ML 30815
Blue Moon

FINAL REPORT

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A wholly owned subsidiary of Emmerson Resources Ltd

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MAP SHEETS:
□ TENNANT CREEK SE53-14
□ TENNANT CREEK 5758
□ GOSSE RIVER 5858
□ 1:100 000
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1. SUMMARY

This Final Report records exploration work done on Mineral Lease 30815 (ML 30815) up to 10 July 2018.

Recent exploration carried out although not direct to ML30815 it was regional work which had strong implications for the title. The work was carried out over a large area and included ML30815 as part of the Billy Boy Group (including ML22284 which encompasses ML30815) and is detailed below for reference to the subject titles prospectivity.

The exploration conducted included interpretation and generation of drill targets from the detailed airborne magnetics survey completed in 2014, as displayed below.

During 2014 and 2015, Rotary Air Blast (RAB) and Diamond (DDH) drilling was undertaken and completed. Drilling totalled 734 RAB holes for 30,654m and 5 DDH holes, totalling 766.8m.

Results from the drilling were disappointing with a number of low level geochemical anomalies being identified from the RAB drilling, and were subsequently followed up with DDH drilling but again results were disappointing with no strong anomalism or economic intersection encountered.

These disappointing results have downgraded the Billy Boy ML for potential economic discoveries and no further work has been scheduled.

The licence ceased on 10 July 2018.
2. INTRODUCTION

ML 30815 covered an area of 30ha, approximately 24km east north east of the Tennant Creek Township, and falls within the Tennant Creek (5758) 1:100 000 scale map sheets.

Figure 1 shows the location of ML 30815 with respect to the Tennant Creek Township.

This Final Report records exploration work done up to 10 July 2018.

3. LOCATION

ML 30815 covered an area of 30ha, approximately 24km east north east of the Tennant Creek Township, and falls within the Tennant Creek (5758) 1:100 000 scale map sheets. The title is within NT Portion 00494 Perpetual Pastoral Lease 1142, Tennant Creek Station and is subject to an Indigenous Land Use Agreement (ILUA) signed in September 2000 between the Native Title holders of the Tennant Creek region, represented by the Central Land Council (CLC), and Giants Reef.

Access to the title area is via the Stuart Highway, east via Peko Road then along the road to the KiaOra Mine. Access to the title from the KiaOra Mine Road is north east via a series of unsealed tracks and fence line tracks, which during and immediately after rain generally become inaccessible.

Figure 1 shows the location of ML 30815 with respect to the Tennant Creek Township.

4. TENURE

ML 30815 was granted as an amalgamation and replacement title for HLDC36, MCC377 and MLC575 on 15 May 2015 under the Mineral Titles Act to replace a non-compliant MCC and HLDC titles.

MCC377 was granted 18 August 1988, HLDC36 was granted 16 February 1966 and MLC575 was granted 25 November 1965.
ML 30815 was subject to an Indigenous Land Use Agreement (ILUA) signed in September 2000 between the Native Title holders of the Tennant Creek region, represented by the CLC and Giants Reef.

5. GEOLOGY

5.1 Regional Geology

The reader is referred to AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp. 829-861, to gain a good introduction to the regional geology and styles of gold-copper mineralisation of the area.

In 1995 the Northern Territory Geological Survey released a geological map and explanatory notes for the Flynn 1:100,000 sheet, which covers the area of the licenses.

The rocks of the Warramunga Formation host most of the orebodies in the region and underlie most of the Exploration Licenses.

5.2 Local Geology

The geology of the title is dominated by Cainozoic colluvium scree, alluvial red soil plains and less extensive alluvial deposits in active channels and on flood plains. Less extensive outcrops coinciding with ridges and isolated hills, are present in the south east. These ridges and isolated hills consist of scattered outcrops of weathered siltstone and greywacke of the Palaeoproterozoic Warramunga Formation and most likely underlies the dominate Cainozoic sediments.

Airborne and ground magnetic data and field mapping suggest that metasediments of the Palaeoproterozoic and Warramunga Formation and minor volcanics of the Ooradidgee Group underlie the Licence area. Both the Mary Lane and Quartz Hill faults traverse the Licence.

There is only one recorded mine within the title – Gigantic (865.7oz Au @ 23.6g/t Au).

