ANNUAL REPORT

Ngalia Project
EL24571

NORTHERN TERRITORY

FOR THE PERIOD
07 December 2010 to 06 December 2011

REPORT NO: ROY0650
DATE: February 2012
AUTHOR: R.Kemp
DISTRIBUTION: Royal Resources Limited (ROY)
Aldershot Resources Ltd (ALZ)
Department of Resources (DoR)
BIBLIOGRAPHIC DATA SHEET

PROJECT NAME: Ngalia Project
TENEMENT NO: EL24571
TENEMENT OWNER: Aldershot Resources Ltd
TENEMENT OPERATOR: Royal Resources Limited
REPORT TYPE: Annual
REPORT TITLE: Annual Report Ngalia Project, EL24571 Northern Territory for the period 07 December 2010 to 06 December 2011
REPORT PERIOD: 07 December 2010 to 06 December 2011
AUTHOR: R Kemp
DATE OF SUBMISSION: February 2011
DATUM: GDA94_Zone 52
1:250,000 SHEET AREA: Mount Doreen (SF52-12), Lake Mackay (SF52-11)
1:100,000 SHEET AREA: Vaughan (5053), Gurner (5052) and Carey (4952)
MINERAL FIELD: Ngalia Basin
COMMODITY: Uranium
ABSTRACT

LOCATION: The Ngalia Project is located approximately 365 kilometres west-northwest of Alice Springs on the margin of the Ngalia Basin and the Arunta Block, Northern Territory. The project is defined by a single Exploration Licence, EL24571, which covers an area of 210km² (74 sub-blocks) and is located on the Mount Doreen (SF52-12) and Lake Mackay (SF52-11) 1:250,000 sheets and the Vaughan (5053), Gurner (5052) and Carey (4952) 1:100,000 sheets.

GEOLOGY: The Ngalia Project is situated on the western margin of the Ngalia Basin, a basin containing sediments up to 6000m thick ranging in age from Neoproterozoic to Palaeozoic and preserved in an elongate structure. The western margin is bound by the Waite Creek Thrust which marks the unconformity between the Proterozoic Vaughan Springs Quartzite and the Carboniferous Mount Eclipse Sandstone.

WORK DONE: The 2011 reporting period was largely used to review the previous exploration conducted on the tenement (including previous Royal work), attempt to identify further drill targets with reconnaissance anomaly follow-up, rockchipping, and mapping of a small anticline near the 2010 drilled Line C. Rehabilitation of the 2010 aircore and diamond drillholes, pads and access tacks was also conducted.

CONCLUSIONS: Focus for 2012 is the southern portion of the tenement. It is currently thought that the southern portion of the tenement may contain buried, prospective Mt Eclipse Sandstone (similar to Bigrlyi). Royal’s exploration methodology will consist of field reconnaissance including rockchipping and mapping of the southern portion of the tenement, possibly combined with soil sampling for partial leach geochemistry in an attempt to define and refine possible drill targets for follow-up AC or RC drilling.
TABLE OF CONTENTS

1. INTRODUCTION AND TENURE 1
2. LOCATION AND ACCESS 1
3. REGIONAL GEOLOGY 1
4. LOCAL GEOLOGY AND MINERALISATION 2
5. EXPLORATION AND RESULTS 5
   5.1 Radiometric Anomaly Reconnaissance 5
   5.2 Line C Anticline Mapping 5
   5.3 Rockchipping 5
   5.4 Petrographic Study 5
   5.5 Rehabilitation of 2010 Drill Program 6
6. DISCUSSION OF RESULTS 9
7. CONCLUSIONS AND RECOMMENDATIONS 9
8. REFERENCES 9

LIST OF FIGURES

FIGURE 1  Ngalia Project Location
FIGURE 2  Ngalia Project Regional Geology – 1:250K
FIGURE 3  Mapping near Line C
FIGURE 4  Ngalia Project Rockchip Locations (with the Line C mapping area shown)

