 ELUVIALS
TABLE 2 HARD ROCK

CR81/187
26th June 1981

ANNUAL REPORT - E.L. 2809 (ex 1643), STIRLING STATION, N.T

LOCATION:

E.L. 2809 is located within 1 kilometre of Millionaires Well, 25 kilometres south east of Stirling Station Homestead, which is 1 kilometre east of the Stuart Highway between Ti Tree and Barrow Creek.

The E.L is reached by a serviceable station track via No. 3 well but once off this track thick scrub and steep drainage channels necessitate the use of 4 wheel drive vehicles.

The E.L. is bounded by latitudes 21°46' and 21°48', longitudes 133°57' and 134°02', thus encompassing an area of 31.81 square kilometres.

TOPOGRAPHY:

The red sandy soil plain and pediment lie amongst steeply rising hills and flat-tops of Central Mount Stuart sandstones. Drainage is well defined with steep sided trenches cutting through the pediment from sheer walled valleys before widening onto the alluvial plains.

GEOLOGY:

About two thirds of the area of this lease are covered by red, well indurated coarse thick bedded sandstones, quartzites and silica cemented conglomerates belonging to Upper Proterozoic Central Mount Stuart Beds.

These appear to unconformably overly Lower Proterozoic granites of the Barrow Creek Group which are found outcropping above the pediment amongst eluvium, including a small outcrop on the plain in the south east region of the lease.
This granite outcrop contains a northerly trending pegmatite dyke. This has been faulted and pinched out in the central region of the outcrop but otherwise runs the full length of an average width of 30 centimetres.

It is composed of coarse grained quartz, alkali-feldspar, and muscovite. The granite is fine to medium grained, composed of quartz, muscovite, biotite and pink orthoclase feldspar, deeply weathered to a red-brown colour.

MINING HISTORY:

To the best of the author's knowledge no mining history has been carried out in this area.

SAMPLING PROGRAM:

This was directed towards pegmatite mineralization. Five six litre samples were taken from selected sites in eluvium and alluvium but yielded only black sand on panning. Rock samples were also taken, and assay results of these and panned concentrate are appended. These show there to be no mineralization of any significance. Exploration on foot and by vehicle showed further sampling to be unwarranted.

CONCLUSION:

Sandstones, arkoses, conglomerates and re-crystallised quartzites typical of low grade burial metamorphism of the Central Mount Stuart Formation unconformably overlie Barrow Creek Granites. Neither Arunta Complex metamorphics nor mineralized pegmatites are present.

P. Powell
GEOLOGIST.
Sketch Map of Geology and Sample Location E.L. 2909, Stirling Station

**Legend**
- Alluvium
- Red Soil and Sand
- Elerint, Colluvial Pediment
- Central Mount Stuart Beds
- Barrow Creek Granite
- Drainage channel
- Track
- Sample Location

Scale 1:30,000

Stirling station 25 km
Milmamire well 1 km

FIGURE 2.
**ANALYTICAL REPORT**

<table>
<thead>
<tr>
<th>Sample Ref.</th>
<th>Ta2O5</th>
<th>Nb2O5</th>
<th>Fe2O3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 M1</td>
<td>0.03</td>
<td>0.04</td>
<td>42.0</td>
</tr>
<tr>
<td>2 M2</td>
<td>0.02</td>
<td>0.05</td>
<td>40.3</td>
</tr>
<tr>
<td>3 M3</td>
<td>0.03</td>
<td>0.03</td>
<td>42.3</td>
</tr>
<tr>
<td>4 M4</td>
<td>0.01</td>
<td>0.04</td>
<td>34.3</td>
</tr>
<tr>
<td>5 M5</td>
<td>&lt;0.01</td>
<td>0.03</td>
<td>14.7</td>
</tr>
</tbody>
</table>

Results expressed as percentages

**METHOD: XRF**

These results cannot be given to a lower limit of detection due to insufficient sample.

<table>
<thead>
<tr>
<th>LINE</th>
<th>SAMPLE REF</th>
<th>Ta</th>
<th>Sn</th>
<th>Nb</th>
<th>Fe</th>
<th>K</th>
<th>Y</th>
<th>Sr</th>
<th>U</th>
<th>R6</th>
<th>C5</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>R1</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>0.63</td>
<td>2.65</td>
<td>6</td>
<td>30</td>
<td>4</td>
<td>140</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>R2</td>
<td>10</td>
<td>12</td>
<td>19</td>
<td>4.05</td>
<td>5.85</td>
<td>35</td>
<td>25</td>
<td>3</td>
<td>310</td>
<td>17</td>
</tr>
<tr>
<td>14</td>
<td>R3</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>0.35</td>
<td>6.80</td>
<td>8</td>
<td>25</td>
<td>3</td>
<td>0.12</td>
<td>40</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
<td>ppm</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>METHOD XRF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>