In 1995 the Northern Territory Geological Survey released geological maps and explanatory notes for the Tennant Creek 1:250,000 sheet, and the Tennant Creek 1:100 000 sheet 5758, which covers the area of the license.
6. EXPLORATION

6.1 Targets and Concepts

Proterozoic Inliers world-wide, and particularly in Australia, are renowned for their iron-rich mineralisation and world class base metal deposits. For many years prominent geologists and researchers in the industry have pointed out the geological similarities that the broader Proterozoic Tennant Creek Inlier shares with the Gawler Craton, host to the Olympic dam deposit, and to the Eastern Succession of the Mt Isa Inlier that hosts the Ernest Henry and Selwyn deposits. These similarities, though recognised, had not been widely acted upon by the industry.

Exploration was aimed at discovering large deposits of base metals along with substantial gold and/or silver, probably accompanied or hosted by large volumes of iron oxide minerals.

Giants Reef’s target model iron oxide-rich lithologies and are therefore likely to be associated with regional or district-scale gravity anomalies, and potentially coincident with a magnetic anomaly.

The discovery of the haematite-magnetite Chariot deposit in 1998 has shown the potential for variations on the classic magnetite ironstone hosted gold +/- copper deposits, where lower order magnetic anomalies, plus gravity methods can define new targets. Discoveries by Giants Reef of mineralisation such as at Malbec West, Marathon and Billy Boy further support this. Giants Reef considers the potential for the discovery of mineralisation in hematite dominant ironstones in the relinquished group is limited.

6.2 Recent Exploration

The License was acquired to search for IOCG deposits and to evaluate the extent of mineralisation associated with the Golden Mile Mineralised Trend, Warramunga Formation and the historical workings of the area.

Recent exploration carried out although not direct to ML30815 it was regional work which had strong implications for the title. The work was carried out over a large area and included ML30815 as part of the Billy Boy Group (including ML22284 which encompasses ML30815) and is detailed below for reference to the subject titles prospectivity.

The exploration conducted included interpretation and generation of drill targets from the detailed airborne magnetics survey completed in 2014, as displayed in the figure below.
Figure 2: ML 30815 vs. Aeromag survey area
During 2014 and 2015, Rotary Air Blast (RAB) and Diamond (DDH) drilling was undertaken and completed. Drilling totalled 734 RAB holes for 30,654m and 5 DDH holes, totalling 766.8m.

Results from the drilling were disappointing with a number of low level geochemical anomalies being identified from the RAB drilling, and were subsequently followed up with DDH drilling but again results were disappointing with no strong anomalism or economic intersection encountered.

These disappointing results have downgraded the Billy Boy ML for potential economic discoveries and no further work has been scheduled.

The below figures demonstrate the geochemical results from the RAB drilling and display gold, copper and bismuth low order anomalism. The identified anomalism is coincident with the identified major structures from the recent detailed aeromag survey but are lower order and interpreted to not represent potential economic deposits.

The highest results were followed up with DDH drilling and the high geochemical values from the RAB couldn’t be repeated at depth.

Other work included Emmerson’s engagement of Kenex Pty Ltd (Kenex) to construct a predictive model for the Tennant Creek Mineral Field and included the subject title. This product was completed, but provided no further targeting for the subject title.

Kenex targets are generated from the Kenex Pty Ltd (Kenex) predictive modelling of the Tennant Creek Mineral Field, this product is a statistical predictive tool for predicting the possible prospective sites for Tennant Creek style mineralisation. The model produced many target areas which contain all or some of the essential criteria for possible economic mineralisation in the Tennant Creek Mineral Field. Emmerson is assessing the generated targets and ranking them in order of potential prospectivity. The highly ranked targets are selected for field visits and desktop data compilation and validation. All this data is compiled and some rock chipping may take place during site visits to compile a geological and geophysical assessment of the target which is then ranked for future exploration.

Emmerson provided Kenex with the Tennant Creek Data sets available, from these data sets Kenex generated 15 predictive maps of 15 key parameters, as listed in the table below. Kenex run to models a Weights of Evidence (WOE) model, which used all 15 predictive maps, a Lineal Regression (LR) model which used 12 of the 15 predictive maps and they also generated a 3D model which used 11 of the predictive maps.

A selected area for target generation is gridded into cells and these predictive maps give a numerical weighting for each cell in terms of its adherence to the parameter being assessed. The values for each parameter are combined to give a number of resultant values predicting different statistical relationships. The aim of these resultant values is to
generate a target area that has the essential parameters to host Tennant Creek Style Mineralisation. Of all the resultant values Emmerson uses the Post Probability (Pprb) value to identify and rank its targets, in a range of 0 – 1, with 1 being the highest potential value and values above 0.85 to be very significant, although all targets need to be considered in the context of "if the assessed cell has a low value" is it because the relevant data isn’t significant or has it not been recorded/captured.