LIST OF TABLES

TABLE 1  Tenement Details for the Ngalia Project

LIST OF APPENDICIES

APPENDIX 1  Exploration Activities –EL24571
APPENDIX 2  Bureau Veritas Petrographic Report N4025QS11
APPENDIX 3  Final Report on Ngalia Drilling Collaboration 2009
1. INTRODUCTION AND TENURE

This report details exploration completed on the Ngalia Project for the period 07 December 2010 to 06 December 2011. The reporting area comprises one granted Exploration Licence EL24571 situated approximately 365 kilometres west-northwest of Alice Springs on the margin of the Ngalia Basin and the Arunta Block, Northern Territory. The tenement covers 74 blocks (210 km²) and is 100% owned by Aldershot Resources Limited (“Aldershot”). Aldershot signed a Heads of Agreement whereby Royal Resources Limited (“Royal”) has the right to earn 60%. Royal is operator on EL24571. Tenement details are listed in Table 1. The current EL24751 expired on the 6th of December 2011. However, a reapplication for the licence has been submitted.

The exploration focus for the Ngalia Project is sandstone-hosted uranium mineralisation associated with the Mt Eclipse Sandstone. Exploration activities during the reporting period involved a review of past reports, geophysical data, and field reports, followed by reconnaissance field work including anomaly ground-truthing, rockchipping and mapping. Selected samples from the collected rockchips and drillcore samples from the Alice Springs Core Storage were submitted for petrographic analysis (report included as Appendix 2). The 2010 drill sites were also rehabilitated, and once a final inspection of the sites has been conducted a rehabilitation report will be submitted.

All coordinates in this report are in MGA94 Zone 52.

<table>
<thead>
<tr>
<th>TENEMENT</th>
<th>APPROVAL DATE</th>
<th>EXPIRY DATE</th>
<th>AREA</th>
<th>EXPENDITURE COMMITMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL24571</td>
<td>07-December-2005</td>
<td>06-December-2011</td>
<td>74 Blocks</td>
<td>$121,000.00</td>
</tr>
</tbody>
</table>

2. LOCATION AND ACCESS

EL24571 is located 365 kilometres west-northwest of Alice Springs in the Northern Territory, (Figure 1) on the Mt Doreen (SF52-12) and Lake Mackay (SF52-11) 1:250,000 geological mapsheet and the Vaughan (5053), Gurner (5052) and Carey (4952) 1:100,000 mapsheet. The tenement is bounded by latitudes 22°21'- 22°36’S and longitudes 130°28'-130°45'E.

Access to the area is by the sealed Stuart Highway for approximately 20 kilometres heading northwest of Alice Springs, then by travelling 265 kilometres northwest along the Tanami Highway and turning west, ~35km further north of Yuendumu along the access road to the Vaughan Springs Homestead. Station tracks are then used within the project area.

3. REGIONAL GEOLOGY

The Ngalia project is contained within the Ngalia Basin. The basin contains sediments up to 6000m thick ranging in age from NeoProterozoic to Palaeozoic and preserved in an elongate structure that is remnant of a much more extensive, polyphase intracratonic basin.

The NeoProterozoic Vaughan Springs Quartzite is the oldest unit in the Ngalia Basin and mostly forms ridges along the northern and southern margins and contains the Treuer Member, a less-resistant interbedded siltstone and sandstone. It unconformably overlies the Arunta Inlier basement and is overlain conformably by carbonate units of the Albinia Formation, which in turn is overlain by the Naburula Formation, the Mount Stuart Formation, Rinkabeena Shale and unconformably by glacial deposits of the Mount Doreen Formation. The Yuendumu Sandstone, Walbiri Dolomite, Bloodwood Formation, Djamamara Formation and Kerridy Sandstone were deposited, the latter during the Ordovician. Unconformably overlying, the youngest Mount Eclipse Sandstone was deposited during the Carboniferous and crops out widely in the Ngalia Basin having a maximum thickness of
more than 3000m and hosts the majority of the sandstone-uranium mineralisation. It is a medium to coarse-grained feldspathic sandstone, commonly with carbonate cement. Conglomerate, arkose, dolomitic sandstone and shale are present as lenses. The rocks are dominantly red, although restricted zones of light to dark grey and yellow-brown sandstone are present.

