Annual Report

GLOBE MINERAL RESOURCES INVESTMENT

Fourth Annual and Final Report for EL29274

07/08/2012 to 06/08/2016

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ABSTRACT

The EL29274 was applied for a potential access to the existed project owned by GMRI. During the operation years, only 159 Magnetic Fraction Samples were collected. The results show some potential for heavy minerals, but the locations lie in restricted area. The tenement was surrendered in August 2016.
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1 Introduction

1.1 Preamble

The EL29274 was applied for a potential access to the Kulgera Heavy Minerals Project (KHMP) which is a mineral sands project located in the southernmost part of the Northern Territory about 160km by road west-south west of Kulgera Roadhouse. And it then was included in the KHMP after the grant. The area of the project is remote, there is no infrastructure other than a well maintained “public” dirt road. The road is near the end of its life as it is now more of a graded gully than a free draining road.

1.2 Location and Access

The tenement is on the east of Kulgera Heavy Minerals Project which is located to the west of the Stuart Highway on the Northern Territory, South Australian border, See Figure 1.

Access to the project area from Alice Springs is south for approximately 300km to the Mulga Park Road turnoff; 1km north of the border. Following the Mulga Park Road for 100km to the west will place you there.
1.3 Tenure

EL29274 was granted in August 2012 to Globe Mineral resources Investments P/L (GMRI). It was partial relinquished once at the end of the second year. The details of the licenses are shown in Table 1.

Table 1. Tenement details

<table>
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<th>Ten no.</th>
<th>Grant Date</th>
<th>Expiry Date</th>
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1.4 Landform and Usage

The landform in the area is predominantly flat with sand dunes to 12 metres. The biggest dunes are found in the north of the licenses. Large areas are open grassland with zones of thick Acacia / mulga stands in between.

The exploration license is located on pastoral leases. The stations concerned are Victory Downs, involved in the cattle industry.
2 Back Ground Information

2.1 Regional Geology

The area covered by the exploration licences lies on the Northern Territory, South Australian border and contains rocks belonging to the Musgrave Block and the Amadeus Basin. Drainage flows from the outcropping Musgrave Block north and northeast into the Amadeus Basin which is typically covered by a thin layer of Aeolian sand, figure 2.

The Musgrave Block comprises numerous Mesoproterozoic geological units, including mafic-ultramafic dykes, plugs and layered intrusions of the 1080 Ma Giles Complex. The Musgrave Block also has extensive felsic intrusives such as the 1190 Ma Pitjantjatjara Suite. It is considered that the mafic-ultramafic units are a source for magnetite and ilmenite whilst the felsic intrusive may source zircon and rutile. The Musgrave Block has been extensively metamorphosed to gneissic-grade and mylonite zones are common. Large pegmatites occur within the gnessic, granite terrains.

The Amadeus Basin, in the area of interest consists of Neoproterozoic sandstone belonging to the Inindia and Winnall Beds. Both units consist of sandstone with lesser pebbly sandstone and conglomerate. They are massive too well bedded and sometimes ferruginised.

Overlying the Musgrave and Amadeus sequences is a variably thin layer of Quaternary sediments. These consist of Aeolian sands, Colluvium, sheet flood plains and Calcrete.
2.2 Previous Exploration

There has only been a minor amount of exploration activity within the license area. Prior to the first modern explorers the only activity would have been prospectors mainly looking for uranium and base metal like nickle and copper.
3 Exploration by GMRI

The initial soil sampling work completed by Mithril Resources (the former owner of the ELs next to EL29274) demonstrated that a magnetic fraction soil sample could be used to delineate areas with elevated titanium content. To allow the Mithril data to be compared to the new work a soil sampling program using the same technique was undertaken. Assaying the samples is also a lot cheaper and quicker than heavy liquid separation.

The exact sampling method employed by Mithril is unknown however it is known that the samples were collected from surface using a permanent magnet. Their samples were assayed by Amdel using an ICP method. In conversation with Amdel staff the Mithril assay code was discussed and the IC3E method used by GMRI is the modern equivalent.

The magnetic fraction sampling took place in June 2012 and utilised two teams supported by quad bikes. A total of 159 samples were collected in this tenement from east west traverses spaced at 2000m intervals with sample collected every 1000m along the lines. Location control was provided by hand held GPS. The samples were collected from surface using a Magsam 5000 instrument which contains a permanent 5000 gauss rare-earth magnet inside a protective metal sheath. Ideally, at each site +50grams of material would have been collected. However, to give an indication of the amount of heavy mineral present the sampling crews used the time taken to collect a sample and expressed it as abundant down to very little. Where the sample collection time exceeded ten minutes no sample was collected and the site marked as barren. The assay results are listed in the attachment.

Figure 3 displays the sample site locations. The outline in pink shows the retained part of the EL. An area of interest has been identified in the southern EL 29274 but work restriction (no work permitted) have been imposed by the traditional owners.
Figure 3. GMRI Magnetic Fraction Sample Locations in EL29274
4 Conclusions

The EL29274 was applied for a potential access to the existed project owned by GMRI. During the operation years, only 159 Magnetic Fraction Samples were collected. The results show some potential for heavy minerals, but the locations lie in restricted area. And it’s not the area of priority for GMRI. The tenement was surrendered in August 2016.