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Warramunga Formation</td>
<td>Spatial relationship of stratigraphy to mineralisation</td>
</tr>
<tr>
<td>2 Distance to porphyry</td>
<td>Distance to porphyries that pre-date or are synchronous with mineralisation</td>
</tr>
<tr>
<td>3 Distance to mafics (Mafic Lithologies)</td>
<td>Spatial relationship of mafic lithologies older than cover to mineralisation</td>
</tr>
<tr>
<td>4 Radiometry - U</td>
<td>Anomalous U relation to mineralisation</td>
</tr>
<tr>
<td>5 Distance to D&lt;sub&gt;0&lt;/sub&gt;-D&lt;sub&gt;1&lt;/sub&gt; major faults</td>
<td>Faults of D1 age relation to mineralisation</td>
</tr>
<tr>
<td>6 Distance to low order faults (Faults length &lt; 1 km)</td>
<td>Fault length pre to syn mineralisation</td>
</tr>
<tr>
<td>7 Distance to F1 Anticlines</td>
<td>Spatial relationship of antiforms pre to syn mineralisation to mineralisation</td>
</tr>
<tr>
<td>8 Distance to F1 Synclines</td>
<td>Spatial relationship of synforms pre to syn mineralisation to mineralisation</td>
</tr>
<tr>
<td>9 Distance to Redox boundaries</td>
<td>Base of oxidation as the boundary between haematite/magnetite</td>
</tr>
<tr>
<td>10 Distance to IOCG Haematite end-member</td>
<td>Relationship of iron alteration to mineralisation</td>
</tr>
<tr>
<td>11 Distance to mag and gravity slope highs coincident</td>
<td>Proximity to dense, magnetic highs</td>
</tr>
<tr>
<td>12 Distance to ironstones</td>
<td>Ironstones - All</td>
</tr>
<tr>
<td>13 Ironstones - high mag/gravity coincident</td>
<td>Ironstones - All - High gravity &amp; mag</td>
</tr>
<tr>
<td>14 Distance to anomalous rock/DH geochem</td>
<td>Combined anomalous Au, Cu and Bi buffered ((Au &gt;= 0.1ppm, Bi &gt;= 10ppm, Cu &gt;= 100ppm)</td>
</tr>
<tr>
<td>15 Distance to anomalous regolith Au geochem</td>
<td>Soil &amp; Vacuum Au</td>
</tr>
</tbody>
</table>

Table 1: Kenex Predictive Modelling Parameters
Figure 3: ML 30815 (Billy Boy Group) vs. Kenex generated targets (magenta polygons)
Figure 4: ML 30815 (Billy Boy Group) vs. geochemical results from RAB drilling

<table>
<thead>
<tr>
<th>Code</th>
<th>Main Lithology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fe</td>
<td>Ironstones</td>
</tr>
<tr>
<td>m</td>
<td>Rhyolite</td>
</tr>
<tr>
<td>Po-vhm</td>
<td>Rhyolite</td>
</tr>
<tr>
<td>Pw&gt;s</td>
<td>Greywacke</td>
</tr>
<tr>
<td>Pw&gt;sm</td>
<td>Greywacke</td>
</tr>
<tr>
<td>Pw&gt;SH</td>
<td>Haematite Shale</td>
</tr>
<tr>
<td>Pw&gt;T</td>
<td>Tuff</td>
</tr>
<tr>
<td>Pw&gt;m</td>
<td>Siltstone</td>
</tr>
<tr>
<td>Pw&gt;mm</td>
<td>Siltstone</td>
</tr>
</tbody>
</table>

Known Prospects
- Ironstone Outcrop
- MLC

Cu/F
- Hematite
- Greywacke

Bi/F
- Resi

Max Au
- >16
Figure 5: ML 30815 (Billy Boy Group) vs. geochemical results from RAB drilling and significant intercepts
7. REHABILITATION

Rehabilitation has been completed for all exploration activities conducted in ML 30815, and all rehabilitation was conducted in accordance with the procedures outlined in the appropriate Mining Management Plan (MMP) – Authorisation 0463-02 Eastern Project Area.

8. CONCLUSIONS

Results from the drilling was disappointing with a number of low level geochemical anomalies being identified from the RAB drilling, and were subsequently followed up with DDH drilling but again results were disappointing with no strong anomalism or economic intersection encountered.

9. COPYRIGHT STATEMENT

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