The Arunta Block, located on the northern and western margins of the Ngalia Basin, is host to the Southwark Granite, an undivided megacrystic biotite and muscovite-biotite granite with minor microgranite and leucogranite, pegmatite and aplite dykes, (Young et al. 1995). The Southwark Granite is considered to be the source of uranium within the Mount Doreen area.

Seismic data indicates that the basin is an asymmetrical synclinal structure which preserves a much thicker succession on the northern margin marked by northerly dipping thrusts (Waite Creek and Yuendumu Thrusts) and high angle reverse faults. The current basin configuration results from effects of the 300-400Ma Alice Springs Orogeny. This involved exhumation of the basement which became the provenance for the Carboniferous Mt Eclipse Sandstone (Edgoose, 2006).

4. LOCAL GEOLOGY AND MINERALISATION

EL24571 is situated along the north-western boundary of the Ngalia Basin, (Figure 2). The Vaughan Springs Quartzite gives rise to scarp ridges which runs semi-continuous along the edge of this boundary zone and further north as part of the Vaughan Springs Syncline. Unconformably overlying is the Mount Eclipse Sandstone which forms a more subdued landscape, is evident in patchy outcrops, most of which is masked by Cainozoic cover whose thickness varies from 0-30m but is generally unknown. The geological contact is masked by this cover and is thought to be a thrust contact along the regional Waite Creek Thrust Zone (WCTZ). Further to the south, sand dunes become the prominent feature with minor occurrences of calcrete and small ridges of the Mount Eclipse Sandstone. The Waite Creek is the boundary of the two geomorphological areas and is a wide (>80m) meandering gravel river bed.

EL24571 is approximately 40 kilometres to the southwest of the Bigrlyi uranium deposit which was discovered within the Mount Eclipse Sandstone by Central Pacific Minerals NL (CPM) in 1971 from surface radiometric anomalies. Central Pacific Mines NL sub-divided the basal 500m of the Mt Eclipse Sandstone into eight units (Units A to H) (Pope, 1978). The area of interest is Unit C which contains most of the uranium mineralisation encountered to date.

The uranium is thought to be sourced from the Southwark Granite, transported in oxidising solutions and precipitated in reduced sandstones containing carbonaceous material and pyrite such as the Mount Eclipse Sandstone, although more recent work (CSIRO, pers. comm.) suggests most of the ‘carbonaceous matter’ are vanadium minerals. Uranium minerals include carnotite in the oxidised zone and uraninite ± montroseite in the fresh rock below the water table. Diagnostic alteration in the Bigrlyi deposit includes haematitisation, chloritisation and kaolinitisation.

Three exploration models exist at present, namely uranium associated with structures and associated with redox fronts within, although not restricted to the Mt Eclipse Sandstone, and within Tertiary channels overlying the Mt Eclipse Sandstone. There is also some potential for uranium mineralisation associated with surficial calcrete deposits.
Figure 1: Ngalia Project Location
Figure 2: Ngalia Project Regional Geology 1:250k
5. EXPLORATION AND RESULTS

The 2011 reporting period was largely used to review the previous exploration conducted on the tenement (including previous Royal work), attempt to identify further drill targets with reconnaissance anomaly follow-up, rockchipping, and mapping of a small anticline near the 2010 drilled Line C. Rehabilitation of the 2010 aircore and diamond drillholes, pads and access tacks was also conducted. A final rehabilitation report for this program will be submitted once the rehabilitated sites have had their final inspection.

A petrographic study was undertaken on several rockchip samples as well as three samples taken from drillholes stored at the Alice Springs Core Storage. This report has been included as Appendix 2.

5.1 Radiometric Anomaly Reconnaissance

Between the north-western edge of the tenement and the Treuer Range (running parallel with the long axis of the EL) exists several radiometric anomalies. Due to the remoteness of some of these anomalies, previous attempts to ground truth all of these had been unsuccessful. All identified anomalies were visited during the 2011 field season. It was observed that the anomalism was associated with local topographic highs that consisted of Southwark Granite and/or altered equivalents. Several locations were sampled for geochemical assay (see section 5.3).

