NORTHERN MINERALS LIMITED

EPENARRA PROJECT

PARTIAL SURRENDER REPORT for the period

2nd September 2009 to 1st September 2011

Exploration Licenses EL27072 and EL27085

OPERATED BY

NORTHERN MINERALS LIMITED

DUE DATE: 14 JANUARY 2012
PREPARED BY: C. SHERIFF
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1.0 SUMMARY

Exploration licenses EL27072 and EL27085 lie approximately 50km east and 210km to the south-east of the township of Tennant Creek, respectively. EL27072 comprises 95 blocks and covers an area of 290.60 km², and EL270085 consists of 38 blocks and covers an area of 122.34 km². The licenses were granted to Northern Minerals in 2009 for a period of 6 years.

Northern Minerals Limited is targeting Cambrian phosphorite deposits within the Georgina Basin. The Cambrian Gum Ridge Formation has been interpreted to underlie EL27072 and is considered to be a potential host for phosphate mineralisation. The Middle Cambrian Wonarah Formation, which underlies EL27085, hosts significant regional phosphate resources.

Regional bushfires burnt throughout August 2011 which delayed on-ground activities scheduled for that time. In addition, mustering activities (aerial and on-ground) surrounding the Epenarra Homestead located west of EL27085, during August 2011 further postponed exploration.

2.0 INTRODUCTION

This report details exploration activities conducted by Northern Minerals Ltd for the surrendered areas in EL27072 and EL27085 between 2nd September 2009 and 1st September 2011.

Northern Minerals Limited is targeting phosphorite deposits of the Middle Cambrian within the Georgina Basin. Major phosphate deposits within the Georgina Basin include the Wonarah deposit, which is Australia’s largest undeveloped phosphate resource. Other deposits include Arruwarra, Alexandria and Alroy which are also hosted by the Middle Cambrian Wonarah Formation, which underlies EL27085. The Cambrian Gum Ridge Formation has been interpreted to underlie EL27072 and is also considered to be a potential host for significant phosphate mineralisation.

3.0 LOCATION, ACCESS and CLIMATE

EL27072 and EL27085 lie approximately 50km east and 210km to the south-east of the township of Tennant Creek, respectively (Figure 1). The Tennant Creek Pastoral Lease covers the western area of EL27072.

Vehicular access to the tenement areas is difficult, with few tracks. Access to the exploration area is via the Barkly Highway and then unsealed station tracks south. As most of the exploration area is flat with minor drainage, off-road access is possible. All streams flow intermittently during the ‘wet’ season and only minor amounts of rain are necessary to prevent vehicle access across ‘black soils’.

The Epenarra region has long, dry and hot summers with cooler winter periods. Rainfall is limited but can be heavy in the monsoon season (November through to March), and particularly when associated with cyclone activity. During winter strong easterly winds predominate.
Figure 1: Tenement Location and Access Map
4.0 TENURE

EL27072 consists of 95 blocks and covers an area of 290.60 km², and EL270085 consists of 38 blocks and covers an area of 122.34 km². The licenses were granted to Northern Minerals in 2009 for a period of 6 years.

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Tenement No.</th>
<th>Blocks Retained</th>
<th>Blocks Surrendered</th>
<th>Grant Date</th>
<th>Expiry Date</th>
</tr>
</thead>
<tbody>
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<td>Epenarra Project</td>
<td>EL27072</td>
<td>95</td>
<td>31</td>
<td>02/09/2009</td>
<td>01/09/2015</td>
</tr>
<tr>
<td>Epenarra Project</td>
<td>EL27085</td>
<td>38</td>
<td>12</td>
<td>02/09/2009</td>
<td>01/09/2015</td>
</tr>
</tbody>
</table>

Table 1: Tenement Schedule

5.0 REGIONAL GEOLOGY

EL27072 lies with the Tennant Creek 1:250,000 map sheet. The 1:250,000 explanatory notes, prepared by the NTGS, the majority of the license areas as being covered by Quaternary soil, sand and alluvium cover. EL27085 lies within the Frew River 1:250,000 map sheet.

The Palaeozoic rocks in the Frew River sheet area are of Cambrian age and include the shallow marine and sub-aerial sediments which overlie the earlier lithologies in the north-western part of the Georgina Sedimentary Basin. The Cambrian sediments extend from the Frew River sheet area north and east towards the Barkly Tablelands.

The Gum Ridge Formation, comprised of chert, shale, sandstone, conglomerate, limestone and dolomite phases at subsurface, is the oldest Cambrian unit. The Wonarah beds overlie the Gum Ridge Formation and are considered to be slightly younger in age, comprising of chert, oolitic chert and silicified coquinite. An unnamed Cambrian unit which comprises of a grey dolomitic and brown oolitic chert sub-crops in the central-east and south–east of the Frew River map sheet area. It is uncertain, but this unit may be part of the Wonarah beds.

The Lower Proterozoic rocks include the Warramunga and Hatches Creek Groups and intrusive igneous rocks. The Warramunga Group is the oldest unit in the Frew river sheet and comprises of yellow-red-purple colored thin bedded sandstone, greywacke and siltstone. The Hatches Creek Group overlies the Warramunga Group and comprises a grey-pink-brown, coarse grained thin to medium bedded quartz sandstone, quartz greywacke, quartzite, siltstone, shale, pebble conglomerate, basic and acid lavas (Figure 2).
Figure 2: Regional Geology Map
6.0 EXPLORATION ACTIVITIES

During 2010 compilation of publicly available regional data sets such as aeromagnetics, radiometrics, gravity and geological mapping was completed. Interpretation and analysis of this data was completed in order to determine initial targets and areas for on-ground investigation.

Several attempts were made to commence on-ground exploration activities during 2011.

Regional bushfires which burnt throughout August / September delayed on-ground exploration, and an attempt to get on the ground in late August / early September had to be postponed due to mustering activities (aerial and on-ground) in the area surrounding the Epenarra Homestead located west of EL27085.

A second attempt in mid-November also had to be abandoned due to heavy rains in the region. As a result, it was not possible to complete the proposed mapping, sampling and drilling activities that were scheduled for 2011.

7.0 REFERENCES

Frew River, NT 1:250,000 Geological Series Explanatory Notes, Sheet SF 53-03