Several other low order radiometric anomalies were also ground truthed on the south-eastern side of the Treuer Range. These were variously found to be associated with topographic highs, localised calcrete deposits and/or Fe-oxide rich rocks such as the basal Treuer Member of the Vaughan Springs Quartzite. Selected samples were submitted for geochemical analysis but no significant values were returned (see section 5.3).

5.2 Line C Anticline Mapping

As part of the reconnaissance field activities, an area close to the drilled Line C (see Figure 3 & Figure 4) was mapped. The area in question was a topographic dome with an outcropping Fe-rich conglomerate within the centre. Mapping and bedding measurements confirmed the structure as an anticline, possibly deformed during the same event that caused the Waite Creek Thrust.

Several rockchip samples were collected for geochemical assay but no significant results (apart from Fe) were noted.

5.3 Rockchipping

13 samples were collected from various locations during the radiometric anomaly follow-up. Figure 4 shows the locations of these rockchip samples over the U channel Radiometrics.

No significant anomalism was reported from any of the rockchip samples. The highest U value reported was 31.2ppm from sample 490106, a subdued calcrete outcrop in the southern part of the tenement. Results for the rockchip samples have been provided in Appendix 1.

5.4 Petrographic Study

To assist with the interpretation and understanding of the Ngalia area, eight samples were submitted to Amdel for petrographic analysis. The eight samples included five rockchip samples, as well as three core samples taken from the Alice Springs Core Storage. Two samples were taken from drillhole
Vaughan Springs-3 (drilled by the NTGS), and the third was taken from drillhole DAV-1 (drilled by Afmeco in 1979). The DAV-1 intersection (from 899.9m) was sampled directly adjacent to a highly mineralised intersection (this portion of the core was missing). The Vaughan Springs-3 samples were taken to investigate the Southwark Granite. The petrographic report is provided in Appendix 2.

5.5 Rehabilitation of 2010 Drill Program

The 2010 aircore and diamond drill program was rehabilitated during the 2011 field season. AC bags were emptied down the drillholes, the sample bags removed from site, the drill collar casing was removed below ground level and the holes were plugged and filled in. Tracks and pads were ripped to promote re-vegetation.

A rehabilitation report will be submitted once a final inspection of the rehabilitated sites has been conducted.
Figure 3: Mapping near Line C
Figure 4: Ngalia Project Rockchip Locations (with the Line C mapping area shown)
6. DISCUSSION OF RESULTS

All available data was reviewed in addition to a review of the 2010 drillholes. A reinterpretation of 2010 drilling concluded that the Waite Creek Thrust Zone (WCTZ) had been successfully intersected. However, no mineralisation was associated with the thrusted contact.

Ground truthing and rockchipping of the radiometric anomalies showed that the dominant radiometric responses are sourced from the Southwark Granite and associated rocks. While the petrographic analysis showed that the granites have been exposed to hydrothermal alteration (in some cases quite intense alteration), their prospectivity for primary uranium mineralisation is low. The other more subdued radiometric anomalies were equally un-prospective, with the highest uranium assay being reported from a calcrete from the southern part of the tenement.

7. CONCLUSIONS AND RECOMMENDATIONS

Focus for 2012 is the southern portion of the tenement. It is currently thought that the southern portion of the tenement may contain buried, prospective Mt Eclipse Sandstone (similar to Bigryli).

Royal’s exploration methodology will consist of field reconnaissance including rockchipping and mapping of the southern portion of the tenement, possibly combined with soil sampling for partial leach geochemistry in an attempt to define and refine possible drill targets for follow-up AC or RC drilling.

8. REFERENCES


APPENDIX 1

Exploration Activities – EL24571

*Digital files supplied*

EL24571_2011_A_02_Rockchips.txt
EL24571_2011_A_05_FileVerificationList.txt
APPENDIX 2

Bureau Veritas Petrographic Report N4025QS11

Digital files supplied

EL24571_2011_A_03_Bureau Veritas Report N4025QS11.pdf
APPENDIX 3

Final Report on Ngalia Drilling Collaboration 2009

*Digital files supplied*

EL24571_2011_A_04_Final Report NT Funding 2009.pdf